

# ANTON EMERYVILLE, LLC

950 Tower Lane, Suite 1225, Foster City CA 94404  
Office 650-549-1600. Email [hello@AntonDev.com](mailto:hello@AntonDev.com).

August 9, 2017

**RECEIVED**

*By Alameda County Environmental Health 11:08 am, Aug 16, 2017*

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

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

**TRANSMITTAL LETTER**  
**REMEDIAL PROGRESS REPORT NO. 9**  
**JULY 1, 2017 THROUGH JULY 31, 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. 9, July 1 through July 31, 6701, 6705, and 6707 Shellmound Street, Emeryville, California* dated August 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  
Senior Development Manager



August 14, 2017

**1448.001.03.009**

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. 9  
July 1, 2017 through July 31, 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. 9 on behalf of Anton Emeryville, LLC (Anton) for the soil vapor extraction (SVE) system at 6701, 6705, and 6707 Shellmound Street in Emeryville, California (collectively, the subject property or site). PES understands Anton is currently under contract to purchase the subject property and intends to redevelop the site for multi-family high density residential purposes.

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 (July 1 through July 31, 2017);
2. Summary tables and graphical presentation of laboratory analytical data for vapor samples; and
3. Anticipated activities for the following reporting period.

Operation of SVE as an interim remedial measure (IRM) was approved by the Alameda County Department of Environmental Health (ACEH) on November 8, 2016<sup>1</sup>. ACEH also requested submittal of monthly remedial progress reports to document operation,

---

<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.

**Mr. Mark Detterman, P.G., C.E.G.**

**August 14, 2017**

**Page 2**

maintenance, field monitoring of the SVE system, and laboratory analytical results from periodic vapor samples collected from SVE wells. The SVE system was shut down on February 28, 2017 based on: (1) declining trends of detected concentrations of vinyl chloride in SVE well samples collected and analyzed between October 31, 2016 and February 9, 2017; and (2) laboratory analytical results of the February 9, 2017 vapor samples collected from SVE wells indicating concentrations of vinyl chloride the most conservative risk-based target cleanup levels (TCLs) presented in the November 2016 Human Health Risk Assessment Report<sup>2</sup>. The SVE system was not operated during the 92-day period between the February 28 and May 31, 2017. The SVE system was restarted for a single day of operation on June 1, 2017 to permit sampling of the SVE wells and vapor monitoring probes as part of assessment of the effectiveness of the SVE system as an IRM in removing VOCs from the subsurface. The SVE system was shut down upon conclusion of the rebound sampling.

In accordance with recommendations presented in RPR No. 8<sup>3</sup>, the SVE system was restarted on July 7 and operated continuously until July 13, at which time it was shut down and not restarted during the remainder of this reporting period. This RPR No. 9 summarizes the routine operation and maintenance (O&M) conducted during the reporting period.

### **Summary of SVE Operations**

Prior to restarting the SVE system, depth-to-water (dtw) measurements were collected from select SVE wells on July 7, 2017 (Table A1, presented in Appendix A). The dtw in the SVE wells ranged from 8.9 feet below ground surface (bgs; SVE-1) to 9.6 feet bgs (SVE-11) and were generally lower than the dtw measurements obtained on June 1, 2017 (the last previous date of operation).

The SVE system was re-started and operated in accordance with methods and procedures for routine operation, maintenance, and monitoring as described in the O&M Plan<sup>4</sup>. Routine O&M activities were performed by Environmental Engineering, Consulting, and Remediation, Inc. (E2CR), and E2CR performed compliance monitoring of the SVE system in accordance with the Permit to Operate (PTO) permit issued on February 2, 2017 by the Bay Area Air Monitoring District (BAAQMD). The SVE system was shut down, as planned after an approximate week of continuous operation, on July 13, 2017.

---

<sup>2</sup> SLR International Corporation, 2016. *Human Health Risk Assessment Report, 6701-6707 Shellmound Street, Emeryville, California*. November.

<sup>3</sup> PES Environmental, Inc. (PES), 2017. *Remedial Progress Report No. 8, June 1 through June 30, 2017, 6701, 6705, and 6707 Shellmound Street, Emeryville, California, Fuel Leak Case No. RO0000548, Geotracker Global Id T0600100894*. December 16.

<sup>4</sup> PES, 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.

**Mr. Mark Detterman, P.G., C.E.G.**  
**August 14, 2017**  
**Page 3**

### **Summary of SVE Monitoring**

To confirm that all emissions were abated in compliance with the PTO during operation, influent, mid-point, and effluent monitoring was conducted by E2CR. A summary of field measurements collected by E2CR are presented in Table 1. SVE well field measurements were not collected during this reporting period.

During the July 2017 operation period, observed operating vacuum was approximately 5.0 inches of mercury, and the approximate operating total flow rate was 757 standard cubic feet per minute (scfm).

