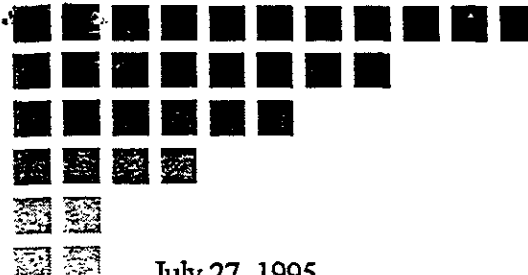


R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jerriann N. Alexander, PE



July 27, 1995
SCI 727.001

Mr. Dante Sambajon
Plant Engineer
Coulter Steel and Forge Company
1494 - 67th Street
Emeryville, California 94662-0901

Groundwater Monitoring
June 1995 Event
Former Diesel Fuel Tank Area
722 Folger Avenue
Emeryville, California

Dear Mr. Sambajon:

This letter records the results of the June 1995 monitoring event conducted by Subsurface Consultants, Inc. (SCI) for the groundwater monitoring program at the referenced site. Five monitoring wells have been periodically sampled in the vicinity of a former diesel fuel tank since May 1992. The previous tank area and well locations are shown on the attached Site Plan, Plate 1.

Groundwater Monitoring

The groundwater monitoring program for this site was modified by the ACHCSA in June 1994. As modified, the program requires the following:

1. Wells MW-4, MW-5 and MW-8 will be monitored for Total Extractable Hydrocarbons (TEH) and BTEX every quarter.
2. If well MW-4 shows detectable levels of contaminants, then samples from well MW-6 must be analyzed.
3. MW-3 is to be monitored for TEH and BTEX biannually.

Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

Mr. Dante Sambajon
Coulter Steel and Forge Company
July 27, 1995
SCI 727.001
Page 2

A groundwater monitoring event was conducted on June 14, 1995. Initially, the depth to groundwater and the presence of free product were checked in all five wells with a steel tape, and water and petroleum product sensitive pastes. Groundwater level measurements are presented on Table 1.

Prior to sampling, the wells were purged of at least three well volumes of water. Measurements of water temperature, pH and conductivity were recorded at various intervals during the purge process. Well sampling forms are attached.

The depth to water in each well was checked, following purging and before sampling, to assure that the wells had recharged to at least 80 percent of their initial volume. The wells were then sampled using new disposable bailers. The samples were retained in containers pre-cleaned by the supplier in accordance with EPA protocol. The samples were placed in an ice filled cooler and transmitted to Curtis & Tompkins, Ltd. The testing program for this event included the following analyses:

1. Total Extractable Hydrocarbons as diesel (TEH) (EPA 5030/8015), and
2. Benzene, toluene, ethylbenzene and xylene (BTEX) (EPA 5030/602).

The results of all analytical testing events are presented on Table 2. Analytical test reports and Chain-of-Custody documents for the current event are attached.

Conclusions

Groundwater Gradient

Based on the data presented on Table 1, it appears that the groundwater gradient remains consistently toward the west. Groundwater contours for this event are presented on the site plan.

Diesel Contamination

In general, the data indicates that groundwater in a limited area around the previous tank site has been impacted by TEH within the diesel range. The upgradient and downgradient extent of the plume have been well defined.

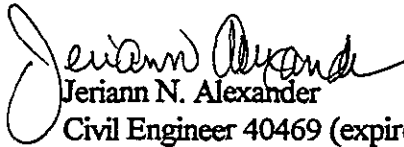
In accordance with the monitoring program, the next sampling event will be performed during the month of September 1995. During that month, a biannual event will be performed.

Mr. Dante Sambajon
Coulter Steel and Forge Company
July 28, 1995
SCI 727.001
Page 3

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.


Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/99)

FV:JNA:RWR:sld

2 copies submitted

Attachments: Table 1 - Groundwater Elevations
Table 2 - Summary of Contaminants in Groundwater
Site Plan - Plate 1
Analytical Test Reports
Chain-of-Custody Documents
Groundwater Sampling Forms

cc: Ms. Susan Hugo
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Mr. Rich Hiatt
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

**Table 1.
Groundwater Elevation Data**

<u>Well</u>	<u>TOC Elevation (feet)</u>	<u>Date</u>	<u>Groundwater Depth (feet)</u>	<u>Groundwater Elevation (feet)</u>
MW-3	24.70	5/15/92	11.15	13.55
		7/1/92	11.60	13.10
		8/18/92	12.00	12.70
		3/4/93	9.97	14.91
		6/8/93	10.47	14.23
		11/4/93	12.05	12.65
		12/6/93	11.62	13.08
		2/23/94	10.12	14.58
		6/9/94	10.98	13.72
		9/7/94	11.83	12.87
		12/16/94	9.96	14.74
		3/9/95	8.86	15.84
		6/14/95	10.40	14.30
MW-4	23.92	5/15/92	10.00	13.92
		7/1/92	11.26	12.66
		8/18/92	11.58	12.34
		3/4/93	9.39	14.53
		6/8/93	10.01	13.91
		11/4/93	11.53	12.39
		12/6/93	11.11	12.81
		2/23/94	9.63	14.29
		6/9/94	10.47	13.45
		9/7/94	11.31	12.61
		12/16/94	9.48	14.44
		3/9/95	8.72	15.20
		6/14/95	9.85	14.07
MW-5	23.85	5/15/92	10.52	13.33
		7/1/92	9.93	13.92
		8/18/92	9.24	14.61
		3/5/93	7.72	16.15
		6/8/93	8.31	15.54
		11/4/93	10.33	13.52
		12/6/93	9.91	13.94
		2/23/94	8.23	15.62
		6/9/94	9.09	14.76
		9/7/94	9.95	13.90
		12/16/94	7.98	15.87
		3/9/95	7.33	16.52
		6/14/95	8.40	15.45

**Table 1.
Groundwater Elevation Data**

<u>Well</u>	<u>TOC Elevation (feet)</u>	<u>Date</u>	<u>Groundwater Depth (feet)</u>	<u>Groundwater Elevation (feet)</u>
MW-6	22.98	5/15/92	12.46	10.52
		7/1/92	12.96	10.02
		8/18/92	13.42	9.56
		3/4/93	11.60	11.38
		6/8/93	12.34	10.64
		11/4/93	13.62	9.36
		12/6/93	13.08	9.90
		2/23/94	11.78	11.20
		6/9/94	12.73	10.25
		9/7/94	13.52	9.46
		12/16/94	11.69	11.29
		3/9/95	11.02	11.96
		6/14/95	11.95	11.03
		MW-8	23.85	12/6/93
2/23/94	7.93			15.92
6/9/94	8.60			15.25
9/7/94	9.39			14.46
12/16/94	7.78			16.07
3/9/95	7.82			16.03
6/14/95	8.30	15.55		

TOC = Top of casing

Elevation reference = City of Berkeley Survey Monument of Folger Avenue at the Location
Shown on the Site Plan

