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Oakland, California 94621

**WORK PLAN
MONITORING WELL INSTALLATION
POWELL STREET PLAZA AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA**

Dear Ms. Hugo:

This letter presents a work plan prepared by PES Environmental, Inc. ("PES") on behalf of the former Eastshore Partners for installation of a monitoring well and sampling of groundwater at the Powell Street Plaza and Shellmound III properties (the "sites"), Emeryville, California (Plate 1). The purpose of the sampling is to further investigate groundwater conditions west of the sites.

Based on discussions during our June 14, 1994 meeting at the offices of Alameda County Department of Environmental Health ("ACDEH"), PES understands that ACDEH requests additional groundwater investigation at this time to define the western extent of petroleum hydrocarbons in groundwater. PES understands that ACDEH will approve the installation of one groundwater monitoring well located west of Interstate 80 ("I-80") upon receipt of an acceptable work plan.

SCOPE OF WORK

The scope of work includes installation of one groundwater monitoring well and collection of soil and groundwater samples for laboratory chemical analyses of petroleum hydrocarbons. This investigation has been divided into the following tasks: (1) Pre-investigation Activities, (2) Drilling and Soil Sampling, (3) Groundwater Monitoring Well Installation and Sampling, and (4) Laboratory Chemical Analyses. Details of each task are presented in the following paragraphs.

Task 1 - Pre-Investigation Activities

Pre-investigation activities to be conducted as part of this investigation include permitting, underground utility clearance, and site safety plan review. PES will fulfill permitting requirements required by the local agencies for subsurface drilling and groundwater

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monitoring well installation. PES will also coordinate with Caltrans regarding requirements for access to I-80 right-of-way.

An underground utility survey will be completed prior to drilling to assess whether the drilling location is clear of underground improvements. If underground lines are suspected, the drilling location will be moved to provide a safe distance from the underground feature.

A site-specific health and safety plan has been prepared for activities previously conducted at the site and will be utilized for this investigation. The plan will be reviewed and updated, as necessary, to comply with the PES Corporate Health and Safety Program and OSHA standards.

Task 2 - Drilling and Soil Sampling

One soil boring will be drilled to a depth of approximately 15 feet below ground surface ("bgs") using a truck-mounted drill rig equipped with hollow-stem augers at the location shown on Plate 1. Soil samples will be collected at approximately 2, 5, 10, and 15 feet bgs to document subsurface lithology and soil chemical conditions. Samples will be collected by driving a modified California split spoon sampler lined with three 6-inch long stainless steel liners approximately 18 inches into undisturbed soil. The soil lithology will be logged from cuttings and from samples in accordance with the Unified Soil Classification System under the supervision of a California Registered Geologist and Certified Engineering Geologist.

The lead liner of each sample will be field screened for volatile organic chemicals (VOC) using a photo ionization organic vapor meter. The VOC concentrations will be recorded on the boring log and used to assist in selection of samples for laboratory submittal. The second liner of each sample will be sealed with Teflon sheeting, plastic end caps, and silicone adhesive tape; labeled for project address, boring identification and sample depth, sampling date and time, and requested analysis; and placed in a thermally insulated chest. One sample from the boring will be submitted to the project laboratory for chemical analysis as described in Task 4.

Borehole cuttings will be placed in a properly labeled DOT-approved 55-gallon drum and stored at the Shellmound III property until proper disposal can be arranged. Drilling and sampling equipment will be steam cleaned on the Shellmound III property and rinsate will be collected and stored in a properly labeled DOT-approved 55-gallon steel drum pending proper disposal.

Task 3 - Groundwater Monitoring Well Installation and Sampling

A groundwater monitoring well will be installed through the hollow stem of the augers within the soil boring using 2-inch diameter, flush-threaded, PVC casing and 0.020 inch machine slotted well screen. The well will be constructed so that the screen extends at least 10 feet

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below and approximately 2 feet above the static water level. PES anticipates that groundwater will be encountered at approximately 5 feet below ground surface. The well will be completed with a threaded bottom cap and a clean sand pack extending from the bottom of the borehole to approximately one foot above the top of the screen. A one-foot thick bentonite pellet seal will be placed above the sand pack and a bentonite/cement grout will be placed above the bentonite pellet seal to the ground surface. The wellhead will be completed with a locking water-tight cap within a traffic-rated well vault set approximately 2 inches above grade. A typical well installation is shown in Plate 2. The well top-of-casing elevation and location will be surveyed by a California-licensed land surveyor using the same benchmark as existing monitoring wells at the sites.

Following monitoring well installation, the well will be developed to sort the sand pack and remove fines from the well bore. Development will be performed by surging and/or bailing followed by pumping (as necessary) until discharge is visually clear and free of sediment and at least 6 to 10 well volumes of water has been removed. Discharge water will be monitored for pH, temperature, and electrical conductivity during development. Development water will be contained in properly labeled DOT-approved 55-gallon steel drums and stored on the Shellmound III property until proper disposal can be arranged.

Groundwater sampling will be performed following well development. Prior to sampling, the depth to water in the well will be measured from the top-of-casing reference point using an electronic sounder. The well will then be purged by surging and/or bailing followed by pumping (as necessary) until at least 3 well volumes of water has been removed and purge water is visually clear and free of sediment. The purge water will be monitored for pH, temperature, and electrical conductivity to assess when purging is completed. Purge water will be contained in properly labeled DOT-approved 55-gallon steel drums and stored at the Shellmound III property until proper disposal is arranged.

Following well purging, a groundwater sample will be collected using a Teflon or stainless steel bailer. The sample will be transferred to the appropriate laboratory sample containers using a bottom draining bailer stopcock. The sample containers will be filled slowly to minimize sample volatilization and ensure that the sample is free of air bubbles. The sample containers will be labeled for project address, sampling date and time, and requested analysis; and placed in a thermally insulated chest until submitted to the project laboratory for chemical analyses as described in Task 4.

Task 4 - Laboratory Chemical Analyses

Soil and groundwater samples will be transported to a State-certified laboratory following proper chain-of-custody procedures. Samples will be analyzed on a standard two-week laboratory schedule. The samples will be analyzed for the following petroleum hydrocarbon constituents:

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- 1) Total Petroleum Hydrocarbons (TPH) as gasoline and Benzene, Toluene, Ethylbenzene and Xylenes by EPA Test Method 5030/modified 8015 and 8020; and
- 2) TPH as diesel by EPA Test Method 3510/modified 8015.

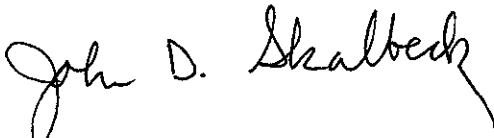
SCHEDULE

PES will initiate the scope of work within two weeks after receiving authorization to proceed. Tasks 1, 2, and 3 will be completed within one week (Week 3). PES expects to receive laboratory results from Task 4 will complete by Week 5. Once laboratory chemical analyses results are received, PES will incorporate a summary of field activities, the results of field observations, and the results of the analytical program into the Site Characterization Report - Task 8 of PES' August 2, 1993 *Investigation and Remediation Workplan - Recommended Scope of Work*.

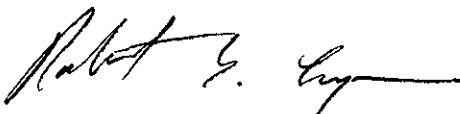
We trust this is the information you require. Please do not hesitate to call should you have any questions or require additional information.

Yours very truly,

PES ENVIRONMENTAL, INC.



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



Robert S. Creps, P.E.
Principal Engineer

Attachments: Plate 1 - Site Map
Plate 2 - Typical Well Construction

cc: Tom Gram: Former Eastshore Partners
David Cooke, Esq.; Beveridge & Diamond
Tony McElligott, Clayton Environmental Consultants