No monitoring or vapor sampling of individual SVE wells or probes was conducted, and no system maintenance or modifications were performed. Historical field measurement and laboratory analytical data are presented in Tables 2 and 3 of Appendix B.

PES anticipates the next periodic (weekly) operation of the SVE system will resume in August 2017 (the next reporting period).

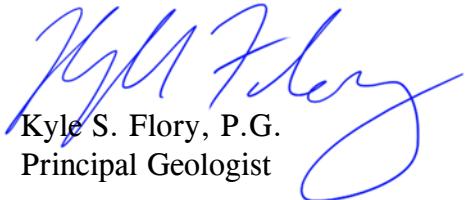
Please call either of the undersigned at (415)-899-1600 if you have any questions.

Very truly yours,

**PES ENVIRONMENTAL, INC.**

  
Christopher J. Baldassari, P.G.  
Associate Geologist



  
Kyle S. Flory, P.G.  
Principal Geologist

Attachments: Table 1      Summary of SVE Operational Data  
                  Plate 1      Site Plan and SVE / Air Inlet Well and Probe Locations

                  Appendix A   Depth-to-Water Measurements  
                  Appendix B   Historical SVE System Monitoring and  
                                    Laboratory Analytical Summary Tables

**TABLE**

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

Date	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	6.5	712	NA	7.0	0.250	0.00	0.00
11/9/16	6.2	721	NA	17.7	0.250	14.6	0.03
11/10/16	5.3	748	NA	13.0	0.250	19.4	0.07
11/11/16	4.9	760	4.89	12.7	0.250	17.3	0.11
11/14/16	6.0	727	6.00	9.0	0.250	1.2	0.12
11/15/16	6.0	727	0.0	11.3	0.250	19.9	0.16
11/16/16	6.0	727	5.74	9.1	0.250	18.9	0.20
11/17/16	6.0	727	5.73	10.1	0.047	10.8	0.23
11/18/16	6.0	727	5.67	7.5	0.047	3.6	0.23
11/19/16	5.7	737	5.65	6.4	0.047	3.5	0.24
11/20/16	6.0	727	5.60	6.5	0.047	3.4	0.25
11/21/16	6.0	727	5.25	6.5	0.047	3.6	0.26
11/22/16	6.0	727	5.20	4.3	0.047	3.6	0.26
11/23/16	6.0	727	5.50	2.3	0.000	1.6	0.27
11/24/16	6.0	727	NA	1.4	0.000	0.0	0.27
11/25/16	6.5	712	NA	1.5	0.000	0.0	0.27
11/26/16	7.0	696	NA	1.1	0.000	0.0	0.27
11/27/16	7.0	696	NA	1.3	0.000	0.0	0.27
11/28/16	6.0	727	NA	2.9	0.012	0.0	0.27
11/29/16	5.0	757	4.63	0.0	0.012	1.8	0.27
11/30/16	4.8	765	4.00	0.0	0.012	0.8	0.27
12/1/16	4.8	764	3.95	1.8	0.012	0.8	0.27
12/2/16	4.8	764	3.93	0.9	0.012	1.0	0.28
12/5/16	4.9	762	4.00	0.0	0.011	0.0	0.28
12/6/16	4.9	760	4.00	0.3	0.011	0.8	0.28
12/7/16	4.9	760	4.00	0.3	0.011	0.9	0.28
12/8/16	4.9	762	4.00	0.4	0.011	0.7	0.28
12/9/16	4.9	761	4.07	0.6	0.011	0.8	0.28
12/12/16	4.9	761	4.00	0.1	0.011	0.0	0.28
12/13/16	4.6	770	4.20	0.3	0.011	0.7	0.29
12/14/16	4.9	760	4.13	0.0	0.011	1.0	0.29
12/15/16	4.9	762	4.10	0.4	0.011	0.6	0.29
12/16/16	5.0	756	4.22	0.0	0.0003	0.4	0.29
12/19/16	4.8	763	4.00	2.4	0.0003	0.0	0.29
12/20/16	4.7	766	3.98	0.0	0.0003	0.0	0.29
12/21/16	4.7	767	4.07	0.0	0.0003	0.0	0.29
12/22/16	4.9	761	4.14	0.0	0.0003	0.0	0.29
12/23/16	4.7	766	3.97	0.0	0.0003	0.0	0.29
12/27/16	4.0	787	NA	4.6	0.0003	0.0	0.29
12/28/16	4.0	787	NA	39.0	0.0003	0.0	0.29
12/29/16	5.0	757	NA	34.8	0.0003	0.0	0.29
12/30/16	5.0	757	NA	1.0	0.0003	0.0	0.29

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

Date	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	5.0	758	4.13	1.7	0.0003	0.0	0.29
1/3/17	4.9	760	4.10	2.1	0.0003	0.0	0.29
1/4/17	4.7	766	4.00	0.3	0.0003	0.0	0.29
1/5/17	4.7	767	4.02	2.5	0.0003	0.0	0.29
1/6/17	4.7	767	4.02	0.0	0.0003	0.0	0.29
1/12/17	4.1	784	4.00	2.3	0.0003	0.0	0.29
1/13/17	4.2	781	4.06	0.6	0.0003	0.0	0.29
1/14/17	4.4	777	4.15	2.2	0.0003	0.0	0.29
1/15/17	4.3	779	4.15	0.3	0.0003	0.0	0.29
1/16/17	4.3	780	4.08	0.0	0.0003	0.0	0.29
1/17/17	4.22	781	4.07	0.0	0.0003	0.0	0.29
1/18/17	4.22	781	4.08	0.0	0.0003	0.0	0.29
1/19/17	4.24	780	4.09	0.0	0.0003	0.0	0.29
1/20/17	4.22	781	4.08	0.0	0.0003	0.0	0.29
1/23/17	4.61	769	4.45	0.0	0.0003	0.0	0.29
1/24/17	4.13	784	4.02	0.0	0.0003	0.0	0.29
1/25/17	4.14	783	4.02	0.0	0.0003	0.0	0.29
1/26/17	4.16	783	4.06	0.0	0.0003	0.0	0.29
1/30/17	4.25	780	4.14	0.0	0.0003	0.0	0.29
1/31/17	4.08	785	3.97	0.0	0.0003	0.0	0.29
2/1/17	4.09	785	3.95	0.0	0.0003	0.0	0.29
2/2/17	4.10	784	3.96	0.0	0.0003	0.0	0.29
2/3/17	4.25	780	3.95	0.0	0.0003	0.1	0.29
2/6/17	4.25	780	4.05	0.0	0.0003	0.0	0.29
2/7/17	4.28	779	4.08	0.0	0.0003	0.0	0.29
2/8/17	4.37	776	4.13	0.0	0.0003	0.0	0.29
2/9/17	4.89	760	4.15	0.0	0.0003	0.0	0.29
2/10/17	4.18	782	4.05	0.0	0.0003	0.0	0.29
2/13/17	4.45	774	4.28	0.0	0.0003	0.3	0.29
2/28/17 <sup>1</sup>	4.12	784	3.98	0.0	0.0003	0.0	0.29
6/1/17	4.20	781	4.00	0.80	0.0003	0.0	0.29
7/6/17	5.00	757	4.30	0.00	0.0003	0.0	0.29

**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

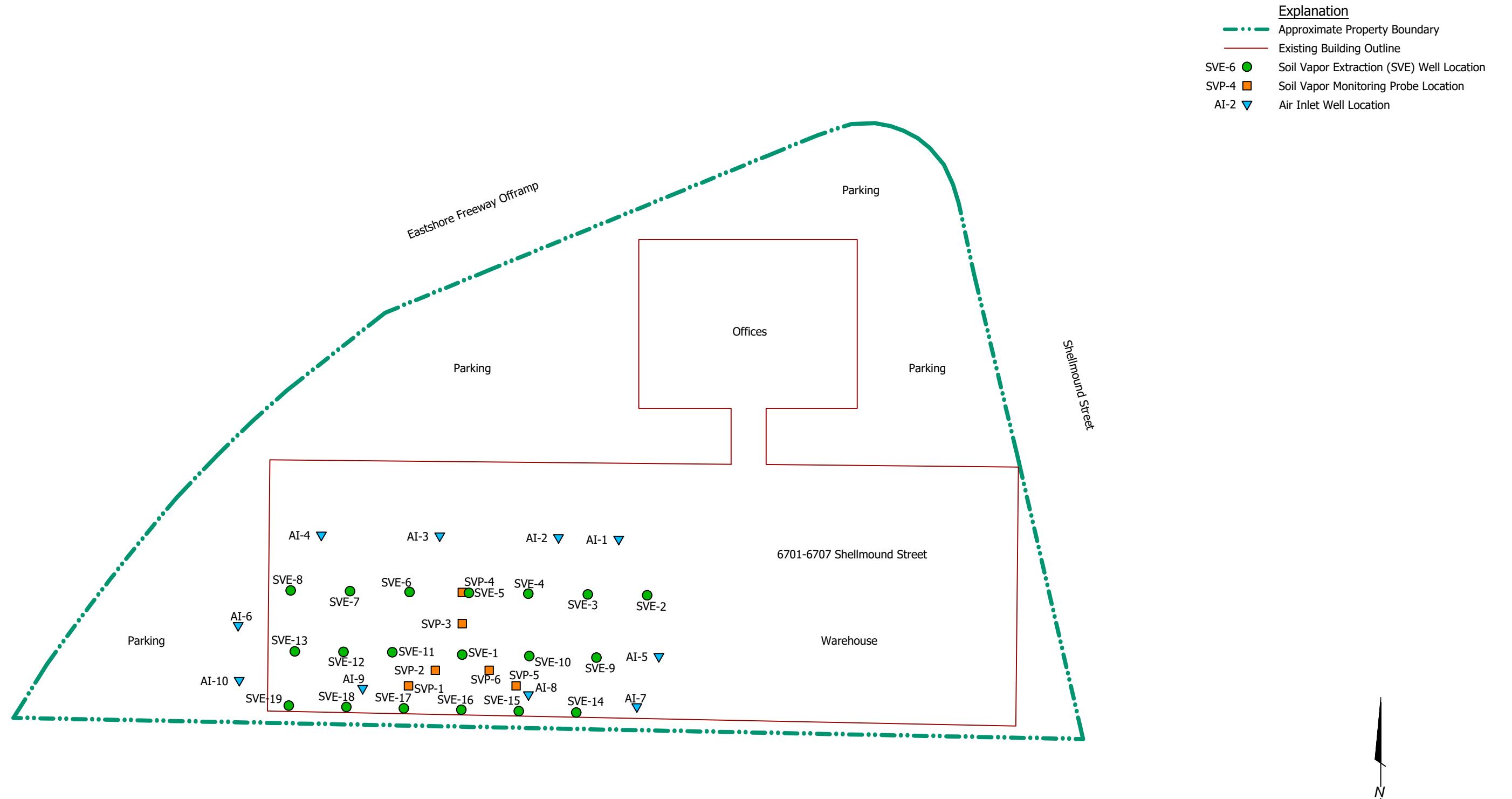
Mass extracted are estimated on laboratory analytical data.

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

SVE = Soil vapor extraction

<sup>1</sup> = SVE system shut down for rebound testing

**PLATE**



## **APPENDIX A**

### **DEPTH-TO-WATER MEASUREMENTS**

**Table A1**  
**Summary of SVE Depth-to-Water Measurements**  
**6701 - 6707 Shellmound Street**  
**Emeryville, California**

<b>Well Identification</b>	<b>Well Screen Interval (feet bgs)</b>	<b>Sand Pack Interval (feet bgs)</b>	<b>Depth-to-Water, feet bgs</b>	
			<b>1-Jun-17</b>	<b>13-Jul-17</b>
<b>SVE-1</b>	5 to 10	4.5 to 10.66	8.63	8.9
<b>SVE-2</b>	5 to 10	4.5 to 10.66	9.84	NM
<b>SVE-3</b>	3.96 to 8.96	3.42 to 9.42	8.02	NM
<b>SVE-4</b>	5 to 10	4.5 to 10.625	9.73	NM
<b>SVE-5</b>	5 to 10	4.5 to 10.625	9.66	NM
<b>SVE-6</b>	5 to 10	4.5 to 10.75	8.88	NM
<b>SVE-7</b>	5 to 10	4.5 to 10.75	9.38	NM
<b>SVE-8</b>	5 to 10	4.5 to 10.66	9.73	NM
<b>SVE-9</b>	5 to 10	4.5 to 10.58	9.28	NM
<b>SVE-10</b>	5 to 10	4.5 to 10.58	9.31	9.5
<b>SVE-11</b>	5 to 10	4.5 to 10.46	8.39	9.6
<b>SVE-12</b>	5 to 10	4.5 to 11.17	8.38	NM
<b>SVE-13</b>	5 to 10	4.5 to 10.58	6.68	NM
<b>SVE-14</b>	5 to 10	4.5 to 10.66	9.33	NM
<b>SVE-15</b>	5 to 10	4.5 to 10.58	7.55	NM
<b>SVE-16</b>	5 to 10	4.5 to 10.66	8.43	NM
<b>SVE-17</b>	4.79 to 9.79	4.25 to 10.42	8.58	NM
<b>SVE-18</b>	5 to 10	4.5 to 11.08	8.69	NM
<b>SVE-19</b>	5 to 10	4.5 to 10.66	7.88	9.1

**Notes:**

feet bgs = feet below ground surface (top of concrete floor slab)

NM = Not measured

## **APPENDIX B**

### **HISTORICAL SVE SYSTEM MONITORING AND LABORATORY ANALYTICAL SUMMARY TABLES**

**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	1/18/2017	1/24/2017	2/2/2017	2/9/2017	2/18/2017	2/25/2017
<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	0.70	0.30	--	--	--
Vacuum	in. H2O	67.6	77.8	69.5	54.5	51.2	53.70	53.80	60.20	57.60	58.30	54.40	--	--	--
<b>SVE-2</b>															
Total VOCs	PPMv	44.3	36.5	11.1	--	--	--	--	--	--	--	--	1.30	4.00	4.30
Vacuum	in. H2O	64.2	72.3	65.1	--	--	--	--	--	--	--	--	53.10	55.60	56.50
<b>SVE-3</b>															
Total VOCs	PPMv	12.5	17.9	10.4	--	--	--	--	--	--	--	--	--	2.00	1.40
Vacuum	in. H2O	65.9	75.3	67.5	--	--	--	--	--	--	--	--	--	55.70	56.50
<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	1.00	3.80	0.30	0.40	1.20
Vacuum	in. H2O	66.4	75.7	68.0	54.7	51.3	53.60	54.10	60.60	57.50	58.20	54.60	52.90	55.80	56.80
<b>SVE-5</b>															
Total VOCs	PPMv	35.4	79.4	71.6	40.9	91.8	0.30	1.40	--	--	--	--	0.00	0.40	0.40
Vacuum	in. H2O	66.8	76.3	68.4	54.5	48.5	52.90	54.30	--	--	--	--	51.50	55.70	56.80
<b>SVE-6</b>															
Total VOCs	PPMv	126.2	93.3	20.7	4.3	32.6	16.30	--	--	--	--	--	--	2.60	2.60
Vacuum	in. H2O	65.2	76.9	68.9	54.6	51.1	49.50	--	--	--	--	--	--	55.60	57.00
<b>SVE-7</b>															
Total VOCs	PPMv	17.1	66.4	11.4	--	--	--	--	--	--	--	--	0.20	1.50	1.30
Vacuum	in. H2O	64.9	77.0	69.0	--	--	--	--	--	--	--	--	53.80	55.80	57.00
<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	3.50	4.40	1.80	1.80	1.20
Vacuum	in. H2O	67.6	77.8	69.4	54.5	51.1	53.30	54.10	60.80	57.90	58.20	54.50	55.10	55.30	56.40
<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	1.80	2.40	1.10	0.70	1.90
Vacuum	in. H2O	67.7	77.9	69.4	54.4	51.2	53.20	54.00	61.00	57.60	58.20	54.50	55.70	55.60	56.20
<b>SVE-11</b>															
Total VOCs	PPMv	12.3	31.1	7.6	--	1.9	2.00	3.30	49.60	0.40	0.30	1.50	1.00	1.50	1.20
Vacuum	in. H2O	67.5	77.7	69.3	54.3	51.1	53.50	53.70	59.60	57.30	58.20	53.90	51.10	55.40	55.90
<b>SVE-12</b>															
Total VOCs	PPMv	15.2	46.1	5.0	--	2.1	1.70	2.00	1.10	0.20	0.90	1.10	0.00	0.10	0.40
Vacuum	in. H2O	67.6	77.7	69.3	54.3	50.9	54.00	54.00	60.60	57.60	58.40	54.00	53.80	55.40	55.90
<b>SVE-13</b>															
Total VOCs	PPMv	4.2	50.2	9.0	--	0.4	0.40	2.50	--	--	--	--	--	0.40	0.20
Vacuum	in. H2O	67.8	77.6	69.3	54.1	50.5	53.30	53.80	--	--	--	--	--	55.50	55.80
<b>SVE-14</b>															
Total VOCs	PPMv	4.5	1.2	1.3	--	--	--	--	--	--	--	--	--	0.60	0.40
Vacuum	in. H2O	67.7	77.8	69.5	--	--	--	--	--	--	--	--	--	55.40	56.30
<b>SVE-15</b>															
Total VOCs	PPMv	2.5	34.2	8.1	--	5.1	3.80	1.90	1.40	0.60	0.50	0.60	0.50	1.00	0.80
Vacuum	in. H2O	67.6	77.8	69.5	54.4	51.3	53.20	54.00	60.10	57.70	58.30	54.30	51.90	55.30	56.10
<b>SVE-16</b>															
Total VOCs	PPMv	127.1	121.7	55.3	--	56.7	53.60	66.60	58.50	11.20	21.60	8.60	7.10	1.10	0.90
Vacuum	in. H2O	67.5	77.8	69.5	54.1	51.2	361.00	54.20	59.70	57.80	58.30	54.20	57.80	55.40	55.90

**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	1/18/2017	1/24/2017	2/2/2017	2/9/2017	2/18/2017	2/25/2017
<b>SVE-17</b>															
Total VOCs	PPMv	15.2	32.1	8.9	--	5.4	32.50	6.80	4.30	0.60	1.20	0.80	0.70	1.00	0.80
Vacuum	in. H2O	67.8	77.9	69.4	54.2	51.2	53.30	53.10	60.80	57.80	58.30	54.20	57.90	55.40	56.10
<b>SVE-18</b>															
Total VOCs	PPMv	8.5	60.3	7.9	--	6.9	0.20	1.60	63.90	0.00	0.20	0.50	1.30	1.50	1.80
Vacuum	in. H2O	67.7	77.6	69.2	54.2	51.3	53.40	54.00	59.60	58.00	58.30	54.20	53.80	55.40	55.90
<b>SVE-19</b>															
Total VOCs	PPMv	8.3	83.9	4.7	--	1.9	0.50	1.30	74.00	0.30	0.20	0.80	1.00	1.70	0.70
Vacuum	in. H2O	67.5	77.6	69.3	54.2	51.3	53.60	54.00	60.80	57.80	58.30	54.10	52.70	55.50	55.90

