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Third Quarter 2005
Groundwater Monitoring Report

Mash Petroleum Inc.

5725 Thornhill Drive

Oakland, California

August 26, 2005

Project 2831

Prepared for

Mr. Mo Mashhoon

1721 Jefferson Street

Oakland, California 94612

Prepared by

SOMA Environmental Engineering, Inc.

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August 26, 2005

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:

Enclosed for your review is a copy of SOMA's "Third Quarter 2005 Groundwater Monitoring Report" for the subject property.

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

REGISTERED PROFESSIONAL ENGINEER
MANSOUR SEPEHR
No. C042928
Exp. 3-31-06
CIVIL
STATE OF CALIFORNIA

Enclosure

cc: Mr. Mo Mashhoon

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 Third Quarter 2005 groundwater monitoring event.

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

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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 Third Quarter 2005 groundwater monitoring event conducted at the Site on July 19, 2005. Included in this report are the results of 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),
- Total petroleum hydrocarbons as diesel (TPH-d),
- Total petroleum hydrocarbons as motor oil (TPH-mo),
- Gasoline oxygenates, which consisted of tert-Butyl-Alcohol (TBA), Di-Isopropyl Ether (DIPE), Ethyl tertiary Butyl Ether (ETBE), Methyl tert-Amyl Ether (TAME), Ethanol,
- Lead scavengers, which consisted of 1,2 Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB).

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 the Third Quarter 2005 monitoring event.

1.1 Previous Activities

In November 1998, Penn Environmental 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 TPH-g, 2,700,000 µg/Kg of TPH-d, and 4,200,000 µg/Kg of 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 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 the advancement of nine temporary well boreholes, HP-1 through HP-7, HP-9 and HP-10 by Gregg Drilling & Testing (Gregg). Due to the excessive traffic hazards and the disruption of local traffic flow posed by advancing HP-8 in the middle of the street, this borehole was not drilled. Groundwater samples were collected following the completion of each temporary well borehole. The locations of the boreholes are shown in Figure 2.

During the Site's investigation activities, Gregg decommissioned the three existing on-site wells installed inside the UST cavity, under the supervision of SOMA. On March 12, 2004, Woodward Drilling installed three monitoring wells: SOMA-1, SOMA-2 and SOMA-3. On March 19, 2004, licensed surveyors from Kier & Wright surveyed the casing elevations of the monitoring wells and water level elevations along Temescal Creek. Kier & Wright performed a horizontal and vertical survey on the wells in accordance with the requirements set forth by the State for the GeoTracker database. On April 7, 2004, Gregg developed wells SOMA-1 to SOMA-3. Figure 2 shows the locations of the monitoring wells.

The results of the March 2004 investigation and details of the well installations are presented in SOMA's report "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.

On May 9 and 10, 2005, ten CPT/MIP boreholes (CPT-1 through CPT-5 and CPT-7 through CPT-11) were advanced, by Fisch Environmental under the supervision of SOMA, to characterize the hydrogeologic stratigraphy and to evaluate the extent of the groundwater contamination. CPT-6 could not be drilled due to the physical constraints and obstruction of local traffic. The ten CPT boreholes were drilled to approximate depths of 30 to 40 feet bgs. Figure 2 shows the CPT borehole locations.

Ten boreholes, designated GS-1 through GS-5 and GS-7 through GS-11, were advanced at the corresponding CPT borehole locations and groundwater samples were collected. Based on the MIP data, no soil samples were collected.

On May 27, 2005, SOMA oversaw the installation of monitoring well, SOMA-4, by Gregg Drilling. The well depth is approximately 20 feet bgs. Figure 2 shows the location of this well.

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 July 19, 2005 groundwater monitoring event. SOMA-4 was monitored for the first time in the Third Quarter 2005.

2.1 Field Measurements

Table 1 presents the calculated groundwater elevations, as well as the depth to groundwater in each monitoring well. As shown in Table 1, the depth to groundwater ranged from 5.87 feet in SOMA-1 to 8.10 feet in SOMA-4. The corresponding groundwater elevations ranged from 564.55 feet in SOMA-4 to 570.60 feet in SOMA-1.

A contour map of the groundwater elevations for the Third Quarter 2005 monitoring event is presented in Figure 3. As Figure 3 illustrates, groundwater flows southwesterly across the Site, with an average gradient of 0.030 feet/feet.

Since the previous monitoring event (Second Quarter 2005), the groundwater elevations decreased in wells SOMA-1 to SOMA-3. Further monitoring events will aid in determining a more detailed groundwater elevation trend in well SOMA-4. Variations in groundwater elevations can be attributed to seasonal climatological conditions and local recharge rates in each well.

The field notes in Appendix B show the detailed measurements of the physical and chemical parameters of the groundwater for each well during the Third Quarter 2005 monitoring event.

2.2 Laboratory Analyses

Table 1 presents the results of the laboratory analyses for hydrocarbons, BTEX, and MtBE for the groundwater samples collected during the Third Quarter 2005 monitoring event.

As shown in Table 1, during the Third Quarter 2005 monitoring event, TPH-g was below the laboratory reporting limit in wells SOMA-1 and SOMA-3. TPH-g was detected at 2,480 ug/L in well SOMA-2 and at 3,350 ug/L in SOMA-4. Figure 4 displays the contour map of TPH-g concentrations in the groundwater. As illustrated in Figure 4, due to the southwesterly groundwater flow direction from the UST cavity and pump islands, TPH-g has migrated off-site. The most impacted TPH-g region appears to be off-site, around well SOMA-4.

As shown in Table 1, TPH-d was below the laboratory reporting limit in well SOMA-1. Detectable TPH-d concentrations ranged from 120 ug/L in well SOMA-3 to 1,200 ug/L in well SOMA-4. The TPH-d result in both wells SOMA-3 and SOMA-4 did not resemble that of a standard diesel pattern. The laboratory designated this variation in the diesel pattern by using a "Y" flag. The TPH-d result in well SOMA-4 may have also been affected by the presence of lighter hydrocarbons that were present during analytical testing. The laboratory designated this variation in lighter hydrocarbons by using an "L" flag.

Figure 5 displays the contour map of TPH-d concentrations in the groundwater. As illustrated in Figure 5, due to the overall influence of the southwesterly groundwater flow direction from the UST cavity and pump islands, TPH-d has impacted off-site well SOMA-4. Similar to the TPH-g plume, the most impacted region appears to be in the vicinity of well SOMA-4.

As shown in Table 1, during the Third Quarter 2005 monitoring event, TPH-mo was below the laboratory reporting limit throughout the Site.

As shown in Table 1, during the Third Quarter 2005 monitoring event, all BTEX analytes were below the laboratory reporting limit in wells SOMA-1, SOMA-3, SOMA-4. In well SOMA-2, only low BTEX analytes were detected, and toluene was below the laboratory reporting limit. No iso-concentration figure was drawn for benzene due to the site wide non-detectable levels, with the exception of the sample collected from well SOMA-2, which had a trace benzene concentration of 1.09 ug/L.

As shown in Table 1, MtBE was detected in all of the groundwater samples collected during the Third Quarter 2005 monitoring event. Detectable MtBE concentrations ranged from 4.69 ug/L in well SOMA-3 to 455 ug/L in well SOMA-4. Figure 6 displays the contour map of MtBE concentrations in the groundwater using EPA Method 8260B. Figure 6 better 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.

Table 2 presents the analytical results for gasoline oxygenates and lead scavengers. As shown in Table 2, all DIPE, ETBE, 1,2-DCA, EDB, and ethanol constituents were below the laboratory reporting limit in the groundwater samples collected during the Third Quarter 2005 monitoring event.

TBA and TAME were both below the laboratory reporting limit in the groundwater samples collected from wells SOMA-1 and SOMA-3. TBA was detected in wells SOMA-2 and SOMA-4 at 74.2 ug/L and 84.1 ug/L, respectively. TAME was detected in wells SOMA-2 and SOMA-4 at 2.82 ug/L and 4.40 ug/L, respectively. No iso-concentration figure was drawn for either TBA or TAME due to the low or non-detectable levels of these constituents throughout the Site.

Appendix C contains the laboratory report and COC form from 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 is southwesterly across the Site, at a gradient of approximately 0.030 feet/feet.
- In general, the most impacted well appears to be SOMA-4, which is the most downgradient well. This well was monitored for the first time in the Third Quarter 2005.
- Based on previous site investigations, and the results of the quarterly monitoring events, both the hydrocarbon and MtBE plumes appear to have migrated southwesterly off-site with the flow of groundwater.

Based on the results from this monitoring event, SOMA recommends the following action items:

- Installing additional off-site wells to determine the horizontal and vertical extent of the off-site migration, and

- Continual monitoring of the groundwater elevations to evaluate the hydraulic communication between Temescal Creek and the upper water-bearing zone.

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, California and Curtis and Tompkins, Ltd, in Berkeley, California 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	Apr-04	576.47	5.75	570.72	63	<50	<300	<0.5	<0.5	<0.5	<0.5	7.7
	Jul-04	576.47	6.21	570.26	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	9.1
	Oct-04	576.47	5.76	570.71	<50	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	6.4
	Jan-05	576.47	3.73	572.74	<50	200 HY	900	<0.5	<0.5	<0.5	<0.5	4.7
	Apr-05	576.47	4.72	571.75	<200	<50	<300	<0.5	<0.5	<0.5	<1.0	7.49
	Jul-05	**576.47**	**5.87**	**570.60**	**<200**	**<50**	**<300**	**<0.5**	**<2.0**	**<0.5**	**<1.0**	**4.94**
SOMA-2	Apr-04	575.50	7.40	568.10	1,900	690 LY	<300	<0.5	<0.5	5.2	9.9	1,900
	Jul-04	575.50	7.92	567.58	1,500	710 LY	<300	8.9 C	<0.5	1.5 C	2.9 C	740
	Oct-04	575.50	7.62	567.88	955	790 LY	<1.0	<2.5	<2.5	<2.5	< 5	785
	Jan-05	575.50	5.70	569.80	3,700	2100 LY	380	3.7	<2.0	3.5	102	310
	Apr-05	575.50	6.28	569.22	5,960	1200 LY	<300	1.19	<0.5	20.6	25	241
	Jul-05	**575.50**	**7.42**	**568.08**	**2,480**	**800 LY**	**<300**	**1.09**	**<2.0**	**2.65**	**0.73**	**162**
SOMA-3	Apr-04	575.92	7.14	568.78	190	120 Y	<300	<0.5	<0.5	<0.5	<0.5	5.1
	Jul-04	575.92	7.95	567.97	130	120 LY	<300	<0.5	<0.5	<0.5	<0.5	9.1
	Oct-04	575.92	7.60	568.32	57	280 LY	<1.0	<0.5	<0.5	<0.5	<2	11.3
	Jan-05	572.92	5.45	567.47	140	210 Y	<300	<0.5	<0.5	<0.5	<0.5	5.8
	Apr-05	572.92	6.02	566.90	<200	<50	<300	<0.5	<0.5	<0.5	<1.0	4.53
	Jul-05	**572.92**	**7.49**	**565.43**	**<200**	**120 Y**	**<300**	**<0.5**	**<2.0**	**<0.5**	**<1.0**	**4.69**
SOMA-4	**Jul-05**	**572.65**	**8.10**	**564.55**	**3,350**	**1,200 LY**	**<300**	**<1.0**	**<4.0**	**<1.0**	**<2.0**	**455**

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.

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	Apr-04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	Jul-04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	Oct-04	<2.5	<0.5	<0.5	<2	<0.5	<0.5	<1.0
	Jan-05	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000
	Apr-05	<2.5	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	Jul-05	**<10**	**<0.5**	**<0.5**	**<2.0**	**<0.5**	**<0.5**	**<1000**
SOMA-2	Apr-04	<100	<5.0	<5.0	19.0	<5.0	<5.0	<10000
	Jul-04	<33	<1.7	<1.7	9.8	<1.7	<1.7	<3300
	Oct-04	36.3	<2.5	<2.5	12.85	<0.5	<0.5	<1.0
	Jan-05	67	<2.0	<2.0	6.7	<2.0	<2.0	<4,000
	Apr-05	71	<0.5	<0.5	3.29	<0.5	<0.5	<1000
	Jul-05	**74.2**	**<0.5**	**<0.5**	**2.82**	**<0.5**	**<0.5**	**<1000**
SOMA-3	Apr-04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	Jul-04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1000
	Oct-04	<2.5	<0.5	<0.5	<2	<0.5	<0.5	<1.0
	Jan-05	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000
	Apr-05	<2.5	<0.5	<0.5	<2.0	<0.5	<0.5	<1000
	Jul-05	**<10**	**<0.5**	**<0.5**	**<2.0**	**<0.5**	**<0.5**	**<1000**
SOMA-4	**Jul-05**	**84.1**	**<1.0**	**<1.0**	**4.4**	**<1.0**	**<1.0**	**<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

N

approximate scale in feet

0 100 200

Figure 1: Site vicinity map.

SOMA ENVIRONMENTAL ENGINEERING, INC.

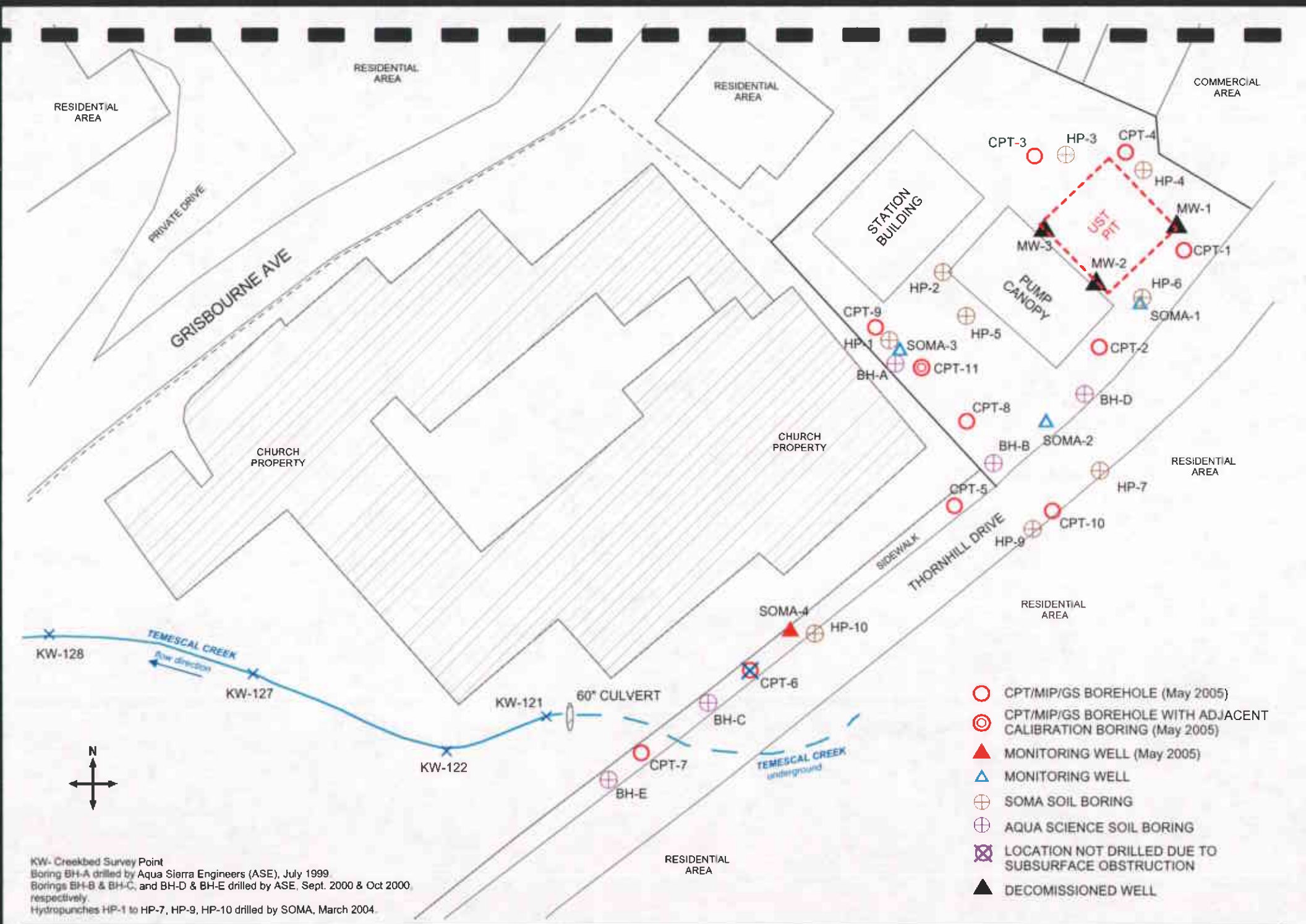
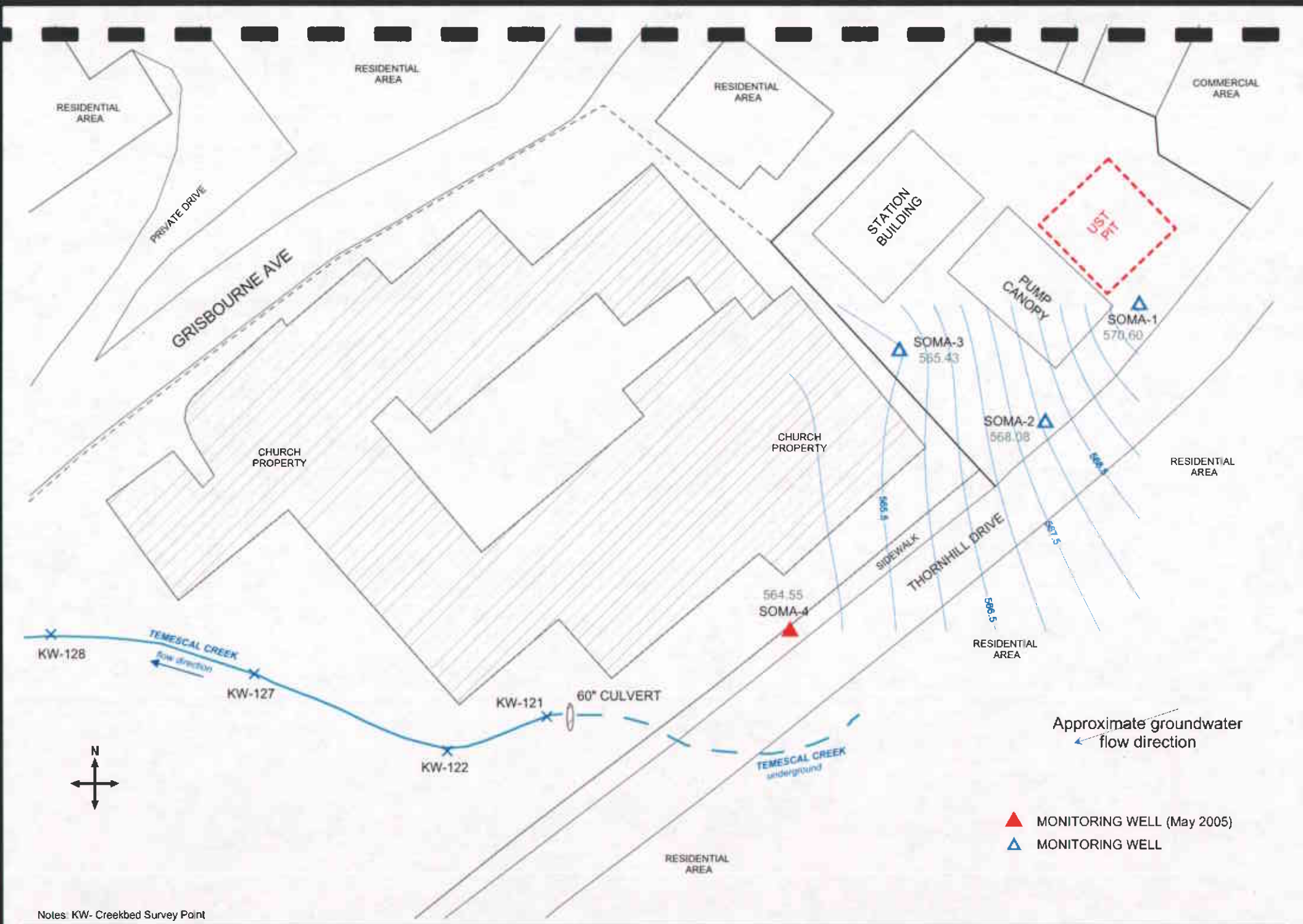


Figure 2: Site map showing locations of monitoring wells, soil borings, decomissioned wells, and CPT/MIP/GS boreholes.



Notes: KW- Creekbed Survey Point

approximate scale in feet

0 25 50

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

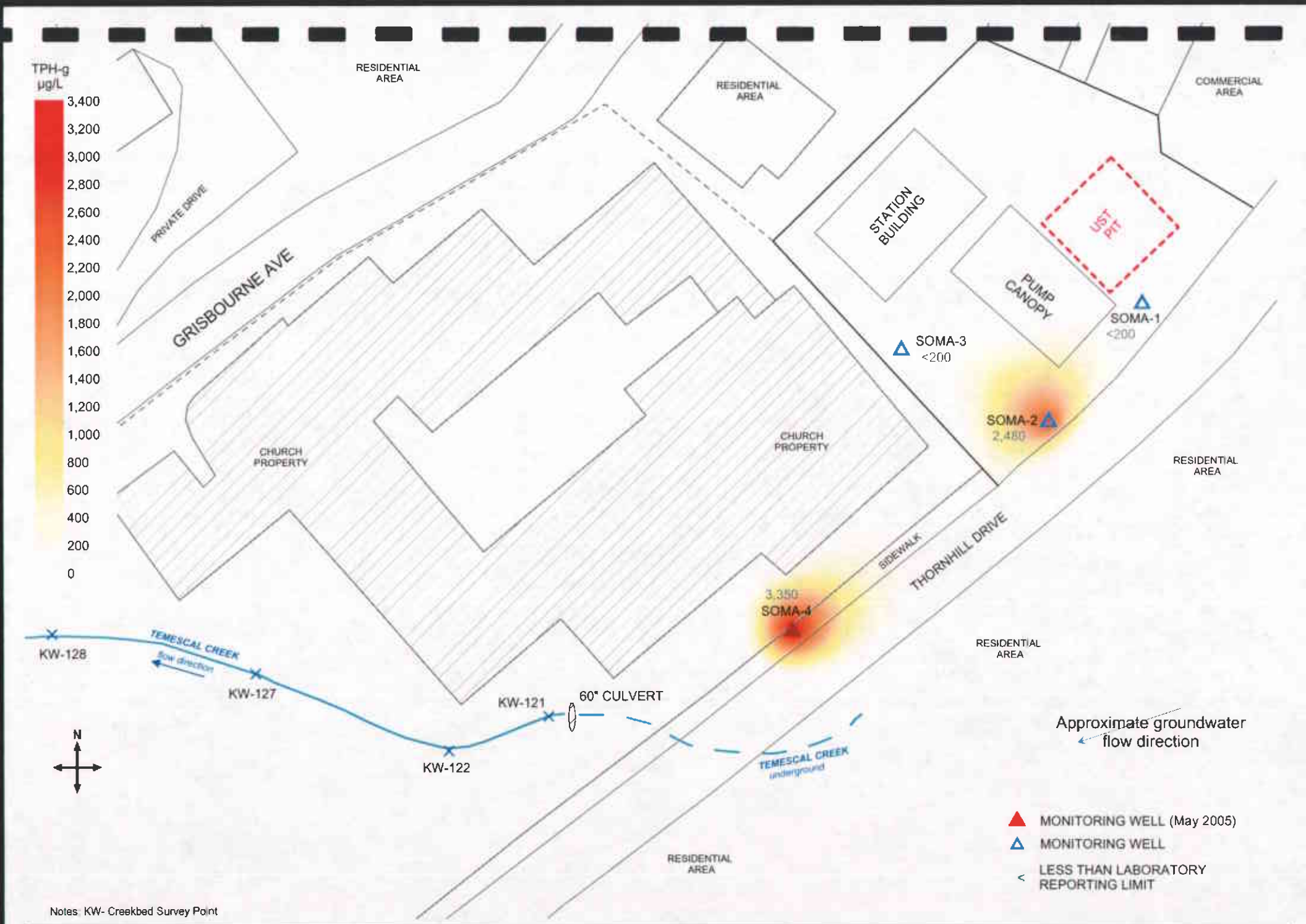
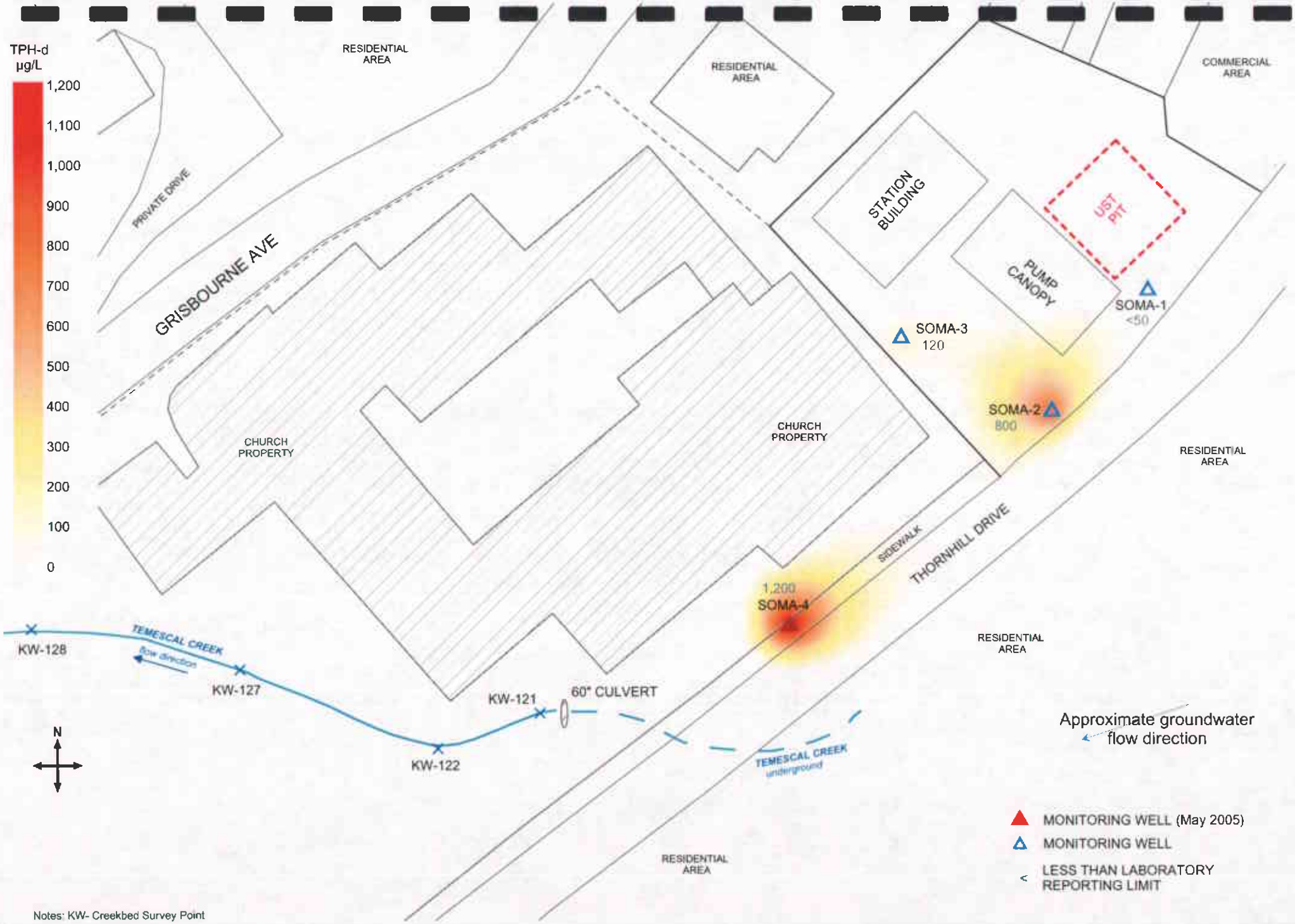


Figure 4: Contour map of TPH-g concentrations in groundwater. July 2005.

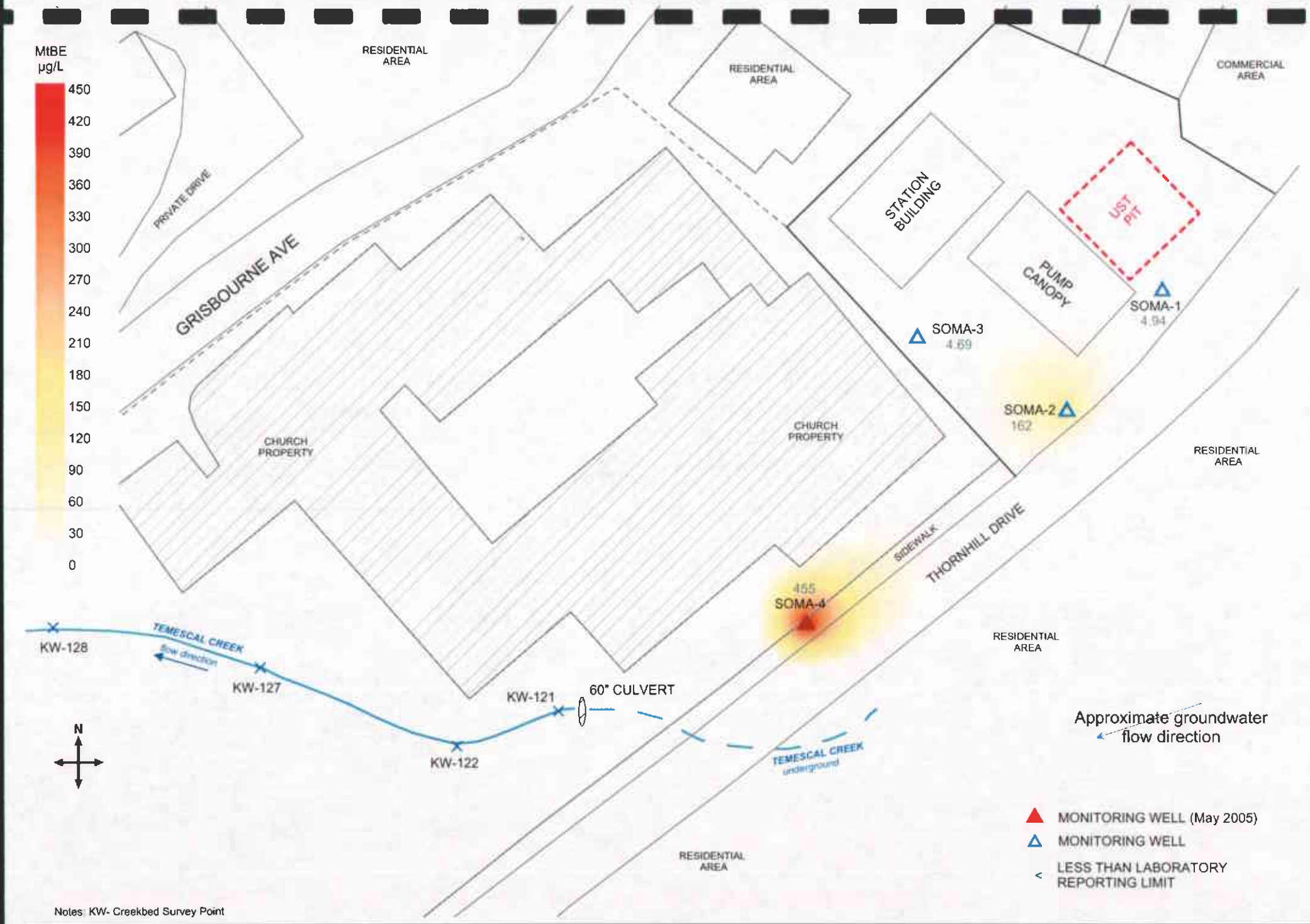


Notes: KW- Creekbed Survey Point

approximate scale in feet

0 25 50

Figure 5: Contour map of TPH-d concentrations in groundwater.
July 2005.



Notes: KW- Creekbed Survey Point

approximate scale in feet

0 25 50

Figure 6: Contour map of MtBE concentrations in groundwater. (EPA Method 8260B). July 2005.

APPENDIX A

SOMA's Groundwater Monitoring Procedures

Field Activities

On July 19, 2005, SOMA's field crew conducted a groundwater monitoring event in accordance with the procedures and guidelines of the California Regional Water Quality Control Board and the Alameda County Health Care Services. During this groundwater monitoring event three on-site wells (SOMA-1 to SOMA-3) and one off-site well SOMA-4 were monitored.

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.

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 five 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 two 1-liter amber non-preserved glass containers.

After the groundwater samples were collected they were placed on ice in an ice chest and maintained at 4^{0}C. A chain of custody (COC) form was written for all the samples. After the sampling was complete, on July 19, 2005, 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, BTEX, MtBE, gasoline oxygenates, and lead scavengers. Samples for TPH-d, TPH-mo, methanol, and ethanol measurements were subcontracted through Curtis and Tompkins, Ltd in Berkeley, California.

TPH-g, BTEX, MtBE, gasoline oxygenates, and lead scavengers measurements were prepared using EPA Method 5030B and analyzed using EPA Method 8260B. TPH-d and TPH-mo measurements were prepared using EPA Method 3520C and analyzed using Method 8015B. Methanol and ethanol were analyzed using EPA Method 8015B.

Appendix B

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

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SOMA 1	**Project No.:**	2831
Casing Diameter:	2 inches	**Address:**	5725 Thornhill Drive
Depth of Well:	27.85 feet		Oakland, CA
Top of Casing Elevation:	576.47 feet	**Date:**	July 19 , 2005
Depth to Groundwater:	5.87 feet	**Sampler:**	Mehran Nowroozi
Groundwater Elevation:	570.60 feet		
Water Column Height:	21.98 feet		
Purged Volume:	12 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 (^{o}C)	E.C. (µs/cm)
10:45 AM START PURGING				
10:47	4	7.04	19.1	569
10:49	8	7.27	18.7	439
10:52	12	7.22	18.2	427
11:00 AM SAMPLED				

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SoMA2	**Project No.:**	2831
Casing Diameter:	2 inches	**Address:**	5725 Thornhill Drive
Depth of Well:	28.0 feet		Oakland, CA
Top of Casing Elevation:	575.50 feet	**Date:**	July 19 , 2005
Depth to Groundwater:	7.42 feet	**Sampler:**	Mehran Nowroozi
Groundwater Elevation:	568.08 feet		
Water Column Height:	20.58 feet		
Purged Volume:	12 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 (^{0}C)	E.C. (µs/cm)
11:34 Started to purge				
11:34	4	7.44	19.7	548
11:37	8	7.54	19.2	560
11:40	12	7.56	19.3	569
11:45 Sampled				

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SomA 3	**Project No.:**	2831
Casing Diameter:	2 inches	**Address:**	5725 Thornhill Drive
Depth of Well:	27.80 feet		Oakland, CA
Top of Casing Elevation:	578.92 feet	**Date:**	July 19 , 2005
Depth to Groundwater:	7.49 feet	**Sampler:**	Mehran Nowroozi
Groundwater Elevation:	565.43 feet		
Water Column Height:	20.31 feet		
Purged Volume:	14 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)
12:15 Start to purge				
12:18	4	7.77	21.2	694
12:22	8	7.84	18.9	373
12:27	12	7.85	17.9	410
12:35 Sample				

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SOMA 4	**Project No.:**	2831
Casing Diameter:	2 inches	**Address:**	5725 Thornhill Drive
Depth of Well:	19.70 feet		Oakland, CA
Top of Casing Elevation:	572.65 feet	**Date:**	July 19, 2005
Depth to Groundwater:	8.10 feet	**Sampler:**	Mehran Nowroozi
Groundwater Elevation:	564.55 feet		
Water Column Height:	11.60 feet		
Purged Volume:	8 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)
2:10 Started to Purge				
2:12 pm	2	7.62	20.4	692
2:14 pm	4	7.66	18.8	642
2:16 pm	6	7.61	18.8	614
2:18 pm	8	7.60	18.6	616
2:25 pm Sampled				

Appendix C

Chain of Custody Form and Laboratory Report

for the

Third Quarter 2005 Monitoring Event

PAL Pacific Analytical Laboratory
251 West Midway Ave. Suite 201
Alameda, CA 94501
Phone (510) 864-0364

28 July 2005

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

RE: Oakland-Thornhill

Work Order Number: 5070011

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
Laboratorv Director

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# 5070011

180677

Project No: 2831	Sampler: Mehran Nowroozi
Project Name: 5725 Thornhill, Oakland	Report To: Joyce Bobek
Project P.O.: ----	Company: SOMA Environmental Engineering, Inc.
Turnaround Time: Standard	Tel: 925-244-6600 Fax: 925-244-6601

Lab No.	Sample ID	Sampling Date/Time: Date	Time	Matrix: Soil	Water	Waste	# of Containers	Preservatives: HCL	H_2SO_4	NONE	ICE	Field Notes	~~TPHg, BTEX, MtBE 8260B~~	~~Gas Ox - Lead Scavenge~~	Ethanol	TPH-d, TPH-mo				
-1	SOMA-1	7/19/05	11:00 AM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
-2	SOMA-2	7/19/05	11:45 AM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
-3	SOMA-3	7/19/05	12:35 PM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
-4	SOMA-4	7/19/05	2:25 PM		X		2L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				

Sampler Remarks:	Relinquished by:	Date/Time:	Received by:	Date/Time:
intact/cold	M. Nowroozi	7/19/05 3:45pm	James Zuniga 7/19/05 3:45pm	
	James Zuniga	7/19/05 4:30 PM	Lavenna Curtis	7/19/05 4:30 p.m.

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SOMA-1	5070011-01	Water	19-Jul-05 11:00	19-Jul-05 15:56
SOMA-2	5070011-02	Water	19-Jul-05 11:45	19-Jul-05 15:56
SOMA-3	5070011-03	Water	19-Jul-05 12:35	19-Jul-05 15:56
SOMA-4	5070011-04	Water	19-Jul-05 14:25	19-Jul-05 15:56

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-1 (5070011-01RE1) Water Sampled: 19-Jul-05 11:00 Received: 19-Jul-05 15:56									
Gasoline (C6-C12)	ND	200	ug/l	1	BG52801	19-Jul-05	27-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	"	"	"	"	"	"	
MTBE	**4.94**	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	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.6 %*		*70-130*	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.8 %*		*70-130*	"	"	"	"	
Surrogate: Perdeuterotoluene		*99.6 %*		*70-130*	"	"	"	"	
SOMA-2 (5070011-02RE1) Water Sampled: 19-Jul-05 11:45 Received: 19-Jul-05 15:56									
Gasoline (C6-C12)	**2480**	200	ug/l	1	BG52801	19-Jul-05	27-Jul-05	EPA 8260B	
Benzene	**1.09**	0.500	"	"	"	"	"	"	
Ethylbenzene	**2.65**	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	**0.730**	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	**162**	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	**2.82**	2.00	"	"	"	"	"	"	
TBA	**74.2**	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*70-130*	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.0 %*		*70-130*	"	"	"	"	
Surrogate: Perdeuterotoluene		*103 %*		*70-130*	"	"	"	"	

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

Volatile Organic Compounds by EPA Method 8260B

Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SOMA-3 (5070011-03RE1) Water Sampled: 19-Jul-05 12:35 Received: 19-Jul-05 15:56									
Gasoline (C6-C12)	ND	200	ug/l	1	BG52801	19-Jul-05	27-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	"	"	"	"	"	"	
MTBE	**4.69**	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	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.4 %*		*70-130*	"	"	"	"	
Surrogate: Dibromofluoromethane		*97.2 %*		*70-130*	"	"	"	"	
Surrogate: Perdeuterotoluene		*101 %*		*70-130*	"	"	"	"	
SOMA-4 (5070011-04RE2) Water Sampled: 19-Jul-05 14:25 Received: 19-Jul-05 15:56									
Gasoline (C6-C12)	**3350**	400	ug/l	2	BG52801	19-Jul-05	28-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	"	"	"	"	"	"	
MTBE	**455**	1.00	"	"	"	"	"	"	
DIPE	ND	1.00	"	"	"	"	"	"	
ETBE	ND	1.00	"	"	"	"	"	"	
TAME	**4.40**	4.00	"	"	"	"	"	"	
TBA	**84.1**	20.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.00	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*		*70-130*	"	"	"	"	
Surrogate: Dibromofluoromethane		*93.4 %*		*70-130*	"	"	"	"	
Surrogate: Perdeuterotoluene		*103 %*		*70-130*	"	"	"	"	

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

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
Batch BG52801 - EPA 5030 Water MS										
Blank (BG52801-BLK1)			Prepared & Analyzed: 28-Jul-05							
Surrogate: 4-Bromofluorobenzene	*46.8*		*ug/l*	*50.0*		*93.6*	*70-130*			
Surrogate: Dibromofluoromethane	*48.4*		"	*50.0*		*96.8*	*70-130*			
Surrogate: Perdeuterotoluene	*50.2*		"	*50.0*		*100*	*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	200	"							
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 (BG52801-BS1)			Prepared & Analyzed: 28-Jul-05							
Surrogate: 4-Bromofluorobenzene	*50.1*		*ug/l*	*50.0*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*48.5*		"	*50.0*		*97.0*	*70-130*			
Surrogate: Perdeuterotoluene	*50.1*		"	*50.0*		*100*	*70-130*			
MTBE	100	0.500	"	100		100	70-130			
ETBE	93.4	0.500	"	100		93.4	70-130			
TAME	80.8	2.00	"	100		80.8	70-130			
Gasoline (C6-C12)	1960	200	"	2000		98.0	70-130			
TBA	499	10.0	"	500		99.8	70-130			
Benzene	105	0.500	"	100		105	70-130			
Ethylbenzene	122	0.500	"	100		122	70-130			
m&p-Xylene	121	1.00	"	100		121	70-130			
o-xylene	115	0.500	"	100		115	70-130			
Toluene	106	2.00	"	100		106	70-130			

PAL

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Pacific Analytical Laboratory

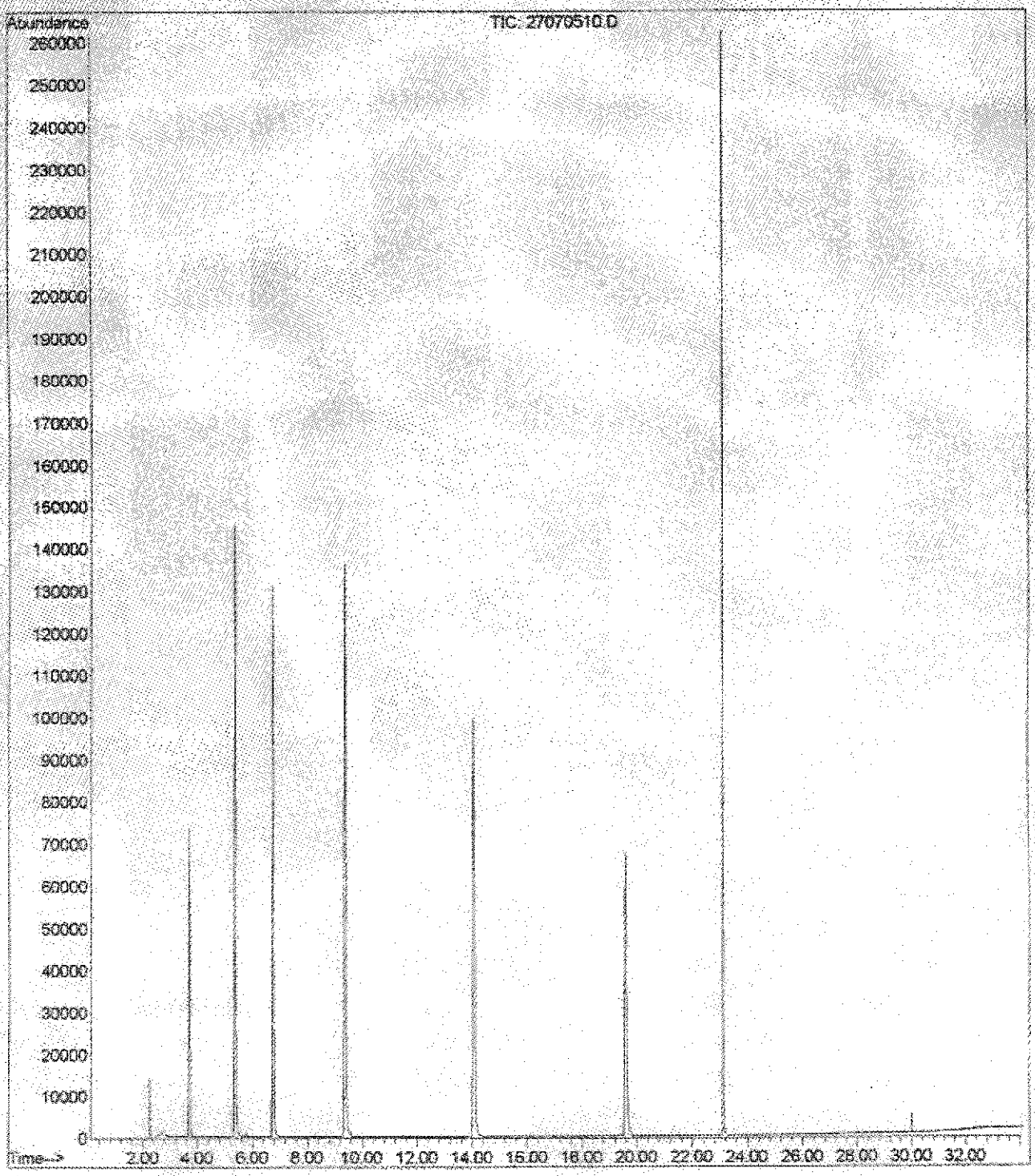
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BG52801 - EPA 5030 Water MS										
LCS Dup (BG52801-BSD1)			Prepared & Analyzed: 28-Jul-05							
Surrogate: 4-Bromofluorobenzene	*49.9*		*ug/l*	*50.0*		*99.8*	*70-130*			
Surrogate: Dibromofluoromethane	*49.7*		*"*	*50.0*		*99.4*	*70-130*			
Surrogate: Perdeuterotoluene	*49.5*		*"*	*50.0*		*99.0*	*70-130*			
MTBE	103	0.500	"	100		103	70-130	2.96	20	
ETBE	88.6	0.500	"	100		88.6	70-130	5.27	20	
TAME	78.7	2.00	"	100		78.7	70-130	2.63	20	
TBA	407	10.0	"	500		81.4	70-130	20.3	20	QR-02
Gasoline (C6-C12)	2020	200	"	2000		101	70-130	3.02	20	
Benzene	102	0.500	"	100		102	70-130	2.90	20	
Ethylbenzene	123	0.500	"	100		123	70-130	0.816	20	
m&p-Xylene	120	1.00	"	100		120	70-130	0.830	20	
o-xylene	113	0.500	"	100		113	70-130	1.75	20	
Toluene	106	2.00	"	100		106	70-130	0.00	20	

SOMA Environmental Engineering Inc.	Project: Oakland-Thornhill	
2680 Bishop Dr., Suite 203	Project Number: 2831	**Reported:**
San Ramon CA, 94583	Project Manager: Mansour Sepehr	28-Jul-05 13:41

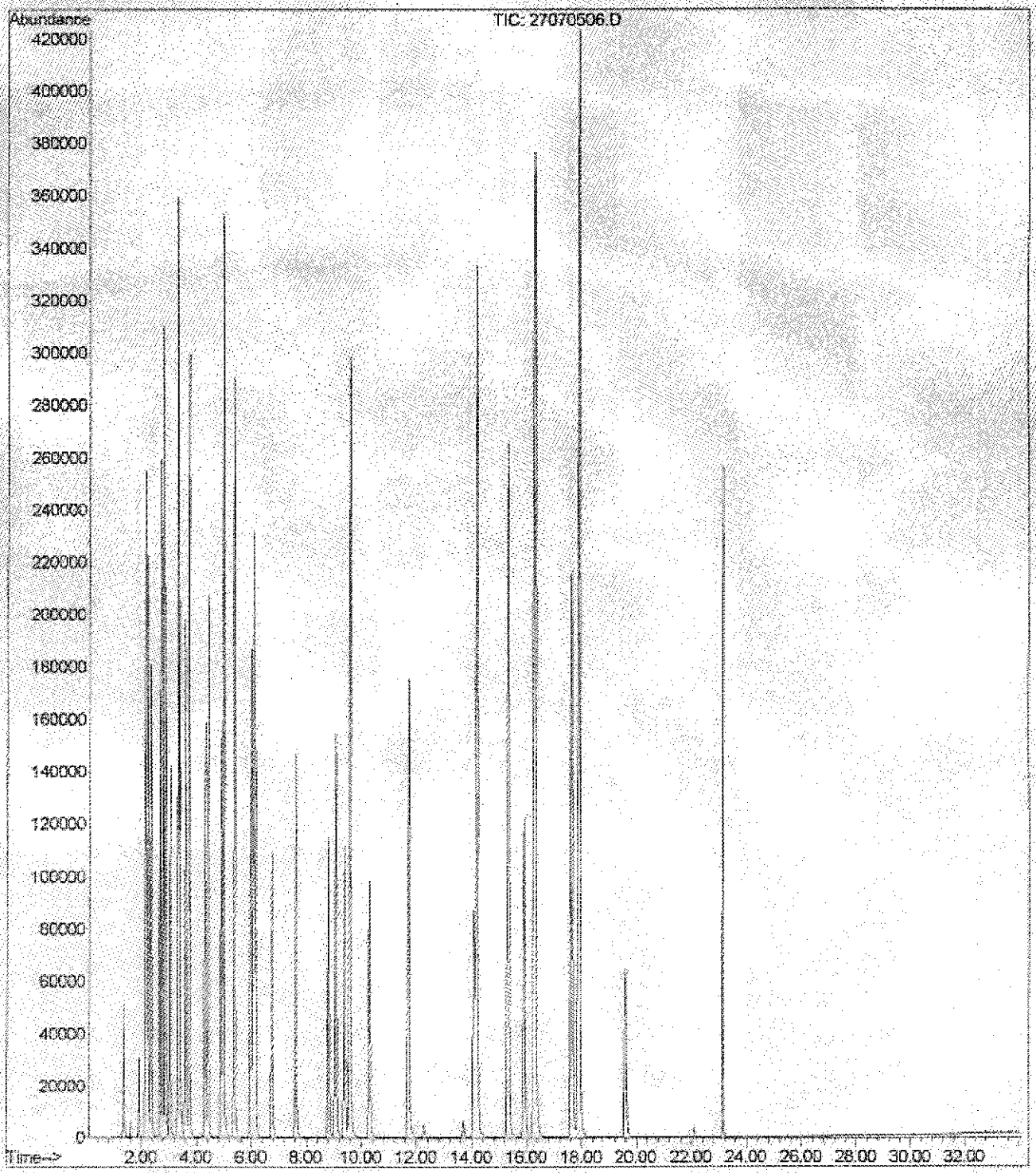
Notes and Definitions

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.
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

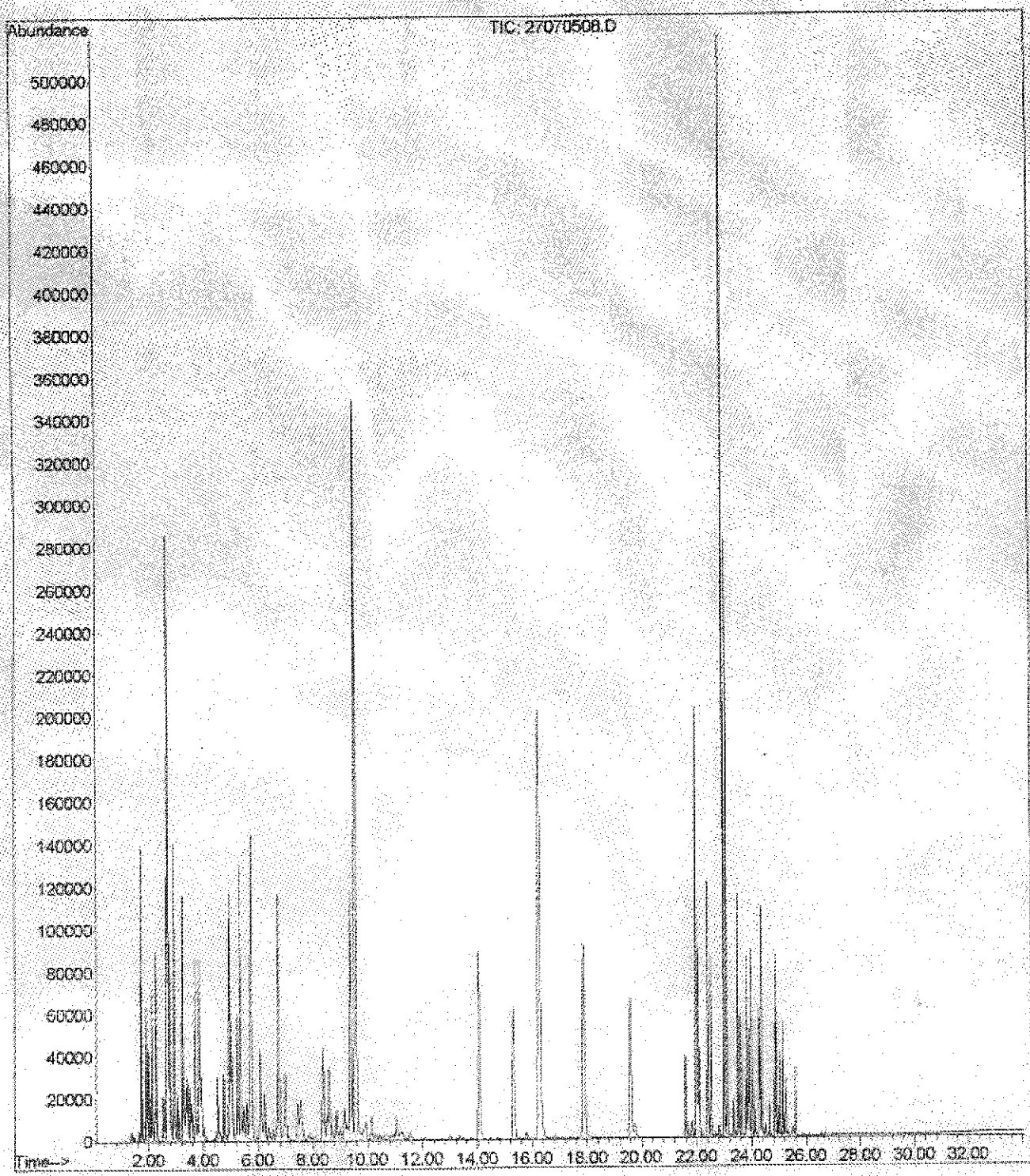
File :C:\MSDChem\1\DATA\2005-Jul-27-0957.b\27070510.D
Operator :
Acquired : 27 Jul 2005 5:20 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG52801-BLK1
Misc Info :
Vial Number: 10



File : C:\MSDChem\1\DATA\2005-Jul-27-0957.b\27070506.D
Operator :
Acquired : 27 Jul 2005 2:16 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG52801-BS1@voc
Misc Info :
Vial Number: 6



File : C:\MSDChem\1\DATA\2005-Jul-27-0957.b\27070508.D
Operator :
Acquired : 27 Jul 2005 3:51 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BG52801-BS1@gas
Misc Info :
Vial Number: 8



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# 5070011

Project No: 2831	Sampler: Mehran Nowrooz?
Project Name: 5725 Thornhill, Oakland	Report To: Joyce Bobek
Project P.O.: ----	Company: SOMA Environmental Engineering, Inc.
Turnaround Time: Standard	Tel: 925-244-6600 Fax: 925-244-6601

Lab No.	Sample ID	Sampling Date	Sampling Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservatives: HCL	Preservatives: H_2SO_4	Preservatives: NONE	Preservatives: ICE	Field Notes	TPHg, BTEX, MBE 8260B	Gas Ox - Lead Scavenge	Ethanol	TPH-d, TPH-mo				
	SOMA-1	7/19/05	11:05 AM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
	SOMA-2	7/19/05	11:45 AM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
	SOMA-3	7/19/05	12:35 PM		X		2 L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				
	SOMA-4	7/19/05	2:25 PM		X		2L Amber 5 VOAs	X		X	X	Grab Sample	X	X	X	X				

Sampler Remarks:	Relinquished by:	Date/Time:	Received by:	Date/Time:
	M. Nowrooz?	7/19/05 3:45 pm	[signature] James ?	7/19/05 3:45 pm

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

A N A L Y T I C A L R E P O R T

Prepared for:

Pacific Analytical Laboratory
851 West Midway Ave
Suite 201B
Alameda, CA 94501

Date: 29-JUL-05
Lab Job Number: 180677
Project ID: STANDARD
Location: 5725 Thornhill, Oakland

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

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**180677**
Client:	**Pacific Analytical Laboratory**
Location:	**5725 Thornhill, Oakland**
Request Date:	**07/19/05**
Samples Received:	**07/19/05**

This hardcopy data package contains sample and QC results for four water samples, requested for the above referenced project on 07/19/05. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Alcohols by GC (EPA 8015B):
High surrogate recovery was observed for 1-pentanol in SOMA-3 (lab # 180677-003); no target analytes were detected in the sample. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/19/05
Units:	ug/L	Received:	07/19/05
Diln Fac:	1.000	Prepared:	07/20/05
Batch#:	104055		

Field ID:	SOMA-1	Lab ID:	180677-001
Type:	SAMPLE	Analyzed:	07/21/05

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	98	55-143

Field ID:	SOMA-2	Lab ID:	180677-002
Type:	SAMPLE	Analyzed:	07/22/05

Analyte	Result	RL
Diesel C10-C24	800 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	105	55-143

Field ID:	SOMA-3	Lab ID:	180677-003
Type:	SAMPLE	Analyzed:	07/22/05

Analyte	Result	RL
Diesel C10-C24	120 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	98	55-143

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/19/05
Units:	ug/L	Received:	07/19/05
Diln Fac:	1.000	Prepared:	07/20/05
Batch#:	104055		

Field ID:	SOMA-4	Lab ID:	180677-004
Type:	SAMPLE	Analyzed:	07/22/05

Analyte	Result	RL
Diesel C10-C24	1,200 L,Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	104	55-143

Type:	BLANK	Analyzed:	07/21/05
Lab ID:	QC301829	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

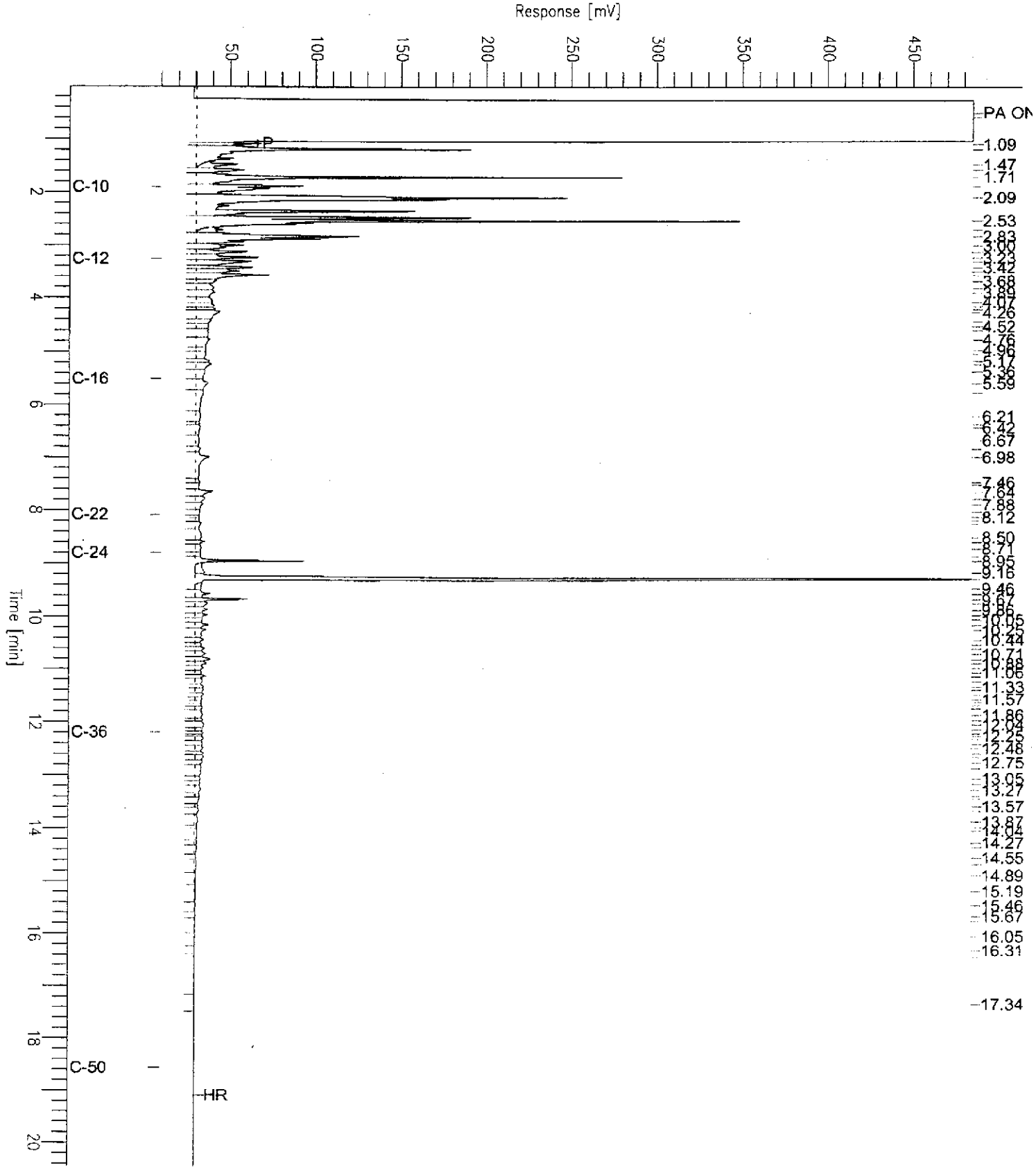
Surrogate	%REC	Limits
Hexacosane	110	55-143

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 180677-002,104055
FileName : G:\GC11\CHA\202A016.RAW
Method : ATEH195S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 10 mV

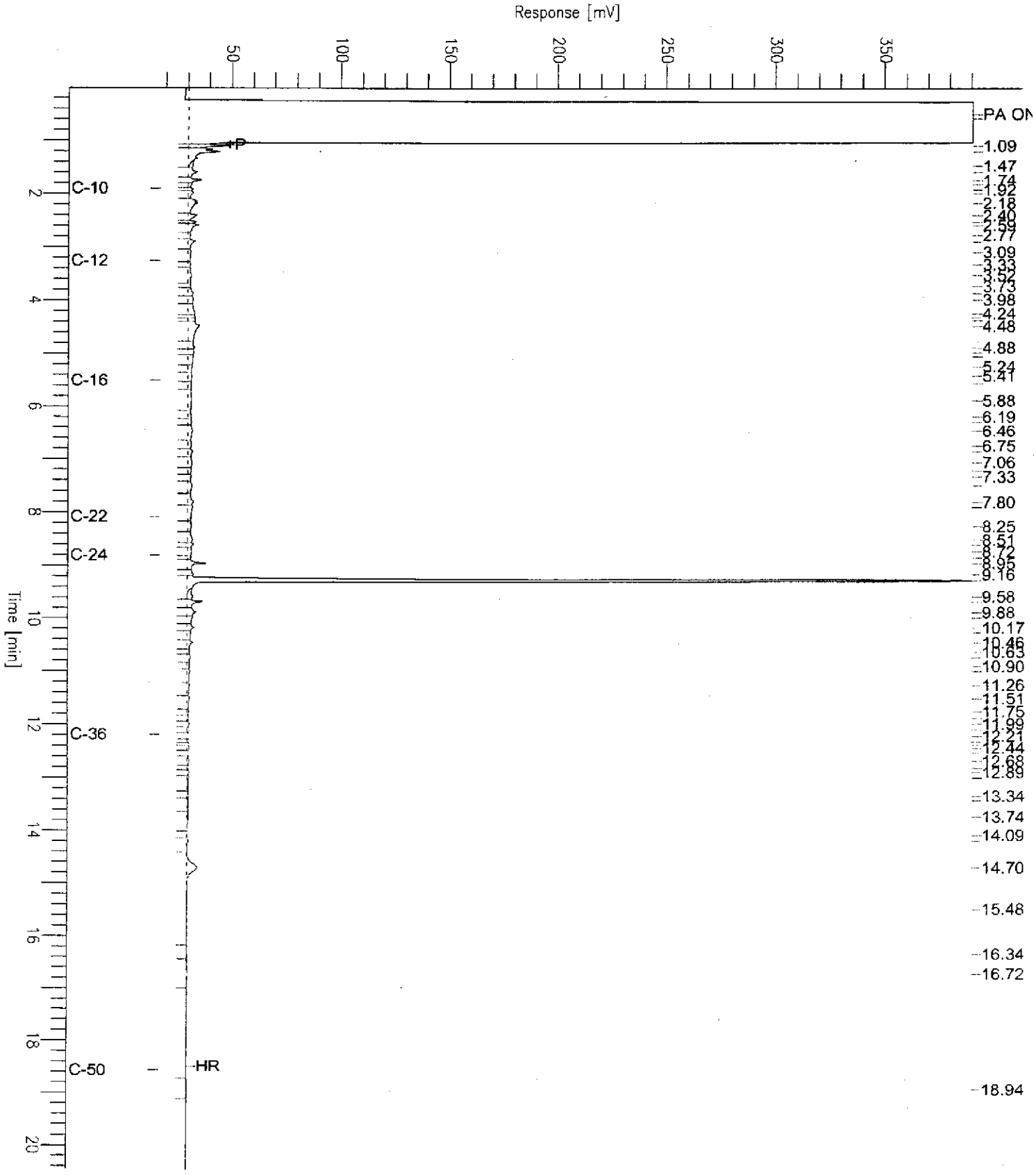
Sample #: 104055 Page 1 of 1
Date : 7/22/05 08:21 AM
Time of Injection: 7/22/05 12:04 AM
Low Point : 10.00 mV High Point : 484.92 mV
Plot Scale: 474.9 mV



Chromatogram

Sample Name : 180677-003,104055
FileName : G:\GC11\CHA\202A017.RAW
Method : ATEH195S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 17 mV

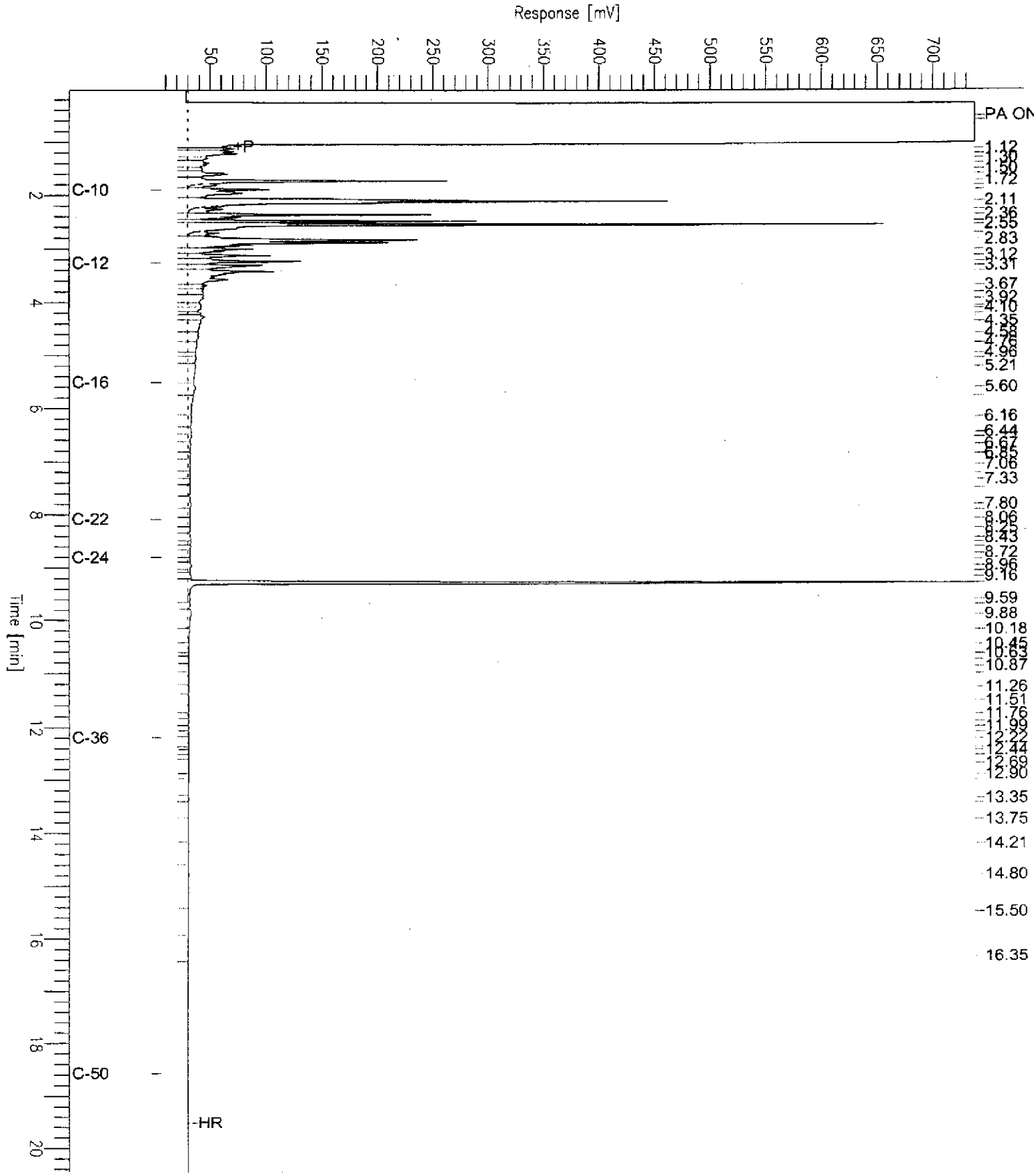
Sample #: 104055 Page 1 of 1
Date : 7/22/05 08:21 AM
Time of Injection: 7/22/05 12:33 AM
Low Point : 17.43 mV High Point : 390.61 mV
Plot Scale: 373.2 mV



Chromatogram

Sample Name : 180677-004,104055
FileName : G:\GC11\CHA\202A018.RAW
Method : ATEH195S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 6 mV

Sample #: 104055 Page 1 of 1
Date : 7/22/05 08:22 AM
Time of Injection: 7/22/05 01:03 AM
Low Point : 6.16 mV High Point : 737.50 mV
Plot Scale: 731.3 mV

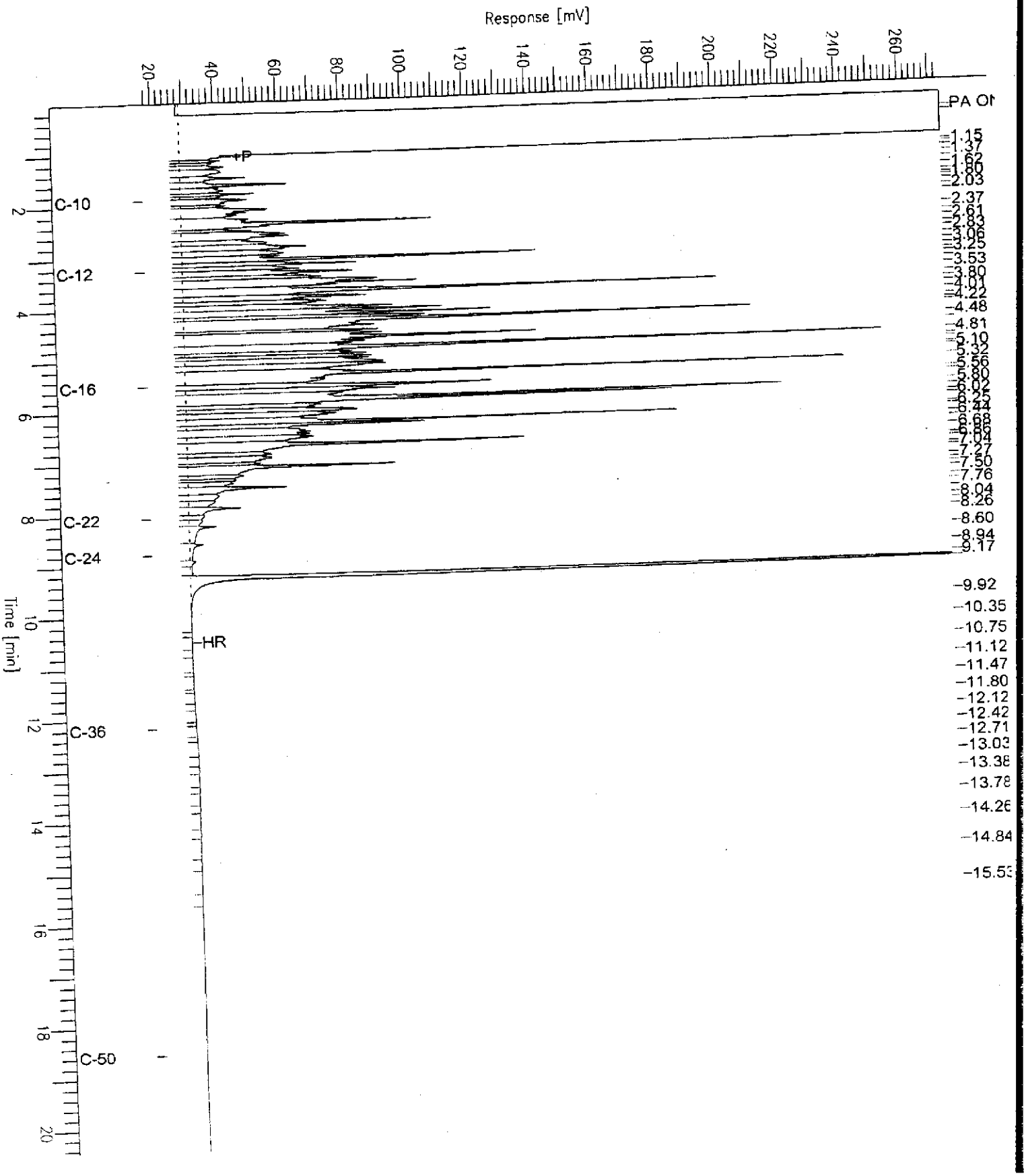


Chromatogram

mple Name : ccv,S1030,dsl
leName : G:\GC11\CHA\202A003.RAW
thod : ATEH195S.MTH
art Time : 0.01 min
ale Factor: 0.0

End Time : 20.45 min
Plot Offset: 17 mV

Sample #: 500mg/L
Date : 7/21/05 10:33 AM
Time of Injection: 7/21/05 09:41 AM
Low Point : 17.14 mV
Plot Scale: 256.5 mV
High Point : 273.63 mV

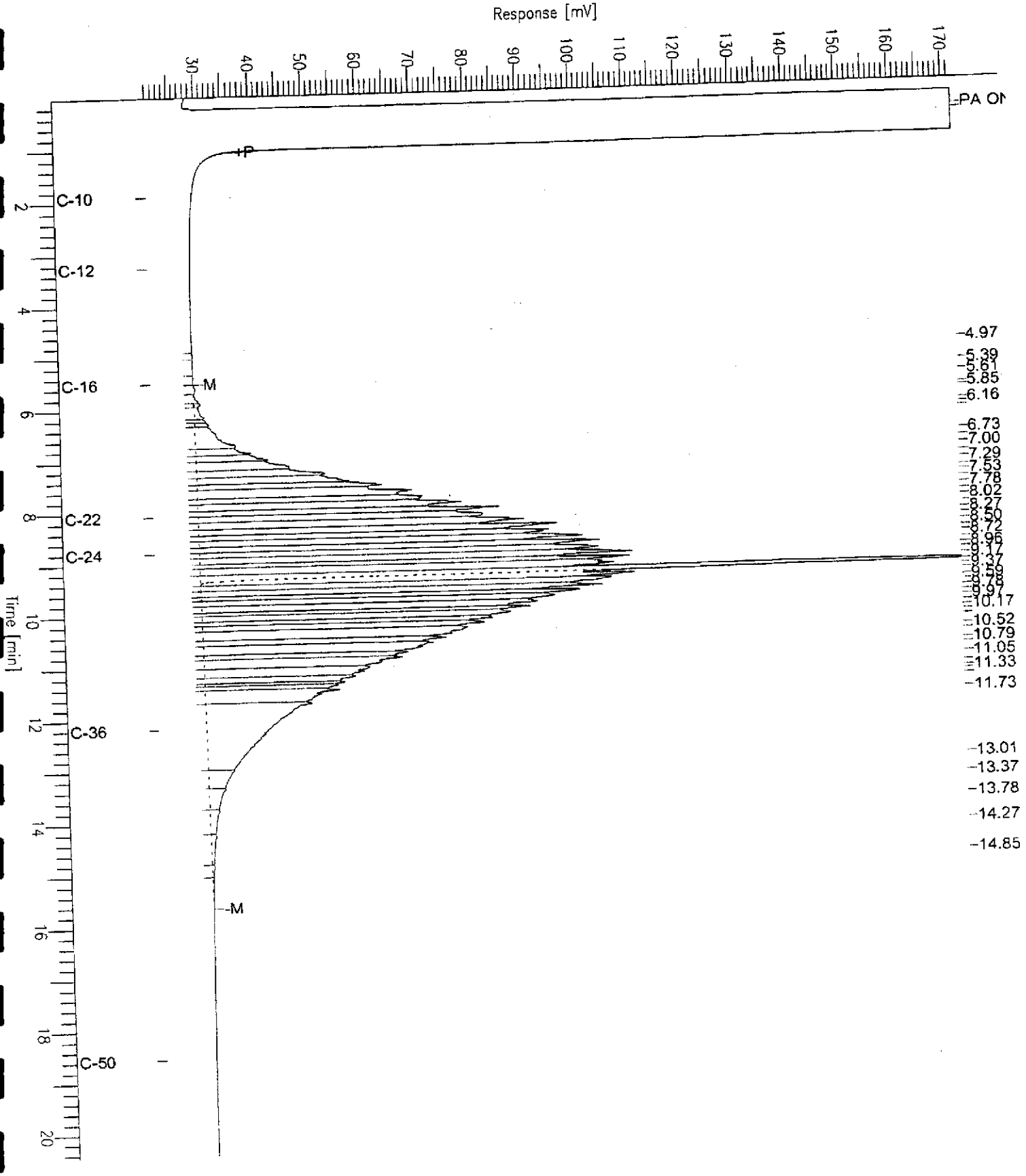


Chromatogram

mple Name : ccv,S1044,mo
leName : G:\GC11\CHA\202A004.RAW
thod : ATEH195S.MTH
art Time : 0.01 min
ale Factor: 0.0

End Time : 20.45 min
Plot Offset: 21 mV

Sample #: 500mg/L
Date : 7/21/05 10:33 AM
Time of Injection: 7/21/05 10:11 AM
Low Point : 20.90 mV
High Point : 171.75 mV
Plot Scale: 150.9 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC301830	Batch#:	104055
Matrix:	Water	Prepared:	07/20/05
Units:	ug/L	Analyzed:	07/21/05

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,490	100	50-133

Surrogate	%REC	Limits
Hexacosane	109	55-143

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	104055
MSS Lab ID:	180681-002	Sampled:	07/19/05
Matrix:	Water	Received:	07/19/05
Units:	ug/L	Prepared:	07/20/05
Diln Fac:	1.000	Analyzed:	07/22/05

Type: MS Lab ID: QC301831

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	ND	2,500	2,677	107	42-127

Surrogate	%REC	Limits
Hexacosane	117	55-143

Type: MSD Lab ID: QC301832

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,621	105	42-127	2	45

Surrogate	%REC	Limits
Hexacosane	117	55-143

ND= Not Detected
RPD= Relative Percent Difference

6.0

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	104055
MSS Lab ID:	180603-004	Sampled:	07/14/05
Matrix:	Water	Received:	07/15/05
Units:	ug/L	Prepared:	07/20/05
Diln Fac:	1.000	Analyzed:	07/22/05

Type: MS Lab ID: QC301875

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	634.5	2,500	3,495	114	42-127

Surrogate	%REC	Limits
Hexacosane	118	55-143

Type: MSD Lab ID: QC301876

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	3,317	107	42-127	5	45

Surrogate	%REC	Limits
Hexacosane	116	55-143

RPD= Relative Percent Difference

7.0

Curtis & Tompkins, Ltd.

Alcohols by GC-FID

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/19/05
Units:	mg/L	Received:	07/19/05
Diln Fac:	1.000	Analyzed:	07/20/05
Batch#:	104070		

Field ID: SOMA-1 Lab ID: 180677-001
Type: SAMPLE

Analyte	Result	RL
Methanol	ND	1.0
Ethanol	ND	1.0

Surrogate	%REC	Limits
1-Pentanol	82	60-120

Field ID: SOMA-2 Lab ID: 180677-002
Type: SAMPLE

Analyte	Result	RL
Methanol	ND	1.0
Ethanol	ND	1.0

Surrogate	%REC	Limits
1-Pentanol	117	60-120

Field ID: SOMA-3 Lab ID: 180677-003
Type: SAMPLE

Analyte	Result	RL
Methanol	ND	1.0
Ethanol	ND	1.0

Surrogate	%REC	Limits
1-Pentanol	136 *	60-120

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

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Alcohols by GC-FID

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	07/19/05
Units:	mg/L	Received:	07/19/05
Diln Fac:	1.000	Analyzed:	07/20/05
Batch#:	104070		

Field ID: SOMA-4 Lab ID: 180677-004
Type: SAMPLE

Analyte	Result	RL
Methanol	ND	1.0
Ethanol	ND	1.0

Surrogate	%REC	Limits
1-Pentanol	93	60-120

Type: BLANK Lab ID: QC301877

Analyte	Result	RL
Methanol	ND	1.0
Ethanol	ND	1.0

Surrogate	%REC	Limits
1-Pentanol	109	60-120

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

Curtis & Tompkins, Ltd.

Batch QC Report

Alcohols by GC-FID

Lab #:	180677	Location:	5725 Thornhill, Oakland
Client:	Pacific Analytical Laboratory	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	104070
Units:	mg/L	Analyzed:	07/20/05
Diln Fac:	1.000		

Type: BS Lab ID: QC301878

Analyte	Spiked	Result	%REC	Limits
Methanol	50.00	45.77	92	65-120
Ethanol	50.00	42.19	84	67-120

Surrogate	%REC	Limits
1-Pentanol	78	60-120

Type: BSD Lab ID: QC301879

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Methanol	50.00	53.17	106	65-120	15	20
Ethanol	50.00	49.93	100	67-120	17	20

Surrogate	%REC	Limits
1-Pentanol	94	60-120

RPD= Relative Percent Difference

3.0