



Subsurface Consultants, Inc.

R. William Rudolph, P.E.
President

November 26, 1996
SCI 946.002

Ms. Shirley Howkins
c/o Mr. Carlo Mormorunni
Fitzgerald, Abbott & Beardsley
1221 Broadway, 21st Floor
Oakland, California 94612-1837

**Quarterly Groundwater Monitoring
October 1996 Event
2528 Adeline Street
Oakland, California**

Dear Ms. Howkins:

This letter presents the results of the October 1996 groundwater monitoring event for the referenced site. Groundwater monitoring has been performed at the request of the Alameda County Health Care Services Agency (ACHCSA) due to the presence of petroleum hydrocarbons, heavy metals, and volatile organic compounds detected in groundwater beneath the site. The location of the site is shown on the attached Plate 1.

Groundwater Sampling

On October 31, 1996, monitoring wells MW-1, MW-2 and MW-3 were gauged and sampled. In general, the 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 3 well volumes), and (4) after the wells had recovered to at least 80 percent of their initial level, sampling the wells with new disposable bailers. 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.

Ms. Shirley Howkins
c/o Mr. Carlo Mormorunni
Fitzgerald, Abbott & Beardsley
November 26, 1996
SCI 946.002
Page 2

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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 8020),
3. Total Extractable Hydrocarbons as diesel, kerosene and stoddard solvent (TEH, EPA 8015),
4. Oil and Grease (O&G, SMWW 17:5520 BF),
5. Volatile Organic Compounds (VOC, EPA 5030/8240),
6. Dissolved Barium (EPA 6010A), and
7. Dissolved Selenium (EPA 6010A).

Samples submitted for metals analysis were filtered by the laboratory prior to analysis. Water generated during sampling activities was stored on-site in 55-gallon drums for later disposal by others. 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.

Conclusions

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

TVH, TEH, O&G and BTEX were not detected in any of the monitoring wells (MW-1, MW-2 and MW-3) during this event, which is likely due to the groundwater gradient reversal. Studies to date indicate localized impacts in the former tank area near monitoring well MW-1 do exist. The hydrocarbons previously detected in monitoring MW-2 appear to be related to an off-site source, as no petroleum hydrocarbons have been identified in well MW-3, which is a similar distance

Ms. Shirley Howkins
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Fitzgerald, Abbott & Beardsley
November 26, 1996
SCI 946.002
Page 3

away from the former tank area. Additionally, the former tank area appears to be impacted by both TEH and TVH, and monitoring well MW-2 indicates the presence of TVH only.

Barium and selenium concentrations were consistent with previous events. These concentrations are likely regional in nature as similar values appear in all three wells and no historic on-site source has been identified.

Concentrations of 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE) and trichloroethane (1,1,1-TCA) were detected in monitoring well MW-2 and 1,1,1-TCA was detected in monitoring well MW-3 at values similar to previous events. No VOC's were detected in monitoring well MW-1. Based on location, relative abundance, and site history, it appears that the VOCs are related to offsite sources.

In accordance with the monitoring plan, the next sampling event is scheduled for January 1996.

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. 6/30/97)

