



March 22, 1994

241.0102.001

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

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

Dear Mr. Gram:

Enclosed please find a copy of the above referenced document. Please call if you have any questions or need additional copies.

Very truly yours,

**PES ENVIRONMENTAL, INC.**

James Ash  
Senior Staff Engineer

Enclosure: 1 copy of Quarterly Monitoring Report/Powell Street Plaza and Shellmound Ventures III.

cc: Mr. David Cooke  
Ms. Susan Hugo  
Mr. Rich Hiett  
Ms. Maria Burgi  
Mr. Tony McElligott

2410102T (01)



A Report Prepared for:

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

**QUARTERLY MONITORING REPORT  
POWELL STREET PLAZA  
AND SHELLMOUND VENTURES III  
EMERYVILLE, CALIFORNIA  
MARCH 21, 1994**

By:

A handwritten signature in cursive script, appearing to read "James R. Ash", written over a horizontal line.

James R. Ash  
Senior Staff Engineer

A handwritten signature in cursive script, appearing to read "John D. Skalbeck", written over a horizontal line.

John D. Skalbeck, C.E.G.  
Senior Hydrogeologist

241.0102.001

**TABLE OF CONTENTS**

---

LIST OF TABLES . . . . . ii

LIST OF ILLUSTRATIONS . . . . . iii

1.0 INTRODUCTION . . . . . 1

2.0 QUARTERLY STATUS REPORT . . . . . 1

3.0 QUARTERLY GROUNDWATER SAMPLING . . . . . 2

4.0 WATER-LEVEL AND PRODUCT THICKNESS MEASUREMENTS . . . . . 2

5.0 SUMMARY OF RESULTS . . . . . 3

    5.1 Groundwater Chemistry . . . . . 3

    5.2 Water-Level and Product Thickness Measurements . . . . . 3

6.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) . . . . . 3

TABLES

ILLUSTRATIONS

APPENDIX A                    LABORATORY REPORT SHEETS AND CHAIN OF  
                                  CUSTODY RECORDS - GROUNDWATER SAMPLES

APPENDIX B                    GROUNDWATER SAMPLING REPORT - BLAINE TECH  
                                  SERVICES, INC.

DISTRIBUTION

**LIST OF TABLES**

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Table 1	Summary of Wells Sampled
Table 2	Results of Chemical Analyses of Groundwater Samples
Table 3	Water-Level Elevations and Product Thickness Measurements

**LIST OF ILLUSTRATIONS**

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Plate 1	Site Plan
Plate 2	Water-Level Elevations
Plate 3	Free-Phase Product Thickness

## 1.0 INTRODUCTION

This report presents data collected by PES Environmental, Inc. (PES) during the November 1993 groundwater monitoring at Powell Street Plaza and the adjacent Shellmound Ventures III Property (Shellmound III) in Emeryville, California. This monitoring was conducted on behalf of Eastshore Partners pursuant to a June 4, 1993 letter to Aetna Real Estate Associates, L.P. (the current 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 Hielt of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The purpose of the monitoring was to evaluate the extent of petroleum hydrocarbon-affected groundwater at the site and guide further investigation, as needed.

## 2.0 QUARTERLY STATUS REPORT

In addition to quarterly monitoring activities, PES completed field activities for a tidal influence study at the site in December 1993. Water-level elevations in Monitoring Wells MG-3, MG-7, PZ-1 and Temescal Creek were measured continuously for 72 hours using pressure transducers and data loggers. The data was used to evaluate the influence of tidal changes in San Francisco Bay and Temescal Creek on groundwater levels at the Powell Street Plaza and Shellmound III sites. A preliminary evaluation of the data indicates that there is minimal tidal influence on groundwater elevations at the sites. The results of the tidal influence study will be presented in more detail in the site characterization and feasibility study report.

On November 10, 1993, PES installed passive product recovery systems in Monitoring Wells MW-7, and MW-13 at the Powell Street site. The systems consist of skimmers that collect free-phase product as it enters the wells. The skimmer in Monitoring Well MW-7 was moved to Well MW-15 on November 23, 1993. The product collection canisters are emptied weekly. From November 10 to December 15, 1993, the product recovery systems removed approximately 0.9 gallons of product.

Samples of the free product were collected from Monitoring Wells MW-7 and MW-13 on November 10, 1993 and submitted to Coast to Coast Analytical for chemical characterization. The purpose of the characterization was to verify that no contaminants were present in the product other than fuel constituents from the former fuel tanks. The results of the analysis will be presented in the site characterization and feasibility study report.

Data collected during the recent quarterly monitoring is being used by PES in a numerical simulation of groundwater flow at the sites. The simulation will be used to evaluate the affects on groundwater conditions caused by the planned installation of an East Bay Municipal Utilities District sanitary sewer pipeline along the western boundaries of the sites.

The results of the simulation will be used to evaluate remedial alternatives for the sites and will be presented in the site characterization and feasibility study report.

### 3.0 QUARTERLY GROUNDWATER SAMPLING

Quarterly groundwater sampling was conducted by Blaine Tech Services, Inc. under PES' supervision on November 10, 1993. Groundwater samples were not collected from wells containing free-phase product (MW-3, MW-7, MW-13, MW-14, MW-15, MG-1, and MG-3), and Monitoring Well MW-17 was not accessible. Groundwater samples were collected from all other onsite groundwater monitoring wells during the November monitoring (Table 1). Locations of the wells are presented on Plate 1.

Groundwater samples were collected from each well after removing three well volumes of water using a stainless steel bailer or a stainless steel bladder pump equipped with a Teflon bladder. During purging, the discharge water was monitored for pH, temperature, electrical conductivity, and turbidity. The samples were collected from the wells using a stainless steel bailer and poured into 40 milliliter volatile organic analysis (VOA) vials. The vials were labelled and immediately placed in a chilled, thermally insulated cooler for delivery under chain of custody protocol to Coast-to-Coast Analytical Services (Coast-to-Coast), a State-certified laboratory in Benecia, California, on November 10, 1993. Coast-to-Coast analyzed all of the samples using EPA Test Method 8240/8260 for total petroleum hydrocarbons quantified as gasoline (TPHg) and diesel (TPHd), and benzene, toluene, ethylbenzene and total xylenes (BTEX). Analytical results for dissolved hydrocarbon compounds in groundwater, including results from previous sampling rounds, are listed in Table 2.

The laboratory report and chain-of-custody records are included in Appendix A. Field methods and field parameter measurements are described in the Blaine sampling report included in Appendix B.

### 4.0 WATER-LEVEL AND PRODUCT THICKNESS MEASUREMENTS

Water levels and product thickness (where present) in the monitoring wells were measured on November 10, 1993 by PES. Measurements were recorded to the nearest 0.01 foot using an electronic, dual-interface sounding probe. Water-level data were converted to water-level elevations referenced to mean sea level (MSL) and corrected for displacement by free product, where present. To prevent cross-contamination between wells, the portion of the probe that was submerged in the well was cleaned and rinsed between well measurements. Water-level elevations and product thicknesses are listed in Table 3 and illustrated on Plates 2 and 3.

## 5.0 SUMMARY OF RESULTS

This section presents a summary of groundwater chemistry and water-level elevation data collected during the quarter ending in November 1993.

### 5.1 Groundwater Chemistry

As indicated in Section 3.0, monitoring wells where free product was present were not sampled, with the exception of Monitoring Well MW-4. Monitoring Well MW-4 was sampled even though a small quantity of product was measured in well (0.02 feet) because the well has been sampled historically.

TPHd was detected in groundwater samples collected from Monitoring Wells MW-4, MW-5 and MG-2 at concentrations of 34 parts per million (ppm), 6.8 ppm, and 0.54 ppm, respectively. TPHg was detected in the samples collected from Monitoring Wells MW-4 and MG-2 at concentrations of 0.800 ppm and 0.05 ppm, respectively.

Benzene was detected in groundwater samples collected from Monitoring Wells MW-1 (0.0013 ppm), MW-4 (0.440 ppm), MW-11 (0.0008 ppm), MG-1 (0.016 ppm) and PZ-1 (0.0015 ppm). Toluene was detected in groundwater samples collected from Monitoring Wells MW-4 (0.003 ppm), MW-1 (0.0013 ppm), and MG-2 (0.0009 ppm). Ethylbenzene was not detected in any groundwater samples. Total xylenes were detected in the sample collected from Monitoring Well MW-1 at a concentration of 0.002 ppm. TPHd, TPHg and BTEX were not detected in groundwater samples collected from Monitoring Wells MW-2, MW-6, MW-8, MW-9, MW-10, MW-12, MW-16, MW-18, MG-4, and MG-7.

### 5.2 Water-Level and Product Thickness Measurements

Water-level elevations measured on November 10, 1993 ranged from 1.53 feet MSL (MW-16) to 5.30 feet MSL (MW-13). These values are similar to previous water-level elevations measured at the sites. The water-level elevations measured in Monitoring Wells MW-13 (5.30 feet MSL) and MW-14 (5.08 feet MSL) are consistently higher than water-level elevations in nearby wells and may be due to discharges from a leaking irrigation or water supply pipe. The direction of groundwater flow is southwest toward Temescal Creek at an approximate gradient of 0.004 feet per foot. Product thicknesses ranged from 0.02 feet (MW-4) to 1.06 feet (MW-13).

## 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, 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, and BTEX were not detected in the internal blanks prepared by the laboratory. One field blank was submitted to Coast-to-Coast for analysis by EPA Test Method 8260. TPHg, TPHd, and BTEX were not detected in the field blank.

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



**TABLES**

**TABLE 1. SUMMARY OF WELLS SAMPLED  
NOVEMBER 10, 1993****Powell Street Plaza and Shellmound III Sites  
Emeryville, California**

<u>Well ID</u>	<u>Sample No.</u>
MW-1	93450012
MW-2	93450004
MW-3	NS
MW-4	93450016
MW-5	93450008
MW-6	93450003
MW-7	NS
MW-8	93450010
MW-9	93450009
MW-10	93450011
MW-11	93450001
MW-12	93450002
MW-13	NS
MW-14	NS
MW-15	NS
MW-16	93450007
MW-18	93450006
MG-1	NS
MG-2	93450005
MG-3	NS
MG-4	93450014
MG-7	93450015
PZ-1	93450013

NOTE:

NS = Not sampled due to presence of free product

TABLE 2. RESULTS OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

Powell Street Plaza and Shellmound III Sites  
Emeryville, California

(concentrations expressed in parts per million)

Well Number	Date Sampled	Consultant	EPA Test Method	TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW 1	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	3/25/91	PES	8015/8020	<0.050	<0.050	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0.05	<0.05	0.0013	0.0018	<0.0005	0.0020	
MW 2	3/14/88	Alton	8015	NT	0.05	NT	NT	NT	NT	
	3/25/91	PES	8015/8020	0.053	<0.05	0.0006	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	NS	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MW 3	3/14/88	Alton	8015	NT	0.15	NT	NT	NT	NT	
	3/25/91	PES	NS	NS	NS	NS	NS	NS	NS	Free product
	11/10/93	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.23 ft)
MW-4	3/14/88	Alton	8015	NT	1.2	NT	NT	NT	NT	
	3/25/91	PES	8015/8020	1.3	2.5	0.710	0.003	0.002	0.006	
	11/10/93	PES	8260	0.800	34	0.440	0.003	<0.002	<0.002	Free product (0.02 ft)
MW 5	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.05	6.8	<0.0005	<0.0005	<0.0005	<0.0005	
MW-6	3/14/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MW 7	3/10/88	Alton	NS	NS	NS	NS	NS	NS	NS	Free product (1.32 ft)
	11/10/93	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.22 ft)
MW 8	3/14/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MW-9	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260 M	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	

**TABLE 2. RESULTS OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES**

**Powell Street Plaza and Shellmound III Sites  
Emeryville, California**

(concentrations expressed in parts per million)

Well Number	Date Sampled	Consultant	EPA Test Method	TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW 10	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260 M	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MW 11	3/14/88	Alton	8015	NS	NS	NS	NS	NS	NS	Well was dry
	11/10/93	PES	8260 M	<0.05	<0.05	0.0008	<0.0005	<0.0005	<0.0005	
MW 12	3/14/88	Alton	8015	NT	0.05	NT	NT	NT	NT	
	11/10/93	PES	8260 M	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MW 13	3/14/88	Alton	8015/8020	NT	1.7	<0.0005	<0.0005	<0.0005	<0.0005	
	11/10/93	PES	8240	NS	NS	NS	NS	NS	NS	Free product (1.06 ft)
MW 14	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260	NS	NS	NS	NS	NS	NS	Free product (0.27 ft)
MW 15	3/14/88	Alton	8015/8020	NT	1.8	<0.0005	<0.0005	<0.0005	<0.0005	
	11/10/93	PES	8260	NS	NS	NS	NS	NS	NS	Free product (0.15 ft)
MW 16	3/14/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	4/21/89	Tenera	8015	NT	<1.0	0.0009	0.0026	0.0004	0.0041	
	3/25/91	PES	8015/8020	<0.05	<0.05	<0.0003	<0.0003	<0.0003	0.0003	
	5/20/92	PES	8015/8020	<0.05	0.14	<0.0003	<0.0003	<0.0003	<0.0003	Non-standard diesel pattern
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	

TABLE 2. RESULTS OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

Powell Street Plaza and Shellmound III Sites  
Emeryville, California

(concentrations expressed in parts per million)

Well Number	Date Sampled	Consultant	EPA Test Method	TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW 17	3/14/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	4/21/89	Tenera	8015	NT	<1.0	<0.3	<0.3	<0.3	<0.3	
MW-18	3/14/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	5/20/92	PES	8015/8020	<0.05	<0.05	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MG-1	4/21/89	Tenera	NS	NS	NS	NS	NS	NS	NS	Free product
	3/25/91	PES	NS	NS	NS	NS	NS	NS	NS	Free product
	5/21/92	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.03 ft)
	11/10/93	PES	8260	NS	NS	NS	NS	NS	NS	Free product (0.36 ft)
MG 2	4/21/89	Tenera	8015	NT	<1.0	0.09	0.0027	<0.0003	0.0017	
	3/25/91	PES	8015/8020	<0.05	<0.05	0.001	<0.0003	<0.0003	<0.0003	
	5/21/92	PES	8015	0.21	1.4	0.082	0.0018	0.0006	0.0014	
	11/10/93	PES	8260	0.05	0.540	0.016	0.0009	<0.0005	<0.0005	
MG 3	4/21/89	Tenera	8015	NT	<1.0	0.1	0.0023	<0.0003	0.0089	
	3/25/91	PES	8015/8020	0.61	2.6	0.075	0.0008	0.0004	0.002	
	5/21/92	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.85 ft)
	11/10/93	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.47 ft)

**TABLE 2. RESULTS OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES**

**Powell Street Plaza and Shellmound III Sites  
Emeryville, California**

(concentrations expressed in parts per million)

Well Number	Date Sampled	Consultant	EPA Test Method	TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MG 4	4/21/89	Tenera	8015	NT	<1.0	0.0003	<0.0003	<0.0003	0.0013	
	3/25/91	PES	8015/8020	<0.05	<0.05	0.0004	<0.0003	<0.0003	0.0005	
	5/20/92	PES	8015/8020	<0.05	<0.05	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
MG 7	3/25/91	PES	8015/8020	<0.05	<0.05	0.0005	<0.0003	<0.0003	<0.0003	
	5/20/92	PES	8015/8020	<0.05	0.06	<0.0003	<0.0003	<0.0003	<0.0003	Non-standard diesel pattern
	11/10/93	PES	8260	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	
PZ 1	3/25/91	PES	8015/8020	0.32	0.34	0.0004	<0.0003	<0.0003	0.001	
	5/21/92	PES	8015/8020	0.12	0.6	0.0018	0.0003	0.0003	0.0012	
	11/10/93	PES	8260	<0.05	<0.05	0.0015	<0.0005	<0.0005	<0.0005	0.450 - TPH as light petroleum distillate

**NOTES:**

- NT = Not tested for indicated test parameter
- NS = Not sampled for indicated test parameter
- TPH = Total petroleum hydrocarbons

**SOURCES:**

- Alton = Alton Geoscience, *Report on Additional Site Characterization Studies at PIE Nationwide Property, 5500 Eastshore Freeway, Emeryville, California, April 28, 1988.*
- Tenera = Tenera Environmental Services, *Phase II Environmental Site Assessment of Certain Property in Emeryville, California, June 2, 1989.*
- PES = Results of chemical analyses for samples collected on March 25, 1991 were presented in PES' report entitled *Preliminary Endangerment Assessment, Shellmound III Site, 4300 Eastshore Highway, Emeryville, California, September 27, 1991.* Results of chemical analyses for samples collected on May 20, 1992 were presented in PES' report entitled *Results of Groundwater Sampling and Analyses, Shellmound III Site, 4300 Eastshore Highway, Emeryville, California, July 7, 1992.*

**TABLE 3. WATER-LEVEL ELEVATIONS AND PRODUCT THICKNESS MEASUREMENTS  
NOVEMBER 10, 1993**

**Powell Street Plaza and Shellmound III Sites  
Emeryville, California**

Well Number	Date	Casing Diameter (inches)	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	11/10/93	4	8.53	NP	5.62		2.91	2.91
MW-2	11/10/93	4	9.64	NP	6.28		3.36	3.36
MW-3	11/10/93	4	10.68	7.99	8.22	0.23	2.46	2.66
MW-4	11/10/93	4	11.44	8.88	8.90	0.02	2.54	2.56
MW-5	11/10/93	2	10.96	NP	8.16		2.80	2.80
MW-6	11/10/93	2	11.22	NP	7.60		3.62	3.62
MW-7	11/10/93	4	11.65	8.82	9.04	0.22	2.61	2.80
MW-8	11/10/93	2	7.26	NP	5.46		1.80	1.80
MW-9	11/10/93	2	7.30	NP	3.85		3.45	3.45
MW-10	11/10/93	2	7.19	NP	5.26		1.93	1.93
MW-11	11/10/93	2	11.69	NP	8.25		3.44	3.44
MW-12	11/10/93	2	9.22	NP	5.79		3.43	3.43
MW-13	11/10/93	2	10.64	6.04	7.10	1.06	3.54	4.44
MW-14	11/10/93	2	11.54	6.52	6.79	0.27	4.75	4.98
MW-15	11/10/93	4	11.66	8.82	8.97	0.15	2.69	2.82
MW-16	11/10/93	2	10.64	NP	9.06		1.58	1.58
MW-18	11/10/93	2	6.02	NP	4.01		2.01	2.01
MG-1	11/10/93	2	11.62	9.03	9.39	0.36	2.23	2.54
MG-2	11/10/93	2	10.62	NP	7.12		3.50	3.50
MG-3	11/10/93	2	9.56	6.97	7.44	0.47	2.12	2.52
MG-4	11/10/93	2	7.19	NP	5.39		1.80	1.80
MG-7	11/10/93	2	9.86	NP	7.45		2.41	2.41
PZ-1	11/10/93	2	7.79	NP	5.18		2.61	2.61

Notes:

NP = No free product observed.

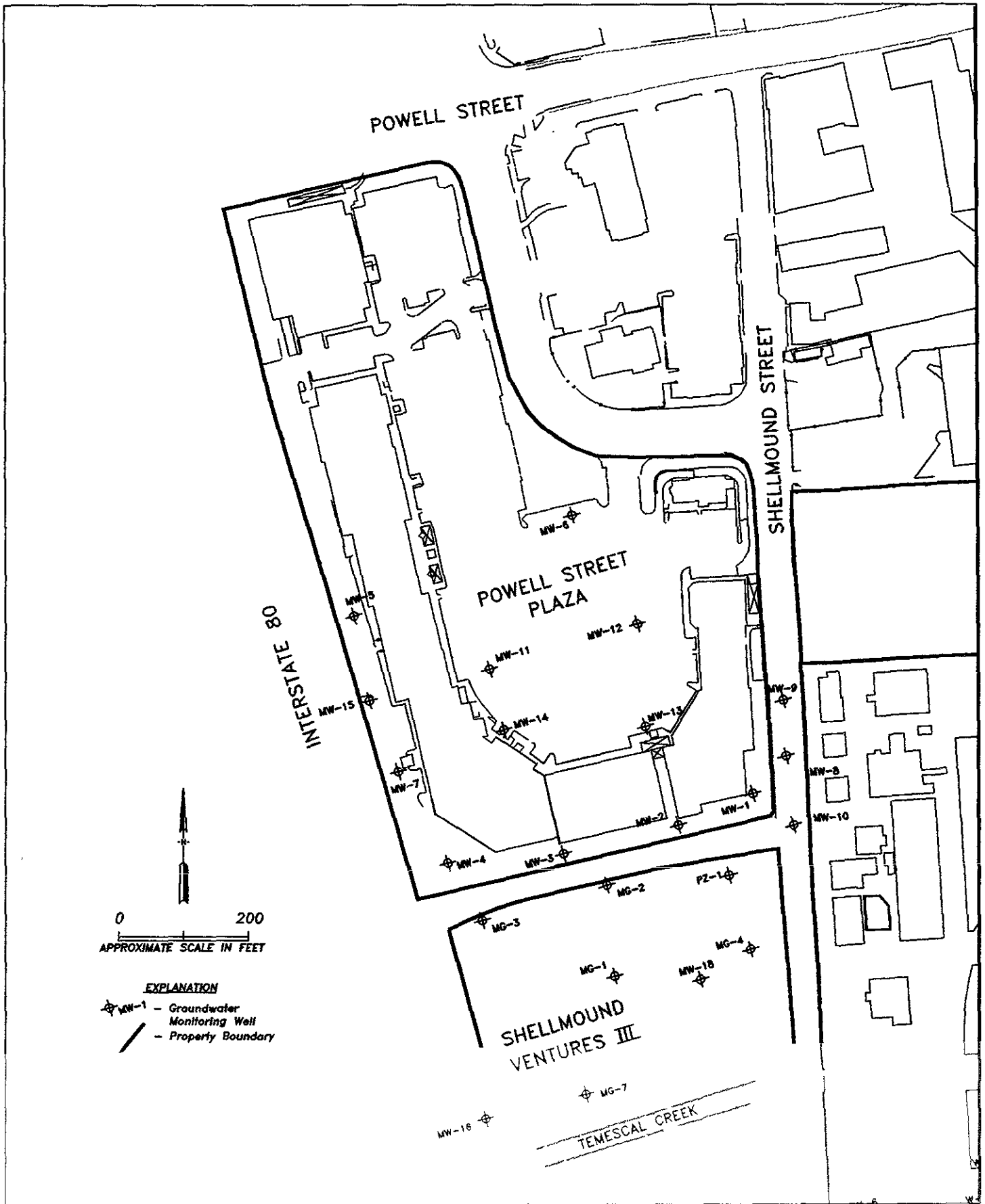
W-L = Water-Level

Corrected Water-Level Elevations were calculated as follows:

$$\text{Water-Level Elevation} = \text{Top of Casing} - \text{Depth to Water} + 0.85 \times \text{Product Thickness}$$

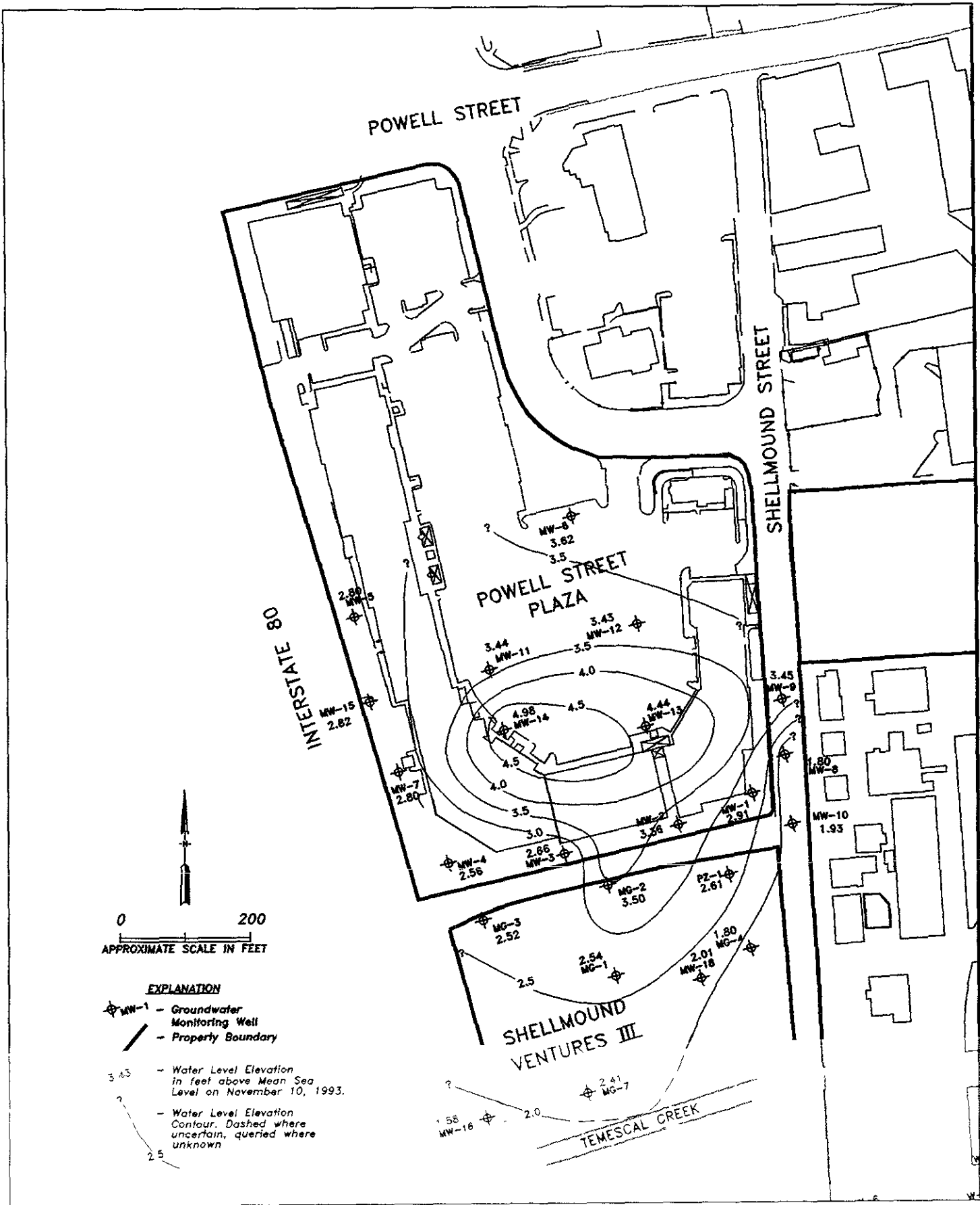
**ILLUSTRATIONS**





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

PLATE  
**1**



**APPENDIX A**

**LABORATORY REPORT SHEETS  
AND  
CHAIN OF CUSTODY RECORDS - GROUNDWATER SAMPLES**



Air, Water & Hazardous Waste Sampling, Analysis & Consultation  
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA • Goleta, CA  
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

MW-11

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-1  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/18/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450001	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	0.8	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			75.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

(1) EXTRACTED by EPA 5030 (purge-and-trap)

(2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW51A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
Dudley Torres  
Organics Manager



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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

*MW-12*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-2  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450002	Aqueous	Bryan Smith	11/10/93	11/10/93

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			83.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW27A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



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*MW-6*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-3  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450003	Aqueous	Bryan Smith	11/10/93	11/10/93

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			78.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW28A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

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Organics Manager



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(408) 955-9077

*MW-2*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-4  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/18/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED	
93450004	Aqueous	Bryan Smith		11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
FUEL FINGERPRINT ANALYSIS					1,2
Benzene		0.5	ND		
Toluene		0.5	ND		
Ethylbenzene		0.5	ND		
Xylenes		0.5	ND		
1,2-Dichloroethane		0.5	ND		
Ethylene dibromide		0.5	ND		
Total Petroleum Hydrocarbons (Gasoline)		50.	ND		
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND		
Percent Surrogate Recovery			78.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

(1) EXTRACTED by EPA 5030 (purge-and-trap)

(2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW52A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Manned*  
Dudley Torres *fn*  
Organics Manager

**COAST - TO -  
COAST  
ANALYTICAL  
SERVICES**

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 (408) 955-9077

*MG-2*

CLIENT: John Skalbeck  
 PES Environmental Inc  
 1682 Novato Boulevard, Suite 100  
 Novato, CA 94947

Lab Number : JJ-2402-5  
 Project : 241.0102.002, Powell St.  
 Plaza  
 Analyzed : 11/18/93  
 Analyzed by: ON  
 Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450005	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	16.	
Toluene		0.5	0.9	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	50.	
Total Petroleum Hydrocarbons (Diesel 2)		50.	540.	
Percent Surrogate Recovery			79.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

(1) EXTRACTED by EPA 5030 (purge-and-trap)

(2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
 MSD1/LAW53A  
 DT/mcc/dez  
 MSD1-111893

Respectfully submitted,  
 COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
 Dudley Torres  
 Organics Manager





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San Jose, CA 95131  
(408) 955-9077

*MW-18*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-6  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/18/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450006	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			79.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

(1) EXTRACTED by EPA 5030 (purge-and-trap)

(2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW54A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
Dudley Torres  
Organics Manager



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CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

*MW-14*

Lab Number : JJ-2402-7  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/18/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
93450007	Aqueous	Bryan Smith	11/10/93	11/10/93	
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
<b>FUEL FINGERPRINT ANALYSIS</b>					1,2
Benzene		0.5	ND		
Toluene		0.5	ND		
Ethylbenzene		0.5	ND		
Xylenes		0.5	ND		
1,2-Dichloroethane		0.5	ND		
Ethylene dibromide		0.5	ND		
Total Petroleum Hydrocarbons (Gasoline)		50.	ND		
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND		
Percent Surrogate Recovery			81.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW55A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
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Organics Manager



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CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

MW-5

Lab Number : JJ-2402-8  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/19/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450008	Aqueous	Bryan Smith	11/10/93	11/10/93

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	6800.	
Percent Surrogate Recovery			71.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW66A  
DT/mcc/on  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



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*MW-9*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-9  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450009	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			83.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW34A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Murriel*  
Dudley Torres  
Organics Manager



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CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

MW-8

Lab Number : JJ-2402-10  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
93450010	Aqueous	Bryan Smith	11/10/93	11/10/93	
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
<b>FUEL FINGERPRINT ANALYSIS</b>					
Benzene		0.5	ND	1,2	
Toluene		0.5	ND		
Ethylbenzene		0.5	ND		
Xylenes		0.5	ND		
1,2-Dichloroethane		0.5	ND		
Ethylene dibromide		0.5	ND		
Total Petroleum Hydrocarbons (Gasoline)		50.	ND		
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND		
Percent Surrogate Recovery			76.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW35A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Marcos*  
Dudley Torres  
Organics Manager



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(408) 955-9077

*MW-10*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-11  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/19/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450011	Aqueous	Bryan Smith	11/10/93	11/10/93

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			82.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW65A/57A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
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CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

*MW-1*

Lab Number : JJ-2402-12  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450012	Aqueous	Bryan Smith	11/10/93	11/10/93

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>				1,2
Benzene		0.5	1.3	
Toluene		0.5	1.8	
Ethylbenzene		0.5	ND	
Xylenes		0.5	2.0	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			82.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW37A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

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(408) 955-9077

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

P2-1

Lab Number : JJ-2402-13  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
93450013	Aqueous	Bryan Smith	11/10/93	11/10/93	
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
<b>FUEL FINGERPRINT ANALYSIS</b>					1,2
Benzene		0.5	1.5		
Toluene		0.5	ND		
Ethylbenzene		0.5	ND		
Xylenes		0.5	ND		
1,2-Dichloroethane		0.5	ND		
Ethylene dibromide		0.5	ND		
Total Petroleum Hydrocarbons (Gasoline)		50.	ND		
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND		
Total Petroleum Hydrocarbons (Light Petroleum Distillate)		50.	450.		
Percent Surrogate Recovery			80.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW38A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager





Air, Water & Hazardous Waste Sampling, Analysis & Consultation  
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

*M6-4*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-14  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/18/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450014	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			81.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW58A  
DT/mcc/dez  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



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San Jose, CA 95131  
(408) 955-9077

MG-7

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-15  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450015	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			81.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW40A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
Dudley Torres  
Organics Manager



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NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

*MW-4*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-19  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/19/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
93450016	Aqueous	Bryan Smith	11/10/93	11/10/93	
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
<b>FUEL FINGERPRINT ANALYSIS</b>					
Benzene		2.	440.	1,2,3	
Toluene		2.	3.		
Ethylbenzene		2.	ND		
Xylenes		2.	ND		
1,2-Dichloroethane		2.	ND		
Ethylene dibromide		2.	ND		
Total Petroleum Hydrocarbons (Gasoline)		200.	800.		
Total Petroleum Hydrocarbons (Diesel 2)		200.	34000.		
Percent Surrogate Recovery			81.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)
- (3) High detection limits due to sample dilution.

11/20/93  
MSD1/LAW67A/59A  
DT/mcc/on  
MSD1-111893

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
Dudley Torres  
Organics Manager



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2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

*FIELD  
BLANK*

CLIENT: John Skalbeck  
PES Environmental Inc  
1682 Novato Boulevard, Suite 100  
Novato, CA 94947

Lab Number : JJ-2402-16  
Project : 241.0102.002, Powell St.  
Plaza  
Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED	
93450019	Aqueous	Bryan Smith	11/10/93	11/10/93
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	ND	
Toluene		0.5	ND	
Ethylbenzene		0.5	ND	
Xylenes		0.5	ND	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Percent Surrogate Recovery			85.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

(1) EXTRACTED by EPA 5030 (purge-and-trap)

(2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW21A  
DT/mcc/dez  
MSD1-111793

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*M. Torres*  
Dudley Torres  
Organics Manager



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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

QC Batch ID: MSD1-111793

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

METHOD BLANK  
REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
METHOD BLANK	Aqueous				
CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE	
FUEL FINGERPRINT ANALYSIS				1,2	
Benzene		0.5	ND		
Toluene		0.5	ND		
Ethylbenzene		0.5	ND		
Xylenes		0.5	ND		
1,2-Dichloroethane		0.5	ND		
Ethylene dibromide		0.5	ND		
Total Petroleum Hydrocarbons (Gasoline)		50.	ND		
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND		
Percent Surrogate Recovery			81.		

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/1AW18A  
DT/mcc/dez  
JJ2402-16

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Maurice*  
Dudley Torres  
Organics Manager



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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

QC Batch ID: MSD1-111793

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

QC MATRIX SPIKE  
REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED		
MATRIX SPIKE	Aqueous				
CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT $\mu\text{g/L}$	%REC	NOTE
FUEL FINGERPRINT ANALYSIS					1,2
Benzene	ND	10.	8.4	84.	
Toluene	ND	10.	8.9	89.	
Ethylbenzene	ND	10.	11.	110.	
Xylenes	ND	10.	10.	100.	
1,2-Dichloroethane	ND	10.	9.2	92.	
Ethylene dibromide	ND	10.	7.4	74.	
Total Petroleum Hydrocarbons (Gasoline)	ND	250.	220.	88.	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW22A/24A  
DT/mcc/dez  
JJ2402-16

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



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NorCal Division (San Jose Laboratory)  
2059 Junction Ave.

San Jose, CA 95131  
(408) 955-9077

QC Batch ID: MSD1-111793

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 11/17/93  
Analyzed by: ON  
Method : As Listed

QC MATRIX SPIKE  
REPORT OF ANALYTICAL RESULTS

Page 1 of 1

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED		
MATRIX SPIKE DUPLICATE	Aqueous					
CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT $\mu\text{g/L}$	%REC	%DIFF	NOTE
<b>FUEL FINGERPRINT ANALYSIS</b>						
Benzene	ND	10.	8.6	86.	2.4	1,2
Toluene	ND	10.	8.8	88.	1.1	
Ethylbenzene	ND	10.	11.	110.	0.	
Xylenes	ND	10.	11.	110.	9.5	
1,2-Dichloroethane	ND	10.	9.8	98.	6.3	
Ethylene dibromide	ND	10.	8.2	82.	10.	
Total Petroleum Hydrocarbons (Gasoline)	ND	250.	230.	92.	4.4	

San Jose Lab Certifications: CAELAP #1204

\*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)

- (1) EXTRACTED by EPA 5030 (purge-and-trap)
- (2) ANALYZED by CAL DHS DRAFT TPH, EPA 8260 modified (GC/MS)

11/20/93  
MSD1/LAW23A/25A  
DT/mcc/dez  
JJ2402-16

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES, INC.

*Dudley Torres*  
Dudley Torres  
Organics Manager



# CHAIN OF CUSTODY RECORD

JOB NUMBER 241.0102.002  
NAME/LOCATION POWELL STREET PLAZA  
PROJECT MANAGER JDS

SAMPLERS: BLAINE TECH + PES

RECORDER: Bryan Smith  
(Signature Required)

DATE				SAMPLE NUMBER OR LAB NUMBER			
YR	MO	DAY	TIME	YR	WK	SEQ	
93	11	00	0927	93	45	00	01
93	11	01	0009	93	45	00	02
93	11	01	0309	93	45	00	03
93	11	01	1279	93	45	00	04
93	11	01	2089	93	45	00	05
93	11	01	2589	93	45	00	06
93	11	01	3249	93	45	00	07
93	11	01	3589	93	45	00	08

SOURCE CODE	MATRIX					# CONTAINERS & PRESERV.				DEPTH IN FEET	COL MTD CD	QA CODE
	Water	Sedim't	Soil	Oil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Filtered	PK			
	X							2		1		
	X							2		2		
	X							2		3		
	X							2		4		
	X							2		5		
	X							2		6		
	X							2		7		
	X							2		8		

ANALYSIS REQUESTED												
EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pollutant Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8240/8260					
							for TPH as Gas and TPH as Diesel and BTEX					

NOTES

CREW #1

vials placed on guard bottles at lab

CHAIN OF CUSTODY RECORD					
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
<u>Bryan Smith</u>	<u>Edgar P...</u>		11/0	5:00	
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
<u>World Courier</u>					
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
			<u>William Abraham</u>	11/0/93	1900
METHOD OF SHIPMENT: <u>cool, intact</u>					



# CHAIN OF CUSTODY RECORD

JOB NUMBER: 271,0102,002  
NAME/LOCATION: POWELL STREET PLAZA  
PROJECT MANAGER: JDS

SAMPLERS: BLAINE TELH & PES

RECORDER: Bryan Smith  
(Signature Required)

DATE				SAMPLE NUMBER OR LAB NUMBER		
YR	MO	DY	TIME	YR	WK	SEQ
93	11	10	0930	93	45	009
93	11	10	0100	93	45	010
93	11	10	0400	93	45	011
93	11	10	1140	93	45	012
93	11	10	1220	93	45	013
93	11	10	1330	93	45	014
93	11	10	1310	93	45	015
93	11	10	1410	93	45	016
93	11	10	0930	93	45	019

SOURCE CODE	MATRIX				# CONTAINERS & PRESERV.					DEPTH IN FEET	COL MTD CD	QA CODE
	Water	Sedim <sup>1</sup>	Scil	Oil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Filtered	HC			
	X								2	112402	-9	
	X								2		-10	
	X								2		-11	
	X								2		-12	
	X								2		-13	
	X								2		-14	
	X								2		-15	
	X								2		-19	
	X								2		-16	

ANALYSIS REQUESTED											
EPA 601/6010											
EPA 602/6020											
EPA 624/6240											
EPA 625/6270											
Priority Pollutant Metals											
Benzene/Toluene/Xylene											
Total Petrol. Hydrocarb.											
*Do Not Test For TPH as Gals and TPH as Diesel and BTEX											

NOTES

CREW# 2

\* Do Not Analyze 93450016 until PES approval. → released from hold per JDS 11/10/93

vials placed in guard bottles @ lab unperf

CHAIN OF CUSTODY RECORD					
RELINQUISHED BY: (Signature)	<u>Bryan Smith</u>		RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	<u>World Courier</u>		RECEIVED BY: (Signature)	DATE	TIME
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:			<u>cool, intact</u>		

**APPENDIX B**

**GROUNDWATER SAMPLING REPORT - BLAINE TECH SERVICES, INC.**

December 13, 1993

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

Attn: Jane Gill

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

DATE:  
November 10, 1993

## GROUNDWATER SAMPLING REPORT 931110-F-1

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Blaine Tech Services, Inc. perform 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 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.

## TABLE OF WELL MONITORING DATA

Well I.D.	MG-4			MG-7			MW-1			MW-4		
Date Sampled	11/10/93			11/10/93			11/10/93			11/10/93		
Well Diameter (in.)	2			2			4			4		
Total Well Depth (ft.)	11.71			14.90			13.70			13.48		
Depth To Water (ft.)	5.39			7.45			5.62			9.05		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	1.0			1.1			5.2			2.8		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	3.0			3.5			16.0			9.0		
Purging Device	BAILER			BAILER			MIDDLEBURG			MIDDLEBURG		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	13:23	13:25	13:27	13:00	13:02	13:05	11:19	11:28	11:38	13:56	14:01	14:08
Temperature (Fahrenheit)	69.3	69.5	69.4	70.3	69.6	70.5	65.3	69.5	70.1	68.8	70.1	69.4
pH	7.5	7.5	7.5	7.2	7.2	7.4	7.0	7.1	7.1	7.6	7.5	7.5
Conductivity (micromhos/cm)	3200	3200	3100	3800	4200	3600	2200	3000	2800	2500	2500	2500
Nephelometric Turbidity (NTU)	103.6	115.8	120.6	95.8	33.9	108.6	>200	>200	>200	130.6	140.8	138.6
BTS Chain of Custody	931110-F-1			931110-F-1			931110-F-1			931110-F-1		
BTS Sample I.D.	MG-4			MG-7			MW-1			MW-4		

## TABLE OF WELL MONITORING DATA

Well I.D.	MW-8	MW-9	MW-10	PZ-1
Date Sampled	11/10/93	11/10/93	11/10/93	11/10/93
Well Diameter (in.)	2	2	2	2
Total Well Depth (ft.)	12.07	12.22	11.18	14.54
Depth To Water (ft.)	5.46	3.85	5.26	5.18
Free Product (in.)	NONE	NONE	NONE	NONE
Reason If Not Sampled	--	--	--	--
1 Case Volume (gal.)	0.50	1.3	0.94	1.5
Did Well Dewater?	NO	NO	NO	NO
Gallons Actually Evacuated	1.5	4.0	3.0	6.5
Purging Device	MIDDLEBURG	MIDDLEBURG	MIDDLEBURG	BAILER
Sampling Device	BAILER	BAILER	BAILER	BAILER
Time	9:55 9:57 9:59	9:21 9:23 9:25	10:25 10:29 10:35	12:10 12:15 12:16
Temperature (Fahrenheit)	64.1 65.0 65.4	63.8 65.0 62.2	64.8 65.2 65.4	71.1 69.9 69.7
pH	7.2 7.2 7.2	7.4 7.3 7.3	7.1 7.2 7.3	7.1 7.2 7.2
Conductivity (micromhos/cm)	2300 2200 2200	2000 2000 2000	1800 1800 1800	4100 4300 4500
Nephelometric Turbidity	>200 185.3 153.0	>200 >200 >200	>200 188.0 156.8	15.6 12.2 8.5
BTS Chain of Custody	931110-F-1	931110-F-1	931110-F-1	931110-F-1
BTS Sample I.D.	MW-8	MW-9	MW-10	PZ-1

## TABLE OF WELL MONITORING DATA

Well I.D.	MW-2	MW-5	MW-6	MW-11
Date Sampled	11/10/93	11/10/93	11/10/93	11/10/93
Well Diameter (in.)	4	2	2	2
Total Well Depth (ft.)	14.12	14.80	14.13	12.74
Depth To Water (ft.)	6.28	8.16	7.60	8.25
Free Product (in.)	NONE	NONE	NONE	NONE
Reason If Not Sampled	--	--	--	--
1 Case Volume (gal.)	5.1	1.1	1.0	0.71
Did Well Dewater?	NO	NO	NO	NO
Gallons Actually Evacuated	16.0	4.0	3.0	3.0
Purging Device	MIDDLEBURG	BAILER	MIDDLEBURG	MIDDLEBURG
Sampling Device	BAILER	BAILER	BAILER	BAILER
Time	11:33 11:38 11:44	14:00 14:03 14:05	10:30 10:33 10:36	9:29 9:32 9:33
Temperature (Fahrenheit)	71.0 71.0 69.8	72.1 71.8 71.7	68.6 68.4 68.5	71.4 71.0 71.0
pH	6.6 6.7 6.9	8.2 8.2 8.2	7.2 7.1 7.1	7.2 7.2 7.1
Conductivity (micromhos/cm)	>10000 >10000 >10000	3200 4400 4200	1000 1000 1000	1000 1000 1000
Nephelometric Turbidity	21.4 26.9 10.30	78.3 56.4 103.3	130.0 111.6 87.3	36.5 28.4 19.8
BTS Chain of Custody	931110-F-1	931110-F-1	931110-F-1	931110-F-1
BTS Sample I.D.	MW-2	MW-5	MW-6	MW-11

## TABLE OF WELL MONITORING DATA

Well I.D.	MW-12	MW-16	MW-18	MG-2
Date Sampled	11/10/93	11/10/93	11/10/93	11/10/93
Well Diameter (in.)	2	2	2	2
Total Well Depth (ft.)	11.50	12.70	16.14	14.73
Depth To Water (ft.)	5.79	9.06	12.00	8.04
Free Product (in.)	NONE	NONE	NONE	NONE
Reason If Not Sampled	--	---	--	--
1 Case Volume (gal.)	0.9	0.6	0.9	1.1
Did Well Dewater?	NO	NO	NO	NO
Gallions Actually Evacuated	3.0	3.0	3.0	4.0
Purging Device	MIDDLEBURG	BAILER	BAILER	BAILER
Sampling Device	BAILER	BAILER	BAILER	BAILER
Time	10:01 10:03 10:05	13:26 13:29 13:33	13:00 13:03 13:06	12:10 12:15 12:13
Temperature (Fahrenheit)	68.5 68.4 68.4	69.1 68.7 68.7	68.5 68.4 68.2	70.0 71.0 71.0
pH	7.2 7.1 7.1	7.0 7.0 7.0	7.6 7.6 7.4	7.6 7.6 7.6
Conductivity (micromhos/cm)	1000 1000 1000	>10000 >10000 >10000	4500 4500 4600	8200 6600 5200
Nephelometric Turbidity	108.7 110.3 139.9	194.3 173.3 158.7	76.9 92.9 88.0	74.5 122.9 146.3
BTS Chain of Custody	931110-F-1	931110-F-1	931110-F-1	931110-F-1
BTS Sample I.D.	MW-12	MW-16	MW-18	MG-2

## STANDARD PRACTICES

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### Evacuation and Sampling Equipment

As shown in the TABLE OF MONITORING DATA the wells at this site were evacuated according to a protocol requirement for three case volumes. The wells were evacuated using a USGS Middleburg pumps and Bailers.

Samples were collected using a stainless steel bailer.

### 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. Decontamination procedures include complete disassembly of the device to a point where a jet of steam cleaner water can be directed onto all the internal surfaces (this applies to the *inside* of the Teflon bladders of USGS/Middleburg pumps). Teflon conductor tubing is connected to the steam cleaner water outlet and water is run through the interior of the tubing for several minutes. The devices are then reassembled and actuated for a period of time as an additional measure. Blaine Tech Services, Inc. frequently modifies apparatus to allow complete disassembly and proper cleaning.

### Effluent Materials

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Service, Inc. will place this water in appropriate containers of the client's choice or bring new 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.

### 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.

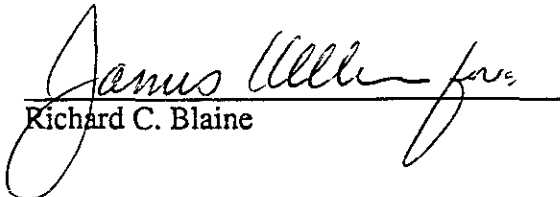


In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear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

### Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory.

Please call if we can be of any further assistance.

  
Richard C. Blaine

RCB/cdk

DISTRIBUTION

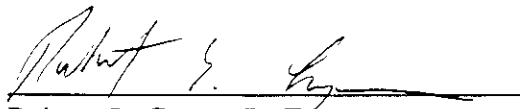
QUARTERLY GROUNDWATER MONITORING  
POWELL STREET PLAZA  
AND SHELLMOUND VENTURES III  
EMERYVILLE, CALIFORNIA  
MARCH 21, 1994

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QUALITY CONTROL REVIEWER

  
Robert S. Creps, P. E.  
Associate Engineer