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Subsurface Consultants, Inc.

ENVIRONMENTAL
INSTITUTE

97 OCT -2 PHM. 27

R. William Rudolph, P.E.
President

September 26, 1997
SCI 946.003

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

Groundwater Monitoring

July 1997 Event
2528 Adeline Street
Oakland, California

Dear Mr. Tinsley:

This letter presents the results of the July 1997 semi-annual groundwater monitoring event for the referenced site. Based on the results of current and historic groundwater monitoring events performed at the site, Subsurface Consultants, Inc. (SCI) is requesting a reduction in the sampling program. Groundwater monitoring has been performed at the request of the Alameda County Health Care Services Agency due to the presence of petroleum hydrocarbons, heavy metals, and volatile organic compounds (VOCs) detected in groundwater beneath the site. The location of the site is shown on the attached Site Plan, Plate 1.

Groundwater Sampling

On July 31, 1997, monitoring wells MW-1, MW-2, and MW-3 were gauged and sampled. In general, the sampling event consisted of: (1) measuring groundwater levels using an electric well sounder, (2) checking for free product, (3) purging water from each well until pH, conductivity, and temperature had stabilized (approximately three well volumes), and (4) sampling the wells with new disposable bailers after they had recovered to at least 80 percent of their initial water level. Purge water generated during sampling activities was stored onsite in 55-gallon drums for later disposal by others. The samples were retained in glass containers pre-cleaned by the supplier in accordance with EPA protocol. The containers were placed in an ice-filled cooler and remained iced until delivery to the analytical laboratory. The samples were accompanied by appropriate chain-of-custody documentation.

Analytical Testing

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. Samples were analyzed for the following:

1. Total volatile hydrocarbons as gasoline and stoddard solvent (TVH, EPA 5030/8015),
2. Benzene, toluene, ethylbenzene, and total xylenes (BTEX, EPA 5030/8020),

Mr. Kevin Tinsley
Alameda County Health Care Services Agency
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3. Total extractable hydrocarbons as diesel and kerosene (TEH, EPA 3520/8015M),
4. VOCs (EPA 5030/8260),
5. Dissolved barium (EPA 6010A), and
6. Dissolved selenium (EPA 6010A).

Samples submitted for metals analysis were filtered by the laboratory prior to analysis. A summary of the current and previous analytical test results are presented in the attached Tables 1 through 3. Analytical test reports, chain-of-custody documents, and well sampling forms for this event are also attached.

Summary of Test Results

The groundwater level data indicate the local groundwater flow direction is toward the southwest at a gradient of approximately 1 percent. Previous groundwater monitoring events have indicated groundwater flow directions are variable; however, the gradient remains relatively flat. A summary of groundwater level data is presented in the attached Table 4.

TVH and TEH were detected in monitoring well MW-1 during this event at concentrations similar to previous events which exhibited a similar groundwater flow direction. Additionally, ethylbenzene was detected in monitoring well MW-1 at 2.7 micrograms per liter ($\mu\text{g/L}$); benzene, toluene and total xylenes were not detected in this sample. TVH, TEH, and BTEX were not detected above laboratory reporting limits in monitoring well MW-2 nor monitoring well MW-3.

Selenium concentrations were not detected in monitoring wells MW-2 nor MW-3. Selenium was detected in monitoring well MW-1 at $6.5 \mu\text{g/L}$, which is below the drinking water maximum contaminant level (MCL) of $10 \mu\text{g/L}$. Barium concentrations were consistent with previous events.

Concentrations of 1,1-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane were detected in monitoring well MW-2 at values similar to previous events. No VOCs were detected in monitoring wells MW-1 and MW-3 during this event at concentrations above their laboratory reporting limits.

Conclusions and Petition to Reduce Sampling Rate

The analytical data indicate the petroleum hydrocarbon plume is relatively stable. TVH, TEH, and BTEX concentrations have not been detected in monitoring well MW-3 during six sampling events, nor in monitoring well MW-2 for the three most recent sampling events. Concentrations of TVH detected in monitoring well MW-2 for previous events are low. The plume which initially extended to monitoring well MW-2 appears to be attenuating naturally.

Barium concentrations in all three monitoring wells have never exceeded its drinking water MCL of 1,000 $\mu\text{g/L}$ during the six sampling events conducted; and selenium concentrations have been consistently near its MCL of $11 \mu\text{g/L}$. With the exception of BTEX compounds, VOCs have not been detected in monitoring well MW-1. Additionally, detected VOC concentrations in monitoring well MW-3 have been low and declining steadily; the current VOC results are non-detect for this well.

Subsurface Consultants, Inc.

Mr. Kevin Tinsley
Alameda County Health Care Services Agency
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On behalf of Ms. Howkins, SCI requests that monitoring well MW-3 be eliminated from the sampling program. Additionally, we request that analytical testing for barium and selenium be discontinued in the remaining wells MW-1 and MW-2, as well as eliminating testing for VOCs in MW-1. Analytical testing for TVH, TEH, and BTEX would continue for monitoring well MW-1 near the "source" area and for downgradient well MW-2. MW-2 would also continue to be monitored for VOCs. In accordance with the monitoring schedule, the next sampling event is scheduled for January 1998. Please indicate your approval for this reduction in analyses prior to this next event.

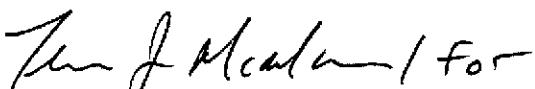
If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



Meg Mendoza
Project Engineer



Jeriann N. Alexander, P.E., REA
Civil Engineer 40469 (expires 3/31/99)
Registered Environmental Assessor 03130 (exp. 6/30/00)

