Co-1477

JUL 1 0 2002

CAMBRIA

July 3, 2002

Ms. Susan Hugo
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Corrective Action Plan**
Balaam Brothers Property
1350 Powell Street
Emeryville, CA

Dear Ms. Hugo:

On behalf of the Balaam Brothers Partnership, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Corrective Action Plan (CAP)* for the site referenced above (the Site)(Figures 1 and 2). The objective of the planned corrective action is to remediate petroleum hydrocarbons to the point where no further remedial action (NFAR) is required. The proposed cleanup goals and administrative/engineering controls presented in this CAP are consistent with the June 21, 2002 letter from your office, the Alameda County Department of Environmental Health (DEH). Described below are the Site background, the cleanup goals and agency requirements, an evaluation of remedial alternatives, the corrective action plan, remedial contingencies, pre-redevelopment actions, and schedule.

SITE BACKGROUND

Cambria understands that the Site has been impacted by petroleum hydrocarbons from two former underground storage tanks (USTs) and four former aboveground storage tanks (ASTs). The USTs were removed in 1987. The extent of chemicals of concern in Site soil and groundwater has been significantly characterized by 28 borings and 6 test pits. Temporary groundwater monitoring and piezometric wells were installed by R.T. Hicks in September 2001 (Hicks, 2001). The extent of petroleum hydrocarbons in soil and groundwater is summarized on Figures 3 and 4, respectively. The primary chemicals of concern (COCs) at the Site are petroleum hydrocarbons: total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), and TPH as motor oil (TPHmo); and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The Site subsurface predominantly consists of clay with some interbedded silt and sand. Shallow fill material (clayey gravel or gravelly clay) is present in some locations at the Site. Monitoring

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

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of the temporary monitoring/piezometric wells indicated that the depth to groundwater at the Site was approximately 4 ft below grade surface (bgs) in May 2002 based on gauging by Cambria (Attachment A), and approximately 7 to 8 ft bgs in September 2001 based on gauging by R.T. Hicks. However, at some locations the piezometric wells were dry and groundwater was first encountered at approximately 18 ft bgs during drilling. This information suggests that the seasonal groundwater depth and capillary fringe ranges from approximately 4 to 8 ft bgs at portions of the Site (possibly perched water), while groundwater is deeper at other portions of the Site.

Petroleum hydrocarbons are also present at the adjacent 1300 Powell Street. A developer is considering purchase of the two adjacent properties for redevelopment of high-density residences. In response to the petroleum releases and the proposed property redevelopment, the DEH and the San Francisco Bay Regional Water Quality Control Board (RWQCB) have reviewed Site information and attended meetings on March 21 and June 11, 2002 with Site proponents. In their June 21, 2002, the DEH stated that the DEH and the RWQCB concur with the cleanup goals presented in Lowney's letters dated March 25 and 28, 2002, and indicated additional requirements. The June 21, 2002 letter also indicates that the two adjacent properties will be managed as separately-funded SLIC cases.

The two adjacent property owners plan to conduct remediation concurrently. Lowney Associates is preparing a remedial plan for the adjacent 1300 Powell Street site. A detailed description of the background and previous environmental reports for both 1300 and 1350 Powell Street sites is presented in the *Soil and Ground Water Quality Evaluation* dated May 22, 2002, by Lowney Associates of Oakland, California. Cambria understands that the previous environmental reports referenced in the May 22, 2002 report and that report itself have been submitted and reviewed by the DEH.

CLEANUP GOALS AND AGENCY REQUIREMENTS

Consistent with the DEH letter of June 21, 2002 and DEH discussions, Cambria proposes the following cleanup goals:

- Remediation of the upper 10 feet of soil to less than 1,000 parts per million (ppm) total petroleum hydrocarbons (combined TPHg, TPHd and TPHmo) for any location at the Site.
- Removal of floating product from the groundwater.

- Reduction of dissolved hydrocarbons to less than 20 ppm (milligrams/liter) total petroleum hydrocarbons (combined TPHg, TPHd and TPHmo).

It is also understood that, based on the DEH June 21, 2002 letter, the following actions would be required prior to Site redevelopment for residential use:

- Clean imported soil shall comprise the upper 2 feet of all landscaped areas, planting boxes, etc.
- Vapor barriers (membranes) shall underlie the entirety of all inhabited structures; no utilities shall penetrate vapor barriers.
- Final site development plans will be submitted prior to site development.
- A post-remediation groundwater monitoring program shall be conducted to confirm residual groundwater contaminants at the Site.
- Deed notifications/restrictions shall be filed in accordance with agency requirements.

EVALUATION OF REMEDIAL ALTERNATIVES

Cambria evaluated several alternatives to remediate soil and groundwater at the Site. In accordance with Title 23 of the UST regulations, Cambria proposes to implement the most cost-effective remedial alternative. The objective is to remediate the hydrocarbon source area to the point where natural attenuation can remediate any residual hydrocarbons at the Site. A description of each alternative is presented in Attachment B. Based on the evaluation presented in Attachment B, soil excavation with groundwater extraction during excavation was selected as the most cost-effective and appropriate alternative for the Site. Contingency alternatives for remediating residual hydrocarbons after excavation include insitu remediation, or additional excavation during future Site redevelopment (i.e., beneath Site buildings after their demolition).

CORRECTIVE ACTION PLAN

Cambria's corrective action plan to achieve the Site cleanup goals consists of excavation and groundwater extraction during excavation. Cambria's plan for implementing the selected remedial approach and initiating post-remediation groundwater monitoring is detailed below.

Task 1 - Remediation Preparation

Prior to site excavation, Cambria will conduct or coordinate the following activities:

- Preparing a health and safety plan,
- Establishing an exclusion zone for all excavation and staging activities,
- Communicating with site occupants about excavation activities and safety precautions,
- Locating any underground utilities in the excavation area using private line locators if necessary,
- Removing site fencing and plants in the excavation areas as required,
- Demolition and removal of the shed located in the central portion of the Site, and
- Obtaining a waiver from the City of Emeryville for any excavation activity outside the authorized work hours and work days (excavation may be conducted on a weekend to minimize tenant disruption, if authorized by the City of Emeryville).

Task 2 - Excavation

Cambria plans to excavate source area soil exceeding the cleanup goals (1,000 ppm combined TPH). Excavation will also target soil saturated with free product, as anticipated near free product/sheen areas near EB-10, EB-12 and 4A. Excavation will also be conducted near EB-9 to remove hydrocarbon-impacted soil, even though soil concentrations in EB-9 are below Site cleanup goals. Lowney observed a sheen on groundwater in EB-9 during soil boring.

The planned excavation areas and depths are shown on Figure 5. The planned excavation will remove approximately 1,300 cubic yards (1,700 tons) of soil. Cambria will use field observations (staining, petroleum odor, sheen) to help determine if additional excavation is merited. An organic vapor meter (OVM) will also be used to monitor for volatile hydrocarbons.

Cambria may field screen samples using colorimetric titration testing. Upon completion of excavation in a given area, confirmation samples will be collected as follows:

- One sample from each sidewall for every 25 linear ft of excavation sidewall, and
- One sample from the excavation floor for every 2,500 square feet of the excavation floor (unless deeper than 10 ft bgs).

The soil samples will be analyzed for TPHg, TPHd, TPHmo, and BTEX (EPA Methods 8015/8020). Where analytical results of confirmation sampling exceeds the Site cleanup goal (1,000 ppm combined TPH), additional soil will be excavated. For any areas of additional excavation, confirmation samples will be collected and analyzed in accordance with the above procedures.

If the excavated soil requires stockpiling, visqueen would be placed above and beneath the temporary stockpiles. If soil stockpiling and profiling is not required by disposal facilities, the soil may be loaded directly into trucks from the excavations and off-hauled. The soil will be transported by appropriately-licensed contractors to appropriate disposal facilities in accordance with all applicable laws.

If soil stockpiling and additional analysis is required for offsite disposal, Cambria anticipates collecting and analyzing one composite soil sample per approximately 750 cubic yards of stockpiled soil for TPHg, TPHd, TPHmo, BTEX, CAM 17 metals, and VOCs (EPA Test Method 8260). The actual requirements will be specified by the selected disposal facility. If the soil is planned for reuse onsite, the soil will be sampled in accordance with DEH requirements.

Task 3 – Additional Corrective Action for Soil Exceeding Cleanup Goals

If laboratory results from the verification sampling exceed the Site cleanup goals, Cambria will discuss the results with the DEH staff to evaluate the need for further work. Such additional work could be implemented to address any residual hydrocarbons under Site buildings or extending offsite. Further work could consist of short-term insitu remediation, or future excavation in conjunction with planned Site redevelopment. As described below, any residual hydrocarbons encountered during Site redevelopment will be managed in accordance with a soil management plan.

Task 4 - Groundwater Extraction During Excavation

To provide additional source removal and facilitate excavation of saturated soil, groundwater entering the excavation areas will be extracted and stored in portable storage tanks. Stored groundwater will be sampled and analyzed as required to allow transportation to an offsite disposal facility or for discharge to the sewer system. Discharge into the storm sewer or sanitary sewer would be performed under an approved permit from the WQCB or East Bay Municipal Utility District, respectively. If water is to be discharged into the sanitary sewer system, approval will also be requested from the City of Emeryville Public Works Department. Stored water will be treated as required prior to discharge.

Task 5 – Excavation Water Sampling

After the excavations have been dewatered, the excavations will be left open for additional groundwater to collect. Cambria will visually inspect for sheen or indication of floating product seeping into the excavations. Verification samples will be collected from the ponded groundwater in the excavation to evaluate if the ponded groundwater is below Site cleanup goals. The collected samples would be analyzed at a state-certified laboratory for TPHg, TPHd, TPHmo, BTEX, and MTBE (EPA Test Method 8015M/8020).

Task 6 – Excavation Backfilling

Upon completion of soil removal, the excavation areas will be backfilled with clean imported fill, drain rock, or Site soil approved for reuse. Drain rock will likely be used for excavation areas with ponded groundwater. Geotextile material will be used between any drain rock and overlying soil/fill. Again, soil planned for reuse onsite will be sampled in accordance with DEH requirements.

Task 7 – Temporary Well Installation and Monitoring

In conjunction with excavation backfilling, Cambria plans to install one temporary well within each excavation area extending into groundwater. The anticipated temporary well locations are shown on Figure 6. These temporary wells will facilitate post-remediation monitoring of groundwater quality and the presence of floating product. The temporary wells could also assist with remediation of any residual hydrocarbons above Site cleanup goals. The well construction will consist of two-inch diameter PVC piping, screened from approximately 3 ft bgs to total depth (anticipated to be approximately 10 ft bgs), and capped on the bottom. A temporary well vault will be installed around each well. Temporary wells will not be installed if petroleum

hydrocarbon concentrations in ponded groundwater are well below Site cleanup goals, or if an alternative post-remediation monitoring program is utilized.

Task 8 – Report Preparation

Cambria will prepare a corrective action completion report presenting the results of the remedial activities. The report will include a site plan with excavation and sampling locations, laboratory analytical reports, permits (if any), and documentation of soil and groundwater transport and offsite disposal.

REMEDIAL CONTINGENCIES

Cambria has identified insitu remedial techniques in the event that additional corrective action is required to meet Site cleanup goals. The insitu remedial techniques are described in the Evaluation of Remedial Alternatives in Attachment B. Cambria would consult the DEH prior to implementing any of the insitu remedial contingencies.

PRE-REDEVELOPMENT ACTIONS

As stated in the DEH letter dated June 21, 2002, Cambria understands that the following actions would be required prior to Site redevelopment for residential use:

- Clean imported soil shall comprise the upper 2 feet of all landscaped areas, planting boxes, etc.
- Vapor barriers (membranes) shall underlie the entirety of all inhabited structures; no utilities shall penetrate vapor barriers.
- Final site development plans will be submitted prior to site development.
- A post-remediation groundwater monitoring program shall be conducted to confirm residual groundwater contaminants at the Site.
- Deed notifications/restrictions shall be filed in accordance with agency requirements.

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Soil Management Plan

In addition to the above requirements, a soil management plan (SMP) will be prepared and submitted to the Alameda County Department of Environmental Health (DEH). The SMP will be submitted prior to any Site redevelopment for residential use. The SMP will present guidelines for managing suspect soil or structures, if encountered during building demolition or construction activities conducted after the planned excavation.

SCHEDULE

The Balaam Brothers plan to commence corrective action as soon as July 15, 2002. Any efforts to expedite your review and approval of this CAP are greatly appreciated.

CLOSING

Cambria appreciates this opportunity to assist the Balaam Brothers with Site remediation. If you have any questions or comments, please contact Bob Clark-Riddell at (510) 420-3303.

Sincerely,
Cambria Environmental Technology

Bob Clark-Riddell, P.E.
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT G. CLARK-RIDDELL
No. C 049629
Exp. Sept 2004
CIVIL
STATE OF CALIFORNIA

cc: David Diamond, 1115 Hillview Road, Berkeley, California 94708

Attachments: A – Temporary Well Guaging – May 2002
B – Evaluation of Remedial Alternatives

\\1OAKDC\IR\Balaam Brothers (Airgas)\Corrective Action Plan\Balaam-RAP.doc

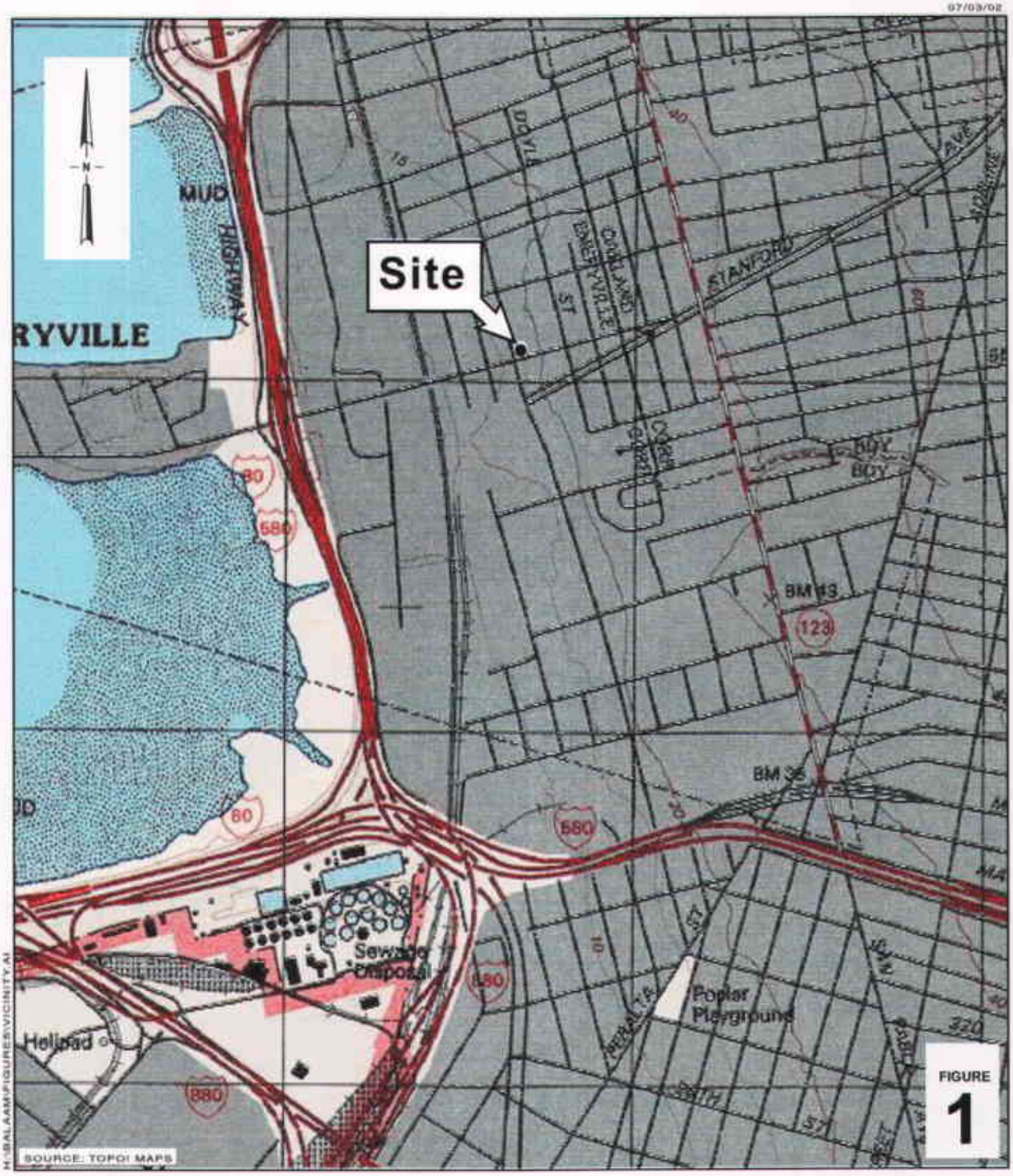

FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Balaam Property

1350 Powell Street

Emeryville, California

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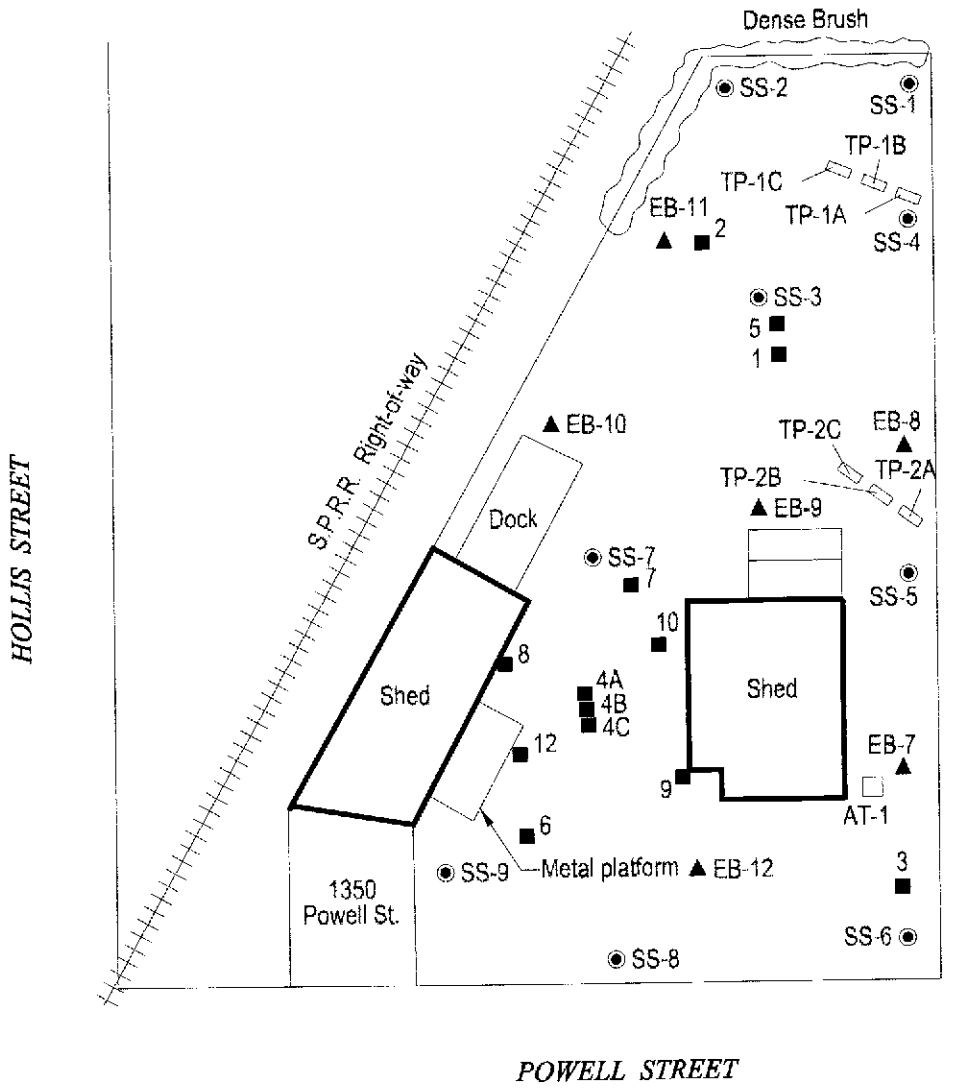
Vicinity Map



EXPLANATION

EB-11 ▲ - Approximate location of exploratory ground water boring (by Lowney)

SS-9 ◉ - Approximate location of exploratory soil boring (by Lowney)

12 ■ - Approximate location of exploratory boring (by R.T. Hicks)

TP-1A ▭ - Approximate location of exploratory test pit (by Lowney)

N

0 25 50

Approx. Scale (ft)

FIGURE **2**

Base by Lowney Associates dated 5/02.

H:\BALAAM\FIGURES\SITEPLAN.DWG

Balaam Property

1350 Powell Street

Emeryville, California

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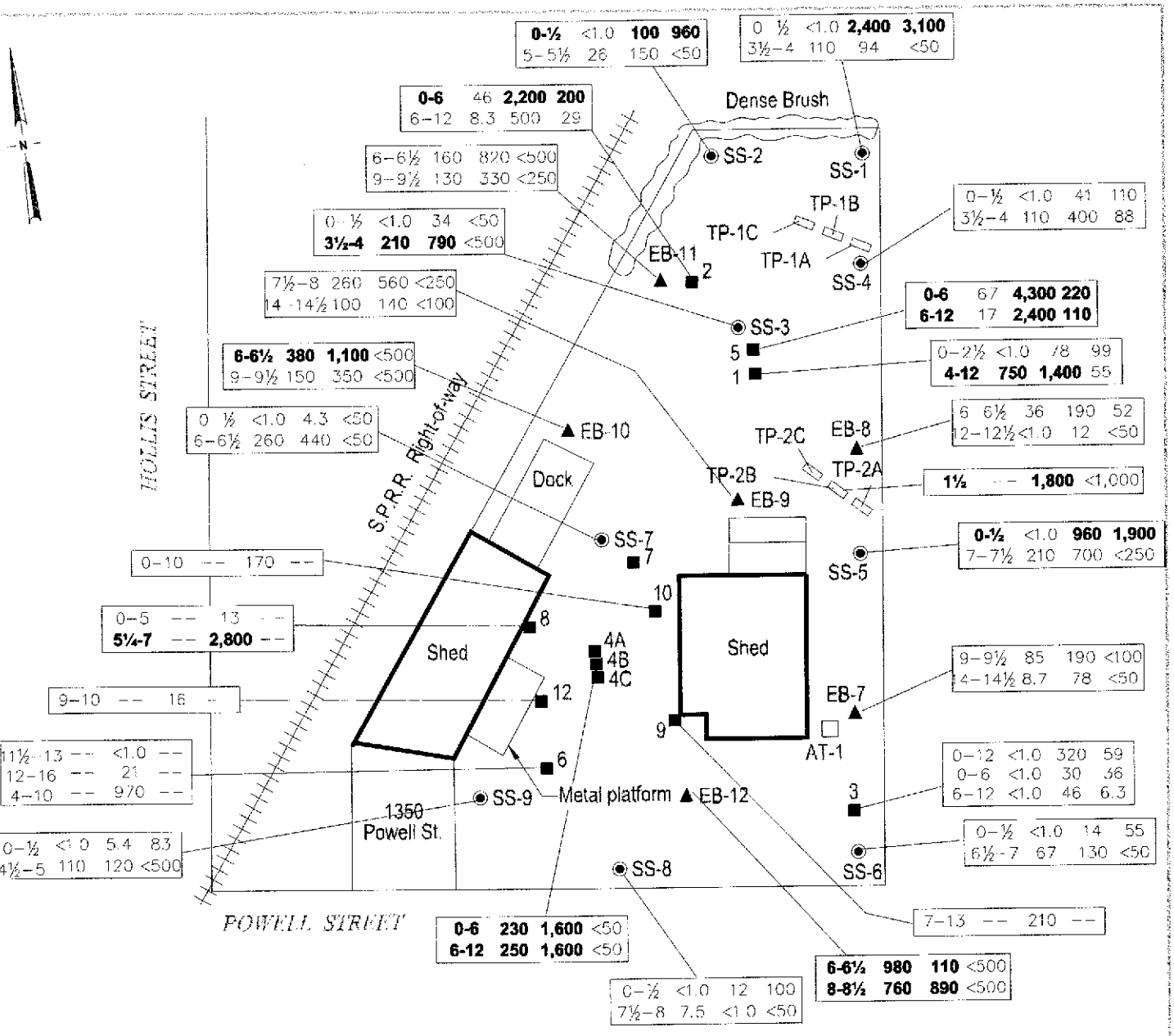
Site Plan

07/03/02



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SS-9 ◉ - Approximate location of exploratory soil boring (by Lowney)

12 ■ - Approximate location of exploratory boring (by R.T. Hicks)

TP-1A ▭ - Approximate location of exploratory test pit (by Lowney)

-- - Not Analyzed

< - Indicates that the compound was not detected at or above the stated laboratory limit

Depth(ft)	TPHg	TPHd	TPHmo
--	--	--	--

Concentrations in parts per million (ppm)

Concentrations exceeding cleanup goal of <1,000 ppm combined TPH and sample depth are shown in **BOLD**

0 25 50

Approx. Scale (ft)

FIGURE **3**

H:\BALAAM\FIGURES\SOILCONC.DWG

Base by Lowney Associates dated 5/02.

Balaam Property

1350 Powell Street

Emeryville, California

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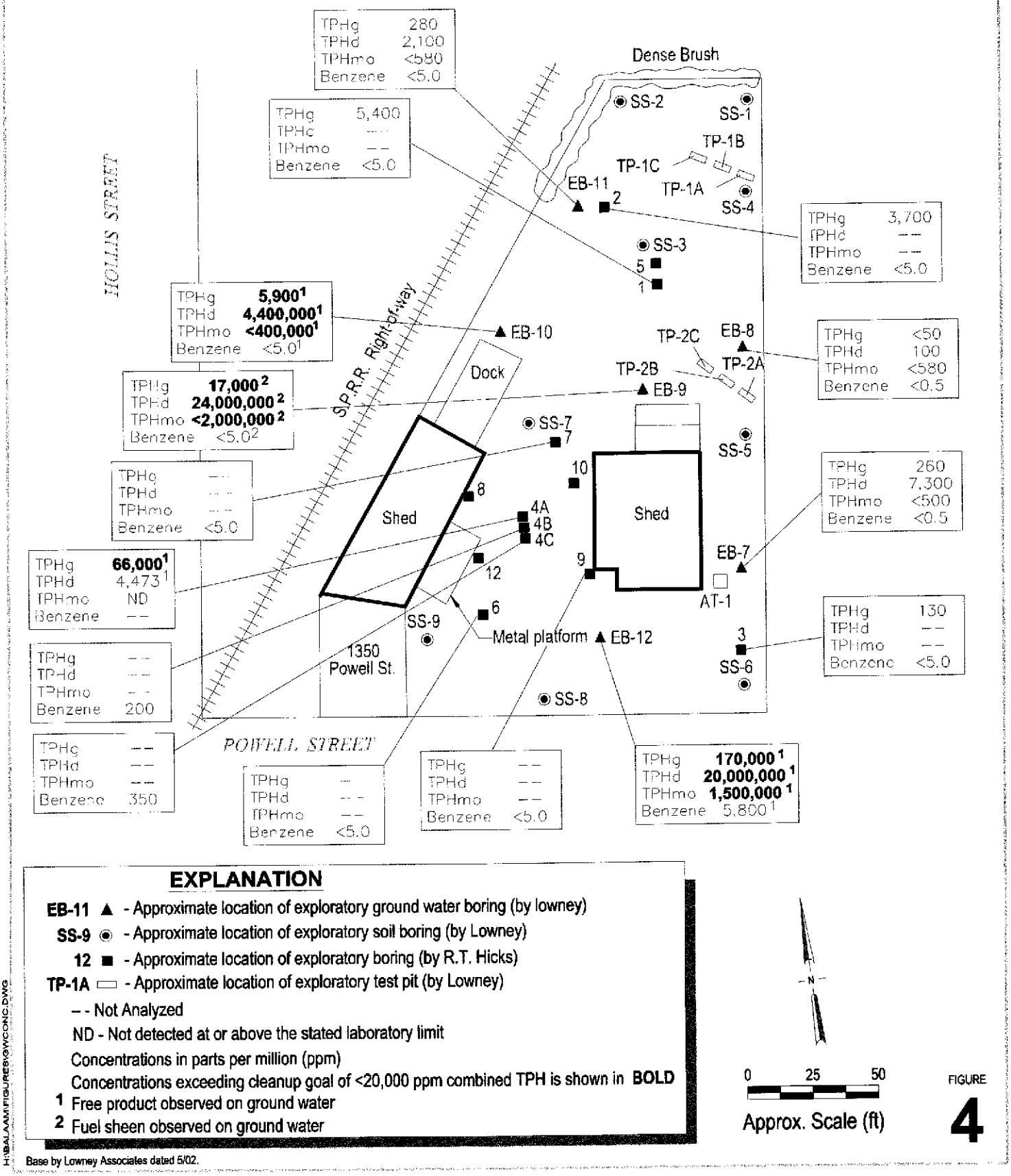
TPHg, TPHd, and TPHmo in Soil

07/03/02



EXPLANATION

EB-11 ▲ - Approximate location of exploratory ground water boring (by lowney)

SS-9 ◉ - Approximate location of exploratory soil boring (by Lowney)

12 ■ - Approximate location of exploratory boring (by R.T. Hicks)

TP-1A ▭ - Approximate location of exploratory test pit (by Lowney)

-- - Not Analyzed

ND - Not detected at or above the stated laboratory limit

Concentrations in parts per million (ppm)

Concentrations exceeding cleanup goal of <20,000 ppm combined TPH is shown in **BOLD**

1 Free product observed on ground water

2 Fuel sheen observed on ground water

N

0 25 50

Approx. Scale (ft)

FIGURE 4

H:\BALAAM\FIGURES\GWCONC.DWG

Base by Lowney Associates dated 5/02.

Balaam Property

1350 Powell Street

Emeryville, California

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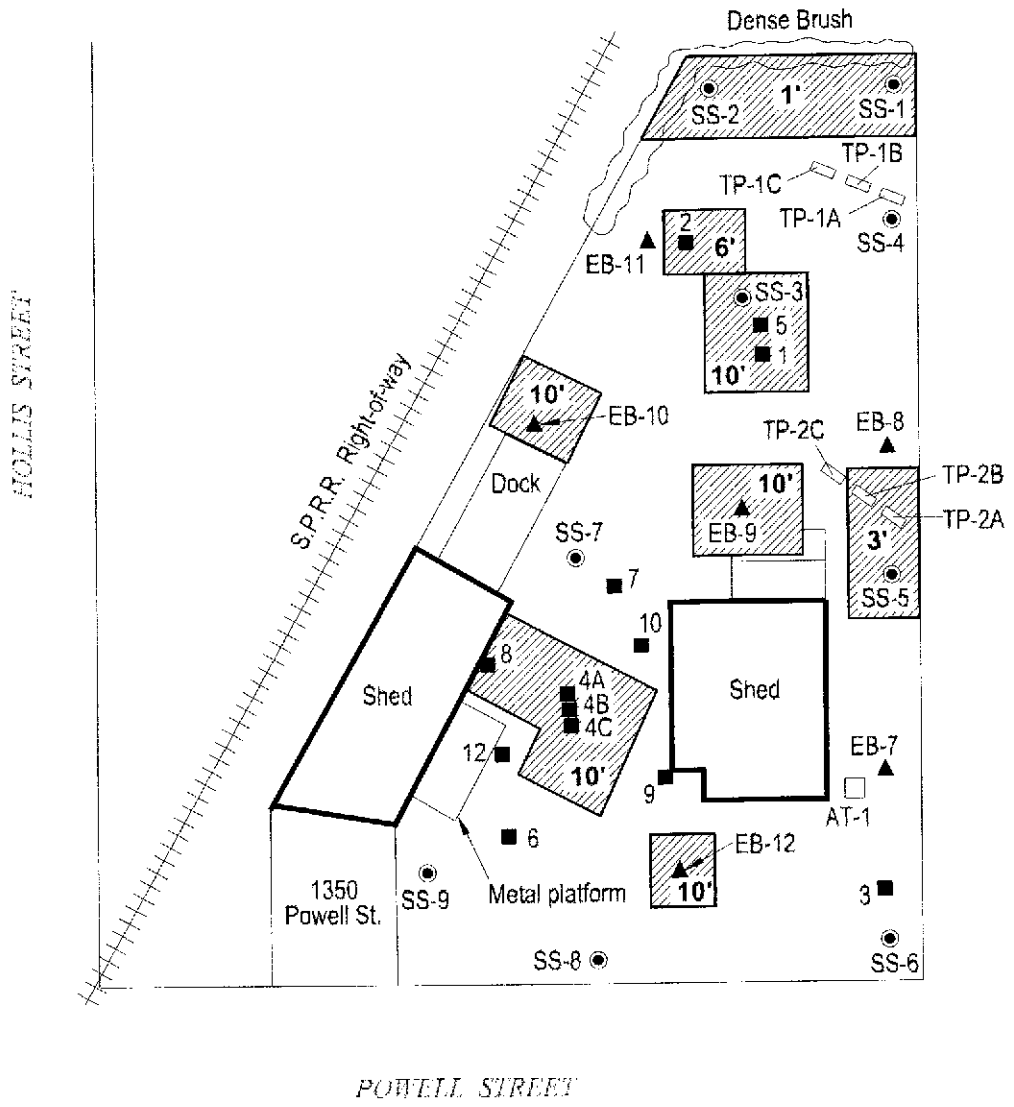
TPHg, TPHd, TPHmo, and Benzene in Ground Water

07/03/02



EXPLANATION

10' - Planned excavation area with planned excavation depth (i.e. 10')

EB-11 ▲ - Approximate location of exploratory ground water boring (by Lowney)

SS-9 ◉ - Approximate location of exploratory soil boring (by Lowney)

12 ■ - Approximate location of exploratory boring (by R.T. Hicks)

TP-1A ▭ - Approximate location of exploratory test pit (by Lowney)

Base by Lowney Associates dated 5/02.

N

0 25 50

Approx. Scale (ft)

FIGURE 5

H:\BALAAM\FIGURES\EXCAVATION.DWG

Balaam Property

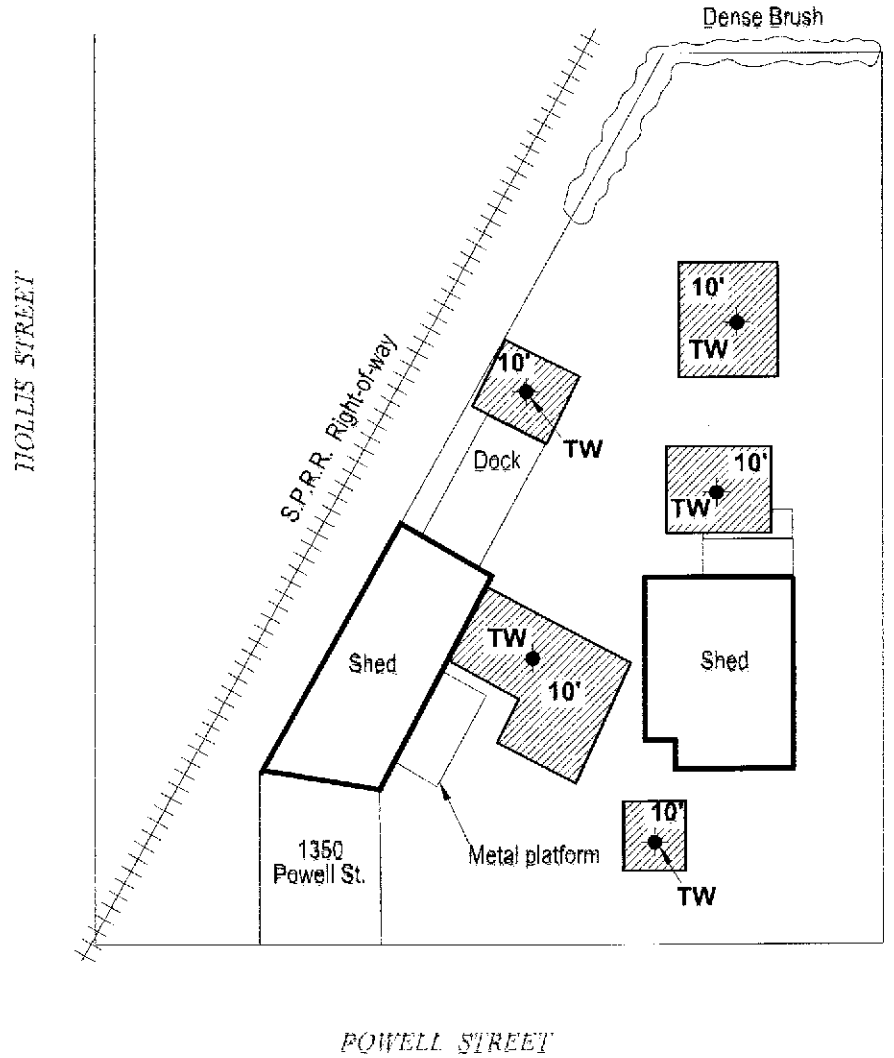
1350 Powell Street

Emeryville, California

CAMBRIA

Planned Excavation Areas

07/03/02



EXPLANATION

10' - Planned excavation area with planned excavation depth (i.e. 10')

TW - Temporary monitoring well in excavation backfill

N

0 25 50

Approx. Scale (ft)

FIGURE

6

Base by Lowney Associates dated 5/02.

H:\BALAAM\FIGURES\REMPLAN.DWG

Balaam Property

1350 Powell Street

Emeryville, California

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Post-Remediation Ground Water Monitoring Plan

ATTACHMENT A

Temporary Well Gauging – May 2002

ATTACHMENT A

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WELL DEPTH MEASUREMENTS

~~Well ID~~ HICKS DD	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
2	10:30	ND	4.50		13.90	
3	10:20	ND	4.27		6.85	
11	10:35	ND	3.05		12.80	
8	10:40	ND	3.50		12.65	
10	10:25	ND	4.20		13.10	
7	10:45	ND	4.20		14.86	
4B	10:50	ND	3.80		9.10	
9	10:55	ND	2.60		15.40	

Project Name: Air Gas

Project Number: p02-0102-001

Measured By: S. Hill

Date: 5-24-02

F:\TEMPLATE\FORMS\FIELD\GW-DEPTH.WPD

ATTACHMENT B

Evaluation of Remedial Alternatives

EVALUATION OF REMEDIAL ALTERNATIVES

Cambria evaluated several alternatives to remediate soil and groundwater at the Site. In accordance with Title 23 of the UST regulations, Cambria proposes to implement the most cost-effective remedial alternative. The objective is to remediate the hydrocarbon source area to the point where natural attenuation can remediate any residual hydrocarbons at the Site. A description of each alternative is described herein. Based on the evaluation presented herein, soil excavation with groundwater extraction during excavation as selected as the most cost-effective and appropriate alternative for the Site. Contingency alternatives for remediating residual hydrocarbons after excavation include insitu remediation, or additional excavation during future Site redevelopment (i.e., beneath Site buildings after their demolition).

Excavation and Groundwater Extraction During Excavation

This alternative involves the physical removal of soil from the Site subsurface. Excavation is a very appropriate alternative for Site remediation for the following reasons: (1) hydrocarbons are present in unsaturated soil above the Site cleanup levels, (2) low permeability materials (silt and clay) are prevalent at the Site, (3) the depth to groundwater is shallow (as shallow as 4 feet below grade surface), and (4) floating product is present within the clayey and silty soil. In addition, the DEH is requiring remediation of soil up to 10 feet below grade surface (bgs). Since groundwater extraction will be required to facilitate excavation of deeper soil, groundwater extraction during excavation will provide additional remediation of dissolved hydrocarbons.

Recommendation: Excavation with groundwater extraction during excavation is an appropriate remedial alternative. Presented below is a cost estimate for implementing this alternative.

Two-Phase Extraction

Two-phase extraction (TPE) is the process of applying high vacuum (up to 29 inches of mercury) through an airtight well seal to simultaneously extract soil vapor and groundwater from the subsurface. TPE equipment typically consists of dedicated extraction "stingers" installed in each target well, a vacuum source, a knockout drum to separate the extracted vapor and groundwater mix into separate streams, and treatment systems for the vapor and groundwater streams. Given the prevalence of low permeability materials (clay and silt) with occasional interbedded higher permeability materials, this alternative would have limited effectiveness if used alone.

Recommendation: Presented below is a cost estimate for implementing this alternative. Based on the cost analysis and project schedule, Cambria recommends considering TPE as a contingency alternative after source area materials have been remediated.

Proprietary Enzyme/Detergent Agent

This alternative involves using a proprietary enzyme/emulsifier/detergent agent. The proprietary agent is designed to breakdown the longer petroleum hydrocarbon molecules, to reduce the viscosity of floating product, and to stimulate hydrocarbon biodegradation. The agent dissolves in oil, not water, and is lighter than water. The substance is biodegradable, non-toxic to humans and aquatic organisms, non-petroleum and an all-natural product. The substance has been approved for use by the US Fish and Wildlife and US Coast Guard in sensitive marine and fresh-water applications, and has been subject to a number of favorable bioassay tests in this respect. The proprietary agent is typically injected under pressure into the saturated zone, and has a very low viscosity. Therefore, this agent is effective for sites with floating product contained within high to moderately permeable saturated materials. Given the significant hydrocarbon mass in unsaturated soil and the prevalent low permeability materials (clay and silt), this is not an appropriate alternative for full Site remediation.

Recommendation: Cambria recommends considering this proprietary agent as a contingency alternative after source area materials have been remediated. Cambria recently obtained approval from the ACHSCA to use this mixture at a different site with free product trapped in similar subsurface soil materials.

Enhanced Natural Attenuation

This alternative involves using nutrients, substrate and/or microbial bacteria to enhance natural attenuation of chemicals of concern. For petroleum hydrocarbon contamination, the most common method of enhancing natural attenuation is groundwater oxygenation. Given the significant mass of hydrocarbons (i.e., floating product) and the prevalence of low permeability materials (silt and clay), enhanced natural attenuation is not an appropriate alternative for full Site remediation.

Recommendation: Enhanced natural attenuation could be used after source area materials have been remediated. Cambria recommends considering the use of Oxygen-Releasing Compound (ORC) as a contingency alternative. ORC is a powder that could be placed in the bottom of an open excavation within the capillary fringe/saturated zone. The ORC material would release oxygen over a period of months, thereby increasing groundwater dissolved oxygen (DO) concentrations and enhancing the natural attenuation of hydrocarbons.

Natural Attenuation (No Active Remediation)

The natural attenuation alternative involves allowing hydrocarbons to biodegrade naturally. Given the presence of hydrocarbons in soil, floating product, and the prevalence of low permeability materials (silt and clay), natural attenuation is not an appropriate alternative for Site remediation.

Recommendation: Once source area soil and groundwater have been remediated to the Site cleanup goals, Cambria recommends relying on natural attenuation for residual hydrocarbons.

Estimated Costs of Applicable Technologies

Cambria projected approximate first year and life cycle costs for the above excavation and two-phase extraction alternatives. The estimated costs and assumptions for each alternative are presented below in Table A. Cambria estimated the cost of two excavation scenarios – one for excavation and offsite disposal of 2,500 tons of soil and the other for 5,000 tons of soil. The estimated costs are based on our experience and our knowledge of the Site, and include typical subcontractor costs for each approach.

Table A – Summary of Costs of Applicable Remedial Technologies

Potentially Applicable Technology / Scenario	Permits and Approvals	Excavation/ Installation/ Construction	Operation And Maintenance (Annual)	Quarterly Monitoring (Annual)	Estimated Duration Until Closure (Years)	Estimated First Year Cost	Estimated Life Cycle Cost
Scenario 1 - Excavation (2,500 tons)	$15,000	$200,000	$0	$15,000	3	$180,000	$210,000
Scenario 2 – Excavation (5,000 tons)	$10,000	$280,000	$0	$15,000	3	$305,000	$335,000
Scenario 3 - Two Phase Extraction	$20,000	$160,000 (installation of 25 hp system and 20 TPE wells)	$48,000	$15,000	3	$243,000	$369,000 (includes 3 years of O&M)

Assumptions:
1. Scenario 1 – Excavation of 2,500 tons of soil, including transportation and disposal cost of $25/ton, import of clean soil at $15/ton, and contractor/consultant cost of $30,000, and groundwater extraction/dewatering cost of $20,000.
2. Scenario 2 – Excavation of 5,000 tons of soil, including transportation and disposal cost of $25/ton, import of clean soil at $15/ton, contractor/consultant cost of $50,000, groundwater extraction/dewatering cost of $30,000.
3. Scenario 3 – Two-phase (TPE) extraction for 3 years, with system installation ($55,000), TPE system purchase ($75,000), and well installation ($30,000). Monthly O&M labor of $1,000 and utility/lab/water discharge fee of $2,500. Includes quarterly reporting cost of $1,500.
4. Each scenario assumes that groundwater monitoring will be required for 3 years.

Recommended Alternative

Based on the evaluation presented above, excavation with insitu remediation of residual hydrocarbons is the most cost-effective and appropriate alternative for the Site.