Prepared For:

Prentiss Properties LTD, Inc. 2485 Natomas Park Drive, Suite 350 Sacramento, CA 95833

QUARTERLY GROUNDWATER
MONITORING REPORT
FIRST QUARTER 1999
FOR
1750 WEBSTER STREET
OAKLAND, CALIFORNIA

Submitted By:

ATC Associates Inc. 6666 Owens Drive Pleasanton, CA 94588

Project No. 61877.0004

April 1, 1999

Prepared By: Bahram Zanganeh-Azam Assistant Project Geologist Approved By: James A. Lehrman, RG, CHG Senior Project Manager

CERTIFICATION

This Quarterly Groundwater Monitoring Report was prepared under the direction of a California Registered Geologist.

James A. Lehrman, RG, CHG Senior Project Manager

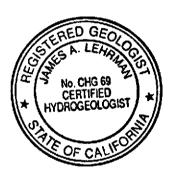


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1

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QUARTERLY GROUNDWATER MONITORING FIRST QUARTER 1999 PRENTISS PROPERTIES LTD., INC. 1750 WEBSTER STREET OAKLAND, CALIFORNIA

1. INTRODUCTION

ATC Associates Inc. is pleased to present this report for groundwater monitoring conducted in the first quarter of 1999, at 1750 Webster Street in the City of Oakland, Alameda County, California (Figure 1). The site plan (Figure 2) shows the location of adjacent streets, monitoring wells, and other site-specific features.

A work plan for the installation of three groundwater monitoring wells and quarterly groundwater monitoring at 1750 Webster Street was submitted to the Alameda County Health Care Services Agency (ACHCSA) on April 13, 1998. The ACHCSA verbally approved the work plan on April 14, 1998 and by letter on May 28, 1998. On April 25 and 26, 1998, the three groundwater monitoring wells were installed.

The monitoring wells have been sampled quarterly to monitor the groundwater underlying the site. The program objectives are listed below:

- Measure depth of groundwater.
- Sample and analyze groundwater samples for specified petroleum hydrocarbon and halogenated volatile organic constituents.
- Construct a groundwater elevation contour map within the study area.
- Construct a total petroleum hydrocarbons as gasoline (TPH-G), and benzene concentration in groundwater map.
- Compare current and past data.

The existence and degree of petroleum hydrocarbons in the groundwater underlying a site is evaluated by (1) the presence of free-floating product and (2) laboratory analyses of groundwater samples. Samples are analyzed for TPH-G, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). In accordance with the request made by the ACHCSA on May 28, 1998, groundwater samples are also analyzed for halogenated volatile organic compounds (HVOCs). Also, in compliance with the request of the California Regional Water Quality Control Board (State of California, May 2, 1995), we are including reporting of methyl tert-butyl ether (MTBE) (a non-metallic antiknock and oxygenating compound used in gasoline).

2. GROUNDWATER SAMPLING

Groundwater samples were collected on February 26, 1999 from Monitoring Wells A-1, A-2, and A-3, in accordance with ATC Associates' Groundwater Sampling Protocol (Appendix A). Groundwater purged from the wells and equipment decontamination water was placed into labeled 55-gallon California Department of Transportation (D.O.T) approved 17H drums for storage on site. The contents of these drums will be transported off site by a licensed hazardous waste hauler for disposal or recycling. The volume of groundwater removed from each well and other measured sampling parameters are noted on the water sampling logs included in Appendix B.

3. LABORATORY ANALYSIS

The groundwater and soil samples were transported in a cooler chilled with ice and under chain-of-custody to Curtis & Tompkins, Ltd. (C&T), a State-certified analytical laboratory, located in Berkeley, California. After receipt at the laboratory, the samples were inspected for sample integrity and temperature. The groundwater and soil samples were analyzed for the presence of TPH-G following modified EPA Method 8015, and BTEX and MTBE by EPA Method 8020. In addition, the groundwater samples were analyzed for HVOCs by EPA Method 8260. The laboratory analytical report and chain of custody records are attached in **Appendix C**.

4. SUMMARY OF RESULTS

4.1 Groundwater Flow Direction and Gradient

Figure 3 shows the groundwater elevation contours based on the water-level data in **Table 1** for the first quarter of 1999. In the first quarter of 1999, groundwater elevations averaged 10.95 feet mean sea level (MSL), ranging from 10.38 feet MSL in A-1 to 11.39 feet in A-3. The apparent groundwater flow direction was northeast with a gradient of approximately 0.0076.

4.2 Laboratory Analysis of Groundwater Samples

A summary of the analytical results from the first quarter 1999 monitoring events are presented in **Table 1**. Based on the results of laboratory analyses for samples collected on February 26, 1999, TPH-G and BTEX were detected in the groundwater samples collected from Monitoring Wells A-1, A-2, and A-3. MTBE was not detected in any of the wells. 1,1-dichloroethane (1,1-DCA) was detected in monitoring Well A-1. Cis-1,2-dichloroethene (Cis-1,2-DCE), trichloroethene (TCE), tetrachloroethene (PCE), and 1,2-dichloropropane (1,2-DCP) were detected in Monitoring Wells A-1, A-2, and A-3. 1,2-dichloroethane (1,2-DCA) was detected in Monitoring Wells A-1 and A-3.

Detectable concentrations of TPH-G and BTEX have increased slightly in Wells A-1 and A-3 from the fourth quarter 1998 to the first quarter 1999. TPH-G and BTEX generally decreased in Well A-2 from the fourth quarter 1998 to the first quarter 1999. Concentrations of HVOCs have generally remained unchanged in the wells. However, lower method detection limits were used by the laboratory in the first quarter of 1999, and low concentrations of 1,1-DCA, 1,2-DCP, and 1,2-DCA were detected.

Figure 4 shows the distribution of TPH-G and BTEX concentrations detected in the groundwater for samples collected on February 26, 1999.

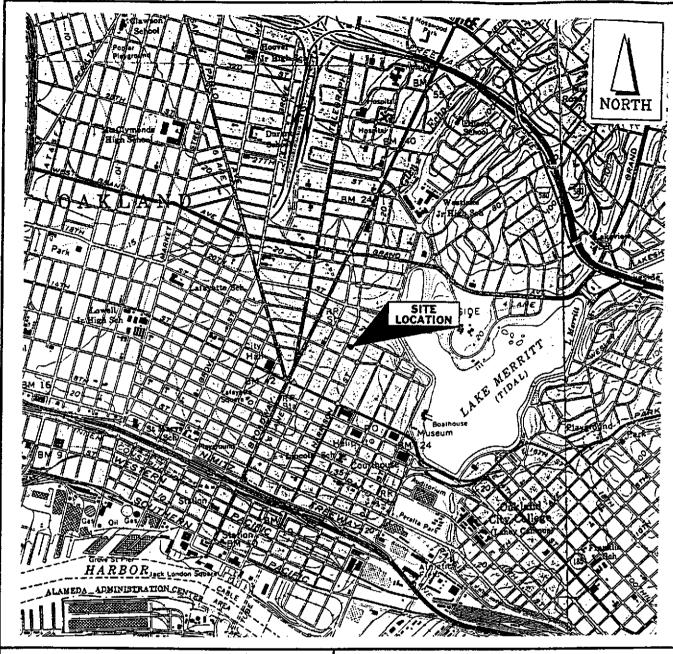
5.0 DISCUSSION AND CONCLUSIONS

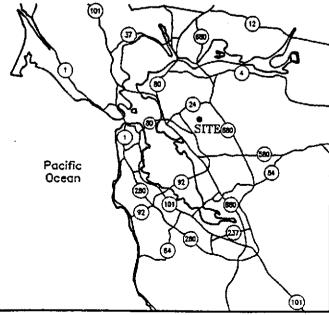
Concentrations of TPH-G, BTEX, and HVOCs were detected in the groundwater samples from all three monitoring wells. MTBE was not detected in any of the wells. Detectable concentrations of TPH-G and BTEX have generally increased in Wells A-1 and A-3. TPH-G and BTEX concentrations decreased in Well A-2. Lower method detection limits were used by the laboratory for HVOC analyses this reporting period, and low levels of 1,1-DCA and 1,2-DCP were detected for the first time in wells A-1 and A-3. Cis-1,2-DCE remained generally unchanged in Monitoring Wells A-1 and A-2, and was detected in Well A-3. 1,2-DCA was detected at 5.7 ug/l last quarter in Well A-2, but was non-detect at 0.5 ug/l this quarter. 1,2-DCA decreased slightly in Well A-1, and was detected in Well A-3 in the first quarter 1999. Concentrations of TCE remained generally unchanged in Wells A-1 and A-2, and increased slightly in Well A-3. Concentrations of PCE were detected at low levels in all three wells.

The first quarter 1999 groundwater monitoring event completes a full year of quarterly groundwater monitoring at the site. Based on the consistent northeasterly directed groundwater gradient at the site, and the fact that none of the contaminants have been detected in the vadose zone soils in any of the 18 soil borings completed, the concentrations detected in the site groundwater monitoring wells appear to be from an upgradient off-site source(s).

6.0 RECOMMENDATIONS

Based on the non-detectable concentrations of TPH-G, BTEX, and MTBE in vadose zone soils beneath the site, and the apparent upgradient off-site source(s) of the TPH-G, BTEX, MTBE, and HVOCs in groundwater, ATC recommends that site closure be issued to Prentiss Properties Limited, Inc. for the 1750 Webster Street property.





Notes:

- 1) All locations and dimensions are approximate.
- Base map from USGS Oakland West (1959) Quadrangle, 7.5 Series Topographic, photorevised in 1968.

APPROXIMATE SCALE: 1" = 2000'

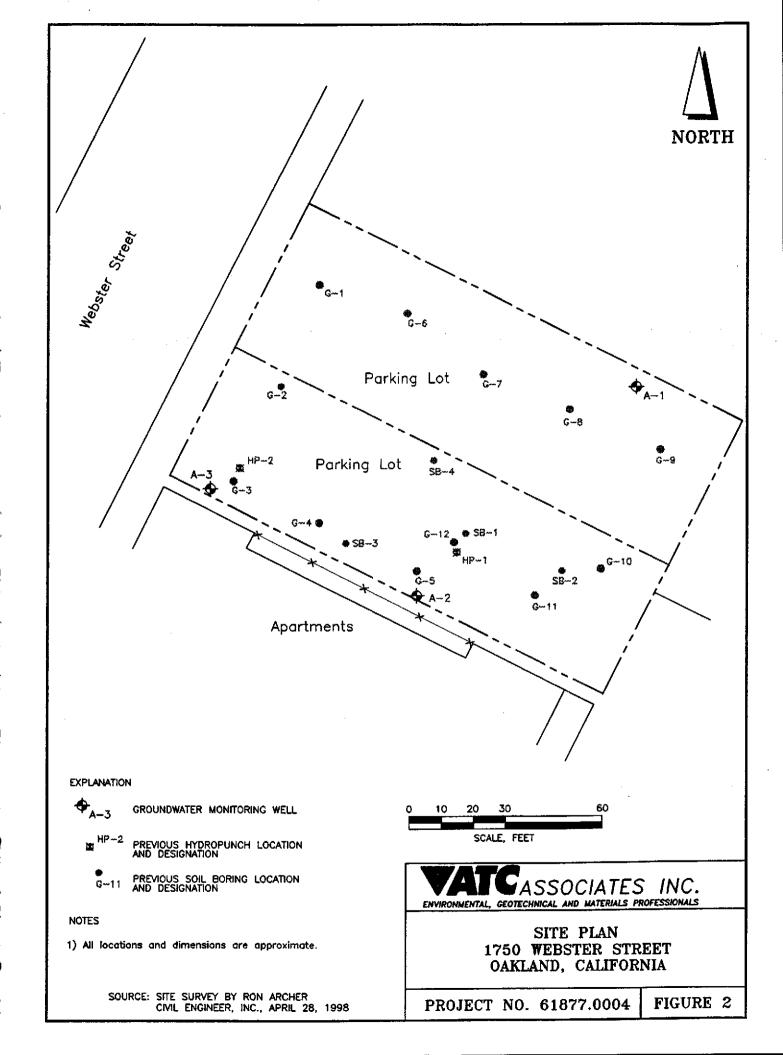


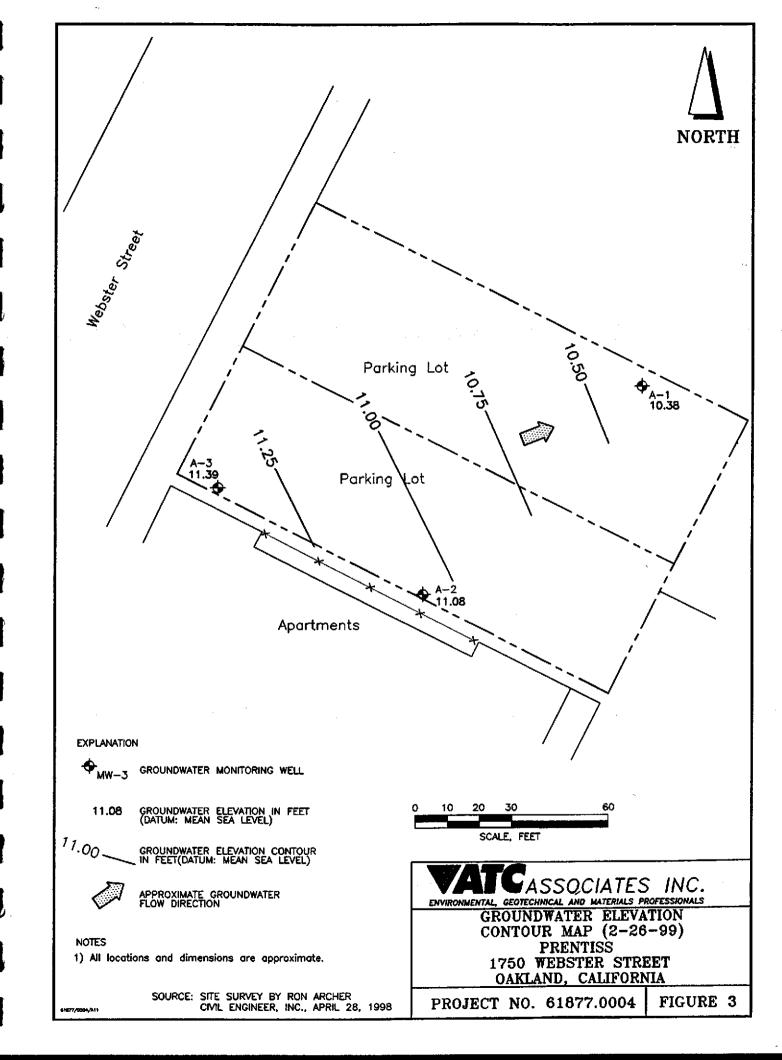
ASSOCIATES INC.

Environmental, Geotechnical and Materials Professionals

SITE LOCATION MAP 1750 WEBSTER STREET OAKLAND, CALIFORNIA

PROJECT NO. 61877.0004 | FIGURE 1





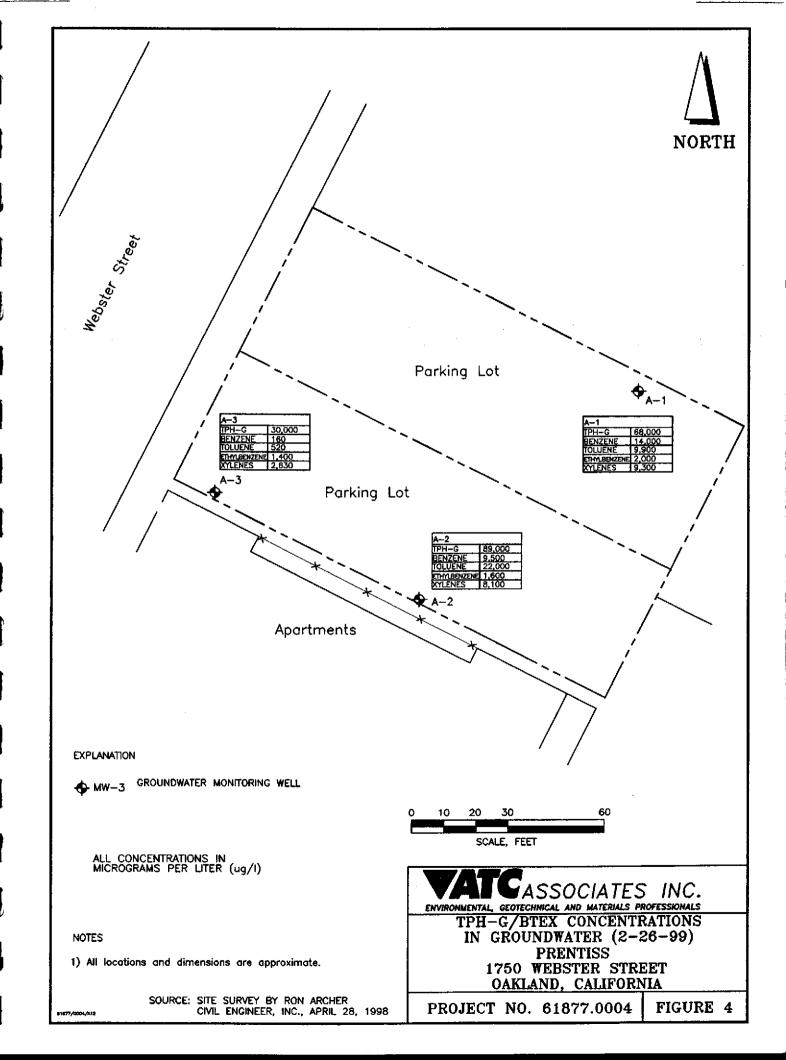


TABLE 1

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS PRENTISS PROPERTIES LTD. INC. 1750 WEBSTER STREET OAKLAND, CA 94612

									Detec	ted HVOCs	(EPA 82	60)	-		Depth	Ground
					Ethyl-	Total			Cis-				•	Well	to	Water
Sample	Sample	TPH-G	Benzene	Toluene	benzene	Xylenes	MTBE	1,1-DCA	1,2-DCE	1,2-DCA	TCE	PCE	1,2-DCP	Elevation	Water	Elevation
ID	Date	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ft., MSL)	(ft)	(ft., MSL)
Primary	MCLs		1	150	700	1750		5	6	0.5	5	5	5			
A-1	4/28/98	56,000	12,000	8,500	1,500	7,300	<200	ND 1.0	21	13	5.5	4.8	ND 1.0	30.20	19.45	10.75
	8/4/98	59,000	12,000	9,200	1,700	8,400	<200	ND 5.0	19	ND 5.0	8.4	ND 5.0	ND 5.0		19.80	10.40
	11/18/98	61,000	12,000	8,400	1,800	8,300	<160	ND 5.0	21	13	ND 5.0	ND 5.0	ND 5.0		20.39	9.81
1	2/26/99	68,000	14,000	9,900	2,000	9,300	<200	1.9	16	10	4.0	3.5	3.8		19.82	10.38
A-2	4/28/98.	84,000	8,600	20,000	1,600	8,000	<250	ND 1.0	18	ND 1.0	3.1	2.7	ND 1.0	31.31	19.65	11.66
	8/4/98	73,000	7,700	18,000	1,400	7,400	<400	ND 17	22	ND 17	52	ND 17	ND 17		19.97	11.34
	11/18/98	110,000	10,000	25,000	2,000	10,300	<400	ND 5.0	10	5.7	ND 5.0	ND 5.0	ND 5.0		20.57	10.74
	2/26/99	89,000	9,500	22,000	1,600	8,100	<400	ND 0.5	8.7	ND 0.5	5.0	4.8	4.5		20.23	11.08
A-3	4/28/98	23,000	89	460	1,400	2,870	<40	ND 1.0	ND 1.0	ND 1.0	10	2.5	ND 1.0	30.71	18.81	11.90
	8/4/98	23,000	65	270	1,300	2,650	<20	ND 5.0	ND 5.0	ND 5.0	9.6	ND 5.0	ND 5.0		19.05	11.66
	11/18/98	24,000	73	370	1,200	2,210	<20	ND 2.5	ND 2.5	ND 2.5	6.7	ND 2.5	ND 2.5		19.66	11.05
	2/26/99	30,000	160	520	1,400	2,630	<20	ND 0.5	0.9	0.7	11	3.1	0.8		19.32	11.39

Notes:

TPH-G denotes total petroleum hydrocarbons as gasoline

MTBE denotes methyl-tert-butyl ether

1,2-DCA denotes 1,2-dichloroethane

Cis-1,2-DCE denotes Cis-1,2-dichloroethene

TCE denotes Trichloroethene

PCE denotes Tetrachloroethene

1,2-DCP denotes 1,2-dichloropropane

ND denotes not detected at stated detection limit

Primary MCls (Maximum Contaminant Levels) from California Dept. of Health Services; if none exist, US EPA levels aer listed

ft., MSL denotes feet, mean sea leve

ft denotes feet

HVOCs denotes Halogenated Volatile Organic Compounds

ug/l denotes micrograms per liter

APPENDIX A GROUNDWATER SAMPLING PROTOCOL

FIELD PROTOCOL

The static water level and floating product level, if present, in each well that contained water was measured with an ORS Interphase Probe Model No. 1068018 or Solonist Water Level Indicator; these instruments are accurate to the nearest 0.01 foot. These groundwater depths were subtracted from wellhead elevations, including corrections for product thickness, when necessary, for gradient evaluation by multiplying product thickness (PT) by a correction factor 0.8 and subtracting from the DTW (Adjusted DTW = DTW - [PT x 0.8]).

Water samples collected for subjective evaluation were collected by gently lowering approximately half the length of a new disposable or Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product. All Teflon® bailers are triple washed with Alconox® and triple rinsed with distilled water prior to use.

Before water samples were collected from the groundwater Monitoring Wells, the wells were purged until stabilization of the temperature, pH, and conductivity were obtained. Approximately three well casing volumes were purged before those characteristics stabilized. The quantity of water purged from each well was calculated as follows:

1 well casing volume = $pr^2h(7.48)$ where:

r = radius of the well casing in feet.
h = column of water in the well in feet
(depth to bottom - depth to water).
7.48 = conversion constant from cubic feet to gallons

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples were collected with a new disposable or Teflon® bailer, and carefully poured into 40-milliliter (ml) glass vials, which were filled so as to produce a positive meniscus. Each vial was preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

APPENDIX B FIELD SAMPLING LOGS

FIELD REPORT/DATA SHEET

Date:	2/26/99		Proje	ct Number:	61877.0	1004	Fie	ld Technician:	J. SAL	<u> </u>	
	2 26 99 Day: M Tu W Th	(F)									
DTW Order	Well ID	Diam.	Lock	Exp. Cap	Total Depth	DTW luitial	DTW Final	Time Sampled		Comments -	
	A-3	7	Good	9000		19.32					
ş °	A -1					19.82					···
	A-Z	V	V	\downarrow		20.23					
	· . ·								•		
					<u> </u>		-			. 8	
OTES:			Marie and the second				:) jejan	
							•				

Number of Drums Onsite

Full	Empty	TOTAL
	14/1	
Estimated Value:	145	gal.

AREALL DRUMS LABELLED WITH THE LABELS PACING OUT

	C ASSOCIATES INC. WATER S	
WELL DESIGNATION #	SITE:	Prentiss
	DATE	2/26/99
SAMPLE DESIGNATION A-)	PROJEC	T# 41971,0004
	SAMPLE	R J.SALA
AMBIENT CONDITIONS CLOUD.	4	
WATER LEVEL INFORMATION		
	MEASURING POINT TOC	
W.L. BEFORE PURGE 19.82 TIME	W.L. AFTER PURGE	TIME
W.L. FOR 80% RECOVERY	W.L. TIME OF SAMPLE —	DATETIME
MONITORING WELL PURGE INFO	ORMATION MONITORING W	ELL PURGE METHOD
WELL DEPTH 29,97	DIAMETERZ	#CASING VOLUMES 3
SCREENED INTERVAL	PUMP SETTING 24	
PURGE VOLUME CALCULATION 25	7.97 - 1982 = 10.15	X.49= 4.97
TIME PURGE BEGINS (20つ	ACTUAL	AMOUNT PURGED 6.5
TIME VOLUME pH	COND. TEMP COLO	OR TURBIDITY D.O. O.R.P.
1208 0 677	947 633 Cha	
1212 2 6.73		41.
1216 4 6,72		Strophicology ~ ~
1220 0.9 6.15	850 65.1	Straktly Closely
		
Wideling Charles Wideling		
WATER SAMPLING INFORMATIO	MONITORING WI	ELL SAMPLE METHOD
		12 has 100
SAMPLING TIM		DATE 2/26/89
	OLUME ANALYSIS LAB	PRESERVATION FILTRATION
Vals 3 40	MIL TPHG/BTX/HTIRE	
٠ 3 .	7 8010	<u> </u>
SAMPLING EQUIPMENT INFORM	ATION	
PURGE EQUIPMENT	SAMPLING EQ	
F F		
SUBMERSIBLE PUMP BAILER(TEFL	ON)SUBMERSIBLE	PUMP BAILER(TEFLON) \(\frac{1}{2} \) BAILER(DISPOSABLE)
1 3 7		PUMPBAILER(TEFLON)
	DICATEDBAILER(PVC)_	_ DIPPER PRESSURIZED DISPOSABLE BAILER
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	OCIATES INC. WATER SA	
WELL DESIGNATION A-2	SITE:	Prentiss
	DATE	2/26/99
SAMPLE DESIGNATION A-2	PROJECT#	61877.0004
o	SAMPLER	J. SALA
AMBIENT CONDITIONS CLOUDY		
WATER LEVEL INFORMATION		
20.5	MEASURING POINT Tax	
W.L. BEFORE PURGE 20.23 TIME -	W.L. AFTER PURGE	TIME
W.L. FOR 80% RECOVERY —	W.L. TIME OF SAMPLE	DATE — TIME —
MONITORING WELL PÜRGE INFORMAT	TION MONITORING WEI	L PURGE METHOD
	_	
WELL DEPTH 28.40	DIAMETER Z	#CASING VOLUMES 3
SCREENED INTERVAL 25 A2	PUMP SETTING 25 - 20.23 = 8.17	× 10 - 10
PURGE VOLUME CALCULATION 26 49	20.23 = 0117	X : 42) = 9,0
TIME PURGE BEGINS (300	A CONTENT A T	MOUNT PURGED S. 25
TIME LOKAE BEATING / 200	ACTUAL A	MOONI PUKGED 3, 20
TIME VOLLEGE II	OND TO COLOR	
	COND. TEMP COLOR A しとり Clent	
		Very Shiem
1305 2 6.60 60		<u> </u>
	83 63.0 L 78 63.1 L	<u> </u>
2 2 2	79 63.1 1 182 63.0 1	
1314 5.4 6.63 6	45.0 C	1/Goly -
WATER SAMPLING INFORMATION	MONITORING WEL	L SAMPLE METHOD
SAMPLING TIME 13	2.60	DATE 2/26/99
BOTTLE TYPE NO. VOLUME		PRESERVATION FILTRATION
VOAS 3 40MIL		et Acc _
↓ 3 ↓	8010	+ + -
SAMPLING EQUIPMENT INFORMATION		
PURGE EQUIPMENT	SAMPLING EQUI	PMENT
XSUBMERSIBLE PUMP BAILER(TEFLON)		JMPBAILER(TEFLON)\(\frac{1}{2}\) BAILER(DISPOSABLE)
BAILER(PVC)HONDA PUMP DEDICATED	BAILER(PVC) _ I	DIPPER PRESSURIZED DISPOSABLE BAILER
OTHER:	OTHER:	
PREVIOUSLY USED IN WELL	PREVIOUSLY US	ED IN WELL
SITE	SITE	
DECON METHOD ALCONOX LIQUINOX	DECON METHOD	ALCONOX LIQUINOX
QA/QC INFORMATION		
TEMP. BLANKYESX_NO		
TRAVEL BLANKYES_X_NO_ID		O ID
DUPLICATE YES NO ID FIELD	BLANK YES X NO ID	
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		DAT		49	
SAMPLE DESIGNATION	<u>-3</u>	PRO	آم_ #ECT	77.0004	
	•	SAM	PLER	SALA	
AMBIENT CONDITIONS C	LOUDY				
WATER LEVEL INFORMA	TION				
	MEAS	URING POINT OC		· , ·	
W.L. BEFORE PURGE 19.3				TIME	
W.L. FOR 80% RECOVERY -		TIME OF SAMPLE	DATE	TIME	
MONITORING WELL PUR		MONITORING			
					<u></u>
WELL DEPTH 29.92	DIAM	ETER 2	#CASING	VOLUMES 3	
SCREENED INTERVAL —		SETTING	#CABIIN	VOLONIES	
PURGE VOLUME CALCULATION	26 92 cl	9.32 = 10.6	Y.49 =	6 19	
PURGE VOLUME CALCULATION		1.36 - 10:10	<u> </u>		
m a pymon propya U 2 b		, om		.marn / 15	•
TIME PURGE BEGINS 1120		ACT	UAL AMOUNT F	URGED 6,25	<u>,</u>
TIME VOLUME	pH COND.			TURBIDITY D.C	
	,75 495	41.0 C	lea Octoby We	y Slight -	
1129 2 6	1.77 688	67.7	1	4 -	
1128 4 (0.77 684	63.0	J	1 -	
1132 6,25 (0.77 680	63.2	V	• –	
			-		
		<u> </u>	·· 		
		·			
WATER SAMPLING INFO	RMATION	MONITORING	WELL SAMP	LE METHOD	
WATER STIM ERIO INFO	MARKET ON	MONTORING	WELL STEVE	<u> </u>	
	LING TIME 1144		DATE	2/26/99	
₿					
BOTTLE TYPE N				ERVATION	FILTRATION
VOAS 3		PHG/BTex/MTB			
$\frac{1}{2}$	<u> </u>	8010	<u> </u>	<u> </u>	
SAMPLING EQUIPMENT I	NFORMATION				
PURGE EQUIPMENT			EQUIPMENT		
SUBMERSIBLE PUMP BAI	LER(TEFLON)	SUBMERS	BLE PUMP BAI	ler(teflon) X bailei	R(DISPOSABLE)
BAILER(PVC) HONDA PUI	· · · · · ·	BAILER(P	C) _ DIPPER _ P	RESSURIZED DISPOSAI	BLE BAILER
OTHER:		OTHER:			
PREVIOUSLY USED IN WELL	<u>-</u>		LY USED IN WE	·.T.	_
SITE	······	SITE	J 1 00000 H4 440.	,	
DECON METHOD ALCONOX	X HOURNOY		THOD ALCONO	X LIQUINO	-
<u> </u>	- Z DIQUINOX	DECON MI	THOD SECOND	*** FTGOTIO	<u> </u>
QA/QC INFORMATION	TO.				
TEMP. BLANK YES X 1			V 370 -		
TRAVEL BLANKYES_\forall			NO	· · · · · · · · · · · · · · · · · · ·	
DUPLICATE YES X NO II	D FIELD BLAN	K YES X NO ID		<u>-</u>	}
WELL INTEGRITY: 1903				LOCK#: 900	<u>u</u>
notes odor at e	stand of prope	, No Shew		•	
	, <u>, , , , , , , , , , , , , , , , , , </u>				
	<u> </u>				
SIGNATURE: Oll my D	Valle				
100 12	- Surv		·	c:\workfile\samplir	ıg\samplog.xls

APPENDIX C GROUNDWATER ANALYTICAL LABORATORY REPORT AND CHAIN OF CUSTODY RECORDS

1999 IST Quarter Groundwater Monitoring Report
H:\LEHRMAN\Prentiss\0004\Reports\99rpt\st.doc [March 12, 1999]



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

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

ANALYTICAL REPORT

Prepared for:

ATC Associates, Inc. 6666 Owens Dr. Pleasanton, CA 94588

Date: 09-MAR-99

Lab Job Number: 138187 Project ID: 61877.0004

Location: Prentiss Oakland

Reviewed by:

Reviewed by:

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TVH-Total Volatile Hydrocarbons

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8015M

Prep Method: I

EPA 5030

Sample # Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138187-001 A-3	46518	02/26/99	03/02/99	03/02/99	
138187-002 A-1	46518	02/26/99	03/02/99	03/02/99	
138187-003 A-2	46518	02/26/99	03/02/99	03/02/99	
<u></u> .					

Matrix: Water

Analyte Diln Fac:	Units	138187-001 10	138187-002 100	138187-003 100	
Gasoline C7-C12	ug/L	30000	68000	89000	
Surrogate		102			
Trifluorotoluene	%REC	102	87	92	
Bromofluorobenzene	%REC	103	96	93	



BTXE

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8021B

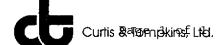
Prep Method:

EPA 5030

Sample # Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138187-001 A-3	46518	02/26/99	03/02/99	03/02/99	
138187-002 A-1	46518	02/26/99	03/02/99	03/02/99	
138187-003 A-2	46519	02/26/99	03/05/99	03/05/99	

Matrix: Water

Analyte Diln Fac:	Units	138187-001 10	138187-002 100	138187-003 200	
MTBE	ug/L	<20	<200	<400	
Benzene	ug/L	160	14000	9500	
Toluene	ug/L	520	9900	22000	
Ethylbenzene	ug/L	1400	2000	1600	
m,p-Xylenes	ug/L	2200	6700	5400	
o-Xylene	\mathtt{ug}/\mathtt{L}	430	2600	2700	
Surrogate					
Trifluorotoluene	%REC	100	109	98	
Bromofluorobenzene	%REC	99	107	93	



TVH-Total Volatile Hydrocarbons

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8015M

Prep Method: EPA 5030

METHOD BLANK

Matrix: Water

Batch#: 46518 Units: ug/L

Diln Fac: 1

Prep Date: 03/02/99

Analysis Date: 03/02/99

Analyte	Result	
Gasoline C7-C12	<50	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	92	53-150
Bromofluorobenzene	110	53-149



BTXE

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8021B

Prep Method: EPA 5030

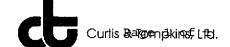
METHOD BLANK

Matrix: Water

Batch#: 46518 Units: ug/L Diln Fac: 1

03/02/99 Prep Date: Analysis Date: 03/02/99

Analyte	Result	
MTBE	<2.0	\$
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	51-143
Bromofluorobenzene	95	37-146



BTXE

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8021B

Prep Method: EPA 5030

METHOD BLANK

 Matrix:
 Water
 Prep Date:
 03/04/99

 Batch#:
 46519
 Analysis Date:
 03/04/99

Units: ug/L Diln Fac: 1

Analyte	Result	
MTBE	<2.0	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene.	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	100	51-143
Bromofluorobenzene	96	37-146

Lab #: 138187

BATCH QC REPORT



TVH-Total Volatile Hydrocarbons

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8015M

Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water Batch#: 46518

Prep Date: Analysis Date:

03/01/99 03/01/99

Units: ug/L Diln Fac: 1

LCS Lab ID: QC91824

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2124	2000	106	77-117
Surrogate	%Rec	Limits		
Trifluorotoluene Bromofluorobenzene	88 105	53-150 53-149		

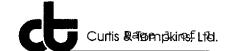
[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Lab #: 138187

BATCH OC REPORT



BTXE

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8021B

Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water Batch#: 46518

Units: ug/L Diln Fac: 1

Prep Date:

03/03/99

Analysis Date: 03/03/99

BS Lab ID: QC91825

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	21.2	106	65-135
Benzene	20	22.17	111	65-111
Toluene	20	21.4	107	76-117
Ethylbenzene	20	20.56	103	71-121
m,p-Xylenes	40	43.85	110	80-123
o-Xylene	20	21.88	109	75-127
Surrogate	%Rec	Limits		
Trifluorotoluene	109	51-143		
Bromofluorobenzene	103	37-146		

BSD Lab ID: QC91826

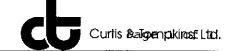
ĺ	Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
i	МТВЕ	20	20.83	104	65-135	2	20
J	Benzene	20	21.59	108	65-111	3	10
H	Toluene	20	20.63	103	76-117	4	10
'	Ethylbenzene	20	20.33	102	71-121	1	11
ļ	m,p-Xylenes	40	43.47	109	80-123	1	10
) -	o-Xylene	20	21.29	106	75-127	3	11
 	Surrogate	%Rec	Limit	s	-		
	Trifluorotoluene	102	51-14	3			
<u> </u>	Bromofluorobenzene	101	37-14	6			

[#] Column to be used to flag recovery and RPD values with an asterisk

RPD: 0 out of 6 outside limits

^{*} Values outside of QC limits

Spike Recovery: 0 out of 12 outside limits



TVH-Total Volatile Hydrocarbons

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8015M

Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ Lab ID: 138155-001

Matrix: Water Batch#: 46518 Units: ug/L

Diln Fac: 1

Sample Date: 02/23/99 Received Date: 02/24/99

Prep Date: 03/02/99 Analysis Date: 03/02/99

MS Lab ID: QC91828

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1915	96	69-131
Surrogate	% Rec	Limits	•		
Trifluorotoluene Bromofluorobenzene	88 109	53-150 53-149			

MSD Lab ID: QC91829

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2031	102	69-131	6	13
Surrogate	%Rec	Limi	ts			
Trifluorotoluene Bromofluorobenzene	89 107	53-14 53-14				

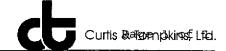
[#] Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

Lab #: 138187

BATCH QC REPORT



BTXE

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8021B

Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water Batch#: 46519

Prep Date: 03/0 Analysis Date: 03/0

03/04/99 03/04/99

Units: ug/L Diln Fac: 1

BS Lab ID: QC91831

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	20.38	102	65-135
Benzene	20	20.45	102	65-111
Toluene	20	19.56	98	76-117
Ethylbenzene	20	18.26	91	71-121
m,p-Xylenes	40	38.76	97	80-123
o-Xylene	20	19.53	98	75-127
Surrogate	%Rec	Limits		
Trifluorotoluene	105	51-143		<u> </u>
Bromofluorobenzene	100	37-146		

BSD Lab ID: QC92162

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	20.33	102	65-135	0	20
Benzene	20	20.95	105	65-111	2	10
Toluene	20	20.33	102	76-117	4	10
Ethylbenzene	20	19.15	96	71-121	5	11
m,p-Xylenes	40	40.31	101	80-123	4	10
o-Xylene	20	20.15	101	75-127	3	11
Surrogate	%Rec	Limit	s	7.00		
Trifluorotoluene	107	51-14	3			
Bromofluorobenzene	98	37-14	6			

[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 12 outside limits



Halogenated Volatile Organics EPA 8010 Analyte List

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Field ID: A-3

Lab ID: 138187-001

Matrix: Water

Batch#: 46545

Units: ug/L

Diln Fac: 1

Sampled:	02/26/99
Received:	02/26/99

Received: Extracted:

Prep Method:

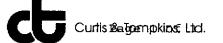
03/02/99

EPA 5030

Analyzed: 03/02/99

Analysis Method: EPA 8260A

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	0.9	0.5
Chloroform	ИD	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	0.7	0.5
Trichloroethene	11	0.5
1,2-Dichloropropane	0.8	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	3.1	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	93	82-118



EPA 5030

Analysis Method: EPA 8260A

Prep Method:

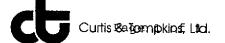
Halogenated Volatile Organics EPA 8010 Analyte List

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Field ID: A-1		Sampled: 02/26/99		
Lab ID: 138187-002		Received: 02/26/99		
Matrix: Water		Extracted: 03/02/99		
Batch#: 46545		Analyzed: 03/02/99		
Units: ug/L		-		
Diln Fac: 1				
Analyte	72 7			
	Result	Reporting Limit		
Chloromethane	ND	1.0		
Vinyl Chloride	ND	1.0		
Bromomethane	ND	1.0		
Chloroethane	ND	1.0		
Trichlorofluoromethane	ND	0.5		
Freon 113	ND	1.0		
1,1-Dichloroethene	ND	0.5		
Methylene Chloride	ND	20		
trans-1,2-Dichloroethene	ND	0.5		
1,1-Dichloroethane	1.9	0.5		
cis-1,2-Dichloroethene	16	0.5		
Chloroform	ND	1.0		
1,1,1-Trichloroethane	ND	0.5		
Carbon Tetrachloride	ND	0.5		
1,2-Dichloroethane	10			
Trichloroethene	4.0			
1,2-Dichloropropane	3.8	0.5		
Bromodichloromethane	ND	0.5		
cis-1,3-Dichloropropene	ND	0.5		
trans-1,3-Dichloropropene	ND	0.5		
1,1,2-Trichloroethane	ND	0.5		
Tetrachloroethene	3.5	0.5		
Dibromochloromethane	ND	0.5		
Chlorobenzene	ND	0.5		
Bromoform	ND	0.5		
1,1,2,2-Tetrachloroethane	ND	0.5		
1,3-Dichlorobenzene	ND	0.5		
1,4-Dichlorobenzene	ND	0.5		
1,2-Dichlorobenzene	ND	0.5		
Surrogate	%Recovery	Recovery Limits		
1,2-Dichloroethane-d4	96	76-127		
Toluene-d8	97	90-109		
Bromofluorobenzene	92	82-118		



Halogenated Volatile Organics EPA 8010 Analyte List

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Field ID: A-2

Lab ID:

138187-003

Matrix:

Water

Batch#:

46545

Units: ug/L Diln Fac: 1 Sampled: Received: 02/26/99 02/26/99

EPA 5030

Extracted:

Prep Method:

03/02/99

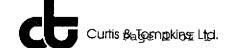
Analyzed: 03/02/99

Analysis Method: EPA 8260A

Analyte	Result	Reporting Limit				
Chloromethane	ND	1.0				
Vinyl Chloride	ND	1.0				
Bromomethane	ND	1.0				
Chloroethane	ND	1.0				
Trichlorofluoromethane	ND	0.5				
Freon 113	ND	1.0				
1,1-Dichloroethene	ND	0.5				
Methylene Chloride	ND	20				
trans-1,2-Dichloroethene	ND	0.5				
1,1-Dichloroethane	ND	0.5				
cis-1,2-Dichloroethene	8.7	0.5				
Chloroform	ND	1.0				
1,1,1-Trichloroethane	ND	0.5				
Carbon Tetrachloride	ND	0.5				
1,2-Dichloroethane	ND	0.5				
Trichloroethene	5.0	0.5				
1,2-Dichloropropane	4.5	0.5				
Bromodichloromethane	ND	0.5				
cis-1,3-Dichloropropene	ND	0.5				
trans-1,3-Dichloropropene	ND	0.5				
1,1,2-Trichloroethane	ND	0.5				
Tetrachloroethene	4.8	0.5				
Dibromochloromethane	ND	0.5				
Chlorobenzene	ND	0.5				
Bromoform	ND	0.5				
1,1,2,2-Tetrachloroethane	ND	0.5				
1,3-Dichlorobenzene	ND	0.5				
1,4-Dichlorobenzene	ND	0.5				
1,2-Dichlorobenzene	ND	0.5				
Surrogate	%Recovery	Recovery Limits				
1,2-Dichloroethane-d4	95	76-127				
Toluene-d8	96	90-109				
Bromofluorobenzene	92	82-118				

Lab #: 138187

BATCH QC REPORT



Halogenated Volatile Organics EPA 8010 Analyte List

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8260A

Prep Method: EPA 5030

METHOD BLANK

Matrix: Water Batch#: 46545 Units: ug/L Diln Fac: 1

Prep Date: Analysis Date:

03/02/99

03/02/99

Analyte	Result	Reporting Limit
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Freon 113	ND	1.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	20
trans-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
cis-1,2-Dichloroethene	ND	0.5
Chloroform	ND	1.0
1,1,1-Trichloroethane	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
cis-1,3-Dichloropropene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	111	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	102	82-118

Lab #: 138187

BATCH QC REPORT



Halogenated Volatile Organics EPA 8010 Analyte List

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8260A

Prep Method: EPA 5030

METHOD BLANK

Matrix: Water Batch#: 46545

Units: ug/L Diln Fac: 1

03/02/99 Prep Date: Analysis Date: 03/02/99

Analyte	Result	Reporting Limit		
Chloromethane	ND	1.0		
Vinyl Chloride	ND	1.0		
Bromomethane	ND	1.0		
Chloroethane	ND	1.0		
Trichlorofluoromethane	ND	0.5		
Freon 113	ND	1.0		
1,1-Dichloroethene	ND	0.5		
Methylene Chloride	ND	20		
trans-1,2-Dichloroethene	ND	0.5		
1,1-Dichloroethane	ND	0.5		
cis-1,2-Dichloroethene	ND	0.5		
Chloroform	ND	1.0		
1,1,1-Trichloroethane	ND	0.5		
Carbon Tetrachloride	ND	0.5		
1,2-Dichloroethane	ND	0.5		
Trichloroethene	ND	0.5		
1,2-Dichloropropane	ND	0.5		
Bromodichloromethane	ND	0.5		
cis-1,3-Dichloropropene	ND	0.5		
trans-1,3-Dichloropropene	ND	0.5		
1,1,2-Trichloroethane	ND	0.5		
Tetrachloroethene	ND	0.5		
Dibromochloromethane	ND	0.5		
Chlorobenzene	ND	0.5		
Bromoform	ND	0.5		
1,1,2,2-Tetrachloroethane	ND	0.5		
1,3-Dichlorobenzene	ND	0.5		
1,4-Dichlorobenzene	ND ND	0.5		
1,2-Dichlorobenzene	ND	0.5		
Surrogate	%Rec	Recovery Limits		
1,2-Dichloroethane-d4	112	76-127		
Foluene-d8	99	90-109		
Bromofluorobenzene	103	82-118		



Halogenated Volatile Organics

Client: ATC Associates, Inc.

Project#: 61877.0004

Location: Prentiss Oakland

Analysis Method: EPA 8260A

Prep Method: EPA

EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water Batch#: 46545 Units: ug/L

Diln Fac: 1

Prep Date:

03/02/99

Analysis Date:

03/02/99

BS Lab ID: QC91931

Analyte	Spike Added	BS	%Rec #	Limits	
1,1-Dichloroethene	50	52.28	105	64-139	
Trichloroethene	50	52.8	106	72-129	
Chlorobenzene	50	53.22	106	77-126	
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	109	76-127			
Toluene-d8	99	90-109			
Bromofluorobenzene	98	82-118			

BSD Lab ID: QC91932

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.62	101	64-139	3	13
Trichloroethene	50	50.35	101	72-129	5	10
Chlorobenzene	50	50.95	102	77-126	4	10
Surrogate	%Rec	Limits	s	·· •••	···—	·····
1,2-Dichloroethane-d4	110	76-12	 7			
Toluene-d8	99	90-109				
Bromofluorobenzene	99	82-118	В			

[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

RPD: 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

Sample Name : rd,138187-001f,46518,500 uL FileName : G:\GC04\DATA\060J030.raw

: TVHBTXE

art Time : 0.00 min ale Factor: -1.0

End Time : 26.00 min Plot Offset: 52 mV

Sample #: ph<2 10x

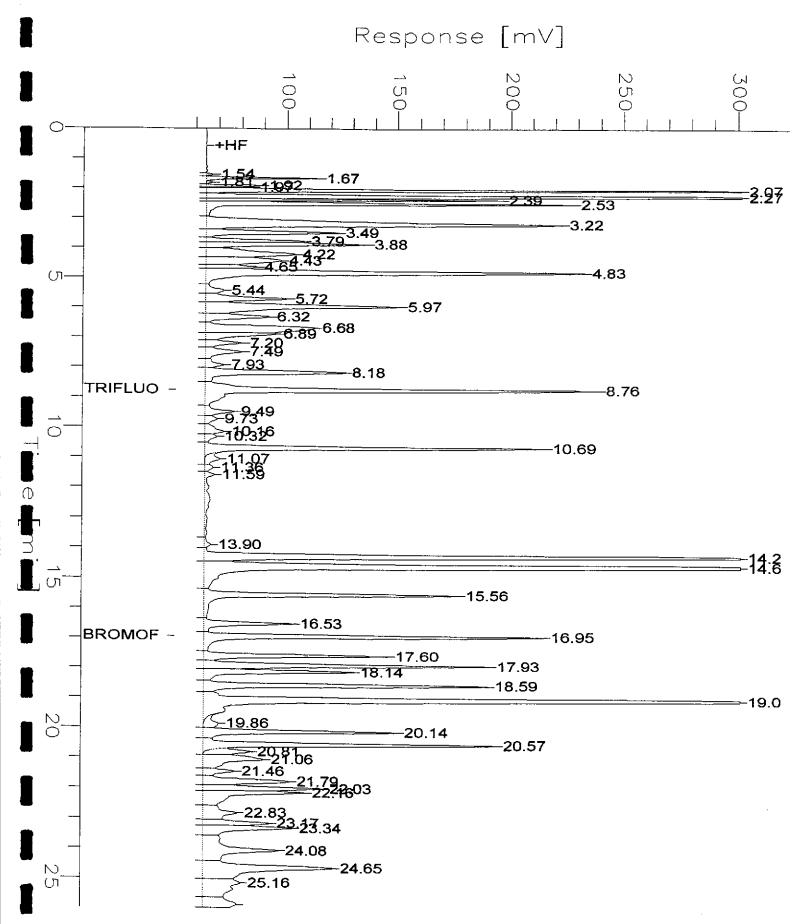
Date: 3/4/99 02:32 PM

Time of Injection: 3/2/99 01:06 PM

Low Point : 51.57 mV Plot Scale: 250.0 mV

High Point : 301.57 mV

Page 1 of 1



Sample Name : 138187-002a, 46518, 50 uL FileName : G:\GC04\DATA\060J039.raw

: TVHBTXE

art Time : 0.00 min ale Factor: -1.0

End Time : 26.00 min Plot Offset: 50 mV

Sample #: 100x ph<2

Date: 3/2/99 09:17 PM

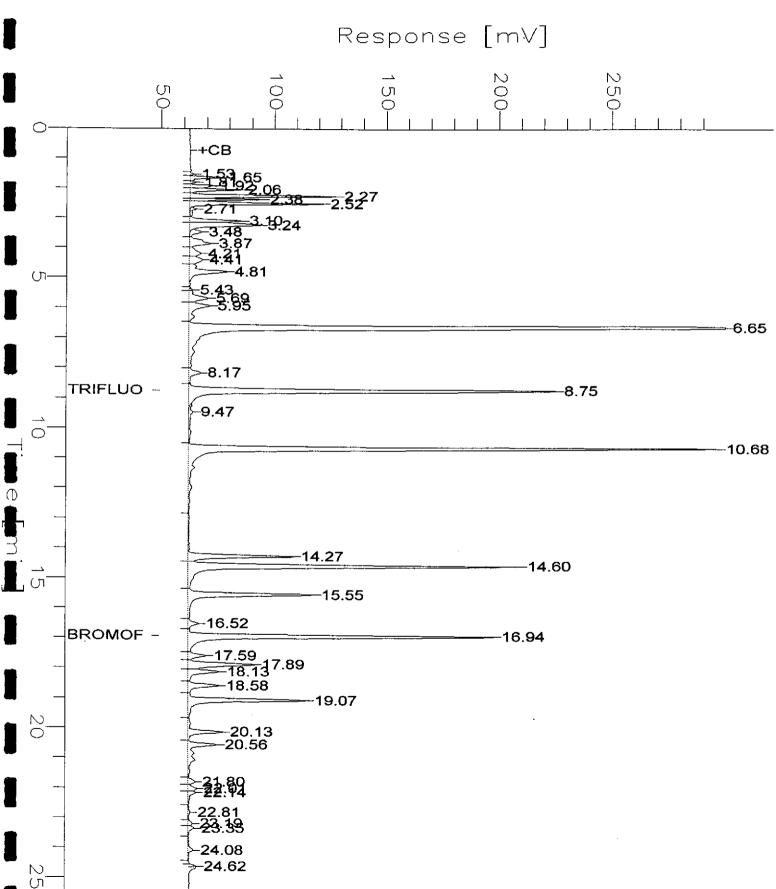
Time of Injection: 3/2/99 08:51 PM

Low Point : 49.51 mV

High Point : 299.51 mV

Page 1 of 1

Plot Scale: 250.0 mV



Sample Name : 138187-003a,46518,50 uL FileName : G:\GC04\DATA\060J040.raw

thod : TVHBTXE art Time : 0.00 min

End Time : 26.00 min Plot Offset: 50 mV Sample #: 100x ph<2 Date: 3/2/99 09:54 PM

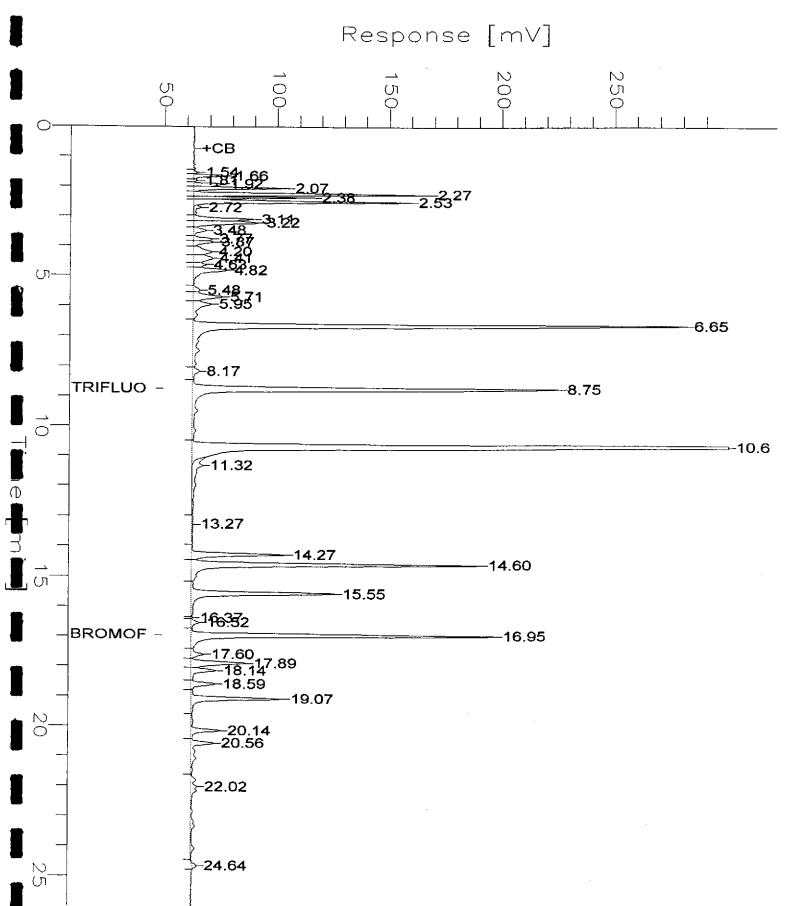
Page 1 of 1

Time of Injection: 3/2/99 09:28 PM

Low Point : 49.73 mV

High Point : 299.73 mV

Plot Scale: 250.0 mV



Sample Name : ccv/lcs,qc91824,99ws7126,46518

: G:\GC04\DATA\060J007.raw

: TVHBTXE

art Time : 0.00 min Scale Factor: -1.0

End Time : 26.00 min Plot Offset: 51 mV

Sample #: GAS

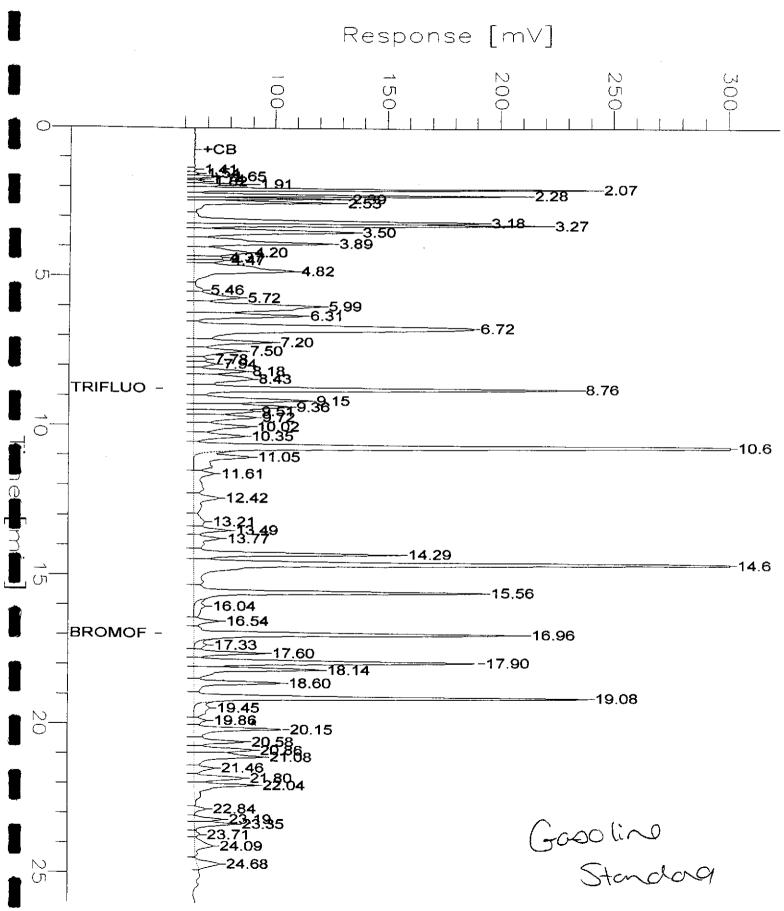
Page 1 of 1 Date: 3/2/99 11:58 AM

Time of Injection: 3/1/99 10:59 PM

Low Point : 51.21 mV

High Point : 301.21 mV

Plot Scale: 250.0 mV



ATC ENVIRONMENTAL INC.

B187 6666 ovenes Dr.

2380 Qume Drive, Suite C San Jose, CA 95131

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Fex: (408) 434-6662
FAX(925) 460 5320 FAX(925) 463-2551

Project Name PRENTISS DAKLAND 80151 8020 **Turn Around Time** 8010 TPH as diesel, EPA 8015M 8080 Project Number TPH as gas/MinkWathm 61877,0004 Standard VOCs, EPA 8010/8020 5 to 10 Business Days ATC Environmental Inc. Contact Pesticides Only, EPA PP (13) Metals, EPA Title 22 Metals, EPA btex/wtbe JIM LEHOMAN SVOCs, EPA 8270 TRPH, SM 5520F VOCs, EPA 8240 Laboratory Name CUTTIS & TOMOKIN VOCs, EPA 8010 VOCS, EPA 8020 TOG, SM 5520B Priority Rush OC: Business Day(s) No. of Containers Water Type of Preserv-Sample Containers ative Number Location Date Time Remarks 1144 Her VOAS A-3 6 A-2 Relinquished by sampler. Received by Received by Relinguished by Received by laboratory Date Relinguished by