Prepared For:

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

QUARTERLY GROUNDWATER MONITORING REPORT FOURTH QUARTER 1998 FOR 1750 WEBSTER STREET OAKLAND, CALIFORNIA

Submitted By:

ATC Associates Inc.
6666 Owens Drive
Pleasanton, CA 94588

Project No. 61877.0004

January 19, 1999

Prepared By:
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CERTIFICATION

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

James A. Lehrman, RG, CHG
Senior Project Manager

TABLE OF CONTENTS

LIST OF TABLES i

LIST OF FIGURES ii

LIST OF APPENDICES iii

1. INTRODUCTION 1

2. GROUNDWATER SAMPLING 2-1

3. LABORATORY ANALYSIS 3-1

4. SUMMARY OF RESULTS 4-1

4.1 Groundwater Flow Direction and Gradient 4-1

4.2 Laboratory Analysis of Groundwater Samples 4-1

5. DISCUSSION AND CONCLUSIONS 5-1

6. RECOMMENDATIONS 6-1

REFERENCES

TABLES

FIGURES

APPENDICES

LIST OF TABLES

TABLE NO.	TITLE
1	Summary of Groundwater Sample Analytical Results

LIST OF FIGURES

FIGURE NO.	TITLE
1	Site Location Map
2	Site Plan
3	Groundwater Elevation Contour Map (11-18-1998)
4	TPH-G/Benzene Concentrations in Groundwater (11-18-1998)

LIST OF APPENDICES

APPENDIX	TITLE
A	Groundwater Sampling Protocol
B	Field Sampling Logs
C	Groundwater Analytical Laboratory Report and Chain of Custody Records

QUARTERLY GROUNDWATER MONITORING
FOURTH QUARTER 1998
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 fourth quarter of 1998, 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, the three groundwater monitoring wells were installed.

The monitoring wells are 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 November 18, 1998 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 fourth quarter of 1998. For the fourth quarter 1998, groundwater elevations averaged 10.53 feet mean sea level (MSL), ranging from 9.81 feet MSL in A-1 to 11.05 feet in A-3. The apparent groundwater flow direction was northeast with a gradient of approximately 0.0098.

4.2 Laboratory Analysis of Groundwater Samples

A summary of the analytical results from the fourth quarter 1998 monitoring events are presented in **Table 1**. Based on the results of laboratory analyses for samples collected on November 18, 1998, 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. Cis-1,2-dichloroethene (Cis-1,2-DCE) was detected in Monitoring Wells A-1 and A-2. 1,2-dicchloroethane (1,2-DCA) was detected in Monitoring Wells A-1 and A-2. Trichloroethene (TCE) was detected in Monitoring Well A-3.

Detectable concentrations of TPH-G and BTEX have remained generally unchanged in Wells A-1 and A-3 from the third to fourth quarters 1998 in all monitoring wells. TPH-G and BTEX generally increased in Well A-2 from the third to fourth quarters 1998. Concentrations of HVOCs have generally remained unchanged in the wells, with the exception of TCE in Monitoring Wells A-1 and A-2. Concentrations of TCE decreased in Wells A-1 and A-2 from the third quarter 1998 to the fourth quarter 1998.

Figure 4 shows the distribution of TPH-G and BTEX concentrations detected in the groundwater for samples collected on November 18, 1998. The next quarterly groundwater sampling is scheduled for the first quarter of 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 remained generally unchanged in Wells A-1 and A-3. TPH-G and BTEX concentrations increased in Well A-2, while HVOC concentrations decreased in Well A-2. Cis-1,2-DCE remained generally unchanged in Monitoring Well A-1, and continued to be non-detect in Well A-3. 1,2-DCA was not detected at the reporting limit of 17 ug/l last quarter, but was detected at 5.7 ug/l this quarter in Well A-2, increased slightly in Well A-1, and continued to be non-detect in Well A-3 in the fourth quarter 1998. Concentrations of TCE were non-detect in Wells A-1 and A-2, and decreased slightly in Well A-3. Concentrations of PCE continued to be non-detectable in all three wells.

Based on the northeasterly directed groundwater gradient at the site, and the fact that none of the contaminants have been detected in the vadose zone soils, the concentrations detected in the site groundwater monitoring wells appear to be from an upgradient 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 source(s) of the TPH-G, BTEX, MTBE, and HVOCs in groundwater at the 1750 Webster Street site, ATC recommends monitoring for one more quarterly event only.

REFERENCES

ATC Associates Inc., April 13, 1998, Work Plan for Well Installation and Quarterly Groundwater Monitoring at 1750 Webster Street, Oakland, California

