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ENVIRONMENTAL ENGINEERING, INC.
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February 24, 2014

Ms. Karel Detterman
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Oakland, California 94502

Subject: Fuel Leak Case#RO0000346
Site Location: 3519 Castro Valley Boulevard, Castro Valley

Dear Ms. Detterman:

SOMA's "First Semi-Annual 2014 Groundwater Monitoring Report" for the subject site has been uploaded to the State's GeoTracker database and to the Alameda County FTP site for your review.

If you have any questions or comments, please do not hesitate to call me. Your time is greatly appreciated in reviewing our report.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Sepehr", written over a horizontal line.

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist



cc: Mr. Mirazim Shakoori w/enclosure
Ms. Dilan Roe, PE-Alameda County Env. Health Services

**First Semi-Annual 2014
Groundwater Monitoring Report**

**Castro Valley Chevron
3519 Castro Valley Boulevard
Castro Valley, California**

February 24, 2014

Project 2761

**Prepared for
Mr. Mirazim Shakoori
4313 Mansfield Drive
Danville, California 94506**



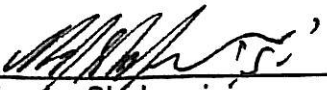
ENVIRONMENTAL ENGINEERING, INC.

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PERJURY STATEMENT

Site Location: 3519 Castro Valley Boulevard, Castro Valley, CA

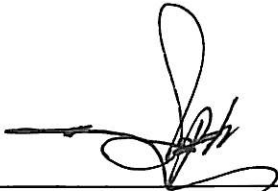
"I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".



Mirazim Shakoori
4313 Mansfield Drive
Danville, California 94506
Responsible Party

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of Mr. Mirazim Shakoori, property owner of 3519 Castro Valley Boulevard, Castro Valley, California to comply with requirements of Alameda County Environmental Health Services for the First Semi-Annual 2014 groundwater monitoring event.



Mansour Sepehr, PhD, PE
Principal Hydrogeologist

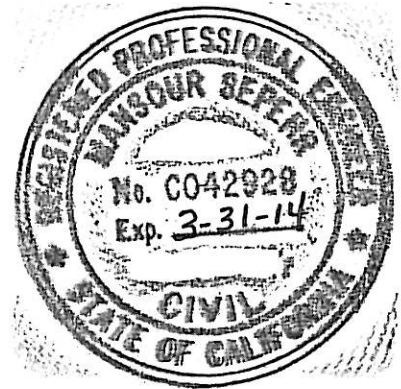


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- Appendix C: Chain of Custody Form and Laboratory Report for the First Semi-Annual 2014 Monitoring Event
- Appendix D: Non-Hazardous Waste Manifest

1. INTRODUCTION

1.1 Overview

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of Mr. Mirazim Shakoori, property owner of the former BP gasoline service station located at 3519 Castro Valley Boulevard, Castro Valley, California. The site is located in an area of primarily residential and commercial properties (Figure 1).

This report summarizes results of the First Semi-Annual 2014 groundwater monitoring event conducted at the site on January 29 and 30, 2014. Included are laboratory analytical results for groundwater samples and physical and chemical properties measured in the field for each groundwater sample including pH, temperature, and electrical conductivity (EC).

A joint monitoring event was conducted in coordination with the neighboring service station at 3459 Castro Valley Boulevard.

1.2 Summary of Field Activities and Laboratory Analysis

1.2.1 Field Activities

On January 29, 2014, ten on-site monitoring wells (five in Semi-Confined water-bearing zone [WBZ] including ESE-1R, ESE-2R, ESE-5R, MW-6R, SOMA-1; five in the Shallow WBZ including SOMA-5, SOMA-7, SOMA-8, OB-1, OB-2) and four off-site monitoring wells (two in the Semi-Confined WBZ including MW-7R, SOMA-4 and two in the Shallow WBZ including SOMA-2, SOMA-3) were measured for depth to groundwater. On January 29 and 30, 2014 additional field measurements and groundwater samples were collected from all monitoring wells. Figure 2 shows well locations.

Top of casing elevation data and depth to groundwater in each monitoring well were used to calculate groundwater elevation. The top of casing elevation was based on an elevation datum of 56.33 feet NAVD88. Appendix B includes survey data.

Activities were performed in accordance with general guidelines of California Regional Water Quality Control Board (CRWQCB) and Alameda County Environmental Health Services (ACEHS). Appendix A details standard procedures followed by SOMA during this monitoring event.

Purged groundwater from each well was temporarily stored on-site in two 55-gallon drums. On February 14, 2014, four drums generated during the current and previous monitoring event (July 2013) were transported to an appropriate

disposal facility. Appendix D includes the non-hazardous waste manifest for removal of purged groundwater.

1.2.2 Laboratory Analysis

Curtis and Tompkins Laboratories, a California state-certified environmental laboratory, analyzed groundwater samples for the following: total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethylbenzene, total xylenes (collectively termed BTEX); methyl tertiary-butyl ether (MtBE); gasoline oxygenates, and lead scavengers. All samples were analyzed using EPA Method 8260B.

2. RESULTS

Following are results of field measurements and laboratory analysis for the First Semi-Annual 2014 groundwater monitoring event.

2.1 Field Measurements for Shallow WBZ wells

Table 1 presents calculated groundwater elevation and depth to groundwater in each monitoring well. Depths to groundwater ranged from 9.42 feet in OB-1 to 11.67 feet in SOMA-5. Groundwater elevations ranged from 166.12 feet in SOMA-3 to 170.61 feet in SOMA-8. Table 1 also presents historical groundwater elevations in monitoring wells.

The groundwater elevation contour map is displayed in Figure 3. Groundwater flows southerly in the Shallow WBZ at an approximate gradient of 0.013 feet/feet. Groundwater gradient calculations are attached in Appendix B.

Since the previous monitoring event (July 2013), the groundwater flow direction has changed from southwesterly to southerly and the gradient has decreased. Refer to Table 1 for detailed historical groundwater elevation trends.

2.2 Laboratory Analyses for Shallow WBZ Wells

Table 1 presents laboratory analytical results of groundwater samples for TPH-g, BTEX, and MtBE. Table 2 presents laboratory analytical results of groundwater samples for gasoline oxygenates and lead scavengers.

TPH-g was below the laboratory-reporting limit in groundwater samples from SOMA-2, SOMA-3, SOMA-5, and SOMA-8. TPH-g was detected in SOMA-7, OB-1, and OB-2 at 2,400 µg/L, 1,600 µg/L, and 22,000 µg/L, respectively . Figure 4 displays the contour map of TPH-g concentrations in groundwater. The

highest TPH-g concentration was observed in the vicinity of the former UST cavity at OB-2.

Since the previous monitoring event (July 2013), TPH-g increased significantly in OB-2 and decreased in SOMA-7 and OB-1.

The following BTEX analytes were observed during this monitoring event:

- In SOMA-2, SOMA-3, and SOMA-8, all BTEX analytes were below laboratory-reporting limits.
- In SOMA-5, all BTEX analytes were below laboratory-reporting limits except benzene which was detected at 2.4 µg/L.
- In OB-1, toluene and ethyl benzene were below laboratory-reporting limits and benzene and total xylenes were detected at 1.1 µg/L and 1.3 µg/L, respectively.
- Benzene was detected in concentrations ranging from 1.1 µg/L in OB-1 to 750 µg/L in OB-2. Toluene was detected in SOMA-7 and OB-2 at 5.1 µg/L and 5.6 µg/L, respectively. Ethylbenzene was detected in SOMA-7 and OB-2 at 21 µg/L and 1,300 µg/L, respectively. Total xylenes were detected in SOMA-7 and OB-2 at 4.3 µg/L and 1,144 µg/L, respectively.

Figure 5 displays the contour map of benzene concentrations in groundwater. As illustrated, the highest benzene concentration was observed in the vicinity of the former UST cavity at OB-2. Since the previous monitoring event (July 2013), benzene increased in SOMA-5 and OB-2, and decreased in SOMA-7 and OB-1.

MtBE was below the laboratory-reporting limit in SOMA-2 and SOMA-8. Detectable MtBE concentrations ranged from 0.52 µg/L in SOMA-3 to 130 µg/L in OB-2. Figure 6 displays the contour map of MtBE concentrations in groundwater. Since the previous monitoring event (July 2013), MtBE increased in SOMA-5 and OB-2, and decreased in SOMA-3, SOMA-7, and OB-1. As is evident from the observed concentrations in SOMA-3 and the southeasterly groundwater flow direction, MtBE has migrated off-site.

Tertiary-butyl alcohol (TBA) was detected at 10 µg/L in OB-1 and was below the laboratory reporting limit in all other shallow WBZ wells. All other gasoline oxygenate and lead scavenger analytes [Isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME), ethanol, 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB)] were below laboratory-reporting limits in all groundwater samples. Figure 6 shows a map of TBA concentrations in Shallow WBZ.

2.3 Field Measurements for Semi-Confined WBZ Wells

Table 1 presents calculated groundwater elevation and depth to groundwater in each monitoring well. Depths to groundwater ranged from 9.55 feet in ESE-5R to 12.15 feet in SOMA-1. Groundwater elevations ranged from 166.59 feet in SOMA-4 to 170.33 feet in MW-6R. Table 1 also presents historical groundwater elevations in monitoring wells. The groundwater elevation contour map is displayed in Figure 7. Groundwater flows southeasterly across the site at an approximate gradient of 0.011 feet/feet.

Since the previous monitoring event (July 2013), the groundwater flow direction has changed from southwesterly to southeasterly and the gradient has decreased. Refer to Table 1 for detailed historical groundwater elevation trends.

2.4 Laboratory Analyses for Semi-Confined WBZ Wells

Table 1 presents laboratory analytical results of groundwater samples for TPH-g, BTEX, and MtBE. Table 2 presents laboratory analytical results of groundwater samples for gasoline oxygenates and lead scavengers.

TPH-g was below the laboratory-reporting limit in groundwater samples from the Semi-Confined WBZ except at ESE-1R, where TPH-g was detected at 1,800 µg/L. Figure 8 displays the map of TPH-g concentrations in groundwater.

Since the previous monitoring event (July 2013), TPH-g has increased in ESE-1R, decreased significantly in ESE-5R, and remained below the laboratory-reporting limit in other wells.

The following BTEX analytes were observed during this monitoring event:

- BTEX analytes were below laboratory-reporting limits in all semi-confined WBZ wells except ESE-1R.
- BTEX analytes were detected in ESE-1R at 14 µg/L, 0.91 µg/L, 3.2 µg/L, and 6.3 µg/L, respectively.

Figure 8 displays a map of benzene concentrations in groundwater. As illustrated, benzene has only minimally impacted groundwater in the Semi-Confined WBZ. Since the previous monitoring event (July 2013), BTEX analytes have decreased in ESE-1R, ESE-5R and remained below laboratory-reporting limit in all other wells.

MtBE was below the laboratory-reporting limit in MW-6R. Detectable MtBE concentrations ranged from 0.74 µg/L in SOMA-4 to 18 µg/L in ESE-1R. Figure 9 displays the contour map of MtBE concentrations in groundwater. Since the

previous monitoring event (July 2013), detectable MtBE concentrations increased in ESE-1R, decreased in ESE-2R, ESE-5R, MW-7R, SOMA-1 and SOMA-4 and remained below laboratory-reporting limits in MW-6R.

The following gasoline oxygenate and lead scavenger analytes were observed during this monitoring event.

- DIPE, ETBE, ethanol, 1,2-DCA, and EDB were below laboratory-reporting limits in all groundwater samples.
- TBA was detected in ESE-1R at 120 µg/L. It was below the laboratory-reporting limit in other wells.
- TAME was detected in wells ESE-1R at 1.7 µg/L. It was below the laboratory reporting limit in other wells.

Figure 8 displays a map of TBA concentrations in groundwater. Since the previous monitoring event (July 2013), TBA has increased in ESE-1R, decreased in ESE-5R, SOMA-1 and remained below laboratory-reporting limit in other wells; TAME has increased in ESE-1R, decreased in ESE-5R, and remained below laboratory-reporting limit in other wells.

Refer to Tables 1 and 2 for detailed historical concentration trends. Appendix C includes the laboratory report and chain of custody form for the First Semi-Annual 2014 groundwater monitoring event.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

Conclusions based on the First Semi-Annual 2014 groundwater monitoring event are summarized as follows:

- The groundwater flow direction was southerly in the Shallow WBZ and southeasterly in Semi-Confined WBZ.
- In the Shallow WBZ, TPH-g, benzene, and MtBE plumes appear to be located in the vicinity of the former UST cavity, at OB-1. Since the previous monitoring event (July 2013), TPH-g has increased significantly in OB-2 and decreased in SOMA-7 and OB-1; benzene has increased in SOMA-5 and OB-2, and decreased in SOMA-7 and OB-1. High TPH-g and benzene concentrations suggest that this WBZ is significantly impacted by petroleum hydrocarbons. Due to its high mobility and the southwesterly or southeasterly groundwater flow direction across the site from the former UST cavity, MtBE has migrated off-site.

- Within the Semi-Confined WBZ, TPH-g, benzene, MtBE, and TBA contamination is present around the former UST cavity in the southern section of the site, around ESE-1R. Since the previous monitoring event (July 2013) TPH-g has increased in ESE-1R and decreased significantly in ESE-5R; benzene has decreased in ESE-1R and ESE-5R; MtBE has increased in ESE-1R and decreased in ESE-2R, ESE-5R, MW-7R, SOMA-1 and SOMA-4.
- In the northern section of the site, at MW-6R, all tested constituents were at non-detectable levels.

3.2 Recommendations

SOMA recommends the following:

- Continue semi-annual groundwater monitoring events at the site based on ACEHS directive dated June 14, 2013.
- SOMA submitted 'Soil Gas Investigation Report and Updated Site Conceptual Model' dated November 21, 2013. Based on ACEHS directive dated September 17, 2013, SOMA has scheduled another round of soil gas sampling event at the site for April (spring) 2014. Results of this event and SOMA's recommendations will be documented in a vapor investigation report.

Tables

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
Semi-Confined WBZ Wells											
ESE-1	10/5/1992	177.69	11.22	166.47	-	2,100	370	150	17	110	NA
	10/5/1992	177.69	NM	NM	-	2,300	370	160	16	110	NA
	4/1/1993	177.69	8.79	168.90	-	5,900	1500	410	110	390	NA
	6/29/1993	177.69	10.34	167.35	-	7,600	2900	390	130	460	NA
	9/23/1993	177.69	10.91	166.78	-	2,000	490	40	20	56	600
	9/23/1993	177.69	NM	NM	-	1,500	420	39	19	56	550
	12/10/1993	177.69	9.93	167.76	-	1,800	480	42	19	66	921
	12/10/1993	177.69	NM	NM	-	1,500	380	38	17	55	770
	2/17/1994	177.69	9.64	168.05	-	1,900	380	48	24	80	585
	2/17/1994	177.69	NM	NM	-	2,200	430	42	19	65	491
	8/8/1994	177.69	11.72	165.97	-	2,100	450	46	16	50	760
	10/12/1994	177.69	10.48	167.21	-	760	240	16	51	39	230
	1/19/1995	177.69	7.77	169.92	-	840	600	120	22	58	NA
	5/2/1995	177.69	8.69	169.00	-	2,000	640	67	24	98	NA
	7/28/1995	177.69	10.12	167.57	-	190	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	177.69	10.57	167.12	-	200	3.4	<1.0	1	<2.0	600
	2/7/1996	177.69	7.41	170.28	-	750	370	23	21	64	680
	4/23/1996	177.69	9.12	168.57	-	310	100	<1.0	<1.0	<1.0	1500
	7/9/1996	177.69	10.12	167.57	-	730	230	74	13	63	750
	10/10/1996	177.69	10.80	166.89	-	420	26	1.6	7.3	12	430
1/20/1997	177.69	10.52	167.17	-	660	290	4.2	13	36	450	
4/25/1997	177.69	9.77	167.92	-	410	<0.5	<1.0	<1.0	<1.0	580	
7/18/1997	177.69	10.55	167.14	-	420	<0.5	<1.0	<1.0	<1.0	370	
10/27/1997	177.69	10.36	167.33	-	300	56	<1.0	6.5	<1.0	220	

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1 cont.	1/22/1998	177.69	7.52	170.17	-	4,200	440	9	15	17.7	1300
	4/23/1998	177.69	8.80	168.89	-	15,000	3400	190	910	900	4900
	4/23/1998	177.69	NM	NM	-	15,000	2800	140	730	730	4400
	7/29/1998	177.69	9.73	167.96	-	NA	NA	NA	NA	NA	NA
	7/30/1998	177.69	NM	NM	-	15,000	<2.5	<5.0	<5.0	<5.0	15000
	12/17/1998	177.69	9.51	168.18	-	2,400	73	1	2.8	4.6	2000
	3/19/1999	177.69	8.65	169.04	-	4,700	58	<1.0	<1.0	<1.0	4700
	6/23/1999	177.69	10.51	167.18	-	600	170	<1.0	7.2	5	3900
	9/27/1999	177.69	10.32	167.37	-	920	200	<25	<25	<25	4900
	12/9/1999	177.69	10.24	167.45	-	460	130	1.2	5.2	1.5	5100
	3/9/2000	177.69	7.72	169.97	-	3,000	1300	120	80	140	7300
	6/8/2000	177.69	9.40	168.29	-	2,900	540	9.7	20	17	5200
	9/18/2000	177.69	10.05	167.64	-	890	3.4	<0.5	1.4	<0.5	2800
	12/14/2000	177.69	8.20	169.49	-	1,600	11.1	<0.5	<0.5	<0.5	2730
	3/21/2001	177.69	9.75	167.94	-	5,700	2.28	<0.5	0.51	<1.5	6810
	6/18/2001	177.69	10.21	167.48	-	2,000	152	0.669	3.62	2.34	1980
	9/18/2001	177.69	10.30	167.39	-	2,500	57.1	<5.0	6.25	<15	2090
	12/13/2001	177.69	9.82	167.87	-	2,800	208	6.05	8.54	9.66	2030
	3/14/2002	177.69	9.10	168.59	-	1,800	140	6.31	4.5	9.41	1970
	6/19/2002	177.69	9.92	167.77	-	1,100	220	2.02	4.23	3.8	1280
	9/10/2002	177.69	10.21	167.48	-	490	39	2.9	<2.0	4.9	670
	12/16/2002	177.69	8.56	169.13	-	730	140	6	3.2	9.1	670
	3/11/2003	177.69	9.40	168.29	-	1,700	490	21	22	41	530
	6/17/2003	177.69	9.86	167.83	-	1,300	140	<10	<10	<10	480
	12/9/2003	177.69	9.32	168.37	-	1,400	390	12	14	26.1	260
	2/26/2004	177.69	7.71	169.98	-	3,200	880	50	44	89	200
	5/21/2004	177.69	10.19	167.50	-	1,500	370	10	14	25.2	140
	8/10/2004	180.24	10.41	169.83	-	460	390	7	8.1	15.4	110
	10/19/2004	180.24	10.40	169.84	-	1,600	490	13	12	25.3	110

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1 cont.	1/14/2005	180.24	8.26	171.98	-	790 Z	420	26	19	52	91
	4/14/2005	180.24	8.77	171.47	-	3,020	766	25.6	21.3	25.26	88.2
	7/7/2005	180.24	9.94	170.30	-	1,940	440	15.5	15.7	21	80.6
	11/15/2005	180.24	10.21	170.03	-	1,260	259	6.2	8.2	10.81	45.8
	2/8/2006	180.24	9.01	171.23	-	1,430	332	13.6	18.1	25.03	43
	4/27/2006	180.24	9.14	171.10	-	1,600	519	23.2	32.4	40.20	63.4
	8/1/2006	180.24	9.92	170.32	-	1,530	395	11.8	25.4	28.01	40
	10/19/2006	180.24	10.34	169.90	-	1,230	327	10.2	21.6	21.19	29.6
	1/12/2007	180.24	9.84	170.40	-	561	153	7.18	14.4	14.95	30.9
	4/17/2007	180.24	9.78	170.46	-	467	192	7.59	13.8	16.42	30.4
	7/17/2007	180.24	9.82	170.42	-	755	271	8.6	17.8	22.06	26.7
	10/16/2007	180.24	8.99	171.25	-	164	80.2	<2.0	5.24	2.47	16.6
	1/17/2008	180.24	9.35	170.89	-	70	10.8	<2.0	<0.5	<2.0	19.3
	4/17/2008	180.24	9.80	170.44	-	687	89.7	<2.0	4.01	5.30	8.79
	7/16/2008	180.24	10.17	170.07	-	1,400	223	3.88	12.6	17.88	18.1
	10/14/2008	180.24	10.86	169.38	-	540	95	2.7	7.7	18	15
	1/6/2009	180.24	10.10	170.14	-	500 ^Y	130	3	8.8	17.1	13
	4/6/2009	180.24	10.05	170.19	-	910 ^Y	230	2.4	11	12.1	17
7/7/2009	180.24	10.42	169.82	-	850 ^Y	89	1.9	7.8	15.1	15	
1/27/2010	180.24	7.94	172.30	-	1,600	250	8.8	30	69	23	
7/26/2010	180.24	9.95	170.29	-	1,000	96	1.2	4.2	6	17	
ESE-1R	8/30/2010	180.20	10.17	170.03	-	2,100	110	5.2	19	151	15
	11/16/2010	180.20	9.94	170.26	-	100	5.8	<0.5	1	<0.5	16
	2/15/2011	180.20	10.12	170.08	-	1,400	96	1.7	14	7.9	22
	7/19/2011	180.20	10.37	169.83	-	620	30	0.76	4.4	0.96	21

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1R cont.	1/18/2012	180.20	10.78	169.42	-	1,800 ^Y	18	<0.19	11	3.53	14
	7/10/2012	180.20	10.87	169.33	-	1,100 ^Y	16	1.1	9.8	1.70	23
	1/10/2013	180.20	9.59	170.61	No Sheen	69	1.1	<0.5	<0.5	<0.5	1.6
	7/9/2013	180.20	11.26	168.94	No Sheen	1,300	76	2.6	23	47.50	15
	1/30/2014	180.20	11.62	168.58	No Sheen	1,800	14	0.91	3.2	6.30	18
ESE-2	10/5/1992	178.23	11.68	166.55	-	300	5.4	16	3.9	45	NA
	4/1/1993	178.23	9.17	169.06	-	240	27	<0.5	17	2.6	123
	6/29/1993	178.23	10.88	167.35	-	1,700	260	24	110	23	NA
	6/29/1993	178.23	NM	NM	-	1,300	240	17	110	25	NA
	9/23/1993	178.23	11.56	166.67	-	240	3.1	0.5	0.6	2.5	643
	12/10/1993	178.23	10.48	167.75	-	250	2.4	2.4	1.5	11	940
	2/17/1994	178.23	10.06	168.17	-	900	<0.5	<0.5	<0.5	<0.5	930
	8/8/1994	178.23	11.11	167.12	-	750	<0.5	<0.5	<0.5	<0.5	1400
	10/12/1994	178.23	11.31	166.92	-	1,700	<0.5	<0.5	<0.5	<0.5	3000
	1/19/1995	178.23	8.25	169.98	-	300	2	0.9	0.7	1	NA
	5/2/1995	178.23	9.21	169.02	-	1,200	4	<2.5	<2.5	<5	NA
	7/28/1995	178.23	10.64	167.59	-	2,000	<2.5	<2.5	<2.5	<5	NA
	11/17/1995	178.23	11.13	167.10	-	3,600	<25	<25	<25	<50	12000
	11/17/1995	178.23	NM	NM	-	3,400	<25	<25	<25	<50	12000
	2/7/1996	178.23	7.94	170.29	-	450	<0.5	<1	<1	<1	2300
	4/23/1996	178.23	9.73	168.50	-	260	0.9	<1	<1	<1	8600
	7/9/1996	178.23	10.70	167.53	-	780	<2.5	<5	<5	<5	13393
	10/10/1996	178.23	11.39	166.84	-	2,900	<0.5	<1	<1	<1	12000
	1/20/1997	178.23	9.04	169.19	-	<250	<2.5	<5	<5	<5	13000
	4/25/1997	178.23	10.31	167.92	-	2,700	<0.5	<1	<1	<1	15000
	7/18/1997	178.23	11.02	167.21	-	11,000	<5	<10	<10	<10	11000
	10/27/1997	178.23	10.93	167.30	-	6,100	<2.5	<5.0	<5.0	<5.0	7100
	10/27/1997	178.23	NM	NM	-	6,600	<2.5	<5.0	<5.0	<5.0	7400
1/22/1998	178.23	7.93	170.30	-	13,000	<0.5	<1	<1	<1	10000	
1/22/1998	178.23	NM	NM	-	13,000	<0.5	<1	<1	<1	10000	
4/23/1998	178.23	9.34	168.89	-	19,000	<5	<10	<10	<10	36000	