Table 2.
TEH and BTEX Concentrations in Groundwater

<u>Sample</u>	<u>Date</u>	<u>TEH</u> <u>ug/l</u>	<u>B</u> <u>ug/l</u>	<u>T</u> <u>ug/l</u>	<u>E</u> <u>ug/l</u>	<u>X</u> <u>ug/l</u>
MW-3	5/15/92	100	<0.5	<0.5	<0.5	2.5
	8/18/92	<50	<0.5	<1.0	<0.5	<0.5
	3/4/93	<50	<0.5	<0.5	<0.5	<0.5
	6/8/93	<50	<0.5	<0.5	<0.5	<0.5
	11/4/93	60	<0.5	0.6	<0.5	0.21
	2/23/94	1600	<0.5	<0.5	<0.5	<0.5
	9/7/94	900	<0.5	<2	<0.5	<0.5
	3/13/95	310	<0.5	<0.5	<0.5	<0.5
MW-4	5/15/92	10,000	<0.5	<0.5	<0.5	5
	8/18/92	300	<0.5	<1.0	<0.5	<0.5
	3/4/93	<50	<0.5	<0.5	<0.5	<0.5
	6/8/93	190	<0.5	<0.5	<0.5	<0.5
	11/4/93	<50	0.5	0.5	<0.5	0.9
	2/23/94	<50	<0.5	<0.5	<0.5	<0.5
	6/9/94	530	<0.5	<0.5	<0.5	<0.5
	12/16/94	410	<0.5	<0.5	<0.5	<0.5
	3/13/95	750	<0.5	<0.5	<0.5	<0.5
	6/14/95	9000	1.1	<0.5	<0.5	0.9
MW-5	5/15/92	510	<0.5	<1.0	<0.5	<0.5
	3/5/93	1,400	<0.5	<0.5	<0.5	<0.5
	6/8/93	1,300	<0.5	<0.5	<0.5	<0.5
	11/4/94	930	<0.5	0.5	<0.5	0.9
	2/23/94	3,100	<0.5	<0.5	<0.5	<0.5
	6/9/94	310	<0.5	<0.5	<0.5	<0.5
	9/7/94	1100	<0.5	<2	<0.5	<0.5
	12/19/94	690	<0.5	<0.5	<0.5	<0.5
	3/14/95	590	<0.5	<0.5	<0.5	<0.5
6/14/95	4600	<0.5	<0.5	<0.5	<0.5	
MW-6	5/15/92	<50	<0.5	<0.5	<0.5	2
	8/18/92	<50	<0.5	<1.0	<0.5	<0.5
	3/4/93	<50	<0.5	<0.5	<0.5	<0.5
	6/8/93	<50	<0.5	<0.5	<0.5	<0.5
	11/4/93	<50	<0.5	<0.5	<0.5	0.7
	2/23/94	<50	<0.5	<0.5	<0.5	<0.5
	6/9/94	<50	<0.5	<0.5	<0.5	<0.5
	9/7/94	<50	<0.5	<2	<0.5	<0.5
	12/16/94	<50	<0.5	-	-	-
	3/13/95	<50	<0.5	<0.5	<0.5	<0.5
	6/14/95	<50	<0.5	<0.5	<0.5	<0.5

Table 2.
TEH and BTEX Concentrations in Groundwater

<u>Sample</u>	<u>Date</u>	<u>TEH</u> <u>ug/l</u>	<u>B</u> <u>ug/l</u>	<u>T</u> <u>ug/l</u>	<u>E</u> <u>ug/l</u>	<u>X</u> <u>ug/l</u>
MW-8	12/6/93	<50	<0.5	<0.5	<0.5	<0.5
	2/23/94	<50	<0.5	<0.5	<0.5	<0.5
	6/9/94	<50	<0.5	<0.5	<0.5	<0.5
	9/7/94	<50	<0.5	<2	<0.5	<0.5
	12/16/94	<0.5	<0.5	<0.5	<0.5	<0.5
	3/13/95	84	<0.5	<0.5	<0.5	<0.5
	6/14/95	81*	<0.5	<0.5	<0.5	<0.5

ug/l = micrograms per liter, parts per billion

TEH = Total extractable hydrocarbons

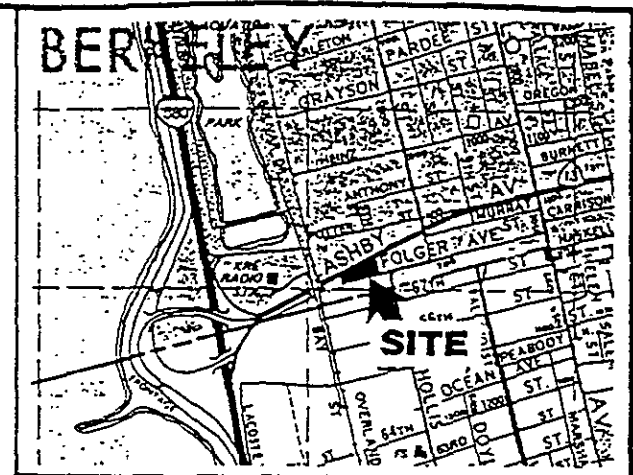
B = benzene

T = toluene

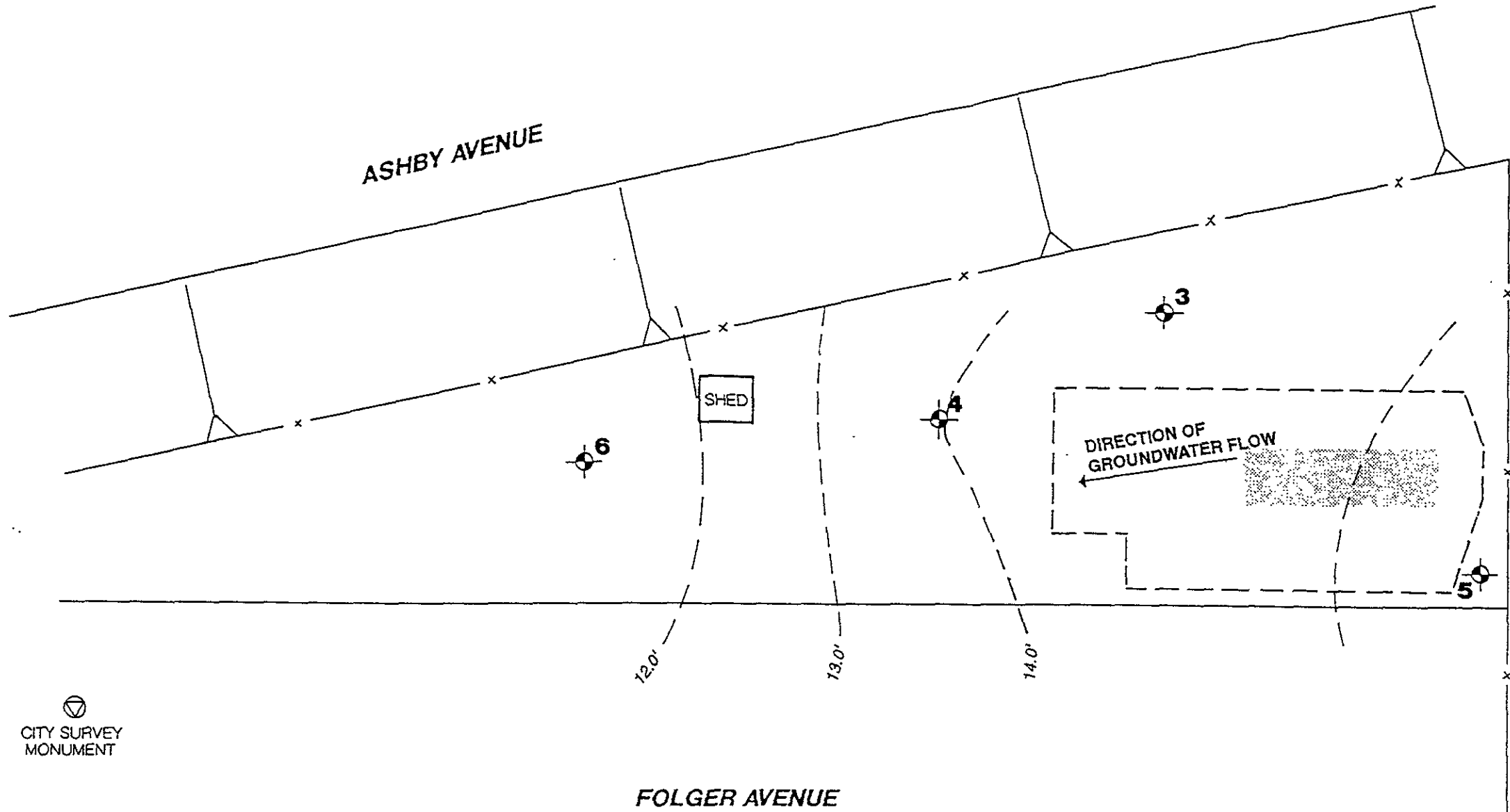
E = ethylbenzene

X = xylenes

* = Method blank contamination indicates high bias in sample result








VICINITY MAP

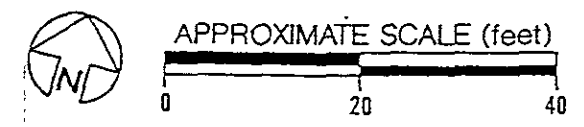


CITY SURVEY
MONUMENT

FOLGER AVENUE

722 FOLGER AVENUE

-  MONITORING WELL
-  EXTENT OF EXCAVATION
-  FENCE
-  PREVIOUS TANK LOCATION
-  GROUNDWATER FLOW
CONTOURS (feet)
12.0
JUNE 1995



