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R4346
Third Quarter 2005
Groundwater Monitoring Report
Castro Valley Gasoline Service Station
3519 Castro Valley Boulevard
Castro Valley, California

August 17, 2005

Project 2761

Prepared for
Mr. Mirazim Shakoori
3519 Castro Valley Boulevard
Castro Valley, California 94546

Prepared by
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August 17, 2005

Alameda County
AUG 23 2005
Environmental Health

Mr. Robert Schultz
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: #RO0000346

Site Address: 3519 Castro Valley Boulevard, Castro Valley, CA
Castro Valley Gasoline Service Station

Dear Mr. Schultz:

Enclosed for your review is SOMA's "Third Quarter 2005 Groundwater Monitoring Report" for the subject site.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 734-6400.

Sincerely,

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

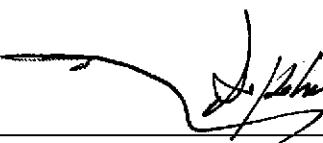
Enclosure

cc: Mr. Azim Shakoori w/enclosure
Mr. Leonard P. Niles, R.G./C.H.G., URS Corporation



Certification

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Mirazim Shakoori, the property owner of 3519 Castro Valley Boulevard, Castro Valley, California to comply with the Alameda County Health Care Services' requirements for the Third Quarter 2005 groundwater monitoring event.



Mansour Sepehr, Ph.D., P.E.
Principal Hydrogeologist



Alameda County
AUG 29 2005
Environmental, Inc.
SOMA Environmental Engineering, Inc.

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1.0 Introduction

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Mirazim Shakoori, the property owner of the former BP gasoline station located at 3519 Castro Valley Boulevard, Castro Valley, California ("the Site"), as shown in Figure 1.

The Site is located on the southeast corner of Castro Valley Boulevard and Redwood Road, in a commercial and residential area. The Site elevation is approximately 178 feet above mean sea level (msl).

This report summarizes the results of the groundwater monitoring event conducted at the Site on July 7, 2005. It includes the physical and chemical properties measured in the field for each groundwater sample. The physical and chemical properties consisted of measurements of pH, temperature, and electrical conductivity (EC). Also included in this report are the results of the laboratory analyses for each groundwater sample, which was analyzed for:

- Total petroleum hydrocarbons as gasoline (TPH-g),
- Benzene, toluene, ethylbenzene, total xylenes (collectively referred to as BTEX),
- Methyl tertiary Butyl Ether (MtBE),
- Gasoline oxygenates, which included tertiary butyl alcohol (TBA), isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE) and methyl tertiary amyl ether (TAME), Ethanol, and
- Lead scavengers, which included 1,2-Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB).

These activities were performed in accordance with the general guidelines of the Alameda County Health Care Services (ACHCS). Appendix A details the groundwater monitoring procedures used during the Third Quarter 2005 monitoring event.

1.1 Previous Activities

In 1984, three single-walled fiberglass underground storage tanks (USTs) with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were installed in the southeastern portion of the Site. A former dispenser island reportedly existed on the west side of the Site; however, there was no available information on the date of the dispenser removal.

In 1988, a 1,000-gallon double-walled fiberglass waste oil tank (WOT) was installed to replace the previous 380 gallon WOT. In September 1988, Kaprelian Engineering, Inc. (KEI) removed the original 380-gallon WOT and

observed holes in this UST. Confirmation soil samples were collected from the bottom of the excavation, due to holes observed in former WOT. The following analytical soil results were observed; benzene and toluene were detected at 6.8 ug/Kg and 9.5 ug/Kg, respectively. Total petroleum hydrocarbons (TPH) and total oil and grease (TOG) constituents were not detected.

In September and October 1992, Environmental Science & Engineering, Inc. (ESE) drilled five soil boreholes and converted them into monitoring wells (ESE-1 through ESE-5). Soil and groundwater samples were collected during well installation. In the soil samples, the maximum level of soil contamination was detected in monitoring well borehole ESE-5 at 220,000 ug/Kg TPH-g, 1,400 ug/Kg benzene, 8,200 ug/Kg toluene, 3,300 ug/Kg ethylbenzene, and 18,000 ug/Kg xylenes. In the groundwater samples, at ESE-1, the maximum concentrations were TPH-g 2,300 ug/L, benzene 370 ug/L, toluene 160 ug/L, ethylbenzene 17 ug/L, and xylenes 110 ug/L. Figure 2 shows the location of wells ESE-1 to ESE-5.

In July 1995, three additional monitoring wells were installed two on-site wells, MW-6 and MW-8, and one off-site well, MW-7. In April 1996, well MW-8 was decommissioned on the western margin of the Site to accommodate the road-widening project along Redwood Boulevard. Figure 2 shows the location of wells MW-6 to MW-8.

On August 20, 2003, prior to UST removal activities, SOMA oversaw the drilling of two boreholes by Vironex. The two boreholes were drilled in order to characterize the soil for landfill acceptance criteria. The borehole locations are shown in Figure 2. In September 2003, three single-walled fiberglass USTs, with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were removed and replaced with new double-walled fuel tanks. The new USTs consisted of double-walled fiberglass tanks with capacities of 12,000 gallons and 20,000 gallons. In addition to the removal and replacement of the USTs, the dispensers, product lines, and vent lines were also removed and replaced. During the Third Quarter 2003, two monitoring wells, ESE-3 and ESE-4, were decommissioned due to the construction activities.

In December 2003, SOMA oversaw the drilling of off-site temporary well boreholes. The boreholes were drilled to determine the horizontal extent of the petroleum hydrocarbon contamination in the off-site areas. The locations of the temporary boreholes are displayed in Figure 2.

On June 10, 2004, SOMA installed on and off-site monitoring wells at the Site. SOMA-1 was installed in the southeastern section of the Site. SOMA-2 to SOMA-4 were installed south and southeast of the Site. Figure 2 shows the locations of these monitoring wells. Kier and Wright Engineers Surveyors, of Pleasanton, California, surveyed all site wells on June 21, 2004. Appendix B

shows the elevations and coordinates of the surveyed wells.

2.0 Results

The following sections provide the results of the field measurements and laboratory analyses for the July 7, 2005 groundwater monitoring event.

2.1 Field Measurements

Table 1 presents the calculated groundwater elevation, as well as the depth to groundwater in each monitoring well. The depths to groundwater ranged from 7.52 feet in well ESE-5 to 11.81 feet in well SOMA-2. The corresponding groundwater elevations ranged from 165.32 feet in well SOMA-4 to 171.86 feet in monitoring well MW-6. Table 1 also presents the historical groundwater elevations in the monitoring wells.

As previously stated, the wells were re-surveyed on June 21, 2004. Since the Second Quarter 2005, the groundwater elevations decreased throughout the Site. Local recharge rates, as well as seasonal fluctuations, greatly affect the groundwater elevations. During drier periods of the year, the watertable descends causing the groundwater elevations to decrease.

The groundwater elevation contour map, as measured for the Third Quarter 2005 monitoring event, is displayed in Figure 3. The groundwater flow direction is south to slightly southeasterly across the Site. The groundwater gradient is approximately 0.023 feet/feet. The groundwater flow direction has remained consistent with the previous monitoring event (Second Quarter 2005), however, the groundwater gradient increased slightly.

2.2 Laboratory Analyses

Table 1 also presents the results of the TPH-g, BTEX, and MtBE laboratory analyses on the groundwater samples.

As shown in Table 1, TPH-g was below the laboratory reporting limit in all of the groundwater samples collected during the Third Quarter 2005 monitoring event, with the exception of the samples collected from wells ESE-1 and ESE-5. TPH-g was detected in wells ESE-1 and ESE-5 at 1,940 ug/L and 3,240 ug/L, respectively. Figure 4 displays a contour map of the TPH-g concentrations in the groundwater. The TPH-g concentration detected in well ESE-5 can be attributed to a possible earlier release (in 1996, in the vicinity of the former western pump, petroleum hydrocarbons were encountered). TPH-g was not detected in any of the off-site wells.

As shown in Table 1, in general, all BTEX analytes were below the laboratory reporting limit in wells ESE-2, MW-6, MW-7, and SOMA-1 to SOMA-3. In well

ESE-5, both toluene and total xylenes were below the laboratory reporting limit and both benzene and ethylbenzene were at low levels. In well SOMA-4, all BTEX analytes were below the laboratory reporting limit with the exception of ethylbenzene, which was at a low level. The highest BTEX concentrations were detected in well ESE-1 at 440 ug/L, 15.5 ug/L, 15.7 ug/L, and 21 ug/L, respectively.

Figure 5 displays a contour map of the benzene concentrations in the groundwater. As illustrated in Figure 5, the majority of the benzene plume appears to be centrally located in the vicinity southwest of the former UST cavity, in well ESE-1. However, with the exception of well ESE-1, benzene was at a low level in well ESE-5 and at non-detectable levels throughout the remaining site wells.

As shown in Table 1, MtBE was below the laboratory reporting limit in wells MW-6, SOMA-2, and SOMA-3. MtBE concentrations ranged from 7.09 ug/L in well SOMA-4 to 591 ug/L in well SOMA-1. Figure 6 displays a contour map of MtBE concentrations in the groundwater. The high MtBE concentrations in the southeastern section of the Site, especially in wells SOMA-1 and ESE-2, can be attributed to a possible earlier release in the vicinity of the former UST cavity. The migration of the MtBE plume can be attributed to the south/southeasterly groundwater flow direction and the high solubility of MtBE in groundwater. MtBE has migrated off-site as far as SOMA-4; however, MtBE was only detected at a trace concentration in this southernmost off-site region.

As shown in Table 2, the main gasoline oxygenates and lead scavengers of concern are TBA and TAME. All DIPE, ETBE, ethanol, 1,2-DCA, and EDB constituents were below the laboratory reporting limit in all of the groundwater samples collected during the Third Quarter 2005 monitoring event.

Figure 7 displays a contour map of the TBA concentrations in the groundwater. As displayed in Figure 7, the most impacted TBA region was in the southeastern section of the Site, around well SOMA-1. The TBA plume, with the exception of trace concentrations detected in wells ESE-1, ESE-2, and MW-7, appears to be centralized around well SOMA-1.

Figure 8 displays a contour map of the TAME concentrations in the groundwater. As displayed in Figure 8, only trace TAME concentrations were detected in the southeastern section of the Site, in wells SOMA-1, ESE-2, and off-site well MW-7.

2.3 Historical Site Concentration Trends

The following concentration trends were observed since the previous (Second Quarter 2005) monitoring event, for the more impacted wells, ESE-1, ESE-2, and

SOMA-1, which are in the southeastern section of the Site.

- In well ESE-1, all TPH-g, BTEX, MtBE, and TBA constituents decreased.
- In well ESE-2, both MtBE and TAME constituents decreased and TBA increased; all other referenced constituents remained below the laboratory reporting limit.
- In well SOMA-1, MtBE decreased and both TBA and TAME increased; all other referenced constituents remained below the laboratory reporting limit.

For off-site wells MW-7, SOMA-2 to SOMA-4 the results were as follows.

- In well MW-7, MtBE, TBA, and TAME all increased; all other referenced constituents remained below the laboratory reporting limit.
- In wells SOMA-2 and SOMA-3 all referenced constituents remained below the laboratory reporting limit.
- In well SOMA-4, both benzene and ethylbenzene decreased and MtBE increased; all other referenced constituents remained below the laboratory reporting limit.

For more detailed concentration trends refer to Tables 1 and 2.

Appendix C displays the laboratory analytical results for each groundwater sample collected during the Third Quarter 2005 monitoring event.

3.0 Conclusions & Recommendations

The findings of the Third Quarter 2005 groundwater monitoring event can be summarized as follows:

- The groundwater flow direction has remained south to southeasterly across the Site. Due to the high mobility rate of MtBE, this constituent has migrated off-site and was detected at a trace concentration in the southernmost well, SOMA-4.
- The highest TPH-g concentration was detected in well ESE-5. This may be the result of a hydrocarbon source still present at this location. In 1996, in the region of well ESE-5, petroleum hydrocarbons were encountered at a former western pump.
- The impacted southeastern and southern on-site regions can be attributed to a possible previous release in the western section of the Site and the south to southeasterly groundwater flow direction across the Site.

- Based on the results from the Third Quarter 2005 monitoring event, impacted groundwater does not appear to have migrated southeasterly to off-site wells SOMA-2 and SOMA-3. However, slight ethylbenzene and MtBE concentrations were detected in the southernmost off-site well, SOMA-4.

Based on the results of the Third Quarter 2005 monitoring event, SOMA recommends continuing the quarterly monitoring program to better understand the seasonal variations in the groundwater quality conditions, extent of the on-site contamination and rate of contaminant migration to off-site regions.

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)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1	Oct-92	177.69	11.22	166.47	2100	370	150	17	110	NA
	Oct-92	177.69	NM	NM	2300	370	160	16	110	NA
	Apr-93	177.69	8.79	168.90	5900	1500	410	110	390	NA
	Jun-93	177.69	10.34	167.35	7600	2900	390	130	460	NA
	Sep-93	177.69	10.91	166.76	2000	490	40	20	56	600
	Sep-93	177.69	NM	NM	1500	420	39	19	56	550
	Dec-93	177.69	9.93	167.76	1800	480	42	19	66	921
	Dec-93	177.69	NM	NM	1500	380	38	17	55	770
	Feb-94	177.69	9.64	168.05	1900	380	48	24	80	585
	Feb-94	177.69	NM	NM	2200	430	42	19	65	491
	Aug-94	177.69	11.72	165.97	2100	450	46	16	50	760
	Oct-94	177.69	10.48	167.21	760	240	16	51	39	230
	Jan-95	177.69	7.77	169.92	840	600	120	22	58	NA
	May-95	177.69	8.69	169.00	2000	640	67	24	98	NA
	Jul-95	177.69	10.12	167.57	190	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	177.69	10.57	167.12	200	3.4	<1.0	1	<2.0	600
	Feb-96	177.69	7.41	170.28	750	370	23	21	64	680
	Apr-96	177.69	9.12	168.57	310	100	<1.0	<1.0	<1.0	1500
	Jul-96	177.69	10.12	167.57	730	230	74	13	63	750
	Oct-96	177.69	10.80	166.89	420	26	1.6	7.3	12	430
	Jan-97	177.69	10.52	167.17	660	290	4.2	13	36	450
	Apr-97	177.69	9.77	167.92	410	<0.5	<1.0	<1.0	<1.0	580
	Jul-97	177.69	10.55	167.14	420	<0.5	<1.0	<1.0	<1.0	370
	Oct-97	177.69	10.36	167.33	300	56	<1.0	6.5	<1.0	220
	Jan-98	177.69	7.52	170.17	4200	440	9	15	17.7	1300
	Apr-98	177.69	8.80	168.89	15000	3400	190	910	900	4900
	Apr-98	177.69	NM	NM	15000	2800	140	730	730	4400
	Jul-98	177.69	9.73	167.96	NA	NA	NA	NA	NA	NA
	Jul-98	177.69	NM	NM	15000	<2.5	<5.0	<5.0	<5.0	15000
	Dec-98	177.69	9.51	168.18	2400	73	1	2.8	4.6	2000
	Mar-99	177.69	8.65	169.04	4700	58	<1.0	<1.0	<1.0	4700
	Jun-99	177.69	10.51	167.18	600	170	<1.0	7.2	5	3900
	Sep-99	177.69	10.32	167.37	920	200	<25	<25	<25	4900
	Dec-99	177.69	10.24	167.45	460	130	1.2	5.2	1.5	5100
	Mar-00	177.69	7.72	169.97	3000	1300	120	80	140	7300
	Jun-00	177.69	9.40	168.29	2900	540	9.7	20	17	5200
	Sep-00	177.69	10.05	167.64	890	3.4	<0.5	1.4	<0.5	2800
	Dec-00	177.69	8.20	169.49	1600	11.1	<0.5	<0.5	<0.5	2730
	Mar-01	177.69	9.75	167.94	5700	2.28	<0.5	0.51	<1.5	6810
	Jun-01	177.69	10.21	167.48	2000	152	0.669	3.62	2.34	1980
	Sep-01	177.69	10.30	167.39	2500	57.1	<5.0	6.25	<15	2090
	Dec-01	177.69	9.82	167.87	2800	208	6.05	8.54	9.66	2030
	Mar-02	177.69	9.10	168.59	1800	140	6.31	4.5	9.41	1970
	Jun-02	177.69	9.92	167.77	1100	220	2.02	4.23	3.8	1280
	Sep-02	177.69	10.21	167.48	490	39	2.9	<2.0	4.9	670
	Dec-02	177.69	8.56	169.13	730	140	6	3.2	9.1	670
	Mar-03	177.69	9.40	168.29	1700	490	21	22	41	530
	Jun-03	177.69	9.86	167.83	1300	140	<10	<10	<10	480
	Dec-03	177.69	9.32	168.37	1400	390	12	14	26.1	260
	Feb-04	177.69	7.71	169.98	3200	880	50	44	89	200
	May-04	177.69	10.19	167.50	1500	370	10	14	25.2	140
	Aug-04	180.24	10.41	169.83	460	390	7	8.1	15.4	110
	Oct-04	180.24	10.40	169.84	1600	490	13	12	25.3	110
	Jan-05	180.24	8.26	171.98	790 Z	420	26	19	52	91
	Apr-05	180.24	8.77	171.47	3020	766	25.6	21.3	25.26	88.2
	Jul-05	180.24	9.94	170.30	1940	440	15.5	15.7	21.0	80.6

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)	TPH-g ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MtBE ($\mu\text{g/L}$) 8260B
ESE-2	Oct-92	178.23	11.68	166.55	300	5.4	16	3.9	45	NA
	Apr-93	178.23	9.17	169.06	240	27	<0.5	17	2.6	123
	Jun-93	178.23	10.88	167.35	1700	260	24	110	23	NA
	Jun-93	178.23	NM	NM	1300	240	17	110	25	NA
	Sep-93	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	643
	Dec-93	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940
	Feb-94	178.23	10.06	168.17	900	<0.5	<0.5	<0.5	<0.5	930
	Aug-94	178.23	11.11	167.12	750	<0.5	<0.5	<0.5	<0.5	1400
	Oct-94	178.23	11.31	166.92	1700	<0.5	<0.5	<0.5	<0.5	3000
	Jan-95	178.23	8.25	169.98	300	2	0.9	0.7	1	NA
	May-95	178.23	9.21	169.02	1200	4	<2.5	<2.5	<5	NA
	Jul-95	178.23	10.64	167.59	2000	<2.5	<2.5	<2.5	<5	NA
	Nov-95	178.23	11.13	167.10	3600	<25	<25	<25	<50	12000
	Nov-95	178.23	NM	NM	3400	<25	<25	<25	<50	12000
	Feb-96	178.23	7.94	170.29	450	<0.5	<1	<1	<1	2300
	Apr-96	178.23	9.73	168.50	260	0.9	<1	<1	<1	8600
	Jul-96	178.23	10.70	167.53	780	<2.5	<5	<5	<5	13393
	Oct-96	178.23	11.39	166.84	2900	<0.5	<1	<1	<1	12000
	Jan-97	178.23	9.04	169.19	<250	<2.5	<5	<5	<5	13000
	Apr-97	178.23	10.31	167.92	2700	<0.5	<1	<1	<1	15000
	Jul-97	178.23	11.02	167.21	11000	<5	<10	<10	<10	11000
	Oct-97	178.23	10.93	167.30	6100	<2.5	<5.0	<5.0	<5.0	7100
	Oct-97	178.23	NM	NM	6600	<2.5	<5.0	<5.0	<5.0	7400
	Jan-98	178.23	7.93	170.30	13000	<0.5	<1	<1	<1	10000
	Jan-98	178.23	NM	NM	13000	<0.5	<1	<1	<1	10000
	Apr-98	178.23	9.34	168.89	19000	<5	<10	<10	<10	36000
	Jul-98	178.23	10.29	167.94	NA	NA	NA	NA	NA	NA
	Jul-98	178.23	NM	NM	19000	<5	<10	<10	<10	36000
	Dec-98	178.23	10.20	168.03	12000	<5	<5	<5	<5	13000
	Mar-99	178.23	9.02	169.21	18000	160	<1	<1	<1	18000
	Jun-99	178.23	9.99	168.24	280	<1	<1	<1	<1	16000
	Sep-99	178.23	10.69	167.54	<500	<25	<25	<25	<25	12000
	Dec-99	178.23	11.26	166.97	<50	<0.3	<0.3	<0.3	<0.6	12000
	Mar-00	178.23	7.95	170.28	<50	1.6	<0.5	<0.5	<0.5	7900
	Jun-00	178.23	9.66	168.57	1600	<0.5	0.73	<0.5	2.2	9400
	Dec-00	178.23	11.15	167.08	6000	0.75	<0.5	<0.5	<0.5	11200
	Mar-01	178.23	10.35	167.88	6900	786	45.7	37.7	71.5	3790
	Jun-01	178.23	11.24	166.99	6400	<2.5	<2.5	<2.5	<7.5	9320
	Sep-01	178.23	11.35	166.88	4800	<12.5	<12.5	<12.5	<37.5	6960
	Dec-01	178.23	10.97	167.26	59000	0.592	<0.5	<0.5	<1	5940
	Mar-02	178.23	10.13	168.10	4500	76	<0.5	<0.5	<1	6660
	Jun-02	178.23	10.91	167.32	250	<12.5	<12.5	<12.5	<25	4900
	Sep-02	178.23	10.82	167.41	1500	<5	<5	<5	6.3	3100
	Dec-02	178.23	7.87	170.36	1400	<5	<5	<5	<5	2400
	Mar-03	178.23	10.24	167.99	2800	<10	<10	<10	<10	4800
	Jun-03	178.23	10.19	168.04	10000	<100	<100	<100	<100	4400
	Dec-03	178.23	9.97	168.26	<50	<0.5	<0.5	<0.5	<0.5	3400
	Feb-04	178.23	7.89	170.34	<50	<0.5	<0.5	<0.5	<0.5	3000
	May-04	178.23	10.70	167.53	<50	<0.5	<0.5	<0.5	<0.5	1100
	Aug-04	180.79	10.99	169.80	<50	<0.5	<0.5	<0.5	<0.5	550
	Ocl-04	180.79	10.46	170.33	<50	<0.5	<0.5	<0.5	<0.5	410
	Jan-05	180.79	8.66	172.13	<50	<8.3	<8.3	<8.3	<8.3	1200
	Apr-05	180.79	9.38	171.41	<860	<2.15	<2.15	<2.15	<4.30	1020
	Jul-05	180.79	10.46	170.33	<860	<2.15	<8.60	<2.15	<4.30	378

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)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-3	Oct-92	178.20	10.58	167.62	430	57	31	3.6	34	NA
	Apr-93	178.20	8.14	170.06	2400	460	220	74	210	NA
	Jun-93	178.20	9.72	168.48	280	56	14	15	13	NA
	Sep-93	178.20	10.46	167.74	72	13	3.5	1.7	4.1	NA
	Dec-93	178.20	9.30	168.90	270	71	32	6.1	33	NA
	Feb-94	178.20	8.97	169.23	520	140	10	20	33	5.74
	Aug-94	178.20	10.02	168.18	<50	8.8	1.6	1.6	2.3	<5.0
	Oct-94	178.20	10.32	167.88	470	190	6.4	15	18	<5.0
	Jan-95	178.20	7.40	170.80	330	260	27	21	20	NA
	May-95	178.20	8.26	169.94	530	180	30	23	44	NA
	Jul-95	178.20	9.54	168.66	<50	<0.50	<0.50	<0.50	<1	NA
	Nov-95	178.20	10.04	168.16	<50	1.7	<0.50	<0.50	<1	<5.0
	Feb-96	178.20	7.08	171.12	<50	8.6	<1	<1	<1	<10
	Apr-96	178.20	8.79	169.41	<50	7.6	<1	<1	<1	65
	Jul-96	178.20	10.09	168.11	<50	12	2.6	2	3.9	26
	Oct-96	178.20	10.48	167.72	NA	NA	NA	NA	NA	NA
	Oct-96	178.20	NM	NM	260	140	<1	<1	2.6	<10
	Jan-97	178.20	8.65	169.55	<50	1.5	1.7	<1	<1	14
	Apr-97	178.20	10.02	168.18	<50	<0.5	<1	<1	<1	14
	Jul-97	178.20	10.66	167.54	10000	1400	1400	300	1280	<250
	Oct-97	178.20	9.83	168.37	<250	<2.5	<5.0	<5.0	36	<50
	Jan-98	178.20	7.06	171.14	130	<0.5	<1.0	<1.0	<1.0	120
	Apr-98	178.20	8.44	169.76	4800	560	<10	15	<10	4000
	Jul-98	178.20	9.27	168.93	NA	NA	NA	NA	NA	NA
	Jul-98	178.20	NM	NM	1800	6.2	<5.0	<5.0	<5.0	1700
	Dec-98	178.20	9.15	169.05	600	54	<1.0	2.1	4.9	340/480
	Mar-99	178.20	8.14	170.06	2000	260	4.4	13	28	870
	Jun-99	178.20	9.44	168.76	290	91	<1.0	8.3	16	240
	Sep-99	178.20	9.69	168.51	130	35	<1.0	2.7	3.8	100
	Dec-99	178.20	10.99	167.21	380	84	1.7	8.7	6.3	160
	Mar-00	178.20	7.12	171.08	950	190	4.6	39	62	350
	Jun-00	178.20	10.92	167.28	300	37	<0.5	2.3	1.3	400
	Sep-00	178.20	11.12	167.08	920	140	1.3	15	4.8	170
	Dec-00	178.20	9.70	168.50	320	64	<0.5	6.24	1.76	201
	Mar-01	178.20	10.07	168.13	680	80.5	0.546	21.1	18.2	398
	Jun-01	178.20	11.42	166.78	380	47	<0.5	3.11	<1.5	242
	Sep-01	178.20	11.55	166.65	340	54.8	<0.5	4.36	<1.5	79.7
	Dec-01	178.20	10.12	168.08	270	31.4	<0.5	1.31	2.24	129
	Mar-02	178.20	9.84	168.36	670	89.8	0.789	23.4	30.4	413
	Jun-02	178.20	10.57	167.63	130	18.6	<0.5	<0.5	<1	166
	Sep-02	178.20	9.90	168.30	88	12	<0.5	<0.5	<0.5	93
	Dec-02	178.20	9.23	168.97	290	55	17	3.7	14	78
	Mar-03	178.20	9.05	169.15	100	3.4	<0.5	0.54	<0.50	140
	Jun-03	178.20	9.30	168.90	520	17	<5	5.3	<5	130

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)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-4	Oct-92	177.73	10.33	167.40	98	7.2	1.3	1.1	6.1	NA
	Apr-93	177.73	7.88	169.85	550	93	20	23	33	NA
	Jun-93	177.66	8.33	169.33	150	23	0.6	5.4	0.5	54
	Sep-93	177.66	10.05	167.61	110	14	1.7	3.2	4.6	NA
	Dec-93	177.66	8.95	168.71	110	21	7.2	4.2	10	28.75
	Feb-94	177.66	8.65	169.01	210	26	1.2	4.7	11	113
	Aug-94	177.66	9.76	167.90	76	9.6	<0.5	2	<0.5	62
	Oct-94	177.66	9.62	168.04	<50	<0.5	<0.5	<0.5	<0.5	44
	Jan-95	177.66	6.97	170.69	140	56	14	24	23	NA
	May-95	177.66	7.85	169.81	130	21	2.8	8.6	8.2	NA
	Jul-95	177.66	9.20	168.46	<50	<0.5	<0.5	<0.5	<1	NA
	Nov-95	177.66	9.66	167.98	<50	<0.5	0.6	<0.5	<1	18
	Feb-96	177.66	6.59	171.07	100	2.6	<1	1.6	4.1	42
	Apr-96	177.66	8.30	169.36	160	37	15	16	31	43
	Jul-96	177.66	9.21	168.45	60	17	1.5	6.8	11.6	27
	Oct-96	177.66	9.97	167.69	NA	NA	NA	NA	NA	NA
	Oct-96	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	18
	Jan-97	177.66	7.68	169.98	<50	<0.5	<1.0	<1.0	<1.0	130
	Apr-97	177.66	9.15	168.51	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jul-97	177.66	9.71	167.95	<50	15	<10	<10	<10	<100
	Oct-97	177.66	9.38	168.28	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jan-98	177.66	6.59	171.07	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-98	177.66	7.90	169.76	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jul-98	177.66	8.96	168.70	NA	NA	NA	NA	NA	NA
	Jul-98	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Dec-98	177.66	8.32	169.34	NA	NA	NA	NA	NA	NA
	Mar-99	177.66	7.71	169.95	NA	NA	NA	NA	NA	NA
	Jun-99	177.66	8.78	168.88	NA	NA	NA	NA	NA	NA
	Sep-99	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	Dec-99	177.66	9.21	168.45	NA	NA	NA	NA	NA	NA
	Mar-00	177.66	6.82	170.84	NA	NA	NA	NA	NA	NA
	Jun-00	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	Sep-00	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	Dec-00	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	Mar-01	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	Jun-01	177.66	9.24	168.42	NA	NA	NA	NA	NA	NA
	Sep-01	177.66	9.35	168.31	NA	NA	NA	NA	NA	NA
	Dec-01	177.66	8.53	169.13	NA	NA	NA	NA	NA	NA
	Mar-02	177.66	8.44	169.22	NA	NA	NA	NA	NA	NA
	Jun-02	177.66	10.97	166.69	NA	NA	NA	NA	NA	NA
	Sep-02	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	Dec-02	177.66	6.90	170.76	NA	NA	NA	NA	NA	NA
	Mar-03	177.66	8.83	168.83	NA	NA	NA	NA	NA	NA
	Jun-03	177.66	8.84	168.82	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)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5	Oct-92	176.08	9.22	166.86	1300	200	3.8	1.2	18	NA
	Apr-93	176.08	7.02	169.06	13000	2200	26	730	1000	NA
	Apr-93	176.08	NM	NM	13000	2500	25	740	1100	NA
	Jun-93	176.08	10.21	165.87	7600	1500	9.3	170	100	NA
	Sep-93	176.08	10.64	165.44	560	19	1.2	0.9	1.8	NA
	Dec-93	176.08	9.42	166.66	1700	300	3	76	110	14.07
	Feb-94	176.08	9.35	166.73	3500	640	7.8	90	130	45.13
	Aug-94	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33
	Aug-94	176.08	NM	NM	2500	230	4.6	13	4.8	32
	Oct-94	176.08	8.95	167.13	5600	560	9.5	75	21	79.2
	Oct-94	176.08	NM	NM	6000	550	10	78	22	77
	Jan-95	176.08	5.40	170.68	1900	620	<5	95	15	NA
	Jan-95	176.08	NM	NM	1600	620	<5	93	17	NA
	May-95	176.08	6.48	169.60	5700	1100	<10	180	58	NA
	May-95	176.08	NM	NM	5300	1100	<10	180	58	NA
	Jul-95	176.08	7.97	168.11	520	15	<0.50	1.7	1.3	NA
	Jul-95	176.08	NM	NM	460	7.2	<0.50	1.9	1.5	NA
	Nov-95	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24
	Feb-96	176.08	4.71	171.37	4100	670	6	190	140	<50
	Apr-96	176.08	7.35	168.73	3000	570	<5	79	100	84
	Jul-96	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25
	Oct-96	176.08	9.04	167.04	1100	29	<5	<5	<5	<50
	Oct-96	176.08	NM	NM	1100	31	<5	<5	<5	<50
	Jan-97	176.08	5.82	170.26	2100	980	<25	280	80	<250
	Jan-97	176.08	NM	NM	2700	910	8.8	280	84	180
	Apr-97	176.08	7.24	168.84	NA	NA	NA	NA	NA	NA
	Apr-97	176.08	NM	NM	<250	7.9	<5.0	<5.0	<5.0	<50
	Jul-97	176.08	7.86	168.22	1200	<5	<10	<10	<10	<100
	Jul-97	176.08	NM	NM	630	31	<5.0	<5.0	<5.0	130
	Oct-97	176.08	7.91	168.17	<250	5.4	<5.0	<5.0	<5.0	<50
	Jan-98	176.08	4.64	171.44	170	7.7	<1.0	<1.0	<1.0	130
	Apr-98	176.08	6.31	169.77	720	79	<5.0	9	<5.0	180
	Jul-98	176.08	7.43	168.65	NA	NA	NA	NA	NA	NA
	Jul-98	176.08	NM	NM	840	9.8	<1.0	4	<1.0	710
	Dec-98	176.08	7.05	169.03	NA	NA	NA	NA	NA	NA
	Mar-99	176.08	5.00	171.08	<250	<5.0	<5.0	<5.0	<5.0	<5.0
	Jun-99	176.08	7.77	168.31	NA	NA	NA	NA	NA	NA
	Sep-99	176.08	8.11	167.97	450	10	<5.0	6.3	<5.0	220
	Dec-99	176.08	7.66	168.42	NM	NA	NA	NA	NA	NA
	Mar-00	176.08	5.08	171.00	1700	170	2.5	45	6.4	140
	Jun-00	176.08	7.36	168.72	NM	NA	NA	NA	NA	NA
	Sep-00	176.08	7.71	168.37	130	0.65	<0.50	0.71	<0.50	51
	Dec-00	176.08	2.36	173.72	NM	NA	NA	NA	NA	NA
	Mar-01	176.08	7.42	168.66	1000	10.3	<2.5	11	<7.5	70.8
	Jun-01	176.08	7.92	168.16	NM	NA	NA	NA	NA	NA
	Sep-01	176.26	8.23	168.03	200	0.868	<0.50	0.55	<1.5	57.5
	Dec-01	176.26	7.80	168.46	NM	NA	NA	NA	NA	NA
	Mar-02	176.26	6.55	169.71	1300	17.1	1.35	15.4	1.42	37.4
	Jun-02	176.26	7.83	168.43	NM	NA	NA	NA	NA	NA
	Sep-02	176.26	8.22	168.04	680	9.9	<5.0	<5.0	<5.0	44
	Dec-02	176.26	6.58	169.68	NM	NA	NA	NA	NA	NA
	Mar-03	176.26	6.77	169.49	2100	14	<2.5	15	3	80
	Jun-03	176.26	6.75	169.51	NM	NA	NA	NA	NA	NA
	Sep-03	176.26	8.48	167.78	970	10 C	<0.5	<0.5	5.3	34
	Dec-03	176.26	7.32	168.94	700	6.5	<0.5	3.1	2.7 C	34
	Feb-04	176.26	5.21	171.05	2400 H	41	2.8 C	18	2.4 C	29
	May-04	176.26	7.50	168.76	1500	2.6 C	<0.5	2.1 C	2.1 C	25
	Aug-04	178.80	8.28	170.52	680	<0.5	<0.5	<0.5	<0.5	33
	Oct-04	178.80	8.26	170.54	380	<0.5	<0.5	<0.5	1.4	39
	Jan-05	178.80	5.16	173.64	2400	18	1.4	22	2.1	26
	Apr-05	178.80	6.13	172.67	4800	7.75	1.26	14.3	<1.0	23.1
	Jul-05	178.80	7.52	171.28	3240	0.780	<2.00	1.18	<1.00	36.6

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)	TPH-g ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MtBE ($\mu\text{g/L}$) 8260B
MW-6	Jul-95	179.24	10.00	169.24	<50	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	179.24	10.44	168.80	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	Feb-96	179.24	7.68	171.56	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-96	179.24	9.33	169.91	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-96	179.24	10.10	169.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	Oct-96	179.24	11.00	168.24	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jan-97	179.24	8.70	170.54	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-97	179.24	10.16	169.08	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-97	179.24	10.66	168.58	<50	<0.5	<1.0	<1.0	<1.0	<10
	Oct-97	179.24	10.25	168.99	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jan-98	179.24	7.76	171.48	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-98	179.24	9.10	170.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-98	179.24	10.40	168.84	NA	NA	NA	NA	NA	NA
	Jul-98	179.24	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Dec-98	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	Mar-99	179.24	9.10	170.14	NA	NA	NA	NA	NA	NA
	Jun-99	179.24	9.79	169.45	NA	NA	NA	NA	NA	NA
	Sep-99	179.24	10.10	169.14	NA	NA	NA	NA	NA	NA
	Dec-99	179.24	9.97	169.27	NA	NA	NA	NA	NA	NA
	Mar-00	179.24	8.56	170.68	NA	NA	NA	NA	NA	NA
	Jun-00	179.24	9.11	170.13	NA	NA	NA	NA	NA	NA
	Sep-00	179.24	9.77	169.47	NA	NA	NA	NA	NA	NA
	Dec-00	179.24	9.17	170.07	NA	NA	NA	NA	NA	NA
	Mar-01	179.24	9.82	169.42	NA	NA	NA	NA	NA	NA
	Jun-01	179.24	10.19	169.05	NA	NA	NA	NA	NA	NA
	Sep-01	179.24	10.25	168.99	NA	NA	NA	NA	NA	NA
	Dec-01	179.24	9.75	169.49	NA	NA	NA	NA	NA	NA
	Mar-02	179.24	9.53	169.71	NA	NA	NA	NA	NA	NA
	Jun-02	179.24	9.87	169.37	NA	NA	NA	NA	NA	NA
	Sep-02	179.24	9.49	169.75	NA	NA	NA	NA	NA	NA
	Dec-02	179.24	8.39	170.85	NA	NA	NA	NA	NA	NA
	Mar-03	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	Jun-03	179.24	9.71	169.53	NA	NA	NA	NA	NA	NA
	Sep-03	179.24	10.21	169.03	<50	<0.5	<0.5	<0.5	<0.5	<2.0
	Dec-03	179.24	9.66	169.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Feb-04	179.24	7.83	171.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	May-04	179.24	9.75	169.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Aug-04	181.80	10.28	171.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Oct-04	181.80	9.91	171.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Jan-05	181.80	8.40	173.40	<50	0.6	<0.5	<0.5	<0.5	<0.5
	Apr-05	181.80	9.04	172.76	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	Jul-05	181.80	9.94	171.86	<200	<0.500	<2.00	<0.500	<1.00	<0.500

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)	TPH-g ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MtBE ($\mu\text{g/L}$) 8260B
MW-7	Jul-95	176.55	9.25	167.30	<50	0.54	0.54	<0.50	<1.0	NA
	Nov-95	176.55	9.73	168.82	1100	<10	<10	<10	<20	4000
	Feb-96	176.55	6.48	170.07	610	<0.50	<1.0	<1.0	<1.0	2500
	Feb-96	176.55	NM	NM	280	<0.50	<1.0	<1.0	<1.0	2600
	Apr-96	176.55	8.37	168.18	110	<0.50	<1.0	<1.0	<1.0	3500
	Apr-96	176.55	NM	NM	230	<0.50	<1.0	<1.0	<1.0	3500
	Jul-96	176.55	9.24	167.31	230	<0.50	<1.0	<1.0	<1.0	4296
	Jul-96	176.55	NM	NM	220	<0.50	<1.0	<1.0	<1.0	4400
	Oct-96	176.55	10.05	166.50	NA	NA	NA	NA	NA	NA
	Oct-96	176.55	NM	NM	1600	<0.50	<1.0	<1.0	<1.0	3000
	Jan-97	176.55	7.51	169.04	<50	0.63	<1.0	<1.0	<1.0	2600
	Apr-97	176.55	8.79	167.76	NA	NA	NA	NA	NA	NA
	Apr-97	176.55	NM	NM	1500	<0.50	<1.0	<1.0	<1.0	3600
	Apr-97	176.55	NM	NM	7700	3500	<25	74	37	<250
	Jul-97	176.55	9.50	167.05	1400	<0.50	<1.0	<1.0	<1.0	2600
	Oct-97	176.55	9.19	167.36	420	<0.50	<1.0	<1.0	<1.0	560
	Jan-98	176.55	6.45	170.10	3100	<0.50	<1.0	<1.0	1.4	2300
	Apr-98	176.55	8.02	168.53	3800	<0.50	<1.0	<1.0	<1.0	3800
	Jul-98	176.55	8.88	167.67	NA	NA	NA	NA	NA	NA
	Jul-98	176.55	NM	NM	500	<2.5	<5.0	<5.0	<5.0	<50
	Jul-98	176.55	NM	NM	4700	<12	<25	<25	<25	4700
	Dec-98	176.55	8.62	167.93	NA	NA	NA	NA	NA	NA
	Mar-99	176.55	7.52	169.03	3800	<1.0	<1.0	<1.0	<1.0	3800
	Jun-99	176.55	9.63	166.92	NA	NA	NA	NA	NA	NA
	Sep-99	176.55	9.39	167.16	140	<10	<10	<10	<10	3800
	Dec-99	176.55	9.94	166.61	NA	NA	NA	NA	NA	NA
	Mar-00	176.55	6.72	169.83	<50	<0.50	<0.50	<0.50	<0.50	1400
	Jun-00	176.55	7.38	169.17	NA	NA	NA	NA	NA	NA
	Sep-00	176.55	9.18	167.37	190	<0.50	<0.50	<0.50	<0.50	580
	Dec-00	176.55	8.13	168.42	NA	NA	NA	NA	NA	NA
	Mar-01	176.55	8.98	167.57	1300	<0.50	<0.50	<0.50	<1.5	1460
	Jun-01	176.55	9.68	166.87	NA	NA	NA	NA	NA	NA
	Sep-01	176.55	9.80	166.75	<0.50	<0.50	<0.50	<0.50	<1.5	94.9
	Dec-01	176.55	9.26	167.29	NA	NA	NA	NA	NA	NA
	Mar-02	176.55	8.69	167.86	800	<0.50	<0.50	<0.50	<1.0	952
	Jun-02	176.55	9.06	167.49	NA	NA	NA	NA	NA	NA
	Sep-02	176.55	9.23	167.32	260	<2.0	<2.0	<2.0	<2.0	580
	Dec-02	176.55	7.77	168.78	NA	NA	NA	NA	NA	NA
	Mar-03	176.55	8.30	168.25	620	<2.5	<2.5	<2.5	<2.5	1100
	Jun-03	176.55	9.51	167.04	NA	NA	NA	NA	NA	NA
	Sep-03	176.55	9.52	167.03	<50	<0.5	<0.5	<0.5	<0.5	460
	Dec-03	176.55	8.99	167.56	<50	<0.5	<0.5	<0.5	<0.5	420
	Feb-04	176.55	6.55	170.00	<50	<0.5	<0.5	<0.5	<0.5	330
	May-04	176.55	8.90	167.65	<50	<0.5	<0.5	<0.5	<0.5	630
	Aug-04	179.11	9.58	169.53	<50	<0.5	<0.5	<0.5	<0.5	750
	Oct-04	179.11	9.20	169.91	<50	<0.5	<0.5	<0.5	<0.5	550
	Jan-05	179.11	7.25	171.86	<50	<2.0	<2.0	<2.0	<2.0	250
	Apr-05	179.11	7.94	171.17	<200	<0.5	<0.5	<0.5	<1.0	285
	Jul-05	179.11	9.08	170.03	<400	<1.00	<4.00	<1.00	<2.00	452

