

Phone: (925) 944-2899 Fax: (925) 944-2895

April 26, 2005

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



ENVIRONMENTAL HEALTH SERVICES

Subject:

**Quarterly Groundwater Monitoring Report** 

First Quarter 2005 1075 40<sup>th</sup> Street Oakland, California AEI Project No. 3119

Dear Mr. Huang:

Enclosed is a copy of the quarterly groundwater report for the first quarter 2004 groundwater monitoring event.

The client is holding back on remediation until we get some sort of approval for our previous request. We also need to clean up the free product as suggested in this report.

Please call me or Robert Flory at (925) 944-2899 x122, if you have any questions.

Sincerely,

AEI Consultants

Robert F. Flory PG Senior Geologist

CHICAGO

LOS ANGELES

April 25, 2005

## **GROUNDWATER MONITORING REPORT**

First Quarter 2005

1075 40th Street Oakland, California

Project No. 8326

Prepared For

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

Prepared By

AEI Consultants 2500 Camino Diablo Blvd., Suite 200 Walnut Creek, CA 94597 (925) 944-2899





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April 25, 2005

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

Subject:

**Quarterly Groundwater Monitoring Report** 

First Quarter 2005 1075 40th Street Oakland, California Project No. 8326

Dear Mr. Upshaw:

AEI Consultants (AEI) has prepared this report on behalf 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 was to monitor groundwater quality near the previously removed underground storage tanks (USTs). The work was performed in compliance with requirements of the Alameda County Health Care Services Agency (ACHCSA). This report presents the findings of the first quarter 2005 groundwater monitoring and sampling event conducted on March 11, 2005.

### 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 underground storage tank (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 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 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 groundwater monitoring wells, MW-1 through MW-3. TPH-g and TPH-d were detected in well MW-3 at concentrations of 26,000  $\mu$ g/L and 5,000  $\mu$ g/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  $\mu$ g/L, 65  $\mu$ g/L and 230  $\mu$ g/L, respectively. Well construction details for the groundwater monitoring wells are summarized in Table 1.

At the request of the ACHCSA, six 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, south of the former tank locations along Yerba Buena Avenue. No hydrocarbons were detected in MW-4 at the time of it's installation, however MTBE was reported at a concentration of 37  $\mu$ g/L. The results of on going groundwater monitoring of these four wells is summarized on Table 2 and Table 3.

On May 6, 2004, AEI installed one vapor extraction well (VES-1) and two (2) air sparge wells (AS1 and AS-1). Six (6) shallow vapor monitoring mini-wells (DP-I through DP-6) were installed on May 13, 2004. On May 19 through 20 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 the AEI August 6, 2005, Soil Vapor Extraction and air sparge extraction Test Report. Installation of the remediation system is planned upon approval of the report recommendations by the ACHCSA.

#### **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 well MW-3 by Excel Environmental Services. The liquid was removed by placing a 1-inch 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 water 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 were on November 6 and 19, 2004 were 0.01 feet and 0.14 feet respectively. At the time of this monitoring event, the LNAPL thickness in MW-3 was 0.05 feet in thickness.

The total amount of LNAPL removed is unknown, LNAPL removal was discontinued when the LNAPL thickness stabilized at a thickness of 0.05 feet.

### **Summary of Monitoring Activities**

AEI measured the depth to groundwater in the four wells (MW-1 to MW-4) on March 11, 2005. The locations of groundwater monitoring wells are shown on Figure 2. Prior to sampling, each well was checked for free product using a bailer. The depth to water from the top of the casing in wells MW-1, 2 and 4 was measured with an electric water level indicator and in Well MW-3 using an electronic air/hydrocarbon/water interface meter. Each well sampled was then purged of at least three well volumes with a submersible pump. Temperature, pH, specific conductivity and oxidation-reduction potential (ORP) were measured during the purging of the wells and turbidity was visually noted. Once water levels had recovered to at least 90% of their original level, a water sample was collected.

The groundwater samples were collected from each well using clean disposable bailers. The water samples were collected into 1-liter amber glass bottles and 40 ml glass volatile organic analysis (VOA) vials. The VOAs were capped so no headspace or 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).

Four groundwater samples were submitted for chemical analysis for TPH-g, MTBE, benzene, toluene, ethylbenzene, and xylenes (BTEX) by method SW 8021B/8015Cm and TPH-d by method SW 8015C.

### **Field Results**

A free phase fuel product with a thickness approximately 0.05 feet was present in well MW-3. Groundwater elevations for the current monitoring episode ranged from 37.17 to 38.22 feet above mean sea level (msl). These groundwater elevations were an average of 0.82 higher than the previous episode. Based on these water level measurements, the direction of the groundwater

flow at the time of measurement was towards the northwest with a hydraulic gradient of 0.016 ft/ft. This flow direction and gradient are consistent with previous episodes.

Groundwater elevation data and groundwater sample analytical data are summarized in Tables 2 and 3. The groundwater elevation contours and the groundwater flow direction are shown on 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, TPH-d, BTEX were detected in MW-1 at 1,100  $\mu$ g/L, 420  $\mu$ g/L, 43  $\mu$ g/L, 0.60  $\mu$ g/L, 12  $\mu$ g/L, and 0.60  $\mu$ g/L, respectively. These analytes had been at non-detectable concentrations at the time of the last monitoring event. MTBE was not detected in MW-1 at a detection limit of ND<40  $\mu$ g/L.

TPH-g, MTBE, toluene and ethylbenzene were detected in MW-2 at 120  $\mu$ g/L, 4,900  $\mu$ g/L, 14  $\mu$ g/L, and 0.56  $\mu$ g/L, respectively. TPH-d, benzene and ethylbenzene were not detected in MW-2 at standard detection limits of ND<50  $\mu$ g/L, ND<0.5  $\mu$ g/L and ND<0.5  $\mu$ g/L.

Well MW-3 was not sampled due to the presence of 0.05 feet of LNAPL. This thickness is the same as at the time of the last quarterly monitoring event.

TPH-g, TPH-d and BTEX continued to be at non-detectable concentration is MW-4. MTBE was detected at a concentration of 16  $\mu$ g/L in MW-4. Groundwater sample analytical data is presented in Table 3. Laboratory results and chain of custody documents are included in Appendix B.

### Summary

LNAPL continues to be present in the immediate vicinity of MW-3. The data currently available suggest that the extent of LNAPL is limited to the immediate vicinity of MW-3. High concentrations of hydrocarbons are not present in any other wells. Significant concentrations of MTBE continue to be present in well MW-2.

Installation of the remediation system is planned as soon as approval is received from the ACHCSA.

### Recommendations

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

No. 5825

- Continued quarterly monitoring, with the next episode scheduled for July 2005.
- Immediate removal of free product using a portable dual phase high vacuum extraction system for a period of 2 to 5 days.
- Following removal of LNAPL in well MW-3, installation of the previously recommended air sparge and vapor extraction system.

### **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.

Sincerely,

**AEI Consultants** 

Robert F. Flory, PG Senior Project Geologic

Peter J. McIntyre, PG

Prøgram Manager

### **Figures**

Figure 1 Site Location Map

Figure 2 Site Plan

Figure 3 Sample Analytical Data Figure 4 Water Table Contours

### **Tables**

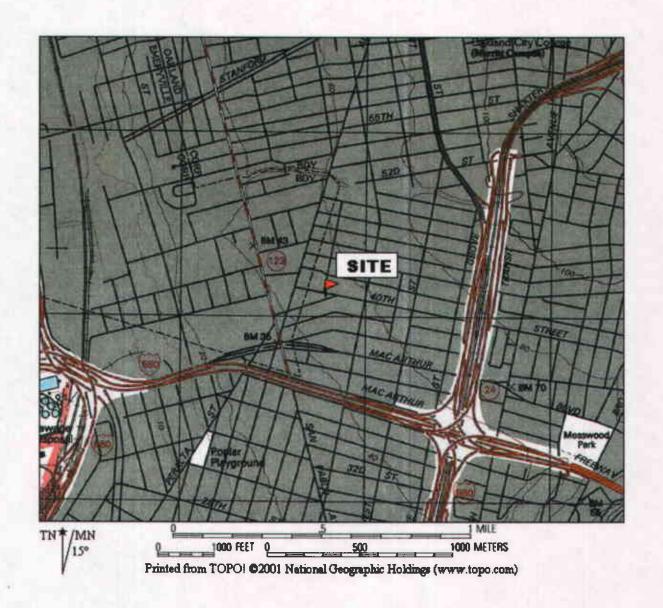
Table 1	Well Construction Details
Table 2	Groundwater Elevation Data
Table 3	Groundwater Analytical Data
Table 4	Fuel Oxygenate Analytical Data

### Appendices

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

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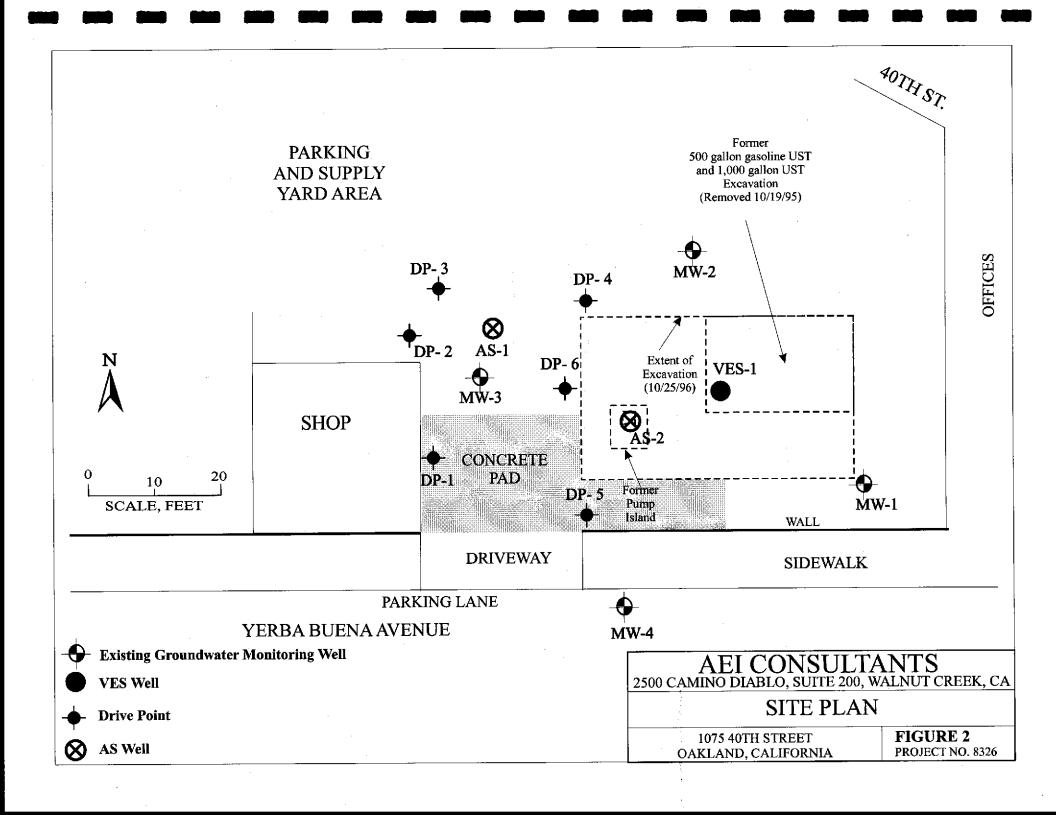
Don Hwang ACHCSA 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

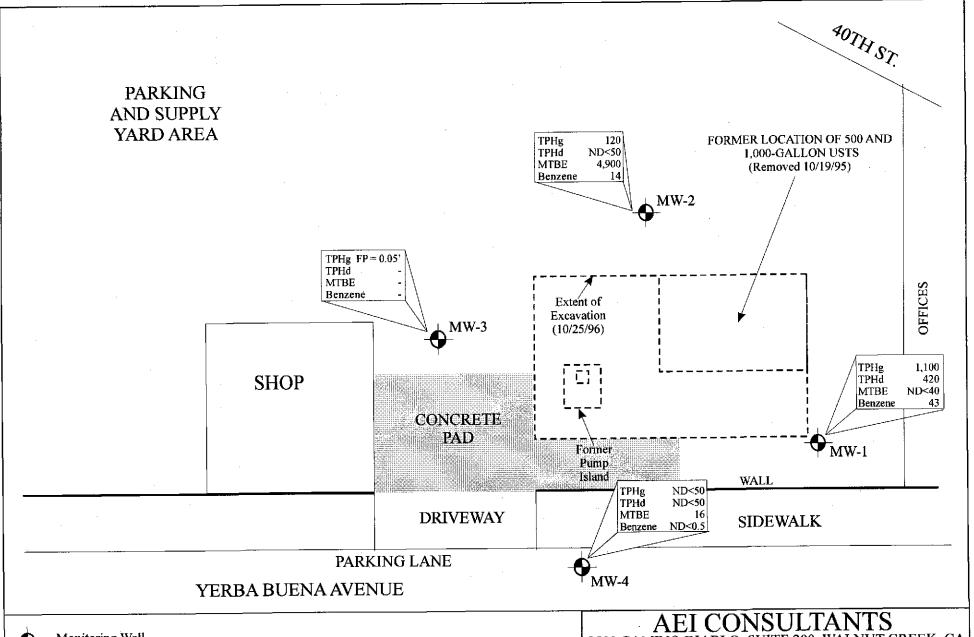


# AEI CONSULTANTS SITE LOCATION MAP

1075 40<sup>th</sup> STREET OAKLAND, CALIFORNIA

FIGURE 1 PROJECT NO. 8326



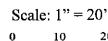




Monitoring Well

Groundwater results are expressed in µg/L. TPHg = Total petroleum hydrocarbons as gasoline TPHd = Total petroleum hydrocarbons as diesel MTBE = Methyl tertiary butyl ether

FP = free product present



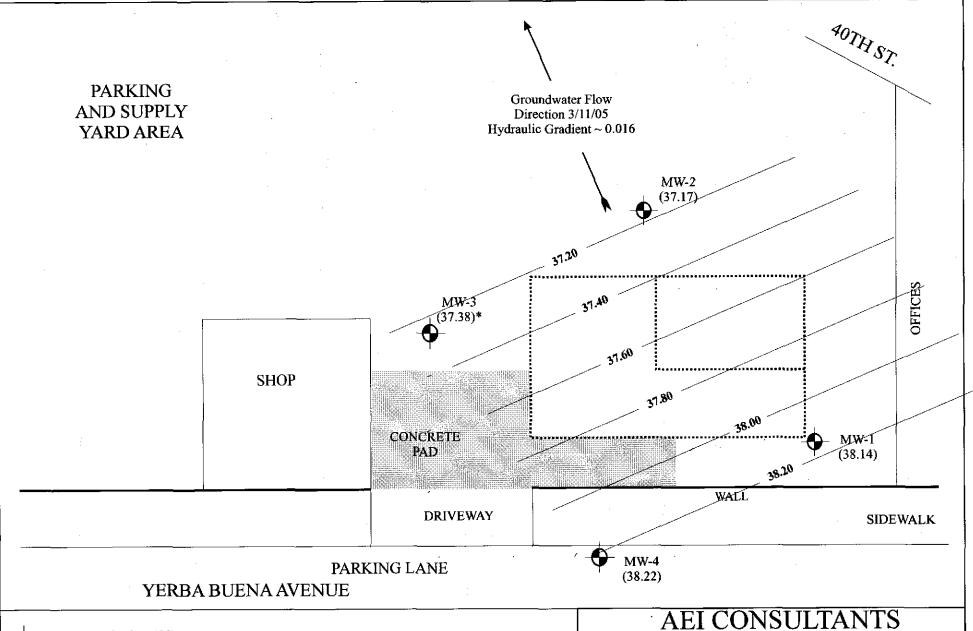


2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK, CA

### **SAMPLE ANALYTICAL DATA - 3/11/05**

1075 40TH AVENUE OAKLAND, CALIFORNIA

Figure 3 AEI Project: 8326



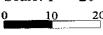


Monitoring Well

Water table elevations in feet above mean sea level

\* Free product, elevation not used to contour groundwater

Scale: 1" = 20'





2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK, CA

### **GROUNDWATER GRADIENT**

**1075 40TH AVENUE** OAKLAND, CALIFORNIA

Figure 4 AEI Project: 8326

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

Well ID	Date Drilled	Elevation	Water Depth 12/13/04	Boring Depth	Slotted Casing	Slot Size	Blank Casing	Sand Interval	Sand Size	Bentonite Interval	Grout Interval
·		(ft msl)	(ft)	<u>(ft)</u>	(ft)	(in)	(ft)	(ft)		(ft)	(ft)
<b>MW</b> -1	03/06/97	<b>45</b> .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 ft msl = feet above mean sea level

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

Well ID	Date	Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
3433/ 1	02/10/07	45.41	8.25	37.16
MW-1	03/19/97	45.41	9.10	36.31
	06/20/97		9.10 9.95	35.46
	10/08/97	45.41		37.84
	01/16/98	45.41	7.57	
	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
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
		44.98	11.10	33.88
	07/27/01		12.21	32.77
	11/06/01	44.98	7.98	37.00
	02/13/02	44.98		
	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

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

		(C4 IV)	/e/\	
		(ft msl)	(ft)	(ft msl)
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
			9,00	35.37
	05/14/02 08/15/02	44.37 44.37	11.72	32.65
		44.37	11.72	33.09
	11/14/02		10.17	34.20
	02/12/03	44.37		32.90
	05/16/03	44.37	11.47	32.45
	08/29/03	44.37	11.92	
	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
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
		43.48	8.84	34.64
	09/10/04		5.51	37.97
	12/13/04	43.48		
	03/11/05	43.48	5.26	38.22

Notes:

All well elevations are measured from the top of the casing and not from the ground surface ft msl = feet above mean sea level

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

Well ID	Date	Elevation	Depth to Water	Groundwater Elevation
		(ft msl)	(ft)	(ft msl)

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	35.43	0.26	NW (0.007)
25	12/13/04	36.91	1.49	NW (0.05)
25	03/11/05	37.73	0.81	NW (0.016)

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

Well ID	Date	Depth to Water	ТРНд	TPHd	MTBE by 8021B	Benzene	Toluene	Ethyl- benzene	Xylenes
	<del></del>	(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW - 1	03/19/97	8.25	ND<50	ND<50	23	ND<0.5	ND<0.5	ND<0.5	ND<0.5
14T AA - T	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	ND<0.5	ND<0.5	ND<0.5
	01/16/98	7. <b>57</b>	1,500	910	ND<33	95	0.72	69	8.4
	08/05/99	10.16	160	63	ND<15	1.6	ND<0.5	0.56	1.1
	11/18/99	8.52	79	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/24/00	7.65	300	160	ND<5.0	14	0.82	3.5	1.6
	05/24/00	8.47	1,300	480	ND<10	93	ND<0.5	17	1.6
	08/29/00	10.28	120	< 0.5	ND<5.0	0.93	ND<0.5	ND<0.5	ND<0.5
	03/29/00	8.50	360	170	ND<5.0	16	ND<0.5	9.3	0.69
	04/18/01	8.77	1,100	410	2,800	63	ND<0.5	34	0.73
	07/27/01	10.50	130	66	ND<5.0	1.6	ND<0.5	ND<0.5	ND<0.5
			ND<50	<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/06/01	10.28	430	270	ND<5.0 ND<5.0	17	0.51	11	0.64
	02/13/02	8.47	430 340	170	ND<5.0	21	ND<0.5	5.3	0.67
	05/14/02	9.50	96	53	ND<5.0 ND<5.0	0.66	ND<0.5	ND<0.5	ND<0.5
	08/15/02	10.39				ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/14/02	9.08	ND<50	ND<50	ND<5.0		4.3	32	130
	02/12/03	8.36	710	120	ND<5.0	28	4.1	40	100
	05/16/03	8.49	1,100	340	ND<15	54	5.1	55	230
	08/29/03	9.91	1,200	280	ND<5.0	46	3.1 ND<0.5	33 ND<0.5	ND<0.5
	12/02/03	8.88	ND<50	ND<50	ND<5.0	ND<0.5		ND<0.5	0.71
	03/08/04	7.66	120	$240^{1,2}_{2}$	ND<5.0	2.9	ND<0.5		ND<0.5
	06/08/04	9.39	ND<50	78 <sup>2</sup>	ND<5.0	ND<0.5	ND<0.5	ND<0.5	
	09/10/04	9.95	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/13/04	6.94	240	150	ND<5.0	11	ND<0.5	5.6	< 0.5
	03/11/05	7.35	1,100	420	ND<40	43	0.60	12	0.80
MW - 2	03/19/97	8.40	ND<50	ND<50	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/23/97	8.85	ND<50	ND<50	70	3.4	ND<0.5	ND<0.5	ND<0.5
	10/08/97	9.80	ND<50	ND<50	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/16/98	5.28	ND<50	ND<50	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/05/99	9.32	ND<50	ND<50	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/18/99	10.20	ND<50	ND<50 .	370	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/24/00	7.03	ND<50	ND<50	880	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/24/00	8.01	ND<250	62	2,200	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/29/00	11.07	ND<200	ND<50	1,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/12/01	8.60	470	70	2,000	8.7	3.1	16	73
	04/18/01	8.80	ND<50	ND<50	2,800	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	07/27/01	11.10	ND<100	ND<50	3,300	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/06/01	12.21	ND<100	ND<50	3,000	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/13/02	7.98	54	ND<50	3,200	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/14/02	10.48	ND<150	ND<50	3,800	4.8	<1.0	<1.0	<1.0
	03/14/02	10.48	ND<50	ND<50	2,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5
			ND<120	ND<50	3,800	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	11/14/02	11.69		120	3,200	57	7	55	210
	02/12/03	9.07	1,100 530	85	6,000	35	3.6	22	79
	05/16/03	11.25				33 39	5.8	77	320
	08/29/03	12.19	2,400	1200 ND<50	4,800		3.6 ND<1.0	ND<1.0	ND<1.0
	12/02/03	10.96	ND<100	ND<50	3,300	ND<1.0		ND<1.0 ND<2.5	ND<1.0
	03/08/04	8.41	ND<250	ND<50	4,600	ND<2.5	ND<2.5		ND<2.3
	06/08/04	10.19	ND<120	ND<50	3,400	ND<1.2	ND<1.2	ND<1.2 ND<2.5	ND<1.2
	09/10/04	10.84	ND<250	ND<250	4,100	ND<2.5	ND<2.5		ND<2.3
	12/13/04	8.41	77	ND<50	4,200	ND<0.5	0.83	ND<0.5	
	03/11/05	7.81	120	ND<50	4,900	14	ND<0.5	0.56	ND<0.5

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

Well ID	Date	Depth to Water	ТРНд	TPHd	MTBE by 8021B	Benzene	Toluene	Ethyl- benzene	Xylenes
		(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
14337 2	02/10/07	7.59	26,000	5,000	230	3,000	530	340	2,300
MW -3	03/19/97 06/23/97	7.39 9.98	25,000	7,000	270	4,400	120	540	1,500
	10/08/97	9.98 8.36	17,000	5,100	ND<280	4,400	47	280	410
•	01/16/98		29,000	7,300	ND<360	5,600	740	950	3,500
		9.18		5,100	ND<300 ND<200	5,400	150	1100	2,300
	08/05/99	10.56	31,000		ND<1000	8,100	5,000	2,100	8,100
	11/18/99	10.92	74,000	49,000	ND<200	12,000	1,400	2,900	14,000
	02/24/00	8.49	110,000	6,300	ND<200 ND<200	13,000	1,900	2,900	14,000
	05/24/00	8.42	87,000	26,000 9,400	ND<200 ND<200	7,400	800	1,800	7,400
	08/29/00	12.00	49,000		ND<200 ND<300	8,600	980	2,600	11,000
	01/12/01	10.50	69,000	21,000		9,200	1,200	2,500	12,000
	04/18/01	9.50	75,000	13,000	ND<500	9,200 8,700	1,100	2,600	12,000
	07/27/01	11.61	75,000	85,000	ND<650	7,900	910	2,800	12,000
	11/06/01	11.73	89,000	86,000	ND<200	8,500	830	2,600	11,000
•	02/13/02	9.36	85,000	13,000	ND<2000		1,100	3,400	15,000
	05/14/02	9.00	94,000	35,000	ND<1000	9,700	430	1,800	5,900
	08/15/02	11.72	37,000	9,700	ND<1200	5,200	860	3,000	11,000
	11/14/02	11.28	66,000	23,000	ND<1,200	8,300 6,800	500	2,400	9,800
	02/12/03	10.17	61,000	8,400	ND<500	6,200	320	2,000	6,500
	05/16/03	11.47	59,000	17,000 100,000	ND<500	6,800	440	2,900	11,000
	08/29/03	11.92	78,000	•	ND<1200	7,600	450	2,900	10,000
	12/02/03	11.32	68,000	46,000	ND<1000		570	300	13,000
	03/08/04	10.49	79,000	160,000	ND<250	7,700			
	06/08/04	9.89	90,000 4	26,000	ND<1200	6,700	580	2,500	13,000
	06/08/04	11.54		ee Product	ND<100*	7,600*	540*	3,500*	14,000*
	12/13/04	8.91		roduct = 0.05 f				-	-
	03/11/05	6.94	NA - Free Pi	roduct = 0.05	ft -		-	-	-
MW-4	08/05/99	8.79	ND<50	ND<50	37	ND<0.5	ND<0.5	ND<0.5	ND<0.5
•	11/18/99	8.11	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/24/00	5.19	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/24/00	7.23	120	140	31	1.3	ND<0.5	ND<0.5	ND<0.5
	08/29/00	9.04	ND<50	ND<50	22	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/12/01	6.40	ND<50	81	25	ND<0.5	ND<0.5	ND<0.5	ND<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	ND<0.5	., 2 .,	. 10
	11/06/01	9.03	200	59	21	4.5	1	5.2	. 24
	02/13/02	6.60	ND<50	91	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/14/02	7.19	260	140	26	12	2.7	11	49
	08/15/02	8.97	ND<50	ND<50	12	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/14/02	7.52	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/12/03	6.37	170	130	16	3.1	0.66	6.4	27
	05/16/03	6.81	ND<50	60	23	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/29/03	8.56	610	120	10	16	2.7	30	130
	12/02/03	6.02	ND<50	ND<50	7.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/08/04	5.75	ND<50	ND<50	10	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/08/04	8.19	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/10/04	8.84	ND<50	ND<50	10	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/13/04	5.75	ND<50	ND<50	16	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/11/05	<b>5.26</b>	ND<50	ND<50	16	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Notes:

ug/L= micrograms per liter

MTBE= Methyl Tertiary Butyl Ether

TPHg= Total Petroleum Hydrocarbons as gasoline

TPHd= Total Petroleum Hydrocarbons as diesel \* + Analysis by 8260

1 - lighter than water immiscible sheen/product is present

# AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number:** 

MW-1

Project Name:	Fidelity Roof Company	Date of Sampling: 3/11/2005
Job Number:	3119	Name of Sampler: Adrian Nieto
Project Address:	1075 40th Avenue, Oakland	

MONITORING WELL DATA

	A MEER RUIN				
Well Casing Diameter (2"/4"/6")		2			
Wellhead Condition	ОК		_		
Elevation of Top of Casing (feet above msl)		45.49	_		
Depth of Well		21.00			
Depth to Water (from top of casing)		7.35			
Water Elevation (feet above msl)	38.14				
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)	6.6				
Actual Volume Purged (gallons)	8.0				
Appearance of Purge Water		Clear			
Free Product Present?	No	Thickness (ft):			

**GROUNDWATER SAMPLES** 

mber of San	nples/Container S	Size		2 40mL VOA, 1 1L			
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	2	18.11	6.84	1155	.24	-88.9	
	4	18.22	7.07	1121	.18	-102.8	
	6	18.95	7.2	1156	.11	-108.4	
	8	19.11	7.21	1141	.11	-107.0	
						:	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)								
Clear with with no hydrocarbon odor								

# <u>AEI CONSULTANTS</u> GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Fidelity Roof Company	Date of Sampling: 3/11/2005
3119	Name of Sampler: Adrian Nieto

**MONITORING WELL DATA** 

1075 40th Avenue, Oakland

Project Name:
Job Number:
Project Address:

WORT ONLY			446
Well Casing Diameter (2"/4"/6")		2	
Wellhead Condition	ОК		•
Elevation of Top of Casing (feet above msl)		44.98	
Depth of Well		21.00	
Depth to Water (from top of casing)		7.81	
Water Elevation (feet above msl)	-	37.17	
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		Initially light brown, clears at 1/2 gallon	
Free Product Present?	no	Thickness (ft): -	_

GROUNDWATER SAMPLES

ber of San	nples/Container S	Size		2 40mL VOA, 1 1L			
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (μ S/cm)	DO (mg/L)	ORP (meV)	Comments
	2	20.13	6.96	1605	0.61	-70.3	
	4	18.77	7.03	1653	.056	-69.0	
	6	20.21	6.96	1557	0.56	-64.3	
	8	20.63	7.07	1540	0.39	-66.6	
		·					

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	
Initially light brown with no hydrocarbon odors. Clears at 1/2 gallon	
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# <u>AEI CONSULTANTS</u> GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Project Name:		Fidelity Roof	Company		Date	of Sampling: 3/	11/2005
Job Number:		311	· · · · · · · · · · · · · · · · · · ·	-	Name of Sampler: Adrian N		
Project Address:	1(	075 40th Aver	nue, Oaklan	ıd			
		M	ONITORIN	G WELL DAT	Δ	. :	· ·
Well Casing Diam	eter (2"/4"/6")				**************************************	2	
Wellhead Condition	n			OK			
Elevation of Top o	f Casing (feet	above msl)				44.37	
Depth of Well						21.00	
Depth to Product (from top of casing)						6.94	
Depth to Water (fr	om top of casi	ng)				6.99	
Water Elevation (f	eet above msl	)				37.38	
Well Volumes Pur	ged			·		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)				6.7			
Actual Volume Pu	rged (gallons)					6.0	
Appearance of Pu	rge Water			Initially brown, clears quickly			
		Free Prod	uct Present?	yes Thickness (ft): 0.05			
		GI	ROUNDWA	TER SAMPLE	ES	e e e e e e e e e e e e e e e e e e e	
Number of Sample	es/Container S			2 40mL VOA,			
Time	Voi Removed (gal)	Temperature (deg C)	рН	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
	Not purged				· · · · · · · · · · · · · · · · · · ·		
			<u>.</u> , ,				
							·
					·		
	CONNEN	ITC (:				was track	
nitially brown with				well recharge	anne a pe	iveni, etc./	··

# AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Fidelity Roof Company	Date of Sampling: 12/13/2004
Job Number:	3119	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)	5.26				
Water Elevation (feet above msl)	38.22				
Well Volumes Purged	20				
Calculated Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	19.1				
Actual Volume Purged (gallons)	19.7				
Appearance of Purge Water		Light brown, clears quickly			
Free Product Present?	No	Thickness (ft):			

GROUNDWATER SAMPLES

Time         Vol Removed (gal)         Temperature (deg C)         pH         Conductivity (μ S/cm)         DO (mg/L)         ORP (meV)           2         19.69         7.68         1286         .39         -137.8           4         19.11         5.68         1216         .40         -129.5           6         19.65         7.65         1280         .32         -128.3	ber of San	nples/Container S	Size		2 40mL VOA, 1 1L				
4     19.11     5.68     1216     .40     -129.5       6     19.65     7.65     1280     .32     -128.3	Time	1		рН			i I	Comments	
6 19.65 7.65 1280 .32 -128.3		2	19.69	7.68	1286	.39	-137.8		
		4	19.11	5.68	1216	.40	-129.5		
		. 6	19.65	7.65	1280	.32	-128.3		
8   19.99   7.57   1330   .31   -122.5		8	19.99	7.57	1330	.31	-122.5		

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

light bro	own with no hydrocarbo	on odors. Clears	quickly			_
				-		
					·	-



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	Client Project ID: #8326; Fidelity Roof	Date Sampled:	03/11/05
2500 Camino Diablo, Ste. #200		Date Received:	03/11/05
Waterst Creek CA 04507	Client Contact: Robert Flory	Date Reported:	03/16/05
Walnut Creek, CA 94597	Client P.O.:	Date Completed:	03/16/05

WorkOrder: 0503211

March 16, 2005

### Dear Robert:

#### Enclosed are:

- 1). the results of 3 analyzed samples from your #8326; Fidelity Roof 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.

Angela Rydelius, Lab Manager

Yours



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	Data Bassinada 02/11/05	
2500 Camino Diablo, Ste. #200		Date Received: 03/11/05
Walnut Crash CA 04507	Client Contact: Robert Flory	Date Extracted: 03/12/05-03/15/05
Wamut Creek, CA 94397	Client P.O.:	Date Analyzed: 03/12/05-03/15/05

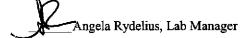
Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0503211										
Lab ID	Client ID	Matrix	TPH(g)	МТВЕ	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	w	1100,a	ND<40	43	0.60	12	0.80	1	114
002A	MW-2	w	120,a	4900	14	ND	0.56	ND	1	100
003A	MW-4	w	ND	16	ND	ND	ND	ND	1	97
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								· · · · · · · · · · · · · · · · · · ·		+
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									-	
	Limit for DF =1;	w	50	5.0	0.5	0.5	0.5	0.5	1	μg/l
ND means	not detected at or	$\vdash$				· · · · · · · · · · · · · · · · · · ·	-			+

ND means not detected at or above the reporting limit S NA NA 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.

<sup>+</sup>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 ~! 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.



<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.



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

				11 000110: 11 11					
AEI Consultant	S	Client Proje	ect ID: #8326	; Fidelity Roof	Date Sampled:	03/11/05			
2500 Camino D	iablo, Ste. #200				Date Received:	03/11/05			
   W 1 + G 1 +	04.04507	Client Cont	tact: Robert Fl	огу	Date Extracted:	03/11/05			
Walnut Creek,	CA 9459/	Client P.O.	;		Date Analyzed:	03/12/05			
		l Range (C1		table Hydrocarb	ons as Diesel*				
Extraction method: SV	V3510C		Analytical me	thods: SW8015C		Wo	rk Order:	0503211	
Lab ID	Client ID	Matrix	· · ·	TPH(d	)		DF	% SS	
0503211-001B	MW-1	w		420,d,b					
0503211-002B	MW-2	w		ND					
0503211-003B	MW-4	w		;	1	102			
								-	
	·		<u> </u>						

		000 1 000	
Reporting Limit for DF =1;	W	50	μg/L
ND means not detected at or above the reporting limit	S	NA	NA

<sup>\*</sup> 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 / 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.

Jy

\_Angela Rydelius, Lab Manager



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

### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503211

EPA Method: SW8021B/	/8015Cm	Extractio	n: SW503	0B	Bat	chID: 153	34	Spiked Sample ID: 0503202-020A			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
Allalyte	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD	
TPH(btex) <sup>£</sup>	ND	60	99.2	99.6	0.448	103	97.4	5.15	70 - 130	70 - 130	
МТВЕ	ND	10	86	83.5	3.01	98.2	91.2	7.41	70 - 130	70 - 130	
Benzene	ND	10	106	104	2.27	106	112	6.32	70 - 130	70 - 130	
Toluene	ND	10	109	107	1.62	102	109	5.87	70 - 130	70 - 130	
Ethylbenzene	ND	10	106	106	0	106	109	3.60	70 - 130	70 - 130	
Xylenes	ND	30	95.3	94.7	0.702	91.3	95.3	4.29	70 - 130	70 - 130	
%SS:	114	10	115	113	1.49	112	113	1.02	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 15334 SUMMARY

Sample ID	Date Sampled	Sampled Date Extracted Date Analyzed S		Sample ID	Sample ID Date Sampled		Date Analyzed	
0503211-001A	3/11/05	3/12/05 5:04 PM	3/12/05 5:04 PM	0503211-002A	3/11/05	3/12/05 6:10 PM	3/12/05 6:10 PM	
0503211-002A	3/11/05	3/15/05 8:37 PM	3/15/05 8:37 PM	0503211-003A	3/11/05	3/12/05 11:37 PM	3/12/05 11:37 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.

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.

QA/QC Officer



NONE

# McCampbell Analytical, Inc.

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

# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503211

EPA Method: SW8015C		Extractio	n: SW3510	oc	Bat	chID: 153	27	Spiked Sample ID: N/A			
A   -   -	Sample Spiked MS* MSD*		MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
Analyte	μg/L	μg/L	μg/L % Rec.		% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD	
TPH(d)	N/A	1000	N/A	N/A	N/A	118	119	0.936	N/A	70 - 130	
%SS:	N/A	2500	N/A	N/A	N/A	96	97	1.21	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:

BATCH 15327 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0503211-001B	3/11/05	3/11/05 2:39 PM	3/12/05 4:19 AM	0503211-002B	3/11/05	3/11/05 2:39 PM	3/12/05 5:27 AM
0503211-003B	3/11/05	3/11/05 2:39 PM	3/12/05 6:35 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.

LL QA/QC Officer



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

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 0503211

ClientID: AEL

Report to:

Robert Flory

AEI Consultants

2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597 TEL: FAX: (925) 283-6000

FAX: (925) 283-6121 ProjectNo: #8326; Fidelity Roof

PO:

Bill to:

Requested TAT:

5 days

Diane

All Environmental, Inc.

2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

Date Received:

03/11/2005

Date Printed: 03/11/2005

					Requested Tests (See legend below)																		
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1		2	3	4		5	1.	6	1	7	8	9	10	11	12	13	14	15
0503211-001	MW-1	Water	3/11/05		А		Α	В						<del></del>							<u></u>	T	
0503211-002	MW-2	Water	3/11/05		Α			В				-											
0503211-003	MW-4	Water	3/11/05		Α			В				Ì		Π.									

### Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT
7	
12	

3	TPH(D)_W
8	
13	

4
9
14

5	7
10	
15	 7

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.

0503211

McCAMPBELL ANALYTICAL INC.													CHAIN OF CUSTODY RECORD																					
110 2 <sup>nd</sup> AVENUE SOUTH, #D7 PACHECO, CA 94553-5560											I	T	ORITIZED ST										2 HR	5 DAX										
Telephone: (925) 798-1620 Fax: (925) 798-1622											171	OF Required? Coelt (Normal) No Write On (DW) No										ZHR	3 UAX											
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Company: AEI Consultants  AEI Consultants														T		10.0	1																	
2500 Camino Diablo, Suite 200												æ		38.		ŀ																		
E-Mail: rflory@aciconsultants.com										8015)/MTBE	•	Grease (5520 E&F/B&F)								PAH's / PNA's by EPA 625 / 8270 / 8310			Toatal lead											
Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895										115)/		20 E	18.1	<u> </u>	- [	ļ	-	-	1	3/0			ata											
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