PES Environmental, Inc.
Engineering & Environmental Services

July 28, 1997

ENVIRONMENTAL PROTECTION
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Ms. Susan L. Hugo
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94501

TRANSMITTAL
QUARTERLY MONITORING REPORT
SECOND QUARTER 1997
POWELL STREET PLAZA
AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA

Dear Ms. Hugo:

Enclosed is one copy of the above titled report prepared by PES Environmental, Inc. for the former partners of Eastshore Partners (Eastshore) for the Powell Street Plaza and Shellmound III sites, Emeryville, California. This quarterly report presents results of groundwater elevation monitoring and groundwater sampling activities for the second quarter of 1997 at the Powell Street Plaza and Shellmound III sites.

Yours very truly,

PES ENVIRONMENTAL, INC.

Elizabeth Large
Staff Geologist

Enclosure: Quarterly Monitoring Report

cc: Mr. Thomas Gram
Mr. Thomas Graf, Geomatrix Consultants

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PES Environmental, Inc.
Engineering & Environmental Services

A Report Prepared for:

Mr. Thomas Gram
5800 Shellmound, Suite 210
Emeryville, California 94608

QUARTERLY MONITORING REPORT
SECOND QUARTER 1997
POWELL STREET PLAZA
AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA

JULY 28, 1997

By:

Elizabeth A. Large
Staff Geologist

Richard J. Hutton
Senior Environmental Specialist

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1.0 INTRODUCTION

This report presents data collected by PES Environmental, Inc. (PES) during groundwater monitoring at Powell Street Plaza and the adjacent Shellmound III properties in Emeryville, California during the second quarter of 1997. Monitoring during this quarter was performed on May 23, 1997. The purpose of the monitoring is to evaluate the degree and extent of petroleum hydrocarbons in groundwater at the subject sites. This monitoring was conducted on behalf of the former partners of Eastshore Partners pursuant to a June 4, 1993 letter to Aetna Real Estate Associates, L.P. (the current Powell Street Plaza property owner) from the Alameda County Department of Environmental Health (ACDEH).

The scope of monitoring activities was established in subsequent conversations with Ms. Susan Hugo of ACDEH and Mr. Rich Hiett of the California Regional Water Quality Control Board - San Francisco Bay Region (RWQCB). The groundwater monitoring schedule was outlined initially in a June 29, 1994 letter to Ms. Hugo. Subsequent modifications to the groundwater monitoring schedule were documented in letters to Ms. Hugo dated October 24, 1994 and March 14, 1996. The March 1996 letter documented verbal authorization from Ms. Hugo to reduce the frequency for chemical analysis from quarterly to semi-annually.

2.0 SITE CONDITIONS SUMMARY

Monitoring wells PZ-1, MW-18, MW-19, MG-1, MG-2, MG-3, and MG-4 were covered by soil stockpiles or were inaccessible for sampling due to heavy equipment or materials blocking access to the wells. Monitoring well MW-10 was damaged by road excavation due to the realignment of Shellmound Street. Monitoring wells MW-8 and MW-9 were inaccessible due to corrosion and dirt in the well traffic box lids and, therefore, were not measured. Monitoring wells MW-4, MW-5, MW-7, MW-15, and MW-16 were abandoned during the North Interceptor relocation activities in accordance with Alameda County Flood Control District - Zone 7 well destruction permit conditions. Locations of all monitoring wells are shown on Plate 1.

3.0 QUARTERLY GROUNDWATER SAMPLING

Quarterly groundwater sampling was conducted by Blaine Tech Services, Inc. (Blaine Tech) under PES' direction on May 23, 1997. Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-11, MW-12, and MG-7 in accordance with the monitoring well sampling schedule approved by ACDEH. Monitoring wells PZ-1, MW-19, MG-2, and MG-4 were scheduled to be sampled, but were inaccessible as described above. Monitoring well identification, corresponding sample numbers, and status of wells not sampled are presented on Table 1.

Groundwater samples were collected from each well after removing approximately three well volumes of water using a new disposable Teflon bailer at each well.

During purging, the discharge water was monitored for pH, temperature, electrical conductivity and turbidity. The samples were collected from the wells using a new disposable Teflon bailer at each well and decanted into the appropriate laboratory containers preserved with hydrochloric acid. The sample containers were then labeled and immediately placed in a chilled, thermally-insulated cooler for delivery under chain-of-custody protocol to American Environmental Network (AEN), a State-certified laboratory in Pleasant Hill, California. AEN received the samples on May 23, 1997. Samples were analyzed on May 31 and June 2-4, 1997.

AEN analyzed the samples using EPA Test Method 8015 (modified) for total petroleum hydrocarbons quantified as gasoline (TPHg), diesel (TPHd without silica gel cleanup), and motor oil (TPHmo without silica gel cleanup) and EPA Test Method 8020 for benzene, toluene, ethylbenzene, and total xylenes (BTEX). Laboratory chemical analyses results for dissolved hydrocarbon compounds in groundwater, including results from previous sampling events, are listed in Table 2.

The laboratory reports and chain-of-custody records are attached as Appendix A. Sampling methods and field parameter measurements are described in the Blaine Tech sampling report in Appendix B.

4.0 DEPTH-TO-GROUNDWATER AND PRODUCT THICKNESS MEASUREMENTS

Depth-to-groundwater and product thickness (where present) were measured in monitoring wells MW-1, MW-2, MW-3, MW-6, MW-11, MW-12, MW-13, MW-14, and MG-7 on May 23, 1997 by Blaine Tech. For accessible monitoring wells scheduled to be sampled during this event, depth-to-groundwater was measured prior to well purging and sampling. Measurements were recorded to the nearest 0.01 foot using an electronic, dual-interface sounding probe. Depth-to-groundwater measurements were converted to groundwater elevations referenced to mean sea level (MSL) and corrected for displacement by free product, as noted in Table 3. To prevent cross-contamination between wells, the portion of the sounding probe submerged in the well was cleaned with an alconox/deionized water solution and double-rinsed with deionized water between well measurements. Groundwater elevations and product thickness measurements are listed in Table 3 and illustrated on Plates 2 and 3, respectively.

5.0 SUMMARY OF RESULTS

This section presents a summary of groundwater chemistry and groundwater elevation data collected during the May 23, 1997 sampling event.

5.1 Groundwater Chemistry

Hydrocarbons in the diesel range (TPHd) were reported in groundwater samples collected from wells MW-1, MW-2, MW-11, MW-12, and MG-7. Concentrations of hydrocarbons measured as TPHd ranged from 0.30 parts per million (ppm) (MW-12) to 7.4 ppm (MW-2). Hydrocarbons in the motor oil range (TPHmo) were detected in groundwater samples collected from wells MW-2, MW-11, and MG-7 at concentrations ranging from 0.4 ppm (MG-7) to 0.6 ppm (MW-11).

Benzene was detected in the groundwater sample collected from well MW-2 at a concentration of 0.001 ppm. Toluene, ethylbenzene, and total xylenes were not detected in any of the groundwater samples at or above their laboratory reporting limits.

5.2 Groundwater Elevations and Product Thickness Measurements

The May 23, 1997 groundwater elevations at the Powell Street Plaza and Shellmound III properties ranged from 0.56 to 4.75 feet above mean sea level (MSL). The May 23, 1997 groundwater elevations at the Powell Street Plaza property ranged from 0.63 foot higher (MW-11) to 0.38 foot lower (MW-1) than elevations measured on March 5, 1997. The May 23, 1997 groundwater elevation for MG-7 on the Shellmound III property was 0.08 foot higher than the March 5, 1997 elevation. In general, groundwater elevations remained relatively consistent at the Powell Street Plaza and Shellmound III properties from the first quarter to second quarter of 1997.

Well MW-11 has shown uncharacteristically low groundwater elevations for the last four quarters compared to its historical groundwater elevations. The groundwater mound in the vicinity of wells MW-13 and MW-14 still persists. The primary direction of groundwater flow across the two sites is southwest toward Temescal Creek at an approximate gradient range of 0.006 to 0.013 foot per foot.

Free product was observed only in well MW-13. A product thickness measurement of 0.06 foot was observed in well MW-13, which is at the low end of the historical range.

5.3 Summary of Product Removal

The passive free-phase product recovery skimmer has been operating alternately in Wells MW-13 and MW-14 at the Powell Street Plaza site since June 1996. From June 28, 1996 to May 23, 1997, the product recovery system removed approximately 0.126 gallons of product.

6.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Chemical data obtained from water sample analyses were validated according to accuracy, precision, and completeness criteria. Three types of control samples: spikes, spike duplicates, and blanks were used in the QA/QC program to evaluate the chemical data.

Data accuracy was assessed by evaluating results of analyses of a laboratory spike sample and a laboratory spike duplicate. The results of spike and spike duplicate analyses are presented in the laboratory report in Appendix A. The recoveries (the percentage difference between the spike concentration and the measured concentration) and differences (from duplicate analyses) were within project goals.

The evaluation procedure for blanks includes a qualitative review of the chemical analysis data reported by the laboratory. TPHg, TPHd, TPHmo and BTEX were not detected in the internal blanks prepared by the laboratory. One field blank (Sample Number 96480000) was submitted to the laboratory for analysis. TPHg, TPHd, TPHmo and BTEX were not detected in the field blank.

Internal laboratory blank, spike and spike duplicate data were within the laboratory QA/QC limits. No petroleum hydrocarbons or hydrocarbon constituents were detected in the internal blanks. The data are therefore, considered to be representative and acceptable.

TABLES

TABLE 1
Summary of Wells Sampled
May 23, 1997
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well ID	Semi-Annual Sampling Required	Sample Number	Status of Wells Not Sampled
MW-1	X	97210001	
MW-2	X	97210002	
MW-3		NS	Eliminated from sampling schedule.
MW-4		NS	Abandoned by permit.
MW-5		NS	Abandoned by permit.
MW-6		NS	Eliminated from sampling schedule.
MW-7		NS	Abandoned by permit.
MW-8		NS	Eliminated from sampling schedule.
MW-9		NS	Eliminated from sampling schedule.
MW-10		NS	Eliminated from sampling schedule.
MW-11	X	97210011	
MW-12	X	97210012	
MW-13		NS	Free-product present.
MW-14		NS	Eliminated from sampling schedule.
MW-15		NS	Abandoned by permit.
MW-16		NS	Abandoned by permit.
MW-18		NS	Eliminated from sampling schedule.
MW-19	X	NS	Inaccessible.
MG-1		NS	Inaccessible.
MG-2	X	NS	Inaccessible.
MG-3		NS	Inaccessible.
MG-4	X	NS	Inaccessible.
MG-7	X	97210107	
PZ-1	X	NS	Inaccessible.
Trip Blank		97210000	

Note:
NS = Not sampled

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-1	3/14/88	8015	NT	<1	NT	NT	NT	NT	NT	
	3/25/91	8015/8020	<0.050	<0.050	NT	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	8260	<0.050	<0.050	NT	0.0013	0.0018	<0.0005	0.0020	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	<0.05	0.3	0.2	<0.0005	<0.0005	<0.0005	<0.002	
	3/3/95	8015/8020	<0.05	0.69	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	<0.05	0.4	0.3	<0.0005	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	<0.05	0.5	0.6	<0.0005	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	<0.05	0.2	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	6/28/96	8015/8020	<0.05	0.9	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	11/25/96	8015/8020	<0.05	0.85	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/2/97	8015/8020	<0.05	0.69	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
MW-2	3/14/88	8015	NT	0.05	NT	NT	NT	NT	NT	
	3/25/91	8015/8020	0.053	<0.050	NT	0.0006	<0.0003	<0.0003	<0.0003	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	8/30/94	8260	<0.050	0.200	NT	0.0006	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	0.07	3.9	0.9	0.0009	<0.0005	<0.0005	<0.002	
	3/3/95	8015/8020	0.08	3.9	0.2	0.0007	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	0.05	2.4	0.2	0.0007	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	0.06	4.1	0.8	0.0007	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	0.1	4.5	0.4	0.001	<0.0005	<0.0005	<0.002	
	6/28/96	8015/8020	0.12	5.6	<0.2	0.015	<0.0005	<0.0005	<0.002	
	11/25/96	8015/8020	<0.05	5.6	0.4	0.0017	<0.0005	<0.0005	<0.002	
	5/2/97	8015/8020	0.08	7.40	0.5	0.001	<0.0005	<0.0005	<0.002	
MW-3	3/14/88	8015	NT	0.15	NT	NT	NT	NT	NT	
	3/25/91	NS	NS	NS	NT	NS	NS	NS	NS	Free product
	11/10/93	NS	NS	NS	NT	NS	NS	NS	NS	Free product (0.23 ft)
	2/23/94	8260	<0.050	11.000	NT	0.0007	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	NS	NS	NS	NS	NS	NS	NS	Well cover jammed
	8/30/94	8260	<0.050	1.300	NT	0.0013	<0.0005	<0.0005	0.0006	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-4	3/14/88	8015	NT	1.2	NT	NT	NT	NT	NT	
	3/25/91	8015/8020	1.300	2.500	NT	0.7100	0.0030	0.0020	0.0060	
	11/10/93	8260	0.800	34.000	NT	0.4400	0.0030	<0.0020	<0.0020	Free product (0.02 ft)
	2/23/94	8260	0.560	18.000	NT	0.4500	0.0025	<0.0005	0.0020	
	6/2/94	8260	<0.500	13.000	NT	0.760	<0.005	<0.005	<0.005	
	8/30/94	8260	1.400	<0.050	NT	0.470	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	3.5	14	1.5	0.500	0.004	0.0007	0.003	
	3/3/95	8015/8020	3.1	11	0.7	<0.010	0.004	0.001	0.004	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Well buried under soil stockpile
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well abandoned
MW-5	3/14/88	8015	NT	<1	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	6.800	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	7.100	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.500	8.100	NT	<0.005	<0.005	<0.005	<0.005	
	8/30/94	8260	<0.050	1.400	NT	<0.0005	<0.0005	<0.0005	<0.0005	0.0005 - 1,2-DCA
	11/29/94	8015/8020	2.1	4.3	1.1	0.0006	0.0006	<0.0005	<0.002	
	3/3/95	8015/8020	0.6	5.3	0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	0.06	5.2	0.8	<0.0005	<0.0005	<0.0005	<0.002	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well abandoned
MW-6	3/14/88	8015	NT	<0.05	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-7	3/10/88	NS	NS	NS	NS	NS	NS	NS	NS	Free product (1.32 ft)
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.22 ft)
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.02 ft)
	6/2/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.01 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Well not accessible
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well abandoned

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-8	3/14/88	8015	NT	<0.05	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	0.190	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	9/6/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-9	3/14/88	8015	NT	<1	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-10	3/14/88	8015	NT	<1.0	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-11	3/14/88	NS	NS	NS	NS	NS	NS	NS	NS	Well was dry
	11/10/93	8260	<0.050	<0.050	NT	0.0008	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	0.0008	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	0.0021	<0.0005	<0.0005	<0.0005	
	8/30/94	8260	<0.050	<0.050	NT	0.0028	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	0.07	2.0	0.8	0.002	<0.0005	<0.0005	<0.002	

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-11 (cont)	3/3/95	8015/8020	0.06	3.7	0.2	0.005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	0.09	2.5	0.6	0.011	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	<0.05	3.3	0.5	0.001	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	<0.05	2.8	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	6/28/96	8015/8020	<0.05	1.8	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	11/25/96	8015/8020	<0.05	3.5	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	5/2/97	8015/8020	<0.05	0.64	0.6	<0.0005	<0.0005	<0.0005	<0.002	
MW-12	3/14/88	8015	NT	0.05	NT	NT	NT	NT	NT	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	9/6/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	<0.05	0.3	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	3/3/95	8015/8020	<0.05	0.3	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	<0.05	0.66	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	<0.05	0.6	0.2	<0.0005	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	<0.05	0.4	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	6/28/96	8015/8020	<0.05	0.48	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	11/25/96	8015/8020	<0.05	0.57	0.21	<0.0005	<0.0005	<0.0005	<0.002	
	5/2/97	8015/8020	<0.05	0.30	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
MW-13	3/14/88	8015/8020	NT	1.7	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (1.06 ft)
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	6/2/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.01 ft)
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.27 ft)
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.61 ft.)
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.02 ft.)
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.28 ft)
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.06 ft)
MW-14	3/14/88	8015	NT	<1	NT	NT	NT	NT	NT	
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.27 ft)
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	6/2/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.18 ft)
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-14	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.35 ft)
(cont)	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-15	3/14/88	8015/8020	NT	1.8	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.15 ft)
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	6/2/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Well not accessible
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well abandoned
MW-16	3/14/88	8015	NT	<0.05	NT	NT	NT	NT	NT	
	4/21/89	8015	NT	<1.0	NT	0.0009	0.0026	0.0004	0.0041	
	3/25/91	8015/8020	<0.050	<0.050	NT	<0.0003	<0.0003	<0.0003	0.0003	
	5/20/92	8015/8020	<0.050	0.140	NT	<0.0003	<0.0003	<0.0003	<0.0003	Non-standard diesel pattern
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
	3/3/95	8015/8020	<0.05	0.5	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well abandoned
MW-18	3/14/88	8015	NT	<0.05	NT	NT	NT	NT	NT	
	5/20/92	8015/8020	<0.050	<0.050	NT	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Well area flooded
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Well area flooded, almost under water
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Well area flooded
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Well buried under soil stockpile
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MW-19	10/6/94	8015/8020	<0.05	<0.05	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	10/31/94	8015/8020	<0.05	0.2	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	11/29/94	8015/8020	0.07	<0.05	0.5	0.002	0.005	0.0009	0.005	
	3/3/95	8015/8020	<0.05	0.3	<0.2	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	<0.05	0.4	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	<0.05	<0.05	0.5	<0.0005	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	<0.05	0.2	<0.2	<0.0005	<0.0005	<0.0005	<0.002	

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-19 (cont)	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Well inaccessible
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MG-1	4/21/89	NS	NS	NS	NS	NS	NS	NS	NS	Free product
	3/25/91	NS	NS	NS	NS	NS	NS	NS	NS	Free product
	5/21/92	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.03 ft)
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.36 ft)
	2/23/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	6/2/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.09 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	5/25/95	NS	NS	NS	NS	NS	NS	NS	NS	Well buried under soil stockpile
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.49 ft)
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MG-2	4/21/89	8015	NT	<1.0	NT	0.09	0.0027	<0.0003	0.0017	
	3/25/91	8015/8020	<0.050	<0.050	NT	0.0010	<0.0003	<0.0003	<0.0003	
	5/21/92	8015	0.210	1.400	NT	0.0820	0.0018	0.0006	0.0014	
	11/10/93	8260	0.050	0.540	NT	0.0160	0.0009	<0.0005	<0.0005	
	2/23/94	8260	<0.050	3.300	NT	0.0033	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	0.490	<0.050	NT	0.016	0.0009	<0.0005	<0.0005	
	8/30/94	8260	<0.050	0.875	NT	0.0078	0.0006	<0.0005	0.0006	
	11/29/94	8015/8020	0.3	3.2	0.9	0.015	0.001	<0.0005	<0.002	
	3/3/95	8015/8020	0.8	3.1	0.7	0.002	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	0.8	3.9	0.4	0.098	0.003	<0.0005	<0.002	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well covered by equipment
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/23/97	NS	NS	NS	NS	NS	NS	NS	NS	
MG-3	4/21/89	8015	NT	<1.0	NT	0.1	0.0023	<0.0003	0.0089	
	3/25/91	8015/8020	0.610	2.600	NT	0.0750	0.0008	0.0004	0.0020	
	5/21/92	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.85 ft)
	11/10/93	NS	NS	NS	NS	NS	NS	NS	NS	Free product (0.47 ft)
	2/23/94	8260	NS	NS	NS	NS	NS	NS	NS	Free product (0.02 ft)
	6/2/94	8260	NS	NS	NS	NS	NS	NS	NS	Free product (0.08 ft)
	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Free product (Trace: <0.01 ft)
	5/25/95	8015/8020	12	130	<10	0.014	0.0007	0.001	0.003	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MG-3	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
(cont)	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MG-4	4/21/89	8015	NT	<1.0	NT	0.0003	<0.0003	<0.0003	0.0013	
	3/25/91	8015/8020	<0.050	<0.050	NT	0.0004	<0.0003	<0.0003	0.0005	
	5/20/92	8015/8020	<0.050	<0.050	NT	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	9/6/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	0.0007 - 1,2-DCA
	11/29/94	8015/8020	<0.05	4.8	0.6	<0.0005	<0.0005	<0.0005	<0.002	
	3/3/95	8015/8020	0.05	9.9	0.9	<0.0005	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	<0.05	10	1	0.0007	<0.0005	<0.0005	<0.002	
	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well buried under soil stockpile
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/2/97	NS	NS	NS	NS	NS	NS	NS	NS	
MG-7	3/25/91	8015/8020	<0.050	<0.050	NT	0.0005	<0.0003	<0.0003	<0.0003	
	5/20/92	8015/8020	<0.050	0.060	NT	<0.0003	<0.0003	<0.0003	<0.0003	Non-standard diesel pattern
	11/10/93	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	6/2/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	8/30/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
	11/29/94	8015/8020	<0.05	2.6	0.4	<0.0005	<0.0005	<0.0005	<0.002	0.0007 - 1,2-DCA
	3/3/95	NS	NS	NS	NS	NS	NS	NS	NS	Well buried under soil stockpile
	5/25/95	8015/8020	<0.05	1.7	0.4	0.0007	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	0.1	2.8	<0.2	0.0008	<0.0005	<0.0005	<0.002	
	11/29/95	8015/8020	<0.05	0.97	<0.2	<0.0005	<0.0005	<0.0005	<0.002	New casing
	6/28/96	8015/8020	<0.05	1.7	<0.2	0.0007	<0.0005	<0.0005	<0.002	
	11/25/96	8015/8020	<0.05	2.6	0.52	0.0008	<0.0005	<0.0005	<0.002	
	5/2/97	8015/8020	<0.05	2.20	0.4	<0.0005	<0.0005	<0.0005	<0.002	
PZ-1	3/25/91	8015/8020	0.320	0.340	NT	0.0004	<0.0003	<0.0003	0.0010	
	5/21/92	8015/8020	0.120	0.600	NT	0.0018	0.0003	0.0003	0.0012	
	11/10/93	8260	<0.050	<0.050	NT	0.0015	<0.0005	<0.0005	<0.0005	0.450 - TPH as light petroleum distillate
	2/23/94	8260	<0.050	<0.050	NT	0.0009	<0.0005	<0.0005	<0.0005	0.200 - TPH as stoddard solvent
	6/2/94	8260	<0.050	<0.050	NT	0.0016	<0.0005	<0.0005	<0.0005	2.400 - TPH as light petroleum distillate
	11/29/94	8015/8020	0.2	1.4	1.7	0.0007	<0.0005	<0.0005	<0.002	
	3/3/95	8015/8020	2.0	3.7	0.8	0.0006	<0.0005	<0.0005	<0.002	
	5/25/95	8015/8020	0.6	3.7	0.6	0.002	<0.0005	<0.0005	<0.002	
	8/23/95	8015/8020	0.2	5.4	1.5	0.0007	<0.0005	<0.0005	<0.002	
	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	

TABLE 2
Results of Chemical Analyses of Groundwater Samples
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	TPH as Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
PZ-1 (cont)	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	
	11/25/96	NS	NS	NS	NS	NS	NS	NS	NS	
	5/23/97	NS	NS	NS	NS	NS	NS	NS	NS	

Notes:
NT = Not tested for indicated test parameter
NS = Not sampled for indicated test parameter
TPH = Total petroleum hydrocarbons
1,2-DCA = 1,2-Dichloroethane

TABLE 3
Groundwater Elevations and Product Thickness Measurements
May 23, 1997
Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Top of Casing Elevation* (feet MSL)	5/23/97 Depth to Product (feet)	5/23/97 Depth to Water (feet)	5/23/97 Product Thickness (feet)	3/5/97 Product Thickness (feet)	Change in Product Thickness (feet)	5/23/97 Groundwater Elevation (feet MSL)	5/23/97 Corrected GW Elevation (feet MSL)	3/5/97 Groundwater Elevation (feet MSL)	Change in Elevation 3/5/97 - 5/23/97 (feet MSL)
MW-1	8.72	NP	5.55				3.17		3.55	-0.38
MW-2	9.83	NP	6.85				2.98		NM	NM
MW-3	10.86	NP	8.15				2.71		NM	NM
MW-4(1)	----	----	----				----		----	
MW-5(1)	----	----	----				----		----	
MW-6	11.42	NP	7.98				3.44		3.50	-0.06
MW-7(1)	----	----	----				----		----	
MW-8	7.48	NP	NM				NM		NM	NM
MW-9	7.50	NP	NM				NM		NM	NM
MW-10	7.38	NM	NM				NM		NM	NM
MW-11	11.89	NP	11.33				0.56		-0.07	0.63
MW-12	9.42	NP	6.68				2.74		2.55	0.19
MW-13	10.83	6.07	6.13	0.06	0.10	-0.04	4.70	4.75	4.75	0.00
MW-14	11.74	NP	7.08				4.66		4.90	-0.24
MW-15(1)	----	----	----				----		----	
MW-16(1)	----	----	----				----		----	
MW-18	6.21	NM	NM				NM		NM	NM
MW-19	9.94	NM	NM				NM		NM	NM
MG-1	11.82	NM	NM				NM		NM	NM
MG-2	10.83	NM	NM				NM		NM	NM
MG-3	9.76	NM	NM				NM		NM	NM
MG-4	7.38	NM	NM				NM		NM	NM
MG-7	13.10	NP	11.92				1.18		1.10	0.08
PZ-1	7.99	NM	NM				NM		NM	NM

Notes:

* = Top of casing elevations based on December 27, 1994 and January 4, 1995 Kier & Wright surveys.

NP = No free product observed

NM = Not measured

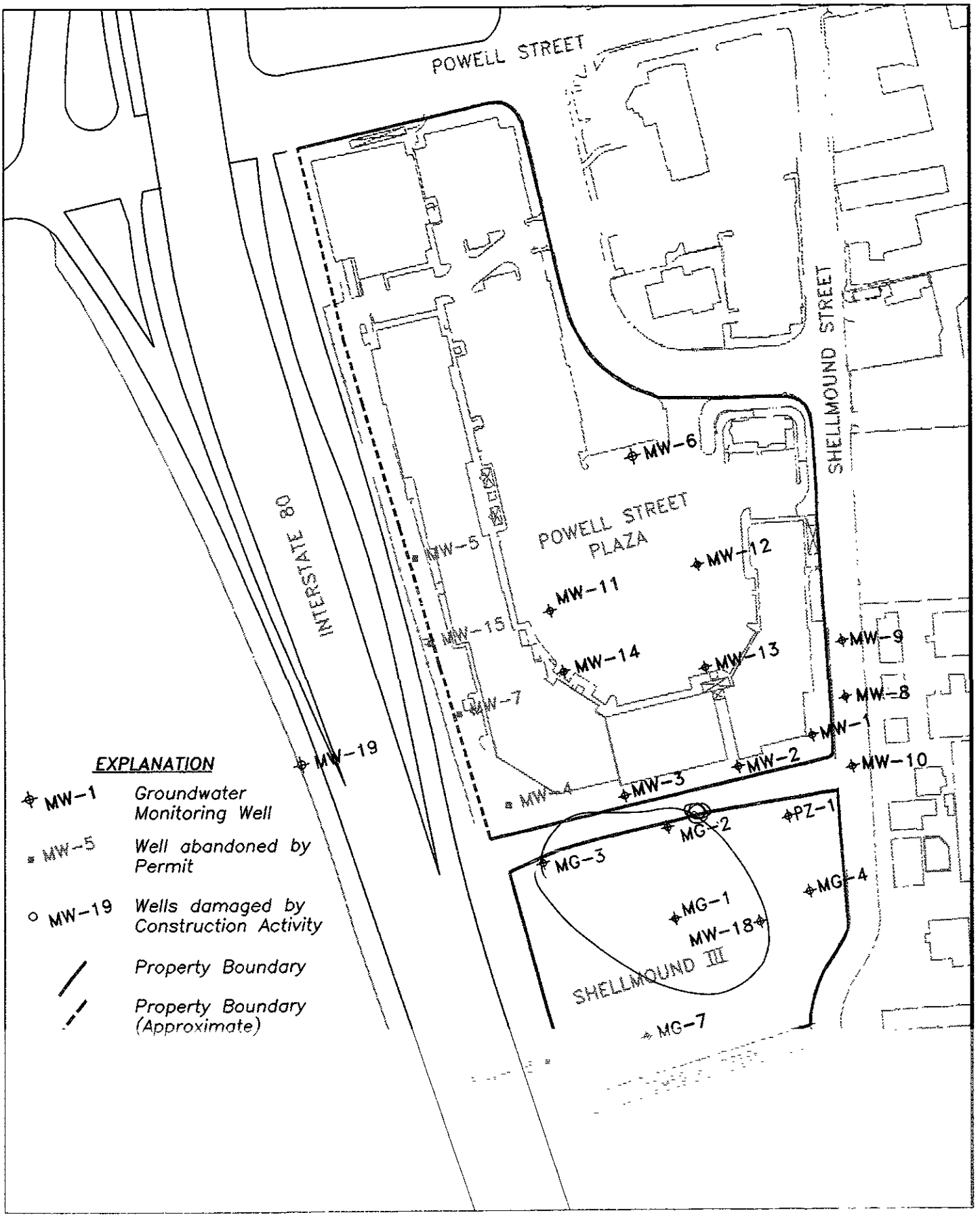
Groundwater Elevations were calculated as follows:

Water-Level Elevation = Top of Casing - Depth to Water + (0.85 x Product Thickness)

GW = Groundwater

(1) = Well has been abandoned.

ILLUSTRATIONS

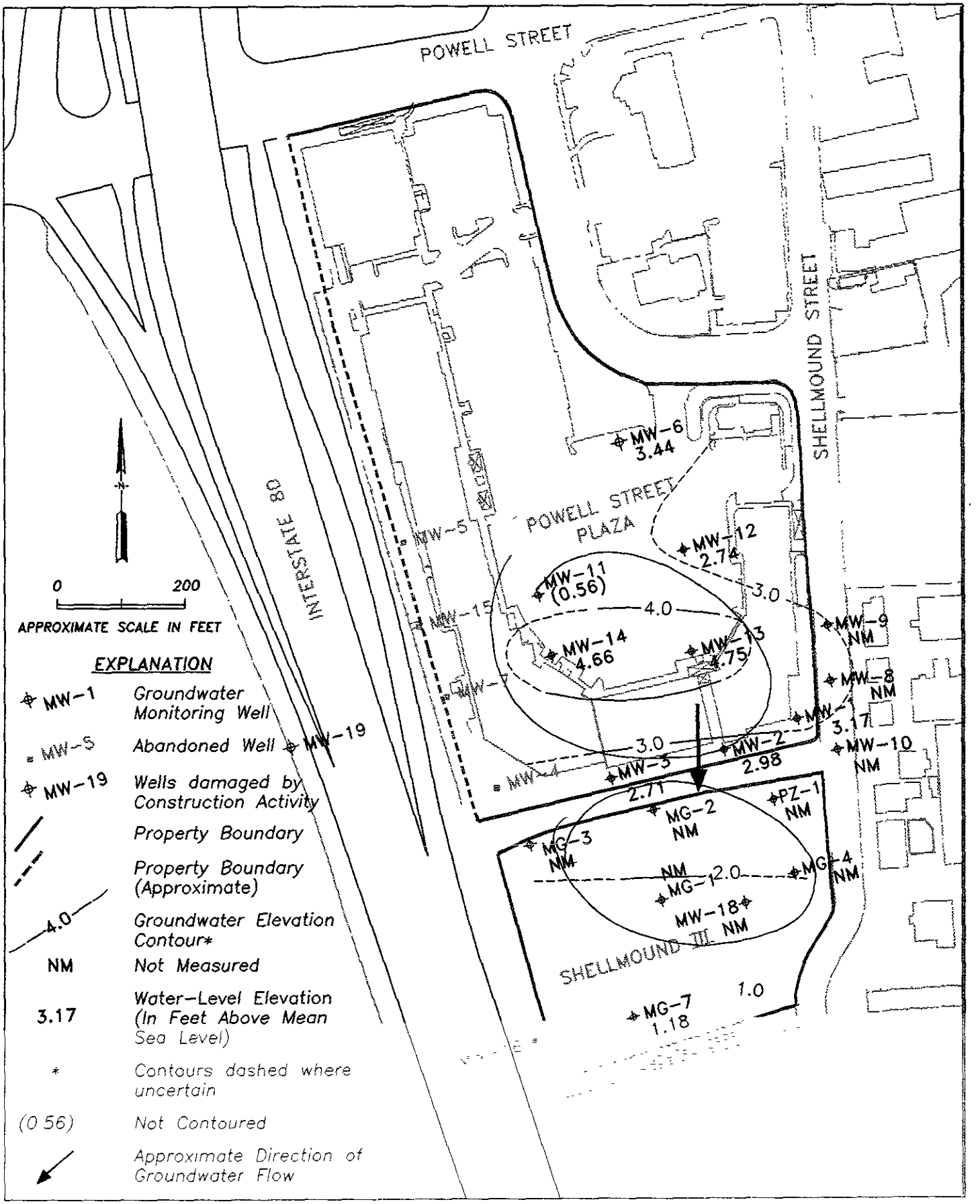


PES Environmental, Inc.
Engineering & Environmental Services

Site Plan
Powell Street Plaza and
Shellmound III Sites
Emeryville, California

PLATE
1

241.0102.005	02005083	7/97
JOB NUMBER	DWG NUMBER	DATE

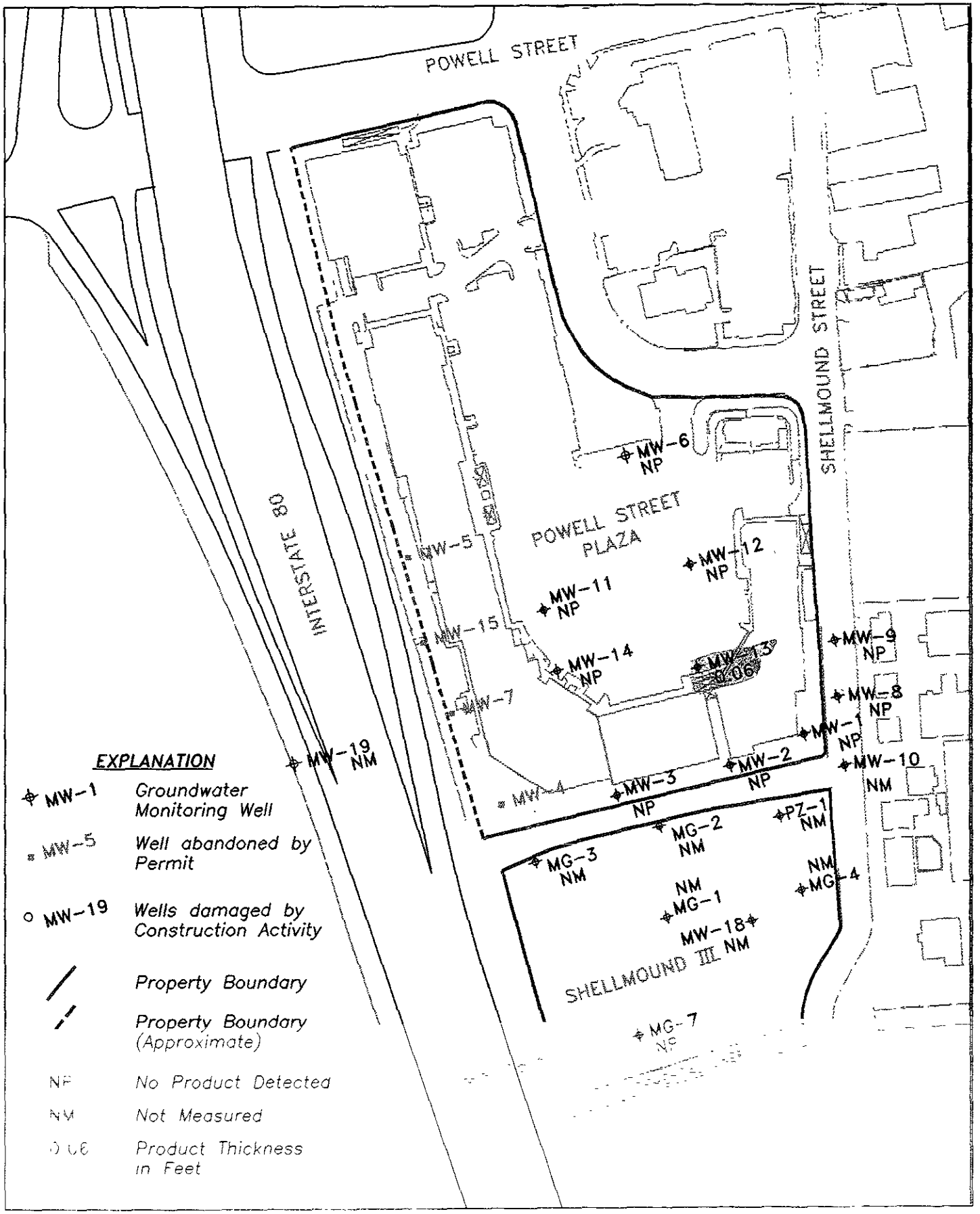


PES Environmental, Inc.
Engineering & Environmental Services

Groundwater Elevations on May 23, 1997
Powell Street Plaza and
Shellmound III Sites
Emeryville, California

PLATE **2**

241.0102.005	02005083	7/97
JOB NUMBER	DWG NUMBER	DATE



PES Environmental, Inc.
Engineering & Environmental Services

Free-Phase Product Thickness on May 23, 1997
Powell Street Plaza and
Shellmound III Sites
Emeryville, California

PLATE
3

241.0102.005	02005083	7/97
JOB NUMBER	DWG NUMBER	DATE

APPENDIX A

LABORATORY REPORT AND CHAIN OF CUSTODY RECORDS

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

RECEIVED JUN 11 1997

PES ENVIRONMENTAL, INC.
1682 NOVATO BLVD.
SUITE 100
NOVATO, CA 94947

ATTN: ELIZABETH LARGE
CLIENT PROJ. ID: 241.0102.005
CLIENT PROJ. NAME: POWELL STREET
C.O.C. NUMBER: 970523-T1

REPORT DATE: 06/09/97
DATE(S) SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
AEN WORK ORDER: 9705296

PROJECT SUMMARY:

On May 23, 1997, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Cheryl McMillan for
Larry Klein
Laboratory Director

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210001
AEN LAB NO: 9705296-01
AEN WORK ORDER: 9705296
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/09/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/04/97
Toluene	108-88-3	ND	0.5	ug/L	06/04/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/04/97
Xylenes, Total	1330-20-7	ND	2	ug/L	06/04/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/04/97
#Extraction for TPH	EPA 3510	-		Extrn Date	06/03/97
TPH as Diesel	GC-FID	0.69 *	0.05	mg/L	06/03/97
TPH as Oil	GC-FID	ND	0.2	mg/L	06/03/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210002
AEN LAB NO: 9705296-02
AEN WORK ORDER: 9705296
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/09/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	1.0 *	0.5	ug/L	06/04/97
Toluene	108-88-3	ND	0.5	ug/L	06/04/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/04/97
Xylenes, Total	1330-20-7	ND	2	ug/L	06/04/97
Purgeable HCs as Gasoline	5030/GCFID	0.08 *	0.05	mg/L	06/04/97
#Extraction for TPH	EPA 3510	-		Extrn Date	06/03/97
TPH as Diesel	GC-FID	7.4 *	0.05	mg/L	06/03/97
TPH as Oil	GC-FID	0.5 *	0.2	mg/L	06/03/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210012
AEN LAB NO: 9705296-03
AEN WORK ORDER: 9705296
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/09/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/04/97
Toluene	108-88-3	ND	0.5	ug/L	06/04/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/04/97
Xylenes, Total	1330-20-7	ND	2	ug/L	06/04/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/04/97
#Extraction for TPH	EPA 3510	-		Extrn Date	06/03/97
TPH as Diesel	GC-FID	0.30 *	0.05	mg/L	06/03/97
TPH as Oil	GC-FID	ND	0.2	mg/L	06/03/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210107
AEN LAB NO: 9705296-04
AEN WORK ORDER: 9705296
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/09/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/04/97
Toluene	108-88-3	ND	0.5	ug/L	06/04/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/04/97
Xylenes, Total	1330-20-7	ND	2	ug/L	06/04/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/04/97
#Extraction for TPH	EPA 3510	-		Extrn Date	06/03/97
TPH as Diesel	GC-FID	2.2 *	0.05	mg/L	06/03/97
TPH as Oil	GC-FID	0.4 *	0.2	mg/L	06/03/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210000
AEN LAB NO: 9705296-05
AEN WORK ORDER: 9705296
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/09/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/04/97
Toluene	108-88-3	ND	0.5	ug/L	06/04/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/04/97
Xylenes, Total	1330-20-7	ND	2	ug/L	06/04/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/04/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9705296

CLIENT PROJECT ID: 241.0102.005

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9705296
DATE EXTRACTED: 06/03/97
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
06/03/97	97210001	01	76
06/03/97	97210002	02	78
06/03/97	97210012	02	72
06/03/97	97210107	03	67
QC Limits:			65-125

DATE EXTRACTED: 06/03/97
DATE ANALYZED: 06/03/97
SAMPLE SPIKED: 9705271-01
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	85	2	60-110	15

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9705296
INSTRUMENT: E, H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
06/04/97	97210001	01	100
06/04/97	97210002	02	99
06/04/97	97210012	03	100
06/04/97	97210107	04	106
06/04/97	97210000	05	105
QC Limits:			70-130

DATE ANALYZED: 06/03/97
SAMPLE SPIKED: 9705212-03
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	16.7	105	6	80-127	20
Toluene	59 3	112	16	85-122	20
Hydrocarbons as Gasoline	500	112	14	85-125	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

R-1,3-A

AM 9705296

BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 970523-T1

CLIENT PES

SITE Powell Street Plaza
Emeryville, CA

LAB AEN 5/23/97 9705296 DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental.
Attn: Elizabeth Large
Job # 241.0102.005 pm E. Large

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPHG/BTEX	TPH-D	TPH-MD	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
97210001	5/23	1120	W	5		X	X	X				
97210002	5/23	1045	W	5		X	X	X				
97210012	5/23	1135	W	5		X	X	X				
97210007	5/23	1105	W	5		X	X	X				
97210000	5/23		W	2		X						

SAMPLING COMPLETED DATE 5/23/97 TIME

SAMPLING PERFORMED BY Mike Toll

RESULTS NEEDED NO LATER THAN As Contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Mike Toll	5/23/97	15:15	Rick Gilmore	5-23-97	15:15
Rick Gilmore	5-23-97	16:30	Renard C. Jensen	5/23/97	16:30

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

RECEIVED JUN 13 1997

PES ENVIRONMENTAL, INC.
1682 NOVATO BLVD.
SUITE 100
NOVATO, CA 94947

ATTN: A. BRIEFER
CLIENT PROJ. ID: 241.0102.005
CLIENT PROJ. NAME: POWELL STREET

REPORT DATE: 06/10/97

DATE(S) SAMPLED: 05/23/97

DATE RECEIVED: 05/23/97

AEN WORK ORDER: 9705310

PROJECT SUMMARY:

On May 23, 1997, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

William Luckhardt for

Larry Klein
Laboratory Director

PES ENVIRONMENTAL, INC.

SAMPLE ID: 97210011
AEN LAB NO: 9705310-01
AEN WORK ORDER: 9705310
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 05/23/97
DATE RECEIVED: 05/23/97
REPORT DATE: 06/10/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	05/31/97
Toluene	108-88-3	ND	0.5	ug/L	05/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	05/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	05/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	05/31/97
Methyl t-Butyl Ether	1634-04-4	ND	5	ug/L	05/31/97
#Extraction for TPH	EPA 3510	-		Extrn Date	05/28/97
TPH as Diesel	GC-FID	0.64 *	0.05	mg/L	06/02/97
TPH as Oil	GC-FID	0.60 *	0.2	mg/L	06/02/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9705310

CLIENT PROJECT ID: 241.0102.005

Quality Control and Project Summary

Laboratory control sample recovery for EPA 3510 GCFID (TPH extractables) was outside laboratory control limits. Recoveries for matrix spike and matrix spike duplicate were both within established limits and sample results are reported without further qualification.

All other laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9705310
DATE EXTRACTED: 05/28/97
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
06/02/97	97210011	01	79
QC Limits:			65-125

DATE EXTRACTED: 05/28/97
DATE ANALYZED: 06/03/97
SAMPLE SPIKED: 9705102-03
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	75	3	60-110	15

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9705310
INSTRUMENT: E
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
05/31/97	97210011	01	106
QC Limits:			70-130

DATE ANALYZED: 05/29/97
SAMPLE SPIKED: 9705245-01
INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	21.3	106	1	85-109	17
Toluene	66.5	102	<1	87-111	16
Hydrocarbons as Gasoline	500	110	3	66-117	19

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

PES ENVIRONMENTAL, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

9705310

1682 NOVATO BOULEVARD, SUITE 100
NOVATO, CALIFORNIA 94947
(415) 899-1600 FAX (415) 899-1601

R-3,S-1
R-1,S-A

SAMPLERS: EAL

JOB NUMBER 241.0102.005

NAME / LOCATION Powell Street

PROJECT MANAGER AA Briefer

RECORDER: EAL

DATE YR	MO	DY	TIME	SAMPLE NUMBER / DESIGNATION	SOURCE CODE	MATRIX: Water	Sedim't	Soil	Oil	# CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	Filtered	DEPTH IN FEET	COL MTD CD	QA CODE
97	05	23	1645	9721001		X											
97	05	23	1645	97		X				2							
97																	
97																	
97																	

ANALYSIS REQUESTED

EPA 601 / 8010	EPA 602 / 8020 (BTEX)	EPA 624 / 8240	EPA 625 / 8270	TPHg by 5030 / 8015 (mod)	TPHd by 3550 / 8015 (mod)	TPHmo											
	X																
	2			X	X	X											

OIA-D

NOTE

Standard TAT

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
		5-23	1732
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
		5/23	19:00
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
DISPATCHED BY: (Signature) DATE TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:			

WHITE–Laboratory COPY YELLOW–Project Office Copy PINK–Field or Office Copy

APPENDIX B

GROUNDWATER SAMPLING REPORT
DEPTH-TO-GROUNDWATER AND DEPTH TO FREE PRODUCT
BLAINE TECH SERVICES, INC.

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
(408) 573-7771 FAX
(408) 573-0555 PHONE

July 1, 1997

PES Environmental, Inc.
1682 Novato Blvd.
Suite 100
Novato, CA 94947

ATTN: Elizabeth Large

Site:
Shellmound 3
Powell Street Plaza
Shellmound & Christie
Emeryville, California

Date:
May 23, 1997

GROUNDWATER SAMPLING REPORT 970523-T-1

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results, or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site are presented in the TABLE OF WELL MONITORING DATA. This information was collected during our inspection, well evacuation and sample collection. Measurements include the total depth of the well and the depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection.

STANDARD PRACTICES

Evacuation and Sampling Equipment

As shown in the TABLE OF WELL MONITORING DATA, the wells at this site were evacuated according to a protocol requirement for the removal of three case volumes of water, before sampling. The wells were evacuated using disposable bailers.

Samples were collected using disposable bailers.

Bailers: A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up and out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids, in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon, High Density Polyethylene (HDPE), or stainless steel and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. HDPE disposable bailers are precleaned by the manufacturer and are disposed of after each use. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also where fuel hydrocarbons are involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site.

Effluent Materials

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Services, Inc. will place this water in appropriate containers of the client's choice or bring new 55 gallon DOT 17 E drums to the site, which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if

effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms to both State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846 and T.E.G.D. which is published separately.

Sample Containers

Sample containers are supplied by the laboratory performing the analyses.

Sample Handling Procedures

Following collection, samples are promptly placed in an ice chest containing deionized ice or an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days, as jobs and projects often do.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date and signature of person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to American Environmental Network in Pleasant Hill, California. AEN is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1172.

Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Please call if we can be of any further assistance.

Kent Brown

KEB/ew

attachments: table of well monitoring data
chain of custody

TABLE OF WELL MONITORING DATA

Well I.D.	MW-1		MW-2			MW-11		MW-12	
Date Sampled	05/23/97		05/23/97			05/23/97		05/23/97	
Well Diameter (in.)	4		4			2		2	
Total Well Depth (ft.)	13.61		14.15			12.70		11.53	
Depth To Water (ft.)	5.55		6.85			11.33		6.68	
Free Product (in.)	NONE		NONE			NONE		NONE	
Reason If Not Sampled	--		--			*		--	
1 Case Volume (gal.)	5.30		4.80			0.22		0.78	
Did Well Dewater?	YES @ 5.5 GALS.		NO			YES @ 0.30 GALS.		YES @ 1.25 GALS.	
Gallons Actually Evacuated	5.75		15.00			0.30		1.50	
Purging Device	BAILER		BAILER			BAILER		BAILER	
Sampling Device	BAILER		BAILER			BAILER		BAILER	
Time	10:05	11:18	10:25	10:30	10:37	10:00		10:51	11:30
Temperature (Fahrenheit)	66.0	66.8	65.8	64.6	64.0	66.2		65.2	66.0
pH	7.2	7.2	6.9	6.8	6.9	7.5		7.2	7.3
Conductivity (micromhos/cm)	5000	5200	>10,000	>10,000	>10,000	1600		1200	1400
Nephelometric Turbidity Units	>200	>200	63.6	30.1	32.7	25.9		>200	>200
BTS Chain of Custody	970523-T-1		970523-T-1					970523-T-1	
BTS Sample I.D.	97210001		97210002					97210012	
DHS HMTL Laboratory	AEN		AEN					AEN	
Analysis	TPH (GAS), BTEX, TPH (DIESEL) & TPH (MOTOR OIL)		TPH (GAS), BTEX, TPH (DIESEL) & TPH (MOTOR OIL)					TPH (GAS), BTEX, TPH (DIESEL) & TPH (MOTOR OIL)	

* Well MW-11 dewatered and was slow to recharge. Well was sampled later by PES Environmental, Inc.

TABLE OF WELL MONITORING DATA

Well I.D.	MG-7		
Date Sampled	05/23/97		
Well Diameter (in.)	2		
Total Well Depth (ft.)	17.45		
Depth To Water (ft.)	11.92		
Free Product (in.)	NONE		
Reason If Not Sampled	--		
1 Case Volume (gal.)	0.89		
Did Well Dewater?	NO		
Gallons Actually Evacuated	2.75		
Purging Device	BAILER		
Sampling Device	BAILER		
Time	10:59	11:01	11:02
Temperature (Fahrenheit)	66.0	65.2	65.0
pH	7.2	7.1	7.1
Conductivity (micromhos/cm)	6200	5800	5600
Nephelometric Turbidity Units	>200	>200	>200
BTS Chain of Custody	970523-T-1		
BTS Sample I.D.	97210107		
DHS HMTL Laboratory	AEN		
Analysis	TPH (GAS), BTEX, TPH (DIESEL) & TPH (MOTOR OIL)		

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 970523-T1

CLIENT PES

SITE Powell Street PLAZA
EMERYVILLE, CA

LAB AEN DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS Invoice & Report to PES Environmental, Attn: Elizabeth Large

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	TPHG/BTEX	TPH-D	TPH-MO					ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
97210001	5/23	1120	W	5		X	X	X								
97210002	5/23	1045	W	5		X	X	X								
97210012	5/23	1135	W	5		X	X	X								
97210107	5/23	1105	W	5		X	X	X								
97210600	5/23		W	2		X										

SAMPLING COMPLETED DATE 5/23/97 TIME

SAMPLING PERFORMED BY Mike Toll

RESULTS NEEDED NO LATER THAN "As Contracted"

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Mike Toll	5/23/97	15:15	Rick Gilmore	5-23-97	15:15
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

BLAINE
TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
(408) 573-7771 FAX
(408) 573-0555 PHONE

July 1, 1997

PES Environmental, Inc.
1682 Novato Blvd., Suite 100
Novato, CA 94947

Attention: Elizabeth Large

SITE:
Shellmound 3
Powell Street Plaza
Shellmound & Christie
Emeryville, California

DATE:
May 23, 1997

Water Level Report 970523-T-1.WL

Personnel from our office were present at the site on Friday, May 23, 1997 to obtain water levels and conduct a sheen and odor check. please note that we are reporting only the water levels, not elevations.

Well designation	Well diameter (in.)	Depth to immiscible liquid (ft.)	Thickness of immiscible liquid (ft.)	Volume of immiscibles removed (ml)	Depth to water (ft.)	Well depth (ft.)	Sheen/ odor	Top of Casing or Top of Box
MW-1	4	--	--	--	5.55	13.61	--	TOC
MW-2	4	--	--	--	6.85	14.15	--	TOC
MW-3	4	--	--	--	8.15	12.60	--	TOC
MW-6	2	--	--	--	7.98	14.12	--	TOC
MW-8	2	--	--	--	Inaccessible		--	TOC
MW-9	2	--	--	--	Inaccessible		--	TOC
MW-11	2	--	--	--	11.33	12.70	--	TOC

Well designation	Well diameter (in.)	Depth to immiscible liquid (ft.)	Thickness of immiscible liquid (ft.)	Volume of immiscibles removed (ml)	Depth to water (ft.)	Well depth (ft.)	Sheen/ odor	Top of Casing or Top of Box
MW-12	2	--	--	--	6.68	11.53	--	TOC
MW-13	2	6.07	0.06	--	6.13	--	--	TOC
MW-14	2	--	--	--	7.08	10.58	--	TOC
MG-7	2	--	--	--	11.92	17.45	--	TOC

Kent Brown

KEB/ew

DISTRIBUTION

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SECOND QUARTER 1997
POWELL STREET PLAZA
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QUALITY CONTROL REVIEWER

William F. Fryzell Jr.

Robert S. Creps, P.E.
Principal Engineer