MM:JNA:RWR:sld

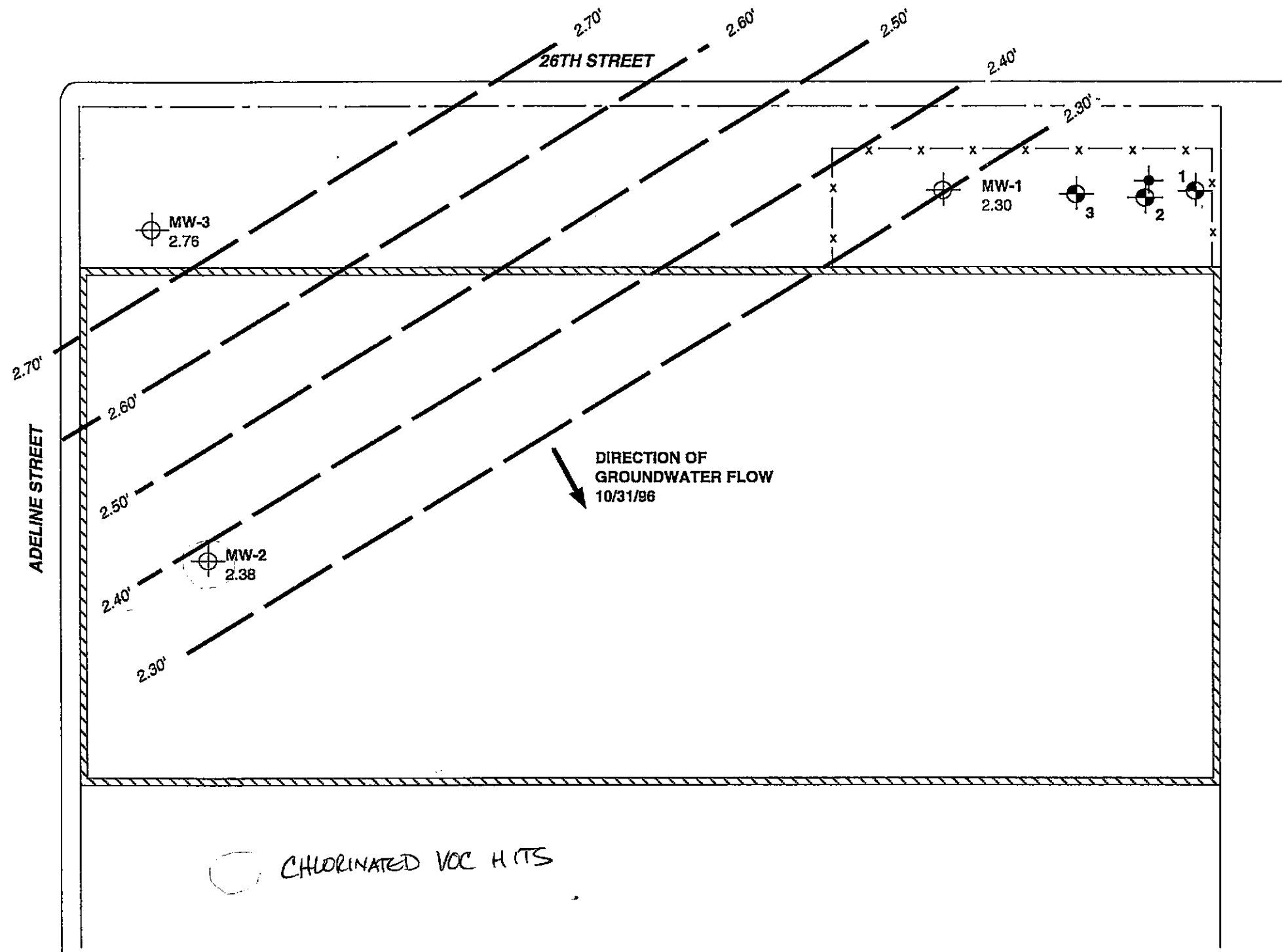
Ms. Shirley Howkins
c/o Mr. Carlo Mormorunni
Fitzgerald, Abbott & Beardsley
November 26, 1996
SCI 946.002
Page 4

Subsurface Consultants, Inc.

