PES Environmental, Inc.
Engineering & Environmental Services

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

JUNE 3, 1994

By:

James Capesse for

Bryan J. Smith
Staff Engineer

John D. Skalbeck

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

241.0102.005

1682 Novato Boulevard • Suite 100 • Novato, California 94947 • (415) 899-1600 • FAX (415) 899-1601

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

1.0 INTRODUCTION

This report presents data collected by PES Environmental, Inc. (PES) during the February 1994 groundwater monitoring at Powell Street Plaza and the adjacent Shellmound Ventures III (Shellmound III) properties 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 Hiett of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The purpose of the monitoring was to evaluate the degree and extent of petroleum hydrocarbons in groundwater at the subject sites.

2.0 QUARTERLY STATUS REPORT

The passive free-phase product recovery skimmers have been operating in Wells MW-13 and MW-15 at the Powell Street site during the quarter. The product collection canisters are emptied weekly. From December 15, 1993 to March 24, 1994, the product recovery systems removed approximately 0.2 gallons of product. The total volume of product recovered since system operation began on November 10, 1993 is approximately 1.1 gallons.

Using data collected during water-level elevation surveys, PES has developed a numerical simulation of groundwater flow at the sites. The simulation has been used to evaluate the effects on groundwater conditions caused by the planned realignment of the East Bay Municipal Utility District (EBMUD) sanitary sewer pipeline along the western boundaries of the sites. The results of the simulation are being used to evaluate remedial alternatives for the sites. Results will be presented in the site characterization and feasibility study report.

On February 23, 1994, Cullen Engineering resurveyed all of the monitoring wells at the Powell Street Plaza and Shellmound III sites. New top-of-casing (TOC) elevations are reported in Table 3. Differences between old TOC elevations and revised TOC elevations ranged from zero feet (MW-1) to 0.86 feet (MW-13).

3.0 QUARTERLY GROUNDWATER SAMPLING

Quarterly groundwater sampling was conducted by Blaine Tech Services, Inc. (Blaine Tech) under PES' observation on February 23, 1994. Groundwater samples were not collected from monitoring wells containing evidence of free-phase product (MW-7, MW-13, MW-14, MW-15, MG-1, and MG-3), from Well MW-17 which was not accessible, and Well MW-18 which was under water. Groundwater samples were collected from all other onsite

groundwater monitoring wells during the February monitoring. Monitoring well identification and corresponding sample numbers are presented on Table 1. Locations of the monitoring wells are shown 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 San Jose, California, on February 24, 1994. Coast-to-Coast analyzed all of the samples using a modified EPA Test Method 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 Tech 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 prior to sampling on February 23, 1994 by PES. Measurements were recorded to the nearest 0.01 foot using an electronic, dual-interface sounding probe. Water-level measurements 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 sounding 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 February 23, 1994 sampling event.

5.1 Groundwater Chemistry

TPHd was detected in groundwater samples collected from Wells MW-3, MW-4, MW-5 and MG-2 at concentrations of 11 parts per million (ppm), 18 ppm, 7.1 ppm and 3.3 ppm, respectively. TPHg was detected in the sample collected from Well MW-4 at a

concentration of 0.56 ppm. TPH as stoddard solvent was detected in the sample collected from Piezometer PZ-1 at a concentration of 0.2 ppm.

Benzene was detected in groundwater samples collected from Monitoring Wells MW-3 (0.0007 ppm), MW-4 (0.45 ppm), MW-11 (0.0008 ppm), MG-2 (0.0033 ppm) and PZ-1 (0.0009 ppm). Toluene was detected in the groundwater sample collected from Monitoring Well MW-4 (0.0025 ppm). Ethylbenzene was not detected in any groundwater samples. Total xylenes were detected in the sample collected from Monitoring Well MW-4 at a concentration of 0.002 ppm.

TPHd, TPHg, TPH as stoddard solvent and BTEX were not detected in groundwater samples collected from Monitoring Wells MW-1, MW-2, MW-6, MW-9, MW-10, MW-12, MW-16, MG-4, and MG-7.

5.2 Water-Level and Product Thickness Measurements

Water-level elevations measured on February 23, 1994 ranged from 1.84 feet MSL (MW-8) to 5.50 feet MSL (MW-14). The February 1994 water-level elevations at the Powell Street Plaza property are generally 0.5 to 1.0 feet higher than water-level elevations measured on November 10, 1993. The February 1994 water-level elevations at the Shellmound III property are generally 1.0 to 2.0 feet higher than the November 1993 water-level elevations. The higher water-level elevations observed in February 1994 correlate, as expected, with the winter wet season. The water-level elevations measured in Wells MW-13 (4.29 feet MSL), MW-14 (5.50 feet MSL) and MW-9 (4.96 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 water-level elevations in Wells MW-13 and MW-15 appear to be inconsistent with water-level elevations in adjacent wells. Wells MW-13 and MW-15 contain free product skimming devices which must be removed to obtain a depth-to-water measurement. Due to time constraints, depth-to-water measurements were made before the water level in these wells fully recovered to equilibrium conditions after the water-displacing volume of the skimmers were removed from the wells. Therefore, the water-level elevations for Wells MW-13 and MW-15 are reported, but not used for contouring purposes.

Wells MW-8 and MW-10 historically show a trend of uncharacteristicly low water-level elevations with respect to surrounding wells. This may be due to their proximity to utility corridors with permeable backfill located within Shellmound Street. This trend continues with the February 23, 1994 water-level measurements, and therefore water-level elevations for Wells MW-8 and MW-10 are reported, but not used for contouring purposes. Similarly, water-level elevations in Wells MW-3 and MW-4 are inconsistent with water-level elevations in surrounding wells, and are therefore reported, but not used for contouring purposes.

The direction of groundwater flow is southwest toward Temescal Creek at an approximate gradient of 0.004 feet per foot. Free product, where present, ranged in thickness from less than 0.01 feet (MW-13, MW-14, MW-15 and MG-1) to 0.02 feet (MW-7 and MG-3).

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 (Sample Number 940818) 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 - February 23, 1994

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well ID	Sample Number
MW-1	940811
MW-2	940804
MW-3	940815
MW-4	940816
MW-5	940807
MW-6	940803
MW-7	NS
MW-8	940809
MW-9	940808
MW-10	940810
MW-11	940801
MW-12	940802
MW-13	NS
MW-14	NS
MW-15	NS
MW-16	940806
MW-18	NS
MG-1	NS
MG-2	940805
MG-3	NS
MG-4	940813
MG-7	940814
PZ-1	940812

Note:

NS = Not sampled:
MW-7, MW-13, MW-14, MW-15, MG-1 and MG-3 were not sampled due to the presence of free-phase product in the wells. MW-17 and MW-18 were not sampled due to inaccessibility and standing water over the well head, respectively

TABLE 2

Results of Chemical Analyses of Groundwater Samples

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	Consultant	EPA Test Method	(concentrations expressed in parts per million) 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	<0.050	<0.050	0.0013	0.0018	<0.0005	0.0020	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
MW-2	3/14/88	Alton	8015	NT	0.05	NT	NT	NT	NT	
	3/25/91	PES	8015/8020	0.053	<0.050	0.0006	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<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)
	2/23/94	**PES**	**8260**	**<0.050**	**11.000**	**0.0007**	**<0.0005**	**<0.0005**	**<0.0005**	
MW-4	3/14/88	Alton	8015	NT	1.2	NT	NT	NT	NT	
	3/25/91	PES	8015/8020	1.300	2.500	0.7100	0.0030	0.0020	0.0060	
	11/10/93	PES	8260	0.800	34.000	0.4400	0.0030	<0.0020	<0.0020	Free product (0.02 ft)
	2/23/94	**PES**	**8260**	**0.560**	**18.000**	**0.4500**	**0.0025**	**<0.0005**	**0.0020**	
MW-5	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.050	6.800	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**7.100**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
MW-6	3/11/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<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

Well Number	Date Sampled	Consultant	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW-7	3/10/88	Alton	NS	NS	NS	NS	NS	NS	NS	Free product (1.32 ft)
	11/[illegible]/93	PES	NS	NS	NS	NS	NS	NS	NS	Free product (0.22 ft)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (0.02 ft)**
MW-8	3/11/88	Alton	8015	NT	<0.05	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
MW-9	3/11/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
MW-10	3/14/88	Alton	8015	NT	<1	NT	NT	NT	NT	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<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	<0.050	<0.050	0.0008	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**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	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<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)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (Trace: <0.01 ft)**

TABLE 2

Results of Chemical Analyses of Groundwater Samples

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	Consultant	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
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)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (Trace: <0.01 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)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (Trace: <0.01 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	<0.050	<0.050	<0.0003	<0.0003	<0.0003	0.0003	
	5/20/92	PES	8015/8020	<0.050	0.140	<0.0003	<0.0003	<0.0003	<0.0003	Non-standard diesel pattern
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
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	<0.050	<0.050	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Well under standing water**

TABLE 2

Results of Chemical Analyses of Groundwater Samples

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Date Sampled	Consultant	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
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)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (Trace: <0.01 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	<0.050	<0 050	0 0010	<0 0003	<0.0003	<0.0003	
	5 21/92	PES	8015	0 210	1.400	0.0820	0.0018	0.0006	0.0014	
	11/10/93	PES	8260	0.050	0.540	0 0160	0.0009	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**3.300**	**0.0033**	**<0.0005**	**<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	0.610	2.600	0.0750	0.0008	0.0004	0.0020	
	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)
	2/23/94	**PES**	**8260**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**Free product (0.02 ft)**
MG-4	4/21/89	Tenera	8015	NT	<1.0	0.0003	<0.0003	<0.0003	0.0013	
	3/25/91	PES	8015/8020	<0.050	<0.050	0.0004	<0.0003	<0.0003	0.0005	
	5/20/92	PES	8015/8020	<0.050	<0.050	<0.0003	<0.0003	<0.0003	<0.0003	
	11/10/93	PES	8260	<0 050	<0.050	<0.0005	<0 0005	<0.0005	<0.0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<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

Well Number	Date Sampled	Consultant	EPA Test Method	(concentrations expressed in parts per million) TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Comments
MW	[illegible] 91	PES	8015/8020	<0 050	<0 050	0 0005	<0 0003	<0 0003	<0.0003	
	[illegible]	PES	8015/8020	<0.050	0.060	<0 0003	<0.0003	<0 0003	<0 0003	Non-standard diesel pattern
	11 10 93	PES	8260	<0 050	<0.050	<0.0005	<0 0005	<0.0005	<0 0005	
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**<0.0005**	**<0.0005**	**<0.0005**	**<0.0005**	
PZ 1	[illegible] 91	PES	8015/8020	0 320	0 340	0 0004	<0.0003	<0.0003	0.0010	
	5 21 92	PES	8015/8020	0 120	0.600	0.0018	0.0003	0.0003	0.0012	
	11 10 93	PES	8260	<0 050	<0 050	0 0015	<0.0005	<0.0005	<0.0005	0.450 - TPH as light petroleum distillate
	2/23/94	**PES**	**8260**	**<0.050**	**<0.050**	**0.0009**	**<0.0005**	**<0.0005**	**<0.0005**	**0.200 - TPH as stoddard solvent**

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 Charactenzation 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, 4 300 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
February 23, 1994

Powell Street Plaza and Shellmound III Sites
Emeryville, California

Well Number	Measurement Date	Casing Diameter (inches)	Top of Casing [1] (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	2/23/93	4	8.53		4.30		4.23	
MW-2	2/23/93	4	9.64		5.70		3.94	
MW-3	2/23/93	4	10.68		6.98		3.70	
MW-4	2/23/93	4	11.44		9.15		2.29	
MW-5	2/23/93	2	10.96		7.33		3.63	
MW-6	2/23/93	2	11.22		7.35		3.87	
MW-7	2/23/93	4	11.65	7.32	7.34	0.02	4.31	4.33
MW-8	2/23/93	2	7.26		5.42		1.84	
MW-9	2/23/93	2	7.30		2.34		4.96	
MW-10	2/23/93	2	7.19		5.19		2.00	
MW-11	2/23/93	2	11.69		8.02		3.67	
MW-12	2/23/93	2	9.22		5.78		3.44	
MW-13	2/23/93	2	10.64	Trace	6.35	<0.01	4.29	4.29
MW-14	2/23/93	2	11.54	Trace	6.04	<0.01	5.50	5.50
MW-15	2/23/93	4	11.66	Trace	9.01	<0.01	2.65	2.65
MW-16	2/23/93	2	10.64		7.46		3.18	
MW-18	2/23/93	2	6.02	NM	NM			
MG-1	2/23/93	2	11.62	Trace	7.04	<0.01	4.58	4.58
MG-2	2/23/93	2	10.62		6.14		4.48	
MG-3	2/23/93	2	9.56	5.12	5.14	0.02	4.42	4.44
MG-4	2/23/93	2	7.19		3.60		3.59	
MG-7	2/23/93	2	9.86		6.59		3.27	
PZ-1	2/23/93	2	7.79		3.56		4.23	

Notes:

[1] Revised top of casing elevations based on Cullen Engineering survey

NM = Not Measured (Well under water)

NP = No free product observed

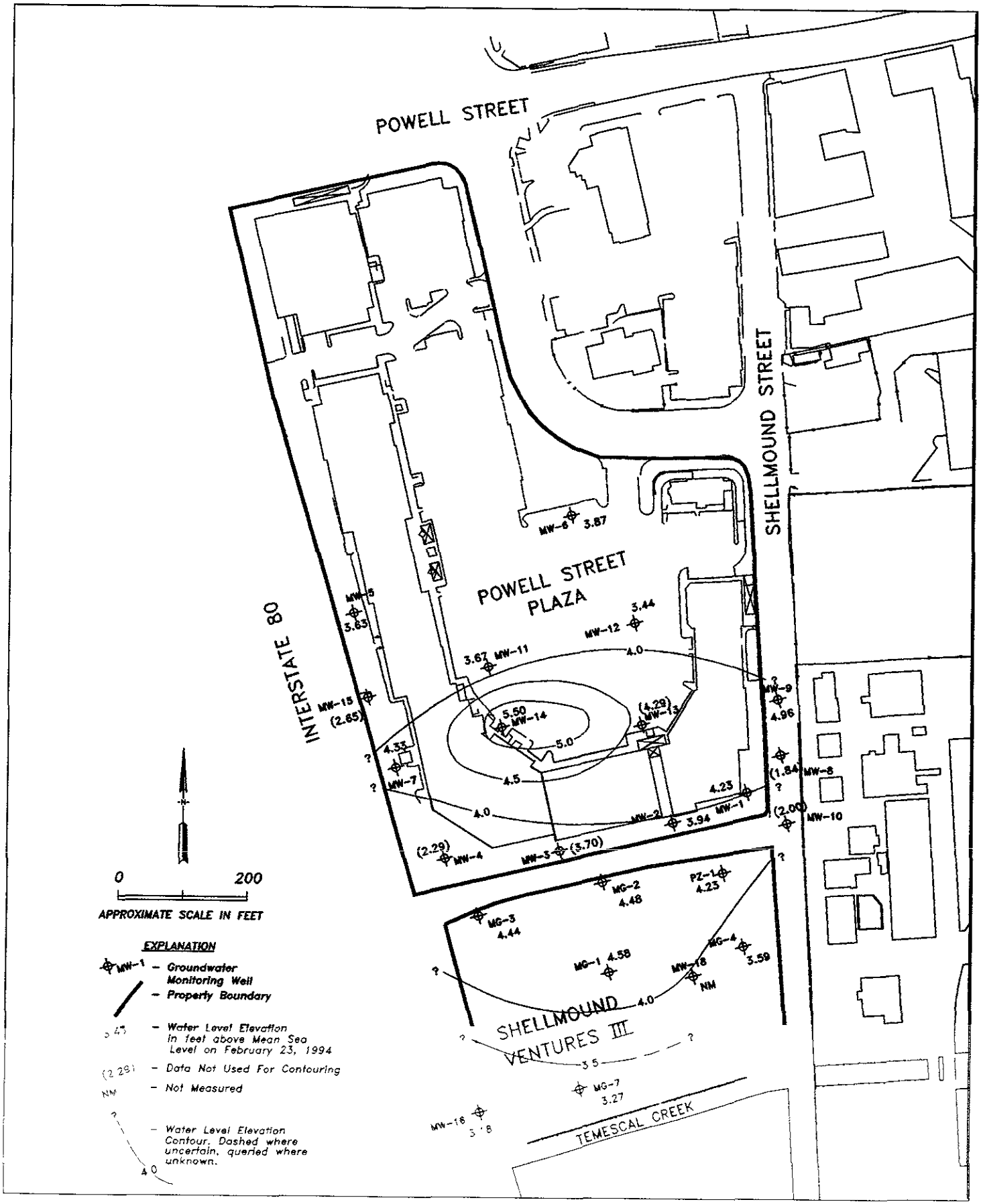
W-L = Water-Level

Trace = Less than 0.01 foot of free-phase product in well

Corrected Water-Level Elevations were calculated as follows

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

ILLUSTRATIONS



PES Environmental, Inc.
Engineering & Environmental Services

Water-Level Elevations on February 23, 1994
Powell Street Plaza and Shellmound Ventures III
Emeryville, California

PLATE 2

241.0102.005	02005D05	6/94
JOB NUMBER	DWG NUMBER	DATE

APPENDIX A

LABORATORY REPORT SHEETS
AND
CHAIN OF CUSTODY RECORDS - GROUNDWATER SAMPLES

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-1
Project : 241.0102.001, Shellmound

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940811	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			113.	

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)

03/07/94
MSD1/2AI29A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-2
Project : 241.0102.001, Shellmound

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940804 MW-2	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			113.	

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)

03/07/94
MSD1/2AI30A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-3
Project : 241.0102.001, Shellmound

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940815	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	0.7	
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.	11000.	
Percent Surrogate Recovery			86.	

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)

03/07/94
MSD1/2AI54A
DT/et/cn
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-4
Project : 241.0102.001, Shellmound

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940816	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	450.	
Toluene		0.5	2.5	
Ethylbenzene		0.5	ND	
Xylenes		0.5	2.	
1,2-Dichloroethane		0.5	ND	
Ethylene dibromide		0.5	ND	
Total Petroleum Hydrocarbons (Gasoline)		50.	560.	
Total Petroleum Hydrocarbons (Diesel 2)		50.	18000.	
Percent Surrogate Recovery			96.	

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)

03/07/94
MSD1/2AI32A/40A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-5
Project : 241.0102.001, Shellmound

Analyzed : 03/04/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940807	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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.	7100.	
Percent Surrogate Recovery			94.	

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)

03/07/94
MSD1/2AI87A/33A
DT/et/cn
MSD1-030194

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-6
Project : 241.0102.001, Shellmound

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940803 MW-2	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			109.	

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)

03/07/94
MSD1/2AI34A
DT/et/cn
MSD1-030194

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-7
Project : 241.0102.001, Shellmound

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940809	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			108.	

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)

03/07/94
MSD1/2AI35A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-8
Project : 241.0102.001, Shellmound

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940808	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			115.	

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)

03/07/94
MSD1/2AI36A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-9
Project : 241.0102.001, Shellmound

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940810	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			120.	

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)

03/07/94
MSD1/2AI37A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-10
Project : 241.0102.001, Shellmound

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940801	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				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			104.	

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)

03/07/94
MSD1/2AI23A
DT/et/on
MSD1-030194

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-11
Project : 241.0102.001, Shellmound

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940802	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			105.	

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)

03/07/94
MSD1/2AI41A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-12
Project : 241.0102.001, Shellmound

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940806	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			91.	

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)

03/07/94
MSD1/2AI48A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-13
Project : 241.0102.001, Shellmound

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940805	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	3.3	
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.	3300.	
Percent Surrogate Recovery			99.	

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)

03/07/94
MSD1/2AI50A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-14
Project : 241.0102.001, Shellmound

Analyzed : 03/04/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940813 AG-4	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			105.	

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)

03/07/94
MSD1/2AI85A/51A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

COAST-TO-COAST ANALYTICAL SERVICES, INC.

EXCELLENCE IN ANALYSIS

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

Lab Number : JK-0627-15
Project : 241.0102.001, Shellmound

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940814 AG-7	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			106.	

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)

03/07/94
MSD1/2AI52A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-16
Project : 241.0102.001, Shellmound

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940812	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
FUEL FINGERPRINT ANALYSIS				1,2
Benzene		0.5	0.9	
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 (Stoddard Solvent)		50.	200.	
Percent Surrogate Recovery			96.	

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)

03/07/94
MSD1/2AI53A
DT/et/on
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

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

Lab Number : JK-0627-17
Project : 241.0102.001, Shellmound

Analyzed : 03/04/94
Analyzed by: ON
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
940818 [illegible]	Aqueous	Jeff Curtis/ Nate T.	02/23/94	02/24/94

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			107.	

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)

03/07/94
MSD1/2A186A/49A
DT/et/cn
MSD1-030294

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030194

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

METHOD BLANK
REPORT OF ANALYTICAL RESULTS

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			114.	

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)

03/07/94
MSD1/2AI18A
DT/et/on
JK0627-10

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030194

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
MATRIX SPIKE	Aqueous		

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	NOTE
FUEL FINGERPRINT ANALYSIS					1,2
Benzene	0.8	10.	8.4	76.	
Toluene	ND	10.	7.5	75.	
Ethylbenzene	ND	10.	11.	110.	
Xylenes	ND	10.	12.	120.	
1,2-Dichloroethane	ND	10.	8.7	87.	
Ethylene dibromide	ND	10.	9.8	98.	
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)

03/07/94
MSD1/2AI24A/22A
DT/et/on
JK0627-10

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030194

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

Analyzed : 03/01/94
Analyzed by: ON
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
MATRIX SPIKE DUPLICATE	Aqueous			

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	%DIFF	NOTE
FUEL FINGERPRINT ANALYSIS						1,2
Benzene	0.8	10.	9.0	82.	7.6	
Toluene	ND	10.	8.6	86.	14.	
Ethylbenzene	ND	10.	11.	110.	0.	
Xylenes	ND	10.	12.	120.	0.	
1,2-Dichloroethane	ND	10.	9.4	94.	7.7	
Ethylene dibromide	ND	10.	11.	110.	12.	
Total Petroleum Hydrocarbons (Gasoline)	ND	250.	220.	88.	0.	

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)

03/07/94
MSD1/2AI25A/21A
DT/et/mcc/cn
JK0627-10

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030294

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

METHOD BLANK
REPORT OF ANALYTICAL RESULTS

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			109.	

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)

03/07/94
MSD1/2AI39A
DT/et/on
JK0627-11

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030294

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
MATRIX SPIKE	Aqueous		

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	NOTE
FUEL FINGERPRINT ANALYSIS					1,2
Benzene	ND	10.	7.5	75.	
Toluene	ND	10.	7.6	76.	
Ethylbenzene	ND	10.	12.	120.	
Xylenes	ND	10.	12.	120.	
1,2-Dichloroethane	ND	10.	8.2	82.	
Ethylene dibromide	ND	10.	8.2	82.	
Total Petroleum Hydrocarbons (Gasoline)	ND	250.	200.	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)

03/07/94
MSD1/2AI42A/46A
DT/et/on
JK0627-11

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

Dudley Torres
Organics Manager

EXCELLENCE IN ANALYSIS

COAST-TO-COAST ANALYTICAL SERVICES, INC.

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

QC Batch ID: MSD1-030294

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

Analyzed : 03/02/94
Analyzed by: ON
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE RECEIVED
MATRIX SPIKE DUPLICATE	Aqueous		

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	%DIFF	NOTE
FUEL FINGERPRINT ANALYSIS						1,2
Benzene	ND	10.	8.	80.	6.5	
Toluene	ND	10.	8.1	81.	6.4	
Ethylbenzene	ND	10.	13.	130.	8.	
Xylenes	ND	10.	12.	120.	0.	
1,2-Dichloroethane	ND	10.	9.4	94.	14.	
Ethylene dibromide	ND	10.	10.	100.	20.	
Total Petroleum Hydrocarbons (Gasoline)	ND	250.	200.	80.	0.	

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)

03/07/94
MSD1/2AI43A/47A
DT/et/on
JK0627-11

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

Dudley Torres
Organics Manager

PES Environmental, Inc.
Engineering & Environmental Services

1682 Novato Boulevard, Suite 100
Novato, California 94947
(415) 899-1600 FAX (415) 899 1601

CHAIN OF CUSTODY RECORD

JOB NUMBER 241.0102.001
NAME/LOCATION SHELL MOUND
PROJECT MANAGER JOHN SKALBECK

SAMPLERS: JEFF CURTIS
NATE T
RECORDER: Jeff Curtis (Signature Required)

DATE YR	MO	DY	TIME	SAMPLE NUMBER OR LAB NUMBER YR	WK	SEQ	SOURCE CODE	MATRIX Water	Sediment	Soil	Oil	# CONTAINERS & PRESERV. Unpres.	H_2SO_4	HNO_3	Filtered	HCl	DEPTH IN FEET	COL MTD CD	QA CODE	ANALYSIS REQUESTED EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pollutant Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8260	
94	02	23	1650	94	08	11		X								X	W1-1					X				X		
			1725	94	08	04											W1-3												
			1745	94	08	15											W1-2												
			1540	94	08	16											W1-4												
			1400	94	08	07											W1-5												
			1605	94	08	03											W1-6												
			1340	94	08	01											W1-8												
			1515	94	08	08											W1-9												
			1510	94	08	10											W1-11												
			1630	94	08	01											W1-12												
			1805	94	08	02											W1-13												
			1315	94	08	06											W1-15												

NOTES

STD TAT.

ANALYZE FOR 8240 / 8260

PAGE 1 OF 2

Run fuelfingerprint, quantify TPH as Diesel & Gas per John Skalbeck 02/24/94 dp.

Delivered to lab by World Courier

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) Jeff Curtis		RECEIVED BY: (Signature) Raymond E. Decker	DATE 2/24/94 TIME 923
RELINQUISHED BY: (Signature) Raymond E. Decker		RECEIVED BY: (Signature) Jo Delgado	DATE 2/24/94 TIME 9:40
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: Courier Temp. of cooler upon receipt: 49°F

1/1m vials placed in guard bottles at lab- dp

Laboratory Copy White
Project Office Copy Yellow
Field or Office Copy Pink

PES Environmental, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

1682 Novato Boulevard, Suite 100
Novato, California 94947
(415) 899-1600 FAX (415) 899 1601

JOB NUMBER 241.0102.001
NAME/LOCATION SHELL MOUND
PROJECT MANAGER JOHN SKARBEK

SAMPLERS: JEFF CURTIS
NATE
RECORDER: Jane Gill (Signature Required)

DATE YR	MO	DY	TIME	SAMPLE NUMBER OR LAB NUMBER YR	WK	SEQ	SOURCE CODE	MATRIX Water	Sedim't	Soil	Oil	# CONTAINERS & PRESERV. Unpres.	H_2SO_4	HNO_3	Filtered	HCl	DEPTH IN FEET	COL MTD CD	QA CODE
94	02	23	1155	94	08	05-13		X								X	MW-2		
			1240	94	08	13-14											MW-4		
			1255	94	08	14-15											MW-7		
			1210	94	08	12-16											PZ-1		
			1245	94	08	18-17											Field blank		

ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pollutant Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8260	
		X				X		960627

NOTES

STD T.A.T.

ANALYZE FOR 8240 / 8260 (see page 1)

PAGE 2 OF 2

Delivered to lab by World Courier

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) Jeff Curtis			RECEIVED BY: (Signature) Raymond E Doctor	DATE 2/24/96	TIME 9:23
RELINQUISHED BY: (Signature) World Courier Raymond E Doctor			RECEIVED BY: (Signature) 90 Jojada	DATE 2/24/96	TIME 9:40
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:					

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

APPENDIX B

GROUNDWATER SAMPLING REPORT - BLAINE TECH SERVICES, INC.

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIV
SAN JOSE. CA 9513
(408) 995-553
FAX (408) 293-877

March 7, 1994

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

Attn: Jane Gill

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

DATE:
February 23, 1994

GROUNDWATER SAMPLING REPORT 940223-A-1

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-1	MG-2	MG-3	MG-4
Date Sampled	02/23/94	02/23/94	02/23/94	02/23/94
Well Diameter (in.)	--	2	--	2
Total Well Depth (ft.)	--	14.80	--	11.71
Depth To Water (ft.)	--	6.14	5.14	3.60
Free Product (ft.)	TRACE	NONE	0.02	NONE
Reason If Not Sampled	FREE PRODUCT	--	FREE PRODUCT	--
Purge Volume (gal.)	--	1.38	--	1.29
Did well Dewater?	--	NO	--	NO
Gallons Actually Evacuated	--	4.5	--	4.0
Purging Device	--	BAILER	--	BAILER
Sampling Device	--	BAILER	--	BAILER
Time	--	11:47 11:49 11:51	--	12:26 12:30 12:33
Temperature (Fahrenheit)	--	60.6 60.5 61.2	--	58.5 57.9 58.0
pH	--	7.6 7.7 7.6	--	6.9 6.9 6.9
Conductivity (micromhos/cm)	--	800 800 900	--	2300 2300 2400
Nephelometric Turbidity (NTU)	--	58.6 48.7 92.7	--	>200 >200 >200
Laboratory of Custody	--	940223-A-1	--	940223-A-1
BTS Sample I.D.	--	MG-2	--	MG-4

TABLE OF WELL MONITORING DATA

Well I.D.	MG-7			MW-1			MW-2			MW-3		
Date Sampled	02/23/94			02/23/94			02/23/94			02/23/94		
Well Diameter (in.)	2			4			4			4		
Total Well Depth (ft.)	14.86			13.70			14.20			13.01		
Depth to water (ft.)	6.59			4.30			5.70			6.98		
Free Product (ft.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
Purge Volume (gal.)	1.32			6.11			5.52			3.91		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	4.0			18.5			17.0			12.0		
Purging Device	BAILER			ELECTRIC SUBMERSIBLE			ELECTRIC SUBMERSIBLE			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	12:51	12:53	12:54	16:43	16:45	16:49	17:14	17:17	17:19	17:37	17:40	17:44
Temperature (Fahrenheit)	63.5	63.5	63.5	64.5	66.6	66.5	62.2	63.0	63.7	60.8	60.7	60.7
pH	6.9	6.9	6.9	6.9	6.8	6.7	6.4	5.9	5.9	6.9	7.3	7.3
Conductivity (micromhos/cm)	1700	1800	1900	1300	1500	1500	4700	>10000	>10000	2900	1600	1300
Nephelometric Turbidity	>200	>200	>200	41.4	28.3	20.7	>200	>200	>200	>200	>200	>200
Laboratory Chain of Custody	940223-A-1			940223-A-1			940223-A-1			940223-A-1		
BTS Sample I.D.	MG-7			MW-1			MW-2			MW-3		

TABLE OF WELL MONITORING DATA

Well I.D.	MW-4			MW-5			MW-6			MW-7	
Date Sampled	02/23/94			02/23/94			02/23/94			02/23/94	
Well Diameter (in.)	4			2			2			--	
Total Well Depth (ft.)	12.82			14.89			14.22			--	
Depth to Water (ft.)	9.15			7.33			7.35			7.34	
Free Product (ft.)	NONE			NONE			NONE			0.02	
Reason If Not Sampled	--			--			--			FREE PRODUCT	
Purge Volume (gal.)	2.38			1.20			1.09			--	
Did Well Dewater?	NO			NO			NO			--	
Gallons Actually Evacuated	7.25			3.75			3.5			--	
Purge Device	BAILER			BAILER			BAILER			--	
Sampling Device	BAILER			BAILER			BAILER			--	
Time	15:28	15:30	15:34	13:54	13:56	13:58	15:58	16:00	16:03	--	
Temperature (Fahrenheit)	64.1	64.1	63.9	65.9	65.8	65.8	65.3	65.6	65.5	--	
pH	6.5	6.5	6.5	6.4	6.5	6.5	6.5	6.6	6.6	--	
Conductivity (mmhos/cm)	2500	2500	2600	2600	2500	2600	3400	3500	3500	--	
Nephelometric Turbidity	>200	>200	>200	>200	>200	>200	>200	>200	>200	--	
BTS Chain of Custody	940223-A-1			940223-A-1			940223-A-1			--	
BTS Sample I.D.	MW-4			MW-5			MW-6			--	

TABLE OF WELL MONITORING DATA

Well I.D.	MW-8	MW-9	MW-10	MW-11
Date Sampled	02/23/94	02/23/94	02/23/94	02/23/94
Well Diameter (in.)	2	2	2	2
Total Well Depth (ft.)	12.08	12.22	11.18	12.81
Depth To Water (ft.)	5.42	2.34	5.19	8.02
Free Product (ft.)	NONE	NONE	NONE	NONE
Reason If Not Sampled	--	--	--	--
1 Case Volume (gal.)	1.06	1.59	0.95	0.76
Did Well Dewater?	NO	YES @ 2.5 gals.	YES @ 2.5 gals.	NO
Gallons Actually Evacuated	3.25	5.0	3.0	2.5
Purging Device	BAILER	BAILER	BAILER	BAILER
Sampling Device	BAILER	BAILER	BAILER	BAILER
Time	13:31 13:33 13:35	13:41 13:44 15:14	13:24 13:25 15:08	16:23 16:25 16:26
Temperature (Fahrenheit)	59.5 59.7 60.6	63.6 63.5 63.5	58.7 58.6 59.3	63.4 65.0 65.5
pH	7.3 7.2 7.1	7.1 7.1 7.1	7.5 7.5 7.1	7.0 7.0 7.0
Conductivity (micromhos/cm)	3400 3500 3400	3000 3100 3000	1900 1900 1700	1900 1900 1900
Nephelometric Turbidity	>200 >200 >200	>200 >200 >200	>200 >200 >200	>200 >200 >200
BTS Chain of Custody	940223-A-1	940223-A-1	940223-A-1	940223-A-1
BTS Sample I.D.	MW-8	MW-9	MW-10	MW-11

TABLE OF WELL MONITORING DATA

Well I.D.	MW-12			MW-13	MW-14	MW-15
Date Sampled	02/23/94			02/23/94	02/23/94	02/23/94
Well Diameter (in.)	2			--	--	--
Total Well Depth (ft.)	11.56			--	--	--
Free Product (ft.)	NONE			TRACE	TRACE	TRACE
Reason If Not Sampled	--			FREE PRODUCT	FREE PRODUCT	FREE PRODUCT
1 Case Volume (gal.)	0.92			--	--	--
Did Well Dewater?	NO			--	--	--
Gallons Actually Evacuated	3.0			--	--	--
Purging Device	BAILER			--	--	--
Sampling Device	BAILER			--	--	--
Time	16:14	16:16	18:04	--	--	--
Temperature (Fahrenheit)	62.3	62.1	62.0	--	--	--
pH	7.0	7.2	7.2	--	--	--
Conductivity (micro mhos/cm)	1500	1400	1500	--	--	--
Nephelometric Turbidity	>200	>200	>200	--	--	--
Chain of Custody	940223-A-1			--	--	--
BTS Sample I.D.	MW-12			--	--	--

TABLE OF WELL MONITORING DATA

Well I.D.	MW-16			PZ-1		
Date Sampled	02/23/94			02/23/94		
[illegible] Diameter (in.)	2			2		
Total Well Depth (ft.)	12.76			14.32		
Depth To Water (ft.)	7.46			3.56		
[illegible] Product (ft.)	NONE			NONE		
Reason If Not Sampled	--			--		
[illegible] Volume (gal.)	0.84			1.72		
Did well Dewater?	NO			NO		
Gallons Actually Evacuated	2.5			5.5		
[illegible] Device	BAILER			BAILER		
Sampling Device	BAILER			BAILER		
Time	13:06	13:08	13:10	12:00	12:02	12:05
Temperature (Fahrenheit)	62.9	62.5	--	58.8	57.9	57.6
pH	6.5	6.5	6.6	6.8	6.9	6.8
Conductivity (micromhos/cm)	9600	>10000	8600	3700	3700	3700
Nephelometric Turbidity	>200	>200	>200	>200	>200	>200
[illegible] Chain of Custody	940223-A-1			940223-A-1		
BTS Sample I.D.	MW-16			PZ-1		

EQUIPMENT

Selection of Sampling Equipment

The determination of what apparatus is to be used on particular wells may be made by the property owner, but is usually made by the professional consultant directing the performance of the monitoring on the property owner's behalf. When no specific requirement is made, our personnel will select equipment that will accomplish the work in the most efficient manner. Our personnel are equipped with a variety of sampling devices that include USGS/Middleburg pumps, down hole electric submersible pumps, air lift pumps, suction pumps, and bailers made of both Teflon and stainless steel.

Stainless Steel Bailers were selected for the collection of samples at this site.

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 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.

Electric Submersible Pumps: Electric submersible pumps are appropriate for the high volume evacuation of wells of any depth provided the well diameter is large enough to admit the pump. Four inch and three inch diameter wells will readily accept electric submersible pumps, while two inch wells do not. In operation, the pump is lowered into the well with a pipe train above it. A checkvalve immediately above the pump and below the first section of pipe prevents water that has entered the pipe from flowing back into the well. Electricity is provided to the pump via an electrical cable and the action of the pump is to push water up out of the well.

Electric submersible pumps are often used as well evacuation devices, which are then supplanted with a more specialized sample collection device (such as a bailer) at the time of sampling. An alternative is to use the pump for both evacuation and sampling. When a bailer is used to collect the sample, interpretation of results by the consultant should allow

for variations attributable to near surface contamination entering the bailer. When the electric submersible is, itself, used for sample collection it should be operated with the output restricted to a point where the loss of volatiles becomes indistinguishable from the level obtained with true sampling pumps. It should be noted that when the pump is used for both evacuation and sample collection that it is possible to perform these operation as an uninterrupted continuum. This contrasts with the variations in elapsed time between evacuation and sample collection that occur when field personnel cease one mode of operation and must bring other apparatus into use.

STANDARD PRACTICES

Evacuation

Groundwater well sampling protocols call for the evacuation of a sufficient volume of water from the well to insure that the sample is collected from water than has been newly drawn into the well from the surrounding geologic formation. The protocol used on these wells called for a volumetric removal of three case volumes with stabilization of standard water parameters. There are situations where up to ten case volumes of evacuation may be removed, especially when attempting to stabilize turbidity in undeveloped wells. Different professional consultants may specify different levels of evacuation prior to sampling or may request that specific parameters be used to determine when to collect the sample. Our personnel use several standard instruments to record the changes in parameters as the well is evacuated. These instruments are used regardless of whether or not a specific volumetric standard has been called for. As a result, the consultant will always be provided with a record of the pH, EC, and temperature changes that occurred during the evacuation process. Additional information obtained with different types of instruments (such as dissolved oxygen and turbidity meters) can also be collected if requested in advance.

Effluent Materials

The evacuation of purge water creates a volume of effluent water which, in most cases, must be contained. Blaine Tech Services, 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.

Observations and Measurements

Included in the scope of work are routine measurements and investigative procedures which are intended to determine if the wells are suitable for evacuation and sampling. These include measurement (from the top of the well case) of the total depth of the well; the depth to water, and the thickness of any free product zone (FPZ) encountered. The presence of a significant free product zone may interfere with efforts to collect a water sample that accurately reflects the condition of groundwater lying below the FPZ. This interference is caused by adhesion of petroleum to any device being lowered through the

FPZ and the likelihood that minute globules of petroleum may break free of the sampling device and be included in the sample. Accordingly, evaluation of analytical results from wells containing any amount of free petroleum should take into account the possibility that positive results have been skewed higher by such an inclusion. The decision to sample or not sample such wells is left to the discretion of our field personnel at the site and the consultant who establishes sampling guidelines based on the need for current information on groundwater conditions at the site.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms with 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 the T.E.G.D. which is published separately.

Sample Containers

Sample material is collected in specially prepared containers appropriate to the type of analyses intended. Our firm uses new sample containers of the type specified by either EPA or the RWQCB. Often times analytical laboratories wish to supply the sample containers because checks performed on these bottles are often part of a comprehensive laboratory QC program. In cases where the laboratory does not supply sample containers our personnel collect water samples in new containers that are appropriate to the type of analytical procedure that the sample is to receive. For example, 40 ml volatile organic analysis vials (VOAs) are used when analysis for gasoline and similar light volatile compounds is intended. These containers are prepared according to EPA SW 846 and will usually contain a small amount of preservative when the analysis is for TPH as gasoline or EPA 602. Vials intended for EPA 601 analysis and EPA 624 GCMS procedures are not preserved. The closure of volatile organic analysis water sample containers is accomplished with an open headed (syringe accessible) plastic screw cap brought down on top of a Teflon faced septum which is used to seal the sample without headspace.

Water samples intended for semivolatile and nonvolatile analysis such as total oil and grease (TOG) and diesel (TPH HBF) are collected and transported in properly prepared new glass liter bottles. Dark amber glass is used in the manufacture of these bottles to reduce any adverse effect on the sample by sunlight. Antimicrobial preservative may be added to the sample liquid if a prolonged holding time is expected prior to analysis. Closure is accomplished with a heavy plastic screw cap.

Groundwater well samples intended for metals analysis are transported in new plastic bottles and preserved with nitric acid. Our personnel can field filter the sample liquid prior to placing it in the sample container if instructed to perform this procedure.

Sample Handling Procedures

Water samples are collected in any of several appropriate devices such as bailers, Coliwasas, Middleburg sampling pumps etc. which are described in detail only as warranted by their employment at a given site. Sample liquid is decanted into new sample containers in

a manner which reduces the loss of volatile constituents and follows the applicable EPA procedures for handling volatile organic and semi-volatile compounds.

Groundwater samples that are to receive metals analyses can be filtered prior to being placed in the plastic sample bottles that contain the nitric acid preservative. The filtration process employs new glass containers which are discarded and laboratory quality disposable filtering containers which are also discarded. A frequently used filtering procedure employs a vacuum pump to draw sample material through a 0.45 micron filter. The 0.45 micron pore size is standard, but the amount of filter available varies with the type of package selected. Filters are selected on the basis of the relative turbidity of the water sample. Samples which are relatively clean can be efficiently filtered with relatively inexpensive filters while very turbid water will require a very large filter with a high tolerance for sediments. One of several such filters our firm uses are the Nalgene Type A filters in which an upper and lower receptacle chamber are affixed to the filter. Sample material is poured into the upper chamber and a vacuum pump attached to the lower chamber. Simple actuation of the vacuum pump induces the flow of water through the filter and into the lower chamber. The sample is then decanted into the laboratory container and the filter assembly discarded. Cartridge type flow-through filters are more expensive but can be fitted directly to the discharge line of most sampling pumps (USGS/Middleburg pumps) and electric submersible pumps.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of 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 the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

After completion of the field work, the sample containers were delivered to Coast to Coast Analytical Services in Benecia, California. Coast to Coast is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1204.

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.

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. Blaine Tech Services, Inc. frequently modifies apparatus to allow complete disassembly and proper cleaning.

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. The property owner should attach a cover letter and submit all documents together in a package.

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/dk

attachments: chain of custody

PES Environmental, Inc.
Engineering & Environmental Services

1682 Novato Boulevard, Suite 100
Novato, California 94947
(415) 899-1600 FAX (415) 899-1601

CHAIN OF CUSTODY RECORD

JOB NUMBER 241.0102.001
NAME/LOCATION SHELLMOUND
PROJECT MANAGER JOHN SKAMBECK

SAMPLERS JEFF CURTIS
NATE T
RECORDER (Signature Required)

DATE YR	MO	DY	TIME	SAMPLE NUMBER OR LAB NUMBER YR	WK	SEQ	SOURCE CODE	MATRIX Water	Sedim't	Soil	Oil	# CONTAINERS & PRESERV. Unpres.	H_2SO_4	HNO_3	Filtered	HCl	DEPTH IN FEET	COL MTD CD	QA CODE
94	02	23	650	94	08	11		X								X			
			725	94	08	04													
			745	94	08	15													
			540	94	08	16													
			400	94	08	07													
			605	94	08	03													
			340	94	08	09													
			515	94	08	08													
			510	94	08	10													
			630	94	08	01													
			805	94	08	02													
			315	94	08	06													

ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pollutant Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8260
	X						X

NOTES

STD T.A.T.

ANALYZE FOR 8240 / 8260

PAGE 1 OF 2

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
Jeff Curtis	Raymond E. Decker	2/24/94	923
RELINQUISHED BY: (Signature)	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:			

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

PES Environmental, Inc.
Engineering & Environmental Services

1682 Novato Boulevard, Suite 100
Novato, California 94947
(415) 899-1600 FAX (415) 899-1601

CHAIN OF CUSTODY RECORD

JOB NUMBER 241.0102.001
NAME/LOCATION SITE LMDUND
PROJECT MANAGER JOHN SKALBECK

SAMPLERS JEFF CURTIS
NATE
RECORDER Jeff Gill (Signature Required)

DATE YR	MO	DY	TIME	SAMPLE NUMBER OR LAB NUMBER YR	WK	SEQ	SOURCE CODE	MATRIX Water	Sediment	Soil	Oil	# CONTAINERS & PRESERV. Unpres.	H_2SO_4	HNO_3	Filtered	HCl	DEPTH IN FEET	COL MTD CD	QA CODE
94	02	23	1155	94	08	05		X								X			
			1240	94	08	13													
			1255	94	08	14													
			2110	94	08	12													
			2245	94	08	18													

ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pollutant Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8240
	X					X	

NOTES

SID T.A.T.

ANALYZE FOR 8240 / 8260

PAGE 2 OF 2

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) Jeff Curtis			RECEIVED BY: (Signature) Raymond E Dafoe	DATE 2/24/94	TIME 923
RELINQUISHED BY: (Signature)			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:

Laboratory Copy Project Office Copy Field or Office Copy

DISTRIBUTION

QUARTERLY GROUNDWATER MONITORING
POWELL STREET PLAZA
AND SHELLMOUND VENTURES III
EMERYVILLE, CALIFORNIA
JUNE 3, 1994

COPY NO. 3

Copy		Copy No.
1 Copy	Mr. Thomas Gram 5800 Shellmound, Suite 210 Emeryville, California 94608	1
1 Copy	David Cooke, Esq. Beveridge & Diamond One Sansome Street, Suite 3400 San Francisco, California 94104-4438	2
1 Copy	Ms. Susan Hugo Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, California 94612	3
1 Copy	Mr. Rich Hiett San Francisco Bay Regional Water Quality Control Board 2101 Webster Street, Suite 500 Oakland, California 94612	4
1 Copy	Barry S. Sandals, Esq. Morrison & Foerster 345 California Street San Francisco, California 94104-2675	5
1 Copy	Mr. Tony McElligot, P.E. Clayton Environmental Consultants P.O. Box 9019 Pleasanton, California 94566	6

DISTRIBUTION
continued

QUARTERLY GROUNDWATER MONITORING
POWELL STREET PLAZA
AND SHELLMOUND VENTURES III
EMERYVILLE, CALIFORNIA
JUNE 3, 1994

COPY NO. 3

Copy		Copy No.
3 Copies	PES Job Files	7-9

QUALITY CONTROL REVIEWER

Robert S. Creps, P. E.
Principal Engineer