Subsurface Consultants, Inc.

B. William Rudolph, P.E.
President

May 30, 1997
SCI 447.055

Mr. George Hill
655 University Avenue, Suite 100
Sacramento, California 95825

Mr. Gordon Linden
150 LaSalle Avenue
Piedmont, California 94611

Groundwater Monitoring
May 1997 Annual Event
Connell Oldsmobile Facility
3093 Broadway
Oakland, California

Dear Messrs. Hill & Linden:

This letter records the results of the May 1997 groundwater monitoring event, as well as the March, April, and May 1997 free product recovery events performed by Subsurface Consultants, Inc. (SCI) at the Connell Oldsmobile facility in Oakland, California. The facility is situated at the southwest corner of the intersection of Hawthorne Avenue and Broadway, as shown on the Site Plan, Plate 1.

BACKGROUND

Twelve wells have been periodically sampled at the site since 1990 to evaluate impacts to groundwater due to previous underground storage tank releases. Groundwater monitoring is performed in general accordance with the program outlined in the Corrective Action Plan (CAP) dated November 6, 1995 and approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated November 29, 1995. The monitoring described in this letter was the annual event as described in the CAP and involved sampling and monitoring all 12 monitoring wells at the site. Free product recovery has been conducted on a monthly basis by bailing at the site since 1991. In October 1996, free product recovery at MW-6 was initiated using an internal combustion engine soil vapor recovery system.

3736 Mt. Diablo Boulevard ▪ Suite 200 ▪ Lafayette, California 94549 ▪ (510) 299-7960 ▪ FAX (510) 299-7970

171 12th Street ▪ Suite 205 ▪ Oakland, California 94607 ▪ (510) 268-0461 ▪ FAX (510) 268-0137

MONITORING ACTIVITIES

Annual Groundwater Monitoring Event

In accordance with the CAP, this event was the annual monitoring event. On May 8, 1997, depth-to-water and free product thickness were measured in all wells. Free product was removed by hand bailing methods from the wells in which appreciable free product was measured. Product removal is further discussed later in this letter. Free product removal data are summarized in Table 1. Groundwater and free product elevation data are summarized in Table 2. Our interpretation of the flow direction and gradient for the May 1997 event are presented on Plate 2.

On May 8, 1997, all 12 wells were purged by removing water with new disposable bailers (2-inch-diameter wells) or with a pre-cleaned submersible pump (6-inch-diameter wells). The wells were purged until measurements of pH, temperature, and conductivity had stabilized. After the wells recharged to within 80 percent of their initial level, they were sampled with new disposable bailers. Purge water was placed in a depression created on top of the existing soil stockpile and allowed to evaporate.

Samples were retained in pre-cleaned containers supplied by the analytical laboratory, and were placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory.

Chemical analysis of the samples was performed by Curtis & Tompkins, Ltd. A summary of sample preparation and test methods is presented below.

Analysis	Sample Preparation Method	Analysis Method
Hydrocarbon Oil & Grease (MW-1 only)	SMWW 5520	SMWW 5520
Total Volatile Hydrocarbons (TVH)	EPA 5030	EPA 8015 Mod.
Total Extractable Hydrocarbons (TEH)	EPA 3520	EPA 8015 Mod.
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	EPA 5030	EPA 8020
Semi-Volatile Organics (MW-1 only)	EPA 3520	EPA 8270
1,1- and 1,2 Dichloroethane (1,1- and 1,2-DCA)	EPA 5030	EPA 8260

Analytical test results are summarized in Table 3. Field sampling forms, analytical test reports and chain-of-custody documents are attached.

Free Product Removal

SCI has been measuring separate-phase product thickness and the depth to water in all wells on a monthly basis. As requested by ACHCSA, data from the March 5, April 1, and May 8, 1997 monthly measurements have been summarized in this report. Field forms for these events are attached. Future reporting on the monthly measurements will be made on a quarterly basis.

Between March and May 1997, the free product thickness in MW-1 ranged from 0 to 0.33 feet. In MW-4, the free product thickness ranged from 0.03 to 0.05 feet. In MW-6, free product thickness was measured at 1.88 feet on May 8, 1997. However, in March and April 1997, free product was not found in MW-6.

To date, approximately 142 gallons of free product have been removed by hand bailing. Approximately 1 gallon of free product has been removed by hand bailing since the last quarterly event in February 1997. Free product removal by soil vapor extraction (SVE) continues at well MW-6. As of April 1997, approximately 100 gallons of product have been removed by SVE alone. Approximately 15 gallons of free product have been removed by SVE since February 1997. A total of approximately 242 gallons of free product have been removed from the wells since December 1991, as summarized in Table 1.

DISCUSSION OF RESULTS

Free Product

The apparent lateral extent of free product has remained relatively constant when compared to the previous monitoring events. Free product continues to be present in wells MW-1, MW-4, and MW-6. Since the apparent free product source, i.e., the tanks and piping, have been removed, there is no indication that additional free product is impacting the site. The changes in free product thickness are, in our opinion, related to the constant redistribution of free product along preferential flow paths. Free product accumulation rates in various wells and migration of free product on the site is likely highly dependent on groundwater levels. The groundwater level controls whether the free product layer is in hydraulic contact with locally more permeable zones where migration occurs. Thus, the observed increase of free product thickness in MW-6 is likely attributed to a drop in the groundwater elevation, as measured in this well, since the last water level measurement event on April 1, 1997.

Dissolved Product Plume

The concentrations of dissolved hydrocarbons during this event (Table 3) remain similar as in previous events. Samples from MW-8, situated at the downgradient property boundary, continues to contain relatively low concentrations of petroleum hydrocarbons. Samples from MW-13, the farthest downgradient well, contained detectable concentrations of 1,2-DCA at 5.5 micrograms

per liter (µg/l) and benzene at 81 µg/l. The compound 1,2-DCA has consistently been detected in this well at low concentrations since 1995. Benzene has intermittently been detected in low concentrations at MW-13 since 1995.

Ongoing Monitoring

Product recovery by SVE is ongoing at well MW-6. SCI will continue product and water level measurements on a monthly basis. The next monitoring event will be a quarterly event which will occur in July 1997. The next report will be due by July 31, 1997.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

James R. Helge

James R. Helge
Project Environmental Scientist

Samuel C. Won
Civil Engineer 57023 (exp. 6/30/01)
Registered Environmental Assessor 6711 (exp. 6/30/97)

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Attachments: Table 1 - Summary of Contaminant Concentrations
Table 2 - Free Product Recovery
Table 3 - Groundwater Elevation Data
Plate 1 - Site Plan
Plate 2 - Groundwater Surface Elevation Contours. 5/8/97
Field Forms- March through May 1997
Analytical Test Reports
Chain-of-Custody Documents

cc: Ms. Susan Hugo, Alameda County Health Care Services Agency
Mr. Jonathan Redding, Fitzgerald, Abbott & Beardsley

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed by Hand Bailing (gallons)
MW-1	12/23/91	2.00	2.00
	12/26/91	0.50	2.50
	1/13/92	1.00	3.50
	2/28/92	2.00	5.50
	11/9/93	0.50	6.00
	11/3/95	0.25	6.75
	11/30/95	0.25	7.00
	1/3/96	0.53	7.53
	2/2/96	0.75	8.28
	3/1/96	0.10	8.38
	4/4/96	0.00	8.38
	5/2/96	0.00	8.38
	6/5/96	0.10	8.48
	7/9/96	0.10	8.58
	8/8/96	0.05	8.63
	9/10/96	0.10	8.73
	10/1/96	0.25	8.98
	11/4/96	0.13	9.11
	12/2/96	0.26	9.37
	1/3/97	0.39	9.76
	2/6/97	0.01	9.77
	3/5/97	0.00	9.77
	4/1/97	0.01	9.78
	5/8/97	0.02	9.80
MW-4	12/23/91	2.50	2.50
	12/26/91	6.00	8.50
	1/10/92	5.00	13.50
	2/28/92	4.00	17.50
	3/11/92	3.50	21.00

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed by Hand Bailing (gallons)
MW-4	3/13/92	3.50	24.50
(cont.)	3/17/92	2.25	26.75
	3/18/92	2.50	29.25
	3/19/92	1.50	30.75
	3/23/92	4.00	34.75
	3/24/92	1.50	36.25
	3/25/92	1.00	37.25
	3/26/92	1.00	38.25
	3/27/92	0.50	38.75
	3/31/92	0.50	39.25
	4/1/92	0.25	39.50
	4/2/92	0.13	39.63
	4/6/92	0.13	39.76
	4/10/92	0.25	40.01
	4/13/92	0.25	40.26
	4/20/92	0.13	40.39
	5/4/92	0.13	40.52
	5/18/92	0.13	40.65
	5/26/92	0.13	40.78
	6/1/92	0.06	40.84
	6/29/92	0.25	41.09
	7/29/92	1.11	42.20
	8/28/92	1.68	43.88
	4/3/93	0.13	44.01
	11/9/93	0.03	44.04
	8/30/95	1.75	45.79
	10/2/95	0.50	46.29
	11/3/95	0.25	46.54
	11/30/95	0.25	46.79
	1/3/96	0.05	46.84

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed by Hand Bailing (gallons)
MW-4	2/2/96	0.10	46.94
(cont.)	3/1/96	0.20	47.14
	4/4/96	0.20	47.34
	5/2/96	0.20	47.54
	6/5/96	0.15	47.59
	7/9/96	0.16	47.75
	8/8/96	0.00	47.75
	9/10/96	0.05	47.80
	10/1/96	0.05	47.85
	11/4/96	0.02	47.87
	12/2/96	0.02	47.89
	1/3/97	0.02	47.91
	2/6/97	0.01	47.92
	3/5/97	0.00	47.92
	4/1/97	0.00	47.92
	5/8/97	0.00	47.92
MW-6	12/23/91	7.50	7.50
	12/26/91	2.00	9.50
	1/10/92	1.00	10.50
	2/4/92	2.00	12.50
	2/28/92	3.00	15.50
	3/10/92	2.75	18.25
	3/12/92	2.00	20.25
	3/23/92	1.00	21.25
	3/30/92	0.50	21.75
	4/10/92	0.25	22.00
	4/13/92	0.13	22.13
	4/20/92	0.13	22.26
	5/4/92	0.13	22.39

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed by Hand Bailing (gallons)
MW-6	5/8/92	0.06	22.45
(cont.)	5/26/92	0.13	22.58
	6/1/92	0.06	22.64
	6/29/92	0.19	22.83
	7/29/92	0.60	23.43
	8/28/92	2.40	25.83
	12/2/92	(obstruction in well)	--
	4/3/93	1.75	27.58
	11/9/93	0.83	28.41
	8/30/95	4.50	32.91
	10/2/95	4.0	36.91
	11/3/95	3.00	39.91
	11/30/95	2.50	42.41
	1/3/96	2.50	44.91
	2/2/95	5.00	49.90
	3/1/96	4.00	53.90
	4/4/96	5.00	58.90
	5/2/96	4.50	63.40
	6/5/96	4.00	67.40
	7/9/96	4.50	71.90
	8/8/96	4.00	75.90
	9/10/96	3.50	79.40
	10/1/96	4.00	83.40
	11/4/96	NM*	83.40
	12/2/96	NM*	83.40
	1/3/97	NM*	83.40
	2/6/97	NM*	83.40
	3/5/97	NM*	83.40
	4/1/97	NM*	83.40
	5/8/97	0.40**	83.80**

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed by Hand Bailing (gallons)
MW-9	8/8/96	0.10	0.10
	9/10/96	0.00	0.10
	10/1/96	0.00	0.10
	11/4/96	0.00	0.10
	12/2/96	0.00	0.10
	1/3/97	0.00	0.10
	2/6/97	0.00	0.10
	3/5/97	0.00	0.10
	4/1/97	0.00	0.10
	5/8/97	0.00	0.10
	Total Product removed by bailing		**141.62**
	Total Product removed by Soil Vapor Extraction (as of 4/21/97)		***100.48***
	Cumulative Total of Product Removed		**242.10**

* NM - Not measured. Product is currently being removed by vapor extraction from this well.