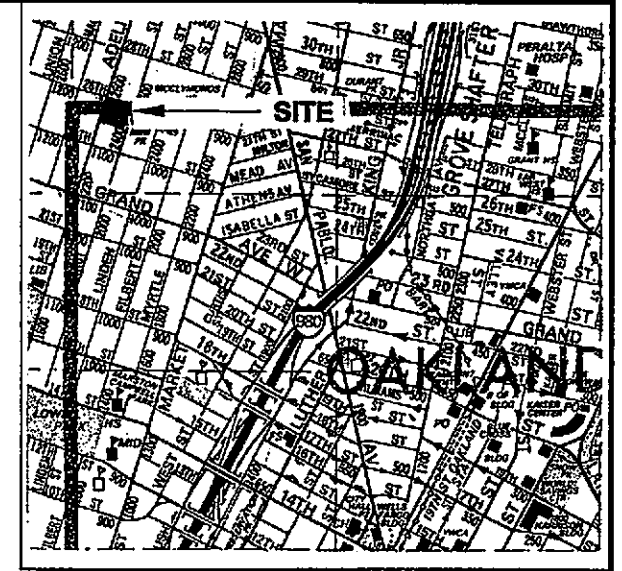
Attachments: Plate 1 - Site Plan
Table 1 - Petroleum Hydrocarbon Concentrations in Groundwater
Table 2 - Volatile Organic Compound Concentrations in Groundwater
Table 3 - Barium and Selenium Concentrations in Groundwater
Table 4 - Groundwater Elevation Data
Analytical Test Reports
Chain-of-Custody Document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

4 copies submitted

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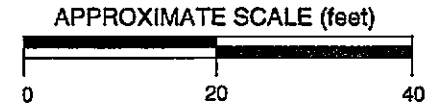


○ CHLORINATED VOC HITS



VICINITY MAP

EXPLANATION	
	PROPERTY BOUNDARY
	FENCE
	EXISTING STRUCTURE
	BORING LOCATION
	MONITORING WELL LOCATION
	FORMER WELL LOCATION
	GROUNDWATER ELEVATION CONTOUR



SITE PLAN		
2528 ADELINE STREET - OAKLAND, CA		
JOB NUMBER	DATE	APPROVED
946.002	11/796	
		PLATE 1

Subsurface Consultants

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

Sample ID	Date	TVH ¹		TEH ²		O&G (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
		as Gasoline (ug/L)	as Stoddard Solvent (ug/L)	as Diesel C12-C22 (ug/L)	as Kerosene C10-C16 (ug/L)					
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
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
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

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

ug/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

<u>SAMPLE ID</u>	<u>Date Sampled</u>	<u>Acetone (ug/L)</u>	<u>Carbon disulfide (ug/L)</u>	<u>1,1-DCA (ug/L)</u>	<u>1,1-DCE (ug/L)</u>	<u>2-Butanone (ug/L)</u>	<u>4-Methyl-2-pentanone (ug/L)</u>	<u>1,1,1-TCA (ug/L)</u>	<u>Benzene (ug/L)</u>	<u>Toluene (ug/L)</u>	<u>Ethyl benzene (ug/L)</u>	<u>Total xylenes (ug/L)</u>	<u>cis-1,2-DCE (ug/L)</u>	<u>Other EPA 8240 Compounds</u>
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
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
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	8	<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.

ug/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 ADELIN STREET
OAKLAND, CALIFORNIA

<u>Sample ID</u>	<u>Date</u>	<u>Dissolved Barium (ug/L)</u>	<u>Dissolved Selenium (ug/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
MW-2	8/15/95	180*	--
	4/29/96	120	18
	7/25/96	130	12
	10/31/96	130	10
MW-3	8/15/95	62*	--
	4/29/96	82	9.5
	7/25/96	33	5.4
	10/31/96	100	5.2

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

-- = Test not requested

ug/L = micrograms per liter

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

TABLE 4
GROUNDWATER ELEVATION DATA
2528 ADELINE STREET
OAKLAND, CALIFORNIA

<u>Well Number</u>	<u>Date</u>	<u>TOC¹ Elevation (feet)</u>	<u>Groundwater Depths² (feet)</u>	<u>Groundwater Elevation³ (feet)</u>
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
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
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

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: 08-NOV-96
Lab Job Number: 127311
Project ID: 946.001
Location: 2528 Adeline St.

Reviewed by: _____

Reviewed by: _____

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TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 946.001
Location: 2528 Adeline St.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127311-001	MW-1	30701	10/31/96	11/06/96	11/06/96	
127311-002	MW-2	30701	10/31/96	11/05/96	11/05/96	
127311-003	MW-3	30701	10/31/96	11/06/96	11/06/96	

Matrix: Water

Analyte	Units	127311-001	127311-002	127311-003
Diln Fac:		1	1	1
Gasoline	ug/L	<50	<50	<50
Stoddard Solvent	ug/L	<50	<50	<50
Surrogate				
Trifluorotoluene	%REC	102	105	101
Bromobenzene	%REC	82	83	80



BTXE

Client: Subsurface Consultants
Project#: 946.001
Location: 2528 Adeline St.

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127311-001	MW-1	30701	10/31/96	11/04/96	11/04/96	
127311-002	MW-2	30701	10/31/96	11/05/96	11/05/96	
127311-003	MW-3	30701	10/31/96	11/06/96	11/06/96	

Matrix: Water

Analyte	Units	127311-001	127311-002	127311-003
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	<0.5	<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
Surrogate				
Trifluorotoluene	%REC	94	92	93
Bromobenzene	%REC	92	93	89



Lab #: 127311

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 946.001
Location: 2528 Adeline St.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 30701
Units: ug/L
Diln Fac: 1

Prep Date: 11/05/96
Analysis Date: 11/05/96

MB Lab ID: QC33835

Analyte	Result	
Gasoline	<50	
Stoddard Solvent	<50	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	100	69-120
Bromobenzene	77	70-122



Lab #: 127311

BATCH QC REPORT

BTXE			
Client:	Subsurface Consultants	Analysis Method:	EPA 8020
Project#:	946.001	Prep Method:	EPA 5030
Location:	2528 Adeline St.		
METHOD BLANK			
Matrix:	Water	Prep Date:	11/05/96
Batch#:	30701	Analysis Date:	11/05/96
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC33835

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	91		58-130
Bromobenzene	88		62-131



Lab #: 127311

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 946.001
Location: 2528 Adeline St.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 30701
Units: ug/L
Diln Fac: 1

Prep Date: 11/05/96
Analysis Date: 11/05/96

LCS Lab ID: QC33836

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1834	2000	92	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	100	69-120		
Bromobenzene	100	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 #: 127311

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 946.001	Prep Method: EPA 5030
Location: 2528 Adeline St.	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: MW-2	Sample Date: 10/31/96
Lab ID: 127311-002	Received Date: 10/31/96
Matrix: Water	Prep Date: 11/05/96
Batch#: 30701	Analysis Date: 11/05/96
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC33893

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1887	94	75-125
Surrogate	%Rec	Limits			
Trifluorotoluene	102	69-120			
Bromobenzene	103	70-122			

MSD Lab ID: QC33894

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1845	92	75-125	2	20
Surrogate	%Rec	Limits				
Trifluorotoluene	102	69-120				
Bromobenzene	103	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



Lab #: 127311

BATCH QC REPORT

BTXE			
Client: Subsurface Consultants	Analysis Method: EPA 8020		
Project#: 946.001	Prep Method: EPA 5030		
Location: 2528 Adeline St.			
LABORATORY CONTROL SAMPLE			
Matrix: Water	Prep Date: 11/05/96		
Batch#: 30701	Analysis Date: 11/05/96		
Units: ug/L			
Diln Fac: 1			

LCS Lab ID: QC33837

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	16.8	20	84	80-120
Toluene	18.8	20	94	80-120
Ethylbenzene	18.3	20	92	80-120
m,p-Xylenes	37.3	40	93	80-120
o-Xylene	18.9	20	95	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	93	58-130		
Bromobenzene	88	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

CLIENT: Subsurface Consultants
PROJECT ID: 946.001
LOCATION: 2528 Adeline St.
MATRIX: Filtrate

