

February 15, 2017

Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577**RECEIVED**

By Alameda County Environmental Health 8:20 am, Feb 21, 2017

Attention: Mr. Mark Detterman, PG, CEG, Senior Hazardous Materials Specialist

**TRANSMITTAL LETTER  
REMEDIAL PROGRESS REPRORT NO. 3  
SOIL VAPOR EXTRACTION SYSTEM OPERATION  
DECEMBER 16, 2016 THROUGH JANUARY 16, 2017  
6701, 6705, and 6707 SHELLMOUND STREET  
EMERYVILLE, CALIFORNIA  
Fuel Leak Case No. RO0000548  
Geotracker Global ID T0600100894**

Dear Mr. Detterman:

Submitted herewith for your review is the *Remedial Progress Report No. 3, Soil Vapor Extraction System Operation, December 16, 2016 through January 16, 2017, 6701, 6705, and 6707 Shellmound Street, Emeryville, California* dated February 15, 2017, prepared by PES Environmental, Inc.

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website.

Very truly yours,

**ANTON EMERYVILLE, LLC**Rachel Green  
Development Manager



February 15, 2017

**1448.001.02.005**

Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

Attention: Mr. Mark Detterman, P.G., C.E.G.

**Re: Remedial Progress Report No. 3  
Soil Vapor Extraction System Operation  
December 16, 2016 through January 16, 2017  
6701, 6705, and 6707 Shellmound Street  
Emeryville, California  
Fuel Leak Case No. RO0000548  
Geotracker Global Id T0600100894**

Dear Mr. Detterman:

PES Environmental, Inc. (PES) has prepared this Remedial Progress Report (RPR) No. 3 on behalf of Anton Emeryville, LLC (Anton) to fulfill the monthly remedial progress reporting requirement<sup>1</sup> requested by Alameda County Environmental Health (ACEH) for operation of the soil vapor extraction (SVE) system currently operated as an interim remedial action (IRA) for the property at 6701, 6705, and 6707 Shellmound Street in Emeryville, California (collectively, the subject property or site). The subject property is currently identified as an open Spills, Leaks, Investigation and Cleanup (SLIC) case (listed under Mike Roberts Color Production at 6707 Bay Street) and ACEH is the lead environmental regulatory agency.

Upon approval from ACEH, operation of the SVE system as an IRA commenced on November 8, 2016. The reporting period covered by this RPR is inclusive of December 16, 2016 through January 16, 2017.

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<sup>1</sup> ACEH, 2016. *Request for Interim Remedial Action Monitoring Plan and Schedule; SCP Case RO000548 and Geotracker Global ID T0600100894, Mike Roberts Color Production 6707 Bay Street, Emeryville, CA 94608.* November 8.

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This RPR summarizes operation and maintenance (O&M) of the SVE system during the subject reporting period, and includes:

1. A summary description of SVE monitoring activities during the subject reporting period;
2. Summary tables and graphical presentation of laboratory analytical data for vapor samples; and
3. Anticipated activities for the following reporting period.

### SVE System Description

The SVE well network consists of 19 soil vapor extraction wells (wells SVE-1 through SVE-19) connected through schedule 40 polyvinyl chloride (PVC) piping plumbed to the SVE system air inlet. The extracted airstream is conveyed from the air inlet through a water knockout vessel, vacuum blower and then to three treatment vessels in series. Vapors flow first to a vessel containing 2,000 lb. of granular activated carbon (GAC), then through two vessels each containing 4,000 lb. of granular Hydrosil HS-600 potassium permanganate (7%) zeolite to remove volatile organic compounds (VOCs) in the extracted vapors. After treatment, the airstream is conveyed through an exhaust stack prior to discharge to the atmosphere above the roof line of the building. The SVE system also includes ten air inlet wells, which function to permit atmospheric air flow to the subsurface during SVE operations. The locations of the SVE and air inlet wells are shown on Plate 1, and as-built diagrams of the SVE system are presented in Appendix A.

### SVE Operations

During this reporting period the SVE system was operated in accordance with methods and procedures for routine operation, maintenance, and monitoring as described in the O&M Plan<sup>2</sup>. Routine O&M activities are performed by Environmental Engineering, Consulting, and Remediation, Inc. (E2CR). Daily compliance monitoring of the SVE system was conducted during the reporting period in accordance with the Authority to Construct (ATC) permit issued by the Bay Area Air Monitoring District (BAAQMD).

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<sup>2</sup> PES Environmental, Inc., 2016. *December 2016 Remedial Progress Report, Soil Vapor System Operations from November 8 through 15, 2016, 6701, 6705, and 6707 Shellmound Street, Emeryville, California, Fuel Leak Case No. RO0000548, Geotracker Global Id T0600100894.* December 16.

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The SVE system was temporarily shut down between January 9 and 11, 2017 to permit remediation of carbon fines blocking air release piping inside a carbon treatment vessel and causing excessive pressure buildup within the system. The SVE system was restarted on January 12.

### Summary of SVE Monitoring

Monitoring points near each wellhead, between vessels, and at multiple points past the air inlet valve are monitored. Influent, mid-point, and effluent monitoring were conducted during the reporting period in accordance with the ATC permit.

Tabulated field measurements of SVE operation for this reporting period are attached, and consist of:

- SVE operational data, presented in Table 1; and
- Field measurements of individual SVE well vacuum<sup>3</sup>, flow rate<sup>4</sup>, and total VOCs using a photoionization detector (PID)<sup>5</sup>, presented in Table 2.

### SVE System Observed Vacuum and Flow Rate

During the reporting period, observed operating vacuum ranged from 4.0 to 5.0 inches of mercury.

SVE influent flow rate is estimated utilizing the blower manufacturer curve based on measured vacuum at an influent sample port upstream of the blower. As shown in Table 1, average operating flow rates during the reporting period ranged from 756 to 787 standard cubic feet per minute (scfm).

### Vacuum at Vapor Extraction Wells

Table 2 summarizes vacuum observations at each extraction well. In general, observed vacuum at wells during the reporting period indicate well-distributed vacuum pressure through the SVE well network (i.e., similar vacuum at each well).

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<sup>3</sup> Measured with Dwyer Series 477 digital manometer.

<sup>4</sup> Measured with TSI Inc., Velocicalc Model 9535 digital anemometer. Due to the presence of turbulent flow at accessible SVE well monitoring points, accurate measurement of individual well flow rates were not obtained.

<sup>5</sup> Measured with a MiniRAE 2000 PID.

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Wells SVE-2, SVE-3, SVE-7, SVE-8, and SVE-14 were shut off on November 30, 2016 based on low concentrations of VOCs detected in baseline samples submitted for laboratory analysis, as well as generally low field measurements of total VOCs using a PID. Additionally, wells SVE-5, SVE-6 and SVE-13 were also shut down on December 21, 2016 based on generally low VOC concentrations detected in laboratory samples and/or field measurements. To further aid input of vapor through the subsurface, wells SVE-5, SVE-13, and SVE-14 were converted to temporary air inlet wells by removing the wellhead piping.

#### Estimated Cumulative Mass Removal

Based on compliance sample results<sup>6</sup> the estimated cumulative mass of vinyl chloride extracted since commencement of SVE to the end of this reporting period is 0.32 pounds. PID readings of total VOCs in influent vapor collected during SVE system compliance monitoring (Table 1) ranged from 0.0 to 39 parts per million by volume (ppmv).

#### Laboratory Analytical Results for SVE Well Vapor Samples

Vapor samples were collected on January 16, 2017 from nine extraction wells (SVE-1, SVE-4, SVE-9, SVE-10, SVE-12, SVE-15, SVE-16, SVE-17, and SVE-18). The samples were analyzed for VOCs using U.S. Environmental Protection Agency Test Method TO-15 by TestAmerica Laboratories, Inc. of Sacramento, California. Laboratory analytical results for detected VOCs are presented in Table 3. The laboratory analytical report and chain-of-custody documentation for the samples collected on January 16, 2017 are provided in Appendix B.

A time-concentration chart of vinyl chloride concentrations in SVE wells with the highest baseline concentrations of vinyl chloride is presented as Plate 2. Risk-based target cleanup levels (TCLs) for vinyl chloride, presented in the November 2016 Human Health Risk Assessment Report<sup>7</sup>, are also graphically indicated on Plate 2.

#### Planned SVE Field Activities for Next Reporting Period

SVE operation activities for the upcoming reporting period include:

- Compliance monitoring of the SVE system in accordance with BAAQMD requirements<sup>8</sup>;

<sup>6</sup> Influent vapor sample collected by E2CR on November 28, 2016.

<sup>7</sup> SLR International Corporation, 2016. *Human Health Risk Assessment Report, 6701-6707 Shellmound Street, Emeryville, California*. November.

<sup>8</sup> The SVE system was operated in accordance with the ATC permit issued by BAAQMD. BAAQMD issued the Permit to Operate (PTO) on February 2, 2017.

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- Weekly field measurements of SVE well flow, vacuum, and total VOCs; and
- Collection of vapor samples from all SVE wells as part of the third 30-day interval vapor sampling event.

If you have any questions, please contact the undersigned at (415) 899-1600.

Very truly yours,

**PES ENVIRONMENTAL, INC.**



Christopher J. Baldassari, P.G.  
Senior Geologist



Attachments: Table 1	Summary of SVE System Operational Data
Table 2	Summary of SVE Well Field Measurements
Table 3	Summary of Laboratory Analytical Results for Vapor Samples
Plate 1	Site Plan and SVE / Air Inlet Well and Probe Locations
Plate 2	Vinyl Chloride Concentrations in SVE Wells
Appendix A	As-Built Drawing of SVE System
Appendix B	Laboratory Analytical Report and Chain-of-Custody Documentation

**TABLES**

**Table 1**  
**Summary of SVE System Operational Data**  
**Soil Vapor Extraction System**  
**6701-6707 Shellmound Street**  
**Emeryville, California**

Date	Total Operating Hours	System Vacuum Reading (in. of Hg)	Average Flow Rate (scfm)	Well Field Vacuum (in. of Hg)	PID Influent (ppmv)	Lab Influent (VC) (mg/m <sup>3</sup> )	VC Extracted (grams)	Cumulative lbs VC Extracted
11/8/16	0	6.5	712	NA	7.0	0.250	0.00	0.00
11/9/16	19	6.2	721	NA	17.7	0.250	14.6	0.03
11/10/16	43	5.3	748	NA	13.0	0.250	19.4	0.07
11/11/16	64	4.9	760	4.89	12.7	0.250	17.3	0.11
11/14/16	65	6.0	727	6.00	9.0	0.250	1.2	0.12
11/15/16	90	6.0	727	0.0	11.3	0.250	19.9	0.16
11/16/16	114	6.0	727	5.74	9.1	0.250	18.9	0.20
11/17/16	137	6.0	727	5.73	10.1	0.047	10.8	0.23
11/18/16	161	6.0	727	5.67	7.5	0.047	3.6	0.23
11/19/16	184	5.7	737	5.65	6.4	0.047	3.5	0.24
11/20/16	207	6.0	727	5.60	6.5	0.047	3.4	0.25
11/21/16	231	6.0	727	5.25	6.5	0.047	3.6	0.26
11/22/16	256	6.0	727	5.20	4.3	0.047	3.6	0.26
11/23/16	277	6.0	727	5.50	2.3	0.000	1.6	0.27
11/24/16	289	6.0	727	NA	1.4	0.000	0.0	0.27
11/25/16	318	6.5	712	NA	1.5	0.000	0.0	0.27
11/26/16	344	7.0	696	NA	1.1	0.000	0.0	0.27
11/27/16	367	7.0	696	NA	1.3	0.000	0.0	0.27
11/28/16	390	6.0	727	NA	2.9	0.012	0.0	0.27
11/29/16	415	5.0	757	4.63	0.0	0.012	1.8	0.27
11/30/16	437	4.8	765	4.00	0.0	0.012	0.8	0.27
12/1/16	459	4.8	764	3.95	1.8	0.012	0.8	0.27
12/2/16	484	4.8	764	3.93	0.9	0.012	1.0	0.28
12/5/16	485	4.9	762	4.00	0.0	0.012	0.0	0.28
12/6/16	507	4.9	760	4.00	0.3	0.012	0.8	0.28
12/7/16	532	4.9	760	4.00	0.3	0.012	0.9	0.28
12/8/16	553	4.9	762	4.00	0.4	0.012	0.8	0.28
12/9/16	577	4.9	761	4.07	0.6	0.012	0.9	0.28
12/12/16	578	4.9	761	4.00	0.1	0.012	0.0	0.28
12/13/16	598	4.6	770	4.20	0.3	0.012	0.8	0.29
12/14/16	627	4.9	760	4.13	0.0	0.012	1.1	0.29
12/15/16	645	4.9	762	4.10	0.4	0.012	0.7	0.29
12/16/16	669	5.0	756	4.22	0.0	0.012	0.9	0.29
12/19/16	670	4.8	763	4.00	2.4	0.012	0.0	0.29
12/20/16	694	4.7	766	3.98	0.0	0.012	0.9	0.29
12/21/16	719	4.7	767	4.07	0.0	0.012	1.0	0.30
12/22/16	743	4.9	761	4.14	0.0	0.012	0.9	0.30
12/23/16	767	4.7	766	3.97	0.0	0.012	0.9	0.30
12/27/16	769	4.0	787	NA	4.6	0.012	0.1	0.30
12/28/16	794	4.0	787	NA	39.0	0.012	1.0	0.30
12/29/16	818	5.0	757	NA	34.8	0.012	0.9	0.30
12/30/16	841	5.0	757	NA	1.0	0.012	0.9	0.31



**Table 1  
Summary of SVE System Operational Data  
Soil Vapor Extraction System  
6701-6707 Shellmound Street  
Emeryville, California**

Date	Total Operating Hours	System Vacuum Reading (in. of Hg)	Average Flow Rate (scfm)	Well Field Vacuum (in. of Hg)	PID Influent (ppmv)	Lab Influent (VC) (mg/m <sup>3</sup> )	VC Extracted (grams)	Cumulative lbs VC Extracted
1/2/17	842	5.0	758	4.13	1.7	0.012	0.0	0.31
1/3/17	866	4.9	760	4.10	2.1	0.012	0.9	0.31
1/4/17	892	4.7	766	4.00	0.3	0.012	1.0	0.31
1/5/17	914	4.7	767	4.02	2.5	0.012	0.8	0.31
1/6/17	841	4.7	767	4.02	0.0	0.012	0.0	0.31
1/12/17	1023	4.1	784	4.00	2.3	0.012	0.9	0.32
1/13/17	1049	4.2	781	4.06	0.6	0.012	1.0	0.32
1/14/17	1074	4.4	777	4.15	2.2	0.012	1.0	0.32
1/15/17	1096	4.3	779	4.15	0.3	0.012	0.9	0.32
1/16/17	1120	4.3	780	4.08	0.0	0.012	0.0	0.32

**Notes:**

Only dates of SVE operation are shown.

-- = Data not available

NA = Not Applicable or Not Available

in. = inches

VOC = Volatile Organic Compounds

scfm = Standard cubic feet per minute

ppmv = Parts per million by volume

lbs = Pounds

VC = Vinyl Chloride

Mass extracted are estimated on laboratory analytical data.

mg/m<sup>3</sup> = milligrams per cubic meter air

SVE = Soil vapor extraction

**Table 2**  
**SVE Well Field Measurements**  
**6701 - 6707 Shellmound Street**  
**Emeryville, California**

	Units	11/9/2016	11/15/2016	11/22/2016	12/1/2016	12/5/2016	12/13/2016	12/20/2016	12/27/2016	1/16/2017
<b>SVE-1</b>										
Total VOCs	PPMv	49.3	115.7	102.1	80.2	75.9	3.80	3.30	8.30	0.50
Vacuum	in. H2O	67.6	77.8	69.5	54.5	51.2	53.70	53.80	60.20	57.60
<b>SVE-2</b>										
Total VOCs	PPMv	44.3	36.5	11.1	--	--	--	--	--	--
Vacuum	in. H2O	64.2	72.3	65.1	--	--	--	--	--	--
<b>SVE-3</b>										
Total VOCs	PPMv	12.5	17.9	10.4	--	--	--	--	--	--
Vacuum	in. H2O	65.9	75.3	67.5	--	--	--	--	--	--
<b>SVE-4</b>										
Total VOCs	PPMv	26.8	40.8	31.3	17.6	33.3	15.30	4.00	7.00	0.80
Vacuum	in. H2O	66.4	75.7	68.0	54.7	51.3	53.60	54.10	60.60	57.50
<b>SVE-5</b>										
Total VOCs	PPMv	35.4	79.4	71.6	40.9	91.8	0.30	1.40	--	--
Vacuum	in. H2O	66.8	76.3	68.4	54.5	48.5	52.90	54.30	--	--
<b>SVE-6</b>										
Total VOCs	PPMv	126.2	93.3	20.7	4.3	32.6	16.30	--	--	--
Vacuum	in. H2O	65.2	76.9	68.9	54.6	51.1	49.50	--	--	--
<b>SVE-7</b>										
Total VOCs	PPMv	17.1	66.4	11.4	--	--	--	--	--	--
Vacuum	in. H2O	64.9	77.0	69.0	--	--	--	--	--	--
<b>SVE-8</b>										
Total VOCs	PPMv	5.7	40.2	14.4	--	--	--	--	--	--
Vacuum	in. H2O	65.0	77.2	69.1	--	--	--	--	--	--
<b>SVE-9</b>										
Total VOCs	PPMv	1.7	13.1	7.4	4.1	7.7	22.30	7.20	24.50	2.10
Vacuum	in. H2O	67.6	77.8	69.4	54.5	51.1	53.30	54.10	60.80	57.90
<b>SVE-10</b>										
Total VOCs	PPMv	1.7	24.9	6.2	3.9	4.7	8.40	4.20	22.90	1.40
Vacuum	in. H2O	67.7	77.9	69.4	54.4	51.2	53.20	54.00	61.00	57.60
<b>SVE-11</b>										
Total VOCs	PPMv	12.3	31.1	7.6	--	1.9	2.00	3.30	49.60	0.40
Vacuum	in. H2O	67.5	77.7	69.3	54.3	51.1	53.50	53.70	59.60	57.30
<b>SVE-12</b>										
Total VOCs	PPMv	15.2	46.1	5.0	--	2.1	1.70	2.00	1.10	0.20
Vacuum	in. H2O	67.6	77.7	69.3	54.3	50.9	54.00	54.00	60.60	57.60
<b>SVE-13</b>										
Total VOCs	PPMv	4.2	50.2	9.0	--	0.4	0.40	2.50	--	--
Vacuum	in. H2O	67.8	77.6	69.3	54.1	50.5	53.30	53.80	--	--
<b>SVE-14</b>										
Total VOCs	PPMv	4.5	1.2	1.3	--	--	--	--	--	--
Vacuum	in. H2O	67.7	77.8	69.5	--	--	--	--	--	--
<b>SVE-15</b>										
Total VOCs	PPMv	2.5	34.2	8.1	--	5.1	3.80	1.90	1.40	0.60
Vacuum	in. H2O	67.6	77.8	69.5	54.4	51.3	53.20	54.00	60.10	57.70
<b>SVE-16</b>										
Total VOCs	PPMv	127.1	121.7	55.3	--	56.7	53.60	66.60	58.50	11.20
Vacuum	in. H2O	67.5	77.8	69.5	54.1	51.2	361.00	54.20	59.70	57.80
<b>SVE-17</b>										
Total VOCs	PPMv	15.2	32.1	8.9	--	5.4	32.50	6.80	4.30	0.60
Vacuum	in. H2O	67.8	77.9	69.4	54.2	51.2	53.30	53.10	60.80	57.80
<b>SVE-18</b>										
Total VOCs	PPMv	8.5	60.3	7.9	--	6.9	0.20	1.60	63.90	0.00
Vacuum	in. H2O	67.7	77.6	69.2	54.2	51.3	53.40	54.00	59.60	58.00
<b>SVE-19</b>										
Total VOCs	PPMv	8.3	83.9	4.7	--	1.9	0.50	1.30	74.00	0.30
Vacuum	in. H2O	67.5	77.6	69.3	54.2	51.3	53.60	54.00	60.80	57.80

**Note:**

SVE = Soil vapor extraction

PID = Photoionization Detector

-- = Not measured

PPMv = parts per million by volume

in. H2O = inches of water

**Table 3**  
**Summary of Laboratory Analytical Results for Vapor Samples**  
**Soil Vapor Extraction System**  
**6701, 6705, and 6707 Shellmound Street, Emeryville, California**

Sample Location	Sample ID	Date	Screened Interval (feet bgs)	PCE (µg/m³)	TCE (µg/m³)	cis-1,2-DCE (µg/m³)	trans-1,2-DCE (µg/m³)	Vinyl chloride (µg/m³)	1,1,1-TCA (µg/m³)	1,1,2,2-PCA (µg/m³)	MEK (µg/m³)	MIBK (µg/m³)	Acetone (µg/m³)	Benzene (µg/m³)	Toluene (µg/m³)	Ethylbenzene (µg/m³)	m,p-Xylene (µg/m³)	o-Xylene (µg/m³)	1,2,4-TMB (µg/m³)	1,3,5-TMB (µg/m³)	1,3-DCB (µg/m³)	4-Ethyltoluene (µg/m³)	Carbon disulfide (µg/m³)	Chloroform (µg/m³)	Other VOCs (µg/m³)	
<b>SVE Wells</b>																										
SVE-1	SVE-1	7/13/2016	5 to 10	< 140	< 180	< 110	< 110	3,400	< 110	< 180	< 160	< 110	< 790	< 85	< 100	< 120	< 230	< 120	< 260	< 130	< 160	< 130	< 170	< 98		
SVE-1	SVE-1	7/14/2016	5 to 10	< 1600	< 2000	3,500	1,900	40,000	< 1200	< 2000	< 1700	< 1200	< 8600	< 930	< 1100	< 1300	< 2500	< 1300	< 2900	< 1400	< 1800	< 1400	< 1800	< 1100		
SVE-1	SVE-1-103116	10/31/2016	5 to 10	120	< 180	670	270	16,000	< 74	< 120	10,000	< 75	7,700	130	66	< 79	< 160	< 79	< 180	< 89	< 110	< 89	< 110	< 67	150 (1,1-DCE)	
SVE-1	SVE-1	12/2/2016	5 to 10	150	< 180	7,900	3,400	6,200	< 110	< 180	< 150	< 110	< 770	240	< 98	< 110	< 230	190	< 260	190	< 160	< 130	< 270	< 95		
SVE-1	SVE-1	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	3.5	< 1.6	61	2.2	9.3	6.0	21	6.0	< 3.9	< 2	< 2	< 2.5	< 1.5	2.6 (Dichlorodifluoromethane)	
SVE-2	SVE-2-103116	10/31/2016	5 to 10	< 26	< 33	< 19	< 19	20	< 20	< 34	2,400	< 20	1,700	41	< 18	< 21	< 42	< 21	< 48	< 24	< 29	< 24	< 30	< 18		
SVE-3	SVE-3-103116	10/31/2016	4 to 9	< 16	< 21	14	< 12	40	< 13	< 21	280	< 13	190	290	240	92	770	130	110	53	< 18	27	190	< 11	19 (Naphthalene)	
SVE-3	SVE-3	12/2/2016	4 to 9	< 5.2	< 6.6	12	< 3.9	< 2.5	< 4	< 6.7	7.0	< 4	< 29	21	11	10	110	18	20	10	< 5.8	< 4.8	240	< 3.6	21 (1,2-DCB)	
SVE-4	SVE-4-103116	10/31/2016	5 to 10	18	< 12	51	12	170	< 7.1	< 12	290	< 7.1	360	67	12	8.3	27	10	< 17	< 8.5	< 10	< 8.5	240	< 6.3		
SVE-4	SVE-4	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	4.1	< 1.6	43	1.7	6.9	4.5	16	4.5	< 3.9	< 2	< 2	< 2.5	< 1.5	2.3 (Dichlorodifluoromethane)	
SVE-5	SVE-5-103116	10/31/2016	5 to 10	69	< 12	160	23	230	< 7.3	< 12	320	< 7.3	150	170	33	19	110	23	23	15	24	< 8.8	< 11	< 6.6	31 (1,4-DCB)	
SVE-5	SVE-5	12/2/2016	5 to 10	18	< 2.7	62	7.0	22	< 1.6	< 2.7	< 2.4	< 1.6	< 12	93	17	21	76	32	< 3.9	2.4	15	< 2	79	< 1.5	4.2 (1,1-DCE), 23 (1,4-DCB), 2.3 (Chloromethane)	
SVE-6	SVE-6-103116	10/31/2016	5 to 10	< 29	< 36	< 21	< 21	< 14	< 22	< 37	1,400	< 22	600	150	< 20	27	88	52	< 53	< 26	< 32	< 26	< 33	< 20		
SVE-7	SVE-7-103116	10/31/2016	5 to 10	< 7.5	< 9.5	< 5.6	< 5.6	40	< 5.7	< 9.6	140	< 5.8	58	< 4.5	< 5.3	< 6.1	< 12	< 6.1	< 14	< 6.9	< 8.4	< 6.9	< 8.7	< 5.1		
SVE-7	SVE-7	12/2/2016	5 to 10	< 2.1	6.3	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 2.4	< 1.6	< 12	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5	2 (Dichlorodifluoromethane), 1.7 (Methylene chloride)	
SVE-8	SVE-8-103116	10/31/2016	5 to 10	< 2.1	< 2.7	< 1.6	< 1.6	< 1	< 1.6	< 2.7	26	3.0	34	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	17	< 1.5		
SVE-9	SVE-9-103116	10/31/2016	5 to 10	< 22	< 28	38	< 16	340	< 17	< 28	390	< 17	240	160	68	19	120	32	< 40	25	< 25	< 20	26	< 15		
SVE-9	SVE-9	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	2.8	< 1.6	41	1.6	7.5	4.4	16	4.3	< 3.9	< 2	< 2	< 2.5	< 1.5	2.2 (Dichlorodifluoromethane)	
SVE-10	SVE-10-103116	10/31/2016	5 to 10	< 150	< 180	< 110	< 110	3,900	< 110	< 190	< 160	< 110	< 800	200	< 100	< 120	< 240	< 120	< 270	< 130	< 160	< 130	< 170	< 99		
SVE-10	SVE-10	12/2/2016	5 to 10	< 15	< 19	110	36	320	< 12	< 20	< 17	< 12	< 85	78	17	< 12	31	< 12	< 28	< 14	< 17	< 14	630	< 11		
SVE-10	SVE-10	1/16/2017	5 to 10	< 2.7	4.0	15	2.5	38	< 1.6	< 2.7	< 3.1	< 2.4	< 1.6	14	52	15	3.1	19	3.2	< 3.9	< 2	< 2	17	< 1.5	5.4 (1,1-DCE), 2.5 (Dichlorodifluoromethane), 1.7 (Methylene Chloride)	
SVE-11	SVE-11-103116	10/31/2016	5 to 10	< 95	< 120	180	< 70	< 45	< 73	< 120	2,300	< 73	3,300	130	< 67	< 77	< 150	< 77	< 170	< 87	< 110	< 87	< 110	< 65		
SVE-12	SVE-12-103116	10/31/2016	5 to 10	< 1300	< 1600	18,000	27,000	62,000	< 970	< 1600	< 1400	< 970	< 7000	< 760	< 890	< 1000	< 2100	< 1000	< 2300	< 1200	< 1400	< 1200	< 1500	< 870	2900 (1,1-DCE)	
SVE-12	SVE-12	12/2/2016	5 to 10	2.2	< 2.7	32	10	52	< 1.6	< 2.7	< 2.4	< 1.6	< 12	5.0	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	53	< 1.5	2 (Dichlorodifluoromethane)	
SVE-12	SVE-12	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	3.2	< 1.6	40	1.6	6.9	4.8	17	4.9	< 3.9	< 2	< 2	< 2.5	< 1.5	2.4 (Dichlorodifluoromethane)	
SVE-13	SVE-13-103116	10/31/2016	5 to 10	< 54	< 68	160	< 40	1,600	< 41	< 69	660	< 41	330	42	< 38	< 44	< 88	< 44	< 99	< 50	< 61	< 50	< 63	< 37		
SVE-13	SVE-13	12/2/2016	5 to 10	< 2.1	< 2.7	1.8	< 1.6	< 1	< 1.6	< 2.7	3.3	< 1.6	< 12	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5		
SVE-14	SVE-14-103116	10/31/2016	5 to 10	< 20	< 25	49	< 15	24	< 15	< 25	790	< 15	330	21	< 14	< 16	< 32	< 16	< 36	< 18	< 22	< 18	< 23	< 14		
SVE-15	SVE-15-103116	10/31/2016	5 to 10	< 360	< 460	< 270	< 270	11,000	< 280	< 460	1,100	< 280	< 2000	< 210	< 250	< 290	< 580	< 290	< 660	< 330	< 400	< 330	< 420	< 250		
SVE-15	SVE-15	12/2/2016	5 to 10	< 52	< 66	< 38	< 38	< 25	< 40	< 66	94	< 40	< 290	< 31	< 36	< 42	< 84	< 42	< 95	< 48	< 58	< 48	< 60	< 35		
SVE-15	SVE-15	1/16/2017	5 to 10	< 2.7	< 2.1	3.6	< 1.6	7.6	< 1.6	< 2.7	< 3.1	50	< 1.6	54	2.2	8.9	6.2	25	7.8	< 3.9	< 2	< 2	< 2.5	< 1.5	2.4 (Dichlorodifluoromethane)	
SVE-16	SVE-16-103116	10/31/2016	5 to 10	< 7400	< 9400	130,000	45,000	410,000	< 5700	< 9500	< 8200	< 5700	< 41000	< 4400	< 5200	< 6000	< 12000	< 6000	< 14000	< 6800	< 8300	< 6800	< 8600	< 5100		
SVE-16	SVE-16	12/2/2016	5 to 10	< 890	< 1100	71,000	19,000	30,000	< 680	< 1100	< 980	< 680	< 4900	< 530	< 620	< 720	< 1400	< 720	< 1600	< 810	< 1000	< 810	< 1000	< 610		
SVE-16	SVE-16	1/16/2017	5 to 10	< 860	< 680	33,000	6,200	3,000	< 520	< 870	< 970	< 750	< 520	< 3800	< 410	< 480	< 550	< 1100	< 550	< 1200	< 620	< 620	< 790	< 460		
SVE-17	SVE-17-103116	10/31/2016	5 to 10	< 500	< 630	1,300	2,200	14,000	< 380	< 640	680	< 380	< 2800	< 300	< 350	< 410	< 810	< 410	< 920	950	< 560	< 460	< 580	< 340		
SVE-17	SVE-17	12/2/2016	5 to 10	< 2.1	< 2.7	< 1.6	1.7	52	< 1.6	< 2.7	3.7	< 1.6	15	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	3.4	< 1.5	1.4 (Methylene chloride)	
SVE-17	SVE-17	1/16/2017	5 to 10	< 2.7	< 2.1	8.8	2.1	9.3	< 1.6	< 2.7	< 3.1	3.4	< 1.6	45	1.5	10	7.0	21	5.4	< 3.9	< 2	< 2	< 2.5	< 1.5	2.5 (Dichlorodifluoromethane)	
SVE-18	SVE-18-103116	10/31/2016	5 to 10	< 680	< 860	< 500	< 500	52,000	< 520	< 870	< 750	< 520	< 3800	880	< 480	< 550	< 1100	< 550	< 1200	< 620	< 760	< 620	< 790	< 460		
SVE-18	SVE-18	12/2/2016	5 to 10	< 7.4	< 9.4	6.4	10	710	< 5.6	< 9.5	< 8.1	< 5.7	< 41	8.3	< 5.2	< 6	< 12	< 6	< 14	< 6.8	< 8.3	< 6.8	< 8.6	< 5.1		
SVE-18	SVE-18	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	16	< 1.6	35	1.5	6.2	4									

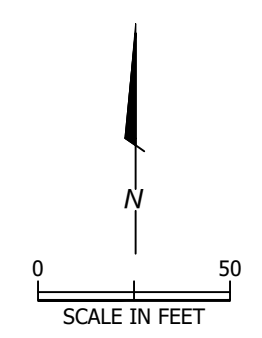
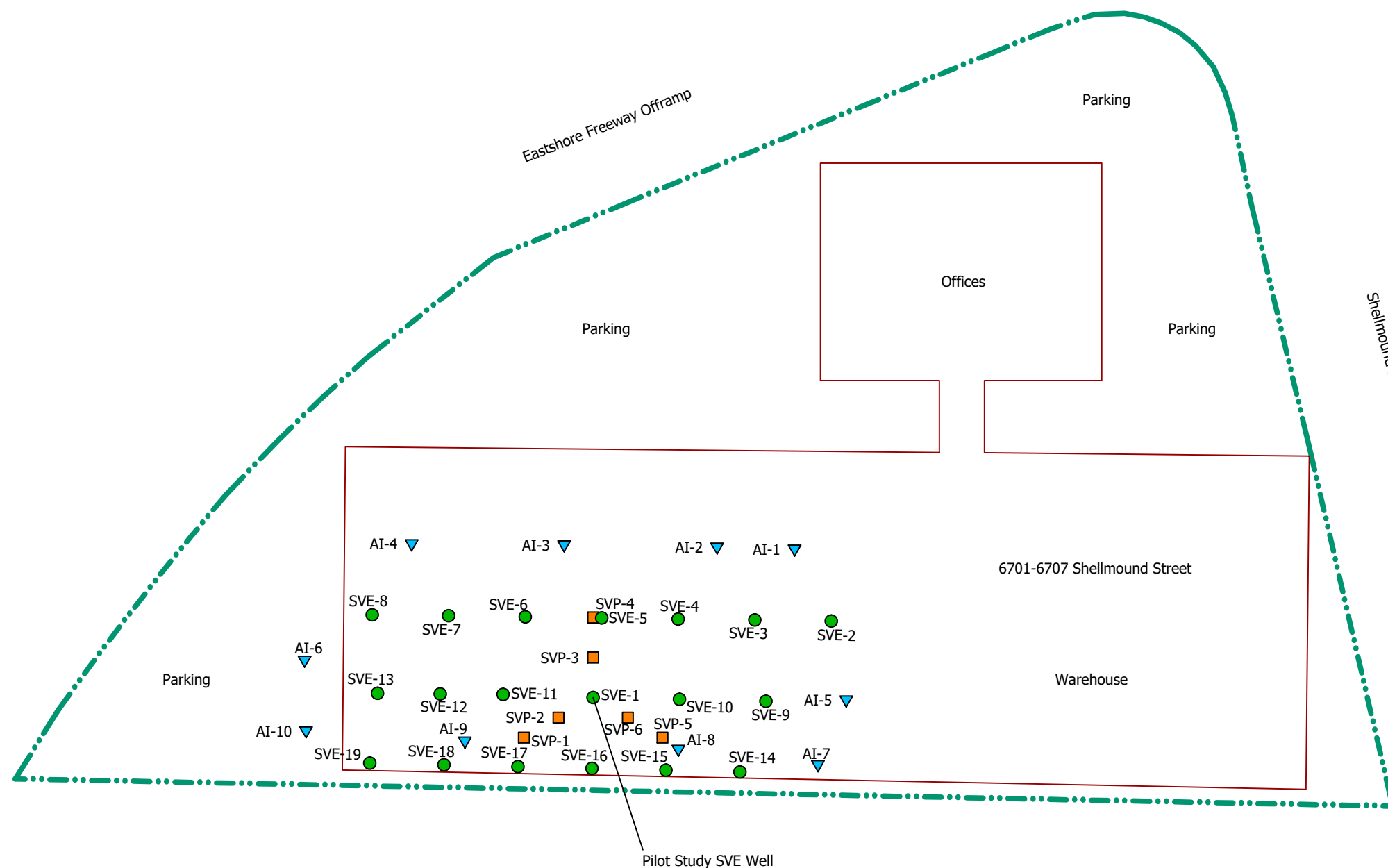
**Table 3**  
**Summary of Laboratory Analytical Results for Vapor Samples**  
**Soil Vapor Extraction System**  
**6701, 6705, and 6707 Shellmound Street, Emeryville, California**

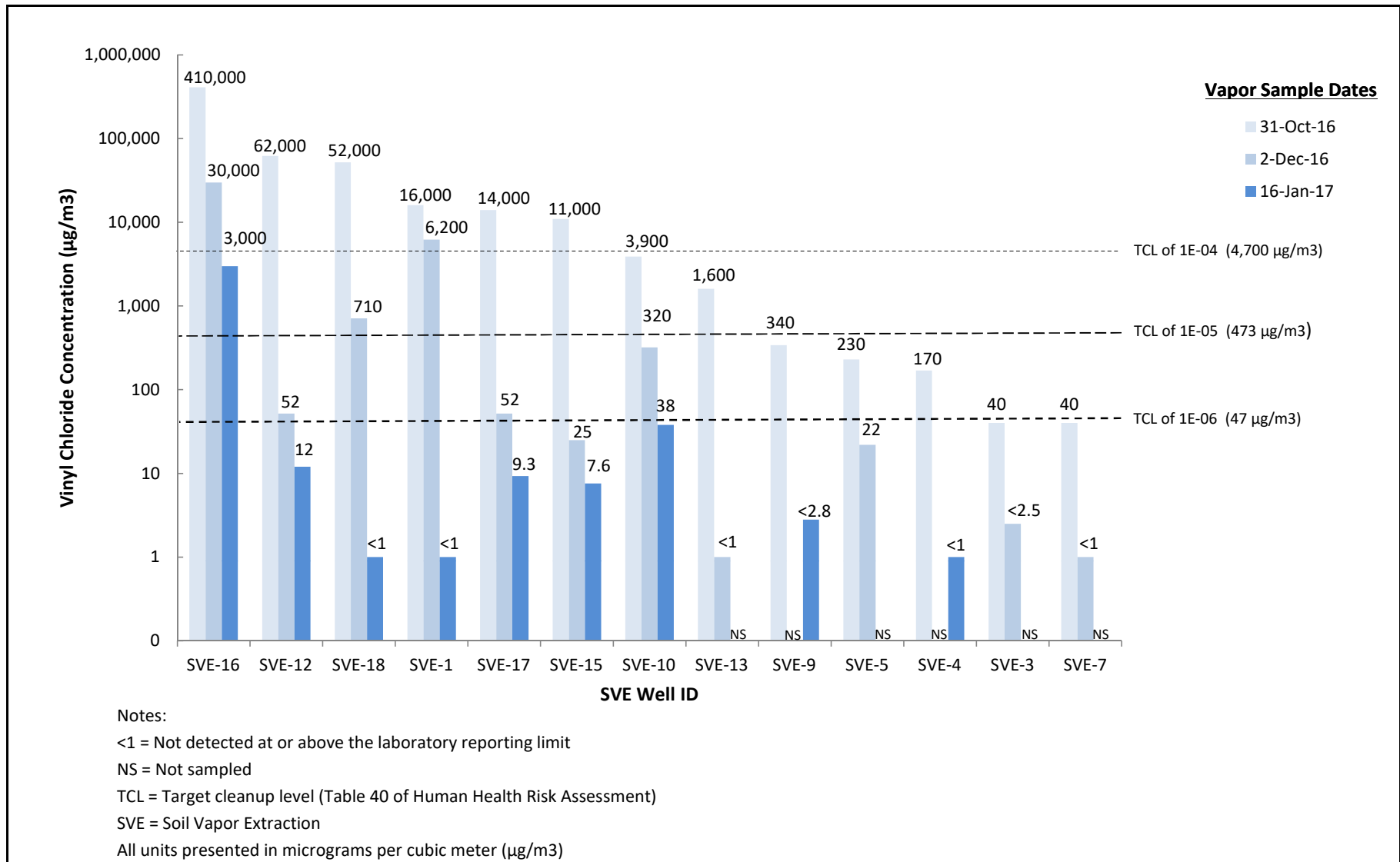
Sample Location	Sample ID	Date	Screened Interval (feet bgs)	PCE (µg/m <sup>3</sup> )	TCE (µg/m <sup>3</sup> )	cis-1,2-DCE (µg/m <sup>3</sup> )	trans-1,2-DCE (µg/m <sup>3</sup> )	Vinyl chloride (µg/m <sup>3</sup> )	1,1,1-TCA (µg/m <sup>3</sup> )	1,1,2,2-PCA (µg/m <sup>3</sup> )	MEK (µg/m <sup>3</sup> )	MIBK (µg/m <sup>3</sup> )	Acetone (µg/m <sup>3</sup> )	Benzene (µg/m <sup>3</sup> )	Toluene (µg/m <sup>3</sup> )	Ethylbenzene (µg/m <sup>3</sup> )	m,p-Xylene (µg/m <sup>3</sup> )	o-Xylene (µg/m <sup>3</sup> )	1,2,4-TMB (µg/m <sup>3</sup> )	1,3,5-TMB (µg/m <sup>3</sup> )	1,3-DCB (µg/m <sup>3</sup> )	4-Ethyltoluene (µg/m <sup>3</sup> )	Carbon disulfide (µg/m <sup>3</sup> )	Chloroform (µg/m <sup>3</sup> )	Other VOCs (µg/m <sup>3</sup> )		
<b>Soil Vapor Monitoring Probes</b>																											
	SVP-1-7.5	7/12/2016	7.5	< 250	< 250	<b>250</b>	< 180	<b>13,000</b>	< 190	< 310	< 270	< 190	< 1400	<b>250</b>	< 170	< 200	< 400	< 200	< 450	< 220	< 270	< 220	< 280	< 170	2.0 (BDCM), 2.4 (Freon 12), 1.5 (MC), 2.6 (Freon 11) 72 (1,4-DCB), 23 (NAPH)		
	SVP-2-3.5	7/12/2016	3.5	< 17	< 17	< 12	< 12	<b>920</b>	< 13	< 21	< 18	< 13	< 92	<b>28</b>	<b>31</b>	<b>14</b>	<b>55</b>	<b>23</b>	< 31	< 15	< 19	< 15	<b>83</b>	<b>78</b>			
	SVP-2-7.5	7/12/2016	7.5	< 1300	< 1300	< 990	< 990	<b>75,000</b>	< 1000	< 1700	< 1500	< 1000	< 7400	< 800	< 950	< 1100	< 2200	< 1100	< 2500	< 1200	< 1500	< 1200	< 1600	< 920			
	SVP-3-7.5	7/12/2016	7.5	< 38	< 38	< 28	< 28	<b>2,400</b>	< 29	< 49	<b>57</b>	< 29	<b>260</b>	<b>310</b>	<b>170</b>	< 31	< 61	< 31	< 70	< 35	< 43	< 35	<b>130</b>	< 26			
	SVP-4-3.5	7/12/2016	3.5	<b>6.9</b>	<b>6.9</b>	< 1.6	< 1.6	< 1	<b>9.5</b>	<b>4.8</b>	<b>19</b>	<b>11</b>	<b>44</b>	<b>19</b>	<b>18</b>	<b>23</b>	<b>120</b>	<b>54</b>	<b>17</b>	<b>8.7</b>	< 2.4	<b>3.9</b>	<b>3.1</b>	<b>57</b>			
	SVP-4-7.5	7/12/2016	7.5	<b>19</b>	<b>19</b>	<b>57</b>	<b>9.1</b>	<b>180</b>	< 4.5	< 7.6	<b>23</b>	< 4.5	<b>84</b>	<b>230</b>	<b>59</b>	<b>21</b>	<b>210</b>	<b>24</b>	<b>20</b>	<b>10</b>	<b>59</b>	< 5.4	<b>20</b>	< 4.1			
	SVP-5-7.5	7/12/2016	7.5	< 510	< 510	< 370	< 370	<b>22,000</b>	< 390	< 650	< 560	< 390	< 2800	<b>490</b>	< 360	< 410	< 820	< 410	< 930	< 460	< 570	< 460	< 590	< 350			
	SVP-6-3.5	7/12/2016	3.5	< 1700	< 1700	<b>14,000</b>	<b>6,100</b>	<b>100,000</b>	< 1300	< 2200	< 1900	< 1300	< 9600	< 1000	< 1200	< 1400	< 2800	< 1400	< 3200	< 1600	< 2000	< 1600	< 2000	< 1200			
	SVP-6-7.5	7/12/2016	7.5	< 1800	< 1800	<b>16,000</b>	<b>6,300</b>	<b>98,000</b>	< 1400	< 2300	< 2000	< 1400	< 10000	< 1100	< 1300	< 1500	< 3000	< 1500	< 3400	< 1700	< 2000	< 1700	< 2100	< 1200			
<b>Residential Land Use ESL<sup>1</sup></b>				240	240	4,200	31,000	4.7	520,000	24	2,600,000	1,600,000	16,000,000	48	160,000	560	52,000	52,000	NE	NE	NE	NE	61	NE		Varies	
<b>Commercial/Industrial Land Use ESL<sup>2</sup></b>				3,000	3,000	35,000	260,000	160	4,400,000	210	22,000,000	13,000,000	140,000,000	420	1,300,000	4,900	440,000	440,000	NE	NE	NE	NE	530	NE	Varies		
<b>Residential TCL(Target LECR = 10<sup>-4</sup>)</b>				--	--	11,000	--	4,700	--	11,500	--	--	--	4,600	--	12,100	--	--	--	--	--	--	--	--	--		
<b>Commercial/Industrial TCL(Target LECR = 10<sup>-4</sup>)</b>				--	--	92,400	--	41,300	--	101,200	--	--	--	39,200	--	NA	--	--	--	--	--	--	--	--	--		
<b>Residential TCL(Target LECR = 10<sup>-5</sup>)</b>				--	--	11,000	--	473	--	1,100	--	--	--	1,400	--	12,100	--	--	--	--	--	--	--	--	--		
<b>Commercial/Industrial TCL(Target LECR = 10<sup>-5</sup>)</b>				--	--	92,400	--	4,100	--	10,100	--	--	--	12,600	--	NA	--	--	--	--	--	--	--	--	--		
<b>Residential TCL(Target LECR = 10<sup>-6</sup>)</b>				--	--	11,000	--	47	--	116	--	--	--	145	--	1,200	--	--	--	--	--	--	--	--	--		
<b>Commercial/Industrial TCL(Target LECR = 10<sup>-6</sup>)</b>				--	--	92,400	--	400	--	1,000	--	--	--	1,200	--	NA	--	--	--	--	--	--	--	--	--		

**Notes:**  
 Detections are shown in bold. Results exceeding 10-4 LECR for chemicals with TCLs are shaded; results without TCLs that are equal to or exceeding commercial/industrial ESLs are shaded.  
 LECR = Lifetime excess cancer risk  
 Only detected analytes are summarized on table. Refer to Appendix D for laboratory report to access entire list of compounds analyzed.  
 SVE = Soil vapor extraction  
 BDCM = Bromodichloromethane  
 DCB = Dichlorobenzene  
 DCE = Dichloroethene.  
 Freon 11 = Trichlorofluoromethane  
 Freon 12 = Dichlorodifluoromethane  
 MC = Methylene Chloride  
 MEK = Methyl Ethyl Ketone  
 MIBK = Methyl Isobutyl Ketone  
 NAPH = Naphthalene  
 PCA = Tetrachloroethane  
 TCA = Trichloroethane.  
 TCE = Trichloroethene.  
 TMB = Trimethylbenzene.  
 VOCs = Volatile organic compounds.  
 bgs = Below ground surface.  
 µg/m<sup>3</sup> = Micrograms per cubic meter.  
 < 2.9 = Not detected at or above the indicated laboratory method reporting limit.  
 NE = Not established.  
 -- = Not applicable/not analyzed.  
 TCL = Target Cleanup Level for Lifetime Excess Cancer Risk (LECR) presented in Table 40 of the November 2016 Human Health Risk Assessment Report.

**PLATES**

- Explanation**
- · - · - Approximate Property Boundary
  - Existing Building Outline
  - SVE-6 ● Soil Vapor Extraction (SVE) Well Location
  - SVP-4 ■ Soil Vapor Monitoring Probe Location
  - AI-2 ▼ Air Inlet Well Location





**PES Environmental, Inc.**  
 Engineering & Environmental Services

**Vinyl Chloride Concentrations in SVE Wells**  
 6701, 6705, and 6707 Shellmound Street  
 Emeryville, California

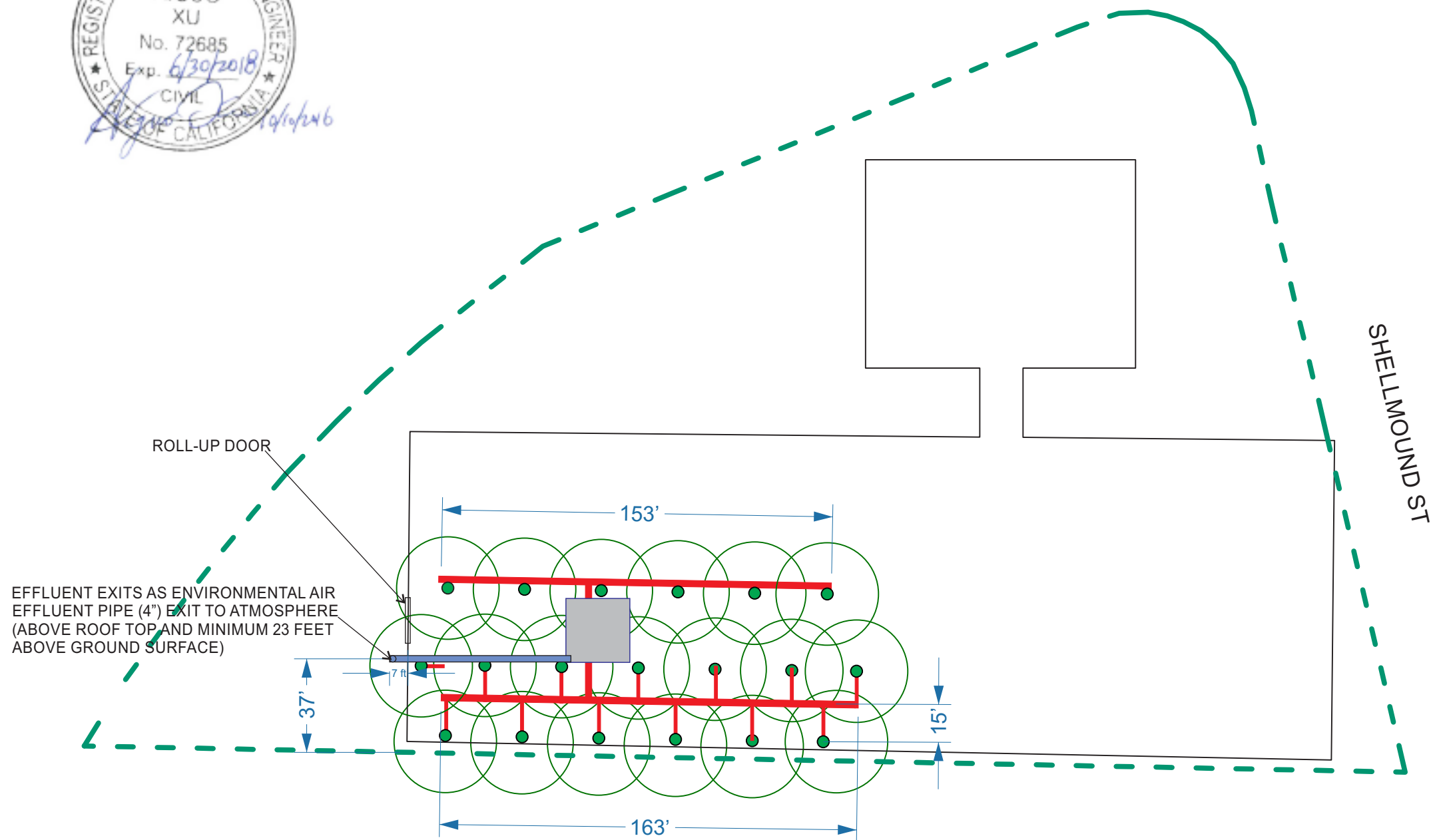
PLATE

**2**

**APPENDIX A**

**AS-BUILT DRAWINGS OF SVE SYSTEM**





**Legend**

- Soil Vapor Extraction Equipment Compound
- Vapor Extraction Pipe
- Approximate Property Boundary
- Building Outline
- SVE Well Location

APPROX SCALE

NOTE: SOIL VAPOR EXTRACTION WELLS WITH RADII OF INFLUENCE OVER PROPERTY LINE ONLY EXTRACT SHALLOW SOIL VAPOR AND THEY DO NOT HAVE ANY EFFECTS ON ADJACENT BUILDING'S FOUNDATION.

Environmental Engineering, Consulting & Remediation, Inc.

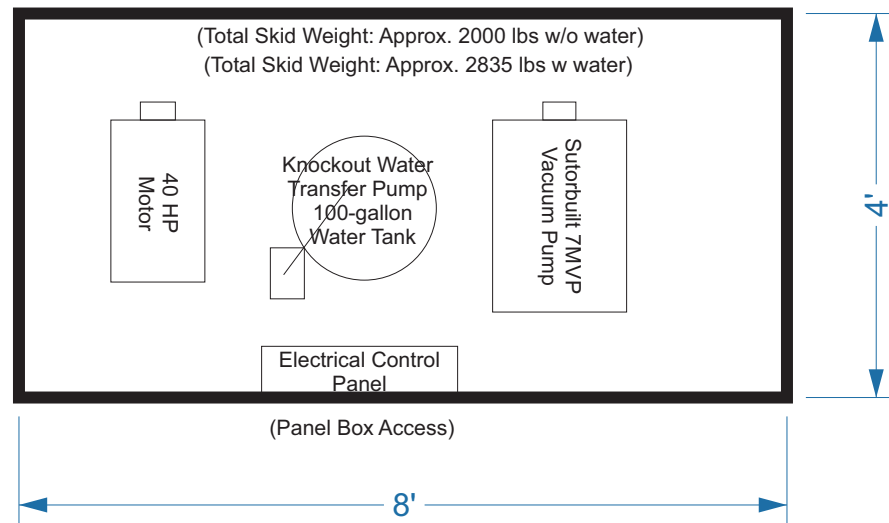
1020 Winding Creek Rd., #110, Roseville, CA 95678  
 Phone: (916) 782-8700 Fax: (916) 782-8750

**MIKE ROBERTS COLOR PRODUCTION  
 6701 SHELLMOUND STREET  
 EMERYVILLE, CALIFORNIA**

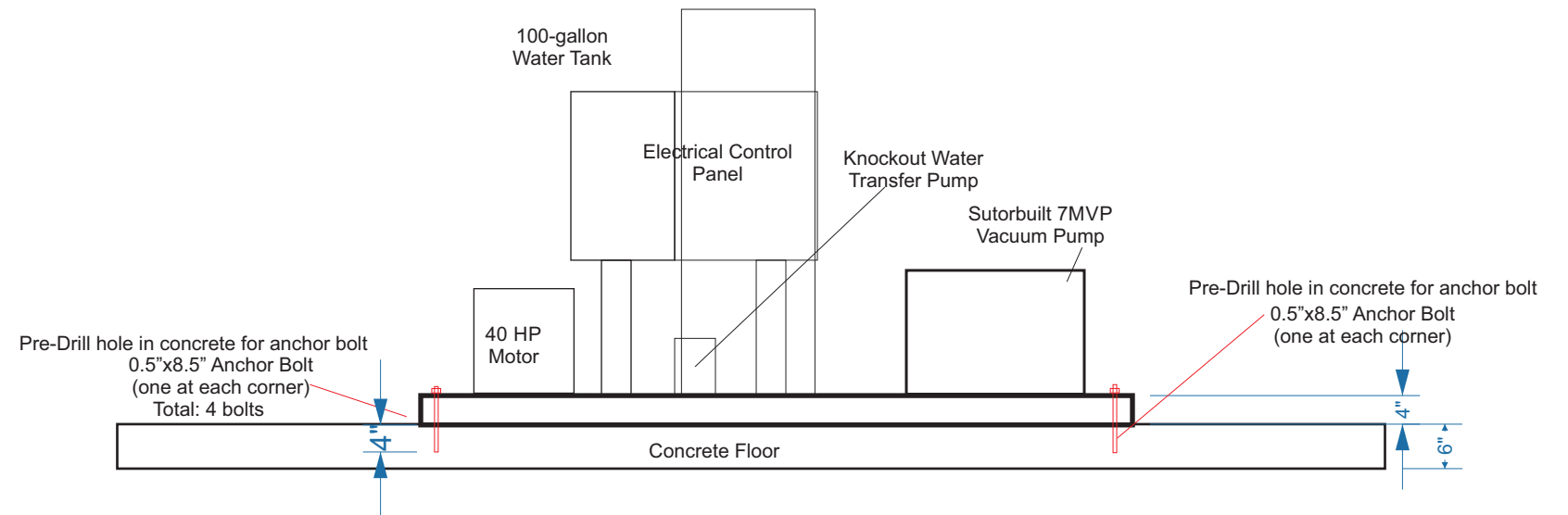
**SITE PLAN**

**FIGURE**

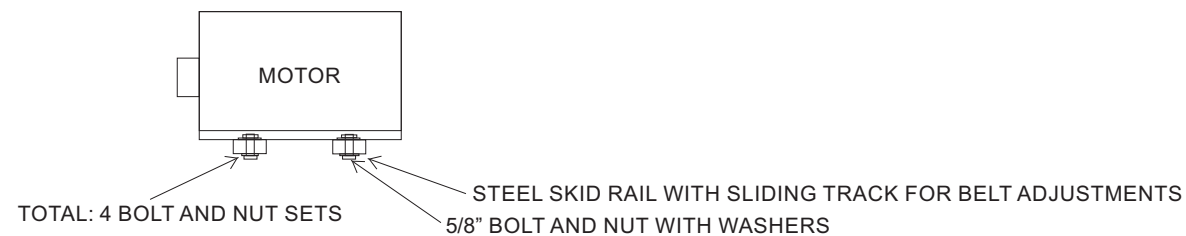
**3**



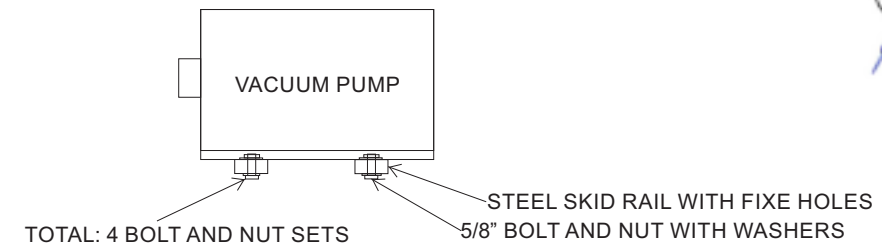
SOIL VAPOR EXTRACTION EQUIPMENT SKID LAYOUT



SKID ANCHORING CONSTRUCTION DETAILS



MOTOR MOUNTING DETAILS



VACUUM PUMP MOUNTING DETAILS



Environmental Engineering, Consulting & Remediation, Inc.

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MIKE ROBERTS COLOR PRODUCTION  
6701 SHELLMOUND STREET  
EMERYVILLE, CALIFORNIA

EQUIPMENT SKID LAYOUT AND EQUIPMENT MOUNTING AND ANCHORING DETAILS

FIGURE

4

**APPENDIX B**

**LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY  
DOCUMENTATION**

# 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: 320-25032-1

Client Project/Site: 6701 Shellmound St, Emeryville Air

For:  
PES Environmental, Inc.  
7665 Redwood Blvd  
Suite #200  
Novato, California 94945

Attn: Mr. Kyle Flory



Authorized for release by:  
1/23/2017 5:48:26 PM

Lee Ann Heathcote, Project Manager II  
(916)373-5600  
[leeann.heathcote@testamericainc.com](mailto:leeann.heathcote@testamericainc.com)

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*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: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

# Case Narrative

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

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**Job ID: 320-25032-1**

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**Laboratory: TestAmerica Sacramento**

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**Narrative**

**Job Narrative**  
**320-25032-1**

**Receipt**

The samples were received on 1/16/2017 3:05 PM; 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.

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# Detection Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Client Sample ID: SVE-1

## Lab Sample ID: 320-25032-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	26		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.68		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	1.2		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.53		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.4		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	2.5		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	4.8		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.4		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	61		12		ug/m3	1		TO-15	Total/NA
Benzene	2.2		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	3.5		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.6		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	6.0		1.7		ug/m3	1		TO-15	Total/NA
Toluene	9.3		1.5		ug/m3	1		TO-15	Total/NA
m,p-Xylene	21		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	6.0		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-4

## Lab Sample ID: 320-25032-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	18		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.55		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	1.4		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.47		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.0		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	1.8		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	3.6		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.0		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	43		12		ug/m3	1		TO-15	Total/NA
Benzene	1.7		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	4.1		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.3		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	4.5		1.7		ug/m3	1		TO-15	Total/NA
Toluene	6.9		1.5		ug/m3	1		TO-15	Total/NA
m,p-Xylene	16		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	4.5		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-9

## Lab Sample ID: 320-25032-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.51		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	0.94		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.45		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.0		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	2.0		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	3.6		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	0.99		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento



# Detection Summary

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Client Sample ID: SVE-9 (Continued)

## Lab Sample ID: 320-25032-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	41		12		ug/m3	1		TO-15	Total/NA
Benzene	1.6		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	2.8		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.2		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	4.4		1.7		ug/m3	1		TO-15	Total/NA
Toluene	7.5		1.5		ug/m3	1		TO-15	Total/NA
m,p-Xylene	16		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	4.3		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-10

## Lab Sample ID: 320-25032-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.7		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	16		0.40		ppb v/v	1		TO-15	Total/NA
Carbon disulfide	5.4		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.50		0.40		ppb v/v	1		TO-15	Total/NA
1,1-Dichloroethene	1.4		0.80		ppb v/v	1		TO-15	Total/NA
cis-1,2-Dichloroethene	3.7		0.40		ppb v/v	1		TO-15	Total/NA
trans-1,2-Dichloroethene	0.63		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.70		0.40		ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.48		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	4.0		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.75		0.40		ppb v/v	1		TO-15	Total/NA
Vinyl chloride	15		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	4.4		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	0.73		0.40		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	14		12		ug/m3	1		TO-15	Total/NA
Benzene	52		1.3		ug/m3	1		TO-15	Total/NA
Carbon disulfide	17		2.5		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.5		2.0		ug/m3	1		TO-15	Total/NA
1,1-Dichloroethene	5.4		3.2		ug/m3	1		TO-15	Total/NA
cis-1,2-Dichloroethene	15		1.6		ug/m3	1		TO-15	Total/NA
trans-1,2-Dichloroethene	2.5		1.6		ug/m3	1		TO-15	Total/NA
Ethylbenzene	3.1		1.7		ug/m3	1		TO-15	Total/NA
Methylene Chloride	1.7		1.4		ug/m3	1		TO-15	Total/NA
Toluene	15		1.5		ug/m3	1		TO-15	Total/NA
Trichloroethene	4.0		2.1		ug/m3	1		TO-15	Total/NA
Vinyl chloride	38		1.0		ug/m3	1		TO-15	Total/NA
m,p-Xylene	19		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	3.2		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-12

## Lab Sample ID: 320-25032-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.50		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	1.1		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.49		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.1		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

# Detection Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Client Sample ID: SVE-12 (Continued)

## Lab Sample ID: 320-25032-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.8		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	4.0		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.1		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	40		12		ug/m3	1		TO-15	Total/NA
Benzene	1.6		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	3.2		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.4		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	4.8		1.7		ug/m3	1		TO-15	Total/NA
Toluene	6.9		1.5		ug/m3	1		TO-15	Total/NA
m,p-Xylene	17		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	4.9		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-15

## Lab Sample ID: 320-25032-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	23		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.69		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	17		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.49		0.40		ppb v/v	1		TO-15	Total/NA
cis-1,2-Dichloroethene	0.90		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.4		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	2.4		0.40		ppb v/v	1		TO-15	Total/NA
Vinyl chloride	3.0		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	5.9		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.8		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	54		12		ug/m3	1		TO-15	Total/NA
Benzene	2.2		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	50		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.4		2.0		ug/m3	1		TO-15	Total/NA
cis-1,2-Dichloroethene	3.6		1.6		ug/m3	1		TO-15	Total/NA
Ethylbenzene	6.2		1.7		ug/m3	1		TO-15	Total/NA
Toluene	8.9		1.5		ug/m3	1		TO-15	Total/NA
Vinyl chloride	7.6		1.0		ug/m3	1		TO-15	Total/NA
m,p-Xylene	25		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	7.8		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-16

## Lab Sample ID: 320-25032-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8400		130		ppb v/v	317		TO-15	Total/NA
trans-1,2-Dichloroethene	1600		130		ppb v/v	317		TO-15	Total/NA
Vinyl chloride	1200		130		ppb v/v	317		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	33000		500		ug/m3	317		TO-15	Total/NA
trans-1,2-Dichloroethene	6200		500		ug/m3	317		TO-15	Total/NA
Vinyl chloride	3000		320		ug/m3	317		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

# Detection Summary

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Client Sample ID: SVE-17

## Lab Sample ID: 320-25032-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.46		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	1.2		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.51		0.40		ppb v/v	1		TO-15	Total/NA
cis-1,2-Dichloroethene	2.2		0.40		ppb v/v	1		TO-15	Total/NA
trans-1,2-Dichloroethene	0.52		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.6		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	2.7		0.40		ppb v/v	1		TO-15	Total/NA
Vinyl chloride	3.6		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	4.8		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.2		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	45		12		ug/m3	1		TO-15	Total/NA
Benzene	1.5		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	3.4		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.5		2.0		ug/m3	1		TO-15	Total/NA
cis-1,2-Dichloroethene	8.8		1.6		ug/m3	1		TO-15	Total/NA
trans-1,2-Dichloroethene	2.1		1.6		ug/m3	1		TO-15	Total/NA
Ethylbenzene	7.0		1.7		ug/m3	1		TO-15	Total/NA
Toluene	10		1.5		ug/m3	1		TO-15	Total/NA
Vinyl chloride	9.3		1.0		ug/m3	1		TO-15	Total/NA
m,p-Xylene	21		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	5.4		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-18

## Lab Sample ID: 320-25032-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.46		0.40		ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	5.3		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.50		0.40		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	1.0		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	1.6		0.40		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	3.7		0.80		ppb v/v	1		TO-15	Total/NA
o-Xylene	1.1		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	35		12		ug/m3	1		TO-15	Total/NA
Benzene	1.5		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	16		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.5		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	4.4		1.7		ug/m3	1		TO-15	Total/NA
Toluene	6.2		1.5		ug/m3	1		TO-15	Total/NA
m,p-Xylene	16		3.5		ug/m3	1		TO-15	Total/NA
o-Xylene	4.6		1.7		ug/m3	1		TO-15	Total/NA

## Client Sample ID: SVE-Influent

## Lab Sample ID: 320-25032-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13		5.0		ppb v/v	1		TO-15	Total/NA
Benzene	0.61		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

# Detection Summary

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-Influent (Continued)**

**Lab Sample ID: 320-25032-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	2.2		0.80		ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.52		0.40		ppb v/v	1		TO-15	Total/NA
Toluene	0.92		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.42		0.40		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	32		12		ug/m3	1		TO-15	Total/NA
Benzene	2.0		1.3		ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	6.5		2.4		ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.6		2.0		ug/m3	1		TO-15	Total/NA
Toluene	3.5		1.5		ug/m3	1		TO-15	Total/NA
Trichloroethene	2.3		2.1		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-1**

**Date Collected: 01/16/17 10:04**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Lab Sample ID: 320-25032-1**

**Matrix: Air**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>26</b>		5.0		ppb v/v			01/19/17 08:17	1
<b>Benzene</b>	<b>0.68</b>		0.40		ppb v/v			01/19/17 08:17	1
Benzyl chloride	ND		0.80		ppb v/v			01/19/17 08:17	1
Bromodichloromethane	ND		0.30		ppb v/v			01/19/17 08:17	1
Bromoform	ND		0.40		ppb v/v			01/19/17 08:17	1
Bromomethane	ND		0.80		ppb v/v			01/19/17 08:17	1
<b>2-Butanone (MEK)</b>	<b>1.2</b>		0.80		ppb v/v			01/19/17 08:17	1
Carbon disulfide	ND		0.80		ppb v/v			01/19/17 08:17	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/19/17 08:17	1
Chlorobenzene	ND		0.30		ppb v/v			01/19/17 08:17	1
Dibromochloromethane	ND		0.40		ppb v/v			01/19/17 08:17	1
Chloroethane	ND		0.80		ppb v/v			01/19/17 08:17	1
Chloroform	ND		0.30		ppb v/v			01/19/17 08:17	1
Chloromethane	ND		0.80		ppb v/v			01/19/17 08:17	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/19/17 08:17	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 08:17	1
<b>Dichlorodifluoromethane</b>	<b>0.53</b>		0.40		ppb v/v			01/19/17 08:17	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/19/17 08:17	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/19/17 08:17	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/19/17 08:17	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 08:17	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/19/17 08:17	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 08:17	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/19/17 08:17	1
<b>Ethylbenzene</b>	<b>1.4</b>		0.40		ppb v/v			01/19/17 08:17	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/19/17 08:17	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/19/17 08:17	1
2-Hexanone	ND		0.40		ppb v/v			01/19/17 08:17	1
Methylene Chloride	ND		0.40		ppb v/v			01/19/17 08:17	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/19/17 08:17	1
Styrene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/19/17 08:17	1
Tetrachloroethene	ND		0.40		ppb v/v			01/19/17 08:17	1
<b>Toluene</b>	<b>2.5</b>		0.40		ppb v/v			01/19/17 08:17	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/19/17 08:17	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/19/17 08:17	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/19/17 08:17	1
Trichloroethene	ND		0.40		ppb v/v			01/19/17 08:17	1
1,4-Dioxane	ND		0.80		ppb v/v			01/19/17 08:17	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/19/17 08:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/19/17 08:17	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/19/17 08:17	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/19/17 08:17	1
Vinyl acetate	ND		0.80		ppb v/v			01/19/17 08:17	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-1**

**Lab Sample ID: 320-25032-1**

**Date Collected: 01/16/17 10:04**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.40		ppb v/v			01/19/17 08:17	1
<b>m,p-Xylene</b>	<b>4.8</b>		0.80		ppb v/v			01/19/17 08:17	1
<b>o-Xylene</b>	<b>1.4</b>		0.40		ppb v/v			01/19/17 08:17	1
Naphthalene	ND		0.80		ppb v/v			01/19/17 08:17	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>61</b>		12		ug/m3			01/19/17 08:17	1
<b>Benzene</b>	<b>2.2</b>		1.3		ug/m3			01/19/17 08:17	1
Benzyl chloride	ND		4.1		ug/m3			01/19/17 08:17	1
Bromodichloromethane	ND		2.0		ug/m3			01/19/17 08:17	1
Bromoform	ND		4.1		ug/m3			01/19/17 08:17	1
Bromomethane	ND		3.1		ug/m3			01/19/17 08:17	1
<b>2-Butanone (MEK)</b>	<b>3.5</b>		2.4		ug/m3			01/19/17 08:17	1
Carbon disulfide	ND		2.5		ug/m3			01/19/17 08:17	1
Carbon tetrachloride	ND		5.0		ug/m3			01/19/17 08:17	1
Chlorobenzene	ND		1.4		ug/m3			01/19/17 08:17	1
Dibromochloromethane	ND		3.4		ug/m3			01/19/17 08:17	1
Chloroethane	ND		2.1		ug/m3			01/19/17 08:17	1
Chloroform	ND		1.5		ug/m3			01/19/17 08:17	1
Chloromethane	ND		1.7		ug/m3			01/19/17 08:17	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/19/17 08:17	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 08:17	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 08:17	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 08:17	1
<b>Dichlorodifluoromethane</b>	<b>2.6</b>		2.0		ug/m3			01/19/17 08:17	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/19/17 08:17	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/19/17 08:17	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/19/17 08:17	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 08:17	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 08:17	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/19/17 08:17	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 08:17	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 08:17	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/19/17 08:17	1
<b>Ethylbenzene</b>	<b>6.0</b>		1.7		ug/m3			01/19/17 08:17	1
4-Ethyltoluene	ND		2.0		ug/m3			01/19/17 08:17	1
Hexachlorobutadiene	ND		21		ug/m3			01/19/17 08:17	1
2-Hexanone	ND		1.6		ug/m3			01/19/17 08:17	1
Methylene Chloride	ND		1.4		ug/m3			01/19/17 08:17	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/19/17 08:17	1
Styrene	ND		1.7		ug/m3			01/19/17 08:17	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/19/17 08:17	1
Tetrachloroethene	ND		2.7		ug/m3			01/19/17 08:17	1
<b>Toluene</b>	<b>9.3</b>		1.5		ug/m3			01/19/17 08:17	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/19/17 08:17	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/19/17 08:17	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/19/17 08:17	1
Trichloroethene	ND		2.1		ug/m3			01/19/17 08:17	1
1,4-Dioxane	ND		2.9		ug/m3			01/19/17 08:17	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-1**

**Lab Sample ID: 320-25032-1**

**Date Collected: 01/16/17 10:04**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		2.2		ug/m3			01/19/17 08:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/19/17 08:17	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/19/17 08:17	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/19/17 08:17	1
Vinyl acetate	ND		2.8		ug/m3			01/19/17 08:17	1
Vinyl chloride	ND		1.0		ug/m3			01/19/17 08:17	1
<b>m,p-Xylene</b>	<b>21</b>		3.5		ug/m3			01/19/17 08:17	1
<b>o-Xylene</b>	<b>6.0</b>		1.7		ug/m3			01/19/17 08:17	1
Naphthalene	ND		4.2		ug/m3			01/19/17 08:17	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	101		70 - 130					01/19/17 08:17	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/19/17 08:17	1
Toluene-d8 (Surr)	101		70 - 130					01/19/17 08:17	1

**Client Sample ID: SVE-4**

**Lab Sample ID: 320-25032-2**

**Date Collected: 01/16/17 10:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>18</b>		5.0		ppb v/v			01/18/17 19:50	1
<b>Benzene</b>	<b>0.55</b>		0.40		ppb v/v			01/18/17 19:50	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 19:50	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 19:50	1
Bromoform	ND		0.40		ppb v/v			01/18/17 19:50	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 19:50	1
<b>2-Butanone (MEK)</b>	<b>1.4</b>		0.80		ppb v/v			01/18/17 19:50	1
Carbon disulfide	ND		0.80		ppb v/v			01/18/17 19:50	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 19:50	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 19:50	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 19:50	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 19:50	1
Chloroform	ND		0.30		ppb v/v			01/18/17 19:50	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 19:50	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 19:50	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 19:50	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 19:50	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 19:50	1
<b>Dichlorodifluoromethane</b>	<b>0.47</b>		0.40		ppb v/v			01/18/17 19:50	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 19:50	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 19:50	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/18/17 19:50	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 19:50	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 19:50	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 19:50	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 19:50	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 19:50	1

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# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-4**

**Lab Sample ID: 320-25032-2**

**Date Collected: 01/16/17 10:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 19:50	1
<b>Ethylbenzene</b>	<b>1.0</b>		0.40		ppb v/v			01/18/17 19:50	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 19:50	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 19:50	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 19:50	1
Methylene Chloride	ND		0.40		ppb v/v			01/18/17 19:50	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 19:50	1
Styrene	ND		0.40		ppb v/v			01/18/17 19:50	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 19:50	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 19:50	1
<b>Toluene</b>	<b>1.8</b>		0.40		ppb v/v			01/18/17 19:50	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 19:50	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 19:50	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 19:50	1
Trichloroethene	ND		0.40		ppb v/v			01/18/17 19:50	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 19:50	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 19:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 19:50	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 19:50	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 19:50	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 19:50	1
Vinyl chloride	ND		0.40		ppb v/v			01/18/17 19:50	1
<b>m,p-Xylene</b>	<b>3.6</b>		0.80		ppb v/v			01/18/17 19:50	1
<b>o-Xylene</b>	<b>1.0</b>		0.40		ppb v/v			01/18/17 19:50	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 19:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>43</b>		12		ug/m3			01/18/17 19:50	1
<b>Benzene</b>	<b>1.7</b>		1.3		ug/m3			01/18/17 19:50	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 19:50	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 19:50	1
Bromoform	ND		4.1		ug/m3			01/18/17 19:50	1
Bromomethane	ND		3.1		ug/m3			01/18/17 19:50	1
<b>2-Butanone (MEK)</b>	<b>4.1</b>		2.4		ug/m3			01/18/17 19:50	1
Carbon disulfide	ND		2.5		ug/m3			01/18/17 19:50	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 19:50	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 19:50	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 19:50	1
Chloroethane	ND		2.1		ug/m3			01/18/17 19:50	1
Chloroform	ND		1.5		ug/m3			01/18/17 19:50	1
Chloromethane	ND		1.7		ug/m3			01/18/17 19:50	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 19:50	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 19:50	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 19:50	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 19:50	1
<b>Dichlorodifluoromethane</b>	<b>2.3</b>		2.0		ug/m3			01/18/17 19:50	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 19:50	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 19:50	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/18/17 19:50	1

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-4**

**Lab Sample ID: 320-25032-2**

**Date Collected: 01/16/17 10:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 19:50	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 19:50	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 19:50	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 19:50	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 19:50	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 19:50	1
<b>Ethylbenzene</b>	<b>4.5</b>		1.7		ug/m3			01/18/17 19:50	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 19:50	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 19:50	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 19:50	1
Methylene Chloride	ND		1.4		ug/m3			01/18/17 19:50	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 19:50	1
Styrene	ND		1.7		ug/m3			01/18/17 19:50	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 19:50	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 19:50	1
<b>Toluene</b>	<b>6.9</b>		1.5		ug/m3			01/18/17 19:50	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 19:50	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 19:50	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 19:50	1
Trichloroethene	ND		2.1		ug/m3			01/18/17 19:50	1
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 19:50	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 19:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 19:50	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 19:50	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 19:50	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 19:50	1
Vinyl chloride	ND		1.0		ug/m3			01/18/17 19:50	1
<b>m,p-Xylene</b>	<b>16</b>		3.5		ug/m3			01/18/17 19:50	1
<b>o-Xylene</b>	<b>4.5</b>		1.7		ug/m3			01/18/17 19:50	1
Naphthalene	ND		4.2		ug/m3			01/18/17 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		01/18/17 19:50	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		01/18/17 19:50	1
Toluene-d8 (Surr)	103		70 - 130		01/18/17 19:50	1

**Client Sample ID: SVE-9**

**Lab Sample ID: 320-25032-3**

**Date Collected: 01/16/17 10:52**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>17</b>		5.0		ppb v/v			01/18/17 20:48	1
<b>Benzene</b>	<b>0.51</b>		0.40		ppb v/v			01/18/17 20:48	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 20:48	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 20:48	1
Bromoform	ND		0.40		ppb v/v			01/18/17 20:48	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 20:48	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-9**

**Lab Sample ID: 320-25032-3**

**Date Collected: 01/16/17 10:52**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>2-Butanone (MEK)</b>	<b>0.94</b>		0.80		ppb v/v			01/18/17 20:48	1
Carbon disulfide	ND		0.80		ppb v/v			01/18/17 20:48	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 20:48	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 20:48	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 20:48	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 20:48	1
Chloroform	ND		0.30		ppb v/v			01/18/17 20:48	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 20:48	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 20:48	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 20:48	1
<b>Dichlorodifluoromethane</b>	<b>0.45</b>		0.40		ppb v/v			01/18/17 20:48	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 20:48	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 20:48	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/18/17 20:48	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 20:48	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 20:48	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 20:48	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 20:48	1
<b>Ethylbenzene</b>	<b>1.0</b>		0.40		ppb v/v			01/18/17 20:48	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 20:48	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 20:48	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 20:48	1
Methylene Chloride	ND		0.40		ppb v/v			01/18/17 20:48	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 20:48	1
Styrene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 20:48	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 20:48	1
<b>Toluene</b>	<b>2.0</b>		0.40		ppb v/v			01/18/17 20:48	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 20:48	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 20:48	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 20:48	1
Trichloroethene	ND		0.40		ppb v/v			01/18/17 20:48	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 20:48	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 20:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 20:48	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 20:48	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 20:48	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 20:48	1
Vinyl chloride	ND		0.40		ppb v/v			01/18/17 20:48	1
<b>m,p-Xylene</b>	<b>3.6</b>		0.80		ppb v/v			01/18/17 20:48	1
<b>o-Xylene</b>	<b>0.99</b>		0.40		ppb v/v			01/18/17 20:48	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 20:48	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>41</b>		12		ug/m3			01/18/17 20:48	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-9**

**Lab Sample ID: 320-25032-3**

**Date Collected: 01/16/17 10:52**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>1.6</b>		1.3		ug/m3			01/18/17 20:48	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 20:48	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 20:48	1
Bromoform	ND		4.1		ug/m3			01/18/17 20:48	1
Bromomethane	ND		3.1		ug/m3			01/18/17 20:48	1
<b>2-Butanone (MEK)</b>	<b>2.8</b>		2.4		ug/m3			01/18/17 20:48	1
Carbon disulfide	ND		2.5		ug/m3			01/18/17 20:48	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 20:48	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 20:48	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 20:48	1
Chloroethane	ND		2.1		ug/m3			01/18/17 20:48	1
Chloroform	ND		1.5		ug/m3			01/18/17 20:48	1
Chloromethane	ND		1.7		ug/m3			01/18/17 20:48	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 20:48	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 20:48	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 20:48	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 20:48	1
<b>Dichlorodifluoromethane</b>	<b>2.2</b>		2.0		ug/m3			01/18/17 20:48	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 20:48	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 20:48	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/18/17 20:48	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 20:48	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 20:48	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 20:48	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 20:48	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 20:48	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 20:48	1
<b>Ethylbenzene</b>	<b>4.4</b>		1.7		ug/m3			01/18/17 20:48	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 20:48	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 20:48	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 20:48	1
Methylene Chloride	ND		1.4		ug/m3			01/18/17 20:48	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 20:48	1
Styrene	ND		1.7		ug/m3			01/18/17 20:48	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 20:48	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 20:48	1
<b>Toluene</b>	<b>7.5</b>		1.5		ug/m3			01/18/17 20:48	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 20:48	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 20:48	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 20:48	1
Trichloroethene	ND		2.1		ug/m3			01/18/17 20:48	1
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 20:48	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 20:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 20:48	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 20:48	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 20:48	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 20:48	1
Vinyl chloride	ND		1.0		ug/m3			01/18/17 20:48	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-9**

**Lab Sample ID: 320-25032-3**

Date Collected: 01/16/17 10:52

Matrix: Air

Date Received: 01/16/17 15:05

Sample Container: Summa Canister 1L

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>m,p-Xylene</b>	<b>16</b>		3.5		ug/m3			01/18/17 20:48	1
<b>o-Xylene</b>	<b>4.3</b>		1.7		ug/m3			01/18/17 20:48	1
Naphthalene	ND		4.2		ug/m3			01/18/17 20:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		70 - 130					01/18/17 20:48	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					01/18/17 20:48	1
Toluene-d8 (Surr)	100		70 - 130					01/18/17 20:48	1

**Client Sample ID: SVE-10**

**Lab Sample ID: 320-25032-4**

Date Collected: 01/16/17 10:53

Matrix: Air

Date Received: 01/16/17 15:05

Sample Container: Summa Canister 1L

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>5.7</b>		5.0		ppb v/v			01/18/17 21:43	1
<b>Benzene</b>	<b>16</b>		0.40		ppb v/v			01/18/17 21:43	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 21:43	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 21:43	1
Bromoform	ND		0.40		ppb v/v			01/18/17 21:43	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 21:43	1
2-Butanone (MEK)	ND		0.80		ppb v/v			01/18/17 21:43	1
<b>Carbon disulfide</b>	<b>5.4</b>		0.80		ppb v/v			01/18/17 21:43	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 21:43	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 21:43	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 21:43	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 21:43	1
Chloroform	ND		0.30		ppb v/v			01/18/17 21:43	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 21:43	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 21:43	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 21:43	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 21:43	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 21:43	1
<b>Dichlorodifluoromethane</b>	<b>0.50</b>		0.40		ppb v/v			01/18/17 21:43	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 21:43	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 21:43	1
<b>1,1-Dichloroethene</b>	<b>1.4</b>		0.80		ppb v/v			01/18/17 21:43	1
<b>cis-1,2-Dichloroethene</b>	<b>3.7</b>		0.40		ppb v/v			01/18/17 21:43	1
<b>trans-1,2-Dichloroethene</b>	<b>0.63</b>		0.40		ppb v/v			01/18/17 21:43	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 21:43	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 21:43	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 21:43	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 21:43	1
<b>Ethylbenzene</b>	<b>0.70</b>		0.40		ppb v/v			01/18/17 21:43	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 21:43	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 21:43	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 21:43	1
<b>Methylene Chloride</b>	<b>0.48</b>		0.40		ppb v/v			01/18/17 21:43	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-10**

**Lab Sample ID: 320-25032-4**

**Date Collected: 01/16/17 10:53**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 21:43	1
Styrene	ND		0.40		ppb v/v			01/18/17 21:43	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 21:43	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 21:43	1
<b>Toluene</b>	<b>4.0</b>		0.40		ppb v/v			01/18/17 21:43	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 21:43	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 21:43	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 21:43	1
<b>Trichloroethene</b>	<b>0.75</b>		0.40		ppb v/v			01/18/17 21:43	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 21:43	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 21:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 21:43	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 21:43	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 21:43	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 21:43	1
<b>Vinyl chloride</b>	<b>15</b>		0.40		ppb v/v			01/18/17 21:43	1
<b>m,p-Xylene</b>	<b>4.4</b>		0.80		ppb v/v			01/18/17 21:43	1
<b>o-Xylene</b>	<b>0.73</b>		0.40		ppb v/v			01/18/17 21:43	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 21:43	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>14</b>		12		ug/m3			01/18/17 21:43	1
<b>Benzene</b>	<b>52</b>		1.3		ug/m3			01/18/17 21:43	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 21:43	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 21:43	1
Bromoform	ND		4.1		ug/m3			01/18/17 21:43	1
Bromomethane	ND		3.1		ug/m3			01/18/17 21:43	1
2-Butanone (MEK)	ND		2.4		ug/m3			01/18/17 21:43	1
<b>Carbon disulfide</b>	<b>17</b>		2.5		ug/m3			01/18/17 21:43	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 21:43	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 21:43	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 21:43	1
Chloroethane	ND		2.1		ug/m3			01/18/17 21:43	1
Chloroform	ND		1.5		ug/m3			01/18/17 21:43	1
Chloromethane	ND		1.7		ug/m3			01/18/17 21:43	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 21:43	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 21:43	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 21:43	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 21:43	1
<b>Dichlorodifluoromethane</b>	<b>2.5</b>		2.0		ug/m3			01/18/17 21:43	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 21:43	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 21:43	1
<b>1,1-Dichloroethene</b>	<b>5.4</b>		3.2		ug/m3			01/18/17 21:43	1
<b>cis-1,2-Dichloroethene</b>	<b>15</b>		1.6		ug/m3			01/18/17 21:43	1
<b>trans-1,2-Dichloroethene</b>	<b>2.5</b>		1.6		ug/m3			01/18/17 21:43	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 21:43	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 21:43	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 21:43	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 21:43	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-10**

**Lab Sample ID: 320-25032-4**

**Date Collected: 01/16/17 10:53**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Ethylbenzene</b>	<b>3.1</b>		1.7		ug/m3			01/18/17 21:43	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 21:43	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 21:43	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 21:43	1
<b>Methylene Chloride</b>	<b>1.7</b>		1.4		ug/m3			01/18/17 21:43	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 21:43	1
Styrene	ND		1.7		ug/m3			01/18/17 21:43	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 21:43	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 21:43	1
<b>Toluene</b>	<b>15</b>		1.5		ug/m3			01/18/17 21:43	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 21:43	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 21:43	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 21:43	1
<b>Trichloroethene</b>	<b>4.0</b>		2.1		ug/m3			01/18/17 21:43	1
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 21:43	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 21:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 21:43	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 21:43	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 21:43	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 21:43	1
<b>Vinyl chloride</b>	<b>38</b>		1.0		ug/m3			01/18/17 21:43	1
<b>m,p-Xylene</b>	<b>19</b>		3.5		ug/m3			01/18/17 21:43	1
<b>o-Xylene</b>	<b>3.2</b>		1.7		ug/m3			01/18/17 21:43	1
Naphthalene	ND		4.2		ug/m3			01/18/17 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130		01/18/17 21:43	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		01/18/17 21:43	1
Toluene-d8 (Surr)	102		70 - 130		01/18/17 21:43	1

**Client Sample ID: SVE-12**

**Lab Sample ID: 320-25032-5**

**Date Collected: 01/16/17 11:12**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>17</b>		5.0		ppb v/v			01/18/17 22:38	1
<b>Benzene</b>	<b>0.50</b>		0.40		ppb v/v			01/18/17 22:38	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 22:38	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 22:38	1
Bromoform	ND		0.40		ppb v/v			01/18/17 22:38	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 22:38	1
<b>2-Butanone (MEK)</b>	<b>1.1</b>		0.80		ppb v/v			01/18/17 22:38	1
Carbon disulfide	ND		0.80		ppb v/v			01/18/17 22:38	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 22:38	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 22:38	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 22:38	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 22:38	1

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-12**

**Lab Sample ID: 320-25032-5**

**Date Collected: 01/16/17 11:12**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.30		ppb v/v			01/18/17 22:38	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 22:38	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 22:38	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 22:38	1
<b>Dichlorodifluoromethane</b>	<b>0.49</b>		0.40		ppb v/v			01/18/17 22:38	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 22:38	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 22:38	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/18/17 22:38	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 22:38	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 22:38	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 22:38	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 22:38	1
<b>Ethylbenzene</b>	<b>1.1</b>		0.40		ppb v/v			01/18/17 22:38	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 22:38	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 22:38	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 22:38	1
Methylene Chloride	ND		0.40		ppb v/v			01/18/17 22:38	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 22:38	1
Styrene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 22:38	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 22:38	1
<b>Toluene</b>	<b>1.8</b>		0.40		ppb v/v			01/18/17 22:38	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 22:38	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 22:38	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 22:38	1
Trichloroethene	ND		0.40		ppb v/v			01/18/17 22:38	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 22:38	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 22:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 22:38	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 22:38	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 22:38	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 22:38	1
Vinyl chloride	ND		0.40		ppb v/v			01/18/17 22:38	1
<b>m,p-Xylene</b>	<b>4.0</b>		0.80		ppb v/v			01/18/17 22:38	1
<b>o-Xylene</b>	<b>1.1</b>		0.40		ppb v/v			01/18/17 22:38	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 22:38	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>40</b>		12		ug/m3			01/18/17 22:38	1
<b>Benzene</b>	<b>1.6</b>		1.3		ug/m3			01/18/17 22:38	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 22:38	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 22:38	1
Bromoform	ND		4.1		ug/m3			01/18/17 22:38	1
Bromomethane	ND		3.1		ug/m3			01/18/17 22:38	1
<b>2-Butanone (MEK)</b>	<b>3.2</b>		2.4		ug/m3			01/18/17 22:38	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-12**

**Lab Sample ID: 320-25032-5**

**Date Collected: 01/16/17 11:12**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		2.5		ug/m3			01/18/17 22:38	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 22:38	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 22:38	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 22:38	1
Chloroethane	ND		2.1		ug/m3			01/18/17 22:38	1
Chloroform	ND		1.5		ug/m3			01/18/17 22:38	1
Chloromethane	ND		1.7		ug/m3			01/18/17 22:38	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 22:38	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 22:38	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 22:38	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 22:38	1
<b>Dichlorodifluoromethane</b>	<b>2.4</b>		2.0		ug/m3			01/18/17 22:38	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 22:38	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 22:38	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/18/17 22:38	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 22:38	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 22:38	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 22:38	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 22:38	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 22:38	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 22:38	1
<b>Ethylbenzene</b>	<b>4.8</b>		1.7		ug/m3			01/18/17 22:38	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 22:38	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 22:38	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 22:38	1
Methylene Chloride	ND		1.4		ug/m3			01/18/17 22:38	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 22:38	1
Styrene	ND		1.7		ug/m3			01/18/17 22:38	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 22:38	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 22:38	1
<b>Toluene</b>	<b>6.9</b>		1.5		ug/m3			01/18/17 22:38	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 22:38	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 22:38	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 22:38	1
Trichloroethene	ND		2.1		ug/m3			01/18/17 22:38	1
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 22:38	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 22:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 22:38	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 22:38	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 22:38	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 22:38	1
Vinyl chloride	ND		1.0		ug/m3			01/18/17 22:38	1
<b>m,p-Xylene</b>	<b>17</b>		3.5		ug/m3			01/18/17 22:38	1
<b>o-Xylene</b>	<b>4.9</b>		1.7		ug/m3			01/18/17 22:38	1
Naphthalene	ND		4.2		ug/m3			01/18/17 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		01/18/17 22:38	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/18/17 22:38	1

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-12**

**Date Collected: 01/16/17 11:12**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Lab Sample ID: 320-25032-5**

**Matrix: Air**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130		01/18/17 22:38	1

**Client Sample ID: SVE-15**

**Date Collected: 01/16/17 11:13**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Lab Sample ID: 320-25032-6**

**Matrix: Air**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>23</b>		5.0		ppb v/v			01/18/17 23:33	1
<b>Benzene</b>	<b>0.69</b>		0.40		ppb v/v			01/18/17 23:33	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 23:33	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 23:33	1
Bromoform	ND		0.40		ppb v/v			01/18/17 23:33	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 23:33	1
<b>2-Butanone (MEK)</b>	<b>17</b>		0.80		ppb v/v			01/18/17 23:33	1
Carbon disulfide	ND		0.80		ppb v/v			01/18/17 23:33	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 23:33	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 23:33	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 23:33	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 23:33	1
Chloroform	ND		0.30		ppb v/v			01/18/17 23:33	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 23:33	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 23:33	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 23:33	1
<b>Dichlorodifluoromethane</b>	<b>0.49</b>		0.40		ppb v/v			01/18/17 23:33	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 23:33	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 23:33	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/18/17 23:33	1
<b>cis-1,2-Dichloroethene</b>	<b>0.90</b>		0.40		ppb v/v			01/18/17 23:33	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 23:33	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 23:33	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 23:33	1
<b>Ethylbenzene</b>	<b>1.4</b>		0.40		ppb v/v			01/18/17 23:33	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 23:33	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 23:33	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 23:33	1
Methylene Chloride	ND		0.40		ppb v/v			01/18/17 23:33	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 23:33	1
Styrene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 23:33	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 23:33	1
<b>Toluene</b>	<b>2.4</b>		0.40		ppb v/v			01/18/17 23:33	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 23:33	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-15**

**Lab Sample ID: 320-25032-6**

**Date Collected: 01/16/17 11:13**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 23:33	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 23:33	1
Trichloroethene	ND		0.40		ppb v/v			01/18/17 23:33	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 23:33	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 23:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 23:33	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 23:33	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 23:33	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 23:33	1
<b>Vinyl chloride</b>	<b>3.0</b>		0.40		ppb v/v			01/18/17 23:33	1
<b>m,p-Xylene</b>	<b>5.9</b>		0.80		ppb v/v			01/18/17 23:33	1
<b>o-Xylene</b>	<b>1.8</b>		0.40		ppb v/v			01/18/17 23:33	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 23:33	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>54</b>		12		ug/m3			01/18/17 23:33	1
<b>Benzene</b>	<b>2.2</b>		1.3		ug/m3			01/18/17 23:33	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 23:33	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 23:33	1
Bromoform	ND		4.1		ug/m3			01/18/17 23:33	1
Bromomethane	ND		3.1		ug/m3			01/18/17 23:33	1
<b>2-Butanone (MEK)</b>	<b>50</b>		2.4		ug/m3			01/18/17 23:33	1
Carbon disulfide	ND		2.5		ug/m3			01/18/17 23:33	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 23:33	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 23:33	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 23:33	1
Chloroethane	ND		2.1		ug/m3			01/18/17 23:33	1
Chloroform	ND		1.5		ug/m3			01/18/17 23:33	1
Chloromethane	ND		1.7		ug/m3			01/18/17 23:33	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 23:33	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 23:33	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 23:33	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 23:33	1
<b>Dichlorodifluoromethane</b>	<b>2.4</b>		2.0		ug/m3			01/18/17 23:33	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 23:33	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 23:33	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/18/17 23:33	1
<b>cis-1,2-Dichloroethene</b>	<b>3.6</b>		1.6		ug/m3			01/18/17 23:33	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 23:33	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 23:33	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 23:33	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 23:33	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 23:33	1
<b>Ethylbenzene</b>	<b>6.2</b>		1.7		ug/m3			01/18/17 23:33	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 23:33	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 23:33	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 23:33	1
Methylene Chloride	ND		1.4		ug/m3			01/18/17 23:33	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 23:33	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-15**

**Lab Sample ID: 320-25032-6**

**Date Collected: 01/16/17 11:13**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.7		ug/m3			01/18/17 23:33	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 23:33	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 23:33	1
<b>Toluene</b>	<b>8.9</b>		1.5		ug/m3			01/18/17 23:33	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 23:33	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 23:33	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 23:33	1
Trichloroethene	ND		2.1		ug/m3			01/18/17 23:33	1
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 23:33	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 23:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 23:33	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 23:33	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 23:33	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 23:33	1
<b>Vinyl chloride</b>	<b>7.6</b>		1.0		ug/m3			01/18/17 23:33	1
<b>m,p-Xylene</b>	<b>25</b>		3.5		ug/m3			01/18/17 23:33	1
<b>o-Xylene</b>	<b>7.8</b>		1.7		ug/m3			01/18/17 23:33	1
Naphthalene	ND		4.2		ug/m3			01/18/17 23:33	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		70 - 130					01/18/17 23:33	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130					01/18/17 23:33	1
Toluene-d8 (Surr)	103		70 - 130					01/18/17 23:33	1

**Client Sample ID: SVE-16**

**Lab Sample ID: 320-25032-7**

**Date Collected: 01/16/17 11:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1600		ppb v/v			01/19/17 00:23	317
Benzene	ND		130		ppb v/v			01/19/17 00:23	317
Benzyl chloride	ND		250		ppb v/v			01/19/17 00:23	317
Bromodichloromethane	ND		95		ppb v/v			01/19/17 00:23	317
Bromoform	ND		130		ppb v/v			01/19/17 00:23	317
Bromomethane	ND		250		ppb v/v			01/19/17 00:23	317
2-Butanone (MEK)	ND		250		ppb v/v			01/19/17 00:23	317
Carbon disulfide	ND		250		ppb v/v			01/19/17 00:23	317
Carbon tetrachloride	ND		250		ppb v/v			01/19/17 00:23	317
Chlorobenzene	ND		95		ppb v/v			01/19/17 00:23	317
Dibromochloromethane	ND		130		ppb v/v			01/19/17 00:23	317
Chloroethane	ND		250		ppb v/v			01/19/17 00:23	317
Chloroform	ND		95		ppb v/v			01/19/17 00:23	317
Chloromethane	ND		250		ppb v/v			01/19/17 00:23	317
1,2-Dibromoethane (EDB)	ND		250		ppb v/v			01/19/17 00:23	317
1,2-Dichlorobenzene	ND		130		ppb v/v			01/19/17 00:23	317
1,3-Dichlorobenzene	ND		130		ppb v/v			01/19/17 00:23	317
1,4-Dichlorobenzene	ND		130		ppb v/v			01/19/17 00:23	317

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-16**

**Lab Sample ID: 320-25032-7**

**Date Collected: 01/16/17 11:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		130		ppb v/v			01/19/17 00:23	317
1,1-Dichloroethane	ND		95		ppb v/v			01/19/17 00:23	317
1,2-Dichloroethane	ND		250		ppb v/v			01/19/17 00:23	317
1,1-Dichloroethene	ND		250		ppb v/v			01/19/17 00:23	317
<b>cis-1,2-Dichloroethene</b>	<b>8400</b>		130		ppb v/v			01/19/17 00:23	317
<b>trans-1,2-Dichloroethene</b>	<b>1600</b>		130		ppb v/v			01/19/17 00:23	317
1,2-Dichloropropane	ND		130		ppb v/v			01/19/17 00:23	317
cis-1,3-Dichloropropene	ND		130		ppb v/v			01/19/17 00:23	317
trans-1,3-Dichloropropene	ND		130		ppb v/v			01/19/17 00:23	317
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		130		ppb v/v			01/19/17 00:23	317
Ethylbenzene	ND		130		ppb v/v			01/19/17 00:23	317
4-Ethyltoluene	ND		130		ppb v/v			01/19/17 00:23	317
Hexachlorobutadiene	ND		630		ppb v/v			01/19/17 00:23	317
2-Hexanone	ND		130		ppb v/v			01/19/17 00:23	317
Methylene Chloride	ND		130		ppb v/v			01/19/17 00:23	317
4-Methyl-2-pentanone (MIBK)	ND		130		ppb v/v			01/19/17 00:23	317
Styrene	ND		130		ppb v/v			01/19/17 00:23	317
1,1,2,2-Tetrachloroethane	ND		130		ppb v/v			01/19/17 00:23	317
Tetrachloroethene	ND		130		ppb v/v			01/19/17 00:23	317
Toluene	ND		130		ppb v/v			01/19/17 00:23	317
1,2,4-Trichlorobenzene	ND		630		ppb v/v			01/19/17 00:23	317
1,1,1-Trichloroethane	ND		95		ppb v/v			01/19/17 00:23	317
1,1,2-Trichloroethane	ND		130		ppb v/v			01/19/17 00:23	317
Trichloroethene	ND		130		ppb v/v			01/19/17 00:23	317
1,4-Dioxane	ND		250		ppb v/v			01/19/17 00:23	317
Trichlorofluoromethane	ND		130		ppb v/v			01/19/17 00:23	317
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		130		ppb v/v			01/19/17 00:23	317
1,2,4-Trimethylbenzene	ND		250		ppb v/v			01/19/17 00:23	317
1,3,5-Trimethylbenzene	ND		130		ppb v/v			01/19/17 00:23	317
Vinyl acetate	ND		250		ppb v/v			01/19/17 00:23	317
<b>Vinyl chloride</b>	<b>1200</b>		130		ppb v/v			01/19/17 00:23	317
m,p-Xylene	ND		250		ppb v/v			01/19/17 00:23	317
o-Xylene	ND		130		ppb v/v			01/19/17 00:23	317
Naphthalene	ND		250		ppb v/v			01/19/17 00:23	317
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		3800		ug/m3			01/19/17 00:23	317
Benzene	ND		410		ug/m3			01/19/17 00:23	317
Benzyl chloride	ND		1300		ug/m3			01/19/17 00:23	317
Bromodichloromethane	ND		640		ug/m3			01/19/17 00:23	317
Bromoform	ND		1300		ug/m3			01/19/17 00:23	317
Bromomethane	ND		980		ug/m3			01/19/17 00:23	317
2-Butanone (MEK)	ND		750		ug/m3			01/19/17 00:23	317
Carbon disulfide	ND		790		ug/m3			01/19/17 00:23	317
Carbon tetrachloride	ND		1600		ug/m3			01/19/17 00:23	317
Chlorobenzene	ND		440		ug/m3			01/19/17 00:23	317
Dibromochloromethane	ND		1100		ug/m3			01/19/17 00:23	317
Chloroethane	ND		670		ug/m3			01/19/17 00:23	317
Chloroform	ND		460		ug/m3			01/19/17 00:23	317

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-16**

**Lab Sample ID: 320-25032-7**

**Date Collected: 01/16/17 11:32**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		520		ug/m3			01/19/17 00:23	317
1,2-Dibromoethane (EDB)	ND		1900		ug/m3			01/19/17 00:23	317
1,2-Dichlorobenzene	ND		760		ug/m3			01/19/17 00:23	317
1,3-Dichlorobenzene	ND		760		ug/m3			01/19/17 00:23	317
1,4-Dichlorobenzene	ND		760		ug/m3			01/19/17 00:23	317
Dichlorodifluoromethane	ND		630		ug/m3			01/19/17 00:23	317
1,1-Dichloroethane	ND		380		ug/m3			01/19/17 00:23	317
1,2-Dichloroethane	ND		1000		ug/m3			01/19/17 00:23	317
1,1-Dichloroethene	ND		1000		ug/m3			01/19/17 00:23	317
<b>cis-1,2-Dichloroethene</b>	<b>33000</b>		500		ug/m3			01/19/17 00:23	317
<b>trans-1,2-Dichloroethene</b>	<b>6200</b>		500		ug/m3			01/19/17 00:23	317
1,2-Dichloropropane	ND		590		ug/m3			01/19/17 00:23	317
cis-1,3-Dichloropropene	ND		580		ug/m3			01/19/17 00:23	317
trans-1,3-Dichloropropene	ND		580		ug/m3			01/19/17 00:23	317
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		890		ug/m3			01/19/17 00:23	317
Ethylbenzene	ND		550		ug/m3			01/19/17 00:23	317
4-Ethyltoluene	ND		620		ug/m3			01/19/17 00:23	317
Hexachlorobutadiene	ND		6800		ug/m3			01/19/17 00:23	317
2-Hexanone	ND		520		ug/m3			01/19/17 00:23	317
Methylene Chloride	ND		440		ug/m3			01/19/17 00:23	317
4-Methyl-2-pentanone (MIBK)	ND		520		ug/m3			01/19/17 00:23	317
Styrene	ND		540		ug/m3			01/19/17 00:23	317
1,1,2,2-Tetrachloroethane	ND		870		ug/m3			01/19/17 00:23	317
Tetrachloroethene	ND		860		ug/m3			01/19/17 00:23	317
Toluene	ND		480		ug/m3			01/19/17 00:23	317
1,2,4-Trichlorobenzene	ND		4700		ug/m3			01/19/17 00:23	317
1,1,1-Trichloroethane	ND		520		ug/m3			01/19/17 00:23	317
1,1,2-Trichloroethane	ND		690		ug/m3			01/19/17 00:23	317
Trichloroethene	ND		680		ug/m3			01/19/17 00:23	317
1,4-Dioxane	ND		910		ug/m3			01/19/17 00:23	317
Trichlorofluoromethane	ND		710		ug/m3			01/19/17 00:23	317
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		970		ug/m3			01/19/17 00:23	317
1,2,4-Trimethylbenzene	ND		1200		ug/m3			01/19/17 00:23	317
1,3,5-Trimethylbenzene	ND		620		ug/m3			01/19/17 00:23	317
Vinyl acetate	ND		890		ug/m3			01/19/17 00:23	317
<b>Vinyl chloride</b>	<b>3000</b>		320		ug/m3			01/19/17 00:23	317
m,p-Xylene	ND		1100		ug/m3			01/19/17 00:23	317
o-Xylene	ND		550		ug/m3			01/19/17 00:23	317
Naphthalene	ND		1300		ug/m3			01/19/17 00:23	317

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130		01/19/17 00:23	317
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		01/19/17 00:23	317
Toluene-d8 (Surr)	102		70 - 130		01/19/17 00:23	317

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-17**

**Lab Sample ID: 320-25032-8**

**Date Collected: 01/16/17 11:33**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>19</b>		5.0		ppb v/v			01/19/17 01:18	1
<b>Benzene</b>	<b>0.46</b>		0.40		ppb v/v			01/19/17 01:18	1
Benzyl chloride	ND		0.80		ppb v/v			01/19/17 01:18	1
Bromodichloromethane	ND		0.30		ppb v/v			01/19/17 01:18	1
Bromoform	ND		0.40		ppb v/v			01/19/17 01:18	1
Bromomethane	ND		0.80		ppb v/v			01/19/17 01:18	1
<b>2-Butanone (MEK)</b>	<b>1.2</b>		0.80		ppb v/v			01/19/17 01:18	1
Carbon disulfide	ND		0.80		ppb v/v			01/19/17 01:18	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/19/17 01:18	1
Chlorobenzene	ND		0.30		ppb v/v			01/19/17 01:18	1
Dibromochloromethane	ND		0.40		ppb v/v			01/19/17 01:18	1
Chloroethane	ND		0.80		ppb v/v			01/19/17 01:18	1
Chloroform	ND		0.30		ppb v/v			01/19/17 01:18	1
Chloromethane	ND		0.80		ppb v/v			01/19/17 01:18	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/19/17 01:18	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 01:18	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 01:18	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 01:18	1
<b>Dichlorodifluoromethane</b>	<b>0.51</b>		0.40		ppb v/v			01/19/17 01:18	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/19/17 01:18	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/19/17 01:18	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/19/17 01:18	1
<b>cis-1,2-Dichloroethene</b>	<b>2.2</b>		0.40		ppb v/v			01/19/17 01:18	1
<b>trans-1,2-Dichloroethene</b>	<b>0.52</b>		0.40		ppb v/v			01/19/17 01:18	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/19/17 01:18	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 01:18	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 01:18	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/19/17 01:18	1
<b>Ethylbenzene</b>	<b>1.6</b>		0.40		ppb v/v			01/19/17 01:18	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/19/17 01:18	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/19/17 01:18	1
2-Hexanone	ND		0.40		ppb v/v			01/19/17 01:18	1
Methylene Chloride	ND		0.40		ppb v/v			01/19/17 01:18	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/19/17 01:18	1
Styrene	ND		0.40		ppb v/v			01/19/17 01:18	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/19/17 01:18	1
Tetrachloroethene	ND		0.40		ppb v/v			01/19/17 01:18	1
<b>Toluene</b>	<b>2.7</b>		0.40		ppb v/v			01/19/17 01:18	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/19/17 01:18	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/19/17 01:18	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/19/17 01:18	1
Trichloroethene	ND		0.40		ppb v/v			01/19/17 01:18	1
1,4-Dioxane	ND		0.80		ppb v/v			01/19/17 01:18	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/19/17 01:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/19/17 01:18	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/19/17 01:18	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/19/17 01:18	1
Vinyl acetate	ND		0.80		ppb v/v			01/19/17 01:18	1

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-17**

**Lab Sample ID: 320-25032-8**

**Date Collected: 01/16/17 11:33**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	3.6		0.40		ppb v/v			01/19/17 01:18	1
m,p-Xylene	4.8		0.80		ppb v/v			01/19/17 01:18	1
o-Xylene	1.2		0.40		ppb v/v			01/19/17 01:18	1
Naphthalene	ND		0.80		ppb v/v			01/19/17 01:18	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	45		12		ug/m3			01/19/17 01:18	1
Benzene	1.5		1.3		ug/m3			01/19/17 01:18	1
Benzyl chloride	ND		4.1		ug/m3			01/19/17 01:18	1
Bromodichloromethane	ND		2.0		ug/m3			01/19/17 01:18	1
Bromoform	ND		4.1		ug/m3			01/19/17 01:18	1
Bromomethane	ND		3.1		ug/m3			01/19/17 01:18	1
2-Butanone (MEK)	3.4		2.4		ug/m3			01/19/17 01:18	1
Carbon disulfide	ND		2.5		ug/m3			01/19/17 01:18	1
Carbon tetrachloride	ND		5.0		ug/m3			01/19/17 01:18	1
Chlorobenzene	ND		1.4		ug/m3			01/19/17 01:18	1
Dibromochloromethane	ND		3.4		ug/m3			01/19/17 01:18	1
Chloroethane	ND		2.1		ug/m3			01/19/17 01:18	1
Chloroform	ND		1.5		ug/m3			01/19/17 01:18	1
Chloromethane	ND		1.7		ug/m3			01/19/17 01:18	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/19/17 01:18	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 01:18	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 01:18	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 01:18	1
Dichlorodifluoromethane	2.5		2.0		ug/m3			01/19/17 01:18	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/19/17 01:18	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/19/17 01:18	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/19/17 01:18	1
cis-1,2-Dichloroethene	8.8		1.6		ug/m3			01/19/17 01:18	1
trans-1,2-Dichloroethene	2.1		1.6		ug/m3			01/19/17 01:18	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/19/17 01:18	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 01:18	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 01:18	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/19/17 01:18	1
Ethylbenzene	7.0		1.7		ug/m3			01/19/17 01:18	1
4-Ethyltoluene	ND		2.0		ug/m3			01/19/17 01:18	1
Hexachlorobutadiene	ND		21		ug/m3			01/19/17 01:18	1
2-Hexanone	ND		1.6		ug/m3			01/19/17 01:18	1
Methylene Chloride	ND		1.4		ug/m3			01/19/17 01:18	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/19/17 01:18	1
Styrene	ND		1.7		ug/m3			01/19/17 01:18	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/19/17 01:18	1
Tetrachloroethene	ND		2.7		ug/m3			01/19/17 01:18	1
Toluene	10		1.5		ug/m3			01/19/17 01:18	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/19/17 01:18	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/19/17 01:18	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/19/17 01:18	1
Trichloroethene	ND		2.1		ug/m3			01/19/17 01:18	1
1,4-Dioxane	ND		2.9		ug/m3			01/19/17 01:18	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-17**

**Lab Sample ID: 320-25032-8**

**Date Collected: 01/16/17 11:33**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		2.2		ug/m3			01/19/17 01:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/19/17 01:18	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/19/17 01:18	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/19/17 01:18	1
Vinyl acetate	ND		2.8		ug/m3			01/19/17 01:18	1
<b>Vinyl chloride</b>	<b>9.3</b>		1.0		ug/m3			01/19/17 01:18	1
<b>m,p-Xylene</b>	<b>21</b>		3.5		ug/m3			01/19/17 01:18	1
<b>o-Xylene</b>	<b>5.4</b>		1.7		ug/m3			01/19/17 01:18	1
Naphthalene	ND		4.2		ug/m3			01/19/17 01:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130					01/19/17 01:18	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					01/19/17 01:18	1
Toluene-d8 (Surr)	101		70 - 130					01/19/17 01:18	1

**Client Sample ID: SVE-18**

**Lab Sample ID: 320-25032-9**

**Date Collected: 01/16/17 11:44**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>15</b>		5.0		ppb v/v			01/19/17 02:14	1
<b>Benzene</b>	<b>0.46</b>		0.40		ppb v/v			01/19/17 02:14	1
Benzyl chloride	ND		0.80		ppb v/v			01/19/17 02:14	1
Bromodichloromethane	ND		0.30		ppb v/v			01/19/17 02:14	1
Bromoform	ND		0.40		ppb v/v			01/19/17 02:14	1
Bromomethane	ND		0.80		ppb v/v			01/19/17 02:14	1
<b>2-Butanone (MEK)</b>	<b>5.3</b>		0.80		ppb v/v			01/19/17 02:14	1
Carbon disulfide	ND		0.80		ppb v/v			01/19/17 02:14	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/19/17 02:14	1
Chlorobenzene	ND		0.30		ppb v/v			01/19/17 02:14	1
Dibromochloromethane	ND		0.40		ppb v/v			01/19/17 02:14	1
Chloroethane	ND		0.80		ppb v/v			01/19/17 02:14	1
Chloroform	ND		0.30		ppb v/v			01/19/17 02:14	1
Chloromethane	ND		0.80		ppb v/v			01/19/17 02:14	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/19/17 02:14	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 02:14	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 02:14	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 02:14	1
<b>Dichlorodifluoromethane</b>	<b>0.50</b>		0.40		ppb v/v			01/19/17 02:14	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/19/17 02:14	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/19/17 02:14	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/19/17 02:14	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 02:14	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 02:14	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/19/17 02:14	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 02:14	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 02:14	1

TestAmerica Sacramento



# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-18**

**Lab Sample ID: 320-25032-9**

**Date Collected: 01/16/17 11:44**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/19/17 02:14	1
<b>Ethylbenzene</b>	<b>1.0</b>		0.40		ppb v/v			01/19/17 02:14	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/19/17 02:14	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/19/17 02:14	1
2-Hexanone	ND		0.40		ppb v/v			01/19/17 02:14	1
Methylene Chloride	ND		0.40		ppb v/v			01/19/17 02:14	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/19/17 02:14	1
Styrene	ND		0.40		ppb v/v			01/19/17 02:14	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/19/17 02:14	1
Tetrachloroethene	ND		0.40		ppb v/v			01/19/17 02:14	1
<b>Toluene</b>	<b>1.6</b>		0.40		ppb v/v			01/19/17 02:14	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/19/17 02:14	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/19/17 02:14	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/19/17 02:14	1
Trichloroethene	ND		0.40		ppb v/v			01/19/17 02:14	1
1,4-Dioxane	ND		0.80		ppb v/v			01/19/17 02:14	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/19/17 02:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/19/17 02:14	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/19/17 02:14	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/19/17 02:14	1
Vinyl acetate	ND		0.80		ppb v/v			01/19/17 02:14	1
Vinyl chloride	ND		0.40		ppb v/v			01/19/17 02:14	1
<b>m,p-Xylene</b>	<b>3.7</b>		0.80		ppb v/v			01/19/17 02:14	1
<b>o-Xylene</b>	<b>1.1</b>		0.40		ppb v/v			01/19/17 02:14	1
Naphthalene	ND		0.80		ppb v/v			01/19/17 02:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>35</b>		12		ug/m3			01/19/17 02:14	1
<b>Benzene</b>	<b>1.5</b>		1.3		ug/m3			01/19/17 02:14	1
Benzyl chloride	ND		4.1		ug/m3			01/19/17 02:14	1
Bromodichloromethane	ND		2.0		ug/m3			01/19/17 02:14	1
Bromoform	ND		4.1		ug/m3			01/19/17 02:14	1
Bromomethane	ND		3.1		ug/m3			01/19/17 02:14	1
<b>2-Butanone (MEK)</b>	<b>16</b>		2.4		ug/m3			01/19/17 02:14	1
Carbon disulfide	ND		2.5		ug/m3			01/19/17 02:14	1
Carbon tetrachloride	ND		5.0		ug/m3			01/19/17 02:14	1
Chlorobenzene	ND		1.4		ug/m3			01/19/17 02:14	1
Dibromochloromethane	ND		3.4		ug/m3			01/19/17 02:14	1
Chloroethane	ND		2.1		ug/m3			01/19/17 02:14	1
Chloroform	ND		1.5		ug/m3			01/19/17 02:14	1
Chloromethane	ND		1.7		ug/m3			01/19/17 02:14	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/19/17 02:14	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 02:14	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 02:14	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 02:14	1
<b>Dichlorodifluoromethane</b>	<b>2.5</b>		2.0		ug/m3			01/19/17 02:14	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/19/17 02:14	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/19/17 02:14	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/19/17 02:14	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-18**

**Lab Sample ID: 320-25032-9**

**Date Collected: 01/16/17 11:44**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 02:14	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 02:14	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/19/17 02:14	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 02:14	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 02:14	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/19/17 02:14	1
<b>Ethylbenzene</b>	<b>4.4</b>		1.7		ug/m3			01/19/17 02:14	1
4-Ethyltoluene	ND		2.0		ug/m3			01/19/17 02:14	1
Hexachlorobutadiene	ND		21		ug/m3			01/19/17 02:14	1
2-Hexanone	ND		1.6		ug/m3			01/19/17 02:14	1
Methylene Chloride	ND		1.4		ug/m3			01/19/17 02:14	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/19/17 02:14	1
Styrene	ND		1.7		ug/m3			01/19/17 02:14	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/19/17 02:14	1
Tetrachloroethene	ND		2.7		ug/m3			01/19/17 02:14	1
<b>Toluene</b>	<b>6.2</b>		1.5		ug/m3			01/19/17 02:14	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/19/17 02:14	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/19/17 02:14	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/19/17 02:14	1
Trichloroethene	ND		2.1		ug/m3			01/19/17 02:14	1
1,4-Dioxane	ND		2.9		ug/m3			01/19/17 02:14	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/19/17 02:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/19/17 02:14	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/19/17 02:14	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/19/17 02:14	1
Vinyl acetate	ND		2.8		ug/m3			01/19/17 02:14	1
Vinyl chloride	ND		1.0		ug/m3			01/19/17 02:14	1
<b>m,p-Xylene</b>	<b>16</b>		3.5		ug/m3			01/19/17 02:14	1
<b>o-Xylene</b>	<b>4.6</b>		1.7		ug/m3			01/19/17 02:14	1
Naphthalene	ND		4.2		ug/m3			01/19/17 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		01/19/17 02:14	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/19/17 02:14	1
Toluene-d8 (Surr)	101		70 - 130		01/19/17 02:14	1

**Client Sample ID: SVE-Influent**

**Lab Sample ID: 320-25032-10**

**Date Collected: 01/16/17 11:58**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>13</b>		5.0		ppb v/v			01/19/17 03:09	1
<b>Benzene</b>	<b>0.61</b>		0.40		ppb v/v			01/19/17 03:09	1
Benzyl chloride	ND		0.80		ppb v/v			01/19/17 03:09	1
Bromodichloromethane	ND		0.30		ppb v/v			01/19/17 03:09	1
Bromoform	ND		0.40		ppb v/v			01/19/17 03:09	1
Bromomethane	ND		0.80		ppb v/v			01/19/17 03:09	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-Influent**

**Lab Sample ID: 320-25032-10**

**Date Collected: 01/16/17 11:58**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>2-Butanone (MEK)</b>	<b>2.2</b>		0.80		ppb v/v			01/19/17 03:09	1
Carbon disulfide	ND		0.80		ppb v/v			01/19/17 03:09	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/19/17 03:09	1
Chlorobenzene	ND		0.30		ppb v/v			01/19/17 03:09	1
Dibromochloromethane	ND		0.40		ppb v/v			01/19/17 03:09	1
Chloroethane	ND		0.80		ppb v/v			01/19/17 03:09	1
Chloroform	ND		0.30		ppb v/v			01/19/17 03:09	1
Chloromethane	ND		0.80		ppb v/v			01/19/17 03:09	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/19/17 03:09	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 03:09	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 03:09	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/19/17 03:09	1
<b>Dichlorodifluoromethane</b>	<b>0.52</b>		0.40		ppb v/v			01/19/17 03:09	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/19/17 03:09	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/19/17 03:09	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/19/17 03:09	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 03:09	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/19/17 03:09	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/19/17 03:09	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 03:09	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/19/17 03:09	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/19/17 03:09	1
Ethylbenzene	ND		0.40		ppb v/v			01/19/17 03:09	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/19/17 03:09	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/19/17 03:09	1
2-Hexanone	ND		0.40		ppb v/v			01/19/17 03:09	1
Methylene Chloride	ND		0.40		ppb v/v			01/19/17 03:09	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/19/17 03:09	1
Styrene	ND		0.40		ppb v/v			01/19/17 03:09	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/19/17 03:09	1
Tetrachloroethene	ND		0.40		ppb v/v			01/19/17 03:09	1
<b>Toluene</b>	<b>0.92</b>		0.40		ppb v/v			01/19/17 03:09	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/19/17 03:09	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/19/17 03:09	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/19/17 03:09	1
<b>Trichloroethene</b>	<b>0.42</b>		0.40		ppb v/v			01/19/17 03:09	1
1,4-Dioxane	ND		0.80		ppb v/v			01/19/17 03:09	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/19/17 03:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/19/17 03:09	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/19/17 03:09	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/19/17 03:09	1
Vinyl acetate	ND		0.80		ppb v/v			01/19/17 03:09	1
Vinyl chloride	ND		0.40		ppb v/v			01/19/17 03:09	1
m,p-Xylene	ND		0.80		ppb v/v			01/19/17 03:09	1
o-Xylene	ND		0.40		ppb v/v			01/19/17 03:09	1
Naphthalene	ND		0.80		ppb v/v			01/19/17 03:09	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>32</b>		12		ug/m3			01/19/17 03:09	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-Influent**

**Lab Sample ID: 320-25032-10**

**Date Collected: 01/16/17 11:58**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>2.0</b>		1.3		ug/m3			01/19/17 03:09	1
Benzyl chloride	ND		4.1		ug/m3			01/19/17 03:09	1
Bromodichloromethane	ND		2.0		ug/m3			01/19/17 03:09	1
Bromoform	ND		4.1		ug/m3			01/19/17 03:09	1
Bromomethane	ND		3.1		ug/m3			01/19/17 03:09	1
<b>2-Butanone (MEK)</b>	<b>6.5</b>		2.4		ug/m3			01/19/17 03:09	1
Carbon disulfide	ND		2.5		ug/m3			01/19/17 03:09	1
Carbon tetrachloride	ND		5.0		ug/m3			01/19/17 03:09	1
Chlorobenzene	ND		1.4		ug/m3			01/19/17 03:09	1
Dibromochloromethane	ND		3.4		ug/m3			01/19/17 03:09	1
Chloroethane	ND		2.1		ug/m3			01/19/17 03:09	1
Chloroform	ND		1.5		ug/m3			01/19/17 03:09	1
Chloromethane	ND		1.7		ug/m3			01/19/17 03:09	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/19/17 03:09	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 03:09	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 03:09	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/19/17 03:09	1
<b>Dichlorodifluoromethane</b>	<b>2.6</b>		2.0		ug/m3			01/19/17 03:09	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/19/17 03:09	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/19/17 03:09	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/19/17 03:09	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 03:09	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/19/17 03:09	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/19/17 03:09	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 03:09	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/19/17 03:09	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/19/17 03:09	1
Ethylbenzene	ND		1.7		ug/m3			01/19/17 03:09	1
4-Ethyltoluene	ND		2.0		ug/m3			01/19/17 03:09	1
Hexachlorobutadiene	ND		21		ug/m3			01/19/17 03:09	1
2-Hexanone	ND		1.6		ug/m3			01/19/17 03:09	1
Methylene Chloride	ND		1.4		ug/m3			01/19/17 03:09	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/19/17 03:09	1
Styrene	ND		1.7		ug/m3			01/19/17 03:09	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/19/17 03:09	1
Tetrachloroethene	ND		2.7		ug/m3			01/19/17 03:09	1
<b>Toluene</b>	<b>3.5</b>		1.5		ug/m3			01/19/17 03:09	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/19/17 03:09	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/19/17 03:09	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/19/17 03:09	1
<b>Trichloroethene</b>	<b>2.3</b>		2.1		ug/m3			01/19/17 03:09	1
1,4-Dioxane	ND		2.9		ug/m3			01/19/17 03:09	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/19/17 03:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/19/17 03:09	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/19/17 03:09	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/19/17 03:09	1
Vinyl acetate	ND		2.8		ug/m3			01/19/17 03:09	1
Vinyl chloride	ND		1.0		ug/m3			01/19/17 03:09	1

TestAmerica Sacramento

# Client Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-Influent**

**Lab Sample ID: 320-25032-10**

**Date Collected: 01/16/17 11:58**

**Matrix: Air**

**Date Received: 01/16/17 15:05**

**Sample Container: Summa Canister 1L**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		3.5		ug/m3			01/19/17 03:09	1
o-Xylene	ND		1.7		ug/m3			01/19/17 03:09	1
Naphthalene	ND		4.2		ug/m3			01/19/17 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130					01/19/17 03:09	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130					01/19/17 03:09	1
Toluene-d8 (Surr)	102		70 - 130					01/19/17 03:09	1

# Surrogate Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

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

Matrix: Air

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	12DCE (70-130)	TOL (70-130)
320-25032-1	SVE-1	101	101	101
320-25032-2	SVE-4	99	100	103
320-25032-3	SVE-9	100	100	100
320-25032-4	SVE-10	106	104	102
320-25032-5	SVE-12	101	99	102
320-25032-6	SVE-15	100	99	103
320-25032-7	SVE-16	80	101	102
320-25032-8	SVE-17	103	100	101
320-25032-9	SVE-18	101	99	101
320-25032-10	SVE-Influent	96	102	102
LCS 320-146793/3	Lab Control Sample	109	101	99
LCSD 320-146793/4	Lab Control Sample Dup	108	96	100
MB 320-146793/6	Method Blank	85	99	101

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

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

**Lab Sample ID: MB 320-146793/6**  
**Matrix: Air**  
**Analysis Batch: 146793**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		5.0		ppb v/v			01/18/17 18:00	1
Benzene	ND		0.40		ppb v/v			01/18/17 18:00	1
Benzyl chloride	ND		0.80		ppb v/v			01/18/17 18:00	1
Bromodichloromethane	ND		0.30		ppb v/v			01/18/17 18:00	1
Bromoform	ND		0.40		ppb v/v			01/18/17 18:00	1
Bromomethane	ND		0.80		ppb v/v			01/18/17 18:00	1
2-Butanone (MEK)	ND		0.80		ppb v/v			01/18/17 18:00	1
Carbon disulfide	ND		0.80		ppb v/v			01/18/17 18:00	1
Carbon tetrachloride	ND		0.80		ppb v/v			01/18/17 18:00	1
Chlorobenzene	ND		0.30		ppb v/v			01/18/17 18:00	1
Dibromochloromethane	ND		0.40		ppb v/v			01/18/17 18:00	1
Chloroethane	ND		0.80		ppb v/v			01/18/17 18:00	1
Chloroform	ND		0.30		ppb v/v			01/18/17 18:00	1
Chloromethane	ND		0.80		ppb v/v			01/18/17 18:00	1
1,2-Dibromoethane (EDB)	ND		0.80		ppb v/v			01/18/17 18:00	1
1,2-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,3-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,4-Dichlorobenzene	ND		0.40		ppb v/v			01/18/17 18:00	1
Dichlorodifluoromethane	ND		0.40		ppb v/v			01/18/17 18:00	1
1,1-Dichloroethane	ND		0.30		ppb v/v			01/18/17 18:00	1
1,2-Dichloroethane	ND		0.80		ppb v/v			01/18/17 18:00	1
1,1-Dichloroethene	ND		0.80		ppb v/v			01/18/17 18:00	1
cis-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 18:00	1
trans-1,2-Dichloroethene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,2-Dichloropropane	ND		0.40		ppb v/v			01/18/17 18:00	1
cis-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 18:00	1
trans-1,3-Dichloropropene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40		ppb v/v			01/18/17 18:00	1
Ethylbenzene	ND		0.40		ppb v/v			01/18/17 18:00	1
4-Ethyltoluene	ND		0.40		ppb v/v			01/18/17 18:00	1
Hexachlorobutadiene	ND		2.0		ppb v/v			01/18/17 18:00	1
2-Hexanone	ND		0.40		ppb v/v			01/18/17 18:00	1
Methylene Chloride	ND		0.40		ppb v/v			01/18/17 18:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.40		ppb v/v			01/18/17 18:00	1
Styrene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,1,2,2-Tetrachloroethane	ND		0.40		ppb v/v			01/18/17 18:00	1
Tetrachloroethene	ND		0.40		ppb v/v			01/18/17 18:00	1
Toluene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,2,4-Trichlorobenzene	ND		2.0		ppb v/v			01/18/17 18:00	1
1,1,1-Trichloroethane	ND		0.30		ppb v/v			01/18/17 18:00	1
1,1,2-Trichloroethane	ND		0.40		ppb v/v			01/18/17 18:00	1
Trichloroethene	ND		0.40		ppb v/v			01/18/17 18:00	1
1,4-Dioxane	ND		0.80		ppb v/v			01/18/17 18:00	1
Trichlorofluoromethane	ND		0.40		ppb v/v			01/18/17 18:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40		ppb v/v			01/18/17 18:00	1
1,2,4-Trimethylbenzene	ND		0.80		ppb v/v			01/18/17 18:00	1
1,3,5-Trimethylbenzene	ND		0.40		ppb v/v			01/18/17 18:00	1
Vinyl acetate	ND		0.80		ppb v/v			01/18/17 18:00	1

TestAmerica Sacramento

# QC Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 320-146793/6**  
**Matrix: Air**  
**Analysis Batch: 146793**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl chloride	ND		0.40		ppb v/v			01/18/17 18:00	1
m,p-Xylene	ND		0.80		ppb v/v			01/18/17 18:00	1
o-Xylene	ND		0.40		ppb v/v			01/18/17 18:00	1
Naphthalene	ND		0.80		ppb v/v			01/18/17 18:00	1
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		12		ug/m3			01/18/17 18:00	1
Benzene	ND		1.3		ug/m3			01/18/17 18:00	1
Benzyl chloride	ND		4.1		ug/m3			01/18/17 18:00	1
Bromodichloromethane	ND		2.0		ug/m3			01/18/17 18:00	1
Bromoform	ND		4.1		ug/m3			01/18/17 18:00	1
Bromomethane	ND		3.1		ug/m3			01/18/17 18:00	1
2-Butanone (MEK)	ND		2.4		ug/m3			01/18/17 18:00	1
Carbon disulfide	ND		2.5		ug/m3			01/18/17 18:00	1
Carbon tetrachloride	ND		5.0		ug/m3			01/18/17 18:00	1
Chlorobenzene	ND		1.4		ug/m3			01/18/17 18:00	1
Dibromochloromethane	ND		3.4		ug/m3			01/18/17 18:00	1
Chloroethane	ND		2.1		ug/m3			01/18/17 18:00	1
Chloroform	ND		1.5		ug/m3			01/18/17 18:00	1
Chloromethane	ND		1.7		ug/m3			01/18/17 18:00	1
1,2-Dibromoethane (EDB)	ND		6.1		ug/m3			01/18/17 18:00	1
1,2-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 18:00	1
1,3-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 18:00	1
1,4-Dichlorobenzene	ND		2.4		ug/m3			01/18/17 18:00	1
Dichlorodifluoromethane	ND		2.0		ug/m3			01/18/17 18:00	1
1,1-Dichloroethane	ND		1.2		ug/m3			01/18/17 18:00	1
1,2-Dichloroethane	ND		3.2		ug/m3			01/18/17 18:00	1
1,1-Dichloroethene	ND		3.2		ug/m3			01/18/17 18:00	1
cis-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 18:00	1
trans-1,2-Dichloroethene	ND		1.6		ug/m3			01/18/17 18:00	1
1,2-Dichloropropane	ND		1.8		ug/m3			01/18/17 18:00	1
cis-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 18:00	1
trans-1,3-Dichloropropene	ND		1.8		ug/m3			01/18/17 18:00	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8		ug/m3			01/18/17 18:00	1
Ethylbenzene	ND		1.7		ug/m3			01/18/17 18:00	1
4-Ethyltoluene	ND		2.0		ug/m3			01/18/17 18:00	1
Hexachlorobutadiene	ND		21		ug/m3			01/18/17 18:00	1
2-Hexanone	ND		1.6		ug/m3			01/18/17 18:00	1
Methylene Chloride	ND		1.4		ug/m3			01/18/17 18:00	1
4-Methyl-2-pentanone (MIBK)	ND		1.6		ug/m3			01/18/17 18:00	1
Styrene	ND		1.7		ug/m3			01/18/17 18:00	1
1,1,2,2-Tetrachloroethane	ND		2.7		ug/m3			01/18/17 18:00	1
Tetrachloroethene	ND		2.7		ug/m3			01/18/17 18:00	1
Toluene	ND		1.5		ug/m3			01/18/17 18:00	1
1,2,4-Trichlorobenzene	ND		15		ug/m3			01/18/17 18:00	1
1,1,1-Trichloroethane	ND		1.6		ug/m3			01/18/17 18:00	1
1,1,2-Trichloroethane	ND		2.2		ug/m3			01/18/17 18:00	1
Trichloroethene	ND		2.1		ug/m3			01/18/17 18:00	1

TestAmerica Sacramento



# QC Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 320-146793/6**

**Matrix: Air**

**Analysis Batch: 146793**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2.9		ug/m3			01/18/17 18:00	1
Trichlorofluoromethane	ND		2.2		ug/m3			01/18/17 18:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1		ug/m3			01/18/17 18:00	1
1,2,4-Trimethylbenzene	ND		3.9		ug/m3			01/18/17 18:00	1
1,3,5-Trimethylbenzene	ND		2.0		ug/m3			01/18/17 18:00	1
Vinyl acetate	ND		2.8		ug/m3			01/18/17 18:00	1
Vinyl chloride	ND		1.0		ug/m3			01/18/17 18:00	1
m,p-Xylene	ND		3.5		ug/m3			01/18/17 18:00	1
o-Xylene	ND		1.7		ug/m3			01/18/17 18:00	1
Naphthalene	ND		4.2		ug/m3			01/18/17 18:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130		01/18/17 18:00	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/18/17 18:00	1
Toluene-d8 (Surr)	101		70 - 130		01/18/17 18:00	1

**Lab Sample ID: LCS 320-146793/3**

**Matrix: Air**

**Analysis Batch: 146793**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	18.2		ppb v/v		91	71 - 131
Benzene	20.0	18.7		ppb v/v		93	68 - 128
Benzyl chloride	20.0	15.6		ppb v/v		78	58 - 120
Bromodichloromethane	20.0	18.6		ppb v/v		93	65 - 130
Bromoform	20.0	18.7		ppb v/v		93	64 - 144
Bromomethane	20.0	20.8		ppb v/v		104	70 - 131
2-Butanone (MEK)	20.0	18.3		ppb v/v		92	71 - 131
Carbon disulfide	20.0	18.1		ppb v/v		91	63 - 123
Carbon tetrachloride	20.0	18.7		ppb v/v		93	67 - 127
Chlorobenzene	20.0	19.0		ppb v/v		95	70 - 132
Dibromochloromethane	20.0	18.9		ppb v/v		95	68 - 128
Chloroethane	20.0	20.9		ppb v/v		104	70 - 131
Chloroform	20.0	18.9		ppb v/v		94	69 - 129
Chloromethane	20.0	21.3		ppb v/v		106	67 - 127
1,2-Dibromoethane (EDB)	20.0	19.4		ppb v/v		97	68 - 131
1,2-Dichlorobenzene	20.0	18.4		ppb v/v		92	73 - 143
1,3-Dichlorobenzene	20.0	19.0		ppb v/v		95	77 - 136
1,4-Dichlorobenzene	20.0	18.8		ppb v/v		94	73 - 143
Dichlorodifluoromethane	20.0	19.8		ppb v/v		99	69 - 129
1,1-Dichloroethane	20.0	19.3		ppb v/v		97	65 - 125
1,2-Dichloroethane	20.0	19.0		ppb v/v		95	71 - 131
1,1-Dichloroethene	20.0	17.8		ppb v/v		89	53 - 128
cis-1,2-Dichloroethene	20.0	18.7		ppb v/v		93	68 - 128
trans-1,2-Dichloroethene	20.0	19.0		ppb v/v		95	70 - 130
1,2-Dichloropropane	20.0	19.7		ppb v/v		98	74 - 128
cis-1,3-Dichloropropene	20.0	20.4		ppb v/v		102	78 - 132
trans-1,3-Dichloropropene	20.0	17.7		ppb v/v		88	56 - 136

TestAmerica Sacramento

# QC Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 320-146793/3**

**Matrix: Air**

**Analysis Batch: 146793**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloro-1,1,2,2-tetrafluoroethane	20.0	20.6		ppb v/v		103	64 - 124
Ethylbenzene	20.0	19.1		ppb v/v		96	76 - 136
4-Ethyltoluene	20.0	19.3		ppb v/v		96	62 - 136
Hexachlorobutadiene	20.0	14.4		ppb v/v		72	42 - 150
2-Hexanone	20.0	19.2		ppb v/v		96	70 - 128
Methylene Chloride	20.0	18.4		ppb v/v		92	65 - 125
4-Methyl-2-pentanone (MIBK)	20.0	19.0		ppb v/v		95	73 - 133
Styrene	20.0	19.4		ppb v/v		97	76 - 144
1,1,2,2-Tetrachloroethane	20.0	19.6		ppb v/v		98	75 - 135
Tetrachloroethene	20.0	18.8		ppb v/v		94	56 - 138
Toluene	20.0	18.8		ppb v/v		94	71 - 132
1,2,4-Trichlorobenzene	20.0	14.7		ppb v/v		74	59 - 150
1,1,1-Trichloroethane	20.0	18.8		ppb v/v		94	65 - 124
1,1,2-Trichloroethane	20.0	19.8		ppb v/v		99	71 - 131
Trichloroethene	20.0	18.7		ppb v/v		94	64 - 127
1,4-Dioxane	20.0	18.0		ppb v/v		90	55 - 141
Trichlorofluoromethane	20.0	19.4		ppb v/v		97	68 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.6		ppb v/v		88	50 - 132
1,2,4-Trimethylbenzene	20.0	17.3		ppb v/v		87	61 - 145
1,3,5-Trimethylbenzene	20.0	19.5		ppb v/v		97	65 - 136
Vinyl acetate	20.0	20.9		ppb v/v		104	77 - 134
Vinyl chloride	20.0	21.3		ppb v/v		106	69 - 129
m,p-Xylene	40.0	39.1		ppb v/v		98	75 - 138
o-Xylene	20.0	19.7		ppb v/v		99	77 - 132
Naphthalene	20.0	15.3		ppb v/v		76	58 - 150
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	48	43.3		ug/m3		91	71 - 131
Benzene	64	59.6		ug/m3		93	68 - 128
Benzyl chloride	100	80.7		ug/m3		78	58 - 120
Bromodichloromethane	130	125		ug/m3		93	65 - 130
Bromoform	210	193		ug/m3		93	64 - 144
Bromomethane	78	80.8		ug/m3		104	70 - 131
2-Butanone (MEK)	59	54.0		ug/m3		92	71 - 131
Carbon disulfide	62	56.5		ug/m3		91	63 - 123
Carbon tetrachloride	130	117		ug/m3		93	67 - 127
Chlorobenzene	92	87.3		ug/m3		95	70 - 132
Dibromochloromethane	170	161		ug/m3		95	68 - 128
Chloroethane	53	55.2		ug/m3		104	70 - 131
Chloroform	98	92.1		ug/m3		94	69 - 129
Chloromethane	41	43.9		ug/m3		106	67 - 127
1,2-Dibromoethane (EDB)	150	149		ug/m3		97	68 - 131
1,2-Dichlorobenzene	120	111		ug/m3		92	73 - 143
1,3-Dichlorobenzene	120	114		ug/m3		95	77 - 136
1,4-Dichlorobenzene	120	113		ug/m3		94	73 - 143
Dichlorodifluoromethane	99	97.9		ug/m3		99	69 - 129
1,1-Dichloroethane	81	78.1		ug/m3		97	65 - 125

TestAmerica Sacramento

# QC Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 320-146793/3**

**Matrix: Air**

**Analysis Batch: 146793**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	81	77.1		ug/m3		95	71 - 131
1,1-Dichloroethene	79	70.5		ug/m3		89	53 - 128
cis-1,2-Dichloroethene	79	74.1		ug/m3		93	68 - 128
trans-1,2-Dichloroethene	79	75.1		ug/m3		95	70 - 130
1,2-Dichloropropane	92	90.8		ug/m3		98	74 - 128
cis-1,3-Dichloropropene	91	92.4		ug/m3		102	78 - 132
trans-1,3-Dichloropropene	91	80.2		ug/m3		88	56 - 136
1,2-Dichloro-1,1,2,2-tetrafluoroethane	140	144		ug/m3		103	64 - 124
Ethylbenzene	87	83.1		ug/m3		96	76 - 136
4-Ethyltoluene	98	94.8		ug/m3		96	62 - 136
Hexachlorobutadiene	210	154		ug/m3		72	42 - 150
2-Hexanone	82	78.8		ug/m3		96	70 - 128
Methylene Chloride	69	63.9		ug/m3		92	65 - 125
4-Methyl-2-pentanone (MIBK)	82	77.7		ug/m3		95	73 - 133
Styrene	85	82.6		ug/m3		97	76 - 144
1,1,2,2-Tetrachloroethane	140	134		ug/m3		98	75 - 135
Tetrachloroethene	140	127		ug/m3		94	56 - 138
Toluene	75	71.0		ug/m3		94	71 - 132
1,2,4-Trichlorobenzene	150	109		ug/m3		74	59 - 150
1,1,1-Trichloroethane	110	102		ug/m3		94	65 - 124
1,1,2-Trichloroethane	110	108		ug/m3		99	71 - 131
Trichloroethene	110	101		ug/m3		94	64 - 127
1,4-Dioxane	72	64.8		ug/m3		90	55 - 141
Trichlorofluoromethane	110	109		ug/m3		97	68 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	150	135		ug/m3		88	50 - 132
1,2,4-Trimethylbenzene	98	85.2		ug/m3		87	61 - 145
1,3,5-Trimethylbenzene	98	95.7		ug/m3		97	65 - 136
Vinyl acetate	70	73.5		ug/m3		104	77 - 134
Vinyl chloride	51	54.4		ug/m3		106	69 - 129
m,p-Xylene	170	170		ug/m3		98	75 - 138
o-Xylene	87	85.6		ug/m3		99	77 - 132
Naphthalene	100	80.1		ug/m3		76	58 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCSD 320-146793/4**

**Matrix: Air**

**Analysis Batch: 146793**

**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
Acetone	20.0	17.6		ppb v/v		88	71 - 131	3	25
Benzene	20.0	18.8		ppb v/v		94	68 - 128	1	25
Benzyl chloride	20.0	15.7		ppb v/v		78	58 - 120	0	25

TestAmerica Sacramento

# QC Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-146793/4

Matrix: Air

Analysis Batch: 146793

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
Bromodichloromethane	20.0	18.8		ppb v/v		94	65 - 130	1	25
Bromoform	20.0	18.6		ppb v/v		93	64 - 144	1	25
Bromomethane	20.0	20.3		ppb v/v		101	70 - 131	2	25
2-Butanone (MEK)	20.0	17.7		ppb v/v		88	71 - 131	4	25
Carbon disulfide	20.0	17.6		ppb v/v		88	63 - 123	3	25
Carbon tetrachloride	20.0	18.5		ppb v/v		93	67 - 127	1	25
Chlorobenzene	20.0	19.1		ppb v/v		96	70 - 132	1	25
Dibromochloromethane	20.0	18.9		ppb v/v		95	68 - 128	0	25
Chloroethane	20.0	20.4		ppb v/v		102	70 - 131	2	25
Chloroform	20.0	18.3		ppb v/v		91	69 - 129	3	25
Chloromethane	20.0	20.6		ppb v/v		103	67 - 127	3	25
1,2-Dibromoethane (EDB)	20.0	19.2		ppb v/v		96	68 - 131	1	25
1,2-Dichlorobenzene	20.0	18.5		ppb v/v		92	73 - 143	0	25
1,3-Dichlorobenzene	20.0	18.9		ppb v/v		95	77 - 136	0	25
1,4-Dichlorobenzene	20.0	18.7		ppb v/v		94	73 - 143	0	25
Dichlorodifluoromethane	20.0	19.2		ppb v/v		96	69 - 129	3	25
1,1-Dichloroethane	20.0	18.7		ppb v/v		93	65 - 125	3	25
1,2-Dichloroethane	20.0	19.1		ppb v/v		95	71 - 131	0	25
1,1-Dichloroethene	20.0	17.1		ppb v/v		86	53 - 128	4	25
cis-1,2-Dichloroethene	20.0	18.3		ppb v/v		92	68 - 128	2	25
trans-1,2-Dichloroethene	20.0	18.3		ppb v/v		91	70 - 130	4	25
1,2-Dichloropropane	20.0	19.6		ppb v/v		98	74 - 128	0	25
cis-1,3-Dichloropropene	20.0	20.4		ppb v/v		102	78 - 132	0	25
trans-1,3-Dichloropropene	20.0	17.7		ppb v/v		89	56 - 136	0	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	20.0	20.0		ppb v/v		100	64 - 124	3	25
Ethylbenzene	20.0	19.1		ppb v/v		96	76 - 136	0	25
4-Ethyltoluene	20.0	19.3		ppb v/v		96	62 - 136	0	25
Hexachlorobutadiene	20.0	14.5		ppb v/v		73	42 - 150	0	25
2-Hexanone	20.0	19.1		ppb v/v		96	70 - 128	0	25
Methylene Chloride	20.0	17.8		ppb v/v		89	65 - 125	3	25
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ppb v/v		95	73 - 133	0	25
Styrene	20.0	19.4		ppb v/v		97	76 - 144	0	25
1,1,2,2-Tetrachloroethane	20.0	19.6		ppb v/v		98	75 - 135	0	25
Tetrachloroethene	20.0	18.8		ppb v/v		94	56 - 138	0	25
Toluene	20.0	19.0		ppb v/v		95	71 - 132	1	25
1,2,4-Trichlorobenzene	20.0	14.6		ppb v/v		73	59 - 150	1	25
1,1,1-Trichloroethane	20.0	18.2		ppb v/v		91	65 - 124	3	25
1,1,2-Trichloroethane	20.0	19.6		ppb v/v		98	71 - 131	1	25
Trichloroethene	20.0	18.9		ppb v/v		95	64 - 127	1	25
1,4-Dioxane	20.0	18.1		ppb v/v		90	55 - 141	1	25
Trichlorofluoromethane	20.0	18.8		ppb v/v		94	68 - 128	3	25
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.1		ppb v/v		86	50 - 132	3	25
1,2,4-Trimethylbenzene	20.0	17.5		ppb v/v		87	61 - 145	1	25
1,3,5-Trimethylbenzene	20.0	19.4		ppb v/v		97	65 - 136	0	25
Vinyl acetate	20.0	20.0		ppb v/v		100	77 - 134	4	25
Vinyl chloride	20.0	21.0		ppb v/v		105	69 - 129	2	25
m,p-Xylene	40.0	39.0		ppb v/v		97	75 - 138	0	25

TestAmerica Sacramento

# QC Sample Results

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-146793/4

Matrix: Air

Analysis Batch: 146793

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
o-Xylene	20.0	19.7		ppb v/v		99	77 - 132	0	25
Naphthalene	20.0	15.0		ppb v/v		75	58 - 150	2	25
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	48	41.8		ug/m3		88	71 - 131	3	25
Benzene	64	60.1		ug/m3		94	68 - 128	1	25
Benzyl chloride	100	81.1		ug/m3		78	58 - 120	0	25
Bromodichloromethane	130	126		ug/m3		94	65 - 130	1	25
Bromoform	210	192		ug/m3		93	64 - 144	1	25
Bromomethane	78	78.8		ug/m3		101	70 - 131	2	25
2-Butanone (MEK)	59	52.1		ug/m3		88	71 - 131	4	25
Carbon disulfide	62	54.9		ug/m3		88	63 - 123	3	25
Carbon tetrachloride	130	117		ug/m3		93	67 - 127	1	25
Chlorobenzene	92	88.0		ug/m3		96	70 - 132	1	25
Dibromochloromethane	170	161		ug/m3		95	68 - 128	0	25
Chloroethane	53	53.8		ug/m3		102	70 - 131	2	25
Chloroform	98	89.3		ug/m3		91	69 - 129	3	25
Chloromethane	41	42.6		ug/m3		103	67 - 127	3	25
1,2-Dibromoethane (EDB)	150	147		ug/m3		96	68 - 131	1	25
1,2-Dichlorobenzene	120	111		ug/m3		92	73 - 143	0	25
1,3-Dichlorobenzene	120	114		ug/m3		95	77 - 136	0	25
1,4-Dichlorobenzene	120	113		ug/m3		94	73 - 143	0	25
Dichlorodifluoromethane	99	95.0		ug/m3		96	69 - 129	3	25
1,1-Dichloroethane	81	75.5		ug/m3		93	65 - 125	3	25
1,2-Dichloroethane	81	77.2		ug/m3		95	71 - 131	0	25
1,1-Dichloroethene	79	67.9		ug/m3		86	53 - 128	4	25
cis-1,2-Dichloroethene	79	72.7		ug/m3		92	68 - 128	2	25
trans-1,2-Dichloroethene	79	72.4		ug/m3		91	70 - 130	4	25
1,2-Dichloropropane	92	90.6		ug/m3		98	74 - 128	0	25
cis-1,3-Dichloropropene	91	92.5		ug/m3		102	78 - 132	0	25
trans-1,3-Dichloropropene	91	80.4		ug/m3		89	56 - 136	0	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	140	140		ug/m3		100	64 - 124	3	25
Ethylbenzene	87	83.1		ug/m3		96	76 - 136	0	25
4-Ethyltoluene	98	94.7		ug/m3		96	62 - 136	0	25
Hexachlorobutadiene	210	155		ug/m3		73	42 - 150	0	25
2-Hexanone	82	78.5		ug/m3		96	70 - 128	0	25
Methylene Chloride	69	61.8		ug/m3		89	65 - 125	3	25
4-Methyl-2-pentanone (MIBK)	82	77.5		ug/m3		95	73 - 133	0	25
Styrene	85	82.7		ug/m3		97	76 - 144	0	25
1,1,2,2-Tetrachloroethane	140	134		ug/m3		98	75 - 135	0	25
Tetrachloroethene	140	128		ug/m3		94	56 - 138	0	25
Toluene	75	71.4		ug/m3		95	71 - 132	1	25
1,2,4-Trichlorobenzene	150	108		ug/m3		73	59 - 150	1	25
1,1,1-Trichloroethane	110	99.2		ug/m3		91	65 - 124	3	25
1,1,2-Trichloroethane	110	107		ug/m3		98	71 - 131	1	25
Trichloroethene	110	102		ug/m3		95	64 - 127	1	25
1,4-Dioxane	72	65.2		ug/m3		90	55 - 141	1	25

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# QC Sample Results

Client: PES Environmental, Inc.  
 Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-146793/4

Matrix: Air

Analysis Batch: 146793

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
Trichlorofluoromethane	110	106		ug/m3		94	68 - 128	3	25
1,1,2-Trichloro-1,2,2-trifluoroethane	150	131		ug/m3		86	50 - 132	3	25
1,2,4-Trimethylbenzene	98	85.9		ug/m3		87	61 - 145	1	25
1,3,5-Trimethylbenzene	98	95.3		ug/m3		97	65 - 136	0	25
Vinyl acetate	70	70.3		ug/m3		100	77 - 134	4	25
Vinyl chloride	51	53.6		ug/m3		105	69 - 129	2	25
m,p-Xylene	170	169		ug/m3		97	75 - 138	0	25
o-Xylene	87	85.6		ug/m3		99	77 - 132	0	25
Naphthalene	100	78.6		ug/m3		75	58 - 150	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	100		70 - 130

# QC Association Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Air - GC/MS VOA

### Analysis Batch: 146793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-25032-1	SVE-1	Total/NA	Air	TO-15	
320-25032-2	SVE-4	Total/NA	Air	TO-15	
320-25032-3	SVE-9	Total/NA	Air	TO-15	
320-25032-4	SVE-10	Total/NA	Air	TO-15	
320-25032-5	SVE-12	Total/NA	Air	TO-15	
320-25032-6	SVE-15	Total/NA	Air	TO-15	
320-25032-7	SVE-16	Total/NA	Air	TO-15	
320-25032-8	SVE-17	Total/NA	Air	TO-15	
320-25032-9	SVE-18	Total/NA	Air	TO-15	
320-25032-10	SVE-Influent	Total/NA	Air	TO-15	
MB 320-146793/6	Method Blank	Total/NA	Air	TO-15	
LCS 320-146793/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-146793/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

# Lab Chronicle

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-1**  
**Date Collected: 01/16/17 10:04**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-1**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	490 mL	250 mL	146793	01/19/17 08:17	AP1	TAL SAC

**Client Sample ID: SVE-4**  
**Date Collected: 01/16/17 10:32**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-2**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	502 mL	250 mL	146793	01/18/17 19:50	AP1	TAL SAC

**Client Sample ID: SVE-9**  
**Date Collected: 01/16/17 10:52**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-3**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	492 mL	250 mL	146793	01/18/17 20:48	AP1	TAL SAC

**Client Sample ID: SVE-10**  
**Date Collected: 01/16/17 10:53**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-4**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	470 mL	250 mL	146793	01/18/17 21:43	AP1	TAL SAC

**Client Sample ID: SVE-12**  
**Date Collected: 01/16/17 11:12**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-5**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	427 mL	250 mL	146793	01/18/17 22:38	AP1	TAL SAC

**Client Sample ID: SVE-15**  
**Date Collected: 01/16/17 11:13**  
**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-6**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	475 mL	250 mL	146793	01/18/17 23:33	AP1	TAL SAC

TestAmerica Sacramento



# Lab Chronicle

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

**Client Sample ID: SVE-16**

**Date Collected: 01/16/17 11:32**

**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-7**

**Matrix: Air**

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		317	1.54 mL	250 mL	146793	01/19/17 00:23	AP1	TAL SAC

**Client Sample ID: SVE-17**

**Date Collected: 01/16/17 11:33**

**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-8**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	480 mL	250 mL	146793	01/19/17 01:18	AP1	TAL SAC

**Client Sample ID: SVE-18**

**Date Collected: 01/16/17 11:44**

**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-9**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	493 mL	250 mL	146793	01/19/17 02:14	AP1	TAL SAC

**Client Sample ID: SVE-Influent**

**Date Collected: 01/16/17 11:58**

**Date Received: 01/16/17 15:05**

**Lab Sample ID: 320-25032-10**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	495 mL	250 mL	146793	01/19/17 03:09	AP1	TAL SAC

## Laboratory References:

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

# Certification Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

## Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oregon	NELAP	10	4040	01-28-18

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# Method Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

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



# Sample Summary

Client: PES Environmental, Inc.  
Project/Site: 6701 Shellmound St, Emeryville Air

TestAmerica Job ID: 320-25032-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-25032-1	SVE-1	Air	01/16/17 10:04	01/16/17 15:05
320-25032-2	SVE-4	Air	01/16/17 10:32	01/16/17 15:05
320-25032-3	SVE-9	Air	01/16/17 10:52	01/16/17 15:05
320-25032-4	SVE-10	Air	01/16/17 10:53	01/16/17 15:05
320-25032-5	SVE-12	Air	01/16/17 11:12	01/16/17 15:05
320-25032-6	SVE-15	Air	01/16/17 11:13	01/16/17 15:05
320-25032-7	SVE-16	Air	01/16/17 11:32	01/16/17 15:05
320-25032-8	SVE-17	Air	01/16/17 11:33	01/16/17 15:05
320-25032-9	SVE-18	Air	01/16/17 11:44	01/16/17 15:05
320-25032-10	SVE-Influent	Air	01/16/17 11:58	01/16/17 15:05





# Login Sample Receipt Checklist

Client: PES Environmental, Inc.

Job Number: 320-25032-1

**Login Number: 25032**

**List Source: TestAmerica Sacramento**

**List Number: 1**

**Creator: Edman, Connor M**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Certification Type TO-15 SCAN  
 Date Cleaned/Batch ID 0120716  
 Date of QC 12/8/2016  
 Data File Number C:\MSDCHEM\1\DATA\1612081



320-24121 Chain of Custody

MS7120826.d  
**CANISTER ID NUMBERS**

* 34000903	34001619	
8512	8286	
34001634	34001097	
34001138	34001948	
34001079	34000633	
34002001	34000742	
34001797	34000688	
34000965	11139	

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.

**"\*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.**

[Signature]  
1st level Reviewed By:

12/9/16  
Date:

[Signature]  
2nd level Reviewed By:

12/12/16  
Date:

Certification Type TO-15 Scan  
 Date Cleaned/Batch ID 1/11/17 320-24936  
 Date of QC 1/13/2017  
 Data File Number C:\MSDCHEM\1\DATA\170113\



MS7011307-d  
**CANISTER ID NUMBERS**

<u>34001636 *</u>	<u>34001671</u>	
<u>34001647</u>	<u>34001190</u>	
<u>34000767</u>	<u>34000331</u>	
<u>34001088</u>	<u>34000645</u>	
<u>34001792</u>	<u>34001100</u>	
<u>8323</u>	<u>34001117</u>	
<u>34001622</u>	<u>34001220</u>	
<u>34001940</u>	<u>34001853</u>	

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.

**\* INDICATES THE CAN OR CANS WHICH WERE SCREENED.**

[Signature]  
1<sup>st</sup> level Reviewed By:

1/16/17  
Date:

[Signature]  
2nd level Reviewed By:

1/16/17  
Date:



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

Lab Name: TestAmerica Sacramento Job No.: 320-24121-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34000903 Lab Sample ID: 320-24121-1  
 Matrix: Air Lab File ID: MS7120826.D  
 Analysis Method: TO-15 Date Collected: 12/07/2016 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 12/09/2016 10:46  
 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.: 141172 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.28	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	ND		0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.27
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

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

Lab Name: TestAmerica Sacramento Job No.: 320-24121-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34000903 Lab Sample ID: 320-24121-1  
 Matrix: Air Lab File ID: MS7120826.D  
 Analysis Method: TO-15 Date Collected: 12/07/2016 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 12/09/2016 10:46  
 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.: 141172 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.12
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	ND		0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	ND		0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	0.14	J	0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.21
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

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

Lab Name: TestAmerica Sacramento Job No.: 320-24121-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34000903 Lab Sample ID: 320-24121-1  
 Matrix: Air Lab File ID: MS7120826.D  
 Analysis Method: TO-15 Date Collected: 12/07/2016 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 12/09/2016 10:46  
 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.: 141172 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	80		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-130
2037-26-5	Toluene-d8 (Surr)	97		70-130

TestAmerica Sacramento  
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20161208-37628.b\MS7120826.D  
 Lims ID: 320-24121-A-1  
 Client ID: 34000903  
 Sample Type: Client  
 Inject. Date: 09-Dec-2016 10:46:30 ALS Bottle#: 16 Worklist Smp#: 25  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 320-24121-A-1  
 Misc. Info.: 500 mL CAN CERT  
 Operator ID: LHS Instrument ID: ATMS7  
 Method: \\ChromNA\Sacramento\ChromData\ATMS7\20161208-37628.b\TO15\_ATMS7N.m  
 Limit Group: MSA - TO15 - ICAL  
 Last Update: 09-Dec-2016 11:43:08 Calib Date: 30-Nov-2016 05:05:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS7\20161129-37330.b\MS7112921.D  
 Column 1 : RTX Volatiles ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: leeh

Date: 09-Dec-2016 11:43:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.287	12.300	-0.013	73	50051	4.00	
* 2 1,4-Difluorobenzene	114	14.441	14.453	-0.012	93	190949	4.00	
* 3 Chlorobenzene-d5 (IS)	117	21.133	21.133	0.000	85	179492	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	13.498	13.498	0.000	96	74452	4.34	
\$ 5 Toluene-d8 (Surr)	100	17.854	17.860	-0.006	99	113076	3.87	
\$ 6 4-Bromofluorobenzene (Surr	95	23.676	23.676	0.000	93	72520	3.20	
11 Propene	41	3.843	3.844	-0.001	36	331	0.0749	
32 Acetone	43	7.408	7.336	0.072	97	3653	0.2817	
80 Tetrachloroethene	166	19.539	19.545	-0.006	90	3413	0.1388	

**Reagents:**

VAMSIS20\_00002 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20161208-37628.b\MS7120826.D

Injection Date: 09-Dec-2016 10:46:30

Instrument ID: ATMS7

Operator ID: LHS

Lims ID: 320-24121-A-1

Lab Sample ID: 320-24121-1

Worklist Smp#: 25

Client ID: 34000903

Purge Vol: 5.000 mL

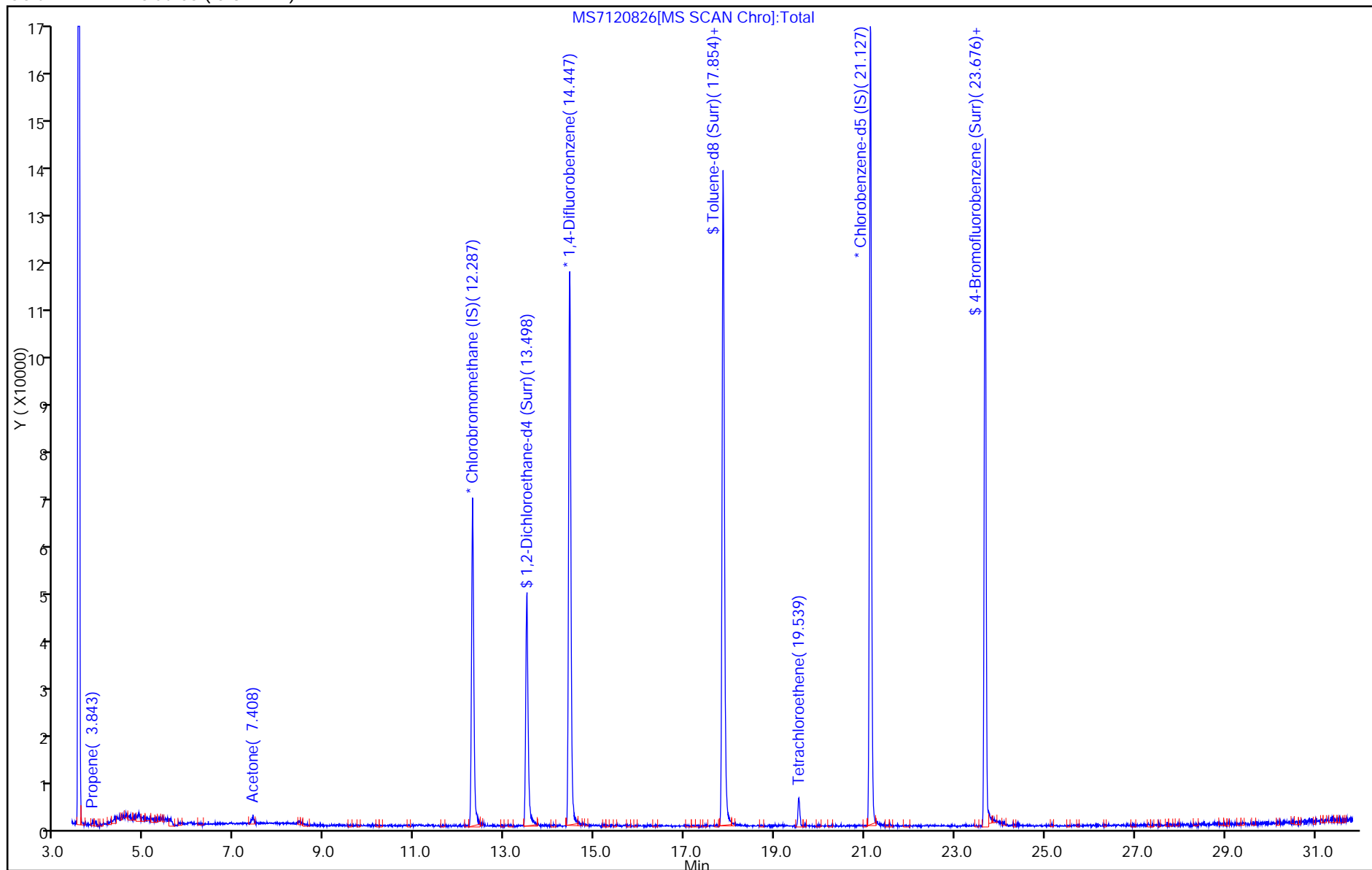
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: TO15\_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20161208-37628.b\MS7120826.D

Injection Date: 09-Dec-2016 10:46:30

Instrument ID: ATMS7

Lims ID: 320-24121-A-1

Lab Sample ID: 320-24121-1

Client ID: 34000903

Operator ID: LHS

ALS Bottle#: 16

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

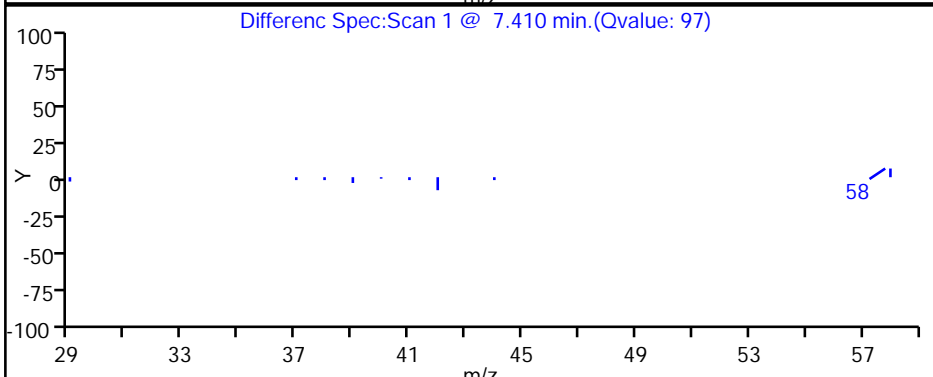
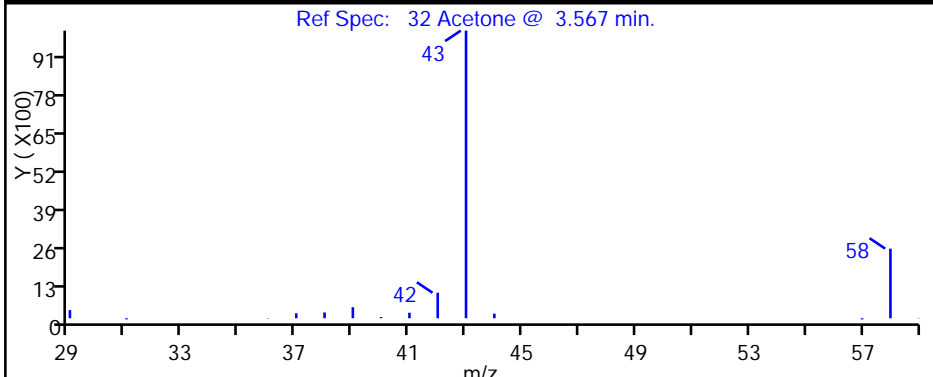
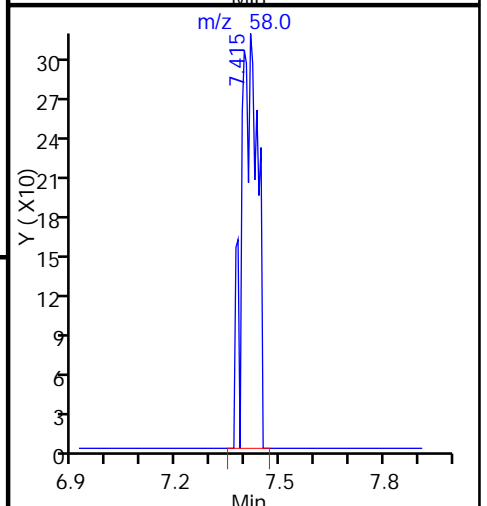
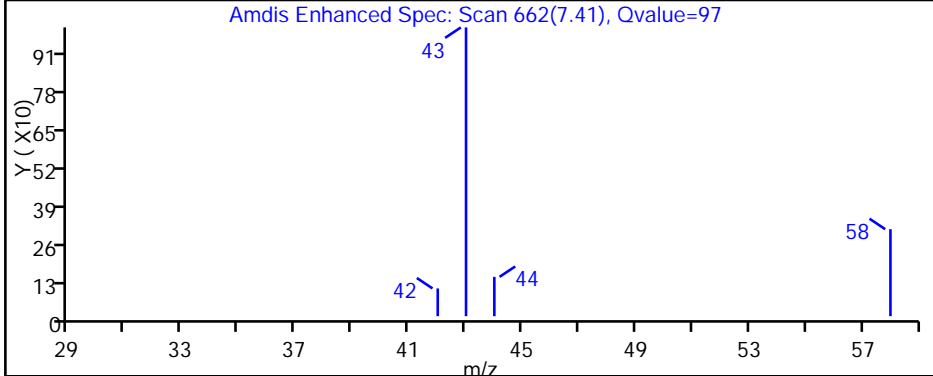
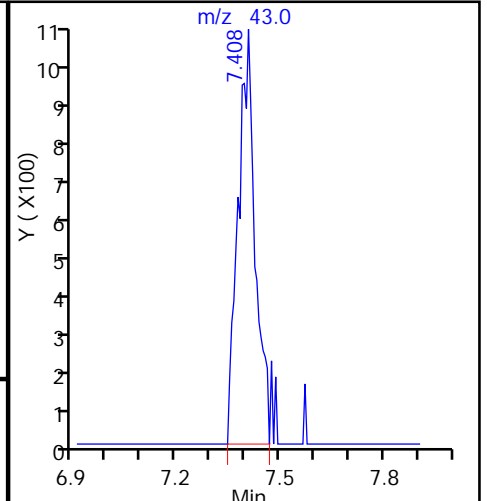
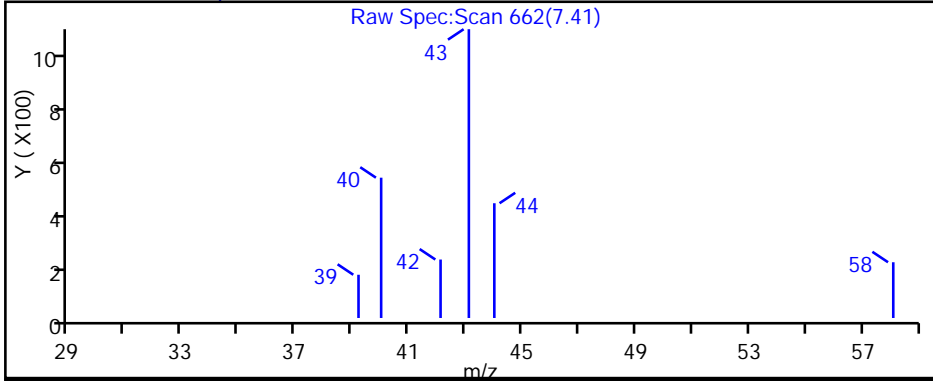
Method: TO15\_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles ( 0.32 mm)

Detector: MS SCAN

32 Acetone, CAS: 67-64-1



TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20161208-37628.b\MS7120826.D

Injection Date: 09-Dec-2016 10:46:30

Instrument ID: ATMS7

Lims ID: 320-24121-A-1

Lab Sample ID: 320-24121-1

Client ID: 34000903

Operator ID: LHS

ALS Bottle#: 16 Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

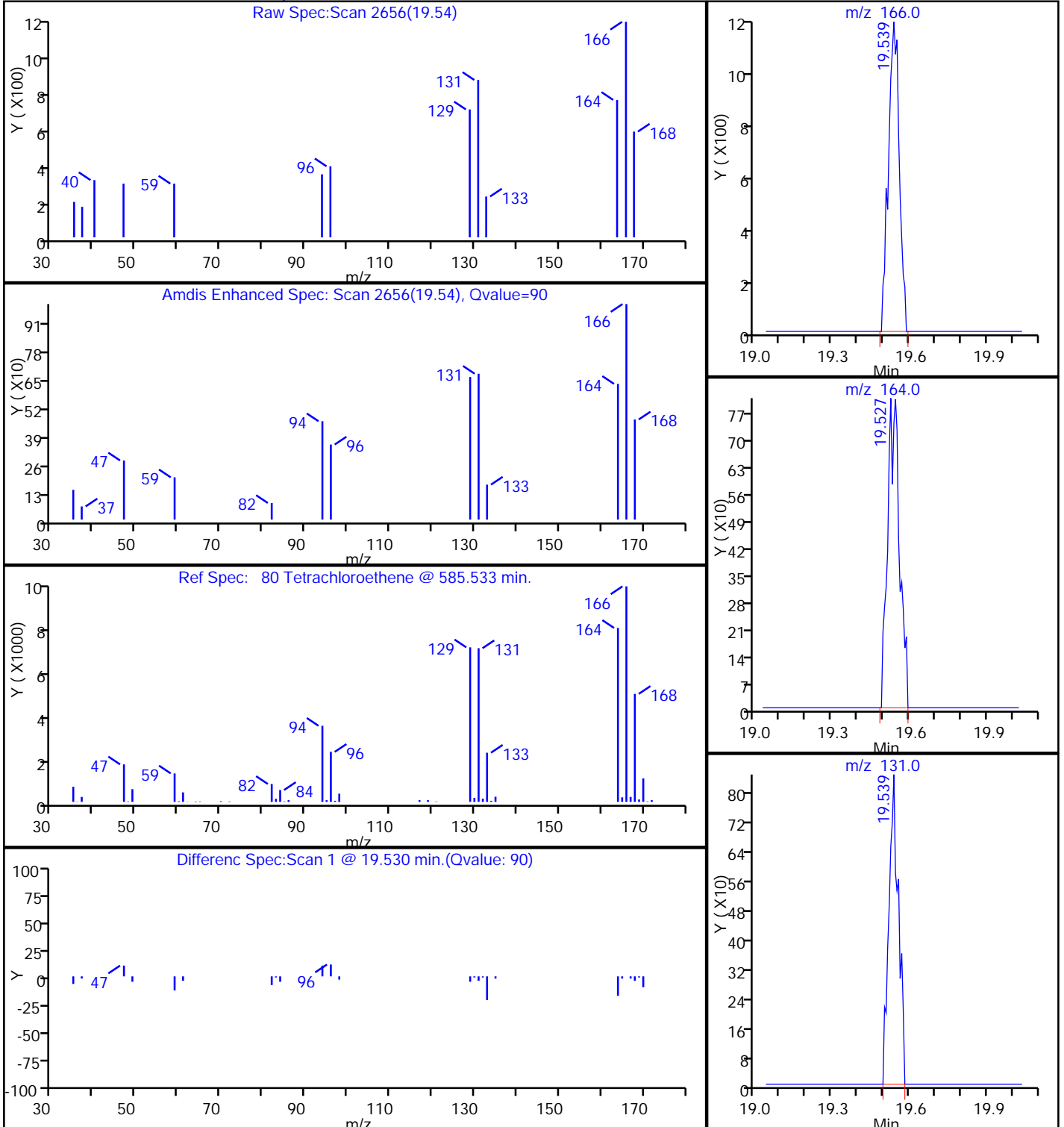
Method: TO15\_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles ( 0.32 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



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

Lab Name: TestAmerica Sacramento Job No.: 320-24936-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34001636 Lab Sample ID: 320-24936-1  
 Matrix: Air Lab File ID: MS7011307.D  
 Analysis Method: TO-15 Date Collected: 01/11/2017 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 01/13/2017 15:02  
 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.: 146207 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.27	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	ND		0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.27
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088



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

Lab Name: TestAmerica Sacramento Job No.: 320-24936-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34001636 Lab Sample ID: 320-24936-1  
 Matrix: Air Lab File ID: MS7011307.D  
 Analysis Method: TO-15 Date Collected: 01/11/2017 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 01/13/2017 15:02  
 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.: 146207 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.12
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	ND		0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	ND		0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.21
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

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

Lab Name: TestAmerica Sacramento Job No.: 320-24936-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: 34001636 Lab Sample ID: 320-24936-1  
 Matrix: Air Lab File ID: MS7011307.D  
 Analysis Method: TO-15 Date Collected: 01/11/2017 00:00  
 Sample wt/vol: 500 (mL) Date Analyzed: 01/13/2017 15:02  
 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.: 146207 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

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

TestAmerica Sacramento  
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20170113-38773.b\MS7011307.D  
 Lims ID: 320-24936-A-1  
 Client ID: 34001636  
 Sample Type: Client  
 Inject. Date: 13-Jan-2017 15:02:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 320-24936-A-1  
 Misc. Info.: 500 mL CAN CERT  
 Operator ID: LHS Instrument ID: ATMS7  
 Method: \\ChromNA\Sacramento\ChromData\ATMS7\20170113-38773.b\TO15\_ATMS7N.m  
 Limit Group: MSA - TO15 - ICAL  
 Last Update: 16-Jan-2017 09:03:17 Calib Date: 11-Jan-2017 11:01:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS7\20170110-38676.b\MS7011024.D  
 Column 1 : RTX Volatiles ( 0.32 mm) Det: MS SCAN  
 Process Host: XAWRK013

First Level Reviewer: phanthasena

Date: 16-Jan-2017 09:03:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.302	12.302	0.000	95	22473	4.00	
* 2 1,4-Difluorobenzene	114	14.450	14.450	0.000	96	94346	4.00	
* 3 Chlorobenzene-d5 (IS)	117	21.136	21.130	0.006	93	103632	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	13.495	13.489	0.006	99	44269	4.07	
\$ 5 Toluene-d8 (Surr)	100	17.857	17.850	0.007	97	65684	4.07	
\$ 6 4-Bromofluorobenzene (Surr	95	23.679	23.672	0.007	85	69811	3.79	
32 Acetone	43	7.417	7.332	0.085	88	2652	0.2729	
102 4-Ethyltoluene	120	24.336	24.317	0.019	1	509	0.0389	

**Reagents:**

VAMIS20\_00002 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20170113-38773.b\MS7011307.D

Injection Date: 13-Jan-2017 15:02:30

Instrument ID: ATMS7

Operator ID: LHS

Lims ID: 320-24936-A-1

Lab Sample ID: 320-24936-1

Worklist Smp#: 6

Client ID: 34001636

Purge Vol: 5.000 mL

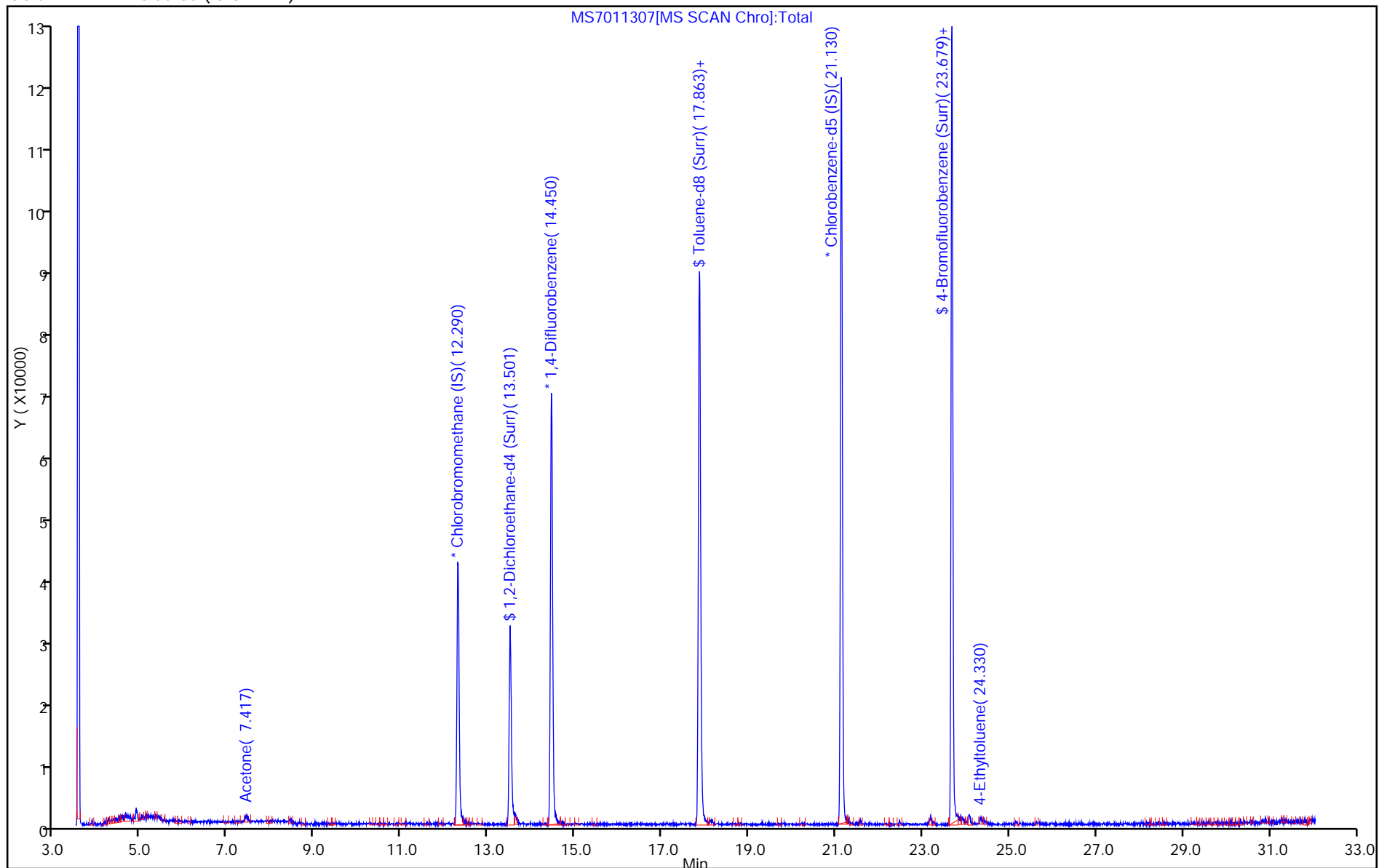
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: TO15\_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles ( 0.32 mm)



TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20170113-38773.b\MS7011307.D

Injection Date: 13-Jan-2017 15:02:30

Instrument ID: ATMS7

Lims ID: 320-24936-A-1

Lab Sample ID: 320-24936-1

Client ID: 34001636

Operator ID: LHS

ALS Bottle#: 5 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

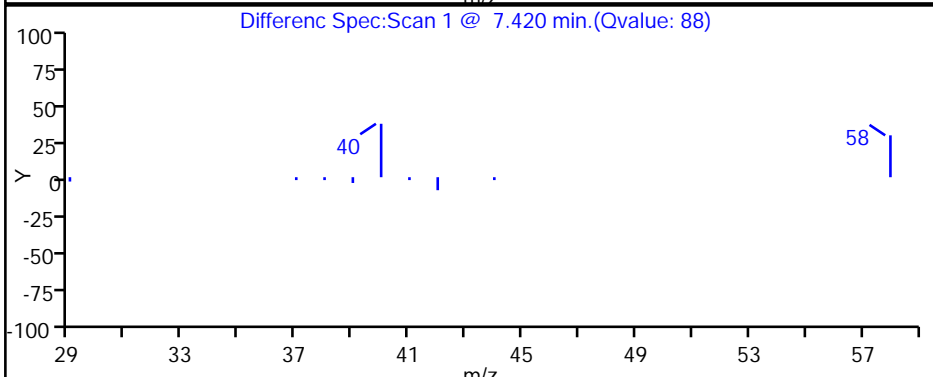
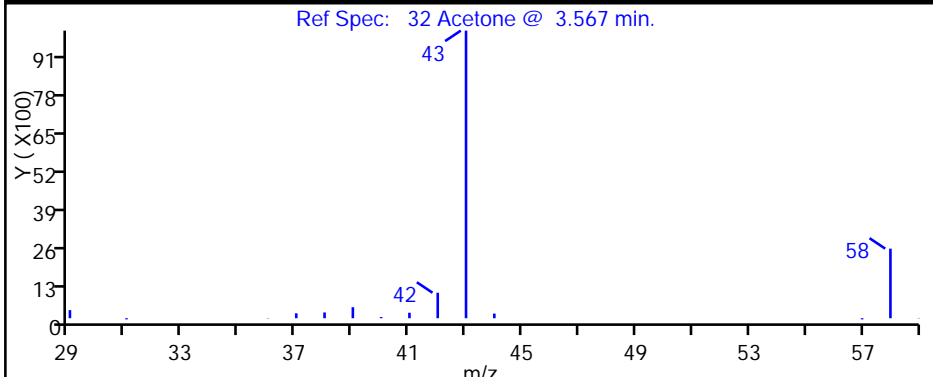
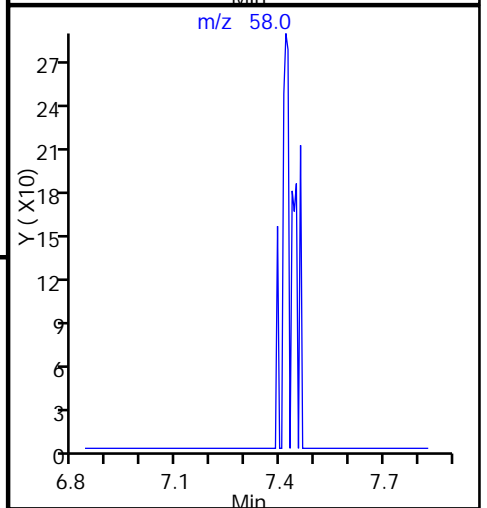
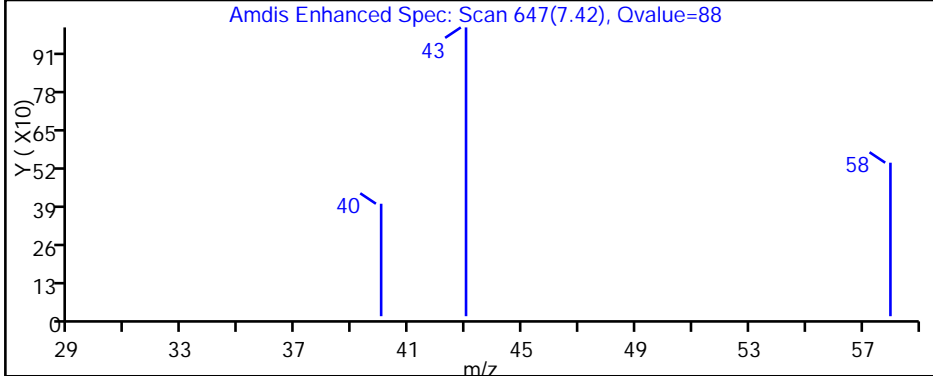
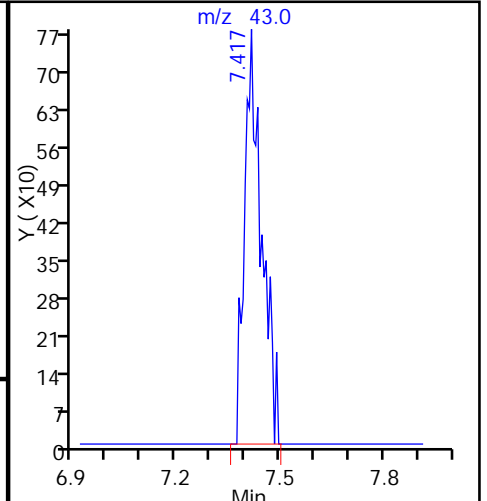
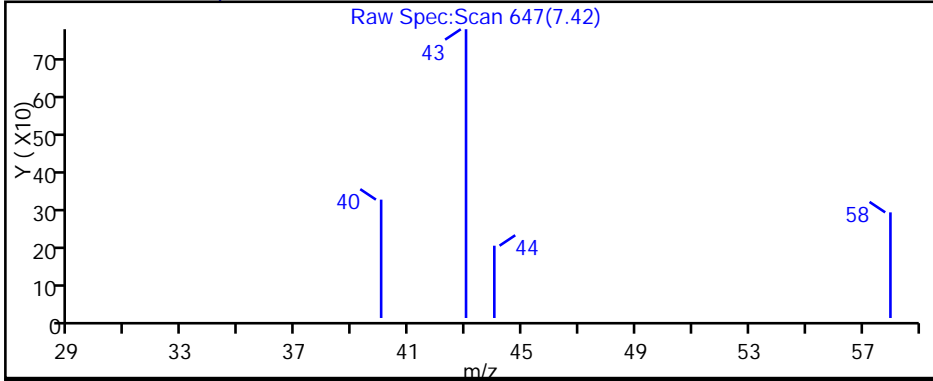
Method: TO15\_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles ( 0.32 mm)

Detector: MS SCAN

32 Acetone, CAS: 67-64-1



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