February 19, 2003

R0413

Alameda County
FEB 26 2003
Environmental Health

Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

4/2/03

Re: property on 1970 Seminary Ave, Oakland CA

Dear Ms. Chu:

Enclosed please find enclosed, a copy of the January, 2003 Ground Water Sampling Report dated February 10, 2003 as prepared by Hoexter Consulting, Inc. If you have any questions regarding this report, please feel free to contact me directly or my consultant, Paul Hoffey of Erler and Kalinowski, Inc.

Sincerely,

Angel LaMarca, (on behalf of Doyle, E. Grimit)
945 S. Lehigh Dr.
Anaheim Hills, CA 92807
714-282-7475 home
714-493-0121 cell phone, voicemail

cc: Paul Hoffey, Erler & Kalinowski, Inc

20413

JANUARY 2003
GROUND WATER SAMPLING REPORT
FOR
STID 553 - GRIMIT AUTO AND REPAIR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

February 10, 2003

Prepared by

HOEXTER CONSULTING, INC.
734 Torreya Court
Palo Alto, California 94303-4160

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Geology / Engineering Geology / Environmental Studies

HOEXTER CONSULTING, INC.
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February 10, 2003

E-10-1E-391E
HCQuartEnvtRpts:Sem.1970/18(1/03)

Mr. Doyle Grimit
c/o Angel La Marca
945 S. Lehigh St.
Anaheim Hills, California 92807

RE: **JANUARY, 2003**
GROUND WATER SAMPLING REPORT
STID 553 - GRIMIT AUTO AND REPAIR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

Dear Mr. Grimit:

Enclosed is our January, 2003 ground water sampling report for the property located at 1970 Seminary Avenue, corner of Harmon Avenue, in Oakland, California. Sampling at the site dates from August, 1990. The results of previous sampling events are included in the analytical results summary tables.

The results of this investigation indicate that the water samples from the nine wells continue to range from relatively low to elevated levels of total petroleum hydrocarbons as gasoline (TPH-G); purgeable aromatic compounds (BTEX) and MTBE; oil (total recoverable petroleum hydrocarbons, TRPH); and halogenated volatile compounds (HVOC). The analyses indicate that all analyzed compounds remain at levels of the same order-of-magnitude as previous results, with an overall although highly variable average decrease in contaminant levels since initiation of sampling, and an average increase in contaminant levels in comparison to the previous July, 2002 sampling event. The increase in contaminant levels may relate to an increase in ground water elevation since the previous sampling event.

Ground water elevations increased from the previous July, 2002 sampling event. Ground water gradient directions, which differ between the "shallow" and "deep" wells, were similar to previous sampling events for the shallow wells and similar although further to the west for the deeper wells. The gradient inclination was similar to previous events.

We recommend that copies of the enclosed report be submitted to the Alameda County Health Care Services Agency. The next round of sampling is currently scheduled to be

conducted during July, 2003. We understand that a corrective action work plan to conduct site remediation is currently being prepared by others.

We appreciate the opportunity to provide services to you on this project and trust this report meets your needs at this time. If you have any questions, or require additional information, please do not hesitate to call.

Very truly yours,

HOEXTER CONSULTING, INC.

David F. Hoexter, RG/CEG/REA (Geology registrations expire 11/30/03)
Principal Geologist

Copies: Addressee (4)

JANUARY 2003
GROUND WATER SAMPLING REPORT

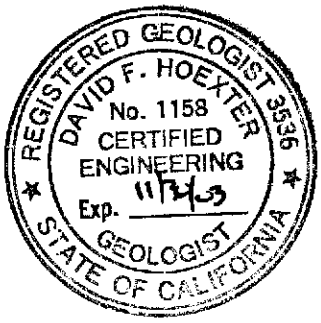
For

STID 553 - Grimit Auto and Repair
1970 Seminary Avenue
Oakland, California

To

Mr. Doyle Grimit
c/o Angel La Marca
945 S. Lehigh St.
Anaheim Hills, California 92807

February 10, 2003



David F. Hoexter, RG/CEG/REA
Principal Geologist

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JANUARY 2003
GROUND WATER SAMPLING REPORT
FOR
STID 553 - GRIMIT AUTO AND REPAIR
1970 SEMINARY
OAKLAND, CALIFORNIA

1.0 INTRODUCTION

This report presents the results of the January 2003 ground water sampling at 1970 Seminary Avenue, Oakland, California. The project location is shown on the Location Map, Figure 1. The scope of services provided during this investigation consisted primarily of collecting and analyzing ground water samples from each of the nine monitoring wells installed at the site. Ground water samples were analyzed for petroleum hydrocarbons and halogenated volatile organic compounds. Well and other previous sampling locations are shown on Figure 2, Site Plan.

2.0 FIELD INVESTIGATION

The ground water monitoring wells were sampled by representatives of Hoexter Consulting, Inc. Due to past, very slow equilibration of ground water levels, the well caps were loosened on January 18, 2003 (approximately 48 hours prior to the planned water level measurement, purging and sampling). The wells were then secured with the caps sufficiently loose to allow venting, and left to equilibrate until they were sampled. The wells were purged and sampled following water level measurements on January 20, 2003.

As noted, the well caps were loosened prior to the water level measurement, to allow the water level in the wells to equilibrate. Following ground water level measurement (Table 1) at the time of purging, each well was checked for free-product with the bailer, and then three to four well-casing volumes of water were purged from the well. A dedicated polyethylene bailer was employed for each well. Ground water parameters, including temperature, pH and specific conductivity, were measured prior to and following each purge volume removal.

The samples were collected using the dedicated bailer, placed in appropriate sample containers supplied by the analytical laboratory, labeled, and placed in refrigerated storage for transport to the laboratory under chain-of-custody control. All sampling equipment was thoroughly cleaned with "Alconox" detergent and rinsed with distilled water prior to sampling the well. Monitoring well sampling logs and the chain of custody are attached to this report as a part of Appendix A.

Prior to purging, ground water levels were measured in each well using the top of 2-inch PVC casing (generally the north side) as reference point. The average ground water elevation increased in all wells compared to the prior (July, 2002) sampling event. The "deeper" wells averaged an elevation increase of 4.09 feet, with each of the five wells increasing in elevation; the "shallow" wells rose an average of 2.70 feet, with all four measured wells increasing in elevation.

Well-top elevations, depth to water, and calculated water-surface elevations are presented in Table 1. These data have been used to generate the Ground Water Contour and Gradient Direction Maps, Figures 3A ("shallow wells") and 3B ("deep wells").

Table 1B summarizes the ground water gradient direction and inclination data for the site, including previous measurements. The ground water gradient direction and inclination are essentially consistent with the previous data. The data for the four "shallow" wells indicate a gradient direction towards Seminary Avenue. The apparent gradient varies across the site, but averages 0.22 foot per foot in the source area. The approximate gradient direction is N 50° W. The data for the five "deeper" wells indicate an opposing gradient direction away from Seminary Avenue towards the east and southeast. The apparent gradient varies across the site, but averages 0.19 foot per foot near the source area. The approximate gradient direction is S 50° E.

The data appear to indicate a downward gradient from a relatively shallow (perched ?) zone represented by the "shallow" wells to the deeper zone represented by the "deeper" wells, particularly in the source area. Based on the slow equilibration and recovery time following purging, we infer a relatively slow ground water flow rate, despite the unusually steep gradient.

3.0 ANALYTICAL RESULTS

3.1 Laboratory Procedures

The ground water samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California. McCampbell Analytical is certified by the State of California EPA/DTSC for the conducted analyses. The samples were analyzed as follows:

- Total petroleum hydrocarbons as gasoline (TPH-G) using EPA Method 5030/8015.
- Purgeable aromatic compounds (BTEX) and MTBE using EPA Method 8020.
- Oil and grease (total recoverable petroleum, TRPH) using SM 5520B/F, gravimetric with cleanup.
- Halogenated volatile organic compounds (HVOC) by EPA Method 8010.

3.2 Observations and Analytical Results

Approximately 1/4 inch of free-phase product (visually appearing as oil) was observed in well MW-1 following the initial sounding. This occurrence is typical of MW-1. Wells MW-4 and MW-8 exhibited visual sheen. The volume of product increased during well purging, with a prominent accumulation of product (although not a measurable thickness) accumulating on the surface of the purge water from these three wells. A sheen is common for well MW-4, although less common for MW-8. There was no observed sheen or product in the initial or subsequent purge water of the other wells, except for a minor sheen from well MW-7. Three wells dewatered prior to completion of a complete four-volume purge. These wells included MW-3, 4, and 9. In most cases, these wells had recovered to near 80 per cent of initial water level prior to being sampled.

The results of the chemical analyses are summarized on Tables 2 through 6 and are attached to this report as a part of Appendix A. Analytical results of all previous testing are also included in the tables. The results in Tables 4 and 5 are of parameters not currently tested for; the results in Table 6 are from a one-time sampling event during February, 2002. The current analytical results indicate that TRPH, TPH-G, and BTEX compounds, as well as HVOCs, are present at elevated levels which are generally on the same order of magnitude as the most recent, previous analyses.

TPH-G and BTEX levels generally increased in all nine wells, contrary to the generally downward trend over the life of the wells. Detected levels in wells MW-2 through 9, as during previous sampling events, are generally one to two orders of magnitude less than in MW-1. Oil/grease were detected in well MW-1 only. Various HVOCs were detected in each well, with an average slight decrease (with exceptions) in contaminant levels. See Tables 2 and 3 for the presence and concentrations of particular BTEX and HVOC compounds.

4.0 CONCLUSIONS AND RECOMMENDATIONS

All nine wells were available for sampling.

Overall contaminant levels remain elevated, with moderate average increases of TPH-G, and BTEX from the previous sampling event. Concentrations of the HVOC compounds, with exceptions, declined slightly on average. Over the life of the wells, concentrations have declined. The Alameda County Health Care Services Agency has concurred with our previous recommendation that a corrective action plan (CAP) be prepared to address this condition. We understand that a CAP is currently being prepared by others.

5.0 LIMITATIONS

This report has been prepared according to generally accepted geologic and environmental practices. No other warranty, either expressed or implied as to the methods, results, conclusions or professional advice provided is made. It should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during an investigation of this type. If you wish to reduce the level of uncertainty associated with this study, we should be contacted for additional consultation.

The analysis, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our investigation; review of previous reports relevant to the site conditions; and laboratory results from an outside analytical laboratory. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.

* *

TABLE 1A

GROUND WATER ELEVATION DATA
(All Measurements in Feet)

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-1 ("deep")			
8/6/90	37.0	21.5	15.5
1/28/92		21.0	16.0
4/27/92		20.95	16.05
8/10/92		22.20	14.8
2/11/94		15.93 (3)	21.07 (3)
2/28/94		13.85 (4)	23.15 (4)
9/9/94		20.19	16.81
12/28/94		14.91	22.09
4/13/95		14.18	22.82
11/1/95		20.90	16.10
3/8/96		11.82	25.18
3/25-26/96	36.97	13.54	23.43
10/7/96		21.41	15.59
1/15/97		13.34	23.63
6/23/97	36.99	19.91	17.08
10/6/97		21.55	15.44
12/12/98		16.24	20.75
4/24/99		14.21	22.78
12/18/99		19.28	17.71
7/22/00		21.93	15.93
1/29/01		19.49	17.50
7/28/01		19.84	17.15
2/3/02		16.03	20.96
7/23/02		20.45	16.54
1/20/03		15.08	21.91
MW-2 ("deep")			
2/11/94	36.40	14.16 (3)	22.24 (3)
2/28/94		16.01 (4)	20.39 (4)
9/9/94		18.96	17.44
12/28/94		21.42	14.98
4/13/95		19.69	16.71
11/1/95		21.91	14.49
3/8/96		14.56 (6)	21.84 (6)
3/25-26/96	36.39	10.84	25.55
10/7/96		18.41	17.98
1/15/97		10.07	26.32
6/23/97	36.40	13.73	22.67
10/6/97		17.03	19.37
12/12/98		11.39	25.01
4/24/99		10.45	25.95
12/18/99		13.22	23.18

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-2 ("deep") cont'			
7/22/00		13.73	22.67
1/29/01		12.25	24.15
7/28/01		16.73 (6)	19.67 (6)
2/3/02		11.40	25.00
7/23/02		13.42	22.98
1/20/03		10.49	25.91
MW-3 ("shallow")			
2/11/94	36.94	6.97 (3)	29.97 (3)
2/28/94		7.74 (4)	29.20 (4)
9/9/94		9.68	27.26
12/28/94		8.15	28.79
4/13/95		8.05	28.89
11/1/95		7.82	29.12
3/8/96		5.69	31.25
3/25-26/96	36.94	6.91	30.03
10/7/96		9.51	27.43
1/15/97		6.23	30.71
6/23/97	36.94	9.65	27.29
10/6/97		10.53	26.41
12/12/98		7.12	29.82
4/24/99		7.17	29.77
12/18/99		8.51	28.43
7/22/00		9.41	27.53
1/29/01		7.23	29.71
7/28/01		8.63	28.31
2/3/02		7.99	28.95
7/23/02		10.17	26.77
1/20/03		6.76	30.18
MW-4 ("deep")			
3/25-26/96	36.46	14.14	22.32
10/7/96		22.31	14.15
1/15/97		13.78	22.68
6/23/97	36.47	20.90	15.57
10/6/97		22.77	13.60
12/12/98		17.16	19.31
4/24/99		14.55	21.92
12/18/99		20.46	16.01
7/22/00		20.67	15.80
1/29/01		18.06	18.41
7/28/01		20.80	15.67
2/3/02		15.53	20.94
7/23/02		20.26	16.21
1/20/03		15.26	21.21

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-5 ("deep")			
3/25-26/96	36.77	15.63	21.14
10/7/96		22.86	13.91
1/15/97		17.33	19.44
6/23/97	36.77	21.91	14.86
10/6/97		24.26	12.51
12/12/98		20.66	16.11
4/24/99		17.19	19.58
12/18/99		22.71	14.06
7/22/00		21.42	15.35
1/29/01		20.79	15.98
7/28/01		21.07	15.70
2/3/02		17.67	19.10
7/23/02		20.16	16.61
1/20/03		17.21	19.56
MW-6 ("shallow")			
3/25-26/96	36.42	8.52	27.90
10/7/96		12.82	23.60
1/15/97		7.72	28.70
6/23/97	36.42	11.42	25.00
10/6/97		12.67	23.75
12/12/98		9.15	27.27
4/24/99		8.56	27.86
12/18/99		10.53	25.89
7/22/00		11.50	24.92
1/29/01		9.34	27.08
7/28/01		N/A	N/A
2/3/02		9.32	27.10
7/23/02		11.33	25.09
1/20/03		8.49	27.93
MW-7 ("deep")			
6/23/97	36.83	19.93	16.90
10/6/97		21.43	15.40
12/12/98		16.56	20.27
4/24/99		14.48	22.35
12/18/99		19.40	17.43
7/22/00		19.85	16.98
1/29/01		17.59	19.24
7/28/01		20.05	16.78
2/3/02		15.89	20.94
7/23/02		19.57	17.26
1/20/03		15.36	21.47

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
MW-8 ("shallow")			
6/23/97	36.55	5.74	30.81
10/6/97		5.69	30.86
12/12/98		4.01	32.54
4/24/99		4.40	32.15
12/18/99		4.91	31.64
7/22/00		5.47	31.08
1/29/01		3.01	33.54
7/28/01		4.92	31.63
2/3/02		3.82	32.73
7/23/02		5.11	31.44
1/20/03		3.57	32.98
MW-9 ("shallow")			
6/23/97	36.70	17.04	19.66
10/6/97		19.17	20.53
12/12/98		14.18	22.52
4/24/99		12.33	24.37
12/18/99		16.14	20.56
7/22/00		15.78	20.92
1/29/01		14.65	22.05
7/28/01		15.33	21.37
2/3/02		12.59	24.11
7/23/02		15.27	21.43
1/20/03		12.27	24.43

Notes to Table 1A

(1) N/A = not applicable.
(2) Elevations from a survey conducted by Andreas Deak, California Licensed Land Surveyor, March 21, 1996, City of Oakland datum.
(3) Well under pressure when locking cap removed; water level may not have been stabilized.
(4) Depth to water was measured over a 120 minute period; indicated depths appear to be stabilized readings.
(5) Surveyed elevations of wells MW 1 and MW-2 varied to 0.02 foot on March 21, 1996 survey as compared to February 11, 1994 survey; previously calculated measurements of elevation have not been modified to reflect the new survey data. Similar slight survey differences on June 20, 1997 have not been corrected.
(6) Well not stabilized (water level rising).

TABLE 1B

SUMMARY OF GROUND WATER GRADIENT INFORMATION

Date	Shallow Wells		Deep Wells	
	Direction	Inclination	Direction	Inclination
8/6/90	N/A	N/A	N/A	N/A
1/28/92	N/A	N/A	N/A	N/A
4/27/92	N/A	N/A	N/A	N/A
8/10/92	N/A	N/A	N/A	N/A
2/11/94	N/A	N/A	N/A	N/A
2/28/94	N/A	N/A	N/A	N/A
9/9/94	N/A	N/A	N/A	N/A
12/28/94	N/A	N/A	N/A	N/A
4/13/95	N/A	N/A	N/A	N/A
11/1/95	N/A	N/A	N/A	N/A
3/8/96	N/A	N/A	N/A	N/A
3/25-26/96 (2)	N/A	N/A	N/A	0.01
10/7/96 (2)	N/A	N/A	N/A	0.02
1/15/97 (2)	N/A	N/A	S 33 E	0.13
6/23/97 (3)	N 44 W	0.24	S 68 E	0.07
10/6/97 (3)	N 47 W	0.29	S 55 E	0.11
12/12/98 (3)	N 33 W	0.32	S 47 E	0.05
4/24/99 (3)	N 59 W	0.17	S 44 E	0.07
12/18/99 (3)	N 55 W	0.26	S 44 E	0.07
7/22/00 (3)	N 56 W	0.24	S 65 E	0.19
1/29/01 (3)	N 47 W	0.30	S 65 E	0.20
7/28/01 (3)	N 51 W	0.24	S 65 E	0.05
2/3/02 (3)	N 50 W	0.23	S 65 E	0.05
7/23/02 (3)	N 51 W	0.24	S 85 E	0.11
1/20/03 (3)				

Notes to Table 1B

(1) N/A = not applicable.
(2) Six wells.
(3) Nine wells.

TABLE 2

GROUND WATER

SUMMARY OF ANALYTICAL TEST RESULTS - PETROLEUM HYDROCARBONS

(Results reported in parts per billion, ppb/ug/l) (1)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-1 ("deep")							
8/6/90 (2)	54,000	NA	3,500	3,200	1,900	9,400	7,600
1/28/92	2,000,000	NA	7,400	17,000	28,000	120,000	7,500 (5)
4/27/92 (3)	500,000	NA	3,400	6,400	10,000	45,000	440,000 (6)
4/27/92 (4)	175,000	NA	4,200	4,400	3,200	14,600	N/A
8/10/92	170,000	NA	4,200	4,200	3,300	15,900	120,000 (6)
2/11/94	1,800,000	NA	ND	5,100	5,200	23,900	16,000 (6)
9/9/94	23,000,000	NA	56,000	61,000	9,100	137,000	880,000 (6)
12/28/94	55,000	NA	3,700	5,300	1,400	5,800	83,000 (6)
4/13/95	45,000	NA	2,800	3,400	1,200	5,100	50,000 (5)
11/1/95	44,000	NA	2,600	3,400	1,400	5,900	52,000 (5)
3/25/96	45,000	NA	3,000	4,100	1,600	6,800	46,000 (5) (7)
10/8/96	55,000	490	3,300	4,500	1,700	7,100	11,000 (5) (7)
1/16/97	48,000	310	2,600	3,200	1,300	5,300	110,000 (5) (7)
6/23/97	40,000	ND<100	2,300	3,500	1,500	6,300	190,000 (5) (7)
10/7/97	45,000	ND<680	2,500	3,600	1,700	6,800	150,000 (5) (7)
12/12/98	39,000	ND<1,500	3,000	100	1,400	5,800	67,000 (5) (7)
4/24/99	33,000	ND<200	2,300	3,300	1,100	4,100	140,000 (5) (7)
4/24/99 (8)	41,000	1,100	2,500	3,700	1,500	5,700	N/A
12/18/99	43,000	ND<200	2,600	3,800	1,400	5,800	110,000 (5) (7)
7/22/00	37,000	ND<200	2,200	2,600	1,300	5,200	320,000 (5) (7)
1/29/01	36,000	ND<200	2,100	2,300	1,200	4,500	76,000 (5) (7)
7/28/01	99,000	ND<250	1,500	2,300	1,700	6,600	86,000 (5) (7)
2/3/02	42,000	ND<500	1,200	1,300	1,100	3,900	42,000 (5) (7)
7/23/02	53,000	ND<1000	1,700	2,800	1,500	5,100	170,000 (5) (7)
1/20/03	33,000	ND<2000	2,100	2,500	1,300	4,400	65,000 (5) (7)
MW-2 ("deep")							
2/11/94	130	NA	22	1.1	5.2	7.3	ND (6)
9/9/94	1,000	NA	89	ND	ND	6.9	ND (6)
12/28/94	330	NA	100	3.8	5.4	4.7	5100 (6)
4/13/95	1,300	NA	280	6.9	33	23	ND (5)
11/1/95	100	NA	9.9	ND	ND	ND	ND (5)
3/25/96	4,500	NA	470	57	220	280	ND (5) (7)
10/8/96	710	41	1.9	0.54	1.0	1.0	ND (5) (7)
1/16/97	330	12	41	2.4	1.3	9.9	ND (5) (7)
6/23/97	280	10	12	0.69	ND	13	NA (7)
10/7/97	320	ND<35	4.5	ND	ND	ND	NA (7)
12/12/98	290	ND<11	21	0.76	10	19	ND (5) (7)
4/24/99	360	21	36	1.3	9.2	19	ND<5000 (5) (7)
12/18/99	210	ND<200	13	ND	2.9	7.7	ND<5000 (5) (7)
7/22/00	180	ND<5	10	ND	4.5	6.0	ND<5000 (5) (7)
1/29/01	130	ND<5	16	ND	1.9	3.8	ND<5000 (5) (7)
7/28/01	ND<50	ND<5	2.7	ND	0.64	0.69	ND<5000 (5) (7)
2/3/02	140	ND<5	5.5	ND	9.0	12	ND<5000 (5) (7)
7/23/02	780	ND<15	52	2.0	44	6.2	ND<5000 (5) (7)
1/20/03	1,900	ND<50	120	10	120	94	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-3 ("shallow")							
2/11/94	ND	NA	ND	ND	ND	ND	ND (6)
9/9/94	710	NA	10	ND	ND	3.5	ND (6)
12/28/94	2,300	NA	7.8	ND	130	73	ND (6)
4/13/95	1,700	NA	2.9	ND	61	24	ND (5)
11/1/95	1,100	NA	4.4	ND	27	22	ND (5)
3/25/96	2,300	NA	4.0	0.96	120	65	ND (5) (7)
10/8/96	160	ND	ND	0.5	1.2	0.77	ND (5) (7)
1/16/97	1,800	7.1	2.8	0.68	48	66	ND<5000 (5) (7)
6/23/97	ND	ND	ND	ND	ND	ND	NA (7)
10/7/97	ND	ND	ND	ND	ND	ND	NA (7)
12/12/98	1,900	ND	1.8	0.78	78	42	ND (5) (7)
4/24/99	2,100	ND	1.5	0.85	79	43	ND<5000 (5) (7)
12/18/99	330	ND	0.51	ND	ND	ND	ND<5000 (5) (7)
7/22/00	230	ND	0.89	2.4	ND	ND	ND<5000 (5) (7)
1/29/01	450	ND<5	1.1	1.6	11	3.6	ND<5000 (5)
7/28/01	ND<50	ND<5	ND<0.5	ND	ND	ND	ND<5000 (5)
2/3/02	98	ND<5	ND<0.5	ND	ND	ND	ND<5000 (5)
7/23/02	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5)
1/20/03	700	ND<5.0	1.6	0.56	41	21	ND<5000 (5)
MW-4 ("deep")							
3/26/96	9,900	NA	4,000	40	71	100	ND (5) (7)
10/8/96	7,800	140	3,900	33	31	40	ND (5) (7)
1/16/97	4,800	84	1,900	21	2.5	27	5,200 (5) (7)
6/23/97	6,200	160	2,800	20	20	23	ND (5) (7)
10/7/97	4,400	85	1,800	14	18	14	ND (5) (7)
12/12/98	3,500	110	1,500	13	39	14	ND (5) (7)
4/24/99	3,100	ND<10	1,700	22	67	21	7,500 (5) (7)
12/18/99	2,600	33	1,000	12	32	10	ND<5000 (5) (7)
7/22/00	2,700	60	940	14	31	12	7,000 (5) (7)
1/29/01	2,500	ND<5	980	11	35	5	ND<5000 (5) (7)
7/28/01	1,100	27	250	6.3	19	4.8	90,000 (5) (7)
2/3/02	2,100	ND<25	890	23	41	20	7,400 (5) (7)
7/23/02	1,200	ND<17	490	11	22	8.8	ND<5000 (5) (7)
1/20/03	1,900	ND<80	740	11	32	12	ND<5000 (5) (7)
MW-5 ("deep")							
3/26/96	1,200	NA	43	8.2	83	95	ND (5) (7)
10/8/96	6,700	190	260	92	410	370	ND (5) (7)
1/16/97	3,000	90	150	68	190	180	ND (5) (7)
6/23/97	12,000	150	410	170	920	800	NA (7)
10/7/97	10,000	ND<480	310	62	530	500	NA (7)
12/12/98	11,000	ND<660	400	120	740	480	ND (5) (7)
4/24/99	9,300	ND<100	390	290	820	770	ND<5000 (5) (7)
12/18/99	7,000	ND<100	250	52	500	300	ND<5000 (5) (7)
7/22/00	14,000	ND<100	290	140	770	630	12,000 (5) (7)
1/29/01	8,200	ND<5	180	42	420	250	11,000 (5) (7)
7/28/01	9,100	ND<70	190	67	540	430	ND<5000 (5) (7)
2/3/02	11,000	ND<100	250	160	730	540	ND<5000 (5)
7/23/02	6,400	ND<110	160	67	540	390	ND<5000 (5)
1/20/03	7,300	ND<170	190	80	480	310	ND<5000 (5) (7)
MW-6 ("shallow")							
3/26/96	9,900	NA	1,000	150	470	720	ND (5) (7)
10/8/96	1,300	57	120	2.3	1.4	4.0	ND (5) (7)
1/15/97	6,500	220	570	65	170	630	ND (5) (7)
6/23/97	3,100	100	410	16	110	140	NA (7)
10/7/97	960	ND<74	78	3.4	1.8	5.8	NA (7)
12/12/98	2,500	ND<160	230	10	92	110	ND (5) (7)
4/24/99	2,900	ND<10	430	33	160	200	ND<5000 (5) (7)
12/18/99	2,300	ND<200	170	6.6	56	63	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
MW-6 ("shallow") (continued)							
7/22/00	2,200	ND<10	290	9.6	80	43	ND<5000 (5) (7)
1/29/01	2,500	ND<10	220	11	150	230	ND<5000 (5) (7)
7/28/01	NA	NA	NA	NA	NA	NA	NA
2/3/02	2,500	ND<50	290	18	88	330	ND<5000 (5) (7)
7/23/02	1,100	ND<20	160	6.5	54	35	ND<5000 (5) (7)
1/20/03	3,800	MD<80	370	33	220	300	ND<5000 (5) (7)
MW-7 (deep")							
6/23/97	8,700	ND<20	950	260	520	380	ND (5) (7)
10/7/97	7,500	ND<310	1,100	86	280	150	ND (5) (7)
12/12/98	5,000	ND<190	640	43	200	55	ND (5) (7)
4/24/99	5,500	ND<10	640	180	290	210	ND<5000 (5) (7)
12/18/99	5,500	ND<10	570	27	91	31	ND<5000 (5) (7)
7/22/00	7,400	ND<80	620	180	240	180	10,000 (5) (7)
1/29/01	4,000	ND<10	410	21	22	21	7,000 (5) (7)
7/28/01	4,200	ND<70	540	120	110	110	ND<5000 (5) (7)
2/3/02	6,300	ND<25	560	110	190	140	ND<5000 (5) (7)
7/23/02	3,400	ND<50	440	6.3	87	61	ND<5000 (5) (7)
1/20/03	4,500	ND<170	380	32	30	36	ND<5000 (5) (7)
MW-8 ("shallow")							
6/23/97	610	5.9	25	1.4	4.3	2.4	ND (5) (7)
10/7/97	120	ND	6.9	ND	ND	ND	ND (5) (7)
12/12/98	ND	ND	ND	ND	ND	ND	ND (5) (7)
4/24/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
12/18/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
7/22/00	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
1/29/01	ND	ND<5	0.87	ND	ND	ND	ND<5000 (5) (7)
7/28/01	ND	ND<5	ND	ND	ND	ND	ND<5000 (5) (7)
2/3/02	ND	16	ND	ND	ND	ND	ND<5000 (5) (7)
7/23/02	ND<50	ND<5	0.87	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
1/20/03	ND<50	ND<5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000 (5) (7)
MW-9 ("shallow")							
6/23/97	32,000	250	340	280	1,500	4,300	ND (5) (7)
10/7/97	33,000	ND<690	880	350	1900	4,700	ND (5) (7)
12/12/98	3,400	ND<78	160	14	220	210	ND (5) (7)
4/24/99	3,100	22	130	18	220	190	ND (5) (7)
12/18/99	7,500	100	220	44	440	650	ND<5000 (5) (7)
7/22/00	4,900	ND<10	93	15	240	250	71,000 (5) (7)
1/29/01	3,800	ND<10	160	35	260	310	5,000
7/28/01	5,700	ND<20	43	27	210	420	ND<5000 (5) (7)
2/3/02	7,800	ND<50	98	51	450	640	ND<5000 (5) (7)
7/23/02	2,300	ND<50	29	14	120	96	ND<5000 (5) (7)
1/20/03	5,000	ND<80	76	25	350	340	ND<5000 (5)
EB-4 ("grab" gw sample)							
3/8/96	15,000	NA	780	840	1,300	590	7,500 (5) (7)
MCL	NA	13/5 (9)	1	150	700	1,750	NA

Notes on following page

Notes to Table 2

(1) ND - non-detect; N/A - not applicable
(2) Kaldveer Associates report, September, 1990
(3) Sequoia Analytical Laboratory
(4) Applied Remediation Laboratory
(5) Gravimetric Method
(6) Infrared Method
(7) **HVOC detected**: see Table 3
(8) Free-phase product observed in bailer (additional sample)
(9) Primary and secondary MCL, respectively.

TABLE 3

GROUND WATER

SUMMARY OF ANALYTICAL TEST RESULTS -
HALOGENATED VOLATILE ORGANIC COMPOUNDS (HVOC)
(Results reported in parts per billion, ppb/ug/l) (1) (2)

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-1 ("deep")									
3/25/96	ND<5	7.2	5.3	82	ND<5	ND<5	ND<5	7.8	25
10/8/96	ND<20	ND<20	ND<20	45	ND<20	ND<20	ND<20	ND<20	26
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<2	10	4.1	130	3.7	ND<2	5.0	23	54
10/7/97	3.5	7.4	2.2	82	3.8	ND<2	ND<3	9.5	68
12/12/98	ND<2.5	7.4	ND<2.5	26	ND<2.5	ND<2.5	ND<2.7	ND<2.5	7.3
4/24/99 (8)	2.1	9.9	3.5	61	2.8	2.0	ND<4.2	ND<1.5	22
12/18/99 (9)	3.3	8.0	1.2	12	2.8	1.2	ND<0.5	ND<0.5	7.2
7/22/00 (10)	ND<2.5	16.0	ND<2.5	15	ND<2.5	ND<2.5	ND<5.0	ND<2.5	8.2
1/29/01 (11)	ND<10.0	23.0	ND<10	23	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
7/28/01 (12)	7.4	9.0	0.97	14	6.4	0.95	ND<0.5	ND<0.5	15
2/3/02 (13)	5.5	10.0	1.4	23	5.5	0.59	ND<0.5	ND<0.5	7.4
7/23/02 (14)	ND<10.0	2.5	ND<10.0	15	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
1/20/03	ND<10.0	11	ND<10.0	36	ND<10.0	ND<10.0	ND<10.0	ND<10.0	11
MW-2 ("deep")									
3/25/96	ND<0.5	ND<0.5	8.7	11	ND<0.5	1.0	ND<0.5	3.2	0.92
10/8/96	ND<0.5	ND<0.5	15	9.6	ND<0.5	1.1	ND<0.5	6.6	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	9.7	8.0	ND<0.5	0.86	ND<0.5	9.6	ND<0.5
10/7/97	ND<0.5	ND<0.5	18	11	ND<0.5	1.2	ND<0.5	15	ND<0.5
12/12/98	ND<0.5	ND<0.5	16	9.4	ND<0.5	1.1	ND<1	7.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	13	7.8	ND<0.5	0.92	ND<0.5	8.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	15	9.0	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	17	10	ND<0.5	1.2	ND<1.0	12.0	ND<0.5
1/29/01	ND<0.5	ND<0.5	12	9.1	ND<0.5	0.9	ND<5.0	12.0	ND<0.5
7/28/01	ND<0.5	ND<0.5	9.7	7.8	ND<0.5	0.95	ND<5.0	12.0	ND<0.5
2/3/02	ND<0.5	ND<0.5	7.1	6.7	ND<0.5	0.72	ND<0.5	9.0	ND<0.5
7/23/02	ND<0.5	ND<0.5	1.7	2.1	ND<0.5	ND<0.5	ND<0.5	0.97	ND<0.5
1/20/03	ND<0.5	ND<0.5	1.6	2.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-3 ("shallow")									
3/25/96	ND<0.5	ND<0.5	0.56	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/8/96	ND<0.5	ND<0.5	1.1	0.87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	0.54	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/7/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/12/98	ND<0.5	ND<0.5	0.51	0.82	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	0.65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	0.52	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
7/28/01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
2/3/02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/20/03	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-4 ("deep")									
3/26/96	ND<8	22	ND<8	300	9.2	ND<8	38	150	44
10/8/96	ND<15	22	4.9	320	ND<15	ND<15	52	130	60
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	3.6	21	5.3	340	10	ND<3	11	110	83
10/7/97	ND<8	20	ND<8	380	9.9	ND<8	ND<12	56	56
12/12/98 (7)	ND<3.5	18	ND<3.5	150	12	ND<8	ND<4.5	12	57

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-4 ("deep") (continued)									
4/24/99	ND<8.5	20	ND<8.5	390	12	ND<8.5	33	240	43
12/18/99	ND<10.0	27	ND<10.0	390	13	ND<10.0	ND<10.0	39	ND<10.0
7/22/00	ND<10.0	38	ND<10.0	620	ND<10.0	ND<10.0	ND<10.0	19	97
1/29/01	ND<5.0	35	ND<5.0	380	15	ND<5.0	ND<5.0	19	97
7/28/01	ND<7.5	29	ND<5.0	310	18	ND<5.0	ND<5.0	8.4	150
2/3/02 (13)	ND<7.0	22	ND<7.0	310	16	ND<7.0	ND<7.0	20	120
7/23/02	ND<0.5	30	ND<0.5	240	17	ND<0.5	ND<0.5	ND<0.5	230
1/20/03	ND<10.0	28	ND<10.0	200	16	ND<10.0	ND<10.0	69	84
MW-5 ("deep")									
3/26/96	1.4	ND<0.5	2.1	6.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
10/8/96	ND<2.5	ND<2.5	4.9	4.4	ND<2.5	ND<2.5	ND<2.5	ND<2.5	9.4
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	2.0	2.1	2.0	7.2	0.71	ND<0.5	ND<0.5	ND<0.5	13
10/7/97	1.9	1.4	2.8	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
12/12/98	1.4	2.0	1.1	3.7	ND<1	ND<1	ND<1.5	ND<1	5.8
4/24/99	ND<1	1.9	1.9	4.8	ND<1	ND<1	ND<1	ND<1	6.3
12/18/99	1.6	1.7	1.8	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9
7/22/00	1.8	2.4	1.4	2.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	5.0
1/29/01	ND<1.0	2.2	2.6	2.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.2
7/28/01	1.4	1.3	1.7	1.4	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.6
2/3/02 (13)	1.8	2.0	2.1	3.9	0.95	ND<0.5	ND<0.5	ND<0.5	4.6
7/23/02	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
1/20/03	ND<1.0	1.4	1.4	1.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.3
MW-6 ("shallow")									
3/26/96	ND<0.5	ND<0.5	3.9	15	ND<0.5	1.9	0.77	2	ND<0.5
10/8/96	ND<0.5	ND<0.5	2.3	9.9	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	1.6	10	ND<0.5	ND<0.5	ND<0.5	0.63	0.50
10/7/97	ND<0.5	ND<0.5	3.4	7.9	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5
12/12/98 (7)	ND<0.5	ND<0.5	1.5	8.4	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	2.3	17	ND<0.5	0.89	ND<1	0.73	0.59
12/18/99	ND<0.5	ND<0.5	2.2	8.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.62
7/22/00	ND<0.5	ND<0.5	1.2	9.3	ND<0.5	ND<0.5	ND<1.0	ND<0.5	0.97
1/29/01	ND<0.5	ND<0.5	1.1	11	ND<0.5	ND<0.5	ND<5.0	ND<0.5	0.77
7/28/01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2/3/02	ND<0.5	ND<0.5	1.5	13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<1.0	ND<1.0	ND<1.0	9.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1/20/03	ND<1.0	ND<1.0	1.8	14	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
MW-7 ("deep")									
6/23/97	0.93	1.6	ND<0.5	2.4	1.2	ND<0.5	9.8	17	1.5
10/7/97	ND<2	ND<2	ND<2	8.5	2.4	ND<2	38	110	ND<2
12/12/98	ND<2	2.2	ND<2	97	ND<2	ND<2	ND<3.5	ND<2	ND<2
4/24/99	ND<2	2.4	ND<2	31	ND<2	ND<2	9.3	82	ND<2
12/18/99 (9)	ND<3	5.7	ND<3	120	ND<3	ND<3	ND<3	12	ND<3
7/22/00 (10)	ND<5	18	ND<5	170	ND<5	ND<5	ND<5	8	ND<5
1/29/01 (11)	ND<5	18	ND<5	170	ND<5	ND<5	ND<5	8	ND<5
7/28/01 (12)	ND<5	11	ND<5	170	ND<5	ND<5	ND<5	6.9	6.1
2/3/02	ND<5.0	ND<5.0	ND<5.0	94	ND<5.0	ND<5.0	ND<5.0	30	ND<5.0
7/23/02	ND<10.0	12.0	ND<10.0	180	ND<10.0	ND<10.0	ND<10.0	ND<10.0	ND<10.0
1/20/03	ND<2.5	ND<2.5	ND<2.5	50	ND<2.5	ND<2.5	11	ND<2.5	ND<2.5
MW-8 ("shallow")									
6/23/97	ND<1	5.4	ND<1	64	ND<1	ND<1	97	100	ND<1
10/7/97	ND<0.5	1.1	ND<0.5	16	ND<0.5	ND<0.5	30	27	ND<0.5
12/12/98	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	ND<0.5	4.8	4.7	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	1.9	ND<0.5	ND<0.5	3.4	3.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	ND<0.5	5.3	ND<0.5	ND<0.5	5.9	6.4	ND<0.5
7/22/00	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	2.4	1.6	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<5.0	8.8	ND<0.5
7/28/01	ND<0.5	ND<0.5	ND<0.5	2.6	ND<0.5	ND<0.5	ND<1.5	2.1	ND<0.5

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
MW-8 ("shallow") (continued)									
2/3/02	ND<0.5	ND<0.5	ND<0.5	6.6	ND<0.5	ND<0.5	3.3	4.6	ND<0.5
7/23/02	ND<0.5	ND<0.5	ND<0.5	8.4	ND<0.5	ND<0.5	3.5	5.2	ND<0.5
1/20/03	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	6.0	6.7	ND<0.5
MW-9 (shallow")									
6/23/97 (5)	ND<1	2.1	ND<1	7.4	ND<1	ND<1	3.5	1.4	ND<1
10/7/97 (6)	ND<0.5	1.6	2.1	21	ND<0.5	0.7	ND<2	0.53	2.7
12/12/98	ND<0.5	0.7	0.53	1.9	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	0.81	0.52	3.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	1.1	0.67	3.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.63
7/22/00	ND<1	1.4	ND<1	1.6	ND<1	ND<1	ND<1	ND<1	ND<1
1/29/01	ND<0.5	1.2	0.71	ND<0.5	8.2	ND<0.5	ND<5.0	ND<0.5	0.53
7/28/01	ND<0.5	0.87	ND<0.5	0.92	ND<0.5	ND<0.5	ND<5.0	2.5	ND<0.5
2/3/02	ND<0.5	1.2	ND<0.5	2.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/23/02	ND<2.5	3.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
1/20/03	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
EB-4 (grab)									
3/8/96	ND	ND	ND	42	ND	ND	130	340	ND
MCL	NA	600	0.5	6	10	5	7	5	0.5

Notes to Table 3

(1) ND = non-detect; reporting limit 0.5 ug/l (ppb) unless otherwise stated
(2) N/A = not applicable
(3) Composite
(4) Abbreviations as follows:

CA	Chloroethane	1,2 DCP	1,2 Dichloropropane
1,2 DCB	1,2 Dichlorobenzene	PCE	Tetrachloroethene (perchloroethen
1,2 DCA	1,2 Dichloroethane	TCE	trichloroethene
cis 1,2 DCE	cis 1,2 Dichloroethene	VCL	vinyl chloride
trans 1,2 DCE	trans 1,2 Dichloroethene		

(5) 6/23/97 additional detections:
MW-4: 4.8 ppb 1,4-Dichlorobenzene
MW-5: 0.53 ppb 1,4-Dichlorobenzene
MW-9: 2.1 ppb chloroform (tetrachloromethane)
(6) 10/7/97 additional detections:
MW-9: 0.65 chloroform (tetrachloromethane)
(7) 12/12/98 additional detections:
MW-4: 6.2 ppb 1,3-Dichlorobenzene
MW-4: 4.8 ppb 1,4-Dichlorobenzene
MW-6: 8.9 ppb 1,1,1-Trichloroethane
(8) 4/24/99 additional detections:
MW-1: 1.6 ppb Chloroform
MW-1: 2.5 ppb 1,4-Dichlorobenzene
(9) 12/18/99 additional detections:
MW-1: 1.3 ppb Dibromochloromethane
MW-1: 1.2 ppb 1,3-Dichlorobenzene
MW-1: 2.2 ppb 1,4-Dichlorobenzene
MW-1: 9.9 ppb 1,4-Dichlorobenzene
(10) 7/22/00 additional detections:
MW-1: 5.0 ppb 1,4 Dichlorobenzene
MW-7: 6.1 ppb 1,4 Dichlorobenzene
(11) 1/29/01 additional detections:
MW-1: 23.0 ppb 1,3 Dichlorobenzene
MW-4: 6.3 ppb 1,3 Dichlorobenzene
MW-4: 9.0 ppb 1,4 Dichlorobenzene

Notes to Table 3 continued

(12) 7/28/01 additional detections:
MW-1: 0.60 ppb 2-Chloroethyl Vinyl Ether
MW-1: 1.2 ppb 1,3 Dichlorobenzene
MW-1: 3.0 ppb 1,4 Dichlorobenzene
MW-4: 26 ppb 1,4 Dichlorobenzene
MW-7: 5.9 ppb 1,4 Dichlorobenzene

(13) 2/3/02 additional detections:
MW-1: 0.73 ppb 2-Chloroethyl Vinyl Ether
MW-1: 1.8 ppb 1,3 Dichlorobenzene
MW-1: 3.8 ppb 1,4 Dichlorobenzene
MW-4: 9.8 ppb 1,4 Dichlorobenzene
MW-5: 0.59 ppb 1,4 Dichlorobenzene

(14) 7/23/02 additional detections:
MW-1: 112 ppb 1,3 Dichlorobenzene

(15) 1/20/03 additional detections:
None

TABLE 4

GROUND WATER

SUMMARY OF ANALYTICAL TEST RESULTS -
POLYNUCLEAR AROMATIC HYDROCARBONS (PNA, PAH)
(Results reported in parts per billion, ppb/ug/l) (1) (2) (3)

Well and Date	Phenanthrene	Naphthalene
MW-1 ("deep")		
6/23/97	**12**	**2200**
10/7/97	ND<100	**810**
MCL	N/A	N/A

Notes to Table 4

(1) ND = non-detect
(2) N/A = not applicable
(3) Detected compounds only

TABLE 5

GROUND WATER

SUMMARY OF ANALYTICAL TEST RESULTS - ADDITIONAL CHEMICAL PARAMETERS

(Results reported in parts per million, mg/l) (1)

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
MW-1 ("deep")				
10/8/96	1.5	ND	ND	ND
1/16/97	1.4	3.6	ND	ND
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-2 ("deep")				
10/8/96	3.7	ND	3	25
1/16/97	5.4	0.28	3	25
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-3 ("shallow")				
10/8/96	3.8	ND	ND	5
1/16/97	5.2	ND	ND	5
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-4 ("deep")				
10/8/96	3.0	ND	ND	ND
1/16/97	4.7	0.75	ND	5
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
MW-4 ("deep") continued				
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-5 ("deep")				
10/8/96	**2.8**	ND	ND	**8**
1/16/97	**3.4**	**0.38**	ND	**9**
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-6 ("shallow")				
10/8/96	**2.7**	ND	ND	**6**
1/16/97	**2.7**	**0.28**	ND	**8**
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-7 ("deep")				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A
MW-8 ("shallow")				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
MW-9 ("shallow")				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
7/28/01	N/A	N/A	N/A	N/A
2/3/02	N/A	N/A	N/A	N/A
7/23/02	N/A	N/A	N/A	N/A
1/20/03	N/A	N/A	N/A	N/A

Notes to Table 5

(1) ND = non-detect
(2) N/A = not applicable

TABLE 6

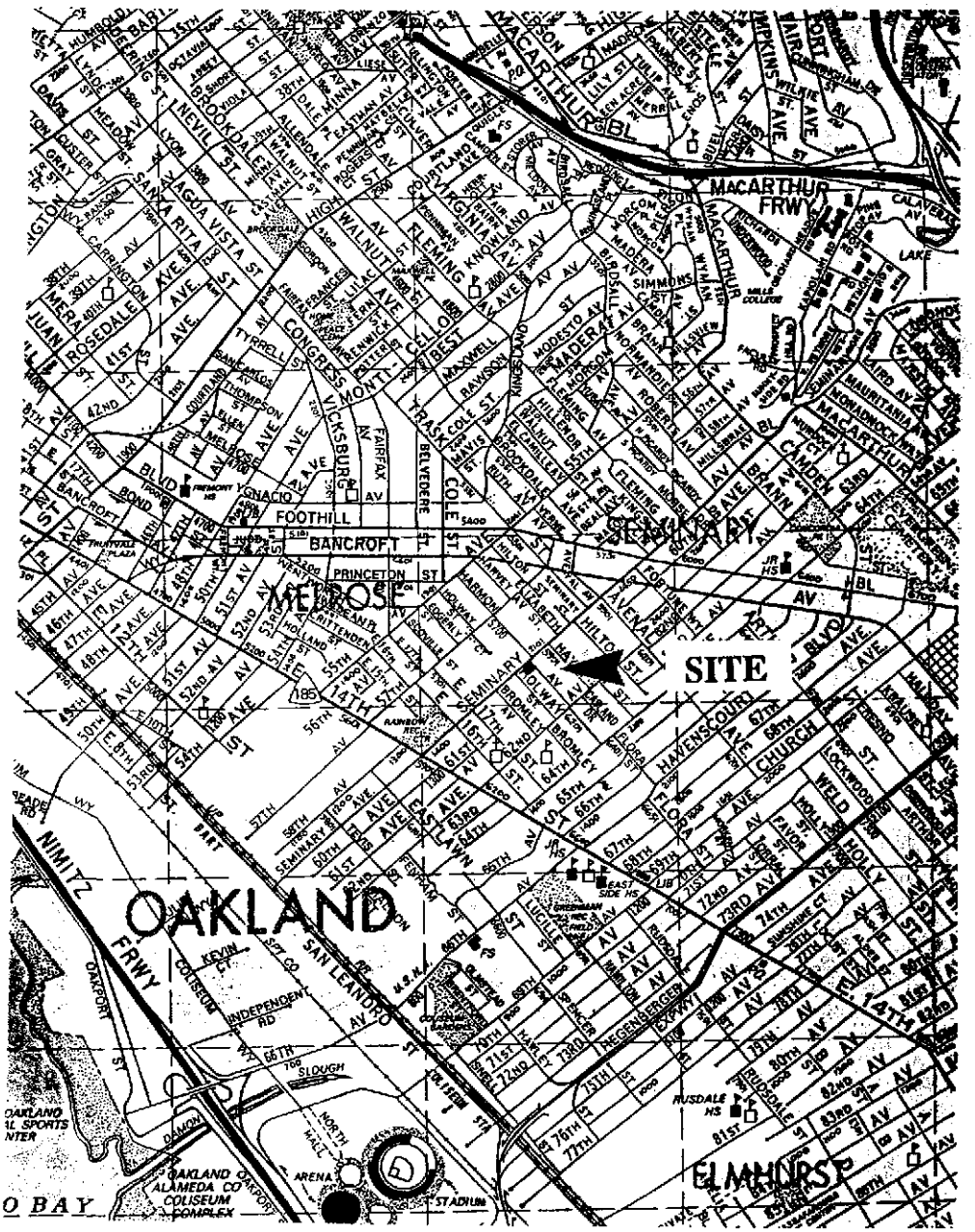
GROUND WATER

SUMMARY OF ANALYTICAL TEST RESULTS - FUEL FINGERPRINT WITH SILICA GEL CLEAN UP

Well and Date	Fuel Fingerprint (2)
MW-1 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles gasoline. Also shows a hydrocarbon pattern between C18 and C30 that resembles oil.
MW-2 ("deep")	
2/3/02	ND < 50 ug/L
MW-3 ("shallow")	
2/3/02	ND < 50 ug/L
MW-4 ("deep")	
2/3/02	Significant hydrocarbon pattern between C9 and C12 that resembles stoddard solvent. Also shows a hydrocarbon pattern between C18 and C30 that resembles oil.
MW-5 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline.
MW-6 ("shallow")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline.
MW-7 ("deep")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline.
MW-8 ("shallow")	
2/3/02	ND < 50 ug/L
MW-9 ("shallow")	
2/3/02	Significant hydrocarbon pattern between C6 and C12 that resembles fresh gasoline.

Notes to Table 6

(1) ND = non-detect
(2) See laboratory report for chromatograms.



ALAMEDA COUNTY

1991 *Thomas Guide*

0 1/4 1/2 3/4 1 MILES
0 1 2 .5 1 KILOMETERS

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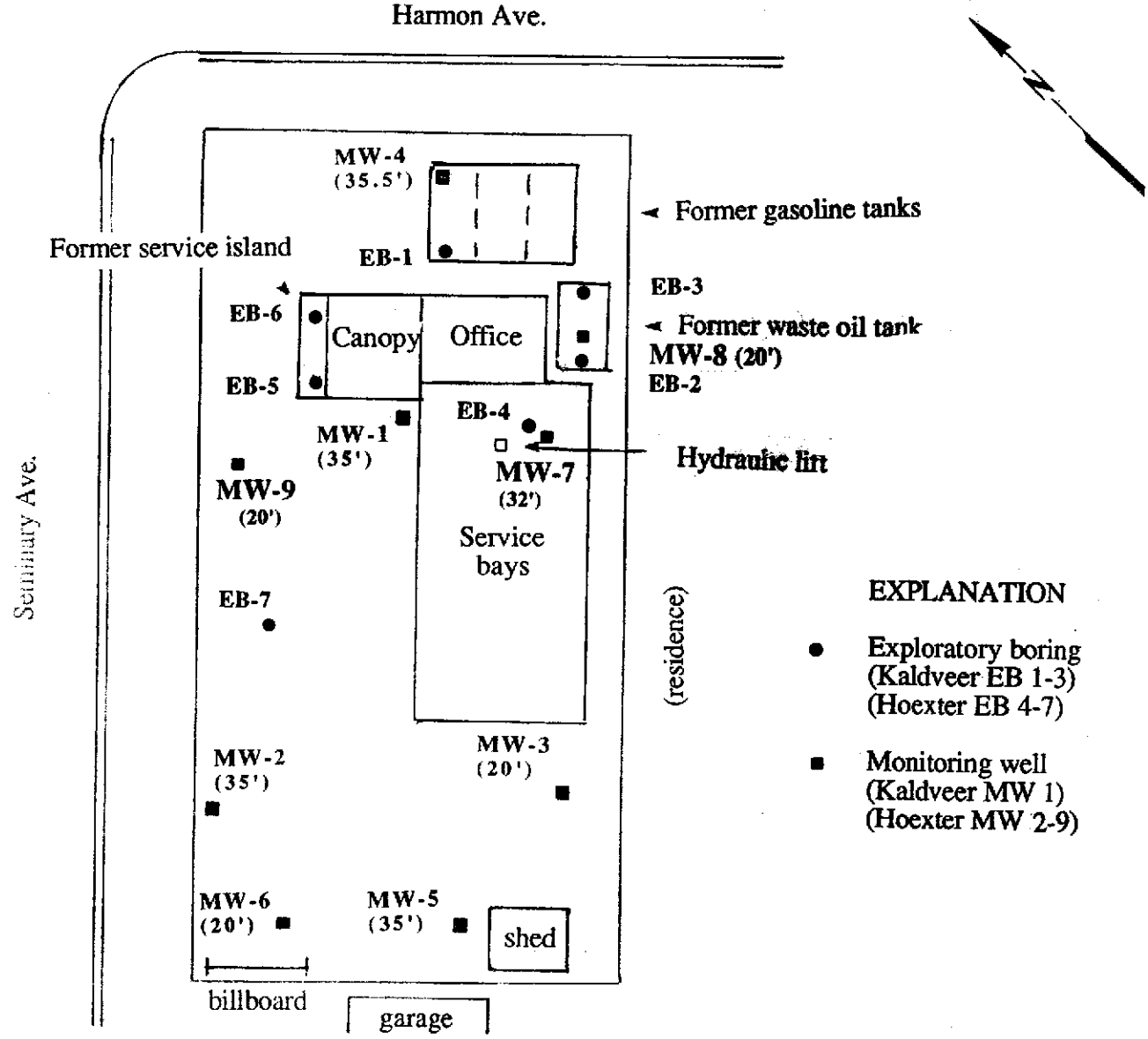
LOCATION MAP

1970 Seminary Ave.
Oakland, California

Project No.	Date	Figure 1
E-10-1E-391E	February, 2003	



Base: A. Deak, Licensed Land Surveyor, 3/21/96 (wells, streets & property line); Hoexter field sketch, 10/25/93 (explor. borings, other features)

20 0 20 40

Approximate Scale in Feet

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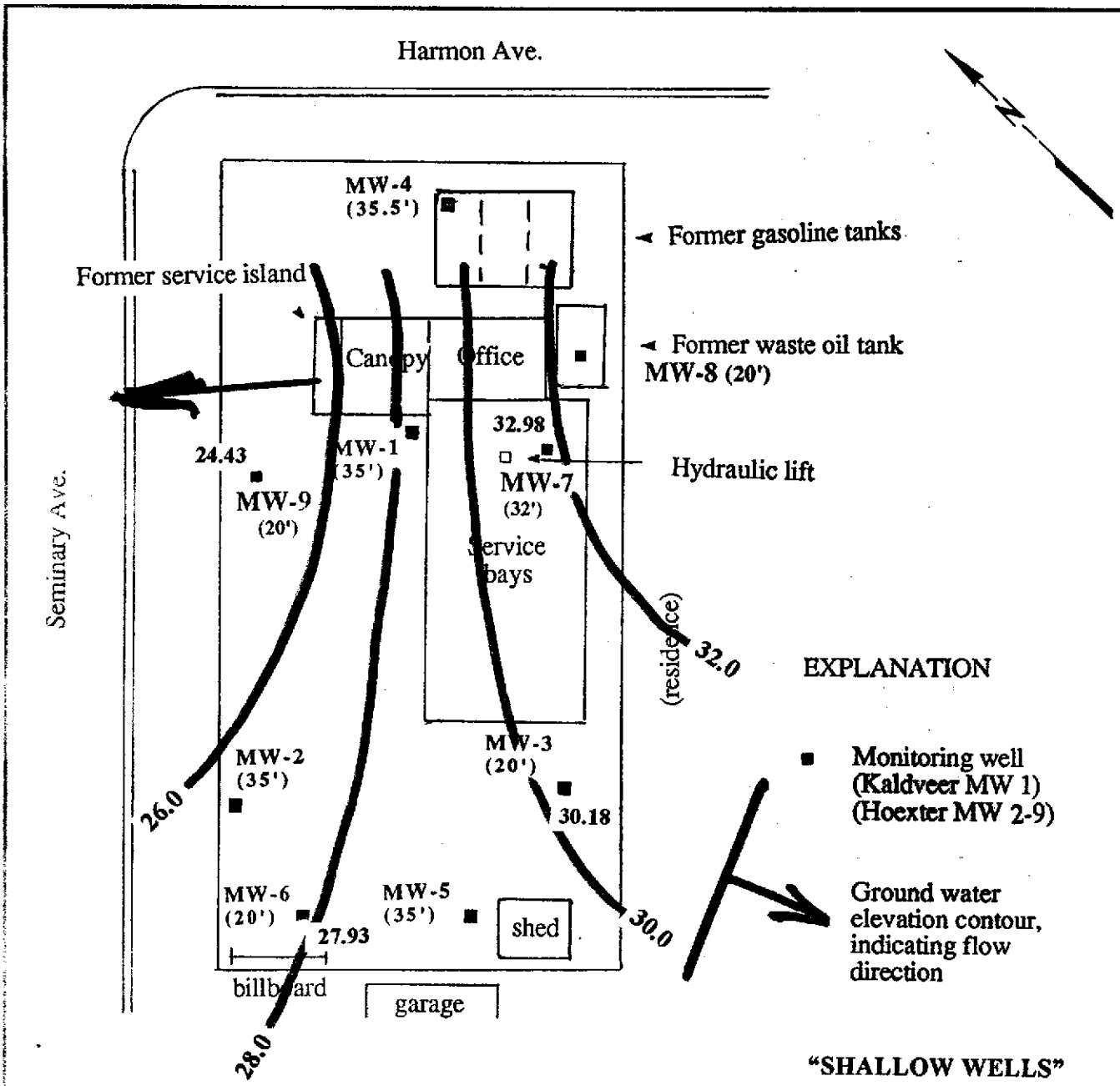
SITE PLAN

1970 Seminary Ave.
Oakland, California

Project No.	Date	Figure 2
E-10-1E-391E	February, 2003	



Base: A. Deak, Licensed Land Surveyor, 3/21/96 (wells, streets & property line); Hoexter field sketch, 10/25/93 (explor. borings, other features)

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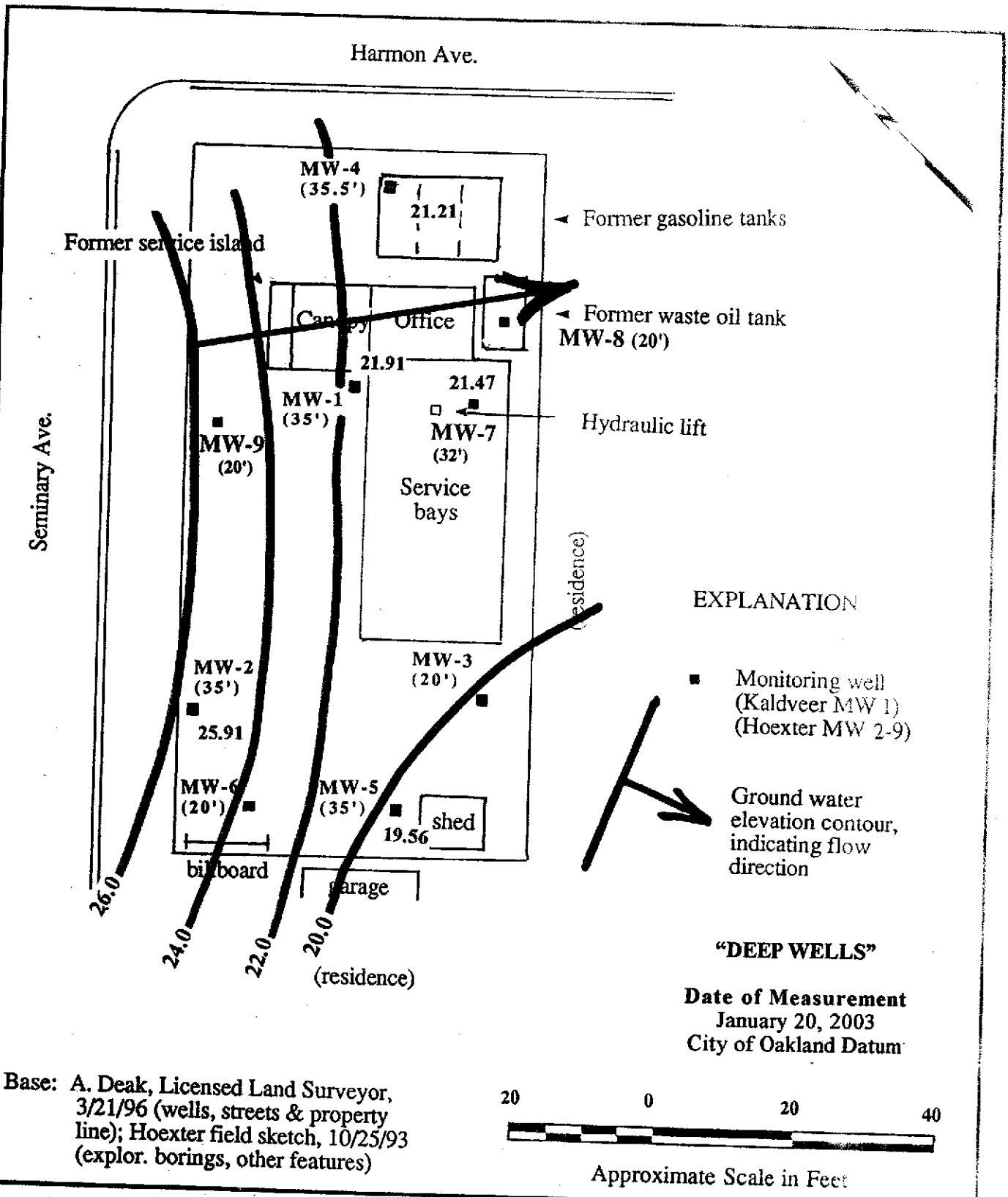
GROUND WATER CONTOUR AND GRADIENT DIRECTION MAP

1970 Seminary Ave.
Oakland, California

Project No.	Date	Figure
E-10-1E-391E	February, 2003	3A



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GROUND WATER CONTOUR AND GRADIENT DIRECTION MAP

1970 Seminary Ave.
Oakland, California

Project No.	Date	Figure 3B
E-10-1E-391E	February, 2003	

APPENDIX A

WATER SAMPLE LOGS
CHAIN OF CUSTODY
ANALYTICAL TEST RESULTS

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JP / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/10
Sample Location/I.D.: MW-1
Start Time: ____

Depth of Well (feet): 35
Depth to Water (feet): 15.08
Sample Depth (feet): ____

Calculated Purged Volume: 12.8
Actual Purged Volume: 14

35 - 15.1 = 19.9 → 3.2 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Odor
1413	3.5	3.5	6.64	1260	63.2	cloudy	mod. sheen
1423	7	↓	6.63	1088	63.9	↓	faded
1433	10.5	↓	6.66	1053	63.7	↓	↓
1445	14	↓	6.63	1087	62.9	↓	↓

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK
Remarks: Initial bailer ~ 1/4" floating product, strong odor
DFH sampled 1627 2 VOA 1 amber

Signature: D. F. H

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.30[illegible]
Cubic feet	Gallons	7.480[illegible]
Gallons	Liters	3.785[illegible]
Feet	Meters	0.30[illegible]
Inches	Centimeters	2.54[illegible]

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: 1970 Seminary, Oakl.
Client: D - Grimit
Project Manager: DFH
Sampler: JP / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 11/20/03
Sample Location/I.D.: MW-2
Start Time: ____

Depth of Well (feet): 35
Depth to Water (feet): 10.99
Sample Depth (feet): ____

Calculated Purged Volume: 16
Actual Purged Volume: 16

35 - 10.5 = 24.5' → 4 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1115	4	4	6.73	1092	60.1	clear	no sheen
1127	8	↓	6.70	945	63.6	↓	sl. odor
1139	12	↓	6.69	933	62.6	↓	↓
1150	16	↓	6.70	935	62.7	↓	↓

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK
Remarks: Initial bailer & clear, product, no sheen, sl. odor
DFH sampled 1458 2 VOA 1 amber

Signature: D. F. H---

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.3004
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DPH
Sampler: JF / DPH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/03
Sample Location/I.D.: HW-3
Start Time: ____

Depth of Well (feet): 20
Depth to Water (feet): 6.76
Sample Depth (feet): ____

Calculated Purged Volume: 8.6
Actual Purged Volume 6.75

20 - 6.8 = 13.2' → 2.15 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1141	2.25	2.25	6.64	636	60.8	clear	
1149	4.5	↓	6.66	656	61.7	↓	
* 1158	6.75	↓	6.70	662	60.9	↓	

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK -
Remarks: Initial bailer extraction - no product, sheen, odor.
* Dewatered to ±2' water in well ff 3rd purge volume. Allowed well to recover to ±80%. Sampled THRS 1547 3 VOA 1 amber.
Signature: D. H.

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.3048
Inches	Centimeters	2.540

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JP / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/10
Sample Location/I.D.: MW-4
Start Time: ____

Depth of Well (feet): 35.5
Depth to Water (feet): 15.26
Sample Depth (feet): ____

Calculated Purged Volume: 13.2
Actual Purged Volume 10.5

35.5 - 15.3 = 20.2 → 3.3 gal/vol

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1406	3.5	3.5	6.71	829	63.6	clear	sheen
1419	7	↓	6.69	812	64.0	↓	↓
* 1429	10.5	↓	6.64	840	63.8	↓	↓

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - heavy sheen, no product, petroleum odor.
Remarks: ~~MW~~ watered following 3rd purge volume. Well recovery to ±80%. Sampled 2 VOA 1 amber 1610 - DFH

Signature: D. F. H---

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.3048
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JF / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/03
Sample Location/I.D.: MW-5
Start Time: ____

Depth of Well (feet): 35
Depth to Water (feet): 17.21
Sample Depth (feet): ____

Calculated Purged Volume: 11.6
Actual Purged Volume 12.0

35 - 17.2 → 17.8'
→ 2.9 gal/vol

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1240	3	3	6.70	748	61.7		
1251	6		6.75	777	60.7	cloudy	no odor (sl. sheen)
1300	9		6.76	896	61.1		
1310	12	↓	6.75	962	60.3	↓	↓

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - Initial bailer overflow - no product, sheen, odor
Remarks: JF Sampled 1504 2 VOA 1 amber -

Signature: DFH

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.307
Cubic feet	Gallons	7.480
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JF / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/03
Sample Location/I.D.: MW-6
Start Time: ____

Depth of Well (feet): 20
Depth to Water (feet): 8.49
Sample Depth (feet): ____

Calculated Purged Volume: 7.6
Actual Purged Volume 8

20 - 8.5 = 11.5 → 1.9 gal.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1329	2	2	6.63	878	61.7	clear	No sheen/odor
1335	4		6.63	891	61.5	sl. cloudy	
1341	6		6.62	892	62.3		
1347	8	↓	6.66	884	62.8		

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - Initial bubbles extraction, no petrol. sheen/odor
Remarks: DFH sampled 1515 2 VOA 1 amber

Signature: D. H.

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.307
Cubic feet	Gallons	7.480
Gallons	Liters	3.785
Feet	Meters	0.3048
Inches	Centimeters	2.540

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: 1970 Seminary, Oakland
Client: D - Grimit
Project Manager: DFH
Sampler: JF / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/05
Sample Location/I.D.: MW-7
Start Time: ____

Depth of Well (feet): 32
Depth to Water (feet): 15.36
Sample Depth (feet): ____

Calculated Purged Volume: 6.8
Actual Purged Volume: 11

32 - 15.4 = 16.6'
→ 2.75 gal.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1326	2.75	2.75	6.62	863	60.9		sl. sheen + odor
1338	5.5	↓	6.65	876	62.0	cloudy	↓
1347	8.25	↓	6.73	798	62.2	↓	↓
1358	11	↓	6.78	764	62.3	↓	↓

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - Initial bailer NO sheen or odor; subsequently
Remarks: observed sl. sheen + odor.
JF sampled 2 VOA Lumber 1516

Signature: DFH

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.307
Cubic feet	Gallons	7.480
Gallons	Liters	3.785
Feet	Meters	0.304
Inches	Centimeters	2.540

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JF / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/03
Sample Location/I.D.: FW-8
Start Time: ____

Depth of Well (feet): 20
Depth to Water (feet): 3.57
Sample Depth (feet): ____

Calculated Purged Volume: 10.8
Actual Purged Volume: 11

20 - 3.6 = 16.4'
→ 2.7 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1249	2.75	2.75	6.75	312	58.5	sl. color / sl. sheen	
1255	5.5		6.99	319	59.2	cloudy / brown	
1309	8.25		7.17	309	58.6		
1318	11	↓	6.97	305	58.4	↓	

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - no product, sl. odor, sl. sheen
Remarks: DFH sampled 2 VOA 1 amb 1535.

Signature: D. F. H.

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No: 1970 Seminary, Oakl. CA
Client: D - Grimit
Project Manager: DFH
Sampler: JF / DFH
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: ____
Date: 1/20/03
Sample Location/I.D.: MW-9
Start Time: ____

Depth of Well (feet): 20
Depth to Water (feet): 12.27
Sample Depth (feet): ____

Calculated Purged Volume: 4.5
Actual Purged Volume 3.75
20 - 12.3 = 7.7 → 1.2 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1120	1.25	1.25	6.75	974	63.0		
1126	2.5		6.80	989	63.2	V-sl. cloudy / tan	
1131	3.75	✓	6.76	1000	63.9		

Purge Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - no product, sheen, odor.
Remarks: 2' water in well after 3 volume removals (declared).
* Allowed well to recover ± 80%, DFH Sampled 1558 2 VOA + 1 L.

Signature: D. Hoexter

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mccampbell.com E-mail: main@mccampbell.com

Hoexter Consulting Eng. Geology	Client Project ID: # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Reported: 01/28/03
	Client P.O.:	Date Completed: 01/28/03

WorkOrder: 0301257

January 28, 2003

Dear David:

Enclosed are:

1). the results of **9** analyzed samples from your **# E-10-1E-391E project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Hoexter Consulting Eng. Geology	Client Project ID: # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Extracted: 01/23/03
	Client P.O.:	Date Analyzed: 01/23/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0301257

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	33,000,a,h	ND<2000	2100	2500	1300	4400	200	106
002A	MW-2	W	1900,a	ND<50	120	10	120	94	10	---#
003A	MW-3	W	700,a	ND	1.6	0.56	41	21	1	---#
004A	MW-4	W	1900,a,h	ND<80	740	11	32	12	5	---#
005A	MW-5	W	7300,a	ND<170	190	80	480	310	10	99.6
006A	MW-6	W	3800,a	ND<80	370	33	220	300	10	99.4
007A	MW-7	W	4500,a,h	ND<170	380	32	30	36	5	107
008A	MW-8	W	ND	ND	ND	ND	ND	ND	1	---#
009A	MW-9	W	5000,a	ND<80	76	25	350	340	10	117
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCampbell Analytical Inc.
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http://www.mccampbell.com E-mail: main@mccampbell.com

Hoexter Consulting Eng. Geology	Client Project ID: # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Extracted: 01/22/03-01/23/03
	Client P.O.:	Date Analyzed: 01/22/03-01/23/03

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8021B | Work Order: 0301257

Lab ID	0301257-001B	0301257-002B	0301257-003B	0301257-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-3	MW-4		
Matrix	W	W	W	W		
DF	20	1	1	20	S	W
Compound	**Concentration**				µg/kg	µg/L
Bromodichloromethane	ND<10	ND	ND	ND<10	NA	0.5
Bromoform	ND<10	ND	ND	ND<10	NA	0.5
Bromomethane	ND<10	ND	ND	ND<10	NA	0.5
Carbon Tetrachloride	ND<10	ND	ND	ND<10	NA	0.5
Chlorobenzene	ND<10	ND	ND	ND<10	NA	0.5
Chloroethane	ND<10	ND	ND	ND<10	NA	0.5
2-Chloroethyl vinyl ether	ND<10	ND	ND	ND<10	NA	0.5
Chloroform	ND<10	ND	ND	ND<10	NA	0.5
Chloromethane	ND<10	ND	ND	ND<10	NA	0.5
Dibromochloromethane	ND<10	ND	ND	ND<10	NA	0.5
1,2-Dichlorobenzene	11	ND	ND	28	NA	0.5
1,3-Dichlorobenzene	ND<10	ND	ND	ND<10	NA	0.5
1,4-Dichlorobenzene	ND<10	ND	ND	ND<10	NA	0.5
Dichlorodifluoromethane	ND<10	ND	ND	ND<10	NA	0.5
1,1-Dichloroethane	ND<10	ND	ND	ND<10	NA	0.5
1,2-Dichloroethane	ND<10	1.6	ND	ND<10	NA	0.5
1,1-Dichloroethene	ND<10	ND	ND	ND<10	NA	0.5
cis-1,2-Dichloroethene	36	2.0	ND	200	NA	0.5
trans-1,2-Dichloroethene	ND<10	ND	ND	16	NA	0.5
1,2-Dichloropropane	ND<10	ND	ND	ND<10	NA	0.5
cis-1,3-Dichloropropene	ND<10	ND	ND	ND<10	NA	0.5
trans-1,3-Dichloropropene	ND<10	ND	ND	ND<10	NA	0.5
Methylene chloride	ND<10	ND	ND	ND<10	NA	0.5
1,1,2,2-Tetrachloroethane	ND<10	ND	ND	ND<10	NA	0.5
Tetrachloroethene	ND<10	ND	ND	ND<10	NA	0.5
1,1,1-Trichloroethane	ND<10	ND	ND	ND<10	NA	0.5
1,1,2-Trichloroethane	ND<10	ND	ND	ND<10	NA	0.5
Trichloroethene	ND<10	ND	ND	69	NA	0.5
Trichlorofluoromethane	ND<10	ND	ND	ND<10	NA	0.5
Vinyl Chloride	11	ND	ND	84	NA	0.5
Surrogate Recoveries (%)						
%SS:	100	105	100	100		
Comments	h			h		

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Hoexter Consulting Eng. Geology	Client Project ID: # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Extracted: 01/22/03-01/23/03
	Client P.O.:	Date Analyzed: 01/22/03-01/23/03

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8021B | Work Order: 0301257

Lab ID	0301257-005B	0301257-006B	0301257-007B	0301257-008B	Reporting Limit for DF =1	
Client ID	MW-5	MW-6	MW-7	MW-8		
Matrix	W	W	W	W		
DF	2	2	5	1	S	W
Compound	**Concentration**				µg/kg	µg/L
Bromodichloromethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Bromoform	ND<1	ND<1	ND<2.5	ND	NA	0.5
Bromomethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Carbon Tetrachloride	ND<1	ND<1	ND<2.5	ND	NA	0.5
Chlorobenzene	ND<1	ND<1	ND<2.5	ND	NA	0.5
Chloroethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
2-Chloroethyl vinyl ether	ND<1	ND<1	ND<2.5	ND	NA	0.5
Chloroform	ND<1	ND<1	ND<2.5	ND	NA	0.5
Chloromethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Dibromochloromethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,2-Dichlorobenzene	1.4	ND<1	ND<2.5	ND	NA	0.5
1,3-Dichlorobenzene	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,4-Dichlorobenzene	ND<1	ND<1	ND<2.5	ND	NA	0.5
Dichlorodifluoromethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,1-Dichloroethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,2-Dichloroethane	1.4	1.8	ND<2.5	ND	NA	0.5
1,1-Dichloroethene	ND<1	ND<1	ND<2.5	ND	NA	0.5
cis-1,2-Dichloroethene	1.6	14	50	7.3	NA	0.5
trans-1,2-Dichloroethene	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,2-Dichloropropane	ND<1	ND<1	ND<2.5	ND	NA	0.5
cis-1,3-Dichloropropene	ND<1	ND<1	ND<2.5	ND	NA	0.5
trans-1,3-Dichloropropene	ND<1	ND<1	ND<2.5	ND	NA	0.5
Methylene chloride	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Tetrachloroethene	ND<1	ND<1	ND<2.5	6.0	NA	0.5
1,1,1-Trichloroethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
1,1,2-Trichloroethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Trichloroethene	ND<1	ND<1	11	6.7	NA	0.5
Trichlorofluoromethane	ND<1	ND<1	ND<2.5	ND	NA	0.5
Vinyl Chloride	1.3	ND<1	ND<2.5	ND	NA	0.5
Surrogate Recoveries (%)						
%SS:	106	98.5	98.0	95.7		
Comments			h			

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Hoexter Consulting Eng. Geology	*Client Project ID:* # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Extracted: 01/22/03-01/23/03
	Client P.O.:	Date Analyzed: 01/22/03-01/23/03

Halogenated Volatile Organics by P&T and GC-ELCD (8010 Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8021B | Work Order: 0301257

					Reporting Limit for DF =1	
Lab ID	0301257-009B					
Client ID	MW-9					
Matrix	W					
DF	2				S	W
Compound	**Concentration**				µg/kg	µg/L
Bromodichloromethane	ND<1				NA	0.5
Bromoform	ND<1				NA	0.5
Bromomethane	ND<1				NA	0.5
Carbon Tetrachloride	ND<1				NA	0.5
Chlorobenzene	ND<1				NA	0.5
Chloroethane	ND<1				NA	0.5
2-Chloroethyl vinyl ether	ND<1				NA	0.5
Chloroform	ND<1				NA	0.5
Chloromethane	ND<1				NA	0.5
Dibromochloromethane	ND<1				NA	0.5
1,2-Dichlorobenzene	ND<1				NA	0.5
1,3-Dichlorobenzene	ND<1				NA	0.5
1,4-Dichlorobenzene	ND<1				NA	0.5
Dichlorodifluoromethane	ND<1				NA	0.5
1,1-Dichloroethane	ND<1				NA	0.5
1,2-Dichloroethane	ND<1				NA	0.5
1,1-Dichloroethene	ND<1				NA	0.5
cis-1,2-Dichloroethene	ND<1				NA	0.5
trans-1,2-Dichloroethene	ND<1				NA	0.5
1,2-Dichloropropane	ND<1				NA	0.5
cis-1,3-Dichloropropene	ND<1				NA	0.5
trans-1,3-Dichloropropene	ND<1				NA	0.5
Methylene chloride	ND<1				NA	0.5
1,1,2,2-Tetrachloroethane	ND<1				NA	0.5
Tetrachloroethene	ND<1				NA	0.5
1,1,1-Trichloroethane	ND<1				NA	0.5
1,1,2-Trichloroethane	ND<1				NA	0.5
Trichloroethene	ND<1				NA	0.5
Trichlorofluoromethane	ND<1				NA	0.5
Vinyl Chloride	ND<1				NA	0.5
Surrogate Recoveries (%)						
%SS:	107					
Comments	j					

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Hoexter Consulting Eng. Geology	Client Project ID: # E-10-1E-391E	Date Sampled: 01/20/03
734 Torreya Court		Date Received: 01/21/03
Palo Alto, CA 94303-4160	Client Contact: David Hoexter	Date Extracted: 01/21/03
	Client P.O.:	Date Analyzed: 01/22/03

Petroleum Oil & Grease with Silica Gel Clean-Up*

Analytical methods: SM5520B/F Work Order: 0301257

Lab ID	Client ID	Matrix	POG	DF	% SS
0301257-001C	MW-1	W	65,h	1	N/A
0301257-002C	MW-2	W	ND	1	N/A
0301257-003C	MW-3	W	ND	1	N/A
0301257-004C	MW-4	W	ND,h	1	N/A
0301257-005C	MW-5	W	ND	1	N/A
0301257-006C	MW-6	W	ND	1	N/A
0301257-007C	MW-7	W	ND,h	1	N/A
0301257-008C	MW-8	W	ND	1	N/A
0301257-009C	MW-9	W	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA

* water and vapor samples and all TCLP & SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

DF = dilution factor (may be raised to dilute target analyte or matrix interference)

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0301257

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 5686 Spiked Sample ID: 0301256-001A

Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	ND	60	107	111	3.35	97.1	97	0.132	80	120
MTBE	ND	10	94.6	101	6.26	87.2	98.2	11.9	80	120
Benzene	ND	10	111	112	0.816	92.7	104	11.6	80	120
Toluene	ND	10	106	107	1.12	96.8	108	10.8	80	120
Ethylbenzene	ND	10	114	114	0.580	94.5	103	8.46	80	120
Xylenes	ND	30	113	110	2.99	99.3	103	3.95	80	120
%SS:	106	100	104	105	1.16	91.9	94.4	2.72	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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QC SUMMARY REPORT FOR SM5520B/F

Matrix: W WorkOrder: 0301257

EPA Method: SM5520B/F Extraction: PRHEM-SGT_ BatchID: 5488 Spiked Sample ID: N/A

Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
POG	N/A	200	N/A	N/A	N/A	92.1	91	1.11	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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QC SUMMARY REPORT FOR SW8021B

Matrix: W WorkOrder: 0301257

EPA Method: SW8021B	Extraction: SW5030B			BatchID: 5692			Spiked Sample ID: 0301264-005B			
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Chlorobenzene	ND	10	92.3	93.8	1.56	92	94.3	2.51	70	130
1,1-Dichloroethene	ND	10	112	105	6.34	112	116	3.87	70	130
Trichloroethene	ND	10	87.5	85.7	2.00	85.1	85.9	0.969	70	130
%SS:	99.5	100	93.8	90.7	3.37	92.8	89.9	3.24	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

0301257

1 of 2

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
E-10-1E-391E	1970 Seminary Ave. Oakland CA

Sampler's Name (printed): D. Hoexter, J. Forsythe

Boring Number	Date	Time	Soil	Water	Sample Location or Depth	Sample Number	Number/Type of Containers	TPH-G/BTEX/MTBE 8010 (HVOC)	SM 5520 B/F O&G	Preserved HCL	Remarks
MW-1	1/20/03	1627					2 VOA	X	X		X	
							1-L			X		
-2		1458					2 VOA	X	X		X	
							1-L			X		
-3		1547					2 VOA	X	X		X	
							1-L			X		
-4		1610					2 VOA	X	X		X	
							1-L			X		
-5		1504					2 VOA	X	X		X	
							1-L			X		
-6		1515					2 VOA	X	X		X	
							1-L			X		
-7		1516					2 VOA	X	X		X	
							1-L			X		

Continued on pg 2

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
D. Hoexter	1/21/03 10:-	B. Burton
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
B. Burton	1/21 12:00	Melissa Valles
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: Mc Campbell Analytical
Pacheco CA

Attention:

Phone No:

Requested Turnaround Time: Normal

Remarks:

Contact: DAVID F. HOEXTER

ICE/t°	VOAs	O&G	METALS	OTHER
GOOD CONDITION ✓				
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
PRESERVATION APPROPRIATE ✓				
CONTAINERS				
PRESERVED IN LAB				

Phone 650-454-2505
Fax 650-454-2515

Hoexter Consulting
Engineering Geology
734 Torreya Court
Palo Alto, CA 94303

030120

2 of 2

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
E-10-16-391C	1970 Seminary Ave - Oakland CA

Sampler's Name (printed): JF/DFH

Boring Number	Date	Time	Soil	Water	Sample Location or Depth	Sample Number	Number/Type of Containers	Analytical Tests: TPH-G/BTEX/MTBE	8010 HVOC	SM5520B/F&O	HCL Preserved	Remarks
-8	11/20/03	1535					2VOA	X	X		X	
							1-L			X		
-9	↓	1558		↓			2VOA	X	X		X	
							1-L			X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
D. Hoexter	7/21/03 10:-	B. Butts
B. Butts	1-21 Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: McCampbell Anal - Pacheco CA

Attention:

Phone No:

Requested Turnaround Time: Normal

Contact: David F Hoexter

Remarks:

Phone 650-494-2505

Fax 650-494-2515

Hoexter Consulting
Engineering Geology
734 Torreya Court
Palo Alto, CA 94303

McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0301257

Client:
Hoexter Consulting Eng. Geology
734 Torreya Court
Palo Alto, CA 94303-4160

TEL: (650) 494-2505
FAX: (650) 494-7920
ProjectNo: # E-10-1E-391E
PO:

Date Received: 1/21/03
Date Printed: 1/21/03

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests						
					SM5520B/F	SW8021B	V8021B/8015C				
0301257-001	MW-1	Water	1/20/03 4:27:00 PM	☐	C	B	A				
0301257-002	MW-2	Water	1/20/03 2:58:00 PM	☐	C	B	A				
0301257-003	MW-3	Water	1/20/03 3:47:00 PM	☐	C	B	A				
0301257-004	MW-4	Water	1/20/03 4:10:00 PM	☐	C	B	A				
0301257-005	MW-5	Water	1/20/03 3:06:00 PM	☐	C	B	A				
0301257-006	MW-6	Water	1/20/03 3:15:00 PM	☐	C	B	A				
0301257-007	MW-7	Water	1/20/03 3:16:00 PM	☐	C	B	A				
0301257-008	MW-8	Water	1/20/03 3:35:00 PM	☐	C	B	A				
0301257-009	MW-9	Water	1/20/03 3:58:00 PM	☐	C	B	A				

Prepared by: Sonia Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.