



Subsurface Consultants, Inc.

1040

October 4, 2000
SCI 609.004

Ms. Marianne Robison
Buttner Properties
600 West Grand Avenue
Oakland, California 94612

**June 2000
Groundwater Monitoring Event
2250 Telegraph Avenue
Oakland, California**

Dear Ms. Robison:

This letter records the results of the June 2000 groundwater monitoring event for the referenced site. The groundwater monitoring program has been implemented in accordance with Regional Water Quality Control Board and the Alameda County Health Care Services Agency (ACHCSA) guidelines due to past releases from former underground storage tanks (UST). In accordance with the current monitoring program, the six site wells are monitored on a semi-annual basis. The locations of the wells and former USTs are presented on the Site Plan, Plate 1.

BACKGROUND

In August 1990, two 10,000-gallon underground gasoline storage tanks and one 280-gallon waste oil tank were removed from the site. Approximately 500 cubic yards of gasoline-impacted soil were aerated onsite in 1990 and 1991 and disposed at a Class III sanitary landfill. In February 1994, SCI observed the excavation of contaminated soils near the former waste oil tank and installed four groundwater monitoring wells at the site. SCI has conducted groundwater monitoring at the site since March 1994.

In a letter dated November 8, 1995, ACHCSA indicated that the extent of groundwater impacts had not been sufficiently defined downgradient of monitoring well MW-3. The ACHCSA required an investigation to better define the area of contamination. In May 1996, SCI installed five temporary well points and collected grab groundwater samples as part of a

Ms. Marianne Robison
Buttner Properties
October 4, 2000
SCI 609.004
Page 2

supplemental investigation to assist in determining locations for the installation of new permanent groundwater monitoring wells. Results of this investigation were summarized in the Supplemental Groundwater Investigation report that was submitted to ACHCSA on October 4, 1996.

In June 1997, SCI installed two monitoring wells (MW-5 and MW-6) at offsite locations, downgradient from the former UST excavations. Results of SCI's well installation and initial groundwater sampling are contained in SCI's report dated August 8, 1997. In letters dated June 16, 1998 and November 8, 1999, ACHCSA requested that all groundwater monitoring wells (MW-1 through MW-6) be monitored and sampled on a semi-annual schedule.

GROUNDWATER SAMPLING

On June 30, 2000, SCI personnel visited the Site and sampled the six monitoring wells. Prior to sampling the presence of free product was checked and the depth to groundwater was measured in all wells. No free product was observed. Each well was then purged of approximately three casing volumes of water while monitoring pH, conductivity, and temperature. Once the wells had recovered to 80% of their initial level, they were sampled with clean disposable bailers. Samples were retained in glass containers pre-cleaned by the laboratory in accordance with EPA protocol. The containers were placed in an ice filled cooler and kept chilled pending delivery to the laboratory.

Analytical testing was performed by Curtis & Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services for hazardous waste and water testing. A sample from each well was analyzed for the following:

- Total volatile hydrocarbons, EPA Methods 5030/8015,
- Total extractable hydrocarbons, EPA Methods 3550/8015, and
- Benzene, toluene, ethylbenzene and xylene (BTEX) and methyl tertiary butyl ether (MTBE), EPA Methods 8020.

Well sampling forms, chain-of-custody documents, and the analytical test reports are attached. Groundwater elevation data are summarized in Table 1.

CONCLUSIONS

Based on the groundwater data presented in Table 1, the groundwater gradient remains generally consistent with previous measurements. The gradient is relatively flat and tends toward the southeast. The groundwater flow direction for this event is shown on Plate 1.

Ms. Marianne Robison
Buttner Properties
October 4, 2000
SCI 609.004
Page 3

No free product was observed during this event. The petroleum constituents measured in the samples are similar in concentration to those measured during previous events. Hence, it appears that the plume is relatively stabilized.

MTBE was detected using EPA Method 8020 in samples from wells MW-1, MW-2, MW-4, MW-5 and MW-6. Test results were not confirmed through application of EPA Method 8260 per the ACHCSA's November 8, 1999 letter. Previously, MTBE had only been detected in well MW-6 using EPA Method 8260. The detection of MTBE in wells MW-1, MW-2, MW-4 and MW-5, is most likely associated with "false positives". MTBE results for analyses conducted using both methods are now shown in Table 2.


ONGOING MONITORING

As requested by the ACHCSA groundwater monitoring events are to be conducted during the first and third quarters of each year until further notice. Hence, the next monitoring event is scheduled for December 2000.


If you have any questions, please call either of the undersigned at (925) 299-7960.

Yours very truly,

Subsurface Consultants, Inc.

 for:

Emily Silverman
Staff Geologist


Jerriann N. Alexander
Civil Engineer 40469 (exp. 3/31/03)

Registered Environmental Assessor No. 03130 (exp. 6/30/01)

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Ms. Marianne Robison
Buttner Properties
October 4, 2000
SCI 609.004
Page 4

Attachments: Table 1 - Groundwater Elevation Data
Table 2 - Summary of Contaminants in Groundwater
Plate 1 - Site Plan
Analytical Test Report
Chain-of-Custody Form
Well Sampling Forms

cc: Mr. Tim Robison, Ph.D.
15311 Chinaberry Street
North Potomac, MD 20878

Mr. Don Huang
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Table 1
Groundwater Elevation Data
Buttner Properties
Oakland, California

<u>Monitoring Well</u>	<u>Date</u>	<u>TOC Elevation (feet) MSL</u>	<u>Depth (feet)</u>	<u>Elevation (feet) MSL</u>
MW-1	3/3/1994	20.55	10.39	10.16
	3/10/1994		10.54	10.01
	6/6/1994		11.36	9.19
	9/7/1994		11.92	8.63
	12/22/1994		10.83	9.72
	3/17/1995		9.73	10.82
	6/27/1995		10.51	10.04
	9/18/1995		11.12	9.43
	5/30/1996		10.49	10.06
	7/9/1997		11.79	8.76
	8/21/1998		11.00	9.55
	10/6/1998		11.84	8.71
	2/24/1999		9.74	10.81
	6/30/2000		11.28	9.27
MW-2	3/3/1994	20.03	10.37	9.66
	3/10/1994		10.53	9.50
	6/6/1994		11.15	8.88
	9/7/1994		11.72	8.31
	12/22/1994		11.27	8.76
	3/17/1995		9.85	10.18
	6/27/1995		10.70	9.33
	9/18/1995		11.67	8.36
	5/30/1996		11.56	8.47
	7/9/1997		11.52	8.51
	8/21/1998		11.91	8.12
	10/6/1998		11.57	8.46
	2/24/1999		9.91	10.12
	6/30/2000		11.16	8.87
MW-3	3/3/1994	18.97	9.50	9.47
	3/10/1994		9.51	9.46
	6/6/1994		10.28	8.69
	9/7/1994		10.75	8.22
	12/22/1994		9.74	9.23
	3/17/1995		8.85	10.12
	6/27/1995		9.94	9.03
	9/18/1995		10.54	8.43
	5/30/1996		9.69	9.28
	7/9/1997		10.60	8.37
	8/21/1998		10.36	8.61
	10/6/1998		10.64	8.33
	2/24/1999		8.58	10.39
	6/30/2000		10.21	8.76

Table 1
Groundwater Elevation Data
Buttner Properties
Oakland, California

<u>Monitoring Well</u>	<u>Date</u>	<u>TOC Elevation (feet) MSL</u>	<u>Depth (feet)</u>	<u>Elevation (feet) MSL</u>
MW-4	3/3/1994	19.88	10.89	8.99
	3/10/1994		11.19	8.69
	6/6/1994		11.85	8.03
	9/7/1994		12.86	7.02
	12/22/1994		12.26	7.62
	3/17/1995		10.10	9.78
	6/27/1995		11.05	8.83
	9/18/1995		11.84	8.04
	5/30/1996		10.97	8.91
	7/9/1997		12.08	7.80
	8/21/1998		11.86	8.02
	10/6/1998		12.84	7.04
	2/24/1999		10.79	9.09
6/30/2000	12.39	7.49		
MW-5	6/26/1997	16.02	8.44	7.58
	7/9/1997		8.48	7.54
	8/21/1998		8.32	7.70
	10/6/1998		8.51	7.51
	2/24/1999		6.86	9.16
	6/30/2000		7.63	8.39
MW-6	6/26/1997	18.36	10.89	7.47
	7/9/1997		10.98	7.38
	8/21/1998		11.00	7.36
	10/6/1998		10.79	7.57
	2/24/1999		9.32	9.04
	6/30/2000		10.37	7.99

TOC = Top of Casing

Elevation Reference: USGS benchmark W1197, 1969 with a reported elevation of +21.06 feet MSL datum.

Table 2
Chemical Concentrations in Groundwater
Buttner Properties
Oakland, California

Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics									
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil mg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	PCE µg/l	Chloro-Benzene µg/l
MW-1	3/3/94	10.16	300	<50	<50	<0.5	1.3	<0.5	2.7	3.1	--	--	<0.5	5.5	<0.5	<0.5
	6/6/94	9.19	430	180+	<50	0.5	10	2.2	6.1	7.6	--	--	<0.5	<0.5	<0.5	<0.5
	9/7/94	8.63	410	<50	<50	<0.5	6.4	0.8	2.6	3.8	--	--	<0.5	3.8	<0.5	<0.5
	12/22/94	9.72	130	<50	<50	<0.5	0.7	<0.5	0.6	0.8	--	--	<0.5	3.4	<0.5	<0.5
	3/17/95	10.82	1,600	170	<50	<0.5	29	<0.5	9.1	6.9	--	--	<0.5	<0.5	<0.5	<0.5
	6/27/95	10.04	1,100	<50	<50	<0.5	14	<0.5	7.1	5	--	--	<0.5	3.3	<0.5	<0.5
	9/18/95	9.43	370	NR	110+	NR	4.4	0.6	2	1.4	--	--	<0.5	2.4	<0.5	<0.5
	8/21/98	9.55	170	NR	62+	NR	<0.5	0.76	0.79	<0.5	<2.0	--	--	--	--	--
	2/24/99	10.81	20	NR	280+	NR	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--
	6/30/00	13.47	240	NR	<50	NR	0.7	0.8	<0.50	0.74	4.0	--	--	--	--	--
MW-2	3/3/94	9.66	110	<50	<50	<0.5	<0.5	1.7	0.58	2.7	--	--	<0.5	<0.5	<0.5	<0.5
	6/6/94	8.88	100	<50	<50	<0.5	11	<0.5	0.7	1.1	--	--	<0.5	<0.5	<0.5	<0.5
	9/7/94	8.31	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5
	12/22/94	8.76	<50	<50	<50	<0.5	0.8	<0.5	<0.5	0.8	--	--	<0.5	<0.5	<0.5	<0.5
	3/17/95	10.18	180	100	<50	<0.5	31	<0.5	1	1.8	--	--	<0.5	<0.5	<0.5	<0.5
	6/27/95	9.33	80	<50	<50	<0.5	6	<0.5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5
	9/18/95	8.36	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5
	8/21/98	8.12	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--
	2/24/99	10.12	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--
	6/30/00	14.24	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	2.0	--	--	--	--	--
MW-3	3/3/94	9.47	85	<50	<50	<0.5	<0.5	0.77	<0.5	3.7	--	--	<0.5	<0.5	<0.5	<0.5
	6/6/94	8.69	100	110+	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	2.5	0.8	2.1	<0.5
	9/7/94	8.22	220	<50	<50	<0.5	11	1.8	2.6	3.5	--	--	<0.5	<0.5	0.6	<0.5
	12/22/94	9.23	130	95+	<50	<0.5	3.8	0.5	0.6	1.2	--	--	<0.5	<0.5	<0.5	<0.5
	3/17/95	10.12	1,500	270	<50	<0.5	83	6	10	15	--	--	<0.5	<0.5	<0.5	<0.5
	6/27/95	9.03	2,500	<50	<50	<0.5	330	8.9	8.1	20	--	--	<0.5	<0.5	<0.5	<0.5
	9/18/95	8.43	1,500	NR	770+	NR	400	11	2.2	3.3	--	--	<0.5	<0.5	<0.5	<0.5
	8/21/98	8.61	2,300	NR	600+	NR	410	9.3	36	25	<10	--	--	--	--	--
	2/24/99	10.39	55	NR	110+	NR	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--
	6/30/00	10.83	110	NR	83+	NR	<0.5	<0.5	0.51	<0.5	<2.0	--	--	--	--	--

Table 2
Chemical Concentrations in Groundwater
Buttner Properties
Oakland, California

Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics									
			TVH as Gasoline $\mu\text{g/l}$	TEH as Kerosene $\mu\text{g/l}$	TEH as Diesel $\mu\text{g/l}$	TEH as Motor Oil mg/l	Benzene $\mu\text{g/l}$	Toluene $\mu\text{g/l}$	Ethylbenzene $\mu\text{g/l}$	Xylenes $\mu\text{g/l}$	MTBE -8020 $\mu\text{g/l}$	MTBE -8260 $\mu\text{g/l}$	1,1,1-TCA $\mu\text{g/l}$	1,2-DCA $\mu\text{g/l}$	PCE $\mu\text{g/l}$	Chloro-Benzene $\mu\text{g/l}$
MW-4	3/3/94	8.99	4,300	<50	240	<0.5	220	20	7.5	17	--	--	<0.5	5.9	<0.5	4.4
	6/6/94	8.03	4,400	<50	800+	<0.5	140	<0.5	<0.5	<0.5	--	--	<0.5	<0.5	<0.5	<0.5
	9/7/94	7.02	10,000	490+	280+	<0.5	84	<0.5	42	69	--	--	<0.5	4.4	0.5	4.3
	12/22/94	7.62	2,400	450+	54+	<0.5	11	<0.5	7.1	11	--	--	<0.5	3.6	3.6	<0.5
	3/17/95	9.78	2,200	380	160+	<0.5	<0.5	<0.5	7.9	10	--	--	<0.5	1.7	<0.5	4.5
	6/27/95	8.83	3,100	<50	82	<0.5	<0.5	<0.5	13	19	--	--	<0.5	2.3	<0.5	4.8
	9/18/95	8.04	3,000	NR	1,231+	NR	12	<0.7	6.9	8.3	--	--	<0.5	1.9	<0.5	4.0
	8/21/98	8.02	1,700	NR	600+	NR	8.2	12	13	5.2	<2.0	--	--	--	--	--
	2/24/99	9.09	2,700	NR	2100+	NR	4.3	0.64	<0.5	0.54	--	<2.0	--	--	--	--
	6/30/00	11.74	6,700	NR	3200+	NR	3.1	1.7	11	16.7	27	--	--	--	--	--
MW-5	6/26/97	7.58	120	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	--	--	<0.5	<0.5	1.6	<0.5
	8/21/98	7.70	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--
	2/24/99	9.16	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--
	6/30/00	8.39	<50	NR	<50	NR	<0.5	<0.5	<0.5	<0.5	5.1	--	--	--	--	--
MW-6	6/26/97	7.47	1,500+	NR	450+	NR	<0.5	<0.5	11	<0.5	--	--	<0.5	<0.5	<0.5	1.7
	8/21/98	7.36	1,400	NR	540+	NR	<0.5	3.6	5.6	0.4	5.7	3.2	--	--	--	--
	2/24/99	9.04	1,600	NR	600+	NR	<0.5	<0.5	0.56	<0.5	--	2.3	--	--	--	--
	6/30/00	8.04	1,900	NR	360+	NR	0.56	3	5.4	3.5	30	--	--	--	--	--

DCA = Dichloroethane

TCA = Trichloroethane

PCE = Tetrachloroethene

- = Chemical not tested for

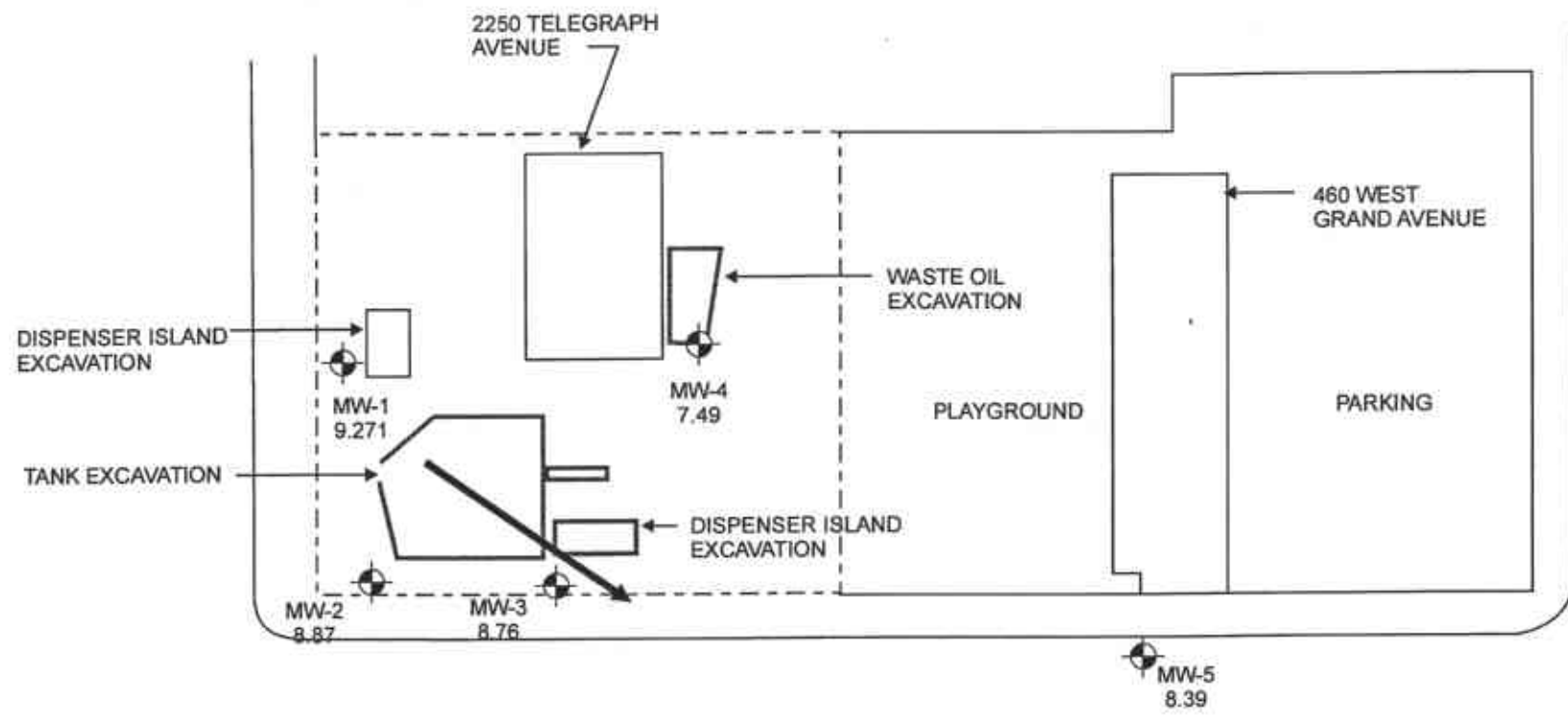
NR = Hydrocarbon range not reported by laboratory

+ = Uncategorized hydrocarbons quantified in ranges specified

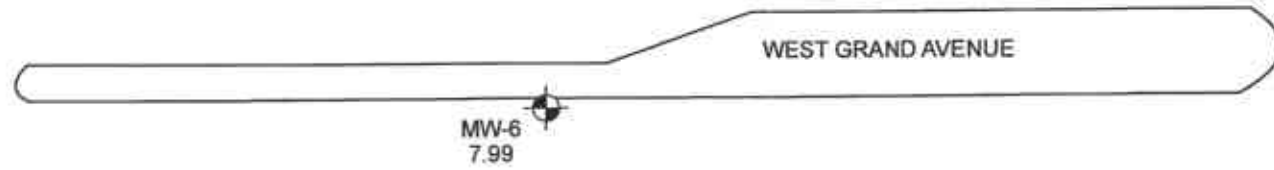
mg/l = milligrams per liter = parts per million

$\mu\text{g/l}$ = micrograms per liter = parts per billion

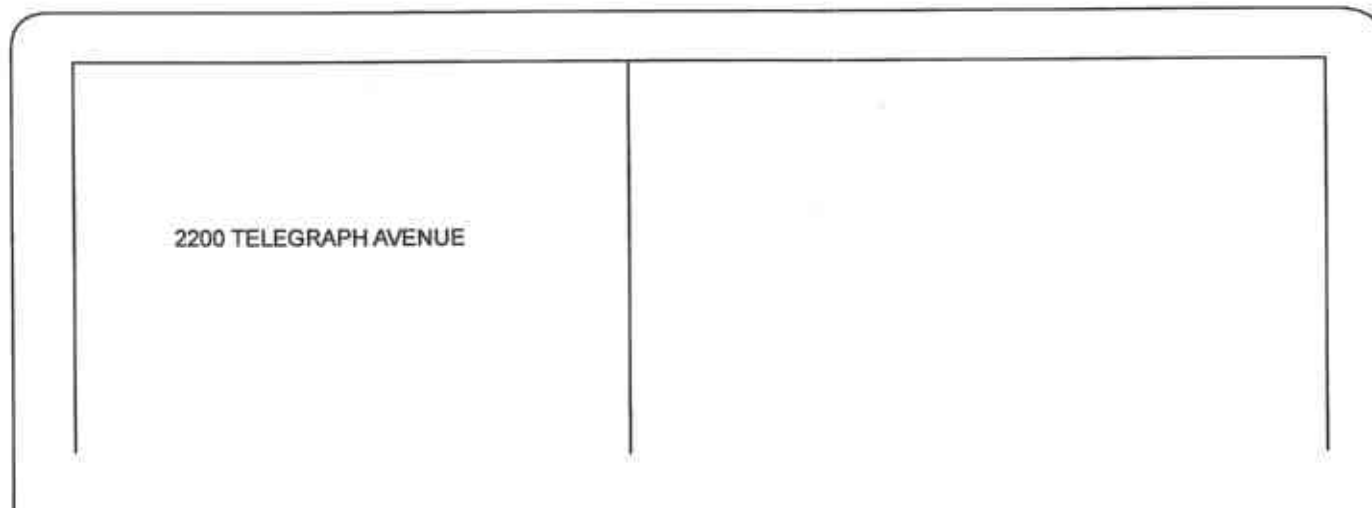
<1 = Chemical not present at a concentration greater than the laboratory detection limit shown or stated on test reports



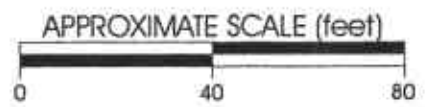
TELEGRAPH AVENUE



VALLEY STREET



EXPLANATION	
	STRUCTURE
	LIMITS OF EXCAVATION
	MONITORING WELL LOCATION
(7.49)	GROUNDWATER ELEVATION (FT. MSL) MEASURED 6/30/2000
	APPROXIMATE GROUNDWATER FLOW DIRECTION



SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

SITE PLAN		APPROVED 1
2250 TELEGRAPH AVENUE OAKLAND, CALIFORNIA JOB NUMBER 609.004	DATE 10/00	



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

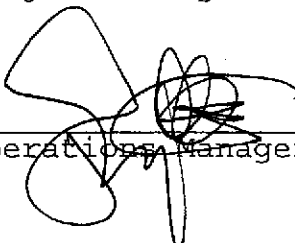
Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 18-JUL-00
Lab Job Number: 146343
Project ID: 609.004
Location: 2250 Telgraph Av. Oakland

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: **146343**
Client: **Subsurface Consultants, Inc.**
Project Name: **Buttner Properties**

Order Date: **06/30/00**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for six water samples received from the above referenced project. The samples were received cold and intact.

Total Volatile Hydrocarbons: The bromofluorobenzene surrogate recoveries for sample MW-4 (146343-004) and the matrix spikes were outside acceptance limits due to coelution of the surrogate peak with hydrocarbon peaks. The associated trifluorotoluene surrogate recoveries were acceptable. No other analytical problems were encountered.

BTXE: The bromofluorobenzene surrogate recovery for sample MW-4 (146343-004) was outside acceptance limits due to coelution of the surrogate peak with hydrocarbon peaks. The associated trifluorotoluene surrogate recovery was acceptable. No other analytical problems were encountered.

Total Extractable Hydrocarbons: No analytical problems were encountered.

Gasoline by GC/FID CA LUPT

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000		

Field ID:	MW-1	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/03/00
Lab ID:	146343-001		

Analyte	Result	RL
Gasoline C7-C12	240	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	59-135
Bromofluorobenzene (FID)	132	60-140

Field ID:	MW-2	Batch#:	56847
Type:	SAMPLE	Analyzed:	07/05/00
Lab ID:	146343-002		

Analyte	Result	RL
Gasoline C7-C12	ND	50

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

Field ID:	MW-3	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-003		

Analyte	Result	RL
Gasoline C7-C12	110	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	59-135
Bromofluorobenzene (FID)	113	60-140

Field ID:	MW-4	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-004		

Analyte	Result	RL
Gasoline C7-C12	6,700	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	59-135
Bromofluorobenzene (FID)	159 *	60-140

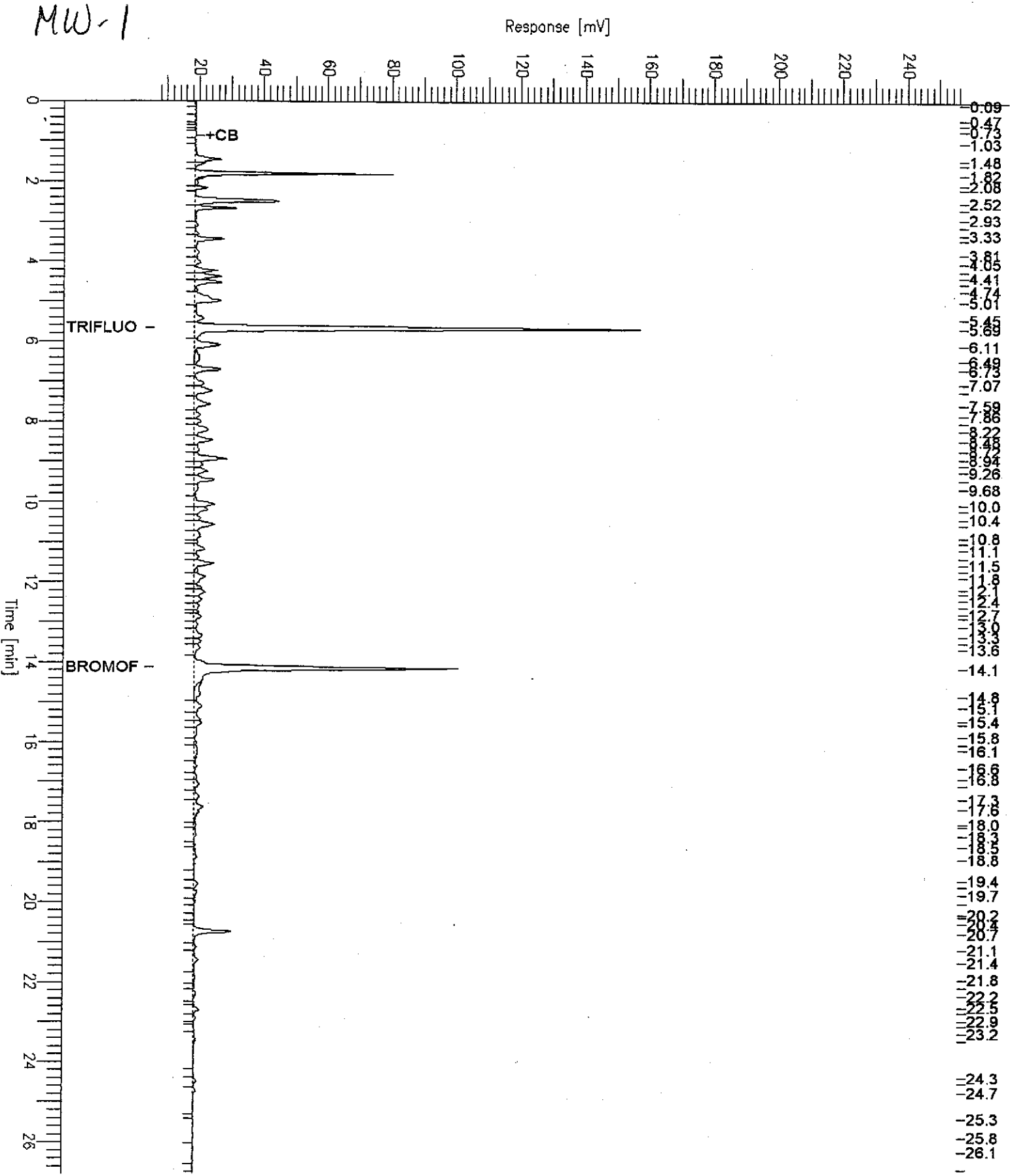
* = Value outside of QC limits; see narrative
 ND = Not Detected
 RL = Reporting Limit
 Page 1 of 2

GC19 TVH 'X' Data File (FID)

Sample Name : mss,146343-001,56826,+mtbe
 FileName : G:\GC19\DATA\185X006.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: -1.0

End Time : 26.80 min
 Plot Offset: 6 mV

Sample #: c1
 Date : 7/3/00 10:00 PM
 Time of Injection: 7/3/00 09:33 PM
 Low Point : 6.06 mV
 High Point : 256.06 mV
 Plot Scale: 250.0 mV



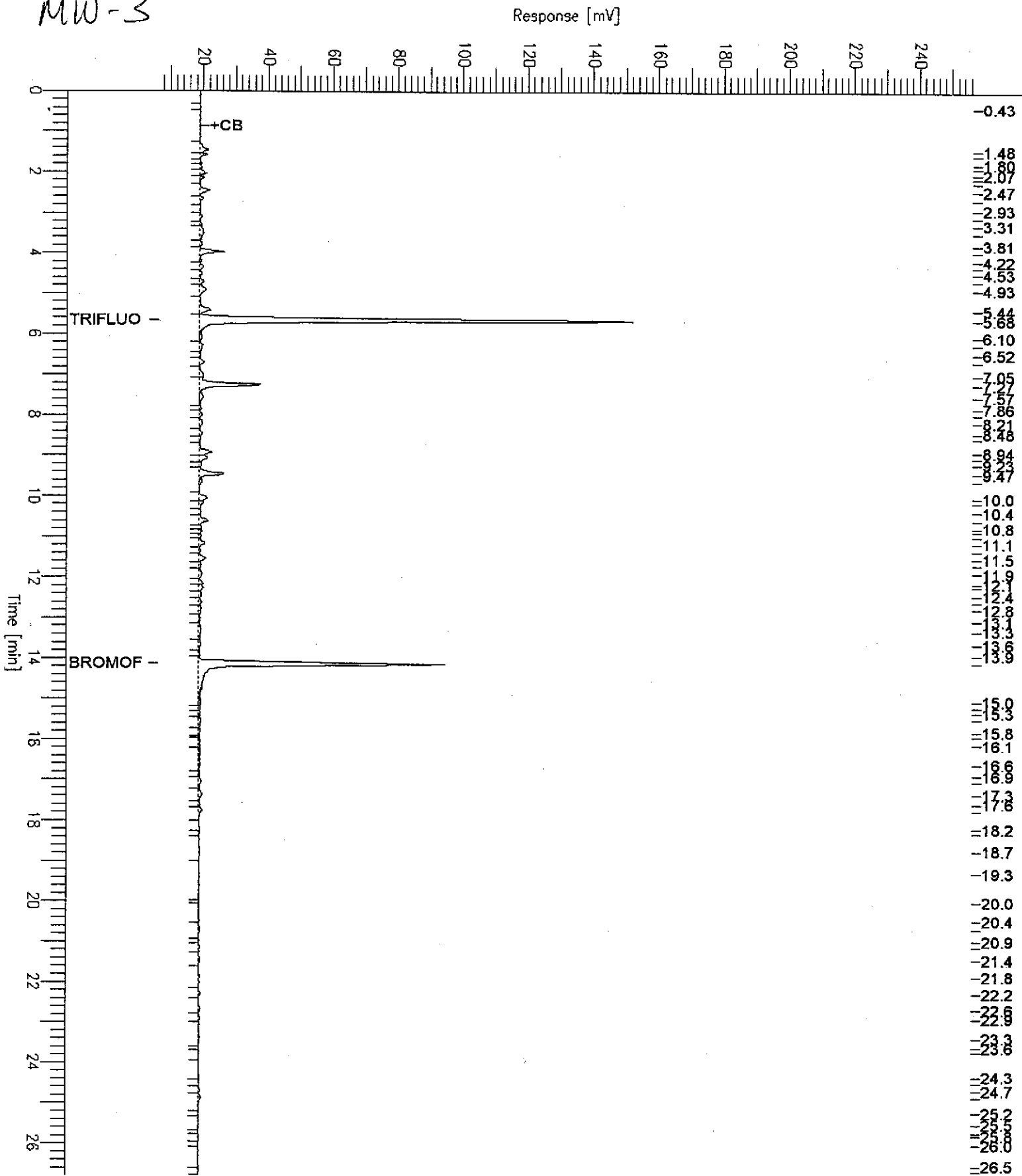
GC19 TVH 'X' Data File (FID)

Sample Name : 146343-003,56826,+mtbe
 FileName : G:\GC19\DATA\185X010.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor : -1.0

End Time : 26.80 min
 Plot Offset : 6 mV

Sample #: c1
 Date : 7/4/00 12:31 AM
 Time of Injection: 7/4/00 12:04 AM
 Low Point : 6.43 mV
 High Point : 256.43 mV
 Plot Scale: 250.0 mV

MW-3



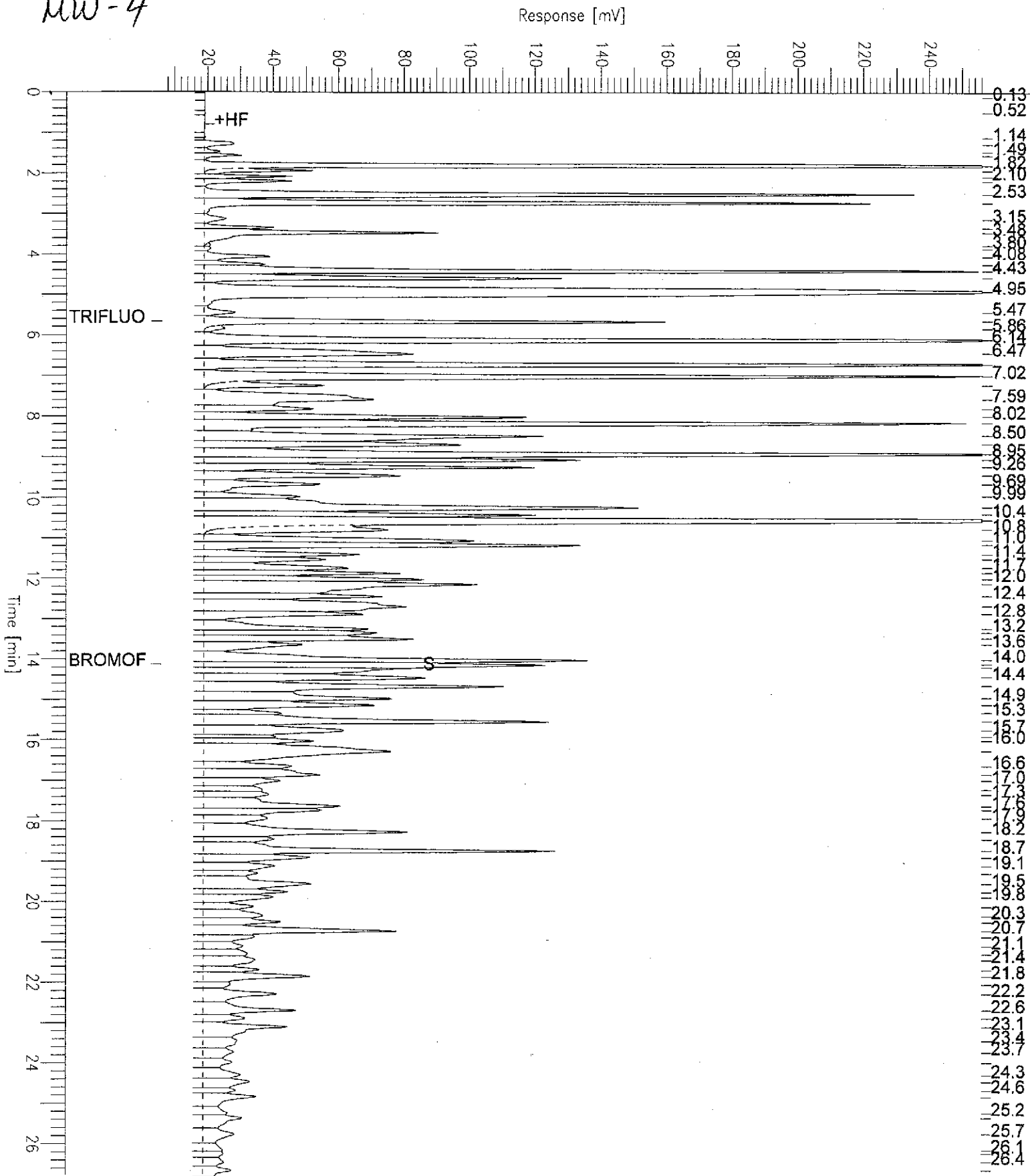
GC19 TVH 'X' Data File (FID)

Sample Name : 146343-004,56826,+mtbe
 FileName : G:\GC19\DATA\185X012.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: -1.0

End Time : 26.80 min
 Plot Offset: 6 mV

Sample #: c1
 Date : 7/5/00 03:11 PM
 Time of Injection: 7/4/00 01:20 AM
 Low Point : 6.11 mV
 Plot Scale: 250.0 mV
 High Point : 256.11 mV

MW-4



Gasoline by GC/FID CA LUFT

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000		

Field ID:	MW-5	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-005		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	59-135
Bromofluorobenzene (FID)	112	60-140

Field ID:	MW-6	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-006		

Analyte	Result	RL
Gasoline C7-C12	1.900	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	59-135
Bromofluorobenzene (FID)	121	60-140

Type:	BLANK	Batch#:	56826
Lab ID:	QC119452	Analyzed:	07/03/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	59-135
Bromofluorobenzene (FID)	101	60-140

Type:	BLANK	Batch#:	56847
Lab ID:	QC119537	Analyzed:	07/05/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

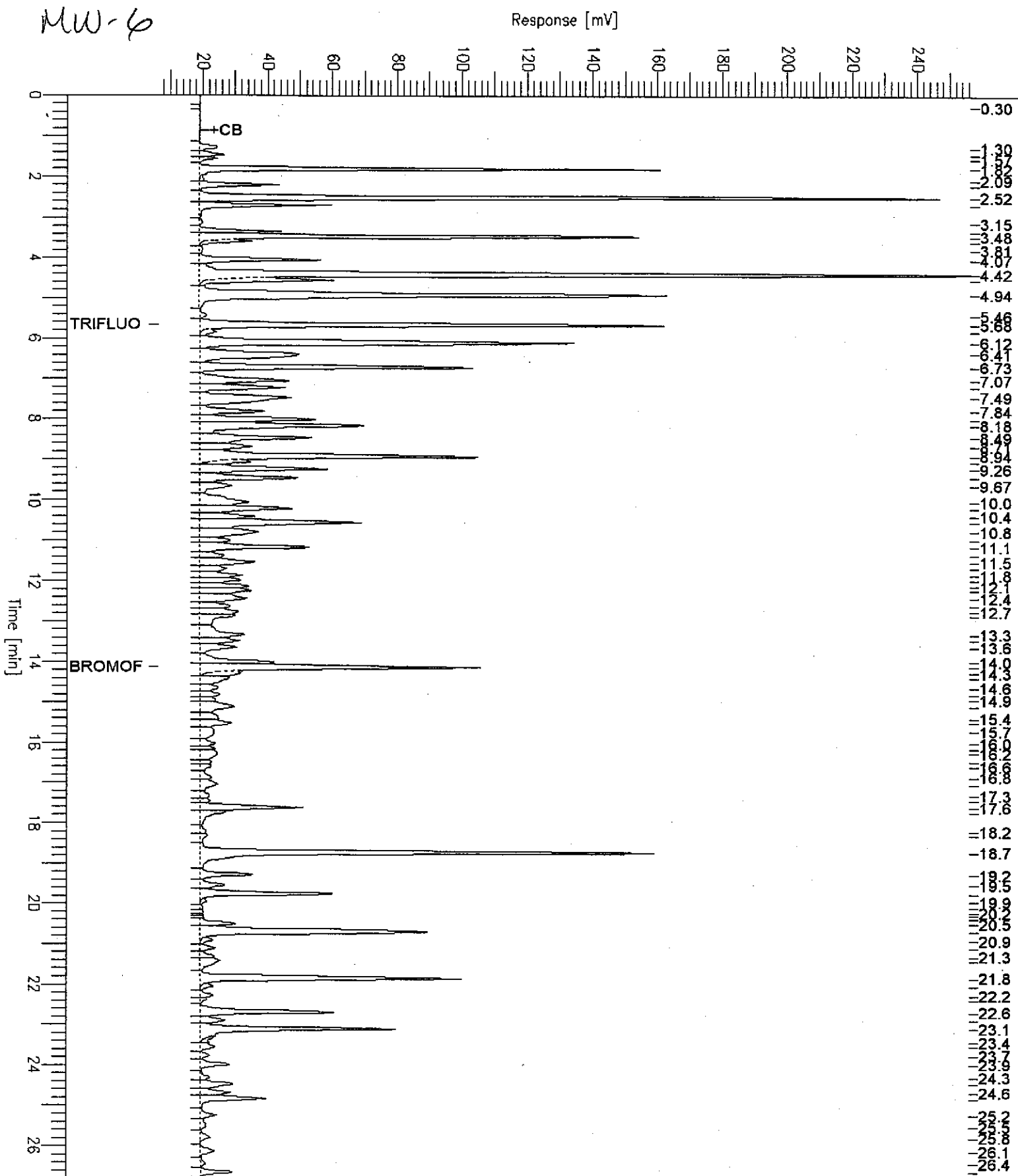
Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	59-135
Bromofluorobenzene (FID)	105	60-140

GC19 TVH 'X' Data File (FID)

Sample Name : 146343-006,56826,+mtbe
 FileName : G:\GC19\DATA\185X016.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: -1.0

End Time : 26.80 min
 Plot Offset: 6 mV

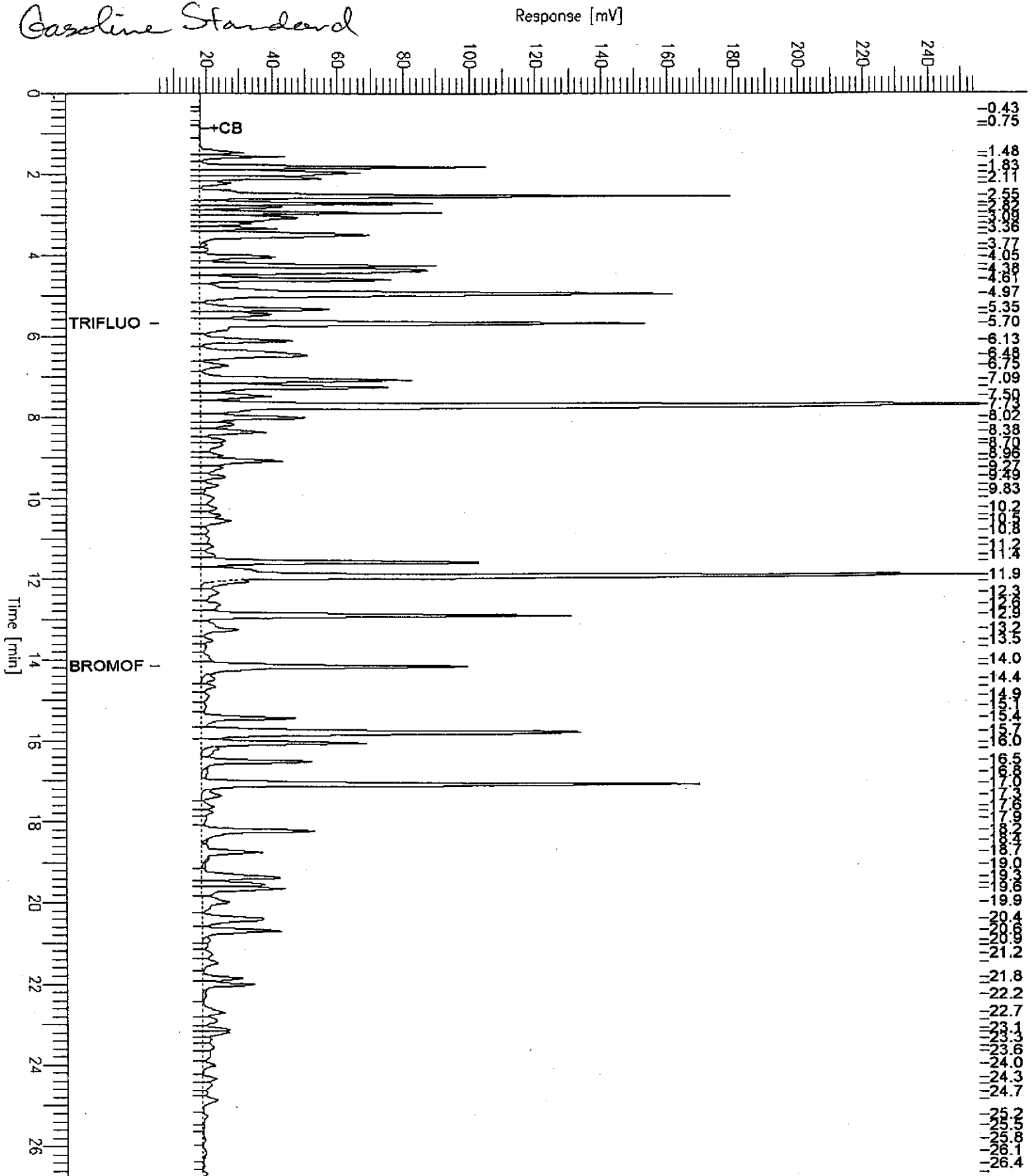
Sample #: c1
 Date : 7/4/00 04:19 AM
 Time of Injection: 7/4/00 03:52 AM
 Low Point : 6.47 mV
 High Point : 256.47 mV
 Plot Scale: 250.0 mV



GC19 TVH 'X' Data File (FID)

Sample Name : CCV/LCS, QC119538, 56847, 00WS9313, 5/5000
 FileName : G:\GC19\DATA\187X002.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor : -1.0

Sample #: GAS
 Date : 7/5/00 08:53 PM
 Time of Injection: 7/5/00 08:26 PM
 Low Point : 5.42 mV
 Plot Scale: 250.0 mV



Gasoline by GC/FID CA LUFT

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC119453	Batch#:	56826
Matrix:	Water	Analyzed:	07/03/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,105	105	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	121	59-135
Bromofluorobenzene (FID)	118	60-140

Gasoline by GC/FID CA LUFT

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC119538	Batch#:	56847
Matrix:	Water	Analyzed:	07/05/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,083	104	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	59-135
Bromofluorobenzene (FID)	119	60-140

Gasoline by GC/FID CA LUFT

Lab #:	146343	Location:	2250 Telegraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8015M
Field ID:	MW-1	Batch#:	56826
MSS Lab ID:	146343-001	Sampled:	06/30/00
Matrix:	Water	Received:	06/30/00
Units:	ug/L	Analyzed:	07/03/00
Diln Fac:	1.000		

Type: MS Lab ID: QC119455

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	235.8	2,000	2,392	108	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	59-135
Bromofluorobenzene (FID)	155 *	60-140

Type: MSD Lab ID: QC119456

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,375	107	65-131	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	132	59-135
Bromofluorobenzene (FID)	156 *	60-140

* = Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000		

Field ID:	MW-1	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/03/00
Lab ID:	146343-001		

Analyte	Result	RL
MTBE	4.0	2.0
Benzene	0.70 C	0.50
Toluene	0.80	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.74	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	119	55-149

Field ID:	MW-2	Batch#:	56847
Type:	SAMPLE	Analyzed:	07/05/00
Lab ID:	146343-002		

Analyte	Result	RL
MTBE	2.0	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	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	111	55-149

Field ID:	MW-3	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-003		

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	0.51	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	111	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000		

Field ID:	MW-4	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-004		

Analyte	Result	RL
MTBE	27	2.0
Benzene	3.1	0.50
Toluene	1.7 C	0.50
Ethylbenzene	11	0.50
m,p-Xylenes	7.4	0.50
o-Xylene	9.3 C	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	114	56-142
Bromofluorobenzene (PID)	153 *	55-149

Field ID:	MW-5	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-005		

Analyte	Result	RL
MTBE	5.1	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	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	111	55-149

Field ID:	MW-6	Batch#:	56826
Type:	SAMPLE	Analyzed:	07/04/00
Lab ID:	146343-006		

Analyte	Result	RL
MTBE	30	2.0
Benzene	0.56	0.50
Toluene	3.0	0.50
Ethylbenzene	5.4 C	0.50
m,p-Xylenes	1.4 C	0.50
o-Xylene	2.1	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	134	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000		

Type:	BLANK	Batch#:	56826
Lab ID:	QC119452	Analyzed:	07/03/00

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	%REC	Limits
Trifluorotoluene (PID)	101	56-142
Bromofluorobenzene (PID)	102	55-149

Type:	BLANK	Batch#:	56847
Lab ID:	QC119537	Analyzed:	07/05/00

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	%REC	Limits
Trifluorotoluene (PID)	103	56-142
Bromofluorobenzene (PID)	105	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC119454	Batch#:	56826
Matrix:	Water	Analyzed:	07/03/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	19.36	97	51-125
Benzene	20.00	18.16	91	67-117
Toluene	20.00	19.28	96	69-117
Ethylbenzene	20.00	19.38	97	68-124
m,p-Xylenes	40.00	40.97	102	70-125
o-Xylene	20.00	19.10	96	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	99	56-142
Bromofluorobenzene (PID)	102	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC119539	Batch#:	56847
Matrix:	Water	Analyzed:	07/05/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	18.88	94	51-125
Benzene	20.00	18.22	91	67-117
Toluene	20.00	19.52	98	69-117
Ethylbenzene	20.00	19.60	98	68-124
m,p-Xylenes	40.00	41.59	104	70-125
o-Xylene	20.00	19.40	97	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	100	56-142
Bromofluorobenzene (PID)	103	55-149

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	609.004	Analysis:	EPA 8021B
Field ID:	MW-2	Batch#:	56847
MSS Lab ID:	146343-002	Sampled:	06/30/00
Matrix:	Water	Received:	06/30/00
Units:	ug/L	Analyzed:	07/05/00
Diln Fac:	1.000		

Type: MS Lab ID: QC119540

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	2.015	20.00	22.31	101	33-131
Benzene	ND	20.00	19.20	96	65-123
Toluene	ND	20.00	20.24	101	73-122
Ethylbenzene	ND	20.00	20.29	101	59-137
m,p-Xylenes	ND	40.00	42.79	107	68-132
o-Xylene	ND	20.00	20.33	102	61-140

Surrogate	%REC	Limits
Trifluorotoluene (PID)	115	56-142
Bromofluorobenzene (PID)	117	55-149

Type: MSD Lab ID: QC119541

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	22.05	100	33-131	1	20
Benzene	20.00	19.00	95	65-123	1	20
Toluene	20.00	20.27	101	73-122	0	20
Ethylbenzene	20.00	20.17	101	59-137	1	20
m,p-Xylenes	40.00	42.57	106	68-132	0	20
o-Xylene	20.00	20.16	101	61-140	1	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	114	56-142
Bromofluorobenzene (PID)	117	55-149

Total Extractable Hydrocarbons

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	609.004	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000	Prepared:	07/06/00
Batch#:	56875		

Field ID: MW-1 Lab ID: 146343-001
 Type: SAMPLE Analyzed: 07/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	100	44-121

Field ID: MW-2 Lab ID: 146343-002
 Type: SAMPLE Analyzed: 07/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	98	44-121

Field ID: MW-3 Lab ID: 146343-003
 Type: SAMPLE Analyzed: 07/11/00

Analyte	Result	RL
Diesel C10-C24	83 H Y	50

Surrogate	%REC	Limits
Hexacosane	97	44-121

Field ID: MW-4 Lab ID: 146343-004
 Type: SAMPLE Analyzed: 07/11/00

Analyte	Result	RL
Diesel C10-C24	3,200 H L	50

Surrogate	%REC	Limits
Hexacosane	102	44-121

Field ID: MW-5 Lab ID: 146343-005
 Type: SAMPLE Analyzed: 07/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	86	44-121

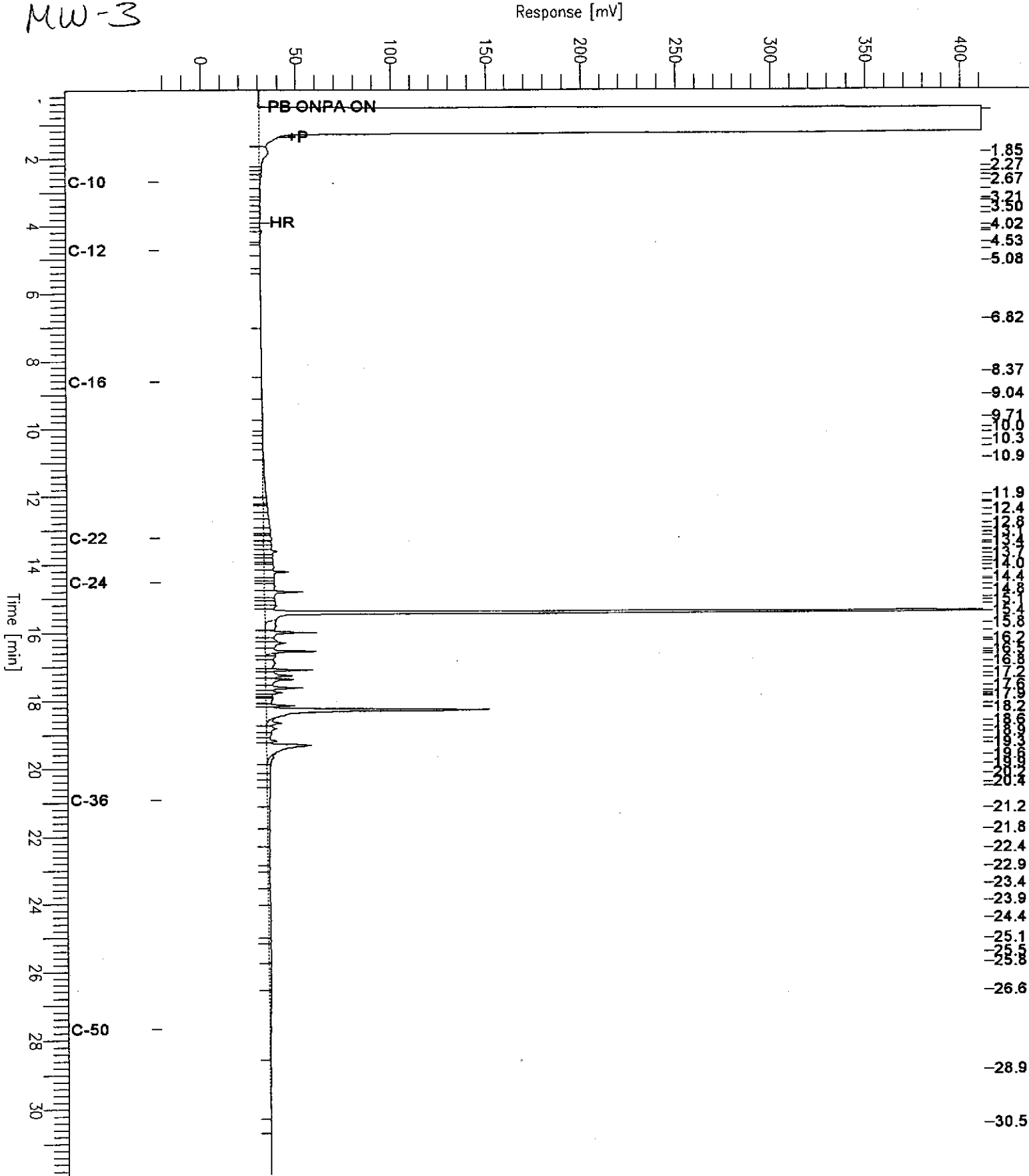
H = Heavier hydrocarbons contributed to the quantitation
 L = Lighter hydrocarbons contributed to the quantitation
 Y = Sample exhibits fuel pattern which does not resemble standard
 ND = Not Detected
 RL = Reporting Limit
 Page 1 of 2

Chromatogram

Sample Name : 146343-003,56875
 FileName : G:\GC15\CHB\193B010.RAW
 Method : BTEH180.MTH
 Start Time : 0.01 min
 Scale Factor: 0.0

Sample #: 56875
 Date : 07/12/2000 08:48 AM
 Time of Injection: 07/11/2000 08:16 PM
 Low Point : -21.82 mV
 High Point : 411.13 mV
 Plot Scale: 433.0 mV

MW-3



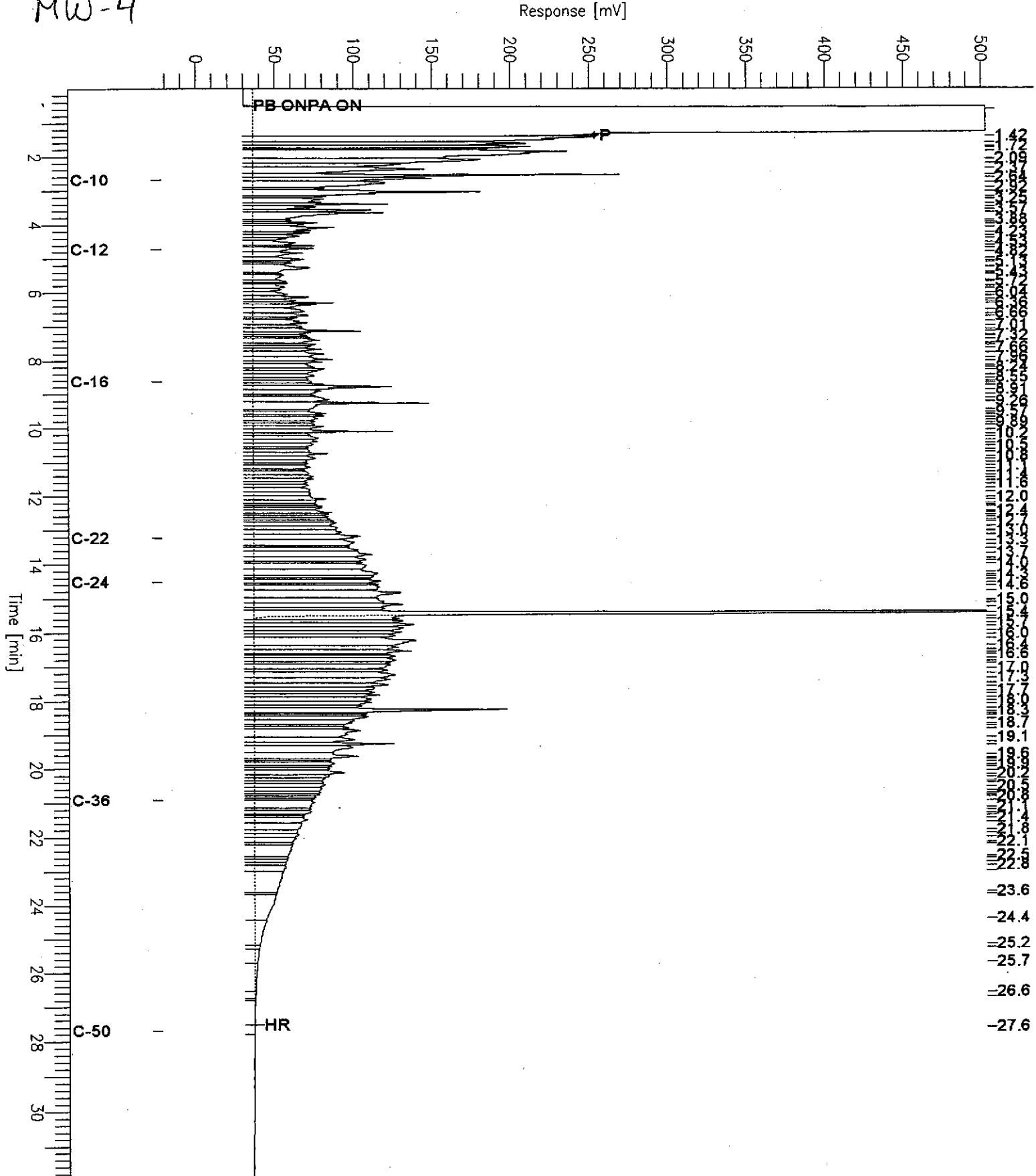
Chromatogram

Sample Name : 146343-004, 56875
FileName : G:\GC15\CHB\193B011.RAW
Method : BTEH180.MTH
Start Time : 0.01 min
Scale Factor : 0.0

End Time : 31.91 min
Plot Offset : -22 mV

Sample #: 56875
Date : 07/12/2000 08:49 AM
Time of Injection: 07/11/2000 08:59 PM
Low Point : -21.88 mV
Plot Scale: 524.9 mV
High Point : 503.02 mV

MW-4



Total Extractable Hydrocarbons

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	609.004	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	06/30/00
Units:	ug/L	Received:	06/30/00
Diln Fac:	1.000	Prepared:	07/06/00
Batch#:	56875		

Field ID:	MW-6	Lab ID:	146343-006
Type:	SAMPLE	Analyzed:	07/11/00

Analyte	Result	RL
Diesel C10-C24	360 L Y	50

Surrogate	%REC	Limits
Hexacosane	88	44-121

Type:	BLANK	Analyzed:	07/08/00
Lab ID:	QC119648		

Analyte	Result	RL
Diesel C10-C24	ND	50

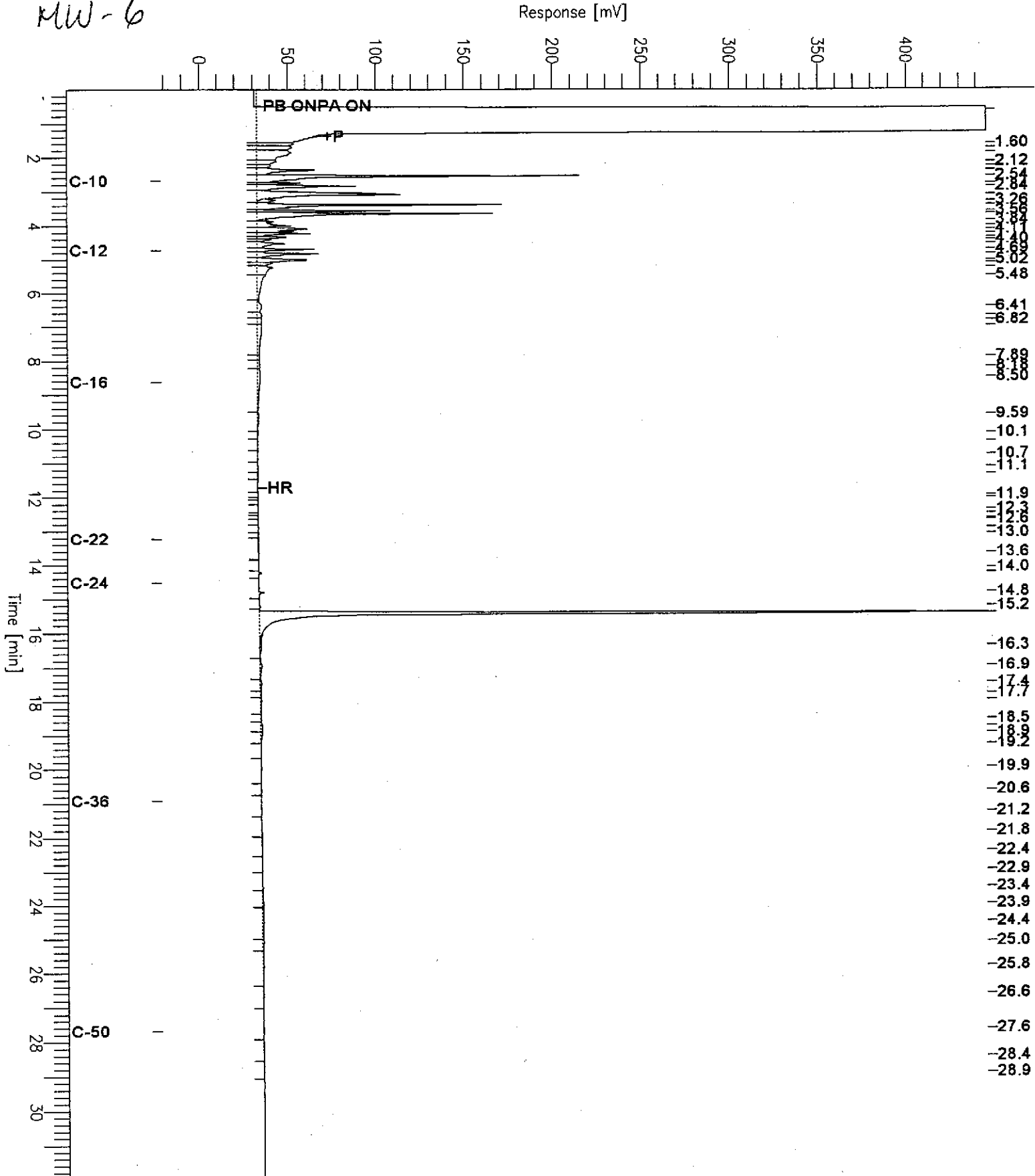
Surrogate	%REC	Limits
Hexacosane	89	44-121

Chromatogram

Sample Name : 146343-006,56875
 FileName : G:\GC15\CHB\193B013.RAW
 Method : BTEH180.MTH
 Start Time : 0.01 min
 Scale Factor: 0.0

Sample #: 56875
 Date : 07/12/2000 08:50 AM
 Time of Injection: 07/11/2000 10:24 PM
 Low Point : -21.33 mV
 High Point : 445.75 mV
 End Time : 31.91 min
 Plot Offset: -21 mV
 Plot Scale: 467.1 mV

MW-6



Chromatogram

Sample Name : ccv,00ws9383,mo
FileName : G:\GC15\CHB\189B003.RAW
Method : BTEH180.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 31.91 min
Plot Offset: -22 mV

Sample #: 500mg/l

Page 1 of 1

Date : 07/07/2000 01:57 PM

Time of Injection: 07/07/2000 12:51 PM

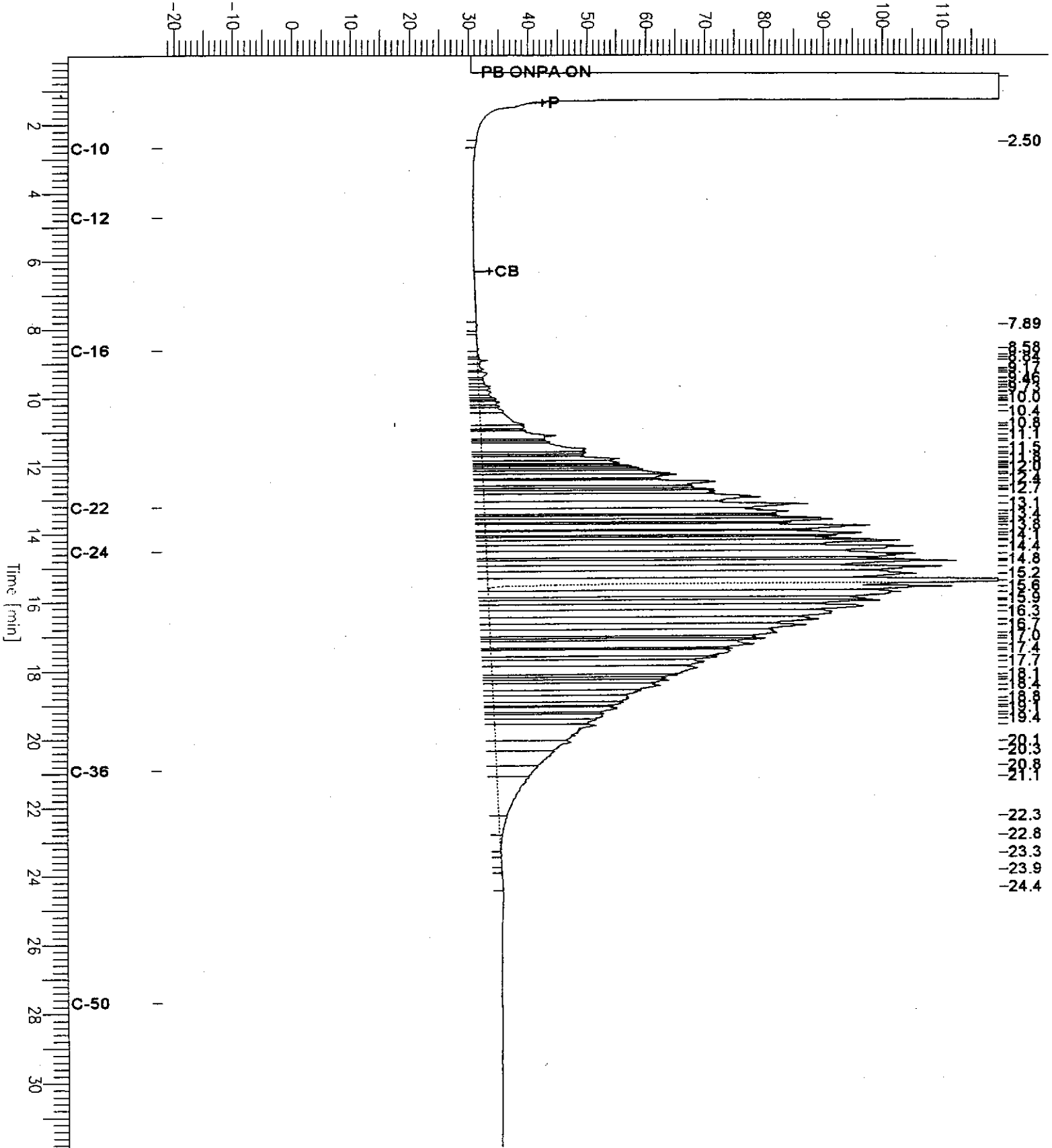
Low Point : -21.89 mV

High Point : 119.80 mV

Plot Scale: 141.7 mV

Motor Oil Standard

Response [mV]



Total Extractable Hydrocarbons

Lab #:	146343	Location:	2250 Telgraph Av. Oakland
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	609.004	Analysis:	EPA 8015M
Matrix:	Water	Batch#:	56875
Units:	ug/L	Prepared:	07/06/00
Diln Fac:	1.000		

Type: BS Analyzed: 07/11/00
 Lab ID: QC119649

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,339	1,317	56	45-110

Surrogate	%REC	Limits
Hexacosane	117	44-121

Type: BSD Analyzed: 07/10/00
 Lab ID: QC119650

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,339	1,437	61	45-110	9	22

Surrogate	%REC	Limits
Hexacosane	106	44-121

Subsurface Consultants, Inc.

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609,004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: _____

WELL NO.: MW-1
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTCC) 18.36 FEET
 DEPTH TO GROUNDWATER (BTCC) 11.29 FEET
 FEET OF WATER IN WELL 7.08 FEET

CALCULATED PURGE VOLUME 3.46 gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

FREE PRODUCT None
 PURGE METHOD _____

MEASUREMENT METHOD TAPE & PASTE ELECTRONIC SOUNDER OTHER

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	11:00	6.79	18.0	1.22				Clear HC odor
1	11:05	6.84	18.0	1.36				HC odor
3	11:10	6.79	18.0	1.34				HC odor
3.4	11:15	6.71	18.0	1.21				Green, turbid

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTCC) 12.97

SAMPLING METHOD Disposable Bailor

CONTAINERS / PRESERVATIVE 4 / HCL 2 / None
 40 ML Amber LITER
 OTHER OTHER

ANALYSES: TEH-d (8015m)
IVH-g (8015m)
BTEX & MTBE (8020)

MISC FIELD OBSERVATION: Purged clay after 4 gal.

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609,004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: _____

WELL NO.: MW-2
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTOC) 16.96 FEET
 DEPTH TO GROUNDWATER (BTOC) 11.16 FEET
 FEET OF WATER IN WELL 5.80 FEET

CALCULATED PURGE VOLUME 2.84 gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

FREE PRODUCT _____
 PURGE METHOD _____

MEASUREMENT METHOD TAPE & PASTE **ELECTRONIC SOUNDER** OTHER

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	11:30	7.3	18.5	1.22				orangeish brown
1	11:33	7.08	18.5	1.08				turbid
2	11:35	7.03	18.0	1.74				no odor
3	11:40	6.99	18.0	1.22				no odor

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC) 13.24

SAMPLING METHOD Disposable Bailer

CONTAINERS / PRESERVATIVE 4 / HCL 2 / None
 40 ML Amber LITER
 OTHER OTHER

ANALYSES: TEH-d (8015m)
TVH-g (8015m)
BTE & MTBE (8020)

MISC FIELD OBSERVATION: 15 minute recharge

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609.004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: _____

WELL NO.: MU-3
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTOC) 18.35 FEET

CALCULATED PURGE VOLUME _____ gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

DEPTH TO GROUNDWATER (BTOC) 10.21 FEET

FREE PRODUCT _____

FEET OF WATER IN WELL 8.14 FEET

PURGE METHOD _____

MEASUREMENT METHOD

TAPE & PASTE

ELECTRONIC SOUNDER

OTHER

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	12:55	6.98	18.0	1.23				Clear
1	1:57	6.96	18.5	1.22				
3	1:20	7.03	18.5	1.21				
4	1:21	7.03	18.5	1.19				No odor R

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC) _____

SAMPLING METHOD Disposable Bailor

CONTAINERS / PRESERVATIVE 4 / HCL 2 / None
 40 ML Amber LITER

OTHER OTHER

ANALYSES: TEH-d (8015m)
TVH-g (8015m)
BTE & MTBE (8020)

MISC FIELD OBSERVATION: purged dry after 4 gal.
clear no odor.

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609,004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: _____

WELL NO.: MW-4
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTOC) 18.41 FEET
 DEPTH TO GROUNDWATER (BTOC) 12.39 FEET
 FEET OF WATER IN WELL 5.02 FEET

CALCULATED PURGE VOLUME _____ gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

FREE PRODUCT _____
 PURGE METHOD _____

MEASUREMENT METHOD _____ TAPE & PASTE ELECTRONIC SOUNDER OTHER _____

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1240	7.02	18.5	1.23				slight
1	1243	7.04	18.0	1.23				HC green
2	1247	7.04	18.0	1.24				green
3	1250	7.04	18.0	1.25				green

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC) _____

SAMPLING METHOD Disposable Bailor

CONTAINERS / PRESERVATIVE 4 / HCL 2 / None
 40 ML Amber LITER

OTHER _____ OTHER _____

ANALYSES: TEH-d (8015m)
TVH-g (8015m)
BTEX & MTBE (8020)

MISC FIELD OBSERVATION: Slight green
spring HC odor
greenish tint

Subsurface Consultants, Inc.

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609,004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: Cloudy

WELL NO.: MW-5
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTOC) 17.55 FEET
 DEPTH TO GROUNDWATER (BTOC) 7.63 FEET
 FEET OF WATER IN WELL 9.92 FEET

CALCULATED PURGE VOLUME _____ gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

FREE PRODUCT _____
 PURGE METHOD _____

MEASUREMENT METHOD _____ TAPE & PASTE ELECTRONIC SOUNDER OTHER _____

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	107	6.94	18.5	20.1				
1	110	6.96	18.5	20.5				
3	113	7.00	18.5	20.5				
5	115	7.00	18.5	21.0				
6	120	7.09	18.5	22.3				W. turbid V. turbid brown

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC) 8.64

SAMPLING METHOD Disposable Bailor

CONTAINERS / PRESERVATIVE 4 / HCL 2 / None
 40 ML Amber LITER
 OTHER OTHER

ANALYSES: TEH-d (8015m)
IVH-g (8015m)
BTE & MTBE (8020)

MISC FIELD OBSERVATION: V. turbid and silty brown

WELL SAMPLING FORM

PROJECT NAME: Buttner Properties
 JOB NO. 609,004
 SAMPLED BY: E. Silverman
 DATE: June 30, 2000
 WEATHER: _____

WELL NO.: MW-6
 WELL CASING DIAMETER: 2"
 WELL MATERIAL: _____
 TOC ELEVATION: _____

TOTAL DEPTH OF CASING (BTCC) 18.32 FEET
 DEPTH TO GROUNDWATER (BTCC) 10.37 FEET
 FEET OF WATER IN WELL 7.95 FEET

CALCULATED PURGE VOLUME _____ gallons
 (feet of water * casing dia² * .0408 * # of Volumes)

FREE PRODUCT _____
 PURGE METHOD _____

MEASUREMENT METHOD _____ TAPE & PASTE _____ **ELECTRONIC SOUNDER** _____ OTHER _____

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	TURBIDITY	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	209	7.39	18.5	122				
1	215	7.38	18.5	122				
3	222	7.42	18.5	123				
5	230	7.26	18.5	124				

DEPTH TO GROUNDWATER WHEN 80% RECOVERED _____

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTCC) _____

SAMPLING METHOD Disposable Bailor

CONTAINERS / PRESERVATIVE 4 / HCL 40 ML 2 / None Amber LITER
 _____ OTHER _____

ANALYSES: TEH-d (8015m)
TVH-g (8015m)
BTE & MTBE (8020)

MISC FIELD OBSERVATION: Clear, slightly grey
NO OIL