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ENVIRONMENTAL PROTECTION
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June 6, 1996
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 1996 Event
3093 Broadway
Oakland, California

Dear Messers Hill & Linden:

This letter records the results of May 1996 groundwater monitoring event 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 UST 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.

Subsurface Consultants, Inc.

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

MONITORING EVENT RESULTS

A. General

In accordance with the CAP, this event was the annual monitoring event. On May 2 and June 5, 1996 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. Free product removal data are summarized in Table 2. Groundwater and free product elevation data are summarized in Table 3. Our interpretation of the flow direction and gradient for the May 1996 event are presented on Plate 2.

On May 2, 1996 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 characterization testing of individual samples was performed by Curtis & Tompkins, Ltd. A summary of sample preparation and test methods are presented below.

Analysis	Sample Preparation Method	Analysis Method
Hydrocarbon Oil & Grease	SMWW 5520	SMWW 5520
Total Volatile Hydrocarbons (TVH)	EPA 5030	EPA 8015 Mod.
Total Extractable Hydrocarbons (TEH)	EPA 3550	EPA 8015 Mod.
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	EPA 5030	EPA 8020
Semi Volatile Organics	EPA 3520	EPA 8270
Halogenated Volatile Organics	EPA 5030	EPA 8010

Analytical test results are summarized in Table 1. Field sampling forms, analytical test reports and chain-of-custody documents are attached.

CONCLUSIONS

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. During the May 1996 event, the product thickness in MW-1, located near the suspected source area, was about 0.04 feet. This thickness is less than previous measurements, but consistent with seasonal trends in this well. The product thickness in MW-4 (0.25 feet), and MW-6 (4.6 feet) were consistent with previous events.

On June 5, 1996, free product was recovered from monitoring wells MW-1, MW-4 and MW-6. The product thicknesses in MW-1 (0.10 feet), MW-4 (0.15 feet), and MW-6 (4.0 feet) were consistent with previous events. To date, approximately 123 gallons of product have been removed as summarized in Table 2.

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.

Dissolved Product Plume

The distribution of the dissolved product plume remains the same 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 only detectable concentrations of 1,2-DCA as it did during the December 1995 event.

Future Monitoring

The next monitoring event will be a quarterly event which will occur in July 1996.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

Samuel C. Won
Project Engineer

Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/99)
Registered Environmental Assessor 03130 (exp. 6/30/96)

SCW:JNA:sld

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. 5/2/96
Field forms
Analytical test reports
Chain-of-custody documents

1 copy submitted

cc: √ Ms. Susan Hugo
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Mr. Jonathan Redding
Fitzgerald, Abbott & Beardsley
1221 Broadway, 12th Floor
Oakland, California 94612

Table 1.
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l
MW-1	Oct-90	620,000	<500	33,000	50,000	7,900	41,000	2,900	ND	--	--
	Oct-92	490,000	--	51,000	59,000	5,000	27,000	1,300	--	--	--
	Nov-92	320,000	4,600	35,000	43,000	4,200	22,000	1,600	ND	--	--
	Apr-93	270,000	25,000	50,000	58,000	4,600	25,000	1,800	ND	--	--
	Jul-93	FP	--	--	--	--	--	--	--	--	--
	Nov-93	FP	--	--	--	--	--	--	--	--	--
	Aug-95	FP	--	--	--	--	--	--	--	10	
	Dec-95	FP	--	--	--	--	--	--	--	--	**
	May-96	340,000	32,000	57,000	73,000	7,200	38,000	1,200		<5	**
MW-2	Mar-91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-92	<50	<50	<0.5	1.1	<0.5	1.5	<1	ND	--	--
	Apr-93	<50	870	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Jul-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-93	<50	240	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Aug-95	<50	150*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
MW-3	Mar-91	<50	<50	<50	0.6	<0.5	<0.5	<1	ND	--	--
	Nov-92	50	160	<0.5	0.9	<0.5	2	<1	ND	--	--
	Apr-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Jul-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Aug-95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	--	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--

Table 1.
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l
MW-4	Mar-91	150,000	<500	20,000	38,000	2,800	14,000	610	ND	--	--
	Oct-92	230,000	--	15,000	32,000	2,500	14,000	430	--	--	--
	Nov-92	210,000	1,600	14,000	31,000	2,500	14,000	500	ND	--	--
	Apr-93	FP	--	--	--	--	--	--	--	--	--
	Jul-93	FP	--	--	--	--	--	--	--	--	--
	Nov-93	FP	--	--	--	--	--	--	--	--	--
	Aug-95	FP	--	--	--	--	--	--	--	--	--
	Dec-95	FP	--	--	--	--	--	--	--	--	--
	May-96	140,000	9,200	24,000	50,000	3,000	15,100	420	ND	--	--
MW-5	Mar-91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-92	<50	50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Apr-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Jul-93	<50	190	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-93	<50	170	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Aug-95	<50	180*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
MW-6	Mar-91	80,000	<50	12,000	13,000	1,100	5,400	1,400	Dibromochloro-methane (160)	--	--
	Oct-92	19,000	--	3,200	1,400	200	560	840	--	--	--
	Dec-92	FP	--	--	--	--	--	--	--	--	--
	Apr-93	FP	--	--	--	--	--	--	--	--	--
	Jul-93	FP	--	--	--	--	--	--	--	--	--

Table 1.

SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l
	Nov-93	FP	--	--	--	--	--	--	--	--	--
	Aug-95	FP	--	--	--	--	--	--	--	--	--
	May-96	130,000	9,000	37,000	50,000	3,200	14,200	2,400	ND	--	--
MW-7	Mar-91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-92	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Apr-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Jul-93	<50	150	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-93	<50	200	<0.5	1	<0.5	1.7	<1	ND	--	--
	Aug-95	<50	170*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--
	Dec-95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
MW-8	Oct-92	70	--	20	1	1	3	210	--	--	--
	Nov-92	<50	170	<0.5	<0.5	<0.5	<0.5	200	ND	--	--
	Apr-93	490	100	15	45	5.1	73	210	ND	--	--
	Jul-93	180	90	2.5	3	<0.5	1.9	350	ND	--	--
	Nov-93	310	170	23	<0.5	<0.5	<0.5	240	ND	--	--
	Aug-95	660	240*	360	6.8	13	2.8	130	--	--	--
	Dec-95	250	<50	46	0.9	4.9	<0.5	94	ND	--	--
	May-96	69	94	110	<0.5	<0.5	1.5	100	ND	--	--

