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ENVIRONMENTAL ENGINEERING, INC.
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TEL (925) 244-6600 • FAX (925) 244-6801

June 13, 2002

JUN 18 2002

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

(S 14th ST)

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

Dear Ms. Maguire:

As you requested in your letter dated May 2, 2002, enclosed is SOMA's "Semi-Annual Technical Report: Treatment System Discharge to EBMUD Sewer from November 16, 2001 to June 6" for the subject site. We extended the report to include a sampling taken on May 30, 2002.

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

Sincerely,

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

Enclosure

cc: Mr. Abolghassem Razi w/enclosure

Mr. Barney Chan w/enclosure ✓
Alameda County Dept. of Env. Health



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 _____

6-13-01 _____
Date _____

CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Abolghassem Razi, the property owner at 3609 International Boulevard, Oakland, California to comply with East Bay Municipal Utility District's requirements.



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



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1.0 INTRODUCTION

This report presents the record of wastewater discharge from the groundwater remediation system operated by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Abolghassem Razi, the property owner. The project site is Tony's Express Auto Service, which is located at 3609 International Boulevard, Oakland, California (the "Site", see Figure 1).

The Site is located at the intersection of 36th Avenue and International Boulevard (formerly known as East 14th Street) in Oakland, California (see Figure 1). It is currently used as a gasoline service station and mechanic shop. The Site is relatively flat, and the surrounding properties are primarily commercial businesses and residential housing. Figure 2 illustrates the location of the service station, dispenser islands, underground storage tanks (USTs), groundwater remediation system, on-site and off-site groundwater monitoring wells, and surrounding areas. Currently, the groundwater monitoring wells are being monitored on a quarterly basis. The results of the recent (Second Quarter 2002) groundwater monitoring event indicated that the highest total petroleum hydrocarbons as gasoline (TPH-g) and benzene concentrations in the groundwater were detected in the vicinity of the USTs, in monitoring wells MW-1 and MW-3. The highest Methyl tertiary Butyl Ether (MtBE) concentration was detected in monitoring well MW-1. However, TPH-g concentrations in both monitoring wells MW-1 and MW-3 have decreased since the previous monitoring event (First Quarter 2002). MtBE has decreased in monitoring well MW-3 since the previous monitoring event. The source of petroleum hydrocarbons in the groundwater is believed to have been the former single walled USTs, which were used to store gasoline at the Site. The former single walled USTs were replaced with a 10,000 gallon double walled UST and two 6,000 gallon double walled USTs.

1.1 Background

Currently, the Site is used as a gasoline service station. The environmental investigation at the subject property began in 1992, when Mr. Razi, the property owner, retained Soil Tech Engineering, Inc. (STE) of San Jose 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. As stated earlier, 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 groundwater monitoring events indicated elevated levels of petroleum hydrocarbons and MtBE in the groundwater.

In April 1999, Mr. Razi retained SOMA to conduct groundwater monitoring, risk based corrective action (RBCA), 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 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 air sparging technique is 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 further migration of chemically impacted

groundwater. Currently, this treatment system has been in operation since early December 1999. The purpose of this report is to present a record of the wastewater discharged from this system to the East Bay Municipal Utility District's (EBMUD's) sewer system from November 16, 2001 to June 6, 2002.

2.0 TREATMENT SYSTEM OPERATION

The operation of the treatment system (Figure 3) began on December 6, 1999. Since then, 1,584,530 gallons (recording date is June 6, 2002) of groundwater has been treated and discharged, under the existing discharge permit (see Appendix A), into EBMUD's sewer system. As required by the discharge permit and the Alameda County Environmental Health Services (ACEHS), inspection of the treatment system has been performed on a weekly basis since the system began operation. The treatment system influent, the effluent from the 2,000 pound Granular Activated Carbon (GAC-1) Unit, and the treatment system effluent (PSP#1) have historically been sampled on a monthly basis. The influent samples have been collected from the 550 gallon holding tank. The samples for the 2,000 pound GAC-1 unit and the treatment system effluent have been collected from the sample ports. The holding tank and sample ports are shown in Figure 3.

SOMA modified the treatment system during the Second Quarter 2002. In the vicinity of the GAC vessels, 1-inch gate valves were added to the treatment system. The gate valves were added to allow for an upward groundwater flow. The upward groundwater flow pushes the air trapped in the vessels outward through the top of the GAC unit. SOMA also added a solenoid valve to the compressor during the Second Quarter 2002. The solenoid acts as a safety device by shutting down the compressor when the water in the holding tank reaches high levels. The airflow from the compressor to the pneumatic recovery pump stops and does not allow water to flow into the holding tank. Figure 3 shows the newly installed gate valves and solenoid valve.

Table 1 shows the total volume of effluent discharged to EBMUD's sewer system, the results of the laboratory analysis of the treatment system effluent and the 2,000 pound GAC-1 unit, and pertinent historical data. As shown in Table 1, all treatments system effluent and 2,000 pound GAC-1 unit samples have maintained compliance with the discharge permit. Laboratory reports for the treatment system from December 2001 to May 2002 are shown in Appendix B. No samples were collected from the groundwater remediation system in March 2002, due to repairs and a carbon change-out. Approximately 10,606 gallons of chemically impacted groundwater per week have been treated by the groundwater remediation system from November 16, 2001 to June 6, 2002.

3.0 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., as well as the data summaries produced by the previous environmental consultants. 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.

4.0 REFERENCES

Soil Tech Engineering, Quarterly Groundwater Monitoring Reports, from 1995 to July 1997.

Western Geo-Engineers, Quarterly Groundwater Monitoring and Sampling Reports from Fourth Quarter 1997 to First Quarter of 1999.

SOMA Environmental Engineering, Inc., June 30, 1999. "Second Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., September 14, 1999. "Third Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., November 30, 1999. "Fourth Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., March 10, 2000. "First Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

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SOMA Environmental Engineering, Inc., August 24, 2000. "Installation of Soil Vapor Extraction and Air Sparging System and Initial Results Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., August 29, 2000. "Third Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., December 4, 2000. "Fourth Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., April 23, 2001. "First Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., July 17, 2001. "Second Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., September 20, 2001. "Third Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., January 8, 2002. "Fourth Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., April 8, 2002. "First Quarter 2002 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

TABLES

Table 1
Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
June	6/6/2002	1,584,530	NS	NS	NS	NS	NS	NS
May	5/30/2002	1,571,630	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	5/21/2002	1,550,050	NS	NS	NS	NS	NS	NS
	5/20/2002	1,548,000	removed newly installed compressor (5/8/02), and installed another new compressor					
	5/15/2002	1,547,560	NS	NS	NS	NS	NS	NS
	5/8/2002	1,538,850	installed new compressor					
	5/1/2002	1,529,650	installed new 55 gallon GAC vessel (GAC-2)					
April	4/24/2002	1,528,740	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	4/19/2002	1,515,000	NS	NS	NS	NS	NS	NS
	4/11/2002	1,501,000	NS	NS	NS	NS	NS	NS
	4/10/2002	1,495,000	NS	NS	NS	NS	NS	NS
	4/4/2002	1,492,300	NS	NS	NS	NS	NS	NS
	4/1/2002	1,478,500	repaired valve plate assembly on compressor					
March	3/25/2002	1,478,420 ³	performed carbon change out on GAC-1					
	3/18/2002		replaced piston on compressor					
	3/14/2002	1,478,330	compressor not building up pressure					

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Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
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
	2/21/2002	1,431,410	NS	NS	NS	NS	NS	NS
	2/8/2002	1,385,850	NS	NS	NS	NS	NS	NS
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
	1/11/2002	1,373,530	NS	NS	NS	NS	NS	NS
December	12/26/2001	1,359,780	NS	NS	NS	NS	NS	NS
	12/20/2001	1,337,860	NS	NS	NS	NS	NS	NS
	12/12/2001	1,311,340	< 2.0 < 2.0	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5
	12/5/2001	1,290,230	NS	NS	NS	NS	NS	NS
November	11/27/2001	1,279,060	NS	NS	NS	NS	NS	NS
	11/26/2001	1,278,900 ³	NS	NS	NS	NS	NS	NS
	11/21/2001	1,278,140	NS	NS	NS	NS	NS	NS
	11/16/2001	1,276,930	NS	NS	NS	NS	NS	NS
	11/7/2001	1,273,940	NS	NS	NS	NS	NS	NS
	11/2/2001	1,272,660	< 0.5 0.6	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5
October	10/29/2001	1,271,630	NS	NS	NS	NS	NS	NS
	10/23/2001	1,270,110	NS	NS	NS	NS	NS	NS
	10/12/2001	1,267,020	NS	NS	NS	NS	NS	NS
	10/5/2001	1,264,790	NS	NS	NS	NS	NS	NS

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Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
September	9/28/2001	NA	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	9/13/2001	1,256,340	NS	NS	NS	NS	NS	NS
	9/6/2001	1,253,089	NS	NS	NS	NS	NS	NS
August	8/30/2001	1,248,000	NS	NS	NS	NS	NS	NS
	8/22/2001	1,243,100	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	8/17/2001	1,239,500	NS	NS	NS	NS	NS	NS
	8/3/2001	1,232,480	NS	NS	NS	NS	NS	NS
July	7/25/2001	1,227,270	ND	ND	ND	ND	ND	ND
			NA	NA	NA	NA	NA	NA
	7/11/2001	1,226,730	NS	NS	NS	NS	NS	NS
June	6/29/2001	1,224,600	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	6/26/2001	NR	installed new compressor					
	6/16/2001	NR	compressor was not working, repaired compressor					
	6/7/2001	1,216,580	NS	NS	NS	NS	NS	NS
May			NS	NS	NS	NS	NS	NS
	5/30/2001	1,205,190	NS	NS	NS	NS	NS	NS
	5/23/2001	1,194,390	NS	NS	NS	NS	NS	NS
	5/17/2001	1,182,360	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	5/10/2001	1,166,850	NS	NS	NS	NS	NS	NS
	5/5/2001	1,151,600	NS	NS	NS	NS	NS	NS

Table 1
Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
April	4/28/2001	1,135,690	NS	NS	NS	NS	NS	NS
	4/21/2001	1,113,570	NS	NS	NS	NS	NS	NS
	4/11/2001	1,082,700	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	4/6/2001	1,065,540	NS	NS	NS	NS	NS	NS
March	3/29/2001	1,036,330	System restarted.					
	3/21/2001	1,036,070	System off - belt replaced on compressor.					
	3/17/2001	1,035,100	NS	NS	NS	NS	NS	NS
	3/13/2001	1,032,500	ND	ND	ND	ND	ND	ND
	3/2/2001	996,520	NS	NS	NS	NS	NS	NS
	3/1/2001	NR	System restarted.					
February	2/28/2001	NR	Carbon change-out was performed on GAC-1, washed algae from holding tank cleaned 2000 lb GAC, re-started system					
	2/10/2001	NR	System shut down for maintenance and cleaning.					
	2/8/2001	975,490	NS	NS	NS	NS	NS	NS
January	1/29/2001	957,880	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	1/12/2001	927,200	NS	NS	NS	NS	NS	NS
	1/4/2001	921,790	NS	NS	NS	NS	NS	NS

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Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
December 5, 2000 to January 14, 2000								
<u>December</u>	12/5/2000	883,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
<u>November</u>	11/24/2000	NR	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	11/14/2000	854,000	NS	NS	NS	NS	NS	NS
	11/1/2000	842,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
<u>October</u>	10/25/2000	825,000	NS	NS	NS	NS	NS	NS
	10/20/2000	821,000	NS	NS	NS	NS	NS	NS
	10/19/2000	820,000	NS	NS	NS	NS	NS	NS
	10/14/2000	818,000	NS	NS	NS	NS	NS	NS
	10/8/2000	814,000	NS	NS	NS	NS	NS	NS
	10/5/2000	812,000	NS	NS	NS	NS	NS	NS
	10/1/2000	809,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
<u>September</u>	9/28/2000	807,000	NS	NS	NS	NS	NS	NS
	9/18/2000	NR	ND	ND	ND	ND	ND	ND
	9/14/2000	797,000	NS	NS	NS	NS	NS	NS
	9/4/2000	788,000	NS	NS	NS	NS	NS	NS
<u>August</u>	8/31/2000	785,000	NS	NS	NS	NS	NS	NS
	8/27/2000	781,000	ND	ND	ND	ND	ND	ND
	8/24/2000	778,000	Totalizer meter replaced at 775,000 gallons					

Table 1
Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
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	06/29/00	700,000	ND	ND	ND	ND	ND	ND
	06/21/00	682,220	ND	ND	ND	ND	ND	ND
	06/16/00	669,720	ND	ND	ND	ND	ND	ND
	06/10/00	651,200	ND	ND	ND	ND	ND	ND
	06/02/00	NR	ND	ND	ND	ND	ND	ND

Table 1
Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
May	05/31/00	629,000	NS	NS	NS	NS	NS	NS
	05/23/00	603,700	ND	ND	ND	ND	ND	ND
	05/18/00	570,000	ND	ND	ND	ND	ND	ND
	05/10/00	530,400	ND	ND	ND	ND	ND	ND
April	04/30/00	488,300	ND	ND	ND	ND	ND	ND
	04/18/00	485,300	ND	ND	ND	ND	ND	0.51
			compressor stopped, system shut down until April 29, 2000					
	04/10/00	440,200	ND	ND	ND	ND	ND	ND
	04/04/00	390,100	ND	ND	ND	ND	ND	ND
March	03/31/00	NR	performed a carbon change-out on GAC-1					
			replaced GAC-2 with a special GAC designed for removal of MtBE					
	03/24/00	388,000	ND	ND	ND	ND	ND	ND
	03/17/00	357,100	ND	ND	ND	ND	ND	ND
	03/10/00	329,000	ND	ND	ND	ND	ND	ND
	03/03/00	300,000	transfer overheated, repaired pump, restarted system 3/6/00					
February	02/25/00	274,000	ND	ND	ND	ND	ND	ND
	02/18/00	233,000	ND	ND	ND	ND	ND	ND
	02/11/00	190,000	ND	ND	ND	ND	ND	ND
	02/04/00	160,800	ND	ND	ND	ND	ND	ND
January	01/28/00	130,600	ND	ND	ND	ND	ND	ND
	01/21/00	103,435	ND	ND	ND	ND	ND	ND
	01/17/00	NR	GAC-1 was replaced with 2,000 lb GAC unit					
			second polishing GAC was replaced with 55 gallon GAC unit					
	01/14/00	83,500	185	ND	ND	ND	ND	ND
December								

Table 1
Total Volume of Water Treated and Effluent and GAC1 Chemistry
Tony's Auto Express
3609 International Blvd., Oakland, California

	Date Sampling & Read	Total Volume ² (Gallons)	Lab Results For PSP ¹ and GAC-1 (concentrations in ug/L)					
			MTBE	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
	12/23/99	51,680	1486	NA	ND	ND	ND	ND
	12/23/99	NR	ND	NA	ND	ND	ND	ND
	12/16/99	30,450	963	NA	ND	ND	ND	ND
	12/16/99	NR	ND	NA	ND	ND	ND	ND
	12/09/99	9,000	230	ND	ND	ND	ND	ND

Pumping began on December 6, 1999

¹ PSP#1 formerly labeled Effluent or GAC-2.

