AEI CONSULTANTS
ENVIRONMENTAL & CIVIL ENGINEERING

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August 3, 2006

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Quarterly Groundwater Monitoring Report**
2nd Quarter, 2006
1075 40th Street
Oakland, California
AEI Project No. 110630
ACHCSA Fuel Leak Case No. RO0000186

Dear Mr. Chan:

Enclosed is one electronic copy of the recently completed groundwater monitoring report for the 2nd Quarter, 2006 groundwater monitoring event.

If you have any questions or comments, please don't hesitate to contact me or Robert Flory at (925) 283-6000.

Sincerely,
AEI Consultants

Jeremy Smith
Project Manager

August 3, 2006

GROUNDWATER MONITORING REPORT
2nd Quarter, 2006

1075 40th Street
Oakland, California 94608

AEI Project No. 110630
ACHCSA Fuel Leak Case No. RO0000186

Prepared For

Mr. Monte Upshaw
Fidelity Roof Company
1075 40th Street
Oakland, CA 94608

Prepared By

AEI Consultants
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August 3, 2006

Mr. Monte Upshaw
Fidelity Roof Company
1075 40th Street
Oakland, CA 94608

Subject: **Quarterly Groundwater Monitoring Report**
2nd Quarter, 2006
1075 40th Street
Oakland, California 94608
AEI Project No. 110630
ACHCSA Fuel Leak Case No. RO0000186

Dear Mr. Upshaw:

AEI Consultants (AEI) has prepared this report on behalf of Mr. Monte Upshaw of Fidelity Roof Company to document the ongoing groundwater investigation at the above referenced site (Figure 1: Site Location Map). The purpose of this activity is to monitor groundwater quality in the vicinity of previous underground storage tanks (USTs). The work was performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). This report presents the findings of the 2nd Quarter, 2006 groundwater monitoring and sampling event conducted on June 5 and June 13, 2006.

Site Description and Background

The site currently supports the operation of Fidelity Roof Company and is located in a mixed residential and commercial area of Oakland at 1075 40th Street.

On December 19, 1995, Tank Protect Engineering, Inc. removed one (1) 1,000-gallon diesel UST and one (1) 500-gallon gasoline UST from the southeast corner of the property. The removal of the tanks produced a single excavation. Analysis of the soil samples indicated that soil beneath the 1,000-gallon UST had been impacted by minor concentrations of total petroleum hydrocarbons as gasoline (TPH-g), TPH as diesel (TPH-d), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE).

On September 12, 1996, AEI advanced four (4) soil borings near the former UST excavation. Analytical results from the subsurface investigation revealed significant levels of gasoline and diesel petroleum hydrocarbons present in soil and groundwater to the south and to the west of the open excavation. Due to the high concentrations of petroleum hydrocarbons within the groundwater, the ACHCSA required further investigation of the extent and magnitude of the groundwater contaminant plume.

On October 25, 1996, AEI extended the excavation laterally 7 feet to the south and 12 feet to the west. Soil was removed to a depth of 9 feet below ground surface (bgs). The dispenser island and associated piping were also removed. Analyses of the soil samples collected from the excavation sidewalls indicated that up to 150 milligrams per kilogram (mg/kg) of TPH-g, 16 mg/kg of benzene, and 300 mg/kg of TPH-d remained within the western sidewall of the excavation.

On March 6, 1997, AEI installed three (3) groundwater monitoring wells, MW-1 through MW-3. TPH-g and TPH-d were detected in well MW-3 at concentrations of 26,000 micrograms per liter (µg/L) and 5,000 µg/L, respectively. No TPH-g or TPH-d was detected in wells MW-1 and MW-2, at the time of the initial sampling. MTBE was detected in wells MW-1, MW-2 and MW-3 at concentrations of 23 µg/L, 65 µg/L and 230 µg/L, respectively. Well construction details for the groundwater monitoring wells are summarized in Table 1.

At the request of the ACHCSA, six (6) additional soil borings were drilled south and west of the well locations on November 4, 1998. TPH-d was detected at a concentration of 2,400 µg/L in groundwater to the south of the former excavation. No significant concentrations of petroleum hydrocarbons were detected from the other borings.

Monitoring well MW-4 was installed on July 15, 1999, located south of the former tank locations along Yerba Buena Avenue. No hydrocarbons were detected in MW-4 at the time of installation; however, MTBE was reported at a concentration of 37 µg/L. The results of on going groundwater monitoring of these four wells is summarized on Tables 2, 2a, and 3.

On May 6, 2004, AEI installed one (1) vapor extraction well (VE-1) and two (2) air sparge wells (AS-1 and AS-1). Six (6) shallow vapor monitoring mini-wells (DP-I through DP-6) were installed on May 13, 2004 using direct push technology. On May 19 through 20, 2004, AEI carried out a soil vapor extraction and air sparge pilot test. The results of this pilot test and recommendations for remediation are summarized in AEI's *Soil Vapor Extraction and Air Sparge Pilot Test Report*, dated August 6, 2004.

LNAPL Removal

Light non-aqueous phase liquid (LNAPL) was reported by the laboratory in samples from monitoring well MW-3 collected on November 18, 1999, but was not present in a measurable thickness until 2004.

On September 9, 2004, 0.66 feet of LNAPL was measured in MW-3. On September 23, 2004, 200 gallons of liquid (water and gasoline) were removed from monitoring well MW-3 by Excel Environmental Services. The liquid was removed by placing a 1-inch diameter PVC stinger into the well and dewatering the well to 17 feet bgs for approximately 90 minutes using a vacuum truck. On September 29, 2004, 0.52 feet of LNAPL was measured in MW-3.

On October 22, 2004, 30 gallons of liquids were removed from MW-3 by extending the 1-inch PVC stinger into the top of the static water table approximately 6-inches and vacuuming for approximately 1 hour. On October 27, 2004, 0.32 feet of LNAPL was measured in well MW-3.

On November 4 and 23, 2004, 15 gallons of liquid was removed on each visit by vacuuming the surface of the groundwater. LNAPL measurements on November 6 and 19, 2004 were 0.01 feet and 0.14 feet respectively. The total amount of LNAPL removed is difficult to quantify. Free product removal was discontinued when the thickness stabilized at less than 0.05 feet.

LNAPL thickness stabilized to less than 0.05 feet through the March 11, 2005 sampling event. Free product thickness increased to 0.12 feet by June 2005 and to 0.64 feet by September 2005.

In a letter dated October 24, 2005, AEI proposed a 3 to 5 day high vacuum dual phase extraction (HVDPE) event as interim corrective action to remove free product. The ACHCSA concurred with this recommendation in a letter dated January 5, 2006.

By March 2006 the thickness of LNAPL in MW-3 increased to 0.95 feet.

An interim corrective action free product recovery event using HVDPE was conducted from March 9 to 13, 2006. This extraction event was successful in reducing LNAPL thickness to a sheen. A report detailing the results of this event dated June 20, 2006 was submitted to the ACHCSA.

Summary of Monitoring Activities

AEI measured the depth to groundwater in the four monitoring wells (MW-1 through MW-4), and one vapor extraction well (VE-1) on June 5, 2006. AEI measured the depth to groundwater in monitoring well MW-3 and the six shallow vadose monitoring points (DP-1 through DP-6) on June 13, 2006. Depth to water from the top of the casing was measured with an electric water level indicator prior to sampling. Depth to water and depth to free product were measured in MW-3 using an electric oil/water interface meter. The wells were purged and sampled using disposable Teflon bailers. Temperature, pH, specific conductivity, and oxidation-reduction potential (ORP) were measured during the purging of the wells. Turbidity was visually noted. AEI removed at least 3 well volumes (from MW-1 through MW-4 and VE-1) and approximately 3 liters from DP-1 through DP-6 with a battery-powered submersible pump. Once temperature, pH, specific conductivity stabilized after three consecutive readings and following the recovery of water levels to at least 90%, a water sample was collected. The locations of groundwater monitoring, air sparging, vapor extraction, and vadose monitoring points are shown in Figure 2: Site Plan.

Water was poured from the bailers into 40 ml VOA vials and 1-liter amber bottles. The VOAs were capped so that neither headspace nor air bubbles were present within the sample containers. Samples were delivered on ice under proper chain of custody protocol to McCampell Analytical, Inc. of Pacheco, California (Department of Health Services Certification #1644).

Ten (10) groundwater samples were submitted for chemical analysis for TPH-d, TPH-g, MTBE, and BTEX by method SW 8021B / 8015Cm.

Field Results

On June 5, 2006, measurable free product was not present in MW-3, however on June 13, 2006 free product was encountered in well MW-3 at a thickness of 0.02 feet. Groundwater elevations in the monitoring wells for this event ranged from 35.70 to 37.03 feet above mean sea level (amsl). The groundwater elevations were an average of 2.05 feet lower than the average level observed during the previous monitoring episode. The direction of the groundwater flow at the time of measurement on June 5, 2006 was towards the north-northwest with a calculated hydraulic gradient of approximately 0.022 ft/ft. The magnitude of the hydraulic gradient and groundwater flow direction are consistent with previous episodes.

Groundwater elevation data and groundwater sample analytical data are summarized in Tables 2, 2a, and 3. The groundwater elevation contours and the groundwater flow direction are shown in Figure 4. Refer to Appendix A for Groundwater Monitoring Well Field Sampling Forms, which include field measurements and observations made during the monitoring activities.

Groundwater Quality

TPH-g and TPH-d were detected in MW-1 at concentrations of 74 µg/L and 120 µg/L, respectively. Benzene was detected in MW-1 at a concentration of 1.2 µg/L. Toluene, ethylbenzene, total xylenes, and MTBE were not detected at a concentration greater than the laboratory method detection limit.

The highest concentration of MTBE was detected in MW-2 (19,000 µg/L). TPH-g, TPH-d, benzene, and total xylenes were detected in MW-2 at a concentration of 890 µg/L, 1,000 µg/L, 110 µg/L, and 31 µg/L, respectively. Toluene and ethylbenzene were not detected in MW-2 greater than the laboratory method detection limits.

Monitoring well MW-3 was sampled twice during this quarter. During the June 5, 2006 sampling event, a visible sheen, but not measurable free product, was noted in well MW-3. Subsequently TPH-g, TPH-d, and BTEX were detected at concentrations of 37,000 µg/L, 690,000 µg/L, 110 µg/L, 10 µg/L, 960 µg/L, and 4,400 µg/L, respectively. During the June 13, 2006 sampling event, free product was measured at a thickness of 0.02 feet, however groundwater samples indicated that TPH-g, TPH-d, and BTEX were present at concentrations of 41,000 µg/L, 28,000 µg/L, 350 µg/L, 24 µg/L, 1,100 µg/L, and 4,600 µg/L, respectively. MTBE was not detected at or above the laboratory detection limit in well MW-3 during either of the sampling events.

TPH-g, TPH-d, and BTEX were not detected greater than the laboratory method detection limits in MW-4. MTBE was detected at a concentration of 11 μg/L.

TPH-g, TPH-d, BTEX, and MTBE were detected in VE-1 (located in the backfill of the former tank pit) at a concentration of 180 μg/L, 490 μg/L, 30 μg/L, 4.6 μg/L, 5.8 μg/L, 8.2 μg/L, and 410 μg/L, respectively.

Groundwater samples were not collected from AS-1 and AS-2 during this monitoring episode.

TPH-g was detected in four of the six of the vapor monitoring wells (DP-2, DP-3, DP-4, and DP-6) at concentrations ranging from 220 μg/L (DP-3) to 3,100 μg/L (DP-6). TPH-d was detected in each of the six of the vapor monitoring wells at concentrations ranging from 67 μg/L (DP-1) to 1,500 μg/L (DP-6). Benzene was detected in three of the wells (DP-3, DP-4, and DP-6) at concentrations of 0.57 μg/L, 210 μg/L, and 250 μg/L, respectively. Toluene was detected in four of the wells (DP-2, DP-3, DP-4, and DP-6) at concentrations ranging from 0.83 μg/L (DP-3) to 2.0 μg/L (DP-4). Ethylbenzene was detected in two of the wells (DP-4, and DP-6) at concentrations of 9.2 μg/L and 270 μg/L, respectively. Xylenes were detected in three of the wells (DP-2, DP-4, and DP-6) at concentrations of 0.67 μg/L, 1.2 μg/L, and 120 μg/L, respectively. MTBE was detected in four of the wells (DP-3 through DP-6) at concentrations ranging from 5.4 μg/L (DP-5) to 330 μg/L (DP-4).

Groundwater sample analytical data is presented in Table 3. Laboratory analytical results and chain of custody documentation are included in Appendix B.

Summary

An interim corrective action free product recovery event using HVDPE was performed in March 2006. The interim corrective action removed a significant mass of free product in and around MW-3. Approximately 58.40 pounds of vapor phase hydrocarbons were removed. Furthermore, immediately following the event, LNAPL thickness was reduced to less than a sheen.

LNAPL rebounded slightly to a thickness of 0.02-feet in the immediate vicinity of MW-3 during the June 13, 2006 sampling event. Significant concentrations of MTBE continue to be present in well MW-2. The MTBE concentration reported in MW-2 during this event represent the highest concentration of MTBE ever reported in MW-2.

Recommendations

Based on the current and historical data, AEI recommends the following:

- Continue quarterly groundwater and LNAPL thickness monitoring, with the next monitoring event tentatively scheduled for September 2006.

Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work. Please contact the undersigned at (925) 944-2899 if you have any questions or need any additional information.

Sincerely,
AEI Consultants

Jeremy Smith
Project Manager

Robert F. Flory, PG
Senior Project Geologist

PROFESSIONAL GEOLOGIST
ROBERT F. FLORY
No. 5825
10/31/06
STATE OF CALIFORNIA

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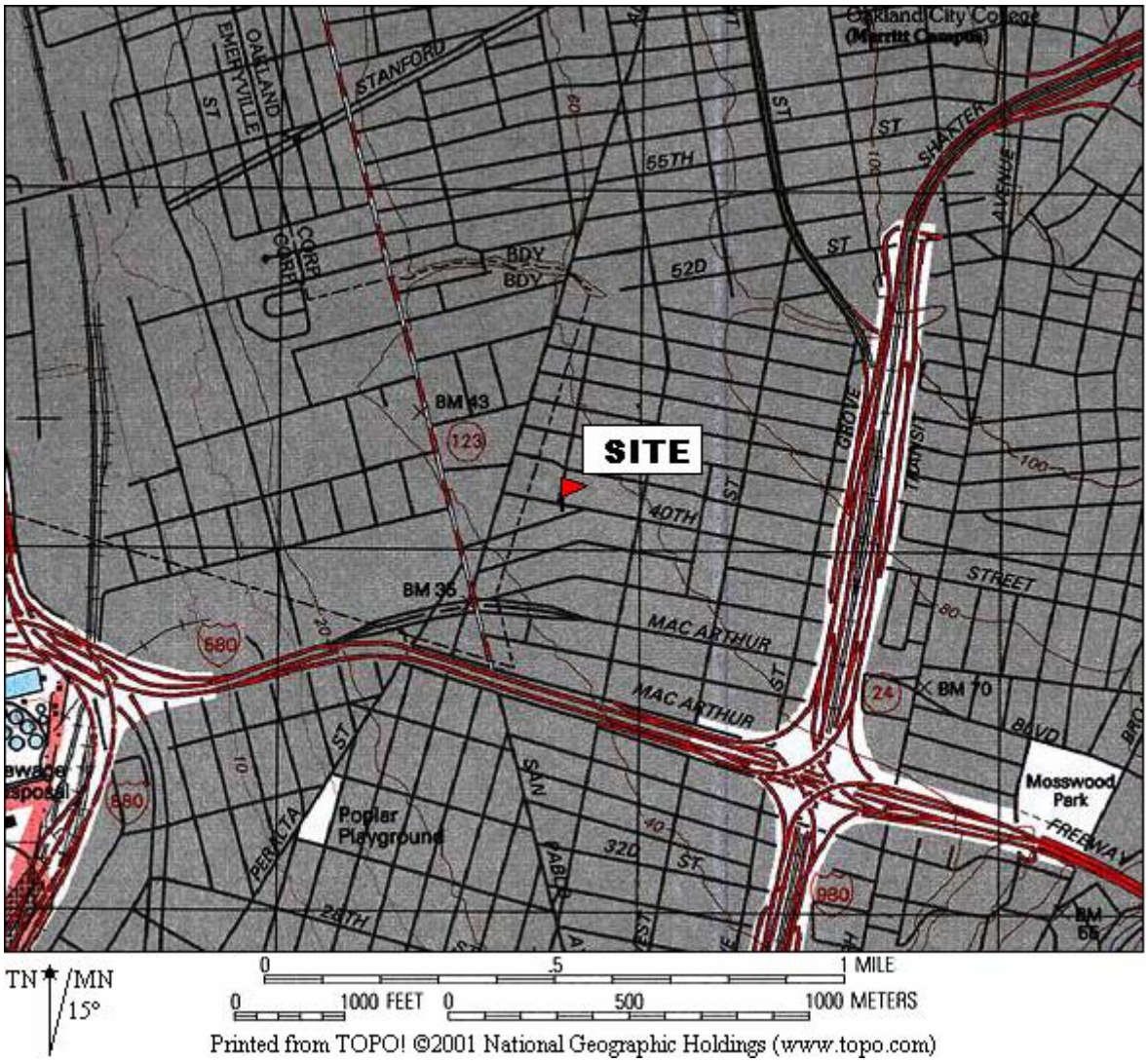
Appendices

Appendix A	*Groundwater Monitoring Well Field Sampling Forms*
Appendix B	*Laboratory Analyses with Chain of Custody Documentation*

cc: Barney Chan, ACHCSA, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577

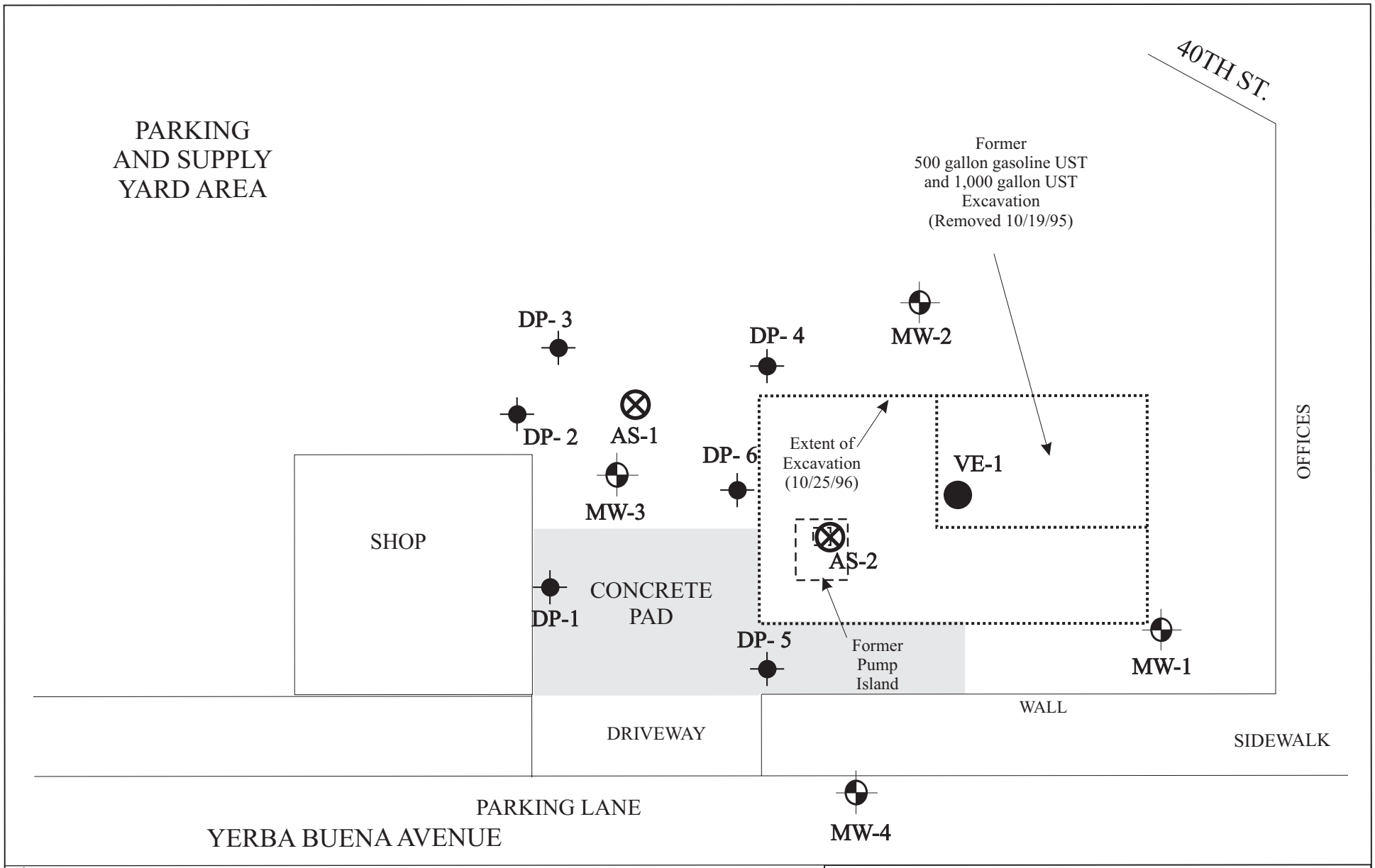
FIGURES



AEI CONSULTANTS

SITE LOCATION MAP

1075 40th STREET OAKLAND, CALIFORNIA	**FIGURE 1** PROJECT NO. 110630



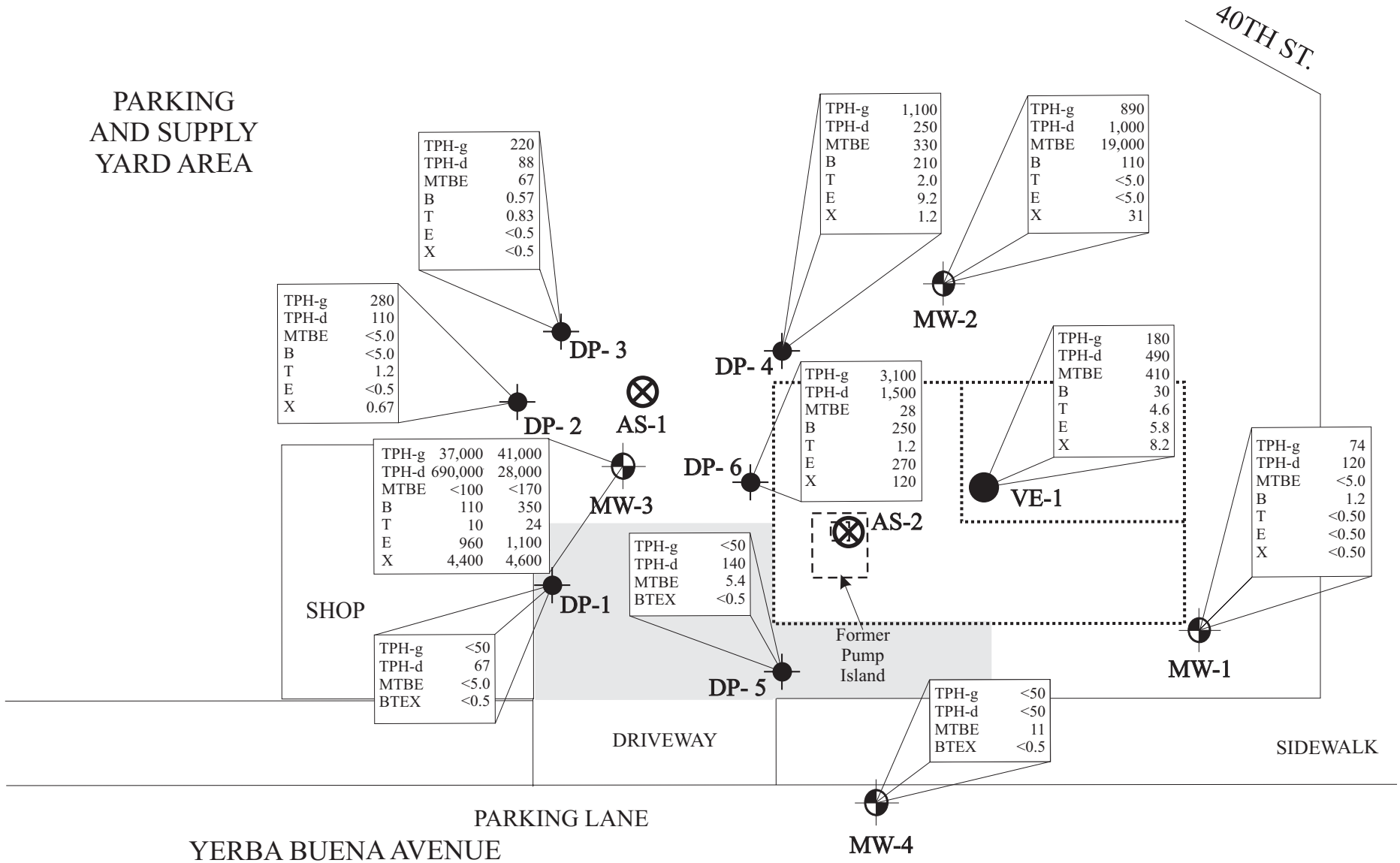
AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK, CA

SITE PLAN

1075 40TH STREET
OAKLAND, CALIFORNIA

Figure 2
AEI Project: 116303



Existing Groundwater Monitoring Well **AS Well** **VES Well**

Groundwater results are reported in µg/L
TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel
MTBE = Methyl tertiary-Butyl Ether
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

Vadose Monitoring Point

Scale: 1" = 20' (0, 10, 20)

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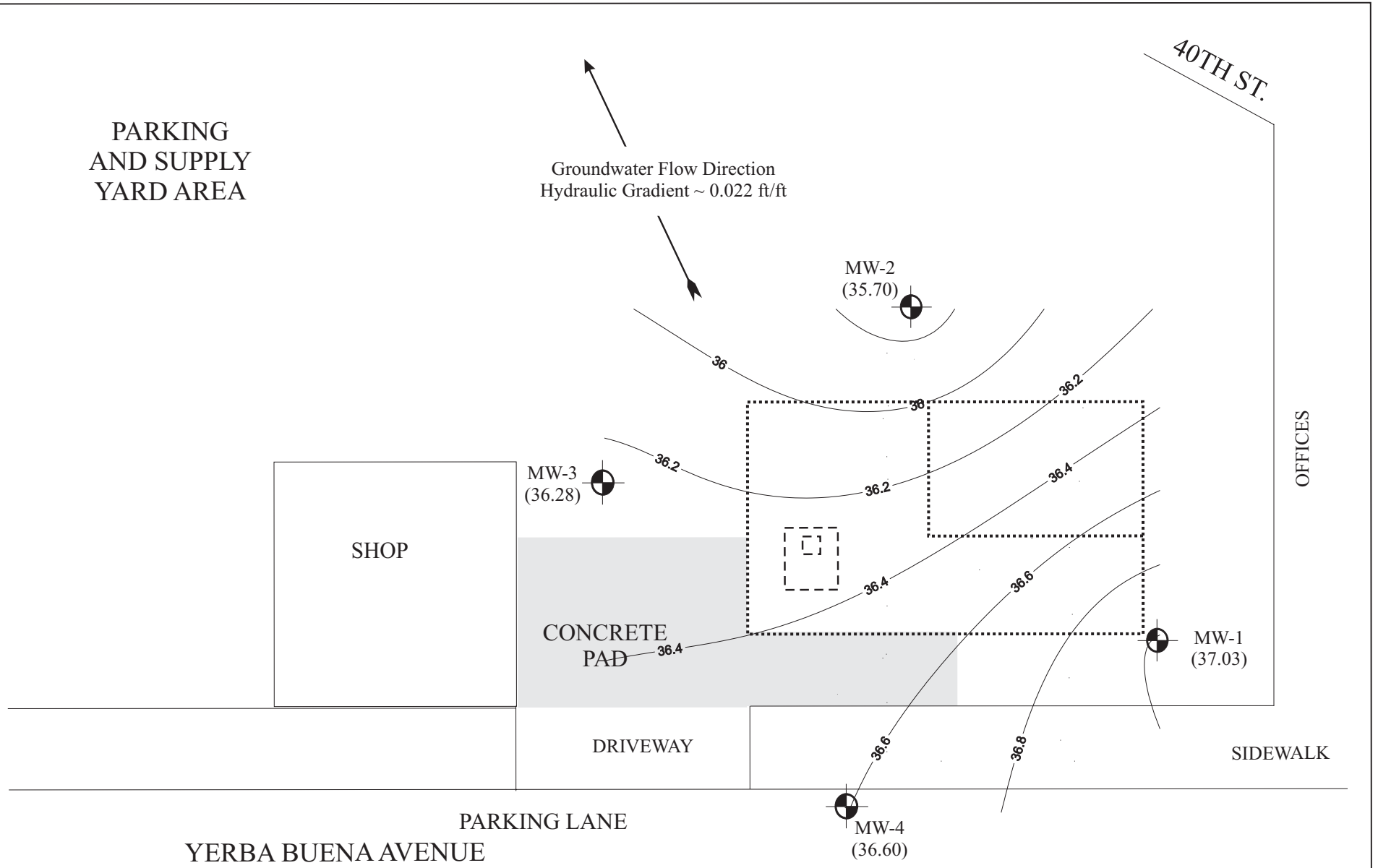
SAMPLE ANALYTICAL DATA (06/05/06 & 06/13/06)

1075 40TH STREET
OAKLAND, CALIFORNIA

Figure 3
AEI Project: 116303



Existing Groundwater Monitoring Well

MW-3
(33.88) Water table elevation in feet above mean sea level

Contours plotted with Surfer(R) V. 7.0 Contour interval = 0.2 ft

Scale: 1" = 20'

0 10 20

N

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WATER TABLE CONTOURS (06/05/06)

1075 40TH STREET
OAKLAND, CALIFORNIA

Figure 4
AEI Project: 116303

TABLES

Table 1: Well Construction Details
Fidelity Roof Company, 1075 40th Street, Oakland, California

Well ID	Date Drilled	Elevation (ft amsl)	Water Depth 12/13/04 (ft)	Boring Depth (ft)	Slotted Casing (ft)	Slot Size (in)	Blank Casing (ft)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	03/06/97	45.41	6.94	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-2	03/19/97	44.94	9.26	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-3	03/19/97	44.32	8.91	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
MW-4	08/05/99	43.48	5.51	20.0	5-21	0.020	0.55	4-20	#3	3-4	0.5-3
AS-1	05/06/04	45.2 est	----	30.0	25-30	0.010	0.75-25	22-30	2/12	19-22	1.0-19
AS-2	05/06/04	45.2 est.	----	30.0	25-30	0.010	0.75-25	22-30	2/12	19-22	1.0-19
VE-1	05/06/04	45.0 est.	----	10.0	5-10	0.010	0.75-10	4-10	2/12	3-4	1.0-3
DP-1	05/13/04	44.0 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-2	05/13/04	44.6 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-3	05/13/04	44.7 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-4	05/13/04	44.8 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-5	05/13/04	45.0 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5
DP-6	05/13/04	44.3 est.	----	16.0	5.5-15.5	# 40 mesh	5.5-0.5	4.5-15.5	#30	3.5-4.5	0.75-3.5

Notes:
All well elevations are measured from the top of the casing and not from the
ft amsl = feet above mean sea level

Table 2: Groundwater Elevation Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-1	03/19/97	45.41	8.25	37.16
	06/20/97	45.41	9.10	36.31
	10/08/97	45.41	9.95	35.46
	01/16/98	45.41	7.57	37.84
	08/05/99	45.49	10.16	35.33
	11/18/99	45.49	8.52	36.97
	02/24/00	45.49	7.65	37.84
	05/24/00	45.49	8.47	37.02
	08/29/00	45.49	10.28	35.21
	01/12/01	45.49	8.50	36.99
	04/18/01	45.49	8.77	36.72
	07/27/01	45.49	10.50	34.99
	11/06/01	45.49	10.28	35.21
	02/13/02	45.49	8.47	37.02
	05/14/02	45.49	9.50	35.99
	08/15/02	45.49	10.39	35.10
	11/14/02	45.49	9.08	36.41
	02/12/03	45.49	8.36	37.13
	05/16/03	45.49	8.49	37.00
	08/29/03	45.49	9.91	35.58
	12/02/03	45.49	8.88	36.61
	03/08/04	45.49	7.66	37.83
	06/08/04	45.49	9.39	36.10
	09/10/04	45.49	9.95	35.54
	12/13/04	45.49	6.94	38.55
	03/11/05	45.49	7.35	38.14
	06/15/05	45.49	8.29	37.20
	09/08/05	45.49	9.57	35.92
	12/01/05	45.49	7.66	37.83
	03/07/06	45.49	7.32	38.17
	06/05/06	**45.49**	**8.46**	**37.03**
MW-2	03/19/97	44.94	8.40	36.54
	06/20/97	44.94	8.85	36.09
	10/08/97	44.94	9.80	35.14
	01/16/98	44.94	5.28	39.66
	08/05/99	44.98	9.32	35.66
	11/18/99	44.98	10.20	34.78
	02/24/00	44.98	7.03	37.95
	05/24/00	44.98	8.01	36.97
	08/29/00	44.98	11.07	33.91
	01/12/01	44.98	8.60	36.38
	04/18/01	44.98	8.80	36.18
	07/27/01	44.98	11.10	33.88
	11/06/01	44.98	12.21	32.77
	02/13/02	44.98	7.98	37.00
	05/14/02	44.98	10.48	34.50
	08/15/02	44.98	10.64	34.34
	11/14/02	44.98	11.69	33.29
	02/12/03	44.98	9.07	35.91
	05/16/03	44.98	11.25	33.73
	08/29/03	44.98	12.19	32.79
	12/02/03	44.98	10.92	34.06
	03/08/04	44.98	8.41	36.57
	06/08/04	44.98	10.19	34.79
	09/10/04	44.98	10.84	34.14
	12/13/04	44.98	9.26	35.72
	03/11/05	44.98	7.81	37.17
	06/15/05	44.98	10.80	34.18
	09/08/05	44.98	11.58	33.40
	12/01/05	44.98	9.03	35.95
	03/07/06	44.98	7.78	37.20
	06/05/06	**44.98**	**9.28**	**35.70**

Table 2: Groundwater Elevation Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-3	03/19/97	44.32	7.59	36.73
	10/08/97	44.32	9.98	34.34
	06/20/97	44.32	8.36	35.96
	01/16/98	44.32	9.18	35.14
	08/05/99	44.37	10.56	33.81
	11/18/99	44.37	10.92	33.45
	02/24/00	44.37	8.49	35.88
	05/24/00	44.37	8.42	35.95
	08/29/00	44.37	12.00	32.37
	01/12/01	44.37	10.50	33.87
	04/18/01	44.37	9.50	35.22
	07/27/01	44.37	11.61	32.76
	11/06/01	44.37	11.73	32.64
	02/13/02	44.37	9.36	35.01
	05/14/02	44.37	9.00	35.37
	08/15/02	44.37	11.72	32.65
	11/14/02	44.37	11.28	33.09
	02/12/03	44.37	10.17	34.20
	05/16/03	44.37	11.47	32.90
	08/29/03	44.37	11.92	32.45
	12/02/04	44.37	10.96	33.41
	03/08/04	44.37	10.49	33.88
	06/08/04	44.37	9.89	34.48
	09/10/04	44.37	11.54	32.83
	12/13/04	44.37	8.96	35.41
	03/11/05	44.37	6.99	37.38
	06/15/05	44.37	7.72	36.65
	9/8/2005 *	44.37	10.61	33.76
	12/01/05*	44.37	ng	-
	3/7/2006*	44.37	5.26	39.11
	6/5/2006*	**44.37**	**8.09**	**36.28**
MW-4	08/05/99	43.48	8.79	34.69
	11/18/99	43.48	8.11	35.37
	02/24/00	43.48	5.19	38.29
	05/24/00	43.48	7.23	36.25
	08/29/00	43.48	9.04	34.44
	01/12/01	43.48	6.40	37.08
	04/18/01	43.48	7.30	36.18
	07/27/01	43.48	9.16	34.32
	11/06/01	43.48	9.03	34.45
	02/13/02	43.48	6.60	36.88
	05/14/02	43.48	7.19	36.29
	08/15/02	43.48	8.97	34.51
	11/14/02	43.48	7.52	35.96
	02/12/03	43.48	6.37	37.11
	05/16/03	43.48	6.81	36.67
	08/29/03	43.48	8.56	34.92
	12/02/03	43.48	6.02	37.46
	03/08/04	43.48	5.75	37.73
	06/08/04	43.48	8.19	35.29
	09/10/04	43.48	8.84	34.64
	12/13/04	43.48	5.51	37.97
	03/11/05	43.48	5.26	38.22
	06/15/05	43.48	6.79	36.69
	09/08/05	43.48	8.20	35.28
	12/01/05	43.48	6.93	36.55
	03/07/06	43.48	4.17	39.31
	06/05/06	**43.48**	**6.88**	**36.60**

Notes:
All well elevations are measured from the top of the casing and not from the ground surface
ft amsl = feet above mean sea level
ng = not gauged
* = Apparent groundwater elevation, free product present

Table 2a: Groundwater Flow Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Episode	Date	Average Water Table Elevation (ft amsl)	Water Table Elevation Change (ft)	Hydraulic Gradient/ Flow Direction (ft/ft)
1	03/19/97	36.81	----	----
2	06/20/97	35.58	-1.23	----
3	10/08/97	35.52	-0.06	----
4	01/16/98	37.55	2.03	----
5	08/05/99	34.87	-2.67	----
6	11/18/99	35.14	0.27	----
7	02/24/00	37.49	2.35	----
8	05/24/00	36.55	-0.94	----
9	08/29/00	33.98	-2.57	NW (0.09)
10	01/12/01	36.08	2.10	W (0.06)
11	04/18/01	36.08	0.00	W (0.02)
12	07/27/01	33.99	-2.09	W (0.02)
13	11/06/01	33.77	-0.22	NW (0.05)
14	02/13/02	36.48	2.71	NW (0.05)
15	05/14/02	35.54	-0.94	N (0.04)
16	08/15/02	34.15	-1.39	W (0.05)
17	11/14/02	34.69	0.54	N (0.08)
18	02/12/03	36.09	1.40	NW (0.03)
19	05/16/03	35.08	-1.01	NW (0.06)
20	08/29/03	33.94	-1.14	NW (0.04)
21	12/02/03	35.39	1.45	NW (0.05)
22	03/08/04	36.50	1.12	NW (0.04)
23	06/08/04	35.17	-1.34	NW (0.02)
24	09/10/04	34.29	-0.88	NW (0.007)
25	12/13/04	36.91	2.63	NW (0.05)
26	03/11/05	37.73	0.81	NW (0.016)
27	06/15/05	36.18	-1.55	NW (0.015)
28	09/08/05	34.59	-1.59	NW (0.042)
29	12/01/05	36.78	2.19	NW (0.040)
30	03/07/06	38.45	1.67	NNE (0.03)
31	**06/05/06**	**36.40**	**-2.05**	**NNW (0.022)**

Notes:
ft amsl = feet above mean sea level

Table 3: Groundwater Analytical Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			EPA Method SW8015Cm/C		*EPA Method SW8021B*				
		(ft)	(ug/L)		(ug/L)				
MW - 1	03/19/97	8.25	<50	<50	23	<0.5	<0.5	<0.5	<0.5
	06/23/97	9.10	1,300	420	14	150	2.1	12	19
	10/08/97	9.95	56	66	5.8	2.8	<0.5	<0.5	<0.5
	01/16/98	7.57	1,500	910	<33	95	0.72	69	8.4
	08/05/99	10.16	160	63	<15	1.6	<0.5	0.56	1.1
	11/18/99	8.52	79	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/24/00	7.65	300	160	<5.0	14	0.82	3.5	1.6
	05/24/00	8.47	1,300	480	<10	93	<0.5	17	1.6
	08/29/00	10.28	120	<0.5	<5.0	0.93	<0.5	<0.5	<0.5
	01/12/01	8.50	360	170	<5.0	16	<0.5	9.3	0.69
	04/18/01	8.77	1,100	410	2,800	63	<0.5	34	0.73
	07/27/01	10.50	130	66	<5.0	1.6	<0.5	<0.5	<0.5
	11/06/01	10.28	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/13/02	8.47	430	270	<5.0	17	0.51	11	0.64
	05/14/02	9.50	340	170	<5.0	21	<0.5	5.3	0.67
	08/15/02	10.39	96	53	<5.0	0.66	<0.5	<0.5	<0.5
	11/14/02	9.08	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	02/12/03	8.36	710	120	<5.0	28	4.3	32	130
	05/16/03	8.49	1,100	340	<15	54	4.1	40	100
	08/29/03	9.91	1,200	280	<5.0	46	5.1	55	230
	12/02/03	8.88	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	03/08/04	7.66	120	240[1,2]	<5.0	2.9	<0.5	<0.5	0.71
	06/08/04	9.39	<50	78[2]	<5.0	<0.5	<0.5	<0.5	<0.5
	09/10/04	9.95	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
	12/13/04	6.94	240	150	<5.0	11	<0.5	5.6	<0.5
	03/11/05	7.35	1,100	420	<40	43	0.60	12	0.80
	06/15/05	7.35	440	220	<15	26	<0.5	0.60	<0.5
	09/08/05	9.57	120 [3]	76 [1]	<5.0	2.0	<0.5	<0.5	<0.5
	12/01/05	7.66	<50	<50	<5.0	1.3	<0.5	0.74	<0.5
	03/07/06	7.32	590	150	<5.0	29	0.89	4.4	1.1
	06/05/06	**8.46**	**74 [1]**	**120 [1,2]**	**<5.0**	**1.2**	**<0.5**	**<0.5**	**<0.5**
MW - 2	03/19/97	8.40	<50	<50	65	<0.5	<0.5	<0.5	<0.5
	06/23/97	8.85	<50	<50	70	3.4	<0.5	<0.5	<0.5
	10/08/97	9.80	<50	<50	90	<0.5	<0.5	<0.5	<0.5
	01/16/98	5.28	<50	<50	65	<0.5	<0.5	<0.5	<0.5
	08/05/99	9.32	<50	<50	600	<0.5	<0.5	<0.5	<0.5
	11/18/99	10.20	<50	<50	370	<0.5	<0.5	<0.5	<0.5
	02/24/00	7.03	<50	<50	880	<0.5	<0.5	<0.5	<0.5
	05/24/00	8.01	<250	62	2,200	<0.5	<0.5	<0.5	<0.5
	08/29/00	11.07	<200	<50	1,900	<0.5	<0.5	<0.5	<0.5
	01/12/01	8.60	470	70	2,000	8.7	3.1	16	73
	04/18/01	8.80	<50	<50	2,800	<0.5	<0.5	<0.5	<0.5
	07/27/01	11.10	<100	<50	3,300	<0.5	<0.5	<0.5	<0.5
	11/06/01	12.21	<100	<50	3,000	<0.5	<0.5	<0.5	<0.5
	02/13/02	7.98	54	<50	3,200	<0.5	<0.5	<0.5	<0.5
	05/14/02	10.48	<150	<50	3,800	4.8	<1.0	<1.0	<1.0
	08/15/02	10.64	<50	<50	2,900	<0.5	<0.5	<0.5	<0.5

Table 3: Groundwater Analytical Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			EPA Method SW8015Cm/C		*EPA Method SW8021B*				
		(ft)	(ug/L)		(ug/L)				
	11/14/02	11.69	<120	<50	3,800	<1.0	<1.0	<1.0	<1.0
MW - 2	02/12/03	9.07	1,100	120	3,200	57	7	55	210
continued	05/16/03	11.25	530	85	6,000	35	3.6	22	79
	08/29/03	12.19	2,400	1200	4,800	39	5.8	77	320
	12/02/03	10.96	<100	<50	3,300	<1.0	<1.0	<1.0	<1.0
	03/08/04	8.41	<250	<50	4,600	<2.5	<2.5	<2.5	<2.5
	06/08/04	10.19	<120	<50	3,400	<1.2	<1.2	<1.2	<1.2
	09/10/04	10.84	<250	<250	4,100	<2.5	<2.5	<2.5	<2.5
	12/13/04	8.41	77	<50	4,200	<0.5	0.83	<0.5	1.9
	03/11/05	7.81	120	<50	4,900	14	<0.5	0.56	<0.5
	06/15/05	7.81	1,200	<50	12,000	85	<5.0	<5.0	<5.0
	09/08/05	11.58	<500	<50	8,600	<5.0	<5.0	<5.0	<5.0
	12/01/05	9.03	<500	<50	12,000	<5.0	<5.0	<5.0	<5.0
	03/07/06	7.78	<500	<50	10,000	44	<5.0	<5.0	<5.0
	06/05/06	**9.28**	**890** [6]	**1,000** [1,2]	**19,000**	**110**	**<5.0**	**<5.0**	**31**
MW -3	03/19/97	7.59	26,000	5,000	230	3,000	530	340	2,300
	06/23/97	9.98	25,000	7,000	270	4,400	120	540	1,500
	10/08/97	8.36	17,000	5,100	<280	4,400	47	280	410
	01/16/98	9.18	29,000	7,300	<360	5,600	740	950	3,500
	08/05/99	10.56	31,000	5,100	<200	5,400	150	1100	2,300
	11/18/99	10.92	74,000	49,000	<1,000	8,100	5,000	2,100	8,100
	02/24/00	8.49	110,000	6,300	<200	12,000	1,400	2,900	14,000
	05/24/00	8.42	87,000	26,000	<200	13,000	1,900	2,900	14,000
	08/29/00	12.00	49,000	9,400	<200	7,400	800	1,800	7,400
	01/12/01	10.50	69,000	21,000	<300	8,600	980	2,600	11,000
	04/18/01	9.50	75,000	13,000	<500	9,200	1,200	2,500	12,000
	07/27/01	11.61	75,000	85,000	<650	8,700	1,100	2,600	12,000
	11/06/01	11.73	89,000	86,000	<200	7,900	910	2,800	12,000
	02/13/02	9.36	85,000	13,000	<2,000	8,500	830	2,600	11,000
	05/14/02	9.00	94,000	35,000	<1,000	9,700	1,100	3,400	15,000
	08/15/02	11.72	37,000	9,700	<1,200	5,200	430	1,800	5,900
	11/14/02	11.28	66,000	23,000	<1,200	8,300	860	3,000	11,000
	02/12/03	10.17	61,000	8,400	<500	6,800	500	2,400	9,800
	05/16/03	11.47	59,000	17,000	<500	6,200	320	2,000	6,500
	08/29/03	11.92	78,000	100,000	<1,200	6,800	440	2,900	11,000
	12/02/03	11.32	68,000	46,000	<1,000	7,600	450	2,900	10,000
	03/08/04	10.49	79,000	160,000	<250	7,700	570	300	13,000
	06/08/04	9.89	90,000	26,000	<1,200	6,700	580	2,500	13,000
	09/10/04	11.54	NA - Free Product		<100*	7,600*	540*	3,500*	14,000*
	12/13/04	8.91	NA - Free Product = 0.05 ft		-	-	-	-	-
	03/11/05	6.94	NA - Free Product = 0.05 ft		-	-	-	-	-
	06/15/05	6.99	NA - Free Product = 0.12 ft		-	-	-	-	-
	09/08/05	10.61	NA - Free Product = 0.64 ft		-	-	-	-	-
	12/01/05	ng	NA - Free Product		-	-	-	-	-
	03/07/06	5.26	NA - Free Product = 0.95 ft		-	-	-	-	-
	06/05/06	**8.09**	**37,000** [7,4,8]	**690,000** [1,2,4,5]	**<100**	**110**	**10**	**960**	**4,400**
	06/13/06	**8.99**	**41,000** [6]	**28,000** [1,2]	**<170**	**350**	**24**	**1,100**	**4,600**

Table 3: Groundwater Analytical Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			EPA Method SW8015Cm/C		*EPA Method SW8021B*				
		(ft)	(ug/L)		(ug/L)				

Table 3: Groundwater Analytical Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			EPA Method SW8015Cm/C		*EPA Method SW8021B*				
		(ft)	(ug/L)		(ug/L)				
MW-4	08/05/99	8.79	<50	<50	37	<0.5	<0.5	<0.5	<0.5
	11/18/99	8.11	<50	<50	20	<0.5	<0.5	<0.5	<0.5
	02/24/00	5.19	<50	<50	20	<0.5	<0.5	<0.5	<0.5
	05/24/00	7.23	120	140	31	1.3	<0.5	<0.5	<0.5
	08/29/00	9.04	<50	<50	22	<0.5	<0.5	<0.5	<0.5
	01/12/01	6.40	<50	81	25	<0.5	<0.5	<0.5	<0.5
	04/18/01	7.30	30	170	35	2.4	1.1	0.66	4.2
	07/27/01	9.16	87	110	26	1.8	<0.5	2	10
	11/06/01	9.03	200	59	21	4.5	1	5.2	24
	02/13/02	6.60	<50	91	15	<0.5	<0.5	<0.5	<0.5
	05/14/02	7.19	260	140	26	12	2.7	11	49
	08/15/02	8.97	<50	<50	12	<0.5	<0.5	<0.5	<0.5
	11/14/02	7.52	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	02/12/03	6.37	170	130	16	3.1	0.66	6.4	27
	05/16/03	6.81	<50	60	23	<0.5	<0.5	<0.5	<0.5
	08/29/03	8.56	610	120	10	16	2.7	30	130
	12/02/03	6.02	<50	<50	7.7	<0.5	<0.5	<0.5	<0.5
	03/08/04	5.75	<50	<50	10	<0.5	<0.5	<0.5	<0.5
	06/08/04	8.19	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	09/10/04	8.84	<50	<50	10	<0.5	<0.5	<0.5	<0.5
	12/13/04	5.75	<50	<50	16	<0.5	<0.5	<0.5	<0.5
	03/11/05	5.26	<50	<50	16	<0.5	<0.5	<0.5	<0.5
	06/15/05	5.26	<50	<50	15	<0.5	<0.5	<0.5	<0.5
	09/08/05	8.20	<50	54 [2]	16	<0.5	<0.5	<0.5	<0.5
	12/01/05	6.93	<50	<50	13	<0.5	<0.5	<0.5	<0.5
	03/07/06	4.17	<50	<50	11	<0.5	<0.5	<0.5	<0.5
	06/05/06	**6.88**	**<50**	**<50**	**11**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
VE-1	12/01/05	5.19	140 [3]	540 [2,5]	250	26	13	4.5	15
	03/07/06	2.81	55	na	230	5.2	1.4	2.3	4.5
	06/05/06	**5.37**	**180 [6]**	**490 [5,2,1]**	**410**	**30**	**4.6**	**5.8**	**8.2**
AS-1	12/01/05	8.11	<50	na	<5.0	<0.5	0.81	<0.5	1.5
AS-2	12/01/05	9.64	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
DP-1	12/01/05	7.22	220 [2]	na	<5.0	<0.5	2.8	<0.5	0.94
	03/07/06	4.40	<50	na	<5.0	<0.5	0.71	<0.5	1.1
	06/13/06	**7.99**	**<50**	**67 [2]**	**<5.0**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
DP-2	12/01/05	6.83	<50	na	59	<0.5	<0.5	<0.5	<0.5
	03/07/06	6.09	230	na	<10	1.2	2.6	<0.5	1.2
	06/13/06	**7.98**	**280 [9]**	**110 [1,2]**	**<5.0**	**<0.5**	**1.2**	**<0.5**	**0.67**
DP-3	12/01/05	7.14	120	na	140	2.1	0.96	<0.5	0.78
	03/07/06	6.62	<50	na	260	<0.5	<0.5	<0.5	<0.5
	06/13/06	**9.34**	**220 [6,9]**	**88 [1,2]**	**67**	**0.57**	**0.83**	**<0.5**	**<0.5**

Table 3: Groundwater Analytical Data
Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Depth to Water	TPHg	TPHd	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes
			EPA Method SW8015Cm/C		*EPA Method SW8021B*				
		(ft)	(ug/L)		(ug/L)				
DP-4	12/01/05	8.43	ns	ns	ns	ns	ns	ns	ns
	03/07/06	7.19	2,400	na	310	570	3.2	38	0.94
	06/13/06	**8.71**	**1,100** [6,9]	**250** [1,2]	**330**	**210**	**2.0**	**9.2**	**1.2**
DP-5	12/01/05	4.69	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
	03/07/06	2.33	<50	na	<5.0	<0.5	<0.5	<0.5	<0.5
	06/13/06	**5.03**	**<50**	**140** [2]	**5.4**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
DP-6	12/01/05	5.91	7,000	na	<120	1000	7.8	860	230
	03/07/06	7.11	6,500	na	<160	850	5.9	650	350
	06/13/06	**8.73**	**3,100** [6]	**1,500** [1,2]	**28**	**250**	**1.2**	**270**	**120**

Notes:

ug/L= micrograms per liter
MTBE= Methyl Tertiary Butyl Ether
TPHg= Total Petroleum Hydrocarbons as gasoline
TPHd= Total Petroleum Hydrocarbons as diesel
na = not analyzed
ns = not sampled
ng = not gauged
* = Analysis by EPA Method 8260

1 - gasoline range compounds are significant
2 - diesel range compounds are significant; no recognizable pattern
3 - unmodified or weakly modified diesel is significant
4 - lighter than water immiscible sheen/product is present
5- oil range compounds are significant
6 - unmodified or weakly modified gasoline is significant
7 - heavier gasoline range compounds are significant (aged gasoline?)
8- no recognizable pattern
9- One to a few isolated non-target peaks present

APPENDIX A

GROUNDWATER MONITORING WELL FIELD SAMPLING FORMS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Fidelity Roof Company	Date of Sampling:	6/5/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	45.49		
Depth of Well	21.00		
Depth to Water (from top of casing)	8.46		
Water Elevation (feet above msl)	37.03		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**6.0**		
Actual Volume Purged (gallons)	7.0		
Appearance of Purge Water	clear		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs, (1) 1 Liter Amber

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	2	18.75	6.79	862	7.79	-3.5	
	4	18.7	6.74	823	5.24	-37.8	
	6	18.81	6.82	838	4.2	5.7	
	7	18.99	6.87	822	3.03	-24.6	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

No hc odors, initially clear

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Fidelity Roof Company	Date of Sampling:	6/5/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	44.98		
Depth of Well	21.00		
Depth to Water (from top of casing)	9.28		
Water Elevation (feet above msl)	35.70		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**5.6**		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Clears fast		
Free Product Present?	no	Thickness (ft):	-

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs, (1) 1 Liter Amber

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	2	20.12	7.37	1357	6.02	30.9	
	4	20.06	7.3	1333	5.47	30.5	
	6	20.08	7.25	1307	4.98	31.2	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Light brown, no hc odors present

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Fidelity Roof Company	Date of Sampling:	6/5/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	44.37		
Depth of Well	21.00		
Depth to Water (from top of casing)	8.09		
Depth to FP	N/A		
Water Elevation (feet above msl)	36.28		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**6.1**		
Actual Volume Purged (gallons)	8.0		
Appearance of Purge Water	light clear		
Free Product Present?	yes	Thickness (ft):	sheen

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs, (1) 1 Liter Amber

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	2	19.61	7.73	881	7.23	-84.5	
	4	19.70	7.61	845	6.26	-72.7	
	6	19.44	7.43	986	5.05	-63.1	
	8	19.45	7.21	1204	3.91	-76.6	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Water initially grey with strong hc odors. Light clearing at 2.5 gallons

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	44.37		
Depth of Well	21.00		
Depth to Water (from top of casing)	8.99		
Depth to FP	8.97		
Water Elevation (feet above msl)	35.38		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**6.1**		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Heavy Sheen, brown		
Free Product Present?	yes	Thickness (ft):	0.02

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs, (1) 1 Liter Amber

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	2	19.61	7.15	1376	8.43	-56.9	
	4	19.43	7.07	1334	7.08	-58.3	
	6	19.48	7.02	1326	5.07	-46.8	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong hydrocarbon odors. Clears at 2.5 gallons

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Fidelity Roof Company	Date of Sampling:	6/5/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	43.48		
Depth of Well	20.00		
Depth to Water (from top of casing)	6.88		
Water Elevation (feet above msl)	36.60		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**6.3**		
Actual Volume Purged (gallons)	8.0		
Appearance of Purge Water	clears quickly		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs, (1) 1 Liter Amber

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1	20.07	7.25	812	6.15	46.7	
	3	20.61	7.08	798	5.13	53.0	
	5	20.17	7.02	875	4.58	62.9	
	7	19.94	6.99	962	4.23	73.0	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Water initially light brown, no hc odors

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-1

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	7.99		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	3 Liters		
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	19.01	7.78	587	7.81	-2.3	
	2 Liters	19.17	7.31	511	6.56	17.7	
	3 Liters	18.89	7.10	561	5.71	31.5	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Water initially clear, no hc odors noted

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-2

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	7.98		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	3 Liters		
Appearance of Purge Water			
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	19.13	7.03	1506	7.50	-8.4	
	2 Liters	18.97	7.03	1443	6.56	-4.4	
	3 Liters	18.93	7.00	1468	6.24	12.3	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Water initially clear, hc odors

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-3

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	9.34		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	3 Liters		
Appearance of Purge Water	Milky brown		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	20.17	7.1	1496	8.76	9.5	
	2 Liters	20.48	7.09	1588	6.6	-23.5	
	3 Liters	20.55	7.07	1593	6.32	-24.7	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

no hc odors, clears fast

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-4

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	8.71		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	3 Liters		
Appearance of Purge Water	Grey		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	19.67	6.83	1269	5.09	-11.9	
	2 Liters	20.22	7.08	1269	4.28	-38.6	
	3 Liters	20.35	7.11	1276	3.74	-47.5	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

strong hc odor

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-5

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	5.03		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	3 Liters		
Appearance of Purge Water	clear		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	21.04	7.75	511	4.81	-19.6	
	2 Liters	21.51	7.72	510	4.16	-20.9	
	3 Liters	21.62	7.67	515	3.95	-13.1	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

No hc odors

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DP-6

Project Name:	Fidelity Roof Company	Date of Sampling:	6/13/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	1		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	15.50		
Depth to Water (from top of casing)	8.73		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	N/A		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	N/A		
Actual Volume Purged (gallons)	2 Liters		
Appearance of Purge Water	clear		
Free Product Present?	No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	1 Liter	20.31	7.48	858	5.58	-52.1	
	2 Liters	20.29	7.32	858	5.12	-40.5	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Dry at 2 liters, strong hc odors

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: VE-1

Project Name:	Fidelity Roof Company	Date of Sampling:	6/5/2006
Job Number:	116303	Name of Sampler:	Adrian Nieto
Project Address:	1075 40th Avenue, Oakland		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4		
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	-----		
Depth of Well	10.00		
Depth to Water (from top of casing)	5.37		
Water Elevation (feet above msl)	N/A		
Well Volumes Purged	3		
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	**12.0**		
Actual Volume Purged (gallons)	13.0		
Appearance of Purge Water	Cleared by 2.5 gallons		
Free Product Present?		Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size: (2) 40mL VOAs

Time	Vol Removed (gal)	Temperature (deg C)	pH	Conductivity (µ S/cm)	DO (mg/L)	ORP (meV)	Comments
	2	20.81	10.58	757	4.83	-68.9	
	4	20.91	10.46	758	3.20	-72.1	
	6	20.96	10.40	760	2.53	-71.5	
	8	20.98	10.35	760	2.06	-70.5	
	10	21.00	10.32	758	1.80	-69.5	
	13	21.04	10.31	752	1.71	-68.1	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Water started grey with strong hc odors

APPENDIX B

LABORATORY ANALYTICAL REPORT WITH CHAIN OF CUSTODY DOCUMENTATION

McCampbell Analytical, Inc.

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303; Fidelity Roof Company	Date Sampled: 06/05/06
		Date Received: 06/05/06
	Client Contact: Ricky Bradford	Date Reported: 06/09/06
	Client P.O.:	Date Completed: 06/09/06

WorkOrder: 0606091

June 09, 2006

Dear Ricky:

Enclosed are:

1). the results of **5** analyzed samples from your **#116303; Fidelity Roof Company 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.

Best regards,

Angela Rydelius, Lab Manager

aei 0606091

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

Report To: Ricky Bradford Bill To: Same

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: rbradford@aeiconsultants.com

Tel: (925) 283-6000 ext. 148 Fax: (925) 944-2895

Project #: 116303 Project Name: Fidelity Roof Company

Project Location: 1075 40th Street, Oakland, CA

Sampler Signature: Adrian Nieto

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
MW-1		6/5/06	1:45	4	VIL	X					X	X		
MW-2		"	1:55	"	"	X					X	X		
MW-3		"	2:38	"	"	X					X	X		
MW-4		"	2:09	"	"	X					X	X		
DP-1		Not Sampled	Not Sampled			X					X	X		
DP-2		"	"			X					X	X		
DP-3		"	"			X					X	X		
DP-4		"	"			X					X	X		
DP-5		"	"			X					X	X		
DP-6		"	"			X					X	X		
VE-1		6/5/06	2:03	1	1	X					X	X		
AS-1						X					X	X		
AS-2						X					X	X		

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260 (8010 list)	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 / 8080	VOCs EPA 624 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													
X	X													
X	X													
X	X													

Other: Halogenated VOCs (8260B – 8010 Target List) — Not Sampled

Comments:

Relinquished By:	Date:	Time:	Received By:
Adrian Nieto	6/5/06	5:01	Marina V
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER
APPROPRIATE CONTAINERS	✓			

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0606091 **ClientID: AEL** **EDF: YES**

Report to:
Ricky Bradford
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
TEL: (925) 283-6000
FAX: (925) 283-6121
ProjectNo: #116303; Fidelity Roof Company
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 06/05/2006
Date Printed: 06/05/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0606091-001	MW-1	Water	6/5/06 1:45:00 PM	☐	A	A	B									
0606091-002	MW-2	Water	6/5/06 1:55:00 PM	☐	A		B									
0606091-003	MW-3	Water	6/5/06 2:30:00 PM	☐	A		B									
0606091-004	MW-4	Water	6/5/06 2:09:00 PM	☐	A		B									
0606091-005	VE-1	Water	6/5/06 2:03:00 PM	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)_W	4		5	
6		7		8		9		10	
11		12							

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.

McCampbell Analytical, Inc.

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303; Fidelity Roof Company	Date Sampled: 06/05/06
		Date Received: 06/05/06
	Client Contact: Ricky Bradford	Date Extracted: 06/07/06-06/09/06
	Client P.O.:	Date Analyzed: 06/07/06-06/09/06

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0606091

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	74,a	ND	1.2	ND	ND	ND	1	110
002A	MW-2	W	890,a	19,000	110	ND<5.0	ND<5.0	31	10	116
003A	MW-3	W	37,000,b,m,h	ND<100	110	10	960	4400	20	107
004A	MW-4	W	ND	11	ND	ND	ND	ND	1	102
005A	VE-1	W	180,a	410	30	4.6	5.8	8.2	1	110

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 and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/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 ~1 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; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303; Fidelity Roof Company	Date Sampled: 06/05/06
		Date Received: 06/05/06
	Client Contact: Ricky Bradford	Date Extracted: 06/05/06
	Client P.O.:	Date Analyzed: 06/06/06-06/09/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0606091

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0606091-001B	MW-1	W	120,d,b	1	96
0606091-002B	MW-2	W	1000,d,b	1	94
0606091-003B	MW-3	W	690,000,d,b,g,h	100	117
0606091-004B	MW-4	W	ND	1	93
0606091-005B	VE-1	W	490,g,b,d	1	111

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0606091

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 22019 Spiked Sample ID: 0606064-004A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex)£	ND	60	112	103	8.10	107	104	2.53	70 - 130	70 - 130
MTBE	ND	10	93.8	108	14.3	102	102	0	70 - 130	70 - 130
Benzene	ND	10	105	82.9	23.8	89.4	92.2	3.07	70 - 130	70 - 130
Toluene	ND	10	102	85.3	17.6	92.3	94.5	2.38	70 - 130	70 - 130
Ethylbenzene	ND	10	106	104	1.22	92.1	95.5	3.68	70 - 130	70 - 130
Xylenes	ND	30	96	96.3	0.347	90	94	4.35	70 - 130	70 - 130
%SS:	116	10	105	99	5.29	103	105	2.67	70 - 130	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

BATCH 22019 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0606091-001A	6/05/06 1:45 PM	6/09/06	6/09/06 1:13 PM	0606091-002A	6/05/06 1:55 PM	6/07/06	6/07/06 3:00 PM
0606091-002A	6/05/06 1:55 PM	6/09/06	6/09/06 5:41 AM	0606091-003A	6/05/06 2:30 PM	6/09/06	6/09/06 9:48 AM

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or 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.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0606091

EPA Method: SW8021B/8015Cm	Extraction: SW5030B	BatchID: 22028	Spiked Sample ID: 0606105-002A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	105	113	7.31	105	110	4.44	70 - 130	70 - 130
MTBE	ND	10	93.8	96.3	2.58	101	112	10.4	70 - 130	70 - 130
Benzene	ND	10	97.6	103	5.14	85.4	102	17.9	70 - 130	70 - 130
Toluene	ND	10	89.6	97.3	8.29	84.3	95.8	12.8	70 - 130	70 - 130
Ethylbenzene	ND	10	97.5	104	6.45	98.2	101	3.32	70 - 130	70 - 130
Xylenes	ND	30	90.7	95.3	5.02	90.7	95.3	5.02	70 - 130	70 - 130
%SS:	105	10	101	104	2.95	98	100	1.76	70 - 130	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

BATCH 22028 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0606091-004A	6/05/06 2:09 PM	6/08/06	6/08/06 6:24 AM	0606091-005A	6/05/06 2:03 PM	6/08/06	6/08/06 4:26 AM

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or 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.

DHS ELAP Certification N° 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0606091

EPA Method: SW8015C	Extraction: SW3510C	BatchID: 22010	Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	98.3	96.3	2.02	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	112	110	1.38	N/A	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

BATCH 22010 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0606091-001B	6/05/06 1:45 PM	6/05/06	6/06/06 1:52 AM	0606091-002B	6/05/06 1:55 PM	6/05/06	6/06/06 3:00 AM
0606091-003B	6/05/06 2:30 PM	6/05/06	6/07/06 4:09 AM	0606091-004B	6/05/06 2:09 PM	6/05/06	6/09/06 5:56 AM
0606091-005B	6/05/06 2:03 PM	6/05/06	6/07/06 3:00 AM				

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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.

0606330 AEL

McCAMPBELL ANALYTICAL INC.

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

Report To: Ricky Bradford	Bill To: Same
Company: AEI Consultants	
2500 Camino Diablo, Suite 200	
Walnut Creek, CA 94597	E-Mail: rbradford@aeiconsultants.com
Tel: (925) 283-6000 ext. 148	Fax: (925) 944-2895
Project #: 116303	Project Name: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA	
Sampler Signature: Adam Klein	

	SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	Analysis Request: TPH as Diesel (8015)	Analysis Request: Total Petroleum Oil & Grease (5520 E&F/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: HVOCs EPA 8260 (8010 list)	Analysis Request: BTEX ONLY (EPA 602 / 8020)	Analysis Request: Pesticides EPA 608 / 8080	Analysis Request: PCBs EPA 608 / 8080	Analysis Request: VOCs EPA 624 / 8260	Analysis Request: EPA 625 / 8270	Analysis Request: PAH's / PNA's by EPA 625 / 8270 / 8310	Analysis Request: CAM-17 Metals	Analysis Request: LUFT 5 Metals	Analysis Request: Lead (7240/7421/239.2/6010)	Analysis Request: RCI	Other: Halogenated VOCs (8260B – 8010 Target List)	Comments
	~~MW-1~~		6/13/06				X					X	X																			
	~~MW-2~~						X					X	X																			
+	MW-3			1:10 PM			X					X	X			X	X															
	~~MW-4~~						X					X	X																			
+	DP-1			10:00 AM			X					X	X			X	X															
+	DP-2			10:51			X					X	X			X	X															
+	DP-3			10:46			X					X	X			X	X															
+	DP-4			10:12A			X					X	X			X	X															
+	DP-5			9:55A			X					X	X			X	X															
+	DP-6			11:10A			X					X	X			X	X															
	~~VE-1~~						~~X~~					~~X~~	~~X~~			~~X~~	~~X~~															
	~~AS-1~~						X					X	X																			
	~~AS-2~~						X					X	X																			

Relinquished By:	Date:	Time:	Received By:
Adam Klein	6/14/06	3:15p	Kathleen Brown
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____ PERSERVED IN LAB ____

PRESERVATION APPROPRIATE ✓ CONTAINERS ____	VOAS ✓	O&G	METALS	OTHER

McCampbell Analytical, Inc.
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Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0606330 **ClientID: AEL** **EDF: YES**

Report to:
Ricky Bradford
All Environmental, Inc.
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
TEL: (925) 283-6000
FAX: (925) 283-6121
ProjectNo: #116303; Fidelity Roof Company
PO:

Bill to:
,

Requested TAT: 5 days

Date Received: 06/14/2006
Date Printed: 06/14/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0606330-001	MW-3	Water	6/13/06 1:10:00 PM	☐	A	A	B									
0606330-002	DP-1	Water	6/13/06 11:00:00	☐	A		B									
0606330-003	DP-2	Water	6/13/06 10:51:00	☐	A		B									
0606330-004	DP-3	Water	6/13/06 10:40:00	☐	A		B									
0606330-005	DP-4	Water	6/13/06 10:12:00	☐	A		B									
0606330-006	DP-5	Water	6/13/06 9:55:00 AM	☐	A		B									
0606330-007	DP-6	Water	6/13/06 11:10:00	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Kathleen Owen

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.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303; Fidelity Roof Company	Date Sampled: 06/13/06
		Date Received: 06/14/06
	Client Contact: Ricky Bradford	Date Extracted: 06/16/06-06/19/06
	Client P.O.:	Date Analyzed: 06/16/06-06/19/06

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0606330

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-3	W	41,000,a	ND<170	350	24	1100	4600	33	89
002A	DP-1	W	ND	ND	ND	ND	ND	ND	1	103
003A	DP-2	W	280,f	ND	ND	1.2	ND	0.67	1	113
004A	DP-3	W	220,f,a	67	0.57	0.83	ND	ND	1	107
005A	DP-4	W	1100,f,a	330	210	2.0	9.2	1.2	1	101
006A	DP-5	W	ND	5.4	ND	ND	ND	ND	1	103
007A	DP-6	W	3100,a	28	250	1.2	270	120	2	95

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 and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/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 ~1 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; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Website: www.mccampbell.com E-mail: main@mccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116303; Fidelity Roof Company	Date Sampled: 06/13/06
		Date Received: 06/14/06
	Client Contact: Ricky Bradford	Date Extracted: 06/14/06
	Client P.O.:	Date Analyzed: 06/14/06-06/16/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0606330

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0606330-001B	MW-3	W	28,000,d,b	10	119
0606330-002B	DP-1	W	67,b	1	106
0606330-003B	DP-2	W	110,d,b	1	98
0606330-004B	DP-3	W	88,d,b	1	97
0606330-005B	DP-4	W	250,d,b	1	99
0606330-006B	DP-5	W	140,b	1	107
0606330-007B	DP-6	W	1500,d,b	1	99

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0606330

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 22202 Spiked Sample ID 0606338-007A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex)£	ND	60	107	95	12.0	104	105	0.693	70 - 130	70 - 130
MTBE	ND	10	114	115	1.11	115	111	3.13	70 - 130	70 - 130
Benzene	ND	10	96.5	99.3	2.83	106	106	0	70 - 130	70 - 130
Toluene	ND	10	96.8	100	3.46	97.9	97.6	0.236	70 - 130	70 - 130
Ethylbenzene	ND	10	96.2	98	1.79	104	103	1.21	70 - 130	70 - 130
Xylenes	ND	30	94	90	4.35	95.3	95	0.350	70 - 130	70 - 130
%SS:	102	10	103	106	2.76	101	102	1.07	70 - 130	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

BATCH 22202 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0606330-001A	6/13/06 1:10 PM	6/16/06	6/16/06 9:09 PM	0606330-002A	6/13/06 11:00 AM	6/19/06	6/19/06 9:28 PM
0606330-003A	6/13/06 10:51 AM	6/16/06	6/16/06 11:09 AM	0606330-004A	6/13/06 10:40 AM	6/16/06	6/16/06 12:21 PM
0606330-005A	6/13/06 10:12 AM	6/16/06	6/16/06 12:58 PM	0606330-006A	6/13/06 9:55 AM	6/16/06	6/16/06 1:40 AM
0606330-007A	6/13/06 11:10 AM	6/16/06	6/16/06 8:34 PM				

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0606330

EPA Method: SW8015C	Extraction: SW3510C	BatchID: 22186	Spiked Sample ID N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	100	105	4.68	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	108	105	2.22	N/A	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

BATCH 22186 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0606330-001B	6/13/06 1:10 PM	6/14/06	6/16/06 12:36 AM	0606330-002B	6/13/06 11:00 AM	6/14/06	6/16/06 6:37 AM
0606330-003B	6/13/06 10:51 AM	6/14/06	6/15/06 3:45 AM	0606330-004B	6/13/06 10:40 AM	6/14/06	6/15/06 2:38 AM
0606330-005B	6/13/06 10:12 AM	6/14/06	6/15/06 1:32 AM	0606330-006B	6/13/06 9:55 AM	6/14/06	6/16/06 7:49 AM
0606330-007B	6/13/06 11:10 AM	6/14/06	6/14/06 11:18 PM				

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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.

DHS ELAP Certification N° 1644

QA/QC Officer