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June 6, 2005

Ms. Trish Maguire  
East Bay Municipal Utility District  
EDMUD – Mail Slot #702  
P. O. Box 24055  
Oakland, CA 94623-1055



Re: 3609 International Boulevard, Oakland, California 94601  
**Wastewater Discharge Permit No. 504-27421**

Dear Ms. Maguire:

As you requested, enclosed is SOMA's "Semi-Annual Technical Report: Treatment System Discharge to EBMUD Sewer for Permit No. 50427421 from November 2004 to May 2005" for the subject site.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 244-6600.

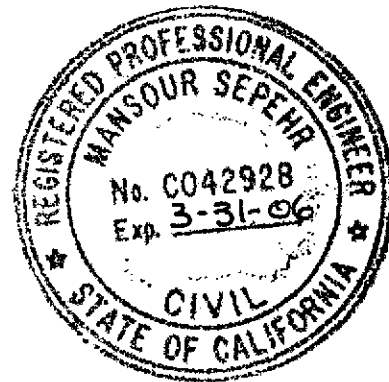
Sincerely,

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

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist

Enclosure

cc: Mr. Abolghassem Razi w/enclosure  
Mr. Amir Gholami w/enclosure ✓  
Alameda County Dept. of Env. Health



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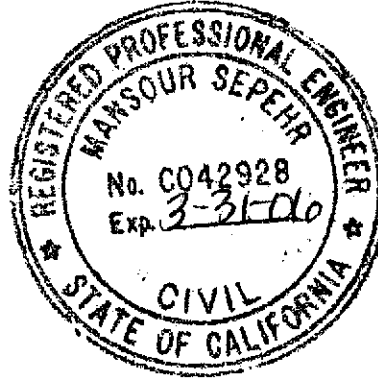
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## CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Abolghassem Razi, the property owner of 3609 International Boulevard, Oakland, California to comply with the East Bay Municipal Utility District's requirements for the discharge of extracted and treated groundwater resulting from the cleanup of groundwater polluted by fuel leaks and other related wastes.

  
\_\_\_\_\_  
Mansour Sepéhr, Ph.D., P.E.  
Principal Hydrogeologist



## Certification Statement

Chief Executive Officer

Abolghassem Razi  
Name

Owner  
Title

3609 International Boulevard  
Street Address

Oakland  
City

94601  
Zip

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature

5/24/05  
Date

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## 1.0 INTRODUCTION

The purpose of this report is to present a record of the wastewater discharged from the remediation system located at 3609 International Boulevard, Oakland, California ("the Site") into the East Bay Municipal Utility District's (EBMUD's) sewer system from November 2004 to May 2005. The treatment system is operated by SOMA Environmental Engineering, Inc. (SOMA). This report is being submitted on behalf of Mr. Abolghassem Razi, the property owner of the Site.

The Site is located at the intersection of 36<sup>th</sup> Avenue and International Boulevard (formerly known as East 14<sup>th</sup> Street) in Oakland, California (see Figure 1). It is currently being used as a gasoline service station and mechanic shop and is doing business as Tony's Express Auto Service. The Site is relatively flat and the surrounding properties are primarily commercial businesses and residential housing.

Figure 2 illustrates the locations of the service station, dispenser islands, underground storage tanks (USTs), groundwater remediation system, on and off-site groundwater monitoring wells, and surrounding areas. Currently, the groundwater monitoring wells are being monitored on a quarterly basis.

### 1.1 Background

The environmental investigation at the subject property began in 1992 when Mr. Razi retained Soil Tech Engineering, Inc. (STE) to conduct a limited subsurface investigation. The purpose of STE's investigation was to determine whether or not the soil near the product lines and USTs had been impacted with petroleum hydrocarbons.

In July 1993, STE removed one single-walled 10,000-gallon gasoline tank and one single-walled 6,000-gallon gasoline tank along with a 550-gallon waste oil tank from the Site. Three double-walled USTs replaced these tanks. Currently, there is one 10,000 gallon double-walled gasoline tank and two 6,000-gallon double-walled gasoline tanks beneath the Site (Figure 2).

In December 1997, Mr. Razi retained Western Geo-Engineers (WEGE) to conduct an additional investigation and perform groundwater monitoring on a quarterly basis. The results of WEGE's groundwater monitoring events indicated that there were elevated levels of petroleum hydrocarbons and Methyl tertiary Butyl Ether (MtBE) in the groundwater.

In April 1999, Mr. Razi retained SOMA to conduct groundwater monitoring, risk based corrective action (RBCA), a corrective action plan (CAP) and soil and groundwater remediation at the Site. The results of the RBCA study indicated that the Site is a high-risk area, therefore, the soil and groundwater in the on-and

off-site areas needs to be remediated. The results of the CAP study indicated that the installation of a French drain coupled with the vapor extraction technique was the most cost effective alternative for the Site's remediation.

In late August 1999, SOMA installed a French drain and initiated a groundwater treatment system to prevent the chemically impacted groundwater from migrating further. This treatment system has been in operation since early December 1999.

On July 25, 2003, an additional on-site extraction pump was installed in the western French drain riser by SOMA. The extraction pump was installed to create a better capture zone in the region around the USTs and to prevent the off-site migration of contaminants.

On January 9, 2004, the on-site pneumatic downhole pumps in the French drain were converted into electrical pumps. SOMA has performed periodic carbon change-outs to maintain the efficiency of treatment system in removing contaminant mass from the impacted groundwater. The last change-out was conducted on May 4, 2005.

SOMA has met with EBMUD representatives, since the initial start-up of the system, on a semi-annual basis to determine the efficiency of the remediation system and to collect groundwater samples. SOMA last met with EBMUD representative, Chris Spensor, on May 16, 2005.

## **1.2 Site Conditions**

The source of the petroleum hydrocarbons in the groundwater is believed to have originated from the former single-walled USTs that were used to store gasoline at the Site. As mentioned earlier, the former single-walled USTs were replaced with a 10,000-gallon double-walled UST and two 6,000-gallon double-walled USTs.

In general, the more impacted wells have been MW-1 and MW-3, which are near the UST cavity, and MW-6, which is near the SVE system, in the eastern section of the Site. Based on the groundwater analytical results from the monitoring events conducted at the Site by SOMA, the following concentration trends were observed for these three wells since the last EBMUD report in November 2004 to the May 2005 monitoring event.

- In well MW-1, all total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, total xylenes (BTEX) constituents increased, with the exception of total xylenes, which decreased. MtBE also decreased.
- In well MW-3, TPH-g, MtBE, and BTEX constituents increased, with the exception of benzene, which decreased.

- In well MW-6, TPH-g significantly increased, all BTEX analytes also increased, and MtBE remained below the laboratory reporting limit.

For further detailed information on the groundwater concentrations encountered throughout the Site refer to SOMA's "Second Quarter 2005 Groundwater Monitoring and Remediation System Operation Report."

Based on the results from the May 2005 monitoring event, all of the concentrations detected in wells MW-1, MW-3, and MW-6 were well below the historical peak values. The increase in the concentrations in these wells, during the Second Quarter 2005 monitoring event, can be attributed to the watertable ascending towards the ground surface caused by the rainy weather conditions. Due to the apparent increase in groundwater elevations, the groundwater came in contact with the unsaturated contaminated zone. As a result, the contaminant levels in the groundwater increased.

## **2.0 TREATMENT SYSTEM OPERATION**

The operation of the treatment system began on December 6, 1999. Since then, approximately 2,971,430 gallons of groundwater has been treated and discharged into EBMUD's sewer system (recording date was May 9, 2005), under the wastewater discharge permit.

Appendix A includes the EBMUD Wastewater Discharge Permit; permit number 50427421.

As required by the discharge permit and the Alameda County Environmental Health Services (ACEHS), inspection and sampling of the treatment system has been performed on a routine basis since the system's initial start-up. The influent samples have been collected from the 550-gallon holding tank. Samples have been collected from the effluent of the 2,000 pound Granular Activated Carbon (GAC-1) Unit and the treatment system effluent (PSP#1). The sample locations can be seen in the schematic diagram of the treatment system, which is shown in Figure 3.

On May 4, 2005, to more accurately determine the total flow through the system, the totalizer meter was changed. The previous meter reading, prior to being replaced, was 2,189,270 gallons. The replacement meter was factory calibrated at a flow of 100 gallons on July 6, 2004. During the testing the meter reading ranged from 100.2 gallons to 99.8 gallons. The new meter is a 5/8-inch Kent positive displacement meter. The test results are included as Appendix B.

Also on May 4, 2005, to maintain the system's efficiency and to ensure that the effluent concentrations remained below the discharge compliance limits, SOMA conducted a carbon change-out. At this time, carbon was refurbished in the



2,000-pound carbon vessel and the 55-gallon carbon vessel drum was replaced. The system was temporarily shutdown during this process and then restarted after the change-out. The previous carbon change-out, prior to the May 2005 event, was in January 2005.

Table 1 shows the total volume of effluent discharged into EBMUD's sewer system. Also included in Table 1 are the laboratory analytical results of the treatment system samples collected from the effluent and the 2,000-pound GAC-1 unit, as well as pertinent historical maintenance data.

Appendix C includes the laboratory reports for the treatment system from December 2004 to May 2005. The November 2004 sampling event was included in the previous discharge report submitted to EBMUD.

The treatment system has removed approximately 193.50 pounds of hydrocarbons and 85 pounds of MtBE from the initial start-up in December 1999 to May 9, 2005.

Figure 4 displays the cumulative masses of TPH-g and MtBE extracted from the Site's groundwater since December 1999.

### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

- Approximately 2,971,430 gallons of groundwater has been treated and discharged into EBMUD's sewer system, under the wastewater discharge permit, since the treatment system's initial start-up in December 1999. Approximately 339,830 gallons of groundwater has been treated and discharged at the Site since the last EBMUD Semi-Annual Discharge Report (November 8, 2004 to May 9, 2005).
- Since the treatment system's initial start-up in December 1999, approximately 193.50 pounds of hydrocarbons and 85 pounds of MtBE have been removed from the groundwater. During the time period from November 8, 2004 to May 9, 2005, approximately 17.22 pounds of hydrocarbons and 2.58 pounds of MtBE have been removed from the groundwater.
- Based on the comparison between the analytical results from the Fourth Quarter 2004 monitoring event and the Second Quarter 2005 monitoring event, it appears that several groundwater constituents have increased in the vicinity of impacted wells MW-1, MW-3, and MW-6. However, this could be the result of the residual contaminants in the previous unsaturated zone, contacting the groundwater layer due the ascending watertable. Therefore, the increased constituents observed in wells MW-1,

MW-3, and MW-6 may not necessarily be attributed to the effectiveness or ineffectiveness of the treatment system.

Based on the results from this semi-annual observation of the treatment system, as well as historical remedial data, SOMA recommends the following action items:

- The 55-gallon carbon vessel should be replaced at a minimum of every 18 weeks. SOMA will continue to collect samples from the treatment system at a minimum of every 3 to 4 weeks. SOMA will perform routine system maintenance on a weekly basis.

#### **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 Curtis & Tompkins, Ltd. in Berkeley, California and Pacific Analytical Laboratory in Alameda, California. Data summaries produced by the previous environmental consultants are also referenced in this report. 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 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.

# TABLE

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)		Benzene	Toluene	Ethylbenzene	
			MtBE <sup>2</sup>	TPH-g				
<b>2005</b>								
May	5/9/2005	2,971,430	<0.5 <0.5	<200 <200	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0
	5/4/2005	2,964,270	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel totalizer changed at meter reading of 2,189,270					
April	4/4/2005	2,904,500	<0.5 <0.5	<200 <200	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0
March	3/21/2005	2,874,170	<0.5 <0.5	<200 <200	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0
February	2/14/2005	2,828,000	55 Gallon Drum Changed Out					
	2/7/2005	2,819,000	<5.0 <5.0	<50 <50	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0	<5.0 <5.0
January	1/19/2005	2,775,000	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
	1/3/2005	2,730,480	3.6 3.8	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
<b>2004</b>								
December	12/6/2004	2,667,620	<0.5 <0.5	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0
November	11/8/2004	2,631,600	<0.5 <0.5	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
October	10/13/2004	2,606,420	< 2.0 <2.0	< 50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
September	9/13/2004	2,594,390	< 2.0 < 2.0	< 50 < 50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
August	8/25/2004	2,586,010	55 Gallon Drum Changed Out					
	8/9/2004	2,581,250	< 2.0 < 2.0	< 50 < 50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
July	7/13/2004	2,568,830	< 2.0 < 2.0	< 50 < 50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
	7/21/2004	2,564,710	55 Gallon Drum Changed Out					

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MIBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	
June	6/14/2004	2,549,470	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
May	5/26/2004	2,530,000	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
	5/10/2004	2,488,760	Semi Annual Treatment System Meeting With Ebmud					
	5/17/2004	2,518,910	Replaced 55-gallon polishing vessel and restarted the system					
	5/5/2004	2,500,650	Carbon Changed Out and 55 Gallon Drum Changed Out					
	5/3/2004	2,497,350	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
April	4/15/2004	2,436,190	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
<b>2003</b>								
March	3/17/2004	2,376,200	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
February	2/24/2004	2,276,770	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2004	2,165,220	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	1/13/2004	2,116,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
December	12/8/2003	2,092,330	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
November	11/17/2003	2,087,670	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	11/3/2003	2,079,460	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
October	10/13/2003	2,073,060	5.3	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	10/1/2003	2,072,610	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent and GAC-1					
		Reading (gallons)	(concentrations in ug/L)		Benzene	Toluene	Ethylbenzene	Total Xylenes
September	9/15/2003	2,056,910	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			6	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	9/2/2003	2,040,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
August	8/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
July	7/21/2003	1,995,240	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			40	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	7/9/2003	1,990,260	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			36	< 50	< 5.0	< 5.0	< 5.0	< 5.0
June	6/18/2003	1,978,560	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
	6/10/2003	1,972,780	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
May	5/21/2003	1,951,830	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	5/1/2003	1,918,270	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
April	4/11/2003	1,882,440	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
March	3/19/2003	1,846,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
February	2/25/2003	1,804,960	replaced 55-gallon polishing vessel with new 55 gallon carbon drum					
	2/19/2003	1,791,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2003	1,733,500	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	1/2/2003	1,675,600	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent and GAC-1				Toluene	Ethylbenzene	Total Xylenes
		Reading (gallons)	(concentrations in ug/L)		Benzene				
			MtBE <sup>2</sup>	TPH-g					
<b>2002</b>									
December	12/10/2002	1,672,870	< 5.0 < 5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	
November	11/22/2002	1,668,650	< 5.0 < 5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	
	11/13/2002	1,664,780	replaced gasket on top of 2000 lb GAC vessel, slight leak was detected						
	11/7/2002	1,663,880	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel						
October	10/16/02 <sup>3</sup>	1,661,590	< 310 < 0.5	2,000 Y Z < 50	< 310 < 0.5	< 310 < 0.5	< 310 < 0.5	< 310 < 0.5	
September	9/19/2002	1,653,600	< 5 < 5	< 50 < 50	< 5 < 5	< 5 < 5	< 5 < 5	< 5 < 5	
August	8/23/2002	1,641,650	1 < 0.5	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
July	7/23/2002	1,632,834	<5.0 < 5.0	< 50 < 50	<5.0 < 5.0	<5.0 < 5.0	<5.0 < 5.0	<5.0 < 5.0	
June	6/24/2002	1,610,050	1.7 < 0.5	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
May	5/30/2002	1,571,630	< 0.5 < 0.5	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
	5/20/2002	1,548,000	removed newly installed compressor, installed another compressor						
	5/8/2002	1,538,850	installed new compressor						
	5/1/2002	1,529,650	installed new 55 gallon GAC Vessel						
April	4/24/2002	1,528,740	< 0.5 < 0.5	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
	4/1/2002	1,478,500	repaired valve plate assembly on compressor						
March	3/25/2002	1,478,420	performed carbon change-out on treatment system						
	3/18/2002	NR	replaced piston on compressor						
	3/14/2002	1,478,330	compressor not building up pressure						
February	2/27/2002	1,449,830	< 0.5 1.1	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
January	1/22/2002	1,381,370	< 2.0 < 2.0	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent <sup>1</sup> and GAC-1					Ethylbenzene	Total Xylenes
		Reading (gallons)	(concentrations in ug/L)						
			MtBE <sup>2</sup>	TPH-g	Benzene	Toluene			
<b>2001</b>									
December	12/12/2001	1,311,340	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
November	11/2/2001	1,272,660	ND 0.6	ND ND	ND ND	ND ND	ND ND	ND ND	
September	9/28/2001	NA	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
August	8/22/2001	1,243,100	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
July	7/26/2001	1,227,270	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	7/11/2001	1,226,730	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
June	6/29/2001	1,224,600	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	
	6/26/2001	NR	installed new compressor						
	6/16/2001	1,216,580	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	6/7/2001	1,216,580	compressor not working, repaired compressor						
May	5/30/2001	1,205,198	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/23/2001	1,194,390	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/17/2001	1,182,360	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	5/10/2001	1,166,850	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/5/2001	1,151,600	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
April	4/28/2001	1,135,690	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	4/21/2001	1,113,570	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	4/11/2001	1,082,700	NA ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	4/6/2001	1,065,540	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	



**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	
March	3/29/2001	1,036,330	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
			system was re-started					
	3/21/2001	1,036,070	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
			belt replaced on compressor					
	3/17/2001	1,035,100	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	3/13/2001	1,032,500	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA
	3/2/2001	996,520	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	3/1/2002	NR	system re-started after carbon change-out					
February	2/28/2002	NR	Carbon Change-out was performed on GAC-1, washed algae from holding tank cleaned 2000 lb GAC, re-started system					
	2/10/2001	975,490	System shut down for maintenance and cleaning.					
January	1/29/2001	957,880	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
<b>2000</b>								
December	12/5/2000	883,000	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
November	11/24/2000	NR	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	11/1/2000	842,000	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND

**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent <sup>1</sup> and GAC-1					Total Xylenes	
		Reading (gallons)	(concentrations in ug/L)						
			MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene		
October	10/1/2000	809,000	ND	ND	ND	ND	ND	ND	
			ND	ND	ND	ND	ND	ND	
August	8/27/2000	781,000	ND	ND	ND	ND	ND	ND	
	8/24/2000	778,000	totalizer changed at meter reading of 775,000						
July	7/26/2000	726,000	ND	ND	ND	ND	ND	ND	
	7/19/2000	718,000	ND	ND	ND	ND	ND	ND	
	7/13/2000	712,000	ND	ND	ND	ND	ND	ND	
	7/7/2000	706,000	ND	ND	ND	ND	ND	ND	
June	6/29/2000	700,000	ND	ND	ND	ND	ND	ND	
	6/21/2000	682,220	ND	ND	ND	ND	ND	ND	
	6/16/2000	669,720	ND	ND	ND	ND	ND	ND	
	6/10/2000	651,200	ND	ND	ND	ND	ND	ND	
May	5/31/2000	629,000	ND	ND	ND	ND	ND	ND	
	5/23/2000	603,700	ND	ND	ND	ND	ND	ND	
	5/18/2000	570,000	ND	ND	ND	ND	ND	ND	
	5/10/2000	530,400	ND	ND	ND	ND	ND	ND	
April	4/30/2000	488,300	ND	ND	ND	ND	ND	ND	
	4/18/2000	485,300	ND	ND	ND	ND	ND	0.51	
			compressor stopped, system shut down until April 29, 2000						
	4/10/2000	440,200	ND	ND	ND	ND	ND	ND	
	4/4/2000	390,100	ND	ND	ND	ND	ND	ND	
	4/2/2000	NR	performed a carbon change-out on GAC-1						
March	3/31/2000	NR	replaced GAC-2 with a special GAC designed for removal of MtBE						
	3/24/2000	388,000	ND	ND	ND	ND	ND	ND	
	3/17/2000	357,100	ND	ND	ND	ND	ND	ND	
	3/10/2000	329,000	ND	ND	ND	ND	ND	ND	
	3/3/2000	300,000	transfer overheated, repaired pump, restarted system 3/6/00						
February	2/25/2000	274,000	ND	ND	ND	ND	ND	ND	
	2/18/2000	233,000	ND	ND	ND	ND	ND	ND	
	2/11/2000	190,000	ND	ND	ND	ND	ND	ND	
	2/4/2000	160,800	ND	ND	ND	ND	ND	ND	
January	1/28/2000	130,600	ND	ND	ND	ND	ND	ND	
	1/21/2000	103,435	ND	ND	ND	ND	ND	ND	
	1/17/2000	NR	GAC-1 was replaced with 2,000 lb GAC unit						
	1/14/2000	83,500	185	ND	ND	ND	ND	ND	

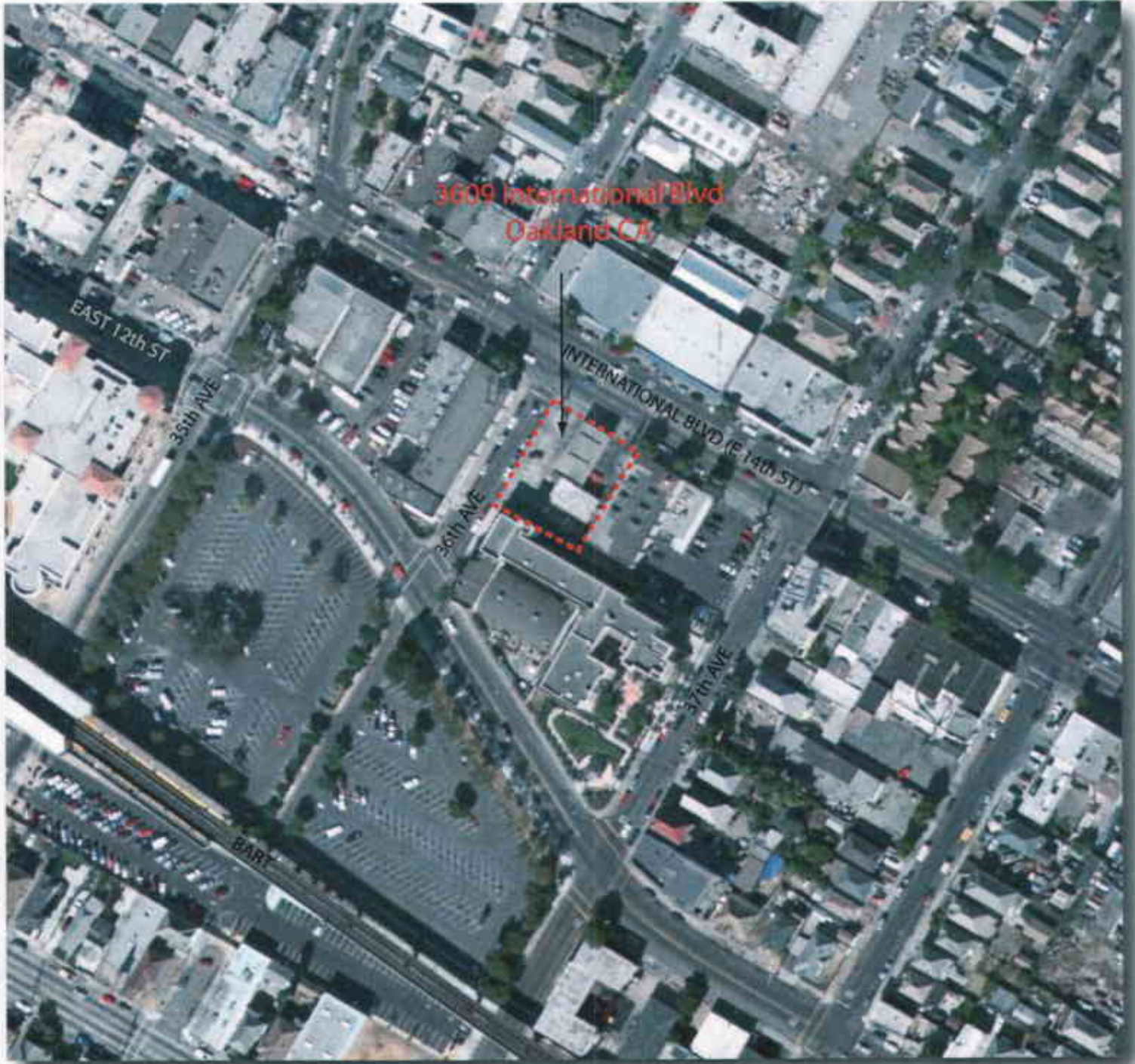
**Table 1**  
**Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results**  
**3609 International Boulevard, Oakland, California**

Month	Date	Meter	Lab Results For Effluent <sup>1</sup> and GAC-1					
		Reading (gallons)	(concentrations in ug/L)					
			MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
<b>1999</b>								
December	12/23/1999	51,680	1486	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/16/1999	30,450	963	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/9/1999	9,000	230	ND	ND	ND	ND	ND
Pumping began on December 6, 1999								

Notes:

- 1 Effluent is equivalent to PSP#1
  - 2 MTBE was analyzed using EPA Method 8260B, prior to the September 2003. After September 2003, MTBE was only analyzed by EPA Method 8021B.
  - 3 Lab data as shown for Oct. 2002 is erroneous data. During lab analysis a high detection of 2-Butanone was detected in only the effluent sample. The influent sample for 2-Butanone was at only 20 ppb. This caused a high dilution factor causing a high non-detectable value. The high TPH-g value was misrepresentative due to the Y and Z flags.
- ND, < : Not Detected above laboratory reporting limits  
 NA: Not Analyzed  
 NR: Not recorded. Totalizer reading not recorded.  
 Y: Sample exhibits fuel pattern which does not resemble standard  
 Z: Sample exhibits unknown single peak or peaks

# FIGURES

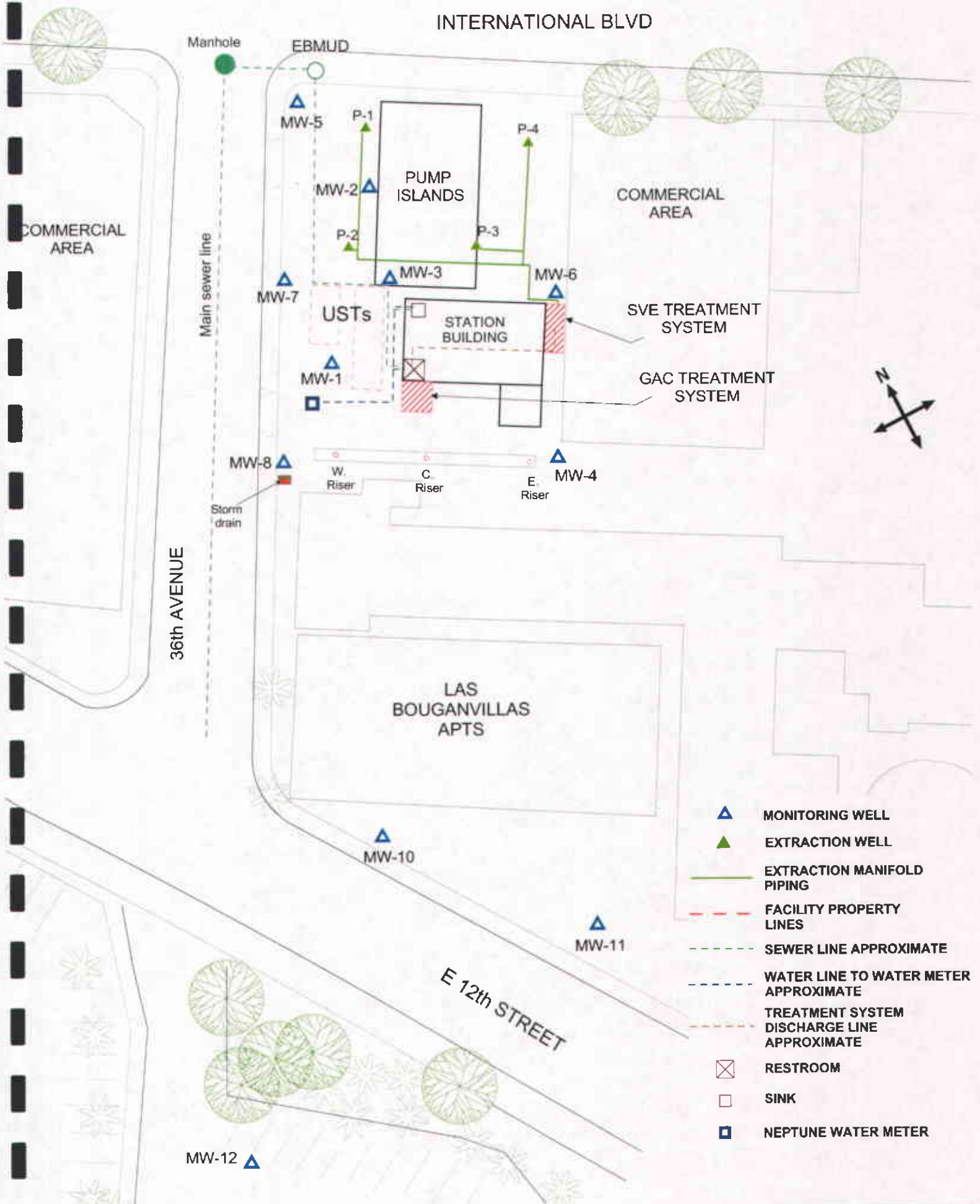


approximate scale in feet



Figure 1: Site vicinity map.





- ▲ MONITORING WELL
- ▲ EXTRACTION WELL
- EXTRACTION MANIFOLD PIPING
- - - FACILITY PROPERTY LINES
- - - SEWER LINE APPROXIMATE
- - - WATER LINE TO WATER METER APPROXIMATE
- - - TREATMENT SYSTEM DISCHARGE LINE APPROXIMATE
- X RESTROOM
- SINK
- NEPTUNE WATER METER

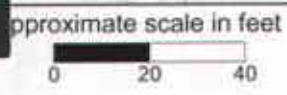
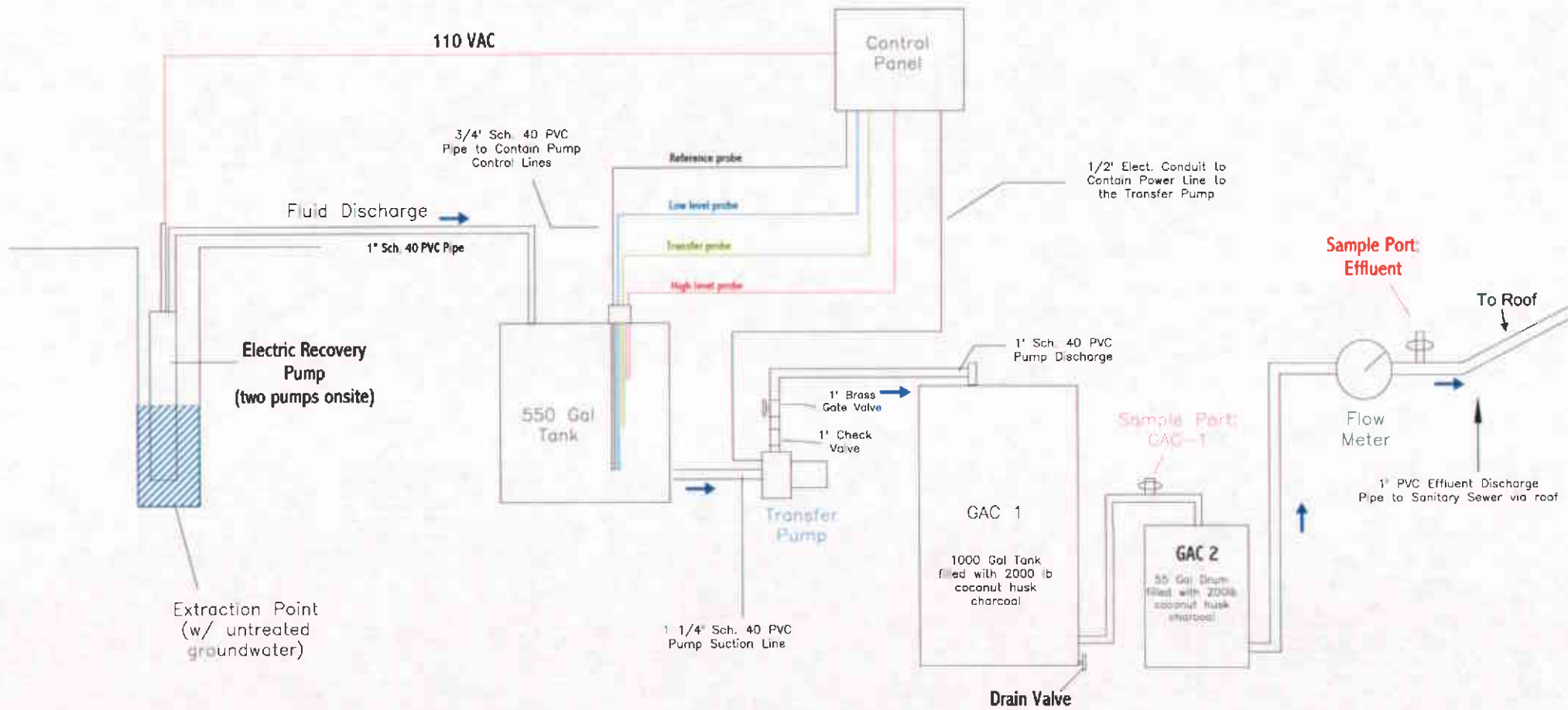


Figure 2: Site map showing location of groundwater monitoring wells, French drain, SVE system, and GAC system.



(Discharge permit No: 504-27421)  
 Tony's Express Auto Service. September 1, 2004

Figure 3: Schematic of the Groundwater Remediation System.

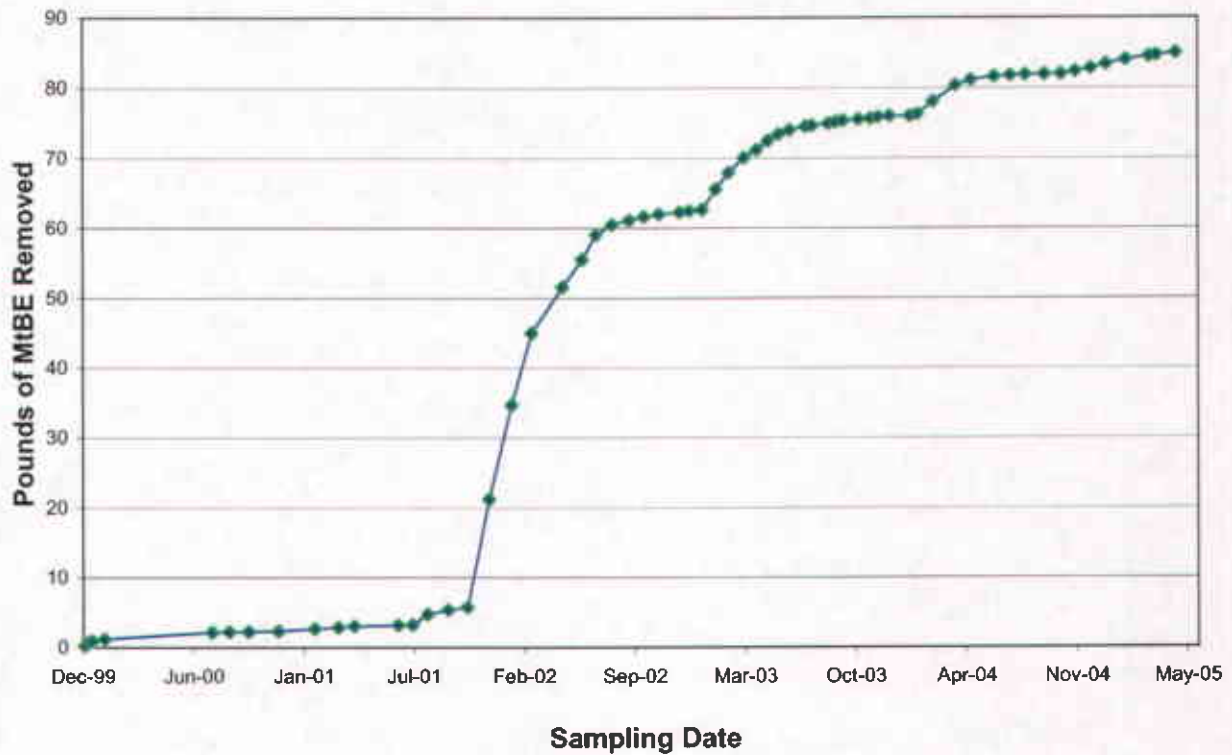
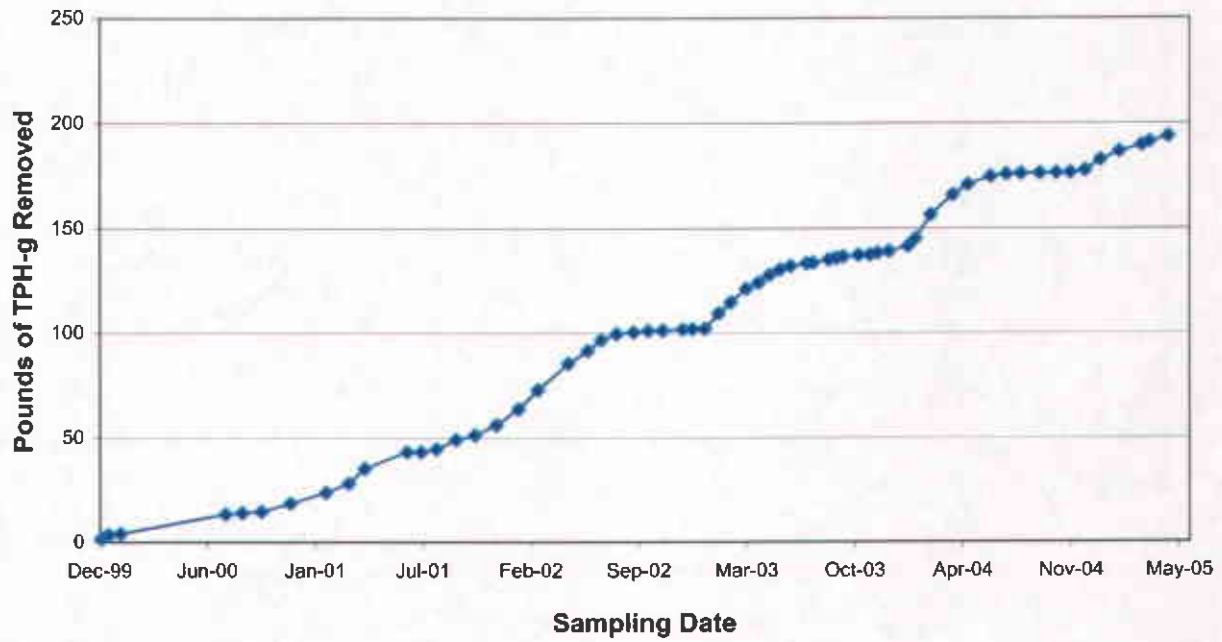


Figure 4. Cumulative mass of TPH-g and MtBE removed from groundwater since the installation of the treatment system.



# **APPENDIX A**

## **EBMUD DISCHARGE PERMIT**

**CERTIFIED MAIL  
(Return Receipt Requested)  
Certified Mail No. 7003 0500 0004 6346 4327**

November 8, 2004

Mr. Abolghassem Razi  
Tony's Express Auto Service  
3609 International Blvd.  
Oakland, CA 94601

Dear Mr. Razi:

Re: Wastewater Discharge Permit No. 50427421 Extension through November 14, 2006

The Tony's Express Auto Service Wastewater Discharge Permit will expire on November 14, 2004. In order to continue the transition of the Permit to a five-year renewal frequency, your Permit shall be extended through November 14, 2006.

A ten percent yearly increase in the 2003-2004 annual permit fee of \$1,370 will be applied during the 2004-2005 and 2005-2006 permit years and then annually until the \$1,770 permit fee is reached. The table below shows the annual permit fees for the permit extension period of November 15, 2004, through November 14, 2006.