² Meter replaced at 775,000 gallons, on approximately 8/24/00.

³ Carbon change-out was performed on treatment system.

NA: Analytes not analyzed during this site visit.

ND, < : Not detected above laboratory reporting limits.

NR: Not recorded during this site visit

NS: Treatment system was not sampled during this visit.

BTEX and MtBE analysis for PSP#1 and GAC-1 performed using EPA Method 8260B since March 2001.

FIGURES

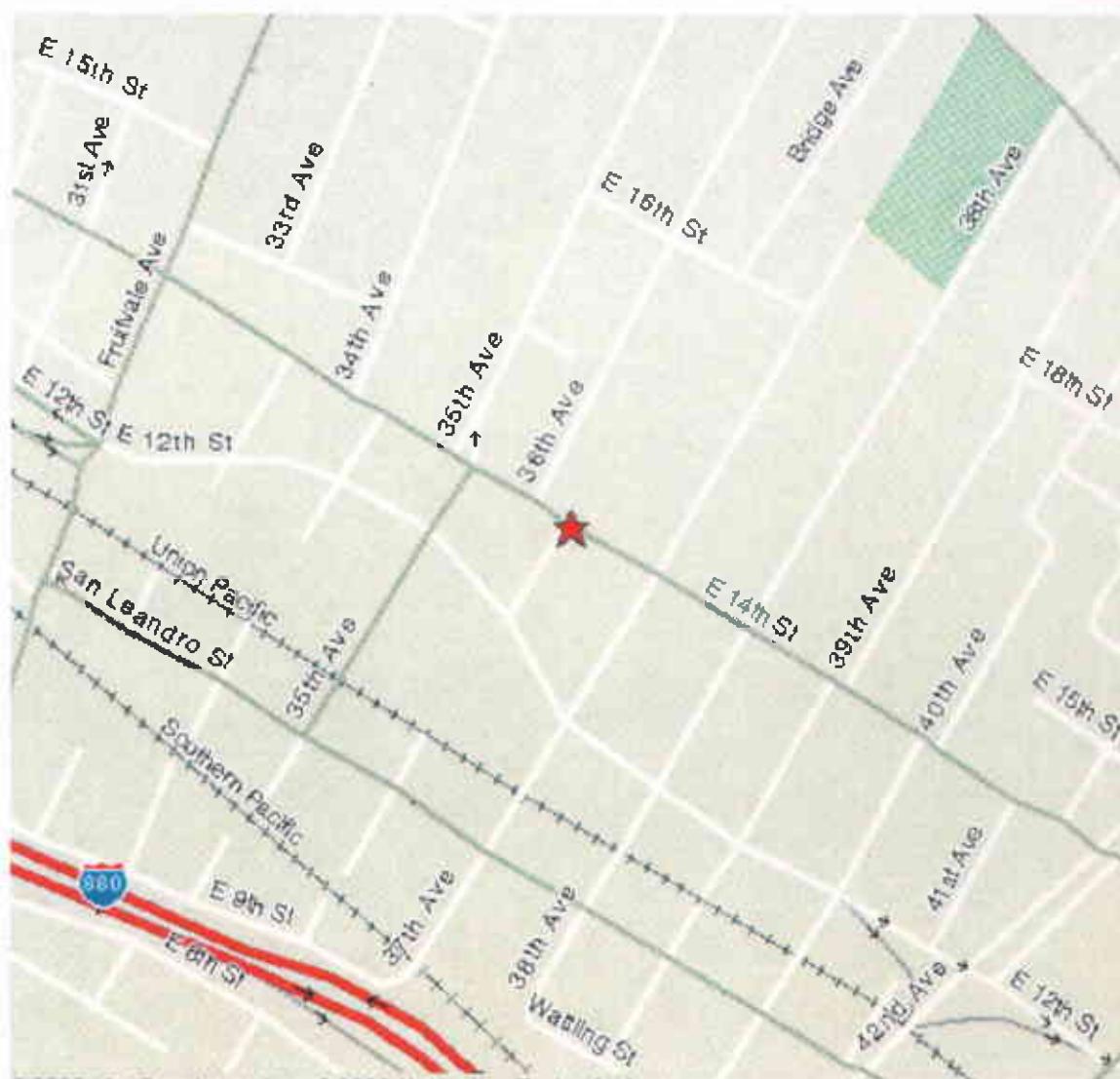


Figure 1: Site vicinity map.

INTERNATIONAL BLVD



Figure 2: Site map showing location of groundwater monitoring wells and french drain.

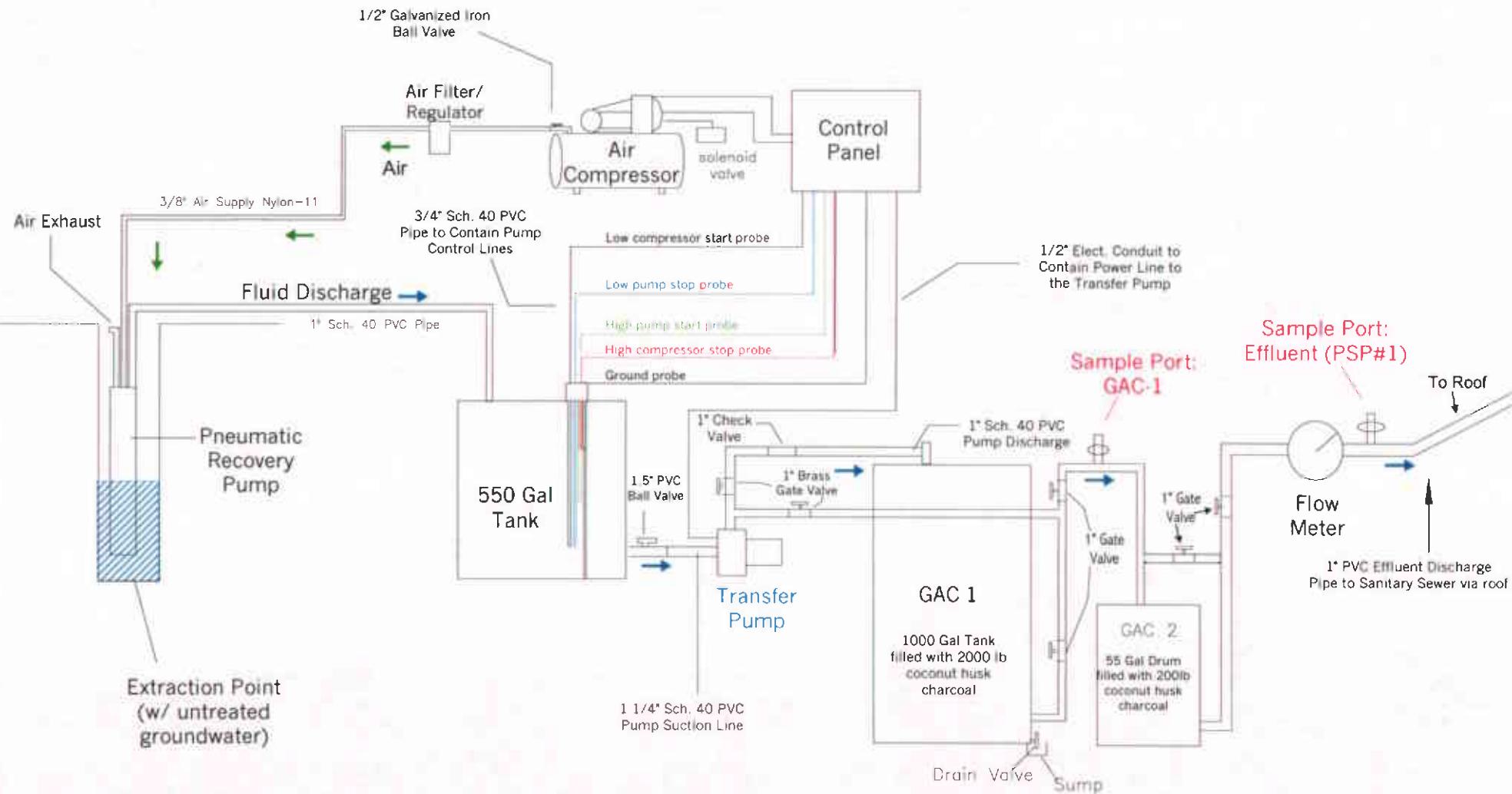


Figure 3: Schematic of the Groundwater Remediation System.

APPENDIX A

EBMUD DISCHARGE PERMIT



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

REVISION EFFECTIVE JULY 1, 2000

Terms and Conditions

Tony's Express Auto Service

Permit No. 504-27421

Page No. 4

MONITORING and TESTING CHARGES

BBMUD Inspections Per Year: 2 @ \$540.00 each = \$1,080.00 / year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
EPA 624	2	\$127.00	\$254.00
Total Monitoring and Testing Charge =			\$1,334.00 / year \$111.17 / 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 = \$0.40 /Ccf
Discharge Volume = 293 Ccf/mo. (based on 7,200 gpd average)
Wastewater Disposal Charge = \$117.20 /mo.

WASTEWATER CAPACITY FEE

The capacity fee is calculated by multiplying the maximum monthly wastewater discharge volume by the applicable fee in effect at start-up. The capacity fee is based on the maximum monthly discharge of 14,000 gpd or 569 Ccf/month.

Capacity Fee Rate for Flow: \$ 47.71/Ccf/Mo. * 569Ccf/mo. =	\$27,146.99
CQDF: 15mg/l * 0.00624 * 569 Ccf/mo. = 53lbs.	
Capacity Fee Rate for CODF: (\$8.68/lb/mo.) = 53 lbs * \$8.68/lb/mo.	\$460.04
TSS: 2 mg/l * 0.00624 *569 Ccf/mo. = 7.1 lbs	
Capacity Fee Rate for TSS: (\$19.30/lb/mo.) = 7.1 lbs * \$ 19.30/lb/mo/	\$137.03
Total Capacity Fee =	\$27,744.06
Monthly Capacity Fee over 36 months =	\$770.57



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000

Terms and Conditions

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

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

APPENDIX B

Laboratory Results and Chain of Custody Forms

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: 07-MAY-02
Lab Job Number: 158243
Project ID: 2333
Location: 3609 Intl Blvd., Oakland

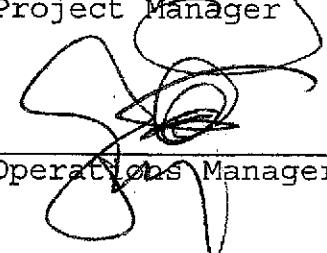
This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to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

Reviewed by:


Paul Prendergast

Project Manager

Reviewed by:


Sue

Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	04/24/02
Units:	ug/L	Received:	04/24/02

Field ID: PSP #1 Diln Fac: 1.000
Type: SAMPLE Batch#: 71850
Lab ID: 158243-001 Analyzed: 04/25/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	104	68-145
Bromofluorobenzene (FID)	110	66-143

Field ID: GAC-1 Diln Fac: 1.000
Type: SAMPLE Batch#: 71850
Lab ID: 158243-002 Analyzed: 04/25/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	104	68-145
Bromofluorobenzene (FID)	108	66-143

Field ID: INFLUENT Diln Fac: 10.00
Type: SAMPLE Batch#: 71882
Lab ID: 158243-003 Analyzed: 04/26/02

Analyte	Result	RL
Gasoline C7-C12	19,000	500

Surrogate	REC	Limits
Trifluorotoluene (FID)	119	68-145
Bromofluorobenzene (FID)	111	66-143

