CAMBRIA

Alameda County
JUN 19 2003
Environmental Health

June 18, 2003

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services (ACHCSA-EHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-9335

Re: **Additional Assessment Workplan**
Chevron SS #9-8341
3530 MacArthur Blvd
Oakland, California
Cambria Project no. 31D-1650

Dear Mr. Hwang:

On behalf of Chevron Products Company, Cambria is submitting this workplan for additional assessment at the site referenced above. The workplan has been developed to address concerns expressed in an Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) letter, dated December 4, 2002.

Please review the document and direct any questions or comments you have to me at (510) 420-3348. Chevron wishes to conduct this investigation in an expedited manner so your attention to this matter is greatly appreciated. Thank you in advance for your prompt response.

Sincerely,
Cambria Environmental Technology, Inc.

Robert Foss

Robert Foss, R.G..
Senior Project Geologist

cc: Ms. Karen Streich, Chevron Products Company

I:\9-8341 Oakland\98341 Submit Workplan ltr 6-03.wpd

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
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Tel (510) 420-0700
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Mr. Don Hwang
Alameda County Health Care Services Agency
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Alameda, CA 94502

Re: **Additional Assessment Workplan**
Chevron Service Station 9-8341
3530 MacArthur Blvd.
Oakland, California
Cambria Project No. 31D-1650

Mr. Hwang:

Cambria Environmental Technology, Inc. (Cambria) has prepared this *Additional Assessment Workplan* for the site referenced above on behalf of Chevron Products Company. This workplan is written in response to a request for additional site characterization and definition from the Alameda County Health Care Services Agency, Environmental Health Department (ACHCSA-EHD). The site background and our proposed investigation scope of work are described below.

SITE BACKGROUND

Site Description: The site is an operating Chevron gasoline service station located on the northern corner of the intersection of MacArthur Blvd and Magee Avenue in Oakland, California. The site is approximately 210 feet above sea level and local topography slopes gently toward the southwest (Figure 1). The site is surrounded by small commercial properties, with residential properties located upslope to the northeast.

1994 Waste-Oil UST and Product Line Removal: In May 1994, a 1,000 gallon single-walled fiberglass waste-oil UST was removed and compliance soil samples were collected. No hydrocarbon impacts were detected beneath the UST. Additionally, product piping was removed and over-excavation was conducted to remove hydrocarbon impacted soil at the north end of the western dispenser island. Residual hydrocarbon concentrations of 1,300 parts-per-million (ppm) total petroleum hydrocarbons as gasoline (TPHg) were detected at 5 feet below grade (fbg).

1996 Monitoring Well Installation: In March 1996, Touchstone Developments installed three groundwater monitoring wells to assess and document soils and groundwater conditions beneath the site. Only well MW-2 contained detectable hydrocarbons with 6,100 parts-per-billion (ppb) MTBE. All other constituents were below detection limits.

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1999 Utility Survey Report: Pacific Environmental Group conducted a utility survey to document the approximate locations of various utilities in the vicinity of the subject site. Buried utilities identified by this survey consisted of sanitary sewers, storm drains and EBMUD water lines.

Groundwater Monitoring: Quarterly groundwater monitoring and sampling has been conducted at the site since the second quarter 1996.

PROPOSED SCOPE OF WORK

The objective of the proposed scope of work is to collect soil and groundwater data to satisfy the requests of ACHCSA-EHD for further site characterization. To meet this objective, we propose to advance borings and collect soil and grab groundwater samples at locations identified on Figure 2.

Depth to groundwater normally occurs between 3 to 7 fbg at the site. Soil samples will be collected above the water table and grab groundwater samples will be collected just below the water table surface. In July 1998, depth to water in all wells was measured from 9.02 to 10.21 fbg. Therefore, we propose that borings be advanced to a depth of approximately 10 fbg based on the maximum measured depth to groundwater beneath the site. Due to Chevron's safety guidelines regarding drilling, each boring is required to be cleared to a depth of 8 fbg to avoid possible underground utilities. Therefore, drilling or direct push technology cannot be utilized to collect the necessary data. Chevron and Cambria have implemented the use of an "air knife" to clear borings to the required depth. Due to the shallow water table beneath the site, the method to be used for collection of soil and groundwater samples is described below.

Additionally, in discussions with ACHCSA, Chevron proposed to construct temporary wells adjacent to, and down-gradient of, onsite well MW-2 to address the concern over screen lengths of existing wells. Chevron's concern of the possibility of smearing potentially impacted soil from above into groundwater prompted this recommendation. The temporary wells would insure that water samples were truly representative of site groundwater conditions and could be compared with analytic results from adjacent well MW-2. However, due to the method required to clear these borings, construction of temporary wells does not appear necessary. Since air knife

clearance extracts material, there appears little chance of cross contamination into water from soil above. It is, therefore, proposed that the evaluation of screen length be conducted in the manner described below, rather than by the installation of temporary wells.

Boring Clearance & Sampling Protocol: Each boring will be cleared by air knife from the surface to just above the water table at approximately 4 fbg. The depth of air knife clearance will be estimated by measurement of the depth to water in the three onsite wells the day of field activities. When that depth is reached, the air knife will be removed from the boring and a hand auger will be used to collect a sample from the next 6-12 inches of the boring. The sample will be placed in a 6-inch clean brass tube. The air knife will then clear the boring to approximately 10 fbg and another sample will be collected using a slide hammer. Each sample will be properly sealed, labeled, entered onto a chain of custody form and placed on ice. These samples will be transported, under chain of custody, to the analytical laboratory for preparation and analysis.

Chemical Analysis: Selected soil samples from each boring will be analyzed for TPHg by modified EPA Method 8015. Benzene, toluene, ethylbenzene, xylenes and oxygenates MTBE, TAME, DIPE, ETBE, TBA, ethanol and lead scavengers EDB and 1,2-DCA will by EPA Method 8260B.

Permitting: Prior to conducting field activities, Cambria will acquire all necessary permits from the Alameda County Department of Public Works.

Site Health and Safety Plan: A comprehensive site safety plan to protect site workers will be completed prior to conducting field work. The plan will be kept on site during field activities and reviewed and signed by each site worker.

Utility Location: Cambria will notify Underground Service Alert of our drilling activities to identify utilities in the site vicinity. Cambria will also check available Chevron construction plans to identify onsite utilities.

Soil/Water Disposal: Soil cuttings and produced water from the air knife clearing procedure will be temporarily stored in drums on site. The material will be profiled for appropriate disposal. Following review of analytical results, the soil will be transported to an appropriate facility.

Reporting: Upon completion of field activities and review of the analytical results, we will prepare an investigation report that, at a minimum, will contain:

- Descriptions of the sampling methods;
- Boring logs;
- Tabulated soil and groundwater analytic results;
- Analytic reports and chain-of-custody forms;
- Soil and water disposal methods and;
- Conclusions and recommendations.

SCHEDULE

Cambria will proceed with the proposed scope of work upon receiving written approval from the ACHCSA. We anticipate submitting our completed assessment report within about four weeks of sampling.

CLOSING

Please review this workplan and contact me at (510) 420-3348 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Robert C. Foss

Robert C. Foss, R.G.
Senior Project Geologist

REGISTERED GEOLOGIST
ROBERT C. FOSS
exp 08/04
No. 7445
STATE OF CALIFORNIA

Figures: 1 – Vicinity Map
2 – Proposed Soil Boring Locations

cc: Karen Streich, ChevronTexaco, P.O. Box 6012, San Ramon, CA 94583

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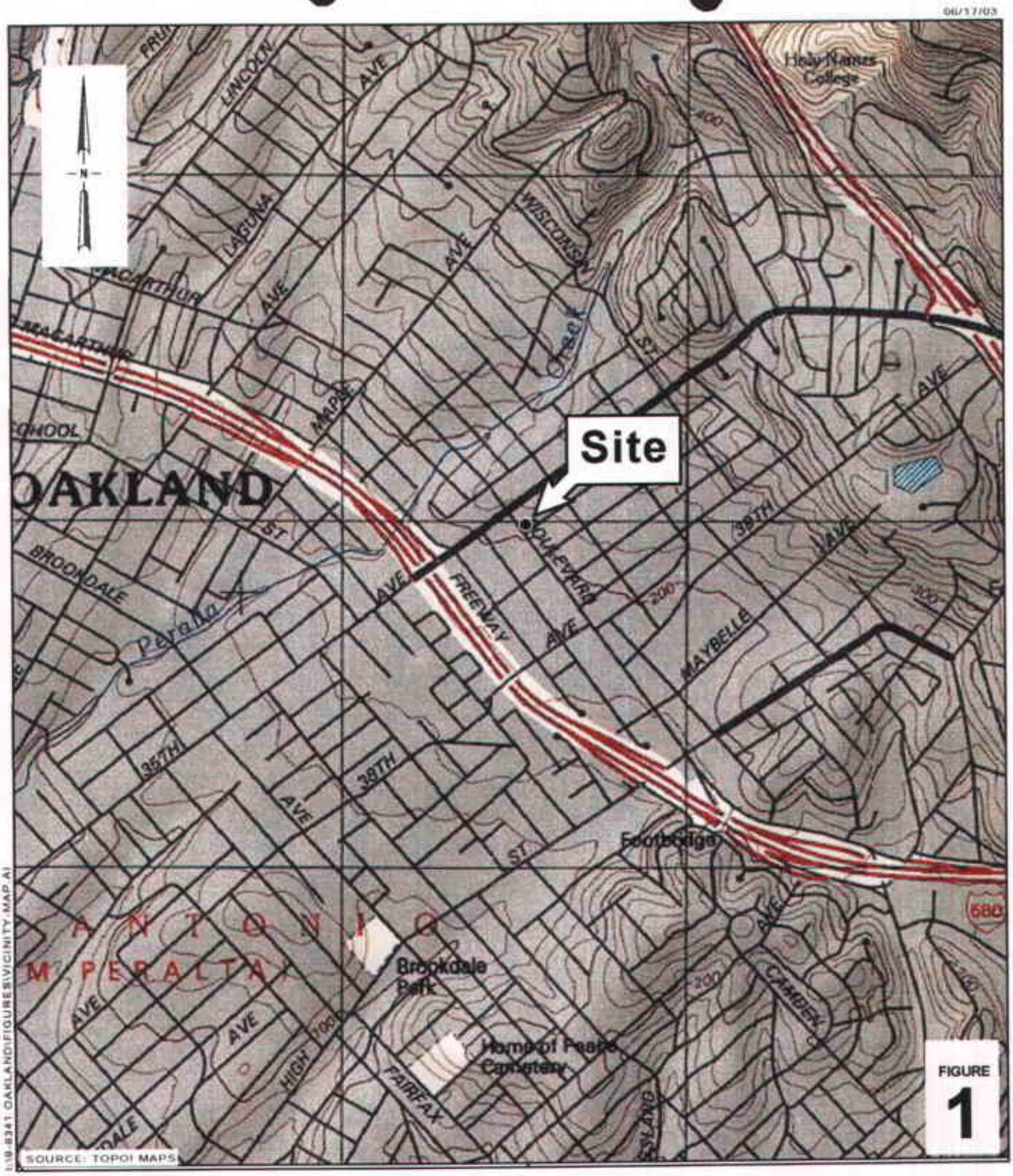

Chevron Service Station 9-8341

3530 MacArthur Boulevard

Oakland, California

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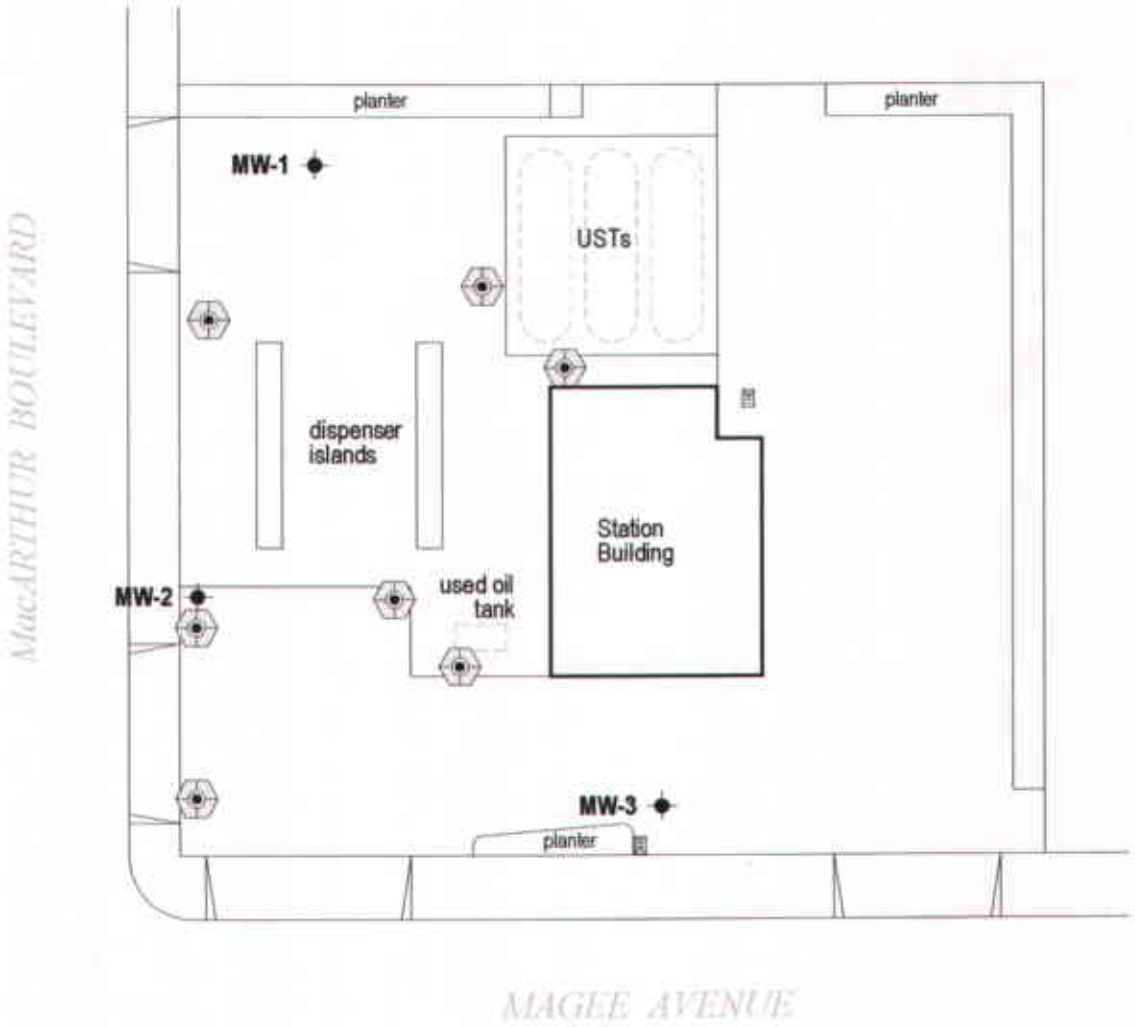
Vicinity Map



EXPLANATION

- Proposed soil boring location
- MW-1 Monitoring well location

0 15 30

Scale (ft)

FIGURE **2**

Chevron Service Station 9-8341

3530 MacArther Boulevard

Oakland, California

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Proposed Soil Boring Locations

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