**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 ( $\mu\text{g}/\text{m}^3$ )	TCE ( $\mu\text{g}/\text{m}^3$ )	cis-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	trans-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	Vinyl chloride ( $\mu\text{g}/\text{m}^3$ )	1,1,1-TCA ( $\mu\text{g}/\text{m}^3$ )	1,1,2,2-PCA ( $\mu\text{g}/\text{m}^3$ )	MEK ( $\mu\text{g}/\text{m}^3$ )	MIBK ( $\mu\text{g}/\text{m}^3$ )	Acetone ( $\mu\text{g}/\text{m}^3$ )	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	m,p-Xylene ( $\mu\text{g}/\text{m}^3$ )	o-Xylene ( $\mu\text{g}/\text{m}^3$ )	1,2,4-TMB ( $\mu\text{g}/\text{m}^3$ )	1,3,5-TMB ( $\mu\text{g}/\text{m}^3$ )	1,3-DCB ( $\mu\text{g}/\text{m}^3$ )	4-Ethyltoluene ( $\mu\text{g}/\text{m}^3$ )	Carbon disulfide ( $\mu\text{g}/\text{m}^3$ )	Chloroform ( $\mu\text{g}/\text{m}^3$ )	Other VOCs ( $\mu\text{g}/\text{m}^3$ )
<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	< 100	< 1300	< 1300	< 2500	< 2900	< 1400	< 1800	< 1400	< 1800	
SVE-1	SVE-1-103116	10/31/2016	5 to 10	120	< 180	670	270	16,000	< 74	< 120	< 75	10,000	7,700	130	66	< 79	< 160	< 79	< 180	< 89	< 110	< 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	< 95	2.6 (Dichlorodifluoromethane)	
SVE-1	SVE-1	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	3.0	< 1	< 1.6	< 2.7	< 3.1	4.4	3.5	61	2.2	9.3	6.0	< 3.9	< 2	< 2	< 2	< 2.5	< 1.5	
SVE-1	SVE-1	6/1/2017	5 to 10	< 2.7	< 2.7	31	3.3	1.9	< 1.6	< 2.7	< 1.6	< 1.3	< 1.5	< 1.3	< 1.7	< 1.7	< 3.5	< 1.7	< 2	< 2.4	< 2	< 2	< 1.5	2 (Chloromethane)	
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-2	SVE-2	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 9.9	< 7.3	< 4.7	< 1.6	< 2.7	5.2	2.2	1.9	3.3	< 1.7	4.7	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	
SVE-2	SVE-2	6/1/2017	5 to 10	< 12	< 9.9	< 7.3	< 4.7	< 13	< 11	< 7.5	< 5.5	< 6.9	6.1	< 6.9	< 8	< 16	< 16	< 9	< 18	< 11	< 11	< 9	< 6.7	2.8 (Methylene chloride), 2.2 (Trichlorodifluoromethane), 1.7	
SVE-3	SVE-3-103116	10/31/2016	4 to 9	< 16	< 21	14	< 12	40	< 13	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	7.0	< 4	< 29	21	11	10	110	18	20	10	< 5.8	< 4.8	240	< 3.6	2.8 (Methylene chloride)	
SVE-3	SVE-3	2/9/2017	4 to 9	< 2.7	< 2.1	< 1.6	< 1.6	1.6	< 1.6	4.6	< 2.7	5.3	< 1.6	18	9.3	3.5	< 1.7	7.7	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	
SVE-3	SVE-3	6/1/2017	4 to 9	< 2.7	< 2.1	1.6	< 1.6	1.5	< 2.7	5.3	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 3.9	< 2	< 2.4	< 2	< 1.5		
SVE-4	SVE-4-103116	10/31/2016	5 to 10	18	< 12	51	12	170	< 7.1	290	< 7.1	360	67	12	8.3	27	10	< 17	< 8.5	< 10	< 8.5	240	< 6.3	21 (1,2-DCB)	
SVE-4	SVE-4	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	15	2.8	1.8	< 1.6	< 2.7	4.1	1.7	6.9	4.5	16	4.5	< 3.9	< 2	< 2	< 2	60	< 1.5	
SVE-4	SVE-4	2/9/2017	5 to 10	< 2.7	< 2.1	23	5.0	28	< 1.6	< 2.7	3.9	< 1.6	25	41	9.1	4.2	16	9.5	< 3.9	< 2	< 2.4	< 2	70	< 1.5	
SVE-4	SVE-4	6/1/2017	5 to 10	< 2.7	9.0	23	5.0	28	< 1.6	< 2.7	3.9	< 1.6	25	41	9.1	4.2	16	9.5	< 3.9	< 2	< 2.4	< 2	70	< 1.5	
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	
SVE-5	SVE-5	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	1	< 1.6	< 2.7	4.8	< 1.6	17	< 1.3	3.1	1.7	9.3	3.0	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5	
SVE-5	SVE-5	6/1/2017	5 to 10	< 2.7	18	31	6.4	17	< 1.6	< 2.7	< 2.4	< 1.6	< 12	73	5.2	2.9	17	5.3	< 3.9	< 2	14	< 2	3.1	< 1.5	
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-6	SVE-6	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1	< 2.7	5.8	< 1.6	67	1.5	5.1	2.9	19	6.3	< 3.9	< 2	< 2.4	< 2	2.6	< 1.5	
SVE-6	SVE-6	6/1/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	4.1	< 1.6	< 1.												

**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 ( $\mu\text{g}/\text{m}^3$ )	TCE ( $\mu\text{g}/\text{m}^3$ )	cis-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	trans-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	Vinyl chloride ( $\mu\text{g}/\text{m}^3$ )	1,1,1-TCA ( $\mu\text{g}/\text{m}^3$ )	1,1,2,2-PCA ( $\mu\text{g}/\text{m}^3$ )	MEK ( $\mu\text{g}/\text{m}^3$ )	MIBK ( $\mu\text{g}/\text{m}^3$ )	Acetone ( $\mu\text{g}/\text{m}^3$ )	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	m,p-Xylene ( $\mu\text{g}/\text{m}^3$ )	o-Xylene ( $\mu\text{g}/\text{m}^3$ )	1,2,4-TMB ( $\mu\text{g}/\text{m}^3$ )	1,3,5-TMB ( $\mu\text{g}/\text{m}^3$ )	4-Ethyltoluene ( $\mu\text{g}/\text{m}^3$ )	Carbon disulfide ( $\mu\text{g}/\text{m}^3$ )	Chloroform ( $\mu\text{g}/\text{m}^3$ )	Other VOCs ( $\mu\text{g}/\text{m}^3$ )		
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) 2 (Dichlorodifluoromethane) 2.4 (Dichlorodifluoromethane) 3.6 (Methylene chloride)	
	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	1.6	6.9	4.8	17	4.9	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5	
	SVE-12	1/16/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.1	< 1.6	< 40	1.6	3.7	< 1.7	4.8	1.9	< 3.9	< 2	< 2.4	< 2	2.9	< 1.5		
	SVE-12	2/9/2017	5 to 10	< 2.7	< 2.7	< 1.6	< 1.6	< 1	< 1.6	< 2.7	< 3.5	< 1.6	< 12	1.5	3.7	< 1.7	4.8	1.9	< 3.9	< 2	< 2.4	< 2	31	< 1.5		
	SVE-12	6/1/2017	5 to 10	< 2.7	< 2.7	21	5.3	2.7	< 1.6	< 2.7	4.1	< 1.6	< 12	3.7	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	2.9	< 1.5		
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	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	2.8 (Methylene chloride), 2 (Chloromethane)	
	SVE-13	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	4.8	< 1.6	22	< 1.3	2.8	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5		
	SVE-13	6/1/2017	5 to 10	< 2.7	< 2.1	26	4.7	4.2	< 1.6	< 2.7	11	< 1.6	16	5.0	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	72	< 1.5		
SVE-14	SVE-14-103116	10/31/2016	5 to 10	< 20	< 25	49	< 15	24	< 15	790	< 15	330	21	< 14	< 16	< 32	< 16	< 36	< 18	< 22	< 18	< 23	< 14			
	SVE-14	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	13	< 1.6	28	1.8	4.7	< 1.7	5.1	2.1	< 3.9	< 2	< 2.4	< 2	6.1	< 1.5	5.1 (Methylene chloride), 2.1 (Chloromethane)	
	SVE-14	6/1/2017	5 to 10	< 2.7	< 2.1	1.7	< 1.6	< 1	< 1.6	< 2.7	9.9	< 1.6	17	< 1.3	1.7	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5		
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	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	1/16/2017	5 to 10	< 2.7	< 2.1	3.6	< 1.6	7.6	< 1.6	< 2.7	50	< 1.6	54	2.2	8.9	6.2	25	7.8	< 3.9	< 2	< 2.5	< 2	< 2.5	< 1.5	2.4 (Dichlorodifluoromethane)	
	SVE-15	2/9/2017	5 to 10	< 2.7	< 2.1	< 1.6	< 1.6	< 1	< 1.6	< 2.7	7.0	< 1.6	21	2.1	5.6	< 1.7	6.6	2.8	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5	4.9 (Methylene chloride), 1.9 (Chloromethane)	
	SVE-15	6/1/2017	5 to 10	< 18	< 15	< 11	< 11	17	< 11	< 19	460	< 11	190	< 8.7	< 10	< 12	< 24	< 12	< 27	< 13	< 16	< 13	< 17	< 10		
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	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	< 1000	< 1100	< 610		
	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	< 790	< 460			
	SVE-16	2/9/2017	5 to 10	< 2.7	< 2.1	360	74	34	< 1.6	< 2.7	7.4	< 1.6	29	2.2	4.0	< 1.7	5.3	2.1	< 3.9	< 2	< 2.4	< 2	< 2.5	< 1.5	4 (Methylene chloride), 2.1 (Chloromethane)	
	SVE-16	6/1/2017	5 to 10			82,000	21,000	30,000	< 640	< 1100	< 920	< 640	< 4700	< 500	< 590	< 680	< 1400	< 680	< 5800	< 770	< 940	< 770	< 980	< 570		
SVE-17	SVE-17-103116	10/31/2016	5 to 10	< 500	< 630	1,300	2,200	14,000	< 380	<																

**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 ( $\mu\text{g}/\text{m}^3$ )	TCE ( $\mu\text{g}/\text{m}^3$ )	cis-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	trans-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	Vinyl chloride ( $\mu\text{g}/\text{m}^3$ )	1,1,1-TCA ( $\mu\text{g}/\text{m}^3$ )	1,1,2,2-PCA ( $\mu\text{g}/\text{m}^3$ )	MEK ( $\mu\text{g}/\text{m}^3$ )	MIBK ( $\mu\text{g}/\text{m}^3$ )	Acetone ( $\mu\text{g}/\text{m}^3$ )	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	m,p-Xylene ( $\mu\text{g}/\text{m}^3$ )	o-Xylene ( $\mu\text{g}/\text{m}^3$ )	1,2,4-TMB ( $\mu\text{g}/\text{m}^3$ )	1,3,5-TMB ( $\mu\text{g}/\text{m}^3$ )	4-Ethyltoluene ( $\mu\text{g}/\text{m}^3$ )	Carbon disulfide ( $\mu\text{g}/\text{m}^3$ )	Chloroform ( $\mu\text{g}/\text{m}^3$ )	Other VOCs ( $\mu\text{g}/\text{m}^3$ )	
SVP-4-3.5	SVP-4-3.5	7/12/2016	3.5	<b>6.9</b>	<b>6.9</b>	< 1.6	< 1.6	< 1	9.5	<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>	2.0 (BDCM), 2.4 (Freon 12), 1.5 (MC), 2.6 (Freon 11)
	SVP-4-3.5	6/1/2017	3.5	< 2.7	<b>4.1</b>	< 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	
	SVP-4-3.5-DUP	6/1/2017	3.5	< 2.7	<b>4.1</b>	< 1.6	< 1.6	<b>4.8</b>	<b>3.0</b>	< 2.7	< 2.4	< 1.6	< 12	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 3.9	< 2	< 2.4	< 2	<b>10</b>	< 1.5	
SVP-4-7.5	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	72 (1,4-DCB), 23 (NAPH)
SVP-5-7.5	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	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-6-3.5	6/1/2017	3.5	< 190	< 150	<b>320</b>	< 110	<b>5,700</b>	< 120	< 190	< 170	< 120	< 840	< 91	< 110	< 120	< 250	< 120	< 280	< 140	< 170	< 140	< 180	< 100	
SVP-6-7.5	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 = 10-4)</b>			--	--	11,000	--	4,700	--	11,500	--	--	--	4,600	--	121,300	--	--	--	--	--	--	--	--		
<b>Commercial/Industrial TCL (Target LECR = 10-4)</b>			--	--	92,400	--	41,300	--	101,200	--	--	--	39,200	--	NA	--	--	--	--	--	--	--			
<b>Residential TCL (Target LECR = 10-5)</b>			--	--	11,000	--	473	--	1,100	--	--	--	1,400	--	12,100	--	--	--	--	--	--	--			
<b>Commercial/Industrial TCL (Target LECR = 10-5)</b>			--	--	92,400	--	4,100	--	10,100	--	--	--	12,600	--	NA	--	--	--	--	--	--				
<b>Residential TCL (Target LECR = 10-6)</b>			--	--	11,000	--	47	--	116	--	--	--	145	--	1,200	--	--	--	--	--	--	--			
<b>Commercial/Industrial TCL (Target LECR = 10-6)</b>			--	--	92,400	--	400	--	1,000	--	--	--	1,200	--	NA	--	--	--	--	--	--				

**Notes:**

Detections are shown in bold. Results exceeding residential 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.

 $\mu\text{g}/\text{m}^3$  = Micrograms per cubic meter.

&lt; 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.