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By Alameda County Environmental Health at 9:37 am, Jul 12, 2013



July 2, 2013

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

Subject: **File No. 01-0098 (MYM)**  
Site Located at 2844 Mountain Boulevard, Oakland, California

Dear Mr. Musonge:

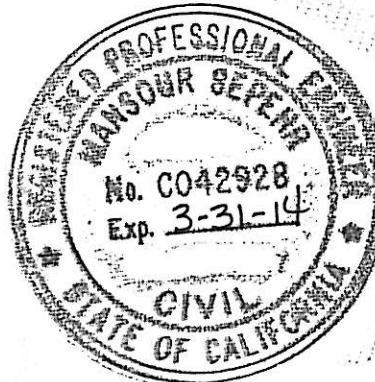
Enclosed for your review is a copy of SOMA's "Second Quarter 2013 Groundwater Monitoring Report" for the subject property. It has been uploaded to the State's GeoTracker database and Alameda County's FTP site.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Sepehr".

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist



cc: Mr. Tejindar Singh w/enclosure  
Ms. Donna Drogos – Alameda County Env. Health

**Second Quarter 2013  
Groundwater Monitoring Report**

**2844 Mountain Boulevard  
Oakland, California  
Regional Board File Number 01-0098**

**July 2, 2013**

**Project 5081**

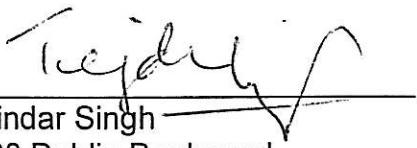
**Prepared for**

**Tejindar Singh  
6400 Dublin Blvd.  
Dublin, California, 94568**

PERJURY STATEMENT

Site Location: 2844 Mountain Boulevard, Oakland, California

"I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".

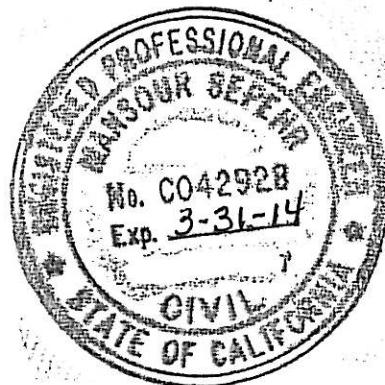
  
Tejindar Singh  
6400 Dublin Boulevard  
Dublin, California 94568  
Responsible Party

## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of Tejindar Singh, property owner of 2844 Mountain Blvd., Oakland, California, to comply with requirements of the San Francisco Bay Regional Water Quality Control Board for the Second Quarter 2013 groundwater monitoring event.



Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



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- Appendix B Tables of Elevations and Coordinates on Wells, Field Measurements of Physical and Chemical Parameters of the Groundwater Samples and Groundwater Gradient Calculations
- Appendix C Laboratory Report and Chain of Custody Form
- Appendix D Non-Hazardous Waste Manifest

## **1. INTRODUCTION**

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of Mr. Tejindar Singh, property owner of 2844 Mountain Blvd., Oakland, California. The site is located east of Highway 13 and west of Joaquin Miller Park (Figure 1). Former underground storage tank (UST) locations and site features are shown in Figure 2.

This report summarizes results of the Second Quarter 2013 groundwater monitoring event conducted at the site on June 6, 2013. It includes physical and chemical properties measured in the field for each groundwater sample and laboratory analytical results for groundwater samples.

### **1.1 Previous Activities**

In March 1989 soil contamination was identified during replacement of product lines. Analytical results for a soil sample collected from the southern edge of a premium unleaded tank reported total petroleum hydrocarbons (TPHs) as gasoline (TPH-g) concentration of 8,400 mg/kg. Samples from beneath the lines near the pump islands reported TPH concentrations of less than 100 mg/kg.

In July 1989, contaminated soil was excavated and from the area of the southern end of the premium unleaded UST disposed of. Analysis of 12 soil samples collected from the sides of the excavation reported TPH concentrations ranging between ND to 3,300 mg/kg.

In May 1990, further site investigation including installation of four monitoring wells (RS-1 through RS-4) was conducted. Analysis of soil samples collected above the water table reported TPH concentrations ranging from 1 to 240 mg/kg. Hydrocarbons were detected in groundwater samples collected from all the wells; the highest concentration was found in a sample monitoring well RS-2.

In June 1991 soil vapor extraction began in June 1991. Groundwater remediation began in October 1992. Remediation was suspended in 1992, apparently due to responsible party financial issues.

In April 1994, one 280-gallon waste oil UST was removed with approximately 280 gallons of fluid and rinsate. The site operated as a retail gasoline station. Three USTs, two pump islands and an office/garage building were among the site features. The USTs contained various grades of unleaded gasoline and diesel with storage capacities of 3,000, 4,000, and 10,000 gallons.

In 1996 free product was reported in RS-1.

In July 1998, one 4,000-gallon gasoline UST was excavated and disposed of off-site.

Between July 29 and August 18, 2011, two USTs, one 10,000 gallon and one 3,000 gallon capacity, were excavated and disposed of off-site. The site is currently fenced in, which limits public access to the property.

Further soil and groundwater investigation was conducted at the site in March 2012.

In October 2012, two wells (RS-1 and RS-2) were decommissioned in anticipation of excavation activities onsite. Excavation activities commenced on October 3, 2012, and an area of approximately 1,200 square feet was excavated to a depth of 15 feet. A total of 788.65 tons of waste soil was removed and replaced with clean fill material.

On May 9 and 10, 2013, two groundwater monitoring wells (MW-1 and MW-2) and soil and groundwater borings (DPT-5) were installed as approved and requested by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). All site wells were surveyed by a licensed surveyor on May 28, 2013.

## **1.2 Summary of Field Activities and Laboratory Analysis**

### **1.2.1 Field Activities**

On March 29, 2013, four monitoring wells (RS-3, RS-4, and newly installed MW-1 and MW-2) were measured for depth to groundwater. Additional field measurements and groundwater samples were collected from all monitoring wells. Properties measured in the field were pH, temperature, and electrical conductivity (EC). This monitoring event was conducted in accordance with procedures and guidelines of SFBRWQCB.

Figure 2 shows well locations. Appendix A details groundwater monitoring procedures followed during this event.

Purged groundwater was temporarily stored on-site in a 55-gallon drum. On June 28, 2013, one drum was transported to an appropriate disposal facility. Appendix D includes the non-hazardous waste manifest.

### **1.2.2 Laboratory Analysis**

Curtis and Tompkins Laboratories, a California state-certified laboratory, analyzed groundwater samples for the following: TPH-g, and TPH as diesel (TPH-d); BTEX (benzene, toluene, ethylbenzene, and total xylenes), MtBE,

gasoline oxygenates. All samples except TPH-d were analyzed using EPA Method 8260. TPH-d samples were analyzed using EPA Method 8015B.

## 2. RESULTS

Results of field measurements and laboratory analyses for the groundwater monitoring event conducted on June 6, 2013 follow below.

### 2.1 Field Measurements

Monitoring wells MW-1, MW-2, RS-3 and RS-4 were measured for depth to groundwater (Table 1). Depths to groundwater ranged from 6.03 feet in MW-1 to 8.48 feet in RS-4. Groundwater elevations ranged from 666.79 feet in RS-4 to 669.63 feet in RS-3.

Figure 3 displays the groundwater elevation map. The groundwater flows southeasterly at a gradient of 0.065 ft/ft. Groundwater gradient calculations are included in Appendix B.

### 2.2 Laboratory Analysis

Groundwater analytical data for this monitoring event is shown in Table 1. Appendix C includes the laboratory report and chain of custody form. No measurable floating product was observed during this monitoring event.

TPH-g was below laboratory-reporting limit in RS-3 and MW-1 and was detected at 12,000 µg/L and 16,000 µg/L in RS-4 and MW-2, respectively. Since the previous monitoring event (March 2013), TPH-g concentration in RS-4 has decreased. Figure 4 shows a map of TPH-g concentrations in groundwater. The TPH-g plume appears to be centered to the south of the pump islands in the vicinity of MW-2.

TPH-d was detected in concentrations ranging from 66 µg/L in RS-3 to 13,000 µg/L in MW-1. Since the previous monitoring event (March 2013), TPH-d has decreased in RS-3 and RS-4. Figure 5 shows a contour map of TPH-d concentrations in groundwater. TPH-d plume appears to be centered southwest of the pump islands in the vicinity of MW-1.

During analytical testing of TPH-d, groundwater sample from RS-3 exhibited chromatographic pattern that did not resemble standard. For details of analysis and testing of diesel, refer to the laboratory analytical report in Appendix C.

The following BTEX concentrations were observed during this monitoring event:

- All BTEX analytes were below laboratory-reporting limits in RS-3.

- Benzene concentrations ranged from 11 µg/L in RS-4 to 930 µg/L in MW-1. Figure 6 shows a contour map of benzene concentrations in groundwater. The benzene plume appears to be centered to the south and southwest of the pump islands in the vicinity of MW-1 and MW-2.
- Toluene was also below laboratory-reporting limit in RS-4 and MW-2 and was detected in MW-1 at 370 µg/L.
- Ethylbenzene concentrations ranged from 420 µg/L in RS-4 to 610 µg/L in MW-2.
- Total xylenes ranged from 886 µg/L in RS-4 to 2,290 µg/L in MW-2.

Methyl tertiary-butyl ether (MtBE) was detected in concentrations ranging from 1.5 µg/L in RS-3 to 59,000 µg/L in MW-2. Since the previous monitoring event (March 2013), MtBE has decreased in RS-3 and increased in RS-4. Figure 7 shows a contour map of MtBE concentrations in groundwater. The MtBE plume appears to be centered to the south of the pump islands in the vicinity of MW-2. MtBE concentrations in newly installed wells MW-1 and MW-2 are significantly higher than in RS-4.

Tertiary-butyl alcohol (TBA) was below laboratory-reporting limit in RS-3 and was detected in concentrations ranging from 32,000 µg/L in MW-1 to 66,000 µg/L in RS-4. Since the previous monitoring event (March 2013), TBA has decreased in RS-4. Figure 8 shows a contour map of TBA concentrations in groundwater. The highest TBA concentrations were detected in the southeast corner of the pump islands around RS-4.

Tertiary amyl methyl ether (TAME) was below laboratory-reporting limit in RS-3 and was detected in concentrations ranging from 970 µg/L in RS-4 to 7,700 µg/L in MW-2. Since the previous monitoring event (March 2013), TAME has increased in RS-4. Figure 9 shows a contour map of TAME concentrations in groundwater. The highest TAME concentrations were detected to the south of the pump islands around MW-2.

### **3. CONCLUSIONS AND RECOMMENDATIONS**

Conclusions and recommendations based on results of Second Quarter 2013 groundwater monitoring are summarized below.

- The groundwater flows southeasterly across the site.
- No free/floating product was observed in any monitoring wells during this monitoring event.
- Since the previous monitoring event in March 2013, all contaminant concentrations, except benzene, MtBE and TAME, have decreased in RS-4. No comparison could be made for benzene due to increased

reporting limit during previous monitoring event. MtBE and TAME increased since the previous monitoring event in this well.

- The highest TPH-g, ethylbenzene, total xylenes, MtBE, and TAME concentrations were detected to the south of pump islands around MW-2. The highest TPH-d, benzene, and toluene concentrations were detected to the southwest of pump islands. The highest TBA concentrations were detected in the southeast corner of the pump islands around RS-4.
- SOMA recommends conducting quarterly groundwater monitoring events at the site.

Based on SFBRWQCB's directive dated April 3, 2013 approving SOMA's December 2012 workplan, SOMA installed a soil boring and replaced two monitoring wells. SOMA has also applied for a permit modification with BAAQMD for conducting the approved MPE pilot test. The permit has to be modified due to the presence of a Montessori school within 1,000 feet of the site. A report documenting implementation of the workplan and results will be submitted upon completion of MPE pilot testing.

#### **4. REPORT LIMITATIONS**

This report is the summary of work done by SOMA, including observations and descriptions of site conditions. It includes analytical results produced by Curtis and Tompkins, Laboratories for the current groundwater monitoring event. Quantities and locations of wells were selected to provide the required information, but may not be completely representative of entire site conditions. All conclusions and recommendations are based on results of laboratory analysis. Conclusions beyond those specifically stated in this document should not be inferred from this report.

SOMA warrants that services were provided in accordance with generally accepted environmental engineering and consulting practices at the time of this sampling.

# **Figures**

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Second Quarter 2013 Groundwater Monitoring Event



approximate scale in feet  
0 100 200

Figure 1: Site Vicinity Map

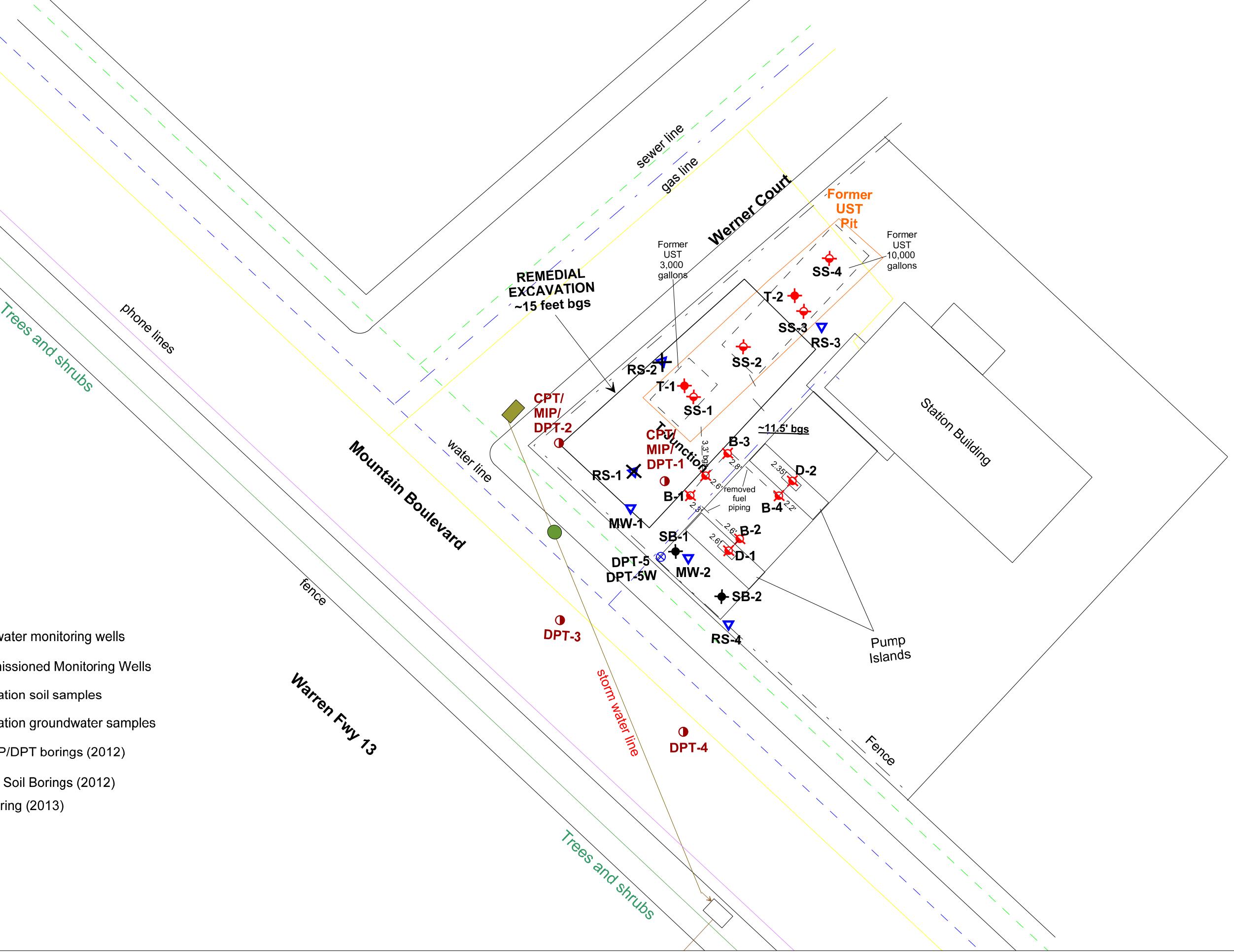


Figure 2: Site Map Showing Locations of Former USTs, Soil Borings, and Groundwater Monitoring Wells

approximate scale in feet

0 20 40

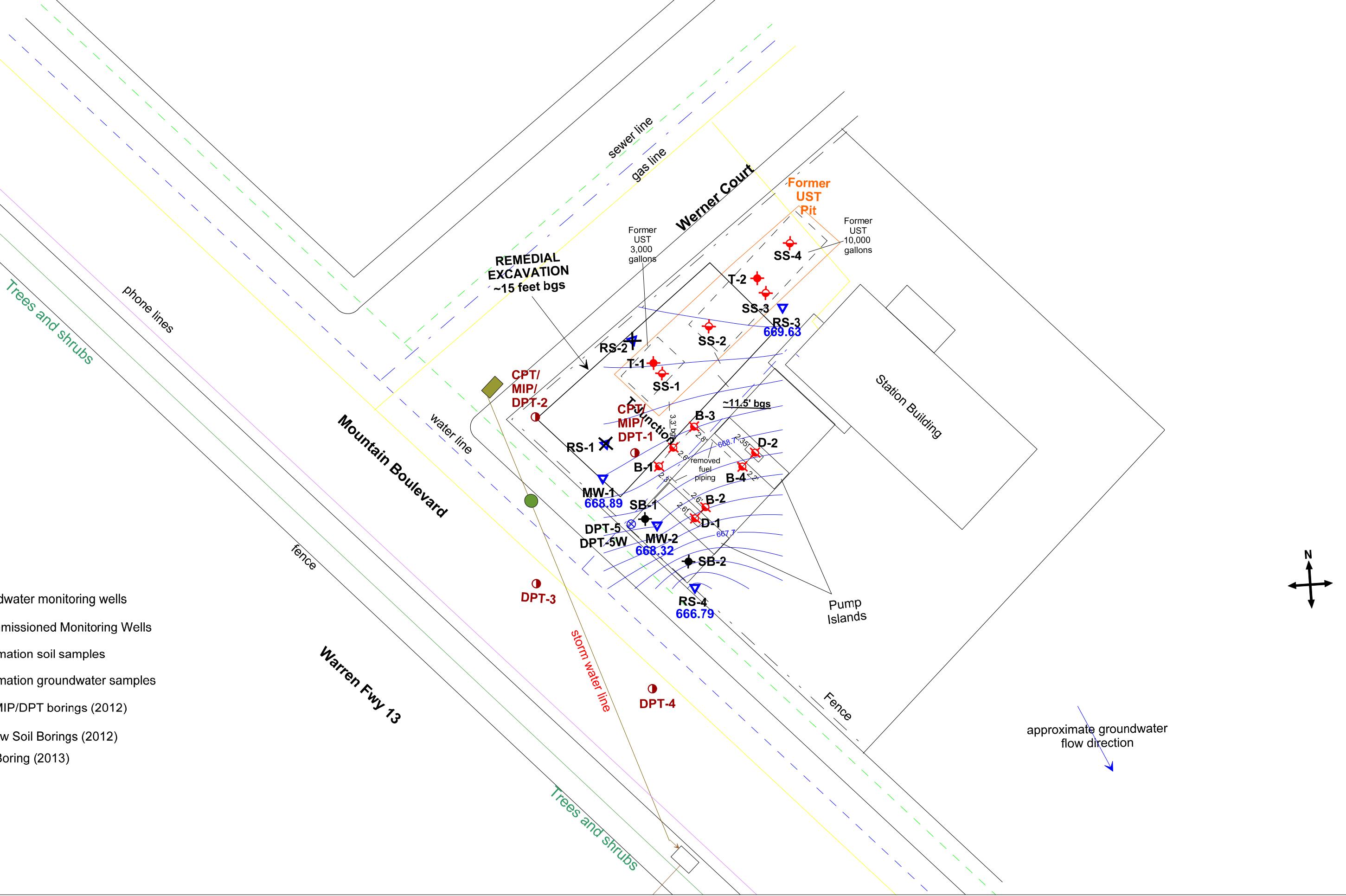


Figure 3: Groundwater Elevation Contour Map in feet, June 6, 2013

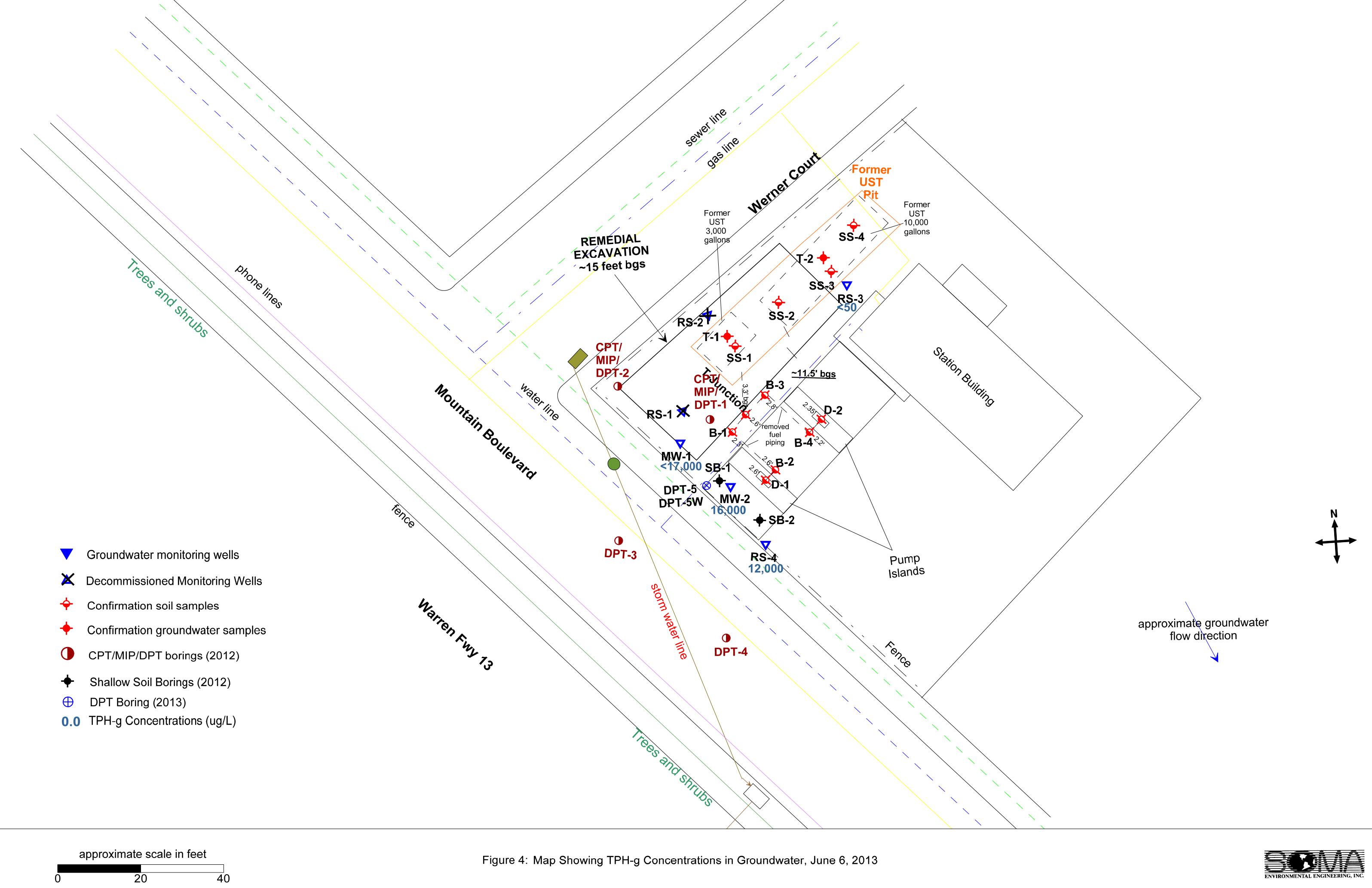


Figure 4: Map Showing TPH-g Concentrations in Groundwater, June 6, 2013



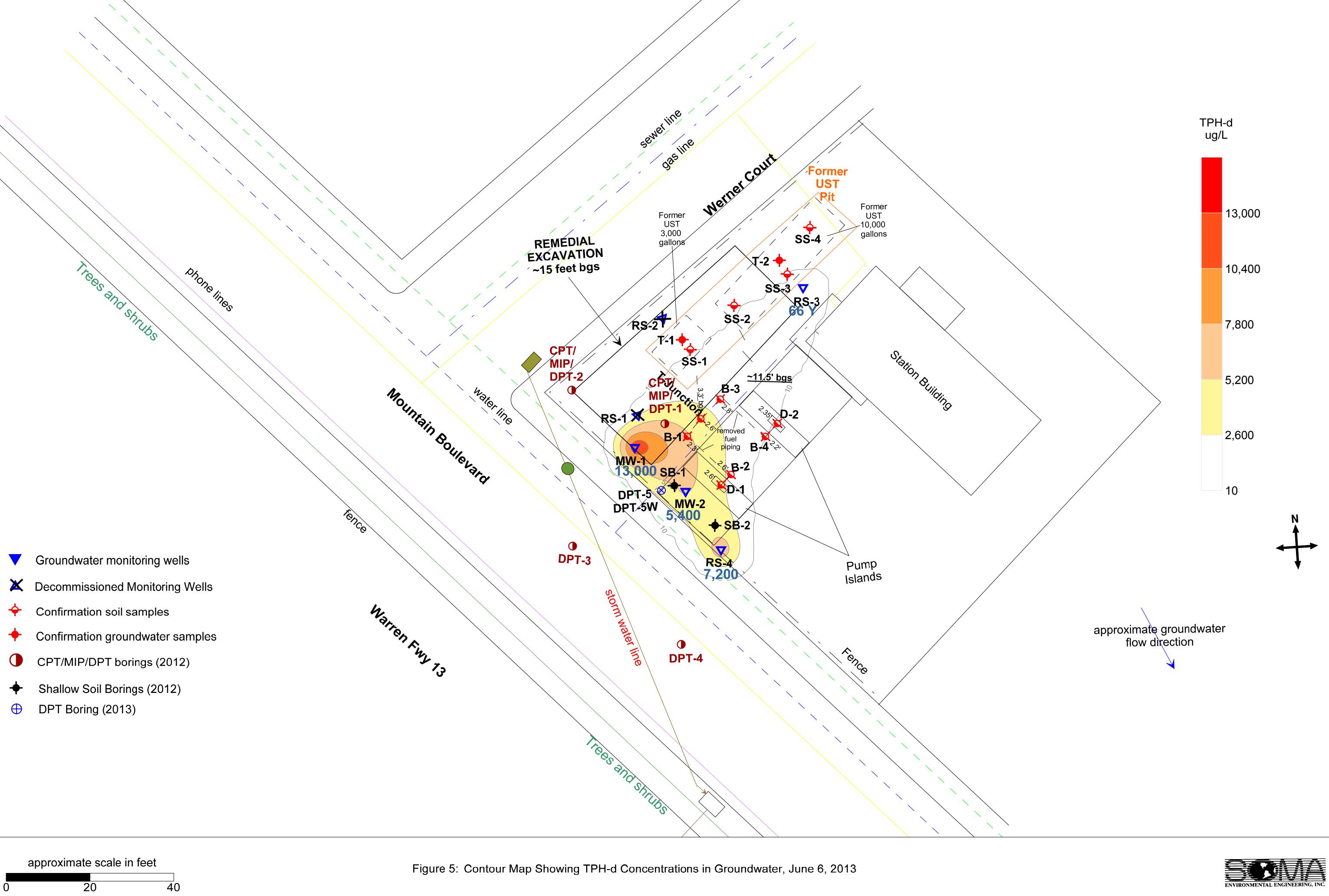


Figure 5: Contour Map Showing TPH-d Concentrations in Groundwater, June 6, 2013



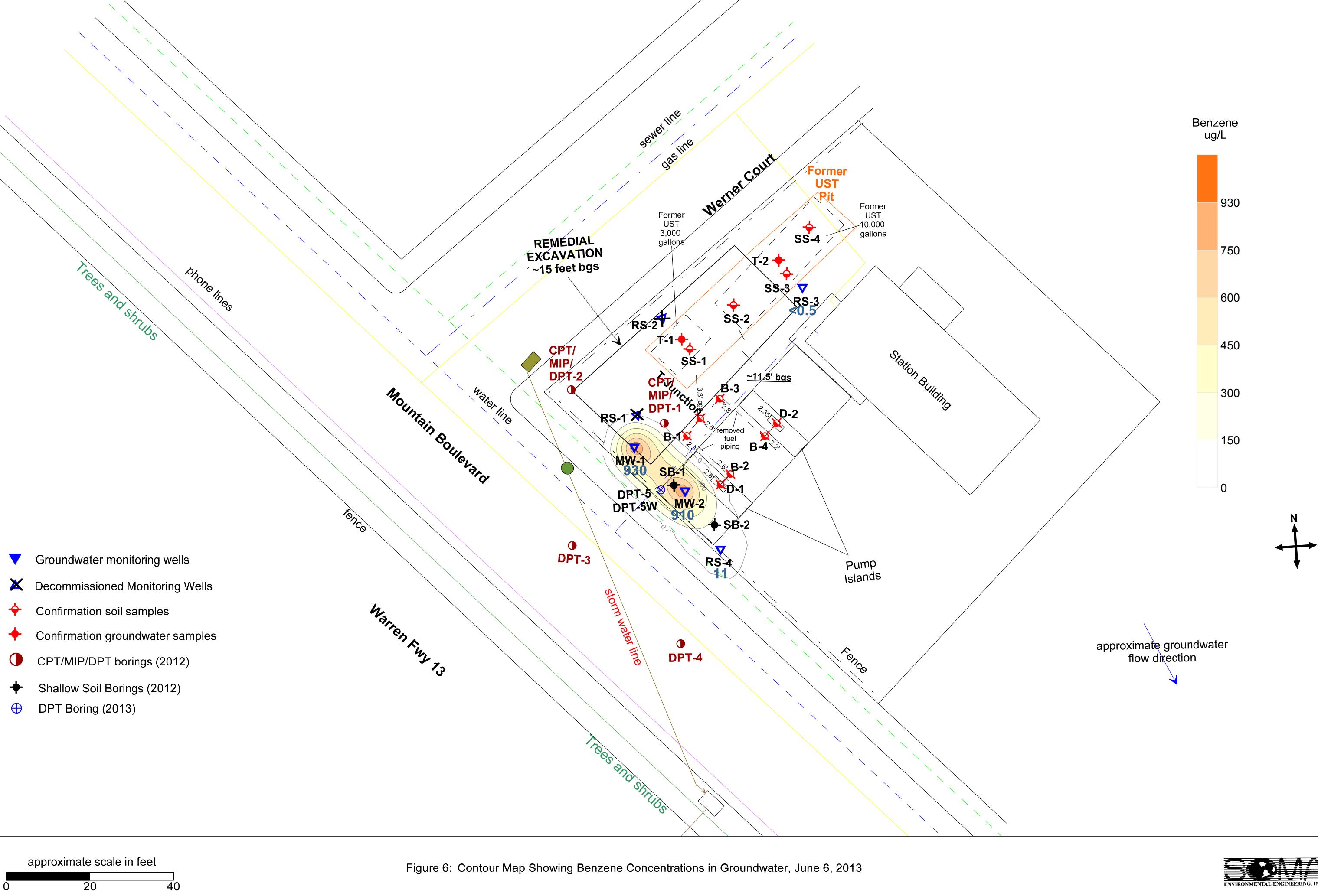


Figure 6: Contour Map Showing Benzene Concentrations in Groundwater, June 6, 2013

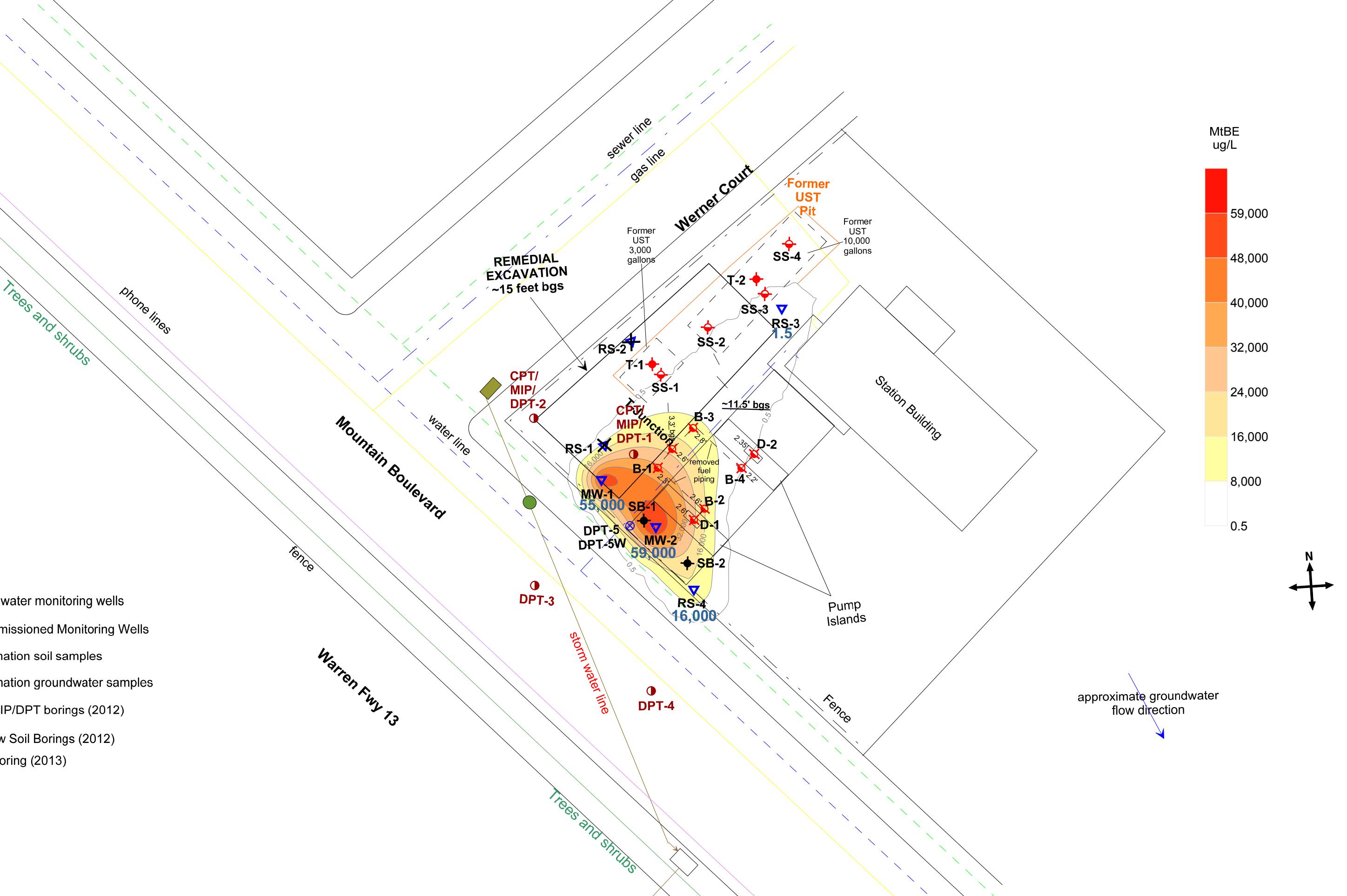


Figure 7: Contour Map Showing MtBE Concentrations in Groundwater, June 6, 2013

approximate scale in feet  
0 20 40

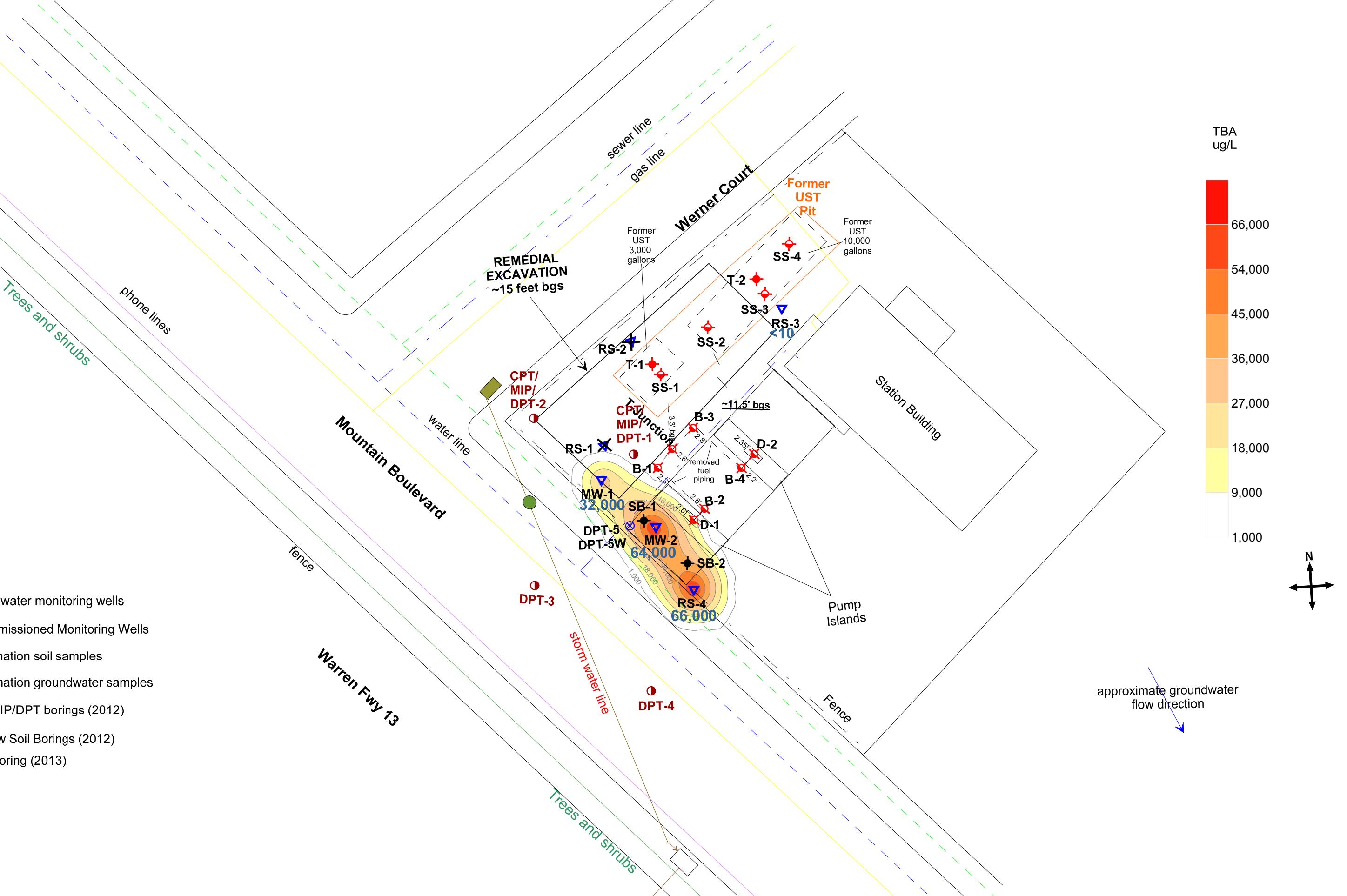


Figure 8: Contour Map Showing TBA Concentrations in Groundwater, June 6, 2013

approximate scale in feet



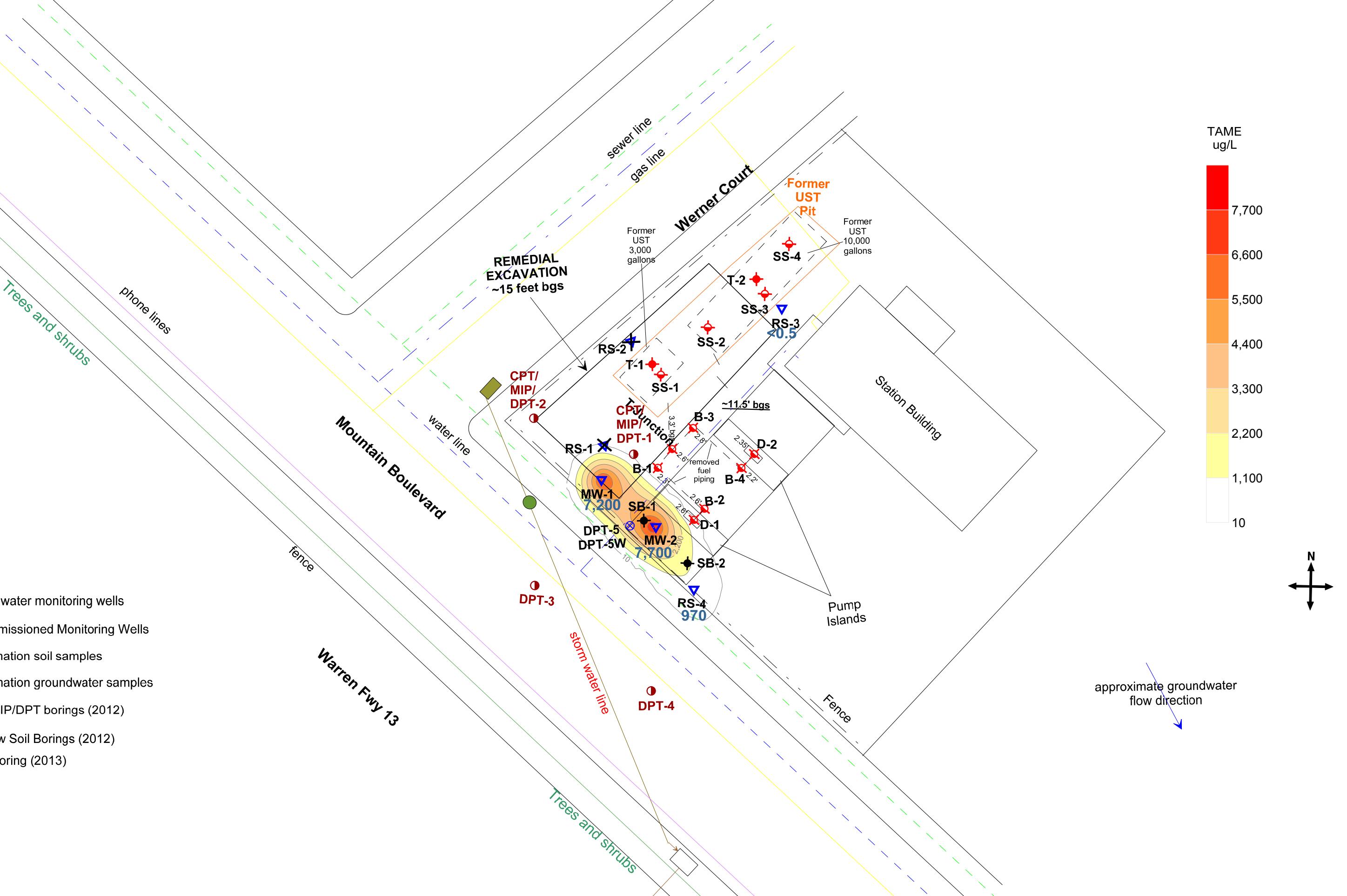


Figure 9: Contour Map Showing TAME Concentrations in Groundwater, June 6, 2013

# **Tables**

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Second Quarter 2013 Groundwater Monitoring Event

**Table 1**  
**Historical Groundwater Analytical Results**  
**2844 Mountain Boulevard, Oakland, CA**

Monitoring Well	Date	Casing Elevation (Ft.)	Depth to Top Fluid (Ft.)	Depth to Groundwater (Ft.)	Free-Product Thickness	Groundwater Elevation	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MtBE µg/L	TBA µg/L	TAME µg/L
RS-1	May-90	675.63	7.20	7.20	0.00	668.43	2,700			370	420	40	320			
	May-91	675.63	8.35	8.35	0.00	667.28	1,300			580	130	62	240			
	Oct-91	675.63	10.22	10.22	0.00	665.41	1,100			140	100	45	210			
	Jan-92	675.63	8.06	8.06	0.00	667.57	1,700			9.9	31	9.7	170			
	Jan-93	675.63	5.30	5.30	0.00	670.33	3,700			650	9.2	51	170			
	Aug-93	675.63	8.56	8.56	0.00	667.07	900			14	0.6	2.1	8			
	Nov-93	675.63	8.44	8.44	0.00	667.19	1,400			9.6	ND	0.9	5			
	Jan-94	675.63	6.88	6.88	0.00	668.75	4,200			95	3.1	58	130			
	May-94	675.63	7.87	7.87	0.00	667.76	7,500			270	11	37	96			
	Aug-94	675.63		16.28	16.28	659.35	130			12	0.5	2.6	5			
	Nov-94	675.63	8.02	8.02	0.00	667.61	270			4.7	0.7	0.6	15			
	Feb-95	675.63	6.51	6.51	0.00	669.12	12,000			81	2.3	1	12			
	Jun-95	675.63	7.34	7.34	0.00	668.29	37,000			460	ND	ND	ND	63,000		
	Nov-95	675.63	8.71	8.71	0.00	666.92	ND			660	16	140	330	31,000		
	Feb-96	675.63	6.95	6.95	0.00	668.68	66,000			110	ND	12	21	84,000		
	9/18/1996	675.63	8.44	8.52	0.08	667.17	1 INCH FLOATING PRODUCT									
	12/11/1996	675.63	6.42	6.62	0.20	669.17	79,000			4,000	37,000	8,000	45,000	220,000		
	2/21/1997	675.63	6.88	6.92	0.04	668.74	1/2 INCH FLOATING PRODUCT									
	5/28/1997	675.63	7.88	7.96	0.08	667.73	156,000			9,400	51,000	7,000	45,000	112,000		
	9/2/1997	675.63	8.34	8.38	0.04	667.28	1/2 INCH FLOATING PRODUCT									
	11/24/1997	675.63	6.98	7.00	0.02	668.65	1/4 INCH FLOATING PRODUCT									
	2/25/1998	675.63	3.51	3.52	0.01	672.12	1/8 INCH FLOATING PRODUCT									
	5/27/1998	675.63	7.31	7.31	0.00	668.32	40,000			2,200	4,000	2,300	19,000	350,000		
	9/16/1998	675.63	8.10	8.10	0.00	667.53	62,000			2,400	2,300	2,100	14,000	250,000		
	11/23/1998	675.63	7.10	7.10	0.00	668.53	99,000			2,600	5,800	2,500	18,000	130,000		
	2/23/1999	675.67	4.82	4.87	0.05	670.84	5/8 INCH FLOATING PRODUCT									
	5/5/1999	675.67	6.86	6.90	0.04	668.80	FLOATING PRODUCT									
	8/24/1999	675.67	7.87	7.90	0.03	667.80	FLOATING PRODUCT									
	2/8/2012	675.67	6.80	6.80	0.00	668.87	60,000 x	8,200 x	<936	790	<6.4	2,000	430	65,000	41,000	5,100
	5/4/2012	675.67	6.57	6.57	0.00	669.10	18,000	10,000	NA	600	<36	2,000	870	22,000	11,000	1,800
	8/6/2012	675.67	7.61	7.61	0.00	668.06	16,000	12,000	NA	940	<130	2,000	560	42,000	35,000	3,400
<b>Well Destroyed October 1, 2012</b>																
RS-2	May-90	689.00	7.06	7.06	0.00	681.94	23,000			7,200	4,800	300	3,300			
	May-91	689.00	7.14	7.14	0.00	681.86	26,000			14,000	1,800	750	2,900			
	Oct-91	688.89	8.84	8.84	0.00	680.05	13,000			4,300	910	300	2,300			
	Jan-92	688.89	7.34	7.34	0.00	681.55	8,300			1,800	920	140	1,700			
	Jan-93	688.89	4.10	4.10	0.00	684.79	41,000			7,000	210	1,200	4,200			
	Aug-93	688.89	7.32	7.32	0.00	681.57	19,000			5,300	62	810	1,600			
	Nov-93	688.89	7.34	7.34	0.00	681.55	9,300			2,400	3.90	46	800			

**Table 1**  
**Historical Groundwater Analytical Results**  
**2844 Mountain Boulevard, Oakland, CA**

Monitoring Well	Date	Casing Elevation (Ft.)	Depth to Top Fluid (Ft.)	Depth to Groundwater (Ft.)	Free-Product Thickness	Groundwater Elevation	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MtBE µg/L	TBA µg/L	TAME µg/L
RS-2 cont.	Jan-94	688.89	5.52	5.52	0.00	683.37	30,000			4,900	ND	880	2,600			
	May-94	675.25	6.40	6.40	0.00	668.85	120,000			3,300	330	ND	2,200			
	Aug-94	675.25			0.00	675.25	510			7.30	3.80	3.50	32			
	Nov-94	675.25	9.82	9.82	0.00	665.43	620			6.60	3.90	1.10	47			
	Feb-95	675.25	4.81	4.81	0.00	670.44	22,000			228	80	2	463			
	Jun-95	675.25	5.80	5.80	0.00	669.45	49,000			1,300	160	200	1,600	71,000		
	Nov-95	675.25	7.64	7.64	0.00	667.61	ND			670	25	150	360	65,000		
	Feb-96	675.25	4.69	4.69	0.00	670.56	75,000			1,400	170	59	460	71,000		
	9/18/1996	675.25	7.34	7.34	0.00	667.91	6,300			2,000	48	350	570	160,000		
	12/11/1996	675.25	5.08	5.08	0.00	670.17	16,000			2,000	840	200	3,200	180,000		
	2/21/1997	675.25	5.42	5.42	0.00	669.83	22,000			2,100	1,300	600	5,100	56,000		
	5/28/1997	675.25	6.40	6.40	0.00	668.85	156,000			4,200	89	1,000	6,900	390,000		
	9/2/1997	675.25	6.93	6.93	0.00	668.32	<50			1,300	25	360	1,400	180,000		
	11/24/1997	675.25	5.93	5.93	0.00	669.32	<50			600	ND	ND	ND	610,000		
	2/25/1998	675.25	4.59	4.59	0.00	670.66	11,000			1,100	<50	320	2,400	330,000		
	5/27/1998	675.25	5.61	5.61	0.00	669.64	13,000			2,000	150	600	2,700	380,000		
	9/16/1998	675.25	6.84	6.84	0.00	668.41	11,000			1,600	20	1,600	1,600	280,000		
	11/23/1998	675.25	6.24	6.24	0.00	669.01	12,000			1,200	84	<5	960	140,000		
	2/23/1999	675.28	4.62	4.62	0.00	670.66	8,800			1,500	650	640	1,500	450,000		
	5/5/1999	675.28	7.55	7.55	0.00	667.73	29,000			2,000	1,300	500	3,700	270,000		
	8/24/1999	675.28	6.62	6.62	0.00	668.66	12,000			1,900	20	370	980	340,000		
	2/8/2012	675.28	5.52	5.52	0.00	669.76	18,000 x	6,800 x	<378	540	<6.4	120	710	2,800	64,000	420
	5/4/2012	675.28	5.18	5.18	0.00	670.10	16,000	13,000	NA	690	23	460	1,140	6,800	21,000	960
	8/6/2012	675.28	6.33	6.33	0.00	668.95	11,000	10,000	NA	810	<25	210	473	3,300	18,000	580
Well Destroyed October 1, 2012																
RS-3	May-90	670.00	6.00	6.00	0.00	664.00	330			2	1	1	150			
	May-91	670.00	6.76	6.76	0.00	663.24	ND			0.40	ND	0.80	8			
	Oct-91	670.00	8.98	8.98	0.00	661.02	ND			ND	ND	ND	ND			
	Jan-92	670.00	6.81	6.81	0.00	663.19	ND			2.20	7.20	0.60	4			
	Jan-93	670.00	4.05	4.05	0.00	665.95	ND			ND	ND	ND	ND			
	Aug-93	670.00	7.19	7.19	0.00	662.81	ND			30	6	2.40	5			
	Nov-93	670.00	7.12	7.12	0.00	662.88	ND			4.80	0.40	0.60	2			
	Jan-94	670.00	5.42	5.42	0.00	664.58	330			25	3.20	3.90	12			
	May-94	676.20	5.78	5.78	0.00	670.42	670			34	4	28	70			
	Aug-94	676.20	5.86	5.86	0.00	670.34	ND			ND	ND	ND	ND			
	Nov-94	676.20	5.08	5.08	0.00	671.12	69			2.50	3.10	1	4			
	Feb-95	676.20	4.51	4.51	0.00	671.69	ND			0.30	0.40	ND	1			
	Jun-95	676.20	5.29	5.29	0.00	670.91	ND			ND	ND	ND	ND	66		
	Nov-95	676.20	7.10	7.10	0.00	669.10	ND			ND	ND	ND	ND	44		

**Table 1**  
**Historical Groundwater Analytical Results**  
**2844 Mountain Boulevard, Oakland, CA**

Monitoring Well	Date	Casing Elevation (Ft.)	Depth to Top Fluid (Ft.)	Depth to Groundwater (Ft.)	Free-Product Thickness	Groundwater Elevation	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MtBE µg/L	TBA µg/L	TAME µg/L
<b>RS-3 cont.</b>	Feb-96	676.20	4.48	4.48	0.00	671.72	120			ND	ND	ND	ND	110		
	9/18/1996	676.20	6.92	6.92	0.00	669.28	1,000			13	8.60	10	17	33		
	12/11/1996	676.20	4.90	4.90	0.00	671.30	85			20	2	<0.5	14	4,700		
	2/21/1997	676.20	4.94	4.94	0.00	671.26	120			5	2	2	6	850		
	5/28/1997	676.20	7.92	7.92	0.00	668.28	<50			6	<0.5	<0.5	<2	2,400		
	9/2/1997	676.20	6.60	6.60	0.00	669.60	<50			0.90	<0.5	<0.5	<2	8,600		
	11/24/1997	676.20	5.89	5.89	0.00	670.31	140			13	2	1	12	3,600		
	2/25/1998	676.20	4.29	4.29	0.00	671.91	<50			<0.5	<0.5	<0.5	4	850		
	5/27/1998	676.20	5.01	5.01	0.00	671.19	<50			7	<0.5	<0.5	11	940		
	9/16/1998	676.20	6.21	6.21	0.00	669.99	<50			2	2	2	10	670		
	11/24/1998	676.20	5.58	5.58	0.00	670.62	85			9	23	<0.5	19	180		
	2/24/1999	676.23	4.30	4.30	0.00	671.93	<50			<0.5	0.90	<0.5	<1.0	150		
	5/5/1999	676.23	4.92	4.92	0.00	671.31	<50			1	2	1	6	130		
	8/24/1999	676.23	6.64	6.64	0.00	669.59	80			0.80	<0.5	0.60	<1	300		
	2/8/2012	676.23	5.72	5.72	0.00	670.51	130 x	<42	<94	<0.13	0.59	2.90	18.1	7.9	<1.5	<0.17
	5/4/2012	676.23	5.25	5.25	0.00	670.98	<50	330 Y	NA	<0.5	<0.5	<0.5	<0.5	10	18	2.4
	8/6/2012	676.23	6.65	6.65	0.00	669.58	<50	390 Y	NA	<0.5	<0.5	<0.5	<0.5	13	<10	3.2
	3/29/2013	676.23	6.01	6.01	0.00	670.22	<50	90 <sup>y</sup>	NA	<0.5	<0.5	<0.5	<0.5	3.6	<10	<0.5
	6/6/2013	<b>676.08</b>	<b>6.45</b>	<b>6.45</b>	<b>0.00</b>	<b>669.63</b>	<b>&lt;50</b>	<b>66 <sup>y</sup></b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>1.5</b>	<b>&lt;10</b>	<b>&lt;0.5</b>
<b>RS-4</b>	May-90	675.38	8.34	8.34	0.00	667.04	440			9	11	9	49			
	May-91	675.38	9.50	9.50	0.00	665.88	ND			8	4	3	5			
	Oct-91	675.38	10.82	10.82	0.00	664.56	830			280	120	24	170			
	Jan-92	675.38	9.31	9.31	0.00	666.07	620			34	8.30	2.10	21			
	Jan-93	675.38	6.89	6.89	0.00	668.49	150			32	1.70	5.80	13			
	Aug-93	675.38	9.68	9.68	0.00	665.70	ND			0.90	0.70	ND	0			
	Nov-93	675.38	9.83	9.83	0.00	665.55	ND			ND	ND	ND	ND			
	Jan-94	675.38	8.17	8.17	0.00	667.21	ND			1.70	ND	0.81	2			
	May-94	675.38	8.69	8.69	0.00	666.69	ND			ND	ND	ND	1			
	Aug-94	675.38	9.04	9.04	0.00	666.34	420			6.50	4.10	1.90	40			
	Nov-94	675.38	8.00	8.00	0.00	667.38	130			4.10	0.70	1.70	8			
	Feb-95	675.38	7.93	7.93	0.00	667.45	ND			6	1.20	3.50	13			
	Jun-95	675.38	8.61	8.61	0.00	666.77	ND			ND	ND	ND	ND	69		
	Nov-95	675.38	10.43	10.43	0.00	664.95	ND			ND	ND	ND	ND	47		
	Feb-96	675.38	7.44	7.44	0.00	667.94	960			ND	ND	0.60	ND	80		
	9/18/1996	675.38	9.58	9.58	0.00	665.80	<50			<0.5	<0.5	<0.5	<2	200		
	12/11/1996	675.38	7.50	7.50	0.00	667.88	75			<0.5	0.60	<0.5	<0.5	104		
	2/21/1997	675.38	8.26	8.26	0.00	667.12	<50			1	1	<0.5	1	190		
	5/28/1997	675.38	8.92	8.92	0.00	666.46	<50			6	<0.5	<0.5	<2	110		
	9/2/1997	675.38	9.39	9.39	0.00	665.99	100			3	<0.5	<0.5	<2	39		
	11/24/1997	675.38	8.22	8.22	0.00	667.16	41			<0.5	2	<0.5	<2	210		

**Table 1**  
**Historical Groundwater Analytical Results**  
**2844 Mountain Boulevard, Oakland, CA**

Monitoring Well	Date	Casing Elevation (Ft.)	Depth to Top Fluid (Ft.)	Depth to Groundwater (Ft.)	Free-Product Thickness	Groundwater Elevation	TPH-g µg/L	TPH-d µg/L	TPH-mo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MtBE µg/L	TBA µg/L	TAME µg/L
RS-4 cont.	2/25/1998	675.38	7.19	7.19	0.00	668.19	<50			3	<0.5	<0.5	<1	5,600		
	5/27/1998	675.38	8.40	8.40	0.00	666.98	<50			<0.5	<0.5	<0.5	<1	2,400		
	9/16/1998	675.38	9.26	9.26	0.00	666.12	<50			<0.5	<0.5	<0.5	<1	230		
	11/24/1998	675.38	8.50	8.50	0.00	666.88	<50			2	<0.5	<0.5	<1	100		
	2/24/1999	675.42	7.20	7.20	0.00	668.22	<50			2	3	0.80	5	670		
	5/5/1999	675.42	8.37	8.37	0.00	667.05	100			<0.5	<0.5	<0.5	<1	440		
	8/24/1999	675.42	8.36	8.36	0.00	667.06	<50			<0.5	<0.5	<0.5	<1	<500		
	2/8/2012	675.42	8.11	8.11	0.00	667.31	140,000	130,000 x	<9,360	120	2,600	4,700	28,200	28,000	100,000	1,800
	5/4/2012	675.42	8.31	8.31	0.00	667.11	67,000	12,000 Y	NA	61	900	2,100	9,700	32,000	69,000	1,700
	8/6/2012	675.42	9.01	9.01	0.00	666.41	49,000	8,900	NA	<130	350	1,700	8,100	19,000	90,000	1,300
	3/29/2013	675.42	8.49	8.49	0.00	666.93	14,000	14,000	NA	<100	<100	440	1,340	14,000	110,000	590
	6/6/2013	675.27	8.48	8.48	0.00	666.79	12,000	7,200	NA	11	<3.6	420	886	16,000	66,000	970
MW-1	6/6/13	674.92	6.03	6.03	0.00	668.89	<17,000	13,000	NA	930	370	470	1,760	55,000	32,000	7,200
MW-2	6/6/13	675.02	6.70	6.70	0.00	668.32	16,000	5,400	NA	910	<130	610	2,290	59,000	64,000	7,700
ESLs (µg/L)	Ground-water						100	100	100	1.00	40	30	20	5.00	12	NL
	Vapor Intrusion						NV	NV	NV	27	95,000	310	37,000	9,900	NV	NL

Note:

< : Below Laboratory Reporting Limit (Method Detection Limit)

x : Does not match pattern of reference Gasoline standard/ Not typical of diesel standard pattern (possibly fuel lighter than diesel)

ESL: Environmental Screening Level by California Regional Water Quality Control Board San Francisco Bay Region

revised May 2013 (Table-F1a, groundwater is a current or potential drinking water source)

NL: Not Listed

NV: No Value

# **Appendix A**

## **Standard Operating Procedures for Conducting Groundwater Monitoring Activities**

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Second Quarter 2013 Groundwater Monitoring Event

# **Standard Operating Procedures for Conducting Groundwater Monitoring Activities**

## **Water Level Measurements**

Prior to measurement of groundwater depth at each monitoring well, equalization with the surrounding aquifer must be achieved. Initially, the well cap is removed and the pressure is allowed to dissipate, creating a more stable water table level within the well. After about 10- 15 minutes, once the water level in the well stabilizes, the depth to groundwater in each monitoring well is measured from the top of the casing to the nearest 0.01 foot using an electric sounder.

## **Purging and Field Measurements**

Prior to sample collection, each monitoring well is purged using a battery-operated, 2-inch-diameter pump (Model ES-60 DC). To ensure that final samples are in equilibrium with the surrounding groundwater, during purging several samples are taken for field measurements of pH, temperature and electrical conductivity (EC). These parameters are measured with a Hanna pH, conductivity, and temperature meter. Equipment is calibrated on-site using standard solutions and procedures provided by the manufacturer.

The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater EC is directly related to the concentration of total dissolved solids (TDS) in solution.

Purging continues until these parameters stabilize or three casing volumes are purged.

## **Sampling**

For sampling purposes, after purging a dispensable polyethylene bailer is used to collect sufficient samples from each monitoring well for laboratory analyses. Groundwater samples are transferred to 40-mL VOA vials and preserved with hydrochloric acid. The vials are sealed to prevent air bubbles from forming within the headspace. For TPH-d and TPH-mo analysis, groundwater samples are collected using 1-L, amber, nonpreserved glass containers. Samples are placed in an ice-filled cooler and maintained at 4°C. A chain of custody form for all samples is prepared to accompany the samples, which are promptly delivered to a California state-certified analytical laboratory.

# **Appendix B**

Tables of Elevations and Coordinates on Wells,  
Field Measurements of Physical and Chemical  
Parameters of the Groundwater Samples  
and Groundwater Gradient Calculations

DATE: 5/28/2013  
JOB# 13004

## TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL ENGINEERING  
2844 MOUNTAIN BLVD  
OAKLAND, CA 94602

HORIZONTAL CONTROL: CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83.

ELLIPSOID: WGS 1984

EPOCH: NAD 83 (2011) 2010.0000

GEOID MODEL: GEOID12A

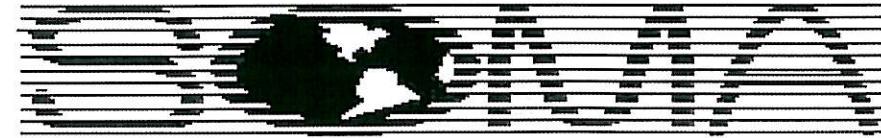
VERTICAL CONTROL: BENCH MARK: CITY OF OAKLAND BM 2806

CINCH NAIL IN SOUTHWESTERLY CURB OF MOUNTAIN BLVD, 150' SOUTHEASTERLY FROM THE CENTERLINE OF KEARNEY AVE EXTENDED. NORTHING 2,122,547.687', EASTING 6,070,956.301' ELEVATION= 674.892' NAVD 88 DATUM



EQUIPMENT USED: TRIMBLE GPS-R8 & TS S6, TOPCON AT-G2 LEVEL

**EDGIS LAND SURVEYING  
LAND SURVEYING AND MAPPING**  
1374 Garland Avenue, Clovis, CA 93612  
Phone (559) 803-2679  
email: [edgis@aol.com](mailto:edgis@aol.com)



ENVIRONMENTAL ENGINEERING, INC

Well No.: PS-3  
 Casing Diameter: 4 inches  
 Depth of Well: 29.49 feet  
 Top of Casing Elevation: 676.08 feet  
 Depth to Groundwater: 695 feet  
 Groundwater Elevation: 669.63 feet  
 Water Column Height: 18.04 feet  
 Purged Volume: 15 gallons

Project No.: 5081  
 Address: 2844 Mountain Blvd.  
 Oakland, CA  
 Date: June 6, 2013  
 Sampler: Lizzie Hightower  
 Parsa Motavalli

Purging Method:

Bailer

Pump

Sampling Method:

Bailer

Pump

Color:

Yes  No

Describe: cloudy

Sheen:

Yes  No

Describe: \_\_\_\_\_

Odor:

Yes  No

Describe: \_\_\_\_\_

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µS/cm)
10:46	Started purging well			
10:47	3	7.24	18.0	800
10:48	6	7.11	17.9	790
10:49	9	7.10	18.3	780
10:50	12	7.08	18.0	770
10:51	15	7.08	17.5	790
Notes: 10:56	Sampled			



## ENVIRONMENTAL ENGINEERING, INC

Well No.: RJ-4  
Casing Diameter: 4 inches  
Depth of Well: 25.84 feet  
Top of Casing Elevation: 675.27 feet  
Depth to Groundwater: 8.48 feet  
Groundwater Elevation: 666.79 feet  
Water Column Height: 17.06 feet  
Purged Volume: 15 gallons

Project No.: 5081  
Address: 2844 Mountain Blvd.  
Oakland, CA  
Date: June 6, 2013  
Sampler: Lizzie Hightower  
Parsa Motavalli

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Slightly Clayey

Sheen: Yes  No  Describe: Rainbow Sheen

Odor: Yes  No  Describe: Petro odor

## Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:46	5-10 ft	Purging		
12:47	3	7.32	21.2	1320
12:48	6	7.05	20.6	1290
12:49	9	6.76	20.2	1220
12:50	12	6.80	19.9	1270
12:51	15	6.93	19.6	1290
Notes: 12:56	Sample P			


**ENVIRONMENTAL ENGINEERING, INC**

Well No.: MW-1  
 Casing Diameter: 4 inches  
 Depth of Well: 19.75 feet  
 Top of Casing Elevation: 674.92 feet  
 Depth to Groundwater: 6.07 feet  
 Groundwater Elevation: 668.85 feet  
 Water Column Height: 13.72 feet  
 Purged Volume: 15 gallons

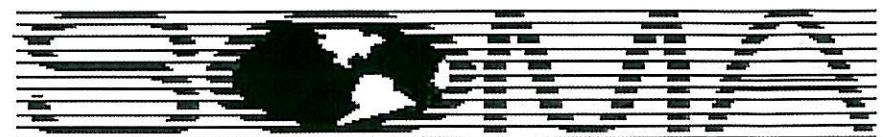
Project No.: 5081  
 Address: 2844 Mountain Blvd.  
 Oakland, CA  
 Date: June 6, 2013  
 Sampler: Lizzie Hightower  
 Parsa Motavalli

Purging Method: Bailer  Pump   
 Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_  
 Sheen: Yes  No  Describe: \_\_\_\_\_  
 Odor: Yes  No  Describe: Petro

**Field Measurements:**

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µS/cm)
11:24		Started purging well		
11:25	3	7.17	17.2	1120
11:26	6	6.92	18.3	960
11:27	9	6.95	18.6	1023 1120
11:28	12	6.96	18.4	1100
11:29	15	6.93	18.0	1130
Notes: 11:34		Sampled		



## ENVIRONMENTAL ENGINEERING, INC

Well No.:	<u>MW-2</u>		Project No.:	5081	
Casing Diameter:	<u>4</u> inches		Address:	2844 Mountain Blvd. Oakland, CA	
Depth of Well:	<u>19.74</u> feet		Date:	June 6, 2013	
Top of Casing Elevation:	<u>675.02</u> feet		Sampler:	Lizzie Hightower	
Depth to Groundwater:	<u>6.70</u> feet			Parsa Motavalli	
Groundwater Elevation:	<u>668.32</u> feet				
Water Column Height:	<u>13.04</u> feet				
Purged Volume:	<u>15</u> gallons				
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input checked="" type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Pump	<input type="checkbox"/>	
Color:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Sheen:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Odor:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Petro Odor</u>

## Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:10	5 after purging			
12:11	3	7.04	21.4	1,900
12:12	6	7.05	20.0	1,260
12:13	9	7.05	20.2	1,270
12:14	12	7.10	19.5	1,280
12:15	15	7.09	19.4	1,300
Notes: 12:20	Sampled			

## EPA On-line Tools for Site Assessment Calculation

### Hydraulic Gradient – Magnitude and Direction

Gradient Calculation from fitting a plane to as many as thirty points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

...

$$a x_{30} + b y_{30} + c = h_{30}$$

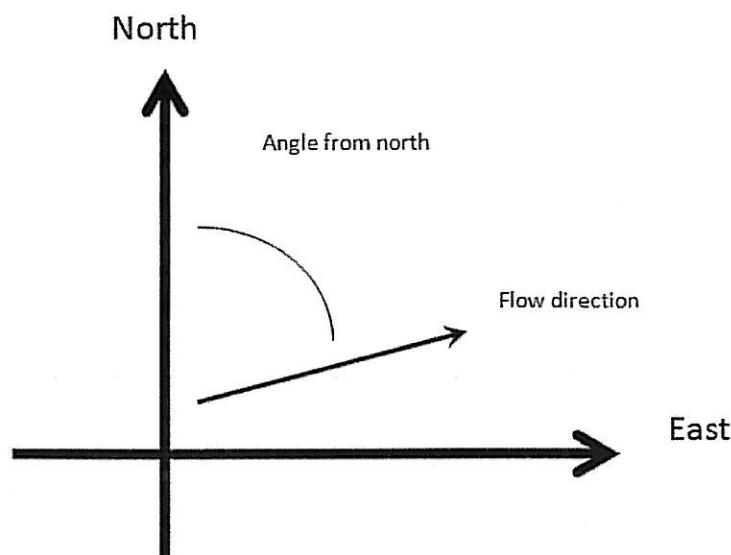
where  $(x_i, y_i)$  are the coordinates of the well and

$h_i$  is the head

$i = 1, 2, 3, \dots, 30$

The coefficients  $a$ ,  $b$ , and  $c$  are calculated by a least-squares fitting of the data to a plane

The gradient is calculated from the square root of  $(a^2 + b^2)$  and the angle from the arctangent of  $a/b$  or  $b/a$  depending on the quadrant



### Inputs

[Example Data Set 1](#) [Example Data Set 2](#) [Calculate](#) [Clear](#)

[Save Data](#) [Recall Data](#) [Go Back](#)

Site Name

Date  Current Date

Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head	ft
1) RS-3	6071215.111	2122442.671	669.63	
2) RS-4	6071195.458	2122379.324	666.79	
3) MW-1	6071174.931	2122404.178	668.89	
4) MW-2	6071186.39	2122393.492	668.32	
5)				
6)				
7)				
8)				
9)				
10)				
11)				
12)				
13)				
14)				

15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		
26)		
27)		
28)		
29)		
30)		

### Results

Number of Points Used in Calculation	4
Max. Difference Between Head Values	0.8656
Gradient Magnitude ( $i$ )	0.06536
Flow direction as degrees from North (positive y axis)	145.9
Coefficient of Determination ( $R^2$ )	0.972

WCMS

Last updated on 1/10/2013

# **Appendix C**

Laboratory Report and Chain of Custody Form



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 245962**  
**ANALYTICAL REPORT**

SOMA Environmental Engineering Inc. Project : 5081  
6620 Owens Dr. Location : 2844 Mountain Blvd., Oakland  
Pleasanton, CA 94588 Level : II

<u>Sample ID</u>	<u>Lab ID</u>
RS-3	245962-001
RS-4	245962-002
MW-1	245962-003
MW-2	245962-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Tracy Babjar  
Project Manager  
(510) 204-2226

Date: 06/14/2013

NELAP # 01107CA

**CASE NARRATIVE**

Laboratory number: **245962**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **5081**  
Location: **2844 Mountain Blvd., Oakland**  
Request Date: **06/07/13**  
Samples Received: **06/07/13**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 06/07/13. The samples were received cold and intact.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

# **CHAIN OF CUSTODY**

Page 1 of 1

## **Analyses**

## **Curtis & Tompkins, Ltd**

Analytical Laboratory Since 1878

2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 Phone  
(510)486-0532 Fax

Project No: 5081

LOGIN # 245962

**Project Name: 2844 Mountain Blvd., Oakland**

**Report To:** Joyce Bobek

#### **Turnaround Time: Standard**

**Company :** SOMA Environmental

**Telephone:** 925-734-6400

**Fax:** 925-734-6401

**Notes: EDF OUTPUT REQUIRED**

#### **GasOx: DIPE, ETBE, TAME, TBA**

**RELINQUISHED BY:**

Elliott 6/7/13 08:37 DATE/TIME

*[Signature]* 6/7/13 165 DATE/TIME

DATE/TIME

RECEIVED BY

RECEIVED BY: *[Signature]* 6/7/13 1001  
DATE/TIME:

**DATE/TIME**

DATE/TIME

## **COOLER RECEIPT CHECKLIST**



Curtis & Tompkins, Ltd.

Login # 245462 Date Received 6/7/13 Number of coolers 1  
Client SOMA ENVIRONMENTAL Project 2844 MOUNTAIN BLVD., OAKLAND (5081)

Date Opened 6/7/13 By (print) 6/7/13 TR (sign) Tina Raitan  
Date Logged in 6/7/13 By (print) MG (sign) vj

- |  |   |  |
|--|---|--|
| 1. Did cooler come with a shipping slip (airbill, etc) _____                           | YES                                     | <input checked="" type="checkbox"/> NO |
| Shipping info _____  |   |  |
| 2A. Were custody seals present? .... <input type="checkbox"/> YES (circle) on cooler   | on samples                              | <input checked="" type="checkbox"/> NO |
| How many _____ Name _____  | Date _____                              |  |
| 2B. Were custody seals intact upon arrival? _____                                      | YES                                     | NO <input type="checkbox"/> N/A        |
| 3. Were custody papers dry and intact when received? _____                             | <input checked="" type="checkbox"/> YES | NO                                     |
| 4. Were custody papers filled out properly (ink, signed, etc)? _____                   | <input checked="" type="checkbox"/> YES | NO                                     |
| 5. Is the project identifiable from custody papers? (If so fill out top of form) _____ | <input checked="" type="checkbox"/> YES | NO                                     |
| 6. Indicate the packing in cooler: (if other, describe)                                |   |  |

Bubble Wrap       Foam blocks       Bags       None  
 Cloth material       Cardboard       Styrofoam       Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used:  Wet  Blue/Gel  None Temp(°C) 1.0

Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES  NO   
If YES, what time were they transferred to freezer? \_\_\_\_\_

9. Did all bottles arrive unbroken/unopened? \_\_\_\_\_ YES  NO   
10. Are there any missing / extra samples? \_\_\_\_\_ YES  NO   
11. Are samples in the appropriate containers for indicated tests? \_\_\_\_\_ YES  NO   
12. Are sample labels present, in good condition and complete? \_\_\_\_\_ YES  NO   
13. Do the sample labels agree with custody papers? \_\_\_\_\_ YES  NO   
14. Was sufficient amount of sample sent for tests requested? \_\_\_\_\_ YES  NO   
15. Are the samples appropriately preserved? \_\_\_\_\_ YES  NO  N/A  
16. Did you check preservatives for all bottles for each sample? \_\_\_\_\_ YES  NO  N/A  
17. Did you document your preservative check? \_\_\_\_\_ YES  NO  N/A  
18. Did you change the hold time in LIMS for unpreserved VOAs? \_\_\_\_\_ YES  NO  N/A  
19. Did you change the hold time in LIMS for preserved terracores? \_\_\_\_\_ YES  NO  N/A  
20. Are bubbles > 6mm absent in VOA samples? \_\_\_\_\_ YES  NO  N/A  
21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO

## COMMENTS

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**Total Extractable Hydrocarbons**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	5081	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/06/13
Units:	ug/L	Received:	06/07/13
Diln Fac:	1.000	Prepared:	06/10/13
Batch#:	199530	Analyzed:	06/11/13

Field ID: RS-3 Lab ID: 245962-001  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	66 Y	53

Surrogate	%REC	Limits
o-Terphenyl	103	62-133

Field ID: RS-4 Lab ID: 245962-002  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	7,200	56

Surrogate	%REC	Limits
o-Terphenyl	95	62-133

Field ID: MW-1 Lab ID: 245962-003  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	13,000	61

Surrogate	%REC	Limits
o-Terphenyl	88	62-133

Field ID: MW-2 Lab ID: 245962-004  
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	5,400	52

Surrogate	%REC	Limits
o-Terphenyl	95	62-133

Type: BLANK Lab ID: QC692957

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	111	62-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	5081	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC692958	Batch#:	199530
Matrix:	Water	Prepared:	06/10/13
Units:	ug/L	Analyzed:	06/11/13

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,571	103	59-120
<hr/>				
Surrogate	%REC	Limits		
o-Terphenyl	118	62-133		



Curtis & Tompkins, Ltd.

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	5081	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	199530
MSS Lab ID:	245968-035	Sampled:	06/06/13
Matrix:	Water	Received:	06/07/13
Units:	ug/L	Prepared:	06/10/13
Diln Fac:	1.000	Analyzed:	06/11/13

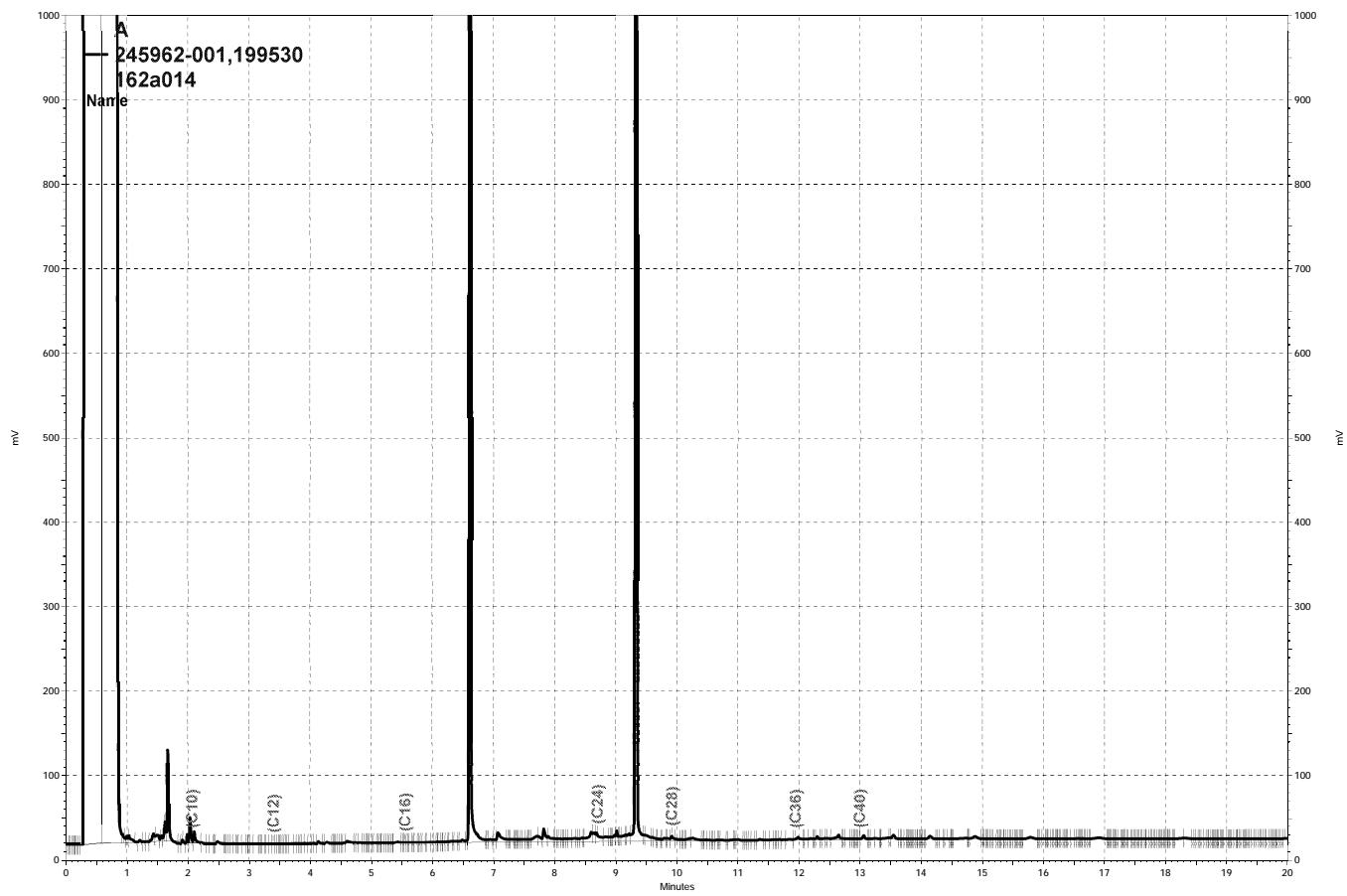
Type: MS Lab ID: QC692959

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	22.88	2,500	2,523	100	61-120
Surrogate	%REC	Limits			
o-Terphenyl	114	62-133			

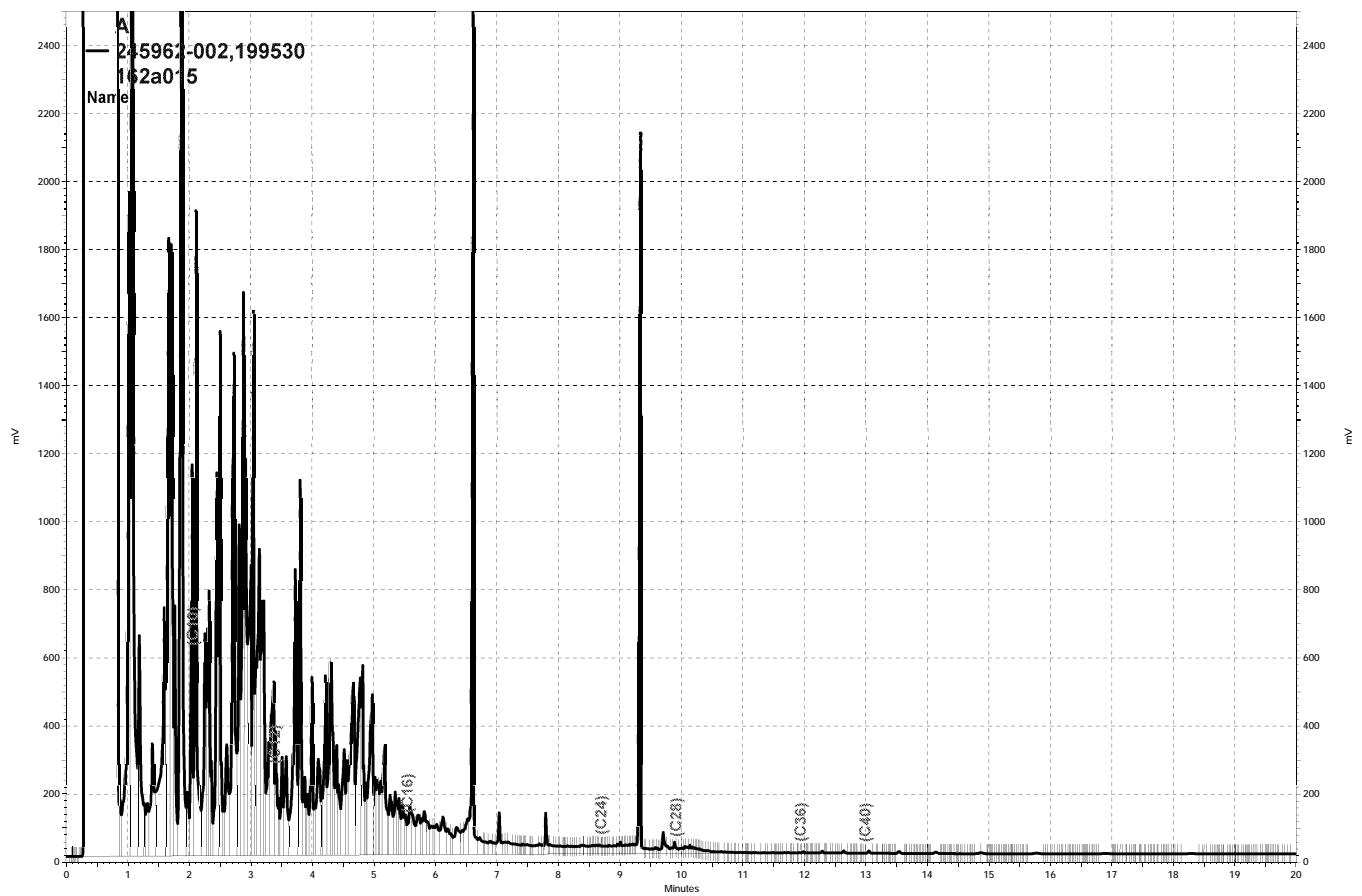
Type: MSD Lab ID: QC692960

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,660	2,631	98	61-120	2	43
Surrogate	%REC	Limits				
o-Terphenyl	111	62-133				

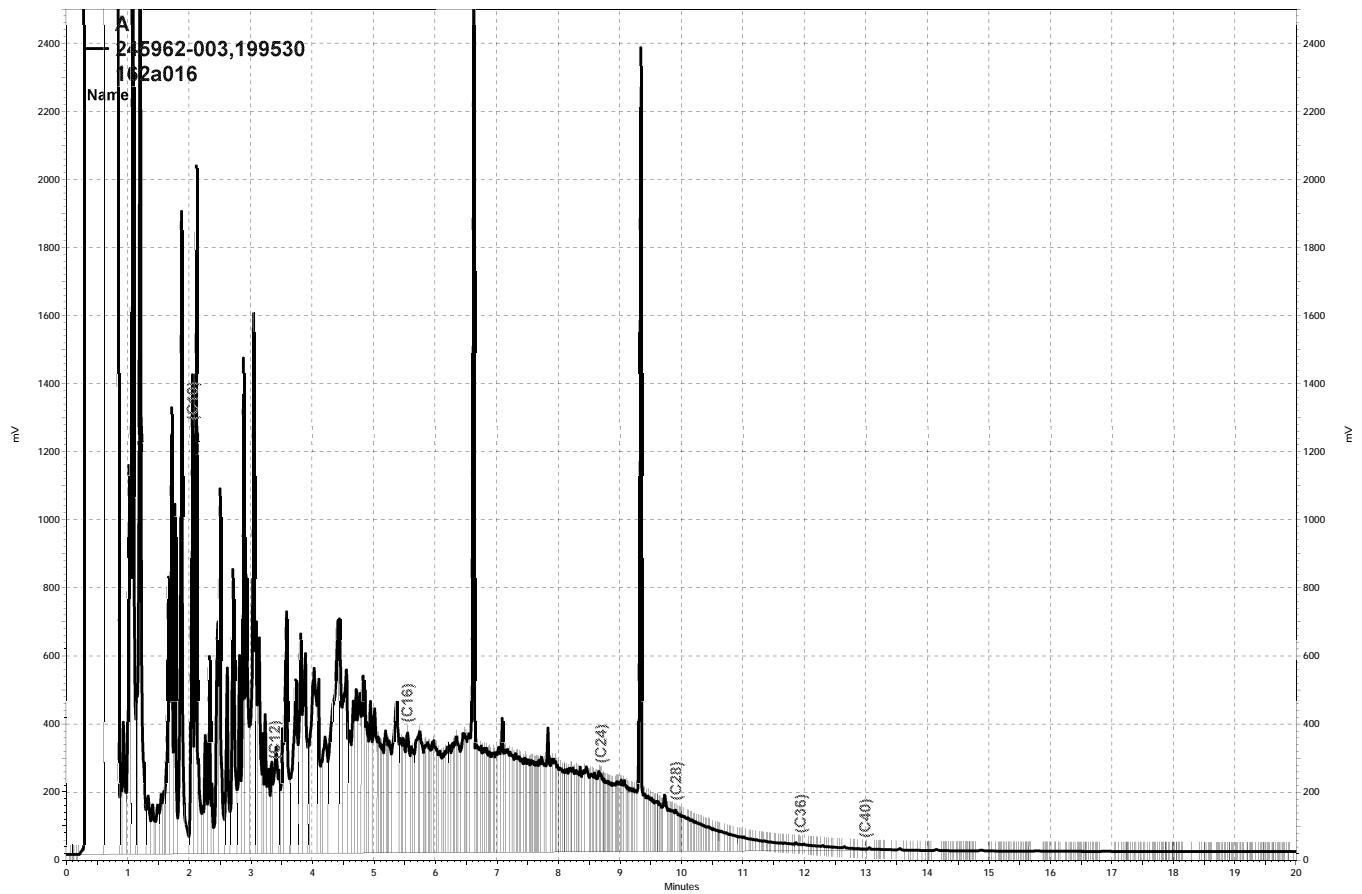
RPD= Relative Percent Difference



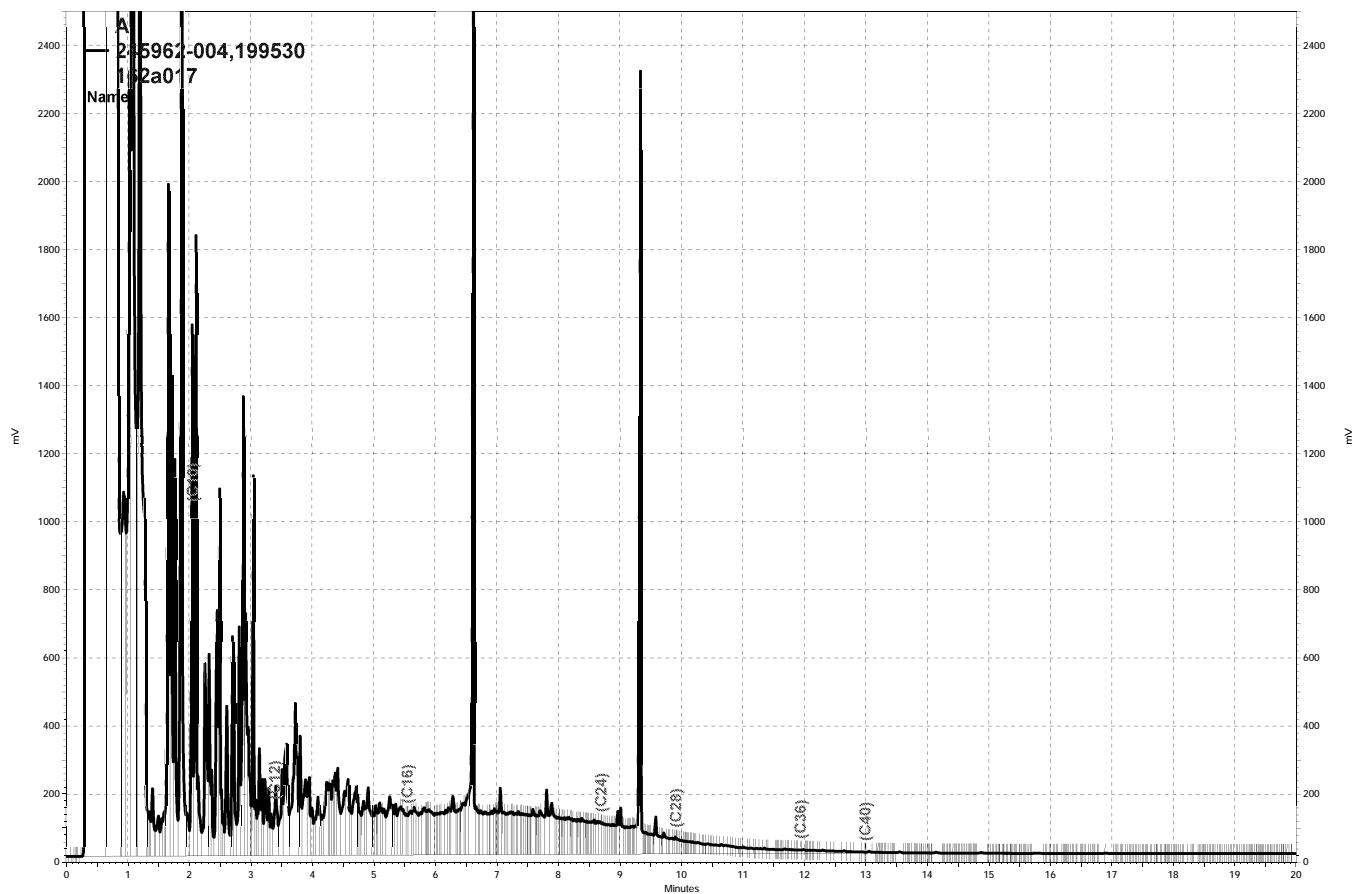
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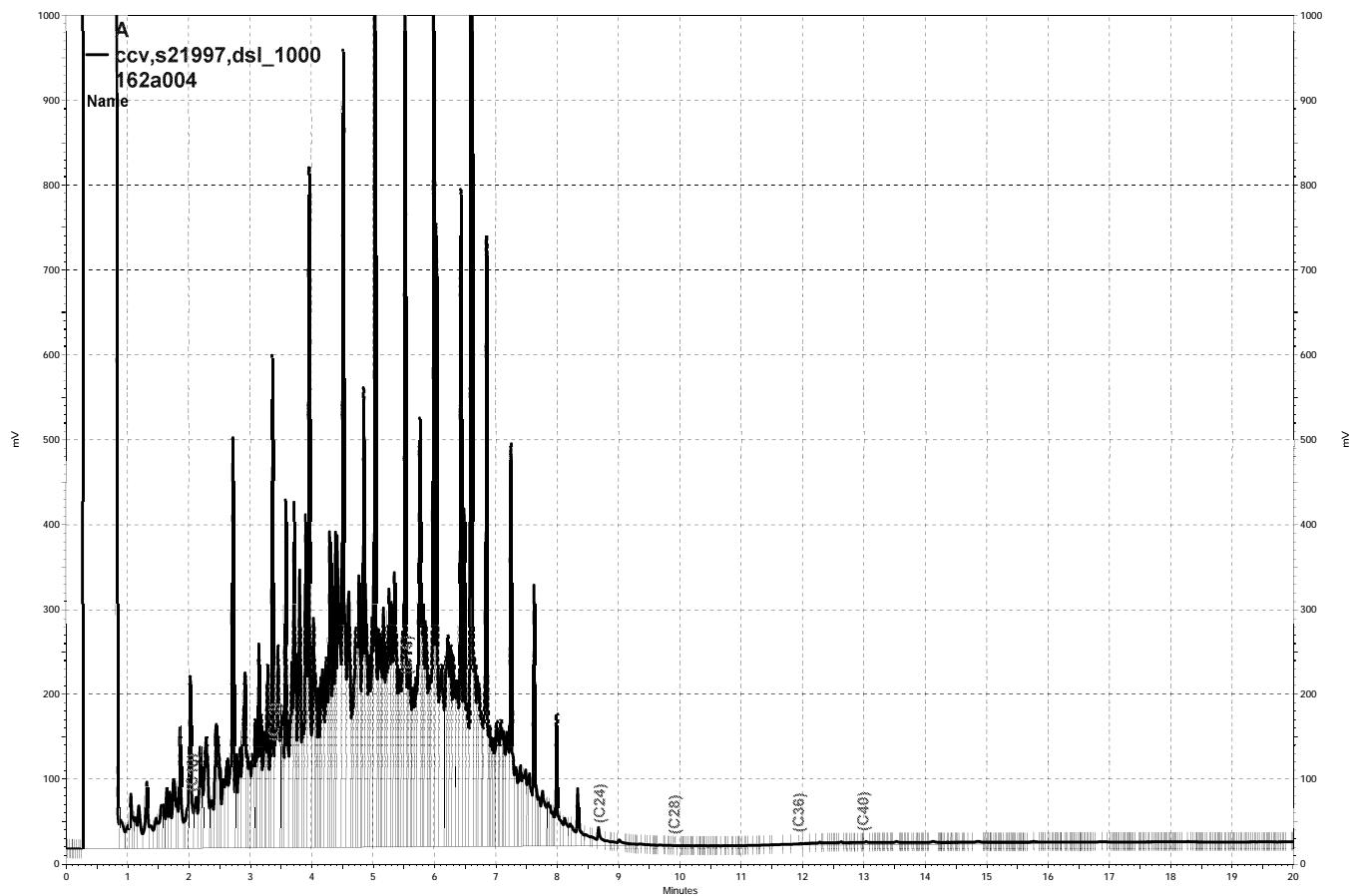
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### **Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	RS-3	Batch#:	199592
Lab ID:	245962-001	Sampled:	06/06/13
Matrix:	Water	Received:	06/07/13
Units:	ug/L	Analyzed:	06/12/13
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	1.5	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-134
1,2-Dichloroethane-d4	112	72-140
Toluene-d8	109	80-120
Bromofluorobenzene	108	80-120

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	RS-4	Units:	ug/L
Lab ID:	245962-002	Sampled:	06/06/13
Matrix:	Water	Received:	06/07/13

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	12,000	360	7.143	199592	06/12/13
tert-Butyl Alcohol (TBA)	66,000	2,000	200.0	199640	06/13/13
Isopropyl Ether (DIPE)	ND	3.6	7.143	199592	06/12/13
Ethyl tert-Butyl Ether (ETBE)	ND	3.6	7.143	199592	06/12/13
Methyl tert-Amyl Ether (TAME)	970	100	200.0	199640	06/13/13
Ethanol	ND	7,100	7.143	199592	06/12/13
MTBE	16,000	100	200.0	199640	06/13/13
1,2-Dichloroethane	ND	3.6	7.143	199592	06/12/13
Benzene	11	3.6	7.143	199592	06/12/13
Toluene	ND	3.6	7.143	199592	06/12/13
1,2-Dibromoethane	ND	3.6	7.143	199592	06/12/13
Ethylbenzene	420	3.6	7.143	199592	06/12/13
m,p-Xylenes	800	3.6	7.143	199592	06/12/13
o-Xylene	86	3.6	7.143	199592	06/12/13

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	98	77-134	7.143	199592	06/12/13
1,2-Dichloroethane-d4	114	72-140	7.143	199592	06/12/13
Toluene-d8	108	80-120	7.143	199592	06/12/13
Bromofluorobenzene	111	80-120	7.143	199592	06/12/13

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	MW-1	Units:	ug/L
Lab ID:	245962-003	Sampled:	06/06/13
Matrix:	Water	Received:	06/07/13

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	ND	17,000	333.3	199592	06/12/13
tert-Butyl Alcohol (TBA)	32,000	3,300	333.3	199592	06/12/13
Isopropyl Ether (DIPE)	ND	170	333.3	199592	06/12/13
Ethyl tert-Butyl Ether (ETBE)	ND	170	333.3	199592	06/12/13
Methyl tert-Amyl Ether (TAME)	7,200	170	333.3	199592	06/12/13
Ethanol	ND	330,000	333.3	199592	06/12/13
MTBE	55,000	1,000	2,000	199640	06/13/13
1,2-Dichloroethane	ND	170	333.3	199592	06/12/13
Benzene	930	170	333.3	199592	06/12/13
Toluene	370	170	333.3	199592	06/12/13
1,2-Dibromoethane	ND	170	333.3	199592	06/12/13
Ethylbenzene	470	170	333.3	199592	06/12/13
m,p-Xylenes	1,200	170	333.3	199592	06/12/13
o-Xylene	560	170	333.3	199592	06/12/13

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	77-134	333.3	199592	06/12/13
1,2-Dichloroethane-d4	115	72-140	333.3	199592	06/12/13
Toluene-d8	110	80-120	333.3	199592	06/12/13
Bromofluorobenzene	112	80-120	333.3	199592	06/12/13

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	MW-2	Units:	ug/L
Lab ID:	245962-004	Sampled:	06/06/13
Matrix:	Water	Received:	06/07/13

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	16,000	13,000	250.0	199592	06/12/13
tert-Butyl Alcohol (TBA)	64,000	10,000	1,000	199640	06/13/13
Isopropyl Ether (DIPE)	ND	130	250.0	199592	06/12/13
Ethyl tert-Butyl Ether (ETBE)	ND	130	250.0	199592	06/12/13
Methyl tert-Amyl Ether (TAME)	7,700	500	1,000	199640	06/13/13
Ethanol	ND	250,000	250.0	199592	06/12/13
MTBE	59,000	500	1,000	199640	06/13/13
1,2-Dichloroethane	ND	130	250.0	199592	06/12/13
Benzene	910	130	250.0	199592	06/12/13
Toluene	ND	130	250.0	199592	06/12/13
1,2-Dibromoethane	ND	130	250.0	199592	06/12/13
Ethylbenzene	610	130	250.0	199592	06/12/13
m,p-Xylenes	1,800	130	250.0	199592	06/12/13
o-Xylene	490	130	250.0	199592	06/12/13

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	101	77-134	250.0	199592	06/12/13
1,2-Dichloroethane-d4	111	72-140	250.0	199592	06/12/13
Toluene-d8	108	80-120	250.0	199592	06/12/13
Bromofluorobenzene	109	80-120	250.0	199592	06/12/13

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	199592
Units:	ug/L	Analyzed:	06/12/13
Diln Fac:	1.000		

Type: BS Lab ID: QC693225

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	108.5	87	37-144
Isopropyl Ether (DIPE)	25.00	23.20	93	52-123
Ethyl tert-Butyl Ether (ETBE)	25.00	24.52	98	57-120
Methyl tert-Amyl Ether (TAME)	25.00	24.11	96	59-120
MTBE	25.00	24.50	98	58-120
1,2-Dichloroethane	25.00	31.54	126	73-136
Benzene	25.00	25.41	102	78-125
Toluene	25.00	26.96	108	79-123
1,2-Dibromoethane	25.00	25.56	102	78-120
Ethylbenzene	25.00	28.07	112	80-126
m,p-Xylenes	50.00	53.49	107	80-123
o-Xylene	25.00	26.22	105	75-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-134
1,2-Dichloroethane-d4	122	72-140
Toluene-d8	105	80-120
Bromofluorobenzene	109	80-120

Type: BSD Lab ID: QC693226

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	125.7	101	37-144	15	31
Isopropyl Ether (DIPE)	25.00	24.78	99	52-123	7	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.69	103	57-120	5	23
Methyl tert-Amyl Ether (TAME)	25.00	25.82	103	59-120	7	22
MTBE	25.00	27.21	109	58-120	10	23
1,2-Dichloroethane	25.00	33.09	132	73-136	5	20
Benzene	25.00	26.96	108	78-125	6	20
Toluene	25.00	27.32	109	79-123	1	20
1,2-Dibromoethane	25.00	27.17	109	78-120	6	20
Ethylbenzene	25.00	28.73	115	80-126	2	20
m,p-Xylenes	50.00	54.64	109	80-123	2	20
o-Xylene	25.00	26.70	107	75-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-134
1,2-Dichloroethane-d4	124	72-140
Toluene-d8	106	80-120
Bromofluorobenzene	109	80-120

RPD= Relative Percent Difference

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**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC693227	Batch#:	199592
Matrix:	Water	Analyzed:	06/12/13
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	101	77-134
1,2-Dichloroethane-d4	111	72-140
Toluene-d8	110	80-120
Bromofluorobenzene	111	80-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	199592
Units:	ug/L	Analyzed:	06/12/13
Diln Fac:	1.000		

Type: BS Lab ID: QC693228

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,023	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-134
1,2-Dichloroethane-d4	125	72-140
Toluene-d8	107	80-120
Bromofluorobenzene	110	80-120

Type: BSD Lab ID: QC693229

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	1,023	102	80-120	0 20

Surrogate	%REC	Limits
Dibromofluoromethane	99	77-134
1,2-Dichloroethane-d4	111	72-140
Toluene-d8	108	80-120
Bromofluorobenzene	111	80-120

RPD= Relative Percent Difference

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	199592
MSS Lab ID:	246016-006	Sampled:	06/07/13
Matrix:	Water	Received:	06/10/13
Units:	ug/L	Analyzed:	06/12/13
Diln Fac:	1.000		

Type: MS Lab ID: QC693310

Analyte	MSS	Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<2.239	125.0	70.60	56	42-140	
Isopropyl Ether (DIPE)	<0.1000	25.00	21.61	86	59-120	
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	20.78	83	62-120	
Methyl tert-Amyl Ether (TAME)	<0.1002	25.00	20.44	82	63-120	
MTBE	<0.1119	25.00	19.84	79	63-120	
1,2-Dichloroethane	<0.1071	25.00	28.38	114	80-133	
Benzene	<0.1000	25.00	26.70	107	80-125	
Toluene	<0.1000	25.00	27.73	111	80-122	
1,2-Dibromoethane	<0.1341	25.00	21.73	87	80-120	
Ethylbenzene	<0.1000	25.00	29.43	118	80-124	
m,p-Xylenes	<0.1454	50.00	55.57	111	80-121	
o-Xylene	<0.1000	25.00	26.68	107	77-120	

Surrogate	%REC	Limits
Dibromofluoromethane	100	77-134
1,2-Dichloroethane-d4	115	72-140
Toluene-d8	108	80-120
Bromofluorobenzene	110	80-120

Type: MSD Lab ID: QC693311

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	77.72	62	42-140	10	39
Isopropyl Ether (DIPE)	25.00	23.42	94	59-120	8	25
Ethyl tert-Butyl Ether (ETBE)	25.00	23.14	93	62-120	11	27
Methyl tert-Amyl Ether (TAME)	25.00	22.24	89	63-120	8	27
MTBE	25.00	22.03	88	63-120	10	27
1,2-Dichloroethane	25.00	30.64	123	80-133	8	21
Benzene	25.00	28.87	115	80-125	8	21
Toluene	25.00	29.58	118	80-122	6	21
1,2-Dibromoethane	25.00	23.82	95	80-120	9	22
Ethylbenzene	25.00	30.93	124	80-124	5	21
m,p-Xylenes	50.00	60.09	120	80-121	8	21
o-Xylene	25.00	28.58	114	77-120	7	22

Surrogate	%REC	Limits
Dibromofluoromethane	100	77-134
1,2-Dichloroethane-d4	113	72-140
Toluene-d8	108	80-120
Bromofluorobenzene	111	80-120

RPD= Relative Percent Difference

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14.0

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	199640
Units:	ug/L	Analyzed:	06/13/13
Diln Fac:	1.000		

Type: BS Lab ID: QC693420

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	99.72	80	37-144
Isopropyl Ether (DIPE)	25.00	17.28	69	52-123
Ethyl tert-Butyl Ether (ETBE)	25.00	19.20	77	57-120
Methyl tert-Amyl Ether (TAME)	25.00	22.80	91	59-120
MTBE	25.00	20.82	83	58-120
1,2-Dichloroethane	25.00	25.80	103	73-136
Benzene	25.00	26.08	104	78-125
Toluene	25.00	28.10	112	79-123
1,2-Dibromoethane	25.00	26.50	106	78-120
Ethylbenzene	25.00	28.62	114	80-126
m,p-Xylenes	50.00	57.99	116	80-123
o-Xylene	25.00	27.66	111	75-120

Surrogate	%REC	Limits
Dibromofluoromethane	85	77-134
1,2-Dichloroethane-d4	93	72-140
Toluene-d8	99	80-120
Bromofluorobenzene	91	80-120

Type: BSD Lab ID: QC693421

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	94.00	75	37-144	6	31
Isopropyl Ether (DIPE)	25.00	16.16	65	52-123	7	20
Ethyl tert-Butyl Ether (ETBE)	25.00	18.12	72	57-120	6	23
Methyl tert-Amyl Ether (TAME)	25.00	21.35	85	59-120	7	22
MTBE	25.00	19.48	78	58-120	7	23
1,2-Dichloroethane	25.00	24.05	96	73-136	7	20
Benzene	25.00	23.79	95	78-125	9	20
Toluene	25.00	26.89	108	79-123	4	20
1,2-Dibromoethane	25.00	25.49	102	78-120	4	20
Ethylbenzene	25.00	26.99	108	80-126	6	20
m,p-Xylenes	50.00	52.49	105	80-123	10	20
o-Xylene	25.00	25.59	102	75-120	8	20

Surrogate	%REC	Limits
Dibromofluoromethane	86	77-134
1,2-Dichloroethane-d4	92	72-140
Toluene-d8	100	80-120
Bromofluorobenzene	90	80-120

RPD= Relative Percent Difference

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15.0

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC693422	Batch#:	199640
Matrix:	Water	Analyzed:	06/13/13
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	NA	
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	85	77-134
1,2-Dichloroethane-d4	96	72-140
Toluene-d8	96	80-120
Bromofluorobenzene	91	80-120

NA= Not Analyzed

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	245962	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	199640
MSS Lab ID:	246053-003	Sampled:	06/10/13
Matrix:	Water	Received:	06/11/13
Units:	ug/L	Analyzed:	06/13/13
Diln Fac:	1.000		

Type: MS Lab ID: QC693489

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	3.149	125.0	170.4	134	42-140
Isopropyl Ether (DIPE)	<0.1000	25.00	19.36	77	59-120
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	21.34	85	62-120
Methyl tert-Amyl Ether (TAME)	0.1147	25.00	25.63	102	63-120
MTBE	58.43	25.00	88.07	119	63-120
1,2-Dichloroethane	<0.1000	25.00	28.17	113	80-133
Benzene	<0.1000	25.00	24.58	98	80-125
Toluene	<0.1000	25.00	26.76	107	80-122
1,2-Dibromoethane	<0.1000	25.00	26.74	107	80-120
Ethylbenzene	<0.1561	25.00	27.36	109	80-124
m,p-Xylenes	<0.1000	50.00	56.70	113	80-121
o-Xylene	<0.09974	25.00	27.19	109	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-134
1,2-Dichloroethane-d4	103	72-140
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-120

Type: MSD Lab ID: QC693490

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	167.6	132	42-140	2	39
Isopropyl Ether (DIPE)	25.00	18.47	74	59-120	5	25
Ethyl tert-Butyl Ether (ETBE)	25.00	21.56	86	62-120	1	27
Methyl tert-Amyl Ether (TAME)	25.00	24.09	96	63-120	6	27
MTBE	25.00	84.23	103	63-120	4	27
1,2-Dichloroethane	25.00	25.54	102	80-133	10	21
Benzene	25.00	23.76	95	80-125	3	21
Toluene	25.00	25.77	103	80-122	4	21
1,2-Dibromoethane	25.00	26.90	108	80-120	1	22
Ethylbenzene	25.00	27.35	109	80-124	0	21
m,p-Xylenes	50.00	54.15	108	80-121	5	21
o-Xylene	25.00	26.15	105	77-120	4	22

Surrogate	%REC	Limits
Dibromofluoromethane	88	77-134
1,2-Dichloroethane-d4	98	72-140
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

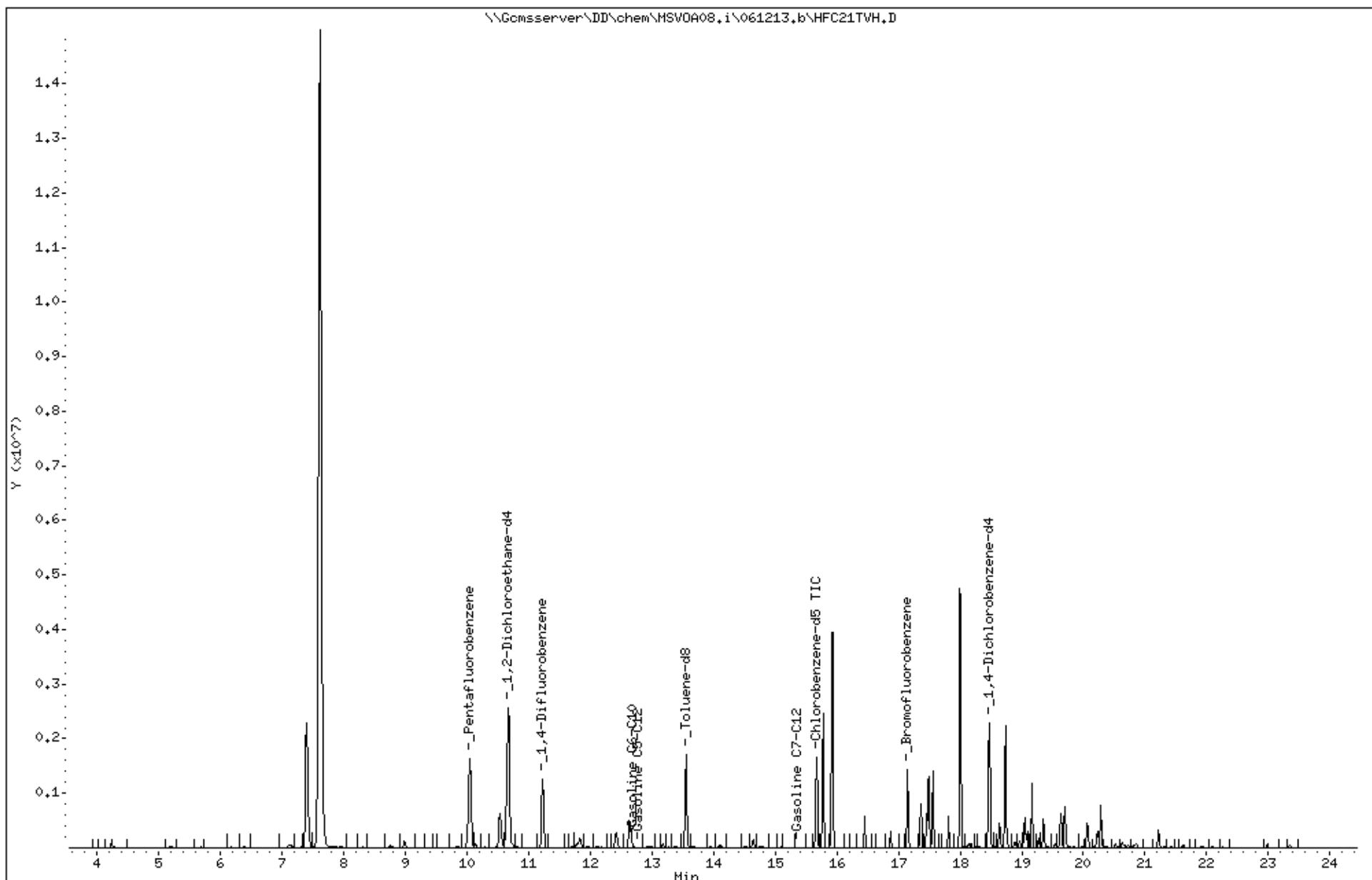
Page 1 of 1

17.0

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Sample Info: S,245962-002

Instrument: MSV0A08.i  
Operator: VOC  
Column diameter: 2.00

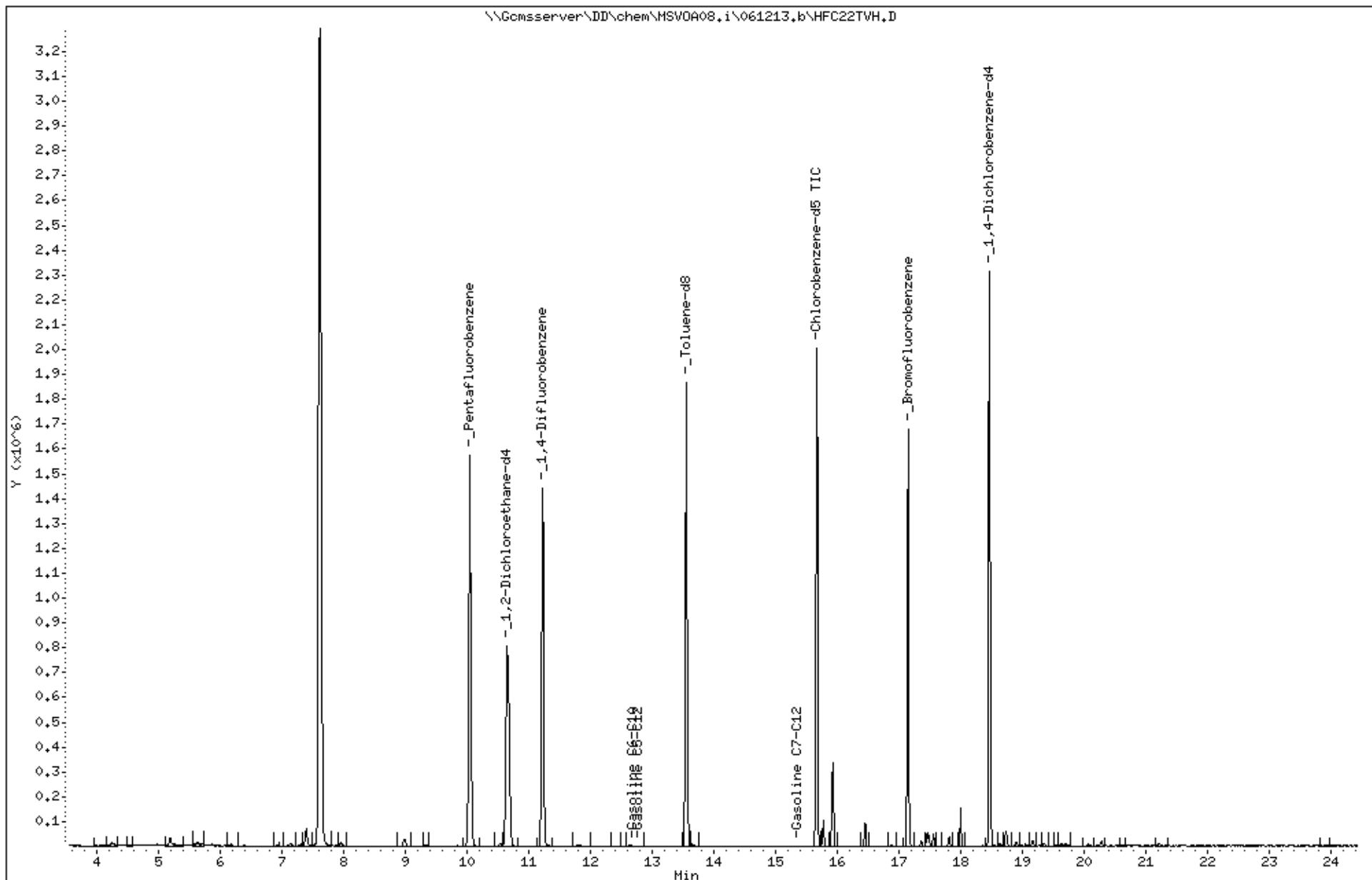
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Sample Info: S,245962-004

Instrument: MSV0A08.i  
Operator: VOC  
Column diameter: 2.00

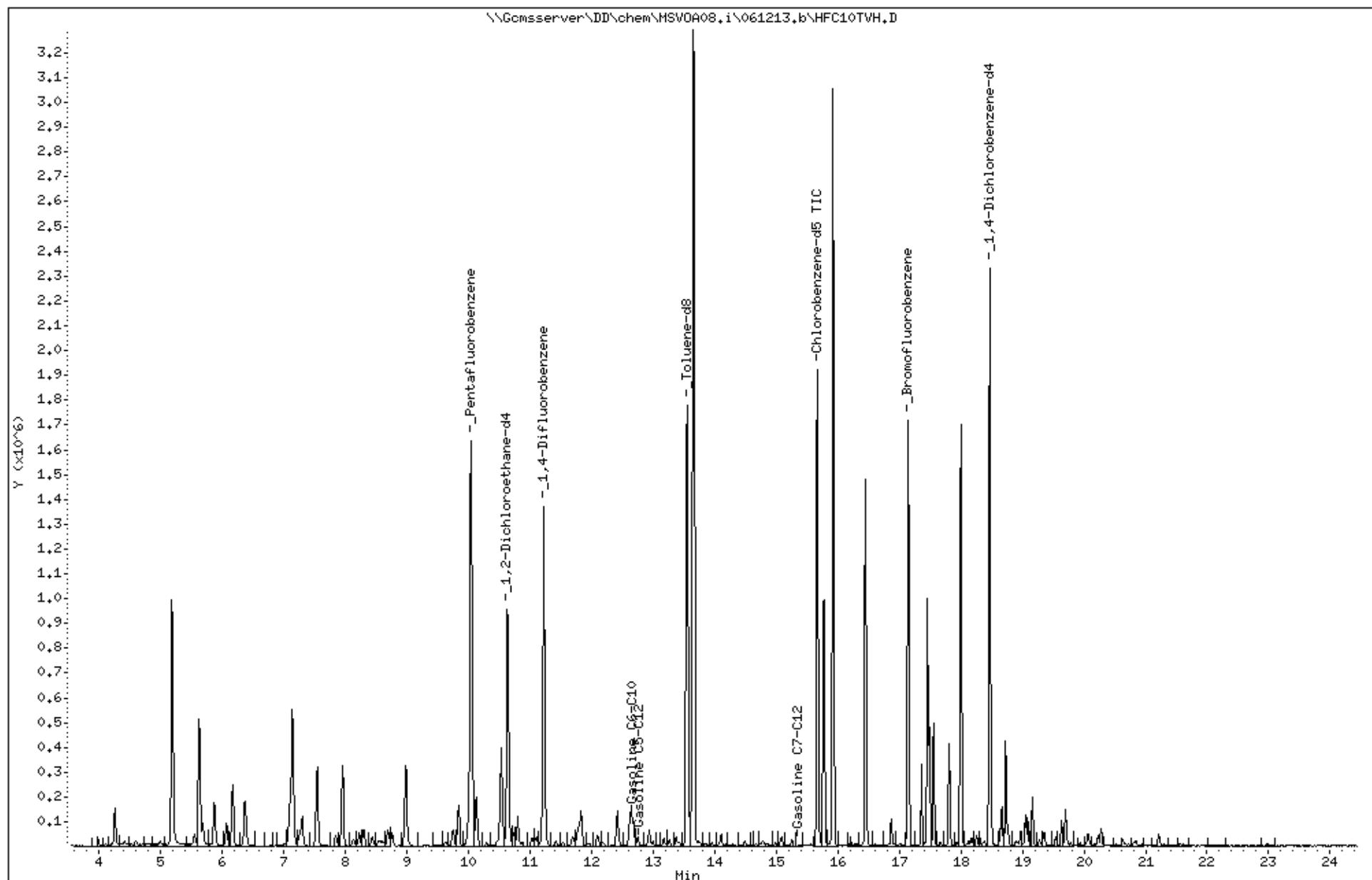
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Sample Info: CCV/BS, QC693228, 199592, S22314, .02/200

Instrument: MSV0A08.i  
Operator: VOC  
Column diameter: 2.00

Column phase:



# **Appendix D**

## **Non-Hazardous Waste Manifest**

## **NON-HAZARDOUS WASTE MANIFEST**

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address		DESERT Petroleum 2844 Mountain Blvd. Oakland CA		SOMA ENV.
4. Generator's Phone ( )				
5. Transporter 1 Company Name		6. US EPA ID Number	A. State Transporter's ID	
INSTRAT INC.			B. Transporter 1 Phone (707) 374-3834	
7. Transporter 2 Company Name		B. US EPA ID Number	C. State Transporter's ID	
8. Designated Facility Name and Site Address		10. US EPA ID Number	D. Transporter 2 Phone	
INSTRAT, INC. 1105 C AIRPORT RD. RIO VISTA, CA 94571			E. State Facility's ID	
11. WASTE DESCRIPTION		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol.
a.	Non-Haz Drill Cuttings	4 DRUM	4000	lb
b.	Non-Haz Decon / Run Water	3 DRUM	150	gal
c.				
d.				
G. Additional Descriptions for Materials Listed Above COLOR - BROWN. ODOR - SWEET SOLIDS - DRY			H. Handling Codes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name		Signature		Date
				Month Day Year
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Date
JASON Nobis				Month Day Year
6/28/13				
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Date
				Month Day Year
19. Discrepancy Indication Space				
20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name		Signature		Date
TFSI				Month Day Year
Patrick McLaughlin				6/28/13