SITE PLAN

Subsurface Consultants	722 FOLGER AVENUE - BERKELEY, CA		PLATE
	JOB NUMBER 727,001	DATE 7/26/95	APPROVED 1



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

171 12th Street

Suite 201

Oakland, CA 94608

Date: 05-JUL-95

Lab Job Number: 121400

Project ID: 727.001

Location: Coulter Steel

Reviewed by: _____

Reviewed by: _____

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Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 121400
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 727.001
LOCATION: COULTER STEEL

DATE SAMPLED: 06/14,15/95
DATE RECEIVED: 06/15/95
DATE EXTRACTED: 06/20/95
DATE ANALYZED: 06/30/95
DATE REPORTED: 07/05/95
DATE REVISED: 07/10/95
BATCH NO: 21398

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
121400-001	MW-4	9,000	50
121400-002	MW-5	4,600	50
121400-004	MW-8	81*	50
METHOD BLANK	N/A	120	50

ND = Not detected at or above reporting limit.

* Method Blank contamination indicates high bias in sample result.

QA/QC SUMMARY: BS/BSD

RPD, %	7
RECOVERY, %	85



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 121400
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 727.001
LOCATION: COULTER STEEL

DATE SAMPLED: 06/14,15/95
DATE RECEIVED: 06/15/95
DATE ANALYZED: 06/17/95
DATE REPORTED: 07/05/95
BATCH NO: 21325

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)
121400-001	MW-4	1.1	ND	ND	0.9	0.5
121400-002	MW-5	ND	ND	ND	ND	0.5
121400-004	MW-8	ND	ND	ND	ND	0.5
METHOD BLANK		ND	ND	ND	ND	0.5

ND = Not detected at or above reporting limit.

Reporting Limit applies to all analytes.

QA/QC SUMMARY: BS/BSD

RPD, %	4
RECOVERY, %	99



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

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 23-JUL-95
Lab Job Number: 121783
Project ID: 727.001
Location: Coulter Steel

Reviewed by:

Mary Plessas

Reviewed by:

[Signature]

This package may be reproduced only in its entirety.

LABORATORY NUMBER: 121783
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 727.001
 LOCATION: COULTER STEEL

DATE SAMPLED: 06/14/95
 DATE RECEIVED: 06/15/95
 DATE ORDERED: 07/17/95
 DATE ANALYZED: 07/18/95
 DATE REPORTED: 07/23/95
 BATCH NO.: 22010

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
 TVH by California DOHS Method/LUFT Manual October 1989
 BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
121783-001	MW-6	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
METHOD BLANK	N/A	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

NOTE: The sample was analyzed after the technical holding time.

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: MS/MSD of 121567-007

LCS RECOVERY, %	106
RPD, %	2
RECOVERY, %	113

VERBAL ADDITIONS/CANCELLATIONS TO ANALYSIS
 REQUEST SHEET

 Client: SCI Date: 7/17/95

 Requested By: Fernando Velen Time: AM 1:10 PM

 Recorded By: MURP

Current Lab ID (Previous Lab ID)	Client ID	Circle Matrix	Specify add or cancel	Analysis	Due Date
121783-001 (121400-003)	MW-6	water soil waste oil other	+	TUHF/BTXE	7/24
()		water soil waste oil other			
()		water soil waste oil other			
()		water soil waste oil other			
()		water soil waste oil other			
()		water soil waste oil other			

WELL SAMPLING FORM

Project Name: Anchor Steel Well Number: W1108
 Job No.: 2000 Well Casing Diameter: 2 inch
 Sampled By: [Signature] Date: 6/15/95
 TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 21.00 feet
 Depth to Groundwater (below TOC) 5.00 feet
 Feet of Water in Well _____ feet
 Depth to Groundwater When 80% Recovered _____ feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) _____ gallons
 Depth Measurement Method Tape & Paste / Electronic Sounder / Other _____
 Free Product _____
 Purge Method [Signature]

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1.00	7.30	14.8	950		
2.00	7.30	14.9	910		
3.00	7.25	14.1	97		
4.00	7.51	14.0	270		

Total Gallons Purged _____ gallons
 Depth to Groundwater Before Sampling (below TOC) _____ feet
 Sampling Method [Signature]
 Containers Used 3 40 ml / 1 liter / _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: Amutter Steel Well Number: MW 5
 Job No.: 727-001 Well Casing Diameter: 2 inch
 Sampled By: CD Date: 11/14/05
 TOC Elevation: _____ Weather: Clear

Depth to Casing Bottom (below TOC) 19.50 feet
 Depth to Groundwater (below TOC) 8.40 feet
 Feet of Water in Well _____ feet
 Depth to Groundwater When 80% Recovered _____ feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) _____ gallons
 Depth Measurement Method Tape & Paste / Electronic Sounder / Other _____
 Free Product: None
 Purge Method Injection Method

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	6.82	20.8	1430	_____	_____
4	7.00	20.3	1380	_____	_____
6	7.05	20.2	1370	_____	_____
8	7.07	20.2	1360	_____	_____
10	7.09	20.2	1350	_____	_____

Total Gallons Purged 10 gallons
 Depth to Groundwater Before Sampling (below TOC) _____ feet
 Sampling Method Teflon bailer
 Containers Used 3 40 ml 1 liter _____ pint

Subsurface Consultants

JOB NUMBER

DATE

APPROVED

PLATE

WELL SAMPLING FORM

Project Name: Counter steel Well Number: MW 4
 Job No.: 777.001 Well Casing Diameter: 2 inch
 Sampled By: [Signature] Date: 6/14/95
 TOC Elevation: _____ Weather: Clear

Depth to Casing Bottom (below TOC) 22.00 feet
 Depth to Groundwater (below TOC) 9.85 feet
 Feet of Water in Well _____ feet
 Depth to Groundwater When 80% Recovered _____ feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) _____ gallons
 Depth Measurement Method Tape & Paste Electronic Sounder Other _____
 Free Product: None
 Purge Method: Surge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
<u>0</u>	<u>6.02</u>	<u>12.8</u>	<u>1230</u>	_____	_____
<u>2</u>	<u>6.52</u>	<u>10.1</u>	<u>1110</u>	_____	_____
<u>4</u>	<u>6.20</u>	<u>10.6</u>	<u>1070</u>	_____	_____
<u>8</u>	<u>6.5</u>	<u>10.9</u>	<u>1020</u>	_____	_____
<u>10</u>	<u>6.20</u>	<u>10.5</u>	<u>1000</u>	_____	_____

Total Gallons Purged _____ gallons
 Depth to Groundwater Before Sampling (below TOC) _____ feet
 Sampling Method: Surge
 Containers Used: 3 40 ml, 1 liter, _____ pint

<h1 style="margin: 0;">Subsurface Consultants</h1>	JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: Router Steel Well Number: M206
 Job No.: 727.001 Well Casing Diameter: 2 inch
 Sampled By: BOZHA Date: 6/12/95
 TOC Elevation: _____ Weather: fine

Depth to Casing Bottom (below TOC) 25[?] 28.50 feet
 Depth to Groundwater (below TOC) 11.95 feet
 Feet of Water in Well 15.05 feet
 Depth to Groundwater When 80% Recovered _____ feet
 Casing Volume (feet of water x Casing DIA² x 0.0408) _____ gallons
 Depth Measurement Method Tape & Paste / Electronic Sounder / Other
 Free Product: NONE
 Purge Method Tapline bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
<u>7</u>	<u>7.87</u>	<u>15.2</u>	<u>1550</u>	_____	_____
<u>8</u>	<u>7.66</u>	<u>14.6</u>	<u>1520</u>	_____	_____
<u>10</u>	<u>7.53</u>	<u>14.0</u>	<u>1600</u>	_____	_____
<u>8</u>	<u>7.52</u>	<u>13.8</u>	<u>1570</u>	_____	_____
<u>10</u>	<u>7.57</u>	<u>13.9</u>	<u>1550</u>	_____	_____

Total Gallons Purged 10 gallons
 Depth to Groundwater Before Sampling (below TOC) _____ feet
 Sampling Method Tapline bailer
 Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE