ROSSO ENVIRONMENTAL, INC.
PHONE: 510.647.8107
PO Box 1923
Lafayette, CA | 94549-1923

March 28, 2017

Ms. Teena Le
Alameda County Health Care Services Agency
DEPARTMENT OF ENVIRONMENTAL HEALTH – ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Via email: teena.le@acgov.org

Project No. 15-0084.01

Subject: Request for Preliminary Site Review
For Voluntary Remedial Action Agreement Program (VRAP)
Hydraulic Oil Spill at Amtrak Station – South Elevator Tower
245 2nd Street, Oakland, California

Dear Ms. Le:

On behalf of Jack London Square Ventures, LLC (JLSV), Rosso Environmental, Inc. (REI) is submitting this Request for Preliminary Site Review for Voluntary Remedial Action Agreement Program (VRAP), associated with the above-referenced Subject (the "Site"), to the Alameda County Department of Environmental Health (ACDEH) for review and approval. The VRAP Request form is presented in Attachment A. The Site is illustrated on the Figures presented in Attachment B. A Document List identifying information pertinent to environmental conditions at the Site is presented in Attachment C; these documents will be electronically uploaded to the ACDEH FTP site.

The Site was developed for its existing use in approximately 1994 and consists of the Amtrak south elevator tower, which is equipped with one hydraulic elevator, elevator pit and sump, and elevator equipment room. The tower is approximately three stories and is equipped with a partially enclosed stairwell connecting to an elevated pedestrian walkway crossing over Embarcadero West to the Amtrak north elevator tower and train station. The remainder of the Site consists of paved sidewalk, planter boxes, and landscaping. The surrounding area includes Embarcadero West to the north with the Amtrak station beyond, a parking lot to the west beyond Alice Street, and a residential development to the east and south (The Landing at Jack London Square).

On November 19, 2015, a spill of hydraulic oil was reported to the State of California Warning Center and was provided with spill report number: 15-6841; the spill report is included on the Document List. Hydraulic oil from a broken sight glass on the hydraulic oil reservoir in the elevator machine room is believed to have flowed into the adjacent elevator pit sump. The sump discharged, and hydraulic oil was observed to be puddled in the landscaped area on the south side of the elevator tower structure. A Material Safety Data Sheet (MSDS) for the hydraulic oil provided by the elevator maintenance company, Kone, is included on the Document List.

This VRAP Request only pertains to potential environmental impacts related to the hydraulic oil release described in the spill report. Conversely, excluded from this VRAP Request are potential impacts to structures of the elevator tower, and potential environmental impacts due to releases of other materials. With respect to the latter, the Document List includes a report of a subsurface investigation conducted in the vicinity of the Site prior to construction of the elevator tower.

We declare, under penalty of perjury, that the information contained herein and in the VRAP application is true and correct to the best of our knowledge.

REI appreciates the opportunity to submit this application on behalf of JLSV. If you have any questions or comments regarding the information provided herein, please do not hesitate to contact us.

Sincerely,

Jon A. Rosso, PE
Rosso Environmental, Inc.
510-647-8107
jrosso@rossoenv.com

Jeremy V. Wilson, REPA
Rosso Environmental, Inc.
415-583-9067
jwilson@rossoenv.com

Enclosures

Attachment A – VRAP Request
Attachment B – Figures
Attachment C – Document List

ATTACHMENT A

VRAP REQUEST

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Acting Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REQUEST FOR PRELIMINARY SITE REVIEW FOR VOLUNTARY REMEDIAL ACTION AGREEMENT PROGRAM (VRAP)

The Responsible Party identified below hereby requests that the Alameda County Department of Environmental Health (ACDEH) provide preliminary site review to make a determination as to whether a VRAP case will be required to be open for the site identified below.

Date of Request: March 28, 2017

SITE INFORMATION		
Site Address: 245 Second Street		Site APN:: 18-425-2-42
Approximate Size of Site: 1,202 square feet (0.027 acres)	Current Land Use: South Elevator Tower of Amtrak Station since approx. 1994	
City: Oakland	State: California	ZIP Code: 94607
Type and Extent of Contamination: *Identify history of site, substances found at site, and reason site is eligible for the Voluntary Remedial Action Program.* Site has operated as an elevator tower since ~1994. A release of hydraulic oil occurred on 11/19/2015, due to malfunctioning equipment, and State of CA Warning Center was notified (report #15-6841). The release was stopped and a small-scale cleanup of impacted soil is anticipated.		
Planned Redevelopment: *Provide brief description of type of planned redevelopment.* No Redevelopment Activities Are Planned		

RESPONSIBLE PARTY ENTERING AGREEMENT		
Name: Jack London Square Ventures LLC	Type of Entity: *Individual, Corporation, Trust, etc.* LLC	
Contact Name: Melinda Ellis Evers	Phone: 415-391-9800	
Current address: 111 Sutter Street, Suite 800	Email: melinda@ellispartners.com	
City: San Francisco	State: California	ZIP Code: 94101
Relationship to Property/ Authority: *Describe the basis of your authority to request assistance and enter into the agreement.* The property is subject to an Operating Agreement recorded with Alameda County as Instrument No. 2002141789. Under that document and related agreements, JLSV is responsible for overseeing the environmental assessment and remediation of the release of hydraulic oil.		

CURRENT PROPERTY OWNER		
Name: Port of Oakland	Type of Entity: *Individual, Corporation, Trust, etc.*	
Current Address: 530 Water Street		E-mail: N/A
City: Oakland	State: California	ZIP Code: 94607

The Responsible Party shall submit to ACDEH all background information, environmental assessment reports (including Phase I Environmental Assessment Reports), analytical results, and if redevelopment is proposed, include any info available on development project (conceptual plans, planning documents, etc). All available information is to be provided to ACDEH by the Responsible Party within 5 working days of any request.

By signing below, Responsible Party represents that they have the authority to make this request.

Responsible Party Signature See attached signature page

[signature page to Request for Preliminary Site Review for Voluntary remedial Action Agreement Program (VRAP)]

Responsible Party:

Jack London Square Ventures LLC,
a Delaware limited liability company

by: EPL JLS Ventures LLC,
a Delaware limited liability company
its Administrative Member

by: Ellis Partners LLC,
a California limited liability company
its Manager

by:_____
Melinda Ellis Evers
Managing Member

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
INSTRUCTIONS FOR VOLUNTARY REMEDIAL ACTION PRELIMINARY REVIEW

Responsible parties for a release of waste may request that the Alameda County Department of Environmental Health (ACDEH) provide regulatory oversight for investigation and cleanup of contaminated sites under California Health and Safety Code Section 101480. ACDEH may supervise the remedial action provided that adequate staff resources and the requisite technical expertise and capabilities are available. Supervision by ACDEH is provided pursuant to a Remedial Action Agreement.

In order to request that ACDEH conduct a preliminary review for your site, please follow the steps provided below.

1. Complete the request form with site, responsible party, and current property owner information.

2. Submit a non-refundable deposit of $1,000.00 payable to Alameda County Department of Environmental Health with the site address and APN(s) written on the check. Checks are to be mailed or delivered to the attention of ACDEH Finance Department, 1131 Harbor Bay Parkway, Alameda, CA 94502.

    a. This non-refundable deposit will be applied towards work performed for opening an account, preliminary site review time by ACDEH staff, and determination whether a VRAP case needs to be opened.

3. Submit all technical reports in pdf format describing the environmental conditions for the site onto ACDEH's FTP site.

    a. Detailed instructions for submission of electronic documents to the ACDEH FTP site is available on line at http://www.acgov.org/aceh/lop/upload_instructions.pdf.

Submit the completed request form and send it to Teena Le, ACDEH, 1131 Harbor Bay Parkway, Alameda, CA 94501 (email preferred: teena.le@acgov.org).

Once ACDEH has received payment and requisite documents have been uploaded to the FTP site, ACDEH will complete its review within 30 days. ACDEH will review the submitted information for completeness and may consult with other regulatory agencies to make a determination as to whether a VRAP case will be required to be opened. ACDEH may request additional information and an in person meeting during the preliminary review process.

ATTACHMENT B

FIGURES

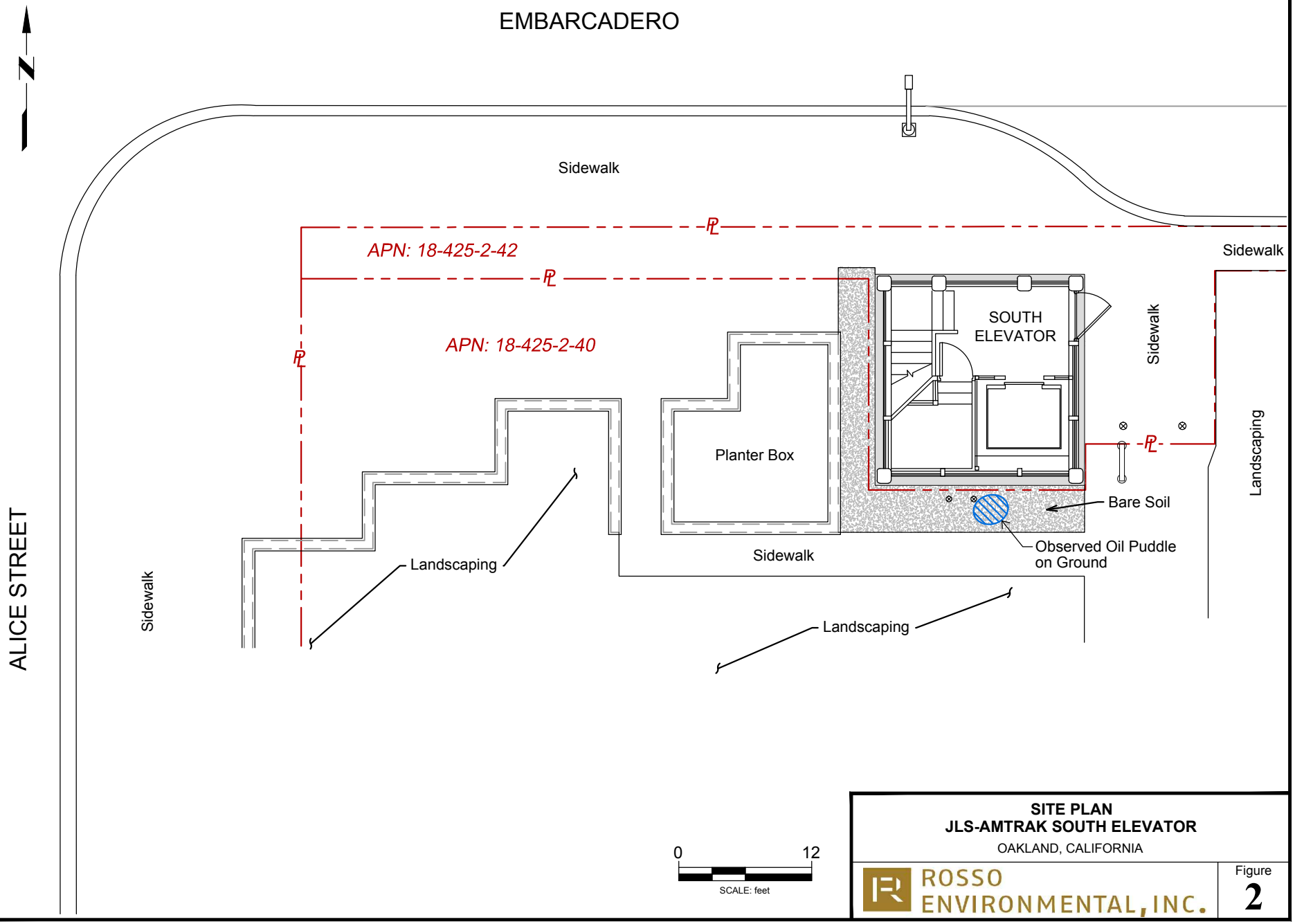
SITE LOCATION MAP
JLS-AMTRAK SOUTH ELEVATOR
OAKLAND, CALIFORNIA

ROSSO ENVIRONMENTAL, INC.

Figure **1**

03/14/2017, 09:50, R:\RossoEnv\15-0084.00\SITE0317.dwg, Tab: F1

Project No. 15-0084.01



SITE PLAN
JLS-AMTRAK SOUTH ELEVATOR
OAKLAND, CALIFORNIA

ROSSO ENVIRONMENTAL, INC.

Figure **2**

Project No. 15-0084.01

ATTACHMENT C

DOCUMENT LIST

Document List

1. *Governor's Office of Emergency Services, Hazardous Materials Spill Report, Cal OES-15-6841*, November 19, 2015
2. *Material Safety Data Sheet for Hydraulic Oil*, November 19, 2015
3. *Report of Investigation, Proposed Amtrak Passenger Rail Station Site, Alice and Second Street, Oakland, California*, Uribe & Associates, March 22, 1993

Governor's Office Emergency Services
Hazardous Materials Spill Report

DATE: 11/19/2015 TIME: 1600	RECEIVED BY:	CONTROL#: Cal OES - **15-6841** NRC -

1.a. PERSON NOTIFYING Cal OES:

1. NAME:	2. AGENCY:	3. PHONE#:	4. Ext:	5. PAG/CELL:
	Jack London Square			

1.b. PERSON REPORTING SPILL (If different from above):

1. NAME:	2. AGENCY:	3. PHONE#:	4. Ext:	5. PAG/CELL:

2. SUBSTANCE TYPE:

2. a. SUBSTANCE:	b.QTY:>=<	*Amount*	*Measure*	c. TYPE:	d. OTHER:	e. PIPELINE	f. VESSEL >= 300 Tons
1. Hydraulic Fluid	>	10	Gal(s)	PETROLEUM		No	No
2.	=					No	No
3.	=					No	No

g. DESCRIPTION: A hydraulic fluid line connecting a hydraulic tank and an elevator incurred a leak for unknown reasons. The hydraulic line valve was closed and the release stopped. No waterways were impacted. A contractor is en-route to the scene to conduct a clean-up of the release.

h. CONTAINED:	i. WATER INVOLVED:	j. WATERWAY:	k. DRINKING WATER IMPACTED
Yes	No	None	No

l. KNOWN IMPACT None

3. a. INCIDENT LOCATION: 245 2nd Street (Sky Bridge Elevator)

b. CITY:	c. COUNTY:	d. ZIP:	
Oakland	Alameda County		BAY AREA AQMD

4. INCIDENT DESCRIPTION:

a. DATE:	b. TIME *(Military)*:	c. SITE:	d. REPORTED CAUSE
11/19/2015	1000	Merchant/Business	Mechanical
e. INJURIES	**f. FATALITY**	**g. EVACUATION**	**h. CLEANUP BY:**
No	No	No	Contractor

6. NOTIFICATION INFORMATION:

a. ON SCENE:	b. OTHER ON SCENE:	c. OTHER NOTIFIED:
		None

d. ADMIN. AGENCY: Alameda County Environmental Health

e. SEC. AGENCY:

f. ADDITIONAL COUNTY:

g. ADMIN. AGENCY:

h. NOTIFICATION LIST:

DOG Unit:

RWQCB Unit: 2

AA/CUPA, DFG-OSPR, DTSC, RWQCB, US EPA, USFWS, Co/WP, Co/E-Hlth

1. ARB:

********* **Control No: 15-6841** *********

Created by: Warning Center on: 11/19/2015 04:00:35 PM Last Modified by: Warning Center on: 11/19/2015 04:14:59 PM

3E Company
3207 Grey Hawk Court, Suite 200
Carlsbad, CA 92010
U.S. Toll Free: 1-800-451-8346 or 1-760-602-8703
North America: 1-800-931-0537/Mexico 00-1-800-931-0537 or 1-760-602-8822
Fax: 1-760-602-8888
Email: msds@3ecompany.com

Material Safety Data Sheet Transmittal Form

November 19, 2015

Request #: 293633
Processed By: rletuli

Recipient:

DREW JACOBY

Email: DREW.JACOBY@KONE.COM

Requester:

DREW JACOBY
EMPLOYEE
Email: DREW.JACOBY@KONE.COM
Phone: 510-517-9218

Thank you for using 3E's MSDS Paperless Compliance™ service. This service may eliminate the requirement to maintain MSDS on site. Below is a list of the MSDS you requested. Please verify that the MSDS sheet(s) enclosed/attached match what you have ordered.

PID/VID	Manufacturer ORDERED/Actual	Product Name ORDERED/Actual	UPC	Item
v2416085	/Chevron Lubricants Canada Inc	HYDRAULIC OIL AW 32 RANDO 32/Rando HD 22 - 68		

END OF ORDER DETAIL - Request# 293633

North America's Leader in Hazardous Material Information Management
3207 Grey Hawk Court, Suite 200, Carlsbad, CA 92010
U.S. Toll Free: 1-800-451-8346 Fax: 1-760-602-8888

MSDS PRODUCT INFORMATION

Date: 11/19/2015
To: MSDS Requester
From: 3ECompany
Subject: The MSDS you have requested

[ ] MSDS NOT REQUIRED

In response to your request for a Material Safety Data Sheet, according to the OSHA Hazard Communicatin Standard (Right-to-Know), the following item is an article. Articles are defined in 29 CFR 1910.1200(c). Products such as Drugs, cosmetics, food, or alcoholic beverages, wood or wood products, and tobacco or tobacco products, as defined in 29 CFR1910.1200(b)(6), are exempt from the Hazard Communication Standard. Items that are considered articles, as defined in 29 CFR 1910.1200(c), are also exempt from this Standard. Therefore, the manufacturer is not required to provide an MSDS for this product.

[X] MSDS DISCONTINUED PRODUCT

In response to your request for a Material Safety Data Sheet, the manufacturer has discontinued the product listed below. The MSDS Attached is the most current version, or an MSDS is no longer available.

