CAMBRIA Environmental Technology, Inc.

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TRANSMITTAL

TO: MADHULLA LOGAD	FROM: J. ESPINIZA
COMPANY: ACDEH	DATE: 2/13/95
SUBJECT: TANK NEMOVAL REPORT 5900 ACACIA AUE- OAKLAND, CA	PROJECT NUMBER:
COMMENTS:	
PENI YOUR REQUEST	
NGGANDS,	
JOHN ESPINAL	

Ms. Madhulla Logan
Alameda County Department of
Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

94 SEP 23 PH 3: 51

Re: Heating Oil Tank Investigation 5900 Acacia Avenue Oakland, CA 94618

Dear Ms. Logan:

As we discussed on August 23, 1994, Cambria Environmental Technology, Inc. has been retained by Ms. Rose Bertolero to conduct a subsurface investigation at the property referenced above. The objective of this work is to assess the distribution of hydrocarbons in soil adjacent to the former heating oil tank that was removed on May 5, 1994. Presented below are a summary of the tank excavation conducted by a previous consultant and our proposed scope of work for this investigation.

TANK REMOVAL SUMMARY

On May 5, 1994, Decon Environmental Services, Inc. of Hayward, California removed a 350 gallon heating oil tank from the site. A native soil sample collected beneath the tank contained 1,300 parts per million (ppm) total petroleum hydrocarbons as diesel (TPHd). The tank excavation was backfilled and compacted.

SCOPE OF WORK

Our investigation objective is to assess the distribution of hydrocarbons in soil adjacent to the heating oil tank. Therefore, we propose to hand auget five soil borings in the tank vicinity and collect two samples per boring. Chemical analysis of these samples will define the vertical and horizontal extent of hydrocarbons. Our specific tasks include:

- Hand augering one soil boring to eight ft depth immediately downgradient of the former tank location and four additional borings about ten ft upgradient, crossgradient and downgradient of former tank,
- Collecting two soil samples per boring,
- Backfilling the soil borings with cement grout and covering the borings with the original sod,

Madhulla Logan September 21, 1994 **CAMBRIA**

- Analyzing the soil samples for total petroleum hydrocarbons as diesel (TPHd),
- Preparing a subsurface investigation report for submittal to the ACDEH, and
- Reviewing the analytic results to determine soil cutting disposal options.

Our standard field procedures are included as Attachment A.

If the hydrocarbon concentrations in soil are not excessive, we will petition the ACDEH to allow us to place the soil cuttings onsite in the existing landscaping. Placement of the soil in this manner will allow natural biological processes to thoroughly degrade any residual hydrocarbons in the soil. However, if hydrocarbon concentrations are excessive, we will investigate other soil disposal options.

We look forward to working with the ACDEH on this project. Please call if you have any questions or comments or if we can be of assistance.

Sincerely,

Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.

Principal Geologist

Attachments: Standard Field Procedures

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cc: Rose Bertolero, 5900 Acacia Avenue, Oakland, CA 94618

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STANDARD FIELD PROCEDURES

This document describes standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using solid-flight or hollow-stem augers. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using split-barrel samplers lined with steam-cleaned brass or stainless steel tubes that are driven through the hollow auger stem into undisturbed sediments at the bottom of the borehole. Samples are driven using a 140 pound hammer dropped 30 inches.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labelled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.



Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor

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concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the stratigraphy and ground water depth to select soil samples for analysis.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.