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Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-2 cont	7/29/1998	178.23	10.29	167.94	-	NA	NA	NA	NA	NA	NA
	7/30/1998	178.23	NM	NM	-	19,000	<5	<10	<10	<10	36000
	12/17/1998	178.23	10.20	168.03	-	12,000	<5	<5	<5	<5	13000
	3/19/1999	178.23	9.02	169.21	-	18,000	160	<1	<1	<1	18000
	6/23/1999	178.23	9.99	168.24	-	280	<1	<1	<1	<1	16000
	9/27/1999	178.23	10.69	167.54	-	<500	<25	<25	<25	<25	12000
	12/9/1999	178.23	11.26	166.97	-	<50	<0.3	<0.3	<0.3	<0.6	12000
	3/9/2000	178.23	7.95	170.28	-	<50	1.6	<0.5	<0.5	<0.5	7900
	6/8/2000	178.23	9.66	168.57	-	1,600	<0.5	0.73	<0.5	2.2	9400
	12/14/2000	178.23	11.15	167.08	-	6,000	0.75	<0.5	<0.5	<0.5	11200
	3/21/2001	178.23	10.35	167.88	-	6,900	786	45.7	37.7	71.5	3790
	6/18/2001	178.23	11.24	166.99	-	6,400	<2.5	<2.5	<2.5	<7.5	9320
	9/18/2001	178.23	11.35	166.88	-	4,800	<12.5	<12.5	<12.5	<37.5	6960
	12/13/2001	178.23	10.97	167.26	-	59,000	0.592	<0.5	<0.5	<1	5940
	3/14/2002	178.23	10.13	168.10	-	4,500	76	<0.5	<0.5	<1	6660
	6/19/2002	178.23	10.91	167.32	-	250	<12.5	<12.5	<12.5	<25	4900
	9/10/2002	178.23	10.82	167.41	-	1,500	<5	<5	<5	6.3	3100
	12/16/2002	178.23	7.87	170.36	-	1,400	<5	<5	<5	<5	2400
	3/11/2003	178.23	10.24	167.99	-	2,800	<10	<10	<10	<10	4800
	6/17/2003	178.23	10.19	168.04	-	10,000	<100	<100	<100	<100	4400
	12/9/2003	178.23	9.97	168.26	-	<50	<0.5	<0.5	<0.5	<0.5	3400
	2/26/2004	178.23	7.89	170.34	-	<50	<0.5	<0.5	<0.5	<0.5	3000
	5/21/2004	178.23	10.70	167.53	-	<50	<0.5	<0.5	<0.5	<0.5	1100
	8/10/2004	180.79	10.99	169.80	-	<50	<0.5	<0.5	<0.5	<0.5	550
	10/19/2004	180.79	10.46	170.33	-	<50	<0.5	<0.5	<0.5	<0.5	410
	1/14/2005	180.79	8.66	172.13	-	<50	<8.3	<8.3	<8.3	<8.3	1200
	4/14/2005	180.79	9.38	171.41	-	<860	<2.15	<2.15	<2.15	<4.30	1020
7/7/2005	180.79	10.46	170.33	-	<860	<2.15	<8.60	<2.15	<4.30	378	
11/15/2005	180.79	10.55	170.24	-	<50	<0.5	<2.0	<0.5	<1.0	210	

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TPH-g, BTEX, MtBE
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Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-2 cont	2/8/2006	180.79	9.46	171.33	-	<215	<2.15	<8.6	<2.15	<4.3	419
	4/27/2006	180.79	10.67	170.12	-	<100	1.71	<4.0	<1.0	<2.0	432
	8/1/2006	180.79	10.29	170.50	-	<100	2.83	<4.0	<1.0	<2.0	222
	10/19/2006	180.79	10.65	170.14	-	<50	0.8	<2.0	<0.5	<1.0	221
	1/12/2007	180.79	NM	NM	-	NA	NA	NA	NA	NA	NA
	4/17/2007	180.79	10.20	170.59	-	<50	3.17	<2.0	4.49	<2.0	158
	7/17/2007	180.79	10.31	170.48	-	<50	1.65	<2.0	<0.5	<2.0	105
	10/16/2007	180.79	9.22	171.57	-	<50	5.67	<2.0	<0.5	<2.0	73.9
	1/17/2008	180.79	9.88	170.91	-	<50.0	<0.50	<2.0	<0.50	<2.0	80.2
	4/17/2008	180.79	10.29	170.50	-	<50	<0.5	<2.0	<0.5	<2.0	45
	7/16/2008	180.79	10.64	170.15	-	<50	<0.5	<2.0	<0.5	<2.0	54
	10/14/2008	180.79	11.41	169.38	-	<50	<0.5	<0.5	<0.5	<0.5	41
	1/6/2009	180.79	10.60	170.19	-	<50	<0.5	<0.5	<0.5	<0.5	36
	4/6/2009	180.79	10.62	170.17	-	<50	<0.5	<0.5	<0.5	<0.5	30
	7/7/2009	180.79	10.92	169.87	-	<50	2.4	<0.5	<0.5	<0.5	32
	1/27/2010	180.79	8.36	172.43	-	<50	<0.5	<0.5	<0.5	<0.5	26
	7/26/2010	180.79	10.44	170.35	-	<50	<0.5	<0.5	<0.5	<0.5	13
ESE-2R	8/30/2010	180.7	10.61	170.09	-	200	0.93	<0.5	1.3	13.5	16
	11/16/2010	180.7	10.33	170.37	-	<50	<0.5	<0.5	<0.5	<0.5	18
	2/14/2011	180.70	10.50	170.20	-	<50	<0.5	<0.5	<0.5	<0.5	12
	7/19/2011	180.70	10.62	170.08	-	<50	<0.5	<0.5	<0.5	<0.5	8.3
	1/18/2012	180.70	10.92	169.78	-	<22	<0.33	<0.19	<0.15	<0.20	1.1
	7/10/2012	180.70	11.17	169.53	-	<50	<0.5	<0.5	<0.5	<0.5	5.1
	1/10/2013	180.70	10.00	170.70	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/9/2013	180.70	11.55	169.15	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	2.9
1/29/2014	180.70	12.00	168.70	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	0.89	
ESE-3	10/5/1992	178.20	10.58	167.62	-	430	57	31	3.6	34	NA
	4/1/1993	178.20	8.14	170.06	-	2,400	460	220	74	210	NA
	6/29/1993	178.20	9.72	168.48	-	280	56	14	15	13	NA
	9/23/1993	178.20	10.46	167.74	-	72	13	3.5	1.7	4.1	NA
	12/10/1993	178.20	9.30	168.90	-	270	71	32	6.1	33	NA

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ESE-3 cont.	2/17/1994	178.20	8.97	169.23	-	520	140	10	20	33	5.74
	8/8/1994	178.20	10.02	168.18	-	<50	8.8	1.6	1.6	2.3	<5.0
	10/12/1994	178.20	10.32	167.88	-	470	190	6.4	15	18	<5.0
	1/19/1995	178.20	7.40	170.80	-	330	260	27	21	20	NA
	5/2/1995	178.20	8.26	169.94	-	530	180	30	23	44	NA
	7/28/1995	178.20	9.54	168.66	-	<50	<0.50	<0.50	<0.50	<1	NA
	11/17/1995	178.20	10.04	168.16	-	<50	1.7	<0.50	<0.50	<1	<5.0
	2/7/1996	178.20	7.08	171.12	-	<50	8.6	<1	<1	<1	<10
	4/1/2396	178.20	8.79	169.41	-	<50	7.6	<1	<1	<1	65
	7/9/1996	178.20	10.09	168.11	-	<50	12	2.6	2	3.9	26
	10/10/1996	178.20	10.48	167.72	-	NA	NA	NA	NA	NA	NA
	10/11/1996	178.20	NM	NM	-	260	140	<1	<1	2.6	<10
	1/20/1997	178.20	8.65	169.55	-	<50	1.5	1.7	<1	<1	14
	4/25/1997	178.20	10.02	168.18	-	<50	<0.5	<1	<1	<1	14
	7/18/1997	178.20	10.66	167.54	-	10,000	1400	1400	300	1280	<250
	10/27/1997	178.20	9.83	168.37	-	<250	<2.5	<5.0	<5.0	36	<50
	1/22/1998	178.20	7.06	171.14	-	130	<0.5	<1.0	<1.0	<1.0	120
	4/23/1998	178.20	8.44	169.76	-	4,800	560	<10	15	<10	4000
	7/29/1998	178.20	9.27	168.93	-	NA	NA	NA	NA	NA	NA
	7/30/1998	178.20	NM	NM	-	1,800	6.2	<5.0	<5.0	<5.0	1700
	12/17/1998	178.20	9.15	169.05	-	600	54	<1.0	2.1	4.9	340/480
	3/19/1999	178.20	8.14	170.06	-	2,000	260	4.4	13	28	870
	6/23/1999	178.20	9.44	168.76	-	290	91	<1.0	8.3	16	240
	9/27/1999	178.20	9.69	168.51	-	130	35	<1.0	2.7	3.8	100
	12/9/1999	178.20	10.99	167.21	-	380	84	1.7	8.7	6.3	160
	3/9/2000	178.20	7.12	171.08	-	950	190	4.6	39	62	350
6/8/2000	178.20	10.92	167.28	-	300	37	<0.5	2.3	1.3	400	
9/18/2000	178.20	11.12	167.08	-	920	140	1.3	15	4.8	170	
12/14/2000	178.20	9.70	168.50	-	320	64	<0.5	6.24	1.76	201	

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ESE-3 cont.	3/21/2001	178.20	10.07	168.13	-	680	80.5	0.546	21.1	18.2	398
	6/18/2001	178.20	11.42	166.78	-	380	47	<0.5	3.11	<1.5	242
	9/18/2001	178.20	11.55	166.65	-	340	54.8	<0.5	4.36	<1.5	79.7
	12/13/2001	178.20	10.12	168.08	-	270	31.4	<0.5	1.31	2.24	129
	3/14/2002	178.20	9.84	168.36	-	670	89.8	0.769	23.4	30.4	413
	6/19/2002	178.20	10.57	167.63	-	130	18.6	<0.5	<0.5	<1	166
	9/10/2002	178.20	9.90	168.30	-	88	12	<0.5	<0.5	<0.5	93
	12/16/2002	178.20	9.23	168.97	-	290	55	17	3.7	14	78
	3/11/2003	178.20	9.05	169.15	-	100	3.4	<0.5	0.54	<0.50	140
	6/17/2003	178.20	9.30	168.90	-	520	17	<5	5.3	<5	130
ESE-4	10/5/1992	177.73	10.33	167.40	-	98	7.2	1.3	1.1	6.1	NA
	4/1/1993	177.73	7.88	169.85	-	550	93	20	23	33	NA
	6/29/1993	177.66	8.33	169.33	-	150	23	0.6	5.4	0.5	54
	9/23/1993	177.66	10.05	167.61	-	110	14	1.7	3.2	4.6	NA
	12/10/1993	177.66	8.95	168.71	-	110	21	7.2	4.2	10	28.75
	2/17/1994	177.66	8.65	169.01	-	210	26	1.2	4.7	11	113
	8/8/1994	177.66	9.76	167.90	-	76	9.6	<0.5	2	<0.5	62
	10/12/1994	177.66	9.62	168.04	-	<50	<0.5	<0.5	<0.5	<0.5	44
	1/19/1995	177.66	6.97	170.69	-	140	56	14	24	23	NA
	5/2/1995	177.66	7.85	169.81	-	130	21	2.8	8.6	8.2	NA
	7/28/1995	177.66	9.20	168.46	-	<50	<0.5	<0.5	<0.5	<1	NA
	11/17/1995	177.66	9.68	167.98	-	<50	<0.5	0.6	<0.5	<1	18
	2/7/1996	177.66	6.59	171.07	-	100	2.6	<1	1.6	4.1	42
	4/23/1996	177.66	8.30	169.36	-	160	37	15	16	31	43
	7/9/1996	177.66	9.21	168.45	-	60	17	1.5	6.8	11.6	27
10/10/1996	177.66	9.97	167.69	-	NA	NA	NA	NA	NA	NA	
10/11/1996	177.66	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	18	

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ESE-4 cont.	1/20/1997	177.66	7.68	169.98	-	<50	<0.5	<1.0	<1.0	<1.0	130
	4/25/1997	177.66	9.15	168.51	-	<250	<2.5	<5.0	<5.0	<5.0	<50
	7/18/1997	177.66	9.71	167.95	-	<50	15	<10	<10	<10	<100
	10/27/1997	177.66	9.38	168.28	-	<250	<2.5	<5.0	<5.0	<5.0	<50
	1/22/1998	177.66	6.59	171.07	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1998	177.66	7.90	169.76	-	<250	<2.5	<5.0	<5.0	<5.0	<50
	7/29/1998	177.66	8.96	168.70	-	NA	NA	NA	NA	NA	NA
	7/30/1998	177.66	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	12/17/1998	177.66	8.32	169.34	-	NA	NA	NA	NA	NA	NA
	3/19/1999	177.66	7.71	169.95	-	NA	NA	NA	NA	NA	NA
	6/23/1999	177.66	8.78	168.88	-	NA	NA	NA	NA	NA	NA
	9/27/1999	177.66	9.27	168.39	-	NA	NA	NA	NA	NA	NA
	12/9/1999	177.66	9.21	168.45	-	NA	NA	NA	NA	NA	NA
	3/9/2000	177.66	6.82	170.84	-	NA	NA	NA	NA	NA	NA
	6/8/2000	177.66	8.72	168.94	-	NA	NA	NA	NA	NA	NA
	9/18/2000	177.66	8.72	168.94	-	NA	NA	NA	NA	NA	NA
	12/14/2000	177.66	8.61	169.05	-	NA	NA	NA	NA	NA	NA
	3/21/2001	177.66	8.61	169.05	-	NA	NA	NA	NA	NA	NA
	6/18/2001	177.66	9.24	168.42	-	NA	NA	NA	NA	NA	NA
	9/18/2001	177.66	9.35	168.31	-	NA	NA	NA	NA	NA	NA
	12/13/2001	177.66	8.53	169.13	-	NA	NA	NA	NA	NA	NA
	3/14/2002	177.66	8.44	169.22	-	NA	NA	NA	NA	NA	NA
	6/19/2002	177.66	10.97	166.69	-	NA	NA	NA	NA	NA	NA
	9/10/2002	177.66	9.27	168.39	-	NA	NA	NA	NA	NA	NA
	12/16/2002	177.66	6.90	170.76	-	NA	NA	NA	NA	NA	NA
	3/11/2003	177.66	8.83	168.83	-	NA	NA	NA	NA	NA	NA
6/17/2003	177.66	8.84	168.82	-	NA	NA	NA	NA	NA	NA	

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Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5	10/5/1992	176.08	9.22	166.86	-	1,300	200	3.8	1.2	18	NA
	4/1/1993	176.08	7.02	169.06	-	13,000	2200	26	730	1000	NA
	4/1/1993	176.08	NM	NM	-	13,000	2500	25	740	1100	NA
	6/29/1993	176.08	10.21	165.87	-	7,600	1500	9.3	170	100	NA
	9/23/1993	176.08	10.64	165.44	-	560	19	1.2	0.9	1.8	NA
	12/10/1993	176.08	9.42	166.66	-	1,700	300	3	76	110	14.07
	2/7/1994	176.08	9.35	166.73	-	3,500	640	7.8	90	130	45.13
	8/8/1994	176.08	8.76	167.32	-	2,600	210	4.6	9.4	4.4	33
	8/8/1994	176.08	NM	NM	-	2,500	230	4.6	13	4.8	32
	10/12/1994	176.08	8.95	167.13	-	5,600	560	9.5	75	21	79.2
	10/12/1994	176.08	NM	NM	-	6,000	550	10	78	22	77
	1/19/1995	176.08	5.40	170.68	-	1,900	620	<5	95	15	NA
	1/19/1995	176.08	NM	NM	-	1,600	620	<5	93	17	NA
	5/2/1995	176.08	6.48	169.60	-	5,700	1100	<10	180	58	NA
	5/2/1995	176.08	NM	NM	-	5,300	1100	<10	180	58	NA
	7/28/1995	176.08	7.97	168.11	-	520	15	<0.50	1.7	1.3	NA
	7/28/1995	176.08	NM	NM	-	460	7.2	<0.50	1.9	1.5	NA
	11/17/1995	176.08	8.39	167.69	-	850	39	1.8	7.6	2.7	24
	2/7/1996	176.08	4.71	171.37	-	4,100	670	6	190	140	<50
	4/23/1996	176.08	7.35	168.73	-	3,000	570	<5	79	100	84
	7/9/1996	176.08	9.40	166.68	-	620	150	1.7	9.3	6.4	25
	10/10/1996	176.08	9.04	167.04	-	1,100	29	<5	<5	<5	<50
	10/10/1996	176.08	NM	NM	-	1,100	31	<5	<5	<5	<50
1/20/1997	176.08	5.82	170.26	-	2,100	980	<25	280	80	<250	
1/20/1997	176.08	NM	NM	-	2,700	910	8.8	280	84	180	
4/25/1997	176.08	7.24	168.84	-	NA	NA	NA	NA	NA	NA	

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TPH-g, BTEX, MtBE
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Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5 cont.	4/28/1997	176.08	NM	NM	-	<250	7.9	<5.0	<5.0	<5.0	<50
	7/18/1997	176.08	7.86	168.22	-	1200	<5	<10	<10	<10	<100
	7/18/1997	176.08	NM	NM	-	630	31	<5.0	<5.0	<5.0	130
	10/27/1997	176.08	7.91	168.17	-	<250	5.4	<5.0	<5.0	<5.0	<50
	1/22/1998	176.08	4.64	171.44	-	170	7.7	<1.0	<1.0	<1.0	130
	4/23/1998	176.08	6.31	169.77	-	720	79	<5.0	9	<5.0	180
	7/29/1998	176.08	7.43	168.65	-	NA	NA	NA	NA	NA	NA
	7/30/1998	176.08	NM	NM	-	840	9.8	<1.0	4	<1.0	710
	12/17/1998	176.08	7.05	169.03	-	NA	NA	NA	NA	NA	NA
	3/19/1999	176.08	5.00	171.08	-	<250	<5.0	<5.0	<5.0	<5.0	<5.0
	6/23/1999	176.08	7.77	168.31	-	NA	NA	NA	NA	NA	NA
	9/27/1999	176.08	8.11	167.97	-	450	10	<5.0	6.3	<5.0	220
	12/9/1999	176.08	7.66	168.42	-	NA	NA	NA	NA	NA	NA
	3/9/2000	176.08	5.08	171.00	-	1,700	170	2.5	45	6.4	140
	6/8/2000	176.08	7.36	168.72	-	NA	NA	NA	NA	NA	NA
	9/18/2000	176.08	7.71	168.37	-	130	0.65	<0.50	0.71	<0.50	51
	12/14/2000	176.08	2.36	173.72	-	NA	NA	NA	NA	NA	NA
	3/21/2001	176.08	7.42	168.66	-	1,000	10.3	<2.5	11	<7.5	70.8
	6/18/2001	176.08	7.92	168.16	-	NA	NA	NA	NA	NA	NA
	9/18/2001	176.26	8.23	168.03	-	200	0.868	<0.50	0.55	<1.5	57.5
	12/13/2001	176.26	7.80	168.46	-	NA	NA	NA	NA	NA	NA
	3/14/2002	176.26	6.55	169.71	-	1,300	17.1	1.35	15.4	1.42	37.4
	6/19/2002	176.26	7.83	168.43	-	NA	NA	NA	NA	NA	NA
	9/10/2002	176.26	8.22	168.04	-	680	9.9	<5.0	<5.0	<5.0	44
	12/16/2002	176.26	6.58	169.68	-	NA	NA	NA	NA	NA	NA
	3/11/2003	176.26	6.77	169.49	-	2,100	14	<2.5	15	3	80
	6/17/2003	176.26	6.75	169.51	-	NA	NA	NA	NA	NA	NA
	9/17/2003	176.26	8.48	167.78	-	970	10 C	<0.5	<0.5	5.3	34
	12/9/2003	176.26	7.32	168.94	-	700	6.5	<0.5	3.1	2.7 C	34

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TPH-g, BTEX, MtBE
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Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5 cont.	2/26/2004	176.26	5.21	171.05	-	2,400 H	41	2.8 C	18	2.4 C	29
	5/21/2004	176.26	7.50	168.76	-	1,500	2.6 C	<0.5	2.1 C	2.1 C	25
	8/10/2004	178.80	8.28	170.52	-	680	<0.5	<0.5	<0.5	<0.5	33
	10/19/2004	178.80	8.26	170.54	-	380	<0.5	<0.5	<0.5	1.4	39
	1/14/2005	178.80	5.16	173.64	-	2,400	18	1.4	22	2.1	26
	4/14/2005	178.80	6.13	172.67	-	4,800	7.75	1.26	14.3	<1.0	23.1
	7/7/2005	178.80	7.52	171.28	-	3,240	0.78	<2.0	1.18	<1.0	36.6
	11/15/2005	178.80	7.85	170.95	-	1,190	0.51	<2.0	<0.5	<1.0	30
	2/8/2006	178.80	5.83	172.97	-	2,510	1.91	<2.0	2.82	<1.0	20.7
	4/27/2006	178.80	5.71	173.09	-	4,700	2.76	<2.0	4.77	<1.0	28.3
	8/1/2006	178.80	7.71	171.09	-	1,890	0.7	<2.0	0.75	<1.0	24.7
	10/19/2006	178.80	8.00	170.80	-	474	<0.5	<2.0	3.39	<1.0	29
	1/12/2007	178.80	7.41	171.39	-	868	2.18	<2.0	2.66	<2.0	16.3
	4/17/2007	178.80	7.51	171.29	-	1,240	10.2	<2.0	10.4	2.37	17.2
	7/17/2007	178.80	7.47	171.33	-	836	3.1	<2.0	4.91	2.35	25.8
	10/16/2007	178.80	6.26	172.54	-	2,120	2.5	<2.0	6.19	2.61	17.5
	1/17/2008	178.80	6.59	172.21	-	2,730	5.74	<2.0	14.3	<2.0	13.1
	4/17/2008	178.80	6.81	171.99	-	2,770	4.7	<2.0	15.9	<2.0	<0.5
	7/16/2008	178.80	7.76	171.04	-	2,160	0.9	<2.0	1.1	<2.0	6.28
	10/14/2008	178.80	8.40	170.40	-	1,300	<0.5	<0.5	0.6	<0.5	9.9
1/6/2009	178.80	7.66	171.14	-	1,100 ^Y	0.61	<0.5	1.6	<0.5	8	
4/6/2009	178.80	7.79	171.01	-	1,900 ^Y	4.6	<0.5	9.3	0.59	5.3	
7/7/2009	178.80	7.84	170.96	-	2,700 ^Y	3.0	<0.5	2.3	<0.5	6.6	
1/27/2010	178.80	4.82	173.98	-	1,300 ^Y	0.76	<0.5	1.0	<0.5	3.5	
7/26/2010	178.80	7.01	171.79	-	1,800	0.75	<0.5	1.8	<0.5	2	
ESE-5R	8/30/2010	178.64	8.97	169.67	-	75	<0.5	<0.5	<0.5	<0.5	7.3
	11/16/2010	178.64	10.46	168.18	-	74	<0.5	<0.5	<0.5	<0.5	12
	2/15/2011	178.64	11.19	167.45	-	140	<0.5	<0.5	<0.5	<0.5	9.6
	7/19/2011	178.64	7.92	170.72	-	140	<0.5	<0.5	<0.5	<0.5	6.7

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Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5R cont	1/18/2012	178.64	8.84	169.80	-	68 ^Y	<0.33	<0.19	<0.15	<0.2	7.3
	7/11/2012	178.64	8.85	169.79	-	<50	<0.5	<0.5	<0.5	<0.5	6.1
	1/10/2013	178.64	8.06	170.58	No Sheen	74	<0.5	<0.5	<0.5	<0.5	6.3
	7/9/2013	178.64	11.25	167.39	No Sheen	1,800	41.00	0.72	67.0	54.30	14
	1/30/2014	178.64	9.55	169.09	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	6.8
MW-6	7/28/1995	179.24	10.00	169.24	-	<50	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	179.24	10.44	168.80	-	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	2/7/1996	179.24	7.68	171.56	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1996	179.24	9.33	169.91	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/9/1996	179.24	10.10	169.14	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	10/10/1996	179.24	11.00	168.24	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	1/20/1997	179.24	8.70	170.54	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/25/1997	179.24	10.16	169.08	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/18/1997	179.24	10.66	168.58	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	10/27/1997	179.24	10.25	168.99	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	1/22/1998	179.24	7.76	171.48	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1998	179.24	9.10	170.14	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/29/1998	179.24	10.40	168.84	-	NA	NA	NA	NA	NA	NA
	7/30/1998	179.24	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	12/17/1998	179.24	9.40	169.84	-	NA	NA	NA	NA	NA	NA
	3/19/1999	179.24	9.10	170.14	-	NA	NA	NA	NA	NA	NA
	6/23/1999	179.24	9.79	169.45	-	NA	NA	NA	NA	NA	NA
	9/27/1999	179.24	10.10	169.14	-	NA	NA	NA	NA	NA	NA
	12/9/1999	179.24	9.97	169.27	-	NA	NA	NA	NA	NA	NA
	3/9/2000	179.24	8.56	170.68	-	NA	NA	NA	NA	NA	NA
6/8/2000	179.24	9.11	170.13	-	NA	NA	NA	NA	NA	NA	
9/18/2000	179.24	9.77	169.47	-	NA	NA	NA	NA	NA	NA	
12/14/2000	179.24	9.17	170.07	-	NA	NA	NA	NA	NA	NA	

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MW-6 cont	3/21/2001	179.24	9.82	169.42	-	NA	NA	NA	NA	NA	NA
	6/18/2001	179.24	10.19	169.05	-	NA	NA	NA	NA	NA	NA
	9/18/2001	179.24	10.25	168.99	-	NA	NA	NA	NA	NA	NA
	12/13/2001	179.24	9.75	169.49	-	NA	NA	NA	NA	NA	NA
	3/14/2002	179.24	9.53	169.71	-	NA	NA	NA	NA	NA	NA
	6/19/2002	179.24	9.87	169.37	-	NA	NA	NA	NA	NA	NA
	9/10/2002	179.24	9.49	169.75	-	NA	NA	NA	NA	NA	NA
	12/16/2002	179.24	8.39	170.85	-	NA	NA	NA	NA	NA	NA
	3/11/2003	179.24	9.40	169.84	-	NA	NA	NA	NA	NA	NA
	6/17/2003	179.24	9.71	169.53	-	NA	NA	NA	NA	NA	NA
	9/17/2003	179.24	10.21	169.03	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
	12/9/2003	179.24	9.66	169.58	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	2/26/2004	179.24	7.83	171.41	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/21/2004	179.24	9.75	169.49	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/10/2004	181.80	10.28	171.52	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/19/2004	181.80	9.91	171.89	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/14/2005	181.80	8.40	173.40	-	<50	0.6	<0.5	<0.5	<0.5	<0.5
	4/14/2005	181.80	9.04	172.76	-	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	181.80	9.94	171.86	-	<200	<0.5	<2.00	<0.5	<1.00	<0.5
	11/15/2005	181.80	9.98	171.82	-	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	2/8/2006	181.80	9.91	171.89	-	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	4/27/2006	181.80	9.54	172.26	-	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	8/1/2006	181.80	9.61	172.19	-	<50	<0.5	<2.0	<0.5	<1.0	0.51
	10/19/2006	181.80	10.23	171.57	-	<50	<0.5	<2.0	<0.5	<1.0	0.63
	1/12/2007	181.80	10.13	171.67	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
4/17/2007	181.80	10.22	171.58	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5	
7/17/2007	181.80	9.76	172.04	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5	
10/16/2007	181.80	9.82	171.98	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5	

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MW-6 cont.	1/17/2008	181.80	9.43	172.37	-	<50	<0.50	<2.0	<0.50	<2.0	<0.5
	4/17/2008	181.80	9.54	172.26	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/16/2008	181.80	9.80	172.00	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/14/2008	181.80	10.48	171.32	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/6/2009	181.80	10.01	171.79	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/6/2009	181.80	10.15	171.65	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/7/2009	181.80	10.28	171.52	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/27/2010	181.80	8.28	173.52	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/26/2010	181.80	9.64	172.16	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-6R	8/30/2010	181.34	9.55	171.79	-	<50	<0.5	<0.5	<0.5	<0.5
11/15/2010		181.34	9.32	172.02	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
2/14/2011		181.34	9.79	171.55	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
7/19/2011		181.34	9.60	171.74	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/18/2012		181.34	10.08	171.26	-	<22	<0.33	<0.19	<0.15	<0.2	<0.38
7/10/2012		181.34	10.30	171.04	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/9/2013		181.34	9.50	171.84	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
7/8/2013		181.34	10.29	171.05	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/29/2014		181.34	11.01	170.33	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	7/28/1995	176.55	9.25	167.30	-	<50	0.54	0.54	<0.50	<1.0	NA
	11/17/1995	176.55	9.73	166.82	-	1100	<10	<10	<10	<20	4000
	2/7/1996	176.55	6.48	170.07	-	610	<0.50	<1.0	<1.0	<1.0	2500
	2/7/1996	176.55	NM	NM	-	280	<0.50	<1.0	<1.0	<1.0	2600
	4/23/1996	176.55	8.37	168.18	-	110	<0.50	<1.0	<1.0	<1.0	3500
	4/23/1996	176.55	NM	NM	-	230	<0.50	<1.0	<1.0	<1.0	3500
	7/9/1996	176.55	9.24	167.31	-	230	<0.50	<1.0	<1.0	<1.0	4296
	7/9/1996	176.55	NM	NM	-	220	<0.50	<1.0	<1.0	<1.0	4400
	10/10/1996	176.55	10.05	166.50	-	NA	NA	NA	NA	NA	NA
	10/11/1996	176.55	NM	NM	-	1600	<0.50	<1.0	<1.0	<1.0	3000
	1/20/1997	176.55	7.51	169.04	-	<50	0.63	<1.0	<1.0	<1.0	2600
	4/25/1997	176.55	8.79	167.76	-	NA	NA	NA	NA	NA	NA

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7 cont.	4/28/1997	176.55	NM	NM	-	1500	<0.50	<1.0	<1.0	<1.0	3600
	4/28/1997	176.55	NM	NM	-	7700	3500	<25	74	37	<250
	7/18/1997	176.55	9.50	167.05	-	1400	<0.50	<1.0	<1.0	<1.0	2600
	10/27/1997	176.55	9.19	167.36	-	420	<0.50	<1.0	<1.0	<1.0	560
	1/22/1998	176.55	6.45	170.10	-	3100	<0.50	<1.0	<1.0	1.4	2300
	4/23/1998	176.55	8.02	168.53	-	3800	<0.50	<1.0	<1.0	<1.0	3800
	7/29/1998	176.55	8.88	167.67	-	NA	NA	NA	NA	NA	NA
	7/30/1998	176.55	NM	NM	-	500	<2.5	<5.0	<5.0	<5.0	<50
	7/30/1998	176.55	NM	NM	-	4700	<12	<25	<25	<25	4700
	12/17/1998	176.55	8.62	167.93	-	NA	NA	NA	NA	NA	NA
	3/19/1999	176.55	7.52	169.03	-	3800	<1.0	<1.0	<1.0	<1.0	3800
	6/23/1999	176.55	9.63	166.92	-	NA	NA	NA	NA	NA	NA
	9/27/1999	176.55	9.39	167.16	-	140	<10	<10	<10	<10	3800
	12/9/1999	176.55	9.94	166.61	-	NA	NA	NA	NA	NA	NA
	3/9/2000	176.55	6.72	169.83	-	<50	<0.50	<0.50	<0.50	<0.50	1400
	6/8/2000	176.55	7.38	169.17	-	NA	NA	NA	NA	NA	NA
	9/18/2000	176.55	9.18	167.37	-	190	<0.50	<0.50	<0.50	<0.50	580
	12/14/2000	176.55	8.13	168.42	-	NA	NA	NA	NA	NA	NA
	3/21/2001	176.55	8.98	167.57	-	1300	<0.50	<0.50	<0.50	<1.5	1460
	6/18/2001	176.55	9.68	166.87	-	NA	NA	NA	NA	NA	NA
	9/18/2001	176.55	9.80	166.75	-	<0.50	<0.50	<0.50	<0.50	<1.5	94.9
	12/13/2001	176.55	9.26	167.29	-	NA	NA	NA	NA	NA	NA
	3/14/2002	176.55	8.69	167.86	-	800	<0.50	<0.50	<0.50	<1.0	952
	6/19/2002	176.55	9.06	167.49	-	NA	NA	NA	NA	NA	NA
9/10/2002	176.55	9.23	167.32	-	260	<2.0	<2.0	<2.0	<2.0	580	
12/16/2002	176.55	7.77	168.78	-	NA	NA	NA	NA	NA	NA	

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7 cont.	3/11/2003	176.55	8.30	168.25	-	620	<2.5	<2.5	<2.5	<2.5	1100
	6/17/2003	176.55	9.51	167.04	-	NA	NA	NA	NA	NA	NA
	9/17/2003	176.55	9.52	167.03	-	<50	<0.5	<0.5	<0.5	<0.5	460
	12/9/2003	176.55	8.99	167.56	-	<50	<0.5	<0.5	<0.5	<0.5	420
	2/26/2004	176.55	6.55	170.00	-	<50	<0.5	<0.5	<0.5	<0.5	330
	5/21/2004	176.55	8.90	167.65	-	<50	<0.5	<0.5	<0.5	<0.5	630
	8/10/2004	179.11	9.58	169.53	-	<50	<0.5	<0.5	<0.5	<0.5	750
	10/19/2004	179.11	9.20	169.91	-	<50	<0.5	<0.5	<0.5	<0.5	550
	1/14/2005	179.11	7.25	171.86	-	<50	<2.0	<2.0	<2.0	<2.0	250
	4/14/2005	179.11	7.94	171.17	-	<200	<0.5	<0.5	<0.5	<1.0	285
	7/7/2005	179.11	9.08	170.03	-	<400	<1.0	<4.0	<1.0	<2.0	452
	11/15/2005	179.11	9.14	169.97	-	<50	<0.5	<2.0	<0.5	<1.0	110
	2/8/2006	179.11	7.93	171.18	-	<50	<0.5	<2.0	<0.5	<1.0	101
	4/27/2006	179.11	8.40	170.71	-	<50	<0.5	<2.0	<0.5	<1.0	131
	8/1/2006	179.11	8.89	170.22	-	<50	<0.5	<2.0	<0.5	<1.0	68.6
	10/19/2006	179.11	9.44	169.67	-	<50	<0.5	<2.0	<0.5	<1.0	65.5
	1/12/2007	179.11	8.91	170.20	-	<50	<0.5	<2.0	<0.5	<2.0	38
	4/17/2007	179.11	8.58	170.53	-	<50	<0.5	<2.0	<0.5	<2.0	24.7
	7/17/2007	179.11	9.04	170.07	-	<50	2.07	<2.0	<0.5	<2.0	29.3
	10/6/2007	179.11	7.88	171.23	-	<50	0.88	<2.0	<0.5	<2.0	5.26
	1/17/2008	179.11	NM	NM	-	NA	NA	NA	NA	NA	NA
	4/17/2008	179.11	8.85	170.26	-	<50	1.87	<2.0	<0.5	<2.0	21.6
	7/16/2008	179.11	9.34	169.77	-	<50	<0.5	<2.0	<0.5	<2.0	11.4
	10/14/2008	179.11	10.06	169.05	-	<50	0.78	<0.5	<0.5	<0.5	12
	1/6/2009	179.11	9.12	169.99	-	<50	<0.5	<0.5	<0.5	<0.5	14
	4/6/2009	179.11	9.28	169.83	-	<50	<0.5	<0.5	<0.5	<0.5	13
7/7/2009	179.11	9.59	169.52	-	<50	<0.5	<0.5	<0.5	<0.5	15	
1/27/2010	179.11	6.98	172.13	-	<50	<0.5	<0.5	<0.5	<0.5	6.3	
7/26/2010	179.11	9.11	170.00	-	<50	<0.5	<0.5	<0.5	<0.5	6	

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7R	8/30/2010	179.14	9.39	169.75	-	<50	<0.5	<0.5	<0.5	<0.5	24
	11/16/2010	179.14	9.10	170.04	-	<50	<0.5	<0.5	<0.5	<0.5	4.9
	2/14/2011	179.14	9.26	169.88	-	<50	<0.5	<0.5	<0.5	<0.5	5.3
	7/19/2011	179.14	9.38	169.76	-	<50	<0.5	<0.5	<0.5	<0.5	2.8
	1/18/2012	179.14	9.70	169.44	-	<22	<0.33	<0.19	<0.15	<0.2	0.93
	7/10/2012	179.14	9.92	169.22	-	<50	<0.5	<0.5	<0.5	<0.5	3.4
	1/9/2013	179.14	8.75	170.39	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/8/2013	179.14	11.31	167.83	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	2.6
	1/29/2014	179.14	10.70	168.44	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	1.0
MW-8	7/28/1995	176.34	7.80	168.54	-	1,100	<2.5	<2.5	<2.5	<5.0	NA
	11/17/1995	176.34	8.29	168.05	-	8,300	75	5.3	670	240	140
	2/7/1996	176.34	4.99	171.35	-	2,300	33	<10	190	216	<100
	4/23/1996	176.34	6.09	170.25	-	2,000	390	<10	150	26	<250
QC-2	4/1/1993	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/29/1993	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	9/23/1993	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	12/10/1993	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/17/1994	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	8/8/1994	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/12/1994	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/19/1995	NM	NM	NM	-	<50	<0.5	<0.5	<0.5	<1.0	NA
	5/2/1995	NM	NM	NM	-	<50	<0.50	<0.50	<0.50	<1.0	NA
	7/28/1995	NM	NM	NM	-	<50	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	NM	NM	NM	-	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	2/7/1996	NM	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1996	NM	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	<10
7/9/1996	NM	NM	NM	-	<50	<0.5	<1.0	<1.0	<1.0	<10	
SOMA-1	8/10/2004	180.95	11.53	169.42	-	84	<0.5	<0.5	1.5 C	2.2	2100
	10/19/2004	180.95	10.41	170.54	-	56	<0.5	<0.5	1.3 C	1.4 C	1600

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-1 cont.	1/14/2005	180.95	9.68	171.27	-	58	<3.1	<3.1	<3.1	<3.1	330
	4/14/2005	180.95	9.37	171.58	-	<2200	<5.5	<5.5	<5.5	<11	668
	7/7/2005	180.95	10.21	170.74	-	<860	<2.15	<8.6	<2.15	<4.3	591
	11/15/2005	180.95	10.70	170.25	-	<50	<0.5	<2.0	1.1	<1.0	256
	2/8/2006	180.95	9.30	171.65	-	127	1.56	<2.0	3.23	3.12	176
	4/27/2006	180.95	9.64	171.31	-	81.6	1.14	<2.0	2.8	<1.0	189
	8/1/2006	180.95	10.25	170.70	-	<50	1.07	<2.0	1.46	<1.0	122
	10/19/2006	180.95	10.73	170.22	-	<50	0.68	<2.0	4.17	<1.0	116
	1/12/2007	180.95	10.38	170.57	-	<50	<0.5	<2.0	<0.5	<2.0	68.7
	4/17/2007	180.95	10.09	170.86	-	<50	5.76	<2.0	4.33	2.59	33.4
	7/17/2007	180.95	10.35	170.60	-	<50	14.8	<2.0	4.63	3.32	39.4
	10/16/2007	180.95	9.71	171.24	-	<50	5.7	<2.0	<0.5	<2.0	14.2
	1/17/2008	180.95	10.01	170.94	-	<50	1.02	<2.0	<0.5	<2.0	12.8
	4/17/2008	180.95	10.17	170.78	-	<50	3.13	<2.0	<0.5	<2.0	12.8
	7/16/2008	180.95	10.63	170.32	-	<50	10.6	<2.0	<0.5	<2.0	15.8
	10/14/2008	180.95	11.36	169.59	-	<50	1.1	<0.5	<0.5	<0.5	15
	1/6/2009	180.95	10.81	170.14	-	<50	0.6	<0.5	<0.5	<0.5	14
	4/6/2009	180.95	10.69	170.26	-	<50	<0.5	<0.5	<0.5	<0.5	12
	7/7/2009	180.95	11.01	169.94	-	<50	0.57	<0.5	1.2	0.91	12
	1/27/2010	180.95	8.81	172.14	-	<50	<0.5	<0.5	<0.5	<0.5	9.9
	7/26/2010	180.95	10.49	170.46	-	<50	<0.5	<0.5	<0.5	<0.5	5.9
	11/16/2010	180.95	10.49	170.46	-	<50	<0.5	<0.5	<0.5	<0.5	7.0
	2/15/2011	180.95	10.64	170.31	-	<50	<0.5	<0.5	<0.5	<0.5	5.3
	7/19/2011	180.95	10.70	170.25	-	<50	2.3	<0.5	<0.5	<0.5	5.2
1/18/2012	180.95	10.90	170.05	-	77 ^Y	<0.33	<0.19	<0.15	<0.2	4.0	
7/10/2012	180.95	11.25	169.70	-	<50	<0.5	<0.5	<0.5	<0.5	3.7	
1/10/2013	180.95	10.10	170.85	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	2.2	
7/8/2013	180.95	11.72	169.23	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	2.7	
1/29/2014	180.95	12.15	168.80	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	1.7	
SOMA-4											
SOMA-4	8/10/2004	176.94	9.44	167.50	-	140	0.98	<0.5	7.8	<0.5	11
	10/19/2004	176.94	9.91	167.03	-	150	<0.5	<0.5	10	<0.5	8.8

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-4 cont	1/14/2005	176.94	8.36	168.58	-	500	3.7	<0.5	53	<0.5	7.6
	4/14/2005	176.94	7.89	169.05	-	<200	0.74	<0.5	3.21	<1.0	5.65
	7/7/2005	176.94	11.62	165.32	-	<200	<0.5	<2.0	0.56	<1.0	7.09
	11/15/2005	176.94	9.33	167.61	-	<50	<0.5	<2.0	<0.5	<1.0	8.6
	2/8/2006	176.94	9.18	167.76	-	55.8	<0.5	<2.0	0.85	<1.0	10.4
	4/27/2006	176.94	8.75	168.19	-	172	1.35	<2.0	8.83	<1.0	11.7
	8/1/2006	176.94	9.52	167.42	-	<50	0.52	<2.0	1.53	<1.0	14.1
	10/19/2006	176.94	9.51	167.43	-	<50	<0.5	<2.0	<0.5	<1.0	19.2
	1/12/2007	176.94	8.98	167.96	-	<50	<0.5	<2.0	<0.5	<2.0	20.4
	4/17/2007	176.94	8.96	167.98	-	<50	<0.5	<2.0	4.33	<2.0	15.8
	7/17/2007	176.94	9.31	167.63	-	<50	<0.5	<2.0	4.47	<2.0	13.3
	10/16/2007	176.94	8.96	167.98	-	<50	<0.5	<2.0	4.5	<2.0	8.57
	1/17/2008	176.94	8.84	168.10	-	<50	<0.5	<2.0	<0.5	<2.0	8.87
	4/17/2008	176.94	9.44	167.50	-	<50	<0.5	<2.0	<0.5	<2.0	1.22
	7/16/2008	176.94	9.52	167.42	-	<50	<0.5	<2.0	<0.5	<2.0	8.58
	10/14/2008	176.94	9.98	166.96	-	<50	<0.5	<0.5	<0.5	<0.5	9.7
	1/6/2009	176.94	9.29	167.65	-	<50	<0.5	<0.5	<0.5	<0.5	10
	4/6/2009	176.94	9.31	167.63	-	<50	<0.5	<0.5	<0.5	<0.5	5.3
	7/7/2009	176.94	9.54	167.40	-	<50	<0.5	<0.5	<0.5	<0.5	7
	1/27/2010	176.94	7.35	169.59	-	<50	<0.5	<0.5	<0.5	<0.5	5.1
	7/26/2010	176.94	9.13	167.81	-	220	<0.5	<0.5	<0.5	<0.5	2.3
	11/15/2010	176.94	8.85	168.09	-	75	<0.5	<0.5	<0.5	<0.5	2.5
	2/14/2011	176.94	8.92	168.02	-	<50	<0.5	<0.5	<0.5	<0.5	1.5
	7/19/2011	176.94	9.19	167.75	-	57	<0.5	<0.5	<0.5	<0.5	0.97
	1/18/2012	176.94	9.61	167.33	-	<22	<0.33	<0.19	<0.15	<0.2	1.2
	7/10/2012	176.94	9.71	167.23	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/9/2013	176.94	8.52	168.42	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	0.77	
7/8/2013	176.94	9.89	167.05	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	1.4	
1/29/2014	176.94	10.35	166.59	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	0.74	
Shallow WBZ Wells											
SOMA-2	8/10/2004	178.99	10.69	168.30	-	<50	<0.5	<0.5	<0.5	<0.5	0.8
	10/19/2004	178.99	10.75	168.24	-	<50	<0.5	<0.5	<0.5	<0.5	2.4

Table 1
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TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-2 cont.	1/14/2005	178.99	9.45	169.54	-	<50	<0.5	<0.5	<0.5	<0.5	1.1
	4/14/2005	178.99	10.46	168.53	-	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	178.99	11.81	167.18	-	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	11/15/2005	178.99	12.02	166.97	-	<50	<0.5	<2.0	<0.5	<1.0	1.61
	2/8/2006	178.99	11.88	167.11	-	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	4/27/2006	178.99	10.95	168.04	-	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	8/1/2006	178.99	11.85	167.14	-	<50	<0.5	<2.0	<0.5	<1.0	1.11
	10/19/2006	178.99	10.62	168.37	-	<50	<0.5	<2.0	<0.5	<1.0	1.36
	1/12/2007	178.99	10.26	168.73	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/17/2007	178.99	11.88	167.11	-	<50	<0.5	<2.0	<0.5	<2.0	0.87
	7/17/2007	178.99	10.84	168.15	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/16/2007	178.99	9.69	169.30	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/17/2008	178.99	9.62	169.37	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/17/2008	178.99	10.06	168.93	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/16/2008	178.99	10.63	168.36	-	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/14/2008	178.99	11.26	167.73	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/6/2009	178.99	10.22	168.77	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/6/2009	178.99	10.38	168.61	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/7/2009	178.99	10.40	168.59	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/27/2010	178.99	8.19	170.80	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/26/2010	178.99	10.24	168.75	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	11/15/2010	178.99	10.04	168.95	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	2/14/2011	178.99	9.95	169.04	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
7/19/2011	178.99	10.20	168.79	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
1/18/2012	178.99	10.56	168.43	-	<22	<0.33	<0.19	<0.15	<0.2	<0.38	
7/10/2012	178.99	10.45	168.54	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
1/9/2013	178.99	9.63	169.36	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
7/8/2013	178.99	10.36	168.63	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
1/29/2014	178.99	11.36	167.63	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
SOMA-3	8/10/2004	176.81	9.97	166.84	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/19/2004	176.81	9.59	167.22	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-3 cont.	1/14/2005	176.81	8.23	168.58	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2005	176.81	8.64	168.17	-	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	176.81	9.60	167.21	-	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	11/15/2005	176.81	10.01	166.80	-	<50	<0.5	<2.0	<0.5	<1.0	5.1
	2/8/2006	176.81	8.80	168.01	-	<50	<0.5	<2.0	<0.5	<1.0	7.16
	4/27/2006	176.81	9.00	167.81	-	<50	<0.5	<2.0	<0.5	<1.0	14.2
	8/1/2006	176.81	9.91	166.90	-	<50	<0.5	<2.0	<0.5	<1.0	7.29
	10/19/2006	176.81	10.21	166.60	-	<50	<0.5	<2.0	<0.5	<1.0	41.4
	1/12/2007	176.81	9.73	167.08	-	<50	<0.5	<2.0	<0.5	<2.0	20.9
	4/17/2007	176.81	9.81	167.00	-	<50	<0.5	<2.0	<0.5	<2.0	32.1
	7/17/2007	176.81	10.06	166.75	-	<50	<0.5	<2.0	<0.5	<2.0	23.6
	10/16/2007	176.81	9.54	167.27	-	<50	<0.5	<2.0	<0.5	<2.0	22.3
	1/17/2008	176.81	9.06	167.75	-	<50	<0.5	<2.0	<0.5	<2.0	11.1
	4/17/2008	176.81	9.57	167.24	-	<50	<0.5	<2.0	<0.5	<2.0	23.7
	7/16/2008	176.81	10.25	166.56	-	<50	<0.5	<2.0	<0.5	<2.0	10.6
	10/14/2008	176.81	10.76	166.05	-	<50	<0.5	<0.5	<0.5	<0.5	19
	1/6/2009	176.81	9.53	167.28	-	<50	<0.5	<0.5	<0.5	<0.5	1.1
	4/6/2009	176.81	9.65	167.16	-	<50	<0.5	<0.5	<0.5	<0.5	5.7
	7/7/2009	176.81	10.19	166.62	-	<50	<0.5	<0.5	<0.5	<0.5	6
	1/27/2010	176.81	7.80	169.01	-	<50	<0.5	<0.5	<0.5	<0.5	56
	7/26/2010	176.81	9.67	167.14	-	<50	<0.5	<0.5	<0.5	<0.5	9.8
	11/15/2010	176.81	9.35	167.46	-	<50	<0.5	<0.5	<0.5	<0.5	30
	2/14/2011	176.81	10.57	166.24	-	<50	<0.5	<0.5	<0.5	<0.5	32
	7/19/2011	176.81	9.74	167.07	-	<50	<0.5	<0.5	<0.5	<0.5	17
	1/18/2012	176.81	10.14	166.67	-	<22	<0.33	<0.19	<0.15	<0.2	24
	7/10/2012	176.81	9.99	166.82	-	<50	<0.5	<0.5	<0.5	<0.5	1.6
1/9/2013	176.81	8.86	167.95	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	6.9	
7/8/2013	176.81	10.56	166.25	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	2	
1/29/2014	176.81	10.69	166.12	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	0.52	

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-5 pre-MPE	1/27/2010	180.31	7.94	172.37	-	14,000	2,600	1.5	800	914	190
	7/26/2010	180.31	9.99	170.32	-	14,000	3,300	<20	1,100	1,340	150
	11/15/2010	180.31	10.01	170.30	-	11,000	2,400	3.3	920	733	130
	2/15/2011	180.31	10.22	170.09	-	4,900	1,600	<13	430	84	94
	6/16/2011	180.31	NM	NC	-	6,400	2,500	<20	670	160	150
	7/19/2011	180.31	9.95	170.36	-	1,300	470	<3.6	<3.6	212	8.8
	1/18/2012	180.31	10.16	170.15	-	600 ^Y	160	<0.19	27	<0.2	6.5
	7/10/2012	180.31	10.16	170.15	-	<50	3.6	<0.5	<0.5	<0.5	4.6
	1/10/2013	180.31	9.21	171.10	No Sheen	180	25.0	<0.5	28	<0.5	3.9
	7/9/2013	180.31	10.98	169.33	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	4.8
1/30/2014	180.31	11.67	168.64	No Sheen	<50	2.4	<0.5	<0.5	<0.5	10	
SOMA-7 pre-MPE	8/30/2010	178.54	7.63	170.91	-	2,900	190	3.7	74	19.80	8.4
	11/16/2010	178.54	7.89	170.65	-	1,500	190	2.1	41	8.30	5.7
	2/15/2011	178.54	7.33	171.21	-	1,900	380	4	27	5.50	5.2
	6/16/2011	178.54	NM	NC	-	1,900	330	4.3	24	5.20	4.7
	7/19/2011	178.54	7.89	170.65	-	7,600	1,100	15	200	61	12
	1/18/2012	178.54	8.74	169.80	-	1,300 ^Y	190	2.2	29	5.2	<1.7
	7/11/2012	178.54	8.66	169.88	-	5,600	390	5.5	45	9.1	5.2
	1/10/2013	178.54	6.72	171.82	Rainbow Sheen	4,400	500	8.9	66	11	4.1
	7/9/2013	178.54	9.05	169.49	Rainbow Sheen	2,800	420	6.5	51	6	4.5
1/30/2014	178.54	9.44	169.10	Rainbow Sheen	2,400	270	5.1	21	4.3	4.4	
SOMA-8	8/30/2010	181.57	9.89	171.68	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	11/15/2010	181.57	9.37	172.20	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	2/14/2011	181.57	9.89	171.68	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/19/2011	181.57	9.67	171.90	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/18/2012	181.57	10.29	171.28	-	<22	<0.33	<0.19	<0.15	<0.2	<0.38
	7/10/2012	181.57	10.31	171.26	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/9/2013	181.57	9.62	171.95	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	7/8/2013	181.57	10.09	171.48	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/29/2014	181.57	10.96	170.61	No Sheen	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
OB-1 pre-MPE	6/16/2011	178.7	NM	NC	-	1,900	9.3	<0.5	3.7	5.80	23
	7/19/2011	178.7	7.89	170.81	-	250	1.9	<0.5	0.63	0.78	4.1
	1/18/2012	178.7	8.72	169.98	-	2,400 ^Y	12	<0.19	3.0	6.35	16
	7/11/2012	178.7	7.96	170.74	-	2,100 ^Y	12	0.5	0.7	2.50	18
	1/10/2013	178.7	6.58	172.12	No Sheen	500	<0.5	<0.5	1.1	1.20	6.8
	7/9/2013	178.7	8.59	170.11	No Sheen	2,200	17	<0.5	2.7	8.36	23
	1/30/2014	178.7	9.42	169.28	No Sheen	1,600	1.1	<0.5	<0.5	1.30	17
OB-2 pre-MPE	6/16/2011	180.23	NM	NC	-	12,000	870	18	590	1,140	310
	7/19/2011	180.23	9.76	170.47	-	30,000	1,000	31	1,300	3,020	310
	1/18/2012	180.23	9.92	170.31	-	22,000 ^Y	930	13	1,300	2,100	<3.3
	7/11/2012	180.23	10.34	169.89	-	46,000	580	11	1,300	2,130	94
	1/10/2012	180.23	9.18	171.05	Rainbow Sheen	21,000	530	<7.1	980	1,258	79
	7/9/2013	180.23	10.65	169.58	Rainbow Sheen	1,600	42	<0.5	68	73.1	7.4
	1/30/2014	180.23	11.21	169.02	Rainbow Sheen	22,000	750	5.6	1,300	1,144	130
Equipment Blanks											
EB-PMP	1/17/2008	NA	NA	NA		<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PRB	1/17/2008	NA	NA	NA		<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PMP2	1/17/2008	NA	NA	NA		<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PRB2	1/17/2008	NA	NA	NA		<50	<0.5	<2.0	<0.5	<2.0	<0.5

Notes:

< : Not detected above laboratory reporting limit.

1 Top of Casing Elevations were resurveyed by Kier & Wright Engineers Surveyors of Pleasanton, CA on June 21, 2004.

C: Presence confirmed, but RPD between columns exceeds 40%.

H: Heavier hydrocarbons contributed to the quantitation.

NA: Not Applicable/Not Analyzed. Due to construction activities in the Third Quarter 2003, which consisted of the replacement of the USTs and dispensers, wells ESE-1 & ESE-2 were inaccessible. Well ESE-2 also inaccessible during the First Quarter 2007. Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event

NM: Not Measured

Well ESE-2 was covered over with dirt during the First Quarter 2007 monitoring event.

Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event.

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation ¹ (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Observed Sheen	TPH-g (µg/L) 8260B	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
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Equipment Blanks (EB-PRB & EB-PMP) were done to make sure decon efforts were adequate.

Z: Sample exhibits unknown single peak or peaks.

- The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the site.
- The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.
- August 2010, reconstruct ESE-1R, ESE-2R, ESE-5R, MW-6R, MW-7R; install SOMA-7, SOMA-8. 8/30/10 investigation sampling
- pre-MPE sampling conducted on 6/16/2011 prior to start of MPE pilot testing from June 20 to July 1, 2011
- In July 2012, TPH-g was analyzed by method EPA 8015B due to laboratory error instead of EPA 8260B

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
Semi-Confined WBZ Wells								
ESE-1	6/17/2003	<400	<10	<10	18	NA	NA	NA
	9/17/2003	NA	NA	NA	NA	NA	NA	NA
	12/9/2003	290	<1.0	<1.0	9.5	<2,000	<1.0	<1.0
	2/26/2004	410	<0.5	<0.5	9.7	<1000	<0.5	<0.5
	5/21/2004	190	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	8/10/2004	180	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	10/19/2004	270	<0.7	<0.7	4.4	<1400	9.9	<0.7
	1/14/2005	280	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	4/14/2005	144	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	7/7/2005	119	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	11/15/2005	107	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	2/8/2006	181	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	4/27/2006	261	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	8/1/2006	165	<1.0	<1.0	<4.0	<2000	<1.0	<1.0
	10/19/2006	154	<1.0	<1.0	<4.0	<2000	<1.0	<1.0
	1/12/2007	103	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2007	80.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/17/2007	128	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/16/2007	98.7	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/17/2008	61.5	<0.5	<0.5	2.52	<1000	<0.5	<0.5
4/17/2008	76.4	<0.5	<0.5	<2.0	<1000	59.2	<0.5	
7/16/2008	179	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/14/2008	87	<0.5	<0.5	2.6	<1000	<0.5	<0.5	
1/6/2009	93	<1.0	<1.0	<1.0	<2000	<1.0	<1.0	
4/6/2009	130	<1.0	<1.0	<1.0	<2000	<1.0	<1.0	
7/7/2009	100	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/27/2010	200	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/26/2010	110	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
ESE-1R	8/30/2010	83	<0.71	<0.71	3.4	<1,400	<0.71	<0.71
	11/16/2010	64	<0.5	<0.5	0.94	<1,000	<0.5	<0.5
	2/15/2011	130	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	82	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	79	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	110	<0.5	<0.5	1.6	<1,000	<0.5	<0.5
	1/10/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/9/2013	51	<0.5	<0.5	0.95	<1,000	<0.5	<0.5
	1/30/2014	120	<0.5	<0.5	1.7	<1,000	<0.5	<0.5
	ESE-2	6/17/2003	<4000	<100	<100	<100	NA	NA
9/17/2003	NA	NA	NA	NA	NA	NA	NA	
12/9/2003	500	<13	<13	77	<25,000	<13	<13	
2/26/2004	1200	<0.5	<0.5	92	<1,000	<0.5	<0.5	
5/21/2004	2400	<10	<10	25	<20,000	<10	<10	
8/10/2004	2300	<2.5	<2.5	12	<5,000	<2.5	<2.5	
10/19/2004	1800	<3.6	<3.6	8.6	<7100	<3.6	<3.6	
1/14/2005	470	<8.3	<8.3	28	<17,000	<8.3	<8.3	
4/14/2005	<10.8	<2.15	<2.15	17.9	<4,300	<2.15	<2.15	
7/7/2005	109	<2.15	<2.15	9.7	<4,300	<2.15	<2.15	
11/15/2005	64.7	<0.5	<0.5	3.43	<1,000	<0.5	<0.5	

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
ESE-2 cont.	2/8/2006	46.4	<2.15	<2.15	11	<4,300	<2.15	<2.15
	4/27/2006	47.7	<1.0	<1.0	8.29	<2,000	<1.0	<1.0
	8/1/2006	20.6	<1.0	<1.0	4.67	<2,000	<1.0	<1.0
	10/19/2006	28.9	<0.5	<0.5	4.55	<1,000	<0.5	<0.5
	1/12/2007	NA	NA	NA	NA	NA	NA	NA
	4/17/2007	60.8	<0.5	<0.5	3.85	<1,000	<0.5	<0.5
	7/17/2007	62.3	<0.5	<0.5	2.95	<1,000	<0.5	<0.5
	10/16/2007	46	<0.5	<0.5	2.21	<1,000	<0.5	<0.5
	1/17/2008	18.8	<0.5	<0.5	3.38	<1,000	<0.5	<0.5
	4/17/2008	18.8	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	9.95	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	0.85	<1,000	<0.5	<0.5
	1/6/2009	27	<0.5	<0.5	0.83	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	18	<0.5	<0.5	0.56	<1,000	<0.5	<0.5
	1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
ESE-2R	8/30/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/16/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/10/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/29/2014	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
ESE-3	6/17/2003	<200	<5.0	<5.0	<5.0	NA	NA	NA
ESE-5	9/17/2003	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	12/9/2003	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/26/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/14/2005	17	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
4/17/2007	8.7	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5	
7/17/2007	15.4	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5	
10/16/2007	11.5	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5	

Table 2
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3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
ESE-5 cont.	1/17/2008	17.2	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	5.44	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	ESE-5R	8/30/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5
11/16/2010		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
2/15/2011		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
7/19/2011		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/18/2012		<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
7/11/2012		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/10/2013		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
7/9/2013		18	<0.5	<0.5	1	<1,000	<0.5	<0.5
1/30/2014		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
MW-6		9/17/2003	<10	<0.5	<0.5	<0.5	<1000	<0.5
	12/9/2003	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/26/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	

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Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-6R	8/30/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/15/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/29/2014	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
MW-7	9/17/2003	<10	<0.5	<0.5	9.8	<1,000	<0.5	<0.5
	12/9/2003	<25	<1.3	<1.3	8.1	<2,500	<1.3	<1.3
	2/26/2004	<10	<0.5	<0.5	9.9	<1,000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<25	<1.3	<1.3	19	<2,500	<1.3	<1.3
	10/19/2004	<100	<5.0	<5.0	11	<10,000	<5.0	<5.0
	1/14/2005	<40	<2.0	<2.0	5.1	<4,000	<2.0	<2.0
	4/14/2005	2.62	<0.5	<0.5	4.57	<1,000	<0.5	<0.5
	7/7/2005	55.6	<1.0	<1.0	10.2	<2,000	<1.0	<1.0
	11/15/2005	10.6	<0.5	<0.5	2.07	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	2.19	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	2.63	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	11.6	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	13.3	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	NA	NA	NA	NA	NA	NA	NA
	4/17/2008	8.63	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
MW-7R	8/30/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/16/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/29/2014	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	

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Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
SOMA-1	8/10/2004	2300	<6.3	<6.3	53	<13,000	<6.3	<6.3
	10/19/2004	2400	<13	<13	36	<25,000	<13	<13
	1/14/2005	530	<3.1	<3.1	7.1	<6,300	<3.1	<3.1
	4/14/2005	<27.5	<5.5	<5.5	<22	<11,000	<5.5	<5.5
	7/7/2005	2180	<2.15	<2.15	12.9	<4,300	<2.15	<2.15
	11/15/2005	792	<0.5	<0.5	5.01	<1,000	<0.5	<0.5
	2/8/2006	618	<0.5	<0.5	3.67	<1,000	<0.5	<0.5
	4/27/2006	983	<0.5	<0.5	3.48	<1,000	<0.5	<0.5
	8/1/2006	639	<0.5	<0.5	2.27	<1,000	<0.5	<0.5
	10/19/2006	603	<0.5	<0.5	2.25	<1,000	<0.5	<0.5
	1/12/2007	396	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	148	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	555	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	65	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	29.6	<0.5	<0.5	2.06	<1,000	<0.5	<0.5
	4/17/2008	339	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	264	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	250	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	180	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	120	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	250	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/27/2010	310	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/26/2010	68	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/16/2010	84	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/15/2011	120	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	130	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/18/2012	150	<0.36	<0.4	<0.32	<100	<0.28	<0.19	
7/10/2012	79	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/10/2013	22	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/8/2013	11	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/29/2014	<10	<0.5	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
SOMA-4	8/10/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	3.98	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	6.31	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	

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SOMA-4 contd	1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/15/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/29/2014	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
Shallow WBZ Wells								
SOMA-2	8/10/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	14.6	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	2.58	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/27/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
11/15/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19	
7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/29/2014	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
SOMA-3	8/10/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
SOMA-3 cont.	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2007	6.72	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/17/2007	7.6	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/16/2007	9.96	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	4/17/2008	6.05	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1,000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/7/2009	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/27/2010	<10	<0.5	<0.5	0.8	<1,000	<0.5	<0.5
	7/26/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/15/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19	
7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/29/2014	<10	<0.5	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
SOMA-5 pre-MPE	1/27/2010	500	<13	<13	<13	<25,000	<13	<13
	7/26/2010	<400	<20	<20	<20	<40,000	<20	<20
	11/15/2010	480	<2.0	<2.0	<2.0	<4,000	<2.0	<2.0
	2/15/2011	390	<13	<13	<13	<25,000	<13	<13
	6/16/2011	450	<20	<20	<20	NA	<20	<20
	7/19/2011	<71	<3.6	<3.6	<3.6	<7,100	<3.6	<3.6
	1/18/2012	11	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/10/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/30/2014	<10	<0.5	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
SOMA-7 pre-MPE	8/30/2010	<33	<1.7	<1.7	<1.7	<3,300	<1.7	<1.7
	11/16/2010	<25	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	2/15/2011	<25	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	6/16/2011	<33	<1.7	<1.7	<1.7	NA	<1.7	<1.7
	7/19/2011	<25	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	1/18/2012	<6.6	<1.6	<1.7	<1.4	<440	<1.2	<0.86
	7/11/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/10/2013	<71	<3.6	<3.6	<3.6	<7,100	<3.6	<3.6
	7/9/2013	<83	<4.2	<4.2	<4.2	<8,300	<4.2	<4.2
1/30/2014	<40	<2.0	<2.0	<2.0	<4,000	<2.0	<2.0	
SOMA-8	8/30/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	11/15/2010	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/14/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/10/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/8/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
1/29/2014	<10	<0.5	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
OB-1 pre-MPE	6/16/2011	20	<0.5	<0.5	<0.5	NA	<0.5	<0.5
	7/19/2011	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/18/2012	<1.5	<0.36	<0.4	<0.32	<100	<0.28	<0.19
	7/11/2012	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/10/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	7/9/2013	11	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	1/30/2014	10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
OB-2 pre-MPE	6/16/2011	220	<5.0	<5.0	<5.0	NA	<5.0	<5.0
	7/19/2011	260	<10	<10	<10	<20,000	<10	<10
	1/18/2012	94	<3.2	<3.5	<2.8	<880	<2.4	<1.7
	7/11/2012	44	<0.5	<0.5	20	<1,000	0.6	<0.5
	1/10/2013	<140	<7.1	<7.1	<7.1	<14,000	<7.1	<7.1
	7/9/2013	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
		1/30/2014	<100	<5.0	<5.0	<5.0	<10,000	<5.0
Equipment Blanks								
EB-PMP	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PRB	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PMP2	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PRB2	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5

Notes:

< : Not detected above laboratory reporting limit.

NA: Not Analyzed.

Well ESE-2 was inaccessible during the First Quarter 2007, dirt was covered over well

Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event.

The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the Site.

The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.

Gasoline Oxygenates:

TBA: tertiary butyl alcohol

DIPE: isopropyl ether

ETBE: ethyl tertiary butyl ether

TAME: methyl tertiary amyl ether

Ethanol

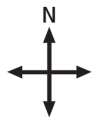
August 2010, reconstruct ESE-1R, ESE-2R, ESE-5R, MW-6R, MW-7R; install SOMA-7, SOMA-8. 8/30/10 investigation sampling

Lead Scavengers:

1,2-DCA: 1,2-Dichloroethane

EDB: 1,2-Dibromoethane

Figures



approximate scale in feet

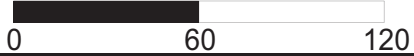
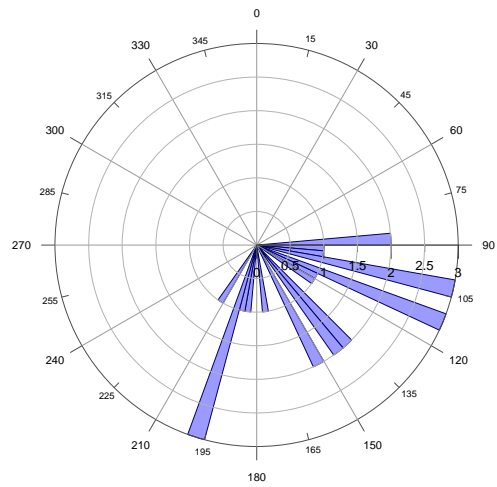
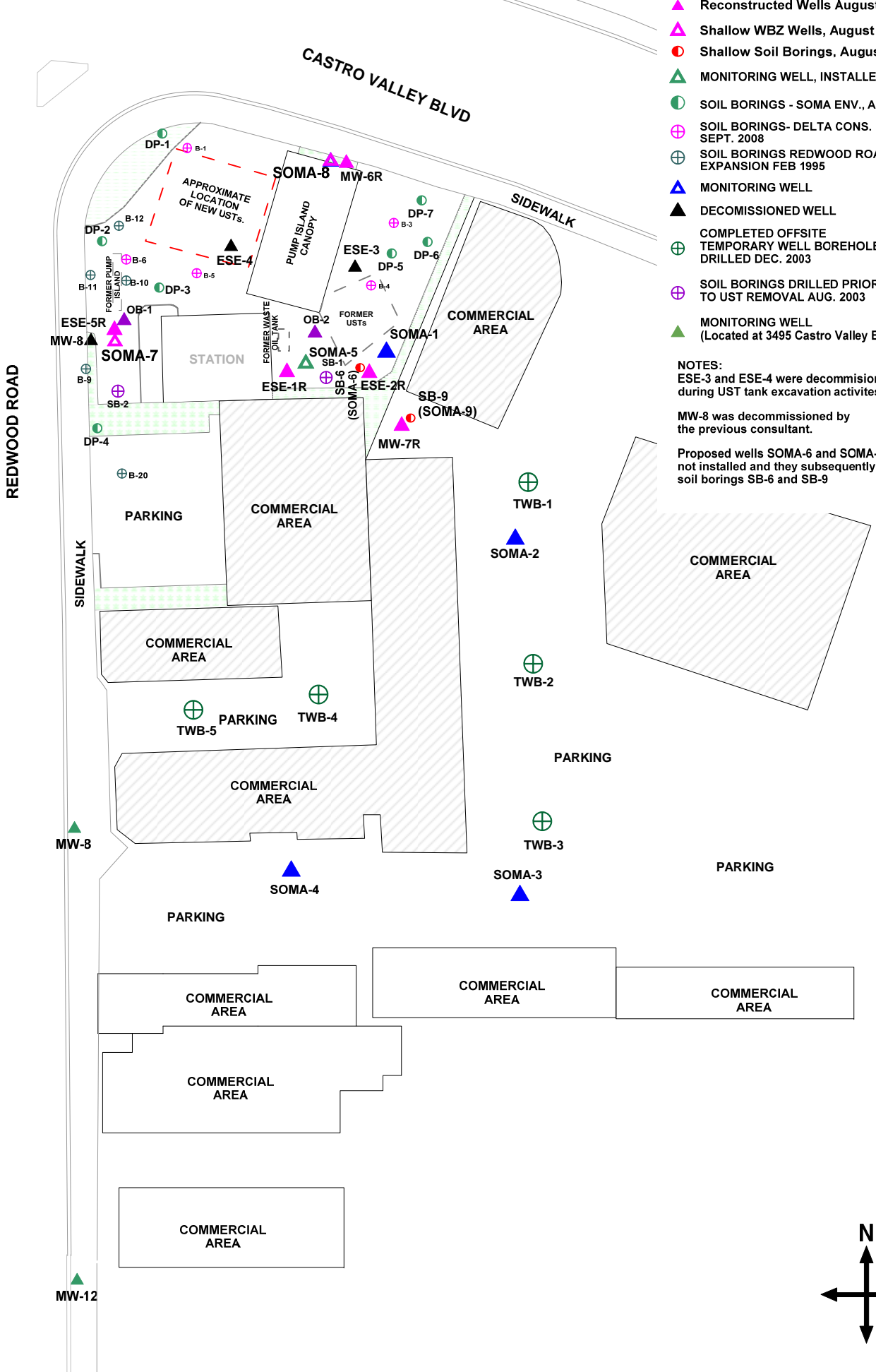
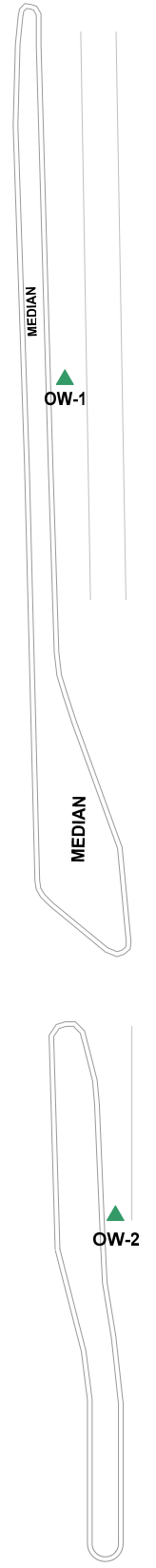
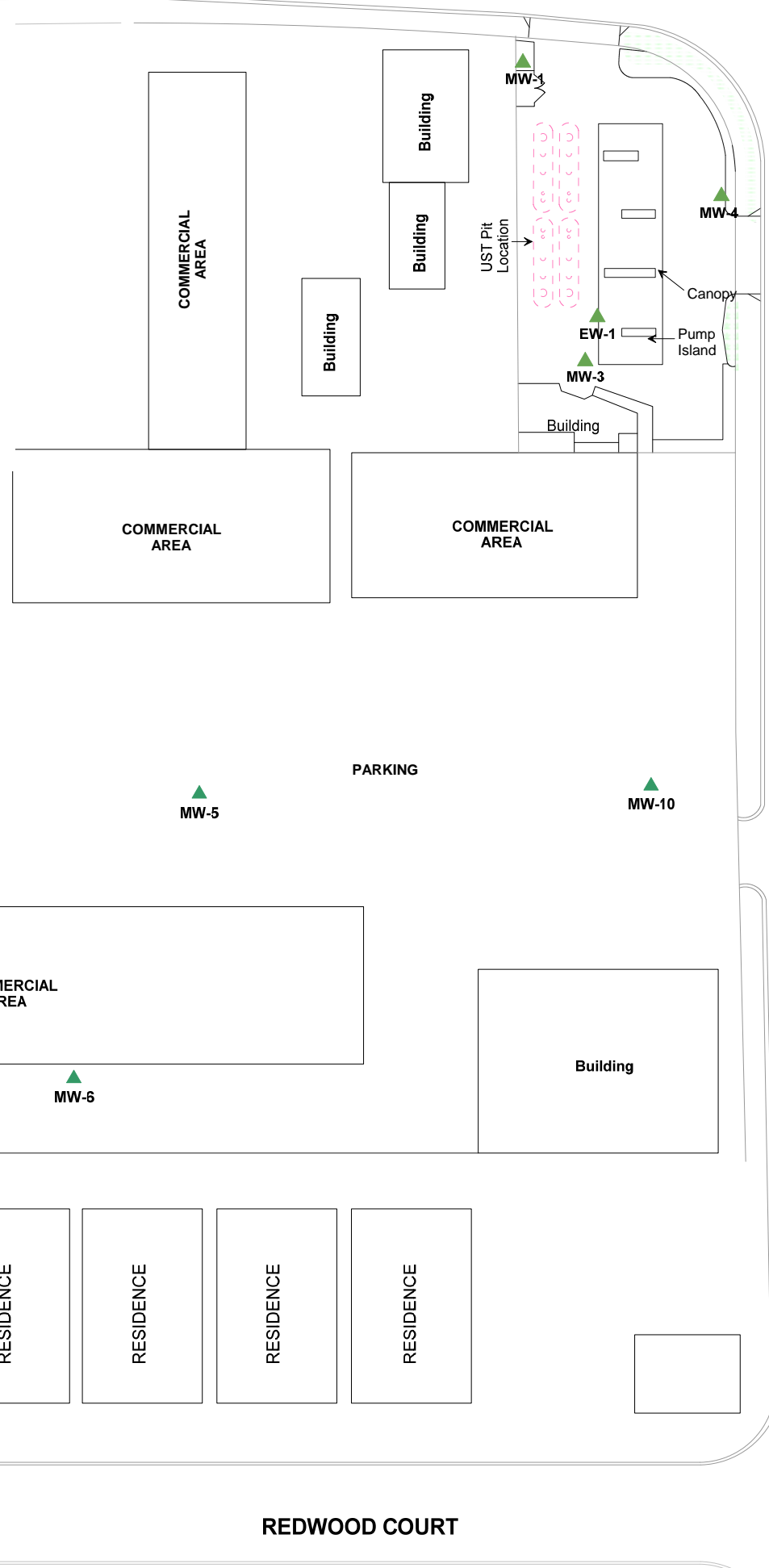


Figure 1: Site vicinity map.



Rose Diagram of Approximate Groundwater Flow Direction (3495 Castro Valley)



- ▲ Observation Wells June 2011
- ▲ Reconstructed Wells August 2010
- ▲ Shallow WBZ Wells, August 2010
- Shallow Soil Borings, August 2010
- ▲ MONITORING WELL, INSTALLED AUG. 2009
- SOIL BORINGS - SOMA ENV., AUG. 2009
- ⊕ SOIL BORINGS - DELTA CONS. SEPT. 2008
- ⊕ SOIL BORINGS REDWOOD ROAD EXPANSION FEB 1995
- ▲ MONITORING WELL
- ▲ DECOMMISSIONED WELL
- ⊕ COMPLETED OFFSITE TEMPORARY WELL BOREHOLE DRILLED DEC. 2003
- ⊕ SOIL BORINGS DRILLED PRIOR TO UST REMOVAL AUG. 2003
- ▲ MONITORING WELL (Located at 3495 Castro Valley Blvd.)

NOTES:
 ESE-3 and ESE-4 were decommissioned during UST tank excavation activities.
 MW-8 was decommissioned by the previous consultant.
 Proposed wells SOMA-6 and SOMA-9 were not installed and they subsequently became soil borings SB-6 and SB-9

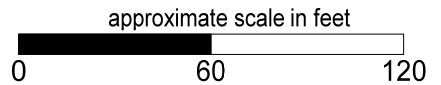
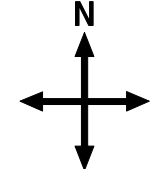


Figure 2: Site Map Showing Locations of Existing Monitoring Wells, Decommissioned Wells, Off-site Temporary Well Boreholes, Monitoring Wells Installed by SOMA, and Monitoring Wells Located at Neighboring Service Station



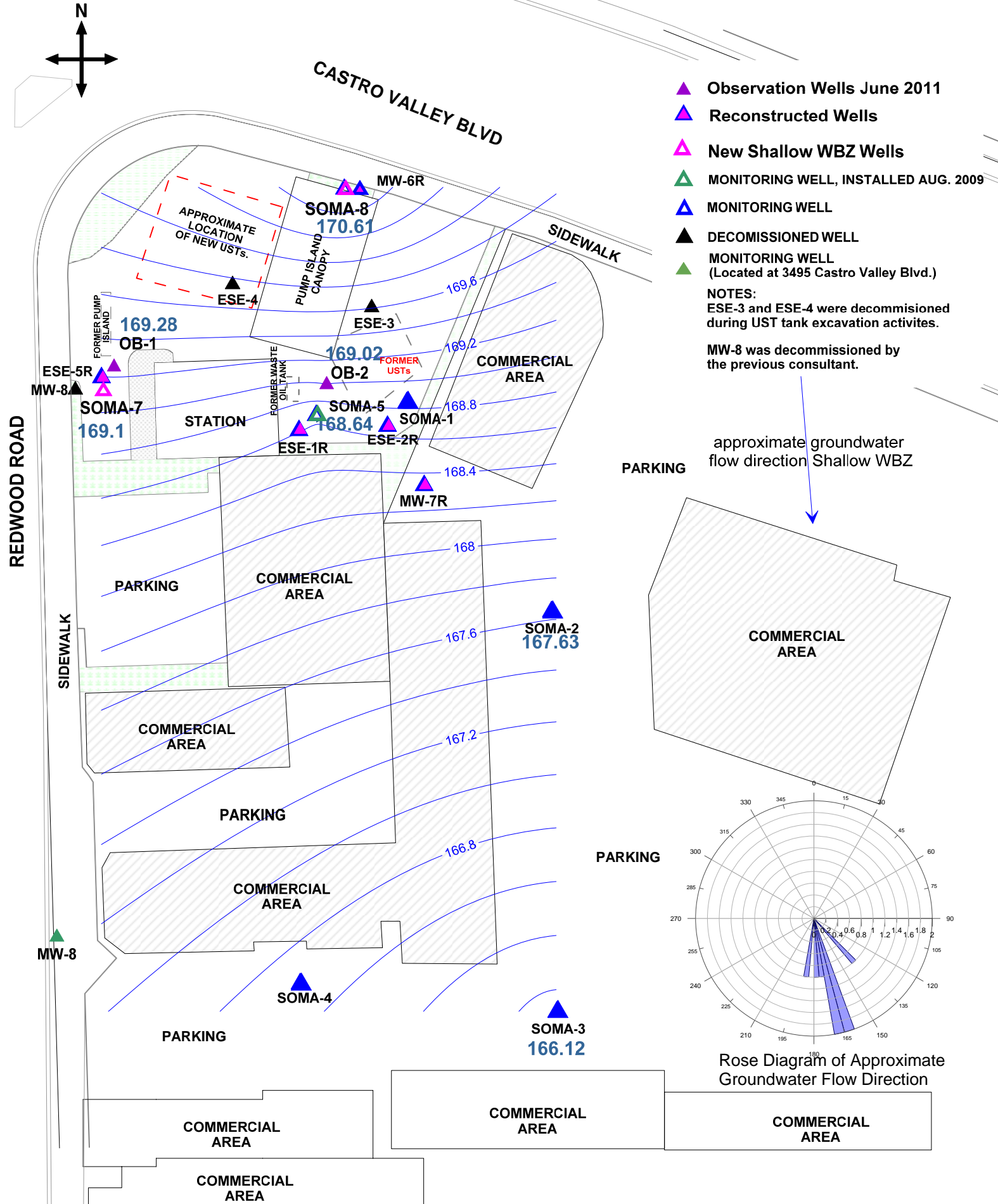


Figure 3: Groundwater Elevation Contour Map for Shallow WBZ Wells in Feet. January 29, 2014

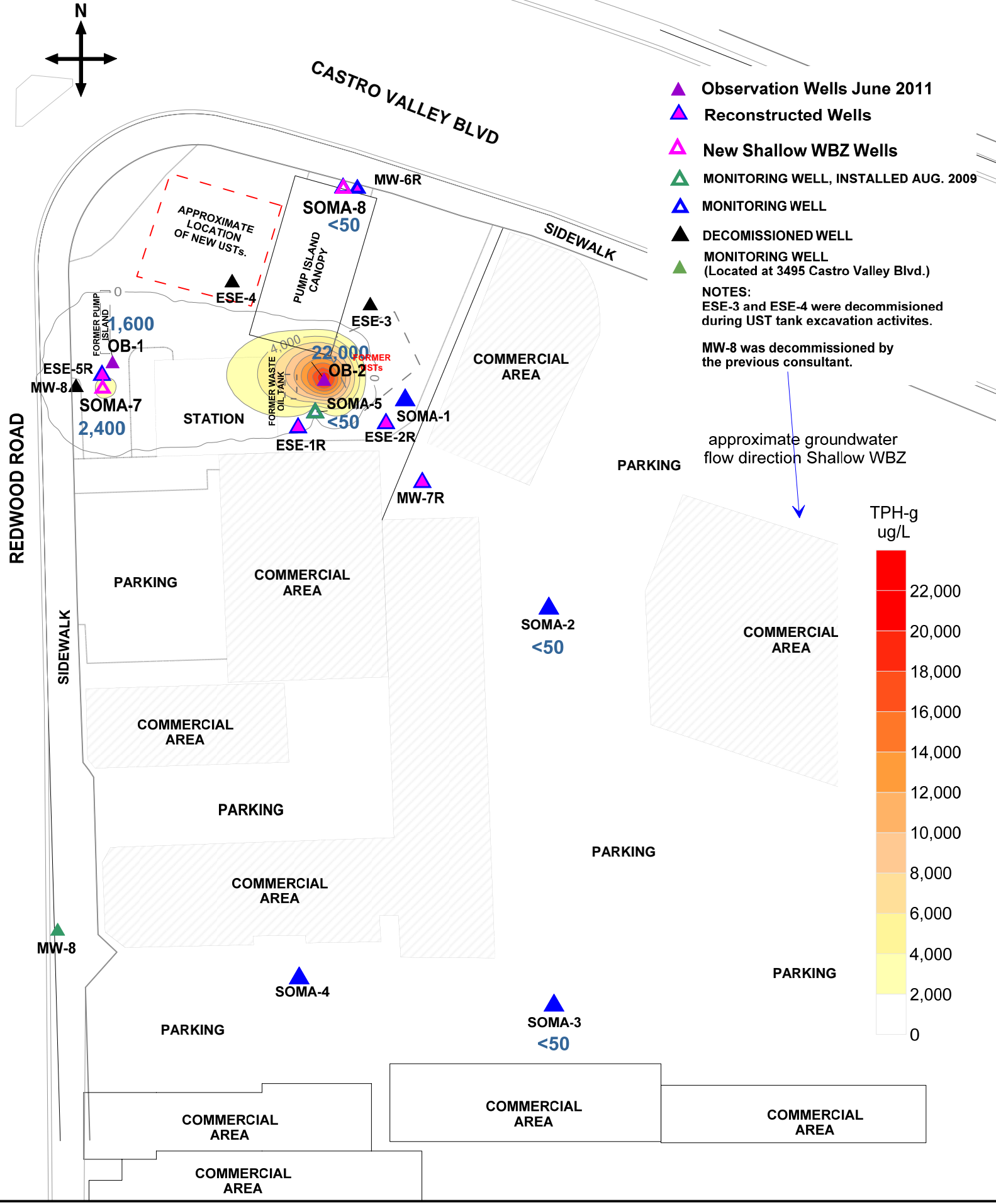


Figure 4: Contour Map of TPH-g Concentrations in Shallow WBZ Wells in Feet. January 29 and 30, 2014

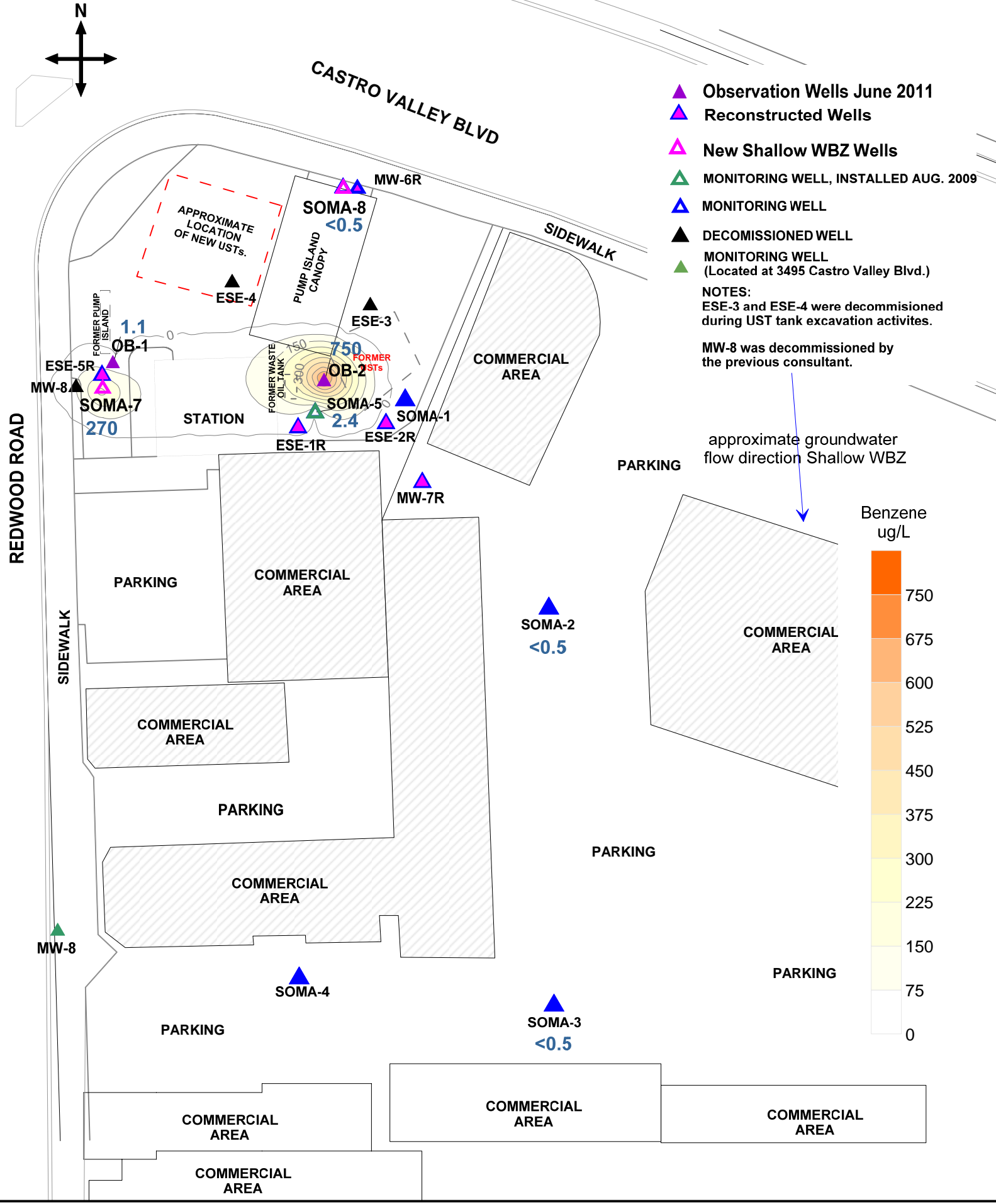
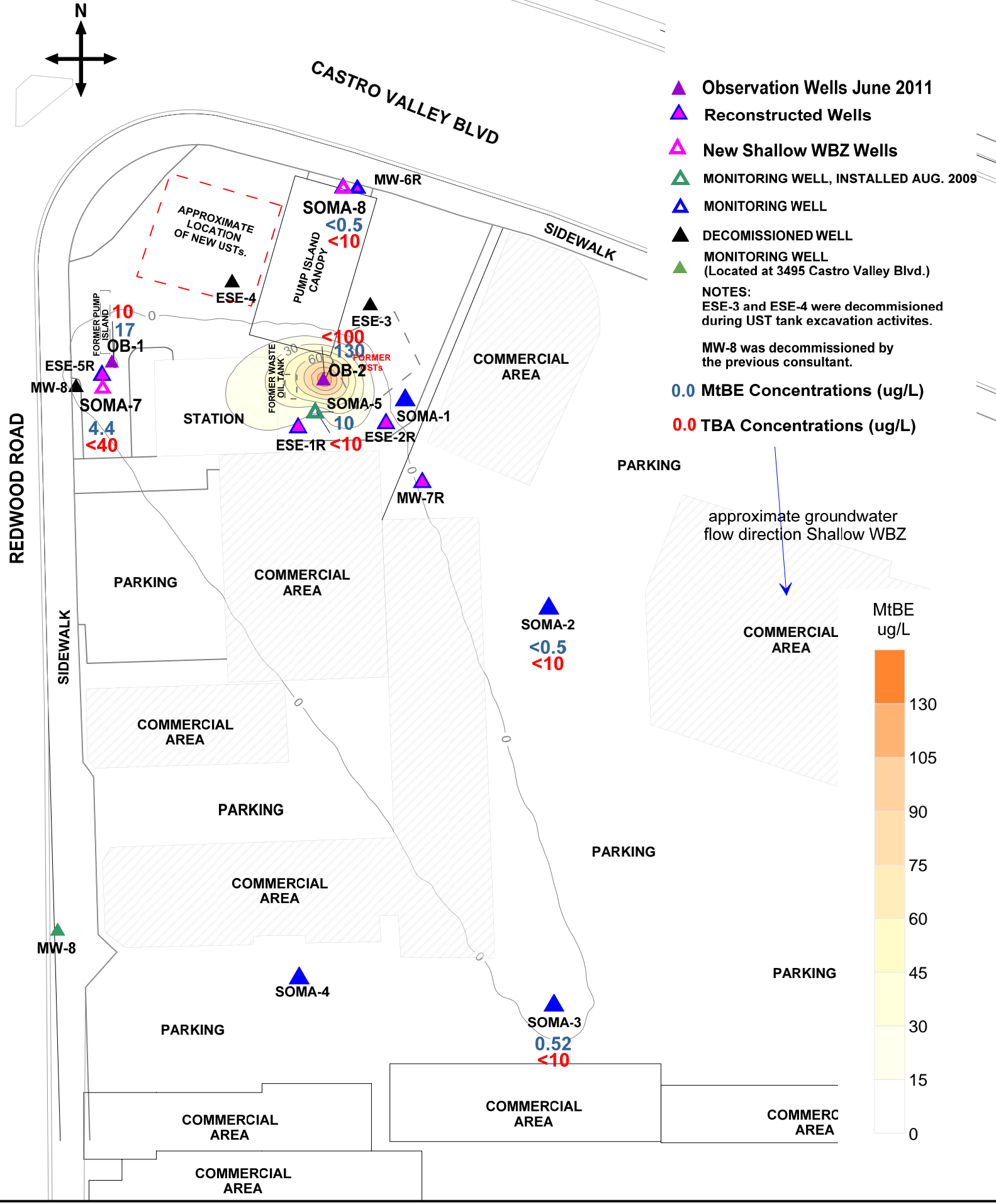


Figure 5: Contour Map of Benzene Concentrations in Shallow WBZ Wells in Feet. January 29 and 30, 2014





approximate scale in feet

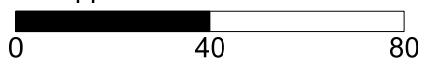


Figure 6: Contour Map of MtBE and map of TBA Concentrations in Shallow WBZ Wells in Feet. January 29 and 30, 2014



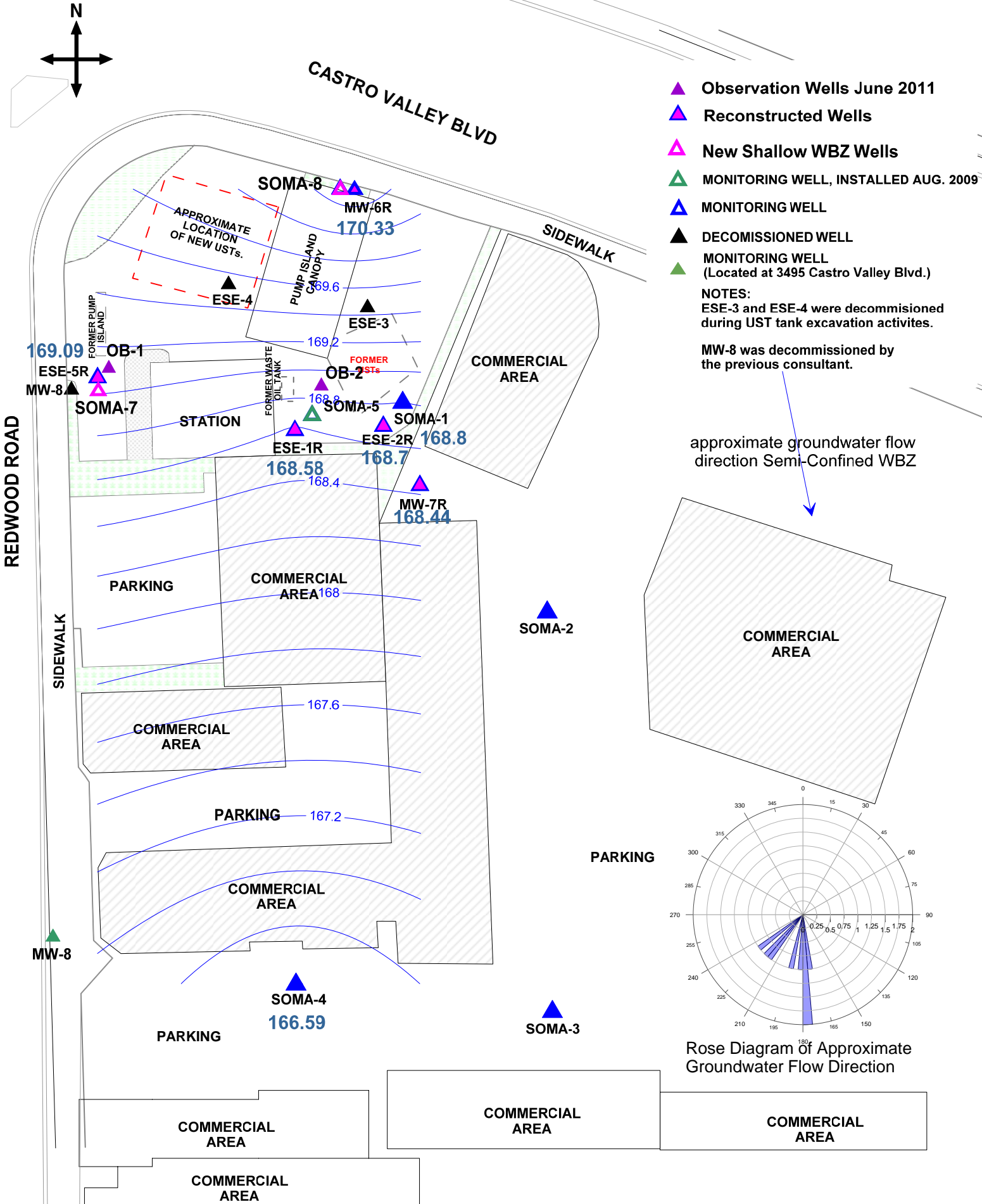


Figure 7: Groundwater Elevation Contour Map for Semi-Confined WBZ Wells in Feet. January 29, 2014

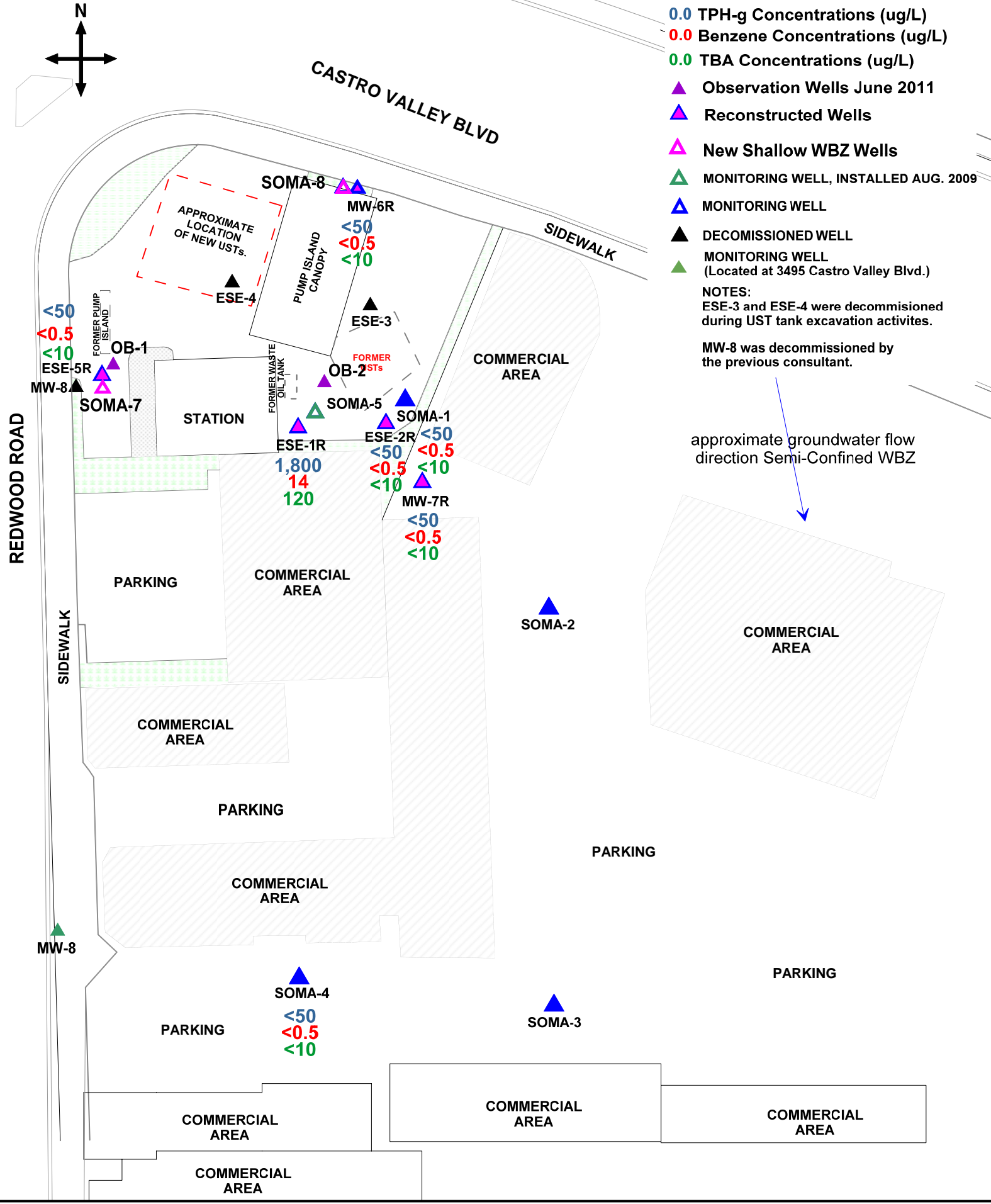
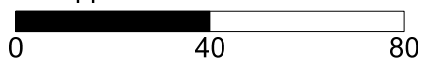


Figure 8: Map of TPH-g, Benzene, and TBA Concentrations in Semi-Confined WBZ Wells. January 29 and 30, 2014



approximate scale in feet



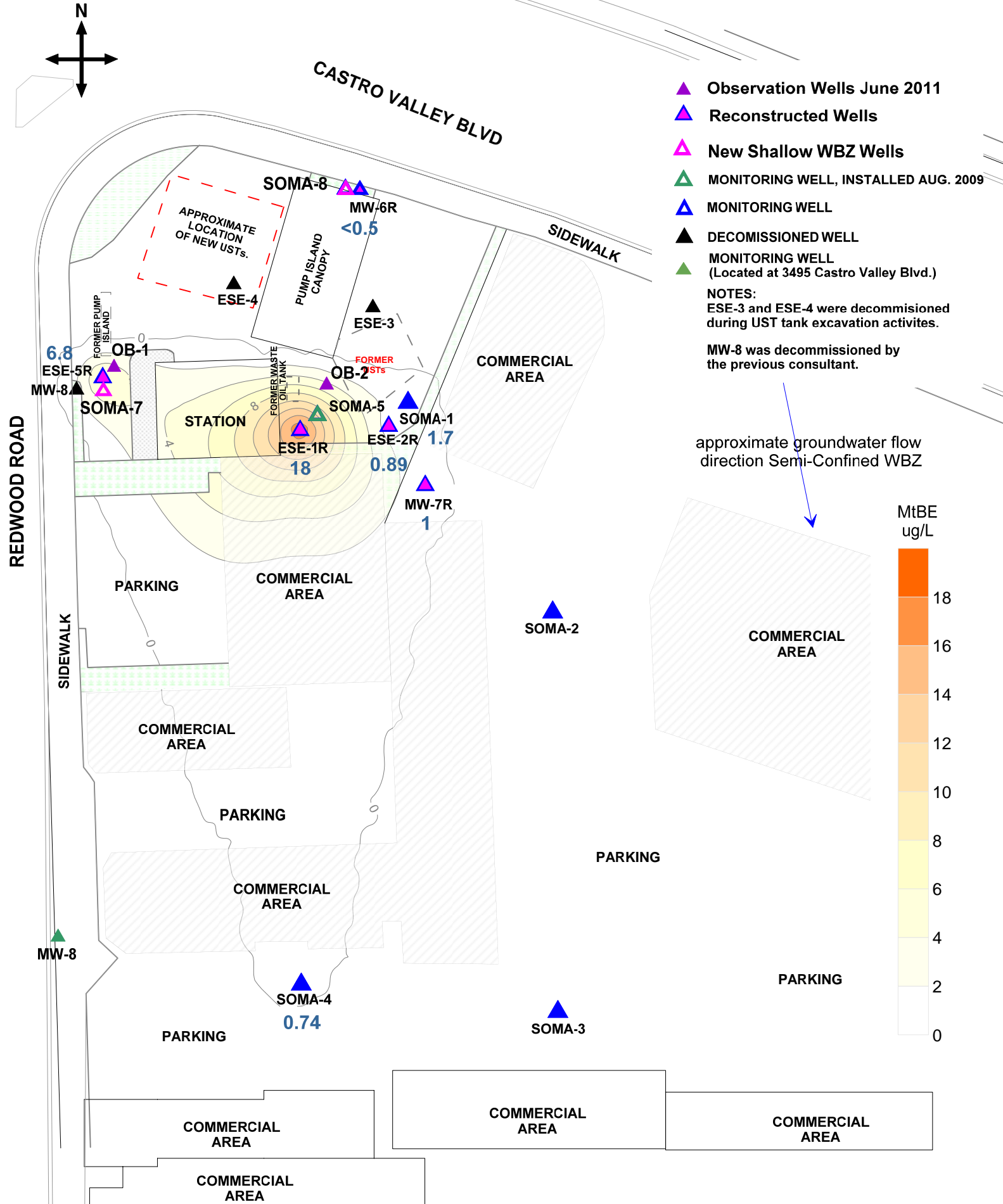


Figure 9: Contour Map of MtBE Concentrations in Semi-Confined WBZ Wells. January 29 and 30, 2014

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 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

Table of Elevations and Coordinates for
Monitoring Wells,
Field Measurements of Groundwater Sample
Properties, and Groundwater Gradient Calculations

**TABLE OF ELEVATIONS & COORDINATES
ON MONITORING WELLS**
SOMA ENVIRONMENTAL
3519 CASTRO VALLEY BLVD., CASTRO VALLEY

WELL ID #	NORTHING (FT.) / LATITUDE (D.M.S.)	EASTING (FT.) / LONGITUDE (D.M.S.)	ELEVATION (FT.)	DESCRIPTION
ESE-1	2079361.15	6106465.13	180.24	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.07112"	W 122° 04' 24.07899"	180.71	SET PUNCH NORTH SIDE RIM
			180.69	PAVEMENT NORTH SIDE
ESE-2	2079361.30	6106501.97	180.79	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.07873"	W 122° 04' 23.62071"	181.16	SET PUNCH NORTH SIDE RIM
			181.14	CONC. NORTH SIDE
ESE-5	2079381.46	6106387.63	178.80	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.25902"	W 122° 04' 25.04739"	179.07	FELT X ON NORTH SIDE RIM
			179.10	CONC. NORTH SIDE
MW-6	2079451.94	6106492.77	181.80	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.97323"	W 122° 04' 23.75412"	181.97	SET PUNCH NORTH SIDE RIM
			181.88	GROUND NORTH SIDE
MW-7	2079337.18	6106516.12	179.11	2" PVC, NOTVH N. SIDE
	N 37° 41' 41.84264"	W 122° 04' 23.43963"	179.55	SET PUNCH NORTH SIDE RIM
			179.49	CONC. NORTH SIDE
SOMA-1	2079370.39	6106506.79	180.95	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.16939"	W 122° 04' 23.56265"	181.25	SET PUNCH NORTH SIDE RIM
			181.22	CONC. NORTH SIDE
SOMA-2	2079297.44	6106567.02	178.99	2" PVC, NOTVH N. SIDE
	N 37° 41' 41.45825"	W 122° 04' 22.79809"	179.29	SET PUNCH NORTH SIDE RIM
			179.28	CONC. NORTH SIDE
SOMA-3	2079130.83	6106567.48	176.81	2" PVC, NOTVH N. SIDE
	N 37° 41' 39.81129"	W 122° 04' 22.75752"	177.18	SET PUNCH NORTH SIDE RIM
			177.12	PAVEMENT NORTH SIDE
SOMA-4	2079141.57	6106464.22	176.94	2" PVC, NOTVH N. SIDE
	N 37° 41' 39.9003"	W 122° 04' 24.04438"	177.43	SET PUNCH NORTH SIDE RIM
			177.44	PAVEMENT NORTH SIDE

**TABLE OF ELEVATIONS & COORDINATES
ON MONITORING WELLS**

SOMA ENVIRONMENTAL
3519 CASTRO VALLEY BLVD., CASTRO VALLEY

ADDITIONAL POINTS

PT#	NORTHING (FT.)	EASTING (FT.)	ELEVATION (FT.)	DESCRIPTION
320	2079386.87	6106408.85	N/A	BL. INTX
321	2079387.18	6106455.22	N/A	BL. INTX
331	2079351.06	6106409.27	N/A	BL<
318	2079384.55	6106369.10	N/A	DWY
329	2079106.74	6106368.58	N/A	DWY
330	2079148.74	6106368.66	N/A	DWY
317	2079424.72	6106369.39	N/A	DWY E-C
315	2079481.34	6106432.38	N/A	DWY PCC
310	2079415.57	6106624.48	N/A	DWY POC
311	2079423.23	6106606.56	N/A	DWY POC
312	2079447.91	6106542.76	N/A	DWY POC
313	2079461.36	6106504.01	N/A	DWY POC
314	2079472.67	6106468.07	N/A	DWY POC
316	2079466.76	6106389.18	N/A	HCRMP POC
319	2079237.38	6106368.78	N/A	TC

BENCH MARK: NGS Bench mark No.PID# HT0223

THE STATION IS LOCATED IN THE CITY OF HAYWARD AT THE RAILROAD CROSSING OF THE SOUTHERN PACIFIC RAIL-ROAD AND BLOSSOM WAY, IN THE TOP OF THE NORTHWEST CURB OF BLOSSOM WAY.

TO REACH THE STATION FROM THE JUNCTION OF U S HIGHWAY 880 ON WEST A STREET, GO SOUTHEAST ON WEST A STREET FOR 0.2 MILES TO A CROSSROAD, HATHAWAY AVE ON THE LEFT, SANTA CLARA STREET ON THE RIGHT. TURN LEFT, NORTH, ON HATHAWAY AVENUE AND CONTINUE FOR 0.7 MILES TO WEST BLOSSOM WAY. TURN RIGHT, NORTH, ON WEST BLOSSOM WAY AND CONTINUE FOR 0.25 MILES TO THE STATION ON THE LEFT, JUST PAST THE RAIL-ROAD TRACKS.

THE STATION IS 48.95 M (160.6 FT) NORTHEAST OF THE NORTHEAST RAIL, 7.01 M NORTHWEST OF THE CENTER OF BLOSSOM WAY, 0.24 M (0.8 FT) NORTH OF THE NORTH CORNER OF A STEEL GRATE IN THE STREET, 5.6 M (18.5 FT) SOUTHWEST OF A POWER POLE AND 0.12 M (0.4 FT) HIGHER THAN THE STREET.

Elevation =56.33 FEET NAVD88 Datum
ADJUSTED

HORIZONTAL CONTROL:

PID - HT0223

NORTHING =2,072,670.26 , EASTING = 6,095,650.79 FEET; EPOCH DATE = 1998.50

PID - HT 2583

Kier & Wright Engineers Surveyors, Inc.

6/21/2005
10:19 AM
3519 Castro Valley

1233 Quarry Lane, Suite 145, Pleasanton, CA 94566
Phone (925) 249-6555,
Fax (925) 249-6563

**TABLE OF ELEVATIONS & COORDINATES
ON MONITORING WELLS**

SOMA ENVIRONMENTAL
3519 CASTRO VALLEY BLVD., CASTRO VALLEY

NORTHING =2,082,510.30 , EASTING = 6,116,892.13 FEET; EPOCH DATE = 1991.35

Coordinate values are based on the California Coordinate System, Zone III NAD 83 Datum.

Ben Harrington PLS

Land Surveying & Mapping

2278 Larkey Lane, Walnut Creek, Ca. 94596 Phone (925)935-7228 Fax (925)935-5118
Cel (925)788-7359 E-Mail (ben5132@pacbell.net)

Soma Environmental Engineering
6620 Owens Dr
Suite A
Pleasanton Ca. 94588

Sept 04, 2009

Attn: Elena
Job # 2903

Ref: 3519 Castro Valley Blvd. Castro Valley Ca.

HORIZONTAL CONTROL, NAD 88:

Survey based previous survey dated 6/21/04 by Kier & Wright Surveyors on California
Coordinate System, Zone 3, NAD 83.

ESE-1 NOTCH IN TOP OF 2" PVC, NORTH 2,079,361.15 EAST 6,106,465.13 LAT.
N37°41'42.17112" W122°04'24.07899", NAVD 88, ELEV.180.24.

ESE-2 NOTCH IN TOP OF 2" PVC, NORTH 2,079,361.30 EAST 6,106,501.97, LAT.
N37°41'42.07873" W122°04'23.62071", NAVD 88, ELEV. 180.79.

GPS: TRIMBLE 5800, LEICA TCA 1800, 1" HORZ. & VERT.

EPOCH DATE 2007.00

OBSERVATION: EPOCH=180.

FIELD SURVEY: 9-04-09.

Ben Harrington
PLS 5132



NEW MONITORING WELL
 3519 CASTRO VALLEY BLVD.
 CASTRO VALLEY CA.

BEN HARRINGTON PLS
 2278 LARKEY LANE
 WALNUT CREEK CA 94597

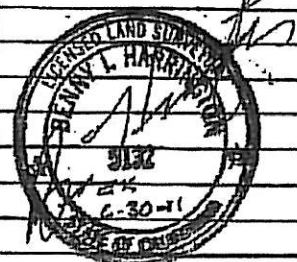
JOB # 2913
 DATE: 09/04/09

P.2

222222222

Sep 28 2009 11:44AM Harrington Surveys inc.

PT#	NORTH	EAST	ELEV	DESC.	LATITUDE N.DMS	LONGITUDE W.DMS	LAT.N. DEC. DEG.	LONG.W.DEC.DEG.
21	2079379.07	6106486.97	180.65	SET X IN CONC.	N37°41'42.25136"	W122°04'23.62071"	N37°.695069822"	W122°.073227975"
2	2079361.30	6106501.97	180.79	ESE-2 2" PVC	N37°41'42.25902"	W122°04'28.81106"	N37°.695071950"	W122°.074669739"
1	2079361.15	6106465.13	180.24	ESE-1 2" PVC	N37°41'42.17112"	W122°04'24.07899"	N37°.695047533"	W122°.073355275"
22	2079365.14	6106472.19	180.31	SOMA-5 2" PVC	N37°41'42.11178"	W122°04'23.99204"	N37°.695031050"	W122°.073331122"
23	2079365.35	6106472.21	180.65	SPMA-5 PUNCH	N37°41'42.11384"	W122°04'23.99185"	N37°.695031622"	W122°.073331069"
24	2079364.24	6106472.19	180.66	SOMA-5 CONC.	N37°41'42.39919"	W122°04'23.99187"	N37°.695110886"	W122°.073331075"



DATE: 08/30/2010

JOB# 10022

**TABLE OF ELEVATIONS & COORDINATES
ON MONITORING WELLS**

SOMA ENVIRONMENTAL ENGINEERING
3519 CASTRO VALLEY
CASTRO VALLEY, CA

WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION
ESE-1R	2079361.109	6106465.242	180.20	2" PVC NOTCH NORTH SIDE
	37.695019649N	122.073354886W	180.72	SET PUNCH NORTH SIDE RIM
			180.69	CONCRETE NORTH SIDE
ESE-2R	2079361.241	6106502.129	180.70	2" PVC NOTCH NORTH SIDE
	37.695021715N	122.073227422W	181.20	SET PUNCH NORTH SIDE RIM
			181.16	CONCRETE NORTH SIDE
ESE-5R	2079381.529	6106387.748	178.64	2" PVC NOTCH NORTH SIDE
	37.695072144N	122.073623872W	179.14	SET PUNCH NORTH SIDE RIM
			179.12	PAVEMENT NORTH SIDE
MW-6R	2079451.45	6106492.729	181.34	2" PVC NOTCH NORTH SIDE
	37.695268993N	122.073265147W	182.10	SET PUNCH NORTH SIDE RIM
			182.01	GROUND NORTH SIDE
SOMA-7	2079374.578	6106387.784	178.54	2" PVC NOTCH NORTH SIDE
	37.695053058N	122.073623344W	179.09	SET PUNCH NORTH SIDE RIM
			179.06	PAVEMENT NORTH SIDE
MW-7R	2079337.204	6106516.216	179.14	2" PVC NOTCH NORTH SIDE
	37.694956360N	122.073177344W	179.71	SET PUNCH NORTH SIDE RIM
			179.70	PAVEMENT NORTH SIDE
SOMA-8	2079453.231	6106488.22	181.57	2" PVC NOTCH NORTH SIDE
	37.695273676N	122.073280832W	182.03	SET PUNCH NORTH SIDE RIM
			181.92	GROUND NORTH SIDE

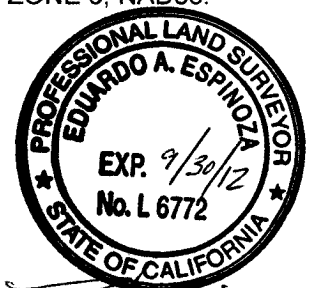
HORIZONTAL AND VERTICAL CONTROL

SURVEY BASED ON PREVIOUS SURVEY BY KIER & WRIGHT ENGINEERS SURVEYORS, INC. DATED:
6/21/2005

COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD83.
ELEVATIONS ARE NAVD 88 DATUM.

SOMA-1, NOTCH
NORTHING 2,079,370.39, EASTING 6,106,506.79
ELEVATION 180.95

SOMA-2, NOTCH
NORTHING 2,079,297.44, EASTING 6,106,567.02
ELEVATION 178.99



Eduardo A. Espinoza
Land Surveying and Mapping
1374 Garland Avenue, Clovis, CA 93612
Phone (559) 906-3554 Fax (559) 292-0560
email: edgis@aol.com

TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL ENGINEERING
3519 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CA

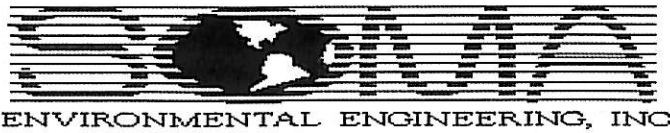
WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION
OB-1	2079384.618	6106391.986	178.698	2" PVC NOTCH NORTH SIDE
	37.695080822 N	122.073609406 W	179.254	PUNCH NORTH SIDE RIM
			179.247	PAVEMENT NORTH SIDE
OB-2	2079378.94	6106477.954	180.227	2" PVC NOTCH NORTH SIDE
	37.695069200 N	122.073311993 W	180.616	PUNCH NORTH SIDE RIM
			180.595	PAVEMENT NORTH SIDE

HORIZONTAL AND VERTICAL CONTROL
 SURVEY BASED ON PREVIOUS SURVEY BY EDGIS LAND SURVEYING DATED: 8/30/2010
 COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD83.
 ELEVATIONS ARE NAVD 88 DATUM.

SOMA-1, NOTCH
 NORTHING 2,079,370.39, EASTING 6,106,506.79, ELEVATION 180.95

SOMA-8, PUNCH
 NORTHING 2,079,453.45, EASTING 6,106,488.28, ELEVATION 181.65

EQUIPMENT USED: TRIMBLE S6, TOPCON GT-3S



Well No.: ESE-1R
 Casing Diameter: 2 inches
 Depth of Well: 24.53 feet
 Top of Casing Elevation: 180.20 feet
 Depth to Groundwater: 11.62 feet
 Groundwater Elevation: 168.58 feet
 Water Column Height: 12.91 feet
 Purged Volume: 6 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump
 Color: No Yes Describe: Cloudy/Gray
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:09	Started purging well			
12:10	2	6.72	19.3	1100
12:11	4	6.74	19.4	1108
12:12	6	6.75	19.5	1080
12:17	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: ESE-2R
 Casing Diameter: 2 inches
 Depth of Well: 27.54 feet
 Top of Casing Elevation: 180.70 feet
 Depth to Groundwater: 12.00 feet
 Groundwater Elevation: 168.70 feet
 Water Column Height: 15.54 feet
 Purged Volume: 8 gallons

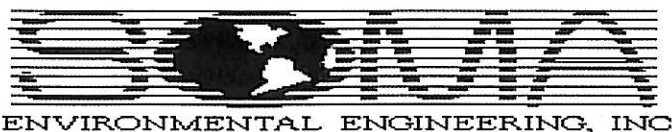
Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µS/cm)
14:39	Started purging well			
14:40	2	6.42	19.20	770
14:41	4	6.50	19.4	792
14:42	6	6.64	19.5	795
14:43	8	6.66	19.6	796
14:48	Sampled			



Well No.: ESE-5R
 Casing Diameter: 2 inches
 Depth of Well: 23.54 feet
 Top of Casing Elevation: 178.65 feet
 Depth to Groundwater: 9.55 feet
 Groundwater Elevation: 169.09 feet
 Water Column Height: 13.99 feet
 Purged Volume: 6 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump
 Color: No Yes Describe: cloudy
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
10:20	Started purging well			
10:21	2	7.12	20.0	904
10:22	4	7.02	20.4	936
10:23	6	6.98	20.5	1017
10:28	sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-6R Project No.: 2761
 Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
 Depth of Well: 27.57 feet Castro Valley, CA
 Top of Casing Elevation: 181.34 feet Date: January 29, 2014
 Depth to Groundwater: 11.01 feet Sampler: Lizzie Hightower
 Groundwater Elevation: 170.33 feet
 Water Column Height: 16.56 feet
 Purged Volume: 8 gallons

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump
 Color: No Yes Describe: cloudy
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
13:33	Started purging well			
13:34	2	6.41	19.4	710
13:35	4	6.56	19.7	713
13:36	6	6.62	19.8	712
13:37	8	6.64	19.9	714
13:42	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-7R Project No.: 2761
 Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
 Depth of Well: 29.59 feet Castro Valley, CA
 Top of Casing Elevation: 179.14 feet Date: January 29, 2014
 Depth to Groundwater: 10.70 feet Sampler: Lizzie Hightower
 Groundwater Elevation: 168.44 feet
 Water Column Height: 18.89 feet
 Purged Volume: 9 gallons

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump
 Color: No Yes Describe: Cloudy
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11:48	Started purging well			
11:49	3	6.24	19.2	703
11:50	6	6.28	19.2	707
11:51	9	6.31	19.1	708
11:56	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-1
 Casing Diameter: 2 inches
 Depth of Well: 29.74 feet
 Top of Casing Elevation: 180.95 feet
 Depth to Groundwater: 12.15 feet
 Groundwater Elevation: 168.80 feet
 Water Column Height: 17.59 feet
 Purged Volume: 8 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: _____

Sheen: No Yes Describe: _____

Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
15:31	Started purging well			
15:32	2	6.46	19.1	770
15:33	4	6.55	19.3	777
15:34	6	6.62	19.4	803
15:35	8	6.66	19.6	828
15:40	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-2
 Casing Diameter: 2 inches
 Depth of Well: 14.70 feet
 Top of Casing Elevation: 178.99 feet
 Depth to Groundwater: 11.36 feet
 Groundwater Elevation: 167.63 feet
 Water Column Height: 3.34 feet
 Purged Volume: 1.5 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy/Brown

Sheen: No Yes Describe: _____

Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:12	Started purging well			
12:13	0.5	6.63	18.9	661
12:15	1	6.73	19.1	663
12:17	1.5	6.70	19.2	665
12:22	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-3
 Casing Diameter: 2 inches
 Depth of Well: 14.70 feet
 Top of Casing Elevation: 176.81 feet
 Depth to Groundwater: 10.69 feet
 Groundwater Elevation: 166.12 feet
 Water Column Height: 4.01 feet
 Purged Volume: 2 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy / Orange

Sheen: No Yes Describe: _____

Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:31	Started purging well			
12:33	1	6.57	19.9	843
12:36	1.5	6.67	20.4	837
12:38	2	6.67	20.5	838
12:43	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-4
 Casing Diameter: 2 inches
 Depth of Well: 226.5 feet
 Top of Casing Elevation: 176.94 feet
 Depth to Groundwater: 10.35 feet
 Groundwater Elevation: 166.59 feet
 Water Column Height: 12.30 feet
 Purged Volume: 6 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump
 Color: No Yes Describe: _____
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:53	Started purging well			
12:54	2	6.47	21.0	613
12:55	4	6.50	21.7	621
12:56	6	6.53	22.0	623
13:01	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-5
 Casing Diameter: 2 inches
 Depth of Well: 14.87 feet
 Top of Casing Elevation: 180.31 feet
 Depth to Groundwater: 11.67 feet
 Groundwater Elevation: 168.64 feet
 Water Column Height: 3.20 feet
 Purged Volume: 1.5 gallons

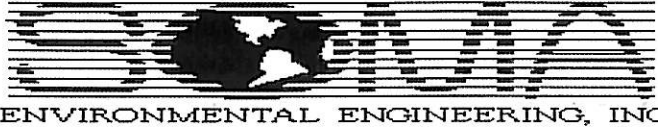
Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: cloudy/orange
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:32	started purging well			
12:33	0.5	6.79	18.8	1529
12:35	1	6.84	18.6	1535
12:37	1.5	6.87	18.5	1541
12:42	sampled			



Well No.: SOMA-7
 Casing Diameter: 2 inches
 Depth of Well: 14.89 feet
 Top of Casing Elevation: 178.54 feet
 Depth to Groundwater: 9.44 feet
 Groundwater Elevation: 169.10 feet
 Water Column Height: 5.45 feet
 Purged Volume: 2.5 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy/Gray
 Sheen: No Yes Describe: Rainbow Sheen
 Odor: No Yes Describe: Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
09:56	Started purging well			
09:59	1	6.44	19.5	1108
10:02	2	6.73	19.6	1085
10:04	2.5	6.76	19.6	1096
10:09	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-8
 Casing Diameter: 2 inches
 Depth of Well: 14.89 feet
 Top of Casing Elevation: 181.57 feet
 Depth to Groundwater: 10.96 feet
 Groundwater Elevation: 170.61 feet
 Water Column Height: 3.93 feet
 Purged Volume: 2 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 29, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy/Orange
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
13:56	started purging well			
13:58	1	6.86	18.4	763
14:00	1.5	6.86	18.4	756
14:02	2	6.88	18.5	766
14:07	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: OB-1
 Casing Diameter: 2 inches
 Depth of Well: 15.59 feet
 Top of Casing Elevation: 178.70 feet
 Depth to Groundwater: 9.42 feet
 Groundwater Elevation: 169.28 feet
 Water Column Height: 6.17 feet
 Purged Volume: 3 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy/Gray
 Sheen: No Yes Describe: _____
 Odor: No Yes Describe: Slight Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
10:47	Started purging well			
10:49	1	6.54	19.4	1088
10:52	2	6.68	19.6	1094
10:56	3	6.70	19.7	1089
11:01	Sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: OB-2
 Casing Diameter: 2 inches
 Depth of Well: 16.49 feet
 Top of Casing Elevation: 180.23 feet
 Depth to Groundwater: 11.21 feet
 Groundwater Elevation: 169.02 feet
 Water Column Height: 5.28 feet
 Purged Volume: 2.5 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: January 30, 2014
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: No Yes Describe: Cloudy/Gray
 Sheen: No Yes Describe: Rainbow Sheen
 Odor: No Yes Describe: Petro Odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
13:05	Started purging well			
13:07	1	6.61	18.6	1052
13:11	2	6.66	19.2	1075
13:14	2.5	6.65	19.3	1061
13:19	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

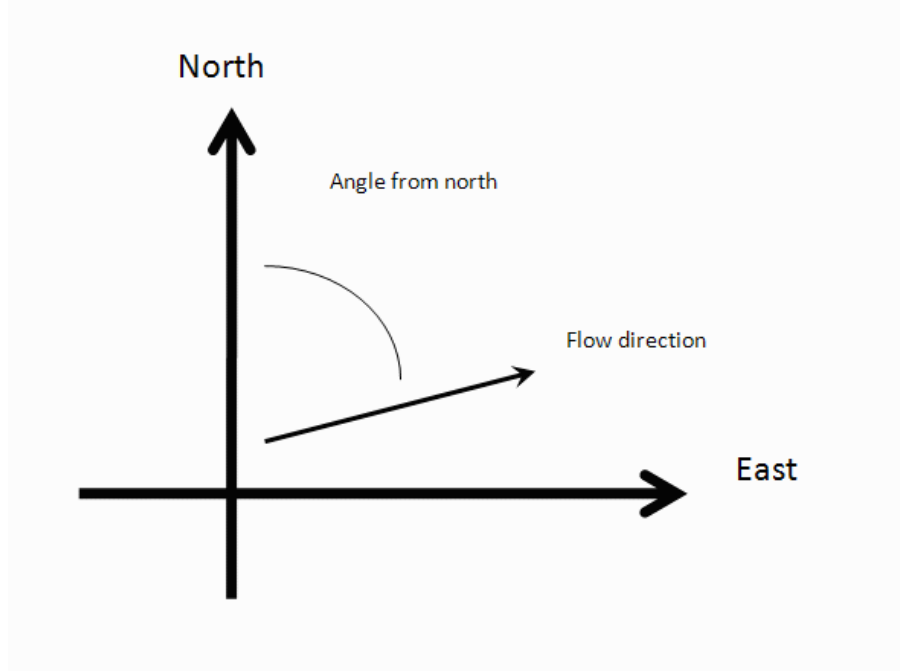
$$\begin{aligned}
 a x_1 + b y_1 + c &= h_1 \\
 a x_2 + b y_2 + c &= h_2 \\
 a x_3 + b y_3 + c &= h_3 \\
 &\dots \\
 a x_{30} + b y_{30} + c &= h_{30}
 \end{aligned}$$

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 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 3519 Castro Valley Blvd

Date 1/29/2014 Current Date

Calculation basis Head

Coordinates ft

I.D.	x-coordinate	y-coordinate	head	ft
1) SOMA-2	337.5997649	211.223775	167.63	
2) SOMA-3	339.7877931	53.66065088	166.12	
3) SOMA-5	245.7025814	289.2758782	168.64	
4) SOMA-7	160.3694824	298.0293851	169.10	
5) SOMA-8	256.6427223	378.9993239	170.61	
6) OB-1	165.0323759	308.9034515	169.28	
7) OB-2	248.9533418	301.9534748	169.02	
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	7
Max. Difference Between Head Values	1.369
Gradient Magnitude (i)	0.01318
Flow direction as degrees from North (positive y axis)	179.3
Coefficient of Determination (R^2)	0.959

WCMS

Last updated on 1/10/2013



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

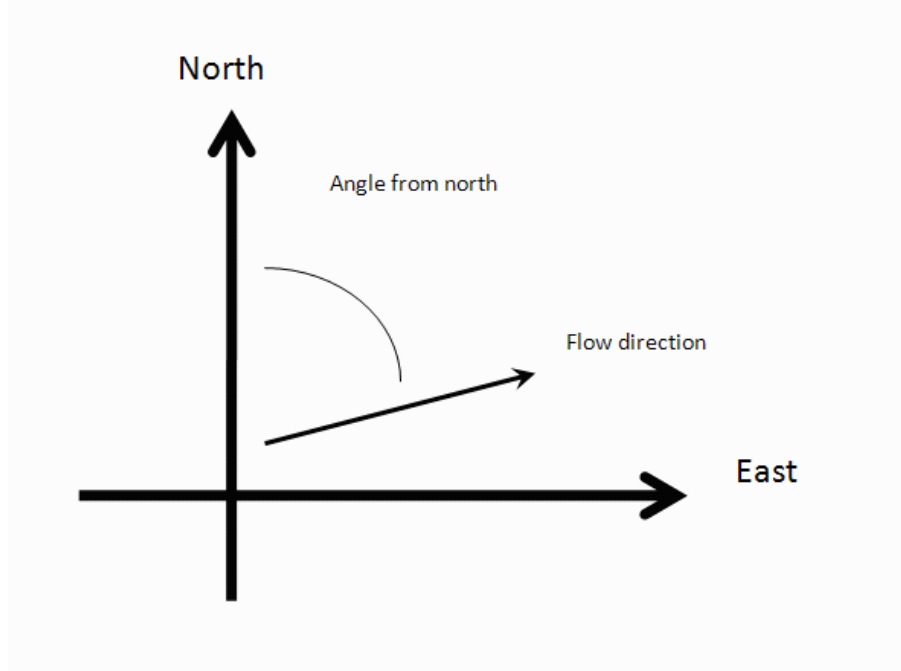
$$\begin{aligned}
 a x_1 + b y_1 + c &= h_1 \\
 a x_2 + b y_2 + c &= h_2 \\
 a x_3 + b y_3 + c &= h_3 \\
 &\dots \\
 a x_{30} + b y_{30} + c &= h_{30}
 \end{aligned}$$

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 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: 3519 Castro Valley Blvd

Date: 1/29/2014 | Current Date

Calculation basis: Head

Coordinates: ft

I.D.	x-coordinate	y-coordinate	head	ft
1) ESE-1R	238.4091541	283.4402069	168.58	
2) ESE-2R	273.417605	284.8991247	168.7	
3) ESE-5R	160.3694824	304.5945152	169.09	
4) MW-6R	261.7481214	378.269865	170.33	
5) MW-7R	288.0044595	261.5564397	168.44	
6) SOMA-1	280.7110322	294.3820905	168.80	
7) SOMA-4	239.1384968	64.6025345	166.59	
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	7
Max. Difference Between Head Values	1.140
Gradient Magnitude (i)	0.01119
Flow direction as degrees from North (positive y axis)	175.5
Coefficient of Determination (R^2)	0.951

WCMS

Last updated on 1/10/2013

Appendix C

Chain of Custody Form and Laboratory Report
for the
First Semi-Annual 2014 Monitoring Event



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

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

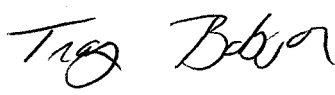
Laboratory Job Number 252783
ANALYTICAL REPORT

SOMA Environmental Engineering Inc.
6620 Owens Dr.
Pleasanton, CA 94588

Project : 2761
Location : 3519 Castro Valley Blvd.
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
ESE-1R	252783-001
ESE-2R	252783-002
ESE-5R	252783-003
MW-6R	252783-004
MW-7R	252783-005
SOMA-1	252783-006
SOMA-2	252783-007
SOMA-3	252783-008
SOMA-4	252783-009
SOMA-5	252783-010
SOMA-7	252783-011
SOMA-8	252783-012
OB-1	252783-013
OB-2	252783-014

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 NELAP 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
tracy.babjar@ctberk.com
(510) 204-2226

Date: 02/10/2014

CASE NARRATIVE

Laboratory number: 252783
Client: SOMA Environmental Engineering Inc.
Project: 2761
Location: 3519 Castro Valley Blvd.
Request Date: 01/31/14
Samples Received: 01/31/14

This data package contains sample and QC results for fourteen water samples, requested for the above referenced project on 01/31/14. The samples were received cold and intact.

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

High recovery was observed for MTBE in the BSD for batch 207653; the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. High recoveries were observed for a number of analytes in the MS/MSD for batch 207690; the parent sample was not a project sample, the BS/BSD were within limits, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. High surrogate recoveries were observed for 1,2-dichloroethane-d4 in a number of samples. OB-2 (lab # 252783-014) was analyzed with more than 1 mL of headspace in the VOA vial. 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

Analyses

C&T LOGIN # 252783

Project No: 2761

Sampler: Lizzie Hightower

Project Name: 3519 Castro Valley Blvd., Castro Valley **Company:** SOMA Environmental

Report To: Joyce Bobek

Turnaround Time: Standard

Telephone: 925-734-6400

Fax: 925-734-6401

Lab No.	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Preservative				
				Soil	Water	Waste		HCL	H ₂ SO ₄	HNO ₃	ICE	
1	ESE-1R	1/30/14	12:17	*			4-VOAs	*			*	
2	ESE-2R	1/29/14	14:48	*			4-VOAs	*			*	
3	ESE-5R	1/30/14	10:28	*			4-VOAs	*			*	
4	MW-6R	1/29/14	13:42	*			4-VOAs	*			*	
5	MW-7R	1/29/14	11:56	*			4-VOAs	*			*	
6	SOMA-1	1/29/14	15:40	*			4-VOAs	*			*	
7	SOMA-2	1/29/14	12:22	*			4-VOAs	*			*	
8	SOMA-3	1/29/14	12:43	*			4-VOAs	*			*	
9	SOMA-4	1/29/14	13:01	*			4-VOAs	*			*	
10	SOMA-5	1/30/14	12:42	*			4-VOAs	*			*	
11	SOMA-7	1/30/14	10:09	*			4-VOAs	*			*	
12	SOMA-8	1/29/14	14:07	*			4-VOAs	*			*	
13	OB-1	1/30/14	11:01	*			4-VOAs	*			*	
14	OB-2	1/30/14	13:19	*			4-VOAs	*			*	

TPHg, BTEX, MIBE 8260B	Gasoline Oxygenates & Lead Scavengers	Ethanol																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
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*	*	*																		
*	*	*																		

Notes: EDF OUTPUT REQUIRED

RELINQUISHED BY:		RECEIVED BY:	
	1/31/14 12:33 DATE/TIME		01/31/14 1233 DATE/TIME
	01/31/14 @ 1720 DATE/TIME		1/31/14 @ 1720 DATE/TIME
	DATE/TIME		DATE/TIME

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 252733 Date Received 11/3/14 Number of coolers 1
 Client SOMA Project 2761

Date Opened 11/3 By (print) Mc (sign) [Signature]
 Date Logged in 11/3 By (print) [Signature] (sign) [Signature]

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 N/A
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) 5.7
 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

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: ESE-1R	Diln Fac: 1.000
Lab ID: 252783-001	Sampled: 01/30/14
Matrix: Water	Received: 01/31/14
Units: ug/L	

Analyte	Result	RL	Batch#	Analyzed
Gasoline C7-C12	1,800	50	207653	02/03/14
tert-Butyl Alcohol (TBA)	120	10	207653	02/03/14
Isopropyl Ether (DIPE)	ND	0.50	207653	02/03/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	207653	02/03/14
Methyl tert-Amyl Ether (TAME)	1.7	0.50	207653	02/03/14
Ethanol	ND	1,000	207653	02/03/14
MTBE	18	0.50	207733	02/05/14
1,2-Dichloroethane	ND	0.50	207653	02/03/14
Benzene	14	0.50	207653	02/03/14
Toluene	0.91	0.50	207653	02/03/14
1,2-Dibromoethane	ND	0.50	207653	02/03/14
Ethylbenzene	3.2	0.50	207653	02/03/14
m,p-Xylenes	5.2	0.50	207653	02/03/14
o-Xylene	1.1	0.50	207653	02/03/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	92	77-136	207653	02/03/14
1,2-Dichloroethane-d4	126	75-139	207653	02/03/14
Toluene-d8	95	80-120	207653	02/03/14
Bromofluorobenzene	93	80-120	207653	02/03/14

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: ESE-2R	Batch#: 207690
Lab ID: 252783-002	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/04/14
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	0.89	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	97	77-136
1,2-Dichloroethane-d4	135	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Field ID:	ESE-5R	Batch#:	207690
Lab ID:	252783-003	Sampled:	01/30/14
Matrix:	Water	Received:	01/31/14
Units:	ug/L	Analyzed:	02/04/14
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	6.8	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	100	77-136
1,2-Dichloroethane-d4	141 *	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: MW-6R	Batch#: 207653
Lab ID: 252783-004	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/03/14
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	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	92	77-136
1,2-Dichloroethane-d4	127	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: MW-7R	Batch#: 207690
Lab ID: 252783-005	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/04/14
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	1.0	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	97	77-136
1,2-Dichloroethane-d4	140 *	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-1	Batch#: 207690
Lab ID: 252783-006	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/04/14
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	1.7	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	97	77-136
1,2-Dichloroethane-d4	137	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-2	Batch#: 207653
Lab ID: 252783-007	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/03/14
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	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	96	77-136
1,2-Dichloroethane-d4	139	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-3	Batch#: 207690
Lab ID: 252783-008	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/04/14
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	0.52	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	100	77-136
1,2-Dichloroethane-d4	145 *	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-4	Batch#: 207690
Lab ID: 252783-009	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/04/14
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	0.74	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	99	77-136
1,2-Dichloroethane-d4	151 *	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Field ID:	SOMA-5	Diln Fac:	1.000
Lab ID:	252783-010	Sampled:	01/30/14
Matrix:	Water	Received:	01/31/14
Units:	ug/L		

Analyte	Result	RL	Batch#	Analyzed
Gasoline C7-C12	ND	50	207733	02/05/14
tert-Butyl Alcohol (TBA)	ND	10	207775	02/06/14
Isopropyl Ether (DIPE)	ND	0.50	207775	02/06/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	207775	02/06/14
Methyl tert-Amyl Ether (TAME)	ND	0.50	207775	02/06/14
Ethanol	ND	1,000	207775	02/06/14
MTBE	10	0.50	207775	02/06/14
1,2-Dichloroethane	ND	0.50	207775	02/06/14
Benzene	2.4	0.50	207775	02/06/14
Toluene	ND	0.50	207775	02/06/14
1,2-Dibromoethane	ND	0.50	207775	02/06/14
Ethylbenzene	ND	0.50	207775	02/06/14
m,p-Xylenes	ND	0.50	207775	02/06/14
o-Xylene	ND	0.50	207775	02/06/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	108	77-136	207775	02/06/14
1,2-Dichloroethane-d4	110	75-139	207775	02/06/14
Toluene-d8	103	80-120	207775	02/06/14
Bromofluorobenzene	107	80-120	207775	02/06/14

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-7	Batch#: 207783
Lab ID: 252783-011	Sampled: 01/30/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/06/14
Diln Fac: 4.000	

Analyte	Result	RL
Gasoline C7-C12	2,400	200
tert-Butyl Alcohol (TBA)	ND	40
Isopropyl Ether (DIPE)	ND	2.0
Ethyl tert-Butyl Ether (ETBE)	ND	2.0
Methyl tert-Amyl Ether (TAME)	ND	2.0
Ethanol	ND	4,000
MTBE	4.4	2.0
1,2-Dichloroethane	ND	2.0
Benzene	270	2.0
Toluene	5.1	2.0
1,2-Dibromoethane	ND	2.0
Ethylbenzene	21	2.0
m,p-Xylenes	4.3	2.0
o-Xylene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	92	77-136
1,2-Dichloroethane-d4	121	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: SOMA-8	Batch#: 207733
Lab ID: 252783-012	Sampled: 01/29/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/05/14
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	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	98	77-136
1,2-Dichloroethane-d4	149 *	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: OB-1	Diln Fac: 1.000
Lab ID: 252783-013	Sampled: 01/30/14
Matrix: Water	Received: 01/31/14
Units: ug/L	

Analyte	Result	RL	Batch# Analyzed
Gasoline C7-C12	1,600	50	207733 02/05/14
tert-Butyl Alcohol (TBA)	10	10	207775 02/06/14
Isopropyl Ether (DIPE)	ND	0.50	207775 02/06/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	207775 02/06/14
Methyl tert-Amyl Ether (TAME)	ND	0.50	207775 02/06/14
Ethanol	ND	1,000	207775 02/06/14
MTBE	17	0.50	207775 02/06/14
1,2-Dichloroethane	ND	0.50	207775 02/06/14
Benzene	1.1	0.50	207775 02/06/14
Toluene	ND	0.50	207775 02/06/14
1,2-Dibromoethane	ND	0.50	207775 02/06/14
Ethylbenzene	ND	0.50	207775 02/06/14
m,p-Xylenes	1.3	0.50	207775 02/06/14
o-Xylene	ND	0.50	207775 02/06/14

Surrogate	%REC	Limits	Batch# Analyzed
Dibromofluoromethane	106	77-136	207775 02/06/14
1,2-Dichloroethane-d4	110	75-139	207775 02/06/14
Toluene-d8	103	80-120	207775 02/06/14
Bromofluorobenzene	107	80-120	207775 02/06/14

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 252783	Location: 3519 Castro Valley Blvd.
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2761	Analysis: EPA 8260B
Field ID: OB-2	Batch#: 207783
Lab ID: 252783-014	Sampled: 01/30/14
Matrix: Water	Received: 01/31/14
Units: ug/L	Analyzed: 02/06/14

Analyte	Result	RL	Diln Fac
Gasoline C7-C12	22,000	500	10.00
tert-Butyl Alcohol (TBA)	ND	100	10.00
Isopropyl Ether (DIPE)	ND	5.0	10.00
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	10.00
Methyl tert-Amyl Ether (TAME)	ND	5.0	10.00
Ethanol	ND	10,000	10.00
MTBE	130	5.0	10.00
1,2-Dichloroethane	ND	5.0	10.00
Benzene	750	5.0	10.00
Toluene	5.6	5.0	10.00
1,2-Dibromoethane	ND	5.0	10.00
Ethylbenzene	1,300	10	20.00
m,p-Xylenes	1,100	5.0	10.00
o-Xylene	44	5.0	10.00

Surrogate	%REC	Limits	Diln Fac
Dibromofluoromethane	91	77-136	10.00
1,2-Dichloroethane-d4	121	75-139	10.00
Toluene-d8	98	80-120	10.00
Bromofluorobenzene	96	80-120	10.00

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC726341	Batch#:	207653
Matrix:	Water	Analyzed:	02/03/14
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
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	94	77-136
1,2-Dichloroethane-d4	130	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207653
Units:	ug/L	Analyzed:	02/03/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726342

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	120.4	120	37-151
Isopropyl Ether (DIPE)	20.00	20.10	100	56-124
Ethyl tert-Butyl Ether (ETBE)	20.00	22.61	113	61-122
Methyl tert-Amyl Ether (TAME)	20.00	23.06	115	65-120
MTBE	20.00	23.91	120	64-121
1,2-Dichloroethane	20.00	25.92	130	77-137
Benzene	20.00	21.60	108	80-124
Toluene	20.00	18.67	93	80-122
1,2-Dibromoethane	20.00	20.33	102	80-120
Ethylbenzene	20.00	20.81	104	80-124
m,p-Xylenes	40.00	42.72	107	80-122
o-Xylene	20.00	19.76	99	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-136
1,2-Dichloroethane-d4	125	75-139
Toluene-d8	89	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC726343

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	128.5	129	37-151	7	30
Isopropyl Ether (DIPE)	20.00	19.20	96	56-124	5	20
Ethyl tert-Butyl Ether (ETBE)	20.00	22.51	113	61-122	0	22
Methyl tert-Amyl Ether (TAME)	20.00	21.72	109	65-120	6	22
MTBE	20.00	24.40	122 *	64-121	2	20
1,2-Dichloroethane	20.00	25.32	127	77-137	2	20
Benzene	20.00	20.36	102	80-124	6	20
Toluene	20.00	18.99	95	80-122	2	20
1,2-Dibromoethane	20.00	19.99	100	80-120	2	20
Ethylbenzene	20.00	20.60	103	80-124	1	20
m,p-Xylenes	40.00	41.87	105	80-122	2	20
o-Xylene	20.00	19.89	99	77-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	122	75-139
Toluene-d8	87	80-120
Bromofluorobenzene	91	80-120

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207653
Units:	ug/L	Analyzed:	02/03/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726344

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	796.8	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	77-136
1,2-Dichloroethane-d4	122	75-139
Toluene-d8	92	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC726345

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	804.4	101	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	121	75-139
Toluene-d8	89	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC726524	Batch#:	207690
Matrix:	Water	Analyzed:	02/04/14
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
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	95	77-136
1,2-Dichloroethane-d4	132	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207690
Units:	ug/L	Analyzed:	02/04/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726525

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	104.2	104	37-151
Isopropyl Ether (DIPE)	20.00	16.64	83	56-124
Ethyl tert-Butyl Ether (ETBE)	20.00	19.00	95	61-122
Methyl tert-Amyl Ether (TAME)	20.00	21.13	106	65-120
MTBE	20.00	20.19	101	64-121
1,2-Dichloroethane	20.00	24.59	123	77-137
Benzene	20.00	19.20	96	80-124
Toluene	20.00	20.03	100	80-122
1,2-Dibromoethane	20.00	21.05	105	80-120
Ethylbenzene	20.00	22.20	111	80-124
m,p-Xylenes	40.00	45.46	114	80-122
o-Xylene	20.00	20.78	104	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	133	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC726526

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	101.3	101	37-151	3	30
Isopropyl Ether (DIPE)	20.00	16.68	83	56-124	0	20
Ethyl tert-Butyl Ether (ETBE)	20.00	19.50	97	61-122	3	22
Methyl tert-Amyl Ether (TAME)	20.00	21.82	109	65-120	3	22
MTBE	20.00	20.29	101	64-121	0	20
1,2-Dichloroethane	20.00	24.46	122	77-137	0	20
Benzene	20.00	20.22	101	80-124	5	20
Toluene	20.00	21.25	106	80-122	6	20
1,2-Dibromoethane	20.00	21.97	110	80-120	4	20
Ethylbenzene	20.00	22.76	114	80-124	2	20
m,p-Xylenes	40.00	46.58	116	80-122	2	20
o-Xylene	20.00	21.91	110	77-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	135	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207690
Units:	ug/L	Analyzed:	02/04/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726527

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	750.0	823.7	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	77-136
1,2-Dichloroethane-d4	134	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	96	80-120

Type: BSD Lab ID: QC726528

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	375.0	367.8	98	80-120	11	20

Surrogate	%REC	Limits
Dibromofluoromethane	93	77-136
1,2-Dichloroethane-d4	128	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC726707	Batch#:	207733
Matrix:	Water	Analyzed:	02/05/14
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
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	94	77-136
1,2-Dichloroethane-d4	136	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207733
Units:	ug/L	Analyzed:	02/05/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726708

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	96.25	86	37-151
Isopropyl Ether (DIPE)	22.50	17.02	76	56-124
Ethyl tert-Butyl Ether (ETBE)	22.50	20.10	89	61-122
Methyl tert-Amyl Ether (TAME)	22.50	23.25	103	65-120
MTBE	22.50	21.65	96	64-121
1,2-Dichloroethane	22.50	28.60	127	77-137
Benzene	22.50	22.52	100	80-124
Toluene	22.50	23.26	103	80-122
1,2-Dibromoethane	22.50	23.37	104	80-120
Ethylbenzene	22.50	25.13	112	80-124
m,p-Xylenes	45.00	49.73	111	80-122
o-Xylene	22.50	23.48	104	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	77-136
1,2-Dichloroethane-d4	138	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC726709

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	123.9	110	37-151	25	30
Isopropyl Ether (DIPE)	22.50	17.64	78	56-124	4	20
Ethyl tert-Butyl Ether (ETBE)	22.50	20.60	92	61-122	2	22
Methyl tert-Amyl Ether (TAME)	22.50	23.11	103	65-120	1	22
MTBE	22.50	22.30	99	64-121	3	20
1,2-Dichloroethane	22.50	27.78	123	77-137	3	20
Benzene	22.50	21.02	93	80-124	7	20
Toluene	22.50	21.84	97	80-122	6	20
1,2-Dibromoethane	22.50	23.68	105	80-120	1	20
Ethylbenzene	22.50	24.41	108	80-124	3	20
m,p-Xylenes	45.00	48.38	108	80-122	3	20
o-Xylene	22.50	23.10	103	77-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	138	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207733
Units:	ug/L	Analyzed:	02/05/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726710

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	900.0	967.6	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	131	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC726711

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	900.0	937.4	104	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	93	77-136
1,2-Dichloroethane-d4	127	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207775
Units:	ug/L	Analyzed:	02/06/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726863

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	119.6	96	37-151
Isopropyl Ether (DIPE)	25.00	28.65	115	56-124
Ethyl tert-Butyl Ether (ETBE)	25.00	27.33	109	61-122
Methyl tert-Amyl Ether (TAME)	25.00	24.92	100	65-120
MTBE	25.00	25.85	103	64-121
1,2-Dichloroethane	25.00	27.94	112	77-137
Benzene	25.00	26.79	107	80-124
Toluene	25.00	27.75	111	80-122
1,2-Dibromoethane	25.00	25.68	103	80-120
Ethylbenzene	25.00	28.10	112	80-124
m,p-Xylenes	50.00	53.82	108	80-122
o-Xylene	25.00	25.31	101	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-136
1,2-Dichloroethane-d4	105	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC726864

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	104.3	83	37-151	14	30
Isopropyl Ether (DIPE)	25.00	26.13	105	56-124	9	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.73	99	61-122	10	22
Methyl tert-Amyl Ether (TAME)	25.00	23.08	92	65-120	8	22
MTBE	25.00	23.44	94	64-121	10	20
1,2-Dichloroethane	25.00	26.12	104	77-137	7	20
Benzene	25.00	25.25	101	80-124	6	20
Toluene	25.00	26.20	105	80-122	6	20
1,2-Dibromoethane	25.00	23.94	96	80-120	7	20
Ethylbenzene	25.00	26.74	107	80-124	5	20
m,p-Xylenes	50.00	51.51	103	80-122	4	20
o-Xylene	25.00	24.37	97	77-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	103	75-139
Toluene-d8	104	80-120
Bromofluorobenzene	105	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC726865	Batch#:	207775
Matrix:	Water	Analyzed:	02/06/14
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	110	77-136
1,2-Dichloroethane-d4	112	75-139
Toluene-d8	104	80-120
Bromofluorobenzene	109	80-120

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	207690
MSS Lab ID:	252921-003	Sampled:	02/04/14
Matrix:	Water	Received:	02/04/14
Units:	ug/L	Analyzed:	02/07/14
Diln Fac:	1.000		

Type: MS Lab ID: QC726866

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<1.458	62.50	53.69	86	38-150
Isopropyl Ether (DIPE)	<0.1000	12.50	10.69	86	62-120
Ethyl tert-Butyl Ether (ETBE)	<0.1000	12.50	11.83	95	64-120
Methyl tert-Amyl Ether (TAME)	<0.1000	12.50	13.93	111	67-120
MTBE	<0.1000	12.50	12.46	100	66-120
1,2-Dichloroethane	0.1140	12.50	15.64	124	80-136
Benzene	<0.1000	12.50	14.83	119	80-127
Toluene	<0.1000	12.50	15.48	124 *	80-123
1,2-Dibromoethane	<0.1000	12.50	14.19	114	80-120
Ethylbenzene	<0.1561	12.50	15.89	127 *	80-126
m,p-Xylenes	<0.1000	25.00	34.85	139 *	80-123
o-Xylene	<0.09974	12.50	15.39	123 *	76-120

Surrogate	%REC	Limits
Dibromofluoromethane	90	77-136
1,2-Dichloroethane-d4	118	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-120

Type: MSD Lab ID: QC726867

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	62.91	101	38-150	16	38
Isopropyl Ether (DIPE)	12.50	11.25	90	62-120	5	25
Ethyl tert-Butyl Ether (ETBE)	12.50	12.83	103	64-120	8	27
Methyl tert-Amyl Ether (TAME)	12.50	14.34	115	67-120	3	28
MTBE	12.50	13.06	105	66-120	5	27
1,2-Dichloroethane	12.50	16.38	130	80-136	5	23
Benzene	12.50	14.60	117	80-127	2	23
Toluene	12.50	16.03	128 *	80-123	4	22
1,2-Dibromoethane	12.50	14.76	118	80-120	4	23
Ethylbenzene	12.50	17.04	136 *	80-126	7	22
m,p-Xylenes	25.00	34.89	140 *	80-123	0	22
o-Xylene	12.50	15.77	126 *	76-120	2	23

Surrogate	%REC	Limits
Dibromofluoromethane	90	77-136
1,2-Dichloroethane-d4	116	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	94	80-120

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC726909	Batch#:	207783
Matrix:	Water	Analyzed:	02/06/14
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
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	92	77-136
1,2-Dichloroethane-d4	123	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207783
Units:	ug/L	Analyzed:	02/06/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726910

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	118.3	95	37-151
Isopropyl Ether (DIPE)	25.00	20.01	80	56-124
Ethyl tert-Butyl Ether (ETBE)	25.00	22.68	91	61-122
Methyl tert-Amyl Ether (TAME)	25.00	24.82	99	65-120
MTBE	25.00	23.55	94	64-121
1,2-Dichloroethane	25.00	28.11	112	77-137
Benzene	25.00	25.25	101	80-124
Toluene	25.00	26.22	105	80-122
1,2-Dibromoethane	25.00	24.87	99	80-120
Ethylbenzene	25.00	27.81	111	80-124
m,p-Xylenes	50.00	56.79	114	80-122
o-Xylene	25.00	26.43	106	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	77-136
1,2-Dichloroethane-d4	117	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-120

Type: BSD Lab ID: QC726911

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	120.5	96	37-151	2	30
Isopropyl Ether (DIPE)	25.00	19.99	80	56-124	0	20
Ethyl tert-Butyl Ether (ETBE)	25.00	22.62	90	61-122	0	22
Methyl tert-Amyl Ether (TAME)	25.00	25.28	101	65-120	2	22
MTBE	25.00	24.42	98	64-121	4	20
1,2-Dichloroethane	25.00	28.21	113	77-137	0	20
Benzene	25.00	23.88	96	80-124	6	20
Toluene	25.00	26.26	105	80-122	0	20
1,2-Dibromoethane	25.00	26.62	106	80-120	7	20
Ethylbenzene	25.00	27.68	111	80-124	0	20
m,p-Xylenes	50.00	57.70	115	80-122	2	20
o-Xylene	25.00	27.45	110	77-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	77-136
1,2-Dichloroethane-d4	115	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	92	80-120

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	252783	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	207783
Units:	ug/L	Analyzed:	02/06/14
Diln Fac:	1.000		

Type: BS Lab ID: QC726912

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,020	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	90	77-136
1,2-Dichloroethane-d4	117	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC726913

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,044	104	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	88	77-136
1,2-Dichloroethane-d4	118	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-120

RPD= Relative Percent Difference

Date : 03-FEB-2014 19:37

Client ID: DYNA P&T

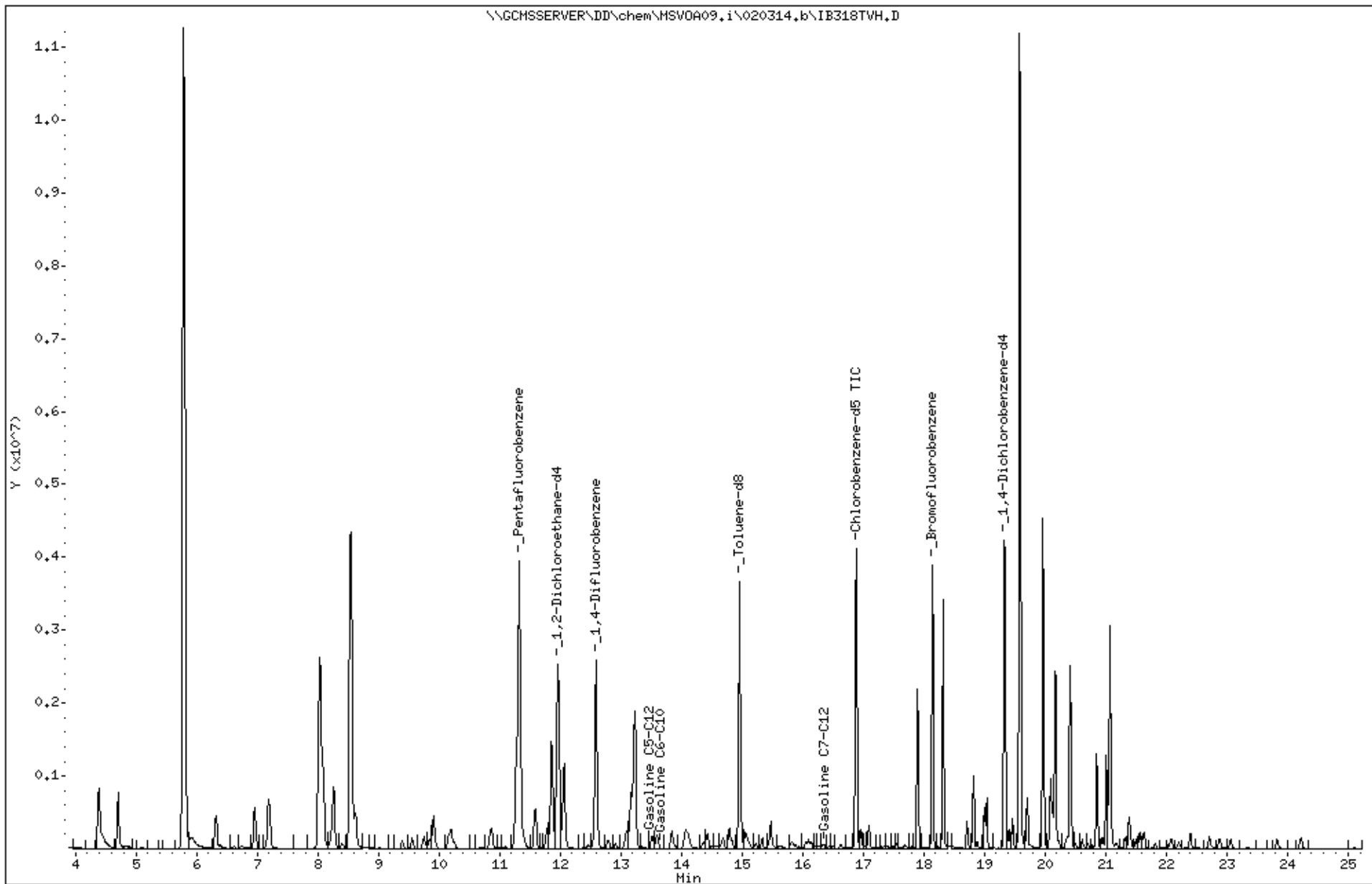
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Instrument: MSV0A09.i

Operator: VOC

Column diameter: 2.00

Column phase:

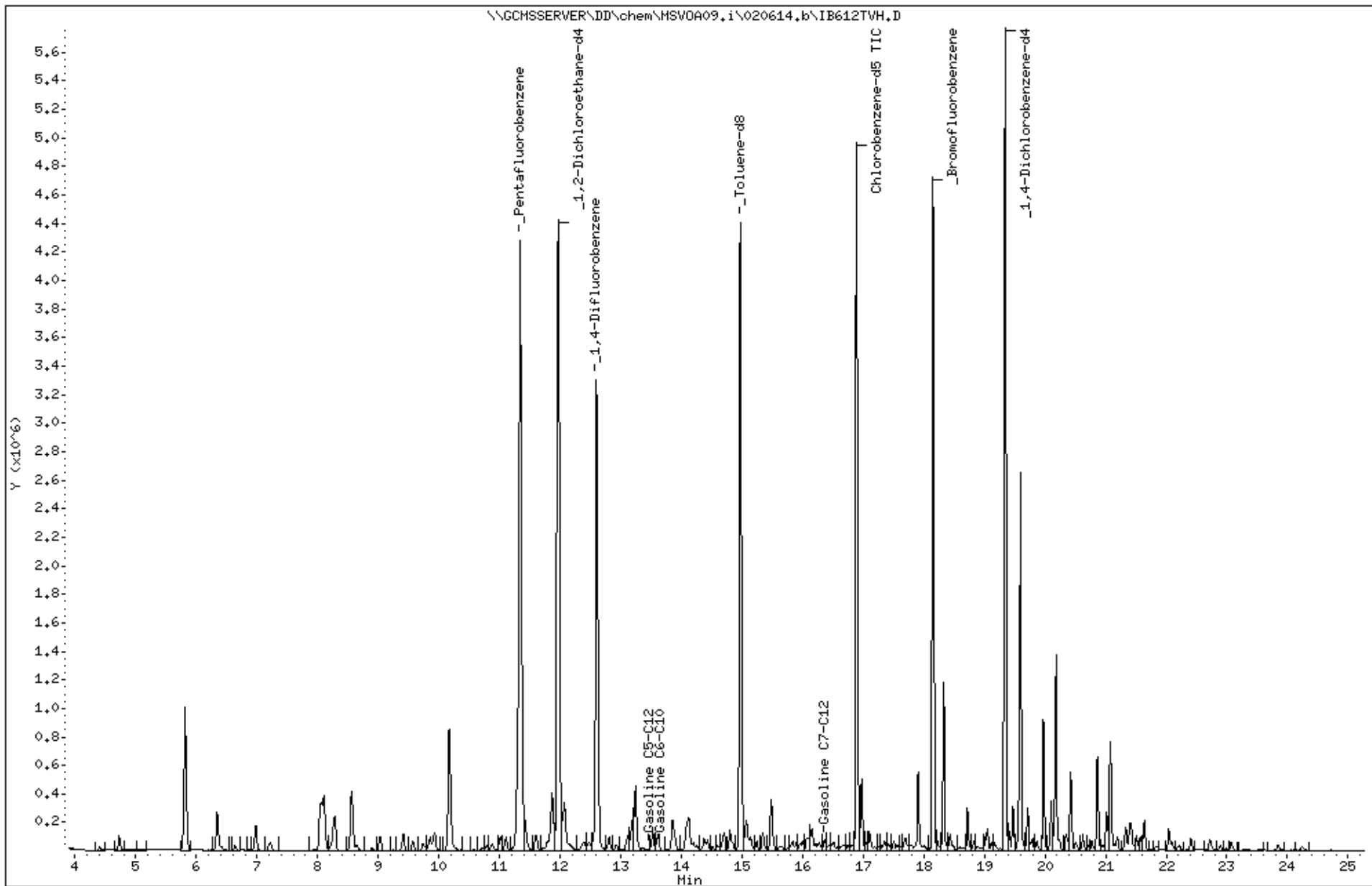


Date : 06-FEB-2014 17:24
Client ID: DYNA P&T
Sample Info: S,252783-011

Instrument: MSV0A09.i

Operator: VOC
Column diameter: 2.00

Column phase:



Date : 05-FEB-2014 19:50

Client ID: DYNA P&T

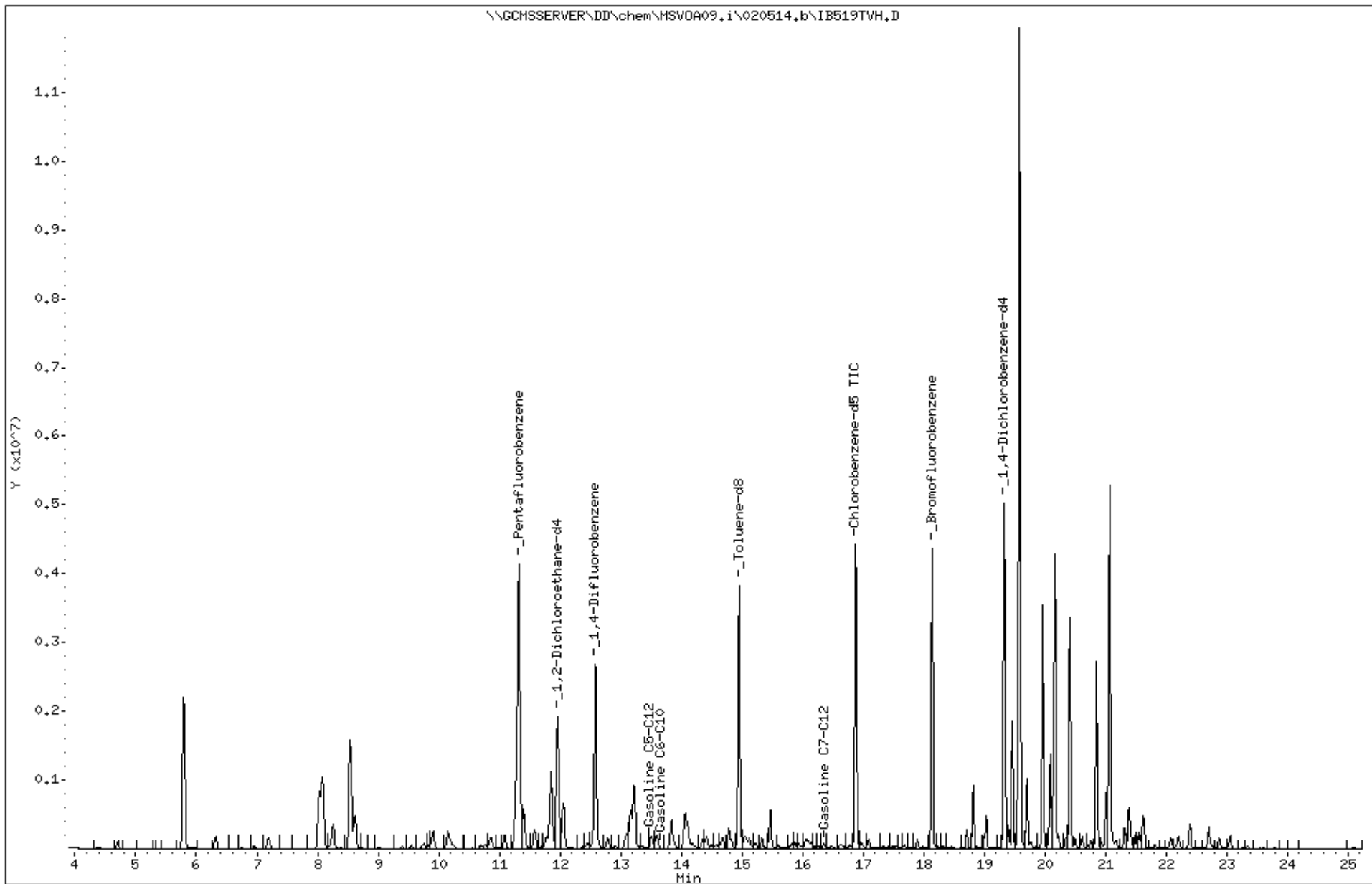
Sample Info: S,252783-013

Instrument: MSV0A09.i

Operator: VOC

Column diameter: 2.00

Column phase:

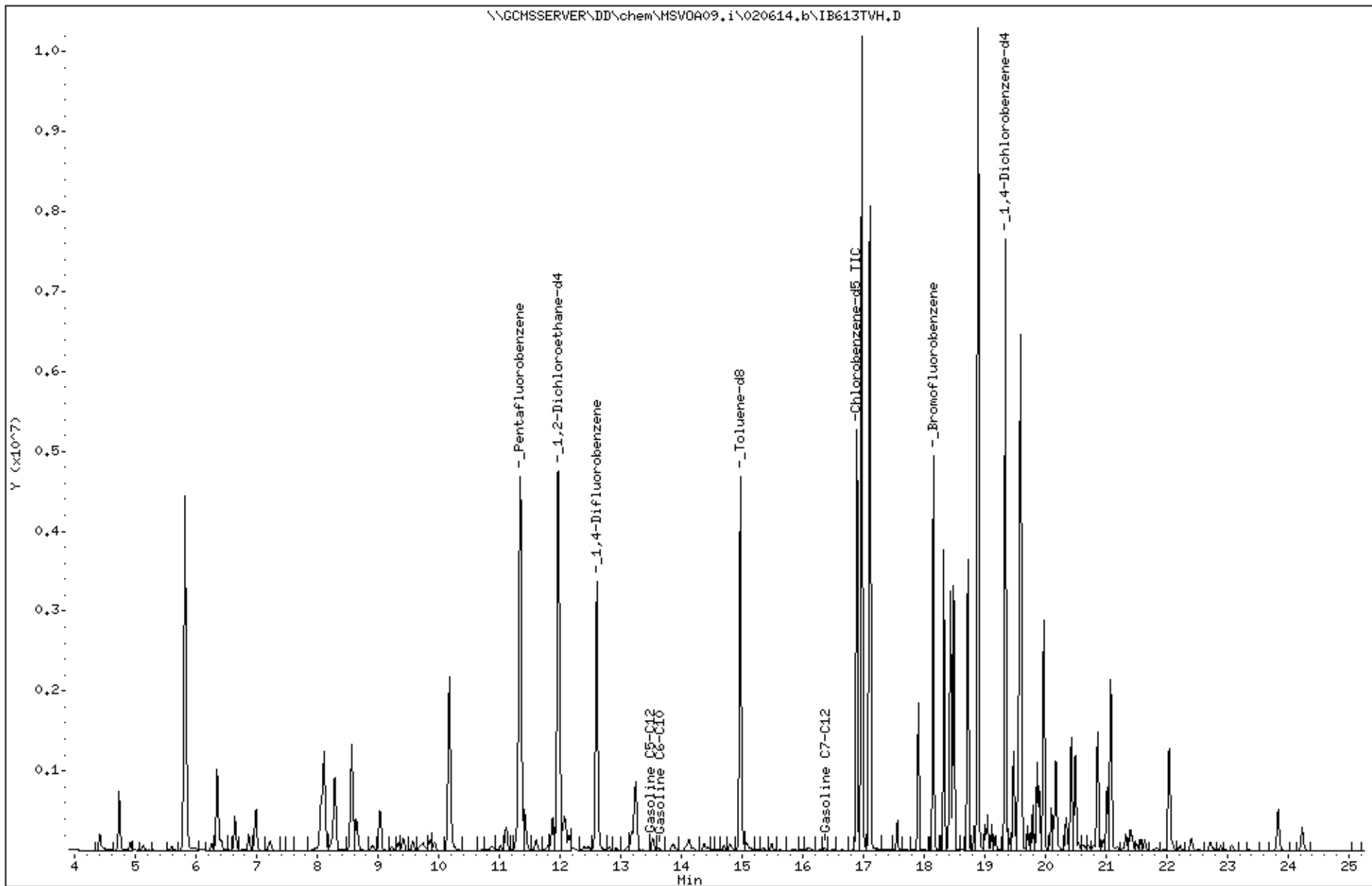


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Client ID: DYNA P&T
Sample Info: S,252783-014

Instrument: MSV0A09.i

Operator: VOC
Column diameter: 2.00

Column phase:



Date : 03-FEB-2014 15:40

Client ID: DYNA P&T

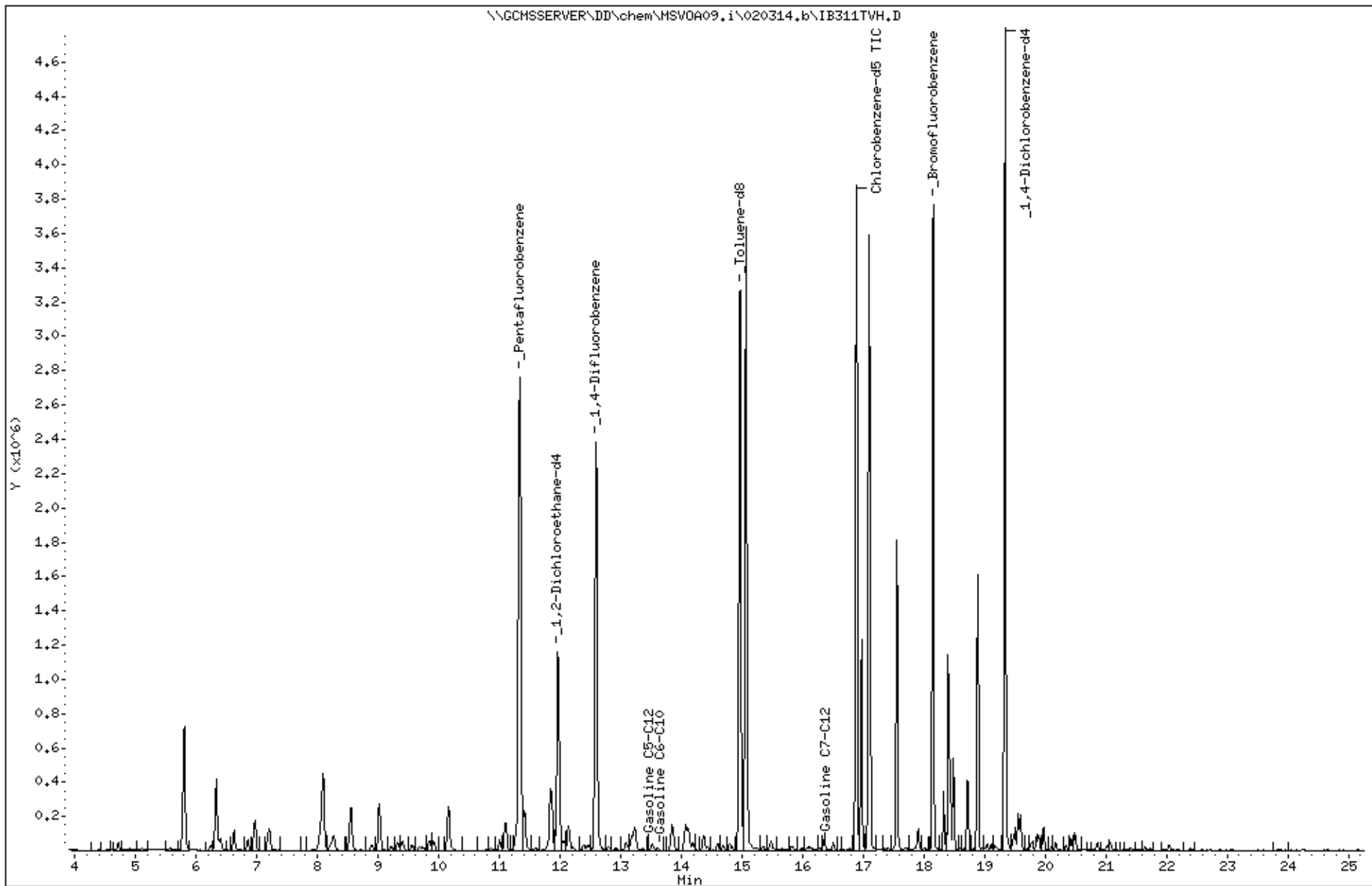
Sample Info: CCV/BS, QC726344, 207653, S23229, .008/100

Instrument: MSV0A09.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 BP # 1105 / SHELL 3519 CASTRO VALLEY BLVD CASTRO VALLEY, CA		SOMA ENV		
4. Generator's Phone ()				
5. Transporter 1 Company Name INSTRAT INC	6. US EPA ID Number	A. State Transporter's ID		
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter 1 Phone		
9. Designated Facility Name and Site Address INSTRAT, INC. 1105 C AIRPORT RD. RIO VISTA, CA 94571	10. US EPA ID Number	C. State Transporter's ID		
		D. Transporter 2 Phone		
		E. State Facility's ID		
		F. Facility's Phone (707) 974-9834		
11. WASTE DESCRIPTION		12. Containers	13. Total Quantity	14. Unit Wt./Vol.
a.		No.	Type	
NON-HAZ MONITORING WELL WATER		4	DRM	220 GAL
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above BROWN, FINES, NO ODOR		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	
PATRICK McLaughlin			Month	Day Year
			2	14 14
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	
MICHAEL WHITEHEAD			Month	Day Year
			2	14 14

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY