CAMBRIA

10486

December 9, 2002

City of Oakland Fire Prevention
250 Frank Ogawa Plaza, Suite 3341
Oakland, CA 94612

Re: **Underground Storage Tank Closure Sampling Plan**
Shell-branded Service Station
4255 Mac Arthur Boulevard
Oakland, California
Incident #98995758
Cambria Project #244-0524

Alameda County
DEC 19 2002
Environmental Health

To Whom It May Concern:

Cambria Environmental Technology, Inc. (Cambria) is submitting this *Underground Storage Tank Closure Plan* on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). The purpose of this plan is to outline the sampling activities that will be conducted at the above-referenced site in conjunction with removal of the gasoline underground storage tanks (USTs), product piping and associated overexcavation. The proposed sampling activities are presented below.

SCOPE OF WORK

Tank and Product Piping Removal: Upon receipt of a City of Oakland Fire Prevention Tank Removal Permit, L.A. Perks Plumbing of Sparks, Nevada will remove three 10,000-gallon fiberglass gasoline USTs and associated product piping from the former Shell-branded service station located at 4255 MacArthur Boulevard in Oakland (Figure 1).

Tank Removal Observations: Cambria will observe the tank removal and note whether any holes, cracks, or failures are visible on the walls of the removed USTs.

Over-Excavation: Soil excavation following underground and aboveground fueling facility removal is a common remedial approach. Removal of accessible impacted soil provides immediate source removal. If groundwater is encountered, a limited quantity of impacted groundwater may also be removed from the subsurface. Since the station will be demolished in its entirety, excavation access to soil in the identified potential source areas is expected to be relatively unhindered. Shell will keep the tank excavation open until analytical results are received. If analytical data from soil samples collected during tank removal indicate elevated

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chemical concentrations, Cambria, at Shell's request, will direct Shell's contractor to overexcavate impacted material. Cambria staff will be present to observe field conditions, to direct the excavation contractor in the removal of soils, and to document field observations, if necessary. Cambria will screen excavated soils and stockpile soils appropriately based on field observations. Over-excavation will be performed in areas as warranted based on visual observations and/or screening of soils using an organic vapor meter. If residual soil impact extends toward the perimeter of the property, sufficient soil would be left in place so that the stability of adjacent structures is not jeopardized. Excavation bottom and confirmation sidewall samples will be collected prior to backfilling the excavation. frequency

Tank Pit and Dispenser Soil and Groundwater Sampling: Cambria will collect samples from soils beneath the USTs and fuel piping at locations directed by the City of Oakland Fire Prevention Agency. Sampling will be conducted in accordance with Cambria's Standard Tank Removal Sampling Procedures (Attachment A) and Cambria's Standard Piping and Dispenser Removal Sampling Procedures (Attachment B). Sample locations will be noted on the site plan (Figure 2).

Soil Stockpiling: When possible, excavated soil will be stockpiled onsite prior to disposal. However if space is limited, Cambria will make arrangements for a temporary stockpile at Forward Landfill in Manteca, California prior to profiling and disposal.

Soil Handling: One composite soil sample will be collected for every 250 cubic yards of excavated soil as required by the landfill facility. Each composite sample consists of four discreet soil samples which are collected from the stockpile and combined in the laboratory. The samples are collected by dividing each 250 cubic yard volume into four sectors. One discreet soil sample is collected from each sector. The samples are collected by digging away approximately 2 feet of the surface soils. A clean brass tube is then driven into the exposed soils. The ends of the tube are trimmed flush, capped with Teflon tape and plastic end caps, labeled, refrigerated and transported under chain of custody to a State-certified laboratory. The stockpile will be profiled, and disposed of in accordance with Shell procedures.

Soil and Groundwater Sampling Chemical Analyses: All soil and groundwater samples from the UST excavation and from underneath the piping will be analyzed by a State-certified laboratory for total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, and methyl tertiary butyl ether by EPA Method 8260. + other oxys, alkanes, Poscavenger

UST Disposal: The removed USTs will be manifested and transported to an appropriate facility for proper destruction.

Reporting: Upon receipt of the analytical results, Cambria will prepare a tank closure report that, at a minimum, will contain:

- A summary of the site background and history;
- A summary of the UST and piping removal activities;
- Tabulated soil and groundwater analytical results;
- Disposal confirmation;
- Analytical reports and chain-of-custody forms; and
- Cambria's observations, conclusions and recommendations.

CLOSING

Please call Melody Munz at (510) 420-3324 if you have any questions or comments. Thank you for your assistance.

Sincerely,
Cambria Environmental Technology, Inc.

Melody Munz
Project Engineer

Matthew W. Derby, P.E.
Senior Project Manager

REGISTERED PROFESSIONAL ENGINEER
MATTHEW W. DERBY
No. C055475
12/31/04
CIVIL
STATE OF CALIFORNIA

Figures: 1 - Vicinity/Area Well Survey Map
2 - Site Plan

Attachment: A - Standard Tank Removal Sampling Procedures
B - Standard Piping and Dispenser Removal Sampling Procedures

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
Barney Chan, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577
Eric Pender, L.A. Perks, 525 Spice Island Drive, Sparks, NV 89431

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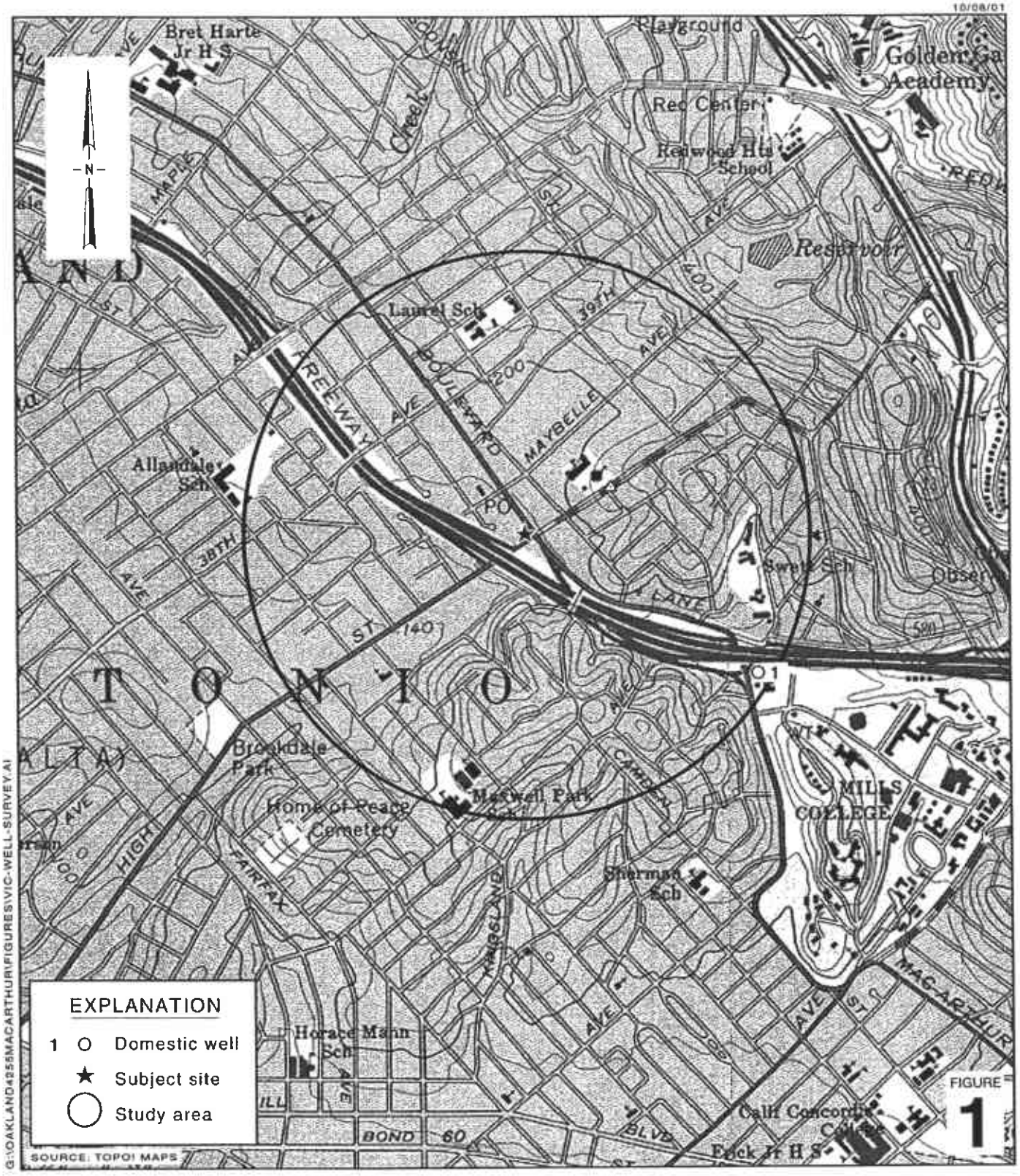

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SCALE : 1" = 1/4 MILE

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Vicinity / Area Well Survey Map
(1/2 Mile Radius)

Site Plan

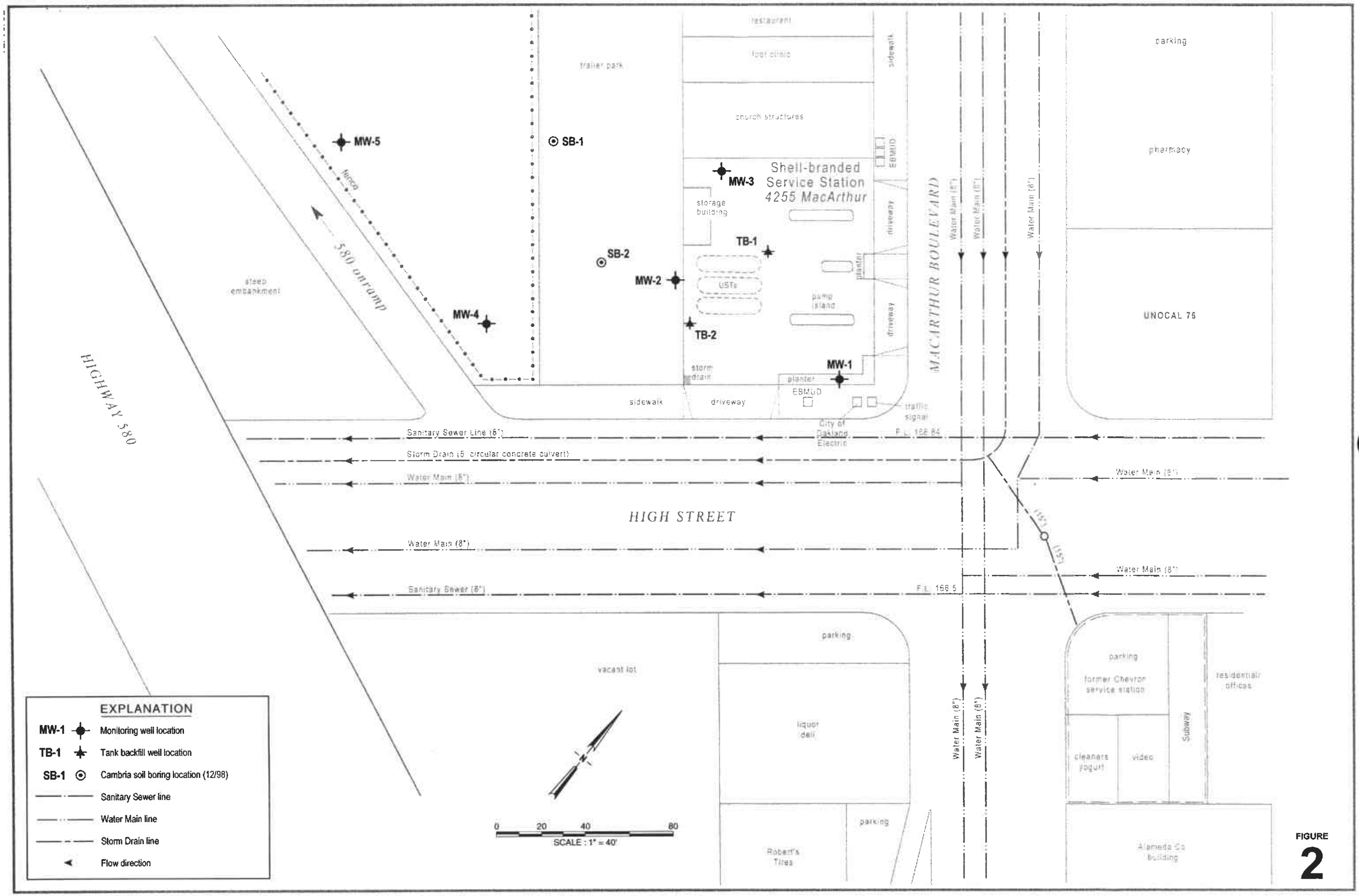

FIGURE
2

Shell-branded Service Station
4255 MacArthur Boulevard
Oakland, California
Incident #98995758

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ATTACHMENT A

Standard Tank Removal Sampling Procedures

STANDARD TANK REMOVAL SAMPLING PROCEDURES

This document describes Cambria Environmental Technology's standard operating procedures for collecting soil and ground water samples during underground storage tank removal. These procedures ensure that the samples are collected, handled, and documented in compliance with California Administration Code Title 23: Waters; Chapter 3: Water Resources Control Board; Subchapter 16: Underground Storage Tank Regulations (Title 23). Cambria's sampling procedures are based on guidelines contained in the California State Regional Water Quality Control Board Tri-Regional Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites dated August 10, 1990.

Tank Removal Sampling

The objective of sample collection during routine underground storage tank removals is to determine whether hydrocarbons or other stored chemicals have leaked to the subsurface. If no ground water is encountered within the tank excavation, Cambria will sample native soil 1 to 2 ft beneath the removed tank. Additional soil samples may also be collected at locations of obvious spillage to determine maximum concentrations in the surrounding soils. For underground storage tanks with a capacity of less than 1,000 gallons, one soil sample is collected beneath the fill end of the tank. For tanks with a capacity of between 1,000 and 10,000 gallons, one soil sample is collected beneath each end of the tank. For tanks larger than 10,000 gallons, 3 or more soil samples are collected beneath the removed tank. We also collect one soil sample for every 20 ft of product piping.

In cases where ground water is encountered within underground storage tank excavations, Cambria will collect confirmatory soil samples from the excavation sidewalls just above the soil/ground water interface and a representative ground water sample from the excavation. The excavation is typically purged and allowed to recover prior to collecting the water sample. For tanks with capacities of 10,000 gallons or less, one soil sample is collected from the wall at each end of the tank excavation. For tanks with capacities greater than 10,000 gallons, or tank clusters, at least four soil samples are collected from the excavation walls next to the tank ends. Piping samples are collected in native soil 1 to 2 ft beneath the removed piping. One sample is typically collected for every 20 linear ft of piping unless regulatory agencies approve of different sampling requirements.

The soil samples are collected in steam cleaned brass or steel tubes from either a driven split-spoon type sampler or the bucket of a backhoe. When a backhoe is used, approximately three inches of soil are scraped from the surface and the tube is driven into the exposed soil.

Upon removal from the split-spoon sampler or the backhoe, the samples are trimmed flush, capped with Teflon sheets and plastic end caps, labeled, logged and refrigerated for delivery under chain of custody to a State certified analytic laboratory.

The ground water sample is collected using steam cleaned Teflon or PVC bailers, decanted into a volatile organic analysis (VOA) bottle or other appropriate clean sample container, refrigerated and transported under chain of custody to a State certified analytic laboratory.

ATTACHMENT B

Standard Piping and Dispenser Removal Sampling Procedures

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STANDARD PIPING AND DISPENSER REMOVAL SAMPLING PROCEDURES

Cambria Environmental Technology, Inc. (Cambria) has developed standard operating procedures for collecting soil samples during petroleum dispenser and piping removal. These procedures ensure that the samples are collected, handled, and documented in compliance with California Administration Code Title 23: Waters; Chapter 3: Water Resources Control Board; Subchapter 16: Underground Storage Tank Regulations (Title 23). Cambria's sampling procedures are based on guidelines contained in the California State Regional Water Quality Control Board Tri-Regional Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites dated August 10, 1990.

Piping and Dispenser Removal Sampling

The objective of sample collection during routine dispenser and piping removals is to determine whether hydrocarbons or other stored chemicals have leaked to the subsurface. We collect one soil sample from the native soil beneath each dispenser unit, at each piping elbow, and at every 20 ft of product piping, as applicable.

The soil samples are collected in steam cleaned brass or steel tubes from either a driven split-spoon type sampler or the bucket of a backhoe. When a backhoe is used, approximately three inches of soil are scraped from the surface and the tube is driven into the exposed soil.

Upon removal from the split-spoon sampler or the backhoe, the samples are trimmed flush, capped with Teflon sheets and plastic end caps, labeled, logged and refrigerated for delivery under chain of custody to a State certified analytic laboratory.

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