RO - 370

Manmohan S. Chopra
4216 Warbler Loop
FREMONT, CA 94555

April 7,2003

Alameda County Department of Enviromental Health

ATTN: Ms. Eva Chu

1131 Harbor Bay Parkway, 2nd. floor
Alameda, Ca 94502-6577

SUB: GROUNDWATER MONITORING & SAMPLING REPORT
1401 Grand Ave.
SAN LEANDRO, CA 94577

Dear Ms. Chu,

Attached, for your review and records, please find a copy of latest Ground Water Monitoring & sampling Report for the above site. The report is self explanatory and is in standard format.However, if you have any questions or comments, please contact the undersigned at 510-489-5696 or write at the address above.

sincerely,

Manmohan S. Chopra

RO-370

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

May 5, 2003
Report 0055.R16

Mr. Manmohan Chopra
4216 Warbler Loop
Fremont, CA 94555

SUBJECT: GROUNDWATER MONITORING AND SAMPLING REPORT
Former ARCO Service Station
1401 Grand Avenue
San Leandro, California

Dear Mr. Chopra:

P&D Environmental (P&D) is pleased to present this report documenting the results of the most recent monitoring and sampling of the eight groundwater monitoring wells at or near the subject site. This work was performed in accordance with P&D's proposal 022698.P1 dated February 26, 1998. All of the wells were monitored on April 16, 2003 and sampled on April 16 and 17, 2003. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

The site is presently used as an active gasoline station. It is P&D's understanding that on April 24, 1991 Aegis Environmental, Inc. (Aegis) personnel drilled four soil borings, designated as B-1 through B-4, to a vertical depth of approximately 40 feet at the site. The locations of the borings are shown on Figure 2. A total of nine soil samples collected from the boreholes were analyzed for total petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260; and for total lead by EPA Method 7420. TPH-G concentrations ranged from below detection limit to 66 parts per million (ppm). Benzene concentrations ranged from not detected to 0.94 ppm. Total lead concentrations ranged from not detected to 3 ppm. Documentation of the subsurface investigation and results are presented in a report prepared by Aegis titled, "Soil Boring Results Report," dated June 10, 1991.

It is P&D's understanding that on April 14, 1992 Aegis personnel returned to the site to drill three slant borings, designated as B5 through B7, to a total vertical depth of approximately 49 feet at the site. The borings were drilled at an angle of approximately 26 to 28 degrees to collect samples from beneath the underground storage tanks. The locations of the borings are shown on Figure 2. A total of twenty-two soil samples were analyzed for TPH-G using EPA Method 5030; and for BTEX using EPA Method 8240. In addition, one of the samples was analyzed for total lead using EPA Method 7420, and several of the soil samples were analyzed for soluble lead using the California Waste Extraction Test. TPH-G concentrations ranged from not detected to 4,000 ppm. Benzene, concentrations ranged from not detected to 11 ppm. Total lead was not detected, and soluble lead concentrations ranged from not detected to 0.061 ppm. Documentation of the subsurface investigation and results are presented in a report prepared by Aegis titled, "Initial Subsurface Investigation Results Report," dated June 22, 1992.

It is P&D's understanding that between September 15 and 18, 1992 Aegis personnel returned to the site to install five groundwater monitoring wells, designated as MW1 through MW5. The wells were drilled to total depths of between 50 and 55 feet, and were constructed using four-inch diameter PVC pipe. Wells MW1 and MW2 were constructed with perforated casing between the depths of approximately 15 and 55 feet. Wells MW3, MW4 and MW5 were constructed with perforated casing between the depths of approximately 35 and 55 feet. Groundwater was reported to have been first encountered at a depth of 42 feet. The locations of the wells are shown in Figure 2.

A total of thirty-one soil samples were analyzed for TPH-G using EPA Method 5030/8015; and for BTEX using EPA Method 8020. In addition, three soil samples containing TPH-G were analyzed for total metals concentrations of cadmium, chromium, lead, and zinc using EPA Method 6010 and 7421. One soil sample was collected from each borehole from below the air-water interface and analyzed for petrophysical properties, including saturated permeability and grain size distribution.

TPH-G concentrations ranged from not detected to 39 ppm. Benzene concentrations ranged from not detected to 0.27 ppm. The total metals concentrations were all less than 10 times their respective STLC values. The subsurface materials encountered in the borings indicate that soil types vary across the site, but generally consist of silty clay, silt, clayey silt and sandy silt from the surface to a depth of between 30 and 35 feet. Below the depth of 30 to 35 feet, layers of sand and sandy silt were reported to have been encountered.

It is P&D's understanding that on September 29, 1992 Aegis personnel collected groundwater samples from wells MW1, MW2, MW4 and MW5 at the site. A sample was not collected from well MW-3 due to the reported presence of 0.02 feet of floating hydrocarbons. The measured depth to water ranged from approximately 41.5 to 44.5 feet. The samples were analyzed for TPH-G using EPA Method 5030/8015; and for BTEX using EPA Method 8020. TPH-G concentrations ranged from 0.06 to 20 ppm, and benzene concentrations ranged from 0.16 to 10 ppm. Based upon the water level measurements in the wells, the groundwater flow direction was reported to be to the northwest. The water level measurements are summarized in Table 1. The analytical results are summarized in Table 2.

It is P&D's understanding that on October 7, 1992 Aegis personnel performed rising head slug tests wells MW1, MW2, and MW4 to estimate the saturated hydraulic conductivity at the site. In addition, two short-term soil vapor extraction tests were performed on wells MW1 and MW2. Wells MW-3, MW-4, and MW-5 were used as vacuum influence monitoring points. Documentation of the monitoring well groundwater sample collection, slug test and vapor extraction tests are presented in a report prepared by Aegis titled, "Problem Assessment Report," dated December 16, 1992.

On February 18, 1994 P&D personnel monitored the five groundwater monitoring wells at the site for depth to water and the presence of free product or sheen. The depth to water was

measured using an electric water level indicator, and the presence of free product and sheen was evaluated using a transparent bailer. The measured depth to water in the wells ranged from approximately 39.8 to 42.9 feet. No evidence of free product or sheen was detected in any of the wells. Based on the measured depth to water in the wells, the groundwater flow direction was calculated to be to the north with a gradient of 0.054. In a letter dated October 19, 1995 Mr. Scott Seery of the Alameda County Department of Environmental Health requested that all of the onsite and offsite wells be monitored and sampled for the quarterly monitoring and sampling program. The measured depth to water in the wells is presented in Table 1.

On June 15 and 16, 1995 P&D installed three offsite monitoring wells, designated as MW6 through MW8. The locations of the wells are shown on Figure 2. Documentation of the well installation and sample results is presented in P&D's report 0055.R5 dated August 23, 1995.

The underground storage tanks at the subject site were replaced in the first half of 1997. Following removal of the tanks, excavation of soil was performed in the area surrounding well MW1. As a result of the excavation activities, the elevation at the top of well MW1 was altered. The present elevation for the top of well MW1 is unknown.

FIELD ACTIVITIES

On April 16, 2003 all eight of the wells in the groundwater monitoring network for the site were monitored and on April 16 and 17, 2003 all of the wells were purged and sampled by P&D personnel. The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the wells. Depth to water level measurements and monitoring well groundwater surface elevations are presented in Table 1.

Prior to sampling, the wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, water samples were collected using a clean Teflon bailer. The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials were then transferred to a cooler with ice, and later were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

The subsurface materials encountered in the borings drilled by Aegis indicate that soil types vary across the site, but generally consist of silty clay, silt, clayey silt and sandy silt from the surface to a depth of between 30 and 35 feet. Below the depth of 30 to 35 feet, layers of sand and sandy silt were reported to have been encountered. Groundwater has historically been encountered at the site at depths ranging from approximately 40 to 45 feet below grade.

Based upon the regional groundwater flow direction identified by Woodward-Clyde Consultants in a report titled, "Hydrogeology of Central San Leandro and Remedial Investigation of Regional Groundwater Contamination - San Leandro Plume - San Leandro, California - Volume I," prepared for the California Environmental Protection Agency and dated December 29, 1993 the regional groundwater flow direction to the west of the site appears to be to the southwest. However, based upon the measured depth to water in the five wells at the site on September 29, 1992 Aegis identified a northwesterly groundwater flow direction. Based upon water level measurements collected by P&D from the five wells at the site on February 18, July 5, and October 12, 1994, February 1, and May 4, 1995 the groundwater flow direction at the site was calculated to be to the north, towards San Leandro Creek. Based upon water level measurements collected in wells MW1 through MW8 by P&D personnel on June 23 and December 19, 1995, March 28 and June 21, 1996 the groundwater flow direction was calculated to be to the northwest.

The measured depth to water at or near the site on April 16, 2003 for all of the wells ranged from 37.32 to 40.63 feet. Since the previous monitoring on January 20, 2003, groundwater levels have decreased in all of the wells by between 0.42 and 0.86 feet. Based on the April 16, 2003 water level measurements, the groundwater flow direction on April 16, 2003 was to the northwest with a gradient of 0.048. The calculated water level in well MW3 appears to be inconsistent with the other wells in the groundwater monitoring network.

The groundwater flow direction has not changed and the gradient has decreased since the previous water level measurements on January 20, 2003. The groundwater monitoring data are presented in Table 1. The groundwater flow direction at the site on April 16, 2003 is shown on Figure 2.

LABORATORY RESULTS

All of the groundwater samples collected from the monitoring wells were analyzed for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015 and for Volatile Organic Compounds (VOCs) and fuel oxygenates using EPA Method 8260 in accordance with a request from Ms. Eva Chu of the Alameda County Department of Environmental Health.

The laboratory analytical results for the groundwater samples showed that TPH-G, BTEX, MTBE, and other fuel oxygenates were not detected in wells MW5, MW6, MW7, and MW8. In wells

MW1, MW3 and MW4, TPH-G was detected at concentrations ranging from 0.052 to 0.38 ppm, and at a concentration of 57 ppm in well MW2. MTBE was detected in wells MW1, MW2, MW3, and MW4 at concentrations of 0.056, 5.6, 0.34, and 5.4 ppm, respectively. Benzene was detected in wells MW1 and MW2 at concentrations of 0.0011 and 3.4 ppm, respectively, and was not detected in wells MW3 and MW4.

Since the previous sampling event, TPH-G concentrations have increased in wells MW2, MW3 and MW4, decreased in well MW1, and remained unchanged (not detected) in wells MW5 through MW8. MTBE concentrations have increased in wells MW2, MW3, and MW4, decreased in wells MW1 and MW6, and remained unchanged (not detected) in wells MW5, MW7 and MW8. Benzene concentrations have increased in wells MW1 and MW2 and remained unchanged (not detected) in wells MW3 through MW8.

The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical report and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

Based on the depth to water measurements on April 16, 2003 from all of the monitoring wells (MW1 through MW8), the groundwater flow direction is to the northwest, and is unchanged since the previous monitoring event. MTBE was detected only in wells MW1 through MW4. Other BTEX and fuel oxygenates were not detected in any of the wells other than well MW2 with the exception of 0.0013 ppm TBA in well MW2.

P&D recommends that a quarterly groundwater monitoring and sampling program be continued at the site. P&D recommends that future groundwater samples collected from all of the wells be analyzed for TPH-G, BTEX and MTBE using EPA Method 8020, based on the absence of fuel oxygenates other than MTBE and TBA in well MW1.

DISTRIBUTION

Copies of this report should be forwarded to Ms. Eva Chu at the Alameda County Department of Environmental Health.

LIMITATIONS

This report was prepared solely for the use of Mr. Manmohan Chopra. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however,

geological conditions may vary between borings and pits and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are
based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
President
California Registered Geologist #5901
Expires: 12/31/03

PHK/wrw
0055.R16

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Forms
Laboratory Analytical Reports
Chain of Custody Documentation

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	4/16/03	Not Available	38.91	Not Available
	1/20/03	Not Available	38.21	Not Available
	2/16/99	Not Available	34.58	Not Available
	1/25/98	Not Available	33.70	Not Available
	7/14/97	Not Available	39.45	Not Available
	3/11/97	87.98+	36.90	51.08
	6/21/96		38.56	49.42
	3/28/96		37.10	50.88
	12/19/95		40.16	47.82
	6/23/95		38.54	49.44
	5/04/95	87.96++	37.65	50.33
	2/01/95		38.46	49.52
	10/12/94		42.01	45.97
	7/05/94		41.36	46.62
	2/18/94		41.02	46.96
	9/29/92		42.77	45.21
MW2	4/16/03	86.61+	37.50	49.11
	1/20/03		37.04	49.57
	2/16/99		33.51	53.10
	1/25/98		32.80	53.81
	7/14/97		38.46	48.15
	3/11/97		35.71	50.90
	6/21/96		37.30	49.31
	3/28/96		35.97	50.64
	12/19/95		38.80	47.81
	6/23/95		37.40	49.21
	5/04/95	86.60++	36.54	50.07
	2/01/95		37.27	49.34
	10/12/94		40.77	45.84
	7/05/94		40.13	46.48
	2/18/94		39.81	46.80
	9/29/92		41.55	45.06

NOTES:
Elevations are in feet Mean Sea Level.
ft. = Feet.
+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.
++ = Indicates survey data provided by Aegis Environmental, Inc.
* = Indicates groundwater elevation corrected for the presence of free product.

TABLE 1 (Continued)
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW3	4/16/03	87.48+	40.60	46.88
	1/20/03		39.81	47.67
	2/16/99		34.91	52.57
	1/25/98		33.91	53.57
	7/14/97		40.61	46.87
	3/11/97		38.71	48.77
	6/21/96		40.61	46.87
	3/28/96		38.75	48.73
	12/19/95		42.20	45.28
	6/23/95		40.65	46.83
	5/04/95	87.50++	39.61	47.87
	2/01/95		40.13	47.35
	10/12/94		43.92	43.56
	7/05/94		43.32	44.16
	2/18/94		43.09	44.39
	9/29/92		44.60	42.88*
MW4	4/16/03	86.21+	37.32	48.89
	1/20/03		36.70	49.51
	2/16/99		33.43	52.78
	1/25/98		32.96	53.25
	7/14/97		38.10	48.11
	3/11/97		33.24	52.97
	6/21/96		37.12	49.09
	3/28/96		35.00	51.21
	12/19/95		38.45	47.76
	6/23/95		37.40	48.81
	5/04/95	86.20++	36.33	49.88
	2/01/95		36.96	49.25
	10/12/94		40.48	45.73
	7/05/94		39.69	46.52
	2/18/94		39.36	46.85
	9/29/92		44.29	41.92

NOTES:
Elevations are in feet Mean Sea Level.
ft. = Feet.
+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.
++ = Indicates survey data provided by Aegis Environmental, Inc.
** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 1 (Continued)
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW5	4/16/03	89.10+	39.92	49.18
	1/20/03		39.50	49.60
	2/16/99		35.08	54.02
	1/25/98		34.08	55.02
	7/14/97		41.20	47.90
	3/11/97		38.02	51.08
	6/21/96		40.03	49.07
	3/28/96		38.30	50.80
	12/19/95		41.79	47.31
	6/23/95		39.87	49.23
	5/04/95	89.06++	38.94	50.16
	2/01/95		39.94	49.16
	10/12/94		43.81	45.29
	7/05/94		43.08	46.02
	2/18/94		42.88	46.22
	9/29/92		44.53	44.57
MW6	4/16/03	84.02+	38.00	46.02
	1/20/03		37.21	46.81
	2/16/99		32.82	51.20
	1/25/98		31.64	52.38
	7/14/97		39.04	44.98
	3/11/97		36.32	47.70
	6/21/96		38.00	46.02
	3/28/96		36.18	47.84
	12/19/95		39.25	44.77
	6/23/95		38.17	45.85
	6/21/95**		38.11	45.91

NOTES:
Elevations are in feet Mean Sea Level.
ft. = Feet.
+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.
++ = Indicates survey data provided by Aegis Environmental, Inc.
** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 1 (Continued)
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW7	4/16/03	87.11+	40.63	46.48
	1/20/03		39.77	47.34
	2/16/99		34.59	52.52
	1/25/98		33.47	53.64
	7/14/97		41.97	45.14
	3/11/97		38.96	48.15
	6/21/96		40.80	46.31
	3/28/96		38.94	48.17
	12/19/95		42.26	44.85
	6/23/95		41.00	46.11
	6/21/95**		40.30	46.81
MW8	4/16/03	89.70+	39.52	50.18
	1/20/03		38.94	50.76
	2/16/99		33.92	55.78
	1/25/98		32.73	56.97
	7/14/97		39.98	49.72
	3/11/97		36.74	52.96
	6/21/96		38.69	51.01
	3/28/96		36.98	52.72
	12/19/95		40.35	49.35
	6/23/95		38.36	51.34
	6/21/95**		38.20	51.50

NOTES:
Elevations are in feet Mean Sea Level.
ft. = Feet.
+ = Indicates survey data provided by Kier & Wright dated June 26, 1995.
** = Indicates depth to water measurements prior to groundwater monitoring well development.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Samples Collected April 16 & 17, 2003)

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other VOCs by EPA 8260
MW1	0.052	0.056	0.0011	ND<0.001	ND<0.001	ND<0.001	ND, except t-Butyl Alcohol (TBA) = 0.013
MW2	57	5.6	3.4	5.1	2.8	10	ND, except Naphthanlene = 0.43 1,2,4-Trimethylbenzene = 2.2 n-proylbenzene = 0.26 1,3,5-Trimethylbenzene = 0.55
MW3	0.18	0.34	ND	ND	ND	ND	ND
MW4	0.38	5.4	ND<0.12	ND<0.12	ND<0.12	ND<0.12	ND
MW5	ND<0.05	ND	ND	ND	ND	ND	ND
MW6	ND<0.05	ND	ND	ND	ND	ND	ND, except Chloroform = 0.0012
MW7	ND<0.05	ND	ND	ND	ND	ND	ND, except Chloroform = 0.00075 Tetrachloroethene = 0.0012
MW8	ND<0.05	ND	ND	ND	ND	ND	ND, except Chloroform = 0.0018

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert Butyl Ether.
VOCs = Volatile Organic Compounds
ND = Not Detected below 0.0005 ppm for MW5-MW8 & 0.00067 ppm for MW3 unless otherwise noted
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Samples Collected January 20, 2003)

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other VOCs by EPA 8260
MW1	0.17	0.085	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
MW2	48	3.8	2.9	3.0	2.0	11	ND, except Naphthanlene = 0.35 1,2,4-Trimethylbenzene = 1.4 1,3,5-Trimethylbenzene = 0.32 Isopropylbenzene = 0.069 n-proylbenzene = 0.16
MW3	0.12	0.25	ND<0.005	ND<0.005	ND<0.005	0.0052	ND
MW4	0.21	3.0	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND
MW5	ND	ND	ND	ND	ND	ND	ND
MW6	ND	0.0012	ND	ND	ND	ND	ND, except Chloroform = 0.0011
MW7	ND	ND	ND	ND	ND	ND	ND, except Chloroform = 0.00056
MW8	ND	ND	ND	ND	ND	ND	ND, except Chloroform = 0.0013

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert Butyl Ether.
VOCs = Volatile Organic Compounds
ND = Not Detected.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On February 16 & 17, 1999			
MW1	0.97	0.29	0.067	0.12	0.0093	0.058
MW2	7.3	0.56	0.42	1.0	0.38	1.8
MW3	ND	0.021	ND	ND	ND	ND
MW4	0.23	0.20	0.065	0.0022	0.0096	0.033
MW5	0.17	ND	ND	0.00074	ND	ND
MW6	ND	ND	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert Butyl Ether.
ND = Not Detected.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On January 25, 1998			
MW1	0.30	ND<0.014	0.021	0.00073	0.0076	0.0010
MW2	24	2.7	2.7	4.9	0.70	4.0
MW3	0.49	0.71	0.0079	0.0061	0.0053	0.029
MW4	0.91	0.23	0.15	0.019	0.31	0.14
MW5	ND	ND	ND	ND	ND	ND
MW6	ND	ND	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND
			Samples Collected On July 14, 1997			
MW1	0.20	0.035	0.020	0.0055	0.0012	0.0023
MW2	43	1.6	6.2	8.9	1.5	7.4
MW3	0.40	0.11	0.00093	0.0010	0.0013	0.00068
MW4	0.98	0.40	0.21	0.0017	0.090	0.046
MW5	ND	ND	ND	ND	ND	ND
MW6	ND	0.019	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND

NOTES:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert Butyl Ether.
ND = Not Detected.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On March 11, 1997			
MW1	0.60	0.014	0.053	0.00095	0.003	0.0015
MW2	28	0.71	4.0	4.5	0.99	4.3
MW3	1.1	0.68	0.053	0.013	0.063	0.017
MW4	3.8	1.1	1.1	0.053	0.24	0.26
MW5	ND	ND	ND	ND	ND	0.00077
MW6	ND	ND	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND
			Samples Collected On June 21, 1996			
MW1	1.4	0.019	0.30	0.0087	0.033	0.0098
MW2	49	0.53	6.6	6.3	1.4	6.2
MW3	1.3	0.3	0.094	0.0021	0.039	0.002
MW4	11	1.2	2.4	0.083	0.53	0.91
MW5	ND	ND	ND	ND	ND	ND
MW6	ND	ND	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl Tert Butyl Ether.
ND = Not Detected.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On March 28, 1996			
MW1	1.3	0.022	0.32	0.0023	0.034	0.0046
MW2	38	0.45	5.8	4.7	1.1	5.1
MW3	4.6	1.1	1.4	0.012	0.17	0.020
MW4	5.6	0.64	1.4	0.038	0.31	0.30
MW5	ND	ND	ND	ND	ND	ND
MW6	ND	ND	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND
			Samples Collected On December 19, 1995			
MW1	0.50	0.0081	0.087	0.0015	0.011	0.0035
MW2	25	0.45	5.2	3.8	0.86	3.8
MW3	0.95	0.12	0.16	0.0023	0.015	0.0016
MW4	2.0	0.21	0.70	0.029	0.089	0.15
MW5	ND	ND	ND	ND	ND	ND
MW6	ND	0.01	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
Results in parts per million (ppm), unless otherwise indicated.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected on June 23, 1995			
MW6	ND	0.003	ND	ND	ND	ND
MW7	ND	ND	ND	ND	ND	ND
MW8	ND	ND	ND	ND	ND	ND
			Samples Collected On May 4, 1995			
MW1	2.4	NA	0.67	0.0028	0.076	0.0060
MW2	63	NA	10	11	1.6	8.8
MW3	7.2	NA	3.1	0.038	0.20	0.062
MW4	3.3	NA	0.89	0.068	0.15	0.30
MW5	ND	NA	ND	ND	ND	ND
			Samples Collected On February 1, 1995			
MW1	4.6	NA	1.8	0.0099	0.23	0.030
MW2	45	NA	7.0	5.1	1.2	6.1
MW3	11	NA	4.2	0.031	0.33	0.29
MW4	1.4	NA	0.39	0.055	0.049	0.18
MW5	ND	NA	ND	ND	ND	ND

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
Results in parts per million (ppm), unless otherwise indicated.

TABLE 2 (Continued)
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Well No.	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
			Samples Collected On October 12, 1994			
MW1	2.5	NA	0.82	0.0039	0.10	0.020
MW2	24	NA	4.4	2.8	0.73	3.5
MW3	1.7	NA	0.39	0.00090	0.018	0.0057
MW4	0.68	NA	0.14	0.0087	0.014	0.052
MW5	ND	NA	ND	ND	ND	ND
			Samples Collected On July 5, 1994			
MW1	3.0	NA	1.3	0.0038	0.035	0.0025
MW2	46.0	NA	9.1	7.0	1.4	7.3
MW3	3.6	NA	1.6	0.0083	0.076	0.047
MW4	2.6	NA	0.47	0.045	0.084	0.25
MW5	ND	NA	ND	ND	ND	0.0010
			Samples Collected On September 29, 1992			
MW1	3.1	NA	0.16	ND	ND	0.0060
MW2	20	NA	4.6	3.8	0.26	3.3
MW3	NA	NA	NA	NA	NA	NA
MW4	0.63	NA	0.17	0.06	0.0073	0.65
MW5	0.06	NA	10	0.0071	ND	0.0069

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
Results in parts per million (ppm), unless otherwise indicated.

P & D ENVIRONMENTAL

4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916

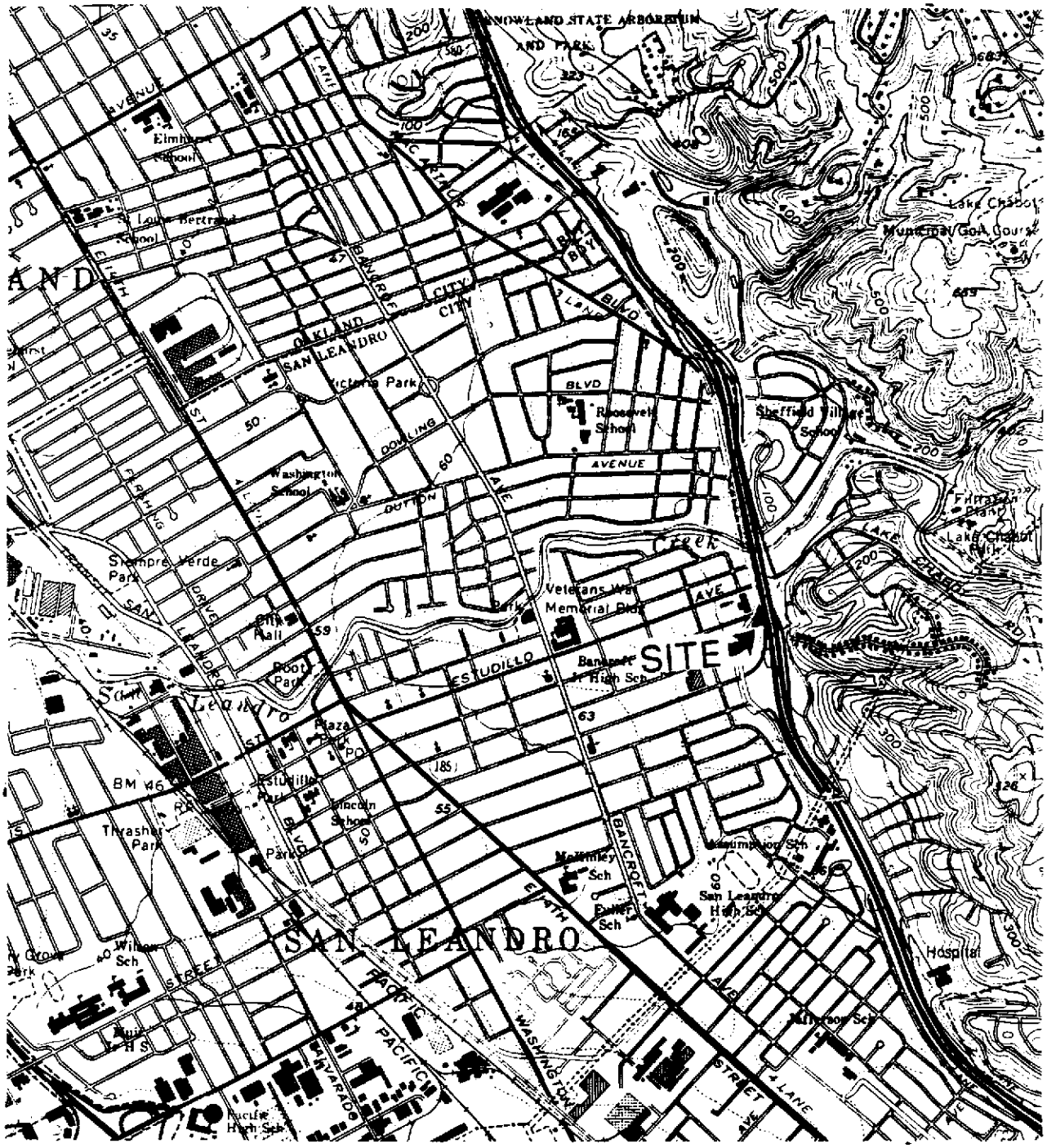
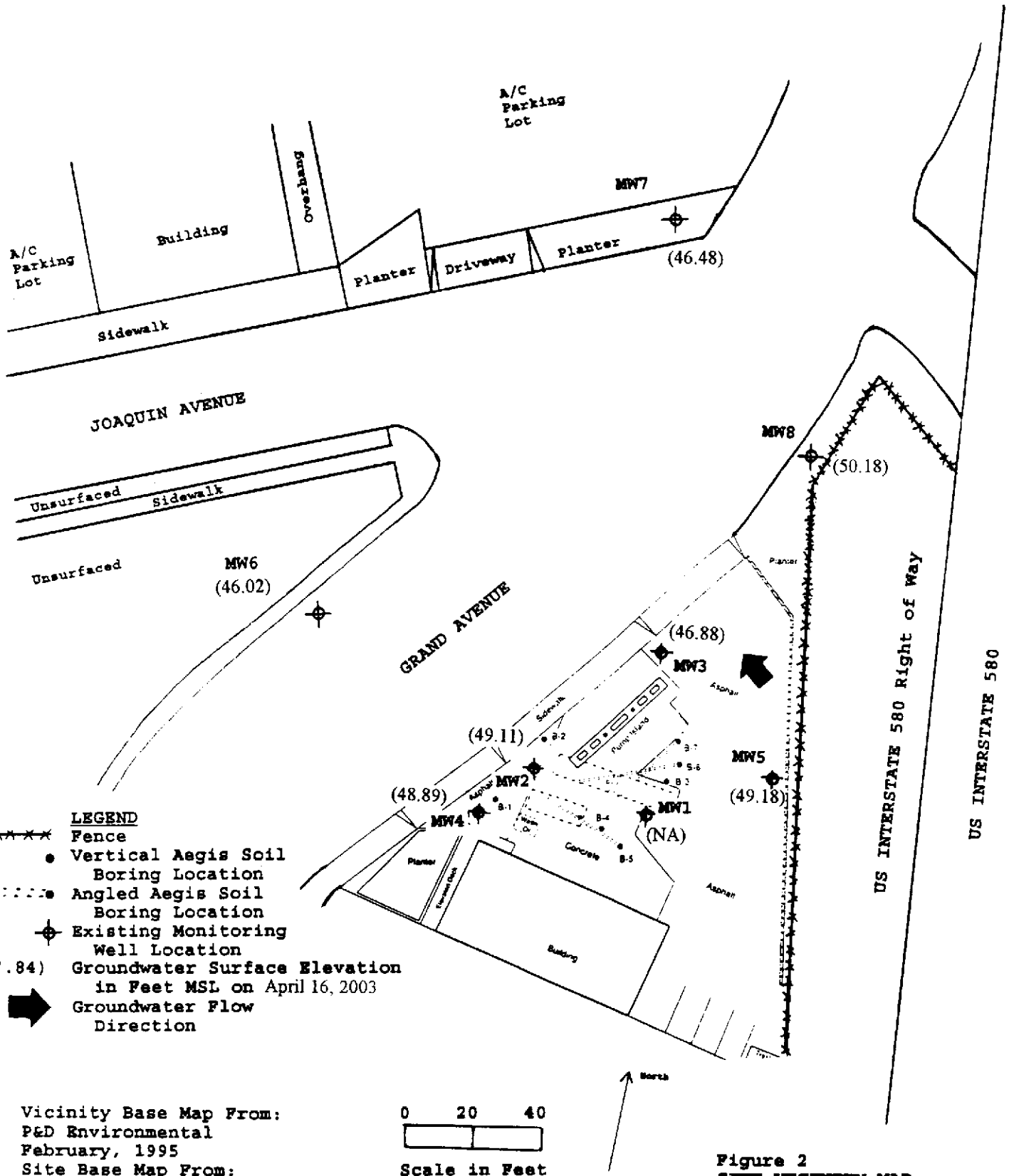


Figure 1
SITE LOCATION MAP
Former ARCO Service Station
1401 Grand Avenue
San Leandro, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



Vicinity Base Map From:
P&D Environmental
February, 1995
Site Base Map From:
Aegis Environmental, Inc.
Problem Assessment Report
dated December 16, 1992

Figure 2
SITE VICINITY MAP
Former ARCO Service Station
1401 Grand Avenue
San Leandro, California

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name former Haber O.1 | Well No. MW1
Job No. 0055 | Date 4/17/03
TOC to Water (ft.) 38.91 | Sheen NONE
Well Depth (ft.) 92.7 | Free Product Thickness Ø
Well Diameter 4" | Sample Collection Method
Gal./Casing Vol. 8.9 | Teflon bailer
Σ = 26.7

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm) x100
9:38	1	7.43	64.1	0.73
9:42	5	7.44	65.1	0.72
9:46	10	7.47	65.2	0.73
9:52	12	7.50	65.0	0.70
9:57	22	7.55	65.0	0.70
10:01	28	7.62	65.0	0.71

NOTES: Sampling time — 10:05 am.
No PHC odor or sheen.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name former Haber O;l
Job No. 0055
TOC to Water (ft.) 37.50
Well Depth (ft.) 52.4
Well Diameter 4"
Gal./Casing Vol. 9.6
ε = 28.8

Well No. MW2
Date 4/17/03
Sheen NONE
Free Product Thickness Ø
Sample Collection Method Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°f)	ELECTRICAL CONDUCTIVITY (µS/cm *1000)
12:09pm	1	7.24	65.8	0.78
12:13	5	7.22	66.6	0.78
12:17	12	7.22	66.4	0.78
12:22	18	7.21	66.4	0.77
12:27	24	7.32	66.9	0.78
12:31	30	7.32	68.4	0.83
	32	7.29	67.7	0.78

NOTES: Black particles in purge water for first 10 gallons, no PHC sheen, but slight odor. Sampling time — 12:40 pm

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name former Haber Oil | Well No. MW3
Job No. 0055 | Date 9/17/03
TOC to Water (ft.) 40.60 | Sheen NONE
Well Depth (ft.) 55.3 | Free Product Thickness Ø
Well Diameter 4" | Sample Collection Method
Gal./Casing Vol. 9.5 Σ = 28.5 | Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm) x 1000
10:35	1	7.47	64.9	0.67
10:37	5	7.46	64.9	0.67
10:43	12	7.43	65.0	0.66
10:47	18	7.44	66.4	0.69
10:52	24	7.50	66.1	0.69
10:56	30	7.48	65.7	0.69

NOTES: Very slight PHC odor on purge water, No Sheen.
Sampling time — 11:00 am.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name former Haber Oil
Job No. 0055
TOC to Water (ft.) 37.32
Well Depth (ft.) 53.3
Well Diameter 4"
Gal./Casing Vol. ~~16.0~~ 10.3 E=30.9

Well No. MW4
Date ~~DONE~~ 4/17/03
Sheen NONE
Free Product Thickness 0
Sample Collection Method Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (oF)	ELECTRICAL CONDUCTIVITY (mS/cm) *1000
11:24	1	7.50	65.9	0.86
11:27	5	7.52	65.9	0.86
11:30	12	7.53	66.4	0.86
11:37	18	7.51	65.4	0.83
11:40	25	7.53	66.5	0.87
11:45	31	7.52	66.0	0.85

NOTES: No odor or sheen or Purge water.
Sampling Time — 11:50 am.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name former Haber Oil
Well No. MW5
Job No. 0059
Date 4/16/03
TOC to Water (ft.) 39.92
Sheen NONE
Well Depth (ft.) 54.7
Free Product Thickness Ø
Well Diameter 4"
Sample Collection Method
Gal./Casing Vol. 9.6
Teflon bailer
Σ = 28.4

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (uS/cm) * 1000
1:50	1	7.71	64.9	0.72
1:54	5	7.61	64.7	0.70
1:58	10	7.61	64.6	0.75
2:02	15	7.62	64.5	0.72
2:08	20	7.66	64.1	0.70
2:11	25	7.69	64.4	0.68
2:15	30	7.74	64.5	0.67

NOTES: Sampling time: 2:20pm
No PHC odor or sheen

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Former Haber 0.1 | Well No. MW6
Job No. ~~0050~~ 0055 | Date 4/16/03
TOC to Water (ft.) 38.00 | Sheen NONE
Well Depth (ft.) 49.1 | Free Product Thickness 0
Well Diameter 2" | Sample Collection Method
Gal./Casing Vol. 1.8 | Teflon bailer
Σ = 5.4

TIME	GAL. PURGED	pH	TEMPERATURE (of)	ELECTRICAL CONDUCTIVITY (µS/cm) * cc
2:43 pm	0.5	7.98	65.5	0.68
2:43	1	7.89	65.7	0.68
2:44	2	7.90	65.5	0.68
2:45	3	7.91	65.4	0.68
2:45	4.5	7.94	65.3	0.68
2:46	6	7.93	65.3	0.66

NOTES:
Water in Christie box above TOC.
Sampling time — 2:50 pm. No PHC odor or sheen.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Former Hayer 01 | Well No. MW7
Job No. 0055 | Date 4/16/03
TOC to Water (ft.) 40.63 | Sheen NONE
Well Depth (ft.) 49.8 | Free Product Thickness Ø
Well Diameter 2" | Sample Collection Method
Gal./Casing Vol. 1.5 | Teflon bailer
Σ = 4.5

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm) * 10
1.04	0.2	8.04	67.5	0.67
1:05	0.8	8.00	66.8	0.66
1:06	1.5	7.98	66.5	0.65
	~~2.0~~			
1:07	~~2.8~~ 2.5	7.99	66.1	0.65
1:07	3.5	7.97	65.9	0.67
1:08	4.5	7.97	65.9	0.65

NOTES: Sampling Time - 1:15 pm
No HC odor or sheen.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Former Haber Oil
Job No. 0055
TOC to Water (ft.) 39.52
Well Depth (ft.) 48.0
Well Diameter 2"
Gal./Casing Vol. 1.4
$\Sigma = 4.2$

Well No. MW8
Date 4/16/03
Sheen None
Free Product Thickness 0
Sample Collection Method
Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (of)	ELECTRICAL CONDUCTIVITY (µS/cm) *10x
12:00	0.2	8.63	65.1	0.92
12:01	0.8	8.29	64.2	0.64
12:02 pm	1.5	8.21	64.1	0.66
12:02	2.5	8.19	64.0	0.66
12:03	3.0	8.19	63.9	0.6 >
12:04	4.0	8.17	64.0	0.66
12:04	4.5	8.19	63.9	0.66

NOTES: Water in Christie box ~3/4 in. below TOC.
Sampling time - 12:10 pm - No PHC odor or Sheen.

PURGE10.92

McCampbell Analytical Inc.
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P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
		Date Received: 04/18/03
	Client Contact: Paul King	Date Extracted: 04/22/03-04/24/03
	Client P.O.:	Date Analyzed: 04/22/03-04/24/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method: SW5030B Analytical methods: 8015Cm Work Order: 0304307

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	MW1	W	52,a	1	101
002A	MW2	W	57,000,a	100	103
003A	MW3	W	180,a	1	107
004A	MW4	W	380,a	5	101
005A	MW5	W	ND	1	97.3
006A	MW6	W	ND	1	98.6
007A	MW7	W	ND	1	99.3
008A	MW8	W	ND	1	99.3

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

*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

Angela Rydelius, Lab Manager

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P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
		Date Received: 04/18/03
	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-001B
Client ID	MW1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<10	2.0	5.0	tert-Amyl methyl ether (TAME)	ND<1.0	2.0	0.5
Benzene	1.1	2.0	0.5	Bromobenzene	ND<1.0	2.0	0.5
Bromochloromethane	ND<1.0	2.0	0.5	Bromodichloromethane	ND<1.0	2.0	0.5
Bromoform	ND<1.0	2.0	0.5	Bromomethane	ND<1.0	2.0	0.5
2-Butanone (MEK)	ND<2.0	2.0	1.0	t-Butyl alcohol (TBA)	13	2.0	5.0
n-Butyl benzene	ND<1.0	2.0	0.5	sec-Butyl benzene	ND<1.0	2.0	0.5
tert-Butyl benzene	ND<1.0	2.0	0.5	Carbon Disulfide	ND<1.0	2.0	0.5
Carbon Tetrachloride	ND<1.0	2.0	0.5	Chlorobenzene	ND<1.0	2.0	0.5
Chloroethane	ND<1.0	2.0	0.5	2-Chloroethyl Vinyl Ether	ND<1.0	2.0	0.5
Chloroform	ND<1.0	2.0	0.5	Chloromethane	ND<1.0	2.0	0.5
2-Chlorotoluene	ND<1.0	2.0	0.5	4-Chlorotoluene	ND<1.0	2.0	0.5
Dibromochloromethane	ND<1.0	2.0	0.5	1,2-Dibromo-3-chloropropane	ND<1.0	2.0	0.5
1,2-Dibromoethane (EDB)	ND<1.0	2.0	0.5	Dibromomethane	ND<1.0	2.0	0.5
1,2-Dichlorobenzene	ND<1.0	2.0	0.5	1,3-Dichlorobenzene	ND<1.0	2.0	0.5
1,4-Dichlorobenzene	ND<1.0	2.0	0.5	Dichlorodifluoromethane	ND<1.0	2.0	0.5
1,1-Dichloroethane	ND<1.0	2.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND<1.0	2.0	0.5
1,1-Dichloroethene	ND<1.0	2.0	0.5	cis-1,2-Dichloroethene	ND<1.0	2.0	0.5
trans-1,2-Dichloroethene	ND<1.0	2.0	0.5	1,2-Dichloropropane	ND<1.0	2.0	0.5
1,3-Dichloropropane	ND<1.0	2.0	0.5	2,2-Dichloropropane	ND<1.0	2.0	0.5
1,1-Dichloropropene	ND<1.0	2.0	0.5	cis-1,3-Dichloropropene	ND<1.0	2.0	0.5
trans-1,3-Dichloropropene	ND<1.0	2.0	0.5	Diisopropyl ether (DIPE)	ND<1.0	2.0	0.5
Ethylbenzene	ND<1.0	2.0	0.5	Ethyl tert-butyl ether (ETBE)	ND<1.0	2.0	0.5
Hexachlorobutadiene	ND<1.0	2.0	0.5	2-Hexanone	ND<1.0	2.0	0.5
Iodomethane (Methyl iodide)	ND<1.0	2.0	0.5	Isopropylbenzene	ND<1.0	2.0	0.5
4-Isopropyl toluene	ND<1.0	2.0	0.5	Methyl-t-butyl ether (MTBE)	56	2.0	0.5
Methylene chloride	ND<1.0	2.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<1.0	2.0	0.5
Naphthalene	ND<1.0	2.0	0.5	n-Propyl benzene	ND<1.0	2.0	0.5
Styrene	ND<1.0	2.0	0.5	1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5
1,1,2,2-Tetrachloroethane	ND<1.0	2.0	0.5	Tetrachloroethene	ND<1.0	2.0	0.5
Toluene	ND<1.0	2.0	0.5	1,2,3-Trichlorobenzene	ND<1.0	2.0	0.5
1,2,4-Trichlorobenzene	ND<1.0	2.0	0.5	1,1,1-Trichloroethane	ND<1.0	2.0	0.5
1,1,2-Trichloroethane	ND<1.0	2.0	0.5	Trichloroethene	ND<1.0	2.0	0.5
Trichlorofluoromethane	ND<1.0	2.0	0.5	1,2,3-Trichloropropane	ND<1.0	2.0	0.5
1,2,4-Trimethylbenzene	ND<1.0	2.0	0.5	1,3,5-Trimethylbenzene	ND<1.0	2.0	0.5
Vinyl Acetate	ND<10	2.0	5.0	Vinyl Chloride	ND<1.0	2.0	0.5
Xylenes	ND<1.0	2.0	0.5				

Surrogate Recoveries (%)

%SS1:	111	%SS2:	85.2
%SS3:	109		

Comments:

* 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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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-002B
Client ID	MW2
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<1200	250	5.0	tert-Amyl methyl ether (TAME)	ND<120	250	0.5
Benzene	3400	250	0.5	Bromobenzene	ND<120	250	0.5
Bromochloromethane	ND<120	250	0.5	Bromodichloromethane	ND<120	250	0.5
Bromoform	ND<120	250	0.5	Bromomethane	ND<120	250	0.5
2-Butanone (MEK)	ND<250	250	1.0	t-Butyl alcohol (TBA)	ND<1200	250	5.0
n-Butyl benzene	ND<120	250	0.5	sec-Butyl benzene	ND<120	250	0.5
tert-Butyl benzene	ND<120	250	0.5	Carbon Disulfide	ND<120	250	0.5
Carbon Tetrachloride	ND<120	250	0.5	Chlorobenzene	ND<120	250	0.5
Chloroethane	ND<120	250	0.5	2-Chloroethyl Vinyl Ether	ND<120	250	0.5
Chloroform	ND<120	250	0.5	Chloromethane	ND<120	250	0.5
2-Chlorotoluene	ND<120	250	0.5	4-Chlorotoluene	ND<120	250	0.5
Dibromochloromethane	ND<120	250	0.5	1,2-Dibromo-3-chloropropane	ND<120	250	0.5
1,2-Dibromoethane (EDB)	ND<120	250	0.5	Dibromomethane	ND<120	250	0.5
1,2-Dichlorobenzene	ND<120	250	0.5	1,3-Dichlorobenzene	ND<120	250	0.5
1,4-Dichlorobenzene	ND<120	250	0.5	Dichlorodifluoromethane	ND<120	250	0.5
1,1-Dichloroethane	ND<120	250	0.5	1,2-Dichloroethane (1,2-DCA)	ND<120	250	0.5
1,1-Dichloroethene	ND<120	250	0.5	cis-1,2-Dichloroethene	ND<120	250	0.5
trans-1,2-Dichloroethene	ND<120	250	0.5	1,2-Dichloropropane	ND<120	250	0.5
1,3-Dichloropropane	ND<120	250	0.5	2,2-Dichloropropane	ND<120	250	0.5
1,1-Dichloropropene	ND<120	250	0.5	cis-1,3-Dichloropropene	ND<120	250	0.5
trans-1,3-Dichloropropene	ND<120	250	0.5	Diisopropyl ether (DIPE)	ND<120	250	0.5
Ethylbenzene	2800	250	0.5	Ethyl tert-butyl ether (ETBE)	ND<120	250	0.5
Hexachlorobutadiene	ND<120	250	0.5	2-Hexanone	ND<120	250	0.5
Iodomethane (Methyl iodide)	ND<120	250	0.5	Isopropylbenzene	ND<120	250	0.5
4-Isopropyl toluene	ND<120	250	0.5	Methyl-t-butyl ether (MTBE)	5600	250	0.5
Methylene chloride	ND<120	250	0.5	4-Methyl-2-pentanone (MIBK)	ND<120	250	0.5
Naphthalene	430	250	0.5	n-Propyl benzene	260	250	0.5
Styrene	ND<120	250	0.5	1,1,1,2-Tetrachloroethane	ND<120	250	0.5
1,1,2,2-Tetrachloroethane	ND<120	250	0.5	Tetrachloroethene	ND<120	250	0.5
Toluene	5100	250	0.5	1,2,3-Trichlorobenzene	ND<120	250	0.5
1,2,4-Trichlorobenzene	ND<120	250	0.5	1,1,1-Trichloroethane	ND<120	250	0.5
1,1,2-Trichloroethane	ND<120	250	0.5	Trichloroethene	ND<120	250	0.5
Trichlorofluoromethane	ND<120	250	0.5	1,2,3-Trichloropropane	ND<120	250	0.5
1,2,4-Trimethylbenzene	2200	250	0.5	1,3,5-Trimethylbenzene	550	250	0.5
Vinyl Acetate	ND<1200	250	5.0	Vinyl Chloride	ND<120	250	0.5
Xylenes	10,000	250	0.5				

Surrogate Recoveries (%)

%SS1:	105	%SS2:	82.3
%SS3:	110		

Comments:

* 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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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-003B
Client ID	MW3
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<67	13	5.0	tert-Amyl methyl ether (TAME)	ND<6.7	13	0.5
Benzene	ND<6.7	13	0.5	Bromobenzene	ND<6.7	13	0.5
Bromochloromethane	ND<6.7	13	0.5	Bromodichloromethane	ND<6.7	13	0.5
Bromoform	ND<6.7	13	0.5	Bromomethane	ND<6.7	13	0.5
2-Butanone (MEK)	ND<13	13	1.0	t-Butyl alcohol (TBA)	ND<67	13	5.0
n-Butyl benzene	ND<6.7	13	0.5	sec-Butyl benzene	ND<6.7	13	0.5
tert-Butyl benzene	ND<6.7	13	0.5	Carbon Disulfide	ND<6.7	13	0.5
Carbon Tetrachloride	ND<6.7	13	0.5	Chlorobenzene	ND<6.7	13	0.5
Chloroethane	ND<6.7	13	0.5	2-Chloroethyl Vinyl Ether	ND<6.7	13	0.5
Chloroform	ND<6.7	13	0.5	Chloromethane	ND<6.7	13	0.5
2-Chlorotoluene	ND<6.7	13	0.5	4-Chlorotoluene	ND<6.7	13	0.5
Dibromochloromethane	ND<6.7	13	0.5	1,2-Dibromo-3-chloropropane	ND<6.7	13	0.5
1,2-Dibromoethane (EDB)	ND<6.7	13	0.5	Dibromomethane	ND<6.7	13	0.5
1,2-Dichlorobenzene	ND<6.7	13	0.5	1,3-Dichlorobenzene	ND<6.7	13	0.5
1,4-Dichlorobenzene	ND<6.7	13	0.5	Dichlorodifluoromethane	ND<6.7	13	0.5
1,1-Dichloroethane	ND<6.7	13	0.5	1,2-Dichloroethane (1,2-DCA)	ND<6.7	13	0.5
1,1-Dichloroethene	ND<6.7	13	0.5	cis-1,2-Dichloroethene	ND<6.7	13	0.5
trans-1,2-Dichloroethene	ND<6.7	13	0.5	1,2-Dichloropropane	ND<6.7	13	0.5
1,3-Dichloropropane	ND<6.7	13	0.5	2,2-Dichloropropane	ND<6.7	13	0.5
1,1-Dichloropropene	ND<6.7	13	0.5	cis-1,3-Dichloropropene	ND<6.7	13	0.5
trans-1,3-Dichloropropene	ND<6.7	13	0.5	Diisopropyl ether (DIPE)	ND<6.7	13	0.5
Ethylbenzene	ND<6.7	13	0.5	Ethyl tert-butyl ether (ETBE)	ND<6.7	13	0.5
Hexachlorobutadiene	ND<6.7	13	0.5	2-Hexanone	ND<6.7	13	0.5
Iodomethane (Methyl iodide)	ND<6.7	13	0.5	Isopropylbenzene	ND<6.7	13	0.5
4-Isopropyl toluene	ND<6.7	13	0.5	Methyl-t-butyl ether (MTBE)	340	13	0.5
Methylene chloride	ND<6.7	13	0.5	4-Methyl-2-pentanone (MIBK)	ND<6.7	13	0.5
Naphthalene	ND<6.7	13	0.5	n-Propyl benzene	ND<6.7	13	0.5
Styrene	ND<6.7	13	0.5	1,1,1,2-Tetrachloroethane	ND<6.7	13	0.5
1,1,2,2-Tetrachloroethane	ND<6.7	13	0.5	Tetrachloroethene	ND<6.7	13	0.5
Toluene	ND<6.7	13	0.5	1,2,3-Trichlorobenzene	ND<6.7	13	0.5
1,2,4-Trichlorobenzene	ND<6.7	13	0.5	1,1,1-Trichloroethane	ND<6.7	13	0.5
1,1,2-Trichloroethane	ND<6.7	13	0.5	Trichloroethene	ND<6.7	13	0.5
Trichlorofluoromethane	ND<6.7	13	0.5	1,2,3-Trichloropropane	ND<6.7	13	0.5
1,2,4-Trimethylbenzene	ND<6.7	13	0.5	1,3,5-Trimethylbenzene	ND<6.7	13	0.5
Vinyl Acetate	ND<67	13	5.0	Vinyl Chloride	ND<6.7	13	0.5
Xylenes	ND<6.7	13	0.5				

Surrogate Recoveries (%)

%SS1:	107	%SS2:	85.5
%SS3:	110		

Comments:

* 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

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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0304307

Lab ID	0304307-004B
Client ID	MW4
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<1200	250	5.0	tert-Amyl methyl ether (TAME)	ND<120	250	0.5
Benzene	ND<120	250	0.5	Bromobenzene	ND<120	250	0.5
Bromochloromethane	ND<120	250	0.5	Bromodichloromethane	ND<120	250	0.5
Bromoform	ND<120	250	0.5	Bromomethane	ND<120	250	0.5
2-Butanone (MEK)	ND<250	250	1.0	t-Butyl alcohol (TBA)	ND<1200	250	5.0
n-Butyl benzene	ND<120	250	0.5	sec-Butyl benzene	ND<120	250	0.5
tert-Butyl benzene	ND<120	250	0.5	Carbon Disulfide	ND<120	250	0.5
Carbon Tetrachloride	ND<120	250	0.5	Chlorobenzene	ND<120	250	0.5
Chloroethane	ND<120	250	0.5	2-Chloroethyl Vinyl Ether	ND<120	250	0.5
Chloroform	ND<120	250	0.5	Chloromethane	ND<120	250	0.5
2-Chlorotoluene	ND<120	250	0.5	4-Chlorotoluene	ND<120	250	0.5
Dibromochloromethane	ND<120	250	0.5	1,2-Dibromo-3-chloropropane	ND<120	250	0.5
1,2-Dibromoethane (EDB)	ND<120	250	0.5	Dibromomethane	ND<120	250	0.5
1,2-Dichlorobenzene	ND<120	250	0.5	1,3-Dichlorobenzene	ND<120	250	0.5
1,4-Dichlorobenzene	ND<120	250	0.5	Dichlorodifluoromethane	ND<120	250	0.5
1,1-Dichloroethane	ND<120	250	0.5	1,2-Dichloroethane (1,2-DCA)	ND<120	250	0.5
1,1-Dichloroethene	ND<120	250	0.5	cis-1,2-Dichloroethene	ND<120	250	0.5
trans-1,2-Dichloroethene	ND<120	250	0.5	1,2-Dichloropropane	ND<120	250	0.5
1,3-Dichloropropane	ND<120	250	0.5	2,2-Dichloropropane	ND<120	250	0.5
1,1-Dichloropropene	ND<120	250	0.5	cis-1,3-Dichloropropene	ND<120	250	0.5
trans-1,3-Dichloropropene	ND<120	250	0.5	Diisopropyl ether (DIPE)	ND<120	250	0.5
Ethylbenzene	ND<120	250	0.5	Ethyl tert-butyl ether (ETBE)	ND<120	250	0.5
Hexachlorobutadiene	ND<120	250	0.5	2-Hexanone	ND<120	250	0.5
Iodomethane (Methyl iodide)	ND<120	250	0.5	Isopropylbenzene	ND<120	250	0.5
4-Isopropyl toluene	ND<120	250	0.5	Methyl-t-butyl ether (MTBE)	5400	250	0.5
Methylene chloride	ND<120	250	0.5	4-Methyl-2-pentanone (MIBK)	ND<120	250	0.5
Naphthalene	ND<120	250	0.5	n-Propyl benzene	ND<120	250	0.5
Styrene	ND<120	250	0.5	1,1,1,2-Tetrachloroethane	ND<120	250	0.5
1,1,2,2-Tetrachloroethane	ND<120	250	0.5	Tetrachloroethene	ND<120	250	0.5
Toluene	ND<120	250	0.5	1,2,3-Trichlorobenzene	ND<120	250	0.5
1,2,4-Trichlorobenzene	ND<120	250	0.5	1,1,1-Trichloroethane	ND<120	250	0.5
1,1,2-Trichloroethane	ND<120	250	0.5	Trichloroethene	ND<120	250	0.5
Trichlorofluoromethane	ND<120	250	0.5	1,2,3-Trichloropropane	ND<120	250	0.5
1,2,4-Trimethylbenzene	ND<120	250	0.5	1,3,5-Trimethylbenzene	ND<120	250	0.5
Vinyl Acetate	ND<1200	250	5.0	Vinyl Chloride	ND<120	250	0.5
Xylenes	ND<120	250	0.5				

Surrogate Recoveries (%)

%SS1:	109	%SS2:	83.7
%SS3:	110		

Comments:

* 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

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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-005B
Client ID	MW5
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	5.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	1.0	t-Butyl alcohol (TBA)	ND	1.0	5.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	0.5
Chloroform	ND	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.5
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Hexachlorobutadiene	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Iodomethane (Methyl iodide)	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Acetate	ND	1.0	5.0	Vinyl Chloride	ND	1.0	0.5
Xylenes	ND	1.0	0.5				

Surrogate Recoveries (%)

%SS1:	110	%SS2:	84.9
%SS3:	110		

Comments:

* 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.

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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-006B
Client ID	MW6
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	5.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	1.0	t-Butyl alcohol (TBA)	ND	1.0	5.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	0.5
Chloroform	1.2	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.5
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Hexachlorobutadiene	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Iodomethane (Methyl iodide)	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Acetate	ND	1.0	5.0	Vinyl Chloride	ND	1.0	0.5
Xylenes	ND	1.0	0.5				

Surrogate Recoveries (%)

%SS1:	108	%SS2:	103
%SS3:	106		

Comments:

* 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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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0304307

Lab ID	0304307-007B
Client ID	MW7
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	5.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	1.0	t-Butyl alcohol (TBA)	ND	1.0	5.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	0.5
Chloroform	0.75	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.5
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Hexachlorobutadiene	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Iodomethane (Methyl iodide)	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	1.2	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Acetate	ND	1.0	5.0	Vinyl Chloride	ND	1.0	0.5
Xylenes	ND	1.0	0.5				

Surrogate Recoveries (%)

%SS1:	109	%SS2:	101
%SS3:	101		

Comments:

* 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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P & D Environmental	Client Project ID: #0055; Former Haber Oil	Date Sampled: 04/16/03-04/17/03
4020 Panama Court		Date Received: 04/18/03
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/23/03-04/24/03
	Client P.O.:	Date Analyzed: 04/23/03-04/24/03

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0304307

Lab ID	0304307-008B
Client ID	MW8
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	5.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	1.0	t-Butyl alcohol (TBA)	ND	1.0	5.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	0.5
Chloroform	1.8	1.0	0.5	Chloromethane	ND	1.0	0.5
2-Chlorotoluene	ND	1.0	0.5	4-Chlorotoluene	ND	1.0	0.5
Dibromochloromethane	ND	1.0	0.5	1,2-Dibromo-3-chloropropane	ND	1.0	0.5
1,2-Dibromoethane (EDB)	ND	1.0	0.5	Dibromomethane	ND	1.0	0.5
1,2-Dichlorobenzene	ND	1.0	0.5	1,3-Dichlorobenzene	ND	1.0	0.5
1,4-Dichlorobenzene	ND	1.0	0.5	Dichlorodifluoromethane	ND	1.0	0.5
1,1-Dichloroethane	ND	1.0	0.5	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5
1,1-Dichloroethene	ND	1.0	0.5	cis-1,2-Dichloroethene	ND	1.0	0.5
trans-1,2-Dichloroethene	ND	1.0	0.5	1,2-Dichloropropane	ND	1.0	0.5
1,3-Dichloropropane	ND	1.0	0.5	2,2-Dichloropropane	ND	1.0	0.5
1,1-Dichloropropene	ND	1.0	0.5	cis-1,3-Dichloropropene	ND	1.0	0.5
trans-1,3-Dichloropropene	ND	1.0	0.5	Diisopropyl ether (DIPE)	ND	1.0	0.5
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Hexachlorobutadiene	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Iodomethane (Methyl iodide)	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Acetate	ND	1.0	5.0	Vinyl Chloride	ND	1.0	0.5
Xylenes	ND	1.0	0.5				

Surrogate Recoveries (%)

%SS1:	105	%SS2:	102
%SS3:	100		

Comments:

* 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.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0304307

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6622 Spiked Sample ID: 0304305-004A

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(btex)£	ND	60	114	112	1.75	98.4	98.4	0	80	120
MTBE	ND	10	92	91.7	0.303	104	105	0.576	80	120
Benzene	ND	10	98.4	103	4.21	96.8	96.7	0.114	80	120
Toluene	0.6261	10	97	101	3.58	101	100	0.665	80	120
Ethylbenzene	ND	10	102	104	2.51	101	101	0	80	120
Xylenes	2.4	30	98.7	102	3.08	107	107	0	80	120
%SS:	104	100	100	105	4.31	99	98.5	0.505	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.

% 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0304307

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 6640 Spiked Sample ID: 0304323-004A

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(btex)£	ND	60	106	104	1.65	108	108	0	80	120
MTBE	7.901	10	83.4	90.2	4.10	98.6	94.8	3.90	80	120
Benzene	ND	10	101	105	3.85	99.4	99.5	0.128	80	120
Toluene	ND	10	93.5	96.5	3.17	92.8	92.3	0.614	80	120
Ethylbenzene	ND	10	103	105	2.38	102	102	0	80	120
Xylenes	ND	30	96.7	100	3.39	96.7	96.7	0	80	120
%SS:	102	100	103	105	1.87	99.3	99.1	0.192	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.

% 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0304307

EPA Method: SW8260B	Extraction: SW5030B		BatchID: 6641			Spiked Sample ID: 0304307-005B				
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
tert-Amyl methyl ether (TAME)	ND	10	114	115	0.708	105	109	4.13	70	130
Benzene	ND	10	105	106	0.544	99.9	105	4.61	70	130
Chlorobenzene	ND	10	101	101	0	97.8	99.3	1.48	70	130
1,1-Dichloroethene	ND	10	93.5	90.2	3.52	79.8	89.9	11.9	70	130
Diisopropyl ether (DIPE)	ND	10	121	121	0	103	117	12.6	70	130
Ethyl tert-butyl ether (ETBE)	ND	10	109	110	0.304	92.8	105	12.5	70	130
Methyl-t-butyl ether (MTBE)	ND	10	119	115	3.65	96.1	111	13.9	70	130
Toluene	ND	10	111	111	0	99.3	110	10.4	70	130
Trichloroethene	ND	10	96.6	96.9	0.263	92.7	95.5	2.96	70	130
%SS1:	110	100	108	105	2.32	96.1	103	7.17	70	130
%SS2:	84.9	100	102	100	1.32	94.9	102	7.56	70	130
%SS3:	110	100	99.4	99.7	0.313	99.1	99.5	0.331	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.

% 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.

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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 0304307

Client:
P & D Environmental
4020 Panama Court
Oakland, CA 94611-4931

TEL: (510) 658-6916
FAX: (510) 658-9074
ProjectNo: #0055; Former Haber Oil
PO:

Date Received: **4/18/03**
Date Printed: **4/18/03**

					Requested Tests	
Sample ID	**ClientSampID**	**Matrix**	**Collection Date**	**Hold**	**8021B/8015**	**SW8260B**
0304307-001	MW1	Water	4/17/03		A	B
0304307-002	MW2	Water	4/17/03		A	B
0304307-003	MW3	Water	4/17/03		A	B
0304307-004	MW4	Water	4/17/03		A	B
0304307-005	MW5	Water	4/16/03		A	B
0304307-006	MW6	Water	4/16/03		A	B
0304307-007	MW7	Water	4/16/03		A	B
0304307-008	MW8	Water	4/16/03		A	B

Prepared by: Melissa 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.

pdf

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

0304307

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0055	Former Haber Oil

SAMPLED BY: (PRINTED AND SIGNATURE)
Wilhelm Welzenbach Wilhelm Welzenbach

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH(g)	VOCs by 8260 + Fuel Oxygenates + Lead Scavengers	PRESERVATIVE	REMARKS
MW 1	4/16/03		Water		5	X	X		
MW 2	4/17/03				5				
MW 3	4/17/03								
MW 4	4/17/03								
MW 5	4/16/03								
MW 6	4/16/03								
MW 7	4/16/03								
MW 8	4/16/03				1				

ICE* ✓ ✓ PRESERVATION: VOAs ✓ O&G METALS OTHER
CONTAINERS
LAB RECEIVED IN LAB

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Wilhelm Welzenbach	4/18/03	9:10	Tom Lem 298
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Tom Lem 298	4/18/03	15:45	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

REMARKS:

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	8
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	40
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Angela Rydelius
LABORATORY PHONE NUMBER:	(925)-798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO