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Aumeda Coumy

B. 1 2005

Emvironmental Heath



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July 20, 2005

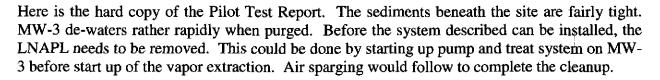
Barney Chan Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Subject:

Pilot Test Report

1075 40th Street Oakland, California AEI Project No. 8326

Dear Chan:



A second approach, one that is looking better the more experience I have with dual phase extraction, would be to have Cal Clean come out for a few days and basically dewater all the wells, the tank pit and place as much vacuum on them as we could. At best, we might remove the entire source; at worse, we should be able to remove the free product. We could move in Cal Clean in quickly. The discharge water could be tanked until analysis and EBMUD approval for discharge.

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

Sincerely.

AEI Consultants

Robert F. Flory, PG

Senior Geologist

August 6, 2004

Alameda County Jul. 8.1 2005 Emvironmental Health

SOIL VAPOR EXTRACTION AND AIR SPARGE PILOT TEST REPORT

1075 40th Street Oakland, California

AEI Project No.8326

Prepared For

Monty Upshaw Fidelity Roof Company Oakland, California

Prepared By

AEI Consultants 2500 Camino Diablo, Suite 100 Walnut Creek, CA 94597

(925) 944-2899

AEI

TABLE OF CONTENTS

1
1
:
2
2
3
3
3
4
5
5
5
6
6
6
8
9
10 11
12
13
13
15
16

LIST OF FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	SITE MAP
FIGURE 3	DISSOLVED HYDROCARBON MAP (06/08/04)
FIGURE 4	AS/VES/DP WELL LOCATION MAP

LIST OF TABLES

TABLE 1	WELL CONSTRUCTION DETAILS
TABLE 2	GROUNDWATER ELEVATION DATA
TABLE 3	GROUNDWATER ANALYTICAL DATA
TABLE 4	SOIL SAMPLE ANALYTICAL DATA
TABLE 5	SOIL FUEL OXYGENATE ANALYTICAL DATA
TABLE 6	AIR SAMPLE ANALYTICAL DATA
TABLE 7	VES-1 PRELIMINARY SVE TEST 5/19/04
TABLE 8	MW-3 PRELIMINARY SVE TEST 5/19/04
TABLE 9	AS-2 PRELIMINARY SPARGE TEST 5/19/04
TABLE 10	AS-2 AIR SPARGE TEST 5/20/04
TABLE 11	AS-2 AIR SPARGE TEST/VES-1 SVE TEST 5/20/04
TABLE 12	AS-1 AIR SPARGE TEST 5/21/04
TABLE 13	MW-3 AND DP-3 SVE TEST 5/21/04

LIST OF APPENDICES

APPENDIX A	BORING LOGS
APPENDIX B	PERMIT DOCUMENTATION
APPENDIX C	SOIL LABORATORY ANALYTICAL REPORTS
APPENDIX D	GROUNDWATER LABORATORY ANALYTICAL REPORTS
APPENDIX E	SIEVE ANALYSES
APPENDIX F	AIR LABORATORY ANALYTICAL REPORTS

1.0 Introduction

AEI Consultants (AEI) has prepared this report on behalf of Mr. Monty Upshaw of Fidelity Roof Company to document the well installation, and the findings of the pilot test performed at 1075 40th Street, in the city of Oakland, California (Figure 1). The project was performed at the request of Barney Chan of the Alameda County Environmental Health, Local Oversight Program (LOP).

This report describes the following activities performed by AEI at the subject property beginning in May 6, 2004:

- Soil Vapor Extraction (SVE) Well Installation
- Air Sparge (AS) Well Installation
- Shallow direct push (DP) vapor wells
- Air Acceptance/Soil Vapor Extraction Pilot Test

2.0 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 (Figure 1). 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 LOP 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. At the request of the LOP, 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. The locations of these wells with the results of the last groundwater analyticals are included in Figure 3. The well construction details of these wells are included in Table 1. The historical depth to water and analytical data is summarized on Tables 2 and 3.

A corrective action plan was prepared by AEI in 2001. The plan evaluated several possible remedial alternatives and recommended soil vapor extraction / air sparging for further evaluation. Following review by the LOP and the San Francisco Bay Regional Water Quality Control Board (RWQCB), the plan was approved in 2002. Subsequent modifications to the plan have been requested by the LOP that were addressed and approved by the LOP.

3.0 SITE GEOLOGY

The site lies on the distal end of the Temescal Alluvial Fan at approximately 45 feet above mean seal level (amsl). The Temescal Alluvial Fan is a low relief broad fan sloping westward from the mouth of the Temescal Creek. The Holocene age alluvial fan deposits are mapped as Qhaf (Helley 1997). The sediments are described as typically, brown to tan gravelly sand or sandy gravel, which generally grades upward into sandy or silty clay.

Borehole logs for groundwater monitoring wells are included in Appendix A. In general, the sediments in the upper 21 feet of the site are poorly sorted, consisting typically of yellowish brown clayey sandy gravels sand, siltstone and clay. Where reduced due to the presence of hydrocarbons the sediments grade from olive to gray to black. Borehole logs for groundwater monitoring wells are included in Appendix A.

4.0 SITE HYDROLOGY

Figure 3 shows the groundwater gradient calculated from water level measurements in the four groundwater-monitoring wells taken on June 8, 2004. The direction of groundwater flow is to the northwest with a hydraulic gradient of 0.02 foot per foot.

Historically, the groundwater elevation at the site has ranged from 32.77 to 37.95 feet amsl (MW-2). The groundwater flow direction has typically been to the northwest. In well MW-2, the annual fluctuation in groundwater elevation has ranged from 2.47 to 4.52 feet with an average of 3.47 feet.

5.0 PERMITS AND CLEARANCES

A well permits were obtained from the Alameda County Public Works Agency prior to scheduling the drilling and well construction activities. Refer to Appendix B for copies of the permitting documentation. Prior to mobilizing on-site, Underground Service Alert (USA) North was notified.

6.0 AIR SPARGE/SVE WELL AND SHALLOW VAPOR POINT INSTALLATION

6.1 Air Sparge and SVE well installation

Field Activities

On May 6, 2004, AEI advanced two soil borings (AS-1, AS-2) to a depth of 30 feet bgs and one boring (SVE-1) to 10 feet bgs (top of groundwater) and completed them as two air sparge wells and one vapor extraction well, respectively. See Figure 4 for well locations. The wells were drilled and installed by Woodward Drilling, Rio Vista, California C-57 license # 710079.

Well Installation and Construction

The borings were advanced with a CME 85 rotary drilling rig using 8¼" nominal outside diameter hollow stem augers. Prior to drilling, the boreholes outside of the backfill area were cleared with hand auger equipment to a depth of 5 feet bgs.

During drilling of AS-1 and below the backfill (17') in AS-2, soil samples were collected at approximately five-foot intervals with a California modified split spoon sampler advanced ahead of the auger bit. Well VE-1 was completed within the backfilled excavation and was not sampled.

The samples collected and auger returns were used to characterize the sediments beneath the site. Soil Samples were described by an AEI geologist, and noted on field boring logs. Copies of the boring logs are included in Appendix A. Selected samples were retained for possible chemical analyses or sieve analyses. The retained samples were sealed with Teflon tape and plastic end caps. Each sample was labeled with at minimum Company name, project number, sample identification number, and time and date and samplers initials. The samples were then placed on ice in a cooler pending transportation under chain of custody protocol to McCampbell Analytical Inc. (DOHS Certification Number 1644) for analysis.

Upon drilling to the target depth, the well casing was installed through the augers. Wells AS-1 and AS-2 were constructed with 2-inch outer diameter Schedule 40 flush threaded PVC well casing. Well screens consisting of 0.010 inch, factory slotted casing, were set from 25 to 30 feet bgs in wells AS-1 and AS-2. Number 2/12 sand was poured through the auger to form a sand pack from the bottom of the wells to 2 feet above the top of the screen. A 2-foot thick bentonite seal was placed above the sand and hydrated with tap water, to form a seal against the neat cement grout. An

expanding well cap was placed in the top of the casing, and a flush mounted traffic rated well box was installed. The remainder of the boring was filled to 0.5 feet below grade with neat cement grout.

Well VE-1 was completed with 0.020 inch factory slotted casing, set from 5 to 10 feet bgs. No. 3 sand was used as sand pack to a depth one foot above the top of the slots. A 1-foot thick bentonite seal was placed above the sand and hydrated with tap water, to form a seal against the neat cement grout. The remainder of the boring was filled to 0.5 feet below grade with neat cement grout. An expanding well cap was placed in the top of the casing, and a flush mounted traffic rated well box was installed. Refer to the Appendix A for a log of the boring and graphic representation of well construction details. The well construction details are included in Table 1.

6.2 Groundwater Sample Collection

The vapor points were installed to allow monitoring of vapor pressures during the air sparge and soil vapor extraction pilot tests. The locations of the shallow soil vapor points are shown on Figure 4.

The six shallow vapor point borings were advanced with a by Woodward Drilling direct push AMC 9530 Pro-D rig using a 2 3/4" outside diameter sampler. The sampler is made up to two sections, an outer sleeve and an inner sampler that retains the core. The shallow vapor point borings were continuously sampled to a depth of a 15.5 feet bgs. Direct push coring retains the core in plastic sleeves.

The recovered core cores were examined and described by the AEI geologist. Selected samples at regular five-foot intervals were retained for possible chemical or other analysis. The samples not retained for possible analysis were used to characterize the sediments beneath the site and described in the boring logs that are included in Appendix A.

The retained samples were sealed with Teflon tape and plastic end caps. Each sample was labeled with at minimum company name, project number, sample identification number, time, date and samplers initials. The samples were then placed on ice in a cooler pending transportation under chain of custody protocol to McCampbell Analytical Inc. (DOHS Certification Number 1644) for analysis.

Upon drilling to the desired depth the vapor points were installed through the augers. The wells were constructed with 3/4" diameter Schedule 40 flush threaded PVC well casing. Each well was constructed using ten-foot pre-packed screens. Each screened interval consisted of two 5-foot prepacked well screen assemblies comprised of an inner flush threaded 0.010" slotted schedule 40 PVC, and an outer 65 mesh stainless steel screen, that supports a 20/40 sand filter pack. Number 20/40 sand was poured through the outer push tube to form an additional sand pack from the bottom of the boring to one foot above the top of the screen. A 1-foot thick bentonite seal was placed above the sand and hydrated with tap water, to form a seal against the neat cement grout. The remainder of the boring was filled to 0.5 feet below grade with neat cement grout. An expanding well cap was

placed in the top of the casing, and a 5-inch diameter flush mounted traffic rated well box was installed. Refer to the Appendix A for a log of the boring and graphic representation of well construction details. The well construction details are included in Table 1.

6.3 Groundwater Sample Collection

On the May 24, 2004, grab groundwater samples were collected from monitoring well MW-3 and Shallow vapor points DP-1 DP-2 and DP-3. Groundwater samples were collected with a clean disposable bailer and transferred into 40-mL volatile organic analysis (VOAs) vials. Groundwater was also collected in a 1-liter amber bottle from MW-3. The VOAs were capped so that there was no headspace or visible air bubbles. Then all samples were labeled and placed in a cooler on water ice to pending same day transportation to the laboratory under appropriate chain-of custody protocols.

7.0 LABORATORY ANALYSIS

7.1 Soil and groundwater analyses

Soil and groundwater samples were transported to McCampbell Analytical Inc. (Department of Health Services Certification #1644) under chain of custody protocol for analysis. Analytical results and chain of custody documents for soil are included as Appendix C, documents for groundwater samples as Appendix D.

Three soil samples from air sparge wells AS-1 and AS-2 were from depths of 15 and 20 feet bgs were analyzed for TPH-g, BTEX, and MTBE by EPA method SW 8021B/8015Cm; for TPH-d by SW 8015C; and fuel oxygenates by method SW 80260B.

Four soil samples from air sparge wells AS-1 and AS-2 were shipped under chain of custody protocol to Cooper Testing Laboratory for geotechnical analysis. The samples were analyzed for particle size distribution by sieve analysis.

Nine soil samples from shallow vapor points DP-1 through DP-6 were analyzed for TPH-g, BTEX, and MTBE by EPA method SW 8021B/8015Cm; for TPH-d by SW 8015C; and fuel oxygenates by method SW 80260B.

The water samples from MW-3, DP-1, DP-2 and DP-3 were analyzed for TPH-g, BTEX and MTBE by EPA method SW 8021B/8015Cm and for fuel oxygenates by method SW 80260B. The sample from MW-3 was also analyzed by for TPH-d by SW 8015C.

Page 5

SVE and Air Sparge Pilot Test AEI Project No. 8326 August 6, 2004

Following Festing

7.2 Findings

None of the soil samples analyzed from 20-feet bgs from air sparge wells AS-1 and AS-2 contained hydrocarbons above laboratory detection limits, however sample AS1-20 contained MTBE at 14 μ g/kg. Sample AS2-15 contained no TPH-g or BTEX at laboratory reporting limits, but TPH-d was reported at 1.4 mg/kg and MTBE at 49 μ g/kg.

Nine soil samples were analyzed depths of 7.5 to 13 feet bgs in DP-1 through DP-6. TPH-g, TPH-d and BTEX were reported in all borings except DP-1. No MTBE was reported by 8021B analyses in any of the borings, however analysis for fuel oxygenates by method 8260 reported MTBE in sample DP5-13 at 12 µg/kg. Soil sample analytical data is summarized in Table 5.

Analysis of water samples collected from MW-3, DP-1, DP-2 ands DP-3 reported TPH-g ranging from 1,200 μ g/L to 67,000 μ g/L. BTEX was reported in all samples and MTBE was reported at 1,800 μ g/L in the water sample from DP-3. MTBE was reported in samples from MW-3, DP-1 and DP-2 were as non detectable at detection limits of 500 μ g/L, 10 μ g/L and 5.0 μ g/L, respectively. Refer to Tables 3, 4 and 5 for summaries of the analytical results. Copies of the analytical reports and chain-of-custody form are attached as Appendix D.

Sieve analysis shows the sediments to range from impermeable clay and gravelly sand to relatively permeable gravelly sand. Refer to Appendix E for copies of the sieve analyses.

8.0 SOIL VAPOR EXTRACTION/AIR ACCEPTANCE PILOT TEST

The air acceptance/soil vapor extraction pilot test was conducted on May 19 through and May 21, 2004. Enviro-Supply, Inc., provided and operated the following items of equipment during the test:

- AC 45KW Diesel Powered Generator
- Enviro-Supply VES blower TC250HV with liquid ring pump capable of 28 inches of mercury maximum vacuum
- Thermal oxidizer
- Magnehelic pressure gauges, reading in inches of water
- Temperature gauge, reading degrees Fahrenheit and Celsius
- · Well head vacuum gauge, reading in inches of water
- Flow meter, reading in cubic feet per minute

Enviro-Supply, Inc. maintains an active Air Quality Management District (BAAQMD) permit for discharge from the above mentioned blower/thermal oxidizer system.\

8.1 Preliminary Soil Vapor Extraction Tests

On May 19, 2004, Vapor extraction was conducted individually on wells SVE-1 and MW-3. The vapor stream passed through the thermal oxidizer before being released to the atmosphere.

Released vapors were monitored regularly with a PID to check whether any untreated vapors were released to the atmosphere. All PID readings were zero at the stack during the vapor extraction pilot test.

The Envirosupply model TC 250 soil vapor extraction and treatment system is suitable for dual phase water and vapor extraction. Vapor and/or water are drawn into the Vapor/Liquid Separator. Vapor continues through the pump and to the combustion chamber of the thermal oxidizer. The thermal oxidizer is heated by burning supplemental fuel in the presence of combustion air that is blown in by the combustion air blower. Additional process flow details can be provided by the vendor. During this pilot test, only vapor was to be extracted.

Table 7 and 8 shows flow and vacuum data for the preliminary soil vapor extraction (SVE) tests. The tables show that flow rates increased somewhat linearly with wellhead vacuum (WHV) in VES-1, however although flow rates increased somewhat linearly with WHV in MW-3, flow rates decreased during each WHV step.

Table 7: VES-1 -- Preliminary Vacuum Test, 5/19/04

TIME	VES-1		DP-4	DP-5	DP-6	MW-1	MW-2	MW-3		
	Vacuum	Flow			Pressure/Vacuum					
	Inches H ₂ 0	cfm			I	nches H ₂ 0		· · · · · · · · ·		
10:08	0	0	0.0	0.00	0.00	0	6	0.00		
10:09	-5	0.5	0.0	0.00	0.00	0	6	0.00		
10:10	-5	0.5	0.0	0.00	0.00	0	6	0.00		
10:30	-5	0.5	0.0	0.00	0.00	0	6	0.00		
10:39	-15	1.4	0.0	0.00	0.00	0	6	0.00		
10:41	-15	1	0.0	0.00	0.00	0	6	-0.10		
10:43	-15	2	0.0	0.00	0.00	0	6	-0.12		
10:48	-50	5	0.0	0.00	0.00	0	5.5	-1.10		
10:49	-50	5	0.0	0.00	0.00	0	5.4	-1.14		
10:58	-50	5	0.0	0.00	0.00	0	5.3	-1.25		
11:00	-50	5	0.0	0.00	0.00	0	5	-1.25		
11:10	-50	5	0.0	0.00	0.00	0	4.5	-1.25		
11:20	-50	5	0.0	0.00	0.00	0	4	-1.25		
11:22	-50	5	0.0	0.00	0.00	0	3	-1.20		
11:25	-50	5	0.0	0.00	0.00	0	2.5	-1.20		

Table 8: MW-3 -- Preliminary Vacuum Test, 5/19/04

TIME	MW-3		·	DP-2	DP-3	DP-4	MW-2	VES-1		
	Vacuum	Flow	PID	,	·	Vacuu	Vacuum			
	Inches H₂0	cfm	ppm			Inches F	1 ₂ 0			
11:37	0	0			1.1	0.00	3.00	0.00		
11:38	-10	0.20			1.10	0.00	3.00	0.00		
11:41	-10	0.20			1.10	0.00	3.00	0.00		
11:45	-10	0.19			1.10	0.00	2.80	0.00		
11:47	-10	0.15			1.10	0.00	2.70	0.00		
12:05	-20	3.30			1.10	0.00	2.50	0.00		
12:10	-20	1.50			1.10	0.00	2.30	0.00		
12:20	-20	1.20		:	1.10	0.00	2.00	0.00		
12:30	-20	0.12			1.10	0.00	1.50	0.00		
12:37	-20	0.07			1.10	0.00	1.25	0.00		
12:46	-40	0.60			1.10	0.00	1.00	0.00		
12:55	-40	0.51			1.10	0.00	0.75	0.00		
13:19	-40	0.21			1.00	0.00	0.55	0.00		
13:35	-40	0.20			1.00	0.00	0.55	0.00		
14:10	-50	0.37			1.00	0.00	0.25	-0.15		
14:12	-50	0.35	PID 60-75		1.00	0.00	0.00	-0.15		
14:45	-50	0.30			0.00	0.00	0.00	-0.15		
14:53	-60	0.60			0.00	0.00	0.00	-0.15		
14:55	-60	0.50		0.00	0.00	0.00	0.00	-0.15		
15:17	-60	0.45		0.00	0.00	0.00	0.00	-0.15		
15:37	-60	0.48	PID 40-59	0.00	0.00	0.00	0.00	-0.15		
15:50	-60	0.45		0.00	0.00	0.00	0.00	-0.15		
15:55	-60	0.45		0.00	0.00	0.00	0.00	-0.15		

Note: Well MW-2 and Shallow vapor point DP-3 had positive pressure in the casings when the well caps were removed.

Both SVE tests show little if any influence to immediately adjacent wells or shallow vapor points, however both SVE tests show a connection between VES-1 and MW-3.

8.2 Preliminary Well Air Acceptance (Sparge) Test

On May 19, 2004, a sparge test was performed using AS-2. The air compressor was connected to AS-1 and air was injected beginning at 8:09 a.m. Table 9 summarizes air acceptance test data for AS-1. The ball flow meter showed a initial maximum flow rate of 11 cubic feet per minute of air at 35 PSI. After 10 minutes, the flow rate stabilized at 7 cfm with a wellhead pressure of 35 PSI. Table 9, below, shows flow and pressure data for the preliminary air acceptance (sparge) test.

Within 1 minute, a positive wellhead pressure of 1 inch of water was seen in well MW-2. This increased to 100 inches of water in 10 minutes and 155 inches of water in 20 minutes. Positive pressure was seen in DP-6 in 2 minutes and in well VES-1 and DP-4 in 3 minutes. After 10 minutes DP-4, DP-6 and VES-1 had positive pressures of 0.40 inches, 0.25 inches water and 0.05 inches of water respectively. At the end of the 31 minutes test, no pressure changes were seen in wells DP-2, or MW-1. Pressure gauges were not in place on DP-1, AS-1 or MW-3

The pressure data shows significant interconnection between deeper wells AS-2 and MW-2 while showing significantly connection to the shallow vapor probes.

Table 9: AS-2 -- Preliminary Sparge Test, 5/19/04

TIME	AS-2		DP-4	DP-5	DP-6	MW-1	MW-2	VES-1
	Pressure	Flow			Pı	ressure		
	PSI	cfm			Inc	hes H₂0		
16:22	0	0	0.00	0.00	0.00	0.00	0	0.00
16:23	35	3.5	0.00	0.00	0.00	0.00	1	0.00
16:24	35	4	0.00	0.00	0.05	0.00	2	0.00
16:25	35	11	0.10	0.00	0.11	0.00	2.5	0.03
16:28	35	11	0.23	0.00	0.20	0.00	3	0.04
16:30	35	9	0.35	0.00	0.20	0.00	50	0.05
16:32	35	7	0.40	0.00	0.25	0.00	100	0.05
16:33	35	7	0.42	0.00	0.30	0.00	125	0.05
16:35	35	7	0.50	0.10	0.40	0.00	145	0.06
16:40	35	7	0.64	0.20	0.85	0.00	150	0.06
16:42	35	7	0.69	0.50	1.00	0.00	155	0.06
16:45	35	7	0.77	1.10	1.50	0.00	160	0.07
16:53	35	7	0.87	2.60	1.75	0.00	165	80.0

8.3 Air Sparge - AS-2

On May 20, 2004, a sparge test was done using AS-2. The air compressor was connected to AS-2 and air was injected beginning at 8:09 a.m. Table 10 summarizes air acceptance test data for AS-2. The ball flow meter showed an initial maximum flow rate of 11 cubic feet per minute of air at 35 PSI. After 10 minutes, the flow rate stabilized at 7 cfm with a wellhead pressure of 35 PSI.

Table 10: Air sparge AS-2 5/20/04

TIME	AS-2	2	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	VES-1
	Pressure	Flow										
	PSI	(cfm)	_				nches l	H ₂ 0				(in H20)
8:09	0	0		0	0.02	0	0	0	0	0		0
8:10	32	11		0	0.02	0.2	0	0.1	0	50		0.03
8:12	32	8.25		0	0.02	0.3	0	0.12	0	90		0.04
8:15	32	6.25		0	0.02	0.40	0.10	0.15	0	100		0.045
8:20	32	6.25		0	0.02	0.50	0.20	0.15	2.5	105		0.045
8:30	32	6.25		0	0.02	0.60	0.20	0.15	5	105		0.045
8:40	32	6.25		0	0.025	0.80	0.20	0.15	5	105		0.05
8:50	32	6.25		0	0.025	0.82	0.30	0.20	5	110		0.06
8:52	32	6.25		0	0.025	0.84	0.35	0.20	5	110		0.06
8:54	32	6.25		0	0.025	0.86	0.40	0.20	5	110		0.06
9:00	32	6.25		0	0.025	0.88	0.46	0.21	5	110		0.065
9:10	32	6.25		0.01	0.03	0.89	0.50	0.23	4	110		0.070
9:20	32	6.25		0.01	0.03	0.80	0.90	0.23	3.5	115		0.065
9:25	32	6.25		0.01	0.03	0.80	0.95	0.23	3.5	115		0.065
9:30	32	6.25		0.01	0.03	0.80	1.00	0.24	3.4	115	18	0.065
9:40	32	6.25	0.05	0.01	0.03	0.80	1.25	0.24	3.2	115	30	0.065
9:45	32	6.25	0.11	0.015	0.03	0.80	1.45	0.25	3.0	118	42	0.065
10:00	32	6.25	0.15	0.015	0.03	0.80	1.75	0.25	3.0	120	42	0.065
10:20	32	6.25	0.19	0.015	0.03	1.0	1.90	0.20	2.5	120	45	0.065
10:40	32	6.25	0.24	0.015	0.04	1.0	2.00	0.20	2.1	120	42	0.065
10:55	32	6.25	0.25	0.015	0.04	1.1	2.00	0.20	2.0	120	42	0.065

The data shows a significant and rapid pressure response between sparge well AS-2 and monitoring wells MW-2 and MW-3, which are at distances of 27 feet and 24 feet respectively. Pressure response in the shallow DP wells is much less and slower. The sparge test was run for approximately 2 hours and 45 minutes, at which time pressures were stabilized on most wells.

8.4 Air Sparge/VES Test - AS-2

To test the combined effects of sparging and SVE, at 10:59 AM on June 20, 2004, a vacuum (32 inches water) was applied to SVE well VES-1. At -15 inches water vacuum the sustained flow rate was 1.5 cfm. Table 11 below summarizes the air acceptance test data for AS-2 and pressure data from adjacent wells. After approximately one hour vapor from VES-2 was 1 ppmv, after 3 hours, 35 ppmv. At the same times vapor measured in well MW-3 was 35 ppmv and 375 ppmv.

Table 11: AS-2-Sparge / VES1 Vac 5/20/04

						,						
TIME	AS-2		DP-1	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	VES-1	AS1
	Pressure	Flow	Pressure		•							
	(in H2O)	(cfm)	(in H20)									
10:59	0	0	0	0	0	0	0	0	0	0	0	0
11:00	32	6.25	0.250	0.040	1.1	2.0	0.20	2.0	120	42	-15	0.003
11:10	32	8.25	0.250	0.030	1.05	2.1	0.10	1.75	120	42.0	-15	0.003
11:20	32	6.25	0.280	0.035	1.19	2.20	0.17	1.50	120	42.0	-15	0.003
11:40	32	6.25	0.290	0.035	1.35	2.20	0.15	1.50	115	45.0	-15	0.007
11:45	32	6.25	0.300	0.035	1.35	2.10	0.12	1.50	115	45.0	-15	0.003
12:00	32	6.25	0.300	0.035	1.40	2.10	0.10	1.50	115	44.0	-15	0.003
12:15	32	6.25	0.340	0.035	1.75	2.10	0.08	1.40	115	45.0	-15	0.016
12:30	32	6.25	0.350	0.035	1.40	2.10	0.07	1.40	112	45.0	-15	0.010
12:45	32	6.25	0.380	0.040	1.40	2.10	0.07	1.50	115	45.0	-15	0.020
13:00	32	6.25	0.380	0.035	1.40	2.00	0.07	1.00	113	45.0	-15	0.020
13:15	32	6.25	0.415	0.040	1.50	1.95	0.07	1.00	110	45.0	-15	0.020
13: 30	32	6.25	0.395	0.045	1.50	1.92	0.07	1.00	110	45.0	-15	0.020
13:45	32	6.25	0.390	0.050	1.50	1.90	0.05	1.00	110	45.0	-15	0.017
14:00	_ 32	6.25	0.390	0.045	1.45	1.80	0.05	1.00	110	45.0	-15	0.017

Application of vacuum to VES essentially applies vacuum to base of the entire backfilled area. After vacuum was applied to VES-1, pressure decreases were seen on DP-4 through DP-6 and MW-1. All of these wells are immediately adjacent to the backfilled area.

8.5 Air Sparge/VES Test - AS-2

On May 21, 2004, a sparge test was done using AS-1. The air compressor was connected to AS-1 and air was injected beginning at 8:50 a.m. The ball flow meter showed an initial maximum flow rate of 8.5 cubic feet per minute of air at 36 PSI stabilizing at 6.4 cfm in 20 minutes. Table 12, below, shows flow and pressure data for the preliminary air acceptance (sparge).

The data shows a significant and rapid pressure response between sparge well AS-1 and monitoring wells MW-2 and MW-3, which are at distances of 8 feet and 37 feet respectively. Pressure response in the shallow DP wells is much less and slower. The sparge test was run for approximately 2 hours and 45 minutes, pressures were stable on most wells in one hour. No measurable pressure response was seen on wells MW-1 and DP-1 during the sparge test.

The hydrocarbon levels in wells DP-1, DP-3 and MW-3 after one hour of sparging one hour and 50 minutes into the test. Pressure in MW-2 peaked after six minutes at 35 inches of water then decreased to 22 inches of water at the end the pure sparge portion of the test.

PID readings on wells DP-1, DP-3 and MW-3 were 1.2 ppmv, 25 ppmv and 349 ppmv respectively. Air samples were collected from wells DP-3 and MW-3 for laboratory analysis, which reported 150 μ g/L and 83,000 μ g/L respectively. The complete results of the air samples are summarized on Table 6.

Table 12: Air sparge AS-1 5/21/04

	AS-1		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3
Time	Pressure	Flow		Pressure							,
	PSI	cfm	Inches water								
8:22	36	75	0.5	0.01	0.01	0.02	0.005	0.01	0.01	0	0
8:24	36	Well	head problems				1				
8:50	36	80.5	0.5	0.01	0.02	0.02	0.005	0.01	0.01	5	2.0
8:52	36	8.5	0.5	0.01	2.0	0.02	0.005	0.01	0.01	10	5.0
8:54	36	8.5	0.1	0.01	4.0	0.03	0.005	0.15	0.01	25	20.0
8:56	36	8.5	0.2	0.01	4.5	0.10	0.005	0.15	0.01	35	20.0
9:00	36	7.1	0.2	0.01	4.7	0.125	0.005	0.15	0.01	35	25.0
9:10	36	6.4	0.3	0.01	5.0	0.17	0.01	0.15	0.01	35	25.0
9:20	36	6.4	0.3	0.01	4.5	0.18	0.01	0.15	0.01	30	25.0
9:30	36	6.4	0.3	0.01	4.2	0.175	0.01	0.15	0.01	30	25
9:45	36	6.4	0.32	0.015	4.0	0.175	0.01	0.15	0.01	27	25
10:00	36	6.4	0.32	0.015	3.7	0.17	0.01	0.15	0.01	27	30
10:15	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0.01	25	30
10:30	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0.01	22	30
10:40		PID	1.2 ppmv		25 ppmv				Ì	ļ	349 ppmv
10:45	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0.01	20	30.5
11:00	36	6.4	0.32	0.015	2.0	0.17	0.01	0.15	0.01	20	30.5

8.5 Air Sparge AS-1 - VES MW-3/DP-3 Test

To test the combined effects of sparging and SVE, at 11:05 AM on June 21, 2004, a vacuum (50 inches of water) was applied to well MW-3. At a vacuum of -50 inches of water, the flow rate began at .322 cfm and increased to .425 cfm at the end of 2 hours. Table 13 below summarizes the air acceptance test data for AS-1, SVE data for MW-3 and pressure data from adjacent wells. No changes in well pressure were seen during the period of time vacuum was applied to MW-3, except in MW-2. The pressure decrease started before vacuum was applied to MW-3 and therefore is not related to the vacuum on MW-3.

Table 13: SVE Test MW-3 and DP-3 with Air sparge AS-1

Time	AS-1		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3
,	Pressure	Flow					Pressi	ure			
	In. water	(cfm)				In	ches of	water			
								put	MW-3 o	n vac	-50/0.321 cfm
11:15	36	6.4	0.32	0.015	1.7	0.17	0.01	0.15	o	19	-50/0.305
11:30	36	6.4	0.32	0.015	1.5	0.17	0.01	0.15	0	19	-50/0.353
12:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	17	-50/0.412
12:30	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50/0.431
										MW-3 sa	ampled 12:30
13:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50/0.425
Vac	on DP-3				DP-3 sampled 1	3:00					
13:10	36	6.4	0.32	0.015	-20/0.20 cfm	0.17	0.01	0.15	0	15	5
13:12	36	6.4	0.32	0.015	-20/0.18	0.17	0.01	0.15	0	15	10
13:30	36	6.4	0.32	0.015	-20/0.16	0.17	0.01	0.15	0	15	30
13:45	36	6.4	0.32	0.015	-20/0.15	0.17	0.01	0.15	0	15	30

8.6 Air Spare AS-1 - SVE MW-3 Test

To test the combined effects of sparging and SVE, at 13:05 AM on June 21, 2004, a vacuum (-20 inches of water) was applied to well DP-3. At a vacuum of -20 inches of water, the flow rate began at 0.18 cfm and decreased to 0.15 cfm at the end of 40 minutes. No changes in well pressure were seen in adjacent wells during the period of time vacuum was applied to DP-3. Table 13 above summarizes the air acceptance test data for AS-1, SVE data for DP-3, and pressure data from adjacent wells.

9.0 CONCLUSIONS AND RECOMMENDATIONS

A low level response was noted in the shallow DP wells (DP-1 through DP-6) during the air acceptance and SVE tests. This is due to the presence of impermeable clay sediments to depths of 11 or more feet bgs, where these shallow DP wells are screened. This indicates that vapor extraction is unlikely to be an effective means of remediation, but that may be used in conjunction with sparging.

During the air acceptance/sparging tests, strong measurable pressure response was noted in all of the deeper screened wells that were fitted with pressure gauges (as far as 30+ feet away). With measurable response noted in wells greater than 30 feet from each of the two sparging points, the air sparge radius of influence (ROI) is at least 30 feet. A sample of air collected from MW-3 during air sparging in AS-\$\frac{1}{2}\$ contained TPH-g, MTBE and Benzene concentrations of 140,000 \(\mu g/L\), 1,400 \(\mu g/L\), and 1,800 g/L respectively.

Based on the results of the pilot test, SVE alone would have poor to fair effectiveness in reducing concentrations of hydrocarbons in the soil and groundwater around MW-3 and the former UST tank hold, the areas with the highest contaminant levels. Combination low flow sparging (bio-sparging) and SVE to control possible fugitive emissions can be expected to have a high level of effectiveness in the same area by removing hydrocarbons in the permeable sediments and enhancing biodegradation in the tight clayey sediments.

AEI recommends the installation of a combination bio-sparge and SVE remediation system for the site. The system would be constructed as outlined below and operated under a Bay Area Air Quality Control Board permit.

A SVE system consisting of:

- 1. A small rotary vacuum blower, 110/120 volts, 5-10 cfm range
- 2. Vacuum system manifold with three (3) to four (4) carbons canisters connected to VES-1, MW-3 and DP-3

An air sparging system consisting of:

- 1. Small air compressor with large holding tank
- 2. A pressure controller to control sparge pressure
- 3. Air injection manifold with solenoid controlled valves and electronic timer

The data indicates that high concentrations of gasoline vapors can be expected from MW-3 during initial sparge/SVE operations. The system will be constructed to allow system start up using 3-4 replaceable 400 lb. carbon drums (Westates VSC-400 or similar) then replacement with 200 lb. (55 gallon) drums after the initial flush of hydrocarbons is removed and vapor levels drop to lower levels. If appropriate, the SVE system will be de-commissioned completely during finals stages of bio-remediation.

Sparging will be controlled by an automatic timing system, which will allow alternation between the two air sparge wells and control duration of each wells sparging cycle.

Air monitoring will be done consistent with BAAQMD permit. Groundwater samples will be collected periodically from monitoring well MW-3, and selected shallow DP wells to monitor changes in groundwater contamination.

A start up report will be prepared at the end of the systems first month of operation. Quarterly progress reports will be prepared for submission to the appropriate regulatory agencies. Remediation is expected to take 6-18 months with a year of follow up groundwater monitoring.

10.0 REFERENCED REPORTS

- 1. Phase II Soil and Groundwater Investigation Report, October 7, 1996, prepared by AEI.
- 2. Excavation and Disposal of Contaminated Soil Report, January 7, 1997, prepared by AEI.
- 3. Phase II Subsurface Investigation Report, May 30, 1997, prepared by AEI.
- 4. Phase II Subsurface Investigation Report, December 9, 1998, prepared by AEI.
- 5. Groundwater Monitoring Well and Sampling Report, September 3, 1999, prepared by AEI.
- 6. Quarterly Groundwater Monitoring and Sampling Report (QGMSR), March 21, 2000, prepared by AEI.
- 7. QGMSR, July 28, 2000, prepared by AEI.
- 8. QGMSR, November 6, 2000, prepared by AEI.
- 9. QGMSR, January 29, 2001, prepared by AEI.
- 10. QGMSR, May 8, 2001, prepared by AEI.
- 11. Corrective Action Plan, July 17, 2001, prepared by AEI.
- 12 QGMSR, August 14, 2001, prepared by AEI.
- 13. QGMSR, December 11, 2001, prepared by AEI.
- 14. QGMSR, February 27, 2002, prepared by AEI.
- 15. QGMSR, June 4, 2002, prepared by AEI.
- 16. QGMSR, September 9, 2002, prepared by AEI.
- 17. QGMSR, January 16, 2003, prepared by AEI.
- 18. QGMSR, March 6, 2003, prepared by AEI.
- 19. Groundwater Monitoring Report (QMR), Second Quarter 2004, June 11, 2003, prepared by AEI.
- 20. Response to Technical Comments, August 23, 2003, prepared by AEI.
- 19. QMR, Third Quarter 2003, October 8, 2003 prepared by AEI.
- 20. QMR, Fourth Quarter 2003, January 6, 2004, prepared by AEI.
- 21. QMR, First Quarter 2004, April 6, 2004, prepared by AEI.
- 22. QMR, Second Quarter 2004, July 23, 2004, prepared by AEI.

11.0 REPORT LIMITATIONS AND SIGNATURES

No. 5825

ED GE

PETER J. MCINTYRE

No. 7/102

CALI

This report presents a summary of work completed by AEI, 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 consulting field that existed at the time and location of the work.

Sincerely,

AEI Consultants

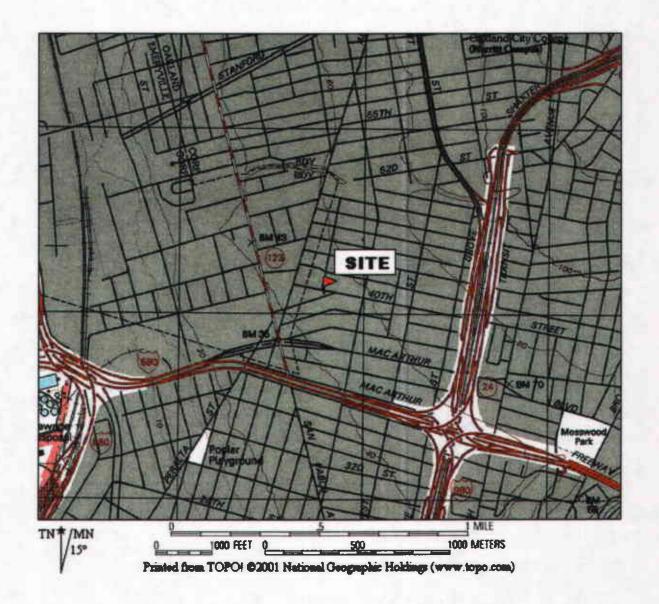
Robert F. Flory, RG

Senior Project Manager

Peter J. McIntyre, RĞ.

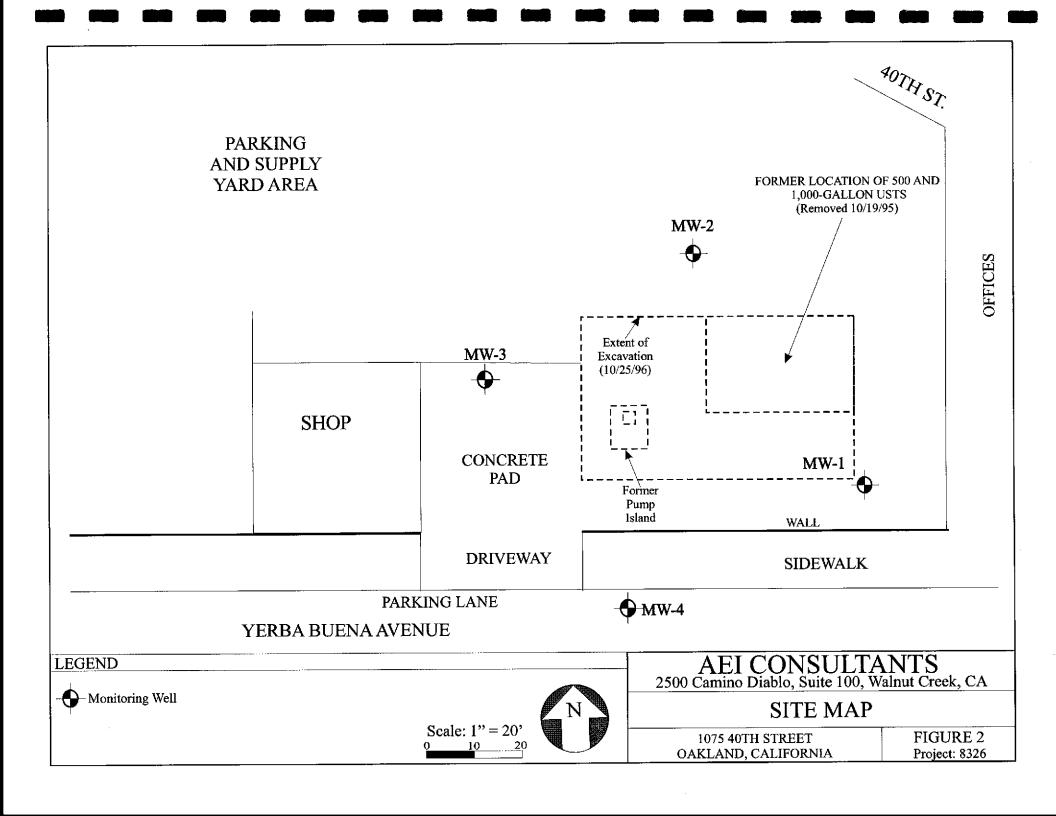
Program Manager

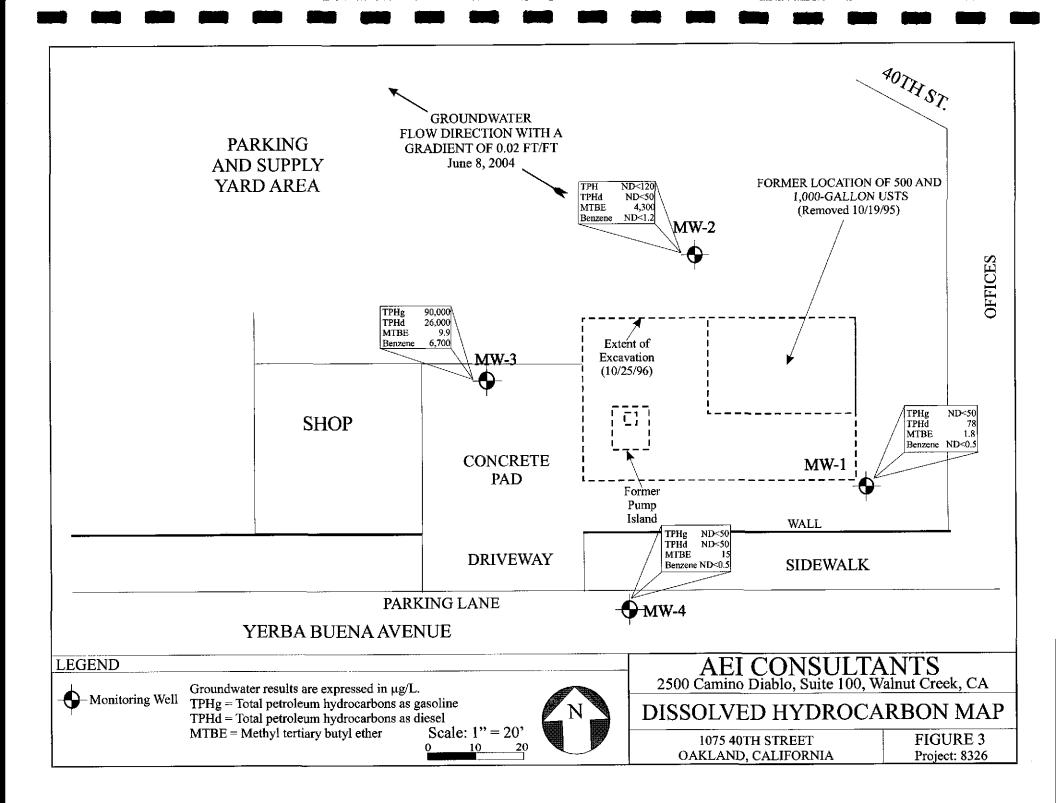
SVE and Air Sparge Pilot Test AEI Project No. 8326 August 6, 2004 Page 16



AEI CONSULTANTS SITE LOCATION MAP

1075 40th STREET OAKLAND, CALIFORNIA FIGURE 1 PROJECT No. 8326





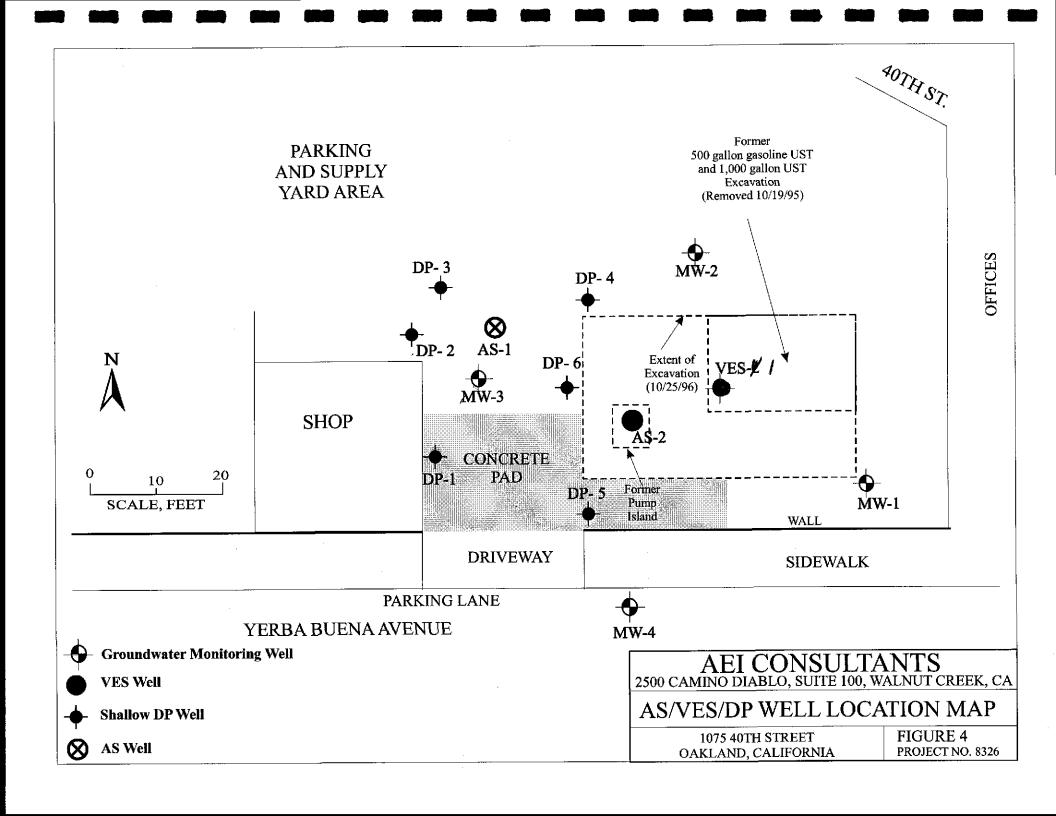


Table 1: Well Construction Details, Fidelity Roof Company, 1075 40th Street, Oakland, California

=	Well ID	Date Drilled	Elevation	Water Depth	Boring Depth	Slotted Casing	Slot Size	Blank Casing	Sand Interval	Sand Size	Bentonite Interval	Grout Interval
			(ft msl)	03/08/04 (ft)	(ft)	(ft)	(in)	(ft)	(ft)		(ft)	(ft)
	MW-1	03/06/97	45.41	7.66	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
	MW-2	03/19/97	44.94	8.41	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
	MW-3	03/19/97	44.32	10.49	21.0	6-21	0.020	0.5-6	5-21	#3	4-5	0.5-4
	MW-4	08/05/99	43.48	5.75	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

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	Depth to Water	Groundwater Elevation
		(ft msl)	(ft)	(ft msl)
MW-1	03/19/97	45.41	8.25	37.16
147 14-1	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
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

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)
MW-3	03/19/97	44.32	7.59	36.73
101 11 5	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
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

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)
21	03/08/04	36.50	1.12	NW (0.04)
21	06/08/04	35,17	-1.34	NW (0.02)

Note - average water table elevation and change were not calculated for the first 8 episodes

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

Well ID	Date	Depth to Water	ТРНд	TPHd	MTBE	Benzene	Toluene	Ethyl- benzene	Xylenes
		(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
DP-1	05/24/04		1400 ⁶	NA	ND<10	0.86	2.8	3.1	3.3
DP-2	05/24/04		1,200	NA	ND<5.0	30	1.1	11	25
DP-3	05/24/04		1,800	NA	180	14	2.3	ND<0.5	9.7
MW - 1	03/19/97	8.25	ND<50	ND<50	23	ND<0.5	ND<0.5	ND<0.5	ND<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	ND<0.5	ND<0.5	ND<0.5
	01/16/98	7.57	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	1 60	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
	01/12/01	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
	11/06/01	10.28	ND<50	<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/13/02	8.47	430	270	ND<5.0	17	0.51	11	0.64
	05/14/02	9.50	340	170	ND<5.0	21	ND<0.5	5.3	0.67
	08/15/02	10.39	96	53	ND<5.0	0.66	ND<0.5	ND<0.5	ND<0.5
	11/14/02	9.08	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/12/03	8.36	710	120	ND<5.0	28	4.3	32	130
	05/16/03	8.49	1,100	340	ND<15	54	4.1	40	100
	08/29/03	9.91	1,200	280	ND<5.0	4 6	5.1	55	230
	12/02/03	8.88	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/08/04	7.66	120	$240^{1.2}$	ND<5.0	2.9	ND<0.5	ND<0.5	0.71
	06/08/04	9.39	ND<50	78 ²	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
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.:
	11/06/01	12.21	ND<100	ND<50	3,000	ND<0.5	ND<0.5	ND<0.5	ND<0.:
	02/13/02	7.98	54	ND<50	3,200	ND<0.5	ND<0.5	ND<0.5	ND<0.:
	05/14/02	10.48	ND<150	ND<50	3,800	4.8	<1.0	<1.0	<1.0
	08/15/02	10.64	ND<50	ND<50	2,900	ND<0.5	ND<0.5	ND<0.5	ND<0.
	11/14/02	11.69	ND<120	ND<50	3,800	ND<1.0	ND<1.0	ND<1.0	ND<1.
	02/12/03	9.07	1,100	120	3,200	57	7	55	210
	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	ND<100	ND<50	3,300	ND<1.0	ND<1.0	ND<1.0	ND<1.
	03/08/04	8.41	ND<250	ND<50	4,600	ND<2.5	ND<2.5	ND<2.5	ND<2.
	06/08/04	10.19	ND<120	ND<50	3,400	ND<1.2	ND<1.2	ND<1.2	ND<1.
	00/00/04	10.17	1412~120	112 50	2,100				

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
		(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
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	ND<280	4,400	47	280	410
	01/16/98	9.18	29,000	7,300	ND<360	5,600	740	950	3,500
	08/05/99	10.56	31,000	5,100	ND<200	5,400	150	1100	2,300
	11/18/99	10.92	74,000	49,000	ND<1000	8,100	5,000	2,100	8,100
	02/24/00	8.49	110,000	6,300	ND<200	12,000	1,400	2,900	14,000
	05/24/00	8.42	87,000	26,000	ND<200	13,000	1,900	2,900	14,000
	08/29/00	12.00	49,000	9,400	ND<200	7,400	800	1,800	7,400
	01/12/01	10.50	69,000	21,000	ND<300	8,600	980	2,600	11,000
	04/18/01	9.50	75,000	13,000	ND<500	9,200	1,200	2,500	12,000
	07/27/01	11.61	75,000	85,000	ND<650	8,700	1,100	2,600	12,000
	11/06/01	11.73	89,000	86,000	ND<200	7,900	910	2,800	12,000
	02/13/02	9,36	85,000	13,000	ND<2000	8,500	830	2,600	11,000
	05/14/02	9.00	94,000	35,000	ND<1000	9,700	1,100	3,400	15,000
	08/15/02	11.72	37,000	9,700	ND<1200	5,200	430	1,800	5,900
	11/14/02	11.28	66,000	23,000	ND<1,200	8,300	860	3,000	11,000
	02/12/03	10.17	61,000	8,400	ND<500	6,800	500	2,400	9,800
	05/16/03	11.47	59,000	17,000	ND<500	6,200	320	2,000	6,500
	08/29/03	11.92	78,000	100,000	ND<1200	6,800	440	2,900	11,000
	12/02/03	11.32	68,000	46,000	ND<1000	7,600	450	2,900	10,000
	03/08/04	10.49	79,000	160,000	ND<250	7,700	570	300	13,000
	05/24/04		64,0004	40,000 ^{1, 2, 4}	ND<500	6,900	550	2,900	12,000
	06/08/04	9.89	90,000 4	26,000 ^{1, 2, 4, 5}	ND<1200	6,700	580	2,500	13,000
MW-4	08/05/99	8.79	ND<50	ND<50	37	ND<0.5	ND<0.5	ND<0.5	ND<0
	11/18/99	8.11	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0
	02/24/00	5.19	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0.
	05/24/00	7.23	120	140	31	1.3	ND<0.5	ND<0.5	ND<0.
	08/29/00	9.04	ND<50	ND<50	22	ND<0.5	ND<0.5	ND<0.5	ND<0.
	01/12/01	6.40	ND<50	81	25	ND<0.5	ND<0.5	ND<0.5	ND<0.
	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.
	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.
	11/14/02	7.52	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.
	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.
	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.
	03/08/04	5.75	ND<50	ND<50	10	ND<0.5	ND<0.5	ND<0.5	ND<0.
	06/08/04	8.19	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.

ug/L= micrograms per liter

MTBE= Methyl Tertiary Butyl Ether

TPHg= Total Petroleum Hydrocarbons as gasoline

TPHd= Total Petroleum Hydrocarbons as diesel

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 - no recognizable pattern

Table 4: Soil Hydrocarbon Analytical Data, Fidelity Roofing, 1075 40th Street, Oakland, California

Sample	Sample	Date	TPHg	TPHd	МТВЕ	Benzene	Toluene	Ethyl- benzene	Xylenes
ID	Depth (ug/L)	(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	<u> </u>
AS1-20	20.0	05/06/04	ND<1.0	ND<50	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
AS2-15	15.0	05/06/04	ND<1.0	1.4	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
AS2-20	10.0	05/06/04	ND<1.0	ND<50	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
DP1-10	10	05/13/04	ND<1.0	NA	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
DP2-11.5	11.5	05/13/04	2.5	NA	ND<0.05	0.12	ND<0.005	0.082	0.071
DP3-11.5	11.5	05/13/04	120 ²	45 ^{3,4}	ND<1.5	0.18	0.20	0.31	0.21
DP4-7.5	7.5	05/13/04	ND<1.0	NA	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
DP4-10	10	05/13/04	350°	94 ^{3,4}	ND<4.5	0.40	0.53	0.81	0.44
DP5-11.5	11.5	05/13/04	2900	830 ^{3, 4}	ND<10	12	9.3	66	320
DP5-13	13	05/13/04	83	77 3, 4	ND<0.25	0.52	0.11	1.6	2.3
DP6-8	8	05/13/04	11 ²	NA	ND<0.5	0.012	0.022	0.0075	0.014
DP6-13	13	05/13/04	74	11 ³	ND<1.0	1.3	ND<0.10	2.9	3.7

ug/L= micrograms per liter

MTBE= Methyl Tertiary Butyl Ether

TPHg= Total Petroleum Hydrocarbons as gasoline

TPHd= Total Petroleum Hydrocarbons as diesel

1 - oil range compounds are significant

2 - no recogniazable pattern

3 - diesel range compounds are significant; no recognizable pattern

4 - gasoline range compounds are significant

Table 5: Soil Fuel Oxygenate Analytical Data, Fidelity Roofing, 1075 40th Street, Oakland, California

Sample	Sample	Date	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	MTBE
ID	Depth (µg/kg)	(µg/kg)	(µg/kg)	(<u>µg/ke)</u>	(µg/kg)	(ug/kg)	Method 8260 (μg/kg)	(ug/kg)	(ue/ke)	(ug/kg)	(µg/kg)
AS1-20	20.0	05/06/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	14
AS2-15	15.0	05/06/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	49
AS2-20	10.0	05/06/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
DP1-10	10	05/13/04	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP2-11.5	11.5	05/13/04	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP3-11.5	11.5	05/13/04	ND<5.0	ND<25	ND<5.0	NA	ND<5.0	NA	ND<5.0	NA	ND<5.0
DP4-7.5	7.5	05/13/04	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP4-10	10	05/13/04	ND<5.0	ND<25	ND<5.0	NA	ND<5.0	NA	ND<5.0	NA	12
DP5-11.5	11.5	05/13/04	ND<2000	ND<10,000	NA	NA	ND<2000	NA	ND<2000	NA	ND<2000
DP5-13	13	05/13/04	ND<5.0	ND<25	ND<5.0	NA	ND<5.0	NA	ND<5.0	NA	ND<5.0
DP6-8	8	05/13/04	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP6-13	13	05/15/04	ND<20	ND<100	NA	NA	ND<20	NA	ND<20	NA	ND<20
							•		· .		

micrograms per kilogram $(\mu g/kg)$

TPHg= Total Petroleum Hydrocarbons as gasoline

TPHd= Total Petroleum Hydrocarbons as diesel

TAME - tert-Amyl methyl ether

TBA - t-Butyl alcohol

EDB - 1,2-Dibromethane

1,2-DCA - 1,2-Dichloroethane

DIPE - Diisopropyl ether

ETBE - Ethyl tert-butyl ether

MTBE= Methyl Tertiary Butyl Ether

Table 6: Air Sample Analytical Data, Fidelity Roofing, 1075 40th Street, Oakland, California

Well ID	Date	Time	TPHg	MTBE	Benzene	Toluene	Ethyl-	Xylenes	Comments
	_		(ug/L)	(µg/L)	(µg/L)	(ug/L)	benzene (µg/L)	(µg/L)	
VE1	5/20/2004	1020	16,000	ND<90	14	60	ND<5.0	25	VE
VE1-2	5/20/2004	1400	96	ND<2.5	ND<0.25	0.45	ND<0.25	0.23	VE/sparge
MW3	5/20/2004	1015	140,000	1,400	1,800	280	330	1,200	VE
MW-3-2	5/20/2004	1416	150,000	ND<2000	1,500	310	440	1,600	VE/sparge
MW-3-3-1	05/21/04	1035	83,000	ND<1000	1,100	110	ND<50	110	VE
MW-3-3-2	05/21/04	1230	74,000	590	1,000	160	120	380	VE/sparge
DP3-1	05/21/04	1040	150	ND<2.5	ND<0.25	2.0	0.60	1.5	VE
DP3-2	05/21/04	1300	490	ND<2.5	7.4		4.40	16	VE/sparge

ug/L= micrograms per liter

MTBE= Methyl Tertiary Butyl Ether

TPHg= Total Petroleum Hydrocarbons as gasoline

Table 7: VES-1 -- Preliminary Vacuum Test, 5/19/04 , Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	VES	5-1	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	
	Minutes	Pressure (in H2O)	Flow (cfm)	(in H20)							
10:08	0:00	0	0	1.25	0.0	0.00	0.00	0	6	0.00	
10:09	0:01	-5	0.5	1.25	0.0	0.00	0.00	0	6	0.00	
10:33	0:02	-5	0.5	1.25	0.0	0.00	0.00	0	6	0.00	
10:30	0:22	-5	0.5	1.25	0.0	0.00	0.00	0	6	0.00	
10:30	0:22	-15	1.4	1.25	0.0	0.00	0.00	0	6	0.00	
10:33	0:33	-15	1	1.25	0.0	0.00	0.00	0	6	-0.10	
10:41	0:35	-15	2	1.25	0.0	0.00	0.00	0	6	-0.12	
10:43	0:33	-50	5	1.25	0.0	-0.01	0.00	0	5.5	-1.10	making water
10:48	0:40	-50 -50	5	1.25	0.0	-0.02	0.00	0	5.4	-1.14	flow rate
	0:50	-50 -50	5	1.25	0.0	-0.02	0.00	0	5.3	-1.25	estimated
10:58	0:50	-50 -50	5	1.25	0.0	-0.02	0.00	0	5	-1.25	
11:00	1:02	-50 -50	5	1.25	0.0	-0.02	0.00	0	4.5	-1.25	
11:10		-50 -50	5	1.10	0.0	-0.02	0.00	0	4	-1.25	
11:20	1:12	-50 -50	5	1.10	0.0	-0.02	0.00	Ō	3	-1.20	
11:22 11:25	1:14 1:17	-50 -50	5 5	1.10	0.0	-0.02	0.00	0	2.5	-1.20	

Table 7-a VES-1 Vac test (5/19/04)

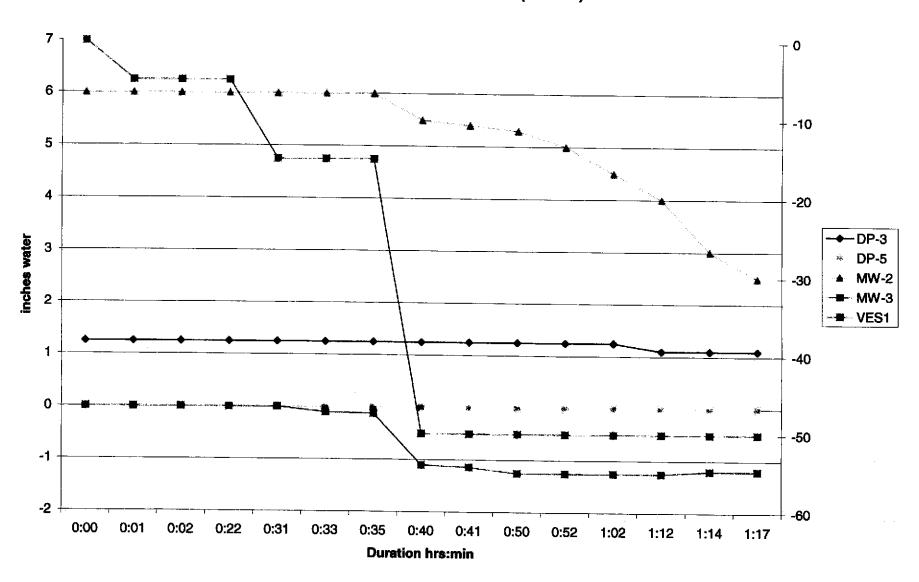


Table 8: MW-3 -- Preliminary Vacuum Test, 5/19/04 , Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	MW	-3	MW-3	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	VES-1
1 (14)	Minutes	Pressure	Flow	PID			(i= 1100)	(in. H20)	(in. H20)	(in. H20)	(in. H20)	(in. H20)
		(in H2O)	(cfm)		(in. H20)	(in. H20)	(in. H20)	(11. 1120)	(111. 1120)	(11. 1120)	(III. TIZO)	(111, 1123)
11:37	0:00						0.00	0.00	0.00	0.00	3.00	0.00
11:38	0:01	-10	0.20			1.10	0.00	0.00	0.00	0.00	3.00	0.00
11:41	0:04	-10	0.20		,	1.10	0.00	0.00	0.00	0.00	2.80	0.00
11:45	0:08	-10	0.19			1.10	0.00	0.00	0.00		2.70	0.00
11:47	0:10	-10	0.15			1.10	0.00	0.00	0.00 0.00	0.00 0.00	2.70	0.00
12:05	0:28	-20	3.30			1.10	0.00	0.00	0.00	0.00	2.30	0.00
12:10	0:33	-20	1.50			1.10	0.00	0.00	0.00	0.00	2.00	0.00
12:20	0:43	-20	1.20			1.10	0.00	0.00		0.00	1.50	0.00
12:30	0:53	-20	0.12			1.10	0.00	0.00	0.00		1.25	0.00
12:37	1:00	-20	0.07			1.10	0.00	0.00	0.00	0.00		0.00
12:46	1:09	-40	0.60			1.10	0.00	0.00	0.00	0.00	1.00	
12:55	1:18	-40	0.51			1.10	0.00	0.00	0.00	0.00	0.75	0.00
13:19	1:42	-40	0.21			1.00	0.00	0.00	0.00	0.00	0.55	0.00
13:35	1:58	-40	0.20			1.00	0.00	0.00	0.00	0.00	0.55	0.00
14:10	2:33	-50	0.37			1.00	0.00	0.00	0.00	0.00	0.25	-0.15
14:12	2:35	-50	0.35	PID 60-75		1.00	0.00	0.00	0.00	0.00	0.00	-0.15
14:45	3:08	-50	0.30			0.00	0.00	0.00	0.00	0.00	0.00	-0.15
14:53	3:16	-60	0.60			0.00	0.00	0.00	0.00	0.00	0.00	-0.15
14:55	3:18	-60	0.50		0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
15:17	3:40	-60	0.45		0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
15:17	4:00	-60	0.48	PID 40-59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
		-60	0.45	. 10 -0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
15:50	4:13		0.45		0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15
15:55	4:18	-60	0.40		0.00	Ų.00	0.00					

Table 8a MW-3 Vac test (5/19/04)

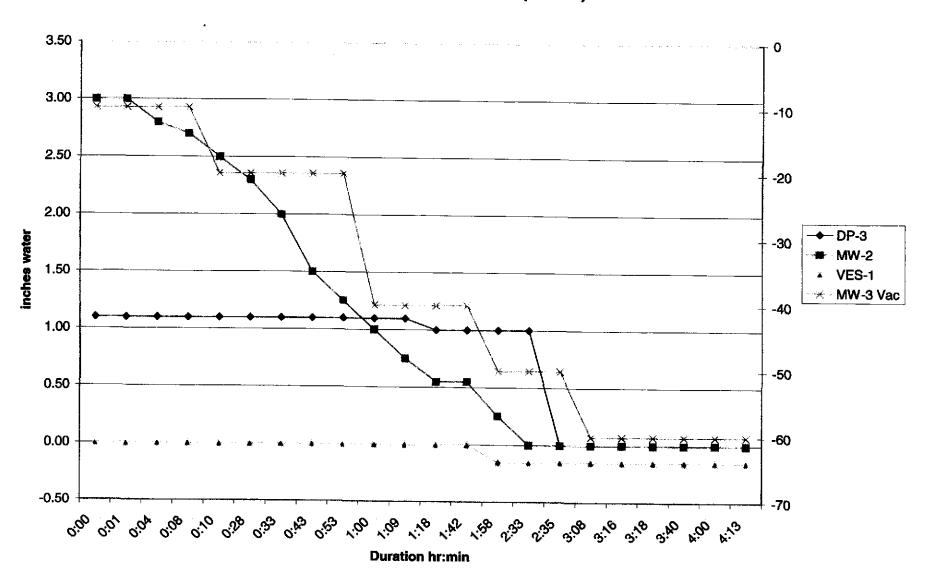


Table 9: AS-2 -- Preliminary Sparge Test, 5/19/04 , Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	Ā	5-2	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	VES-1
	Minutes	Pressure (in H2O)	Flow (cfm)	Pressure (in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)
16:22	0:00	0	0	**************************************	0	0	0	0.00	0.00	Ō	0	0
16:23	0:01	35	3.5		٠	0	0	0.00	0.00	0	1	0
16:24	0:02	35	4	Manager and Street Street	• 0	0	0	0.00	0.05	0	2	0
16:25	0:02	35	11	The state of the s	Δ.	0	0.10	0.00	0.11	0	2.5	0.03
16:28	0:06	35	11	APR 20 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	• 0	0	0.23	0.00	0.20	0	3	0.04
16:30	0:08	35	9	Maria and a service of a service of the service of	" 0	0	0.35	0.00	0.20	0	50	0.05
16:32	0:00	35	7	**************************************	^ 0	0	0.40	0.00	0.25	0	100	0.05
16:33	0:10	35	7	AND A SAME AND	0	0	0.42	0.00	0.30	0	125	0.05
16:35	0:13	35	7	AND THE PARTY OF T	• 0	0	0.50	0.10	0.40	0	145	0.06
16:40	0:18	35	7		° 0	0	0.64	0.20	0.85	0	150	0.06
16:42	0:10	35	7	APROPRIES	° 0	0	0.69	0.50	1.00	0	155	0.06
16:42	0:23	35	7	ALCOHOL MANAGER	*	0	0.77	1.10	1.50	0	160	0.07
16:53	0:23	35	7	THE REAL PROPERTY AND A SECOND	<u></u> 0	Ō	0.87	2.60	1.75	0	165	80.0

Table 9a AS-2 Sparge test

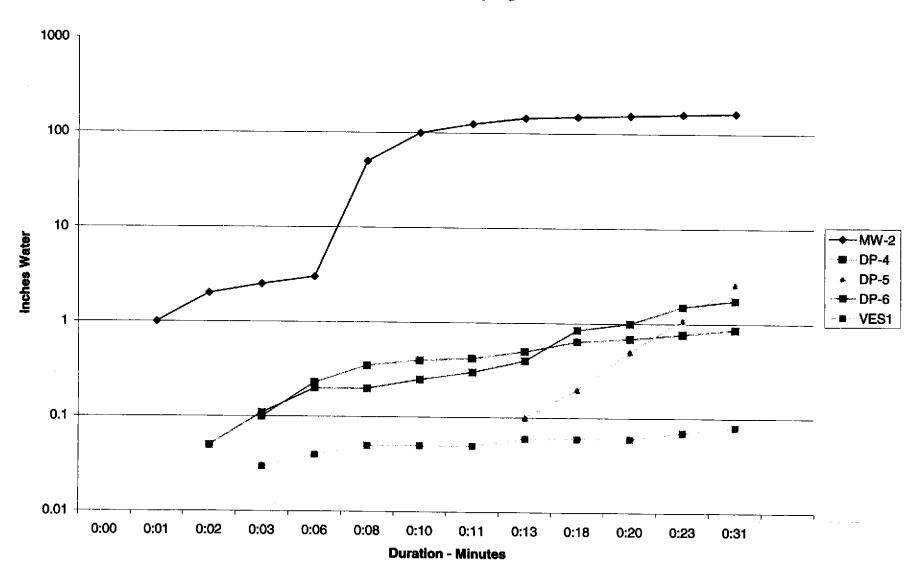


Table 10: Air sparge AS-2 5/20/04, Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	AS-	2	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW	-3	VES	-1
LIBAIC	Duration	Pressure	Flow	DI -1	D	5. 5							PID		PID
	min.	PSI	(cfm)				In	ches H ₂ i	0				ppm	(in H20)	ppm
8:09	0:00	0	0		0	0.02	0	0	0	0	0			0	
8:10	0:01	32	11	****************	0	0.02	0.2	0	0.1	0	50	And the same of th		0.03	
8:12	0:03	32	8.25	·1.	0	0.02	0.3	0	0.12	0	90	AND REAL PROPERTY.		0.04	
8:15	0:06	32	6.25	16. Land 10. 15. Land	0	0.02	0.40	0.10	0.15	0	100	A SALES MAN TO SALES		0.045	
8:20	0:11	32	6.25	SEA STATE ST	0	0.02	0.50	0.20	0.15	2.5	105	A STATE OF THE STA		0.045	
8:30	0:21	32	6.25	SEA TO SEA TO SEA TO SEA	0	0.02	0.60	0.20	0.15	5	105	Manager of the Assessment		0.045	
8:40	0:31	32	6.25	41.444	0	0.025	0.80	0.20	0.15	5	105	At the sale of the base of the sale of		0.05	
8:50	0:41	32	6.25	417	0	0.025	0.82	0.30	0.20	5	110			0.06	
8:52	0:43	32	6.25	division level and the	0	0.025	0.84	0.35	0.20	5	110	And the state of t		0.06	
8:54	0:45	32	6.25	of the last of the	0	0.025	0.86	0.40	0.20	5	110	And and a second second		0.06	
9:00	0:51	32	6.25	**************************************	0	0.025	88.0	0.46	0.21	5	110	And the same of th		0.065	
9:10	1:01	32	6.25	The state of the s	0.01	0.03	0.89	0.50	0.23	4	110	A SALAN AND AND AND AND AND AND AND AND AND A		0.07	
9:20	1:11	32	6.25	II.	0.01	0.03	0.8*	0.90	0.23	3.5	115	AND THE PERSON NAMED IN		0.065	
9:25	1:16	32	6.25	ola value balla contract.	0.01	0.03	0.80	0.95	0.23	3.5	115	A SHALL SHAL		0.065	
9:30	1:21	32	6.25	ALL CONTRACTOR OF THE PARTY OF		0.03	8.0	1.00	0.24	3.4	115	18		0.065	
9:40	1:31	32	6.25	0.05	0.01	0.03	8.0	1.25	0.24	3.2	115	30		0.065	
9:45	1:36	32	6.25	0.11	0.015	0.03	8.0	1.45	0.25	3.0	118	42		0.065	
10:00	1:51	32	6.25	0.15	0.015	0.03	0.8	1.75	0.25	3.0	120	42	725	0.065	350
10:20	2:11	32	6.25	0.19	0.015	0.03	1.0	1.90	0.20	2.5	120	45		0.065	
10:40	2:31	32	6.25	0.245	0.015	0.04	1.0	2.00	0.20	2.1	120	42		0.065	
10:55	2:46	32	6.25	0.25	0.015	0.04	1.1	2.0+	0.20	2.0	120	42		0.065	

^{* =} change guage

Table 10a AS-2 Sparge Test (5/20/04)

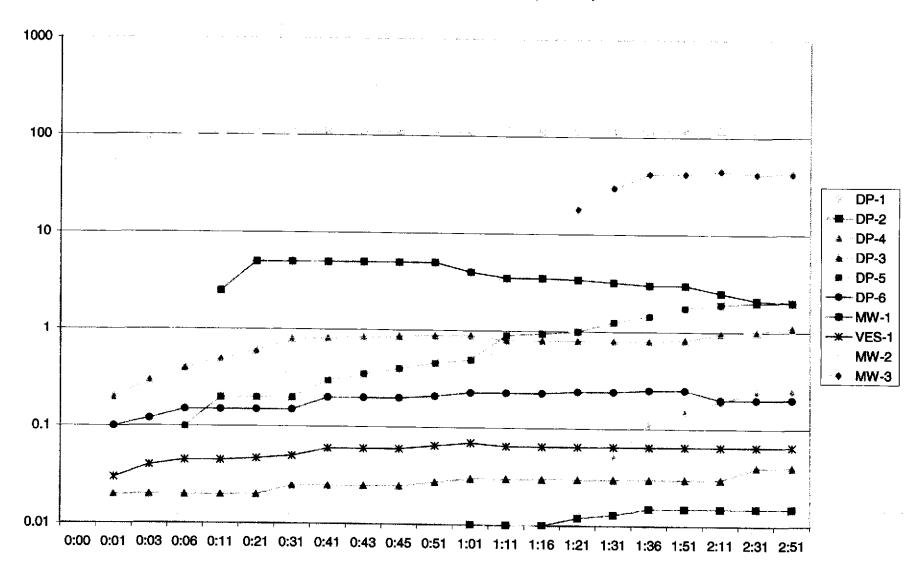


Table 11: AS-2-Sparge VES1 Vac 5/20/0, Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	AS-	2	DP-1	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	MW-3	VES-1	VES-1	AS1
	Minutes	Pressure (in H2O)	Flow (cfm)	Pressure (in H20)	(in H20)	PID	(in H20)	PID	(in H20)						
10:59	0:00	0	0	0	0	0	0	0	0	0	0		0		0
11:00	0:00	32	6.25	0.250	0.040	1.1	2.0+	0.20	2.0	120	42		-15		0.003
11:10	0:01	32	8.25	0.250	0.030	1.05	2.1	0.10	1.75	120	42.0		-15		0.003
11:10	0:11	32	6.25	0.280	0.035	1.19	2.20	0.17	1.50	120	42.0		-15		0.003
11:40	0:41	32	6.25	0.290	0.035	1.35	2.20	0.15	1.50	115	45.0		-15		0.007
11:45	0:46	32	6.25	0.300	0.035	1.35	2.10	0.12	1.50	115	45.0		-15		0.003
12:00	1:01	32	6.25	0.300	0.035	1.40	2.10	0.10	1.50	115	44.0		-15		0.003
12:15	1:16	32	6.25	0.340	0.035	1.75	2.10	0.08	1.40	115	45.0	35 ppm	-15	1 ppm	0.016
12:30	1:31	32	6.25	0.350	0.035	1.40	2.10	0.07	1.40	112	45.0		-15		0.010
12:45	1:46	32	6.25	0.380	0.040	1.40+	2.10	0.07	1.50	115	45.0		-15		0.020
13:00	2:01	32	6.25	0.380	0.035	1.40+	2.00	0.07	1.00+	113	45.0		-15		0.020
13:15	2:16	32	6.25	0.415	0.040	1.50	1.95	0.07	1.00+	110	45.0		-15		0.020
	2:31	32	6.25	0.395	0.045	1.50	1.92	0.07	1.00	110	45.0		-15		0.020
13:30	2:46	32	6.25	0.390	0.050	1.50	1.90	0.05	1.00	110	45.0		-15		0.017
13:45 14:00	2:46 3:01	32	6.25	0.390	0.045	1.45	1.80	0.05	1.00	110	45.0	375 ppm	-15	34 ppm	0.017

Table 11a AS-1 Sparge Test - VES-1on Vac (5/20/04)

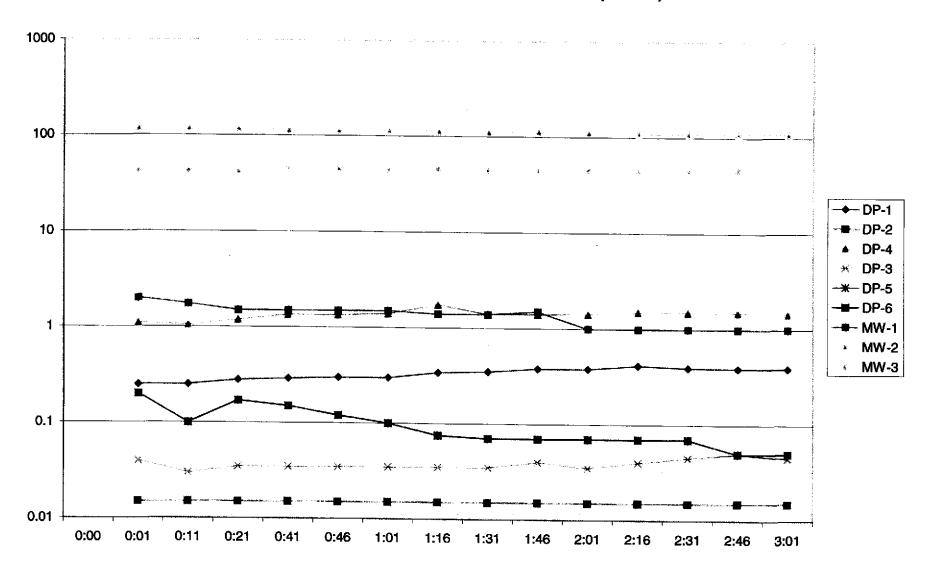


Table 12: Air sparge AS-1 5/21/04, Fldelity Roof Company, 1075 40th Street, Oakland, California

		 S-1	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW		VES-1
Time	Pressure		Pressure		D . J		· ·					Flow	
Time	(in H2O)		(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(in H20)	(cfm)	(in H20)
أمنانما	(III (IZO)	(Ontr)	0.5	0.01	0.01	0.02	0.005	0.01	0	0	0		0
initial	36	p popping			0.0 (*							
8:24	30	th bobbing	, Oldou (, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
8:50	36	80.5	0.5	0.01	0.02	0.02	0.005	0.01	0	5	2.0		0
8:52	36	8.5	0.5	0.01	2.0	0.02	0.005	0.01	0	10	5.0		0
8:54	36	8.5	0.1	0.01	4.0	0.03	0.005	0.15	0	25	20.0		0
8:56	36	8.5	0.2	0.01	4.5	0.10	0.005	0.15	0	35	20.0		0
9:00	36	7.1	0.2	0.01	4.7	0.125	0.005	0.15	0	35	25.0		0
9:00 9:10	36	6.4	0.3	0.01	5.0	0.17	0.01	0.15	0	35	25.0		0
9:10	36	6.4	0.3	0.01	4.5	0.18	0.01	0.15	0	30	25.0		0
9:30	36	6.4	0.3	0.01	4.2	0.175	0.01	0.15	0	30	25		0
9:45	36	6.4	0.32	0.015	4.0	0.175	0.01	0.15	0	27	25		0
10:00	36	6.4	0.32	0.015	3.7	0.17	0.01	0.15	0	27	30		U
10:15	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0	25	30		0
10:30	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0	22	30		0
10:40	00	PID	1.2 ppm		25 ppm	sple DP-3					349 ppm	sple MW-	
10:45	36	6.4	0.32	0.015	3.0	0.17	0.01	0.15	0	20	30.5		0
11:00	36	6.4	0.32	0.015	2.0	0.17	0.01	0.15	0	20	30.5		0

Table 12a AS1 Sparge Test (5/21/04)

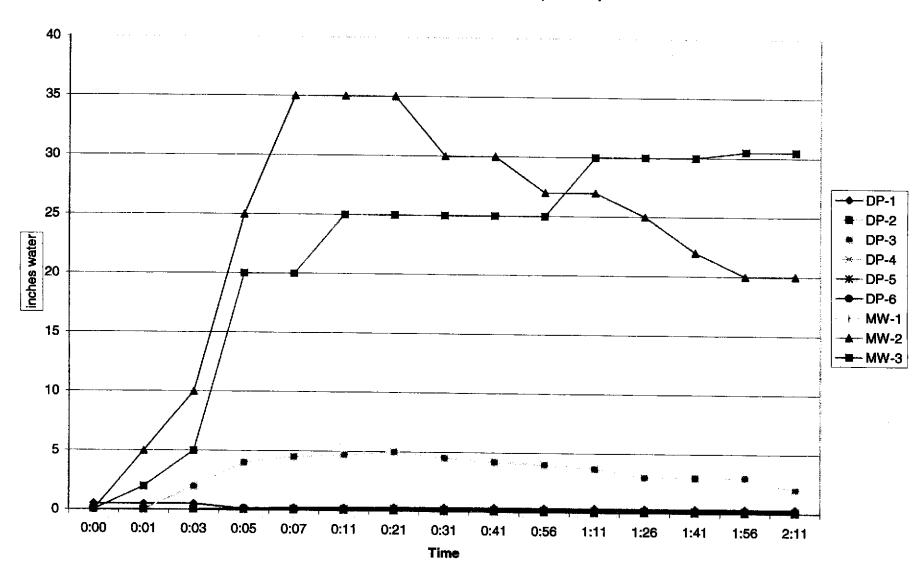
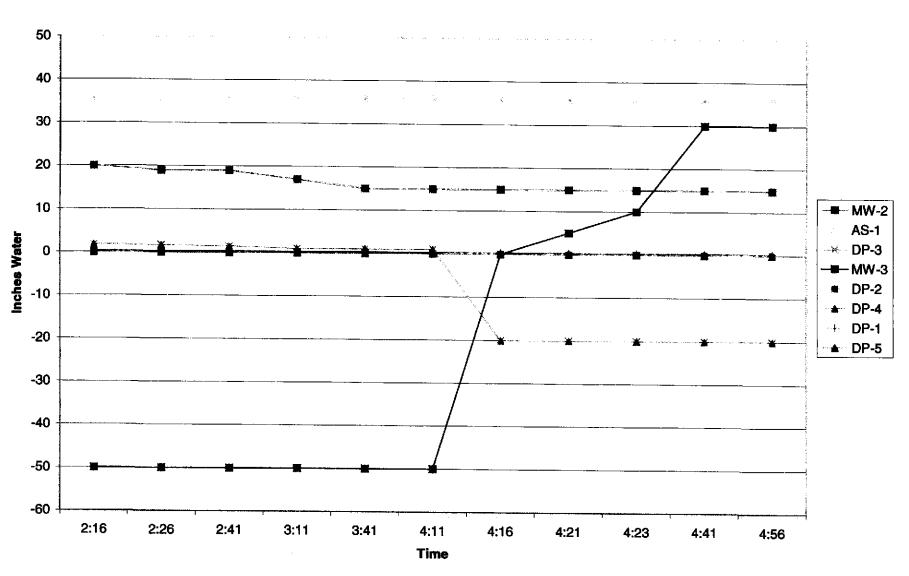


Table 13: Air sparge AS-1 with Vacuum on MW-3 and DP-3 5/21/04, Fidelity Roof Company, 1075 40th Street, Oakland, California

	46	4	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW	-3	VES-1
Time	AS- Pressure (in H2O)	Flow (cfm)	Pressure (in H20)			(in H20)	(in H20)		(in H20)	(in <u>H20)</u>	(in H20)	Flow (cfm)	(in H20)
AS-1sparo	ge MW-3 vac	: 5/21/05											0
initial	,,,		0.5	0.01	0.01	0.02	0.005	0.01	0	0	0	005	0
11:15	36	6.4	0.32	0.015	1.7	0.17	0.01	0.15	0	19	-50	.305	0
11:30	36	6.4	0.32	0.015	1.5	0.17	0.01	0.15	0	19	-50	.353	0
12:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	17	-50	.412	0
12:30	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50	.431	0
13:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	- 0	15	-50	.425	0
AS-1sparg											_		0
13:10	36	6.4	0.32	0.015	20/.20cfm	0.17	0.01	0.15	0	15	5		0
13:12	36	6.4	0.32	0.015	20/.18	0.17	0.01	0.15	0	15	10		0
13:30	36	6.4	0.32	0.015	20/.16	0.17	0.01	0.15	0	15	30		0
13:45	36	6.4	0.32 sampled	0.015	20/15	0.17	0.01	0.15	0	15	30 sampled		0

Table 13a Air Sparge AS-1 with Vac on MW-3 and DP-3



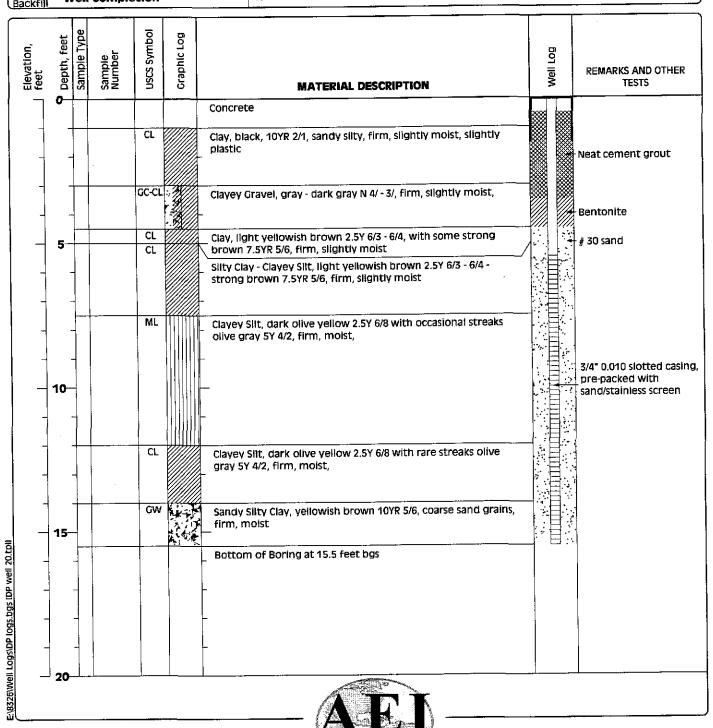
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-1

Sheet 1 of 1

Date(s) Drilled May 13, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level Not Encountered and Date Measured ATD	Sampling Method(s) None	Well Permit.
Borehole Well Completion	Location	



CONSULTANTS

EMPONENTATION DESCRIPTIONS

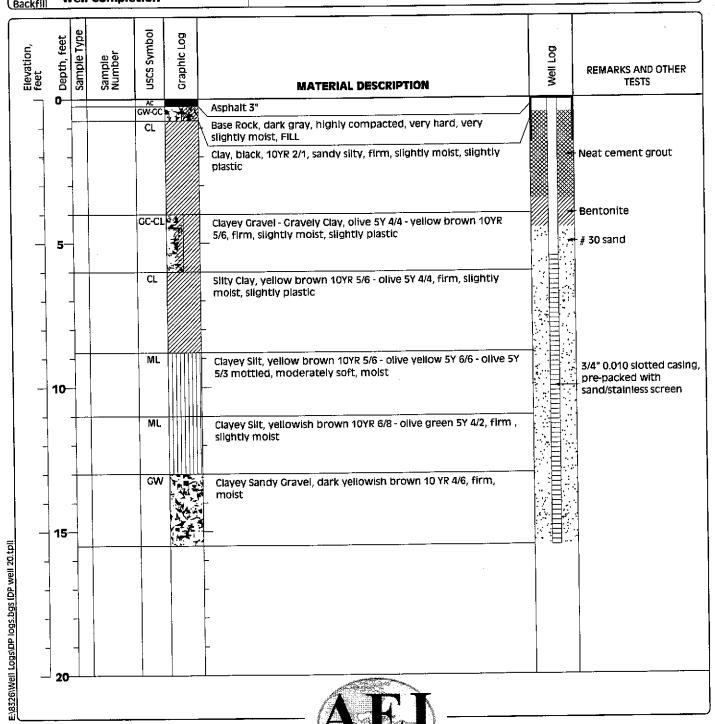
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-2

Sheet 1 of 1

Date(s) Drilled May 13, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) None	Well Permit.
Borehole Backfill Backfill Backfill	Location	



ENTROPHENTALS CASE ENTREEPING

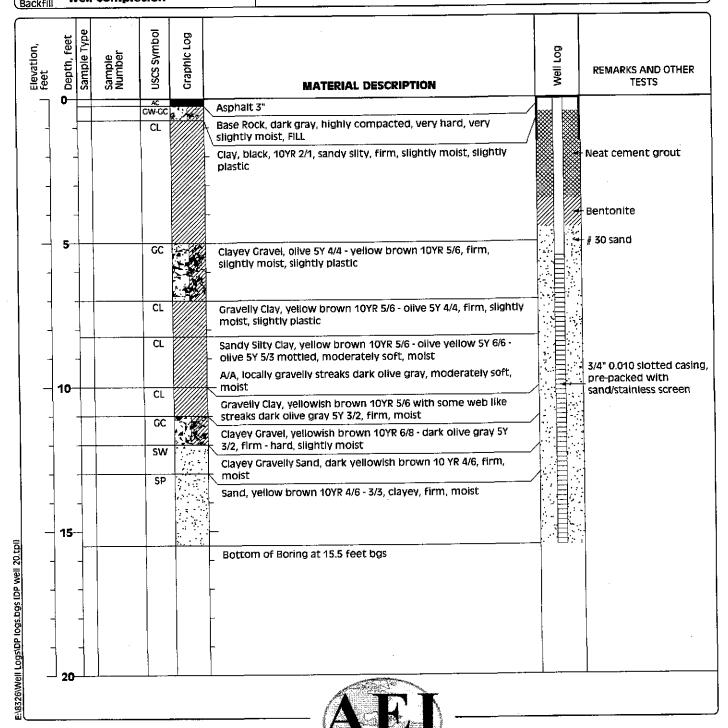
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-3

Sheet 1 of 1

Date(s) Drilled May 13, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level Not Encountered and Date Measured ATD	Sampling None Method(s)	Well Permit.
Borehole Well Completion	Location	



SWROWENIAL COS BIGNET

Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-4

Sheet 1 of 1

Date(s) Drilled May 13, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) None	Well Permit.
Borehole Well Completion	Location	

reet Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER
¬ •–			AC GW-GC	1.4666	Asphalt 3"		
	十		CL		Base Rock, dark gray, highly compacted, very hard, very slightly moist, FILL	1888	
					Clay, black, 10YR 2/1, sandy slity, firm, slightly moist, slightly plastic		Neat cement grout
							Bentonite
5-			GC-CL		Clayey Gravel - Gravely Clay, olive 5Y 4/4 - yellow brown 10YR 5/6, firm, slightly moist, slightly plastic		# 30 sand
-			CL		Silty Clay, black - dark olive gray 5Y 3/2 - 5Y 2.5/1, firm, slightly moist, slight hydrocarbon odor		
-	1		ML		Clayey Silt, dark olive gray 5Y 3/2 - 5Y 2.5/1, firm, slightly moist, slight hydrocarbon odor		
	-		CL		Slity Clay, olive gray - dark olive gray 5Y 4/2 - 3/2, locally sandy loccally gravelly, firm, moist		3/4" 0.010 slotted casi
10-			ML		Slity Clay, offive 5Y 5/4 - 5/6 - offive yellow 2.5Y 6/8, firm, slightly moist, firm, moist		pre-packed with sand/stainless screen
-			CL		Silty Clay, olive yellow 2.5Y 6/8, firm, moist, firm, slightly moist		
1			GC		Clayey Sandy Gravel, olive 5Y 4/3 - light olive brown 2.5Y 5/6 mottled, firm, slightly moist		
		- 10 10 10 10 10 10 10 10 	GW		Very Clayey Sandy Gravel, olive 5Y 4/3 - light olive brown 2.5Y 5/6 mottled, firm, slightly moist		
15-	1		GC	* 1	Clayey Cravel, yellowish brown 10YR 5/6, firm, moist		3
_				7.80	Bottom of Boring at 15.5 feet bgs		
					-		
20				<u></u>			

EMPONDING CALENDACTING

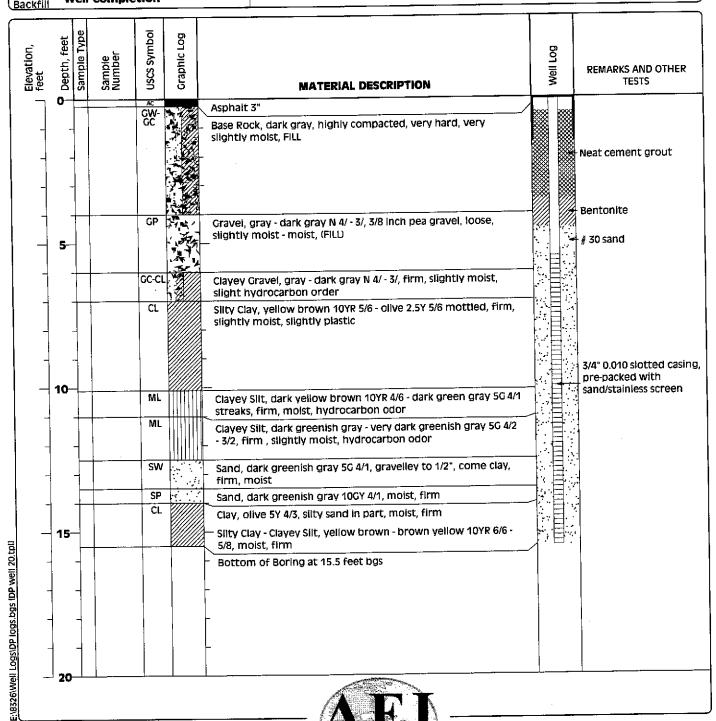
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-5

Sheet 1 of 1

Date(s) Drilled May 12, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) None	Well Permit.
Borehole Well Completion	Location	



ENVIRONMENTAL & COLUMN ENVIRONMENTAL

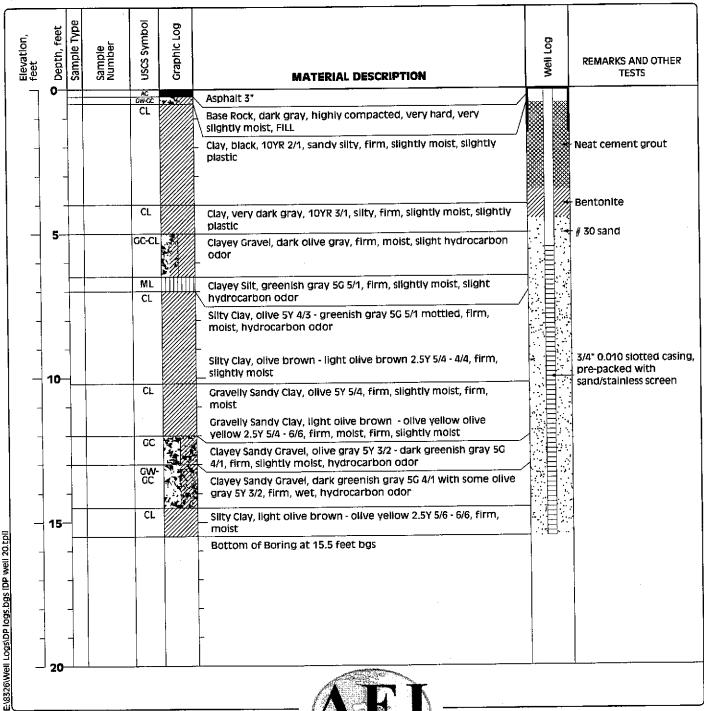
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring DP-6

Sheet 1 of 1

Date(s) May 13, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Direct push	Drill Bit 2.25" sampler, 1.25 Size/Type continuous core	Total Depth of Borehole 15.5 feet bgs
Drill Rig Type AMC 9530 Pro-D	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) None	Well Permit.
Borehole Well Completion	Location	





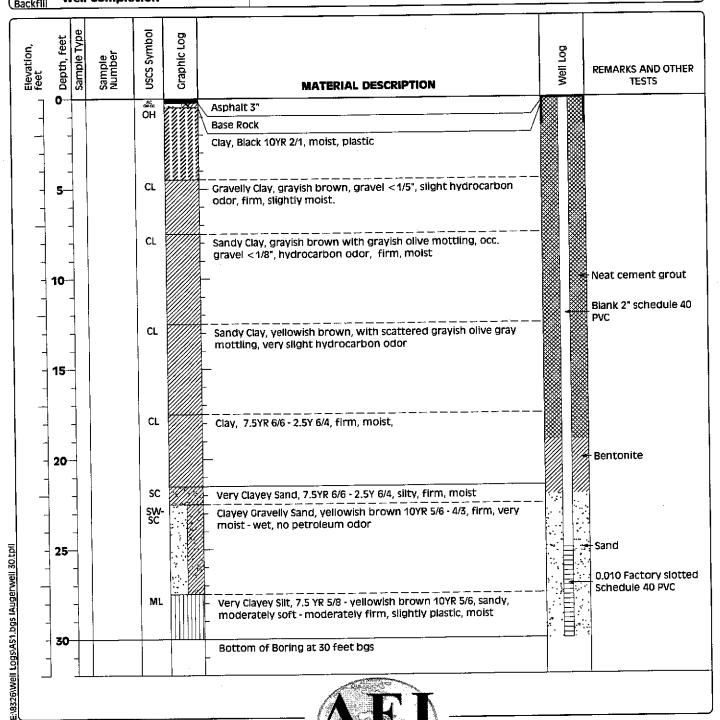
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring AS-1

Sheet 1 of 1

Date(s) Drilled May 6, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 inch soil bit	Total Depth of Borehole 30 feet bgs
Drill Rig Type CME 75	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) None	Hammer Data
Borehole Well Completion	Location	



EMECAME HALL CALLER METERING

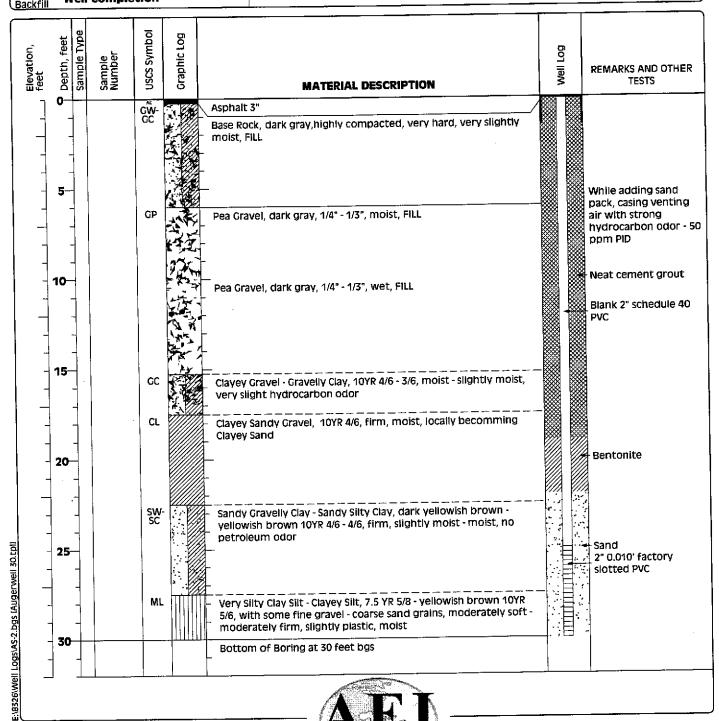
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring AS-2

Sheet 1 of 1

Date(s) Pellod May 6, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg		
Drilling Method Method	Drill Bit Size/Type 8 inch soil bit	Total Depth of Borehole 30 feet bgs		
Drill Rig Type CME 75	Drilling Contractor Contrac	Approximate Surface Elevation		
Groundwater Level and Date Measured	Sampling Method(s) None	Hammer Data		
Borehole Well Completion	Location			



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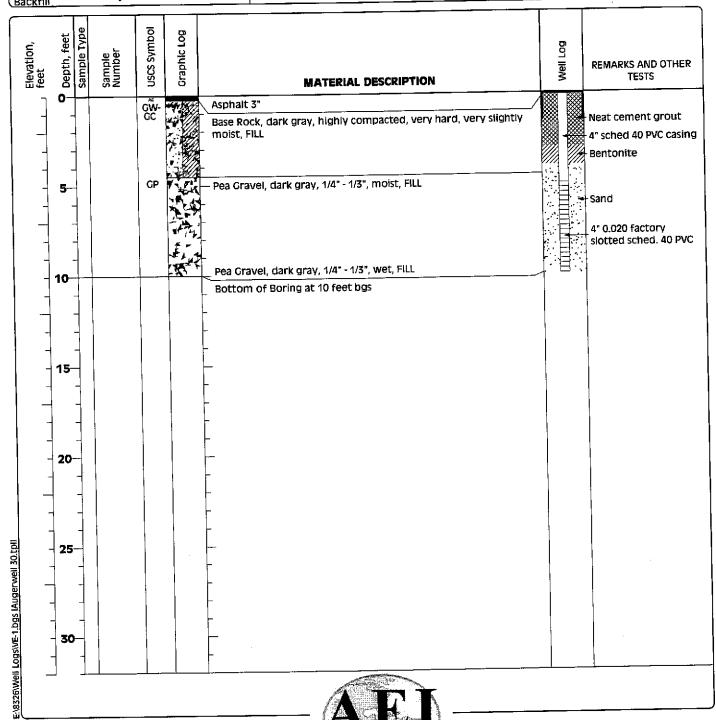
Project Location: 1075 40th Street, Oakland, CA

Project Number: 8326

Log of Boring VE-1

Sheet 1 of 1

		1
Date(s) Drilled May 6, 2004	Logged By Robert F. Flory	Checked By Jeff Rosenberg
Drilling Hollow Stem Auger	Drill Bit Size/Type 8 inch soil bit	Total Depth of Borehole 10 feet bgs
Drill Rig	Drilling Contractor Woodward Drilling	Approximate Surface Elevation
Type Groundwater Level and Date Measured	Sampling Method(s) None	Hammer Data
Borehole Well Completion	Location	



ENVECTMENTAL STATE OF THE STATE

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40TH STREET

Borehole #: SB-1

Date: 11/3/98

Total Depth: 16 FEET

Logged By: PJM

Responsible Professional JPD

		SUBSURFACE PROFILE	OFILE SAMPLE				
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0-	9/10/2	Ground Surface			-		
1-	000 7000	FILL Asphalt, gravel and sand					
3 - 4 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -		SANDY CLAY Greenish grey clay with 5% sand with sands increasing with depth	SB-1 4'	SS	NA		No odor, 0.0 ppm
7 — 8 — 9 —			SB-1 8'	SS	NA		Hydropunch 8 to 12 feet, No GW
10-							
12_						▼	?
13_				1			Hydropunch 12 to 16 feet, No GW
14				l			PVC inserted to 16 feet
15						i	Slow water generation
16-		End of Danabala	-				
17-		End of Borehole			.		
18-							
19_							
20_							
21_			!				
22_				:			

Drilled By: VIRONEX

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Hole Size: 2"

Sheet: 1 of 1

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40TH STREET

Borehole #: SB-2

Date: 11/3/98

Total Depth: 15 FEET

Logged By: PJM

Responsible Professional JPD

SUBSURFACE PROFILE SAMPLE						
Depth Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0 - 20 - 21 - 22 - 21	FILL Asphalt, gravel and sand SANDY CLAY Sandy clay, with gravel and 20% sand Medium grey, N5 CLAYEY SAND Stiff clayey sand End of Borehole	SB-2 4	SS	NA NA	Λ	hydropunch to 12, no GW hydropunch to 15, no GW PVC inserted to 15 Slow water generation

Drilled By: VIRONEX

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Hole Size: 2"

Sheet: 1 of 1

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40 STREET

Borehole #: SB-3

Date: 11/3/98

Total Depth: 20 FEET

Logged By: PJM

Responsible Proffesional: JPD

SUBSURFACE PROFILE				SAMPLE			
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0	9702	Ground Surface	-				
1 - 2 - 3 -		SURFACE AND FILL Asphalt above sand and gravel					
4-							
5-		41.414	SB-3 4'	SS	NA		no odor
6-		CLAY Stiff clay, greyish red to black with gravel to 15 mm and sand to 5%					
7-		gravel to 15 mm and sand to 5%			:		0.0 ppm
8-			SB-3 8	SS	NA		
9-							
10-	1						
- 11-							
12-	-						CM
13-	4						no GW generated
-							
14							
15				•			Hydropunch to 20
16 <u>–</u>	1						PVC inserted to 20
17_ -							
18-]						No GW generated after 3 hrs
19-	-						
20_	-	End of Borehole	_				
21-		End of Borelloie					
22-	-	•					

VIRONEX VIRONEX

GEOPROBE GEOPROBE

DIRECT PUSH DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

2" 2"

Sheet 1 of 1

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40TH STREET

Borehole #: SB-4

Date: 11/3/98

Total Depth: 19 FEET

Logged By: PJM

Responsible Professional JPD

SUBSURFACE PROFILE			SAMPLE			
Depth Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FILL Asphalt, gravel and sand CLAY Dark grey clay with 5% sand, very stiff SANDY SILT sandy silt with gravel up to 15 mm	SB-4 4"	SS	NA NA	M.	0.0 ppm hydropunch to 12, no GW hydropunch to 19, no GW PVC inserted to 19 Slow water generation
20- 21- 22-	End of Borehole					

Drilled By: VIRONEX

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Sheet: 1 of 1

Hole Size: 2"

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40TH STREET

Borehole #: SB-5

Date: 11/3/98

Total Depth: 20 FEET

Logged By: PJM

Responsible Professional JPD

				_	-		
SUBSURFACE PROFILE			SAMPLE				
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0-	5000	Ground Surface					
1-		FILL Asphalt, gravel and sand					
3-		CLAY Dark grey clay with 5% sand and gravel up to 10mm	SB-5 4'	SS	NA -		•
5-	-7777						0.0 ppm
6-		SANDY CLAY Dark yellowish brown clay with sand and gravel up to 10mm (15% sand and gravel)					No ador
8-		and gravel)	SB-5 8'	รร	NA		
9-							
10-	-	•					
11-	4				i.	_	
12- 13-						T	Hydropunch to 12, No GW
14-	-						
15-	<u> </u>						Hydropunch to 20, PVC inserted
16-				i	:		Dry after 1 hour
17-	1						
18- 19-							
20-							
21-	-	End of Borehole					
22-		·					

Drilled By: VIRONEX

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Sheet: 1 of 1

Hole Size: 2"

Project: FIDELITY ROOF CO

Client: MONTY UPSHAW

Location: 1075 40TH STREET

Borehole #: SB-6

Date: 11/3/98

Total Depth: 20 FEET

Logged By: PJM

Responsible Professional JPD

	SUBSURFACE PROFILE SAMPLE		E				
Depth	Symbol	Description	Number	Туре	Blows/ft	Well Data	Remarks
0	9708	Ground Surface					
1 - 2 -	200° 200° 200° 200° 200°	FILL Asphalt, gravel and sand					
3-			_				
4-			SB-6 4'	SS	NA	-	
5 -		CLAYEY SAND				1	0.0 ppm
6-		Light grey clayey sand with gravel					No odor
7 -		Color change to orange/brown					
8 -			SB-6 8	SS	NA		
9 -		•					
10-							
11 –	1						Hydropunch to 12, No GW
12-							
13-							
14-	1						
15-]]						Hydropunch to 16, No GW
16-							
17	- - -					▼	
- 18		•			1		Hydropunch to 20
19-							Water Samples Collected
20~							,
- 21 –		End of Borehole					
22-							

Drilled By: VIRONEX

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549

Hole Size: 2"

Sheet: 1 of 1

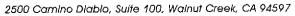
PROJECT:	Fidelity Roof Co. # 1540	LOG OF WELL NUI	MBER: MW-1
BORING LO	DC.: REFER TO SITE PLAN	ELEVATION, TOC:	45.41'
DRILLING (CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97
DRILLING N	METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'
DRILLING E	EQUIPMENT; MOBILE B-53	DEPTH TO WATER: 9'	casing: 2" PVC
SAMPLING	METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC	
HAMMER V	VEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFES	
Cfeet) (feet) (feet) (feet)	DESCRIPTION	SAMPLE NO. AND MINIERVAL. BROW COUNTS	WELL CONSTRUCTION DETAILS
AB : 4 1 - 2 - 3 - 4 - 4 - 5 - CL 6 - 7 - 11-1 8 - 11-1 11-1 11-1 11-1 11-1	0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with high plasticity; grayish olive mottling; strong hydrocarbon odor; 700 ppm.	6 12 18 7 14 10 V 14 14 1	Universal Well Cover Locking Wing Nut Neat Cement Grout Blank SCH 40 PVC (2") Bentonite No. 3 Monterey Sand O20" Slotted Well Screen
	ALL ENVIRONMENTAL	J. INC.	page 1 of 2
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PRO	DJECT:	Fidelity Roof Co. #1540	LOG OF BOREH	OLE: MW-1
			SAMPLES	WELL
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLE NO. INTERVAL BLCW COUNTS	CONSTRUCTION
-			\/7	DETAILS
_			15' X 8	
15 —		0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with low plasticity;		
_		grayish olive mottiing; slight hydrocarbon odor; 30 ppm.		
16 —		ос рр.н.		
17 —				
-			_	
18 —	111	•	-	
_	115		7 20	
19			25	
20 —	CL [0.6 - 21.0: Sandy Gravelly Clay (cont.): moderate yellowish brown with high plasticity;	20' / 40	
	141	grayish olive mottling; slight hydrocarbon odor;		End Cap
21 —		0 ppm. Terminated at 21.0'		
_		idiffiliated di 21,0	_	
22 —			-	: .
23 —				
24 —			4	
			-	
25 —			-	
26 —				
27-				
		·		
28 —				
	-	*		
29 —				
30				
	-		_	
31 —				
		ALL ENVIRONMENTAL	, INC.	page 2 of 2

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

October 24, 2005

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

Subject: Interim Corrective Action

1075 40th Street Oakland, California AEI Project No. 8326

Dear Mr. Chan:

This letter is an addendum to the Soil Vapor Extraction and Air Sparge Pilot Test Report dated August 6, 2004, pursuant to our conversation regarding the site and scope of work. AEI has been retained by Fidelity Roof Company to provide environmental engineering services associated with the release of petroleum hydrocarbons from the former underground storage tank system on the property.

In summary, the initially proposed method of source removal was a combination soil vapor extraction (SVE) and air sparging to remove contaminant mass from soils around the former tank vault and in the ground water. Since completion of the pilot test, light non-aqueous liquid (LNAPL) been consistently present in monitoring well MW-3. Following the SVE pilot test, 0.66 feet of LNAPL was measured in MW-3. This was reduced to a minimum of 0.01 feet in November 2004. At the time of the last quarterly monitoring event, September 9, 2005, the LNAPL in MW-3 was 0.64 feet thick. As per our recent conversation, AEI is proposing to perform a dual phase extraction (DPE) pilot test to determine the effectiveness of this method to remove the LNAPL. DPE technology consists of simultaneous extraction of groundwater and soil vapors from a common extraction well(s) under high vacuum (up to +/- 20 inches of mercury). The pilot test is proposed for a period of 3 days (72 continuous hours). If hydrocarbon recovery is consistent, the pilot test may be extended to 5 days.

The DPE test is planned for well MW-3. DPE will be performed primarily on well MW-3. After the test has run for sufficient time to establish a good base line, vapor extraction well VES-2 other wells adjacent to well MW-3 may be included. During the pilot test water, levels and induced vacuums will be measured on adjacent wells. In addition, water extraction rates and vapor flow rates will be measured. Vapor samples will be collected at the beginning, at several intervals during, and following the test on each well. Water samples will also be collected.

The extraction will be induced in the well by utilizing a suction tube lowered into the well through the sealed wellhead. The suction tube (stinger) will be lowered slowly to create a draw down nominally set at 5 feet below static water level. Soil vapor and water will be pulled up the tube, through an air-water separator (knock-out) tank, from which vapors will be routed to a thermal oxidizer for treatment. Water will be treated in a spray-aeration unit and routed to a

1075 40th Street, Oakland, CA AEI Project #8326 October 24, 2004 Page 2

temporary storage tank. Water will either be discharged to the sanitary sewer under EBMUD permit or transported from the site to an approved disposal facility, depending on volume produced.

The DPE system will consist of a diesel generator, liquid ring vacuum pump, knock-out tank, spray-aeration unit, and thermal oxidizer. The equipment will have a multi-site Bay Area Air Quality Management District (BAAQMD) permit and be equipped with noise abatement equipment to comply with City noise ordinances to allow for 24-hour operation.

Upon completion of the DPE pilot test, data will be evaluated and a report presented, summarizing the methods and results of the test. The report will include the following:

- o Tabulated data obtained during the test including wellhead vapor flow rates, water flow rates, water level measurements and induced vacuums in observation wells.
- o Summary of vapor and water analyses for TPH-g, BTEX, and MTBE
- o Vacuum versus vapor flow rates
- o Estimated mass removal total and mass removal rates at applied vacuums
- Drawdown in observation wells versus vacuum.
- o Estimated radius of influence (ROI) for vapor extraction
- o If successful, recommendations for cost effective soil and water treatment and disposal.

AEI anticipates scheduling the test upon receipt of confirmation from ACHCSA. The report will be completed within approximately one month of completion

The locations of the wells to be included in the pilot test are shown on the attached Figure 1. Figure 2 shows the location of the cross section, which illustrates the subsurface stratigraphy. Finalized versions of this and other cross sections will be included in the DPE Pilot Test Report.

We look forward to you comments and to beginning this project. If you have any questions or need any additional information, please don't hesitate to contact either of the undersigned.

Sincerely,

Robert F. Flory, P.G.

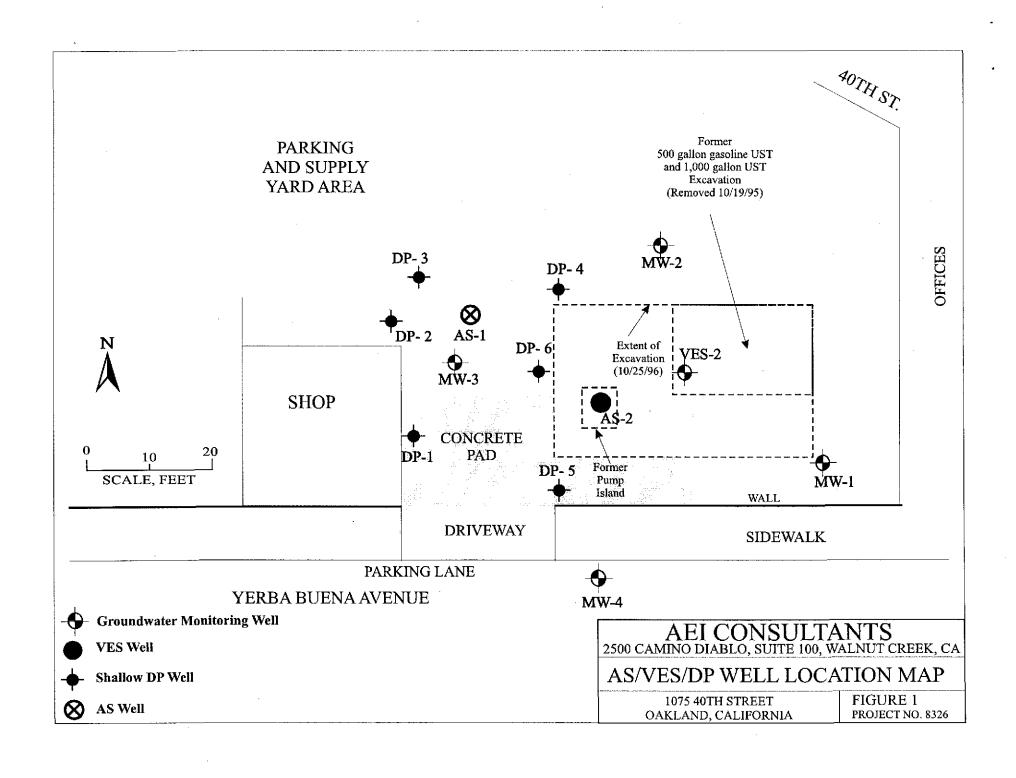
Senior Geologist

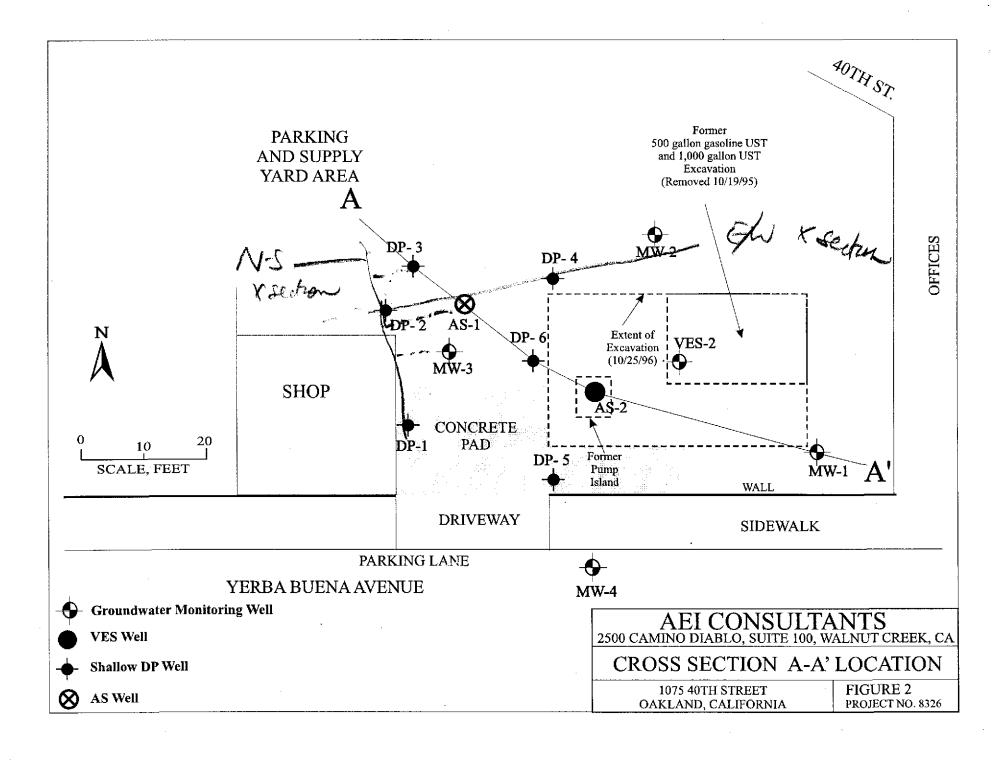
Peter McIntyre, P.G. Senior Project Manager

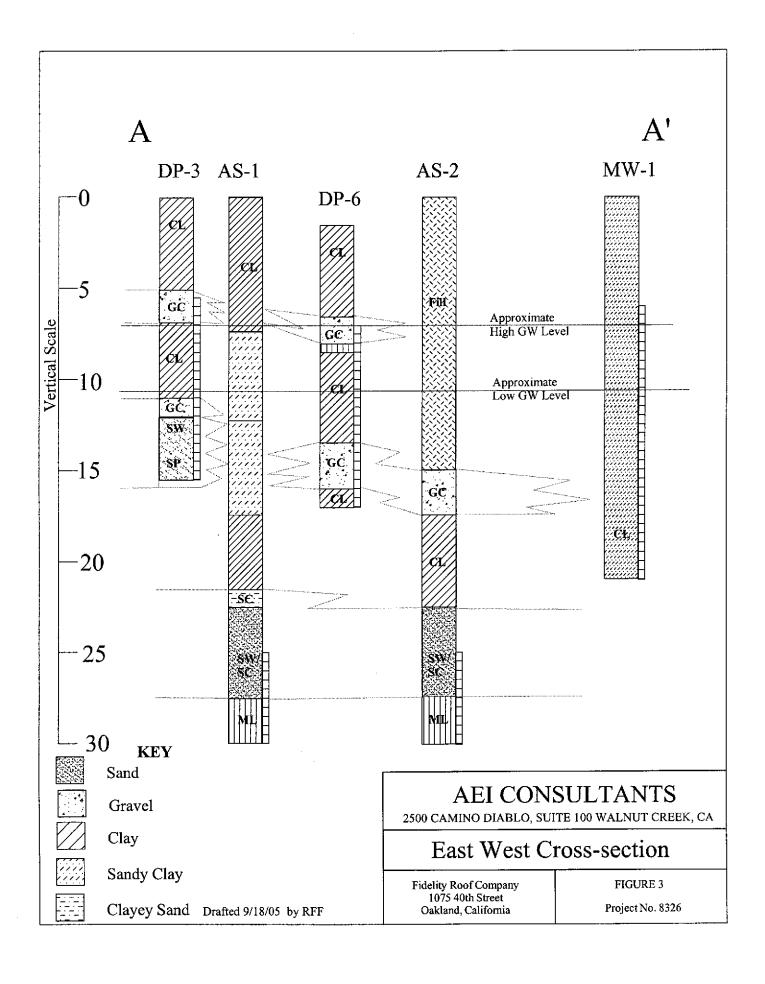
CC: Monty Upshaw

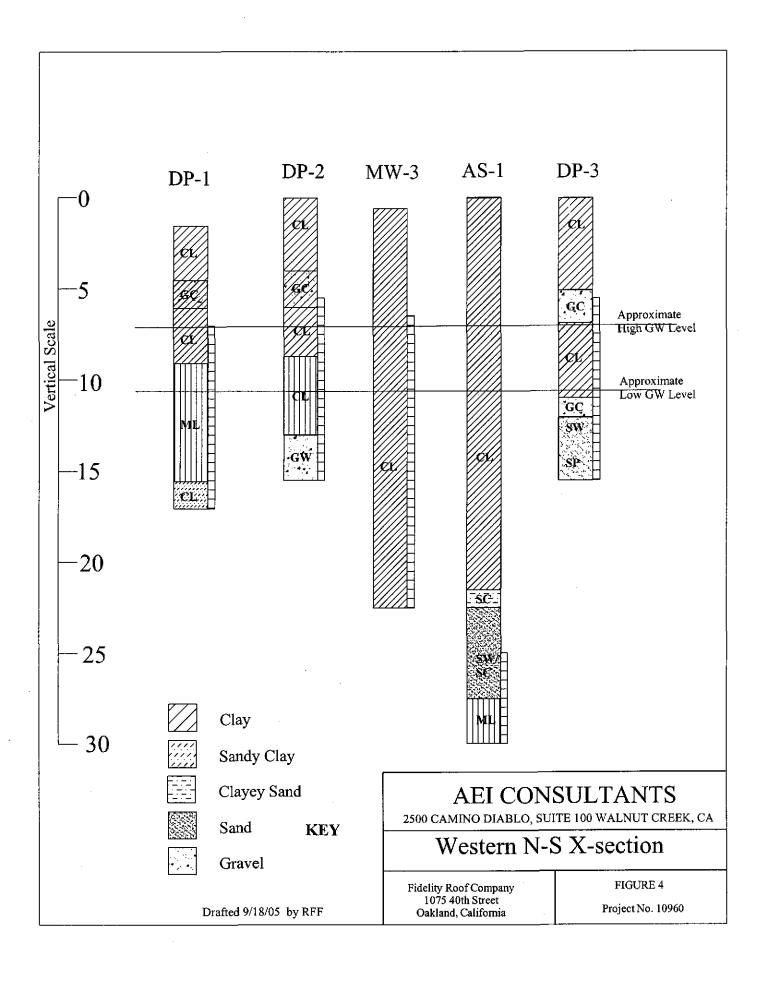
1075 40th Street

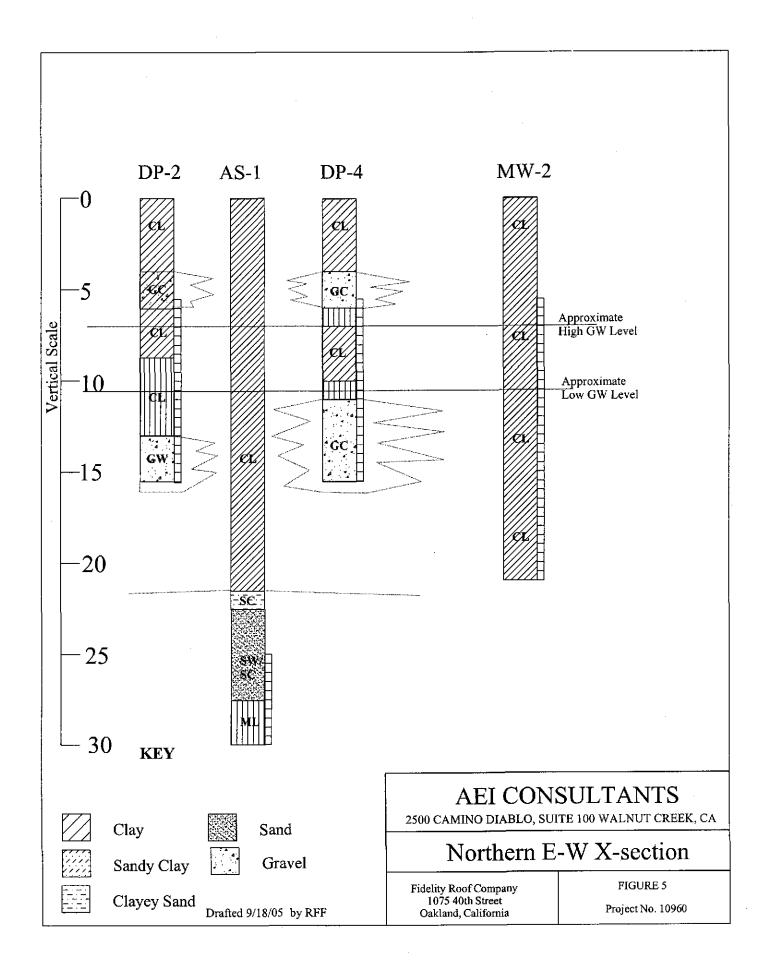
Oakland, California 94608











PROJECT:	Fidelity Roof Co. # 1540	LOG OF WELL NUM	MBER: MW-2	
BORING LO	OC.: REFER TO SITE PLAN	ELEVATION, TOC: 44.94		
DRILLING (CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97	
DRILLING N	METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'	
DRILLING E	EQUIPMENT: MOBILE B-53	DEPTH TO WATER: 91	CASING: 2" PVC	
SAMPLING	METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC		
	VEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFESS	SIONAL: JPD WELL	
DEPTH (feet) SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL	DESCRIPTION	SAAPLE NO. INTERVAL BLOW COUNTS	CONSTRUCTION DETAILS	
AB 1 — AB 2 — 3 — CL 6 — 7 — 8 — 9 — 11 — 12 — 13 —	0.6 - 21.0; Sandy Gravelly Clay; dark greenish gray with low plasticity; gravel up to 1/8"; slight hydrocarbon odor; 30 ppm.	5' \ 6 \ 8 \ 18 \ \ \ \ 6 \ 10 \ 14 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Universal Well Cover Locking Wing Nut Neat Cement Grout Blank SCH 40 PVC (2") Bentonite No. 3 Monterey Sand .020" Slotted Well Screen	
14- 11:	ALL ENVIRONMENTA	T. TNC:	page 1 of 2	
	TALL TITA A TEROTATATION TAT	L, 1110.	<u> </u>	

PROJECT	Fidelity Roof Co. #1540	LOG OF BOREHO	DLE: MW-2
DEPTH (feet) symbor	DESCRIPTION	SAWPIES NO. NO. NO. NO. NO. NO. NO. NO. NO. NO.	WELL CONSTRUCTION DETAILS
15 — CL 16 — 17 — 18 — 18 —	0.6 - 21.0: Sandy Clay (cont.): moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 40 ppm.	15' \ 15	
19 — CL 1	0.6 - 21.0; Sandy Gravelly Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 20 ppm. Terminated at 21.0'	- 10 18 20' \ 25	End Cap
22 — — 23 — — 24 —	retriinated at 21.0		
25 — 26 — 27 —			·
28 — — — 29 — —			
30 — 31 —	ALL ENVIRONMENTAL	, INC.	page 2 of 2

PROJECT:	Fidelity Roof Co. # 1540	LOG OF WELL NUI	MBER: MW-3
BORING LO	OC.; REFER TO SITE PLAN	ELEVATION, TOC:	44.32'
DRILLING C	CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97
DRILLING N	METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'
DRILLING E	QUIPMENT: MOBILE B-53	DEPTH TO WATER: 9'	CASING: 2" PVC
SAMPLING	METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC	v
HAMMER W	VEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFES	
(feet) soir shapers	DESCRIPTION	SAMPLES SAMPLE NO. NO. BLOW COUNTS	WELL CONSTRUCTION DETAILS
AB 1 — AB 2 — 3 — 4 — 5 — CL 6 — 7 — 8 — 9 — CL 11 — 12 — 12 — 13 — 13 —	0.6 - 21.0: Gravelly Clay; grayish brown with low plasticity; gravel up to 1/8"; slight hydrocarbon odor; 10 ppm. 0.6 - 21.0: Sandy Gravelly Clay (cont.): grayish brown with low plasticity; grayish brown with low plasticity; grayish olive mottling; strong hydrocarbon odor; > 1,000 ppm.		Universal Well Cover Locking Wing Nut Neat Cement Grout Blank SCH 40 PVC (2") Bentonite No. 3 Monterey Sand .020" Slotted Well Screen
14—	^		page 1 of 2
	ALL ENVIRONMENTAL	J, 1110.	page 1 of 2

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PROJECT:	Fidelity Roof Co. #1540	LOG OF BOREHO	DLE: MW-3
DEPTH SOIF	DESCRIPTION	SAWELES NO N	WELL CONSTRUCTION DETAILS
15 — CL 16 — 17 — 18 — CL 20 — CL 21 — 22 — 22 — 22 — 22 — 22 — 22 — 22			DETAILS End Cap
23 — — — — — — — — — — — — — — — — — — —	ALL ENVIRONMENTAL		page 2 of 2

Sheet: 1 of 1

Project No: 3119

Project Name: FIDELITY

Log of Borehole: MW-4

Client: M. UPSHAW

Location: YERBA BUENA AVE.

	US	cs	S Sample Data				-		
Depth	Symbol	Label	Subsurface Description	Sample Label	Туре	Blow/ft	Recovery	Well Data	Remarks
0- 2- - 4-			Ground Surface ASPHALT Asphalt and gravel fill CLAY Clay with silt and minor sand,						
6-		rocarbo	damp, moderately plastic SILT Sandy silt with gravel up to 0.5 cm	MW-4 5'	SS		100		
10~ 12~		rocarbo	Coarse gravel up to 2 cm	MW-4 10'	SS		100		
14-		rocarbo ed soil ar at 15		MW-4 14'	SS		100		
18-			Silty and clayey sand, with up to 50% coarse gravel up to 1.5 cm						

Drill Date 7/15/99

Drill Method: HOLLOW AUGER

Total Depth: 20 ft. Depth to Water: 15 ft. Reviewed by: JPD

Logged by: PJM

AEI Consultants 3210 Old Tunnel Road, Suite B Lafayette, CA 94549 (925) 283-6000 AEI CONSULTANTS (SF)

PAGE B1



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PRONE (310) 670-6653 James You APPLICANTS: PLEASE ATTACH A SITE MAT FOR ALL DELLLING PERMIT APPLICATIONS DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE FERMIT APPLICATION

DRILLING PERMIT	DRILLING PERMIT APPLICATION				
FOR APPLICANT TO COMPLETE LOCATION OF PROJECT FINALLY ROOF 1075 COLUMN CATTERINA	PERMIT NUMBER W04-0480 WEIL NUMBER APN				
	PERMIT CONDITIONS Circled Permit Requirements Apply				
CLIENT MONTE Charles Fidelity Road Co. Nama Monte Charles of Phone 570-247-6-539 Address 1075 Watth 54 Phone 570-247-6-539 APPLICANT Romand Robert Flore Name AET Consultants Robert Flore Address 2500 Common Viele Phone 925-244-2895 City World Med Care E. Try 945-94	1: A permit application should be arbimitted so as to active at the ACPWA office five days prior to proposed searting date. 2. Submit to ACPWA within 60 days after completion of fermitted original Department of Water Resources-Well Completion Report. 3. Permit is void if project and begun within 90 days of approval date. B. WATER SUPPLY WELLS 1. Minimum surface and thickness is two inches of				
TYPE OF PROJECT Well Construction Cathodic Protection Cathodic Pr	coment group placed by grouis. 2. Minimum and depth is 50 feet for manicipal and Industrial wells or 20 feet for domestic and irrigation wells unless a least depth is specially approved. C. GROUNDWATER MONETURING WELLS INCLUDING PREZOWINTERS 1. Minimum surface seal thickness is two inches of countant group placed by grouis. 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. D. GROTECHNICAL Backfull here hole by training with coment group or carrent.				
DRILLING METHOD: Mud Rothy Air Rubery Augus Mud Rothy Ottor Dept D	F. WILL DESTRUCTION Send 1 map of work site. A repeated personal is required for wells deeper than 45 feet. G. SPECIAL CONDITIONS G. SPECIAL CONDITIONS				
WELL PROYECTS Drift Hole Distributor D In. Casing Distributor D In. Surface Seal Dopib S ft. Owner's Wall Number	NOTE: One application must be submitted for rach well or well destruction. Multiple borings on one application are acceptable for geoscopialist and contamination investigations.				
GEOTECHNICAL PROJECTS Number of Borings					
COMPLETION DATE May Co. 2004	APPROVED DATE 430-CZ				
APPLICANT'S SIGNATURE DATE	S-18-02				

9252836121

PAGE 02

PUBLIC WORKS

04/11/2004 10:27

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD CA. 94544-1395 PHONE (516) 670-6633 James You

FAX (510) 782-1939

APPLICANTS: PLEASE ATTACE A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT	APPLICATION
LOCATION OF PROJECT FINESTY ROOF	PHRAIT NUMBER WELL NUMBER APN
	PERMIT CONDITIONS Circled Permit Requirements Apply
CLIENT Name Monte Clashaw - Fidetily Root Co. Address 1075 44576 54 Phono 510-247-6339 City Consultation - Robert Flor Name HET Consultation - Robert Flor Address 2500 Common Week Phone 925-944-28937 City Weller Mill Capet Zip 94697	CENERAL 1. A permit application about the combinities to as to strive at the ACPWA office five days prior to represent starting date. 2. Submit to ACPWA within 60 they after completion of permitted original Department of Water Resources. Well Completion Report. 3. Pormit is void if project not begun within 90 days of approval date. B. WATER SUPPLY WELLS 1. Minimum surface seal thickness is two inches of
TYPE OF PROJECT Well Construction General Investigation Cathodic Protection General Contumination Cathodic Protection Contumination Contumination Contumination Contumination Cathodic Contumination Cathodic Ca	2. Minimum east doubt is 30 feet for managing and irrigation (publish wells or 20 feet for dominate and irrigation wells unless a lesser doubt is specially approved. C. TROUNDWATER MONITORING WELLS INCLUDING PIRZOMETERS 1. Minimum surface seal thickness is two inches of coment grout placed by truste. 2. Minimum send doubt for monitoring wells is the maximum doubt probletable or 20 feet. D. GEOTECHNICAL Backfill bots held by tremis with content grout or coment grouted diskness Upper two-three feet replaced in kind
Mind Rotary G Air Rotary G Alger Cable D Other D DRILLER'S NAME Western D DRILLER'S LICENSE NO	or with computed cirtings. E. CATHODIC Fill hole anode zone with operate placed by cremic. F. WELL DESTRUCTION Send a map of work situal asparate petrata is required for wells deeper than 45 feet. C. SPECIAL CONDITIONS The WHAT The Condition of the condit
WELL PROJECTS Drill Hole Diameter 5 in. Maximum Casing Dismeter in. Dopti 5 ft. Surface Seal Depth 25 ft. Owner's Well Number 15 -	NOTE: One application must be entended for each well or well description. Multiple berings on one applications are acceptable for georechnical and constant mation investigations.
GEOTECHNICAL PROJECTS Number of Borings Maximum Hole Dispresser In. Depth ft. STARTING DATE // 2004 COMPLETION DATE	AJPROVED DATE
I hereby agree to comply with all requirements of the new frontes County Ordinary APPLICANT'S SIGNATURE DATE PLEASE FRINT NAME REV.	9-16-02

PAGE 03

AEI CONSULTANTS (SF)



04/11/2004 10:27

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. BAYWARD CA. 91541-1395

PHONE (SIE) 570–6633 James You FAX (SIE) 782–1939 APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT	APPLICATION
LOCATION OF PROJECT FIRESTY ROOF	PERMIT NUMBER WELL NUMBER APN
	PERMIT CONDITIONS
CLIENT Monte (Loshaw - Fidetity Rock Co. Name Monte (Loshaw - Filono 510 -> 47-6339 City Mallorid, CH Zip 94608 APPLICANT Consected - Robert Hory Name APT Consected - Robert Hory Address 3500 (English) (Lock Proce 925 - 944 - 2894) City (Lochent Cook Zip 94597)	Circled Pervale Requirements Apply A. GENERAL 1. A permit application should be submitted so as in arrive at the ACPWA office five days prior to proposed starting date. 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources. Well Completion Report. 1. Permit is void if project that begins within 90 days of approval date. E. WATER SUPPLY WELLS 1. Minimum surface seal thinkness is two inches of
TYPE OF PROJECT Well Consequence Cathodic Protection Water Supply Monitoring PROPOSED WATER SUPPLY WELL USE New Domestic New Domestic Municipal Missiopal Mis	. cement grout placed by trains. 2. Minimum scal depth is 20 feet for municipal and industrial wells or 20 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lessor depth to specially approved. C. CROUNDWATER MONETORING WELLS [NCLUDING PICZOMETERS 1. Minimum surface seal thickness is two inches of concert grout placed by creme. 2. Minimum scal depth for manufacing wells is the maximum depth producable or 20 feet.
DRILLING METHOD: Air Rouny Auger B	D. GEOTECHNICAL Backfill both hole by tremis with coment grout or sement grout/sand mixture. Upper two-three free replaced in kind or with compacted curings. E. CATHODIC. Fill hole anede zone with concrets placed by tremin. F. WELL DESTRUCTION Send a map of work size. A separate periods is required for wells despor than 45 feet. ENECHAL CONDITIONS TO WELL CONDITIONS
WEYL PROJECTS Drill Hole Diameter	NOTE: One application must be submitted for each well descruction. Multiple berings on one application are acceptable for geometrical and concernington investigations.
STARTING DATE	APPROVED DATEDATE
PLEASE PRINT NAME ROBLET FOR ROW	9-18-04

PAGE 89



ALAMEDA COUNTY FUBLIC WORKS AGENCY

WATER RESOURCES SECTION 199 ELMRURST ST. HAYWARD CA 94544-1395 PHONE (510) 670-6633 James You

FAX (910) 782-1939
FAX (910) 782-1939
APPLICANTS: PLEASE ATTACH A SITS MAP FOR ALL DRILLING FERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 YET REQUIRES A SEPARATE FERMIT APPLICATION

DRILLING PERMIT.	APPLICATION
LOCATION OF PROJECT FIRST LAST ROOF	PERMIT NUMBER W4 64 83 WELL NUMBER FERMIT CONDITIONS
	Chrised Pennit Requirements Apply
CLIENT MONTE (1994 - Fidefity Root (2) Address 1075 4074 - Phone 510 - 347 - 6339 City Ass. K. Lordon CH. Zip 74408 Address 2 500 Consultants - Robert Flore 744 - 349 - 2394	GENERAL. 1. A permit application should be submitted to as to strive at the ACPWA office five days prior to proposed couring date. 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources. Well Completion Report. 3. Format is void if project not begun within 90 days of approval date. B. WATER SUPPLY WELLS. 1. Minimum surface sail diciences is two inches of connect grout placed by manic. 2. Minimum scal depth is 50 feet for municipal and industrial wells or 20 feet for documents and intention.
Water Supply D Commination D Memitoring Well Destruction PROPOSED WATER SUPPLY WALL USE New Destruction Municipal D Replacement Domestic Minicipal D Righton Industrial Other Carbon DETALING METHOD:	wells unless a leaser depth is specially approved. C. GROUNDWATER MONITORING WELLS NCLUDING FIEZOMETERS 1. Minimum surface said thickness is two inches of common grout placed by wends. 2. Minimum seal depth for manitoring wells is the maximum depth practicable or 20 feet. D. GROTECHNICAL Backful bore hole by transe with common grout or common grouters depth practicable with common grout or common grouters and maximum depth processes.
DRILLER'S NAME Washweek Deilling DRILLER'S LICENSE NO. #710079	or with compacted cuttings. E. CATHODIC Fill hole anode some with concrete placed by growin. F. WELL DESTRUCTION Send a map of work size A separate permit is required for wells deeper than 45 fort. SPREAL CONDITIONS MW H7
WELL PROJECTS Drill Hole Discreter Cosing Dismeter Surface Scal Depth Maximum Depth To. Owner's Well Number	NOTE: One application rules be atomitted for carrie well or well distriction. Multiple borings on one application are acceptable for geotechnical and contentination investigations.
CE OTECHNICAL PROJECTS Number of Borings Maximum Hole Diameter in Depth R STARTING DATE May 5, 2004 COMPLETION DATE May 5, 3004	APTROVED WY DATE
I hereby ugree to security with all requirements of this administrative County Ordin	// / /



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMBURST ST. HAYWARD CA. 94544-1395
PHONE (SIG) 670-6633 James Yee FAX (518) 782-1939 APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRULLING PERMIT APPLICATION'S APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRULLING PERMIT APPLICATION

DRILLING PERMIT	APPLICATION
LOCATION OF PROJECT FINE STATE ROOF	PERMIT NUMBER WO4-0484 WELL NUMBER APN
	PERMIT CONDITIONS Circled Permit Requirements Apply
CLIENT MONTE (LASKEW) - FIDELTY ROST CO. Address 1075 WOM 37 Phone 510-377-6339 City Lask London CH Zip 9460B APPLICANT Name 15 Consultants - Robert Flor 79 Address 2508 Consultants Phone 935-944-2895	GENERAL 1. A permit application should be submitted to as to strive at the ACPWA office five days prior to proposed starting date. 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources—Well Completion Report. 3. Formit is void if project not begun within 90 days of approval dato. B. WATER SUPPLY WELLS 1. Minimum surface seed thickness is two inches of
TYPE OF PROJECT Well Construction Carbodic Protection Carbodic Pr	correct grout placed by troute 2. Minimum seal depth is 50 feet for manicipal and Indivinis wells at 20 feet for demestic and irrigation wells unless a leaser depth is appearably approved. CROUNDWATER MONETORING WELLS INCLUDING PREZOMETERS 1. Minimum surfaces seal thickness is two suches of content placed by the required. 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
DRILLING METHOD: Mild Robery Aft Robery August Cable Other Se The off DRILLER'S NAME Wood Account Westing	D. GEOTECHNICAL Backfill bore hole by wemic with commitgeest or certaint grounded mixture. Upper broothers feet replaced in kind or with compacted entirings. E. CATHODIC Fill hole shade some with concrete pinced by trainic, F. WELL DESTRUCTION Send a map of work size. A separate permit is required
WELL PROJECTS Drift Hole Diamoter 2 in. Maximum Cosing Diameter 3/4 in. Depth 5 it. Surface Seal Depth 5 ft. Owner's Well Number D7-2	for wells deeper than 45 feet. G. SPECIAL CONDITIONS
GEOTECHNICAL PROJECTS Number of Borings Maximum Holo Diameter it. Depth STARTING DATE May 5 2009	APPROVED DATE DATE
I hereby agree to comply with all requirements of this agree to comply with all requirements of this agree to DATE PLEASE PRINT NAME Row.	7 /K V 11

AEI CONSULTANTS (SF)

PAGE 07



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAVWARD CA. 94544-1395
PHONE (510) 670-6633 James You
FAX (510) 782-1939
APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
- A Le land	PERMIT NUMBER W4 04 0
LOCATION OF PROJECT FIRE LATE AND A STATE OF THE PROJECT FIRE	WHIL NUMBER
1015 4040 716	APN
(79, to 10 at)	PERMIT CONDITIONS
	Circled Permit Requirements Apply
	Off them a management of the second
CLENT AS THE 10 and 112 - Fide Lite Kook Co.	GENERAL
Name 11011-1 11011-1 Phone 510-247-6 559	1: A parmic application should be submitted so as to mive at the ACPWA office five days prior to
Address OF CH Zin 94608	
City 2007 100 100 100 100 100 100 100 100 100	A CIPWA within 60 days after completion of
APPLICANT A DEL TENDE	dermined original Department of Water Resources
Nome Att Consultant - 10 10 C	MAIL Commission Report
735 744 2 2947	A Permit is wold if project not began within 90 days of
Address Zir	approvai date
Cold Total And Control of the Contro	B. WATER SUPPLY WELLS 1. Modelman surface deal thickness is two inches of
	summer will read the beautiful
Type of Project	h A Cinimum went death is \$0 feet for manuscript 200
Well Construction Geotechnical Investigation	had a state of the
Codingle Protection	wells unless a least doub is precially approved.
WART SERVICE	C. GROUNDWATER MONETURING WELLS
Montioring on relative Wall Destruction	INCLUMING PREZOMETERS 1. Minimum surface and disclasses in two mones of
PROPOSED WATER SUPPLY WELL USE	persons arout placed by unusit.
New Domestic 🗆 'Replacement Domestic 🖸	a Minimum seal duration for morning wells is the
Mrunicipal D Irrigation	. maximum dopth practicable or 20 feet.
Industrial D Other	
Buy Pro Sation.	The state of the s
DRILLING METHOD: Mud Rollery D Air Rollery D Auger D	groundsmod mixture. Upper two-threes fact replaced in kind or with compacted auxiliage.
Cable O Other & pus 7	E. CATHODIC
Mostwad Palling	Fill hole snode some with concrete placed by trume.
DRILLER'S NAME COCKETAL WALLING	
- 7/0079	Smil a man of work sing. A separate permit is required
DRILLER'S LICENSE NO	for wells chapter than 45 fact.
	(). SPECIAL CONDITIONS — MW # 2
WELL PROJECTS	store to Consense must be submitted for each well or well
Drill Holo Dimmotor L. In. Maximum	Access when bindering horizon on one 2001@20071 are necessaries
Casing Diameter in. Depth ft. Owner's Well Number 09-3	for gentechnical and contamination investigations.
Surface Scal Depthft_ Owner's Well Allender	
GEOTECHNICAL PROJECTS	
Number of Borings Maximum	
Hale Diameterin. Depthit.	
mariane May 5-2005/	120
STARTING DATE MAY DO OF	1WK 117 4130 0
COMPLETION DATE May 5, 2004	APPROVED DATE
/	APPROVED TO THE TOTAL PROPERTY OF THE PARTY
the same and the county of the same and the same and the same and the same of the same and the same and the same of the same and the same of the same	tinumpe No. 73-68.
I hereby agree to camply with all requirement of the same and smooth County Ord	11-61
APPLICANT'S SIGNATURE TO APPLICANT'S SIGNATURE TO APPLICANT'S SIGNATURE	4/17/04
of the state of th	'
PLEASE PRINT NAME KOTTLES FOR THE REV	.9-18-02

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AEI CONSULTANTS (SF)



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
199 ELMBURST ST. BAYWARD CA. 94544-1395
PRONE (519) 670-6613 Jumes You
PAX (516) 782-1939

APPLICANTS: PLEASE ATTACE A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SETARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION FOR APPLICANT TO COMPLETE PERMIT NUMBER LOCATION OF PROJECT WELL NUMBER APN. PERMIT CONDITIONS Circled Permit Requirements Apply CLIENT GENERAL 1: A permit application should be submitted so as to arrive at the ACPWA office five days prior to web animan beengon 2. Submit to ACPWA within 60 days after compision of permitted original Department of Water Rescuences-Well Completion Report 3. Pennit is void if project not begun within 90 days of more Windle Phone 92 approval date CITY LUNGHUT C acak B. WATER SUPPLY WELLS 1. Minimum surface seal thinkness is two inches of osmant grout pieced by trianis. TYPE OF PROJECT 2. Minimum scal depth is 50 feet for manipipal and Georgeanical Investigation We II Canstraction luclustrial wells or 20 feet for domestic and irrigation Carbodic Protection Constal wells unloss a lease stopth is specially approved. Q Сомшиническо Water Straply GROUNDWATER MONITORING WELLS Monitoring 3 corpor rela Well Desmocrott INCLUDING PIEZOMETERS 1. Minimum surface scal thickness is two inches of PROPOSED WATER SUPPLY WELL USE concut grout placed by troubs. Replacement Domestic П New Domestic O 2.Minimum seal depth for monitoring Wells is the Municipal O heigation maximum depth practicable or 20 foot. \Box Industrial D. GEOTECHNICAL Backfill bore hole by stemle with content grow or coment DRILLING METROD: grout/sand mixture. Upper two-three feet replaced to kind Air Romy Mand Rotary or with compensed current. Cable E CATHODIC Fill hole anode zone with concrete placed by named. DRILLER'S NAME F. WELL DESTRUCTION Send a map of work site. A separate permit is required DRITLLER'S LICENSE NO. 3 for wells dapper than 45 fact. G EXECUTIONS _ () W # 2 WELL PROJECTS NOTE: One application must be exhaused for each well or well Maximum Drill Hole Diamete destruction. Multiple borings on one application are acceptable Depth Casing Diameter for protectimical and contamination investigations. Surface Scal Doots GEOTECHNICAL PROJECTS Maximum Number of Borings Hole Diameter STARTING DATE COMPLETION DATE _ APPROVED I horeby agree to comply with all re APPLICANT'S SIGNATURE Rev.9-18-02 PLEASE PRINT NAME

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PAGE 05

AEI CONSULTANTS (SF)



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 199 ELMBURST ST. HAYWARD CA. 94544-1395 PHONE (518) 670-6633 James You

PAX (510) 782-1959 APPLICANTS: PLEASE ATTACE A SITE MAP FOR ALL DRILLING FERMIT APPLICATION'S DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT A	PPLICATION
LOCATION OF PROJECT FINALLY ROOT	PERMIT NUMBER WELL NUMBER
Obstand , CH	PERMIT CONDITION'S Circled Permit Requirement Apply
CLIENT Monte (1996au) - Fidelity Reast Co. Natire Monte (1996au) - Fidelity Reast Co. Address (1975 1904) - Fronc 5/0-347-6339 City Che Kleridy CH. Tip 9460B APPRICANT Name HET Consultant - Robert Flore Sta 180 Fron 945-944-3994 Address 3500 Common Market Proposes - 944-3994	GENERAL 1: A permit application should be are mitted at as to arrive at the ACPWA office five days prior to proposed accreting date. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Wall Completion Report. S. Pennit is void if project not begun within 90 days of approved date.
Type of Project Well Construction General Description Cathodic Protection Contamination Description Water Supply Contamination Description Monitoring Well Description Description PROPOSED WATER SUPPLY WELL USE New Demants Description	B. WATER SUPPLY WELLS 1. Minimum surface wal thickness is two mehas of concern group placed by womin. 2. Minimum soal depth is 50, feet for municipal and industrial wells or 20 feet for domestic and intention wells unless a leaser depth is specially approved. CGROUNDWATER MONITORING WELLS INCLUDING PIEZDMITERS 1. Minimum surface soal thickness is two inches of content group placed by womic. 2. Minimum surface to all thickness wells is the maximum depth premionble or 20 foul.
DRILLER'S NAME Description	D. GEDTECHNICAL Baskelli bore hole by tremie with carpent grout or coment growth analysis reso-three feet replaced in kind or with compacted estings. E. CATHODIC Fill hole anode zone with concrete placed by tremic. F. WELL DESTRUCTION Send a map of work kind. A separate pormit is required for wells desper than 45 feet. DEFECIAL CONDITIONS MUH 2 NOTE: One application must be submitted for make well or well destruction. Multiple borings on one application are acceptable
Casing Diameter in. Depth 5 ft. Surface Scal Depth 5 ft. Owner's Well Number 1 5 GEOTECHNICAL PROJECTS Number of Berings Maximum Hole Diameter ft. STARTING DATE 1 5 200 COMPLETION DATE 1 200 Completion	for peotechnical and contamination investigations. APPROVED DATE
I hereby agric to comply with all requirements of the partition Alarecda County Ordina APPLICANT'S SIGNATURE PLEASE PRINT NAME Rev.9-	13 fort ()

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PUBLIC WORKS

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ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD CA. 94544-1395 PHONE (\$10) 670-6633 James You

PAX (916) 782-1939 applicants: Please attace a site map for all drilling permit applications destruction of wells over 15 feet requires a separate yermit application

DRILLING PERMIT APPLICATION FOR OFFICE USE FOR APPLICANT TO COMPLETE PERMIT NUMBER LOCATION OF PROJECT WELL NUMBER APN PERMIT CONDITIONS Circled Permit Requirements Apply MONTE CENERAL); A permit application should be pulyrimed to us to arrive at the ACPWA office five days prior to proposed starting date. Submit to ACPWA within 60 days after completion of APPLICANT permitted original Department of Water Resource-Well Completion Report. 3. Permit is void if project not began within 90 days of approval date ZIp' B. WATER SUPPLY WELLS 1. Minimum surface tout thickness is two luckes of coment grout placed by tremit. TYPE OF PROJECT 2. Minimum scal depth is 50 feet for municipal and Well Construction Geolechnical Investigation industrial wells or 20 feet for do medic and irrigation Carnadic Protection General walls unless a lessor depth is specially approved. Contration Water Supply CROUNDWATER MONITORING WELLS acitsurased flow Monitoring pelus INCLUDING PIEZOMETERS). Minimum surface seal thickness is two inches of PROPOSED WATER SUPPLY WELL USE potent grout pisced by tremis. Replacement Dancestic New Domestic 2.Minimum seel dopth for monitoring wells is the o Irrigadou Municipal maximum depth practicable or 20 feat. a Industrial Ditter D. GEOTECHNICAL BackIII bore hole by tramic with cometa group or compar DRILLING METHOD: grout/sand mixture. Upper two-three fest replaced in kind Mud Rotary or with compacted cuttings. Cable E CATRODIC Fill halo smade zone with concrete planted by trensio. DRILLER'S NAME F. WELL DESTRUCTION Bend a map of work afro. A separate pensal is required for walls deeper then 45 foct. DRILLER'S LICENSE NO. RECIAC CONDITIONS WELL PROJECTS ICIL: One application must be submitted for each well or wall Drill Hole Diameter Maximum destruction. Makipia borings on one application are sceeptable Caring Diamonr Depth for geotechnical and contamination investigations. Owner's Well Number_ Surface Seal Depth GEOTECHNICAL PROJECTS Number of Boxings Hole Diameter Doorb STARTING DATE COMPLETION DATE APPROVED I hereby agree to comply with all requi-APPLICANT'S SIGNATURE Rev_9-18-02 PLICASE PRINT NAME



ALAMEDA COUNTY PUBLIC WORKS AGENCY WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD, CA. 94544-1395 PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W03-0480-0488

WATER RESOURCES SECTION GROUNDWATER PROTECTION ORDINANCE MW#2-GENERAL CONDITIONS: Vapor and Extraction wells

- 1) Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.
- 2) The minimum surface seal thickness two inches of cement grout placed by tremie.
- 3) All vapor wells shall have a minimum surface coment scal depth of five (5) feet or the maximum depth practicable or twenty (20) feet. All extraction wells shall have a minimum surface seal depth of two (2) feet or the maximum depth practicable or twenty (20) feet.
- 4) Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
- Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where wok is being completed.
- 6) No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.
- 7) Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Permit is valid from May 6 to May 6, 2004. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 8) Compliance with the above well-scaling specifications shall not exempt the well-scaling contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including: permit number and site map.
- Permittee shall assume entire responsibility for all activities and uses under this permit and shall indenmify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/13/04
		Date Received: 05/14/04
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Reported: 05/19/04
Walnut Creek, CA 94597	ì	Date Completed: 05/19/04

A 5001

WorkOrder: 0405213

May 19, 2004

Dear Robert:

Enclosed are:

- 1). the results of 9 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 truly



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/13/04
		Date Received: 05/14/04
2500 Camino Diablo, Ste. #200	Client Contact: Robert Flory	Date Extracted: 05/14/04
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 05/15/04-05/18/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm								Work Order: 0405213				
Lab ID	Client ID	Matrix	TPH(g)	МТВЕ	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS		
003A	DP3-11.5	S	120,m	ND<1.5	0.18	0.20	0.31	0.21	10	88.2		
005A	DP2-11.5	S	2.5,a	ND	0.12	ND .	0.082	0.071	1	109		
007A	DP4-7.5	S	ND	ND	ND	ND	ND	ND	1	104		
008A	DP4-10	S	350,m	ND<4.5	0.40	0.53	0.81	0.44	20	103		
010A	DP5-11.5	S	2900,a	ND<10	12	9.3	66	320	200	99.8		
011A	DP5-13	S	83,a	ND<0.25	0.52	0.11	1.6	2.3	5	107		
013A	DP1-10	S	ND	ND	ND	ND	ND	ND	1	106		
016A	DP6-8	s	11,a,m	ND	0.012	0.022	0.0075	0.014	1	83.6		
018A	DP6-13	S	74,a	ND<1.0	1.3	ND<0.10	2.9	3.7	20	85.6		
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				1		NTA	NIA	NA	1	1107		

Reporting Limit for DF =1;	w	NA	NA	NA	NA	NA	NA	1	ug/L
ND means not detected at or above the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	ľ	mg/Kg
			1		<u> </u>				

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in μg/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.



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

All Environment	al Inc	Client Project ID:	#8326; Fidelity Roof	Date Sampled: 05/13/04						
	2500 Camino Diablo, Ste. #200			Date Received: 05/14/04						
2500 Camino Di			obert Flory	Date Extracted: 05/21/04 Date Analyzed: 05/23/04-05/25/04						
Walnut Creek, CA 94597		Client P.O.:								
Extraction method: SW			Extractable Hydrocarb malytical methods: SW8015C	ons as Diesel*	Wo		0405213			
Lab ID	Client ID	Matrix	TPH(d	<u> </u>		DF	% SS			
0405213-003A	DP3-11.5	S	45,d,b			1	117			
0405213-008A	DP4-10	S	94,d,t)		1	119			
0405213-010A	DP5-11.5	S	830,d,	ь		20	91.5			
<u> </u>		6	77 d l	3		1	118			

0405213-010A	DP5-11.5	S	830,0,0		
0405213-011A	DP5-13	S	77,d,b	1	118
0405213-018A	DP6-13	s	11,d	1	105
					ļ
					
					<u> </u>
					-

Reporting Limit for DF =1;	W	NA NA	NA
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

^{*} water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous iiquid samples in mg/L, and all DISTLC / STLC / STLP / 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; l) bunker oil; m) fuel oil; n) stoddard solvent/raineral spirit.



Diisopropyl ether (DIPE)

Ethyl tert-butyl ether (ETBE)

Methyl-t-butyl ether (MTBE)

McCampbell Analytical, Inc.

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ND

ND

ND<2000

ND<2000

ND<2000

All Environmental, Inc.	Client Project IC): #8326; Fidelit	y Roof I	Date Sampled: 05/13/04					
2500 Camino Diablo, Ste. #200			I	Date Received: 05/1	14/04				
	Client Contact:	Robert Flory	I	Date Extracted: 05/2	21/04				
Walnut Creek, CA 94597	Client P.O.:		I	Date Analyzed: 05/2	24/04				
Extraction Method: SW5030B	Oxygenated Vola	tile Organics by		C/MS*	Work Orde	er: 0405213			
Lab ID	0405213-003A	0405213-008A	0405213-010	A 0405213-011A					
Client ID	DP3-11.5	DP4-10	DP5-11.5	DP5-13	Reporting Limit for DF =1				
Matrix	S	S	S	S		<u> </u>			
DF	1	1	400	1	S	W			
Compound		Concentration							
tert-Amyl methyl ether (TAME)	ND	ND	ND<2000	ND	5.0	NA			
t-Butyl alcohol (TBA)	ND	ND	ND<10,000	ND	25	NA			
			 						

Surrogate Recoveries (%)

ND

ND

ND

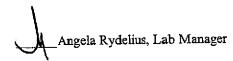
		gate Recoveries			
%SS:	100	97.5	95.6	97.5	
Comments			j		<u> </u>

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

ND

ND

ND



NA

NA

NA

5.0

5.0

5.0

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

[#] surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content.



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			1200					
Client Project ID	: #8326; Fidelity Roof	Duit Sait	Date Salar					
		Date Received: 05/	14/04					
Client Contact: I	Robert Flory	Date Extracted: 05/	Date Extracted: 05/21/04					
		Date Analyzed: 05	/24/04					
	tile Organics by P&T an	d GC/MS*						
			Work Order	: 0405213				
0405213-018A								
DP6-13								
S								
4			S	W				
	μg/Kg	ug/L						
ND<20		,	5.0	NA				
ND<100			25	NA				
ND<20			5.0	NA				
ND<20			5.0	NA				
ND<20			5.0	NA				
Suri	rogate Recoveries (%)							
93.7								
	Client Contact: I Client P.O.: Oxygenated Vola Ana 0405213-018A DP6-13 S 4 ND<20 ND<20 ND<20 ND<20 ND<20	Daysenated Volatile Organics by P&T and Analytical Method: SW8260B	Client Contact: Robert Flory Client P.O.: Date Extracted: 05/ Client P.O.: Date Analyzed: 05/ Analytical Method: SWB260B O405213-018A DP6-13 S Concentration ND<20 ND<20 ND<20 ND<20 ND<20	Date Received: 05/14/04				



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

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

[#] surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0405213

EPA Method: SW8021B	/8015Cm E	xtraction:	SW5030B		BatchID: 11546		Spiked Sample ID: 0405213-013A				
EFA Wellou. Citouzi	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High	
TPH(btex) [£]	ND	0.60	99.7	101	0.815	98.4	99.2	0.814	70	130	
MTBE	ND	0.10	94.2	93.4	0.882	89.4	94.6	5.65	70	130	
Benzene	ND	0.10	102	103	1.46	97.8	104	5.64	70	130	
Toluene	ND ND	0.10	89.2	89.6	0.425	85.9	91	5.73	70	130	
	ND ND	0.10	108	110	1.53	107	114	6.32	70	130	
Ethylbenzene	ND	0.30	100	100	0	96.3	100	3.74	70	130	
Xylenes %SS:	106	0.10	96.6	94.1	2.62	96.2	104	7.79	70	130	

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

NONE

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

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

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

[£] TPH(btex) = sum of BTEX areas from the FiD.

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or ex

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0405213

QA/QC Officer

8015Cm E	xtraction:	SW5030B		BatchID:	11538	s	piked Sampi	e ID: 04051	97-018A
- 1 1	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
ND	0.60	101	102	0.802	98.2	101	2.94	70	130
ND	0.10	92.2	107	14.5	91.8	95	3,48	70	130
.). ND	0.10	102	 111	8.50	100	106	5.48	70	130
ļ ·	0.10	89.3	92.6	3.63	87.9	92.8	5.45	70	130
	}	110	111	0.950	108	107	1.26	70	130
	i-	100	100	0	96.3	107	10.2	70	130
\	1	1		6.93	107	104	2.84	70	130
	Sample mg/Kg ND	Sample Spiked mg/Kg mg/Kg mg/Kg ND 0.60 ND 0.10 ND 0.10 ND 0.10 ND 0.10 ND 0.10 ND 0.30	Sample Spiked MS* mg/Kg mg/Kg % Rec. ND 0.60 101 ND 0.10 92.2 ND 0.10 102 ND 0.10 89.3 ND 0.10 110 ND 0.30 100	Sample Spiked MS* MSD* mg/Kg mg/Kg % Rec. % Rec. ND 0.60 101 102 ND 0.10 92.2 107 ND 0.10 102 111 ND 0.10 89.3 92.6 ND 0.10 110 111 ND 0.30 100 100	Sample Spiked MS* MSD* MS-MSD	Sample Spiked MS* MSD* MS-MSD LCS mg/Kg mg/Kg % Rec. % Rec. % RPD % Rec. ND 0.60 101 102 0.802 98.2 ND 0.10 92.2 107 14.5 91.8 ND 0.10 102 111 8.50 100 ND 0.10 89.3 92.6 3.63 87.9 ND 0.10 110 111 0.950 108 ND 0.30 100 100 0 96.3	Sample Spiked MS* MSD* MS-MSD LCS LCSD	Sample Spiked MS+ MSD+ MS-MSD LCS LCSD LCS-LCSD LCS-LCSD mg/Kg mg/Kg % Rec. % Rec. % RPD % Rec. % Rec. % RPD ND 0.60 101 102 0.802 98.2 101 2.94 ND 0.10 92.2 107 14.5 91.8 95 3.48 ND 0.10 102 111 8.50 100 106 5.48 ND 0.10 89.3 92.6 3.63 87.9 92.8 5.45 ND 0.10 110 111 0.950 108 107 1.26 ND 0.30 100 100 0 96.3 107 10.2 102 103 104 2.84 107 10.2 104 2.84 107	Sample Spiked MS* MSD* MS-MSD LCS LCSD LCS-LCSD Acceptance mg/Kg mg/Kg % Rec. % Rec. % RPD % Rec. % Rec. % RPD Low

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

NONE

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.

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

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

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

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8015C

Matrix: S

WorkOrder: 0405213

EPA Method: SW8015C	E	Extraction:	SW35500		BatchID:	11629	Spiked Sample ID: 0405339-002A				
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS % Rec.	LCSD % Rec.	LCS-LCSD	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.					% RPD	Low	High	
TPH(d)	6.87	150	89.7	89.9	0.154	99.8	98.3	1.49	70	130	
%SS:	97.8	50	100	101	1.13	104	101	2.59	70	130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

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

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or larger than analyte content.

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

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

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QC SUMMARY REPORT FOR SW8260B

Matrix: S

WorkOrder: 0405213

EPA Method: SW8260B	E	xtraction:	SW5030E	3	BatchID:	11632	S	piked Sampl	e ID: 04050	65-036A
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	µg/Kg	μg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	ND	50	90.7	83	8.89	90.2	86.2	4,45	70	130
Benzene	ND .	50	105	104	0.972	109	110	0.202	70	130
t-Butyi alcohol (TBA)	ND ND	250	90.9	95.7	5.13	96.7	82.3	16.1	70	130
Chlorobenzene	ND	50	104	103	1.11	104	102	1.25	70	130
1,2-Dibromoethane (EDB)	ND	50	106	102	4.21	106	97	8.61	70	130
1,2-Dichloroethane (1,2-DCA)	ND	50	118	109	7.39	109	97.4	11.4	70	130
1,1-Dichloroethene	ND	50	73.9	75.2	1.71	107	110	2.48	70	130
	ND	50	116	110	5.10	117	110	6.81	70	130
Diisopropyl ether (DIPE)	ND	50	102	95.8	6.14	105	94.8	9.81	70	130
Ethyl tert-butyl ether (ETBE)		50	98.4	92	6.76	97.9	87.5	11.3	70	130
Methyl-t-butyl ether (MTBE)	ND		1	110	0.75	117	117	0	70	130
Toluene	ND	50	110		1.30	88.9	90.6	1.91	70	130
Trichloroethene	ND	50	81.7	80.6			93	5.77	70	130
%SS1:	105	50	99.4	95.6	3.83	98.6	93	3.77		

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

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

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

A QA/QC Officer

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

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

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

CHAIN-OF-CUSTODY RECORD

Page I of I



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

WorkOrder: 0405213

ClientID: AEL

Report to:

Robert Flory

All Environmental, Inc. 2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

TEL: FAX: (925) 283-6000 (925) 283-6121

ProjectNo: #8326; Fidelity Roof

PO:

Bill to:

Requested TAT:

5 days

Lesliegh Alderman

All Environmental, Inc.

2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597

Date Received:

5/14/04

Date Printed:

5/21/04

Walnut Cree	k, CA 94597	PU;																			
-										R	egues	ted Te	sts (Se	e leç	jend b	elow)					
	ov	Matrix	Collection Date F	Hold	1	2	3	4		5	6	7		3	9	10	11	12	13	14	15
Sample ID	ClientSampID	Mauix	COMPONION DATE			L.—	1														
			5/13/04 9:10:00 AM	T I		Α	Α														
0405213-003	DP3-11.5	Soil	The second secon	╬		-			+-										1		
0405213-005	DP2-11.5	Soil _	5/13/04 10:15:00	<u> </u>		A_								-+				T			
0405213-007	DP4-7.5	Soil	5/13/04 12:25:00			Α										 	+			1	
0405213-008	DP4-10	Soil	5/13/04 12:30:00		A	A	A		-				+-			┼╌─				+	
0405213-010	DP5-11.5	Soil	5/13/04 11:15:00		A	Α	A				ļ <u> —</u>	-					 -	 ·		 	\top
0405213-011	DP5-13	Soil	5/13/04 11:20:00		A	A	A		+			+				ļ					\top
0405213-013	DP1-10	Soil	5/13/04 1:30:00 PM			Α						-				†				1	
0405213-016	DP6-8	Soil	5/13/04 2:30:00 PM			A						<u> </u>				 	† -	 	1	 	
0405213-018	DP6-13	Soil	5/13/04 2:40:00 PM		Α	Α	A	<u></u>			l			l.						.1	

Test Legend:

1	5-OXYS_S
6	
11	

2	G-MBTEX_S
7	
12	

3	TPH(D)_S
8	
13	

4	
9	
14	

5	
10	
15	

Prepared by: Maria Venegas

Comments:

5 oxys and tph (d) added 5/21/04 per R.F. s.t.a.t

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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	PACHEC(), CA 94553	1-5560)		04.5		0 4	: 3 2															SH	2	4 H	R		8 HE			HR	5 DAY
Telephone: (925) 798	8-1620			Fa	ıx: (925 ,	179	8-16) <i>L</i>				ED	FR	equ	ire	4? (Coe	lt (Nor	mal		Nσ		Wr	ite (On () 	Comm	
Dobort Flory		Bill	To:															Ana	lysi	s R	eque	est_	 -		_	_		<u> '</u>	Oth	er	-	Comn	ients
Report To: Robert Flory Company: AEI Consultants				ΑE	I Co	nsu	ltaı	nts						اسد					ĺ	-	ŠÝ	ļ				1	1			-			
2500 Camino Dia	blo. Suite	200										_	i	4	/B&				ļ		5/3/5/10				-	멅		ļ			١		
2500 Canada		E-N	Mail:	rflo	ry@	aelo	ons	sulte	nts	.cor	n	_	9	54.0	E&F	<u>_</u>				-	\ \ \ \ \ \		831	1		25	l	- }		- }			ŀ
Tele: (925) 944-2899 ext. 12	2	Fa	x: (9	25)	944-	289	5_							<u>ā</u>	Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)		(20)			3		625 / 8270 / 8310			Lead (7240/7421/239.2/6010) Toatal lead							
Deciont # 8326		Pro	oject	Nan	ie:	Fide	lity	Ro	of_			-1	+	3	Sc (5) SIIK		08 / :	- {	<u>}</u>	5-00		2/8		Ì	<u>@</u>		~	-	.	l		
Project Location: 1075 40	treet, Oak	land CA										-[Gas (602/8020	added So	2	ří,	æ	BTEX ONLY (By EPA 602 / 8020)		EPA 608 / 8080 PCB's ONLY	ù		62	Ì	Ì	09/2	-	TPH multi-range EPA 8015	-				
Sampler Signature:	<u>14 T.C.</u>	//	T		. –				1 1	HET	ног	\forall	(602/	<u>۱</u>	એ	ğ	EPA 601 / 8010 (8021B)	EPA		E,	EPA 624 / 8240 / 8260	Ì	EPA	Į		39.		EPA					
	^L SAMPL	AŃG		ers	ľ	MA'	[RI	X	PF	RESI	RVI	ΩD	Gas ((8015)	2	Į.	8	ĵ		8	8/0	ام	s by	SI	اور	121/2		ıge }		į			
l // l			ers	Bín		T					.			sel (jem	le le	801	LY	808	8	824	827	Ϋ́	Meta	/etal	77/0		i-rai					
SAMPLE ID LOCATION			Containers	Containers	١. ا	ĺ		. أدبه					BTEX & TPH as	TPH as Diesel	Total Petroleum Oil	eta	5	8	EPA 608 / 8080	80	24 /	EPA 625 / 8270	PAH's / PNA's by	CAM-17 Metals	CUFT 5 Metals	(724		muli			1		·
(Field Point Name)	Date	Time	Ę	e C	Water	<u>.</u>	<u>.</u> -	Sludge	[]	15	HNO,	Other	Ä	H as	tal F	直	PA 6	題	PA 6	PA (PA (A (Ħ	ΑM	Ž	pray	RCI	H.					
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002-115		0910					_	_ _	_	ļ_	ļ		X	X				-	-		X				-	-	<u> </u>		_	 '			
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Report To: Robert	riory	,	2,71,7		AEI	Co	nsul	tan	ts				_[(F)						ļ								1	.	ļ		
Company: AEI Compa	nsuranes mino Di	ablo, Suite	200				•									/B&	Ì			ļ							ן ב							
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Sampler Signature:	110	1,1	15	14	-	,				_	4 537	НО	=	Gas (602/8020	1	8	1200	21B	¥.		Bis	8		EPA 625 / 8270 / 8310			39.2		PA	,				
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SAMPLE ID (Field Point Name)	OCATION		Time	# Containers	Type Containe	er	Soil	1000			-	3		BTEX & TPH as G	TPH as Diesel (8015)	Total Petroleum Oil &	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 (8021B)	BTEX ONLY (By EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	TPH multi-range EPA 8015					•
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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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/06/04
2500 Camino Diablo, Ste. #200		Date Received: 05/07/04
	Client Contact: Robert Flory	Date Reported: 05/14/04
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 05/14/04

WorkOrder: 0405091

May 14, 2004

Dear Robert:

Enclosed are:

1), the results of 6 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 truly,



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All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/06/04
2500 Camino Diablo, Ste. #200		Date Received: 05/07/04
	Client Contact: Robert Flory	Date Extracted: 05/08/04
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 05/08/04-05/12/04

			e (C6-C12)	Volatile Hyd Analytical	rocarbons as nethods: SW80211	Gasonne wi 3/8015Cm	th BTEX and I	Work (Order: 04	105091
ab ID	method: SW5030B Client ID	Matrix	TPH(g)	мтве	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	AS1-20	S	ND	ND	ND	ND	ND	ND	1	112
005A	AS2-15	S	ND	ND	ND	ND	ND	NID	1	93.5
007A	AS2-20	S	ND	ND	ND	ND	ND	ND	1	103
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Report	ing Limit for DF =1	W	NA	NA	NA	NA	NA	NA	1	
	ans not detected at o e the reporting limit		1.0	0.05	0.005	0.005	0.005	0.005	1	mg/

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in μg/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.



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Mic	Campbell An	aiyucai, i	nc.	Website: www.i	mccampbell.com E-mail:	main@mccan	pbell.com	
All Environm	ental, Inc.	Client Proje	ct ID: #8326	; Fidelity Roof	Date Sampled:	05/06/04		
	500 Camino Diablo, Ste. #200			•	Date Received:	05/07/04		
		Client Conta	act: Robert Fl	ory	Date Extracted:	05/08/04		
Walnut Creek	:, CA 94597	Client P.O.:			Date Analyzed:	05/10/04	 	
Extraction method:		el Range (C1	0-C23) Extra Analytical m	ctable Hydrocarbo ethods: SW8015C	ns as Diesel*	W	ork Order:	
Lab ID	Client ID	Matrix		TPH(d)			DF	% SS
0405091-001A	AS1-20	s		ND			1	97.4
0405091-005A	AS2-15	S		1.4,g			i	97.8
0405091-007A	AS2-20	S		ND			1	97.5
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Reporting Limit for DF =1;	W	NA	NA
ND means not detected at or above the reporting limit	S	1.0	mg/Kg

^{*} 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.

Angela Rydelius, Lab Manager

[#] 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; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



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All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/06/04
2500 Camino Diablo, Ste. #200		Date Received: 05/07/04
2500 Camillo Diabio, Sic. #200	Client Contact: Robert Flory	Date Extracted: 05/08/04
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 05/13/04
	1 XX 1 - 40 - Owner to + EDP and 1 2-DCA h	v P&T and GC/MS*

Oxygenated	l Volatile Organ	ics + EDB and 1	,2-DCA by P&T ar	id GC/MS*	er: 0405091
Extraction Method: SW5030B	Ans	alytical Method: SW8260		work Ord	31. 0403031
Lab ID	0405091-001A	0405091-005A	0405091-007A		
Client ID	AS1-20	AS2-15	AS2-20		Limit for
Matrix	S	S	S		
DF	1	1	1	S	W
Compound		Conc	entration	µg/Кg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	5.0	NA
t-Butyl alcohol (TBA)	ND	ND	ND	2.5	NA
1,2-Dibromoethane (EDB)	ND	ND	ND	5.0	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	5.0	NA
Diisopropyl ether (DIPE)	ND	ND	ND	5.0	NA
Ethanol	ND	ND	ND	250	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	5.0	NA
Methanol	ND	ND	ND	2500	NA
Methyl-t-butyl ether (MTBE)	14	49	ND	5.0	NA
	Sur	rrogate Recover	ies (%)		
%SS:	92.2	89.3	88.2		
Comments					

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



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

[#] surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0405091

EPA Method: SW802	1B/8015Cm .E	xtraction:	SW5030E	3	BatchID:	11464	S	piked Sampl	e ID: 04050	91-001A
El A Moniou. Ovide	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) [£]	ND	0.60	97.1	100	3.41	98.8	101	2.49	70	130
мтве	ND	0.10	97.5	101	3.26	108	97.3	10.2	70	130
Benzene	ND	0.10	105	109	4.12	101	109	7.00	70	130
Toluene	ND	0.10	88.2	93.1	5.38	86.3	91.8	6.16	70	130
Ethylbenzene	ND	0.10	105	112	6.36	105	111	6.12	70	130
Xylenes	ND ND	0.30	95	100	5.13	95	96.7	1.74	70	130
%SS:	112	0.10	96.2	94.1	2.21	83.4	97.5	15.6	70	130

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

NONE

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

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

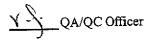
* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or exceeds 2x spike amount fo



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QC SUMMARY REPORT FOR SW8015C

Matrix: S

WorkOrder: 0405091

Extraction: SW3550C			BatchID: 11459		Spiked Sample ID: 0405091-001A				
			MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%
			% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
			109	0.698	112	111	1.02	70	130
			95.7	0.167	104	103	1.21	70	130
	Sample mg/Kg ND	Sample Spiked mg/Kg mg/Kg ND 150	Sample Spiked MS* mg/Kg mg/Kg % Rec. ND 150 108	Sample Spiked MS* MSD* mg/Kg mg/Kg % Rec. % Rec. ND 150 108 109	Sample Spiked MS* MSD* MS-MSD* mg/Kg mg/Kg % Rec. % Rec. % RPD ND 150 108 109 0.698	Sample Spiked MS* MSD* MS-MSD* LCS mg/Kg mg/Kg % Rec. % Rec. % RPD % Rec. ND 150 108 109 0.698 112	Sample Spiked MS* MSD* MS-MSD* LCS LCSD mg/Kg mg/Kg % Rec. % Rec. % RPD % Rec. % Rec. ND 150 108 109 0.698 112 111	Sample Spiked MS* MSD* MS-MSD* LCS LCSD LCS-LCSD LCS-LCSD	Sample Spiked MS* MSD* MS-MSD* LCS LCSD LCS-LCSD Acceptance mg/Kg mg/Kg % Rec. % Rec. % Rec. % Rec. % Rec. % Rec. % RPD Low ND 150 108 109 0.698 112 111 1.02 70

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

NONE

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

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

QA/QC Officer

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

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

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QC SUMMARY REPORT FOR SW8260B

Matrix: S

WorkOrder: 0405091

EPA Method: SW8260B	xtraction:	traction: SW5030B		BatchID: 11434		S	Spiked Sample ID: 0405091-001A			
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	µg/Kg	µg/Kg	% Rec.	% Rec.	% RPD	% Rec	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	ND	50	90.2	97.7	8.04	94.2	92.4	1.92	70	130
t-Butyl aicohol (TBA)	ND	250	84.5	95.6	12.4	89.9	90.8	1.03	70	130
1,2-Dibromoethane (EDB)	ND	50	107	113	5.61	108	106	2.45	70	130
1.2-Dichloroethane (1.2-DCA)	ND	50	104	112	7.77	107	107	, 0	70	130
Diisopropyl ether (DIPE)	 ND	50	113	119	5.61	116	114	1.40	70	130
Ethanol	ND	2500	98.1	100	1.95	86.2	102	16.9	70	130
Ethyl tert-butyl ether (ETBE)	ND	50	100	108	7.33	104	102	1.33	70	130
Methanol	ND	12500	91.3	99	8.03	97.1	92.8	4.52	70	130
Methyl-t-hutyl ether (MTBE)	14.42	50	66.8, F1	75.6	8.76	100	99	0.938	70	130
%SS1:	92.2	50	95.5	97	1.56	97.9	99	1.16	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

FI = MS / MSD exceed acceptance criteria, LCS - LCSD validate prep batch.

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

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

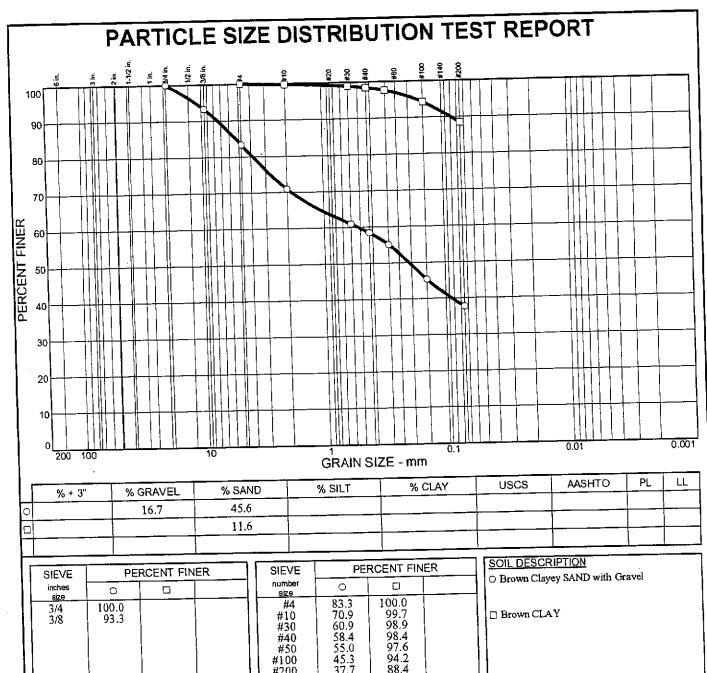
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or exceeds 2x spike amount for water matrix or exceeds 2x spike amount for exceeds 2x spike amount for water matrix or exceeds 2x spike amount for water matrix o

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

A QA/QC Officer

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

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



ſ	SIEVE	PE	RCENT FIN	ER				
	inches size	0						
	3/4 3/8	100.0 93.3						
			GRAIN SIZ	<u> </u>				
l	D ₆₀	0.526						
١	D30							
l	D ₁₀			<u>] </u>				
١	> <	COEFFICIENTS						
	Cc							
١	C _c							
ı	O Source:		-					

ı	SIEVE	, <u>F</u>	VOCIAL LIN	L 1 X
	number size	0		
	#4 #10 #30 #40 #50 #100 #200	83.3 70.9 60.9 58.4 55.0 45.3 37.7	100.0 99.7 98.9 98.4 97.6 94.2 88.4	
ı		1	1	1 .

1	REMARKS:	
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O Source:

□ Source:

Sample No.: AS2-20 Sample No.: AS2-25

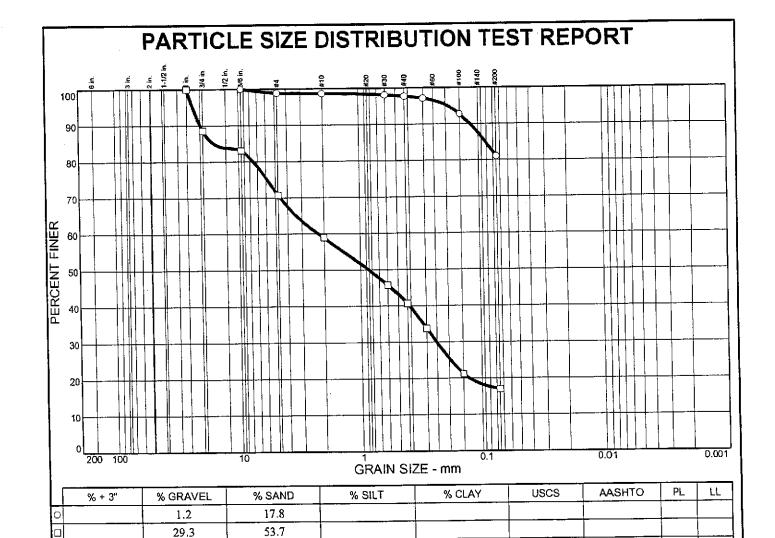
COOPER TESTING LABORATORY

Client: McCampbell Analytical

Project: AEI - 0405091

Project No.: 385-005

Figure



,								
1	SIEVE	PERCENT FINER						
	inches size	0						
	1 3/4 3/8	100.0	100.0 88.6 83.0					
			GRAIN SIZI	<u> </u> =				
ŀ	D ₆₀		2.22	Ţ				
	D ₃₀	ļ	0.250					
	₁₀ ם			. <u></u>				
l	$\geq \leq$	С	ITS					
	C _C			ļ				
ļ	Cu			_				

SIEVE	PE	RCENT FIN	ER
number size	0		
#4 #10 #30 #40 #50 #100 #200	98.8 98.6 98.1 97.7 97.1 92.7 81.0	70.7 58.9 45.7 40.7 33.8 21.2 17.0	

SOIL DESCRIPTION
O Brown CLAY with Sand

☐ Brown Silty SAND with Gravel

RE	MARKS:		

O Source:

☐ Source:

Sample No.: AS1-22 Sample No.: AS1-25

COOPER TESTING LABORATORY

Client: McCampbell Analytical

Project: AEI - 0405091

Project No.: 385-005

Figure

CHAIN-OF-CUSTODY RECORD

Page 1 of 1



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

WorkOrder: 0405091

ClientID: AEL

Report to:

Robert Flory

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 TEL:

(925) 283-6000 (925) 283-6121

FAX: ProjectNo: #8326; Fidelity Roof

Bill to:

Lesliegh Alderman

All Environmental, Inc.

2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

Requested TAT:

5 days

5/7/04

Date Received: Date Printed:

5/8/04

Walnut Cree	k, CA 94597	PO:		
Sample ID	ClientSampID	Matrix	Requested Tests (See legend below) Collection Date	14 15
0405091-001 0405091-005 0405091-007	AS1-20 AS2-15 AS2-20		5/6/04	

Test Legend:

1	9-OXYS_S
6	
11	

2	G-MBTEX_S	
7		
12		

3	TPH(D)_S
В	
13	

4	
9	

5	
10	
15	

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.

040000

CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL INC. TURN AROUND TIME 110 2nd AVENUE SOUTH, #D7 5 DAY 72 HR RUSH 24 HR 48 HR PACHECO, CA 94553-5560 Fax: (925) 798-1622 Write On (DW) No Telephone: (925) 798-1629 EDF Required? Coelt (Normal) No Comments Other Analysis Request Bill To: Report To: Robert Flory **AEI Consultants** Total Petroleum Oil & Grense (5520 E&F/B&F) Company: AEI Consultants 2500 Camino Diablo, Suite 200 Lead (7240/7421/239.2/6010) Toatal lend EPA 625 / 8270 / 8310 E-Mail: rflory@aeiconsultants.com Total Petroleum Hydrocarbons (418.1) Fax: (925) 944-2895 Tele: (925) 944-2899 ext. 122 BTEX ONLY (By EPA 602 / 8020) Project Name: Fidelity Roof Project #: 8326 EPA 608 / 8080 PCB's ONLY Project Location: 1075 40th Street, Oakland, CA TPH multi-range EPA 8015 EPA 601 / 8010 (8021B) EPA 624 / 8240 / 8260 Sampler Signature: METHOD TPH as Dieset (8015) MATRIX PAH's / PNA's by **SAMPLING** Type Containers PRESERVED CAM-17 Metals EPA 608 (8080 LUFT 5 Metals EPA 625 / 8270 Containers BTEX & TPH as SAMPLE ID LOCATION Sludge (Field Point Name) HNO, Other Other Time Date RCI HCI Soil Ice 246 0900 090 2 Hold Received By: Jenny Et Lagerten 1 Time: Religiquished By METALS OTHER VOAS O&G 00 PRESERVATION ICE/t" APPROPRIATE CONTAINERS_ GOOD CONDITION Received By: Date: / Time: Relinquished By HEAD SPACE ABSENT PERSERVED IN LAB DECHLORINATED IN LAB Received By: Relinquished By: Date: Time:



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/24/04
2500 Camino Diablo, Ste. #200		Date Received: 05/24/04
	Client Contact: Robert Flory	Date Reported: 05/28/04
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 05/28/04

WorkOrder: 0405362

May 28, 2004

Dear Robert:

Enclosed are:

1). the results of 4 analyzed samples from your #8326; Fidelity Roof project,

WW 3 DP 1,27

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 truly



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/24/04
2500 Camino Diablo, Ste. #200		Date Received: 05/24/04
	Client Contact: Robert Flory	Date Extracted: 05/25/04
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 05/25/04
		ALL MARKET LANGUAGE

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm								Work Order: 0405362					
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS			
001A	MW-3	w	67,000,a,h	ND<500	6900	550	2900	12,000	100	110			
002A	DP-1	w	1400,m	ND<10	0.86	2.8 3.1		3.3	1	106			
003A	DP-2	w	1200,a	ND	30	1.1	11	25	1	100			
004A	DP-3	W	1800,a	180	14	2.3	ND	9.7	1	87.4			
									-				
			4.1										
1													
		<u> </u>		!						+			
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!										-			
<u> </u>									-				
					0.5	0.5	0.5	0.5	1	μg/l			
ND mear	ig Limit for DF =1; is not detected at or the reporting limit	W S	50 NA	5.0 NA	0.5 NA	NA NA	NA NA	NA NA	1	mg/k			

above the reporting limit	S	NA I	NA	NA NA	NA	NA	NA _	i ing
* water and vapor samples an	d all TCI	P & SPLP extra	cts are reported in	ug/L, soil/sludge	e/solid samples in	mg/kg, wipe sa	mpies in µg/wip	ie,

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

product/oil/non-aqueous liquid samples in mg/L.

⁺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.



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

			Website: www.mccampbell.com E-mail: main@mccampbell.com								
All Environment	tal, Inc.	Client Project ID: #8	326; Fidelity Roof	Date Sampled:	05/24/04						
2500 Camino Di	iablo, Ste. #200			Date Received:	05/24/04						
		Client Contact: Rober	t Flory	Date Extracted:	05/24/04						
Walnut Creek, C	CA 94597	Client P.O.:		Date Analyzed:	05/27/04						
		l Range (C10-C23) Ex	tractable Hydrocarbo	ns as Diesel*	W	ork Order:	0405362				
extraction method: SW			cal methods: SW8015C TPH(d)			DF	% SS				
Lab ID	Client ID	Matrix	Irn(u)				/8 00				
0405362-001B	MW-3	w	40,000,d,b	,h		50	106				
					<u> </u>						
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	<u> </u>										
						 					
							 				
							 				
					<u></u>		-				
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						-					
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		·									
Reporting	Limit for DF =1;	w	50			_	μg/L				
ND means	not detected at or reporting limit	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.

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

Matrix: W

WorkOrder: 0405362

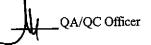
EPA Method: SW80	21B/8015Cm E	xtraction:	SW5030B	3	BatchID:	11634	S	Spiked Sample ID: 0405353-002A					
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (
	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High			
TPH(btex) [£]	ND	60	105	104	1.23	104	103	0.360	70	130			
МТВЕ	ND	10	116	116	0	105	105	0	70	130			
Benzene	ND	10	113	113	0	110	108	1.70	70	130			
Toluene	ND	10	108	109	0.318	116	101	14.3	70	130			
Ethylbenzene	ND	10	114	114	0	114	111	3.01	70	130			
Xylenes	ND	30	103	100	3.28	100	100	0	70	130			
%SS:	101	10	107	108	0.442	104	104	0	70	130			

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

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

N/A = not 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.



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

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

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.



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 SW8015C

Matrix: W

WorkOrder: 0405362

EPA Method: SW8015C	E	xtraction:	SW35100	2	BatchID:	11627	Spiked Sample ID: N/A					
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria			
	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High		
TPH(d)	N/A	7500	N/A	N/A	N/A	104	103	1.37	70	130		
%SS:	N/A	2500	N/A	N/A	N/A	104	102	1.32	70	130		

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

NONE

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

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

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

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

_QA/QC Officer

CHAIN-OF-CUSTODY RECORD

of 1

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

WorkOrder: 0405362

ClientID: AEL

Report to:

Robert Flory

All Environmental, Inc.

2500 Camino Diablo, Ste. #200

Walnut Creek, CA, 94597

TEL:

(925) 283-6000 (925) 283-6121

FAX: ProjectNo: #8326; Fidelity Roof

PO:

Bill to:

Date Received:

Requested TAT:

5 days

Lesliegh Alderman

All Environmental, Inc.

2500 Camino Diablo, Ste. #200

Date Printed:

5/24/04

Walnut Creek, CA 94597

5/24/04

Walnut Creek	C, CA 94591	,																		
										Requ	ested	Test	s (See	legend	below					
Sample ID	ClientSamplD	Matrix	Collection Date	Hold	1	2	3	4	5	6		7	8	9	10	1	12	13	14	15
			^^		T	· •				Т-	-					 \neg				
0405362-001	MW-3	Water	5/24/04		A	A	B		+ -	_			 	-		 				
0405362-002	DP-1	Water	5/24/04		A		<u> </u>	ļ	<u> </u>		+		┿┈┈	_		 				
0405362-003	DP-2	Water	5/24/04		A						-+		 -			 				11.
0405362-003	DP-3	Water	5/24/04		Α		<u> </u>		<u>. </u>				<u> </u>		<u> </u>	 				

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT
7	
12	

3	TPH(D)_W
8	
13	

4	
9	
14	

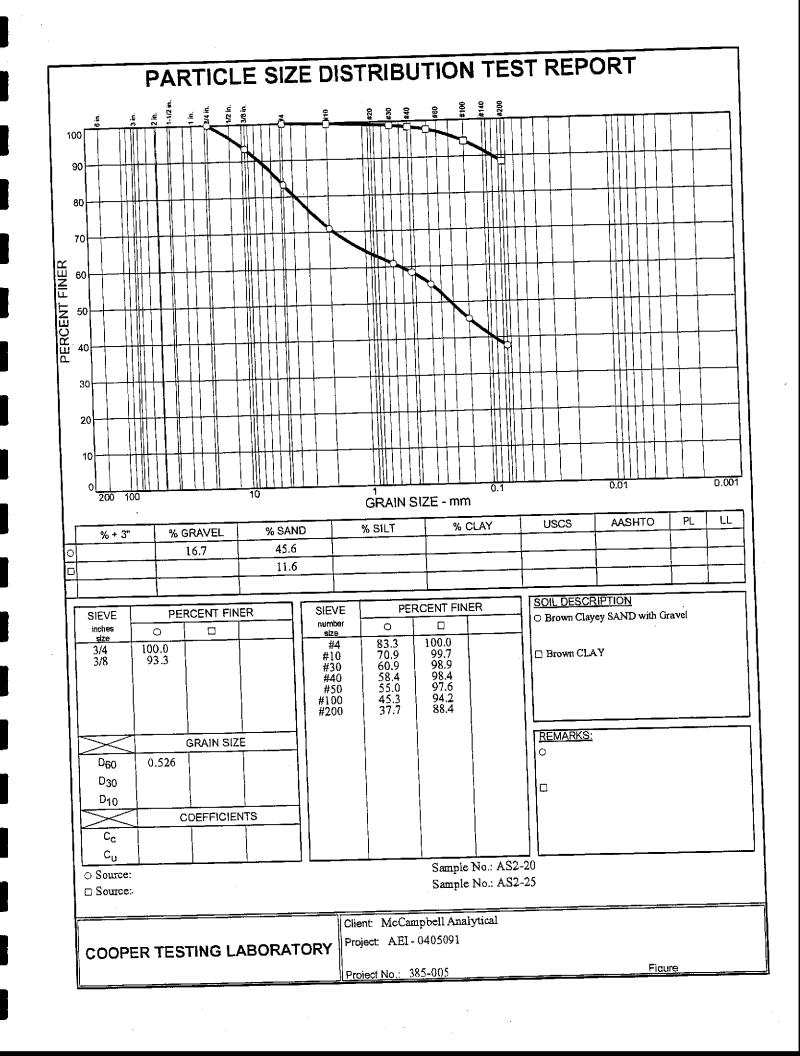
5	
10	
15	

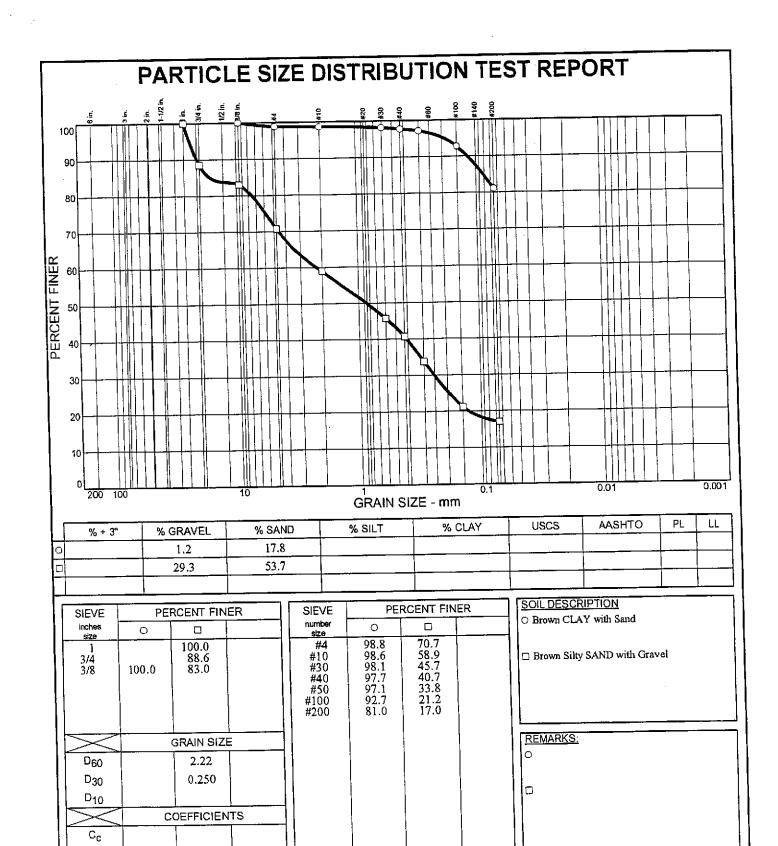
Prepared by: Melissa Valles

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.

CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL INC. TURN AROUND TIME 110 2nd AVENUE SOUTH, #D7 5 DAX 48 HR 72 HR 24 HR RUSH PACHECO, CA 94553-5560 Fax: (925) 798-1622 Write On (DW) EDF Required? Coelt (Normal) Telephone: (925) 798-1620 Nσ Comments Other Analysis Request Bill To: Report To: Robert Flory **AEI Consultants** Total Petroleum Oil & Grease (5520 E&F/B&F) Company: AEI Consultants 2500 Camino Diable, Suite 200 Lead (7240/7421/239.2/6010) Toatal lead PAH's / PNA's by EPA 625 / 8270 / 8310 E-Mail: rflory@seiconsultants.com Total Petroleum Hydrocarbons (418.1) Fax: (925) 944-2895 Tele: (925) 944-2899 ext. 122 BTEX ONLY (By EPA 602 / 8020) Project Name: Fidelity Roof Project #: 8326 EPA 608 / 8080 PCB's ONL Y TPH multi-range EPA 8015 Project Location: 1075 40th Street, Oakland, CA EPA 601 / 8010 (8021B) Sampler Signature: 1/100 40 EPA 624 / 8240 / 8260 METHOD TPH as Diesel (8015) MATRIX **SAMPLING** PRESERVED CAM-17 Metals EPA 625 / 8270 EPA 608 / 8080 SAMPLE ID LOCATION Sludge BTEX & Water (Field Point Name) Other HNO, Other Time Date HC RCI Soil g PM MW-3 Va PIM 3 Pin Received By: VOAS O&G METALS OTHER Time: Relinquished By: Date: PRESERVATION **3** 26.0 D/M APPROPRIATE GOOD CONDITION Received By: Relinguished By: CONTAINERS HEAD SPACE ABSENT PERSERVED IN LAB DECHLORINATED IN LAB Received By: Time: Date: Relinquished By:





○ Source:

Sample No.: AS1-22 Sample No.: AS1-25

COOPER TESTING LABORATORY

Client: McCampbell Analytical

Project: AEI - 0405091

Project No.: 385-005

Figure



VETI MW-7 110 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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/20/04
2500 Camino Diablo, Ste. #200		Date Received: 05/20/04
Walnut County CA 04507	Client Contact: Robert Flory	Date Reported: 05/25/04
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 05/25/04

WorkOrder: 0405319

May 25, 2004

Dear Robert:

Enclosed are:

- 1). the results of 4 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 trul



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/20/04
2500 Camino Diablo, Stc. #200		Date Received: 05/20/04
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 05/20/04-05/21/04
Wallut Olock, Ort 94397	Client P.O.:	Date Analyzed: 05/20/04-05/21/04

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

	Gasol	ine Ran	ge (C6-C12)	Volatile Hyd	rocarbons as	Gasoline wi	th BTEX and	MTBE*		
Extraction	method: SW5030B			Analytical r	nethods: SW8021	B/8015Cm		Work (Order: 0	405319
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% S
001A	VE\$1	A	16,000,a	ND<90	14	60	ND<5.0	25	20	112
002A	MW3	A	140,000,a	1400	1800	280	330	1200	40	119
003A	VE\$1-2	A	96,a	ND	ND	0.45	ND	0.23	1	113
004A	MW-3-2	A	150,000,a	ND<2000	1500	310	440	1600	40	103
										<u> </u>
							-		-	
			<u> </u>							
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		ļ								<u> </u>
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	.									<u> </u>
									-	
	; Limit for DF =1;	A	25	2.5	0.25	0.25	0.25	0.25	1	μg/
	not detected at or	<u>s</u>	NΔ	NΔ	NΔ	NΔ	NΔ	NΔ	1	ma/l

means not detected at or	A	23	2.3	0.25	0.23	0.23	0.23	1 1	hR.r.
 bove the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg
 							<u> </u>		

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in µg/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?; c) 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.

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A

WorkOrder: 0405319

EPA Method: S	SW8021B/8015Cm	Extraction:	SW5030B	i	BatchID:	11609	s			
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) [£]	N/A	60	N/A	N/A	N/A	106	103	3.04	70	130
МТВЕ	N/A	10	N/A	N/A	N/A	105	106	1.39	70	130
Benzene	N/A	10	N/A	N/A	N/A	106	108	1.59	70	130
Toluene	N/A	10	N/A	N/A	N/A	107	107	0	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	110	110	0	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	100	0	70	130
%SS:	N/A	10	N/A	N/A	N/A	102	103	0.775	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

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

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

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

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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

CHAIN-OF-CUSTODY RECORD

1 of 1

WorkOrder: 0405319

ClientID: AEL

Report to:

Robert Flory

All Environmental, Inc.

2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597

TEL: FAX: (925) 283-6000

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

PO:

Bill to:

Requested TAT:

5 days

Lesliegh Alderman

All Environmental, Inc.

Walnut Creek, CA 94597

2500 Camino Diablo, Ste. #200

Date Received: Date Printed:

5/20/04

5/20/04

				i								Req	lues	ted T	ests	(See I	egend	below)						
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3		4	I	5		6	7		8	9	10	11		12	13	14	15
0405319-001	VES1	Air	5/20/04 10:15:00		A	Γ	Ţ								Т						<u>_</u>		_	
0405319-002	MW3	Air	5/20/04 10:15:00		Α		i	+	-	\top				1			† · · · · ·		-	十			1	+
0405319-003	VES1-2	Аіг	5/20/04 2:00:00 PM		Α							1		1	\dashv		·	1				·· · ·	 	+
0405319-004	MW-3-2	Air	5/20/04 2:16:00 PM		Α		1					\top							† —					_

Test Legend:

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Prepared by: Melissa Vailes

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.

all

0405319

	McCAMPBELL ANALYTICAL INC. 110 2nd AVENUE SOUTH, #D7							T	CHAIN OF CUSTODY RECORD										/														
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Tele: (925) 944-2	899 ext. 1	22/			925)								SOLSYMTRE		520	118		ନ୍ଥ				ŀ	EPA 625 / 8270 / 8310	ļ		Toatal lead	- 1						,
Project #: 8326	1000 100	1			t Nan	ne:	Fide	uty	Koc)1			┨╶	-	ie (5	7) SEE		/ 80	ı	>			8				- 1		Ì				
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	//	SAMPI	LING	/p	Containers		/AT	RL	K		ESEI		Gas (602/8020	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 (8021B)	BTEX ONLY (By EPA 602 / 8020)		EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260		à	20		Lead (7240/7421/239.2/6010)		TPH multi-range EPA 8015					
SAMPLE ID	4			Containers	iğ.		ı								lem	jenu	803	LY (EPA 608 / 8080	808	824(EPA 625 / 8270	PAH's / PNA's by	CAM-17 Metals	LUFT 5 Metals	774	ı						
(Field Point Name)	LOCATION		Time	ıtai	S	<u>, </u>		9				e .	֓֞֞֞֞֜֞֓֓֓֓֓֞֜֞֜֓֓֓֓֓֞֜֞֜֓֓֓֓֡֓֡֡֡֡֡֡֡֡֡	2	E	E S	<u>10</u>	ð	/80	80	24/	23/	<u>e</u>	17.1	5 M	724		Ħ.		ŀ			
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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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/21/04
2500 Camino Diablo, Ste. #200		Date Received: 05/21/04
	Client Contact: Robert Flory	Date Reported: 05/27/04
Walnut Creek, CA 94597	Client P.O.:	Date Completed: 05/27/04

WorkOrder: 0405345

May 27, 2004

Dear Robert:

Enclosed are:

1). the results of 4 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



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

All Environmental, Inc.	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/21/04
2500 Camino Diablo, Ste. #200		Date Received: 05/21/04
2500 Camino Diaolo, Sic. #200	Client Contact: Robert Flory	Date Extracted: 05/21/04-05/27/04
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed: 05/21/04-05/27/04

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

E-t-nation :	method: SW5030B	HE KAHE	;e (CU-C12)	Analytical n		Work Order: 0405345							
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Вепгеепе	Toluene	Ethylbenzene	Xylenes	DF	% SS			
001A	MW-3-3-1	A	83,000,a	ND<1000	1100	110	ND<50	110	200	108			
002A	DP3-1	A	150,a	ND	ND	2.0	0.60	1.5	1	#			
003A	MW-3-3 -2	A	74,000,a	590	1000	160	120	380	100	90.5			
004A	DP3-2	A	490,a	ND	7.4	1.8	4.4	16	1	114			
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			<u> </u>			0.25	0.25	0.25	1	μg/I			
ND mea	ing Limit for DF =1; ins not detected at or the reporting limit		25 NA	2.5 NA	0.25 NA	0.25 NA	0.25 NA	NA	1				

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in µg/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.

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

Matrix: A

WorkOrder: 0405345

EPA Method:	SW8021B/8015Cm	Extraction:	SW5030E	3	BatchID:	11634	S	piked Sampl	e ID: N/A	
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)
	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) £	N/A	60	N/A	N/A	N/A	104	103	0.360	70	130
MTBE	N/A	10	N/A	N/A	N/A	105	105	0	70	130
Benzene	N/A	10	N/A	N/A	N/A	110	108	1.70	70	130
Toluene	N/A	10	N/A	N/A	N/A	116	101	14.3	70	130
Ethylbenzene	N/A	10	N/A	N/A	N/A	114	111	3.01	70	130
Xylenes	N/A	30	N/A	N/A	N/A	100	100	0	70	130
%SS:	N/A	10	N/A	N/A	N/A	104	104	0	70	130

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

NONE

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

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

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

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

Matrix: A

WorkOrder: 0405345

EPA Method:	SW8021B/8015Cm	Extraction:	SW5030B	}	Batch1D:	11609	Spiked Sample ID: N/A								
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)					
	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High					
TPH(btex) [£]	N/A	60	N/A	N/A	N/A	106	103	3.04	70	130					
MTBE	N/A	10	N/A	N/A	· N/A	105	106	1.39	70	130					
Benzene	N/A	10	N/A	N/A	N/A	106	108	1.59	70	130					
Топиете	N/A	10	N/A	N/A	N/A	107	107	0	70	130					
Ethylbenzene	N/A	10	N/A	N/A	N/A	110	110	0	70	130					
Xylenes	N/A	30	N/A	N/A	N/A	100	100	0	70	130					
%SS:	N/A	10	N/A	N/A	N/A	102	103	0.775	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

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.



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

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

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

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

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.



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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0405345

ClientID: AEL

Report to:

Robert Flory

All Environmental, Inc.

2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597

TEL:

(925) 283-6000

FAX:

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

PO:

Bill to:

Requested TAT:

5 days

Lesliegh Alderman

All Environmental, Inc.

2500 Camino Diablo, Ste. #200

Walnut Creek, CA 94597

Date Received:

5/21/04

Date Printed: 5/21/04

										Reques	ted Tes	ts (See I	egend l	pelow)					
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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0405345-002	DP3-1	Air	5/21/04 10:40:00		Α								<u> </u>	ļ .					
0405345-003	MW-3-3-2	Air	5/21/04 12:30:00		Α			ļ			_				<u> </u>	1			\perp
0405345-004	DP3-2	Air	5/21/04 1:00:00 PM	1	Α									<u></u>	1			<u></u>	

Test Legend:

1 G-MBTEX_AIR	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Prepared by: Maria Venegas

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 ANA	LYTICA	L. IN	C.								\mathbf{C}	HA	\mathbf{II}	10)F	Cl	$\mathbf{J}\mathbf{S}$	T(ЭD	Y	RI	EC		RD		W .
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Website: www.mccampbell.com En	an: main@ine Fo	ссатрвеі ах: (925)	1.com 798-1	622			ED)F R	equ	ired	!? C	oelt	(N	orm	al)	N	0	W	rite	On	ω.	** <i>)</i>				
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2500 Camino theblo , 5te	E-Mail:						8015%MTBE		(5520 E&F/B&F)	a							İ		625 / 8270 / 8310							for Metals
Worlant Creek, CA Tele: (975) 944-2879	E-Man.) Odel	7	89	4		S)/N		ξ.Ε.	418	1			1					707							analysis:
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SAMPLE ID (Field Point Name) LOCATION Date Time	# Containers Type Containers		u,				х трн	TPH as Diesel (8015)	Total Petroleum Oil	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)			ı	
(Field Point Name) Date Time		Water Soil Air	Sludge	ICE	HCL	Other	BTEX &	На	ta l	ם	2A 6	LEX	PA (š	A A	PA	PA	PA	ΑH	AM	ħ	ead	Ì]		
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