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)	TPH-g ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MtBE ($\mu\text{g/L}$) 8260B
MW-8	Jul-95	176.34	7.80	168.54	1,100	<2.5	<2.5	<2.5	<5.0	NA
	Nov-95	176.34	8.29	168.05	8,300	75	5.3	670	240	140
	Feb-96	176.34	4.99	171.35	2,300	33	<10	190	216	<100
	Apr-96	176.34	6.09	170.25	2,000	390	<10	150	26	<250
QC-2	Apr-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Jun-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Sep-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Dec-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	Feb-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Aug-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Oct-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Jan-95	NM	NM	NM	<50	<0.5	<0.5	<0.5	<1.0	NA
	May-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	Jul-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	Feb-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
SOMA-1	Aug-04	180.95	11.53	169.42	84	<0.5	<0.5	1.5 C	2.2	2100
	Oct-04	180.95	10.41	170.54	56	<0.5	<0.5	1.3 C	1.4 C	1600
	Jan-05	180.95	9.68	171.27	58	<3.1	<3.1	<3.1	<3.1	330
	Apr-05	180.95	9.37	171.58	<2200	<5.5	<5.5	<5.5	<11	668
	Jul-05	180.95	10.21	170.74	<860	<2.15	<8.60	<2.15	<4.30	591
SOMA-2	Aug-04	178.99	10.69	168.30	<50	<0.5	<0.5	<0.5	<0.5	0.8
	Oct-04	178.99	10.75	168.24	<50	<0.5	<0.5	<0.5	<0.5	2.4
	Jan-05	178.99	9.45	169.54	<50	<0.5	<0.5	<0.5	<0.5	1.1
	Apr-05	178.99	10.46	168.53	<200	<0.5	<0.5	<0.5	<1.0	<0.5
SOMA-3	Aug-04	176.81	9.97	166.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Oct-04	176.81	9.59	167.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Jan-05	176.81	8.23	168.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Apr-05	176.81	8.64	168.17	<200	<0.5	<0.5	<0.5	<1.0	<0.5
SOMA-4	Aug-04	176.94	9.44	167.50	140	0.98	<0.5	7.8	<0.5	11
	Oct-04	176.94	9.91	167.08	150	<0.5	<0.5	10	<0.5	8.8
	Jan-05	176.94	8.36	168.58	500	3.7	<0.5	53	<0.5	7.6
	Apr-05	176.94	7.89	169.05	<200	0.74	<0.5	3.21	<1.0	5.65
	Jul-05	176.94	11.62	165.32	<200	<0.500	<2.00	0.560	<1.00	7.09

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 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.

NM: Not Measured

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.

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

Monitoring Well	Date	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	ETHANOL ($\mu\text{g/L}$)	1,2-DCA ($\mu\text{g/L}$)	EDB ($\mu\text{g/L}$)
ESE-1	Jun-03	<400	<10	<10	18	NA	NA	NA
	Sep-03	NA	NA	NA	NA	NA	NA	NA
	Dec-03	290	<1.0	<1.0	9.5	<2,000	<1.0	<1.0
	Feb-04	410	<0.5	<0.5	9.7	<1000	<0.5	<0.5
	May-04	190	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Aug-04	180	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	270	<0.7	<0.7	4.4	<1400	9.9	<0.7
	Jan-05	280	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	Apr-05	144	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	Jul-05	119	<2.15	<2.15	<8.60	<4300	<2.15	<2.15
ESE-2	Jun-03	<4000	<100	<100	<100	NA	NA	NA
	Sep-03	NA	NA	NA	NA	NA	NA	NA
	Dec-03	500	<13	<13	77	<25,000	<13	<13
	Feb-04	1200	<0.5	<0.5	92	<1000	<0.5	<0.5
	May-04	2400	<10	<10	25	<20,000	<10	<10
	Aug-04	2300	<2.5	<2.5	12	<5000	<2.5	<2.5
	Oct-04	1800	<3.6	<3.6	8.6	<7100	<3.6	<3.6
	Jan-05	470	<8.3	<8.3	28	<17,000	<8.3	<8.3
	Apr-05	<10.8	<2.15	<2.15	17.9	<4300	<2.15	<2.15
	Jul-05	109	<2.15	<2.15	9.70	<4300	<2.15	<2.15
ESE-3	Jun-03	<200	<5.0	<5.0	<5.0	NA	NA	NA

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-5	Sep-03	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Dec-03	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Feb-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Oct-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Jan-05	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Apr-05	17	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	Jul-05	<10.0	<0.500	<0.500	<2.00	<1000	<0.500	<0.500
MW-6	Sep-03	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Dec-03	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Feb-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Oct-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Jan-05	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Apr-05	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	Jul-05	<10.0	<0.500	<0.500	<2.00	<1000	<0.500	<0.500

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

Monitoring Well	Date	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	ETHANOL ($\mu\text{g/L}$)	1,2-DCA ($\mu\text{g/L}$)	EDB ($\mu\text{g/L}$)
MW-7	Sep-03	<10	<0.5	<0.5	9.8	<1000	<0.5	<0.5
	Dec-03	<25	<1.3	<1.3	8.1	<2500	<1.3	<1.3
	Feb-04	<10	<0.5	<0.5	9.9	<1000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<25	<1.3	<1.3	19	<2500	<1.3	<1.3
	Oct-04	<100	<5.0	<5.0	11	<10,000	<5.0	<5.0
	Jan-05	<40	<2.0	<2.0	5.1	<4,000	<2.0	<2.0
	Apr-05	2.62	<0.5	<0.5	4.57	<1000	<0.5	<0.5
SOMA-1	Jul-05	55.6	<1.00	<1.00	10.2	<2000	<1.00	<1.00
	Aug-04	2300	<6.3	<6.3	53	<13000	<6.3	<6.3
	Oct-04	2400	<13	<13	36	<25,000	<13	<13
	Jan-05	530	<3.1	<3.1	7.1	<6,300	<3.1	<3.1
	Apr-05	<27.5	<5.5	<5.5	<22	<11000	<5.5	<5.5
	Jul-05	2180	<2.15	<2.15	12.9	<4300	<2.15	<2.15
	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
SOMA-2	Jan-05	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Apr-05	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	Jul-05	<10.0	<0.500	<0.500	<2.00	<1000	<0.500	<0.500
	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
SOMA-3	Jan-05	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Apr-05	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	Jul-05	<10.0	<0.500	<0.500	<2.00	<1000	<0.500	<0.500
	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
SOMA-4	Jan-05	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Apr-05	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	Jul-05	<10.0	<0.500	<0.500	<2.00	<1000	<0.500	<0.500

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

Monitoring Well	Date	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	ETHANOL ($\mu\text{g/L}$)	1,2-DCA ($\mu\text{g/L}$)	EDB ($\mu\text{g/L}$)
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Notes:

< : Not detected above laboratory reporting limit.

NA: 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.

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

Lead Scavengers:

1,2-DCA: 1,2-Dichloroethane

EDB: 1,2-Dibromoethane

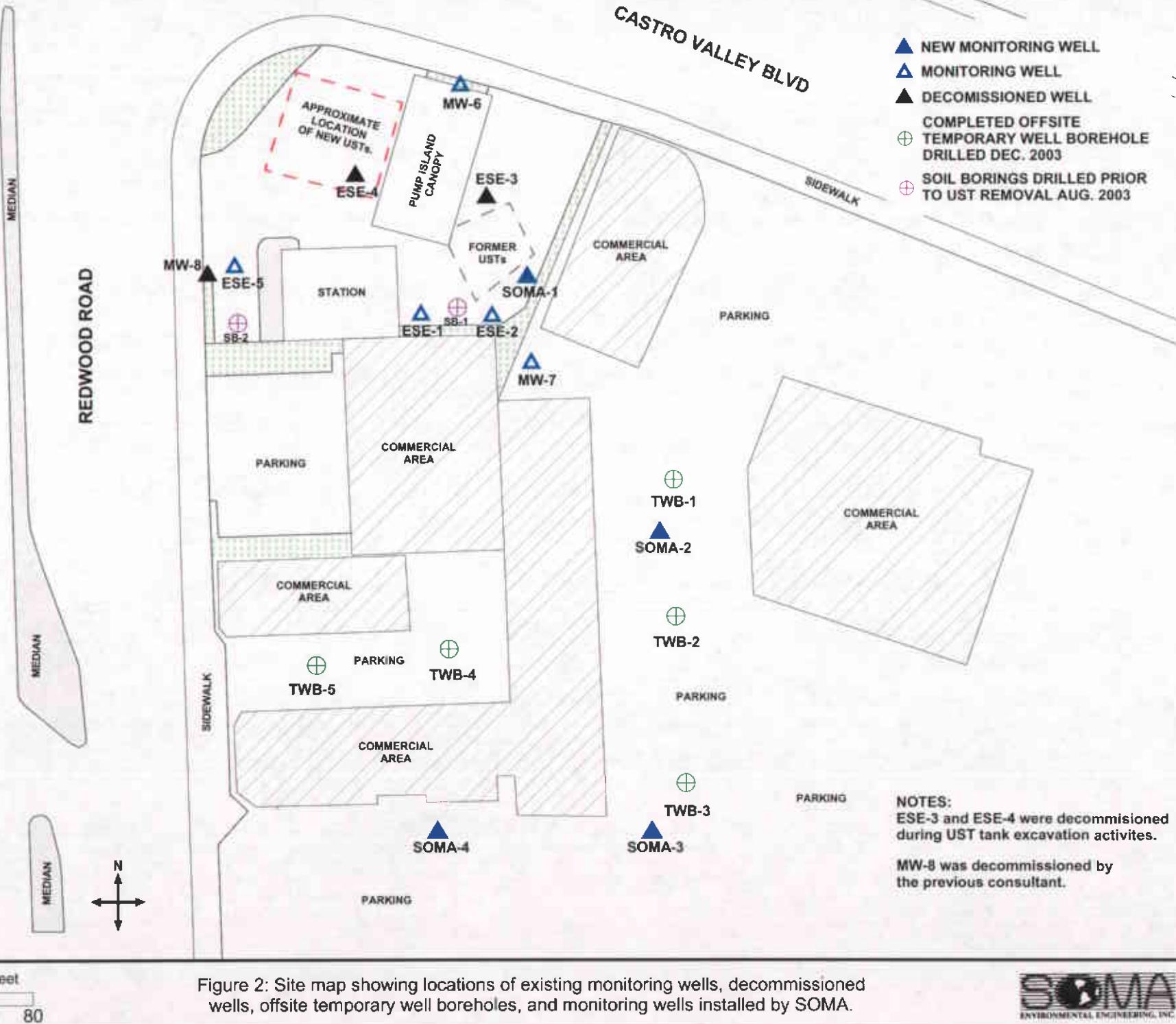
Figures



approximate scale in feet



Figure 1: Site vicinity map.



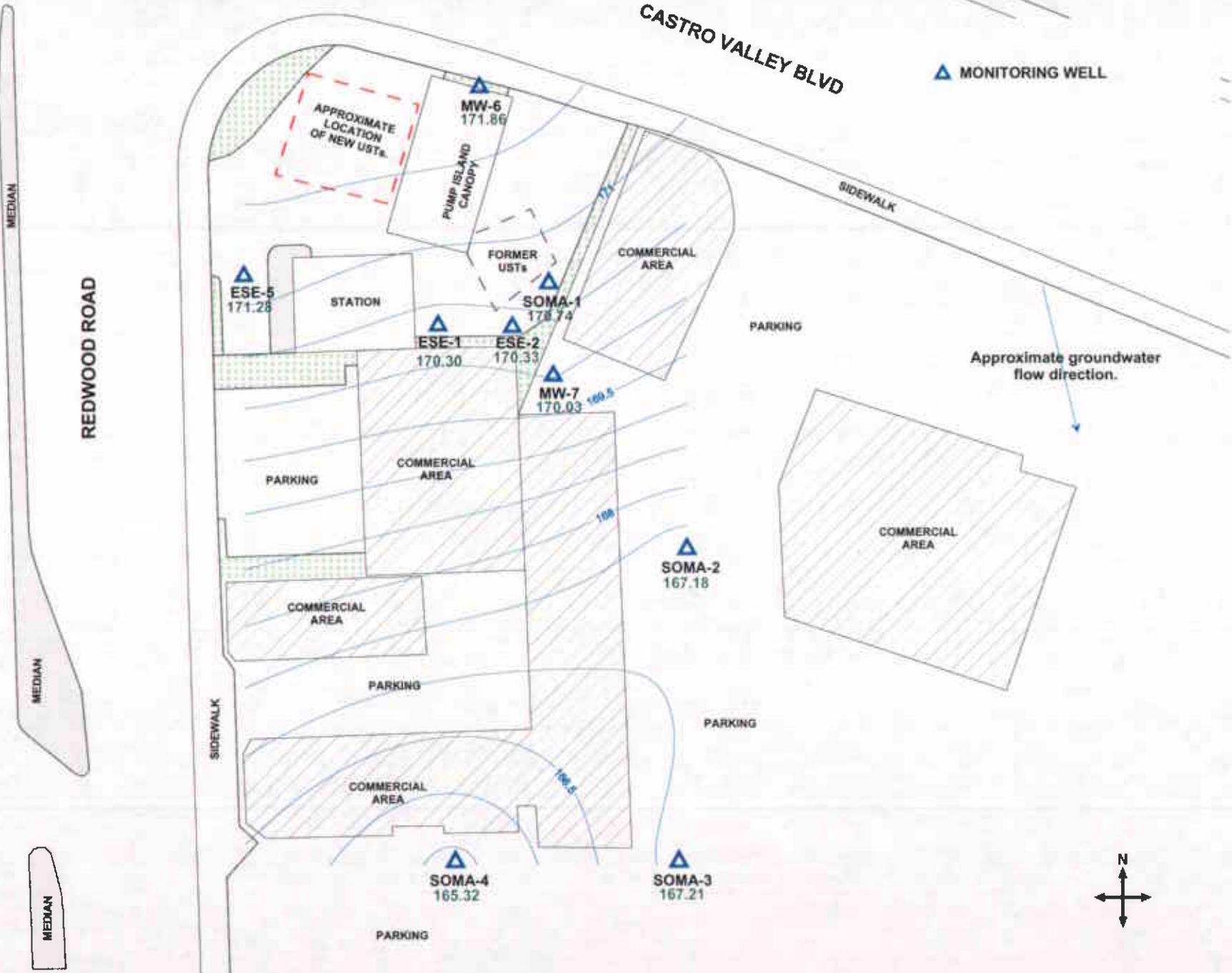
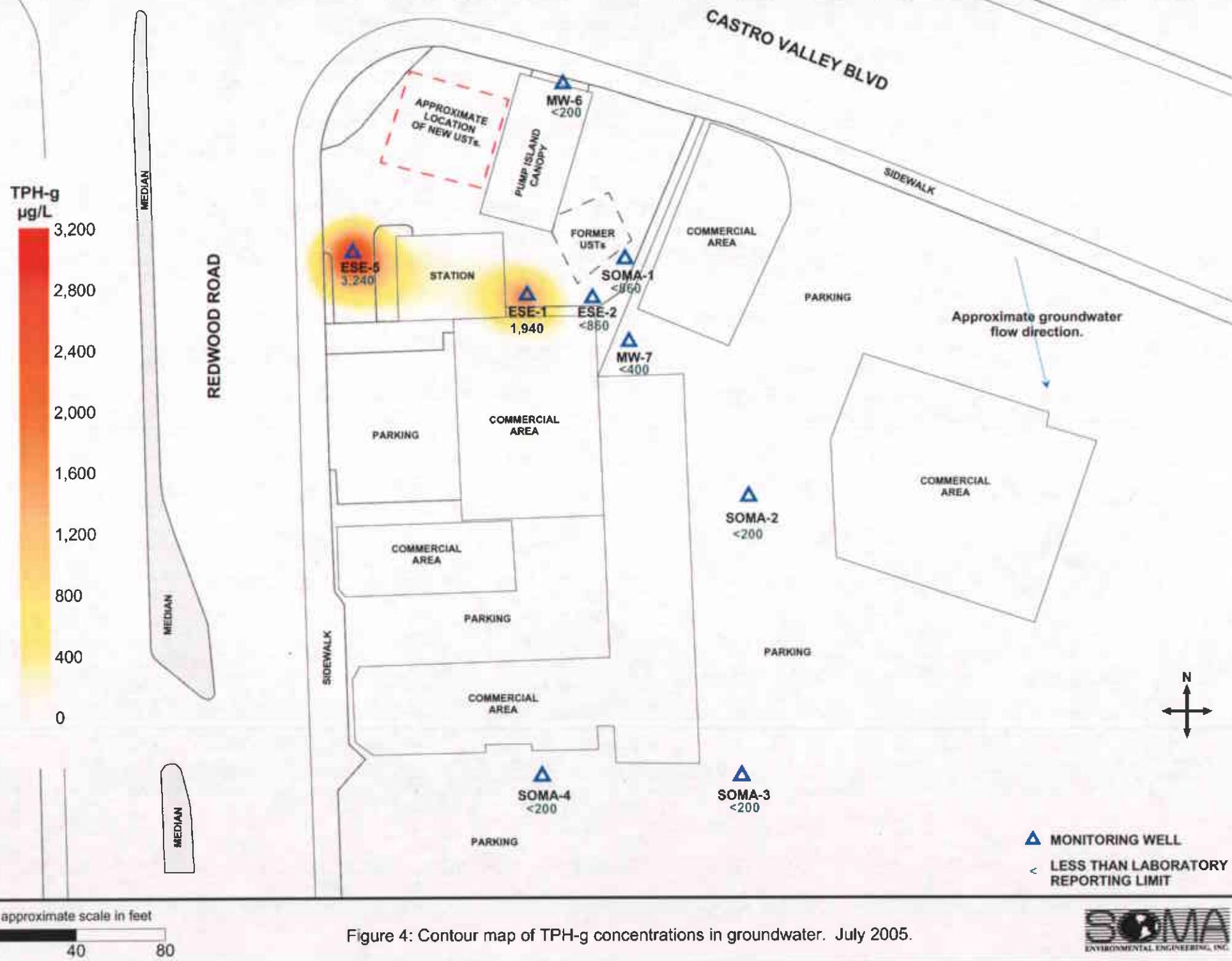


Figure 3: Groundwater elevation contour map in feet. July 2005.

approximate scale in feet

0 40 80





Benzene
ug/L

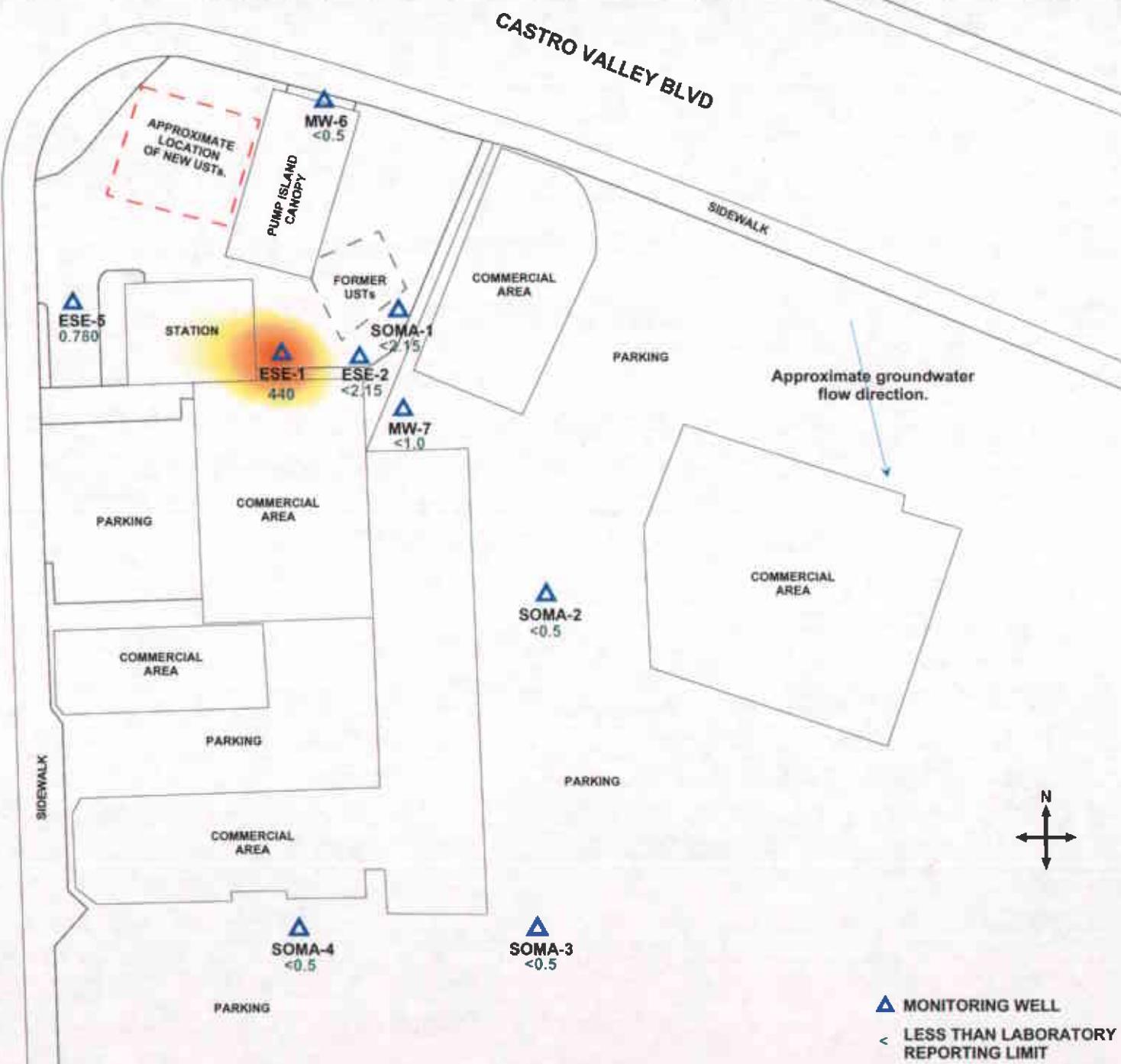
425
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0

MEDIAN

MEDIAN

MEDIAN

REDWOOD ROAD



approximate scale in feet

0 40 80

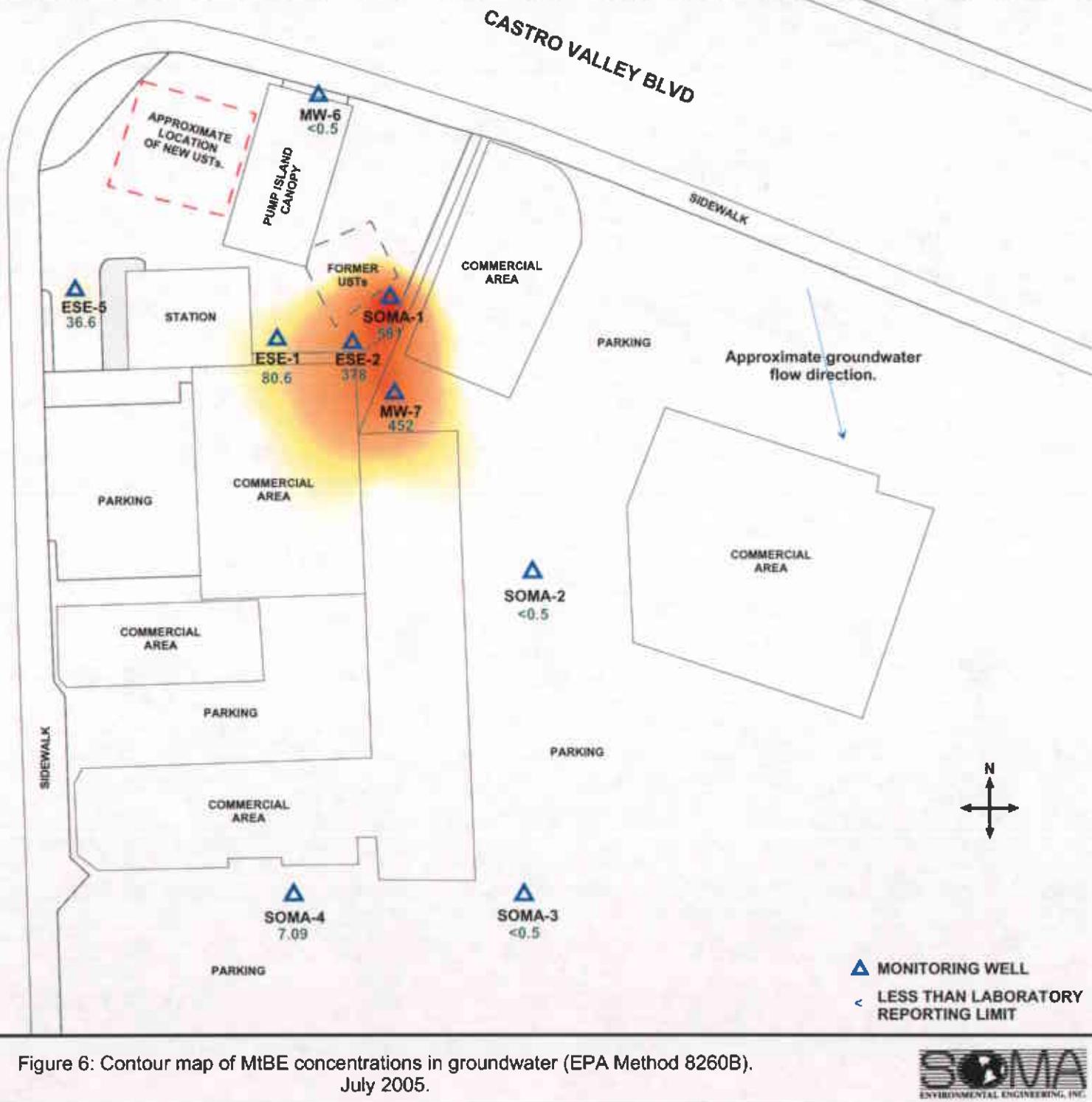
Figure 5: Contour map of Benzene concentrations in groundwater. July 2005.

MtBE
µg/L

600
560
520
480
440
400
360
320
280
240
200
160
120
80
40
0

MEDIAN

REDWOOD ROAD



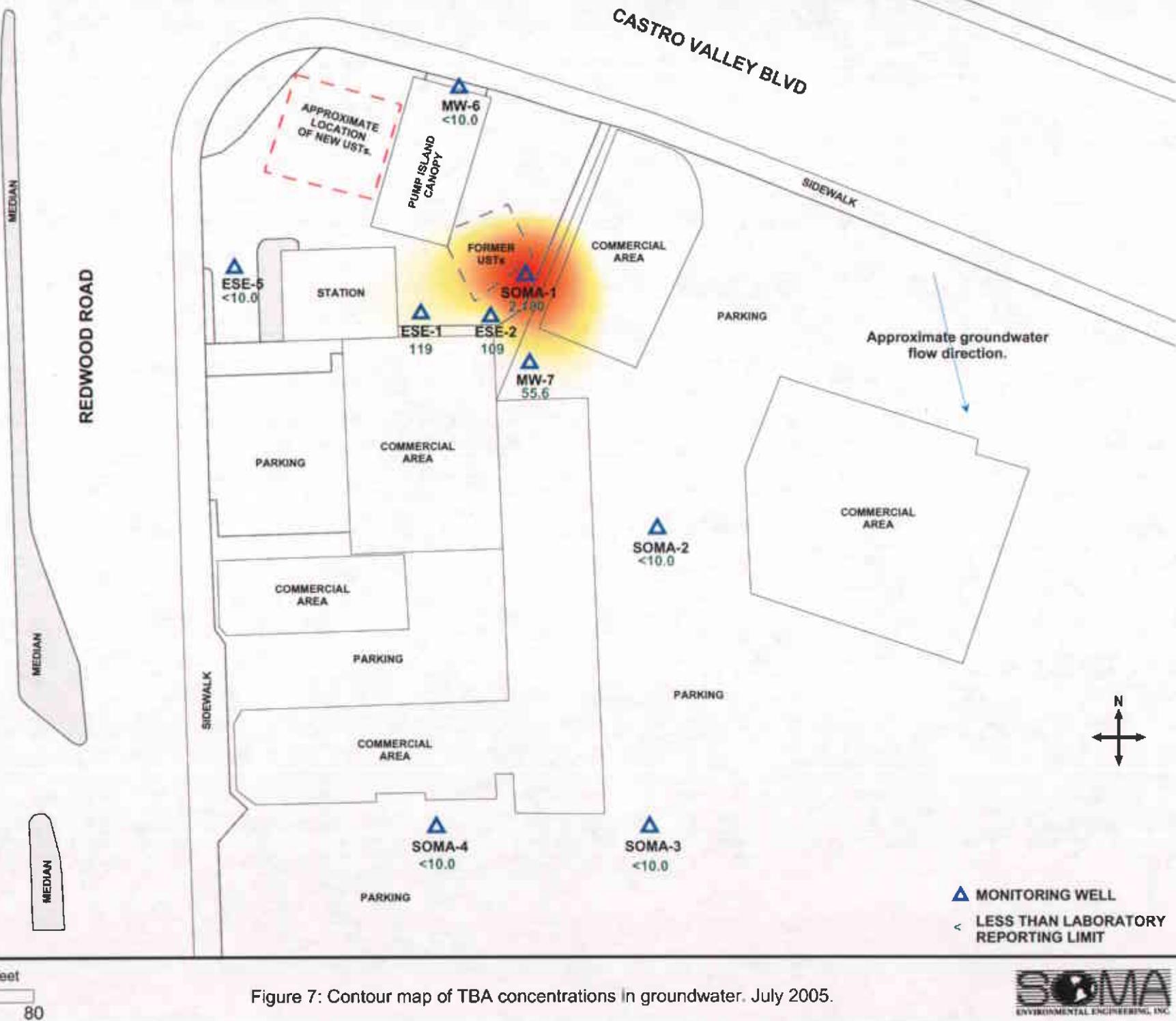
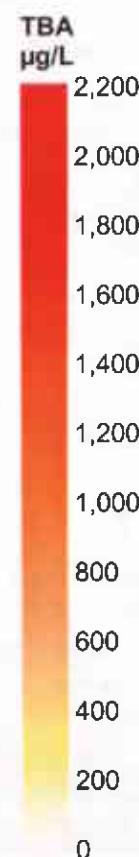


Figure 7: Contour map of TBA concentrations in groundwater, July 2005.



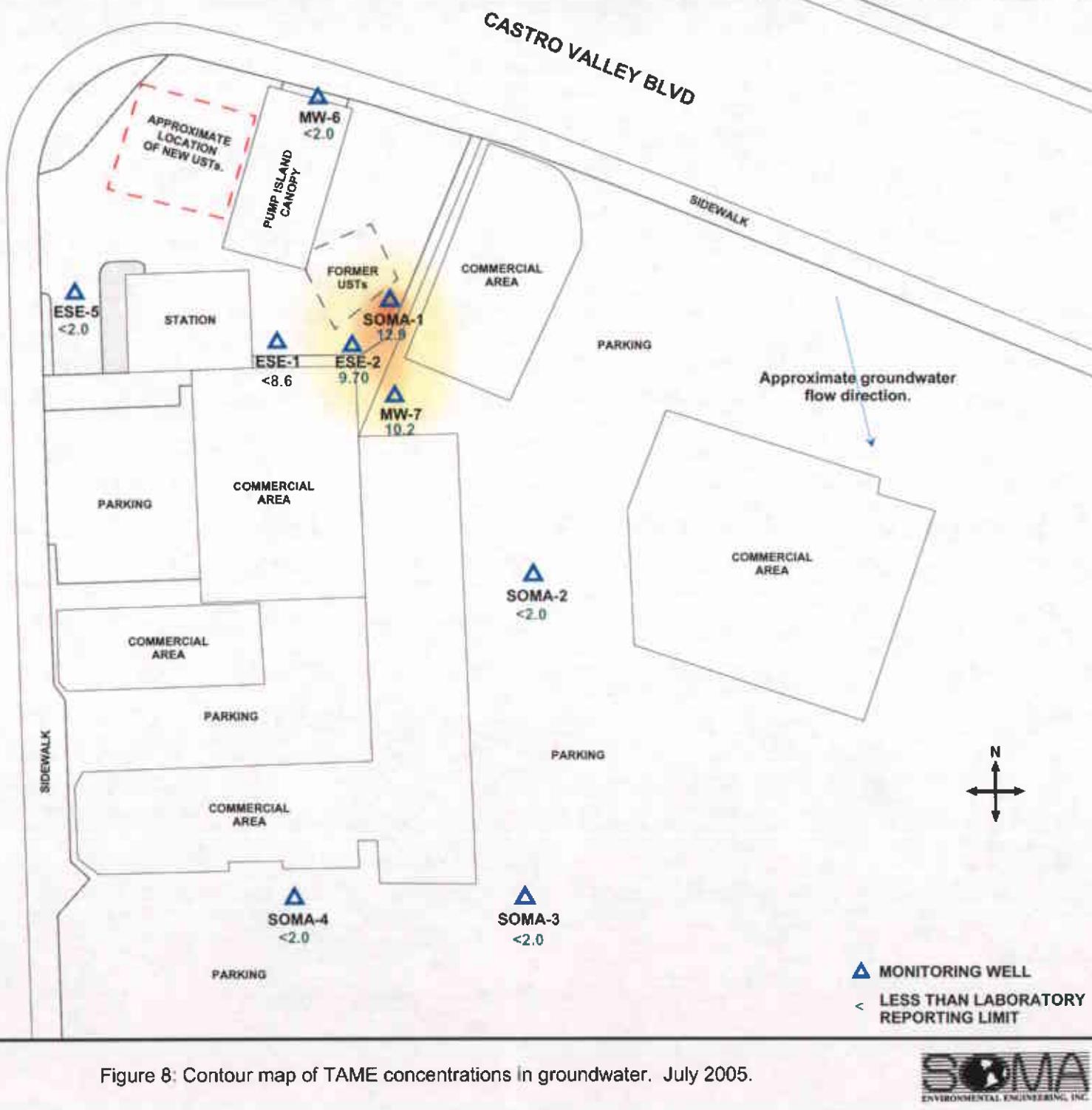
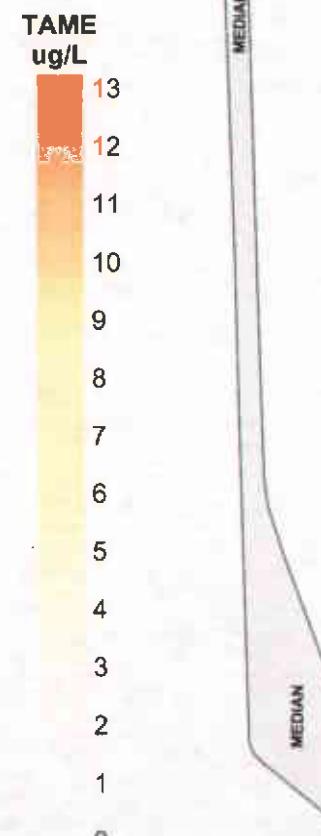


Figure 8: Contour map of TAME concentrations in groundwater. July 2005.



APPENDIX A

SOMA's Groundwater Monitoring Procedures

Field Activities

On July 7, 2005, SOMA's field crew conducted a groundwater monitoring event in accordance with the procedures and guidelines of the ACHCS. During this groundwater monitoring event, five on-site monitoring wells (ESE-1, ESE-2, ESE-5, MW-6, and SOMA-1) and four off-site monitoring wells (MW-7, SOMA-2 to SOMA-4) were monitored. Figure 2 illustrates the locations of the wells.

The depth to groundwater in each monitoring well was measured from the top of the casing to the nearest 0.01 foot using an electric sounder. The top of the casing elevation data and the depth to groundwater in each monitoring well were used to calculate the groundwater elevation.

Appendix B details the survey datum.

Prior to the collection of samples, each well was purged using a battery operated 2-inch diameter pump (Model ES-60 DC). In order to ensure that the final samples were in equilibrium with (and representative of) the surrounding groundwater, during purging several samples were taken for field measurements of pH, temperature and EC. The field parameters were measured using a Hanna pH, conductivity, and temperature meter. The equipment was calibrated at the Site using standard solutions and procedures provided by the manufacturer.

Appendix B details the field measurements taken during the monitoring event.

The purging of the wells continued until the parameters for pH, temperature and EC stabilized or three casing volumes were purged. Once the purging at each location was complete, a groundwater sample was collected. The groundwater samples were transferred into four 40-mL VOA vials and preserved with hydrochloric acid. The vials were then sealed to prevent the development of air bubbles within the headspace. After the groundwater samples were collected, they were placed into an ice-filled cooler. A chain of custody (COC) form was written for all of the samples and was submitted to the laboratory along with the groundwater samples. On July 7, 2005, SOMA's field crew delivered the groundwater samples to Pacific Analytical Laboratory in Alameda, California.

Laboratory Analysis

Pacific Analytical Laboratory, a state certified laboratory, analyzed the groundwater samples for TPH-g, BTEX, MtBE, gasoline oxygenates, and lead scavengers. Samples for TPH-g, BTEX, MtBE, gasoline oxygenates, and lead scavengers measurements were prepared using EPA Method 5030B and analyzed using Method EPA 8260B.

Appendix B

Table of Elevations & Coordinates on Monitoring Wells
Measured by Kier Wright Civil Engineers Surveyors, Inc.

&

Field Measurements of Physical and Chemical
Properties of the Groundwater Samples Collected
During the Third Quarter 2005

**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 N 37° 41' 42.07112"	6106465.13 W 122° 04' 24.07899"	180.24 180.71 180.69	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE
ESE-2	2079361.30 N 37° 41' 42.07873"	6106501.97 W 122° 04' 23.62071"	180.79 181.16 181.14	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM CONC. NORTH SIDE
ESE-5	2079381.46 N 37° 41' 42.25902"	6106387.63 W 122° 04' 25.04739"	178.80 179.07 179.10	2" PVC NOTVH N. SIDE FEL X ON NORTH SIDE RIM CONC. NORTH SIDE
MW-6	2079451.94 N 37° 41' 42.97323"	6106492.77 W 122° 04' 23.75412"	181.80 181.97 181.88	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM GROUND NORTH SIDE
MW-7	2079337.18 N 37° 41' 41.84264"	6106516.12 W 122° 04' 23.43963"	179.11 179.55 179.49	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM CONC. NORTH SIDE
SOMA-1	2079370.39 N 37° 41' 42.16939"	6106506.79 W 122° 04' 23.56265"	180.95 181.25 181.22	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM CONC. NORTH SIDE
SOMA-2	2079297.44 N 37° 41' 41.45825"	6106557.02 W 122° 04' 22.79809"	178.99 179.29 179.28	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM CONC. NORTH SIDE
SOMA-3	2079130.83 N 37° 41' 39.81129"	6106567.48 W 122° 04' 22.75752"	176.81 177.18 177.12	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE
SOMA-4	2079141.57 N 37° 41' 39.9003"	6106464.22 W 122° 04' 24.04438"	176.94 177.43 177.44	2" PVC, NOTVH N. SIDE SET PUNCH NORTH SIDE RIM 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	6106368.88	N/A	DWY
317	2079424.72	6106369.39	N/A	DWY E-C
315	2079481.34	6106432.38	N/A	DWY POC
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

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.

Kier & Wright Engineers Surveyors, Inc.

1233 Quarry Lane, Suite 145, Pleasanton, CA 94566

Phone (925) 249-6555,

Fax (925) 249-6563

7/7/2004
9:01 AM
A04594-WELLS



ENVIRONMENTAL ENGINEERING, INC

Well No.:	<u>ESE-1</u>	Project No.:	2761
Casing Diameter:	<u>2</u> inches	Address:	3519 Castro Valley Blvd
Depth of Well:	<u>28.00</u> feet		Castro Valley, CA
Top of Casing Elevation:	<u>160.24</u> feet	Date:	July 7, 2005
Depth to Groundwater:	<u>9.94</u> feet	Sampler:	Tony Perini
Groundwater Elevation:	<u>170.30</u> feet		Mehran Nowroozi
Water Column Height:	<u>18.06</u> feet		
Purged Volume:	<u>17</u> gallons		

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)
2:45 PM	started purging well			
2:50 PM	4	6.57	21.30	1008
2:53 PM	9	6.42	20.10	886
2:58 PM	17	6.45	19.70	884
3 PM	Samples			



ENVIRONMENTAL ENGINEERING, INC

Well No.: ESE-2 Project No.: 2761
Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
Depth of Well: 26.50 feet Castro Valley, CA
Top of Casing Elevation: 180.79 feet Date: July 7, 2005
Depth to Groundwater: 10.46 feet Sampler: Tony Perini
Groundwater Elevation: 170.33 feet Mehran Nowroozi
Water Column Height: 16.04 feet
Purged Volume: 16 gallons

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)
2:23 PM	started purging well			
2:26 PM	4.0	7.05	21.70	1200
2:29 PM	8.0	6.88	19.80	1160
2:35 PM	16	6.84	19.50	1130
2:38 PM	sampled			



ENVIRONMENTAL ENGINEERING, INC

Well No.: ESE-5 Project No.: 2761
Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
Depth of Well: 24 feet Castro Valley, CA
Top of Casing Elevation: 178.80 feet Date: July 7, 2005
Depth to Groundwater: 7.52 feet Sampler: Tony Perini
Groundwater Elevation: 171.28 feet Mehran Nowroozi
Water Column Height: 16.48 feet
Purged Volume: 10 gallons

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: _____

Sheen: No Yes Describe: _____

Odor: No Yes Describe: slight petro odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
1:03 PM	<u>started purging well</u>			
1:06 PM	4	7.01	23.0	1130
1:10 PM	8	6.72	21.1	1230
1:12 PM	10	DR150		
1:15 PM	<u>sampled</u>			



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-6 Project No.: 2761
Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
Depth of Well: 29.60 feet Castro Valley, CA
Top of Casing Elevation: 181.80 feet Date: July 7, 2005
Depth to Groundwater: 9.94 feet Sampler: Tony Perini
Groundwater Elevation: 171.86 feet Mehran Nowroozi
Water Column Height: 19.66 feet
Purged Volume: 18 gallons

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: muddy

Sheen: No Yes Describe:

Odor: No Yes Describe:

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µS/cm)
1:24 PM	starts purging well			
1:26 PM	2	7.21	21.70	990
1:29 PM	5.5	6.92	19.90	940
1:35 PM	12	6.94	19.50	930
1:40 PM	18	6.81	19.40	930
1:43 PM	samp[ed]			



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-7
Casing Diameter: 2 inches
Depth of Well: 30.32 feet
Top of Casing Elevation: 179.11 feet
Depth to Groundwater: 9.08 feet
Groundwater Elevation: 170.03 feet
Water Column Height: 21.24 feet
Purged Volume: 16 gallons

Project No.: 2761
Address: 3519 Castro Valley Blvd
Castro Valley, CA
Date: July 7, 2005
Sampler: Tony Perini
Mehran Nowroozi

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: cloudy

Sheen: No Yes Describe:

Odor: No Yes Describe: slight petro odor

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11:32 Start	purging			
11:34 Am	3	7.31	20.70	910
11:37 Am	6.5	7.07	19.50	920
11:40 Am	12	6.95	18.80	940
11:44 Am	16	6.98	19.00	950
11:47 Am ends				

ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA-1 Project No.: 2761
Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
Depth of Well: 29.40 feet Castro Valley, CA
Top of Casing Elevation: 180.95 feet Date: July 7, 2005
Depth to Groundwater: 10.21 feet Sampler: Tony Perini
Groundwater Elevation: 170.74 feet Mehran Nowroozi
Water Column Height: 19.19 feet
Purged Volume: 19 gallons

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)
1:54 PM	start to purging well			
1:56 PM	2.0	6.99	20.10	1150
1:59 PM	6.5	6.95	19.80	1140
2:04 PM	12	6.79	19.40	1110
2:08 PM	19	6.88	19.20	1130
2:10 PM	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: 11.81 feet
 Groundwater Elevation: 167.18 feet
 Water Column Height: 2.89 feet
 Purged Volume: 3 gallons

Project No.: 2761
 Address: 3519 Castro Valley Blvd
 Castro Valley, CA
 Date: July 7, 2005
 Sampler: Tony Perini
 Mehran Nowroozi

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: No Yes Describe: brownish cloudy

Sheen: No Yes Describe: _____

Odor: No Yes Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11.12 Start sampling				
11.14 AM	1	7.54	21.1	820
11.15 AM	1	7.35	19.7	790
11.16 AM	3	7.44	19.4	786
11.20 AM	Samples			

Due to silty condition in well, water was purged using a baster



ENVIRONMENTAL ENGINEERING, INC.

Well No.: SOMA-3 Project No.: 2761
Casing Diameter: 2 inches Address: 3519 Castro Valley Blvd
Depth of Well: 14.70 feet Castro Valley, CA
Top of Casing Elevation: 176.81 feet Date: July 7, 2005
Depth to Groundwater: 9.60 feet Sampler: Tony Perini
Groundwater Elevation: 167.21 feet Mehran Nowroozi
Water Column Height: 5.10 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)
10:50 AM	started purging well			
10:52 AM	2.0	7.31	21.20	1430
10:54 AM	5.0	7.04	20.40	1240
10:56 AM	8.0	7.03	20.30	1290
11 AM	samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	<u>SOMA-4</u>	Project No.:	2761
Casing Diameter:	<u>2</u> inches	Address:	3519 Castro Valley Blvd
Depth of Well:	<u>22.65</u> feet		Castro Valley, CA
Top of Casing Elevation:	<u>176.94</u> feet	Date:	July 7, 2005
Depth to Groundwater:	<u>11.62</u> feet	Sampler:	Tony Perini
Groundwater Elevation:	<u>165.32</u> feet		Mehran Nowroozi
Water Column Height:	<u>11.03</u> feet		
Purged Volume:	<u>10</u> 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)
10:30 AM	started purging well			
10:32 AM	2.0	6.85	21.80	1190
10:34 AM	5.0	6.85	21.00	1000
10:37 AM	10	6.85	20.80	980
10:40 AM	Samples			

Appendix C

Chain of Custody Form and Laboratory Report
for the
Third Quarter 2005 monitoring event



14 July 2005

Mansour Sepehr
SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon, CA 94583

RE: 3519 Castro Valley Blvd

Work Order Number: 5070004

This Laboratory report has been reviewed for technical correctness and completeness. This entire report was reviewed and approved by the Laboratory Director or the Director's designee, as verified by the following signature.

Sincerely,

A handwritten signature in black ink, appearing to read "Maiid Akhavan".

Maiid Akhavan
Laboratory Director

CHAIN OF CUSTODY

Pacific Analytical Laboratory

851 West Midway Ave., Suite 201B
Alameda, CA 94501
510-864-0364 phone
510-864-0365 fax

Project No: 2761

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

Turnaround Time: Standard **Telephone:** 925-244-8600

Fax: 925-244-6601

Fax: 925-244-6601

Fax: 925-244-6601

Fax: 925-244-6601

Lab No.	Sample ID	Sampling Date Time	Matrix			Preservative			
			Soil	Water	Waste	# of Containers	HCl	H ₂ SO ₄	HNO ₃
	ESE-1	7/7/05 3 PM	X			4 VOAS	X		X
	ESE-2	2:38 PM	X			4 VOAS	X		X
	ESE-5	1:15 PM	X			4 VOAS	X		X
	MW-6	1:43 PM	X			4 VOAS	X		X
	MW-7	1:47 AM	X			4 VOAS	X		X
	SOMA-1	2:10 PM	X			4 VOAS	X		X
	SOMA-2	11:20 AM	X			4 VOAS	X		X
	SOMA-3	11:40 AM	X			4 VOAS	X		X
	SOMA-4	12:40 AM	X			4 VOAS	X		X

Notes: EDE OUTPUT REQUIRED

Gasoline Oxygenates: DIPE, ETBE, TAME, TBA
Lead Savengers: EDB, 1,2-DCA

RELINQUISHED BY:

2014 Person 77105
John Smith 4 PM DATE/TIME

RECEIVED BY:

4-7-N-11 7/17/05 DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

PAL
PAL

SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon CA, 94583

Project: 3519 Castro Valley Blvd
Project Number: 2761
Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ESE-1	5070004-01	Water	07-Jul-05 15:00	07-Jul-05 16:18
ESE-2	5070004-02	Water	07-Jul-05 14:38	07-Jul-05 16:18
ESE-5	5070004-03	Water	07-Jul-05 13:15	07-Jul-05 16:18
MW-6	5070004-04	Water	07-Jul-05 13:43	07-Jul-05 16:18
MW-7	5070004-05	Water	07-Jul-05 11:47	07-Jul-05 16:18
SOMA-1	5070004-06	Water	07-Jul-05 14:10	07-Jul-05 16:18
SOMA-2	5070004-07	Water	07-Jul-05 11:20	07-Jul-05 16:18
SOMA-3	5070004-08	Water	07-Jul-05 11:00	07-Jul-05 16:18
SOMA-4	5070004-09	Water	07-Jul-05 10:40	07-Jul-05 16:18



SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon CA, 94583

Project: 3519 Castro Valley Blvd

Project Number: 2761
Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ESE-1 (5070004-01RE1) Water Sampled: 07-Jul-05 15:00 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	1940	860	ug/l	4.3	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	440	2.15	"	"	"	"	"	"	"
Ethylbenzene	15.7	2.15	"	"	"	"	"	"	"
m&p-Xylene	14.1	4.30	"	"	"	"	"	"	"
o-xylene	6.90	2.15	"	"	"	"	"	"	"
Toluene	15.5	8.60	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	97.2 %	70-130		"	"	"	"	"	"
Surrogate: Dibromoiodomethane	109 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	96.6 %	70-130		"	"	"	"	"	"
MTBE	80.6	2.15	"	4.3	"	"	"	"	"
DIPE	ND	2.15	"	"	"	"	"	"	"
ETBE	ND	2.15	"	"	"	"	"	"	"
TAME	ND	8.60	"	"	"	"	"	"	"
TBA	119	43.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	2.15	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	2.15	"	"	"	"	"	"	"
Ethanol	ND	4300	"	"	"	"	"	"	"
ESE-2 (5070004-02RE1) Water Sampled: 07-Jul-05 14:38 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	860	ug/l	4.3	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	ND	2.15	"	"	"	"	"	"	"
Ethylbenzene	ND	2.15	"	"	"	"	"	"	"
m&p-Xylene	ND	4.30	"	"	"	"	"	"	"
o-xylene	ND	2.15	"	"	"	"	"	"	"
Toluene	ND	8.60	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	92.2 %	70-130		"	"	"	"	"	"
Surrogate: Dibromoiodomethane	113 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	97.4 %	70-130		"	"	"	"	"	"
MTBE	378	2.15	"	4.3	"	"	"	"	"
DIPE	ND	2.15	"	"	"	"	"	"	"
ETBE	ND	2.15	"	"	"	"	"	"	"
TAME	9.70	8.60	"	"	"	"	"	"	"
TBA	109	43.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	2.15	"	"	"	"	"	"	"

Pacific Analytical Laboratory

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon CA, 94583

Project: 3519 Castro Valley Blvd
Project Number: 2761
Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ESE-2 (S070004-02RE1) Water Sampled: 07-Jul-05 14:38 Received: 07-Jul-05 16:18									
1,2-Dibromoethane (EDB)	ND	2.15	ug/l	4.3	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Ethanol	ND	4300	"	"	"	"	"	"	"
ESE-5 (S070004-03) Water Sampled: 07-Jul-05 13:15 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	3240	200	ug/l	1	BG51401	07-Jul-05	12-Jul-05	EPA 8260B	
Benzene	0.780	0.500	"	"	"	"	"	"	"
Ethylbenzene	1.18	0.500	"	"	"	"	"	"	"
m&p-Xylene	ND	1.00	"	"	"	"	"	"	"
o-xylene	ND	0.500	"	"	"	"	"	"	"
Toluene	ND	2.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	105 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	101 %	70-130		"	"	"	"	"	"
MTBE	36.6	0.500	"	"	"	"	"	"	"
DIPE	ND	0.500	"	"	"	"	"	"	"
ETBE	ND	0.500	"	"	"	"	"	"	"
TAME	ND	2.00	"	"	"	"	"	"	"
TBA	ND	10.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	"
Ethanol	ND	1000	"	"	"	"	"	"	"
MW-6 (S070004-04) Water Sampled: 07-Jul-05 13:43 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	200	ug/l	1	BG51401	07-Jul-05	12-Jul-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	"
Ethylbenzene	ND	0.500	"	"	"	"	"	"	"
m&p-Xylene	ND	1.00	"	"	"	"	"	"	"
o-xylene	ND	0.500	"	"	"	"	"	"	"
Toluene	ND	2.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	95.0 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	103 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	97.8 %	70-130		"	"	"	"	"	"
MTBE	ND	0.500	"	"	"	"	"	"	"
DIPE	ND	0.500	"	"	"	"	"	"	"
ETBE	ND	0.500	"	"	"	"	"	"	"
TAME	ND	2.00	"	"	"	"	"	"	"
TBA	ND	10.0	"	"	"	"	"	"	"

Pacific Analytical Laboratory

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SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon CA, 94583

Project: 3519 Castro Valley Blvd
Project Number: 2761
Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (S070004-04) Water Sampled: 07-Jul-05 13:43 Received: 07-Jul-05 16:18									
1,2-dichloroethane	ND	0.500	ug/l	1	BG51401	07-Jul-05	12-Jul-05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	"
Ethanol	ND	1000	"	"	"	"	"	"	"
MW-7 (S070004-05RE1) Water Sampled: 07-Jul-05 11:47 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	400	ug/l	2	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	"
Ethylbenzene	ND	1.00	"	"	"	"	"	"	"
m&p-Xylene	ND	2.00	"	"	"	"	"	"	"
o-xylene	ND	1.00	"	"	"	"	"	"	"
Toluene	ND	4.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	94.8 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	113 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	96.6 %	70-130		"	"	"	"	"	"
MTBE	452	1.00	"	2	"	"	"	"	"
DIPE	ND	1.00	"	"	"	"	"	"	"
ETBE	ND	1.00	"	"	"	"	"	"	"
TAME	10.2	4.00	"	"	"	"	"	"	"
TBA	55.6	20.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	1.00	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	1.00	"	"	"	"	"	"	"
Ethanol	ND	2000	"	"	"	"	"	"	"
SOMA-1 (S070004-06) Water Sampled: 07-Jul-05 14:10 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	860	ug/l	4.3	BG51401	07-Jul-05	12-Jul-05	EPA 8260B	
Benzene	ND	2.15	"	"	"	"	"	"	"
Ethylbenzene	ND	2.15	"	"	"	"	"	"	"
m&p-Xylene	ND	4.30	"	"	"	"	"	"	"
o-xylene	ND	2.15	"	"	"	"	"	"	"
Toluene	ND	8.60	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	94.2 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	107 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	96.8 %	70-130		"	"	"	"	"	"
MTBE	591	2.15	"	4.3	"	"	"	"	"
DIPE	ND	2.15	"	"	"	"	"	"	"
ETBE	ND	2.15	"	"	"	"	"	"	"
TAME	12.9	8.60	"	"	"	"	"	"	"

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14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-1 (5070004-06) Water Sampled: 07-Jul-05 14:10 Received: 07-Jul-05 16:18									
TBA	2180	43.0	ug/l	4.3	BG51401	07-Jul-05	12-Jul-05	EPA 8260B	
1,2-dichloroethane	ND	2.15	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	2.15	"	"	"	"	"	"	"
Ethanol	ND	4300	"	"	"	"	"	"	"
SOMA-2 (5070004-07) Water Sampled: 07-Jul-05 11:20 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	200	ug/l	1	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	"
Ethylbenzene	ND	0.500	"	"	"	"	"	"	"
m&p-Xylene	ND	1.00	"	"	"	"	"	"	"
o-xylene	ND	0.500	"	"	"	"	"	"	"
Toluene	ND	2.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	92.4 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	109 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	97.4 %	70-130		"	"	"	"	"	"
MTBE	ND	0.500	"	"	"	"	"	"	"
DIPE	ND	0.500	"	"	"	"	"	"	"
ETBE	ND	0.500	"	"	"	"	"	"	"
TAME	ND	2.00	"	"	"	"	"	"	"
TBA	ND	10.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	"
Ethanol	ND	1000	"	"	"	"	"	"	"
SOMA-3 (5070004-08) Water Sampled: 07-Jul-05 11:00 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	200	ug/l	1	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	"
Ethylbenzene	ND	0.500	"	"	"	"	"	"	"
m&p-Xylene	ND	1.00	"	"	"	"	"	"	"
o-xylene	ND	0.500	"	"	"	"	"	"	"
Toluene	ND	2.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	91.4 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	111 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	96.8 %	70-130		"	"	"	"	"	"
MTBE	ND	0.500	"	"	"	"	"	"	"
DIPE	ND	0.500	"	"	"	"	"	"	"
ETBE	ND	0.500	"	"	"	"	"	"	"

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Project: 3519 Castro Valley Blvd

Project Number: 2761

Project Manager: Mansour Sepehr

Reported:

14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-3 (5070004-08) Water Sampled: 07-Jul-05 11:00 Received: 07-Jul-05 16:18									
TAME	ND	2.00	ug/l	1	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
TBA	ND	10.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	"
Ethanol	ND	1000	"	"	"	"	"	"	"
SOMA-4 (5070004-09) Water Sampled: 07-Jul-05 10:40 Received: 07-Jul-05 16:18									
Gasoline (C6-C12)	ND	200	ug/l	1	BG51401	07-Jul-05	13-Jul-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	"
Ethylbenzene	0.560	0.500	"	"	"	"	"	"	"
m&p-Xylene	ND	1.00	"	"	"	"	"	"	"
o-xylene	ND	0.500	"	"	"	"	"	"	"
Toluene	ND	2.00	"	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	94.2 %	70-130		"	"	"	"	"	"
Surrogate: Dibromofluoromethane	109 %	70-130		"	"	"	"	"	"
Surrogate: Perdeuterotoluene	98.0 %	70-130		"	"	"	"	"	"
MTBE	7.09	0.500	"	"	"	"	"	"	"
DIPE	ND	0.500	"	"	"	"	"	"	"
ETBE	ND	0.500	"	"	"	"	"	"	"
TAME	ND	2.00	"	"	"	"	"	"	"
TBA	ND	10.0	"	"	"	"	"	"	"
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	"
Ethanol	ND	1000	"	"	"	"	"	"	"



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Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Pacific Analytical Laboratory

Analytic	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch BG51401 - EPA 5030 Water MS

Blank (BG51401-BLK1) Prepared & Analyzed: 14-Jul-05

Surrogate: 4-Bromofluorobenzene	46.8	ug/l	50.0	"	93.6	70-130
Surrogate: 4-Bromofluorobenzene	46.8	"	50.0	"	93.6	70-130
Surrogate: Dibromofluoromethane	51.9	"	50.0	"	104	70-130
Surrogate: Dibromofluoromethane	51.9	"	50.0	"	104	70-130
Surrogate: Perdeuterotoluene	48.2	"	50.0	"	96.4	70-130
Surrogate: Perdeuterotoluene	48.2	"	50.0	"	96.4	70-130
MTBE	ND	0.500	"			
DIPE	ND	0.500	"			
ETBE	ND	0.500	"			
TAME	ND	2.00	"			
Gasoline (C6-C12)	ND	200	"			
TBA	ND	10.0	"			
1,2-dichloroethane	ND	0.500	"			
1,2-Dibromoethane (EDB)	ND	0.500	"			
Ethanol	ND	1000	"			
Benzene	ND	0.500	"			
Ethylbenzene	ND	0.500	"			
m&p-Xylene	ND	1.00	"			
o-xylene	ND	0.500	"			
Toluene	ND	2.00	"			

LCS (BG51401-BS1) Prepared & Analyzed: 14-Jul-05

Surrogate: 4-Bromofluorobenzene	48.6	ug/l	50.0	"	97.2	70-130
Surrogate: 4-Bromofluorobenzene	48.6	"	50.0	"	97.2	70-130
Surrogate: Dibromofluoromethane	46.8	"	50.0	"	93.6	70-130
Surrogate: Dibromofluoromethane	46.8	"	50.0	"	93.6	70-130
Surrogate: Perdeuterotoluene	49.6	"	50.0	"	99.2	70-130
Surrogate: Perdeuterotoluene	49.6	"	50.0	"	99.2	70-130
MTBE	81.3	0.500	"	100	81.3	70-130
ETBE	119	0.500	"	100	119	70-130
TAME	110	2.00	"	100	110	70-130
TBA	499	10.0	"	500	99.8	70-130
Gasoline (C6-C12)	2010	200	"	2000	100	70-130
Benzene	105	0.500	"	100	105	70-130
Ethylbenzene	121	0.500	"	100	121	70-130
m&p-Xylene	119	1.00	"	100	119	70-130

Pacific Analytical Laboratory

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SOMA Environmental Engineering Inc.
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San Ramon CA, 94583

Project: 3519 Castro Valley Blvd

Project Number: 2761

Project Manager: Mansour Sepehr

Reported:
14-Jul-05 13:21

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch BG51401 - EPA 5030 Water MS

LCS (BG51401-BS1)		Prepared & Analyzed: 14-Jul-05								
o-xylene	113	0.500	ug/l	100	113	102	70-130			
Toluene	103	2.00	"	100	103	105	70-130			
LCS Dup (BG51401-BSD1)		Prepared & Analyzed: 14-Jul-05								
Surrogate: 4-Bromofluorobenzene	51.0		ug/l	50.0	102	102	70-130			
Surrogate: 4-Bromofluorobenzene	51.0		"	50.0	102	105	70-130			
Surrogate: Dibromofluoromethane	52.6		"	50.0	105	105	70-130			
Surrogate: Dibromofluoromethane	52.6		"	50.0	105	105	70-130			
Surrogate: Perdeuterotoluene	49.5		"	50.0	99.0	99.0	70-130			
Surrogate: Perdeuterotoluene	49.5		"	50.0	99.0	99.0	70-130			
MTBE	83.8	0.500	"	100	83.8	70-130	3.03	20		
ETBE	119	0.500	"	100	119	70-130	0.00	20		
TAME	107	2.00	"	100	107	70-130	2.76	20		
Gasoline (C6-C12)	2060	200	"	2000	103	70-130	2.46	20		
TBA	476	10.0	"	500	95.2	70-130	4.72	20		
Benzene	99.4	0.500	"	100	99.4	70-130	5.48	20		
Ethylbenzene	120	0.500	"	100	120	70-130	0.830	20		
m&p-Xylene	121	1.00	"	100	121	70-130	1.67	20		
o-xylene	115	0.500	"	100	115	70-130	1.75	20		
Toluene	100	2.00	"	100	100	70-130	2.96	20		

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SOMA Environmental Engineering Inc.
2680 Bishop Dr., Suite 203
San Ramon CA, 94583

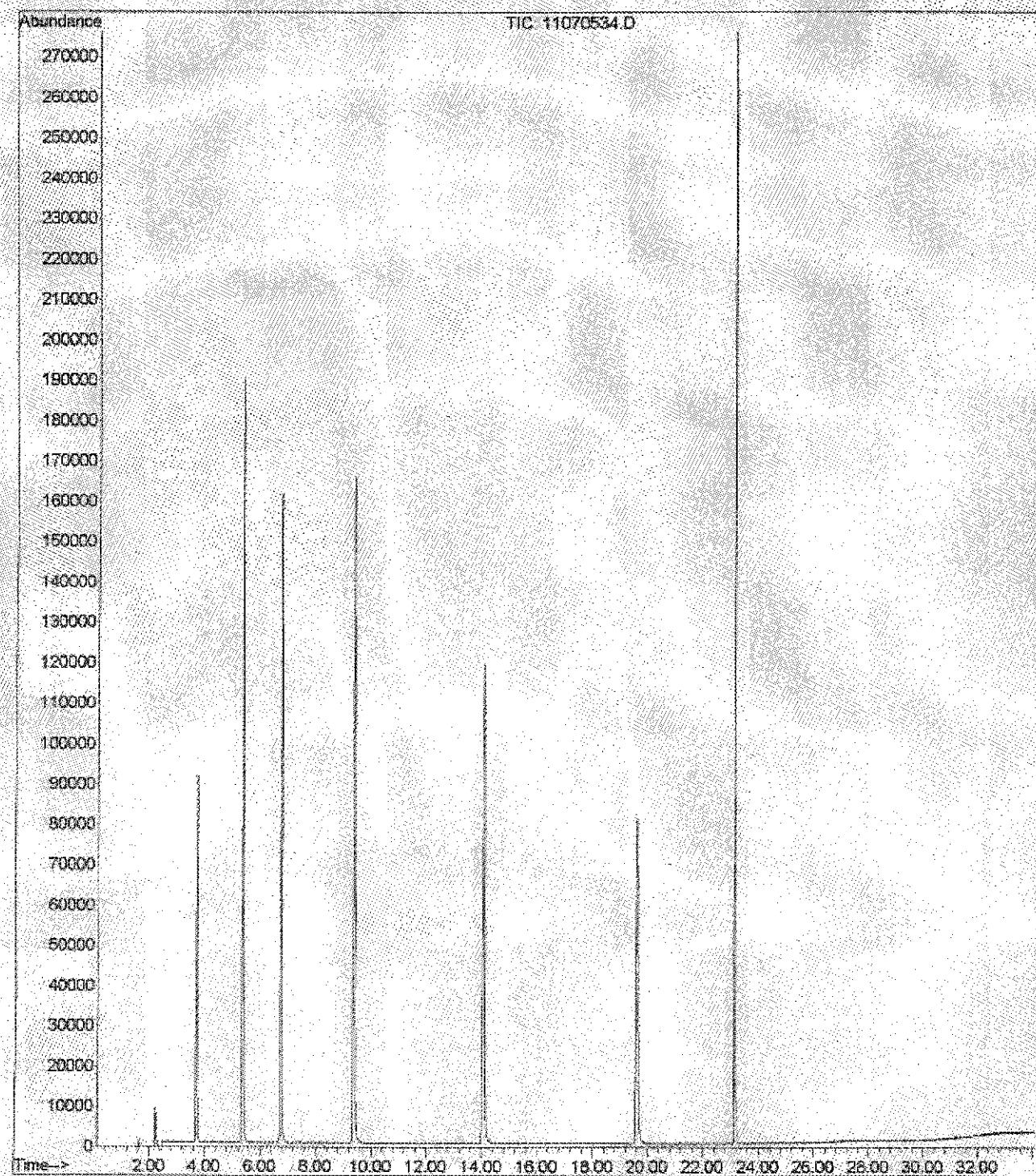
Project: 3519 Castro Valley Blvd
Project Number: 2761
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Reported:
14-Jul-05 13:21

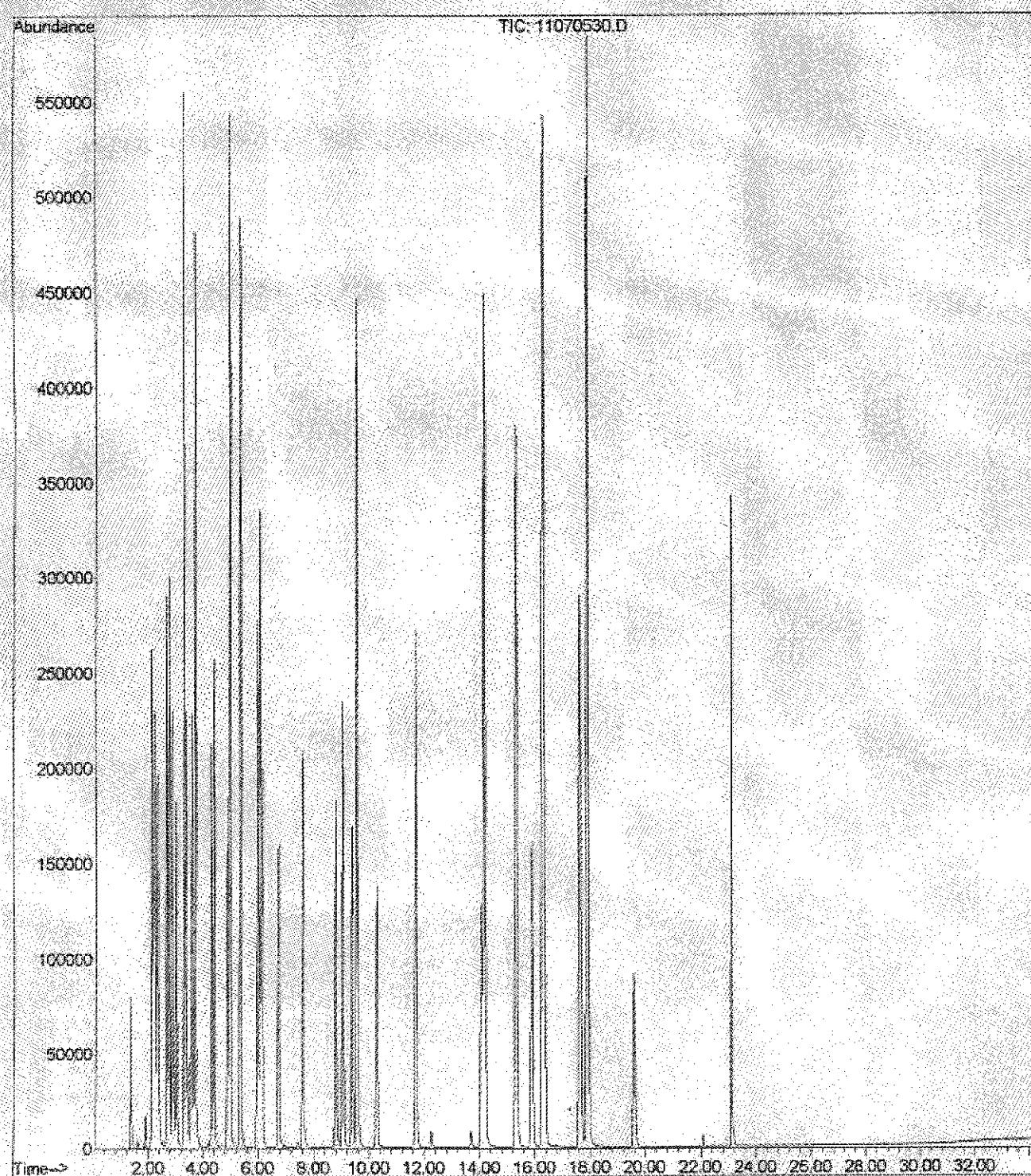
Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

File : C:\MSDCHEM\1\DATA\2005-Jul-11-1544.b\11070534.D
Operator :
Acquired : 12 Jul 2005 5:22 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG51401-BLK1
Misc Info :
Vial Number: 34



File : C:\MSDCHEM\1\DATA\2005-Jul-11-1544.b\11070530.D
Operator :
Acquired : 12 Jul 2005 1:41 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG51401-BS1@VOC
Misc Info :
Vial Number: 30



File : C:\MSDChem\1\DATA\2005-Jul-11-1544.b\11070532.D
Operator :
Acquired : 13 Jul 2005 3:31 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG51401-BS1egas
Misc Info :
Vial Number: 32

