SOMA
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June 25, 2014

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 2014 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,

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

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

Second Quarter 2014
Groundwater Monitoring Report

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

June 25, 2014

Project 5081

Prepared for

Tejindar Singh
6400 Dublin Blvd.
Dublin, California, 94568

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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 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 2014 groundwater monitoring event.

Mansour Sepehr, PhD, PE
Principal Hydrogeologist

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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 2014 groundwater monitoring event conducted at the site on June 3, 2014. 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-5/5W) 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.

As approved by SFRWQCB, a multi-phase extraction (MPE) event was conducted at the site from December 2 to December 16, 2013. Details and results of this event are documented in a pilot testing report.

1.2 Summary of Field Activities and Laboratory Analysis

1.2.1 Field Activities

On June 3, 2014, four monitoring wells (RS-3, RS-4, MW-1 and MW-2) were measured for depth to groundwater. Additional field measurements and groundwater samples were collected from RS-3, MW-1, and MW-2. Properties measured in the field were pH, temperature, and electrical conductivity (EC). Only a grab sample could be collected from RS-4 because of accessibility issues. 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. Two drums generated during current and previous monitoring events (First and Second Quarter 2014) are currently stored on site pending transport to an appropriate disposal facility.

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 3, 2014 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 6.72 feet in RS-3 to 9.27 feet in RS-4. Groundwater elevations ranged from 666 feet in RS-4 to 669.36 feet in RS-3.

Figure 3 displays the groundwater elevation map. The groundwater flows southeasterly at a gradient of 0.069 ft/ft. Since the previous monitoring event (March 2014), the groundwater flow direction has remained southeasterly and the gradient has increased. 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, RS-4, and MW-2 and was detected in MW-1 at 8,900 µg/L. Since the previous monitoring event (March 2014), TPH-g concentration in MW-2 has decreased and remained below laboratory-reporting limits in RS-3. No comparison can be made for RS-4 and MW-1 due to high dilution and reporting limits. Figure 4 shows a map of TPH-g concentrations in groundwater.

TPH-d was below the laboratory-reporting limit in RS-3 and detected in concentrations ranging from 4,400 µg/L in RS-4 to 7,400 µg/L in MW-1. Since the previous monitoring event (March 2014), TPH-d has increased in RS-4 and decreased in MW-1 and MW-2. Figure 5 shows a contour map of TPH-d concentrations in groundwater. TPH-d plume appears to be centered south of the pump islands in the vicinity of MW-1.

The following BTEX concentrations were observed during this monitoring event:

- All BTEX analytes were below laboratory-reporting limits in RS-3.
- All benzene analytes except ethylbenzene were below laboratory-reporting limits in RS-4.
- Benzene was detected in MW-1 and MW-2 at 350 µg/L and 170 µg/L, respectively. Since the previous monitoring event (March 2014) benzene has decreased in MW-1 and MW-2. Figure 4 shows a map of benzene concentrations in groundwater. The benzene plume appears to be centered to the southwest of the pump islands in the vicinity of MW-1.
- Since the previous monitoring event (March 2014) toluene has remained below the laboratory-reporting limit in all wells.
- Ethylbenzene was detected in RS-4, MW-1 and MW-2 at 40 µg/L, 550 µg/L and 310 µg/L, respectively. Since the previous monitoring event (March 2014) ethylbenzene has decreased in MW-1 and MW-2. No comparison can be made for RS-4 because of high reporting limit during the previous monitoring event.
- Total xylenes was detected in MW-1 and MW-2 at 1,420 µg/L and 150 µg/L, respectively. Since the previous monitoring event (March 2014), total xylenes decreased in MW-1 and MW-2.

Methyl tertiary-butyl ether (MtBE) concentrations ranged from 41 µg/L in RS-3 to 11,000 µg/L in MW-1. Since the previous monitoring event (March 2014), MtBE has increased in RS-3 and decreased significantly in other site wells. Figure 6 shows a contour map of MtBE concentrations in groundwater. The MtBE plume appears to be centered to the southwest of the pump islands in the vicinity of MW-1.

Tertiary-butyl alcohol (TBA) concentrations ranged from 490 µg/L in RS-3 to 29,000 µg/L in MW-2. Since the previous monitoring event (March 2014), TBA has increased in RS-3 and decreased in RS-4, MW-1 and MW-2. Figure 7 shows a contour map of TBA concentrations in groundwater. The highest TBA concentrations were detected in the vicinity of the pump islands around MW-2.

Tertiary amyl methyl ether (TAME) concentrations ranged from 1.70 µg/L in RS-3 to 1,300 µg/L in MW-1. Since the previous monitoring event (March 2014), TAME has increased in RS-3 and decreased in RS-4, MW-1 and MW-2. Figure 8 shows a contour map of TAME concentrations in groundwater. The highest TAME concentrations were detected to the southwest of the pump islands in the vicinity of MW-1.

3. CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations based on results of Second Quarter 2014 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 2014, TPH-g in in MW-2 has decreased and remained below laboratory-reporting limits in RS-3; TPH-d increased in RS-4 and decreased in MW-1 and MW-2; benzene has decreased in MW-1 and MW-2; MtBE increased in RS-3 and decreased significantly in other site wells; and TBA and TAME increased in RS-3 and decreased in RS-4, MW-1 and MW-2.
- The highest TPH-g, TPH-d, benzene, ethylbenzene, total xylenes, MtBE, and TAME concentrations were detected to the southwest of the pump islands around MW-1. The highest TBA concentrations were detected in the vicinity of pump islands around MW-2.
- SOMA will continue conducting quarterly groundwater monitoring events at the site.

SOMA submitted a report documenting installation of soil borings and monitoring wells dated September 13, 2013. The report recommended installing a groundwater monitoring well in close proximity of boring SS-1 in order to monitor elevated levels of chemicals in groundwater.

Based on SFBRWQCB's approval dated April 3, 2013, SOMA conducted a multi-phase extraction (MPE) pilot test at the site from December 2 through December 16, 2013. During the pilot test, 497 pounds of PHCs were removed from the subsurface with an average mass removal rate of 36 lbs/day. Details of the pilot test were included in SOMA's 'Multi-Phase Extraction Pilot Testing Report' dated January 21, 2014. Based on the effectiveness of the pilot test, SOMA proposes to conduct two to three 30-day MPE events at the site in order to mitigate remaining contaminant mass from the subsurface.

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

Source: Google (R) 2012

N

approximate scale in feet

0 100 200

Figure 1: Site Vicinity Map

SOMA ENVIRONMENTAL ENGINEERING, INC.

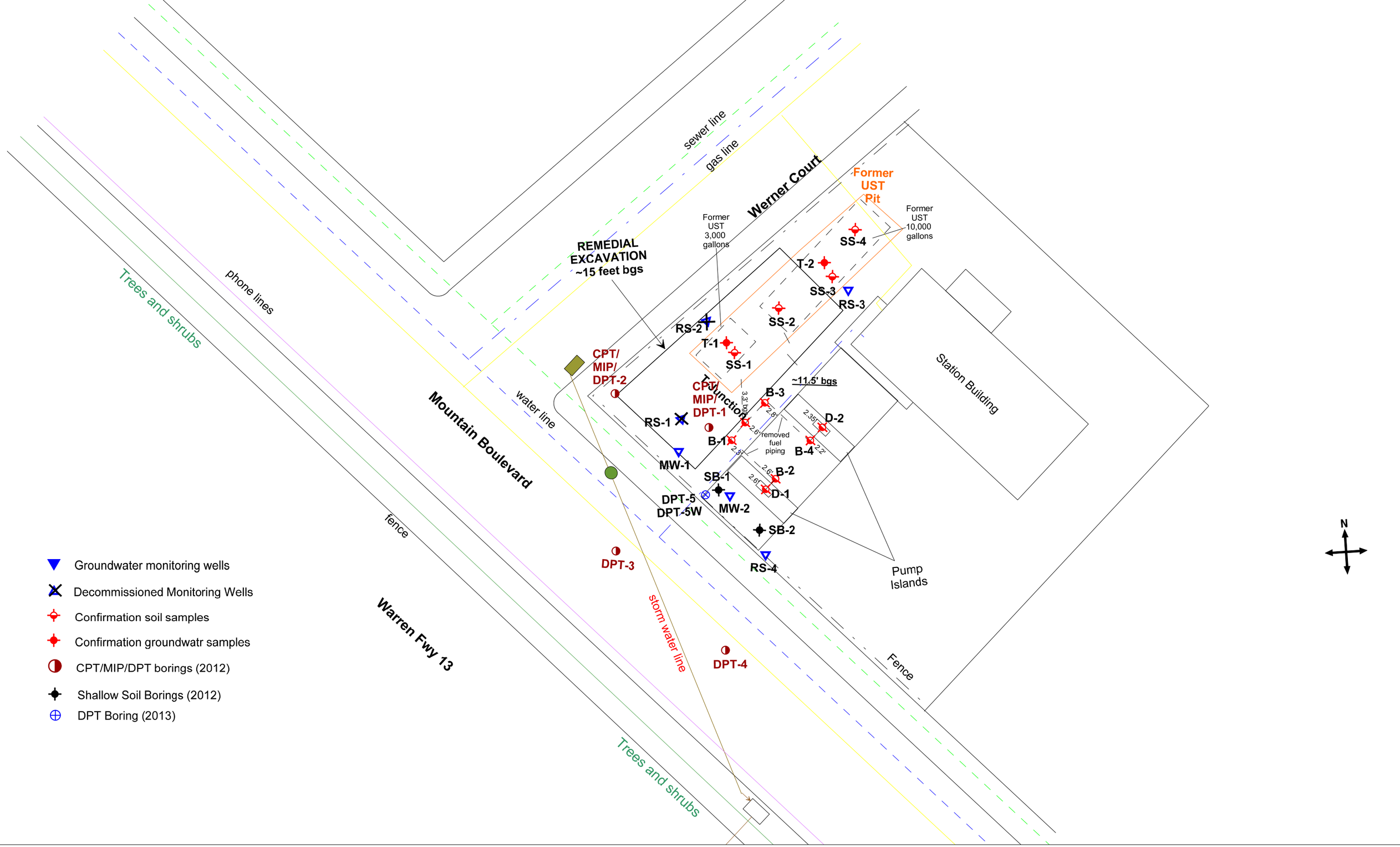


Figure 2: Site Map Showing Locations of Former USTs, Soil Borings, and Groundwater Monitoring Wells

ENVIRONMENTAL ENGINEERING, INC.

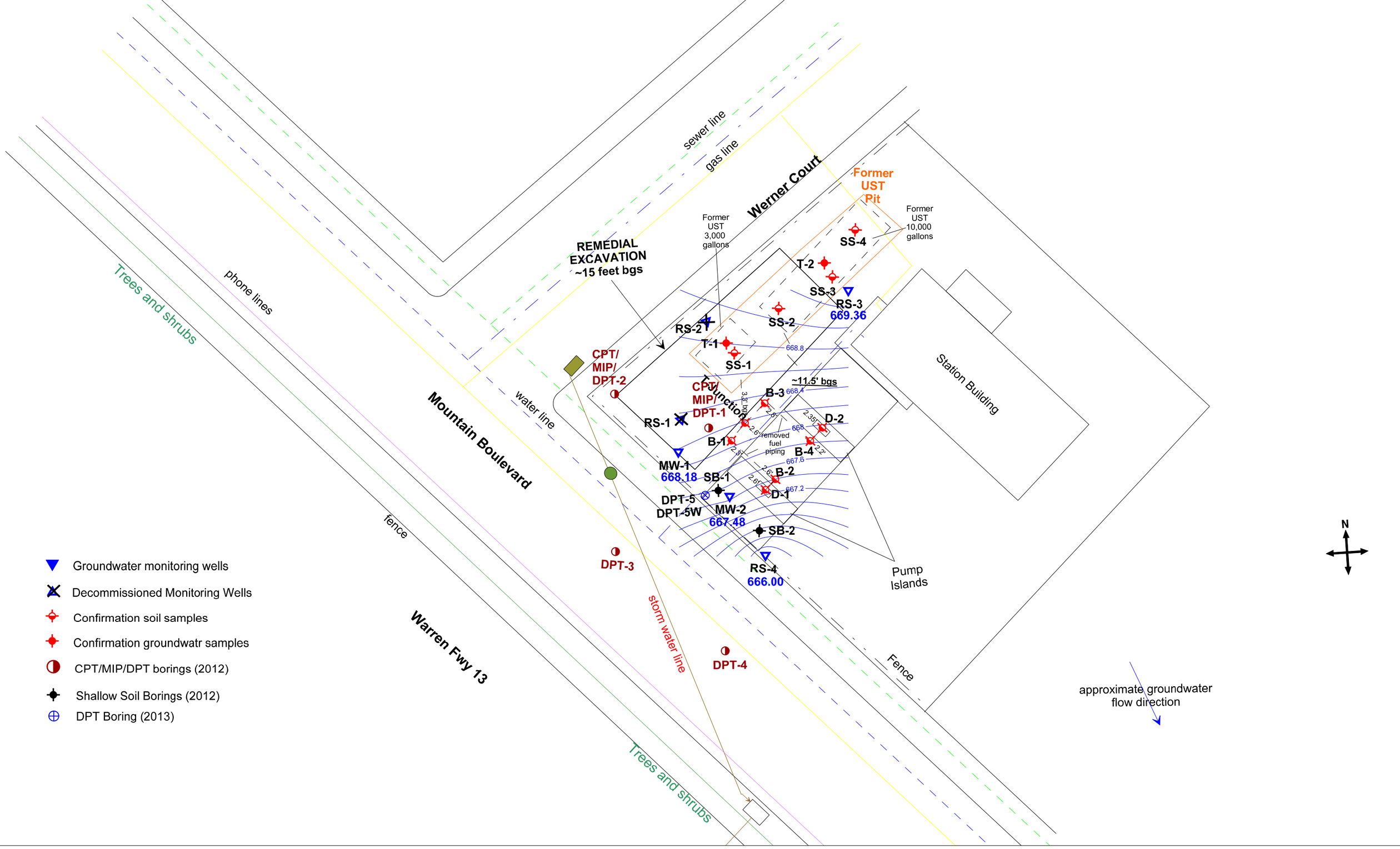


Figure 3: Groundwater Elevation Contour Map in feet, June 3, 2014

ENVIRONMENTAL ENGINEERING, INC

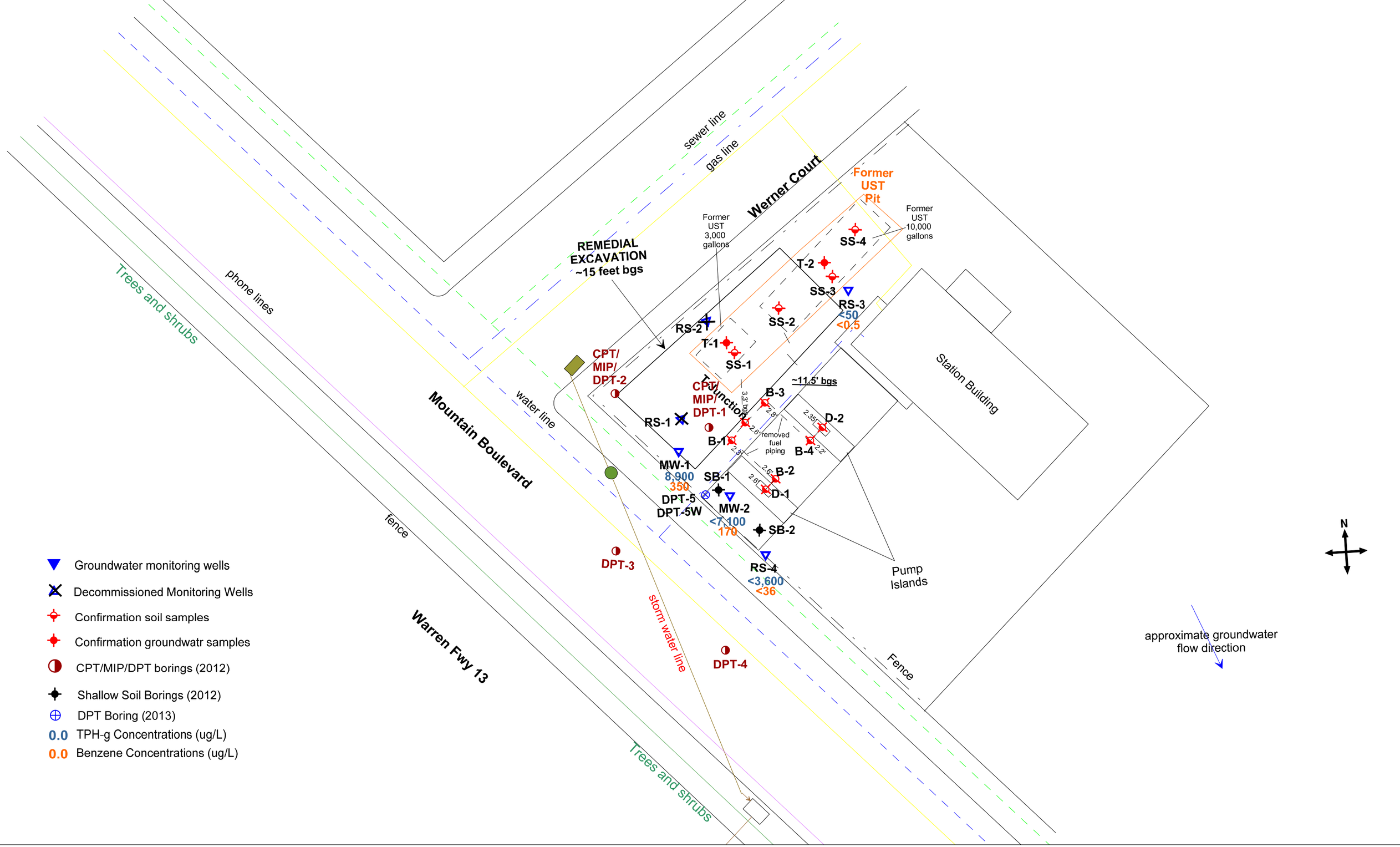


Figure 4: Map Showing TPH-g and Benzene Concentrations in Groundwater, June 3, 2014

ENVIRONMENTAL ENGINEERING, INC.

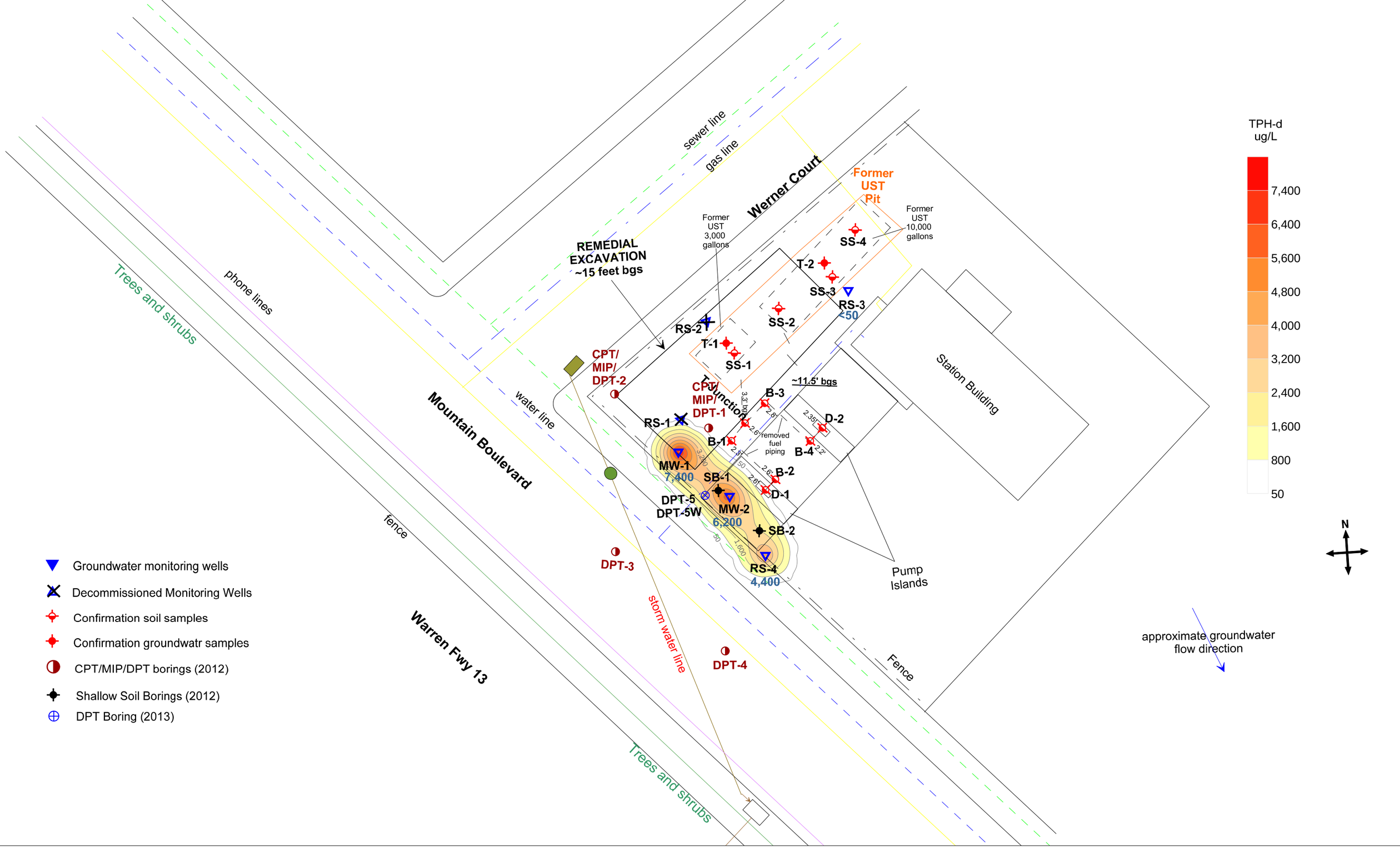


Figure 5: Contour Map Showing TPH-d Concentrations in Groundwater,June 3, 2014

ENVIRONMENTAL ENGINEERING, INC.

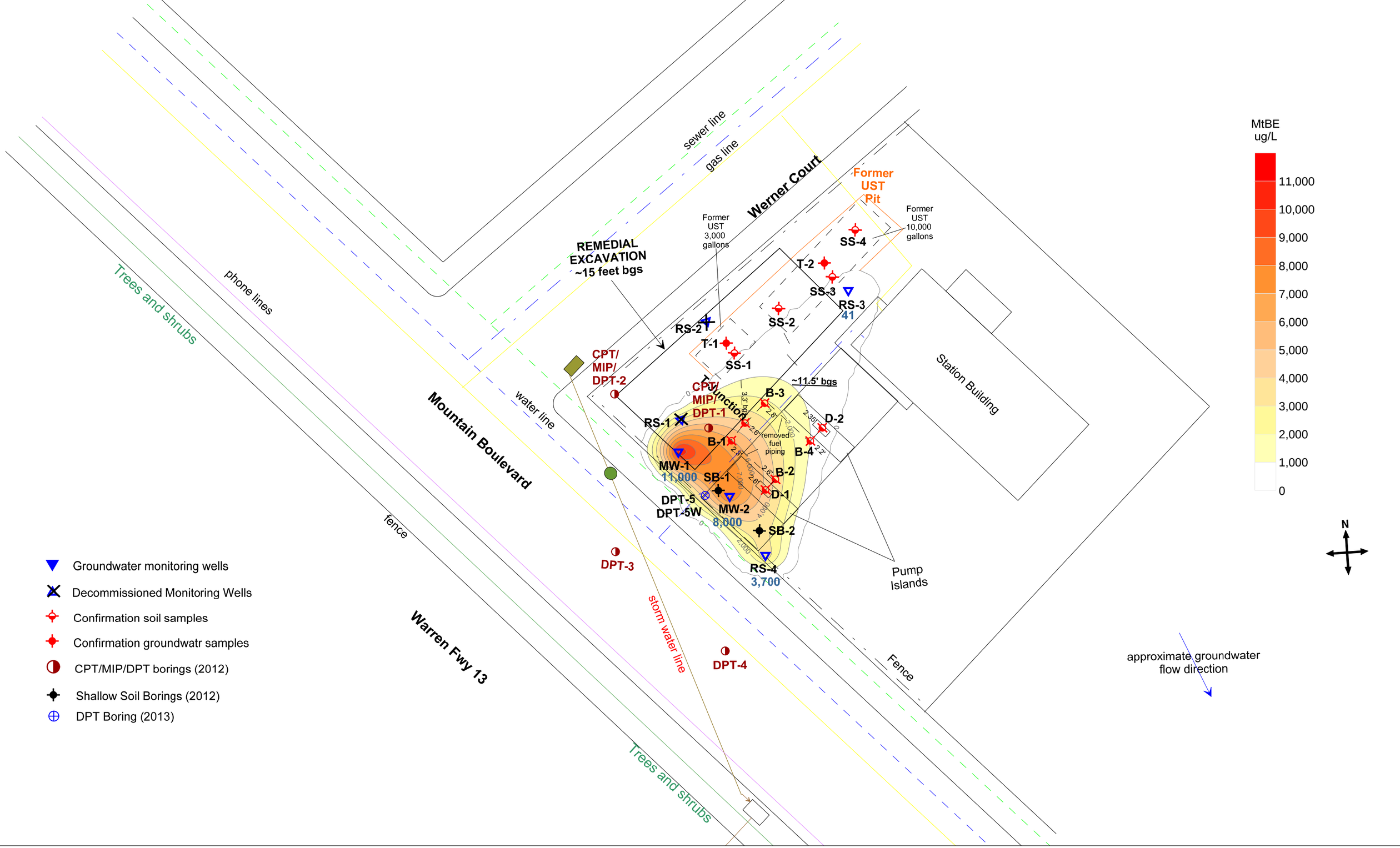


Figure 6: Contour Map Showing MtBE Concentrations in Groundwater, June 3, 2014

ENVIRONMENTAL ENGINEERING, INC.

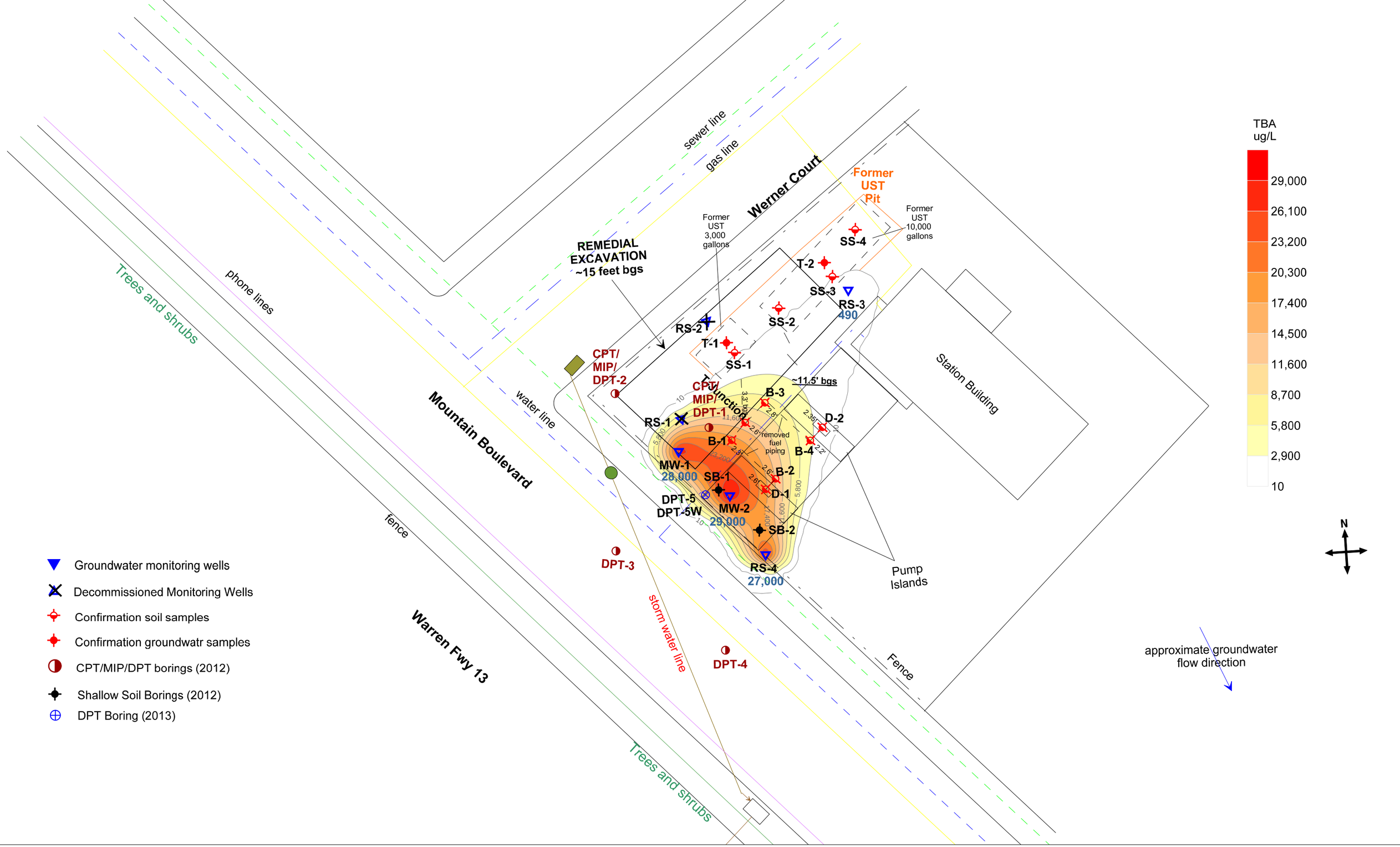


Figure 7: Contour Map Showing TBA Concentrations in Groundwater, June 3, 2014

ENVIRONMENTAL ENGINEERING, INC.

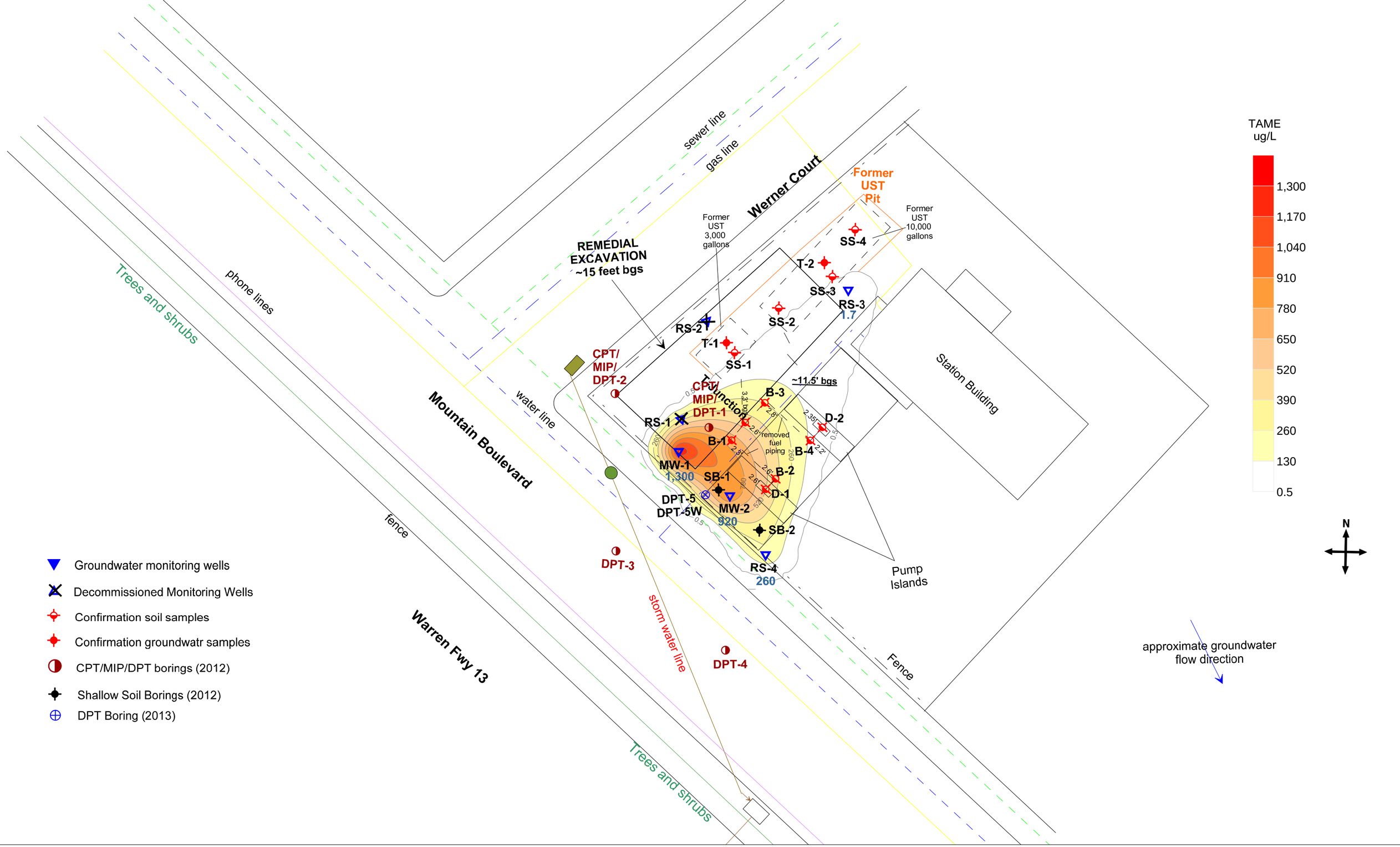


Figure 8: Contour Map Showing TAME Concentrations in Groundwater, June 3, 2014

ENVIRONMENTAL ENGINEERING, INC.

Tables

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	5/1/90	675.63	7.20	7.20	0.00	668.43	2,700			370	420	40	320			
	5/1/91	675.63	8.35	8.35	0.00	667.28	1,300			580	130	62	240			
	10/1/91	675.63	10.22	10.22	0.00	665.41	1,100			140	100	45	210			
	1/1/92	675.63	8.06	8.06	0.00	667.57	1,700			9.9	31	9.7	170			
	1/1/93	675.63	5.30	5.30	0.00	670.33	3,700			650	9.2	51	170			
	8/1/93	675.63	8.56	8.56	0.00	667.07	900			14	0.6	2.1	8			
	11/1/93	675.63	8.44	8.44	0.00	667.19	1,400			9.6	ND	0.9	5			
	1/1/94	675.63	6.88	6.88	0.00	668.75	4,200			95	3.1	58	130			
	5/1/94	675.63	7.87	7.87	0.00	667.76	7,500			270	11	37	96			
	8/1/94	675.63	16.28	16.28	0.00	659.35	130			12	0.5	2.6	5			
	11/1/94	675.63	8.02	8.02	0.00	667.61	270			4.7	0.7	0.6	15			
	2/1/95	675.63	6.51	6.51	0.00	669.12	12,000			81	2.3	1	12			
	6/1/95	675.63	7.34	7.34	0.00	668.29	37,000			460	ND	ND	ND	63,000		
	11/1/95	675.63	8.71	8.71	0.00	666.92	ND			660	16	140	330	31,000		
	2/1/96	675.63	6.95	6.95	0.00	668.68	66,000			110	ND	12	21	84,000		
	9/18/96	675.63	8.44	8.52	0.08	667.17	1 INCH FLOATING PRODUCT									
	12/11/96	675.63	6.42	6.62	0.20	669.17	79,000			4,000	37,000	8,000	45,000	220,000		
	2/21/97	675.63	6.88	6.92	0.04	668.74	1/2 INCH FLOATING PRODUCT									
	5/28/97	675.63	7.88	7.96	0.08	667.73	156,000			9,400	51,000	7,000	45,000	112,000		
	9/2/97	675.63	8.34	8.38	0.04	667.28	1/2 INCH FLOATING PRODUCT									
	11/24/97	675.63	6.98	7.00	0.02	668.65	1/4 INCH FLOATING PRODUCT									
	2/25/98	675.63	3.51	3.52	0.01	672.12	1/8 INCH FLOATING PRODUCT									
	5/27/98	675.63	7.31	7.31	0.00	668.32	40,000			2,200	4,000	2,300	19,000	350,000		
	9/16/98	675.63	8.10	8.10	0.00	667.53	62,000			2,400	2,300	2,100	14,000	250,000		
	11/23/98	675.63	7.10	7.10	0.00	668.53	99,000			2,600	5,800	2,500	18,000	130,000		
	2/23/99	675.67	4.82	4.87	0.05	670.84	5/8 INCH FLOATING PRODUCT									
	5/5/99	675.67	6.86	6.90	0.04	668.80	FLOATING PRODUCT									
	8/24/99	675.67	7.87	7.90	0.03	667.80	FLOATING PRODUCT									
	2/8/12	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
	5/4/12	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
	8/6/12	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
	Well Destroyed October 1, 2012															
RS-2	5/1/90	689.00	7.06	7.06	0.00	681.94	23,000			7,200	4,800	300	3,300			
	5/1/91	689.00	7.14	7.14	0.00	681.86	26,000			14,000	1,800	750	2,900			
	10/1/91	688.89	8.84	8.84	0.00	680.05	13,000			4,300	910	300	2,300			
	1/1/92	688.89	7.34	7.34	0.00	681.55	8,300			1,800	920	140	1,700			
	1/1/93	688.89	4.10	4.10	0.00	684.79	41,000			7,000	210	1,200	4,200			
	8/1/93	688.89	7.32	7.32	0.00	681.57	19,000			5,300	62	810	1,600			
	11/1/93	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.	1/1/94	688.89	5.52	5.52	0.00	683.37	30,000			4,900	ND	880	2,600			
	5/1/94	675.25	6.40	6.40	0.00	668.85	120,000			3,300	330	ND	2,200			
	8/1/94	675.25			0.00	675.25	510			7.30	3.80	3.50	32			
	11/1/94	675.25	9.82	9.82	0.00	665.43	620			6.60	3.90	1.10	47			
	2/1/95	675.25	4.81	4.81	0.00	670.44	22,000			228	80	2	463			
	6/1/95	675.25	5.80	5.80	0.00	669.45	49,000			1,300	160	200	1,600	71,000		
	11/1/95	675.25	7.64	7.64	0.00	667.61	ND			670	25	150	360	65,000		
	2/1/96	675.25	4.69	4.69	0.00	670.56	75,000			1,400	170	59	460	71,000		
	9/18/96	675.25	7.34	7.34	0.00	667.91	6,300			2,000	48	350	570	160,000		
	12/11/96	675.25	5.08	5.08	0.00	670.17	16,000			2,000	840	200	3,200	180,000		
	2/21/97	675.25	5.42	5.42	0.00	669.83	22,000			2,100	1,300	600	5,100	56,000		
	5/28/97	675.25	6.40	6.40	0.00	668.85	156,000			4,200	89	1,000	6,900	390,000		
	9/2/97	675.25	6.93	6.93	0.00	668.32	<50			1,300	25	360	1,400	180,000		
	11/24/97	675.25	5.93	5.93	0.00	669.32	<50			600	ND	ND	ND	610,000		
	2/25/98	675.25	4.59	4.59	0.00	670.66	11,000			1,100	<50	320	2,400	330,000		
	5/27/98	675.25	5.61	5.61	0.00	669.64	13,000			2,000	150	600	2,700	380,000		
	9/16/98	675.25	6.84	6.84	0.00	668.41	11,000			1,600	20	1,600	1,600	280,000		
	11/23/98	675.25	6.24	6.24	0.00	669.01	12,000			1,200	84	<5	960	140,000		
	2/23/99	675.28	4.62	4.62	0.00	670.66	8,800			1,500	650	640	1,500	450,000		
	5/5/99	675.28	7.55	7.55	0.00	667.73	29,000			2,000	1,300	500	3,700	270,000		
	8/24/99	675.28	6.62	6.62	0.00	668.66	12,000			1,900	20	370	980	340,000		
	2/8/12	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
	5/4/12	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
	8/6/12	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	5/1/90	670.00	6.00	6.00	0.00	664.00	330			2	1	1	150			
	5/1/91	670.00	6.76	6.76	0.00	663.24	ND			0.40	ND	0.80	8			
	10/1/91	670.00	8.98	8.98	0.00	661.02	ND			ND	ND	ND	ND			
	1/1/92	670.00	6.81	6.81	0.00	663.19	ND			2.20	7.20	0.60	4			
	1/1/93	670.00	4.05	4.05	0.00	665.95	ND			ND	ND	ND	ND			
	8/1/93	670.00	7.19	7.19	0.00	662.81	ND			30	6	2.40	5			
	11/1/93	670.00	7.12	7.12	0.00	662.88	ND			4.80	0.40	0.60	2			
	1/1/94	670.00	5.42	5.42	0.00	664.58	330			25	3.20	3.90	12			
	5/1/94	676.20	5.78	5.78	0.00	670.42	670			34	4	28	70			
	8/1/94	676.20	5.86	5.86	0.00	670.34	ND			ND	ND	ND	ND			
	11/1/94	676.20	5.08	5.08	0.00	671.12	69			2.50	3.10	1	4			
	2/1/95	676.20	4.51	4.51	0.00	671.69	ND			0.30	0.40	ND	1			
	6/1/95	676.20	5.29	5.29	0.00	670.91	ND			ND	ND	ND	ND	66		
	11/1/95	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
RS-3 cont.	2/1/96	676.20	4.48	4.48	0.00	671.72	120			ND	ND	ND	ND	110		
	9/18/96	676.20	6.92	6.92	0.00	669.28	1,000			13	8.60	10	17	33		
	12/11/96	676.20	4.90	4.90	0.00	671.30	85			20	2	<0.5	14	4,700		
	2/21/97	676.20	4.94	4.94	0.00	671.26	120			5	2	2	6	850		
	5/28/97	676.20	7.92	7.92	0.00	668.28	<50			6	<0.5	<0.5	<2	2,400		
	9/2/97	676.20	6.60	6.60	0.00	669.60	<50			0.90	<0.5	<0.5	<2	8,600		
	11/24/97	676.20	5.89	5.89	0.00	670.31	140			13	2	1	12	3,600		
	2/25/98	676.20	4.29	4.29	0.00	671.91	<50			<0.5	<0.5	<0.5	4	850		
	5/27/98	676.20	5.01	5.01	0.00	671.19	<50			7	<0.5	<0.5	11	940		
	9/16/98	676.20	6.21	6.21	0.00	669.99	<50			2	2	2	10	670		
	11/24/98	676.20	5.58	5.58	0.00	670.62	85			9	23	<0.5	19	180		
	2/24/99	676.23	4.30	4.30	0.00	671.93	<50			<0.5	0.90	<0.5	<1.0	150		
	5/5/99	676.23	4.92	4.92	0.00	671.31	<50			1	2	1	6	130		
	8/24/99	676.23	6.64	6.64	0.00	669.59	80			0.80	<0.5	0.60	<1	300		
	2/8/12	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
	5/4/12	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
	8/6/12	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
	3/29/13	676.23	6.01	6.01	0.00	670.22	<50	90 Y	NA	<0.5	<0.5	<0.5	<0.5	3.6	<10	<0.5
	6/6/13	676.08	6.45	6.45	0.00	669.63	<50	66 Y	NA	<0.5	<0.5	<0.5	<0.5	1.5	<10	<0.5
	9/4/13	676.08	6.91	6.91	0.00	669.17	<50	170 Y	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
	12/30/13	676.08	7.21	7.21	0.00	668.87	<50	61 Y	NA	<0.5	<0.5	<0.5	<0.5	21	680	0.64
	3/10/14	676.08	5.68	5.68	0.00	670.40	<50	<50	NA	<0.5	<0.5	<0.5	<0.5	14	320	0.61
	6/3/14	**676.08**	**6.72**	**6.72**	**0.00**	**669.36**	**<50**	**<50**	**NA**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**41**	**490**	**1.70**
RS-4	5/1/90	675.38	8.34	8.34	0.00	667.04	440			9	11	9	49			
	5/1/91	675.38	9.50	9.50	0.00	665.88	ND			8	4	3	5			
	10/1/91	675.38	10.82	10.82	0.00	664.56	830			280	120	24	170			
	1/1/92	675.38	9.31	9.31	0.00	666.07	620			34	8.30	2.10	21			
	1/1/93	675.38	6.89	6.89	0.00	668.49	150			32	1.70	5.80	13			
	8/1/93	675.38	9.68	9.68	0.00	665.70	ND			0.90	0.70	ND	0			
	11/1/93	675.38	9.83	9.83	0.00	665.55	ND			ND	ND	ND	ND			
	1/1/94	675.38	8.17	8.17	0.00	667.21	ND			1.70	ND	0.81	2			
	5/1/94	675.38	8.69	8.69	0.00	666.69	ND			ND	ND	ND	1			
	8/1/94	675.38	9.04	9.04	0.00	666.34	420			6.50	4.10	1.90	40			
	11/1/94	675.38	8.00	8.00	0.00	667.38	130			4.10	0.70	1.70	8			
	2/1/95	675.38	7.93	7.93	0.00	667.45	ND			6	1.20	3.50	13			
	6/1/95	675.38	8.61	8.61	0.00	666.77	ND			ND	ND	ND	ND	69		
	11/1/95	675.38	10.43	10.43	0.00	664.95	ND			ND	ND	ND	ND	47		
	2/1/96	675.38	7.44	7.44	0.00	667.94	960			ND	ND	0.60	ND	80		
	9/18/96	675.38	9.58	9.58	0.00	665.80	<50			<0.5	<0.5	<0.5	<2	200		
	12/11/96	675.38	7.50	7.50	0.00	667.88	75			<0.5	0.60	<0.5	<0.5	104		
	2/21/97	675.38	8.26	8.26	0.00	667.12	<50			1	1	<0.5	1	190		
	5/28/97	675.38	8.92	8.92	0.00	666.46	<50			6	<0.5	<0.5	<2	110		
	9/2/97	675.38	9.39	9.39	0.00	665.99	100			3	<0.5	<0.5	<2	39		
	11/24/97	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.	2/25/98	675.38	7.19	7.19	0.00	668.19	<50			3	<0.5	<0.5	<1	5,600		
	5/27/98	675.38	8.40	8.40	0.00	666.98	<50			<0.5	<0.5	<0.5	<1	2,400		
	9/16/98	675.38	9.26	9.26	0.00	666.12	<50			<0.5	<0.5	<0.5	<1	230		
	11/24/98	675.38	8.50	8.50	0.00	666.88	<50			2	<0.5	<0.5	<1	100		
	2/24/99	675.42	7.20	7.20	0.00	668.22	<50			2	3	0.80	5	670		
	5/5/99	675.42	8.37	8.37	0.00	667.05	100			<0.5	<0.5	<0.5	<1	440		
	8/24/99	675.42	8.36	8.36	0.00	667.06	<50			<0.5	<0.5	<0.5	<1	<500		
	2/8/12	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
	5/4/12	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
	8/6/12	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
	3/29/13	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
	6/6/13	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
	9/4/13	675.27	9.39	9.39	0.00	665.88	20,000	5,100	NA	<100	<100	660	2,830	18,000	75,000	1,200
	12/30/13	675.27	9.57	9.57	0.00	665.70	<13,000	9,900	NA	<130	<130	<130	150	16,000	37,000	1,100
	3/10/14	675.27	7.65	7.65	0.00	667.62	<10,000	3,700	NA	<100	<100	<100	<100	11,000	38,000	640
	6/3/14	**675.27**	**9.27**	**9.27**	**0.00**	**666.00**	**<3,600**	**4,400**	**NA**	**<36**	**<36**	**40**	**<36**	**3,700**	**27,000**	**260**
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
	9/4/13	674.92	7.10	7.10	0.00	667.82	<50,000	13,000	NA	2,000	<500	1,400	4,200	70,000	48,000	7,700
	12/30/13	674.92	7.27	7.27	0.00	667.65	34,000	13,000	NA	920	1,000	1,300	4,900	43,000	43,000	4,500
	3/10/14	674.92	5.51	5.51	0.00	669.41	<20,000	11,000	NA	720	<200	890	1,970	25,000	30,000	2,600
	6/3/14	**674.92**	**6.74**	**6.74**	**0.00**	**668.18**	**8,900**	**7,400**	**NA**	**350**	**<83**	**550**	**1,420**	**11,000**	**28,000**	**1,300**
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
	9/4/13	675.02	7.79	7.79	0.00	667.23	<25,000	3,900	NA	860	<250	710	1,580	32,000	31,000	4,600
	12/30/13	675.02	8.05	8.05	0.00	666.97	<13,000	6,300	NA	180	<130	<130	330	18,000	53,000	1,800
	3/10/14	675.02	6.08	6.08	0.00	668.94	14,000	11,000	NA	210	<130	360	700	15,000	40,000	1,800
	6/3/14	**675.02**	**7.54**	**7.54**	**0.00**	**667.48**	**<7,100**	**6,200**	**NA**	**170**	**<71**	**310**	**150**	**8,000**	**29,000**	**920**
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

December 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

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, and representative of, 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 disposable 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

WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION
MW-1	2122404.169	6071174.709	674.92	SET NOTCH N. SIDE 4" PVC
	N37.81151896	W122.1980061	675.50	SET PUNCH N. SIDE
			675.49	NORTH SIDE AC
MW-2	2122393.627	6071186.912	675.02	SET NOTCH N. SIDE 4" PVC
	N37.81149062	W122.1979632	675.53	SET PUNCH N. SIDE
			675.51	
RS-3	2122442.569	6071215.114	676.08	SET NOTCH N. SIDE 4" PVC
	N37.81162641	W122.1978687	676.47	SET PUNCH N. SIDE
			676.38	NORTH SIDE AC
RS-4	2122379.611	6071195.421	675.27	TOP 4" PVC
	N37.81145256	W122.1979329	675.70	SET PUNCH N. SIDE
			675.59	NORTH SIDE AC

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

6/03/13

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

ENVIRONMENTAL ENGINEERING, INC

Well No.:	RS-3	**Project No.:**	5081
Casing Diameter:	4 inches	**Address:**	2844 Mountain Blvd.
Depth of Well:	24.99 feet		Oakland, CA
Top of Casing Elevation:	676.08 feet	**Date:**	June 3 , 2014
Depth to Groundwater:	6.72 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	669.36 feet		
Water Column Height:	18.27 feet		
Purged Volume:	12 gallons		

Purging Method:	**Bailer**	☐	**Pump**	☑
Sampling Method:	**Bailer**	☑	**Pump**	☐

Color:	**Yes**	☐	**No**	☑	**Describe:** _____
Sheen:	**Yes**	☐	**No**	☑	**Describe:** _____
Odor:	**Yes**	☐	**No**	☑	**Describe:** _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11:22	Started purging well			
11:23	3	7.13	20.3	841
11:24	6	7.08	19.3	838
11:25	9	7.08	19.1	841
11:26	12	7.09	19.1	842
11:31	Sampled			

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well No.:	RS-4		**Project No.:**	5081
Casing Diameter:	4	inches	**Address:**	2844 Mountain Blvd.
Depth of Well:	25.54	feet		Oakland, CA
Top of Casing Elevation:	675.27	feet	**Date:**	June 3, 2014
Depth to Groundwater:	9.27	feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	666.00	feet		
Water Column Height:	16.27	feet		
Purged Volume:	—	gallons		
	Not purged			

Purging Method:	**Bailer**	☐		**Pump**	☐
Sampling Method:	**Bailer**	☑		**Pump**	☐
Color:	**Yes**	☑	**No** ☐	**Describe:**	Slightly Cloudy
Sheen:	**Yes**	☐	**No** ☑	**Describe:**	
Odor:	**Yes**	☑	**No** ☐	**Describe:**	Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
13:40	Grab Sample			

Notes: Cap left on well from MPE event. Unable to remove because it is too tight. Only able to take

ENVIRONMENTAL ENGINEERING, INC

Well No.:	MW-1	**Project No.:**	5081
Casing Diameter:	4 inches	**Address:**	2844 Mountain Blvd.
Depth of Well:	19.75 feet		Oakland, CA
Top of Casing Elevation:	674.92 feet	**Date:**	June 3 , 2014
Depth to Groundwater:	6.74 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	668.18 feet		
Water Column Height:	13.01 feet		
Purged Volume:	12 gallons		

Purging Method:	**Bailer**	☐		**Pump**	☑
Sampling Method:	**Bailer**	☑		**Pump**	☐
Color:	**Yes**	☐	**No** ☑	**Describe:**	
Sheen:	**Yes**	☐	**No** ☑	**Describe:**	
Odor:	**Yes**	☑	**No** ☐	**Describe:**	Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:02	Started purging well			
12:03	3	6.97	18.7	860
12:04	6	6.90	19.0	820
12:05	9	6.87	19.3	803
12:06	12	6.87	19.7	802
12:11	Sampled			

Notes:

ENVIRONMENTAL ENGINEERING, INC

Well No.:	MW-2	**Project No.:**	5081
Casing Diameter:	4 inches	**Address:**	2844 Mountain Blvd.
Depth of Well:	19.74 feet		Oakland, CA
Top of Casing Elevation:	675.02 feet	**Date:**	June 3 , 2014
Depth to Groundwater:	7.54 feet	**Sampler:**	Lizzie Hightower
Groundwater Elevation:	667.48 feet		
Water Column Height:	12.20 feet		
Purged Volume:	12 gallons		

Purging Method:	**Bailer**	☐		**Pump**	☑
Sampling Method:	**Bailer**	☑		**Pump**	☐
Color:	**Yes**	☑	**No** ☐	**Describe:**	Cloudy
Sheen:	**Yes**	☐	**No** ☑	**Describe:**	
Odor:	**Yes**	☑	**No** ☐	**Describe:**	Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:59	Started purging well			
13:00	3	7.14	20.6	1000
13:01	6	7.06	20.5	988
13:02	9	7.05	20.3	987
13:03	12	7.07	20.5	1003
13:08	Sampled			

Notes:

EPA On-line Tools for Site Assessment Calculation

Hydraulic Gradient -- Magnitude and Direction

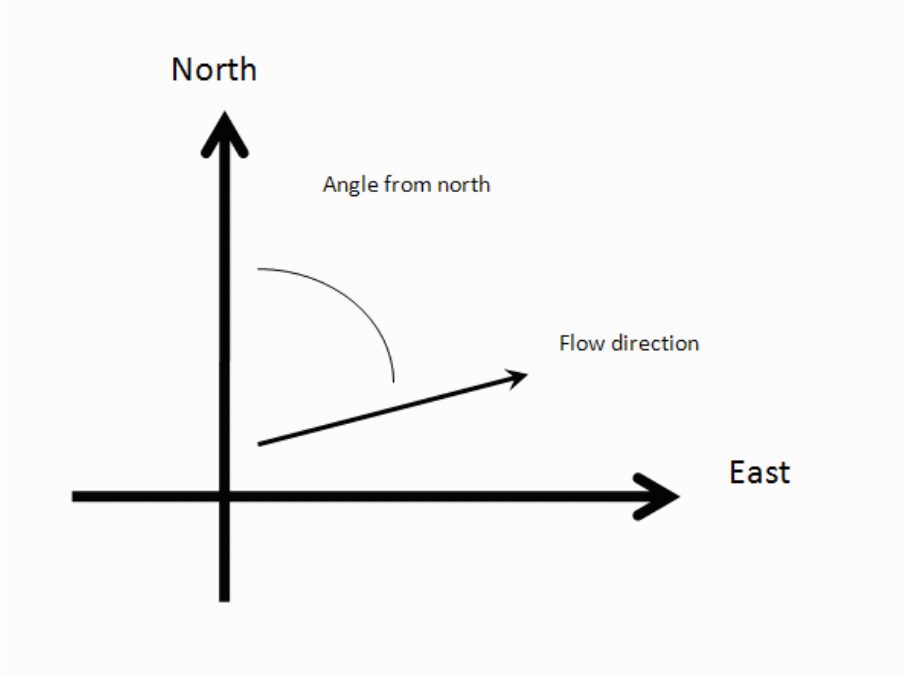
Gradient Calculation from fitting a plane to as many as thirty points

$a x_1 + b y_1 + c = h_1$
$a x_2 + b y_2 + c = h_2$
$a x_3 + b y_3 + c = h_3$
. . .
$a x_{30} + b y_{30} + c = h_{30}$

where (x_i,y_i) are the coordinates of the well and
h_i is the head

i = 1,2,3, ... , 30
The coefficients a, b, and c are calculated by a least-squares fitting of the 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: 2844 Mountain Blvd.

Date: June 3, 2014 Current Date

Calculation basis: Head

Coordinates: ft

I.D.		x-coordinate	y-coordinate	head (ft)
1)	RS-3	6071215.111	2122442.671	669.36
2)	RS-4	6071195.458	2122379.324	666
3)	MW-1	6071174.931	2122404.178	668.18
4)	MW-2	6071186.39	2122393.492	667.48
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	1.024
Gradient Magnitude (i)	0.06911
Flow direction as degrees from North (positive y axis)	152.6
Coefficient of Determination (R^2)	0.988

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 257677
ANALYTICAL REPORT

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

Sample ID	Lab ID
RS-3	257677-001
RS-4	257677-002
MW-1	257677-003
MW-2	257677-004

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 Date: 06/13/2014

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**257677**
Client:	**SOMA Environmental Engineering Inc.**
Project:	**5081**
Location:	**2844 Mountain Blvd., Oakland**
Request Date:	**06/04/14**
Samples Received:	**06/04/14**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 06/04/14. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

High RPD was observed for diesel C10-C24 in the MS/MSD for batch 211870; the parent sample was not a project sample. No other analytical problems were encountered.

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

High surrogate recoveries were observed for 1,2-dichloroethane-d4 in RS-4 (lab # 257677-002), MW-1 (lab # 257677-003), and MW-2 (lab # 257677-004). No other analytical problems were encountered.

CHAIN OF CUSTODY

Curtis & Tompkins, Ltd
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

LOGIN # 252627

Sampler: Lizzie Hightower

Project No: 5081

Report To: Joyce Bobek

Project Name: 2844 Mountain Blvd., Oakland

Company : SOMA Environmental

Turnaround Time: Standard

Telephone: 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Analyses: TPH-g, BTEX, MtBE 8260B	Analyses: Gasoline Oxygenates 8260B	Analyses: TPH-d 8015
1	RS-3	6/3/14 11:31		*		3 VOAs, 2-500 mL Ambers	*			*	*	*	*
2	RS-4	13:40		*		3 VOAs, 2-500 mL Ambers	*			*	*	*	*
3	MW-1	12:11		*		3 VOAs, 2-500 mL Ambers	*			*	*	*	*
4	MW-2	13:08		*		3 VOAs, 2-500 mL Ambers	*			*	*	*	*

Notes: **EDF OUTPUT REQUIRED**
GasOx: DIPE, ETBE, TAME, TBA

RELINQUISHED BY:		RECEIVED BY:	
	6/4/14 10:57 DATE/TIME		6/4/14 1057 DATE/TIME
	6/4/14 1245 DATE/TIME		06/04/14 12:45 DATE/TIME
	DATE/TIME		DATE/TIME

Intact cold RC

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 257627 Date Received 6/4/14 Number of coolers 1
Client SOMA ENVIRONMENTAL Project 2844 MOUNTAIN BLVD, OAKLAND

Date Opened 06/04/14 By (print) NY (sign)
Date Logged in 6/4/14 By (print) MC (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES ~~NO~~
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO ~~N/A~~
3. Were custody papers dry and intact when received? YES ~~NO~~
4. Were custody papers filled out properly (ink, signed, etc)? YES ~~NO~~
5. Is the project identifiable from custody papers? (If so fill out top of form) 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) 5.9

☐ 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~~
   If YES, Who was called? By Date:

COMMENTS

Rev 10, 10/11

Curtis & Tompkins, Ltd.

Detections Summary for 257677

Client : SOMA Environmental Engineering Inc.
Project : 5081
Location : 2844 Mountain Blvd., Oakland

Client Sample ID : RS-3 Laboratory Sample ID : 257677-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
tert-Butyl Alcohol (TBA)	490		10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	1.7		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	41		0.50	0.11	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : RS-4 Laboratory Sample ID : 257677-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	4,400		50	16	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
tert-Butyl Alcohol (TBA)	27,000		710	96	ug/L	As Recd	71.43	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	260		100	20	ug/L	As Recd	200.0	EPA 8260B	EPA 5030B
MTBE	3,700		36	7.1	ug/L	As Recd	71.43	EPA 8260B	EPA 5030B
Ethylbenzene	40		36	7.3	ug/L	As Recd	71.43	EPA 8260B	EPA 5030B

Client Sample ID : MW-1 Laboratory Sample ID : 257677-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	7,400		50	16	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Gasoline C7-C12	8,900		8,300	670	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	28,000		1,700	220	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	1,300		170	33	ug/L	As Recd	333.3	EPA 8260B	EPA 5030B
MTBE	11,000		83	17	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B
Benzene	350		170	33	ug/L	As Recd	333.3	EPA 8260B	EPA 5030B
Ethylbenzene	550		83	17	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B
m,p-Xylenes	1,300		83	23	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B
o-Xylene	120		83	22	ug/L	As Recd	166.7	EPA 8260B	EPA 5030B

Client Sample ID : MW-2 Laboratory Sample ID : 257677-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	6,200		50	16	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
tert-Butyl Alcohol (TBA)	29,000		1,400	190	ug/L	As Recd	142.9	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	920		100	20	ug/L	As Recd	200.0	EPA 8260B	EPA 5030B
MTBE	8,000		71	14	ug/L	As Recd	142.9	EPA 8260B	EPA 5030B
Benzene	170		100	20	ug/L	As Recd	200.0	EPA 8260B	EPA 5030B
Ethylbenzene	310		71	15	ug/L	As Recd	142.9	EPA 8260B	EPA 5030B
m,p-Xylenes	150		71	19	ug/L	As Recd	142.9	EPA 8260B	EPA 5030B

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	5081	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	06/03/14
Units:	ug/L	Received:	06/04/14
Diln Fac:	1.000	Prepared:	06/05/14
Batch#:	211870		

Field ID: RS-3 Lab ID: 257677-001
Type: SAMPLE Analyzed: 06/07/14

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	94	66-129

Field ID: RS-4 Lab ID: 257677-002
Type: SAMPLE Analyzed: 06/07/14

Analyte	Result	RL
Diesel C10-C24	4,400	50

Surrogate	%REC	Limits
o-Terphenyl	99	66-129

Field ID: MW-1 Lab ID: 257677-003
Type: SAMPLE Analyzed: 06/07/14

Analyte	Result	RL
Diesel C10-C24	7,400	50

Surrogate	%REC	Limits
o-Terphenyl	106	66-129

Field ID: MW-2 Lab ID: 257677-004
Type: SAMPLE Analyzed: 06/07/14

Analyte	Result	RL
Diesel C10-C24	6,200	50

Surrogate	%REC	Limits
o-Terphenyl	103	66-129

Type: BLANK Analyzed: 06/06/14
Lab ID: QC743489

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	100	66-129

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	257677	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:	QC743490	Batch#:	211870
Matrix:	Water	Prepared:	06/05/14
Units:	ug/L	Analyzed:	06/06/14

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,182	87	61-120

Surrogate	%REC	Limits
o-Terphenyl	104	66-129

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	5081	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	211870
MSS Lab ID:	257669-004	Sampled:	06/04/14
Matrix:	Water	Received:	06/04/14
Units:	ug/L	Prepared:	06/05/14
Diln Fac:	20.00	Analyzed:	06/08/14

Type: MS Lab ID: QC743491

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	80,680	2,500	294,000	8533 NM	65-120

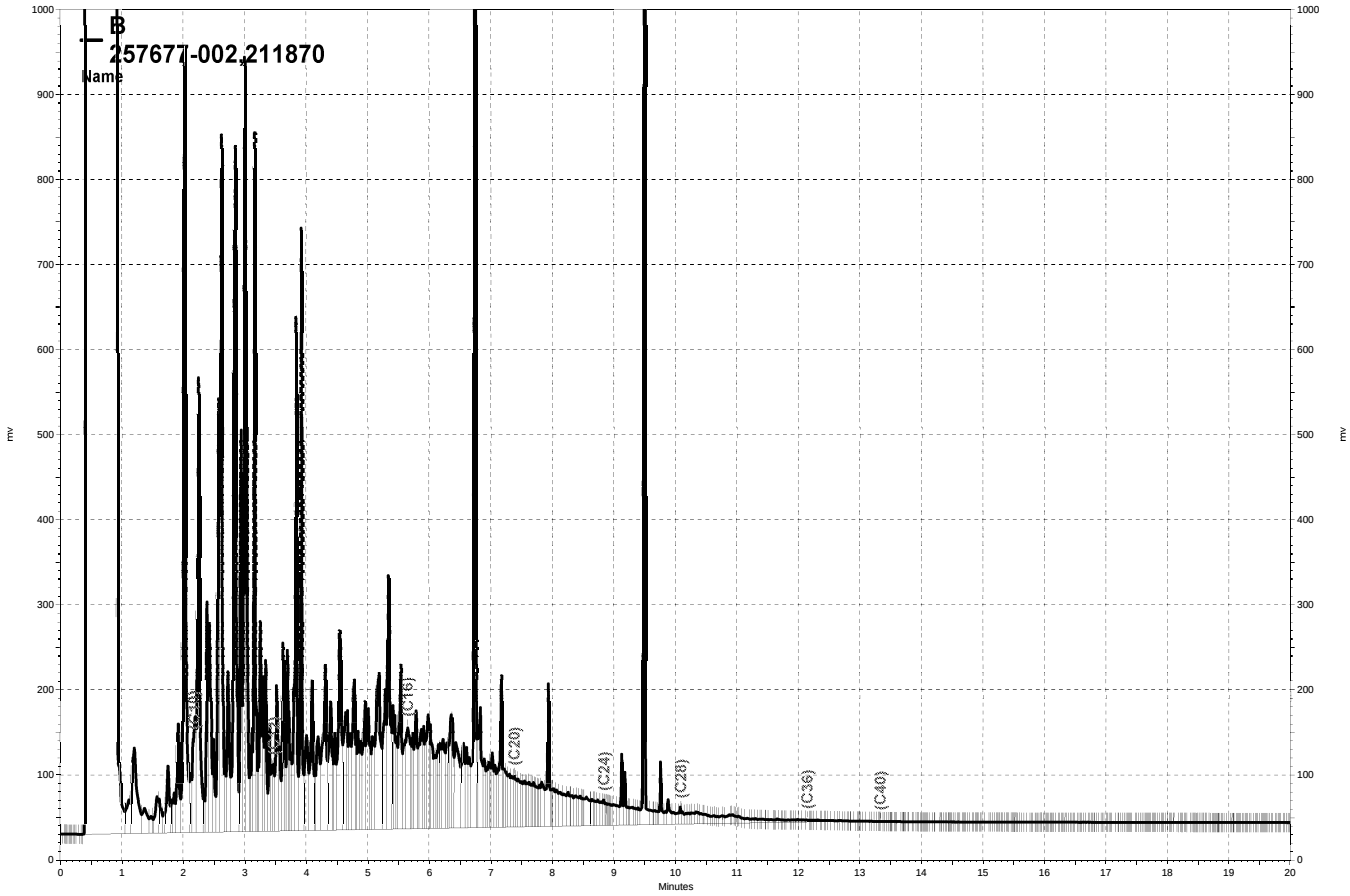
Surrogate	%REC	Limits
o-Terphenyl	DO	66-129

Type: MSD Lab ID: QC743492

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	454,000	14932 NM	65-120	43 *	26

Surrogate	%REC	Limits
o-Terphenyl	DO	66-129

*= Value outside of QC limits; see narrative
DO= Diluted Out
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference



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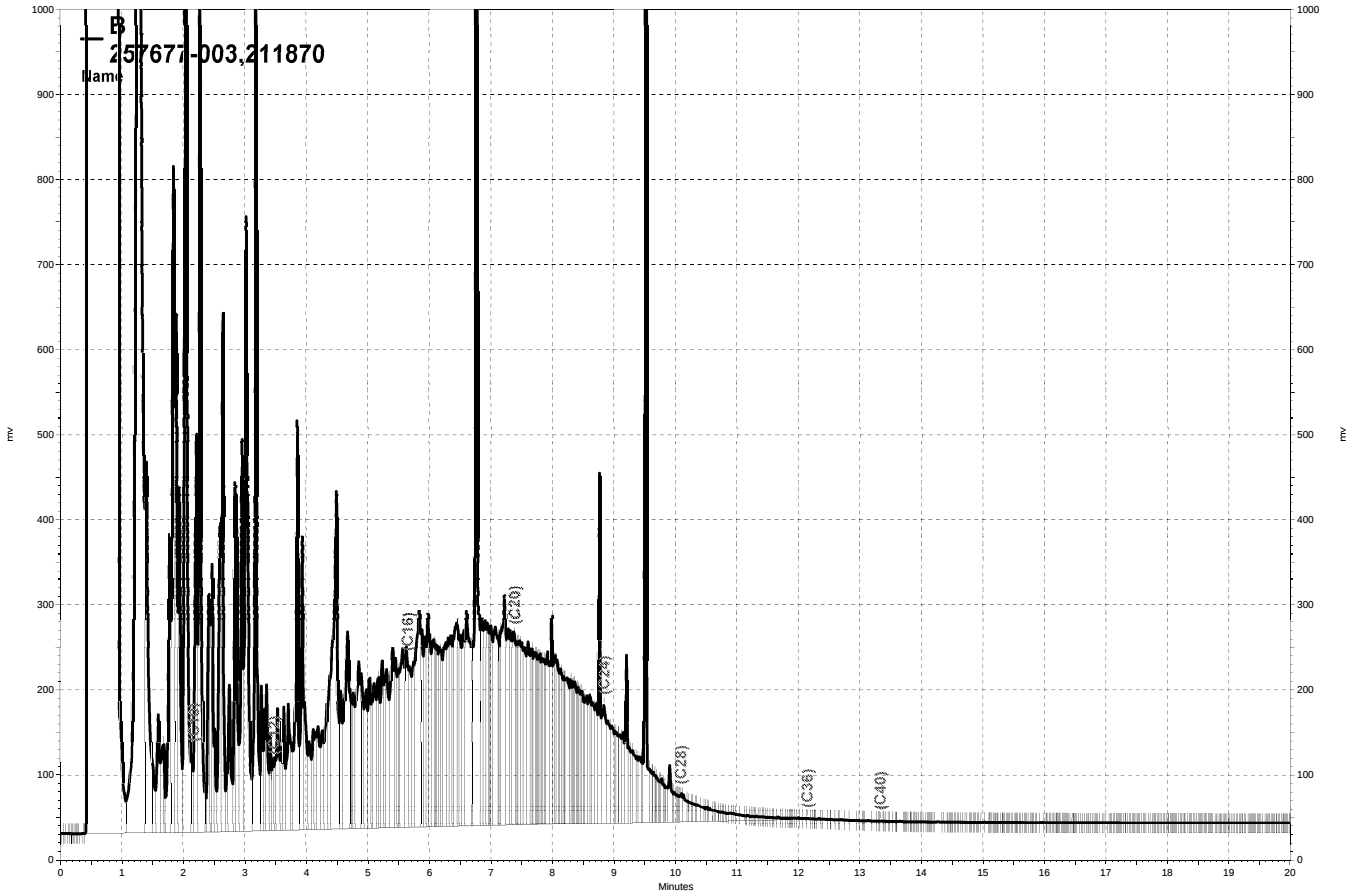

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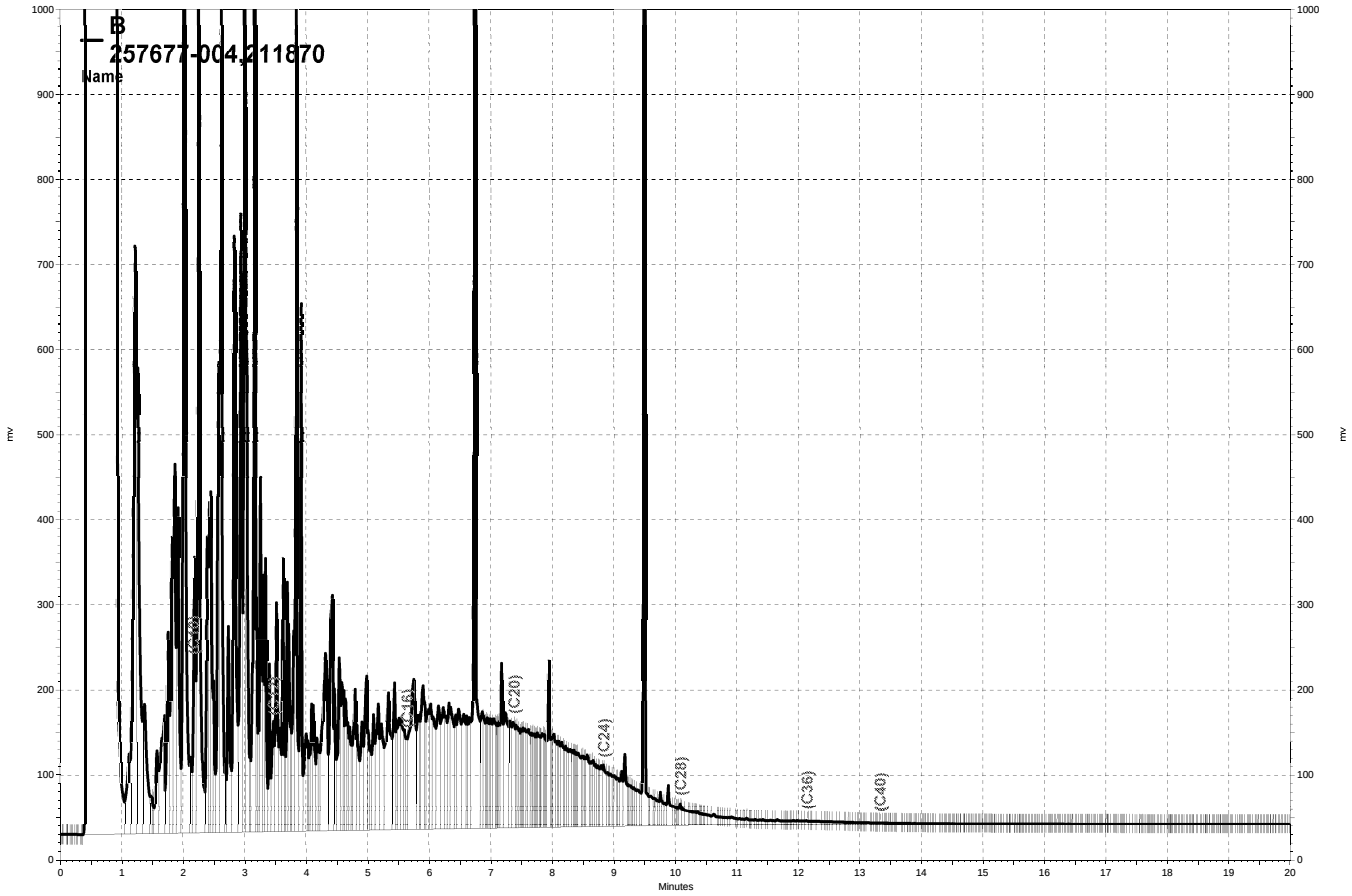

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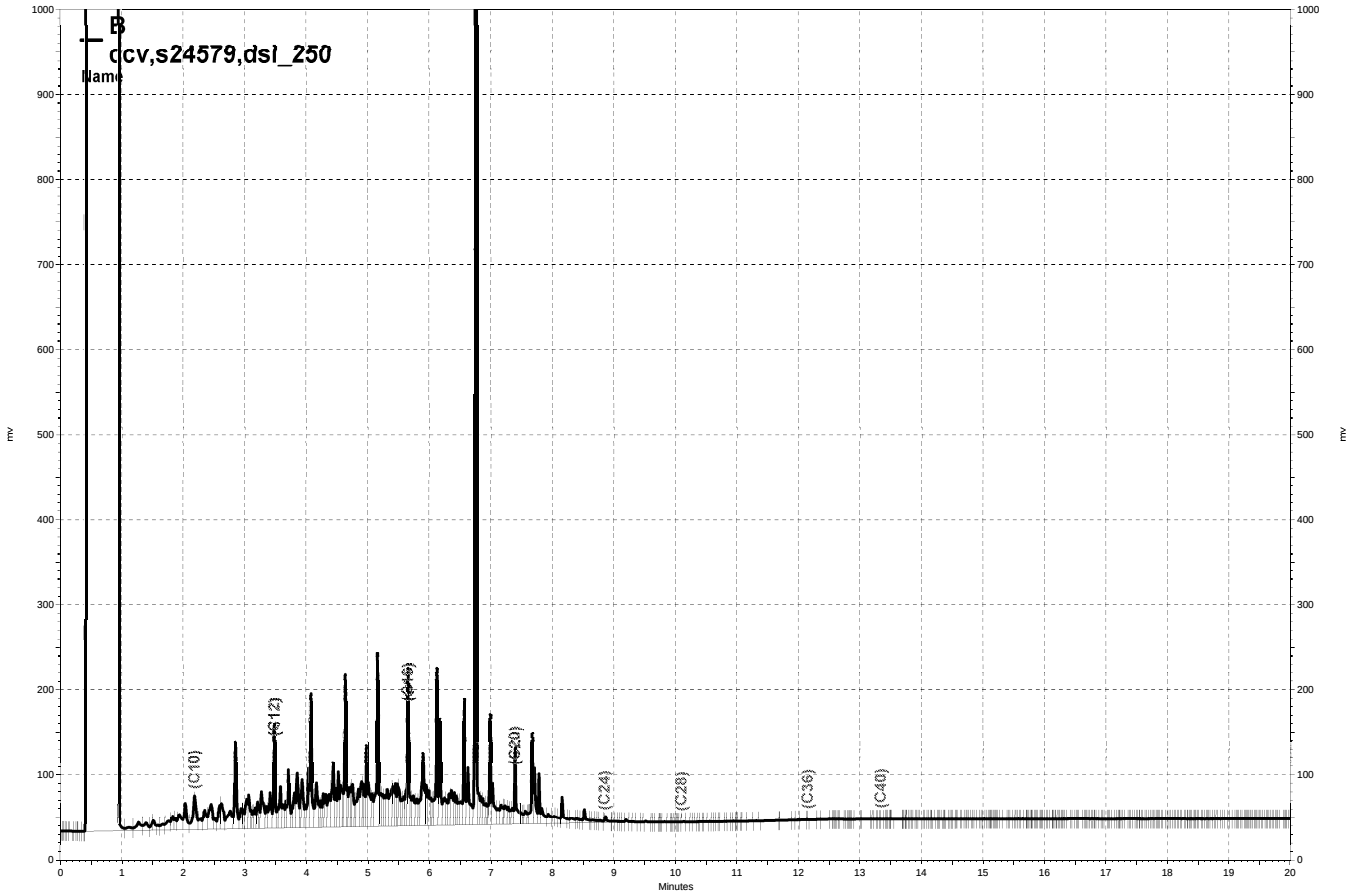

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	RS-3	Batch#:	211894
Lab ID:	257677-001	Sampled:	06/03/14
Matrix:	Water	Received:	06/04/14
Units:	ug/L	Analyzed:	06/06/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	490	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	1.7	0.50
MTBE	41	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	110	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	257677	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:	257677-002	Sampled:	06/03/14
Matrix:	Water	Received:	06/04/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	ND	3,600	71.43	212096	06/12/14
tert-Butyl Alcohol (TBA)	27,000	710	71.43	212096	06/12/14
Isopropyl Ether (DIPE)	ND	36	71.43	212096	06/12/14
Ethyl tert-Butyl Ether (ETBE)	ND	36	71.43	212096	06/12/14
Methyl tert-Amyl Ether (TAME)	260	100	200.0	211894	06/06/14
MTBE	3,700	36	71.43	212096	06/12/14
Benzene	ND	36	71.43	212096	06/12/14
Toluene	ND	36	71.43	212096	06/12/14
Ethylbenzene	40	36	71.43	212096	06/12/14
m,p-Xylenes	ND	36	71.43	212096	06/12/14
o-Xylene	ND	36	71.43	212096	06/12/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	105	77-136	71.43	212096	06/12/14
1,2-Dichloroethane-d4	150 *	75-139	71.43	212096	06/12/14
Toluene-d8	103	80-120	71.43	212096	06/12/14
Bromofluorobenzene	109	80-120	71.43	212096	06/12/14

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	257677	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:	257677-003	Sampled:	06/03/14
Matrix:	Water	Received:	06/04/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	8,900	8,300	166.7	212096	06/12/14
tert-Butyl Alcohol (TBA)	28,000	1,700	166.7	212096	06/12/14
Isopropyl Ether (DIPE)	ND	83	166.7	212096	06/12/14
Ethyl tert-Butyl Ether (ETBE)	ND	83	166.7	212096	06/12/14
Methyl tert-Amyl Ether (TAME)	1,300	170	333.3	211894	06/06/14
MTBE	11,000	83	166.7	212096	06/12/14
Benzene	350	170	333.3	211894	06/06/14
Toluene	ND	83	166.7	212096	06/12/14
Ethylbenzene	550	83	166.7	212096	06/12/14
m,p-Xylenes	1,300	83	166.7	212096	06/12/14
o-Xylene	120	83	166.7	212096	06/12/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	104	77-136	166.7	212096	06/12/14
1,2-Dichloroethane-d4	152 *	75-139	166.7	212096	06/12/14
Toluene-d8	104	80-120	166.7	212096	06/12/14
Bromofluorobenzene	108	80-120	166.7	212096	06/12/14

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	257677	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:	257677-004	Sampled:	06/03/14
Matrix:	Water	Received:	06/04/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	ND	7,100	142.9	212096	06/12/14
tert-Butyl Alcohol (TBA)	29,000	1,400	142.9	212096	06/12/14
Isopropyl Ether (DIPE)	ND	71	142.9	212096	06/12/14
Ethyl tert-Butyl Ether (ETBE)	ND	71	142.9	212096	06/12/14
Methyl tert-Amyl Ether (TAME)	920	100	200.0	211894	06/06/14
MTBE	8,000	71	142.9	212096	06/12/14
Benzene	170	100	200.0	211894	06/06/14
Toluene	ND	71	142.9	212096	06/12/14
Ethylbenzene	310	71	142.9	212096	06/12/14
m,p-Xylenes	150	71	142.9	212096	06/12/14
o-Xylene	ND	71	142.9	212096	06/12/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	106	77-136	142.9	212096	06/12/14
1,2-Dichloroethane-d4	147 *	75-139	142.9	212096	06/12/14
Toluene-d8	103	80-120	142.9	212096	06/12/14
Bromofluorobenzene	108	80-120	142.9	212096	06/12/14

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	211894
Units:	ug/L	Analyzed:	06/06/14
Diln Fac:	1.000		

Type: BS Lab ID: QC743571

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	140.0	112	37-151
Isopropyl Ether (DIPE)	25.00	27.83	111	56-124
Ethyl tert-Butyl Ether (ETBE)	25.00	27.46	110	61-122
Methyl tert-Amyl Ether (TAME)	25.00	26.92	108	65-120
MTBE	25.00	27.07	108	64-121
Benzene	25.00	27.10	108	80-124
Toluene	25.00	27.72	111	80-122
Ethylbenzene	25.00	28.69	115	80-124
m,p-Xylenes	50.00	56.33	113	80-122
o-Xylene	25.00	28.36	113	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	104	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC743572

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	109.5	88	37-151	24	30
Isopropyl Ether (DIPE)	25.00	24.79	99	56-124	12	20
Ethyl tert-Butyl Ether (ETBE)	25.00	23.87	95	61-122	14	22
Methyl tert-Amyl Ether (TAME)	25.00	23.26	93	65-120	15	22
MTBE	25.00	23.30	93	64-121	15	20
Benzene	25.00	25.32	101	80-124	7	20
Toluene	25.00	26.03	104	80-122	6	20
Ethylbenzene	25.00	26.85	107	80-124	7	20
m,p-Xylenes	50.00	53.91	108	80-122	4	20
o-Xylene	25.00	27.00	108	77-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	77-136
1,2-Dichloroethane-d4	100	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	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:	QC743573	Batch#:	211894
Matrix:	Water	Analyzed:	06/06/14
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
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	211894
Units:	ug/L	Analyzed:	06/06/14
Diln Fac:	1.000		

Type: BS Lab ID: QC743582

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	914.1	91	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	77-136
1,2-Dichloroethane-d4	112	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC743583

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	943.8	94	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	77-136
1,2-Dichloroethane-d4	107	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	211894
MSS Lab ID:	257669-004	Sampled:	06/04/14
Matrix:	Water	Received:	06/04/14
Units:	ug/L	Analyzed:	06/06/14
Diln Fac:	1.000		

Type: MS Lab ID: QC743687

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	2.919	125.0	169.3	133	38-150
Isopropyl Ether (DIPE)	<0.1000	25.00	25.63	103	62-120
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	25.45	102	64-120
Methyl tert-Amyl Ether (TAME)	<0.1002	25.00	25.46	102	67-120
MTBE	<0.1119	25.00	26.05	104	66-120
Benzene	1.220	25.00	25.47	97	80-127
Toluene	<0.1000	25.00	23.59	94	80-123
Ethylbenzene	1.206	25.00	25.20	96	80-126
m,p-Xylenes	<0.1454	50.00	46.37	93	80-123
o-Xylene	<0.1000	25.00	23.30	93	76-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	107	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-120

Type: MSD Lab ID: QC743688

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	154.3	121	38-150	9	38
Isopropyl Ether (DIPE)	25.00	24.89	100	62-120	3	25
Ethyl tert-Butyl Ether (ETBE)	25.00	24.96	100	64-120	2	27
Methyl tert-Amyl Ether (TAME)	25.00	24.21	97	67-120	5	28
MTBE	25.00	25.07	100	66-120	4	27
Benzene	25.00	24.59	93	80-127	3	23
Toluene	25.00	23.21	93	80-123	2	22
Ethylbenzene	25.00	24.36	93	80-126	3	22
m,p-Xylenes	50.00	45.10	90	80-123	3	22
o-Xylene	25.00	22.94	92	76-120	2	23

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-136
1,2-Dichloroethane-d4	104	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	212096
Units:	ug/L	Analyzed:	06/11/14
Diln Fac:	1.000		

Type: BS Lab ID: QC744431

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	87.50	78.81	90	37-151
Isopropyl Ether (DIPE)	17.50	14.85	85	56-124
Ethyl tert-Butyl Ether (ETBE)	17.50	16.60	95	61-122
Methyl tert-Amyl Ether (TAME)	17.50	16.39	94	65-120
MTBE	17.50	16.27	93	64-121
Benzene	17.50	17.03	97	80-124
Toluene	17.50	17.05	97	80-122
Ethylbenzene	17.50	18.11	103	80-124
m,p-Xylenes	35.00	36.26	104	80-122
o-Xylene	17.50	18.07	103	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	77-136
1,2-Dichloroethane-d4	119	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

Type: BSD Lab ID: QC744432

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	87.50	83.97	96	37-151	6	30
Isopropyl Ether (DIPE)	17.50	15.10	86	56-124	2	20
Ethyl tert-Butyl Ether (ETBE)	17.50	17.13	98	61-122	3	22
Methyl tert-Amyl Ether (TAME)	17.50	17.22	98	65-120	5	22
MTBE	17.50	17.35	99	64-121	6	20
Benzene	17.50	15.96	91	80-124	6	20
Toluene	17.50	16.41	94	80-122	4	20
Ethylbenzene	17.50	17.20	98	80-124	5	20
m,p-Xylenes	35.00	34.13	98	80-122	6	20
o-Xylene	17.50	17.76	101	77-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	119	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	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:	QC744433	Batch#:	212096
Matrix:	Water	Analyzed:	06/11/14
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
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	77-136
1,2-Dichloroethane-d4	126	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	257677	Location:	2844 Mountain Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	5081	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	212096
Units:	ug/L	Analyzed:	06/11/14
Diln Fac:	1.000		

Type: BS Lab ID: QC744434

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	945.9	95	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	122	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC744435

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	835.1	84	80-120	12	20

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	119	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

RPD= Relative Percent Difference

Data File: \\gcmsserver\DD\chem\MSVOA10.i\061114.b\JFB22TVH.D

Date : 12-JUN-2014 00:43

Client ID: DYNA P&T

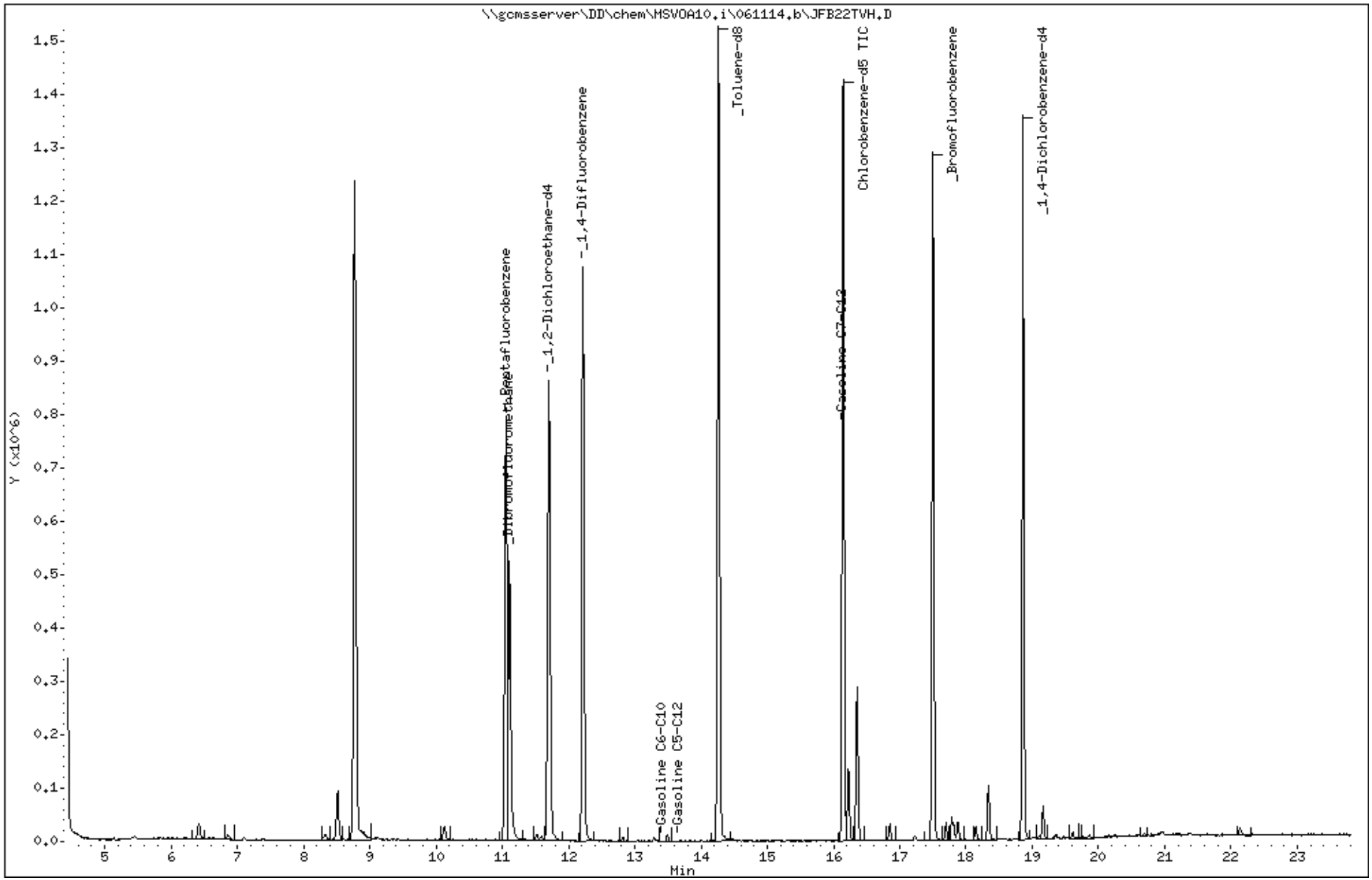
Instrument: MSVOA10.i

Sample Info: S,257677-003

Operator: VOA

Column phase:

Column diameter: 2.00



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Date : 06-JUN-2014 11:30

Client ID: DYNA P&T

Instrument: MSVOA08.i

Sample Info: CCV/BS,QC743582,211894,S24762,.01/100

Operator: VOC

Column phase:

Column diameter: 2.00