** Product levels measured and bailed for annual monitoring event.

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-1	94.48	10/3/90	26.40	68.08	NM	--
		3/5/91	27.46	67.02	NM	--
		3/18/91	26.88	67.60	NM	--
		4/12/91	25.49	68.99	NM	--
		12/23/91	26.86	67.62	1.15	68.77
		12/26/91	26.08	68.40	0.22	68.63
		1/13/92	26.53	67.95	0.66	68.61
		2/28/92	27.75	66.73	0.42	67.15
		5/18/92	24.75	69.73	NM	--
		6/29/92	25.09	69.39	0.04	69.43
		7/29/92	25.46	69.02	0.15	69.17
		8/28/92	25.56	68.92	0.29	69.21
		10/28/92	26.44	68.04	0.52	68.56
		11/24/92	26.63	67.85	NM	--
		12/22/92	26.37	68.11	NM	--
		4/5/93	23.77	70.71	0.00	--
		7/20/93	24.51	69.97	0.60	70.57
		11/9/93	26.06	68.42	1.17	69.59
		8/30/95	21.73	72.75	0.23	72.98
		9/15/95	21.88	72.61	0.15	72.75
		10/2/95	22.42	72.06	0.42	72.48
		11/3/95	23.10	72.74	0.76	73.50
		11/30/95	23.38	72.54	0.70	73.24
		1/3/96	23.30	72.62	0.78	73.40
		2/2/96	22.96	72.28	0.84	74.12
		3/1/96	21.69	72.79	0.14	72.65
		4/4/96	21.11	73.67	0.00	--
		5/2/96	20.96	73.83	0.00	--
		6/5/96	20.98	73.81	0.04	73.85
		7/9/96	21.64	72.84	0.20	73.04
		8/8/96	22.43	72.05	0.33	72.38
		9/10/96	23.25	71.23	0.60	71.83

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-1 (cont.)	94.48	10/1/96	23.58	70.90	0.60	71.50
		11/4/96	24.29	70.19	0.78	70.97
		12/2/96	24.63	69.85	0.88	70.73
		1/3/97	24.08	70.40	0.81	71.21
		2/6/97	22.46	72.02	0.30	72.32
		3/5/97	23.00	71.48	0.00	--
		4/1/97	22.29	72.19	0.20	72.39
		5/8/97	22.79	71.69	0.33	72.02
MW-2	94.81	3/5/91	27.86	66.95	0.00	--
		3/18/91	27.46	67.35	0.00	--
		4/12/91	26.98	67.83	0.00	--
		5/18/92	26.50	68.31	0.00	--
		6/29/92	26.80	68.01	0.00	--
		7/29/92	27.08	67.73	0.00	--
		8/28/92	27.33	67.48	0.00	--
		10/28/92	27.65	67.16	0.00	--
		11/24/92	27.91	66.90	0.00	--
		12/22/92	27.74	67.07	--	--
		4/5/93	25.95	68.86	0.00	--
		7/20/93	25.59	69.22	0.00	--
		11/9/93	26.72	68.09	0.00	--
		8/30/95	25.75	69.06	0.00	--
		10/2/95	25.10	69.71	0.00	--
		11/3/95	25.73	69.02	0.00	--
		11/30/95	25.34	69.41	0.00	--
		1/3/96	25.32	69.43	0.00	--
		2/2/96	25.10	69.65	0.00	--
		3/1/96	24.05	70.76	0.00	--
		4/4/96	23.41	71.49	0.00	--
		5/2/96	23.37	71.53	0.00	--
		6/5/96	23.75	71.11	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-2	94.81	7/9/96	23.79	71.02	0.00	--
(cont.)		8/8/96	24.27	70.54	0.00	--
		9/10/96	24.87	69.94	0.00	--
		10/1/96	25.12	69.69	0.00	--
		11/4/96	25.54	69.27	0.00	--
		12/2/96	25.74	69.07	0.00	--
		1/3/97	25.51	69.30	0.00	--
		2/6/97	24.68	70.13	0.00	--
		3/5/97	24.14	70.67	0.00	--
		4/1/97	24.18	70.63	0.00	--
		5/8/97	24.58	70.23	0.00	--
MW-3	90.08	3/6/91	23.17	66.91	NM	--
		3/18/91	22.76	67.32	NM	--
		4/12/91	22.51	67.57	NM	--
		5/12/92	23.17	66.91	NM	--
		6/29/92	22.90	67.18	NM	--
		7/29/92	22.17	67.91	NM	--
		8/28/92	22.28	67.80	NM	--
		10/28/92	22.67	67.41	0.00	--
		11/24/92	23.01	67.07	0.00	--
		12/22/92	22.91	67.17	--	--
		4/5/93	22.11	67.97	0.00	--
		7/20/93	23.93	66.15	0.00	--
		11/9/93	23.14	66.94	0.00	--
		8/29/95	20.61	69.47	0.00	--
		10/2/95	21.18	68.90	0.00	--
		11/3/95	20.74	69.60	0.00	--
		11/30/95	20.68	69.66	0.00	--
		1/3/96	20.58	69.76	0.00	--
		2/2/96	20.43	69.91	0.00	--
		3/1/96	20.24	69.84	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-3	90.08	4/4/96	18.50	71.58	0.00	--
(cont.)		5/2/96	18.43	71.65	0.00	--
		6/5/96	18.51	71.57	0.00	--
		7/9/96	18.97	71.11	0.00	--
		8/8/96	19.51	70.57	0.00	--
		9/10/96	19.86	70.22	0.00	--
		10/1/96	20.04	70.04	0.00	--
		11/4/96	20.25	69.83	0.00	--
		12/2/96	20.40	69.68	0.00	--
		1/3/97	20.33	69.75	0.00	--
		2/6/97	19.98	70.10	0.00	--
		3/5/97	19.80	70.28	0.00	--
		4/1/97	19.76	70.32	0.00	--
		5/8/97	19.77	70.31	0.00	--
MW-4	88.84	3/5/91	23.79	65.05	NM	--
		3/18/91	22.30	66.54	NM	--
		4/12/91	21.85	66.99	NM	--
		12/23/91	22.63	66.22	0.98	67.19
		12/26/91	22.52	66.32	0.96	67.28
		1/10/92	22.74	66.10	0.99	67.09
		2/28/92	22.00	66.84	0.67	67.51
		3/11/92	21.71	67.13	0.55	67.68
		3/13/92	21.56	67.28	0.49	67.77
		3/17/92	25.46	63.38	0.44	63.82
		3/18/92	21.38	67.47	0.44	67.90
		3/19/92	21.33	67.51	0.48	67.99
		3/23/92	21.29	67.55	0.42	67.97
		3/24/92	21.31	67.53	0.38	67.90
		3/25/92	21.17	67.67	0.36	68.04
		3/26/92	21.08	67.76	0.35	68.11
		3/27/92	20.92	67.92	0.26	68.18

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-4	88.84	3/31/92	21.15	67.69	0.44	68.13
(cont.)		4/1/92	20.90	67.94	0.24	68.18
		4/2/92	20.90	67.94	0.17	68.11
		4/10/92	20.91	67.93	0.33	68.26
		4/13/92	21.04	67.80	0.42	68.22
		4/20/92	20.74	68.10	0.19	68.29
		5/4/92	20.83	68.01	0.33	68.34
		5/18/92	21.33	67.51	0.23	67.74
		5/26/92	20.83	68.01	0.17	68.18
		6/1/92	20.85	67.99	0.19	68.17
		6/29/92	21.38	67.46	0.53	67.99
		7/29/92	21.69	67.15	0.56	67.71
		8/28/92	21.35	67.49	0.63	68.12
		10/28/92	22.48	66.36	0.84	67.20
		11/24/92	22.60	66.24	NM	--
		12/22/92	22.47	66.37	NM	--
		4/3/93	20.11	68.73	0.51	69.24
		7/20/93	20.48	68.36	0.52	68.88
		11/9/93	21.71	67.13	0.63	67.76
		8/30/95	19.90	68.94	2.20	71.14
		9/15/95	18.76	70.08	0.57	70.65
		10/2/95	19.17	69.67	0.65	70.32
		11/3/95	19.45	69.39	0.44	69.83
		11/30/95	19.50	69.44	0.32	69.76
		1/3/96	19.31	69.53	0.20	69.73
		2/2/96	18.91	69.93	0.20	70.13
		3/1/96	18.25	70.59	0.19	70.78
		4/4/96	17.53	71.31	0.18	71.47
		5/2/96	17.50	71.34	0.25	71.59
		6/5/96	17.67	71.17	0.39	71.56
		7/9/96	18.29	70.55	0.50	71.05
		8/8/96	18.84	70.00	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-4 (cont.)	88.84	9/10/96	19.31	69.53	0.34	69.87
		10/1/96	19.51	69.33	0.29	69.62
		11/4/96	20.13	68.71	0.35	69.06
		12/2/96	20.23	68.61	0.33	68.94
		1/3/97	19.33	69.51	0.10	69.61
		2/6/97	18.13	70.72	0.01	70.73
		3/5/97	18.17	70.67	0.06	70.73
		4/1/97	18.38	70.46	0.05	70.51
		5/8/97	18.63	70.21	0.03	70.24
MW-5	84.84	3/18/91	26.31	58.53	NM	--
		3/12/91	26.41	58.43	NM	--
		5/18/92	26.75	58.09	NM	--
		6/29/92	26.73	58.11	NM	--
		7/29/92	26.66	58.18	NM	--
		8/28/92	26.90	57.94	NM	--
		10/28/92	26.39	58.45	0.00	--
		11/24/92	26.83	58.01	0.00	--
		12/22/92	27.33	57.51	--	--
		4/3/93	26.62	58.22	0.00	--
		7/20/93	26.60	58.24	0.00	--
		11/9/93	27.24	57.60	0.00	--
		8/30/95	27.46	57.38	0.00	--
		10/2/95	26.85	57.99	0.00	--
		11/3/95	26.67	58.87	0.00	--
		11/30/95	27.05	58.49	0.00	--
		1/3/96	26.60	59.04	0.00	--
		2/2/96	26.70	59.14	0.00	--
		3/1/96	26.00	58.84	0.00	--
		4/4/96	26.20	58.64	0.00	--
		5/2/96	26.02	58.82	0.00	--
		6/5/96	25.91	58.93	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-5	84.84	7/9/96	26.20	58.64	0.00	--
(cont.)		8/8/96	26.38	58.46	0.00	--
		9/10/96	26.42	58.42	0.00	--
		10/1/96	26.52	58.32	0.00	--
		11/4/96	26.69	58.15	0.00	--
		12/2/96	26.70	58.14	0.00	--
		1/3/97	25.84	59.00	0.00	--
		2/6/97	26.26	58.58	0.00	--
		3/5/97	26.20	58.64	0.00	--
		4/1/97	26.98	57.86	0.00	--
		5/8/97	26.76	58.08	0.00	--
MW-6	85.62	3/18/91	25.82	59.80	NM	--
		4/12/91	27.23	58.39	NM	--
		12/23/91	28.40	57.22	3.21	60.44
		12/26/91	27.25	58.37	1.67	60.04
		1/10/92	27.23	58.39	0.90	59.29
		2/4/92	27.71	57.91	2.04	59.95
		2/28/92	27.92	57.70	3.00	60.70
		3/10/92	27.16	58.46	2.06	60.53
		3/12/92	25.96	59.66	0.52	60.18
		3/13/92	25.70	59.92	0.21	60.13
		3/23/92	26.34	59.28	1.09	60.37
		3/30/92	25.73	59.89	0.35	60.25
		4/10/92	25.29	60.33	0.05	60.38
		4/13/92	25.52	60.10	0.21	60.31
		4/20/92	25.38	60.25	0.10	60.35
		5/4/92	25.40	60.22	NM	--
		5/18/92	25.50	60.12	0.17	60.29
		5/26/92	25.46	60.16	0.13	60.29
		6/1/92	25.46	60.16	0.09	60.26
		6/29/92	25.59	60.03	0.14	60.17

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-6	85.62	7/29/92	26.90	58.72	1.71	60.43
(cont.)		8/28/92	25.09	60.53	2.62	63.15
		10/28/92	25.02	60.60	3.94	64.54
		11/24/92	28.87	56.75	NM	--
		4/3/93	26.96	58.66	2.86	61.52
		7/20/93	26.17	59.45	2.60	62.05
		11/9/93	27.51	58.11	3.06	61.17
		8/30/95	28.00	57.62	7.96	65.58
		9/15/95	28.24	57.38	6.14	63.52
		10/2/95	28.39	57.23	6.13	63.36
		11/3/95	26.91	58.71	3.44	62.15
		11/30/95	27.58	58.04	4.41	62.45
		1/3/96	27.58	58.04	4.37	62.41
		2/2/96	27.96	57.68	5.15	62.83
		3/1/96	27.96	57.68	5.41	63.09
		4/4/96	27.69	57.93	5.69	63.62
		5/2/96	26.83	58.79	4.66	63.45
		6/5/96	27.15	58.47	5.17	63.64
		7/9/96	27.08	58.54	4.86	63.40
		8/8/96	26.71	58.91	4.05	62.96
		9/10/96	26.83	58.79	3.82	62.61
		10/1/96	26.96	58.66	3.77	62.43
MW-6*	86.94	11/4/96	NM	NM	NM	NM
		12/2/96	NM	NM	NM	NM
		1/3/97	NM	NM	NM	NM
		2/6/97	25.08	61.86	0.20	62.06
		3/5/97	24.20	62.74	0.00	--
		4/1/97	24.04	62.90	0.00	--
		5/8/97	26.54	60.40	1.88	62.28
MW-7	85.41	3/18/91	21.63	63.78	NM	--
		4/12/91	22.13	63.28	NM	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-7	85.41	5/18/92	21.67	63.74	NM	--
(cont.)		6/29/92	20.75	64.66	NM	--
		7/29/92	21.07	64.34	NM	--
		8/28/92	21.35	64.06	NM	--
		10/28/92	21.81	63.60	0.00	--
		11/24/92	21.52	63.89	0.00	--
		12/22/92	obstructed	--	0.00	--
		4/3/93	20.08	65.33	0.00	--
		7/20/93	19.59	65.82	0.00	--
		11/9/93	20.65	64.76	0.00	--
		8/30/95	18.78	66.63	0.00	--
		10/2/95	18.73	66.68	0.00	--
		11/3/95	19.23	66.18	0.00	--
		11/30/95	19.47	65.94	0.00	--
		1/3/96	18.52	66.89	0.00	--
		2/2/96	17.83	67.58	0.00	--
		3/1/96	17.61	67.80	0.00	--
		4/4/96	17.28	68.13	0.00	--
		5/2/96	17.15	68.26	0.00	--
		6/5/96	17.47	67.94	0.00	--
		7/9/96	18.06	67.35	0.00	--
		8/8/96	18.48	66.93	0.00	--
		9/10/96	18.79	66.62	0.00	--
		10/1/96	18.90	66.51	0.00	--
		11/4/96	18.69	66.72	0.00	--
		12/2/96	18.47	66.94	0.00	--
		1/3/97	17.98	67.43	0.00	--
		2/6/97	17.44	67.97	0.00	--
		3/5/97	16.73	68.68	0.00	--
		4/1/97	17.32	68.09	0.00	--
		5/8/97	17.72	67.69	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-8	85.50	10/28/92	27.70	57.80	0.00	--
		11/24/92	27.62	57.88	0.00	--
		12/22/92	27.40	58.10	--	--
		4/3/93	26.64	58.86	0.00	--
		7/20/93	26.60	58.90	0.00	--
		11/9/93	27.18	58.32	0.00	--
		8/30/95	26.35	59.15	0.00	--
		10/2/95	26.60	58.90	0.00	--
		11/3/95	26.62	58.88	0.00	--
		11/30/95	26.72	58.78	0.00	--
		1/3/96	26.64	58.86	0.00	--
		2/2/96	26.28	59.22	0.00	--
		3/1/96	25.81	59.69	0.00	--
		4/4/96	25.81	59.69	0.00	--
		5/2/96	26.15	60.03	0.00	--
		6/5/96	26.17	60.01	0.00	--
		7/9/96	26.32	59.18	0.00	--
		8/8/96	26.41	59.09	0.00	--
		9/10/96	26.66	58.84	0.00	--
		10/1/96	26.65	58.85	0.00	--
		11/4/96	26.77	58.73	0.00	--
		12/2/96	26.59	58.91	0.00	--
		1/3/97	25.98	59.52	0.00	--
		2/6/97	25.84	59.66	0.00	--
		3/5/97	25.94	59.56	0.00	--
		4/1/97	26.34	59.16	0.00	--
		5/8/97	26.39	59.11	0.00	--
MW-9	90.37	10/28/92	23.37	67.00	0.00	--
		11/24/92	23.51	66.86	0.00	--
		12/22/92	23.31	67.06	--	--
		4/3/93	21.14	69.23	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-9	90.37	7/20/93	21.54	68.83	0.00	--
(cont.)		11/9/93	27.53	62.84	0.00	--
		8/30/95	19.59	70.78	0.00	--
		10/2/95	20.05	70.32	0.00	--
		11/3/95	20.40	69.97	0.00	--
		11/30/95	20.65	69.72	0.00	--
		1/3/96	20.73	69.64	0.00	--
		2/2/96	20.19	70.18	0.00	--
		3/1/96	19.53	70.84	0.00	--
		4/4/96	18.74	71.63	0.00	--
		5/2/96	18.63	71.74	0.00	--
		7/9/96	19.15	71.22	0.00	--
		8/8/96	19.89	70.48	0.35	70.83
		9/10/96	20.11	70.26	0.00	--
		10/1/96	20.37	70.00	0.00	--
		11/4/96	20.69	69.68	0.00	--
		12/2/96	21.43	68.94	0.00	--
		1/3/97	20.72	69.65	0.00	--
		2/6/97	19.72	70.65	0.00	--
		3/5/97	19.59	70.78	0.00	--
		4/1/97	19.73	70.64	0.00	--
		5/8/97	19.96	70.41	0.00	--
MW-10	88.60	10/28/92	21.55	67.05	0.00	--
		11/24/92	21.86	66.74	0.00	--
		12/22/92	21.68	66.92	--	--
		4/3/93	19.14	69.46	0.00	--
		7/20/93	19.79	68.81	0.00	--
		11/9/93	20.83	67.77	0.00	--
		8/30/95	17.99	70.61	0.00	--
		10/2/95	18.42	70.18	0.00	--
		11/3/95	18.82	69.78	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-10	88.60	11/30/95	19.03	69.57	0.00	--
(cont.)		1/3/96	18.96	69.64	0.00	--
		2/2/96	18.55	70.05	0.00	--
		3/1/96	17.81	70.79	0.00	--
		4/4/96	17.11	71.49	0.00	--
		5/2/96	17.04	71.56	0.00	--
		6/5/96	17.11	71.49	0.00	--
		7/9/96	17.64	70.96	0.00	--
		8/8/96	18.24	70.36	0.00	--
		9/10/96	18.82	69.78	0.00	--
		10/1/96	19.02	69.58	0.00	--
		11/4/96	19.59	69.01	0.00	--
		12/2/96	19.72	68.88	0.00	--
		1/3/97	18.86	69.74	0.00	--
		2/6/97	17.76	70.84	0.00	--
		3/5/97	17.84	70.76	0.00	--
		4/1/97	18.00	70.60	0.00	--
		5/8/97	18.36	70.24	0.00	--
MW-11	102.06	11/24/92	33.65	68.41	0.00	--
		12/22/92	33.37	68.69	--	--
		4/5/93	31.03	71.03	0.00	--
		7/20/93	31.90	70.16	0.00	--
		11/9/93	32.60	69.46	0.00	--
		8/29/95	28.92	73.14		
		10/2/95	29.48	72.58	0.00	--
		11/3/95	29.73	72.33	0.00	--
		11/30/95	30.26	71.80	0.00	--
		1/3/96	30.06	72.00	0.00	--
		2/2/96	29.67	72.39	0.00	--
		3/1/96	28.74	73.32	0.00	--
		4/4/96	28.13	73.93	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-11	102.06	5/2/96	28.26	74.06	0.00	--
(cont.)		6/5/96	28.30	74.02	0.00	--
		7/9/96	28.92	73.14	0.00	--
		8/8/96	29.64	72.42	0.00	--
		9/10/96	30.66	71.40	0.00	--
		10/1/96	30.58	71.48	0.00	--
		11/4/96	31.14	70.92	0.00	--
		12/2/96	31.36	70.70	0.00	--
		1/3/97	30.73	71.33	0.00	--
		2/6/97	29.38	72.68	0.00	--
		3/5/97	29.22	72.84	0.00	--
		4/1/97	29.46	72.60	0.00	--
		5/8/97	29.93	72.13	0.00	--
MW-13	84.06	11/24/92	26.05	58.01	0.00	--
		12/22/92	25.08	58.98	--	--
		4/5/93	24.64	59.42	0.00	--
		7/20/93	24.29	59.77	0.00	--
		11/9/93	24.23	59.83	0.00	--
		8/29/95	23.30	60.76	NM	--
		10/2/95	23.78	60.28	0.00	--
		11/3/95	23.73	60.33	0.00	--
		11/30/95	23.80	60.26	0.00	--
		1/3/96	23.95	60.11	0.00	--
		2/2/96	23.70	60.36	0.00	--
		3/1/96	23.36	60.70	0.00	--
		4/4/96	23.27	60.79	0.00	--
		5/2/96	23.35	60.87	0.00	--
		6/5/96	23.07	60.99	0.00	--
		7/9/96	23.31	60.75	0.00	--
		8/8/96	23.44	60.62	0.00	--
		9/10/96	23.66	60.40	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-13	84.06	10/1/96	23.80	60.26	0.00	--
(cont.)		11/4/96	24.04	60.02	0.00	--
		12/2/96	24.00	60.06	0.00	--
		1/3/97	23.30	60.76	0.00	--
		2/6/97	23.24	60.82	0.00	--
		3/5/97	23.24	60.82	0.00	--
		4/1/97	23.37	60.69	0.00	--
		5/8/97	23.46	60.60	0.00	--

Reference datum: arbitrary benchmark established by Levine Fricke.
TOC = Top of casing
Groundwater depths are measured below TOC.
NM = Not measured
* New TOC from connection to remediation system.

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-1	10/1/90	620,000	<500	33,000	50,000	7,900	41,000	2,900	ND	--	--	--
	10/1/92	490,000	--	51,000	59,000	5,000	27,000	1,300	--	--	--	--
	11/1/92	320,000	4,600	35,000	43,000	4,200	22,000	1,600	ND	--	--	--
	4/1/93	270,000	25,000	50,000	58,000	4,600	25,000	1,800	ND	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	10	--	--
	12/1/95	FP	--	--	--	--	--	--	--	--	**	--
	5/1/96	340,000	32,000	57,000	73,000	7,200	38,000	1,200	--	<5	**	--
	11/5/96	270,000	--	43,000	56,000	4,500	34,000	--	--	9.8	--	--
	5/9/97	240,000	28,000[1,2]	36,000	45,000	3,300	17,900	930	--	20	***	--
MW-2	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	<50	<0.5	1.1	<0.5	1.5	<1	ND	--	--	--
	4/1/93	<50	870	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	240	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	150*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/8/97	<50	<50	<0.5	0.7	<0.5	<0.5	<1	--	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-3	3/1/91	<50	<50	<50	0.6	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	50	160	<0.5	0.9	<0.5	2	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/8/97	<50	<50	<0.5	0.7	<0.5	<0.5	<1	--	--	--	--
MW-4	3/1/91	150,000	<500	20,000	38,000	2,800	14,000	610	ND	--	--	--
	10/1/92	230,000	--	15,000	32,000	2,500	14,000	430	--	--	--	--
	11/1/92	210,000	1,600	14,000	31,000	2,500	14,000	500	ND	--	--	--
	4/1/93	FP	--	--	--	--	--	--	--	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	--	--	--
	12/1/95	FP	--	--	--	--	--	--	--	--	--	--
	5/1/96	140,000	9,200	24,000	50,000	3,000	15,100	420	ND	--	--	--
	11/4/96	160,000	4,700 [1,2]	16,000	38,000	2,700	14,000	380	ND	--	--	--
	5/8/97	170,000	5,100 [1,2]	16,000	37,000	2,400	15,900	290	--	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-5	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	190	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	170	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	180*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/8/97	<50	<50	<0.5	0.5	<0.5	<0.5	<1	--	--	--	--
MW-6	3/1/91	80,000	<50	12,000	13,000	1,100	5,400	1,400	Dibromochloro-	--	--	--
	10/1/92	19,000	--	3,200	1,400	200	560	840	--	--	--	--
	12/1/92	FP	--	--	--	--	--	--	--	--	--	--
	4/1/93	FP	--	--	--	--	--	--	--	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	--	--	--
	5/1/96	130,000	9,000	37,000	50,000	3,200	14,200	2,400	ND	--	--	--
	5/9/97	1,700,000	53,000[1,2]	14,000	27,000	4,000	28,200	1,200	--	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-7	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	150	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	200	<0.5	1	<0.5	1.7	<1	ND	--	--	--
	8/1/95	<50	170*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	12/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	<2.0
	11/4/96	<50	<50	<1	<1	<1	<1	<1	ND	--	--	--
	2/6/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	<2.0
	5/8/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
MW-8	10/1/92	70	--	20	1	1	3	210	--	--	--	--
	11/1/92	<50	170	<0.5	<0.5	<0.5	<0.5	200	ND	--	--	--
	4/1/93	490	100	15	45	5.1	73	210	ND	--	--	--
	7/1/93	180	90	2.5	3	<0.5	1.9	350	ND	--	--	--
	11/1/93	310	170	23	<0.5	<0.5	<0.5	240	ND	--	--	--
	8/1/95	660	240*	360	6.8	13	2.8	130	--	--	--	--
	12/1/95	250	<50	46	0.9	4.9	<0.5	94	ND	--	--	--
	5/1/96	69	94	110	<0.5	<0.5	1.5	100	ND	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-8	8/1/96	120	250 [1,2]	11	<0.5	<0.5	<0.5	93	ND	--	--	<2.0
(cont.)	11/5/96	110	<50	20	<1	1	<1	98	ND	--	--	--
	2/6/97	67 [1,2]	130	51	<0.5	0.56	<0.5	81	ND	--	--	<2.0
	5/9/97	110 [1,2]	120 [1,2]	59	<0.5	<0.5	<0.5	76	--	--	--	--
MW-9	11/1/92	19,000	320	180	590	23	2000	340	Chloroform (15	--	--	--
	4/1/93	2,300	920	48	4	0.6	13	600	Chloroform (2)	--	--	--
	7/1/93	2,300	450	170	8.1	15	<0.5	1100	ND	--	--	--
	11/1/93	4,400	450	69	7.3	21	9.7	900	ND	--	--	--
	8/1/95	3,200	680	3,900	49	80	22.8	960	--	--	--	--
	5/1/96	<1300	710	2,600	<13	200	<13	550	ND	--	--	--
	11/5/96	1,800	420	280	<5	65	<5	770	ND	--	--	--
	5/9/97	1,100	490 [1,2]	160	<0.5	4 2	<0.5	690	--	--	--	--
MW-10	10/1/92	28,000	--	2,700	3,800	210	1,300	150	--	--	--	--
	11/1/92	130,000	1,300	9,700	19,000	1,400	8,400	370	ND	--	--	--
	4/1/93	63,000	5,000	6,300	14,000	1,100	7,500	70	ND	--	--	--
	7/1/93	140,000	20,000	16,000	31,000	2,200	13,000	700	ND	--	--	--
	8/1/95	92,000	5,900	13,000	24,000	1,800	9,100	300	--	--	--	--
	5/1/96	81,000	5,600	17,000	29,000	2,100	8,500	320	ND	--	--	--
	5/9/97	63,000	2,500 [1,2]	7,400	13,000	940	4,100	150	--	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

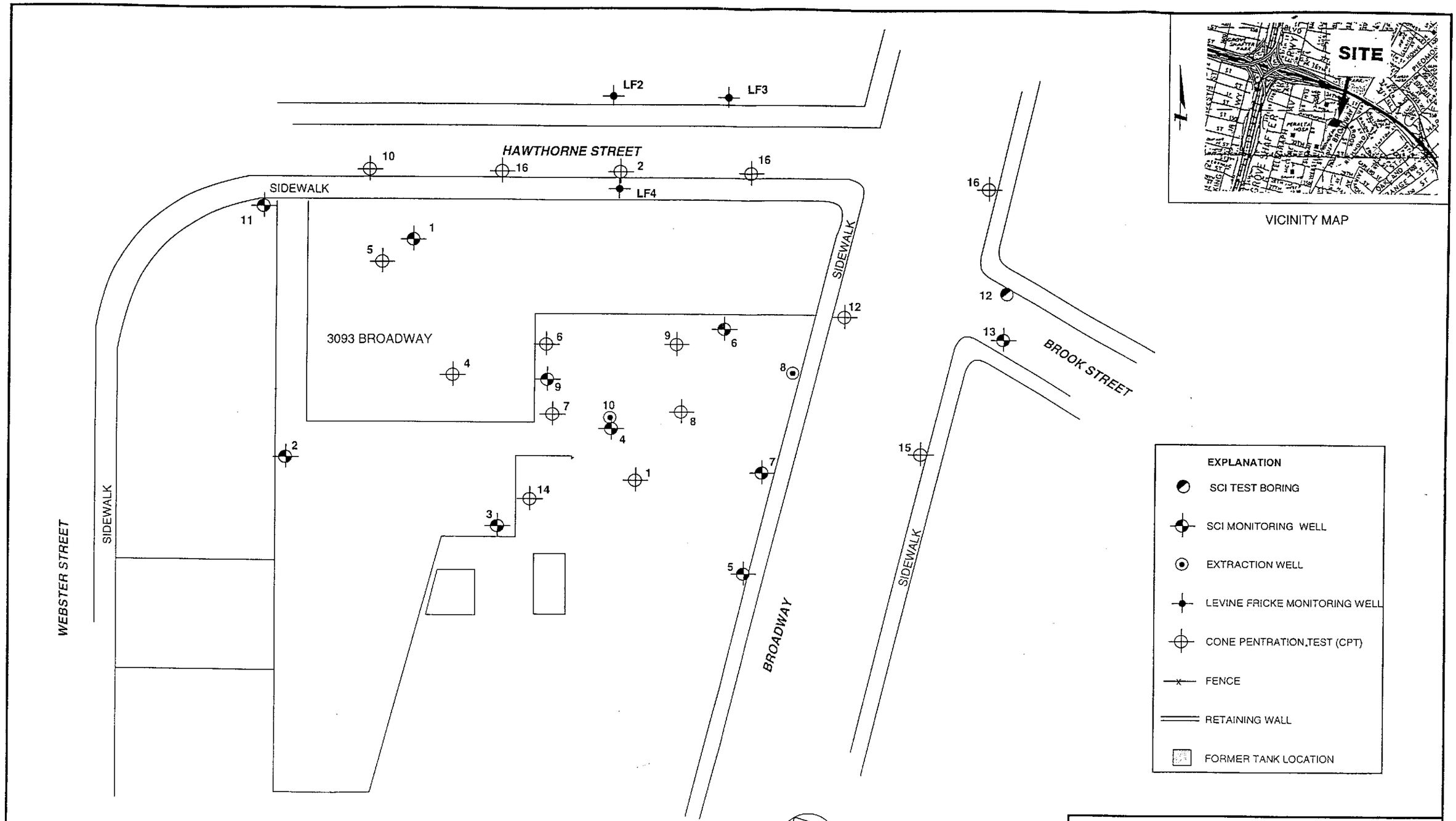
Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-11	11/1/92	<50	220	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	12/1/92	<50	140	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--
	12/1/92	<50	120	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	160	150	<0.5	1.8	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	80	60	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	240*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/8/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
MW-13	11/1/92	<50	3,600	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	12/1/92	<50	210	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--
	12/1/92	<50	100	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	4/1/93	<50	<50	<0.5	0.9	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	160	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	<50	49	<0.5	<0.5	<0.5	3.6	--	--	--	--
	12/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	4.1	ND	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	4	ND	--	--	--
	8/1/96	<50	<50	32	<0.5	<0.5	<0.5	6.4	ND	--	--	<2.0

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH µg/l	TEH µg/l	B µg/l	T µg/l	E µg/l	X µg/l	1,2-DCA µg/l	Other Purgeable Halocarbons µg/l	Oil & Grease mg/l	Semi-volatile Compounds µg/l	MTBE µg/l
MW-13	11/5/96	<50	<50	<1	<1	<1	<1	5.7	ND	--	--	--
(cont.)	2/6/97	<50	<50	<0.5	<0.5	<0.5	<0.5	3.5	ND	--	--	<2.0
	5/8/97	<50	<50	81	<0.5	<0.5	<0.5	5.5	--	--	--	--

µg/l = micrograms per liter = parts per billion = ppb
TVH = Total Volatile Hydrocarbons
TEH = Total Extractable Hydrocarbons
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
1,2-DCA = 1,2-Dichloroethane
<0.5 = Chemical not present at a concentration in excess of detection limit shown
ND = None detected, chemicals not present at concentrations above detection limits reported on laboratory test reports
MW-1 was initially referred to as Sample 5
-- = Test not requested
FP = Free product encountered in well

* = Suspect laboratory contamination contributing to test result.
** = 2,4-dichlorophenol (1,700 µg/l), naphthalene (1,200 µg/l), 2-methylnapthalene (630 µg/l), bis (2-ethylhexyl) phthalate (240 µg/l) detected during August 1995 event, naphthalene (640 µg/l), 2-methylnapthalene (250 µg/l) during the May 1996 event
*** = Phenol (93 µg/l), Benzoic acid (570 µg/l), Naphthalene (650 µg/l), 2-Methylnaphthalene (280 µg/l) during May 1997 event.
[1] = Sample exhibits fuel pattern which does not resemble standard
[2] = Lighter hydrocarbons than indicated standard

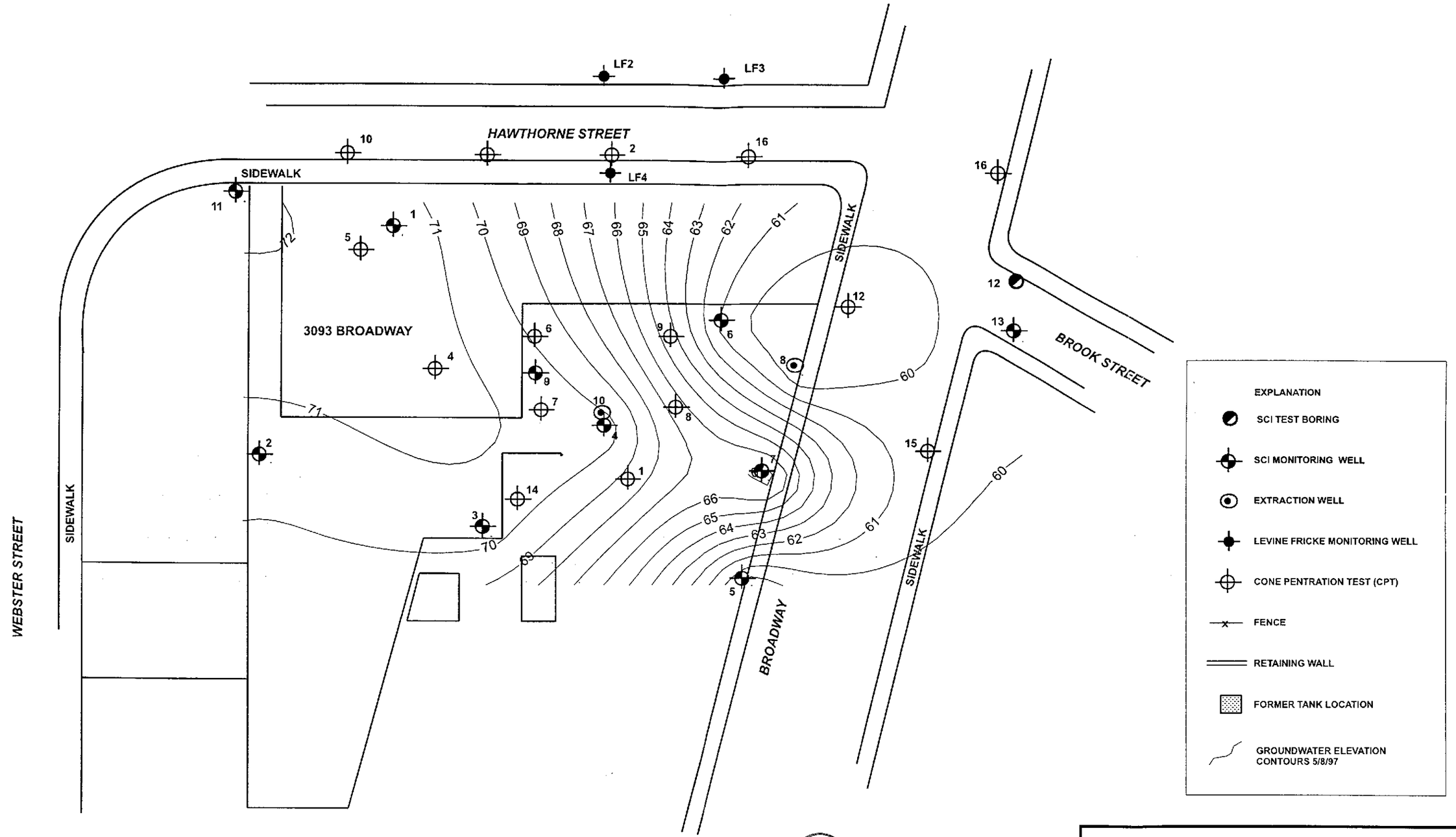


SITE PLAN

Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

CONNELL OLDSMOBILE - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
447.055	5/30/97	SCW	1



