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May 17, 2006

RECEIVED

By lopprojectop at 8:59 am, May 18, 2006

Mr. Don Hwang
Alameda County
Department of Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Fuel Leak Case No. RO0000317-5725 Thornhill Drive, Oakland, CA

Dear Don:

SOMA's "Second Quarter 2006 Groundwater Monitoring Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

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



cc: Mr. Mo Mashhoon w/report enclosure



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By loppjectop at 9:00 am, May 18, 2006

**Second Quarter 2006
Groundwater Monitoring Report**

Mash Petroleum Inc.

**5725 Thornhill Drive
Oakland, California**

May 17, 2006

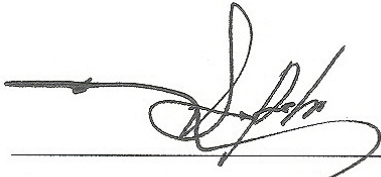
Project 2831

Prepared for
**Mr. Mo Mashhoon
1721 Jefferson Street
Oakland, California 94612**

Prepared by
**SOMA Environmental Engineering, Inc.
6620 Owens Drive, Suite A
Pleasanton, California 94588**

Certification

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Mo Mashhoon, the property owner of 5725 Thornhill Drive, Oakland, California, to comply with the Alameda County Health Care Services Agency's and California Regional Water Quality Control Board's requirements for the Second Quarter 2006 groundwater monitoring event.



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



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- Appendix A: SOMA's Groundwater Monitoring Procedures
- Appendix B: Table of Elevations & Coordinates on Monitoring Wells & Field Measurements of the Physical and Chemical Properties of the Groundwater Samples Collected During the Second Quarter 2006
- Appendix C: Chain of Custody Form and Laboratory Report for the Second Quarter 2006 Monitoring Event

1.0 INTRODUCTION

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Mo Mashhoon, the property owner of 5725 Thornhill Drive, Oakland, California (“the Site”) as shown in Figure 1. The Site is currently an active ARCO station that is located in an area consisting primarily of commercial and residential land uses.

This report summarizes the results of the Second Quarter 2006 groundwater monitoring event conducted at the Site on April 26, 2006, includes the field measurement results of the physical and chemical properties of the groundwater at the time of sampling, and includes the laboratory analytical results on the groundwater samples.

The groundwater monitoring activities for this quarter were performed in accordance with the general guidelines of the California Regional Water Quality Control Board (CRWQCB) and the Alameda County Health Care Services Agency (ACHCSA). Appendix A details the groundwater monitoring procedures used during this monitoring event.

1.1 Previous Activities

In November 1998, Penn Environmental (Penn) removed a 550-gallon steel underground waste oil tank (WOT) from the Site. Soil samples collected from the WOT excavation contained up to 1,100,000 µg/Kg of total petroleum hydrocarbons as gasoline (TPH-g), 2,700,000 µg/Kg of total petroleum hydrocarbons as diesel (TPH-d), and 4,200,000 µg/Kg of total petroleum hydrocarbons as motor oil (TPH-mo). On February 4, 1999, Penn Environmental over-excavated the contaminated soil surrounding the former WOT. Aqua Science Engineers, Inc. (ASE) collected confirmation soil samples from two sidewalls of the excavation. The only compound detected in one of these two soil samples was Methyl tertiary Butyl Ether (MtBE) at 40 µg/Kg.

In July 1999, ASE drilled borehole BH-A in the vicinity of the former WOT. On September 6, 2000, ASE drilled soil boreholes BH-B and BH-C. On October 23, 2000, ASE drilled soil boreholes BH-D and BH-E. ASE also collected water samples from Temescal Creek. No hydrocarbons were detected in the water sample collected from Temescal Creek. Figure 2 shows the locations of the borings.

On March 1 and 2, 2004, SOMA oversaw Gregg Drilling & Testing (Gregg) advance nine temporary well boreholes, HP-1 through HP-7, HP-9 and HP-10. Proposed hydropunch HP-8, located in the street, was not drilled due to traffic hazards. Three onsite wells were decommissioned in March 2004, and three wells (SOMA-1 to SOMA-3) were installed. The locations of the boreholes and wells are shown in Figure 2.

The results of the March 2004 investigation and details of the well installations are presented in SOMA's report entitled "Soil and Groundwater Investigation and Monitoring Well Installation Report at 5725 Thornhill Drive, Oakland, California," dated April 16, 2004.

On April 25, 2005, SOMA conducted a sensitive receptor survey to identify any water bodies or domestic, irrigation or water supply wells within a quarter mile radius of the Site. Based on the State Department of Water Resources and Alameda County Public Works Agency records, no drinking water, domestic or irrigation wells were within a quarter mile radius of the Site.

In May 2005, CPT/MIP boreholes (CPT-1 through CPT-5 and CPT-7 through CPT-11) were advanced under the supervision of SOMA. CPT-6 could not be drilled due to physical constraints and obstruction of local traffic. Ten boreholes, designated as GS-1 through GS-5 and GS-7 through GS-11 were advanced at the corresponding CPT borehole locations. Monitoring well SOMA-4 was also installed. Figure 2 shows the locations of the CPT boreholes and SOMA-4.

The results of the May 2005 site investigation and well installation are presented in SOMA's report entitled "Additional Soil and Groundwater Investigation and Monitoring Well Installation Report at 5725 Thornhill Drive, Oakland, California," dated June 13, 2005.

2.0 RESULTS

The following sections provide the results of the field measurements and laboratory analyses for the April 26, 2006 groundwater monitoring event.

2.1 Field Measurements

As shown in Table 1, the depth to groundwater ranged from 4.71 feet in SOMA-1 to 7.61 feet in SOMA-4. The corresponding groundwater elevations ranged from 565.04 feet in SOMA-4 to 571.76 feet in SOMA-1. The contour map of the groundwater elevations is presented in Figure 3. The groundwater flows southwesterly across the Site, with an average gradient of 0.046 feet/foot.

The field notes in Appendix B show the detailed measurements of the physical and chemical parameters of the groundwater for each well during this monitoring event.

2.2 Laboratory Analyses

Table 1 presents the results of the laboratory analyses for total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as motor oil (TPH-mo), benzene, toluene,

ethylbenzene, total xylenes (BTEX), and Methyl tertiary Butyl Ether (MtBE). Table 2 presents the results of the gasoline oxygenates and lead scavengers.

TPH-g was below the laboratory reporting limit in well SOMA-1. Detectable TPH-g concentrations ranged from 121 ug/L in SOMA-3 to 6,490 ug/L in SOMA-2. Figure 4 displays a contour map of TPH-g concentrations in the groundwater. TPH-g has migrated off-site due to the southwesterly groundwater flow direction. The most impacted TPH-g region appears to be in the vicinity of the pump islands, around well SOMA-2.

TPH-d was below the laboratory reporting limit in well SOMA-1. Detectable TPH-d concentrations ranged from 123 ug/L in SOMA-3 to 1,580 ug/L in SOMA-2. The TPH-d chromatographic pattern for both wells SOMA-2 and SOMA-3 did not match that of the standard diesel pattern. An unidentified hydrocarbon element was also present during analytical testing for wells SOMA-2 and SOMA-3. See the laboratory report in Appendix C for further clarification.

Figure 5 displays a contour map of TPH-d concentrations in the groundwater. TPH-d has migrated off-site due to the southwesterly groundwater flow direction. The most impacted TPH-d region appears to be in the region of the pump islands, at well SOMA-2.

TPH-mo was below the laboratory reporting limit throughout the Site; therefore, no iso-concentration figure was drawn for this analyte.

All BTEX analytes were below the laboratory reporting limit in wells SOMA-1, SOMA-3, and SOMA-4. In well SOMA-2, both benzene and toluene were below the laboratory reporting limit, and both ethylbenzene and total xylenes were at low levels (15.3 ug/L and 8.49 ug/L, respectively).

MtBE was detected in all of the groundwater samples collected during this monitoring event. Detectable MtBE concentrations ranged from 5.28 ug/L in well SOMA-1 to 231 ug/L in well SOMA-4.

Figure 6 displays a contour map of MtBE concentrations in the groundwater using EPA Method 8260B. Figure 6 illustrates the overall influence of the southwesterly groundwater flow direction from the UST cavity and pump islands to the off-site regions. The most impacted MtBE region appears to be in the vicinity of well SOMA-4. However, MtBE in well SOMA-4 has shown a decreasing trend since Third Quarter 2005.

As shown in Table 2, all gasoline oxygenates and lead scavengers were below the laboratory reporting limit in wells SOMA-1 and SOMA-3. In well SOMA-2, tert-Butyl-Alcohol (TBA) was detected at 36.1 ug/L; all other gasoline oxygenates and lead scavengers were below the laboratory reporting limit. In well SOMA-4, Ethyl tertiary Butyl Ether (EtBE), 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromoethane

(EDB), and ethanol were below the laboratory reporting limit, and TBA, Isopropyl Ether (DIPE), and Methyl tert-Amyl Ether (TAME) were detected at 357 ug/L, 0.59 ug/L, and 2.1ug/L, respectively. Figure 7 displays a contour map of TBA concentrations in the groundwater. The most impacted TBA region appears to be in the vicinity of well SOMA-4.

Appendix C contains the laboratory report and chain-of-custody (COC) form from this monitoring event.

3.0 CONCLUSIONS & RECOMMENDATIONS

The findings of the Second Quarter 2006 groundwater monitoring event can be summarized as follows:

- The groundwater flow direction is southwesterly across the Site, at a gradient of approximately 0.046 feet/feet.
- Based on previous site investigations, and the results of the quarterly monitoring events, both the hydrocarbon and MtBE plumes have migrated southwesterly off-site with the flow of groundwater.
- In general, low levels of TPH-g, TPH-d, and MtBE were detected in well MW-4. As such, SOMA recommends a no further action (NFA) status be adopted by the ACHCSA for this site.

4.0 REPORT LIMITATIONS

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

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

Tables

Table 1
SOMA Historical Groundwater Elevation Data
& Analytical Results (Hydrocarbons, BTEX, & MtBE)
5725 Thornhill Drive, Oakland California

Monitoring Well	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MtBE* 8260B (µg/L)
SOMA-1	4/22/2004	576.47	5.75	570.72	63	<50	<300	<0.5	<0.5	<0.5	<0.5	7.7
	7/27/2004	576.47	6.21	570.26	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	9.1
	10/28/2004	576.47	5.76	570.71	<50	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	6.4
	1/11/2005	576.47	3.73	572.74	<50	200 HY	900	<0.5	<0.5	<0.5	<0.5	4.7
	4/12/2005	576.47	4.72	571.75	<200	<50	<300	<0.5	<0.5	<0.5	<1.0	7.49
	7/19/2005	576.47	5.87	570.60	<200	<50	<300	<0.5	<2.0	<0.5	<1.0	4.94
	10/18/2005	576.47	6.12	570.35	<50	<50	<300	<0.5	<2.0	<0.5	<1.0	5.33
	2/6/2006	576.47	5.10	571.37	<50	920LY	<300	<0.5	<2.0	<0.5	<1.0	2.74
	4/26/2006	576.47	4.71	571.76	<50	<50¹	<250¹	<0.5	<2.0	<0.5	<1.0	5.28
SOMA-2	4/22/2004	575.50	7.40	568.10	1,900	690 LY	<300	<0.5	<0.5	5.2	9.9	1,900
	7/27/2004	575.50	7.92	567.58	1,500	710 LY	<300	8.9 C	<0.5	1.5 C	2.9 C	740
	10/28/2004	575.50	7.62	567.88	955	790 LY	<1.0	<2.5	<2.5	<2.5	< 5	785
	1/11/2005	575.50	5.70	569.80	3,700	2100 LY	380	3.7	<2.0	3.5	102	310
	4/12/2005	575.50	6.28	569.22	5,960	1200 LY	<300	1.19	<0.5	20.6	25	241
	7/19/2005	575.50	7.42	568.08	2,480	800 LY	<300	1.09	<2.0	2.65	0.73	162
	10/18/2005	575.50	7.70	567.80	2,710	1,100 LY	<300	1.41	<2.0	2.24	0.64	130
	2/6/2006	575.50	6.71	568.79	2,730	66Y	<300	0.68	<2.0	0.71	6.33	49
	4/26/2006	575.50	6.32	569.18	6,490	1,580^{1,2,3}	<250¹	<0.5	<2.0	15.3	8.49	38.5

Table 1
SOMA Historical Groundwater Elevation Data
& Analytical Results (Hydrocarbons, BTEX, & MtBE)
5725 Thornhill Drive, Oakland California

Monitoring Well	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	MtBE* 8260B (µg/L)
SOMA-3	4/22/2004	575.92	7.14	568.78	190	120 Y	<300	<0.5	<0.5	<0.5	<0.5	5.1
	7/27/2004	575.92	7.95	567.97	130	120 LY	<300	<0.5	<0.5	<0.5	<0.5	9.1
	10/28/2004	575.92	7.60	568.32	57	280 LY	<1.0	<0.5	<0.5	<0.5	<2	11.3
	1/11/2005	572.92	5.45	567.47	140	210 Y	<300	<0.5	<0.5	<0.5	<0.5	5.8
	4/12/2005	572.92	6.02	566.90	<200	<50	<300	<0.5	<0.5	<0.5	<1.0	4.53
	7/19/2005	572.92	7.49	565.43	<200	120 Y	<300	<0.5	<2.0	<0.5	<1.0	4.69
	10/18/2005	572.92	7.63	565.29	50.1	120 Y	<300	<0.5	<2.0	<0.5	<1.0	8.63
	2/6/2006	572.92	7.20	565.72	1,010	220Y	<300	<0.5	<2.0	<0.5	2.06	32
4/26/2006	572.92	6.13	566.79	121	123 ^{1,2,3}	<250 ¹	<0.5	<2.0	<0.5	<1.0	5.49	
SOMA-4	7/19/2005	572.65	8.10	564.55	3,350	1,200 LY	<300	<1.0	<4.0	<1.0	<2.0	455
	10/18/2005	572.65	8.15	564.50	1,580	1,200 LY	<300	<2.15	<8.6	<2.15	<4.3	425
	2/6/2006	572.65	7.68	564.97	1,940	830LY	<300	<2.15	<8.60	<2.15	<4.3	409
	4/26/2006	572.65	7.61	565.04	3,930	1,080 ^{1,2,3}	<250 ¹	<0.5	<2.0	<0.5	<1.0	231

Notes:

- <: not detected at or above laboratory reporting limits.
- C: Presence confirmed, but RPD between columns exceeds 40%.
- H: Heavier hydrocarbons contributed to the quantitation.
- L: Lighter hydrocarbons contributed to the quantitation.
- Y: Sample exhibits chromatographic pattern which did not resemble standard.

- 1 To reduce matrix interference , the sample extract has undergone silica-gel clean-up, method 3630, which is specific to polar compound contamination, diesel 2Q06.
- 2 The sample chromatographic pattern does not resemble fuel standard used for quantitation, diesel 2Q06.
- 3 Unidentified hydrocarbons C9-C16, diesel 2Q06..

The Second Quarter 2004 was the first time SOMA monitored the site. Wells SOMA-1 to SOMA-3 were monitored at that time. Well SOMA-4 was installed on May 27, 2005. The Third Quarter 2005 was the first time SOMA monitored this well.

Table 2
Groundwater Analytical Results
Gasoline Oxygenates & Lead Scavengers
5725 Thornhill Drive, Oakland California

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
SOMA-1	4/22/2004	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	7/27/2004	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	10/28/2004	<2.5	<0.5	<0.5	<2	<0.5	<0.5	<1.0
	1/11/2005	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000
	4/12/2005	<2.5	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	7/19/2005	<10	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	10/18/2005	<10	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	2/1/2006 4/26/2006	<10 <10	<0.5 <0.5	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<0.5 <0.5	<1000 <1000
SOMA-2	4/22/2004	<100	<5.0	<5.0	19.0	<5.0	<5.0	<10000
	7/27/2004	<33	<1.7	<1.7	9.8	<1.7	<1.7	<3300
	10/28/2004	36.3	<2.5	<2.5	12.85	<0.5	<0.5	<1.0
	1/11/2005	67	<2.0	<2.0	6.7	<2.0	<2.0	<4,000
	4/12/2005	71	<0.5	<0.5	3.29	<0.5	<0.5	<1000
	7/19/2005	74.2	<0.5	<0.5	2.82	<0.5	<0.5	<1000
	10/18/2005	81.7	<0.5	<0.5	2.61	<0.5	<0.5	<1000
	2/1/2006 4/26/2006	37.8 36.1	<0.5 <0.5	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<0.5 <0.5	<1000 <1000
SOMA-3	4/22/2004	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	7/27/2004	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	10/28/2004	<2.5	<0.5	<0.5	<2	<0.5	<0.5	<1.0
	1/11/2005	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000
	4/12/2005	<2.5	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	7/19/2005	<10	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	10/18/2005	<10	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	2/1/2006 4/26/2006	40.9 <10	<0.5 <0.5	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<0.5 <0.5	<1000 <1000

Table 2
Groundwater Analytical Results
Gasoline Oxygenates & Lead Scavengers
5725 Thornhill Drive, Oakland California

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
SOMA-4	7/19/2005	84.1	<1.0	<1.0	4.4	<1.0	<1.0	<1000
	10/18/2005	314	<2.15	<2.15	<8.6	<2.15	<2.15	<4300
	2/1/2006	417	<2.15	<2.15	<8.6	<2.15	<2.15	<4300
	4/26/2006	357	0.59	<0.5	2.1	<0.5	<0.5	<1000

Notes:

<: Not detected above the laboratory reporting limit.

The Second Quarter 2004 was the first time SOMA monitored the site.

Wells SOMA-1 to SOMA-3 were monitored at that time.

Well SOMA-4 was installed on May 27, 2005. The Third Quarter 2005 was the first time SOMA monitored this well.

Gasoline Oxygenates:

TBA: tertiary butyl alcohol

DIPE: Di-Isopropyl ether

ETBE: Ethyl tertiary butyl ether

TAME: Methyl tertiary amyl ether

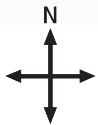
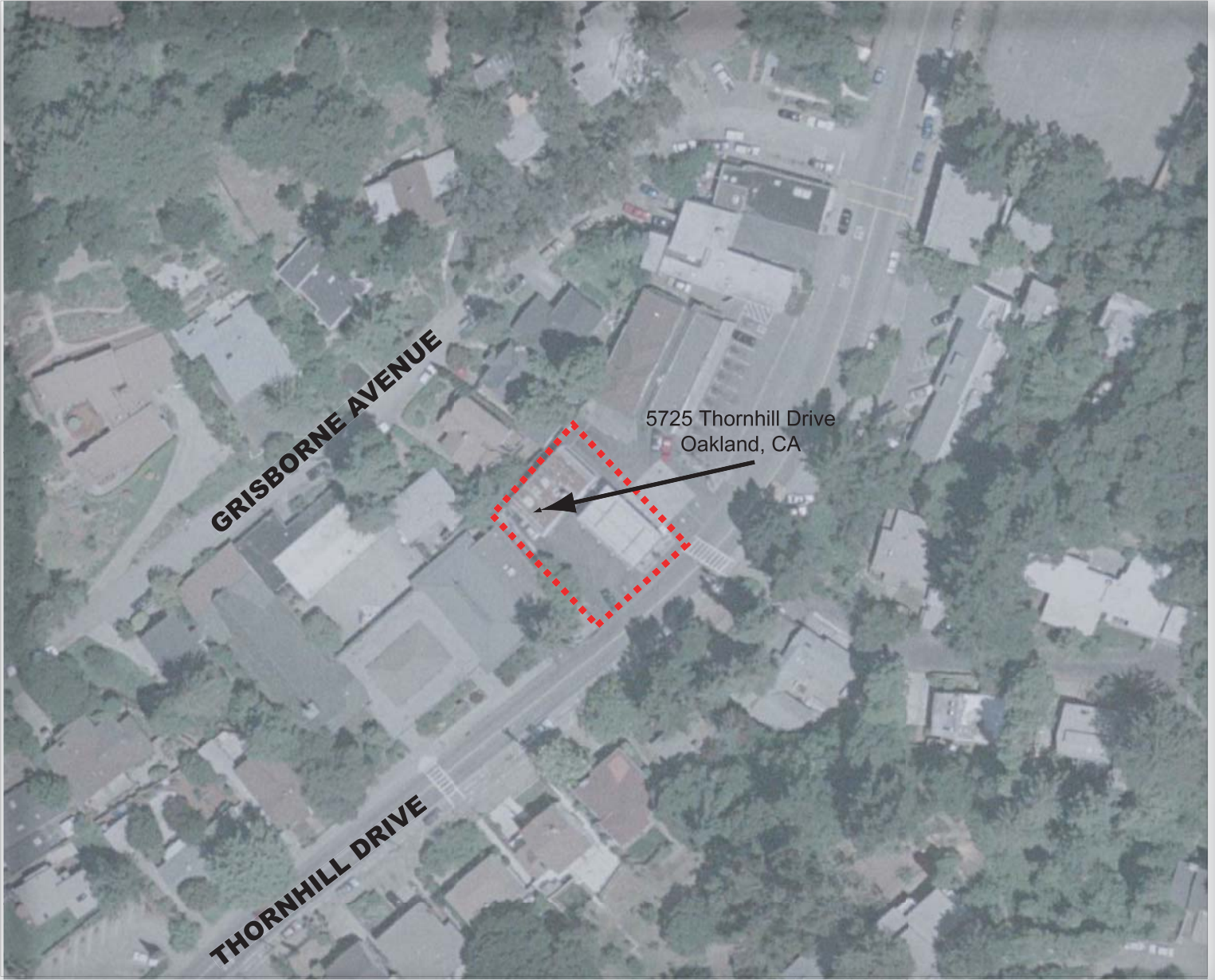
Ethanol

Lead Scavengers:

1,2-Dichloroethane

EDB: 1,2-Dibromoethane

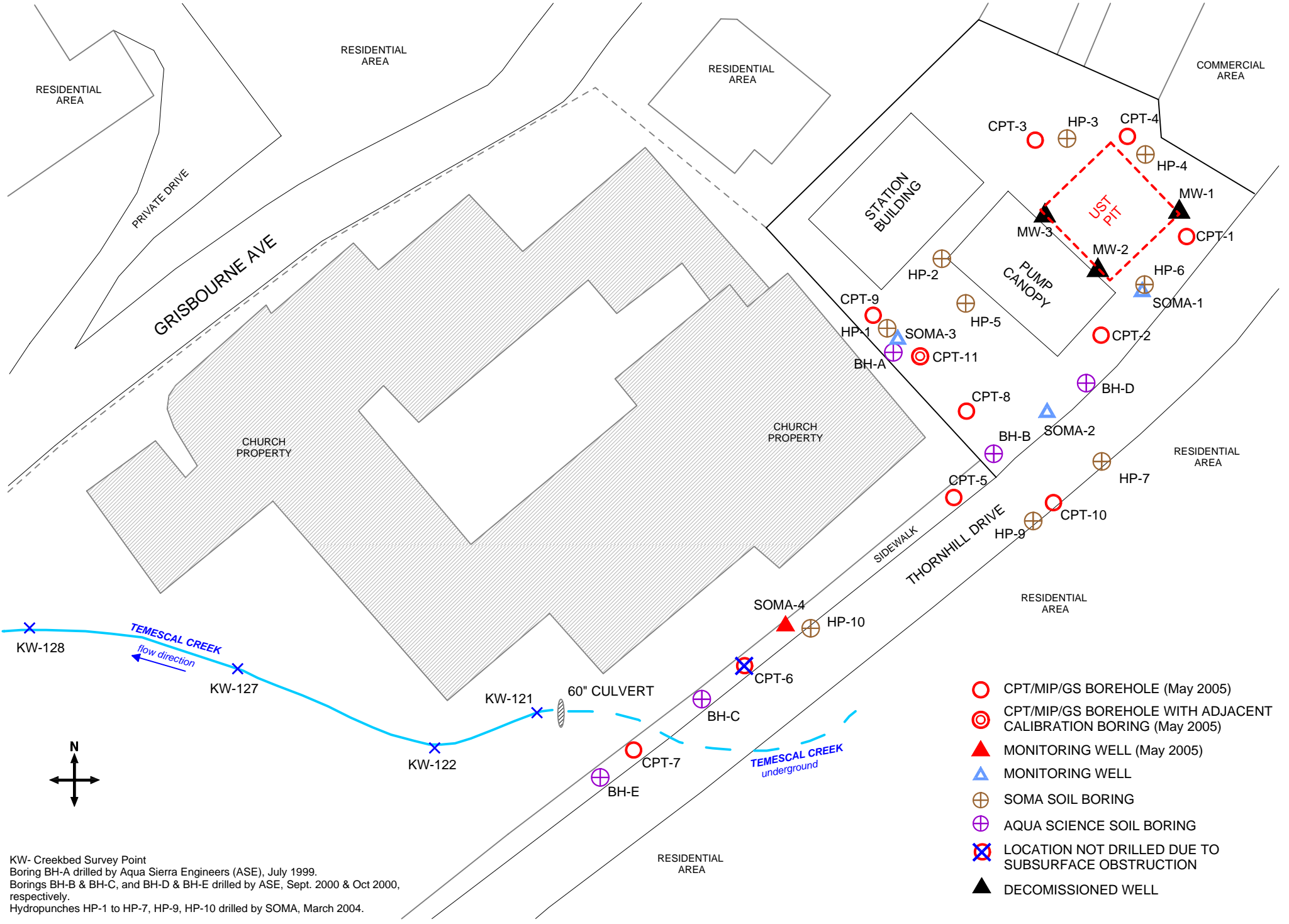
Figures



approximate scale in feet
0 100 200

Figure 1: Site vicinity map.





- CPT/MIP/GS BOREHOLE (May 2005)
- ⊗ CPT/MIP/GS BOREHOLE WITH ADJACENT CALIBRATION BORING (May 2005)
- ▲ MONITORING WELL (May 2005)
- ▲ MONITORING WELL
- ⊕ SOMA SOIL BORING
- ⊕ AQUA SCIENCE SOIL BORING
- ⊗ LOCATION NOT DRILLED DUE TO SUBSURFACE OBSTRUCTION
- ▲ DECOMISSIONED WELL

KW- Creekbed Survey Point
 Boring BH-A drilled by Aqua Sierra Engineers (ASE), July 1999.
 Borings BH-B & BH-C, and BH-D & BH-E drilled by ASE, Sept. 2000 & Oct 2000, respectively.
 Hydropunches HP-1 to HP-7, HP-9, HP-10 drilled by SOMA, March 2004.

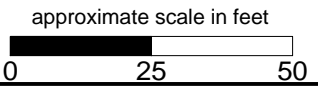
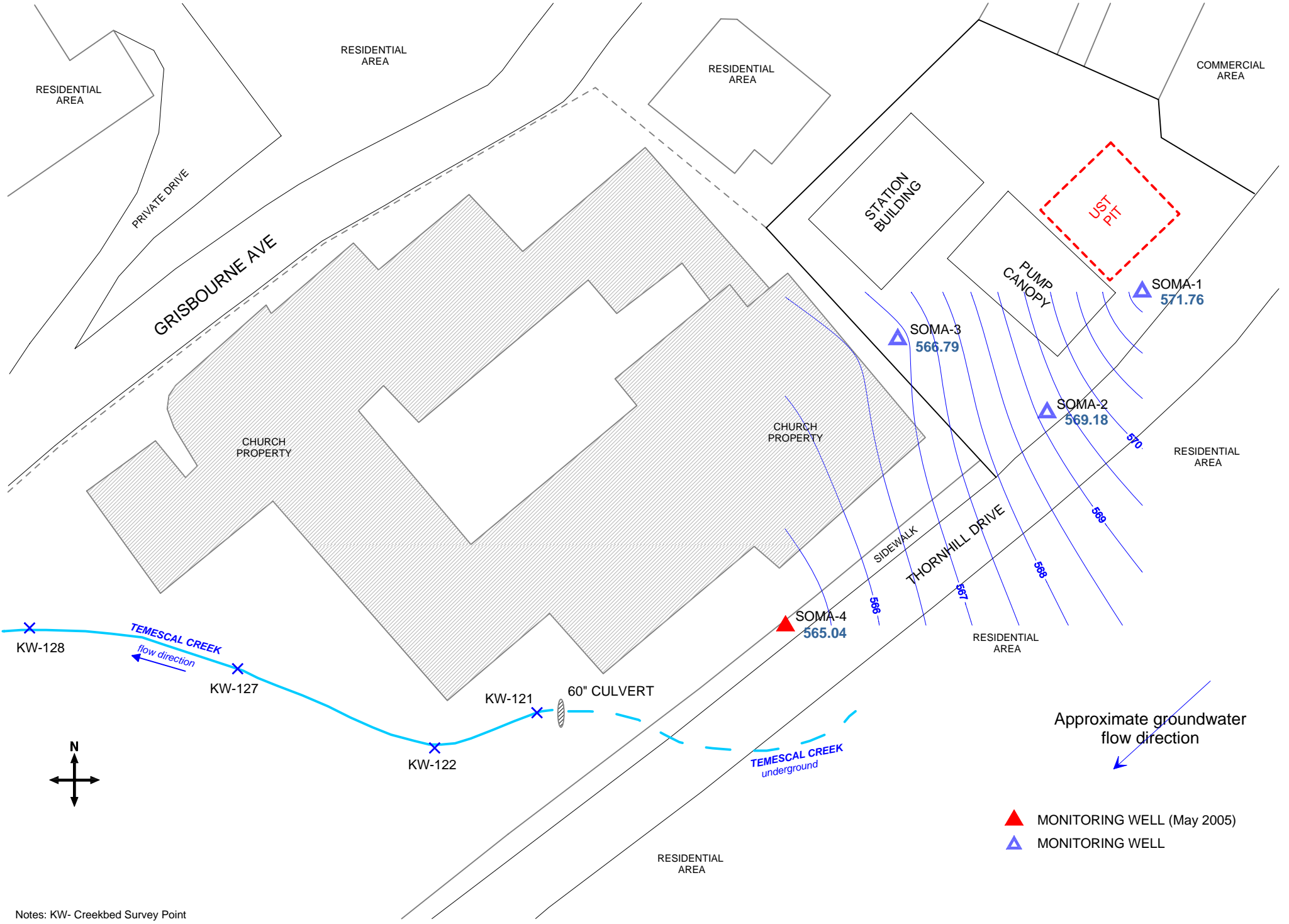


Figure 2: Site map showing locations of monitoring wells, soil borings, decommissioned wells, and CPT/MIP/GS boreholes.



Notes: KW- Creekbed Survey Point

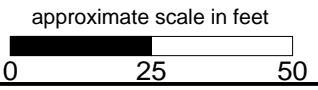
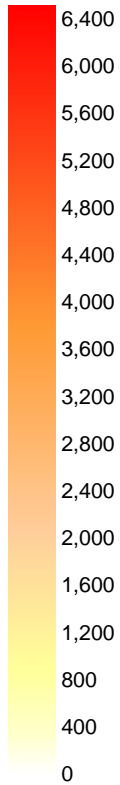


Figure 3: Groundwater elevation contour map in feet. April 26, 2006.

TPH-g
µg/L



Notes: KW- Creekbed Survey Point

approximate scale in feet

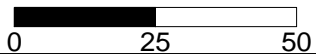


Figure 4: Contour map of TPH-g concentrations in groundwater. April 26, 2006.



Figure 5: Contour map of TPH-d concentrations in groundwater. April 26, 2006.

Notes: KW- Creekbed Survey Point
 approximate scale in feet
 0 25 50

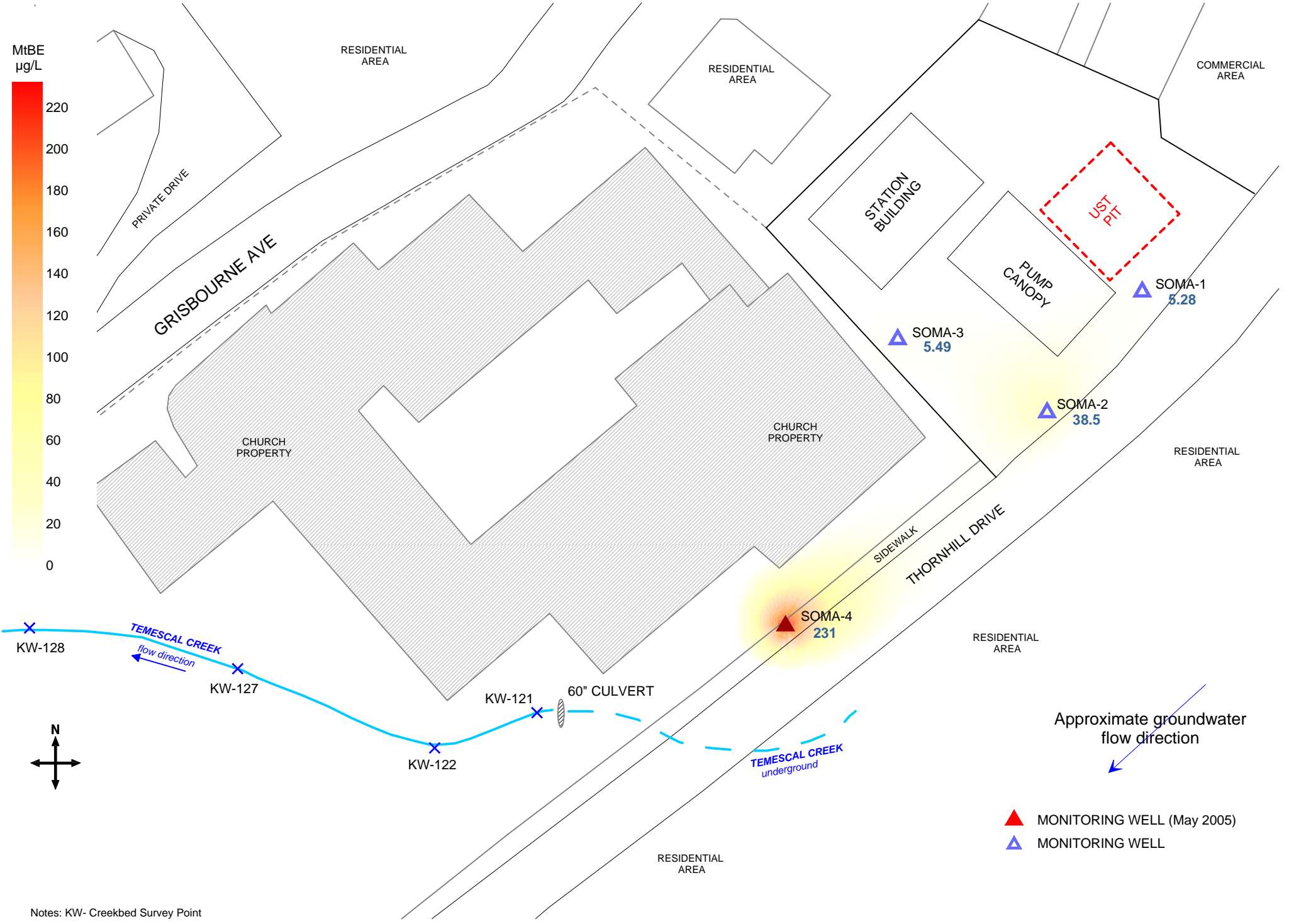


Figure 6: Contour map of MtBE concentrations in groundwater. (EPA Method 8260B). April 26, 2006.

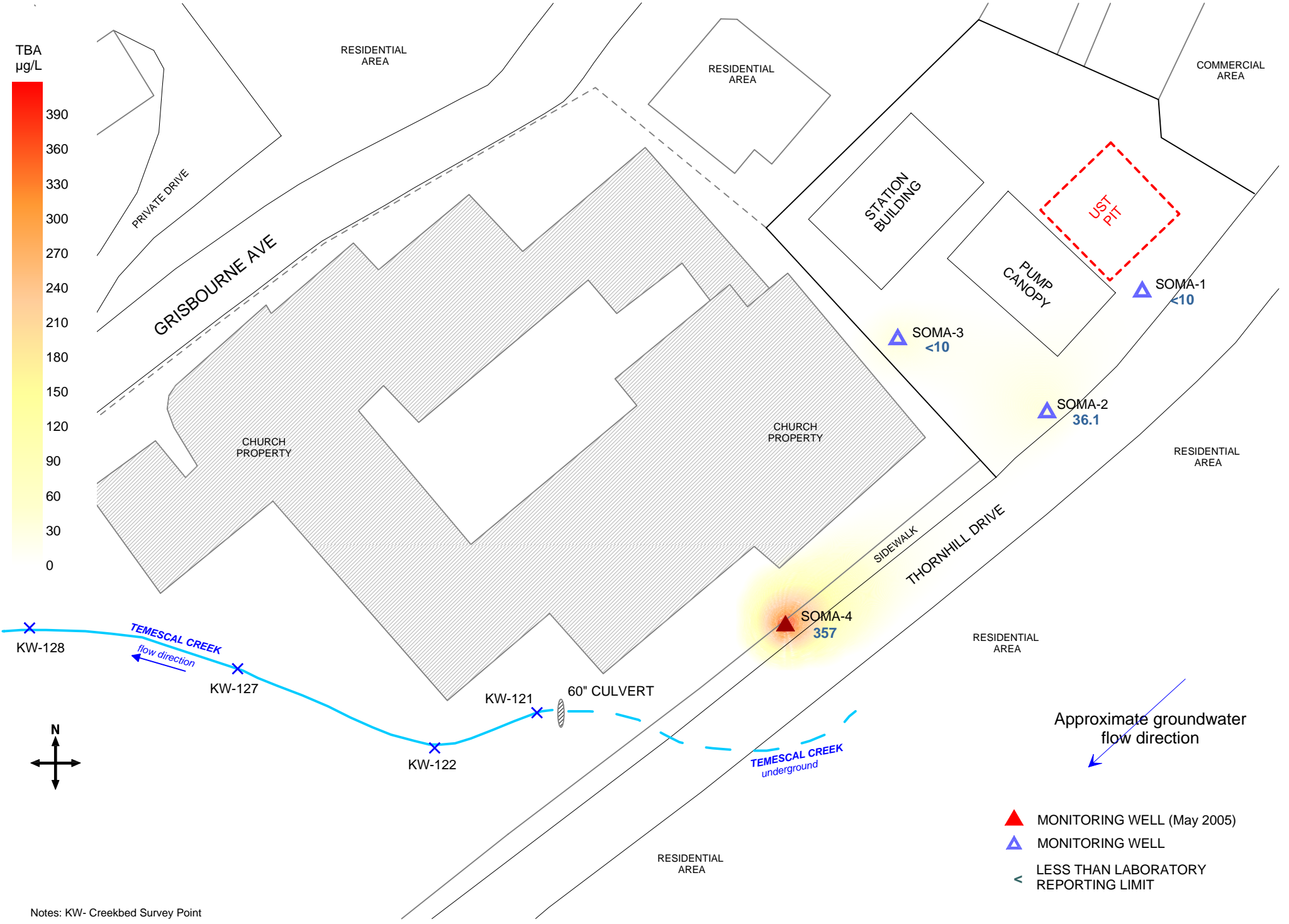


Figure 7: Contour map of TBA concentrations in groundwater.
April 26, 2006.

APPENDIX A

SOMA's Groundwater Monitoring Procedures

Field Activities

On April 26, 2006, a total of three on-site monitoring wells (SOMA-1 to SOMA-3), and one off-site well SOMA-4 were measured for depth to groundwater. On April 26, 2006, additional field measurements and grab groundwater samples were collected from all of the monitoring wells. This monitoring event was conducted in accordance with the procedures and guidelines of the California Regional Water Quality Control Board and the Alameda County Health Care Services.

Prior to measuring the groundwater depth at each well, equalization with the surrounding aquifer was achieved. The well cap was removed each well, and the pressure in each well was then allowed to dissipate. This allowed for a more stable water table level within the well. After a few minutes, and once the water level in the well stabilized, 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. The top of casing elevation was based on an elevation datum of 37 feet NAVD88. Appendix B shows 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. A disposable polyethylene bailer was used to collect sufficient samples from each well for laboratory analyses. The groundwater sample was transferred to 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. The groundwater sample collected from each well was also transferred into one 1-liter amber non-preserved glass container.

After the groundwater samples were collected they were placed on ice in an ice chest and maintained at 4°C. A chain of custody (COC) form was written for all

the samples. After the sampling was complete, on April 26, 2006, SOMA's field crew delivered the groundwater samples along with the COC form to Pacific Analytical Laboratory in Alameda, California.

Laboratory Analysis

Pacific Analytical Laboratory, a state certified laboratory, analyzed the groundwater samples for TPH-g, TPH-d, TPH-mo, BTEX, MtBE, gasoline oxygenates, and lead scavengers.

TPH-g, BTEX, MtBE, gasoline oxygenates, and lead scavengers measurements were prepared using EPA Method 5030B and analyzed using EPA Method 8260B. Samples for TPH-d and TPH-mo measurements were analyzed using EPA Method 8015B modified. To reduce matrix interference, during TPH-d and TPH-mo testing, the sample extract has undergone silica gel clean-up method 3630, which is specific to polar compound contamination.

Appendix B

Table of Elevations & Coordinates on Monitoring Wells

&

Field Measurements of the Physical and Chemical

Properties of the Groundwater Samples

Collected During the Second Quarter 2006

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

SOMA ENVIRONMENTAL, PROJECT # 2830
5725 THORNHILL DRIVE, OAKLAND

WELL ID #	NORTHING (FT.) / LATITUDE (D.M.S.)	EASTING (FT.) / LONGITUDE (D.M.S.)	ELEVATION (FT.)	DESCRIPTION
SOMA-1	2130799.64	6067141.82	576.47	TOP PIPE , BLACK MARK N. SIDE (FELT TIP) (LOCKED AND TIGHT)
	N 37°50'03.73174"	W 122°12'44.98565"	576.72	RIM
			576.70	CONC.
SOMA-2	2130764.55	6067114.08	575.50	TOP PIPE , BLACK MARK N. SIDE (FELT TIP) (LOCKED AND TIGHT)
	N 37°50'03.37985"	W 122°12'45.32339"	575.74	RIM
			575.75	CONC.
SOMA-3	2130785.85	6067071.01	575.92	TOP PIPE , BLACK MARK N. SIDE (FELT TIP) (LOCKED AND TIGHT)
	N 37°50'03.58261"	W 122°12'45.86506"	576.31	RIM
			576.30	CONC.

ADDITIONAL POINTS

PT#	NORTHING (FT.)	EASTING (FT.)	ELEVATION (FT.)	DESCRIPTION
108	2130820.55	6067045.27	N/A	BL<
109	2130800.14	6067066.40	N/A	BL<
110	2130830.97	6067096.14	N/A	BL<
104	2130818.02	6067033.92	N/A	BLOCK WALL 8" <PT
105	2130808.04	6067041.66	N/A	BLOCK WALL 8" END
106	2130821.74	6067037.78	N/A	BLOCK WALL 8" END
107	2130821.83	6067037.75	N/A	FNC-WD B-C CL
111	2130872.58	6067087.64	N/A	FNC-WD END CL
112	2130837.52	6067194.12	N/A	FOGL
113	2130793.20	6067156.45	N/A	FOGL
114	2130759.63	6067123.75	N/A	FOGL
115	2130740.79	6067101.26	N/A	FOGL END
117	2130628.30	6066947.69	N/A	TC
116	2130738.69	6067095.34	N/A	TC END
128	2130693.29	6066817.93	558.29	C/L CREEK +0.4' TO TOP OF WATER
127	2130685.30	6066880.75	559.78	C/L CREEK +0.4' TO TOP OF WATER
122	2130664.83	6066937.67	562.81	C/L CREEK +0.4' TO TOP OF WATER
121	2130676.03	6066966.79	563.15	C/L 60" CULVERT +0.5' TO TOP OF WATER

Kier & Wright Engineers Surveyors, Inc.

1233 Quarry Lane, Suite 145, Pleasanton, CA 94566

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

SOMA ENVIRONMENTAL, PROJECT # 2830
5725 THORNHILL DRIVE, OAKLAND

BENCH MARK: NGS Bench mark No.PID# HT2487

DESCRIPTION FROM NGS DATA SHEET:

DESCRIBED BY EAST BAY MUNICIPAL UTILITIES DISTRICT 1947 (SPH) THE AZIMUTH MARK IS AN EBMUD TRIANGULATION STATION DISC SET 1 FOOT BELOW THE SURFACE AND COVERED BY AN 8 INCH IRON CASTING WITH A REMOVABLE LID MARKED CITY MONUMENT. IT IS IN THE SIDEWALK IN FRONT OF A SAFEWAY STORE AT THE INTERSECTION OF GRAND AND WILDWOOD AVENUES. IT IS 1.5 FEET SOUTHEAST OF THE SOUTHEAST CURB OF WILDWOOD AVE., 6.2 FEET OF EAST CURB OF GRAND AVE. AND 10.4 FEET NORTHEAST OF POWERPOLE. THE MARK IS STAMPED LINDA AZIMUTH MARK 1947.

Elevation =37. FEET NAVD88 Datum
BY VERTCON

HORIZONTAL CONTROL:

PID - AA5496

NORTHING =1,988,577.07 , EASTING = 6,077,862.13 FEET; EPOCH DATE = 1991.35

PID - HT2541

NORTHING = 2,130,331.28 , EASTING = 6,062,624.49 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

DATE: 8/17/05

Job No. 205048

DATE OF SURVEY 8/12/05

INSTRUMENT LEICA TCA 1100L

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

SOMA ENVIRONMENTAL, PROJECT # 2830
5725 THORNHILL DRIVE, OAKLAND

WELL ID #	NORTHING (FT.) / LATITUDE (D.M.S.)	EASTING (FT.) / LONGITUDE (D.M.S.)	ELEVATION (FT.)	DESCRIPTION
SOMA-4	2130703.437	6067044.632	572.65	TOP PIPE , BLACK MARK N. SIDE (FELT TIP)
	N 37°50'02.76318"	W 122°12'46.17502"	573.03	RIM
			573.03	CONC.
DECIMAL DEGREES	N 37°.83410088	W 121°.21282639'		
LOCAL CONTROL				
SOMA-2	2130764.55	6067114.08	575.50	TOP PIPE
	N 37°50'03.37985"	W 122°12'45.32339"		
SOMA-3	2130785.85	6067071.01	575.92	TOP PIPE
	N 37°50'03.58261"	W 122°12'45.86506"		

BENCH MARK: NGS Bench mark No.PID# HT2487

DESCRIPTION FROM NGS DATA SHEET:

DESCRIBED BY EAST BAY MUNICIPAL UTILITIES DISTRICT 1947 (SPH) THE AZIMUTH MARK IS AN EBMUD TRIANGULATION STATION DISC SET 1 FOOT BELOW THE SURFACE AND COVERED BY AN 8 INCH IRON CASTING WITH A REMOVABLE LID MARKED CITY MONUMENT. IT IS IN THE SIDEWALK IN FRONT OF A SAFEWAY STORE AT THE INTERSECTION OF GRAND AND WILDWOOD AVENUES. IT IS 1.5 FEET SOUTHEAST OF THE SOUTHEAST CURB OF WILDWOOD AVE., 6.2 FEET OF EAST CURB OF GRAND AVE. AND 10.4 FEET NORTHEAST OF POWERPOLE. THE MARK IS STAMPED LINDA AZIMUTH MARK 1947.

Elevation =37. FEET NAVD88 Datum
BY VERTCON

DATE: 8/17/05

Job No. 205048

DATE OF SURVEY 8/12/05

INSTRUMENT LEICA TCA 1100L

**TABLE OF ELEVATIONS & COORDINATES
ON MONITORING WELLS**
SOMA ENVIRONMENTAL, PROJECT # 2830
5725 THORNHILL DRIVE, OAKLAND

HORIZONTAL CONTROL:

PID - AA5496

NORTHING = 1,988,577.07 , EASTING = 6,077,862.13 FEET; EPOCH DATE = 1991.35

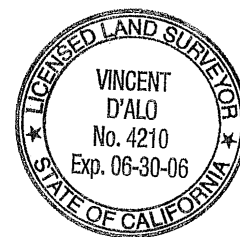
PID - HT2541

NORTHING = 2,130,331.28 , EASTING = 6,062,624.49 FEET; EPOCH DATE = 1991.35

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

NOTE

THE VALUES FOR SOMA-4 ARE DERIVED FROM LOCAL CONTROL BASED UPON CONTROL VALUE USED FROM THE PREVIOUS SITE SURVEY AS PROVIDED BY KIER AND WRIGHT





Well No.: SOMA 1
 Casing Diameter: 2 inches
 Depth of Well: 27.85 feet
 Top of Casing Elevation: 576.47 feet
 Depth to Groundwater: 4.71 feet
 Groundwater Elevation: 571.76 feet
 Water Column Height: 23.14 feet
 Purged Volume: 20 gallons

Project No.: 2831
 Address: 5725 Thornhill Drive
 Oakland, CA
 Date: April 26, 2006
 Sampler: John Lohman

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)
10:50 AM	START	PURGE		
10:53 AM	4	6.71	18.2	910
10:56 AM	8	6.68	17.2	870
11:00 AM	12	6.63	16.7	880
11:03 AM	16	6.59	16.5	860
11:06 AM	20	6.58	16.5	880

11:10 AM SAMPLES



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA 2
 Casing Diameter: 2 inches
 Depth of Well: 28.00 feet
 Top of Casing Elevation: 575.50 feet
 Depth to Groundwater: 6.32 feet
 Groundwater Elevation: 569.18 feet
 Water Column Height: 21.68 feet
 Purged Volume: 20 gallons

Project No.: 2831
 Address: 5725 Thornhill Drive
 Oakland, CA
 Date: April 26, 2006
 Sampler: John Lohman

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)
12:33 pm	START PURGE			
12:37 pm	4	7.00	14.4	970
12:41 pm	8	6.77	17.7	970
12:45 pm	12	6.68	16.7	960
12:49 pm	16	6.70	16.5	960
12:53 pm	20	6.69	16.4	960
12:55 pm	SAMPLES			



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMA3
 Casing Diameter: 2 inches
 Depth of Well: 27.77 feet
 Top of Casing Elevation: 572.92 feet
 Depth to Groundwater: 6.13 feet
 Groundwater Elevation: 566.79 feet
 Water Column Height: 21.64 feet
 Purged Volume: 20 gallons

Project No.: 2831
 Address: 5725 Thornhill Drive
 Oakland, CA
 Date: April 26, 2006
 Sampler: John Lohman

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)
11:40 AM	START	PURGE		
11:42 AM	4	7.03	17.1	1180
11:44 AM	8	6.91	16.6	1140
11:52 AM	12	6.85	16.5	1050
11:56 AM	16	6.81	16.5	1040
12:00 PM	20	6.79	16.4	1040

12:02 PM SAMPLES



ENVIRONMENTAL ENGINEERING, INC

Well No.: SOMAY
 Casing Diameter: 2 inches
 Depth of Well: 19.70 feet
 Top of Casing Elevation: 572.65 feet
 Depth to Groundwater: 7.61 feet
 Groundwater Elevation: 565.04 feet
 Water Column Height: 12.09 feet
 Purged Volume: 12 gallons

Project No.: 2831
 Address: 5725 Thornhill Drive
 Oakland, CA
 Date: April 26, 2006
 Sampler: John Lohman

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)
1:30 pm	START PURGE			
1:38 pm	4	6.68	15.8	460
1:46 pm	6	6.60	15.2	470
1:53 pm	12	6.59	15.1	470
2:03 pm	SAMPLE			

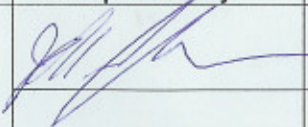
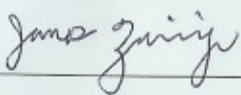
Appendix C

Chain of Custody Form and Laboratory Report
for the
Second Quarter 2006 Monitoring Event

CHAIN OF CUSTODY FORM

PAL Pacific Analytical Laboratory
 851 West Midway Ave., Suite 201B
 Alameda, CA 94501
 510-864-0364 Telephone
 510-864-0365 Fax

PAL
 Login# 6040014

Project No: 2831				Sampler: John Lohman								Analyses/Method							
Project Name: 5725 Thornhill Drive Oakland, CA				Report To: Tony Perini								TPHg, BTEX, MIBE 8260B	Gas Ox - Lead Scavange	Ethanol	TPH-d, TPH-mo				
				Company: SOMA Environmental Engineering, Inc.															
Turnaround Time: Standard				Tel: 925-734-6400 Fax: 925-734-6401															
		Sampling Date/Time		Matrix			# of Containers	Preservatives											
Lab No.	Sample ID	Date	Time	Soil	Water	Waste		HCL	H ₂ SO ₄	NONE	ICE	Field Notes							
	SOMA-1	4/26/06	11:10		X		2 L Amber 4 VOAs	X		X	X	Grab Sample							
	SOMA-2	4/26/06	12:55		X		2 L Amber 4 VOAs	X		X	X	Grab Sample							
	SOMA-3	4/26/06	12:02		X		2 L Amber 4 VOAs	X		X	X	Grab Sample							
	SOMA-4	4/26/06	2:03		X		2 L Amber 4 VOAs	X		X	X	Grab Sample							
Sampler Remarks:				Relinquished by:				Date/Time:				Received by:				Date/Time:			
Silica Gel Cleanup EDF REQUIRED								4/26/06 4:10 pm								4/26/06 4:10 pm			

05 May 2006

Mansour Sepehr
SOMA Environmental Engineering Inc.
6620 Owens Drive, Suite A
Pleasanton, CA 94588

RE: Thornhill Dr., Oakland

Work Order Number: 6040014

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,



Maiid Akhavan
Laboratory Director



SOMA Environmental Engineering Inc.
6620 Owens Drive, Suite A
Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
Project Number: 2831
Project Manager: Mansour Sepehr

Reported:
05-May-06 15:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SOMA-1	6040014-01	Water	26-Apr-06 11:10	26-Apr-06 16:10
SOMA-2	6040014-02	Water	26-Apr-06 12:55	26-Apr-06 16:10
SOMA-3	6040014-03	Water	26-Apr-06 12:02	26-Apr-06 16:10
SOMA-4	6040014-04	Water	26-Apr-06 14:03	26-Apr-06 16:10



SOMA Environmental Engineering Inc.
 6620 Owens Drive, Suite A
 Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
 Project Number: 2831
 Project Manager: Mansour Sepehr

Reported:
 05-May-06 15:44

Extractable Petroleum Hydrocarbons by 8015 DRO
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-1 (6040014-01) Water Sampled: 26-Apr-06 11:10 Received: 26-Apr-06 16:10									
Diesel (C10-C24)	ND	50.0	ug/l	1	BE60301	27-Apr-06	01-May-06	EPA 8015M	C-03
Motor Oil (C24-C36)	ND	250	"	"	"	"	"	"	C-03
<i>Surrogate: Pentacosane</i>		85.6 %	50-150		"	"	"	"	
SOMA-2 (6040014-02) Water Sampled: 26-Apr-06 12:55 Received: 26-Apr-06 16:10									
Diesel (C10-C24)	1580	50.0	ug/l	1	BE60301	27-Apr-06	01-May-06	EPA 8015M	C-03, D-06, D-30
Motor Oil (C24-C36)	ND	250	"	"	"	"	"	"	C-03
<i>Surrogate: Pentacosane</i>		89.4 %	50-150		"	"	"	"	
SOMA-3 (6040014-03) Water Sampled: 26-Apr-06 12:02 Received: 26-Apr-06 16:10									
Diesel (C10-C24)	123	50.0	ug/l	1	BE60301	27-Apr-06	01-May-06	EPA 8015M	C-03, D-06, D-30
Motor Oil (C24-C36)	ND	250	"	"	"	"	"	"	C-03
<i>Surrogate: Pentacosane</i>		94.2 %	50-150		"	"	"	"	
SOMA-4 (6040014-04) Water Sampled: 26-Apr-06 14:03 Received: 26-Apr-06 16:10									
Diesel (C10-C24)	1080	50.0	ug/l	1	BE60301	27-Apr-06	01-May-06	EPA 8015M	C-03, D-06, D-30
Motor Oil (C24-C36)	ND	250	"	"	"	"	"	"	C-03
<i>Surrogate: Pentacosane</i>		99.0 %	50-150		"	"	"	"	



SOMA Environmental Engineering Inc.
6620 Owens Drive, Suite A
Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
Project Number: 2831
Project Manager: Mansour Sepehr

Reported:
05-May-06 15:44

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-1 (6040014-01) Water Sampled: 26-Apr-06 11:10 Received: 26-Apr-06 16:10									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BE60201	27-Apr-06	27-Apr-06	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	"	"	"	"	"	"	
MTBE	5.28	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	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		109 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		97.2 %		70-130	"	"	"	"	
SOMA-2 (6040014-02) Water Sampled: 26-Apr-06 12:55 Received: 26-Apr-06 16:10									
Gasoline (C6-C12)	6490	50.0	ug/l	1	BE60201	27-Apr-06	27-Apr-06	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	15.3	0.500	"	"	"	"	"	"	
m&p-Xylene	5.82	1.00	"	"	"	"	"	"	
o-xylene	2.67	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	38.5	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	ND	2.00	"	"	"	"	"	"	
TBA	36.1	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		122 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		102 %		70-130	"	"	"	"	

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.
6620 Owens Drive, Suite A
Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
Project Number: 2831
Project Manager: Mansour Sepehr

Reported:
05-May-06 15:44

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-3 (6040014-03) Water Sampled: 26-Apr-06 12:02 Received: 26-Apr-06 16:10									
Gasoline (C6-C12)	121	50.0	ug/l	1	BE60201	27-Apr-06	27-Apr-06	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	"	"	"	"	"	"	
MTBE	5.49	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	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		106 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		97.4 %		70-130	"	"	"	"	
SOMA-4 (6040014-04RE1) Water Sampled: 26-Apr-06 14:03 Received: 26-Apr-06 16:10									
Gasoline (C6-C12)	3930	50.0	ug/l	1	BE60201	27-Apr-06	02-May-06	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	"	"	"	"	"	"	
MTBE	231	0.500	"	"	"	"	"	"	
DIPE	0.590	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	2.10	2.00	"	"	"	"	"	"	
TBA	357	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		116 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		101 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		101 %		70-130	"	"	"	"	

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.
 6620 Owens Drive, Suite A
 Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
 Project Number: 2831
 Project Manager: Mansour Sepehr

Reported:
 05-May-06 15:44

Extractable Petroleum Hydrocarbons by 8015 DRO - Quality Control
Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BE60301 - EPA 3510B

Blank (BE60301-BLK1)

Prepared & Analyzed: 03-May-06

Surrogate: Pentacosane	45.0		ug/l	50.0		90.0	50-150			
Diesel (C10-C24)	ND	50.0	"							
Motor Oil (C24-C36)	ND	250	"							

LCS (BE60301-BS1)

Prepared & Analyzed: 03-May-06

Surrogate: Pentacosane	46.7		ug/l	50.0		93.4	50-150			
Diesel (C10-C24)	1160	50.0	"	1000		116	50-130			

LCS Dup (BE60301-BSD1)

Prepared & Analyzed: 03-May-06

Surrogate: Pentacosane	50.5		ug/l	50.0		101	50-150			
Diesel (C10-C24)	1250	50.0	"	1000		125	50-130	7.47	40	



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6620 Owens Drive, Suite A
Pleasanton CA, 94588

Project: Thornhill Dr., Oakland
Project Number: 2831
Project Manager: Mansour Sepehr

Reported:
05-May-06 15:44

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 Limit	Notes
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Batch BE60201 - EPA 5030 Water MS

Blank (BE60201-BLK1)

Prepared & Analyzed: 02-May-06

Surrogate: 4-Bromofluorobenzene	51.0		ug/l	50.0		102	70-130			
Surrogate: Dibromofluoromethane	56.2		"	50.0		112	70-130			
Surrogate: Perdeuterotoluene	48.5		"	50.0		97.0	70-130			
MTBE	ND	0.500	"							
DIPE	ND	0.500	"							
ETBE	ND	0.500	"							
TAME	ND	2.00	"							
TBA	ND	10.0	"							
Gasoline (C6-C12)	ND	50.0	"							
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 (BE60201-BS1)

Prepared & Analyzed: 02-May-06

Surrogate: 4-Bromofluorobenzene	58.6		ug/l	50.0		117	70-130			
Surrogate: Dibromofluoromethane	51.7		"	50.0		103	70-130			
Surrogate: Perdeuterotoluene	46.9		"	50.0		93.8	70-130			
MTBE	126	0.500	"	100		126	70-130			
ETBE	116	0.500	"	100		116	70-130			
TAME	106	2.00	"	100		106	70-130			
TBA	565	10.0	"	500		113	70-130			
Gasoline (C6-C12)	2510	50.0	"	2000		126	70-130			
Benzene	115	0.500	"	100		115	70-130			
Toluene	118	2.00	"	100		118	70-130			



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Reported:
 05-May-06 15:44

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 Limit	Notes
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Batch BE60201 - EPA 5030 Water MS

LCS Dup (BE60201-BSD1)

Prepared & Analyzed: 02-May-06

Surrogate: 4-Bromofluorobenzene	59.8		ug/l	50.0	120	70-130				
Surrogate: Dibromofluoromethane	52.0		"	50.0	104	70-130				
Surrogate: Perdeuterotoluene	47.8		"	50.0	95.6	70-130				
MTBE	130	0.500	"	100	130	70-130		3.12	20	
ETBE	111	0.500	"	100	111	70-130		4.41	20	
TAME	104	2.00	"	100	104	70-130		1.90	20	
Gasoline (C6-C12)	2010	50.0	"	2000	100	70-130		22.1	20	QR-02
TBA	571	10.0	"	500	114	70-130		1.06	20	
Benzene	113	0.500	"	100	113	70-130		1.75	20	
Toluene	118	2.00	"	100	118	70-130		0.00	20	



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Project: Thornhill Dr., Oakland
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Reported:
05-May-06 15:44

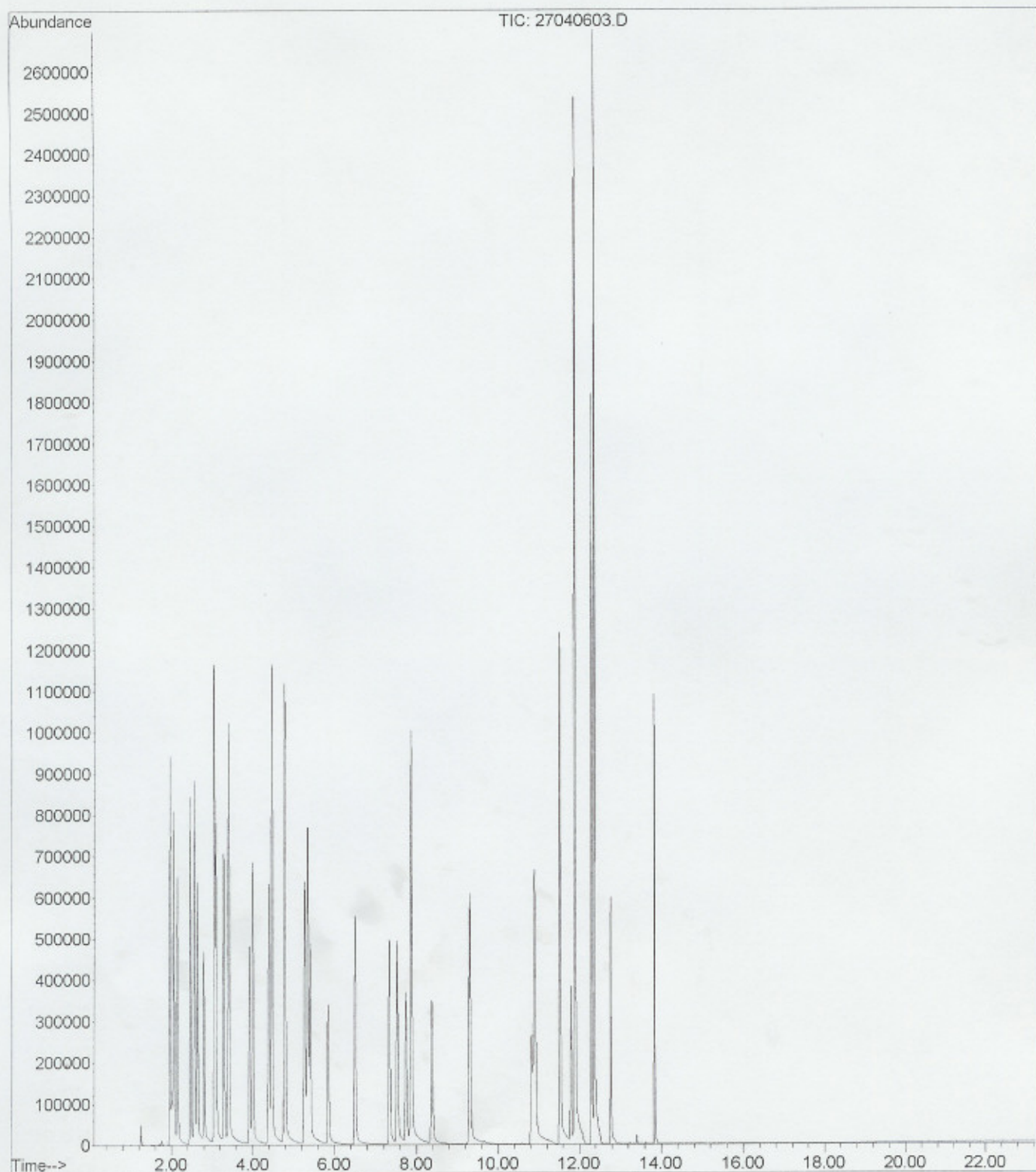
Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- D-30 Unidentified hydrocarbons C9-C16.
- D-06 The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- C-03 To reduce matrix interference, the sample extract has undergone silica-gel clean-up, method 3630, which is specific to polar compound contamination.
- 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

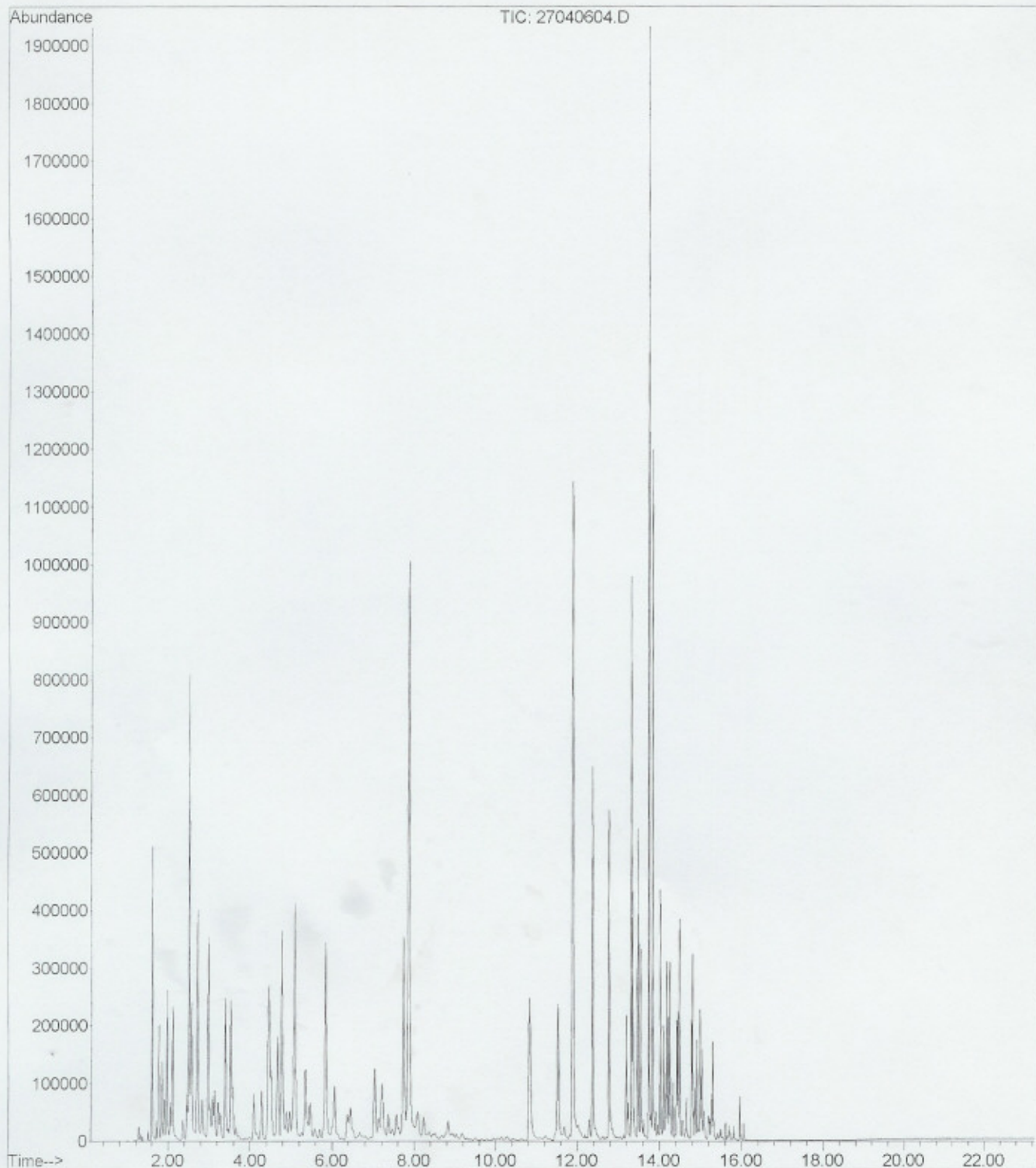
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Operator :
Acquired : 27 Apr 2006 11:08 am using AcqMethod OXY21506.M
Instrument : PAL GCMS
Sample Name: BE60201-BLK1
Misc Info :
Vial Number: 2



File :C:\MSDCHEM\1\DATA\2006-Apr-27-1022.b\27040603.D
Operator :
Acquired : 27 Apr 2006 11:50 am using AcqMethod OXY21506.M
Instrument : PAL GCMS
Sample Name: BE60201-BS1@voc
Misc Info :
Vial Number: 3



File :C:\MSDCHEM\1\DATA\2006-Apr-27-1022.b\27040604.D
Operator :
Acquired : 27 Apr 2006 12:24 pm using AcqMethod OXY21506.M
Instrument : PAL GCMS
Sample Name: BE60201-BS1@gas
Misc Info :
Vial Number: 4



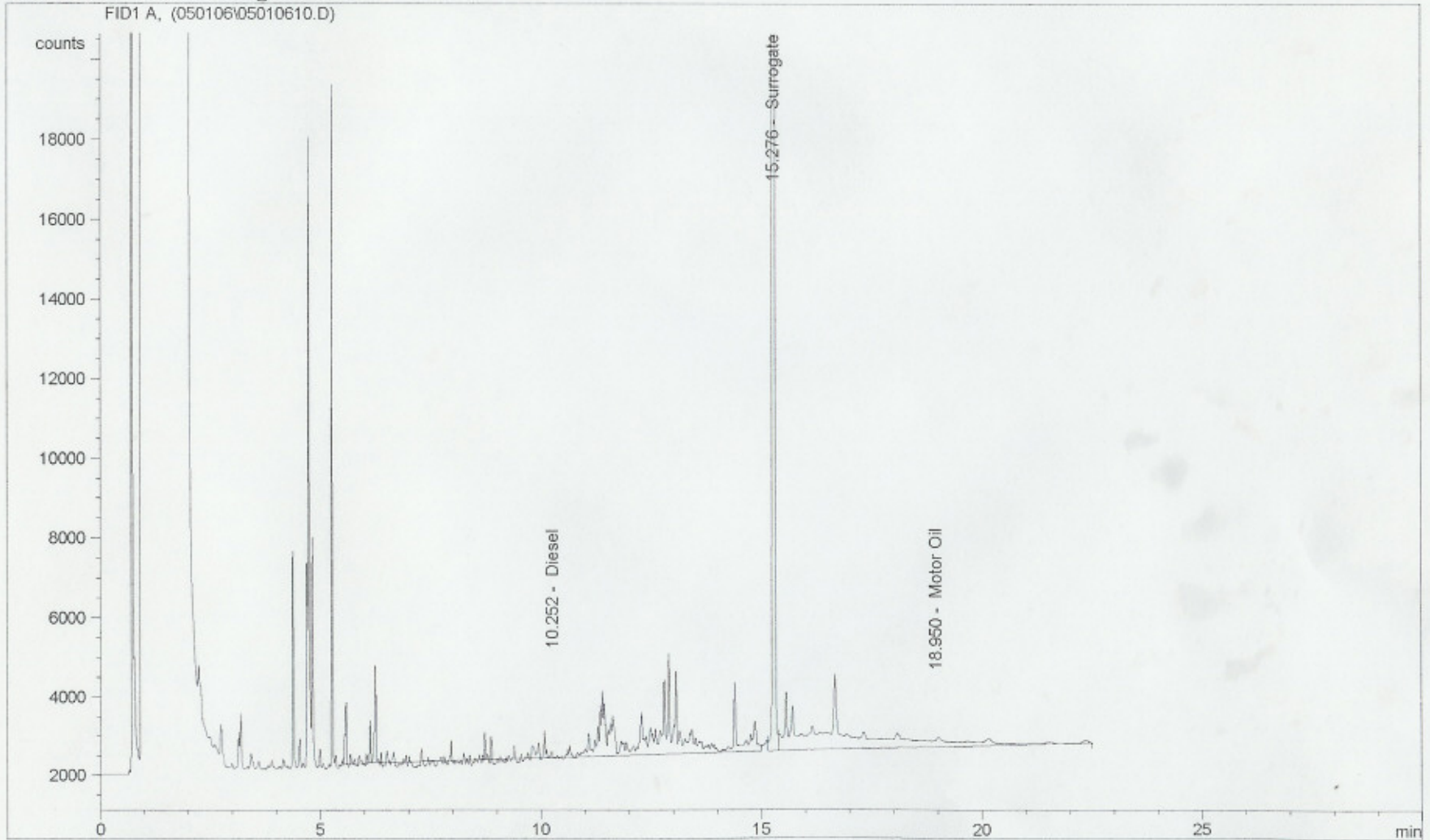

```

=====
Injection Date   : 5/1/06 7:02:26 PM           Seq. Line :    6
Sample Name     : MB032806 BE60301-BLK1      Vial      :    4
Acq. Operator   : jz                          Inj       :    1
                                                    Inj Volume: 2 ul

Acq. Method    : C:\HPCHEM\1\METHODS\GC041006.M
Last changed   : 4/28/06 12:14:53 PM by jz
Analysis Method: C:\HPCHEM\1\METHODS\GC041006.M
Last changed   : 5/2/06 12:05:36 PM by jz
                (modified after loading)

```

Current Chromatogram(s)



```

Injection Date   : 5/1/06 7:34:54 PM           Seq. Line :    7
Sample Name     : LC5032806 (BE60301-BS)   Vial      :    5
Acq. Operator   : jz                          Inj       :    1
                                                    Inj Volume:  2 ul

Acq. Method     : C:\HPCHEM\1\METHODS\GC041006.M
Last changed    : 4/28/06 12:14:53 PM by jz
Analysis Method : C:\HPCHEM\1\METHODS\GC041006.M
Last changed    : 5/2/06 12:05:36 PM by jz
                  (modified after loading)
    
```

Current Chromatogram(s)