	2004-05	2005-06
Annual Permit Fee	\$1,507	\$1,658

During this Permit extension period, self-monitoring shall occur, at minimum, quarterly, for the following parameters:

PARAMETER	SAMPLE	EPA METHOD
Benzene	grab	8021B
Toluene	grab	8021B
Ethyl Benzene	grab	8021B
Xylenes	grab	8021B

Tony's Express Auto Service shall submit compliance reports as follow:

REPORTING PERIOD	REPORT DUE DATE
November 15, 2004 through May 14, 2005	June 14, 2005
May 15, 2005 through November 14, 2005	December 14, 2005
November 15, 2005 through May 14, 2006	June 14, 2006
May 15, 2006 through November 14, 2006	December 14, 2006

Mr. Abolghassem Razi

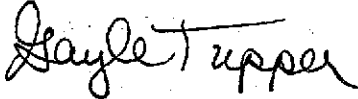
November 8, 2004

Page 2

All terms and conditions of the permit shall remain in effect through the period of this extension. Tony's Express Auto Service shall report to the Environmental Services Division any changes that significantly affect the volume or quality of the wastewater discharge or that deviate from the Permit Terms and Conditions.

If you have any questions on this matter, please call Trish Maguire at (510) 287-1727.

Sincerely,



GAYLE TUPPER

Supervising Wastewater Control Representative

GT:pem

cc: Mr. Mansour Sepehr ✓  
SOMA Environmental Engineering  
2680 Bishop Drive, Ste #203  
San Ramon, CA, 94583

W:\NAB\IDS\Permits\Groundwater\Tony's Express\permit extension 11-14-05.doc



# WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service  
Permit No. 504-27421  
Page No. 1

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## GENERAL CONDITIONS

- I. Title I, Section 5 of EBMUD Ordinance No. 311 prohibits the discharge of groundwater to the community sewer. This Permit to discharge treated groundwater is considered a waiver of the prohibition and is issued based on Tony's Express Auto Service's application that discharge of pollutants to the community sewer will be minimized and methods to reclaim the groundwater, to the extent technically and economically feasible, have been made.
- II. This Permit is granted to Tony's Express Auto Service to discharge treated groundwater from 3609 International Boulevard in Oakland.
- III. Tony's Express Auto Service shall cease discharge of groundwater immediately if not in compliance with any of the Terms and Conditions of this Permit.
- IV. Tony's Express Auto Service shall comply with all items of the attached STANDARD TERMS AND CONDITIONS, July 2000 Edition.

## COMPLIANCE REQUIREMENTS

- I. Tony's Express Auto Service shall not discharge any treated wastewater that is known to be, or suspected of, violating wastewater discharge limitations.
- II. Tony's Express Auto Service shall pretreat all groundwater before discharging to the sanitary sewer at 3609 International Boulevard in Oakland. Pretreatment shall consist of a minimum of processes displayed in the *Tony's Express Auto Service System Flow Diagram (Figure 3)*.
- III. Tony's Express Auto Service shall maintain the pretreatment system in proper operating condition.
- IV. Tony's Express Auto Service shall maintain records of operation and maintenance activities on the pretreatment systems. The records shall include, but are not be limited to, meter readings from the flow totalizer at a maximum of monthly intervals; maintenance activities performed; description of operational changes; description of visual observations of the unit for leaks or fouling; and off - haul of hazardous wastes. The records shall be available to the District staff upon request.



# WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service  
Permit No. 504-27421  
Page No. 2

## REPORTING REQUIREMENTS

- I. Violations shall be reported in accordance with Section B, Paragraph II of STANDARD TERMS AND CONDITIONS, July 2000 Edition.
- II. Tony's Express Auto Service shall submit technical reports due on the following dates:

<u>Date Due</u>	<u>Reporting Period</u>
June 14, 2000	November 15, 1999, through May 14, 2000
December 14, 2000	May 15, 2000 through November 14, 2000

The technical reports shall contain the following information, at a minimum:

- 1. Self-monitoring reports prepared in accordance with the "Self-Monitoring Reporting Requirements" of this Permit.
- 2. Monthly readings from the flow totalizer measuring volume of the pretreatment system effluent.
- 3. Volume of groundwater pumped and treated during the reporting period, and a total to date.
- 4. Description of any operational changes occurred during the reporting period.
- 5. Certification and signature prepared in accordance with Section B Part V of STANDARD TERMS AND CONDITIONS, July 2000 Edition, "Signature Requirements".

## WASTEWATER DISCHARGE LIMITATIONS

Tony's Express Auto Service shall not discharge wastewater from a side sewer into the community sewer if the strength of the wastewater exceeds the following local limits:

<u>REGULATED PARAMETER</u>	<u>DAILY MAXIMUM</u>
Benzene	0.005 mg/L
Toluene	0.005 mg/L
Ethylbenzene	0.005 mg/L
Xylenes, total	0.005 mg/L

**EB EAST BAY  
MUNICIPAL UTILITY DISTRICT**

July 30, 2003

DAVID A. WILLIAMS  
DIRECTOR OF WASTEWATER

**CERTIFIED MAIL**  
Return Receipt Requested  
Certified Mail No. 7003 0500 0004 6346 268

Mr. Abolghassem Razi  
Tony's Express Auto Service  
3609 International Blvd.  
Oakland, CA 94601

Dear Mr. Abolghassem Razi:

Re: Wastewater Discharge Permit Rate Revisions - Permit No. 50427421

On June 10, 2003, the EBMUD Board of Directors approved changes in wastewater system rates and charges for two years. New rates and charges for fiscal year 2004 (FY04) are effective July 1, 2003. Wastewater treatment charges, as well as monitoring and testing fees, have been changed. The table below compares the treatment unit rates effective July 1, 2002 (FY03) with the new unit rates effective July 1, 2003 (FY04).

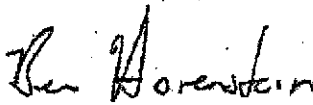
	Rates Effective		% Change
	FY03	FY04	
Flow (\$/Ccf)	0.426	0.442	+ 3.8%
CODF (\$/lb)	0.148	0.154	+ 4.0%
TSS (\$/lb)	0.250	0.259	+ 3.6%

The billing conditions for your wastewater discharge permit have been revised to reflect the revised rates and charges. New permit pages incorporating the above revisions are enclosed. Please replace the relevant pages in your Permit with the enclosed pages.

As a Permit holder, you are legally responsible for complying with all Permit conditions and requirements.

If you have any questions regarding the Permit revisions, please contact your Wastewater Control Representative, Trish Maguire at (510) 287-1727.

Sincerely,

  
BENNETT K. HORENSTEIN  
Manager of Environmental Services

BKH:GT:mow

Enclosure  
P.O. BOX 24086, OAKLAND, CA 94623-1086, (510) 287-1408



# WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2003 Terms and Conditions

Tony's Express Auto Service  
Permit No. 504-27421  
Page No. 4

### MONITORING and TESTING CHARGES

EBMUD Inspections Per Year: 2 @ \$590.00 each \$1,180.00 / year

#### Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
EPA 624	2	\$168.00	\$336.00

Total Monitoring and Testing Charge = \$1,516.00 / year  
\$126.33 / month

### WASTEWATER DISPOSAL SERVICE CHARGE

All wastewater discharged will be charged for treatment and disposal service at the Business Classification Code (BCC) unit rate for 4950, Sanitary Collection and Disposal, or 'All other BCC's'. Wastewater charges are determined by multiplying the metered consumption by the percent discharged, adding any fixed volume, and multiplied by the treatment charge

Unit Rate =	\$0.46 /Ccf	
Discharge Volume =	61 Ccf/mo.	(based on 1,500 gpd average)
Wastewater Disposal Charge =	\$28.04 /mo.	



# WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2003

Terms and Conditions

Tony's Express Auto Service  
Permit No. 504-27421  
Page No. 5

## FEES AND WASTEWATER CHARGES

The following fees and charges are due when billed by the District:

Permit Fee:	\$2,490.00 (PAID)
Monthly Monitoring Charge:	\$126.33
Monthly Wastewater Disposal Charge:	\$28.04

Total Monthly Charges =	\$154.37
-------------------------	----------

The District may change the terms and conditions of a Wastewater Discharge Permit, including changing the average limits on the elements of wastewater strength and rates and charges, from time to time as circumstances may require. The District shall allow a discharger reasonable time to comply with any District required changes in the permit except that a change in average limits of wastewater strength shall immediately affect calculation of the wastewater disposal charge.

Charges listed in this Permit will be assessed on EBMUD bills in accordance with the EBMUD Meter Reading Schedule.

### Authorization

Permit Holder shall report to EBMUD, Wastewater Department any changes, permanent or temporary, to the premises or operations that significantly change the quality or volume of the wastewater discharge or deviation from the terms and conditions under which this permit is granted.

Permit Holder is hereby authorized to discharge wastewater to the community sewer, subject to said Applicant's compliance with EBMUD Wastewater Control Ordinance as well as permit terms and conditions.

Effective: November 15, 2001

Expiration: November 14, 2003

*David R Williams*

Director, Wastewater Department

July 25, 2003

Date





# WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service  
Permit No. 504-27421  
Page No. 3

## SELF-MONITORING REPORTING REQUIREMENTS

- I. Tony's Express Auto Service shall monitor and sample the wastewater discharge into the community sewer in accordance with Section C of STANDARD TERMS AND CONDITIONS, July 2000 Edition. The sampling shall be performed at the locations and frequency for the parameters specified below.
- II. Self-monitoring reports shall contain all laboratory results and the corresponding chain of custody documentation, and signatory requirements.
- III. The Sample location shall be the sample tap located on the effluent side of the second (final) Liquid Phase GAC. This sample location shall be referred to as Process Sample Point #1 (PSP #1) in all reports. PSP #1 is shown in Tony's Express Auto Service System Flow Diagram (Figure 3) and Schematic Flow (Figure 4).
- IV. Tony's Express Auto Service shall sample wastewater from PSP #1, at a minimum, quarterly for the following parameters:

Parameter	Sample Type	EPA Method
Benzene	grab	8020 or 624
Toluene	grab	8020 or 624
Ethylbenzene	grab	8020 or 624
Xylenes	grab	8020 or 624



# WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

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## WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

### VII. Closure Plan

The District may require a facility that intends to close or cease a regulated process to provide a written Closure Plan.

The plan shall include the following four items:

- a) date of proposed work or production stoppage
- b) date of proposed final closure (after cleaning and demobilizing activities are complete)
- c) description of cleaning activities, and
- d) description of disposal of inventoried process material and waste

### VIII. Calibration and Maintenance of Equipment

The Permit Holder shall calibrate, inspect, and maintain all flow measuring, discharge sampling, monitoring, and pretreatment equipment to ensure the equipment accuracy and reliability.

### IX. Availability of Permit

The Permit Holder shall maintain a copy of the current Permit at the permitted site and make the Permit available to both facility and District staff at all times.

### X. Payment of Permit Fees and Charges

The Permit Holder shall pay all Permit fees, monitoring and testing charges, and wastewater treatment charges.

### XI. Continuation of Expired Permits

An expired Permit will continue to be effective and enforceable until the Permit is reissued if:

- a) The Permit Holder has submitted a complete permit application at least 60 days prior to the expiration date of the Permit Holder's existing Permit.
- b) The delay in reissuing the expired Permit is not due to any act or failure to act on the part of the Permit Holder.

### XII. Permit Termination

The District may terminate the Permit for violation of the terms and conditions of the Permit or for violation of the provisions of EBMUD Ordinance No. 311, unless waived by the Permit.

### XIII. Transfer of Permit Prohibition

The Permit Holder shall not assign or transfer the Permit.



## WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

2. the cause of the violation
  3. a description of the violation, including what was discharged
  4. the volume of the discharge
  5. the duration of the discharge violation including start and end times and dates
  6. analytical results, if available, with chain of custody and other pertinent documentation
  7. measures taken to correct the violation
  8. measures taken to prevent recurrence
- c) If analytical results of a sample collected by the Permit Holder indicate a violation, the Permit Holder shall repeat the sampling and analysis, and submit the results to the District within 30 days of becoming aware of the violation, unless:
1. the District collects samples of the permitted discharge at a frequency of at least once per month, or
  2. the District collects samples for the same parameter between the time the Permit Holder performs its initial sampling and the time when the Permit Holder receives the results of the sampling

### III. Changes in Quantity and Quality of Wastewater

The Permit Holder shall immediately report to the District any significant change to the quality or volume of the wastewater discharge or any deviation from the terms and conditions of the Permit.

### IV. Hazardous Waste Notification

The Permit Holder shall submit to the District a written notification in accordance with 40 CFR 403.12(p) of any discharge, which, if otherwise disposed of, would be a hazardous waste under 40 CFR 261. Pollutants reported as part of the Self-Monitoring Reporting Requirements are not subject to this notification requirement.

### V. Signatory Requirements

The Permit Holder shall submit all applications, reports, or information in accordance with signatory requirements of 40 CFR 403.12 (l) and include the following certification statement:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*



## WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

### II. Chain of Custody

- a) The Permit Holder shall submit a Chain of Custody record for each sample that documents the following:
  1. the location, the type of sample(s) (grab or composite), the date(s) and time, or span of time the sample was taken
  2. the number of containers, and type (glass, plastic, vial, etc.)
  3. preservation techniques (ice, refrigeration at 4°C, chemicals added, etc.)
  4. sample collector's name, legibly written
  5. sample ID number (to cross-reference with the sample ID number on the Laboratory results)
  6. all persons handling the sample and the individual receiving the sample at the laboratory, including their signature, printed name, company, date and time the sample was relinquished and accepted
- b) The Permit Holder shall ensure that samples transported or handled by a courier, delivery service (public or private) or shipper, shall include the company or individual's name, and the method of packaging the samples, on the Chain of Custody record.
- c) The Permit Holder shall show all sample analyses performed in the field on the Chain of Custody record (e.g. pH - field test).
- d) The District may require resampling of the wastewater for an incomplete or incorrect Chain of Custody record.

### III. Sample Preservation and Analytical Methods

Unless the Permit requires otherwise, the Permit Holder shall use sampling methods, sample preservation, and analytical methods for each parameter in accordance with applicable sections of:

- a) *EBMUD Table of Approved Test Methods*
- b) *Standard Methods of Water and Wastewater Analysis*, Edition used in the EBMUD Table of Approved Test Methods
- c) EPA 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, latest edition

### IV. Laboratory Reports

The Permit Holder shall use a laboratory certified by the California Department of Health Services for each sample analysis required by the Permit. The laboratory report for each sample shall include:

- a) the name and address of the laboratory performing the analyses
- b) sample ID number (to cross reference with the sample ID number on the Chain of Custody)
- c) the analytical result(s)



## WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

### SECTION E. DEFINITIONS

**BMPs** - Best Management Practices (also known as Pollution Prevention Practices) are guidelines and procedures that include maintenance procedures, management practices and prohibition of practices that focus on the reduction or elimination of pollutants or wastes at the source.

**Bypass** - The diversion of wastestreams from any portion of a treatment facility.

**Chain of Custody** - A Chain-of-Custody is a legal record of each person who had possession of a sample. It is included with an analytical report.

**Combined Wastestream Formula** - Formula defined in 40 CFR 403.6(e)

**Director** - Refers to the term "Manager", as defined in EBMUD Ordinance No. 311, the Director of the District's Wastewater Department, or his/her designated representative.

**Discharge Minimization Permit** - Permits issued for the purpose of regulating the discharge of wastewater to the sanitary sewer. Discharge Minimization Permits generally include monitoring and reporting requirements and District inspections.

**District** - Refers to East Bay Municipal Utility District (EBMUD). EBMUD is a publicly owned water district formed in 1923 under the Municipal Utility District Act of 1921.

**Hazardous Waste** - Listed and characterized wastes under the Section 3001 of the Resource Conservation and Recovery Act, as described in the Code of Federal Regulations (40 CFR Part 261) or as defined in California Health and Safety Code Section 25117. VII.

**Permit Holder** - Any individual, partnership, firm, association, corporation, or public agency issued a Wastewater Discharge Permit.

**Pollution Prevention Permits** - Permits issued to businesses in specific commercial categories. Pollution Prevention Permits are based on pollution prevention or waste minimization at sources, and the implementation of specific BMPs.

**POTW** - Publicly Owned Treatment Works, e.g., EBMUD SD-1.

**Prohibition** - Prohibited discharges of wastewater as defined in EPA 40 CFR Part 403.5 or EBMUD Ordinance No. 311, Title I, Section 5, and Title II, Section 2.

**Pretreatment Program** - A program administered by a POTW that meets the criteria established in EPA 40 CFR Part 403.8, 403.9 and 403.11.

**Regional Water Quality Control Board** - The California Regional Water Quality Control Board, San Francisco Bay Region, is the approval authority for the District's Pretreatment Program.

**Sample** - A portion of wastewater that is representative of a larger volume of wastewater being discharged. The two types of samples are:

- a) **Grab** - an individual sample collected in a short period of time not exceeding fifteen minutes.



## WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

---

**Total Toxic Organics (TTO)** - The sum of the concentrations of specific toxic organic compounds found in the wastewater discharge at a concentration greater than 10 ug/L. Each categorical standard (40 CFR 405 - 471) lists the specific toxic organic compounds that are to be included in the summation.

**Total Identifiable Chlorinated Hydrocarbons (TICH)** - The sum of the concentrations of all quantifiable values greater than the detection limit for all chlorinated hydrocarbons identified by EPA Method 624.

**Wastewater Discharge Limits** - A wastewater discharge limit is the maximum concentration of a pollutant allowed to be discharged during a specific period of time. Wastewater discharge limits may be of three types: Monthly Average, 4-day Average, and Maximum.

**Monthly Average** - The maximum arithmetic average value of all samples taken in a calendar month.

**4-day Average** - The maximum arithmetic average value of four consecutive samples taken on different days.

**Maximum** - The maximum concentration of a pollutant allowed to be discharged at any time, as determined from the analysis of a grab or composite sample.

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Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 <sup>th</sup> Ed.
Total Suspended Solids TSS, filtered with Whatman 934 AH Glass Microfiber filter, or equivalent	Cool to 4°C	7 days	160.2	
Zinc (Total)	HNO <sub>3</sub> to pH <2 Cool to 4°C	6 months	289.2 200.7	
Organochlorine Pesticides & Poly Chlorinated Biphenyls (PCBs)	Cool to 4°C	7 days until extraction; 40 days after extraction	608	6630B & C
Purgeable Organics (BTEX)	HCl to pH <2, add ascorbic acid if Cl <sub>2</sub> is present. VOA vials, No headspace. Cool to 4°C	14 days	624 <sup>1</sup> 8021 B 8260 B	
Semi-Volatile Organics (BNA's)	Cool to 4°C	7 days until extraction; 40 days after extraction	625	
Total Identifiable Chlorinated Hydrocarbon (Volatile Organics)	HCl to pH <2, add ascorbic acid if Cl <sub>2</sub> is present. VOA vials, No headspace. Cool to 4°C	14 days	624 8260 B	

<sup>1</sup> EPA Method 624 table in 40CFR Part 136 does not list xylenes, however, EBMUD may accept xylenes detected by this method.

\* Standard Methods for the Examination of Water and Wastewater

W:\MDS\Permits\Standard Terms and Conditions\Table of Approved Test Methods.doc



# APPENDIX B

## METER READING TEST RESULTS

**Oakland International**  
3609 International Blvd, Oakland

O&M Checklist      3/30/05    4/4/05    4/11/05      Date    4/18/05    4/25/05    5/4/05

	3/30/05	4/4/05	4/11/05	4/18/05	4/25/05	5/4/05
Record Totalizer Reading	2,114,300	2,129,500	2,150,490	2,163,950	2,175,900	2,189,270
Check Electrical downhole pumps	✓	/	✓	/	/	✓
check for water leaks in system	/	/	/	/	/	✓
check tightness of sensors in holding tank	/	/	/	/	/	✓
check cleanliness of sensors in holding tank	✓	/	/	/	/	✓
notes		SAMPLE				Carbon Charge
						2000 lb vessel
						55 Gallon Drum
						replaced meter (flow)

**TEST RESULTS-1**

07/06/2004    QC BY: 4    **12**    High 100.2  
Inter 99.8  
Low 99.8

5/8" x 3/4" x 7 1/2  
Gallon  
Kent Meter



# **APPENDIX C**

## **Laboratory Results and Chain of Custody Forms for the Treatment System**

**PAL**

**Pacific Analytical Laboratory**

851 West Midway Ave. Suite 201  
Alameda, CA 94501

Phone (510) 864-0364

11 May 2005

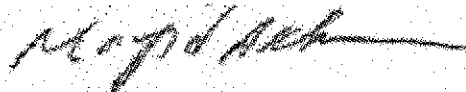
Joyce Bobek  
SOMA Environmental Engineering Inc.  
2680 Bishop Dr., Suite 203  
San Ramon, CA 94583

RE: 3609 International Blvd., Oakland

Work Order Number: 5050007

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

# CHAIN OF CUSTODY FORM

Page 1 of 1

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

PAL  
 Login# 5050007

Project No: 2333				Sampler: <u>Mehran Nawrozi</u>						Analyses/Method			
Project Name: 3609 International Blvd. Oakland				Report To: Joyce Bobek									
Project P.O.: ---				Company: SOMA Environmental Engineering, Inc.						TPHg, BTEX, MBE 8260B			
Turnaround Time: Standard				Tel: 925-244-6600 Fax: 925-244-6601									
Lab No.	Sample ID	Sampling Date/Time		Matrix			# of Containers	Preservatives				Field Notes	
		Date	Time	Soil	Water	Waste		HCL	H2SO4	HNO3	ICE		
	Influent	5/19/05	11:00 AM		X		3-VOAs	X			X	Grab Sample	X
	GAC-1	↓	11:05 AM		X		3-VOAs	X			X	Grab Sample	X
	PSP-1	↓	11:00 AM		X		3-VOAs	X			X	Grab Sample	X
Sampler Remarks: EDF Output Required				Relinquished by: <u>M. Nawrozi</u>		Date/Time: <u>5/19/05</u>		Received by: <u>[Signature]</u>		Date/Time: <u>5-19-05</u> <u>3:00</u>			



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

Project: 3609 International Blvd., Oakland  
Project Number: 2333  
Project Manager: Joyce Bobek

Reported:  
11-May-05 11:32

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Influent	5050007-01	Water	09-May-05 11:00	09-May-05 14:56
GAC-1	5050007-02	Water	09-May-05 11:05	09-May-05 14:56
PSP-1	5050007-03	Water	09-May-05 11:10	09-May-05 14:56



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

Project: 3609 International Blvd., Oakland  
 Project Number: 2333  
 Project Manager: Joyce Bobek

Reported:  
 11-May-05 11:32

**Volatile Organic Compounds by EPA Method 8260B**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Influent (5050007-01) Water</b> <b>Sampled: 09-May-05 11:00</b> <b>Received: 09-May-05 14:56</b>									
Gasoline (C6-C12)	4530	2200	ug/l	11	BE50901	09-May-05	10-May-05	EPA 8260B	
Benzene	635	5.50	"	"	"	"	"	"	
Ethylbenzene	37.9	5.50	"	"	"	"	"	"	
m&p-Xylene	162	11.0	"	"	"	"	"	"	
o-xylene	134	5.50	"	"	"	"	"	"	
Toluene	23.4	5.50	"	"	"	"	"	"	
MTBE	522	5.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		98.2 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		95.2 %		70-130	"	"	"	"	
<b>GAC-1 (5050007-02) Water</b> <b>Sampled: 09-May-05 11:05</b> <b>Received: 09-May-05 14:56</b>									
Gasoline (C6-C12)	ND	200	ug/l	1	BE50901	09-May-05	10-May-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.6 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		115 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		95.2 %		70-130	"	"	"	"	
<b>PSP-1 (5050007-03) Water</b> <b>Sampled: 09-May-05 11:10</b> <b>Received: 09-May-05 14:56</b>									
Gasoline (C6-C12)	ND	200	ug/l	1	BE50901	09-May-05	10-May-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.8 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		109 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		96.6 %		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. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 11-May-05 11:32
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**Volatile Organic Compounds by EPA Method 8260B**

**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------





SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 11-May-05 11:32
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**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 BE50901 - EPA 5030 Water MS**

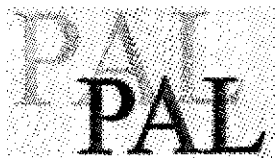
Blank (BE50901-BLK1)										
Prepared & Analyzed: 09-May-05										
Surrogate: 4-Bromofluorobenzene	45.3		ug/l	50.0		90.6	70-130			
Surrogate: Dibromofluoromethane	56.3		"	50.0		113	70-130			
Surrogate: Perdeuterotoluene	47.9		"	50.0		95.8	70-130			
Gasoline (C6-C12)	ND	200	"							
Benzene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
o-xylene	ND	0.500	"							
Toluene	ND	0.500	"							
MTBE	ND	0.500	"							

LCS (BE50901-BS1)										
Prepared & Analyzed: 09-May-05										
Surrogate: 4-Bromofluorobenzene	52.7		ug/l	50.0		105	70-130			
Surrogate: Dibromofluoromethane	57.0		"	50.0		114	70-130			
Surrogate: Perdeuterotoluene	50.3		"	50.0		101	70-130			
Gasoline (C6-C12)	1970	200	"	2000		98.5	70-130			
Benzene	110	0.500	"	104		106	70-130			
Ethylbenzene	119	0.500	"	104		114	70-130			
m&p-Xylene	123	1.00	"	104		118	70-130			
o-xylene	126	0.500	"	104		121	70-130			
Toluene	109	0.500	"	104		105	70-130			
MTBE	124	0.500	"	104		119	70-130			

LCS Dup (BE50901-BSD1)										
Prepared & Analyzed: 09-May-05										
Surrogate: 4-Bromofluorobenzene	52.4		ug/l	50.0		105	70-130			
Surrogate: Dibromofluoromethane	54.6		"	50.0		109	70-130			
Surrogate: Perdeuterotoluene	48.9		"	50.0		97.8	70-130			
Gasoline (C6-C12)	2020	200	"	2000		101	70-130	2.51	20	
Benzene	107	0.500	"	104		103	70-130	2.76	20	
Ethylbenzene	117	0.500	"	104		112	70-130	1.69	20	
m&p-Xylene	123	1.00	"	104		118	70-130	0.00	20	
o-xylene	125	0.500	"	104		120	70-130	0.797	20	
Toluene	105	0.500	"	104		101	70-130	3.74	20	
MTBE	121	0.500	"	104		116	70-130	2.45	20	

Pacific Analytical Laboratory

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

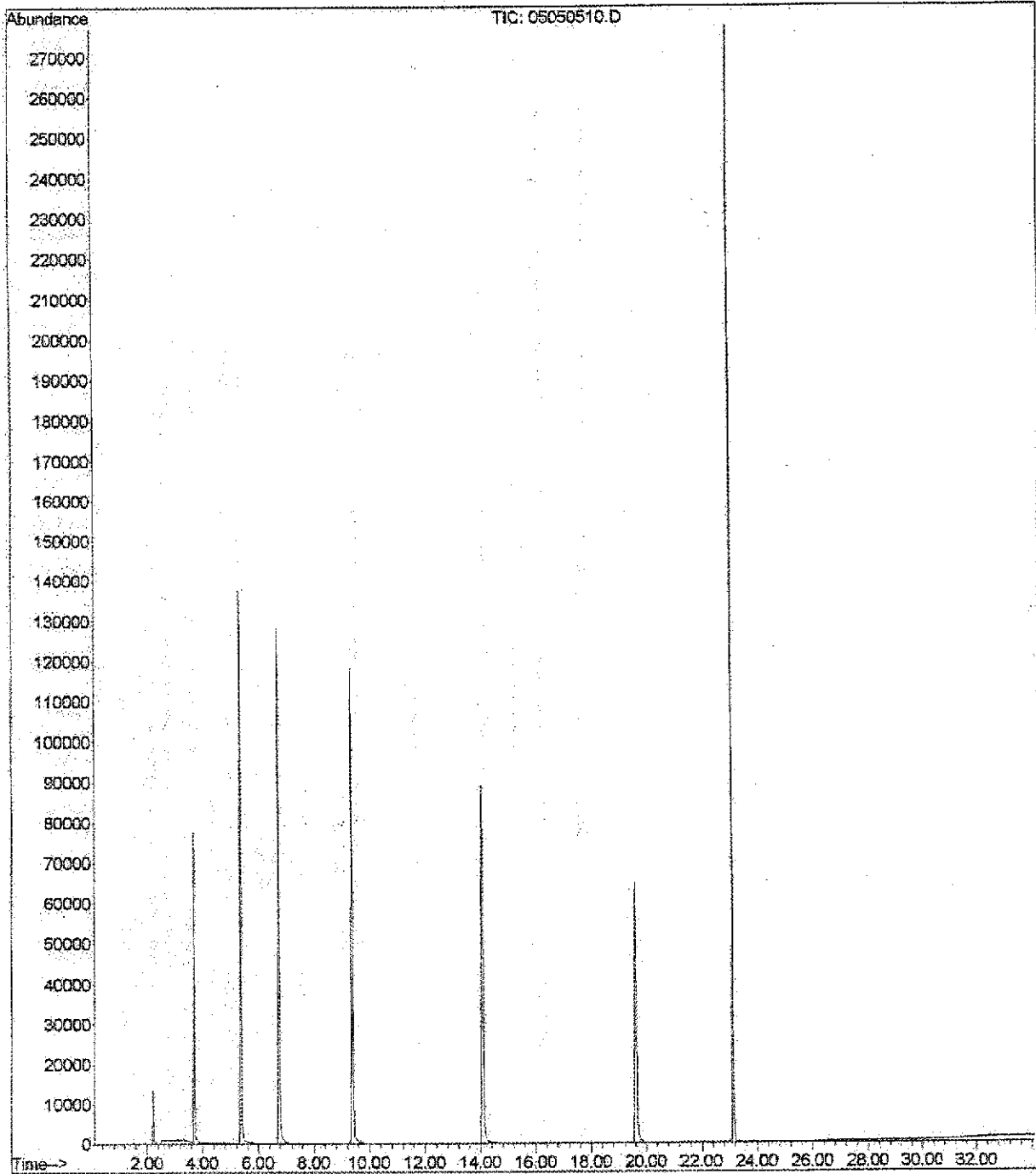
Project: 3609 International Blvd., Oakland  
Project Number: 2333  
Project Manager: Joyce Bobek

Reported:  
11-May-05 11:32

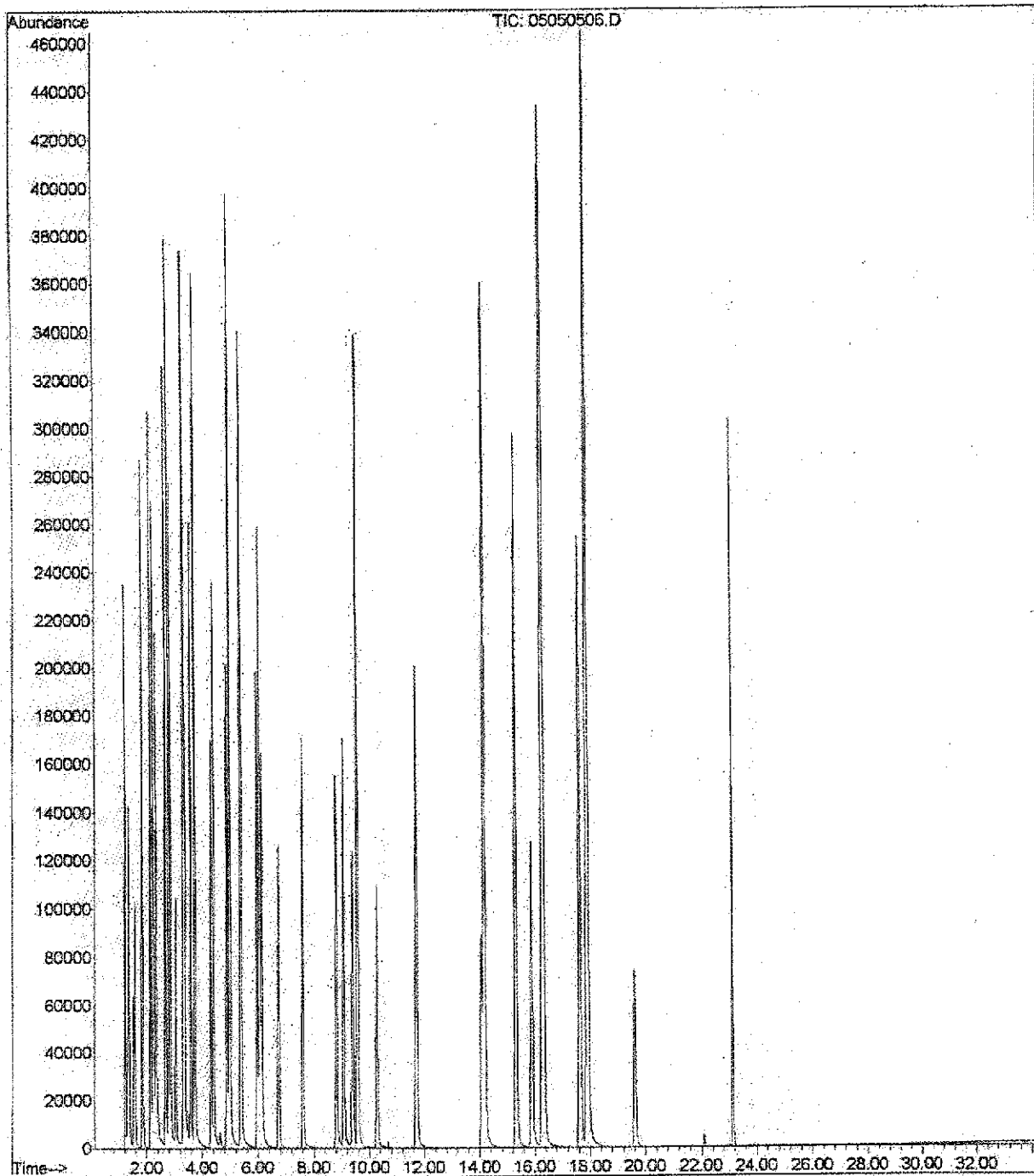
### Notes and Definitions

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

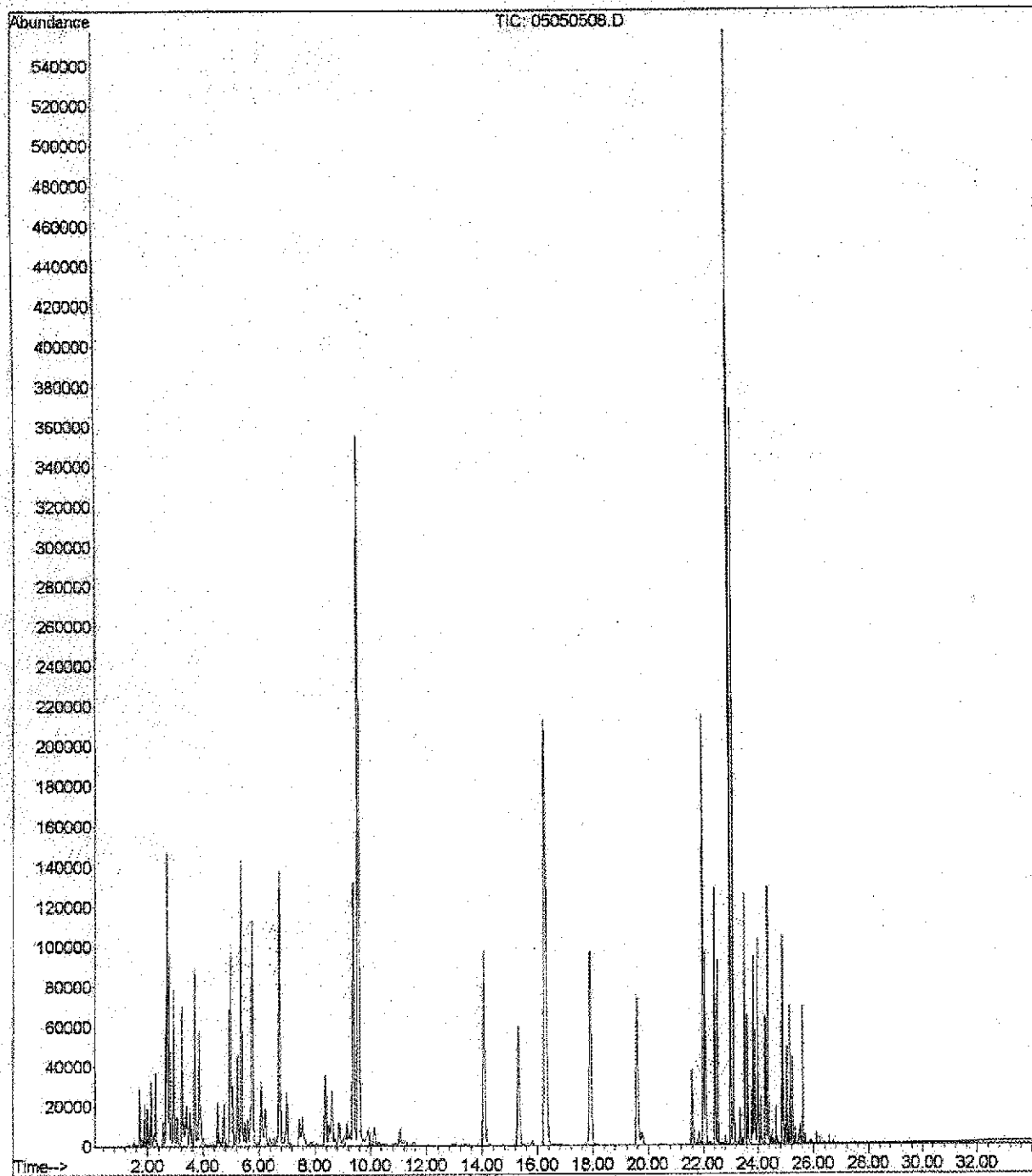
File : C:\MSDCHEM\1\DATA\2005-May-05-1354.b\05050510.D  
Operator :  
Acquired : 5 May 2005 4:41 pm using AcqMethod VOOCOXY.M  
Instrument : PAL GCMS  
Sample Name: BE50901-BLK1  
Misc Info :  
Vial Number: 10



File : C:\MSDCHEM\1\DATA\2005-May-05-1354.b\05050506.D  
Operator :  
Acquired : 6 May 2005 1:36 pm using AcqMethod VOXY.M  
Instrument : PAL GCMS  
Sample Name: BE50901-BS1@voc  
Misc Info :  
Vial Number: 6



File : C:\MSDCHEM\1\DATA\2005-May-05-1354.b\05050508.D  
Operator :  
Acquired : 5 May 2005 3:08 pm using AcqMethod VOOCOXY.M  
Instrument : PAL GCMS  
Sample Name: BE50901-BSI@gas  
Misc Info :  
Vial Number: 8





Pacific Analytical Laboratory

851 West Midway Ave. Suite 201  
Alameda, CA 94501

Phone (510) 864-0364

22 April 2005

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

RE: 3609 International Blvd., Oakland

Work Order Number: 5040003

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Maiid Akhavan', is written over a light, dotted background. The signature is fluid and cursive.

---

Maiid Akhavan  
Laboratory Director

# CHAIN OF CUSTODY FORM

Page 1 of 1

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

PAL  
 Logi# 5040003

Project No: 2333				Sampler: <i>Mehran Nowroozi</i>				Analyses/Method					
Project Name: 3609 International Blvd. Oakland				Report To: Joyce Bobek									
Project P.O.: ---				Company: SOMA Environmental Engineering, Inc.				TPH, BTEX, MISE 8260B					
Turnaround Time: Standard				Tel: 925-244-6600 Fax: 925-244-6601									
Lab No.	Sample ID	Sampling Date/Time		Matrix			# of Containers	Preservatives				Field Notes	
		Date	Time	Soil	Water	Waste		HCL	B <sub>2</sub> S <sub>04</sub>	HNO <sub>3</sub>	ICE		
	Influent	<i>4/4/05</i>	<i>12:10 PM</i>		<input checked="" type="checkbox"/>		3-VOAS	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Grab Sample	
	GAC-1	<i>↓</i>	<i>12:05 PM</i>		<input checked="" type="checkbox"/>		3-VOAS	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Grab Sample	
	PSP-1	<i>↓</i>	<i>12:00 PM</i>		<input checked="" type="checkbox"/>		3-VOAS	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	Grab Sample	
Sampler Remarks: EDF Output Required				Relinquished by:				Date/Time:		Received by:		Date/Time:	
				<i>M. Nowroozi</i>				<i>4/4/05</i>		<i>1:10 PM</i>		<i>Mehran Nowroozi</i>	



SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 22-Apr-05 14:20
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Influent	5040003-01	Water	04-Apr-05 12:10	04-Apr-05 13:36
GAC-1	5040003-02	Water	04-Apr-05 12:05	04-Apr-05 13:36
PSP-1	5040003-03	Water	04-Apr-05 12:00	04-Apr-05 13:36





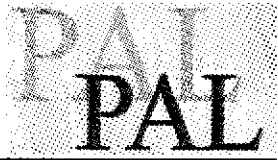
SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 22-Apr-05 14:20
--	--	------------------------------

**Volatile Organic Compounds by EPA Method 8260B**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Influent (5040003-01) Water</b> Sampled: 04-Apr-05 12:10    Received: 04-Apr-05 13:36									
Gasoline (C6-C12)	5920	2200	ug/l	11	BD50401	04-Apr-05	04-Apr-05	EPA 8260B	
Benzene	712	5.50	"	"	"	"	"	"	
Ethylbenzene	52.7	5.50	"	"	"	"	"	"	
m&p-Xylene	453	11.0	"	"	"	"	"	"	
o-xylene	186	5.50	"	"	"	"	"	"	
Toluene	41.6	5.50	"	"	"	"	"	"	
MTBE	839	5.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		117 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		94.8 %		70-130	"	"	"	"	
<b>GAC-1 (5040003-02) Water</b> Sampled: 04-Apr-05 12:05    Received: 04-Apr-05 13:36									
Gasoline (C6-C12)	ND	200	ug/l	1	BD50401	04-Apr-05	04-Apr-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		123 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		99.4 %		70-130	"	"	"	"	
<b>PSP-1 (5040003-03REI) Water</b> Sampled: 04-Apr-05 12:00    Received: 04-Apr-05 13:36									
Gasoline (C6-C12)	ND	200	ug/l	1	BD50401	04-Apr-05	05-Apr-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.0 %		70-130	"	"	"	"	
Surrogate: Dibromofluoromethane		128 %		70-130	"	"	"	"	
Surrogate: Perdeuterotoluene		98.6 %		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. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 22-Apr-05 14:20
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**Volatile Organic Compounds by EPA Method 8260B**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 22-Apr-05 14:20
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**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 BD50401 - EPA 5030 Water MS**

<b>Blank (BD50401-BLK1)</b>										
Prepared & Analyzed: 04-Apr-05										
Surrogate: 4-Bromofluorobenzene	43.8		ug/l	50.0		87.6	70-130			
Surrogate: Dibromofluoromethane	64.1		"	50.0		128	70-130			
Surrogate: Perdeuterotoluene	48.8		"	50.0		97.6	70-130			
Gasoline (C6-C12)	ND	200	"							
Benzene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
o-xylene	ND	0.500	"							
Toluene	ND	0.500	"							
MTBE	ND	0.500	"							

<b>LCS (BD50401-BS1)</b>										
Prepared & Analyzed: 04-Apr-05										
Surrogate: 4-Bromofluorobenzene	50.5		ug/l	50.0		101	70-130			
Surrogate: Dibromofluoromethane	55.5		"	50.0		111	70-130			
Surrogate: Perdeuterotoluene	45.7		"	50.0		91.4	70-130			
Gasoline (C6-C12)	2080	200	"	2000		104	70-130			
Benzene	96.9	0.500	"	100		96.9	70-130			
Ethylbenzene	113	0.500	"	100		113	70-130			
m&p-Xylene	115	1.00	"	100		115	70-130			
o-xylene	114	0.500	"	100		114	70-130			
Toluene	95.4	0.500	"	100		95.4	70-130			
MTBE	106	0.500	"	100		106	70-130			

<b>LCS Dup (BD50401-BSD1)</b>										
Prepared & Analyzed: 04-Apr-05										
Surrogate: 4-Bromofluorobenzene	50.3		ug/l	50.0		101	70-130			
Surrogate: Dibromofluoromethane	54.3		"	50.0		109	70-130			
Surrogate: Perdeuterotoluene	45.6		"	50.0		91.2	70-130			
Gasoline (C6-C12)	1890	200	"	2000		94.5	70-130	9.57	20	
Benzene	96.1	0.500	"	100		96.1	70-130	0.829	20	
Ethylbenzene	114	0.500	"	100		114	70-130	0.881	20	
m&p-Xylene	115	1.00	"	100		115	70-130	0.00	20	
o-xylene	113	0.500	"	100		113	70-130	0.881	20	
Toluene	95.0	0.500	"	100		95.0	70-130	0.420	20	
MTBE	104	0.500	"	100		104	70-130	1.90	20	

Pacific Analytical Laboratory

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

Project: 3609 International Blvd., Oakland  
Project Number: 2333  
Project Manager: Joyce Bobek

Reported:  
22-Apr-05 14:20

**Volatile Organic Compounds by EPA Method 8260B**

**Pacific Analytical Laboratory**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

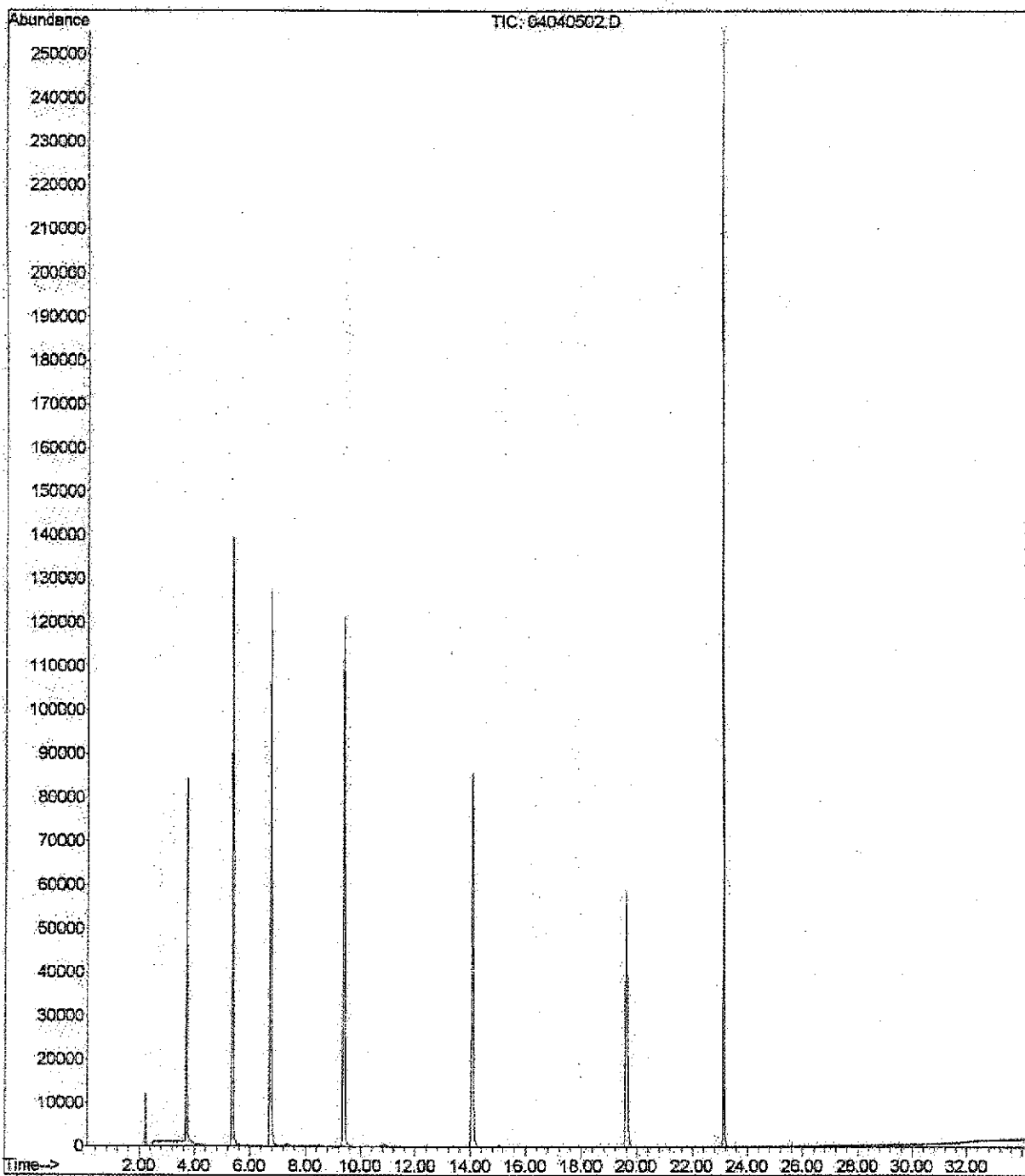


SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 22-Apr-05 14:20
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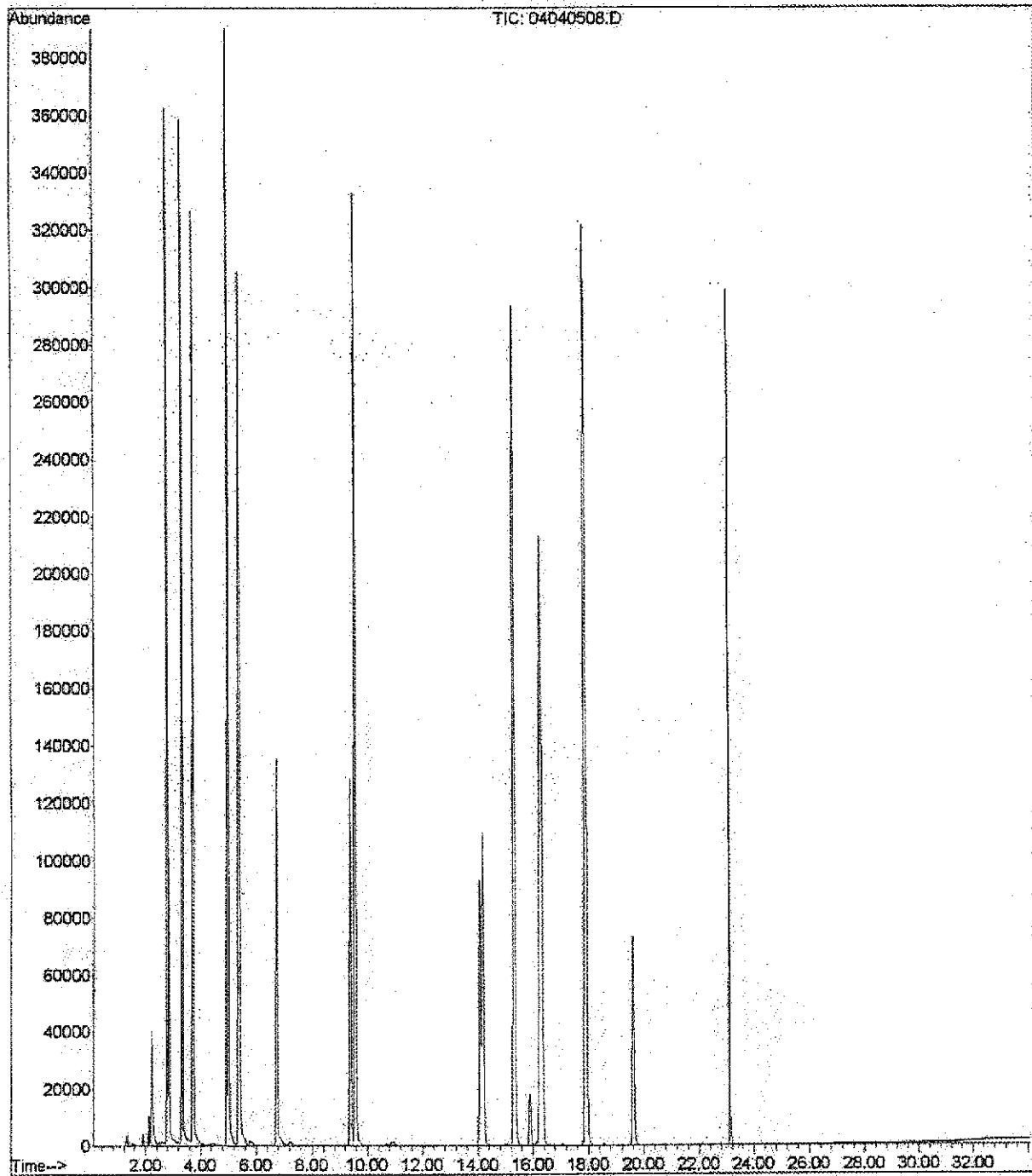
**Notes and Definitions**

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

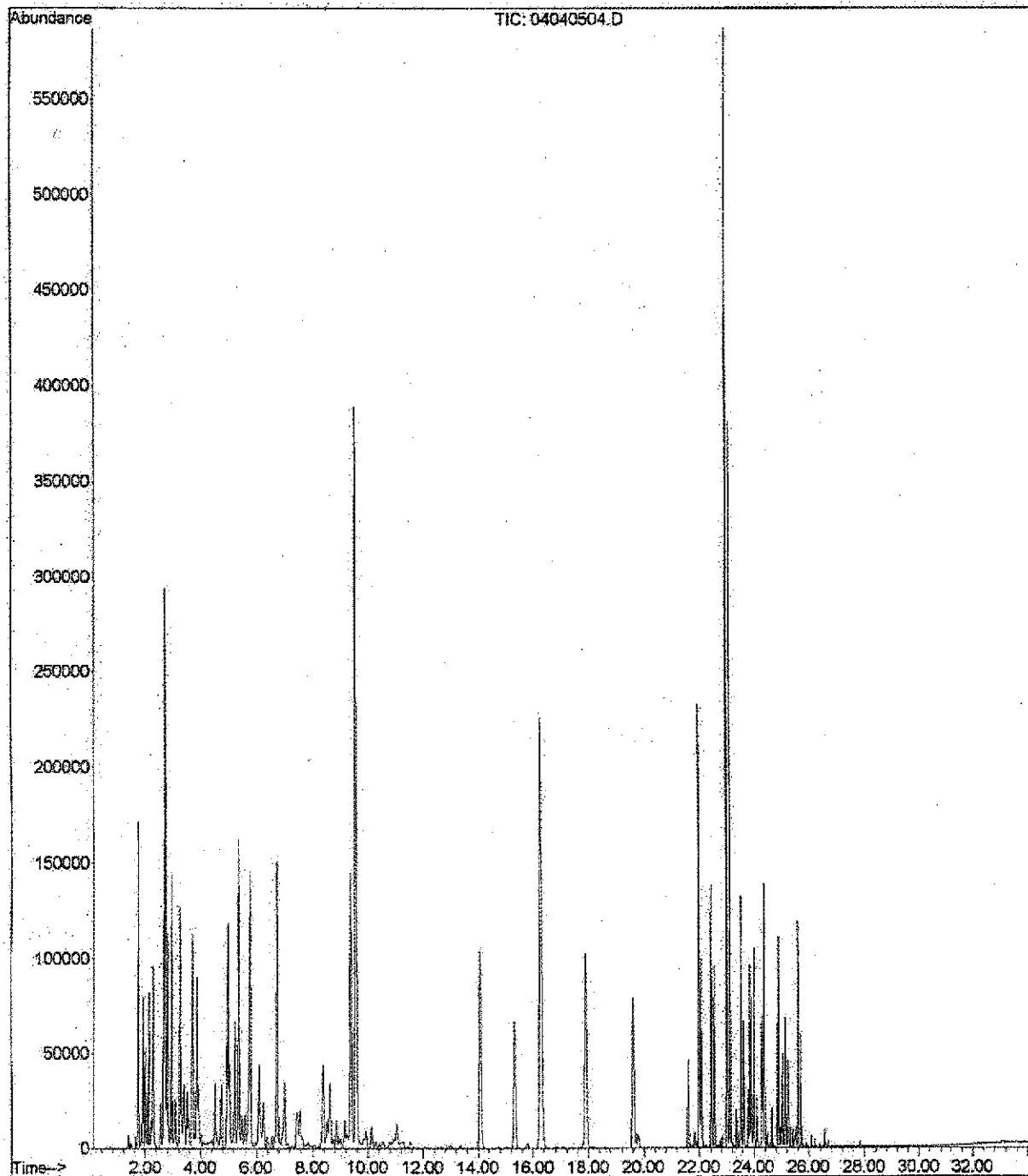
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Operator :  
Acquired : 4 Apr 2005 1:11 pm using AcqMethod VOACOXY.M  
Instrument : PAL GCMS  
Sample Name: BD50401-BLK1  
Misc Info :  
Vial Number: 2



File :C:\MSDCHEM\1\DATA\2005-Apr-04-1150.b\04040508.D  
Operator :  
Acquired : 4 Apr 2005 5:56 pm using AcqMethod VOXY.M  
Instrument : PAL GCMS  
Sample Name: BD50401-BS1@btex  
Misc Info :  
Vial Number: 8



File :C:\MSDCHEM\1\DATA\2005-Apr-04-1150.b\04040504.D  
Operator :  
Acquired : 4 Apr 2005 2:56 pm using AcqMethod VOCOXY.M  
Instrument : PAL GCMS  
Sample Name: BD50401-BS1@gas  
Misc Info :  
Vial Numbers: 4





**PAL**

**Pacific Analytical Laboratory**

851 West Midway Ave. Suite 201  
Alameda, CA 94501

Phone (510) 864-0364

04 April 2005

Joyce Bobek

SOMA Environmental Engineering Inc.

2680 Bishop Dr., Suite 203

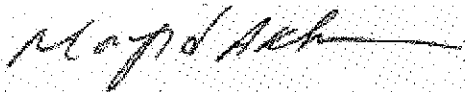
San Ramon, CA 94583

RE: 3609 International Blvd., Oakland

Work Order Number: 5030019

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,



---

Malid Akhavan

Laboratory 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# 5030019

Project No: 2333				Sampler: <i>Mehran Nowrozi</i>										Analyses/Method						
Project Name: 3609 International Blvd. Oakland				Report To: Joyce Bobek										TPG, BTEX, MIBE 8260B						
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		Matrix			# of Containers	Preservatives				Field Notes								
		Date	Time	Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE									
	Influent	3/21/05	11:10 AM		X		3-VOAs	X			X	Grab Sample								
	GAC-1		11:05 AM		X		3-VOAs	X			X	Grab Sample								
	PSP-1		11:00 AM		X		3-VOAs	X			X	Grab Sample								
Sampler Remarks: EDF Output Required				Relinquished by: <i>M. Nowrozi</i>				Date/Time: 12:10 PM 3/21/05		Received by: <i>M. Nowrozi</i>				Date/Time: 12:10 3.21.05						



SOMA Environmental Engineering Inc. 2680 Bishop Dr., Suite 203 San Ramon CA, 94583	Project: 3609 International Blvd., Oakland Project Number: 2333 Project Manager: Joyce Bobek	Reported: 04-Apr-05 14:51
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Influent	5030019-01	Water	21-Mar-05 11:10	21-Mar-05 12:58
GAC-1	5030019-02	Water	21-Mar-05 11:05	21-Mar-05 12:58
PSP-1	5030019-03	Water	21-Mar-05 11:00	21-Mar-05 12:58



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

Project: 3609 International Blvd., Oakland  
 Project Number: 2333  
 Project Manager: Joyce Bobek

Reported:  
 04-Apr-05 14:51

**Volatile Organic Compounds by EPA Method 8260B**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Influent (5030019-01) Water</b> Sampled: 21-Mar-05 11:10    Received: 21-Mar-05 12:58									
Gasoline (C6-C12)	6800	2200	ug/l	11	BC52101	21-Mar-05	22-Mar-05	EPA 8260B	
Benzene	747	5.50	"	"	"	"	"	"	
Ethylbenzene	92.0	5.50	"	"	"	"	"	"	
m&p-Xylene	559	11.0	"	"	"	"	"	"	
o-xylene	204	5.50	"	"	"	"	"	"	
Toluene	46.1	5.50	"	"	"	"	"	"	
MTBE	960	5.50	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	70-130		"	"	"	"	
Surrogate: Dibromofluoromethane		115 %	70-130		"	"	"	"	
Surrogate: Perdeuterotoluene		101 %	70-130		"	"	"	"	
<b>GAC-1 (5030019-02) Water</b> Sampled: 21-Mar-05 11:05    Received: 21-Mar-05 12:58									
Gasoline (C6-C12)	ND	200	ug/l	1	BC52101	21-Mar-05	22-Mar-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.4 %	70-130		"	"	"	"	
Surrogate: Dibromofluoromethane		118 %	70-130		"	"	"	"	
Surrogate: Perdeuterotoluene		102 %	70-130		"	"	"	"	
<b>PSP-1 (5030019-03) Water</b> Sampled: 21-Mar-05 11:00    Received: 21-Mar-05 12:58									
Gasoline (C6-C12)	ND	200	ug/l	1	BC52101	21-Mar-05	22-Mar-05	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	70-130		"	"	"	"	
Surrogate: Dibromofluoromethane		119 %	70-130		"	"	"	"	
Surrogate: Perdeuterotoluene		102 %	70-130		"	"	"	"	

Pacific Analytical Laboratory

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

Project: 3609 International Blvd., Oakland  
Project Number: 2333  
Project Manager: Joyce Bobek

Reported:  
04-Apr-05 14:51

**Volatile Organic Compounds by EPA Method 8260B**

**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SOMA Environmental Engineering Inc.  
 2680 Bishop Dr., Suite 203  
 San Ramon CA, 94583

Project: 3609 International Blvd., Oakland  
 Project Number: 2333  
 Project Manager: Joyce Bobek

Reported:  
 04-Apr-05 14:51

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch BC52101 - EPA 5030 Water MS**

**Blank (BC52101-BLK2)**

Prepared: 21-Mar-05 Analyzed: 25-Mar-05

Surrogate: 4-Bromofluorobenzene	49.4		ug/l	50.0		98.8	70-130			
Surrogate: Dibromofluoromethane	55.7		"	50.0		111	70-130			
Surrogate: Perdeuterotoluene	49.7		"	50.0		99.4	70-130			
Gasoline (C6-C12)	ND	200	"							
Benzene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
o-xylene	ND	0.500	"							
Toluene	ND	0.500	"							

**LCS (BC52101-BS2)**

Prepared: 21-Mar-05 Analyzed: 23-Mar-05

Surrogate: 4-Bromofluorobenzene	52.5		ug/l	50.0		105	70-130			
Surrogate: Dibromofluoromethane	55.4		"	50.0		111	70-130			
Surrogate: Perdeuterotoluene	46.1		"	50.0		92.2	70-130			
Gasoline (C6-C12)	2110	200	"	2000		106	70-130			
Benzene	96.8	0.500	"	100		96.8	70-130			
Ethylbenzene	116	0.500	"	100		116	70-130			
m&p-Xylene	117	1.00	"	100		117	70-130			
o-xylene	116	0.500	"	100		116	70-130			
Toluene	97.3	0.500	"	100		97.3	70-130			

**LCS Dup (BC52101-BSD2)**

Prepared: 21-Mar-05 Analyzed: 24-Mar-05

Surrogate: 4-Bromofluorobenzene	52.2		ug/l	50.0		104	70-130			
Surrogate: Dibromofluoromethane	55.8		"	50.0		112	70-130			
Surrogate: Perdeuterotoluene	46.6		"	50.0		93.2	70-130			
Gasoline (C6-C12)	1980	200	"	2000		99.0	70-130	6.36	20	
Benzene	99.0	0.500	"	100		99.0	70-130	2.25	20	
Ethylbenzene	117	0.500	"	100		117	70-130	0.858	20	
m&p-Xylene	119	1.00	"	100		119	70-130	1.69	20	
o-xylene	116	0.500	"	100		116	70-130	0.00	20	
Toluene	98.3	0.500	"	100		98.3	70-130	1.02	20	

Pacific Analytical Laboratory

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

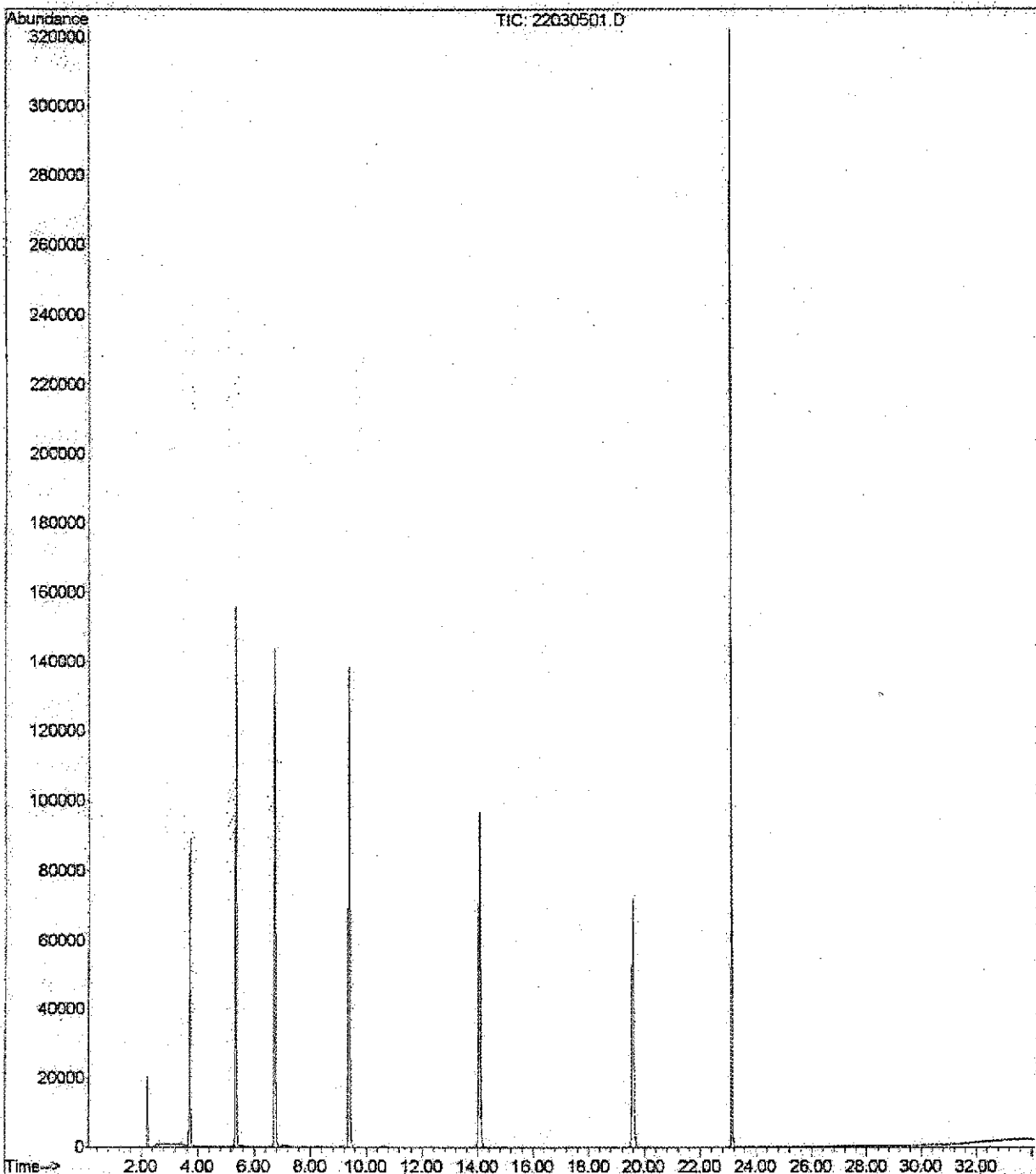
Project: 3609 International Blvd., Oakland  
Project Number: 2333  
Project Manager: Joyce Bobek

Reported:  
04-Apr-05 14:51

### Notes and Definitions

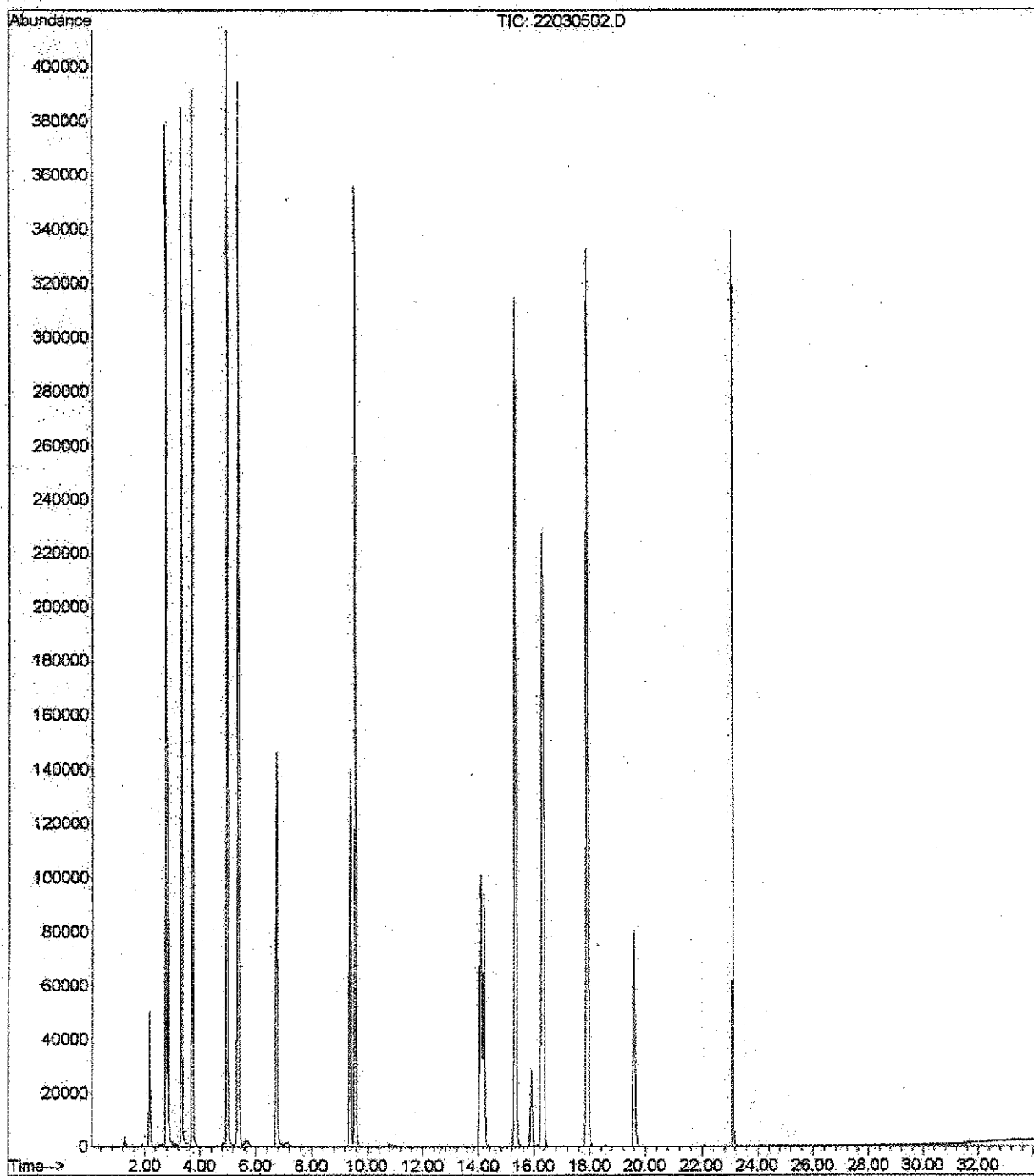
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

File : C:\MSDCHEM\1\DATA\2005-Mar-22-1217.b\22030501.D  
Operator :  
Acquired : 22 Mar 2005 12:35 pm using AcqMethod VOCOXY.M  
Instrument : PAL GCMS  
Sample Name: BC52101-BLK1  
Misc Info :  
Vial Number: 1

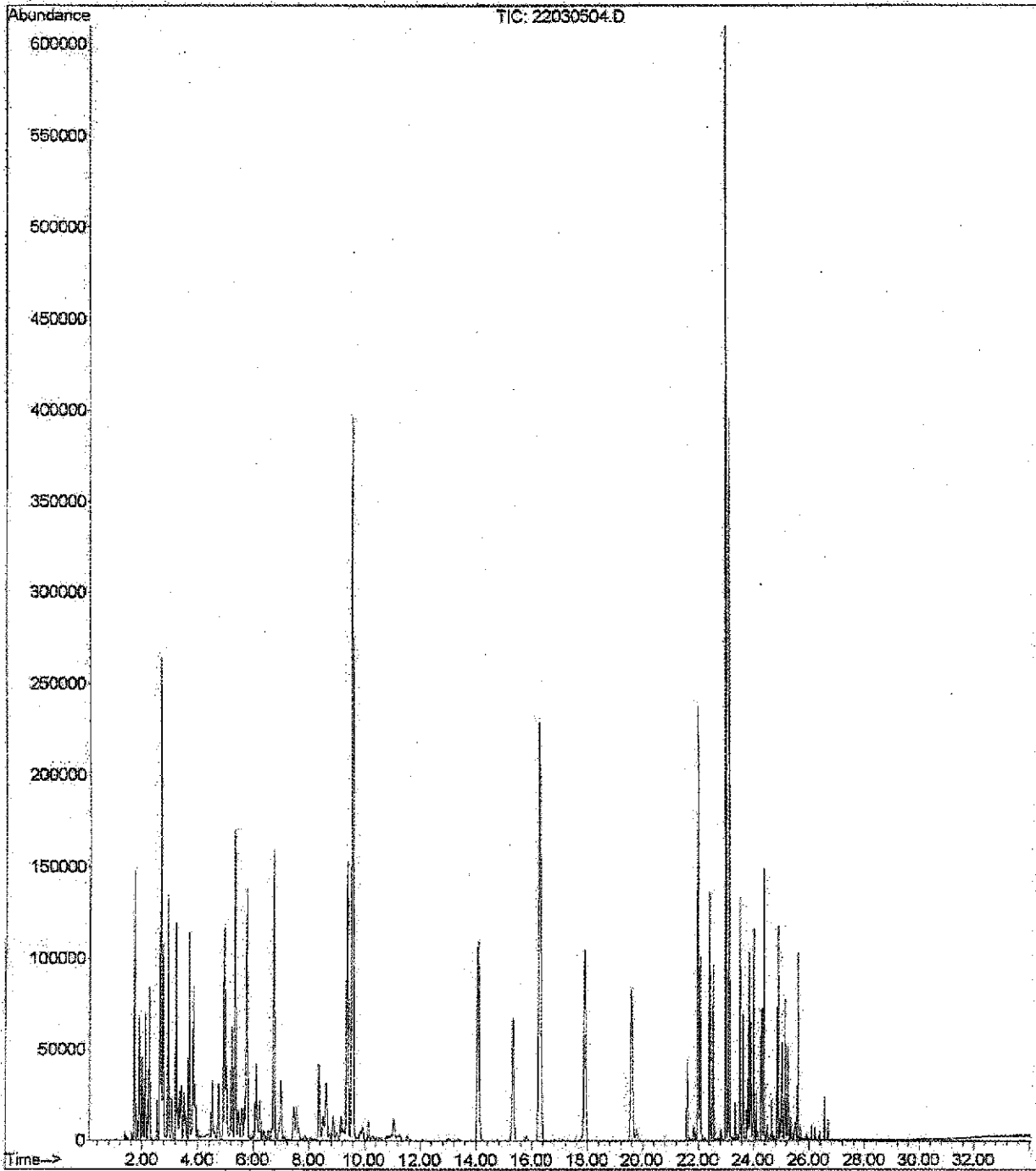




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Operator :  
Acquired : 22 Mar 2005 1:18 pm using AcqMethod VOXY.M  
Instrument : PAL GCMS  
Sample Name: BC52101-BS1@btex  
Misc Info :  
Vial Number: 2



File : C:\MSDCHEM\1\DATA\2005-Mar-22-1217..b\22030504.D  
Operator :  
Acquired : 22 Mar 2005 2:45 pm using AcqMethod VOCOXY.M  
Instrument : PAL GCMS  
Sample Name: BC52101-BS1@gas  
Misc Info :  
Vial Number: 4





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

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

ANALYTICAL REPORT

Prepared for:

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

Date: 22-FEB-05  
Lab Job Number: 177535  
Project ID: 2333  
Location: 3609 International Blvd

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

This package may be reproduced only in its entirety.

CASE NARRATIVE

Laboratory number: 177535  
Client: SOMA Environmental Engineering Inc.  
Project: 2333  
Location: 3609 International Blvd  
Request Date: 02/07/05  
Samples Received: 02/07/05

This hardcopy data package contains sample and QC results for three water samples, requested for the above referenced project on 02/07/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

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

High surrogate recovery was observed for bromofluorobenzene in the method blank for batch 98957; no target analytes were detected in the sample. No other analytical problems were encountered.





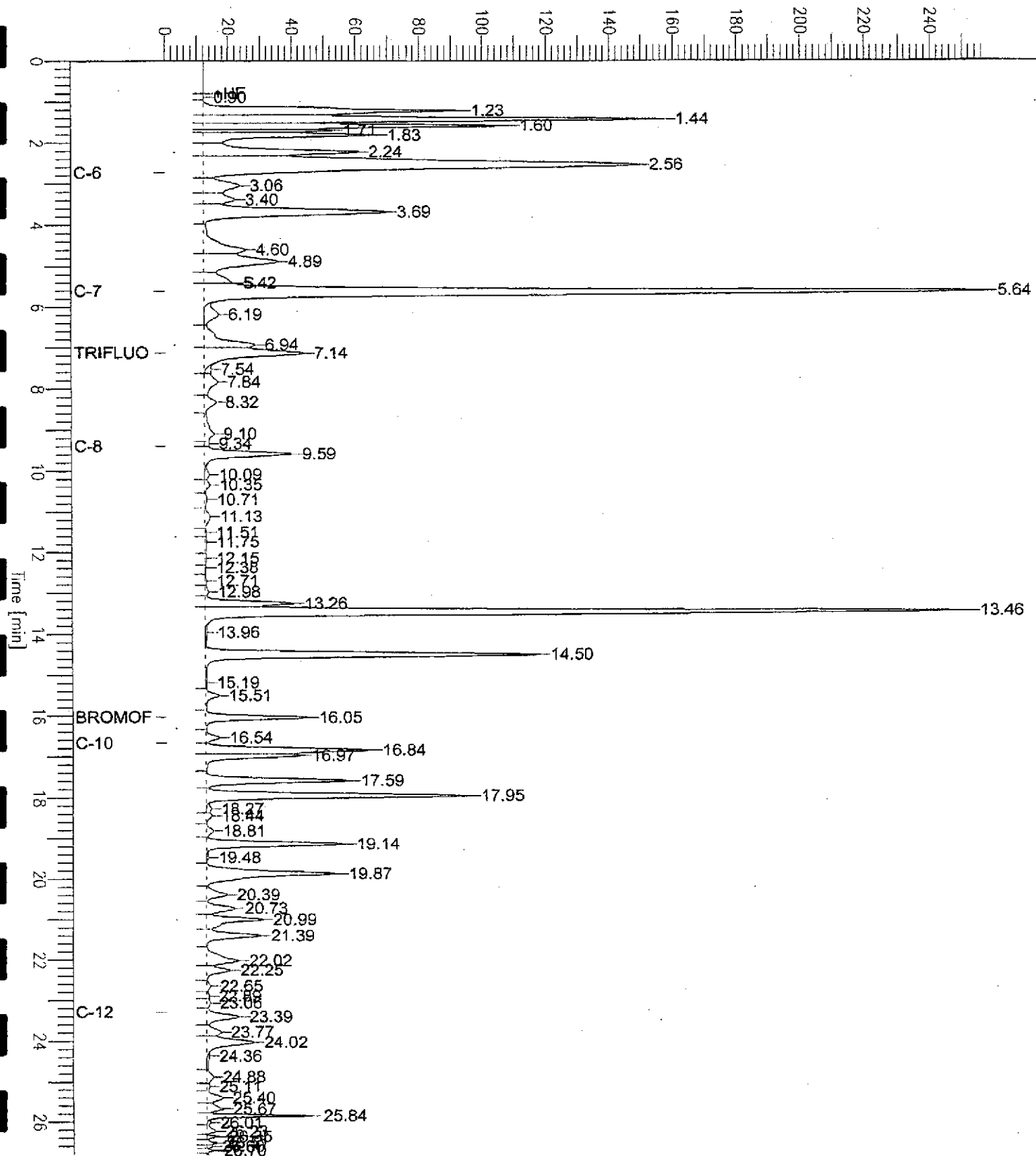
# GC19 TVH 'X' Data File (FID)

Sample Name : 177535-003,98925  
 FileName : G:\GC19\DATA\038X007.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min      End Time : 25.80 min  
 Scale Factor : 1.0      Plot Offset : -0 mV

Sample #: a1.0      Page 1 of 1  
 Date : 2/8/05 07:18 AM  
 Time of Injection: 2/7/05 04:14 PM  
 Low Point : -0.06 mV      High Point : 257.93 mV  
 Plot Scale: 258.0 mV

*Influent*

Response [mV]



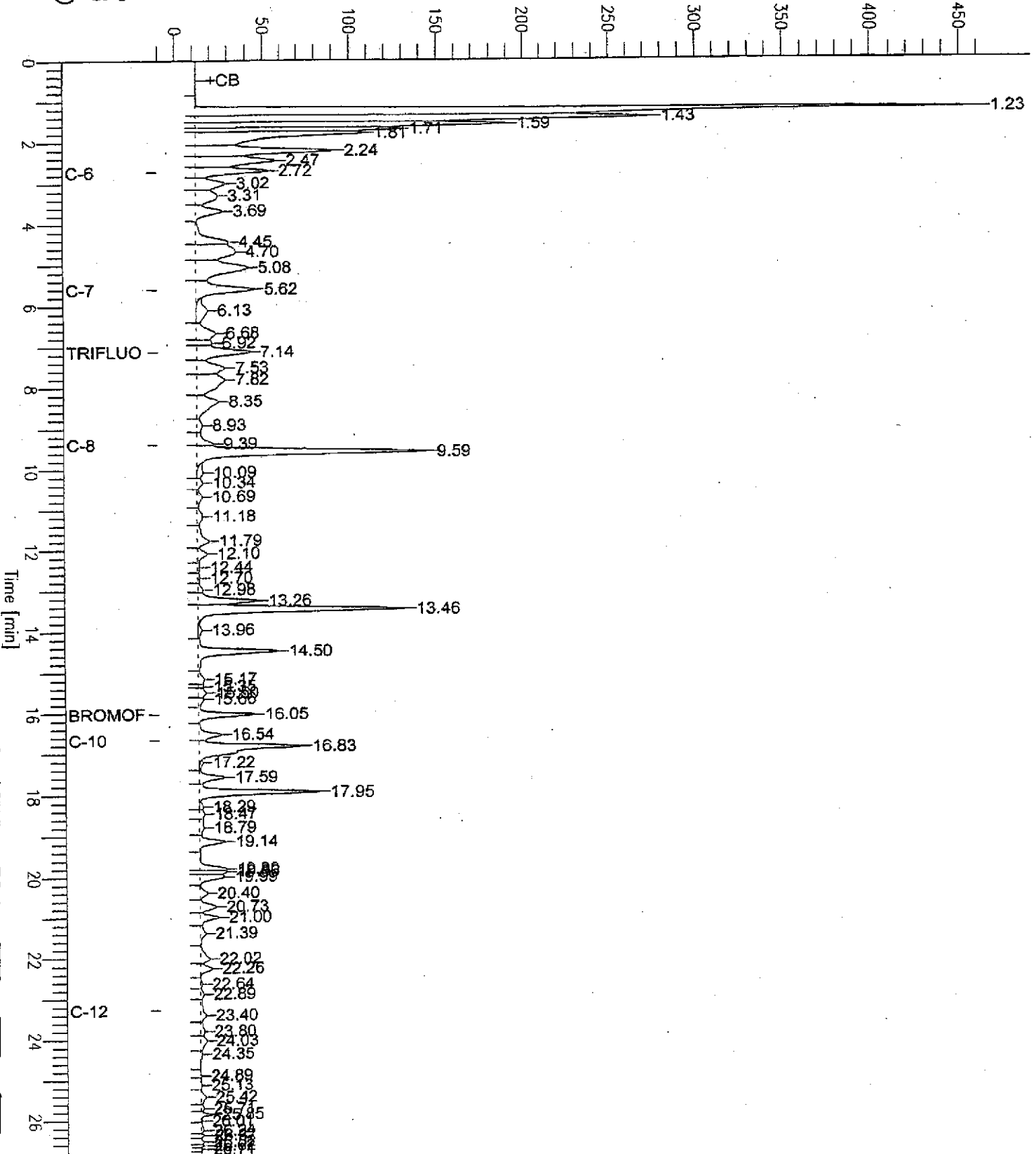
# GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lcs,qc281752,98925,04ws2408,5/5000  
FileName : G:\GC19\DATA\038x003.raw  
Method : TVHBIXE  
Start Time : 0.00 min End Time : 26.80 min  
Scale Factor: 1.0 Plot Offset: -10 mV

Sample #: Page 1 of 1  
Date : 2/7/05 03:02 PM  
Time of Injection: 2/7/05 01:25 PM  
Low Point : -10.28 mV High Point : 462.75 mV  
Plot Scale: 473.0 mV

*Gasoline*

Response [mV]







Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC281752	Batch#:	98925
Matrix:	Water	Analyzed:	02/07/05
Units:	ug/L		

Analyte	Spiked	Result	REC	Limits
Gasoline C7-C12	10,000	10,840	108	80-120

Surrogate	REC	Limits
Trifluorotoluene (FID)	119	70-141
Bromofluorobenzene (FID)	119	80-143



Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8015B
Field ID:	PSP#1	Batch#:	98925
MSS Lab ID:	177535-001	Sampled:	02/07/05
Matrix:	Water	Received:	02/07/05
Units:	ug/L	Analyzed:	02/07/05
Diln Fac:	1.000		

Type: MS Lab ID: QC281784

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<22.03	2,000	1,992	100	80-120
Surrogate	%REC	Limits			
Trifluorotoluene (FID)	112	70-141			
Bromofluorobenzene (FID)	109	80-143			

Type: MSD Lab ID: QC281785

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,041	102	80-120	2	20
Surrogate	%REC	Limits				
Trifluorotoluene (FID)	115	70-141				
Bromofluorobenzene (FID)	112	80-143				



Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP#1	Batch#:	98931
Lab ID:	177535-001	Sampled:	02/07/05
Matrix:	Water	Received:	02/07/05
Units:	ug/L	Analyzed:	02/07/05
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	114	80-122



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	98931
Lab ID:	177535-002	Sampled:	02/07/05
Matrix:	Water	Received:	02/07/05
Units:	ug/L	Analyzed:	02/07/05
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	121	80-122



## Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	98957
Lab ID:	177535-003	Sampled:	02/07/05
Matrix:	Water	Received:	02/07/05
Units:	ug/L	Analyzed:	02/08/05
Diln Fac:	10.00		

Analyte	Result	RL
MTBE	830	50
Benzene	560	50
Toluene	56	50
Ethylbenzene	56	50
m,p-Xylenes	460	50
o-Xylene	210	50

Surrogate	%REC	Limit
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	109	80-122



Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC281769	Batch#:	98931
Matrix:	Water	Analyzed:	02/07/05
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	113	80-122



Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC281876	Batch#:	98957
Matrix:	Water	Analyzed:	02/08/05
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	97	80-120
Bromofluorobenzene	123 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit



Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	98931
Units:	ug/L	Analyzed:	02/07/05
Diln Fac:	1.000		

Type: BS Lab ID: QC281767

Analyte	Spiked	Result	%REC	Limits
Benzene	25.00	24.55	98	79-120
Toluene	25.00	24.64	99	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC281768

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	25.00	24.10	96	79-120	2	20
Toluene	25.00	24.47	98	80-120	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-122





Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	177535	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	98957
Units:	ug/L	Analyzed:	02/08/05
Diln Fac:	1.000		

Type: BS Lab ID: QC281874

Analyte	Spiked	Result	%REC	Limits
Benzene	25.00	24.26	97	79-120
Toluene	25.00	25.21	101	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-122

Type: BSD Lab ID: QC281875

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	25.00	23.97	96	79-120	1	20
Toluene	25.00	24.21	97	80-120	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-122



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:

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

Date: 17-JAN-05  
Lab Job Number: 176933  
Project ID: 2333  
Location: 3609 International Blvd

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

This package may be reproduced only in its entirety.



**CASE NARRATIVE**

Laboratory number: 176933  
Client: SOMA Environmental Engineering Inc.  
Project: 2333  
Location: 3609 International Blvd  
Request Date: 01/03/05  
Samples Received: 01/03/05

This hardcopy data package contains sample and QC results for three water samples, requested for the above referenced project on 01/03/05. The samples were received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):

No analytical problems were encountered.





## Total Volatile Hydrocarbons

Lab #: 176933 Location: 3609 International Blvd  
 Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B  
 Project#: 2333  
 Matrix: Water Sampled: 01/03/05  
 Units: ug/L Received: 01/03/05

Field ID: INFLUENT Lab ID: 176933-001  
 Type: SAMPLE

Analyte	Result	RL	Diln Fac	Batch#	Analyzed	Analysis
Gasoline C7-C12	9,400	50	1.000	97960	01/03/05	EPA 8015B
MTBE	1,200	10	5.000	97980	01/04/05	EPA 8021B
Benzene	800	2.5	5.000	97980	01/04/05	EPA 8021B
Toluene	140	2.5	5.000	97980	01/04/05	EPA 8021B
Ethylbenzene	110	2.5	5.000	97980	01/04/05	EPA 8021B
m,p-Xylenes	680	2.5	5.000	97980	01/04/05	EPA 8021B
o-Xylene	280	2.5	5.000	97980	01/04/05	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	112	70-141	1.000	97960	01/03/05	EPA 8015B
Bromofluorobenzene (FID)	105	80-143	1.000	97960	01/03/05	EPA 8015B
Trifluorotoluene (PID)	82	59-133	5.000	97980	01/04/05	EPA 8021B
Bromofluorobenzene (PID)	91	76-128	5.000	97980	01/04/05	EPA 8021B

Field ID: GAC-1 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 97960  
 Lab ID: 176933-002 Analyzed: 01/03/05

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	3.8	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	70-141	EPA 8015B
Bromofluorobenzene (FID)	104	80-143	EPA 8015B
Trifluorotoluene (PID)	93	59-133	EPA 8021B
Bromofluorobenzene (PID)	99	76-128	EPA 8021B

ND= Not Detected  
 RL= Reporting Limit  
 Page 1 of 3



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**Total Volatile Hydrocarbons**

Lab #: 176933 Location: 3609 International Blvd  
 Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B  
 Project#: 2333  
 Matrix: Water Sampled: 01/03/05  
 Units: ug/L Received: 01/03/05

Field ID: PSP#1 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 97960  
 Lab ID: 176933-003 Analyzed: 01/03/05

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	3.6	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	70-141	EPA 8015B
Bromofluorobenzene (FID)	98	80-143	EPA 8015B
Trifluorotoluene (PID)	90	59-133	EPA 8021B
Bromofluorobenzene (PID)	92	76-128	EPA 8021B

Type: BLANK Batch#: 97960  
 Lab ID: QC278149 Analyzed: 01/03/05  
 Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	107	70-141	EPA 8015B
Bromofluorobenzene (FID)	104	80-143	EPA 8015B
Trifluorotoluene (PID)	96	59-133	EPA 8021B
Bromofluorobenzene (PID)	98	76-128	EPA 8021B

ND= Not Detected  
 RL= Reporting Limit

# GC19 TVH 'X' Data File (FID)

Sample Name : 176933-001,97960

Sample #: a1.0

Page 1 of 1

File Name : G:\GC19\DATA\003X008.raw

Date : 1/5/05 02:59 PM

Method : TVHBTXE

Time of Injection: 1/3/05 04:12 PM

Start Time : 0.00 min

End Time : 26.80 min

Low Point : -32.84 mV

High Point : 914.83 mV

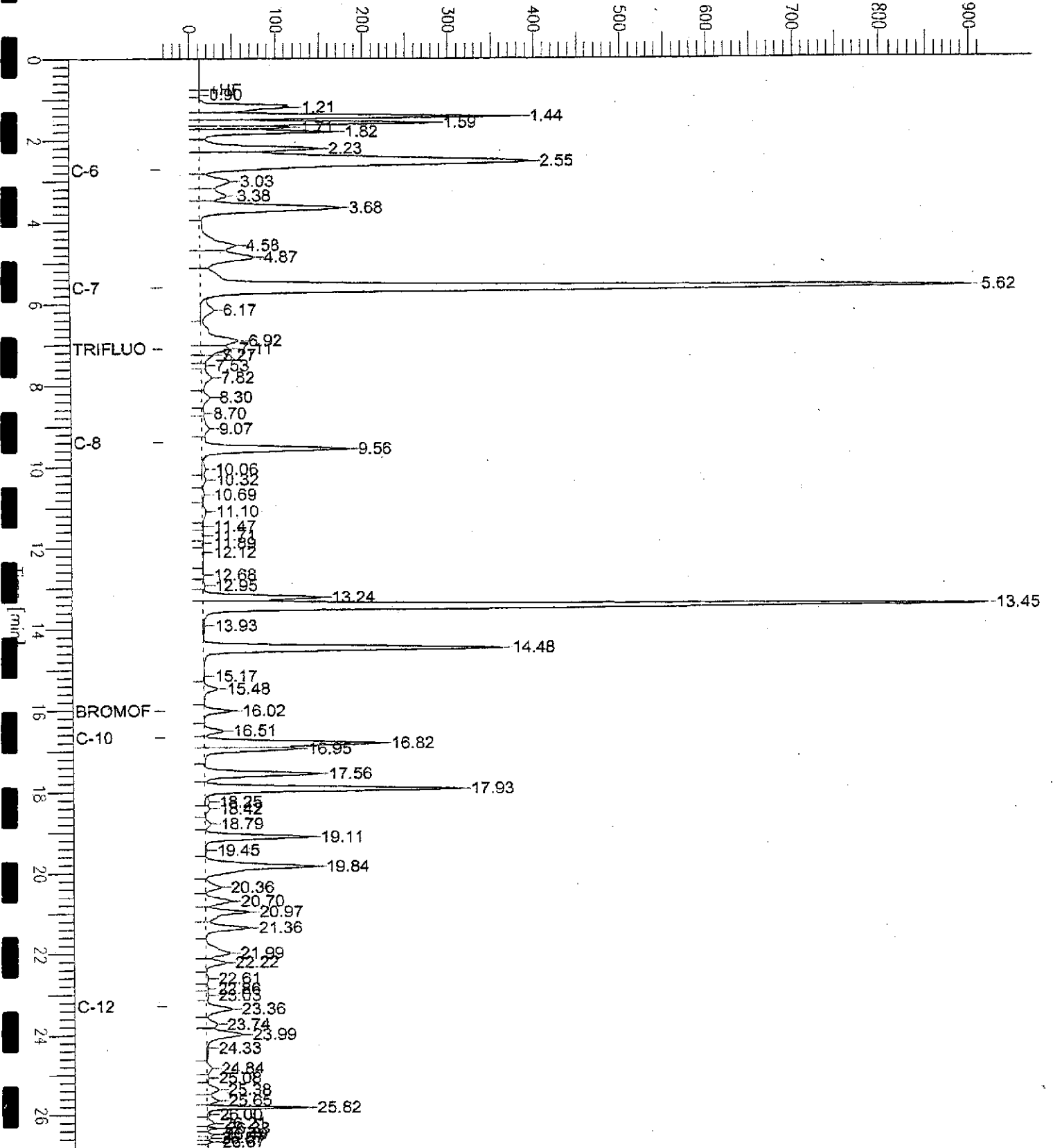
Scale Factor: 1.0

Plot Offset: -33 mV

Plot Scale: 947.7 mV

*Influent*

Response [mV]



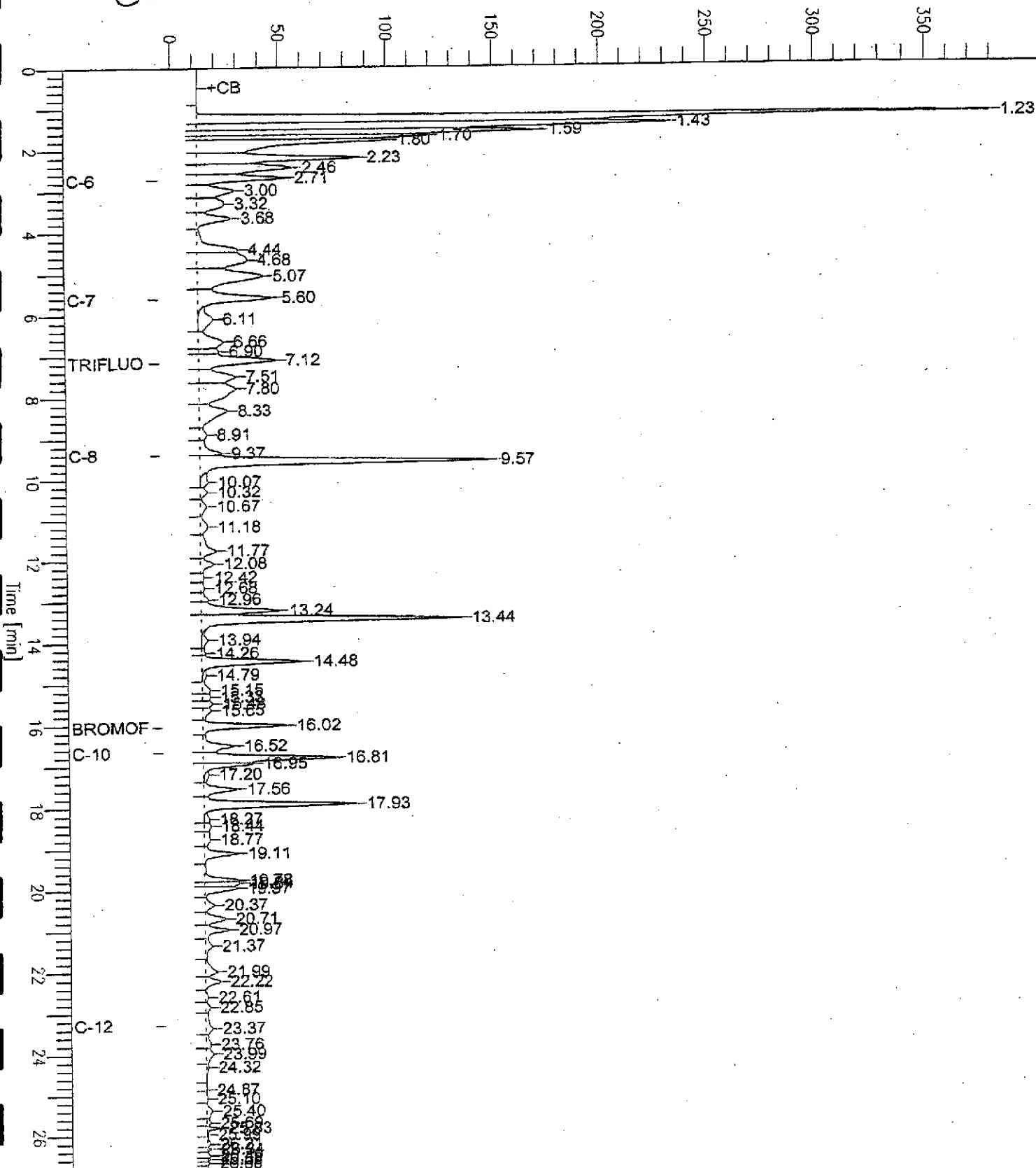
# GC19 TVH 'X' Data File (FID)

Sample Name : ccv/lrs\_gc278151\_97960\_04ws2408\_5/5000  
FileName : g:\gc19\data\003x003.raw  
Method : TVHBTXE  
Start Time : 0.00 min End Time : 26.80 min  
Scale Factor : 1.0 Plot Offset: -6 mV

Sample #: Page 1 of 1  
Date : 1/3/05 02:47 PM  
Time of Injection: 1/3/05 12:51 PM  
Low Point : -5.99 mV High Point : 380.31 mV  
Plot Scale: 386.3 mV

Gasoline

Response [mV]







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Total Volatile Hydrocarbons

Lab #:	176933	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	01/03/05
Units:	ug/L	Received:	01/03/05

Type:	BLANK	Batch#:	97980
Lab ID:	QC278222	Analyzed:	01/04/05
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	limits	Analysis
Trifluorotoluene (FID)	94	70-141	EPA 8015B
Bromofluorobenzene (FID)	90	80-143	EPA 8015B
Trifluorotoluene (PID)	84	59-133	EPA 8021B
Bromofluorobenzene (PID)	86	76-128	EPA 8021B



Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	176933	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC278150	Batch#:	97960
Matrix:	Water	Analyzed:	01/03/05
Units:	ug/L		

Analyte	Spiked	Result	TRHC	Limits
MTBE	20.00	22.51	113	67-124
Benzene	20.00	19.48	97	80-120
Toluene	20.00	20.19	101	80-120
Ethylbenzene	20.00	20.09	100	80-120
m,p-Xylenes	20.00	19.84	99	80-120
o-Xylene	20.00	19.75	99	80-120

Surrogate	TRHC	Limits
Trifluorotoluene (PID)	107	59-133
Bromofluorobenzene (PID)	114	76-128

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	176933	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC278151	Batch#:	97960
Matrix:	Water	Analyzed:	01/03/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,271	114	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	70-141
Bromofluorobenzene (FID)	123	80-143



Batch QC Report

Total Volatile Hydrocarbons

Lab #:	176933	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC278223	Batch#:	97980
Matrix:	Water	Analyzed:	01/04/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	20.21	101	67-124
Benzene	20.00	18.92	95	80-120
Toluene	20.00	19.53	98	80-120
Ethylbenzene	20.00	19.34	97	80-120
m,p-Xylenes	20.00	18.51	93	80-120
o-Xylene	20.00	18.02	90	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	82	59-133
Bromofluorobenzene (PID)	84	76-128



Batch QC Report

Total Volatile Hydrocarbons

Lab #:	176933	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8015B
Field ID:	PSP#1	Batch#:	97960
MSS Lab ID:	176933-003	Sampled:	01/03/05
Matrix:	Water	Received:	01/03/05
Units:	ug/L	Analyzed:	01/03/05
Diln Fac:	1.000		

Type: MS Lab ID: QC278166

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<13.45	2,000	2,170	109	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	70-141
Bromofluorobenzene (FID)	114	80-143

Type: MSD Lab ID: QC278167

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,226	111	80-120	3	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	70-141
Bromofluorobenzene (FID)	118	80-143



## Batch QC Report

## Total Volatile Hydrocarbons

Lab #: 176933	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8021B
Field ID: ZZZZZZZZZZ	Batch#: 97980
MSS Lab ID: 176951-001	Sampled: 01/04/05
Matrix: Water	Received: 01/04/05
Units: ug/L	Analyzed: 01/04/05
Diln Fac: 1.000	

Type: MS Lab ID: QC278301

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	5.125	20.00	23.22	90	52-142
Benzene	<0.07445	20.00	19.00	95	80-120
Toluene	<0.1070	20.00	20.26	101	80-120
Ethylbenzene	<0.05133	20.00	19.16	96	80-120
m,p-Xylenes	<0.05470	20.00	19.47	97	80-120
o-Xylene	<0.1042	20.00	18.69	93	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	95	59-133
Bromofluorobenzene (PID)	96	76-128

Type: MSD Lab ID: QC278302

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	21.64	83	52-142	7	23
Benzene	20.00	16.52	83	80-120	14	20
Toluene	20.00	17.39	87	80-120	15	20
Ethylbenzene	20.00	17.06	85	80-120	12	20
m,p-Xylenes	20.00	16.27	81	80-120	18	20
o-Xylene	20.00	16.23	81	80-120	14	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	85	59-133
Bromofluorobenzene (PID)	89	76-128

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

## LABORATORY REPORT

Prepared For: **SOMA Environmental Engineering Inc.**  
2680 Bishop Dr.  
Suite 203  
San Ramon, CA 94583

Attention: **Joyce Bobek**

Date: **1/6/2005**

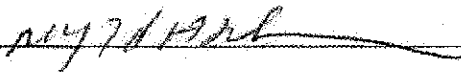
Project ID: **2333**

Location: **Oakland International**

Lab Job Number: **1031**

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.

Reviewed by: \_\_\_\_\_



Laboratory Director

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

PAL  
 Login# 1031

TK-5, STEV, MS/E 8260 B

Project No: 2333				Sampler: Mehran Nowroozi				Analyses/Method					
Project Name: Oakland Int				Report To: Joyce Bobek									
Project P.O.: ---				Company: SOMA Environmental Engineering, Inc.									
Turnaround Time: Standard				Tel: 925-244-6600									
				Fax: 925-244-6601									
		Sampling Date/Time		Matrix			# of Containers	Preservatives					
Lab No.	Sample ID	Date	Time	Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	Field Notes	
01	PSP#1	12/6/04	12:30 PM		X		3-VoAS	X			X	Grab Sample	
02	GAS-1	12/6/04	12:35 PM		X		↓	X			X		
03	Influent	12/6/04	12:40 PM		X		↓	X			X	↓	
Sampler Remarks:				Relinquished by:				Date/Time:		Received by:		Date/Time:	
NOTE: EDF output required				Mehran Nowroozi <del>Al Rosen</del>				12/6/04 1:55 PM		THU LE		12/6/2004 1:55 PM	



SOMA Environmental	Lab Job #	1031
2680 Bishop Dr.	Project ID:	2333
Suite 203	Project Location:	Oakland International
San Ramon, CA 94583	Sampled:	12/6/2004
	Received:	12/6/2004

TPHg by GC/MS			
Field ID:	PSP#1	Lab ID:	1031-01
Type:	Sample	Dilution Factor:	1
Matrix:	Water	Date Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
Gasoline (C6-C12)	ND	50	8260B
BTEX/MTBE by GC/MS			
Field ID:	PSP#1	Lab ID:	1031-01
Type:	Sample	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
MTBE	ND	0.5	8260B
Benzene	ND	0.5	8260B
Toluene	ND	0.5	8260B
Ethyl benzene	ND	0.5	8260B
m&p-xylene	ND	1	8260B
o-xylene	ND	0.5	8260B
Surrogate	% REC	%REC Limits	Analysis
DiBromofluoromethane	83	70-130	8260B
Toluene-d8	95	70-130	8260B

ND= Not Detected

RL= Reporting Limits

TPHs by GC/MS			
Field ID:	GAC-1	Lab ID:	1031-02
Type:	Sample	Dilution Factor:	1
Matrix:	Water	Date Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
Gasoline (C6-C12)	ND	50	8260B
BTEX/MTBE by GC/MS			
Field ID:	GAC-1	Lab ID:	1031-02
Type:	Sample	Dilution Factor:	
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
MTBE	ND	0.5	8260B
Benzene	ND	0.5	8260B
Toluene	ND	0.5	8260B
Ethyl benzene	ND	0.5	8260B
m&p-xylene	ND	1	8260B
o-xylene	ND	0.5	8260B
Surrogate	% REC	% REC Limits	Analysis
DiBromofluoromethane	84	70-130	8260B
Toluene-d8	94	70-130	8260B

ND= Not Detected  
 RL= Reporting Limits

Pacific Analytical Laboratory  
 Majid Akhavan  
 Laboratory Director

TPH <sub>g</sub> by GC/MS			
Field ID:	Influent	Lab ID:	1031-03
Type:	Sample	Dilution Factor:	21.5
Matrix:	Water	Date Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
Gasoline (C6-C12)	3935	1075	8260B
BTEX/MTBE by GC/MS			
Field ID:	Influent	Lab ID:	1031-03
Type:	Sample	Dilution Factor:	21.5
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/7/2004
Batch:		Method Prep:	5030B
Analyte	Result	Reporting Limit	Analysis
MTBE	1303	10.75	8260B
Benzene	660	10.75	8260B
Toluene	127	10.75	8260B
Ethyl benzene	82	10.75	8260B
m&p-xylene	722	21.5	8260B
O-xylene	301	10.75	8260B
Surrogate	% REC	%REC Limits	Analysis
DiBromofluoromethane	83	70-130	8260B
Toluene-d8	94	70-130	8260B

ND= Not Detected

RL= Reporting Limits

TPHg by GC/MS			
Field ID:	N/A	Lab ID:	Blank
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:			
Analyte	Result	Reporting Limit	Analysis
Gasoline (C6-C12)	ND	50	8260B
BTEX/MTBE by GC/MS			
Field ID:	N/A	Lab ID:	Blank
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:		Prep. Method:	5030B
Analyte	Result	Reporting Limit	Analysis
MTBE	ND	0.5	8260B
Benzene	ND	0.5	8260B
Toluene	ND	0.5	8260B
Ethyl benzene	ND	0.5	8260B
m&p-xylene	ND	1	8260B
o-xylene	ND	0.5	8260B
Surrogate	% REC	%REC Limits	Analysis
Dibromofluoromethane	80	70-130	8260B
Toluene-d8	94	70-130	8260B

ND= Not Detected

RL= Reporting Limits

TPH <sub>g</sub> by GC/MS			
Field ID:	N/A	Lab ID:	MS
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:		Prep. Method:	5030B
Analyte	% REC	% REC Limit	Analysis
Gasoline (C6-C12)	106	70-130	8260B
BTEX/MTBE by GC/MS			
Field ID:	N/A	Lab ID:	MS
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:			
Analyte	% REC	REC Limit	Analysis
MTBE	98	70-130	8260B
Benzene	130	70-130	8260B
Toluene	130	70-130	8260B
Ethyl benzene	130	70-130	8260B
m&p-xylene	130	70-130	8260B
O-xylene	129	70-130	8260B
Surrogate	% REC	%REC Limits	Analysis
DiBromofluoromethane	80	70-130	8260B
Toluene-d8	93	70-130	8260B

ND= Not Detected

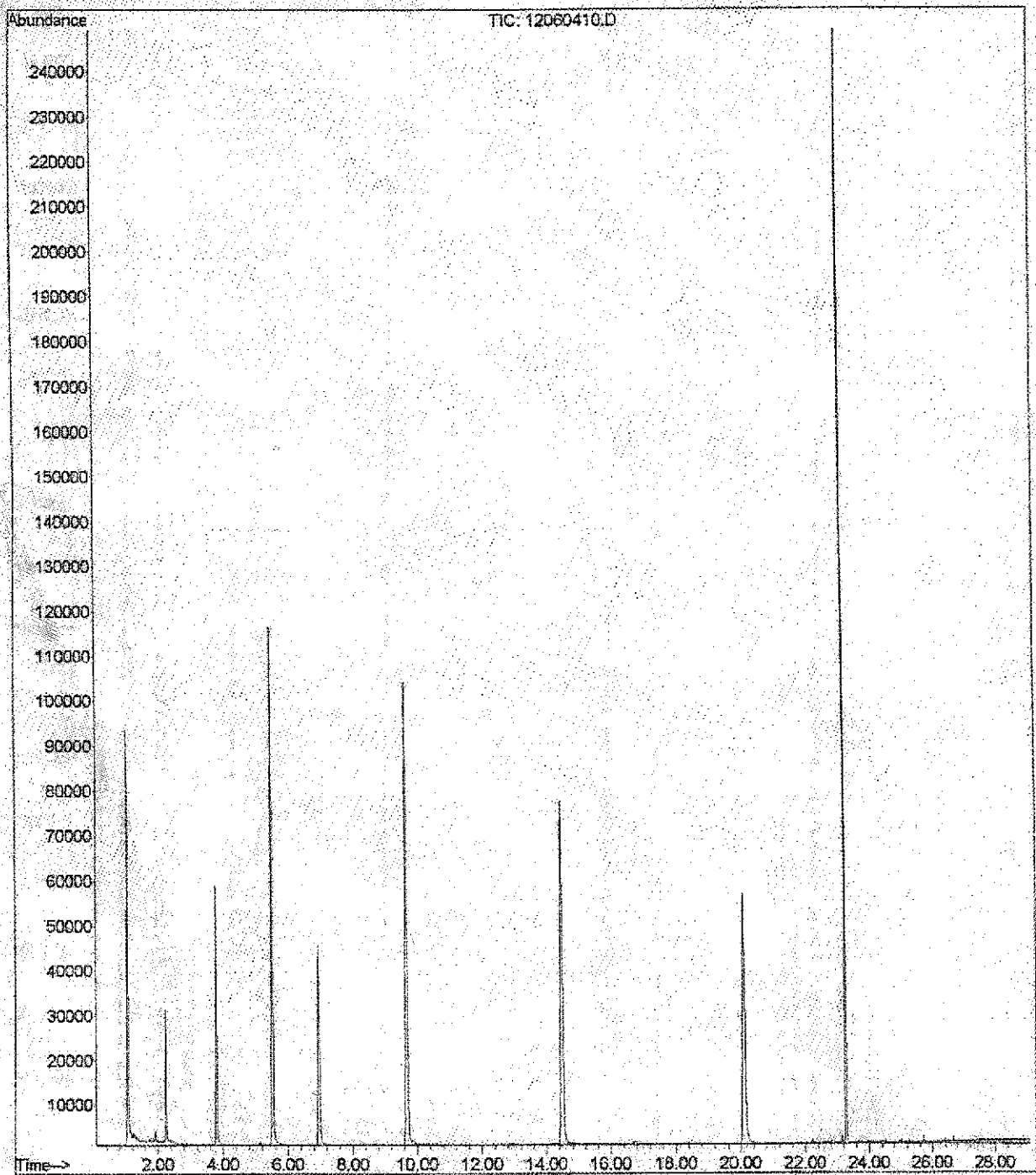
RL= Reporting Limits

TPHg by GC/MS			
Field ID:	N/A	Lab ID:	MSD
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:		Prep. Method:	5030B
Analyte	Result	Reporting Limit	Analysis
Gasoline (C6-C12)	111	50	8260B
BTEX/MTBE by GC/MS			
Field ID:	N/A	Lab ID:	MSD
Type:	QC	Dilution Factor:	1
Matrix:	Water	Prep:	12/6/2004
Units:	µg/L	Date Analyzed:	12/6/2004
Batch:		Prep. Method:	5030B
Analyte	% REC.	REC Limit	Analysis
MTBE	101	70-130	8260B
Benzene	130	70-130	8260B
Toluene	130	70-130	8260B
Ethyl benzene	130	70-130	8260B
m&p-xylene	135	70-130	8260B
o-xylene	130	70-130	8260B
Surrogate	% REC.	%REC Limits	Analysis
DiBromofluoromethane	79	70-130	8260B
Toluene-d8	94	70-130	8260B

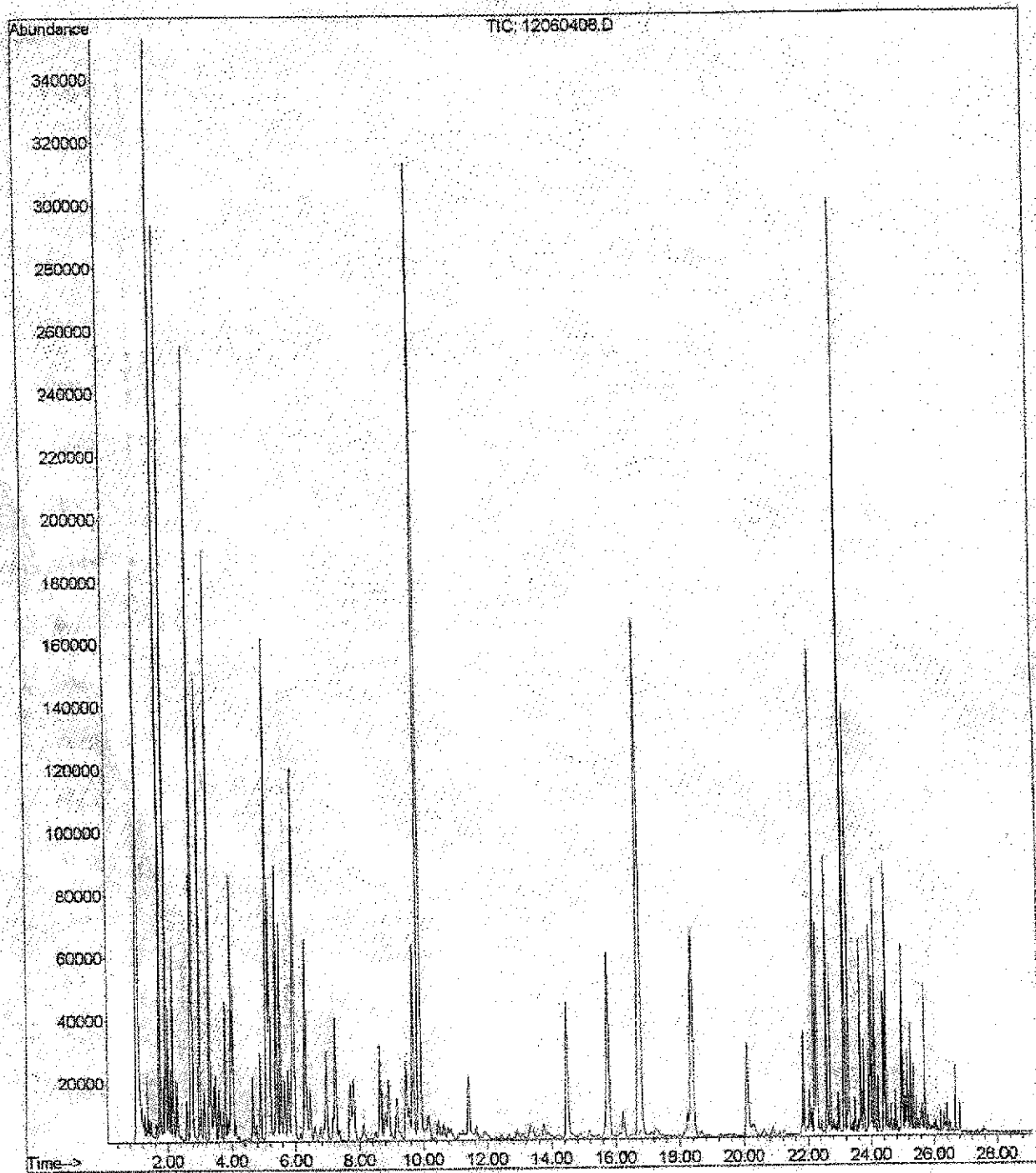
ND= Not Detected

RL= Reporting Limits

File : C:\MSDCHEM\1\DATA\2004-DEC-06-1022.B\12060410.D  
Operator : THU  
Acquired : 6 Dec 2004 4:57 pm using AcqMethod VOCOX  
Instrument : PAL GCMS  
Sample Name: MB-102501 GAS  
Misc Info :  
Vial Number: 10



File : C:\MSDCHEM\1\DATA\2004-DEC-06-1022.B\12060408.D  
Operator : THU  
Acquired : 6 Dec 2004 3:45 pm using AcqMethod VOCOXY  
Instrument : PAL GCMS  
Sample Name: MS-102501 GAS  
Misc Info :  
Vial Number: 8





File :C:\MSDCHEM\1\DATA\2004-Dec-06-1022.b\12060410.D  
Operator : THU  
Acquired : 6 Dec 2004 4:57 pm using AcqMethod VOCCOXY  
Instrument : PAL GCMS  
Sample Name: MB-102501 GAS  
Misc Info :  
Vial Number: 10