ND = Not Detected

RL = Reporting Limit

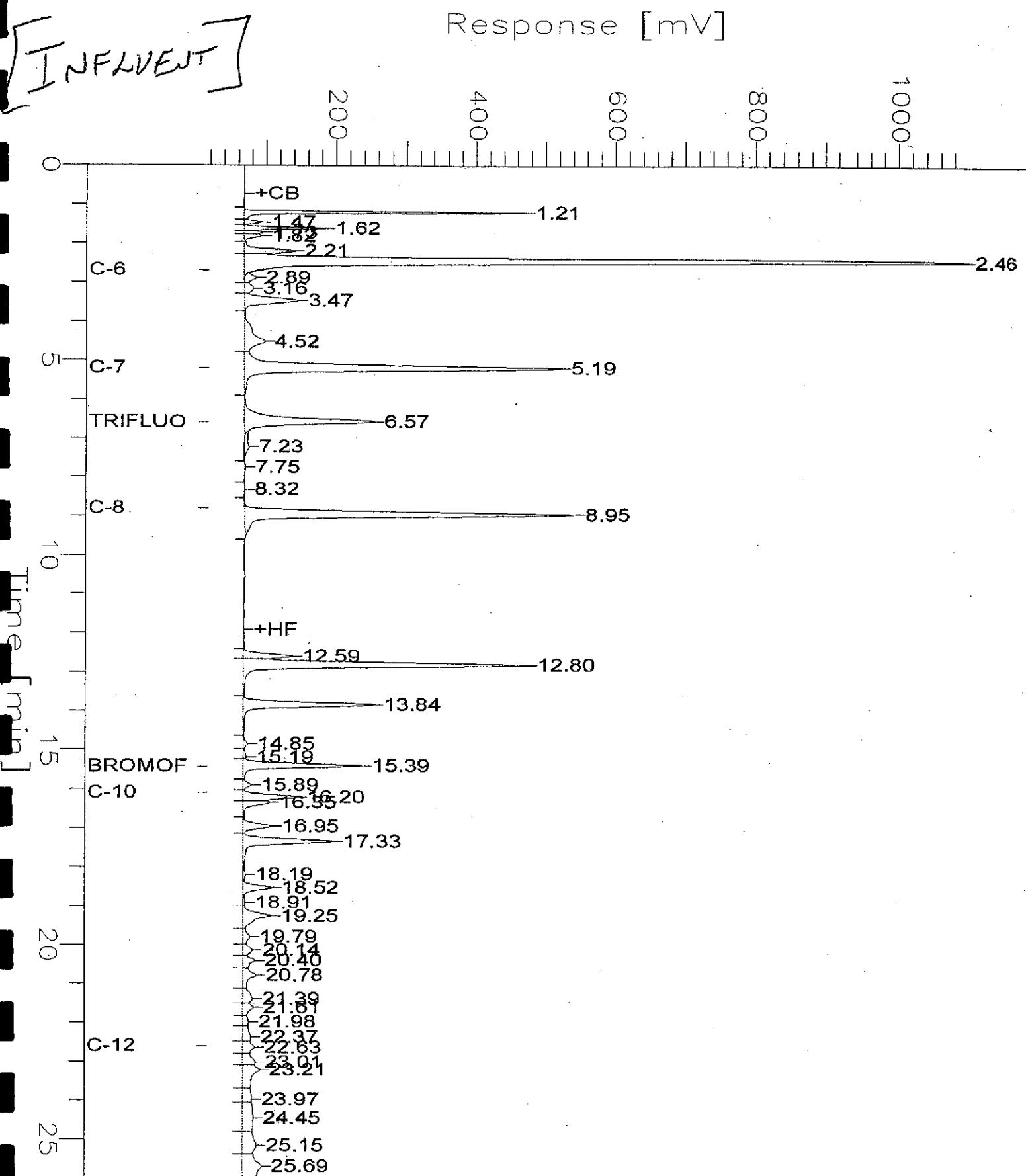
Page 1 of 2

GC04 TVH 'J' Data File FID

Sample Name : 158243-003,71082, tvh only
FileName : G:\GC04\DATA\116J013.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 17 mV

Sample #: d1 Page 1 of 1
Date : 4/27/02 09:34 AM
Time of Injection: 4/26/02 07:13 PM
Low Point : 16.83 mV High Point : 1094.36 mV
Plot Scale: 1077.5 mV

Response [mV]

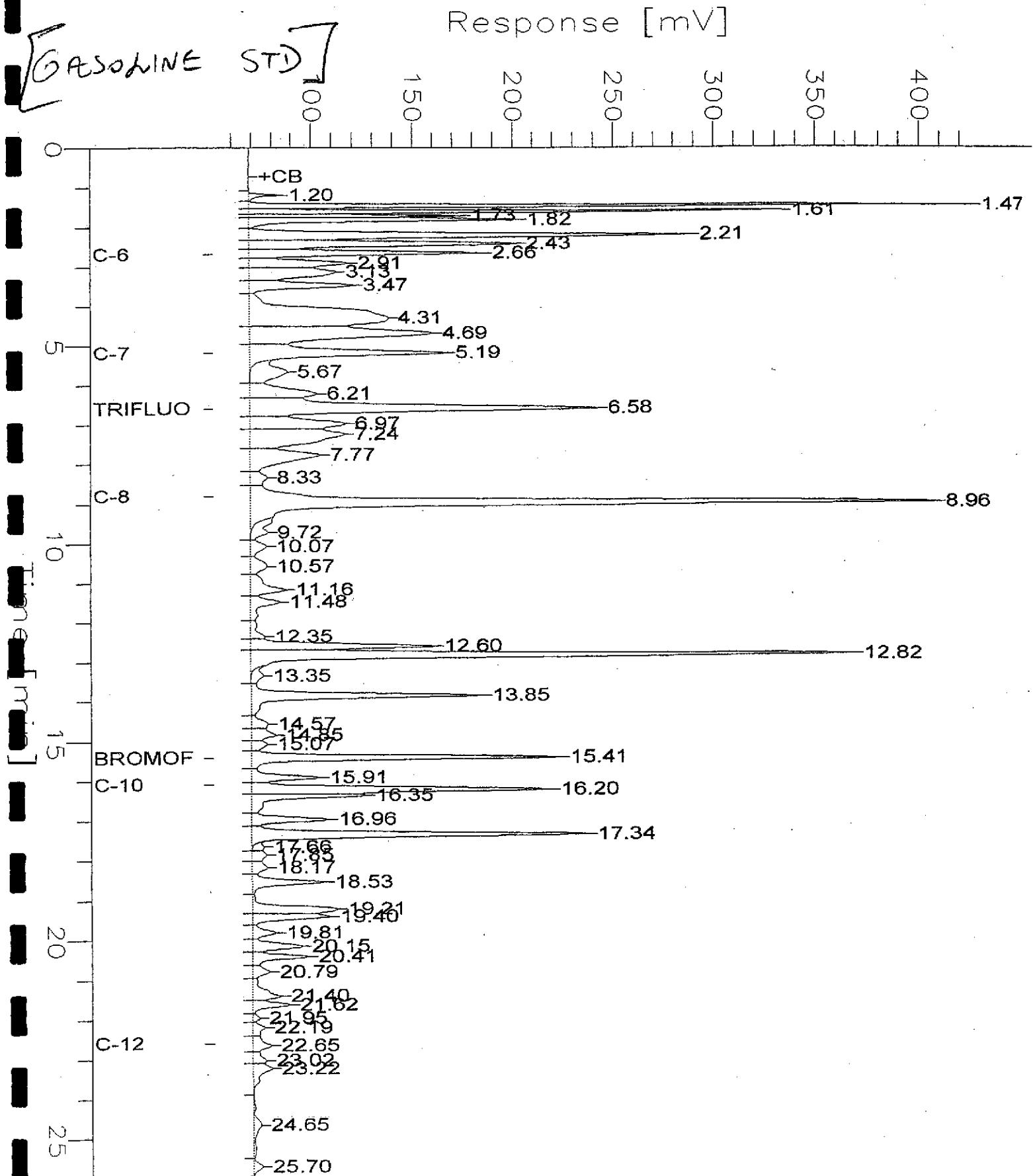


GC04 TVH 'J' Data File FID

Sample Name : CCV/lcs qc176730,71850,02ws0643,5/5000
 File Name : G:\GC04\DATA\115J003.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: 51 mV

Sample #: Page 1 of 1
 Date : 4/25/02 08:44 AM
 Time of Injection: 4/25/02 08:18 AM
 Low Point : 50.87 mV High Point : 425.84 mV
 Plot Scale: 375.0 mV

Response [mV]





Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	04/24/02
Units:	ug/L	Received:	04/24/02

Type: BLANK Batch#: 71850
Lab ID: QC176729 Analyzed: 04/25/02
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	96	68-145
Bromofluorobenzene (FID)	105	66-143

Type: BLANK Batch#: 71882
Lab ID: QC176841 Analyzed: 04/26/02
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	106	68-145
Bromofluorobenzene (FID)	99	66-143



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC176730	Batch#:	71850
Matrix:	Water	Analyzed:	04/25/02
Units:	ug/L		

Analyte	Spiked	Result	SPEC	Blanks
Gasoline C7-C12	2,000	2,003	100	79-120

Surrogate	SPEC	Limits
Trifluorotoluene (FID)	115	68-145
Bromofluorobenzene (FID)	101	66-143



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC176842	Batch#:	71882
Matrix:	Water	Analyzed:	04/26/02
Units:	ug/L		

Analyte	Spiked	Result	REC	Limits
Gasoline C7-C12	2,000	2,005	100	79-120

Surrogate	REC	Limits
Trifluorotoluene (FID)	119	68-145
Bromofluorobenzene (FID)	107	66-143



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	71850
MSS Lab ID:	158257-001	Sampled:	04/24/02
Matrix:	Water	Received:	04/24/02
Units:	ug/L	Analyzed:	04/25/02
Diln Fac:	1.000		

Type: MS Lab ID: QC176731

Analyte	MSS Result	Spiked	Result	GRRLC	Limits
Gasoline C7-C12	<33.00	2,000	1,898	95	67-120
<hr/>					
Surrogate	GRRLC	Limits			
Trifluorotoluene (FID)	118	68-145			
Bromofluorobenzene (FID)	104	66-143			

Type: MSD Lab ID: QC176732

Analyte	Spiked	Result	GRRLC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,925	96	67-120	1	20
<hr/>						
Surrogate	GRRLC	Limits				
Trifluorotoluene (FID)	117	68-145				
Bromofluorobenzene (FID)	105	66-143				



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	71882
MSS Lab ID:	158269-001	Sampled:	04/25/02
Matrix:	Water	Received:	04/25/02
Units:	ug/L	Analyzed:	04/26/02
Diln Fac:	1.000		

Type: MS Lab ID: QC176844

Analyte	MSS	Result	Spiked	Result	RPE	Limits
Gasoline C7-C12		<33.00	2,000	2,055	103	67-120

Surrogate	ERIC	limits
Trifluorotoluene (FID)	123	68-145
Chloromethane (FID)	116	66-143

Specimen ID: MSD Lab ID: QC176845

Analutte	Spiked	Result	FREC	Units	RPD	lim
gasoline C7-C12	2,000	1,917	96	67-120	7	20

Surrogate	% RIC	Limits
rifluorotoluene (FID)	114	68-145
romofluorobenzene (FID)	110	66-143

R.D= Relative Percent Difference

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Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP #1	Batch#:	71883
Lab ID:	158243-001	Sampled:	04/24/02
Matrix:	Water	Received:	04/24/02
Units:	ug/L	Analyzed:	04/26/02
Diln Fac:	1.000		

Analyte	Result	RI
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m, p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1, 3-Dichlorobenzene	ND	0.5
1, 4-Dichlorobenzene	ND	0.5
1, 2-Dichlorobenzene	ND	0.5

Surrogate	SPEC	Limits
1, 2-Dichloroethane-d4	108	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	107	80-120

ND = Not Detected

RL = Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	71864
Lab ID:	158243-002	Sampled:	04/24/02
Matrix:	Water	Received:	04/24/02
Units:	ug/L	Analyzed:	04/25/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m, p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1, 3-Dichlorobenzene	ND	0.5
1, 4-Dichlorobenzene	ND	0.5
1, 2-Dichlorobenzene	ND	0.5

Surrogate	ENR	Limits
1, 2-Dichloroethane-d4	108	77-130
Toluene-d8	94	80-120
Bromofluorobenzene	102	80-120

ND = Not Detected

RL = Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	71884
Lab ID:	158243-003	Sampled:	04/24/02
Matrix:	Water	Received:	04/24/02
Units:	ug/L	Analyzed:	04/26/02
Diln Fac:	62.50		

Analyte	Result	RB
MTBE	10,000	31
Benzene	1,800	31
Toluene	1,900	31
Chlorobenzene	ND	31
Ethylbenzene	240	31
m,p-Xylenes	1,600	31
o-Xylene	700	31
1,3-Dichlorobenzene	ND	31
1,4-Dichlorobenzene	ND	31
1,2-Dichlorobenzene	ND	31

Surrogate	PPBC	Limits
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	92	80-120
Bromofluorobenzene	100	80-120

= Not Detected

= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC176776	Batch#:	71864
Matrix:	Water	Analyzed:	04/25/02
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
p-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
,2-Dichlorobenzene	ND	0.5

Surrogate	PPC	Limits
,2-Dichloroethane-d4	110	77-130
Toluene-d8	92	80-120
Bromofluorobenzene	101	80-120

N = Not Detected

R = Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC176848	Batch#:	71883
Matrix:	Water	Analyzed:	04/26/02
Units:	ug/L		

Analyte	Result	RI
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m, p-Xylenes	ND	0.5
p-Xylene	ND	0.5
1, 3-Dichlorobenzene	ND	0.5
1, 4-Dichlorobenzene	ND	0.5
1, 2-Dichlorobenzene	ND	0.5

Substrate	%REC	limits
1, 2-Dichloroethane-d4	96	77-130
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-120

ND = Not Detected

RL = Reporting Limit

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Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC176850	Batch#:	71884
Matrix:	Water	Analyzed:	04/26/02
Units:	ug/L		

Analyte	Result	RI
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m, p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1, 3-Dichlorobenzene	ND	0.5
1, 4-Dichlorobenzene	ND	0.5
1, 2-Dichlorobenzene	ND	0.5

Surrogate	REC	Limits
1, 2-Dichloroethane-d4	102	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	71864
Units:	ug/L	Analyzed:	04/25/02
Diln Fac:	1.000		

Type: BS Lab ID: QC176774

Analyte	Spiked	Result	GRPC	Limits	RPD	lim
Benzene	50.00	40.78	82	76-120		
Toluene	50.00	48.71	97	79-120		
Chlorobenzene	50.00	51.52	103	80-120		
Surrogate	GRPC	Limits				
1,2-Dichloroethane-d4	89	77-130				
Toluene-d8	92	80-120				
Bromofluorobenzene	99	80-120				

Type: BSD Lab ID: QC176775

Analyte	Spiked	Result	GRPC	Limits	RPD	lim
Benzene	50.00	46.97	94	76-120	14	20
Toluene	50.00	47.60	95	79-120	2	20
Chlorobenzene	50.00	50.58	101	80-120	2	20
Surrogate	GRPC	Limits				
1,2-Dichloroethane-d4	88	77-130				
Toluene-d8	91	80-120				
Bromofluorobenzene	98	80-120				



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	71883
Units:	ug/L	Analyzed:	04/26/02
Diln Fac:	1.000		

Type: BS Lab ID: QC176846

Analyte	Spiked	Result	SRPC	Lim/Lo
Benzene	50.00	53.17	106	76-120
Toluene	50.00	48.19	96	79-120
Chlorobenzene	50.00	45.18	90	80-120

Surrogate	SRPC	Lim/Lo
1, 2-Dichloroethane-d4	111	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC176847

Analyte	Spiked	Result	SRPC	Lim/Lo	RPD	Lim
Benzene	50.00	48.62	97	76-120	9	20
Toluene	50.00	47.29	95	79-120	2	20
Chlorobenzene	50.00	41.42	83	80-120	9	20

Surrogate	SRPC	Lim/Lo
1, 2-Dichloroethane-d4	102	77-130
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC176849	Batch#:	71884
Matrix:	Water	Analyzed:	04/26/02
Units:	ug/L		

Analysis	Spiked	Result	GRDC	Limits
Benzene	50.00	45.75	91	76-120
Toluene	50.00	48.35	97	79-120
Chlorobenzene	50.00	51.76	104	80-120

Surrogate	GRDC	Limits
1,2-Dichloroethane-d4	91	77-130
Toluene-d8	92	80-120
Bromofluorobenzene	98	80-120



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	158243	Location:	3609 Intl Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	71884
MSS Lab ID:	158163-003	Sampled:	04/18/02
Matrix:	Water	Received:	04/18/02
Units:	ug/L	Analyzed:	04/26/02
Diln Fac:	1.000		

Type: MS Lab ID: QC176866

Analyte	MSS Result	Spiked	Result	RPEC	limits
Benzene	<0.1700	50.00	48.22	96	79-120
Toluene	<0.1500	50.00	50.43	101	75-120
Chlorobenzene	<0.1200	50.00	52.41	105	80-120

Surrogate	RPEC	limits
1,2-Dichloroethane-d4	108	77-130
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-120

Type: MSD Lab ID: QC176867

Analyte	Spiked	Result	RPEC	limits	RPD	lim
Benzene	50.00	46.82	94	79-120	3	20
Toluene	50.00	49.09	98	75-120	3	20
Chlorobenzene	50.00	51.12	102	80-120	2	20

Surrogate	RPEC	limits
1,2-Dichloroethane-d4	107	77-130
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-120

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
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Berkeley, CA 94710
(510) 486-0900 V
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FACSIMILE TRANSMISSION
FACSIMILE TRANSMISSION
FACSIMILE TRANSMISSION

TO: Mansour Sepehr
SOMA Environmental Engineering Inc.
San Ramon, CA
msepehr@somaenv.com

FAX #: (925) 244-6601

FROM: Paul Prendergast

SUBJECT: Analytical Results for Login 158863

DATE: 6-5-02
PAGE 1 of 6

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CHAIN OF CUSTODY

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Analyses

Curtis & Tompkins, Ltd.
 Analytical Laboratory Since 1878
 2329 Fifth Street
 Berkeley, CA 94710
 (510)486-0900 Phone
 (510)486-0532 Fax

Project No: 2333

Project Name: 3609 International Blvd., Oakland Company : SOMA Environmental

Turnaround Time: Standard Telephone: 925-244-6600

Fax: 925-244-6601

Lab No.	Sample ID.	Sampling Date Time	Matrix			Preservative			
			Soil	Water	Waste	# of Containers	HCl	H ₂ SO ₄	HNO ₃
-1	Influent	5/30/02 3:40 PM	✓			7	✓		✓
-2	GAC-1	5/30/02 3:20 PM	✓			4	✓		✓
-3	PSP#1	5/30/02 3 PM	✓			4	✓		✓

Received Office
 Lab Ambient Contact

Preservation Checked?
 Yes No N/A

Notes:

RELINQUISHED BY:

5/30/02 *Tony Portnoy*
 4:10 PM DATE/TIME

RECEIVED BY:

A 5-30-02 *CL* 4:10 PM
 DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME



Cunis & Tompkins, Inc.

Total Volatile Hydrocarbons

Lab #:	158863	Location:	3609 International Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5D30B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	05/30/02
Units:	ug/L	Received:	05/30/02

Field ID: INFLUENT Diln Fac: 20.00
 Type: SAMPLE Batch#: 72693
 Lab ID: 158863-001 Analyzed: 06/04/02

Analyte	Result	RL
Gasoline C7-C12	17,000	1,000

Analyte	Result	RL
Surrogate	EMC	LIMLS
Trifluorotoluene (FID)	93	66-145
Bromofluorobenzene (FID)	93	66-143

Field ID: GAC-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 72667
 Lab ID: 158863-002 Analyzed: 06/01/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Analyte	Result	RL
Surrogate	EMC	LIMLS
Trifluorotoluene (FID)	84	66-145
Bromofluorobenzene (FID)	97	66-143

Field ID: PSP#1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 72667
 Lab ID: 158863-003 Analyzed: 06/01/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Analyte	Result	RL
Surrogate	EMC	LIMLS
Trifluorotoluene (FID)	84	66-145
Bromofluorobenzene (FID)	96	66-143

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Aromatic by GC/NIR

Lab #:	158863	Location:	3609 International Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	72687
Lab ID:	158863-001	Sampled:	05/30/02
Matrix:	Water	Received:	05/30/02
Units:	ug/L	Analyzed:	06/03/02
Diln Fac:	71.43		

Analyses	Result	RL
MTBE	11,000	36
Benzene	1,600	36
Toluene	2,000	36
Chlorobenzene	ND	36
Ethylbenzene	270	36
m,p-Xylenes	1,400	36
o-Xylene	640	36
1,3-Dichlorobenzene	ND	36
1,4-Dichlorobenzene	ND	36
1,2-Dichlorobenzene	ND	36

Surrogate	Result	Limits
1,2-Dichloroethane-d4	112	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	108	80-120

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



Cunnis & Tompkins, Ltd

Purgeable Aromatics by GC/MS

Lab #:	158863	Location:	3609 International Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	726B7
Lab ID:	158863-002	Sampled:	05/30/02
Matrix:	Water	Received:	05/30/02
Units:	ug/L	Analyzed:	06/03/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
c-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Substance	REC	Limits
1,2-Dichloroethane-d4	107	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	117	80-120

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

**Purgeable Aromatics by GC/MS**

Lab #:	158863	Location:	3609 International Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP#1	Batch#:	72687
Lab ID:	158863-003	Sampled:	05/30/02
Matrix:	Water	Received:	05/30/02
Units:	ug/L	Analyzed:	06/03/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	ERPC	Limits
1,2-Dichloroethane-d4	109	77-130
Toluene-d8	94	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected

RL= Reporting Limit

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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

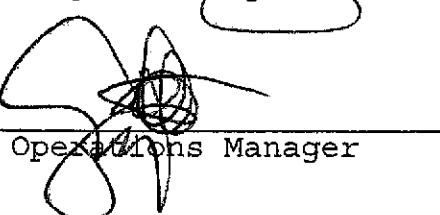
Date: 08-FEB-02
Lab Job Number: 156627
Project ID: 2333
Location: Tony's

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:


Paul Prendergast
Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: **156627**
Client: **Soma Environmental Engineering, Inc.**
Project Name: **Oakland - Tony's**
Project #: **2333**
Receipt Date: **01/23/02**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water samples received from the above referenced project on January 23rd, 2002. The samples were received cold and intact.

Gasoline by GC/FID CA LUFT (EPA 8015B(M)):

The recoveries for the trifluorotoluene surrogates were over the acceptable QC limits for the sample spike (C&T ID 156618-001) for batch number 69624 and the sample spike duplicate (C&T ID 156653-001) for batch number 69722. These samples were not submitted by the client but were in the same batch. The associated laboratory control samples were acceptable so the quality of the sample data should not be affected. No other analytical problems were encountered.

MBTEX (EPA 8021B):

The 'b-flag' notation for several analytes on the laboratory control sample for batch number 69624 indicates that the continuing calibration verification for these analytes was over the acceptable QC limits. None of the target analytes was detected in any of the samples for this batch so the quality of the sample data should not be affected. No other analytical problems were encountered.

Purgeable Aromatics by GC/MS (EPA 8260B):

No analytical problems were encountered.

CHAIN OF CUSTODY FORM

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Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510)486-0900 Phone
 (510)486-0532 Fax

Analyses

C&T
 LOGIN # 156627

Project No: 2333

Sampler: TONY PERIN

Project Name: OAKLAND- TONY'S

Report To: Naser Pakrou

Project P.O.:

Company: SOMA ENVIRONMENTAL

Turnaround Time: STANDARD

Telephone: 925-244-6600

Fax: 925-244-6601

Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	Preservative				Field Notes
					HCL	H ₂ SO ₄	HNO ₃	ICE	
PSP #1	1/22/02 1720		✓	3	✓		✓		Grab Sample
GAC-1	1/22/02 1730		✓	3	✓		✓		Grab Sample
Influent	1/22/02 1740		✓	3	✓		✓		Grab Sample

Notes:	RELINQUISHED BY:	RECEIVED BY:
	Joyce Bobek 1/23/02 10:56 A.M. Joyce Bobek	1/23/02 10:56 A.M.
	DATE/TIME	DATE/TIME

Signature

reid cold in cooler



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Gasoline by GC/FID CA LUFT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	01/22/02
Units:	ug/L	Received:	01/23/02

Field ID: PSP-1 Diln Fac: 1.000
Type: SAMPLE Batch#: 69624
Lab ID: 156627-001 Analyzed: 01/23/02

Analyte	Result	RI
Gasoline C7-C12	ND	50

Surrogate	SRM	Limits
Trifluorotoluene (FID)	106	59-135
Bromofluorobenzene (FID)	106	60-140

Field ID: GAC-1 Diln Fac: 1.000
Type: SAMPLE Batch#: 69624
Lab ID: 156627-002 Analyzed: 01/23/02

Analyte	Result	RI
Gasoline C7-C12	ND	50

Surrogate	SRM	Limits
Trifluorotoluene (FID)	109	59-135
Bromofluorobenzene (FID)	107	60-140

Field ID: INFLUENT Diln Fac: 10.00
Type: SAMPLE Batch#: 69722
Lab ID: 156627-003 Analyzed: 01/29/02

Analyte	Result	RI
Gasoline C7-C12	13,000	500

Surrogate	SRM	Limits
Trifluorotoluene (FID)	121	59-135
Bromofluorobenzene (FID)	105	60-140

= Not Detected
= Reporting Limit
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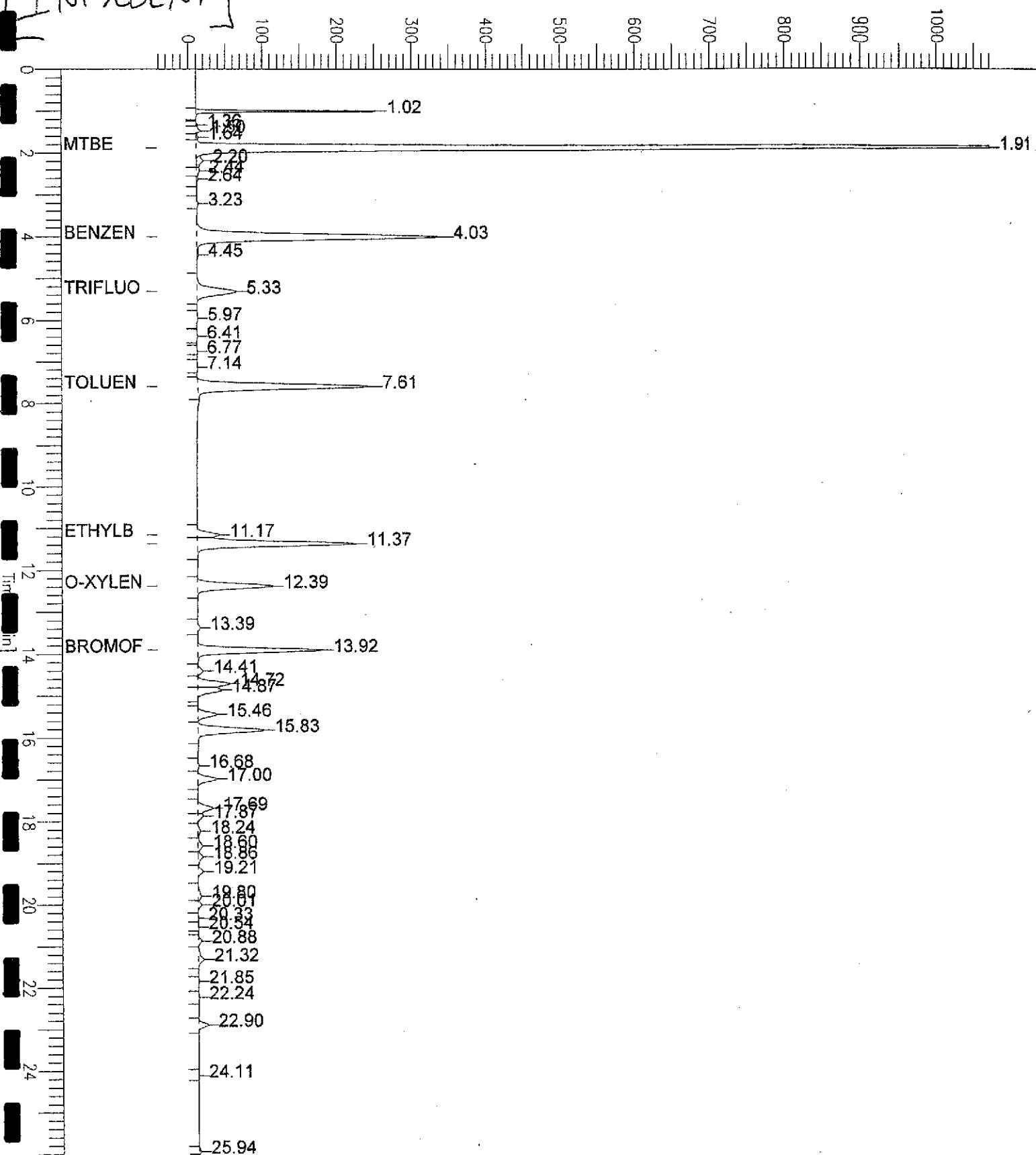
GC07 BTXE 'B' DATA FILE

Sample Name : 156627-003,69722
File Name : G:\GC07\DATA\028B042.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -42 mV

Sample #: b1 Page 1 of 1
Date : 1/29/02 01:36 PM
Time of Injection: 1/29/02 01:10 PM
Low Point : -42.08 mV High Point : 1070.63 mV
Plot Scale: 1112.7 mV

[INFLUENT]

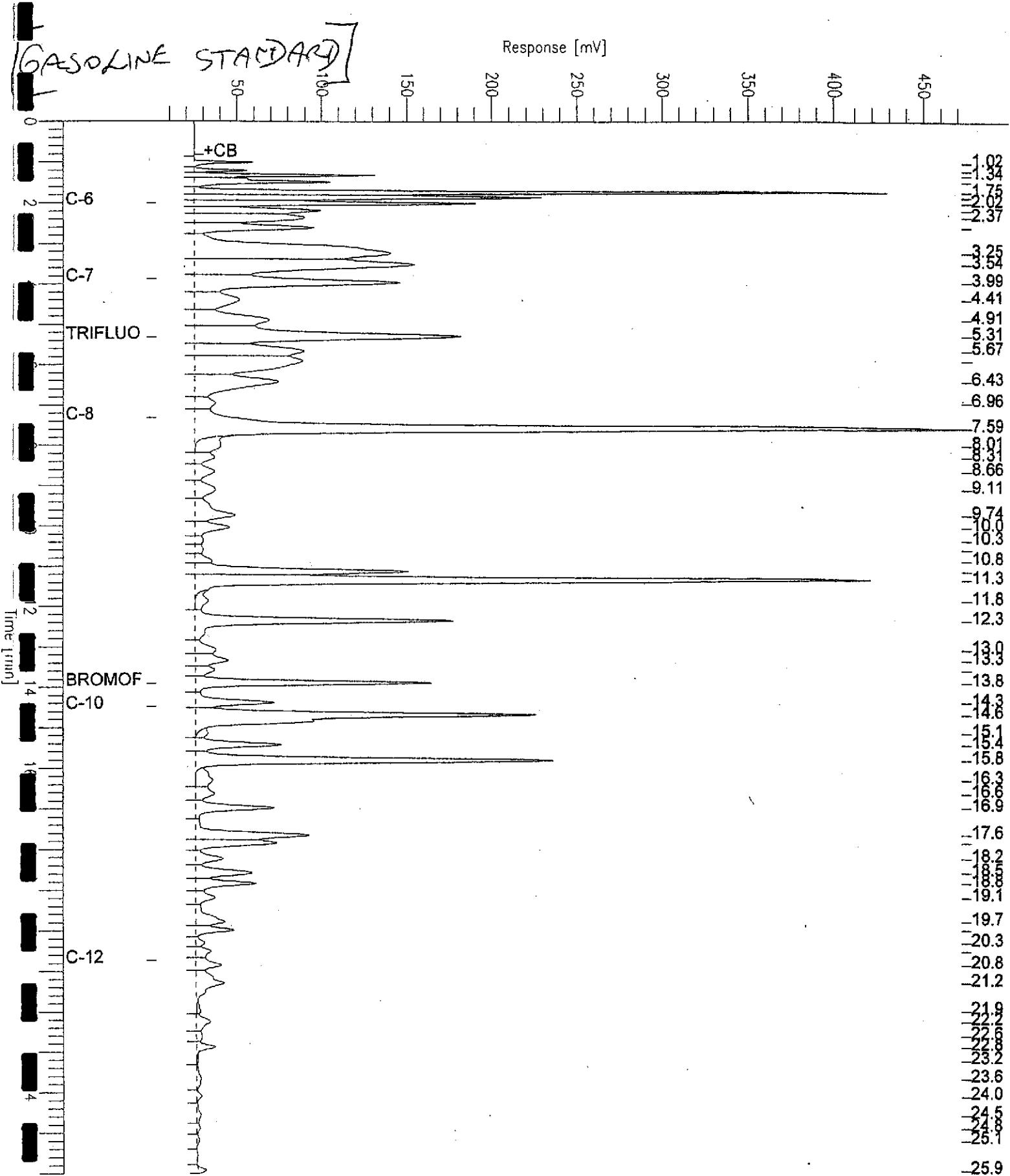
Response [mV]



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS, QC168815, 69722, 01WS2371, 5/5000
File Name : G:\GC07\DATA\028A027.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 2 mV

Sample #: Page 1 of 1
Date : 1/29/02 04:23 AM
Time of Injection: 1/29/02 03:57 AM
Low Point : 2.09 mV High Point : 472.10 mV
Plot Scale: 470.0 mV



Gasoline by GC/FID CA LUFT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	B015B (M)
Matrix:	Water	Sampled:	01/22/02
Units:	ug/L	Received:	01/23/02

Type: BLANK Batch#: 69624
 Lab ID: QC168464 Analyzed: 01/23/02
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	limits
Trifluorotoluene (FID)	103	59-135
Bromofluorobenzene (FID)	98	60-140

Type: BLANK Batch#: 69722
 Lab ID: QC168814 Analyzed: 01/29/02
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	limits
Trifluorotoluene (FID)	100	59-135
Bromofluorobenzene (FID)	98	60-140

= Not Detected
 = Reporting Limit

Gasoline by GC/FID CA LIPT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC168465	Batch#:	69624
Matrix:	Water	Analyzed:	01/23/02
Units:	ug/L		

Analyte	Spiked	Result	SRPC	Limits
Gasoline C7-C12	2,000	1,691	85	73-121

Surrogate	SRPC	Limits
Trifluorotoluene (FID)	125	59-135
Bromofluorobenzene (FID)	98	60-140



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Gasoline by GC/FID CA LUFT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC168815	Batch#:	69722
Matrix:	Water	Analyzed:	01/29/02
Units:	ug/L		

Sample	Spiked	Retrieval	SPEC	Limits
Gasoline C7-C12	2,000	1,811	91	73-121

Surrogate	SPEC	Limits
Trifluorotoluene (FID)	127	59-135
Bromofluorobenzene (FID)	100	60-140



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Gasoline by GC/FID CA LIIFT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	69624
MSS Lab ID:	156618-001	Sampled:	01/22/02
Matrix:	Water	Received:	01/22/02
Units:	ug/L	Analyzed:	01/24/02
Diln Fac:	1.000		

Type: MS Lab ID: QC168467

Analyte	MSS Result	Spiked	Result	REC	Limits
Gasoline C7-C12	<20.00	2,000	1,917	96	65-131
<hr/>					
Surrogate	REC Limits				
Trifluorotoluene (FID)	136 *	59-135			
Bromofluorobenzene (FID)	112	60-140			

Type: MSD Lab ID: QC168468

Analyte	Spiked	Result	REC	Limits	RPD	lim
Gasoline C7-C12	2,000	1,887	94	65-131	2	20
<hr/>						
Surrogate	REC Limits					
Trifluorotoluene (FID)	132	59-135				
Bromofluorobenzene (FID)	107	60-140				

*= Value outside of QC limits; see narrative

D= Relative Percent Difference



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Gasoline by GC/FID CA LUFT

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	69722
ISS Lab ID:	156653-001	Sampled:	01/23/02
Matrix:	Water	Received:	01/24/02
Units:	ug/L	Analyzed:	01/29/02
Diln Fac:	1.000		

Type: MS Lab ID: QC168817

Analyte	MSS Result	Spiked	Result	REC	Limits
Gasoline C7-C12	85.88	2,000	1,931	92	65-131
Surrogate	REC	Limits			
Trifluorotoluene (FID)	135	59-135			
Peromfluorobenzene (FID)	111	60-140			

Type: MSD Lab ID: OC168818

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gasoline C7-C12	2,000	1,962	94	65-131	2	20
Surrogate	REC	Limits				
rifluorotoluene (FID)	136 *	59-135				
Bromofluorobenzene (FID)	114	60-140				

* = Value outside of QC limits; see narrative

D= Relative Percent Difference



Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	01/22/02
Units:	ug/L	Received:	01/23/02

Field ID: PSP-1 Diln Fac: 1.000
Type: SAMPLE Batch#: 69624
Lab ID: 156627-001 Analyzed: 01/23/02

Analyte	Result	RI
TBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
p-Xylenes	ND	0.50
Xylene	ND	0.50

Surrogate	REC	Limits
Trifluorotoluene (PID)	127	56-142
Trifluorobenzene (PID)	132	55-149

Field ID: GAC-1 Diln Fac: 1.000
Type: SAMPLE Batch#: 69624
Lab ID: 156627-002 Analyzed: 01/23/02

Analyte	Result	RI
TBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
p-Xylenes	ND	0.50
Xylene	ND	0.50

Surrogate	REC	Limits
Trifluorotoluene (PID)	128	56-142
Trifluorobenzene (PID)	134	55-149

Field ID: INFILUENT Diln Fac: 50.00
Type: SAMPLE Batch#: 69752
Lab ID: 156627-003 Analyzed: 01/29/02

Analyte	Result	RI
TBE	40,000	100
Benzene	1,900	25
Toluene	1,300	25
Ethylbenzene	170	25
p-Xylenes	1,000	25
Xylene	620	25

Surrogate	REC	Limits
Trifluorotoluene (PID)	104	56-142
Trifluorobenzene (PID)	103	55-149



Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	01/22/02
Units:	ug/L	Received:	01/23/02

Type: BLANK Batch#: 69624
Lab ID: QC168464 Analyzed: 01/23/02
Diln Fac: 1.000

Analyte	Result	RL
TBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
-Xylene	ND	0.50

Surrogate	CRFC	Limits
rifluorotoluene (PID)	119	56-142
chromofluorobenzene (PID)	120	55-149

Type: BLANK Batch#: 69752
Lab ID: QC168937 Analyzed: 01/29/02
Diln Fac: 1.000

Analyte	Result	RL
TBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
-Xylene	ND	0.50

Surrogate	CRFC	Limits
rifluorotoluene (PID)	98	56-142
chromofluorobenzene (PID)	95	55-149

= Not Detected
= Reporting Limit

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Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC168466	Batch#:	69624
Matrix:	Water	Analyzed:	01/23/02
Units:	ug/L		

Analyst	Spiked	Result	GRAC	Remarks
MTBE	20.00	22.09	110	51-125
Benzene	20.00	19.59	98	67-117
Toluene	20.00	20.71	104	69-117
Ethylbenzene	20.00	20.96 b	105	68-124
m,p-Xylenes	40.00	42.94 b	107	70-125
-Xylene	20.00	22.36 b	112	65-129

Surrogate	GRAC	Remarks
Trifluorotoluene (PID)	124	56-142
Bromofluorobenzene (PID)	124	55-149

See narrative



Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	69752
Units:	ug/L	Analyzed:	01/29/02
Oiln Fac:	1.000		

Type: BS Lab ID: QC168939

Analyte	Spiked	Result	REC	Limits
TBE	20.00	19.20	96	51-125
Benzene	20.00	17.67	88	67-117
Toluene	20.00	16.48	82	69-117
Ethylbenzene	20.00	16.81	84	68-124
m,p-Xylenes	40.00	34.19	85	70-125
o-Xylene	20.00	17.62	88	65-129

Surrogate	REC	Limits
Trifluorotoluene (PID)	98	56-142
Bromofluorobenzene (PID)	96	55-149

Type: BSD Lab ID: QC168940

Analyte	Spiked	Result	REC	Limits	RPD	Lim
TBE	20.00	19.41	97	51-125	1	20
Benzene	20.00	17.40	87	67-117	2	20
Toluene	20.00	15.76	79	69-117	4	20
Ethylbenzene	20.00	17.44	87	68-124	4	20
m,p-Xylenes	40.00	34.85	87	70-125	2	20
o-Xylene	20.00	17.66	88	65-129	0	20

Surrogate	REC	Limits
Trifluorotoluene (PID)	100	56-142
Bromofluorobenzene (PID)	98	55-149

D= Relative Percent Difference



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	69819
Lab ID:	156627-003	Sampled:	01/22/02
Matrix:	Water	Received:	01/23/02
Units:	ug/L	Analyzed:	02/01/02
Diln Fac:	333.3		

Analyte	Result	RL
MTBE	23,000	170

Surrogate	%RRC	Limits
1,2-Dichloroethane-d4	115	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	100	80-115



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC169176	Batch#:	69819
Matrix:	Water	Analyzed:	01/31/02
Units:	ug/L		

Analyte	Result	RI
TBE	ND	0.5

Surrogate	%REC	Limits
2-Dichloroethane-d4	107	78-123
Toluene-d8	94	80-110
Bromofluorobenzene	99	80-115

ND = Not Detected

RL = Reporting Limit



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #: 156627
Client: SOMA Environmental Engineering Inc.
Project#: 2333
Type: BLANK
Lab ID: QC169177
Matrix: Water
Units: ug/L

Location: Tony's
Prep: EPA 5030B
Analysis: EPA 8260B
Diln Fac: 1.000
Batch#: 69819
Analyzed: 01/31/02

4TBE	Analyte	Result	RL
	Surrogate	ND	0.5
	1,2-Dichloroethane-d4	SPIC	limits
	Toluene-d8	106	78-123
	Bromofluorobenzene	96	80-110
		98	80-115

= Not Detected
= Reporting Limit
Page 1 of 1



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC169175	Batch#:	69819
Matrix:	Water	Analyzed:	01/31/02
Units:	ug/L		

Analyte	Spiked	Result	SRM	limits
TBE	50.00	53.94	108	60-140
<hr/>				
Surrogate	SRM	limits		
,2-Dichloroethane-d4	104	78-123		
Clorene-d8	98	80-110		
Bromofluorobenzene	96	80-115		



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Purgeable Aromatics by GC/MS

Lab #:	156627	Location:	Tony's
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	69819
VSS Lab ID:	156747-012	Sampled:	01/29/02
Matrix:	Water	Received:	01/29/02
Units:	ug/L	Analyzed:	01/31/02
Diln Fac:	1.000		

Type: MS Lab ID: QC169191

Analyte	MS Result	Spiked	Result	GRPC	Limits	RPD	Lim.
MTBE	<0.1200	50.00	55.34	111	60-140		

Surrogate	GRPC	Limits
1,2-Dichloroethane-d4	109	78-123
Toluene-d8	96	80-110
Bromofluorobenzene	96	80-115

Type: MSD Lab ID: QC169192

Analyte	Spiked	Result	GRPC	Limits	RPD	Lim.
MTBE	50.00	54.33	109	60-140	2	20

Surrogate	GRPC	Limits
1,2-Dichloroethane-d4	106	78-123
Toluene-d8	95	80-110
Bromofluorobenzene	96	80-115

D= Relative Percent Difference

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

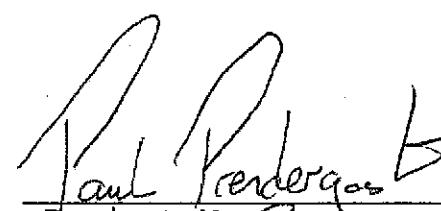
Prepared for:

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

Date: 14-MAR-02
Lab Job Number: 157217
Project ID: 2333
Location: Treatment System

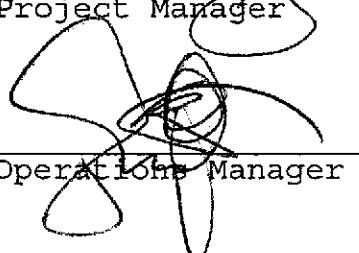
This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to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

Reviewed by:


Paul Pendergrass

Project Manager

Reviewed by:


Operations Manager

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Page 1 of 1

Analyses

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

Project No: 2333

Project Name: Oaklands - Tony's

Project P.O.:

Turnaround Time: Standard

C&T
LOGIN # 157217

Sampler: *Tony PERIN*

Report To: Mansour Sepehr

Company: SOMA ENV ENG

Telephone: 925-244-6600

Fax: 925-244-6601

Laboratory Number	Sample ID.	Sampling Date Time	Matrix	# of Containers	Preservative				Field Notes		TPHg	BTEX	
					Soil	Water	Waste	HCl	H ₂ SO ₄	HNO ₃	ICE		
PSP-1	2/27/02 1130		✓	4	✓	✓	✓	✓		✓		✓	✓
GR2-1	2/27/02 1140		✓	4	✓	✓	✓	✓		✓		✓	✓
DInfluent	2/27/02 1155		✓	4	✓	✓	✓	✓		✓		✓	✓

Notes:

Notes: GAG-1 - 1 mm had pen size bubble
cw 2/27/02

RELINQUISHED BY:

RECEIVED BY:

Tony Formo 2/27/02 1245 DATE/TIME

^A22

DATE/TIME

DATE/TIME

DATE/TIME

www.ijerpi.org

DATE/TIME

DATE/TIME

Signature

Gasoline by GC/FID CA LUFT

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	02/27/02
Units:	ug/L	Received:	02/27/02

Field ID: PSP-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 70513
 Lab ID: 157217-001 Analyzed: 03/02/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	105	68-145
Bromofluorobenzene (FID)	110	66-143

Field ID: GAC-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 70513
 Lab ID: 157217-002 Analyzed: 03/02/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	106	68-145
Bromofluorobenzene (FID)	102	66-143

Field ID: INFLUENT Diln Fac: 10.00
 Type: SAMPLE Batch#: 70568
 Lab ID: 157217-003 Analyzed: 03/05/02

Analyte	Result	RL
Gasoline C7-C12	16,000	500

Surrogate	REC	Limits
Trifluorotoluene (FID)	114	68-145
Bromofluorobenzene (FID)	93	66-143

= Not Detected

= Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 157217-003,70568,TVH ONLY

FileName : G:\GC07\DATA\063A022.raw

Method : TVHBTXE

Start Time : 0.00 min

End Time : 26.00 min

Scale Factor: 1.0

Plot Offset: -26 mV

Sample #: D1

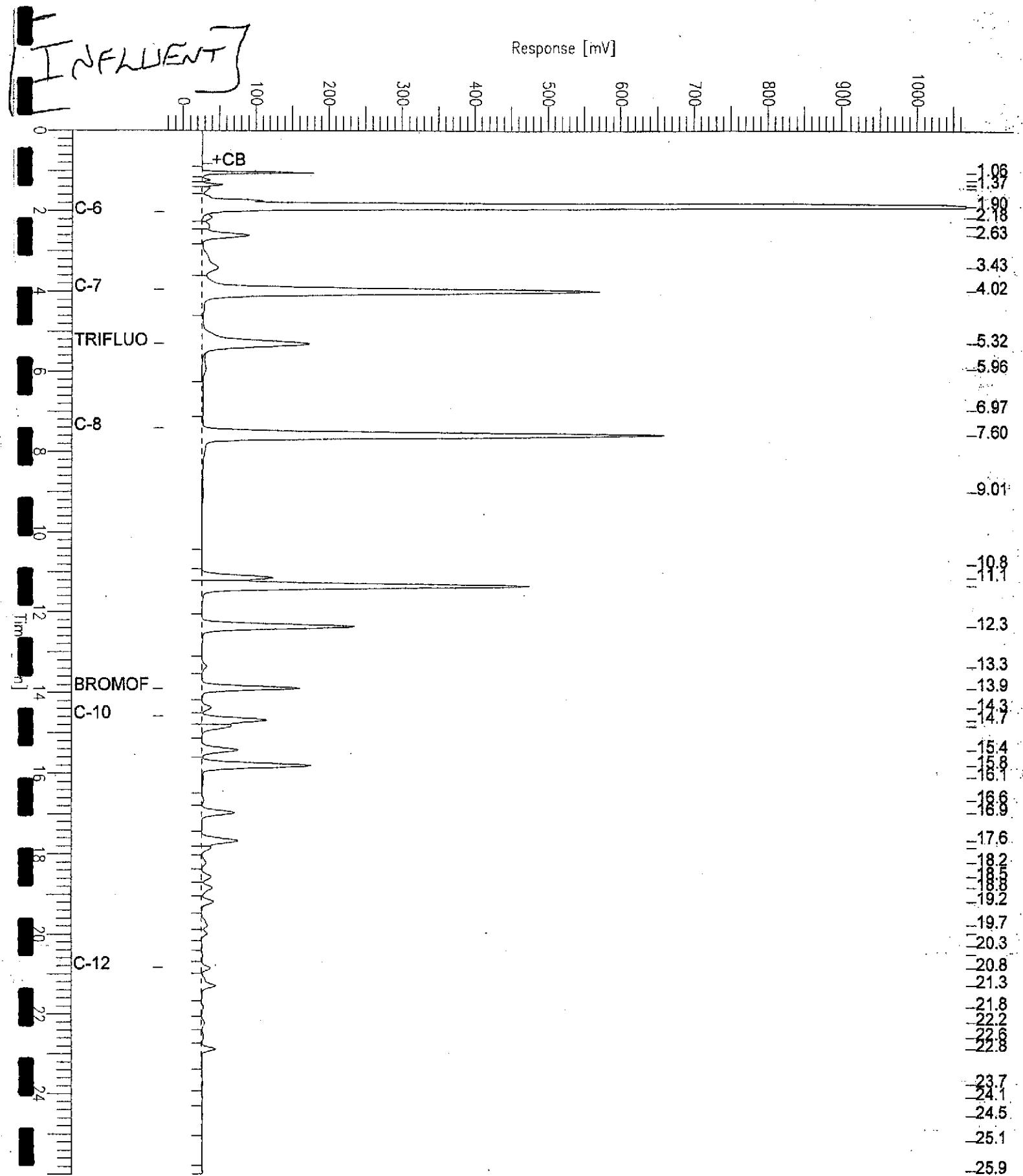
Date : 3/5/02 12:02 PM

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Time of Injection: 3/5/02 07:47 AM

Low Point : -25.87 mV High Point : 1067.78 mV

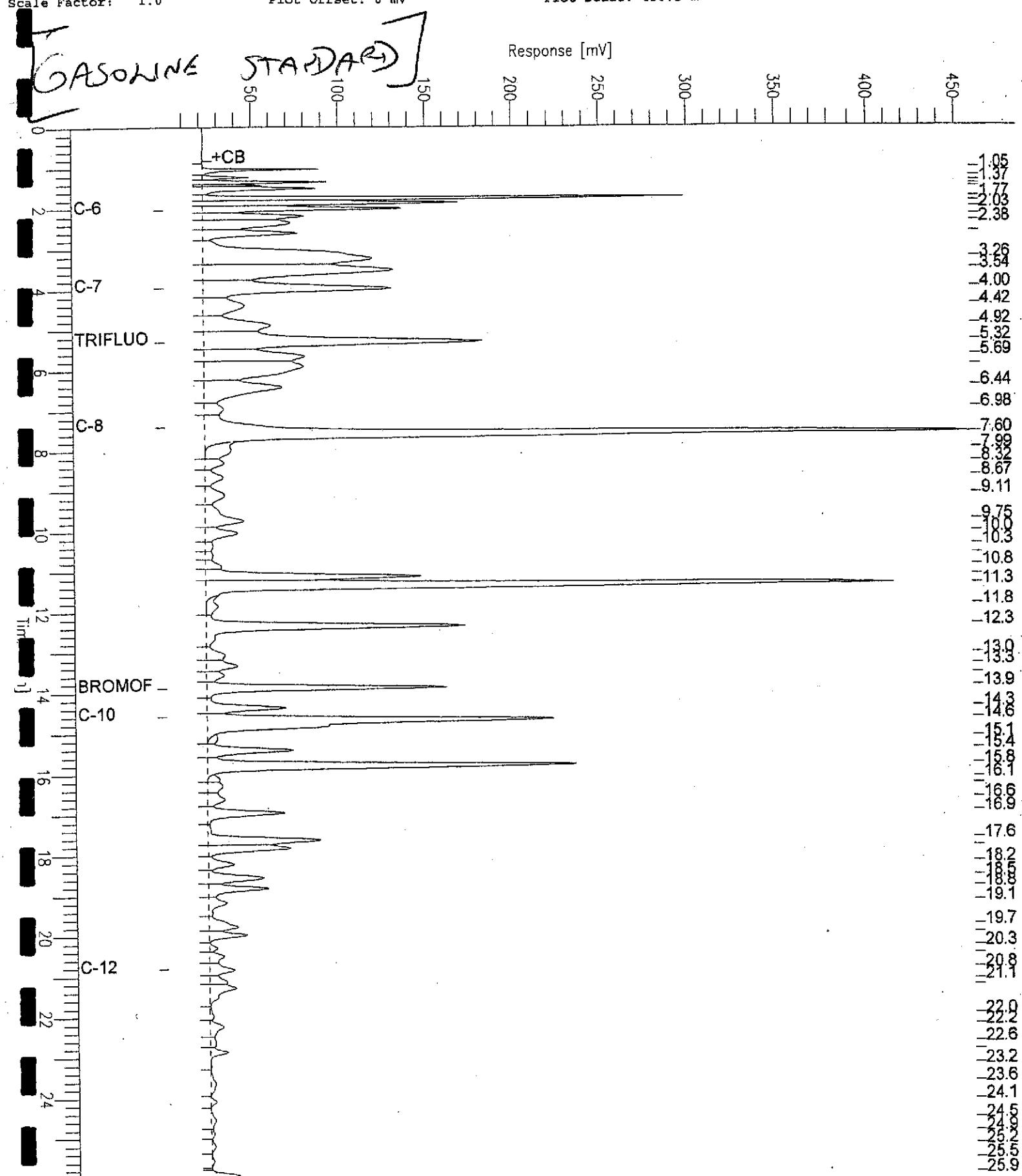
Plot Scale: 1093.6 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS, QC171741, 70513, 02ws0226, 5/5000
 File Name : G:\GC07\DATA\061A003.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
 Date : 3/2/02 05:21 PM
 Time of Injection: 3/2/02 04:55 PM
 Low Point : 0.10 mV High Point : 458.63 mV
 Plot Scale: 458.5 mV





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Gasoline by GC/FID CA LUFT

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	02/27/02
Units:	ug/L	Received:	02/27/02

Type: BLANK Batch#: 70513
Lab ID: QC171740 Analyzed: 03/02/02
Diln Fac: 1.000

Analyte	Result	RI
Gasoline C7-C12	ND	50

Surrogate	SPFC	Limits
Trifluorotoluene (FID)	102	68-145
Bromofluorobenzene (FID)	97	66-143

Type: BLANK Batch#: 70568
Lab ID: QC171939 Analyzed: 03/04/02
Diln Fac: 1.000

Analyte	Result	RI
Gasoline C7-C12	ND	50

Surrogate	SPFC	Limits
Trifluorotoluene (FID)	94	68-145
Bromofluorobenzene (FID)	90	66-143

D= Not Detected

L= Reporting Limit

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Gasoline by GC/FID CA LUFT

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC171741	Batch#:	70513
Matrix:	Water	Analyzed:	03/02/02
Units:	ug/L		

Analyte	Spiked	Replied	LRPC	Limits
gasoline C7-C12	2,000	1,894	95	79-120

Surrogate	LRPC	Limits
Trifluorotoluene (FID)	124	68-145
Bromofluorobenzene (FID)	97	66-143



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Gasoline by GC/FID CA LUFT

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Matrix:	Water	Batch#:	70568
Units:	ug/L	Analyzed:	03/04/02
Gln Fac:	1.000		

Type: BS Lab ID: QC171940

Analyte	Spiked	Result	RREC	Limits
Gasoline C7-C12	2,000	2,077	104	79-120

Surrogate	RREC	Limits
Trifluorotoluene (FID)	125	68-145
Bromofluorobenzene (FID)	93	66-143

Type: BSD Lab ID: QC171941

Analyte	Spiked	Result	RREC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,985	99	79-120	5	20

Surrogate	RREC	Limits
Trifluorotoluene (FID)	124	68-145
Bromofluorobenzene (FID)	93	66-143

PD= Relative Percent Difference



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Gasoline by GC/FID CA LUFT

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Field ID:	PSP-1	Batch#:	70513
MSS Lab ID:	157217-001	Sampled:	02/27/02
Matrix:	Water	Received:	02/27/02
Units:	ug/L	Analyzed:	03/02/02
Diln Fac:	1.000		

Type: MS Lab ID: QC171743

Analyte	MSS Result	Spiked	Result	RREC	Limits
Gasoline C7-C12	<17.00	2,000	2,043	102	67-120
<hr/>					
Surrogate					
Trifluorotoluene (FID)	131	68-145			
Bromofluorobenzene (FID)	109	66-143			

Type: MSD Lab ID: QC171744

Analyte	Spiked	Result	RREC	Limits	RPD	FCM
Gasoline C7-C12	2,000	2,003	100	67-120	2	20
<hr/>						
Surrogate						
Trifluorotoluene (FID)	131	68-145				
Bromofluorobenzene (FID)	107	66-143				

RPD= Relative Percent Difference



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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP-1	Batch#:	70486
Lab ID:	157217-001	Sampled:	02/27/02
Matrix:	Water	Received:	02/27/02
Units:	ug/L	Analyzed:	03/02/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Methylbenzene	ND	0.5
,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	SRBC	Limits
1,2-Dichloroethane-d4	96	77-130
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-120

= Not Detected

= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	70486
Lab ID:	157217-002	Sampled:	02/27/02
Matrix:	Water	Received:	02/27/02
Units:	ug/L	Analyzed:	03/02/02
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	1.1	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	CRBC	Limits
,2-Dichloroethane-d4	97	77-130
Toluene-d8	100	80-120
Promofluorobenzene	100	80-120

ND = Not Detected

RL = Reporting Limit

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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	70535
Lab ID:	157217-003	Sampled:	02/27/02
Matrix:	Water	Received:	02/27/02
Units:	ug/L	Analyzed:	03/04/02
Diln Fac:	166.7		

Analyte	Result	RL
MTBE	18,000	83
Benzene	1,900	83
Toluene	2,200	83
Chlorobenzene	ND	83
Ethylbenzene	280	83
m,p-Xylenes	1,300	83
o-Xylene	620	83
1,3-Dichlorobenzene	ND	83
1,4-Dichlorobenzene	ND	83
1,2-Dichlorobenzene	ND	83

Surrogate	REC	Limits
1,2-Dichloroethane-d4	97	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

= Not Detected

= Reporting Limit

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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC171629	Batch#:	70486
Matrix:	Water	Analyzed:	03/01/02
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
p-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

= Not Detected

= Reporting Limit



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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC171815	Batch#:	70535
Matrix:	Water	Analyzed:	03/04/02
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
t-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	REQ	Limits
1,2-Dichloroethane-d4	95	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND = Not Detected

RL = Reporting Limit



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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	70486
Units:	ug/L	Analyzed:	03/01/02
Gln Fac:	1.000		

Type: BS Lab ID: QC171626

Analyte	Spiked	Result	REC	Limits
Benzene	50.00	50.69	101	76-120
Toluene	50.00	51.03	102	79-120
Chlorobenzene	50.00	51.00	102	80-120

Surrogate	REC	Limits
1,2-Dichloroethane-d4	97	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-120

Type: BSD Lab ID: QC171627

Analyte	Spiked	Result	REC	Limits	RPD	Err
Benzene	50.00	50.29	101	76-120	1	20
Toluene	50.00	50.41	101	79-120	1	20
Chlorobenzene	50.00	50.65	101	80-120	1	20

Surrogate	REC	Limits
1,2-Dichloroethane-d4	98	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120



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Purgeable Aromatics by GC/MS

Lab #:	157217	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	70535
Units:	ug/L	Analyzed:	03/04/02
Spiln Fac:	1.000		

Type: BS Lab ID: QC171812

Analyte	Spiked	Result	tREC	Limits
Benzene	50.00	52.70	105	76-120
Toluene	50.00	54.45	109	79-120
Chlorobenzene	50.00	50.71	101	80-120

Surrogate	tREC	Limits
1,2-Dichloroethane-d4	94	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

Type: BSD Lab ID: QC171813

Analyte	Spiked	Result	tREC	Limits	RPD	Edm
Benzene	50.00	52.55	105	76-120	0	20
Toluene	50.00	52.98	106	79-120	3	20
Chlorobenzene	50.00	50.72	101	80-120	0	20

Surrogate	tREC	Limits
1,2-Dichloroethane-d4	92	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	93	80-120

D= Relative Percent Difference

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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: 11-JAN-02
Lab Job Number: 155974
Project ID: 2333
Location: Treatment System

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:

Paul Pendragast

Project Manager

Reviewed by:

Teresa K. Morrison

Operations Manager

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Laboratory Number: **155974**
Client: **Soma Environmental Engineering, Inc.**
Project Name: **Oakland – Tony's**
Project #: **2333**
Receipt Date: **12/12/01**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water samples received from the above referenced project on December 12th, 2001. The samples were received cold and intact.

Total Volatile Hydrocarbons (EPA 8015B(M)):

No analytical problems were encountered.

BTXE/MTBE (EPA 8021B):

No analytical problems were encountered.

Purgeable Aromatics by GC/MS (EPA 8260B):

This analysis was requested past the holding time for client ID INFLUENT (C&T ID 155974-003). This is indicated by the 'b-flag' notation. The client requested that the analysis be undertaken past the hold date.

CHAIN OF CUSTODY FORM

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Analyses

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

Project No: Proj 2333

Project Name: OAKLAND- TONY'S

Project P.O.:

Turnaround Time: Standard

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MATTA **PROSPECTIVE**

Signature

Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Matrix:	Water	Sampled:	12/12/01
Units:	ug/L	Received:	12/12/01

Field ID: PSP-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 68788
 Lab ID: 155974-001 Analyzed: 12/15/01

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	SPEC	Limits
Trifluorotoluene (FID)	111	59-135
Bromofluorobenzene (FID)	111	60-140

Field ID: GAC-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 68788
 Lab ID: 155974-002 Analyzed: 12/15/01

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	SPEC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	110	60-140

Field ID: INFLUENT Diln Fac: 25.00
 Type: SAMPLE Batch#: 68897
 Lab ID: 155974-003 Analyzed: 12/20/01

Analyte	Result	RL
Gasoline C7-C12	15,000	1,300

Surrogate	SPEC	Limits
Trifluorotoluene (FID)	122	59-135
Bromofluorobenzene (FID)	111	60-140

D= Not Detected

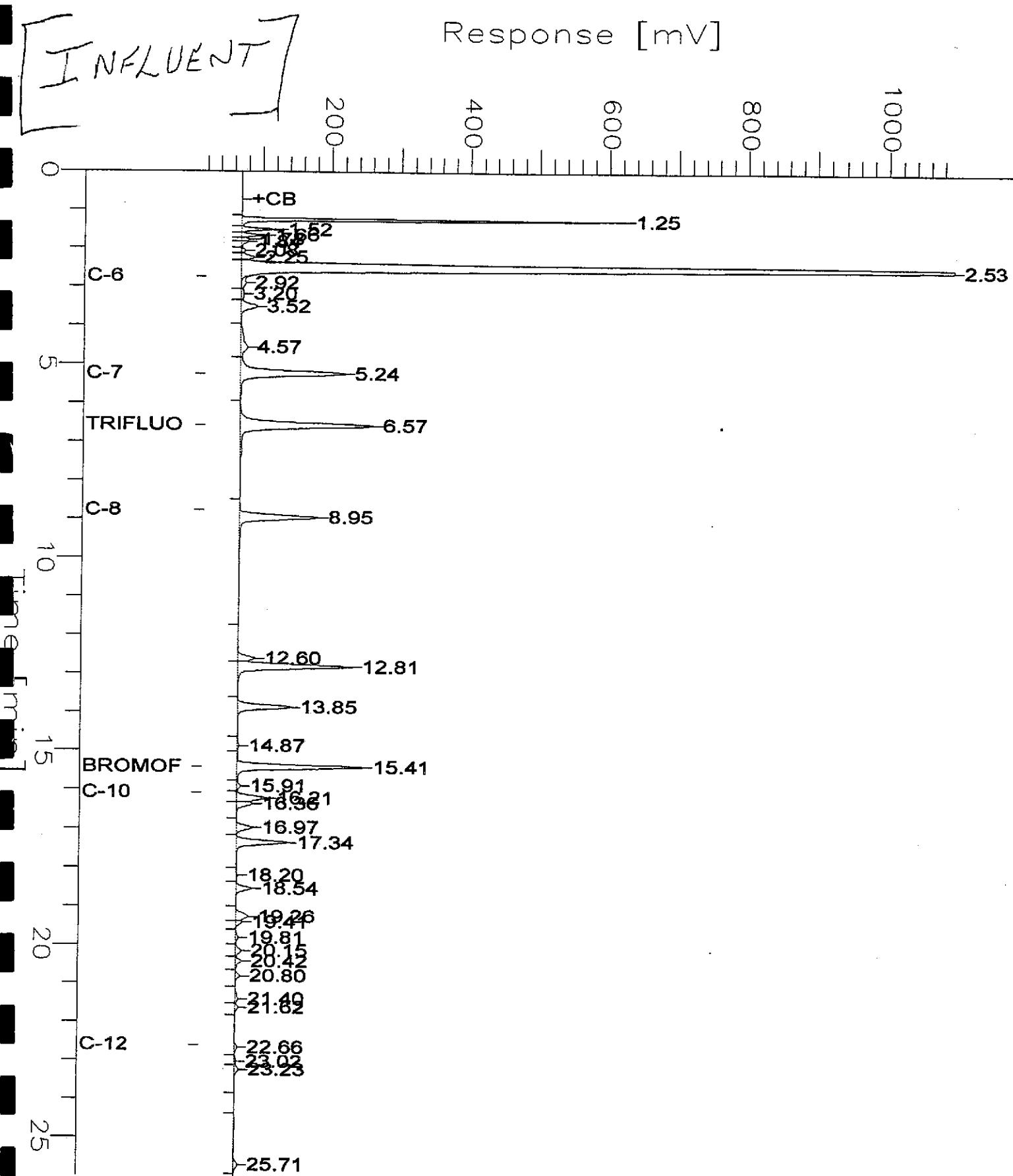
L= Reporting Limit

Page 1 of 2

GC04 TVH 'J' Data File FID

Sample Name : 155974-003,68897,+mtbe
fileName : G:\GC04\DATA\353J029.raw
method : TVHBTKE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 18 mV

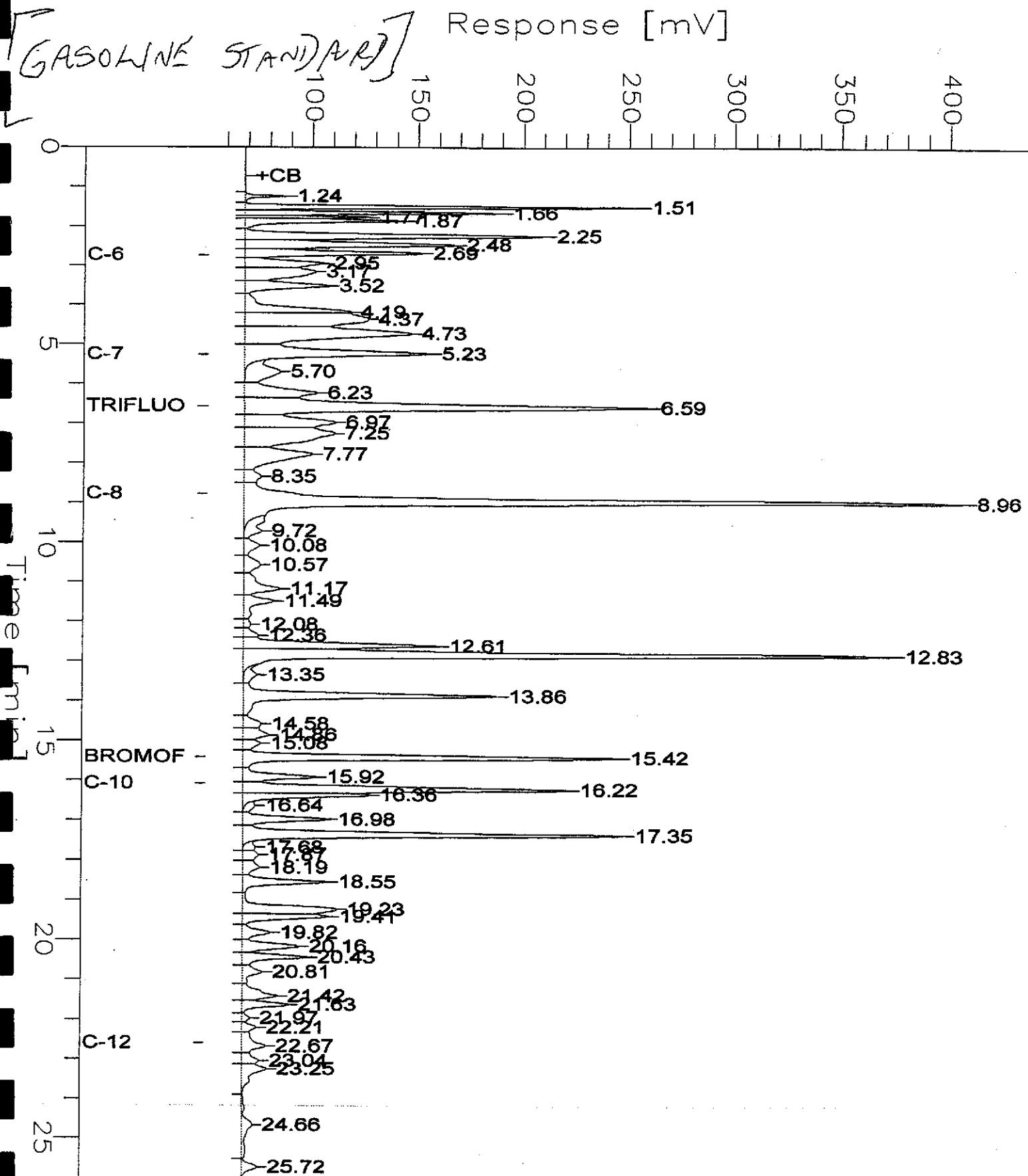
Sample #: b1 Page 1 of 1
Date : 12/20/01 07:11 AM
Time of Injection: 12/20/01 06:45 AM
Low Point : 17.72 mV High Point : 1094.41 mV
Plot Scale: 1076.7 mV



GC04 TVH 'J' Data File FID

Sample Name : CCV/LCS_QC165348,68788,01WS2177,5/5000
fileName : G:\GC04\DATA\348J002.raw
method : TVHBTXE
start Time : 0.00 min
Scale Factor: 1.0

Sample #: Page 1 of 1
Date : 12/14/01 03:49 PM
Time of Injection: 12/14/01 03:23 PM
Low Point : 50.87 mV High Point : 408.73 mV
Plot Offset: 51 mV
Plot Scale: 357.9 mV





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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Matrix:	Water	Sampled:	12/12/01
Units:	ug/L	Received:	12/12/01

Type: BLANK Batch#: 68788
Lab ID: QC165347 Analyzed: 12/14/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	106	59-135
Bromofluorobenzene (FID)	102	60-140

Type: BLANK Batch#: 68897
Lab ID: QC165753 Analyzed: 12/19/01
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	111	59-135
Bromofluorobenzene (FID)	107	60-140

ND= Not Detected

L= Reporting Limit

Page 2 of 2

Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC165348	Batch#:	68788
Matrix:	Water	Analyzed:	12/14/01
Units:	ug/L		

Analyst	Spiked	Result	REC	Series
Gasoline C7-C12	2,000	2,057	103	73-121

Surrogate	REC	Limits
Trifluorotoluene (FID)	126	59-135
Bromofluorobenzene (FID)	110	60-140



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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC165754	Batch#:	68897
Matrix:	Water	Analyzed:	12/19/01
Units:	ug/L		

Analyte	Spiked	Result	SRM	Limits
Gasoline C7-C12	2,000	2,038	102	73-121

Surrogate	SRM	Limits
Trifluorotoluene (FID)	122	59-135
Bromofluorobenzene (FID)	107	60-140



Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	68788
MSS Lab ID:	155833-001	Sampled:	12/05/01
Matrix:	Water	Received:	12/05/01
Units:	ug/L	Analyzed:	12/15/01
Diln Fac:	1.000		

Type: MS Lab ID: QC165349

Analyte	MSS Result	Spiked	Result	RRC	Limits
Gasoline C7-C12	<33.00	2,000	1,924	96	65-131
<hr/>					
Surrogate	RRC	Limits			
Trifluorotoluene (FID)	127	59-135			
Bromofluorobenzene (FID)	115	60-140			

Type: MSD Lab ID: QC165350

Analyte	Spiked	Result	RRC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,955	98	65-131	2	20
<hr/>						
Surrogate	RRC	Limits				
Trifluorotoluene (FID)	127	59-135				
Bromofluorobenzene (FID)	117	60-140				

RPD= Relative Percent Difference

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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Batch#:	68788
MSS Lab ID:	155885-022	Sampled:	12/07/01
Matrix:	Water	Received:	12/07/01
Units:	ug/L	Analyzed:	12/15/01
Diln Fac:	1.000		

Type: MS Lab ID: QC165351

Analyte	MSS Result	Spiked	Result	ERPC	Limits
Gasoline C7-C12	<33.00	2,000	1,830	91	65-131
Surrogate	ERPC	Limits			
Trifluorotoluene (FID)	127	59-135			
Bromofluorobenzene (FID)	116	60-140			

Type: MSD Lab ID: OC165352

Analyte	Spiked	Resist.	SRPC	Pass/Fail	Temp	Time
Gasoline C7-C12	2,000	1,785	89	65-131	2	20
Surrogate	SRPC	Limits				
rifluorotoluene (FID)	129	59-135				
romofluorobenzene (FID)	116	60-140				

J.D= Relative Percent Difference
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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Batch#:	68897
MSS Lab ID:	156016-001	Sampled:	12/13/01
Matrix:	Water	Received:	12/13/01
Units:	ug/L	Analyzed:	12/20/01
Diln Fac:	1.000		

Type: MS Lab ID: OC165805

Analyte	MSS Result	Spiked	Result	RPE	Limits
Gasoline C7-C12	<33.00	2,000	1,984	99	65-131
Surrogate	RPE	Limits			
Trifluorotoluene (FID)	127	59-135			
Bromofluorobenzene (FID)	115	60-140			

Type: MSD Lab ID: OC165806

Analyte	Spiked	Result	REC	limits	RPD	lim
Gasoline C7-C12	2,000	1,908	95	65-131	4	20
Surrogate	REC	Limits				
rifluorotoluene (FID)	125	59-135				
romofluorobenzene (FID)	113	60-140				



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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B (M)
Field ID:	ZZZZZZZZZZ	Batch#:	68897
MSS Lab ID:	156027-001	Sampled:	12/14/01
Matrix:	Water	Received:	12/14/01
Units:	ug/L	Analyzed:	12/20/01
Diln Fac:	1.000		

Type: MS Lab ID: QC165807

Analyte	MSS Result	Spiked	Result	GRPC	Limits
Gasoline C7-C12	<33.00	2,000	1,906	95	65-131
<hr/>					
Surrogate	GRPC	Limits			
Trifluorotoluene (FID)	125	59-135			
Bromofluorobenzene (FID)	113	60-140			

Type: MSD Lab ID: QC165808

Analyte	Spiked	Result	GRPC	Results	RPD	Lim
Gasoline C7-C12	2,000	1,984	99	65-131	4	20
<hr/>						
Surrogate	GRPC	Limits				
Trifluorotoluene (FID)	127	59-135				
Bromofluorobenzene (FID)	114	60-140				



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Gasoline by GC/FID CA LUFT

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B(M)
Field ID:	ZZZZZZZZZZ	Batch#:	68897
MSS Lab ID:	156087-001	Sampled:	12/18/01
Matrix:	Water	Received:	12/18/01
Units:	ug/L	Analyzed:	12/19/01
Diln Fac:	1.000		

Type: MS Lab ID: QC165809

Analyst	MSS Result	Spiked	Result	REC	Limits
Gasoline C7-C12	<33.00	2,000	1,983	99	65-131
<hr/>					
Surrogate	REC	Limits			
Trifluorotoluene (FID)	126	59-135			
Bromofluorobenzene (FID)	113	60-140			

Type: MSD Lab ID: QC165810

Analyst	Spiked	Result	REC	Limits	RPD	Err
Gasoline C7-C12	2,000	1,997	100	65-131	1	20
<hr/>						
Surrogate	REC	Limits				
Trifluorotoluene (FID)	127	59-135				
Bromofluorobenzene (FID)	113	60-140				

RD= Relative Percent Difference

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	12/12/01
Units:	ug/L	Received:	12/12/01

Field ID: PSP-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 68788
 Lab ID: 155974-001 Analyzed: 12/15/01

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

Surrogate	PPM	Limit(s)
Trifluorotoluene (PID)	83	56-142
Bromofluorobenzene (PID)	85	55-149

Field ID: GAC-1 Diln Fac: 1.000
 Type: SAMPLE Batch#: 68788
 Lab ID: 155974-002 Analyzed: 12/15/01

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

Surrogate	PPM	Limit(s)
Trifluorotoluene (PID)	83	56-142
Bromofluorobenzene (PID)	84	55-149

Field ID: INFLOW Diln Fac: 100.0
 Type: SAMPLE Batch#: 68897
 Lab ID: 155974-003 Analyzed: 12/20/01

Analyte	Result	RL
MTBE	40,000	200
Benzene	1,900	50
Toluene	1,200	50
Ethylbenzene	260	50
m,p-Xylenes	1,700	50
o-Xylene	850	50

Surrogate	PPM	Limit(s)
Trifluorotoluene (PID)	82	56-142
Bromofluorobenzene (PID)	79	55-149



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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	12/12/01
Units:	ug/L	Received:	12/12/01

Type: BLANK Batch#: 68788
Lab ID: QC165347 Analyzed: 12/14/01
Diln Fac: 1.000

Analyst	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	REC	BL
Trifluorotoluene (PID)	78	56-142
Bromofluorobenzene (PID)	78	55-149

Type: BLANK Batch#: 68897
Lab ID: QC165753 Analyzed: 12/19/01
Diln Fac: 1.000

Analyst	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	REC	BL
Trifluorotoluene (PID)	76	56-142
Bromofluorobenzene (PID)	75	55-149



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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC165353	Batch#:	68788
Matrix:	Water	Analyzed:	12/14/01
Units:	ug/L		

Analyte	Spiked	Result	REC	Limits
MTBE	20.00	21.28	106	51-125
Benzene	20.00	17.98	90	67-117
Toluene	20.00	16.90	84	69-117
Ethylbenzene	20.00	18.52	93	68-124
m, p-Xylenes	40.00	37.27	93	70-125
o-Xylene	20.00	19.63	98	65-129

Substrate	REC	Limits
Trifluorotoluene (PID)	81	56-142
Bromofluorobenzene (PID)	78	55-149



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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	BS	Diln Fac:	1.000
Lab ID:	QC165755	Batch#:	68897
Matrix:	Water	Analyzed:	12/19/01
Units:	ug/L		

Analyst	Spiked	Result	SPRC	Limits
MTBE	20.00	20.65	103	51-125
Benzene	20.00	18.28	91	67-117
Toluene	20.00	17.08	85	69-117
Ethylbenzene	20.00	18.74	94	68-124
m,p-Xylenes	40.00	38.39	96	70-125
p-Xylene	20.00	19.94	100	65-129

Analyst	SPRC	Limits
Trifluorotoluene (PID)	80	56-142
Bromofluorobenzene (PID)	79	55-149



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Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	BSD	Diln Fac:	1.000
Lab ID:	QC165811	Batch#:	68897
Matrix:	Water	Analyzed:	12/20/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Line No.	RPD	Trim
MTBE	20.00	18.88	94	51-125	9	20
Benzene	20.00	17.18	86	67-117	6	20
Toluene	20.00	16.19	81	69-117	5	20
Ethylbenzene	20.00	18.03	90	68-124	4	20
m,p-Xylenes	40.00	35.92	90	70-125	7	20
o-Xylene	20.00	19.21	96	65-129	4	20

Surrogate	%REC	Line No.
Trifluorotoluene (PID)	79	56-142
Bromofluorobenzene (PID)	81	55-149



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Purgeable Aromatics by GC/MS

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	69125
Lab ID:	155974-003	Sampled:	12/12/01
Matrix:	Water	Received:	12/12/01
Units:	ug/L	Analyzed:	12/31/01
Diln Fac:	250.0		

Analyte	Result	RI
MTBE	48,000 b	130

Surrogate	TRIC	Limits
1,2-Dichloroethane-d4	93 b	78-123
Toluene-d8	97 b	80-110
Bromofluorobenzene	101 b	80-115

b= See narrative
- Reporting Limit
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Purgeable Aromatics by GC/MS

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC166603	Batch#:	69125
Matrix:	Water	Analyzed:	12/31/01
Units:	ug/L		

Analyte	Result	RI
MTBE	ND	0.5

Surrogate	CRNC	Limits
1,2-Dichloroethane-d4	90	78-123
Toluene-d8	96	80-110
Bromofluorobenzene	103	80-115

= Not Detected

= Reporting Limit



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Purgeable Aromatics by GC/MS

Lab #:	155974	Location:	Treatment System
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	69125
Units:	ug/L	Analyzed:	12/31/01
Diln Fac:	1.000		

Type: BS Lab ID: QC166601

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	53.18	106	49-144

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	90	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	100	80-115

Type: BSD Lab ID: QC166602

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	52.89	106	49-144	1	21

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	101	80-115