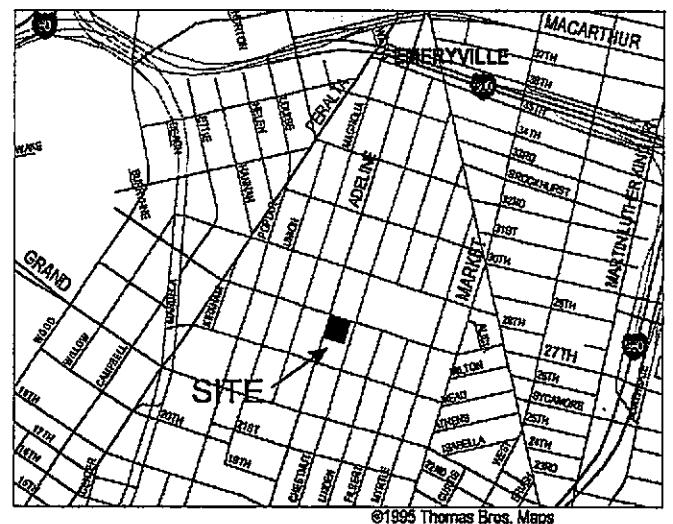
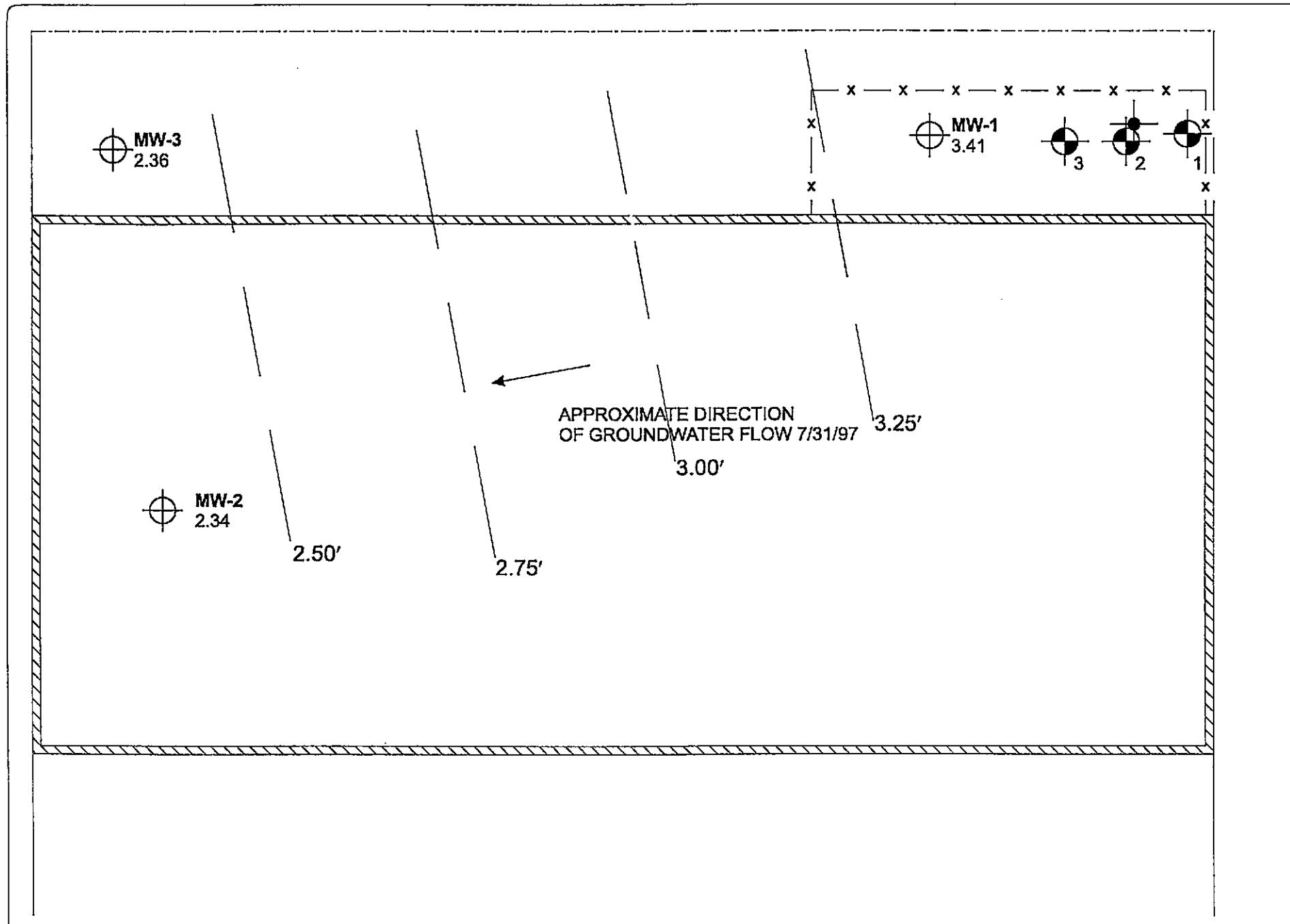
MM:TJM:JNA.ly 946.003\0797qtr.doc

cc (3): Ms. Shirley Howkins
c/o Mr. Gerald C. Smith
Fitzgerald, Abbott & Beardsley
1221 Broadway, 21st Floor
Oakland, California 94612-1837

Attachments: Plate 1 - Site Plan
Table 1 - Petroleum Hydrocarbon Concentrations in Groundwater
Table 2 - Volatile Organic Compound Concentrations in Groundwater
Table 3 - Barium and Selenium Concentrations in Groundwater
Table 4 - Groundwater Elevation Data
Analytical Test Reports
Chain-of-Custody Documents
Well Sampling Forms

ADELINE STREET

26TH STREET



EXPLANATION

----- PROPERTY BOUNDARY

- x - x - FENCE

EXISTING STRUCTURE

BORING LOCATION

MONITORING WELL LOCATION

FORMER WELL LOCATION

GROUNDWATER ELEVATION CONTOUR

SITE PLAN



APPROXIMATE SCALE (feet)
0 20 40



Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

2528 ADELINE STREET - OAKLAND, California

JOB NUMBER
946.003

DATE
8/25/97

APPROVED
M.W.M.

PLATE

1

TABLE 1
PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUNDWATER
2528 ADELINE STREET
OAKLAND, CALIFORNIA

<u>Sample ID</u>	<u>Date</u>	TVH¹		TEH²						Total Xylenes (<u>µg/L</u>)
		as Gasoline (<u>µg/L</u>)	as Stoddard Solvent (<u>µg/L</u>)	as Diesel C12-C22 (<u>µg/L</u>)	as Kerosene C10-C16 (<u>µg/L</u>)	O&G (<u>mg/L</u>)	Benzene (<u>µg/L</u>)	Toluene (<u>µg/L</u>)	Ethylbenzene (<u>µg/L</u>)	
Former Well (abandoned)	3/31/95	2800	**	1600*	**	37	--	--	--	--
MW-1	4/3/95	730	**	**	310*	5.8	--	--	--	--
	4/29/96	2000*	2000*	240*	220*	<5	<0.5	<0.5	65	16
	7/25/96	730*	750*	190*	180*	<5	<0.5	<0.5	26	<0.5
	10/31/96	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	1/9/97	1800	**	470*	550*	--	<0.5	<0.5	57	26
	7/31/97	700	610	290	360	--	<0.5	<0.5	2.7	<0.5
MW-2	8/15/95	83*	**	<50	<50	<5	--	--	--	--
	4/29/96	75*	74*	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	7/25/96	110*	92*	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/31/96	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	1/9/97	<50	<50	<50	<50	--	<0.5	<0.5	<0.5	<0.5
	7/31/97	<50	<50	<50	<50	--	<0.5	<0.5	<0.5	<0.5
MW-3	8/15/95	<50	<50	<50	<50	<5	--	--	--	--
	4/29/96	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	7/25/96	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	10/31/96	<50	<50	<50	<50	<5	<0.5	<0.5	<0.5	<0.5
	1/9/97	<50	<50	<50	<50	--	<0.5	<0.5	<0.5	<0.5
	7/31/97	<50	<50	<50	<50	--	<0.5	<0.5	<0.5	<0.5

¹Gasoline and stoddard solvent hydrocarbon ranges overlap

²Diesel and kerosene hydrocarbon ranges overlap

* = Sample chromatogram does not resemble standard pattern

** = Range not reported due to overlap of hydrocarbons

µg/L = micrograms per liter or parts per billion

mg/L = milligrams per liter or parts pr million

TVH = Total volatile hydrocarbons

TEH = Total extractable hydrocarbons

O&G = Oil and grease

-- = Test not requested

<50 = None detected above the laboratory reporting limit stated.

TABLE 2
VOLATILE ORGANIC COMPOUND
CONCENTRATIONS IN GROUNDWATER
2528 ADELINE STREET
OAKLAND, CALIFORNIA

Subsurface Consultants, Inc.

SAMPLE ID	DATE Sampled	ACETONE (µg/L)	CARBON DISULFIDE (µg/L)	1,1-DCA (µg/L)	1,1-DCE (µg/L)	2-BUTANONE (µg/L)	4-METHYL-2-PENTANONE (µg/L)	1,1,1-TCA (µg/L)	BENZENE (µg/L)	TOluene (µg/L)	Ethyl BENZENE (µg/L)	Total xylenes (µg/L)	cis-1,2-DCE (µg/L)	OTHER EPA 8240 COMPOUNDS
Former Well (Abandoned)	3/31/95	24	4.1*	<5.0	<5.0	7.7*	57	<5.0	4.5*	49	34	270	<5.0	ND
MW-1	4/3/95	<20	<5.0	<5.0	4.2	<10	<10	<5.0	3.1	39	13	75	<5.0	ND
	4/29/96	<20	<5.0	<5.0	6.2	<10	<10	<5.0	<5.0	<5.0	62	12	<5.0	ND
	7/25/96	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	6.4	<5.0	<5.0	ND
	10/31/96	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	1/9/97	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	51	22	<5.0	ND
	7/31/97	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND
MW-2	8/15/95	<50	<13	62	260	<25	<25	170	<13	<13	<13	<13	<13	ND
	4/29/96	<20	<5.0	91	400	<10	<10	260	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	7/25/96	<40	<10	70	270	<20	<20	230	<10	<10	<10	<10	<10	ND
	10/31/96	<33	<8.3	67	210	<17	<17	160	<8.3	<8.3	<8.3	<8.3	<8.3	ND
	1/9/97	<50	<13	79	340	<25	<25	230	<13	<13	<13	<13	<13	ND
	7/31/97	<33	<8.3	66	210	<17	<17	120	<8.3	<8.3	<8.3	<8.3	<8.3	ND
MW-3	8/15/95	<20	<5.0	3.3	4.1	<10	<10	8.8	<5.0	<5.0	<5.0	<5.0	2.9	ND
	4/29/96	<20	<5.0	<5.0	14	<10	<10	12	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	7/25/96	<20	<5.0	<5.0	7.2	<10	<10	8	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	10/31/96	<20	<5.0	<5.0	<5.0	<10	<10	5.1	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	1/9/97	<20	<5.0	<5.0	<5.0	<10	<10	5.6	<5.0	<5.0	<5.0	<5.0	<5.0	ND
	7/31/97	<20	<5.0	<5.0	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	ND

1,1-DCA = 1,1-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

cis-1,2-DCE = cis-1,2-Dichloroethene

<20 = None detected at or above the stated detection limit

ND = Not detected at or above analytical detection limits. See analytical test reports for individual detection limits.

µg/L = micrograms per liter or parts per billion

* = Estimated value detected below the laboratory reporting limit.

TABLE 3
BARIUM AND SELENIUM CONCENTRATIONS IN GROUNDWATER
2528 ADELINE STREET
OAKLAND, CALIFORNIA

<u>Sample ID</u>	<u>Date</u>	Dissolved Barium (<u>µg/L</u>)	Dissolved Selenium (<u>µg/L</u>)
Former Well (abandoned)	3/31/95	28,000	7.4
MW-1	4/3/95	160	11
	4/29/96	130	<5.0
	7/25/96	110	11
	10/31/96	130	8.5
	1/9/97	270	19
	7/31/97	220	6.5
MW-2	8/15/95	180*	--
	4/29/96	120	18
	7/25/96	130	12
	10/31/96	130	10
	1/9/97	150	19
	7/31/97	150	<5.0
MW-3	8/15/95	62*	--
	4/29/96	82	9.5
	7/25/96	33	5.4
	10/31/96	100	5.2
	1/9/97	130	7.3
	7/31/97	65	<5.0

* = Sample not filtered prior to analysis. All other samples filtered by laboratory using a 0.45 micron filter.

-- = Test not requested

µg/L = micrograms per liter

<5 = None detected at or above the laboratory stated detection limit.

Subsurface Consultants, Inc.

TABLE 4
GROUNDWATER ELEVATION DATA
2528 ADELINE STREET
OAKLAND, CALIFORNIA

<u>Well Number</u>	Date	TOC1 Elevation (feet)	Groundwater Depths2 (feet)	Groundwater Elevation3 (feet)
MW-1	4/3/95	10.99	5.78	5.21
	8/14/95		8.04	2.95
	4/29/96		8.16	2.83
	7/25/96		8.80	2.19
	10/31/96		8.69	2.30
	1/9/97		5.65	5.34
	7/31/97		7.58	3.41
MW-2	8/14/95	9.12	6.42	2.70
	4/29/96		5.43	3.69
	7/25/96		6.68	2.44
	10/31/96		6.74	2.38
	1/9/97		3.99	5.13
	7/31/97		6.78	2.34
MW-3	8/14/95	9.93	7.48	2.45
	4/29/96		7.16	2.77
	7/25/96		7.55	2.38
	10/31/96		7.17	2.76
	1/9/97		6.66	3.27
	7/31/97		7.57	2.36

Notes:

1. TOC - Top of Casing
2. Measured below TOC
3. Reference Mean Sea Level



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: 13-AUG-97
Lab Job Number: 130123
Project ID: 946.003
Location: 2528 Adeline St.

Reviewed by:

Troy B. B. Z.

Reviewed by:

[Signature]

This package may be reproduced only in its entirety.

CLIENT: Subsurface Consultants
PROJECT ID: 946.003
LOCATION: 2528 Adeline St.
MATRIX: Filtrate

DATE REPORTED: 08/13/97

Metals Analytical Report

Barium										
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date	
MW-1	130123-001	07/31/97	07/31/97	220	10	1	35341	EPA 6010A	08/06/97	
MW-2	130123-002	07/31/97	07/31/97	150	10	1	35341	EPA 6010A	08/06/97	
MW-3	130123-003	07/31/97	07/31/97	65	10	1	35341	EPA 6010A	08/06/97	



Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 946.003
LOCATION: 2528 Adeline St.
MATRIX: Filtrate

DATE REPORTED: 08/13/97

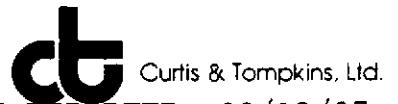
Metals Analytical Report

Selenium										
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date	
MW-1	130123-001	07/31/97	07/31/97	6.3	5.0	1	35341	EPA 6010A	08/06/97	
MW-2	130123-002	07/31/97	07/31/97	ND	5.0	1	35341	EPA 6010A	08/06/97	
MW-3	130123-003	07/31/97	07/31/97	ND	5.0	1	35341	EPA 6010A	08/06/97	

ND = Not detected at or above reporting limit



Curtis & Tompkins, Ltd.



CLIENT: Subsurface Consultants
JOB NUMBER: 130123

DATE REPORTED: 08/13/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Units	IDF	QC	Method	Analysis	Date
		Limit		Batch			
Barium	ND	10	ug/L	1	35341	EPA 6010A	08/06/97
Selenium	ND	5	ug/L	1	35341	EPA 6010A	08/06/97

ND = Not Detected at or above reporting limit

CLIENT: Subsurface Consultants
JOB NUMBER: 130123

ct Curtis & Tompkins, Ltd.
DATE REPORTED: 08/13/97

BATCH QC REPORT
LABORATORY CONTROL SAMPLE

Compound	Spike Amt	Result	Units	% Rec.	QC Batch	Method	Analysis Date
Barium	2000	2060	ug/L	103	35341	EPA 6010A	08/06/97
Selenium	2000	1980	ug/L	99	35341	EPA 6010A	08/06/97



Curtis & Tompkins, Ltd.

DATE REPORTED: 08/13/97

CLIENT: Subsurface Consultants
JOB NUMBER: 130123

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Barium	130102-002	46.3	46.1	ug/L	0	20	35341	EPA 6010A	08/06/97
Selenium	130102-002	<5	<5	ug/L	NC	20	35341	EPA 6010A	08/06/97

NC = Not Calculable

Volatile Organics by GC/MS

Client: Subsurface Consultants
 Project#: 946.003
 Location: 2528 Adeline St.

Analysis Method: EPA 8260
 Prep Method: EPA 5030

Field ID: MW-1
 Lab ID: 130123-001
 Matrix: Water
 Batch#: 35345
 Units: ug/L
 Diln Fac: 1

Sampled: 07/31/97
 Received: 07/31/97
 Extracted: 08/02/97
 Analyzed: 08/02/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	97	79-122



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-2
Lab ID: 130123-002
Matrix: Water
Batch#: 35379
Units: ug/L
Diln Fac: 1.67

Sampled: 07/31/97
Received: 07/31/97
Extracted: 08/05/97
Analyzed: 08/05/97

Analyte	Result	Reporting Limit
Chloromethane	ND	17
Bromomethane	ND	17
Vinyl Chloride	ND	17
Chloroethane	ND	17
Methylene Chloride	ND	33
Acetone	ND	33
Carbon Disulfide	ND	8.3
Trichlorofluoromethane	ND	8.3
1,1-Dichloroethene	210	8.3
1,1-Dichloroethane	66	8.3
trans-1,2-Dichloroethene	ND	8.3
cis-1,2-Dichloroethene	ND	8.3
Chloroform	ND	8.3
Freon 113	ND	8.3
1,2-Dichloroethane	ND	8.3
2-Butanone	ND	17
1,1,1-Trichloroethane	120	8.3
Carbon Tetrachloride	ND	8.3
Vinyl Acetate	ND	83
Bromodichloromethane	ND	8.3
1,2-Dichloropropane	ND	8.3
cis-1,3-Dichloropropene	ND	8.3
Trichloroethene	ND	8.3
Dibromochloromethane	ND	8.3
1,1,2-Trichloroethane	ND	8.3
Benzene	ND	8.3
trans-1,3-Dichloropropene	ND	8.3
Bromoform	ND	8.3
2-Hexanone	ND	17
4-Methyl-2-Pentanone	ND	17
1,1,2,2-Tetrachloroethane	ND	8.3
Tetrachloroethene	ND	8.3
Toluene	ND	8.3
Chlorobenzene	ND	8.3
Ethylbenzene	ND	8.3
Styrene	ND	8.3
m,p-Xylenes	ND	8.3
o-Xylene	ND	8.3
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	81	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	97	79-122



