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August 15, 2018

Wayne Praskins
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Subject: Quarterly Performance Evaluation Report,
On-Site Soils Operable Unit 1 Full-scale Remedy,
Omega Chemical Superfund Site, Whittier, California

Dear Mr. Praskins:

Enclosed for your review is the Quarterly Performance Evaluation Report (QPER) for the Operable Unit 1 (OU-1) On-site Soils (OSS) Full-scale Soil Vapor Extraction (SVE) Remedy, Omega Chemical Superfund Site, Whittier, California. The purpose for this report is to provide the USEPA with data associated with the operations and performance of the Full-scale SVE remedy during the second quarter 2018.

Should you have any questions, regarding the above, please contact me.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

Jaime Dinello, PE
Project Manager

cc: Don Indermill, DTSC

de maximis, inc.

August 15, 2018

FULL-SCALE ON-SITE SOIL REMEDY QUARTERLY PERFORMANCE EVALUATION REPORT SECOND QUARTER 2018 OMEGA CHEMICAL SUPERFUND SITE, OU-1

Prepared for:

Omega Chemical Site
PRP Organized Group
(OPOG)

Prepared by:

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FULL-SCALE ON-SITE SOIL REMEDY
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report
Second Quarter 2018

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ACRONYMS AND ABBREVIATIONS

ug/m^3	micrograms per cubic meter
bgs	below ground surface
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act*
DPE	Dual Phase Extraction
HHRA	Human Health Risk Assessment
HRA	Health Risk Assessment
OM&M	Operations, Maintenance and Monitoring
OPOG	Omega Chemical Site PRP Organized Group*
OU-1	Operable Unit 1
PCE	Tetrachloroethene
QPER	Quarterly Performance Evaluation Report
RAO	Remedial Action Objective
ROD	Record of Decision
RSL	Regional Screening Level
SCAQMD	South Coast Air Quality Management District
SSPRG	Site-Specific Preliminary Remediation Goal
SVE	Soil Vapor Extraction
TCE	Trichloroethene
USEPA	United States Environmental Protection Agency*
VEW	Vapor Extraction Well
VGAC	Vapor-phase Granular Activated Carbon
VMP	Vapor Monitoring Probe

VOC	Volatile Organic Compound

*These acronyms are assumed to be known to the reader and are not spelled out in the body of the report.

FULL-SCALE ON-SITE SOIL REMEDY

OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report

Second Quarter 2018

1. INTRODUCTION

Operable Unit 1 (OU-1) of the Omega Chemical Superfund Site is defined as the area of soil and groundwater contamination associated with the former Omega Chemical property located at 12504 and 12512 Whittier Boulevard, Whittier, California, and extending downgradient approximately 100 feet southwest of Putnam Street, Whittier, California (see Figure 1). This Quarterly Performance Evaluation Report (QPER) has been prepared on behalf of OPOG to comply with the October 6, 2010 Consent Decree No. 10-05051 (CD) between the USEPA and OPOG (USEPA, 2010). The CD requires OPOG to design, construct, and operate a full-scale soil vapor extraction (SVE) and treatment system and perform associated monitoring to address vadose zone soil within OU-1. The CD statement of work satisfies the requirements of the 2008 OU-1 Record of Decision (ROD) (USEPA, 2008). A brief operational history is provided in the table below.

Brief Operational History

October 6, 2010	Consent Decree No. 10-05051 entered into the US District Court
March to November 2014	Full-Scale On-Site (OU-1) Soils Remedy Construction
March 2015	Begin Continuous Operation of Full-Scale OU-1 SVE System
April 2017	Conversion of VE-7D and VE-10D into DPE Wells
May 21, 2018	USEPA Issues Certification

2. REPORT PURPOSE AND ORGANIZATION

This QPER complies with the 2010 CD reporting requirements by presenting data collected during the quarter and providing evidence that the Full Scale On-Site (OU-1) Soil Remedy is

compliant with the Remedial Action Objectives (RAOs). Pursuant to the CD, the QPER includes the following general content:

- Description of the RAOs (Section 3);
- Description of the Full Scale On-Site (OU-1) Soil Remedy (Section 4);
- Evaluation of compliance with the RAOs (Section 5);
- Summary of the OU-1 SVE system operational monitoring (Section 6);
- Overall summary assessment of system operations and recommended changes or modifications (Section 7); and
- Planned activities for the next quarter (Section 8).

3. OU-1 ON-SITE SOIL RAOs

The RAOs for the Full Scale On-Site (OU-1) Soil Remedy (as presented in the 2008 ROD) are as follows:

1. Reduce or eliminate the vapor intrusion risk associated with volatile organic compounds (VOC) vapors in OU-1 contaminated soils.
2. Reduce or eliminate the risk associated with direct exposure to, contact with, and/or ingestion of OU-1 contaminated soils.
3. Reduce or eliminate contamination migration to groundwater to levels that protect the OU-1 groundwater resource.

Numerical compliance levels were established in the ROD for RAOs #1 and #2. These were selected from site-specific preliminary remediation goals (SSPRGs) that had been calculated in a 2007 Human Health Risk Assessment (HHRA)[1] conducted for OU-1 (CDM, 2007). The SSPRGs selected in the ROD assumed a future residential exposure within OU-1. However, since OU-1 contains no residential structures, and there are no known plans in place for OU-1 to be developed for residential use, OPOG believes that the SSPRGs are overly conservative for indoor air (RAO #1), and that the Region 9 USEPA Industrial Regional Screening Levels

[1] As directed by USEPA, the HHRA included a number of conservative assumptions inherent to the exposure analysis that may not be fully representative of actual conditions. It is anticipated that an updated HHRA will be prepared in support of ultimate closure of OU-1 soil remediation.

(RSLs) are the appropriate compliance levels for indoor air. For completeness within this report, OPOG has compared indoor air concentrations against both the current industrial and residential USEPA and California RSLs[2].

For RAO #2, the SSPRGs for soil gas are likewise conservative for the planned use of the property, but are presented below as originally calculated in the HHRA, and as adopted by the ROD as cleanup levels for shallow soil gas (0 to 30 feet below ground surface (bgs)).

Shallow soil gas:

- PCE = 470 ug/m^3
- TCE = 1,300 ug/m^3

With regard to RAO #3, USEPA has acknowledged that the nature and extent of contamination in the source zone complicates compliance with RAO #3 as written in the ROD. VOC mass in the deep vadose zone continues to be removed by the implemented remedy.

The data presented herein demonstrate that the Full Scale On-Site (OU-1) Soil Remedy RAOs are being achieved.

4. DESCRIPTION OF THE FULL SCALE ON-SITE (OU-1) SOIL REMEDY

The Full Scale On-site (OU-1) Soil Remedy is implemented using a system of vapor extraction wells (VEWs), dual phase extraction (DPE) wells, a treatment plant, and an associated monitoring network of multi-depth vapor monitoring probes (VMPs). Together these structures comprise the OU-1 SVE system (see Figure 2). During the second quarter 2018, the OU-1 SVE system consisted of the following:

- Fourteen shallow VEWs with varying screen depths between approximately 6 and 30 feet bgs;
- Three deep VEWs with varying screen depths between approximately 30 and 100 feet bgs;

[2] As directed by USEPA, the California RSLs are provided in this report on Figure 3.

- Seven DPE wells (which includes wells VE-10D and VE-7D) with varying screen depths between approximately 30 feet bgs and 100 feet bgs, extending into the water table;
- A vapor treatment plant consisting primarily of one vacuum-generating blower and two vapor-phase granular activated carbon (VGAC) adsorbers operated in series;
- Conveyance piping; and
- Multi-depth VMPs constructed between 0 and 30 feet bgs (shallow) and between 30 and 70 feet bgs (deep).

The OU-1 SVE system uses vacuum from the blower to draw soil gas through the vadose zone into VEWs and then through conveyance piping to the treatment plant. Soil gas is treated by VGAC prior to discharge to the atmosphere under substantive[3] compliance with South Coast Air Quality Management District (SCAQMD) regulations, as described in the Health Risk Assessment (HRA) (CDM Smith, 2015a)[5]. The VEWs were designed and placed in the vadose zone to target the known areas of soil and soil vapor contamination and to mitigate the potential for contaminated soil gas to enter into on-site buildings. DPE wells are also used to draw soil gas from the vadose zone to the treatment plant. The DPE wells extend into the water table and are fitted with a groundwater extraction pump that removes groundwater locally, lowering the water level in the well, exposing more soil for treatment by SVE. Groundwater extracted by the DPE wells is pumped to the OU-1 Groundwater Containment Remedy treatment plant for treatment, prior to discharge to the sanitary sewer. The volume of water extracted by the DPE wells and the contaminant mass in the extracted water is provided in the OU-1 Groundwater Containment Remedy quarterly reports (de maximis, inc, 2018). Additional information on the OU-1 SVE system is provided in the Operations, Maintenance, and Monitoring (OM&M) Manual (CDM Smith, 2015)[4].

[3] The CERCLA Section 121 exemption does not require the issuance of a formal SCAQMD permit to construct and operate the SVE treatment system. However OPOG did perform an HRA which would have been undertaken for a permit application. This developed the same emissions limits and operational conditions that would have been incorporated into an SCAQMD permit. By following the conditions listed in the HRA, operation is in substantive compliance with SCAQMD regulations and requirements.

[4] These documents are undergoing modification consistent with recent discussions with USEPA, and the 2010 CD.

5. RAO COMPLIANCE MONITORING

Indoor air and soil gas data are collected to demonstrate compliance with the RAOs. Ambient air data are collected to characterize air quality outside specified facilities.

Required monitoring to demonstrate compliance is described below.

- Indoor air data are collected from within occupied OU-1 buildings to show that concentrations of PCE and TCE in indoor air are below acceptable risk levels. Recommended sampling locations are submitted to USEPA in advance, in the form of a sampling plan for review and approval. The recommendations are based on current occupancy status of specified OU-1 buildings and historical indoor air concentrations within that building. The location and frequency of sampling is subject to revision based on review and approval by USEPA. All currently existing buildings within, or partially within the OU-1 boundary are shown on Figure 1. This figure also shows the buildings currently included in the OU-1 indoor air monitoring program. There are no residentially occupied buildings within the OU-1 boundary, only industrially/commercially occupied buildings. Indoor air sampling is only conducted in buildings that are occupied. The occupancy status of existing buildings is verified routinely. The occupancy status and current monitoring schedule for each of the buildings shown on Figure 1 are summarized in Table 1.

- Shallow soil gas data are collected from multi-depth VMPs in the shallow vadose zone (between 0 and 30 feet bgs) to show that concentrations of PCE and TCE are declining in the vadose zone, making progress toward achieving the specified soil gas cleanup levels. These data are collected and assessed semi-annually.

- Deep soil gas data are collected from multi-depth VMPs in the deep zone (40 – 70 feet bgs) to show that deep soil gas concentrations are declining over time. These data are generally collected and assessed semi-annually.

- Soil concentration data in the shallow vadose zone (0 to 30 feet bgs) will be collected in the future after mutual agreement between USEPA and OPOG. This will occur after shallow soil gas concentrations remain below ROD cleanup levels subsequent to USEPA approved rebound testing.

Performance monitoring data collected this quarter consist of indoor air data, and shallow and deep soil gas data from VMPs. These data are described below.

5.1. INDOOR AIR COMPLIANCE MONITORING

Indoor air samples were collected in accordance with the USEPA-approved Indoor Air Quality Sampling Plan (de maximis, inc, 2018). The locations and results of the sampling conducted this quarter are shown on Figure 3. Currently all buildings within the OU-1 boundary are under industrial/commercial use.. No indoor air samples collected this quarter contained PCE or TCE concentrations above USEPA or California Industrial RSLs. This demonstrates continued effective control of PCE and TCE in indoor air at these locations, thereby showing that the Full Scale On-site (OU-1) Soil Remedy is achieving RAO #1. Indoor air analytical results from this quarter are summarized in Attachment A, Table A-1. The concentrations of PCE and TCE in indoor air samples over time are also shown in time series charts in Attachment A, Figures A-1 through A-4. An ambient air sample was also collected at an approved location to characterize air quality outside specified buildings (Figure A-5); analytical results and time series charts for ambient air are also presented in Attachment A (Table A-2, Figures A-6 through A-7).

Indoor (and ambient air) samples and duplicate samples were sent to Eurofins Air Toxics located in Folsom, California with confirmatory split samples sent to Test America located in Irvine, California. Analytical laboratory reports are provided in Attachment B. Field forms documenting the sample collection are provided in Attachment C.

Formal data validation was performed on 10 percent of the analytical results from the samples analyzed by Eurofins Air Toxics and Test America using the L4 data packages provided by the laboratories. The validation report is presented in Attachment D.

5.2. SOIL GAS COMPLIANCE MONITORING

- Shallow Soil Gas Results

  Analytical results from shallow soil gas samples collected this quarter show that PCE cleanup levels were achieved at all 16 shallow locations sampled (Figure 4). TCE cleanup levels were also achieved at all 16 locations (Figure 5). These data demonstrate that the Full Scale On-Site (OU-1) Soil Remedy is generally achieving the cleanup levels for PCE and TCE where shallow soil gas was sampled. Cleanup

levels may not have yet been achieved at all areas within the OU-1 boundary and the remedy is ongoing. If locations are identified where cleanup has not yet been achieved, these locations are assessed, and when appropriate, operational conditions are modified to address these locations (e.g., vapor flow and vacuum influence adjustments). Concentrations are known to fluctuate between monitoring periods, and operational adjustments are not always required when a change is observed. The analysis of data collected during this period resulted in several valve adjustments to optimize for RAOs (see Section 6.2). Overall, the Full Scale On-Site (OU-1) Remedy is compliant with the RAOs for shallow soil gas.

A summary of analytical data collected from shallow VMPs this quarter is provided in Attachment E, Table E-1. Time-series charts of historic PCE and TCE concentrations at monitored shallow VMPs are provided in Attachment E, Figures E-3 through E-18. Analytical laboratory reports are in Attachment B.

- Deep Soil Gas Results

  Declining trends in deep soil gas VOC concentrations are used to track progress toward achieving the RAO. A summary of analytical data collected from deep VMPs this quarter is presented in Attachment E, Table E-2. Time series charts of historic PCE and TCE concentrations at monitored deep VMPs are provided in Attachment E, Figures E-19 through E-25. Declining trends in the time series charts demonstrate that the Full Scale On-site (OU-1) Soil Remedy is making progress toward achieving the objective for the deep zone, and is compliant with RAO #3. Concentrations at some deep VMPs (e.g. VMP-93-60) have demonstrated significant variability between sample collection events. These and all other data will continue to be assessed to determine if optimization should be conducted for a specific location.

6. OU-1 SVE SYSTEM OPERATIONAL MONITORING

The OU-1 SVE system is monitored to confirm that the system is discharging treated vapor in substantive compliance with SCAQMD regulation, and to verify that the equipment is operating properly. The primary operating components of the OU-1 SVE system are the vacuum blower, the VGAC vessels, the VEWs, and the DPE wells. Treated vapor discharge monitoring is

summarized in Section 6.1. VGAC, VEW, and DPE operations, including vacuum influence on VMPs, are summarized in Section 6.2.

6.1. TREATED VAPOR DISCHARGE MONITORING

Although a permit to operate is not required from SCAQMD per CERCLA Section 121, the VGAC is monitored to verify that the emissions are substantively compliant with the limits identified in the HRA (CDM Smith, 2015a).

There are two types of emissions limits: chemical-specific concentrations in VGAC effluent and VGAC operational conditions. The monitoring results for each are summarized below.

- Table 2 shows that the VGAC effluent meets the chemical-specific limits.
- Data in Attachment F, Table F-1 show the following:
  - The VGAC operational conditions meet the limits for flow rate, temperature, and total VOC emissions as indicated by a photo-ionization detector.
  - The carbon changeout criteria were not triggered, and no carbon changeout was required[5]. The last carbon changeout occurred on January 30, 2018.
  - Approximately 15.6 pounds of VOC mass were removed from extracted soil gas this quarter (also see Figure 6).
  - Analytical data showing VOC concentrations in vapor at the VGAC influent, midpoint point, and effluent are presented in Table 2. These data show that the VGAC removed VOCs from the extracted soil gas, transferring it to the activated carbon by adsorption.

[5] The HRA (CDM Smith, 2015a) requires that a carbon changeout occur when the efficiency of the primary adsorber drops below 90 percent and the midpoint VOC concentration exceeds 50 parts per million as hexane. Typically, OPOG elects to replace the carbon preemptively, even if those criteria have not been met, based on the level of desorption observed at the midpoint. Analytical results from monthly VGAC monitoring are reviewed when received from the laboratory, and each month a determination is made whether to change or retain the current carbon load in the lead VGAC vessel (see Attachment F).

- VGAC influent concentrations are shown on Figure 7.

6.2. VEW, DPE, AND VACUUM MONITORING

- VEW/DPE Operations

  All OU-1 SVE system VEWs and DPE wells were mechanically functional during this quarter. Concentrations in extracted vapor have been declining since SVE was initiated in 2010. VEW and DPE operational data are contained in Attachment G and include the following:

  - Flow rate, vacuum, total analytical VOCs, and calculated mass removed per well sampled this quarter (Table G-1);
  - A summary of analytical results from wells sampled this quarter (Table G-2);
  - Historical PCE and TCE concentrations in vapor from VEWs and DPE wells shown in time series charts (Figures G-1 through G-24); and
  - A list of VEW influent manifold valve adjustments recommended during the quarter to optimize for the RAOs.

- Vacuum Influence

  The extraction wells provided sufficient vacuum influence to continue to remove mass and mitigate vapor migration. Vacuum data are provided in Attachment E and include the following:

  - Vacuum influence[6] on shallow VMPs by shallow VEWs (Table E-3, Figure E--1); and
  - Vacuum influence on deep VMPs by deep VEWs and DPE wells (TableE-2, Figure E-2).

[6] Vacuum is a metric of system adequacy to treat soil at a given distance from a VEW. The operational goal is to achieve a measured vacuum of negative 0.1 inch of water column, gauge in soil within the estimated design radius of influence of the VEWs near occupied buildings.

7. SUMMARY OF MONITORING AND RECOMMENDATIONS

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #1 that requires reduction or elimination of vapor intrusion risk. Data collected this quarter show that indoor air concentrations remain below current USEPA RSLs.

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #2 that requires reduction or elimination of the risk from exposure to shallow (0 to 30 feet bgs) soil. The OU-1 SVE system continues to remove mass from the shallow zone.

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #3 that requires reduction or elimination of the risk to groundwater from deep (30 feet bgs and below) soil. The OU-1 SVE system continues to remove mass from the deep zone.

The OU-1 SVE system operated in accordance with the treated vapor discharge limits established by the HRA, and therefore was substantively compliant with SCAQMD regulations. The system was operational during the quarter except for routine maintenance and minor repairs. No mechanical changes, nor changes to the system treatment process are recommended at this time.

Monitoring data were reviewed, and several adjustments to VEW influent manifold valves were recommended to optimize the SVE system for RAOs.

Additional soil gas data collected this quarter are provided in Attachment H.

8. PLANNED ACTIVITIES

Planned activities for the next quarter include the following:

- Routine status calls with USEPA;
- Weekly, monthly, and quarterly OM&M activities;
- Monthly assessment of VGAC effectiveness and need for carbon changeout;
- Monthly VEW/DPE monitoring;
- Annual VEW/DPE analytical monitoring;

- Semi-annual VMP monitoring;
- Review of PID measurements, analytical results, vacuum, and flow data at extraction wells to assess the need for potential adjustments to optimize for the RAOs;
- Quarterly performance reporting; and
- Continued communication as needed with property owners, tenants, and the city of Whittier regarding access for monitoring, occupancy status of buildings, and other Full Scale On-Site (OU-1) Soil Remedy activities.

9. REFERENCES

CDM. (2007). *Final Human Health Risk Assessment for On-Site Soils.*

CDM Smith. (2015). *Full Scale Soil Vapor Extraction and Groundwater Treatment System Operations, Maintenance, and Monitoring Manual (Draft).*

CDM Smith. (2015a). *Memorandum: Treatment of Effluent from Groundwater Treatment System and Soil Vapor Extraction, Omega Chemical Superfund Site, Whittier, California 90602, February 26.*

de maximis, inc. (2018). *Interim Groundwater Containment Remedy, Operable Unit 1, Omega Chemical Superfund Site Quarterly Performance Evaluation Report, August 15.*

de maximis, inc. (2018). *Quarterly Indoor Air Quality Sampling Plan, June 4.*

USEPA. (2008). *Record of Decision for OU-1 Soils.* USEPA.

USEPA. (2010). *Consent Decree Docket No. 10-05051 dated October 6.*

Table 1
Status of Indoor Air Sampling at Buildings Wholly or Partially within the OU-1 Phase 1a Boundary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Building	Location Designation	Building Occupancy	Vacancy Status Verification	Current Monitoring Status	Date Last Sampled	Next Planned Sampling Date	Sampling Rationale
Former 3 Kings Construction	Within OU-1 Boundary	Occupied	Recently purchased for lease by Jones RE (Commercial Real Estate)	Previously Monitored	9/14/2005	TBD	- Sampled as part of Remedial Investigation - Building unoccupied since 2005 air sampling - EPA has not requested indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2011 - Staff noticed flyer at building on June 25, 2018, building believed to be purchased by Jones RE (commercial real estate) for lease, minor modifications/renovation observed
Bishop	Partly within OU-1 Boundary	Occupied	Verified in person 6/19/2018	Quarterly	6/19/2018	September 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Propose reduction of sampling frequency to semi-annual, based upon significant data/history of monitoring, conditionally approved by EPA on April 4, 2018
Madsen Roofing	Within OU-1 Boundary	Partially Occupied	Verified in person 6/19/2018	Semi-Annual	3/6/2018	September 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Propose reduction of sampling frequency to annual, based upon significant data/history of monitoring, conditionally approved by EPA on April 4, 2018
Star City Auto Body	Within OU-1 Boundary	Occupied	Verified in person 6/19/2018	Semi-Annual	3/6/2018	September 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Propose reduction of sampling frequency to annual, based upon significant data/history of monitoring, conditionally approved by EPA on April 4, 2018
Terra Pave	Within OU-1 Boundary	Partially Occupied	Verified in person 6/19/2018	Quarterly	6/19/2018	September 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Propose reduction of sampling frequency to semi-annual, based upon significant data/history of monitoring, conditionally approved by EPA on April 4, 2018

Notes:

TBD = To be determined after additional discussion with EPA.

Table 2
Vapor Phase GAC Analytical Data Demonstrating Substantive Compliance With SCAQMD Regulations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

SCAQMD Chemical-Specific Effluent Limit[1]			2,208	198	84	15	14	48	1,082	65
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**VC**	**11DCA**	**12DCA**	**CF**	**MeC**	**BEN**
SVE1 GAC INFLUENT	4/9/2018	ppbv	110	11	1.1 U	1.1 U	1.1 U	1.1 U	11 U	1.1 U
SVE1 GAC MIDPOINT	4/9/2018	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.5	1.2	12 U	1.2 U
SVE1 GAC EFFLUENT[2]	4/9/2018	ppbv	**1.4**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**
SVE1 GAC INFLUENT	5/7/2018	ppbv	95	8.6	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U
SVE1 GAC MIDPOINT	5/7/2018	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.6	1.2 U	12 U	1.2 U
SVE1 GAC EFFLUENT	5/7/2018	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**
SVE1 GAC INFLUENT	6/4/2018	ppbv	100	8	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U
SVE1 GAC MIDPOINT	6/4/2018	ppbv	1.9	1.2 U	1.2 U	1.2 U	1.3	1.2 U	12 U	1.2 U
SVE1 GAC EFFLUENT	6/4/2018	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**23**	**1.2 U**
Compliance with Effluent Limits?			**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**

Notes:

1. SCAQMD effluent limits are in parts per billion volume (ppbv)

2. Bold text indicates vapor effluent results from the VGAC effluent required to meet SCAQMD HRA chemical specific limits shown in the table.

SVE1 GAC Influent = VOC-laden vapor sample collected at the influent to the lead vapor GAC unit.

SVE1 GAC Midpoint = Partially treated vapor sample collected between the lead and lag vapor GAC units.

SVE1 GAC Effluent = Fully treated vapor sample collected at the effluent from lag (polishing) vapor GAC unit.

SCAQMD HRA Limit = South Coast Air Quality Management District Health Risk Assessment permitted concentration limit in ppbv.

U - Not detected above reporting limit listed

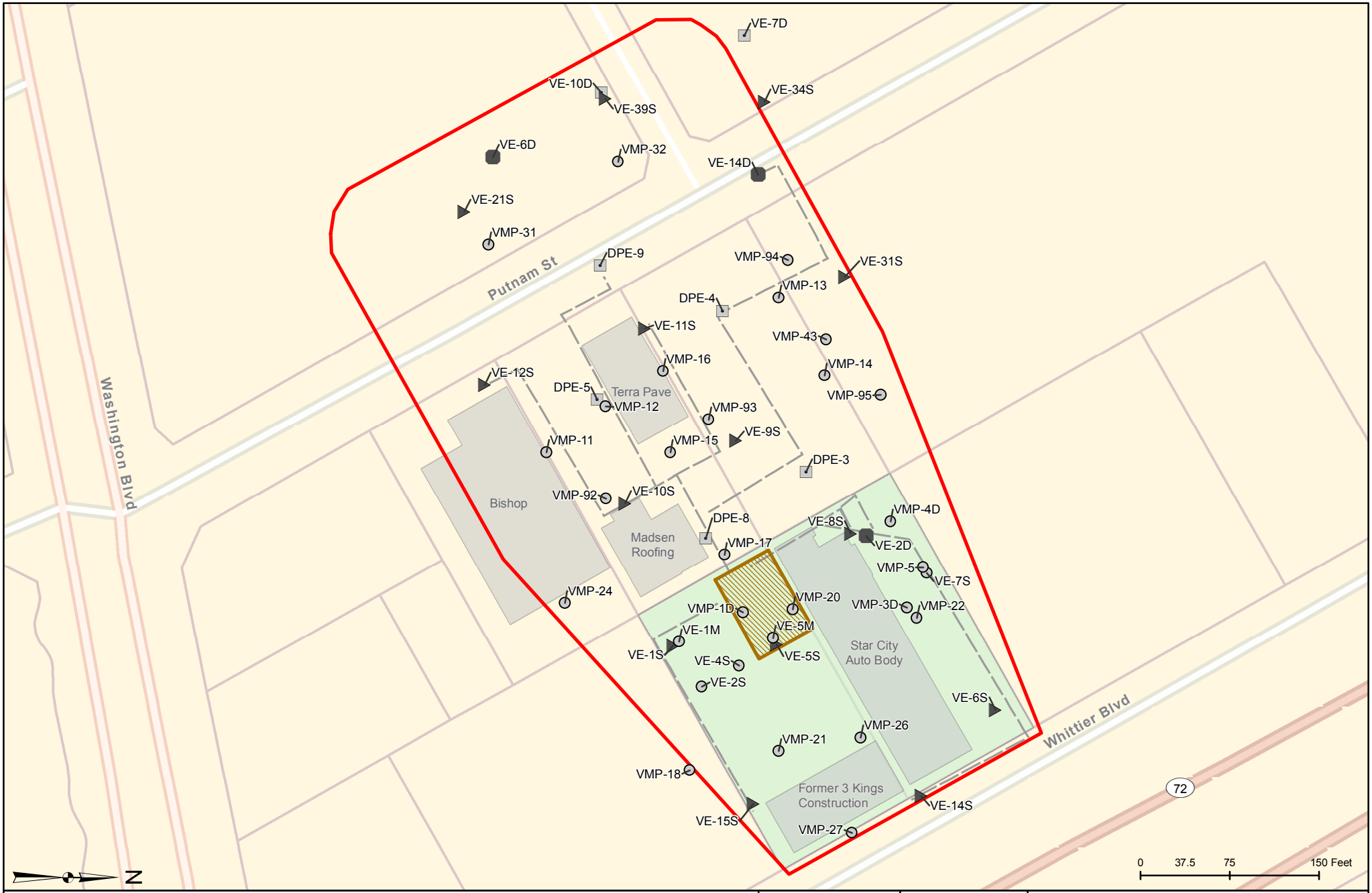
PCE - Tetrachloroethene
TCE - Trichloroethene
VC - Vinyl Chloride
11DCA - 1,1-Dichloroethane
12DCA - 1,2-Dichloroethane
CF - Chloroform
MeC - Methylene Chloride
BEN - Benzene

OU-1 Boundary
Building Currently Commercially/Industrially Occupied
Building Currently Vacant
Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 7/25/2018

Figure 1
OU-1 Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
12504/12512 East Whittier Boulevard
Whittier, California



Shallow Vapor Extraction Well (<30ft bgs)	Vapor Monitoring Probe
Deep Vapor Extraction Well (>30ft bgs)	OU-1 SVE Treatment Plant
Dual Phase Extraction Well	OU-1 Boundary
Building Currently Commercially/Industrially Occupied	Former Omega Chemical Property Boundary
Building Currently Vacant	Conveyance Piping

System components as of 2nd quarter 2018; subject to change. Not all conveyance piping shown. Locations are approximate.

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Reviewed By: MH
Drawn By: LEM
Date: 7/25/2018

Figure 2
OU-1 SVE System Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site

Indoor Air Sampling Results

Sample ID	Sample Type	Date	PCE		TCE
RSLs (Industrial/Residential)			47/11[1]	2.0/0.46[2]	3/0.48[1,3]
B1	ORIG	6/19/2018	0.20 U		0.15 U
B1	DUP	6/19/2018	0.22 U		0.18 U
B2	ORIG	6/19/2018	0.31		0.20 U
B3	ORIG	6/19/2018	0.23 U		0.18 U
TP1	ORIG	6/19/2018	0.21 U		0.17 U
TP1	SPLIT	6/19/2018	0.094 J		0.037 J
TP3	ORIG	6/19/2018	0.46 U		0.36 U

1. http://www.epa.gov/region9/superfund/prg/
2. https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note_3_August-2017.pdf
3. http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note5-pdf.pdf.

DTSC generally relies on the EPA Region 9 RSLs for TCE in indoor air.
ug/m3 = micrograms per cubic meter of air
RSL = Regional Screening Level
PCE = Tetrachloroethene
TCE = Trichloroethene
U = chemical not detected above the level of the reported sample quantitation limit.
J = quantitatively estimated
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

- Indoor Air Sample that achieves USEPA and California Industrial RSLs
- OU-1 Boundary
- Former Omega Chemical Property Boundary
- Building Currently Commercially/Industrially Occupied; Sampled This Quarter
- Building Currently Commercially/Industrially Occupied; Not Sampled This Quarter

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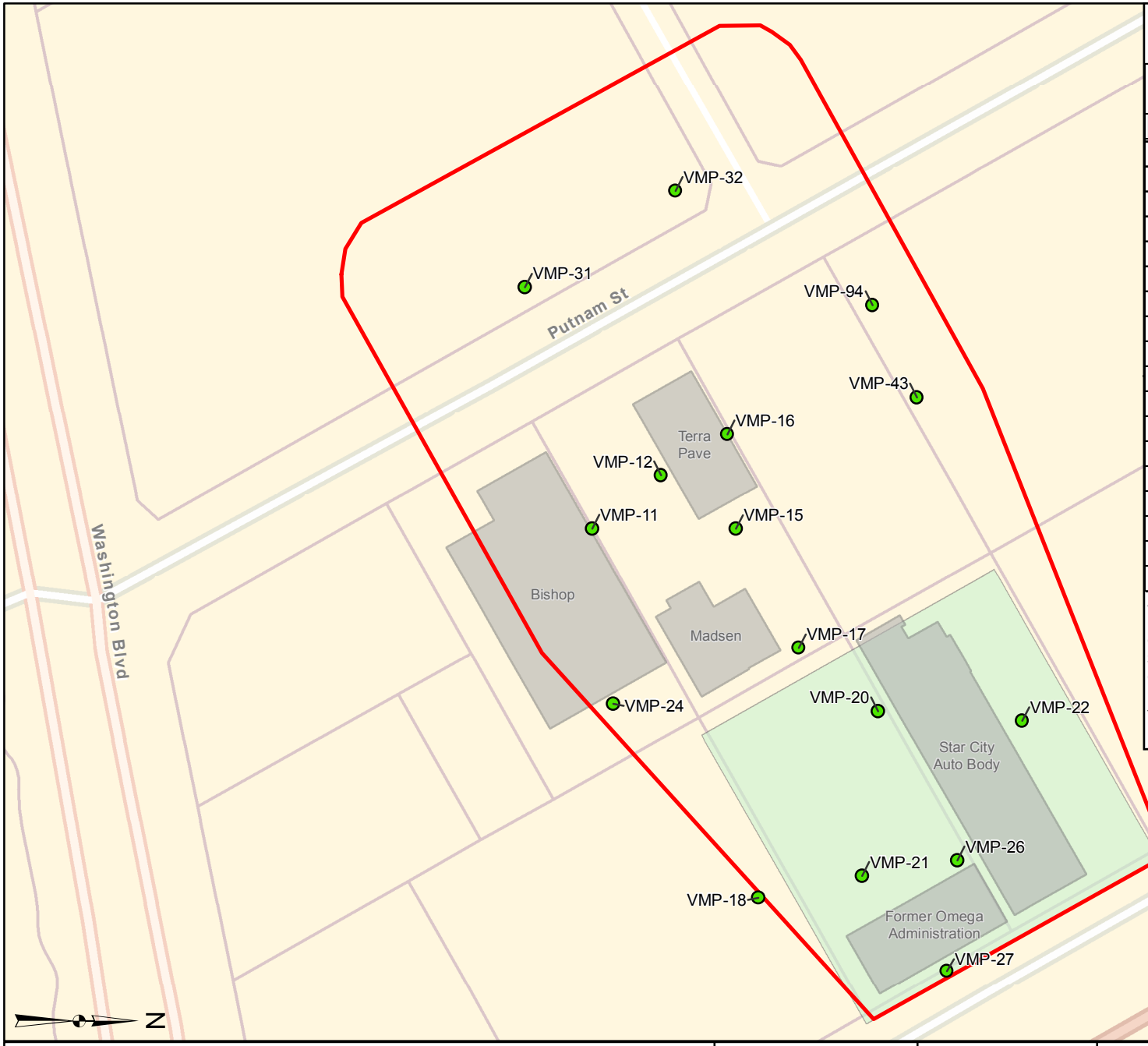
Reviewed By: LEM
Drawn By: CAT
Date: 7/25/2018

Figure 3
Indoor Air Concentrations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018



Shallow Vapor Monitoring Probe Analytical Data and Cleanup Level

Location	Sample Type	Sample Date	PCE
		Cleanup Level	470
VMP-11-30	ORIG	6/27/2018	12
VMP-11-30	DUP	6/27/2018	8.4 U
VMP-12-30	ORIG	6/27/2018	33
VMP-15-30	ORIG	6/27/2018	18
VMP-16-30	ORIG	6/27/2018	250
VMP-17-30	ORIG	6/27/2018	8.1 U
VMP-18-30	ORIG	6/27/2018	38
VMP-20-30	ORIG	6/27/2018	48
VMP-21-30	ORIG	6/27/2018	22
VMP-21-30	DUP	6/27/2018	27
VMP-22-30	ORIG	6/27/2018	39
VMP-24-30	ORIG	6/28/2018	15
VMP-26-30	ORIG	6/27/2018	8.2 U
VMP-27-30	ORIG	6/28/2018	7.5 U
VMP-31-24	ORIG	6/28/2018	15
VMP-32-24	ORIG	6/28/2018	8.2 U
VMP-43-24	ORIG	6/28/2018	8.1 U
VMP-94-24	ORIG	6/28/2018	7.6 U

All concentrations in units of ug/m3
U = chemical not detected above the level of the reported sample quantitation limit.
SHALLOW = between 0 and 30 feet below ground surface
ORIG = original sample
DUP = field duplicate
The last two digits of each Location indicate the depth of the sample in feet
PCE = Tetrachloroethene

< 470 ug/m3 at all sampled depths; achieves cleanup level for PCE

> 470 ug/m3 at any sampled depth; does not achieve cleanup level for PCE

Building Currently Commercially/Industrially Occupied

OU-1 Boundary

Former Omega Property

1. Shallow Vapor Monitoring Probes are installed between 0 and 30 feet below land surface.

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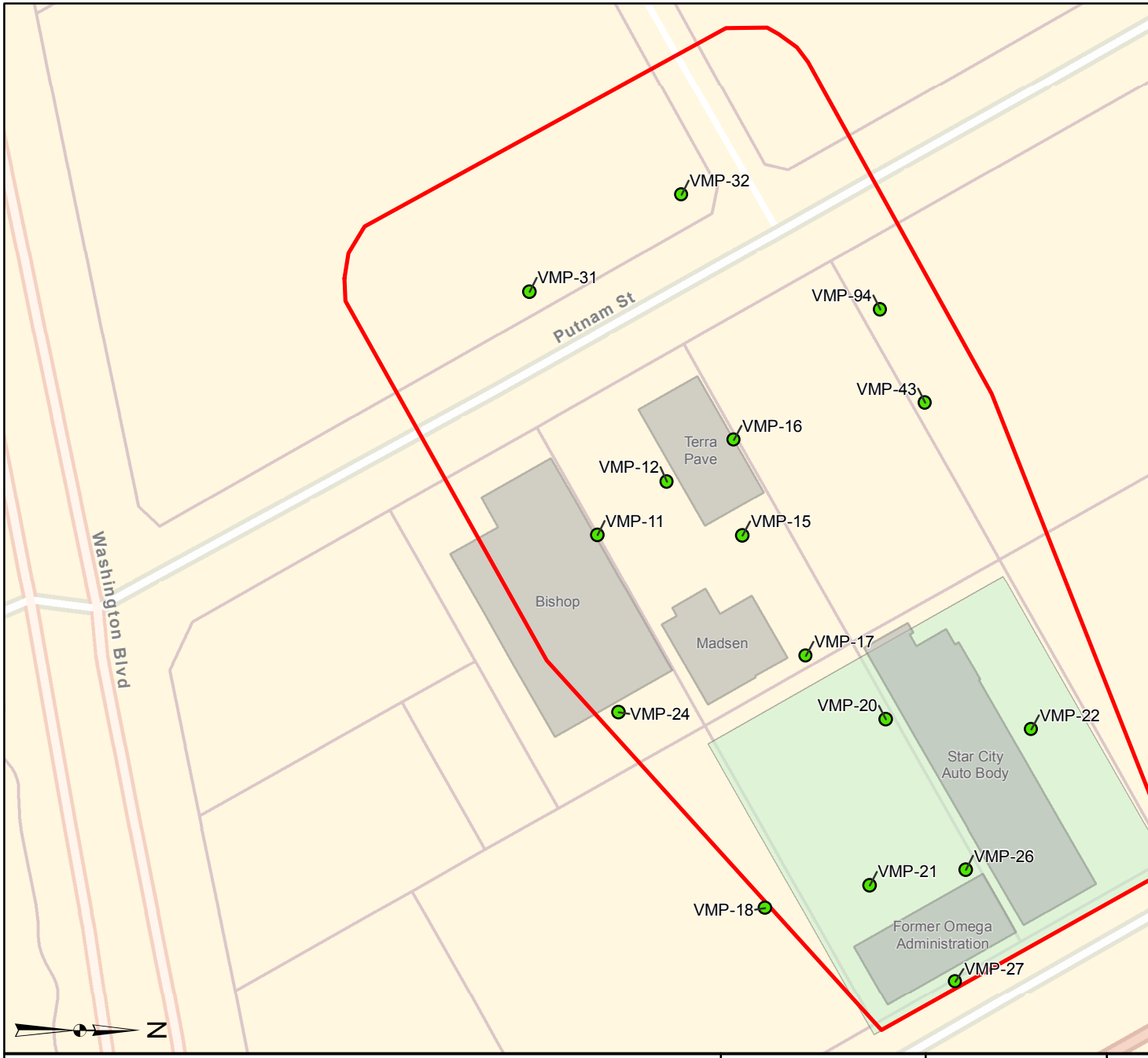
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 7/25/2018

Figure 4
PCE Concentrations in Shallow Soil Gas[1] Demonstrating Compliance with Cleanup Level
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018



Shallow Vapor Monitoring Probe Analytical Data and Cleanup Level

Location	Sample Type	Sample Date	TCE
		Cleanup Level	1300
VMP-11-30	ORIG	6/27/2018	6.5 U
VMP-11-30	DUP	6/27/2018	6.6 U
VMP-12-30	ORIG	6/27/2018	6.3 U
VMP-15-30	ORIG	6/27/2018	6.5 U
VMP-16-30	ORIG	6/27/2018	6.2
VMP-17-30	ORIG	6/27/2018	6.4 U
VMP-18-30	ORIG	6/27/2018	10
VMP-20-30	ORIG	6/27/2018	6.6 U
VMP-21-30	ORIG	6/27/2018	6.5 U
VMP-21-30	DUP	6/27/2018	6.6 U
VMP-22-30	ORIG	6/27/2018	6.5 U
VMP-24-30	ORIG	6/28/2018	6.2 U
VMP-26-30	ORIG	6/27/2018	6.5 U
VMP-27-30	ORIG	6/28/2018	5.9 U
VMP-31-24	ORIG	6/28/2018	6.5 U
VMP-32-24	ORIG	6/28/2018	6.5 U
VMP-43-24	ORIG	6/28/2018	6.4 U
VMP-94-24	ORIG	6/28/2018	6 U

All concentrations in units of ug/m3
U = chemical not detected above the level of the reported sample quantitation limit.
SHALLOW = between 0 and 30 feet below ground surface
The last two digits of each Location indicate the depth of the sample in feet
ORIG = original sample
DUP = field duplicate
TCE = Trichloroethene

< 1300 ug/m3 at all sampled depths; achieves cleanup level for TCE

> 1300 ug/m3 at any sampled depth; does not achieve cleanup level for TCE

Building Currently Commercially/Industrially Occupied

OU-1 Boundary

Former Omega Property

1. Shallow Vapor Monitoring Probes are installed between 0 and 30 feet below land surface.

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 7/25/2018

Figure 5
TCE Concentrations in Shallow Soil Gas[1] Demonstrating Compliance with Cleanup Level
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018

Figure 6
OU-1 SVE System Cumulative Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

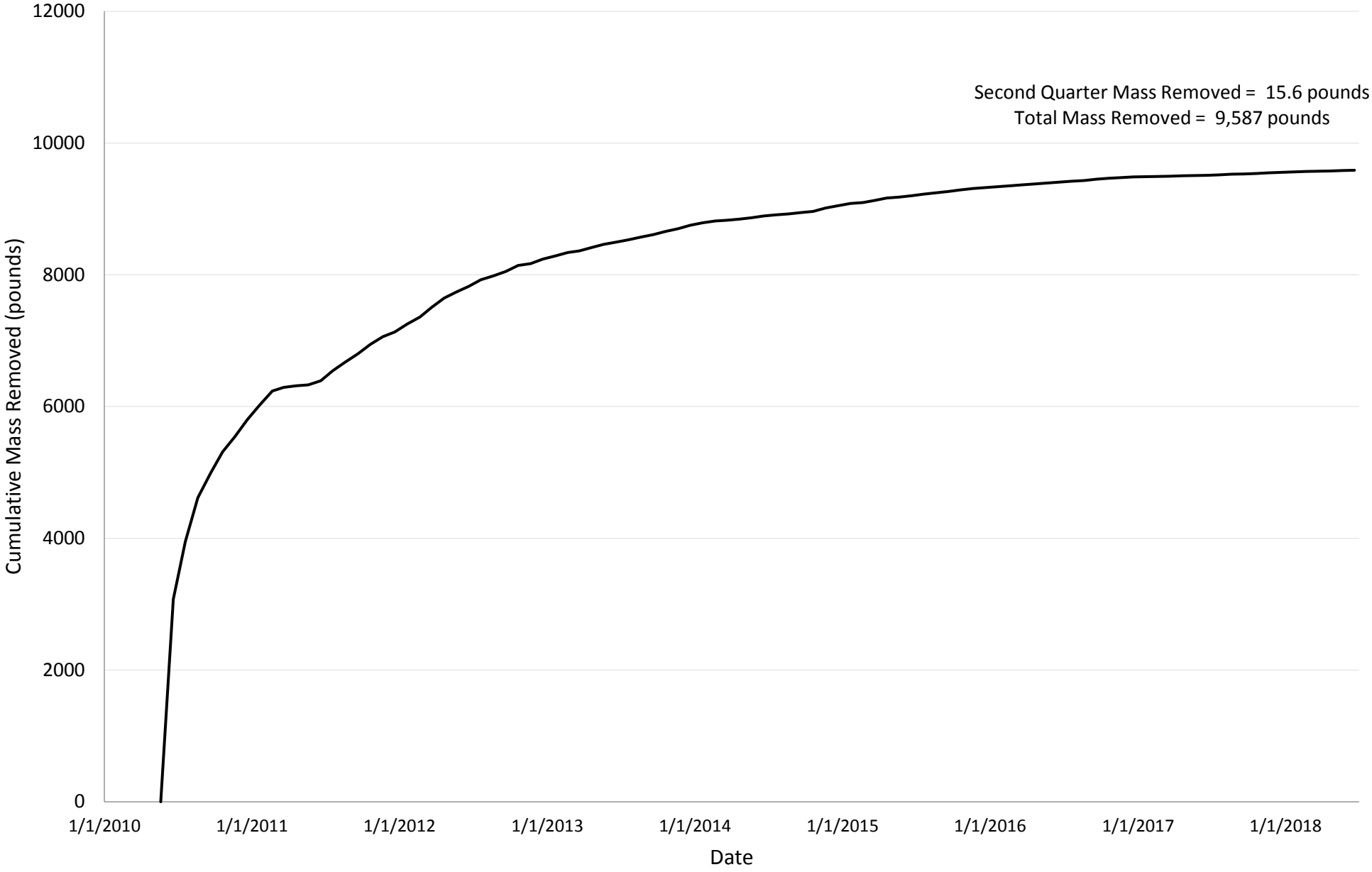
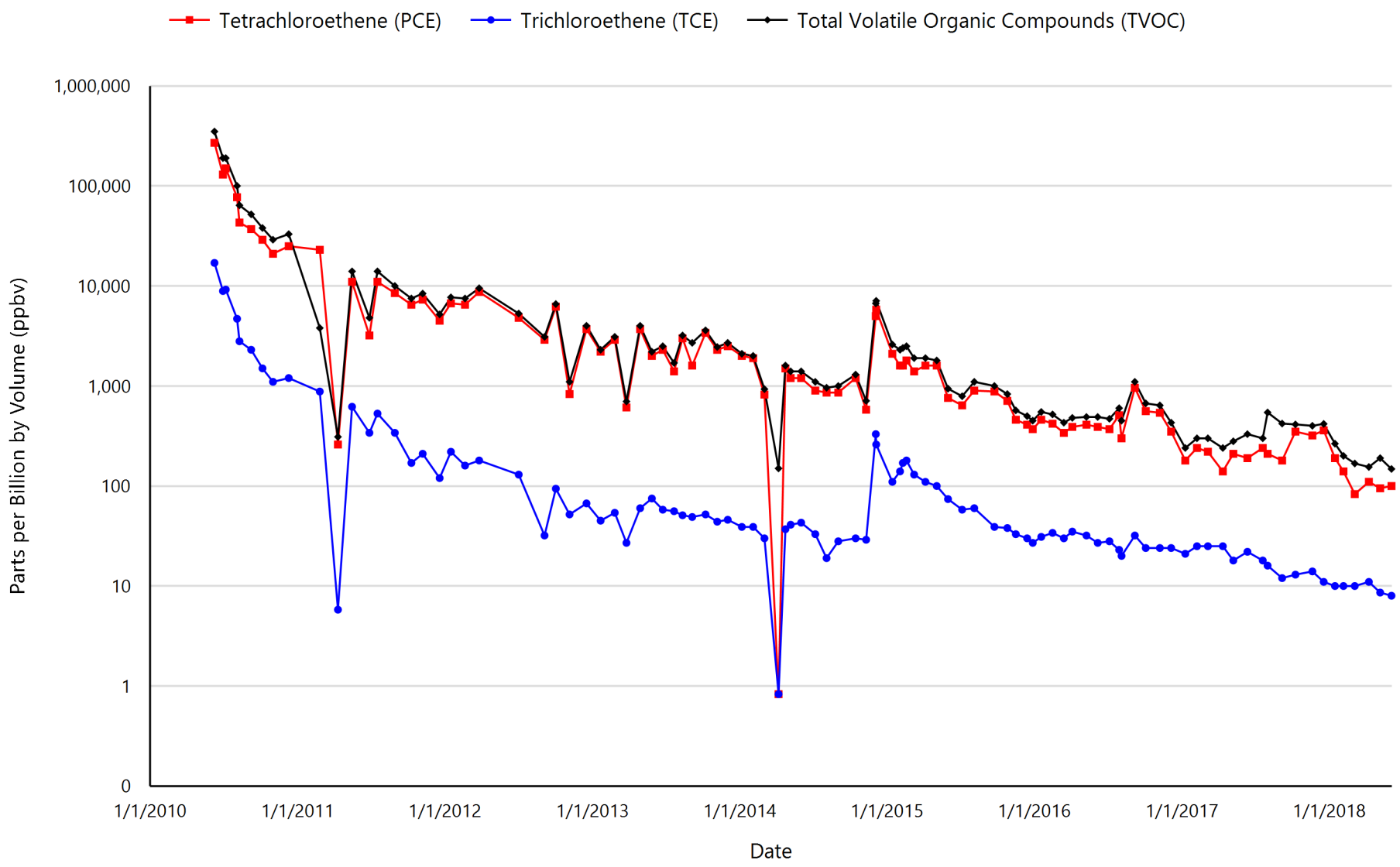


Figure 7
Vapor Phase GAC Influent Concentrations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018



Attachment A

Summary of Indoor and Ambient Air Concentrations

Attachment A, Table A-1
Indoor Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Sample ID	IAQ_B1_061918 (B1)	IAQ_B1_061918K (B1)	IAQ_B2_061918 (B2)	IAQ_B3_061918 (B3)
SDG	1806421	1806421	1806421	1806421
Sample Location	IAQ-BISHOP-01	IAQ-BISHOP-01	IAQ-BISHOP-02	IAQ-BISHOP-03
Building ID	BISHOP	BISHOP	BISHOP	BISHOP
Sample Type	ORIG	DUP	ORIG	ORIG
Date	Jun 19, 2018	Jun 19, 2018	Jun 19, 2018	Jun 19, 2018
Parameter				
1,1,2,2-Tetrachloroethane	0.20 U	0.22 U	0.25 U	0.23 U
Tetrachloroethene (PCE)	0.20 U	0.22 U	0.31	0.23 U
Trichloroethene (TCE)	0.15 U	0.18 U	0.20 U	0.18 U
1,1,1-Trichloroethane (TCA)	0.16 U	0.18 U	0.20 U	0.18 U
1,1,2-Trichloroethane	0.16 U	0.18 U	0.20 U	0.18 U
1,1-Dichloroethene	0.057 U	0.065 U	0.072 U	0.067 U
1,1-Dichloroethane	0.12 U	0.13 U	0.15 U	0.14 U
1,2-Dichloroethane	0.12 U	0.13 U	0.23	0.14 U
cis-1,2-Dichloroethene	0.11 U	0.13 U	0.14 U	0.13 U
trans-1,2-Dichloroethene	0.57 U	0.65 U	0.72 U	0.67 U
trans-1,3-Dichloropropene	0.13 U	0.15 U	0.16 U	0.15 U
Carbon tetrachloride	0.48	0.50	0.48	0.49
Chloroform	0.17 J,N	0.17 J,N	0.25 J,N	0.16
Methylene chloride	1.4 J	1.1 J	1.4 J	1.2 UJ
Freon 11	1.2	1.3	1.3	1.3
Freon 113	0.52	0.53	0.56	0.53
Freon 12	2.4 J	2.4 J	2.4 J	2.4 J
Vinyl chloride	0.037 U	0.042 U	0.046 U	0.043 U
Acetone	39 J	52 J	320 J	47 J
Benzene	0.46	0.52	3.5	0.54
Toluene	1.8	1.9	39	2.3
Ethylbenzene	0.27	0.29	6.6	0.44
m,p-Xylene	0.70	0.73	26	1.3
o-Xylene	0.27 J	0.29 J	8.6 J	0.52 J
1,2-Dichlorobenzene	0.17 U	0.20 U	0.22 U	0.20 U
1,4-Dichlorobenzene	0.17 U	0.20 U	0.22 U	0.20 U
Chlorobenzene	0.13 U	0.15 U	0.17 U	0.15 U
Methyl Tert-Butyl Ether	0.52 U	0.59 U	1.5	0.60 U

U = chemical not detected. Lab detection limit for chemical is listed.
UJ = analyte was was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

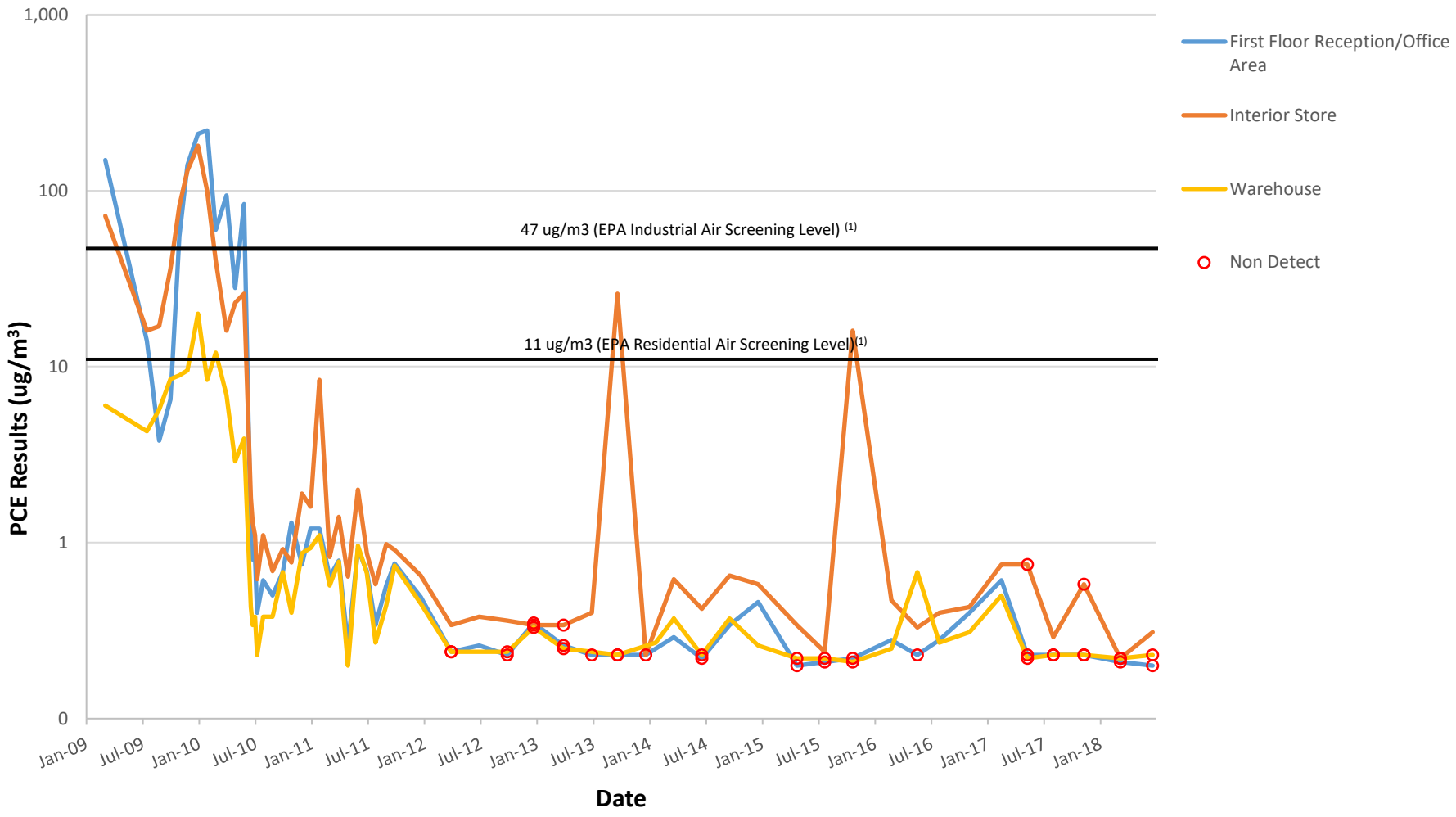
Attachment A, Table A-1
Indoor Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Sample ID	IAQ_TP1_061918K2 (TP1)	IAQ_TP1_061918 (TP1)	IAQ_TP3_061918 (TP3)
SDG	440-214099-1	1806421	1806421
Sample Location	IAQ-TP-01	IAQ-TP-01	IAQ-TP-03
Building ID	TERRA PAVE	TERRA PAVE	TERRA PAVE
Sample Type	SPLIT	ORIG	ORIG
Date	Jun 19, 2018	Jun 19, 2018	Jun 19, 2018
Parameter			
1,1,2,2-Tetrachloroethane	0.15 U	0.22 U	0.46 U
Tetrachloroethene (PCE)	0.094 J	0.21 U	0.46 U
Trichloroethene (TCE)	0.037 J	0.17 U	0.36 U
1,1,1-Trichloroethane (TCA)	0.12 U	0.17 U	0.37 U
1,1,2-Trichloroethane	0.30 U	0.17 U	0.37 U
1,1-Dichloroethene	0.086 U	0.062 U	0.13 U
1,1-Dichloroethane	0.088 U	0.13 U	0.27 U
1,2-Dichloroethane	0.089	0.14	0.27 U
cis-1,2-Dichloroethene	0.086 U	0.12 U	0.27 U
trans-1,2-Dichloroethene	0.086 U	0.62 U	1.3 U
trans-1,3-Dichloropropene	0.099 U	0.14 U	0.30 U
Carbon tetrachloride	0.34	0.51	0.49
Chloroform	0.16	0.22 J,N	0.33 U
Methylene chloride	0.81	1.6 J	2.3 UJ
Freon 11	1.3	1.3	1.3
Freon 113	0.55	0.54	0.55
Freon 12	1.7 J	2.4 J	2.4 J
Vinyl chloride	0.056 U	0.040 U	0.086 U
Acetone	25 J	51 J	42 J
Benzene	5.2	4.7	33
Toluene	28	28	200
Ethylbenzene	5.4	4.7	38
m,p-Xylene	20 J	20	170
o-Xylene	8.9 J	6.7 J	57 J
1,2-Dichlorobenzene	0.33 U	0.19 U	0.40 U
1,4-Dichlorobenzene	0.068 J	0.19 U	0.40 U
Chlorobenzene	0.10 U	0.14 U	0.31 U
Methyl Tert-Butyl Ether	0.098 U	0.57 U	1.2 U

U = chemical not detected. Lab detection limit for chemical is listed.
UJ = analyte was was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

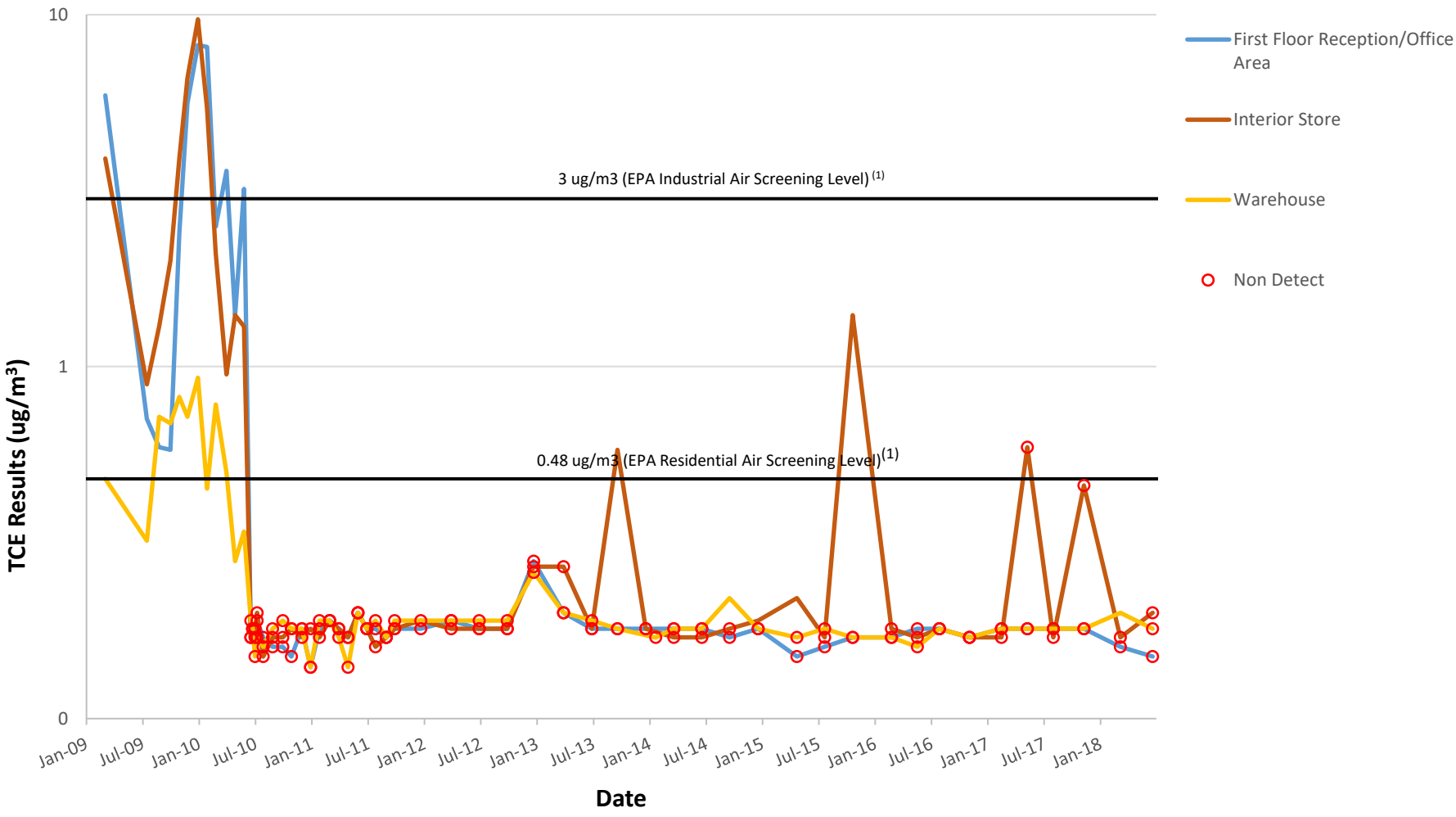
Attachment A, Figure A-1
Indoor Air Quality Tetrachloroethene (PCE) Results
Bishop Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

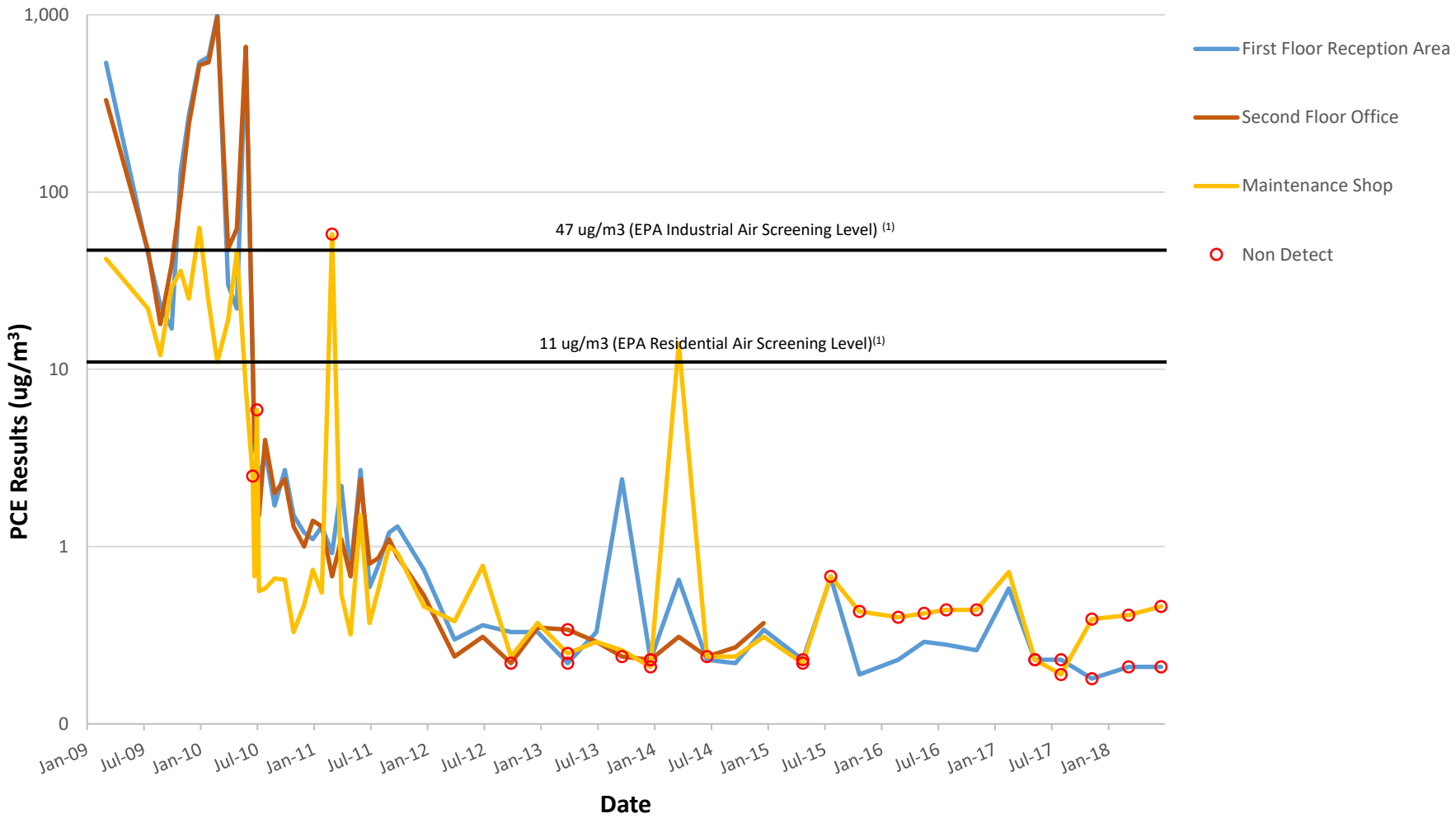
Attachment A, Figure A-2
Indoor Air Quality Trichloroethene (TCE) Results
Bishop Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

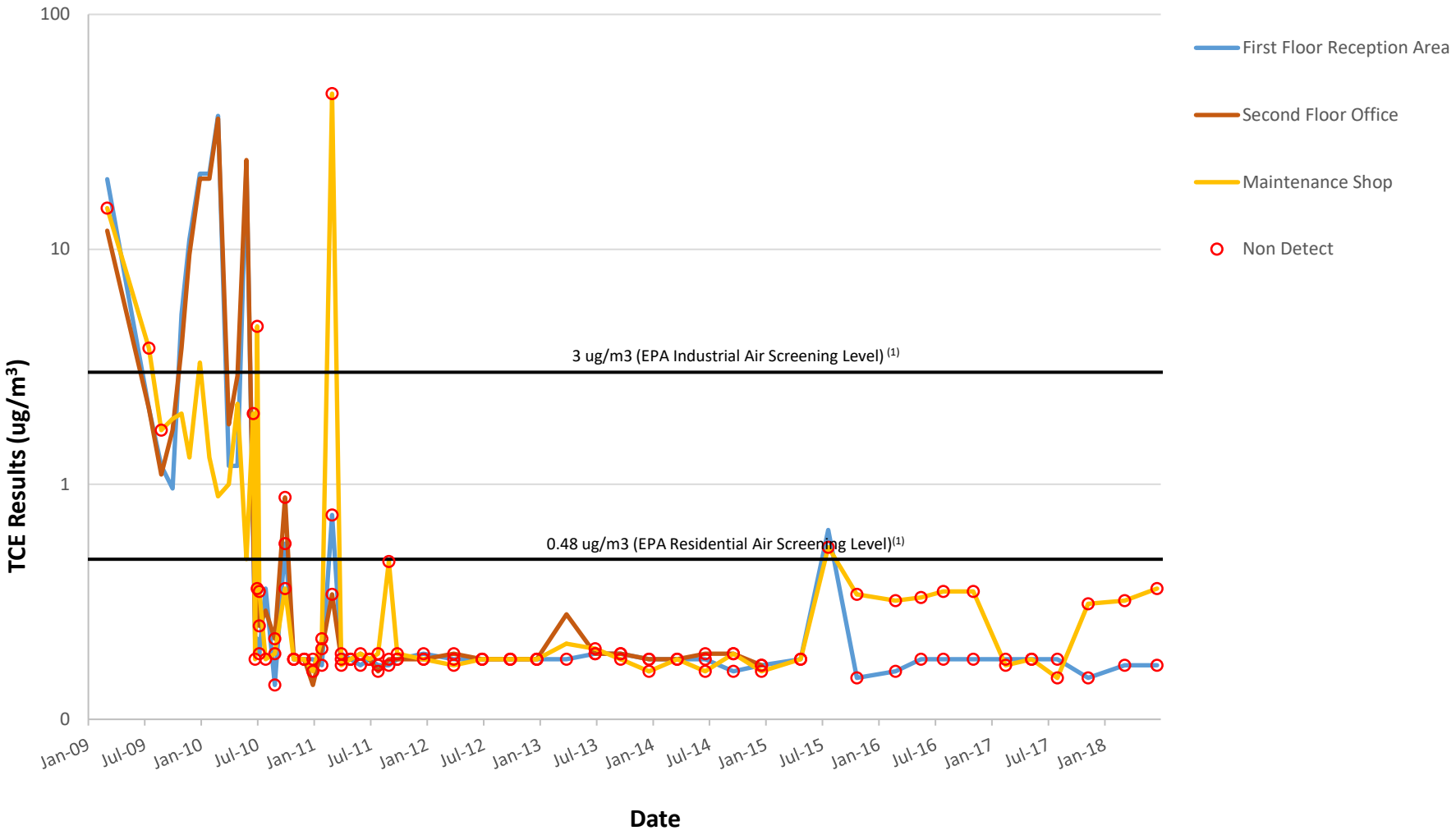
Attachment A, Figure A-3
Indoor Air Quality Tetrachloroethene (PCE) Results
Terra Pave Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

Attachment A, Figure A-4
Indoor Air Quality Trichloroethene (TCE) Results
Terra Pave Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

Attachment A, Table A-2
Ambient Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Sample ID	IAQ_AA1_061918 (AA1)
SDG	1806421
Sample Location	IAQ-AMB-01
Building ID	AMBIENT AIR
Sample Type	ORIG
Date	Jun 19, 2018
Parameter	
1,1,2,2-Tetrachloroethane	0.22 U
Tetrachloroethene (PCE)	0.22 U
Trichloroethene (TCE)	0.19
1,1,1-Trichloroethane (TCA)	0.17 U
1,1,2-Trichloroethane	0.17 U
1,1-Dichloroethene	0.063 U
1,1-Dichloroethane	0.13 U
1,2-Dichloroethane	0.13 U
cis-1,2-Dichloroethene	0.13 U
trans-1,2-Dichloroethene	0.63 U
trans-1,3-Dichloropropene	0.14 U
Carbon tetrachloride	0.50
Chloroform	0.16 J,N
Methylene chloride	1.1 J
Freon 11	1.3
Freon 113	0.55
Freon 12	2.4 J
Vinyl chloride	0.041 U
Acetone	19 J
Benzene	0.57
Toluene	1.7
Ethylbenzene	0.33
m,p-Xylene	1.0
o-Xylene	0.38 J
1,2-Dichlorobenzene	0.22
1,4-Dichlorobenzene	0.19 U
Chlorobenzene	0.15 U
Methyl Tert-Butyl Ether	0.57 U

U = chemical not detected. Lab detection limit for chemical is listed.
J = quantitatively estimated
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample

Ambient Air Sample Results

Sample ID	AA1
Sample Type	ORIG
Date	6/19/2018
Parameter	
PCE	0.22 U
TCE	0.19

All units in ug/m3
ug/m3 = micrograms per cubic meter of air
PCE = Tetrachloroethene
TCE = Trichloroethene
U = chemical not detected. Lab detection limit for chemical is listed.
ORIG = original sample

- Ambient Air Sample
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- OU-1 Boundary
- Former Omega Chemical Property Boundary

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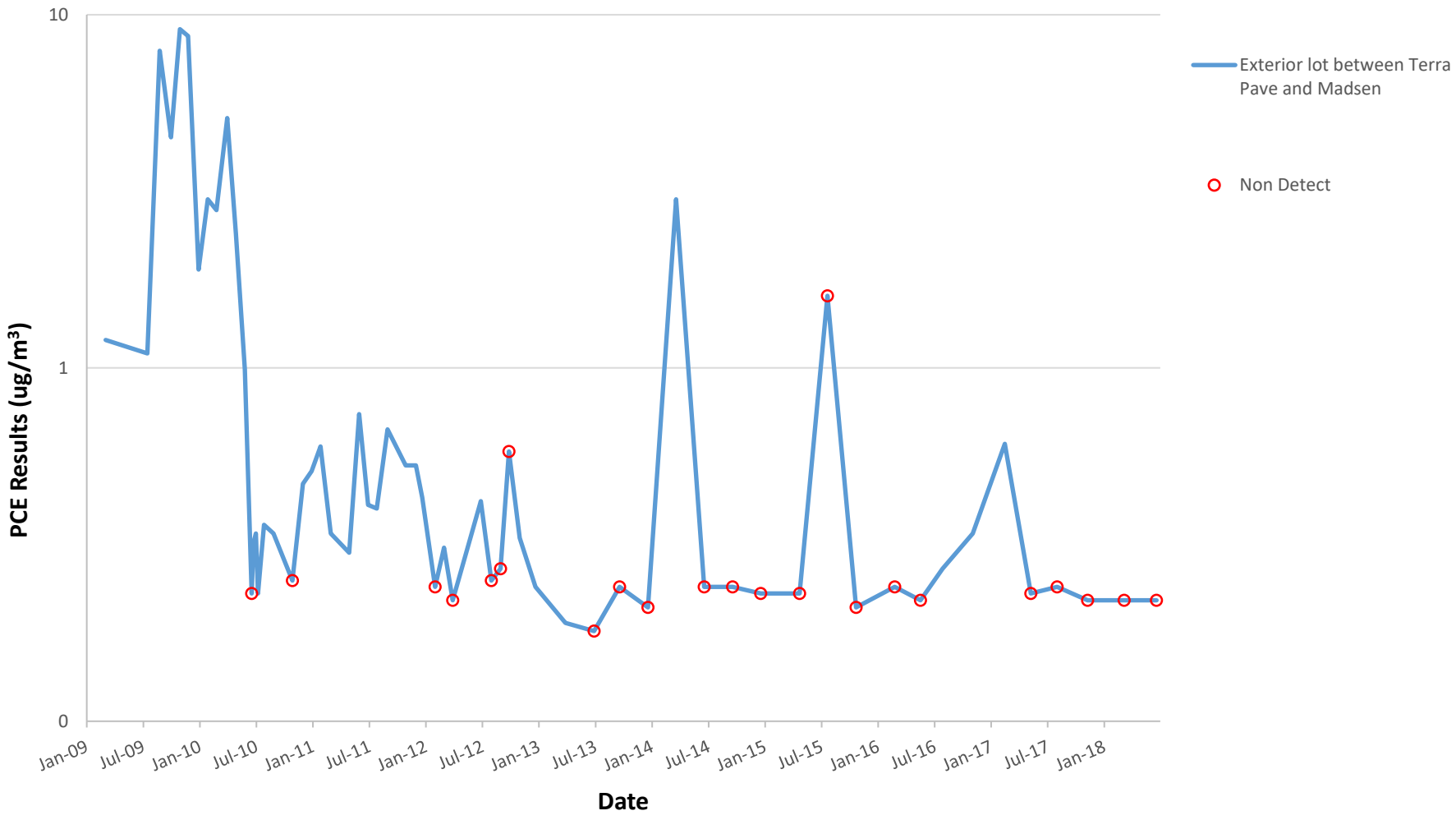
de maximis, inc.

Reviewed By: LEM
Drawn By: CAT
Date: 7/24/2018

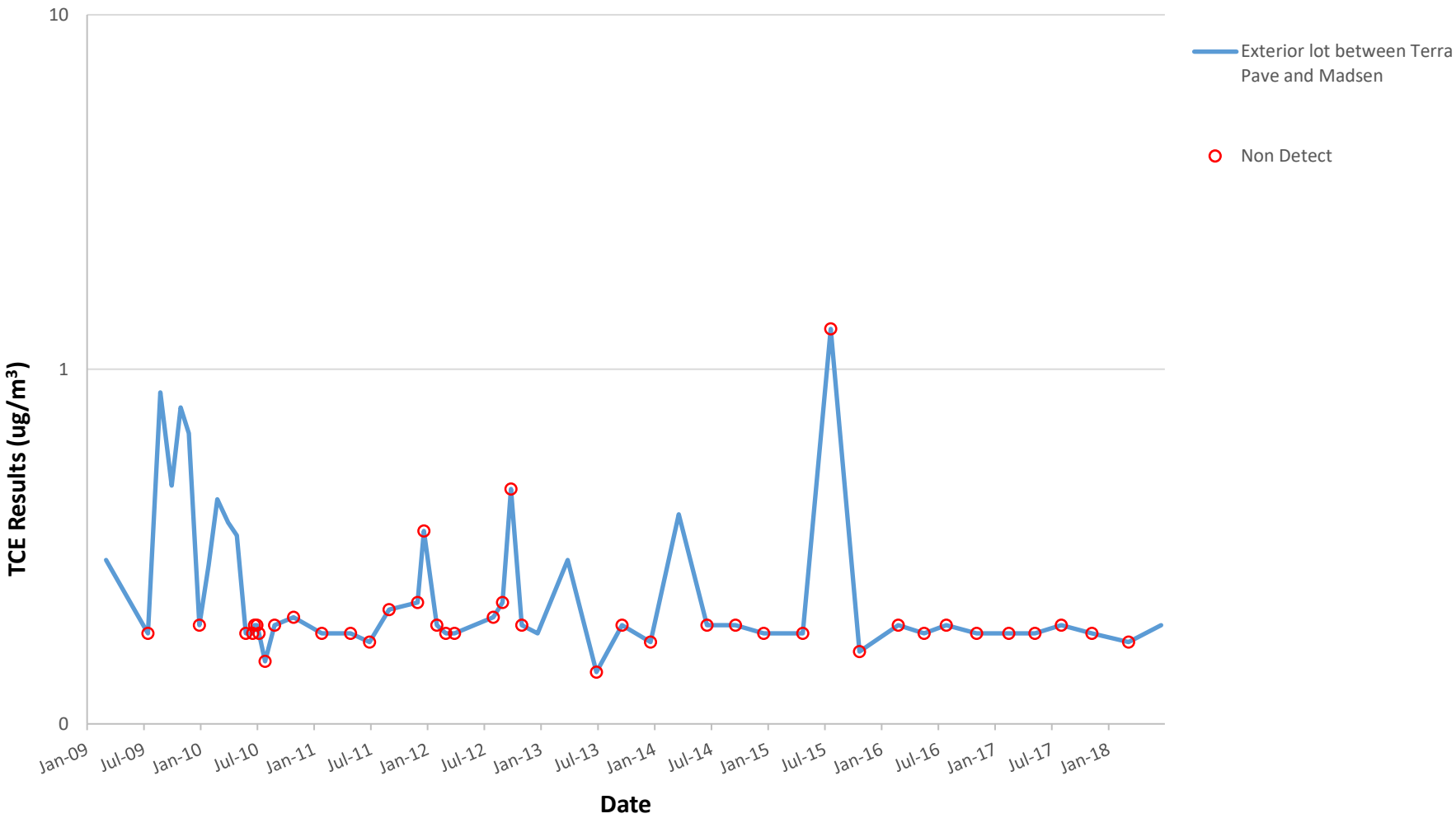
Attachment A, Figure A-5
Quarterly Ambient Air Concentrations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018

Attachment A, Figure A-6
Ambient Air Quality Tetrachloroethene (PCE) Results
Ambient Air - 01
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment A, Figure A-7
Ambient Air Quality Trichloroethene (TCE) Results
Ambient Air - 01
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment B

Laboratory Analytical Results

eurofins | Air Toxics

7/5/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-2nd Qtr 2018-OU-1 IAQ
Project #:
Workorder #: 1806421

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 6/21/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1806421

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	3139-GL 6403
FAX:	949.679.9078	**PROJECT #**	Omega-2nd Qtr 2018-OU-1 IAQ
DATE RECEIVED:	06/21/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/05/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IAQ_B1_061918	Modified TO-15	2.8 "Hg	4.5 psi
01B	IAQ_B1_061918	Modified TO-15	2.8 "Hg	4.5 psi
02A	IAQ_B1_061918K	Modified TO-15	5.3 "Hg	5 psi
02B	IAQ_B1_061918K	Modified TO-15	5.3 "Hg	5 psi
03A	IAQ_B2_061918	Modified TO-15	7.8 "Hg	5.2 psi
03B	IAQ_B2_061918	Modified TO-15	7.8 "Hg	5.2 psi
04A	IAQ_B3_061918	Modified TO-15	6.3 "Hg	4.8 psi
04B	IAQ_B3_061918	Modified TO-15	6.3 "Hg	4.8 psi
05A	IAQ_TP1_061918	Modified TO-15	4.5 "Hg	4.9 psi
05B	IAQ_TP1_061918	Modified TO-15	4.5 "Hg	4.9 psi
06A	IAQ_TP3_061918	Modified TO-15	5.9 "Hg	5.1 psi
06B	IAQ_TP3_061918	Modified TO-15	5.9 "Hg	5.1 psi
07A	IAQ_AA1_061918	Modified TO-15	4.5 "Hg	5.2 psi
07B	IAQ_AA1_061918	Modified TO-15	4.5 "Hg	5.2 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA
10BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 07/05/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
DeMaximis, Inc
Workorder# 1806421

Seven 6 Liter Summa Canister (SIM Certified) samples were received on June 21, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Dilution was performed on sample IAQ_TP3_061918 due to the presence of high level target species.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B1_061918

Lab ID#: 1806421-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.72	16	1.7	39
Methylene Chloride	0.29	0.41	1.0	1.4

Client Sample ID: IAQ_B1_061918

Lab ID#: 1806421-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.029	0.49	0.14	2.4
Freon 11	0.029	0.22	0.16	1.2
Freon 113	0.029	0.068	0.22	0.52
Chloroform	0.029	0.034	0.14	0.17
Carbon Tetrachloride	0.029	0.077	0.18	0.48
Benzene	0.072	0.14	0.23	0.46
Toluene	0.029	0.47	0.11	1.8
Ethyl Benzene	0.029	0.063	0.12	0.27
m,p-Xylene	0.058	0.16	0.25	0.70
o-Xylene	0.029	0.062	0.12	0.27

Client Sample ID: IAQ_B1_061918K

Lab ID#: 1806421-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	22	1.9	52
Methylene Chloride	0.33	0.33	1.1	1.1

Client Sample ID: IAQ_B1_061918K

Lab ID#: 1806421-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.48	0.16	2.4
Freon 11	0.033	0.22	0.18	1.3
Freon 113	0.033	0.069	0.25	0.53

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B1_061918K

Lab ID#: 1806421-02B

Chloroform	0.033	0.035	0.16	0.17
Carbon Tetrachloride	0.033	0.080	0.20	0.50
Benzene	0.082	0.16	0.26	0.52
Toluene	0.033	0.50	0.12	1.9
Ethyl Benzene	0.033	0.066	0.14	0.29
m,p-Xylene	0.065	0.17	0.28	0.73
o-Xylene	0.033	0.067	0.14	0.29

Client Sample ID: IAQ_B2_061918

Lab ID#: 1806421-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.91	140 E	2.2	320 E
Methylene Chloride	0.36	0.39	1.3	1.4

Client Sample ID: IAQ_B2_061918

Lab ID#: 1806421-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.48	0.18	2.4
Freon 11	0.036	0.23	0.20	1.3
Freon 113	0.036	0.073	0.28	0.56
Chloroform	0.036	0.051	0.18	0.25
Carbon Tetrachloride	0.036	0.076	0.23	0.48
Benzene	0.091	1.1	0.29	3.5
1,2-Dichloroethane	0.036	0.057	0.15	0.23
Toluene	0.036	10	0.14	39
Tetrachloroethene	0.036	0.046	0.25	0.31
Ethyl Benzene	0.036	1.5	0.16	6.6
m,p-Xylene	0.073	6.1	0.32	26
o-Xylene	0.036	2.0	0.16	8.6
Methyl tert-butyl ether	0.18	0.42	0.66	1.5

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B3_061918

Lab ID#: 1806421-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	20	2.0	47

Client Sample ID: IAQ_B3_061918

Lab ID#: 1806421-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.48	0.17	2.4
Freon 11	0.034	0.22	0.19	1.3
Freon 113	0.034	0.070	0.26	0.53
Chloroform	0.034	0.034	0.16	0.16
Carbon Tetrachloride	0.034	0.078	0.21	0.49
Benzene	0.084	0.17	0.27	0.54
Toluene	0.034	0.61	0.13	2.3
Ethyl Benzene	0.034	0.10	0.14	0.44
m,p-Xylene	0.067	0.29	0.29	1.3
o-Xylene	0.034	0.12	0.14	0.52

Client Sample ID: IAQ_TP1_061918

Lab ID#: 1806421-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	21	1.9	51
Methylene Chloride	0.31	0.45	1.1	1.6

Client Sample ID: IAQ_TP1_061918

Lab ID#: 1806421-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.031	0.49	0.16	2.4
Freon 11	0.031	0.23	0.18	1.3
Freon 113	0.031	0.071	0.24	0.54
Chloroform	0.031	0.045	0.15	0.22

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_TP1_061918

Lab ID#: 1806421-05B

Carbon Tetrachloride	0.031	0.081	0.20	0.51
Benzene	0.078	1.5	0.25	4.7
1,2-Dichloroethane	0.031	0.034	0.13	0.14
Toluene	0.031	7.6	0.12	28
Ethyl Benzene	0.031	1.1	0.14	4.7
m,p-Xylene	0.063	4.5	0.27	20
o-Xylene	0.031	1.5	0.14	6.7

Client Sample ID: IAQ_TP3_061918

Lab ID#: 1806421-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.7	18	4.0	42

Client Sample ID: IAQ_TP3_061918

Lab ID#: 1806421-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.067	0.48	0.33	2.4
Freon 11	0.067	0.24	0.38	1.3
Freon 113	0.067	0.071	0.52	0.55
Carbon Tetrachloride	0.067	0.078	0.42	0.49
Benzene	0.17	10	0.54	33
Toluene	0.067	53	0.25	200
Ethyl Benzene	0.067	8.9	0.29	38
m,p-Xylene	0.13	38	0.58	170
o-Xylene	0.067	13	0.29	57

Client Sample ID: IAQ_AA1_061918

Lab ID#: 1806421-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.80	8.0	1.9	19
Methylene Chloride	0.32	0.32	1.1	1.1

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_AA1_061918

Lab ID#: 1806421-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.48	0.16	2.4
Freon 11	0.032	0.23	0.18	1.3
Freon 113	0.032	0.071	0.24	0.55
Chloroform	0.032	0.033	0.16	0.16
Carbon Tetrachloride	0.032	0.079	0.20	0.50
Benzene	0.080	0.18	0.25	0.57
Trichloroethene	0.032	0.035	0.17	0.19
Toluene	0.032	0.44	0.12	1.7
Ethyl Benzene	0.032	0.077	0.14	0.33
m,p-Xylene	0.064	0.23	0.28	1.0
o-Xylene	0.032	0.088	0.14	0.38
1,2-Dichlorobenzene	0.032	0.037	0.19	0.22

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Client Sample ID: IAQ_B1_061918

Lab ID#: 1806421-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070306**	**Date of Collection:**	**6/19/18 3:35:00 PM**
Dil. Factor:	**1.44**	**Date of Analysis:**	**7/3/18 11:39 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.72	16	1.7	39
Methylene Chloride	0.29	0.41	1.0	1.4

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	84	70-130

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Client Sample ID: IAQ_B1_061918

Lab ID#: 1806421-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070306sim**	**Date of Collection:**	**6/19/18 3:35:00 PM**
Dil. Factor:	**1.44**	**Date of Analysis:**	**7/3/18 11:39 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.029	0.49	0.14	2.4
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
Freon 11	0.029	0.22	0.16	1.2
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
Freon 113	0.029	0.068	0.22	0.52
1,1-Dichloroethane	0.029	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
Chloroform	0.029	0.034	0.14	0.17
1,1,1-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.029	0.077	0.18	0.48
Benzene	0.072	0.14	0.23	0.46
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.029	Not Detected	0.15	Not Detected
trans-1,3-Dichloropropene	0.029	Not Detected	0.13	Not Detected
Toluene	0.029	0.47	0.11	1.8
1,1,2-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Tetrachloroethene	0.029	Not Detected	0.20	Not Detected
Chlorobenzene	0.029	Not Detected	0.13	Not Detected
Ethyl Benzene	0.029	0.063	0.12	0.27
m,p-Xylene	0.058	0.16	0.25	0.70
o-Xylene	0.029	0.062	0.12	0.27
1,4-Dichlorobenzene	0.029	Not Detected	0.17	Not Detected
1,2-Dichlorobenzene	0.029	Not Detected	0.17	Not Detected
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: IAQ_B1_061918K

Lab ID#: 1806421-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070308**	**Date of Collection:**	**6/19/18 3:35:00 PM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**7/3/18 12:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	22	1.9	52
Methylene Chloride	0.33	0.33	1.1	1.1

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: IAQ_B1_061918K

Lab ID#: 1806421-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070308sim**	**Date of Collection:**	**6/19/18 3:35:00 PM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**7/3/18 12:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.48	0.16	2.4
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Freon 11	0.033	0.22	0.18	1.3
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Freon 113	0.033	0.069	0.25	0.53
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.035	0.16	0.17
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.080	0.20	0.50
Benzene	0.082	0.16	0.26	0.52
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.033	Not Detected	0.15	Not Detected
Toluene	0.033	0.50	0.12	1.9
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
Chlorobenzene	0.033	Not Detected	0.15	Not Detected
Ethyl Benzene	0.033	0.066	0.14	0.29
m,p-Xylene	0.065	0.17	0.28	0.73
o-Xylene	0.033	0.067	0.14	0.29
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_B2_061918

Lab ID#: 1806421-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070309**	**Date of Collection:**	**6/19/18 3:34:00 PM**
Dil. Factor:	**1.82**	**Date of Analysis:**	**7/3/18 02:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.91	140 E	2.2	320 E
Methylene Chloride	0.36	0.39	1.3	1.4

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: IAQ_B2_061918

Lab ID#: 1806421-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070309sim**	**Date of Collection:**	**6/19/18 3:34:00 PM**
Dil. Factor:	**1.82**	**Date of Analysis:**	**7/3/18 02:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.036	0.48	0.18	2.4
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
Freon 11	0.036	0.23	0.20	1.3
1,1-Dichloroethene	0.018	Not Detected	0.072	Not Detected
Freon 113	0.036	0.073	0.28	0.56
1,1-Dichloroethane	0.036	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
Chloroform	0.036	0.051	0.18	0.25
1,1,1-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Carbon Tetrachloride	0.036	0.076	0.23	0.48
Benzene	0.091	1.1	0.29	3.5
1,2-Dichloroethane	0.036	0.057	0.15	0.23
Trichloroethene	0.036	Not Detected	0.20	Not Detected
trans-1,3-Dichloropropene	0.036	Not Detected	0.16	Not Detected
Toluene	0.036	10	0.14	39
1,1,2-Trichloroethane	0.036	Not Detected	0.20	Not Detected
Tetrachloroethene	0.036	0.046	0.25	0.31
Chlorobenzene	0.036	Not Detected	0.17	Not Detected
Ethyl Benzene	0.036	1.5	0.16	6.6
m,p-Xylene	0.073	6.1	0.32	26
o-Xylene	0.036	2.0	0.16	8.6
1,4-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected
1,2-Dichlorobenzene	0.036	Not Detected	0.22	Not Detected
1,1,2,2-Tetrachloroethane	0.036	Not Detected	0.25	Not Detected
Methyl tert-butyl ether	0.18	0.42	0.66	1.5
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: IAQ_B3_061918

Lab ID#: 1806421-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070310**	**Date of Collection:**	**6/19/18 3:36:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**7/3/18 02:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	20	2.0	47
Methylene Chloride	0.34	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: IAQ_B3_061918

Lab ID#: 1806421-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070310sim**	**Date of Collection:**	**6/19/18 3:36:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**7/3/18 02:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.48	0.17	2.4
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Freon 11	0.034	0.22	0.19	1.3
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Freon 113	0.034	0.070	0.26	0.53
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.034	0.16	0.16
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.078	0.21	0.49
Benzene	0.084	0.17	0.27	0.54
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.034	Not Detected	0.15	Not Detected
Toluene	0.034	0.61	0.13	2.3
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
Chlorobenzene	0.034	Not Detected	0.15	Not Detected
Ethyl Benzene	0.034	0.10	0.14	0.44
m,p-Xylene	0.067	0.29	0.29	1.3
o-Xylene	0.034	0.12	0.14	0.52
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: IAQ_TP1_061918

Lab ID#: 1806421-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070311**	**Date of Collection:**	**6/19/18 3:49:00 PM**
Dil. Factor:	**1.57**	**Date of Analysis:**	**7/3/18 03:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	21	1.9	51
Methylene Chloride	0.31	0.45	1.1	1.6

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130

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Client Sample ID: IAQ_TP1_061918

Lab ID#: 1806421-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070311sim**	**Date of Collection:**	**6/19/18 3:49:00 PM**
Dil. Factor:	**1.57**	**Date of Analysis:**	**7/3/18 03:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.031	0.49	0.16	2.4
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Freon 11	0.031	0.23	0.18	1.3
1,1-Dichloroethene	0.016	Not Detected	0.062	Not Detected
Freon 113	0.031	0.071	0.24	0.54
1,1-Dichloroethane	0.031	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.045	0.15	0.22
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.081	0.20	0.51
Benzene	0.078	1.5	0.25	4.7
1,2-Dichloroethane	0.031	0.034	0.13	0.14
Trichloroethene	0.031	Not Detected	0.17	Not Detected
trans-1,3-Dichloropropene	0.031	Not Detected	0.14	Not Detected
Toluene	0.031	7.6	0.12	28
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
Chlorobenzene	0.031	Not Detected	0.14	Not Detected
Ethyl Benzene	0.031	1.1	0.14	4.7
m,p-Xylene	0.063	4.5	0.27	20
o-Xylene	0.031	1.5	0.14	6.7
1,4-Dichlorobenzene	0.031	Not Detected	0.19	Not Detected
1,2-Dichlorobenzene	0.031	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_TP3_061918

Lab ID#: 1806421-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070315**	**Date of Collection:**	**6/19/18 3:50:00 PM**
Dil. Factor:	**3.36**	**Date of Analysis:**	**7/3/18 06:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.7	18	4.0	42
Methylene Chloride	0.67	Not Detected	2.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	86	70-130

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Client Sample ID: IAQ_TP3_061918

Lab ID#: 1806421-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070315sim**	**Date of Collection:**	**6/19/18 3:50:00 PM**
Dil. Factor:	**3.36**	**Date of Analysis:**	**7/3/18 06:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.067	0.48	0.33	2.4
Vinyl Chloride	0.034	Not Detected	0.086	Not Detected
Freon 11	0.067	0.24	0.38	1.3
1,1-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Freon 113	0.067	0.071	0.52	0.55
1,1-Dichloroethane	0.067	Not Detected	0.27	Not Detected
cis-1,2-Dichloroethene	0.067	Not Detected	0.27	Not Detected
Chloroform	0.067	Not Detected	0.33	Not Detected
1,1,1-Trichloroethane	0.067	Not Detected	0.37	Not Detected
Carbon Tetrachloride	0.067	0.078	0.42	0.49
Benzene	0.17	10	0.54	33
1,2-Dichloroethane	0.067	Not Detected	0.27	Not Detected
Trichloroethene	0.067	Not Detected	0.36	Not Detected
trans-1,3-Dichloropropene	0.067	Not Detected	0.30	Not Detected
Toluene	0.067	53	0.25	200
1,1,2-Trichloroethane	0.067	Not Detected	0.37	Not Detected
Tetrachloroethene	0.067	Not Detected	0.46	Not Detected
Chlorobenzene	0.067	Not Detected	0.31	Not Detected
Ethyl Benzene	0.067	8.9	0.29	38
m,p-Xylene	0.13	38	0.58	170
o-Xylene	0.067	13	0.29	57
1,4-Dichlorobenzene	0.067	Not Detected	0.40	Not Detected
1,2-Dichlorobenzene	0.067	Not Detected	0.40	Not Detected
1,1,2,2-Tetrachloroethane	0.067	Not Detected	0.46	Not Detected
Methyl tert-butyl ether	0.34	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.34	Not Detected	1.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: IAQ_AA1_061918

Lab ID#: 1806421-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070316**	**Date of Collection:**	**6/19/18 3:54:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**7/3/18 06:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.80	8.0	1.9	19
Methylene Chloride	0.32	0.32	1.1	1.1

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: IAQ_AA1_061918

Lab ID#: 1806421-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070316sim**	**Date of Collection:**	**6/19/18 3:54:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**7/3/18 06:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.48	0.16	2.4
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Freon 11	0.032	0.23	0.18	1.3
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Freon 113	0.032	0.071	0.24	0.55
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.033	0.16	0.16
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.032	0.079	0.20	0.50
Benzene	0.080	0.18	0.25	0.57
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	0.035	0.17	0.19
trans-1,3-Dichloropropene	0.032	Not Detected	0.14	Not Detected
Toluene	0.032	0.44	0.12	1.7
1,1,2-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
Chlorobenzene	0.032	Not Detected	0.15	Not Detected
Ethyl Benzene	0.032	0.077	0.14	0.33
m,p-Xylene	0.064	0.23	0.28	1.0
o-Xylene	0.032	0.088	0.14	0.38
1,4-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected
1,2-Dichlorobenzene	0.032	0.037	0.19	0.22
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1806421-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 10:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1806421-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070305sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 10:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Freon 11	0.020	Not Detected	0.11	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Freon 113	0.020	Not Detected	0.15	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
trans-1,3-Dichloropropene	0.020	Not Detected	0.091	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
Chlorobenzene	0.020	Not Detected	0.092	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,2-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: CCV

Lab ID#: 1806421-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 07:59 AM**	

Compound	**%Recovery**
Acetone	91
Methylene Chloride	94

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: CCV

Lab ID#: 1806421-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070302sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 07:59 AM**	

Compound	**%Recovery**
Freon 12	96
Vinyl Chloride	90
Freon 11	90
1,1-Dichloroethene	91
Freon 113	89
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	95
Chloroform	95
1,1,1-Trichloroethane	95
Carbon Tetrachloride	94
Benzene	90
1,2-Dichloroethane	94
Trichloroethene	91
trans-1,3-Dichloropropene	114
Toluene	95
1,1,2-Trichloroethane	106
Tetrachloroethene	95
Chlorobenzene	92
Ethyl Benzene	104
m,p-Xylene	106
o-Xylene	108
1,4-Dichlorobenzene	88
1,2-Dichlorobenzene	89
1,1,2,2-Tetrachloroethane	113
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 1806421-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 08:51 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	89	70-130
Methylene Chloride	92	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: LCSD

Lab ID#: 1806421-10AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 09:27 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	93	70-130
Methylene Chloride	93	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCS

Lab ID#: 1806421-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070303sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 08:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Vinyl Chloride	90	70-130
Freon 11	87	70-130
1,1-Dichloroethene	87	70-130
Freon 113	86	70-130
1,1-Dichloroethane	91	70-130
cis-1,2-Dichloroethene	85	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	96	60-140
Benzene	87	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	90	70-130
trans-1,3-Dichloropropene	116	70-130
Toluene	92	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	94	70-130
Chlorobenzene	92	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	112	70-130
o-Xylene	112	70-130
1,4-Dichlorobenzene	95	70-130
1,2-Dichlorobenzene	95	70-130
1,1,2,2-Tetrachloroethane	116	70-130
Methyl tert-butyl ether	97	70-130
trans-1,2-Dichloroethene	98	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCSD

Lab ID#: 1806421-10BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21070304sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/3/18 09:27 AM**	

Compound	%Recovery	Method Limits
Freon 12	95	70-130
Vinyl Chloride	91	70-130
Freon 11	88	70-130
1,1-Dichloroethene	88	70-130
Freon 113	86	70-130
1,1-Dichloroethane	92	70-130
cis-1,2-Dichloroethene	85	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	96	60-140
Benzene	87	70-130
1,2-Dichloroethane	91	70-130
Trichloroethene	89	70-130
trans-1,3-Dichloropropene	116	70-130
Toluene	92	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	93	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	106	70-130
o-Xylene	106	70-130
1,4-Dichlorobenzene	88	70-130
1,2-Dichlorobenzene	91	70-130
1,1,2,2-Tetrachloroethane	115	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	98	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

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Contact Person Jaime Dinello
Company Demaximis
Address 1322 Scott St City San Diego State CA
Zip 92106
Phone 562-756-8149 FAX
Collected By: (Signature)

Project Information:
P.O. # 3139
Project #
Project Name Omega-2nd Qtr 2018-OU-1 IAQ

Turn Around Time:
☑ Normal
☐ Rush Specify

Pressurized by:
Date:
Press. Gas: N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	IAQ_B1_06 19 18	6L1084	6/19/18 0735-1535	TO-15 SIM	-30 "Hg	-3		
02A	IAQ_B1_06 19 18K	6L1476	" 0735-1535	TO-15 SIM	-30 "Hg	-7.5		
03A	IAQ_B2_06 19 18	6L0730	" 0734-1534	TO-15 SIM	-30 "Hg	-8		
04A	IAQ_B3_06 19 18	6L1660	" 0736-1536	TO-15 SIM	-30 "Hg	-7.5		
05A	IAQ_TP1_06 19 18	6L1782	" 0749-1549	TO-15 SIM	-30 "Hg	-7		
06A	IAQ_TP3_06 19 18	6L0851	" 0750-1550	TO-15 SIM	-30 "Hg	-8		
07A	IAQ_AA1_06 19 18	6L1023	" 0754-1554	TO-15 SIM	-30 "Hg	-6		
					"Hg			
					"Hg			
					"Hg			

Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
6/19/18 1630 — 6/21/18 1315
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
	Fed Ex				Good	Yes No None	1806421

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ANALYTICAL REPORT

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TestAmerica Job ID: 440-214099-1
TestAmerica Sample Delivery Group: Omega
Client Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

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de maximis, inc.
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Attn: Jaime Dinello

Authorized for release by:
6/28/2018 4:56:57 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-214099-1	IAQ_TP1_061918K2	Air	06/19/18 13:20	06/21/18 18:15

Job ID: 440-214099-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-214099-1

Comments
No additional comments.

Receipt
The samples were received on 6/21/2018 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 24.0º C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): UNUSED CANISTER (440-214099-2).

Sample is not listed on COC but has a sample label and ID on canister.

Air - GC/MS VOA
Method(s) TO-15 SIM: Due to limitations in the instrument interface the lab can not load more than 1,100 mL of the sample. As a result, elevated Reporting Limits are provided for the following sample: IAQ_TP1_061918K2 (440-214099-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Client Sample ID: IAQ_TP1_061918K2 — Lab Sample ID: 440-214099-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.071		0.033	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
1,2-Dichloroethane	0.022		0.022	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
1,4-Dichlorobenzene	0.011	J	0.11	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
Benzene	1.6		0.022	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
Carbon tetrachloride	0.054		0.011	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
Chloroform	0.032		0.022	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
Dichlorodifluoromethane	0.34		0.022	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
Ethylbenzene	1.2		0.022	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
Methylene Chloride	0.23		0.22	0.11	ppb v/v	1.09		TO-15 SIM	Total/NA
o-Xylene	2.0		0.022	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
Tetrachloroethene	0.014	J	0.022	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
Trichloroethene	0.0069	J	0.022	0.0055	ppb v/v	1.09		TO-15 SIM	Total/NA
Trichlorofluoromethane	0.24		0.049	0.011	ppb v/v	1.09		TO-15 SIM	Total/NA
m,p-Xylene - DL	4.5		0.12	0.060	ppb v/v	2.98		TO-15 SIM	Total/NA
Toluene - DL	7.5		0.060	0.030	ppb v/v	2.98		TO-15 SIM	Total/NA
Acetone	10		5.0	0.18	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Client Sample ID: IAQ_TP1_061918K2

Lab Sample ID: 440-214099-1

Date Collected: 06/19/18 13:20
Matrix: Air
Date Received: 06/21/18 18:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
1,1,2,2-Tetrachloroethane	ND		0.022	0.011	ppb v/v			06/27/18 20:02	1.09
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.071**		0.033	0.0055	ppb v/v			06/27/18 20:02	1.09
1,1,2-Trichloroethane	ND		0.055	0.0055	ppb v/v			06/27/18 20:02	1.09
1,1-Dichloroethane	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
1,1-Dichloroethene	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
1,2-Dichlorobenzene	ND		0.055	0.011	ppb v/v			06/27/18 20:02	1.09
1,2-Dichloroethane	**0.022**		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
1,4-Dichlorobenzene	**0.011**	**J**	0.11	0.011	ppb v/v			06/27/18 20:02	1.09
Benzene	**1.6**		0.022	0.011	ppb v/v			06/27/18 20:02	1.09
Carbon tetrachloride	**0.054**		0.011	0.0055	ppb v/v			06/27/18 20:02	1.09
Chlorobenzene	ND		0.022	0.011	ppb v/v			06/27/18 20:02	1.09
Chloroform	**0.032**		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
cis-1,2-Dichloroethene	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
Dichlorodifluoromethane	**0.34**		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
Ethylbenzene	**1.2**		0.022	0.011	ppb v/v			06/27/18 20:02	1.09
Methylene Chloride	**0.23**		0.22	0.11	ppb v/v			06/27/18 20:02	1.09
Methyl-t-Butyl Ether (MTBE)	ND		0.027	0.011	ppb v/v			06/27/18 20:02	1.09
o-Xylene	**2.0**		0.022	0.011	ppb v/v			06/27/18 20:02	1.09
Tetrachloroethene	**0.014**	**J**	0.022	0.011	ppb v/v			06/27/18 20:02	1.09
trans-1,2-Dichloroethene	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
trans-1,3-Dichloropropene	ND		0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
Trichloroethene	**0.0069**	**J**	0.022	0.0055	ppb v/v			06/27/18 20:02	1.09
Trichlorofluoromethane	**0.24**		0.049	0.011	ppb v/v			06/27/18 20:02	1.09
Vinyl chloride	ND		0.022	0.011	ppb v/v			06/27/18 20:02	1.09

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*70 - 130*		*06/27/18 20:02*	*1.09*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*06/27/18 20:02*	*1.09*
Toluene-d8 (Surr)	*108*		*70 - 130*		*06/27/18 20:02*	*1.09*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	**4.5**		0.12	0.060	ppb v/v			06/28/18 09:21	2.98
Toluene	**7.5**		0.060	0.030	ppb v/v			06/28/18 09:21	2.98

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/28/18 09:21*	*2.98*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*06/28/18 09:21*	*2.98*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/28/18 09:21*	*2.98*

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**10**		5.0	0.18	ppb v/v			06/27/18 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*06/27/18 05:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*06/27/18 05:47*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/27/18 05:47*	*1*

Surrogate Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DCA	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
440-214099-1	IAQ_TP1_061918K2	86	99	97
LCS 320-230982/3	Lab Control Sample	94	99	98
LCSD 320-230982/4	Lab Control Sample Dup	94	99	98
MB 320-230982/9	Method Blank	85	94	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
440-214099-1 - DL	IAQ_TP1_061918K2	98	100	97
440-214099-1	IAQ_TP1_061918K2	81	104	108
LCS 320-231301/3	Lab Control Sample	87	101	97
LCS 320-231302/3	Lab Control Sample	81	109	102
LCSD 320-231301/4	Lab Control Sample Dup	87	101	97
LCSD 320-231302/5	Lab Control Sample Dup	79	114	102
MB 320-231301/7	Method Blank	90	96	96
MB 320-231302/8	Method Blank	91	94	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC
TO-15 SIM	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA-21	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

EPA-21 = "Compendium Of Methods For The Determination Of Toxic Organic Compounds In Ambient Air", Second Edition, EPA/625/R-96/010B, January 1999

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Client Sample ID: IAQ_TP1_061918K2

Lab Sample ID: 440-214099-1

Date Collected: 06/19/18 13:20

Matrix: Air

Date Received: 06/21/18 18:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	602 mL	250 mL	230982	06/27/18 05:47	AP1	TAL SAC
Total/NA	Analysis	TO-15 SIM		1.09	1100 mL	500 mL	231302	06/27/18 20:02	EMJ	TAL SAC
Total/NA	Analysis	TO-15 SIM	DL	2.98	405 mL	500 mL	231301	06/28/18 09:21	AP1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-230982/9 — **Client Sample ID: Method Blank**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 230982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		5.0	0.18	ppb v/v			06/26/18 16:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*06/26/18 16:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*06/26/18 16:56*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*06/26/18 16:56*	*1*

Lab Sample ID: LCS 320-230982/3 — **Client Sample ID: Lab Control Sample**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 230982

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acetone			20.0	14.7		ppb v/v		74	65 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 320-230982/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 230982

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone			20.0	15.4		ppb v/v		77	65 - 125	5	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 320-231301/7 — **Client Sample ID: Method Blank**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 231301

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
1,1,2,2-Tetrachloroethane	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050	ppb v/v			06/27/18 17:01	1
1,1,2-Trichloroethane	ND		0.050	0.0050	ppb v/v			06/27/18 17:01	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			06/27/18 17:01	1
1,2-Dichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
1,4-Dichlorobenzene	ND		0.10	0.010	ppb v/v			06/27/18 17:01	1

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 320-231301/7
Matrix: Air
Analysis Batch: 231301

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
Carbon tetrachloride	NC		0.010	0.0050	ppb v/v			06/27/18 17:01	1
Chlorobenzene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
Chloroform	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
Dichlorodifluoromethane	NC		0.020	0.0050	ppb v/v			06/27/18 17:01	1
Ethylbenzene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
m,p-Xylene	ND		0.040	0.020	ppb v/v			06/27/18 17:01	1
Methylene Chloride	ND		0.20	0.10	ppb v/v			06/27/18 17:01	1
Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010	ppb v/v			06/27/18 17:01	1
o-Xylene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
Toluene	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
trans-1,3-Dichloropropene	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 17:01	1
Trichlorofluoromethane	ND		0.045	0.010	ppb v/v			06/27/18 17:01	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			06/27/18 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*06/27/18 17:01*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*06/27/18 17:01*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*06/27/18 17:01*	*1*

Lab Sample ID: LCS 320-231301/3
Matrix: Air
Analysis Batch: 231301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.20	1.19		ppb v/v		99	65 - 132
1,1,2,2-Tetrachloroethane	1.20	1.43		ppb v/v		119	54 - 129
1,1,2-Trichloro-1,2,2-trifluoroetha ne	1.20	1.22		ppb v/v		102	65 - 125
1,1,2-Trichloroethane	1.20	1.32		ppb v/v		110	59 - 119
1,1-Dichloroethane	1.20	1.09		ppb v/v		91	63 - 134
1,1-Dichloroethene	1.20	1.14		ppb v/v		95	63 - 123
1,2-Dichlorobenzene	1.20	1.56		ppb v/v		130	57 - 134
1,2-Dichloroethane	1.20	1.18		ppb v/v		99	63 - 133
1,4-Dichlorobenzene	1.20	1.58		ppb v/v		132	64 - 136
Benzene	1.20	1.09		ppb v/v		91	63 - 123
Chlorobenzene	1.20	1.31		ppb v/v		110	60 - 120
Chloroform	1.20	1.14		ppb v/v		95	68 - 128
cis-1,2-Dichloroethene	1.20	1.22		ppb v/v		102	67 - 127
Ethylbenzene	1.20	1.23		ppb v/v		102	64 - 124
m,p-Xylene	2.40	2.40		ppb v/v		100	65 - 125
Methylene Chloride	1.20	1.02		ppb v/v		85	41 - 150
Methyl-t-Butyl Ether (MTBE)	1.20	1.11		ppb v/v		93	66 - 134

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 320-231301/3
Matrix: Air
Analysis Batch: 231301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	1.20	1.21		ppb v/v		100	64 - 124
Tetrachloroethene	1.20	1.35		ppb v/v		113	61 - 121
Toluene	1.20	1.19		ppb v/v		100	61 - 121
trans-1,2-Dichloroethene	1.20	1.22		ppb v/v		102	67 - 127
trans-1,3-Dichloropropene	1.20	1.48		ppb v/v		123	63 - 123
Trichloroethene	1.20	1.42		ppb v/v		118	63 - 123
Trichlorofluoromethane	1.20	1.16		ppb v/v		97	63 - 136
Vinyl chloride	1.20	0.929		ppb v/v		77	51 - 139

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 320-231301/4
Matrix: Air
Analysis Batch: 231301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.20	1.19		ppb v/v		99	65 - 132	1	25
1,1,2,2-Tetrachloroethane	1.20	1.42		ppb v/v		118	54 - 129	1	25
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	1.22		ppb v/v		101	65 - 125	1	25
1,1,2-Trichloroethane	1.20	1.34		ppb v/v		111	59 - 119	1	25
1,1-Dichloroethane	1.20	1.09		ppb v/v		91	63 - 134	1	25
1,1-Dichloroethene	1.20	1.13		ppb v/v		94	63 - 123	1	25
1,2-Dichlorobenzene	1.20	1.56		ppb v/v		130	57 - 134	0	25
1,2-Dichloroethane	1.20	1.18		ppb v/v		98	63 - 133	1	25
1,4-Dichlorobenzene	1.20	1.59		ppb v/v		132	64 - 136	0	25
Benzene	1.20	1.08		ppb v/v		90	63 - 123	1	25
Chlorobenzene	1.20	1.30		ppb v/v		109	60 - 120	1	25
Chloroform	1.20	1.14		ppb v/v		95	68 - 128	0	25
cis-1,2-Dichloroethene	1.20	1.23		ppb v/v		103	67 - 127	1	25
Ethylbenzene	1.20	1.22		ppb v/v		102	64 - 124	1	25
m,p-Xylene	2.40	2.38		ppb v/v		99	65 - 125	1	25
Methylene Chloride	1.20	1.01		ppb v/v		84	41 - 150	1	25
Methyl-t-Butyl Ether (MTBE)	1.20	1.11		ppb v/v		92	66 - 134	0	25
o-Xylene	1.20	1.20		ppb v/v		100	64 - 124	1	25
Tetrachloroethene	1.20	1.34		ppb v/v		111	61 - 121	1	25
Toluene	1.20	1.19		ppb v/v		99	61 - 121	1	25
trans-1,2-Dichloroethene	1.20	1.21		ppb v/v		101	67 - 127	1	25
trans-1,3-Dichloropropene	1.20	1.47		ppb v/v		123	63 - 123	1	25
Trichloroethene	1.20	1.40		ppb v/v		117	63 - 123	1	25
Trichlorofluoromethane	1.20	1.16		ppb v/v		96	63 - 136	1	25
Vinyl chloride	1.20	0.922		ppb v/v		77	51 - 139	1	25

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCSD 320-231301/4
Matrix: Air
Analysis Batch: 231301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 320-231302/8
Matrix: Air
Analysis Batch: 231302

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
1,1,2,2-Tetrachloroethane	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050	ppb v/v			06/27/18 18:57	1
1,1,2-Trichloroethane	ND		0.050	0.0050	ppb v/v			06/27/18 18:57	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			06/27/18 18:57	1
1,2-Dichloroethane	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
1,4-Dichlorobenzene	ND		0.10	0.010	ppb v/v			06/27/18 18:57	1
Benzene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
Carbon tetrachloride	ND		0.010	0.0050	ppb v/v			06/27/18 18:57	1
Chlorobenzene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
Chloroform	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
Dichlorodifluoromethane	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
Ethylbenzene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
m,p-Xylene	ND		0.040	0.020	ppb v/v			06/27/18 18:57	1
Methylene Chloride	ND		0.20	0.10	ppb v/v			06/27/18 18:57	1
Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010	ppb v/v			06/27/18 18:57	1
o-Xylene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
Toluene	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
trans-1,3-Dichloropropene	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			06/27/18 18:57	1
Trichlorofluoromethane	ND		0.045	0.010	ppb v/v			06/27/18 18:57	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			06/27/18 18:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*06/27/18 18:57*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*06/27/18 18:57*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/27/18 18:57*	*1*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 320-231302/3
Matrix: Air
Analysis Batch: 231302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.20	1.24		ppb v/v		103	65 - 132
1,1,2,2-Tetrachloroethane	1.20	1.11		ppb v/v		93	54 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	1.13		ppb v/v		94	65 - 125
1,1,2-Trichloroethane	1.20	1.02		ppb v/v		85	59 - 119
1,1-Dichloroethane	1.20	1.26		ppb v/v		105	63 - 134
1,1-Dichloroethene	1.20	1.35		ppb v/v		113	63 - 123
1,2-Dichlorobenzene	1.20	1.38		ppb v/v		115	57 - 134
1,2-Dichloroethane	1.20	1.04		ppb v/v		87	63 - 133
1,4-Dichlorobenzene	1.20	1.23		ppb v/v		102	64 - 136
Benzene	1.20	1.11		ppb v/v		93	63 - 123
Carbon tetrachloride	1.20	1.01		ppb v/v		84	10 - 150
Chlorobenzene	1.20	1.19		ppb v/v		99	60 - 120
Chloroform	1.20	1.23		ppb v/v		103	68 - 128
cis-1,2-Dichloroethene	1.20	1.43		ppb v/v		119	67 - 127
Dichlorodifluoromethane	1.20	1.28		ppb v/v		107	44 - 150
Ethylbenzene	1.20	1.37		ppb v/v		114	64 - 124
m,p-Xylene	2.40	3.02	*	ppb v/v		126	65 - 125
Methylene Chloride	1.20	1.05		ppb v/v		87	41 - 150
Methyl-t-Butyl Ether (MTBE)	1.20	1.47		ppb v/v		122	66 - 134
o-Xylene	1.20	1.31		ppb v/v		109	64 - 124
Tetrachloroethene	1.20	1.13		ppb v/v		94	61 - 121
Toluene	1.20	1.14		ppb v/v		95	61 - 121
trans-1,2-Dichloroethene	1.20	1.34		ppb v/v		112	67 - 127
trans-1,3-Dichloropropene	1.20	1.25		ppb v/v		104	63 - 123
Trichloroethene	1.20	1.13		ppb v/v		94	63 - 123
Trichlorofluoromethane	1.20	1.17		ppb v/v		98	63 - 136
Vinyl chloride	1.20	1.14		ppb v/v		95	51 - 139

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*81*		*70 - 130*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 320-231302/5
Matrix: Air
Analysis Batch: 231302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.20	1.29		ppb v/v		107	65 - 132	4	25
1,1,2,2-Tetrachloroethane	1.20	1.13		ppb v/v		95	54 - 129	2	25
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	1.17		ppb v/v		97	65 - 125	3	25
1,1,2-Trichloroethane	1.20	1.04		ppb v/v		87	59 - 119	2	25
1,1-Dichloroethane	1.20	1.32		ppb v/v		110	63 - 134	4	25
1,1-Dichloroethene	1.20	1.43		ppb v/v		119	63 - 123	6	25
1,2-Dichlorobenzene	1.20	1.44		ppb v/v		120	57 - 134	4	25

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCSD 320-231302/5
Matrix: Air
Analysis Batch: 231302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane			1.20	1.05		ppb v/v		88	63 - 133	1	25
1,4-Dichlorobenzene			1.20	1.29		ppb v/v		108	64 - 136	6	25
Benzene			1.20	1.14		ppb v/v		95	63 - 123	2	25
Carbon tetrachloride			1.20	1.01		ppb v/v		84	10 - 150	1	25
Chlorobenzene			1.20	1.24		ppb v/v		103	60 - 120	4	25
Chloroform			1.20	1.27		ppb v/v		106	68 - 128	3	25
cis-1,2-Dichloroethene			1.20	1.53		ppb v/v		127	67 - 127	7	25
Dichlorodifluoromethane			1.20	1.30		ppb v/v		108	44 - 150	2	25
Ethylbenzene			1.20	1.43		ppb v/v		119	64 - 124	4	25
m,p-Xylene			2.40	3.19	*	ppb v/v		133	65 - 125	5	25
Methylene Chloride			1.20	1.08		ppb v/v		90	41 - 150	3	25
Methyl-t-Butyl Ether (MTBE)			1.20	1.59		ppb v/v		132	66 - 134	8	25
o-Xylene			1.20	1.39		ppb v/v		116	64 - 124	6	25
Tetrachloroethene			1.20	1.15		ppb v/v		96	61 - 121	2	25
Toluene			1.20	1.17		ppb v/v		97	61 - 121	2	25
trans-1,2-Dichloroethene			1.20	1.41		ppb v/v		117	67 - 127	5	25
trans-1,3-Dichloropropene			1.20	1.32		ppb v/v		110	63 - 123	5	25
Trichloroethene			1.20	1.17		ppb v/v		97	63 - 123	4	25
Trichlorofluoromethane			1.20	1.20		ppb v/v		100	63 - 136	3	25
Vinyl chloride			1.20	1.19		ppb v/v		99	51 - 139	4	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*79*		*70 - 130*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Air - GC/MS VOA

Analysis Batch: 230982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-214099-1	IAQ_TP1_061918K2	Total/NA	Air	TO-15	
MB 320-230982/9	Method Blank	Total/NA	Air	TO-15	
LCS 320-230982/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-230982/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Analysis Batch: 231301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-214099-1 - DL	IAQ_TP1_061918K2	Total/NA	Air	TO-15 SIM	
MB 320-231301/7	Method Blank	Total/NA	Air	TO-15 SIM	
LCS 320-231301/3	Lab Control Sample	Total/NA	Air	TO-15 SIM	
LCSD 320-231301/4	Lab Control Sample Dup	Total/NA	Air	TO-15 SIM	

Analysis Batch: 231302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-214099-1	IAQ_TP1_061918K2	Total/NA	Air	TO-15 SIM	
MB 320-231302/8	Method Blank	Total/NA	Air	TO-15 SIM	
LCS 320-231302/3	Lab Control Sample	Total/NA	Air	TO-15 SIM	
LCSD 320-231302/5	Lab Control Sample Dup	Total/NA	Air	TO-15 SIM	

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: de maximis, inc.
Project/Site: Omega-2nd Qtr 2018 IAQ - OU1

TestAmerica Job ID: 440-214099-1
SDG: Omega

Laboratory: TestAmerica Irvine

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	CA ELAP 2706	06-30-18 *

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
ANAB	DoD ELAP		L2468	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-19
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	10-31-18
Louisiana	NELAP	6	30612	06-30-19
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-19
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-19
Vermont	State Program	1	VT-4040	04-30-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-19
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916.373.5600 fax

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	Project Manager: Jaime Dinello	Samples Collected By: Khalid Azhar	COC No:
Company Name: demaximis	Phone: (562)756-8149		1 of 1 COCs
Address: 1322 Scott St.	Email: jdinello@demaximis.com		
City/State/Zip: San Diego, Ca 92106			For Lab Use Only:
Phone: (562)756-8149	Site Contact: Trent Henderson		Walk-in Client:
FAX.	TA Contact: Danielle Roberts		Lab Sampling
Project Name: Omega-2nd Qtr 2018 IAQ - OU1	Anaylsis Turnaround Time		
Site/Location: Omega	Standard (Specific): STD		Job / SDG No.:
P O # 3139	Rush (Specify):		(See below for Add'l Items)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / Sim)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 18/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IAQ_TP1_06 1918K2	6/19/18	0749	1320	-30	-4	8860	24000 147	X														

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

440-214099 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	Date / Time: 6/21/18 1149	Samples Received by:	1149
Samples Relinquished by:	Date / Time: 6/21/18 18:15	Received by: TAIRV	6/21/18 18:15
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

FR GG 24.6/24.0

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

VG 6/21

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-123186.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: danielle.roberts@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - California		Job #: 440-214099-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/27/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical Groundwater & Air	Project #: 44004586			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TO15_SIM/Air_Pass_Can Project Specific List	TO15/Air_Pass_Can Acetone only	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
IAQ_TP1_061918K2 (440-214099-1)	6/19/18	13:20 Pacific		Air			X	X	1	LCS/LCSD is needed

440-214099 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment: 62378	
Relinquished by:	Date/Time: 6/21/18 @1700	Company: TAIRV	Received by:	Date/Time: 6/21/18 0900	Company: TA SAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-214099-1
SDG Number: Omega

Login Number: 214099
List Number: 1
Creator: Soderblom, Tim

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-214099-1
SDG Number: Omega

Login Number: 214099
List Number: 2
Creator: Branscum, Cassie

List Source: TestAmerica Sacramento
List Creation: 06/25/18 10:28 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CANISTER RECEIVING

Canister ID	Flow ID	Canister ID	Flow ID
1 34000147	1 8860	16	16
(4) 2 34001335	2 8559	17	17
3	3	18	18
4	4	19	19
5	5	20	20
6	6	21	21
7	7	22	22
8	8	23	23
9	9	24	24
10	10	25	25
11	11	26	26
12	12	27	27
13	13	28	28
14	14	29	29
15	15	30	30

325B Pelican Case Inventory

Case ID:_____ # of Filter Caps:_____ Zip Seal:

Temperature:_____ # of Sample Tubes:_____

# of Wrenches:_____ # of Unused Tubes:_____

# of Gloves:_____

440-214099 Field Sheet

Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Receiving Notes - Job_____

Service: FedEx UPS Lab Courier Client Drop Off

P.O. Std. Overnight 2-Day Ground Other: Sat

Tracking #: 4176 2742 9271

Notes:

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Cooler Custody Seal:_____

Transferred by Sacramento - Yes ☐ No ☐

Bags: _____ 1L, _____ 2L, _____ 10L

Canisters: _____ 1L, _____ 6L, TA ☐ Non TA ☐

Canisters Unused: _____ 1L, _____ 6L

Co-Locators _____, # Gauges: _____

Flow Regulators:_____

Initial & Date CDS 6-23-18

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification
Individual Certification

Certification Type: ***TO15*** ***SIM***

Date Cleaned/Batch ID: A05-21-18 SS ~~C 05-21-18~~

Date of QC: 5/22/18

320-39588 Chain of Custody

Canister ID	Filename
34000147	MS1052206
34001168	MS1052207
34001335	MS1052208
34000598	MS1052209
8021	MS1052209 10 ES 5/23/18
8156	MS1052211
7879	MS1052212
8046	MS1052213
7959	MS1052214
34000380	MS1052215
34000025	MS1052216
8130	MS1052217

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

Emily James — 1st Level Reviewed By — 5/23/18 Date

2nd Level Reviewed By — 5/31/18 Date

Q:\DOCUMENT-MANAGEMENT\FORMS\QA-814C REV. `1 IND CAN QC 20171023.DOC
QA-814C

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000147
Lab Sample ID: 320-39588-1
Matrix: Air
Lab File ID: MS1052206.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 19:36
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-01-4	Vinyl chloride	ND		0.020	0.010

FORM I TO-15 SIM

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000147
Lab Sample ID: 320-39588-1
Matrix: Air
Lab File ID: MS1052206.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 19:36
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D
Lims ID: 320-39588-A-1
Client ID: 34000147
Sample Type: Client
Inject. Date: 22-May-2018 19:36:30 ALS Bottle#: 2 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-1
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 14:55:21 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 14:55:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.584	11.577	0.007	46	32615	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	121676	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.454	20.451	0.003	94	75465	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.775	0.007	89	41355	2.04	
$ 5 Toluene-d8 (Surr)	100	17.163	17.155	0.008	99	58964	2.07	
$ 6 4-Bromofluorobenzene (Surr	174	23.024	23.018	0.006	94	33552	2.08	
8 Dichlorodifluoromethane	85	3.723	3.722	0.015	47	967	0.0207	
15 Trichlorofluoromethane	101	5.984	5.973	0.017	100	2404	0.0489	
18 Acetone	43	6.838	6.820	0.018	97	12433	0.0215	a
19 1,1,2-Trichloro-1,2,2-trif	101	7.000	6.991	0.012	96	4160	0.0978	

QC Flag Legend

Review Flags
a - User Assigned ID

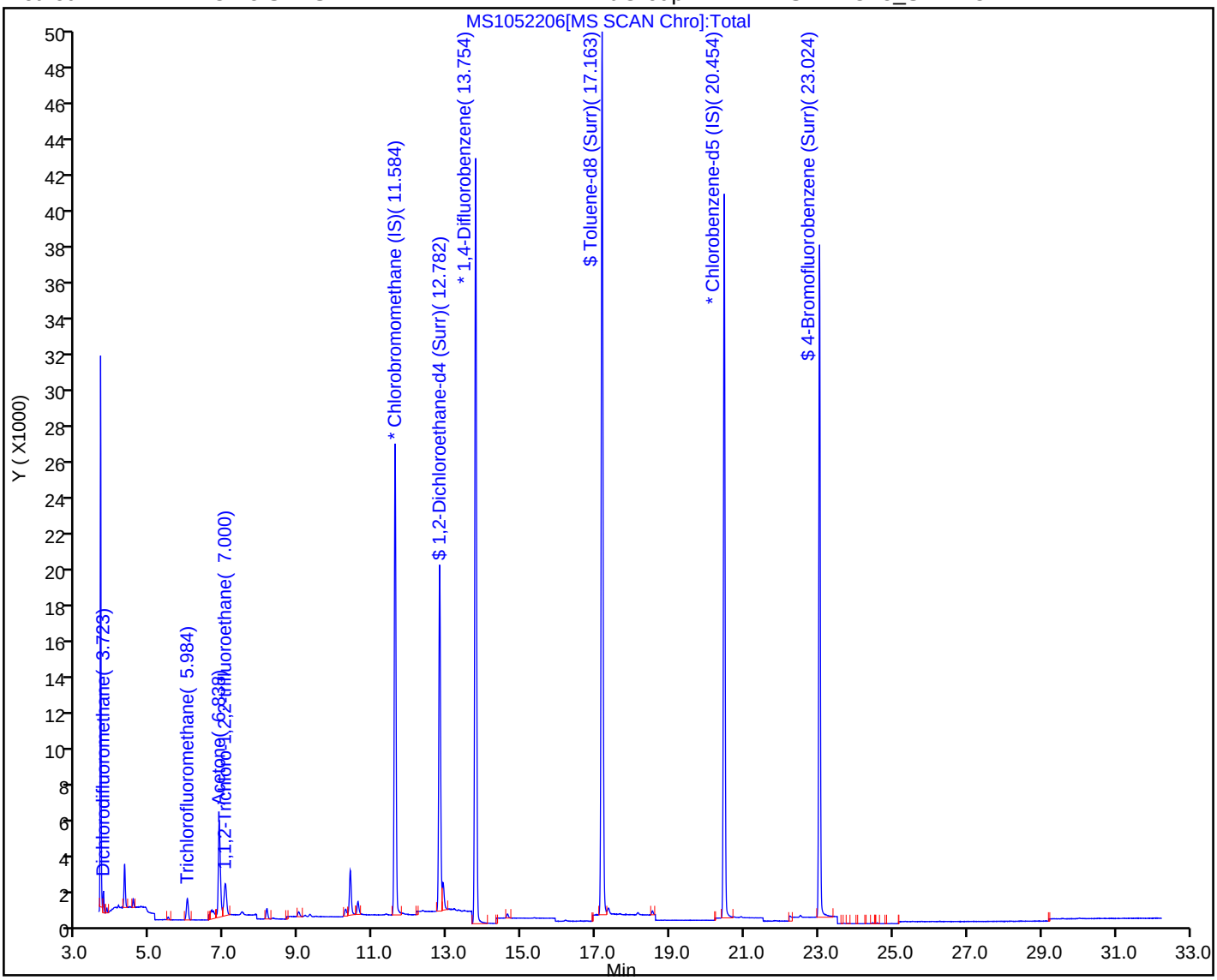
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 14:55:43 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D				
Injection Date:	22-May-2018 19:36:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-1	Lab Sample ID:	320-39588-1		
Client ID:	34000147				
Operator ID:	EJ	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



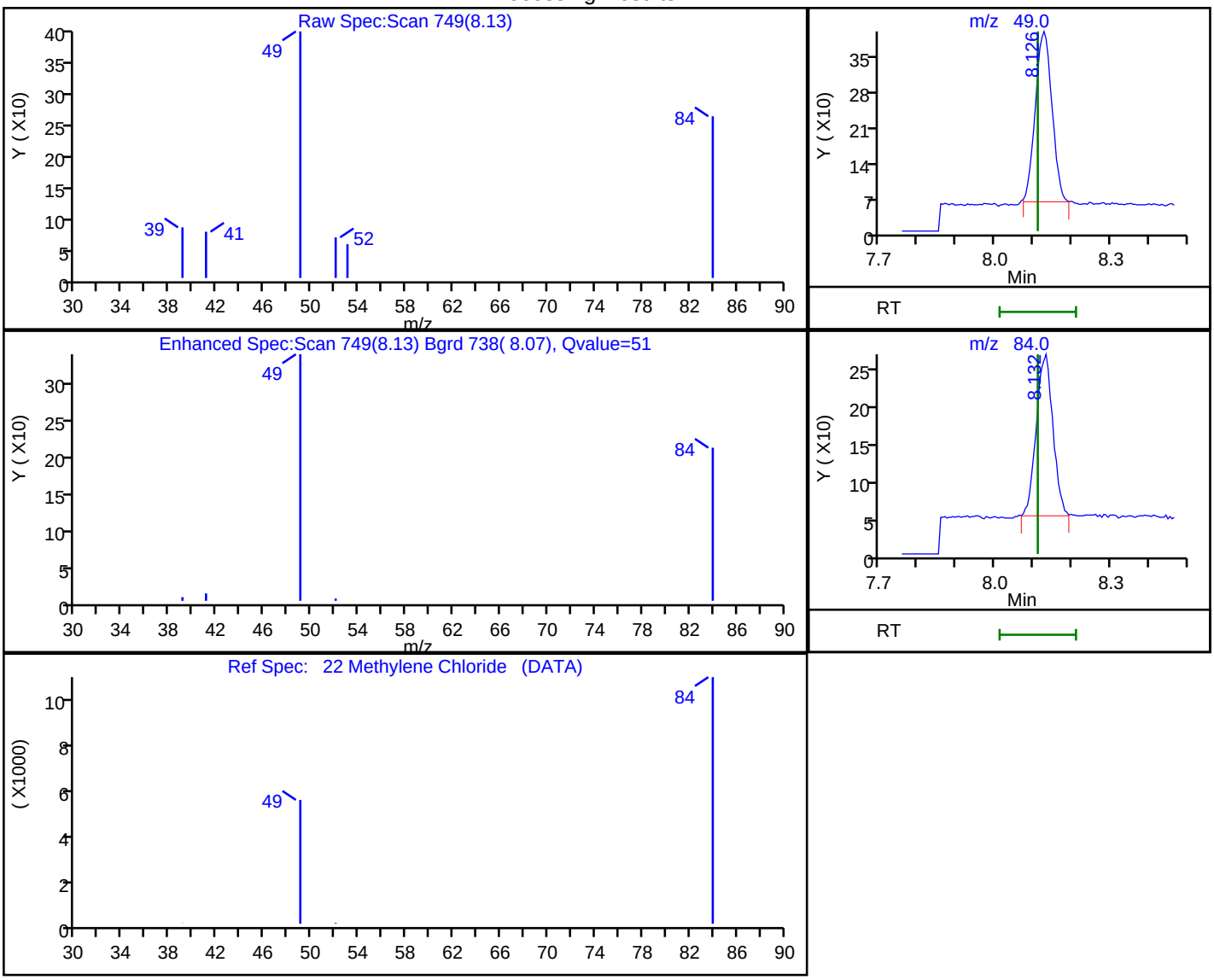
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D				
Injection Date:	22-May-2018 19:36:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-1	Lab Sample ID:	320-39588-1		
Client ID:	34000147				
Operator ID:	EJ	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.13	49.00	1018	0.007241
8.13	84.00	652	

Reviewer: phanthasena, 23-May-2018 14:51:53

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

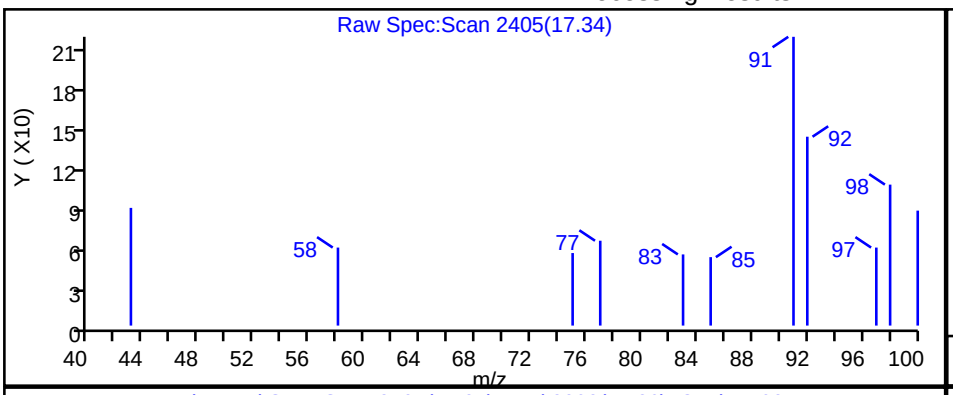
User Disabled Compound Report

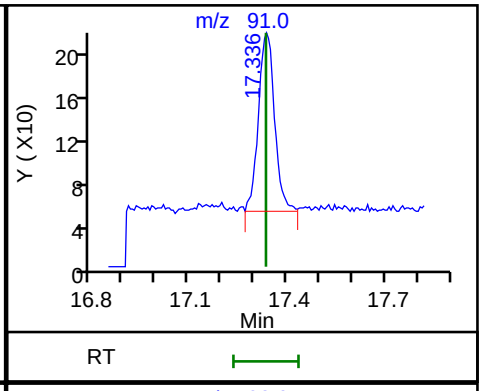
TestAmerica Sacramento

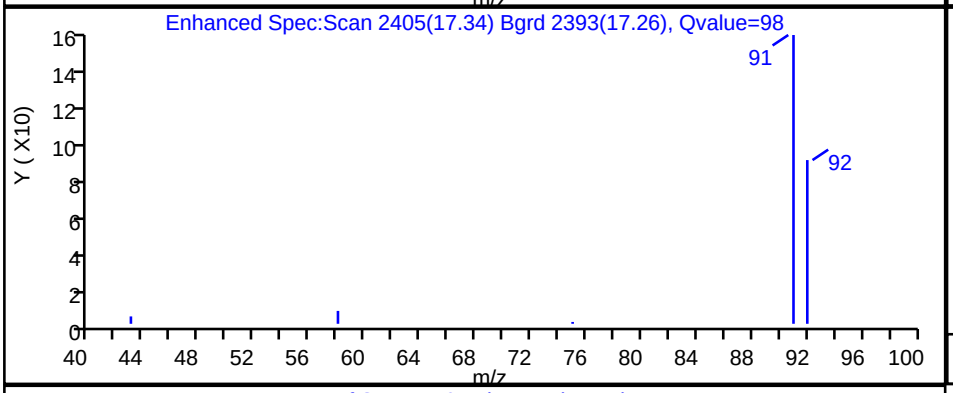
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D				
Injection Date:	22-May-2018 19:36:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-1	Lab Sample ID:	320-39588-1		
Client ID:	34000147				
Operator ID:	EJ	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

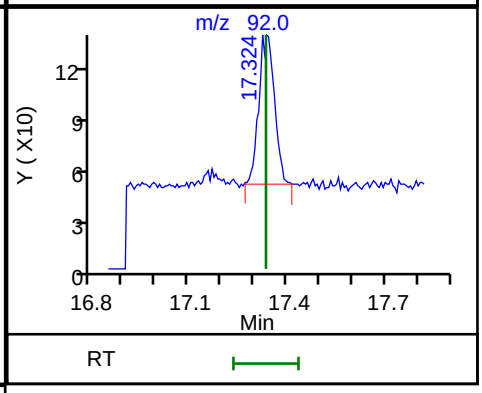
46 Toluene, CAS: 108-88-3

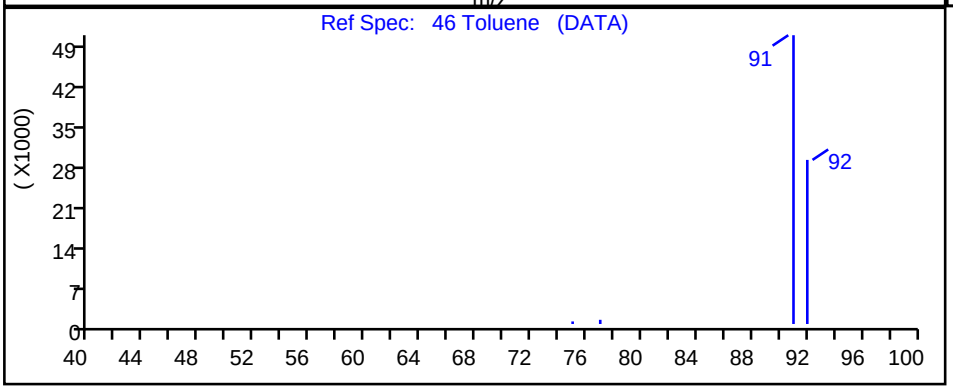
Processing Results











RT	Mass	Response	Amount
17.34	91.00	555	0.002292
17.32	92.00	294	

Reviewer: phanthasena, 23-May-2018 14:52:04

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

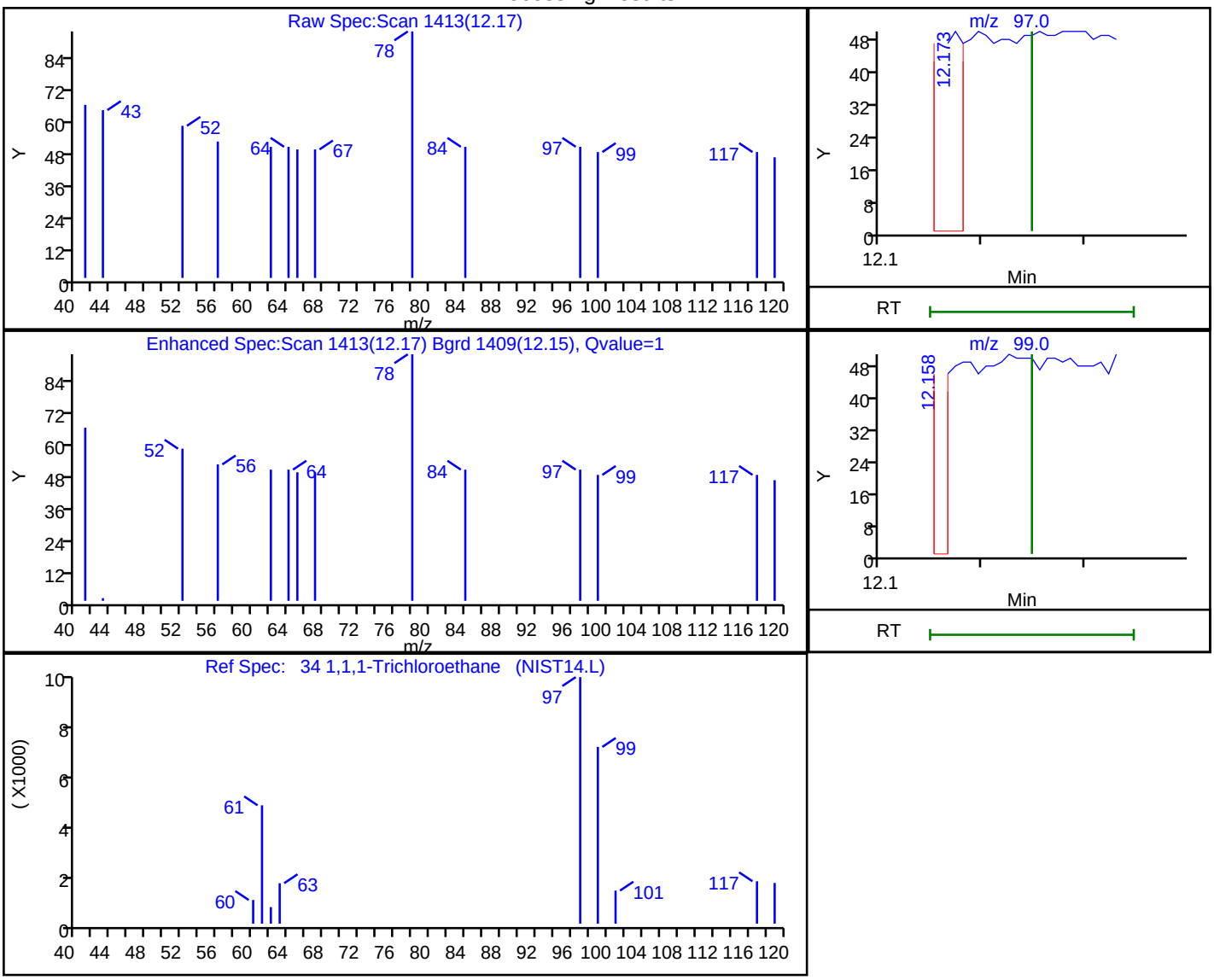
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D				
Injection Date:	22-May-2018 19:36:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-1	Lab Sample ID:	320-39588-1		
Client ID:	34000147				
Operator ID:	EJ	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

34 1,1,1-Trichloroethane, CAS: 71-55-6

Processing Results



RT	Mass	Response	Amount
12.17	97.00	82	0.002293
12.16	99.00	38	

Reviewer: phanthasena, 23-May-2018 14:51:56

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

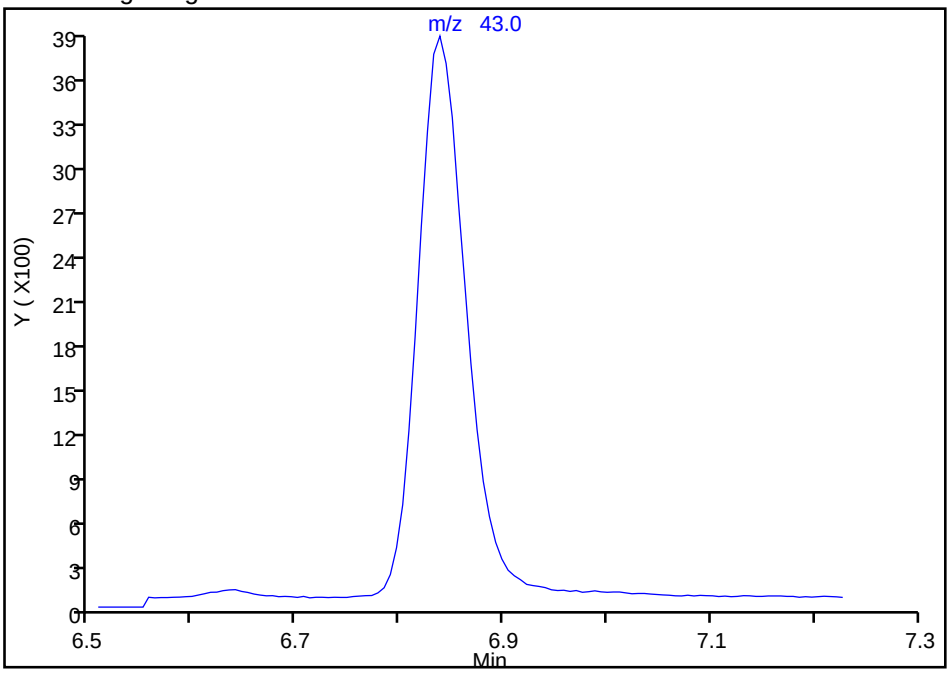
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052206.D				
Injection Date:	22-May-2018 19:36:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-1	Lab Sample ID:	320-39588-1		
Client ID:	34000147				
Operator ID:	EJ	ALS Bottle#:	2	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

18 Acetone, CAS: 67-64-1

Signal: 1

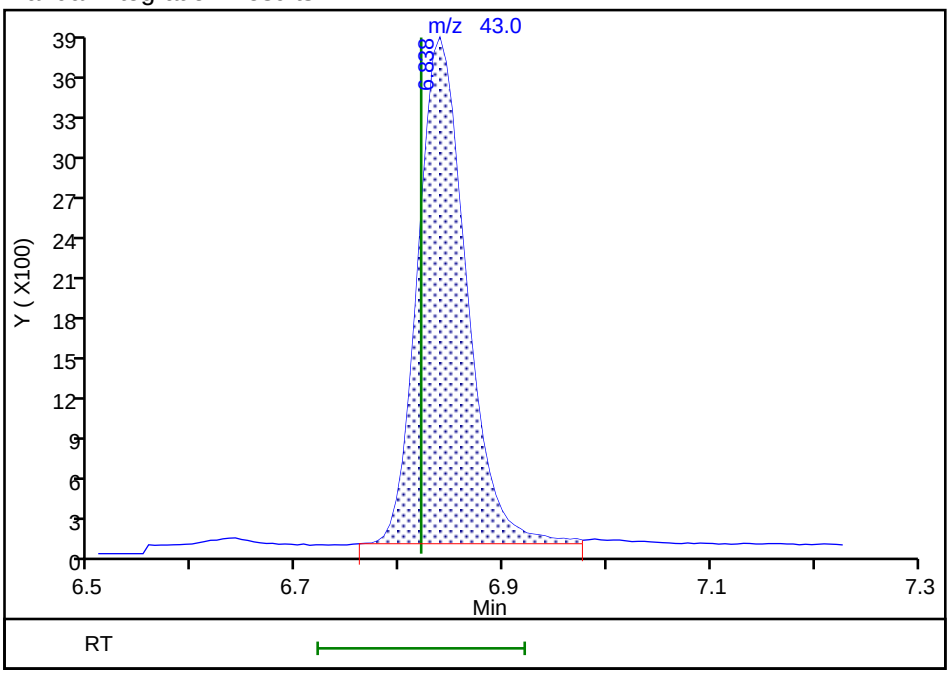
Not Detected
Expected RT: 6.82

Processing Integration Results



Manual Integration Results

RT: 6.84
Area: 12433
Amount: 0.021482
Amount Units: ppb v/v



Reviewer: phanthasena, 23-May-2018 14:51:47
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34001168
Lab Sample ID: 320-39588-2
Matrix: Air
Lab File ID: MS1052207.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 20:35
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34001168
Lab Sample ID: 320-39588-2
Matrix: Air
Lab File ID: MS1052207.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 20:35
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052207.D
Lims ID: 320-39588-A-2
Client ID: 34001168
Sample Type: Client
Inject. Date: 22-May-2018 20:35:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-2
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 14:55:21 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 14:52:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	46	33100	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	124669	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.458	20.451	0.007	93	74116	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.775	0.007	58	41740	2.01	
$ 5 Toluene-d8 (Surr)	100	17.161	17.155	0.006	99	59811	2.05	
$ 6 4-Bromofluorobenzene (Surr	174	23.025	23.018	0.007	93	31199	1.97	
18 Acetone	43	6.832	6.820	0.012	97	13063	0.0222	a

QC Flag Legend

Review Flags
a - User Assigned ID

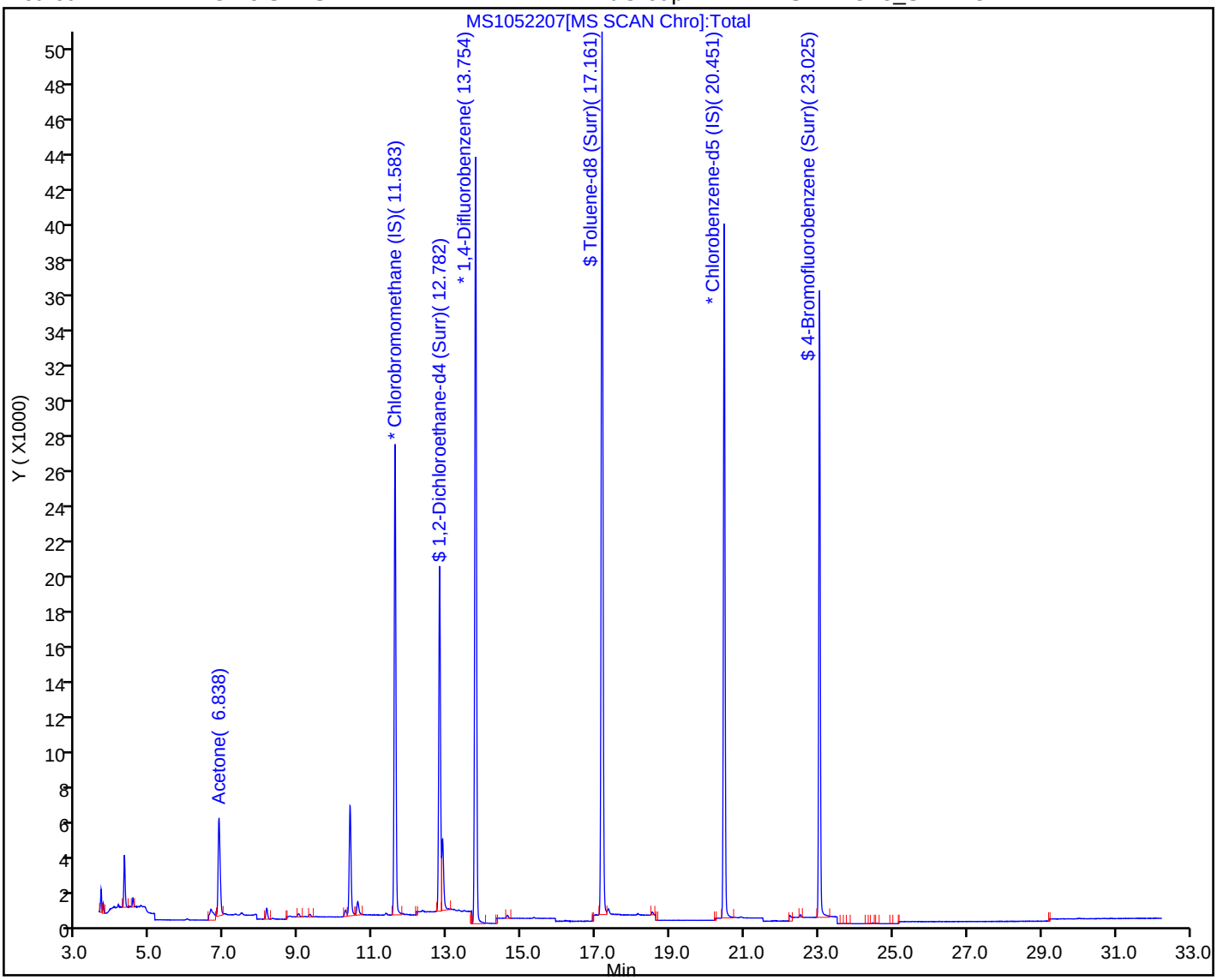
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 14:55:28 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052207.D				
Injection Date:	22-May-2018 20:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-2	Lab Sample ID:	320-39588-2		
Client ID:	34001168				
Operator ID:	EJ	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



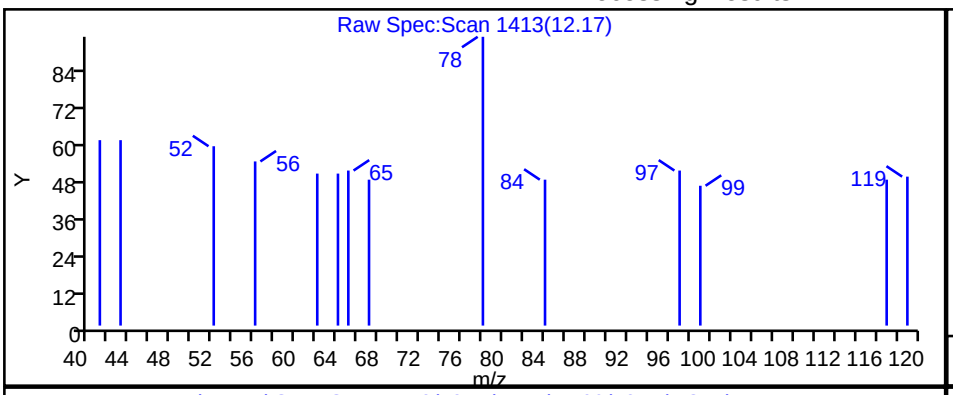
User Disabled Compound Report

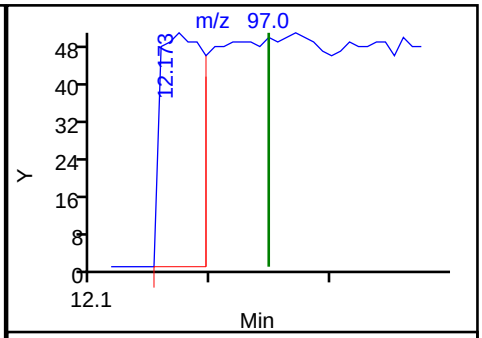
TestAmerica Sacramento

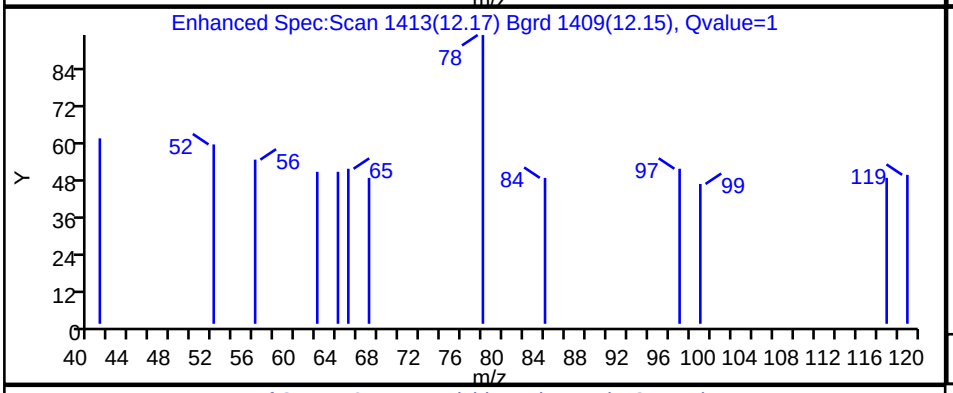
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052207.D				
Injection Date:	22-May-2018 20:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-2	Lab Sample ID:	320-39588-2		
Client ID:	34001168				
Operator ID:	EJ	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

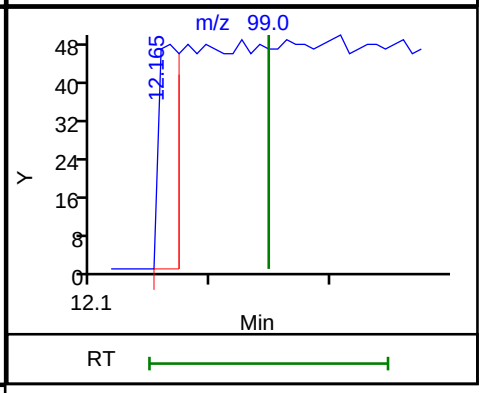
34 1,1,1-Trichloroethane, CAS: 71-55-6

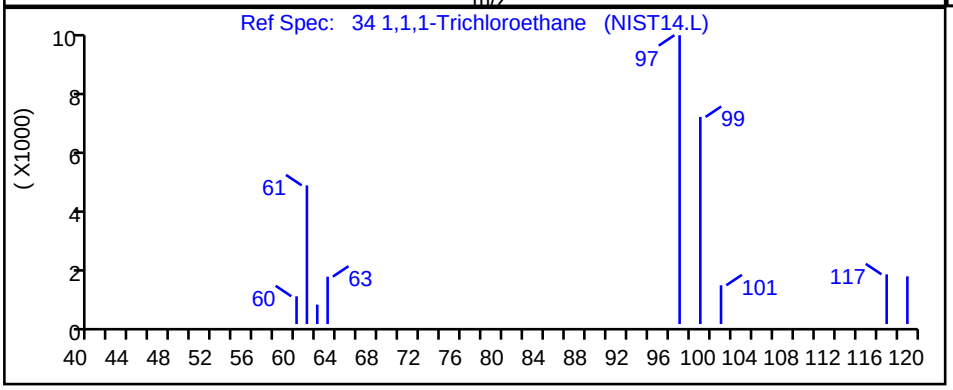
Processing Results











RT	Mass	Response	Amount
12.17	97.00	127	0.003499
12.17	99.00	59	

Reviewer: phanthasena, 23-May-2018 14:52:22

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

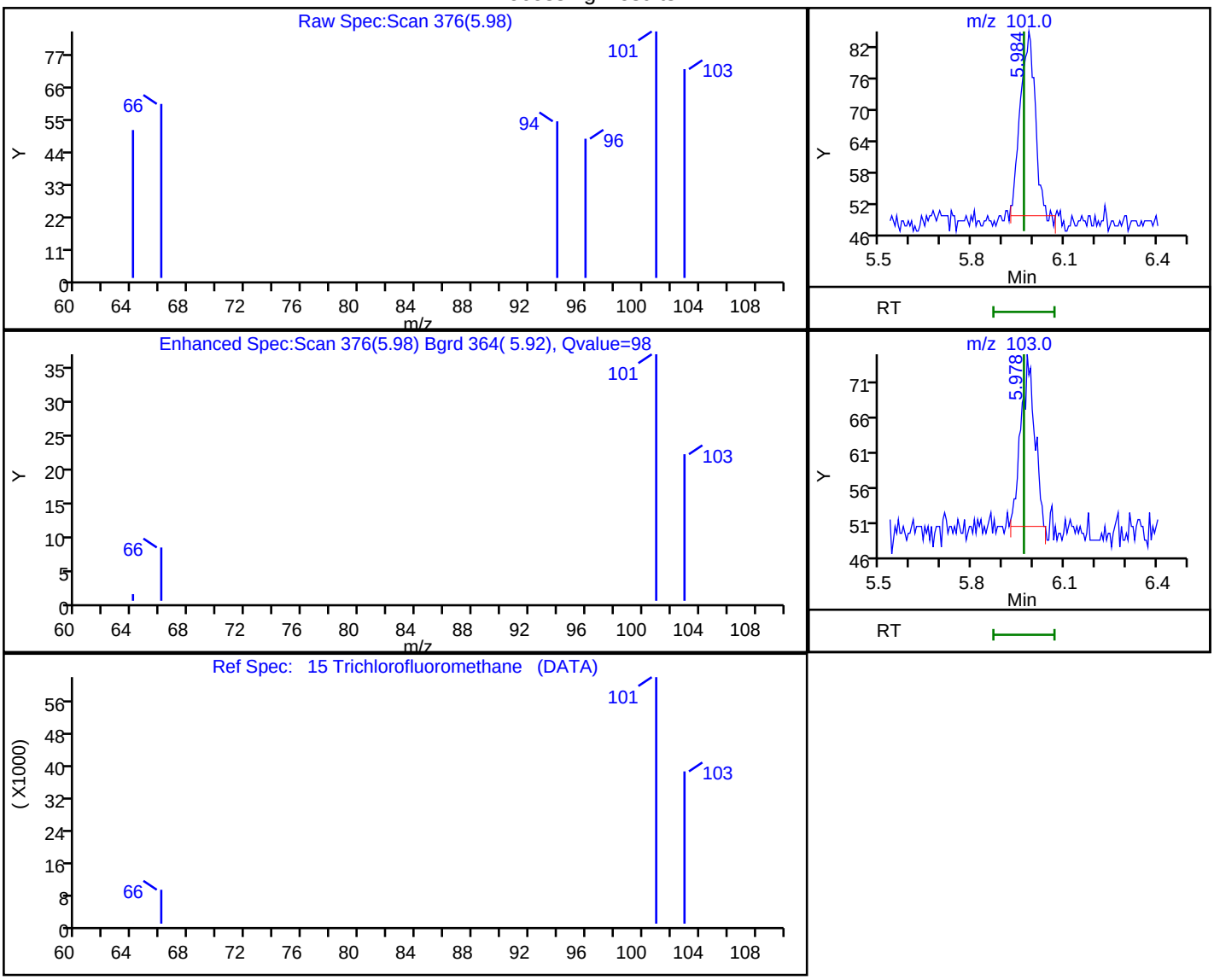
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052207.D				
Injection Date:	22-May-2018 20:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-2	Lab Sample ID:	320-39588-2		
Client ID:	34001168				
Operator ID:	EJ	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

15 Trichlorofluoromethane, CAS: 75-69-4

Processing Results



RT	Mass	Response	Amount
5.98	101.00	120	0.002407
5.98	103.00	78	

Reviewer: phanthasena, 23-May-2018 14:52:32

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

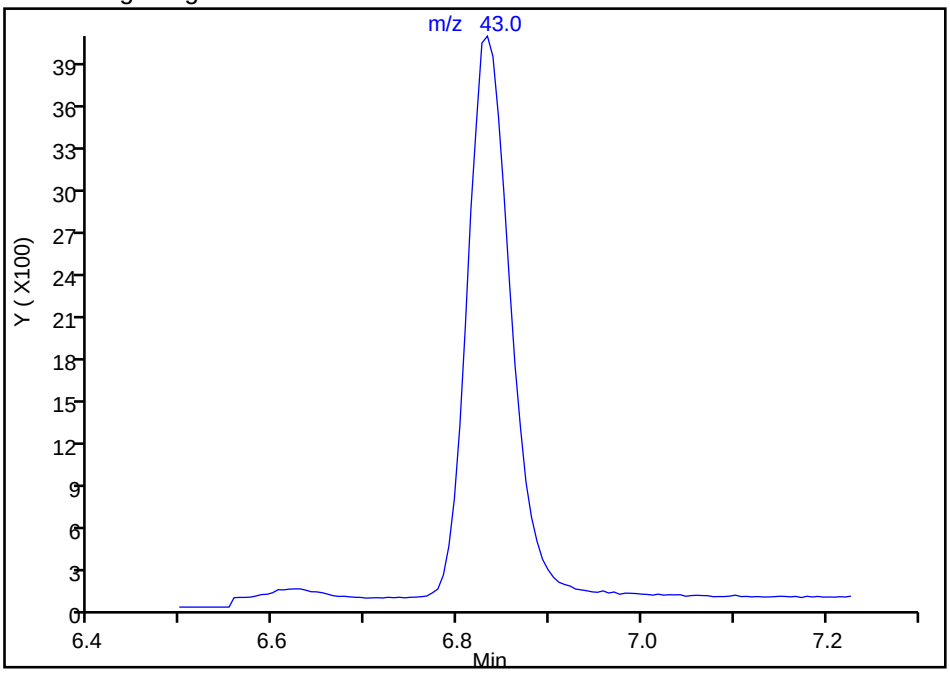
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052207.D				
Injection Date:	22-May-2018 20:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-2	Lab Sample ID:	320-39588-2		
Client ID:	34001168				
Operator ID:	EJ	ALS Bottle#:	3	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

18 Acetone, CAS: 67-64-1

Signal: 1

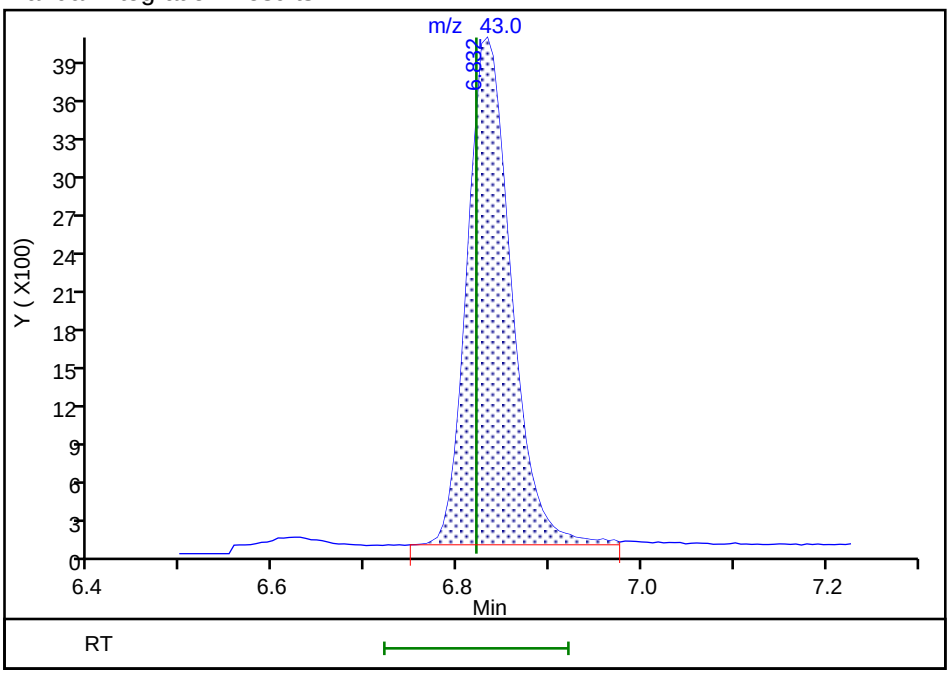
Processing Integration Results

Not Detected
Expected RT: 6.82



Manual Integration Results

RT: 6.83
Area: 13063
Amount: 0.022240
Amount Units: ppb v/v



Reviewer: phanthasena, 23-May-2018 14:52:27
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34001335
Lab Sample ID: 320-39588-3
Matrix: Air
Lab File ID: MS1052208.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 21:35
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34001335
Lab Sample ID: 320-39588-3
Matrix: Air
Lab File ID: MS1052208.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 21:35
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052208.D
Lims ID: 320-39588-A-3
Client ID: 34001335
Sample Type: Client
Inject. Date: 22-May-2018 21:35:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-3
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 14:53:44 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 14:53:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	46	33074	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	122841	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	95	73868	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.775	0.007	68	41641	2.03	
$ 5 Toluene-d8 (Surr)	100	17.161	17.155	0.006	99	59554	2.07	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.018	0.002	96	30882	1.95	
18 Acetone	43	6.838	6.832	0.018	99	7841	0.0134	
43 1,4-Dioxane	88	15.325	15.325	0.000	1	1116	0.0587	a

QC Flag Legend

Review Flags
a - User Assigned ID

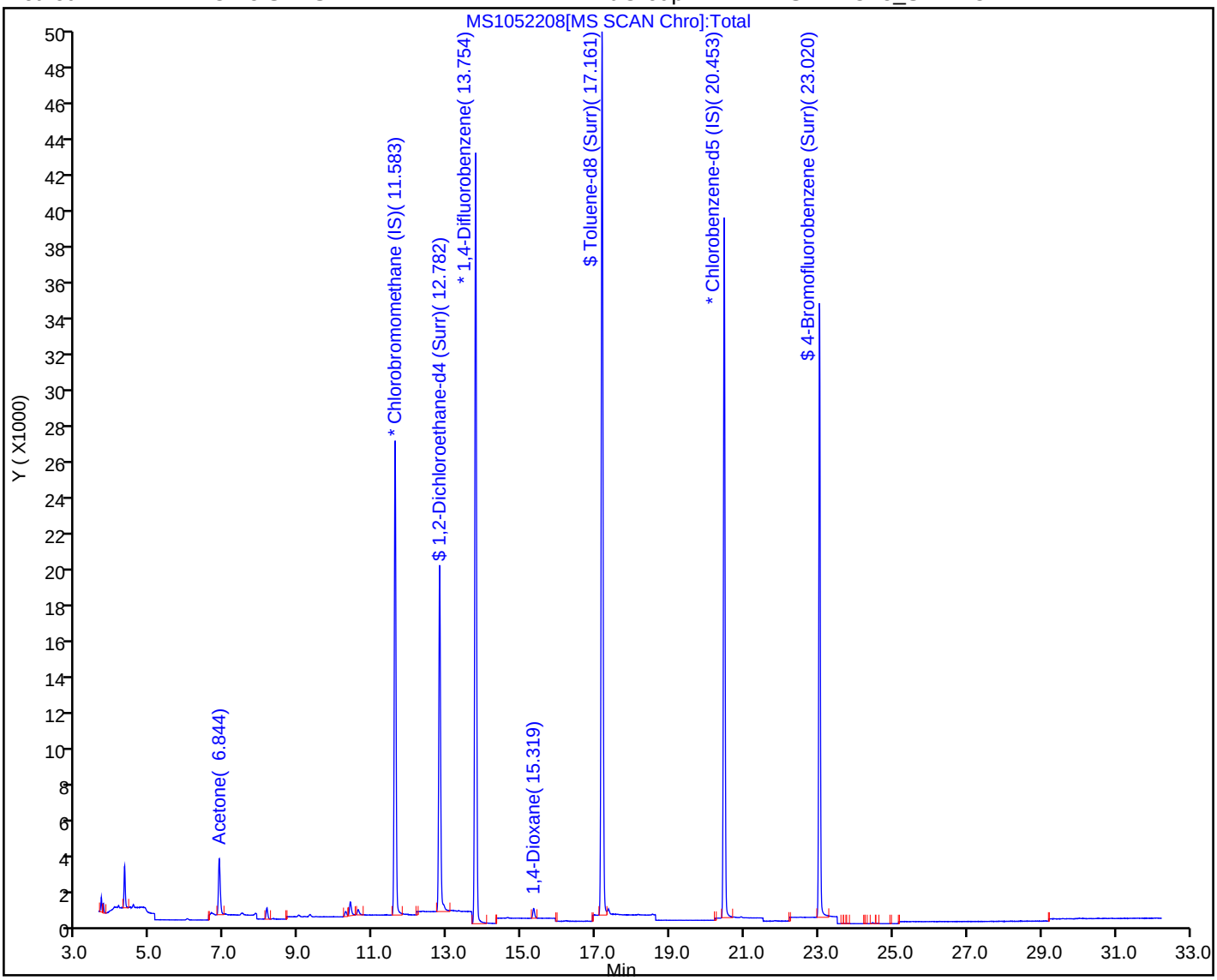
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 14:53:44 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052208.D				
Injection Date:	22-May-2018 21:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-3	Lab Sample ID:	320-39588-3		
Client ID:	34001335				
Operator ID:	EJ	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



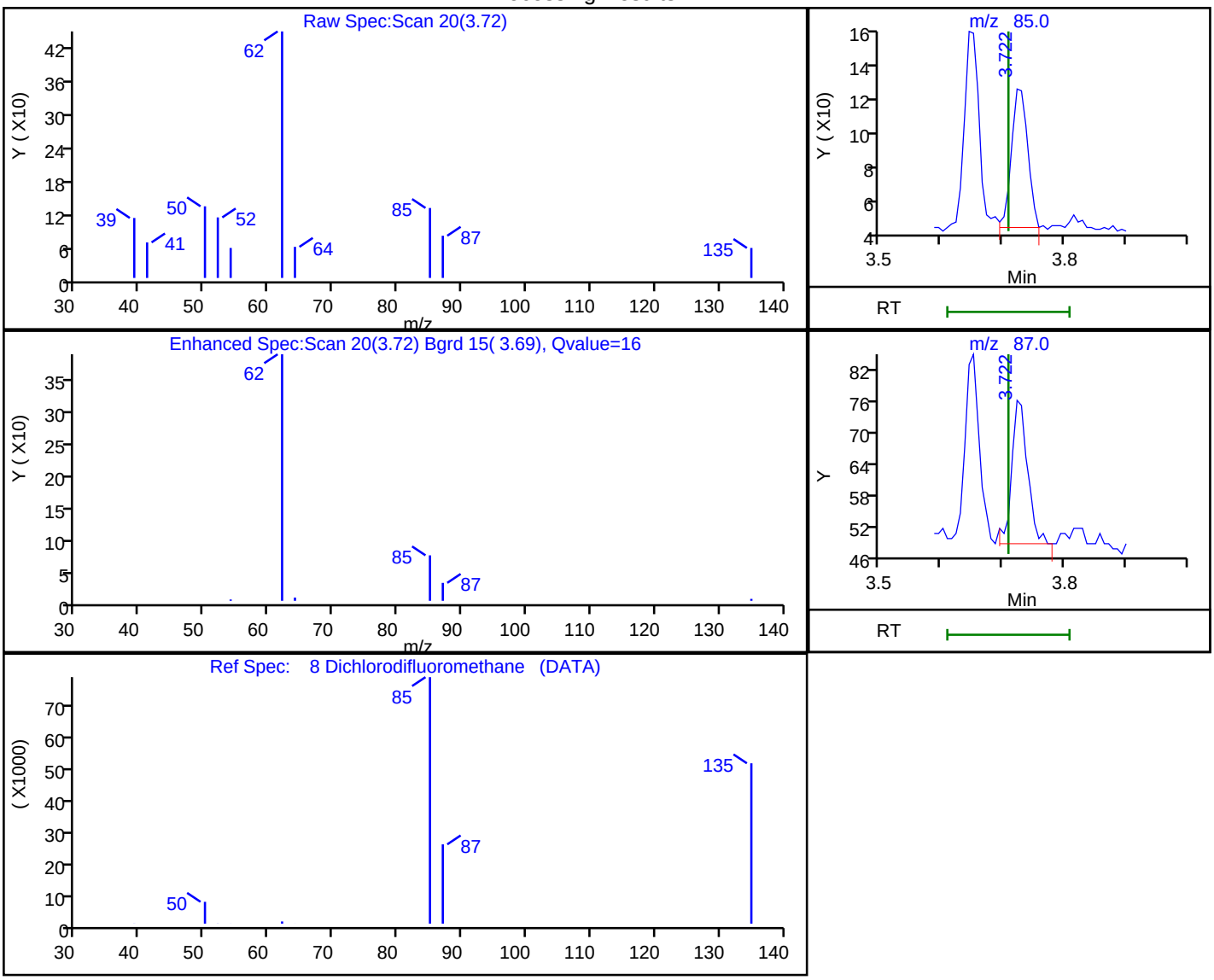
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052208.D				
Injection Date:	22-May-2018 21:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-3	Lab Sample ID:	320-39588-3		
Client ID:	34001335				
Operator ID:	EJ	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	143	0.003023
3.72	87.00	51	

Reviewer: phanthasena, 23-May-2018 14:52:57

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

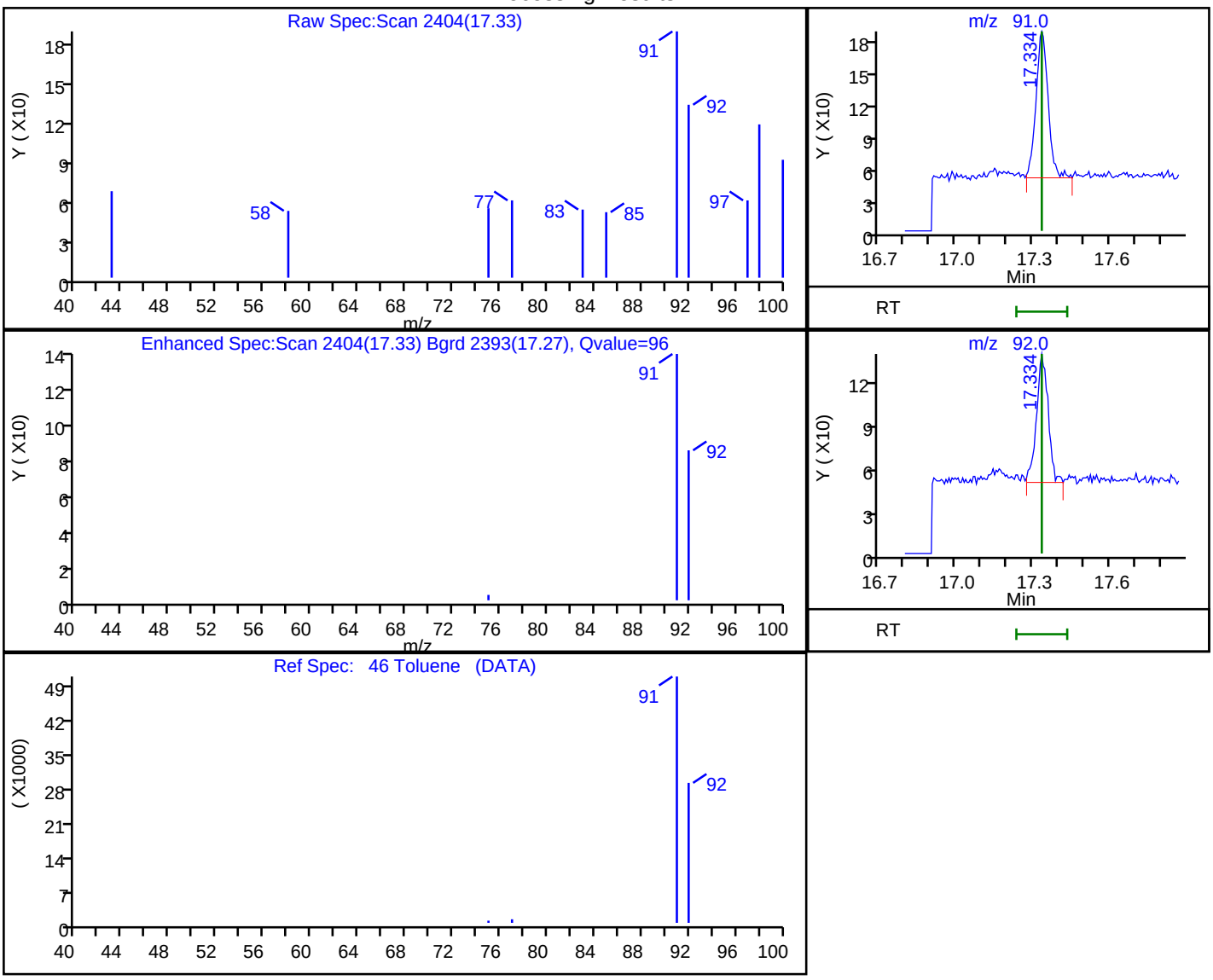
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052208.D				
Injection Date:	22-May-2018 21:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-3	Lab Sample ID:	320-39588-3		
Client ID:	34001335				
Operator ID:	EJ	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

46 Toluene, CAS: 108-88-3

Processing Results



RT	Mass	Response	Amount
17.33	91.00	458	0.001873
17.33	92.00	271	

Reviewer: phanthasena, 23-May-2018 14:53:37

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

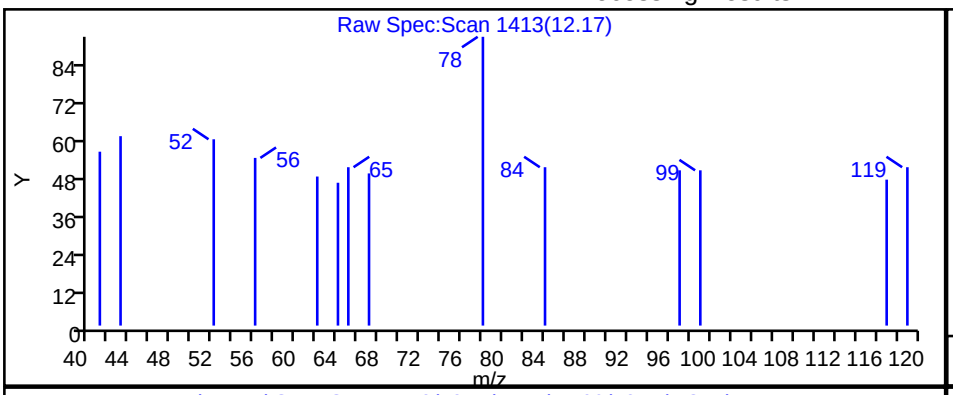
User Disabled Compound Report

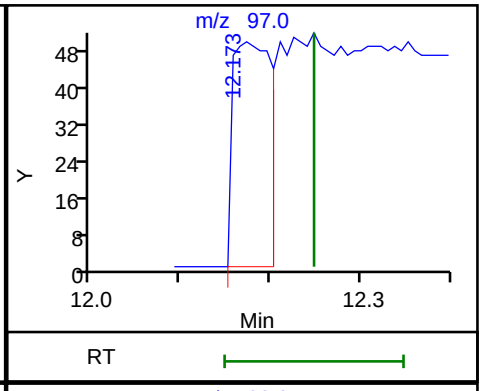
TestAmerica Sacramento

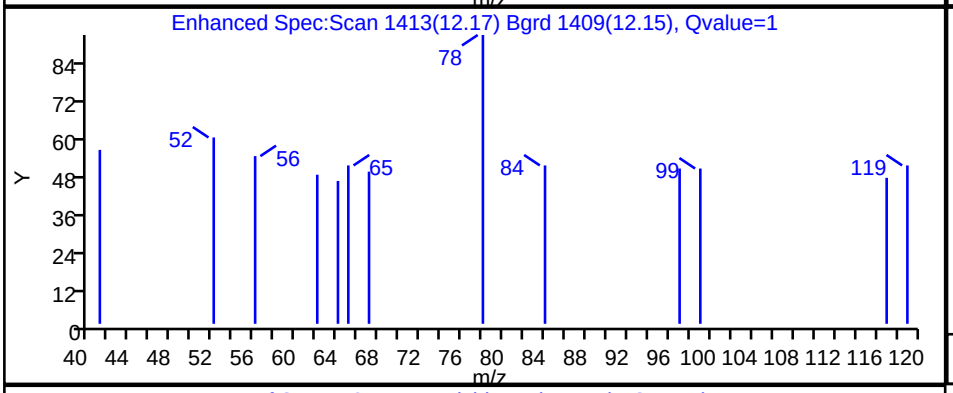
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052208.D				
Injection Date:	22-May-2018 21:35:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-3	Lab Sample ID:	320-39588-3		
Client ID:	34001335				
Operator ID:	EJ	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

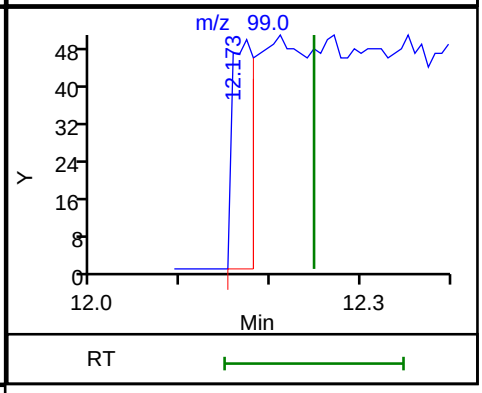
34 1,1,1-Trichloroethane, CAS: 71-55-6

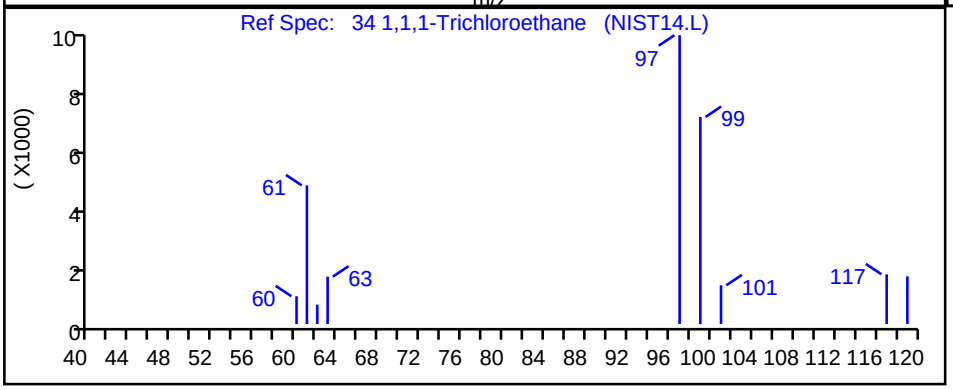
Processing Results











RT	Mass	Response	Amount
12.17	97.00	147	0.004054
12.17	99.00	81	

Reviewer: phanthasena, 23-May-2018 14:53:02

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000598
Lab Sample ID: 320-39588-4
Matrix: Air
Lab File ID: MS1052209.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 22:34
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000598
Lab Sample ID: 320-39588-4
Matrix: Air
Lab File ID: MS1052209.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 22:34
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D
Lims ID: 320-39588-A-4
Client ID: 34000598
Sample Type: Client
Inject. Date: 22-May-2018 22:34:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-4
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 14:54:28 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 14:54:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.577	11.577	0.000	46	32207	2.00	
* 2 1,4-Difluorobenzene	114	13.751	13.747	0.003	99	119761	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	94	72159	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.775	0.007	71	40447	2.03	
$ 5 Toluene-d8 (Surr)	100	17.161	17.155	0.006	99	57652	2.05	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.018	0.002	95	30169	1.95	
18 Acetone	43	6.820	6.820	0.000	98	11538	0.0202	a

QC Flag Legend

Review Flags
a - User Assigned ID

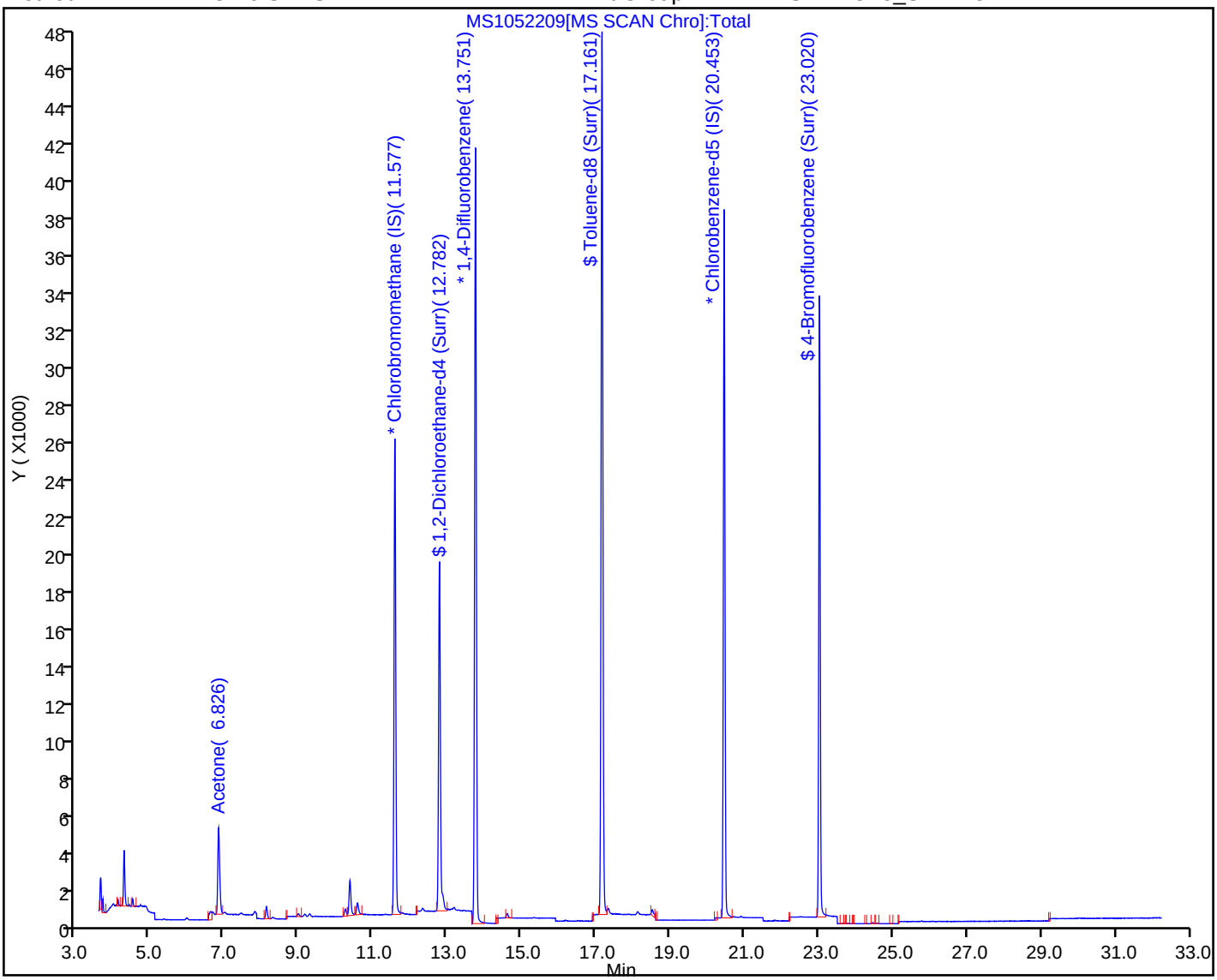
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 14:54:28 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



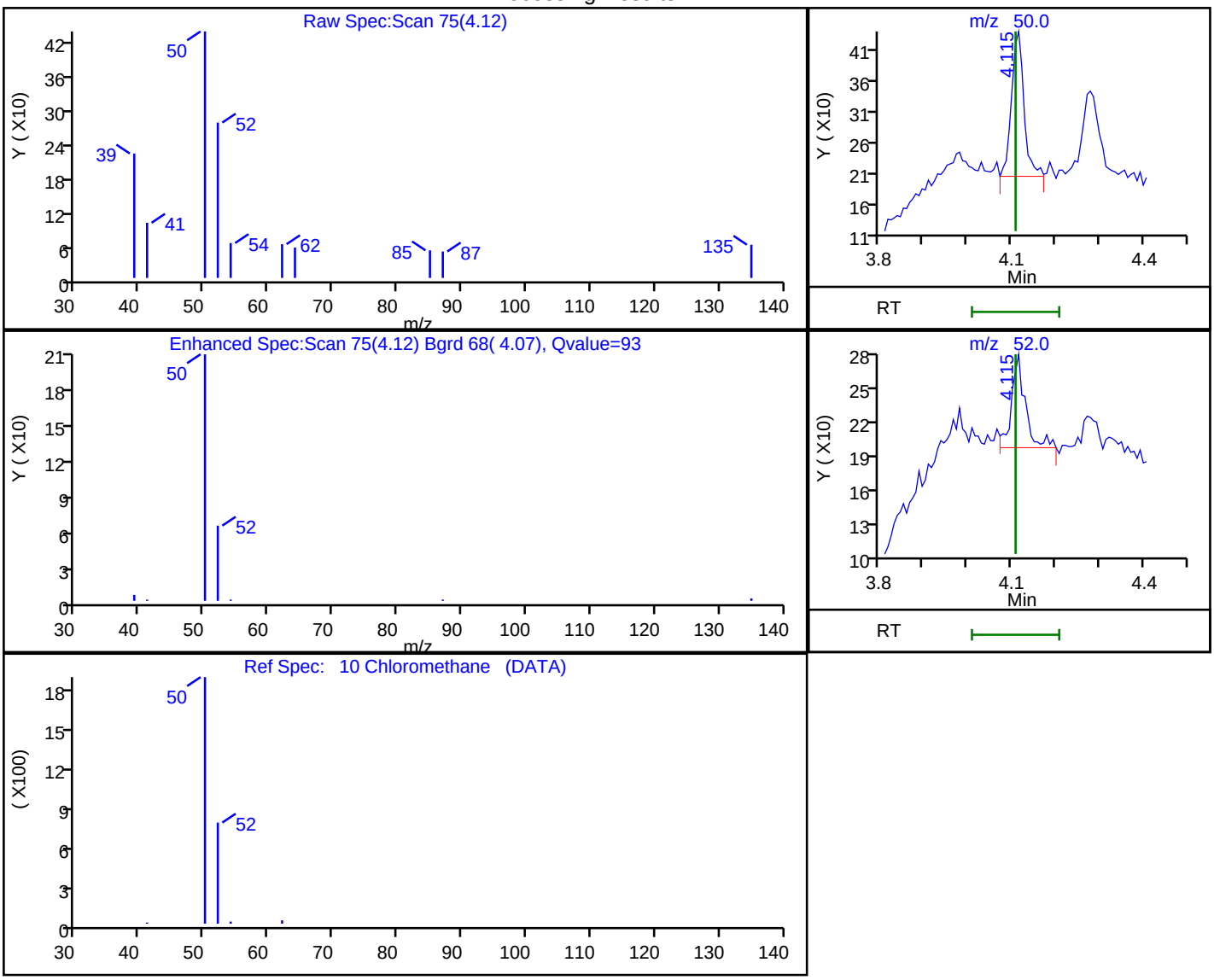
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

10 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
4.12	50.00	460	0.015640
4.12	52.00	175	

Reviewer: phanthasena, 23-May-2018 14:54:23

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

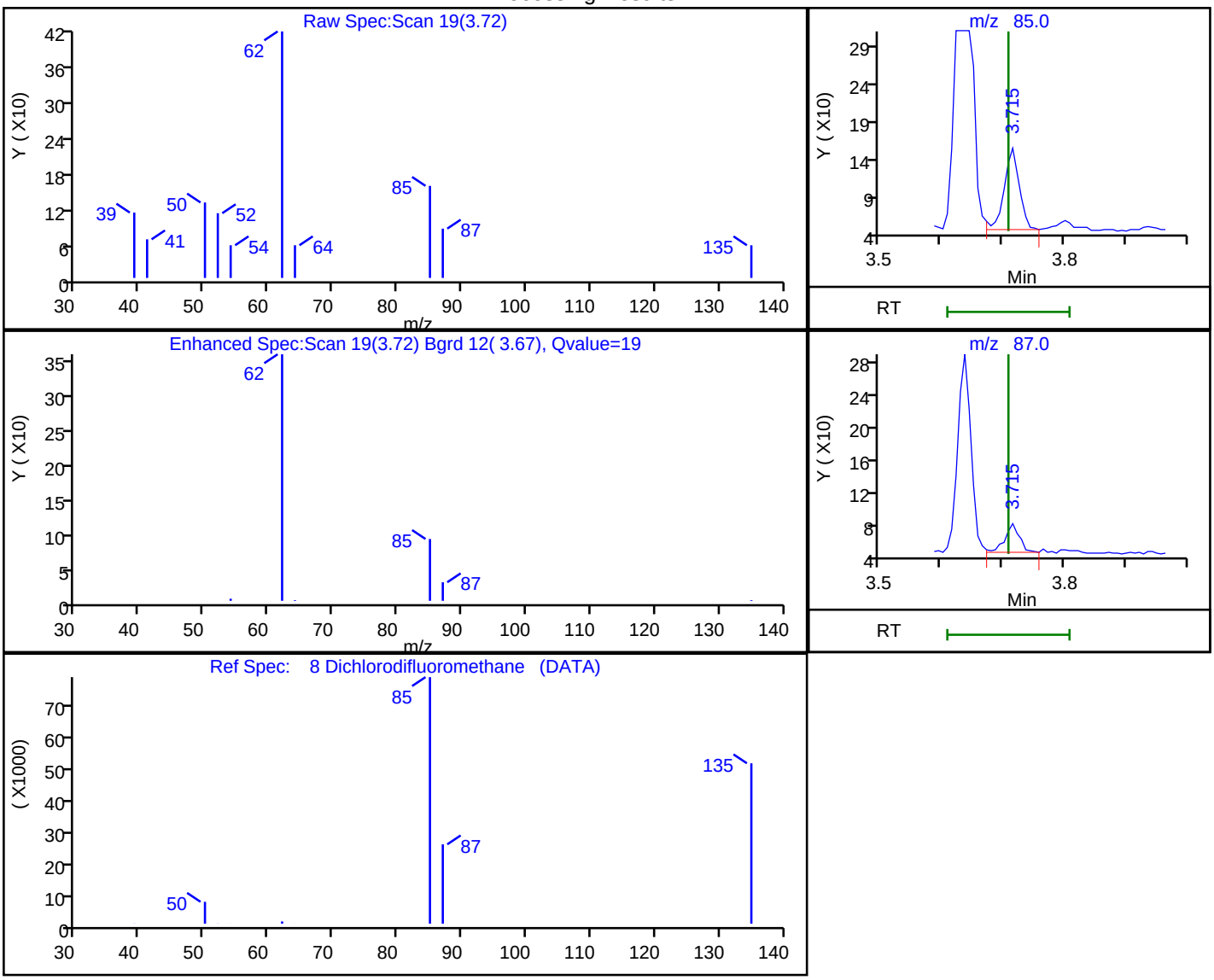
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	187	0.004059
3.72	87.00	58	

Reviewer: phanthasena, 23-May-2018 14:54:20

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

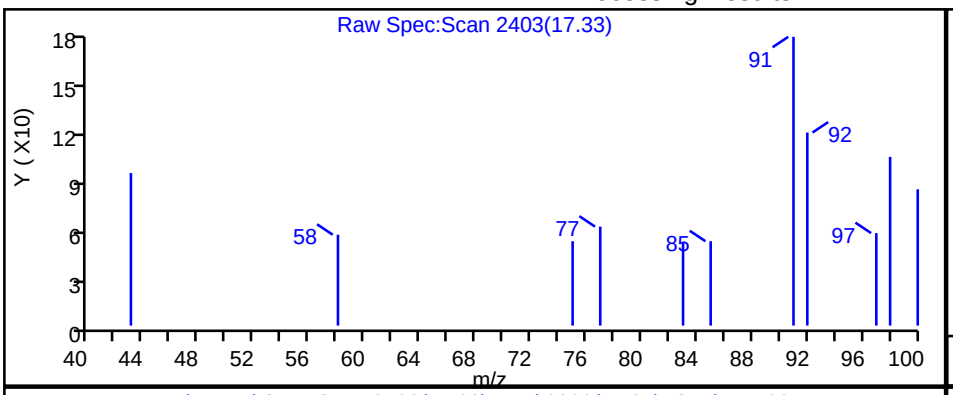
User Disabled Compound Report

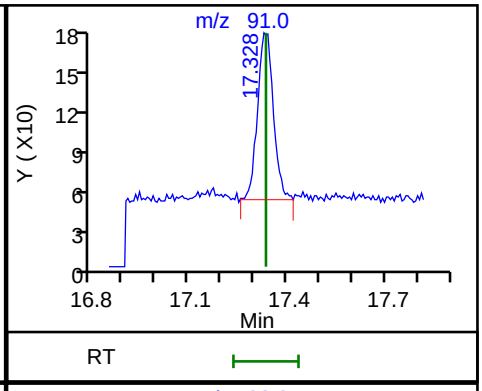
TestAmerica Sacramento

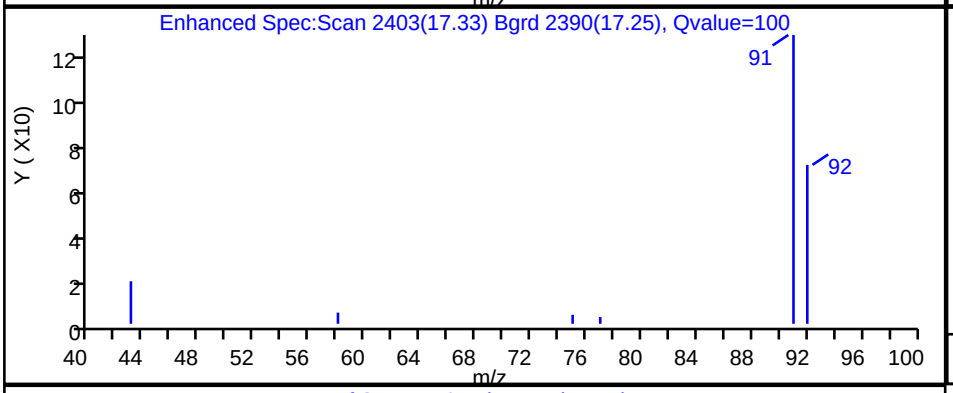
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

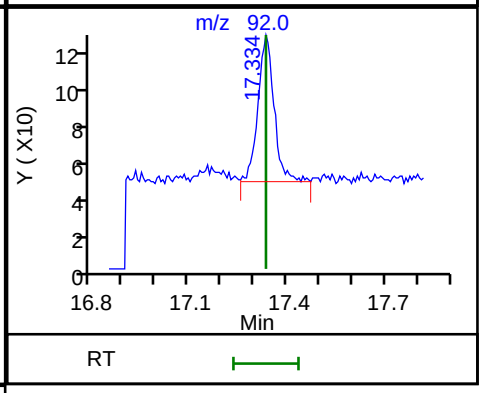
46 Toluene, CAS: 108-88-3

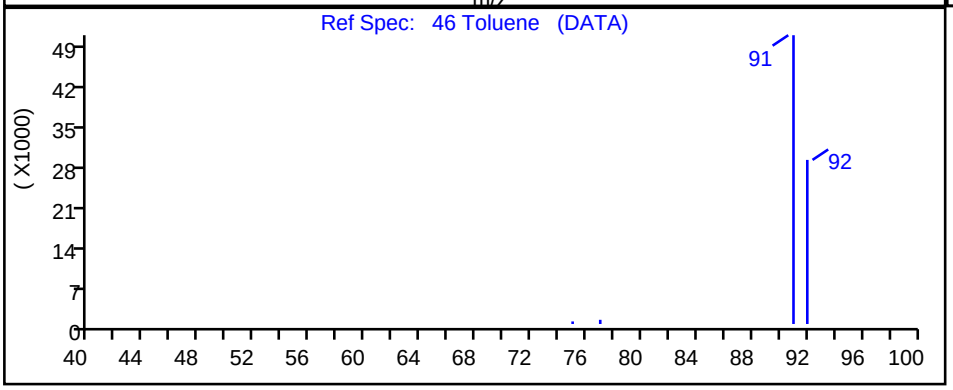
Processing Results











RT	Mass	Response	Amount
17.33	91.00	430	0.001804
17.33	92.00	272	

Reviewer: phanthasena, 23-May-2018 14:54:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

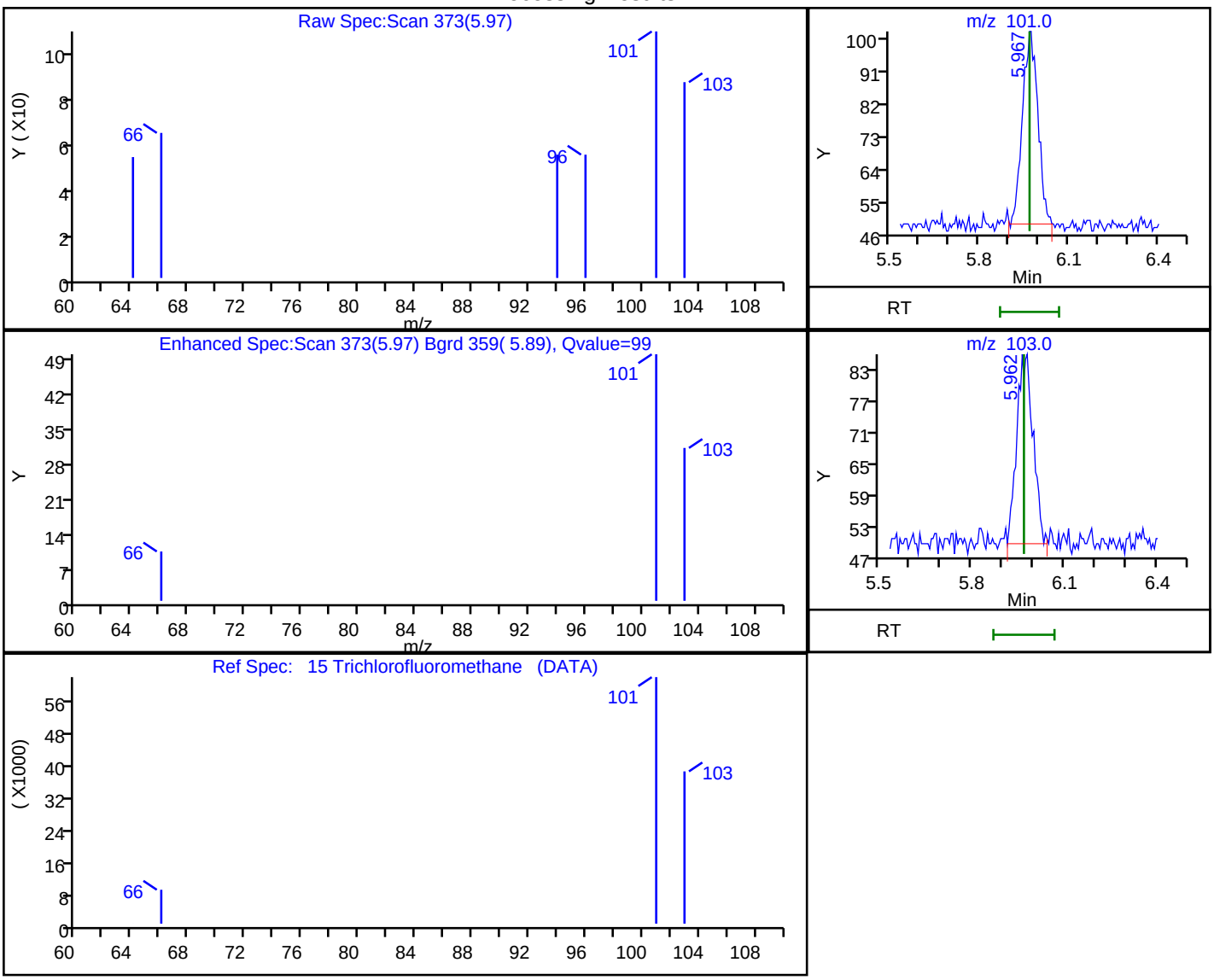
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

15 Trichlorofluoromethane, CAS: 75-69-4

Processing Results



RT	Mass	Response	Amount
5.97	101.00	196	0.004041
5.96	103.00	137	

Reviewer: phanthasena, 23-May-2018 14:54:14

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

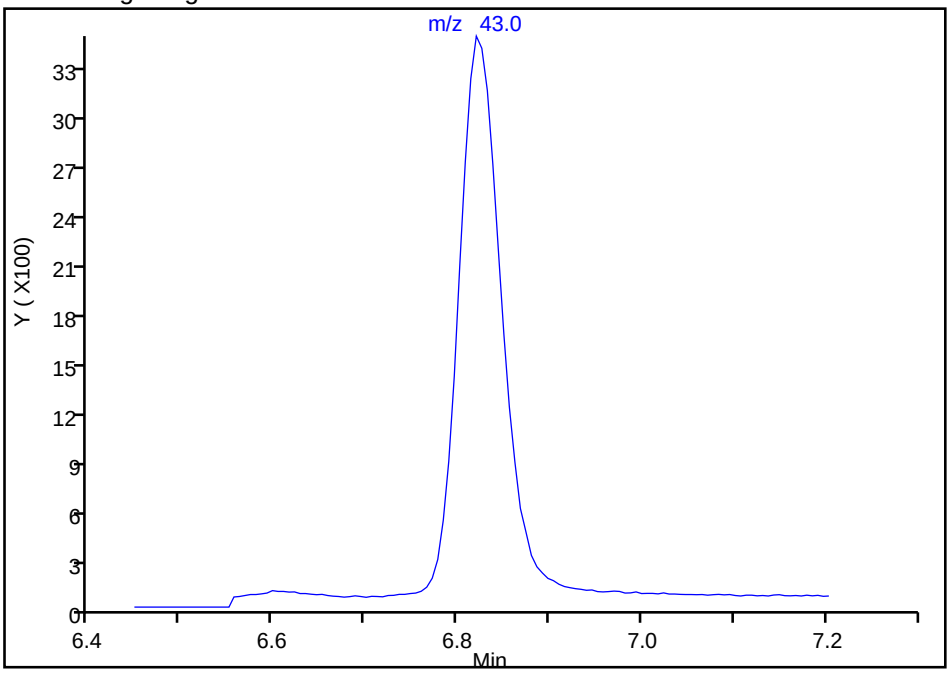
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052209.D				
Injection Date:	22-May-2018 22:34:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-4	Lab Sample ID:	320-39588-4		
Client ID:	34000598				
Operator ID:	EJ	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

18 Acetone, CAS: 67-64-1

Signal: 1

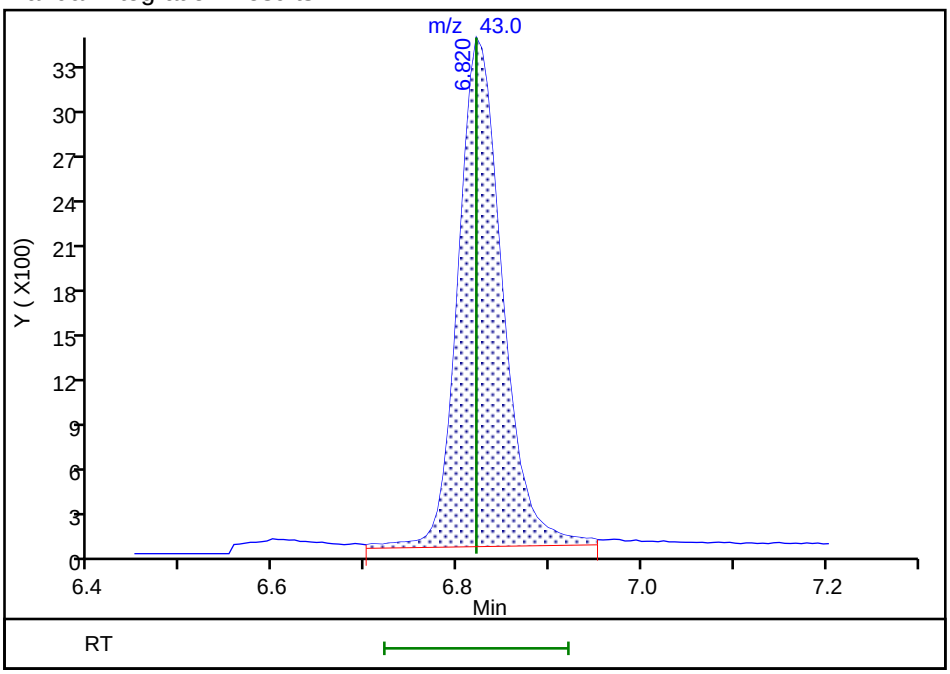
Processing Integration Results

Not Detected
Expected RT: 6.82



Manual Integration Results

RT: 6.82
Area: 11538
Amount: 0.020188
Amount Units: ppb v/v



Reviewer: phanthasena, 23-May-2018 14:54:09
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8021
Lab Sample ID: 320-39588-5
Matrix: Air
Lab File ID: MS1052210.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 23:33
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8021
Lab Sample ID: 320-39588-5
Matrix: Air
Lab File ID: MS1052210.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/22/2018 23:33
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D
Lims ID: 320-39588-A-5
Client ID: 8021
Sample Type: Client
Inject. Date: 22-May-2018 23:33:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-5
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 14:55:21 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 14:55:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	47	32570	2.00	
* 2 1,4-Difluorobenzene	114	13.750	13.747	0.003	99	121246	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.451	20.451	0.000	95	72498	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.775	0.007	64	41212	2.04	
$ 5 Toluene-d8 (Surr)	100	17.161	17.155	0.006	99	58076	2.04	
$ 6 4-Bromofluorobenzene (Surr	174	23.025	23.018	0.007	93	30171	1.94	
18 Acetone	43	6.832	6.820	0.012	97	5796	0.0100	

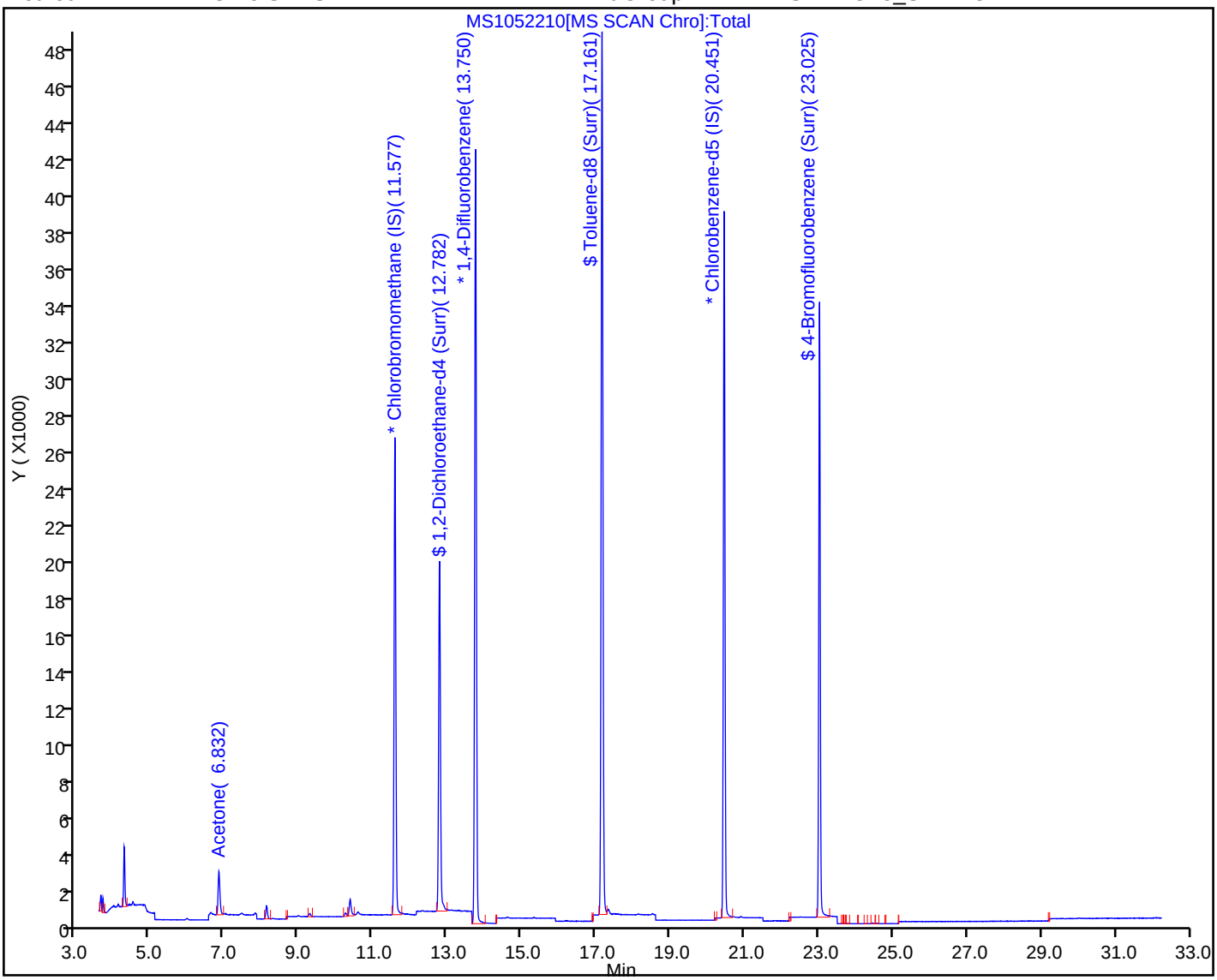
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 14:55:57 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



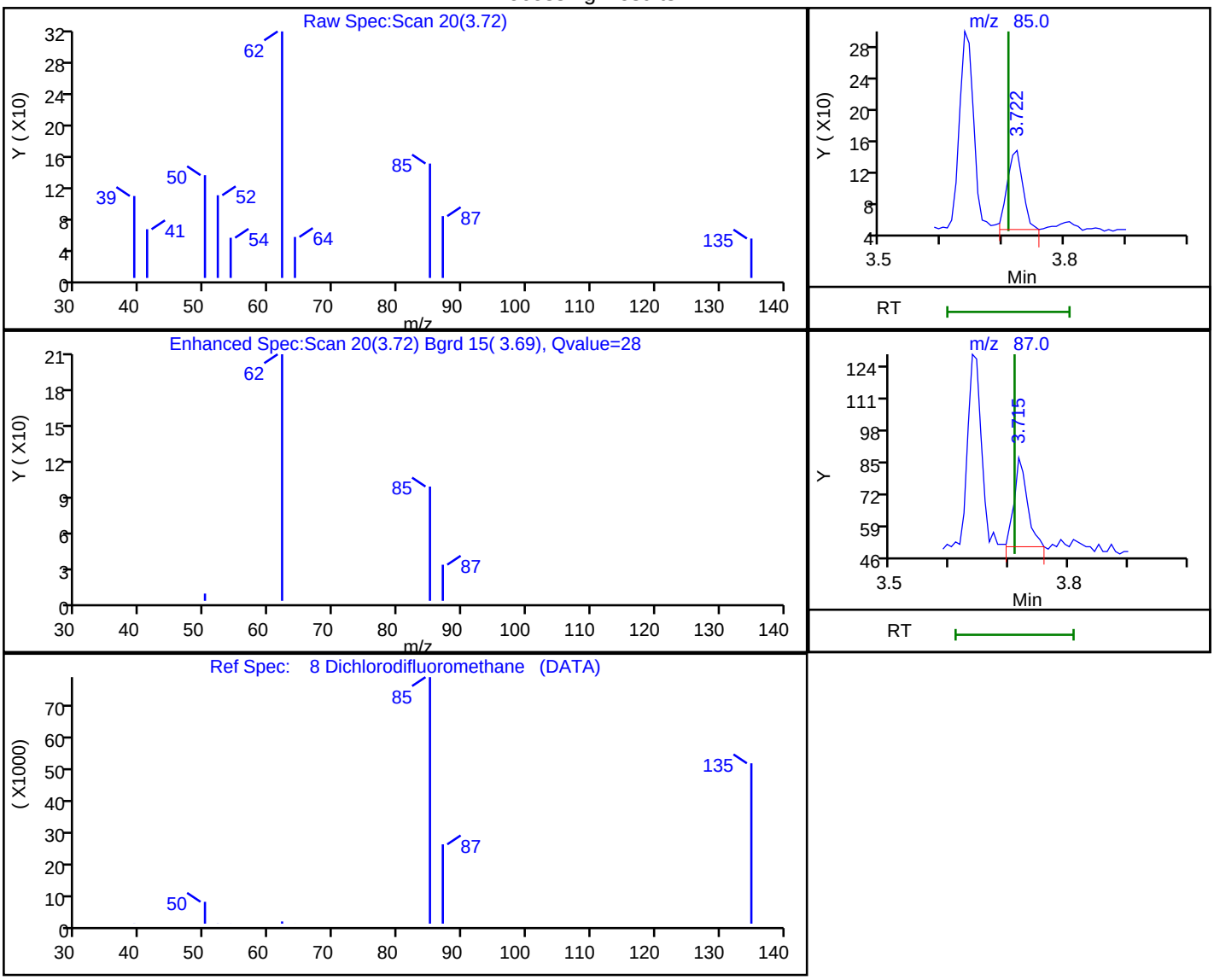
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	179	0.003842
3.72	87.00	57	

Reviewer: phanthasena, 23-May-2018 14:54:37

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

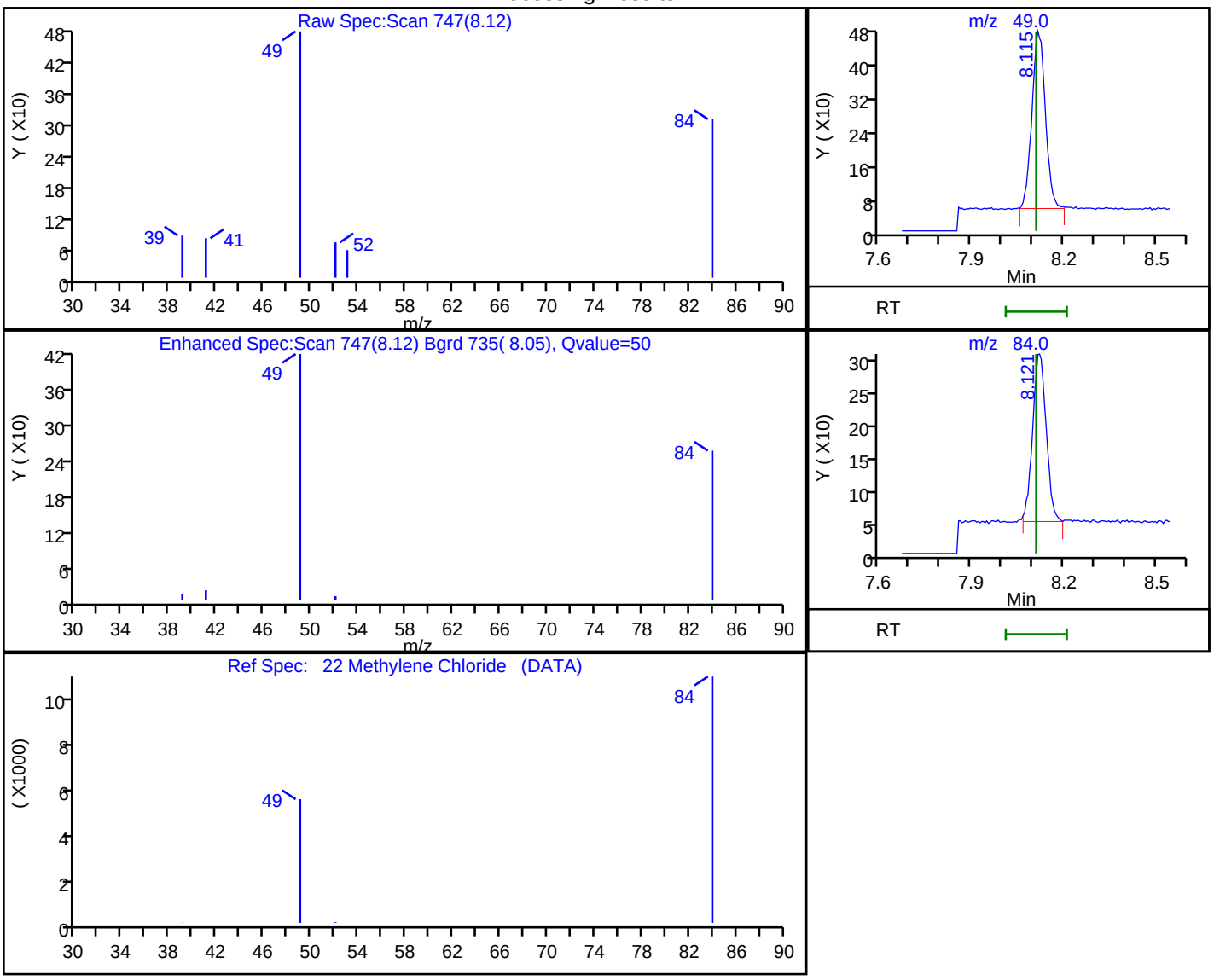
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.12	49.00	1290	0.009189
8.12	84.00	796	

Reviewer: phanthasena, 23-May-2018 14:54:48

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

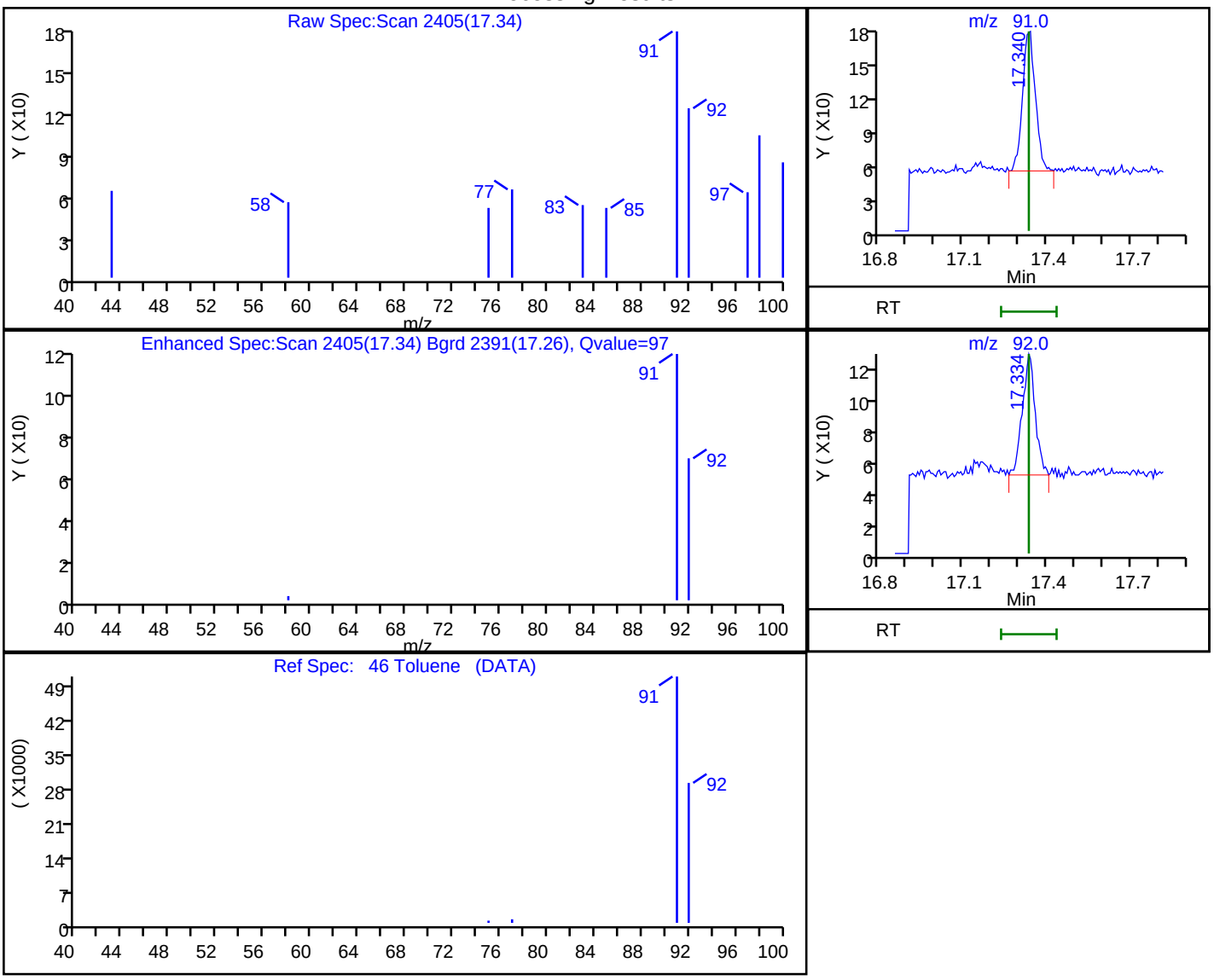
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

46 Toluene, CAS: 108-88-3

Processing Results



RT	Mass	Response	Amount
17.34	91.00	390	0.001616
17.33	92.00	238	

Reviewer: phanthasena, 23-May-2018 14:55:07

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

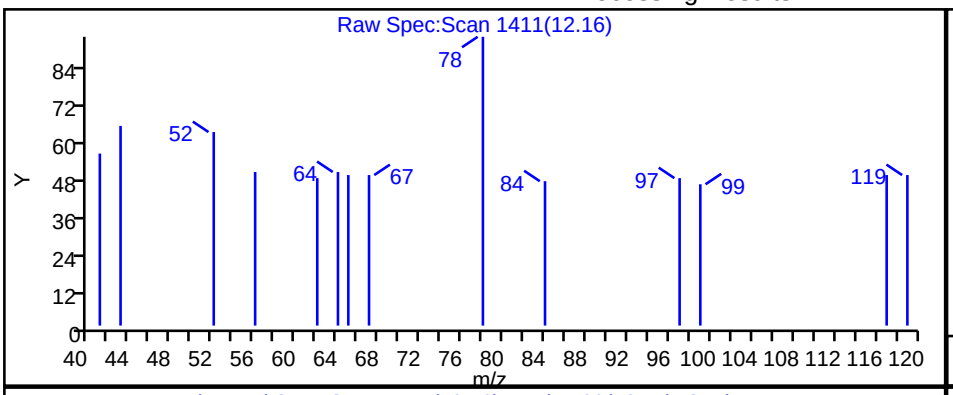
User Disabled Compound Report

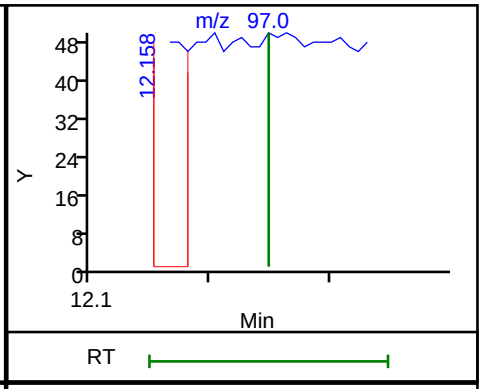
TestAmerica Sacramento

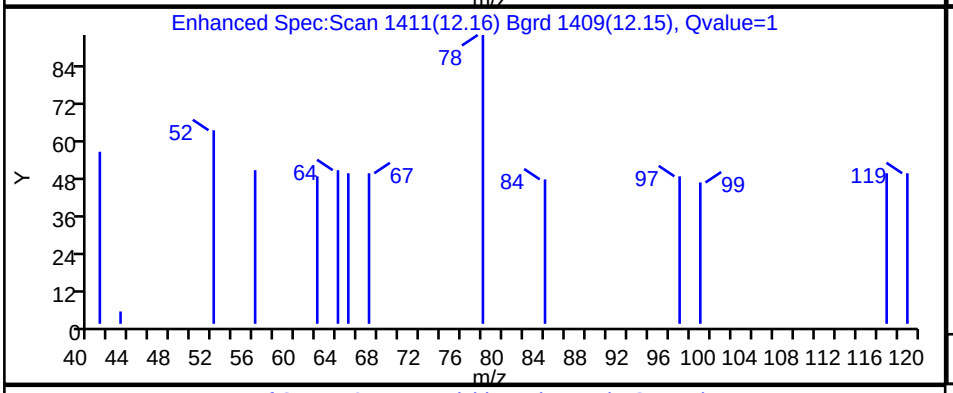
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

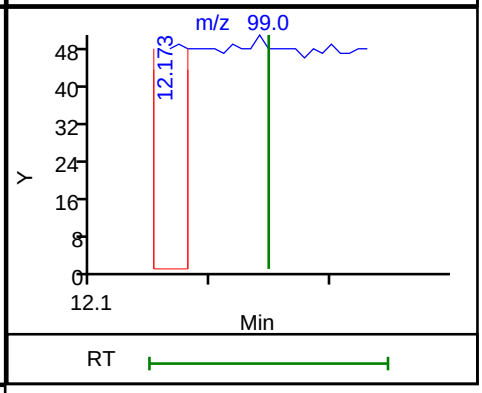
34 1,1,1-Trichloroethane, CAS: 71-55-6

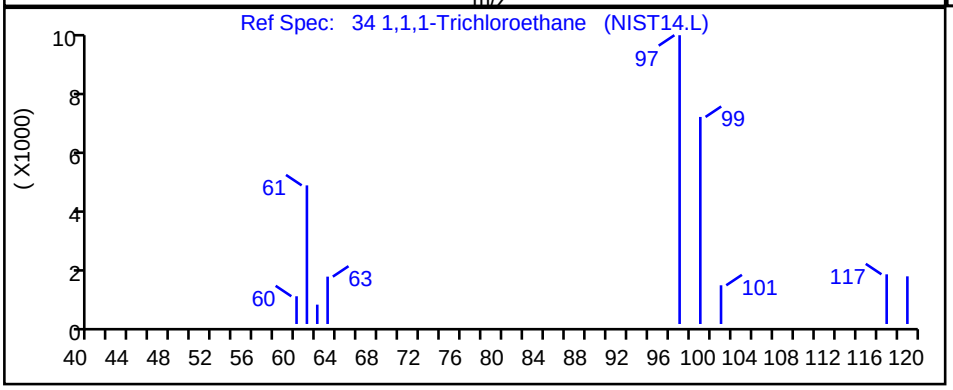
Processing Results











RT	Mass	Response	Amount
12.16	97.00	81	0.002268
12.17	99.00	82	

Reviewer: phanthasena, 23-May-2018 14:54:56

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

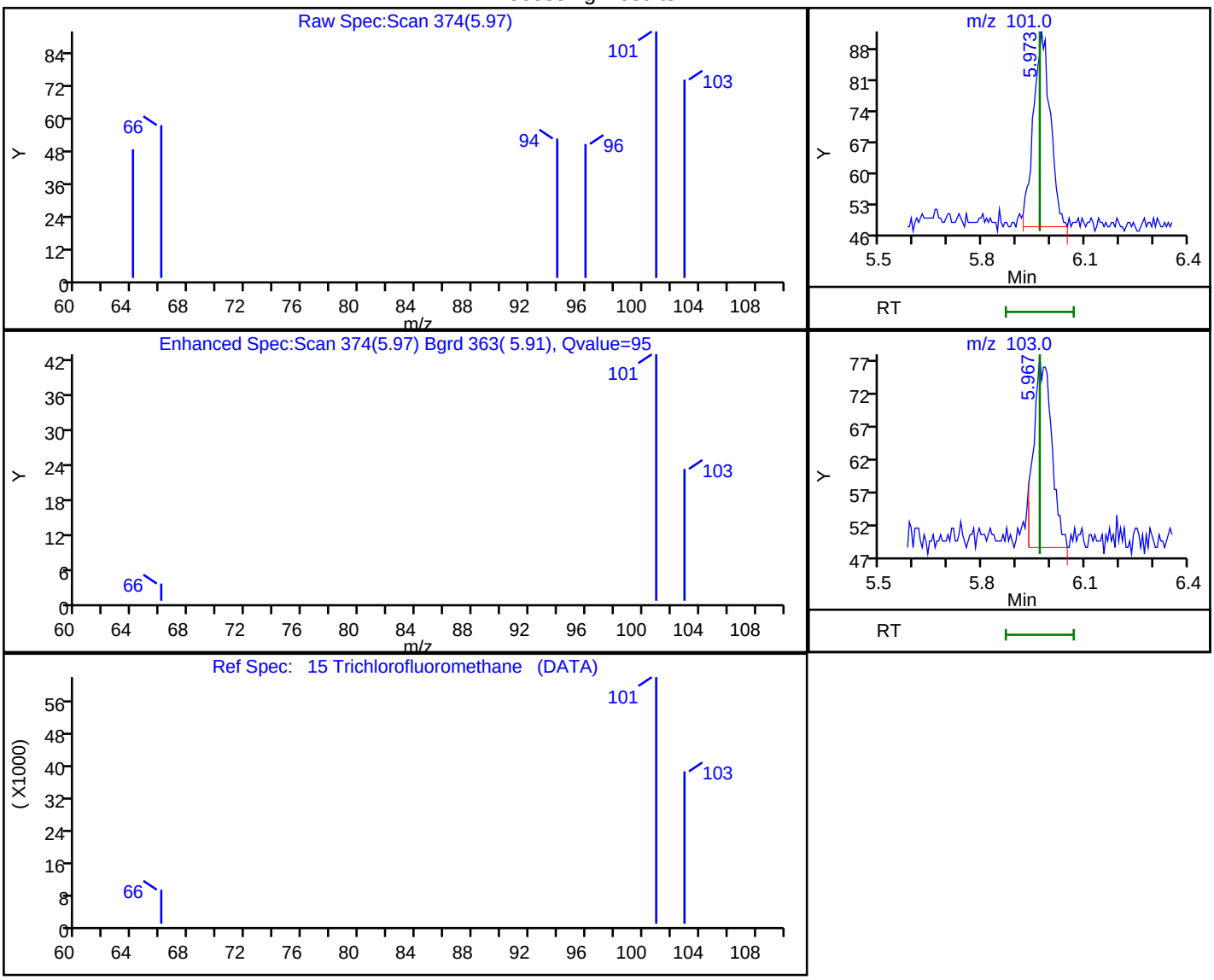
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052210.D				
Injection Date:	22-May-2018 23:33:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-5	Lab Sample ID:	320-39588-5		
Client ID:	8021				
Operator ID:	EJ	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

15 Trichlorofluoromethane, CAS: 75-69-4

Processing Results



RT	Mass	Response	Amount
5.97	101.00	154	0.003139
5.97	103.00	107	

Reviewer: phanthasena, 23-May-2018 14:54:43

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-39588-1

SDG No.:

Client Sample ID: 8156 | Lab Sample ID: 320-39588-6

Matrix: Air | Lab File ID: MS1052211.D

Analysis Method: TO-15 SIM | Date Collected: 05/21/2018 00:00

Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2018 00:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 224833 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8156
Lab Sample ID: 320-39588-6
Matrix: Air
Lab File ID: MS1052211.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 00:32
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052211.D
Lims ID: 320-39588-A-6
Client ID: 8156
Sample Type: Client
Inject. Date: 23-May-2018 00:32:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-6
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 15:45:41 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 15:45:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.577	11.577	0.000	45	33603	2.00	
* 2 1,4-Difluorobenzene	114	13.750	13.747	0.003	99	125326	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	94	75569	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.775	12.778	-0.001	83	42265	2.02	
$ 5 Toluene-d8 (Surr)	100	17.161	17.159	0.006	99	60360	2.06	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.020	0.002	95	31283	1.93	
18 Acetone	43	6.832	6.820	0.012	98	6043	0.0101	
43 1,4-Dioxane	88	15.314	15.329	-0.011	1	770	0.0397	

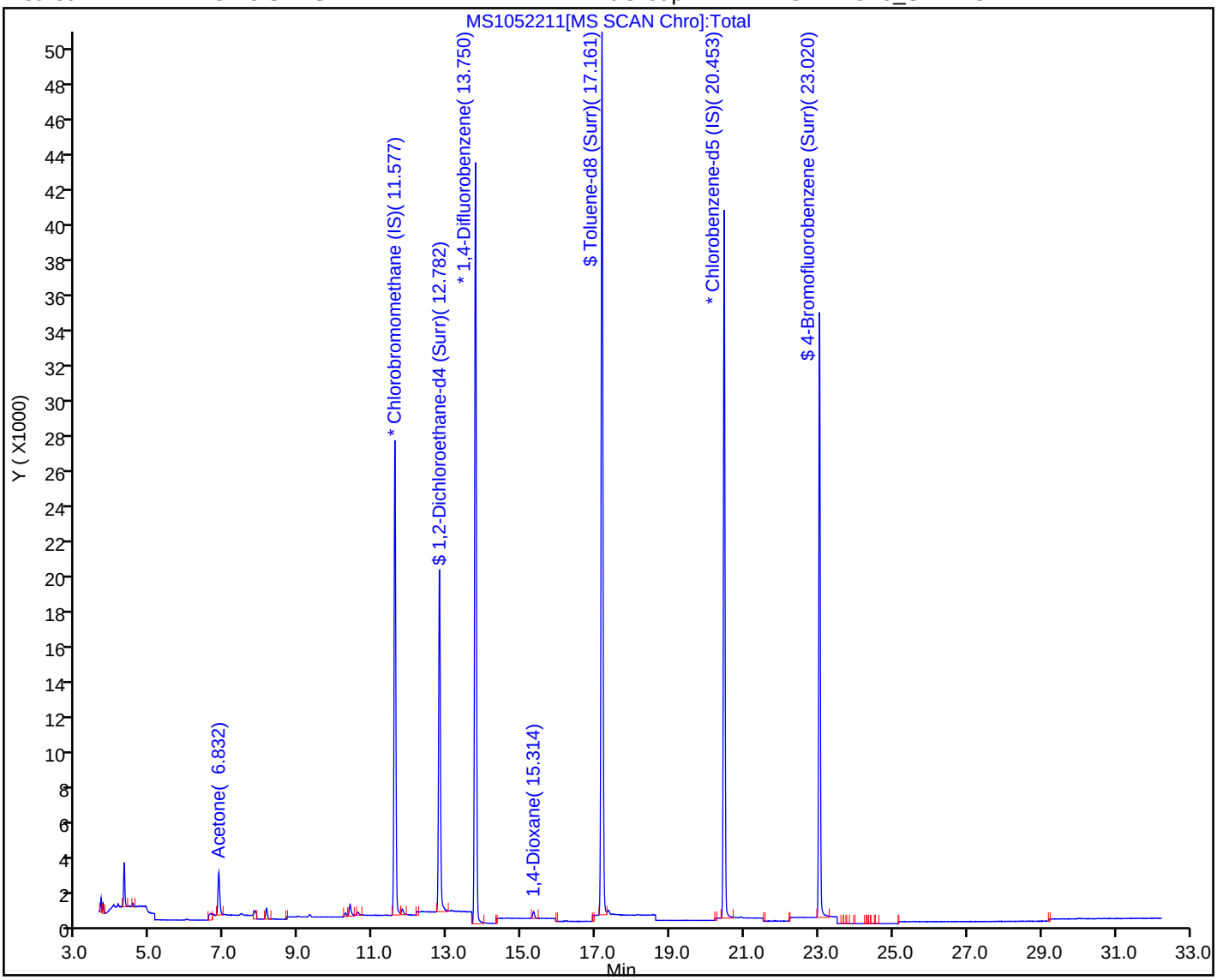
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 15:45:42 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052211.D				
Injection Date:	23-May-2018 00:32:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-6	Lab Sample ID:	320-39588-6		
Client ID:	8156				
Operator ID:	EJ	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



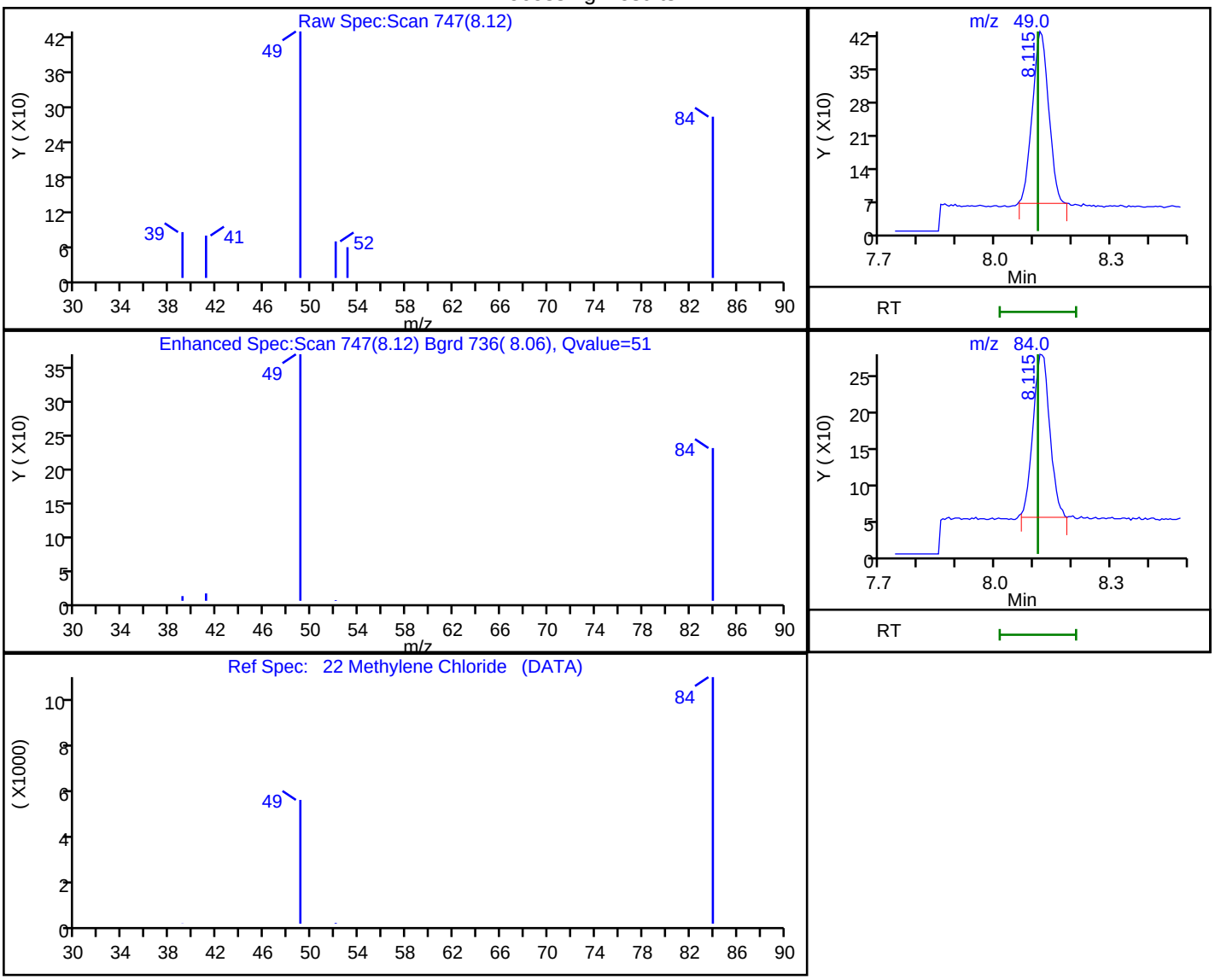
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052211.D				
Injection Date:	23-May-2018 00:32:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-6	Lab Sample ID:	320-39588-6		
Client ID:	8156				
Operator ID:	EJ	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.12	49.00	1079	0.007450
8.12	84.00	692	

Reviewer: phanthasena, 23-May-2018 15:45:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

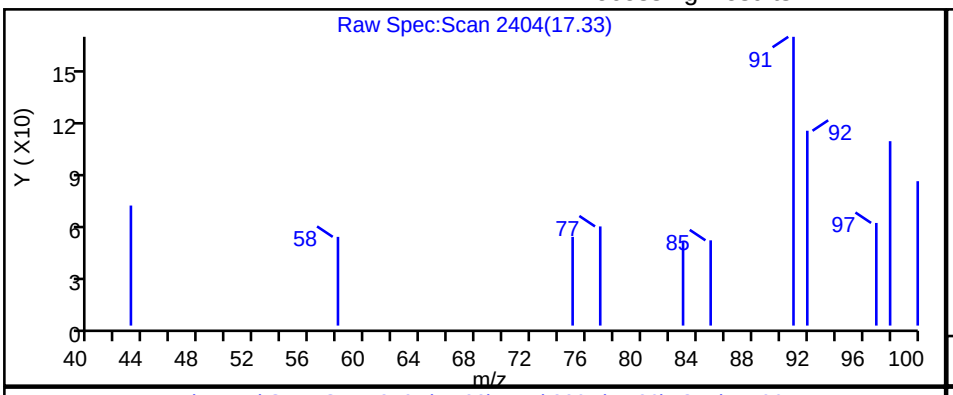
User Disabled Compound Report

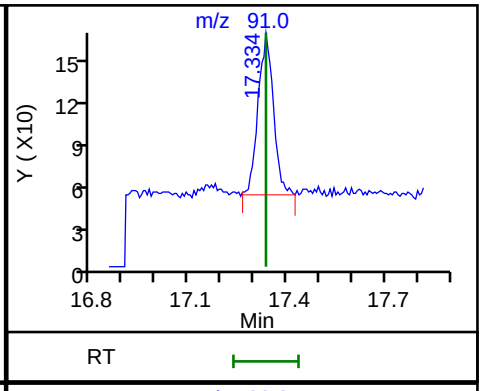
TestAmerica Sacramento

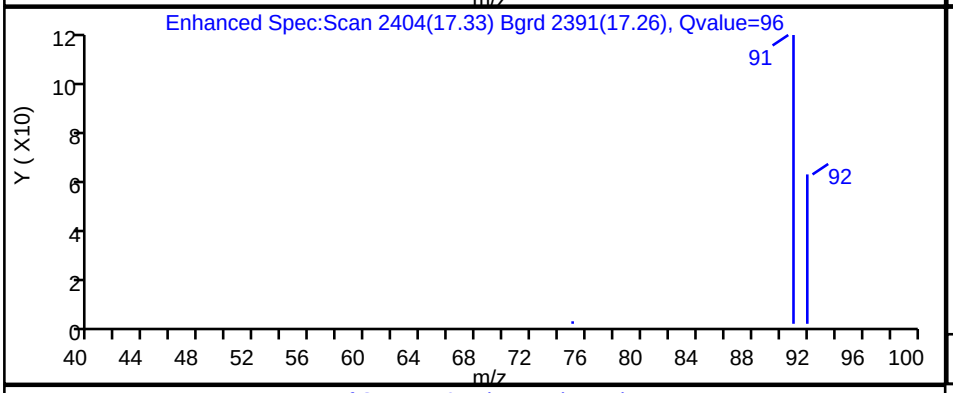
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052211.D				
Injection Date:	23-May-2018 00:32:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-6	Lab Sample ID:	320-39588-6		
Client ID:	8156				
Operator ID:	EJ	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

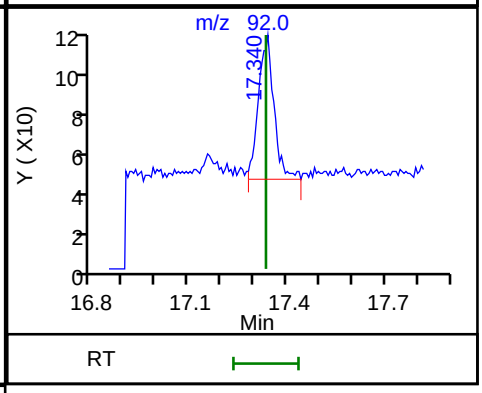
46 Toluene, CAS: 108-88-3

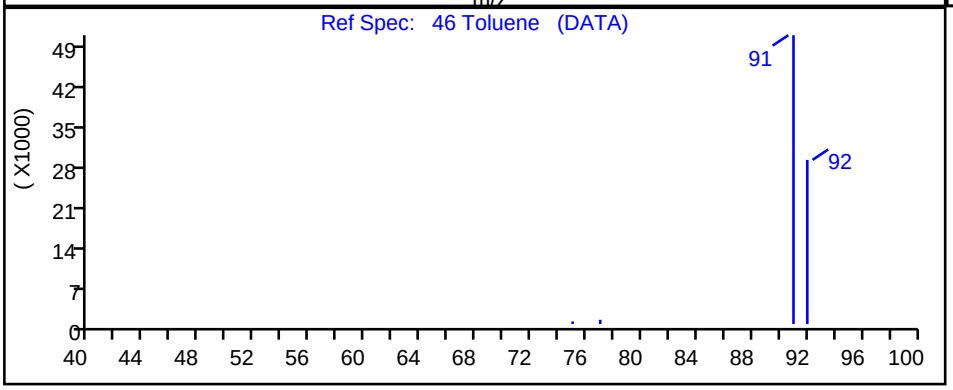
Processing Results











RT	Mass	Response	Amount
17.33	91.00	374	0.001499
17.34	92.00	244	

Reviewer: phanthasena, 23-May-2018 15:45:15

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 7879
Lab Sample ID: 320-39588-7
Matrix: Air
Lab File ID: MS1052212.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 01:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 7879
Lab Sample ID: 320-39588-7
Matrix: Air
Lab File ID: MS1052212.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 01:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D
Lims ID: 320-39588-A-7
Client ID: 7879
Sample Type: Client
Inject. Date: 23-May-2018 01:31:30 ALS Bottle#: 8 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-7
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 16:38:28 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 16:38:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	47	32425	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	120447	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	95	72505	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.781	0.007	70	41002	2.04	
$ 5 Toluene-d8 (Surr)	100	17.161	17.164	0.006	99	57846	2.05	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.020	0.002	95	29886	1.93	
18 Acetone	43	6.838	6.824	0.018	99	4671	0.008118	

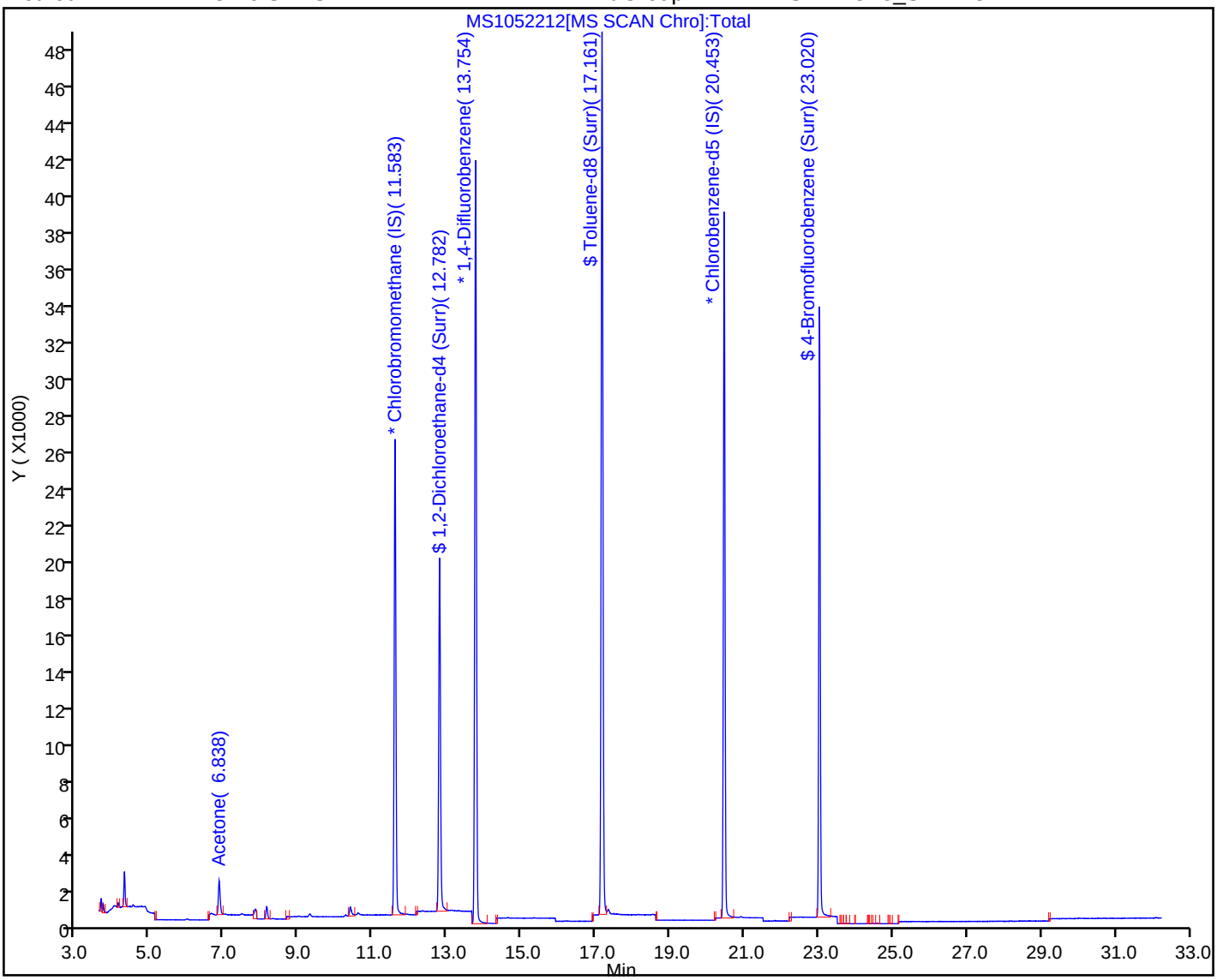
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 16:38:28 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



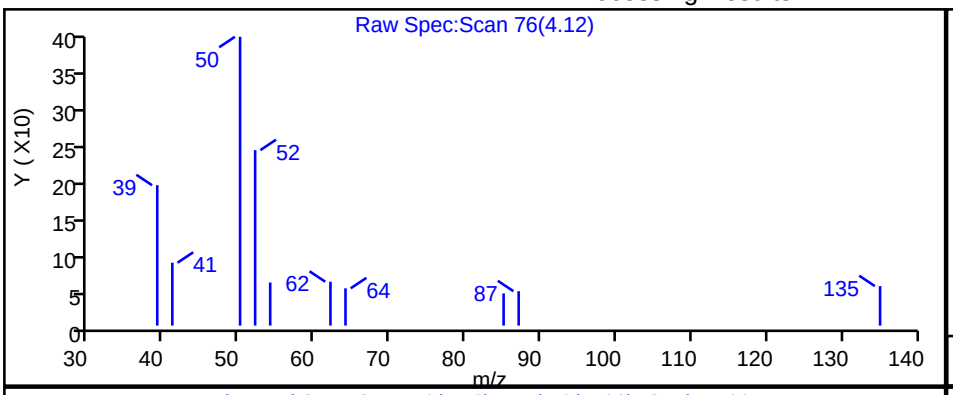
User Disabled Compound Report

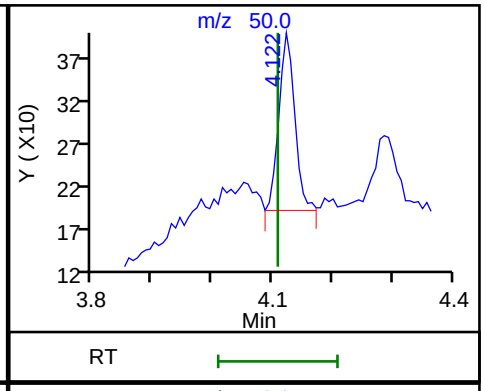
TestAmerica Sacramento

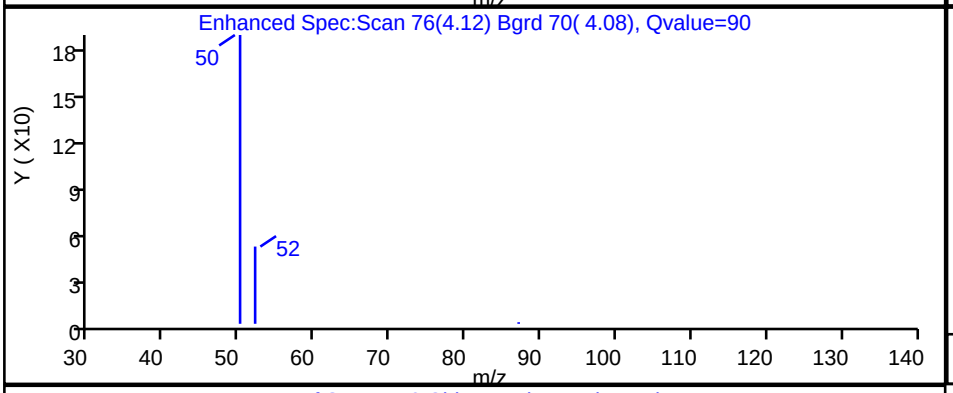
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

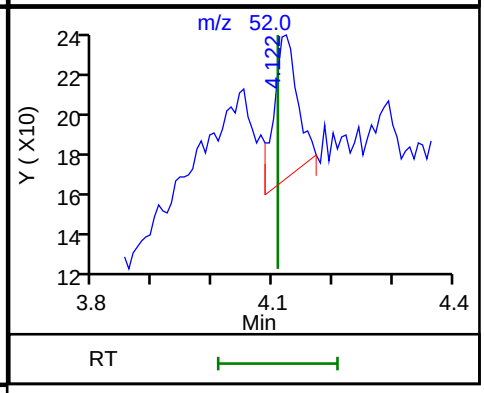
10 Chloromethane, CAS: 74-87-3

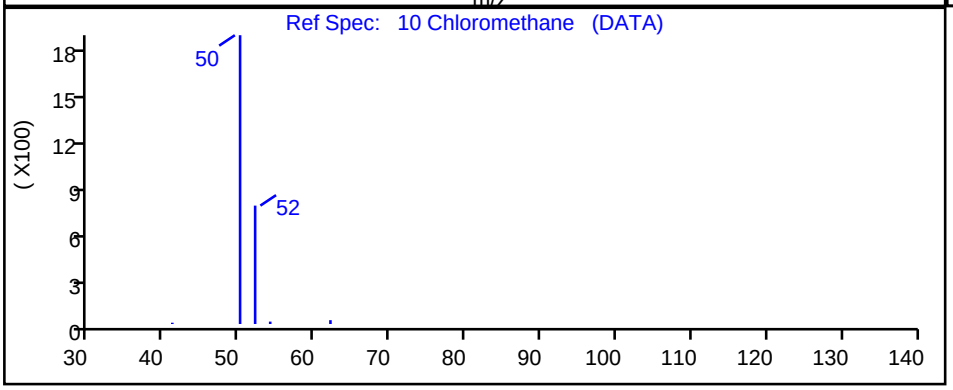
Processing Results











RT	Mass	Response	Amount
4.12	50.00	372	0.012563
4.12	52.00	197	

Reviewer: phanthasena, 23-May-2018 16:37:54

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

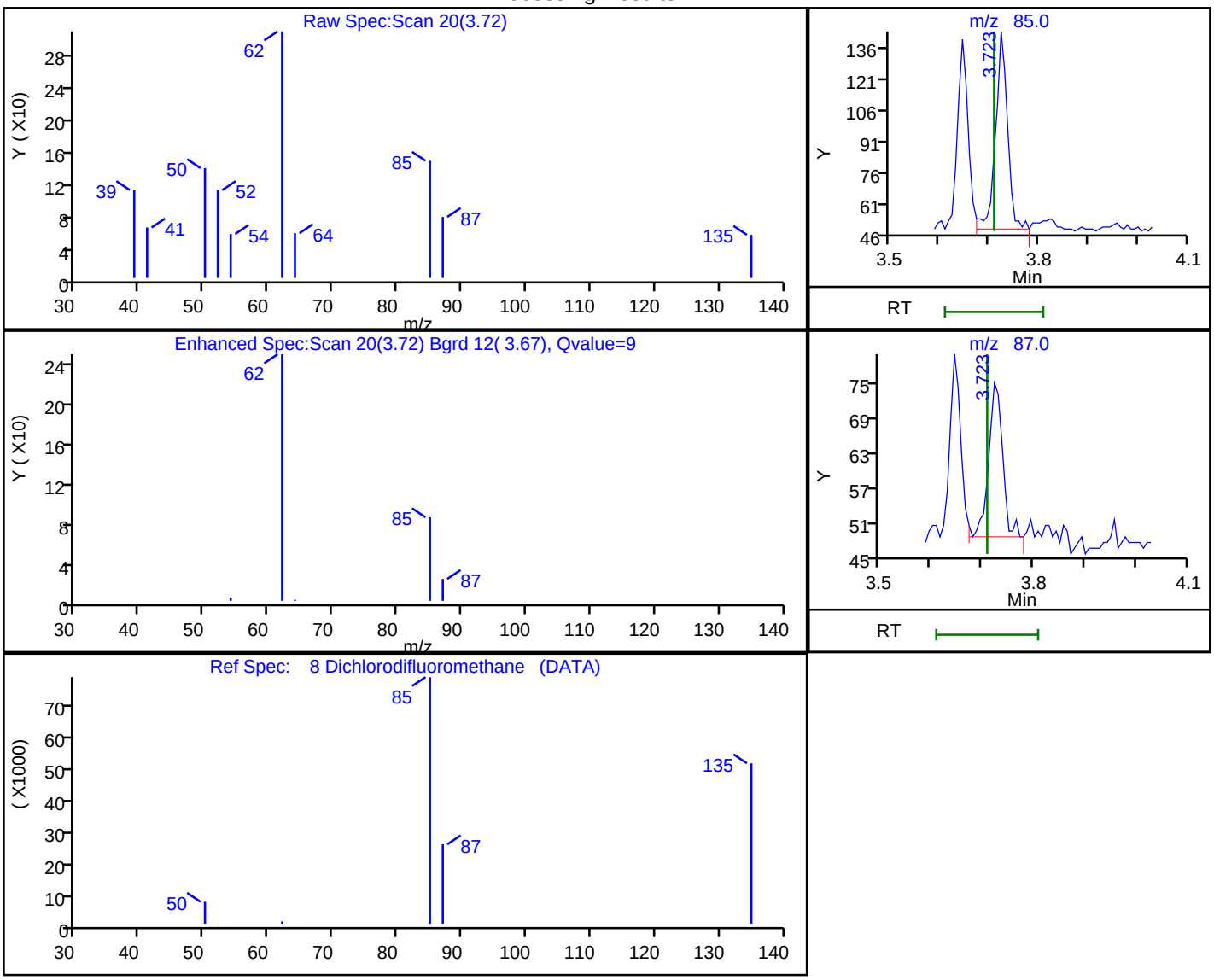
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	165	0.003557
3.72	87.00	52	

Reviewer: phanthasena, 23-May-2018 16:37:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

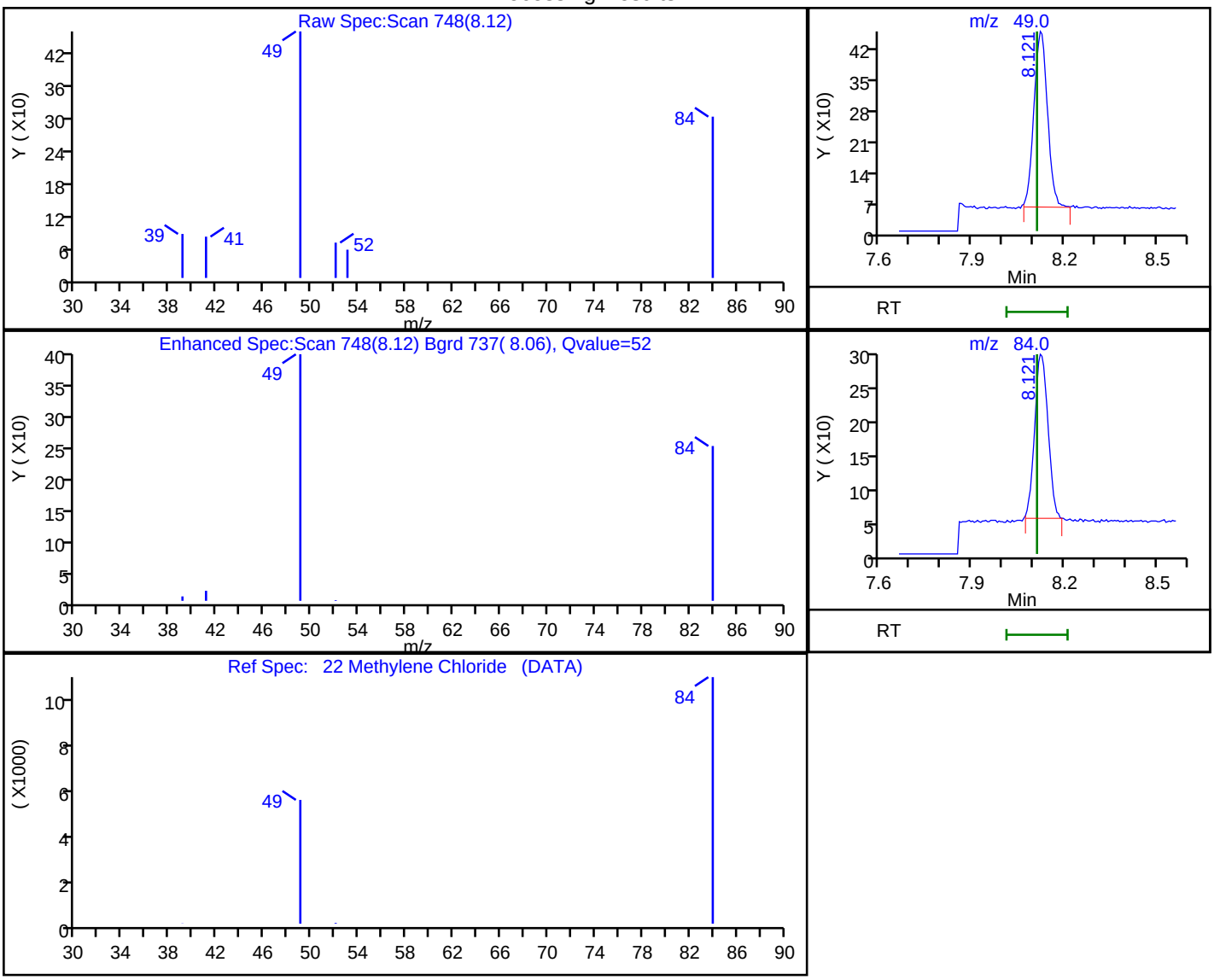
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.12	49.00	1232	0.008815
8.12	84.00	741	

Reviewer: phanthasena, 23-May-2018 16:38:07

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

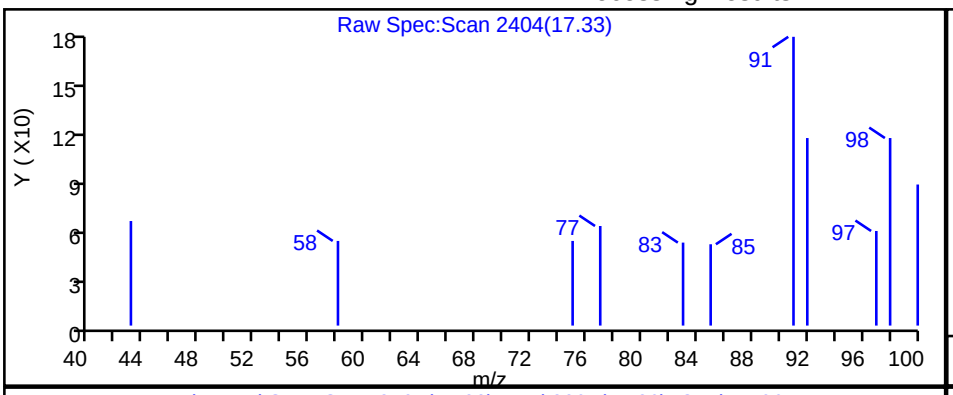
User Disabled Compound Report

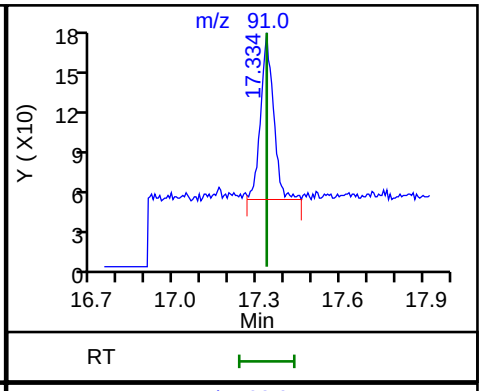
TestAmerica Sacramento

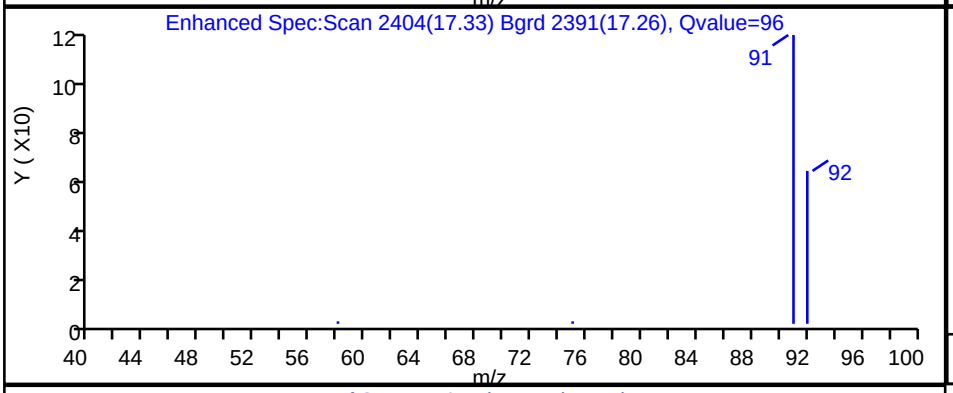
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

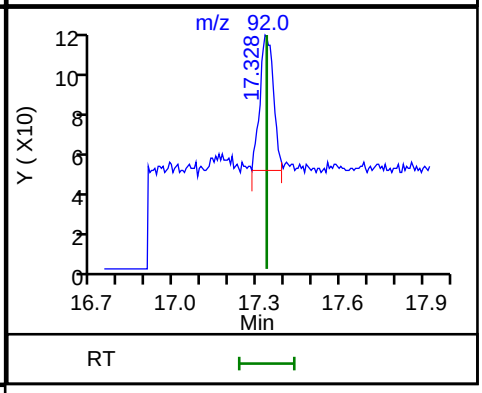
46 Toluene, CAS: 108-88-3

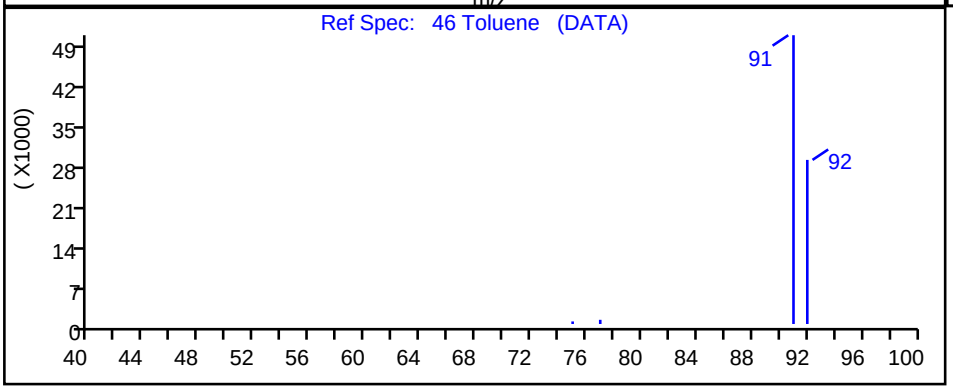
Processing Results











RT	Mass	Response	Amount
17.33	91.00	400	0.001669
17.33	92.00	225	

Reviewer: phanthasena, 23-May-2018 16:38:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

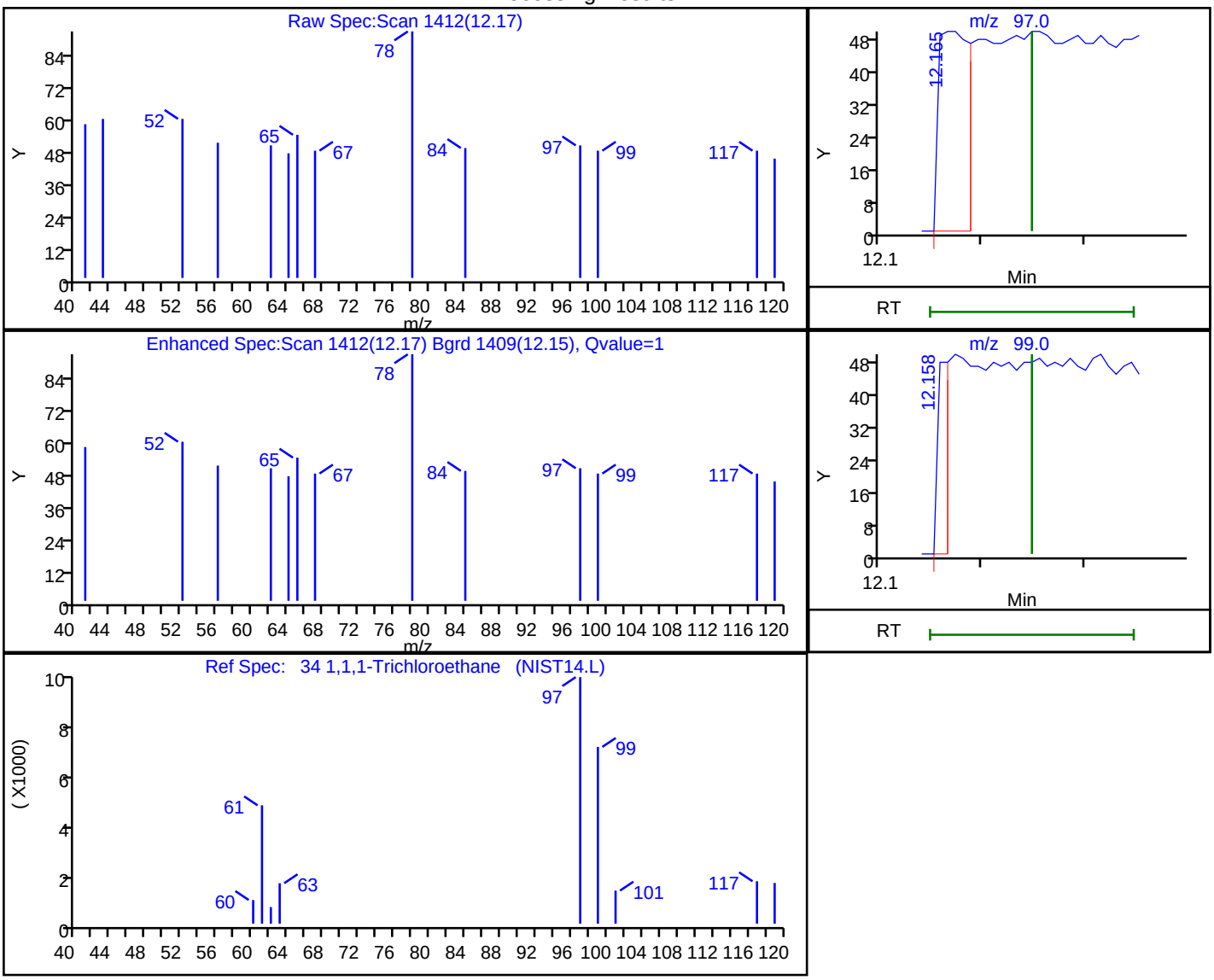
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052212.D				
Injection Date:	23-May-2018 01:31:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-7	Lab Sample ID:	320-39588-7		
Client ID:	7879				
Operator ID:	EJ	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

34 1,1,1-Trichloroethane, CAS: 71-55-6

Processing Results



RT	Mass	Response	Amount
12.17	97.00	106	0.002981
12.16	99.00	39	

Reviewer: phanthasena, 23-May-2018 16:38:10

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8046 | Lab Sample ID: 320-39588-8
Matrix: Air | Lab File ID: MS1052213.D
Analysis Method: TO-15 SIM | Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2018 02:30
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 224833 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-39588-1

SDG No.:

Client Sample ID: 8046 Lab Sample ID: 320-39588-8

Matrix: Air Lab File ID: MS1052213.D

Analysis Method: TO-15 SIM Date Collected: 05/21/2018 00:00

Sample wt/vol: 500(mL) Date Analyzed: 05/23/2018 02:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 224833 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D
Lims ID: 320-39588-A-8
Client ID: 8046
Sample Type: Client
Inject. Date: 23-May-2018 02:30:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-8
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 17:47:06 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 17:47:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	46	32124	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	119426	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.455	20.451	0.004	95	71811	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.782	0.007	74	40821	2.05	
$ 5 Toluene-d8 (Surr)	100	17.163	17.164	0.008	99	57246	2.05	
$ 6 4-Bromofluorobenzene (Surr	174	23.025	23.022	0.007	94	29823	1.94	
18 Acetone	43	6.838	6.824	0.018	99	6392	0.0112	

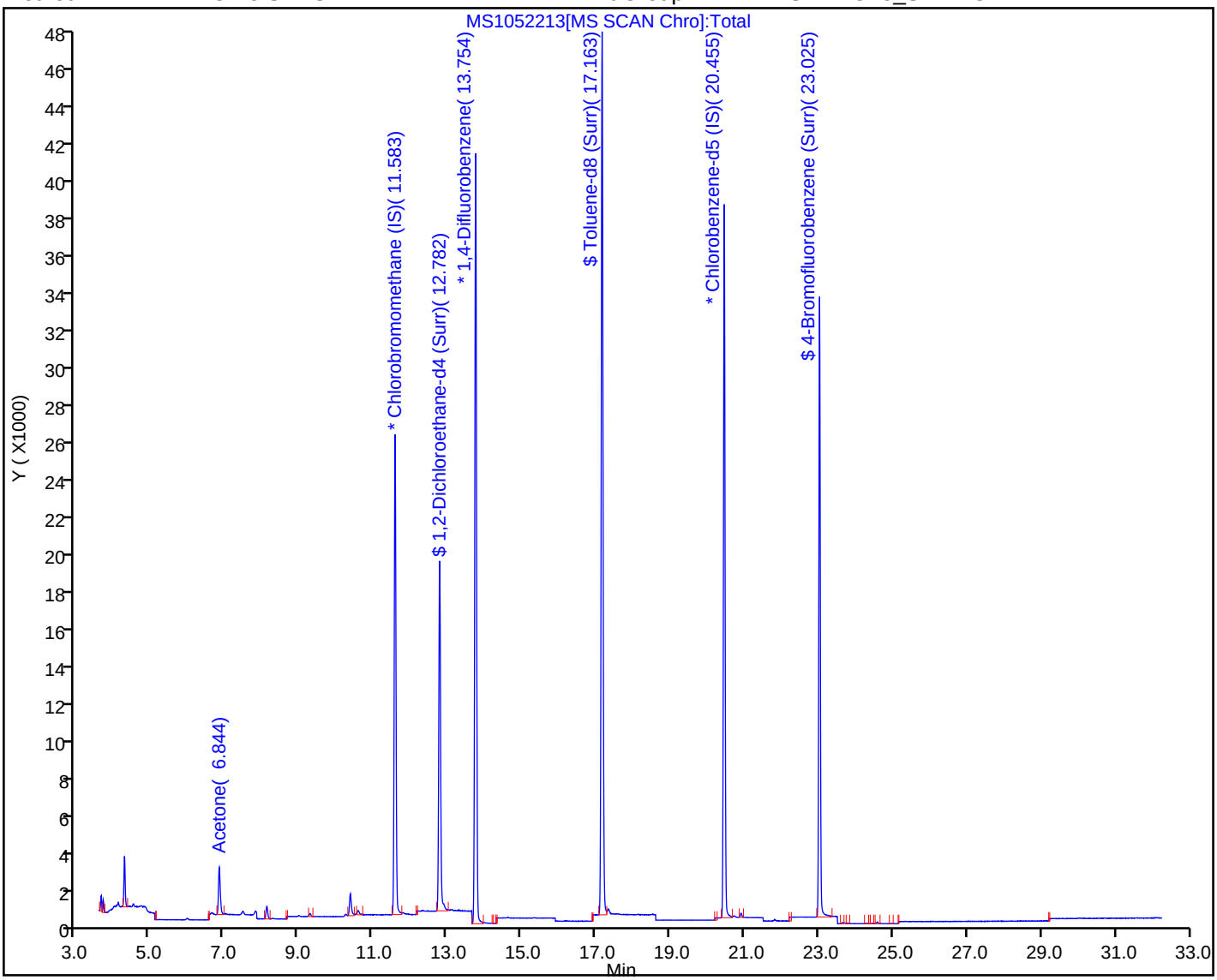
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 17:47:07 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D				
Injection Date:	23-May-2018 02:30:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-8	Lab Sample ID:	320-39588-8		
Client ID:	8046				
Operator ID:	EJ	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



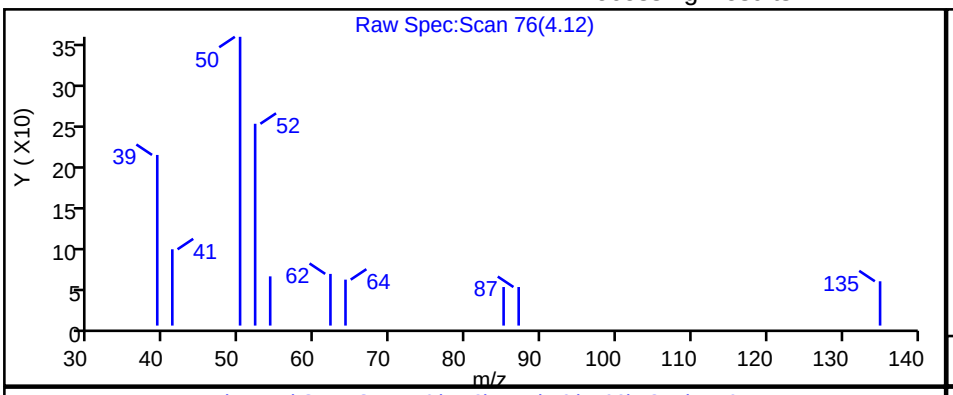
User Disabled Compound Report

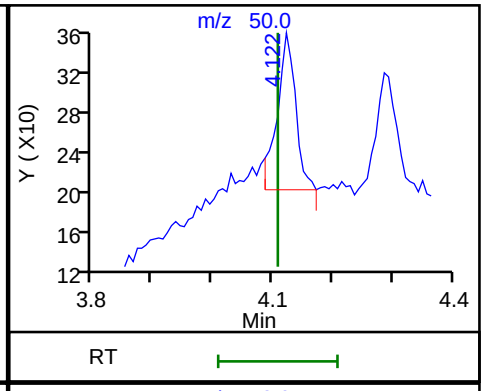
TestAmerica Sacramento

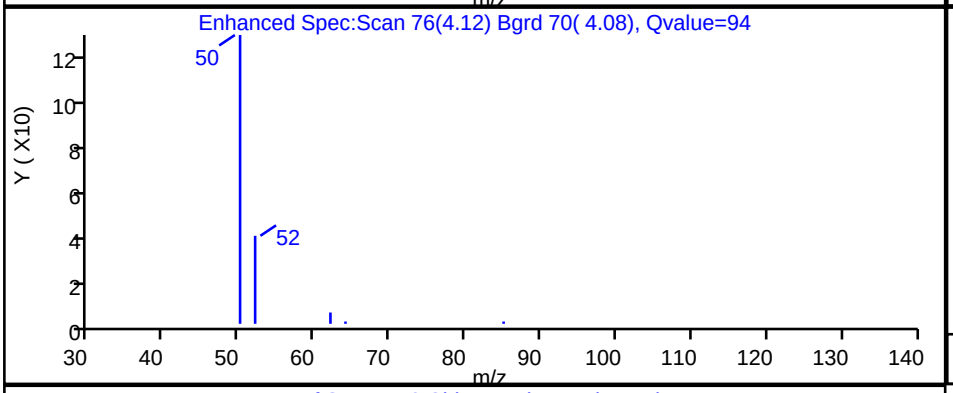
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D				
Injection Date:	23-May-2018 02:30:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-8	Lab Sample ID:	320-39588-8		
Client ID:	8046				
Operator ID:	EJ	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

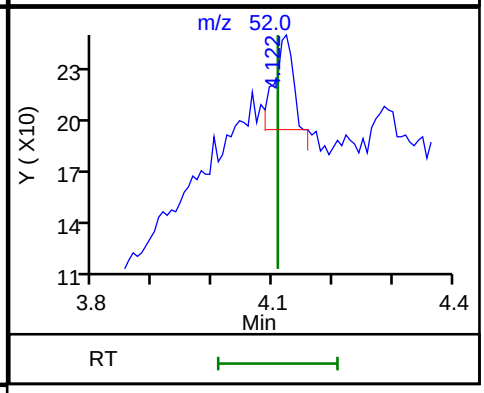
10 Chloromethane, CAS: 74-87-3

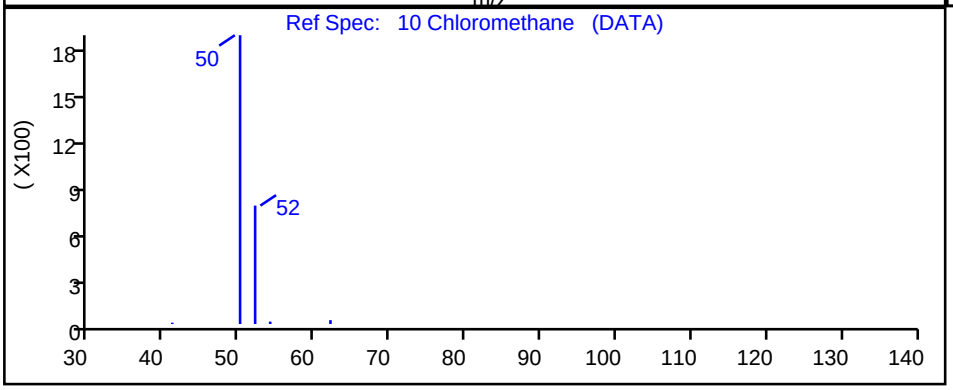
Processing Results











RT	Mass	Response	Amount
4.12	50.00	329	0.011215
4.12	52.00	111	

Reviewer: phanthasena, 23-May-2018 17:46:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

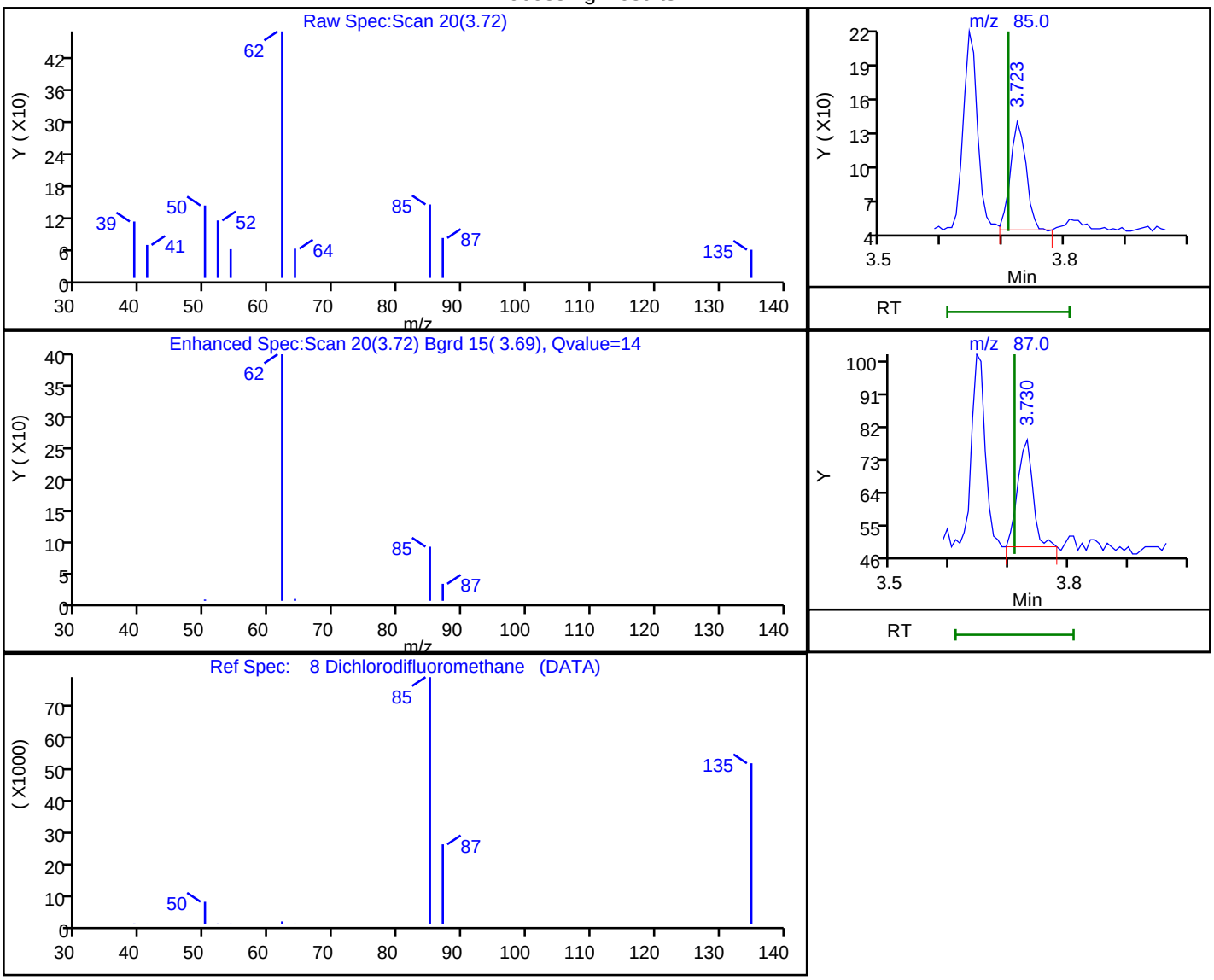
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D				
Injection Date:	23-May-2018 02:30:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-8	Lab Sample ID:	320-39588-8		
Client ID:	8046				
Operator ID:	EJ	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	162	0.003525
3.73	87.00	54	

Reviewer: phanthasena, 23-May-2018 17:46:48

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

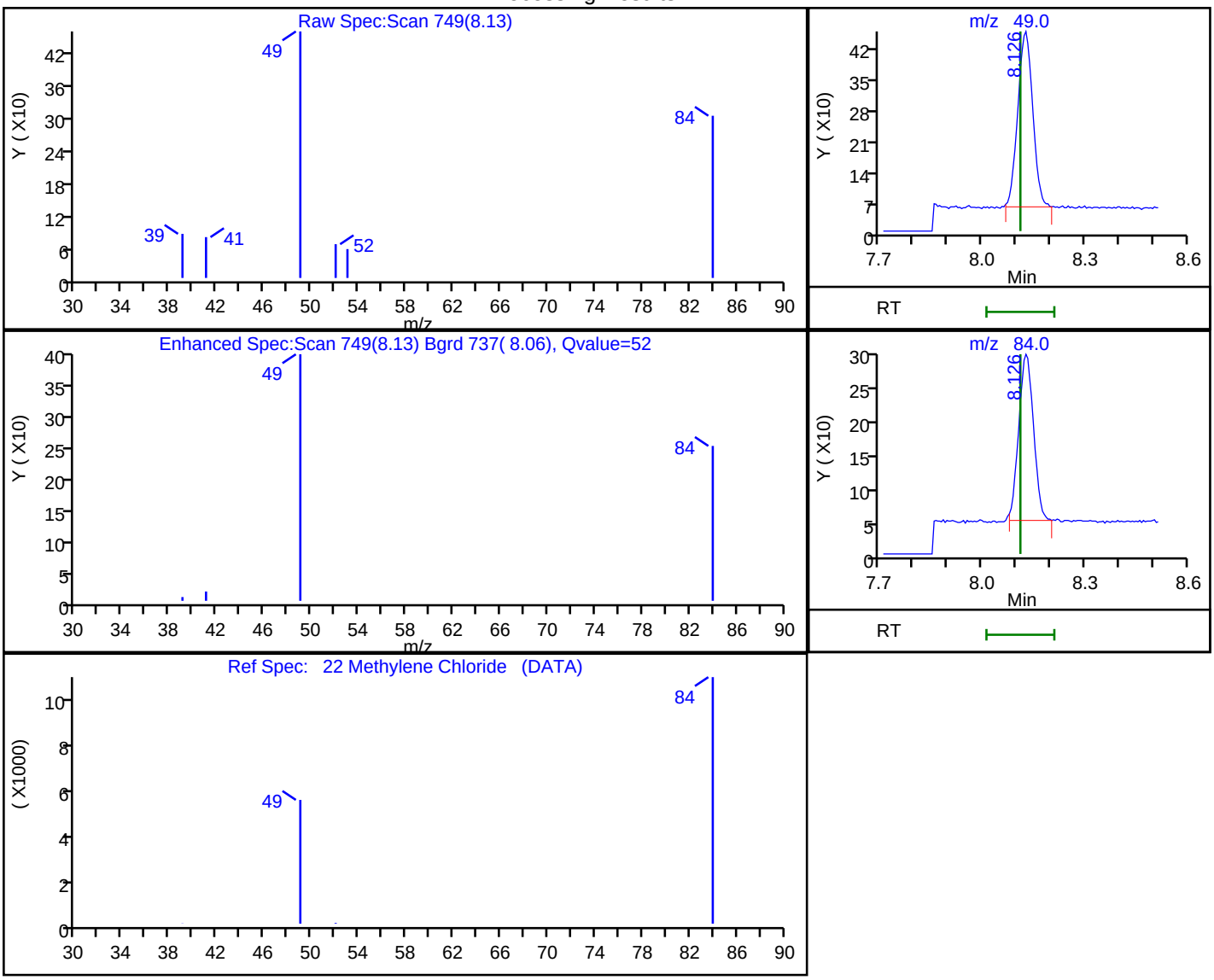
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D				
Injection Date:	23-May-2018 02:30:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-8	Lab Sample ID:	320-39588-8		
Client ID:	8046				
Operator ID:	EJ	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.13	49.00	1217	0.008789
8.13	84.00	751	

Reviewer: phanthasena, 23-May-2018 17:46:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

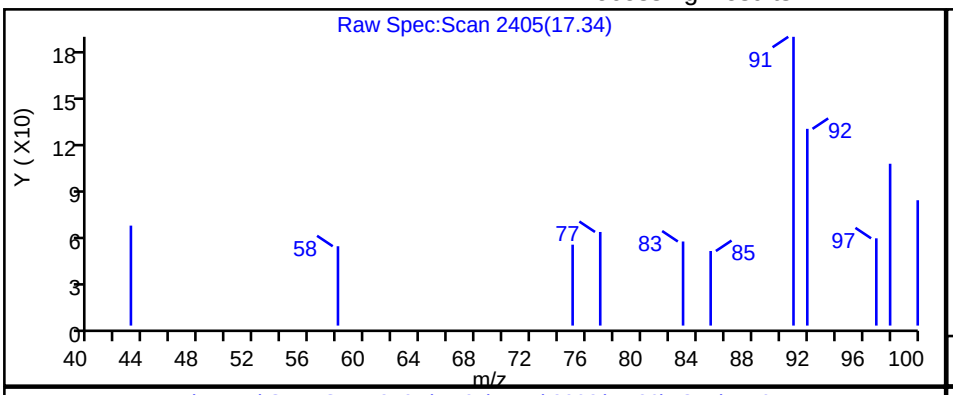
User Disabled Compound Report

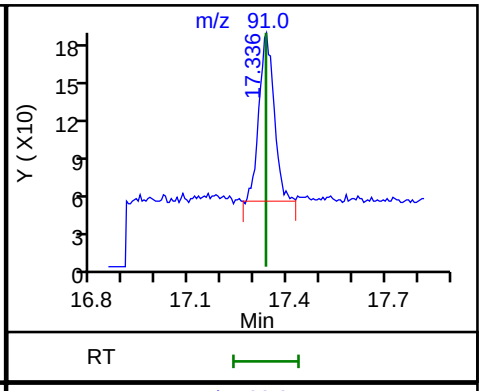
TestAmerica Sacramento

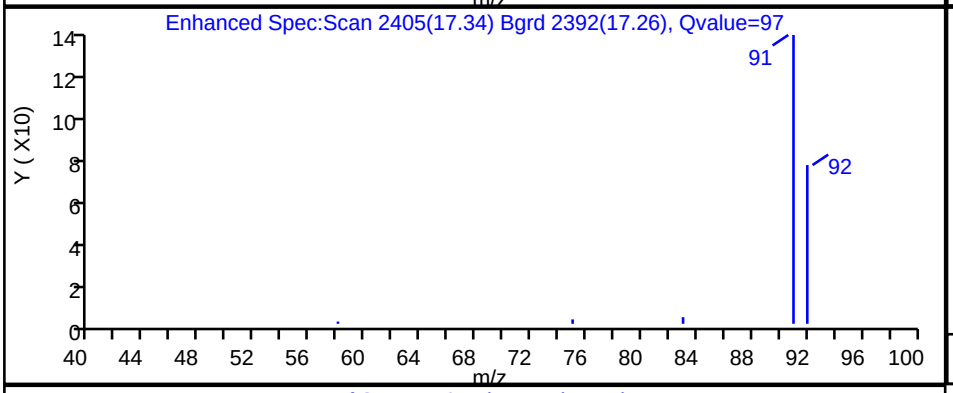
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052213.D				
Injection Date:	23-May-2018 02:30:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-8	Lab Sample ID:	320-39588-8		
Client ID:	8046				
Operator ID:	EJ	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

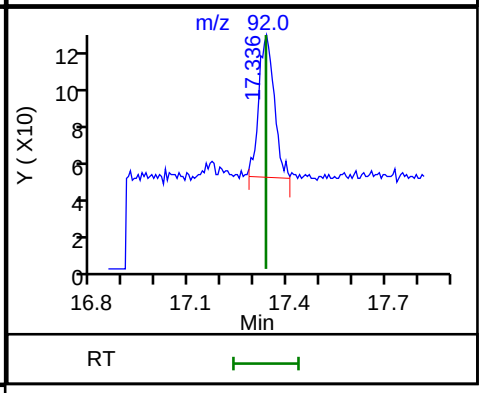
46 Toluene, CAS: 108-88-3

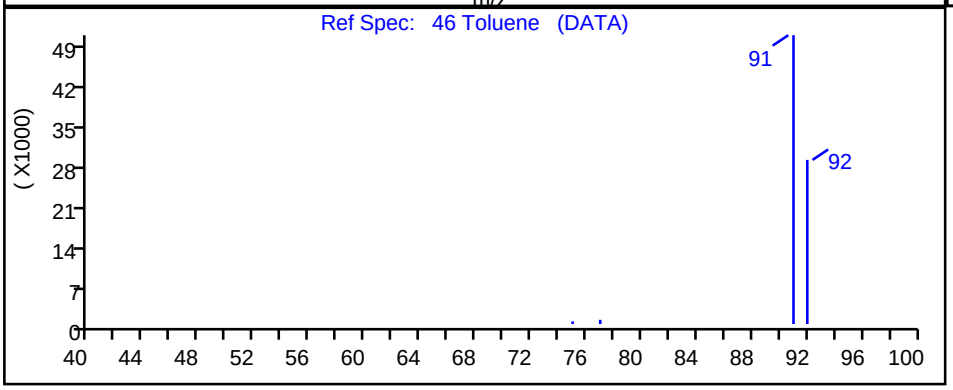
Processing Results











RT	Mass	Response	Amount
17.34	91.00	419	0.001763
17.34	92.00	247	

Reviewer: phanthasena, 23-May-2018 17:47:00

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-39588-1
SDG No.:
Client Sample ID: 7959 | Lab Sample ID: 320-39588-9
Matrix: Air | Lab File ID: MS1052214.D
Analysis Method: TO-15 SIM | Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2018 03:29
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 224833 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 7959
Lab Sample ID: 320-39588-9
Matrix: Air
Lab File ID: MS1052214.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 03:29
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052214.D
Lims ID: 320-39588-A-9
Client ID: 7959
Sample Type: Client
Inject. Date: 23-May-2018 03:29:30 ALS Bottle#: 10 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-9
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 18:33:48 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: phanthasena Date: 23-May-2018 18:33:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.583	11.577	0.006	46	32445	2.00	
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	120183	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	95	72411	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.781	0.007	75	41158	2.05	
$ 5 Toluene-d8 (Surr)	100	17.161	17.164	0.006	99	57531	2.04	
$ 6 4-Bromofluorobenzene (Surr	174	23.026	23.020	0.008	92	29804	1.92	
18 Acetone	43	6.838	6.824	0.018	98	6044	0.0105	

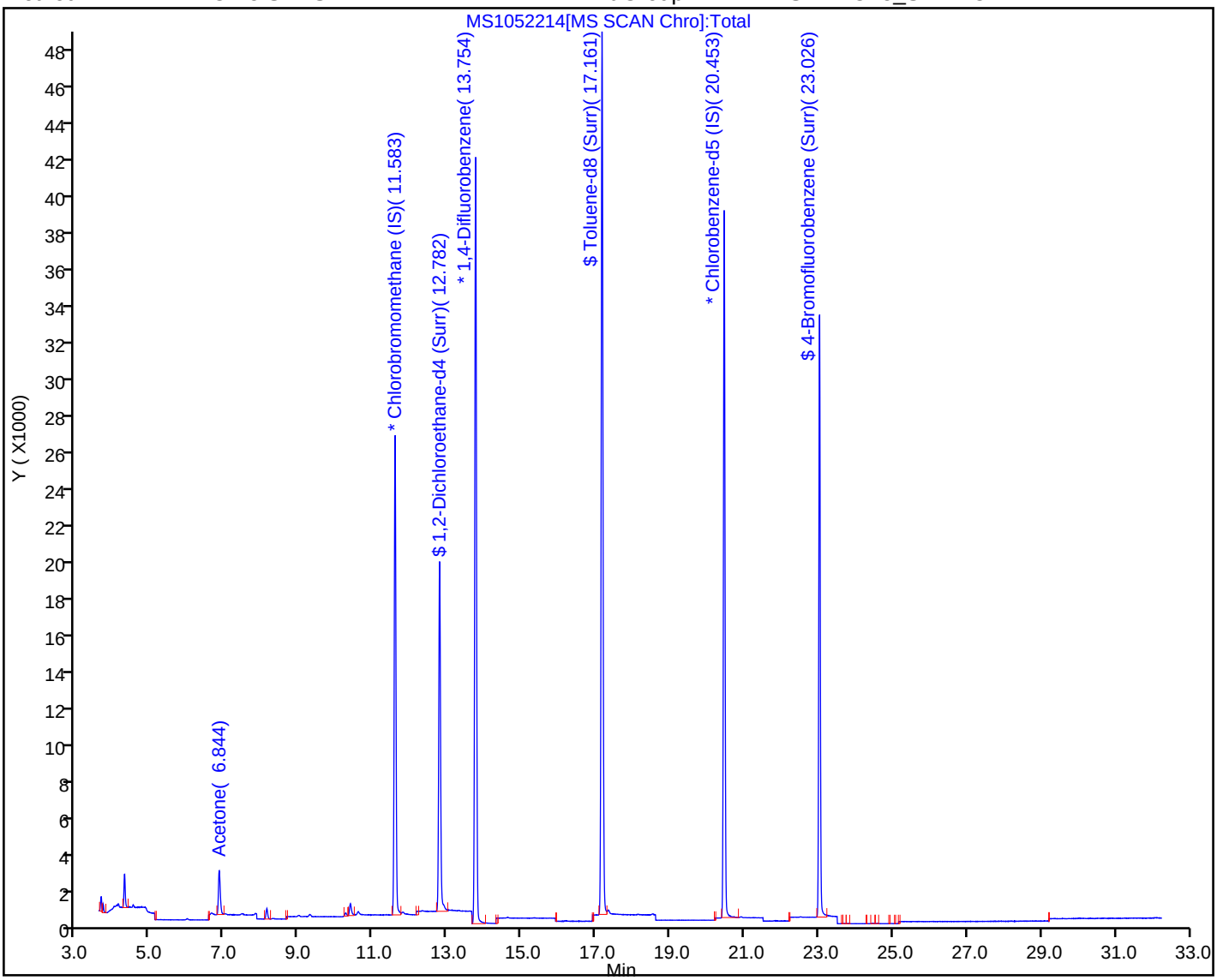
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 18:33:48 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052214.D				
Injection Date:	23-May-2018 03:29:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-9	Lab Sample ID:	320-39588-9		
Client ID:	7959				
Operator ID:	EJ	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



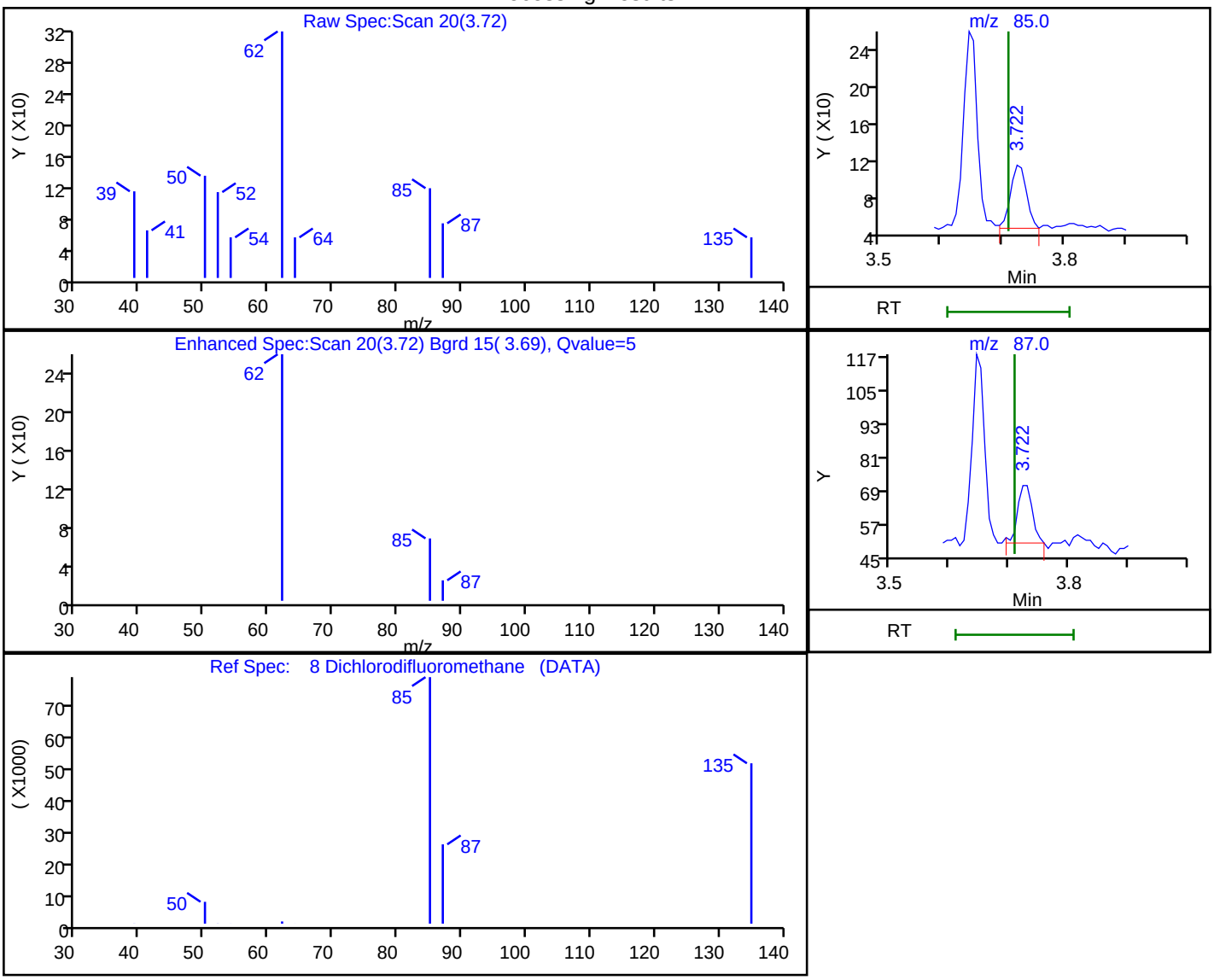
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052214.D				
Injection Date:	23-May-2018 03:29:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-9	Lab Sample ID:	320-39588-9		
Client ID:	7959				
Operator ID:	EJ	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

8 Dichlorodifluoromethane, CAS: 75-71-8

Processing Results



RT	Mass	Response	Amount
3.72	85.00	121	0.002607
3.72	87.00	36	

Reviewer: phanthasena, 23-May-2018 18:33:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

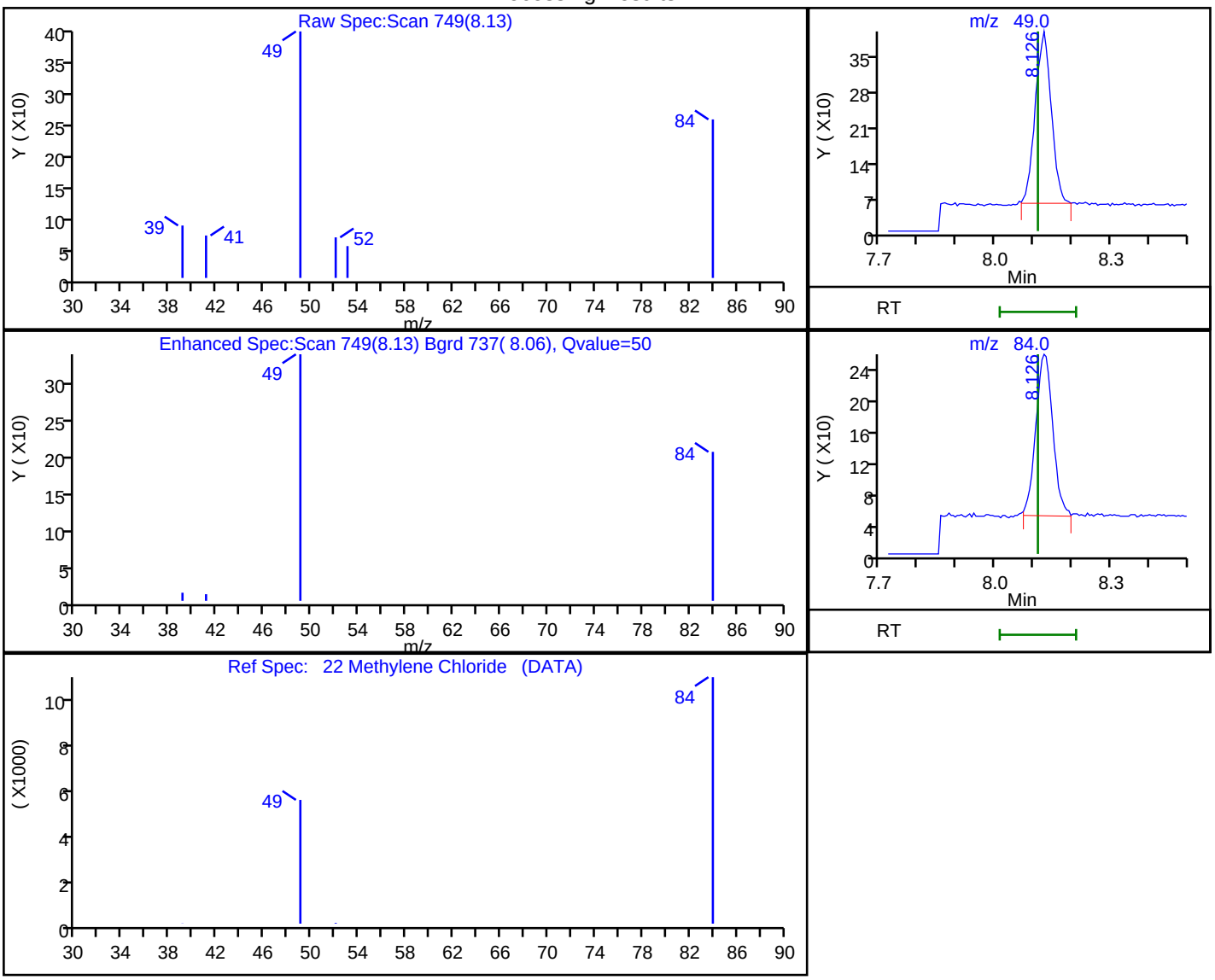
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052214.D				
Injection Date:	23-May-2018 03:29:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-9	Lab Sample ID:	320-39588-9		
Client ID:	7959				
Operator ID:	EJ	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
8.13	49.00	989	0.007072
8.13	84.00	637	

Reviewer: phanthasena, 23-May-2018 18:33:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

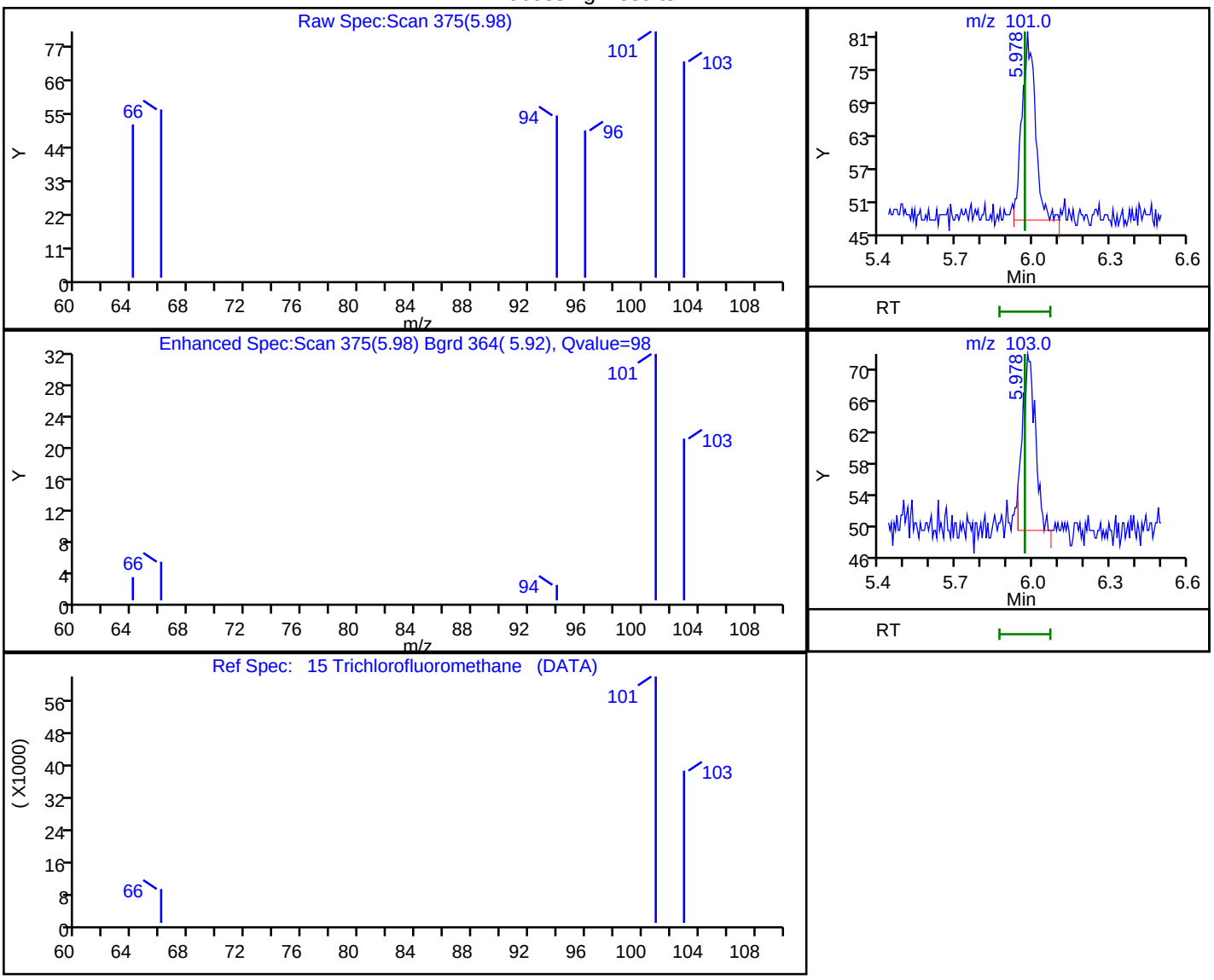
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052214.D				
Injection Date:	23-May-2018 03:29:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-9	Lab Sample ID:	320-39588-9		
Client ID:	7959				
Operator ID:	EJ	ALS Bottle#:	10	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

15 Trichlorofluoromethane, CAS: 75-69-4

Processing Results



RT	Mass	Response	Amount
5.98	101.00	126	0.002579
5.98	103.00	79	

Reviewer: phanthasena, 23-May-2018 18:33:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000380 | Lab Sample ID: 320-39588-10
Matrix: Air | Lab File ID: MS1052215.D
Analysis Method: TO-15 SIM | Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2018 04:28
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 224833 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000380
Lab Sample ID: 320-39588-10
Matrix: Air
Lab File ID: MS1052215.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 04:28
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052215.D
Lims ID: 320-39588-A-10
Client ID: 34000380
Sample Type: Client
Inject. Date: 23-May-2018 04:28:30 ALS Bottle#: 11 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-10
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 09:34:34 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: jamese Date: 23-May-2018 09:34:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.577	11.577	0.000	46	31942	2.00	a
* 2 1,4-Difluorobenzene	114	13.750	13.747	0.003	99	118989	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	94	72018	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.775	12.781	0.000	89	40522	2.04	
$ 5 Toluene-d8 (Surr)	100	17.155	17.164	0.000	99	56908	2.04	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.020	0.002	95	29302	1.90	
43 1,4-Dioxane	88	15.319	15.333	-0.006	1	273	0.0148	

QC Flag Legend

Review Flags
a - User Assigned ID

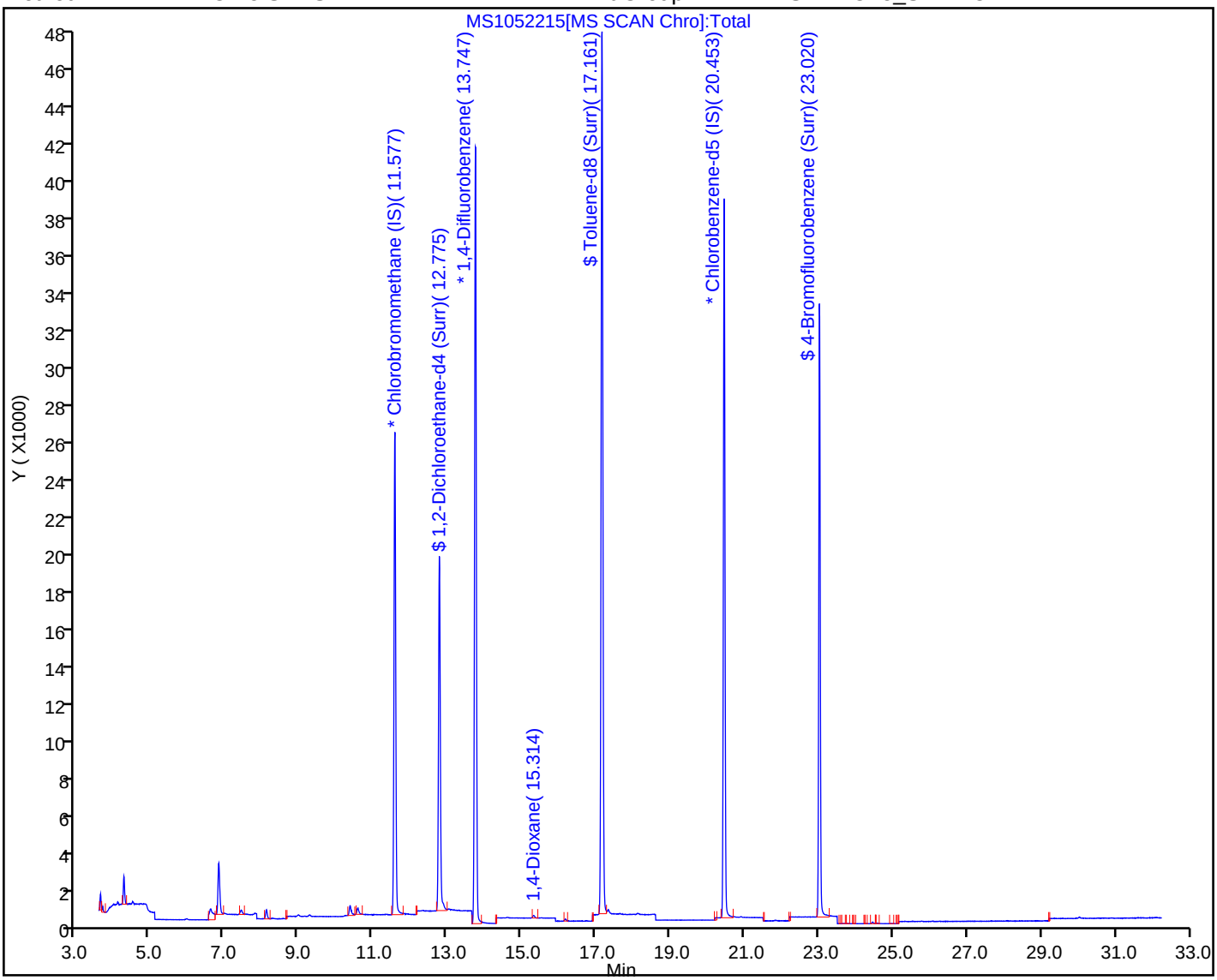
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 09:34:35 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052215.D				
Injection Date:	23-May-2018 04:28:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-10	Lab Sample ID:	320-39588-10		
Client ID:	34000380				
Operator ID:	EJ	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

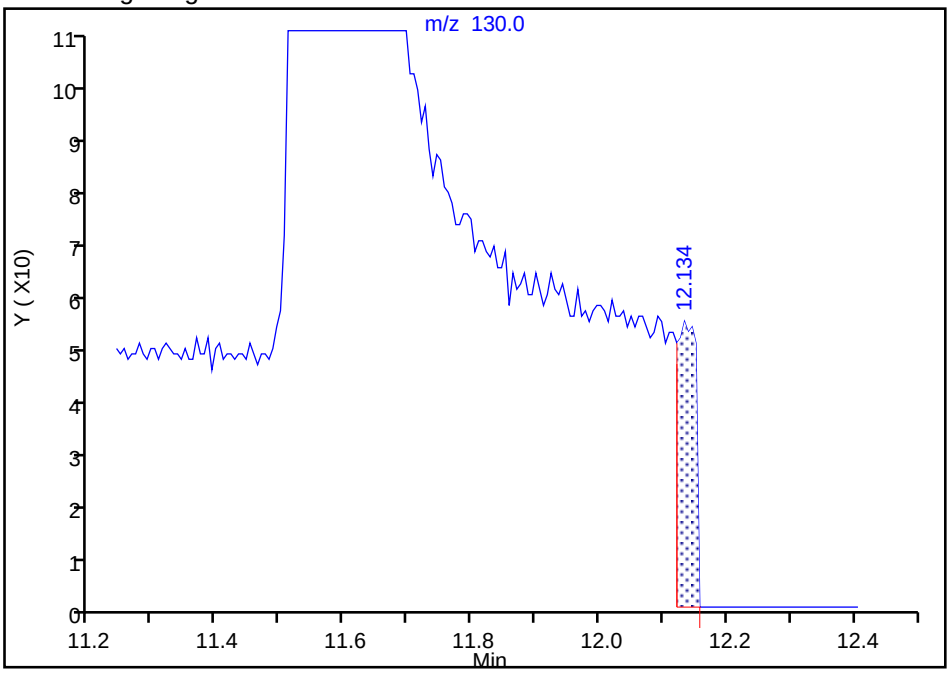
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052215.D				
Injection Date:	23-May-2018 04:28:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-10	Lab Sample ID:	320-39588-10		
Client ID:	34000380				
Operator ID:	EJ	ALS Bottle#:	11	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

* 1 Chlorobromomethane (IS), CAS: 74-97-5

Signal: 1

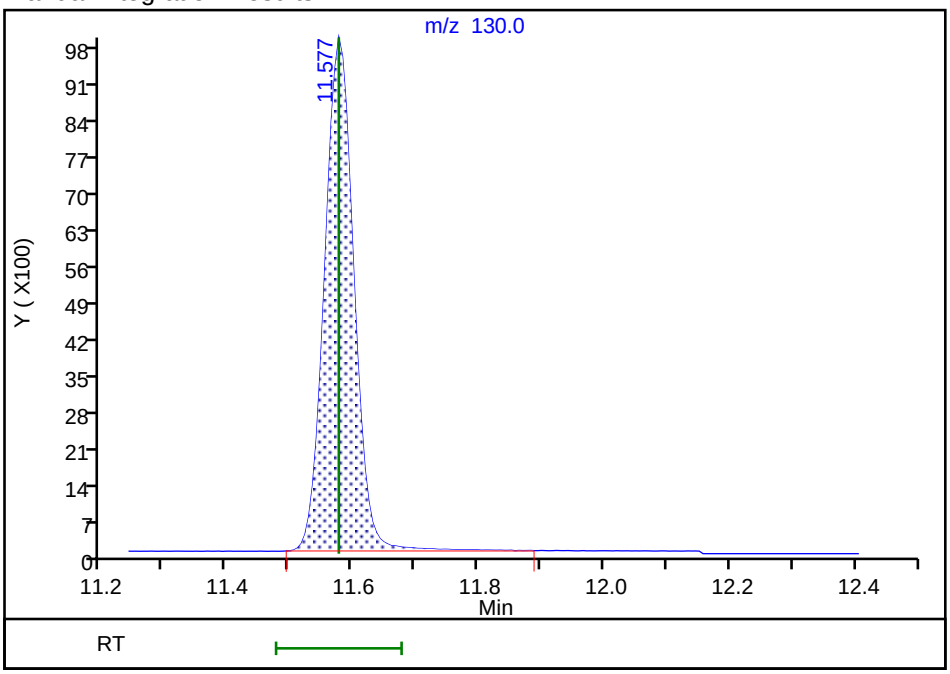
Processing Integration Results

RT: 12.13
Area: 109
Amount: 2.000000
Amount Units: ppb v/v



Manual Integration Results

RT: 11.58
Area: 31942
Amount: 2.000000
Amount Units: ppb v/v



Reviewer: jamese, 23-May-2018 09:34:20

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000025
Lab Sample ID: 320-39588-11
Matrix: Air
Lab File ID: MS1052216.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 05:26
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-71-8	Dichlorodifluoromethane	ND		0.020	0.0050
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
123-91-1	1,4-Dioxane	ND		0.10	0.010
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 34000025
Lab Sample ID: 320-39588-11
Matrix: Air
Lab File ID: MS1052216.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 05:26
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052216.D
Lims ID: 320-39588-A-11
Client ID: 34000025
Sample Type: Client
Inject. Date: 23-May-2018 05:26:30 ALS Bottle#: 12 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-11
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 09:35:41 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: jamese Date: 23-May-2018 09:35:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.589	11.577	0.012	47	34244	2.00	
* 2 1,4-Difluorobenzene	114	13.758	13.747	0.011	99	127247	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	95	78227	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.781	0.007	55	43431	2.05	
$ 5 Toluene-d8 (Surr)	100	17.161	17.164	0.006	99	61023	2.05	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.020	0.002	95	32923	1.97	
18 Acetone	43	6.850	7.141	0.030	98	7713	0.0127	

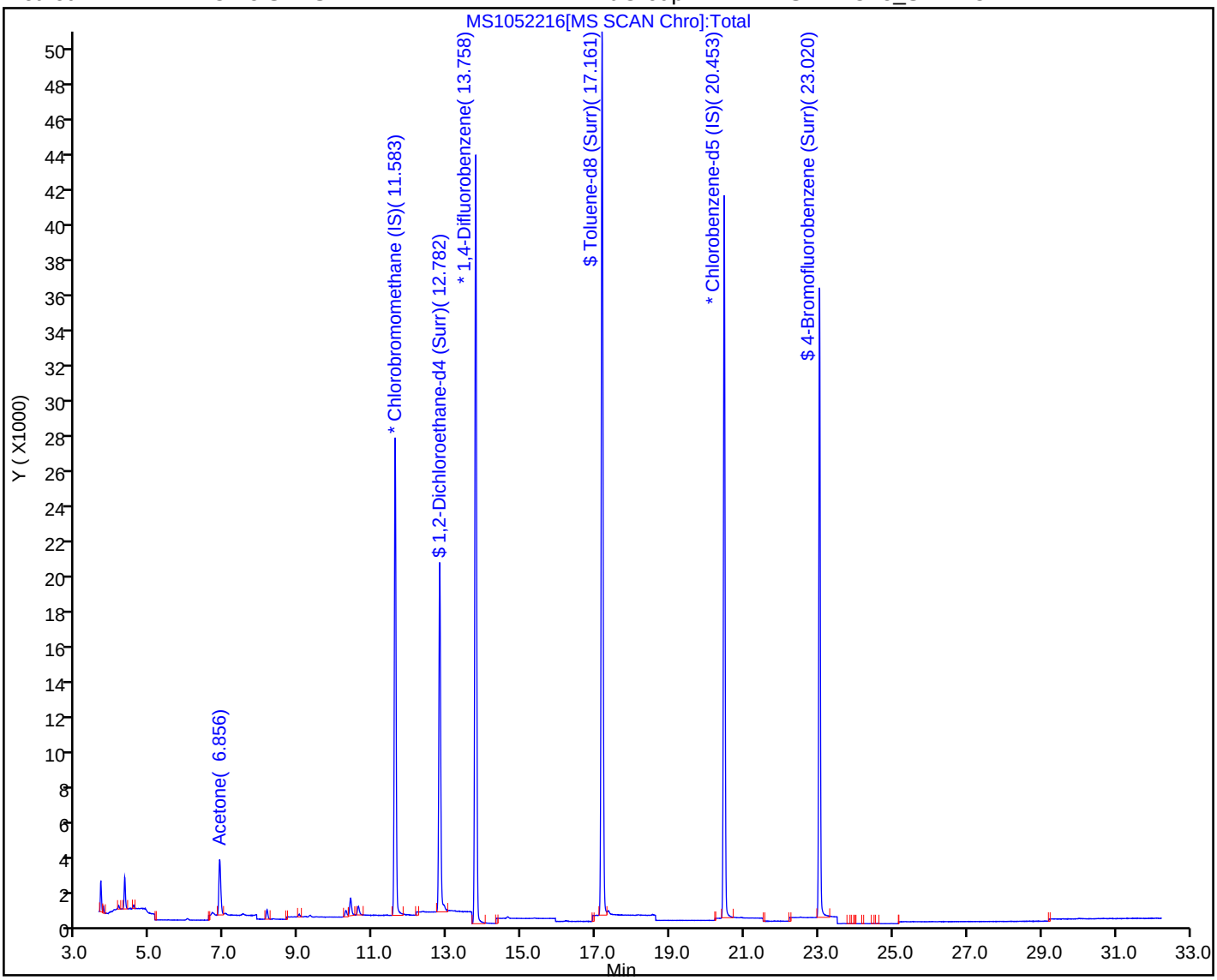
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 09:36:01 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052216.D				
Injection Date:	23-May-2018 05:26:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-11	Lab Sample ID:	320-39588-11		
Client ID:	34000025				
Operator ID:	EJ	ALS Bottle#:	12	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



Report Date: 23-May-2018 09:36:01 Chrom Revision: 2.2 11-May-2018 08:54:46

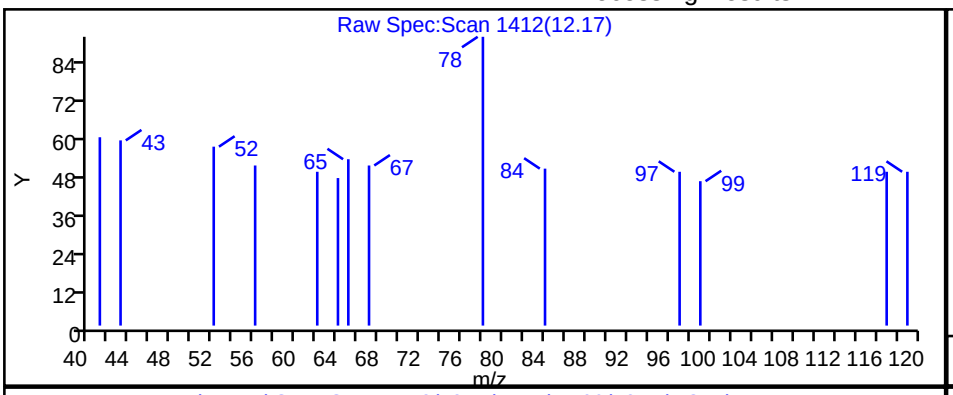
User Disabled Compound Report

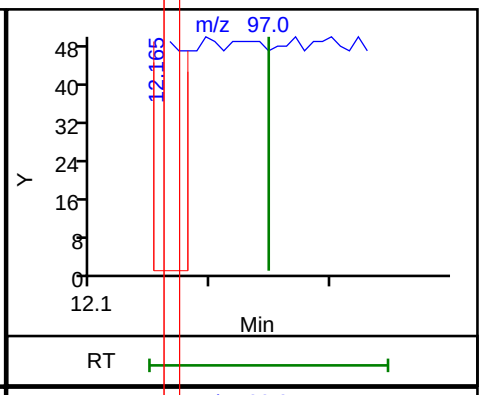
TestAmerica Sacramento

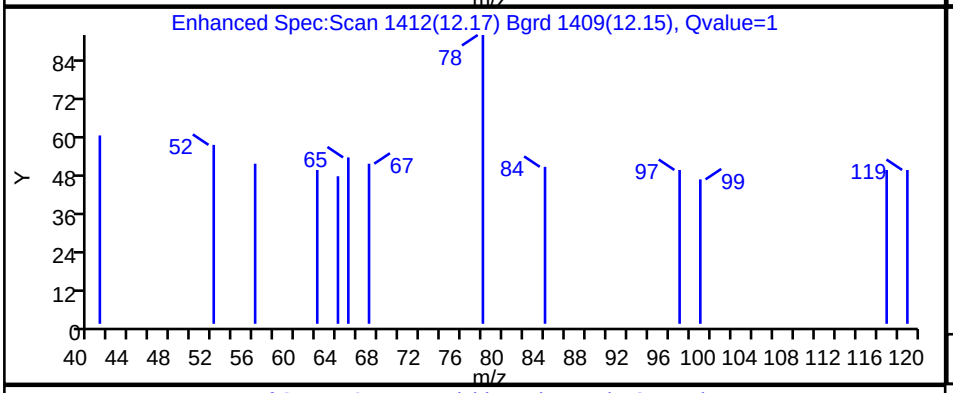
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052216.D				
Injection Date:	23-May-2018 05:26:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-11	Lab Sample ID:	320-39588-11		
Client ID:	34000025				
Operator ID:	EJ	ALS Bottle#:	12	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

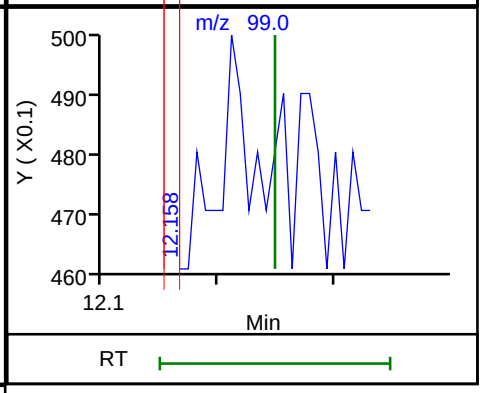
34 1,1,1-Trichloroethane, CAS: 71-55-6

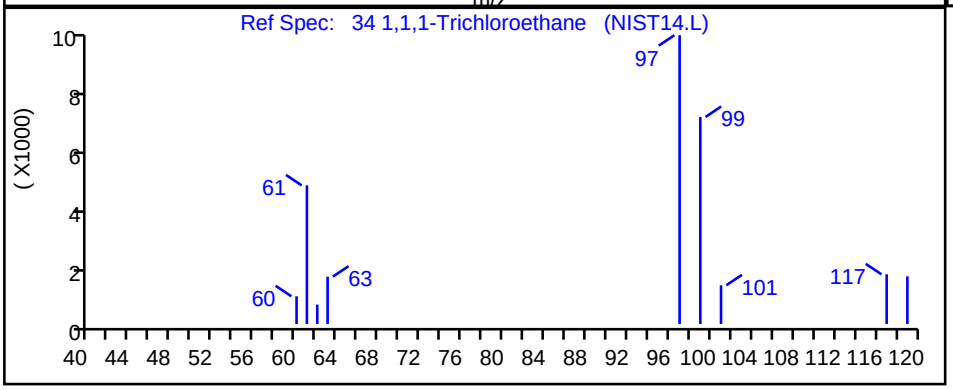
Processing Results











RT	Mass	Response	Amount
12.17	97.00	82	0.002184
12.16	99.00	38	

Reviewer: jamese, 23-May-2018 09:34:59

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8130 | Lab Sample ID: 320-39588-12
Matrix: Air | Lab File ID: MS1052217.D
Analysis Method: TO-15 SIM | Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2018 06:26
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 224833 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.020	0.010
100-44-7	Benzyl chloride	ND		0.10	0.010
75-27-4	Bromodichloromethane	ND		0.012	0.0050
56-23-5	Carbon tetrachloride	ND		0.010	0.0050
108-90-7	Chlorobenzene	ND		0.020	0.010
75-00-3	Chloroethane	ND		0.045	0.010
67-66-3	Chloroform	ND		0.020	0.0050
74-87-3	Chloromethane	ND		0.20	0.010
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.0070	0.0028
95-50-1	1,2-Dichlorobenzene	ND		0.050	0.010
541-73-1	1,3-Dichlorobenzene	ND		0.10	0.010
106-46-7	1,4-Dichlorobenzene	ND		0.10	0.010
75-34-3	1,1-Dichloroethane	ND		0.020	0.0050
107-06-2	1,2-Dichloroethane	ND		0.020	0.0050
75-35-4	1,1-Dichloroethene	ND		0.020	0.0050
156-59-2	cis-1,2-Dichloroethene	ND		0.020	0.0050
156-60-5	trans-1,2-Dichloroethene	ND		0.020	0.0050
78-87-5	1,2-Dichloropropane	ND		0.040	0.0050
10061-01-5	cis-1,3-Dichloropropene	ND		0.020	0.0050
10061-02-6	trans-1,3-Dichloropropene	ND		0.020	0.0050
100-41-4	Ethylbenzene	ND		0.020	0.010
87-68-3	Hexachlorobutadiene	ND		0.020	0.010
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010
75-09-2	Methylene Chloride	ND		0.20	0.10
91-20-3	Naphthalene	ND		0.013	0.010
100-42-5	Styrene	ND		0.030	0.010
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.020	0.010
127-18-4	Tetrachloroethene	ND		0.020	0.010
108-88-3	Toluene	ND		0.020	0.010
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
120-82-1	1,2,4-Trichlorobenzene	ND		0.050	0.010
71-55-6	1,1,1-Trichloroethane	ND		0.020	0.0050
79-00-5	1,1,2-Trichloroethane	ND		0.050	0.0050
79-01-6	Trichloroethene	ND		0.020	0.0050

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-39588-1
SDG No.:
Client Sample ID: 8130
Lab Sample ID: 320-39588-12
Matrix: Air
Lab File ID: MS1052217.D
Analysis Method: TO-15 SIM
Date Collected: 05/21/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 05/23/2018 06:26
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 224833
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
179601-23-1	m,p-Xylene	ND		0.040	0.020
95-47-6	o-Xylene	ND		0.020	0.010
67-64-1	Acetone	ND		0.20	0.040
96-18-4	1,2,3-Trichloropropane	ND		0.040	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052217.D
Lims ID: 320-39588-A-12
Client ID: 8130
Sample Type: Client
Inject. Date: 23-May-2018 06:26:30 ALS Bottle#: 13 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-39588-A-12
Operator ID: EJ Instrument ID: ATMS1

Method: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\TO-15 SIM SIM.m
Limit Group: MSA - TO15_SIM - ICAL
Last Update: 23-May-2018 10:01:35 Calib Date: 22-May-2018 16:49:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052203.D

Column 1 : Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: jamese Date: 23-May-2018 09:35:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.577	11.577	0.000	45	32645	2.00	a
* 2 1,4-Difluorobenzene	114	13.754	13.747	0.007	99	122292	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.453	20.451	0.002	94	75807	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.782	12.781	0.007	77	41716	2.05	
$ 5 Toluene-d8 (Surr)	100	17.161	17.164	0.006	99	58425	2.04	
$ 6 4-Bromofluorobenzene (Surr	174	23.020	23.020	0.002	95	31173	1.92	
8 Dichlorodifluoromethane	85	3.708	3.708	0.000	11	294	0.006296	a
43 1,4-Dioxane	88	15.314	15.337	-0.011	6	287	0.0152	

QC Flag Legend

Review Flags
a - User Assigned ID

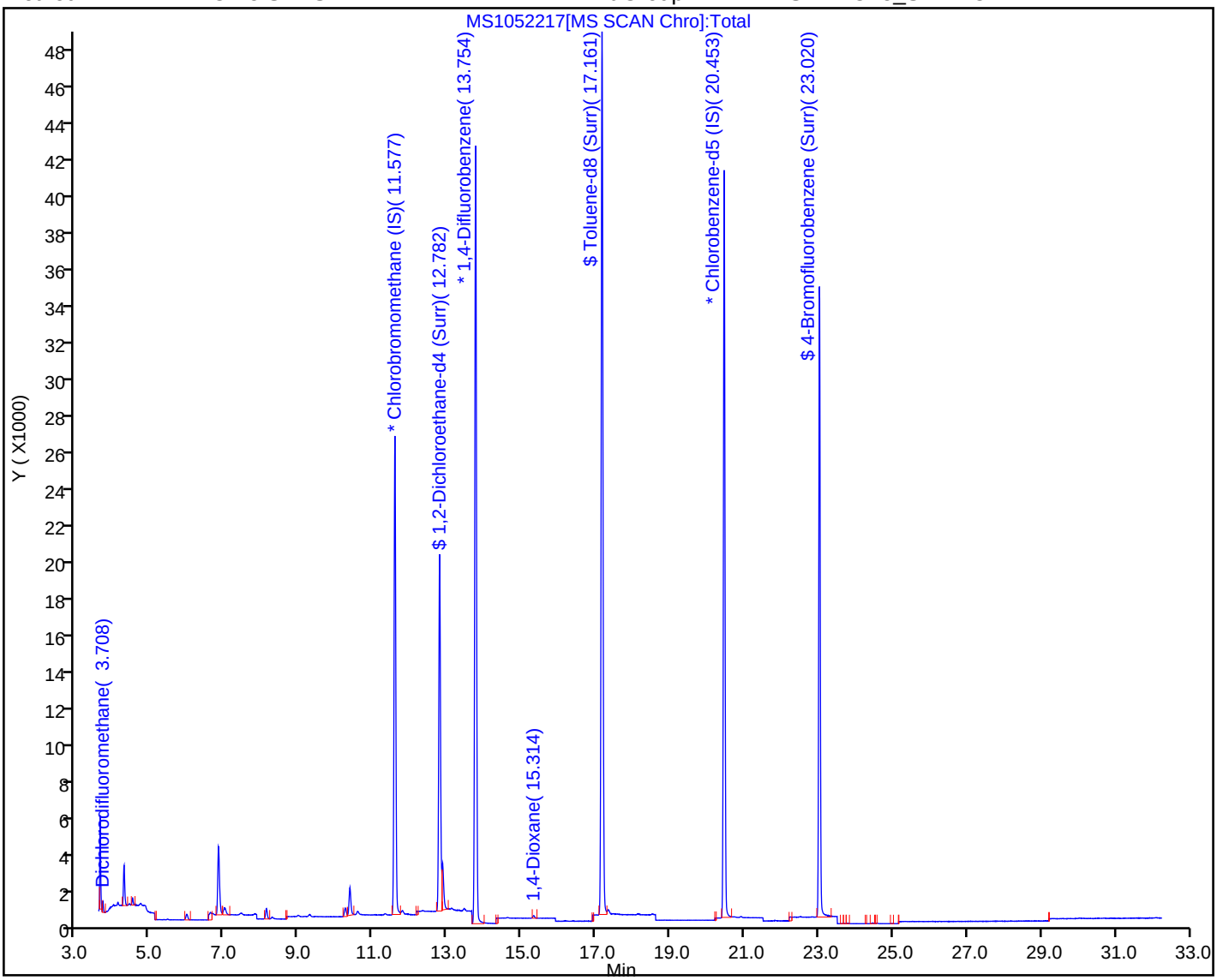
Reagents:

VAMSIS20_00165 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-May-2018 10:01:38 Chrom Revision: 2.2 11-May-2018 08:54:46

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052217.D				
Injection Date:	23-May-2018 06:26:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-12	Lab Sample ID:	320-39588-12		
Client ID:	8130				
Operator ID:	EJ	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

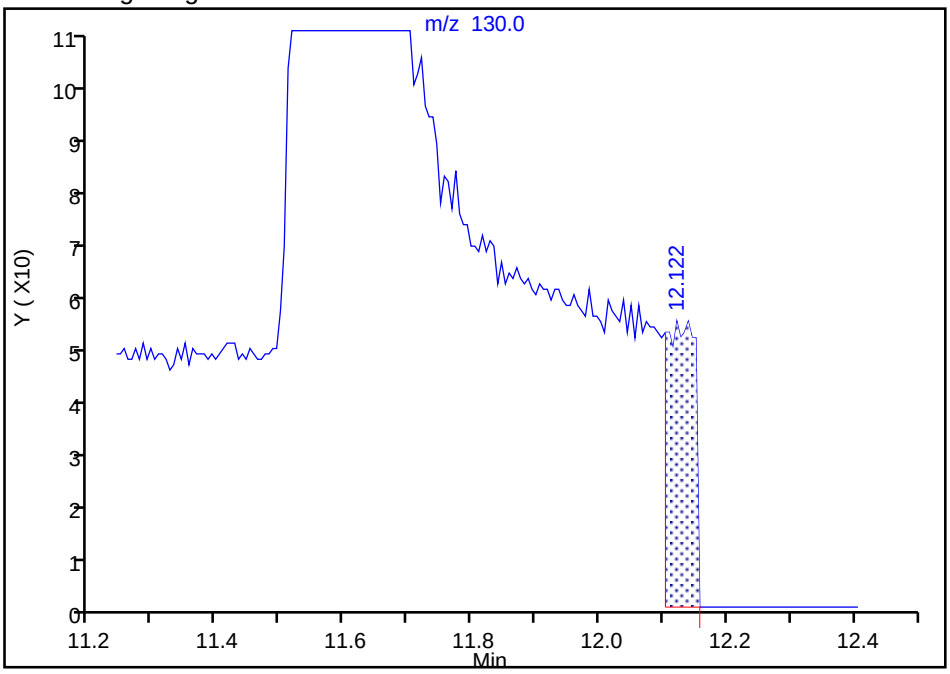
Data File:	\\ChromNA\Sacramento\ChromData\ATMS1\20180522-58580.b\MS1052217.D				
Injection Date:	23-May-2018 06:26:30	Instrument ID:	ATMS1		
Lims ID:	320-39588-A-12	Lab Sample ID:	320-39588-12		
Client ID:	8130				
Operator ID:	EJ	ALS Bottle#:	13	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO15_SIM - ICAL		
Column:		Detector	MS SCAN		

* 1 Chlorobromomethane (IS), CAS: 74-97-5

Signal: 1

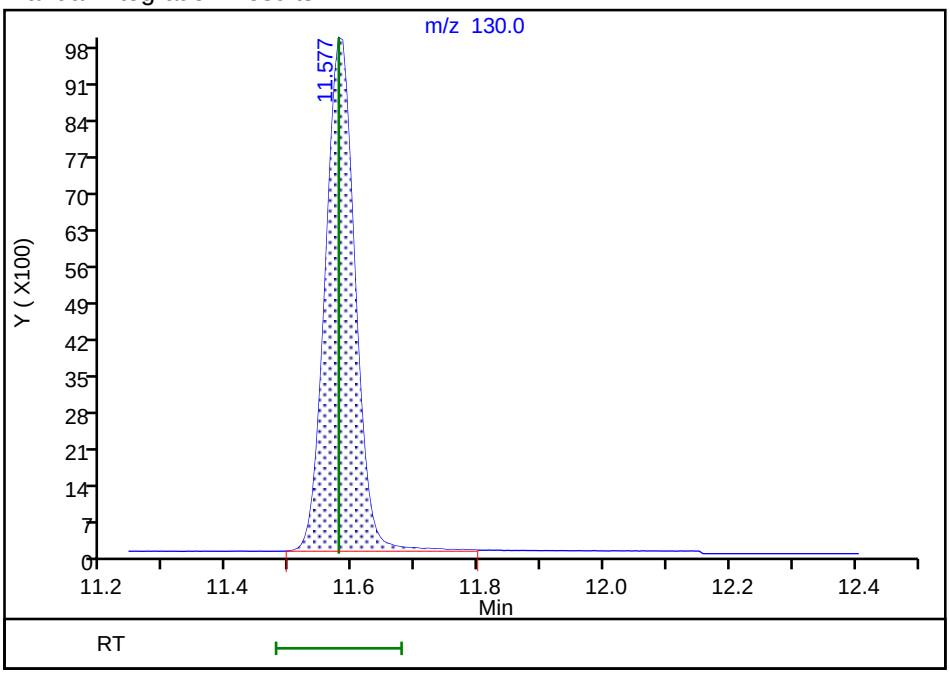
Processing Integration Results

RT: 12.12
Area: 164
Amount: 2.000000
Amount Units: ppb v/v



Manual Integration Results

RT: 11.58
Area: 32645
Amount: 2.000000
Amount Units: ppb v/v



Reviewer: jamese, 23-May-2018 09:35:38
Audit Action: Assigned Compound ID Audit Reason: Baseline

eurofins | Air Toxics

4/23/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-OU1 SVE Monthly GAC
Project #:
Workorder #: 1804306

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 4/16/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1804306

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1 SVE Monthly GAC
DATE RECEIVED:	04/16/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	04/23/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_040918	TO-15	4.5 "Hg	15 psi
02A	OC_SVE_MID_GAC_040918	TO-15	5.3 "Hg	14.6 psi
03A	OC_SVE_INF_GAC_040918	TO-15	2.4 "Hg	15.5 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 04/23/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1804306

Three 1 Liter Summa Canister samples were received on April 16, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_040918

Lab ID#: 1804306-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.5	6.7	8.6
1,1-Dichloroethene	1.2	3.9	4.7	16
2-Propanol	4.8	19	12	46
2-Butanone (Methyl Ethyl Ketone)	4.8	100	14	300
1,1,1-Trichloroethane	1.2	1.4	6.5	7.9
Tetrachloroethene	1.2	1.4	8.1	9.4
o-Xylene	1.2	2.0	5.2	8.9
TNMOC ref. to Heptane (MW=100)	24	470	97	1900

Client Sample ID: OC_SVE_MID_GAC_040918

Lab ID#: 1804306-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.9	6.8	11
Freon 113	1.2	2.0	9.3	15
1,1-Dichloroethene	1.2	5.1	4.8	20
2-Butanone (Methyl Ethyl Ketone)	4.8	44	14	130
Chloroform	1.2	1.2	5.9	6.0
1,1,1-Trichloroethane	1.2	5.5	6.6	30
1,2-Dichloroethane	1.2	1.5	4.9	6.2
TNMOC ref. to Heptane (MW=100)	24	170	99	700

Client Sample ID: OC_SVE_INF_GAC_040918

Lab ID#: 1804306-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.4	6.3	7.9
Freon 113	1.1	6.0	8.5	46
1,1-Dichloroethene	1.1	3.8	4.4	15
2-Butanone (Methyl Ethyl Ketone)	4.5	17	13	50
1,1,1-Trichloroethane	1.1	4.6	6.1	25
Trichloroethene	1.1	11	6.0	58
Tetrachloroethene	1.1	110	7.6	750

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_INF_GAC_040918

Lab ID#: 1804306-03A

o-Xylene	1.1	1.2	4.8	5.2
TNMOC ref. to Heptane (MW=100)	22	2600	91	11000

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Client Sample ID: OC_SVE_EFF_GAC_040918

Lab ID#: 1804306-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041812**	**Date of Collection:**	**4/9/18 10:10:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**4/18/18 06:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	1.5	6.7	8.6
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	3.9	4.7	16
2-Propanol	4.8	19	12	46
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	100	14	300
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	1.4	6.5	7.9
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	1.4	8.1	9.4
o-Xylene	1.2	2.0	5.2	8.9
TNMOC ref. to Heptane (MW=100)	24	470	97	1900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_MID_GAC_040918

Lab ID#: 1804306-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041813**	**Date of Collection:**	**4/9/18 10:11:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**4/18/18 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	1.9	6.8	11
Freon 113	1.2	2.0	9.3	15
1,1-Dichloroethene	1.2	5.1	4.8	20
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	44	14	130
Chloroform	1.2	1.2	5.9	6.0
1,1,1-Trichloroethane	1.2	5.5	6.6	30
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	1.5	4.9	6.2
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
TNMOC ref. to Heptane (MW=100)	24	170	99	700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_INF_GAC_040918

Lab ID#: 1804306-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041814**	**Date of Collection:**	**4/9/18 10:12:00 AM**
Dil. Factor:	**2.23**	**Date of Analysis:**	**4/18/18 07:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	1.4	6.3	7.9
Freon 113	1.1	6.0	8.5	46
1,1-Dichloroethene	1.1	3.8	4.4	15
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	17	13	50
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	4.6	6.1	25
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	11	6.0	58
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	110	7.6	750
o-Xylene	1.1	1.2	4.8	5.2
TNMOC ref. to Heptane (MW=100)	22	2600	91	11000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1804306-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/18/18 02:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1804306-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/18/18 12:29 PM**	

Compound	**%Recovery**
Freon 12	102
Vinyl Chloride	101
Freon 11	100
Freon 113	98
1,1-Dichloroethene	102
2-Propanol	96
Carbon Disulfide	100
Methylene Chloride	100
Hexane	97
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	101
Chloroform	105
1,1,1-Trichloroethane	101
Carbon Tetrachloride	100
Benzene	104
1,2-Dichloroethane	108
Trichloroethene	106
1,4-Dioxane	107
Toluene	106
1,1,2-Trichloroethane	107
Tetrachloroethene	105
o-Xylene	106
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 1804306-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/18/18 12:55 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	104	70-130
Vinyl Chloride	105	70-130
Freon 11	102	70-130
Freon 113	98	70-130
1,1-Dichloroethene	103	70-130
2-Propanol	99	70-130
Carbon Disulfide	105	70-130
Methylene Chloride	103	70-130
Hexane	102	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	101	70-130
Benzene	103	70-130
1,2-Dichloroethane	107	70-130
Trichloroethene	109	70-130
1,4-Dioxane	103	70-130
Toluene	106	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	104	70-130
o-Xylene	106	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 1804306-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17041804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/18/18 01:21 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	103	70-130
Vinyl Chloride	104	70-130
Freon 11	102	70-130
Freon 113	97	70-130
1,1-Dichloroethene	105	70-130
2-Propanol	100	70-130
Carbon Disulfide	104	70-130
Methylene Chloride	102	70-130
Hexane	103	70-130
1,1-Dichloroethane	105	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	101	70-130
Benzene	102	70-130
1,2-Dichloroethane	108	70-130
Trichloroethene	108	70-130
1,4-Dioxane	102	70-130
Toluene	105	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	105	70-130
o-Xylene	106	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 4/9/2018
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Ashor

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2,3)
01A 1	OC_SVE_EFF_GAC_0409 18	SP-EFF-GAC	SV	1L3119	1 L	-	4/9/2018	1005	-28	4/9/2018	1010	-5	X
02A 2	OC_SVE_MID_GAC_0409 18	SP-MID-GAC	SV	1028	1 L	-	4/9/2018	1006	-28	4/9/2018	1011	-5	X
03A 3	OC_SVE_INF_GAC_0409 18	SP-INF-GAC	SV	1L2844	1 L	-	4/9/2018	1007	-30	4/9/2018	1012	-5	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	[illegible]	4/16/18	10:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

1804306

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5/21/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-OU1 SVE Monthly GAC
Project #:
Workorder #: 1805225

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 5/14/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1805225

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1 SVE Monthly GAC
DATE RECEIVED:	05/14/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	05/21/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_050718	TO-15	5.5 "Hg	15 psi
02A	OC_SVE_MID_GAC_050718	TO-15	5.5 "Hg	15 psi
03A	OC_SVE_INF_GAC_050718	TO-15	5.1 "Hg	14.9 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 05/21/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1805225

Three 1 Liter Summa Canister samples were received on May 14, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

TheTNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_050718

Lab ID#: 1805225-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.1	6.9	12
1,1-Dichloroethene	1.2	4.5	4.9	18
2-Butanone (Methyl Ethyl Ketone)	4.9	260	14	770
1,1,1-Trichloroethane	1.2	1.5	6.7	8.2
o-Xylene	1.2	1.8	5.4	7.9
TNMOC ref. to Heptane (MW=100)	25	720	100	2900

Client Sample ID: OC_SVE_MID_GAC_050718

Lab ID#: 1805225-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.4	6.9	8.0
Freon 113	1.2	3.7	9.5	28
1,1-Dichloroethene	1.2	4.4	4.9	17
2-Butanone (Methyl Ethyl Ketone)	4.9	60	14	180
1,1,1-Trichloroethane	1.2	4.8	6.7	26
1,2-Dichloroethane	1.2	1.6	5.0	6.7
TNMOC ref. to Heptane (MW=100)	25	200	100	820

Client Sample ID: OC_SVE_INF_GAC_050718

Lab ID#: 1805225-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.2	5.7	9.3	44
1,1-Dichloroethene	1.2	3.0	4.8	12
2-Butanone (Methyl Ethyl Ketone)	4.9	73	14	210
1,1,1-Trichloroethane	1.2	4.4	6.6	24
Trichloroethene	1.2	8.6	6.5	46
Tetrachloroethene	1.2	95	8.2	640
TNMOC ref. to Heptane (MW=100)	24	2500	99	10000

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Client Sample ID: OC_SVE_EFF_GAC_050718

Lab ID#: 1805225-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051711**	**Date of Collection:**	**5/7/18 12:20:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**5/17/18 07:11 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	2.1	6.9	12
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	4.5	4.9	18
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	260	14	770
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	1.5	6.7	8.2
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
o-Xylene	1.2	1.8	5.4	7.9
TNMOC ref. to Heptane (MW=100)	25	720	100	2900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_MID_GAC_050718

Lab ID#: 1805225-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051712**	**Date of Collection:**	**5/7/18 12:22:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**5/17/18 07:37 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	1.4	6.9	8.0
Freon 113	1.2	3.7	9.5	28
1,1-Dichloroethene	1.2	4.4	4.9	17
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	60	14	180
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	4.8	6.7	26
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	1.6	5.0	6.7
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
TNMOC ref. to Heptane (MW=100)	25	200	100	820

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_INF_GAC_050718

Lab ID#: 1805225-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051713**	**Date of Collection:**	**5/7/18 12:24:00 PM**
Dil. Factor:	**2.43**	**Date of Analysis:**	**5/17/18 08:03 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	5.7	9.3	44
1,1-Dichloroethene	1.2	3.0	4.8	12
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	73	14	210
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	4.4	6.6	24
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	8.6	6.5	46
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	95	8.2	640
o-Xylene	1.2	Not Detected	5.3	Not Detected
TNMOC ref. to Heptane (MW=100)	24	2500	99	10000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1805225-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/18 01:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: CCV

Lab ID#: 1805225-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/18 11:31 AM**	

Compound	**%Recovery**
Freon 12	96
Vinyl Chloride	89
Freon 11	96
Freon 113	97
1,1-Dichloroethene	92
2-Propanol	84
Carbon Disulfide	90
Methylene Chloride	89
Hexane	84
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	93
Chloroform	91
1,1,1-Trichloroethane	91
Carbon Tetrachloride	95
Benzene	89
1,2-Dichloroethane	96
Trichloroethene	96
1,4-Dioxane	88
Toluene	89
1,1,2-Trichloroethane	93
Tetrachloroethene	100
o-Xylene	94
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCS

Lab ID#: 1805225-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/18 11:56 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	94	70-130
Vinyl Chloride	86	70-130
Freon 11	94	70-130
Freon 113	95	70-130
1,1-Dichloroethene	91	70-130
2-Propanol	81	70-130
Carbon Disulfide	90	70-130
Methylene Chloride	87	70-130
Hexane	85	70-130
1,1-Dichloroethane	88	70-130
2-Butanone (Methyl Ethyl Ketone)	89	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	90	70-130
Carbon Tetrachloride	93	70-130
Benzene	87	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	95	70-130
1,4-Dioxane	86	70-130
Toluene	86	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	103	70-130
o-Xylene	96	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1805225-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a051704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/18 12:21 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	96	70-130
Vinyl Chloride	90	70-130
Freon 11	98	70-130
Freon 113	97	70-130
1,1-Dichloroethene	92	70-130
2-Propanol	84	70-130
Carbon Disulfide	93	70-130
Methylene Chloride	89	70-130
Hexane	88	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	96	70-130
Benzene	89	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	98	70-130
1,4-Dioxane	88	70-130
Toluene	89	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	103	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	107	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 05/07/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	TO-15 (TAL 2-3)				
1	OC_SVE_EFF_GAC_050718	SP-EFF-GAC	SV	12556	1 L	23507	5/7/2018	1215	-29	5/7/2018	1220	-5	X				
2	OC_SVE_MID_GAC_050718	SP-MID-GAC	SV	12446	1 L	23188	5/7/2018	1217	-30	5/7/2018	1222	-5	X				
3	OC_SVE_INF_GAC_050718	SP-INF-GAC	SV	11796	1 L	23247	5/7/2018	1219	-29	5/7/2018	1224	-5	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Custody Seal Intact? Y N None Temp N/A

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		5/4/18	19:50
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

1805225

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6/18/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly GAC
Project #:
Workorder #: 1806194

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 6/11/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1806194

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly GAC
DATE RECEIVED:	06/11/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	06/15/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_060418	TO-15	5.3 "Hg	14.9 psi
02A	OC_SVE_MID_GAC_060418	TO-15	4.7 "Hg	15 psi
03A	OC_SVE_INF_GAC_060418	TO-15	4.1 "Hg	14.8 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 06/15/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1806194

Three 1 Liter Summa Canister samples were received on June 11, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A date and time were not provided by the field sampler.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_060418

Lab ID#: 1806194-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.4	6.8	8.1
1,1-Dichloroethene	1.2	4.5	4.8	18
Methylene Chloride	12	23	42	81
2-Butanone (Methyl Ethyl Ketone)	4.9	94	14	280
1,1,1-Trichloroethane	1.2	2.3	6.6	12
TNMOC ref. to Heptane (MW=100)	24	450	100	1800

Client Sample ID: OC_SVE_MID_GAC_060418

Lab ID#: 1806194-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.2	6.7	6.9
Freon 113	1.2	3.8	9.2	29
1,1-Dichloroethene	1.2	2.7	4.8	11
2-Butanone (Methyl Ethyl Ketone)	4.8	46	14	140
1,1,1-Trichloroethane	1.2	4.9	6.5	26
1,2-Dichloroethane	1.2	1.3	4.8	5.4
Tetrachloroethene	1.2	1.9	8.1	13
TNMOC ref. to Heptane (MW=100)	24	180	98	740

Client Sample ID: OC_SVE_INF_GAC_060418

Lab ID#: 1806194-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.4	6.5	7.8
Freon 113	1.2	6.9	8.9	53
1,1-Dichloroethene	1.2	2.7	4.6	11
Hexane	1.2	3.3	4.1	12
2-Butanone (Methyl Ethyl Ketone)	4.6	20	14	59
1,1,1-Trichloroethane	1.2	5.8	6.3	32
Trichloroethene	1.2	8.0	6.2	43
Tetrachloroethene	1.2	100	7.9	700
TNMOC ref. to Heptane (MW=100)	23	1900	95	7800

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_INF_GAC_060418

Lab ID#: 1806194-03A

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Client Sample ID: OC_SVE_EFF_GAC_060418

Lab ID#: 1806194-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061214**	**Date of Collection:**	**6/4/18 10:15:00 AM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**6/12/18 09:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	1.4	6.8	8.1
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	4.5	4.8	18
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	23	42	81
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	94	14	280
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	2.3	6.6	12
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected
TNMOC ref. to Heptane (MW=100)	24	450	100	1800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_MID_GAC_060418

Lab ID#: 1806194-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061215**	**Date of Collection:**	**6/4/18 10:17:00 AM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**6/12/18 09:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	1.2	6.7	6.9
Freon 113	1.2	3.8	9.2	29
1,1-Dichloroethene	1.2	2.7	4.8	11
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	46	14	140
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	4.9	6.5	26
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	1.3	4.8	5.4
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	1.9	8.1	13
o-Xylene	1.2	Not Detected	5.2	Not Detected
TNMOC ref. to Heptane (MW=100)	24	180	98	740

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_INF_GAC_060418

Lab ID#: 1806194-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061216**	**Date of Collection:**	**6/4/18 10:19:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**6/12/18 10:12 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	1.4	6.5	7.8
Freon 113	1.2	6.9	8.9	53
1,1-Dichloroethene	1.2	2.7	4.6	11
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Hexane	1.2	3.3	4.1	12
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	20	14	59
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	5.8	6.3	32
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	8.0	6.2	43
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	100	7.9	700
o-Xylene	1.2	Not Detected	5.0	Not Detected
TNMOC ref. to Heptane (MW=100)	23	1900	95	7800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1806194-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061206**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/12/18 02:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: CCV

Lab ID#: 1806194-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/12/18 11:14 AM**	

Compound	**%Recovery**
Freon 12	96
Vinyl Chloride	90
Freon 11	99
Freon 113	95
1,1-Dichloroethene	88
2-Propanol	95
Carbon Disulfide	87
Methylene Chloride	99
Hexane	93
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	95
Chloroform	96
1,1,1-Trichloroethane	94
Carbon Tetrachloride	99
Benzene	94
1,2-Dichloroethane	98
Trichloroethene	95
1,4-Dioxane	95
Toluene	96
1,1,2-Trichloroethane	93
Tetrachloroethene	97
o-Xylene	92
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 1806194-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/12/18 11:39 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	92	70-130
Vinyl Chloride	86	70-130
Freon 11	95	70-130
Freon 113	92	70-130
1,1-Dichloroethene	85	70-130
2-Propanol	87	70-130
Carbon Disulfide	83	70-130
Methylene Chloride	93	70-130
Hexane	89	70-130
1,1-Dichloroethane	88	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	92	70-130
Carbon Tetrachloride	96	70-130
Benzene	91	70-130
1,2-Dichloroethane	92	70-130
Trichloroethene	92	70-130
1,4-Dioxane	88	70-130
Toluene	94	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	95	70-130
o-Xylene	94	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 1806194-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/12/18 12:04 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	92	70-130
Vinyl Chloride	87	70-130
Freon 11	95	70-130
Freon 113	92	70-130
1,1-Dichloroethene	86	70-130
2-Propanol	89	70-130
Carbon Disulfide	85	70-130
Methylene Chloride	94	70-130
Hexane	91	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	98	70-130
Benzene	93	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	94	70-130
1,4-Dioxane	91	70-130
Toluene	95	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	97	70-130
o-Xylene	95	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	101	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 , FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 06/04/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1	OC_SVE_EFF_GAC_060418	SP-EFF-GAC	SV	3297	1 L	23458	6/4/2018	1010	-30	6/4/2018	1015	-5	X
02A	2	OC_SVE_MID_GAC_060418	SP-MID-GAC	SV	1L1942	1 L	23544	6/4/2018	1012	-30	6/4/2018	1017	-5	X
03A	3	OC_SVE_INF_GAC_060418	SP-INF-GAC	SV	1L2794	1 L	23783	6/4/2018	1014	-30	6/4/2018	1019	-5	X
	4													
	5													
	6													
	7													
	8													
	9													
	10													
	11													
	12													
	13													
	14													
	15													

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	6/7/18	0950
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Custody Seal Intact?
Y N None Temp [signature]

1806194

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6/25/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-OU1-SVE Quarterly VEW
Project #:
Workorder #: 1806337

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 6/18/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1806337

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1-SVE Quarterly VEW
DATE RECEIVED:	06/18/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	06/25/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_DPE-3_061418	TO-15	4.9 "Hg	15.5 psi
02A	OC_SVE_VE-9S_061418	TO-15	5.3 "Hg	15.7 psi
03A	OC_SVE_VE-8S_061418	TO-15	6.3 "Hg	14.7 psi
04A	OC_SVE_DPE-4_061418	TO-15	4.7 "Hg	15.1 psi
05A	OC_SVE_VE-2D_061418	TO-15	6.3 "Hg	15.1 psi
06A	OC_SVE_DPE-5_061418	TO-15	5.7 "Hg	15 psi
07A	Lab Blank	TO-15	NA	NA
08A	CCV	TO-15	NA	NA
09A	LCS	TO-15	NA	NA
09AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 06/25/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

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LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1806337

Six 1 Liter Summa Canister samples were received on June 18, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Dilution was performed on samples OC_SVE_DPE-3_061418, OC_SVE_DPE-4_061418 and OC_SVE_VE-2D_061418 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_DPE-3_061418

Lab ID#: 1806337-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	4.1	16	31	120
Acetone	41	580	97	1400
2-Butanone (Methyl Ethyl Ketone)	16	800	48	2400
1,1,1-Trichloroethane	4.1	42	22	230
Trichloroethene	4.1	12	22	67
Tetrachloroethene	4.1	560	28	3800
2-Hexanone	16	45	67	180
TNMOC ref. to Heptane (MW=100)	82	1800	330	7400

Client Sample ID: OC_SVE_VE-9S_061418

Lab ID#: 1806337-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	290	30	680
2-Butanone (Methyl Ethyl Ketone)	5.0	200	15	580
Trichloroethene	1.2	5.6	6.7	30
Tetrachloroethene	1.2	130	8.5	880
2-Hexanone	5.0	32	20	130
TNMOC ref. to Heptane (MW=100)	25	780	100	3200

Client Sample ID: OC_SVE_VE-8S_061418

Lab ID#: 1806337-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.3	13	9.7	97
Acetone	13	140	30	330
Hexane	1.3	11	4.4	38
2-Butanone (Methyl Ethyl Ketone)	5.1	270	15	780
cis-1,2-Dichloroethene	1.3	2.9	5.0	11
1,1,1-Trichloroethane	1.3	9.5	6.9	52
Benzene	1.3	1.3	4.0	4.0
Trichloroethene	1.3	2.9	6.8	16
Toluene	1.3	1.6	4.8	6.0

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VE-8S_061418

Lab ID#: 1806337-03A

Tetrachloroethene	1.3	200	8.6	1400
2-Hexanone	5.1	24	21	97
m,p-Xylene	1.3	2.0	5.5	8.9
TNMOC ref. to Heptane (MW=100)	25	920	100	3800

Client Sample ID: OC_SVE_DPE-4_061418

Lab ID#: 1806337-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	24	320	57	750
Hexane	2.4	3.4	8.5	12
2-Butanone (Methyl Ethyl Ketone)	9.6	550	28	1600
Trichloroethene	2.4	26	13	140
Tetrachloroethene	2.4	46	16	320
2-Hexanone	9.6	35	39	140
m,p-Xylene	2.4	3.8	10	17
TNMOC ref. to Heptane (MW=100)	48	2600	200	11000

Client Sample ID: OC_SVE_VE-2D_061418

Lab ID#: 1806337-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	4.3	7.8	33	60
Acetone	43	190	100	440
Hexane	4.3	17	15	60
2-Butanone (Methyl Ethyl Ketone)	17	290	50	860
1,1,1-Trichloroethane	4.3	5.2	23	28
Trichloroethene	4.3	12	23	67
Tetrachloroethene	4.3	130	29	860
2-Hexanone	17	20	70	84
m,p-Xylene	4.3	5.0	18	22
TNMOC ref. to Heptane (MW=100)	86	12000	350	49000

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_DPE-5_061418

Lab ID#: 1806337-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	5.3	7.0	30
Freon 113	1.2	22	9.5	170
1,1-Dichloroethene	1.2	15	4.9	58
Acetone	12	220	30	540
2-Butanone (Methyl Ethyl Ketone)	5.0	180	15	530
Chloroform	1.2	1.6	6.1	8.0
Trichloroethene	1.2	4.3	6.7	23
Tetrachloroethene	1.2	57	8.4	390
2-Hexanone	5.0	39	20	160
1,1-Difluoroethane	5.0	6.2	13	17
TNMOC ref. to Heptane (MW=100)	25	890	100	3600

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Client Sample ID: OC_SVE_DPE-3_061418

Lab ID#: 1806337-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061911**	**Date of Collection:**	**6/14/18 2:14:00 PM**
Dil. Factor:	**8.18**	**Date of Analysis:**	**6/19/18 04:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.1	Not Detected	20	Not Detected
Freon 114	4.1	Not Detected	28	Not Detected
Chloromethane	41	Not Detected	84	Not Detected
Vinyl Chloride	4.1	Not Detected	10	Not Detected
Bromomethane	41	Not Detected	160	Not Detected
Chloroethane	16	Not Detected	43	Not Detected
Freon 11	4.1	Not Detected	23	Not Detected
Freon 113	4.1	16	31	120
1,1-Dichloroethene	4.1	Not Detected	16	Not Detected
Acetone	41	580	97	1400
2-Propanol	16	Not Detected	40	Not Detected
Carbon Disulfide	16	Not Detected	51	Not Detected
3-Chloropropene	16	Not Detected	51	Not Detected
Methylene Chloride	41	Not Detected	140	Not Detected
Methyl tert-butyl ether	16	Not Detected	59	Not Detected
trans-1,2-Dichloroethene	4.1	Not Detected	16	Not Detected
Hexane	4.1	Not Detected	14	Not Detected
1,1-Dichloroethane	4.1	Not Detected	16	Not Detected
2-Butanone (Methyl Ethyl Ketone)	16	800	48	2400
cis-1,2-Dichloroethene	4.1	Not Detected	16	Not Detected
Chloroform	4.1	Not Detected	20	Not Detected
1,1,1-Trichloroethane	4.1	42	22	230
Carbon Tetrachloride	4.1	Not Detected	26	Not Detected
Benzene	4.1	Not Detected	13	Not Detected
1,2-Dichloroethane	4.1	Not Detected	16	Not Detected
Trichloroethene	4.1	12	22	67
1,2-Dichloropropane	4.1	Not Detected	19	Not Detected
1,4-Dioxane	16	Not Detected	59	Not Detected
Bromodichloromethane	4.1	Not Detected	27	Not Detected
cis-1,3-Dichloropropene	4.1	Not Detected	18	Not Detected
4-Methyl-2-pentanone	4.1	Not Detected	17	Not Detected
Toluene	4.1	Not Detected	15	Not Detected
trans-1,3-Dichloropropene	4.1	Not Detected	18	Not Detected
1,1,2-Trichloroethane	4.1	Not Detected	22	Not Detected
Tetrachloroethene	4.1	560	28	3800
2-Hexanone	16	45	67	180
Dibromochloromethane	4.1	Not Detected	35	Not Detected
1,2-Dibromoethane (EDB)	4.1	Not Detected	31	Not Detected
Chlorobenzene	4.1	Not Detected	19	Not Detected
Ethyl Benzene	4.1	Not Detected	18	Not Detected
m,p-Xylene	4.1	Not Detected	18	Not Detected
o-Xylene	4.1	Not Detected	18	Not Detected

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Client Sample ID: OC_SVE_DPE-3_061418

Lab ID#: 1806337-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061911**	**Date of Collection:**	**6/14/18 2:14:00 PM**
Dil. Factor:	**8.18**	**Date of Analysis:**	**6/19/18 04:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	4.1	Not Detected	17	Not Detected
Bromoform	4.1	Not Detected	42	Not Detected
1,1,2,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
4-Ethyltoluene	4.1	Not Detected	20	Not Detected
1,3,5-Trimethylbenzene	4.1	Not Detected	20	Not Detected
1,2,4-Trimethylbenzene	4.1	Not Detected	20	Not Detected
1,3-Dichlorobenzene	4.1	Not Detected	24	Not Detected
1,4-Dichlorobenzene	4.1	Not Detected	24	Not Detected
alpha-Chlorotoluene	4.1	Not Detected	21	Not Detected
1,2-Dichlorobenzene	4.1	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	16	Not Detected	120	Not Detected
Hexachlorobutadiene	16	Not Detected	170	Not Detected
1,1-Difluoroethane	16	Not Detected	44	Not Detected
Vinyl Acetate	16	Not Detected	58	Not Detected
TNMOC ref. to Heptane (MW=100)	82	1800	330	7400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE_VE-9S_061418

Lab ID#: 1806337-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061907**	**Date of Collection:**	**6/14/18 2:16:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**6/19/18 02:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.8	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Acetone	12	290	30	680
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	200	15	580
cis-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	5.6	6.7	30
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	130	8.5	880
2-Hexanone	5.0	32	20	130
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VE-9S_061418

Lab ID#: 1806337-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061907**	**Date of Collection:**	**6/14/18 2:16:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**6/19/18 02:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	780	100	3200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_VE-8S_061418

Lab ID#: 1806337-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061908**	**Date of Collection:**	**6/14/18 2:19:00 PM**
Dil. Factor:	**2.53**	**Date of Analysis:**	**6/19/18 02:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.2	Not Detected
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Freon 113	1.3	13	9.7	97
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	140	30	330
2-Propanol	5.1	Not Detected	12	Not Detected
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	11	4.4	38
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	270	15	780
cis-1,2-Dichloroethene	1.3	2.9	5.0	11
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	9.5	6.9	52
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
Benzene	1.3	1.3	4.0	4.0
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	2.9	6.8	16
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	1.6	4.8	6.0
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	200	8.6	1400
2-Hexanone	5.1	24	21	97
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	2.0	5.5	8.9
o-Xylene	1.3	Not Detected	5.5	Not Detected

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Client Sample ID: OC_SVE_VE-8S_061418

Lab ID#: 1806337-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061908**	**Date of Collection:**	**6/14/18 2:19:00 PM**
Dil. Factor:	**2.53**	**Date of Analysis:**	**6/19/18 02:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected
1,1-Difluoroethane	5.1	Not Detected	14	Not Detected
Vinyl Acetate	5.1	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	920	100	3800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_DPE-4_061418

Lab ID#: 1806337-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061910**	**Date of Collection:**	**6/14/18 2:11:00 PM**
Dil. Factor:	**4.81**	**Date of Analysis:**	**6/19/18 03:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.4	Not Detected	12	Not Detected
Freon 114	2.4	Not Detected	17	Not Detected
Chloromethane	24	Not Detected	50	Not Detected
Vinyl Chloride	2.4	Not Detected	6.1	Not Detected
Bromomethane	24	Not Detected	93	Not Detected
Chloroethane	9.6	Not Detected	25	Not Detected
Freon 11	2.4	Not Detected	14	Not Detected
Freon 113	2.4	Not Detected	18	Not Detected
1,1-Dichloroethene	2.4	Not Detected	9.5	Not Detected
Acetone	24	320	57	750
2-Propanol	9.6	Not Detected	24	Not Detected
Carbon Disulfide	9.6	Not Detected	30	Not Detected
3-Chloropropene	9.6	Not Detected	30	Not Detected
Methylene Chloride	24	Not Detected	84	Not Detected
Methyl tert-butyl ether	9.6	Not Detected	35	Not Detected
trans-1,2-Dichloroethene	2.4	Not Detected	9.5	Not Detected
Hexane	2.4	3.4	8.5	12
1,1-Dichloroethane	2.4	Not Detected	9.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	9.6	550	28	1600
cis-1,2-Dichloroethene	2.4	Not Detected	9.5	Not Detected
Chloroform	2.4	Not Detected	12	Not Detected
1,1,1-Trichloroethane	2.4	Not Detected	13	Not Detected
Carbon Tetrachloride	2.4	Not Detected	15	Not Detected
Benzene	2.4	Not Detected	7.7	Not Detected
1,2-Dichloroethane	2.4	Not Detected	9.7	Not Detected
Trichloroethene	2.4	26	13	140
1,2-Dichloropropane	2.4	Not Detected	11	Not Detected
1,4-Dioxane	9.6	Not Detected	35	Not Detected
Bromodichloromethane	2.4	Not Detected	16	Not Detected
cis-1,3-Dichloropropene	2.4	Not Detected	11	Not Detected
4-Methyl-2-pentanone	2.4	Not Detected	9.8	Not Detected
Toluene	2.4	Not Detected	9.1	Not Detected
trans-1,3-Dichloropropene	2.4	Not Detected	11	Not Detected
1,1,2-Trichloroethane	2.4	Not Detected	13	Not Detected
Tetrachloroethene	2.4	46	16	320
2-Hexanone	9.6	35	39	140
Dibromochloromethane	2.4	Not Detected	20	Not Detected
1,2-Dibromoethane (EDB)	2.4	Not Detected	18	Not Detected
Chlorobenzene	2.4	Not Detected	11	Not Detected
Ethyl Benzene	2.4	Not Detected	10	Not Detected
m,p-Xylene	2.4	3.8	10	17
o-Xylene	2.4	Not Detected	10	Not Detected

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Client Sample ID: OC_SVE_DPE-4_061418

Lab ID#: 1806337-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061910**	**Date of Collection:**	**6/14/18 2:11:00 PM**
Dil. Factor:	**4.81**	**Date of Analysis:**	**6/19/18 03:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	2.4	Not Detected	10	Not Detected
Bromoform	2.4	Not Detected	25	Not Detected
1,1,2,2-Tetrachloroethane	2.4	Not Detected	16	Not Detected
4-Ethyltoluene	2.4	Not Detected	12	Not Detected
1,3,5-Trimethylbenzene	2.4	Not Detected	12	Not Detected
1,2,4-Trimethylbenzene	2.4	Not Detected	12	Not Detected
1,3-Dichlorobenzene	2.4	Not Detected	14	Not Detected
1,4-Dichlorobenzene	2.4	Not Detected	14	Not Detected
alpha-Chlorotoluene	2.4	Not Detected	12	Not Detected
1,2-Dichlorobenzene	2.4	Not Detected	14	Not Detected
1,2,4-Trichlorobenzene	9.6	Not Detected	71	Not Detected
Hexachlorobutadiene	9.6	Not Detected	100	Not Detected
1,1-Difluoroethane	9.6	Not Detected	26	Not Detected
Vinyl Acetate	9.6	Not Detected	34	Not Detected
TNMOC ref. to Heptane (MW=100)	48	2600	200	11000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	118	70-130

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Client Sample ID: OC_SVE_VE-2D_061418

Lab ID#: 1806337-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061912**	**Date of Collection:**	**6/14/18 2:21:00 PM**
Dil. Factor:	**8.55**	**Date of Analysis:**	**6/19/18 04:38 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.3	Not Detected	21	Not Detected
Freon 114	4.3	Not Detected	30	Not Detected
Chloromethane	43	Not Detected	88	Not Detected
Vinyl Chloride	4.3	Not Detected	11	Not Detected
Bromomethane	43	Not Detected	170	Not Detected
Chloroethane	17	Not Detected	45	Not Detected
Freon 11	4.3	Not Detected	24	Not Detected
Freon 113	4.3	7.8	33	60
1,1-Dichloroethene	4.3	Not Detected	17	Not Detected
Acetone	43	190	100	440
2-Propanol	17	Not Detected	42	Not Detected
Carbon Disulfide	17	Not Detected	53	Not Detected
3-Chloropropene	17	Not Detected	54	Not Detected
Methylene Chloride	43	Not Detected	150	Not Detected
Methyl tert-butyl ether	17	Not Detected	62	Not Detected
trans-1,2-Dichloroethene	4.3	Not Detected	17	Not Detected
Hexane	4.3	17	15	60
1,1-Dichloroethane	4.3	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	17	290	50	860
cis-1,2-Dichloroethene	4.3	Not Detected	17	Not Detected
Chloroform	4.3	Not Detected	21	Not Detected
1,1,1-Trichloroethane	4.3	5.2	23	28
Carbon Tetrachloride	4.3	Not Detected	27	Not Detected
Benzene	4.3	Not Detected	14	Not Detected
1,2-Dichloroethane	4.3	Not Detected	17	Not Detected
Trichloroethene	4.3	12	23	67
1,2-Dichloropropane	4.3	Not Detected	20	Not Detected
1,4-Dioxane	17	Not Detected	62	Not Detected
Bromodichloromethane	4.3	Not Detected	29	Not Detected
cis-1,3-Dichloropropene	4.3	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.3	Not Detected	18	Not Detected
Toluene	4.3	Not Detected	16	Not Detected
trans-1,3-Dichloropropene	4.3	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.3	Not Detected	23	Not Detected
Tetrachloroethene	4.3	130	29	860
2-Hexanone	17	20	70	84
Dibromochloromethane	4.3	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.3	Not Detected	33	Not Detected
Chlorobenzene	4.3	Not Detected	20	Not Detected
Ethyl Benzene	4.3	Not Detected	18	Not Detected
m,p-Xylene	4.3	5.0	18	22
o-Xylene	4.3	Not Detected	18	Not Detected

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Client Sample ID: OC_SVE_VE-2D_061418

Lab ID#: 1806337-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061912**	**Date of Collection:**	**6/14/18 2:21:00 PM**
Dil. Factor:	**8.55**	**Date of Analysis:**	**6/19/18 04:38 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	4.3	Not Detected	18	Not Detected
Bromoform	4.3	Not Detected	44	Not Detected
1,1,2,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
4-Ethyltoluene	4.3	Not Detected	21	Not Detected
1,3,5-Trimethylbenzene	4.3	Not Detected	21	Not Detected
1,2,4-Trimethylbenzene	4.3	Not Detected	21	Not Detected
1,3-Dichlorobenzene	4.3	Not Detected	26	Not Detected
1,4-Dichlorobenzene	4.3	Not Detected	26	Not Detected
alpha-Chlorotoluene	4.3	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	130	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected
1,1-Difluoroethane	17	Not Detected	46	Not Detected
Vinyl Acetate	17	Not Detected	60	Not Detected
TNMOC ref. to Heptane (MW=100)	86	12000	350	49000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: OC_SVE_DPE-5_061418

Lab ID#: 1806337-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061909**	**Date of Collection:**	**6/14/18 2:08:00 PM**
Dil. Factor:	**2.49**	**Date of Analysis:**	**6/19/18 03:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	5.3	7.0	30
Freon 113	1.2	22	9.5	170
1,1-Dichloroethene	1.2	15	4.9	58
Acetone	12	220	30	540
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	180	15	530
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	1.6	6.1	8.0
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	4.3	6.7	23
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	57	8.4	390
2-Hexanone	5.0	39	20	160
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_DPE-5_061418

Lab ID#: 1806337-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061909**	**Date of Collection:**	**6/14/18 2:08:00 PM**
Dil. Factor:	**2.49**	**Date of Analysis:**	**6/19/18 03:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
1,1-Difluoroethane	5.0	6.2	13	17
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	890	100	3600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1806337-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 12:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1806337-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 12:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: CCV

Lab ID#: 1806337-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 10:24 AM**

Compound	%Recovery
Freon 12	103
Freon 114	109
Chloromethane	91
Vinyl Chloride	89
Bromomethane	107
Chloroethane	95
Freon 11	104
Freon 113	105
1,1-Dichloroethene	101
Acetone	92
2-Propanol	88
Carbon Disulfide	94
3-Chloropropene	99
Methylene Chloride	88
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	105
Hexane	98
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	106
Chloroform	102
1,1,1-Trichloroethane	101
Carbon Tetrachloride	113
Benzene	109
1,2-Dichloroethane	98
Trichloroethene	100
1,2-Dichloropropane	96
1,4-Dioxane	110
Bromodichloromethane	102
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	104
Toluene	106
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	103
Tetrachloroethene	112
2-Hexanone	113
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	108
Chlorobenzene	106
Ethyl Benzene	115
m,p-Xylene	120
o-Xylene	117

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Client Sample ID: CCV

Lab ID#: 1806337-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 10:24 AM**	

Compound	**%Recovery**
Styrene	125
Bromoform	109
1,1,2,2-Tetrachloroethane	97
4-Ethyltoluene	128
1,3,5-Trimethylbenzene	123
1,2,4-Trimethylbenzene	122
1,3-Dichlorobenzene	113
1,4-Dichlorobenzene	116
alpha-Chlorotoluene	112
1,2-Dichlorobenzene	113
1,2,4-Trichlorobenzene	110
Hexachlorobutadiene	110
1,1-Difluoroethane	120
Vinyl Acetate	112
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: LCS

Lab ID#: 1806337-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 10:48 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	107	70-130
Chloromethane	87	70-130
Vinyl Chloride	108	70-130
Bromomethane	105	70-130
Chloroethane	96	70-130
Freon 11	102	70-130
Freon 113	103	70-130
1,1-Dichloroethene	103	70-130
Acetone	104	70-130
2-Propanol	79	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	101	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	114	70-130
Hexane	100	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	110	70-130
Benzene	104	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	107	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	109	70-130
2-Hexanone	73	70-130
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	119	70-130
o-Xylene	118	70-130

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Client Sample ID: LCS

Lab ID#: 1806337-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 10:48 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	114	70-130
Bromoform	110	70-130
1,1,2,2-Tetrachloroethane	91	70-130
4-Ethyltoluene	122	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	113	70-130
alpha-Chlorotoluene	90	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	102	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	90	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: LCSD

Lab ID#: 1806337-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 11:12 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	106	70-130
Chloromethane	88	70-130
Vinyl Chloride	112	70-130
Bromomethane	103	70-130
Chloroethane	96	70-130
Freon 11	101	70-130
Freon 113	102	70-130
1,1-Dichloroethene	102	70-130
Acetone	104	70-130
2-Propanol	78	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	98	70-130
Methylene Chloride	86	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	114	70-130
Hexane	99	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	99	70-130
Carbon Tetrachloride	107	70-130
Benzene	104	70-130
1,2-Dichloroethane	92	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	104	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	107	70-130
2-Hexanone	75	70-130
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	118	70-130
o-Xylene	117	70-130

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Client Sample ID: LCSD

Lab ID#: 1806337-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p061904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/19/18 11:12 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	113	70-130
Bromoform	110	70-130
1,1,2,2-Tetrachloroethane	90	70-130
4-Ethyltoluene	122	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	115	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	92	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	102	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	90	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	110	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 06/14/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1-SVE Quarterly VEW
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)
01A	1	OC_SVE_DPE-3_061418		SV	1L2590	1 L	23103	6/14/18	1409	-30	6/14/18	1414	-5	X
02A	2	OC_SVE_VE-9S_061418		SV	1L2824	1 L	23100		1411	-28		1416	-4	X
03A	3	OC_SVE_VE-8S_061418		SV	1L2830	1 L	23330		1414	-28		1419	-5	X
04A	4	OC_SVE_DPE-4_061418		SV	1L1621	1 L	23493		1406	-30		1411	-5	X
05A	5	OC_SVE_VE-2D_061418		SV	1L2306	1 L	23638		1416	-28		1421	-5	X
06A	6	OC_SVE_DPE-5_061418		SV	1L2956	1 L	23504		1403	-29		1408	-5	X
	7													
	8													
	9													
	10													
	11													
	12													
	13													
	14													
	15													

Custody Seal Intact?
Y N None Temp NA

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	EATL 06/18/18 9:43 JW	06/18/18	9:43
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time: JW 06/18/18

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WO #1806337

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7/10/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - Quarterly VMP June 2018
Project #:
Workorder #: 1807022

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 7/2/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1807022

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Quarterly VMP June 2018
DATE RECEIVED:	07/02/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/10/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_VMP-18_062718	TO-15	5.0 "Hg	15 psi
02A	OC_SVE_VMP-5_062718	TO-15	4.5 "Hg	15 psi
03A	OC_SVE_VMP-22_062718	TO-15	5.0 "Hg	15 psi
04A	OC_SVE_VMP-92-70_062718	TO-15	5.5 "Hg	15 psi
05A	OC_SVE_VMP-11_062718	TO-15	5.0 "Hg	15 psi
06A	OC_SVE_VMP-11_062718K	TO-15	5.5 "Hg	15 psi
07A	OC_SVE_VMP-12_062718	TO-15	4.0 "Hg	15 psi
08A	OC_SVE_VMP-15_062718	TO-15	5.0 "Hg	15 psi
09A	OC_SVE_VMP-17_062718	TO-15	4.5 "Hg	15 psi
10A	OC_SVE_VMP-16_062718	TO-15	3.5 "Hg	15 psi
11A	OC_SVE_VMP-93-60_062718	TO-15	6.0 "Hg	15 psi
12A	OC_SVE_VMP-20_062718	TO-15	5.5 "Hg	15 psi
13A	OC_SVE_VMP-21_062718	TO-15	5.0 "Hg	15 psi
14A	OC_SVE_VMP-21_062718K	TO-15	5.5 "Hg	15 psi
15A	OC_SVE_VMP-26_062718	TO-15	5.0 "Hg	15 psi
16A	OC_SVE_VMP-94-24_062818	TO-15	3.0 "Hg	15 psi
17A	OC_SVE_VMP-94-60_062818	TO-15	3.5 "Hg	15 psi
18A	OC_SVE_VMP-43-24_062818	TO-15	4.5 "Hg	15 psi
19A	OC_SVE_VMP-95-60_062818	TO-15	4.5 "Hg	15 psi
20A	OC_SVE_VMP-95-60_062818K	TO-15	4.0 "Hg	15 psi
21A	OC_SVE_VMP-27_062818	TO-15	2.5 "Hg	15 psi
22A	OC_SVE_VMP-24_062818	TO-15	3.0 "Hg	15.8 psi
23A	OC_SVE_VMP-32-24_062818	TO-15	5.0 "Hg	15 psi

Continued on next page

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WORK ORDER #: 1807022

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Quarterly VMP June 2018
DATE RECEIVED:	07/02/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/10/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
24A	OC_SVE_VMP-32-60_062818	TO-15	6.5 "Hg	15 psi
25A	OC_SVE_VMP-31-24_062818	TO-15	5.0 "Hg	15 psi
26A(cancelled)	OC_SVE_VMP-31-70_062818	TO-15	19.5 "Hg	15 psi
27A	Lab Blank	TO-15	NA	NA
27B	Lab Blank	TO-15	NA	NA
28A	CCV	TO-15	NA	NA
28B	CCV	TO-15	NA	NA
29A	LCS	TO-15	NA	NA
29AA	LCSD	TO-15	NA	NA
29B	LCS	TO-15	NA	NA
29BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 07/10/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1807022

Twenty-six 1 Liter Summa Canister samples were received on July 02, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A date and time were not provided by the field sampler.

Sample OC_SVE_VMP-31-70_062818 was cancelled on 7/3/2018 per client's request.

Analytical Notes

Dilution was performed on samples OC_SVE_VMP-92-70_062718 and OC_SVE_VMP-93-60_062718 due to the presence of high level target species.

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-18_062718

Lab ID#: 1807022-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	130	29	310
2-Propanol	4.8	8.6	12	21
Carbon Disulfide	4.8	27	15	84
Hexane	1.2	20	4.3	69
2-Butanone (Methyl Ethyl Ketone)	4.8	24	14	72
Benzene	1.2	2.5	3.9	8.1
Trichloroethene	1.2	2.0	6.5	10
Tetrachloroethene	1.2	5.5	8.2	38
TNMOC ref. to Heptane (MW=100)	24	320	99	1300

Client Sample ID: OC_SVE_VMP-5_062718

Lab ID#: 1807022-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	42	4.7	160
Acetone	12	61	28	140
Carbon Disulfide	4.8	27	15	84
trans-1,2-Dichloroethene	1.2	9.4	4.7	37
Hexane	1.2	7.9	4.2	28
2-Butanone (Methyl Ethyl Ketone)	4.8	86	14	260
Chloroform	1.2	2.4	5.8	12
Benzene	1.2	2.0	3.8	6.4
Trichloroethene	1.2	49	6.4	260
Toluene	1.2	1.2 J	4.5	4.4 J
Tetrachloroethene	1.2	220	8.1	1500
TNMOC ref. to Heptane (MW=100)	24	620	97	2500

Client Sample ID: OC_SVE_VMP-22_062718

Lab ID#: 1807022-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	53	29	120
Carbon Disulfide	4.8	4.9	15	15

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-22_062718

Lab ID#: 1807022-03A

2-Butanone (Methyl Ethyl Ketone)	4.8	77	14	230
Tetrachloroethene	1.2	5.8	8.2	39
TNMOC ref. to Heptane (MW=100)	24	140	99	570

Client Sample ID: OC_SVE_VMP-92-70_062718

Lab ID#: 1807022-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.9	54	11	300
Freon 113	1.9	160	15	1200
1,1-Dichloroethene	1.9	310	7.6	1200
Acetone	19	42	45	99
2-Butanone (Methyl Ethyl Ketone)	7.6	110	22	320
Chloroform	1.9	3.7	9.3	18
1,1,1-Trichloroethane	1.9	2.3	10	13
Trichloroethene	1.9	40	10	210
Tetrachloroethene	1.9	740	13	5000
TNMOC ref. to Heptane (MW=100)	38	4400	160	18000

Client Sample ID: OC_SVE_VMP-11_062718

Lab ID#: 1807022-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	52	29	120
2-Butanone (Methyl Ethyl Ketone)	4.8	130	14	370
Tetrachloroethene	1.2	1.8	8.2	12
2-Hexanone	4.8	5.5	20	23
1,1-Difluoroethane	4.8	6.1	13	16
TNMOC ref. to Heptane (MW=100)	24	350	99	1400

Client Sample ID: OC_SVE_VMP-11_062718K

Lab ID#: 1807022-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-11_062718K

Lab ID#: 1807022-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	37	29	88
2-Butanone (Methyl Ethyl Ketone)	4.9	86	14	250
TNMOC ref. to Heptane (MW=100)	25	200	100	820

Client Sample ID: OC_SVE_VMP-12_062718

Lab ID#: 1807022-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	61	28	140
2-Butanone (Methyl Ethyl Ketone)	4.7	180	14	520
Benzene	1.2	2.9	3.7	9.3
Tetrachloroethene	1.2	4.9	7.9	33
2-Hexanone	4.7	6.2	19	26
TNMOC ref. to Heptane (MW=100)	23	790	95	3200

Client Sample ID: OC_SVE_VMP-15_062718

Lab ID#: 1807022-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	82	29	200
Hexane	1.2	12	4.3	41
2-Butanone (Methyl Ethyl Ketone)	4.8	250	14	750
Benzene	1.2	2.2	3.9	7.0
Tetrachloroethene	1.2	2.7	8.2	18
2-Hexanone	4.8	7.4	20	30
TNMOC ref. to Heptane (MW=100)	24	420	99	1700

Client Sample ID: OC_SVE_VMP-17_062718

Lab ID#: 1807022-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	65	28	150

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-17_062718

Lab ID#: 1807022-09A

2-Butanone (Methyl Ethyl Ketone)	4.8	180	14	520
2-Hexanone	4.8	6.2	19	25
TNMOC ref. to Heptane (MW=100)	24	230	97	940

Client Sample ID: OC_SVE_VMP-16_062718

Lab ID#: 1807022-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	110	27	250
Carbon Disulfide	4.6	5.7	14	18
2-Butanone (Methyl Ethyl Ketone)	4.6	230	14	670
Trichloroethene	1.1	1.2	6.2	6.2
Tetrachloroethene	1.1	37	7.8	250
2-Hexanone	4.6	8.6	19	35
TNMOC ref. to Heptane (MW=100)	23	340	94	1400

Client Sample ID: OC_SVE_VMP-93-60_062718

Lab ID#: 1807022-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	3.6	6.0	20	34
Freon 113	3.6	23	28	180
Acetone	36	160	86	380
2-Butanone (Methyl Ethyl Ketone)	14	490	42	1400
Chloroform	3.6	6.6	18	32
Trichloroethene	3.6	13	19	68
Tetrachloroethene	3.6	1400	24	9400
2-Hexanone	14	15	59	61
TNMOC ref. to Heptane (MW=100)	72	2800	300	11000

Client Sample ID: OC_SVE_VMP-20_062718

Lab ID#: 1807022-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-20_062718

Lab ID#: 1807022-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	160	29	370
2-Propanol	4.9	6.2	12	15
Hexane	1.2	1.3	4.4	4.5
2-Butanone (Methyl Ethyl Ketone)	4.9	520 E	14	1500 E
Tetrachloroethene	1.2	7.0	8.4	48
2-Hexanone	4.9	17	20	68
TNMOC ref. to Heptane (MW=100)	25	420	100	1700

Client Sample ID: OC_SVE_VMP-21_062718

Lab ID#: 1807022-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	95	29	230
Carbon Disulfide	4.8	21	15	65
Hexane	1.2	3.6	4.3	13
2-Butanone (Methyl Ethyl Ketone)	4.8	480	14	1400
Benzene	1.2	1.9	3.9	6.0
Tetrachloroethene	1.2	3.3	8.2	22
2-Hexanone	4.8	22	20	90
m,p-Xylene	1.2	1.3	5.2	5.5
TNMOC ref. to Heptane (MW=100)	24	390	99	1600

Client Sample ID: OC_SVE_VMP-21_062718K

Lab ID#: 1807022-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	86	29	200
Carbon Disulfide	4.9	25	15	78
2-Butanone (Methyl Ethyl Ketone)	4.9	370	14	1100
Tetrachloroethene	1.2	4.0	8.4	27
2-Hexanone	4.9	14	20	56
TNMOC ref. to Heptane (MW=100)	25	300	100	1200

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-26_062718

Lab ID#: 1807022-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	69	29	160
Carbon Disulfide	4.8	12	15	37
2-Butanone (Methyl Ethyl Ketone)	4.8	300	14	900
2-Hexanone	4.8	13	20	54
TNMOC ref. to Heptane (MW=100)	24	280	99	1100

Client Sample ID: OC_SVE_VMP-94-24_062818

Lab ID#: 1807022-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	26	27	62
2-Butanone (Methyl Ethyl Ketone)	4.5	1900 E	13	5600 E
2-Hexanone	4.5	10	18	41
m,p-Xylene	1.1	1.4	4.9	6.1
Styrene	1.1	1.8	4.8	7.8
TNMOC ref. to Heptane (MW=100)	22	600	92	2400

Client Sample ID: OC_SVE_VMP-94-60_062818

Lab ID#: 1807022-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.2	6.4	6.5
Freon 113	1.1	7.2	8.8	55
Acetone	11	26	27	61
2-Propanol	4.6	7.2	11	18
2-Butanone (Methyl Ethyl Ketone)	4.6	78	14	230
Tetrachloroethene	1.1	3.7	7.8	25
2-Hexanone	4.6	5.3	19	22
TNMOC ref. to Heptane (MW=100)	23	1600	94	6500

Client Sample ID: OC_SVE_VMP-43-24_062818

Lab ID#: 1807022-18A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-43-24_062818

Lab ID#: 1807022-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	31	28	73
Hexane	1.2	19	4.2	67
2-Butanone (Methyl Ethyl Ketone)	4.8	91	14	270
2-Hexanone	4.8	6.9	19	28
m,p-Xylene	1.2	1.4	5.2	6.2
TNMOC ref. to Heptane (MW=100)	24	200	97	820

Client Sample ID: OC_SVE_VMP-95-60_062818

Lab ID#: 1807022-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	22	28	52
2-Butanone (Methyl Ethyl Ketone)	4.8	84	14	250
2-Hexanone	4.8	5.4	19	22
Ethyl Benzene	1.2	1.4	5.2	6.0
m,p-Xylene	1.2	4.2	5.2	18
o-Xylene	1.2	1.8	5.2	7.6
TNMOC ref. to Heptane (MW=100)	24	120	97	490

Client Sample ID: OC_SVE_VMP-95-60_062818K

Lab ID#: 1807022-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	15	28	35
2-Butanone (Methyl Ethyl Ketone)	4.7	64	14	190
Tetrachloroethene	1.2	1.4	7.9	9.8
TNMOC ref. to Heptane (MW=100)	23	26	95	110

Client Sample ID: OC_SVE_VMP-27_062818

Lab ID#: 1807022-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-27_062818

Lab ID#: 1807022-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	250	26	590
2-Propanol	4.4	11	11	28
Carbon Disulfide	4.4	16	14	49
2-Butanone (Methyl Ethyl Ketone)	4.4	120	13	360
2-Hexanone	4.4	5.6	18	23
m,p-Xylene	1.1	1.3	4.8	5.8
TNMOC ref. to Heptane (MW=100)	22	200	90	820

Client Sample ID: OC_SVE_VMP-24_062818

Lab ID#: 1807022-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	200	27	480
2-Butanone (Methyl Ethyl Ketone)	4.6	100	14	310
Tetrachloroethene	1.2	2.2	7.8	15
2-Hexanone	4.6	5.0	19	21
TNMOC ref. to Heptane (MW=100)	23	220	94	900

Client Sample ID: OC_SVE_VMP-32-24_062818

Lab ID#: 1807022-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	34	29	80
Methyl tert-butyl ether	4.8	6.2	17	22
Hexane	1.2	3.6	4.3	13
2-Butanone (Methyl Ethyl Ketone)	4.8	110	14	310
2-Hexanone	4.8	6.6	20	27
TNMOC ref. to Heptane (MW=100)	24	1000	99	4100

Client Sample ID: OC_SVE_VMP-32-60_062818

Lab ID#: 1807022-24A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-32-60_062818

Lab ID#: 1807022-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	51	31	120
2-Butanone (Methyl Ethyl Ketone)	5.2	140	15	420
Tetrachloroethene	1.3	1.7	8.8	12
2-Hexanone	5.2	7.7	21	32
TNMOC ref. to Heptane (MW=100)	26	200	100	820

Client Sample ID: OC_SVE_VMP-31-24_062818

Lab ID#: 1807022-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	58	29	140
Methyl tert-butyl ether	4.8	9.2	17	33
Hexane	1.2	2.4	4.3	8.5
2-Butanone (Methyl Ethyl Ketone)	4.8	160	14	470
Benzene	1.2	1.5	3.9	4.8
Tetrachloroethene	1.2	2.2	8.2	15
2-Hexanone	4.8	7.0	20	29
m,p-Xylene	1.2	1.7	5.2	7.5
TNMOC ref. to Heptane (MW=100)	24	580	99	2400

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Client Sample ID: OC_SVE_VMP-18_062718

Lab ID#: 1807022-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070609**	**Date of Collection:**	**6/27/18 8:53:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 03:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	130	29	310
2-Propanol	4.8	8.6	12	21
Carbon Disulfide	4.8	27	15	84
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	20	4.3	69
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	24	14	72
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	2.5	3.9	8.1
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	2.0	6.5	10
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	5.5	8.2	38
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-18_062718

Lab ID#: 1807022-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070609**	**Date of Collection:**	**6/27/18 8:53:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 03:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	320	99	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-5_062718

Lab ID#: 1807022-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070610**	**Date of Collection:**	**6/27/18 10:13:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/6/18 04:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	42	4.7	160
Acetone	12	61	28	140
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	27	15	84
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	9.4	4.7	37
Hexane	1.2	7.9	4.2	28
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	86	14	260
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	2.4	5.8	12
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	2.0	3.8	6.4
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	49	6.4	260
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	1.2 J	4.5	4.4 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	220	8.1	1500
2-Hexanone	4.8	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-5_062718

Lab ID#: 1807022-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070610**	**Date of Collection:**	**6/27/18 10:13:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/6/18 04:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	620	97	2500

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-22_062718

Lab ID#: 1807022-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070611**	**Date of Collection:**	**6/27/18 10:29:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 04:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	53	29	120
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	4.9	15	15
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	77	14	230
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	5.8	8.2	39
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-22_062718

Lab ID#: 1807022-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070611**	**Date of Collection:**	**6/27/18 10:29:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 04:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	140	99	570

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-92-70_062718

Lab ID#: 1807022-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070612**	**Date of Collection:**	**6/27/18 11:01:00 AM**
Dil. Factor:	**3.81**	**Date of Analysis:**	**7/6/18 05:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.9	Not Detected	9.4	Not Detected
Freon 114	1.9	Not Detected	13	Not Detected
Chloromethane	19	Not Detected	39	Not Detected
Vinyl Chloride	1.9	Not Detected	4.9	Not Detected
Bromomethane	19	Not Detected	74	Not Detected
Chloroethane	7.6	Not Detected	20	Not Detected
Freon 11	1.9	54	11	300
Freon 113	1.9	160	15	1200
1,1-Dichloroethene	1.9	310	7.6	1200
Acetone	19	42	45	99
2-Propanol	7.6	Not Detected	19	Not Detected
Carbon Disulfide	7.6	Not Detected	24	Not Detected
3-Chloropropene	7.6	Not Detected	24	Not Detected
Methylene Chloride	19	Not Detected	66	Not Detected
Methyl tert-butyl ether	7.6	Not Detected	27	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Hexane	1.9	Not Detected	6.7	Not Detected
1,1-Dichloroethane	1.9	Not Detected	7.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.6	110	22	320
cis-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Chloroform	1.9	3.7	9.3	18
1,1,1-Trichloroethane	1.9	2.3	10	13
Carbon Tetrachloride	1.9	Not Detected	12	Not Detected
Benzene	1.9	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.9	Not Detected	7.7	Not Detected
Trichloroethene	1.9	40	10	210
1,2-Dichloropropane	1.9	Not Detected	8.8	Not Detected
1,4-Dioxane	7.6	Not Detected	27	Not Detected
Bromodichloromethane	1.9	Not Detected	13	Not Detected
cis-1,3-Dichloropropene	1.9	Not Detected	8.6	Not Detected
4-Methyl-2-pentanone	1.9	Not Detected	7.8	Not Detected
Toluene	1.9	Not Detected	7.2	Not Detected
trans-1,3-Dichloropropene	1.9	Not Detected	8.6	Not Detected
1,1,2-Trichloroethane	1.9	Not Detected	10	Not Detected
Tetrachloroethene	1.9	740	13	5000
2-Hexanone	7.6	Not Detected	31	Not Detected
Dibromochloromethane	1.9	Not Detected	16	Not Detected
1,2-Dibromoethane (EDB)	1.9	Not Detected	15	Not Detected
Chlorobenzene	1.9	Not Detected	8.8	Not Detected
Ethyl Benzene	1.9	Not Detected	8.3	Not Detected
m,p-Xylene	1.9	Not Detected	8.3	Not Detected
o-Xylene	1.9	Not Detected	8.3	Not Detected

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Client Sample ID: OC_SVE_VMP-92-70_062718

Lab ID#: 1807022-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070612**	**Date of Collection:**	**6/27/18 11:01:00 AM**
Dil. Factor:	**3.81**	**Date of Analysis:**	**7/6/18 05:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.9	Not Detected	8.1	Not Detected
Bromoform	1.9	Not Detected	20	Not Detected
1,1,2,2-Tetrachloroethane	1.9	Not Detected	13	Not Detected
4-Ethyltoluene	1.9	Not Detected	9.4	Not Detected
1,3,5-Trimethylbenzene	1.9	Not Detected	9.4	Not Detected
1,2,4-Trimethylbenzene	1.9	Not Detected	9.4	Not Detected
1,3-Dichlorobenzene	1.9	Not Detected	11	Not Detected
1,4-Dichlorobenzene	1.9	Not Detected	11	Not Detected
alpha-Chlorotoluene	1.9	Not Detected	9.9	Not Detected
1,2-Dichlorobenzene	1.9	Not Detected	11	Not Detected
1,2,4-Trichlorobenzene	7.6	Not Detected	56	Not Detected
Hexachlorobutadiene	7.6	Not Detected	81	Not Detected
1,1-Difluoroethane	7.6	Not Detected	20	Not Detected
Vinyl Acetate	7.6	Not Detected	27	Not Detected
TNMOC ref. to Heptane (MW=100)	38	4400	160	18000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-11_062718

Lab ID#: 1807022-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070613**	**Date of Collection:**	**6/27/18 11:16:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 05:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	52	29	120
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	130	14	370
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	1.8	8.2	12
2-Hexanone	4.8	5.5	20	23
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-11_062718

Lab ID#: 1807022-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070613**	**Date of Collection:**	**6/27/18 11:16:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 05:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	6.1	13	16
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	350	99	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_VMP-11_062718K

Lab ID#: 1807022-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070614**	**Date of Collection:**	**6/27/18 11:22:00 AM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 05:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	37	29	88
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	86	14	250
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-11_062718K

Lab ID#: 1807022-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070614**	**Date of Collection:**	**6/27/18 11:22:00 AM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 05:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	200	100	820

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VMP-12_062718

Lab ID#: 1807022-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070615**	**Date of Collection:**	**6/27/18 11:43:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/6/18 06:25 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	61	28	140
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	180	14	520
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	2.9	3.7	9.3
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	4.9	7.9	33
2-Hexanone	4.7	6.2	19	26
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-12_062718

Lab ID#: 1807022-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070615**	**Date of Collection:**	**6/27/18 11:43:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/6/18 06:25 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	12	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	790	95	3200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-15_062718

Lab ID#: 1807022-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070616**	**Date of Collection:**	**6/27/18 11:57:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 06:51 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	82	29	200
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	12	4.3	41
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	250	14	750
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	2.2	3.9	7.0
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	2.7	8.2	18
2-Hexanone	4.8	7.4	20	30
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-15_062718

Lab ID#: 1807022-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070616**	**Date of Collection:**	**6/27/18 11:57:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 06:51 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	420	99	1700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: OC_SVE_VMP-17_062718

Lab ID#: 1807022-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070617**	**Date of Collection:**	**6/27/18 12:13:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/6/18 07:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	65	28	150
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	180	14	520
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
2-Hexanone	4.8	6.2	19	25
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-17_062718

Lab ID#: 1807022-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070617**	**Date of Collection:**	**6/27/18 12:13:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/6/18 07:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	230	97	940

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: OC_SVE_VMP-16_062718

Lab ID#: 1807022-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070619**	**Date of Collection:**	**6/27/18 12:37:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**7/6/18 09:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 113	1.1	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	110	27	250
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	5.7	14	18
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	230	14	670
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	1.2	6.2	6.2
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	37	7.8	250
2-Hexanone	4.6	8.6	19	35
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-16_062718

Lab ID#: 1807022-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070619**	**Date of Collection:**	**6/27/18 12:37:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**7/6/18 09:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	340	94	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: OC_SVE_VMP-93-60_062718

Lab ID#: 1807022-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070620**	**Date of Collection:**	**6/27/18 1:06:00 PM**
Dil. Factor:	**7.22**	**Date of Analysis:**	**7/6/18 10:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.6	Not Detected	18	Not Detected
Freon 114	3.6	Not Detected	25	Not Detected
Chloromethane	36	Not Detected	74	Not Detected
Vinyl Chloride	3.6	Not Detected	9.2	Not Detected
Bromomethane	36	Not Detected	140	Not Detected
Chloroethane	14	Not Detected	38	Not Detected
Freon 11	3.6	6.0	20	34
Freon 113	3.6	23	28	180
1,1-Dichloroethene	3.6	Not Detected	14	Not Detected
Acetone	36	160	86	380
2-Propanol	14	Not Detected	35	Not Detected
Carbon Disulfide	14	Not Detected	45	Not Detected
3-Chloropropene	14	Not Detected	45	Not Detected
Methylene Chloride	36	Not Detected	120	Not Detected
Methyl tert-butyl ether	14	Not Detected	52	Not Detected
trans-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
Hexane	3.6	Not Detected	13	Not Detected
1,1-Dichloroethane	3.6	Not Detected	15	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	490	42	1400
cis-1,2-Dichloroethene	3.6	Not Detected	14	Not Detected
Chloroform	3.6	6.6	18	32
1,1,1-Trichloroethane	3.6	Not Detected	20	Not Detected
Carbon Tetrachloride	3.6	Not Detected	23	Not Detected
Benzene	3.6	Not Detected	12	Not Detected
1,2-Dichloroethane	3.6	Not Detected	15	Not Detected
Trichloroethene	3.6	13	19	68
1,2-Dichloropropane	3.6	Not Detected	17	Not Detected
1,4-Dioxane	14	Not Detected	52	Not Detected
Bromodichloromethane	3.6	Not Detected	24	Not Detected
cis-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
4-Methyl-2-pentanone	3.6	Not Detected	15	Not Detected
Toluene	3.6	Not Detected	14	Not Detected
trans-1,3-Dichloropropene	3.6	Not Detected	16	Not Detected
1,1,2-Trichloroethane	3.6	Not Detected	20	Not Detected
Tetrachloroethene	3.6	1400	24	9400
2-Hexanone	14	15	59	61
Dibromochloromethane	3.6	Not Detected	31	Not Detected
1,2-Dibromoethane (EDB)	3.6	Not Detected	28	Not Detected
Chlorobenzene	3.6	Not Detected	17	Not Detected
Ethyl Benzene	3.6	Not Detected	16	Not Detected
m,p-Xylene	3.6	Not Detected	16	Not Detected
o-Xylene	3.6	Not Detected	16	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-93-60_062718

Lab ID#: 1807022-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070620**	**Date of Collection:**	**6/27/18 1:06:00 PM**
Dil. Factor:	**7.22**	**Date of Analysis:**	**7/6/18 10:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	3.6	Not Detected	15	Not Detected
Bromoform	3.6	Not Detected	37	Not Detected
1,1,2,2-Tetrachloroethane	3.6	Not Detected	25	Not Detected
4-Ethyltoluene	3.6	Not Detected	18	Not Detected
1,3,5-Trimethylbenzene	3.6	Not Detected	18	Not Detected
1,2,4-Trimethylbenzene	3.6	Not Detected	18	Not Detected
1,3-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,4-Dichlorobenzene	3.6	Not Detected	22	Not Detected
alpha-Chlorotoluene	3.6	Not Detected	19	Not Detected
1,2-Dichlorobenzene	3.6	Not Detected	22	Not Detected
1,2,4-Trichlorobenzene	14	Not Detected	110	Not Detected
Hexachlorobutadiene	14	Not Detected	150	Not Detected
1,1-Difluoroethane	14	Not Detected	39	Not Detected
Vinyl Acetate	14	Not Detected	51	Not Detected
TNMOC ref. to Heptane (MW=100)	72	2800	300	11000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-20_062718

Lab ID#: 1807022-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070621**	**Date of Collection:**	**6/27/18 3:09:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 11:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	160	29	370
2-Propanol	4.9	6.2	12	15
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	1.3	4.4	4.5
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	520 E	14	1500 E
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	7.0	8.4	48
2-Hexanone	4.9	17	20	68
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-20_062718

Lab ID#: 1807022-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070621**	**Date of Collection:**	**6/27/18 3:09:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 11:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	420	100	1700

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: OC_SVE_VMP-21_062718

Lab ID#: 1807022-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070622**	**Date of Collection:**	**6/27/18 3:36:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 11:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	95	29	230
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	21	15	65
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	3.6	4.3	13
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	480	14	1400
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	1.9	3.9	6.0
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	3.3	8.2	22
2-Hexanone	4.8	22	20	90
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.3	5.2	5.5
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-21_062718

Lab ID#: 1807022-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070622**	**Date of Collection:**	**6/27/18 3:36:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/6/18 11:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	390	99	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE_VMP-21_062718K

Lab ID#: 1807022-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070623**	**Date of Collection:**	**6/27/18 3:43:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 11:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	86	29	200
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	25	15	78
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	370	14	1100
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	4.0	8.4	27
2-Hexanone	4.9	14	20	56
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-21_062718K

Lab ID#: 1807022-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070623**	**Date of Collection:**	**6/27/18 3:43:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/6/18 11:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	300	100	1200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_VMP-26_062718

Lab ID#: 1807022-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070624**	**Date of Collection:**	**6/27/18 3:37:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/7/18 12:24 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	69	29	160
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	12	15	37
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	300	14	900
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	13	20	54
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-26_062718

Lab ID#: 1807022-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070624**	**Date of Collection:**	**6/27/18 3:37:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/7/18 12:24 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	280	99	1100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VMP-94-24_062818

Lab ID#: 1807022-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070625**	**Date of Collection:**	**6/28/18 7:19:00 AM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**7/7/18 12:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Freon 113	1.1	Not Detected	8.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	26	27	62
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	1900 E	13	5600 E
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
2-Hexanone	4.5	10	18	41
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	1.4	4.9	6.1
o-Xylene	1.1	Not Detected	4.9	Not Detected

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Client Sample ID: OC_SVE_VMP-94-24_062818

Lab ID#: 1807022-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070625**	**Date of Collection:**	**6/28/18 7:19:00 AM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**7/7/18 12:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	1.8	4.8	7.8
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	22	600	92	2400

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE_VMP-94-60_062818

Lab ID#: 1807022-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070626**	**Date of Collection:**	**6/28/18 7:28:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**7/7/18 01:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	1.2	6.4	6.5
Freon 113	1.1	7.2	8.8	55
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	26	27	61
2-Propanol	4.6	7.2	11	18
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	78	14	230
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	3.7	7.8	25
2-Hexanone	4.6	5.3	19	22
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-94-60_062818

Lab ID#: 1807022-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070626**	**Date of Collection:**	**6/28/18 7:28:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**7/7/18 01:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	1600	94	6500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: OC_SVE_VMP-43-24_062818

Lab ID#: 1807022-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070627**	**Date of Collection:**	**6/28/18 7:36:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/7/18 01:43 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	31	28	73
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	19	4.2	67
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	91	14	270
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
2-Hexanone	4.8	6.9	19	28
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.4	5.2	6.2
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-43-24_062818

Lab ID#: 1807022-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070627**	**Date of Collection:**	**6/28/18 7:36:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/7/18 01:43 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	200	97	820

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: OC_SVE_VMP-95-60_062818

Lab ID#: 1807022-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070908**	**Date of Collection:**	**6/28/18 7:46:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/9/18 02:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	22	28	52
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	84	14	250
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
2-Hexanone	4.8	5.4	19	22
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	1.4	5.2	6.0
m,p-Xylene	1.2	4.2	5.2	18
o-Xylene	1.2	1.8	5.2	7.6

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-95-60_062818

Lab ID#: 1807022-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070908**	**Date of Collection:**	**6/28/18 7:46:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/9/18 02:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	120	97	490

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-95-60_062818K

Lab ID#: 1807022-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070629**	**Date of Collection:**	**6/28/18 7:48:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/7/18 02:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	15	28	35
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	64	14	190
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	1.4	7.9	9.8
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-95-60_062818K

Lab ID#: 1807022-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070629**	**Date of Collection:**	**6/28/18 7:48:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/7/18 02:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	12	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	26	95	110

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_VMP-27_062818

Lab ID#: 1807022-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070910**	**Date of Collection:**	**6/28/18 8:28:00 AM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**7/9/18 03:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	250	26	590
2-Propanol	4.4	11	11	28
Carbon Disulfide	4.4	16	14	49
3-Chloropropene	4.4	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	120	13	360
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected
2-Hexanone	4.4	5.6	18	23
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	1.3	4.8	5.8
o-Xylene	1.1	Not Detected	4.8	Not Detected

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Client Sample ID: OC_SVE_VMP-27_062818

Lab ID#: 1807022-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070910**	**Date of Collection:**	**6/28/18 8:28:00 AM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**7/9/18 03:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.7	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
1,1-Difluoroethane	4.4	Not Detected	12	Not Detected
Vinyl Acetate	4.4	Not Detected	15	Not Detected
TNMOC ref. to Heptane (MW=100)	22	200	90	820

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: OC_SVE_VMP-24_062818

Lab ID#: 1807022-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070909**	**Date of Collection:**	**6/28/18 8:55:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**7/9/18 03:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.0	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	200	27	480
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	100	14	310
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	2.2	7.8	15
2-Hexanone	4.6	5.0	19	21
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.8	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-24_062818

Lab ID#: 1807022-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070909**	**Date of Collection:**	**6/28/18 8:55:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**7/9/18 03:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	220	94	900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-32-24_062818

Lab ID#: 1807022-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070911**	**Date of Collection:**	**6/28/18 9:54:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 04:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	34	29	80
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	6.2	17	22
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	3.6	4.3	13
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	110	14	310
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	6.6	20	27
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-32-24_062818

Lab ID#: 1807022-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070911**	**Date of Collection:**	**6/28/18 9:54:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 04:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	1000	99	4100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	121	70-130

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Client Sample ID: OC_SVE_VMP-32-60_062818

Lab ID#: 1807022-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070912**	**Date of Collection:**	**6/28/18 10:01:00 AM**
Dil. Factor:	**2.58**	**Date of Analysis:**	**7/9/18 04:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.4	Not Detected
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	13	Not Detected	27	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Freon 113	1.3	Not Detected	9.9	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	51	31	120
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	5.2	Not Detected	19	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	140	15	420
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.0	Not Detected
1,4-Dioxane	5.2	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	Not Detected	4.9	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	1.7	8.8	12
2-Hexanone	5.2	7.7	21	32
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected

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Client Sample ID: OC_SVE_VMP-32-60_062818

Lab ID#: 1807022-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070912**	**Date of Collection:**	**6/28/18 10:01:00 AM**
Dil. Factor:	**2.58**	**Date of Analysis:**	**7/9/18 04:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.7	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.8	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected
1,1-Difluoroethane	5.2	Not Detected	14	Not Detected
Vinyl Acetate	5.2	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	26	200	100	820

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_VMP-31-24_062818

Lab ID#: 1807022-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070913**	**Date of Collection:**	**6/28/18 10:12:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 05:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	58	29	140
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	9.2	17	33
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	2.4	4.3	8.5
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	160	14	470
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	1.5	3.9	4.8
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	2.2	8.2	15
2-Hexanone	4.8	7.0	20	29
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.7	5.2	7.5
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-31-24_062818

Lab ID#: 1807022-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070913**	**Date of Collection:**	**6/28/18 10:12:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 05:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	580	99	2400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1807022-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070608a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 02:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1807022-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070608a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 02:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1807022-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1807022-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1807022-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 10:51 AM**

Compound	%Recovery
Freon 12	106
Freon 114	110
Chloromethane	86
Vinyl Chloride	115
Bromomethane	112
Chloroethane	100
Freon 11	107
Freon 113	106
1,1-Dichloroethene	112
Acetone	99
2-Propanol	113
Carbon Disulfide	97
3-Chloropropene	105
Methylene Chloride	96
Methyl tert-butyl ether	124
trans-1,2-Dichloroethene	107
Hexane	114
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	113
Chloroform	105
1,1,1-Trichloroethane	104
Carbon Tetrachloride	110
Benzene	98
1,2-Dichloroethane	93
Trichloroethene	98
1,2-Dichloropropane	90
1,4-Dioxane	106
Bromodichloromethane	93
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	107
Toluene	100
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	94
Tetrachloroethene	103
2-Hexanone	119
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	102
Chlorobenzene	102
Ethyl Benzene	113
m,p-Xylene	117
o-Xylene	120

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Client Sample ID: CCV

Lab ID#: 1807022-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 10:51 AM**

Compound	%Recovery
Styrene	116
Bromoform	98
1,1,2,2-Tetrachloroethane	88
4-Ethyltoluene	119
1,3,5-Trimethylbenzene	118
1,2,4-Trimethylbenzene	123
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	105
1,2,4-Trichlorobenzene	108
Hexachlorobutadiene	101
1,1-Difluoroethane	121
Vinyl Acetate	123
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: CCV

Lab ID#: 1807022-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:02 AM**

Compound	%Recovery
Freon 12	106
Freon 114	110
Chloromethane	79
Vinyl Chloride	111
Bromomethane	110
Chloroethane	97
Freon 11	107
Freon 113	106
1,1-Dichloroethene	108
Acetone	94
2-Propanol	100
Carbon Disulfide	94
3-Chloropropene	100
Methylene Chloride	92
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	106
Hexane	104
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	108
Chloroform	104
1,1,1-Trichloroethane	105
Carbon Tetrachloride	111
Benzene	101
1,2-Dichloroethane	95
Trichloroethene	98
1,2-Dichloropropane	91
1,4-Dioxane	110
Bromodichloromethane	96
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	106
Toluene	103
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	100
Tetrachloroethene	110
2-Hexanone	120
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	107
Chlorobenzene	106
Ethyl Benzene	118
m,p-Xylene	122
o-Xylene	122

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1807022-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:02 AM**	

Compound	**%Recovery**
Styrene	122
Bromoform	104
1,1,2,2-Tetrachloroethane	94
4-Ethyltoluene	126
1,3,5-Trimethylbenzene	124
1,2,4-Trimethylbenzene	126
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	115
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	105
1,1-Difluoroethane	119
Vinyl Acetate	120
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: LCS

Lab ID#: 1807022-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 12:16 PM**	

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	105	70-130
Chloromethane	95	70-130
Vinyl Chloride	104	70-130
Bromomethane	113	70-130
Chloroethane	98	70-130
Freon 11	102	70-130
Freon 113	102	70-130
1,1-Dichloroethene	111	70-130
Acetone	100	70-130
2-Propanol	113	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	113	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	120	70-130
trans-1,2-Dichloroethene	114	70-130
Hexane	114	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	100	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	106	70-130
Carbon Tetrachloride	115	70-130
Benzene	95	70-130
1,2-Dichloroethane	89	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	110	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	103	70-130
2-Hexanone	120	70-130
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	118	70-130
m,p-Xylene	118	70-130
o-Xylene	122	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1807022-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 12:16 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	124	70-130
Bromoform	103	70-130
1,1,2,2-Tetrachloroethane	90	70-130
4-Ethyltoluene	124	70-130
1,3,5-Trimethylbenzene	119	70-130
1,2,4-Trimethylbenzene	127	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	111	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	97	70-130
Hexachlorobutadiene	91	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	116	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807022-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 12:52 PM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	104	70-130
Chloromethane	95	70-130
Vinyl Chloride	118	70-130
Bromomethane	111	70-130
Chloroethane	98	70-130
Freon 11	103	70-130
Freon 113	101	70-130
1,1-Dichloroethene	110	70-130
Acetone	98	70-130
2-Propanol	112	70-130
Carbon Disulfide	96	70-130
3-Chloropropene	108	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	121	70-130
trans-1,2-Dichloroethene	115	70-130
Hexane	114	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	100	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	115	70-130
Benzene	94	70-130
1,2-Dichloroethane	88	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	86	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	92	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	98	70-130
2-Hexanone	116	70-130
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	116	70-130
o-Xylene	119	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807022-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/6/18 12:52 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	119	70-130
Bromoform	100	70-130
1,1,2,2-Tetrachloroethane	88	70-130
4-Ethyltoluene	120	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	124	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	90	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	116	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: LCS

Lab ID#: 1807022-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:27 AM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	103	70-130
Chloromethane	89	70-130
Vinyl Chloride	110	70-130
Bromomethane	107	70-130
Chloroethane	93	70-130
Freon 11	101	70-130
Freon 113	99	70-130
1,1-Dichloroethene	102	70-130
Acetone	94	70-130
2-Propanol	99	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	100	70-130
Methylene Chloride	87	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	102	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	113	70-130
Benzene	100	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	112	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	104	70-130
2-Hexanone	114	70-130
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	117	70-130
m,p-Xylene	120	70-130
o-Xylene	122	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1807022-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:27 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	126	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	94	70-130
4-Ethyltoluene	130	70-130
1,3,5-Trimethylbenzene	120	70-130
1,2,4-Trimethylbenzene	127	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	113	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	98	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	103	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: LCSD

Lab ID#: 1807022-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	103	70-130
Chloromethane	89	70-130
Vinyl Chloride	105	70-130
Bromomethane	109	70-130
Chloroethane	94	70-130
Freon 11	102	70-130
Freon 113	101	70-130
1,1-Dichloroethene	104	70-130
Acetone	96	70-130
2-Propanol	101	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	103	70-130
Methylene Chloride	87	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	105	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	115	70-130
Benzene	97	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	103	70-130
2-Hexanone	115	70-130
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	116	70-130
m,p-Xylene	118	70-130
o-Xylene	120	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807022-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:51 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	124	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	93	70-130
4-Ethyltoluene	124	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	125	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	100	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	105	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	109	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 6/27/2018
PAGE: 1 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92108
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD
SPECIAL INSTRUCTIONS: 1,1-DFA

CLIENT PROJECT NAME / NUMBER: Omega - Quarterly VMP June 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)
01A	1	OC_SVE_VMP-18_062718	VMP-18	SV	1L1840	1 L	23699	6/27/2018	0848	-29	6/27/2018	0853	-5	X
02A	2	OC_SVE_VMP-5_062718	VMP-5	SV	37851	1 L	23694	6/27/2018	1006	-30	6/27/2018	1013	-5	X
03A	3	OC_SVE_VMP-22_062718	VMP-22	SV	1L2603	1 L	23103	6/27/2018	1022	-30	6/27/2018	1029	-5	X
04A	4	OC_SVE_VMP-92-70_062718	VMP-92-70	SV	1L3142	1 L	23605	6/27/2018	1054	-28	6/27/2018	1101	-5	X
05A	5	OC_SVE_VMP-11_062718	VMP-11	SV	1L3174	1 L	23193	6/27/2018	1111	-30	6/27/2018	1116	-4	X
06A	6	OC_SVE_VMP-11_062718K	VMP-11	SV	1L2446	1 L	23100	6/27/2018	1116	-30	6/27/2018	1122	-5	X
07A	7	OC_SVE_VMP-12_062718	VMP-12	SV	1L1812	1 L	23164	6/27/2018	1138	-30	6/27/2018	1143	-5	X
08A	8	OC_SVE_VMP-15_062718	VMP-15	SV	1L1906	1 L	23538	6/27/2018	1150	-28	6/27/2018	1157	-5	X
09A	9	OC_SVE_VMP-17_062718	VMP-17	SV	1L3057	1 L	23368	6/27/2018	1208	-28	6/27/2018	1213	-5	X
10A	10	OC_SVE_VMP-16_062718	VMP-16	SV	1L2441	1 L	23502	6/27/2018	1231	-30	6/27/2018	1237	-3	X
11A	11	OC_SVE_VMP93-60_062718	VMP-93-60	SV	1L2906	1 L	23607	6/27/2018	1256	-30	6/27/2018	1306	-5	X
	12	~~OC_SVE_VMP-40-24_062718~~	~~VMP-40-24~~	~~SV~~	~~1L2674~~	~~1 L~~	~~23402~~	~~6/27/2018~~	~~1430~~	~~-30~~	~~6/27/2018~~			~~X~~
12A	13	OC_SVE_VMP-20_062718	VMP-20	SV	1L1770	1 L	23470	6/27/2018	1503	-30	6/27/2018	1509	-5	X
13A	14	OC_SVE_VMP-21_062718	VMP-21	SV	1L2975	1 L	23493	6/27/2018	1531	-30	6/27/2018	1536	-5	X
14A	15	OC_SVE_VMP-21_062718K	VMP-21	SV	3824	1 L	23244	6/27/2018	1538	-30	6/27/2018	1543	-5	X
15A		OC_SVE_VMP-26_062718	VMP-26	SV	1L2653	1 L	23256	6/27/2018	1531	-30	6/27/2018	1537	-5	X

Custody Seal Intact? Y N None Temp N/A

Relinquished by: (Signature)
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Relinquished by: (Signature)

Received by: (Signature) EAZL
Received by: (Signature)
Received by: (Signature)

Date: 07/02/18 Time: 0955
Date: Time:
Date: Time:

1807022

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 6/28/2018
PAGE: 2 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD
SPECIAL INSTRUCTIONS: 1,1-DFA

CLIENT PROJECT NAME / NUMBER: Omega - Quarterly VMP June 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (°Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (°Hg)	TO-15 (TAL 2.4)
16A.	1	OC_SVE_VMP-94-24_06 28 18	VMP-94-24	SV	1L2424	1 L	23123	6/28/2018	0714	-30	6/28/2018	0719	-5	X
17A.	2	OC_SVE_VMP-94-60_06 28 18	VMP-94-60	SV	1L3179	1 L	23733	6/28/2018	0723	-30	6/28/2018	0728	-4	X
18A.	3	OC_SVE_VMP-43-24_06 28 18	VMP-43-24	SV	1L2891	1 L	23269	6/28/2018	0731	-28	6/28/2018	0736	-5	X
19A.	4	OC_SVE_VMP-95-60_06 28 18	VMP-95-60	SV	1L2688	1 L	23737	6/28/2018	0742	-30	6/28/2018	0746	-5	X
20A.	5	OC_SVE_VMP-95-60_06 28 18 K	VMP-95-60	SV	1L2999	1 L	23460	6/28/2018	0742	-28	6/28/2018	0748	-4	X
21A.	6	OC_SVE_VMP-27_06 28 18	VMP-27	SV	1L2839	1 L	23618	6/28/2018	0821	-30	6/28/2018	0828	-4	X
22A.	7	OC_SVE_VMP-24_06 28 18	VMP-24	SV	1L1574	1 L	23514	6/28/2018	0851	-30	6/28/2018	0855	-5	X
23A.	8	OC_SVE_VMP-32-24_06 28 18	VMP-32-24	SV	3035	1 L	23717	6/28/2018	0949	-30	6/28/2018	0954	-5	X
24A.	9	OC_SVE_VMP-32-60_06 28 18	VMP-32-60	SV	1L3104	1 L	23611	6/28/2018	0956	-30	6/28/2018	1001	-5	X
25A.	10	OC_SVE_VMP-31-24_06 28 18	VMP-31-24	SV	40875	1 L	23638	6/28/2018	1007	-28	6/28/2018	1012	-5	X
26A.	11	OC_SVE_VMP-31-70_06 28 18	VMP-31-70	SV	1L1624	1 L	23814	6/28/2018	1024	-30	6/28/2018	1044	-22	X
	12	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X
	13	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X
	14	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X
	15	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X
		OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X

Relinquished by: (Signature)
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Received by: (Signature) ZAIL Date: 07/02/18 Time: 0955
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Received by: (Signature) Date: Time:

Custody Seal Intact?
Y (N) None Temp NA
7707

1807022

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7/10/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - Quarterly VMP June 2018 - EPA
Project #:
Workorder #: 1807025

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 7/2/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1807025

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Quarterly VMP June 2018 - EPA
DATE RECEIVED:	07/02/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/10/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_VMP-84-24_062718	TO-15	3.0 "Hg	15 psi
02A	OC_SVE_VMP-39-24_062718	TO-15	4.0 "Hg	15 psi
03A	OC_SVE_VMP-41-24_062718	TO-15	5.0 "Hg	15 psi
04A	OC_SVE_VMP-40-24_062718	TO-15	5.5 "Hg	15 psi
05A	OC_SVE_VMP-23_062818	TO-15	5.0 "Hg	15 psi
06A	OC_SVE_VMP-25_062818	TO-15	4.0 "Hg	15 psi
07A	Lab Blank	TO-15	NA	NA
08A	CCV	TO-15	NA	NA
09A	LCS	TO-15	NA	NA
09AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

DATE: 07/10/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1807025

Six 1 Liter Summa Canister samples were received on July 02, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A date and time were not provided by the field sampler.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The recovery of surrogate 4-Bromofluorobenzene in sample OC_SVE_VMP-25_062818 was outside laboratory control limits due to high level matrix interference. The surrogate recovery is flagged.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-84-24_062718

Lab ID#: 1807025-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	30	6.3	170
Freon 113	1.1	40	8.6	300
Acetone	11	12	27	28
2-Butanone (Methyl Ethyl Ketone)	4.5	12	13	37
Trichloroethene	1.1	36	6.0	190
Tetrachloroethene	1.1	110	7.6	770
TNMOC ref. to Heptane (MW=100)	22	270	92	1100

Client Sample ID: OC_SVE_VMP-39-24_062718

Lab ID#: 1807025-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	20	28	49
2-Butanone (Methyl Ethyl Ketone)	4.7	18	14	54
Toluene	1.2	2.7	4.4	10
Tetrachloroethene	1.2	2.7	7.9	18
TNMOC ref. to Heptane (MW=100)	23	64	95	260

Client Sample ID: OC_SVE_VMP-41-24_062718

Lab ID#: 1807025-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	26	29	61
2-Butanone (Methyl Ethyl Ketone)	4.8	49	14	140
TNMOC ref. to Heptane (MW=100)	24	75	99	310

Client Sample ID: OC_SVE_VMP-40-24_062718

Lab ID#: 1807025-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	95	29	220
2-Propanol	4.9	7.2	12	18

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-40-24_062718

Lab ID#: 1807025-04A

2-Butanone (Methyl Ethyl Ketone)	4.9	250	14	730
Tetrachloroethene	1.2	10	8.4	69
2-Hexanone	4.9	9.8	20	40
TNMOC ref. to Heptane (MW=100)	25	310	100	1300

Client Sample ID: OC_SVE_VMP-23_062818

Lab ID#: 1807025-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	31	29	74
2-Butanone (Methyl Ethyl Ketone)	4.8	83	14	240
Tetrachloroethene	1.2	20	8.2	140
2-Hexanone	4.8	4.8	20	20
TNMOC ref. to Heptane (MW=100)	24	160	99	650

Client Sample ID: OC_SVE_VMP-25_062818

Lab ID#: 1807025-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	120	590	280	1400
2-Butanone (Methyl Ethyl Ketone)	47	4500	140	13000
Tetrachloroethene	12	15	79	100
TNMOC ref. to Heptane (MW=100)	230	6200	950	25000

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Client Sample ID: OC_SVE_VMP-84-24_062718

Lab ID#: 1807025-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070914**	**Date of Collection:**	**6/27/18 8:24:00 AM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**7/9/18 05:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	30	6.3	170
Freon 113	1.1	40	8.6	300
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	12	27	28
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	12	13	37
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	36	6.0	190
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	110	7.6	770
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

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Client Sample ID: OC_SVE_VMP-84-24_062718

Lab ID#: 1807025-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070914**	**Date of Collection:**	**6/27/18 8:24:00 AM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**7/9/18 05:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	22	270	92	1100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-39-24_062718

Lab ID#: 1807025-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070915**	**Date of Collection:**	**6/27/18 8:39:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/9/18 07:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	20	28	49
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	18	14	54
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	2.7	4.4	10
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	2.7	7.9	18
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-39-24_062718

Lab ID#: 1807025-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070915**	**Date of Collection:**	**6/27/18 8:39:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/9/18 07:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	12	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	64	95	260

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_VMP-41-24_062718

Lab ID#: 1807025-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070916**	**Date of Collection:**	**6/27/18 9:49:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	26	29	61
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	49	14	140
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-41-24_062718

Lab ID#: 1807025-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070916**	**Date of Collection:**	**6/27/18 9:49:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	75	99	310

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: OC_SVE_VMP-40-24_062718

Lab ID#: 1807025-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070917**	**Date of Collection:**	**6/27/18 2:35:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/9/18 08:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	95	29	220
2-Propanol	4.9	7.2	12	18
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	250	14	730
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	10	8.4	69
2-Hexanone	4.9	9.8	20	40
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-40-24_062718

Lab ID#: 1807025-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070917**	**Date of Collection:**	**6/27/18 2:35:00 PM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**7/9/18 08:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	310	100	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: OC_SVE_VMP-23_062818

Lab ID#: 1807025-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070918**	**Date of Collection:**	**6/28/18 9:15:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 09:11 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	31	29	74
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	83	14	240
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	20	8.2	140
2-Hexanone	4.8	4.8	20	20
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-23_062818

Lab ID#: 1807025-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070918**	**Date of Collection:**	**6/28/18 9:15:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**7/9/18 09:11 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	160	99	650

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: OC_SVE_VMP-25_062818

Lab ID#: 1807025-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070919**	**Date of Collection:**	**6/28/18 9:19:00 AM**
Dil. Factor:	**23.3**	**Date of Analysis:**	**7/9/18 09:35 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	58	Not Detected
Freon 114	12	Not Detected	81	Not Detected
Chloromethane	120	Not Detected	240	Not Detected
Vinyl Chloride	12	Not Detected	30	Not Detected
Bromomethane	120	Not Detected	450	Not Detected
Chloroethane	47	Not Detected	120	Not Detected
Freon 11	12	Not Detected	65	Not Detected
Freon 113	12	Not Detected	89	Not Detected
1,1-Dichloroethene	12	Not Detected	46	Not Detected
Acetone	120	590	280	1400
2-Propanol	47	Not Detected	110	Not Detected
Carbon Disulfide	47	Not Detected	140	Not Detected
3-Chloropropene	47	Not Detected	140	Not Detected
Methylene Chloride	120	Not Detected	400	Not Detected
Methyl tert-butyl ether	47	Not Detected	170	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	46	Not Detected
Hexane	12	Not Detected	41	Not Detected
1,1-Dichloroethane	12	Not Detected	47	Not Detected
2-Butanone (Methyl Ethyl Ketone)	47	4500	140	13000
cis-1,2-Dichloroethene	12	Not Detected	46	Not Detected
Chloroform	12	Not Detected	57	Not Detected
1,1,1-Trichloroethane	12	Not Detected	64	Not Detected
Carbon Tetrachloride	12	Not Detected	73	Not Detected
Benzene	12	Not Detected	37	Not Detected
1,2-Dichloroethane	12	Not Detected	47	Not Detected
Trichloroethene	12	Not Detected	63	Not Detected
1,2-Dichloropropane	12	Not Detected	54	Not Detected
1,4-Dioxane	47	Not Detected	170	Not Detected
Bromodichloromethane	12	Not Detected	78	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	53	Not Detected
4-Methyl-2-pentanone	12	Not Detected	48	Not Detected
Toluene	12	Not Detected	44	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	53	Not Detected
1,1,2-Trichloroethane	12	Not Detected	64	Not Detected
Tetrachloroethene	12	15	79	100
2-Hexanone	47	Not Detected	190	Not Detected
Dibromochloromethane	12	Not Detected	99	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	90	Not Detected
Chlorobenzene	12	Not Detected	54	Not Detected
Ethyl Benzene	12	Not Detected	50	Not Detected
m,p-Xylene	12	Not Detected	50	Not Detected
o-Xylene	12	Not Detected	50	Not Detected

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Client Sample ID: OC_SVE_VMP-25_062818

Lab ID#: 1807025-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070919**	**Date of Collection:**	**6/28/18 9:19:00 AM**
Dil. Factor:	**23.3**	**Date of Analysis:**	**7/9/18 09:35 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	12	Not Detected	50	Not Detected
Bromoform	12	Not Detected	120	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	80	Not Detected
4-Ethyltoluene	12	Not Detected	57	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	57	Not Detected
1,2,4-Trimethylbenzene	12	Not Detected	57	Not Detected
1,3-Dichlorobenzene	12	Not Detected	70	Not Detected
1,4-Dichlorobenzene	12	Not Detected	70	Not Detected
alpha-Chlorotoluene	12	Not Detected	60	Not Detected
1,2-Dichlorobenzene	12	Not Detected	70	Not Detected
1,2,4-Trichlorobenzene	47	Not Detected	340	Not Detected
Hexachlorobutadiene	47	Not Detected	500	Not Detected
1,1-Difluoroethane	47	Not Detected	120	Not Detected
Vinyl Acetate	47	Not Detected	160	Not Detected
TNMOC ref. to Heptane (MW=100)	230	6200	950	25000

Q = Exceeds Quality Control limits.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	134 Q	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1807025-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1807025-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1807025-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:02 AM**

Compound	%Recovery
Freon 12	106
Freon 114	110
Chloromethane	79
Vinyl Chloride	111
Bromomethane	110
Chloroethane	97
Freon 11	107
Freon 113	106
1,1-Dichloroethene	108
Acetone	94
2-Propanol	100
Carbon Disulfide	94
3-Chloropropene	100
Methylene Chloride	92
Methyl tert-butyl ether	114
trans-1,2-Dichloroethene	106
Hexane	104
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	108
Chloroform	104
1,1,1-Trichloroethane	105
Carbon Tetrachloride	111
Benzene	101
1,2-Dichloroethane	95
Trichloroethene	98
1,2-Dichloropropane	91
1,4-Dioxane	110
Bromodichloromethane	96
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	106
Toluene	103
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	100
Tetrachloroethene	110
2-Hexanone	120
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	107
Chlorobenzene	106
Ethyl Benzene	118
m,p-Xylene	122
o-Xylene	122

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Client Sample ID: CCV

Lab ID#: 1807025-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:02 AM**	

Compound	**%Recovery**
Styrene	122
Bromoform	104
1,1,2,2-Tetrachloroethane	94
4-Ethyltoluene	126
1,3,5-Trimethylbenzene	124
1,2,4-Trimethylbenzene	126
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	115
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	105
1,1-Difluoroethane	119
Vinyl Acetate	120
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: LCS

Lab ID#: 1807025-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:27 AM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	103	70-130
Chloromethane	89	70-130
Vinyl Chloride	110	70-130
Bromomethane	107	70-130
Chloroethane	93	70-130
Freon 11	101	70-130
Freon 113	99	70-130
1,1-Dichloroethene	102	70-130
Acetone	94	70-130
2-Propanol	99	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	100	70-130
Methylene Chloride	87	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	102	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	113	70-130
Benzene	100	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	97	70-130
cis-1,3-Dichloropropene	112	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	104	70-130
2-Hexanone	114	70-130
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	117	70-130
m,p-Xylene	120	70-130
o-Xylene	122	70-130

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Client Sample ID: LCS

Lab ID#: 1807025-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:27 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	126	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	94	70-130
4-Ethyltoluene	130	70-130
1,3,5-Trimethylbenzene	120	70-130
1,2,4-Trimethylbenzene	127	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	113	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	98	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	103	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807025-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:51 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	103	70-130
Chloromethane	89	70-130
Vinyl Chloride	105	70-130
Bromomethane	109	70-130
Chloroethane	94	70-130
Freon 11	102	70-130
Freon 113	101	70-130
1,1-Dichloroethene	104	70-130
Acetone	96	70-130
2-Propanol	101	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	103	70-130
Methylene Chloride	87	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	105	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	115	70-130
Benzene	97	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	103	70-130
2-Hexanone	115	70-130
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	116	70-130
m,p-Xylene	118	70-130
o-Xylene	120	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1807025-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p070904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/9/18 11:51 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	124	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	93	70-130
4-Ethyltoluene	124	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	125	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	100	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	105	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	109	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 6/27/2018
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Quarterly VMP June 2018 – EPA
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD

SPECIAL INSTRUCTIONS: 1,1-DFA

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-84-24_06 27 18	VMP-84-24	SV	1L2322	1 L	23744	6/27/2018	0819	-27	6/27/2018	0824	-4	X				
02A	2	OC_SVE_VMP-39-24_06 27 18	VMP-39-24	SV	1L1584	1 L	23504	6/27/2018	0832	-29	6/27/2018	0839	-5	X				
03A	3	OC_SVE_VMP-41-24_06 27 18	VMP-41-24	SV	1L2553	1 L	23449	6/27/2018	0942	-30	6/27/2018	0949	-5	X				
04A	4	OC_SVE_VMP-40-24_06 27 18	VMP-40-24	SV	1L2674	1 L	23402	6/27/2018	1430	-30	6/27/2018	1435	-5	X				
05A	5	OC_SVE_VMP-23 _06 28 18	VMP-23	SV	3059	1 L	23129	6/28/2018	0909	-27	6/28/2018	0915	-5	X				
06A	6	OC_SVE_VMP-25 _06 28 18	VMP-25	SV	1L2760	1 L	23207	6/28/2018	0913	-30	6/28/2018	0919	-5	X				
	7	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	8	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	9	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	10	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	11	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	12	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	13	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	14	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
	15	OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				
		OC_SVE_VMP- _06 18		SV		1 L		6/ /2018			6/ /2018			X				

Custody Seal Intact? Y N None Temp NA

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	ZATL	07/02/18	0955
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

1807025

Attachment C

Field Forms

OMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical	**Project #:** E742	**Date:** 6/19/18
Personnel: K. Arthur	**Subcontractors:** –	
Arrival Time: 0545	**Departure Time:** 1615	**Hours on Site:** 10.5
Odometer (Start): –	**Odometer (End):** –	**Total Miles:** –
Task Description:	**OU-1 SVE OMM** ☐ **OU-3 SVE OMM** ☐ **GWCS OMM** ☐	
Quarterly IAQ		

Equipment List:

☐ Vacuum Meter	Type: Extech Manometer 407910	Serial #: 2147350
☐ Vacuum Meter	Type: Fluke 922 Low-Range	Serial #: 98040163
☐ PID	Type: ppbMiniRAE 3000	Serial #: 594-907978
☐ Sample Pump	Type: Thomas Pump	Serial #: 061000166406
☐ Flow Meter	Type: Velocicalc 9565	Serial #: 9565P1531034
☐ Water Level Meter	Type: Solinst 101	Serial #: 48231
☐ Water Quality Meter	Type: _____	Serial #: _____
☐ Generator/Battery	Type: _____	Serial #: _____

☐ Other(s): _____

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel / visitors at site, and calibration times and methods).

0545 Drive onsite. H+S. Mobilize summa cans.
0615 Goto FRR. Walker opens MM for me. Set cans inside.
0630 Collect flow meter SN's from new DPE wells.
0715 Set cans @ Bishop and TP.
0800 CDM and drillers onsite for VMP install.
1015 Conduct midday check on summas.

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 6/19/18

1410 Start picking up summas.
1600 Finish picking up summas. Pack up cams.
1615 off site. Going to FedEx to ship out samples.

JHA ENVIRONMENTAL

DAILY SAFETY MEETING

Project Name: Omega Chemical **Date:** 6/29/18

Project Number: E742 **Presented by:** Khalid Azhar

Check the Topics/Information Reviewed:

- ☑ Safety is everyone's responsibility
- ☑ Accidents can be costly
- ☑ No horseplay
- ☑ Site health and safety plan reviewed
- ☑ Review emergency protocol
- ☑ Directions to hospital (Pit)
- ☑ Employee Right-To-Know/SDS location
- ☑ First aid, safety, and PPE location
- ☑ Safety glasses, hard hat, safety boots
- ☑ Fire extinguisher locations
- ☑ Daily work scope reviewed
- ☑ Strains and sprains
- ☑ Slips, trips, and falls
- ☑ Eye wash station locations
- ☑ Electrical ground fault
- ☑ Vehicle safety and driving/road conditions
- ☑ Public safety and fences
- ☑ Heat and cold stress
- ☑ Equipment and machinery familiarization
- ☐ Excavator swing and loading
- ☑ Decontamination steps
- ☑ Portable tool safety and awareness
- ☑ Orderly site and housekeeping
- ☑ Smoking in designated areas
- ☑ Parking and lay down area
- ☑ Leather gloves for protection
- ☑ Vehicle backing up hazards
- ☑ Sharp object, rebar, and scrap metal hazards
- ☑ Effects of the night before?
- ☑ Weather conditions (rain/snow)
- ☑ Latex gloves inner/nitrile gloves outer
- ☑ Vibration related injuries
- ☑ Open pits, excavations, and trenching hazards
- ☑ Noise hazards
- ☑ Dust and vapor control
- ☐ Excavation/trenching inspections/documentation
- ☐ Confined space entry – permit required
- ☐ Confined space entry – non-permit required
- ☐ Refueling procedures
- ☐ Full face respirators with proper cartridges
- ☐ Hot work permits
- ☑ Flying debris hazards
- ☐ Overhead utility locations cleared.
- ☑ Poison ivy/oak/sumac/insects/animals
- ☐ Upgrade to Level C at: PID (___ eV) >___ ppmv
- ☐ Work stoppage at: PID (___ eV) >___ ppmv, % LEL > 10%
- ☐ All underground utilities cleared?
- ☑ Flex-N-Stretch performed
- ☑ Anticipated visitors
- ☐ Temporary Power Lines
- ☐ Overhead Utilities
- ☐ Excavations/Trenches (competent person)
- ☐ Heavy Equipment Operations
- ☐ Overloaded Equipment (tipping)
- ☑ Heavy Lifting
- ☑ Traffic
- ☑ Exclusion Zones
- ☑ Uneven Terrain
- ☑ Chemicals
- ☑ Flammability
- ☑ Wet Surfaces
- ☑ Ladder Safety
- ☑ Pinch Points
- ☐ Unexploded Ordnance (UXO) Hazard
- ☑ Daily Vehicle Walkaround/Instpection

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME	SIGNATURE	COMPANY
Khalid Azhar	KA	JHA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/19/18
Time of entry: 0720
Location: B1
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Acker
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, door closed, windows closed, typical office stuff, 1 worker and 3 dogs inside, pleasant odor.

HVAC Operation:

- ☐ Not applicable
- ☑ On
- ☐ Off
- ☑ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 611084 / 23575 -30/-11.5/-3"Hg
Duplicate (K)/Split (K2): 611476 / 23375 -30/-17/-7.5"Hg
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0735-1535
Sample number: IAQ-B1-061918, IAQ-B1-061918K
Detailed description of sample location:
Set on counter, ~5' high

Total # of samples: 2

Duplicates: 1

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/29/18
Time of entry: 0720
Location: B2
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, door to warehouse closed, 2 workers in and out of office, typical office stuff

HVAC Operation:

- ☐ Not applicable
- ☑ On
- ☐ Off
- ☑ Fan running 24/7 after business hours? NO

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0730 / 23302 -30/-18/-8"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0734-1534
Sample number: IAQ-B2-061918
Detailed description of sample location:
Set on counter top, ~5' high

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/19/18
Time of entry: 0720
Location: B3
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: located towards middle of warehouse in between aisles, roll up gates open on West and East end of building, a few workers inside.

HVAC Operation:
- ☐ Not applicable
- ☐ On
- ☑ Off
- ☑ Fan running 24/7 after business hours? NO

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 611660 / 23782 -30/-17/-7.5"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0736 -1536
Sample number: IAQ-B3-061918
Detailed description of sample location: Hung up shelf, ~6' high

Total # of samples: 1

Duplicates: -

Signature of person making entries: KA

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/19/18
Time of entry: 0740
Location: TP1
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, doors closed, windows closed, typical office stuff, 1 worker inside

HVAC Operation:

- ☐ Not applicable
- ☑ On
- ☐ Off
- ☑ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1782 / 23667 -30/-16/-7"Hg
Duplicate (K)/Split (K2): 34000147 / 8860 -30/-9/-4"Hg
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0749-1549
Sample number: IAQ_TP1-061918
*Split was picked up @ 1320 due to low vacuum, -4"Hg.
Detailed description of sample location:
Set on a chair on east side of small office, ~3' high.

Total # of samples: 2

Duplicates: 1

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/19/18
Time of entry: 0740
Location: TP3
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Cement floor, windows closed, paint odor, several paint machines around, a car and boat inside, large generator, gas tanks, gas cylinders, pallet of paint, door on east side gate open.

HVAC Operation:

- ☐ Not applicable
- ☐ On
- ☑ Off
- ☑ Fan running 24/7 after business hours? NO

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 610851 / 23145 -30/-19/-8"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0750 - 1550
Sample number: IAQ_TP3_061918
Detailed description of sample location: Set on the floor towards center of warehouse.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 6/19/18
Time of entry: 0740
Location: AA1
Weather Conditions: Clear skies, warm, 71°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: none

Field Observations: several asphalt machines around, forklifts, few trucks, slight breeze, a few workers onsite.

HVAC Operation:

- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1023 / 23225 -30 / -15 / -6" Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 119747
Time of sampling: 0754 - 1554
Sample number: FAQ-AA1-061918
Detailed description of sample location: Hung up on pole at the Southeast corner of TP building.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA
DAILY FIELD REPORT

Project Name:	**Omega Chemical**	**Project #:**	**E742**	**Date:**	6/27/18
Personnel:	K.A, C.S.	**Subcontractors:**	–		
Arrival Time:	0630	**Departure Time:**	1630	**Hours on Site:**	10.0
Odometer (Start):	–	**Odometer (End):**	–	**Total Miles:**	–
Task Description:	**OU-1 SVE OMM** ☐ **OU-3 SVE OMM** ☐ **GWCS OMM** ☑				
+ Quarterly VMP Monitoring					

Equipment List:

☑	Vacuum Meter	Type: Extech Manometer 407910	Serial #: 2147350
☑	Vacuum Meter	Type: Fluke 922 Low-Range	Serial #: 98040163
☑	PID	Type: ppbMiniRAE 3000	Serial #: 594-907978
☑	Sample Pump	Type: Thomas Pump	Serial #: 061000166406
☑	Flow Meter	Type: Velocicalc 9565	Serial #: 9565P1531034
☐	Water Level Meter	Type: Solinst 101	Serial #: 48231
☐	Water Quality Meter	Type: _____	Serial #: _____
☑	Generator/Battery	Type: _____	Serial #: _____
☐	Other(s): _____		

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel / visitors at site, and calibration times and methods).

0630 Arrive onsite. H+S. Get paperwork ready. Mobilize equipment.
0715 Calibrate PID (0.006 ppb): Ø ppb / 5006 ppb Hexane.
0730 Start GWCS. Ceasar starts collecting VMP vacuums @ Skatedam.
0810 Finish OMM. Continue VMP monitoring. Calibrate PID: 1002 ppb Isobutylene.
0930 Found a hypodermic needle in the bushes in front of Medlin while

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 6/28/18

Searching for VMP-41-55. Stopped looking since we were using our hands to clear bushes. Will return w/ a shovel towards the end of the event. Continue monitoring.

1615 Finish for the day. Send out paperwork. Demobilize equipment.

1630 off site.

JHA ENVIRONMENTAL

DAILY SAFETY MEETING

Project Name: Omega Chemical **Date:** 6/28/18

Project Number: E742 **Presented by:** Khalid Azhar

Check the Topics/Information Reviewed:

- ☑ Safety is everyone's responsibility
- ☑ Accidents can be costly
- ☑ No horseplay
- ☑ Site health and safety plan reviewed
- ☑ Review emergency protocol
- ☑ Directions to hospital (PLH)
- ☑ Employee Right-To-Know/SDS location
- ☑ First aid, safety, and PPE location
- ☑ Safety glasses, hard hat, safety boots
- ☑ Fire extinguisher locations
- ☑ Daily work scope reviewed
- ☑ Strains and sprains
- ☑ Slips, trips, and falls
- ☑ Eye wash station locations
- ☑ Electrical ground fault
- ☑ Vehicle safety and driving/road conditions
- ☑ Public safety and fences
- ☑ Heat and cold stress
- ☑ Equipment and machinery familiarization
- ☐ Excavator swing and loading
- ☑ Decontamination steps
- ☑ Portable tool safety and awareness
- ☑ Orderly site and housekeeping
- ☑ Smoking in designated areas
- ☑ Parking and lay down area
- ☑ Leather gloves for protection
- ☑ Vehicle backing up hazards
- ☑ Sharp object, rebar, and scrap metal hazards
- ☑ Effects of the night before?
- ☑ Weather conditions (rain/snow)
- ☑ Latex gloves inner/nitrile gloves outer
- ☑ Vibration related injuries
- ☑ Open pits, excavations, and trenching hazards
- ☑ Noise hazards
- ☑ Dust and vapor control
- ☐ Excavation/trenching inspections/documentation
- ☐ Confined space entry – permit required
- ☐ Confined space entry – non-permit required
- ☐ Refueling procedures
- ☐ Full face respirators with proper cartridges
- ☐ Hot work permits
- ☑ Flying debris hazards
- ☐ Overhead utility locations cleared.
- ☑ Poison ivy/oak/sumac/insects/animals
- ☐ Upgrade to Level C at: PID (___ eV) >___ ppmv
- ☐ Work stoppage at: PID (___ eV) >___ ppmv, % LEL > 10%
- ☐ All underground utilities cleared?
- ☑ Flex-N-Stretch performed
- ☑ Anticipated visitors
- ☐ Temporary Power Lines
- ☐ Overhead Utilities
- ☐ Excavations/Trenches (competent person)
- ☐ Heavy Equipment Operations
- ☐ Overloaded Equipment (tipping)
- ☑ Heavy Lifting
- ☑ Traffic
- ☑ Exclusion Zones
- ☑ Uneven Terrain
- ☑ Chemicals
- ☑ Flammability
- ☑ Wet Surfaces
- ☑ Ladder Safety
- ☑ Pinch Points
- ☐ Unexploded Ordnance (UXO) Hazard
- ☑ Daily Vehicle Walkaround/Instpection

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME	SIGNATURE	COMPANY
Khalid Azhar		JHA
Cesar Santayo		JHA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

OMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical	**Project #:** E742	**Date:** 6/28/18
Personnel: K.A, C.S.	**Subcontractors:** –	
Arrival Time: 0615	**Departure Time:** 1600	**Hours on Site:** 9.75
Odometer (Start): –	**Odometer (End):** –	**Total Miles:** –
Task Description:	**OU-1 SVE OMM** ☐ **OU-3 SVE OMM** ☐ **GWCS OMM** ☐	
Quarterly VMP Monitoring		

Equipment List:

☑ Vacuum Meter	Type: Extech Manometer 407910	Serial #: 2147350
☐ Vacuum Meter	Type: Fluke 922 Low-Range	Serial #: 98040163
☐ PID	Type: ppbMiniRAE 3000	Serial #: 594-907978
☑ Sample Pump	Type: ~~Thomas Pump~~ Lung Box	Serial #: ~~061000166406~~
☐ Flow Meter	Type: Velocicalc 9565	Serial #: 9565P1531034
☐ Water Level Meter	Type: Solinst 101	Serial #: 48231
☐ Water Quality Meter	Type: _____	Serial #: _____
☑ Generator/Battery	Type: _____	Serial #: _____

☐ Other(s): _____

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel / visitors at site, and calibration times and methods).

0615 Arrive on site. H&S. Get paperwork ready. Mobilize equipment.
0700 Goto Kaiser. Start VMP monitoring.
1000 Summa can for VMP-S1-70 would not go past -22"Hg. No vacuum was observed @ 70' & 60' depths. Most likely a clog in the probe. Attempted to purge the probe again. Summa can still holding @ -22"Hg. Let can sit for about 20 min.

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 6/28/18

1345 We were able to find VMP-41-55 using a shovel to move bushes away to avoid contacting the hypodermic needle.

1430 VMP event is finished. Three VMP's were leak tested using 1,1-DFA; VMP-92-70, VMP-25, VMP-94-24. All VMP locations that were sampled were tested for leaks within the sampling assembly; all locations passed the shut in test.

1500 QC summa cans and VMP data. Pack up summa cans and prep for shipping out.

1600 off site. Going to FedEx to ship out samples.

JHA ENVIRONMENTAL

DAILY SAFETY MEETING

Project Name: Omega Chemical **Date:** 6/28/18

Project Number: E742 **Presented by:** Khalid Azhar

Check the Topics/Information Reviewed:

- ☑ Safety is everyone's responsibility
- ☑ Accidents can be costly
- ☑ No horseplay
- ☑ Site health and safety plan reviewed
- ☑ Review emergency protocol
- ☑ Directions to hospital (P14)
- ☑ Employee Right-To-Know/SDS location
- ☑ First aid, safety, and PPE location
- ☑ Safety glasses, hard hat, safety boots
- ☑ Fire extinguisher locations
- ☑ Daily work scope reviewed
- ☑ Strains and sprains
- ☑ Slips, trips, and falls
- ☑ Eye wash station locations
- ☑ Electrical ground fault
- ☑ Vehicle safety and driving/road conditions
- ☑ Public safety and fences
- ☑ Heat and cold stress
- ☑ Equipment and machinery familiarization
- ☐ Excavator swing and loading
- ☑ Decontamination steps
- ☑ Portable tool safety and awareness
- ☑ Orderly site and housekeeping
- ☑ Smoking in designated areas
- ☑ Parking and lay down area
- ☑ Leather gloves for protection
- ☑ Vehicle backing up hazards
- ☑ Sharp object, rebar, and scrap metal hazards
- ☑ Effects of the night before?
- ☑ Weather conditions (rain/snow)
- ☑ Latex gloves inner/nitrile gloves outer
- ☑ Vibration related injuries
- ☑ Open pits, excavations, and trenching hazards
- ☑ Noise hazards
- ☑ Dust and vapor control
- ☐ Excavation/trenching inspections/documentation
- ☐ Confined space entry – permit required
- ☐ Confined space entry – non-permit required
- ☐ Refueling procedures
- ☐ Full face respirators with proper cartridges
- ☐ Hot work permits
- ☑ Flying debris hazards
- ☐ Overhead utility locations cleared.
- ☑ Poison ivy/oak/sumac/insects/animals
- ☐ Upgrade to Level C at: PID (___ eV) >___ ppmv
- ☐ Work stoppage at: PID (___ eV) >___ ppmv, % LEL > 10%
- ☐ All underground utilities cleared?
- ☑ Flex-N-Stretch performed
- ☑ Anticipated visitors
- ☐ Temporary Power Lines
- ☐ Overhead Utilities
- ☐ Excavations/Trenches (competent person)
- ☐ Heavy Equipment Operations
- ☐ Overloaded Equipment (tipping)
- ☑ Heavy Lifting
- ☑ Traffic
- ☐ Exclusion Zones
- ☑ Uneven Terrain
- ☑ Chemicals
- ☑ Flammability
- ☑ Wet Surfaces
- ☑ Ladder Safety
- ☑ Pinch Points
- ☐ Unexploded Ordnance (UXO) Hazard
- ☑ Daily Vehicle Walkaround/Instpection

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME	SIGNATURE	COMPANY
Khalid Azhar	[signature]	JHA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/28

MONITORED BY: K.A, C.S

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
PIH South Parking Lot (FORMER ARBO BOX, INC.) 12468 Putnam St, Whittier, CA									
VMP-58-6	6	0.25	1						
VMP-58-12	12	0.25	1						
VMP-59-6	6	0.25	1			NM			
VMP-59-12	12	0.25	1						
VMP-59-24	24	0.25	1						
BISHOP CO. 12519 Putnam St, Whittier, CA									
VMP-23	30	4	8	6/28/18	0904	-0.044	NM	Y	8.0"Hg → 1 min
VMP-24	31.5	4	8	6/28/18	0848	-0.096	NM	Y	8.0"Hg → 1 min
VMP-25	31.5	4	8	6/28/18	0911	-0.015	NM	Y	8.0"Hg → 1 min. 1,1-DFA
FRED R. RIPPY (AOC) 12471 Washington Blvd, Whittier, CA									
FRR-VMP-1-6	6	0.25	1	6/28/18	1255	-0.324	NM	N	
FRR-VMP-1-12	12	0.25	1	"	1256	-0.378	NM	N	
FRR-VMP-2-6	6	0.25	1						
FRR-VMP-2-12	12	0.25	1						
FRR-VMP-3-6	6	0.25	1			NM			
FRR-VMP-3-12	12	0.25	1						
FRR-VMP-4-6	6	0.25	1	6/28/18	1250	-0.041	NM	N	
FRR-VMP-4-12	12	0.25	1	"	1251	-0.098	NM	N	
FRR-VMP-5-6	6	0.25	1						
FRR-VMP-5-12	12	0.25	1						
FRR-VMP-6-6	6	0.25	1			NM			
FRR-VMP-6-12	12	0.25	1						
FRR-VMP-7-6	6	0.25	1	6/28/18	1239	-0.090	NM	N	
FRR-VMP-7-12	12	0.25	1	"	1240	-0.121	NM	N	
FRR-VMP-8-6	6	0.25	1						
FRR-VMP-8-12	12	0.25	1			NM			
FRR-VMP-9-2	2	0.25	1						
FRR-VMP-9-6	6	0.25	1						
FRR-VMP-10-2	2	0.25	1	6/28/18	1245	-0.040	NM	N	
FRR-VMP-10-6	6	0.25	1	"	1244	-0.058	NM	N	
FRR-VMP-11-2	2	0.25	1						
FRR-VMP-11-6	6	0.25	1						
FRR-VMP-12-2	2	0.25	1			NM			
FRR-VMP-12-6	6	0.25	1						
FRR-VMP-13-6	6	0.25	1	6/28/18	1233	-0.297	NM	N	
FRR-VMP-13-12	12	0.25	1	"	1232	-0.398	NM	N	

yellow=6', red=12', blue=24'

JHA Environmental

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/28

MONITORED BY: K.A, C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-47-6	6	0.25	1						
VMP-47-12	12	0.25	1			NM			
VMP-47-24	24	0.25	1						
KAISER PERMANENTE MEDICAL OFFICES 12470 Whittier Blvd, Whittier, CA									
VMP-42-6	6	0.25	1	6/28/18	0740	-0.072	NM	N	
VMP-42-12	12	0.25	1	"	0741	-0.193	NM	N	
VMP-42-24	24	0.25	1	"	0742	-0.213	NM	N	
VMP-42-40	40	0.25	1	-	-	-	-	-	
VMP-42-55	55	1	1	-	-	-	-	-	
VMP-42-60	60	0.25	1	-	-	-	-	-	
VMP-42-70	70	0.25	1	-	-	-	-	-	
VMP-43-6	6	0.25	1	6/28/18	0720	-0.335	NM	N	
VMP-43-12	12	0.25	1	"	0721	-0.238	NM	N	8.0"Hg→1 min
VMP-43-24	24	0.25	1	"	0722	-0.428	NM	Y	
VMP-43-55	55	1	1	-	-	-	-	-	
VMP-60-6	6	0.25	1	-	-	-	-	-	
VMP-60-12	12	0.25	1	-	-	-	-	-	
VMP-60-24	24	0.25	1	-	-	-	-	-	
VMP-63-6	6	0.25	1	-	-	-	-	-	
VMP-63-12	12	0.25	1	-	-	-	-	-	
VMP-63-24	24	0.25	1	-	-	-	-	-	
VMP-81-6	6	0.25	1	-	-	-	-	-	
VMP-81-11.5	12	0.25	1	-	-	-	-	-	
VMP-81-24	24	0.25	1	-	-	-	-	-	
VMP-94-6	6	0.25	1	6/28/18	0712	-0.147	NM	N	
VMP-94-12	12	0.25	1		0713	-0.225	NM	N	
VMP-94-24	24	0.25	1		0711	-0.279	NM	Y	8.0"Hg→1min. 1,1-DFA
VMP-94-40	40	0.25	1		0710	~~-0.008~~	NM	N	-0.614
VMP-94-50	50	0.25	1		0709	-0.925	NM	N	
VMP-94-60	60	0.25	1		0706	-1.342	NM	Y	8.0"Hg→1min
VMP-94-69.5	69.5	0.25	1		0708	-1.890	NM	N	
VMP-95-51	51	0.25	1	6/28/18	0726	-0.409	NM	N	
VMP-95-61	61	0.25	1	"	0727	-0.550	NM	Y	8.0"Hg→1min. DOP
VMP-95-69.5	69.5	0.25	1	"	0728	-1.625	NM	N	
VMP-96-6	6	0.25	1	-	-	-	-	-	
VMP-96-12	12	0.25	1	-	-	-	-	-	
VMP-96-24	24	0.25	1	-	-	-	-	-	

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/27

MONITORED BY: K.A, C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-97-6	6	0.25	1	–	–	–	–	–	
VMP-97-12	12	0.25	1	–	–	–	–	–	
VMP-97-24	24	0.25	1	–	–	–	–	–	
MARINELLO BEAUTY SCHOOL 12449 Putnam St, Whittier, CA									
VMP-89-6	6	0.25	1						
VMP-89-12	12	0.25	1			NM			
VMP-89-24	24	0.25	1						
MEDLIN & SONS ENGINEERING 12484 Whittier Blvd, Whittier, CA									
VMP-40-6	6	0.25	1	6/27/18	0908	-1.355	NM	N	
VMP-40-12	12	1	1		0910	-0.740	NM	N	
VMP-40-24	24	0.25	1		0912	-0.235	4.093	Y	8.0"Hg→1 min
VMP-40-55	55	0.25	1		0914	-0.146	NM	N	
VMP-40-70	70	0.25	1		0916	Ø	NM	N	
VMP-41-6	6	0.25	1		0924	Ø	NM	N	
VMP-41-12	12	0.25	1		0926	Ø	NM	N	
VMP-41-24	24	0.25	1		0928	Ø	0.460	Y	
41-55	55		6/28/18	1345			Ø "H_2O	N	
MERCHANT METALS (FORMER) 12482 Putnam St, Whittier, CA									
VMP-38-6	6	0.25	1						
VMP-38-12	12	0.25	1						
VMP-38-24	24	0.25	1			NM			
VMP-38-40	40	0.25	1						
VMP-38-55	55	1	1						
VMP-38-60	60	0.25	1						
VMP-38-70	70	0.25	1						
VMP-44-6	6	0.25	1	6/28/18	1303	Ø	NM	N	
VMP-44-12	12	0.25	1	6/28/18	1302	Ø	NM	N	
VMP-44-24	24	0.25	1	6/28/18	1301	Ø	NM	N	
VMP-44-40	40	0.25	1						
VMP-44-55	55	1	1						
VMP-44-60	60	0.25	1						
VMP-44-70	70	0.25	1			NM			
VMP-45-6	6	0.25	1						
VMP-45-12	12	0.25	1						
VMP-45-24	24	0.25	1						
VMP-45-40	40	0.25	1						
VMP-45-55	55	1	1						
VMP-45-60	60	0.25	1						

JHA Environmental

yellow=6', red=12', blue=24'

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/28

MONITORED BY: KA, CS

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-45-70	70	0.25	1						
VMP-46-6	6	0.25	1						
VMP-46-12	12	0.25	1						
VMP-46-24	24	0.25	1			NM			
VMP-48-6	6	0.25	1						
VMP-48-12	12	0.25	1						
VMP-48-24	24	0.25	1						
VMP-86-6	6	0.25	1	6/28/18	1313	-0.583	NM	N	
VMP-86-12	12	0.25	1	"	1314	-0.630	NM	N	
VMP-86-24	24	0.25	1	"	1315	-0.311	NM	N	
VMP-86-40	40	0.25	1						
VMP-86-50	50	0.25	1			NM			
VMP-86-60	60	0.25	1						
VMP-86-69.5	70	0.25	1						
VMP-87-6	6	0.25	1	6/28/18	1322	-0.093	NM	N	
VMP-87-12	12	0.25	1		1323	-0.096	NM	N	
VMP-87-24	24	0.25	1		1324	-0.106	NM	N	
VMP-88-6	6	0.25	1		1317	-0.663	NM	N	
VMP-88-12	12	0.25	1		1318	-0.708	NM	N	
VMP-88-24	24	0.25	1		1319	-0.800	NM	N	
VMP-90-6	6	0.25	1						
VMP-90-12	12	0.25	1						
VMP-90-24	24	0.25	1						
VMP-91-50	50	0.25	1			NM			
VMP-91-60	60	0.25	1						
VMP-91-69.5	69.5	0.25	1						
PIH PHARMACY 12462 Putnam St, Whittier, CA									
VMP-77-22.5	22.5	0.25	1	–	–	–	–	–	
ROP AND WCCS (FORMER) 12519 Washington Blvd, Whittier, CA									
VMP-28-6	6	0.25	1						
VMP-28-12	12	0.25	1						
VMP-28-24	24	0.25	1						
VMP-28-40	40	0.25	1						
VMP-28-55	55	1	1			NM			
VMP-29-6	6	0.25	1						
VMP-29-12	12	0.25	1						
VMP-29-24	24	0.25	1						

yellow=6', red=12', blue=24'

JHA Environmental

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/28

MONITORED BY: K. & C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-30-6	6	0.25	1						
VMP-30-12	12	0.25	1						
VMP-30-24	24	0.25	1						
VMP-30-40	40	0.25	1						
VMP-30-55	55	1	1			NM			
VMP-30-60	60	0.25	1						
VMP-30-70	70	0.25	1						
VMP-31-6	6	0.25	1	6/28/18	1001	-0.059	NM	N	
VMP-31-12	12	0.25	1		1002	-0.162	NM	N	
VMP-31-24	24	0.25	1		1003	-0.277	NM	Y	8.0"Hg → 1 min
VMP-31-40	40	0.25	1		1020	-0.021 to 0.019	NM	N	Vacuum is fluctuating
VMP-31-55	55	1	1		1016	-1.103	NM	N	
VMP-31-60	60	0.25	1		1019	Ø	NM	N	
VMP-31-70	70	0.25	1		1022	Ø	NM	Y	8.0"Hg → 1 min. Summa can stopped @ -22"Hg
VMP-32-6	6	0.25	1		0943	-0.065	NM	N	
VMP-32-12	12	0.25	1		0944	-0.104	NM	N	
VMP-32-24	24	0.25	1		0945	-0.210	NM	Y	8.0"Hg → 1 min
VMP-32-40	40	0.25	1		0952	-1.906	NM	N	
VMP-32-55	55	1	1		0949	-1.705	NM	N	-1.705
VMP-32-60	60	0.25	1		0953	-0.447	NM	Y	8.0"Hg → 1 min
VMP-32-70	70	0.25	1		0955	-0.496	NM	N	
VMP-33-6	6	0.25	1						
VMP-33-12	12	0.25	1						
VMP-33-24	24	0.25	1						
VMP-33-40	40	0.25	1						
VMP-33-55	55	1	1						
VMP-33-60	60	0.25	1						
VMP-34-6	6	0.25	1						
VMP-34-12	12	0.25	1						
VMP-34-24	24	0.25	1			NM			
VMP-34-40	40	0.25	1						
VMP-34-55	55	1	1						
VMP-34-60	60	0.25	1						
VMP-34-70	70	0.25	1						
VMP-35-6	6	0.25	1						
VMP-35-12	12	0.25	1						
VMP-35-24	24	0.25	1						

JHA Environmental

yellow=6', red=12', blue=24'

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/27

MONITORED BY: K.A, CS

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-35-40	40	0.25	1						
VMP-35-55	55	1	1						
VMP-35-60	60	0.25	1						
VMP-35-70	70	0.25	1						
VMP-36-6	6	0.25	1						
VMP-36-12	12	0.25	1						
VMP-36-24	24	0.25	1						
VMP-36-55	55	1	1			NM			
VMP-37-6	6	0.25	1						
VMP-37-12	12	0.25	1						
VMP-37-24	24	0.25	1						
VMP-37-55	55	1	1						
SKATELAND (FORMER) 12520 Whittier Blvd, Whittier, CA									
VMP-18	30	4	8	6/27/18	0843	-0.030	0.834	Y	8.0"Hg → 1 min
VMP-19	31.5	4	8	—	—	—	—	—	
VMP-39-6	6	0.25	1	6/28/18	1205	-0.015	NM	N	
VMP-39-12	12	0.25	1	6/27/18	0729	-0.012	NM	N	
VMP-39-24	24	0.25	1	6/27/18	0731	~~0.070~~	2.271	Y	8.0"Hg → 1 min
VMP-39-55	55	1	1	6/27/18	0732	-0.015	NM	N	
VMP-53-6	6	0.25	1						
VMP-53-12	12	0.25	1						
VMP-53-24	24	0.25	1						
VMP-53-55	55	1	1						
VMP-53-40	40	0.25	1			NM			
VMP-53-60	60	0.25	1						
VMP-53-70	70	0.25	1						
VMP-84-6	6	0.25	1						
VMP-84-12	12	0.25	1	6/27/18	0750	-0.012	—		
VMP-84-24	24	0.25	1	6/27/18	0752	-0.011	1.170	Y	8.0"Hg → 1 min.
STAR CITY AUTO BODY 12504 Whittier Blvd, Whittier, CA									
VE-7S	30	4	4	6/27/18	1012	-0.303	NM	N	
VMP-3D	70	4	3		1008	-0.501	NM	N	
VMP-4D	70	4	3		1005	-2.140	NM	N	
VMP-5	45	1	3		1003	-0.229	1.763	Y	8.0"Hg → 1 min
VMP-6	30	4	3		—	—	—	—	
VMP-22	31.5	4	8		1014	-0.239	1.616	Y	8.0"Hg → 1 min
TERRA PAVE 12511 Putnam St, Whittier, CA									
VMP-11	30	4	8	6/27/18	1100	-0.530	1.917	Y	8.0"Hg → 1 min. DUP.
VMP-12	31.5	4	8	"	1105	-1.200	2.506	Y	8.0"Hg → 1 min

yellow=6', red=12', blue=24'

JHA Environmental

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/27

MONITORED BY: K.A, C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-13	31.5	4	8	6/27/18	1238	-0.275	NM	N	
VMP-14	31.5	4	8						Buried
VMP-15	31.5	4	8		1145	-0.820	1.896	Y	8.0"Hg → 1 min
VMP-16	31.5	4	8		1225	-0.691	4.135	Y	8.0"Hg → 1 min
VMP-17	31.5	4	8		1155	-1.151	2.369	Y	8.0"Hg → 1 min
VMP-92-50	50'	0.25	1		1048	Ø	NM	N	
VMP-92-60	60'	0.25	1		1052	~~no~~ -0.920	NM	N	
VMP-92-70	70'	0.25	1		1050	Ø	2.115	Y	8.0"Hg → 1 min. 1,1-DFA
VMP-93-50	50'	0.25	1		1245	-0.810	NM	N	
VMP-93-60	60'	0.25	1		1253	-1.521	6.239	Y	8.0"Hg → 1 min
VMP-93-70	70'	0.25	1		1243	-0.956	NM	N	

JHA Environmental

yellow=6', red=12', blue=24'

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 6/27, 6/28

MONITORED BY: KA, C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-92-51.5	51.5	0.25	1						
VMP-92-62	62	0.25	1						
VMP-92-68.5	68.5	0.25	1						
VMP-93-50	50	0.25	1			NM			
VMP-93-60	60	0.25	1						
VMP-93-69.5	69.5	0.25	1						
THREE KINGS CONSTRUCTION (FORMER) 12512 Whittier Blvd, Whittier, CA									
VE-1M	36.5	4	4	6/27/18	1441	-0.558	NM	N	
VE-2S	23	4	4	"	1445	-0.105	NM	P	
VE-2M	36.5	4	4	-	-	-	-	-	
VE-3S	23	4	4	-	-	-	-	-	
VE-3M	36.5	4	4	-	-	-	-	-	
VE-4S	22.5	4	4	6/27/18	1448	-0.250	NM	N	
VE-4M	36.5	4	4	-	-	-	-	-	
VE-5M	36.5	4	4	6/27/18	1453	-0.688	NM	N	
VMP-1	45	1	3	-	-	-	-	-	
VMP-1D	70	4	3	6/27/18	1451	-0.601	NM	N	
VMP-20	31.5	4	8	"	1457	-0.369	4.997	Y	8.0"Hg → 1 min
VMP-21	31.5	4	8	"	1513	-0.108	6.661	Y	8.0"Hg → 1 min. DUP
VMP-26	30.5	4	8	"	1540	-0.037	2.197	Y	8.0"Hg → 1 min
VMP-27	30	4	8	6/28/18	0819	-0.013	NM	Y	8.0"Hg → 1 min

JHA Environmental

yellow=6', red=12', blue=24'

VAPOR PROBE MONITORING FORM

Omega Full-Scale SVE System

DATE: 3/28- 3/30, 4/13/18

MONITORED BY: LW, AM, KA

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-92-51.5	51.5	0.25	1	4/13/18	0851	Ø	NM	N	
VMP-92-62	62	0.25	1		0853	-0.948		N	
VMP-92-68.5	68.5	0.25	1		0855	-0.153		N	
VMP-93-50	50	0.25	1		0905	-1.512		N	
VMP-93-60	60	0.25	1		0907	Ø		N	
VMP-93-69.5	69.5	0.25	1		0910	-1.725		N	
THREE KINGS CONSTRUCTION (FORMER) 12512 Whittier Blvd, Whittier, CA									
VE-1M	36.5	4	4	3/28/18	1000	-0.588	NM	N	
VE-2S	23	4	4		1001	-0.125		N	
VE-2M	36.5	4	4		1002	-0.173		N	
VE-3S	23	4	4		1003	-0.084		N	
VE-3M	36.5	4	4		1004	-0.034		N	
VE-4S	22.5	4	4		1007	-0.305		N	
VE-4M	36.5	4	4		1006	-0.322		N	
VE-5M	36.5	4	4		1010	-0.757		N	
VMP-1	45	1	3		1005	-0.313		N	
VMP-1D	70	4	3		1008	-0.719		N	
VMP-20	31.5	4	8		1012	-0.409		N	
VMP-21	31.5	4	8		1035	-0.118		N	
VMP-26	30.5	4	8		1049	-0.025		N	
VMP-27	30	4	8		1057	-0.012		N	

yellow=6', red=12', blue=24'

Attachment D

Data Validation Reports

Data Quality Assessment
Vapor Extraction Wells
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

SDG Number	Sample ID	Collection Date	Count of Samples	Analysis Method	QC Reviewed	Data Usability
1806337	OC_SVE_DPE-3_061418	06/14/2018	6	TO-15	Holding Times, Sample Receipt Conditions, Surrogates, MB, LCS/LCSD	The TNMOC value reported should not be used as TVOC as it is not the sum of the reported concentrations. No other qualification of sample results was warranted.
	OC_SVE_DPE-4_061418					
	OC_SVE_DPE-5_061418					
	OC_SVE_VE-8S_061418					
	OC_SVE_VE-9S_061418					
	OC_SVE_VE-2D_061418					

DATA VALIDATION

FOR

OU1 INDOOR AIR QUALITY
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air

Laboratory Job Nos.
1806421
440-214099-1

Analyses Performed
By:

Eurofins/Air Toxics, Inc.
Folsom, CA

and

TestAmerica
Irvine, CA

For:

de maximis, Inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, Inc.
St. Paul, Minnesota 55108

July 24, 2018

1547-3139C/JLR
Omega\2nd Qrtr IAQ.docx

EXECUTIVE SUMMARY

The Level 4 validation of the volatile organics analysis data for seven air quality samples prepared by Eurofins/Air Toxics and one split sample prepared by TestAmerica, from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full (Stage 4) validation was performed on one sample (bolded below), which represents 10% of the total number of samples received and analyzed by Eurofins/Air Toxics and TestAmerica. A Stage 2B validation was performed on the remaining samples. The data were reported under Laboratory Job Nos. 1806421 and 440-214099-1. The following samples were reported:

SDG 1806421

IAQ_AA1_061918	**IAQ_B1_061918**	IAQ_B1_061918K
IAQ_B2_061918	IAQ_B3_061918	IAQ_TP1_061918
IAQ_TP3_061918		

SDG 440-214099-1

IAQ_TP1_061918K2

Based on the validation effort, the following data qualifiers were applied:

- The result for m,p-xylene in IAQ_TP1_061918K2 was qualified as estimated (J).

- The results for methylene chloride in the following samples were qualified as estimated (J, UJ):

    - IAQ_AA1_061918
    - IAQ_B1_061918
    - IAQ_B1_061918K
    - IAQ_B2_061918
    - IAQ_B3_061918
    - IAQ_TP1_061918
    - IAQ_TP3_061918

- The results for acetone, Freon 12 and o-xylene in all samples were qualified as estimated (J, UJ).

- The results for chloroform in the following samples were qualified as estimated (J) and presumptively present (N):

- IAQ_AA1_061918
- IAQ_B1_061918
- IAQ_B1_061918K
- IAQ_B2_061918
- IAQ_TP1_061918

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA Method TO-15 and Method TO-15 using Selective Ion Monitoring (SIM). These methodologies do not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms Standard Operating Procedure ESC-001 'Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17' and the analytical method. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

JN The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the data summary forms contained in Attachment A.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting a sample collection date of June 19, 2018. The samples were received at Eurofins Air Toxics and TestAmerica on June 21, 2018. The split sample was sent to TestAmerica Irvine and received on June 22, 2018. The samples were analyzed on June 27 and 28 and July 3, 2018, within the method specified hold time.

II. GC/MS Instrument Performance Check

Summary forms were provided for bromofluorobenzene (BFB) instrument performance checks associated with the full scan analysis by both Eurofins and TestAmerica. All the tune summaries associated with the samples were fully documented and were acceptable.

III. Calibration

A. Initial Calibration (IC)

Summary results for one full scan and one SIM initial calibrations (IC) were reported by Eurofins/Air Toxics in support of the sample analyses associated with the validation effort. Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed. Documentation of all the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All reported %RSD values were below the maximum acceptance limit of 30% as defined in the analytical method and project-specific QAPP.

Manual integrations were performed on target analytes and were fully documented. All manual integrations appeared acceptable.

Summary results for one full scan and two SIM ICs were reported by TestAmerica in support of the split sample analysis. Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed. Documentation of all the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All reported %RSD values were below the maximum acceptance limit of 30% as defined in the analytical method with the exception of the RSD for m,p-xylenes (32%) in the IC run on TestAmerica instrument ATMS1 on June 26, 2018. The result for m,p-xylene in IAQ_TP1_061918K2 was qualified as estimated (J) due to high RSD over the IC.

A full scan and SIM Initial calibration verification (ICV) standard were run following all ICs and were acceptable.

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run at the appropriate frequencies for all analyses and were fully documented. Percent differences (%Ds) for all CCs were acceptable (<30%D).

IV. Blanks

A laboratory method blank was reported for each day of sample analysis. No target analytes were detected in the method blanks.

V. Surrogate Compound Recovery

Although the addition of surrogates is not a method requirement, surrogate recoveries were reported by both laboratories, and the recoveries of all the surrogate compounds were acceptable (70-130%).

VI. Spike Analysis

A. Laboratory Control Samples

A laboratory control sample (LCS) and LCS duplicate (LCSD) were reported for each day of sample analysis by both laboratories. All percent recoveries (%R) and relative percent differences (RPDs) were acceptable (70-130%, 20%RPD).

VII. Duplicate Samples

A. Field

IAQ_B1_061918K was submitted as a field duplicate of IAQ_B1_061918. Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL), with the exception of methylene chloride (RPD=32). The results for methylene chloride in IAQ_AA1_061918, IAQ_B1_061918, IAQ_B1_061918K, IAQ_B2_061918, IAQ_B3_061918, IAQ_TP1_061918 and AQ_TP3_061918 were qualified as estimated (J, UJ) due to imprecision between field duplicate samples.

B. Laboratory Split Sample

IAQ_TP1_061918K2 was submitted as a split sample of IAQ_TP1_061918. Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL), with the following exceptions:

- Acetone (RPD=71)
- Freon 12 (RPD=36)
- o-Xylene (RPD=28)

The results for acetone, Freon 12 and o-xylene in all samples were qualified as estimated (J, UJ) due to imprecision between split samples.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses for the samples.

IX. Target Compound Identification

For SIM analysis, ratios must be determined during initial calibration using the integrated areas for the primary and secondary ions and confirmation from their respective mass chromatograms. Identification in samples is made by verifying the ratio of the secondary ion to the primary. This information was not provided in the TestAmerica data package. The validation of the laboratory split samples was completed under the assumption that proper ion ratios were established and used to identify target compounds.

The following sample results were qualified as estimated (J) and presumptively present (N) because the ion ratios were outside acceptance limits:

- Chloroform-
  IAQ_AA1_061918
  IAQ_B1_061918
  IAQ_B1_061918K
  IAQ_B2_061918
  IAQ_TP1_061918

X. Compound Quantitation and Reporting Limits

Target compound concentrations' RLs were correctly calculated and accurately reported for the samples and spike samples.

The result for acetone in IAQ_B2_061918 was qualified as estimated (J) because the concentration is outside the linear calibration.

XI. Tentatively Identified Compounds (TIC)

Non-target compounds were not part of the analytical requirement.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the full validation effort:

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The result for m,p-xylene in IAQ_TP1_061918K2 was qualified as estimated (J) due to high RSD over the IC.

- The results for methylene chloride in the following samples were qualified as estimated (J, UJ) due to imprecision between field duplicate samples:

    - IAQ_AA1_061918
    - IAQ_B1_061918
    - IAQ_B1_061918K
    - IAQ_B2_061918
    - IAQ_B3_061918
    - IAQ_TP1_061918
    - IAQ_TP3_061918

- The results for acetone, Freon 12 and o-xylene in all samples were qualified as estimated (J, UJ) due to imprecision between split samples.

- The result for acetone in IAQ_B2_061918 was qualified as estimated (J) because the concentration is outside the linear calibration.

- The results for chloroform in the following samples were qualified as estimated (J) and presumptively present (N) because the ion ratios were outside acceptance limits:

- IAQ_AA1_061918
- IAQ_B1_061918
- IAQ_B1_061918K
- IAQ_B2_061918
- IAQ_TP1_061918

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section XIII.

This validation report should be considered part of the data package for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
1806421
440-214099-1

Data Summary Form
Omega Chemical IAQ
(ug/m3)

	Field Sample ID	IAQ_AA1_061918		IAQ_B1_061918		IAQ_B1_061918K		IAQ_B2_061918	
	Sample Type	N		N		FD		N	
	Lab Sample ID	1806421-07A		1806421-01A		1806421-02A		1806421-03A	
RL	Dilution Factor	1.59		1.44		1.63		1.82	
1.2	Acetone	**19**	**J**	**39**	**J**	**52**	**J**	**320**	**J**
0.69	Methylene chloride	**1.1**	**J**	**1.4**	**J**	**1.1**	**J**	**1.4**	**J**
0.11	1,1,1-Trichloroethane (TCA)	0.17	U	0.16	U	0.18	U	0.2	U
0.14	1,1,2,2-Tetrachloroethane	0.22	U	0.2	U	0.22	U	0.25	U
0.11	1,1,2-Trichloroethane	0.17	U	0.16	U	0.18	U	0.2	U
0.081	1,1-Dichloroethane	0.13	U	0.12	U	0.13	U	0.15	U
0.04	1,1-Dichloroethene	0.063	U	0.057	U	0.065	U	0.072	U
0.12	1,2-Dichlorobenzene	**0.22**		0.17	U	0.2	U	0.22	U
0.081	1,2-Dichloroethane	0.13	U	0.12	U	0.13	U	**0.23**	
0.12	1,4-Dichlorobenzene	0.19	U	0.17	U	0.2	U	0.22	U
0.16	Benzene	**0.57**		**0.46**		**0.52**		**3.5**	
0.12	Carbon tetrachloride	**0.5**		**0.48**		**0.5**		**0.48**	
0.092	Chlorobenzene	0.15	U	0.13	U	0.15	U	0.17	U
0.098	Chloroform	**0.16**	**J,N**	**0.17**	**J,N**	**0.17**	**J,N**	**0.25**	**J,N**
0.079	cis-1,2-Dichloroethene	0.13	U	0.11	U	0.13	U	0.14	U
0.087	Ethylbenzene	**0.33**		**0.27**		**0.29**		**6.6**	
0.11	Freon 11	**1.3**		**1.2**		**1.3**		**1.3**	
0.15	Freon 113	**0.55**		**0.52**		**0.53**		**0.56**	
0.099	Freon 12	**2.4**	**J**	**2.4**	**J**	**2.4**	**J**	**2.4**	**J**
0.17	m,p-Xylene	**1**		**0.7**		**0.73**		**26**	
0.36	Methyl Tert-Butyl Ether	0.57	U	0.52	U	0.59	U	**1.5**	
0.087	o-Xylene	**0.38**	**J**	**0.27**	**J**	**0.29**	**J**	**8.6**	**J**
0.14	Tetrachloroethene (PCE)	0.22	U	0.2	U	0.22	U	**0.31**	
0.075	Toluene	**1.7**		**1.8**		**1.9**		**39**	
0.4	trans-1,2-Dichloroethene	0.63	U	0.57	U	0.65	U	0.72	U
0.091	trans-1,3-Dichloropropene	0.14	U	0.13	U	0.15	U	0.16	U
0.11	Trichloroethene (TCE)	**0.19**		0.15	U	0.18	U	0.2	U
0.026	Vinyl chloride	0.041	U	0.037	U	0.042	U	0.046	U

Data Summary Form
Omega Chemical IAQ
(ug/m3)

	Field Sample ID	IAQ_B3_061918		IAQ_TP1_061918		IAQ_TP3_061918	
	Sample Type	N		N		N	
	Lab Sample ID	1806421-04A		1806421-05A		1806421-06A	
RL	Dilution Factor	1.68		1.57		3.36	
1.2	Acetone	**47**	**J**	**51**	**J**	**42**	**J**
0.69	Methylene chloride	1.2	UJ	**1.6**	**J**	2.3	UJ
0.11	1,1,1-Trichloroethane (TCA)	0.18	U	0.17	U	0.37	U
0.14	1,1,2,2-Tetrachloroethane	0.23	U	0.22	U	0.46	U
0.11	1,1,2-Trichloroethane	0.18	U	0.17	U	0.37	U
0.081	1,1-Dichloroethane	0.14	U	0.13	U	0.27	U
0.04	1,1-Dichloroethene	0.067	U	0.062	U	0.13	U
0.12	1,2-Dichlorobenzene	0.2	U	0.19	U	0.4	U
0.081	1,2-Dichloroethane	0.14	U	**0.14**		0.27	U
0.12	1,4-Dichlorobenzene	0.2	U	0.19	U	0.4	U
0.16	Benzene	**0.54**		**4.7**		**33**	
0.12	Carbon tetrachloride	**0.49**		**0.51**		**0.49**	
0.092	Chlorobenzene	0.15	U	0.14	U	0.31	U
0.098	Chloroform	**0.16**		**0.22**	**J,N**	0.33	U
0.079	cis-1,2-Dichloroethene	0.13	U	0.12	U	0.27	U
0.087	Ethylbenzene	**0.44**		**4.7**		**38**	
0.11	Freon 11	**1.3**		**1.3**		**1.3**	
0.15	Freon 113	**0.53**		**0.54**		**0.55**	
0.099	Freon 12	**2.4**	**J**	**2.4**	**J**	**2.4**	**J**
0.17	m,p-Xylene	**1.3**		**20**		**170**	
0.36	Methyl Tert-Butyl Ether	0.6	U	0.57	U	1.2	U
0.087	o-Xylene	**0.52**	**J**	**6.7**	**J**	**57**	**J**
0.14	Tetrachloroethene (PCE)	0.23	U	0.21	U	0.46	U
0.075	Toluene	**2.3**		**28**		**200**	
0.4	trans-1,2-Dichloroethene	0.67	U	0.62	U	1.3	U
0.091	trans-1,3-Dichloropropene	0.15	U	0.14	U	0.3	U
0.11	Trichloroethene (TCE)	0.18	U	0.17	U	0.36	U
0.026	Vinyl chloride	0.043	U	0.04	U	0.086	U

Data Summary Form
Omega Chemical IAQ
(ug/m3)

	Field Sample ID	**IAQ_TP1_061918K2**	
	Sample Type	KD	
	Lab Sample ID	440-214099-1	
RL	**Dilution Factor**	1, 1.09, 2.98	
0.11	1,1,1-Trichloroethane (TCA)	0.12	U
0.14	1,1,2,2-Tetrachloroethane	0.15	U
0.27	1,1,2-Trichloroethane	0.3	U
0.081	1,1-Dichloroethane	0.088	U
0.079	1,1-Dichloroethene	0.086	U
0.3	1,2-Dichlorobenzene	0.33	U
0.081	1,2-Dichloroethane	**0.089**	
0.6	1,4-Dichlorobenzene	**0.068**	**J**
12	Acetone	**25**	**J**
0.064	Benzene	**5.2**	
0.063	Carbon tetrachloride	**0.34**	
0.092	Chlorobenzene	0.1	U
0.098	Chloroform	**0.16**	
0.079	cis-1,2-Dichloroethene	0.086	U
0.087	Ethylbenzene	**5.4**	
0.25	Freon 11	**1.3**	
0.23	Freon 113	**0.55**	
0.099	Freon 12	**1.7**	**J**
0.17	m,p-Xylene	**20**	**J**
0.09	Methyl Tert-Butyl Ether	0.098	U
0.69	Methylene chloride	**0.81**	
0.087	o-Xylene	**8.9**	**J**
0.14	Tetrachloroethene (PCE)	**0.094**	**J**
0.075	Toluene	**28**	
0.079	trans-1,2-Dichloroethene	0.086	U
0.091	trans-1,3-Dichloropropene	0.099	U
0.11	Trichloroethene (TCE)	**0.037**	**J**
0.051	Vinyl chloride	0.056	U

Data Summary Form
Omega Chemical IAQ
(ppbv)

	Field Sample ID	IAQ_AA1_061918		IAQ_B1_061918		IAQ_B1_061918K		IAQ_B2_061918	
	Sample Type	N		N		FD		N	
	Lab Sample ID	1806421-07A		1806421-01A		1806421-02A		1806421-03A	
RL	Dilution Factor	1.59		1.44		1.63		1.82	
0.5	Acetone	**8**	**J**	**16**	**J**	**22**	**J**	**140**	**J**
0.2	Methylene chloride	**0.32**	**J**	**0.41**	**J**	**0.33**	**J**	**0.39**	**J**
0.02	1,1,1-Trichloroethane (TCA)	0.032	U	0.029	U	0.033	U	0.036	U
0.02	1,1,2,2-Tetrachloroethane	0.032	U	0.029	U	0.033	U	0.036	U
0.02	1,1,2-Trichloroethane	0.032	U	0.029	U	0.033	U	0.036	U
0.02	1,1-Dichloroethane	0.032	U	0.029	U	0.033	U	0.036	U
0.01	1,1-Dichloroethene	0.016	U	0.014	U	0.016	U	0.018	U
0.02	1,2-Dichlorobenzene	**0.037**		0.029	U	0.033	U	0.036	U
0.02	1,2-Dichloroethane	0.032	U	0.029	U	0.033	U	**0.057**	
0.02	1,4-Dichlorobenzene	0.032	U	0.029	U	0.033	U	0.036	U
0.05	Benzene	**0.18**		**0.14**		**0.16**		**1.1**	
0.02	Carbon tetrachloride	**0.079**		**0.077**		**0.08**		**0.076**	
0.02	Chlorobenzene	0.032	U	0.029	U	0.033	U	0.036	U
0.02	Chloroform	**0.033**	**J,N**	**0.034**	**J,N**	**0.035**	**J,N**	**0.051**	**J,N**
0.02	cis-1,2-Dichloroethene	0.032	U	0.029	U	0.033	U	0.036	U
0.02	Ethylbenzene	**0.077**		**0.063**		**0.066**		**1.5**	
0.02	Freon 11	**0.23**		**0.22**		**0.22**		**0.23**	
0.02	Freon 113	**0.071**		**0.068**		**0.069**		**0.073**	
0.02	Freon 12	**0.48**	**J**	**0.49**	**J**	**0.48**	**J**	**0.48**	**J**
0.04	m,p-Xylene	**0.23**		**0.16**		**0.17**		**6.1**	
0.1	Methyl Tert-Butyl Ether	0.16	U	0.14	U	0.16	U	**0.42**	
0.02	o-Xylene	**0.088**	**J**	**0.062**	**J**	**0.067**	**J**	**2**	**J**
0.02	Tetrachloroethene (PCE)	0.032	U	0.029	U	0.033	U	**0.046**	
0.02	Toluene	**0.44**		**0.47**		**0.5**		**10**	
0.1	trans-1,2-Dichloroethene	0.16	U	0.14	U	0.16	U	0.18	U
0.02	trans-1,3-Dichloropropene	0.032	U	0.029	U	0.033	U	0.036	U
0.02	Trichloroethene (TCE)	**0.035**		0.029	U	0.033	U	0.036	U
0.01	Vinyl chloride	0.016	U	0.014	U	0.016	U	0.018	U

Data Summary Form
Omega Chemical IAQ
(ppbv)

	Field Sample ID	IAQ_B3_061918		IAQ_TP1_061918		IAQ_TP3_061918	
	Sample Type	N		N		N	
	Lab Sample ID	1806421-04A		1806421-05A		1806421-06A	
RL	Dilution Factor	1.68		1.57		3.36	
0.5	Acetone	**20**	**J**	**21**	**J**	**18**	**J**
0.2	Methylene chloride	0.34	UJ	**0.45**	**J**	0.67	UJ
0.02	1,1,1-Trichloroethane (TCA)	0.034	U	0.031	U	0.067	U
0.02	1,1,2,2-Tetrachloroethane	0.034	U	0.031	U	0.067	U
0.02	1,1,2-Trichloroethane	0.034	U	0.031	U	0.067	U
0.02	1,1-Dichloroethane	0.034	U	0.031	U	0.067	U
0.01	1,1-Dichloroethene	0.017	U	0.016	U	0.034	U
0.02	1,2-Dichlorobenzene	0.034	U	0.031	U	0.067	U
0.02	1,2-Dichloroethane	0.034	U	**0.034**		0.067	U
0.02	1,4-Dichlorobenzene	0.034	U	0.031	U	0.067	U
0.05	Benzene	**0.17**		**1.5**		**10**	
0.02	Carbon tetrachloride	**0.078**		**0.081**		**0.078**	
0.02	Chlorobenzene	0.034	U	0.031	U	0.067	U
0.02	Chloroform	**0.034**		**0.045**	**J,N**	0.067	U
0.02	cis-1,2-Dichloroethene	0.034	U	0.031	U	0.067	U
0.02	Ethylbenzene	**0.1**		**1.1**		**8.9**	
0.02	Freon 11	**0.22**		**0.23**		**0.24**	
0.02	Freon 113	**0.07**		**0.071**		**0.071**	
0.02	Freon 12	**0.48**	**J**	**0.49**	**J**	**0.48**	**J**
0.04	m,p-Xylene	**0.29**		**4.5**		**38**	
0.1	Methyl Tert-Butyl Ether	0.17	U	0.16	U	0.34	U
0.02	o-Xylene	**0.12**	**J**	**1.5**	**J**	**13**	**J**
0.02	Tetrachloroethene (PCE)	0.034	U	0.031	U	0.067	U
0.02	Toluene	**0.61**		**7.6**		**53**	
0.1	trans-1,2-Dichloroethene	0.17	U	0.16	U	0.34	U
0.02	trans-1,3-Dichloropropene	0.034	U	0.031	U	0.067	U
0.02	Trichloroethene (TCE)	0.034	U	0.031	U	0.067	U
0.01	Vinyl chloride	0.017	U	0.016	U	0.034	U

Data Summary Form
Omega Chemical IAQ
(ppbv)

	Field Sample ID	**IAQ_TP1_061918K2**	
	Sample Type	KD	
	Lab Sample ID	440-214099-1	
RL	**Dilution Factor**	1	
0.02	1,1,1-Trichloroethane (TCA)	0.022	U
0.02	1,1,2,2-Tetrachloroethane	0.022	U
0.05	1,1,2-Trichloroethane	0.055	U
0.02	1,1-Dichloroethane	0.022	U
0.02	1,1-Dichloroethene	0.022	U
0.05	1,2-Dichlorobenzene	0.055	U
0.02	1,2-Dichloroethane	**0.022**	
0.1	1,4-Dichlorobenzene	**0.011**	**J**
5	Acetone	**10**	**J**
0.02	Benzene	**1.6**	
0.01	Carbon tetrachloride	**0.054**	
0.02	Chlorobenzene	0.022	U
0.02	Chloroform	**0.032**	
0.02	cis-1,2-Dichloroethene	0.022	U
0.02	Ethylbenzene	**1.2**	
0.045	Freon 11	**0.24**	
0.03	Freon 113	**0.071**	
0.02	Freon 12	**0.34**	**J**
0.04	m,p-Xylene	**4.5**	**J**
0.025	Methyl Tert-Butyl Ether	0.027	U
0.2	Methylene chloride	**0.23**	
0.02	o-Xylene	**2**	**J**
0.02	Tetrachloroethene (PCE)	**0.014**	**J**
0.02	Toluene	**7.5**	
0.02	trans-1,2-Dichloroethene	0.022	U
0.02	trans-1,3-Dichloropropene	0.022	U
0.02	Trichloroethene (TCE)	**0.0069**	**J**
0.02	Vinyl chloride	0.022	U

DATA VALIDATION

FOR

SOIL VAPOR EXTRACTION SYSTEM
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air
Laboratory Job Nos.

1807022

Analyses Performed
By:

Eurofins Air Toxics
Folsom, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

August 2, 2018

1547-3139-1/psn
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EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Eurofins Air Toxics for 25 SVE air samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). The three samples receiving full validation represent 10% of the total number of SVE air samples received and analyzed by Air Toxics. The data were reported under Laboratory Job No. 1807022. Full validation was performed on the sample identifications that have been **bolded**. The following samples were reported.

1807022

OC_SVE_VMP-11_062718	OC_SVE_VMP-11_062718K
OC_SVE_VMP-12_062718	OC_SVE_VMP-15_062718
OC_SVE_VMP-16_062718	OC_SVE_VMP-17_062718
OC_SVE_VMP-18_062718	OC_SVE_VMP-20_062718
OC_SVE_VMP-21_062718	**OC_SVE_VMP-21_062718K**
OC_SVE_VMP-22_062718	OC_SVE_VMP-26_062718
OC_SVE_VMP-5_062718	OC_SVE_VMP-92-70_062718
OC_SVE_VMP-93-60_062718	OC_SVE_VMP-24_062818
OC_SVE_VMP-27_062818	OC_SVE_VMP-31-24_062818
OC_SVE_VMP-32-24_062818	OC_SVE_VMP-32-60_062818
OC_SVE_VMP-43-24_062818	OC_SVE_VMP-94-24_062818
OC_SVE_VMP-94-60_062818	OC_SVE_VMP-95-60_062818
OC_SVE_VMP-95-60_062818K	

Based on the validation effort, the following results were qualified as estimated (J, UJ):

- methyl ethyl ketone in all samples,
- hexane in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-95-60_062818, and OC_SVE_VMP-95-60_062818K, and
- m,p-xylene in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-21_062718, and OC_SVE_VMP-21_062718K.

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section

XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA TO-15. This methodology does not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review of the samples receiving full data validation.

The data validation and review were performed, to the extent possible, in conformance with the “Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010” and ddms’ Standard Operating Procedure: Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17 (ECS-SOP-001). Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

JN The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the Data Summary Forms contained in Attachment A to indicate qualifications placed on the results based on the data review.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates of June 27, and June 28, 2018. The samples were analyzed within the hold times specified in the method.

II. GC/MS Instrument Performance Check

Summary forms were appropriately provided for bromofluorobenzene (BFB) instrument performance checks run representing each period during which the samples or associated standards were analyzed. All of the performance checks were acceptable.

III. Calibration

A. Initial Calibration (IC)

Summary results were provided for one initial calibration (IC) in support of sample analyses. Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed.

Documentation of all the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All RRFs were acceptable and reported %RSD values were below the maximum acceptance limit of 30 percent as defined in the project-specific QAPP. Initial Calibration Verification (ICV) percent differences (%Ds) were acceptable (<30%D).

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run as appropriate in support of the sample analyses. Documentation was present in the data packages, and the RRFs and the %Ds were acceptable (<30%D).

IV. Blanks

Laboratory method blanks were analyzed on each day samples were analyzed in support of the samples. No target analytes were detected in any of the method blanks at concentrations that would have any impact on sample results.

V. Surrogate Compound Recovery

Recoveries of all surrogate compounds were correctly calculated, accurately reported, and within acceptance limits for the samples receiving full validation. Reported recoveries for the remaining samples met acceptance criteria (70-130%R).

VI. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

LCS/LCSD pairs or LCS were analyzed with each day of sample analyses. Percent recoveries and relative percent difference (RPD) values were acceptable (70-130 %R, 20% RPD) in most cases. In all cases where there was an excursion, it represented an increase in sensitivity and the analyte was not detected. Therefore, no data required qualification due to LCS/LCSD or LCS results.

VII. Field Duplicate Samples

The following sets of field duplicates were submitted and precision between was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL) except as indicated in red below:

- OC_SVE_VMP-11_062718/OC_SVE_VMP-11_062718K

Parameter	Units	OC_SVE_VMP-11_062718		OC_SVE_VMP-11_062718K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
1,1-Difluoroethane	ppbv	6.1		4.9	U	NC	Yes	1.2	9.8
2-Hexanone	ppbv	5.5		4.9	U	NC	Yes	0.6	9.8
Acetone	ppbv	52		37		NC	Yes	15.0	24
Methyl ethyl ketone	ppbv	130		86		**40.7**	No		
Tetrachloroethene (PCE)	ppbv	1.8		1.2	U	NC	Yes	0.6	2.4

- OC_SVE_VMP-21_062718/OC_SVE_VMP-21_062718K

Parameter	Units	OC_SVE_VMP-21_062718		OC_SVE_VMP-21_062718K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
2-Hexanone	ppbv	22		14		NC	Yes	8.0	9.8
Acetone	ppbv	95		86		9.9	No		
Benzene	ppbv	1.9		1.2	U	NC	Yes	0.7	2.4
Carbon disulfide	ppbv	21		25		NC	Yes	4.0	9.8

Parameter	Units	OC_SVE_VMP-21_062718		OC_SVE_VMP-21_062718K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
Hexane (N-Hexane)	ppbv	3.6		1.2	U	NC	Yes	**2.4**	2.4
m,p-Xylene	ppbv	1.3		1.2	U	NC	Yes	0.1	2.4
Methyl ethyl ketone	ppbv	480		370		**25.9**	No		
Tetrachloroethene (PCE)	ppbv	3.3		4		NC	Yes	0.7	2.4

- OC_SVE_VMP-95-60_062818/OC_SVE_VMP-95-60_062818K

Parameter	Units	OC_SVE_VMP-95-60_062818		OC_SVE_VMP-95-60_062818K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
2-Hexanone	ppbv	5.4		4.7	U	NC	Yes	0.7	9.4
Acetone	ppbv	22		15		NC	Yes	7.0	24
Ethylbenzene	ppbv	1.4		1.2	U	NC	Yes	0.2	2.4
m,p-Xylene	ppbv	4.2		1.2	U	NC	Yes	**3.0**	2.4
Methyl ethyl ketone	ppbv	84		64		**27.0**	No		
o-Xylene	ppbv	1.8		1.2	U	NC	Yes	0.6	2.4
Tetrachloroethene (PCE)	ppbv	1.2	U	1.4		NC	Yes	0.2	2.4

Summarized below are the results qualified as estimated (J) due to imprecision between field duplicate samples:

- methyl ethyl ketone in all samples,
- hexane in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-95-60_062818, and OC_SVE_VMP-95-60_062818K, and
- m,p-xylene in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-21_062718, and OC_SVE_VMP-21_062718K.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

Target analytes were detected in all of the samples and an acceptable mass spectrum was provided for each compound detected.

1,1-Difluoroethane was used in the field at select locations during sample collection for the purpose of leak checking. The 'Advisory – Active Soil Gas Investigations' document by the California Environmental Protection Agency Department of Toxic Substances Control (April 2012) recommends corrective action if the leak check compound is greater than or equal to 10 times the reporting limit for that target analyte. Where detected in the samples identified as having leak tests performed, the reported concentration of 1,1-difluoroethane in the sample was less than ten times the reporting limit.

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for all samples and spike samples. The laboratory's reporting limits (RLs) for benzyl chloride, 2-butanone, 1, 4-dioxane, hexachlorobutadiene, methyl-t-butyl ether, methyl ethyl ketone, methylene chloride, 4-methyl-2-pentanone, styrene, and Freon 13 exceeded the RLs as specified in the project QAPP.

Results for methyl ethyl ketone in OC_SVE_VMP-20_062718 and OC_SVE_VMP-94-24_062818 were qualified as estimated (J) because the reported concentration exceeded the calibration range.

The Data Summary Forms in Attachment A list all individual sample analytes affected by the applied qualifications. All positive results are listed on these forms, whether or not the value or qualifier was changed as a result of the data review. Where no result is listed, the analyte was not detected and the sample-specific reporting limit was not revised or qualified. Sample-specific reporting limits can be calculated from the data summary forms by multiplying the unadjusted reporting limit by the dilution factor.

XI. Tentatively Identified Compounds (TIC)

Tentative identification of non-target compounds was not a requirement for these samples.

XII. System Performance

The analytical systems appear to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the validation effort.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- Results qualified as estimated (J) due to imprecision between field duplicate samples:
  - methyl ethyl ketone in all samples,
  - hexane in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-95-60_062818, and OC_SVE_VMP-95-60_062818K, and
  - m,p-xylene in all samples except OC_SVE_VMP-11_062718, OC_SVE_VMP-11_062718K, OC_SVE_VMP-21_062718, and OC_SVE_VMP-21_062718K.
- Results for methyl ethyl ketone in OC_SVE_VMP-20_062718 and OC_SVE_VMP-94-24_062818 were qualified as estimated (J) because the reported concentration exceeded the calibration range.

All other results were determined to be valid as reported.

No documentation issues were observed in the data package.

This validation report should be considered <u>part of the data package</u> for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
Laboratory Job Nos.
1807022

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-11_062718		OC_SVE_VMP-11_062718K	
		Sample Type	N		FD	
		Lab Sample ID	1807022-05A		1807022-06A	
	RL	Dilution Factor	2.42		2.47	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	**6.1**		4.9	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.9	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.8	U	4.9	U
	2	2-Hexanone	**5.5**		4.9	U
	2	3-Chloropropene	4.8	U	4.9	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**52**		**37**	
	0.5	Benzene	1.2	U	1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	4.8	U	4.9	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.8	U	4.9	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.8	U	4.9	U
	0.5	Hexane (N-Hexane)	1.2	U	1.2	U
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.9	U
	0.5	m,p-Xylene	1.2	U	1.2	U
	2	Methyl ethyl ketone	**130**	**J**	**86**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.9	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**1.8**		1.2	U
	10	TNMOC ref. to Heptane (MW=100)	**350**		**200**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.8	U	4.9	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-12_062718		OC_SVE_VMP-15_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-07A		1807022-08A	
	RL	Dilution Factor	2.33		2.42	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.7	U	4.8	U
	2	1,2,4-Trichlorobenzene	4.7	U	4.8	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.7	U	4.8	U
	2	2-Hexanone	**6.2**		**7.4**	
	2	3-Chloropropene	4.7	U	4.8	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**61**		**82**	
	0.5	Benzene	**2.9**		**2.2**	
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	4.7	U	4.8	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.7	U	4.8	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.7	U	4.8	U
	0.5	Hexane (N-Hexane)	1.2	UJ	**12**	**J**
	2	Isopropyl Alcohol (Isopropanol)	4.7	U	4.8	U
	0.5	m,p-Xylene	1.2	UJ	1.2	UJ
	2	Methyl ethyl ketone	**180**	**J**	**250**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.7	U	4.8	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**4.9**		**2.7**	
	10	TNMOC ref. to Heptane (MW=100)	**790**		**420**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.7	U	4.8	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-16_062718		OC_SVE_VMP-17_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-10A		1807022-09A	
	RL	Dilution Factor	2.29		2.38	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.1	U	1.2	U
	0.5	1,1-Dichloroethane	1.1	U	1.2	U
	0.5	1,1-Dichloroethene	1.1	U	1.2	U
	2	1,1-Difluoroethane	4.6	U	4.8	U
	2	1,2,4-Trichlorobenzene	4.6	U	4.8	U
	0.5	1,2,4-Trimethylbenzene	1.1	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.1	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.1	U	1.2	U
	0.5	1,2-Dichloroethane	1.1	U	1.2	U
	0.5	1,2-Dichloropropane	1.1	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.1	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.1	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.1	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.1	U	1.2	U
	2	1,4-Dioxane	4.6	U	4.8	U
	2	2-Hexanone	**8.6**		**6.2**	
	2	3-Chloropropene	4.6	U	4.8	U
	0.5	4-Ethyltoluene	1.1	U	1.2	U
	5	Acetone	**110**		**65**	
	0.5	Benzene	1.1	U	1.2	U
	0.5	Benzyl chloride	1.1	U	1.2	U
	0.5	Bromodichloromethane	1.1	U	1.2	U
	0.5	Bromoform	1.1	U	1.2	U
	5	Bromomethane	11	U	12	U
	2	Carbon disulfide	**5.7**		4.8	U
	0.5	Carbon tetrachloride	1.1	U	1.2	U
	0.5	Chlorobenzene	1.1	U	1.2	U
	2	Chloroethane	4.6	U	4.8	U
	0.5	Chloroform	1.1	U	1.2	U
	5	Chloromethane	11	U	12	U
	0.5	cis-1,2-Dichloroethene	1.1	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.1	U	1.2	U
	0.5	Dibromochloromethane	1.1	U	1.2	U
	0.5	Ethylbenzene	1.1	U	1.2	U
	0.5	Freon 11	1.1	U	1.2	U
	0.5	Freon 113	1.1	U	1.2	U
	0.5	Freon 12	1.1	U	1.2	U
	2	Hexachlorobutadiene	4.6	U	4.8	U
	0.5	Hexane (N-Hexane)	1.1	UJ	1.2	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.6	U	4.8	U
	0.5	m,p-Xylene	1.1	UJ	1.2	UJ
	2	Methyl ethyl ketone	**230**	**J**	**180**	**J**
	0.5	Methyl isobutyl ketone	1.1	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.6	U	4.8	U
	5	Methylene chloride	11	U	12	U
	0.5	o-Xylene	1.1	U	1.2	U
	0.5	Styrene	1.1	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**37**		1.2	U
	10	TNMOC ref. to Heptane (MW=100)	**340**		**230**	
	0.5	Toluene	1.1	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.1	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.1	U	1.2	U
	0.5	Trichloroethene (TCE)	**1.2**		1.2	U
	2	Vinyl acetate	4.6	U	4.8	U
	0.5	Vinyl chloride	1.1	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-18_062718		OC_SVE_VMP-20_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-01A		1807022-12A	
	RL	Dilution Factor	2.42		2.47	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.8	U	4.9	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.9	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.8	U	4.9	U
	2	2-Hexanone	4.8	U	**17**	
	2	3-Chloropropene	4.8	U	4.9	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**130**		**160**	
	0.5	Benzene	**2.5**		1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	**27**		4.9	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.8	U	4.9	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.8	U	4.9	U
	0.5	Hexane (N-Hexane)	**20**	**J**	**1.3**	**J**
	2	Isopropyl Alcohol (Isopropanol)	**8.6**		**6.2**	
	0.5	m,p-Xylene	1.2	UJ	1.2	UJ
	2	Methyl ethyl ketone	**24**	**J**	**520**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.9	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**5.5**		**7**	
	10	TNMOC ref. to Heptane (MW=100)	**320**		**420**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	**2**		1.2	U
	2	Vinyl acetate	4.8	U	4.9	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-21_062718		OC_SVE_VMP-21_062718K	
		Sample Type	N		FD	
		Lab Sample ID	1807022-13A		1807022-14A	
	RL	Dilution Factor	2.42		2.47	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.8	U	4.9	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.9	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.8	U	4.9	U
	2	2-Hexanone	**22**		**14**	
	2	3-Chloropropene	4.8	U	4.9	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**95**		**86**	
	0.5	Benzene	**1.9**		1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	**21**		**25**	
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.8	U	4.9	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.8	U	4.9	U
	0.5	Hexane (N-Hexane)	**3.6**		1.2	U
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.9	U
	0.5	m,p-Xylene	**1.3**		1.2	U
	2	Methyl ethyl ketone	**480**	**J**	**370**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.9	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**3.3**		**4**	
	10	TNMOC ref. to Heptane (MW=100)	**390**		**300**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.8	U	4.9	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-22_062718		OC_SVE_VMP-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-03A		1807022-22A	
	RL	Dilution Factor	2.42		2.3	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.8	U	4.6	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.6	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.8	U	4.6	U
	2	2-Hexanone	4.8	U	**5**	
	2	3-Chloropropene	4.8	U	4.6	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**53**		**200**	
	0.5	Benzene	1.2	U	1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	**4.9**		4.6	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.8	U	4.6	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.8	U	4.6	U
	0.5	Hexane (N-Hexane)	1.2	UJ	1.2	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.6	U
	0.5	m,p-Xylene	1.2	UJ	1.2	UJ
	2	Methyl ethyl ketone	**77**	**J**	**100**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.6	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**5.8**		**2.2**	
	10	TNMOC ref. to Heptane (MW=100)	**140**		**220**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.8	U	4.6	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample	Normal			
		Field Sample ID	OC_SVE_VMP-26_062718		OC_SVE_VMP-27_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-15A		1807022-21A	
	RL	Dilution Factor	2.42		2.2	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.1	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.1	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.1	U
	0.5	1,1-Dichloroethane	1.2	U	1.1	U
	0.5	1,1-Dichloroethene	1.2	U	1.1	U
	2	1,1-Difluoroethane	4.8	U	4.4	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.4	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.1	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.1	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.1	U
	0.5	1,2-Dichloroethane	1.2	U	1.1	U
	0.5	1,2-Dichloropropane	1.2	U	1.1	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.1	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.1	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.1	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.1	U
	2	1,4-Dioxane	4.8	U	4.4	U
	2	2-Hexanone	**13**		**5.6**	
	2	3-Chloropropene	4.8	U	4.4	U
	0.5	4-Ethyltoluene	1.2	U	1.1	U
	5	Acetone	**69**		**250**	
	0.5	Benzene	1.2	U	1.1	U
	0.5	Benzyl chloride	1.2	U	1.1	U
	0.5	Bromodichloromethane	1.2	U	1.1	U
	0.5	Bromoform	1.2	U	1.1	U
	5	Bromomethane	12	U	11	U
	2	Carbon disulfide	**12**		**16**	
	0.5	Carbon tetrachloride	1.2	U	1.1	U
	0.5	Chlorobenzene	1.2	U	1.1	U
	2	Chloroethane	4.8	U	4.4	U
	0.5	Chloroform	1.2	U	1.1	U
	5	Chloromethane	12	U	11	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.1	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.1	U
	0.5	Dibromochloromethane	1.2	U	1.1	U
	0.5	Ethylbenzene	1.2	U	1.1	U
	0.5	Freon 11	1.2	U	1.1	U
	0.5	Freon 113	1.2	U	1.1	U
	0.5	Freon 12	1.2	U	1.1	U
	2	Hexachlorobutadiene	4.8	U	4.4	U
	0.5	Hexane (N-Hexane)	1.2	UJ	1.1	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	**11**	
	0.5	m,p-Xylene	1.2	UJ	**1.3**	**J**
	2	Methyl ethyl ketone	**300**	**J**	**120**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.1	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.4	U
	5	Methylene chloride	12	U	11	U
	0.5	o-Xylene	1.2	U	1.1	U
	0.5	Styrene	1.2	U	1.1	U
	0.5	Tetrachloroethene (PCE)	1.2	U	1.1	U
	10	TNMOC ref. to Heptane (MW=100)	**280**		**200**	
	0.5	Toluene	1.2	U	1.1	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.1	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.1	U
	0.5	Trichloroethene (TCE)	1.2	U	1.1	U
	2	Vinyl acetate	4.8	U	4.4	U
	0.5	Vinyl chloride	1.2	U	1.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-31-24_062818		OC_SVE_VMP-32-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-25A		1807022-23A	
	RL	Dilution Factor	2.42		2.42	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.8	U	4.8	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.8	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.8	U	4.8	U
	2	2-Hexanone	**7**		**6.6**	
	2	3-Chloropropene	4.8	U	4.8	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**58**		**34**	
	0.5	Benzene	**1.5**		1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	4.8	U	4.8	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.8	U	4.8	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.8	U	4.8	U
	0.5	Hexane (N-Hexane)	**2.4**	**J**	**3.6**	**J**
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.8	U
	0.5	m,p-Xylene	**1.7**	**J**	1.2	UJ
	2	Methyl ethyl ketone	**160**	**J**	**110**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	**9.2**		**6.2**	
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**2.2**		1.2	U
	10	TNMOC ref. to Heptane (MW=100)	**580**		**1000**	
	0.5	Toluene	1.2	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.8	U	4.8	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-32-60_062818		OC_SVE_VMP-43-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-24A		1807022-18A	
	RL	Dilution Factor	2.58		2.38	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.3	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.3	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.3	U	1.2	U
	0.5	1,1-Dichloroethane	1.3	U	1.2	U
	0.5	1,1-Dichloroethene	1.3	U	1.2	U
	2	1,1-Difluoroethane	5.2	U	4.8	U
	2	1,2,4-Trichlorobenzene	5.2	U	4.8	U
	0.5	1,2,4-Trimethylbenzene	1.3	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.3	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.3	U	1.2	U
	0.5	1,2-Dichloroethane	1.3	U	1.2	U
	0.5	1,2-Dichloropropane	1.3	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.3	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.3	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.3	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.3	U	1.2	U
	2	1,4-Dioxane	5.2	U	4.8	U
	2	2-Hexanone	**7.7**		**6.9**	
	2	3-Chloropropene	5.2	U	4.8	U
	0.5	4-Ethyltoluene	1.3	U	1.2	U
	5	Acetone	**51**		**31**	
	0.5	Benzene	1.3	U	1.2	U
	0.5	Benzyl chloride	1.3	U	1.2	U
	0.5	Bromodichloromethane	1.3	U	1.2	U
	0.5	Bromoform	1.3	U	1.2	U
	5	Bromomethane	13	U	12	U
	2	Carbon disulfide	5.2	U	4.8	U
	0.5	Carbon tetrachloride	1.3	U	1.2	U
	0.5	Chlorobenzene	1.3	U	1.2	U
	2	Chloroethane	5.2	U	4.8	U
	0.5	Chloroform	1.3	U	1.2	U
	5	Chloromethane	13	U	12	U
	0.5	cis-1,2-Dichloroethene	1.3	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.3	U	1.2	U
	0.5	Dibromochloromethane	1.3	U	1.2	U
	0.5	Ethylbenzene	1.3	U	1.2	U
	0.5	Freon 11	1.3	U	1.2	U
	0.5	Freon 113	1.3	U	1.2	U
	0.5	Freon 12	1.3	U	1.2	U
	2	Hexachlorobutadiene	5.2	U	4.8	U
	0.5	Hexane (N-Hexane)	1.3	UJ	**19**	**J**
	2	Isopropyl Alcohol (Isopropanol)	5.2	U	4.8	U
	0.5	m,p-Xylene	1.3	UJ	**1.4**	**J**
	2	Methyl ethyl ketone	**140**	**J**	**91**	**J**
	0.5	Methyl isobutyl ketone	1.3	U	1.2	U
	2	Methyl Tert-Butyl Ether	5.2	U	4.8	U
	5	Methylene chloride	13	U	12	U
	0.5	o-Xylene	1.3	U	1.2	U
	0.5	Styrene	1.3	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**1.7**		1.2	U
	10	TNMOC ref. to Heptane (MW=100)	**200**		**200**	
	0.5	Toluene	1.3	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.3	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.3	U	1.2	U
	0.5	Trichloroethene (TCE)	1.3	U	1.2	U
	2	Vinyl acetate	5.2	U	4.8	U
	0.5	Vinyl chloride	1.3	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-5_062718		OC_SVE_VMP-92-70_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-02A		1807022-04A	
	RL	Dilution Factor	2.38		3.81	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	**2.3**	
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.9	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.9	U
	0.5	1,1-Dichloroethane	1.2	U	1.9	U
	0.5	1,1-Dichloroethene	**42**		**310**	
	2	1,1-Difluoroethane	4.8	U	7.6	U
	2	1,2,4-Trichlorobenzene	4.8	U	7.6	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.9	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.9	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.9	U
	0.5	1,2-Dichloroethane	1.2	U	1.9	U
	0.5	1,2-Dichloropropane	1.2	U	1.9	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.9	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.9	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.9	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.9	U
	2	1,4-Dioxane	4.8	U	7.6	U
	2	2-Hexanone	4.8	U	7.6	U
	2	3-Chloropropene	4.8	U	7.6	U
	0.5	4-Ethyltoluene	1.2	U	1.9	U
	5	Acetone	**61**		**42**	
	0.5	Benzene	**2**		1.9	U
	0.5	Benzyl chloride	1.2	U	1.9	U
	0.5	Bromodichloromethane	1.2	U	1.9	U
	0.5	Bromoform	1.2	U	1.9	U
	5	Bromomethane	12	U	19	U
	2	Carbon disulfide	**27**		7.6	U
	0.5	Carbon tetrachloride	1.2	U	1.9	U
	0.5	Chlorobenzene	1.2	U	1.9	U
	2	Chloroethane	4.8	U	7.6	U
	0.5	Chloroform	**2.4**		**3.7**	
	5	Chloromethane	12	U	19	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.9	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.9	U
	0.5	Dibromochloromethane	1.2	U	1.9	U
	0.5	Ethylbenzene	1.2	U	1.9	U
	0.5	Freon 11	1.2	U	**54**	
	0.5	Freon 113	1.2	U	**160**	
	0.5	Freon 12	1.2	U	1.9	U
	2	Hexachlorobutadiene	4.8	U	7.6	U
	0.5	Hexane (N-Hexane)	**7.9**	**J**	1.9	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	7.6	U
	0.5	m,p-Xylene	1.2	UJ	1.9	UJ
	2	Methyl ethyl ketone	**86**	**J**	**110**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.9	U
	2	Methyl Tert-Butyl Ether	4.8	U	7.6	U
	5	Methylene chloride	12	U	19	U
	0.5	o-Xylene	1.2	U	1.9	U
	0.5	Styrene	1.2	U	1.9	U
	0.5	Tetrachloroethene (PCE)	**220**		**740**	
	10	TNMOC ref. to Heptane (MW=100)	**620**		**4400**	
	0.5	Toluene	**1.2**	**J**	1.9	U
	0.5	trans-1,2-Dichloroethene	**9.4**		1.9	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.9	U
	0.5	Trichloroethene (TCE)	**49**		**40**	
	2	Vinyl acetate	4.8	U	7.6	U
	0.5	Vinyl chloride	1.2	U	1.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-93-60_062718		OC_SVE_VMP-94-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-11A		1807022-16A	
	RL	Dilution Factor	7.22		2.24	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	3.6	U	1.1	U
	0.5	1,1,2,2-Tetrachloroethane	3.6	U	1.1	U
	0.5	1,1,2-Trichloroethane	3.6	U	1.1	U
	0.5	1,1-Dichloroethane	3.6	U	1.1	U
	0.5	1,1-Dichloroethene	3.6	U	1.1	U
	2	1,1-Difluoroethane	14	U	4.5	U
	2	1,2,4-Trichlorobenzene	14	U	4.5	U
	0.5	1,2,4-Trimethylbenzene	3.6	U	1.1	U
	0.5	1,2-Dibromoethane (EDB)	3.6	U	1.1	U
	0.5	1,2-Dichlorobenzene	3.6	U	1.1	U
	0.5	1,2-Dichloroethane	3.6	U	1.1	U
	0.5	1,2-Dichloropropane	3.6	U	1.1	U
	0.5	1,2-Dichlorotetrafluoroethane	3.6	U	1.1	U
	0.5	1,3,5-Trimethylbenzene	3.6	U	1.1	U
	0.5	1,3-Dichlorobenzene	3.6	U	1.1	U
	0.5	1,4-Dichlorobenzene	3.6	U	1.1	U
	2	1,4-Dioxane	14	U	4.5	U
	2	2-Hexanone	**15**		**10**	
	2	3-Chloropropene	14	U	4.5	U
	0.5	4-Ethyltoluene	3.6	U	1.1	U
	5	Acetone	**160**		**26**	
	0.5	Benzene	3.6	U	1.1	U
	0.5	Benzyl chloride	3.6	U	1.1	U
	0.5	Bromodichloromethane	3.6	U	1.1	U
	0.5	Bromoform	3.6	U	1.1	U
	5	Bromomethane	36	U	11	U
	2	Carbon disulfide	14	U	4.5	U
	0.5	Carbon tetrachloride	3.6	U	1.1	U
	0.5	Chlorobenzene	3.6	U	1.1	U
	2	Chloroethane	14	U	4.5	U
	0.5	Chloroform	**6.6**		1.1	U
	5	Chloromethane	36	U	11	U
	0.5	cis-1,2-Dichloroethene	3.6	U	1.1	U
	0.5	cis-1,3-Dichloropropene	3.6	U	1.1	U
	0.5	Dibromochloromethane	3.6	U	1.1	U
	0.5	Ethylbenzene	3.6	U	1.1	U
	0.5	Freon 11	**6**		1.1	U
	0.5	Freon 113	**23**		1.1	U
	0.5	Freon 12	3.6	U	1.1	U
	2	Hexachlorobutadiene	14	U	4.5	U
	0.5	Hexane (N-Hexane)	3.6	UJ	1.1	UJ
	2	Isopropyl Alcohol (Isopropanol)	14	U	4.5	U
	0.5	m,p-Xylene	3.6	UJ	**1.4**	**J**
	2	Methyl ethyl ketone	**490**	**J**	**1900**	**J**
	0.5	Methyl isobutyl ketone	3.6	U	1.1	U
	2	Methyl Tert-Butyl Ether	14	U	4.5	U
	5	Methylene chloride	36	U	11	U
	0.5	o-Xylene	3.6	U	1.1	U
	0.5	Styrene	3.6	U	**1.8**	
	0.5	Tetrachloroethene (PCE)	**1400**		1.1	U
	10	TNMOC ref. to Heptane (MW=100)	**2800**		**600**	
	0.5	Toluene	3.6	U	1.1	U
	0.5	trans-1,2-Dichloroethene	3.6	U	1.1	U
	0.5	trans-1,3-Dichloropropene	3.6	U	1.1	U
	0.5	Trichloroethene (TCE)	**13**		1.1	U
	2	Vinyl acetate	14	U	4.5	U
	0.5	Vinyl chloride	3.6	U	1.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-94-60_062818		OC_SVE_VMP-95-60_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-17A		1807022-19A	
	RL	Dilution Factor	2.29		2.38	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.1	U	1.2	U
	0.5	1,1-Dichloroethane	1.1	U	1.2	U
	0.5	1,1-Dichloroethene	1.1	U	1.2	U
	2	1,1-Difluoroethane	4.6	U	4.8	U
	2	1,2,4-Trichlorobenzene	4.6	U	4.8	U
	0.5	1,2,4-Trimethylbenzene	1.1	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.1	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.1	U	1.2	U
	0.5	1,2-Dichloroethane	1.1	U	1.2	U
	0.5	1,2-Dichloropropane	1.1	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.1	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.1	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.1	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.1	U	1.2	U
	2	1,4-Dioxane	4.6	U	4.8	U
	2	2-Hexanone	**5.3**		**5.4**	
	2	3-Chloropropene	4.6	U	4.8	U
	0.5	4-Ethyltoluene	1.1	U	1.2	U
	5	Acetone	**26**		**22**	
	0.5	Benzene	1.1	U	1.2	U
	0.5	Benzyl chloride	1.1	U	1.2	U
	0.5	Bromodichloromethane	1.1	U	1.2	U
	0.5	Bromoform	1.1	U	1.2	U
	5	Bromomethane	11	U	12	U
	2	Carbon disulfide	4.6	U	4.8	U
	0.5	Carbon tetrachloride	1.1	U	1.2	U
	0.5	Chlorobenzene	1.1	U	1.2	U
	2	Chloroethane	4.6	U	4.8	U
	0.5	Chloroform	1.1	U	1.2	U
	5	Chloromethane	11	U	12	U
	0.5	cis-1,2-Dichloroethene	1.1	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.1	U	1.2	U
	0.5	Dibromochloromethane	1.1	U	1.2	U
	0.5	Ethylbenzene	1.1	U	**1.4**	
	0.5	Freon 11	**1.2**		1.2	U
	0.5	Freon 113	**7.2**		1.2	U
	0.5	Freon 12	1.1	U	1.2	U
	2	Hexachlorobutadiene	4.6	U	4.8	U
	0.5	Hexane (N-Hexane)	1.1	UJ	1.2	UJ
	2	Isopropyl Alcohol (Isopropanol)	**7.2**		4.8	U
	0.5	m,p-Xylene	1.1	UJ	**4.2**	**J**
	2	Methyl ethyl ketone	**78**	**J**	**84**	**J**
	0.5	Methyl isobutyl ketone	1.1	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.6	U	4.8	U
	5	Methylene chloride	11	U	12	U
	0.5	o-Xylene	1.1	U	**1.8**	
	0.5	Styrene	1.1	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**3.7**		1.2	U
	10	TNMOC ref. to Heptane (MW=100)	**1600**		**120**	
	0.5	Toluene	1.1	U	1.2	U
	0.5	trans-1,2-Dichloroethene	1.1	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.1	U	1.2	U
	0.5	Trichloroethene (TCE)	1.1	U	1.2	U
	2	Vinyl acetate	4.6	U	4.8	U
	0.5	Vinyl chloride	1.1	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample		
		Field Sample ID	OC_SVE_VMP-95-60_062818K	
		Sample Type	FD	
		Lab Sample ID	1807022-20A	
	RL	Dilution Factor	2.33	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U
	0.5	1,1-Dichloroethane	1.2	U
	0.5	1,1-Dichloroethene	1.2	U
	2	1,1-Difluoroethane	4.7	U
	2	1,2,4-Trichlorobenzene	4.7	U
	0.5	1,2,4-Trimethylbenzene	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U
	0.5	1,2-Dichloroethane	1.2	U
	0.5	1,2-Dichloropropane	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U
	2	1,4-Dioxane	4.7	U
	2	2-Hexanone	4.7	U
	2	3-Chloropropene	4.7	U
	0.5	4-Ethyltoluene	1.2	U
	5	Acetone	**15**	
	0.5	Benzene	1.2	U
	0.5	Benzyl chloride	1.2	U
	0.5	Bromodichloromethane	1.2	U
	0.5	Bromoform	1.2	U
	5	Bromomethane	12	U
	2	Carbon disulfide	4.7	U
	0.5	Carbon tetrachloride	1.2	U
	0.5	Chlorobenzene	1.2	U
	2	Chloroethane	4.7	U
	0.5	Chloroform	1.2	U
	5	Chloromethane	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U
	0.5	Dibromochloromethane	1.2	U
	0.5	Ethylbenzene	1.2	U
	0.5	Freon 11	1.2	U
	0.5	Freon 113	1.2	U
	0.5	Freon 12	1.2	U
	2	Hexachlorobutadiene	4.7	U
	0.5	Hexane (N-Hexane)	1.2	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.7	U
	0.5	m,p-Xylene	1.2	UJ
	2	Methyl ethyl ketone	**64**	**J**
	0.5	Methyl isobutyl ketone	1.2	U
	2	Methyl Tert-Butyl Ether	4.7	U
	5	Methylene chloride	12	U
	0.5	o-Xylene	1.2	U
	0.5	Styrene	1.2	U
	0.5	Tetrachloroethene (PCE)	**1.4**	
	10	TNMOC ref. to Heptane (MW=100)	**26**	
	0.5	Toluene	1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U
	2	Vinyl acetate	4.7	U
	0.5	Vinyl chloride	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-11_062718		OC_SVE_VMP-11_062718K	
		Sample Type	N		FD	
		Lab Sample ID	1807022-05A		1807022-06A	
	RL	Dilution Factor	2.42		2.47	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.7	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	8.5	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.7	U
	2	1,1-Dichloroethane	4.9	U	5	U
	2	1,1-Dichloroethene	4.8	U	4.9	U
	5.4	1,1-Difluoroethane	**16**		13	U
	15	1,2,4-Trichlorobenzene	36	U	37	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	6.1	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	9.5	U
	3	1,2-Dichlorobenzene	7.3	U	7.4	U
	2	1,2-Dichloroethane	4.9	U	5	U
	2.3	1,2-Dichloropropane	5.6	U	5.7	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.6	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	6.1	U
	3	1,3-Dichlorobenzene	7.3	U	7.4	U
	3	1,4-Dichlorobenzene	7.3	U	7.4	U
	7.2	1,4-Dioxane	17	U	18	U
	8.2	2-Hexanone	**23**		20	U
	6.3	3-Chloropropene	15	U	15	U
	2.4	4-Ethyltoluene	5.9	U	6.1	U
	12	Acetone	**120**		**88**	
	1.6	Benzene	3.9	U	3.9	U
	2.6	Benzyl chloride	6.3	U	6.4	U
	3.4	Bromodichloromethane	8.1	U	8.3	U
	5.2	Bromoform	12	U	13	U
	19	Bromomethane	47	U	48	U
	6.2	Carbon disulfide	15	U	15	U
	3.1	Carbon tetrachloride	7.6	U	7.8	U
	2.3	Chlorobenzene	5.6	U	5.7	U
	5.3	Chloroethane	13	U	13	U
	2.4	Chloroform	5.9	U	6	U
	10	Chloromethane	25	U	26	U
	2	cis-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.6	U
	4.2	Dibromochloromethane	10	U	10	U
	2.2	Ethylbenzene	5.2	U	5.4	U
	2.8	Freon 11	6.8	U	6.9	U
	3.8	Freon 113	9.3	U	9.5	U
	2.5	Freon 12	6	U	6.1	U
	21	Hexachlorobutadiene	52	U	53	U
	1.8	Hexane (N-Hexane)	4.3	U	4.4	U
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
	2.2	m,p-Xylene	5.2	U	5.4	U
	5.9	Methyl ethyl ketone	**370**	**J**	**250**	**J**
	2	Methyl isobutyl ketone	5	U	5	U
	7.2	Methyl Tert-Butyl Ether	17	U	18	U
	17	Methylene chloride	42	U	43	U
	2.2	o-Xylene	5.2	U	5.4	U
	2.1	Styrene	5.2	U	5.3	U
	3.4	Tetrachloroethene (PCE)	**12**		8.4	U
	41	TNMOC ref. to Heptane (MW=100)	**1400**		**820**	
	1.9	Toluene	4.6	U	4.6	U
	2	trans-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.6	U
	2.7	Trichloroethene (TCE)	6.5	U	6.6	U
	7	Vinyl acetate	17	U	17	U
	1.3	Vinyl chloride	3.1	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-12_062718		OC_SVE_VMP-15_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-07A		1807022-08A	
	RL	Dilution Factor	2.33		2.42	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.4	U	6.6	U
	3.4	1,1,2,2-Tetrachloroethane	8	U	8.3	U
	2.7	1,1,2-Trichloroethane	6.4	U	6.6	U
	2	1,1-Dichloroethane	4.7	U	4.9	U
	2	1,1-Dichloroethene	4.6	U	4.8	U
	5.4	1,1-Difluoroethane	12	U	13	U
	15	1,2,4-Trichlorobenzene	34	U	36	U
	2.4	1,2,4-Trimethylbenzene	5.7	U	5.9	U
	3.8	1,2-Dibromoethane (EDB)	9	U	9.3	U
	3	1,2-Dichlorobenzene	7	U	7.3	U
	2	1,2-Dichloroethane	4.7	U	4.9	U
	2.3	1,2-Dichloropropane	5.4	U	5.6	U
	3.5	1,2-Dichlorotetrafluoroethane	8.1	U	8.4	U
	2.4	1,3,5-Trimethylbenzene	5.7	U	5.9	U
	3	1,3-Dichlorobenzene	7	U	7.3	U
	3	1,4-Dichlorobenzene	7	U	7.3	U
	7.2	1,4-Dioxane	17	U	17	U
	8.2	2-Hexanone	**26**		**30**	
	6.3	3-Chloropropene	14	U	15	U
	2.4	4-Ethyltoluene	5.7	U	5.9	U
	12	Acetone	**140**		**200**	
	1.6	Benzene	**9.3**		**7**	
	2.6	Benzyl chloride	6	U	6.3	U
	3.4	Bromodichloromethane	7.8	U	8.1	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	45	U	47	U
	6.2	Carbon disulfide	14	U	15	U
	3.1	Carbon tetrachloride	7.3	U	7.6	U
	2.3	Chlorobenzene	5.4	U	5.6	U
	5.3	Chloroethane	12	U	13	U
	2.4	Chloroform	5.7	U	5.9	U
	10	Chloromethane	24	U	25	U
	2	cis-1,2-Dichloroethene	4.6	U	4.8	U
	2.3	cis-1,3-Dichloropropene	5.3	U	5.5	U
	4.2	Dibromochloromethane	9.9	U	10	U
	2.2	Ethylbenzene	5	U	5.2	U
	2.8	Freon 11	6.5	U	6.8	U
	3.8	Freon 113	8.9	U	9.3	U
	2.5	Freon 12	5.8	U	6	U
	21	Hexachlorobutadiene	50	U	52	U
	1.8	Hexane (N-Hexane)	4.1	UJ	**41**	**J**
	4.9	Isopropyl Alcohol (Isopropanol)	11	U	12	U
	2.2	m,p-Xylene	5	UJ	5.2	UJ
	5.9	Methyl ethyl ketone	**520**	**J**	**750**	**J**
	2	Methyl isobutyl ketone	4.8	U	5	U
	7.2	Methyl Tert-Butyl Ether	17	U	17	U
	17	Methylene chloride	40	U	42	U
	2.2	o-Xylene	5	U	5.2	U
	2.1	Styrene	5	U	5.2	U
	3.4	Tetrachloroethene (PCE)	**33**		**18**	
	41	TNMOC ref. to Heptane (MW=100)	**3200**		**1700**	
	1.9	Toluene	4.4	U	4.6	U
	2	trans-1,2-Dichloroethene	4.6	U	4.8	U
	2.3	trans-1,3-Dichloropropene	5.3	U	5.5	U
	2.7	Trichloroethene (TCE)	6.3	U	6.5	U
	7	Vinyl acetate	16	U	17	U
	1.3	Vinyl chloride	3	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-16_062718		OC_SVE_VMP-17_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-10A		1807022-09A	
	RL	Dilution Factor	2.29		2.38	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.2	U	6.5	U
	3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.2	U
	2.7	1,1,2-Trichloroethane	6.2	U	6.5	U
	2	1,1-Dichloroethane	4.6	U	4.8	U
	2	1,1-Dichloroethene	4.5	U	4.7	U
	5.4	1,1-Difluoroethane	12	U	13	U
	15	1,2,4-Trichlorobenzene	34	U	35	U
	2.4	1,2,4-Trimethylbenzene	5.6	U	5.8	U
	3.8	1,2-Dibromoethane (EDB)	8.8	U	9.1	U
	3	1,2-Dichlorobenzene	6.9	U	7.2	U
	2	1,2-Dichloroethane	4.6	U	4.8	U
	2.3	1,2-Dichloropropane	5.3	U	5.5	U
	3.5	1,2-Dichlorotetrafluoroethane	8	U	8.3	U
	2.4	1,3,5-Trimethylbenzene	5.6	U	5.8	U
	3	1,3-Dichlorobenzene	6.9	U	7.2	U
	3	1,4-Dichlorobenzene	6.9	U	7.2	U
	7.2	1,4-Dioxane	16	U	17	U
	8.2	2-Hexanone	**35**		**25**	
	6.3	3-Chloropropene	14	U	15	U
	2.4	4-Ethyltoluene	5.6	U	5.8	U
	12	Acetone	**250**		**150**	
	1.6	Benzene	3.6	U	3.8	U
	2.6	Benzyl chloride	5.9	U	6.2	U
	3.4	Bromodichloromethane	7.7	U	8	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	44	U	46	U
	6.2	Carbon disulfide	**18**		15	U
	3.1	Carbon tetrachloride	7.2	U	7.5	U
	2.3	Chlorobenzene	5.3	U	5.5	U
	5.3	Chloroethane	12	U	12	U
	2.4	Chloroform	5.6	U	5.8	U
	10	Chloromethane	24	U	24	U
	2	cis-1,2-Dichloroethene	4.5	U	4.7	U
	2.3	cis-1,3-Dichloropropene	5.2	U	5.4	U
	4.2	Dibromochloromethane	9.8	U	10	U
	2.2	Ethylbenzene	5	U	5.2	U
	2.8	Freon 11	6.4	U	6.7	U
	3.8	Freon 113	8.8	U	9.1	U
	2.5	Freon 12	5.7	U	5.9	U
	21	Hexachlorobutadiene	49	U	51	U
	1.8	Hexane (N-Hexane)	4	UJ	4.2	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	11	U	12	U
	2.2	m,p-Xylene	5	UJ	5.2	UJ
	5.9	Methyl ethyl ketone	**670**	**J**	**520**	**J**
	2	Methyl isobutyl ketone	4.7	U	4.9	U
	7.2	Methyl Tert-Butyl Ether	16	U	17	U
	17	Methylene chloride	40	U	41	U
	2.2	o-Xylene	5	U	5.2	U
	2.1	Styrene	4.9	U	5.1	U
	3.4	Tetrachloroethene (PCE)	**250**		8.1	U
	41	TNMOC ref. to Heptane (MW=100)	**1400**		**940**	
	1.9	Toluene	4.3	U	4.5	U
	2	trans-1,2-Dichloroethene	4.5	U	4.7	U
	2.3	trans-1,3-Dichloropropene	5.2	U	5.4	U
	2.7	Trichloroethene (TCE)	**6.2**		6.4	U
	7	Vinyl acetate	16	U	17	U
	1.3	Vinyl chloride	2.9	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-18_062718		OC_SVE_VMP-20_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-01A		1807022-12A	
	RL	Dilution Factor	2.42		2.47	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.7	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	8.5	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.7	U
	2	1,1-Dichloroethane	4.9	U	5	U
	2	1,1-Dichloroethene	4.8	U	4.9	U
	5.4	1,1-Difluoroethane	13	U	13	U
	15	1,2,4-Trichlorobenzene	36	U	37	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	6.1	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	9.5	U
	3	1,2-Dichlorobenzene	7.3	U	7.4	U
	2	1,2-Dichloroethane	4.9	U	5	U
	2.3	1,2-Dichloropropane	5.6	U	5.7	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.6	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	6.1	U
	3	1,3-Dichlorobenzene	7.3	U	7.4	U
	3	1,4-Dichlorobenzene	7.3	U	7.4	U
	7.2	1,4-Dioxane	17	U	18	U
	8.2	2-Hexanone	20	U	**68**	
	6.3	3-Chloropropene	15	U	15	U
	2.4	4-Ethyltoluene	5.9	U	6.1	U
	12	Acetone	**310**		**370**	
	1.6	Benzene	**8.1**		3.9	U
	2.6	Benzyl chloride	6.3	U	6.4	U
	3.4	Bromodichloromethane	8.1	U	8.3	U
	5.2	Bromoform	12	U	13	U
	19	Bromomethane	47	U	48	U
	6.2	Carbon disulfide	**84**		15	U
	3.1	Carbon tetrachloride	7.6	U	7.8	U
	2.3	Chlorobenzene	5.6	U	5.7	U
	5.3	Chloroethane	13	U	13	U
	2.4	Chloroform	5.9	U	6	U
	10	Chloromethane	25	U	26	U
	2	cis-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.6	U
	4.2	Dibromochloromethane	10	U	10	U
	2.2	Ethylbenzene	5.2	U	5.4	U
	2.8	Freon 11	6.8	U	6.9	U
	3.8	Freon 113	9.3	U	9.5	U
	2.5	Freon 12	6	U	6.1	U
	21	Hexachlorobutadiene	52	U	53	U
	1.8	Hexane (N-Hexane)	**69**	**J**	**4.5**	**J**
	4.9	Isopropyl Alcohol (Isopropanol)	**21**		**15**	
	2.2	m,p-Xylene	5.2	UJ	5.4	UJ
	5.9	Methyl ethyl ketone	**72**	**J**	**1500**	**J**
	2	Methyl isobutyl ketone	5	U	5	U
	7.2	Methyl Tert-Butyl Ether	17	U	18	U
	17	Methylene chloride	42	U	43	U
	2.2	o-Xylene	5.2	U	5.4	U
	2.1	Styrene	5.2	U	5.3	U
	3.4	Tetrachloroethene (PCE)	**38**		**48**	
	41	TNMOC ref. to Heptane (MW=100)	**1300**		**1700**	
	1.9	Toluene	4.6	U	4.6	U
	2	trans-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.6	U
	2.7	Trichloroethene (TCE)	**10**		6.6	U
	7	Vinyl acetate	17	U	17	U
	1.3	Vinyl chloride	3.1	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-21_062718		OC_SVE_VMP-21_062718K	
		Sample Type	N		FD	
		Lab Sample ID	1807022-13A		1807022-14A	
	RL	Dilution Factor	2.42		2.47	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.7	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	8.5	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.7	U
	2	1,1-Dichloroethane	4.9	U	5	U
	2	1,1-Dichloroethene	4.8	U	4.9	U
	5.4	1,1-Difluoroethane	13	U	13	U
	15	1,2,4-Trichlorobenzene	36	U	37	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	6.1	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	9.5	U
	3	1,2-Dichlorobenzene	7.3	U	7.4	U
	2	1,2-Dichloroethane	4.9	U	5	U
	2.3	1,2-Dichloropropane	5.6	U	5.7	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.6	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	6.1	U
	3	1,3-Dichlorobenzene	7.3	U	7.4	U
	3	1,4-Dichlorobenzene	7.3	U	7.4	U
	7.2	1,4-Dioxane	17	U	18	U
	8.2	2-Hexanone	**90**		**56**	
	6.3	3-Chloropropene	15	U	15	U
	2.4	4-Ethyltoluene	5.9	U	6.1	U
	12	Acetone	**230**		**200**	
	1.6	Benzene	**6**		3.9	U
	2.6	Benzyl chloride	6.3	U	6.4	U
	3.4	Bromodichloromethane	8.1	U	8.3	U
	5.2	Bromoform	12	U	13	U
	19	Bromomethane	47	U	48	U
	6.2	Carbon disulfide	**65**		**78**	
	3.1	Carbon tetrachloride	7.6	U	7.8	U
	2.3	Chlorobenzene	5.6	U	5.7	U
	5.3	Chloroethane	13	U	13	U
	2.4	Chloroform	5.9	U	6	U
	10	Chloromethane	25	U	26	U
	2	cis-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.6	U
	4.2	Dibromochloromethane	10	U	10	U
	2.2	Ethylbenzene	5.2	U	5.4	U
	2.8	Freon 11	6.8	U	6.9	U
	3.8	Freon 113	9.3	U	9.5	U
	2.5	Freon 12	6	U	6.1	U
	21	Hexachlorobutadiene	52	U	53	U
	1.8	Hexane (N-Hexane)	**13**		4.4	U
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
	2.2	m,p-Xylene	**5.5**		5.4	U
	5.9	Methyl ethyl ketone	**1400**	**J**	**1100**	**J**
	2	Methyl isobutyl ketone	5	U	5	U
	7.2	Methyl Tert-Butyl Ether	17	U	18	U
	17	Methylene chloride	42	U	43	U
	2.2	o-Xylene	5.2	U	5.4	U
	2.1	Styrene	5.2	U	5.3	U
	3.4	Tetrachloroethene (PCE)	**22**		**27**	
	41	TNMOC ref. to Heptane (MW=100)	**1600**		**1200**	
	1.9	Toluene	4.6	U	4.6	U
	2	trans-1,2-Dichloroethene	4.8	U	4.9	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.6	U
	2.7	Trichloroethene (TCE)	6.5	U	6.6	U
	7	Vinyl acetate	17	U	17	U
	1.3	Vinyl chloride	3.1	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-22_062718		OC_SVE_VMP-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-03A		1807022-22A	
	RL	Dilution Factor	2.42		2.3	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.3	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	7.9	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.3	U
	2	1,1-Dichloroethane	4.9	U	4.6	U
	2	1,1-Dichloroethene	4.8	U	4.6	U
	5.4	1,1-Difluoroethane	13	U	12	U
	15	1,2,4-Trichlorobenzene	36	U	34	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	5.6	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	8.8	U
	3	1,2-Dichlorobenzene	7.3	U	6.9	U
	2	1,2-Dichloroethane	4.9	U	4.6	U
	2.3	1,2-Dichloropropane	5.6	U	5.3	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	5.6	U
	3	1,3-Dichlorobenzene	7.3	U	6.9	U
	3	1,4-Dichlorobenzene	7.3	U	6.9	U
	7.2	1,4-Dioxane	17	U	16	U
	8.2	2-Hexanone	20	U	**21**	
	6.3	3-Chloropropene	15	U	14	U
	2.4	4-Ethyltoluene	5.9	U	5.6	U
	12	Acetone	**120**		**480**	
	1.6	Benzene	3.9	U	3.7	U
	2.6	Benzyl chloride	6.3	U	6	U
	3.4	Bromodichloromethane	8.1	U	7.7	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	47	U	45	U
	6.2	Carbon disulfide	**15**		14	U
	3.1	Carbon tetrachloride	7.6	U	7.2	U
	2.3	Chlorobenzene	5.6	U	5.3	U
	5.3	Chloroethane	13	U	12	U
	2.4	Chloroform	5.9	U	5.6	U
	10	Chloromethane	25	U	24	U
	2	cis-1,2-Dichloroethene	4.8	U	4.6	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.2	U
	4.2	Dibromochloromethane	10	U	9.8	U
	2.2	Ethylbenzene	5.2	U	5	U
	2.8	Freon 11	6.8	U	6.5	U
	3.8	Freon 113	9.3	U	8.8	U
	2.5	Freon 12	6	U	5.7	U
	21	Hexachlorobutadiene	52	U	49	U
	1.8	Hexane (N-Hexane)	4.3	UJ	4	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	11	U
	2.2	m,p-Xylene	5.2	UJ	5	UJ
	5.9	Methyl ethyl ketone	**230**	**J**	**310**	**J**
	2	Methyl isobutyl ketone	5	U	4.7	U
	7.2	Methyl Tert-Butyl Ether	17	U	16	U
	17	Methylene chloride	42	U	40	U
	2.2	o-Xylene	5.2	U	5	U
	2.1	Styrene	5.2	U	4.9	U
	3.4	Tetrachloroethene (PCE)	**39**		**15**	
	41	TNMOC ref. to Heptane (MW=100)	**570**		**900**	
	1.9	Toluene	4.6	U	4.3	U
	2	trans-1,2-Dichloroethene	4.8	U	4.6	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.2	U
	2.7	Trichloroethene (TCE)	6.5	U	6.2	U
	7	Vinyl acetate	17	U	16	U
	1.3	Vinyl chloride	3.1	U	2.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample	Normal			
		Field Sample ID	OC_SVE_VMP-26_062718		OC_SVE_VMP-27_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-15A		1807022-21A	
	RL	Dilution Factor	2.42		2.2	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	7.6	U
	2.7	1,1,2-Trichloroethane	6.6	U	6	U
	2	1,1-Dichloroethane	4.9	U	4.4	U
	2	1,1-Dichloroethene	4.8	U	4.4	U
	5.4	1,1-Difluoroethane	13	U	12	U
	15	1,2,4-Trichlorobenzene	36	U	33	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	5.4	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	8.4	U
	3	1,2-Dichlorobenzene	7.3	U	6.6	U
	2	1,2-Dichloroethane	4.9	U	4.4	U
	2.3	1,2-Dichloropropane	5.6	U	5.1	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	7.7	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	5.4	U
	3	1,3-Dichlorobenzene	7.3	U	6.6	U
	3	1,4-Dichlorobenzene	7.3	U	6.6	U
	7.2	1,4-Dioxane	17	U	16	U
	8.2	2-Hexanone	**54**		**23**	
	6.3	3-Chloropropene	15	U	14	U
	2.4	4-Ethyltoluene	5.9	U	5.4	U
	12	Acetone	**160**		**590**	
	1.6	Benzene	3.9	U	3.5	U
	2.6	Benzyl chloride	6.3	U	5.7	U
	3.4	Bromodichloromethane	8.1	U	7.4	U
	5.2	Bromoform	12	U	11	U
	19	Bromomethane	47	U	43	U
	6.2	Carbon disulfide	**37**		**49**	
	3.1	Carbon tetrachloride	7.6	U	6.9	U
	2.3	Chlorobenzene	5.6	U	5.1	U
	5.3	Chloroethane	13	U	12	U
	2.4	Chloroform	5.9	U	5.4	U
	10	Chloromethane	25	U	23	U
	2	cis-1,2-Dichloroethene	4.8	U	4.4	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5	U
	4.2	Dibromochloromethane	10	U	9.4	U
	2.2	Ethylbenzene	5.2	U	4.8	U
	2.8	Freon 11	6.8	U	6.2	U
	3.8	Freon 113	9.3	U	8.4	U
	2.5	Freon 12	6	U	5.4	U
	21	Hexachlorobutadiene	52	U	47	U
	1.8	Hexane (N-Hexane)	4.3	UJ	3.9	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	**28**	
	2.2	m,p-Xylene	5.2	UJ	**5.8**	**J**
	5.9	Methyl ethyl ketone	**900**	**J**	**360**	**J**
	2	Methyl isobutyl ketone	5	U	4.5	U
	7.2	Methyl Tert-Butyl Ether	17	U	16	U
	17	Methylene chloride	42	U	38	U
	2.2	o-Xylene	5.2	U	4.8	U
	2.1	Styrene	5.2	U	4.7	U
	3.4	Tetrachloroethene (PCE)	8.2	U	7.5	U
	41	TNMOC ref. to Heptane (MW=100)	**1100**		**820**	
	1.9	Toluene	4.6	U	4.1	U
	2	trans-1,2-Dichloroethene	4.8	U	4.4	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5	U
	2.7	Trichloroethene (TCE)	6.5	U	5.9	U
	7	Vinyl acetate	17	U	15	U
	1.3	Vinyl chloride	3.1	U	2.8	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-31-24_062818		OC_SVE_VMP-32-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-25A		1807022-23A	
	RL	Dilution Factor	2.42		2.42	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.6	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	8.3	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.6	U
	2	1,1-Dichloroethane	4.9	U	4.9	U
	2	1,1-Dichloroethene	4.8	U	4.8	U
	5.4	1,1-Difluoroethane	13	U	13	U
	15	1,2,4-Trichlorobenzene	36	U	36	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	5.9	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	9.3	U
	3	1,2-Dichlorobenzene	7.3	U	7.3	U
	2	1,2-Dichloroethane	4.9	U	4.9	U
	2.3	1,2-Dichloropropane	5.6	U	5.6	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.4	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	5.9	U
	3	1,3-Dichlorobenzene	7.3	U	7.3	U
	3	1,4-Dichlorobenzene	7.3	U	7.3	U
	7.2	1,4-Dioxane	17	U	17	U
	8.2	2-Hexanone	**29**		**27**	
	6.3	3-Chloropropene	15	U	15	U
	2.4	4-Ethyltoluene	5.9	U	5.9	U
	12	Acetone	**140**		**80**	
	1.6	Benzene	**4.8**		3.9	U
	2.6	Benzyl chloride	6.3	U	6.3	U
	3.4	Bromodichloromethane	8.1	U	8.1	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	47	U	47	U
	6.2	Carbon disulfide	15	U	15	U
	3.1	Carbon tetrachloride	7.6	U	7.6	U
	2.3	Chlorobenzene	5.6	U	5.6	U
	5.3	Chloroethane	13	U	13	U
	2.4	Chloroform	5.9	U	5.9	U
	10	Chloromethane	25	U	25	U
	2	cis-1,2-Dichloroethene	4.8	U	4.8	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.5	U
	4.2	Dibromochloromethane	10	U	10	U
	2.2	Ethylbenzene	5.2	U	5.2	U
	2.8	Freon 11	6.8	U	6.8	U
	3.8	Freon 113	9.3	U	9.3	U
	2.5	Freon 12	6	U	6	U
	21	Hexachlorobutadiene	52	U	52	U
	1.8	Hexane (N-Hexane)	**8.5**	**J**	**13**	**J**
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
	2.2	m,p-Xylene	**7.5**	**J**	5.2	UJ
	5.9	Methyl ethyl ketone	**470**	**J**	**310**	**J**
	2	Methyl isobutyl ketone	5	U	5	U
	7.2	Methyl Tert-Butyl Ether	**33**		**22**	
	17	Methylene chloride	42	U	42	U
	2.2	o-Xylene	5.2	U	5.2	U
	2.1	Styrene	5.2	U	5.2	U
	3.4	Tetrachloroethene (PCE)	**15**		8.2	U
	41	TNMOC ref. to Heptane (MW=100)	**2400**		**4100**	
	1.9	Toluene	4.6	U	4.6	U
	2	trans-1,2-Dichloroethene	4.8	U	4.8	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.5	U
	2.7	Trichloroethene (TCE)	6.5	U	6.5	U
	7	Vinyl acetate	17	U	17	U
	1.3	Vinyl chloride	3.1	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-32-60_062818		OC_SVE_VMP-43-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-24A		1807022-18A	
	RL	Dilution Factor	2.58		2.38	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	7	U	6.5	U
	3.4	1,1,2,2-Tetrachloroethane	8.8	U	8.2	U
	2.7	1,1,2-Trichloroethane	7	U	6.5	U
	2	1,1-Dichloroethane	5.2	U	4.8	U
	2	1,1-Dichloroethene	5.1	U	4.7	U
	5.4	1,1-Difluoroethane	14	U	13	U
	15	1,2,4-Trichlorobenzene	38	U	35	U
	2.4	1,2,4-Trimethylbenzene	6.3	U	5.8	U
	3.8	1,2-Dibromoethane (EDB)	9.9	U	9.1	U
	3	1,2-Dichlorobenzene	7.8	U	7.2	U
	2	1,2-Dichloroethane	5.2	U	4.8	U
	2.3	1,2-Dichloropropane	6	U	5.5	U
	3.5	1,2-Dichlorotetrafluoroethane	9	U	8.3	U
	2.4	1,3,5-Trimethylbenzene	6.3	U	5.8	U
	3	1,3-Dichlorobenzene	7.8	U	7.2	U
	3	1,4-Dichlorobenzene	7.8	U	7.2	U
	7.2	1,4-Dioxane	18	U	17	U
	8.2	2-Hexanone	**32**		**28**	
	6.3	3-Chloropropene	16	U	15	U
	2.4	4-Ethyltoluene	6.3	U	5.8	U
	12	Acetone	**120**		**73**	
	1.6	Benzene	4.1	U	3.8	U
	2.6	Benzyl chloride	6.7	U	6.2	U
	3.4	Bromodichloromethane	8.6	U	8	U
	5.2	Bromoform	13	U	12	U
	19	Bromomethane	50	U	46	U
	6.2	Carbon disulfide	16	U	15	U
	3.1	Carbon tetrachloride	8.1	U	7.5	U
	2.3	Chlorobenzene	5.9	U	5.5	U
	5.3	Chloroethane	14	U	12	U
	2.4	Chloroform	6.3	U	5.8	U
	10	Chloromethane	27	U	24	U
	2	cis-1,2-Dichloroethene	5.1	U	4.7	U
	2.3	cis-1,3-Dichloropropene	5.8	U	5.4	U
	4.2	Dibromochloromethane	11	U	10	U
	2.2	Ethylbenzene	5.6	U	5.2	U
	2.8	Freon 11	7.2	U	6.7	U
	3.8	Freon 113	9.9	U	9.1	U
	2.5	Freon 12	6.4	U	5.9	U
	21	Hexachlorobutadiene	55	U	51	U
	1.8	Hexane (N-Hexane)	4.5	UJ	**67**	**J**
	4.9	Isopropyl Alcohol (Isopropanol)	13	U	12	U
	2.2	m,p-Xylene	5.6	UJ	**6.2**	**J**
	5.9	Methyl ethyl ketone	**420**	**J**	**270**	**J**
	2	Methyl isobutyl ketone	5.3	U	4.9	U
	7.2	Methyl Tert-Butyl Ether	19	U	17	U
	17	Methylene chloride	45	U	41	U
	2.2	o-Xylene	5.6	U	5.2	U
	2.1	Styrene	5.5	U	5.1	U
	3.4	Tetrachloroethene (PCE)	**12**		8.1	U
	41	TNMOC ref. to Heptane (MW=100)	**820**		**820**	
	1.9	Toluene	4.9	U	4.5	U
	2	trans-1,2-Dichloroethene	5.1	U	4.7	U
	2.3	trans-1,3-Dichloropropene	5.8	U	5.4	U
	2.7	Trichloroethene (TCE)	6.9	U	6.4	U
	7	Vinyl acetate	18	U	17	U
	1.3	Vinyl chloride	3.3	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-5_062718		OC_SVE_VMP-92-70_062718	
		Sample Type	N		N	
		Lab Sample ID	1807022-02A		1807022-04A	
	RL	Dilution Factor	2.38		3.81	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.5	U	**13**	
	3.4	1,1,2,2-Tetrachloroethane	8.2	U	13	U
	2.7	1,1,2-Trichloroethane	6.5	U	10	U
	2	1,1-Dichloroethane	4.8	U	7.7	U
	2	1,1-Dichloroethene	**160**		**1200**	
	5.4	1,1-Difluoroethane	13	U	20	U
	15	1,2,4-Trichlorobenzene	35	U	56	U
	2.4	1,2,4-Trimethylbenzene	5.8	U	9.4	U
	3.8	1,2-Dibromoethane (EDB)	9.1	U	15	U
	3	1,2-Dichlorobenzene	7.2	U	11	U
	2	1,2-Dichloroethane	4.8	U	7.7	U
	2.3	1,2-Dichloropropane	5.5	U	8.8	U
	3.5	1,2-Dichlorotetrafluoroethane	8.3	U	13	U
	2.4	1,3,5-Trimethylbenzene	5.8	U	9.4	U
	3	1,3-Dichlorobenzene	7.2	U	11	U
	3	1,4-Dichlorobenzene	7.2	U	11	U
	7.2	1,4-Dioxane	17	U	27	U
	8.2	2-Hexanone	19	U	31	U
	6.3	3-Chloropropene	15	U	24	U
	2.4	4-Ethyltoluene	5.8	U	9.4	U
	12	Acetone	**140**		**99**	
	1.6	Benzene	**6.4**		6.1	U
	2.6	Benzyl chloride	6.2	U	9.9	U
	3.4	Bromodichloromethane	8	U	13	U
	5.2	Bromoform	12	U	20	U
	19	Bromomethane	46	U	74	U
	6.2	Carbon disulfide	**84**		24	U
	3.1	Carbon tetrachloride	7.5	U	12	U
	2.3	Chlorobenzene	5.5	U	8.8	U
	5.3	Chloroethane	12	U	20	U
	2.4	Chloroform	**12**		**18**	
	10	Chloromethane	24	U	39	U
	2	cis-1,2-Dichloroethene	4.7	U	7.6	U
	2.3	cis-1,3-Dichloropropene	5.4	U	8.6	U
	4.2	Dibromochloromethane	10	U	16	U
	2.2	Ethylbenzene	5.2	U	8.3	U
	2.8	Freon 11	6.7	U	**300**	
	3.8	Freon 113	9.1	U	**1200**	
	2.5	Freon 12	5.9	U	9.4	U
	21	Hexachlorobutadiene	51	U	81	U
	1.8	Hexane (N-Hexane)	**28**	**J**	6.7	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	19	U
	2.2	m,p-Xylene	5.2	UJ	8.3	UJ
	5.9	Methyl ethyl ketone	**260**	**J**	**320**	**J**
	2	Methyl isobutyl ketone	4.9	U	7.8	U
	7.2	Methyl Tert-Butyl Ether	17	U	27	U
	17	Methylene chloride	41	U	66	U
	2.2	o-Xylene	5.2	U	8.3	U
	2.1	Styrene	5.1	U	8.1	U
	3.4	Tetrachloroethene (PCE)	**1500**		**5000**	
	41	TNMOC ref. to Heptane (MW=100)	**2500**		**18000**	
	1.9	Toluene	**4.4**	**J**	7.2	U
	2	trans-1,2-Dichloroethene	**37**		7.6	U
	2.3	trans-1,3-Dichloropropene	5.4	U	8.6	U
	2.7	Trichloroethene (TCE)	**260**		**210**	
	7	Vinyl acetate	17	U	27	U
	1.3	Vinyl chloride	3	U	4.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-93-60_062718		OC_SVE_VMP-94-24_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-11A		1807022-16A	
	RL	Dilution Factor	7.22		2.24	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	20	U	6.1	U
	3.4	1,1,2,2-Tetrachloroethane	25	U	7.7	U
	2.7	1,1,2-Trichloroethane	20	U	6.1	U
	2	1,1-Dichloroethane	15	U	4.5	U
	2	1,1-Dichloroethene	14	U	4.4	U
	5.4	1,1-Difluoroethane	39	U	12	U
	15	1,2,4-Trichlorobenzene	110	U	33	U
	2.4	1,2,4-Trimethylbenzene	18	U	5.5	U
	3.8	1,2-Dibromoethane (EDB)	28	U	8.6	U
	3	1,2-Dichlorobenzene	22	U	6.7	U
	2	1,2-Dichloroethane	15	U	4.5	U
	2.3	1,2-Dichloropropane	17	U	5.2	U
	3.5	1,2-Dichlorotetrafluoroethane	25	U	7.8	U
	2.4	1,3,5-Trimethylbenzene	18	U	5.5	U
	3	1,3-Dichlorobenzene	22	U	6.7	U
	3	1,4-Dichlorobenzene	22	U	6.7	U
	7.2	1,4-Dioxane	52	U	16	U
	8.2	2-Hexanone	**61**		**41**	
	6.3	3-Chloropropene	45	U	14	U
	2.4	4-Ethyltoluene	18	U	5.5	U
	12	Acetone	**380**		**62**	
	1.6	Benzene	12	U	3.6	U
	2.6	Benzyl chloride	19	U	5.8	U
	3.4	Bromodichloromethane	24	U	7.5	U
	5.2	Bromoform	37	U	12	U
	19	Bromomethane	140	U	43	U
	6.2	Carbon disulfide	45	U	14	U
	3.1	Carbon tetrachloride	23	U	7	U
	2.3	Chlorobenzene	17	U	5.2	U
	5.3	Chloroethane	38	U	12	U
	2.4	Chloroform	**32**		5.5	U
	10	Chloromethane	74	U	23	U
	2	cis-1,2-Dichloroethene	14	U	4.4	U
	2.3	cis-1,3-Dichloropropene	16	U	5.1	U
	4.2	Dibromochloromethane	31	U	9.5	U
	2.2	Ethylbenzene	16	U	4.9	U
	2.8	Freon 11	**34**		6.3	U
	3.8	Freon 113	**180**		8.6	U
	2.5	Freon 12	18	U	5.5	U
	21	Hexachlorobutadiene	150	U	48	U
	1.8	Hexane (N-Hexane)	13	UJ	3.9	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	35	U	11	U
	2.2	m,p-Xylene	16	UJ	**6.1**	**J**
	5.9	Methyl ethyl ketone	**1400**	**J**	**5600**	**J**
	2	Methyl isobutyl ketone	15	U	4.6	U
	7.2	Methyl Tert-Butyl Ether	52	U	16	U
	17	Methylene chloride	120	U	39	U
	2.2	o-Xylene	16	U	4.9	U
	2.1	Styrene	15	U	**7.8**	
	3.4	Tetrachloroethene (PCE)	**9400**		7.6	U
	41	TNMOC ref. to Heptane (MW=100)	**11000**		**2400**	
	1.9	Toluene	14	U	4.2	U
	2	trans-1,2-Dichloroethene	14	U	4.4	U
	2.3	trans-1,3-Dichloropropene	16	U	5.1	U
	2.7	Trichloroethene (TCE)	**68**		6	U
	7	Vinyl acetate	51	U	16	U
	1.3	Vinyl chloride	9.2	U	2.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-94-60_062818		OC_SVE_VMP-95-60_062818	
		Sample Type	N		N	
		Lab Sample ID	1807022-17A		1807022-19A	
	RL	Dilution Factor	2.29		2.38	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.2	U	6.5	U
	3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.2	U
	2.7	1,1,2-Trichloroethane	6.2	U	6.5	U
	2	1,1-Dichloroethane	4.6	U	4.8	U
	2	1,1-Dichloroethene	4.5	U	4.7	U
	5.4	1,1-Difluoroethane	12	U	13	U
	15	1,2,4-Trichlorobenzene	34	U	35	U
	2.4	1,2,4-Trimethylbenzene	5.6	U	5.8	U
	3.8	1,2-Dibromoethane (EDB)	8.8	U	9.1	U
	3	1,2-Dichlorobenzene	6.9	U	7.2	U
	2	1,2-Dichloroethane	4.6	U	4.8	U
	2.3	1,2-Dichloropropane	5.3	U	5.5	U
	3.5	1,2-Dichlorotetrafluoroethane	8	U	8.3	U
	2.4	1,3,5-Trimethylbenzene	5.6	U	5.8	U
	3	1,3-Dichlorobenzene	6.9	U	7.2	U
	3	1,4-Dichlorobenzene	6.9	U	7.2	U
	7.2	1,4-Dioxane	16	U	17	U
	8.2	2-Hexanone	**22**		**22**	
	6.3	3-Chloropropene	14	U	15	U
	2.4	4-Ethyltoluene	5.6	U	5.8	U
	12	Acetone	**61**		**52**	
	1.6	Benzene	3.6	U	3.8	U
	2.6	Benzyl chloride	5.9	U	6.2	U
	3.4	Bromodichloromethane	7.7	U	8	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	44	U	46	U
	6.2	Carbon disulfide	14	U	15	U
	3.1	Carbon tetrachloride	7.2	U	7.5	U
	2.3	Chlorobenzene	5.3	U	5.5	U
	5.3	Chloroethane	12	U	12	U
	2.4	Chloroform	5.6	U	5.8	U
	10	Chloromethane	24	U	24	U
	2	cis-1,2-Dichloroethene	4.5	U	4.7	U
	2.3	cis-1,3-Dichloropropene	5.2	U	5.4	U
	4.2	Dibromochloromethane	9.8	U	10	U
	2.2	Ethylbenzene	5	U	**6**	
	2.8	Freon 11	**6.5**		6.7	U
	3.8	Freon 113	**55**		9.1	U
	2.5	Freon 12	5.7	U	5.9	U
	21	Hexachlorobutadiene	49	U	51	U
	1.8	Hexane (N-Hexane)	4	UJ	4.2	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	**18**		12	U
	2.2	m,p-Xylene	5	UJ	**18**	**J**
	5.9	Methyl ethyl ketone	**230**	**J**	**250**	**J**
	2	Methyl isobutyl ketone	4.7	U	4.9	U
	7.2	Methyl Tert-Butyl Ether	16	U	17	U
	17	Methylene chloride	40	U	41	U
	2.2	o-Xylene	5	U	**7.6**	
	2.1	Styrene	4.9	U	5.1	U
	3.4	Tetrachloroethene (PCE)	**25**		8.1	U
	41	TNMOC ref. to Heptane (MW=100)	**6500**		**490**	
	1.9	Toluene	4.3	U	4.5	U
	2	trans-1,2-Dichloroethene	4.5	U	4.7	U
	2.3	trans-1,3-Dichloropropene	5.2	U	5.4	U
	2.7	Trichloroethene (TCE)	6.2	U	6.4	U
	7	Vinyl acetate	16	U	17	U
	1.3	Vinyl chloride	2.9	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807022
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample		
		Field Sample ID	OC_SVE_VMP-95-60_062818K	
		Sample Type	FD	
		Lab Sample ID	1807022-20A	
	RL	Dilution Factor	2.33	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.4	U
	3.4	1,1,2,2-Tetrachloroethane	8	U
	2.7	1,1,2-Trichloroethane	6.4	U
	2	1,1-Dichloroethane	4.7	U
	2	1,1-Dichloroethene	4.6	U
	5.4	1,1-Difluoroethane	12	U
	15	1,2,4-Trichlorobenzene	34	U
	2.4	1,2,4-Trimethylbenzene	5.7	U
	3.8	1,2-Dibromoethane (EDB)	9	U
	3	1,2-Dichlorobenzene	7	U
	2	1,2-Dichloroethane	4.7	U
	2.3	1,2-Dichloropropane	5.4	U
	3.5	1,2-Dichlorotetrafluoroethane	8.1	U
	2.4	1,3,5-Trimethylbenzene	5.7	U
	3	1,3-Dichlorobenzene	7	U
	3	1,4-Dichlorobenzene	7	U
	7.2	1,4-Dioxane	17	U
	8.2	2-Hexanone	19	U
	6.3	3-Chloropropene	14	U
	2.4	4-Ethyltoluene	5.7	U
	12	Acetone	**35**	
	1.6	Benzene	3.7	U
	2.6	Benzyl chloride	6	U
	3.4	Bromodichloromethane	7.8	U
	5.2	Bromoform	12	U
	19	Bromomethane	45	U
	6.2	Carbon disulfide	14	U
	3.1	Carbon tetrachloride	7.3	U
	2.3	Chlorobenzene	5.4	U
	5.3	Chloroethane	12	U
	2.4	Chloroform	5.7	U
	10	Chloromethane	24	U
	2	cis-1,2-Dichloroethene	4.6	U
	2.3	cis-1,3-Dichloropropene	5.3	U
	4.2	Dibromochloromethane	9.9	U
	2.2	Ethylbenzene	5	U
	2.8	Freon 11	6.5	U
	3.8	Freon 113	8.9	U
	2.5	Freon 12	5.8	U
	21	Hexachlorobutadiene	50	U
	1.8	Hexane (N-Hexane)	4.1	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	11	U
	2.2	m,p-Xylene	5	UJ
	5.9	Methyl ethyl ketone	**190**	**J**
	2	Methyl isobutyl ketone	4.8	U
	7.2	Methyl Tert-Butyl Ether	17	U
	17	Methylene chloride	40	U
	2.2	o-Xylene	5	U
	2.1	Styrene	5	U
	3.4	Tetrachloroethene (PCE)	**9.8**	
	41	TNMOC ref. to Heptane (MW=100)	**110**	
	1.9	Toluene	4.4	U
	2	trans-1,2-Dichloroethene	4.6	U
	2.3	trans-1,3-Dichloropropene	5.3	U
	2.7	Trichloroethene (TCE)	6.3	U
	7	Vinyl acetate	16	U
	1.3	Vinyl chloride	3	U

DATA VALIDATION

FOR

SOIL VAPOR EXTRACTION SYSTEM
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air
Laboratory Job Nos.

1807025

Analyses Performed
By:

Eurofins Air Toxics
Folsom, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

August 2, 2018

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EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Eurofins Air Toxics for six SVE air samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). The one sample receiving full validation represents 10% of the total number of SVE air samples received and analyzed by Air Toxics. The data were reported under Laboratory Job No. 1807025. Full validation was performed on the sample identifications that have been **bolded**. The following samples were reported.

OC_SVE_VMP-39-24_062718	OC_SVE_VMP-40-24_062718
OC_SVE_VMP-41-24_062718	OC_SVE_VMP-84-24_062718
OC_SVE_VMP-23_062818	OC_SVE_VMP-25_062818

Based on the validation effort, results for methyl ethyl ketone, hexane, and m,p-xylene in all samples were qualified as estimated (J). All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered <u>part of the data package</u> for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA TO-15. This methodology does not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review of the samples receiving full data validation.

The data validation and review were performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010" and ddms' Standard Operating Procedure: Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17 (ECS-SOP-001). Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

JN The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the Data Summary Forms contained in Attachment A to indicate qualifications placed on the results based on the data review.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates of June 27, and June 28, 2018. The samples were analyzed within the hold times specified in the method.

II. GC/MS Instrument Performance Check

Summary forms were appropriately provided for bromofluorobenzene (BFB) instrument performance checks run representing each period during which the samples or associated standards were analyzed. All of the performance checks were acceptable.

III. Calibration

A. Initial Calibration (IC)

Summary results were provided for one initial calibration (IC) in support of sample analyses. Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed.

Documentation of all the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All RRFs were acceptable and reported %RSD values were below the maximum acceptance limit of 30 percent as defined in the project-specific QAPP. Initial Calibration Verification (ICV) percent differences (%Ds) were acceptable (<30%D).

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run as appropriate in support of the sample analyses. Documentation was present in the data packages, and the RRFs and the %Ds were acceptable (<30%D).

IV. Blanks

Laboratory method blanks were analyzed on each day samples were analyzed in support of the samples. No target analytes were detected in any of the method blanks at concentrations that would have any impact on sample results.

V. Surrogate Compound Recovery

Recoveries of all surrogate compounds were correctly calculated, accurately reported, and within acceptance limits for the samples receiving full validation. Reported recoveries for the remaining samples met acceptance criteria (70-130%R).

VI. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

LCS/LCSD pairs or LCS were analyzed with each day of sample analyses. Percent recoveries and relative percent difference (RPD) values were acceptable (70-130 %R, 20% RPD) in most cases. In all cases where there was an excursion, it represented an increase in sensitivity and the analyte was not detected. Therefore, no data required qualification due to LCS/LCSD or LCS results.

VII. Field Duplicate Samples

Although no field duplicates were submitted with the samples reported in this SDG, field duplicates were collected and submitted with the samples in SDG 1807022, which were collected during the same sampling event. Based on professional judgement, results for the samples reported in this SDG were qualified due to imprecision between paired field samples reported in SDG 1807022. The following sets of field duplicates were submitted and precision between was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL) except as indicated in red below:

<u>SDG 1807022</u>

- OC_SVE_VMP-11_062718/OC_SVE_VMP-11_062718K

Parameter	Units	OC_SVE_VMP-11_062718		OC_SVE_VMP-11_062718K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
1,1-Difluoroethane	ppbv	6.1		4.9	U	NC	Yes	1.2	9.8
2-Hexanone	ppbv	5.5		4.9	U	NC	Yes	0.6	9.8
Acetone	ppbv	52		37		NC	Yes	15.0	24
Methyl ethyl ketone	ppbv	130		86		**40.7**	No		
Tetrachloroethene (PCE)	ppbv	1.8		1.2	U	NC	Yes	0.6	2.4

- OC_SVE_VMP-21_062718/OC_SVE_VMP-21_062718K

Parameter	Units	OC_SVE_VMP-21_062718		OC_SVE_VMP-21_062718K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
2-Hexanone	ppbv	22		14		NC	Yes	8.0	9.8
Acetone	ppbv	95		86		9.9	No		
Benzene	ppbv	1.9		1.2	U	NC	Yes	0.7	2.4
Carbon disulfide	ppbv	21		25		NC	Yes	4.0	9.8
Hexane (N-Hexane)	ppbv	3.6		1.2	U	NC	Yes	**2.4**	2.4
m,p-Xylene	ppbv	1.3		1.2	U	NC	Yes	0.1	2.4
Methyl ethyl ketone	ppbv	480		370		**25.9**	No		
Tetrachloroethene (PCE)	ppbv	3.3		4		NC	Yes	0.7	2.4

- OC_SVE_VMP-95-60_062818/OC_SVE_VMP-95-60_062818K

Parameter	Units	OC_SVE_VMP-95-60_062818		OC_SVE_VMP-95-60_062818K		RPD	Less than 5X RL	Diff. of 2 results	+- 2X RL
2-Hexanone	ppbv	5.4		4.7	U	NC	Yes	0.7	9.4
Acetone	ppbv	22		15		NC	Yes	7.0	24
Ethylbenzene	ppbv	1.4		1.2	U	NC	Yes	0.2	2.4
m,p-Xylene	ppbv	4.2		1.2	U	NC	Yes	**3.0**	2.4
Methyl ethyl ketone	ppbv	84		64		**27.0**	No		
o-Xylene	ppbv	1.8		1.2	U	NC	Yes	0.6	2.4
Tetrachloroethene (PCE)	ppbv	1.2	U	1.4		NC	Yes	0.2	2.4

Results for methyl ethyl ketone, hexane, and m,p-xylene in all samples were qualified as estimated (J) due to imprecision between field duplicate samples and professional judgement.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

Target analytes were detected in all of the samples and an acceptable mass spectrum was provided for each compound detected.

1,1-Difluoroethane was used in the field at select locations during sample collection for the purpose of leak checking. The 'Advisory – Active Soil Gas Investigations' document by the California Environmental Protection Agency Department of Toxic Substances Control (April 2012) recommends corrective action if the leak check compound is greater than or equal to 10 times the reporting limit for that target analyte. Where detected in the samples identified as having leak tests performed, the reported concentration of 1,1-difluoroethane in the sample was less than ten times the reporting limit.

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for all samples and spike samples. The laboratory's reporting limits (RLs) for benzyl chloride, 2-butanone, 1, 4-dioxane, hexachlorobutadiene, methyl-t-butyl ether, methyl ethyl ketone, methylene chloride, 4-methyl-2-pentanone, styrene, and Freon 13 exceeded the RLs as specified in the project QAPP.

The Data Summary Forms in Attachment A list all individual sample analytes affected by the applied qualifications. All positive results are listed on these forms, whether or not the value or qualifier was changed as a result of the data review. Where no result is listed, the analyte was not detected and the sample-specific reporting limit was not revised or qualified. Sample-specific reporting limits can be calculated from the data summary forms by multiplying the unadjusted reporting limit by the dilution factor.

XI. Tentatively Identified Compounds (TIC)

Tentative identification of non-target compounds was not a requirement for these samples.

XII. System Performance

The analytical systems appear to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the validation effort.

XIV. Overall Assessment

Based on the validation effort, results for methyl ethyl ketone, hexane, and m,p-xylene in all samples were qualified as estimated (J) due to imprecision between field duplicate samples.

All other results were determined to be valid as reported.

No documentation issues were observed in the data package.

This validation report should be considered part of the data package for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
Laboratory Job No.

1807025

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-23_062818		OC_SVE_VMP-25_062818	
		Sample Type	N		N	
		Lab Sample ID	1807025-05A		1807025-06A	
	RL	Dilution Factor	2.42		23.3	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	12	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	12	U
	0.5	1,1,2-Trichloroethane	1.2	U	12	U
	0.5	1,1-Dichloroethane	1.2	U	12	U
	0.5	1,1-Dichloroethene	1.2	U	12	U
	2	1,1-Difluoroethane	4.8	U	47	U
	2	1,2,4-Trichlorobenzene	4.8	U	47	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	12	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	12	U
	0.5	1,2-Dichlorobenzene	1.2	U	12	U
	0.5	1,2-Dichloroethane	1.2	U	12	U
	0.5	1,2-Dichloropropane	1.2	U	12	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	12	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	12	U
	0.5	1,3-Dichlorobenzene	1.2	U	12	U
	0.5	1,4-Dichlorobenzene	1.2	U	12	U
	2	1,4-Dioxane	4.8	U	47	U
	2	2-Hexanone	**4.8**		47	U
	2	3-Chloropropene	4.8	U	47	U
	0.5	4-Ethyltoluene	1.2	U	12	U
	5	Acetone	**31**		**590**	
	0.5	Benzene	1.2	U	12	U
	0.5	Benzyl chloride	1.2	U	12	U
	0.5	Bromodichloromethane	1.2	U	12	U
	0.5	Bromoform	1.2	U	12	U
	5	Bromomethane	12	U	120	U
	2	Carbon disulfide	4.8	U	47	U
	0.5	Carbon tetrachloride	1.2	U	12	U
	0.5	Chlorobenzene	1.2	U	12	U
	2	Chloroethane	4.8	U	47	U
	0.5	Chloroform	1.2	U	12	U
	5	Chloromethane	12	U	120	U
	0.5	cis-1,2-Dichloroethene	1.2	U	12	U
	0.5	cis-1,3-Dichloropropene	1.2	U	12	U
	0.5	Dibromochloromethane	1.2	U	12	U
	0.5	Ethylbenzene	1.2	U	12	U
	0.5	Freon 11	1.2	U	12	U
	0.5	Freon 113	1.2	U	12	U
	0.5	Freon 12	1.2	U	12	U
	2	Hexachlorobutadiene	4.8	U	47	U
	0.5	Hexane (N-Hexane)	1.2	UJ	12	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	47	U
	0.5	m,p-Xylene	1.2	UJ	12	UJ
	2	Methyl ethyl ketone	**83**	**J**	**4500**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	12	U
	2	Methyl Tert-Butyl Ether	4.8	U	47	U
	5	Methylene chloride	12	U	120	U
	0.5	o-Xylene	1.2	U	12	U
	0.5	Styrene	1.2	U	12	U
	0.5	Tetrachloroethene (PCE)	**20**		**15**	
	10	TNMOC ref. to Heptane (MW=100)	**160**		**6200**	
	0.5	Toluene	1.2	U	12	U
	0.5	trans-1,2-Dichloroethene	1.2	U	12	U
	0.5	trans-1,3-Dichloropropene	1.2	U	12	U
	0.5	Trichloroethene (TCE)	1.2	U	12	U
	2	Vinyl acetate	4.8	U	47	U
	0.5	Vinyl chloride	1.2	U	12	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample	Normal			
		Field Sample ID	OC_SVE_VMP-39-24_062718		OC_SVE_VMP-40-24_062718	
		Sample Type	N		N	
		Lab Sample ID	1807025-02A		1807025-04A	
	RL	Dilution Factor	2.33		2.47	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethane	1.2	U	1.2	U
	0.5	1,1-Dichloroethene	1.2	U	1.2	U
	2	1,1-Difluoroethane	4.7	U	4.9	U
	2	1,2,4-Trichlorobenzene	4.7	U	4.9	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,2-Dichloroethane	1.2	U	1.2	U
	0.5	1,2-Dichloropropane	1.2	U	1.2	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
	2	1,4-Dioxane	4.7	U	4.9	U
	2	2-Hexanone	4.7	U	**9.8**	
	2	3-Chloropropene	4.7	U	4.9	U
	0.5	4-Ethyltoluene	1.2	U	1.2	U
	5	Acetone	**20**		**95**	
	0.5	Benzene	1.2	U	1.2	U
	0.5	Benzyl chloride	1.2	U	1.2	U
	0.5	Bromodichloromethane	1.2	U	1.2	U
	0.5	Bromoform	1.2	U	1.2	U
	5	Bromomethane	12	U	12	U
	2	Carbon disulfide	4.7	U	4.9	U
	0.5	Carbon tetrachloride	1.2	U	1.2	U
	0.5	Chlorobenzene	1.2	U	1.2	U
	2	Chloroethane	4.7	U	4.9	U
	0.5	Chloroform	1.2	U	1.2	U
	5	Chloromethane	12	U	12	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Dibromochloromethane	1.2	U	1.2	U
	0.5	Ethylbenzene	1.2	U	1.2	U
	0.5	Freon 11	1.2	U	1.2	U
	0.5	Freon 113	1.2	U	1.2	U
	0.5	Freon 12	1.2	U	1.2	U
	2	Hexachlorobutadiene	4.7	U	4.9	U
	0.5	Hexane (N-Hexane)	1.2	UJ	1.2	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.7	U	**7.2**	
	0.5	m,p-Xylene	1.2	UJ	1.2	UJ
	2	Methyl ethyl ketone	**18**	**J**	**250**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.2	U
	2	Methyl Tert-Butyl Ether	4.7	U	4.9	U
	5	Methylene chloride	12	U	12	U
	0.5	o-Xylene	1.2	U	1.2	U
	0.5	Styrene	1.2	U	1.2	U
	0.5	Tetrachloroethene (PCE)	**2.7**		**10**	
	10	TNMOC ref. to Heptane (MW=100)	**64**		**310**	
	0.5	Toluene	**2.7**		1.2	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
	0.5	Trichloroethene (TCE)	1.2	U	1.2	U
	2	Vinyl acetate	4.7	U	4.9	U
	0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-41-24_062718		OC_SVE_VMP-84-24_062718	
		Sample Type	N		N	
		Lab Sample ID	1807025-03A		1807025-01A	
	RL	Dilution Factor	2.42		2.24	
ppbv	0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.1	U
	0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.1	U
	0.5	1,1,2-Trichloroethane	1.2	U	1.1	U
	0.5	1,1-Dichloroethane	1.2	U	1.1	U
	0.5	1,1-Dichloroethene	1.2	U	1.1	U
	2	1,1-Difluoroethane	4.8	U	4.5	U
	2	1,2,4-Trichlorobenzene	4.8	U	4.5	U
	0.5	1,2,4-Trimethylbenzene	1.2	U	1.1	U
	0.5	1,2-Dibromoethane (EDB)	1.2	U	1.1	U
	0.5	1,2-Dichlorobenzene	1.2	U	1.1	U
	0.5	1,2-Dichloroethane	1.2	U	1.1	U
	0.5	1,2-Dichloropropane	1.2	U	1.1	U
	0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.1	U
	0.5	1,3,5-Trimethylbenzene	1.2	U	1.1	U
	0.5	1,3-Dichlorobenzene	1.2	U	1.1	U
	0.5	1,4-Dichlorobenzene	1.2	U	1.1	U
	2	1,4-Dioxane	4.8	U	4.5	U
	2	2-Hexanone	4.8	U	4.5	U
	2	3-Chloropropene	4.8	U	4.5	U
	0.5	4-Ethyltoluene	1.2	U	1.1	U
	5	Acetone	**26**		**12**	
	0.5	Benzene	1.2	U	1.1	U
	0.5	Benzyl chloride	1.2	U	1.1	U
	0.5	Bromodichloromethane	1.2	U	1.1	U
	0.5	Bromoform	1.2	U	1.1	U
	5	Bromomethane	12	U	11	U
	2	Carbon disulfide	4.8	U	4.5	U
	0.5	Carbon tetrachloride	1.2	U	1.1	U
	0.5	Chlorobenzene	1.2	U	1.1	U
	2	Chloroethane	4.8	U	4.5	U
	0.5	Chloroform	1.2	U	1.1	U
	5	Chloromethane	12	U	11	U
	0.5	cis-1,2-Dichloroethene	1.2	U	1.1	U
	0.5	cis-1,3-Dichloropropene	1.2	U	1.1	U
	0.5	Dibromochloromethane	1.2	U	1.1	U
	0.5	Ethylbenzene	1.2	U	1.1	U
	0.5	Freon 11	1.2	U	**30**	
	0.5	Freon 113	1.2	U	**40**	
	0.5	Freon 12	1.2	U	1.1	U
	2	Hexachlorobutadiene	4.8	U	4.5	U
	0.5	Hexane (N-Hexane)	1.2	UJ	1.1	UJ
	2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.5	U
	0.5	m,p-Xylene	1.2	UJ	1.1	UJ
	2	Methyl ethyl ketone	**49**	**J**	**12**	**J**
	0.5	Methyl isobutyl ketone	1.2	U	1.1	U
	2	Methyl Tert-Butyl Ether	4.8	U	4.5	U
	5	Methylene chloride	12	U	11	U
	0.5	o-Xylene	1.2	U	1.1	U
	0.5	Styrene	1.2	U	1.1	U
	0.5	Tetrachloroethene (PCE)	1.2	U	**110**	
	10	TNMOC ref. to Heptane (MW=100)	**75**		**270**	
	0.5	Toluene	1.2	U	1.1	U
	0.5	trans-1,2-Dichloroethene	1.2	U	1.1	U
	0.5	trans-1,3-Dichloropropene	1.2	U	1.1	U
	0.5	Trichloroethene (TCE)	1.2	U	**36**	
	2	Vinyl acetate	4.8	U	4.5	U
	0.5	Vinyl chloride	1.2	U	1.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-23_062818		OC_SVE_VMP-25_062818	
		Sample Type	N		N	
		Lab Sample ID	1807025-05A		1807025-06A	
	RL	Dilution Factor	2.42		23.3	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	64	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	80	U
	2.7	1,1,2-Trichloroethane	6.6	U	64	U
	2	1,1-Dichloroethane	4.9	U	47	U
	2	1,1-Dichloroethene	4.8	U	46	U
	5.4	1,1-Difluoroethane	13	U	120	U
	15	1,2,4-Trichlorobenzene	36	U	340	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	57	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	90	U
	3	1,2-Dichlorobenzene	7.3	U	70	U
	2	1,2-Dichloroethane	4.9	U	47	U
	2.3	1,2-Dichloropropane	5.6	U	54	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	81	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	57	U
	3	1,3-Dichlorobenzene	7.3	U	70	U
	3	1,4-Dichlorobenzene	7.3	U	70	U
	7.2	1,4-Dioxane	17	U	170	U
	8.2	2-Hexanone	**20**		190	U
	6.3	3-Chloropropene	15	U	140	U
	2.4	4-Ethyltoluene	5.9	U	57	U
	12	Acetone	**74**		**1400**	
	1.6	Benzene	3.9	U	37	U
	2.6	Benzyl chloride	6.3	U	60	U
	3.4	Bromodichloromethane	8.1	U	78	U
	5.2	Bromoform	12	U	120	U
	19	Bromomethane	47	U	450	U
	6.2	Carbon disulfide	15	U	140	U
	3.1	Carbon tetrachloride	7.6	U	73	U
	2.3	Chlorobenzene	5.6	U	54	U
	5.3	Chloroethane	13	U	120	U
	2.4	Chloroform	5.9	U	57	U
	10	Chloromethane	25	U	240	U
	2	cis-1,2-Dichloroethene	4.8	U	46	U
	2.3	cis-1,3-Dichloropropene	5.5	U	53	U
	4.2	Dibromochloromethane	10	U	99	U
	2.2	Ethylbenzene	5.2	U	50	U
	2.8	Freon 11	6.8	U	65	U
	3.8	Freon 113	9.3	U	89	U
	2.5	Freon 12	6	U	58	U
	21	Hexachlorobutadiene	52	U	500	U
	1.8	Hexane (N-Hexane)	4.3	UJ	41	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	110	U
	2.2	m,p-Xylene	5.2	UJ	50	UJ
	5.9	Methyl ethyl ketone	**240**	**J**	**13000**	**J**
	2	Methyl isobutyl ketone	5	U	48	U
	7.2	Methyl Tert-Butyl Ether	17	U	170	U
	17	Methylene chloride	42	U	400	U
	2.2	o-Xylene	5.2	U	50	U
	2.1	Styrene	5.2	U	50	U
	3.4	Tetrachloroethene (PCE)	**140**		**100**	
	41	TNMOC ref. to Heptane (MW=100)	**650**		**25000**	
	1.9	Toluene	4.6	U	44	U
	2	trans-1,2-Dichloroethene	4.8	U	46	U
	2.3	trans-1,3-Dichloropropene	5.5	U	53	U
	2.7	Trichloroethene (TCE)	6.5	U	63	U
	7	Vinyl acetate	17	U	160	U
	1.3	Vinyl chloride	3.1	U	30	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample	Normal			
		Field Sample ID	OC_SVE_VMP-39-24_062718		OC_SVE_VMP-40-24_062718	
		Sample Type	N		N	
		Lab Sample ID	1807025-02A		1807025-04A	
	RL	Dilution Factor	2.33		2.47	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.4	U	6.7	U
	3.4	1,1,2,2-Tetrachloroethane	8	U	8.5	U
	2.7	1,1,2-Trichloroethane	6.4	U	6.7	U
	2	1,1-Dichloroethane	4.7	U	5	U
	2	1,1-Dichloroethene	4.6	U	4.9	U
	5.4	1,1-Difluoroethane	12	U	13	U
	15	1,2,4-Trichlorobenzene	34	U	37	U
	2.4	1,2,4-Trimethylbenzene	5.7	U	6.1	U
	3.8	1,2-Dibromoethane (EDB)	9	U	9.5	U
	3	1,2-Dichlorobenzene	7	U	7.4	U
	2	1,2-Dichloroethane	4.7	U	5	U
	2.3	1,2-Dichloropropane	5.4	U	5.7	U
	3.5	1,2-Dichlorotetrafluoroethane	8.1	U	8.6	U
	2.4	1,3,5-Trimethylbenzene	5.7	U	6.1	U
	3	1,3-Dichlorobenzene	7	U	7.4	U
	3	1,4-Dichlorobenzene	7	U	7.4	U
	7.2	1,4-Dioxane	17	U	18	U
	8.2	2-Hexanone	19	U	**40**	
	6.3	3-Chloropropene	14	U	15	U
	2.4	4-Ethyltoluene	5.7	U	6.1	U
	12	Acetone	**49**		**220**	
	1.6	Benzene	3.7	U	3.9	U
	2.6	Benzyl chloride	6	U	6.4	U
	3.4	Bromodichloromethane	7.8	U	8.3	U
	5.2	Bromoform	12	U	13	U
	19	Bromomethane	45	U	48	U
	6.2	Carbon disulfide	14	U	15	U
	3.1	Carbon tetrachloride	7.3	U	7.8	U
	2.3	Chlorobenzene	5.4	U	5.7	U
	5.3	Chloroethane	12	U	13	U
	2.4	Chloroform	5.7	U	6	U
	10	Chloromethane	24	U	26	U
	2	cis-1,2-Dichloroethene	4.6	U	4.9	U
	2.3	cis-1,3-Dichloropropene	5.3	U	5.6	U
	4.2	Dibromochloromethane	9.9	U	10	U
	2.2	Ethylbenzene	5	U	5.4	U
	2.8	Freon 11	6.5	U	6.9	U
	3.8	Freon 113	8.9	U	9.5	U
	2.5	Freon 12	5.8	U	6.1	U
	21	Hexachlorobutadiene	50	U	53	U
	1.8	Hexane (N-Hexane)	4.1	UJ	4.4	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	11	U	**18**	
	2.2	m,p-Xylene	5	UJ	5.4	UJ
	5.9	Methyl ethyl ketone	**54**	**J**	**730**	**J**
	2	Methyl isobutyl ketone	4.8	U	5	U
	7.2	Methyl Tert-Butyl Ether	17	U	18	U
	17	Methylene chloride	40	U	43	U
	2.2	o-Xylene	5	U	5.4	U
	2.1	Styrene	5	U	5.3	U
	3.4	Tetrachloroethene (PCE)	**18**		**69**	
	41	TNMOC ref. to Heptane (MW=100)	**260**		**1300**	
	1.9	Toluene	**10**		4.6	U
	2	trans-1,2-Dichloroethene	4.6	U	4.9	U
	2.3	trans-1,3-Dichloropropene	5.3	U	5.6	U
	2.7	Trichloroethene (TCE)	6.3	U	6.6	U
	7	Vinyl acetate	16	U	17	U
	1.3	Vinyl chloride	3	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1807025
Site Name: Omega
Sampling Date: 6/27/2018 - 6/28/2018

Units		Total/Dissolved or Normal Sample				
		Field Sample ID	OC_SVE_VMP-41-24_062718		OC_SVE_VMP-84-24_062718	
		Sample Type	N		N	
		Lab Sample ID	1807025-03A		1807025-01A	
	RL	Dilution Factor	2.42		2.24	
ug/m3	2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.1	U
	3.4	1,1,2,2-Tetrachloroethane	8.3	U	7.7	U
	2.7	1,1,2-Trichloroethane	6.6	U	6.1	U
	2	1,1-Dichloroethane	4.9	U	4.5	U
	2	1,1-Dichloroethene	4.8	U	4.4	U
	5.4	1,1-Difluoroethane	13	U	12	U
	15	1,2,4-Trichlorobenzene	36	U	33	U
	2.4	1,2,4-Trimethylbenzene	5.9	U	5.5	U
	3.8	1,2-Dibromoethane (EDB)	9.3	U	8.6	U
	3	1,2-Dichlorobenzene	7.3	U	6.7	U
	2	1,2-Dichloroethane	4.9	U	4.5	U
	2.3	1,2-Dichloropropane	5.6	U	5.2	U
	3.5	1,2-Dichlorotetrafluoroethane	8.4	U	7.8	U
	2.4	1,3,5-Trimethylbenzene	5.9	U	5.5	U
	3	1,3-Dichlorobenzene	7.3	U	6.7	U
	3	1,4-Dichlorobenzene	7.3	U	6.7	U
	7.2	1,4-Dioxane	17	U	16	U
	8.2	2-Hexanone	20	U	18	U
	6.3	3-Chloropropene	15	U	14	U
	2.4	4-Ethyltoluene	5.9	U	5.5	U
	12	Acetone	**61**		**28**	
	1.6	Benzene	3.9	U	3.6	U
	2.6	Benzyl chloride	6.3	U	5.8	U
	3.4	Bromodichloromethane	8.1	U	7.5	U
	5.2	Bromoform	12	U	12	U
	19	Bromomethane	47	U	43	U
	6.2	Carbon disulfide	15	U	14	U
	3.1	Carbon tetrachloride	7.6	U	7	U
	2.3	Chlorobenzene	5.6	U	5.2	U
	5.3	Chloroethane	13	U	12	U
	2.4	Chloroform	5.9	U	5.5	U
	10	Chloromethane	25	U	23	U
	2	cis-1,2-Dichloroethene	4.8	U	4.4	U
	2.3	cis-1,3-Dichloropropene	5.5	U	5.1	U
	4.2	Dibromochloromethane	10	U	9.5	U
	2.2	Ethylbenzene	5.2	U	4.9	U
	2.8	Freon 11	6.8	U	**170**	
	3.8	Freon 113	9.3	U	**300**	
	2.5	Freon 12	6	U	5.5	U
	21	Hexachlorobutadiene	52	U	48	U
	1.8	Hexane (N-Hexane)	4.3	UJ	3.9	UJ
	4.9	Isopropyl Alcohol (Isopropanol)	12	U	11	U
	2.2	m,p-Xylene	5.2	UJ	4.9	UJ
	5.9	Methyl ethyl ketone	**140**	**J**	**37**	**J**
	2	Methyl isobutyl ketone	5	U	4.6	U
	7.2	Methyl Tert-Butyl Ether	17	U	16	U
	17	Methylene chloride	42	U	39	U
	2.2	o-Xylene	5.2	U	4.9	U
	2.1	Styrene	5.2	U	4.8	U
	3.4	Tetrachloroethene (PCE)	8.2	U	**770**	
	41	TNMOC ref. to Heptane (MW=100)	**310**		**1100**	
	1.9	Toluene	4.6	U	4.2	U
	2	trans-1,2-Dichloroethene	4.8	U	4.4	U
	2.3	trans-1,3-Dichloropropene	5.5	U	5.1	U
	2.7	Trichloroethene (TCE)	6.5	U	**190**	
	7	Vinyl acetate	17	U	16	U
	1.3	Vinyl chloride	3.1	U	2.9	U

Attachment E

Summary of Vapor Monitoring Probe

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Attachment E, Table E-1
Shallow Vapor Monitoring Probe Summary of Quarterly Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
		Cleanup Levels	**470**	**1300**						
VMP-11-30	ORIG	6/27/2018	12	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
VMP-11-30	DUP	6/27/2018	8.4 U	6.6 U	3.2 U	5 U	5 U	6 U	43 U	3.9 U
VMP-12-30	ORIG	6/27/2018	33	6.3 U	3 U	4.7 U	4.7 U	5.7 U	40 U	9.3
VMP-15-30	ORIG	6/27/2018	18	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	7
VMP-16-30	ORIG	6/27/2018	250	6.2	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VMP-17-30	ORIG	6/27/2018	8.1 U	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-18-30	ORIG	6/27/2018	38	10	3.1 U	4.9 U	4.9 U	5.9 U	42 U	8.1
VMP-20-30	ORIG	6/27/2018	48	6.6 U	3.2 U	5 U	5 U	6 U	43 U	3.9 U
VMP-21-30	ORIG	6/27/2018	22	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	6
VMP-21-30	DUP	6/27/2018	27	6.6 U	3.2 U	5 U	5 U	6 U	43 U	3.9 U
VMP-22-30	ORIG	6/27/2018	39	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
VMP-24-30	ORIG	6/28/2018	15	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.7 U
VMP-26-30	ORIG	6/27/2018	8.2 U	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
VMP-27-30	ORIG	6/28/2018	7.5 U	5.9 U	2.8 U	4.4 U	4.4 U	5.4 U	38 U	3.5 U
VMP-31-24	ORIG	6/28/2018	15	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	4.8
VMP-32-24	ORIG	6/28/2018	8.2 U	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
VMP-43-24	ORIG	6/28/2018	8.1 U	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-94-24	ORIG	6/28/2018	7.6 U	6 U	2.9 U	4.5 U	4.5 U	5.5 U	39 U	3.6 U

Notes:

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

SHALLOW = between 0 and 30 feet below ground surface

The last two digits of each Location indicate the depth of the sample in feet

Cleanup Level exceedances highlighted in yellow

ORIG = original sample

DUP = field duplicate

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment E, Table E-2
Deep Vapor Monitoring Probe Summary of Quarterly Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
VMP-5-45	ORIG	6/27/2018	1500	260	3 U	4.8 U	4.8 U	12	41 U	6.4
VMP-31-70[1]										
VMP-32-60	ORIG	6/28/2018	12	6.9 U	3.3 U	5.2 U	5.2 U	6.3 U	45 U	4.1 U
VMP-92-70	ORIG	6/27/2018	5000	210	4.9 U	7.7 U	7.7 U	18	66 U	6.1 U
VMP-93-60	ORIG	6/27/2018	9400	68	9.2 U	15 U	15 U	32	120 U	12 U
VMP-94-60	ORIG	6/28/2018	25	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VMP-95-60	ORIG	6/28/2018	8.1 U	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-95-60	DUP	6/28/2018	9.8	6.3 U	3 U	4.7 U	4.7 U	5.7 U	40 U	3.7 U

Notes:

1. Unable to perform analysis due to insufficient sample volume.

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

DEEP = greater than 30 feet below ground surface

The last two digits of each Location indicate the depth of the sample in feet

ORIG = original sample

DUP = field duplicate

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment E, Table E-3
Shallow Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VE-1M	36	VE-1S, VE-5S	6/27/2018	-0.56
VE-2S	22	VE-1S, VE-5S	6/27/2018	-0.11
VE-4S	22	VE-1S, VE-5S	6/27/2018	-0.25
VE-5M	36	VE-5S	6/27/2018	-0.69
VE-7S	30	VE-8S	6/27/2018	-0.30
VMP-11	30	VE-10S, VE-12S	6/27/2018	-0.53
VMP-12	30	VE-10S, VE-11S	6/27/2018	-1.20
VMP-13	30	VE-31S	6/27/2018	-0.28
VMP-14	30		6/27/2018	--
VMP-15	30	VE-10S, VE-9S	6/27/2018	-0.82
VMP-16	30	VE-11S	6/27/2018	-0.69
VMP-17	30		6/27/2018	-1.15
VMP-18	30	VE-15S	6/27/2018	-0.03
VMP-20	30	VE-5S, VE-8S	6/27/2018	-0.37
VMP-21	30	VE-15S	6/27/2018	-0.11
VMP-22	30		6/27/2018	-0.24
VMP-24	30		6/28/2018	-0.10
VMP-26	30	VE-14S	6/27/2018	-0.04
VMP-27	30	VE-14S	6/28/2018	-0.01
VMP-31	6	VE-21S	6/28/2018	-0.06
	12	VE-21S	6/28/2018	-0.16
	24	VE-21S	6/28/2018	-0.28
VMP-32	6	VE-39S	6/28/2018	-0.07
	12	VE-39S	6/28/2018	-0.10
	24	VE-39S	6/28/2018	-0.21
VMP-43	6	VE-31S	6/28/2018	-0.34
	12	VE-31S	6/28/2018	-0.24
	24	VE-31S	6/28/2018	-0.43
VMP-94	6	VE-31S	6/28/2018	-0.15
	12	VE-31S	6/28/2018	-0.23
	24	VE-31S	6/28/2018	-0.28

Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.

Attachment E, Table E-4
Deep Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VMP-1D	70	DPE-8	6/27/2018	-0.60
VMP-3D	70	VE-2D	6/27/2018	-0.50
VMP-4D	70	DPE-3, VE-2D	6/27/2018	-2.14
VMP-5	45	VE-2D	6/27/2018	-0.23
VMP-31	40	VE-6D	6/28/2018	-0.02
	55	VE-6D	6/28/2018	-1.10
	60	VE-6D	6/28/2018	0.00
	70	VE-6D	6/28/2018	0.00
VMP-32	40	VE-10D	6/28/2018	-1.91
	55	VE-10D	6/28/2018	-1.71
	60	VE-10D	6/28/2018	-0.45
	70	VE-10D	6/28/2018	-0.50
VMP-92	50	DPE-5	4/13/2018	0.00
	50	DPE-5	6/27/2018	0.00
	60	DPE-5	4/13/2018	-0.95
	60	DPE-5	6/27/2018	-0.92
	70	DPE-5	4/13/2018	-0.15
	70	DPE-5	6/27/2018	0.00
VMP-93	50		4/13/2018	-1.51
	50		6/27/2018	-0.83
	60		4/13/2018	0.00
	60		6/27/2018	-1.52
	70		4/13/2018	-1.73
	70		6/27/2018	-0.96
VMP-94	40	DPE-4, VE-14D	6/28/2018	-0.61
	50	DPE-4, VE-14D	6/28/2018	-0.93
	60	DPE-4, VE-14D	6/28/2018	-1.34
	70	DPE-4, VE-14D	6/28/2018	-1.89
VMP-95	50		6/28/2018	-0.41
	60		6/28/2018	-0.55
	70		6/28/2018	-1.63

Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.

Vacuum

- achieves target vacuum at all depths
- achieves target vacuum at some depths
- does not achieve target vacuum
- no vacuum data available

- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 8/3/2018

Attachment E, Figure E-1
Vacuum Influence at
Shallow Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018

1. Includes Deep Vapor Monitoring Probes greater than 30 feet below land surface as monitored per the 2Q2018 VMP Monitoring Scope.
2. See Attachment E, Table E-4 for list of vacuum measurements.

Vacuum

- achieves target vacuum at all depths
- achieves target vacuum at some depths
- does not achieve target vacuum
- no vacuum data available

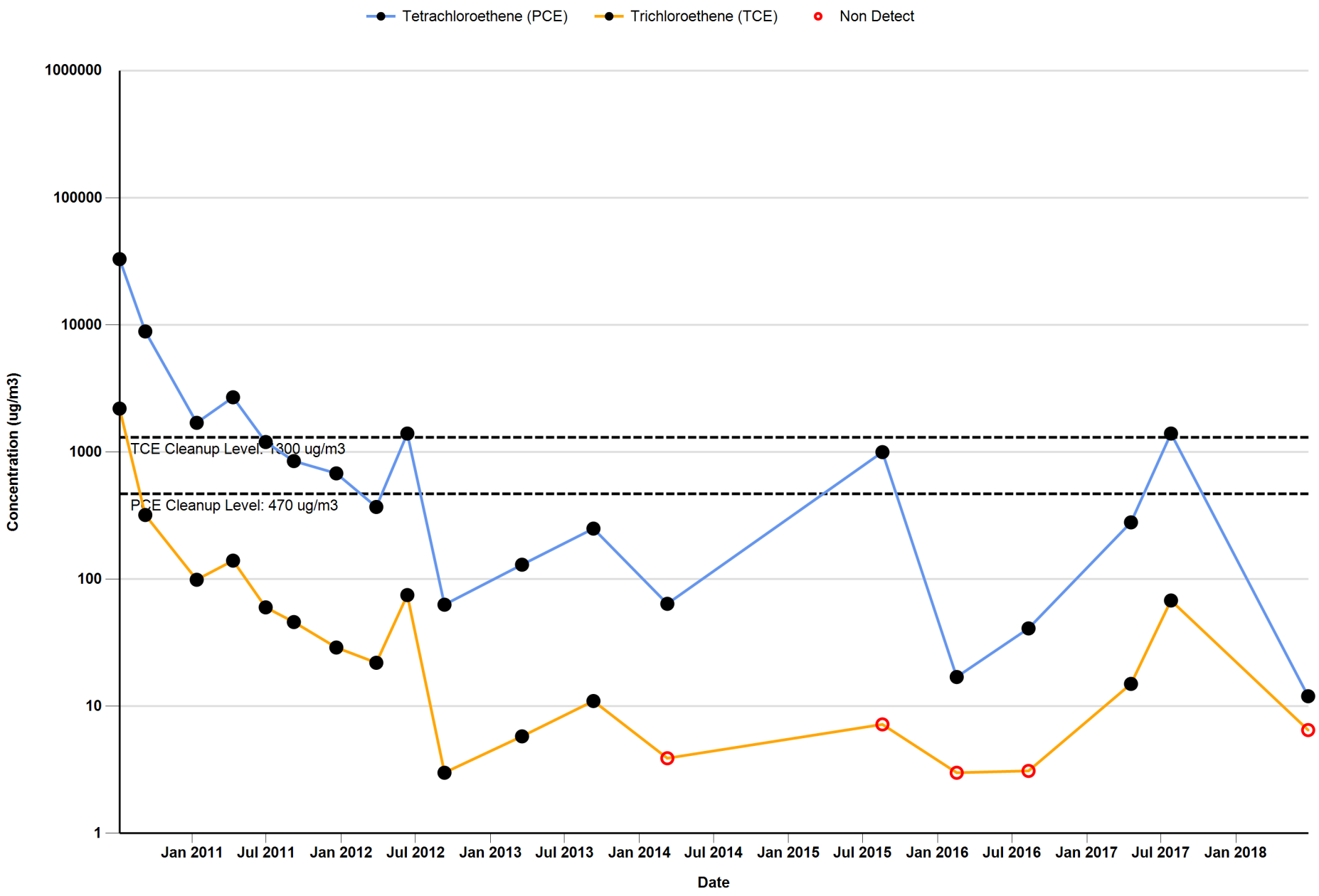
- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 8/3/2018

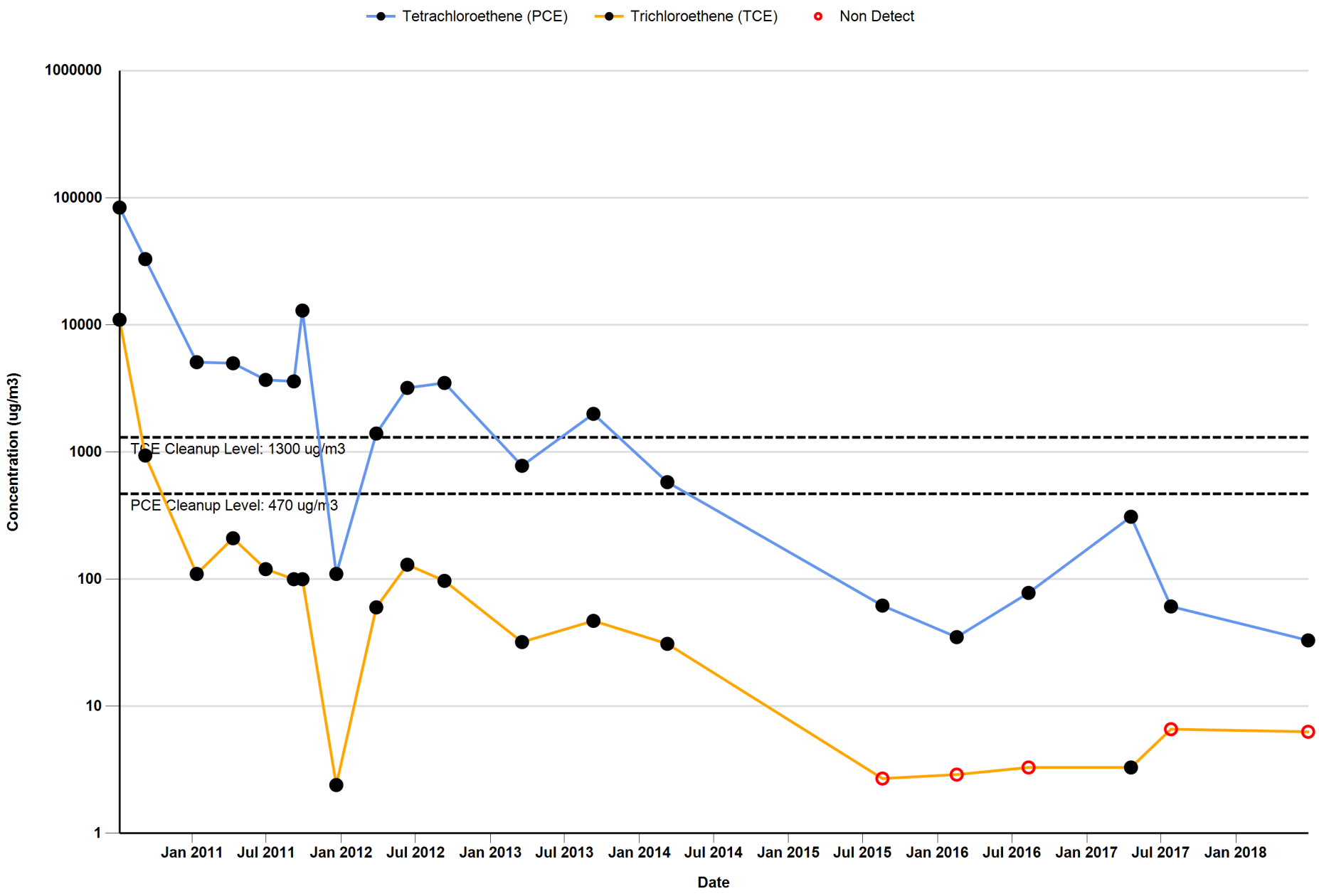
Attachment E, Figure E-2
Vacuum Influence at
Deep Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2018

Attachment E, Figure E-3
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-11 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



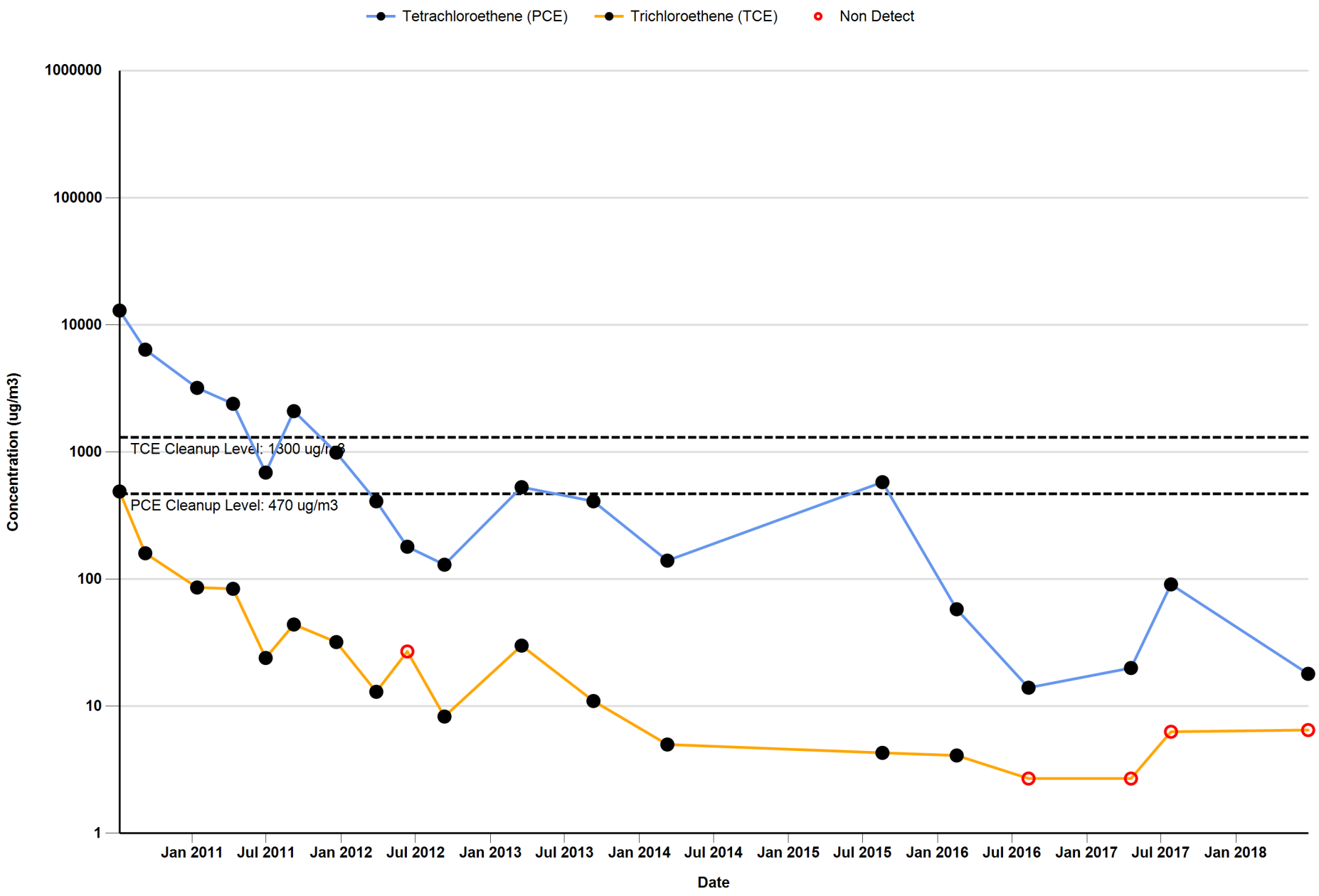
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-4
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-12 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



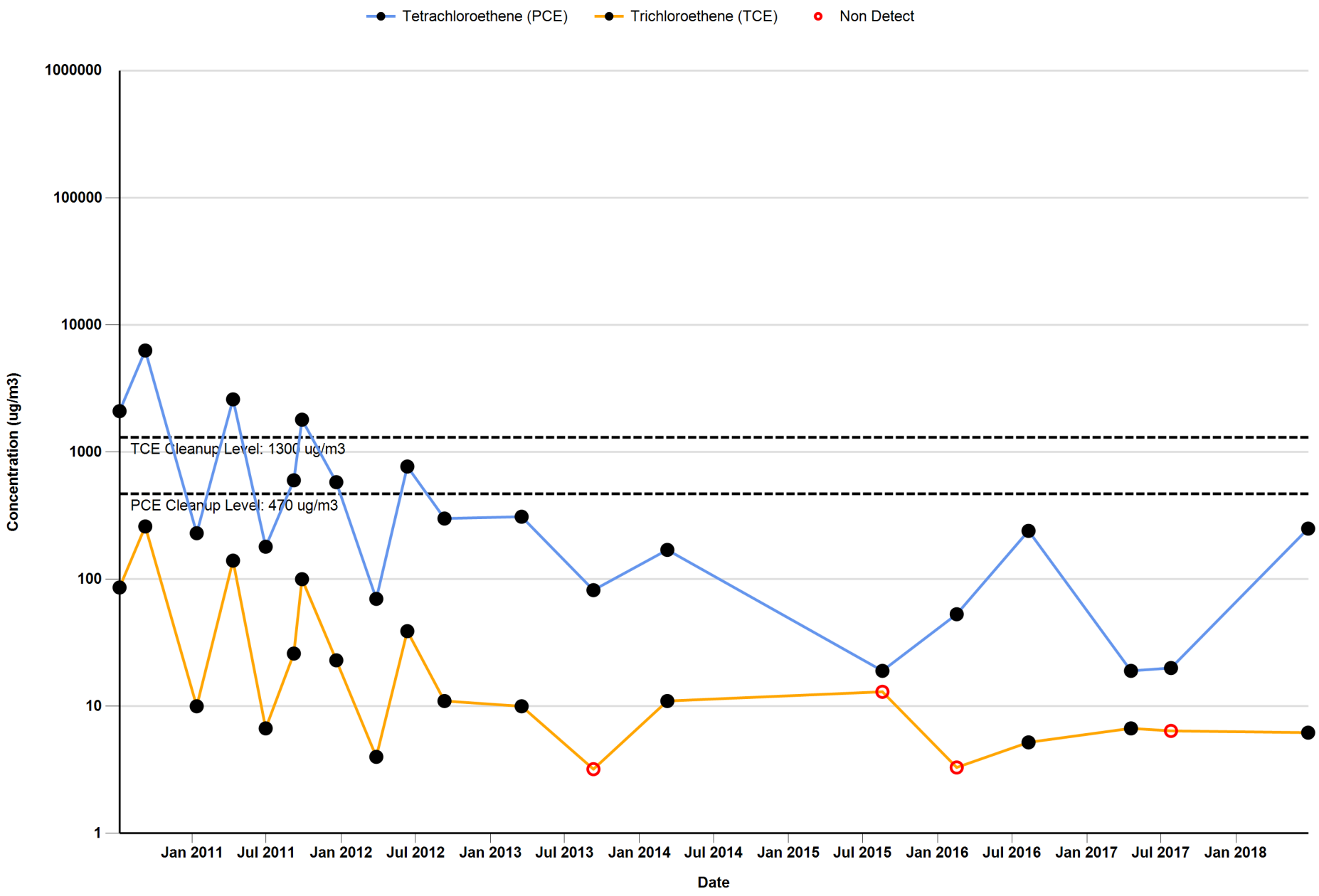
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-5
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-15 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



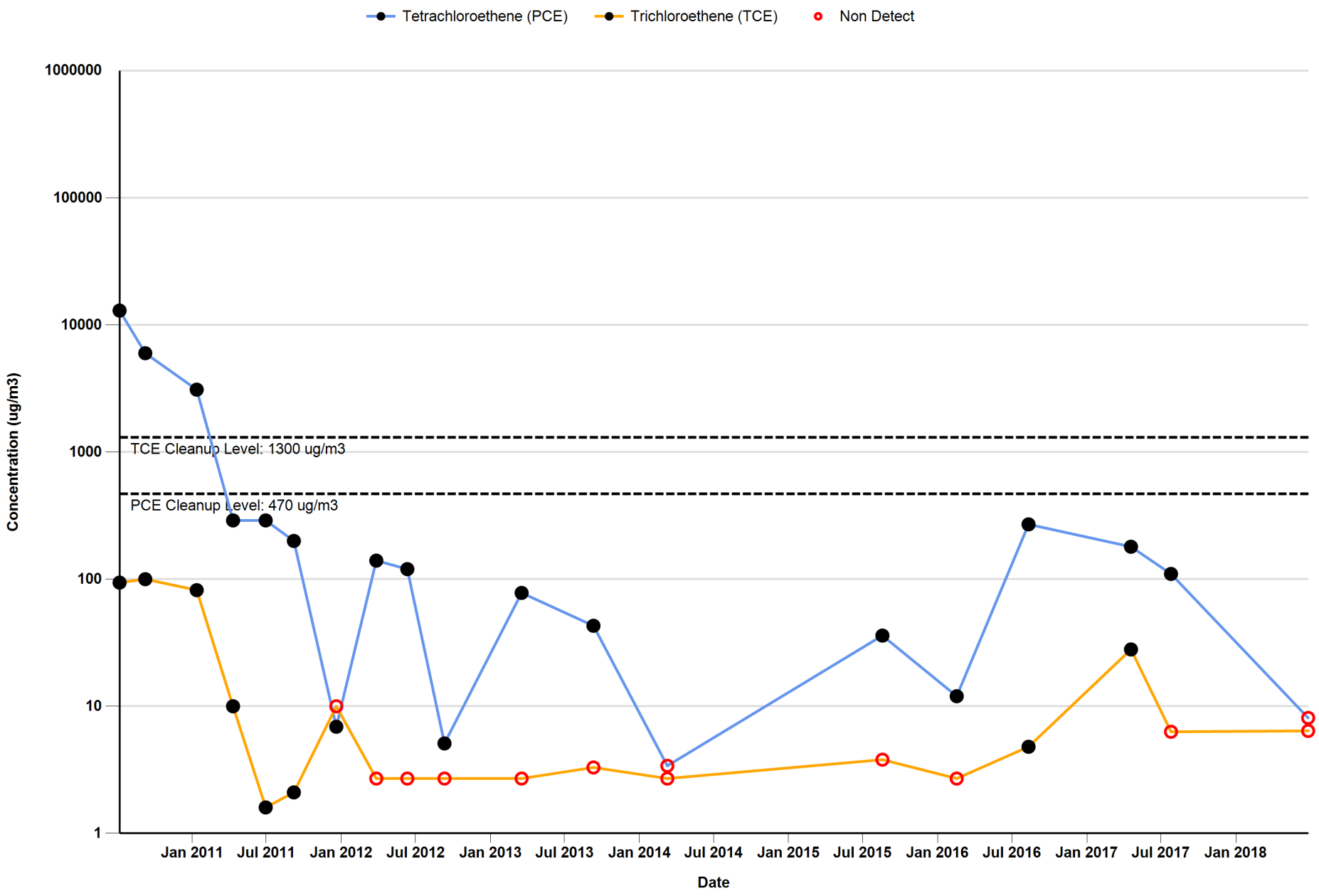
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-6
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-16 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



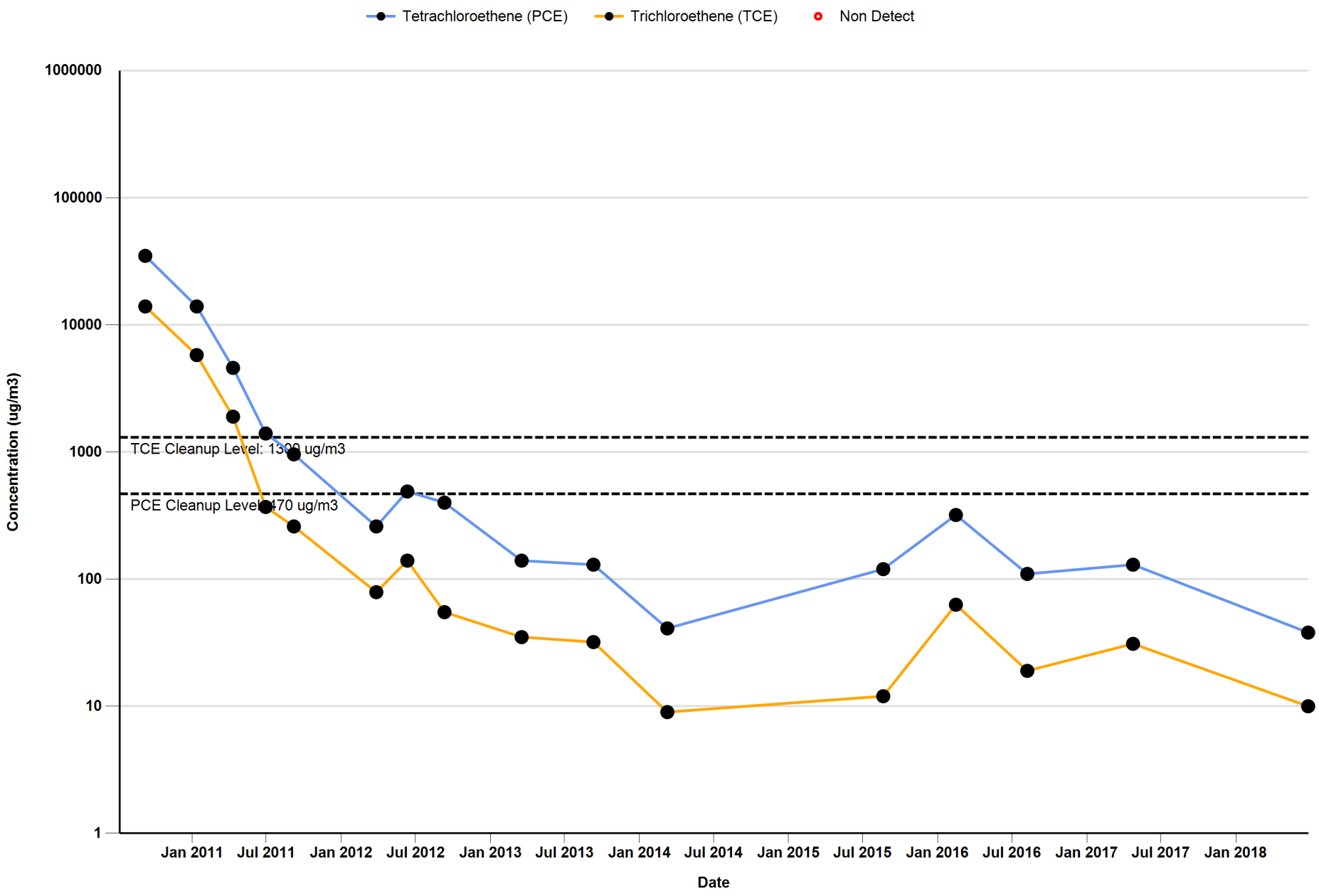
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-7
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-17 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



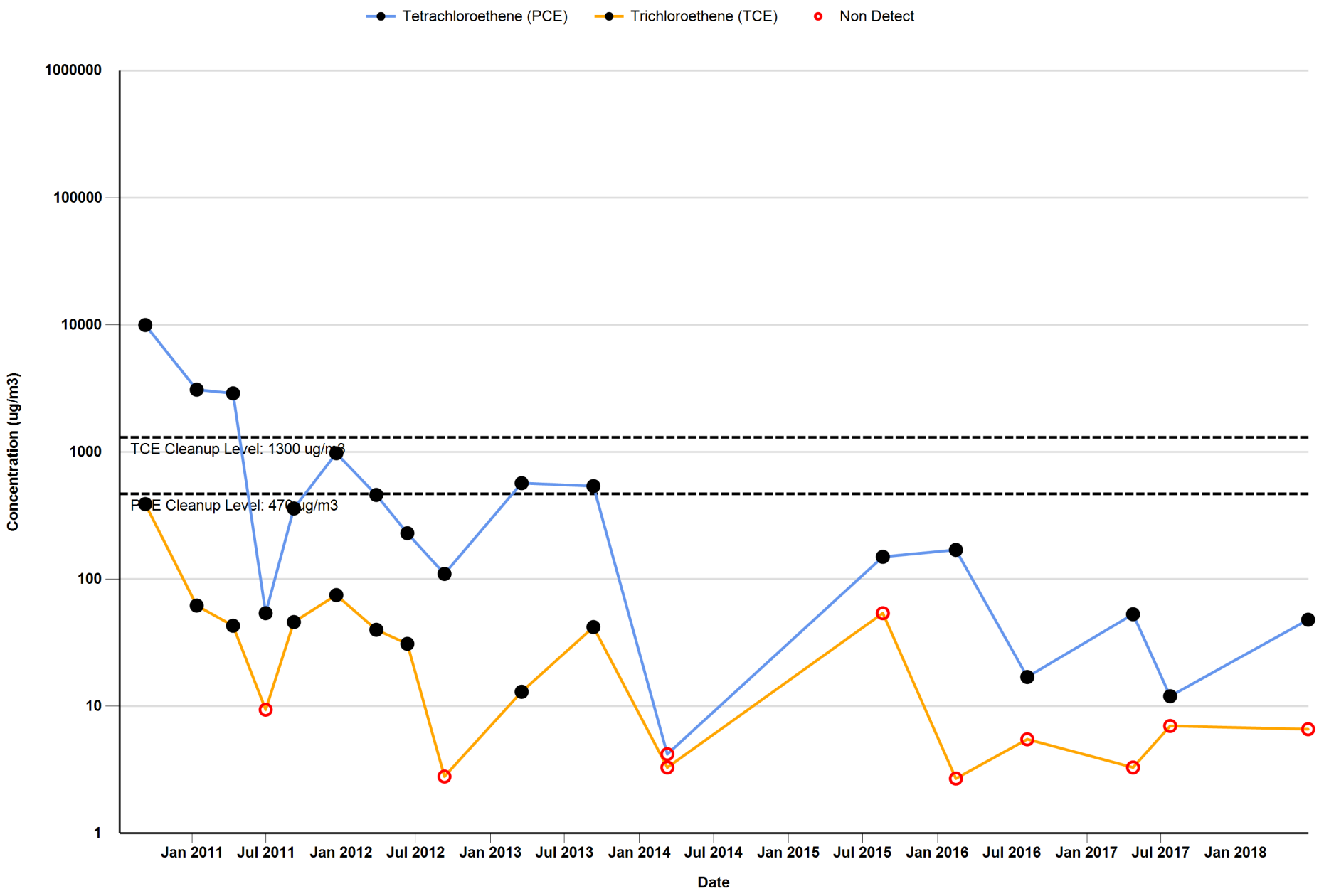
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-8
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-18 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



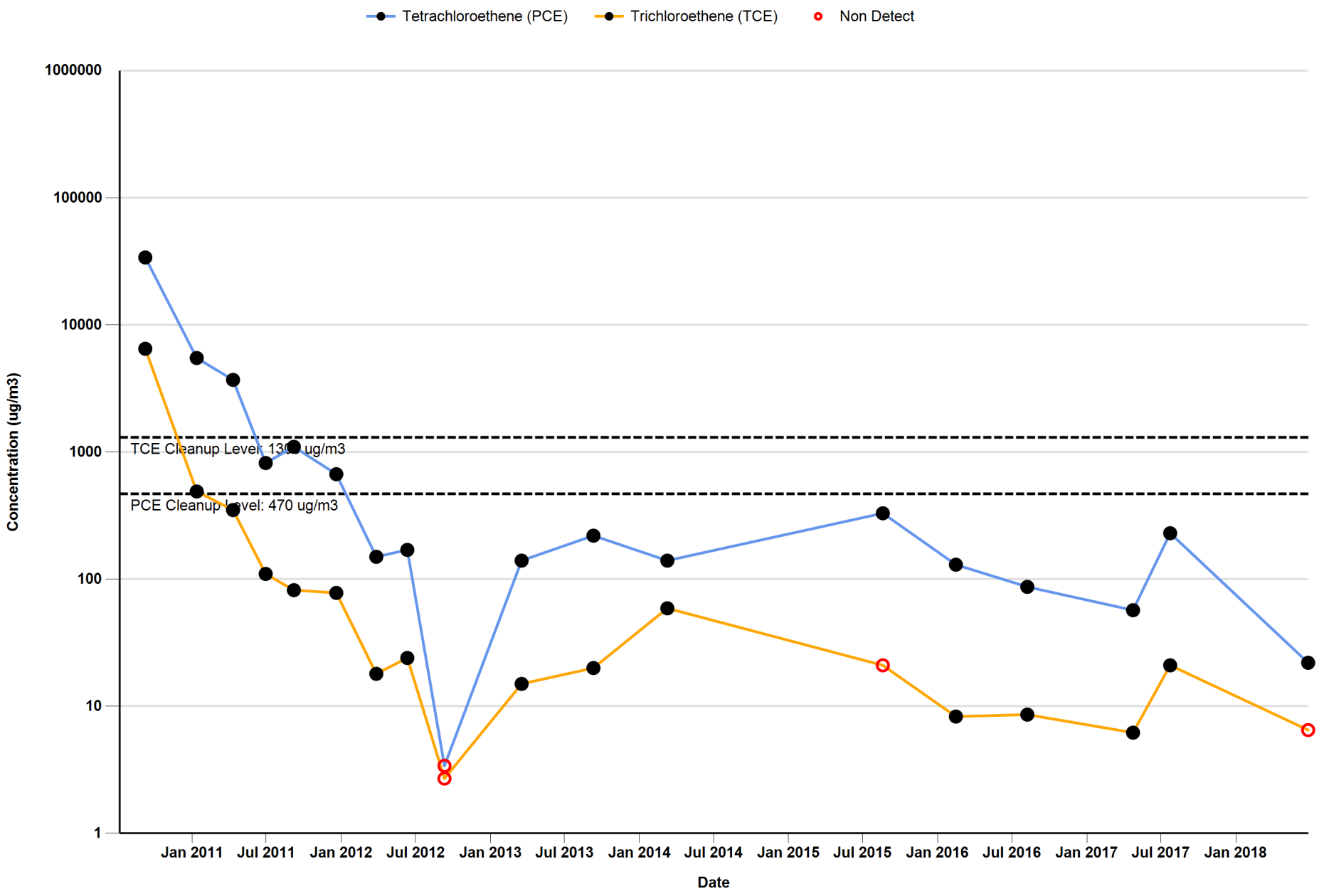
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-9
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-20 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



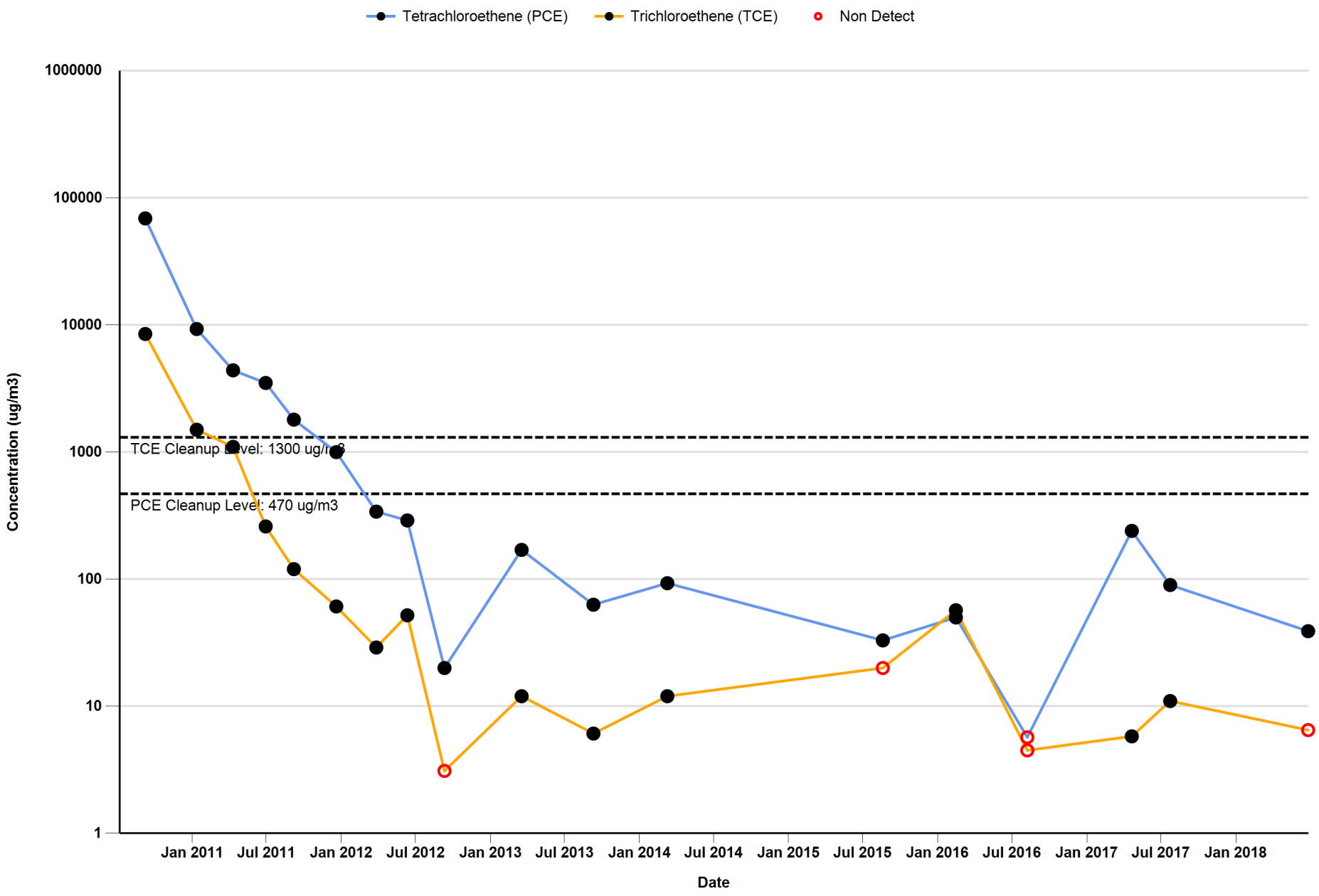
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-10
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-21 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



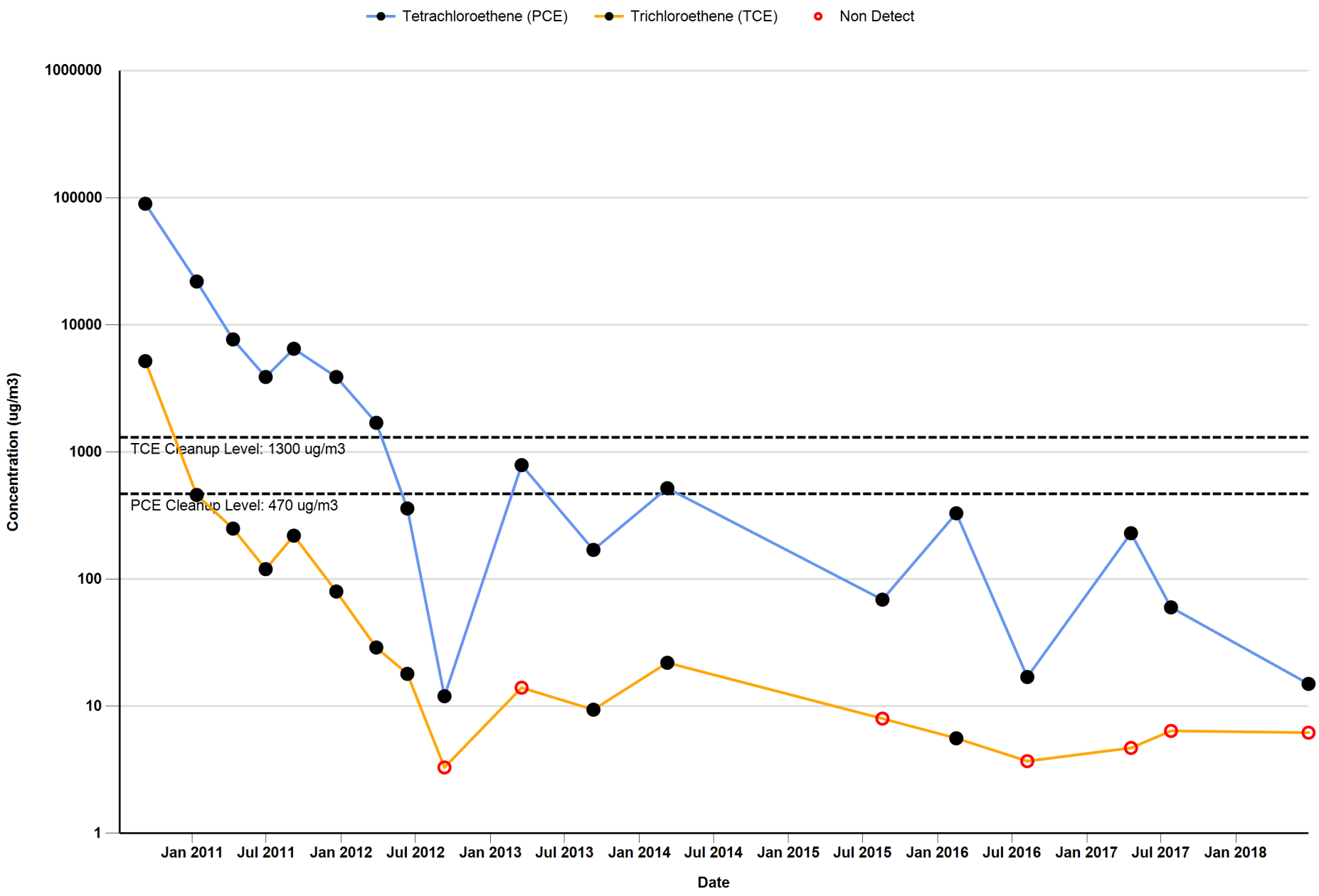
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-11
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-22 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



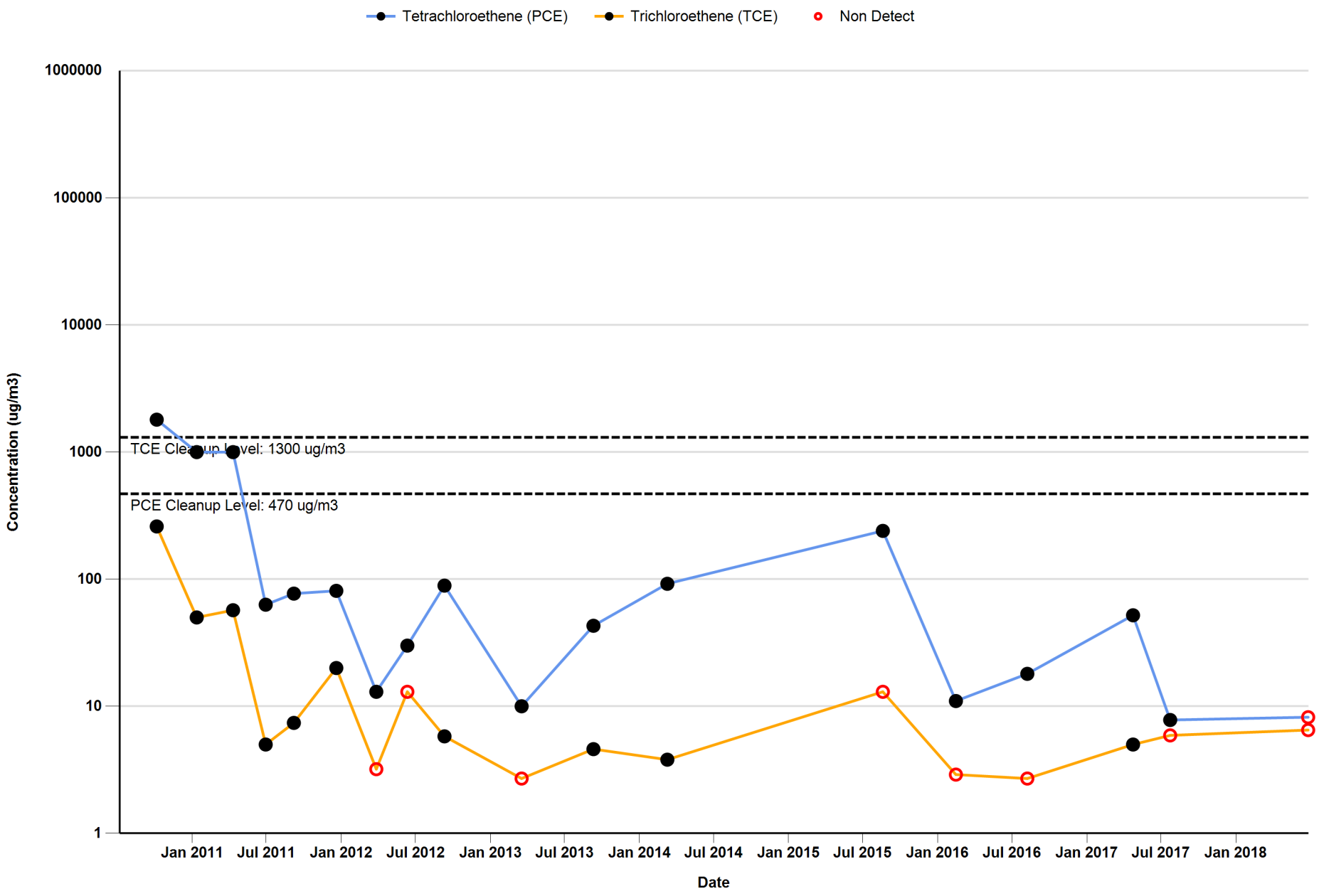
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-12
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-24 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



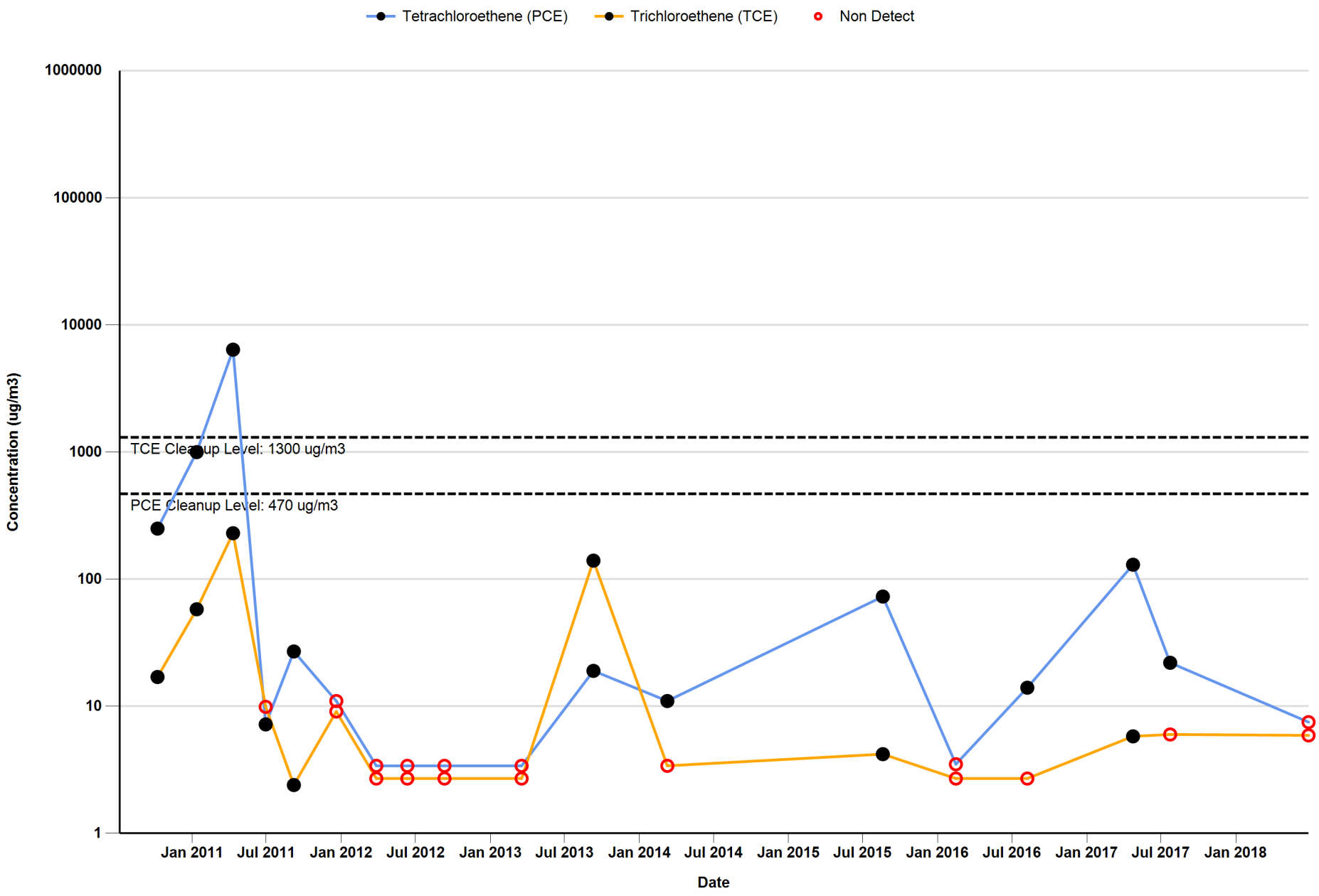
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-13
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-26 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



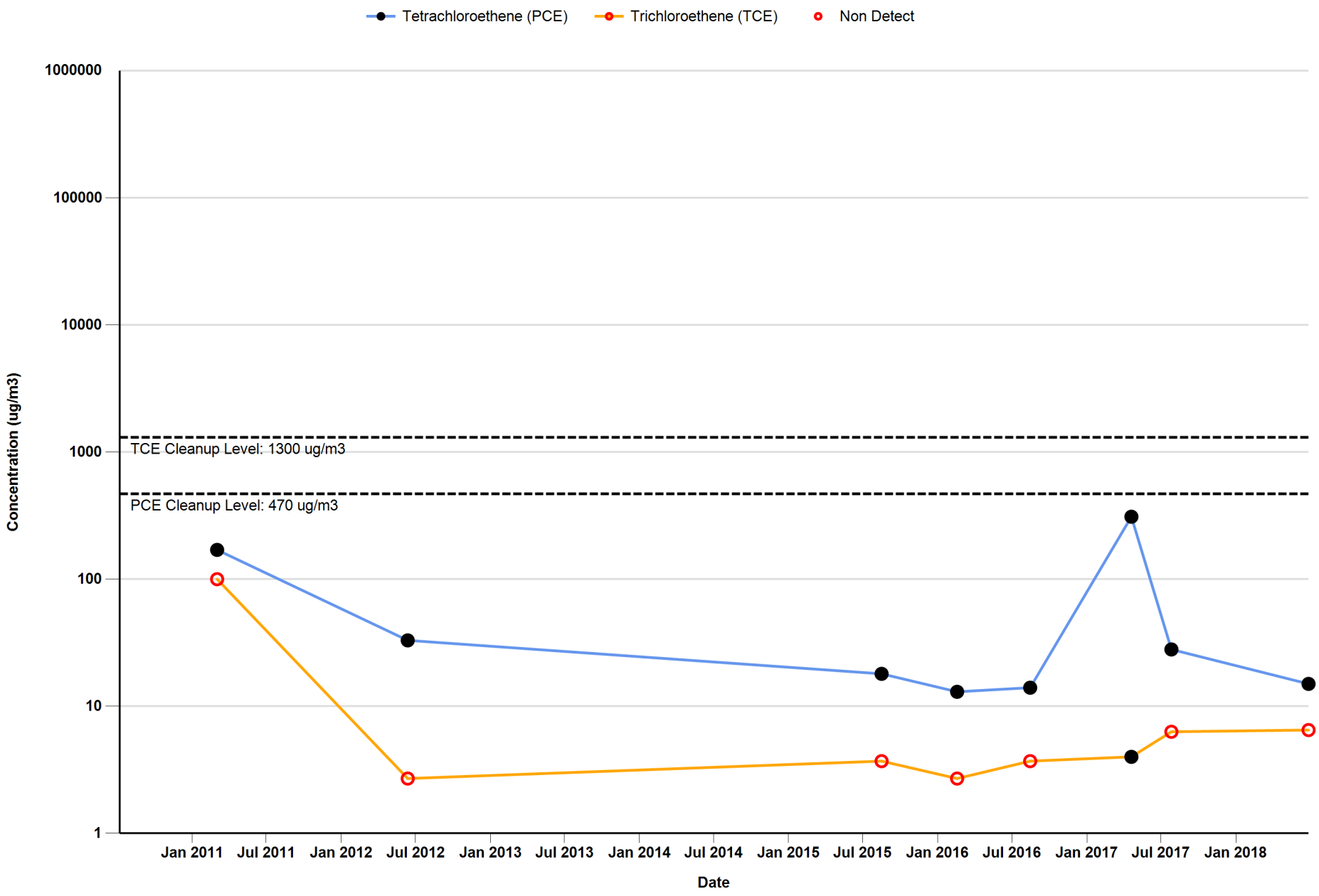
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-14
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-27 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



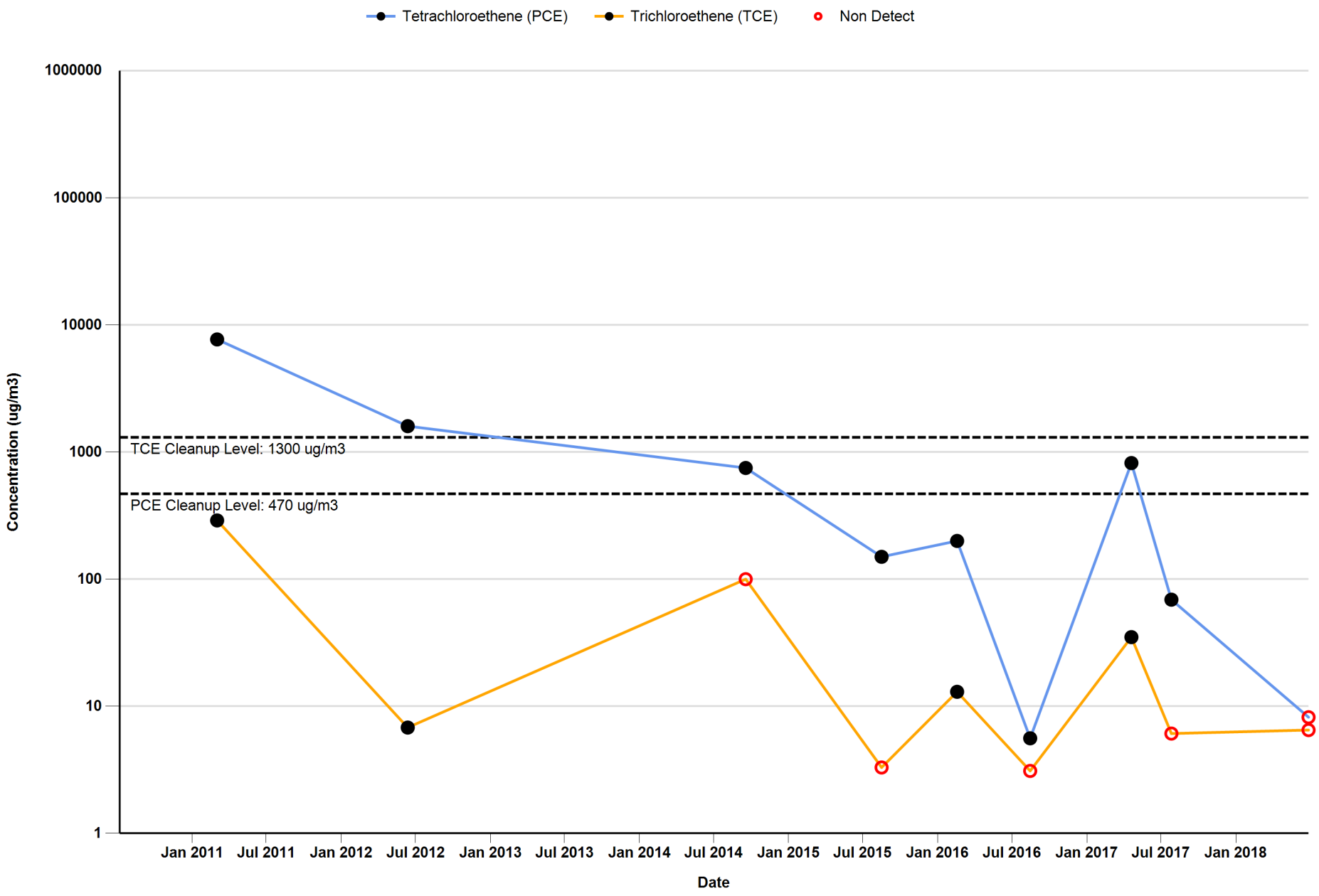
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-15
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-31 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



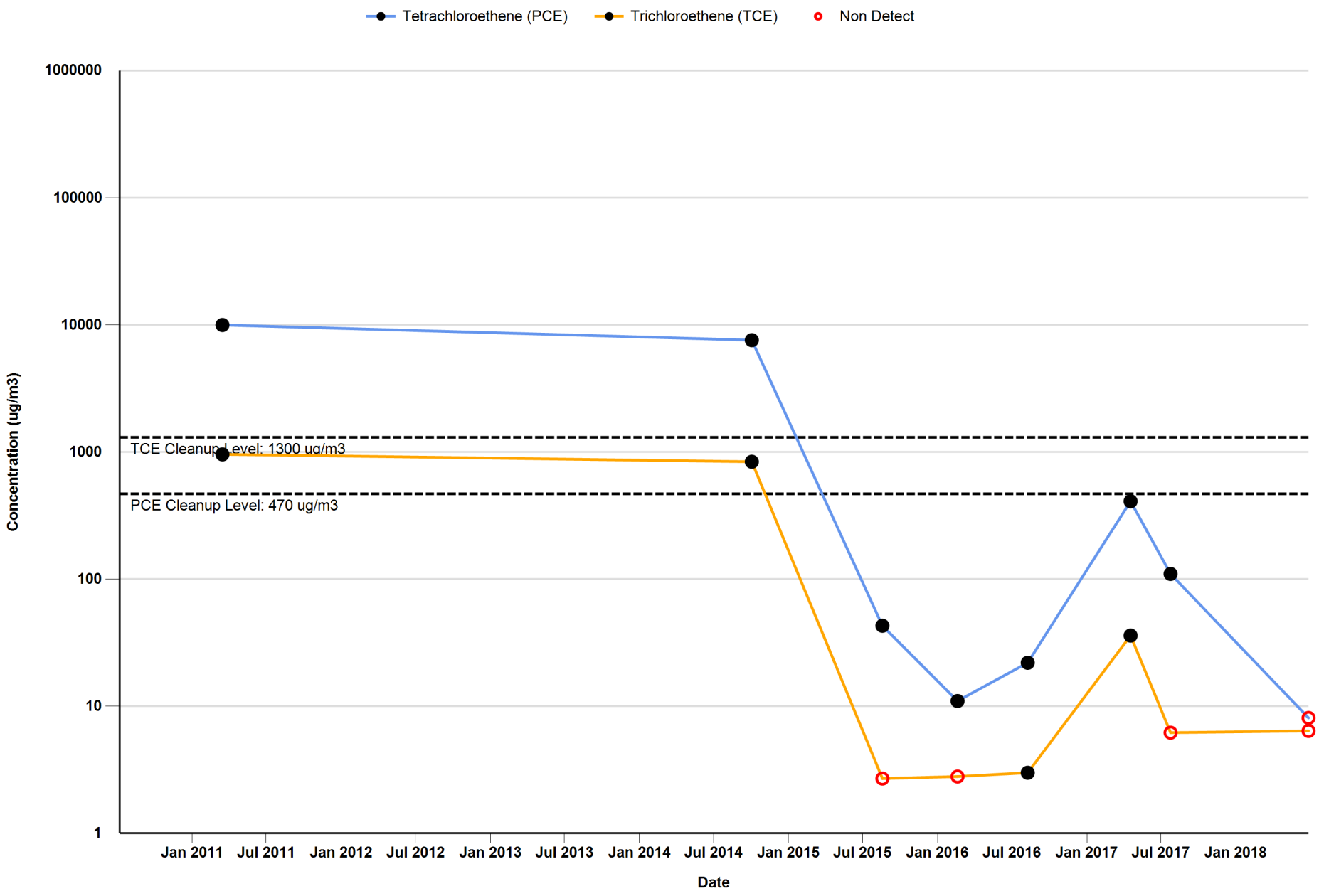
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-16
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-32 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



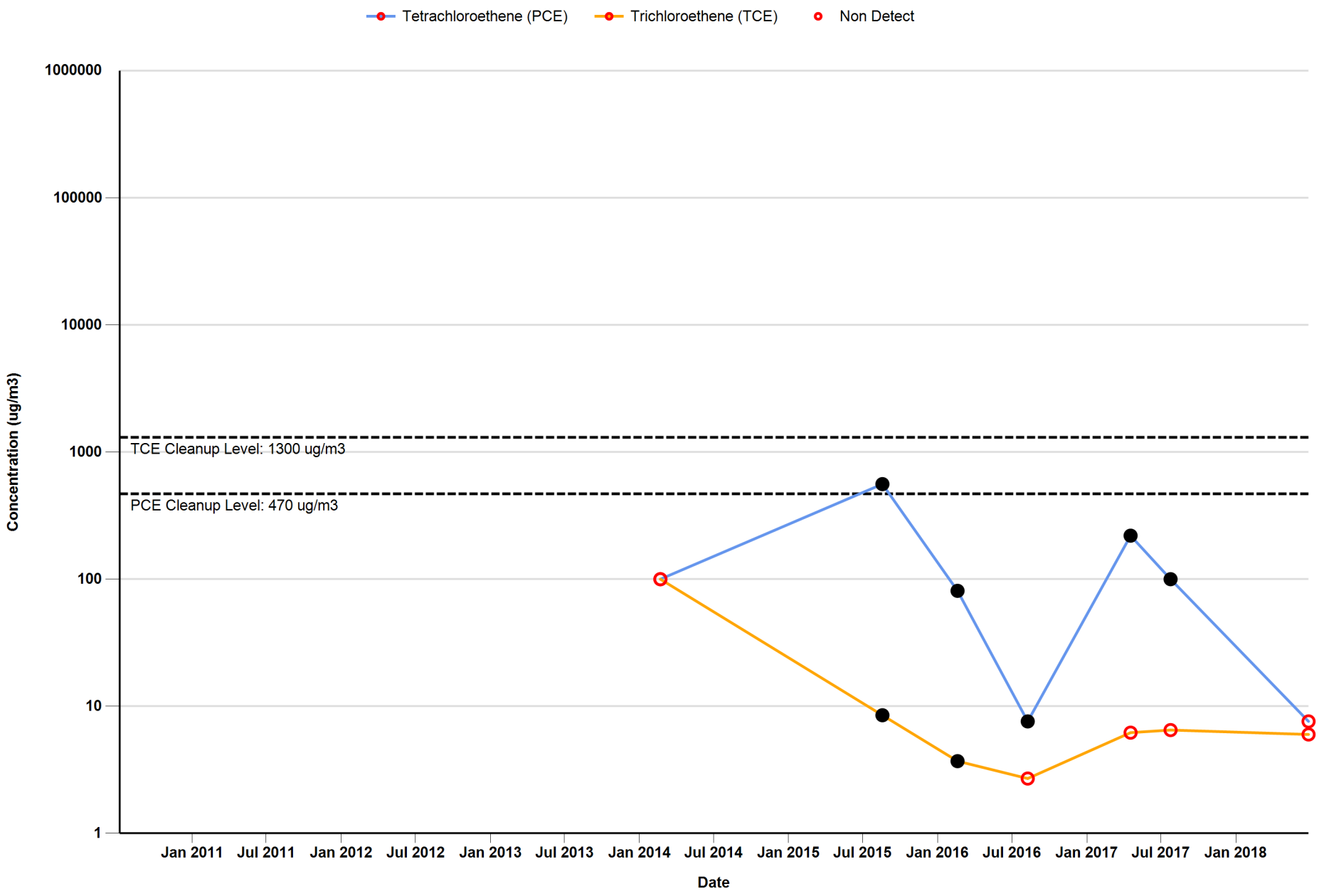
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-17
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-43 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



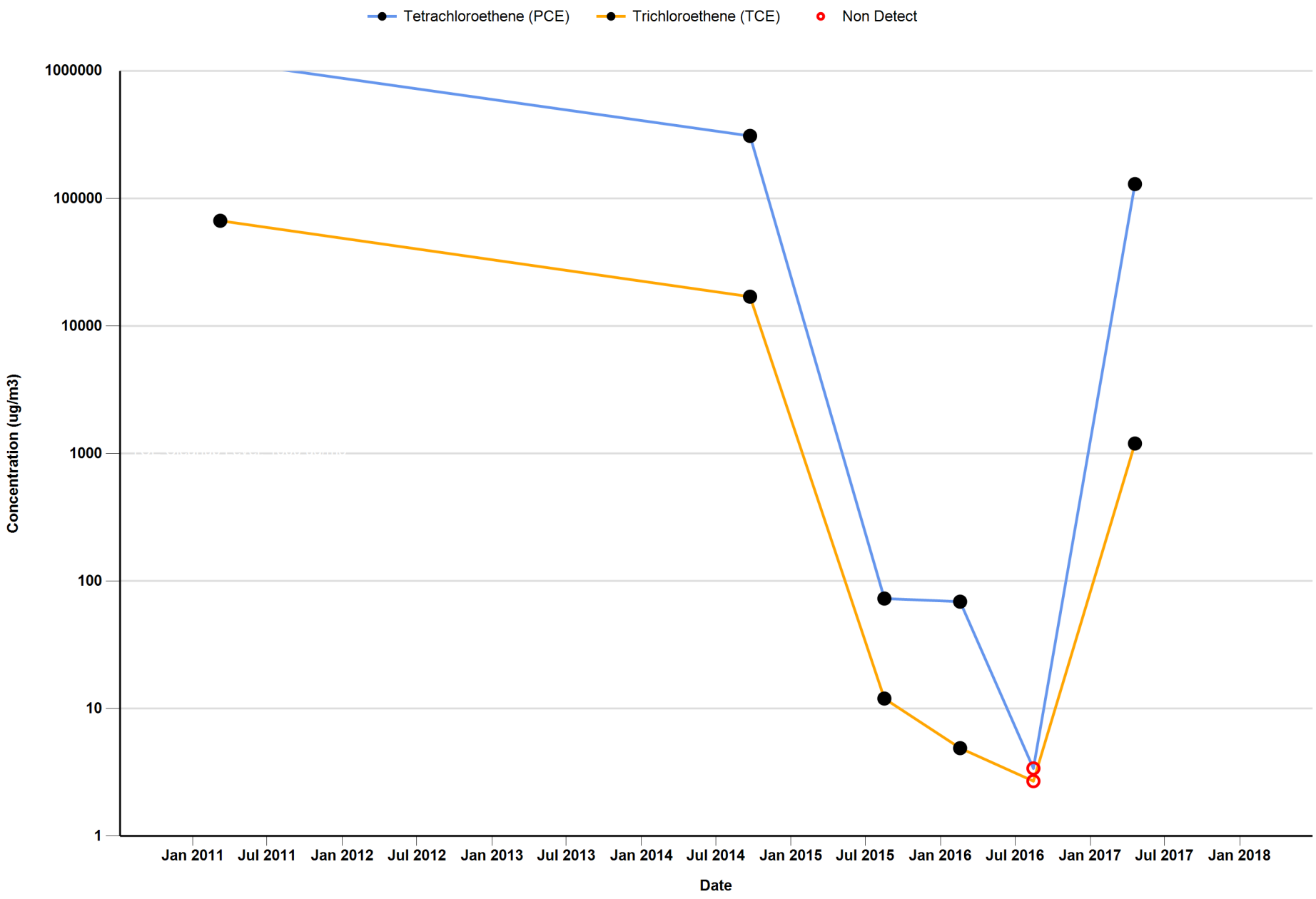
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-18
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-94 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-19
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-31 at 70 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

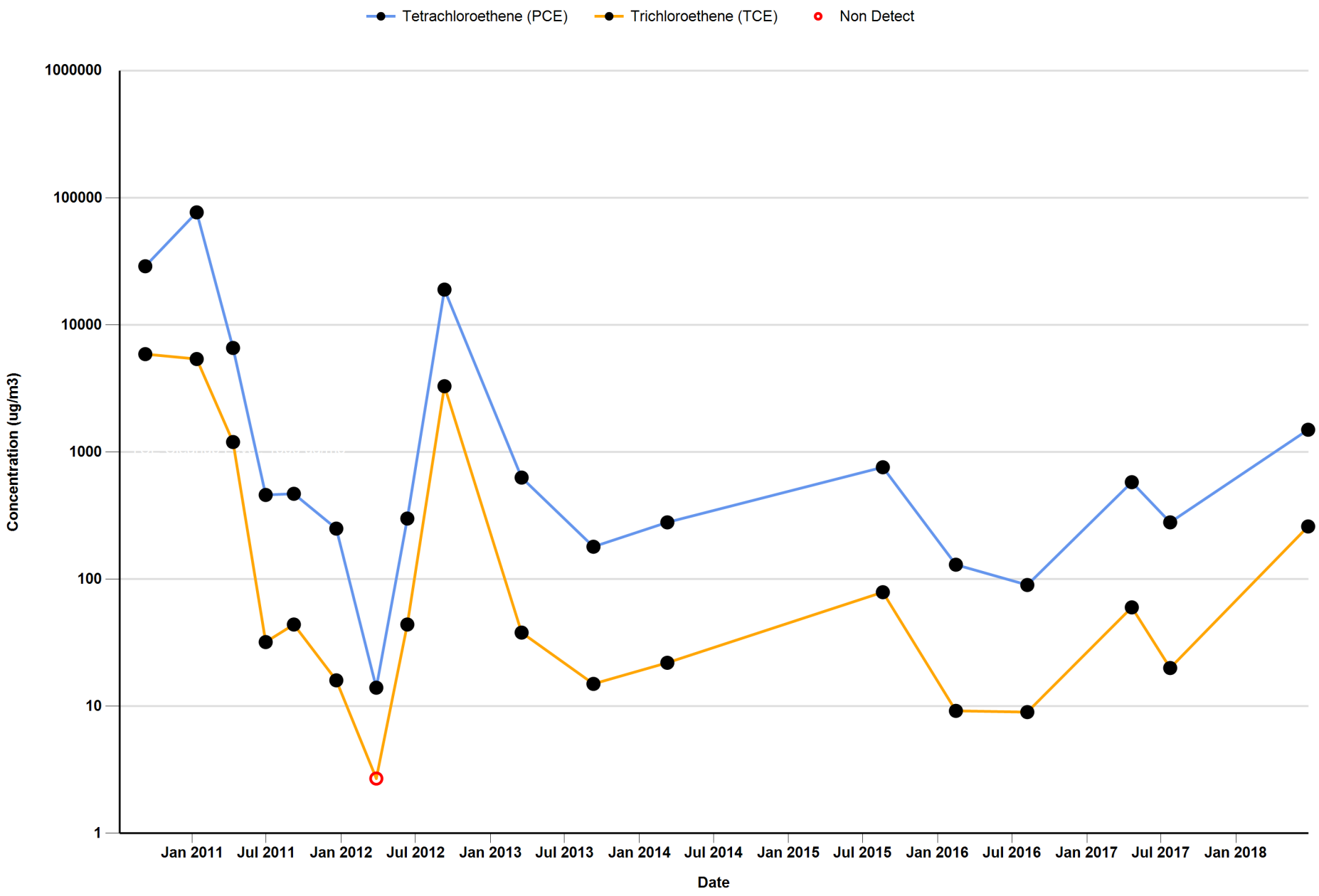


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-20
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-32 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

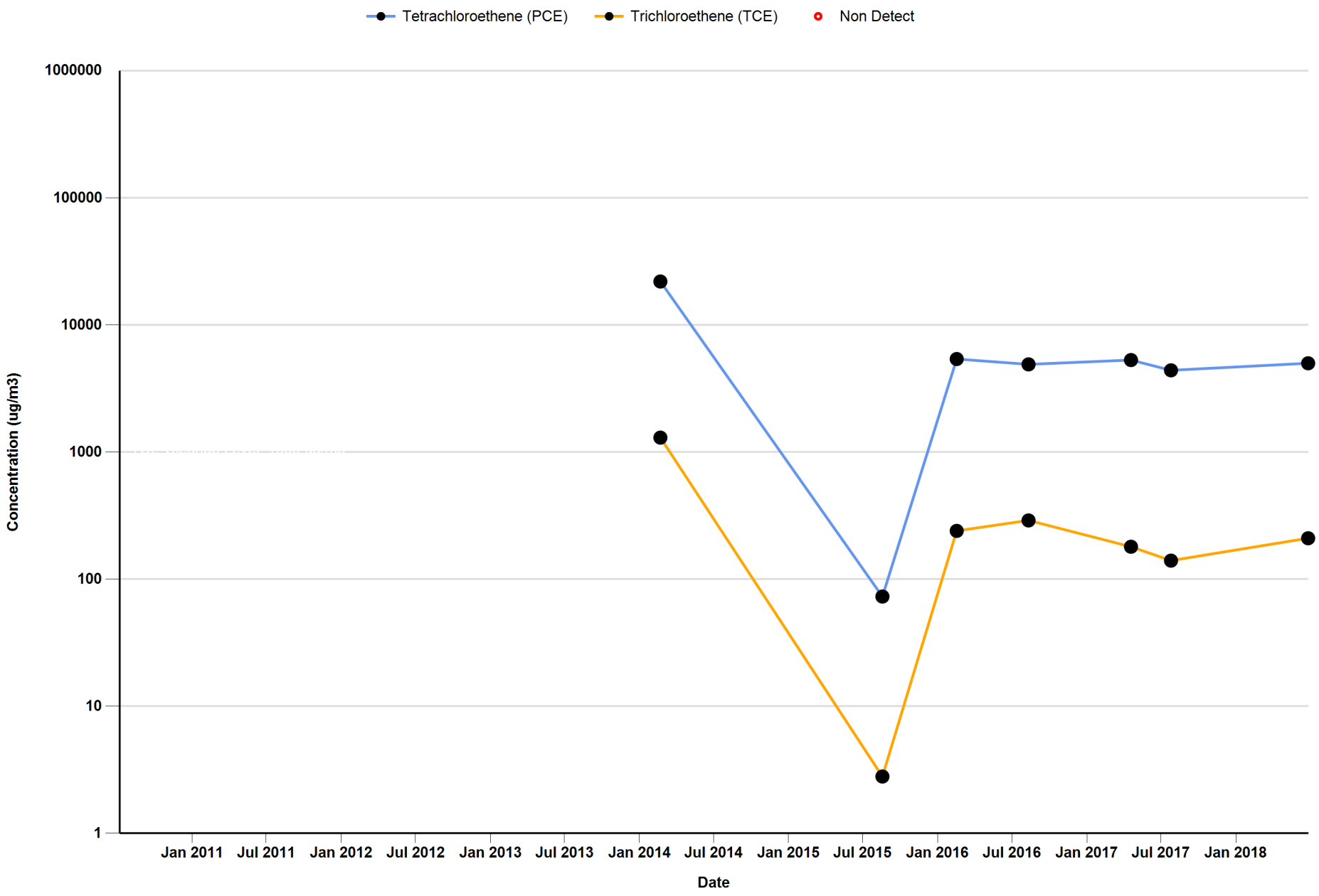
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-21
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-5 at 45 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



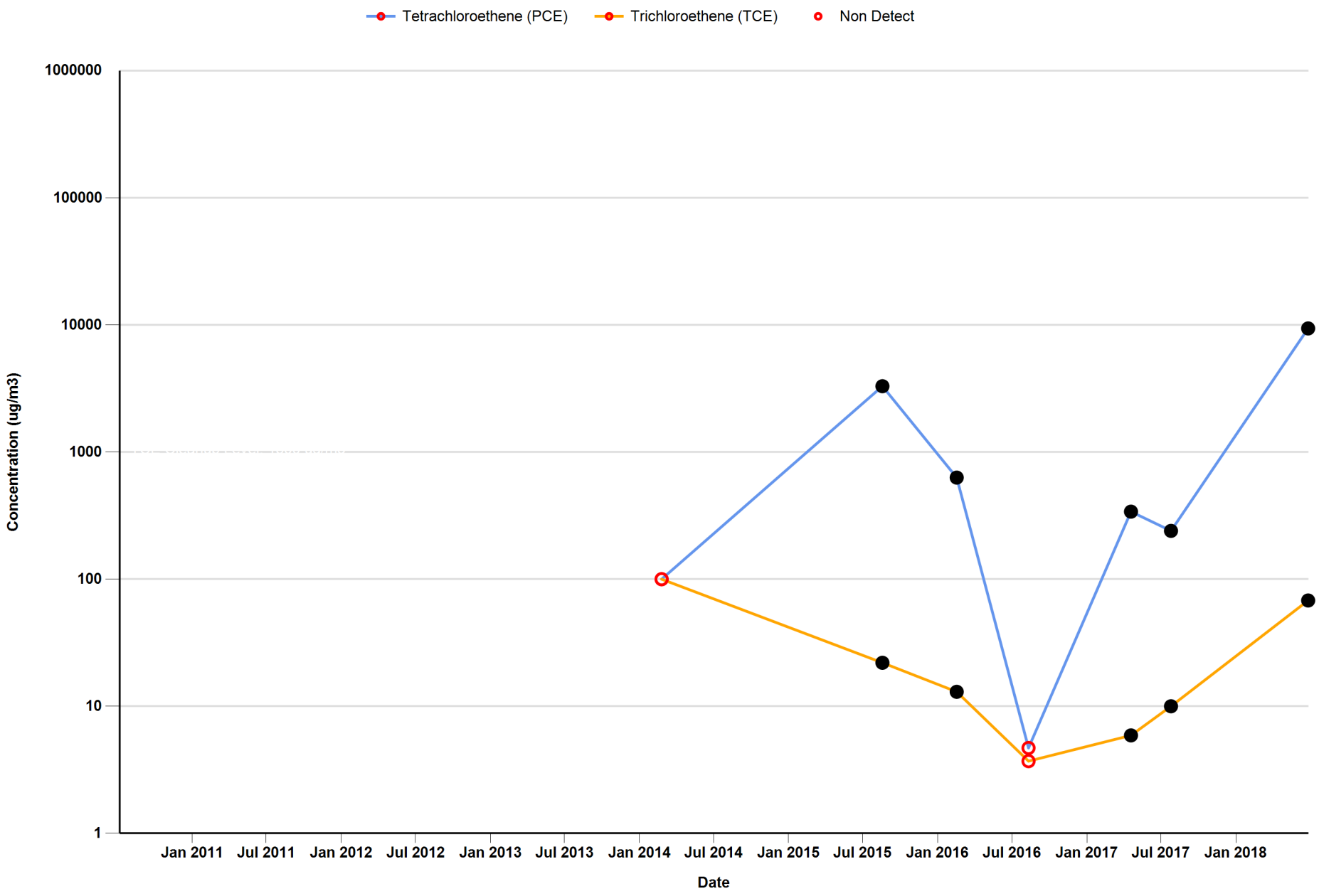
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-22
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-92 at 70 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



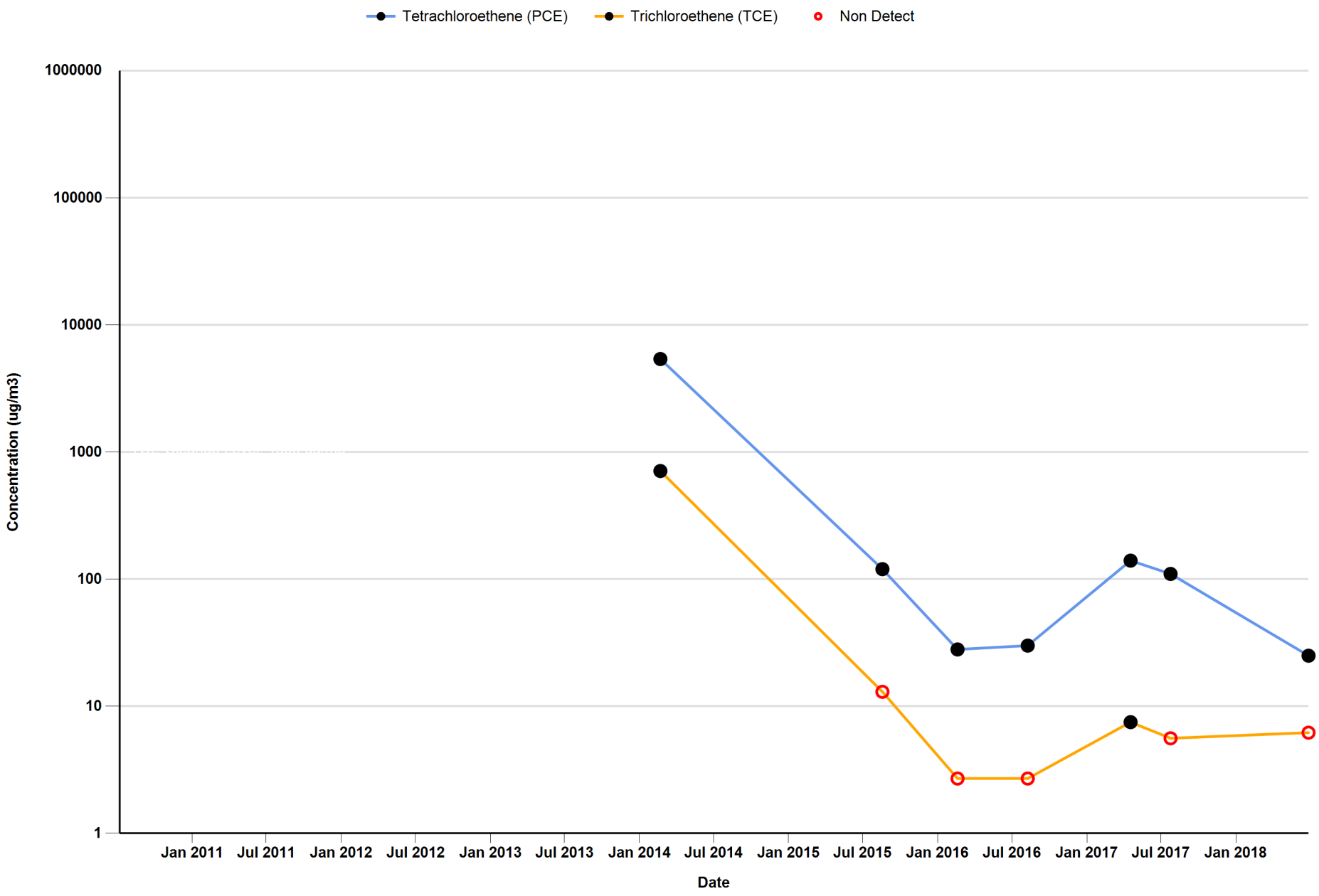
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-23
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-93 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



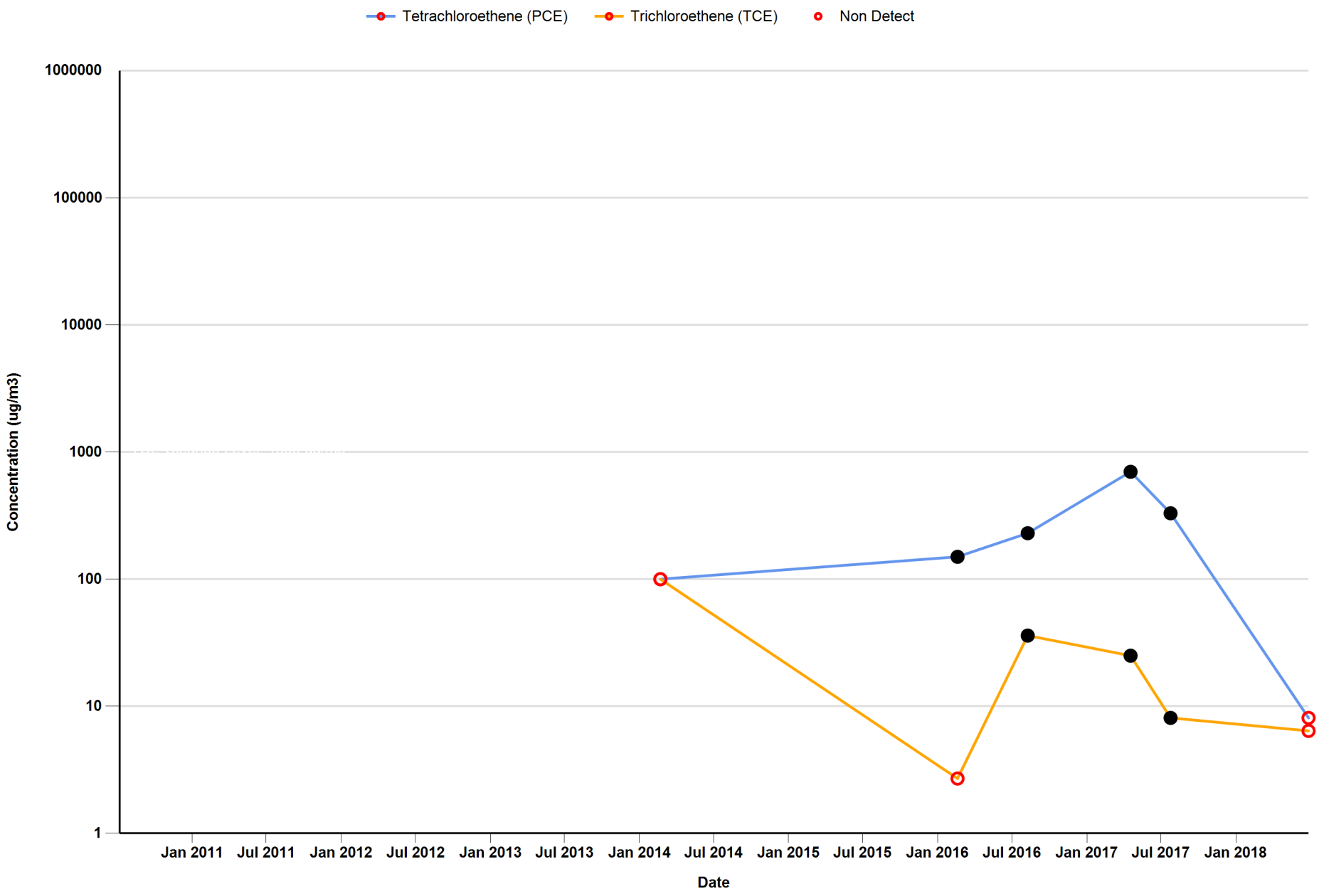
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-24
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-94 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-25
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-95 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment F

OU-1 SVE System Operational Data

Attachment F, Table F-1
OU-1 SVE System Operational Data Demonstrating Substantive Compliance With SCAQMD Operational Limits
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

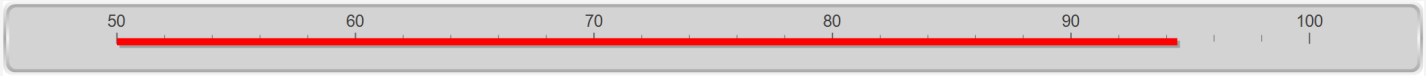
SCAQMD Limit				1280	145				15			
HRA Changeout Criteria								50[3]		90[3]		
Date	Interval Run Time (hr)	Up Time (%)	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	VGAC Influent Vapor Temperature (°F)	VGAC Effluent Vapor Temperature (°F)	VGAC Influent PID Measurement (ppmv)	VGAC Midpoint PID Measurement (ppmv)	VGAC Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)	Mass Removed (lbs, monthly total)
4/2/2018	97	100	--	1124	104.7	87.8	23.5	0.0	0.0	100	100	4.5
4/9/2018	170	100	61.4	1174	106.8	97.1	24.4	0.2	0.8	99	97	
4/16/2018	169	100	58.1	1107	106.2	94.8	22.8	1.5	1.6	93	93	
4/24/2018	191	99	54.1	1112	105.9	95.5	20.3	0.7	0.7	97	97	
4/30/2018	141	98	75.6	1091	103.1	87.1	19.9	0.1	0.0	100	100	
5/7/2018	172	100	50.3	1032	107.3	99.3	8.8	1.3	2.0	86	78	5.2
5/14/2018	166	99	60.3	1101	103.9	92.0	16.1	0.0	0.0	100	100	
5/21/2018	168	100	67.9	1100	103.8	87.1	16.1	0.0	0.0	100	100	
5/29/2018	190	99	72.6	1135	103.3	88.3	19.8	0.2	0.1	99	99	
6/4/2018	146	100	54.1	1039	104.5	96.7	9.2	0.6	0.6	94	94	5.9
6/11/2018	172	100	41.6	1055	110.1	102.5	6.8	1.3	1.5	81	78	
6/18/2018	166	99	44.3	1060	107.5	99.7	10.8	0.8	1.6	93	85	
6/25/2018	166	99	55.6	1081	105.7	96.8	10.3	0.7	1.2	93	88	
2nd Qtr 2018 Average		**99**	**58.0**	**1093**	**105.6**	**94.2**	**16.1**	**0.6**	**0.8**	**96**	**95**	**5.2**
											Total Mass Removed 2nd Qtr 2018	**15.6**
Compliance with SCAQMD Limits?				**YES**	**YES**				**YES**			
Carbon Changeout Required This Qtr?								**NO**		**NO**		

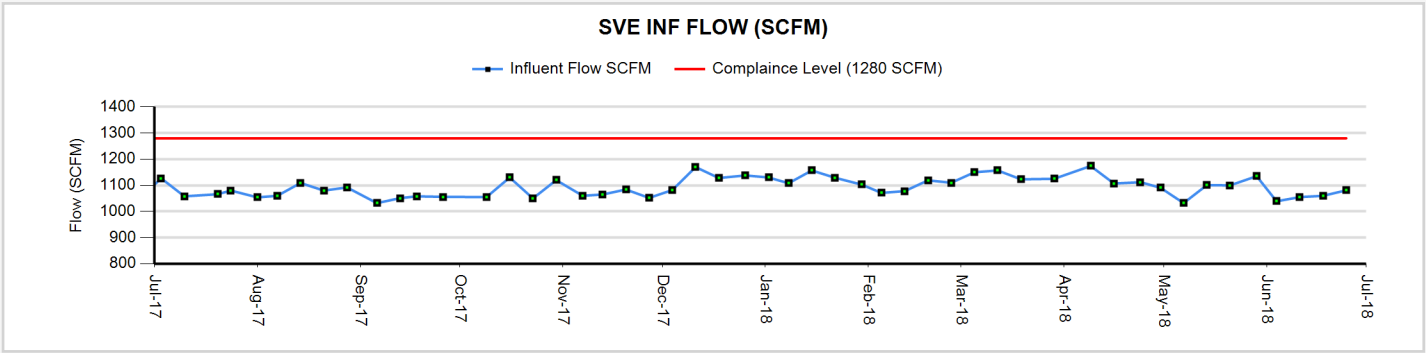
Notes:

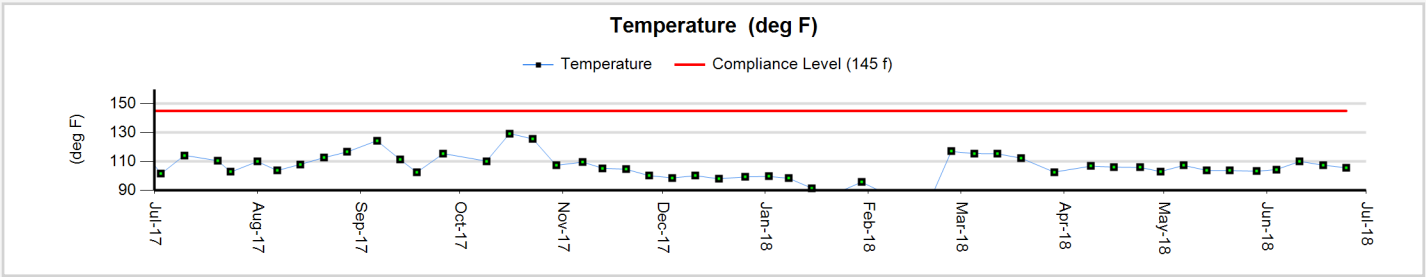
°F = degrees Fahrenheight
PID = photoionization detector
SCFM = Standard Cubic Feet per Minute
Qtr = quarter
SCAQMD = South Coast Air Quality Management District
VGAC = vapor phase granular activated carbon
ppmv = parts per million by volume as hexane
Hr = Hour
lbs = pounds

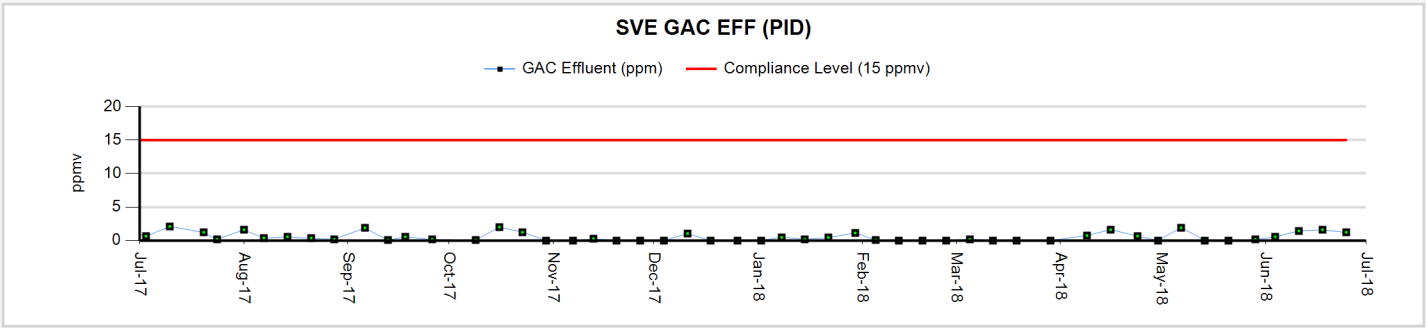
1. Lead VGAC efficiency is calculated by the PID readings between the influent and midpoint.
2. Overall VGAC efficiency is calculated by the PID readings between the influent and effluent.
3. Carbon changeouts are required when the efficiency across the lead VGAC vessel drops below 90% AND the midpoint concentration exceeds 50 ppmv as hexane, by PID during the same sampling event.

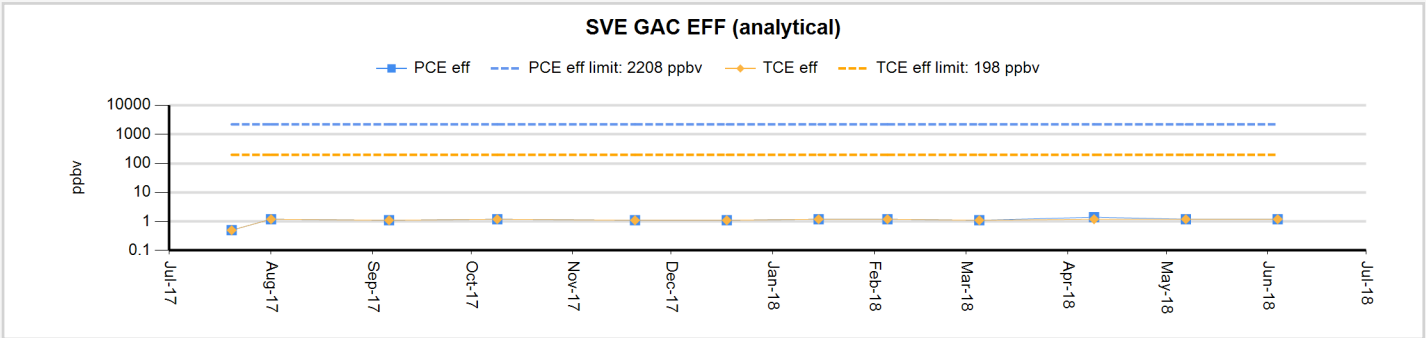
Attachment F, Figure F-1
OU-1 SVE System Operational Data (Rolling One Year)
% Efficiency (PID) Across GAC Primary

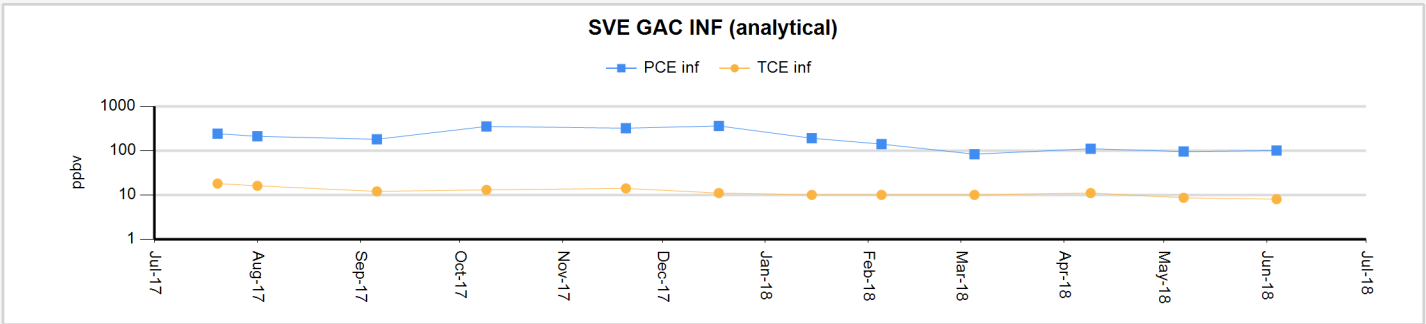












Merry Coons - OU-1 SVE GAC Assessment

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons...
Date: 5/22/2018 3:31 PM
Subject: OU-1 SVE GAC Assessment
Cc: "Bamer, Jeffrey" <BamerJT@cdmsmith.com>, Khalid Azhar <kazhar@jacobandhe...
Attachments: Omega OU-1 SVE GAC Changeout Assessment_Apr2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of April 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of April, the OU-1 SVE system met the conditions presented in the HRA and was therefore substantively compliant (see table below):

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit. MEK was detected at concentrations above the levels modeled in the HRA, but this concentration would not result in the overall acute health index (HIA) above 1, and therefore the system remains substantively compliant. This will be clarified in revised HRA.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected April 9th, 2018

	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Substantively Compliant?**
1,1,1-Trichloroethane (TCA)	4.6	5.5	1.4	34	Yes
1,1-Dichloroethane	1.1	1.2	1.2	15	Yes
1,1-Dichloroethene	3.8	5.1	3.9	1,243	Yes
1,2-Dichloroethane	1.1	1.5	1.2	14	Yes
Benzene	1.1	1.2	1.2	65	Yes
Carbon disulfide	4.5	4.8	4.8	1,007	Yes

Chloroform	1.1	1.2	1.2	48	Yes
Freon 11	1.4	1.9	1.5	1,801	Yes
Freon 113	6	2	1.2	9,799	Yes
Freon 12	1.1	1.2	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	4.5	4.8	19	60	Yes
Methyl ethyl ketone	17	44	100	75	No
Methylene chloride	11	12	12	1,082	Yes
o-Xylene	1.2	1.2	2	21	Yes
Tetrachloroethene (PCE)	110	1.2	1.4	2,208	Yes
TNMOC ref. to Heptane (MW=100)	2600	170	470	17,405	Yes
Toluene	1.1	1.2	1.2	47	Yes
Trichloroethene (TCE)	11	1.2	1.2	198	Yes
Vinyl chloride	1.1	1.2	1.2	84	Yes

Please let us know if you'd like to discuss these data further.

Thanks!
Alesandra

Alesandra Reed, P.E.
Environmental Engineer
CDM Smith
555 17th St. #500
Denver, CO 80202
Mobile: (352) 222-2583
Office: (303) 383-2475

Merry Coons - OU-1 SVE - May 2018 GAC Performance Assessment

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons...
Date: 5/25/2018 4:52 PM
Subject: OU-1 SVE - May 2018 GAC Performance Assessment
Cc: "Bamer, Jeffrey" <BamerJT@cdmsmith.com>, Khalid Azhar <kazhar@jacobandhe...
Attachments: Omega OU-1 SVE GAC Changeout Assessment_May 2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of May 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

So far during the month of May, the OU-1 SVE system has met the conditions presented in the HRA and was therefore substantively compliant (see table below):

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit, except for MEK. While the MEK concentration at the effluent of the lag vessel exceeds the levels modeled in the HRA, this concentration would not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant. This will be clarified in revised HRA.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected May 7th, 2018

	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Substantively Compliant?**
1,1,1-Trichloroethane (TCA)	4.4	4.8	1.5	34	Yes
1,1-Dichloroethane	1.2	1.2	1.2	15	Yes

1,1-Dichloroethene	3	4.4	4.5	1,243	Yes
1,2-Dichloroethane	1.2	1.6	1.2	14	Yes
Benzene	1.2	1.2	1.2	65	Yes
Carbon disulfide	4.9	4.9	4.9	1,007	Yes
Chloroform	1.2	1.2	1.2	48	Yes
Freon 11	1.2	1.4	2.1	1,801	Yes
Freon 113	5.7	3.7	1.2	9,799	Yes
Freon 12	1.2	1.2	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	4.9	4.9	4.9	60	Yes
Methyl ethyl ketone	73	60	260	75	No
Methylene chloride	12	12	12	1,082	Yes
o-Xylene	1.2	1.2	1.8	21	Yes
Tetrachloroethene (PCE)	95	1.2	1.2	2,208	Yes
TNMOC ref. to Heptane (MW=100)	2500	200	720	17,405	Yes
Toluene	1.2	1.2	1.2	47	Yes
Trichloroethene (TCE)	8.6	1.2	1.2	198	Yes
Vinyl chloride	1.2	1.2	1.2	84	Yes

Please let us know if you'd like to discuss these data or our assessment further.

Thanks!
Alesandra

Alesandra Reed, P.E.
Environmental Engineer
CDM Smith
555 17th St. #500
Denver, CO 80202
Mobile: (352) 222-2583
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Merry Coons - OU-1 SVE - June GAC Performance Assessment

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Lapiers Spencer <SL...
Date: 6/25/2018 10:59 PM
Subject: OU-1 SVE - June GAC Performance Assessment
Cc: Coons Merry <mcoons@demaximis.com>, Khalid Azhar <kazhar@jacobandhefner....
Attachments: Omega OU-1 SVE GAC Changeout Assessment_June 2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of June 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

So far during the month of June, the OU-1 SVE system has met the conditions presented in the HRA and was therefore substantively compliant (see table below):

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit, except for MEK. While the MEK concentration at the effluent of the lag vessel exceeds the levels modeled in the HRA, this concentration would not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant. This will be clarified in revised HRA.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected June 4th, 2018

	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Substantively Compliant?**
1,1,1-Trichloroethane (TCA)	5.8	4.9	2.3	34	Yes
1,1-Dichloroethane	1.2	1.2	1.2	15	Yes

1,1-Dichloroethene	2.7	2.7	4.5	1,243	Yes
1,2-Dichloroethane	1.2	1.3	1.2	14	Yes
Benzene	1.2	1.2	1.2	65	Yes
Carbon disulfide	4.6	4.8	4.9	1,007	Yes
Chloroform	1.2	1.2	1.2	48	Yes
Freon 11	1.4	1.2	1.4	1,801	Yes
Freon 113	6.9	3.8	1.2	9,799	Yes
Freon 12	1.2	1.2	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	4.6	4.8	4.9	60	Yes
Methyl ethyl ketone	20	46	94	75	No
Methylene chloride	12	12	23	1,082	Yes
o-Xylene	1.2	1.2	1.2	21	Yes
Tetrachloroethene (PCE)	100	1.9	1.2	2,208	Yes
TNMOC ref. to Heptane (MW=100)	1900	180	450	17,405	Yes
Toluene	1.2	1.2	1.2	47	Yes
Trichloroethene (TCE)	8	1.2	1.2	198	Yes
Vinyl chloride	1.2	1.2	1.2	84	Yes

Please let us know if you'd like to discuss these data or our assessment further.

Thanks!
Alesandra

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Attachment G

Summary of VEW and DPE

Concentrations and Operational Data

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-1S	4/9/2018	SHALLOW	25.0	0.0	--	92.4	-16.0	30.1	--
	5/7/2018	SHALLOW	19.0	0.9		94.1	-16.0	30.2	
	6/4/2018	SHALLOW	20.0	0.5		90.0	-16.0	37.6	
VE-5S	4/9/2018	SHALLOW	28.0	0.3	--	99.2	-46.0	20.0	--
	5/7/2018	SHALLOW	27.0	1.0		94.6	-46.0	32.9	
	6/4/2018	SHALLOW	26.0	0.6		92.5	-46.0	37.0	
VE-6S	4/9/2018	SHALLOW	75.0	0.3	--	100.2	-20.0	18.9	--
	5/7/2018	SHALLOW	69.0	0.8		94.8	-22.0	25.2	
	6/4/2018	SHALLOW	70.0	0.6		92.1	-20.0	35.6	
VE-8S	4/9/2018	SHALLOW	169.0	0.8	2355	97.7	-23.0	20.5	1.8
	5/7/2018	SHALLOW	152.0	1.5		94.6	-21.0	27.2	
	6/4/2018	SHALLOW	146.0	1.3		91.6	-23.0	38.2	
VE-9S	4/9/2018	SHALLOW	76.0	0.8	1490	95.6	-49.0	21.5	0.4
	5/7/2018	SHALLOW	42.0	1.5		93.8	-46.0	27.2	
	6/4/2018	SHALLOW	46.0	1.0		92.3	-48.0	32.6	
VE-10S	4/9/2018	SHALLOW	53.0	0.0	--	95.5	-44.0	25.6	--
	5/7/2018	SHALLOW	44.0	1.1		95.7	-44.0	25.2	
	6/4/2018	SHALLOW	42.0	0.7		90.6	-46.0	35.0	
VE-11S	4/9/2018	SHALLOW	81.0	0.1	--	98.7	-22.0	22.1	--
	5/7/2018	SHALLOW	72.0	0.9		95.1	-16.0	31.6	
	6/4/2018	SHALLOW	34.0	0.5		90.6	-13.0	42.5	
VE-12S	4/9/2018	SHALLOW	62.0	0.0	--	94.5	-42.0	22.3	--
	5/7/2018	SHALLOW	58.0	1.0		94.1	-40.0	31.3	
	6/4/2018	SHALLOW	51.0	0.6		90.8	-42.0	35.4	
VE-14S	4/9/2018	SHALLOW	24.0	0.4	--	99.2	-8.0	30.0	--
	5/7/2018	SHALLOW	26.0	0.7		93.0	-8.0	44.6	
	6/4/2018	SHALLOW	26.0	0.5		92.4	-10.0	37.1	
VE-15S	4/9/2018	SHALLOW	21.0	0.0	--	91.7	-28.0	28.9	--
	5/7/2018	SHALLOW	25.0	1.1		92.6	-24.0	33.5	
	6/4/2018	SHALLOW	22.0	0.7		91.0	-26.0	37.4	

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-21S	4/12/2018	SHALLOW	24.0	0.7	--	91.8	-12.0	11.7	--
	5/10/2018	SHALLOW	43.0	0.0		94.7	-26.0	28.6	
	6/7/2018	SHALLOW	35.0	0.2		96.1	-20.0	23.2	
VE-31S	4/12/2018	SHALLOW	75.0	1.5	--	86.0	-22.0	28.8	--
	5/10/2018	SHALLOW	67.0	0.0		87.6	-18.0	37.2	
	6/7/2018	SHALLOW	70.0	0.1		90.4	-18.0	34.2	
VE-34S	4/12/2018	SHALLOW	173.0	0.3	--	84.5	-52.0	23.6	--
	5/10/2018	SHALLOW	152.0	0.1		95.6	-42.0	28.6	
	6/7/2018	SHALLOW	67.0	0.1		86.9	-14.0	35.0	
VE-39S	4/12/2018	SHALLOW	166.0	2.0	--	86.8	-50.0	25.4	--
	5/10/2018	SHALLOW	150.0	0.1		88.5	-40.0	33.6	
	6/7/2018	SHALLOW	146.0	0.1		93.7	-40.0	28.3	
DPE-3	4/9/2018	DEEP	175.0	1.7	6617	92.2	-42.0	21.8	6.2
	5/7/2018	DEEP	126.0	3.5		91.6	-40.0	28.7	
	6/4/2018	DEEP	129.0	3.3		91.3	-42.0	34.8	
DPE-4	4/9/2018	DEEP	170.0	22.8	2060	91.8	-46.0	25.0	2.1
	5/7/2018	DEEP	154.0	13.2		91.4	-42.0	31.1	
	6/4/2018	DEEP	156.0	10.5		90.8	-44.0	34.7	
DPE-5	4/9/2018	DEEP	125.0	1.3	1209	89.8	-46.0	29.9	0.9
	5/7/2018	DEEP	105.0	1.4		91.5	-42.0	26.8	
	6/4/2018	DEEP	107.0	1.1		94.8	-44.0	31.8	
DPE-8	4/9/2018	DEEP	72.0	1.2	--	87.7	-24.0	33.1	--
	5/7/2018	DEEP	80.0	1.7		90.2	-22.0	35.0	
	6/4/2018	DEEP	76.0	1.0		93.7	-22.0	32.5	
DPE-9	4/9/2018	DEEP	75.0	1.4	--	88.3	-34.0	33.4	--
	5/7/2018	DEEP	96.0	1.2		90.9	-34.0	37.7	
	6/4/2018	DEEP	97.0	0.8		93.4	-20.0	38.1	
VE-2D	4/9/2018	DEEP	130.0	50.9	1875	98.3	-38.7	19.9	1.8
	5/7/2018	DEEP	112.0	33.5		94.6	-37.3	25.0	
	6/4/2018	DEEP	123.0	40.2		92.3	-38.0	33.8	

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-6D	4/12/2018	DEEP	320.0	1.1	--	93.5	-32.0	11.3	--
	5/10/2018	DEEP	328.0	0.2		92.7	-32.0	31.0	
	6/7/2018	DEEP	110.0	0.2		94.0	-10.0	30.4	
VE-7D	4/12/2018	DEEP	145.0	3.8	--	84.2	-20.0	28.2	--
	5/10/2018	DEEP	125.0	0.9		91.7	-20.0	34.9	
	6/7/2018	DEEP	260.0	0.4		91.7	-48.0	30.3	
VE-10D	4/12/2018	DEEP	125.0	1.6	--	76.9	-20.0	30.4	--
	5/10/2018	DEEP	117.0	0.4		90.3	-18.0	32.5	
	6/7/2018	DEEP	116.0	0.3		85.9	-16.0	39.4	
VE-14D	4/9/2018	DEEP	94.0	1.2	--	90.4	-32.0	24.4	--
	5/7/2018	DEEP	86.0	1.1		91.3	-24.0	34.3	
	6/4/2018	DEEP	92.0	0.8		93.5	-28.0	33.9	

Notes:

DPE = dual phase extraction
ppmv = parts per million by volume
VOC = volatile organic compound
F = Fahrenheight
SCFM = standard cubic feet per minute
Shallow = between 0 and 30 feet below ground surface
lbs = pounds
ug/m3 = micrgrams per liter
Deep = between approximately 30 and 100 feet below ground surface
PID = photoionization detector
VE = vapor extraction
-- = Not measured

in H_2O, gauge = inches of water pressure, relative to atmospheric pressure; a negative gauge pressure is considered vaccum

1. Calculations are based on a subset of total VOC data from monthly laboratory analyses of vapor samples and measured flow rates from individual VEWs and the total system influent. Mass calculations are rounded to nearest 0.1 pound. If less than 0.05 pounds were calculated for the period, this will show as 0.0 pounds. VOCs that are not detected above the RLs are not included in the mass calculation.

2. A subset of VOC data used in mass removed calculations. TVOC concentrations are calculated using the detected concentrations from the following compounds: Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1-Dichloroethene, Vinyl chloride, 1,1,1-Trichloroethane (TCA), 1,1-Dichloroethane, 1,2-Dichloroethane, Chloroform, Methylene chloride, Freon 11, Freon 12, Freon 113, Benzene, Toluene, o-Xylene, Carbon disulfide, Methyl ethyl ketone, Isopropyl Alcohol (Isopropanol), which account for approximately 98% of compounds in the data stream. Samples collected 6/14/2018. Lab reports provided in Attachment B.

Attachment G, Table G-2
VEW / DPE Quarterly Extraction Well Analytical Data Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location[1]	Sample Date	Depth	PCE	TCE	VC	11DCA	12DCA	CF	MeC	Benzene
VE-8S	6/14/2018	SHALLOW	1400	16	3.2 U	5.1 U	5.1 U	6.2 U	44 U	4
VE-9S	6/14/2018	SHALLOW	880	30	3.2 U	5.1 U	5.1 U	6.1 U	44 U	4 U
DPE-3	6/14/2018	DEEP	3800	67	10 U	16 U	16 U	20 U	140 U	13 U
DPE-4	6/14/2018	DEEP	320	140	6.1 U	9.7 U	9.7 U	12 U	84 U	7.7 U
DPE-5	6/14/2018	DEEP	390	23	3.2 U	5 U	5 U	8	43 U	4 U
VE-2D	6/14/2018	DEEP	860	67	11 U	17 U	17 U	21 U	150 U	14 U

Notes:

All Units in micrograms per liter (ug/m3)

DEEP = between approximately 30 and 100 feet below ground surface

U = Not detected above reporting limit listed

DPE = dual phase extraction

TCE = Trichloroethene

11DCA = 1,1-Dichloroethane

MeC = Methylene Chloride

SHALLOW = between 0 and 30 ft below ground surface

PCE = Tetrachloroethene

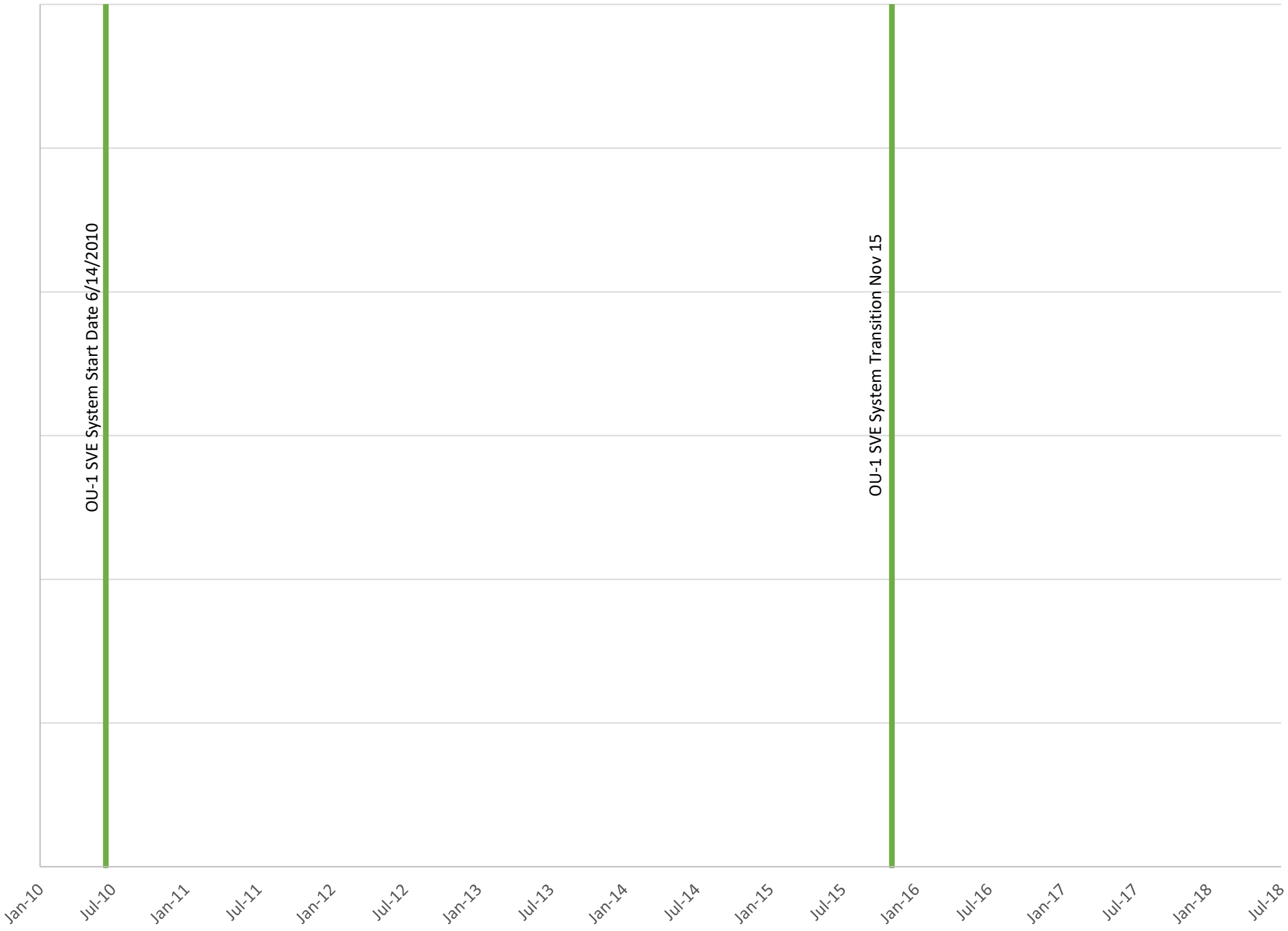
VC = Vinyl Chloride

12DCA = 1,2-Dichloroethane

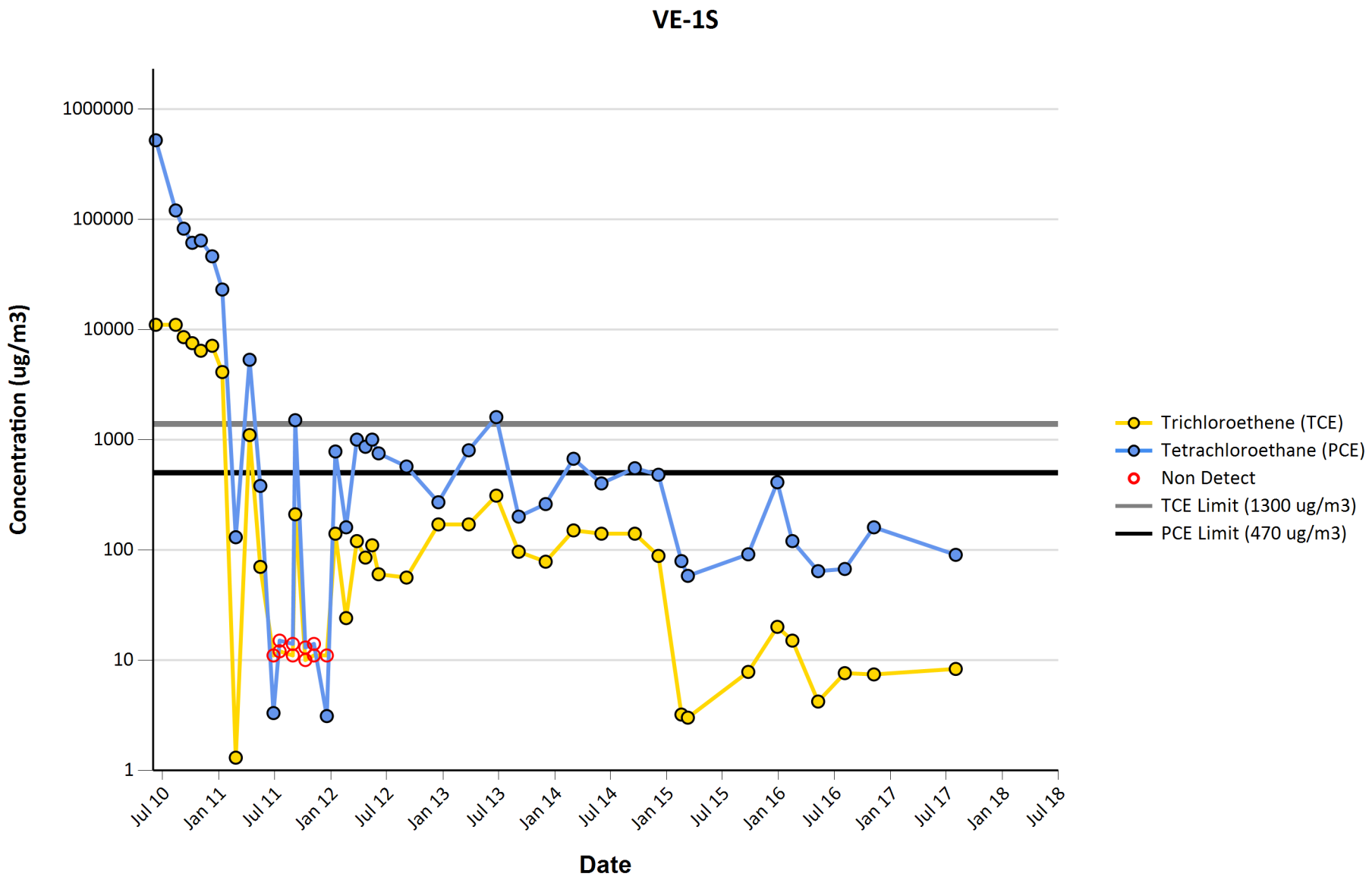
CF = Chloroform

1. VEWs are not required to be sampled each quarter. If VEWs are sampled, it is based on operational considerations and to assist in mass calculations. All VEWs are sampled once per year during the second quarter.

OU-1 Soil Vapor Extraction System Timeline
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

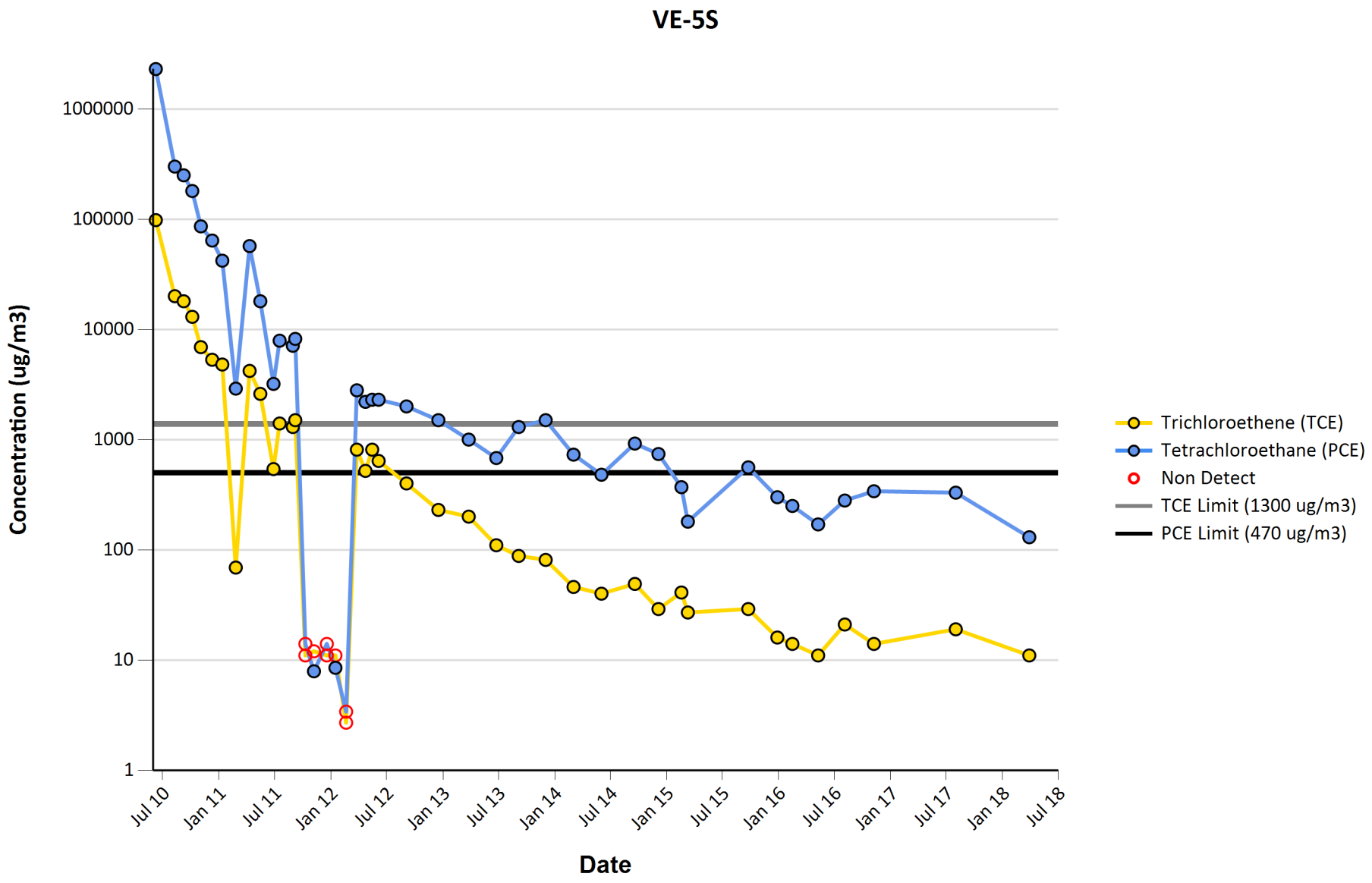


Attachment G, Figure G-1
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



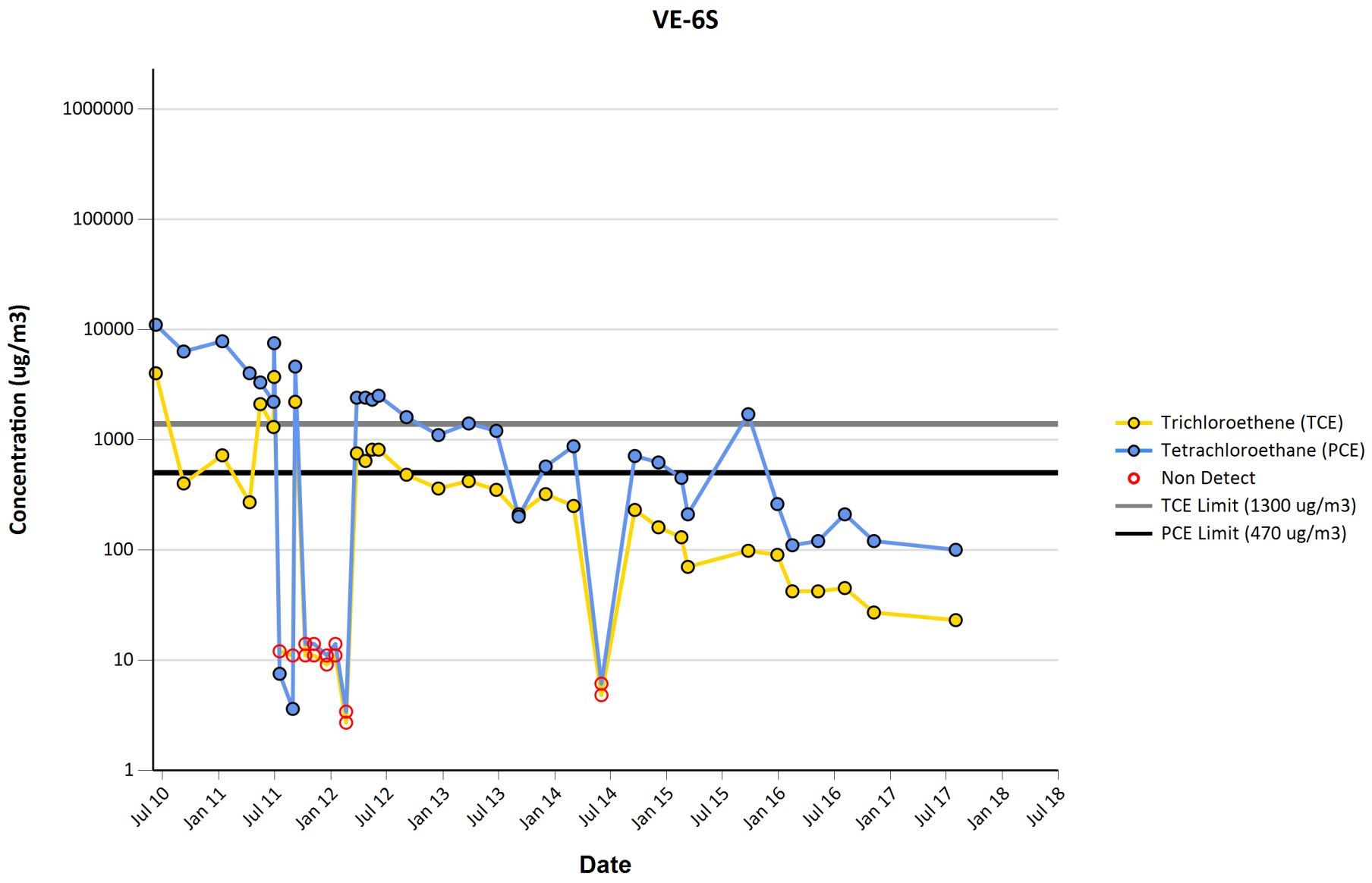
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-2
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



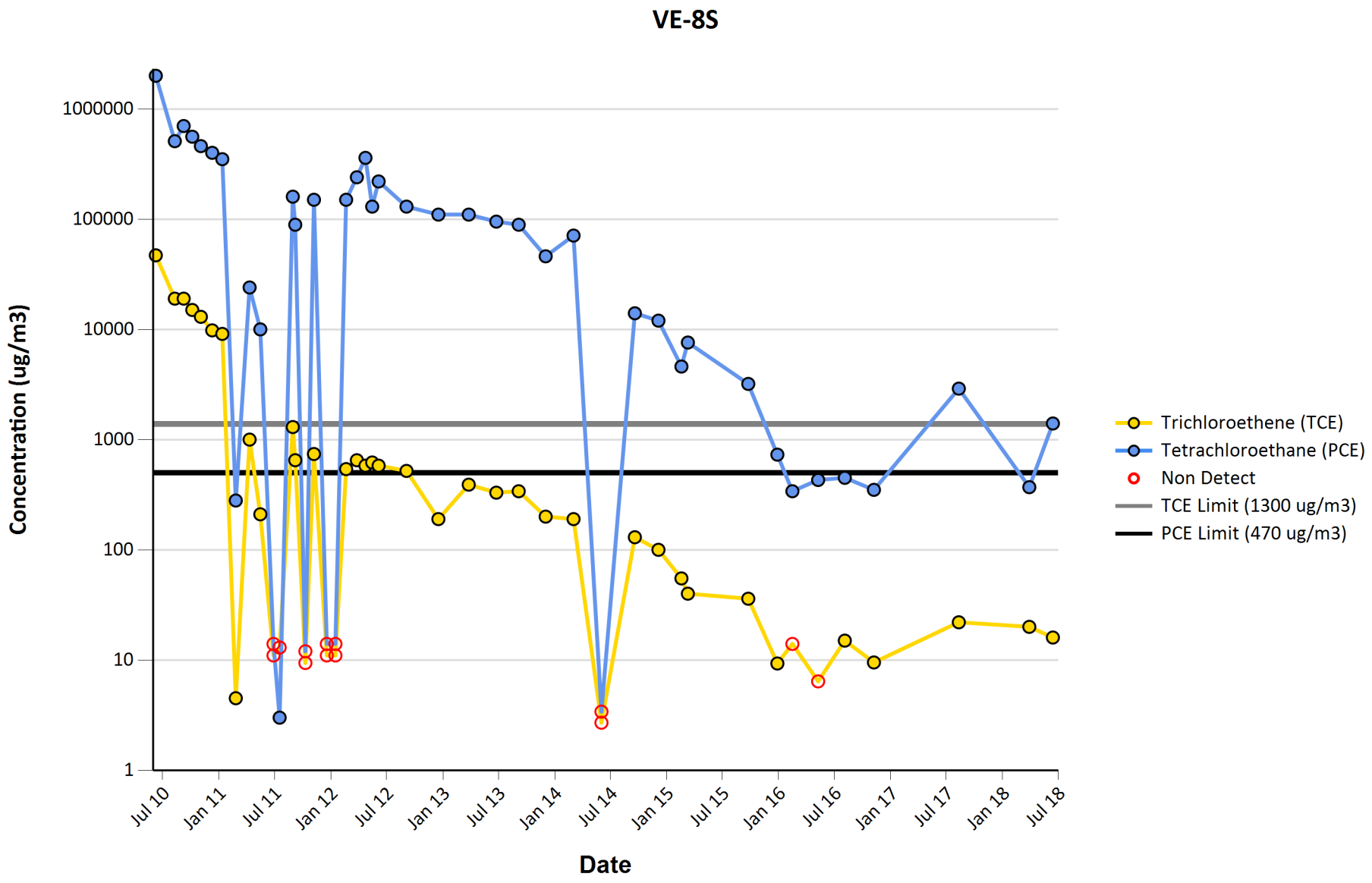
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-3
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



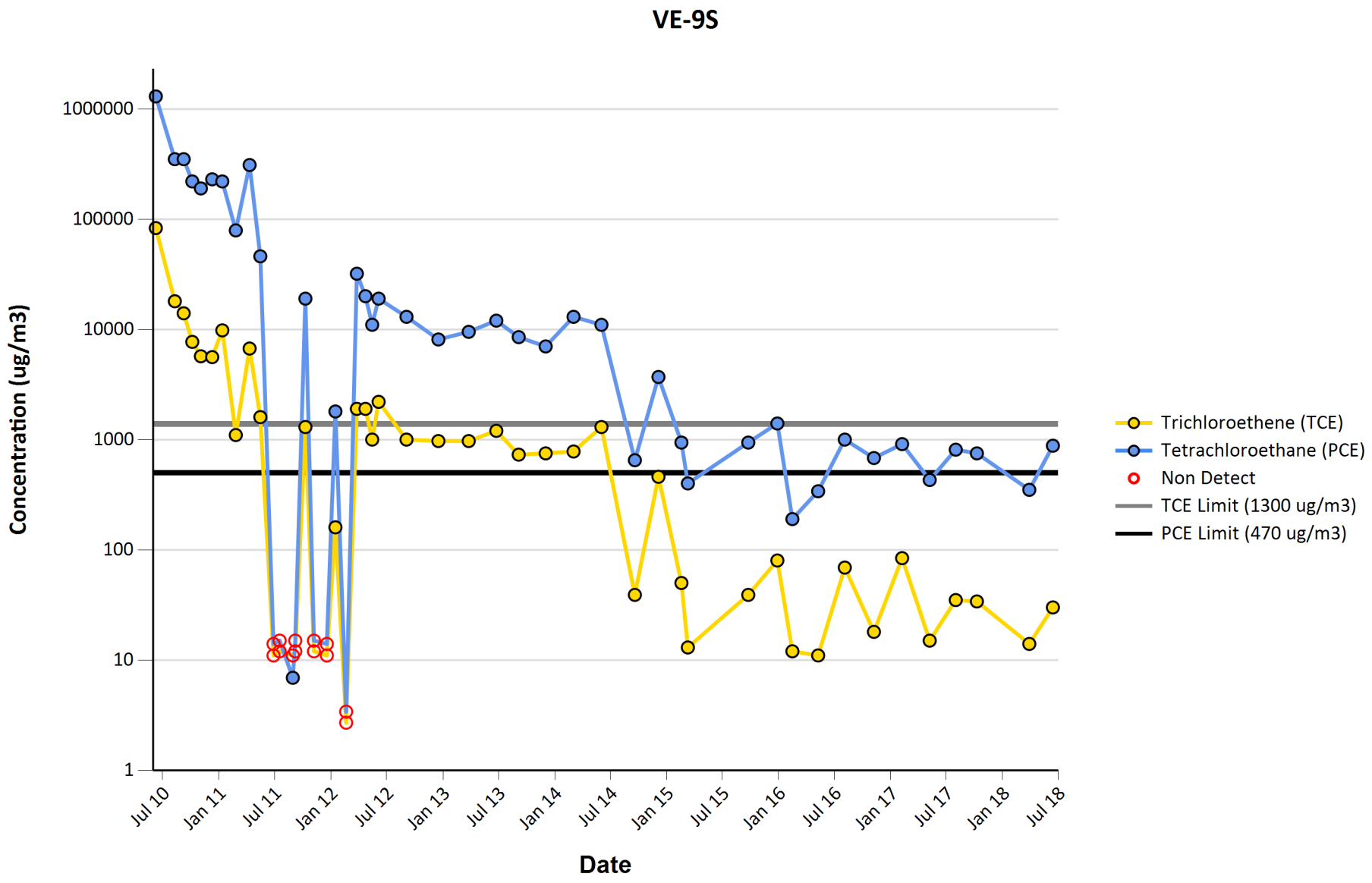
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-4
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



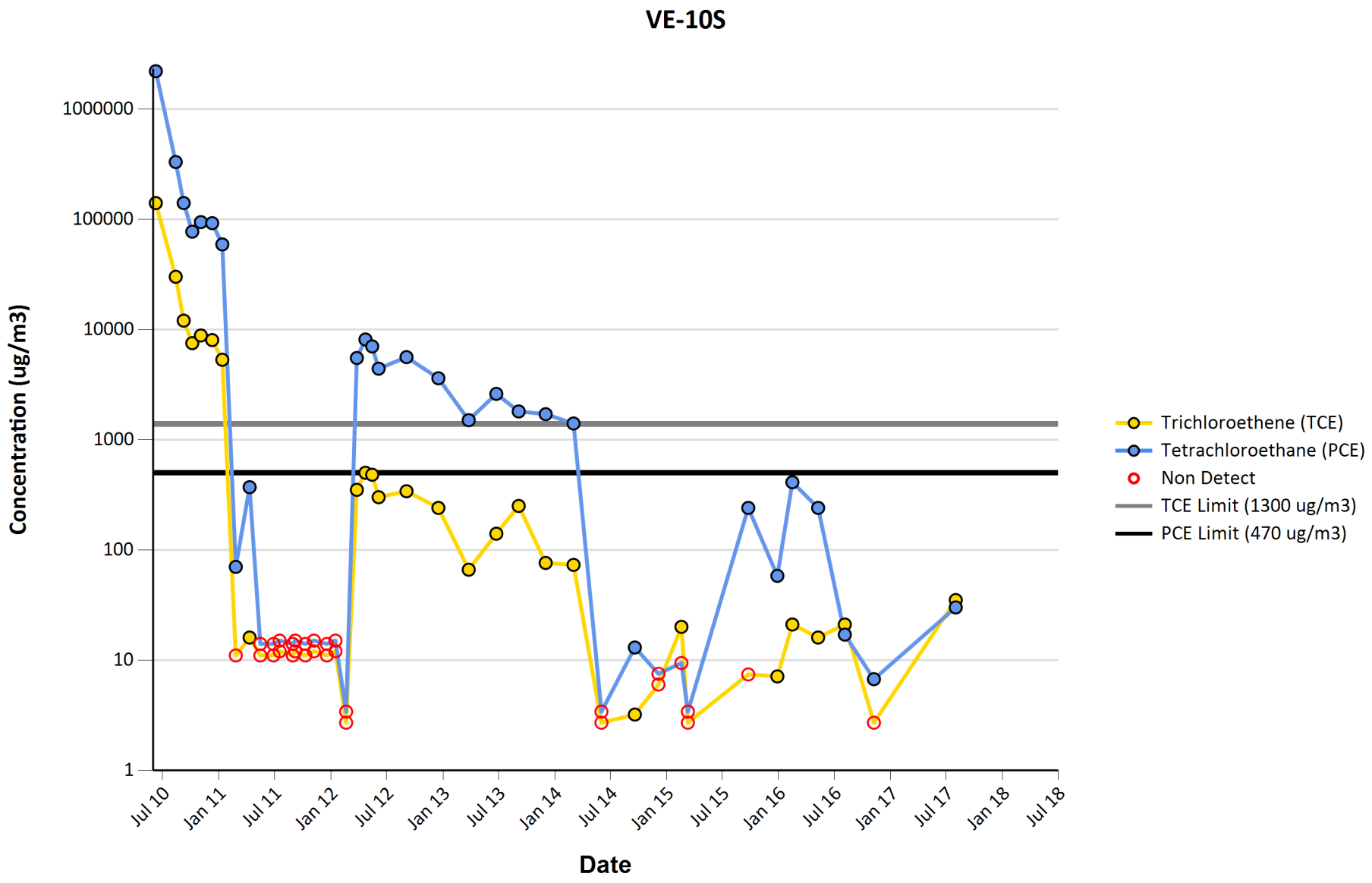
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-5
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



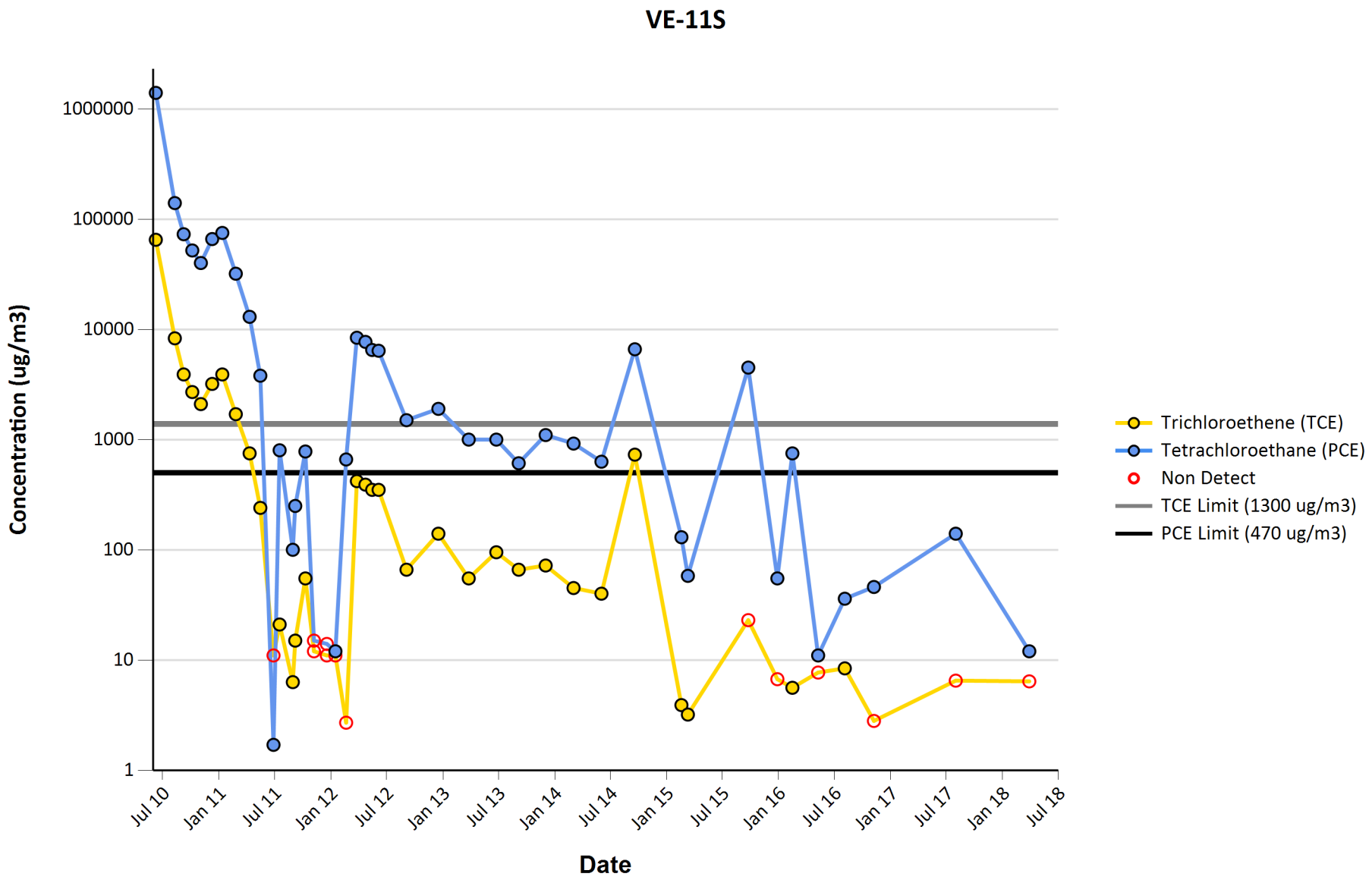
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-6
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



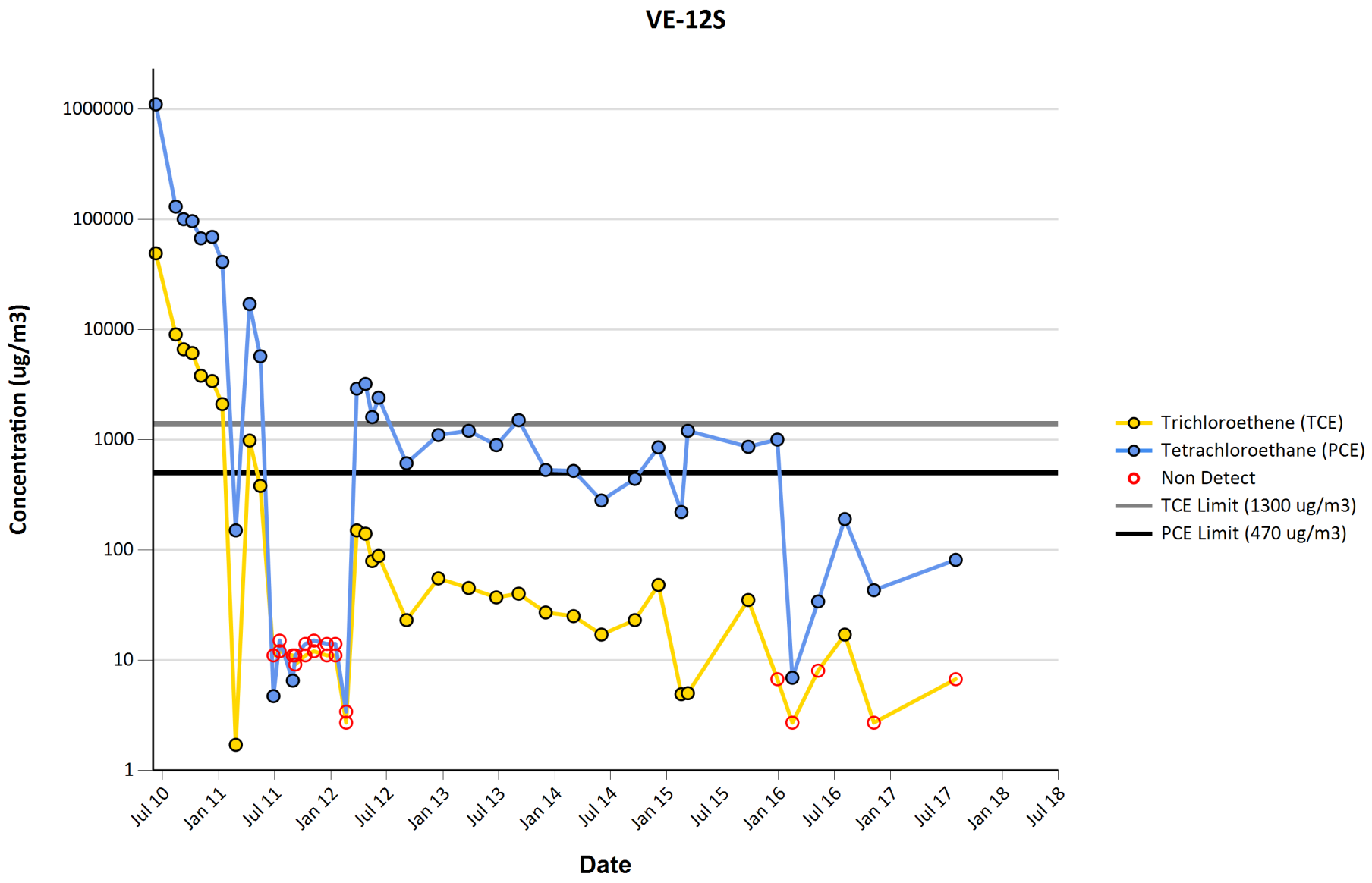
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-7
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



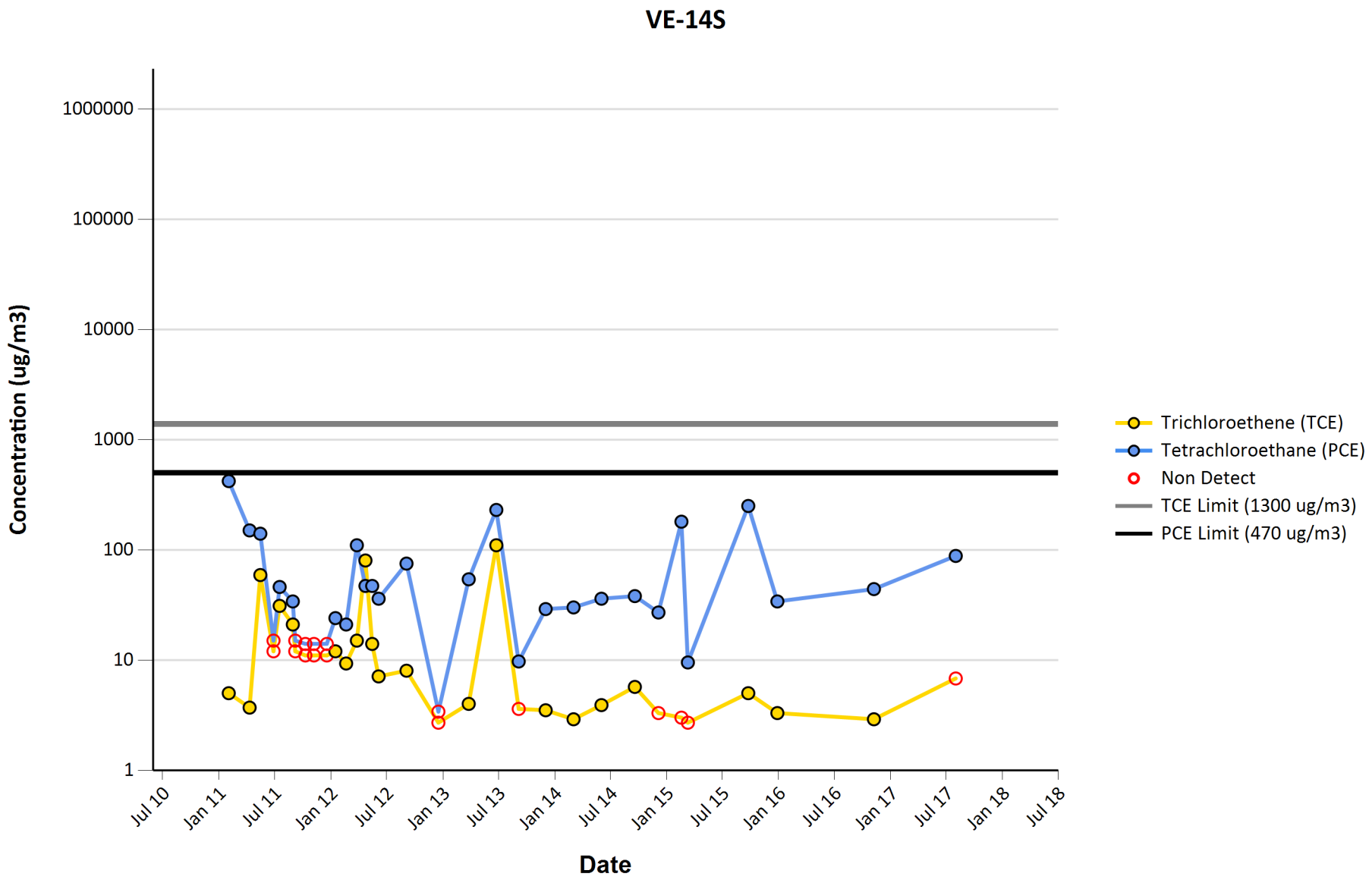
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-8
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



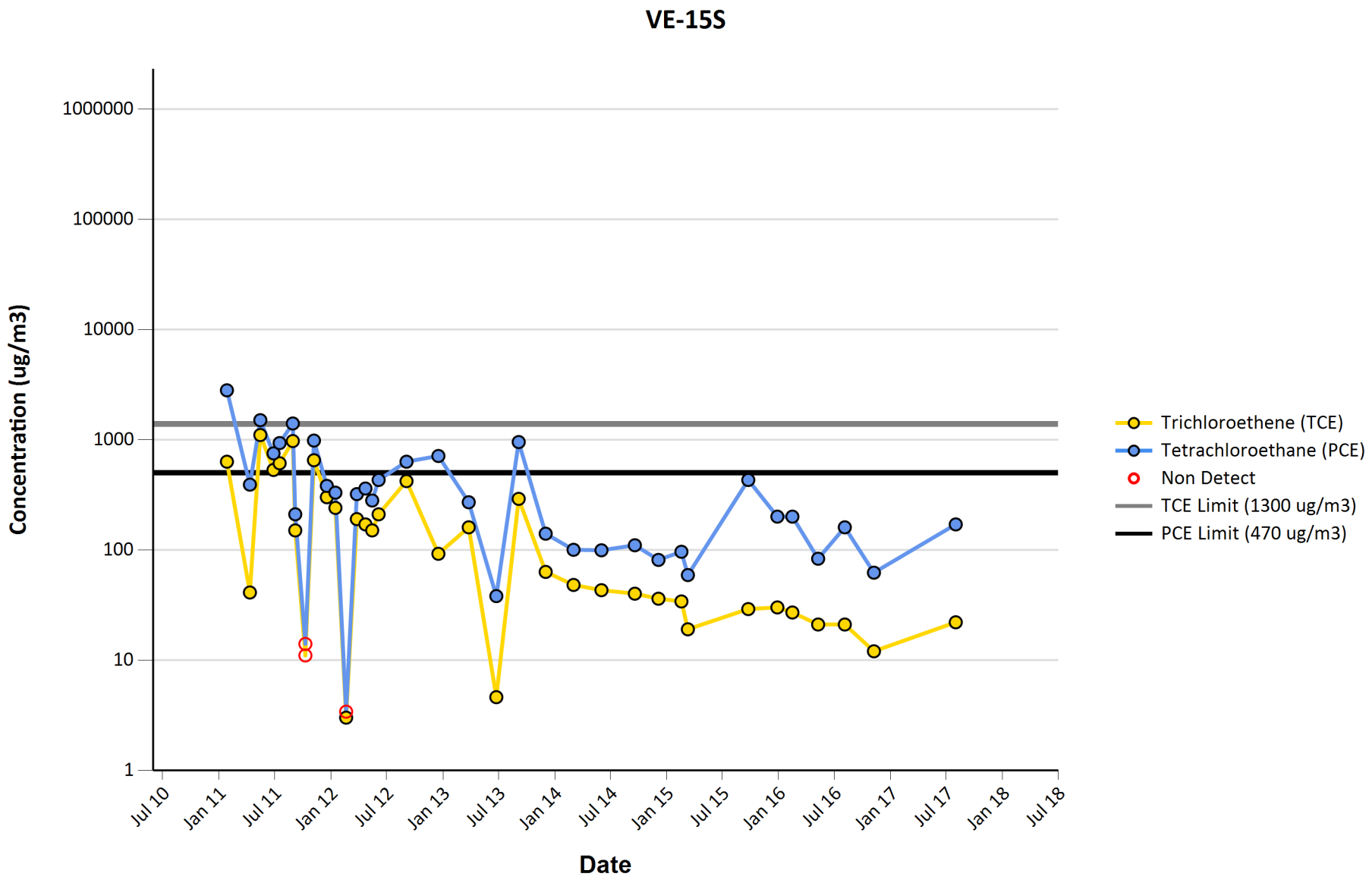
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-9
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



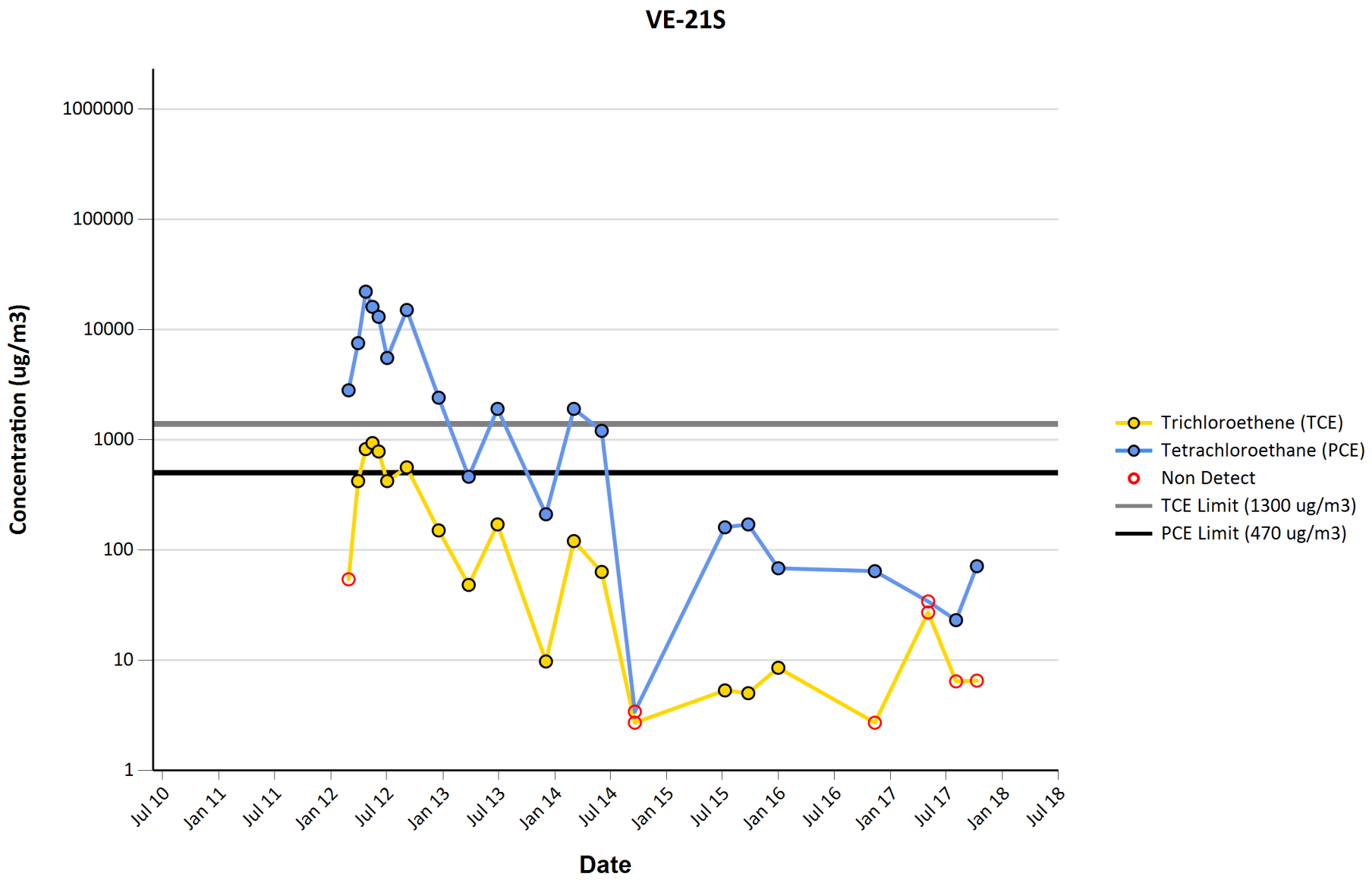
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-10
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



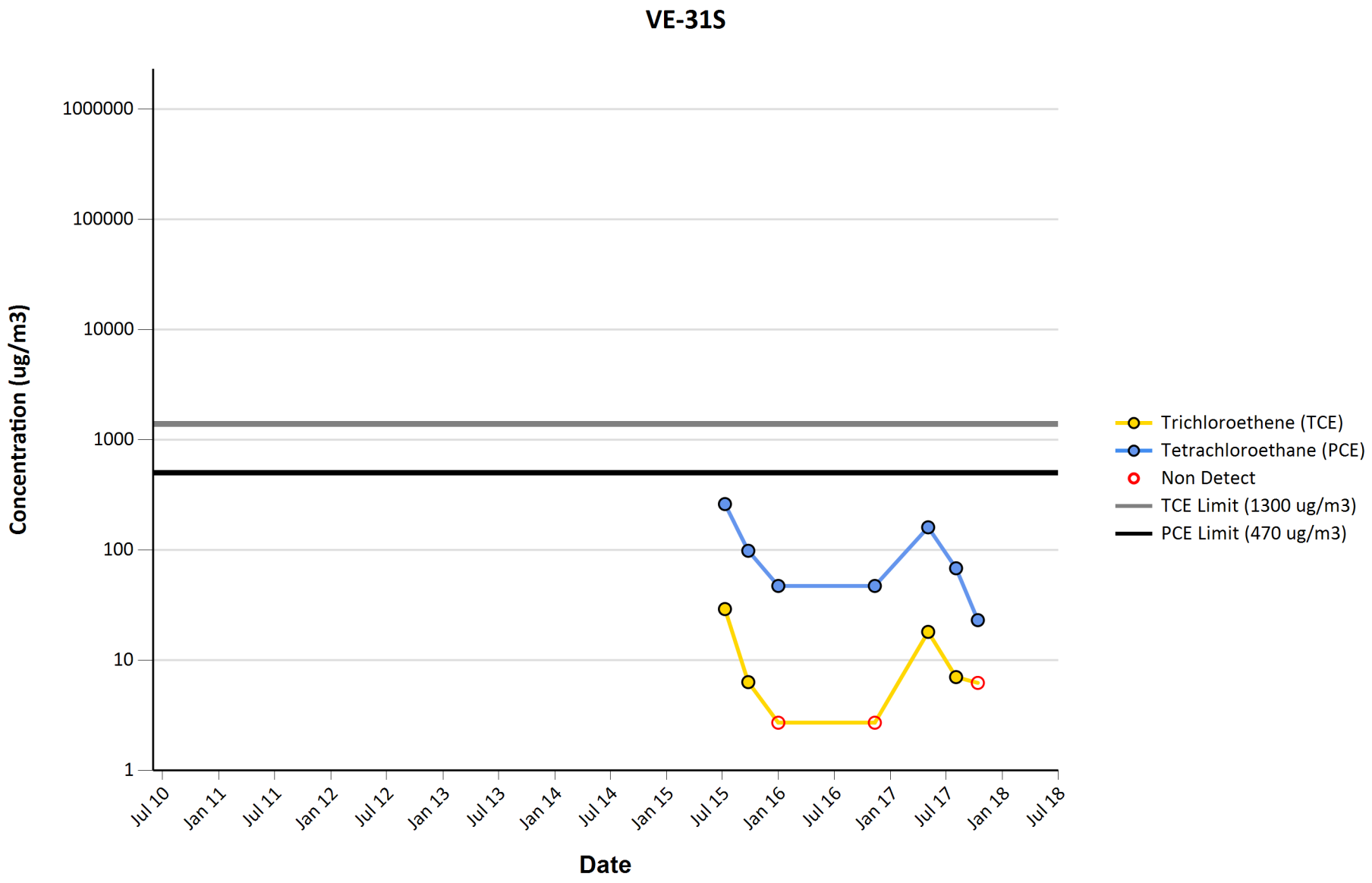
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-11
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



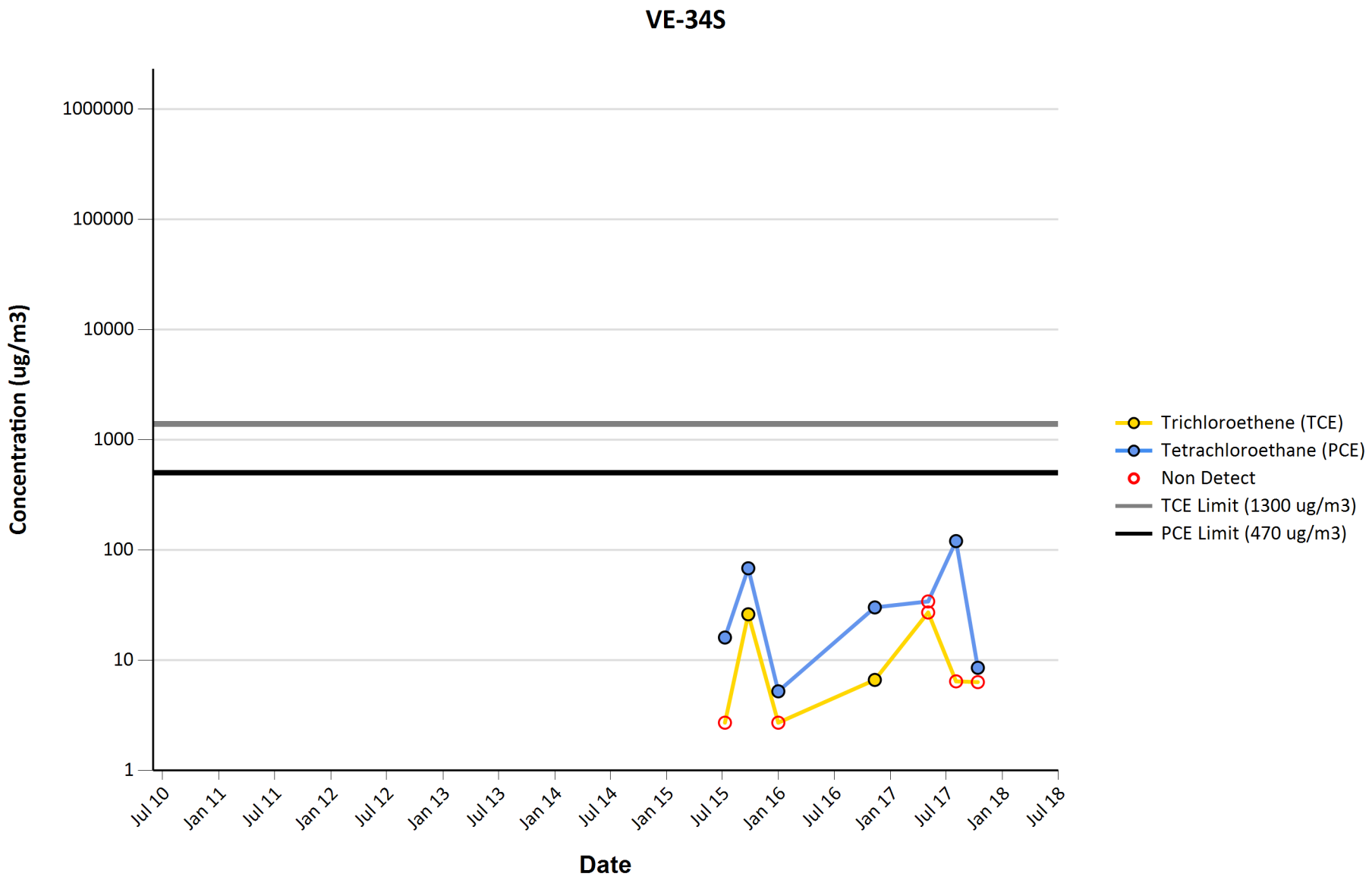
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-12
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



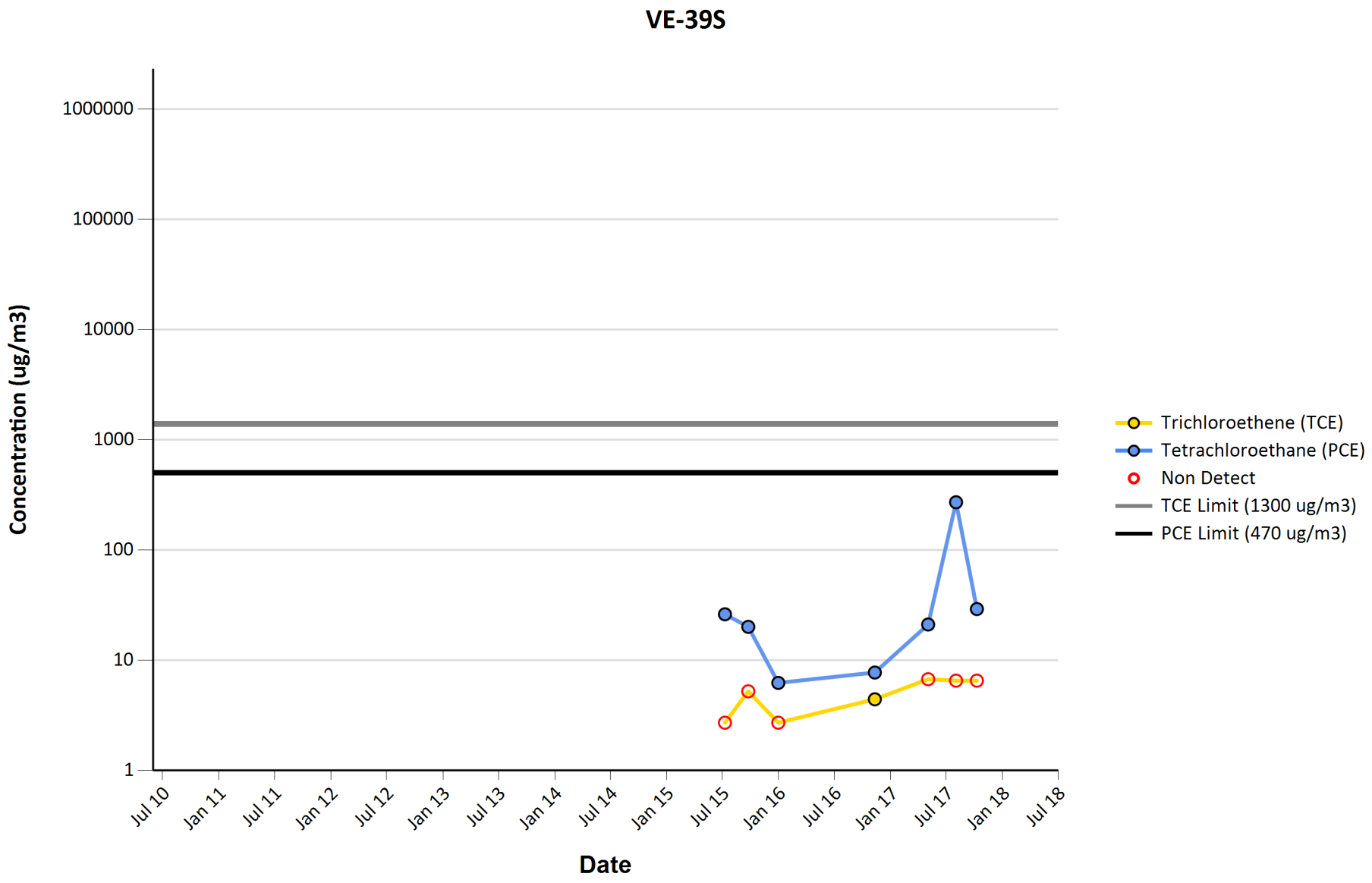
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-13
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



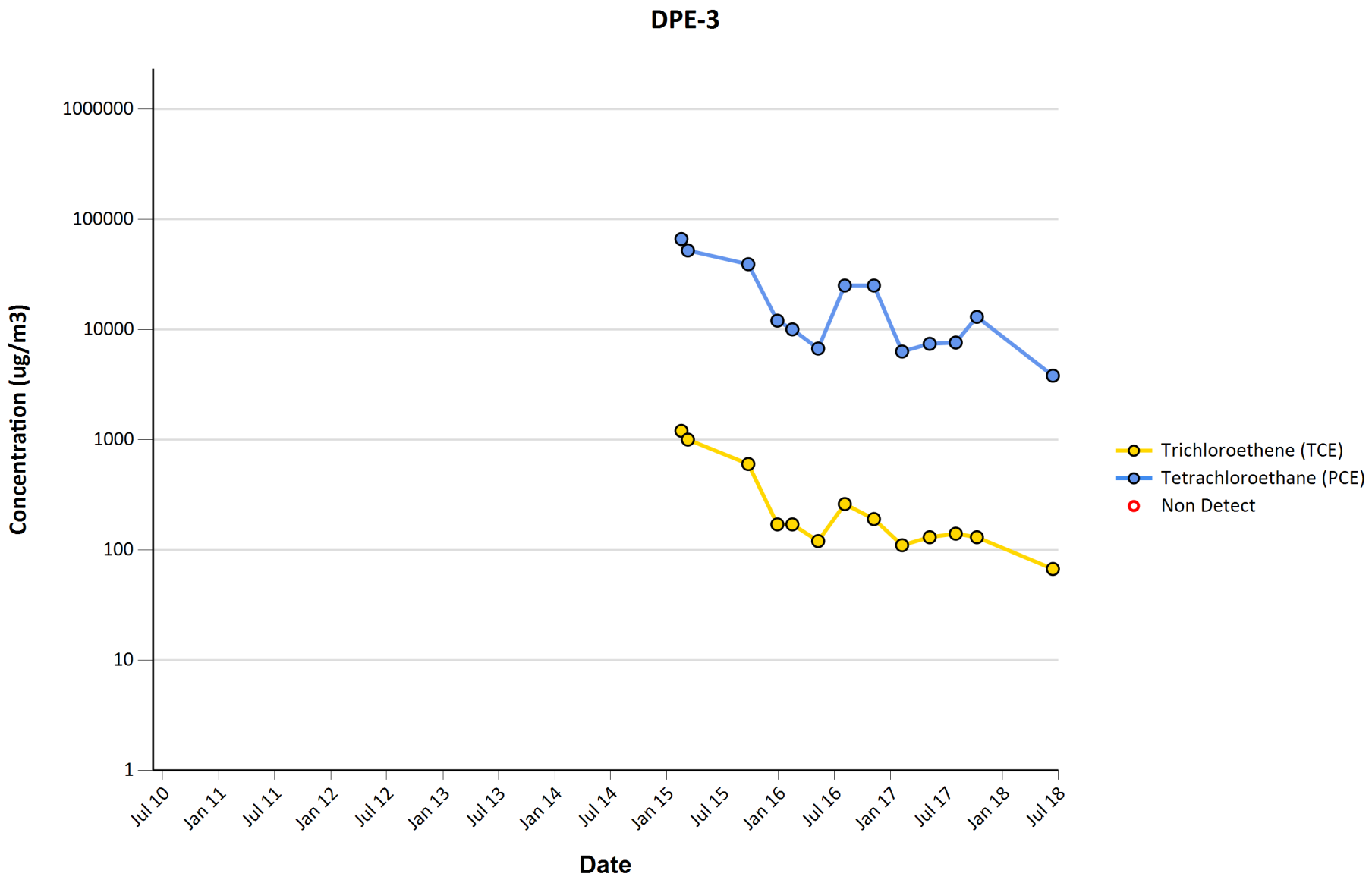
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-14
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



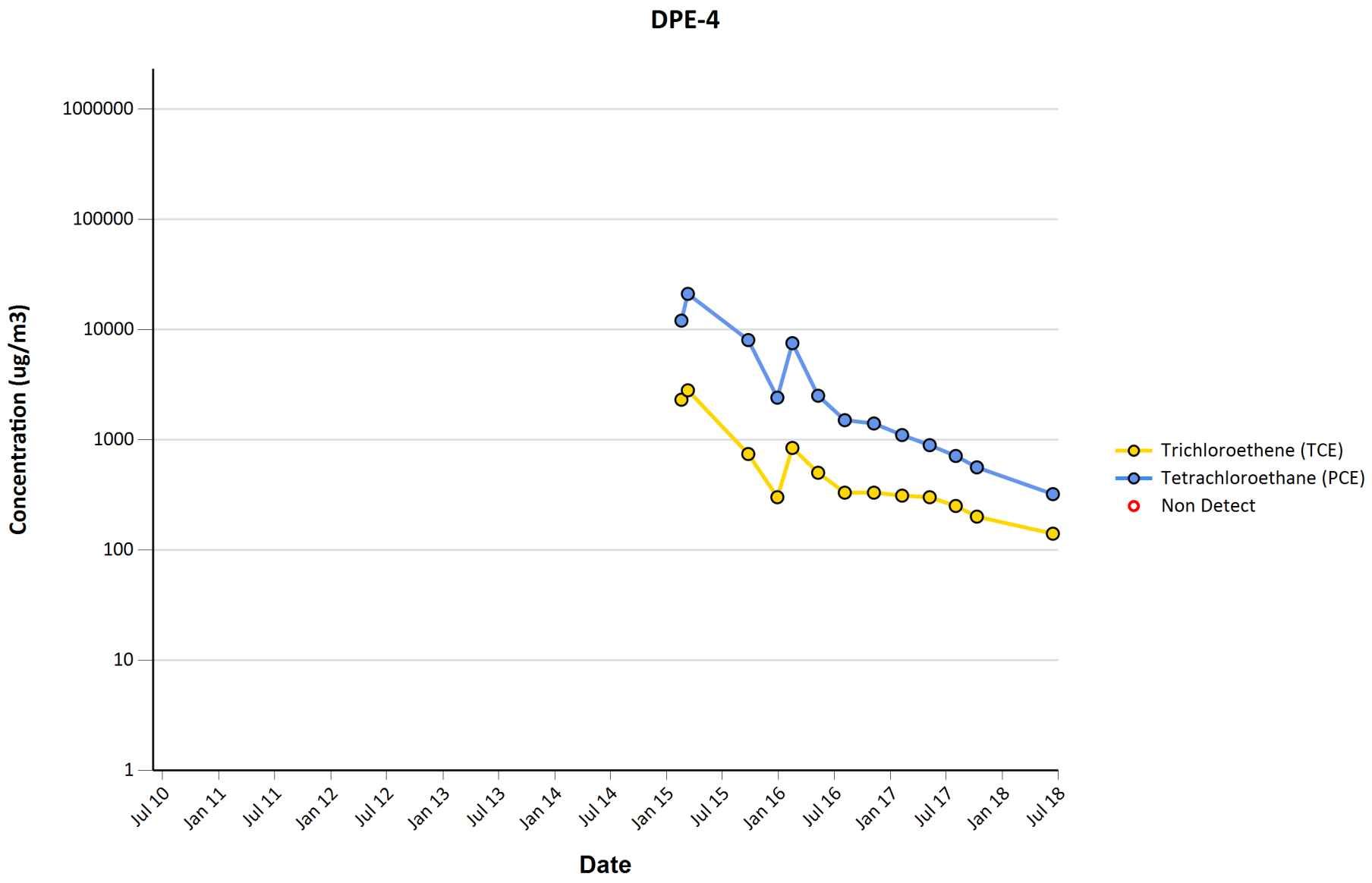
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-15
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



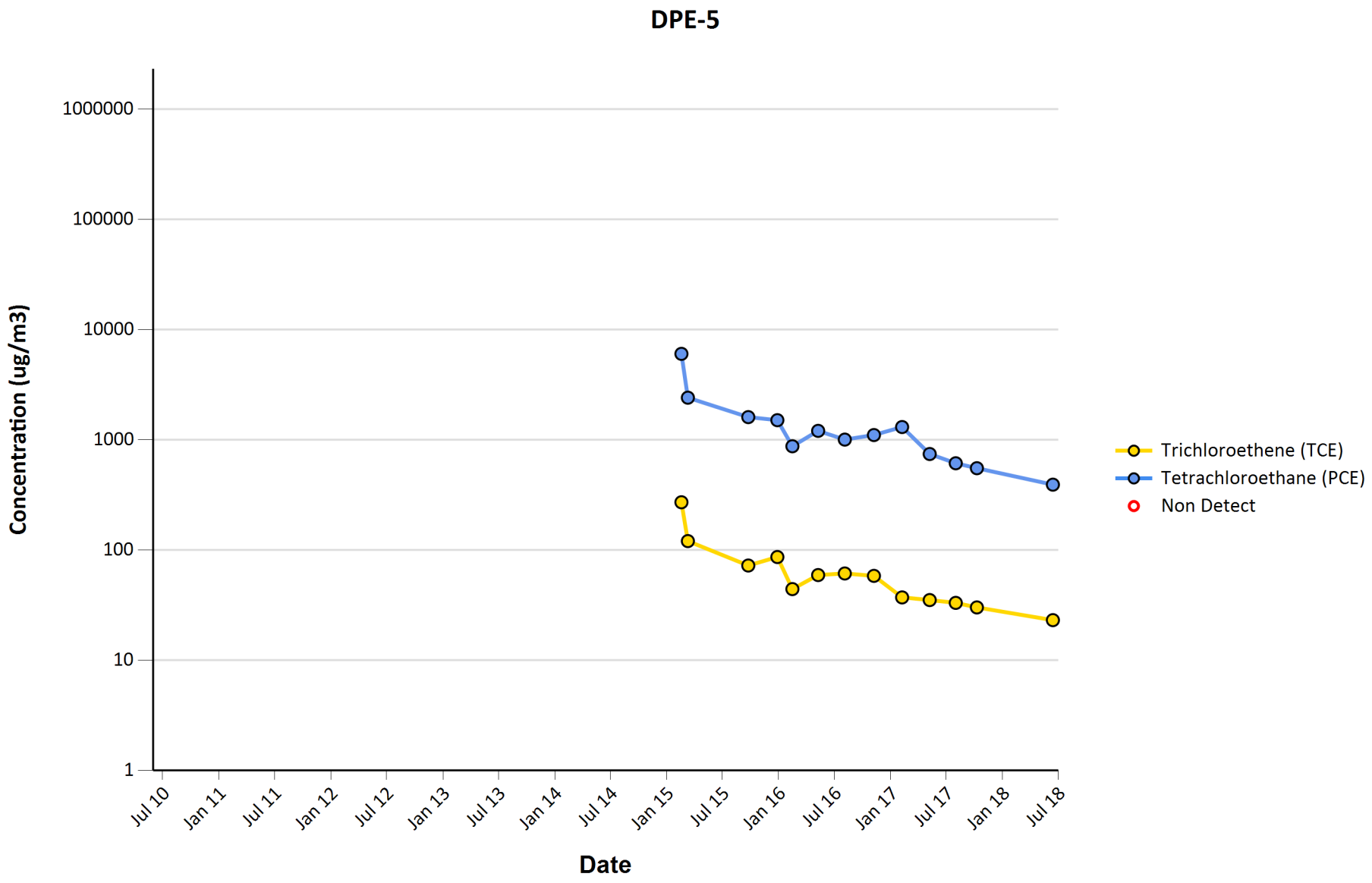
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-16
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



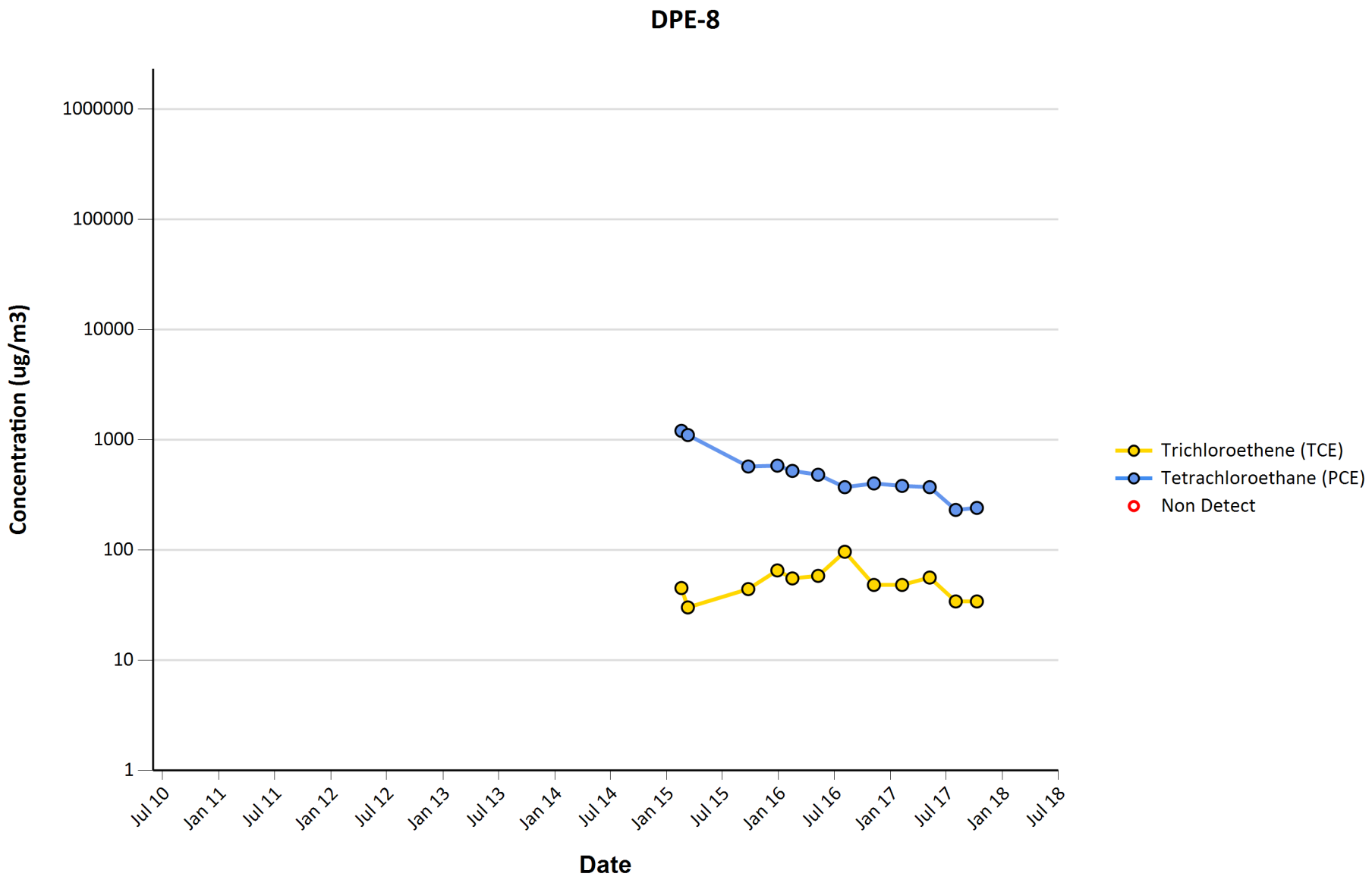
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-17
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



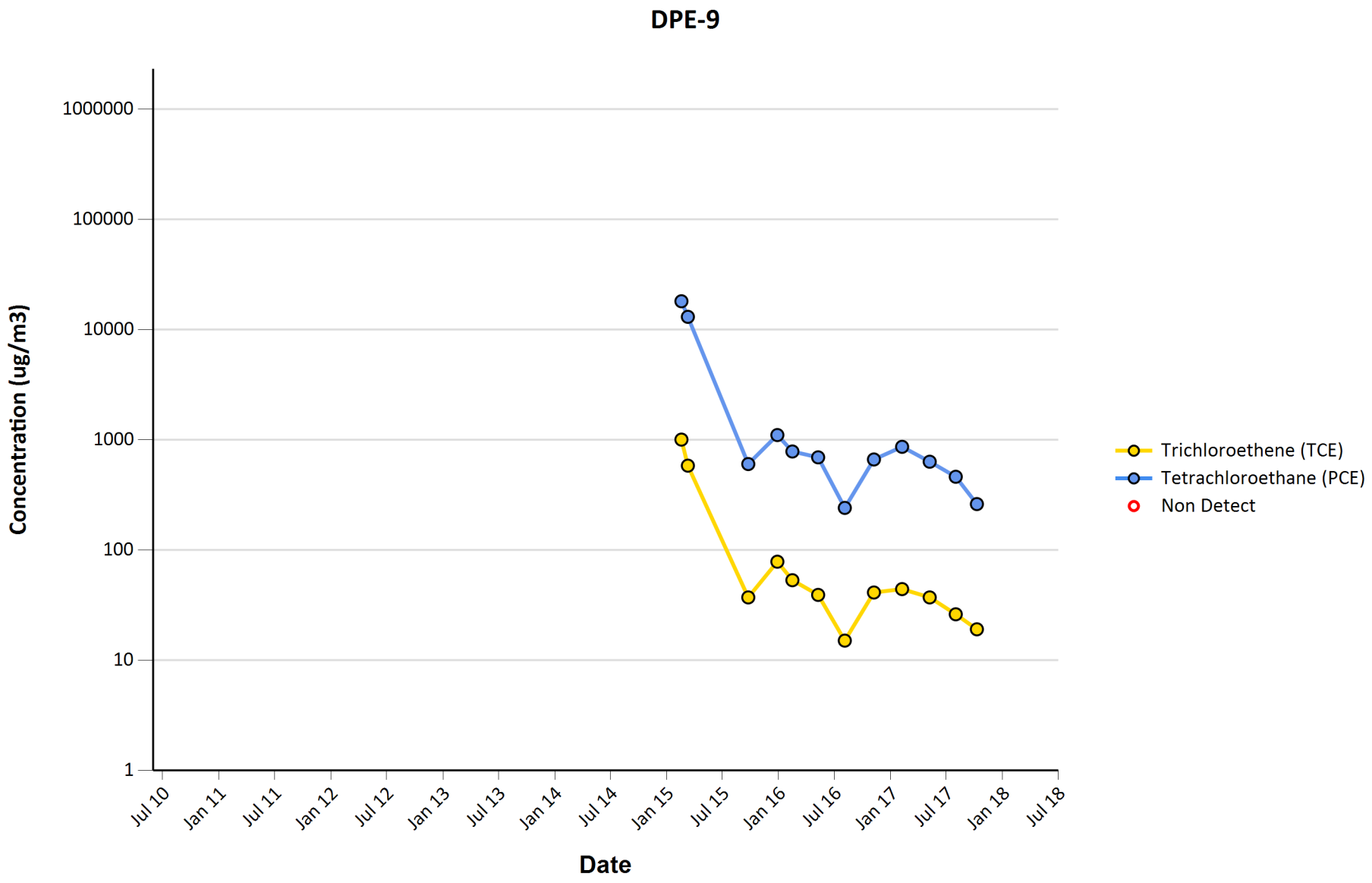
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-18
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



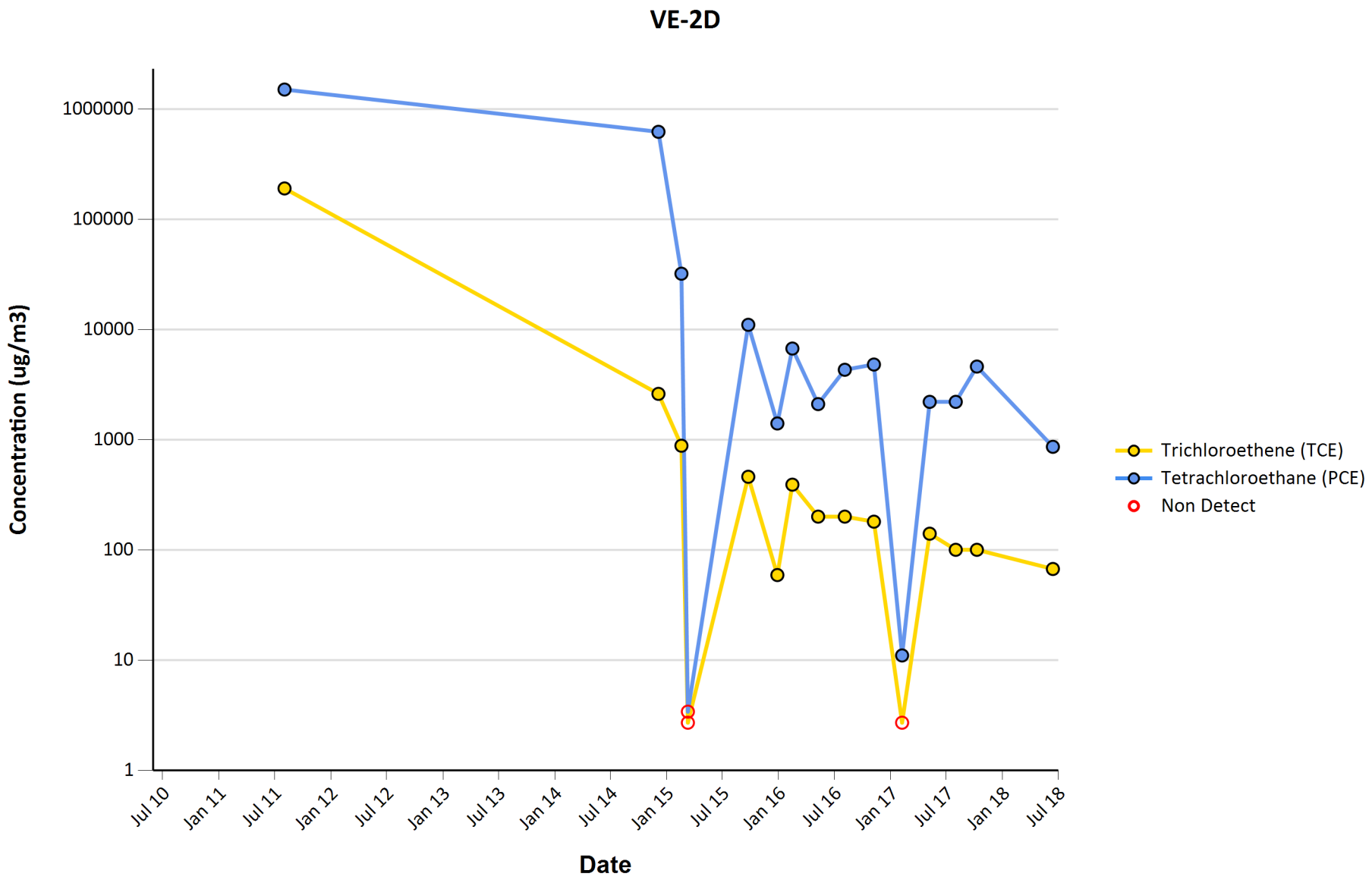
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-19
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



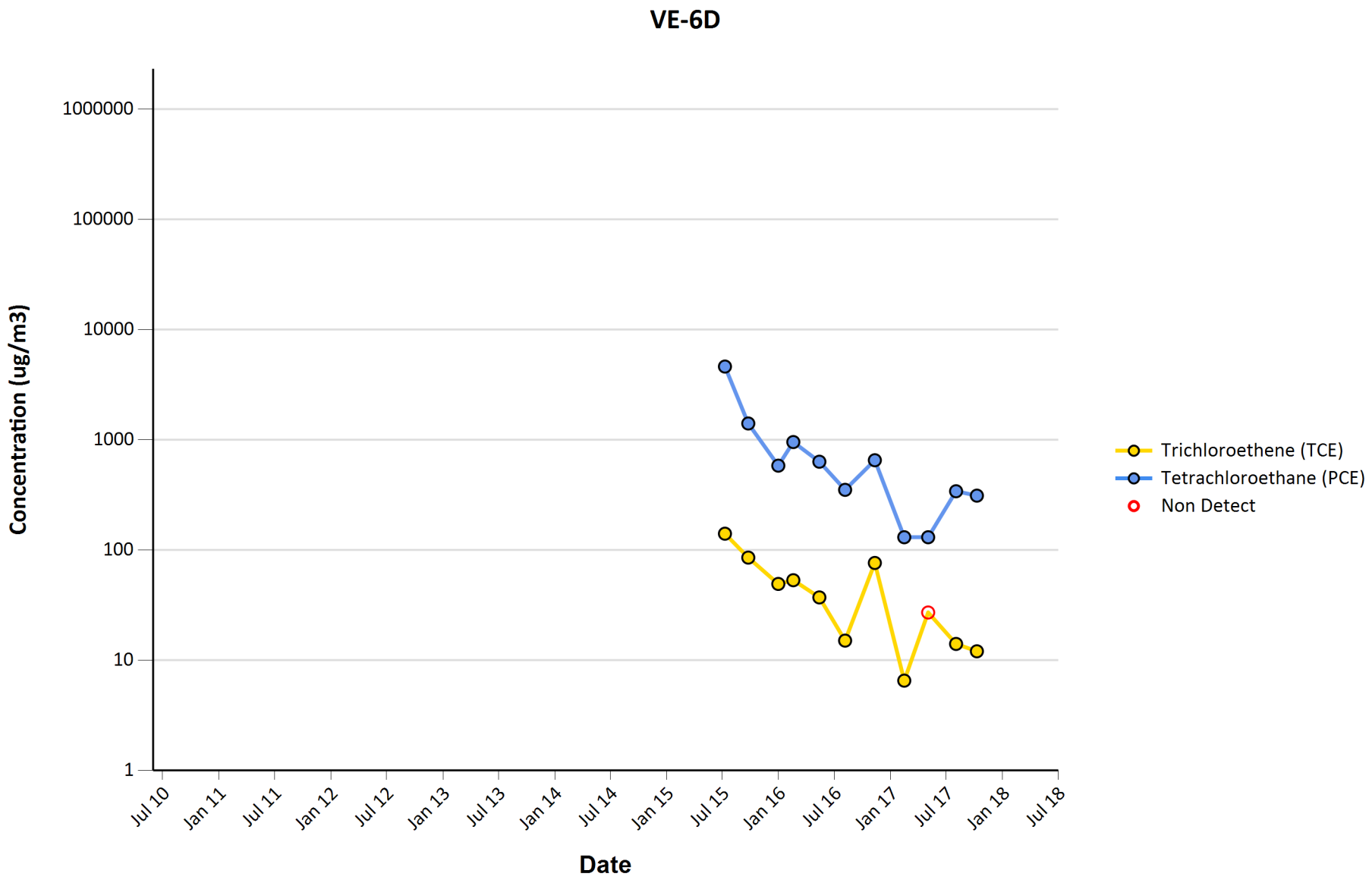
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-20
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



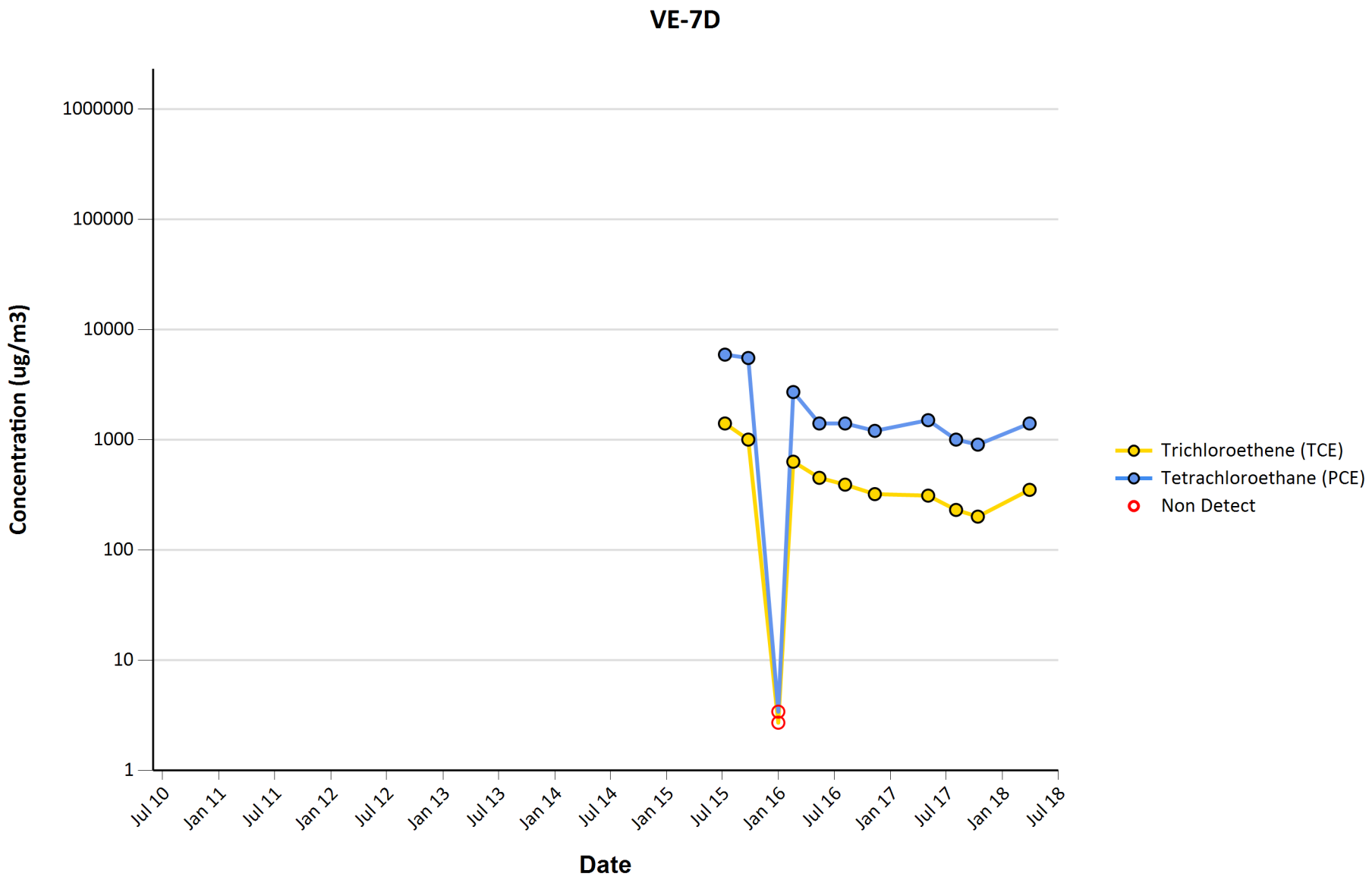
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-21
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



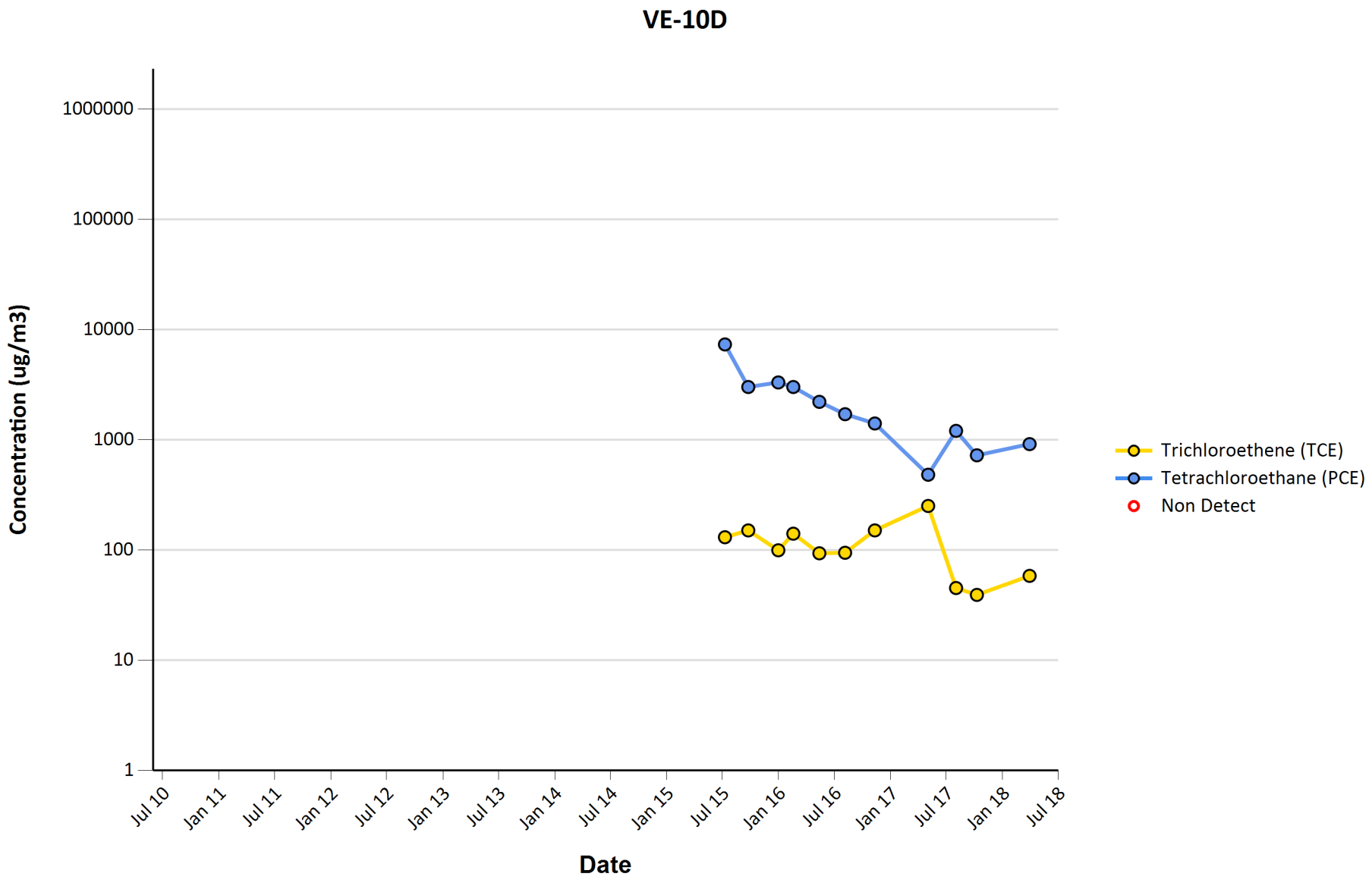
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-22
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



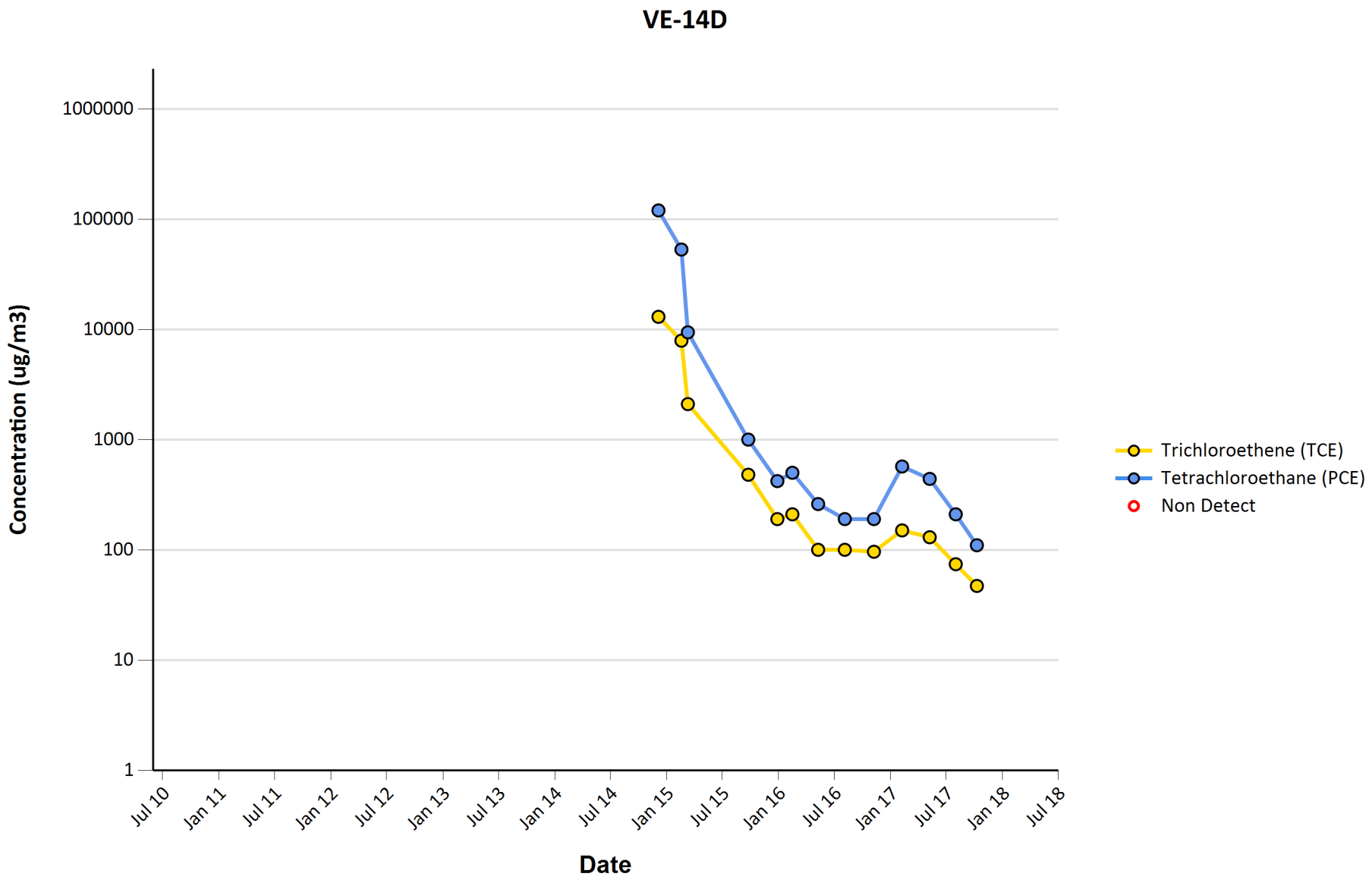
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-23
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-24
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons@demaximis.com>
CC: "Bamer, Jeffrey" <BamerJT@cdmsmith.com>, Ed Modiano <edm@demaximis.com>, King Kyle <kking@demaximis.com>
Date: 8/10/2018 4:56 PM
Subject: OU-1 Soil Vapor Data Assessment and Recommendations to Improve SVE Performance
Attachments: OU-1 OPTIMIZATION INTERNAL NOTES 20180810.docx

Team,

This email contains our recommendations for continuing to make progress toward the OU-1 SVE removal action objectives (RAOs). These recommendations are based on our assessment of soil vapor data collected through July of 2018 which includes analytical, flow rate, PID and vacuum monitoring data taken from VEWs and DPE wells and analytical, and vacuum monitoring data from VMPs. Recommendations for optimization are presented in the table below along with the rationale for each.

Well ID	Initial Valve Position	Recommended Adjustment	Rationale
VE-11S	10%	25%	An increased flowrate here will affect the reduction of shallow VOC mass (RAO #1 and RAO #2).
VE-21S	1/6	2/6	Higher flowrates here are the best allocation of the AOC SVE system's available capacity and will further the reduction of shallow VOC mass (RAO #1 and RAO #2).
VE-34S	1/6	2/6	
VE-39S	2/6	3/6	
VE-10D	1/6	2/6	Current concentrations of nearby VMPs indicate an opportunity to maximize reduction of deep VOC mass (RAO #3)

Please let us know if you'd like to discuss any of these data or our recommendations.

Thanks!
Alesandra

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Denver, CO 80202
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Attachment l

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Attachment H, Table H-1
Vapor Monitoring Probe Summary of Other Data Collected This Quarter
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
VMP-39-24	ORIG	6/27/2018	18	6.3 U	3 U	4.7 U	4.7 U	5.7 U	40 U	3.7 U
VMP-40-24	ORIG	6/27/2018	69	6.6 U	3.2 U	5 U	5 U	6 U	43 U	3.9 U
VMP-41-24	ORIG	6/27/2018	8.2 U	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
VMP-84-24	ORIG	6/27/2018	770	190	2.9 U	4.5 U	4.5 U	5.5 U	39 U	3.6 U

Notes:

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

The last two digits of each Location indicate the depth of the sample in feet

ORIG = original sample

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment H, Table H-2
Other Vacuum Data Collected This Quarter
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VMP-39	6		6/28/2018	-0.02
	12		6/27/2018	-0.01
	24		6/27/2018	0.00
	55		6/27/2018	-0.02
VMP-40	6		6/27/2018	-1.36
	12		6/27/2018	-0.74
	24		6/27/2018	-0.24
	55		6/27/2018	-0.15
	70		6/27/2018	0.00
VMP-41	6		6/27/2018	0.00
	12		6/27/2018	0.00
	24		6/27/2018	0.00
	55		6/28/2018	0.00
VMP-84	12		6/27/2018	-0.01
	24		6/27/2018	-0.01

Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

Vapor Monitoring Probe

OU-1 Boundary

Former Omega Chemical Property Boundary

Building

ddms

de maximis, inc.

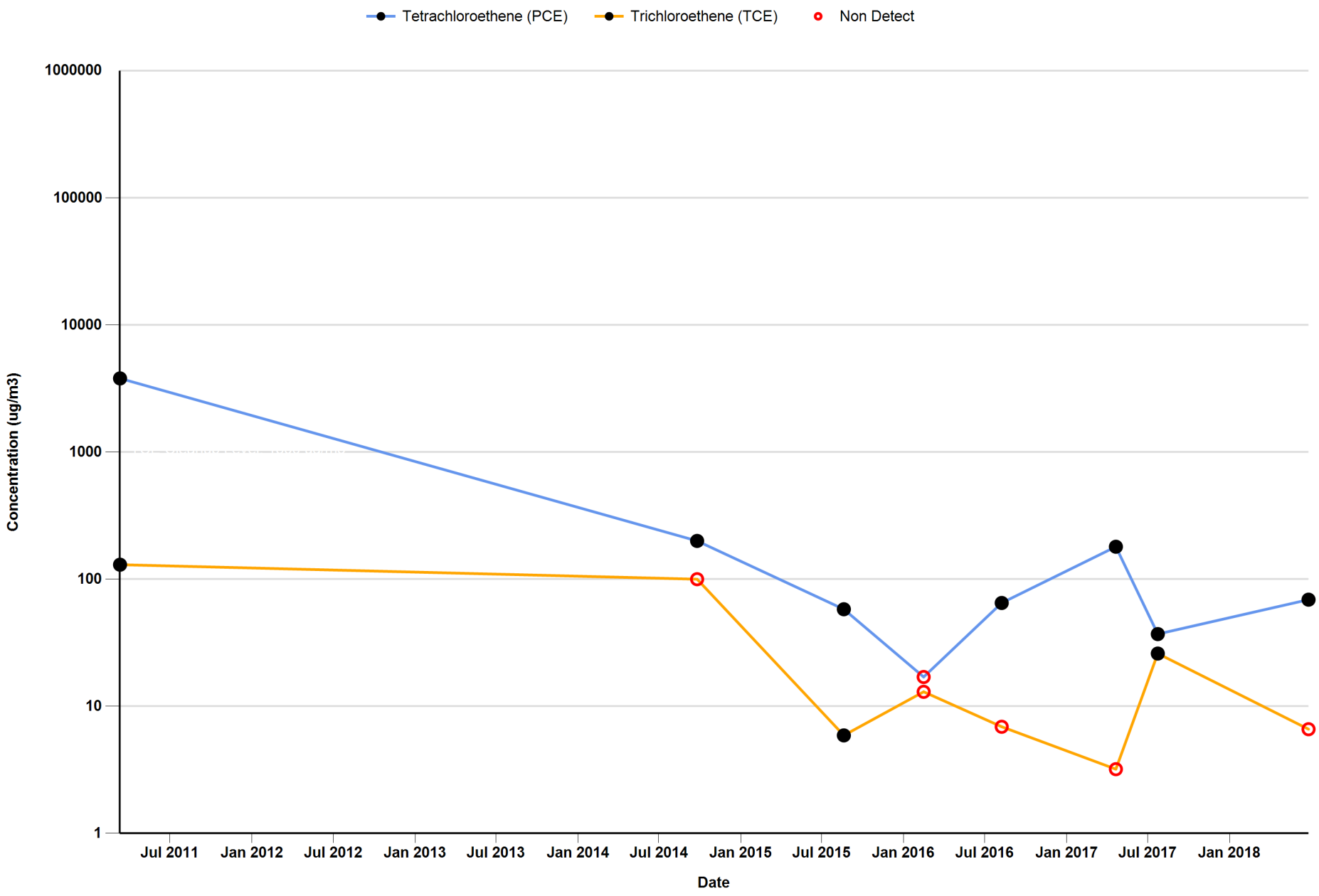
Reviewed By: MH
Drawn By: LEM
Date: 7/25/2018

Attachment H, Figure H-1
Other Soil Gas Locations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site

Attachment H, Figure H-2
Other Soil Gas PCE and TCE Concentrations
VMP-39 at 24 ft-bgs
Omega Chemical Superfund Site

NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-3
Other Soil Gas PCE and TCE Concentrations
VMP-40 at 24 ft-bgs
Omega Chemical Superfund Site

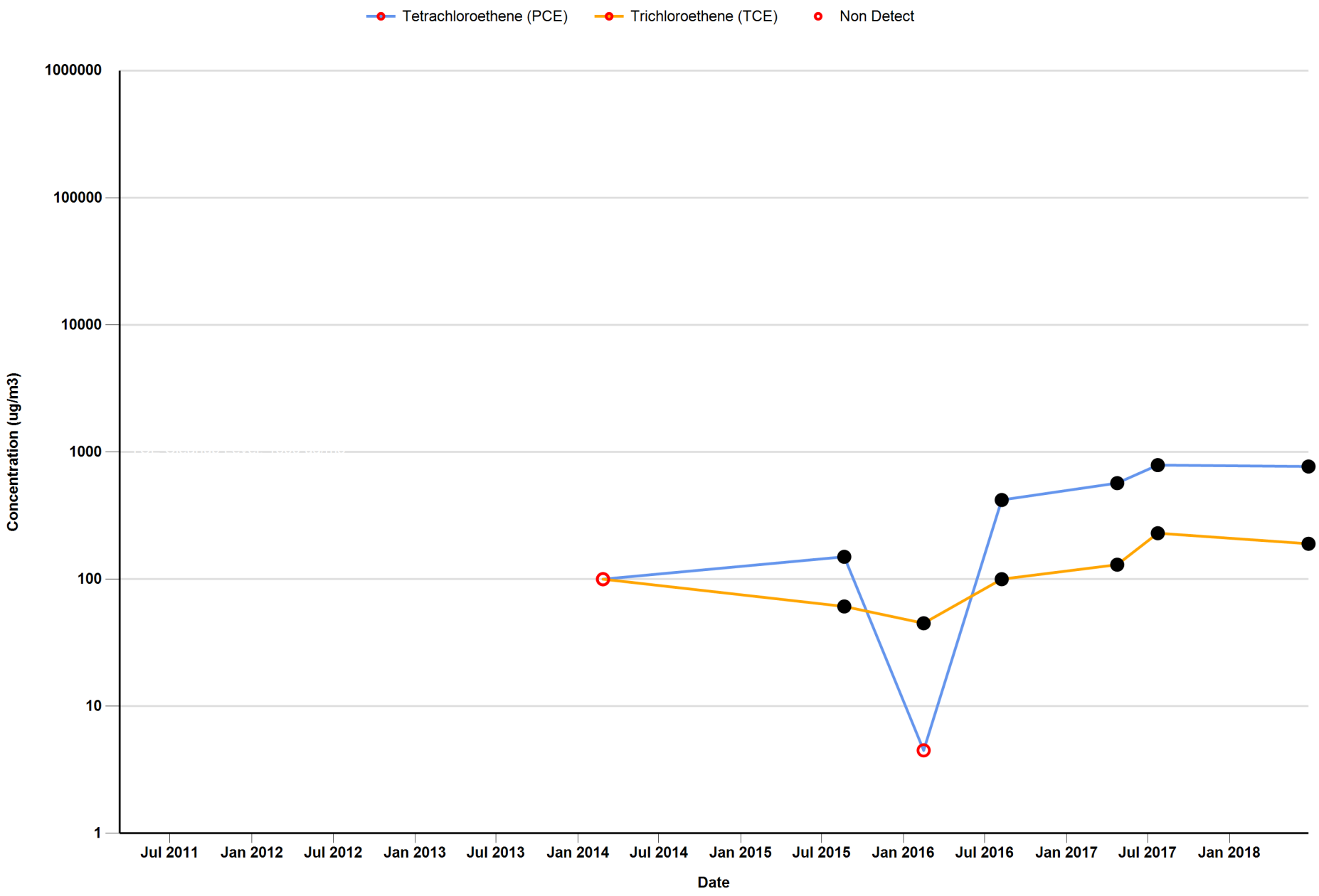


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-4
Other Soil Gas PCE and TCE Concentrations
VMP-41 at 24 ft-bgs
Omega Chemical Superfund Site

NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-5
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 24 ft-bgs
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph