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File No. 39800-010

California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Transmitted via e-mail

Attention: Mr. Max Shahbazian, PG

Subject: Addendum to Vapor Mitigation Completion Report
1160 Kern Avenue
Sunnyvale, California

Dear Mr. Shahbazian:

On behalf of Advanced Micro Devices, Inc. (AMD), Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this Addendum to the Vapor Mitigation Completion Report (VMCR) for the former Monolithic Memories, Inc. (MMI) facility located at 1160 Kern Avenue in Sunnyvale, California (the Site, Figure 1). The VMCR was submitted to the California Regional Water Quality Control Board – San Francisco Bay Region (Water Board) on 22 May 2015 (Haley & Aldrich, 2015). The Site, together with the adjacent 1165 and 1175 East Arques Avenue properties, comprises the MMI Superfund Site. The Water Board is the lead agency for the Site[1]; the United States Environmental Protection Agency (USEPA) Region 9 is providing technical assistance to Water Board staff on vapor intrusion issues.

This Addendum describes the results of confirmation sampling completed during a cold weather month (December 2015) with the heating, ventilation, and air conditioning (HVAC) system deactivated to evaluate the effectiveness of mitigation measures completed at the warehouse restrooms. Permanent mitigation measures were completed in March 2015. One round of confirmation indoor air sampling was previously completed in a warm weather month (April 2015) with the HVAC system active. The second round of post-mitigation confirmation indoor air sampling was scheduled for the winter season. After coordinating access for the second confirmation sampling event with the Site owner, USEPA and the Water Board were notified via email on 11 December 2015 of the proposed, cold weather confirmation sampling event, including the locations of the indoor air samples.

This report documents the second confirmation sampling event and includes background information, field activities, results of confirmation sampling, discussion of the analytical data, and conclusions.

[1] *Site Cleanup Requirements Order Number 91-139* (the Order) was issued on 20 September 1991, by the Water Board. Although the Site is designated as a Superfund site, USEPA delegated oversight authority to the Water Board on 22 October 1987 under the Multi-Site Cooperative Agreement.

BACKGROUND

Including the December 2015 event, seven rounds of indoor air samples have been collected at the Site. Tetrachloroethene (PCE) and trichloroethene (TCE) were previously detected in indoor air samples collected at the women's warehouse restroom at concentrations exceeding their respective long-term indoor air screening levels (Regional Screening Levels, or RSLs, for industrial air as reported in USEPA, 2015). Although TCE was identified as the primary ingredient of a cleaning product found inside the building during the pre-sampling inspection performed prior to the April 2015 indoor air sampling event, it is also possible that detections of PCE and TCE in indoor air are in part due to the upward transport of vapors from the subsurface (i.e., vapor intrusion), through pathways such as cracks in the concrete slab and floor drains, as identified in previous investigations.

Sealing the floor drains in the warehouse restrooms was recommended as a potential mitigation option for vapor intrusion by USEPA via email on 18 November 2014 and this mitigation option was approved by the Site owner and occupant, Resource Area for Teaching (RAFT). The floor drains in the warehouse restrooms were sealed with mortar in March 2015, and the associated flooring was patched with the Retro-Coat™ Vapor Intrusion Coating System (Retro-Coat™ system). Indoor air samples were collected on 9 April 2015 to evaluate the effectiveness of VI mitigation measures implemented at the warehouse restrooms. No chemicals of concern[2] (COCs) were detected in indoor air samples at concentrations above their respective industrial air RSLs.

A summary of the previously completed indoor air and preferential pathway assessments, vapor intrusion mitigation measures implemented at the warehouse restrooms, and confirmation sampling is described in the VMCR (Haley & Aldrich, 2015).

BUILDING SURVEY AND SAMPLE COLLECTION

Consistent with previous indoor air sampling events at the Site, Haley & Aldrich conducted pre-sampling building walkthroughs to assess the building's condition and potential indoor sources of COCs prior to sampling. A handheld photoionization detector capable of detecting VOCs in the parts per billion by volume range (i.e., ppbRAE 3000, manufactured by RAE Systems) was used to identify potential indoor sources of VOCs. The building survey was completed on 19 December 2015, and no indoor sources of VOCs were identified during the building survey.

The HVAC system was deactivated at approximately 9:30 AM on 18 December 2015. On 21 December 2015, approximately 70 hours after the HVAC system was deactivated, four indoor air samples, one duplicate indoor air sample, and one outdoor air sample were collected at the same locations as the previous three sampling events (27 September 2013, 10 February 2014, and 9 April 2015).
Samples were collected over an 8-hour period in selective ion monitoring mode (SIM) certified clean 6-liter passivated (e.g., SUMMA®) canisters and analyzed for the Site COCs using USEPA Method TO-15

[2] The primary COCs in groundwater related to former MMI operations (referred to as "MMI Indicator Compounds") include PCE, 1,1-dichloroethane (1,1-DCA), 1,2-dichlorobenzene (1,2-DCB), and chlorobenzene (Haley & Aldrich, 2014a).

SIM. The analysis was performed by TestAmerica Laboratories, Inc. in West Sacramento, California, which is certified by the National Environmental Laboratory Accreditation Program. The analytical results are provided in Table 1.

As shown in Figure 2, indoor air samples IA-2, IA-5, IA-6, and IA-7 were collected in the women's warehouse restroom, the volunteer room, the southeastern interior of the warehouse, and the men's warehouse restroom, respectively. A duplicate air sample (IA-2B) was collected at location IA-2 for field quality assurance/quality control (QA/QC) purposes. The sample intake was set in the breathing zone, about 3 to 4 feet above the floor.

The selected indoor air sample locations provide adequate areal representation and different interior space types in the building. In addition to indoor air sampling, an outdoor air sample was collected to compare outdoor air sampling results with indoor air sampling results. Attachment A provides photographs taken during sampling activities. Attachment B provides a meteorological summary for the day of sampling, and Table 2 summarizes the outdoor air temperatures during each sampling event.

RESULTS OF CONFIRMATION SAMPLING

The sampling results are compared to the USEPA Region 9 RSLs for Industrial Air, which are shown in Table 1. Outdoor air samples are compared to the indoor air samples to evaluate the impact of the outdoor air on indoor air quality. Attachment C provides the analytical laboratory report associated with the 21 December 2015 sampling event.

One field duplicate (IA-2B) was collected at location IA-2 during the sampling event. Precision was evaluated by assessing the relative percent difference (RPD) between primary and field duplicate samples. RPD was calculated when a given analyte was detected above the laboratory reporting limit in both the primary sample and the field duplicate sample at a given location. Results were within the project data quality objective of less than 30 percent RPD. All data reported were validated and no qualifications were recommended for any results; QA/QC evaluation documentation (e.g., Data Usability Summary Report) is included in Attachment D.

As shown in Table 1, and summarized below, no COCs were detected at concentrations exceeding the industrial RSLs:

- PCE was detected at all four indoor air sample locations at concentrations ranging from 0.99 micrograms per cubic meter ($\mu g/m^3$; IA-5) to 1.4 $\mu g/m^3$ (IA-2B); all sample results were below the PCE RSL of 2.1 $\mu g/m^3$. PCE was detected in outdoor air at 0.12 $\mu g/m^3$.
- TCE was detected at all four indoor air sample locations at concentrations ranging from 0.52 $\mu g/m^3$ (IA-6) to 1.5 $\mu g/m^3$ (IA-2/2B); all sample results were below the TCE RSL of 3.0 $\mu g/m^3$. TCE was detected in outdoor air at 0.059 $\mu g/m^3$.
- 1,1,1-TCA was detected at two indoor air sample locations at concentrations of 0.030 $\mu g/m^3$ (IA-7) and 0.035 $\mu g/m^3$ (IA-2); all sample results were below the 1,1,1-TCA RSL of 4,400 $\mu g/m^3$. 1,1,1-TCA was not detected in the outdoor air sample.

- Freon 113 was detected at all four indoor air sample locations at concentrations ranging from 0.53 $\mu g/m^3$ (IA-6) to 0.59 $\mu g/m^3$ (IA-2); all sample results were below the Freon 113 RSL of 130,000 $\mu g/m^3$. Freon 113 was detected in outdoor air at 0.50 $\mu g/m^3$.

DISCUSSION

As described in the Vapor Intrusion Evaluation Report (Haley & Aldrich, 2014b) and VMCR (Haley & Aldrich, 2015), PCE and TCE were previously detected in indoor air samples collected in the women's warehouse restrooms at concentrations exceeding the corresponding RSLs for industrial air. Potential preferential pathways for the migration of vapors from the subsurface to indoor air were identified and evaluated at the warehouse restrooms, and the following long-term mitigation measures were implemented:

- In December 2011, TrapGuard® drain inserts were installed in each of the drains in the warehouse and lobby restrooms to mitigate the potential for vapors without interfering with the operation of the drains.
- In September 2013, based on the results of an assessment of the HVAC system, two improvements were made to the HVAC system: 1) minimum outside air intake rates were set on the rooftop HVAC systems that service the front offices and volunteer room, and 2) vents were installed in the restroom doors to mitigate negative pressure observed in several restrooms.
- In January 2014, Retro-Coat™ sealant was applied to the floors in the warehouse restrooms to mitigate the migration of COCs from the sub-slab to indoor air.
- In March 2015, floor drains in the warehouse restrooms were sealed with mortar, and the affected area was patched with the Retro-Coat™ system.

Several rounds of indoor air samples were collected at the Site as part of initial indoor air assessments and to evaluate the effectiveness of mitigation measures. As shown on Figure 3, a significant reduction of concentrations of TCE measured in indoor samples collected at the women's warehouse restroom has occurred following the implementation of mitigation measures. Since the floor drains were permanently sealed at the warehouse restrooms, TCE was not detected in any samples at concentrations exceeding the long-term RSL for industrial air.

Finally, indoor air samples were collected during a warm weather month with the HVAC system active (April 2015) and a cold weather month with the HVAC deactivated (December 2015) to confirm the effectiveness of the mitigation measures over the range of local climate conditions. As presented below, the results for TCE in indoor air samples were consistent between the two confirmation sampling events:

Indoor Air Sample Location	April 2015 (warm weather, HVAC-on)	December 2015 (cold weather, HVAC-off)
Women's warehouse restroom (IA-2, duplicate sample pair)	1.6/1.7 $\mu g/m^3$	1.5/1.5 $\mu g/m^3$
Volunteer room (IA-5)	0.40 $\mu g/m^3$	0.56 $\mu g/m^3$
Warehouse/storage room (IA-6)	0.25 $\mu g/m^3$	0.52 $\mu g/m^3$
Men's warehouse restroom (IA-7)	0.53 $\mu g/m^3$	0.85 $\mu g/m^3$

Conclusions

The results of the April and December 2015 indoor air sampling events confirm the effectiveness of the permanent vapor intrusion mitigation measures implemented in the warehouse restrooms, and we recommend no further action is necessary to address vapor intrusion concerns at the 1160 Kern building.

Please contact either of the undersigned if you have any questions or require additional information.

Sincerely yours,
HALEY & ALDRICH, INC.

Peter Scaramella
Senior Risk Assessor

Peter Bennett, PG, CHG
Vice President and Lead Hydrogeologist

Michael Calhoun, PG, CHG
Senior Technical Specialist / Project Manager

Enclosures:

References
Table 1 – Analytical Results for Indoor and Outdoor Air Samples
Table 2 – Summary of Outside Air Temperatures during Indoor Air Sampling Events
Figure 1 – Site Location Map
Figure 2 – Indoor Air Sample Locations Plan
Figure 3 – TCE Concentrations in Indoor Air Samples
Appendix A – Photographic Log of Indoor Air Samples
Appendix B – Meteorological Summary for Indoor Air Sampling Events
Appendix C – Analytical Laboratory Report for Indoor and Outdoor Samples Collected on 21 December 2015
Appendix D – Quality Assurance/Quality Control Documentation

Cc: Advanced Micro Devices, Inc.; Attn: Heather O'Cleirigh
United States Environmental Protection Agency; Attn: Melanie Morash
Resource Area for Teaching; Attn: Doug Lang

References

1. California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO), 2015. Human Health Risk Assessment Note, HERO HHRA Note Number 3, DTSC Modified Screening Levels (DTSC-SLs), October.

2. California Regional Water Quality Control Board, San Francisco Bay Region, 1991. Order No. 91-139, Site Cleanup Requirements for Advanced Micro Devices, National Semiconductor Corporation, Hewlett-Packard, and Shahinian Trust, Subunit 2, Operable Unit 1, Sunnyvale and Santa Clara, Santa Clara County, 20 September.

3. Haley & Aldrich, Inc., 2014a. Fourth Five-Year Review Report, 1165/1175 East Arques Avenue, Sunnyvale, California, 30 January.

4. Haley & Aldrich, Inc., 2014b. Vapor Intrusion Evaluation Report, 1160 Kern Avenue, Sunnyvale, California, 28 February.

5. Haley & Aldrich, 2015. Vapor Mitigation Completion Report, 1160 Kern Avenue, Sunnyvale, California, 22 May.

6. United States Environmental Protection Agency, 2014. EPA Region 9 Response Action Levels and Recommendations to Address Near-Term Inhalation Exposures to TCE in Air from Subsurface Vapor Intrusion, 9 July.

7. United States Environmental Protection Agency, 2015. Regional Screening Levels for Chemical Contaminants at Superfund Sites. http://www.epa.gov/risk/risk-based-screening-table-generic-tables, December.

TABLES

TABLE 1
ANALYTICAL RESULTS FOR INDOOR AND OUTDOOR AIR SAMPLES
1160 KERN AVENUE
SUNNYVALE, CALIFORNIA

Results reported in micrograms per cubic meter (µg/m^3)

Sample ID	Sample Type	Location	Date Collected	Chloro-benzene	1,2-DCB	1,1-DCA	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	PCE	1,1,1-TCA	TCE	Freon 113	Vinyl Chloride
August 2011—Initial sampling event [1]														
AMB-1	Ambient [2]	Parking lot	8/21/2011	<0.092 [3]	<0.30	<0.020	<0.055	<0.055	<0.040	<0.14	<0.11	<0.027	**0.79** [4]	<0.013
AMB-2	Ambient	Roof	8/21/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	<0.14	<0.11	**0.053**	**0.74**	<0.013
IA-1	Breathing Zone [5]	Warehouse/storage	8/21/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**1.6**	<0.11	**1.2**	**0.75**	<0.013
IA-10	Blind Field Duplicate [6]		8/21/2011	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**1.4**	<0.11	**1.2**	**0.66**	<0.013
IA-2	Preferential Pathway [7]	Womens restroom in warehouse	8/21/2011	<0.092	<0.30	**0.021**	**0.25**	<0.055	<0.040	**14** [8]	**0.16**	**27**	**1.4**	**0.017**
IA-3	Breathing Zone	Conference room	8/21/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**2.1**	<0.11	**1.6**	**0.83**	<0.013
IA-4	Breathing Zone	Lobby	8/21/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**1.0**	<0.11	**0.84**	**0.71**	<0.013
IA-5	Breathing Zone	Volunteer room	8/21/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**2.4**	<0.11	**1.8**	**0.88**	<0.013
IA-6	Breathing Zone	Warehouse/storage	8/21/2011	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**3.0**	<0.11	**1.7**	**0.62**	<0.013
December 2011—Post-mitigation; Trap-Guard® barriers installed in floor drains of warehouse restrooms on 13 December 2011														
AMB-3	Ambient	Parking lot	12/22/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	<0.14	<0.11	**0.040**	**0.70 J** [9]	<0.013
IA-2R	Preferential Pathway (and Blind Field Duplicates)	Womens restroom in warehouse	12/22/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**3.7**	<0.11	**6.9**	**1.1 J**	<0.013
IA-20R			12/22/2011	<0.092	<0.30	<0.020	<0.055	<0.055	<0.040	**4.2**	<0.11	**7.6**	**1.5 J**	<0.013
IA-7	Preferential Pathway	Mens restroom in warehouse	12/22/2011	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**1.2**	<0.11	**1.3**	**0.74 J**	<0.013
IA-8	Preferential Pathway	Mens restroom off lobby	12/22/2011	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**1.4**	<0.11	**1.4**	**0.76 J**	<0.013
IA-9	Preferential Pathway	Womens restroom off lobby	12/22/2011	**1.0**	**0.81**	<0.020	<0.055	<0.055	<0.040	**1.5**	<0.11	**2.0**	**0.79 J**	<0.013
July 2012—Followup sampling														
AMB-4	Ambient	Parking lot	7/8/2012	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**0.52 J**	<0.11	<0.027	**0.70**	<0.013
IA-2B [10]	Preferential Pathway (and Blind Field Duplicates)	Womens restroom in warehouse	7/8/2012	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**6.0 J**	**0.14**	**14**	**0.88**	<0.013
IA-20B			7/8/2012	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**7.8 J**	**0.15**	**15**	**1.0**	<0.013
IA-7B	Preferential Pathway	Mens restroom in warehouse	7/8/2012	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**2.5 J**	**0.11**	**2.2**	**0.75**	<0.013
IA-8B	Preferential Pathway	Mens restroom off lobby	7/8/2012	<0.092	<0.30	<0.020	<0.056	<0.056	<0.040	**2.7 J**	<0.11	**2.1**	**0.74**	<0.013
IA-9B	Preferential Pathway	Womens restroom off lobby	7/8/2012	<0.092	<0.30	<0.020	**0.15**	<0.055	<0.040	**3.2 J**	<0.11	**4.2**	**0.74**	<0.013
September 2013—Followup sampling														
AMBIENT-09272013	Ambient	Roof	9/27/2013	<4.5	<5.8	<3.9	<3.8	<3.8	<3.8	<6.6	<5.3	<1.0	<7.4	<0.50
IA-2	Breathing Zone	Womens restroom in warehouse	9/27/2013	<4.9	<6.5	<4.4	<4.3	<4.3	<4.3	<7.3	<5.9	**5.2**	<8.2	<0.55
IA-5	Breathing Zone	Volunteer room	9/27/2013	<4.7	<6.2	<4.2	<4.1	<4.1	<4.1	<7.0	<5.6	<1.1	<7.9	<0.53
IA-6	Breathing Zone	Warehouse/storage	9/27/2013	<4.3	<5.6	<3.8	<3.7	<3.7	<3.7	<6.3	<5.1	<1.0	<7.1	<0.48
IA-9	Breathing Zone	Womens restroom off lobby	9/27/2013	<7.8	<10	<6.8	<6.7	<6.7	<6.7	<11	<9.2	<1.8	<13	<0.86
IA-9B			9/27/2013	<7.8	<10	<6.9	<6.7	<6.7	<6.7	<12	<9.3	<1.8	<13	<0.87
February 2014—Post-mitigation; HVAC system improvements, installation of restroom door vents, and application of Retro-CoatTM Vapor Intrusion Coating System														
AMBIENT-02102014	Ambient	Parking lot	2/10/2014	**0.042 J**	**0.074 J**	<0.081	<0.079	<0.079	<0.079	<0.14	**0.063 J**	**0.081 J**	**0.96**	<0.051
IA-2	Breathing Zone	Womens restroom in warehouse	2/10/2014	**0.040 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**1.8**	**0.12**	**3.5**	**0.78**	<0.051
IA-2B			2/10/2014	**0.033 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**1.7**	**0.13**	**3.3**	**0.78**	<0.051
IA-5	Breathing Zone	Volunteer room	2/10/2014	**0.038 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**0.92**	**0.063 J**	**0.97**	**0.62**	<0.051
IA-6	Breathing Zone	Warehouse/storage	2/10/2014	**0.034 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**0.98**	**0.068 J**	**0.98**	**0.62**	<0.051
IA-7	Breathing Zone	Mens restroom in warehouse	2/10/2014	**0.030 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**0.72**	**0.085 J**	**0.91**	**0.50**	<0.051

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April 2015 —Post-mitigation; warehouse restroom floor drains sealed														
AMBIENT-04092015	Ambient	Parking lot	4/9/2015	**0.20**	<0.30	<0.081	<0.079	<0.079	<0.079	**0.069 J**	**0.027 J**	<0.11	**0.53**	<0.051
IA-2	Breathing Zone	Womens restroom in warehouse	4/9/2015	**0.076 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**1.0**	**0.073 J**	**1.6**	**0.60**	<0.051
IA-2B			4/9/2015	**0.070 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**1.0**	**0.069 J**	**1.7**	**0.63**	<0.051
IA-5	Breathing Zone	Volunteer room	4/9/2015	**0.068 J**	<0.30	<0.081	<0.079	<0.079	<0.079	**0.43**	**0.059 J**	**0.40**	**0.55**	<0.051
IA-6	Breathing Zone	Warehouse/storage	4/9/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**0.33**	**0.041 J**	**0.25**	**0.55**	<0.051
IA-7	Breathing Zone	Mens restroom in warehouse	4/9/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**0.47**	**0.062 J**	**0.53**	**0.54**	<0.051
December 2015 —Post-mitigation; warehouse restroom floor drains sealed														
AMBIENT-12212015	Ambient	Parking lot	12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**0.12 J**	<0.11	**0.059 J**	**0.50**	<0.051
IA-2	Breathing Zone	Womens restroom in warehouse	12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**1.3**	**0.035 J**	**1.5**	**0.59**	<0.051
IA-2B			12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**1.4**	**0.034 J**	**1.5**	**0.58**	<0.051
IA-5	Breathing Zone	Volunteer room	12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**0.99**	<0.11	**0.56**	**0.56**	<0.051
IA-6	Breathing Zone	Warehouse/storage	12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**1.1**	<0.11	**0.52**	**0.53**	<0.051
IA-7	Breathing Zone	Mens restroom in warehouse	12/21/2015	<0.092	<0.30	<0.081	<0.079	<0.079	<0.079	**1.1**	**0.030 J**	**0.85**	**0.54**	<0.051
USEPA Region 9 Regional Screening Level (RSL) for Industrial Air[11]				**220**	**880**	**7.7**	**35 [12]**	**Removed [13]**	**310 [12]**	**2.1 [12]**	**4,400 [12]**	**3.0 [14]**	**130,000**	**0.16 [12]**
USEPA Region 9 Response Action Level (RAL) for Commercial Air[15]				**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**8**	**--**	**--**

Notes
1. HVAC systems service the front offices and volunteer room; no HVAC system services the warehouse portion of the building. Indoor air samples were collected with the HVAC system off in August 2011, December 2011, July 2012, December 2015 and operating at normal occupancy settings in September 2013, February 2014, and April 2015.
2. Ambient samples were collected outdoors, in an approximate upwind direction of the building and/or near the intake of the building's passive air intake.
3. "<" indicates that the analyte was not detected at or above the laboratory reporting limit shown.
4. Results shown in **bold** indicate that the analyte was detected in the sample at or above the laboratory reporting limit.
5. Breathing zone samples were collected indoors from the approximate height of a seated worker.
6. Each duplicate sample was collected simultaneously the associated primary sample, using a T-splitter.
7. Preferential pathway samples were collected indoors, as close as possible to a potential source. Preferential pathway sample results are not necessarily representative of employee exposure.
8. Shaded cells indicate that the analyte was detected in the sample above the RSL.
9. "J" indicates that the analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
10. The indoor air sample IA-2B collected on 8 July 2012 is considered a "grab" sample; the canister had filled completely by the time field personnel arrived to close it.
11. USEPA, 2015, Regional Screening Levels, December, http://www.epa.gov/risk/risk-based-screening-table-generic-tables.
12. DTSC-modified screening level (DTSC, 2015, HERO HHRA Note 3.2, October).
13. The RSL for trans-1,2-DCE was removed from the RSL tables in May 2014.
14. The USEPA updated the RSL for TCE in November 2011; the RSL for TCE used in prior reports for this site is 6.1 µg/m^3.
15. USEPA Region 9 Interim TCE Indoor Air Response Action Level for Commercial/Industrial TCE Inhalation Exposure from Vapor Intrusion for a 8-hour workday (USEPA, 2014).

Abbreviations
-- = not applicable
1,1,1-TCA = 1,1,1-trichloroethane
1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
1,2-DCB = 1,2-dichlorobenzene
cis-1,2-DCE = cis-1,2-dichloroethene
Freon 113 = 1,1,2-trichloro-1,2,2-trifluoromethane
HVAC = heating, ventilation, and air conditioning
PCE = tetrachloroethene
RSL = U.S. EPA Region 9 Regional Screening Level
TCE = trichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
USEPA = U.S. Environmental Protection Agency

TABLE 2

SUMMARY OF OUTSIDE AIR TEMPERATURES DURING INDOOR AIR SAMPLING EVENTS[1]

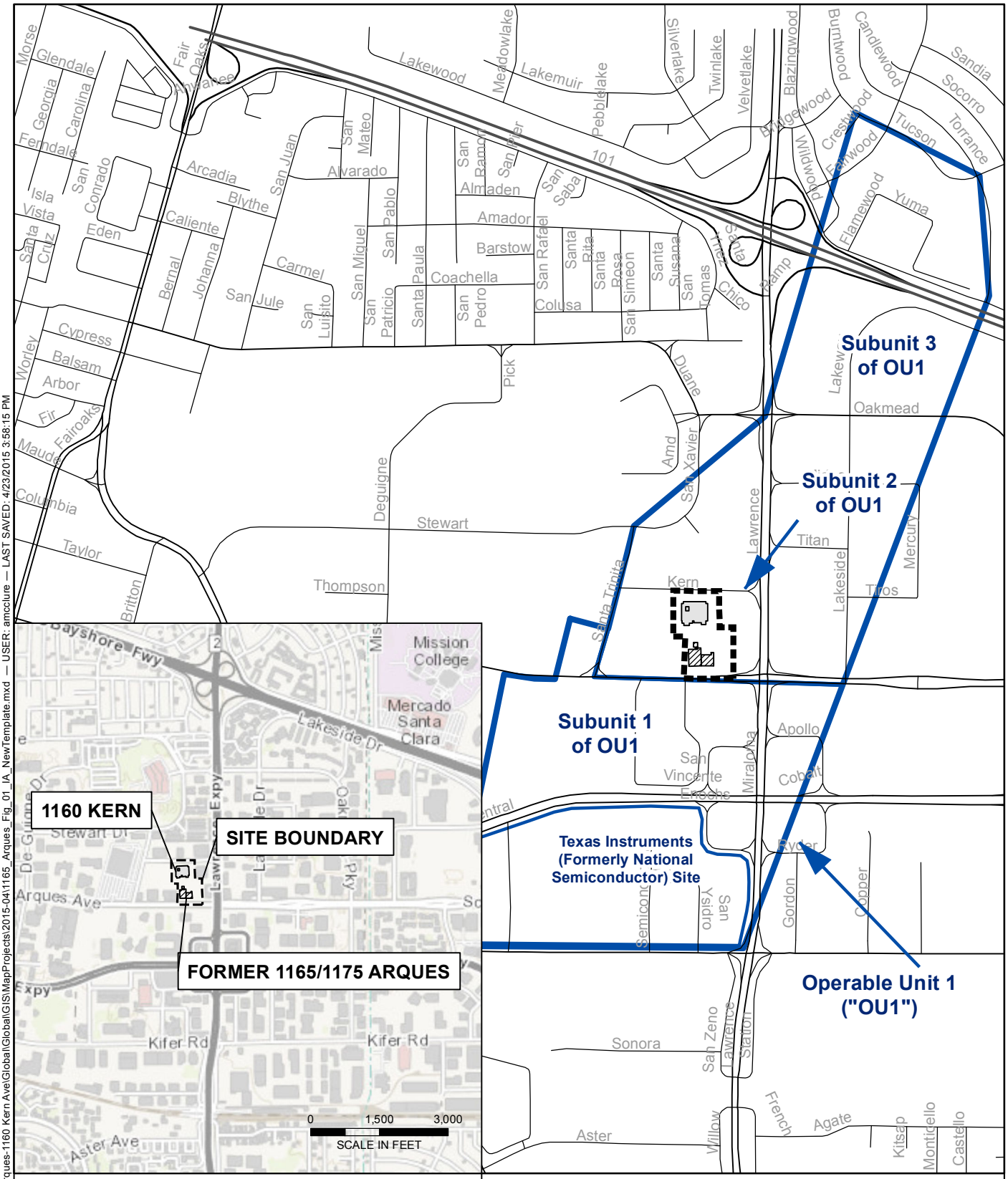
1160 KERN AVENUE
SUNNYVALE, CALIFORNIA

	Start of Sampling		End of Sampling		Maximum	
Date	**Time**	**Temperature (° F)[2]**	**Time**	**Temperature (° F)**	**Time**	**Temperature (° F)**
21-Aug-2011	8:00 AM	60.1	6:18 PM	68.0	1:56 PM	70.0
22-Dec-2011	7:58 AM	45.0	5:50 PM	55.0	1:56 PM	63.0
8-Jul-2012	8:03 AM	53.1	6:18 PM	71.1	2:56 PM and 3:56 PM	78.1
27-Sep-2013	7:22 AM	57.9	3:50 PM	68.0	2:56 PM	68.0
10-Feb-2014	7:37 AM	55.4	3:43 PM	60.8	3:31 PM	60.8
9-Apr-2015	7:19 AM	46.9	3:07 PM	66.9	3:56 PM and 4:56 PM	68.0
21-Dec-2015	7:35 AM	52.0	4:08 PM	57.0	12:06 PM and 1:06 PM	60.1

Notes

1. Attachment B presents the complete meteorological summaries for the 21 December 2015 indoor air sampling event. Meterological summaries for previous indoor air sampling events are presented in Vapor Intrusion Evaluation Report (Haley & Aldrich, 2014b) and Vapor Mitigation Completion Report (Haley & Aldrich, 2015).
2. Temperature is presented in units of degrees Fahrenheit.

FIGURES



HALEY ALDRICH

1165/1175 ARQUES AVENUE
SUNNYVALE, CALIFORNIA

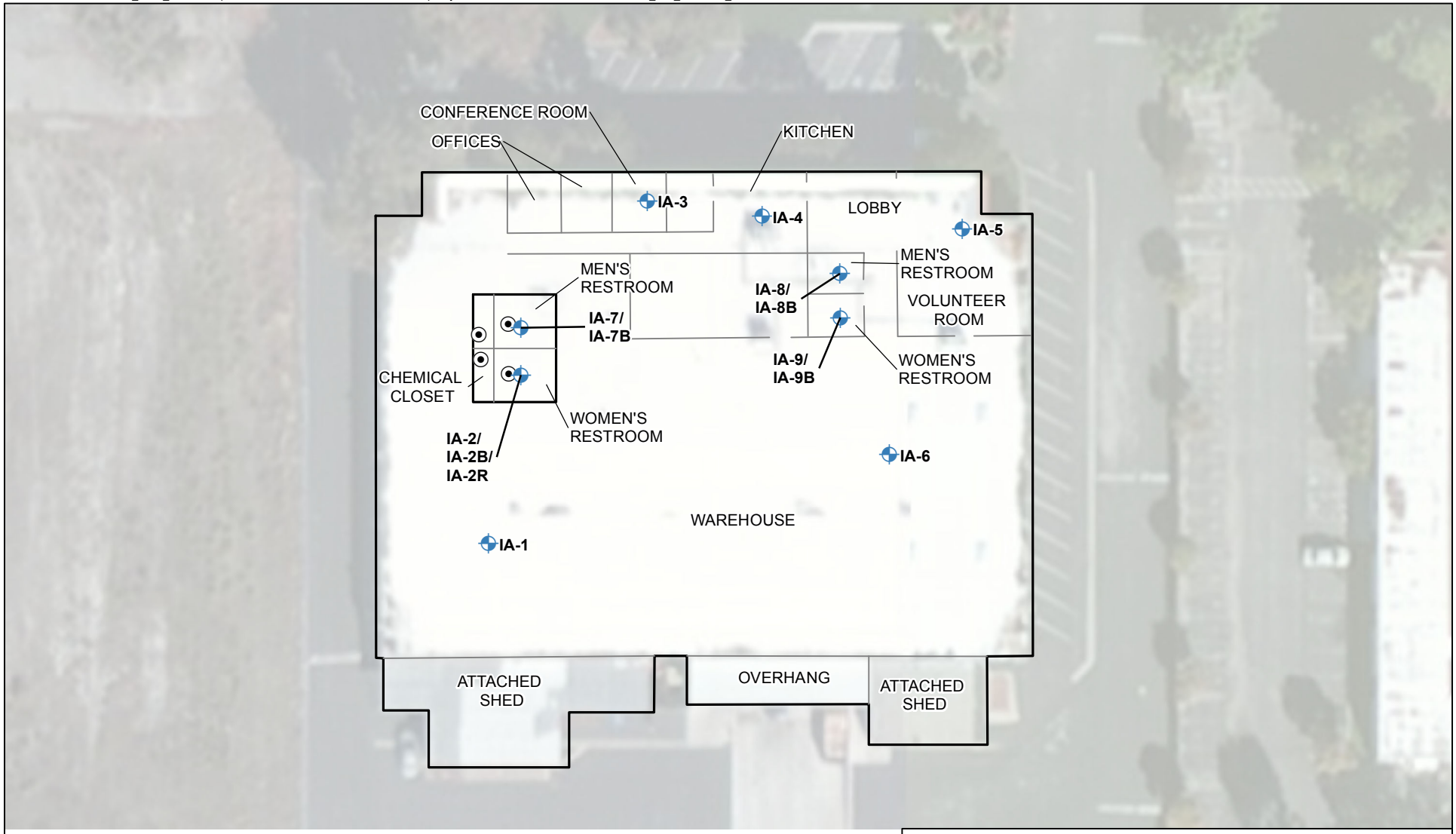
SITE LOCATION MAP AND VICINITY

APRIL 2015

FIGURE 1

GIS FILE PATH: G:\39800_AMD_1165 E Arques-1160 Kern Ave\Global\Global\GIS\MapProjects\2015-04\1165_Arques_Fig_01_IA_NewTemplate.mxd — USER: amcclure — LAST SAVED: 4/23/2015 3:58:15 PM

GIS FILE PATH: G:\39800_AMD_1165 E Arques-1160 Kern Ave\Global\Global\GIS\MapProjects\2016-01\39800-010-0002-INDOOR_AIR_SAMPLE_LOCATIONS.mxd — USER: craumann — LAST SAVED: 2/2/2016 8:56:36 AM



LEGEND

- APPROXIMATE LOCATION OF INDOOR AIR SAMPLE
- APPROXIMATE LOCATION OF SEALED FLOOR DRAIN

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. AERIAL IMAGE SOURCE: ESRI

N

0 25 50
SCALE IN FEET

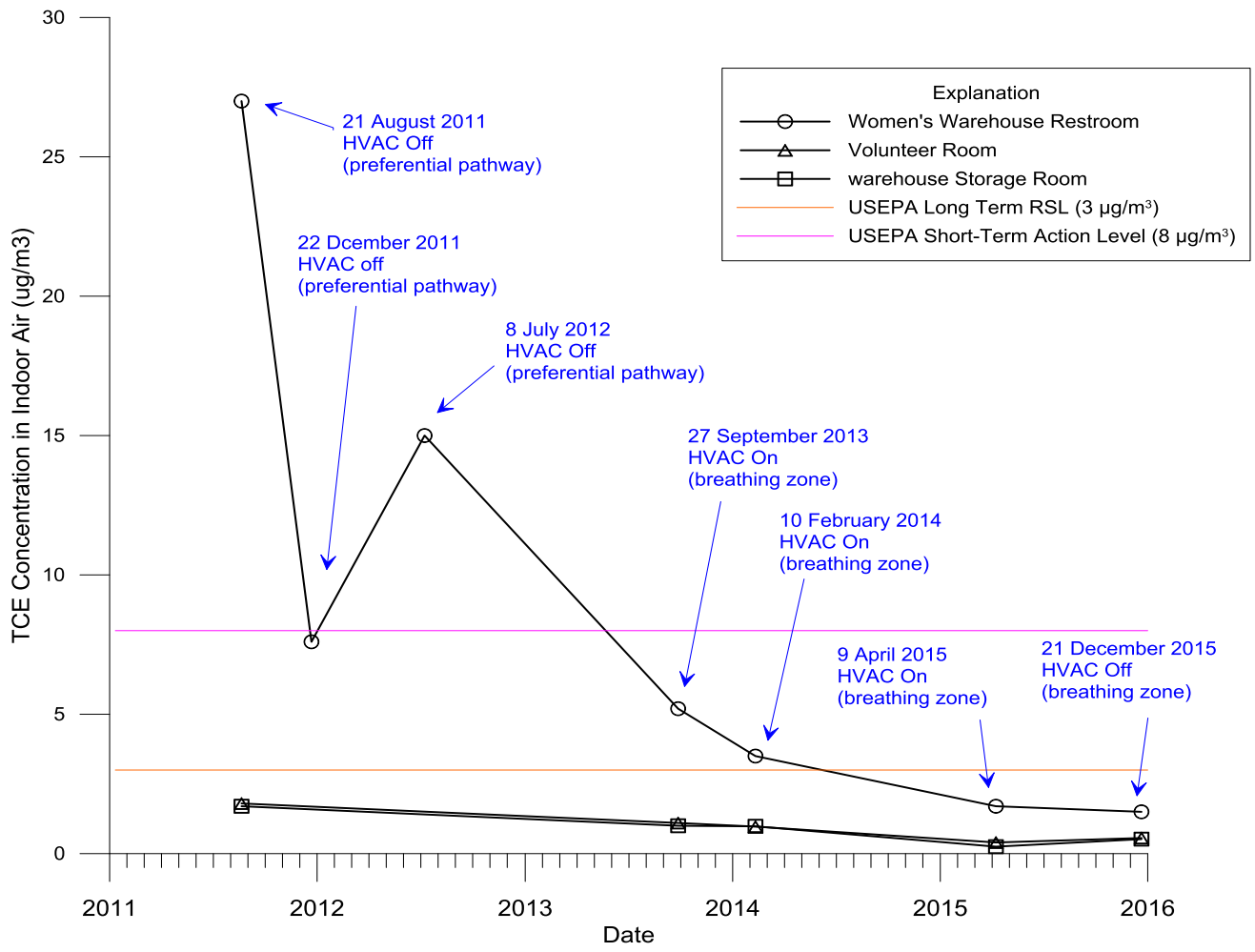
HALEY ALDRICH

1160 KERN AVENUE
SUNNYVALE, CALIFORNIA

INDOOR AIR SAMPLE LOCATIONS

FEBRUARY 2016

FIGURE 2



ABBREVIATIONS

HVAC = heating, ventilation, and air conditioning

TCE = trichloroethene

µg/m^3 = micrograms per cubic meter

HALEY ALDRICH

1160 KERN AVENUE
SUNNYVALE, CALIFORNIA

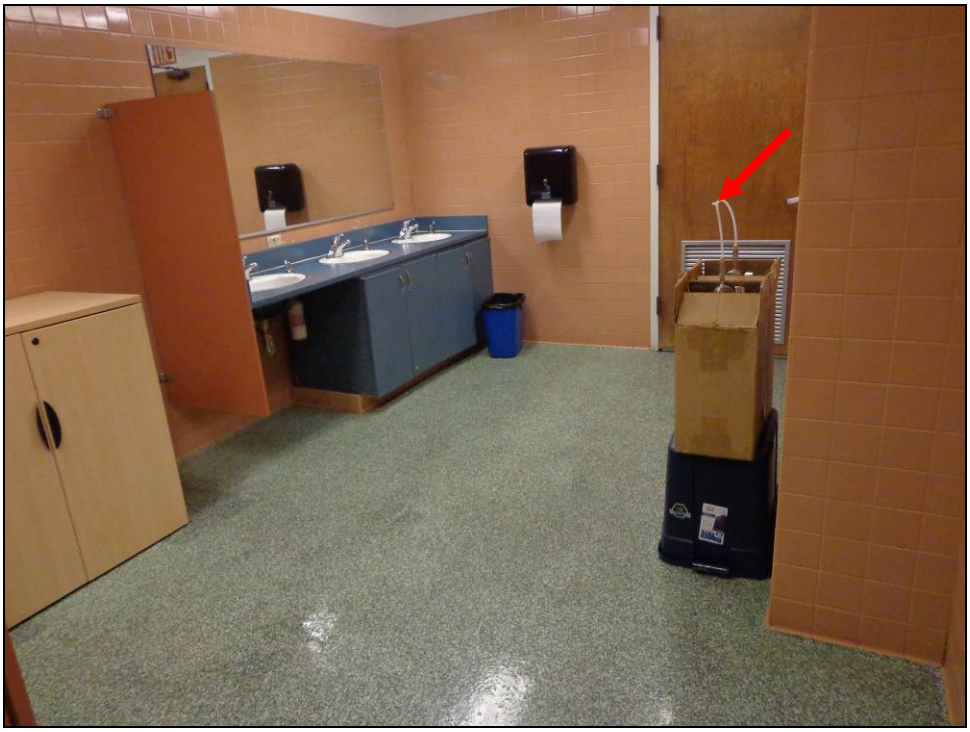
TCE CONCENTRATIONS IN INDOOR AIR SAMPLES

FEBRUARY 2016

FIGURE 3

APPENDIX A

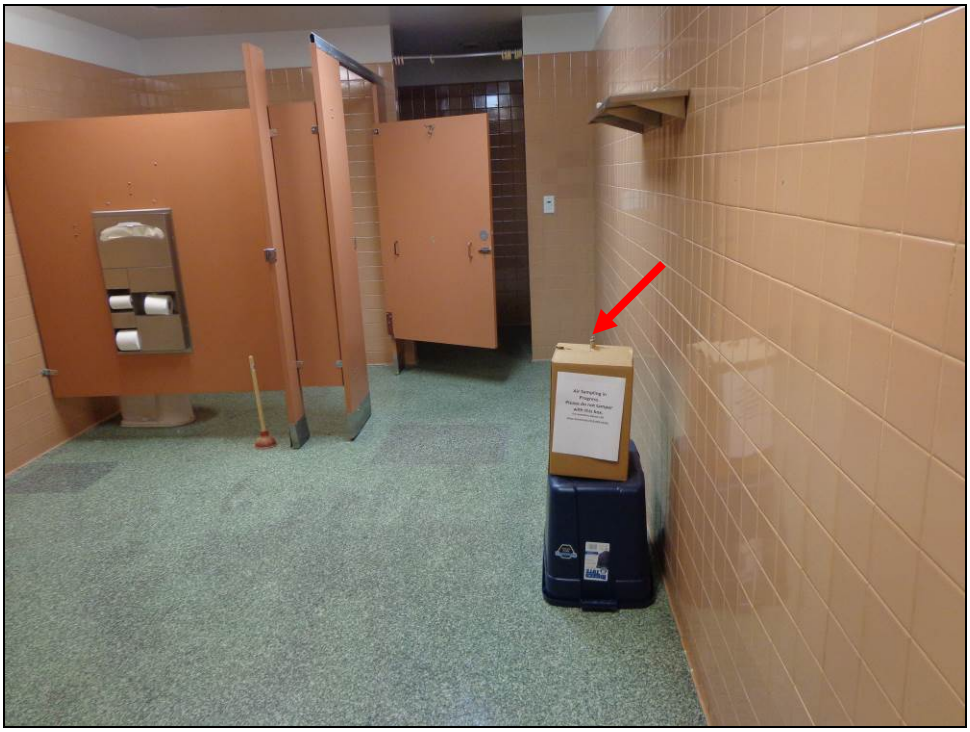
Photographic Log of Indoor Air Samples



Photograph 1. View of sample IA-2 and duplicate IA-2B located in the warehouse women's restroom.

Photograph 2. View of sample IA-5 located in the volunteer room.

Photograph 3. View of sample IA-6 located in the eastern portion of the warehouse.



Photograph 4. View of sample IA-7 located in the men's warehouse restroom.

Photograph 5. View of the outdoor ambient sample located within the landscaped area north of the building.

APPENDIX B

Meteorological Summary for Indoor Air Sampling Events

report this ad

Moffett Field, CA

Moffett Federal Air Field

8:56 AM PST on January 15, 2016 (GMT -0800)

Weather History for KNUQ - December, 2015

December

21

2015

View

Monday, December 21, 2015

Daily | Weekly | Monthly | Custom

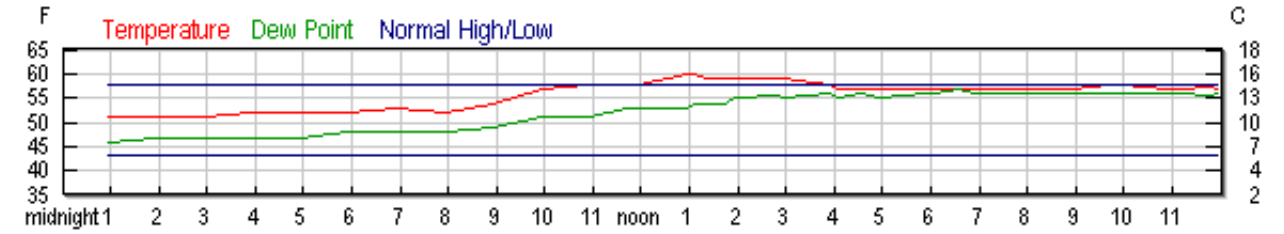
	Actual	Average	Record
Temperature			
Mean Temperature	**56** °F	**50** °F	
Max Temperature	**60** °F	**58** °F	**70** °F (1999)
Min Temperature	**51** °F	**43** °F	**27** °F (1949)
Degree Days			
Heating Degree Days	9		
Month to date heating degree days	279		
Since 1 July heating degree days	622		
Cooling Degree Days	0		
Month to date cooling degree days	0		
Year to date cooling degree days	667		
Growing Degree Days	6 (Base 50)		

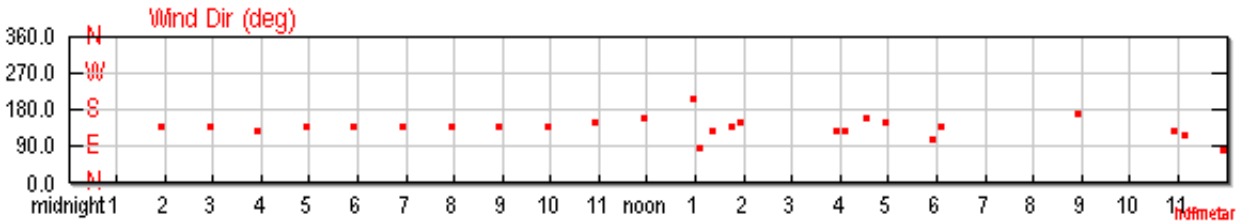
Moisture			
Dew Point	**53** °F		
Average Humidity	86		
Maximum Humidity	93		
Minimum Humidity	78		
Precipitation			
Precipitation	**0.40** in	**0.10** in	**0.62** in (1982)
Month to date precipitation	1.28	1.62	
Year to date precipitation	8.01	13.74	
Sea Level Pressure			
Sea Level Pressure	**30.03** in		
Wind			
Wind Speed	**7** mph (SE)		
Max Wind Speed	**15** mph		
Max Gust Speed	**20** mph		
Visibility	**8** miles		
Events	Rain		

T = Trace of Precipitation, MM = Missing Value

Source: NWS Daily Summary

Daily Weather History Graph





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Search for Another Location

Airport or City:

KNUQ

Submit

Trip Planner

Search our weather history database for the weather conditions in past years. The results will help you decide how hot, cold, wet, or windy it might be!

Date:

December

21

Submit

report this ad | why ads?

Astronomy

Dec. 21, 2015	Rise	Set
Actual Time	7:18 AM PST	4:53 PM PST
Civil Twilight	6:49 AM PST	5:23 PM PST
Nautical Twilight	6:16 AM PST	5:55 PM PST
Astronomical Twilight	5:44 AM PST	6:27 PM PST
Moon	2:17 PM PST (12/21)	3:02 AM PST (12/21)
Length of Visible Light	10h 33m	

Length of Day	9h 34m

Waxing Gibbous, 84% of the Moon is Illuminated

Dec 21	Dec 25	Jan 1	Jan 9	Jan 16
Waxing Gibbous	Full	Last Quarter	New	First Quarter

report this ad | why ads?

Hourly Weather History & Observations

Time (PST)	Temp.	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Con
12:56 AM	**51.1** °F	**46.0** °F	83%	**30.17** in	**10.0** mi	SE	**12.7** mph	-	**0.00** in		Ove
1:56 AM	**51.1** °F	**46.9** °F	86%	**30.17** in	**10.0** mi	SE	**12.7** mph	-	**0.00** in		Ove
2:56 AM	**51.1** °F	**46.9** °F	86%	**30.15** in	**10.0** mi	SE	**13.8** mph	-	**0.00** in		Ove
3:56 AM	**52.0** °F	**46.9** °F	83%	**30.13** in	**10.0** mi	SE	**13.8** mph	-	N/A		Ove
4:56 AM	**52.0** °F	**46.9** °F	83%	**30.13** in	**10.0** mi	SE	**12.7** mph	-	N/A		Ove
5:56 AM	**52.0** °F	**48.0** °F	86%	**30.12** in	**10.0** mi	SE	**11.5** mph	-	N/A		Ove
6:56 AM	**53.1** °F	**48.0** °F	83%	**30.12** in	**10.0** mi	SE	**8.1** mph	-	N/A		Ove
7:56 AM	**52.0** °F	**48.0** °F	86%	**30.12** in	**10.0** mi	SE	**10.4** mph	-	N/A		Mos Clou
8:56 AM	**54.0** °F	**48.9** °F	83%	**30.13** in	**10.0** mi	SE	**9.2** mph	-	N/A		Ove
9:56 AM	**57.0** °F	**51.1** °F	81%	**30.14** in	**10.0** mi	SE	**8.1** mph	-	N/A		Ove
10:56 AM	**57.9** °F	**51.1** °F	78%	**30.11** in	**10.0** mi	SSE	**10.4** mph	-	N/A		Ove
11:42 AM	**57.9** °F	**53.1** °F	84%	**30.09** in	**10.0** mi	Calm	Calm	-	**0.00** in		Ove
11:56 AM	**57.9** °F	**53.1** °F	84%	**30.10** in	**9.0** mi	SSE	**6.9** mph	-	**0.00** in		Ove
12:56											

PM	**60.1** °F	**53.1** °F	78%	**30.05** in	**10.0** mi	SSW	**3.5** mph	-	**0.00** in		Ove
1:06 PM	**60.1** °F	**54.0** °F	80%	**30.04** in	**10.0** mi	East	**3.5** mph	-	**0.00** in	Rain	Ligh
1:21 PM	**59.0** °F	**54.0** °F	83%	**30.03** in	**10.0** mi	SE	**4.6** mph	-	**0.01** in		Ove
1:45 PM	**59.0** °F	**54.0** °F	83%	**30.02** in	**6.0** mi	SE	**4.6** mph	-	**0.02** in	Rain	Rair
1:56 PM	**59.0** °F	**55.0** °F	87%	**30.03** in	**10.0** mi	SSE	**5.8** mph	-	**0.02** in	Rain	Ligh
2:51 PM	**59.0** °F	**55.4** °F	88%	**30.01** in	**5.0** mi	Calm	Calm	-	**0.03** in	Rain	Ligh
2:56 PM	**59.0** °F	**55.0** °F	87%	**30.01** in	**4.0** mi	Calm	Calm	-	**0.03** in	Rain	Ligh
3:56 PM	**57.9** °F	**55.9** °F	93%	**29.99** in	**7.0** mi	SE	**5.8** mph	-	**0.02** in	Rain	Ligh
4:05 PM	**57.0** °F	**55.0** °F	93%	**29.98** in	**6.0** mi	SE	**5.8** mph	-	**0.01** in	Rain	Ligh
4:32 PM	**57.0** °F	**55.9** °F	96%	**29.98** in	**4.0** mi	SSE	**3.5** mph	-	**0.06** in	Rain	Rair
4:56 PM	**57.0** °F	**55.0** °F	93%	**29.98** in	**7.0** mi	SSE	**3.5** mph	-	**0.09** in	Rain	Ligh
5:56 PM	**57.0** °F	**55.9** °F	96%	**29.97** in	**6.0** mi	ESE	**4.6** mph	-	**0.06** in	Rain	Ligh
6:04 PM	**57.0** °F	**55.9** °F	96%	**29.96** in	**7.0** mi	SE	**4.6** mph	-	**0.00** in	Rain	Ligh
6:35 PM	**57.0** °F	**57.0** °F	100%	**29.96** in	**4.0** mi	Calm	Calm	-	**0.03** in	Rain	Rair
6:56 PM	**57.0** °F	**55.9** °F	96%	**29.96** in	**5.0** mi	Calm	Calm	-	**0.06** in	Rain	Ligh
7:18 PM	**57.0** °F	**55.9** °F	96%	**29.95** in	**7.0** mi	Calm	Calm	-	**0.01** in	Rain	Ligh
7:56 PM	**57.0** °F	**55.9** °F	96%	**29.96** in	**6.0** mi	Calm	Calm	-	**0.05** in	Rain	Ligh
8:56 PM	**57.0** °F	**55.9** °F	96%	**29.94** in	**10.0** mi	South	**3.5** mph	-	**0.00** in		Ove
9:44 PM	**57.9** °F	**55.9** °F	93%	**29.92** in	**10.0** mi	Calm	Calm	-	**0.00** in	Rain	Ligh
9:56 PM	**57.9** °F	**55.9** °F	93%	**29.93** in	**10.0** mi	Calm	Calm	-	**0.01** in		Ove
10:56											

10:56 PM	**57.0** °F	**55.9** °F	96%	**29.91** in	**10.0** mi	SE	**6.9** mph	-	N/A		Ove
11:07 PM	**57.0** °F	**55.9** °F	96%	**29.88** in	**8.0** mi	ESE	**5.8** mph	-	**0.00** in	Rain	Ligh
11:51 PM	**57.2** °F	**55.4** °F	94%	**29.89** in	**4.0** mi	Calm	Calm	-	**0.05** in	Rain	Rair
11:56 PM	**57.0** °F	**55.9** °F	96%	**29.90** in	**4.0** mi	East	**4.6** mph	-	**0.06** in	Rain	Rair

| |

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APPENDIX C

Analytical Laboratory Report for Indoor and Outdoor Samples Collected on 21 December 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-16567-1
Client Project/Site: 1160 Kern Ave

For:
Haley & Aldrich, Inc.
1956 Webster Street
Suite 450
Oakland, California 94612

Attn: Peter Scaramella

Beth Riley

Authorized for release by:
1/7/2016 6:57:11 AM

Beth Riley, Project Manager II
(714)258-8610
beth.riley@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Job ID: 320-16567-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-16567-1

Receipt
The samples were received on 12/22/2015 10:00 AM; the samples arrived in good condition. ,

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

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Client Sample ID: AMBIENT-12212015 — Lab Sample ID: 320-16567-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.018	J	0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Freon 113	0.065		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.011	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.12	J	0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.50		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.059	J	0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: IA-02-12212015 — Lab Sample ID: 320-16567-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.19		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Freon 113	0.077		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.27		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.0065	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.3		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.59		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	1.5		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.035	J	0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: IA-02B-12212015 — Lab Sample ID: 320-16567-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.20		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Freon 113	0.075		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.27		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.0061	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.4		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.58		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	1.5		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.034	J	0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: IA-05-12212015 — Lab Sample ID: 320-16567-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.15		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Freon 113	0.072		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.10		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.99		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.56		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.56		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: IA-06-12212015 — Lab Sample ID: 320-16567-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.16		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Client Sample ID: IA-06-12212015 (Continued) — Lab Sample ID: 320-16567-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Freon 113	0.069		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.097		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.53		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.52		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: IA-07-12212015 — Lab Sample ID: 320-16567-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.16		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Freon 113	0.071		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.16		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.0054	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Freon 113	0.54		0.23	0.038	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.85		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA
1,1,1-Trichloroethane	0.030	J	0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Client Sample ID: AMBIENT-12212015

Lab Sample ID: 320-16567-1

Date Collected: 12/21/15 07:35
Matrix: Air
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/04/16 22:53	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/04/16 22:53	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/04/16 22:53	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 22:53	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 22:53	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 22:53	1
Tetrachloroethene	**0.018**	**J**	0.020	0.010	ppb v/v			01/04/16 22:53	1
Freon 113	**0.065**		0.030	0.0050	ppb v/v			01/04/16 22:53	1
Trichloroethene	**0.011**	**J**	0.020	0.0050	ppb v/v			01/04/16 22:53	1
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			01/04/16 22:53	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/04/16 22:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/04/16 22:53	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/04/16 22:53	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/04/16 22:53	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 22:53	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 22:53	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 22:53	1
Tetrachloroethene	**0.12**	**J**	0.14	0.068	ug/m3			01/04/16 22:53	1
Freon 113	**0.50**		0.23	0.038	ug/m3			01/04/16 22:53	1
Trichloroethene	**0.059**	**J**	0.11	0.027	ug/m3			01/04/16 22:53	1
1,1,1-Trichloroethane	ND		0.11	0.027	ug/m3			01/04/16 22:53	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/04/16 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*01/04/16 22:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*01/04/16 22:53*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*		*01/04/16 22:53*	*1*

Client Sample ID: IA-02-12212015

Lab Sample ID: 320-16567-2

Date Collected: 12/21/15 07:41
Matrix: Air
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/04/16 23:52	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/04/16 23:52	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/04/16 23:52	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 23:52	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 23:52	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 23:52	1
Tetrachloroethene	**0.19**		0.020	0.010	ppb v/v			01/04/16 23:52	1
Freon 113	**0.077**		0.030	0.0050	ppb v/v			01/04/16 23:52	1
Trichloroethene	**0.27**		0.020	0.0050	ppb v/v			01/04/16 23:52	1
1,1,1-Trichloroethane	**0.0065**	**J**	0.020	0.0050	ppb v/v			01/04/16 23:52	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/04/16 23:52	1

Client Sample ID: IA-02-12212015 — Lab Sample ID: 320-16567-2

Date Collected: 12/21/15 07:41
Matrix: Air
Date Received: 12/22/15 10:00
Sample Container: Summa Canister 6L

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/04/16 23:52	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/04/16 23:52	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/04/16 23:52	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 23:52	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 23:52	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 23:52	1
Tetrachloroethene	**1.3**		0.14	0.068	ug/m3			01/04/16 23:52	1
Freon 113	**0.59**		0.23	0.038	ug/m3			01/04/16 23:52	1
Trichloroethene	**1.5**		0.11	0.027	ug/m3			01/04/16 23:52	1
1,1,1-Trichloroethane	**0.035**	**J**	0.11	0.027	ug/m3			01/04/16 23:52	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/04/16 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*01/04/16 23:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*01/04/16 23:52*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*01/04/16 23:52*	*1*

Client Sample ID: IA-02B-12212015 — Lab Sample ID: 320-16567-3

Date Collected: 12/21/15 07:41
Matrix: Air
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/05/16 00:50	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/05/16 00:50	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 00:50	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 00:50	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 00:50	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 00:50	1
Tetrachloroethene	**0.20**		0.020	0.010	ppb v/v			01/05/16 00:50	1
Freon 113	**0.075**		0.030	0.0050	ppb v/v			01/05/16 00:50	1
Trichloroethene	**0.27**		0.020	0.0050	ppb v/v			01/05/16 00:50	1
1,1,1-Trichloroethane	**0.0061**	**J**	0.020	0.0050	ppb v/v			01/05/16 00:50	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/05/16 00:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/05/16 00:50	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/05/16 00:50	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/05/16 00:50	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 00:50	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 00:50	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 00:50	1
Tetrachloroethene	**1.4**		0.14	0.068	ug/m3			01/05/16 00:50	1
Freon 113	**0.58**		0.23	0.038	ug/m3			01/05/16 00:50	1
Trichloroethene	**1.5**		0.11	0.027	ug/m3			01/05/16 00:50	1
1,1,1-Trichloroethane	**0.034**	**J**	0.11	0.027	ug/m3			01/05/16 00:50	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/05/16 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*01/05/16 00:50*	*1*

Client Sample ID: IA-02B-12212015 — Lab Sample ID: 320-16567-3

Date Collected: 12/21/15 07:41
Matrix: Air
Date Received: 12/22/15 10:00
Sample Container: Summa Canister 6L

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*01/05/16 00:50*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*01/05/16 00:50*	*1*

Client Sample ID: IA-05-12212015 — Lab Sample ID: 320-16567-4

Date Collected: 12/21/15 07:38
Matrix: Air
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/05/16 01:49	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/05/16 01:49	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 01:49	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 01:49	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 01:49	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 01:49	1
Tetrachloroethene	**0.15**		0.020	0.010	ppb v/v			01/05/16 01:49	1
Freon 113	**0.072**		0.030	0.0050	ppb v/v			01/05/16 01:49	1
Trichloroethene	**0.10**		0.020	0.0050	ppb v/v			01/05/16 01:49	1
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 01:49	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/05/16 01:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/05/16 01:49	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/05/16 01:49	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/05/16 01:49	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 01:49	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 01:49	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 01:49	1
Tetrachloroethene	**0.99**		0.14	0.068	ug/m3			01/05/16 01:49	1
Freon 113	**0.56**		0.23	0.038	ug/m3			01/05/16 01:49	1
Trichloroethene	**0.56**		0.11	0.027	ug/m3			01/05/16 01:49	1
1,1,1-Trichloroethane	ND		0.11	0.027	ug/m3			01/05/16 01:49	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/05/16 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*		*01/05/16 01:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*01/05/16 01:49*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*01/05/16 01:49*	*1*

Client Sample ID: IA-06-12212015 — Lab Sample ID: 320-16567-5

Date Collected: 12/21/15 07:43
Matrix: Air
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/05/16 02:47	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/05/16 02:47	1

Client Sample ID: IA-06-12212015 — Lab Sample ID: 320-16567-5

Date Collected: 12/21/15 07:43 — **Matrix: Air**
Date Received: 12/22/15 10:00
Sample Container: Summa Canister 6L

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 02:47	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 02:47	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 02:47	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 02:47	1
Tetrachloroethene	**0.16**		0.020	0.010	ppb v/v			01/05/16 02:47	1
Freon 113	**0.069**		0.030	0.0050	ppb v/v			01/05/16 02:47	1
Trichloroethene	**0.097**		0.020	0.0050	ppb v/v			01/05/16 02:47	1
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 02:47	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/05/16 02:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/05/16 02:47	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/05/16 02:47	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/05/16 02:47	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 02:47	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 02:47	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 02:47	1
Tetrachloroethene	**1.1**		0.14	0.068	ug/m3			01/05/16 02:47	1
Freon 113	**0.53**		0.23	0.038	ug/m3			01/05/16 02:47	1
Trichloroethene	**0.52**		0.11	0.027	ug/m3			01/05/16 02:47	1
1,1,1-Trichloroethane	ND		0.11	0.027	ug/m3			01/05/16 02:47	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/05/16 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*01/05/16 02:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*01/05/16 02:47*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*01/05/16 02:47*	*1*

Client Sample ID: IA-07-12212015 — Lab Sample ID: 320-16567-6

Date Collected: 12/21/15 07:40 — **Matrix: Air**
Date Received: 12/22/15 10:00
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
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/05/16 03:46	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/05/16 03:46	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/05/16 03:46	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 03:46	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 03:46	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/05/16 03:46	1
Tetrachloroethene	**0.16**		0.020	0.010	ppb v/v			01/05/16 03:46	1
Freon 113	**0.071**		0.030	0.0050	ppb v/v			01/05/16 03:46	1
Trichloroethene	**0.16**		0.020	0.0050	ppb v/v			01/05/16 03:46	1
1,1,1-Trichloroethane	**0.0054**	**J**	0.020	0.0050	ppb v/v			01/05/16 03:46	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/05/16 03:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/05/16 03:46	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/05/16 03:46	1

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Client Sample ID: IA-07-12212015

Lab Sample ID: 320-16567-6

Date Collected: 12/21/15 07:40
Matrix: Air
Date Received: 12/22/15 10:00
Sample Container: Summa Canister 6L

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/05/16 03:46	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 03:46	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 03:46	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/05/16 03:46	1
Tetrachloroethene	**1.1**		0.14	0.068	ug/m3			01/05/16 03:46	1
Freon 113	**0.54**		0.23	0.038	ug/m3			01/05/16 03:46	1
Trichloroethene	**0.85**		0.11	0.027	ug/m3			01/05/16 03:46	1
1,1,1-Trichloroethane	**0.030**	**J**	0.11	0.027	ug/m3			01/05/16 03:46	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/05/16 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*		*01/05/16 03:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*01/05/16 03:46*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*01/05/16 03:46*	*1*

Surrogate Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

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)		
		BFB	12DCE	TOL
Lab Sample ID	**Client Sample ID**	**(70-130)**	**(70-130)**	**(70-130)**
320-16567-1	AMBIENT-12212015	118	94	108
320-16567-2	IA-02-12212015	117	96	103
320-16567-3	IA-02B-12212015	117	97	102
320-16567-4	IA-05-12212015	116	99	104
320-16567-5	IA-06-12212015	118	99	105
320-16567-6	IA-07-12212015	119	99	103
LCS 320-97184/3	Lab Control Sample	120	99	105
LCSD 320-97184/4	Lab Control Sample Dup	120	99	104
MB 320-97184/7	Method Blank	109	103	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

Lab Sample ID: MB 320-97184/7
Matrix: Air
Analysis Batch: 97184

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.020	0.010	ppb v/v			01/04/16 15:49	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			01/04/16 15:49	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			01/04/16 15:49	1
Freon 113	ND		0.030	0.0050	ppb v/v			01/04/16 15:49	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			01/04/16 15:49	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			01/04/16 15:49	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.092	0.046	ug/m3			01/04/16 15:49	1
1,2-Dichlorobenzene	ND		0.30	0.060	ug/m3			01/04/16 15:49	1
1,1-Dichloroethane	ND		0.081	0.020	ug/m3			01/04/16 15:49	1
1,1-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 15:49	1
cis-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 15:49	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			01/04/16 15:49	1
Tetrachloroethene	ND		0.14	0.068	ug/m3			01/04/16 15:49	1
Freon 113	ND		0.23	0.038	ug/m3			01/04/16 15:49	1
Trichloroethene	ND		0.11	0.027	ug/m3			01/04/16 15:49	1
1,1,1-Trichloroethane	ND		0.11	0.027	ug/m3			01/04/16 15:49	1
Vinyl chloride	ND		0.051	0.026	ug/m3			01/04/16 15:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*01/04/16 15:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*01/04/16 15:49*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*01/04/16 15:49*	*1*

Lab Sample ID: LCS 320-97184/3
Matrix: Air
Analysis Batch: 97184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	1.20	1.17		ppb v/v		98	69 - 129
1,2-Dichlorobenzene	1.20	1.33		ppb v/v		111	56 - 137
1,1-Dichloroethane	1.20	1.11		ppb v/v		93	75 - 137
1,1-Dichloroethene	1.20	1.11		ppb v/v		93	70 - 131
cis-1,2-Dichloroethene	1.20	1.24		ppb v/v		103	75 - 136
trans-1,2-Dichloroethene	1.20	1.15		ppb v/v		96	75 - 136
Tetrachloroethene	1.20	1.40		ppb v/v		117	70 - 126
Freon 113	1.20	1.14		ppb v/v		95	71 - 129
Trichloroethene	1.20	1.38		ppb v/v		115	70 - 130
1,1,1-Trichloroethane	1.20	1.38		ppb v/v		115	75 - 135
Vinyl chloride	1.20	1.23		ppb v/v		103	66 - 142

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	5.5	5.39		ug/m3		98	69 - 129
1,2-Dichlorobenzene	7.2	7.99		ug/m3		111	56 - 137
1,1-Dichloroethane	4.9	4.50		ug/m3		93	75 - 137
1,1-Dichloroethene	4.8	4.41		ug/m3		93	70 - 131
cis-1,2-Dichloroethene	4.8	4.92		ug/m3		103	75 - 136
trans-1,2-Dichloroethene	4.8	4.55		ug/m3		96	75 - 136
Tetrachloroethene	8.1	9.50		ug/m3		117	70 - 126
Freon 113	9.2	8.76		ug/m3		95	71 - 129
Trichloroethene	6.4	7.42		ug/m3		115	70 - 130
1,1,1-Trichloroethane	6.5	7.53		ug/m3		115	75 - 135
Vinyl chloride	3.1	3.15		ug/m3		103	66 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 320-97184/4
Matrix: Air
Analysis Batch: 97184

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
Chlorobenzene	1.20	1.21		ppb v/v		101	69 - 129	3	25
1,2-Dichlorobenzene	1.20	1.37		ppb v/v		114	56 - 137	3	25
1,1-Dichloroethane	1.20	1.14		ppb v/v		95	75 - 137	3	25
1,1-Dichloroethene	1.20	1.14		ppb v/v		95	70 - 131	2	25
cis-1,2-Dichloroethene	1.20	1.26		ppb v/v		105	75 - 136	1	25
trans-1,2-Dichloroethene	1.20	1.18		ppb v/v		98	75 - 136	2	25
Tetrachloroethene	1.20	1.47		ppb v/v		123	70 - 126	5	25
Freon 113	1.20	1.16		ppb v/v		97	71 - 129	2	25
Trichloroethene	1.20	1.44		ppb v/v		120	70 - 130	4	25
1,1,1-Trichloroethane	1.20	1.41		ppb v/v		118	75 - 135	2	25
Vinyl chloride	1.20	1.27		ppb v/v		106	66 - 142	3	25

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	5.5	5.56		ug/m3		101	69 - 129	3	25
1,2-Dichlorobenzene	7.2	8.22		ug/m3		114	56 - 137	3	25
1,1-Dichloroethane	4.9	4.62		ug/m3		95	75 - 137	3	25
1,1-Dichloroethene	4.8	4.50		ug/m3		95	70 - 131	2	25
cis-1,2-Dichloroethene	4.8	4.99		ug/m3		105	75 - 136	1	25
trans-1,2-Dichloroethene	4.8	4.66		ug/m3		98	75 - 136	2	25
Tetrachloroethene	8.1	9.99		ug/m3		123	70 - 126	5	25
Freon 113	9.2	8.92		ug/m3		97	71 - 129	2	25
Trichloroethene	6.4	7.75		ug/m3		120	70 - 130	4	25
1,1,1-Trichloroethane	6.5	7.71		ug/m3		118	75 - 135	2	25
Vinyl chloride	3.1	3.24		ug/m3		106	66 - 142	3	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Air - GC/MS VOA

Analysis Batch: 97184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-16567-1	AMBIENT-12212015	Total/NA	Air	TO-15 SIM	
320-16567-2	IA-02-12212015	Total/NA	Air	TO-15 SIM	
320-16567-3	IA-02B-12212015	Total/NA	Air	TO-15 SIM	
320-16567-4	IA-05-12212015	Total/NA	Air	TO-15 SIM	
320-16567-5	IA-06-12212015	Total/NA	Air	TO-15 SIM	
320-16567-6	IA-07-12212015	Total/NA	Air	TO-15 SIM	
LCS 320-97184/3	Lab Control Sample	Total/NA	Air	TO-15 SIM	
LCSD 320-97184/4	Lab Control Sample Dup	Total/NA	Air	TO-15 SIM	
MB 320-97184/7	Method Blank	Total/NA	Air	TO-15 SIM	

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Client Sample ID: AMBIENT-12212015 — Lab Sample ID: 320-16567-1

Date Collected: 12/21/15 07:35 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	965 mL	500 mL	97184	01/04/16 22:53	AMAO	TAL SAC

Client Sample ID: IA-02-12212015 — Lab Sample ID: 320-16567-2

Date Collected: 12/21/15 07:41 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	970 mL	500 mL	97184	01/04/16 23:52	AMAO	TAL SAC

Client Sample ID: IA-02B-12212015 — Lab Sample ID: 320-16567-3

Date Collected: 12/21/15 07:41 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	965 mL	500 mL	97184	01/05/16 00:50	AMAO	TAL SAC

Client Sample ID: IA-05-12212015 — Lab Sample ID: 320-16567-4

Date Collected: 12/21/15 07:38 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	980 mL	500 mL	97184	01/05/16 01:49	AMAO	TAL SAC

Client Sample ID: IA-06-12212015 — Lab Sample ID: 320-16567-5

Date Collected: 12/21/15 07:43 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	960 mL	500 mL	97184	01/05/16 02:47	AMAO	TAL SAC

Client Sample ID: IA-07-12212015 — Lab Sample ID: 320-16567-6

Date Collected: 12/21/15 07:40 — **Matrix: Air**
Date Received: 12/22/15 10:00

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 SIM		1	980 mL	500 mL	97184	01/05/16 03:46	AMAO	TAL SAC

Laboratory References:

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

Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oregon	NELAP	10	CA200005	01-29-16

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

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

Protocol References:

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

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: 1160 Kern Ave

TestAmerica Job ID: 320-16567-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-16567-1	AMBIENT-12212015	Air	12/21/15 07:35	12/22/15 10:00
320-16567-2	IA-02-12212015	Air	12/21/15 07:41	12/22/15 10:00
320-16567-3	IA-02B-12212015	Air	12/21/15 07:41	12/22/15 10:00
320-16567-4	IA-05-12212015	Air	12/21/15 07:38	12/22/15 10:00
320-16567-5	IA-06-12212015	Air	12/21/15 07:43	12/22/15 10:00
320-16567-6	IA-07-12212015	Air	12/21/15 07:40	12/22/15 10:00

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916-373-5600 fax 916-372-1059

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	Project Manager: Peter Scaramella	Samples Collected By: M. Zlotoff	1 of 1 COCs
Company: Haley & Aldrich	Phone: 510-879-4559		
Address: 1956 Webster St , Ste 450	Email pscaramella@haleyaldrich.com		
City/State/Zip: Oakland, CA, 94612			
Phone: 510-879-4559	Site Contact: Peter Scaramella		
FAX: 510-251-1304	TA Contact: Beth Riley		
Project Name: 1160 Kern Ave.	**Analysis Turnaround Time**		
Site: 1160 Kern Ave., Sunnyvale, CA	Standard (Specify)___10 business days__		
PO #: 39800-010	Rush (Specify) _____		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Canister ID	Flow Controller ID	TO-15 SIM *	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
AMBIENT-12212015	12/21/2015	0735	1608	-30	-10.0	34001516	7368	X										X			
IA-02-12212015	12/21/2015	0741	1517	-30	-4.5	34000162	7144	X									X				
IA-02B-12212015	12/21/2015	0741	1517	-30	-5.5	7830	7244	X									X				
IA-05-12212015	12/21/2015	0738	1508	-30	-7.0	7755	7306	X									X				
IA-06-12212015	12/21/2015	0743	1501	-30	-5.5	7960	7626	X									X				
IA-07-12212015	12/21/2015	0740	1513	-29.5	-5.0	7989	8138	X									X				

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

320-16567 Chain of Custody

Special Instructions/QC Requirements & Comments: Results to pscaramella@haleyaldrich.com, cc: mzlotoff@haleyaldrich.com
*** Report only TCE, PCE, cis-1,2-DCE, trans-1,2-DCE, Vinyl Chloride, 1,1-DCA, 1,1-DCE, chlorobenzene, 1,2-dichlorobenzene, Freon 113, and 1,1,1-TCA**

Samples Shipped by: Michael Zlotoff	Date/Time: 12/21/2015 16:30	Samples Received by:	FedEx
Samples Relinquished by:	Date/Time:	Received by:	12/22/15 1000
Relinquished by:	Date/Time:	Received by:	

Lab Use Only **Shipper Name:** **Opened by:** **Condition:**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34001516	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	10.21	12/29/15	SV
FINAL PRESSURE (PSIA)	19.79	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.94			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.94		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							1/4/2016	ATMS1			
Canister DF =	1.94	X	Load DF =	0.5181347	X	Bag DF =	1	=	FINAL DF 1.004298336		
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	965		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 2

Client/Project:		VFR ID:		
Canister Serial #:	34000162	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.25	12/29/15	SV
FINAL PRESSURE (PSIA)	23.80	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.94			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.94		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							1/4/2016	ATMS1			
Canister DF =	1.94	X	Load DF =	0.5154639	X	Bag DF =	1	=	FINAL DF 1.001472754		
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	970		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 3

Client/Project:		VFR ID:		
Canister Serial #:	7830	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.28	12/29/15	SV
FINAL PRESSURE (PSIA)	23.77	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.94			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.94		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

								Date	Instr.	File #	
								1/4/2016	ATMS1		
Canister DF =	1.94	X	Load DF =	0.5181347	X	Bag DF =	1	=		FINAL DF	1.002936659
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	965		Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.94	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 4

Client/Project:		VFR ID:		
Canister Serial #:	7755	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.05	12/29/15	SV
FINAL PRESSURE (PSIA)	23.69	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.97			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.97		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							1/4/2016	ATMS1			
Canister DF =	1.97	X	Load DF =	0.5102041	X	Bag DF =	1	=	FINAL DF 1.003048522		
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	980		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.97	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.97	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 5

Client/Project:		VFR ID:		
Canister Serial #:	7960	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.22	12/29/15	SV
FINAL PRESSURE (PSIA)	23.48	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.92			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.92		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

								Date	Instr.	File #	
								1/4/2016	ATMS1		
Canister DF =	1.92	X	Load DF =	0.5208333	X	Bag DF =	1	=		FINAL DF	1.000750136
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	960		Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.92	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.92	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16567
Sample # 6

Client/Project:		VFR ID:		
Canister Serial #:	7989	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.18	12/29/15	SV
FINAL PRESSURE (PSIA)	23.88	12/29/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.96			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.96		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

								Date	Instr.	File #	
								1/4/2016	ATMS1		
Canister DF =	1.96	X	Load DF =	0.5102041	X	Bag DF =	1	=		FINAL DF	1.000301598
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	980		Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.96	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
								Date	Instr.	File #	
Canister DF =	1.96	X	Load DF =	#DIV/0!	X	Bag DF =	1	=		FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 320-16567-1

Login Number: 16567
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento

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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	

320-15861 Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Canister QC Certification
Individual Certification

Certification Type: TO-15 SIM

Date Cleaned/Batch ID: 11/9/15 320-15861

Date of QC: 12/02/15

24360

Canister ID	Filename	Canister ID	Filename
34000475			
0291			
1573	—		
1194	—		
1516	MS5120210		
7960	11		
7989	12		
7830	13		
8435	—		
7755	MS5120215		
8294	—		

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.

SMS Rev AO — 1st level Reviewed By: — 12/9/15 Date:

[signature] — 2nd level Reviewed By: — 12/30/15 Date:

Q:\FORMS\QA-821 IND CAN QC 20130729.DOC
QA-821

ERS 7/29/2013

320-16249 Chain of Custody

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Canister QC Certification
Individual Certification

Certification Type: TO-15 SIM

Date Cleaned/Batch ID: 12/2/15 320-16249 94534

Date of QC: 12/03/15

Canister ID	Filename	Canister ID	Filename
34000509	MS5120306		
0162	07		
0023	08		
1479	09		
1258	11		
0872	12		
0588			
8160	MS5120314		
8077	16		
8161	17		
7857	18		
8164			

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.

1st level Reviewed By: [signature] Date: 12/07/15

2nd level Reviewed By: [signature] Date: 12/30/15

Q:\FORMS\QA-821 IND CAN QC 20130729.DOC
QA-821

ERS 7/29/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification
Individual Certification

Certification Type: TO-15 SIM

Date Cleaned/Batch ID: 11/10/15 320-15883

Date of QC: 12/01/15

54166

Canister ID	Filename	Canister ID	Filename
34001316	MS51120~~06~~ 11 AO 12-2-15		
0430	12		
0493	13		
1378	~~14~~ AO 12-3-15		
1524	15		
1208			
0916	MS51201017		
0575	18		
0119			
1309			
0614	MS51201021		
0215	22		

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.

1st level Reviewed By: _____ Date: 12/02/15

2nd level Reviewed By: _____ Date: 12/30/15

Q:\FORMS\QA-821 IND CAN QC 20130729.DOC
QA-821

ERS 7/29/2013

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

Lab Name: TestAmerica Sacramento
Job No.: 320-15861-1
SDG No.:
Client Sample ID: 34001516
Lab Sample ID: 320-15861-5
Matrix: Air
Lab File ID: MS5120210.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 02:00
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.: 94360
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		0.010	0.0050
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.: 320-15861-1
SDG No.:
Client Sample ID: 34001516
Lab Sample ID: 320-15861-5
Matrix: Air
Lab File ID: MS5120210.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 02:00
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.: 94360
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	126		70-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120210.D				
Lims ID:	320-15861-A-5	Lab Sample ID:	320-15861-5		
Client ID:	34001516				
Sample Type:	Client				
Inject. Date:	03-Dec-2015 02:00:30	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	320-15861-5				
Misc. Info.:	1000ML				
Operator ID:	AO	Instrument ID:	ATMS5		
Method:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\TO15 SIM.m				
Limit Group:	MSA - TO-15_SIM_ICAL				
Last Update:	03-Dec-2015 10:04:56	Calib Date:	19-Nov-2015 01:39:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D				
Column 1 :			Det: MS SCAN		
Process Host:	XAWRK020				
First Level Reviewer: ortizam		Date:	03-Dec-2015 10:04:56		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.610	11.611	-0.001	91	14038	2.00	
* 2 1,4-Difluorobenzene	114	13.773	13.773	0.000	98	115083	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	93	98228	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	87	84134	2.52	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	89278	2.17	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	97	70064	1.88	
22 Methylene Chloride	49	8.213	8.207	0.006	98	453	0.0249	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

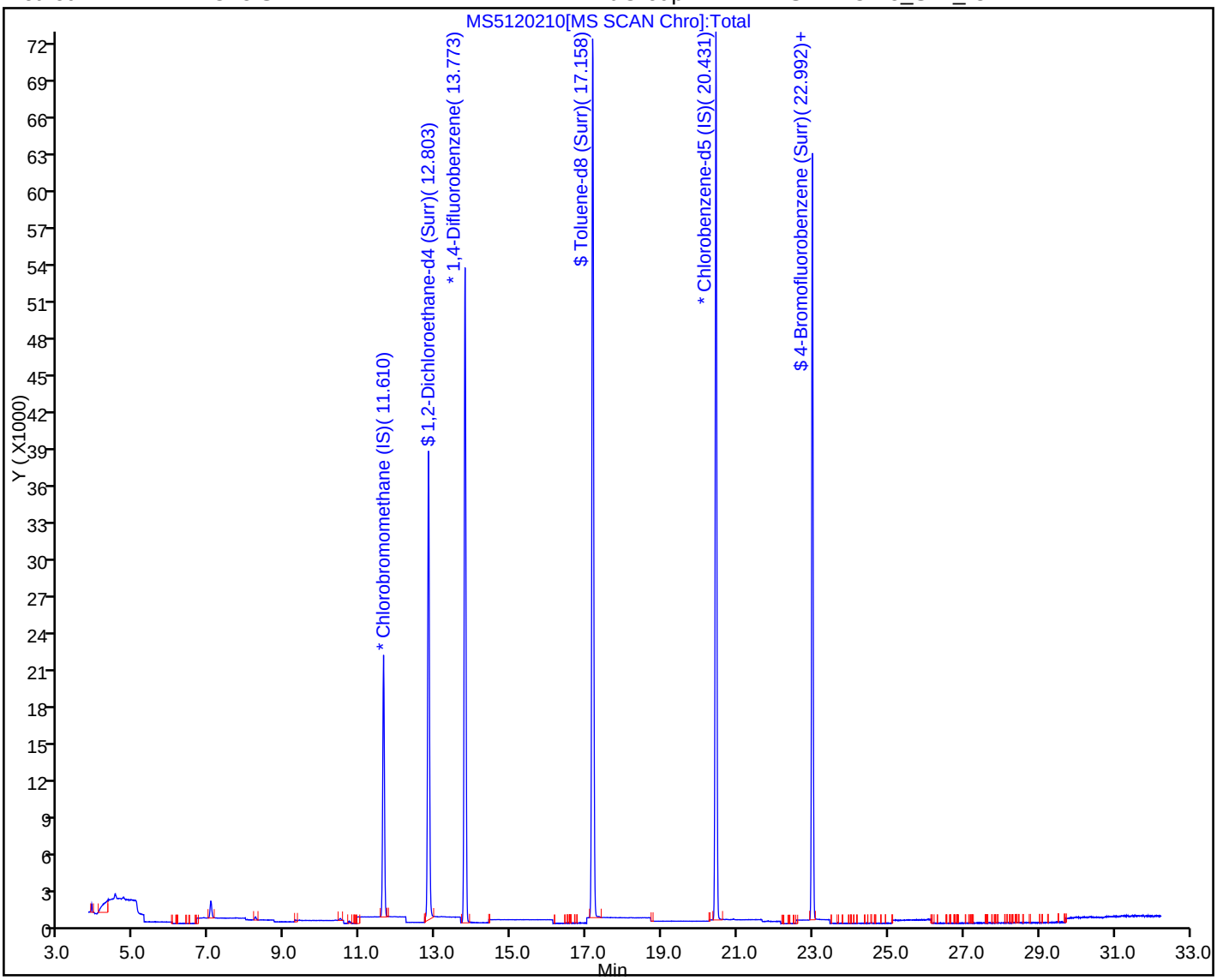
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 03-Dec-2015 10:04:58 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120210.D				
Injection Date:	03-Dec-2015 02:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-5	Lab Sample ID:	320-15861-5		
Client ID:	34001516				
Operator ID:	AO	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-15861-1
SDG No.:
Client Sample ID: 7960
Lab Sample ID: 320-15861-6
Matrix: Air
Lab File ID: MS5120211.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 03:00
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.: 94360
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		0.010	0.0050
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.: 320-15861-1
SDG No.:
Client Sample ID: 7960
Lab Sample ID: 320-15861-6
Matrix: Air
Lab File ID: MS5120211.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 03:00
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.: 94360
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		70-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120211.D
Lims ID: 320-15861-A-6 Lab Sample ID: 320-15861-6
Client ID: 7960
Sample Type: Client
Inject. Date: 03-Dec-2015 03:00:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15861-6
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 03-Dec-2015 10:05:18 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: ortizam Date: 03-Dec-2015 10:05:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.611	11.611	0.000	92	14827	2.00	
* 2 1,4-Difluorobenzene	114	13.777	13.773	0.004	99	118881	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	95	102189	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	71	84661	2.46	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	91149	2.14	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	97	75880	1.95	
22 Methylene Chloride	49	8.213	8.207	0.006	95	517	0.0269	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

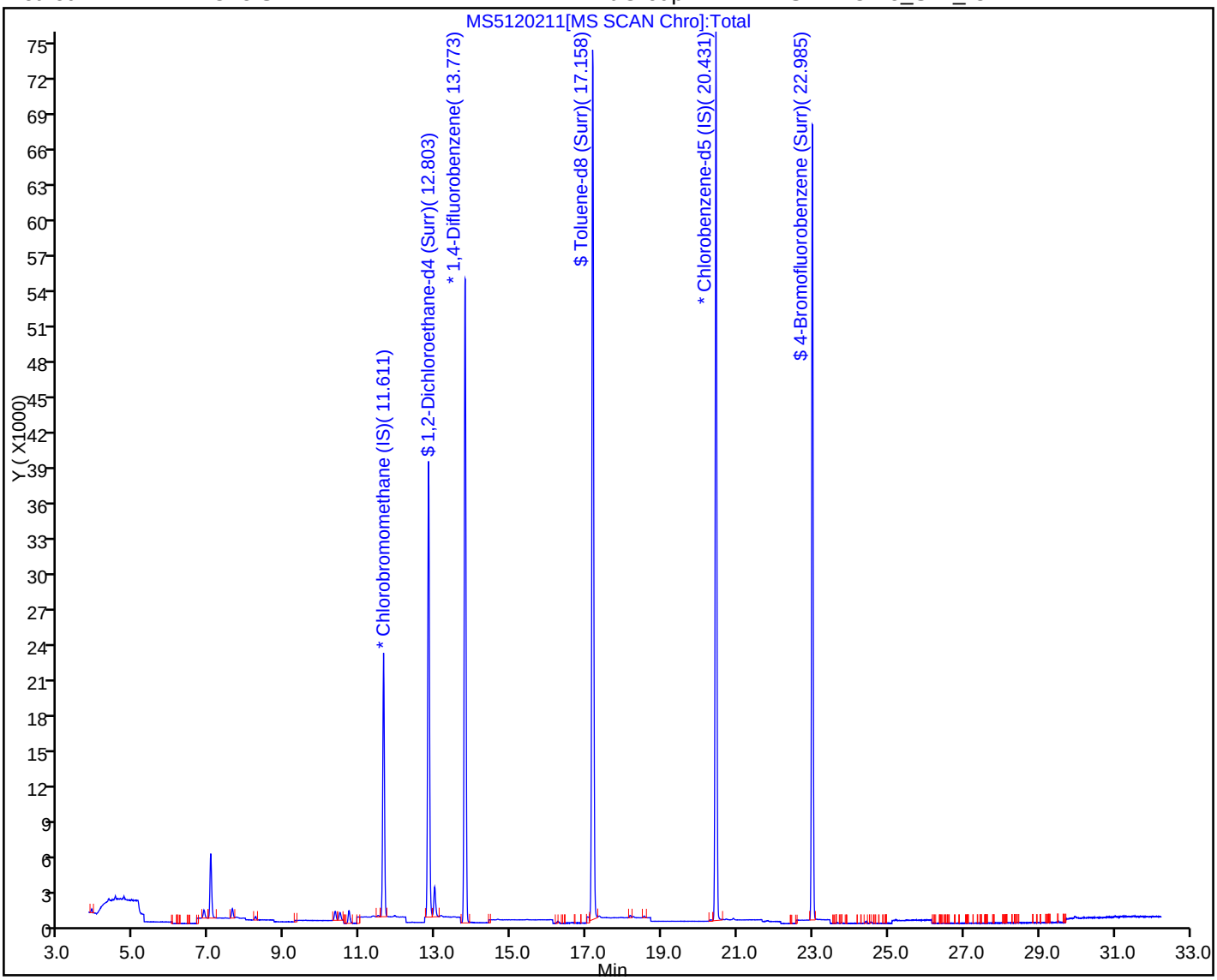
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 03-Dec-2015 10:05:19 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120211.D				
Injection Date:	03-Dec-2015 03:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-6	Lab Sample ID:	320-15861-6		
Client ID:	7960				
Operator ID:	AO	ALS Bottle#:	9	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-15861-1
SDG No.:
Client Sample ID: 7989
Lab Sample ID: 320-15861-7
Matrix: Air
Lab File ID: MS5120212.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 04:00
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.: 94360
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		0.010	0.0050
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.: 320-15861-1
SDG No.:
Client Sample ID: 7989
Lab Sample ID: 320-15861-7
Matrix: Air
Lab File ID: MS5120212.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 04:00
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.: 94360
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	128		70-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120212.D
Lims ID: 320-15861-A-7 Lab Sample ID: 320-15861-7
Client ID: 7989
Sample Type: Client
Inject. Date: 03-Dec-2015 04:00:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15861-7
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 03-Dec-2015 10:05:49 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: ortizam Date: 03-Dec-2015 10:05:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.621	11.611	0.010	93	12993	2.00	
* 2 1,4-Difluorobenzene	114	13.777	13.773	0.004	98	107607	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.439	20.431	0.008	97	93759	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.812	12.803	0.009	88	79521	2.55	
$ 5 Toluene-d8 (Surr)	100	17.167	17.158	0.009	100	84238	2.19	
$ 6 4-Bromofluorobenzene (Surr	95	22.984	22.985	-0.001	97	68218	1.91	
22 Methylene Chloride	49	8.226	8.226	0.019	92	398	0.0236	7M

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

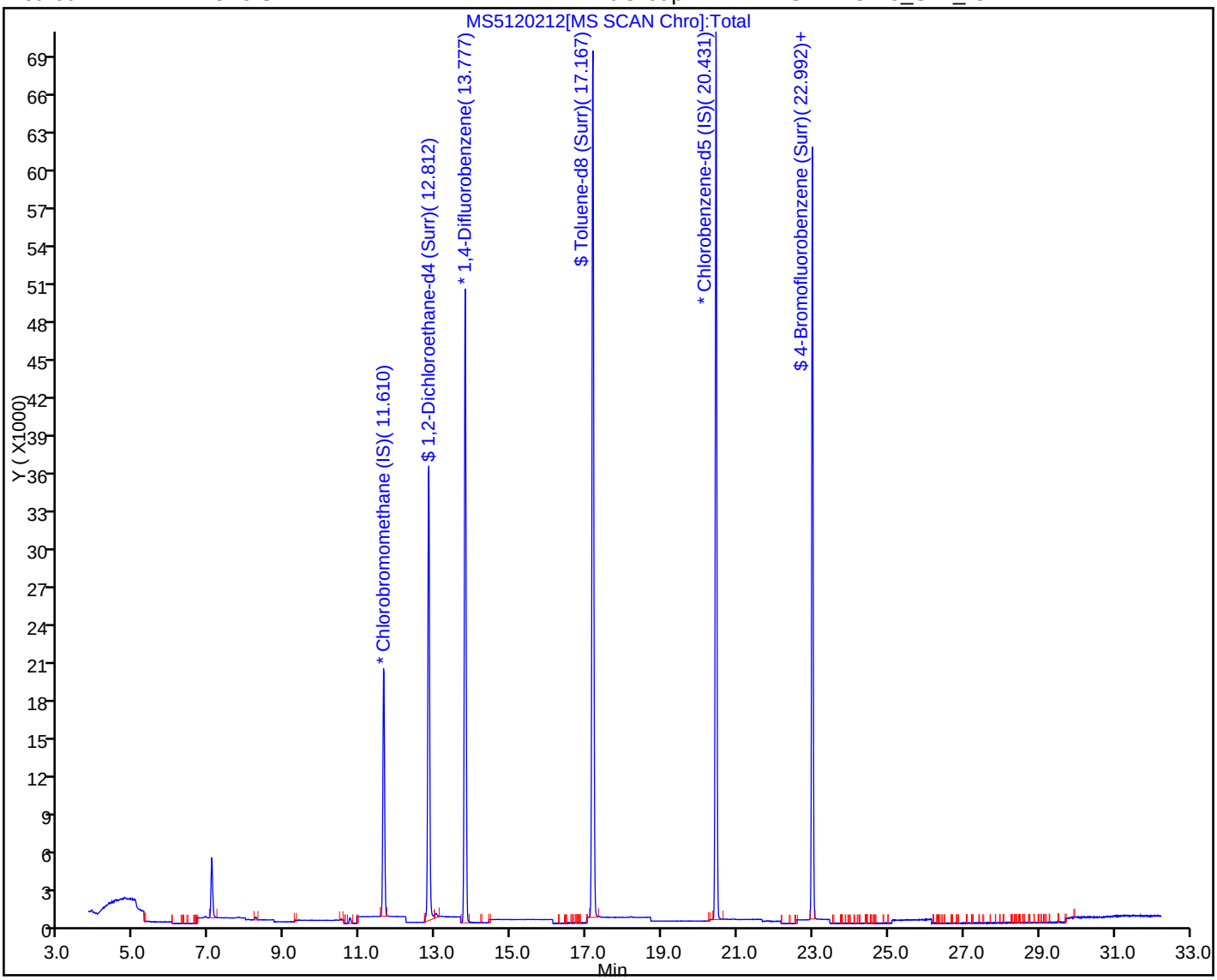
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 03-Dec-2015 10:06:01 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120212.D				
Injection Date:	03-Dec-2015 04:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-7	Lab Sample ID:	320-15861-7		
Client ID:	7989				
Operator ID:	AO	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



Manual Integration/User Assign Peak Report

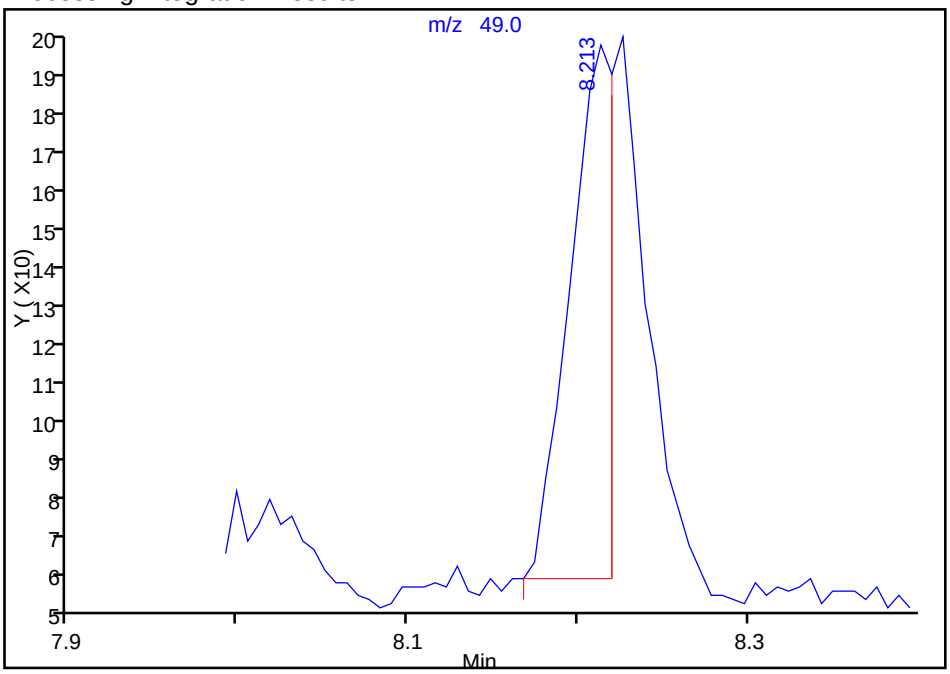
TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120212.D				
Injection Date:	03-Dec-2015 04:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-7	Lab Sample ID:	320-15861-7		
Client ID:	7989				
Operator ID:	AO	ALS Bottle#:	10	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		
Column:		Detector	MS SCAN		

22 Methylene Chloride, CAS: 75-09-2

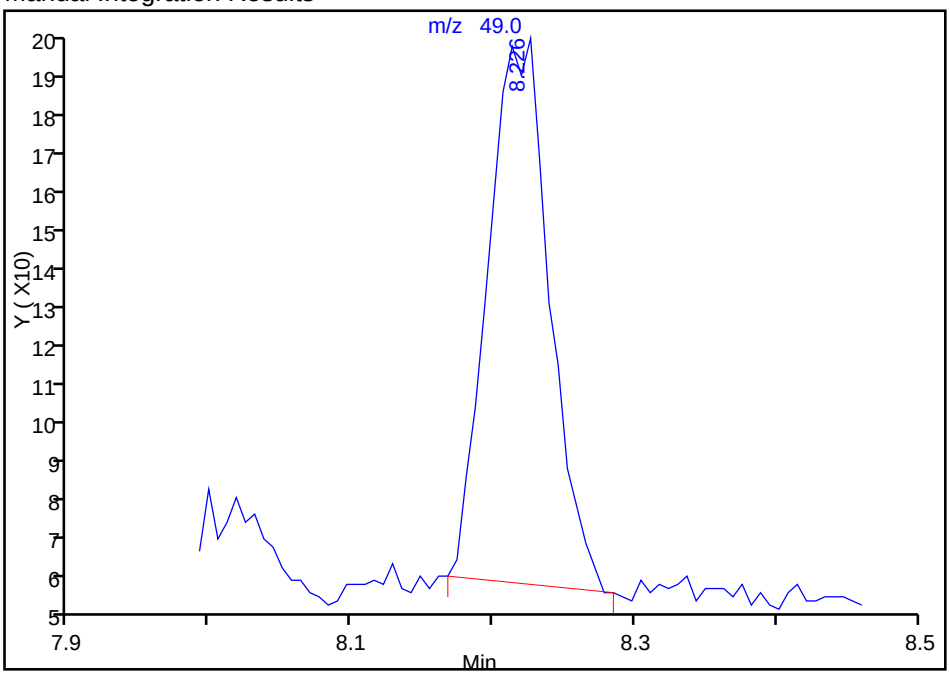
Processing Integration Results

RT: 8.21
Area: 231
Amount: 0.013721
Amount Units: ppb v/v



Manual Integration Results

RT: 8.23
Area: 398
Amount: 0.023640
Amount Units: ppb v/v



Reviewer: ortizam, 03-Dec-2015 10:05:59
Audit Action: Manually Integrated
Audit Reason: Split Peak

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

Lab Name: TestAmerica Sacramento | Job No.: 320-15861-1

SDG No.:

Client Sample ID: 7830 | Lab Sample ID: 320-15861-8

Matrix: Air | Lab File ID: MS5120213.D

Analysis Method: TO-15 SIM | Date Collected: 11/09/2015 00:00

Sample wt/vol: 1000(mL) | Date Analyzed: 12/03/2015 05:00

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.: 94360 | 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		0.010	0.0050
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	0.013	J	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.: 320-15861-1
SDG No.:
Client Sample ID: 7830
Lab Sample ID: 320-15861-8
Matrix: Air
Lab File ID: MS5120213.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 05:00
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.: 94360
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	126		70-130
2037-26-5	Toluene-d8 (Surr)	111		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120213.D
Lims ID: 320-15861-A-8 Lab Sample ID: 320-15861-8
Client ID: 7830
Sample Type: Client
Inject. Date: 03-Dec-2015 05:00:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15861-8
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 03-Dec-2015 10:07:28 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK020

First Level Reviewer: ortizam Date: 03-Dec-2015 10:43:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.611	11.611	0.000	92	12310	2.00	
* 2 1,4-Difluorobenzene	114	13.770	13.773	-0.003	99	104290	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	94	93745	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.794	12.803	-0.009	88	76405	2.53	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	82581	2.22	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	98	68413	1.92	
22 Methylene Chloride	49	8.200	8.207	-0.007	94	422	0.0265	7
43 1,4-Dioxane	88	15.388	15.354	0.034	99	141	0.0126	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

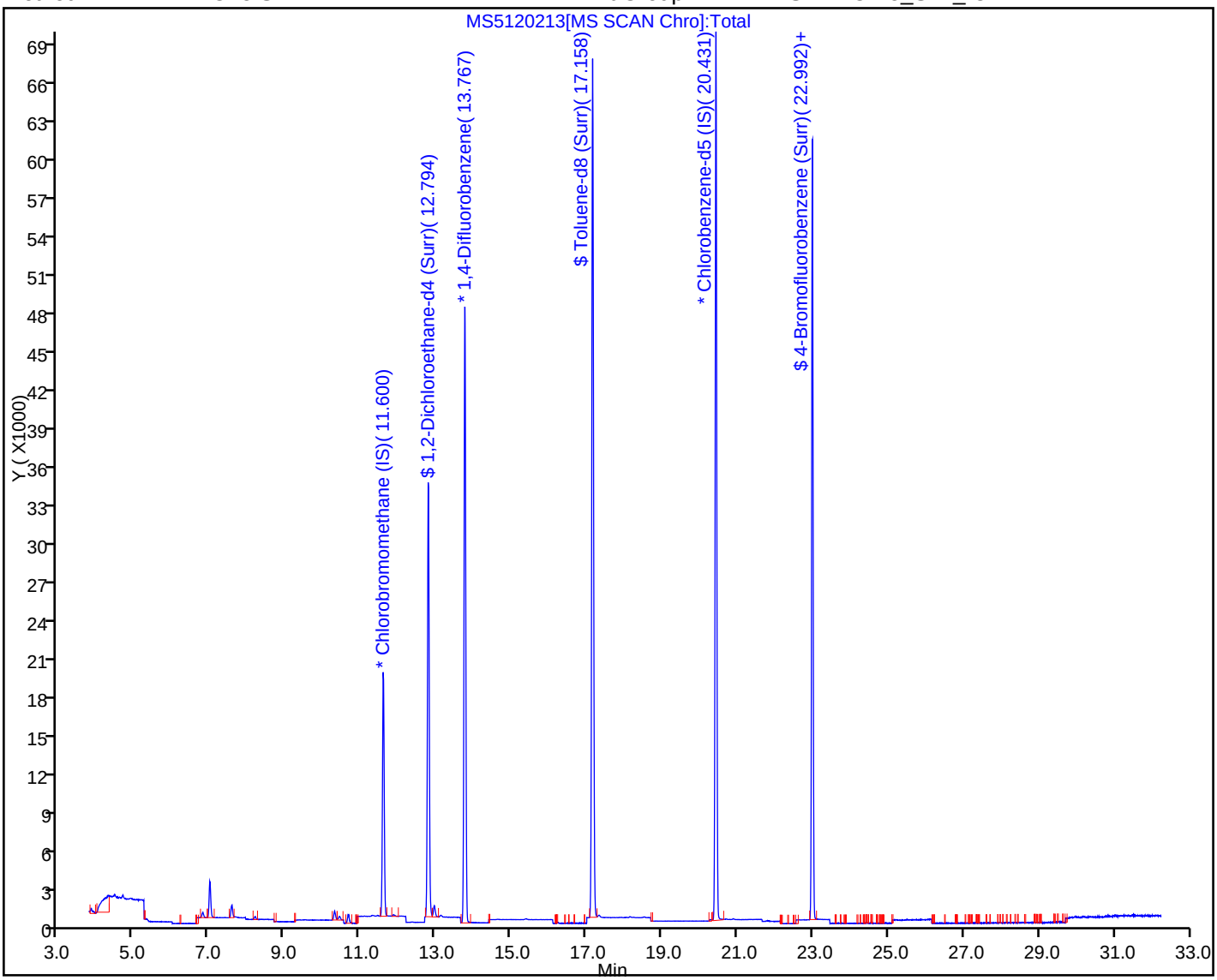
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 03-Dec-2015 10:43:15 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120213.D				
Injection Date:	03-Dec-2015 05:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-8	Lab Sample ID:	320-15861-8		
Client ID:	7830				
Operator ID:	AO	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		

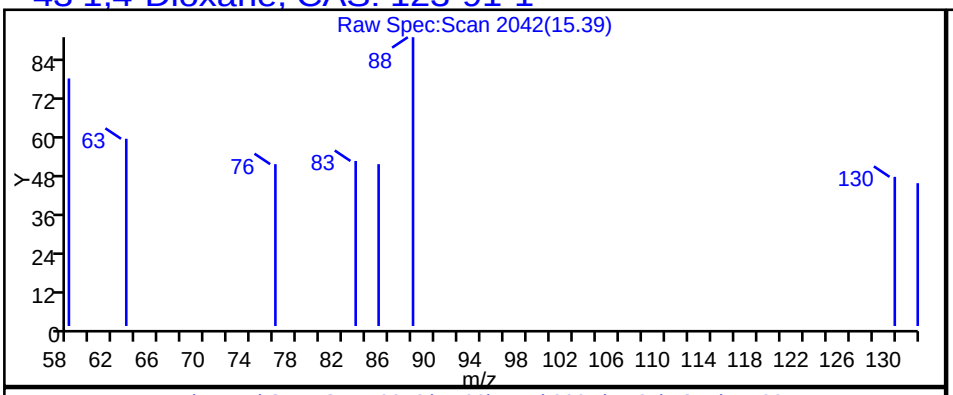


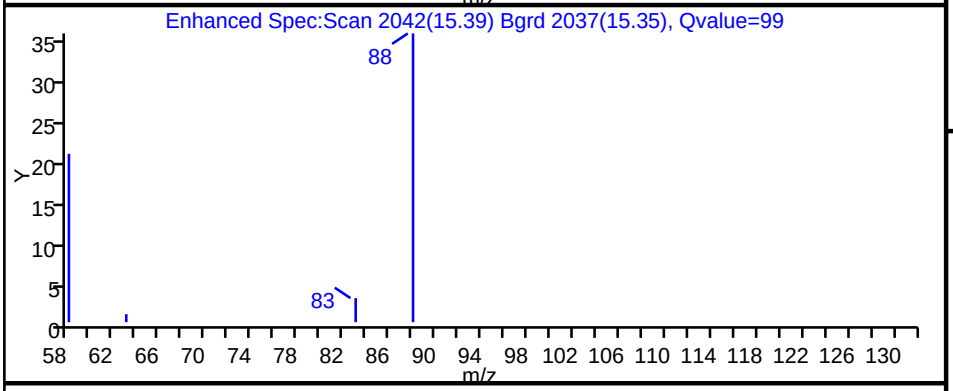
Report Date: 03-Dec-2015 10:43:15 Chrom Revision: 2.2 08-Oct-2015 07:17:48

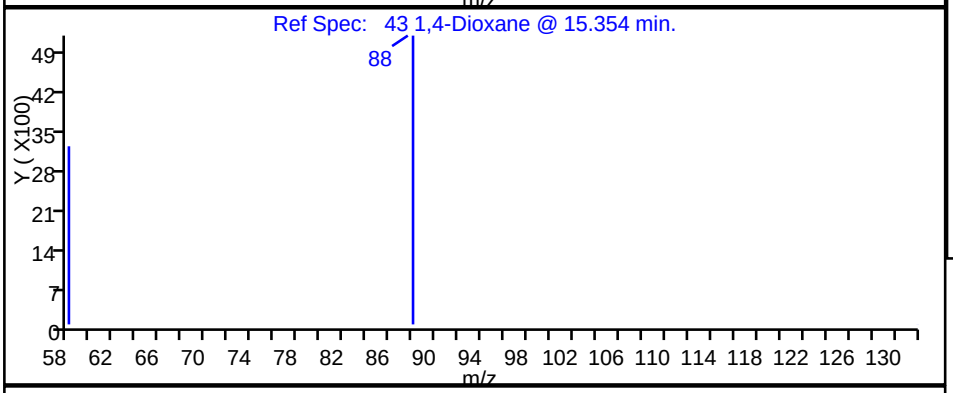
TestAmerica Sacramento

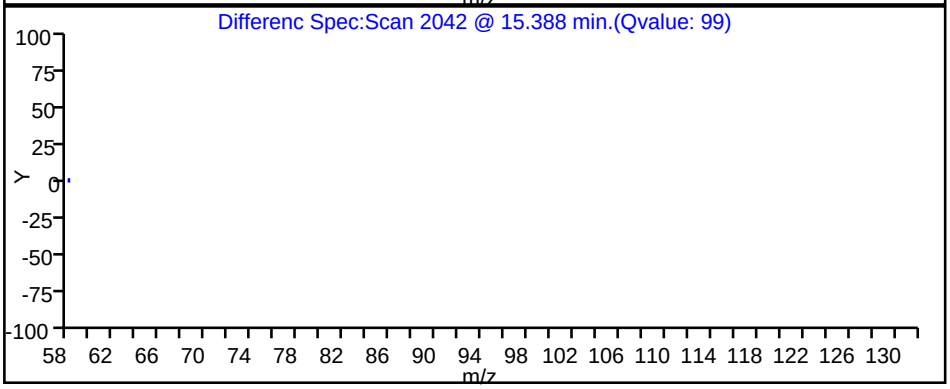
Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120213.D				
Injection Date:	03-Dec-2015 05:00:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-8	Lab Sample ID:	320-15861-8		
Client ID:	7830				
Operator ID:	AO	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		
Column:		Detector	MS SCAN		

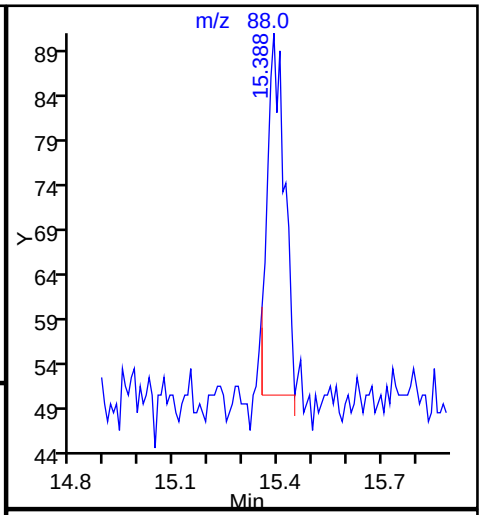
43 1,4-Dioxane, CAS: 123-91-1

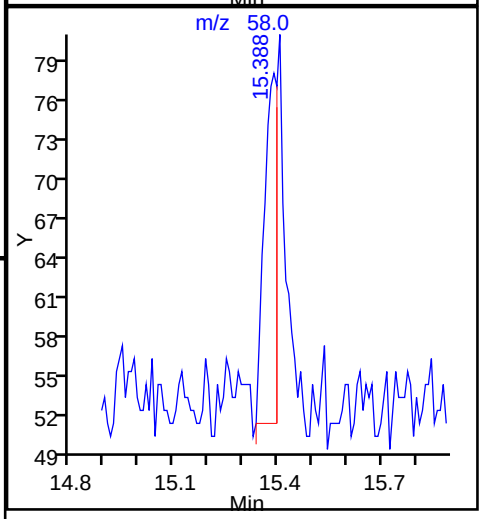












FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-15861-1
SDG No.:
Client Sample ID: 7755
Lab Sample ID: 320-15861-10
Matrix: Air
Lab File ID: MS5120215.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 06:59
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.: 94360
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		0.010	0.0050
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.: 320-15861-1
SDG No.:
Client Sample ID: 7755
Lab Sample ID: 320-15861-10
Matrix: Air
Lab File ID: MS5120215.D
Analysis Method: TO-15 SIM
Date Collected: 11/09/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 06:59
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.: 94360
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120215.D				
Lims ID:	320-15861-A-10	Lab Sample ID:	320-15861-10		
Client ID:	7755				
Sample Type:	Client				
Inject. Date:	03-Dec-2015 06:59:30	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	320-15861-10				
Misc. Info.:	1000ML				
Operator ID:	AO	Instrument ID:	ATMS5		
Method:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\TO15 SIM.m				
Limit Group:	MSA - TO-15_SIM_ICAL				
Last Update:	03-Dec-2015 11:21:53	Calib Date:	19-Nov-2015 01:39:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D				
Column 1 :			Det: MS SCAN		
Process Host:	XAWRK020				
First Level Reviewer: ortizam		Date:	03-Dec-2015 11:22:06		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.622	11.611	0.011	95	15441	2.00	
* 2 1,4-Difluorobenzene	114	13.777	13.773	0.004	99	124350	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.439	20.431	0.008	99	103146	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.812	12.803	0.009	87	82917	2.30	
$ 5 Toluene-d8 (Surr)	100	17.167	17.158	0.009	100	93272	2.10	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	97	67235	1.71	
22 Methylene Chloride	49	8.213	8.207	0.006	93	401	0.0200	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

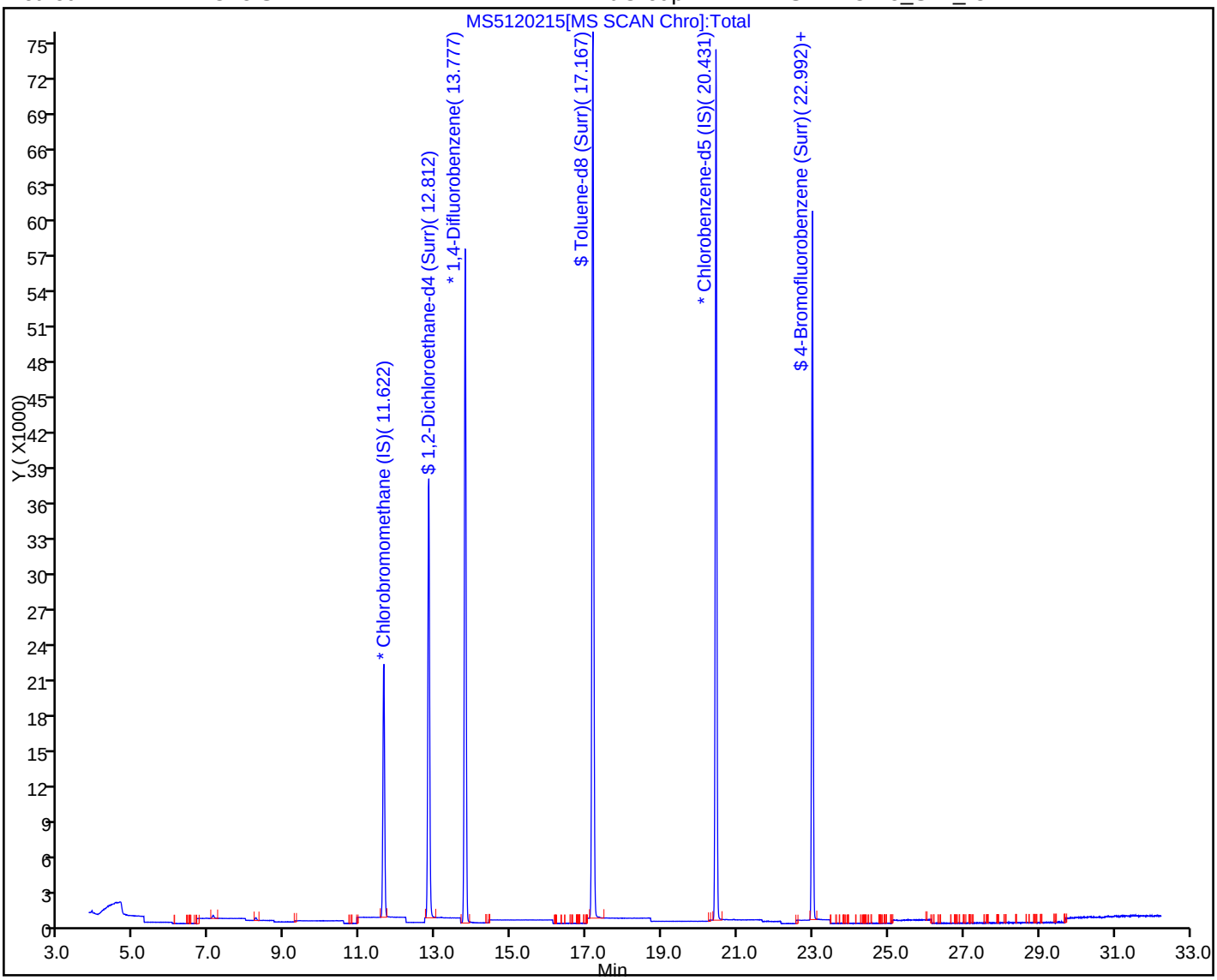
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 03-Dec-2015 11:22:07 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151203-26882.b\MS5120215.D				
Injection Date:	03-Dec-2015 06:59:30	Instrument ID:	ATMS5		
Lims ID:	320-15861-A-10	Lab Sample ID:	320-15861-10		
Client ID:	7755				
Operator ID:	AO	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34000509
Lab Sample ID: 320-16249-1
Matrix: Air
Lab File ID: MS5120306.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 21:13
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.: 94534
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		0.010	0.0050
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
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
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050
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
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010
95-47-6	o-Xylene	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.: 320-16249-1

SDG No.:

Client Sample ID: 34000509 Lab Sample ID: 320-16249-1

Matrix: Air Lab File ID: MS5120306.D

Analysis Method: TO-15 SIM Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 12/03/2015 21:13

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.: 94534 Units: ppb v/v

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-130
2037-26-5	Toluene-d8 (Surr)	99		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120306.D
Lims ID: 320-16249-A-1 Lab Sample ID: 320-16249-1
Client ID: 34000509
Sample Type: Client
Inject. Date: 03-Dec-2015 21:13:30 ALS Bottle#: 3 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-01
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 12:29:57 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 12:29:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.610	11.611	-0.001	99	22098	2.00	
* 2 1,4-Difluorobenzene	114	13.773	13.773	0.000	100	163525	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	100	141819	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	87	91072	1.92	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	116167	1.99	
$ 6 4-Bromofluorobenzene (Surr	95	22.984	22.985	-0.001	96	100604	1.87	
8 Dichlorodifluoromethane	85	3.912	3.912	0.000	79	511	0.005217	
22 Methylene Chloride	49	8.200	8.200	0.000	96	946	0.0330	7
43 1,4-Dioxane	88	15.405	15.354	0.051	99	668	0.0379	
46 Toluene	91	17.330	17.330	0.000	95	1624	0.0167	
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	99	2238	0.0210	
56 o-Xylene	91	21.784	21.788	-0.004	96	865	0.007823	7
65 1,4-Dichlorobenzene	146	25.487	25.486	0.001	95	392	0.006649	7
67 1,2-Dichlorobenzene	146	26.209	26.206	0.003	99	408	0.006428	7
68 1,2,4-Trichlorobenzene	180	29.514	29.515	-0.001	100	948	0.0285	
70 Naphthalene	128	29.955	29.952	0.003	100	4182	0.0395	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

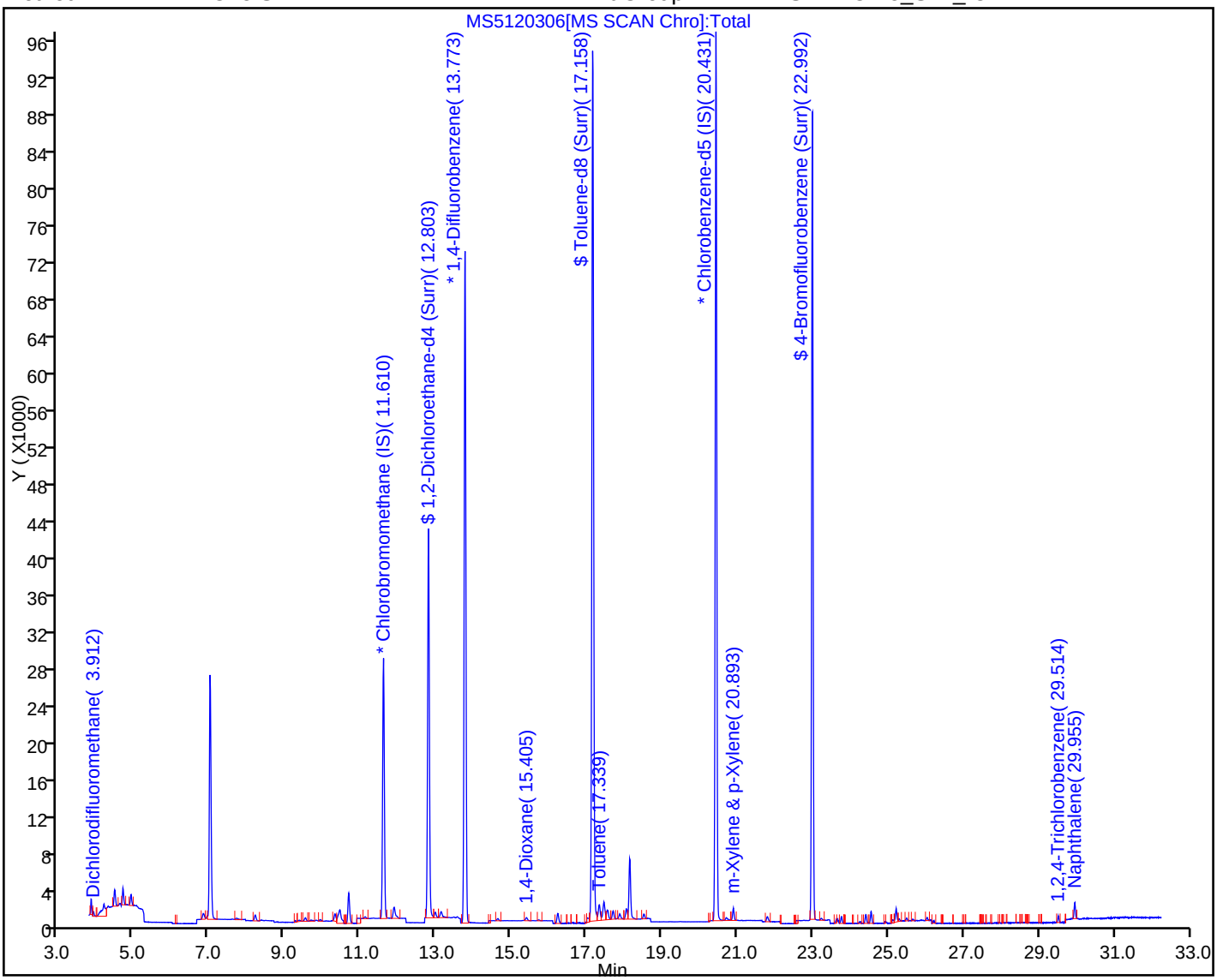
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 12:29:57 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120306.D				
Injection Date:	03-Dec-2015 21:13:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-1	Lab Sample ID:	320-16249-1		
Client ID:	34000509				
Operator ID:	AO	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34000162
Lab Sample ID: 320-16249-2
Matrix: Air
Lab File ID: MS5120307.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 22:12
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.: 94534
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		0.010	0.0050
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.: 320-16249-1
SDG No.:
Client Sample ID: 34000162
Lab Sample ID: 320-16249-2
Matrix: Air
Lab File ID: MS5120307.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 22:12
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.: 94534
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	91		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120307.D
Lims ID: 320-16249-A-2 Lab Sample ID: 320-16249-2
Client ID: 34000162
Sample Type: Client
Inject. Date: 03-Dec-2015 22:12:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-02
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 12:30:55 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 12:30:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.610	11.611	-0.001	100	20691	2.00	
* 2 1,4-Difluorobenzene	114	13.770	13.773	-0.003	100	157571	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	100	140947	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.794	12.803	-0.009	88	89571	1.96	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	113938	2.02	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	96	97518	1.82	
8 Dichlorodifluoromethane	85	3.912	3.912	0.000	98	1085	0.0118	
22 Methylene Chloride	49	8.200	8.200	0.000	99	1394	0.0520	7
38 Benzene	78	13.130	13.140	-0.010	100	710	0.009620	7
43 1,4-Dioxane	88	15.379	15.354	0.025	92	538	0.0317	
46 Toluene	91	17.330	17.330	0.000	98	902	0.009600	7
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	99	706	0.006667	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

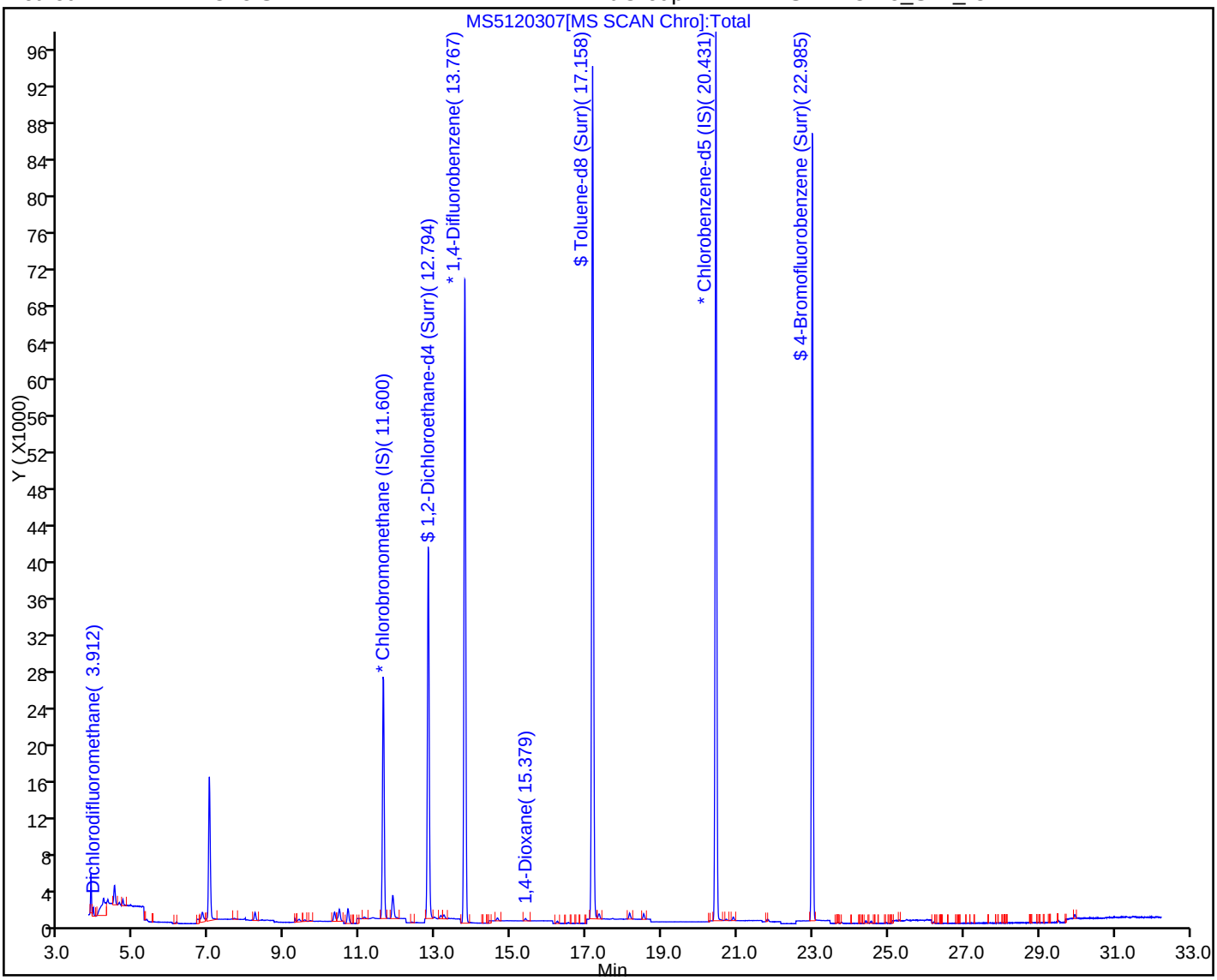
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 12:30:56 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120307.D				
Injection Date:	03-Dec-2015 22:12:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-2	Lab Sample ID:	320-16249-2		
Client ID:	34000162				
Operator ID:	AO	ALS Bottle#:	4	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34000023
Lab Sample ID: 320-16249-3
Matrix: Air
Lab File ID: MS5120308.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/03/2015 23:12
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.: 94534
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.0050
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
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
75-69-4	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

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

Lab Name: TestAmerica Sacramento Job No.: 320-16249-1

SDG No.:

Client Sample ID: 34000023 Lab Sample ID: 320-16249-3

Matrix: Air Lab File ID: MS5120308.D

Analysis Method: TO-15 SIM Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 12/03/2015 23:12

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.: 94534 Units: ppb v/v

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120308.D
Lims ID: 320-16249-A-3 Lab Sample ID: 320-16249-3
Client ID: 34000023
Sample Type: Client
Inject. Date: 03-Dec-2015 23:12:30 ALS Bottle#: 5 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-03
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 12:31:29 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 12:31:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.610	11.611	-0.001	95	19698	2.00	
* 2 1,4-Difluorobenzene	114	13.777	13.773	0.004	100	150771	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	97	131450	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	88	93621	2.14	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	110118	2.04	
$ 6 4-Bromofluorobenzene (Surr	95	22.984	22.985	-0.001	95	92591	1.85	
8 Dichlorodifluoromethane	85	3.921	3.912	0.009	98	1574	0.0180	
10 Chloromethane	50	4.312	4.312	0.018	88	649	0.0281	7M
15 Trichlorofluoromethane	101	6.132	6.119	0.013	93	478	0.007829	7
19 1,1,2-Trichloro-1,2,2-trif	101	7.144	7.126	0.018	93	437	0.0124	
22 Methylene Chloride	49	8.213	8.200	0.013	100	1606	0.0629	7
38 Benzene	78	13.130	13.140	-0.010	100	778	0.0110	
43 1,4-Dioxane	88	15.397	15.354	0.043	100	1432	0.0882	
46 Toluene	91	17.330	17.330	0.000	97	972	0.0108	
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	98	811	0.008212	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

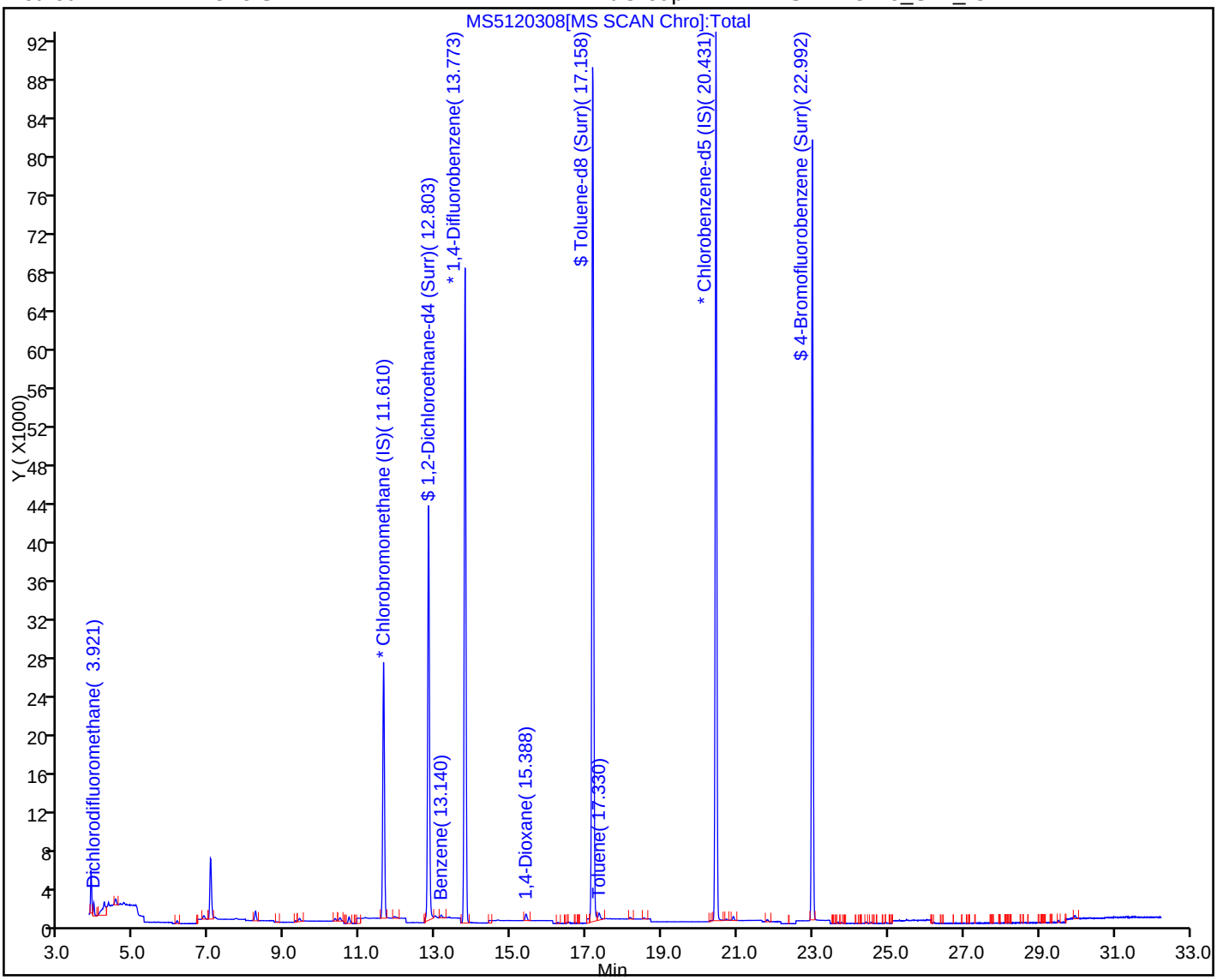
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 12:31:30 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120308.D				
Injection Date:	03-Dec-2015 23:12:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-3	Lab Sample ID:	320-16249-3		
Client ID:	34000023				
Operator ID:	AO	ALS Bottle#:	5	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34001479
Lab Sample ID: 320-16249-4
Matrix: Air
Lab File ID: MS5120309.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 00:12
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.: 94534
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.0050
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
75-69-4	Trichlorofluoromethane	ND		0.045	0.010
75-01-4	Vinyl chloride	ND		0.020	0.010

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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34001479
Lab Sample ID: 320-16249-4
Matrix: Air
Lab File ID: MS5120309.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 00:12
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.: 94534
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	92		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120309.D
Lims ID: 320-16249-A-4 Lab Sample ID: 320-16249-4
Client ID: 34001479
Sample Type: Client
Inject. Date: 04-Dec-2015 00:12:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-04
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 12:27:07 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 12:27:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.621	11.611	0.010	95	18440	2.00	
* 2 1,4-Difluorobenzene	114	13.780	13.773	0.007	99	143269	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.439	20.431	0.008	98	117781	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.812	12.803	0.009	88	93470	2.25	
$ 5 Toluene-d8 (Surr)	100	17.167	17.158	0.009	100	104922	2.05	
$ 6 4-Bromofluorobenzene (Surr	95	22.984	22.985	-0.001	95	82245	1.84	
8 Dichlorodifluoromethane	85	3.930	3.912	0.018	99	1193	0.0146	
10 Chloromethane	50	4.321	4.321	0.027	95	653	0.0302	M
22 Methylene Chloride	49	8.220	8.200	0.020	97	1498	0.0627	7
38 Benzene	78	13.140	13.140	0.000	99	813	0.0121	
43 1,4-Dioxane	88	15.440	15.354	0.086	95	288	0.0187	
46 Toluene	91	17.339	17.330	0.009	100	834	0.009762	7
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	98	676	0.007639	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

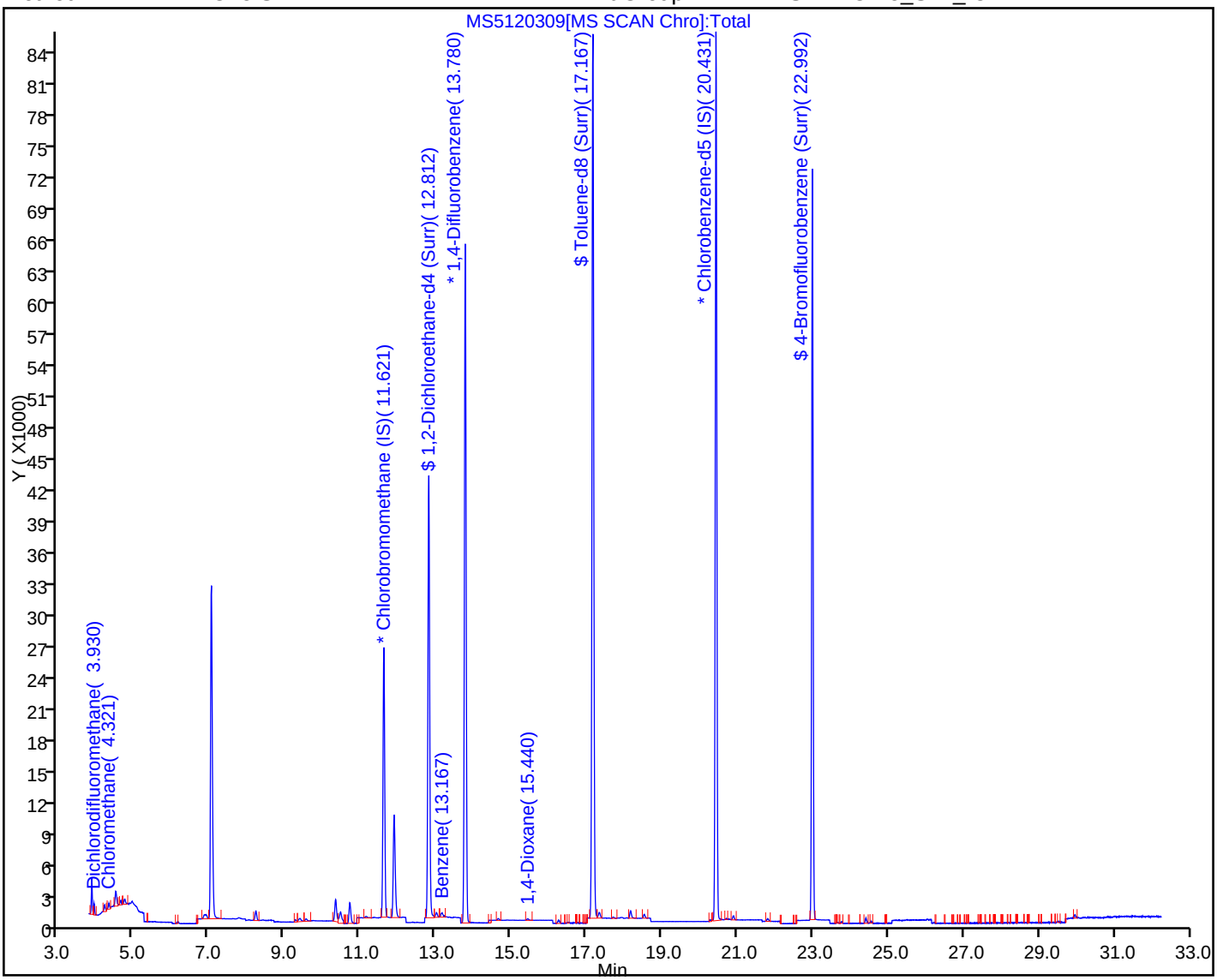
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 12:27:08 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120309.D				
Injection Date:	04-Dec-2015 00:12:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-4	Lab Sample ID:	320-16249-4		
Client ID:	34001479				
Operator ID:	AO	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento | Job No.: 320-16249-1

SDG No.:

Client Sample ID: 34001258 | Lab Sample ID: 320-16249-5

Matrix: Air | Lab File ID: MS5120311.D

Analysis Method: TO-15 SIM | Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) | Date Analyzed: 12/04/2015 02:05

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.: 94534 | 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
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.0050
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
75-69-4	Trichlorofluoromethane	ND		0.045	0.010

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

Lab Name: TestAmerica Sacramento Job No.: 320-16249-1

SDG No.:

Client Sample ID: 34001258 Lab Sample ID: 320-16249-5

Matrix: Air Lab File ID: MS5120311.D

Analysis Method: TO-15 SIM Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 12/04/2015 02:05

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.: 94534 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120311.D
Lims ID: 320-16249-A-5 Lab Sample ID: 320-16249-5
Client ID: 34001258
Sample Type: Client
Inject. Date: 04-Dec-2015 02:05:30 ALS Bottle#: 7 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-05
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 12:28:06 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 12:28:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.622	11.611	0.011	100	21982	2.00	
* 2 1,4-Difluorobenzene	114	13.777	13.773	0.004	100	164513	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	97	141330	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	88	99228	2.08	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	120951	2.06	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	95	99654	1.85	
8 Dichlorodifluoromethane	85	3.931	3.912	0.019	99	1042	0.0107	
10 Chloromethane	50	4.322	4.322	0.028	97	716	0.0278	7M
22 Methylene Chloride	49	8.213	8.200	0.013	98	1338	0.0470	7
38 Benzene	78	13.149	13.140	0.009	99	701	0.009097	7
43 1,4-Dioxane	88	15.423	15.354	0.069	95	246	0.0139	
46 Toluene	91	17.340	17.330	0.010	96	681	0.006942	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

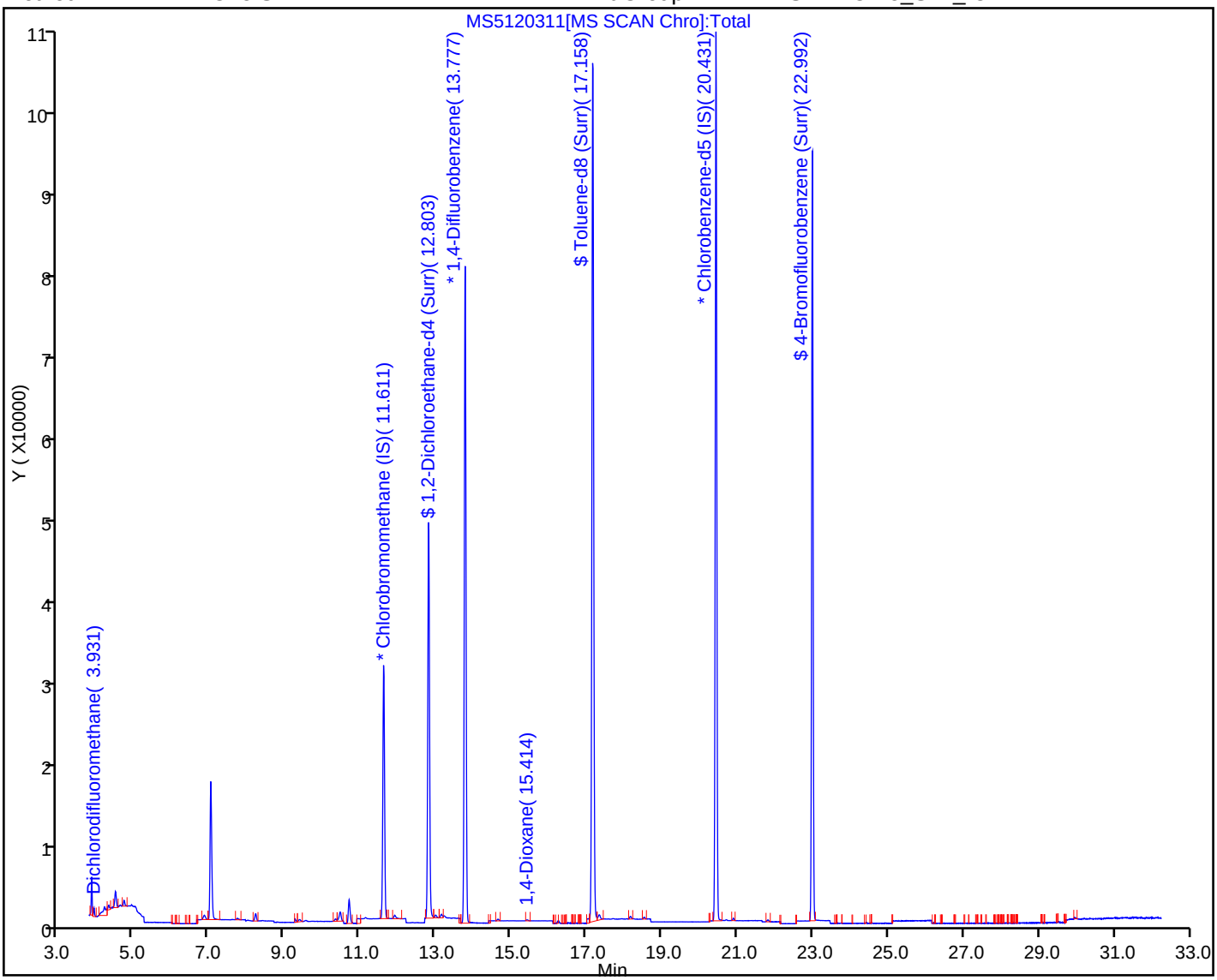
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 12:28:07 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120311.D				
Injection Date:	04-Dec-2015 02:05:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-5	Lab Sample ID:	320-16249-5		
Client ID:	34001258				
Operator ID:	AO	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento | Job No.: 320-16249-1

SDG No.:

Client Sample ID: 34000872 | Lab Sample ID: 320-16249-6

Matrix: Air | Lab File ID: MS5120312.D

Analysis Method: TO-15 SIM | Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) | Date Analyzed: 12/04/2015 03:03

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.: 94534 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
124-48-1	Dibromochloromethane	ND		0.010	0.0050
106-93-4	1,2-Dibromoethane (EDB)	ND		0.010	0.0050
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
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
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

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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 34000872
Lab Sample ID: 320-16249-6
Matrix: Air
Lab File ID: MS5120312.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 03:03
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.: 94534
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-47-6	o-Xylene	ND		0.020	0.010

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		70-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120312.D
Lims ID: 320-16249-A-6 Lab Sample ID: 320-16249-6
Client ID: 34000872
Sample Type: Client
Inject. Date: 04-Dec-2015 03:03:30 ALS Bottle#: 8 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-06
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 14:23:47 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 14:23:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.622	11.611	0.011	93	16400	2.00	
* 2 1,4-Difluorobenzene	114	13.780	13.773	0.007	99	129577	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	94	111282	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.812	12.803	0.009	88	91745	2.44	
$ 5 Toluene-d8 (Surr)	100	17.167	17.158	0.009	100	98519	2.13	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	95	84513	2.00	
8 Dichlorodifluoromethane	85	3.921	3.912	0.009	99	1054	0.0145	
10 Chloromethane	50	4.313	4.294	0.019	96	891	0.0463	
22 Methylene Chloride	49	8.213	8.200	0.013	95	1363	0.0641	7
38 Benzene	78	13.149	13.140	0.009	99	615	0.0101	
43 1,4-Dioxane	88	15.414	15.354	0.060	97	489	0.0350	
46 Toluene	91	17.331	17.330	0.000	96	829	0.0107	
54 Ethylbenzene	91	20.711	20.704	0.007	100	594	0.005667	7
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	98	963	0.0115	7
57 Styrene	104	21.815	21.815	0.000	83	378	0.006437	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

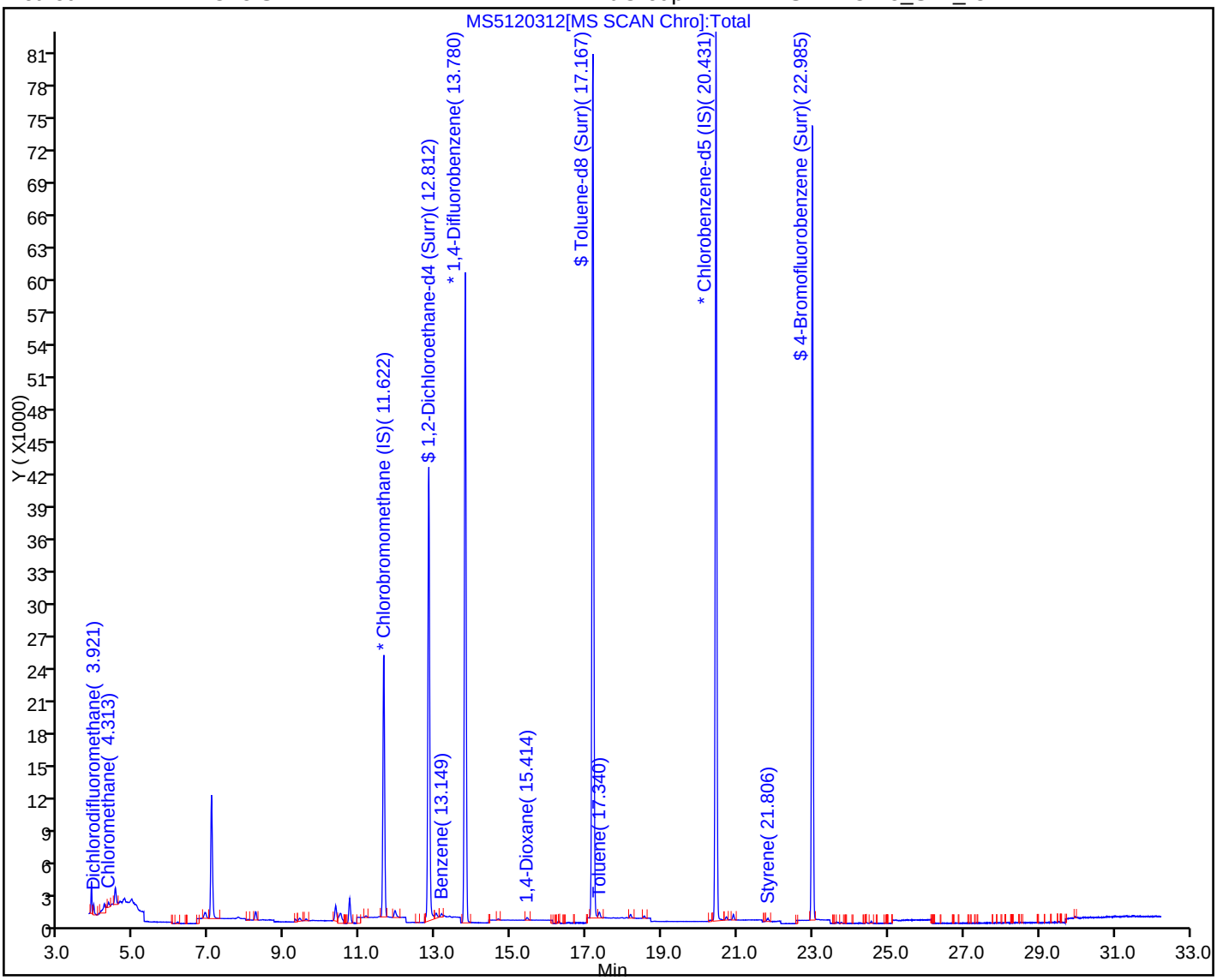
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 14:23:48 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120312.D				
Injection Date:	04-Dec-2015 03:03:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-6	Lab Sample ID:	320-16249-6		
Client ID:	34000872				
Operator ID:	AO	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento | Job No.: 320-16249-1
SDG No.:
Client Sample ID: 8160 | Lab Sample ID: 320-16249-8
Matrix: Air | Lab File ID: MS5120314.D
Analysis Method: TO-15 SIM | Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL) | Date Analyzed: 12/04/2015 05:02
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.: 94534 | 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		0.010	0.0050
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.: 320-16249-1
SDG No.:
Client Sample ID: 8160
Lab Sample ID: 320-16249-8
Matrix: Air
Lab File ID: MS5120314.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 05:02
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.: 94534
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		70-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120314.D				
Lims ID:	320-16249-A-8	Lab Sample ID:	320-16249-8		
Client ID:	8160				
Sample Type:	Client				
Inject. Date:	04-Dec-2015 05:02:30	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	320-15249-A-08				
Misc. Info.:	1000ML				
Operator ID:	AO	Instrument ID:	ATMS5		
Method:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m				
Limit Group:	MSA - TO-15_SIM_ICAL				
Last Update:	04-Dec-2015 14:37:19	Calib Date:	19-Nov-2015 01:39:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D				
Column 1 :			Det: MS SCAN		
Process Host:	XAWRK048				
First Level Reviewer: ortizam		Date:	04-Dec-2015 14:38:03		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.610	11.611	-0.001	92	12687	2.00	
* 2 1,4-Difluorobenzene	114	13.770	13.773	-0.003	99	109818	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	95	95844	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	72	77959	2.45	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	85344	2.17	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	-0.001	97	71733	1.97	
8 Dichlorodifluoromethane	85	3.912	3.912	0.000	99	444	0.007895	
22 Methylene Chloride	49	8.194	8.200	-0.006	92	747	0.0454	7
46 Toluene	91	17.339	17.330	0.009	84	357	0.005452	7
54 Ethylbenzene	91	20.711	20.704	0.007	82	139	0.001540	7
55 m-Xylene & p-Xylene	91	20.893	20.893	0.000	99	341	0.004735	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

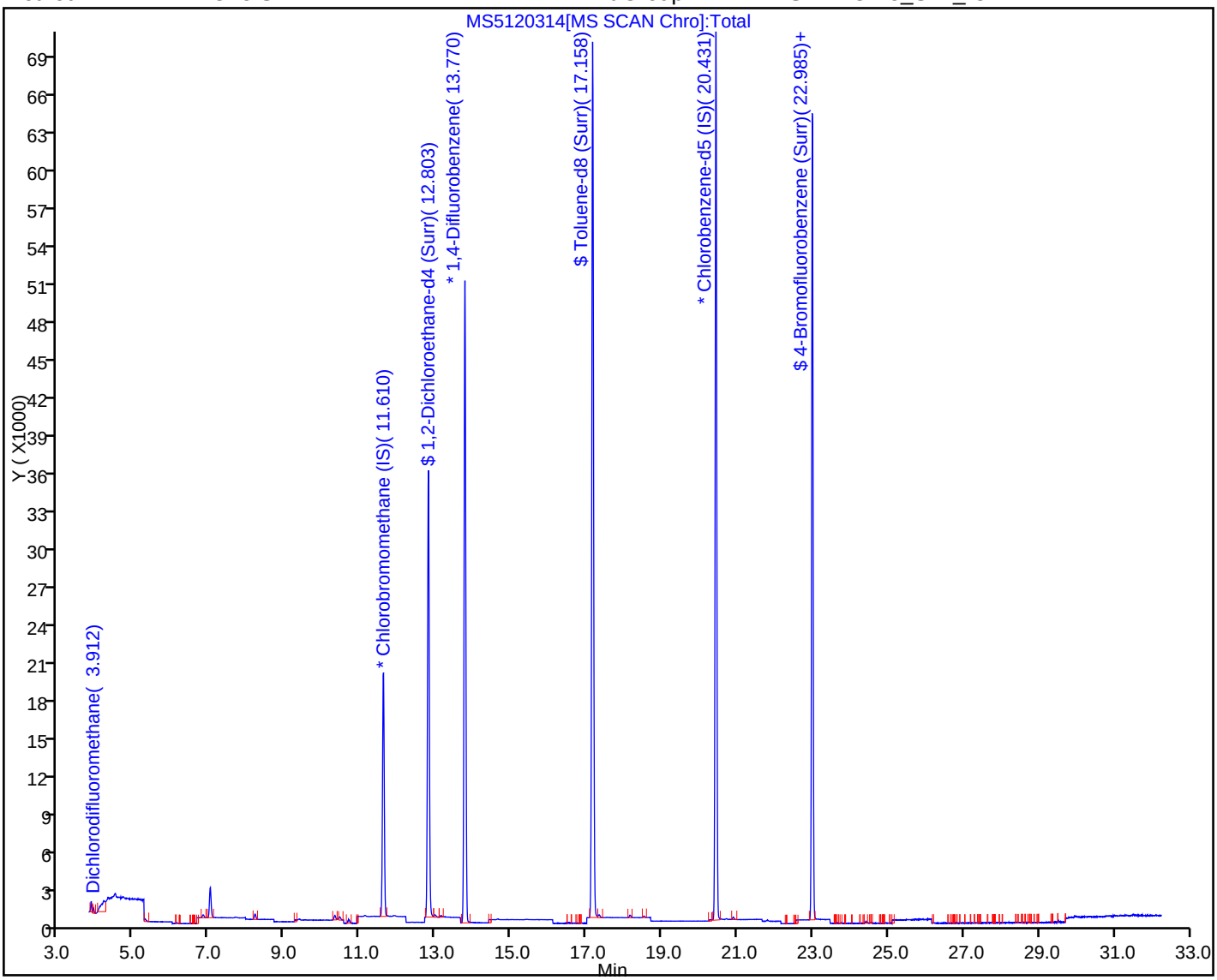
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 14:38:04 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120314.D				
Injection Date:	04-Dec-2015 05:02:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-8	Lab Sample ID:	320-16249-8		
Client ID:	8160				
Operator ID:	AO	ALS Bottle#:	10	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento | Job No.: 320-16249-1
SDG No.:
Client Sample ID: 8077 | Lab Sample ID: 320-16249-9
Matrix: Air | Lab File ID: MS5120316.D
Analysis Method: TO-15 SIM | Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL) | Date Analyzed: 12/04/2015 06:56
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.: 94534 | 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		0.010	0.0050
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.: 320-16249-1
SDG No.:
Client Sample ID: 8077
Lab Sample ID: 320-16249-9
Matrix: Air
Lab File ID: MS5120316.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 06:56
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.: 94534
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	94		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		70-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120316.D
Lims ID: 320-16249-A-9 Lab Sample ID: 320-16249-9
Client ID: 8077
Sample Type: Client
Inject. Date: 04-Dec-2015 06:56:30 ALS Bottle#: 11 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-09
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 14:27:50 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 14:27:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.621	11.611	0.010	98	22235	2.00	
* 2 1,4-Difluorobenzene	114	13.780	13.773	0.007	100	165228	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	95	135683	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.812	12.803	0.009	87	98653	2.06	
$ 5 Toluene-d8 (Surr)	100	17.167	17.158	0.009	100	118714	2.01	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	95	96498	1.87	
22 Methylene Chloride	49	8.226	8.200	0.026	100	856	0.0297	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

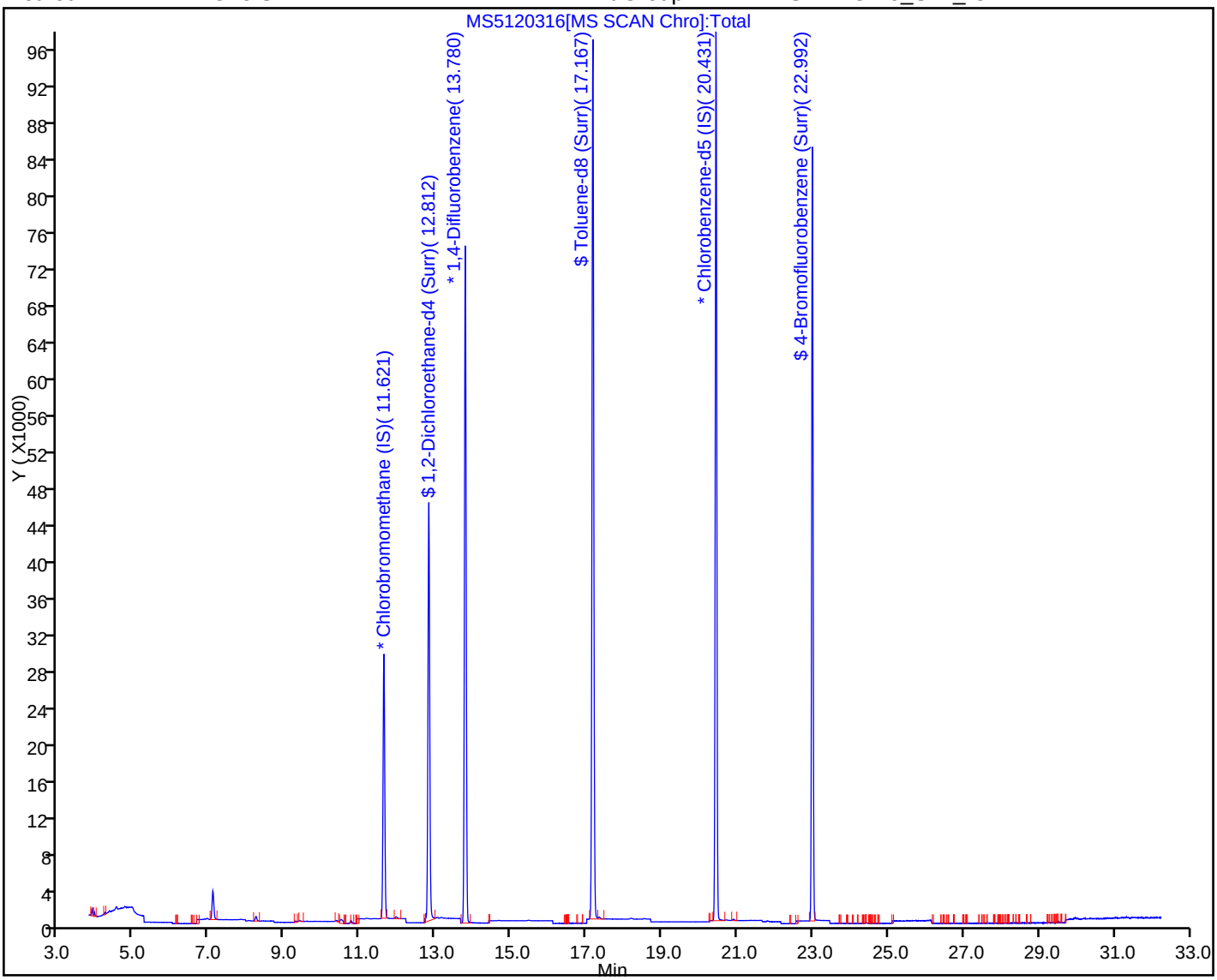
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 14:27:52 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120316.D				
Injection Date:	04-Dec-2015 06:56:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-9	Lab Sample ID:	320-16249-9		
Client ID:	8077				
Operator ID:	AO	ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento
Job No.: 320-16249-1
SDG No.:
Client Sample ID: 8161
Lab Sample ID: 320-16249-10
Matrix: Air
Lab File ID: MS5120317.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 07:56
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.: 94534
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		0.010	0.0050
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.: 320-16249-1
SDG No.:
Client Sample ID: 8161
Lab Sample ID: 320-16249-10
Matrix: Air
Lab File ID: MS5120317.D
Analysis Method: TO-15 SIM
Date Collected: 12/02/2015 00:00
Sample wt/vol: 1000(mL)
Date Analyzed: 12/04/2015 07:56
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.: 94534
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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		70-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120317.D
Lims ID: 320-16249-A-10 Lab Sample ID: 320-16249-10
Client ID: 8161
Sample Type: Client
Inject. Date: 04-Dec-2015 07:56:30 ALS Bottle#: 12 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-10
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 14:35:40 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 14:35:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.611	11.611	0.000	91	14171	2.00	
* 2 1,4-Difluorobenzene	114	13.770	13.773	-0.003	98	118948	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	95	107315	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	72	85705	2.49	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	92788	2.18	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	96	79274	1.94	
8 Dichlorodifluoromethane	85	3.912	3.912	0.000	100	449	0.007148	
22 Methylene Chloride	49	8.200	8.200	0.000	97	932	0.0508	7
43 1,4-Dioxane	88	15.414	15.354	0.060	96	113	0.008823	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

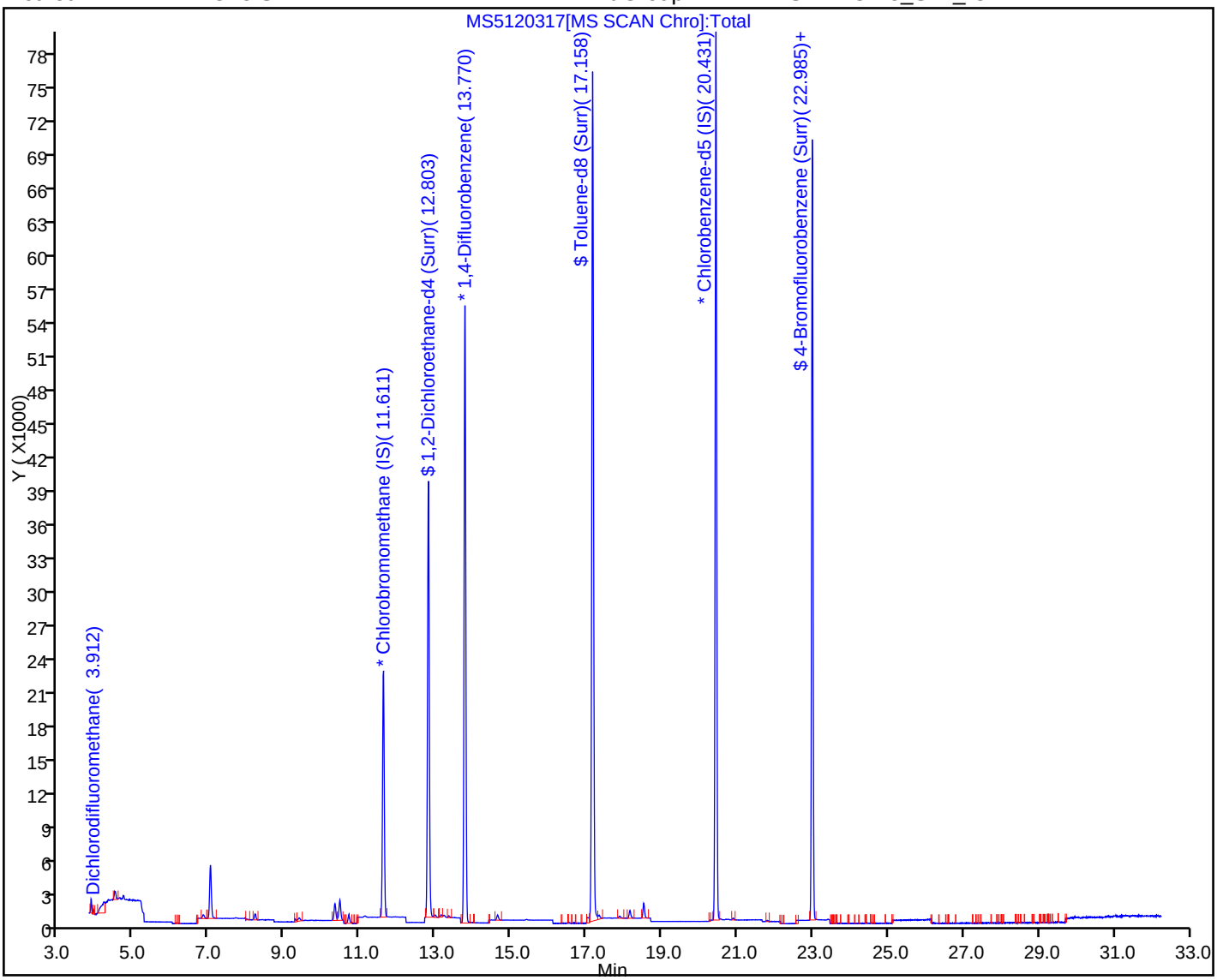
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 14:35:41 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120317.D				
Injection Date:	04-Dec-2015 07:56:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-10	Lab Sample ID:	320-16249-10		
Client ID:	8161				
Operator ID:	AO	ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



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

Lab Name: TestAmerica Sacramento | Job No.: 320-16249-1

SDG No.:

Client Sample ID: 7857 | Lab Sample ID: 320-16249-11

Matrix: Air | Lab File ID: MS5120318.D

Analysis Method: TO-15 SIM | Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) | Date Analyzed: 12/04/2015 08:56

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.: 94534 | 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		0.010	0.0050
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.: 320-16249-1

SDG No.:

Client Sample ID: 7857 Lab Sample ID: 320-16249-11

Matrix: Air Lab File ID: MS5120318.D

Analysis Method: TO-15 SIM Date Collected: 12/02/2015 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 12/04/2015 08:56

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.: 94534 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

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	121		70-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120318.D
Lims ID: 320-16249-A-11 Lab Sample ID: 320-16249-11
Client ID: 7857
Sample Type: Client
Inject. Date: 04-Dec-2015 08:56:30 ALS Bottle#: 13 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 320-15249-A-11
Misc. Info.: 1000ML
Operator ID: AO Instrument ID: ATMS5

Method: \\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\TO15 SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 04-Dec-2015 14:36:24 Calib Date: 19-Nov-2015 01:39:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS5\20151118-26564.b\MS5111811.D

Column 1 : Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: ortizam Date: 04-Dec-2015 14:36:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.621	11.611	0.010	95	14370	2.00	
* 2 1,4-Difluorobenzene	114	13.773	13.773	0.000	99	116432	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.431	20.431	0.000	95	98028	2.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.803	12.803	0.000	87	81306	2.41	
$ 5 Toluene-d8 (Surr)	100	17.158	17.158	0.000	100	88865	2.14	
$ 6 4-Bromofluorobenzene (Surr	95	22.985	22.985	0.000	97	73033	1.96	
8 Dichlorodifluoromethane	85	3.930	3.912	0.018	96	445	0.006986	
22 Methylene Chloride	49	8.213	8.200	0.013	98	812	0.0436	7
43 1,4-Dioxane	88	15.423	15.354	0.069	93	163	0.0130	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

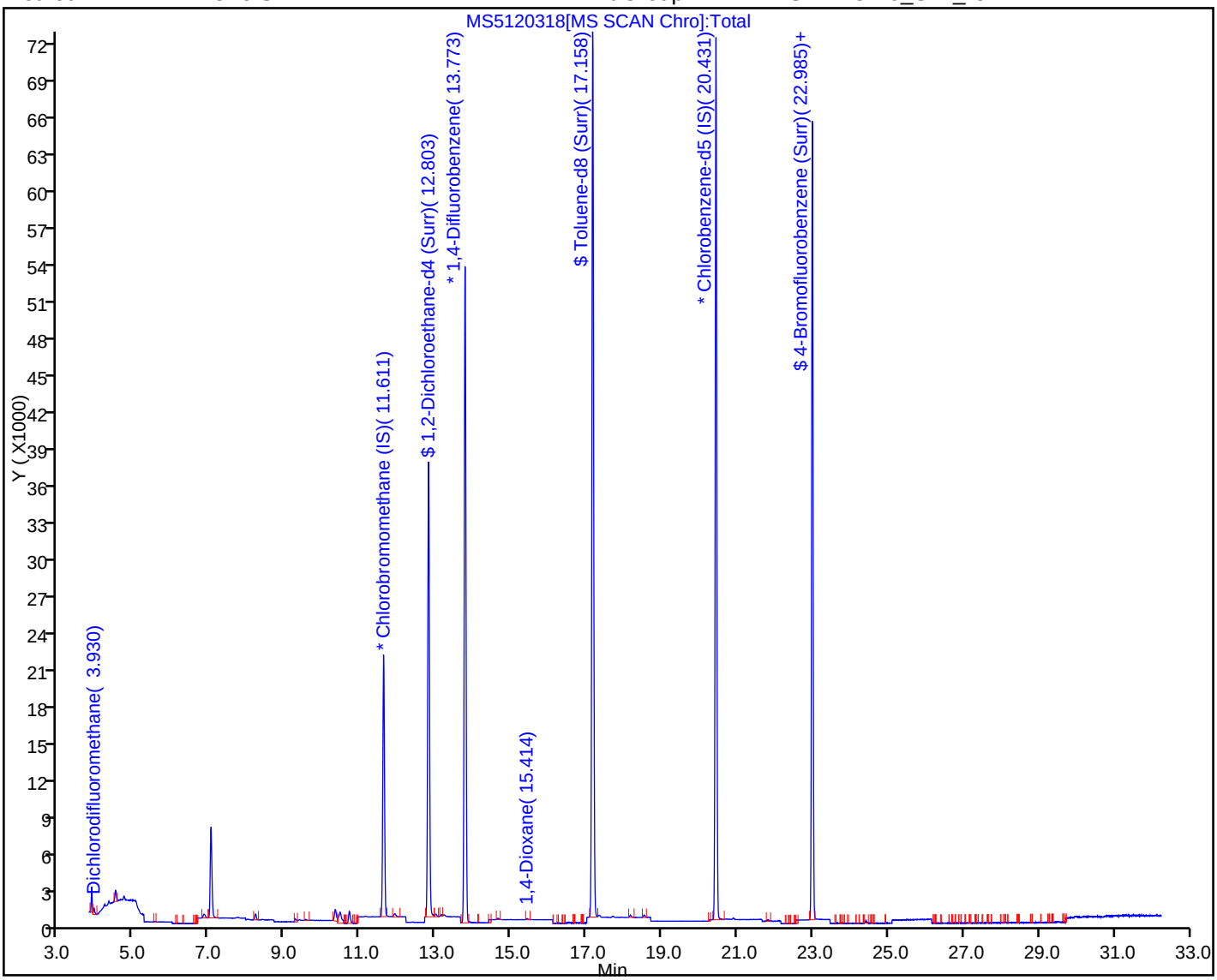
Reagents:

VASUISIM_00243 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 04-Dec-2015 14:36:25 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS5\20151204-26911.b\MS5120318.D				
Injection Date:	04-Dec-2015 08:56:30	Instrument ID:	ATMS5		
Lims ID:	320-16249-A-11	Lab Sample ID:	320-16249-11		
Client ID:	7857				
Operator ID:	AO	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	TO15 SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



APPENDIX D

Quality Assurance/Quality Control Documentation

Data Usability Summary Report (DUSR)
1160 Kern Ave
Analytical Laboratory: TestAmerica, Inc. - West Sacramento, CA
Sample Delivery Group # 320-16567

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Organic Data Review (EPA 540-R-08-01) and/or
  USEPA National Functional Guidelines for Low Concentration Organic Data Review (EPA 540-R-00-006)

and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID
AMBIENT-12212015
IA-02-12212015
IA-02B-12212015
IA-05-12212015
IA-06-12212015
IA-07-12212015

Project Samples were analyzed according to the following analytical methods

	Parameter	Analytical Method	Holding Time Criteria
1.	VOCs	EPA TO-15	30 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed

- Holding Times
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Field Duplicate Sample Analysis
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

System Monitoring Compound Recoveries

System monitoring/surrogate compounds are added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Field Duplicate Sample Analysis

The overall variability attributable to the sampling procedure, sample matrix, and laboratory procedures, was evaluated by assessing the relative percent difference (RPD) data from field duplicate samples. All calculated RPD values were within matrix specific data quality objectives, with the exception of results qualified "J" as shown in the table(s) below:

Target Analyte(s)	Original Sample ID. IA-02-12212015	FD Sample ID. IA-02B-12212015	%RPD	Flag Original and FD sample results with:
Tetrachloroethene	1.3	1.4	7%	
Freon 113	0.59	0.58	2%	
Trichloroethene	1.5	1.5	0%	
1,1,1-Trichloroethane	0.035	0.034	3%	

Action:

If the sample matrix is solid and the %RPD is greater than 50%, the original sample results are qualified "J". If the sample matrix is water or air and the %RPD is greater than 35%, the original sample results are qualified "J".

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.