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-3
Lab ID: 130123-003
Matrix: Water
Batch#: 35345
Units: ug/L
Diln Fac: 1

Sampled: 07/31/97
Received: 07/31/97
Extracted: 08/02/97
Analyzed: 08/02/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	98	79-122

Lab #: 130123

BATCH QC REPORT

Curtis & Tompkins, Ltd.
Page 1 of 1

Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8260
Project#: 946.003	Prep Method: EPA 5030
Location: 2528 Adeline St.	
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 08/01/97
Batch#: 35345	Analysis Date: 08/01/97
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC51041

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	51.24	50	102	51-180
Trichloroethene	49.93	50	100	73-141
Benzene	53.4	50	107	78-142
Toluene	51.33	50	103	76-150
Chlorobenzene	50.84	50	102	83-129
Surrogate	%Rec		Limits	
1,2-Dichloroethane-d4	96		68-126	
Toluene-d8	97		87-125	
Bromofluorobenzene	98		79-122	

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

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 130123

BATCH QC REPORT

Curtis & Tompkins, Ltd.
Page 1 of 1

Volatile Organics

Client: Subsurface Consultants
 Project#: 946.003
 Location: 2528 Adeline St.

Analysis Method: EPA 8260
 Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
 Batch#: 35379
 Units: ug/L
 Diln Fac: 1

Prep Date: 08/04/97
 Analysis Date: 08/04/97

LCS Lab ID: QC51161

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.59	50	97	51-180
Trichloroethene	47.25	50	94	73-141
Benzene	50.61	50	101	78-142
Toluene	48.82	50	98	76-150
Chlorobenzene	48.62	50	97	83-129
Surrogate	%Rec			Limits
1,2-Dichloroethane-d4	89			68-126
Toluene-d8	96			87-125
Bromofluorobenzene	96			79-122

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

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 130123

BATCH QC REPORT

Curtis & Jompkins, Ltd.
Page 1 of 1

EPA 8240 Volatile Organics

Client: Subsurface Consultants
 Project#: 946.003
 Location: 2528 Adeline St.

Analysis Method: EPA 8260
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
 Lab ID: 130126-002
 Matrix: Water
 Batch#: 35345
 Units: ug/L
 Diln Fac: 1

Sample Date: 07/31/97
 Received Date: 08/01/97
 Prep Date: 08/01/97
 Analysis Date: 08/01/97

MS Lab ID: QC51089

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	47.67	95	51-180
Trichloroethene	50	<5	48.27	97	73-141
Benzene	50	0.4286	51.41	102	78-142
Toluene	50	1.058	50.29	98	76-150
Chlorobenzene	50	<5	48.71	97	83-129
Surrogate	%Rec		Limits		
1,2-Dichloroethane-d4	97		68-126		
Toluene-d8	97		87-125		
Bromofluorobenzene	98		79-122		

MSD Lab ID: QC51090

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	47.64	95	51-180	0	14
Trichloroethene	50	48.16	96	73-141	0	14
Benzene	50	51.37	102	78-142	0	11
Toluene	50	50.14	98	76-150	0	13
Chlorobenzene	50	49.04	98	83-129	1	13
Surrogate	%Rec		Limits			
1,2-Dichloroethane-d4	97		68-126			
Toluene-d8	96		87-125			
Bromofluorobenzene	96		79-122			

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Lab #: 130123

BATCH QC REPORT



Curtis & Tompkins, Ltd. Page 1

EPA 8240 Volatile Organics					
Client:		Analysis Method: EPA 8260			
Project#:		Prep Method: EPA 5030			
Location:					
MATRIX SPIKE/MATRIX SPIKE DUPLICATE					
Field ID: ZZZZZZ		Sample Date:	07/29/97		
Lab ID: 130103-001		Received Date:	07/30/97		
Matrix: Water		Prep Date:	08/04/97		
Batch#:	35379	Analysis Date:	08/04/97		
Units:	ug/L				
Diln Fac:	1				

MS Lab ID: QC51198

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	43.09	86	51-180
Trichloroethene	50	<5	43.49	87	73-141
Benzene	50	<5	47.48	95	78-142
Toluene	50	<5	46.63	93	76-150
Chlorobenzene	50	<5	45.8	92	83-129
Surrogate	%Rec		Limits		
1,2-Dichloroethane-d4	91		68-126		
Toluene-d8	97		87-125		
Bromofluorobenzene	96		79-122		

MSD Lab ID: QC51199

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	43.7	87	51-180	1	14
Trichloroethene	50	43.88	88	73-141	1	14
Benzene	50	47.32	95	78-142	0	11
Toluene	50	46.55	93	76-150	0	13
Chlorobenzene	50	45.94	92	83-129	0	13
Surrogate	%Rec		Limits			
1,2-Dichloroethane-d4	90		68-126			
Toluene-d8	98		87-125			
Bromofluorobenzene	96		79-122			

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
 Project#: 946.003
 Location: 2528 Adeline St.

Analysis Method: TVH
 Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
130123-001	MW-1	35480	07/31/97	08/07/97	08/07/97	
130123-002	MW-2	35480	07/31/97	08/07/97	08/07/97	
130123-003	MW-3	35480	07/31/97	08/07/97	08/07/97	

Matrix: Water

Analyte	Units	130123-001	130123-002	130123-003
Diln Fac:		1	1	1
Gasoline C7-C12	ug/L	700 YL	<50	<50
Stoddard Solvent	ug/L	610 Y	<50	<50
Surrogate				
Bromobenzene	%REC	116	107	105

Y: Sample exhibits fuel pattern which does not resemble standard

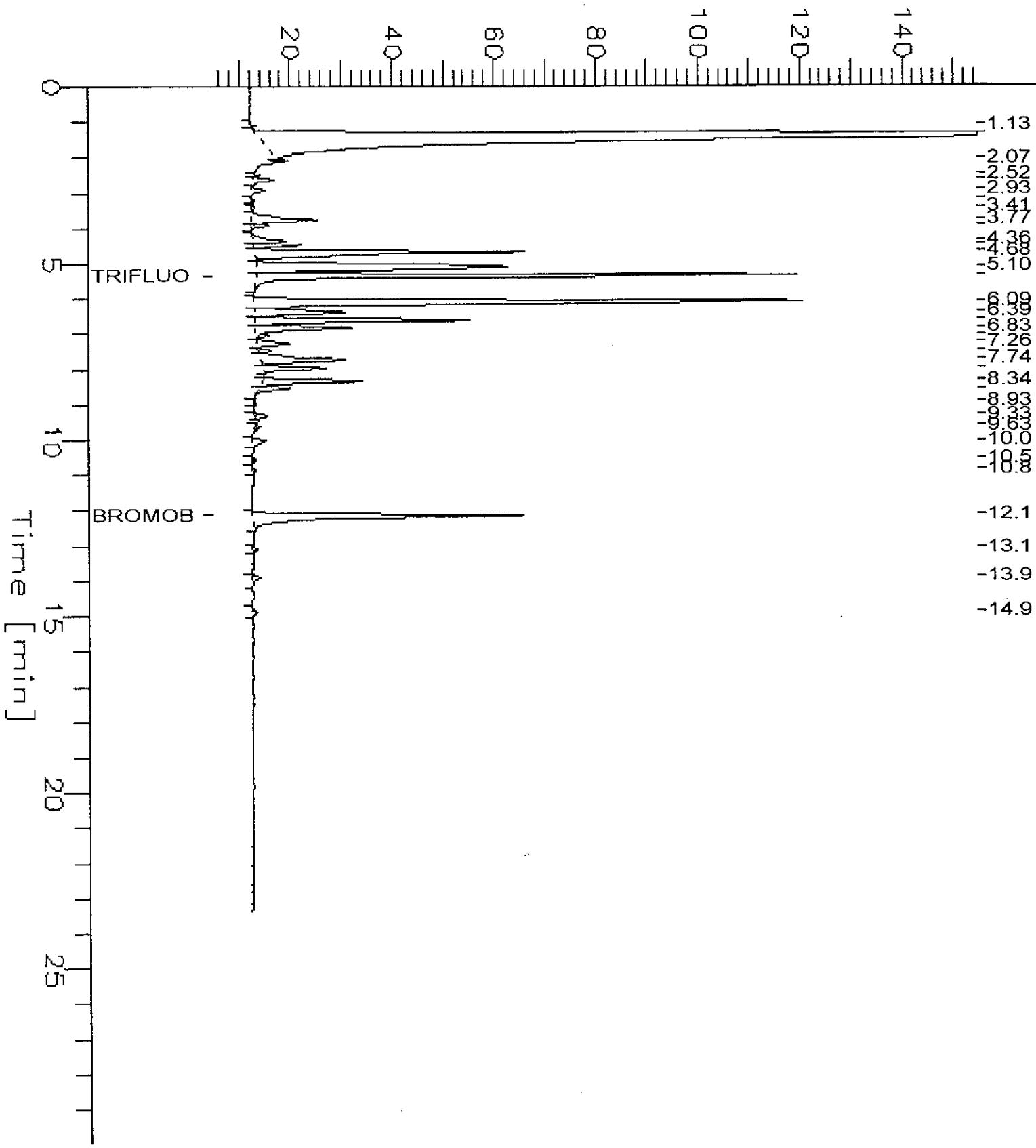
L: Lighter hydrocarbons than indicated standard

GC05 RTX1 TVH Chromatogram

Sample Name : S_130123-001,35480,
FileName : G:\GC05\DATA\219H009.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 8/7/97 08:23 PM
Time of Injection: 8/7/97 07:59 PM
Low Point : 4.62 mV High Point : 154.62 mV
Plot Scale: 150.0 mV

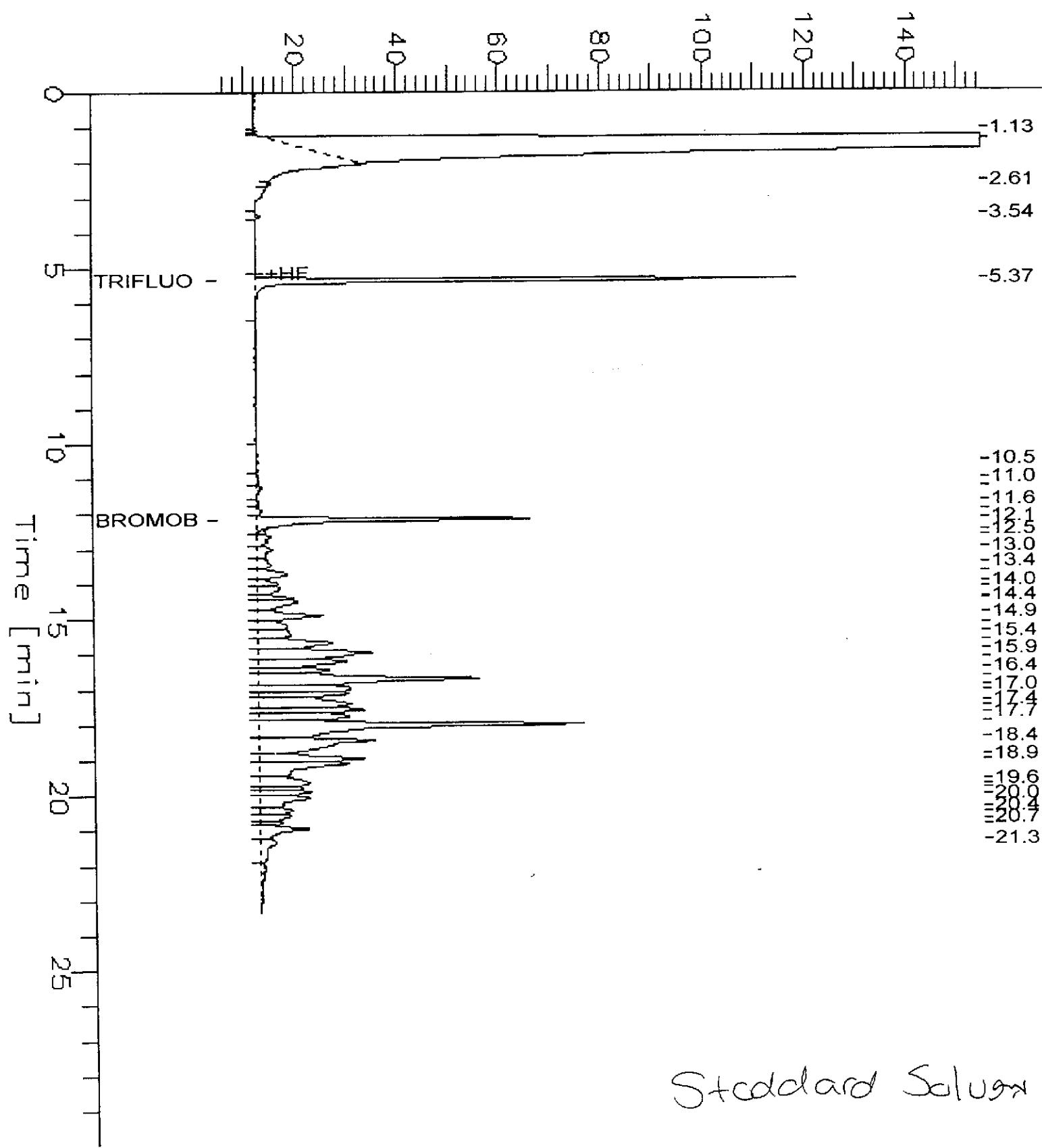
Response [mV]



Sample Name : STODD
FileName : G:\GC05\DATA\219H003A.RAW
Method :
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 8/11/97 11:33 PM
Time of Injection: 8/7/97 02:49 PM
Low Point : 4.63 mV High Point : 154.63 mV
Plot Scale: 150.0 mV

Response [mV]

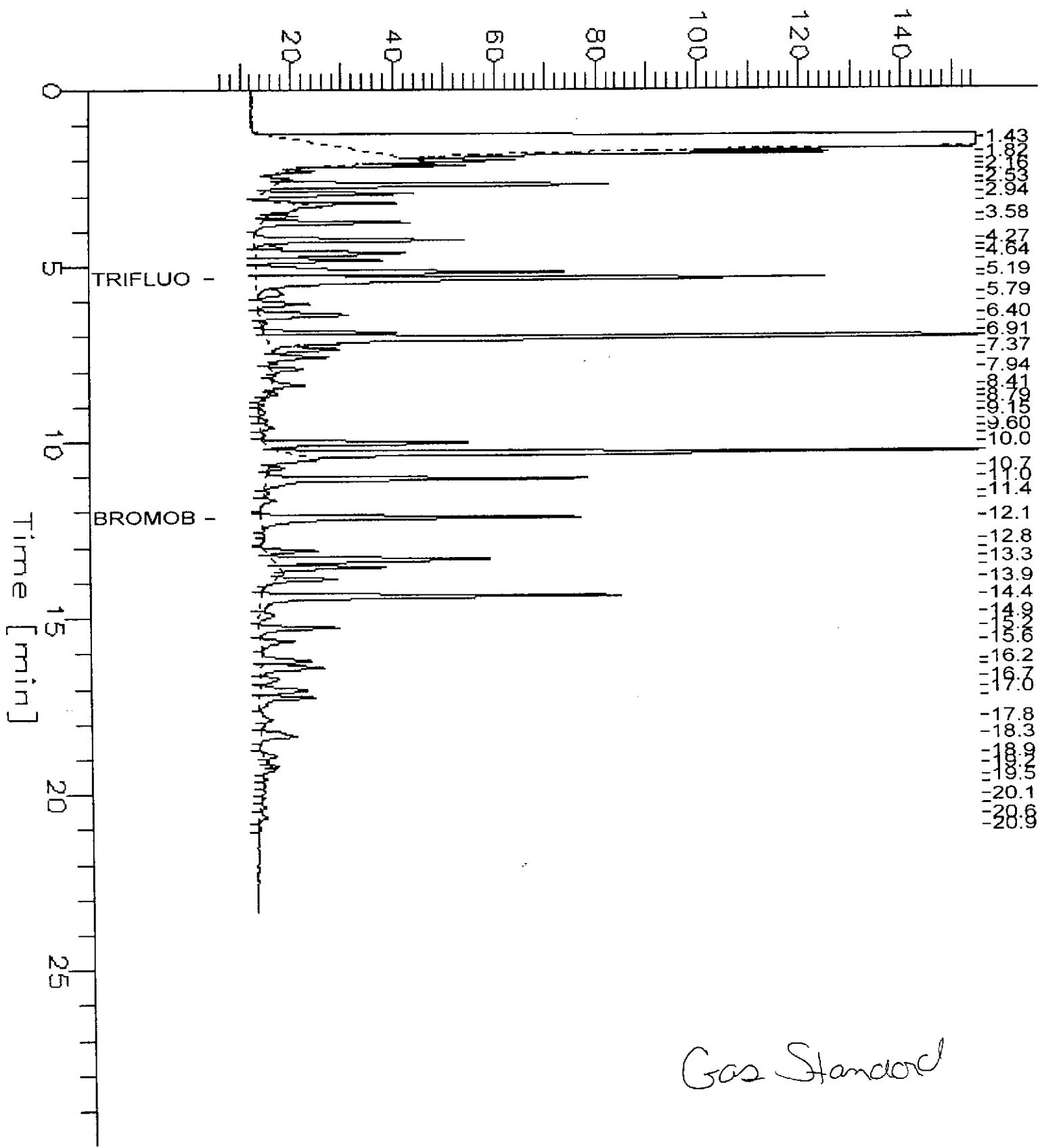


GC05 RTX1 TVH Chromatogram

Sample Name : GAS
• FileName : G:\GC05\DATA\219H002A.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 8/7/97 02:37 PM
Time of Injection: 8/7/97 02:14 PM
Low Point : 4.74 mV High Point : 154.74 mV
Plot Scale: 150.0 mV

Response [mV]



BTXE

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8020A
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
130123-001	MW-1	35480	07/31/97	08/07/97	08/07/97	
130123-002	MW-2	35480	07/31/97	08/07/97	08/07/97	
130123-003	MW-3	35480	07/31/97	08/07/97	08/07/97	

Matrix: Water

Analyte	Units	130123-001	130123-002	130123-003
Diln Fac:		1	1	1
Benzene	ug/L	<0.5	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	2.7C	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5
<hr/>				
Surrogate				
Trifluorotoluene	%REC	99	97	96
Bromobenzene	%REC	109	103	101

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

Lab #: 130123

BATCH QC REPORT



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: TVH
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 35480
Units: ug/L
Diln Fac: 1

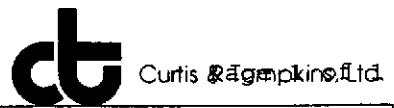
Prep Date: 08/07/97
Analysis Date: 08/07/97

MB Lab ID: QC51526

Analyte	Result	
Gasoline C7-C12	<50	
Stoddard Solvent	<50	
Surrogate	%Rec	Recovery Limits
Bromobenzene	100	70-122

Lab #: 130123

BATCH QC REPORT



BTXE

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8020A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 35480
Units: ug/L
Diln Fac: 1

Prep Date: 08/07/97
Analysis Date: 08/07/97

MB Lab ID: QC51526

Analyte	Result	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	96	58-130
Bromobenzene	97	62-131

Lab #: 130123

BATCH QC REPORT



Curtis & Agnew, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: TVH
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 35480
Units: ug/L
Diln Fac: 1

Prep Date: 08/07/97
Analysis Date: 08/07/97

LCS Lab ID: QC51524

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1968	2000	98	80-120
Surrogate	%Rec		Limits	
Bromobenzene	123*	70-122		

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 #: 130123

BATCH QC REPORT



BTXE

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8020A
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 35480
Units: ug/L
Diln Fac: 1

Prep Date: 08/07/97
Analysis Date: 08/07/97

LCS Lab ID: QC51525

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	18.34	20	92	80-120
Toluene	18.82	20	94	80-120
Ethylbenzene	20.57	20	103	80-120
m,p-Xylenes	41.31	40	103	80-120
o-Xylene	21.62	20	108	80-120
Surrogate	%Rec		Limits	
Trifluorotoluene	98		58-130	
Bromobenzene	105		62-131	

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

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 130123

BATCH QC REPORT



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
 Project#: 946.003
 Location: 2528 Adeline St.

Analysis Method: TVH
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ	Sample Date: 07/25/97
Lab ID: 130093-001	Received Date: 07/25/97
Matrix: Water	Prep Date: 08/08/97
Batch#: 35480	Analysis Date: 08/08/97
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC51527

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1932	97	75-125
Surrogate	%Rec		Limits		
Bromobenzene	124*		70-122		

MSD Lab ID: QC51528

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1904	95	75-125	1	35
Surrogate	%Rec		Limits			
Bromobenzene	126*		70-122			

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

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
 Project #: 946.003
 Location: 2528 Adeline St.

Analysis Method: EPA 8015M
 Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
130123-001	MW-1	35405	07/31/97	08/04/97	08/11/97	
130123-002	MW-2	35405	07/31/97	08/04/97	08/11/97	
130123-003	MW-3	35405	07/31/97	08/04/97	08/12/97	

Matrix: Water

Analyte	Units	130123-001	130123-002	130123-003
Diln Fac:		1	1	1
Kerosene C10-C16	ug/L	290	YH	<50
Diesel C12-C22	ug/L	360	Y	<50
Surrogate				
Hexacosane	%REC	112	106	108

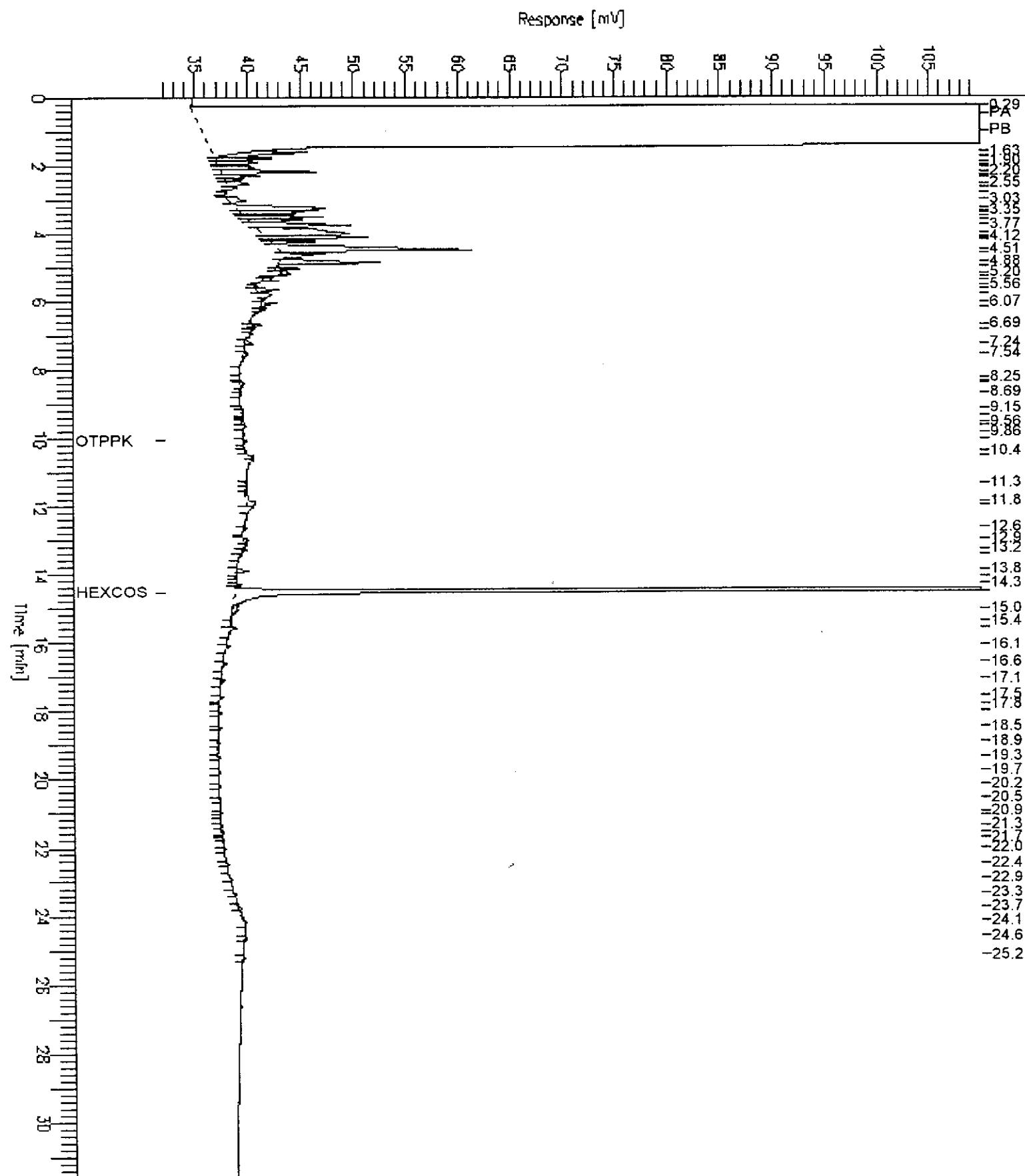
Y: Sample exhibits fuel pattern which does not resemble standard

H: Heavier hydrocarbons than indicated standard

GC15 Channel B Surrogate

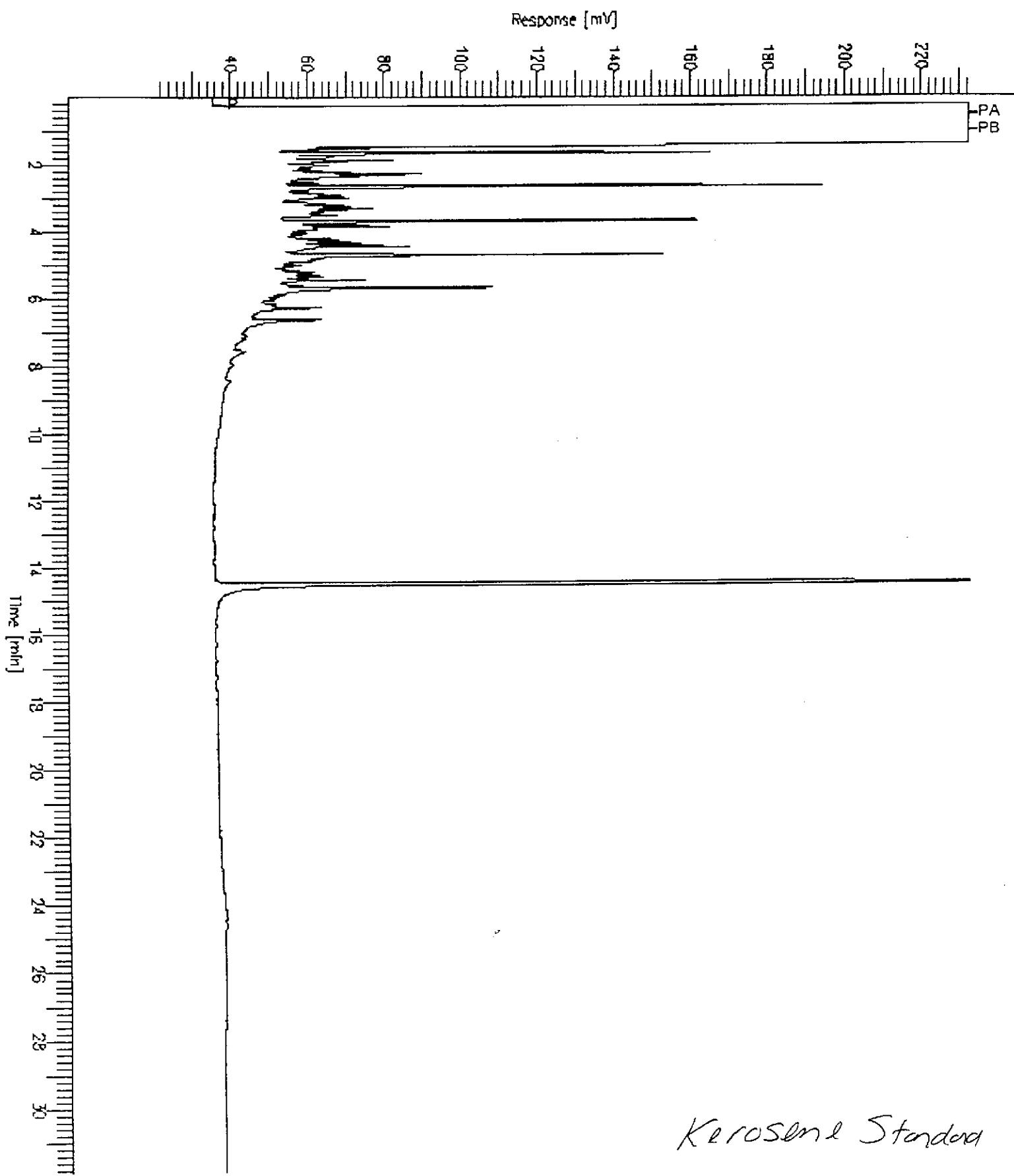
Sample Name : 130123-001,35405
FileName : G:\GC15\CHB\223B019.raw
Method : SNGL
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 32 mV

Sample #: 35405 Page 1 of 1
Date : 8/11/97 10:50 PM
Time of Injection: 8/11/97 10:18 PM
Low Point : 32.00 mV High Point : 110.00 mV
Plot Scale: 78.0 mV



Sample Name : CCV_97WS3890_KERO
FileName : G:\GC15\CHB\22JB038.RAW
Method : B219TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 22 mV

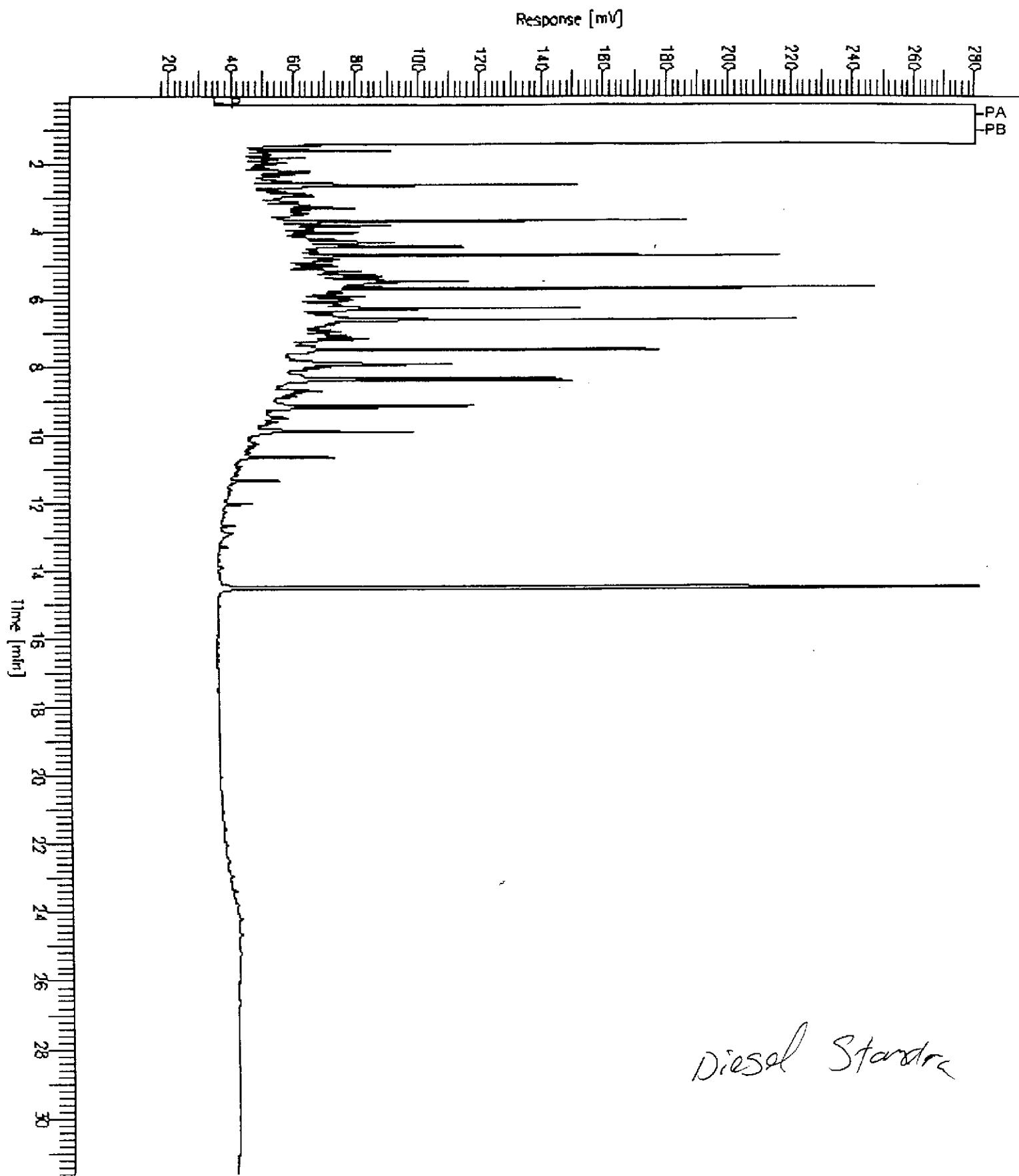
Sample #: 250MG/L Page 1 of 1
Date : 8/12/97 06:17 PM
Time of Injection: 8/12/97 11:59 AM
Low Point : 21.73 mV High Point : 232.67 mV
Plot Scale: 210.9 mV



GC15 Channel B TEH

Sample Name : CCV,97WS4549,DS
FileName : G:\GC15\CHB\223B002.RAW
Method : B219TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 500MG/L Page 1 of 1
Date : 8/12/97 01:08 PM
Time of Injection: 8/11/97 10:23 AM
Low Point : 17.71 mV High Point : 280.39 mV
Plot Scale: 262.7 mV



Lab #: 130123

BATCH QC REPORT



Curtis & Langkamp, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8015M
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 35405
Units: ug/L
Diln Fac: 1

Prep Date: 08/04/97
Analysis Date: 08/11/97

MB Lab ID: QC51244

Analyte	Result	
Kerosene C10-C16	<50	
Diesel C12-C22	<50	
Surrogate	%Rec	Recovery Limits
Hexacosane	112	60-140

Lab #: 130123

BATCH QC REPORT



Curtis & Tompkins, Ltd. 1

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 946.003
Location: 2528 Adeline St.

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 35405
Units: ug/L
Diln Fac: 1

Prep Date: 08/04/97
Analysis Date: 08/11/97

BS Lab ID: QC51245

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C12-C22	2475	2336	94		60-140
Surrogate	%Rec		Limits		
Hexacosane	119		60-140		

BSD Lab ID: QC51246

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	2338	94	60-140	0	35
Surrogate	%Rec		Limits			
Hexacosane	110		60-140			

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

CHAIN OF CUSTODY FORM

130123

PAGE _____ OF _____

PROJECT NAME: 2528 Adeline St.JOB NUMBER: 946.003PROJECT CONTACT: Meg MendozaSAMPLED BY: Dennis Alexander

LAB: _____

TURNAROUND: _____

REQUESTED BY: _____

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX			CONTAINERS			METHOD PRESERVED			SAMPLING DATE				NOTES				
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	HCL	H ₂ SO ₄	HNO ₃	ICE	NONE	MONTH	DAY	YEAR	TIME	
1	MW-1	X				62				X		X			0731971145*	XX		XX	
2	MW-2	X				62				X		X			0731971300*	XX		XX	
3	MW-3	X				62				X		X			0731971400*	XX		XX	

CHAIN OF CUSTODY RECORD				COMMENTS & NOTES: * Please filter/fix Gr. barium/selenium analysis	
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME		
<i>Dennis Alexander</i>	7/31/97 2:25 p.m.				
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME		
Subsurface Consultants, Inc. 111 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607 (510) 268-0461 • FAX: 510-268-0137					

GROUNDWATER DEPTHS

Project Name: 2528

Job No.: 996-003

Measured by: DJA

WELL SAMPLING FORM

Project Name: 2528 Adeline St.

Well Number: MW-1

Job No.: 946.003

Well Casing Diameter: 2 inch

Sampled By: DWA

Date: 7/31/97

TOC Elevation:

Weather: foggy

Depth to Casing Bottom (below TOC) 20.00 feet

Depth to Groundwater (below TOC) 7.58 feet

Feet of Water in Well 12.42 feet

Depth to Groundwater When 80% Recovered _____ feet

Casing Volume (feet of water x Casing DIA² x 0.0408) 2.0 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product None

Purge Method disposable bairer fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	6.32	21.0	925		clear/no odor
2	6.35	21.0	900		clear/slight odor
4	6.45	20.5	900		semi-clear/no odor
6	6.52	20.5	900		↓

Total Gallons Purged 6 gallons

Depth to Groundwater Before Sampling (below TOC) _____ feet

Sampling Method disposable bairer

Containers Used 6 40 ml 2 liter pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE
------------------------	------------	------	----------	-------

WELL SAMPLING FORM

Project Name: 2528 Adeline St.

Well Number: Mw-2

Job No.: 946.003

Well Casing Diameter: 2 inch

Sampled By: DWA

Date: 7/31/97

TOC Elevation:

Weather: sunny

Depth to Casing Bottom (below TOC) 13.50 feet

Depth to Groundwater (below TOC) 6.78 feet

Feet of Water in Well 6.72 feet

Depth to Groundwater When 80% Recovered _____ feet

Casing Volume (feet of water x Casing DIA² x 0.0408) 1.1 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product none

Purge Method disposable bailed fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
<u>1</u>	<u>6.45</u>	<u>23.0</u>	<u>1250</u>	_____	<u>semiclear/no odor</u>
<u>2</u>	<u>6.21</u>	<u>22.0</u>	<u>1225</u>	_____	_____
<u>3</u>	<u>6.10</u>	<u>21.5</u>	<u>1225</u>	_____	_____
<u>4</u>	<u>6.17</u>	<u>21.5</u>	<u>1200</u>	_____	_____
_____	_____	_____	_____	_____	_____

Total Gallons Purged 4 gallons

Depth to Groundwater Before Sampling (below TOC) _____ feet

Sampling Method disposable bailed

Containers Used 6 40 ml 2 liter _____ pint

Subsurface Consultants

JOB NUMBER	DATE	APPROVED
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PLATE

WELL SAMPLING FORM

Project Name: 2528 Adeline St.

Job No.: 946.003

Sampled By: DWA

TOC Elevation: _____

Well Number: MW-3

Well Casing Diameter: 2 inch

Date: 1/31/97

Weather: foggy

Depth to Casing Bottom (below TOC) 13.00 feet

Depth to Groundwater (below TOC) 7.57 feet

Feet of Water in Well 5.43 feet

Depth to Groundwater When 80% Recovered _____ feet

Casing Volume (feet of water x Casing DIA² x 0.0408) .9 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product none

Purge Method disposable bailer slow recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
<u>1</u>	<u>6.31</u>	<u>17.5</u>	<u>675</u>	_____	<u>muddy/no odor</u>
<u>2</u>	<u>5.94</u>	<u>19.0</u>	<u>675</u>	_____	_____
<u>3</u>	<u>5.97</u>	<u>19.0</u>	<u>725</u>	_____	_____
<u>4</u>	<u>6.12</u>	<u>19.0</u>	<u>800</u>	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total Gallons Purged 4 gallons

Depth to Groundwater Before Sampling (below TOC) _____ feet

Sampling Method disposable bailer

Containers Used 1 40 ml 2 liter _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE