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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

Alameda County
JUL 21 2005
Environmental Health

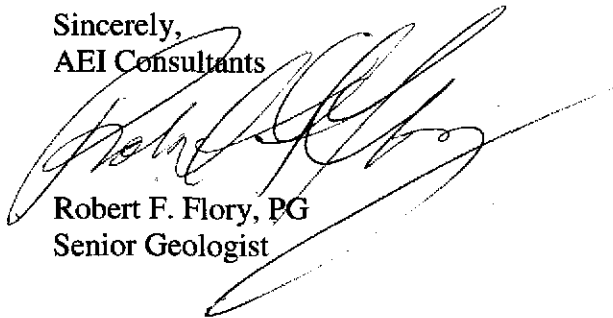
Dear Chan:

Here is the hard copy of the Pilot Test Report. The sediments beneath the site are fairly tight. MW-3 de-waters rather rapidly when purged. Before the system described can be installed, the LNAPL needs to be removed. This could be done by starting up pump and treat system on MW-3 before start up of the vapor extraction. Air sparging would follow to complete the cleanup.

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 21 2005
Environmental Health

**SOIL VAPOR EXTRACTION
AND
AIR SPARGE PILOT TEST REPORT**

1075 40th Street
Oakland, California

AEI Project No.8326

Prepared For

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Prepared By

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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.

(5/24/04)
Following
VR Testing

7.2 Findings

None of the soil samples analyzed from 20-foot bgs from air sparge wells AS-1 and AS-2 contained hydrocarbons above laboratory detection limits, however sample AS1-20 contained MTBE at 14 µg/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 µg/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 and DP-3 reported TPH-g ranging from 1,200 µg/L to 67,000 µg/L. BTEX was reported in all samples and MTBE was reported at 1,800 µg/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 µg/L, 10 µg/L and 5.0 µg/L, respectively. Refer to Tables 3, 4 and 5 for summaries of the analytical results. Copies of the analytical reports and chain-of-custody forms 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						
	Inches H ₂ O	cfm						
Pressure/Vacuum Inches H ₂ O								
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	Flow cfm	PID ppm	DP-2	DP-3	DP-4	MW-2	VES-1
	Vacuum Inches H ₂ O						Vacuum Inches H ₂ O	
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						
	PSI	cfm						
			Pressure					
			Inches H ₂ O					
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	0.08

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		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	VES-1
	Pressure	Flow										
	PSI	(cfm)										
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-1 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 Pressure (in H2O)	Flow (cfm)	DP-1 Pressure (in H2O)	DP-3 (in H2O)	DP-4 (in H2O)	DP-5 (in H2O)	DP-6 (in H2O)	MW-1 (in H2O)	MW-2 (in H2O)	MW-3 (in H2O)	VES-1 (in H2O)	AS1 (in H2O)
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 µg/L and 83,000 µg/L respectively. The complete results of the air samples are summarized on Table 6.

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

Time	AS-1		DP-1 Inches water	DP-2	DP-3	Pressure					
	Pressure PSI	Flow cfm				DP-4	DP-5	DP-6	MW-1	MW-2	MW-3
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									
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						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 In. water	Flow (cfm)										Pressure Inches of water
11:15	36	6.4	0.32	0.015	1.7	0.17	0.01	0.15	0	19	-50/0.321 cfm	
11:30	36	6.4	0.32	0.015	1.5	0.17	0.01	0.15	0	19	-50/0.305	
12:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	17	-50/0.353	
12:30	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50/0.412	
13:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50/0.431	
	Vac on DP-3				DP-3 sampled 13:00							
13:10	36	6.4	0.32	0.015	-20/0.20 cfm	0.17	0.01	0.15	0	15	-50/0.425	
13:12	36	6.4	0.32	0.015	-20/0.18	0.17	0.01	0.15	0	15	5	
13:30	36	6.4	0.32	0.015	-20/0.16	0.17	0.01	0.15	0	15	10	
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-1 contained TPH-g, MTBE and Benzene concentrations of 140,000 µg/L, 1,400 µg/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 final 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

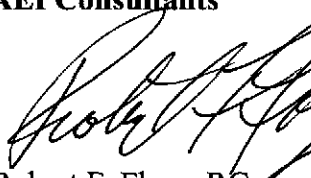
1. Phase II Soil and Groundwater Investigation Report, October 7, 1996, prepared by AEI.
2. Excavation and Disposal of Contaminated Soil Report, January 7, 1997, prepared by AEI.
3. Phase II Subsurface Investigation Report, May 30, 1997, prepared by AEI.
4. Phase II Subsurface Investigation Report, December 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

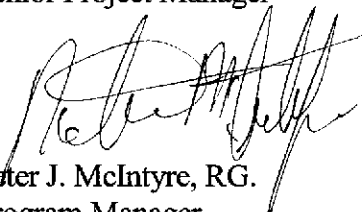
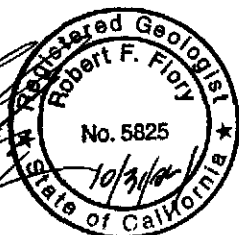
This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it 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.

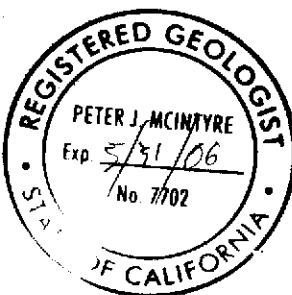
Sincerely,
AEI Consultants

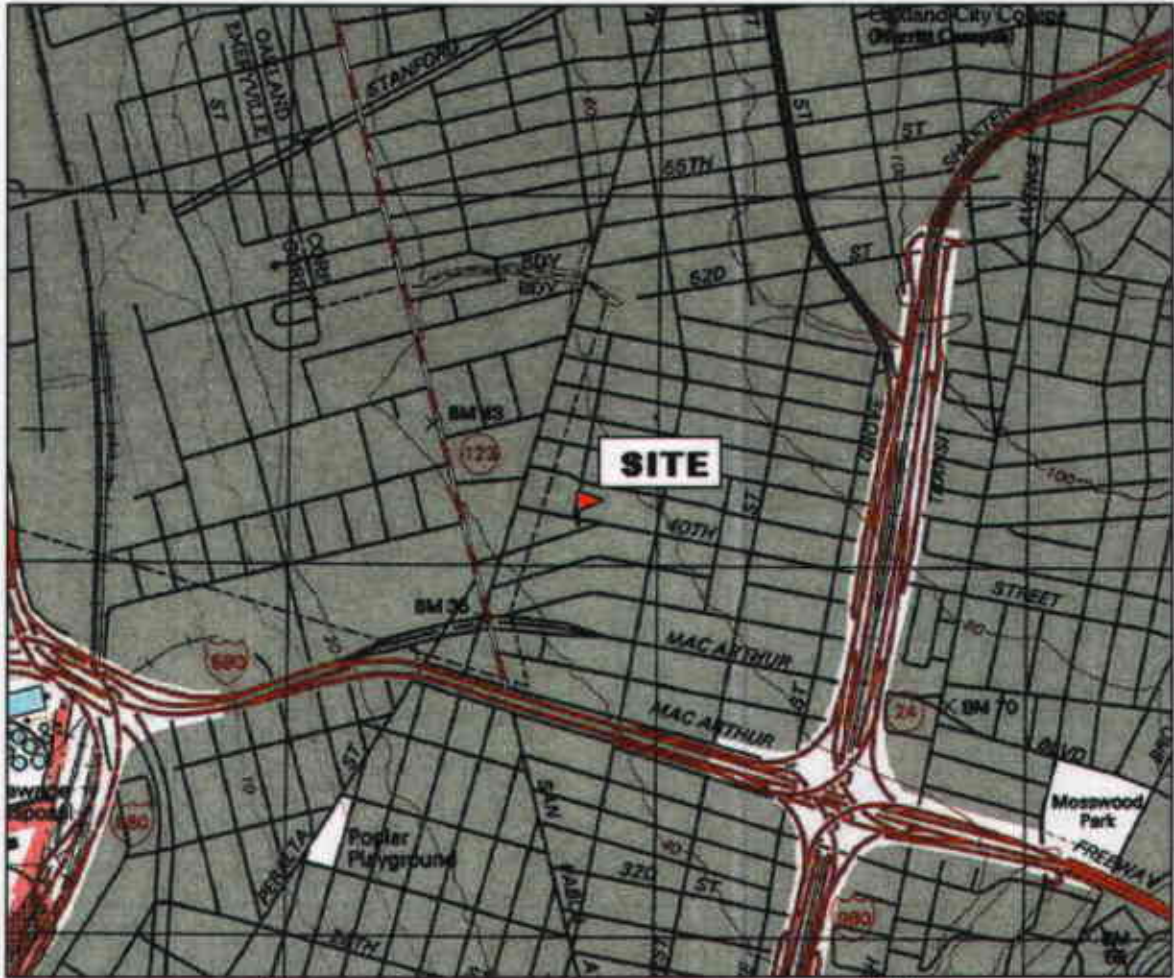


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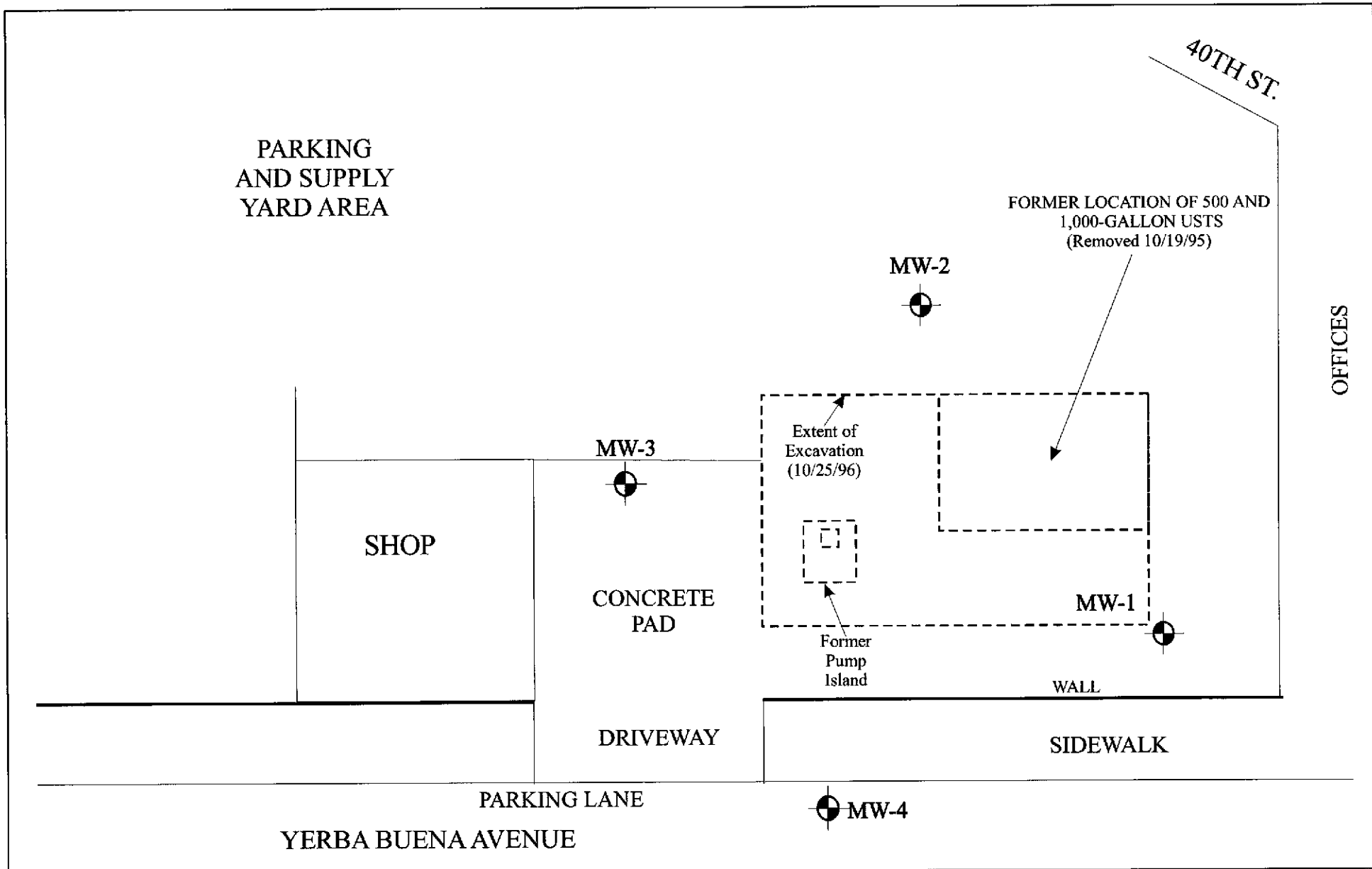




TN* / MN
15°

0 1000 FEET 0 500 1000 METERS 1 MILE
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AEI CONSULTANTS	
SITE LOCATION MAP	
1075 40 th STREET OAKLAND, CALIFORNIA	FIGURE 1 PROJECT NO. 8326



LEGEND

 Monitoring Well

Scale: 1" = 20'
 0 10 20

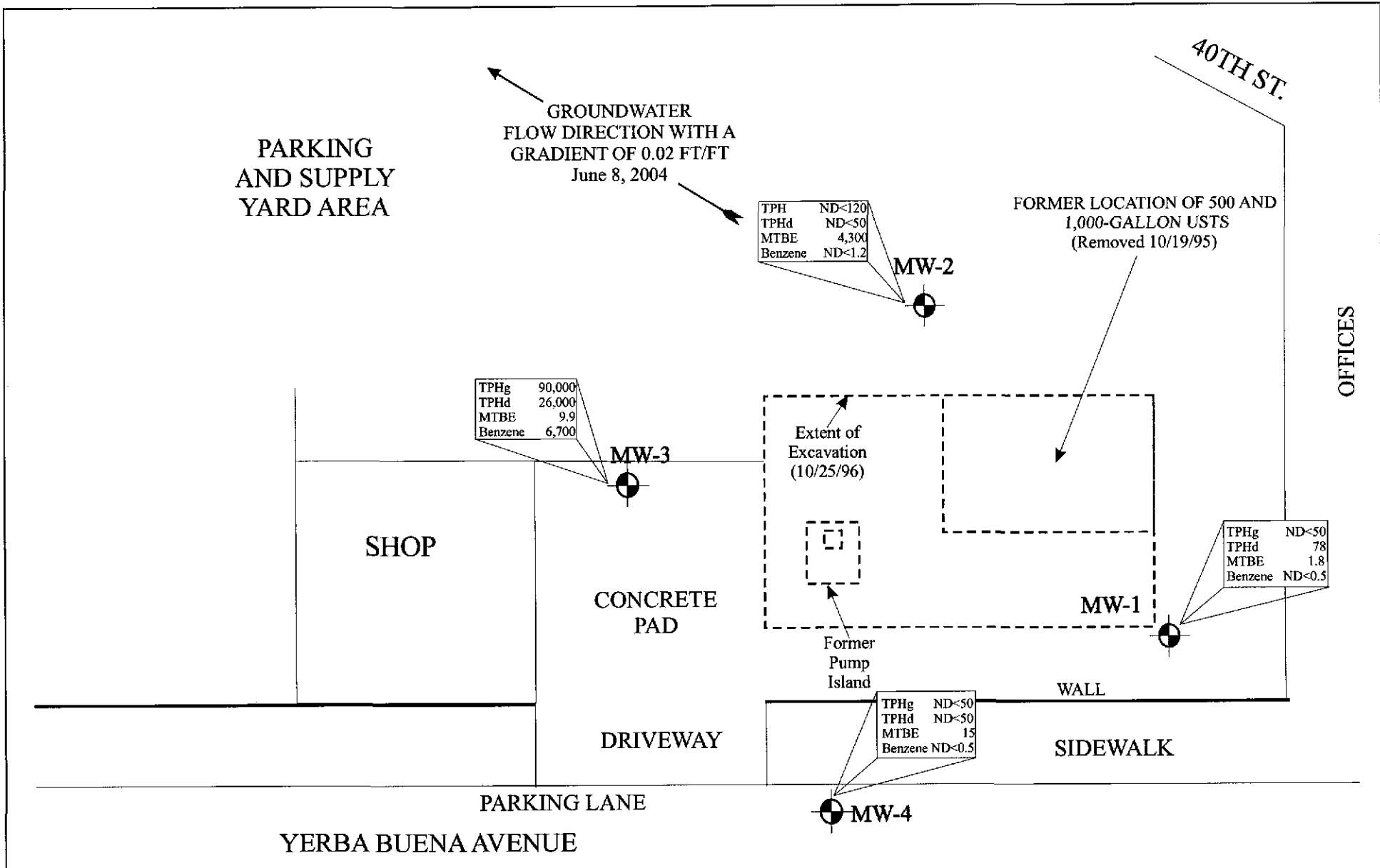


AEI CONSULTANTS
 2500 Camino Diablo, Suite 100, Walnut Creek, CA

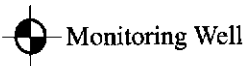
SITE MAP

1075 40TH STREET
 OAKLAND, CALIFORNIA

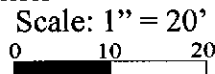
FIGURE 2
 Project: 8326



LEGEND



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



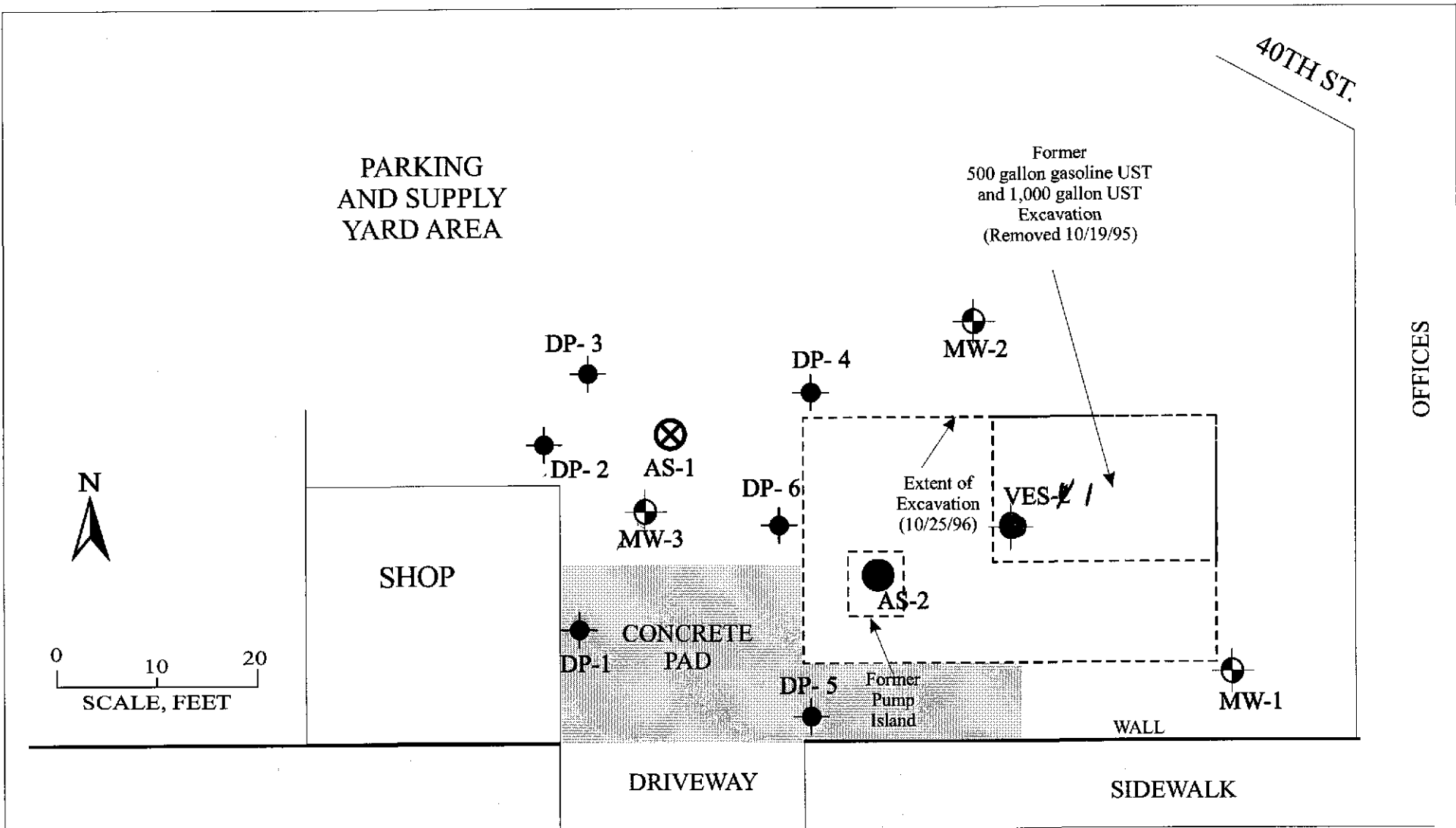
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2500 Camino Diablo, Suite 100, Walnut Creek, CA

DISSOLVED HYDROCARBON MAP

1075 40TH STREET
 OAKLAND, CALIFORNIA

FIGURE 3
 Project: 8326



-  Groundwater Monitoring Well
-  VES Well
-  Shallow DP Well
-  AS Well

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2500 CAMINO DIABLO, SUITE 100, WALNUT CREEK, CA	
AS/VES/DP WELL LOCATION MAP	
1075 40TH STREET OAKLAND, CALIFORNIA	FIGURE 4 PROJECT NO. 8326

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

Well ID	Date Drilled	Elevation (ft msl)	Water Depth 03/08/04 (ft)	Boring Depth (ft)	Slotted Casing (ft)	Slot Size (in)	Blank Casing (ft)	Sand Interval (ft)	Sand Size	Bentonite Interval (ft)	Grout Interval (ft)
MW-1	03/06/97	45.41	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

Notes:

All well elevations are measured from the top of the casing and
ft msl = feet above mean sea level

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

Well ID	Date	Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-1	03/19/97	45.41	8.25	37.16
	06/20/97	45.41	9.10	36.31
	10/08/97	45.41	9.95	35.46
	01/16/98	45.41	7.57	37.84
	08/05/99	45.49	10.16	35.33
	11/18/99	45.49	8.52	36.97
	02/24/00	45.49	7.65	37.84
	05/24/00	45.49	8.47	37.02
	08/29/00	45.49	10.28	35.21
	01/12/01	45.49	8.50	36.99
	04/18/01	45.49	8.77	36.72
	07/27/01	45.49	10.50	34.99
	11/06/01	45.49	10.28	35.21
	02/13/02	45.49	8.47	37.02
	05/14/02	45.49	9.50	35.99
	08/15/02	45.49	10.39	35.10
	11/14/02	45.49	9.08	36.41
	02/12/03	45.49	8.36	37.13
	05/16/03	45.49	8.49	37.00
	08/29/03	45.49	9.91	35.58
12/02/03	45.49	8.88	36.61	
03/08/04	45.49	7.66	37.83	
	06/08/04	45.49	9.39	36.10
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 (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-3	03/19/97	44.32	7.59	36.73
	10/08/97	44.32	9.98	34.34
	06/20/97	44.32	8.36	35.96
	01/16/98	44.32	9.18	35.14
	08/05/99	44.37	10.56	33.81
	11/18/99	44.37	10.92	33.45
	02/24/00	44.37	8.49	35.88
	05/24/00	44.37	8.42	35.95
	08/29/00	44.37	12.00	32.37
	01/12/01	44.37	10.50	33.87
	04/18/01	44.37	9.50	35.22
	07/27/01	44.37	11.61	32.76
	11/06/01	44.37	11.73	32.64
	02/13/02	44.37	9.36	35.01
	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

Notes:

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

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

Well ID	Date	Depth to Water (ft)	TPHg (ug/L)	TPHd (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (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	160	ND<5.0	14	0.82	3.5	1.6
	05/24/00	8.47	1,300	480	ND<10	93	ND<0.5	17	1.6
	08/29/00	10.28	120	<0.5	ND<5.0	0.93	ND<0.5	ND<0.5	ND<0.5
	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	46	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<0.5
	11/06/01	12.21	ND<100	ND<50	3,000	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/13/02	7.98	54	ND<50	3,200	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/14/02	10.48	ND<150	ND<50	3,800	4.8	<1.0	<1.0	<1.0
	08/15/02	10.64	ND<50	ND<50	2,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/14/02	11.69	ND<120	ND<50	3,800	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	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<1.0	
03/08/04	8.41	ND<250	ND<50	4,600	ND<2.5	ND<2.5	ND<2.5	ND<2.5	
06/08/04	10.19	ND<120	ND<50	3,400	ND<1.2	ND<1.2	ND<1.2	ND<1.2	

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

Well ID	Date	Depth to Water (ft)	TPHg (ug/L)	TPHd (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (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	---	64,000 ⁴	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<0.5
	11/18/99	8.11	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/24/00	5.19	ND<50	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/24/00	7.23	120	140	31	1.3	ND<0.5	ND<0.5	ND<0.5
	08/29/00	9.04	ND<50	ND<50	22	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/12/01	6.40	ND<50	81	25	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/18/01	7.30	30	170	35	2.4	1.1	0.66	4.2
	07/27/01	9.16	87	110	26	1.8	ND<0.5	2	10
	11/06/01	9.03	200	59	21	4.5	1	5.2	24
	02/13/02	6.60	ND<50	91	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/14/02	7.19	260	140	26	12	2.7	11	49
	08/15/02	8.97	ND<50	ND<50	12	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/14/02	7.52	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/12/03	6.37	170	130	16	3.1	0.66	6.4	27
	05/16/03	6.81	ND<50	60	23	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/29/03	8.56	610	120	10	16	2.7	30	130
	12/02/03	6.02	ND<50	ND<50	7.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5
03/08/04	5.75	ND<50	ND<50	10	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
06/08/04	8.19	ND<50	ND<50	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	

Notes:

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 ID	Sample Depth (ug/L)	Date (ft)	TPHg (ug/L)	TPHd (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes
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 ¹	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 ²	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

Notes:

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 recognizable 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 ID	Sample Depth (µg/kg)	Date (µg/kg)	TAME (µg/kg)	TBA (µg/kg)	EDB (µg/kg)	1,2-DCA (µg/kg)	DIPE Method 8260 (µg/kg)	Ethanol (µg/kg)	ETBE (µg/kg)	Methanol (µg/kg)	MTBE (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		ND<20	ND<100	NA	NA	ND<20	NA	ND<20	NA	ND<20

Notes:

(µg/kg) micrograms per kilogram

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 (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)	Comments
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	1.8	4.40	16	VE/sparge

Notes:

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 Minutes	VES-1		DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	(in H2O)
		Pressure (in H2O)	Flow (cfm)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	
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	
10:10	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	
10:39	0:31	-15	1.4	1.25	0.0	0.00	0.00	0	6	0.00	
10:41	0:33	-15	1	1.25	0.0	0.00	0.00	0	6	-0.10	
10:43	0:35	-15	2	1.25	0.0	0.00	0.00	0	6	-0.12	
10:48	0:40	-50	5	1.25	0.0	-0.01	0.00	0	5.5	-1.10	making water flow rate estimated
10:49	0:41	-50	5	1.25	0.0	-0.02	0.00	0	5.4	-1.14	
10:58	0:50	-50	5	1.25	0.0	-0.02	0.00	0	5.3	-1.25	
11:00	0:52	-50	5	1.25	0.0	-0.02	0.00	0	5	-1.25	
11:10	1:02	-50	5	1.25	0.0	-0.02	0.00	0	4.5	-1.25	
11:20	1:12	-50	5	1.10	0.0	-0.02	0.00	0	4	-1.25	
11:22	1:14	-50	5	1.10	0.0	-0.02	0.00	0	3	-1.20	
11:25	1:17	-50	5	1.10	0.0	-0.02	0.00	0	2.5	-1.20	

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

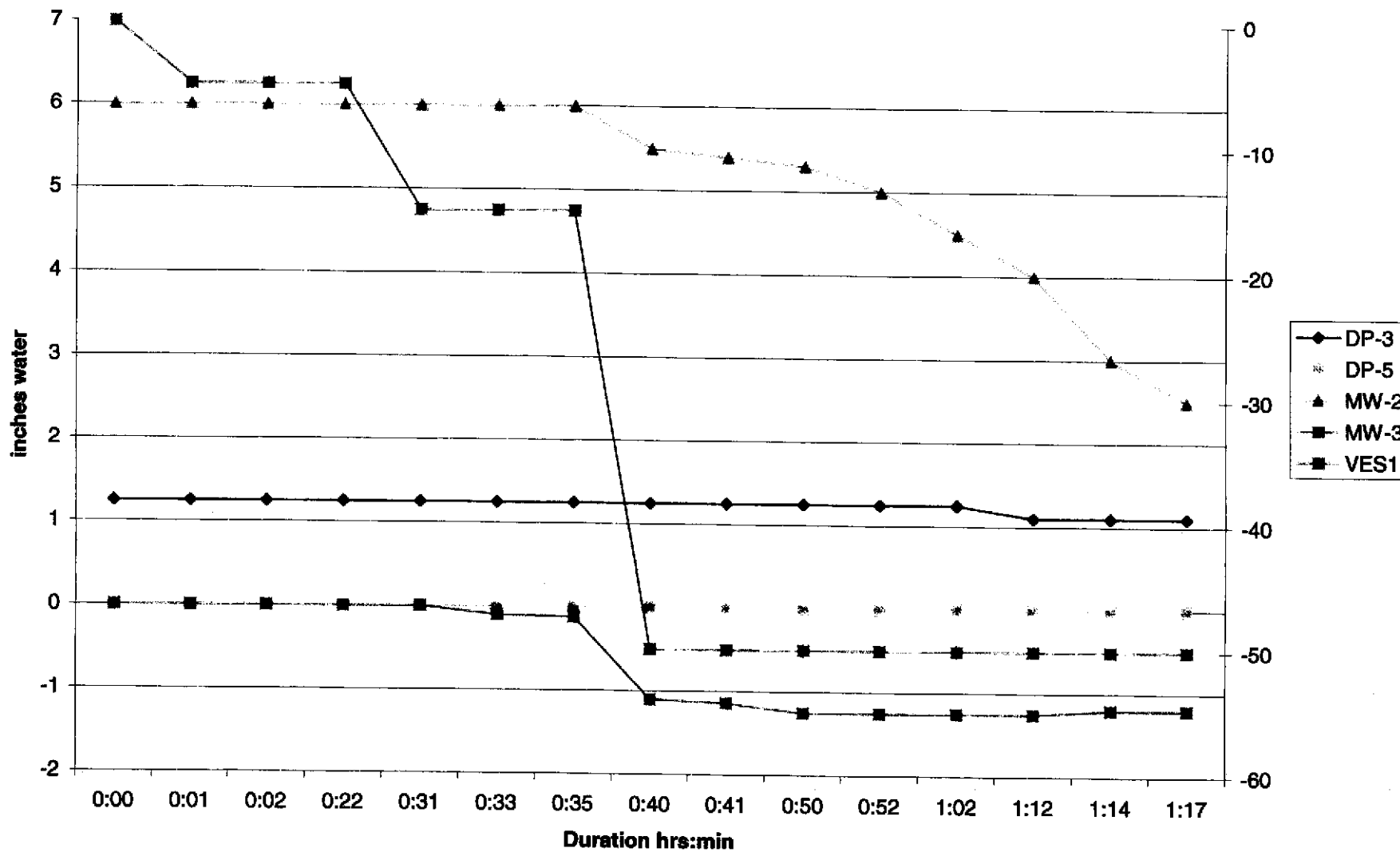


Table 8a MW-3 Vac test (5/19/04)

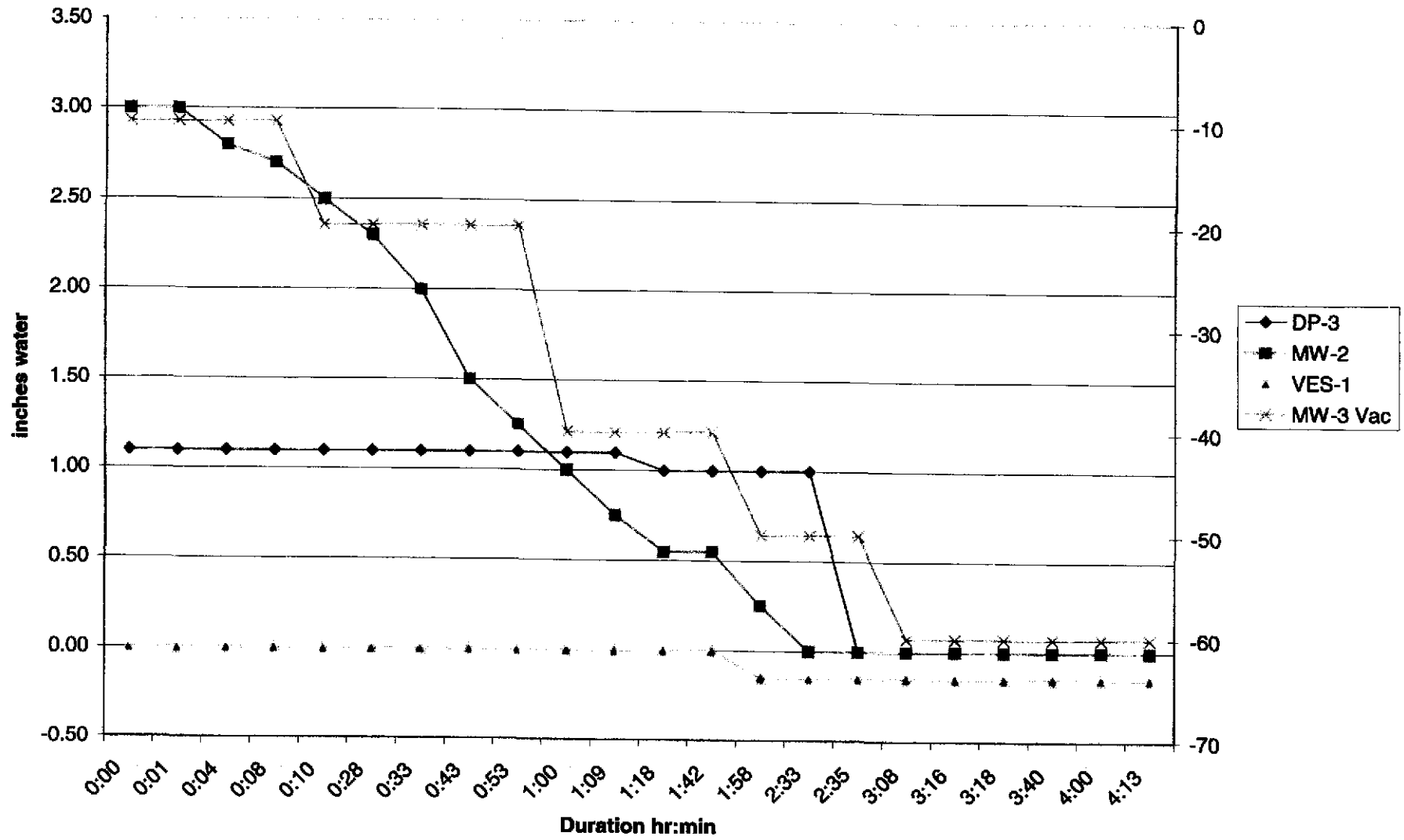


Table 9: AS-2 -- Preliminary Sparge Test, 5/19/04 , Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration Minutes	AS-2		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	VES-1
		Pressure (in H2O)	Flow (cfm)	Pressure (in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)
16:22	0:00	0	0		0	0	0	0.00	0.00	0	0	0
16:23	0:01	35	3.5		0	0	0	0.00	0.00	0	1	0
16:24	0:02	35	4		0	0	0	0.00	0.05	0	2	0
16:25	0:03	35	11		0	0	0.10	0.00	0.11	0	2.5	0.03
16:28	0:06	35	11		0	0	0.23	0.00	0.20	0	3	0.04
16:30	0:08	35	9		0	0	0.35	0.00	0.20	0	50	0.05
16:32	0:10	35	7		0	0	0.40	0.00	0.25	0	100	0.05
16:33	0:11	35	7		0	0	0.42	0.00	0.30	0	125	0.05
16:35	0:13	35	7		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	0:20	35	7		0	0	0.69	0.50	1.00	0	155	0.06
16:45	0:23	35	7		0	0	0.77	1.10	1.50	0	160	0.07
16:53	0:31	35	7		0	0	0.87	2.60	1.75	0	165	0.08

Table 9a AS-2 Sparge test

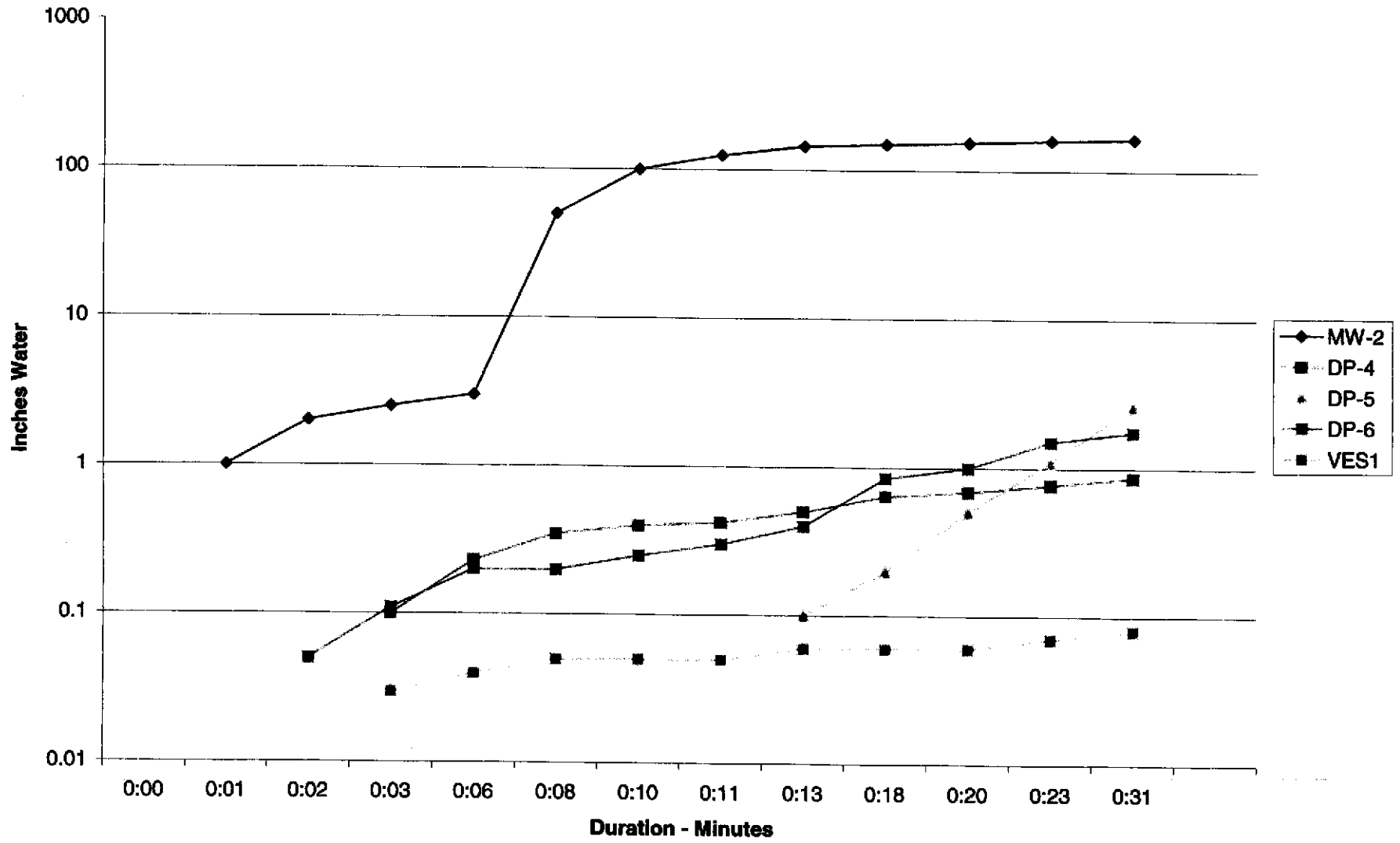


Table 10: Air sparge AS-2 5/20/04, Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration	AS-2		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	VES-1		
		Pressure	Flow										PID	PID	
	min.	PSI	(cfm)					Inches H ₂ O					(in H ₂ O)	ppm	
8:09	0:00	0	0		0	0.02	0	0	0	0	0			0	
8:10	0:01	32	11	XXXXXX	0	0.02	0.2	0	0.1	0	50	XXXXXX		0.03	
8:12	0:03	32	8.25	XXXXXX	0	0.02	0.3	0	0.12	0	90	XXXXXX		0.04	
8:15	0:06	32	6.25	XXXXXX	0	0.02	0.40	0.10	0.15	0	100	XXXXXX		0.045	
8:20	0:11	32	6.25	XXXXXX	0	0.02	0.50	0.20	0.15	2.5	105	XXXXXX		0.045	
8:30	0:21	32	6.25	XXXXXX	0	0.02	0.60	0.20	0.15	5	105	XXXXXX		0.045	
8:40	0:31	32	6.25	XXXXXX	0	0.025	0.80	0.20	0.15	5	105	XXXXXX		0.05	
8:50	0:41	32	6.25	XXXXXX	0	0.025	0.82	0.30	0.20	5	110	XXXXXX		0.06	
8:52	0:43	32	6.25	XXXXXX	0	0.025	0.84	0.35	0.20	5	110	XXXXXX		0.06	
8:54	0:45	32	6.25	XXXXXX	0	0.025	0.86	0.40	0.20	5	110	XXXXXX		0.06	
9:00	0:51	32	6.25	XXXXXX	0	0.025	0.88	0.46	0.21	5	110	XXXXXX		0.065	
9:10	1:01	32	6.25	XXXXXX	0.01	0.03	0.89	0.50	0.23	4	110	XXXXXX		0.07	
9:20	1:11	32	6.25	XXXXXX	0.01	0.03	0.8*	0.90	0.23	3.5	115	XXXXXX		0.065	
9:25	1:16	32	6.25	XXXXXX	0.01	0.03	0.80	0.95	0.23	3.5	115	XXXXXX		0.065	
9:30	1:21	32	6.25	XXXXXX	0.01	0.03	0.8	1.00	0.24	3.4	115	18		0.065	
9:40	1:31	32	6.25	0.05	0.01	0.03	0.8	1.25	0.24	3.2	115	30		0.065	
9:45	1:36	32	6.25	0.11	0.015	0.03	0.8	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)

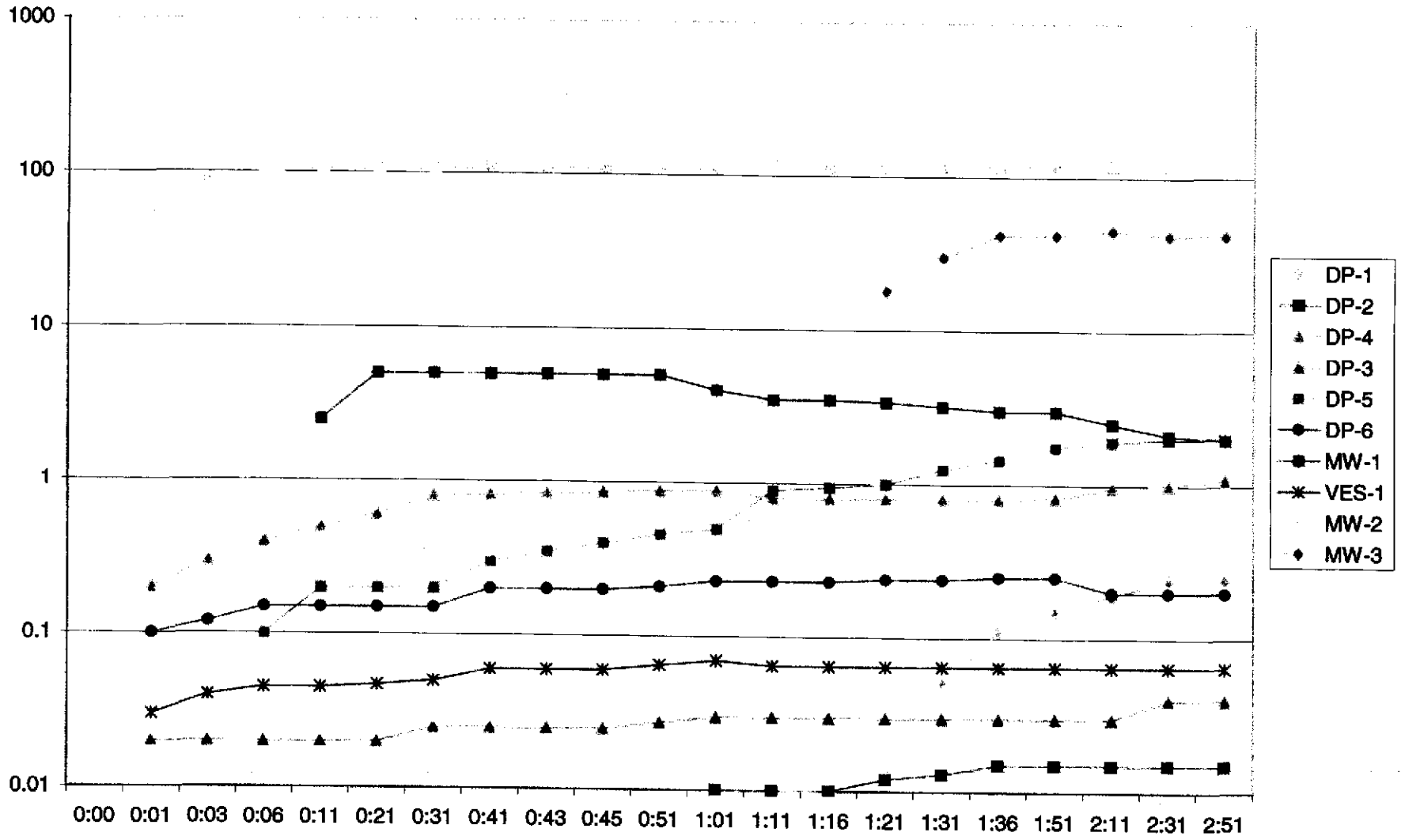


Table 11: AS-2-Sparge VES1 Vac 5/20/0, Fidelity Roof Company, 1075 40th Street, Oakland, California

TIME	Duration Minutes	AS-2		DP-1	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	MW-3 PID	VES-1 (in H2O)	VES-1 PID	AS1 (in H2O)
		Pressure (in H2O)	Flow (cfm)	Pressure (in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)
10:59	0:00	0	0	0	0	0	0	0	0	0	0		0		0
11:00	0:01	32	6.25	0.250	0.040	1.1	2.0+	0.20	2.0	120	42		-15		0.003
11:10	0:11	32	8.25	0.250	0.030	1.05	2.1	0.10	1.75	120	42.0		-15		0.003
11:20	0:21	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
13:30	2:31	32	6.25	0.395	0.045	1.50	1.92	0.07	1.00	110	45.0		-15		0.020
13:45	2:46	32	6.25	0.390	0.050	1.50	1.90	0.05	1.00	110	45.0		-15		0.017
14:00	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)

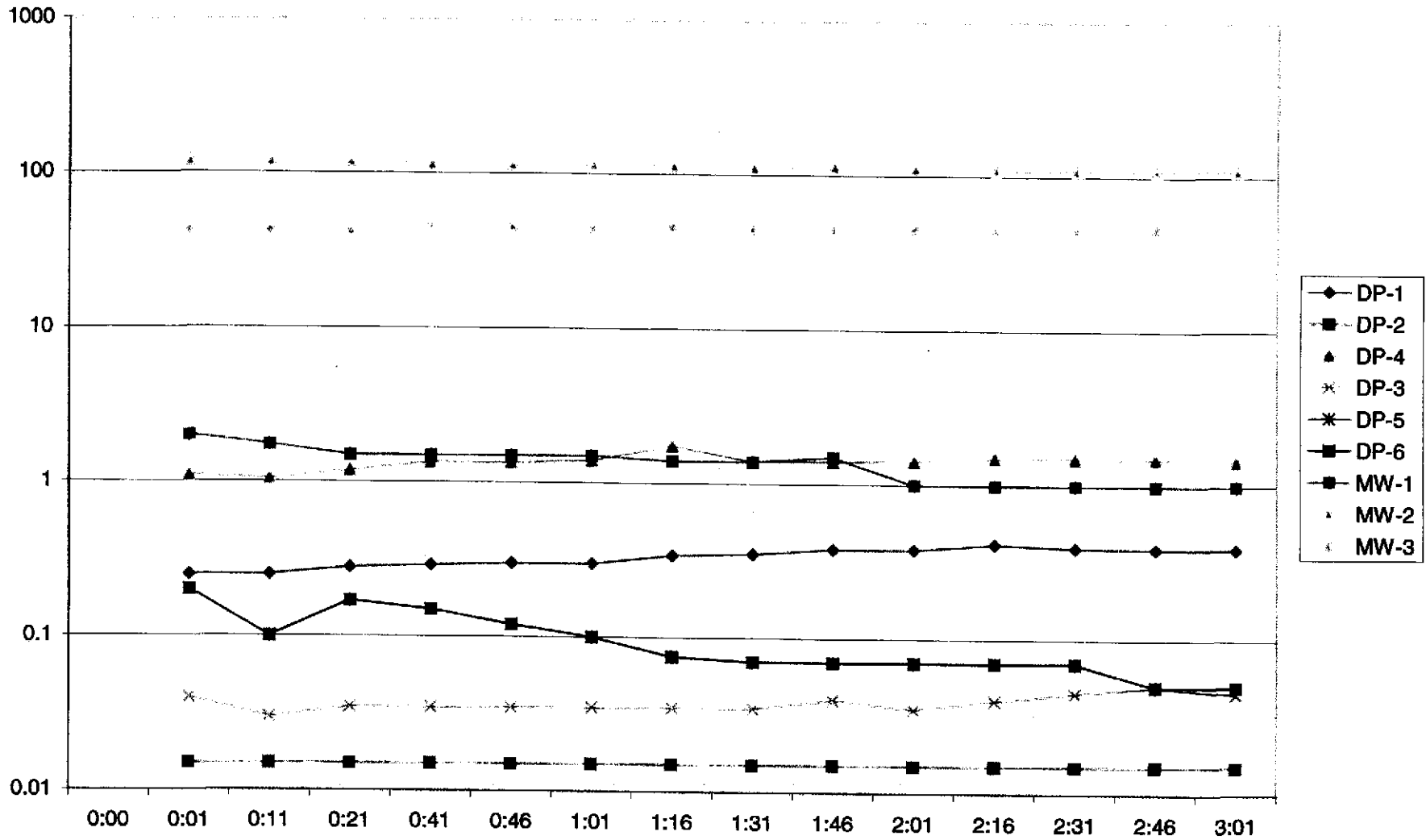


Table 12: Air sparge AS-1 5/21/04, Fidelity Roof Company, 1075 40th Street, Oakland, California

Time	AS-1		DP-1	DP-2	DP-3	DP-4	DP-5	DP-6	MW-1	MW-2	MW-3	VES-1	
	Pressure (in H2O)	Flow (cfm)	Pressure (in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	(in H2O)	Flow (cfm)	(in H2O)
initial			0.5	0.01	0.01	0.02	0.005	0.01	0	0	0		0
8:24	36	up popping	Glued on										
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
9:10	36	6.4	0.3	0.01	5.0	0.17	0.01	0.15	0	35	25.0		0
9:20	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		0
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		PID	1.2 ppm		25 ppm	sple DP-3					349 ppm	sple MW-3	
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)

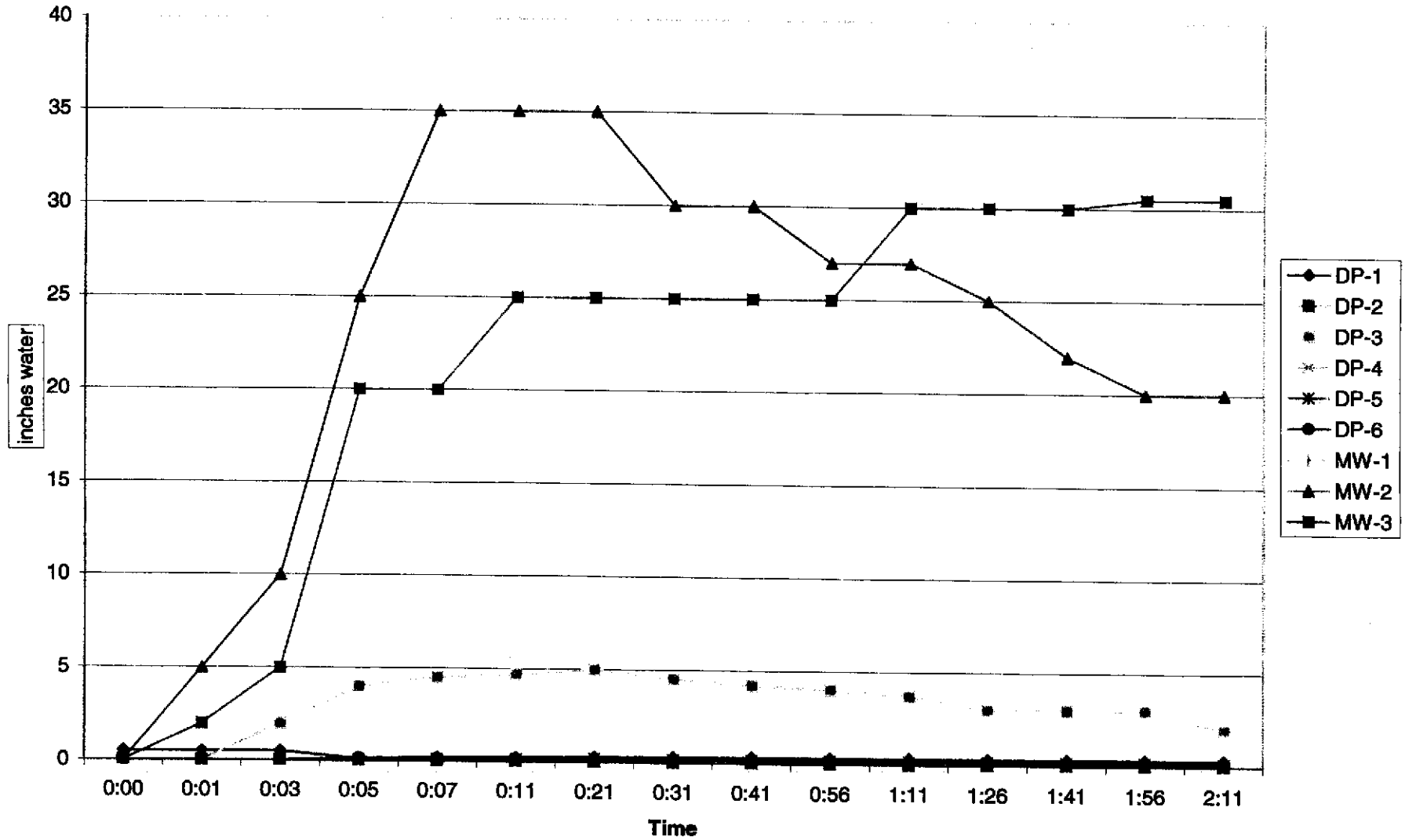
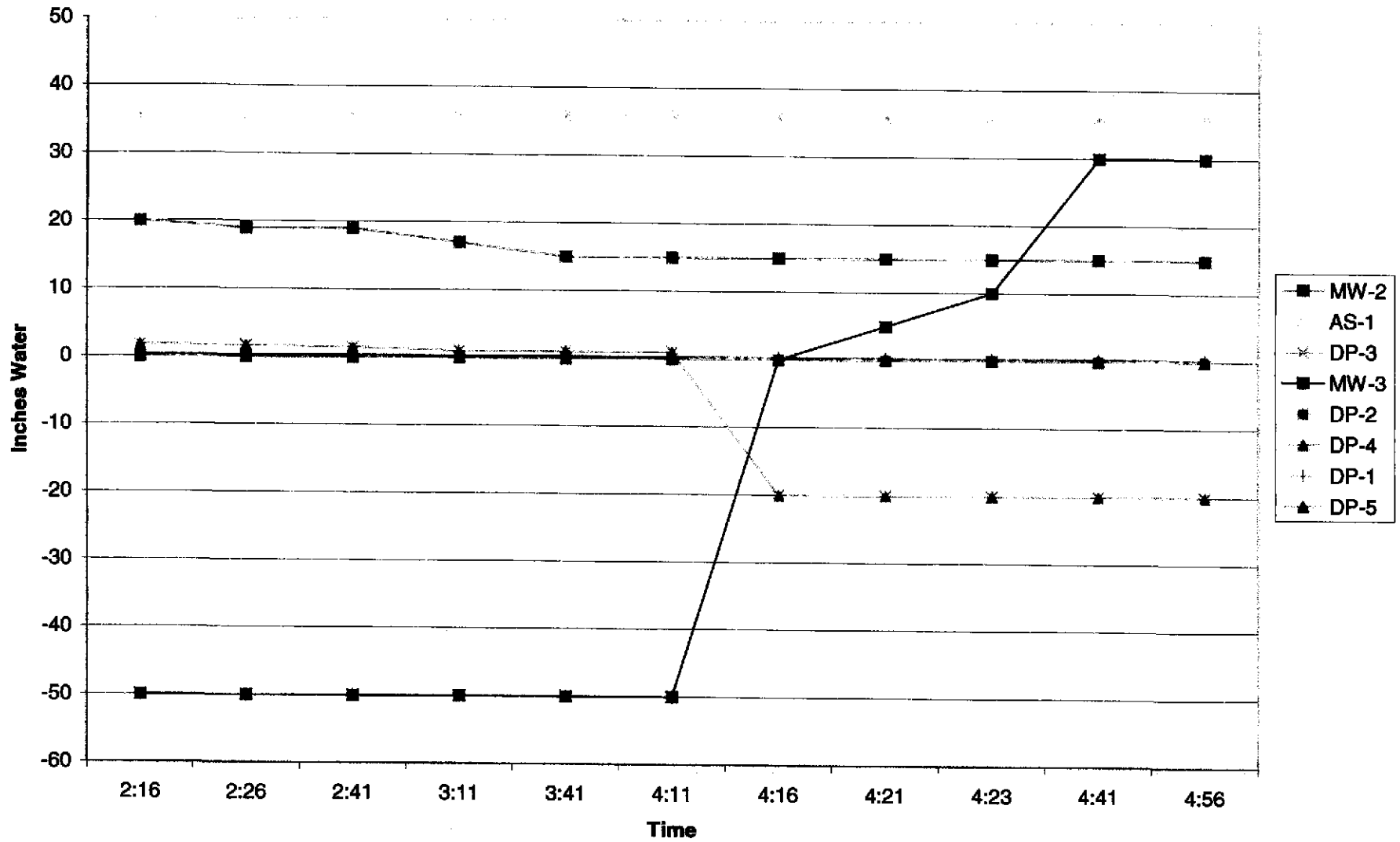


Table 13: Air sparge AS-1 with Vacuum on MW-3 and DP-3 5/21/04, Fidelity Roof Company, 1075 40th Street, Oakland, California

Time	AS-1		DP-1 Pressure (in H2O)	DP-2 (in H2O)	DP-3 (in H2O)	DP-4 (in H2O)	DP-5 (in H2O)	DP-6 (in H2O)	MW-1 (in H2O)	MW-2 (in H2O)	MW-3 (in H2O)	VES-1 (in H2O)
	Pressure (in H2O)	Flow (cfm)										
AS-1sparge MW-3 vac 5/21/05												
initial			0.5	0.01	0.01	0.02	0.005	0.01	0	0	0	0
11:15	36	6.4	0.32	0.015	1.7	0.17	0.01	0.15	0	19	-50	.305
11:30	36	6.4	0.32	0.015	1.5	0.17	0.01	0.15	0	19	-50	.353
12:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	17	-50	.412
12:30	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50	.431
13:00	36	6.4	0.32	0.015	1.0	0.17	0.01	0.15	0	15	-50	.425
AS-1sparge DP-3 vac 5/21/05												
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	0.015	20/.15	0.17	0.01	0.15	0	15	30	0
			sampled								sampled	












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



Project: Fidelity Roof Company
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 Size/Type 2.25" sampler, 1.25 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 Not Encountered ATD	Sampling Method(s) None	Well Permit.
Borehole Backfill Well Completion	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER TESTS
0						Concrete		
				CL		Clay, black, 10YR 2/1, sandy silty, firm, slightly moist, slightly plastic		Neat cement grout
				GC-CL		Clayey Gravel, gray - dark gray N 4/ - 3/, firm, slightly moist,		Bentonite
	5			CL		Clay, light yellowish brown 2.5Y 6/3 - 6/4, with some strong brown 7.5YR 5/6, firm, slightly moist		# 30 sand
				CL		Silty Clay - Clayey Silt, light yellowish brown 2.5Y 6/3 - 6/4 - strong brown 7.5YR 5/6, firm, slightly moist		
				ML		Clayey Silt, dark olive yellow 2.5Y 6/8 with occasional streaks olive gray 5Y 4/2, firm, moist,		
10				CL		Clayey Silt, dark olive yellow 2.5Y 6/8 with rare streaks olive gray 5Y 4/2, firm, moist,		
				GW		Sandy Silty Clay, yellowish brown 10YR 5/6, coarse sand grains, firm, moist		3/4" 0.010 slotted casing, pre-packed with sand/stainless screen
15						Bottom of Boring at 15.5 feet bgs		
20								

E:\8326\Well Logs\DP logs.bgs (DP well 20).cpt



Project: Fidelity Roof Company
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 Size/Type 2.25" sampler, 1.25 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 Not Measured	Sampling Method(s) None	Well Permit.
Borehole Backfill Well Completion	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER TESTS
0	0			AC		Asphalt 3"		
				GW-CC		Base Rock, dark gray, highly compacted, very hard, very slightly moist, FILL		
				CL		Clay, black, 10YR 2/1, sandy silty, firm, slightly moist, slightly plastic		Neat cement grout
				GC-CL		Clayey Gravel - Gravelly Clay, olive 5Y 4/4 - yellow brown 10YR 5/6, firm, slightly moist, slightly plastic		Bentonite
	5			CL		Silty Clay, yellow brown 10YR 5/6 - olive 5Y 4/4, firm, slightly moist, slightly plastic		# 30 sand
				ML		Clayey Silt, yellow brown 10YR 5/6 - olive yellow 5Y 6/6 - olive 5Y 5/3 mottled, moderately soft, moist		3/4" 0.010 slotted casing, pre-packed with sand/stainless screen
	10			ML		Clayey Silt, yellowish brown 10YR 6/8 - olive green 5Y 4/2, firm, slightly moist		
				GW		Clayey Sandy Gravel, dark yellowish brown 10 YR 4/6, firm, moist		
	15							
	20							

E:\8326\Well Logs\DP_logs.bgs (DP well 20.tpl)



Project: Fidelity Roof Company
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 Size/Type: 2.25" sampler, 1.25 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: Not Encountered ATD	Sampling Method(s): None	Well Permit:
Borehole Backfill: Well Completion	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER TESTS
0				AC		Asphalt 3"		
				GW-CC		Base Rock, dark gray, highly compacted, very hard, very slightly moist, FILL		
				CL		Clay, black, 10YR 2/1, sandy silty, firm, slightly moist, slightly plastic		Neat cement grout
								Bentonite
	5			GC		Clayey Gravel, olive 5Y 4/4 - yellow brown 10YR 5/6, firm, slightly moist, slightly plastic		# 30 sand
				CL		Gravelly Clay, yellow brown 10YR 5/6 - olive 5Y 4/4, firm, slightly moist, slightly plastic		
				CL		Sandy Silty Clay, yellow brown 10YR 5/6 - olive yellow 5Y 6/6 - olive 5Y 5/3 mottled, moderately soft, moist		
	10			CL		A/A, locally gravelly streaks dark olive gray, moderately soft, moist		3/4" 0.010 slotted casing, pre-packed with sand/stainless screen
				CL		Gravelly Clay, yellowish brown 10YR 5/6 with some web like streaks dark olive gray 5Y 3/2, firm, moist		
				GC		Clayey Gravel, yellowish brown 10YR 6/8 - dark olive gray 5Y 3/2, firm - hard, slightly moist		
				SW		Clayey Gravelly Sand, dark yellowish brown 10 YR 4/6, firm, moist		
				SP		Sand, yellow brown 10YR 4/6 - 3/3, clayey, firm, moist		
	15					Bottom of Boring at 15.5 feet bgs		
	20							

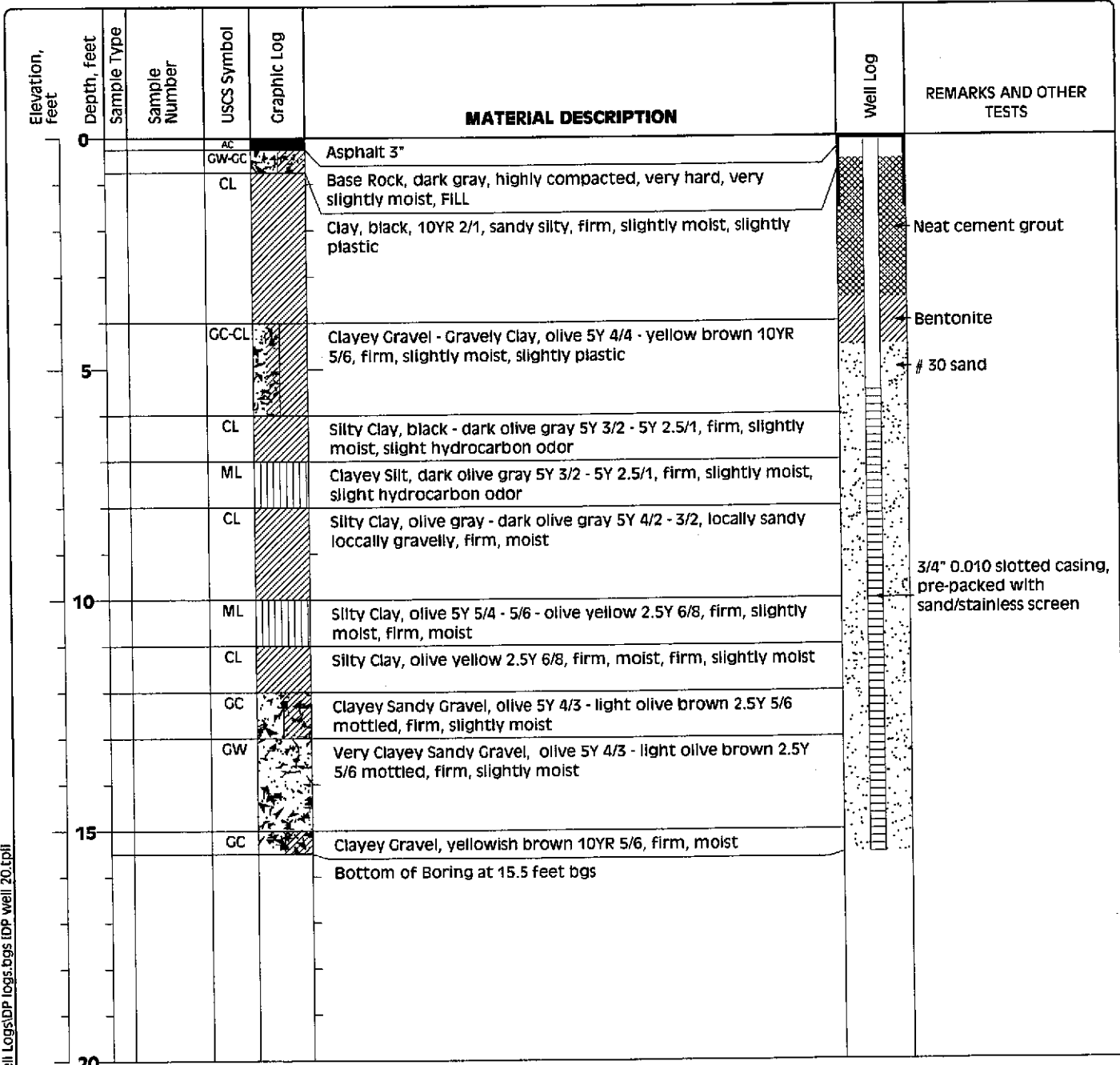
E:\8326\Well Logs\DP logs.bgs (DP well 20.tpi)



Project: Fidelity Roof Company
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 Size/Type 2.25" sampler, 1.25 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 Well Completion	Location	



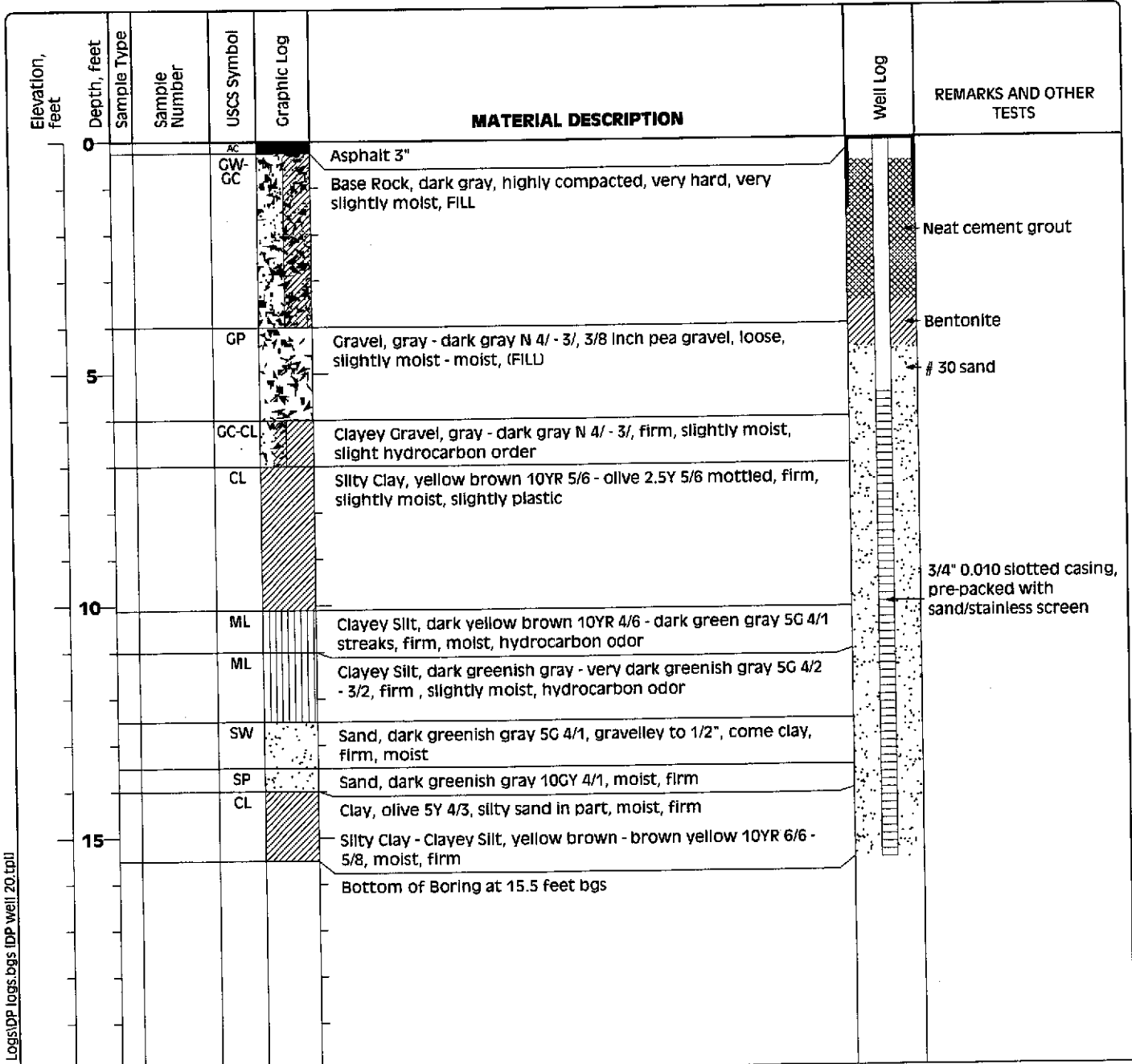
E:\8326\Well Logs\DP logs.bgs (DP well 20).epi



Project: Fidelity Roof Company
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 Size/Type 2.25" sampler, 1.25 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 Well Completion	Location	



E:\8326\Well_Logs\DP_logs.bgs IDP well 20.tpd



Project: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Project Number: 8326

Log of Boring DP-6
 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 Size/Type 2.25" sampler, 1.25 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 Well Completion	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER TESTS
0				RC GW-GC		Asphalt 3"		
				CL		Base Rock, dark gray, highly compacted, very hard, very slightly moist, FILL		
						Clay, black, 10YR 2/1, sandy silty, firm, slightly moist, slightly plastic		Neat cement grout
				CL		Clay, very dark gray, 10YR 3/1, silty, firm, slightly moist, slightly plastic		Bentonite
5				GC-CL		Clayey Gravel, dark olive gray, firm, moist, slight hydrocarbon odor		# 30 sand
				ML CL		Clayey Silt, greenish gray 5G 5/1, firm, slightly moist, slight hydrocarbon odor		
						Silty Clay, olive 5Y 4/3 - greenish gray 5G 5/1 mottled, firm, moist, hydrocarbon odor		
						Silty Clay, olive brown - light olive brown 2.5Y 5/4 - 4/4, firm, slightly moist		3/4" 0.010 slotted casing, pre-packed with sand/stainless screen
10				CL		Gravelly Sandy Clay, olive 5Y 5/4, firm, slightly moist, firm, moist		
						Gravelly Sandy Clay, light olive brown - olive yellow olive yellow 2.5Y 5/4 - 6/6, firm, moist, firm, slightly moist		
				GC		Clayey Sandy Gravel, olive gray 5Y 3/2 - dark greenish gray 5G 4/1, firm, slightly moist, hydrocarbon odor		
				GW-GC		Clayey Sandy Gravel, dark greenish gray 5G 4/1 with some olive gray 5Y 3/2, firm, wet, hydrocarbon odor		
15				CL		Silty Clay, light olive brown - olive yellow 2.5Y 5/6 - 6/6, firm, moist		
						Bottom of Boring at 15.5 feet bgs		

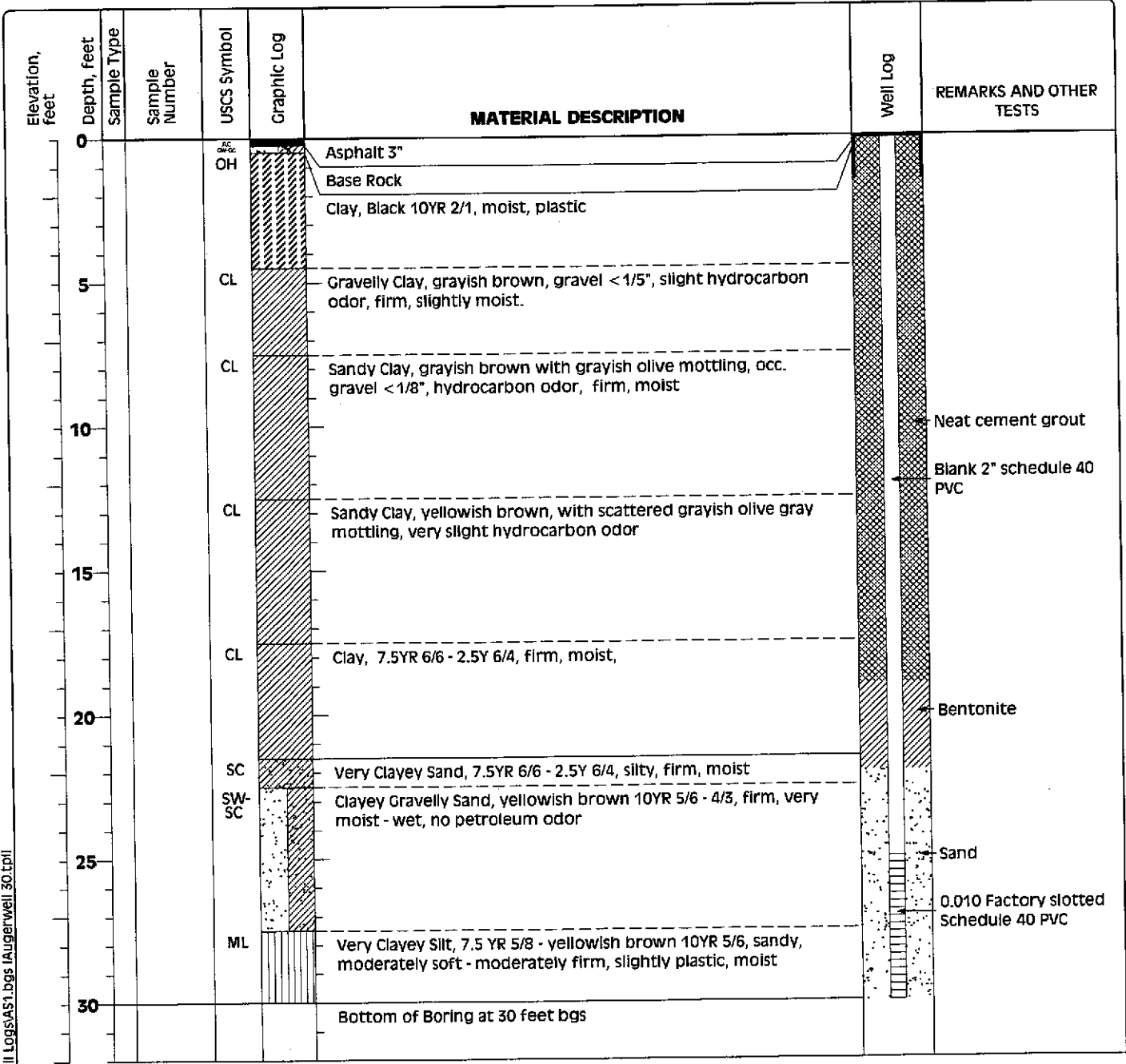
E:\8326\Well_Logs\DP_logs.bgs [DP_well 20.tpl]



Project: Fidelity Roof Company
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 Backfill Well Completion	Location	



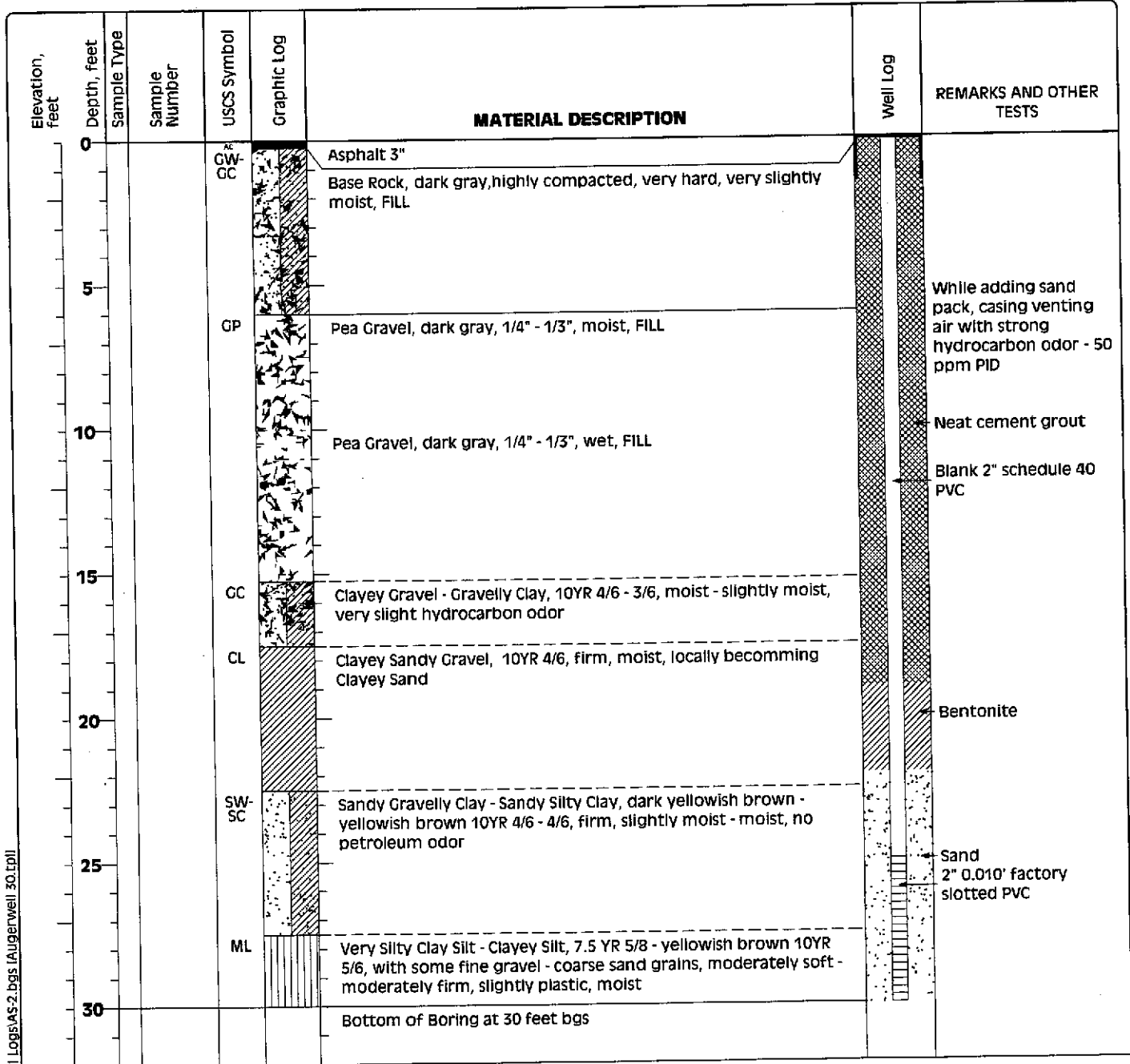
E:\8326\Well Logs\AS1.bgs 1Augerwell 30.tbl



Project: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Project Number: 8326

Log of Boring AS-2
 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 Backfill Well Completion	Location	



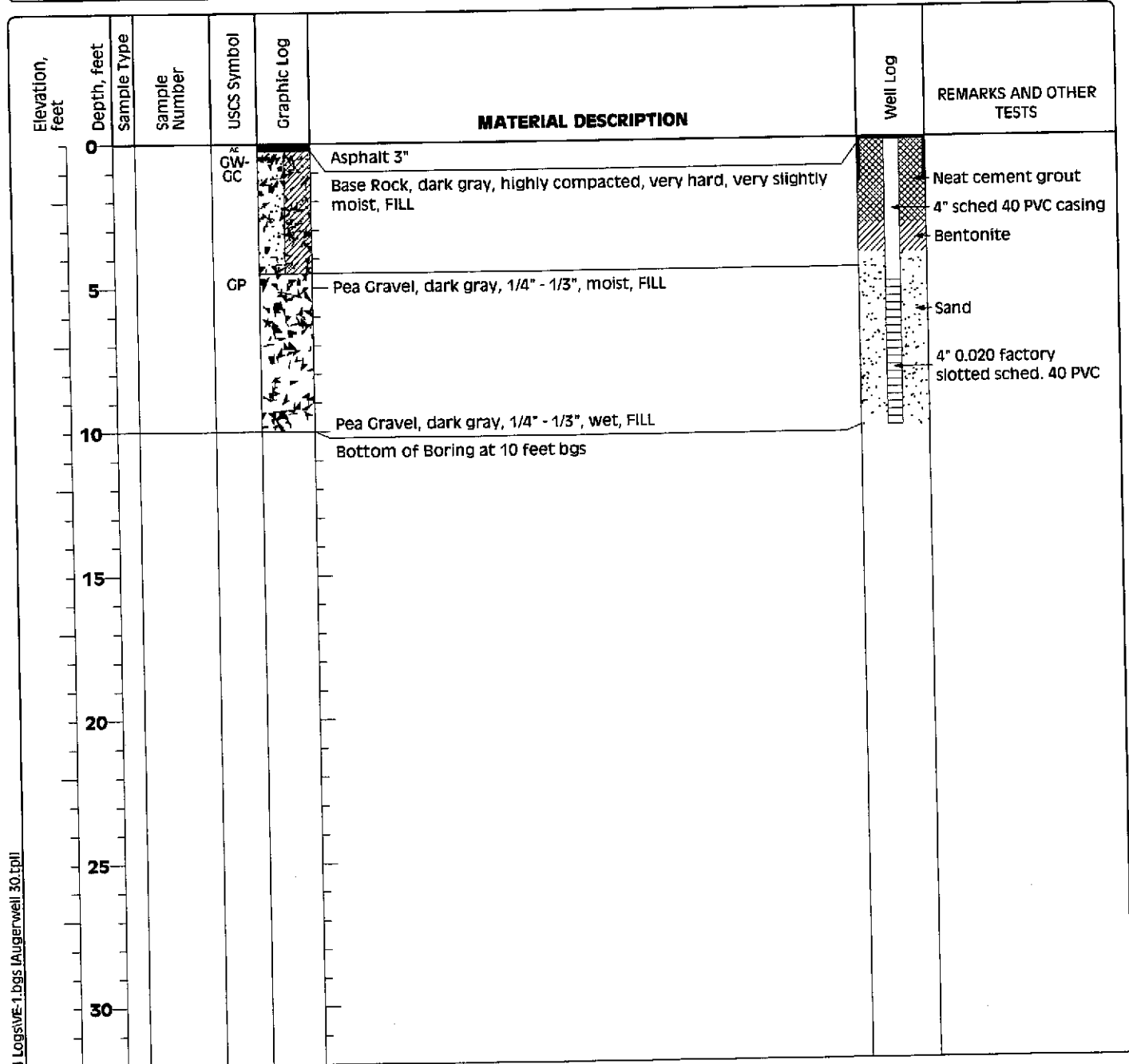
E:\8326\Well_Logs\AS-2.bgs (Augerwell) 30.tpl



Project: Fidelity Roof Company
Project Location: 1075 40th Street, Oakland, CA
Project Number: 8326

Log of Boring VE-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 10 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 Backfill Well Completion	Location	



E:\8326Well Logs\VE-1.bgs\Augerwell_30.tpl



Project No: 1893

Borehole #: SB-1

Date: 11/3/98

Project: FIDELITY ROOF CO



Total Depth: 16 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40TH STREET

Responsible Professional JPD

SUBSURFACE PROFILE			SAMPLE			Well Data	Remarks
Depth	Symbol	Description	Number	Type	Blows/ft		
0		Ground Surface					
1		FILL Asphalt, gravel and sand					
2		SANDY CLAY Greenish grey clay with 5% sand with sands increasing with depth	SB-1 4'	SS	NA		No odor, 0.0 ppm
3							
4							
5							
6							
7							
8			SB-1 8'	SS	NA		
9							Hydropunch 8 to 12 feet, No GW
10							
11							
12						▼	?
13							Hydropunch 12 to 16 feet, No GW
14							PVC inserted to 16 feet
15							Slow water generation
16							
17		End of Borehole					
18							
19							
20							
21							
22							

Drilled By: VIRONEX

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

Hole Size: 2"

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

Project No: 1893

Borehole #: SB-2

Date: 11/3/98

Project: FIDELITY ROOF CO




Total Depth: 15 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40TH STREET

Responsible Professional JPD

SUBSURFACE PROFILE			SAMPLE			Well Data	Remarks
Depth	Symbol	Description	Number	Type	Blows/ft		
0		Ground Surface					
1		FILL Asphalt, gravel and sand					
2		SANDY CLAY Sandy clay, with gravel and 20% sand Medium grey, N5	SB-2 4'	SS	NA		0.0 ppm
3							
4							
5		CLAYEY SAND Stiff clayey sand	SB-2 8'	SS	NA		
6							
7							
8							
9							hydropunch to 12, no GW
10							
11							
12							hydropunch to 15, no GW
13						▼	PVC inserted to 15
14							Slow water generation
15		End of Borehole					
16							
17							
18							
19							
20							
21							
22							

Drilled By: VIRONEX

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

Hole Size: 2"

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

Project No: 1893

Borehole #: SB-3

Date: 11/3/98

Project: FIDELITY ROOF CO



Total Depth: 20 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40 STREET

Responsible Professional: JPD

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

VIRONEX VIRONEX

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

2" 2"

GEOPROBE GEOPROBE

Sheet 1 of 1

DIRECT PUSH DIRECT PUSH

Project No: 1893

Borehole #: SB-4

Date: 11/3/98

Project: FIDELITY ROOF CO

Total Depth: 19 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40TH STREET

Responsible Professional JPD

SUBSURFACE PROFILE			SAMPLE			Well Data	Remarks
Depth	Symbol	Description	Number	Type	Blows/ft		
0		Ground Surface					
1		FILL Asphalt, gravel and sand					
2		CLAY Dark grey clay with 5% sand, very stiff	SB-4 4'	SS	NA		0.0 ppm
3							
4		SANDY SILT sandy silt with gravel up to 15 mm					
5							
6			SB-4 8'	SS	NA		
7							
8							
9							hydropunch to 12, no GW
10							
11							
12							hydropunch to 19, no GW
13							PVC inserted to 19
14							Slow water generation
15							
16							
17							
18							
19							
20		End of Borehole					
21							
22							

Drilled By: VIRONEX

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

Hole Size: 2"

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

Project No: 1893

Borehole #: SB-5

Date: 11/3/98

Project: FIDELITY ROOF CO




Total Depth: 20 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40TH STREET

Responsible Professional JPD

SUBSURFACE PROFILE			SAMPLE			Well Data	Remarks
Depth	Symbol	Description	Number	Type	Blows/ft		
0		Ground Surface					
1		FILL Asphalt, gravel and sand					
2		CLAY Dark grey clay with 5% sand and gravel up to 10mm	SB-5 4'	SS	NA		
3							
4							0.0 ppm
5							No odor
6		SANDY CLAY Dark yellowish brown clay with sand and gravel up to 10mm (15% sand and gravel)	SB-5 8'	SS	NA		
7							
8							
9							
10							
11							
12						▼	Hydropunch to 12, No GW
13							
14							
15							Hydropunch to 20, PVC inserted
16							Dry after 1 hour
17							
18							
19							
20							
21		End of Borehole					
22							

Drilled By: VIRONEX

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

Hole Size: 2"

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

Project No: 1893

Borehole #: SB-6

Date: 11/3/98

Project: FIDELITY ROOF CO









Total Depth: 20 FEET

Client: MONTY UPSHAW

Logged By: PJM

Location: 1075 40TH STREET

Responsible Professional JPD

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

Drilled By: VIRONEX

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

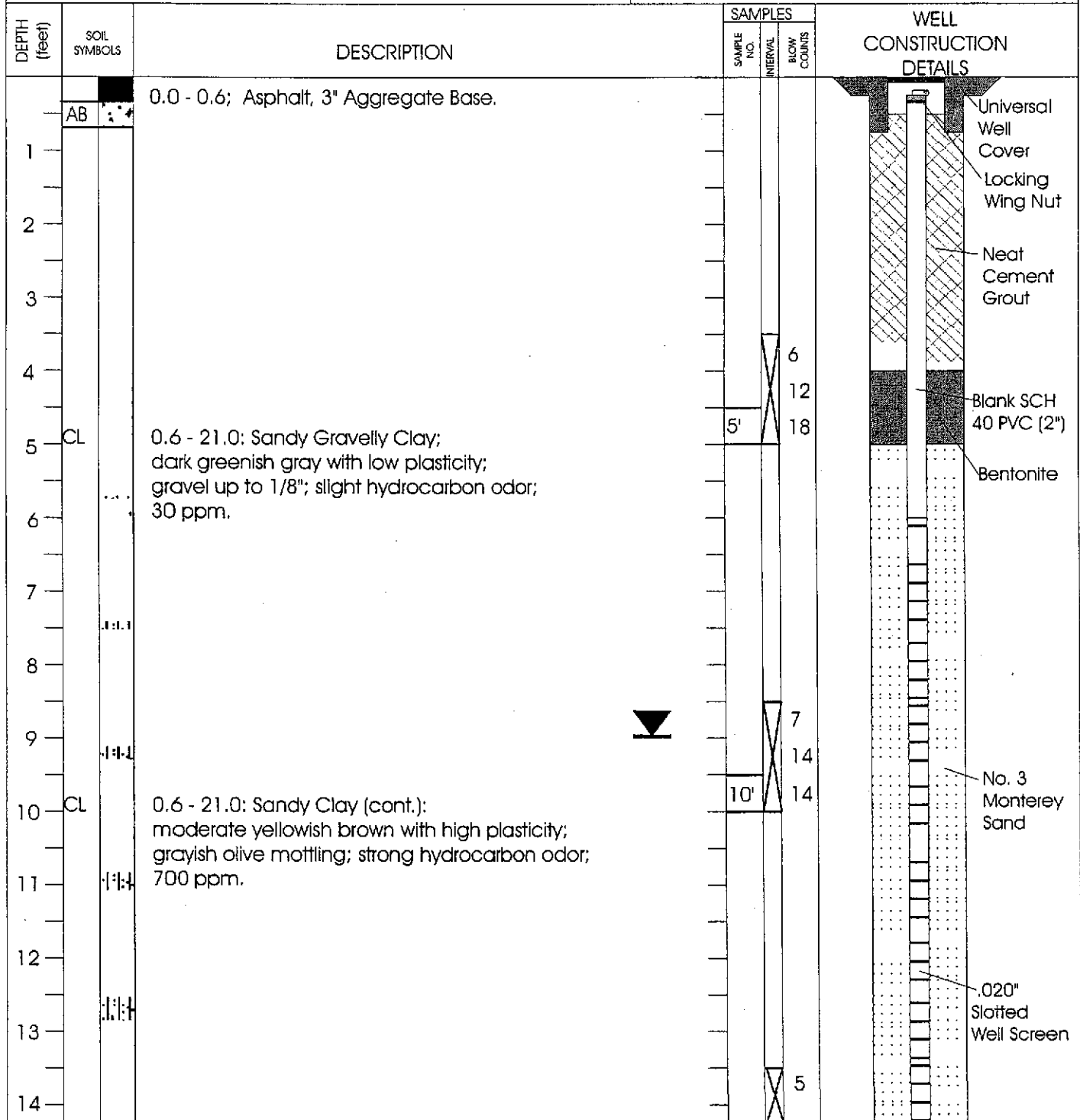
Hole Size: 2"

Drill Type: GEOPROBE

Drill Method: DIRECT PUSH

Sheet: 1 of 1

PROJECT: Fidelity Roof Co. # 1540	LOG OF WELL NUMBER: MW-1	
BORING LOC.: REFER TO SITE PLAN	ELEVATION, TOC: 45.41'	
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97
DRILLING METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'
DRILLING EQUIPMENT: MOBILE B-53	DEPTH TO WATER: 9'	CASING: 2" PVC
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC	
HAMMER WEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFESSIONAL: JPD	



PROJECT: Fidelity Roof Co. #1540		LOG OF BOREHOLE: MW-1			
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		WELL CONSTRUCTION DETAILS
			SAMPLE NO.	BLOW COUNTS	
15	CL	0.6 - 21.0: Sandy Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 30 ppm.	15'	7	
16				8	
17					
18					
19					
20	CL	0.6 - 21.0: Sandy Gravelly Clay (cont.); moderate yellowish brown with high plasticity; grayish olive mottling; slight hydrocarbon odor; 0 ppm.	20'	20	
21				25	
21		Terminated at 21.0'			End Cap
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

20186



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

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
- o 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.

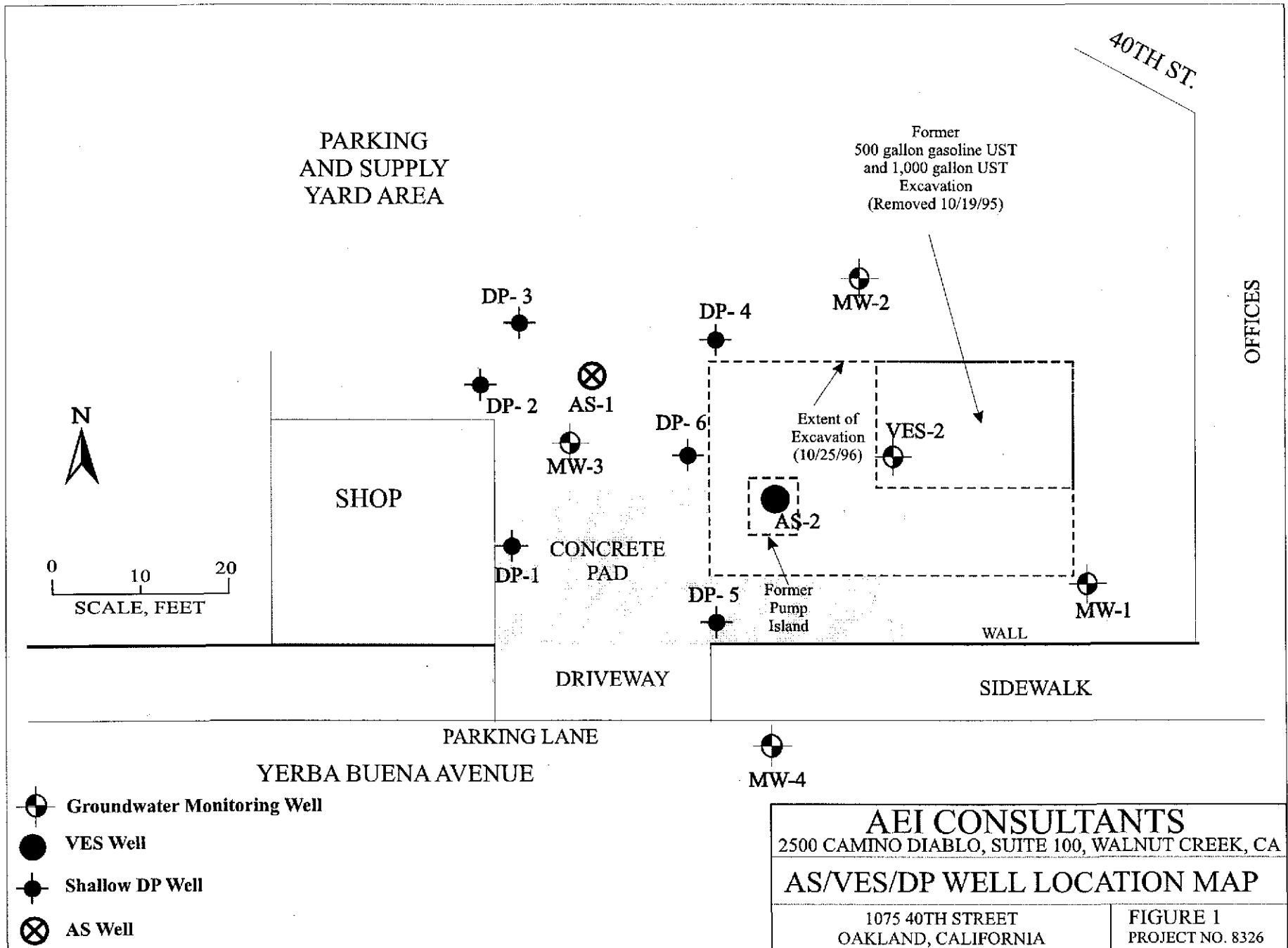
Sincerely,

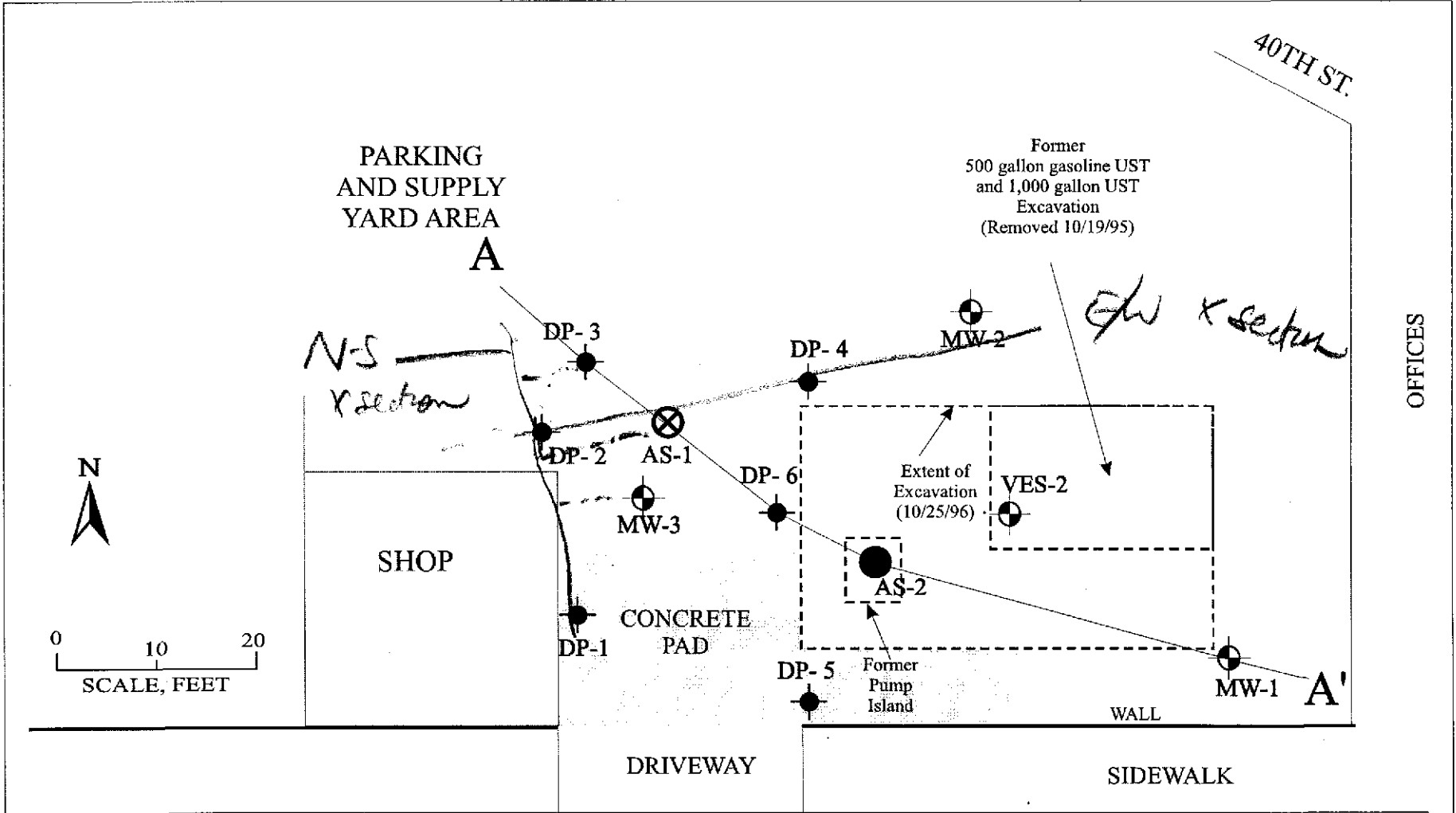






Robert F. Flory, P.G.
Senior Geologist

Peter McIntyre, P.G.
Senior Project Manager

CC: Monty Upshaw
1075 40th Street
Oakland, California 94608





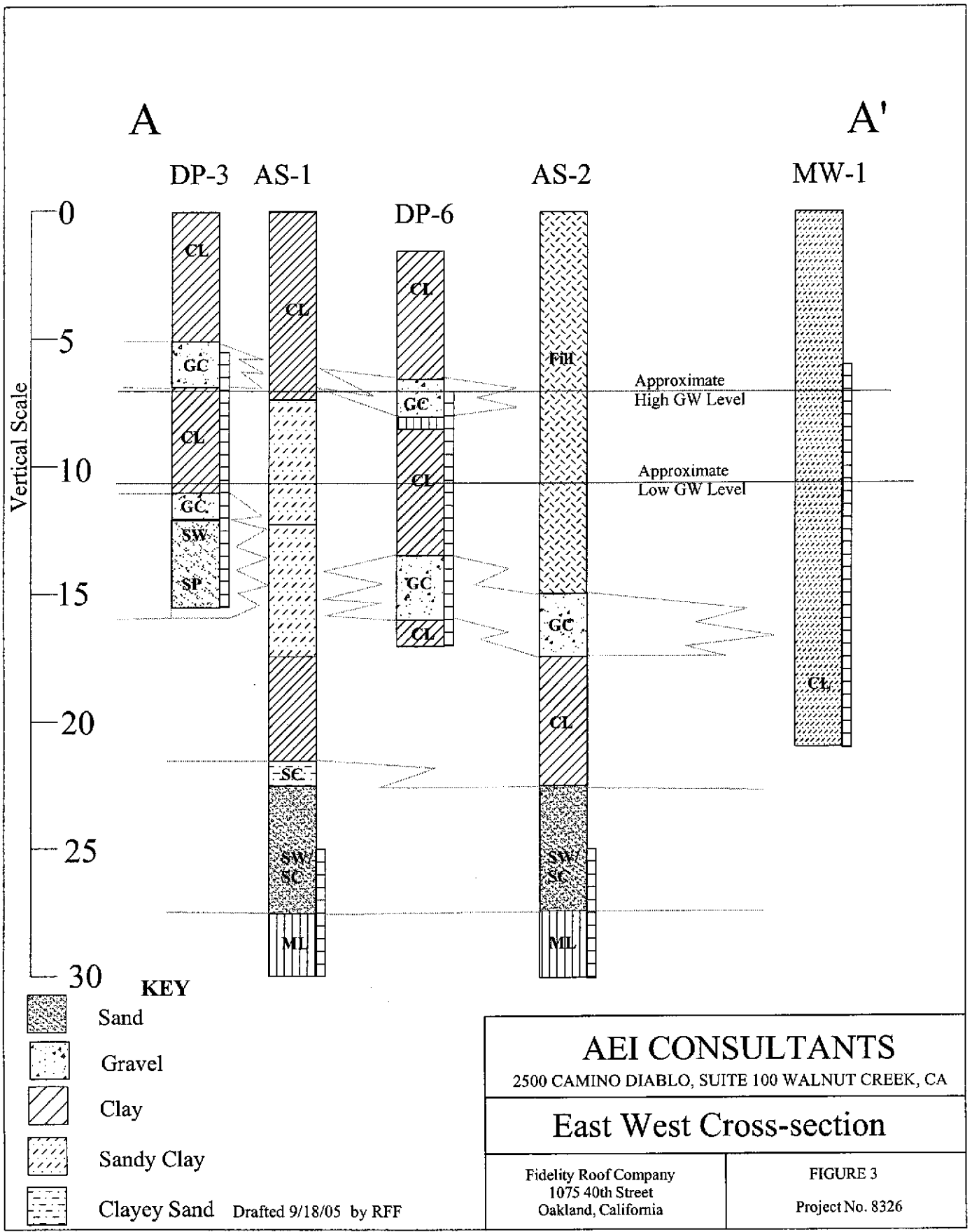
-  Groundwater Monitoring Well
-  VES Well
-  Shallow DP Well
-  AS Well

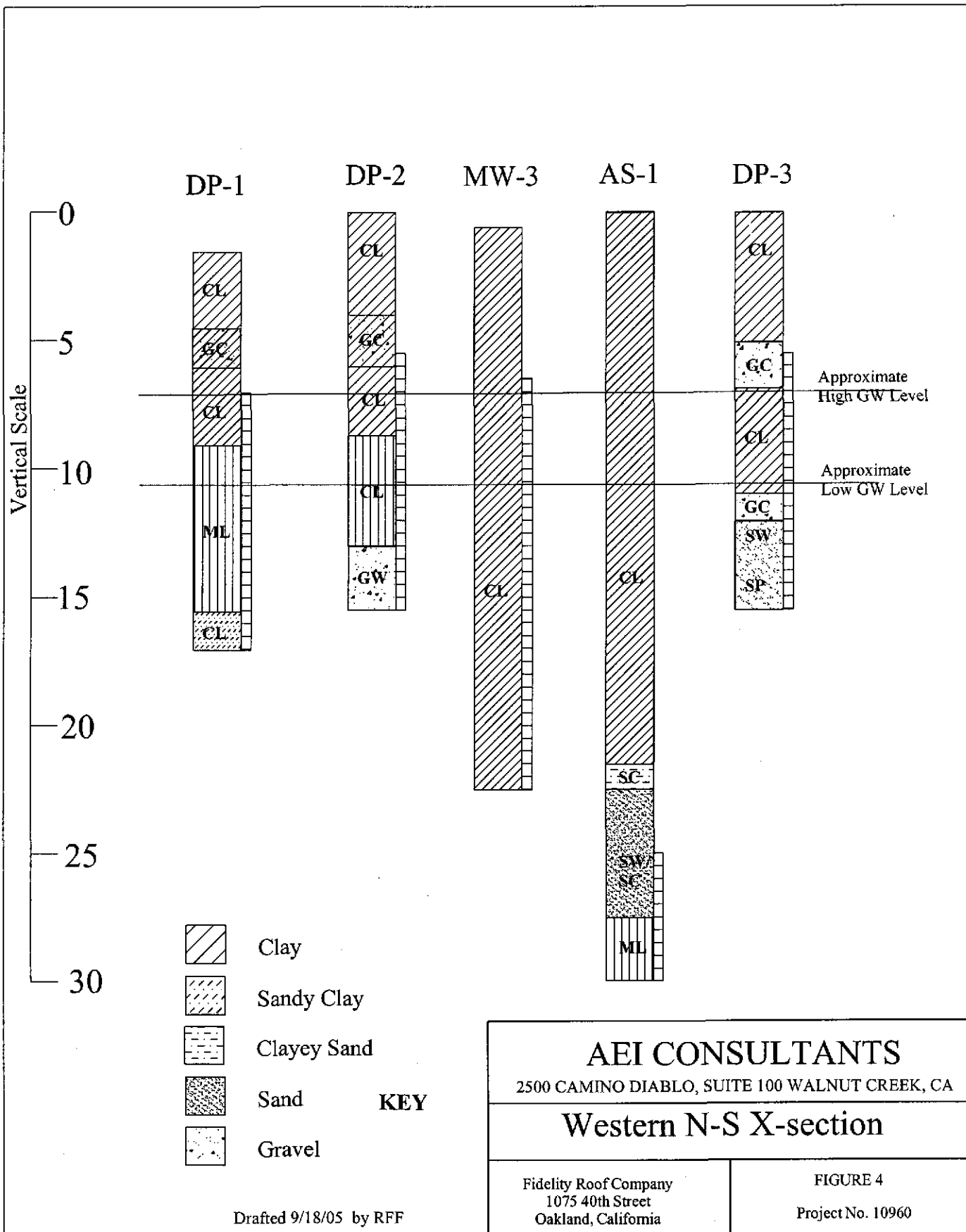
AEI CONSULTANTS
 2500 CAMINO DIABLO, SUITE 100, WALNUT CREEK, CA

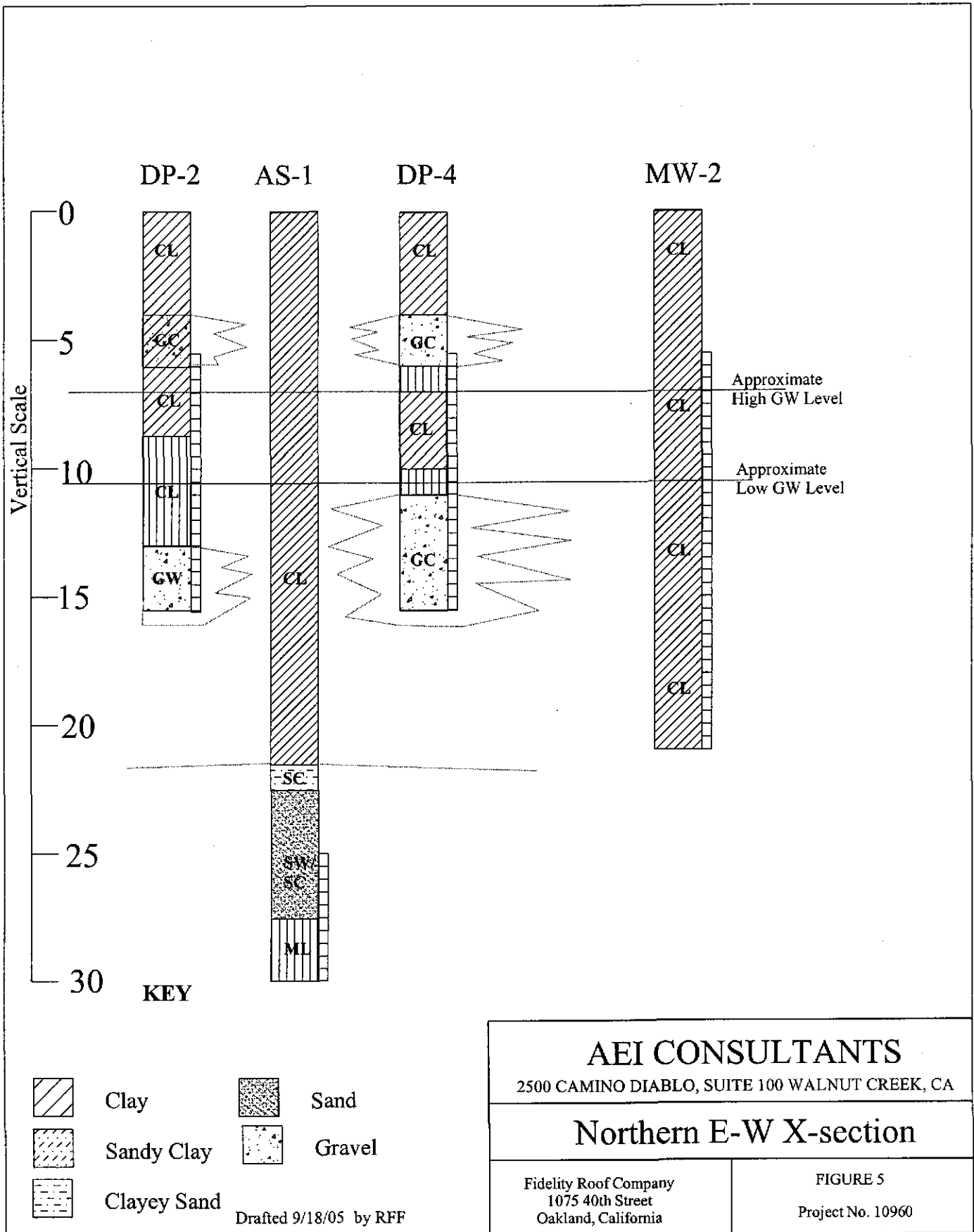
CROSS SECTION A-A' LOCATION

1075 40TH STREET
 OAKLAND, CALIFORNIA

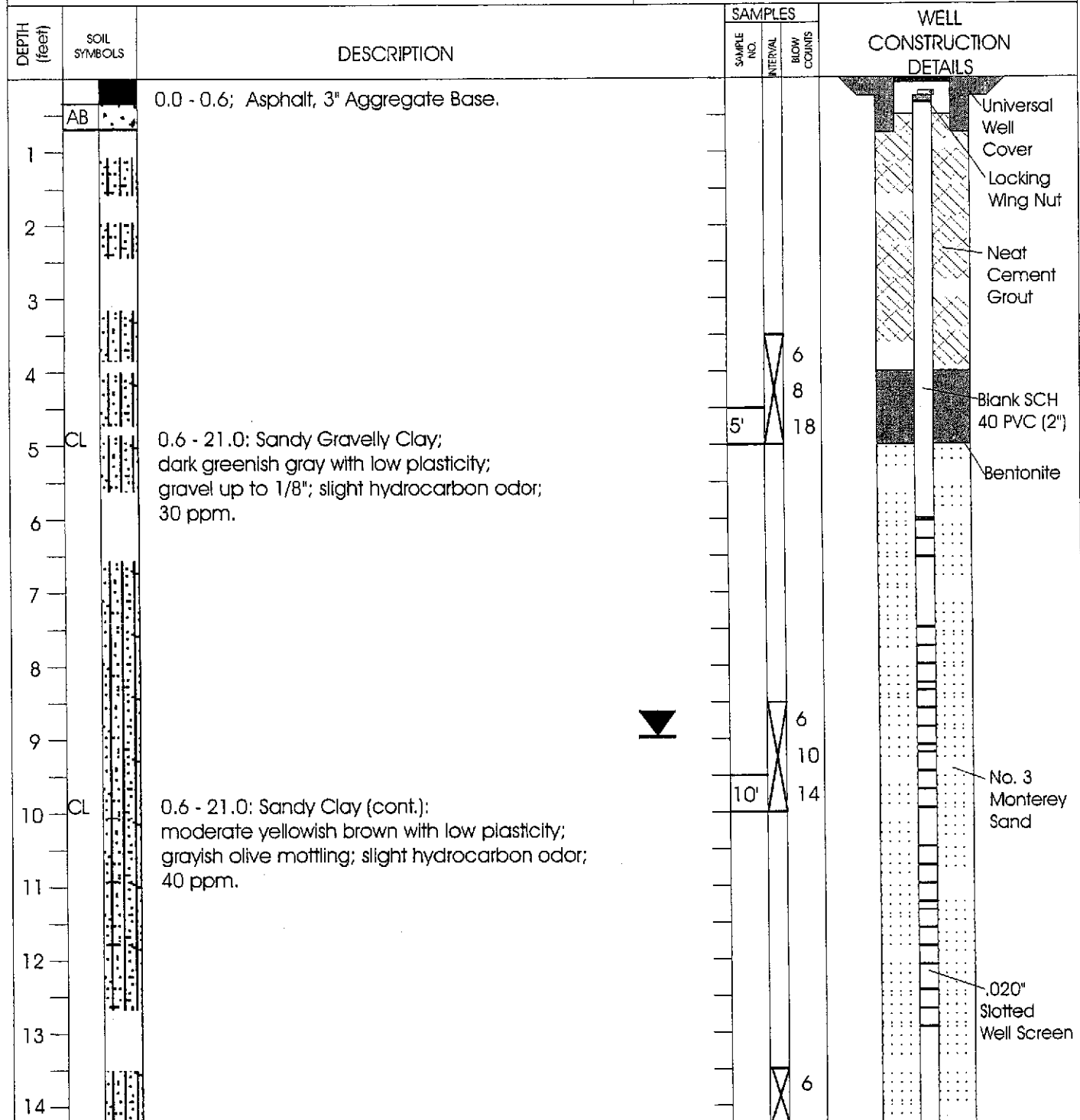
FIGURE 2
 PROJECT NO. 8326





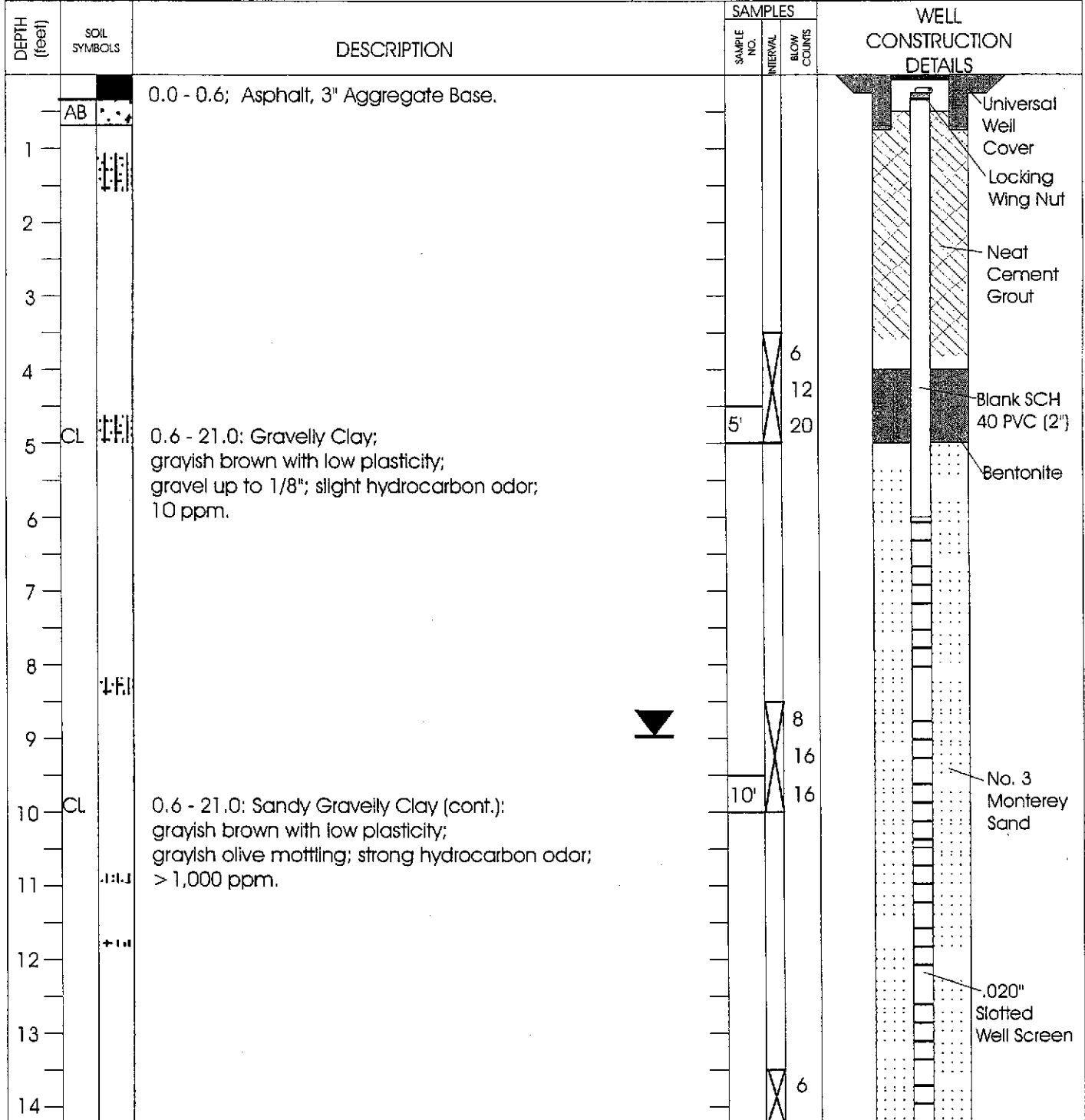


PROJECT: Fidelity Roof Co. # 1540	LOG OF WELL NUMBER: MW-2	
BORING LOC.: REFER TO SITE PLAN	ELEVATION, TOC: 44.94'	
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97
DRILLING METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'
DRILLING EQUIPMENT: MOBILE B-53	DEPTH TO WATER: 9'	CASING: 2" PVC
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC	
HAMMER WEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFESSIONAL: JPD	



PROJECT: Fidelity Roof Co. #1540		LOG OF BOREHOLE: MW-2			
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		WELL CONSTRUCTION DETAILS
			SAMPLE NO.	BLOW COUNTS	
15	CL	0.6 - 21.0; Sandy Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 40 ppm.	15'	12	
16				15	
17					
18					
19				10	
20	CL	0.6 - 21.0; Sandy Gravelly Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 20 ppm.	20'	18	
21				25	
21		Terminated at 21.0'			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

PROJECT: Fidelity Roof Co. # 1540	LOG OF WELL NUMBER: MW-3	
BORING LOC.: REFER TO SITE PLAN	ELEVATION, TOC: 44.32'	
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 3/6/97	END DATE: 3/6/97
DRILLING METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 21'	SCREEN INT: 6'-21'
DRILLING EQUIPMENT: MOBILE B-53	DEPTH TO WATER: 9'	CASING: 2" PVC
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC	
HAMMER WEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFESSIONAL: JPD	



PROJECT: Fidelity Roof Co. #1540		LOG OF BOREHOLE: MW-3			
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		WELL CONSTRUCTION DETAILS
			SAMPLE NO.	BLOW COUNTS	
15	CL	0.6 - 21.0: Sandy Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 84 ppm.	15'	8	
16				10	
17					
18					
19				8	
20	CL	0.6 - 21.0: Sandy Gravelly Clay (cont.); moderate yellowish brown with low plasticity; grayish olive mottling; slight hydrocarbon odor; 8 ppm.	20'	15	
21				20	
21		Terminated at 21.0'			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

Project No: 3119







Sheet: 1 of 1

Project Name: FIDELITY

Log of Borehole: MW-4

Client: M. UPSHAW

Location: YERBA BUENA AVE.

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery		
0			Ground Surface						
0 - 2			ASPHALT Asphalt and gravel fill						
2 - 6			CLAY Clay with silt and minor sand, damp, moderately plastic						
6 - 10		rocarb	SILT Sandy silt with gravel up to 0.5 cm	MW-4 5'	SS		100		
10 - 14		rocarb	Coarse gravel up to 2 cm	MW-4 10'	SS		100		
14 - 16		rocarb		MW-4 14'	SS		100		
16 - 20		red soil er at 15'	SAND Silty and clayey sand, with up to 50% coarse gravel up to 1.5 cm	MW-4 16'	SS		45		

Drill Date 7/15/99

Reviewed by: JPD

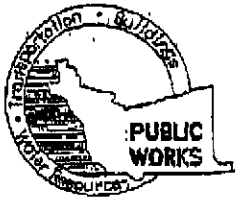
AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Drill Method: HOLLOW AUGER

Logged by: PJM

Total Depth: 20 ft.

Depth to Water: 15 ft.



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. RAYWARD CA. 94544-1395
PHONE (510) 670-6633 James Yee
FAX (510) 782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 48 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Fidelity Roof
1075 Wood St
Oakland, CA

PERMIT NUMBER WD4-0480
WELL NUMBER _____
APN _____

CLIENT
Name Monte (Cashew) - Fidelity Roof Co.
Address 1075 Wood St Phone 510-241-6339
City Oakland, CA Zip 94608

APPLICANT
Name AEI Consultants - Robert Flory
575 180 Fax 925-944-2899
Address 2700 Camino Diablo Phone 925-944-2899
City Walnut Creek Zip 94597

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring Well Destruction

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other _____

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other

DRILLER'S NAME Woodward
DRILLER'S LICENSE NO. 710079

WELL PROJECTS
Drill Hole Diameter 12 in. Maximum Depth 10 ft
Casing Diameter 9 in. Owner's Well Number SVE-1
Surface Seal Depth 5 ft

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum Depth _____ ft
Hole Diameter _____ in.

STARTING DATE Mar 6, 2004
COMPLETION DATE May 6, 2004

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-65.

APPLICANT'S SIGNATURE Robert Flory DATE 4/17/04
PLEASE PRINT NAME Robert Flory Rev. 5-18-02

PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL**
 1. A permit application should be submitted so as to 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.
 3. Permit 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 cement grout placed by tremie.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

- D. GEOTECHNICAL**

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-thirds feet replaced in kind or with compacted cuttings.

- E. CATHODIC**

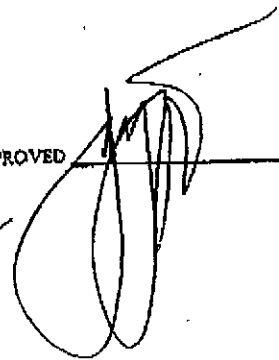
Fill hole anode zone with concrete placed by tremie.

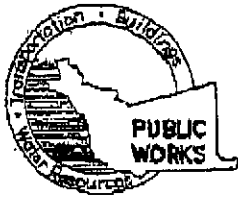
- F. WELL DESTRUCTION**

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

- G. SPECIAL CONDITIONS - NWA#2**

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED  DATE 4-30-04



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

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

LOCATION OF PROJECT Fidelity Roof
1075 40TH ST
Oakland, CA

PERMIT NUMBER W04-0481
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name Monte Coshaw - Fidelity Roof Co.
Address 1075 40TH ST Phone 510-247-6339
City Oakland, CA Zip 94608

- GENERAL**
1. A permit application should be submitted so as to 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.
 3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name AEI Consultants - Robert Flory
Address 500 100 Fax 925-944-2894
Address 2500 Camino Diablo Phone 925-944-2894
City Walnut Creek Zip 94597

- B. WATER SUPPLY WELLS**
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

- D. GEOTECHNICAL**
Backfill bore hole by tremie with cement grout or cement grout and mixture. Upper two-three feet replaced in kind or with compacted casing.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

- E. CATHODIC**
Fill hole around zone with concrete placed by tremie.

DRILLER'S NAME Woodward
DRILLER'S LICENSE NO. 710079

- F. WELL DESTRUCTION**
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS

Drill Hole Diameter	<u>5</u> in.	Maximum Depth	<u>35</u> ft.
Casing Diameter	<u>2</u> in.	Owner's Well Number	<u>A5-1</u>
Surface Seal Depth	<u>25</u> ft.		

G. SPECIAL CONDITIONS - RAW# 2

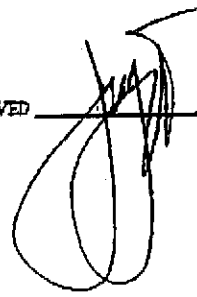
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

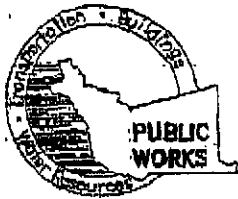
STARTING DATE Mar 10, 2004
COMPLETION DATE May 1, 2004

APPROVED _____ **DATE** 4/30/04



I hereby agree to comply with all requirements of the Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert Flory **DATE** 4/13/04
PLEASE PRINT NAME Robert Flory Rev. 9-16-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-6633 James Yee
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

LOCATION OF PROJECT Fidelity Roof
1075 40th St
Oakland, CA

PERMIT NUMBER W04-0482
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name Monte Washaw - Fidelity Roof Co.
Address 1075 40th St Phone 510-247-6339
City Oakland, CA Zip 94608

- A. GENERAL
 1. A permit application should be submitted so as to 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.
 3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name AEI Consultants - Robert Flory
Address 2509 Camino Diablo Phone 925-944-2895
City Walnut Creek Zip 94597

- B. WATER SUPPLY WELLS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

E. CATHODIC

Fill hole anodic zone with concrete placed by tremie.

DRILLER'S NAME Woodward

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. 710079

G. SPECIAL CONDITIONS - FW#2

WELL PROJECTS

Drill Hole Diameter <u>8"</u> in.	Maximum	
Casing Diameter <u>8"</u> in.	Depth <u>35'</u> ft.	
Surface Seal Depth <u>25'</u> ft.	Owner's Well Number <u>A5-2</u>	

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS

Number of Borings _____	Maximum	
Hole Diameter _____ in.	Depth _____ ft.	

STARTING DATE May 14, 2004

COMPLETION DATE May 14, 2004

APPROVED [Signature] DATE 4/30/04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert Flory DATE 4/30/04

PLEASE PRINT NAME Robert Flory Rev.9-18-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST. HAYWARD CA. 94544-1395
 PHONE (510) 670-6633 James Yoo
 FAX (510) 782-1539

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

LOCATION OF PROJECT Fidelity Roof
1075 40th Street
Oakland, CA

PERMIT NUMBER W04-0483
 WELL NUMBER _____
 AFN _____

CLIENT
 Name Monte Cyprian - Fidelity Roof Co.
 Address 1075 40th St Phone 510-347-6339
 City Oakland, CA Zip 94608

APPLICANT
 Name AEI Consultants - Robert Flory
 Address 2500 Camino Diablo Phone 925-344-2894
 City Walnut Creek Zip 94597

TYPE OF PROJECT

- | | | | |
|---------------------|--------------------------|----------------------------|--------------------------|
| Well Construction | <input type="checkbox"/> | Geotechnical Investigation | <input type="checkbox"/> |
| Cathodic Protection | <input type="checkbox"/> | General | <input type="checkbox"/> |
| Water Supply | <input type="checkbox"/> | Contamination | <input type="checkbox"/> |
| Monitoring | <input type="checkbox"/> | Well Destruction | <input type="checkbox"/> |
- Vapor Relief

PROPOSED WATER SUPPLY WELL USE

- | | | | |
|--------------|--------------------------|----------------------|-------------------------------------|
| New Domestic | <input type="checkbox"/> | Replacement Domestic | <input type="checkbox"/> |
| Municipal | <input type="checkbox"/> | Irrigation | <input type="checkbox"/> |
| Industrial | <input type="checkbox"/> | Other <u>push</u> | <input checked="" type="checkbox"/> |

DRILLING METHOD:

- | | | | | | |
|------------|--------------------------|------------|-------------------------------------|-------------|--------------------------|
| Mod Rotary | <input type="checkbox"/> | Air Rotary | <input type="checkbox"/> | Auger | <input type="checkbox"/> |
| Cable | <input type="checkbox"/> | Other | <input checked="" type="checkbox"/> | <u>push</u> | |

DRILLER'S NAME Woodward Drilling

DRILLER'S LICENSE NO. # 710079

WELL PROJECTS

Drill Hole Diameter 3 in. Maximum
 Casing Diameter 3 1/4 in. Depth 15 ft.
 Surface Seal Depth 5 ft. Owner's Well Number DP-1

GEOTECHNICAL PROJECTS

Number of Borings _____ Maximum
 Hole Diameter _____ in. Depth _____ ft.

STARTING DATE May 5, 2004

COMPLETION DATE May 5, 2004

I hereby agree to comply with all requirements of this ordinance and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert F. Flory DATE 4/3/04

PLEASE PRINT NAME Robert F. Flory Rev. 9-18-02

PERMIT CONDITIONS
 Circled Permit Requirements Apply

GENERAL

1. A permit application should be submitted so as to 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.
3. Permit 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 cement grout placed by trowel.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by trowel with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole around anode with concrete placed by trowel.

F. WELL DESTRUCTION

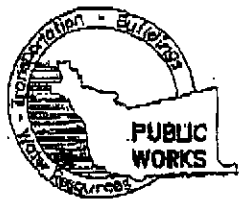
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS MWA2

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED _____

DATE 4/30-04



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

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
W04-0484

LOCATION OF PROJECT Fidelity Roof
1075 W 40th St
Oakland, CA

PERMIT NUMBER _____
 WELL NUMBER _____
 APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
 Name Monte (Cashew) - Fidelity Roof Co.
 Address 1075 W 40th St Phone 510-547-6339
 City Oakland, CA Zip 94608

- A. GENERAL**
1. A permit application should be submitted so as to 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.
 3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
 Name AEI Consultants - Robert Flory
 Address 512 180 St Fax 925-944-2894
 Address 2502 Camino Alentejo Phone 925-944-2894
 City Walnut Creek Zip 94597

- B. WATER SUPPLY WELLS**
1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other <u>pesticide</u>	<input checked="" type="checkbox"/>

- D. GEOTECHNICAL**
 Backfill bore hole by trowel with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other <u>auger</u>	<input checked="" type="checkbox"/>		

- E. CATHODIC**
 Fill hole outside zone with concrete placed by trowel.

DRILLER'S NAME Woodward Drilling
 DRILLER'S LICENSE NO. # 710079

- F. WELL DESTRUCTION**
 Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS

Drill Hole Diameter	<u>2</u> in.	Maximum	
Casing Diameter	<u>3/4</u> in.	Depth	<u>15</u> ft.
Surface Seal Depth	<u>3</u> ft.	Owner's Well Number	<u>08-2</u>

- G. SPECIAL CONDITIONS - MW#2**
- NOTE: One application must be submitted for each well or well destruction. Multiple borings on one applications are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

STARTING DATE May 5, 2004
 COMPLETION DATE May 5, 2004

APPROVED _____ DATE 4/30/04

I hereby agree to comply with all requirements of this agency and Alameda County Ordinance No. 73-65.
 APPLICANT'S SIGNATURE Robert F Flory DATE 4/13/04
 PLEASE PRINT NAME Robert F Flory Rev. 9-18-02



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

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

LOCATION OF PROJECT Fidelity Roof
1075 40th Street
Oakland, CA

PERMIT NUMBER W04-0485
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Monte Upphay - Fidelity Roof Co.
Name Monte Upphay Phone 510-247-6339
Address 1075 40th St
City Oakland, CA Zip 94608

- GENERAL**
1. A permit application should be submitted so as to 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.
 3. Permit is void if project not began within 90 days of approval date.

APPLICANT AEI Consultants - Robert Florj
Name AEI Consultants Phone 510-100-2899
Address 2500 Commerce Blk Phone 925-944-2897
City Alameda, CA Zip 94501

- B. WATER SUPPLY WELLS**
1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- D. GEOTECHNICAL**
- Backfill bore hole by trowel with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted casing.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<u>R post</u>	

- E. CATHODIC**
- Fill bore anode zone with concrete placed by trowel.

DRILLER'S NAME Woodward Drilling

- F. WELL DESTRUCTION**
- Send a map of work area. A separate permit is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. # 710079

- G. SPECIAL CONDITIONS** MW#2

WELL PROJECTS

Drill Hole Diameter	<u>2</u> in.	Maximum	
Casing Diameter	<u>2 1/2</u> in.	Depth	<u>15</u> ft.
Surface Seal Depth	<u>7</u> ft.	Owner's Well Number	<u>OP-3</u>

NOTE) One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS

Number of Borings		Maximum	
Hole Diameter		Depth	

STARTING DATE May 5, 2004

COMPLETION DATE May 5, 2004

APPROVED _____ DATE 4-30-04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert F. Florj DATE 4/17/04

PLEASE PRINT NAME Robert F. Florj Rev. 9-18-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 199 ELMHURST ST. HAYWARD CA. 94544-1396
 PHONE (510) 670-6613 James Yoo
 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

LOCATION OF PROJECT Fidelity Roof
1875 40th St East
Oakland, CA

PERMIT NUMBER W04-0486
 WELL NUMBER _____
 APN _____

CLIENT Name Monte (Cashaw) - Fidelity Roof Co.
 Address 1027 40th St Phone 510-247-6339
 City Oakland, CA Zip 94608

APPLICANT Name AEI Consultants - Robert Flory
 Address 2500 Canyon Vista Phone 925-344-2392
 City Walnut Creek Zip 94597

TYPE OF PROJECT

- | | | | |
|---------------------|--------------------------|----------------------------|--------------------------|
| Well Construction | <input type="checkbox"/> | Geotechnical Investigation | <input type="checkbox"/> |
| Cathodic Protection | <input type="checkbox"/> | General | <input type="checkbox"/> |
| Water Supply | <input type="checkbox"/> | Contamination | <input type="checkbox"/> |
| Monitoring | <input type="checkbox"/> | Well Destruction | <input type="checkbox"/> |

PROPOSED WATER SUPPLY WELL USE

- | | | | |
|--------------|--------------------------|----------------------|--------------------------|
| New Domestic | <input type="checkbox"/> | Replacement Domestic | <input type="checkbox"/> |
| Municipal | <input type="checkbox"/> | Irrigation | <input type="checkbox"/> |
| Industrial | <input type="checkbox"/> | Other | <input type="checkbox"/> |

DRILLING METHOD:

- | | | | | | |
|------------|--------------------------|------------|--------------------------|----------------|--------------------------|
| Mud Rotary | <input type="checkbox"/> | Air Rotary | <input type="checkbox"/> | Auger | <input type="checkbox"/> |
| Cable | <input type="checkbox"/> | Other | <input type="checkbox"/> | <u>DC push</u> | |

DRILLER'S NAME Woodward Drilling

DRILLER'S LICENSE NO. 1-710079

WELL PROJECTS

Drill Hole Diameter 3 in. Maximum Depth 15 ft.
 Casing Diameter 3/4 in. Owner's Well Number OP-4
 Surface Seal Depth 3 ft.

GEOTECHNICAL PROJECTS

Number of Borings _____ Maximum Hole Diameter _____ in. Depth _____ ft.

STARTING DATE May 5, 2004

COMPLETION DATE May 6, 2004

PERMIT CONDITIONS
 Circled Permit Requirements Apply

GENERAL

1. A permit application should be submitted so as to 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.
3. Permit 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 cement grout placed by trowel.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by trowel.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by trowel with cement grout or cement grout/sand mixture. Upper two-thirds fast replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by trowel.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS PIW#2

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED _____ DATE 4/30/04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 71-68.

APPLICANT'S SIGNATURE Robert Flory DATE 4/13/04

PLEASE PRINT NAME Robert Flory Rev.9-18-02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 678-6633 James Yoo
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

LOCATION OF PROJECT Fidelity Roof
1975 40th Street
Oakland, CA

PERMIT NUMBER W04-0487
WELL NUMBER
APN

CLIENT Name Monte Cappano - Fidelity Roof Co.
Address 1075 40th St Phone 510-542-6339
City Oakland, CA Zip 94608

APPLICANT Name AEI Consultants - Robert Flory
Address 2500 Commune Drive Phone 925-944-2992
City Walnut Creek Zip 94597

TYPE OF PROJECT

- Well Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General
Contamination
Well Destruction

PROPOSED WATER SUPPLY WELL USE

- New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

DRILLING METHOD:

- Mod Rotary
Cable
Air Rotary
Other

DRILLER'S NAME Woodward Drilling

DRILLER'S LICENSE NO. # 710079

WELL PROJECTS

Drill Hole Diameter 3 in. Maximum
Casing Diameter 4 in. Depth 15 ft.
Surface Seal Depth 1.5 ft. Owner's Well Number DP-5

GEOTECHNICAL PROJECTS

Number of Borings
Hole Diameter in. Maximum Depth ft.

STARTING DATE May 5, 2004

COMPLETION DATE May 5, 2004

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] DATE 4/13/04

PLEASE PRINT NAME Robert E Flory Rev. 9-13-02

PERMIT CONDITIONS
Circled Permit Requirements Apply

GENERAL

- 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of performed original Department of Water Resources-Well Completion Report.
3. Permit is void if project not began within 90 days of approval date.

E. WATER SUPPLY WELLS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compressed castings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

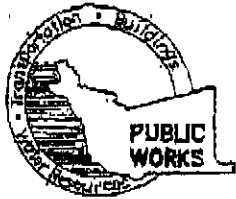
F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS - MW#2

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [Signature] DATE 4/13/04



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
 399 ELMHURST ST. HAYWARD CA. 94544-1395
 PHONE (510) 670-6633 Janet Yoo
 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

LOCATION OF PROJECT Fidelity Roof
1075 40th St
Oakland, CA

PERMIT NUMBER W04-0488
 WELL NUMBER _____
 APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
 Name Monte Capshaw - Fidelity Roof Co.
 Address 1075 40th St Phone 510-247-6339
 City Oakland, CA Zip 94608

APPLICANT
 Name AEI Consultants - Robert Flory
 Address 510 100 Phone 925-244-2899
 City Walnut Creek Zip 94597

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S NAME Woodward &

DRILLER'S LICENSE NO. 710079

WELL PROJECTS

Drill Hole Diameter	<u>2</u> in.	Maximum	
Casing Diameter	<u>2 1/2</u> in.	Depth	<u>ft</u>
Surface Seal Depth	<u>5</u> ft.	Owner's Well Number	<u>DP-6</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

STARTING DATE Mar 5, 2004

COMPLETION DATE May 5, 2004

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert Flory DATE 4/10/04

PLEASE PRINT NAME Robert Flory Rev. 9-18-02

A. GENERAL

1. A permit application should be submitted to us to 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.
3. Permit 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 cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Reinforced concrete shafts with concrete grout or cement grout/sand mixture. Upper two-thirds feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole annular zone with concrete placed by tremie.

F. WELL DESTRUCTION

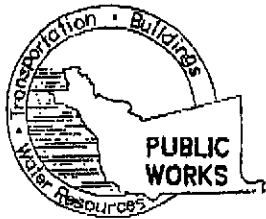
Send a map of work area. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED _____ DATE _____

9250-04



**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 cement seal 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.
- 5) Permittee, 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 statutes 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 work 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-sealing specifications shall not exempt the well-sealing 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.**
- 9) Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, 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.



McC Campbell Analytical, Inc.

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

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

WorkOrder: 0405213

May 19, 2004

DP Scott

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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



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

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

* 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 McC Campbell 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.

 Angela Rydelius, Lab Manager



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All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/13/04
		Date Received: 05/14/04
	Client Contact: Robert Flory	Date Extracted: 05/21/04
	Client P.O.:	Date Analyzed: 05/23/04-05/25/04

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

Extraction method: SW3550C

Analytical methods: SW8015C

Work Order: 0405213

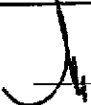
Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0405213-003A	DP3-11.5	S	45,d,b	1	117
0405213-008A	DP4-10	S	94,d,b	1	119
0405213-010A	DP5-11.5	S	830,d,b	20	91.5
0405213-011A	DP5-13	S	77,d,b	1	118
0405213-018A	DP6-13	S	11,d	1	105

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	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.

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 McC Campbell 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.

 Angela Rydelius, Lab Manager



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All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/13/04
		Date Received: 05/14/04
	Client Contact: Robert Flory	Date Extracted: 05/21/04
	Client P.O.:	Date Analyzed: 05/24/04

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0405213

Lab ID	0405213-003A	0405213-008A	0405213-010A	0405213-011A	Reporting Limit for DF = 1	
Client ID	DP3-11.5	DP4-10	DP5-11.5	DP5-13		
Matrix	S	S	S	S		
DF	1	1	400	1		

Compound	Concentration				µg/Kg	ug/L
	tert-Amyl methyl ether (TAME)	ND	ND	ND<2000	ND	5.0
t-Butyl alcohol (TBA)	ND	ND	ND<10,000	ND	25	NA
Diisopropyl ether (DIPE)	ND	ND	ND<2000	ND	5.0	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<2000	ND	5.0	NA
Methyl-t-butyl ether (MTBE)	ND	ND	ND<2000	12	5.0	NA

Surrogate Recoveries (%)

%SS:	100	97.5	95.6	97.5	
Comments			j		

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

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

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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All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/13/04
		Date Received: 05/14/04
	Client Contact: Robert Flory	Date Extracted: 05/21/04
	Client P.O.:	Date Analyzed: 05/24/04

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0405213

Lab ID	0405213-018A	Reporting Limit for DF = 1	S	W
Client ID	DP6-13			
Matrix	S			
DF	4			

Compound	Concentration				µg/Kg	ug/L
tert-Amyl methyl ether (TAME)	ND<20				5.0	NA
t-Butyl alcohol (TBA)	ND<100				25	NA
Diisopropyl ether (DIPE)	ND<20				5.0	NA
Ethyl tert-butyl ether (ETBE)	ND<20				5.0	NA
Methyl-t-butyl ether (MTBE)	ND<20				5.0	NA

Surrogate Recoveries (%)


%SS:	93.7				
Comments	j				

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

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

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.

 Angela Rydelius, Lab Manager



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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0405213

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 11546			Spiked Sample ID: 0405213-013A			
	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	0.10	89.2	89.6	0.425	85.9	91	5.73	70	130
Ethylbenzene	ND	0.10	108	110	1.53	107	114	6.32	70	130
Xylenes	ND	0.30	100	100	0	96.3	100	3.74	70	130
%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 analyte content.



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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0405213

EPA Method: SW8021B/8015Cm			Extraction: SW5030B			BatchID: 11538			Spiked Sample ID: 0405197-018A	
	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	101	102	0.802	98.2	101	2.94	70	130
MTBE	ND	0.10	92.2	107	14.5	91.8	95	3.48	70	130
Benzene	ND	0.10	102	111	8.50	100	106	5.48	70	130
Toluene	ND	0.10	89.3	92.6	3.63	87.9	92.8	5.45	70	130
Ethylbenzene	ND	0.10	110	111	0.950	108	107	1.26	70	130
Xylenes	ND	0.30	100	100	0	96.3	107	10.2	70	130
%SS:	99.8	0.10	96.1	103	6.93	107	104	2.84	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.



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QC SUMMARY REPORT FOR SW8015C

Matrix: S

WorkOrder: 0405213

EPA Method: SW8015C		Extraction: SW3550C			BatchID: 11629			Spiked Sample ID: 0405339-002A		
	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(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.

$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

* 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.

DHS Certification No. 1644

IL QA/QC Officer



McC Campbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8260B

Matrix: S

WorkOrder: 0405213

EPA Method: SW8260B		Extraction: SW5030B		BatchID: 11632			Spiked Sample ID: 0405065-036A			
	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-Butyl alcohol (TBA)	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
Diisopropyl ether (DIPE)	ND	50	116	110	5.10	117	110	6.81	70	130
Ethyl tert-butyl ether (ETBE)	ND	50	102	95.8	6.14	105	94.8	9.81	70	130
Methyl-t-butyl ether (MTBE)	ND	50	98.4	92	6.76	97.9	87.5	11.3	70	130
Toluene	ND	50	110	110	0	117	117	0	70	130
Trichloroethene	ND	50	81.7	80.6	1.30	88.9	90.6	1.91	70	130
%SSI:	105	50	99.4	95.6	3.83	98.6	93	5.77	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.


$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

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

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

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

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

 QA/QC Officer

0405213

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory Bill To:
Company: AEI Consultants AEI Consultants
2500 Camino Diablo, Suite 200
E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
Project #: 8326 Project Name: Fidelity Roof
Project Location: 1075 40th Street, Oakland, CA
Sampler Signature: *[Signature]*

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
DP3-7		5/17/04	0900	1													
DP3-9			0905	1													
DP3-11.5			0910	1													
DP3-15			0925	1													
DP2-11.5			1015	1													
DP4-5.5			1220	1													
DP4-7.5			1225	1													
DP4-10			1230	1													
DP4-13				1													
DP5-7.5			1110	1													
DP5-11.5			1115	1													
DP5-13			1130	1													

Analysis Request	Other	Comments
BTEX & TPH as Gas (602/8020 + 8015)/MTBE		
TPH as Diesel (8015) <i>added sps 5.4.4</i>		
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		
EPA 608 / 8080 PCB's ONLY		
EPA 624 / 8240 / 8260 <i>5-0XYS added 5/21/04</i>		
EPA 625 / 8270		
PAH's / PNA's by EPA 625 / 8270 / 8310		
CAM-17 Metals		
LUFT 5 Metals		
Lead (7240/7421/239-2/6010) Total lead		
RCI		
TPH multi-range EPA 8015		

Relinquished By: *[Signature]* Date: 5/17/04 Time: 831 Received By: *[Signature]*
 Relinquished By: *[Signature]* Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/1st PRESERVATION APPROPRIATE CONTAINERS PRESERVED IN LAB
 GOOD CONDITION VOAS O&G METALS OTHER
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB



McC Campbell Analytical, Inc.

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

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

WorkOrder: 0405091

May 14, 2004

Dear Robert:

Soil AS needs

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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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

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

Client Project ID: #8326; Fidelity Roof
 Client Contact: Robert Flory
 Client P.O.:

Date Sampled: 05/06/04
 Date Received: 05/07/04
 Date Extracted: 05/08/04
 Date Analyzed: 05/08/04-05/12/04

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0405091

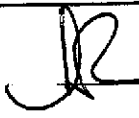
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	AS1-20	S	ND	ND	ND	ND	ND	ND	1	112
005A	AS2-15	S	ND	ND	ND	ND	ND	ND	1	93.5
007A	AS2-20	S	ND	ND	ND	ND	ND	ND	1	103

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

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/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 McC Campbell 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.

 Angela Rydelius, Lab Manager



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

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/06/04
		Date Received: 05/07/04
	Client Contact: Robert Flory	Date Extracted: 05/08/04
	Client P.O.:	Date Analyzed: 05/10/04

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

Extraction method: SW3550C

Analytical methods: SW8015C

Work Order: 0405091


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	1	97.8
0405091-007A	AS2-20	S	ND	1	97.5

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	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.

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 McC Campbell 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.

 Angela Rydelius, Lab Manager



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

All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #8326; Fidelity Roof	Date Sampled: 05/06/04
		Date Received: 05/07/04
	Client Contact: Robert Flory	Date Extracted: 05/08/04
	Client P.O.:	Date Analyzed: 05/13/04

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0405091

Lab ID	0405091-001A	0405091-005A	0405091-007A		Reporting Limit for DF = 1
Client ID	AS1-20	AS2-15	AS2-20		
Matrix	S	S	S		
DF	1	1	1		

Compound	Concentration				µg/Kg	ug/L
	tert-Amyl methyl ether (TAME)	ND	ND	ND		5.0
t-Butyl alcohol (TBA)	ND	ND	ND		25	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

Surrogate Recoveries (%)

%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: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 11484			Spiked Sample ID: 0405091-001A			
	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
MTBE	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	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 analyte content.



McC Campbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8015C

Matrix: S

WorkOrder: 0405091

EPA Method: SW8015C		Extraction: SW3550C			BatchID: 11459			Spiked Sample ID: 0405091-001A		
	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(d)	ND	150	108	109	0.698	112	111	1.02	70	130
%SS:	97.4	50	95.5	95.7	0.167	104	103	1.21	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.

$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

* 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.

DHS Certification No. 1644

V. J. QA/QC Officer



QC SUMMARY REPORT FOR SW8260B

Matrix: S

WorkOrder: 0405091

EPA Method: SW8260B		Extraction: SW5030B		BatchID: 11434			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 alcohol (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-butyl 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

F1 = 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.

$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

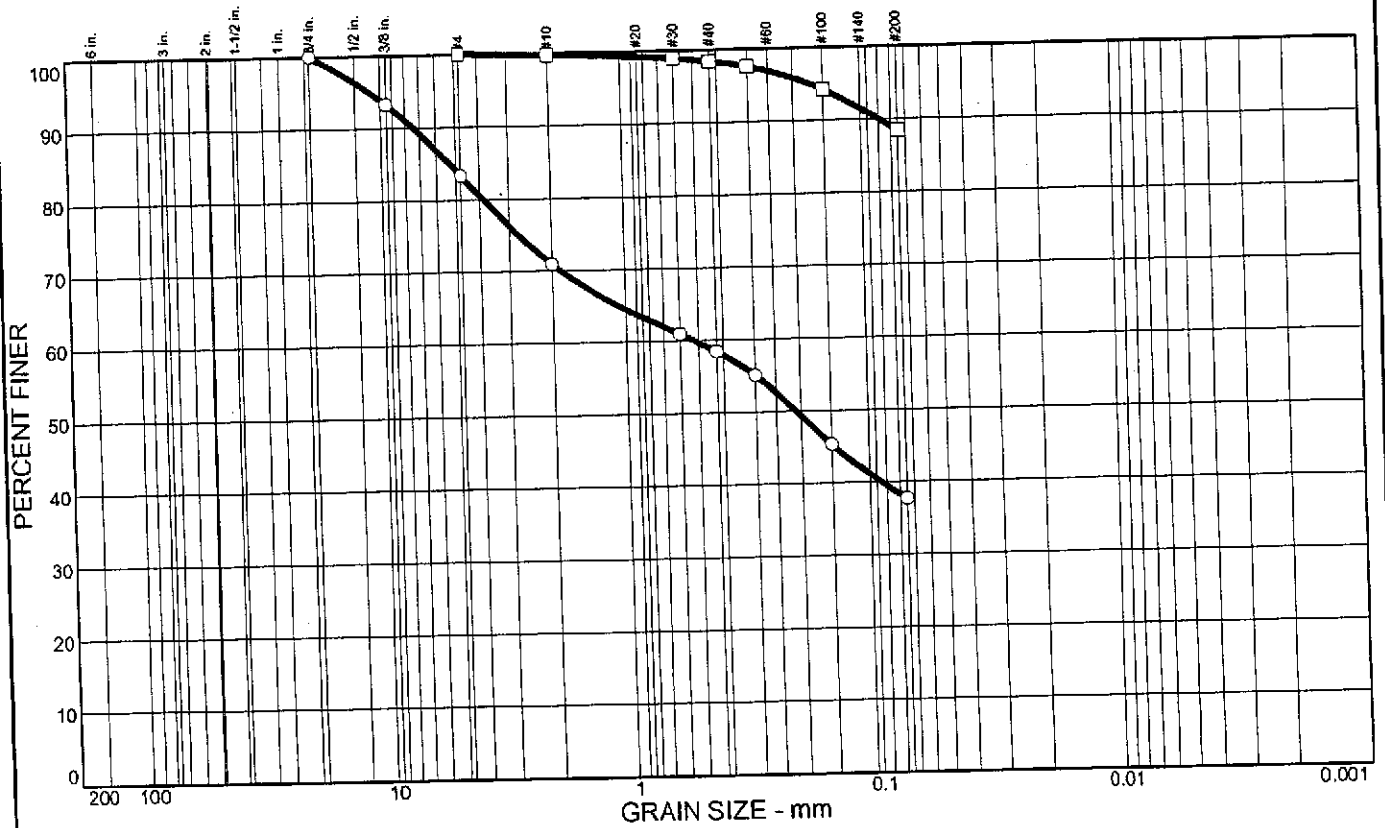
* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

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

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

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

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
<input type="radio"/>		16.7	45.6						
<input type="checkbox"/>			11.6						

SIEVE inches size	PERCENT FINER		SIEVE number size	PERCENT FINER		SOIL DESCRIPTION <input type="radio"/> Brown Clayey SAND with Gravel <input type="checkbox"/> Brown CLAY
	<input type="radio"/>	<input type="checkbox"/>		<input type="radio"/>	<input type="checkbox"/>	
3/4	100.0		#4	83.3	100.0	
3/8	93.3		#10	70.9	99.7	
GRAIN SIZE			#30	60.9	98.9	
D60			#40	58.4	98.4	
D30			#50	55.0	97.6	
D10			#100	45.3	94.2	
COEFFICIENTS			#200	37.7	88.4	
C _c						
C _u						
REMARKS:						

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

McC Campbell Analytical, Inc.

CHAIN-OF-CUSTODY RECORD



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
 Walnut Creek, CA 94597

TEL: (925) 283-6000
 FAX: (925) 283-6121
 ProjectNo: #8326; Fidelity Roof
 PO:

Bill to:

Lesleigh Alderman
 All Environmental, Inc.
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 5/7/04

Date Printed: 5/8/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0405091-001	AS1-20	Soil	5/6/04	<input type="checkbox"/>	A	A	A													
0405091-005	AS2-15	Soil	5/6/04 10:45:00 AM	<input type="checkbox"/>	A	A	A													
0405091-007	AS2-20	Soil	5/6/04 10:50:00 AM	<input type="checkbox"/>	A	A	A													

Test Legend:

1 9-OXYS_S
 6
 11

2 G-MBTEX_S
 7
 12

3 TPH(D)_S
 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.



McC Campbell Analytical, Inc.

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

WorkOrder: 0405362

May 28, 2004

*water
mw 3
DP 1, 2, 3*

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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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

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

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0405362

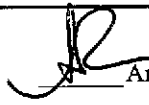
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-3	W	67,000,a,h	ND<500	6900	550	2900	12,000	100	110
002A	DP-1	W	1400,m	ND<10	0.86	2.8	3.1	3.3	1	106
003A	DP-2	W	1200,a	ND	30	1.1	11	25	1	100
004A	DP-3	W	1800,a	180	14	2.3	ND	9.7	1	87.4

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell 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.

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0405362

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 11634		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
MTBE	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.

% 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.

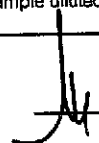
£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS Certification No. 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8015C

Matrix: W

WorkOrder: 0405362

EPA Method: SW8015C		Extraction: SW3510C			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 Deviation.

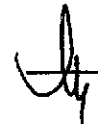
% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

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

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

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

DHS Certification No. 1644

 QA/QC Officer

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0405362

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:

Lesleigh Alderman
 All Environmental, Inc.
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 5/24/04

Date Printed: 5/24/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0405362-001	MW-3	Water	5/24/04	<input type="checkbox"/>	A	A	B													
0405362-002	DP-1	Water	5/24/04	<input type="checkbox"/>	A															
0405362-003	DP-2	Water	5/24/04	<input type="checkbox"/>	A															
0405362-004	DP-3	Water	5/24/04	<input type="checkbox"/>	A															

Test Legend:

1	G-MBTEX W	2	PREF REPORT	3	TPH(D)_W	4		5	
6		7		8		9		10	
11		12		13		14		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.

0405362

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

EDF Required? Coelt (Normal) Analysis Request

RUSH 24 HR 48 HR 72 HR 5 DAY
No Write On (DW) No

Report To: Robert Flory Bill To:
Company: AEI Consultants AEI Consultants
2500 Camino Diablo, Suite 200
E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
Project #: 8326 Project Name: Fidelity Roof
Project Location: 1075 40th Street, Oakland, CA
Sampler Signature: *John Nietz*

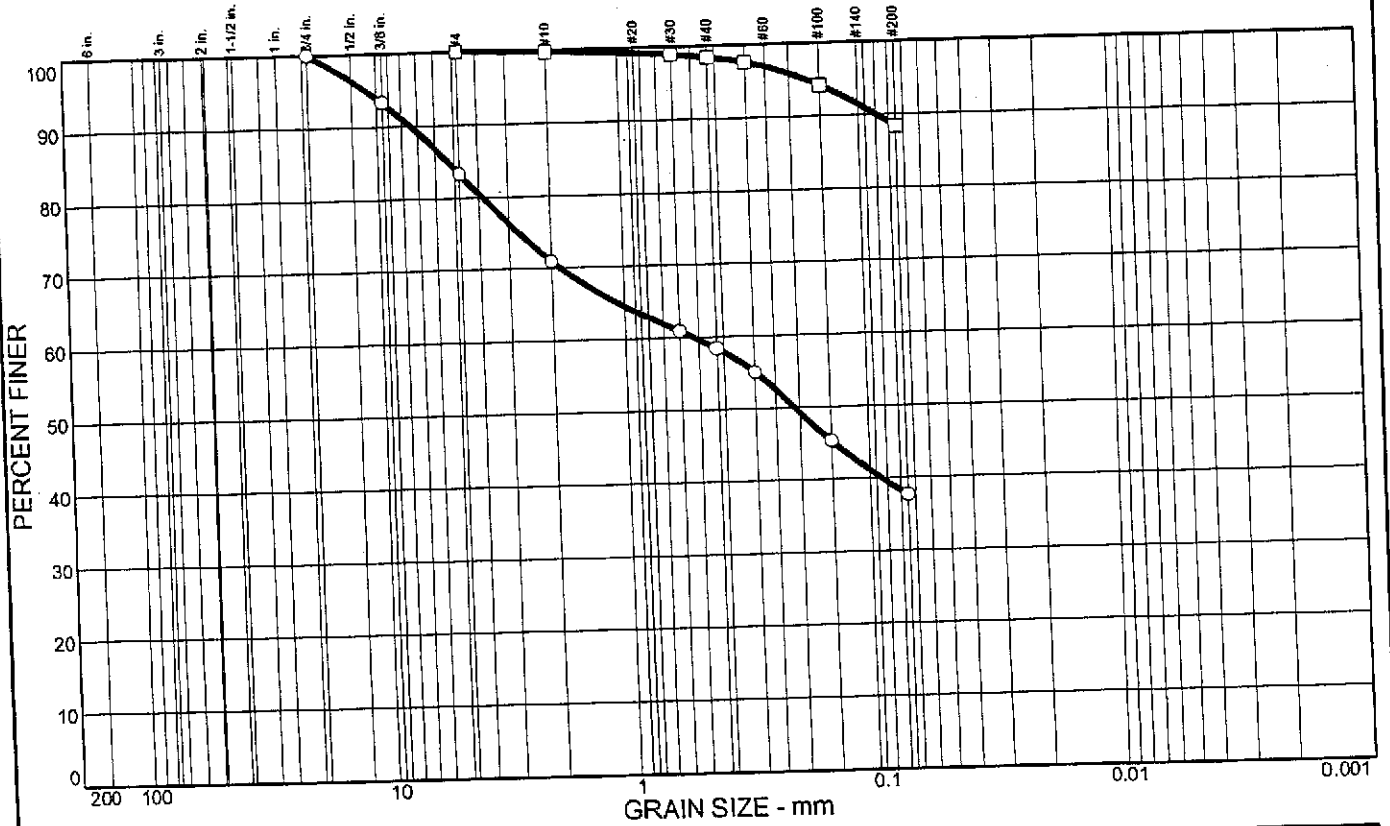
SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
+ MW-3		5/24	Pm	4	V/L	X					X	X	X	X				
+ DP-1			Pm	3	Vas	X					X	X	X	X				
+ DP-2			Pm	3	Vas	X					X	X	X	X				
+S DP-3			Pm	3	Vas	X					X	X	X	X				

Analysis Request	Other	Comments
BTEX & TPH as Gas (602/8020 + 8015)/MTBE		
TPH as Diesel (8015)		
Total Petroleum Oil & Grease (5520 E&F/B&F)		
Total Petroleum Hydrocarbons (418.1)		
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 EPA 625 / 8270 / 8310		
CAM-17 Metals		
LUFT 5 Metals		
Lead (7240/7421/239.2/6010) Total lead		
RCI		
TPH multi-range EPA 8015		

Relinquished By: *John Nietz* Date: 5/24 Time: 3:55 pm Received By: *Mal Valle*
Relinquished By: _____ Date: _____ Time: _____ Received By: _____
Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/c°
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION APPROPRIATE
CONTAINERS
PERSERVED IN LAB
VOAS O&G METALS OTHER

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
<input type="radio"/>		16.7	45.6						
<input type="checkbox"/>			11.6						

SIEVE inches size	PERCENT FINER	
	<input type="radio"/>	<input type="checkbox"/>
3/4	100.0	
3/8	93.3	
GRAIN SIZE		
D60	0.526	
D30		
D10		
COEFFICIENTS		
C _c		
C _u		

SIEVE number size	PERCENT FINER	
	<input type="radio"/>	<input type="checkbox"/>
#4	83.3	100.0
#10	70.9	99.7
#30	60.9	98.9
#40	58.4	98.4
#50	55.0	97.6
#100	45.3	94.2
#200	37.7	88.4

SOIL DESCRIPTION

Brown Clayey SAND with Gravel

Brown CLAY

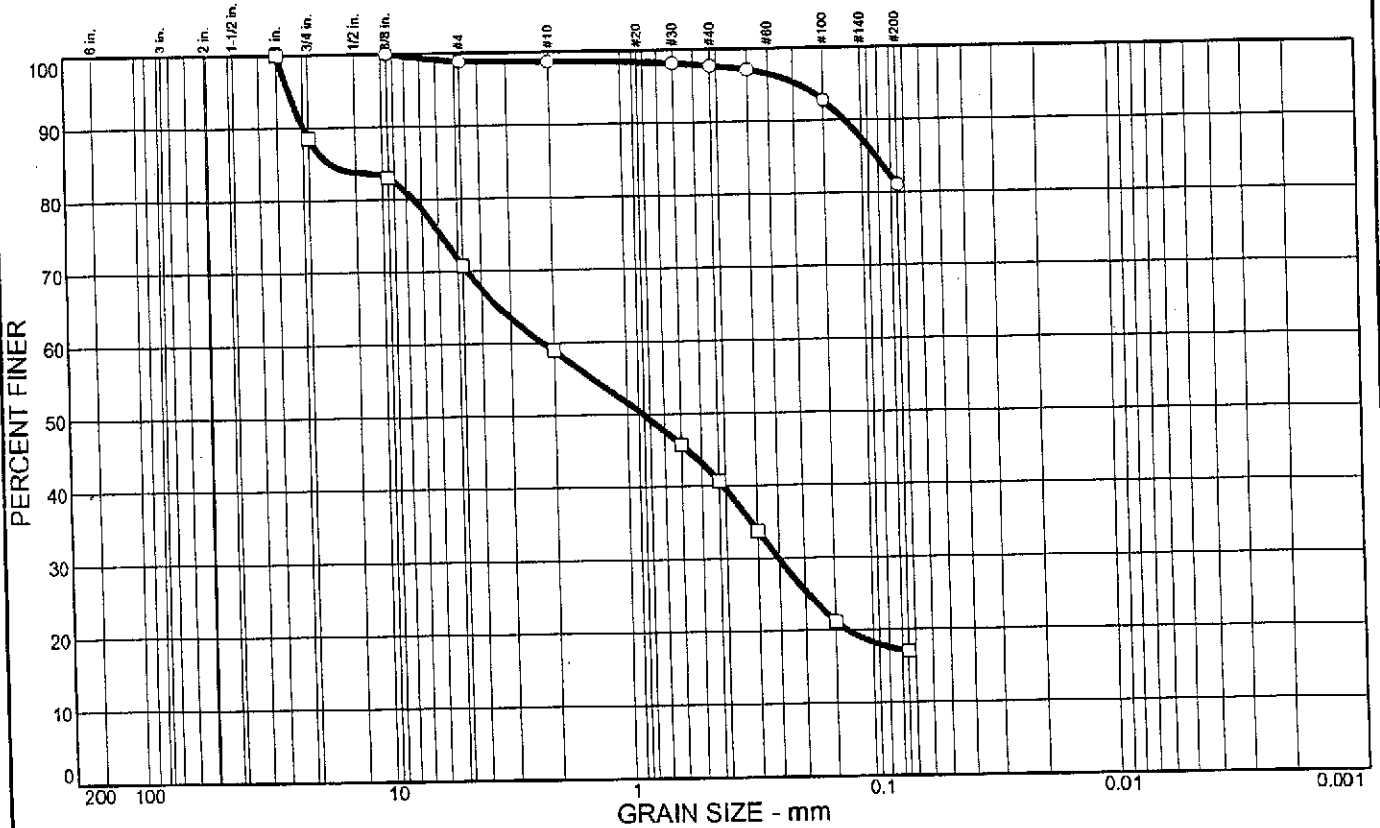
REMARKS:

Source:

Source:

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

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○		1.2	17.8						
□		29.3	53.7						

SIEVE inches size	PERCENT FINER	
	○	□
1		100.0
3/4		88.6
3/8	100.0	83.0
GRAIN SIZE		
D ₆₀		2.22
D ₃₀		0.250
D ₁₀		
COEFFICIENTS		
C _c		
C _u		

SIEVE number size	PERCENT FINER	
	○	□
#4	98.8	70.7
#10	98.6	58.9
#30	98.1	45.7
#40	97.7	40.7
#50	97.1	33.8
#100	92.7	21.2
#200	81.0	17.0

SOIL DESCRIPTION

○ Brown CLAY with Sand

□ Brown Silty SAND with Gravel

REMARKS:

○

□

○ Source: Sample No.: AS1-22
 □ Source: Sample No.: AS1-25



McC Campbell Analytical, Inc.

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

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

WorkOrder: 0405319

May 25, 2004

*VEST
mw - 3*

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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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

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

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0405319

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
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


Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in 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 McC Campbell 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.

DHS Certification No. 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A

WorkOrder: 0405319

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 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) ^E	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
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.

^E 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.

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0405319

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: Lesliegh Alderman All Environmental, Inc. 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Requested TAT: 5 days Date Received: 5/20/04 Date Printed: 5/20/04
---	--	--	---

Requested Tests (See legend below)														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0405319-001	VES1	Air	5/20/04 10:15:00	<input type="checkbox"/>	A														
0405319-002	MW3	Air	5/20/04 10:15:00	<input type="checkbox"/>	A														
0405319-003	VES1-2	Air	5/20/04 2:00:00 PM	<input type="checkbox"/>	A														
0405319-004	MW-3-2	Air	5/20/04 2:16:00 PM	<input type="checkbox"/>	A														

Test Legend:

1	G-MBTX AIR	2		3		4		5	
6		7		8		9		10	
11		12		13		14		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.

all

0405319

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory Bill To:
Company: AEI Consultants AEI Consultants
2500 Camino Diablo, Suite 200
E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122 Fax: (925) 944-2895
Project #: 8326 Project Name: Fidelity Roof
Project Location: 1075 48th Street, Oakland, CA
Sampler Signature: *[Signature]*

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
UES1		3/20/04	1020	1	1466												
MU03		3/20/04	1015	1													
UES-1-2			1400														
MU03-2			1416														

Relinquished By: *[Signature]* Date: 3/28/04 Time: 1525 Received By: *[Signature]*
Relinquished By: Date: Time: Received By:
Relinquished By: Date: Time: Received By:

ICE/A*
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION APPROPRIATE
CONTAINERS
PERSERVED IN LAB
VOAS O&G METALS OTHER



McC Campbell Analytical, Inc.

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

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

WorkOrder: 0405345

May 27, 2004

*DP3
AW 3*

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. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A

WorkOrder: 0405345

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 11634		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	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.



QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: A

WorkOrder: 0405345

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 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
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.

McCampbell Analytical, Inc.

CHAIN-OF-CUSTODY RECORD



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

WorkOrder: 0405345

ClientID: AEL

Report to:		Bill to:	Requested TAT:	5 days
Robert Flory	TEL: (925) 283-6000	Lesliegh Alderman		
All Environmental, Inc.	FAX: (925) 283-6121	All Environmental, Inc.	Date Received:	5/21/04
2500 Camino Diablo, Ste. #200	ProjectNo: #8326; Fidelity Roof	2500 Camino Diablo, Ste. #200	Date Printed:	5/21/04
Walnut Creek, CA 94597	PO:	Walnut Creek, CA 94597		

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)																
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
0405345-001	MW-3-3-1	Air	5/21/04 10:35:00	<input type="checkbox"/>	A																
0405345-002	DP3-1	Air	5/21/04 10:40:00	<input type="checkbox"/>	A																
0405345-003	MW-3-3-2	Air	5/21/04 12:30:00	<input type="checkbox"/>	A																
0405345-004	DP3-2	Air	5/21/04 1:00:00 PM	<input type="checkbox"/>	A																

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.

0405345

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Robert Floss Bill To: _____
 Company: AET
2500 Camino Diablo, Ste 100
Walnut Creek, CA E-Mail: _____
 Tele: (925) 944-2899 Fax: (925) 944-2895
 Project #: 8726 Project Name: Fidelity Reef
 Project Location: 1075 140th Oakland
 Sampler Signature: [Signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
MW-3-3-1		5/2/04	1035	1	16oz red			X									Filter Samples for Metals analysis: Yes / No
DP3-1			1040	1				X									
MW-3-3-2			1230	1				X									
DP3-2			1300	1				X									

Relinquished By: [Signature] Date: 5/2/04 Time: 1437 Received By: [Signature]
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/1" 30 COMMENTS:
 GOOD CONDITION
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB _____
 PRESERVATION VOAS | O&G | METALS | OTHER
 pH < 2 _____
 *Please circle water type:
 GROUND WASTE DRINKING RECREATIONAL EFFLUENT