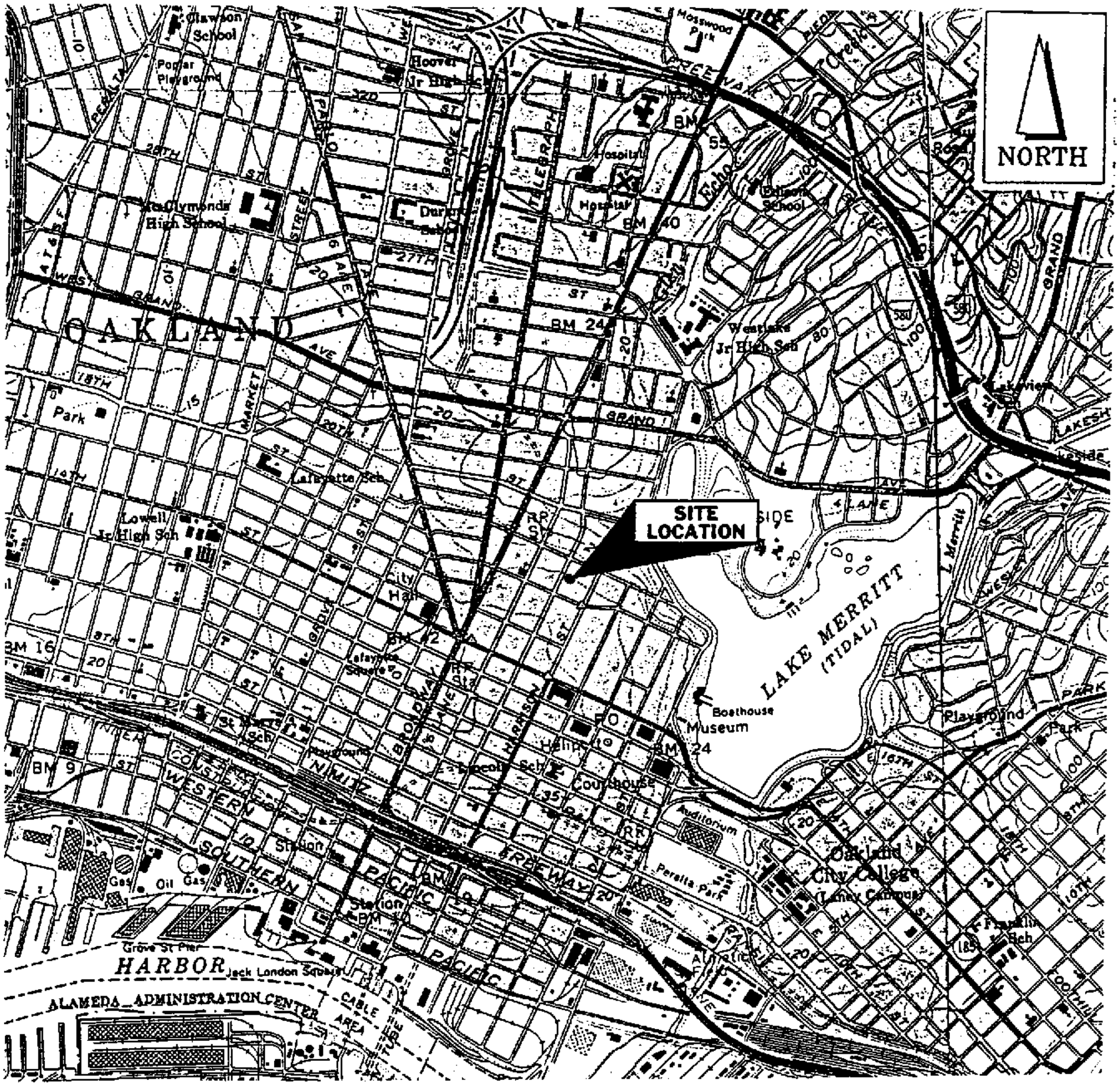
TABLE 1

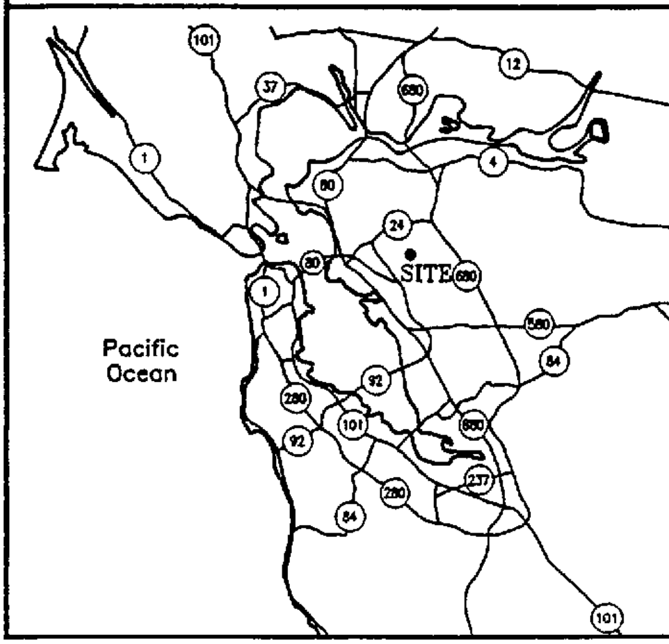
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
PRENTISS PROPERTIES LTD. INC.
1750 WEBSTER STREET SITE
OAKLAND, CA 94612

Sample ID	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	Detected HVOCs (EPA 8010)				Well Elevation (ft., MSL)	Depth to Water (ft)	Ground Water Elevation (ft., MSL)
								Cis-1,2-DCE (ug/l)	1,2-DCA (ug/l)	TCE (ug/l)	PCE (ug/l)			
A-1	4/28/98	56,000	12,000	8,500	1,500	7,300	<200	21	13	5.5	4.8	30.20	19.45	10.75
	8/4/98	59,000	12,000	9,200	1,700	8,400	<200	19	ND 5.0	8.4	ND 5.0		19.80	10.40
	11/18/98	61,000	12,000	8,400	1,800	8,300	<160	21	13	ND 5.0	ND 5.0		20.39	9.81
A-2	4/28/98	84,000	8,600	20,000	1,600	8,000	<250	18	ND 1.0	3.1	2.7	31.31	19.65	11.66
	8/4/98	73,000	7,700	18,000	1,400	7,400	<400	22	ND 17	52	ND 17		19.97	11.34
	11/18/98	110,000	10,000	25,000	2,000	10,300	<400	10	5.7	ND 5.0	ND 5.0		20.57	10.74
A-3	4/28/98	23,000	89	460	1,400	2,870	<40	ND 1.0	ND 1.0	10	2.5	30.71	18.81	11.90
	8/4/98	23,000	65	270	1,300	2,650	<20	ND 5.0	ND 5.0	9.6	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	6.7	ND 2.5		19.66	11.05

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
ug/l denotes micrograms per liter
ND denotes not detected at stated detection limit
ft., MSL denotes feet, mean sea leve
ft denotes feet
HVOCs denotes Halogenated Volatile Organic Compounds





Notes:

1) All locations and dimensions are approximate.

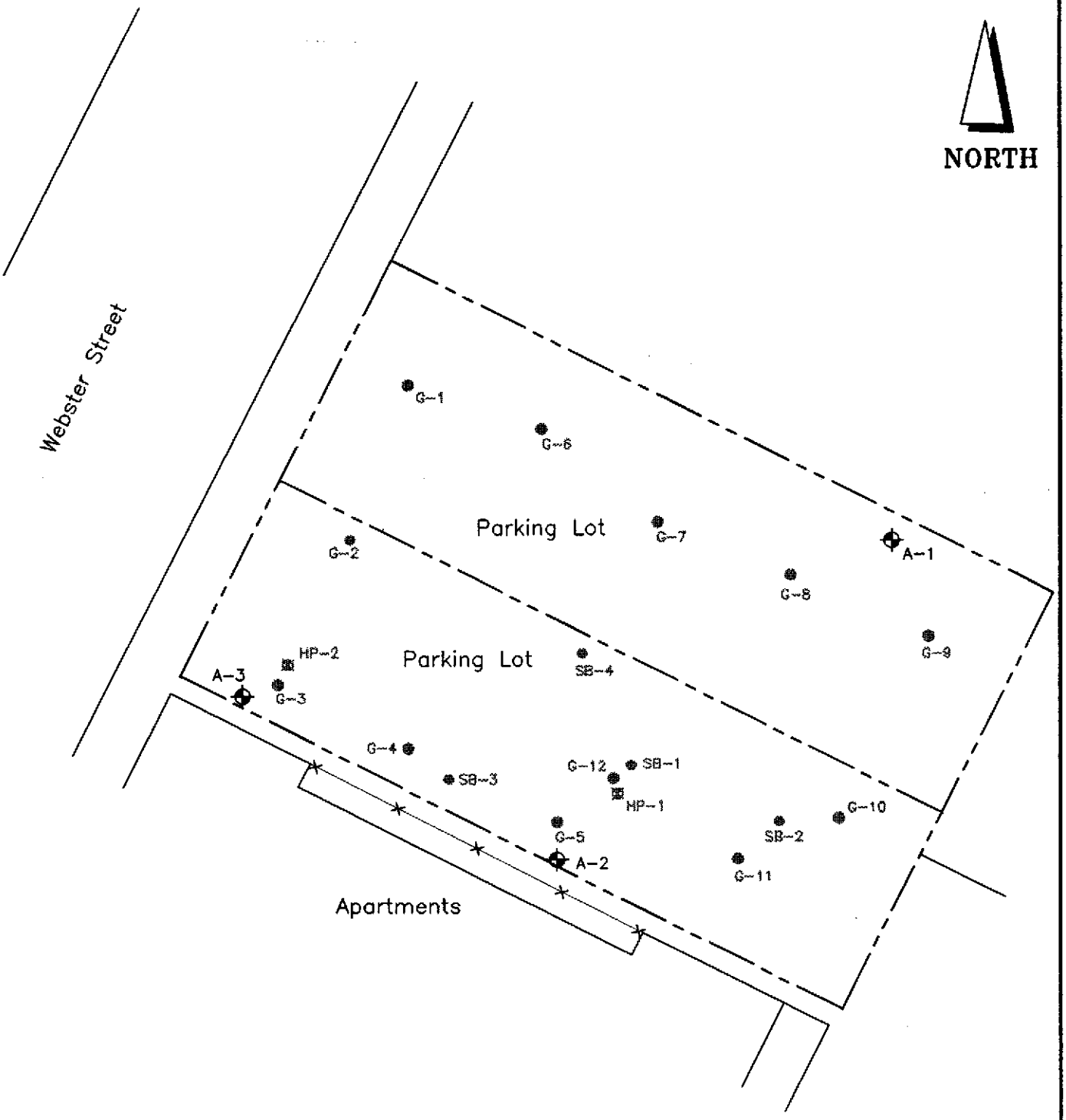
2) Base map from USGS Oakland West (1959) Quadrangle, 7.5 Series Topographic. photorevised in 1968.

APPROXIMATE SCALE: 1" = 2000'

ATC ASSOCIATES INC.
Environmental, Geotechnical and Materials Professionals

SITE LOCATION MAP
1750 WEBSTER STREET
OAKLAND, CALIFORNIA

PROJECT NO. 61877.0004	FIGURE 1



EXPLANATION

A-3 GROUNDWATER MONITORING WELL

HP-2 PREVIOUS HYDROPUNCH LOCATION AND DESIGNATION

G-11 PREVIOUS SOIL BORING LOCATION AND DESIGNATION

0 10 20 30 60

SCALE, FEET

NOTES

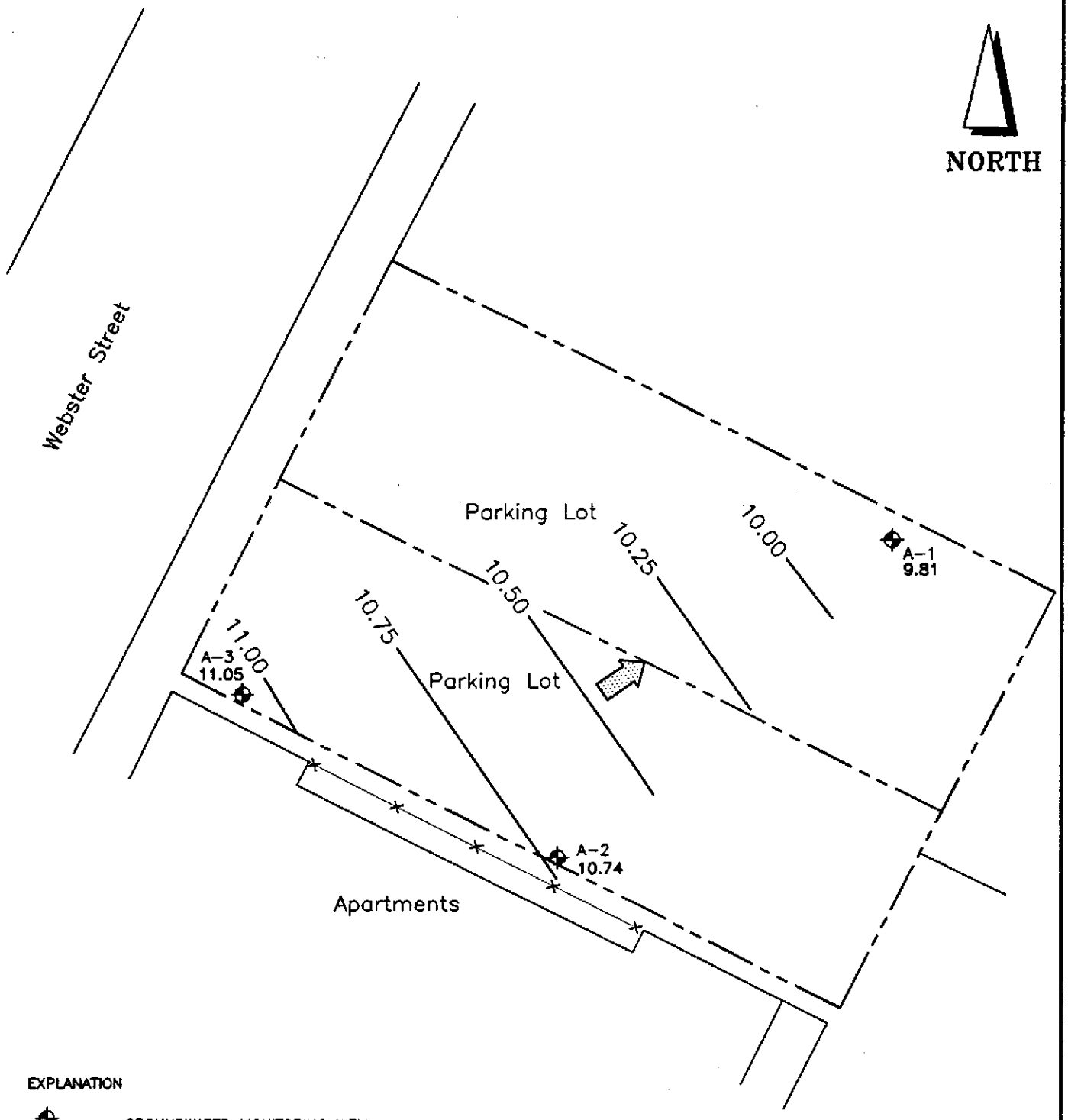
1) All locations and dimensions are approximate.

SOURCE: SITE SURVEY BY RON ARCHER CIVIL ENGINEER, INC., APRIL 28, 1998

VATC ASSOCIATES INC.
ENVIRONMENTAL, GEOTECHNICAL AND MATERIALS PROFESSIONALS

SITE PLAN
1750 WEBSTER STREET
OAKLAND, CALIFORNIA

PROJECT NO. 61877.0004 | FIGURE 2



EXPLANATION

MW-3 GROUNDWATER MONITORING WELL

11.05 GROUNDWATER ELEVATION IN FEET (DATUM: MEAN SEA LEVEL)

11.00 GROUNDWATER ELEVATION CONTOUR IN FEET(DATUM: MEAN SEA LEVEL)

APPROXIMATE GROUNDWATER FLOW DIRECTION

0 10 20 30 60

SCALE, FEET

NOTES

1) All locations and dimensions are approximate.

SOURCE: SITE SURVEY BY RON ARCHER CIVIL ENGINEER, INC., APRIL 28, 1998

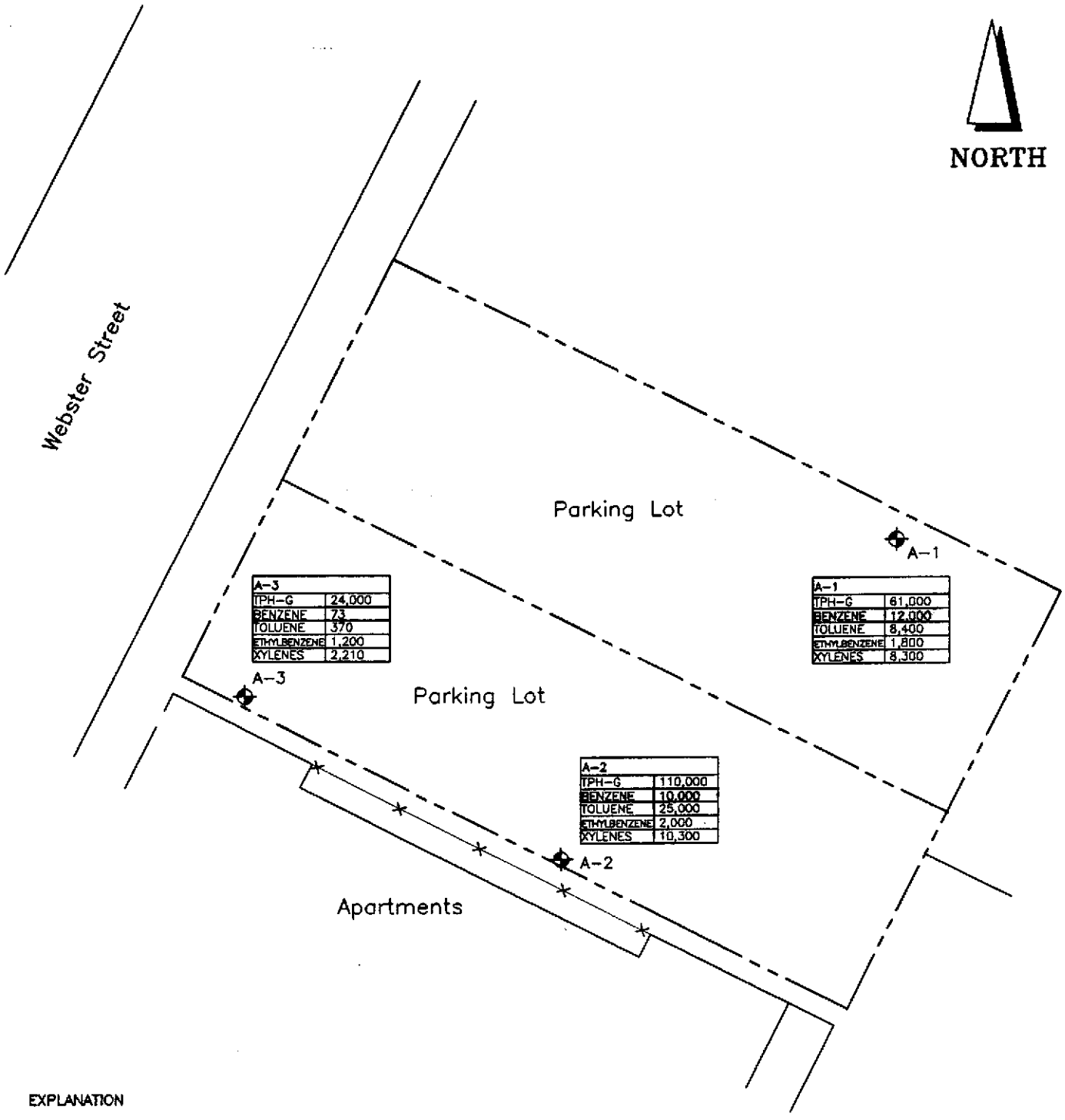
61877/0004/N0

VATC ASSOCIATES INC.

ENVIRONMENTAL, GEOTECHNICAL AND MATERIALS PROFESSIONALS

GROUNDWATER ELEVATION CONTOUR MAP (11-18-98) PRENTISS 1750 WEBSTER STREET OAKLAND, CALIFORNIA

PROJECT NO. 61877.0004 | FIGURE 3



EXPLANATION

MW-3 GROUNDWATER MONITORING WELL

0 10 20 30 60

SCALE, FEET

ALL CONCENTRATIONS IN PARTS PER BILLION (ppb)

NOTES

1) All locations and dimensions are approximate.

SOURCE: SITE SURVEY BY RON ARCHER CIVIL ENGINEER, INC., APRIL 28, 1998

VATC ASSOCIATES INC.
ENVIRONMENTAL, GEOTECHNICAL AND MATERIALS PROFESSIONALS

TPH-G/BENZENE CONCENTRATIONS IN GROUNDWATER (11-18-98)
PRENTISS
1750 WEBSTER STREET
OAKLAND, CALIFORNIA

PROJECT NO. 61877.0004 | FIGURE 4

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

Premiss
1750 Webster St.
Oakland

FIELD REPORT/DATA SHEET

Date: 11/18/98 Project Number: 61877.0004 Field Technician: J. Sala

Day: M Tu (W) Th F

DTW Order	Well ID	Diam.	Lock	Exp. Cap	Total Depth	DTW Initial	DTW Final	Time Sampled	Comments
	~~MW-3~~ MW-3A	2	good	good		19.66			
	~~MW-1~~ MW-1A	↓	↓	↓		20.39			
	MW-2A	↓	↓	↓		20.97			

NOTES:

Number of Drums Onsite

Full	Empty	TOTAL
	1 w 25 gal	

Estimated Value: _____

ARE ALL DRUMS LABELLED WITH THE LABELS FACING OUT

ATC ASSOCIATES INC. WATER SAMPLING LOG

WELL DESIGNATION A-2 | SITE: PRENTISS
SAMPLE DESIGNATION A-2 | DATE 11/19/98
PROJECT# 61872.0004
AMBIENT CONDITIONS SUNNY Cool | SAMPLER J. SACA

WATER LEVEL INFORMATION

MEASURING POINT TOC | GROUND SURFACE —
W.L. BEFORE PURGE 20.57 TIME — | W.L. AFTER PURGE — | TIME —
W.L. FOR 80% RECOVERY — | W.L. TIME OF SAMPLE — | DATE — | TIME —

MONITORING WELL PURGE INFORMATION — MONITORING WELL PURGE METHOD

WELL DEPTH 28.40 | DIAMETER 2 | #CASING VOLUMES 3
SCREENED INTERVAL — | PUMP SETTING —
PURGE VOLUME CALCULATION 28.40 − 20.57 = 7.83 X .49 = 3.83

TIME PURGE BEGINS 1318 | ACTUAL AMOUNT PURGED 4.0

TIME	VOLUME	pH	COND.	TEMP	COLOR	TURBIDITY	D.O.	O.R.P.
1319	0	6.76	644	63.7	Tan	Slight	—	—
1322	1.5	6.72	677	64.1	greenish gray	MOD	—	—
1325	3.0	6.76	660	64.4	↓	↓	—	—
1329	4.0	6.78	641	64.4	↓	↓	—	—

WATER SAMPLING INFORMATION — MONITORING WELL SAMPLE METHOD

SAMPLING TIME 1340 | DATE 11/19/98

BOTTLE TYPE	NO.	VOLUME	ANALYSIS	LAB	PRESERVATION	FILTRATION
VOA	3	40 ML	TPHG/BTEX/MTBE	C&T	HCL	—
↓	↓	↓	8010	↓	↓	↓

SAMPLING EQUIPMENT INFORMATION

PURGE EQUIPMENT
X SUBMERSIBLE PUMP / BAILER(TEFLON)
__ BAILER(PVC) __ HONDA PUMP __ DEDICATED
OTHER:
PREVIOUSLY USED IN WELL
SITE
DECON METHOD ALCONOX X LIQUINOX

SAMPLING EQUIPMENT
__ SUBMERSIBLE PUMP __ BAILER(TEFLON) X BAILER(DISPOSABLE)
__ BAILER(PVC) __ DIPPER __ PRESSURIZED DISPOSABLE BAILER
OTHER:
PREVIOUSLY USED IN WELL
SITE
DECON METHOD ALCONOX LIQUINOX

QA/QC INFORMATION

TEMP. BLANK YES X NO
TRAVEL BLANK YES X NO ID QA/QC SPIKE YES X NO ID
DUPLICATE YES X NO ID FIELD BLANK YES X NO ID

WELL INTEGRITY: good | LOCK#: good
NOTES

SIGNATURE:

ATC ASSOCIATES INC. WATER SAMPLING LOG

WELL DESIGNATION A-3 | SITE: PRENTISS
DATE 11/18/98
SAMPLE DESIGNATION A-3 | PROJECT# 61877.0004
SAMPLER J. SALA
AMBIENT CONDITIONS SUNNY COOL

WATER LEVEL INFORMATION

MEASURING POINT TOC | GROUND SURFACE —
W.L. BEFORE PURGE 19.66 TIME — | W.L. AFTER PURGE — | TIME —
W.L. FOR 80% RECOVERY — | W.L. TIME OF SAMPLE 20.1 DATE — TIME 1209

MONITORING WELL PURGE INFORMATION — MONITORING WELL PURGE METHOD

WELL DEPTH 29.92 | DIAMETER 2 | #CASING VOLUMES 3
SCREENED INTERVAL — | PUMP SETTING —
PURGE VOLUME CALCULATION 29.92 - 19.66 = 10.26 x .49 = 5.02

TIME PURGE BEGINS 1151 | ACTUAL AMOUNT PURGED 5.1

TIME	VOLUME	pH	COND.	TEMP	COLOR	TURBIDITY	D.O.	O.R.P.
1152	0	6.87	678	63.0	Tan	Slight	—	—
1156	2	6.95	693	65.2	↓	↓	—	—
1200	3.5	6.90	697	66.0	↓	↓	—	—
1203	5.1	6.99	699	66.2	↓	↓	—	—

WATER SAMPLING INFORMATION — MONITORING WELL SAMPLE METHOD

SAMPLING TIME 1215 | DATE 11/18/98

BOTTLE TYPE	NO.	VOLUME	ANALYSIS	LAB	PRESERVATION	FILTRATION
VOAS	3	40 ML	TPHG/BTEX/MTBE		CET	HCL —
↓	3	↓	8010		↓	↓ —

SAMPLING EQUIPMENT INFORMATION

PURGE EQUIPMENT
X SUBMERSIBLE PUMP __ BAILER(TEFLON)
__ BAILER(PVC) __ HONDA PUMP __ DEDICATED
OTHER:
PREVIOUSLY USED IN WELL
SITE
DECON METHOD ALCONOX X LIQUINOX

SAMPLING EQUIPMENT
__ SUBMERSIBLE PUMP __ BAILER(TEFLON) X BAILER(DISPOSABLE)
__ BAILER(PVC) __ DIPPER __ PRESSURIZED DISPOSABLE BAILER
OTHER:
PREVIOUSLY USED IN WELL
SITE
DECON METHOD ALCONOX LIQUINOX

QA/QC INFORMATION

TEMP. BLANK ___ YES X NO
TRAVEL BLANK ___ YES X NO ID ___ QA/QC SPIKE ___ YES X NO ID ___
DUPLICATE ___ YES X NO ID ___ FIELD BLANK ___ YES X NO ID ___

WELL INTEGRITY: good | LOCK#: good

NOTES
odor at start of purge
Strong odor AT END of purge

SIGNATURE:

c:\workfile\sampling\samplog.xls

ATC ASSOCIATES INC. WATER SAMPLING LOG

WELL DESIGNATION A-1 | SITE: PRENTISS
DATE 11/18/98
SAMPLE DESIGNATION A-1 | PROJECT# 61877.0004
SAMPLER J. SALA
AMBIENT CONDITIONS SUNNY

WATER LEVEL INFORMATION

MEASURING POINT TOC | GROUND SURFACE —
W.L. BEFORE PURGE 20.39 TIME — | W.L. AFTER PURGE — | TIME —
W.L. FOR 80% RECOVERY — | W.L. TIME OF SAMPLE — | DATE — | TIME —

MONITORING WELL PURGE INFORMATION — MONITORING WELL PURGE METHOD

WELL DEPTH 29.97 | DIAMETER 2 | #CASING VOLUMES 3
SCREENED INTERVAL — | PUMP SETTING —
PURGE VOLUME CALCULATION 29.97 - 20.39 = 9.58 X .49 = 4.69

TIME PURGE BEGINS 1235 | ACTUAL AMOUNT PURGED 5.0

TIME	VOLUME	pH	COND.	TEMP	COLOR	TURBIDITY	D.O.	O.R.P.
1236	0	6.95	798	66.3	CLEAR	NONE	—	—
1239	1.5	6.97	902	67.3	↓	SLIGHT	—	—
1243	3.0	6.93	800	67.4	↓	↓	—	—
1246	5.0	6.96	815	67.3	↓	↓	—	—

WATER SAMPLING INFORMATION — MONITORING WELL SAMPLE METHOD

SAMPLING TIME 1300 | DATE 11/18/98

BOTTLE TYPE	NO.	VOLUME	ANALYSIS	LAB	PRESERVATION	FILTRATION
VOAS	3	40 ML	TPHG/BTEX/MTBE	CET	HCL	—
↓	3	↓	8010	↓	↓	—

SAMPLING EQUIPMENT INFORMATION

PURGE EQUIPMENT
X SUBMERSIBLE PUMP ___ BAILER(TEFLON)
___ BAILER(PVC) ___ HONDA PUMP ___ DEDICATED
OTHER: ___
PREVIOUSLY USED IN WELL ___
SITE ___
DECON METHOD ALCONOX X LIQUINOX ___

SAMPLING EQUIPMENT
___ SUBMERSIBLE PUMP ___ BAILER(TEFLON) X BAILER(DISPOSABLE)
___ BAILER(PVC) ___ DIPPER ___ PRESSURIZED DISPOSABLE BAILER
OTHER: ___
PREVIOUSLY USED IN WELL ___
SITE ___
DECON METHOD ALCONOX ___ LIQUINOX ___

QA/QC INFORMATION

TEMP. BLANK ___ YES X NO
TRAVEL BLANK ___ YES X NO ID ___ | QA/QC SPIKE ___ YES X NO ID ___
DUPLICATE ___ YES X NO ID ___ | FIELD BLANK ___ YES X NO ID ___
WELL INTEGRITY: GOOD | LOCK#: GOOD
NOTES
ODOR AT START OF PURGE

SIGNATURE:

APPENDIX C

GROUNDWATER ANALYTICAL LABORATORY REPORT AND CHAIN OF CUSTODY RECORDS

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:

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

Date: 07-DEC-98
Lab Job Number: 136679
Project ID: 61877.0004
Location: Prentiss Oakland

Reviewed by: _____

Reviewed by: _____

TVH-Total Volatile Hydrocarbons

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
136679-001	A-3	44866	11/18/98	11/24/98	11/24/98	
136679-002	A-1	44866	11/18/98	11/25/98	11/25/98	
136679-003	A-2	44866	11/18/98	11/25/98	11/25/98	

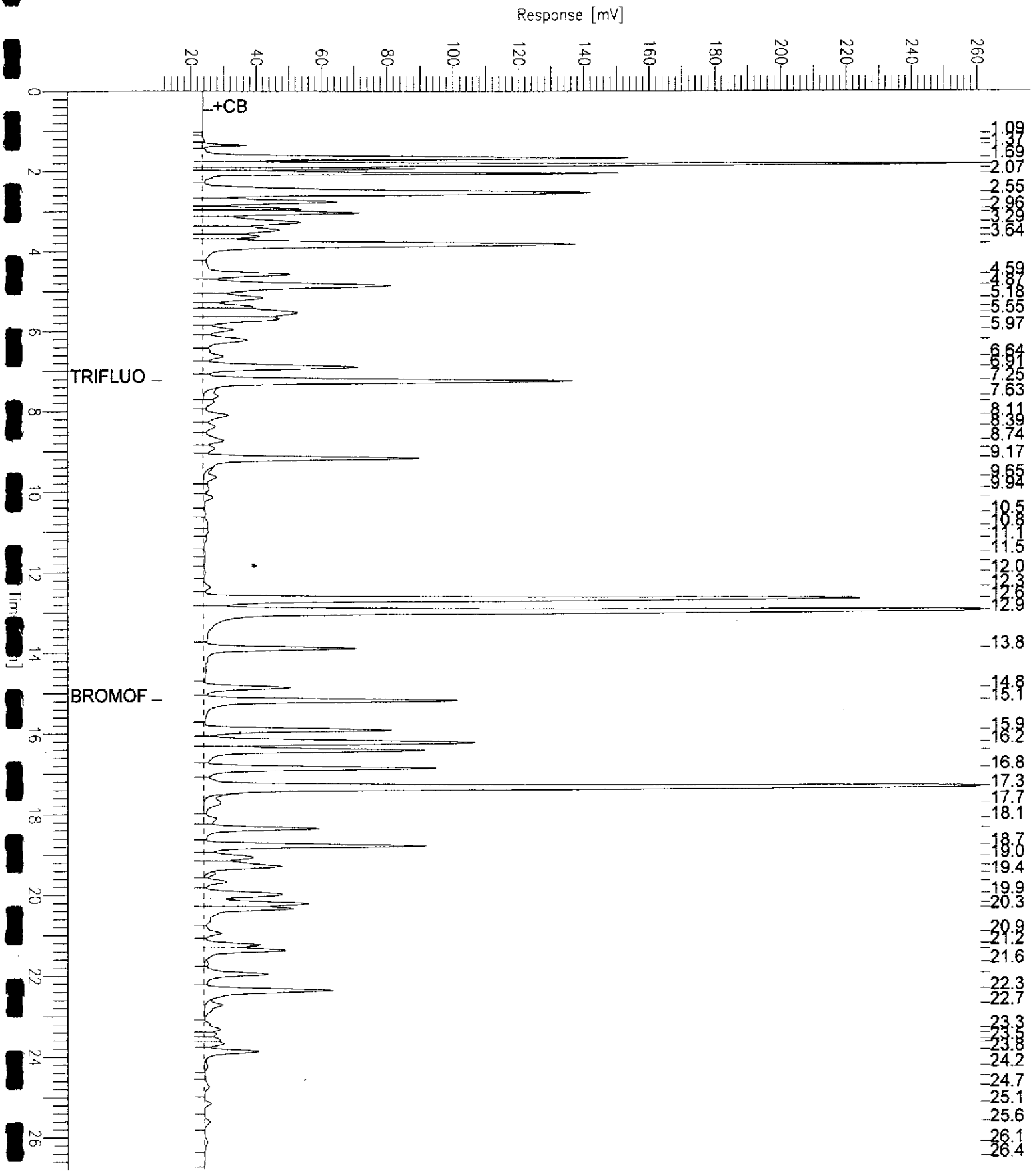
Matrix: Water

Analyte	Units	136679-001	136679-002	136679-003
Diln Fac:		10	25	80
Gasoline C7-C12	ug/L	24000	61000	110000
Surrogate				
Trifluorotoluene	%REC	104	104	92
Bromofluorobenzene	%REC	124	132	113

GC05 'G' File TVH

[redacted]mple Name : RR,D,136679-001,44866,
[redacted]leName : G:\GC05\DATA\328G012.raw
[redacted]thod : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 11 mV

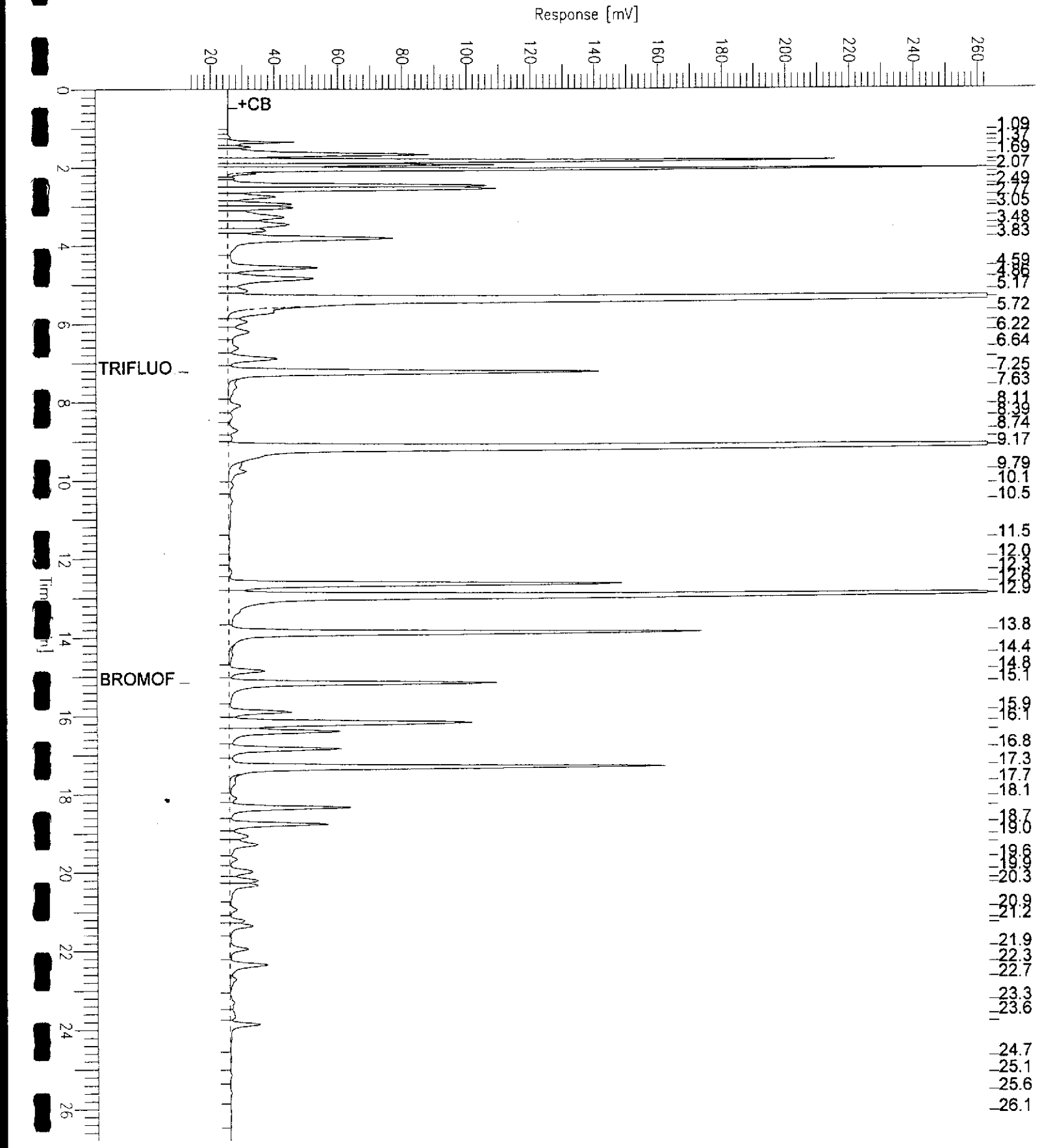
Sample #: Page 1 of 1
Date : 11/24/98 09:03 PM
Time of Injection: 11/24/98 08:36 PM
Low Point : 11.05 mV High Point : 261.05 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

[redacted]mple Name : RR,D,136679-002,44866,
[redacted]leName : G:\GC05\DATA\328G020.raw
[redacted]thod : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 13 mV

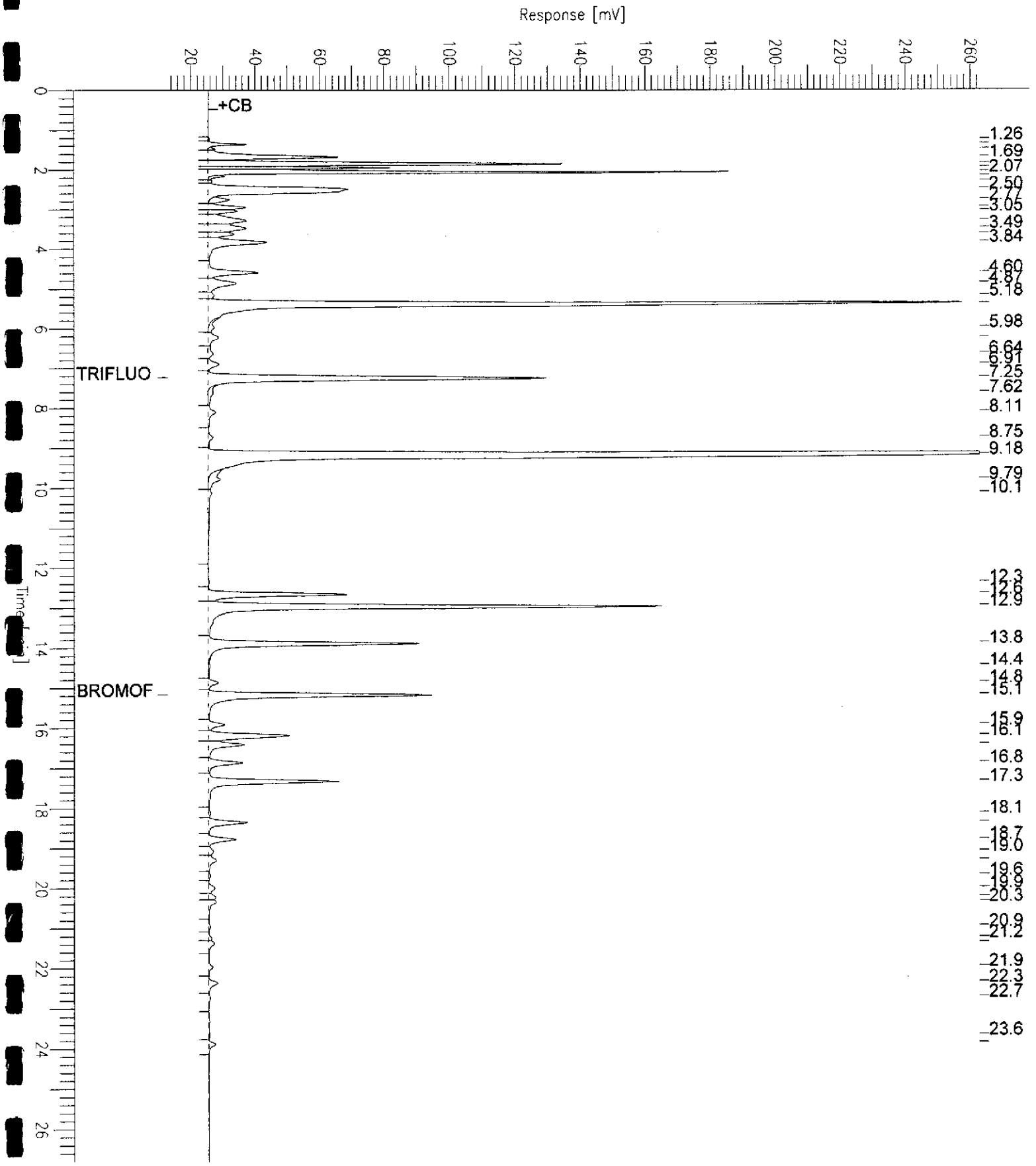
Sample #: Page 1 of 1
Date : 11/25/98 02:15 AM
Time of Injection: 11/25/98 01:47 AM
Low Point : 12.84 mV High Point : 262.84 mV
Plot Scale: 250.0 mV



GC05 'G' File TVH

Sample Name : RR,D,136679-003,44866,
FileName : G:\GC05\DATA\328G021.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 13 mV

Sample #: Page 1 of 1
Date : 11/25/98 02:53 AM
Time of Injection: 11/25/98 02:26 AM
Low Point : 12.81 mV High Point : 262.81 mV
Plot Scale: 250.0 mV



Curtis & Tompkins, Ltd.

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
136679-001	A-3	44866	11/18/98	11/24/98	11/24/98	
136679-002	A-1	44889	11/18/98	11/25/98	11/25/98	
136679-003	A-2	44889	11/18/98	11/25/98	11/25/98	

Matrix: Water

Analyte	Units	136679-001		136679-002	136679-003
Diln Fac:		10		80	200
MTBE	ug/L	<20		<160	<400
Benzene	ug/L	73	C	12000	10000
Toluene	ug/L	370		8400	25000
Ethylbenzene	ug/L	1200		1800	2000
m,p-Xylenes	ug/L	1900		5900	6900
o-Xylene	ug/L	310		2400	3400
Surrogate					
Trifluorotoluene	%REC	95		94	96
Bromofluorobenzene	%REC	127		119	117

C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

TVH-Total Volatile Hydrocarbons

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8015M
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		

METHOD BLANK

Matrix:	Water	Prep Date:	11/24/98
Batch#:	44866	Analysis Date:	11/24/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC85424

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	99	59-162
Bromofluorobenzene	107	59-162

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd. Page 1 of 1

BTXE

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8021B
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 44866
Units: ug/L
Diln Fac: 1

Prep Date: 11/24/98
Analysis Date: 11/24/98

MB Lab ID: QC85424

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	90	53-124
Bromofluorobenzene	103	41-142

Lab #: 136679 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8015M
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	11/24/98
Batch#:	44866	Analysis Date:	11/24/98
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC85423

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1999	2000	100	80-119

Surrogate	%Rec	Limits
Trifluorotoluene	122	59-162
Bromofluorobenzene	119	59-162

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 #: 136679

BATCH QC REPORT

Curtis & Tompkins, Ltd.

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#: 44866
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/98
Analysis Date: 11/25/98

BS Lab ID: QC85425

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	18.47	92	65-135
Benzene	20	18.4	92	69-109
Toluene	20	19.24	96	72-116
Ethylbenzene	20	18.9	95	67-120
m,p-Xylenes	40	40.24	101	69-117
o-Xylene	20	20.49	102	75-122

Surrogate	%Rec	Limits
Trifluorotoluene	93	53-124
Bromofluorobenzene	110	41-142

BSD Lab ID: QC85426

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	18.29	91	65-135	1	20
Benzene	20	18.71	94	69-109	2	11
Toluene	20	19.44	97	72-116	1	11
Ethylbenzene	20	19.17	96	67-120	1	12
m,p-Xylenes	40	40.52	101	69-117	1	11
o-Xylene	20	20.67	103	75-122	1	12

Surrogate	%Rec	Limits
Trifluorotoluene	96	53-124
Bromofluorobenzene	115	41-142

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

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8015M
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	11/23/98
Lab ID:	136748-001	Received Date:	11/23/98
Matrix:	Water	Prep Date:	11/24/98
Batch#:	44866	Analysis Date:	11/24/98
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC85427

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	84.4	2152	103	71-131

Surrogate	%Rec	Limits
Trifluorotoluene	123	59-162
Bromofluorobenzene	124	59-162

MSD Lab ID: QC85428

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2146	103	71-131	0	26

Surrogate	%Rec	Limits
Trifluorotoluene	123	59-162
Bromofluorobenzene	124	59-162

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 #: 136679

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8021B
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 44889
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/98
Analysis Date: 11/25/98

MB Lab ID: QC85517

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	90	53-124
Bromofluorobenzene	100	41-142

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

BTXE

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 44889
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/98
Analysis Date: 11/25/98

LCS Lab ID: QC85516

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.07	20	90	65-135
Benzene	18.21	20	91	69-109
Toluene	19.05	20	95	72-116
Ethylbenzene	18.93	20	95	67-120
m,p-Xylenes	39.49	40	99	69-117
o-Xylene	20.08	20	100	75-122

Surrogate	%Rec	Limits
Trifluorotoluene	92	53-124
Bromofluorobenzene	107	41-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

BTXE

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8021B
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 136776-004
Matrix: Water
Batch#: 44889
Units: ug/L
Diln Fac: 1

Sample Date: 11/23/98
Received Date: 11/23/98
Prep Date: 11/25/98
Analysis Date: 11/25/98

MS Lab ID: QC85518

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	<2	25.18	103	65-135
Benzene	20	0.66	19.6	95	55-125
Toluene	20	<0.5	20.03	100	65-126
Ethylbenzene	20	<0.5	20.07	100	60-129
m,p-Xylenes	40	<0.5	41.47	104	68-116
o-Xylene	20	<0.5	21.03	105	69-129

Surrogate	%Rec	Limits
Trifluorotoluene	103	53-124
Bromofluorobenzene	125	41-142

MSD Lab ID: QC85519

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	26.38	109	65-135	5	20
Benzene	20	20.07	97	55-125	2	11
Toluene	20	20.52	103	65-126	2	11
Ethylbenzene	20	20.69	103	60-129	3	12
m,p-Xylenes	40	42.8	107	68-116	3	11
o-Xylene	20	21.76	109	69-129	3	12

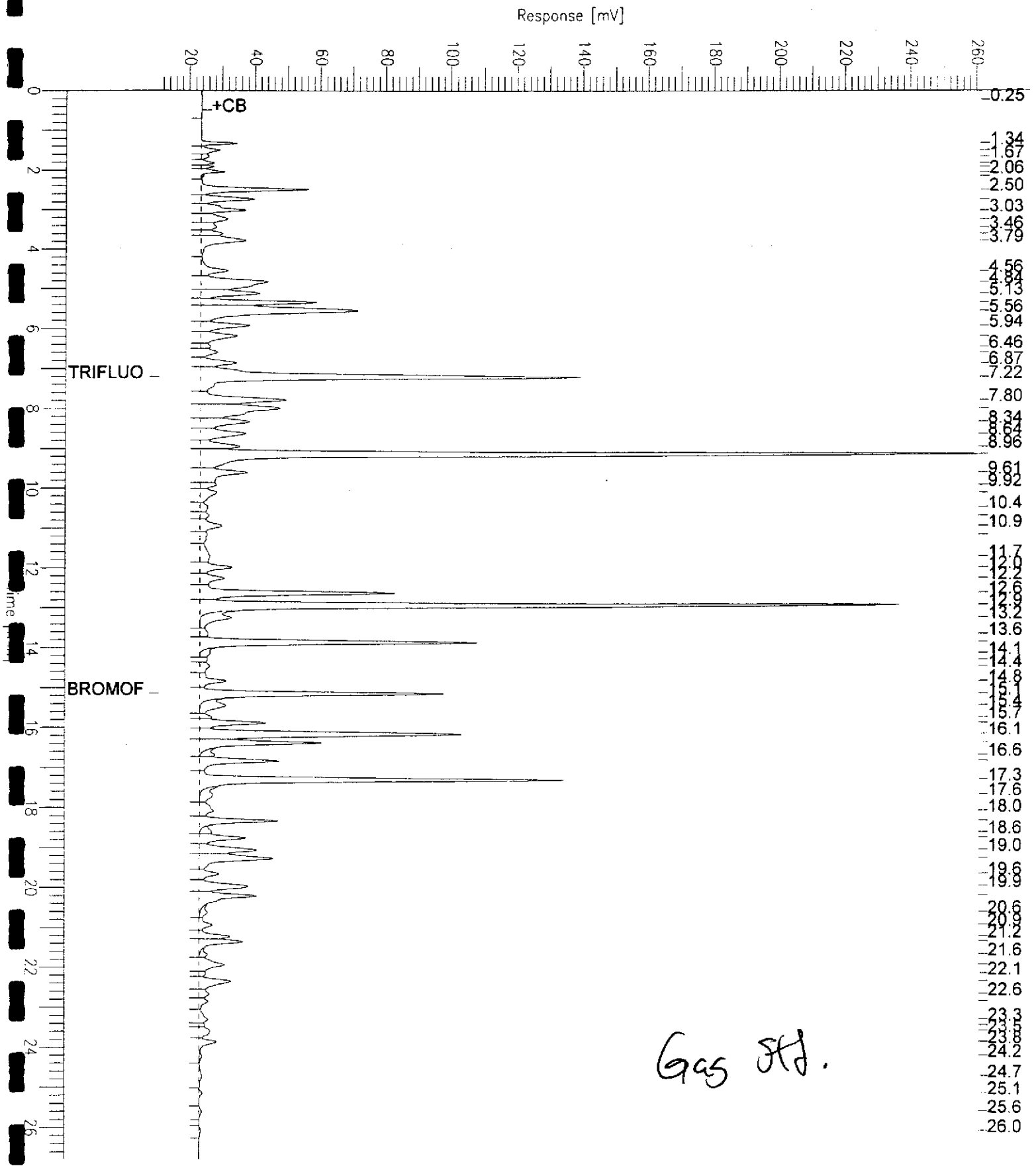
Surrogate	%Rec	Limits
Trifluorotoluene	108	53-124
Bromofluorobenzene	132	41-142

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

GC05 'G' File TVH

Sample Name : CCV/LCS,QC85423,98WS6477,44866,
FileName : G:\GC05\DATA\328G001.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 11 mV

Sample #: GAS Page 1 of 1
Date : 11/24/98 12:52 PM
Time of Injection: 11/24/98 12:25 PM
Low Point : 10.96 mV High Point : 260.96 mV
Plot Scale: 250.0 mV



Gas Std.

Curtis & Tompkins, Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8260
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		
Field ID:	A-3	Sampled:	11/18/98
Lab ID:	136679-001	Received:	11/18/98
Matrix:	Water	Extracted:	11/26/98
Batch#:	44886	Analyzed:	11/26/98
Units:	ug/L		
Diln Fac:	5		

Analyte	Result	Reporting Limit
Chloromethane	ND	5.0
Vinyl Chloride	ND	5.0
Bromomethane	ND	5.0
Chloroethane	ND	5.0
Trichlorofluoromethane	ND	2.5
Freon 113	ND	5.0
1,1-Dichloroethene	ND	2.5
Methylene Chloride	ND	100
trans-1,2-Dichloroethene	ND	2.5
1,1-Dichloroethane	ND	2.5
cis-1,2-Dichloroethene	ND	2.5
Chloroform	ND	5.0
1,1,1-Trichloroethane	ND	2.5
Carbon Tetrachloride	ND	2.5
1,2-Dichloroethane	ND	2.5
Trichloroethene	6.7	2.5
1,2-Dichloropropane	ND	2.5
Bromodichloromethane	ND	2.5
cis-1,3-Dichloropropene	ND	2.5
trans-1,3-Dichloropropene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
Tetrachloroethene	ND	2.5
Dibromochloromethane	ND	2.5
Chlorobenzene	ND	2.5
Bromoform	ND	2.5
1,1,2,2-Tetrachloroethane	ND	2.5
1,3-Dichlorobenzene	ND	2.5
1,4-Dichlorobenzene	ND	2.5
1,2-Dichlorobenzene	ND	2.5

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	90	85-121
Toluene-d8	101	92-110
Bromofluorobenzene	91	84-115

Curtis & Tompkins, Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8260
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		

Field ID:	A-1	Sampled:	11/18/98
Lab ID:	136679-002	Received:	11/18/98
Matrix:	Water	Extracted:	11/26/98
Batch#:	44886	Analyzed:	11/26/98
Units:	ug/L		
Diln Fac:	10		

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Freon 113	ND	10
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
cis-1,2-Dichloroethene	21	5.0
Chloroform	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	13	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	88	85-121
Toluene-d8	98	92-110
Bromofluorobenzene	91	84-115

Curtis & Tompkins Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	ATC Associates, Inc.	Analysis Method:	EPA 8260
Project#:	61877.0004	Prep Method:	EPA 5030
Location:	Prentiss Oakland		

Field ID:	A-2	Sampled:	11/18/98
Lab ID:	136679-003	Received:	11/18/98
Matrix:	Water	Extracted:	11/25/98
Batch#:	44861	Analyzed:	11/25/98
Units:	ug/L		
Diln Fac:	10		

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Freon 113	ND	10
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	200
trans-1,2-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
cis-1,2-Dichloroethene	10	5.0
Chloroform	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	5.7	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	85	85-121
Toluene-d8	102	92-110
Bromofluorobenzene	94	84-115

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 44861
Units: ug/L
Diln Fac: 1

Prep Date: 11/24/98
Analysis Date: 11/24/98

MB Lab ID: QC85407

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	86	85-121
Toluene-d8	100	92-110
Bromofluorobenzene	96	84-115

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

Halogenated Volatile Organics

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 44886
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/98
Analysis Date: 11/25/98

BS Lab ID: QC85504

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	52.81	106	69-137
Trichloroethene	50	51.28	103	83-116
Chlorobenzene	50	54.29	109	87-117

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	91	85-121
Toluene-d8	100	92-110
Bromofluorobenzene	97	84-115

BSD Lab ID: QC85505

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	51.13	102	69-137	3	14
Trichloroethene	50	50.09	100	83-116	2	10
Chlorobenzene	50	53.25	107	87-117	2	10

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	85-121
Toluene-d8	101	92-110
Bromofluorobenzene	97	84-115

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

186679

ATC ENVIRONMENTAL INC.

Chain of Custody

6666 OWENS DR
PLEASANTON CA.
94588

~~2380 Qume Drive, Suite C~~
~~San Jose, CA 95131~~
~~Tel: (408) 474-0280~~
~~Fax: (408) 434-6662~~
PH (925) 460-5300 FAX (925) 463-2559

Project Name: PRENTISS OAKLAND
Project Number: 61877.
ATC Environmental Inc. Contact: JIM LEHRMAN
Laboratory Name: CURTIS & TOMPKIN

Turn Around Time
Standard 5 to 10 Business Days [X]
Priority Rush ___ Business Day(s) [ ]

	Sample Number	Location	Date	Time	Matrix: Soil	Matrix: Water	Matrix: Other	Preservative	No. of Containers	Type of Containers	TPH as gas/~~BTEX~~ 8015	TPH as diesel, EPA 8015M	VOCs, EPA 8010	VOCs, EPA 8240	VOCs, EPA 8020	VOCs, EPA 8010/8020	SVOCs, EPA 8270	TRPH, SM 5520F	TOG, SM 5520B	Title 22 Metals, EPA	PP (13) Metals, EPA	Pesticides Only, EPA 8080	BTEX/MTBE 8020		HVOC's 8010	Remarks
1	A-3		11/18/98			X		HCl	6	VOAS	X												X		X	
2	A-1		↓			↓		↓	6	↓	X												XX		XX	
3	A-2		↓			↓		↓	6	↓	X												X		X	

Relinquished by sampler: Jeffrey D Sale	Date: 11/18/98	Time: 2:45	Received by: [signature] 11/18/98 2:45
Relinquished by: [signature]	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory Date Time

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

Halogenated Volatile Organics

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 44861
Units: ug/L
Diln Fac: 1

Prep Date: 11/24/98
Analysis Date: 11/24/98

BS Lab ID: QC85404

Analyte	Spike Added	BS	%Rec	#	Limits
1,1-Dichloroethene	50	55.22	110		69-137
Trichloroethene	50	50.36	101		83-116
Chlorobenzene	50	51.59	103		87-117

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	85	85-121
Toluene-d8	100	92-110
Bromofluorobenzene	93	84-115

BSD Lab ID: QC85405

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
1,1-Dichloroethene	50	58.17	116		69-137	5		14
Trichloroethene	50	53.09	106		83-116	5		10
Chlorobenzene	50	53.21	106		87-117	3		10

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	87	85-121
Toluene-d8	100	92-110
Bromofluorobenzene	94	84-115

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

Lab #: 136679 BATCH QC REPORT Curtis & Tompkins, Ltd.

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: ATC Associates, Inc.
Project#: 61877.0004
Location: Prentiss Oakland

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 44886
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/98
Analysis Date: 11/25/98

MB Lab ID: QC85507

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	94	85-121
Toluene-d8	98	92-110
Bromofluorobenzene	98	84-115