Chevron Environmental Management Company
6001 Bollinger Canyon Rd, K2236
P.O. Box 6012
San Ramon, CA 94583-2324
Tel 925-842-9559
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Dana Thurman
Project Manager

R0335

April 18, 2005
(date)

ChevronTexaco

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station # 9-6607
Address: 2340 Otis Drive, Alameda, CA

I have reviewed the attached report titled *Regulatory Response and Investigation Workplan* and dated April 18, 2005.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Cambria Environmental Technology, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Dana Thurman
Project Manager

Enclosure: Report

CAMBRIA

April 18, 2005

Mr. Barney Chan
Alameda County Health Care Services Agency (ACHCSA)
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Regulatory Response and Investigation Workplan**
Chevron Service Station 9-6607
2340 Otis Drive
Alameda, California
RO#335

Dear Mr. Chan:

On behalf of Chevron Environmental Management Company (ChevronTexaco), Cambria Environmental Technology, Inc. (Cambria), is submitting this *Regulatory Response and Workplan* for the site referenced above. The site description and Cambria's response to your letter dated March 21, 2005 are presented below.

SITE DESCRIPTION

The site is currently a vacant lot located at the southwest corner of Otis Drive and Park Street in Alameda, California. Surrounding site use is mixed commercial and residential. The site is located in the Alameda Bay Plain Basin. The lithology of the region surrounding the site consists of miscellaneous Bay Mud or Merritt Sand. Prior to the early 1960s, this portion of Alameda was under water and part of the San Francisco Bay. The area was artificially filled using locally derived dredge material. The station was completely demolished during the latter part of 2004. The site is pending property transaction and development.

Groundwater Depth and Flow: Depth to groundwater beneath the site varies from approximately 2.5 to 5.5 feet below grade (fbg). Groundwater generally flows towards the south to southwest at an approximate gradient of 0.003. All monitoring wells have been properly destroyed on-site.

TECHNICAL RESPONSE PROPOSED SCOPE OF WORK

Residual Benzene Evaluation: Historic benzene concentrations in samples #5 and #6 from 7 fbg, during site upgrades in 1991, were 1.3 mg/kg and 2.4 mg/kg, respectively (Table 1). Cambria proposes to advance two Geoprobe® borings, GP-1 and GP-2, to 10 fbg in the vicinity of samples #5 and #6 (Figure 2) and collect soil samples at 5 fbg, 7 fbg and 10 fbg. Upon receiving analytical results, Cambria will complete a risk based assessment using site specific

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data. Our detailed scope of work is presented below.

Extent of TPHd: To delineate the lateral extent of TPHd in groundwater, previously reported during site upgrades in 1991, in the location of the former used-oil UST, Cambria proposes two Geoprobe® borings west, GP-3, and south GP-4, of former well MW-4 (Figure 2). Grab-groundwater samples will be collected within approximately five feet below first encountered groundwater. Our detailed scope of work is presented below.

Underground Utility Location: Cambria will contact Underground Service Alert to clear the boring locations with utility companies. All four locations will be cleared to 8 fbg prior to drilling.

Site Health and Safety Plan: Cambria will prepare a site safety plan to be reviewed and signed by all site workers and to be kept on-site at all times.

Permits: Cambria will obtain soil boring permits from the Alameda County Public Works Agency prior to beginning field operations. A minimum of 48 hours of notice will be given to Alameda County prior to beginning field activities.

Soil Borings: Cambria proposes advancing four soil borings. After clearing to 8 fbg, the borings will be advanced to respective depths. Soil will be continuously logged from each boring.

Groundwater Samples: Grab-groundwater samples will be collected from proposed borings GP-3 and GP-4 within five feet below first encountered groundwater.

Soil Sample Selection: Soil samples will be collected at 5 fbg, 7 fbg and 10 fbg in proposed borings GP-1 and GP-2.

Chemical Analysis: All grab-groundwater samples will be analyzed for:

- TPHd by modified EPA Method 8015, and

All soil samples will be analyzed for:

- Benzene, toluene, ethylbenzene and xylenes (BTEX), by EPA method 8260B, and
- Total organic carbon (TOC) by Method 5310B.

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Reporting: After analytical results are received, a report will be prepared containing:

- A summary of the site background and history,
- Descriptions of the drilling and soil/groundwater sampling methods,
- Tabulated soil and grab-groundwater analytic results,
- A figure illustrating boring locations,
- Analytic reports and chain-of-custody forms,
- A discussion of lateral extent of TPHd in groundwater,
- A discussion of benzene extent in soil,
- A risk based assessment, and
- Conclusions and recommendations.

SCHEDULE AND CLOSING

Cambria will complete this work upon receiving written approval from the ACHCSA. We will submit our investigation report approximately six weeks after receiving analytical results.

Please contact Sara Giorgi at (916) 630-1855 ext. 103 with any questions or comments regarding the site or this workplan.

Sincerely,

Cambria Environmental Technology, Inc.

Sara Giorgi
Senior Staff Geologist

David W. Herzog, P.G.#7211
Senior Project Geologist

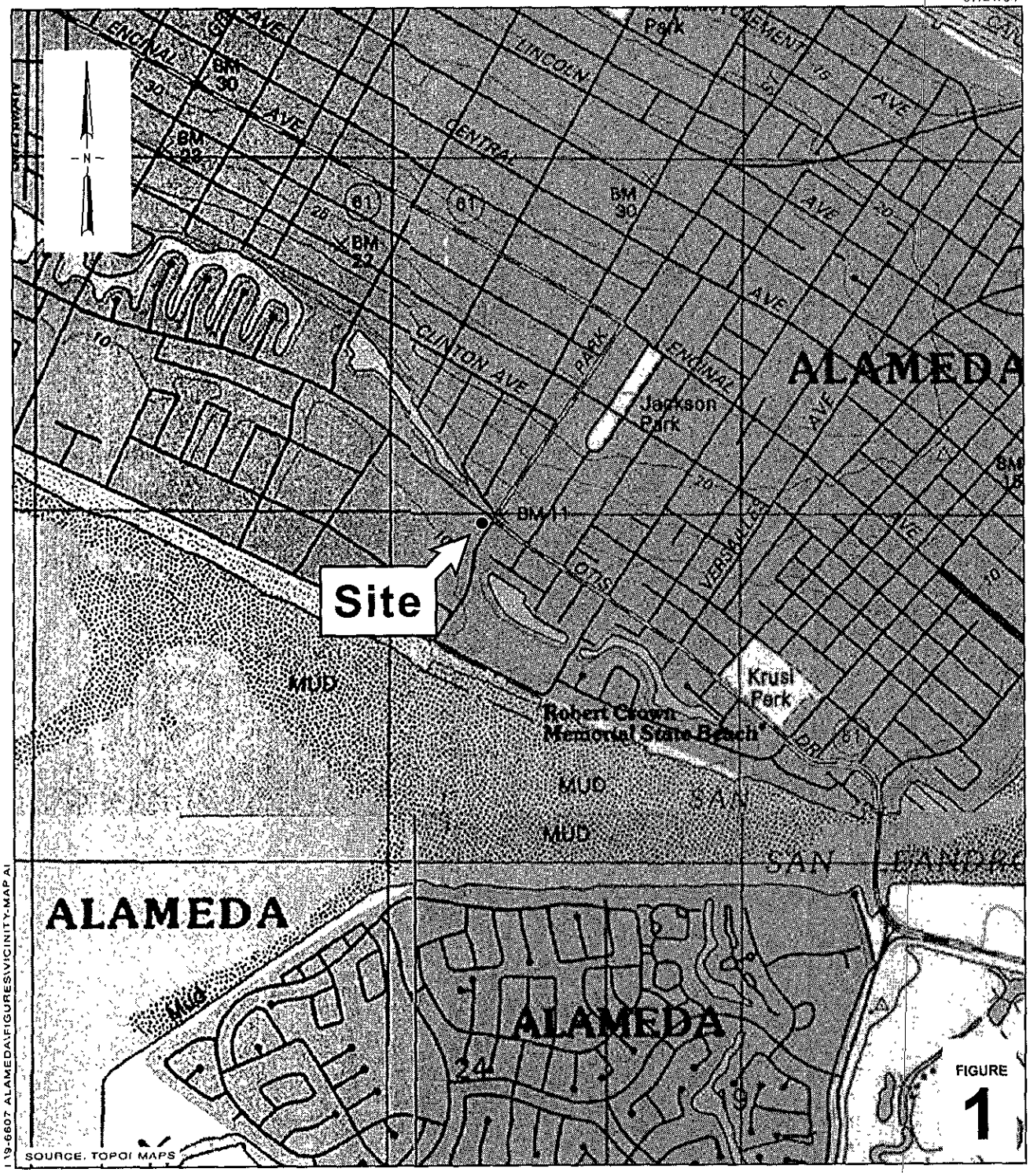
PROFESSIONAL GEOLOGIST
DAVID W. HERZOG
No. 7211
STATE OF CALIFORNIA

Figures: 1 – Vicinity Map
2 – Proposed Boring Locations

Attachments: A – Standard Field Procedures for Borings

cc: Mr. Dana Thurman, Chevron Environmental Management Company, P.O. Box 6012, K2236, San Ramon, CA 94583-0804
Mr. Charles Almestad, Kleinfelder, 1970 Broadway, Suite 710, Oakland, CA 94612
Mr. Michael P. Corbitt, Harsch Investment Properties, 523 South Shore Center West, Alameda, CA 94501
Cambria File Copy

07/21/04



0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

FIGURE 1

Chevron Service Station 9-6607

2340 Otis Drive

Alameda, California

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Vicinity Map

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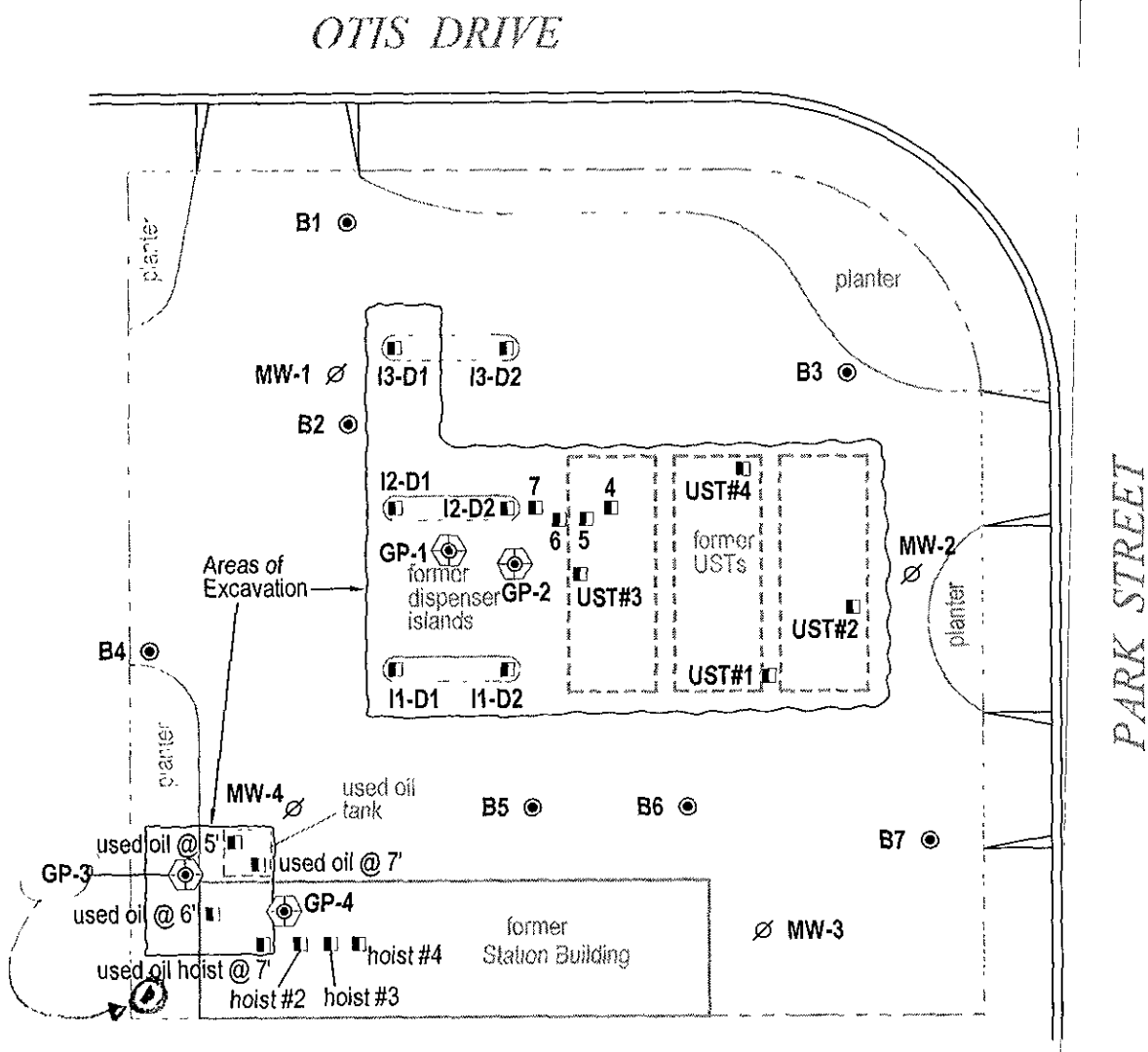

EXPLANATION

- GP-1 ⟨◉⟩ *Proposed soil boring location*
- MW-1 ⌀ Destroyed monitoring well location
- B4 ◉ Soil boring location
- I1-D1 ▮ *Soil sample location*

N

0 15 30

Scale (ft)

FIGURE

2

R:\9-6607\FIGURES\2005\110505\PROP- BOR.DWG

Chevron Service Station 9-6607

2340 Otis Drive

Alameda, California

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Proposed Soil Boring Locations

ATTACHMENT A

Standard Field Procedures for Borings

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Cambria Environmental Technology's 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.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. Prior to drilling, the first 8 ft of the boring are cleared using an air or water knife and vacuum extraction. This minimizes the potential for impacting utilities.

At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

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 Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled 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 concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

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.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.