GROUNDWATER ELEVATION CONTOURS

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

CONNELL OLDSMOBILE - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
447.055	5/28/97	

PLATE 2

GROUNDWATER DEPTHS

Project Name: Connell Olds

Job No.: 497.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments	
MW-1	5/8/97	0820	22' 9½"	Top of Product = 22' 5 9/16"	Product thickness = 3 15/16"
					" Bailed = 2 YOA'
MW-2		0730	24.58		
MW-3		0725	19.77		
MW-4		0745	18' 7 5/16"	Top of Product = 18' 7'14"	Product thickness = 3/8"
					" Bailed = insignificant
MW-5		0805	26.76		
MW-6		0810	26' 6½"	Top of Product = 24' 8"	Product thickness = 1' 10½"
					" Bailed = 1½ liters
MW-7		0755	17.72		
MW-8		0800	26.39		
MW-9		0735	19.96		
MW-10		0740	18.36		
MW-11		0720	29.93		
MW-13		0715	23.46		

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-1
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/9/97
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 35.00 35.00 feet
Depth to Groundwater (below TOC) 22' 9½" 22.80 feet
Feet of Water in Well 12' 2½" 12.19 feet
Depth to Groundwater When 80% Recovered 25.25 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.0 gallons
Depth Measurement Method (Tape & Paste) / (Electronic Sounder / Other
Free Product 3 5/16" thickness – 1" thickness in 1st bailerful
Purge Method disposable bailer
moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.39	22.5	1425		clear/strong odor/sheen
3	6.46	22.5	1425		
5	6.46	22.5	1450		
7	6.39	22.0	1400		

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 25.25 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: Connell Olds
Well Number: MW-2
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 39.50 feet
Depth to Groundwater (below TOC) 24.58 feet
Feet of Water in Well 14.92 feet
Depth to Groundwater When 80% Recovered 27.56 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast/moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	6.20	21.0	550		semi-clear/no odor
4	6.17	21.0	575		↓
6	6.17	21.0	600		murky
8	6.17	21.5	625		↓

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 27.31 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-3
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 34.00 feet
Depth to Groundwater (below TOC) 19.77 feet
Feet of Water in Well 14.23 feet
Depth to Groundwater When 80% Recovered 22.62 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.3 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method disposable bailer
moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.17	22.0	825		lightly murky / no odor
3	6.16	22.0	825		decreasing turbidity
5	6.17	22.0	825		↓
7	6.18	22.0	825		↓

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 22.10' feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) / 1 (liter) / (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell Olds | Well Number: MW-4

Job No.: 447.055 | Well Casing Diameter: 2 inch

Sampled By: DWA | Date: 5/8/97

TOC Elevation: | Weather: Sunny

Depth to Casing Bottom (below TOC) 24.00 feet

Depth to Groundwater (below TOC) 18' 7⅝" feet

Feet of Water in Well 5.29 feet

Depth to Groundwater When 80% Recovered 19.77 feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) .86 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product ⅜" (no observable layer in bailer)

Purge Method disposable bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.56	23.5	525		semi-clear / strong odor / slt
3	6.60	23.0	550		clear - decreasing odor
5	6.63	23.0	525		
7	6.65	22.5	550		
9	6.61	22.5	525		

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 18.71 feet

Sampling Method disposable bailer

Containers Used 6 (40 ml) | 1 (liter) | (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-5
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 34.00 feet
Depth to Groundwater (below TOC) 26.76 feet
Feet of Water in Well 7.24 feet
Depth to Groundwater When 80% Recovered 28.21 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.2 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.47	23.0	825		semi-clear/no odor
2	6.50	22.5	825		↓
3	6.52	22.5	825		murky
4	6.55	22.5	825		

Total Gallons Purged 4 gallons
Depth to Groundwater Before Sampling (below TOC) 27.04' feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell olds | Well Number: MW-6

Job No.: 447.055 | Well Casing Diameter: 2 inch

Sampled By: DWA | Date: 5/9/97

TOC Elevation: | Weather: sunny

Depth to Casing Bottom (below TOC) 33.00 feet

Depth to Groundwater (below TOC) 26' 6½" feet

Feet of Water in Well 6' 5½" feet

Depth to Groundwater When 80% Recovered feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.1 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product 1' 10½" thickness — fast recharge (product seen after bailing stopped)

Purge Method disposable bailer (product in first 3 gals.)

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
3	6.51	22.5	1150		murky / very strong odor & heavy sheen
5	6.45	23.0	1125		
7	6.46	23.0	1125		
9	6.48	23.0	1125		

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 25.21 feet

Sampling Method disposable bailer

Containers Used 6 (40 ml) ( ) (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-7
Job No.: 441.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 30.00 feet
Depth to Groundwater (below TOC) 17.72 feet
Feet of Water in Well 12.28 feet
Depth to Groundwater When 80% Recovered 20.18 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.0 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

~~fast~~ moderate recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	6.61	21.5	470		clear/no odor
2	6.58	21.5	525		murky
4	6.58	22.0	775		
6	6.58	22.0	925		
8	6.58	22.0	925		

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 20.10' feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) / 1 (liter) / (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-8
Job No.: 447.055
Well Casing Diameter: 6 inch
Sampled By: DWA
Date: 5/9/97
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 39.50 feet
Depth to Groundwater (below TOC) 26.39 feet
Feet of Water in Well 13.11 feet
Depth to Groundwater When 80% Recovered 29.01 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 19.3 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
20	6.20	24.0	1000		clear/faint odor
30	6.23	24.0	1075		no odor
40	6.26	24.0	1075		
50	6.26	24.0	1000		
60	6.31	24.0	1100		

Total Gallons Purged 60 gallons
Depth to Groundwater Before Sampling (below TOC) 29.00 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-9
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation: _____
Weather: sunny

Depth to Casing Bottom (below TOC) 30.50 feet
Depth to Groundwater (below TOC) 19.96 feet
Feet of Water in Well 10.54 feet
Depth to Groundwater When 80% Recovered 22.07 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.7 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
0	6.03	22.0	900		clear/~~strong odor~~ ~~no odor~~
2	6.05	22.0	950		semi-clear/strong odor
4	6.18	22.5	925		dry @ 4 gals.
NEXT DAY 5/9/97 6	6.25	18.0	900		semi-clear

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 21.80 on 5/9/97 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) / 1 (liter) / _____ (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-10
Job No.: 441.0055
Well Casing Diameter: 6 inch
Sampled By: DWA
Date: 5/9/91
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 34.50 feet
Depth to Groundwater (below TOC) 18.36 feet
Feet of Water in Well 16.14 feet
Depth to Groundwater When 80% Recovered 21.59 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 23.7 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

fast recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
30	6.44	19.0	575		clear/strong odor w/some suspended particles
40	6.51	19.5	675		
50	6.55	20.5	725		decreasing particulates
60	6.61	20.5	750		↓
70	6.62	21.0	800		

Total Gallons Purged 72 gallons
Depth to Groundwater Before Sampling (below TOC) 18.70 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) / 1 (liter) / (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-11
Job No.: 441.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/97
TOC Elevation:
Weather: foggy

Depth to Casing Bottom (below TOC) 37.00 feet
Depth to Groundwater (below TOC) 29.93 feet
Feet of Water in Well 7.07 feet
Depth to Groundwater When 80% Recovered 31.34 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

immediate recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.58	19.0	1300		murky / no odor
2	6.56	19.5	1325		increasing turbidity
3	6.59	19.5	1325		↓
4	6.56	19.5	1300		↓

Total Gallons Purged 4 gallons
Depth to Groundwater Before Sampling (below TOC) 29.93 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-13
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/8/96
TOC Elevation: _____
Weather: foggy

Depth to Casing Bottom (below TOC) 40.00 feet
Depth to Groundwater (below TOC) 23.46 feet
Feet of Water in Well 16.54 feet
Depth to Groundwater When 80% Recovered 26.77 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.7 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method disposable bailer

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.80	18.5	625		clear/no odor
3	6.64	19.0	675		↓
5	6.58	18.5	675		semi-clear
7	6.55	18.5	625		↓
9	6.58	18.5	650		murky

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 24.30' feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

Subsurface Consultants, Inc.

EXPENSE RECORD for SCI FIELD SERVICES and FIELD SUPPLIES

PROJECT NAME: Connell Olds | JOB NUMBER: 447.055 | DATE SUBMITTED: 5/12/97

SUBMITTED BY: D. Alexander | ENTERED BY:

TYPE OF FIELD SUPPLY/FIELD SERVICE	UNIT NUMBER	NUMBER OF UNITS/DAYS	COST
			$
Bailers	53023	24	192.00
Lores	53024	2	.16.00
PH Meter	53009	2	20.00
Cond. Meter	53010	2	20.00

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SCI FIELD SUPPLIES

Unit No.	Unit Name	Billing Per Unit	Cost Per Unit
53020	Plastic Sheet (20x100')	per roll	$100.00
53021	Plastic Sheet (10x100' or 20x50')	per roll	50.00
53022	Brass Liners	each	5.00
53023	Disposable Bailers	each	8.00
53024	Keyed-Alike Locks	each	8.00
53025	Zip-Lock Bags - quart	per box	2.00
53026	Zip-Lock Bags - gallon	per box	4.00
53027	Portland Cement - 94#	sack	8.95
53028	Concrete Mix - 90#	sack	4.05
53029	Asphalt Mix - 90#	sack	5.01
53030	Bentonite Gel - 1#	sack	6.10
53031	Bentonite Pellets - 1/4"	bucket	39.84
53032	Bentonite Pellets - 3/8"	bucket	32.37
53033	Bentonite Pellets - 1/2"	bucket	28.64
53034	Sand - #3	sack	7.12
53035	2" PVC Slip Cap	each	.94
53036	2" PVC Screw Cap	each	7.51
53037	2" Locking Cap	each	22.91
53038	4" PVC Slip Cap	each	7.53
53039	4" PVC Screw Cap	each	13.25
53040	4" Locking Cap	each	24.93

Unit No.	Unit Name	Billing Per Unit	Cost Per Unit
53041	2" PVC Blank Pipe - 5' section	per foot	3.11
53042	2" PVC Blank Pipe - 10' section	per foot	2.05
53043	2" PVC Screen Pipe - 5' section	per foot	4.32
53044	2" PVC Screen Pipe - 10' section	per foot	3.05
53045	4" PVC Blank Pipe - 5' section	per foot	6.24
53046	4" PVC Blank Pipe - 10' section	per foot	4.89
53047	4" PVC Screen Pipe - 5' section	per foot	8.92
53048	4" PVC Screen Pipe - 10' section	per foot	7.10
53049	55 Gallon Drum	each	43.57
53050	Slope Indicator Casing	10-foot sec	65.98
53051	Coupling	each	5.29
53052	End Cap	each	3.73

FIELD SERVICES

53001	Generator	$25/day
53002	Steam Cleaner	$75/day
53003	Inclinometer	$150/day
53004	Rotary Hammer	$25/day
53005	Hand Pump	$10/day
53006	Nitrogen Pump	$50/day
53007	OVM	$25/day
53008	Gas Tech	$25/day
53009	PH Meter	$10/day
53010	Conductivity Meter	$10/day
53011	Submersible Pump	$25/day

GROUNDWATER DEPTHS

Project Name: Connell Olds

Job No.: 447.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments	
MW-1	4/1/97	1150	22' 3½"	Top of Product – 22' 1⅛"	Product thickness – 2⅜"
					" Bailed – 1 VOA
MW-2		1045	24.18		
MW-3		1050	19.76		
MW-4		1110	18' 4½"	Top of product – 18' 3⅜"	Product thickness – ⅝"
					" Bailed – none (insignificant)
MW-5		1105	26.98		
MW-6		1125	24.04	No Product	
MW-7		1100	17.32		
MW-8		1140	26.34		
MW-9		1135	19.13		
MW-10		1055	18.00		
MW-11		1030	29.46		
MW-13		1025	23.37		

Subsurface Consultants, Inc.

EXPENSE RECORD for SCI FIELD SERVICES and FIELD SUPPLIES

PROJECT NAME: Connell Olds	JOB NUMBER: 447.055	DATE SUBMITTED: 4/1/97
SUBMITTED BY: D Alexander	ENTERED BY:	

TYPE OF FIELD SUPPLY/FIELD SERVICE	UNIT NUMBER	NUMBER OF UNITS/DAYS	COST
			$
Bailer	53023	1	$

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SCI FIELD SUPPLIES

Unit No.	Unit Name	Billing Per Unit	Cost Per Unit
53020	Plastic Sheet (20x100')	per roll	$100.00
53021	Plastic Sheet (10x100' or 20x50')	per roll	50.00
53022	Brass Liners	each	5.00
53023	Disposable Bailers	each	8.00
53024	Keyed-Alike Locks	each	8.00
53025	Zip-Lock Bags - quart	per box	2.00
53026	Zip-Lock Bags - gallon	per box	4.00
53027	Portland Cement - 94#	sack	8.95
53028	Concrete Mix - 90#	sack	4.05
53029	Asphalt Mix - 90#	sack	5.01
53030	Bentonite Gel - 1#	sack	6.10
53031	Bentonite Pellets - 1/4"	bucket	39.84
53032	Bentonite Pellets - 3/8"	bucket	32.37
53033	Bentonite Pellets - 1/2"	bucket	28.64
53034	Sand - #3	sack	7.12
53035	2" PVC Slip Cap	each	.94
53036	2" PVC Screw Cap	each	7.51
53037	2" Locking Cap	each	22.91
53038	4" PVC Slip Cap	each	7.53
53039	4" PVC Screw Cap	each	13.25
53040	4" Locking Cap	each	24.93
53041	2" PVC Blank Pipe - 5' section	per foot	3.11
53042	2" PVC Blank Pipe - 10' section	per foot	2.05
53043	2" PVC Screen Pipe - 5' section	per foot	4.32
53044	2" PVC Screen Pipe - 10' section	per foot	3.05
53045	4" PVC Blank Pipe - 5' section	per foot	6.24
53046	4" PVC Blank Pipe - 10' section	per foot	4.89
53047	4" PVC Screen Pipe - 5' section	per foot	8.92
53048	4" PVC Screen Pipe - 10' section	per foot	7.10
53049	55 Gallon Drum	each	43.57
53050	Slope Indicator Casing	10-foot sec	65.98
53051	Coupling	each	5.29
53052	End Cap	each	3.73

FIELD SERVICES

53001	Generator	$25/day
53002	Steam Cleaner	$75/day
53003	Inclinometer	$150/day
53004	Rotary Hammer	$25/day
53005	Hand Pump	$10/day
53006	Nitrogen Pump	$50/day
53007	OVM	$25/day
53008	Gas Tech	$25/day
53009	PH Meter	$10/day
53010	Conductivity Meter	$10/day
53011	Submersible Pump	$25/day

GROUNDWATER DEPTHS

Project Name: Connell Olds

Job No.: 447.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	3/5/97	0930	23.00	No Product
MW-2		0815	24.14	
MW-3		0820	19.80	
MW-4		0855	18'2"	Top of Product = 18'1/4" Product thickness = 3/4" faint thin ring in bailer " Bailed = insignificant
MW-5		0830	26.20	
MW-6		0915	24.20	No Product
MW-7		0825	16.73	
MW-8		0910	25.94	
MW-9		0845	19.59	
MW-10		0840	17.84	
MW-11		0810	29.22	
MW-13	↓	0805	23.24	

Subsurface Consultants, Inc.

EXPENSE RECORD for SCI FIELD SERVICES and FIELD SUPPLIES

PROJECT NAME: Cowell Olds | JOB NUMBER: 441.055 | DATE SUBMITTED: 3/5/97

SUBMITTED BY: D. Alexander | ENTERED BY:

TYPE OF FIELD SUPPLY/FIELD SERVICE	UNIT NUMBER	NUMBER OF UNITS/DAYS	COST
			$
Baller	53023	1	free

FILE COPY

SCI FIELD SUPPLIES

Unit No.	Unit Name	Billing Per Unit	Cost Per Unit
53020	Plastic Sheet (20x100')	per roll	$100.00
53021	Plastic Sheet (10x100' or 20x50')	per roll	50.00
53022	Brass Liners	each	5.00
53023	Disposable Ballers	each	0.00
53024	Keyed-Alike Locks	each	0.00
53025	Zip-Lock Bags - quart	per box	2.00
53026	Zip-Lock Bags - gallon	per box	4.00
53027	Portland Cement - 94#	sack	8.95
53028	Concrete Mix - 90#	sack	4.05
53029	Asphalt Mix - 90#	sack	5.01
53030	Bentonite Gel - 1#	sack	6.10
53031	Bentonite Pellets - 1/4"	bucket	39.84
53032	Bentonite Pellets - 3/8"	bucket	32.37
53033	Bentonite Pellets - 1/2"	bucket	28.64
53034	Sand - #3	sack	7.12
53035	2" PVC Slip Cap	each	.94
53036	2" PVC Screw Cap	each	7.51
53037	2" Locking Cap	each	22.91
53038	4" PVC Slip Cap	each	7.53
53039	4" PVC Screw Cap	each	13.25
53040	4" Locking Cap	each	24.93

Unit No.	Unit Name	Billing Per Unit	Cost Per Unit
53041	2" PVC Blank Pipe - 5' section	per foot	3.11
53042	2" PVC Blank Pipe - 10' section	per foot	2.05
53043	2" PVC Screen Pipe - 5' section	per foot	4.32
53044	2" PVC Screen Pipe - 10' section	per foot	3.05
53045	4" PVC Blank Pipe - 5' section	per foot	6.24
53046	4" PVC Blank Pipe - 10' section	per foot	4.89
53047	4" PVC Screen Pipe - 5' section	per foot	8.92
53048	4" PVC Screen Pipe - 10' section	per foot	7.10
53049	55 Gallon Drum	each	43.57
53050	Slope Indicator Casing	10-foot sec	65.98
53051	Coupling	each	5.29
53052	End Cap	each	3.73

FIELD SERVICES

53001	Generator	$25/day
53002	Steam Cleaner	$75/day
53003	Inclinometer	$150/day
53004	Rotary Hammer	$25/day
53005	Hand Pump	$10/day
53006	Nitrogen Pump	$50/day
53007	OVM	$25/day
53008	Gas Tech	$25/day
53009	PH Meter	$10/day
53010	Conductivity Meter	$10/day
53011	Submersible Pump	$25/day

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 19-MAY-97
Lab Job Number: 129239
Project ID: 447.055
Location: Connell Olds

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129239
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 447.055
LOCATION: CONNELL OLDS

DATE SAMPLED: 05/09/97
DATE RECEIVED: 05/09/97
DATE ANALYZED: 05/15/97
DATE REPORTED: 05/21/97
BATCH NO: 33983

EPA 8240

LAB ID	CLIENT ID	1,1-DCA (ug/L)	1,2-DCA (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES 1	2	3
129239-001	MW-1	ND	930	100	99%	98%	94%
129239-002	MW-6	ND	1,200	130	101%	98%	95%
129239-003	MW-8	ND	76	1.0	100%	99%	95%
METHOD BLANK	N/A	ND	ND	1.0	101%	99%	92%

	Limits
1=Toluene-d8	87-125
2=Bromofluorobenzene	79-122
3= 1,2-Dichloroethane-d4	68-126

ND = Not detected at or above reporting limit.

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33983
Units: ug/L
Diln Fac: 1

Prep Date: 05/15/97
Analysis Date: 05/15/97

LCS Lab ID: QC46124

Analyte	Result	Spike Added	%Rec	#	Limits
1,1-Dichloroethene	45.36	50	91		51-180
Trichloroethene	46.65	50	93		73-141
Chlorobenzene	48.28	50	97		83-129

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

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 3 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129253-007
Matrix: Water
Batch#: 33983
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/09/97
Prep Date: 05/15/97
Analysis Date: 05/15/97

MS Lab ID: QC46133

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<1	41.33	83	51-180
Trichloroethene	50	80	119	78	73-141
Chlorobenzene	50	0.5679	46.6	92	83-129

Surrogate	%Rec	Limits
Toluene-d8	98	87-125
Bromofluorobenzene	97	79-122
1,2-Dichloroethane-d4	92	68-126

MSD Lab ID: QC46134

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	40.49	81	51-180	2	14
Trichloroethene	50	119	78	73-141	0	14
Chlorobenzene	50	46.13	91	83-129	1	13

Surrogate	%Rec	Limits
Toluene-d8	99	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	92	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129239
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 447.055
LOCATION: CONNELL OLDS

DATE SAMPLED: 05/09/97
DATE RECEIVED: 05/09/97
DATE ANALYZED: 05/17/97
DATE REPORTED: 05/21/97
BATCH NO: 33999

EPA 8240

LAB ID	CLIENT ID	1,1-DCA (ug/L)	1,2-DCA (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES 1	2	3
129239-004	MW-9	ND	690	5.0	102%	102%	97%
129239-005	MW-10	ND	150	50	100%	100%	96%
METHOD BLANK	N/A	ND	ND	1.0	100%	105%	99%

	Limits
1=Toluene-d8	87-125
2=Bromofluorobenzene	79-122
3= 1,2-Dichloroethane-d4	68-126

ND = Not detected at or above reporting limit.

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

Halogenated Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8260
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 05/16/97
Batch#: 33999	Analysis Date: 05/16/97
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC46188

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	47.53	50	95	51-180
Trichloroethene	47.35	50	95	73-141
Chlorobenzene	47.71	50	95	83-129

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	97	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 3 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129253-002
Matrix: Water
Batch#: 33999
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/09/97
Prep Date: 05/16/97
Analysis Date: 05/16/97

MS Lab ID: QC46218

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	3.652	44.47	82	51-180
Trichloroethene	50	<1	43.44	87	73-141
Chlorobenzene	50	<1	44.74	89	83-129

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	102	68-126

MSD Lab ID: QC46219

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	45.93	85	51-180	3	14
Trichloroethene	50	44.73	89	73-141	3	14
Chlorobenzene	50	46.24	92	83-129	3	13

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	102	79-122
1,2-Dichloroethane-d4	98	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129239

Project Name: Connell Olds

Project Number: 447.055

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129239-001	MW-1	Water	09-MAY-97	09-MAY-97	15-MAY-97	20.	mg/L	5	DLP	33992

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

Curtis & Tompkins, Ltd.

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

Client: Subsurface Consultants
Project Name: Connell Olds
Project Number: 447.055

Laboratory Login Number: 129239
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 33992

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	15-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	95%	SMWW 17:5520BF	15-MAY-97
BSD	98%	SMWW 17:5520BF	15-MAY-97

		Control Limits
Average Spike Recovery	97%	80% - 120%
Relative Percent Difference	2.8%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-001	MW-1	34003	05/09/97	05/16/97	05/16/97	
129239-002	MW-6	33929	05/09/97	05/14/97	05/14/97	
129239-003	MW-8	33929	05/09/97	05/14/97	05/14/97	
129239-004	MW-9	33929	05/09/97	05/14/97	05/14/97	

Matrix: Water

Analyte	Units	129239-001	129239-002	129239-003	129239-004
Diln Fac:		400	200	1	1
Gasoline	ug/L	240000	1700000	110 YL	1100
Surrogate					
Trifluorotoluene	%REC	87	127	85	114
Bromobenzene	%REC	95	121	88	109

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-005	MW-10	33955	05/09/97	05/15/97	05/15/97	

Matrix: Water

Analyte	Units	129239-005
Diln Fac:		200
Gasoline	ug/L	63000
Surrogate		
Trifluorotoluene	%REC	80
Bromobenzene	%REC	83

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

METHOD BLANK

Matrix:	Water	Prep Date:	05/13/97
Batch#:	33929	Analysis Date:	05/13/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45936

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	77	65-135
Bromobenzene	80	65-135

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	

METHOD BLANK	
Matrix: Water	Prep Date: 05/14/97
Batch#: 33955	Analysis Date: 05/14/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC46035

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	81	65-135
Bromobenzene	82	65-135

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

METHOD BLANK

Matrix:	Water	Prep Date:	05/16/97
Batch#:	34003	Analysis Date:	05/16/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC46208

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	90	65-135
Bromobenzene	98	65-135

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 05/13/97
Batch#: 33929	Analysis Date: 05/13/97
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC45934

Analyte	Result	Spike Added	%Rec	#	Limits
Gasoline	2035	2000	102		75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	81	65-135			
Bromobenzene	95	65-135			

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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	05/14/97
Batch#:	33955	Analysis Date:	05/14/97
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC46033

Analyte	Result	Spike Added	%Rec	#	Limits
Gasoline	2096	2000	105		75-125

Surrogate	%Rec	Limits
Trifluorotoluene	87	65-135
Bromobenzene	99	65-135

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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	05/16/97
Batch#:	34003	Analysis Date:	05/16/97
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC46206

Analyte	Result	Spike Added	%Rec	#	Limits
Gasoline	1882	2000	94		75-125

Surrogate	%Rec	Limits
Trifluorotoluene	83	65-135
Bromobenzene	92	65-135

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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129235-007
Matrix: Water
Batch#: 33929
Units: ug/L
Diln Fac: 1

Sample Date: 05/07/97
Received Date: 05/09/97
Prep Date: 05/13/97
Analysis Date: 05/13/97

MS Lab ID: QC45937

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1995	100	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	86	65-135			
Bromobenzene	98	65-135			

MSD Lab ID: QC45938

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	2103	105	75-125	5	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	86	65-135				
Bromobenzene	100	65-135				

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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/13/97
Lab ID:	129260-002	Received Date:	05/13/97
Matrix:	Water	Prep Date:	05/14/97
Batch#:	33955	Analysis Date:	05/14/97
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC46036

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	2088	104	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	87	65-135			
Bromobenzene	99	65-135			

MSD Lab ID: QC46037

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1947	97	75-125	7	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	85	65-135				
Bromobenzene	100	65-135				

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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129267-007
Matrix: Water
Batch#: 34003
Units: ug/L
Diln Fac: 1

Sample Date: 05/13/97
Received Date: 05/13/97
Prep Date: 05/16/97
Analysis Date: 05/16/97

MS Lab ID: QC46209

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1960	98	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	86	65-135			
Bromobenzene	106	65-135			

MSD Lab ID: QC46210

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	2087	104	75-125	6	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	87	65-135				
Bromobenzene	103	65-135				

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

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-001	MW-1	34003	05/09/97	05/16/97	05/16/97	
129239-002	MW-6	33955	05/09/97	05/15/97	05/15/97	
129239-003	MW-8	33929	05/09/97	05/14/97	05/14/97	
129239-004	MW-9	33929	05/09/97	05/14/97	05/14/97	

Matrix: Water

Analyte	Units	129239-001	129239-002	129239-003	129239-004
Diln Fac:		400	400	1	1
Benzene	ug/L	36000	14000	59	160
Toluene	ug/L	45000	27000	<0.5	<0.5
Ethylbenzene	ug/L	3300	4000	<0.5	42
m,p-Xylenes	ug/L	12000	20000	<0.5	<0.5
o-Xylene	ug/L	5900	8200	<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	81	77	79	112
Bromobenzene	%REC	92	84	84	95

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-005	MW-10	33955	05/09/97	05/15/97	05/15/97	

Matrix: Water

Analyte	Units	129239-005
Diln Fac:		200
Benzene	ug/L	7400
Toluene	ug/L	13000
Ethylbenzene	ug/L	940
m,p-Xylenes	ug/L	2700
o-Xylene	ug/L	1400
Surrogate		
Trifluorotoluene	%REC	74
Bromobenzene	%REC	80

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
METHOD BLANK	
Matrix: Water	Prep Date: 05/13/97
Batch#: 33929	Analysis Date: 05/13/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC45936

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	71	58-130
Bromobenzene	78	62-131

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
METHOD BLANK	
Matrix: Water	Prep Date: 05/14/97
Batch#: 33955	Analysis Date: 05/14/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC46035

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	71	58-130
Bromobenzene	79	62-131

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	

METHOD BLANK	
Matrix: Water	Prep Date: 05/16/97
Batch#: 34003	Analysis Date: 05/16/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC46208

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	79	58-130
Bromobenzene	92	62-131

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34003
Units: ug/L
Diln Fac: 1

Prep Date: 05/16/97
Analysis Date: 05/16/97

LCS Lab ID: QC46207

Analyte	Result	Spike Added	%Rec	#	Limits
Benzene	17.72	20	89		80-120
Toluene	20.23	20	101		80-120
Ethylbenzene	18.06	20	90		80-120
m,p-Xylenes	38.11	40	95		80-120
o-Xylene	20.89	20	104		80-120

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	90	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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33955
Units: ug/L
Diln Fac: 1

Prep Date: 05/14/97
Analysis Date: 05/14/97

LCS Lab ID: QC46034

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	15.98	20	80	80-120
Toluene	17.68	20	88	80-120
Ethylbenzene	16.02	20	80	80-120
m,p-Xylenes	33.82	40	85	80-120
o-Xylene	18.46	20	92	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	87	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

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33929
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

LCS Lab ID: QC45935

Analyte	Result	Spike Added	%Rec	#	Limits
Benzene	16.59	20	83		80-120
Toluene	18.08	20	90		80-120
Ethylbenzene	16.89	20	84		80-120
m,p-Xylenes	35.75	40	89		80-120
o-Xylene	19.26	20	96		80-120

Surrogate	%Rec	Limits
Trifluorotoluene	78	58-130
Bromobenzene	92	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

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-001	MW-1	33919	05/09/97	05/12/97	05/16/97	
129239-002	MW-6	33919	05/09/97	05/12/97	05/16/97	
129239-003	MW-8	33919	05/09/97	05/12/97	05/14/97	
129239-004	MW-9	33919	05/09/97	05/12/97	05/14/97	

Matrix: Water

Analyte	Units	129239-001	129239-002	129239-003	129239-004
Diln Fac:		10	10	1	1
Diesel C12-C22	ug/L	28000 YL	53000 YL	120 YL	490 YL
Surrogate					
Hexacosane	%REC	DO	DO	90	93

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129239-005	MW-10	33919	05/09/97	05/12/97	05/14/97	

Matrix: Water

Analyte	Units	129239-005
Diln Fac:		1
Diesel C12-C22	ug/L	2500 YL
Surrogate		
Hexacosane	%REC	89

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 3520
Location: Connell Olds	

METHOD BLANK	
Matrix: Water	Prep Date: 05/12/97
Batch#: 33919	Analysis Date: 05/13/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC45900

Analyte	Result	
Diesel C12-C22	<50	
Surrogate	%Rec	Recovery Limits
Hexacosane	103	60-140

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33919
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/13/97

BS Lab ID: QC45901

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1857	75	60-140
Surrogate	%Rec	Limits		
Hexacosane	106	60-140		

BSD Lab ID: QC45902

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1831	74	60-140	1	35
Surrogate	%Rec	Limits				
Hexacosane	100	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

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	447.055	Prep Method:	EPA 3520
Location:	Connell Olds		
Field ID:	MW-1	Sampled:	05/09/97
Lab ID:	129239-001	Received:	05/09/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	5		

Analyte	Result	Reporting Limit
Phenol	93	47
2-Chlorophenol	ND	47
Benzyl alcohol	ND	47
2-Methylphenol	ND	47
4-Methylphenol	ND	47
2-Nitrophenol	ND	240
2,4-Dimethylphenol	ND	47
Benzoic acid	570	240
2,4-Dichlorophenol	ND	47
4-Chloro-3-methylphenol	ND	47
2,4,6-Trichlorophenol	ND	47
2,4,5-Trichlorophenol	ND	240
2,4-Dinitrophenol	ND	240
4-Nitrophenol	ND	240
4,6-Dinitro-2-methylphenol	ND	240
Pentachlorophenol	ND	240
N-Nitrosodimethylamine	ND	47
Aniline	ND	47
bis(2-Chloroethyl)ether	ND	47
1,3-Dichlorobenzene	ND	47
1,4-Dichlorobenzene	ND	47
1,2-Dichlorobenzene	ND	47
bis(2-Chloroisopropyl) ether	ND	47
N-Nitroso-di-n-propylamine	ND	47
Hexachloroethane	ND	47
Nitrobenzene	ND	47
Isophorone	ND	47
bis(2-Chloroethoxy)methane	ND	47
1,2,4-Trichlorobenzene	ND	47
Naphthalene	650	47
4-Chloroaniline	ND	47
Hexachlorobutadiene	ND	47
2-Methylnaphthalene	280	47
Hexachlorocyclopentadiene	ND	47
2-Chloronaphthalene	ND	47
2-Nitroaniline	ND	240
Dimethylphthalate	ND	47
Acenaphthylene	ND	47

Semivolatile Organics by GC/MS

Field ID:	MW-1	Sampled:	05/09/97
Lab ID:	129239-001	Received:	05/09/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	5		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	47
3-Nitroaniline	ND	240
Acenaphthene	ND	47
Dibenzofuran	ND	47
2,4-Dinitrotoluene	ND	47
Diethylphthalate	ND	47
4-Chlorophenyl-phenylether	ND	47
Fluorene	ND	47
4-Nitroaniline	ND	240
N-Nitrosodiphenylamine	ND	47
Azobenzene	ND	47
4-Bromophenyl-phenylether	ND	47
Hexachlorobenzene	ND	47
Phenanthrene	ND	47
Anthracene	ND	47
Di-n-butylphthalate	ND	47
Fluoranthene	ND	47
Pyrene	ND	47
Butylbenzylphthalate	ND	47
3,3'-Dichlorobenzidine	ND	240
Benzo(a)anthracene	ND	47
Chrysene	ND	47
bis(2-Ethylhexyl)phthalate	ND	47
Di-n-octylphthalate	ND	47
Benzo(b)fluoranthene	ND	47
Benzo(k)fluoranthene	ND	47
Benzo(a)pyrene	ND	47
Indeno(1,2,3-cd)pyrene	ND	47
Dibenz(a,h)anthracene	ND	47
Benzo(g,h,i)perylene	ND	47

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	69	21-110
Phenol-d5	82	10-110
2,4,6-Tribromophenol	68	10-123
Nitrobenzene-d5	86	35-114
2-Fluorobiphenyl	67	43-116
Terphenyl-d14	53	33-141

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33943
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

MB Lab ID: QC45991

Analyte	Result	Reporting Limit
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	10
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
bis(2-Chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
bis(2-Chloroisopropyl) ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
bis(2-Chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50

Lab #: 129239 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33943
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

MB Lab ID: QC45991

Analyte	Result	Reporting Limit
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	58	21-110
Phenol-d5	63	10-110
2,4,6-Tribromophenol	57	10-123
Nitrobenzene-d5	70	35-114
2-Fluorobiphenyl	70	43-116
Terphenyl-d14	82	33-141

Curtis & Tompkins, Ltd.

Lab #: 129239 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8270
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33943
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

BS Lab ID: QC45992

Analyte	Spike Added	BS	%Rec	#	Limits
Phenol	100	75.59	76		12-110
2-Chlorophenol	100	78.9	79		27-123
4-Chloro-3-methylphenol	100	73.95	74		23-97
4-Nitrophenol	100	61.86	62		10-80
Pentachlorophenol	100	52.17	52		9-103
1,4-Dichlorobenzene	50	31.62	63		36-97
N-Nitroso-di-n-propylamine	50	35.76	72		41-116
1,2,4-Trichlorobenzene	50	32.19	64		39-98
Acenaphthene	50	37.76	76		46-118
2,4-Dinitrotoluene	50	33.49	67		24-96
Pyrene	50	42.96	86		26-127

Surrogate	%Rec	Limits
2-Fluorophenol	68	21-110
Phenol-d5	71	10-110
2,4,6-Tribromophenol	62	10-123
Nitrobenzene-d5	81	35-114
2-Fluorobiphenyl	75	43-116
Terphenyl-d14	87	33-141

BSD Lab ID: QC45993

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Phenol	100	68.35	68		12-110	11		42
2-Chlorophenol	100	70.64	71		27-123	11		40
4-Chloro-3-methylphenol	100	67.81	68		23-97	8		42
4-Nitrophenol	100	56.06	56		10-80	10		50
Pentachlorophenol	100	43.83	44		9-103	17		50
1,4-Dichlorobenzene	50	29.45	59		36-97	7		28
N-Nitroso-di-n-propylamine	50	32.4	65		41-116	10		38
1,2,4-Trichlorobenzene	50	30.01	60		39-98	6		28
Acenaphthene	50	35.96	72		46-118	5		31
2,4-Dinitrotoluene	50	30.39	61		24-96	9		38
Pyrene	50	38.88	78		26-127	10		31

Surrogate	%Rec	Limits
2-Fluorophenol	60	21-110
Phenol-d5	63	10-110
2,4,6-Tribromophenol	57	10-123
Nitrobenzene-d5	72	35-114
2-Fluorobiphenyl	71	43-116
Terphenyl-d14	78	33-141

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

129239

CHAIN OF CUSTODY FORM

PAGE 1 OF 1

PROJECT NAME: Connell Olds
JOB NUMBER: 447.055
PROJECT CONTACT: Samuel Won
SAMPLED BY: Dennis Alexander
LAB: Curtis & Tompkins
TURNAROUND: NORmal
REQUESTED BY: Samuel Won

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TVH/BTXE	TEH	DCA	OxG	SVOCs
-1	MW-1	X						6	3					X			X		05	09	97	1345	*	X	X	X	X	X
-2	MW-6	X						6	1					X			X					1430	*	X	X	X		
-3	MW-8	X						6	1					X			X					1230		X	X	X		
-4	MW-9	X						6	1					X			X					0930		X	X	X		
-5	MW-10	X						6	1					X			X		05	09	97	0915		X	X	X		

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/9/97 3:55 p.m.		5/9/97 15:54
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: * These samples came from wells with product in them. Beware of high concentrations.

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

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 16-MAY-97
Lab Job Number: 129219
Project ID: 447.055
Location: Connell Olds

Reviewed by: Tracy Bobzien

Reviewed by: Damara Moore

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129219
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 447.055
LOCATION: CONNELL OLDS

DATE SAMPLED: 05/08/97
DATE RECEIVED: 05/08/97
DATE ANALYZED: 05/15-16/97
DATE REPORTED: 05/19/97
BATCH NO: 33983

EPA 8260

LAB ID	CLIENT ID	1,1-DCA (ug/L)	1,2-DCA (ug/L)	REPORTING LIMIT (mg/L)	SURROGATE RECOVERIES 1	2	3
129219-001	MW-2	ND	ND	1.0	99%	98%	94%
129219-002	MW-3	ND	ND	1.0	100%	98%	95%
129219-003	MW-4	ND	290	17	100%	97%	91%
129219-004	MW-5	ND	ND	1.0	99%	97%	92%
129219-005	MW-7	ND	ND	1.0	100%	96%	94%
129219-006	MW-11	ND	ND	1.0	100%	97%	94%
129219-007	MW-13	ND	5.5	1.0	99%	98%	94%
METHOD BLANK	N/A	ND	ND	1.0	99%	97%	90%

	Limits
1=Toluene-d8	87-125
2=Bromofluorobenzene	79-122
3= 1,2-Dichloroethane-d4	68-126

ND = Not detected at or above reporting limit.

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33983
Units: ug/L
Diln Fac: 1

Prep Date: 05/15/97
Analysis Date: 05/15/97

LCS Lab ID: QC46124

Analyte	Result	Spike Added	%Rec	#	Limits
1,1-Dichloroethene	45.36	50	91		51-180
Trichloroethene	46.65	50	93		73-141
Chlorobenzene	48.28	50	97		83-129

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

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 3 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129253-007
Matrix: Water
Batch#: 33983
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/09/97
Prep Date: 05/15/97
Analysis Date: 05/15/97

MS Lab ID: QC46133

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<1	41.33	83	51-180
Trichloroethene	50	80	119	78	73-141
Chlorobenzene	50	0.5679	46.6	92	83-129

Surrogate	%Rec	Limits
Toluene-d8	98	87-125
Bromofluorobenzene	97	79-122
1,2-Dichloroethane-d4	92	68-126

MSD Lab ID: QC46134

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	40.49	81	51-180	2	14
Trichloroethene	50	119	78	73-141	0	14
Chlorobenzene	50	46.13	91	83-129	1	13

Surrogate	%Rec	Limits
Toluene-d8	99	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	92	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-001	MW-2	33919	05/08/97	05/12/97	05/13/97	
129219-002	MW-3	33919	05/08/97	05/12/97	05/13/97	
129219-003	MW-4	33919	05/08/97	05/12/97	05/13/97	
129219-004	MW-5	33919	05/08/97	05/12/97	05/14/97	

Matrix: Water

Analyte	Units	129219-001	129219-002	129219-003	129219-004
Diln Fac:		1	1	1	1
Diesel C12-C22	ug/L	<50	<50	5100 YL	<50
Surrogate					
Hexacosane	%REC	90	92	97	90

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-005	MW-7	33919	05/08/97	05/12/97	05/14/97	
129219-006	MW-11	33919	05/08/97	05/12/97	05/14/97	
129219-007	MW-13	33919	05/08/97	05/12/97	05/14/97	

Matrix: Water

Analyte	Units	129219-005	129219-006	129219-007
Diln Fac:		1	1	1
Diesel C12-C22	ug/L	<50	<50	<50
Surrogate				
Hexacosane	%REC	87	92	90

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 3520
Location:	Connell Olds		

METHOD BLANK			
Matrix:	Water	Prep Date:	05/12/97
Batch#:	33919	Analysis Date:	05/13/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45900

Analyte	Result	
Diesel C12-C22	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	103	60-140

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33919
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/13/97

BS Lab ID: QC45901

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C12-C22	2475	1857	75		60-140
Surrogate	%Rec	Limits			
Hexacosane	106	60-140			

BSD Lab ID: QC45902

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C12-C22	2475	1831	74		60-140	1		35
Surrogate	%Rec	Limits						
Hexacosane	100	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

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-001	MW-2	33908	05/08/97	05/12/97	05/12/97	
129219-002	MW-3	33908	05/08/97	05/12/97	05/12/97	
129219-003	MW-4	33955	05/08/97	05/14/97	05/14/97	
129219-004	MW-5	33908	05/08/97	05/12/97	05/12/97	

Matrix: Water

Analyte	Units	129219-001	129219-002	129219-003	129219-004
Diln Fac:		1	1	100	1
Gasoline	ug/L	<50	<50	170000	<50
Surrogate					
Trifluorotoluene	%REC	86	85	82	83
Bromobenzene	%REC	89	87	90	88

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

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

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-005	MW-7	33908	05/08/97	05/12/97	05/12/97	
129219-006	MW-11	33908	05/08/97	05/12/97	05/12/97	
129219-007	MW-13	33908	05/08/97	05/12/97	05/12/97	

Matrix: Water

Analyte	Units	129219-005	129219-006	129219-007
Diln Fac:		1	1	1
Gasoline	ug/L	<50	<50	<50
Surrogate				
Trifluorotoluene	%REC	86	86	89
Bromobenzene	%REC	89	90	91

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-001	MW-2	33908	05/08/97	05/12/97	05/12/97	
129219-002	MW-3	33908	05/08/97	05/12/97	05/12/97	
129219-003	MW-4	33955	05/08/97	05/15/97	05/15/97	
129219-004	MW-5	33908	05/08/97	05/12/97	05/12/97	

Matrix: Water

Analyte	Units	129219-001	129219-002	129219-003	129219-004
Diln Fac:		1	1	200	1
Benzene	ug/L	<0.5	<0.5	16000	<0.5
Toluene	ug/L	0.66	0.67	37000	0.51
Ethylbenzene	ug/L	<0.5	<0.5	2400	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5	11000	<0.5
o-Xylene	ug/L	<0.5	<0.5	4900	<0.5
Surrogate					
Trifluorotoluene	%REC	83	83	84	83
Bromobenzene	%REC	100	100	89	99

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129219-005	MW-7	33908	05/08/97	05/12/97	05/12/97	
129219-006	MW-11	33908	05/08/97	05/12/97	05/12/97	
129219-007	MW-13	33908	05/08/97	05/12/97	05/12/97	

Matrix: Water

Analyte	Units	129219-005	129219-006	129219-007
Diln Fac:		1	1	1
Benzene	ug/L	<0.5	<0.5	81
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	83	84	86
Bromobenzene	%REC	101	101	107

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

METHOD BLANK

Matrix:	Water	Prep Date:	05/12/97
Batch#:	33908	Analysis Date:	05/12/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45845

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	83	65-135
Bromobenzene	83	65-135

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	

METHOD BLANK	
Matrix: Water	Prep Date: 05/12/97
Batch#: 33908	Analysis Date: 05/12/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC45845

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	80	58-130
Bromobenzene	88	62-131

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

METHOD BLANK

Matrix:	Water	Prep Date:	05/14/97
Batch#:	33955	Analysis Date:	05/14/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC46035

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	81	65-135
Bromobenzene	82	65-135

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
METHOD BLANK	
Matrix: Water	Prep Date: 05/14/97
Batch#: 33955	Analysis Date: 05/14/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC46035

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	71	58-130
Bromobenzene	79	62-131

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 05/12/97
Batch#: 33908	Analysis Date: 05/12/97
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC45843

Analyte	Result	Spike Added	%Rec	#	Limits
Gasoline	1908	2000	95		75-125

Surrogate	%Rec	Limits
Trifluorotoluene	85	65-135
Bromobenzene	118	65-135

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

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33908
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/12/97

LCS Lab ID: QC45844

Analyte	Result	Spike Added	%Rec	#	Limits
Benzene	19.82	20	99		80-120
Toluene	18.72	20	94		80-120
Ethylbenzene	19.03	20	95		80-120
m,p-Xylenes	34.67	40	87		80-120
o-Xylene	21.15	20	106		80-120

Surrogate	%Rec	Limits
Trifluorotoluene	85	58-130
Bromobenzene	102	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

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

LABORATORY CONTROL SAMPLE			
Matrix:	Water	Prep Date:	05/14/97
Batch#:	33955	Analysis Date:	05/14/97
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC46033

Analyte	Result	Spike Added	%Rec	#	Limits
Gasoline	2096	2000	105		75-125

Surrogate	%Rec	Limits
Trifluorotoluene	87	65-135
Bromobenzene	99	65-135

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

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33955
Units: ug/L
Diln Fac: 1

Prep Date: 05/14/97
Analysis Date: 05/14/97

LCS Lab ID: QC46034

Analyte	Result	Spike Added	%Rec	#	Limits
Benzene	15.98	20	80		80-120
Toluene	17.68	20	88		80-120
Ethylbenzene	16.02	20	80		80-120
m,p-Xylenes	33.82	40	85		80-120
o-Xylene	18.46	20	92		80-120

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	87	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

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129182-007
Matrix: Water
Batch#: 33908
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/06/97
Prep Date: 05/12/97
Analysis Date: 05/12/97

MS Lab ID: QC45846

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	20	<0.5	18.6	93	75-125
Toluene	20	<0.5	17.51	88	75-125
Ethylbenzene	20	<0.5	18.1	91	75-125
m,p-Xylenes	40	<0.5	32.18	80	75-125
o-Xylene	20	<0.5	19.84	99	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	86	58-130
Bromobenzene	110	62-131

MSD Lab ID: QC45847

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	20	19.24	96	75-125	3	20
Toluene	20	18.58	93	75-125	6	20
Ethylbenzene	20	18.69	93	75-125	3	20
m,p-Xylenes	40	33.46	84	75-125	4	20
o-Xylene	20	20.58	103	75-125	4	20

Surrogate	%Rec	Limits
Trifluorotoluene	86	58-130
Bromobenzene	110	62-131

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

Curtis & Tompkins, Ltd.

Lab #: 129219 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/13/97
Lab ID:	129260-002	Received Date:	05/13/97
Matrix:	Water	Prep Date:	05/14/97
Batch#:	33955	Analysis Date:	05/14/97
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC46036

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	2088	104	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	87	65-135			
Bromobenzene	99	65-135			

MSD Lab ID: QC46037

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1947	97	75-125	7	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	85	65-135				
Bromobenzene	100	65-135				

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

129219

PAGE 1 OF 1

PROJECT NAME: Connell Olds
JOB NUMBER: 447.055
PROJECT CONTACT: Samuel Won
SAMPLED BY: Dennis Alexander

LAB: Curtis & Tompkins
TURNAROUND: Normal
REQUESTED BY: Samuel Won

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH/BTXE	TEH	DCA
-1	MW-2	X				6	1			X			X		05	08	97	1115		X	X	X
-2	MW-3	X				6	1			X			X					1200		X	X	X
-3	MW-4	X				6	1			X			X					1545	*	X	X	X
-4	MW-5	X				6	1			X			X					1400		X	X	X
	MW-6	X				6	1			X			X							X	X	X
-5	MW-7	X				6	1			X			X					1315		X	X	X
-6	MW-11	X				6	1			X			X					1015		X	X	X
-7	MW-13	X				6	1			X			X		05	08	97	0930		X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/8/97 4:40 p.m.		5/8/97 16:40
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: * This sample is from a well with product. Possible high concentrations.

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