DATE REPORTED: 11/08/96

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	127311-001	10/31/96	10/31/96	130	10	1	30669	EPA 6010A	11/04/96
MW-2	127311-002	10/31/96	10/31/96	130	10	1	30669	EPA 6010A	11/04/96
MW-3	127311-003	10/31/96	10/31/96	100	10	1	30669	EPA 6010A	11/04/96



Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 946.001
LOCATION: 2528 Adeline St.
MATRIX: Filtrate

DATE REPORTED: 11/08/96

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	127311-001	10/31/96	10/31/96	8.5	5.0	1	30669	EPA 6010A	11/04/96
MW-2	127311-002	10/31/96	10/31/96	10	5.0	1	30669	EPA 6010A	11/04/96
MW-3	127311-003	10/31/96	10/31/96	5.2	5.0	1	30669	EPA 6010A	11/04/96





CLIENT: Subsurface Consultants
JOB NUMBER: 127311

DATE REPORTED: 11/08/96

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Barium	ND	10	ug/L	1	30669	EPA 6010A	11/04/96
Selenium	ND	5	ug/L	1	30669	EPA 6010A	11/04/96

ND = Not Detected at or above reporting limit



CLIENT: Subsurface Consultants
JOB NUMBER: 127311

DATE REPORTED: 11/08/96

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Barium	2000	2080	2060	ug/L	104	103	80-120	1	35	30669	EPA 6010A	11/04/96
Selenium	2000	2000	1970	ug/L	100	99	80-120	2	35	30669	EPA 6010A	11/04/96

Client: Subsurface Consultants

Laboratory Login Number: 127311

Project Name: 2528 Adeline St.

Report Date: 08 November 96

Project Number: 946.001

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
127311-001	MW-1	Water	31-OCT-96	31-OCT-96	04-NOV-96	ND	mg/L	5	DLP	30720
127311-002	MW-2	Water	31-OCT-96	31-OCT-96	04-NOV-96	ND	mg/L	5	DLP	30720
127311-003	MW-3	Water	31-OCT-96	31-OCT-96	04-NOV-96	ND	mg/L	5	DLP	30720

ND = Not Detected at or above Reporting Limit (RL).

Q C B a t c h R e p o r t

Client: Subsurface Consultants
 Project Name: 2528 Adeline St.
 Project Number: 946.001

Laboratory Login Number: 127311
 Report Date: 08 November 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 30720

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
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Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	93%	SMWW 17:5520BF	04-NOV-96
BSD	95%	SMWW 17:5520BF	04-NOV-96

		Control Limits
Average Spike Recovery	94%	80% - 120%
Relative Percent Difference	1.6%	< 20%



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 946.001
Location: 2528 Adeline St.

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127311-001	MW-1	30741	10/31/96	11/05/96	11/06/96	
127311-002	MW-2	30741	10/31/96	11/05/96	11/06/96	
127311-003	MW-3	30741	10/31/96	11/05/96	11/06/96	

Matrix: Water

Analyte	Units	127311-001	127311-002	127311-003
Diln Fac:		1	1	1
Kerosene C10-C16	ug/L	<50	<50	<50
Diesel C12-C22	ug/L	<50	<50	<50
Surrogate				
Hexacosane	%REC	97	93	94



Lab #: 127311

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)		
Project#: 946.001	Prep Method: EPA 3520		
Location: 2528 Adeline St.			
METHOD BLANK			
Matrix: Water	Prep Date:	11/05/96	
Batch#: 30741	Analysis Date:	11/07/96	
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC33957

Analyte	Result		
Kerosene C10-C16	<50		
Diesel C12-C22	<50		
Surrogate	%Rec	Recovery Limits	
Hexacosane	94	60-140	



Lab #: 127311

BATCH QC REPORT

Page 1 of 1

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
 Project#: 946.001
 Location: 2528 Adeline St.

Analysis Method: CA LUFT (EPA 8015M)
 Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
 Batch#: 30741
 Units: ug/L
 Diln Fac: 1

Prep Date: 11/05/96
 Analysis Date: 11/07/96

BS Lab ID: QC33958

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1974	80	60-140
Surrogate	%Rec	Limits		
Hexacosane	98	60-140		

BSD Lab ID: QC33959

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1957	79	60-140	1	35
Surrogate	%Rec	Limits				
Hexacosane	96	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



Volatile Organics by GC/MS		
Client: Subsurface Consultants	Analysis Method: EPA 8240	
Project#: 946.001	Prep Method: EPA 5030	
Location: 2528 Adeline St.		
Field ID: MW-1	Sampled: 10/31/96	
Lab ID: 127311-001	Received: 10/31/96	
Matrix: Water	Extracted: 10/31/96	
Batch#: 30652	Analyzed: 10/31/96	
Units: ug/L		
Diln Fac: 1		
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	101	68-126
Toluene-d8	102	87-125
Bromofluorobenzene	97	79-122



Volatile Organics by GC/MS		
Client: Subsurface Consultants	Analysis Method: EPA 8240	
Project#: 946.001	Prep Method: EPA 5030	
Location: 2528 Adeline St.		
Field ID: MW-2	Sampled:	10/31/96
Lab ID: 127311-002	Received:	10/31/96
Matrix: Water	Extracted:	11/01/96
Batch#: 30675	Analyzed:	11/01/96
Units: ug/L		
Diln Fac: 1.67		
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	67	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	160	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	99	68-126
Toluene-d8	102	87-125
Bromofluorobenzene	98	79-122



Volatile Organics by GC/MS		
Client: Subsurface Consultants	Analysis Method: EPA 8240	
Project#: 946.001	Prep Method: EPA 5030	
Location: 2528 Adeline St.		
Field ID: MW-3	Sampled:	10/31/96
Lab ID: 127311-003	Received:	10/31/96
Matrix: Water	Extracted:	11/01/96
Batch#: 30652	Analyzed:	11/01/96
Units: ug/L		
Diln Fac: 1		
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	5.1	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	101	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122



Lab #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client: Subsurface Consultants	Analysis Method: EPA 8240		
Project#: 946.001	Prep Method: EPA 5030		
Location: 2528 Adeline St.			
METHOD BLANK			
Matrix: Water	Prep Date: 10/31/96		
Batch#: 30652	Analysis Date: 10/31/96		
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC33643

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	%Rec	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	96	79-122



Lab #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client: Subsurface Consultants		Analysis Method: EPA 8240	
Project#: 946.001		Prep Method: EPA 5030	
Location: 2528 Adeline St.			
METHOD BLANK			
Matrix: Water		Prep Date: 10/31/96	
Batch#: 30652		Analysis Date: 10/31/96	
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC33671

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	%Rec	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

Lab #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client:	Subsurface Consultants	Analysis Method:	EPA 8240
Project#:	946.001	Prep Method:	EPA 5030
Location:	2528 Adeline St.		
METHOD BLANK			
Matrix:	Water	Prep Date:	11/01/96
Batch#:	30675	Analysis Date:	11/01/96
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC33729

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	%Rec	Recovery Limits
1,2-Dichloroethane-d4	96	68-126
Toluene-d8	102	87-125
Bromofluorobenzene	96	79-122



Lab #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics

Client: Subsurface Consultants
 Project#: 946.001
 Location: 2528 Adeline St.

Analysis Method: EPA 8240
 Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
 Batch#: 30652
 Units: ug/L
 Diln Fac: 1

Prep Date: 10/31/96
 Analysis Date: 10/31/96

LCS Lab ID: QC33642

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	57.23	50	114	51-180
Trichloroethene	51.09	50	102	73-141
Benzene	51.45	50	103	78-142
Toluene	51.36	50	103	76-150
Chlorobenzene	51.97	50	104	83-129
Surrogate	%Rec	Limits		
1,2-Dichloroethane-d4	98	68-126		
Toluene-d8	101	87-125		
Bromofluorobenzene	97	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 #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client: Subsurface Consultants	Analysis Method: EPA 8240		
Project#: 946.001	Prep Method: EPA 5030		
Location: 2528 Adeline St.			
LABORATORY CONTROL SAMPLE			
Matrix: Water	Prep Date: 11/01/96		
Batch#: 30675	Analysis Date: 11/01/96		
Units: ug/L			
Diln Fac: 1			

LCS Lab ID: QC33728

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	56.74	50	113	51-180
Trichloroethene	50.76	50	102	73-141
Benzene	51.13	50	102	78-142
Toluene	51.58	50	103	76-150
Chlorobenzene	51.55	50	103	83-129
Surrogate	%Rec	Limits		
1,2-Dichloroethane-d4	96	68-126		
Toluene-d8	102	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 #: 127311

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
 Project#: 946.001
 Location: 2528 Adeline St.

Analysis Method: EPA 8240
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
 Lab ID: 127300-001
 Matrix: Water
 Batch#: 30652
 Units: ug/L
 Diln Fac: 1

Sample Date: 10/29/96
 Received Date: 10/30/96
 Prep Date: 10/31/96
 Analysis Date: 10/31/96

MS Lab ID: QC33668

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	47.85	96	51-180
Trichloroethene	50	<5	49.4	99	73-141
Benzene	50	<5	50.47	101	78-142
Toluene	50	<5	49.95	99	76-150
Chlorobenzene	50	<5	50.19	100	83-129
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	99	68-126			
Toluene-d8	102	87-125			
Bromofluorobenzene	99	79-122			

MSD Lab ID: QC33669

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	55.09	110	51-180	14	14
Trichloroethene	50	48.42	97	73-141	2	14
Benzene	50	49.53	99	78-142	2	11
Toluene	50	48.62	96	76-150	3	13
Chlorobenzene	50	49.03	98	83-129	2	13
Surrogate	%Rec	Limits				
1,2-Dichloroethane-d4	98	68-126				
Toluene-d8	101	87-125				
Bromofluorobenzene	98	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 #: 127311

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics

Client: Subsurface Consultants
 Project#: 946.001
 Location: 2528 Adeline St.

Analysis Method: EPA 8240
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
 Lab ID: 127289-001
 Matrix: Water
 Batch#: 30675
 Units: ug/L
 Diln Fac: 1.67

Sample Date: 10/30/96
 Received Date: 10/30/96
 Prep Date: 11/01/96
 Analysis Date: 11/01/96

MS Lab ID: QC33739

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	83.33	<8.35	83.52	100	51-180
Trichloroethene	83.33	<8.35	84.01	100	73-141
Benzene	83.33	<8.35	83.65	100	78-142
Toluene	83.5	279.1	>LR	NM	76-150
Chlorobenzene	83.33	<8.35	83.96	101	83-129
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	97	68-126			
Toluene-d8	102	87-125			
Bromofluorobenzene	97	79-122			

MSD Lab ID: QC33740

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	83.33	79.92	96	51-180	4	14
Trichloroethene	83.33	81.64	97	73-141	3	14
Benzene	83.33	82.59	98	78-142	1	11
Toluene	83.5	>LR	NM	76-150	NM	13
Chlorobenzene	83.33	82.31	99	83-129	2	13
Surrogate	%Rec	Limits				
1,2-Dichloroethane-d4	96	68-126				
Toluene-d8	101	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

NM: Not meaningful

LR: Over linear range

DO: Surrogate diluted out

CHAIN OF CUSTODY FORM

127311

PROJECT NAME: 25th + Adeline
 JOB NUMBER: 946.001 LAB: Curtis + Tompkins
 PROJECT CONTACT: Meg Mendoza TURNAROUND: Normal
 SAMPLED BY: Dennis Alexander REQUESTED BY: Meg Mendoza

ANALYSIS REQUESTED						
TVH/BTEX + Standard Solvent						
VOCs (8240)						
TEH/diesel, kerosene						
O&G - Silica						
Barium (dissolved)						
Selenium (dissolved)						

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				63				X			X		10	31	96	1230	*XXX
2	MW-2	X				63				X			X		10	31	96	1130	*XXX
3	MW-3	X				63				X			X		10	31	96	1045	*XXX

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature) <u>Dennis Alexander</u>	DATE / TIME <u>10/31/96 1:10 pm</u>	RECEIVED BY: (Signature) <u>Danessa Moore</u>	DATE / TIME <u>10/31/96</u>
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

COMMENTS & NOTES: * Please filter/fix before barium + selenium analysis. Also confirm O&G analysis with project contact. meg confirmed O&G - Dm 10/31

Subsurface Consultants, Inc.
 171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
 (510) 268-0461 • FAX: 510-268-0137

WELL SAMPLING FORM

Project Name: 25th + Adeline Well Number: MW-1
 Job No.: 946.001 Well Casing Diameter: 2 inch
 Sampled By: DWA Date: 10/31/96
 TOC Elevation: _____ Weather: partly cloudy

Depth to Casing Bottom (below TOC) 20.00 feet
 Depth to Groundwater (below TOC) 8.69 feet
 Feet of Water in Well 11.31 feet
 Depth to Groundwater When 80% Recovered 10.95 feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) 1.8 gallons
 Depth Measurement Method Tape & Paste / **Electronic Sounder** / Other
 Free Product none
 Purge Method disposable bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	7.98	69.0	572		<u>clean / no odor</u>
2	8.13	69.0	548		<u>semi-clean</u>
4	8.03	64.8	523		↓
6	8.10	64.3	497		<u>mucky</u>

Total Gallons Purged 6 gallons
 Depth to Groundwater Before Sampling (below TOC) _____ feet
 Sampling Method disposable bailer
 Containers Used 6 40 ml 3 liter _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: 25th + Adeline Well Number: MW-2
 Job No.: 946.001 Well Casing Diameter: 2 inch
 Sampled By: DWA Date: 10/31/96
 TOC Elevation: _____ Weather: partly cloudy

Depth to Casing Bottom (below TOC) 13.50 feet
 Depth to Groundwater (below TOC) 6.74 feet
 Feet of Water in Well 6.76 feet
 Depth to Groundwater When 80% Recovered 8.09 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 bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.76	63.2	584		clear/no odor
2	7.59	64.4	626		
3	7.58	65.0	598		
4	7.57	65.1	589		v

Total Gallons Purged 4 gallons
 Depth to Groundwater Before Sampling (below TOC) 6.80 feet
 Sampling Method disposable bailer
 Containers Used 6 40 ml 3 liter _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: 25th & Adeline Well Number: MW-3
 Job No.: 946.001 Well Casing Diameter: 2 inch
 Sampled By: DWA Date: 10/31/96
 TOC Elevation: _____ Weather: partly cloudy

Depth to Casing Bottom (below TOC) 13.00 feet
 Depth to Groundwater (below TOC) 7.17 feet
 Feet of Water in Well 5.83 feet
 Depth to Groundwater When 80% Recovered 8.34 feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) .96 gallons
 Depth Measurement Method Tape & Paste / Electronic Sounder / Other
 Free Product none
 Purge Method disposable bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	8.28	63.9	557		<i>clear/no odor</i>
2	8.38	64.9	516		<i>semi-clear</i>
3	7.98	65.1	492		↓
4	7.82	65.2	481		

Total Gallons Purged 4 gallons
 Depth to Groundwater Before Sampling (below TOC) 7.26 feet
 Sampling Method disposable bailer
 Containers Used 6 40 ml 3 liter _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE