PES Environmental, Inc.
Engineering & Environmental Services

July 31, 1996

241.0102.005

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

TRANSMITTAL
QUARTERLY MONITORING REPORT
POWELL STREET PLAZA AND
SHELLMOUND III PROPERTIES
EMERYVILLE, CALIFORNIA

Dear Tom:

Enclosed please find the Quarterly Monitoring Report for the Powell Street Plaza and Shellmound III Properties in Emeryville, California. Quarterly sampling was conducted on June 28, 1996. PES Environmental, Inc. (PES) has prepared this report on behalf of the former partners of Eastshore Partners.

I trust this is the information you require at this time.

Very truly yours,

PES ENVIRONMENTAL, INC.

Richard J. Hutton
Senior Environmental Specialist

Enclosure

cc: Distribution List

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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 1996
POWELL STREET PLAZA
AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA

JULY 30, 1996

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 1996. Monitoring during this quarter was performed on June 28, 1996. 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 current 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 an October 24, 1994 letter to Ms. Hugo.

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 during sampling due to heavy equipment or materials blocking access to the wells. Monitoring well MW-10 was damaged by road excavation. 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' observation on June 28, 1996. 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 and corresponding sample numbers are presented on Table 1.

Groundwater samples were collected from each well after removing approximately three well volumes of water using a stainless steel bailer or an electric submersible pump. To prevent cross-contamination between wells, the portion of the pump and conveyance lines submerged in the well and/or the stainless steel bailer were cleaned with an alconox/deionized water solution and double-rinsed with deionized water between well sampling.

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 June 28, 1996. Samples were analyzed over a period from July 5 through July 12, 1996.

AEN analyzed the samples using EPA Test Method 8015 (modified) for total petroleum hydrocarbons quantified as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) and using 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 rounds, 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 all accessible monitoring wells on June 28, 1996 by PES 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 4. 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 June 28, 1996 sampling event.

5.1 Groundwater Chemistry

TPHd was detected in groundwater samples collected from wells MW-1, MW-2, MW-11, MW-12, and MG-7. Concentrations of TPHd ranged from 0.48 parts per million (ppm) to 5.6 ppm. TPHg was detected in the groundwater sample collected from well MW-2 at a concentration of 0.12 ppm.

Benzene was detected in groundwater samples collected from wells MW-2 and MG-7 at concentrations of 1.5 parts per billion (ppb) and 0.7 ppb, respectively. 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 June 28, 1996 groundwater elevations at the Powell Street Plaza and Shellmound III properties ranged from 0.66 to 5.34 feet mean sea level (MSL). The June 28, 1996 groundwater elevations at the Powell Street Plaza property ranged from 0.64 feet higher (MW-13) to 1.08 feet lower (MW-9) than elevations measured on March 13, 1996. The June 28, 1996 groundwater elevation for MG-7 on the Shellmound III property was 1.01 feet lower than the March 13, 1996 elevations. In general, lower groundwater elevations were observed at the Powell Street Plaza and Shellmound III properties on June 28, 1996. These lower elevations are consistent with the beginning of the dry summer season.

Well MW-8 continues to show a trend of uncharacteristically low groundwater elevations with respect to surrounding wells. This may be due to its proximity to utility corridors with permeable backfill located within Shellmound Street. Well MW-11 has shown uncharacteristically low groundwater elevations for the last two quarters compared to its historical groundwater elevations. The groundwater mound in the vicinity of Wells MW-13 and MW-14 still persists, but is slightly more pronounced in the June 28, 1996 groundwater elevations compared to the March 13, 1996 groundwater elevations. The primary direction of groundwater flow across the two sites is southwest toward Temescal Creek at an approximate gradient range of 0.006 to 0.016 feet per foot.

The presence of free product was slightly less evident in June 1996 than in March 1996, which corresponds with the generally lower groundwater elevations measured on the sites. Product was measured in Well MW-13 with a thickness of 0.02 feet.

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 96250000) 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 is therefore considered to be representative and acceptable.

TABLES

TABLE 1

Summary of Wells Sampled
June 28, 1996

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well ID	Sample Number	Status of Wells Not Sampled
MW-1	96250001	
MW-2	96250002	
MW-3	NS	Historical free-product.
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	96250011	
MW-12	96250012	
MW-13	NS	Free-product present.
MW-14	NS	Trace free-product present.
MW-15	NS	Abandoned by permit.
MW-16	NS	Abandoned by permit.
MW-18	NS	Eliminated from sampling schedule.
MW-19	NS	Inaccessible.
MG-1	NS	Inaccessible.
MG-2	NS	Inaccessible.
MG-3	NS	Inaccessible.
MG-4	NS	Inaccessible.
MG-7	96250107	
PZ-1	NS	Eliminated from sampling schedule.
Trip Blank	95480000	

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	
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	
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	

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-3	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
(cont.)	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	
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	0.610	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	

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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-6	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
cont	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	
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
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)
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	

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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-9	11/29/94	NS	NS	NS	NS	NS	NS	NS	NS	
cont.	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)
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	
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	
	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	
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	

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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-12	2/23/94	8260	<0.050	<0.050	NT	<0.0005	<0.0005	<0.0005	<0.0005	
cont.	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	
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.)
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)

PES Environmental, Inc.

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-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	

PES Environmental, Inc.

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	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	
	6/28/96	NS	NS	NS	NS	NS	NS	NS	NS	Well inaccessible
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	
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	

PES Environmental, Inc.

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-2	8/23/95	NS	NS	NS	NS	NS	NS	NS	NS	Well covered by equipment
cont.	11/29/95	NS	NS	NS	NS	NS	NS	NS	NS	
	6/28/96	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	
	6/28/96	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	

PES Environmental, Inc.

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-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	0.0007 - 1,2-DCA
	11/29/94	8015/8020	<0.05	2.6	0.4	<0.0005	<0.0005	<0.0005	<0.002	
	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	
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	
	6/28/96	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

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Measurement Date	Top of Casing (feet MSL)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Water-Level Elevation (feet MSL)	Corrected W-L Elevation (feet MSL)
MW-1	6/28/96	8.72	NP	5.50		3.22	
MW-2	6/28/96	9.83	NP	6.65		3.18	
MW-3	6/28/96	10.86	NM	NM		NM	
MW-4	---	---	---	---	---	---	
MW-5	---	---	---	---	---	---	
MW-6	6/28/96	11.42	NP	8.00		3.42	
MW-7	---	---	---	---	---	---	
MW-8	6/28/96	7.48	Trace	6.23	<0.01	1.25	
MW-9	6/28/96	7.50	Trace	3.71	<0.01	3.79	
MW-10	6/28/96	7.38	NM	NM		NM	
MW-11	6/28/96	11.89	NP	11.23		0.66	
MW-12	6/28/96	9.42	NP	6.46		2.96	
MW-13	6/28/96	10.83	5.69	5.71	0.02	5.12	5.14
MW-14	6/28/96	11.74	Trace	6.40	<0.01	5.34	
MW-15	---	---	---	---	---	---	
MW-16	---	---	---	---	---	---	
MW-18	6/28/96	6.21	NM	NM		NM	
MW-19	6/28/96	9.94	NM	NM		NM	
MG-1	6/28/96	11.82	NM	NM		NM	
MG-2	6/28/96	10.83	NM	NM		NM	
MG-3	6/28/96	9.76	NM	NM		NM	
MG-4	6/28/96	7.38	NM	NM		NM	
MG-7	6/28/96	13.10	NP	12.10		1.00	
PZ-1	6/28/96	7.99	NM	NM		NM	

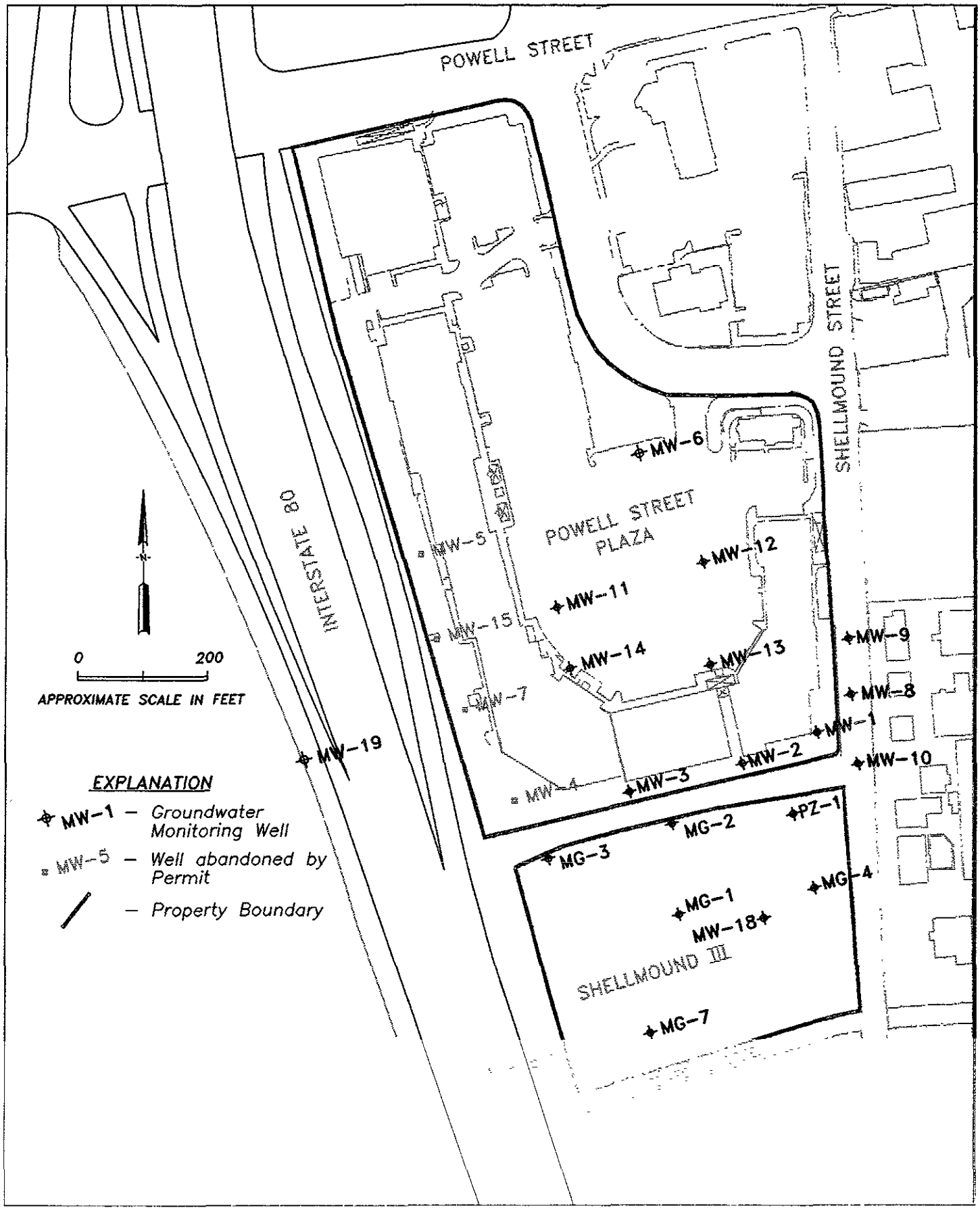
Notes:

Revised top of casing elevations based on December 27, 1994 and January 4, 1995 Kier & Wright survey.
NP = No free product observed
Trace = Slight residue on interface probe or other indication of free-product. Product thickness is less than 0.01 foot.
NM = Not measured
W-L = Water-Level
Corrected Water-Level Elevations were calculated as follows:

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

Shaded wells have been abandoned.

ILLUSTRATIONS

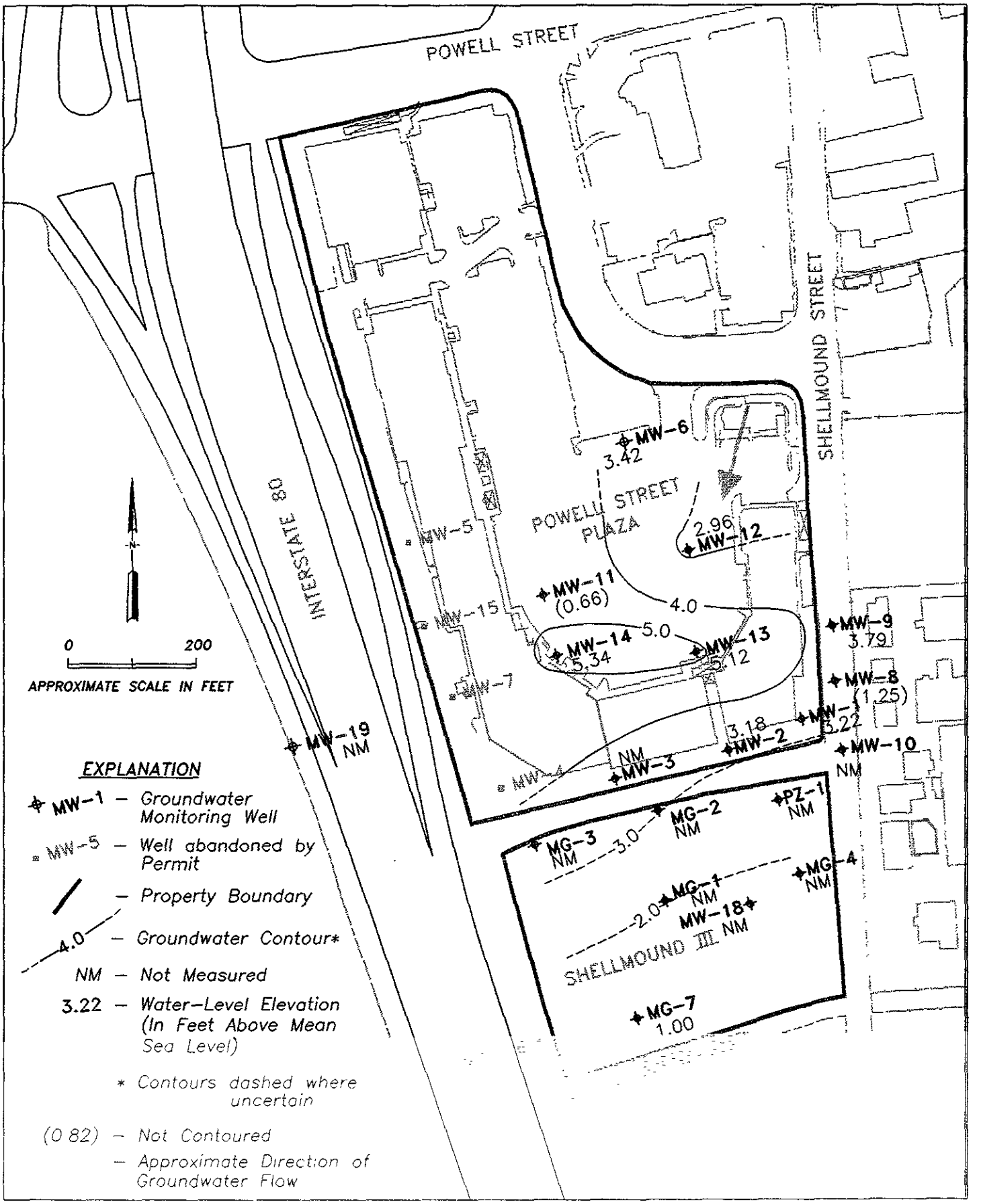


PES Environmental, Inc.
Engineering & Environmental Services

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

PLATE
1

241.0102.005	020050_3	7/96
JOB NUMBER	DWG NUMBER	DATE

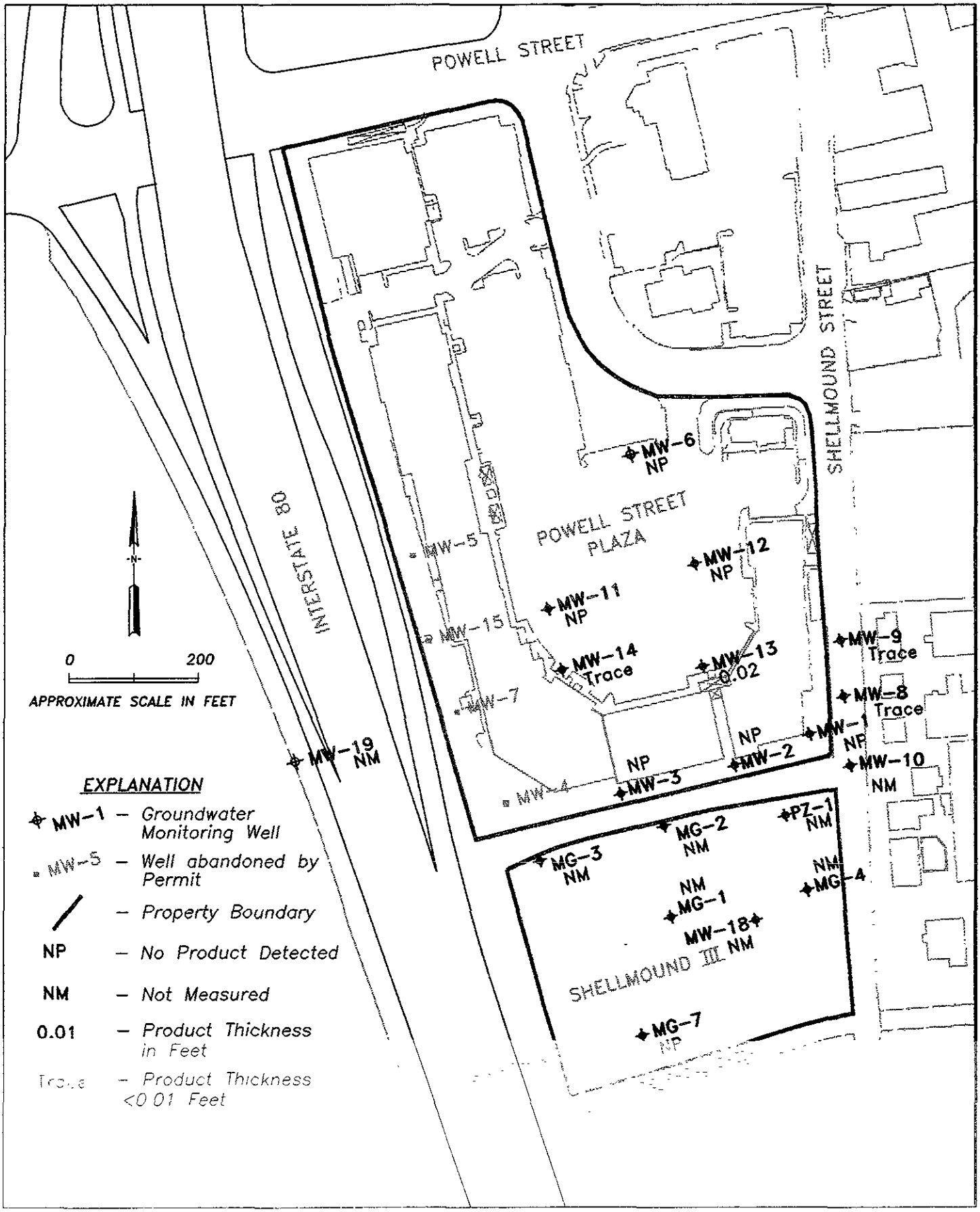


PES Environmental, Inc.
Engineering & Environmental Services

Groundwater Elevations on June 28, 1996
Powell Street Plaza and
Shellmound III Sites
Emeryville, California

PLATE
2

241.0102.005	020050_3	7/96
JOB NUMBER	DWG NUMBER	DATE



PES Environmental, Inc.
Engineering & Environmental Services

Free-Phase Product Thickness on June 28, 1996
Powell Street Plaza and
Shellmound III Sites
Emeryville, California

PLATE 3

241.0102.005	020050_3	7/96
JOB NUMBER	DWG NUMBER	DATE

APPENDIX A

LABORATORY REPORT SHEETS
AND
CHAIN OF CUSTODY RECORDS
GROUNDWATER SAMPLES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: ELIZABETH LARGE
CLIENT PROJ. ID: 241.0102.005

REPORT DATE: 07/18/96

DATE(S) SAMPLED: 06/28/96

DATE RECEIVED: 06/28/96

AEN WORK ORDER: 9606400

PROJECT SUMMARY:

On June 28, 1996, this laboratory received 6 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 Larry Klein Sr

Larry Klein
Laboratory Director

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250001
AEN LAB NO: 9606400-01
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	07/09/96
Toluene	108-88-3	ND	0.5	ug/L	07/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	07/09/96
#Extraction for TPH	EPA 3510	-		Extrn Date	07/11/96
TPH as Diesel	GC-FID	0.9 *	0.05	mg/L	07/12/96
TPH as Oil	GC-FID	ND	0.2	mg/L	07/12/96

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

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250002
AEN LAB NO: 9606400-02
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	1.5 *	0.5	ug/L	07/10/96
Toluene	108-88-3	ND	0.5	ug/L	07/10/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/10/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/10/96
Purgeable HCs as Gasoline	5030/GCFID	0.12 *	0.05	mg/L	07/10/96
#Extraction for TPH	EPA 3510	-		Extrn Date	07/05/96
TPH as Diesel	GC-FID	5.6 *	0.05	mg/L	07/05/96
TPH as Oil	GC-FID	ND	0.2	mg/L	07/05/96

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

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250011
AEN LAB NO: 9606400-03
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	07/09/96
Toluene	108-88-3	ND	0.5	ug/L	07/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	07/09/96
#Extraction for TPH	EPA 3510	-		Extrn Date	07/05/96
TPH as Diesel	GC-FID	1.8 *	0.05	mg/L	07/05/96
TPH as Oil	GC-FID	ND	0.2	mg/L	07/05/96

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

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250012
AEN LAB NO: 9606400-04
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	07/09/96
Toluene	108-88-3	ND	0.5	ug/L	07/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	07/09/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	07/05/96
TPH as Diesel	**GC-FID**	0.48 *	0.05	mg/L	07/05/96
TPH as Oil	**GC-FID**	ND	0.2	mg/L	07/05/96

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

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250107
AEN LAB NO: 9606400-05
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	0.7 *	0.5	ug/L	07/10/96
Toluene	108-88-3	ND	0.5	ug/L	07/10/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/10/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/10/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	07/10/96
#Extraction for TPH	EPA 3510	-		Extrn Date	07/05/96
TPH as Diesel	GC-FID	1.7 *	0.05	mg/L	07/06/96
TPH as Oil	GC-FID	ND	0.2	mg/L	07/06/96

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

PES ENVIRONMENTAL, INC.

SAMPLE ID: 96250000
AEN LAB NO: 9606400-06
AEN WORK ORDER: 9606400
CLIENT PROJ. ID: 241.0102.005

DATE SAMPLED: 06/28/96
DATE RECEIVED: 06/28/96
REPORT DATE: 07/18/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	07/09/96
Toluene	108-88-3	ND	0.5	ug/L	07/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	07/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	07/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	07/09/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9606400

CLIENT PROJECT ID: 241.0102.005

Quality Control and Project 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: 9606400
DATE EXTRACTED: 07/05/96; 07/11/96
INSTRUMENT: A
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
07/12/96	96250001	01	98
07/05/96	96250002	02	82
07/05/96	96250011	03	92
07/05/96	96050012	04	77
07/06/96	96050107	05	79
QC Limits:			65-125

DATE EXTRACTED: 07/03/96
DATE ANALYZED: 07/04/96
SAMPLE SPIKED: 9606277-07
INSTRUMENT: A

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	78	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: 9606400
INSTRUMENT: F, H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
07/09/96	96250001	01	91
07/10/96	96250002	02	91
07/09/96	96250011	03	98
07/09/96	96050012	04	98
07/10/96	96050107	05	90
07/09/96	96050000	06	99
QC Limits:			70-130

DATE ANALYZED: 07/10/96
SAMPLE SPIKED: 9607030-02
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	20.2	100	<1	85-109	17
Toluene	65.2	103	<1	87-111	16
Hydrocarbons as Gasoline	500	87	<1	66-117	19

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

*** END OF REPORT ***

BLAINE TECH SERVICES INC

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

LAB 9606400 DHS #

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

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

CHAIN OF CUSTODY
Job # 241.0102.005

CLIENT PES Environmental, Inc.

SITE Powell Street Plaza
Emeryville, California

SPECIAL INSTRUCTIONS
Note: (1) Only analyze 96250001 if 96250002 has [redacted] detectable levels of analytes.
(2) Regular turn around time.
07/01/96 Per Jenny Han, send results to Elizabeth Large @ PES. MS

CONDUCT ANALYSIS TO DETECT

SAMPLE ID	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPHg + BTEX	TPHd 8015M	TPHmo 8015M					ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
96250001	6/28/96	1045	W	5	01A-E		~~X~~	~~X~~	~~X~~	HOLD SAMPLE,				see NOTE			
96250002	6/28/96	0910	W	5	02A-E		X	X	X								
96250011	6/28/96	1425	W	4	03A-D		X	X	X								
96250012	6/28/96	1020	W	5	04A-E		X	X	X								
96250107	6/28/96	0935	W	5	05A-E		X	X	X								
96250000	6/28/96	0800	W	2	06AB		X										

SAMPLING COMPLETED DATE TIME

SAMPLING PERFORMED BY Blaine Tech

RESULTS NEEDED NO LATER THAN

RELEASED BY	DATE 6/28/96	TIME 1550	RECEIVED BY	DATE 6-28-96	TIME 15:50
RELEASED BY	DATE 6-28-96	TIME 1710	RECEIVED BY Lori L. Pruitt	DATE 6-28-96	TIME 1710
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	
Picked up by lab carrier @ project site				

APPENDIX B

GROUNDWATER SAMPLING REPORT

BLAINE TECH SERVICES, INC.

DEPTH-TO-GROUNDWATER AND DEPTH TO FREE PRODUCT FIELD DATA SHEET

PES ENVIRONMENTAL, INC.

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRI
SAN JOSE, CA 951
(408) 995-55
FAX (408) 293-87

July 11, 1996

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

ATTN: Bryan Smith

RECEIVED JUL 17 1996

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

Date:
June 28, 1996

GROUNDWATER SAMPLING REPORT 960628-Z-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 or stainless steel and is used as an evacuation and/or sampling device. Bailers are inexpensive and relatively easy to clean. 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.

Richard C. Blaine

RCB/lp

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	06/28/96		06/28/96			06/28/96			06/28/96	
Well Diameter (in.)	4		4			2			2	
Total Well Depth (ft.)	13.60		14.15			12.70			11.45	
Depth To Water (ft.)	5.50		6.65			11.23			6.46	
Free Product (in.)	NONE		NONE			NONE			NONE	
Reason If Not Sampled	--		--			--			--	
1 Case Volume (gal.)	5.30		4.90			0.23			0.80	
Did Well Dewater?	YES @ 5.5 GALS.		NO			YES @ 0.50 GALS.			YES @ 1.25 GALS.	
Gallons Actually Evacuated	5.50		15.00			0.50			1.25	
Purging Device	BAILER		BAILER			BAILER			BAILER	
Sampling Device	BAILER		BAILER			BAILER			BAILER	
Time	08:27	10:43	08:52	08:56	09:01	07:50	07:52	14:15	08:09	10:13
Temperature (Fahrenheit)	66.4	67.0	70.8	70.6	70.4	66.8	66.4	67.6	66.4	67.6
pH	6.7	6.9	7.8	7.8	7.8	6.3	6.3	6.7	6.7	6.9
Conductivity (micromhos/cm)	4580	4260	3570	3560	3520	2630	2590	2480	1930	1940
Nephelometric Turbidity Units	>200	>200	47.8	41.9	37.3	98.6	74.6	13.1	>200	>200
BTS Chain of Custody	960628-Z-1		960628-Z-1			960628-Z-1			960628-Z-1	
BTS Sample I.D.	MW-1		MW-2			MW-11			MW-12	
DHS HMTL Laboratory	AEN		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)			TPH (GAS), BTEX, TPH (DIESEL) & TPH (MOTOR OIL)	

TABLE OF WELL MONITORING DATA

Well I.D.	MW-19	MG-7		
Date Sampled	06/28/96	06/28/96		
Well Diameter (in.)	--	2		
Total Well Depth (ft.)	--	17.48		
Depth To Water (ft.)	--	12.10		
Free Product (in.)	--	NONE		
Reason If Not Sampled	INACCESSIBLE	--		
1 Case Volume (gal.)		0.86		
Did Well Dewater?		NO		
Gallons Actually Evacuated		3.0		
Purging Device		BAILER		
Sampling Device		BAILER		
Time		09:26	09:28	09:30
Temperature (Fahrenheit)		65.4	65.4	65.4
pH		7.8	7.7	7.7
Conductivity (micrombos/cm)		3850	3830	3830
Nephelometric Turbidity Units		>200	>200	>200
BTS Chain of Custody		960628-Z-1		
BTS Sample I.D.		MG-7		
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 960628-Z1

CLIENT PES

SITE Powell St Plaza
Shellmound & Christie
Emeryville, CA.

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB AEN DHS #

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

☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS Invoiced Report to PES.
Addn'l: Elizabeth Large
* MW-1 should only be analyzed if MW-2 has hits.

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		TPH-Gas, BTEX	TPH-Diesel	TPH-Motor Oil	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
* MW-1	6-28-96	1045	W	5		X	X	X	MW-1 ON HOLD" see note			
MW-2	"	910	W	5		X	X	X				
MW-11	"	1425	W	4		X	X	X				
MW-7	"	935	W	5		X	X	X				
TB	"	—	W	2		X						
MW-12	"	1020	W	5		X	X	X				

SAMPLING COMPLETED DATE 6-28-96 TIME

SAMPLING PERFORMED BY BRETT RLEAU

RESULTS NEEDED NO LATER THAN "As Contracted"

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	6-28-96	1455		6-28-96	1455
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

PES Environmental, Inc.
Engineering & Environmental Services

PAGE (OF)
DATE: 4/28/96

WATER LEVEL DATA FORM

PROJECT: Powell St Plaza
JOB NO.: 241.0102.005
FIELD PERSONNEL: JFH
RECORDED BY: JFH

MEASURING INSTRUMENT:
☐ STEEL TAPE
☐ ELECTRIC SOUNDER
☒ OTHER-TYPE INSTRUMENT SERIAL NO. Oil-Water interface probe

DATUM: ☐ MEAN SEA LEVEL
☒ OTHER - DESCRIBE TOC

WELL I.D.	TIME	REFERENCE ELEVATION (feet)	DEPTH TO WATER (feet) 1st	2nd	3rd	WATER LEVEL ELEVATION (feet)	COMMENTS (well condition, odor, presence of product, etc.)
MW-9	0810		3.71	3.71	3.71		oil light on probe on when reac
MW-8	0815		6.23	6.23	6.23		"
MW-14	0825		6.40	6.40	6.40		"
MW-13	0840		5.71	5.71	5.71		Free Product @ 5.69
MW-6	0850		8.00	8.00	8.00		
MW-3	0940		Could not get lid open				
Following measured by Blaine Tech							
MW-11			11.23				
MW-12			6.46				
MW-1			5.50				
MW-2			6.65				
MW-7			12.10				
MW-19			Could not get to				

DISTRIBUTION

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SECOND QUARTER 1996
POWELL STREET PLAZA
AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA

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QUALITY CONTROL REVIEWER

William F Fugell for

Robert S. Creps, P.E.
Principal Engineer