Table 1.
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l
MW-9	Nov-92	19,000	320	180	590	23	2000	340	Chloroform (15)	--	--
	Apr-93	2,300	920	48	4	0.6	13	600	Chloroform (2)	--	--
	Jul-93	2,300	450	170	8.1	15	<0.5	1100	ND	--	--
	Nov-93	4,400	450	69	7.3	21	9.7	900	ND	--	--
	Aug-95	3,200	680	3,900	49	80	22.8	960	--	--	--
	May-96	<1300	710	2,600	<13	200	<13	550	ND	--	--
MW-10	Oct-92	28,000	--	2,700	3,800	210	1,300	150	--	--	--
	Nov-92	130,000	1,300	9,700	19,000	1,400	8,400	370	ND	--	--
	Apr-93	63,000	5,000	6,300	14,000	1,100	7,500	70	ND	--	--
	Jul-93	140,000	20,000	16,000	31,000	2,200	13,000	700	ND	--	--
	Aug-95	92,000	5,900	13,000	24,000	1,800	9,100	300	--	--	--
	May-96	81,000	5,600	17,000	29,000	2,100	8,500	320	ND	--	--
MW-11	Nov-92	<50	220	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Dec-92	<50	140	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	Dec-92	<50	120	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	Apr-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Jul-93	160	150	<0.5	1.8	<0.5	<0.5	<1	ND	--	--
	Nov-93	80	60	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Aug-95	<50	240*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--

Table 1.
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER FROM MONITORING WELLS

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l
MW-13	Nov-92	<50	3,600	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Dec-92	<50	210	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	Dec-92	<50	100	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	Apr-93	<50	<50	<0.5	0.9	<0.5	<0.5	<1	ND	--	--
	Jul-93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Nov-93	<50	160	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--
	Aug-95	<50	<50	49	<0.5	<0.5	<0.5	3.6	--	--	--
	Dec-95	<50	<50	<0.5	<0.5	<0.5	<0.5	4.1	ND	--	--
	May-96	<50	<50	<0.5	<0.5	<0.5	<0.5	4	ND	--	--

ug/l = micrograms per liter = parts per billion = ppb

MW-1 was initially referred to as Sample 5

ND = None detected, chemicals not present at concentrations above detection limits reported on laboratory test reports

TVH = Total Volatile Hydrocarbons

TEH = Total Extractable Hydrocarbons

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

* = Suspect laboratory contamination contributing to test result.

1,2-DCA = 1,2-Dichloroethane

<0.5 = Chemical not present at a concentration in excess of detection limit shown

-- = Test not requested

FP = Free product encountered in well

** = 2,4-dichlorophenol (1,700), naphthalene (1,200), 2-methylnapthalene (630), bis (2-ethylhexyl) phthalate (240) detected during August 1995 event, naphthalene (640), 2-methylnapthalene (250) during the May 1996 event

Table 2
FREE PRODUCT RECOVERY

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (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
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
	3/13/92	3.50	24.50
	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

Table 2
FREE PRODUCT RECOVERY

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-4	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
	2/2/96	0.10	46.94
	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
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

Table 2
FREE PRODUCT RECOVERY

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-6	4/20/92	0.13	22.26
	5/4/92	0.13	22.39
	5/8/92	0.06	22.45
	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
Cumulative Total of Product Removed			123.00 Gallons

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Table 3

GROUNDWATER AND FREE PRODUCT ELEVATION DATA

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
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	--

Table 3
GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-2	94.81	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	--
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	--
		4/4/96	18.50	71.58	0.00	--
		5/2/96	18.43	71.65	0.00	--
		6/5/96	18.51	71.57	0.00	--

Table 3
GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
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
		3/31/92	21.15	67.69	0.44	68.13
		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

Table 3
GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-4	88.84	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
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	--
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

Table 3

GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-6	85.62	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
		7/29/92	26.90	58.72	1.71	60.43
		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
MW-7	85.41	3/18/91	21.63	63.78	NM	--
		4/12/91	22.13	63.28	NM	--
		5/18/92	21.67	63.74	NM	--
		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	--

Table 3
GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-7	85.41	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	--
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	--
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	--
		7/20/93	21.54	68.83	0.00	--
		11/9/93	27.53	62.84	0.00	--

Table 3

GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-9	90.37	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	--
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	--
		11/30/95	19.03	69.57	0.00	--
		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	--
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	--

Table 3
GROUNDWATER AND FREE PRODUCT ELEVATION DATA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-11	102.06	4/4/96	28.13	73.93	0.00	--
		5/2/96	28.26	74.06	0.00	--
		6/5/96	28.30	74.02	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	--

Reference datum: arbitrary benchmark established by Levine Fricke.
TOC = Top of casing
Groundwater depths are measured below TOC.
NM = Not measured

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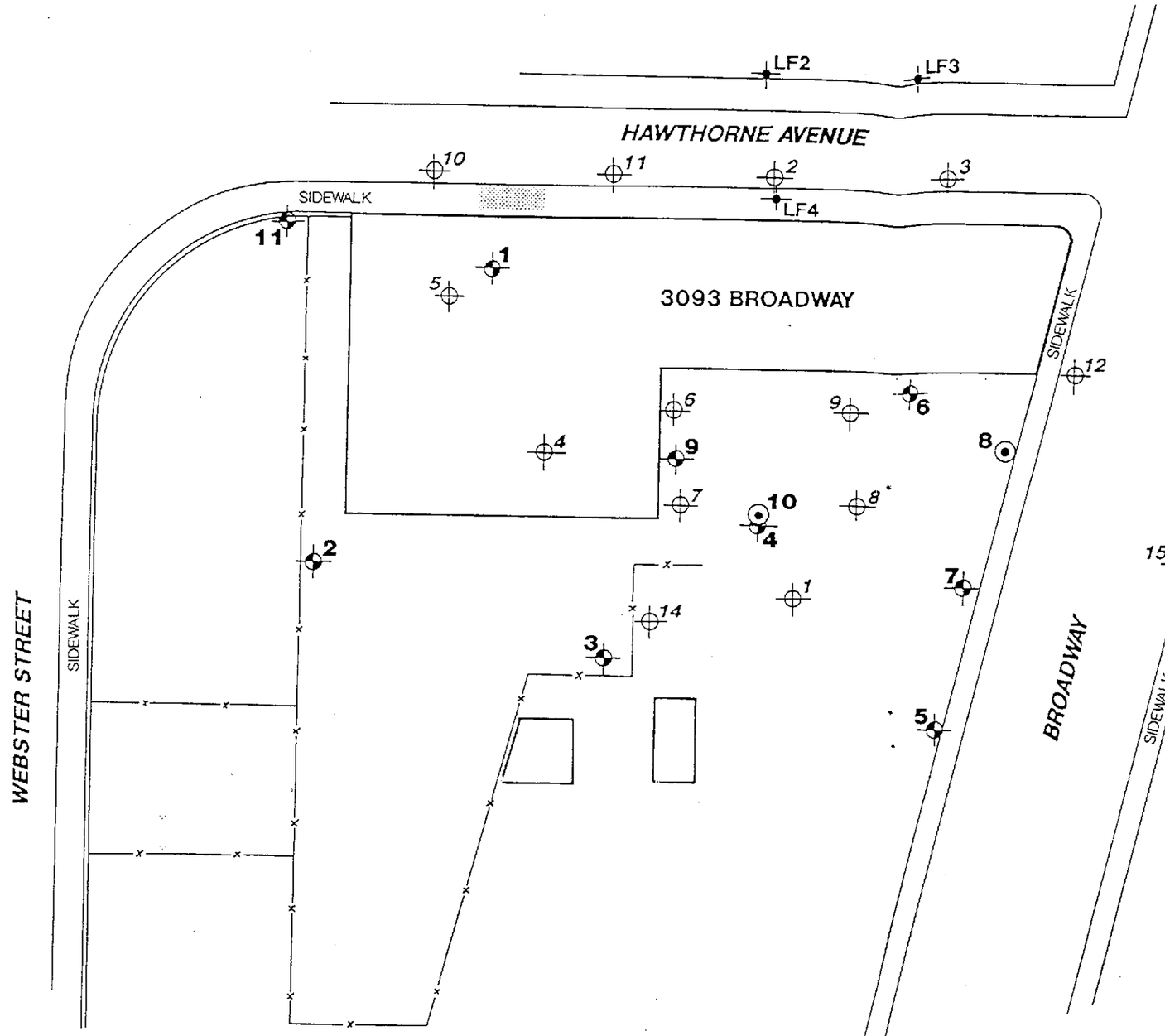
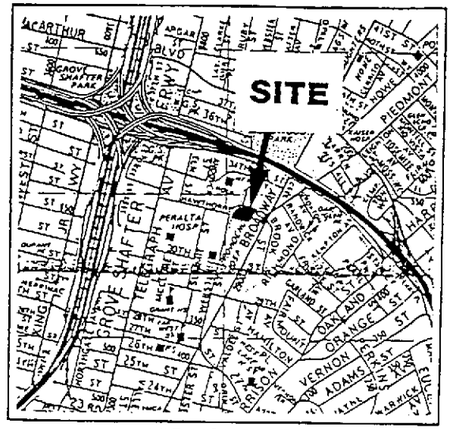




VICINITY MAP

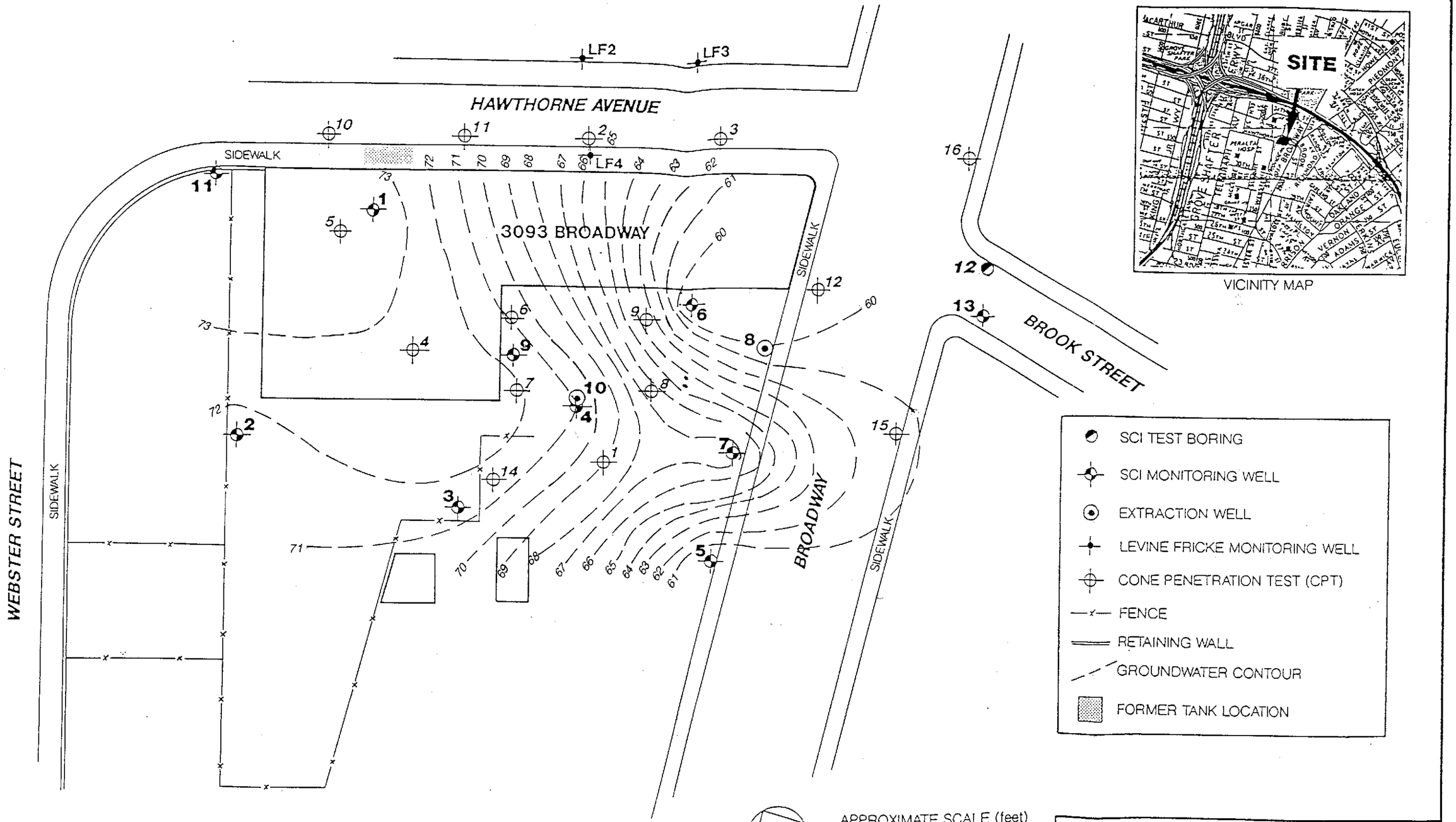
SITE PLAN

Subsurface Consultants

CONNELL OLDSMOBILE – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
447.055	9/14/95	

PLATE 1



NOTE: GROUNDWATER DATA FOR MW-4 AND MW-6 WERE NOT USED IN ESTIMATING GROUNDWATER SURFACE DUE TO THE PRESENCE OF FLOATING PRODUCT IN THE WELLS.

GROUNDWATER SURFACE ELEVATION CONTOURS MAY 2, 1996

Subsurface Consultants

CONNELL OLDSMOBILE – OAKLAND, CA

JOB NUMBER	DATE	APPROVED
447.055	5/28/96	

PLATE 2

GROUNDWATER DEPTHS

Project Name: Connell Olds

Job No.: 447.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	5/2/96	10:20	20' 11½"	Top of Product = 20' 11" Product thickness = ½" Bailed = 0 gals.
MW-2		0840	23.37'	
MW-3		0845	18.43'	
MW-4		0900	17.6"	Top of Product = 17' 3" Product thickness = 3" Bailed = 2 YOA's New cap
MW-5		0950	26.02'	
MW-6		0930	26' 10"	Top of Product = 22' 1¾" Product thickness = 4' 8¼" Bailed = 4.5 gallons
MW-7		0915	17.15'	
MW-8		0910	26.15	
MW-9		0850	18.63'	
MW-10		10:05	17.04	
MW-11		0835	28.26'	
MW-13	↓	0825	23.35'	

GROUNDWATER DEPTHS

Project Name: Connell olds

Job No.: 441.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	6/5/96	10:10	20' 11 3/4"	Top of Product = 20' 11 1/4" Product thickness = 1/2" " Bailed = 1 VOA
MW-2		0800	~~23~~ 23.75	under pressure
MW-3		0805	18.51	
MW-4		0825	17' 8"	Top of Product = 17' 3 3/8" Product thickness = 4 5/8" " Bailed = 1/2 liter
MW-5		0950	25.91'	under pressure
MW-6		0915	27' 1 3/4"	Top of Product = 21' 11 3/4" Product thickness = 5' 2" " Bailed = 4 gals.
MW-7		0930	17.47'	
MW-8		0935	26.17	
MW-9		0945	18.76	
MW-10		0940	17.11	
MW-11		0750	28.30	
MW-13		0745	23.07'	

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-1
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/2/96
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 35.00 feet
Depth to Groundwater (below TOC) 20.97 feet
Feet of Water in Well 14.03 feet
Depth to Groundwater When 80% Recovered 23.78 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 ½" thick no visible product in bailer
Purge Method disposable bailer

FIELD MEASUREMENTS

fast recharge

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.21	74.2	826		clear/strong odor
3	6.83	70.7	716		semi-clear w/sheen
5	6.83	69.1	673		
7	6.76	68.3	653		

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 22.41 feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 39.50 feet
Depth to Groundwater (below TOC) 23.37' feet
Feet of Water in Well 16.13 feet
Depth to Groundwater When 80% Recovered 26.60 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.6 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

fast recharge

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.84	69.9	498		clear/no odor
4	7.46	68.3	452		
6	7.29	67.2	443		
8	7.23	67.4	408		

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 26.60' feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 34.00 feet
Depth to Groundwater (below TOC) 18.43 feet
Feet of Water in Well 15.57 feet
Depth to Groundwater When 80% Recovered 21.54 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

moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.68	66.3	516		murky/no odor
4	7.55	66.3	508		clear
6	7.28	65.9	504		semi-clear
8	7.16	66.3	507		clear

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 21.54' feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/2/96
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 24.50 feet
Depth to Groundwater (below TOC) 17.50 feet
Feet of Water in Well 7.00 feet
Depth to Groundwater When 80% Recovered 18.90 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 3" thick (1/4" thick ring visible in bailer)
Purge Method disposable bailer

immediate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	8.43	77.7	525		clear/very strong odor
4	7.98	76.3	453		
6	7.66	77.2	425		
8	7.62	74.9	413		

Total Gallons Purged gallons
Depth to Groundwater Before Sampling (below TOC) 17.50 feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/3/96
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 34.00 feet
Depth to Groundwater (below TOC) 26.02 feet
Feet of Water in Well 7.98 feet
Depth to Groundwater When 80% Recovered 27.62 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.3 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.81	64.1	473		clear/no odor
2	7.52	65.1	466		semi-clear
3	7.42	66.5	487		murky
4	7.35	67.4	494		

Total Gallons Purged 4 gallons
Depth to Groundwater Before Sampling (below TOC) 27.29' feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 33.00 feet
Depth to Groundwater (below TOC) 26.85 feet
Feet of Water in Well 6.15 feet
Depth to Groundwater When 80% Recovered 28.08 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.0 gallons
Depth Measurement Method (Tape & Paste) / Electronic Sounder / Other
Free Product 4' 8¼" thick
Purge Method disposable bailer fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.27	69.9	625		clear w/ 3"-4" product on top
4	7.19	69.2	602		" / with ½" product
6	7.18	68.3	585		"
8	7.04	68.4	558		" / with ¼" product
10	7.01	68.7	587		" / with ⅛" product

Total Gallons Purged 10 gallons
Depth to Groundwater Before Sampling (below TOC) 26.91 feet
Sampling Method disposable bailer
Containers Used 4 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-7
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/2/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 30.00 feet
Depth to Groundwater (below TOC) 17.15 feet
Feet of Water in Well 12.85 feet
Depth to Groundwater When 80% Recovered 19.72 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

fast recharge

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	8.06	76.7	443		murky / no odor
3	7.62	75.3	491		↓
5	7.61	75.0	516		
7	7.38	74.0	565		semi-clear

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 19.67' feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 39.50 feet
Depth to Groundwater (below TOC) 26.15 feet
Feet of Water in Well 13.35 feet
Depth to Groundwater When 80% Recovered 28.82 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 18.6 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method 4" pump

moderate recharge Rate = 1' per 2 min.

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
20	7.47	72.8	654		clear/strong odor
30	7.16	71.9	606		semi-clear/ DRY @ 30 gals.
40	7.71	72.4	641		clear
50	7.50	72.3	600		semi-clear/ DRY @ 50 gals
60	7.39	72.4	610		

Total Gallons Purged 60 gallons
Depth to Groundwater Before Sampling (below TOC) 28.82' feet
Sampling Method disposable bailer
Containers Used 4 (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: 5/2/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 30.50 feet
Depth to Groundwater (below TOC) 18.63 feet
Feet of Water in Well 11.87 feet
Depth to Groundwater When 80% Recovered 21.00 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.9 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	7.78	73.4	860		clear/strong/odor
2	7.08	72.0	660		semi-clear
4	7.17	73.2	646		murky/dry@4 gals.
6	7.60	73.8	624		dry@6 gals

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 20.96' feet
Sampling Method disposable bailer
Containers Used 4 (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.: 447.055 Well Casing Diameter: 6 inch

Sampled By: DWA Date: 5/3/96

TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 34.50 feet

Depth to Groundwater (below TOC) 17.04 feet

Feet of Water in Well 17.46 feet

Depth to Groundwater When 80% Recovered 20.53 feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 25.7 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method 4" pump

fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
30	7.19	73.8	528		clear strong odor
40	7.40	70.9	524		
50	7.32	69.5	481		
60	7.27	69.7	495		
70	7.25	69.8	498		

Total Gallons Purged 77 gallons

Depth to Groundwater Before Sampling (below TOC) 17.04' feet

Sampling Method disposable bailer

Containers Used 4 (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.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 37.00 feet
Depth to Groundwater (below TOC) 28.26 feet
Feet of Water in Well 8.74 feet
Depth to Groundwater When 80% Recovered 30.01 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.4 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

FIELD MEASUREMENTS

immediate recharge

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.63	68.3	693		murky/no odor
2	7.41	67.5	687		
3	7.42	67.0	678		
4	7.40	68.9	677		
5	7.47	67.2	680		

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 28.26 feet
Sampling Method disposable bailer
Containers Used 4 (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.: 447055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 5/3/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 40.00 feet
Depth to Groundwater (below TOC) 23.35 feet
Feet of Water in Well 16.65 feet
Depth to Groundwater When 80% Recovered 26.68 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/moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	8.07	61.7	483		clear/no odor
4	7.49	62.1	456		
6	7.68	62.2	446		
8	7.45	63.3	445		

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 26.68 feet
Sampling Method disposable bailer
Containers Used 4 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

CHAIN OF CUSTODY FORM

PAGE ____ OF ____

PROJECT NAME: Connell Olds

JOB NUMBER: 447.055 LAB: Curtis & Tompkins

PROJECT CONTACT: Jim Helge TURNAROUND: Normal

SAMPLED BY: Dennis Alexander REQUESTED BY: Jim Helge

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	O&G	DCA	Semi-Volatiles (8270)
	MW-1	X						4	3					X			X		05	02	96	1245		X	X	X	X	X
	MW-2	X						4	1					X			X		05	03	96	1045		X	X		X	
	MW-3	X						4	1					X			X		05	03	96	0915		X	X		X	
	MW-4	X						4	1					X			X		05	02	96	1415		X	X		X	
	MW-5	X						4	1					X			X		05	03	96	0830		X	X		X	
	MW-6	X						4	1					X			X		05	03	96	1200	*	X	X		X	
	MW-7	X						4	1					X			X		05	02	96	1330		X	X		X	
	MW-8	X						4	1					X			X		05	03	96	1400		X	X		X	
	MW-9	X						4	1					X			X		05	02	96	1145		X	X		X	
	MW-10	X						4	1					X			X		05	03	96	1500		X	X		X	
	MW-11	X						4	1					X			X		05	03	96	1000		X	X		X	
	MW-13	X						4	1					X			X		05	03	96	0800		X	X		X	

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/3/96 4:15 p.m.	[signature]	5.3.96 4:14
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 well had free product in it. Sample does not have free product in it but does have high concentrations. BEWARE!

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

Subsurface Consultants, Inc.

EXPENSE RECORD for SCI FIELD SERVICES and FIELD SUPPLIES

PROJECT NAME: Connell Olds	JOB NUMBER: 447.055	DATE SUBMITTED: 5/6/96
SUBMITTED BY: D. Alexander	ENTERED BY:	

TYPE OF FIELD SUPPLY/FIELD SERVICE	UNIT NUMBER	NUMBER OF UNITS/DAYS	COST
PH/Cond. Meter	53009	2	$ 20.00
Bailers	53023	22	176.00
Generator	53001	2	50.00
4" Pump	53011	1	25.00
Cap	53037	1	22.91

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 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	39.64
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

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

A N A L Y T I C A L R E P O R T

Prepared for:

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

Date: 15-MAY-96
Lab Job Number: 125437
Project ID: 447.055
Location: Connell Olds

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 125437

Project Name: Connell Olds
Project Number: 447.055

Report Date: 10 May 96

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

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
125437-001	MW-1	Water	02-MAY-96	03-MAY-96	08-MAY-96	ND	mg/L	5	TR	27476

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: 125437
Report Date: 10 May 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 27476**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	08-MAY-96

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520BF	08-MAY-96
BSD	88%	SMWW 17:5520BF	08-MAY-96

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	3.5%	< 20%

Semivolatile Organics by GC/MS

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

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: MW-1
Lab ID: 125437-001
Matrix: Water
Batch#: 27427
Units: ug/L
Diln Fac: 5

Sampled: 05/02/96
Received: 05/03/96
Extracted: 05/06/96
Analyzed: 05/09/96

Analyte	Result	Reporting Limit
Phenol	ND	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	ND	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	640	47
4-Chloroaniline	ND	47
Hexachlorobutadiene	ND	47
2-Methylnaphthalene	250	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:	05/02/96
Lab ID:	125437-001	Received:	05/03/96
Matrix:	Water	Extracted:	05/06/96
Batch#:	27427	Analyzed:	05/09/96
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	112*	21-110
Phenol-d5	17	10-110
2,4,6-Tribromophenol	108	10-123
Nitrobenzene-d5	127*	35-114
2-Fluorobiphenyl	76	43-116
Terphenyl-d14	51	33-141

* Values outside of QC limits

Curtis & Tompkins, Ltd.

Lab #: 125437 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#: 27427
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/96
Analysis Date: 05/08/96

MB Lab ID: QC21042

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

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#: 27427
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/96
Analysis Date: 05/08/96

MB Lab ID: QC21042

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	80	21-110
Phenol-d5	92	10-110
2,4,6-Tribromophenol	90	10-123
Nitrobenzene-d5	90	35-114
2-Fluorobiphenyl	93	43-116
Terphenyl-d14	85	33-141

Curtis & Tompkins, Ltd.

Lab #: 125437 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#: 27427
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/96
Analysis Date: 05/08/96

BS Lab ID: QC21043

Analyte	Spike Added	BS	%Rec #	Limits
Phenol	100	81.69	82	12-110
2-Chlorophenol	100	85.95	86	27-123
4-Chloro-3-methylphenol	100	72.61	73	23-97
4-Nitrophenol	100	48.27	48	10-80
Pentachlorophenol	100	45.38	45	9-103
1,4-Dichlorobenzene	50	42.51	85	36-97
N-Nitroso-di-n-propylamine	50	47.93	96	41-116
1,2,4-Trichlorobenzene	50	45.84	92	39-98
Acenaphthene	50	44.77	90	46-118
2,4-Dinitrotoluene	50	36.72	73	24-96
Pyrene	50	39.21	78	26-127

Surrogate	%Rec	Limits
2-Fluorophenol	82	21-110
Phenol-d5	90	10-110
2,4,6-Tribromophenol	88	10-123
Nitrobenzene-d5	89	35-114
2-Fluorobiphenyl	90	43-116
Terphenyl-d14	80	33-141

BSD Lab ID: QC21044

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Phenol	100	85.55	86	12-110	5	<42
2-Chlorophenol	100	88.25	88	27-123	3	<40
4-Chloro-3-methylphenol	100	74.35	74	23-97	2	<42
4-Nitrophenol	100	50.87	51	10-80	5	<50
Pentachlorophenol	100	47.75	48	9-103	5	<50
1,4-Dichlorobenzene	50	42.79	86	36-97	1	<28
N-Nitroso-di-n-propylamine	50	50.46	101	41-116	5	<38
1,2,4-Trichlorobenzene	50	45.19	90	39-98	1	<28
Acenaphthene	50	46.66	93	46-118	4	<31
2,4-Dinitrotoluene	50	37.85	76	24-96	3	<38
Pyrene	50	40.46	81	26-127	3	<31

Surrogate	%Rec	Limits
2-Fluorophenol	84	21-110
Phenol-d5	93	10-110
2,4,6-Tribromophenol	92	10-123
Nitrobenzene-d5	91	35-114
2-Fluorobiphenyl	93	43-116
Terphenyl-d14	83	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

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
125437-001	MW-1	27470	05/02/96	05/09/96	05/09/96	
125437-002	MW-2	27470	05/03/96	05/08/96	05/08/96	
125437-003	MW-3	27470	05/03/96	05/08/96	05/08/96	
125437-004	MW-4	27470	05/02/96	05/08/96	05/08/96	

Analyte Diln Fac:	Units	125437-001 500	125437-002 1	125437-003 1	125437-004 500
Gasoline	ug/L	340000 YZ	<50	<50	140000 YZ
Surrogate					
Trifluorotoluene	%REC	99	97	96	98
Bromobenzene	%REC	91	88	86	86

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks

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
125437-005	MW-5	27470	05/03/96	05/08/96	05/08/96	
125437-006	MW-6	27470	05/03/96	05/09/96	05/09/96	
125437-007	MW-7	27470	05/02/96	05/08/96	05/08/96	
125437-008	MW-8	27470	05/03/96	05/08/96	05/08/96	

Analyte Diln Fac:	Units	125437-005 1	125437-006 500	125437-007 1	125437-008 1
Gasoline	ug/L	<50	130000 YZ	<50	69 Y
Surrogate					
Trifluorotoluene	%REC	95	98	96	98
Bromobenzene	%REC	84	87	85	91

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks

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
125437-009	MW-9	27503	05/02/96	05/09/96	05/09/96	
125437-010	MW-10	27470	05/03/96	05/09/96	05/09/96	
125437-011	MW-11	27470	05/03/96	05/09/96	05/09/96	
125437-012	MW-13	27470	05/03/96	05/09/96	05/09/96	

Analyte Diln Fac:	Units	125437-009 25	125437-010 500	125437-011 1	125437-012 1
Gasoline	ug/L	<1300	81000 YZ	<50	<50
Surrogate					
Trifluorotoluene	%REC	97	98	94	95
Bromobenzene	%REC	87	86	82	83

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks

Curtis & Tompkins, Ltd.

Lab #: 125437 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

METHOD BLANK

Matrix: Water
Batch#: 27470
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

MB Lab ID: QC21209

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	100	69-120
Bromobenzene	91	70-122

Curtis & Tompkins, Ltd.

Lab #: 125437 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

METHOD BLANK

Matrix: Water
Batch#: 27503
Units: ug/L
Diln Fac: 1

Prep Date: 05/09/96
Analysis Date: 05/09/96

MB Lab ID: QC21348

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	95	69-120
Bromobenzene	81	70-122

Curtis & Tompkins, Ltd.

Lab #: 125437 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

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 27470
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

LCS Lab ID: QC21210

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1881	2000	94	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	103	69-120		
Bromobenzene	102	70-122		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 125437 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

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 27503
Units: ug/L
Diln Fac: 1

Prep Date: 05/09/96
Analysis Date: 05/09/96

LCS Lab ID: QC21349

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1856	2006	93	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	103	69-120		
Bromobenzene	101	70-122		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

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
125437-001	MW-1	27470	05/02/96	05/09/96	05/09/96	
125437-002	MW-2	27470	05/03/96	05/08/96	05/08/96	
125437-003	MW-3	27470	05/03/96	05/08/96	05/08/96	
125437-004	MW-4	27470	05/02/96	05/08/96	05/08/96	

Analyte Diln Fac:	Units	125437-001 500	125437-002 1	125437-003 1	125437-004 500
Benzene	ug/L	57000	<0.5	<0.5	24000
Toluene	ug/L	73000	<0.5	<0.5	50000
Ethylbenzene	ug/L	7200	<0.5	<0.5	3000
m,p-Xylenes	ug/L	26000	<0.5	<0.5	10000
o-Xylene	ug/L	12000	<0.5	<0.5	5100
Surrogate					
Trifluorotoluene	%REC	108	103	102	105
Bromobenzene	%REC	99	97	94	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
125437-005	MW-5	27470	05/03/96	05/08/96	05/08/96	
125437-006	MW-6	27470	05/03/96	05/09/96	05/09/96	
125437-007	MW-7	27470	05/02/96	05/08/96	05/08/96	
125437-008	MW-8	27470	05/03/96	05/08/96	05/08/96	

Analyte Diln Fac:	Units	125437-005 1	125437-006 500	125437-007 1	125437-008 1
Benzene	ug/L	<0.5	37000	<0.5	110
Toluene	ug/L	<0.5	50000	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	3200	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	9600	<0.5	1.5C
o-Xylene	ug/L	<0.5	4600	<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	101	106	102	106
Bromobenzene	%REC	92	96	93	99

C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

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
125437-009	MW-9	27503	05/02/96	05/09/96	05/09/96	
125437-010	MW-10	27470	05/03/96	05/09/96	05/09/96	
125437-011	MW-11	27470	05/03/96	05/09/96	05/09/96	
125437-012	MW-13	27470	05/03/96	05/09/96	05/09/96	

Analyte	Units	125437-009	125437-010	125437-011	125437-012
Diln Fac:		25	500	1	1
Benzene	ug/L	2600	17000	<0.5	<0.5
Toluene	ug/L	<13	29000	<0.5	<0.5
Ethylbenzene	ug/L	200	2100	<0.5	<0.5
m,p-Xylenes	ug/L	<13	5400	<0.5	<0.5
o-Xylene	ug/L	<13	3100	<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	105	105	101	103
Bromobenzene	%REC	96	93	89	90

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

BTXE

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

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 27470
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

MB Lab ID: QC21209

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	108	58-130
Bromobenzene	100	62-131

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

BTXE

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

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 27503
Units: ug/L
Diln Fac: 1

Prep Date: 05/09/96
Analysis Date: 05/09/96

MB Lab ID: QC21348

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	101	58-130
Bromobenzene	90	62-131

Curtis & Tompkins, Ltd.

Lab #: 125437 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#: 27470
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

LCS Lab ID: QC21211

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	18.6	20	93	80-120
Toluene	24	20	120	80-120
Ethylbenzene	22.3	20	112	80-120
m,p-Xylenes	47.8	40	120	80-120
o-Xylene	24	20	120	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	103	58-130
Bromobenzene	96	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 #: 125437 BATCH QC REPORT

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

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 05/09/96
Batch#: 27503	Analysis Date: 05/09/96
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC21350

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	21.5	20	108	80-120
Toluene	22	20	110	80-120
Ethylbenzene	21.6	20	108	80-120
m,p-Xylenes	45.2	40	113	80-120
o-Xylene	21.7	20	108	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	104	58-130
Bromobenzene	94	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
125437-001	MW-1	27460	05/02/96	05/07/96	05/08/96	
125437-002	MW-2	27460	05/03/96	05/07/96	05/08/96	
125437-003	MW-3	27460	05/03/96	05/07/96	05/09/96	
125437-004	MW-4	27460	05/02/96	05/07/96	05/09/96	

Analyte Diln Fac:	Units	125437-001 5	125437-002 1	125437-003 1	125437-004 5
Diesel Range	ug/L	32000 YL	<50	<50	9200 YL
Surrogate					
Hexacosane	%REC	92	105	102	92

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
125437-005	MW-5	27460	05/03/96	05/07/96	05/09/96	
125437-006	MW-6	27460	05/03/96	05/07/96	05/09/96	
125437-007	MW-7	27460	05/02/96	05/07/96	05/09/96	
125437-008	MW-8	27460	05/03/96	05/07/96	05/09/96	

Analyte Diln Fac:	Units	125437-005 1	125437-006 5	125437-007 1	125437-008 1
Diesel Range	ug/L	<50	9000 YL	<50	94 YL
Surrogate					
Hexacosane	%REC	101	89	104	99

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
125437-009	MW-9	27460	05/02/96	05/07/96	05/09/96	
125437-010	MW-10	27460	05/03/96	05/07/96	05/09/96	
125437-011	MW-11	27460	05/03/96	05/07/96	05/09/96	
125437-012	MW-13	27460	05/03/96	05/07/96	05/09/96	

Analyte Diln Fac:	Units	125437-009 1	125437-010 1	125437-011 1	125437-012 1
Diesel Range	ug/L	710 YL	5600 YL	<50	<50
Surrogate					
Hexacosane	%REC	97	98	104	102

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

Curtis & Tompkins, Ltd.

Lab #: 125437 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

METHOD BLANK

Matrix: Water
Batch#: 27460
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/96
Analysis Date: 05/08/96

MB Lab ID: QC21171

Analyte	Result	
Diesel Range	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	102	60-140

Curtis & Tompkins, Ltd.

Lab #: 125437 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	

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water	Prep Date: 05/07/96
Batch#: 27460	Analysis Date: 05/08/96
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC21172

Analyte	Spike Added	BS	%Rec #	Limits
Diesel Range	2475	2553	103	60-140
Surrogate	%Rec	Limits		
Hexacosane	102	60-140		

BSD Lab ID: QC21173

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel Range	2475	2736	111	60-140	7	<35
Surrogate	%Rec	Limits				
Hexacosane	105	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

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-1
Lab ID: 125437-001
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 50

Sampled: 05/02/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	100
Bromomethane	ND	100
Vinyl Chloride	ND	100
Chloroethane	ND	100
Methylene Chloride	ND	1000
Trichlorofluoromethane	ND	50
1,1-Dichloroethene	ND	50
1,1-Dichloroethane	ND	50
cis-1,2-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	50
Chloroform	ND	50
Freon 113	ND	50
1,2-Dichloroethane	1200	50
1,1,1-Trichloroethane	ND	50
Carbon Tetrachloride	ND	50
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	50
cis-1,3-Dichloropropene	ND	50
Trichloroethene	ND	50
1,1,2-Trichloroethane	ND	50
trans-1,3-Dichloropropene	ND	50
Dibromochloromethane	ND	50
Bromoform	ND	100
Tetrachloroethene	ND	50
1,1,2,2-Tetrachloroethane	ND	50
Chlorobenzene	ND	50
1,3-Dichlorobenzene	ND	50
1,4-Dichlorobenzene	ND	50
1,2-Dichlorobenzene	ND	50

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

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-2
Lab ID: 125437-002
Matrix: Water
Batch#: 27475
Units: ug/L
Diln Fac: 1

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/09/96
Analyzed: 05/09/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	93	79-122
1,2-Dichloroethane-d4	99	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-3
Lab ID: 125437-003
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	106	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	97	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-4
Lab ID: 125437-004
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 12.5

Sampled: 05/02/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	25
Bromomethane	ND	25
Vinyl Chloride	ND	25
Chloroethane	ND	25
Methylene Chloride	ND	250
Trichlorofluoromethane	ND	13
1,1-Dichloroethene	ND	13
1,1-Dichloroethane	ND	13
cis-1,2-Dichloroethene	ND	13
trans-1,2-Dichloroethene	ND	13
Chloroform	ND	13
Freon 113	ND	13
1,2-Dichloroethane	420	13
1,1,1-Trichloroethane	ND	13
Carbon Tetrachloride	ND	13
Bromodichloromethane	ND	13
1,2-Dichloropropane	ND	13
cis-1,3-Dichloropropene	ND	13
Trichloroethene	ND	13
1,1,2-Trichloroethane	ND	13
trans-1,3-Dichloropropene	ND	13
Dibromochloromethane	ND	13
Bromoform	ND	25
Tetrachloroethene	ND	13
1,1,2,2-Tetrachloroethane	ND	13
Chlorobenzene	ND	13
1,3-Dichlorobenzene	ND	13
1,4-Dichlorobenzene	ND	13
1,2-Dichlorobenzene	ND	13

Surrogate	%Recovery	Recovery Limits
Toluene-d8	97	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	94	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-5
Lab ID: 125437-005
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	103	87-125
Bromofluorobenzene	85	79-122
1,2-Dichloroethane-d4	100	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-6
Lab ID: 125437-006
Matrix: Water
Batch#: 27419
Units: ug/L
Diln Fac: 50

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/06/96
Analyzed: 05/06/96

Analyte	Result	Reporting Limit
Chloromethane	ND	100
Bromomethane	ND	100
Vinyl Chloride	ND	100
Chloroethane	ND	100
Methylene Chloride	ND	1000
Trichlorofluoromethane	ND	50
1,1-Dichloroethene	ND	50
1,1-Dichloroethane	ND	50
cis-1,2-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	50
Chloroform	ND	50
Freon 113	ND	50
1,2-Dichloroethane	2400	50
1,1,1-Trichloroethane	ND	50
Carbon Tetrachloride	ND	50
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	50
cis-1,3-Dichloropropene	ND	50
Trichloroethene	ND	50
1,1,2-Trichloroethane	ND	50
trans-1,3-Dichloropropene	ND	50
Dibromochloromethane	ND	50
Bromoform	ND	100
Tetrachloroethene	ND	50
1,1,2,2-Tetrachloroethane	ND	50
Chlorobenzene	ND	50
1,3-Dichlorobenzene	ND	50
1,4-Dichlorobenzene	ND	50
1,2-Dichlorobenzene	ND	50

Surrogate	%Recovery	Recovery Limits
Toluene-d8	99	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	100	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-7
Lab ID: 125437-007
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Sampled: 05/02/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	103	87-125
Bromofluorobenzene	87	79-122
1,2-Dichloroethane-d4	98	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-8
Lab ID: 125437-008
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 2.5

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	50
Trichlorofluoromethane	ND	2.5
1,1-Dichloroethene	ND	2.5
1,1-Dichloroethane	ND	2.5
cis-1,2-Dichloroethene	ND	2.5
trans-1,2-Dichloroethene	ND	2.5
Chloroform	ND	2.5
Freon 113	ND	2.5
1,2-Dichloroethane	100	2.5
1,1,1-Trichloroethane	ND	2.5
Carbon Tetrachloride	ND	2.5
Bromodichloromethane	ND	2.5
1,2-Dichloropropane	ND	2.5
cis-1,3-Dichloropropene	ND	2.5
Trichloroethene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
trans-1,3-Dichloropropene	ND	2.5
Dibromochloromethane	ND	2.5
Bromoform	ND	5.0
Tetrachloroethene	ND	2.5
1,1,2,2-Tetrachloroethane	ND	2.5
Chlorobenzene	ND	2.5
1,3-Dichlorobenzene	ND	2.5
1,4-Dichlorobenzene	ND	2.5
1,2-Dichlorobenzene	ND	2.5

Surrogate	%Recovery	Recovery Limits
Toluene-d8	102	87-125
Bromofluorobenzene	89	79-122
1,2-Dichloroethane-d4	101	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-9
Lab ID: 125437-009
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 12.5

Sampled: 05/02/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	25
Bromomethane	ND	25
Vinyl Chloride	ND	25
Chloroethane	ND	25
Methylene Chloride	ND	250
Trichlorofluoromethane	ND	13
1,1-Dichloroethene	ND	13
1,1-Dichloroethane	ND	13
cis-1,2-Dichloroethene	ND	13
trans-1,2-Dichloroethene	ND	13
Chloroform	ND	13
Freon 113	ND	13
1,2-Dichloroethane	550	13
1,1,1-Trichloroethane	ND	13
Carbon Tetrachloride	ND	13
Bromodichloromethane	ND	13
1,2-Dichloropropane	ND	13
cis-1,3-Dichloropropene	ND	13
Trichloroethene	ND	13
1,1,2-Trichloroethane	ND	13
trans-1,3-Dichloropropene	ND	13
Dibromochloromethane	ND	13
Bromoform	ND	25
Tetrachloroethene	ND	13
1,1,2,2-Tetrachloroethane	ND	13
Chlorobenzene	ND	13
1,3-Dichlorobenzene	ND	13
1,4-Dichlorobenzene	ND	13
1,2-Dichlorobenzene	ND	13

Surrogate	%Recovery	Recovery Limits
Toluene-d8	99	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	94	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-10
Lab ID: 125437-010
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 50

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	100
Bromomethane	ND	100
Vinyl Chloride	ND	100
Chloroethane	ND	100
Methylene Chloride	ND	1000
Trichlorofluoromethane	ND	50
1,1-Dichloroethene	ND	50
1,1-Dichloroethane	ND	50
cis-1,2-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	50
Chloroform	ND	50
Freon 113	ND	50
1,2-Dichloroethane	320	50
1,1,1-Trichloroethane	ND	50
Carbon Tetrachloride	ND	50
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	50
cis-1,3-Dichloropropene	ND	50
Trichloroethene	ND	50
1,1,2-Trichloroethane	ND	50
trans-1,3-Dichloropropene	ND	50
Dibromochloromethane	ND	50
Bromoform	ND	100
Tetrachloroethene	ND	50
1,1,2,2-Tetrachloroethane	ND	50
Chlorobenzene	ND	50
1,3-Dichlorobenzene	ND	50
1,4-Dichlorobenzene	ND	50
1,2-Dichlorobenzene	ND	50

Surrogate	%Recovery	Recovery Limits
Toluene-d8	99	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	101	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-11
Lab ID: 125437-011
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	103	87-125
Bromofluorobenzene	87	79-122
1,2-Dichloroethane-d4	107	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: MW-13
Lab ID: 125437-012
Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Sampled: 05/03/96
Received: 05/03/96
Extracted: 05/08/96
Analyzed: 05/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	4.0	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	106	87-125
Bromofluorobenzene	86	79-122
1,2-Dichloroethane-d4	101	68-126

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 27419
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/96
Analysis Date: 05/06/96

MB Lab ID: QC21007

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Rec	Recovery Limits
Toluene-d8	97	87-125
Bromofluorobenzene	86	79-122
1,2-Dichloroethane-d4	103	68-126

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

MB Lab ID: QC21183

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Rec	Recovery Limits
Toluene-d8	102	87-125
Bromofluorobenzene	89	79-122
1,2-Dichloroethane-d4	100	68-126

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons
EPA 8010 Analyte List

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 27475
Units: ug/L
Diln Fac: 1

Prep Date: 05/09/96
Analysis Date: 05/09/96

MB Lab ID: QC21233

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Rec	Recovery Limits
Toluene-d8	99	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	96	68-126

Curtis & Tompkins, Ltd.

Lab #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 27419
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/96
Analysis Date: 05/06/96

LCS Lab ID: QC21006

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	69.73	50	139	51-180
Trichloroethene	53.01	50	106	73-141
Chlorobenzene	49.88	50	100	83-129

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	99	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 #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 27463
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/96
Analysis Date: 05/08/96

LCS Lab ID: QC21182

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	12.76	10	128	51-180
Trichloroethene	10.3	10	103	73-141
Chlorobenzene	9.875	10	99	83-129

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	89	79-122
1,2-Dichloroethane-d4	101	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 #: 125437 BATCH QC REPORT

EPA 8010 Purgeable Halocarbons

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

Analysis Method: EPA 8240
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 27475
Units: ug/L
Diln Fac: 1

Prep Date: 05/09/96
Analysis Date: 05/09/96

LCS Lab ID: QC21232

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	13.53	10	135	51-180
Trichloroethene	10.51	10	105	73-141
Chlorobenzene	9.767	10	98	83-129

Surrogate	%Rec	Limits
Toluene-d8	101	87-125
Bromofluorobenzene	88	79-122
1,2-Dichloroethane-d4	93	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

CHAIN OF CUSTODY FORM

12543 7

PAGE OF

PROJECT NAME: Connell Olds

JOB NUMBER: 447.055 LAB: Curtis & Tompkins

PROJECT CONTACT: Jim Helge TURNAROUND: Normal

SAMPLED BY: Dennis Alexander REQUESTED BY: Jim Helge

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE				NOTES	ANALYSIS REQUESTED									
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE			HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME		TVH/BTXE	TEH	O&G	DCA	Semi-Volatiles (8270)					
-1	MW-1	X						4	3					X			X		05	02	96	1245		X	X	X	X	X					
-2	MW-2	X						4	1					X			X		05	03	96	1045		X	X		X						
-3	MW-3	X						4	1					X			X		05	03	96	0915		X	X		X						
-4	MW-4	X						4	1					X			X		05	02	96	1415		X	X		X						
-5	MW-5	X						4	1					X			X		05	03	96	0830		X	X		X						
-6	MW-6	X						4	1					X			X		05	03	96	1200	*	X	X		X						
-7	MW-7	X						4	1					X			X		05	02	96	1330		X	X		X						
-8	MW-8	X						4	1					X			X		05	03	96	1400		X	X		X						
-9	MW-9	X						4	1					X			X		05	02	96	1145		X	X		X						
-10	MW-10	X						4	1					X			X		05	03	96	1500		X	X		X						
-11	MW-11	X						4	1					X			X		05	03	96	1000		X	X		X						
-12	MW-13	X						4	1					X			X		05	03	96	0800		X	X		X						

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/3/96 4:15 p.m.		5.3.96 4:14
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 well had free product in it. Sample does not have free product in it but does have high concentrations. BEWARE!

Subsurface Consultants, Inc.

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