[ ] MSDS BEST COPY AVAILABLE

The MSDS attached is the best copy available from the manufacturer.

[ ] MANUFACTURER NO LONGER IN BUSINESS

In response to your request for a Material Safety Data Sheet, a current MSDS could not be obtained for this product. It has been determined that the manufacturer listed below is no longer in business. A current address and phone number could not be located.

Manufacturer: Chevron Lubricants Canada Inc
Product Name: Rando HD 22 - 68

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Rando HD 22 - 68

Product Use: Hydraulic Oil
Product Number(s): 01655, 01657, 01659, CPS221655, CPS221657, CPS221659
Synonyms: Rando HD 22, Rando HD 32, Rando HD 68
Company Identification
Chevron Global Lubricants
A Division of Texaco Products Inc.
6975-A Pacific Circle
Mississauga, ONT L5T 2H3
Canada
www.chevronlubricants.com

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (703) 527-3887
Health Emergency
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
Product Information
email : lubemsds@chevrontexaco.com
Product Information: (800) LUBE TEK
MSDS Requests: (800) 414-6737

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	90 - 100 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

SECTION 3 HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Ingestion: Not expected to be harmful if swallowed.
Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Note to Physicians: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

SECTION 5 FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

FLAMMABLE PROPERTIES:
Flashpoint: (Cleveland Open Cup) 150 °C (302 °F) (Min)
Autoignition: No Data Available
Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT
Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing

depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.
Respiratory Protection: No respiratory protection is normally required.
If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.
Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.
NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Yellow
Physical State: Liquid
Odor: Petroleum odor
pH: Not Applicable
Vapor Pressure: <0.01 mmHg @ 37.8 °C (100 °F)
Vapor Density (Air = 1): >1
Boiling Point: >315.6°C (600°F)
Solubility: Soluble in hydrocarbons; insoluble in water
Freezing Point: Not Applicable
Melting Point: Not Applicable
Specific Gravity: 0.86 - 0.87 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
Density: 0.86 kg/l - 0.9 kg/l @ 15°C (59°F)
Viscosity: 22 cSt - 61.2 cSt @ 40°C (104°F) (Min)
Odor Threshold: No Data Available
Coefficient of Water/Oil Distribution: No Data Available

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: None known (None expected)
Hazardous Polymerization: Hazardous polymerization will not occur.
Sensitivity to Mechanical Impact: No.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS
Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.
Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.
Skin Sensitization: No product toxicology data available.
Acute Dermal Toxicity: LD50: >5g/kg (rabbit). The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Oral Toxicity: LD50: >5 g/kg (rat) The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.For additional information on the acute toxicity of the components, call the technical information center.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY
This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

ENVIRONMENTAL FATE
This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

TC Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER TDG REGULATIONS

IMO/IMDG Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR
Additional Information: NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:
01-1=IARC Group 1
01-2A=IARC Group 2A
01-2B=IARC Group 2B
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:
All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required.

WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. (See Hazardous Products Act (HPA), R.S.C. 1985, c.H-3,s.2).

MSDS PREPARATION:

This Material Safety Data Sheet has been prepared by the Toxicology and Health Risk Assessment Unit, ERTC, P.O. Box 1627, Richmond, CA 94804, (888)676-6183.

Revision Date: June 06, 2007

SECTION 16 OTHER INFORMATION

HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0

LABEL RECOMMENDATION:
Label Category : INDUSTRIAL OIL 1 - IND1

REVISION STATEMENT: This revision updates the following sections of this Material Safety Data Sheet: 16

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

DOC ID 2166

Submitted to

Port Of Oakland

Environmental Department

530 Water Street, Oakland, California

Report of Investigation, Proposed Amtrak Passenger Rail Station Site, Alice and Second Street, Oakland, California

March 22, 1993

SF
APRS
SITE
3/22/93
10480

Prepared by

Uribe & Associates

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Report of Investigation, Proposed Amtrak Passenger Rail Station Site, Alice and Second Street, Oakland, California

1.0 Executive Summary

Uribe & Associates (U&A) conducted a ground penetrating radar (GPR) survey, drilled fourteen soil borings, and sampled two underground storage tanks (USTs) at the proposed site of the new Amtrak Passenger Rail Station (Amtrak Station) in Oakland, California. The GPR survey was conducted to identify the location of known or suspected USTs at the site. The soil and liquid samples were collected and analyzed for Total Petroleum Hydrocarbons and benzene, toluene, ethylbenzene, and xylene (BTEX) to determine the potential volume of contaminated soils likely to be excavated by on-going construction activities.

Three USTs were located at the site. One of the USTs contains approximately 120 gallons of gasoline (tank T-1); one tank is empty (tank T-2); and one contains approximately 3,000 gallons of oil (tank T-3). All three tanks appear to be constructed of steel with a single-wall design and are of an undetermined age. The fluid in the tanks will have to be recycled or disposed prior to removal of the USTs.

It's estimated that approximately 80 cubic yards of contaminated soils will be excavated in the removal of the one gasoline tank and one empty tank (tanks T-1 and T-2). This soil will have to be stockpiled on-site and resampled for Total Petroleum Hydrocarbons as gasoline and for lead to determine the proper disposal options. It's estimated that approximately 30-percent (24 cubic yards) will require disposal as a California hazardous waste. Excavation confirmation samples will be required to confirm the removal of all contaminated soils.

For the removal of tank T-3, it's estimated that approximately 770 cubic yards will require excavation based on laboratory results and field observations. The soil will have to be stockpiled and additional samples collected to meet the characterization requirements of the anticipated disposal facility. It's estimated that all 770 yards will require disposal at a Class II disposal facility.

Soil borings indicate that from approximately 450 to 700 cubic yards of soil containing low to moderate levels of petroleum hydrocarbons will be excavated by the contractor during the construction of the foundations and footings for the Amtrak Station. (Note: 450 cubic yards is theoretical volume based on footing and foundation dimensions, and 700 cubic yards assumes one foot of overexcavation on all dimensions for concrete forms). No additional sampling should

be required for these soils unless the results of the oil UST (Tank T-3) indicate waste oil. Currently, the tank appears to contain boiler fuel oil.

Finally, contaminated soil was discovered in the southwest corner of the future parking area during site demolition activities. A soil sample collected from a geotechnical boring conducted at the site indicated gasoline and lead contamination at levels that would characterize the soil as a California hazardous waste. It's estimated that approximately 185 cubic yards of soil will require excavation. The soil will have to be stockpiled on-site and sampled to determine the proper disposal alternatives. It's estimated that approximately 30 percent (55 cubic yards) will require disposal as a California hazardous waste.

2.0 Background

The Port of Oakland (Port) is conducting site demolition and grading work in preparation for the construction of the Amtrak Station and it's associated parking and access facilities. Figure 1 shows the general site location. Figure 2 illustrates the site location and proposed facilities.

Historical documents indicate the Amtrak Station site was formerly the site of the Central Oakland Light & Power Company. Fuel oil was used to power steam boilers that produced electricity. The future parking area was the site of the electric company office and storage sheds; the majority of the future parking area was used for residential housing. It is unknown when these facilities were removed. Prior to beginning the demolition work, the Amtrak Station site and the future parking area site contained abandoned warehouses.

In order to prepare the bid documents for the construction work, U&A performed site investigation activities to gather the following information for inclusion in the bid specifications for the removal of the USTs and construction of the proposed facilities:

- location, size, and contents of known or suspected USTs at the site,
- assessment of site soil conditions to provide the locations, characteristics, and estimated volume of potentially contaminated soils that may be encountered by the construction contractor at the site, and
- disposal options for the liquids contained in the USTs and the potentially contaminated soils.

A Workplan and Health and Safety Plan to perform these activities was prepared and submitted to the Port on February 19, 1993. A copy of the Workplan and Health and Safety Plan is provided as Appendix A. The following sections detail the results of the investigation.

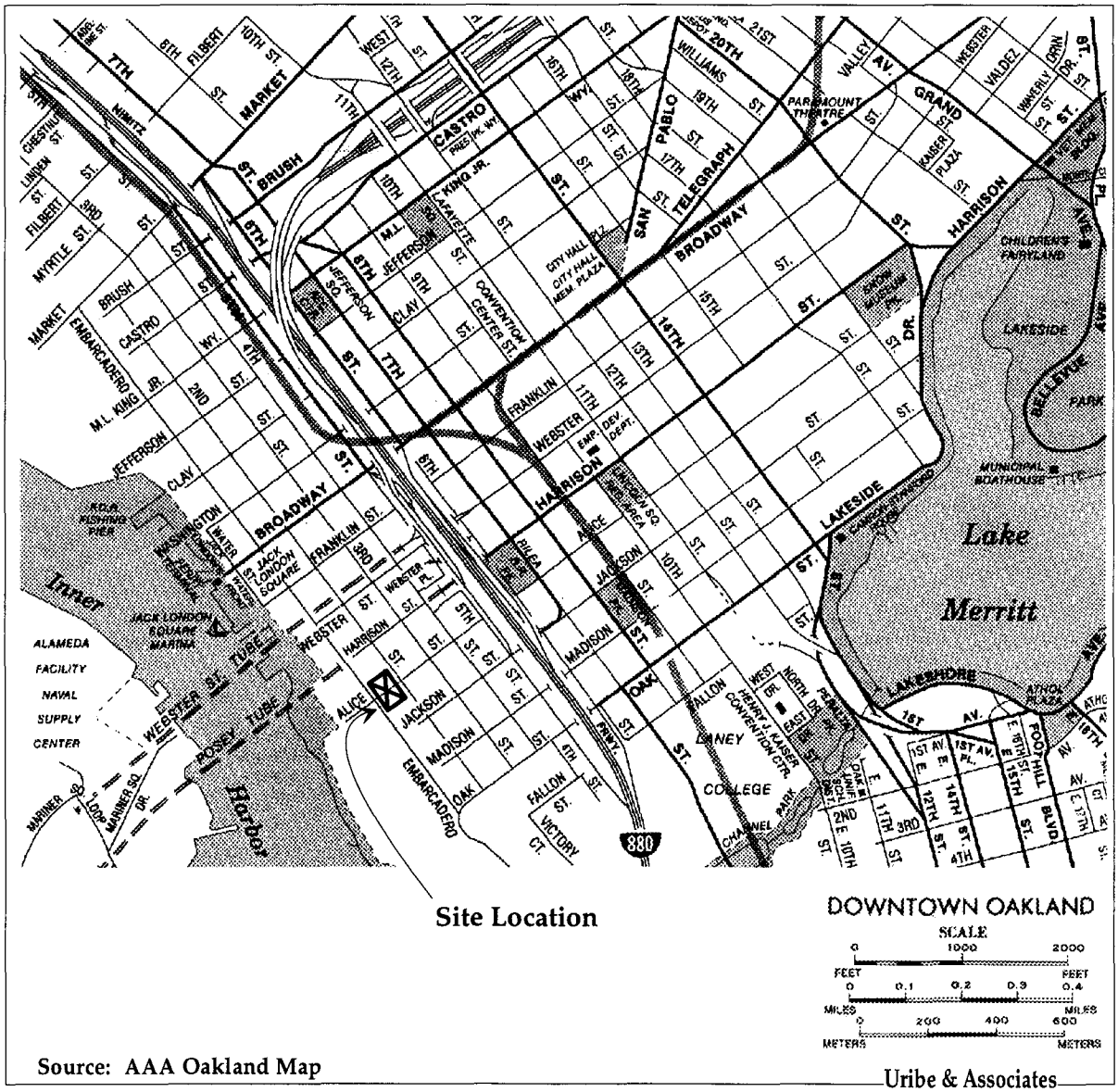


Figure 1: Site Location Map

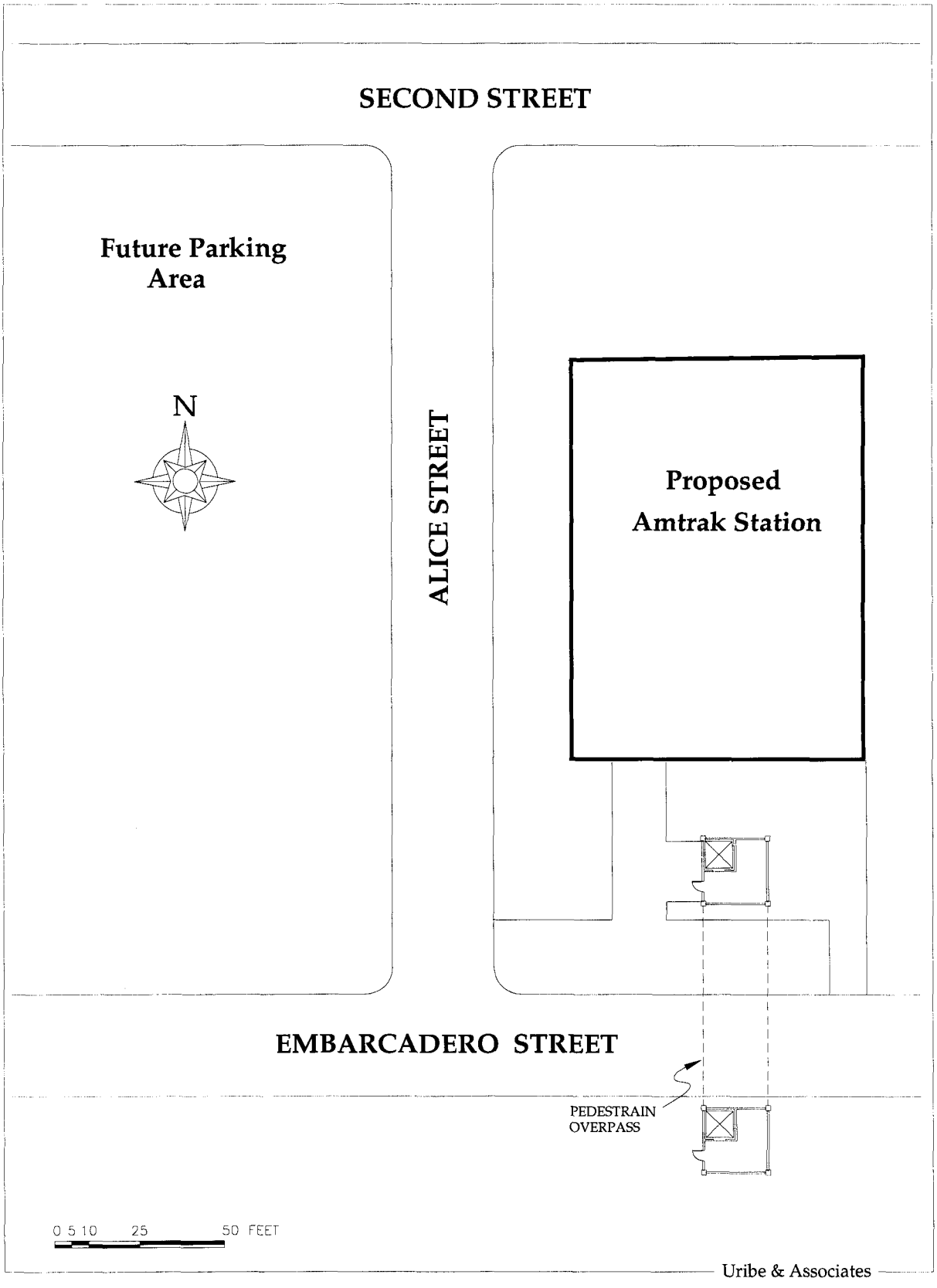


Figure 2: Oakland Amtrak Station, Proposed Facility

3.0 Underground Storage Tank Survey and Sampling

3.1 Ground Penetrating Radar Survey

The ground penetrating radar survey (GPR) was conducted on February 23, 1993, by JR Associates. Figure 3 illustrates the areas investigated to determine the existence, location, and size of known or suspected USTs at the site.

The GPR survey equipment consists of a radar control unit, a graphic profiler, and a 500 MHz antenna. For the area of investigation, radar data is collected along scan lines spaced 2.5-feet apart. The antenna transmits a radio frequency electromagnetic pulse into the ground. Buried objects, reflect the pulse back to the ground surface where the radar detects the returning pulses and plots them on the graphic profiler.

The success of the GPR depends on the depth of penetration; this depth can vary from a few inches to several feet. A clear reflection can be used to determine the size and depth of any buried objects. The depth of penetration at the site appeared to be approximately 4 feet. A copy of the GPR report is included as Appendix B.

3.1.1 Suspected UST Location

During site demolition activities, the contractor encountered petroleum contaminated soils near the intersection of Embarcadero and Alice Streets. The Port stopped work in the area and notified the Alameda County Health Care Services, Division of Hazardous Materials (ACHCSA). A copy of the letter is provided in Appendix C of this report.

A review of the Port's facility drawings indicated that a UST and dispenser existed near the location of the hydrocarbon impacted soils. A site inspection revealed no indication of a UST (i.e., fill or vent pipes) and no dispenser exists.

The GPR survey was conducted from the railroad tracks at Embarcadero Street, along the street, sidewalk, and border of the property along the west side of Alice Street in an attempt to locate the suspected UST. The survey did not detect the presence of a UST at this location. Since the estimated depth of penetration for the GPR survey at this site is estimated to be approximately 4 feet, the survey indicates either no UST exists at the location, or if a UST exists, it is at a depth greater than 4 feet.

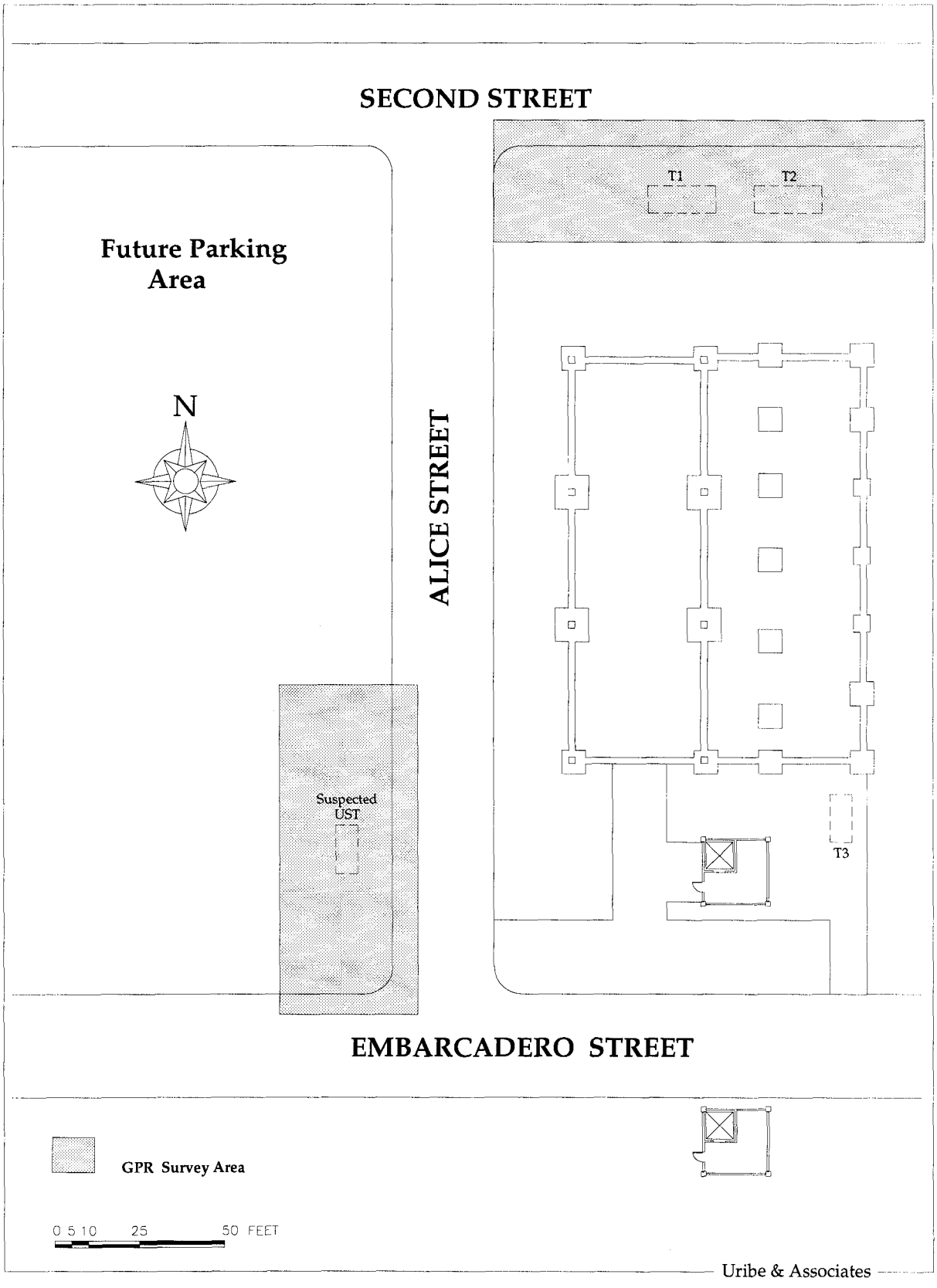


Figure 3: Ground Penetrating Radar Survey, Area of Investigation

3.1.2 Known UST Locations

This section provides the following information related to the tanks discovered at the site:

- location of the USTs (Figure 4),
- estimated size, materials of construction, and volume of liquids contained in the USTs, and
- results of laboratory analysis performed on the liquid contents of the USTs.

Tank T-1: Two USTs were known to exist beneath the sidewalk along the south side of Second Street. GPR results indicated the western tank (Tank T-1) is approximately 12 feet long with a diameter of 4 feet, and is buried approximately 3.5 feet below the sidewalk (i.e., concrete cover material).

Tank T-1 is constructed of steel and is assumed to be a single-wall tank. It has a fill pipe on each end and an undetermined length of piping (assumed to be single-wall steel) that was probably associated with a former dispensing system. The volume of the tank is estimated to be approximately 1,200 gallons. The tank was gauged and it was determined to contain approximately 120 gallons of liquid.

A liquid sample was collected and analyzed for Total Petroleum Hydrocarbons (TPH) using EPA Method 8015 modified and for BTEX using EPA Method 8020. Laboratory results presented in Table 1, indicate the liquid is gasoline.

Tank T-2: The second UST (Tank T-2) was discovered by opening a third fill pipe located near Tank T-1. GPR could not identify the orientation or length of this tank because it was buried deeper than 4 feet. The bottom of the tank is approximately 11 feet beneath the sidewalk (i.e., concrete cover material) and it appears to have a diameter of at least 3.5 feet. The tank is empty; no liquid sample was collected. T-2 appears to be a single-wall steel constructed tank based on the age of the fill pipe fittings.

Tank T-3: During demolition work being conducted at the site, a third tank (Tank T-3) was located in the foundation of the former Central Oakland Light & Power Company building. The tank has a diameter of approximately 6 feet and is 15 feet long; it contains approximately 3,000 gallons of fluid. The tank is partially exposed with the remainder of the tank covered by soil. A sample of liquid was collected from Tank T-3 and was analyzed for TPH using EPA 8015 modified to determine whether it was boiler fuel or waste oil.

The laboratory results of this test indicated the material exhibited characteristics in the intermediate oil and diesel range; they did not conclusively identify the liquid. Therefore, the

samples are currently being analyzed for priority metals (cadmium, copper, chrome, zinc, and lead) to determine if the material is waste oil. If the results indicate the liquid is waste oil, the samples will be analyzed for chlorinated hydrocarbons and polychlorinated biphenyls (PCBs) using EPA Method 8240 and 8080.

TABLE 1
Summary of Liquid Analyses for Proposed Amtrak Site
Concentrations in mg/Kg

Sample No.	T-1-A	T-2	T-3-A	T-3-B
Petroleum Hydrocarbons, EPA Method 8015 modified				
Intermediate Oil/Diesel	--	NA	1,000,000*	320,000*
Gasoline	1,000,000	NA	--	--
BTEX, EPA Method 8020				
Benzene	13,000	NA	--	--
Ethylbenzene	21,000	NA	--	--
Toluene	87,000	NA	--	--
o-xylene	35,000	NA	--	--
p,m-xylenes	74,000	NA	--	--

* Estimated concentration based on total peak area response

-- Not Analyzed

NA No samples were collected at Tank #2 because it was empty

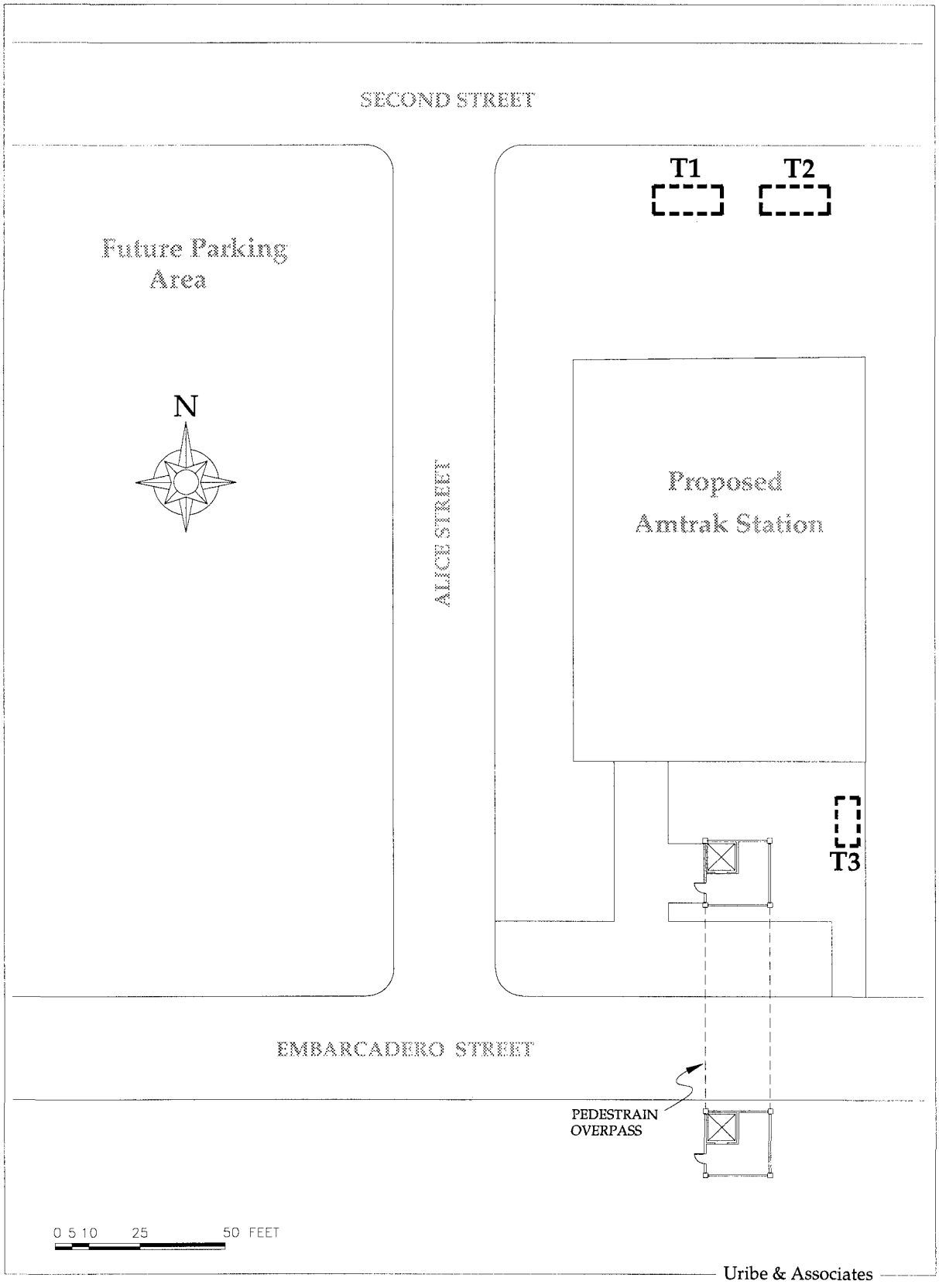


Figure 4: UST Locations

4.0 Subsurface Soil Investigation

Soil borings were conducted at the site to determine the concentrations and characteristics of the subsurface soils that will be excavated during construction of the Amtrak Station. In addition, results from geotechnical borings conducted at the site were reviewed for inclusion into this report. Figure 5 provides the locations of the geotechnical and investigative soil borings. The following sections outline the field investigation performed to collect the samples and the analytical results obtained from the laboratory.

4.1 Existing Geotechnical Borings

Six borings were conducted by CH2M Hill in order to assess the soil conditions and parameters required to design the foundations and footings of the proposed building and walkway. Analysis was performed on the cuttings recovered from the borings to determine the proper disposition of the soils. The analysis indicated no detectable levels of contaminants in the spoils from borings B-2, B-4, and B-5. However, low levels of lead were detected in soil samples taken in B-1 and B-3 (0.94 mg/L and 1.56 mg/L, respectively). In addition, low levels of TPH identified as gasoline and diesel, and xylene were detected in B-1.

In boring B-6, TPH as gasoline was detected at a level of 97 mg/Kg and toluene, ethyl benzene, and xylenes were detected at level of 0.024 mg/Kg, 0.54 mg/Kg, and 3.2 mg/Kg, respectively. Since the soil sample indicated TPH as gasoline, the sample was analyzed for lead using EPA Method 200.7. The resulting STLC lead value was determined to be 8.44 mg/L. Laboratory results are provided in Appendix E. Therefore, the sample result indicates the soil from this boring would be considered a California hazardous waste. Boring B-6 was drilled near the location where Port facility drawings indicated a UST and dispenser once existed; the GPR did not detect a UST in the upper four feet of soils in the area. Table 2 summarizes the results.

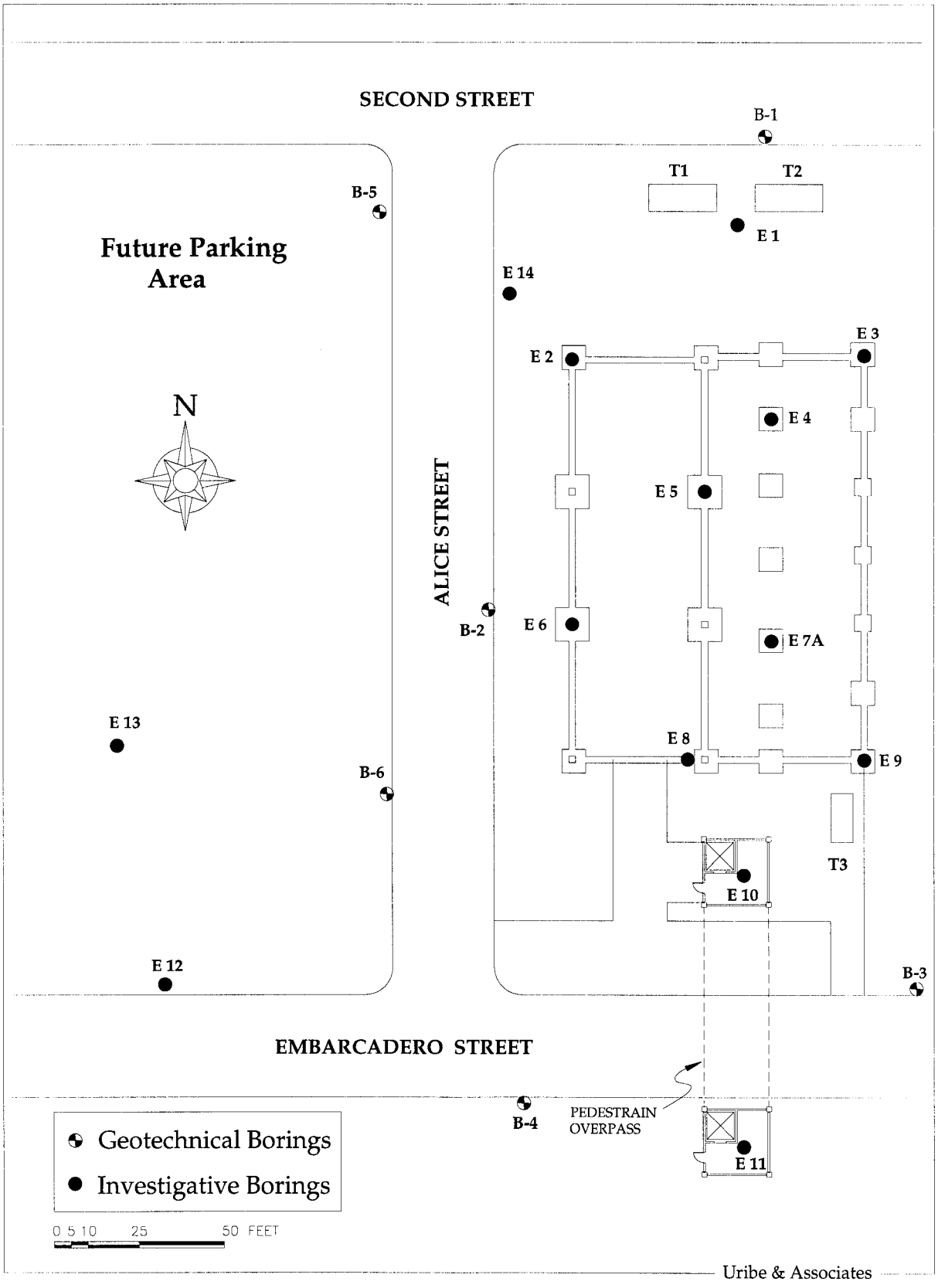


Figure 5: Geotechnical and Investigative Boring Locations, Proposed Amtrak Station Site

TABLE 2

Summary of Soil Sample Results Performed by CH2MHill

Concentrations in mg/kg

	B-1	B-2	B-3	B-4	B-5	B-6
Oil and Grease	ND	ND	ND	ND	ND	ND
Soluble Lead	0.94	ND	1.56	ND	ND	8.44
TPH Gasoline	5.5	ND	ND	ND	ND	97
Benzene	ND	ND	ND	ND	ND	ND
Toulene	ND	ND	ND	ND	ND	0.024
Ethylbenzene	ND	ND	ND	ND	ND	0.54
Xylenes	0.017	ND	ND	ND	ND	3.2
tert-Butyl methyl ether	ND	ND	ND	ND	ND	ND
TPH Diesel	21	ND	ND	ND	ND	79

4.2 Subsurface Investigation Borings

A total of fourteen soil borings and one grab sample were collected in the subsurface investigation. The locations where selected as follows:

- eleven soil borings were conducted in areas where excavation is planned for the construction of the Amtrak Station and it's associated facilities,
- two soil borings were placed in areas of known contamination (i.e., vicinity of where demolition contractor encountered hydrocarbon impacted soils),
- one soil boring was placed in the assumed downgradient direction of the two known USTs, and
- one grab sample was collected near UST T-3.

The following sections describe the sample collection and handling procedures and the results of the laboratory analysis conducted on the soil.

4.2.1 Sample Collection and Handling Procedures

The soil borings investigated the upper ten feet of soil; this depth corresponds to the estimated depth of excavation required to form and pour the foundation and footings. A permit was obtained from the Alameda County Flood Control and Water Conservation District, Zone 7. A copy of the permit is contained in Appendix D.

A hollow stem auger rig equipped with a 5-foot core barrel was used to collect continuous core from each boring. Samples were selected by the field geologist based on visual inspection and screening with a photoionization device (PID). Boring logs for each boring and field notes are provided in Appendix D.

Two soil samples were selected from each boring and placed in clean brass sleeves; the ends of the sleeves were covered with 10-mil thick Teflon™ and plastic end caps. The samples were labelled with the name of the site, date, time of collection, sample identification number, analysis to be performed, and the sampler's name. The samples were placed in an ice chest cooled to 4 C. A chain-of-custody form was completed to track the transfer of samples to the laboratory.

One soil sample from each boring was selected for analysis. The selection was based on the maximum PID response during the screening process. The remaining sample was sent to laboratory and held as a back-up sample. One soil sample was collected adjacent to UST T-3. The sample location was based on visual observation and screening with the PID. Samples were analyzed using for identification of the petroleum hydrocarbon compound as either gasoline, diesel, or oil utilizing EPA method 8015 modified. In addition, the samples were analyzed for BTEX using EPA Method 8020.

4.2.2 Laboratory Results

Laboratory results conducted on the soil samples indicates the area contains low to moderate levels of petroleum hydrocarbon contamination. The hydrocarbons detected in all samples appeared to be intermediate between diesel and motor oil; the results are quantified based on the diesel standard.

No samples collected were reported to exhibit gasoline characteristics. BTEX was detected in samples collected from boring E-3 (maximum of toluene at 0.006 mg/Kg), boring E-4 (maximum of benzene at 0.38 mg/Kg), and boring E-5 (maximum of benzene at 0.14 mg/Kg). The soil sample collected near UST T-3 exhibited diesel concentrations at 31,000 mg/Kg. Table 3 presents the analytical results. Laboratory data sheets and chain-of-custody forms are provided in Appendix E.

TABLE 3
Summary of Soil Analyses for Proposed Amtrak Site
Concentrations in mg/Kg

Boring No.	E1	E2	E3	E4	E5	E6	E7A	E8	E9	E10	E11	E12	E13	E14	Tank T-3
Depth (ft.)	8.0	6.5	7.0	6.0	8.0	7.5	6.0	9.5	6.5	9.5	8.5	7.0	5.0	6.5	SW location
Petroleum Hydrocarbons, EPA Method 8015 modified															
Diesel*	6	ND	1,300	80	630	54	65	ND	210	19	ND	14	48	ND	31,000
BTEX, EPA Method 8020															
Benzene	ND	ND	ND	0.38	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	0.006	0.17	0.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	0.051	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,m- xylene	ND	ND	ND	0.37	0.08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	ND	ND	ND	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

* The hydrocarbon detected in these samples appear to be intermediate between diesel and motor oil. Quantitation was based on diesel standards. Note that for boring E-8 and E-10 were quantified versus an oil standard.

ND Not detected at or above the detection limit (1 mg/Kg)

ND Not detected at or above the detection limit (0.005 mg/Kg).

4.3 Estimation of Potentially Hydrocarbon Impacted Soil Volume

Based on the analytical results, the building contractor will encounter low to moderate levels of hydrocarbon contamination during excavations in the following areas:

- the footings and foundations for all areas except the northwest portion of the Amtrak Station site (in the vicinity of borings E-2 and E-14), the south central portion of the proposed Amtrak Station site (in the vicinity of boring E-8), and the pedestrian walkway support footings on the south side of Embarcadero Street (boring E-11),

- the removal of USTs T-1 and T-2.

The contractor can expect to encounter moderate to high levels of petroleum hydrocarbon contamination during the removal of UST T-3.

In addition to the aforementioned areas, petroleum hydrocarbon soils have been encountered in the southeast corner of future parking area site near a former UST and dispenser site (boring B-6). Soil analyses conducted on a sample collected from boring B-6 indicates that soils in the area are contaminated with gasoline. Lead analysis indicates the soils will probably be considered a California hazardous waste since it exceeds the STLC threshold of 5 mg/L (sample result indicated 8.44 mg/L).

Figure 6 provides an illustration of where the contractor will probably encounter petroleum contaminated soils. Table 4 provides the estimated volumes for the excavated soils for the footings and foundations. No additional samples will be required for these soils unless laboratory analysis indicates that tank T-3 contains waste oil versus boiler fuel oil. Based on the laboratory results and the volume calculations, approximately 450 to 700 cubic yards of this material should be acceptable to a Class II or Class III landfill for disposal.

Table 5 provides the estimated volumes for the excavated soils for the removal of USTs. Table 5 also provides the estimated volume of contaminated soils that may be associated with former UST located on the southwest portion of the future parking area. The soils associated with the removal of tanks T-1, T-2 (approximately 80 cubic yards), and former UST area will have to be stockpiled on-site, characterized with additional samples. Based on previous projects in the area, it's estimated that approximately 30 percent (24 cubic yards) will require disposal as a California hazardous waste due to lead exceeding the STLC of 5 mg/L.

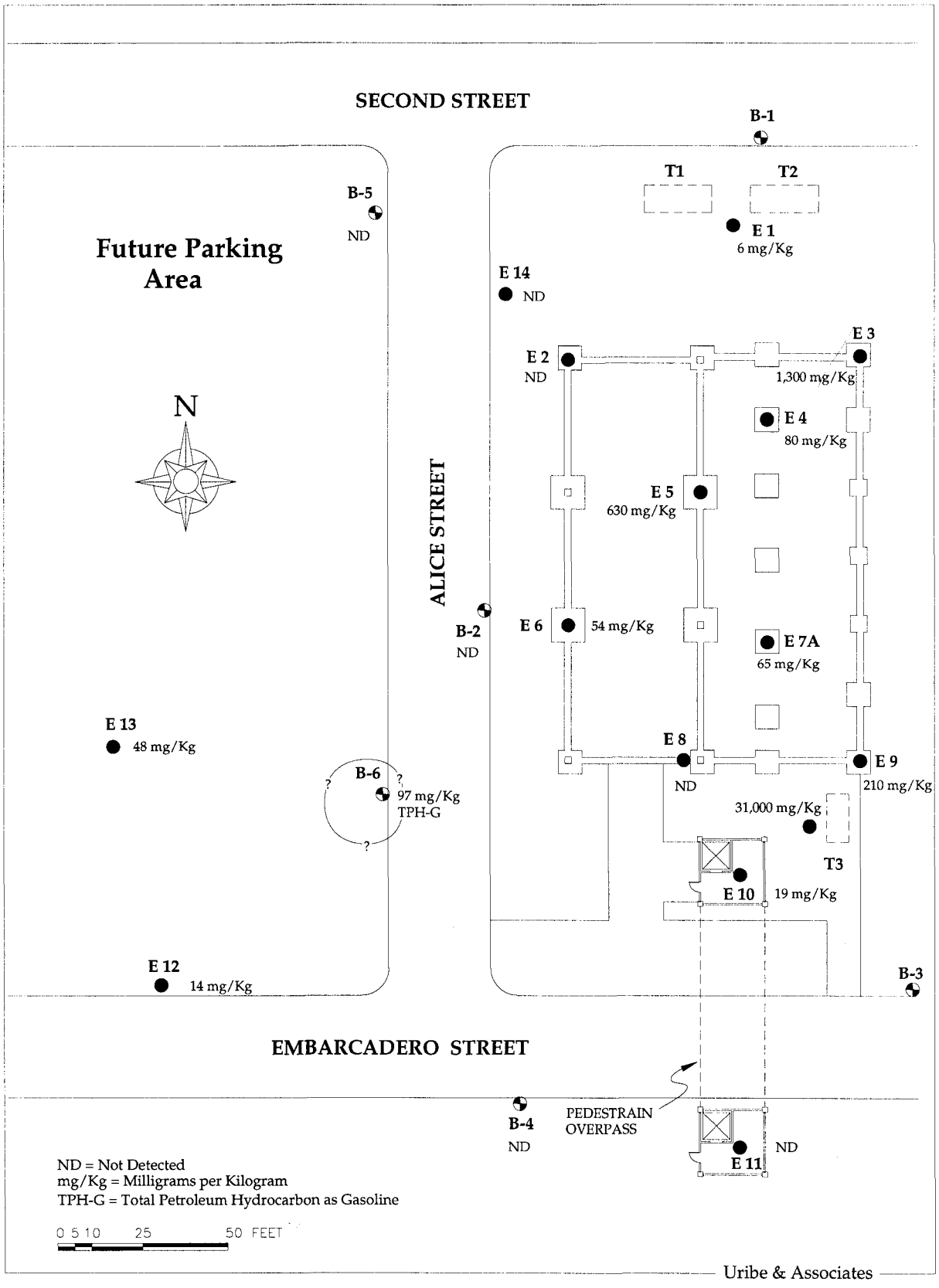


Figure 6: Location of Potentially Hydrocarbon Contaminated Soils

An estimated 770 cubic yards of soil will have to be excavated in the vicinity of tank T-3. This material will have to be stockpiled on-site and sampled to meet the characterization standards of the anticipated disposal facility. Unless laboratory results indicate that T-3 contains waste oil, this material should be acceptable at a Class II facility.

TABLE 4
Estimated Volume of Hydrocarbon Contaminated Soils, Foundations and Footings

Number	Length (ft)	Width (ft)	Depth (ft)	Calculated Volume (cy)	Over Excavation[1]	Estimated Volume (cy)
Footings						
13[2]	7	7	7	165	50%	247
4	10	10	7	104	38%	143
3	4	4	7	12.5	78%	22
1	20	20	7	104	26%	131
Foundations						
3	110	2	2	49	130%	113
2	80	2	2	24	130%	55
Total				***458.5***		***711***

1 Over excavation percentage is based on one-foot excess on all dimensions for concrete forms.
2 Assumes that all footings are contaminated except the 7'x7'x7' footing near boring E-2.

TABLE 5

Estimated Volume of Hydrocarbon Contaminated Soils, Underground Storage Tanks

Tank Number	Length (ft)	Width (ft)	Depth (ft)	Over Excavation[1]	Estimated Volume (cy)
T-1	12	4 (dia)	3.5	See footnote[1]	35
T-2	15?	4? (dia)	7?	See footnote[2]	45
T-3	15	6 (dia)	3	See footnote[2]	770
Former Tank Area	NA	NA	NA	See footnote[3]	185
Total					***1,035***

[1] The estimated volume of impacted soils at tanks T-1 and T-2 assumes a five-foot over excavation of the tank length and width (Tank T-2 is assumed to be 15 feet in length.) In addition, the overburden is estimated to be 3.5 feet for T-1 and 7 feet for T-2.

[2] The estimated volume of impacted soils at Tank T-3 assumes soil will be excavated to a depth of ten feet, 25 feet to the north (to foundation of proposed building), 10 feet to the east (to the edge of the existing building), 20 feet to the west (to the edge of the pedestrian walkway footing); and approximately 30 feet to the south (based on visual observation and PID screening).

[3] The estimated volume of soil for this area is based on sample results from boring B-6 and from field screening. It assumes a 25-foot diameter area will be excavated to a depth of 10 feet to remove the contamination.

	Name	Signature
Site Safety Officer	_____	_____
Project Team Leader	_____	_____
Other Site Personnel	_____	_____
Port of Oakland	_____	_____
Great Sierra	_____	_____

Appendix A

Workplan and Sampling Plan

for Subsurface Investigation at the

New Oakland AMTRAK Station

WORKPLAN and SAMPLING PLAN FOR SUBSURFACE INVESTIGATION at the NEW OAKLAND AMTRAK STATION

Introduction

This workplan, budget, and summary sampling plan has been prepared to perform a subsurface investigation at the proposed Oakland Amtrak train station. The proposed station and associated parking facilities are located at the intersection of Alice and 2nd Street in Oakland, California. Figure 1 presents the general site location.

Background

The project will investigate subsurface areas of the site to determine the potential volume and location of contaminated soils that may be encountered by the building contractor during construction. One underground storage tank (UST) has been located at the site. In addition, as-built drawings indicate a UST was previously located near hydrocarbon impacted soils discovered during demolition activity at the site. A site assessment conducted for the property discovered that a large above ground oil storage tank existed on the property at one time. Finally, hydrocarbon impacted soils were encountered in geophysical borings conducted at the site.

The investigation will concentrate on the following items:

- reviewing the data collected from geophysical borings and site background information,
- assessing the contents of and the volume of potentially contaminated soil associated with the existing UST,
- locating and assessing the contents of and the volume of potentially contaminated soil associated with the suspected UST, and
- assessing the potential for contaminated soils that may be encountered during the excavation for the foundation of the building and pedestrian bridge associated with the building.

Project Goal

The goal of the project is to provide the following information and services to the Port of Oakland's Environmental and Engineering Departments:

- Determine the location, contents, volume, and disposal options of material that may be contained in USTs located at the site,
- Determine the characteristics of the soil that will be excavated for the footings and foundations associated with the new building and pedestrian walkway. An volumetric estimate of the amount of material that may require disposal at a Class I, II, or III facility will be provided.

The site investigation plan has been designed so that no additional soil samples and analyses will need to be performed on the soil excavated for the foundations and footings prior to disposal. Ten of the twenty soil samples collected from the borings at the foundation and footing locations will be analyzed. This corresponds to the Class III disposal requirements of approximately one sample per 100 cubic yards of material excavated. Soil excavated from areas near the USTs at the site may require stockpiling at the site and additional sampling and analysis to properly characterize it for disposal.

Project Approach

In order to meet the project goal, U&A has divided the project into four tasks:

Task 1: Workplan, Sampling Plan, and Health and Safety Plan Preparation

Task 2: Tank Survey and Sampling

Task 3: Soil Sampling

Task 4: Volume Estimation and Report Preparation

First, U&A will review existing data and information in order to prepare the plans required to accomplish the work. These plans will be reviewed and approved by the Port prior to commencement of the field activities. Next, the USTs will be located and the contents sampled. Soil borings will be placed near the UST locations to determine if soils have been impacted as a result of releases from the USTs.

The next phase of the investigation will concentrate on areas where excavation is planned for the footings and foundation of the proposed building and pedestrian

walkway. Finally, U&A will review the laboratory results to determine the disposal options and estimated volumes of contaminated soils that may be encountered during construction. Figure 2 presents the location of the tanks and investigation borings.

Task 1: Workplan, Sampling Plan, and Health and Safety Plan Preparation

This task is to prepare the site workplan, the site sampling plan, and the health and safety plan required to accomplish the scheduled activity. During this phase of the project, U&A will also obtain all required permits. These include the Alameda County Flood Control and Water Conservation District (ACFCWCD) permit and easement permits from the City of Oakland. Underground Services Alert (USA) will provide locations of all utilities in the investigation area.

Task 2: Tank Survey and Sampling

A survey will be conducted to locate two potential USTs at the site. Ground penetrating radar (GPR) and a magnetic survey will be used to locate the tanks and determine the approximate length of the tanks. The tanks will be gauged to determine the diameter of the tanks and the amount of water or hydrocarbon product contained in the tanks. A fluid sample will be collected and analyzed to determine the type of fluid in the tanks and to assist in determining the proper disposal or recycling of the tank contents.

A boring will be placed at the tank located on 2nd Street to assess if adjacent soils have been impacted by the tanks. The boring will be located within 10 feet of the fill-end of the tank and in the assumed downgradient direction. The investigation at the suspected UST located on Alice Street will consist of three borings to determine the probable lateral extent of the impacted soils. Each boring will be continuously cored using a 5-foot split core barrel or 1.5-foot modified split-spoon sampler. In the field, U&A will note any indication of soil contamination, including staining, odor, and readings from field equipment [photoionizing (PID) or flame-ionizing (FID) detectors]. Soil samples will be collected based on visual observation and soil screening (PID or FID). Selected sample intervals will be placed in a clean, 6-inch long by 1.5-inch diameter brass sleeve. The sleeve will be sealed with 1.5-mil Teflon™ liners and end caps. Samples will be labeled with time, date, depth, boring number, and sampler name. The sample tracking will be documented on chain-of-custody forms.

This workplan assumes the total depth of the borings at the UST locations to be approximately 10 feet or groundwater (whichever is less). However, if contamination is evident at total depth of the boring, the boring will continue until no contamination is

observed in order to assess the vertical extent. It is assumed that two soil samples will be collected from each boring; one sample will be selected in the field and analyzed at a certified laboratory using EPA Method 8015 modified (fuel) and EPA Method 8020 (BTEX). Soluble lead analysis will be performed on the soil samples if EPA Method 8015 indicates the presence of gasoline. If site conditions indicate that waste oils or solvents may be present in the USTs, the samples will be analyzed for volatile and semi-volatile organic compounds (EPA Methods 8240 and 8270), metals, and polyaromatic organic compounds (EPA Method 8310).

U&A will prepare, or assist the Port and its contractor in preparing the appropriate permit and notification forms related to the removal of the USTs for submittal to the Alameda County Health Care Services Agency (ACHCSA). These include the following:

- UST Permit Application -- Forms A and B
- UST Unauthorized Release/Contamination Site Report (if required)

In addition, U&A will provide site supervision, sample collection, and closure report preparation for removal of the tank(s). The budget presented in this workplan includes the cost to prepare the permits and unauthorized release forms; the budget does not include the cost associated with the tank removal, sampling, and closure report preparation.

Task 3: Soil Sampling

Soil samples will be collected in the area of the building and the pedestrian walkway foundations and footings. All borings will extend to a depth of 8 feet. This depth will allow for investigation of the planned depth of the footings (7 feet below grade) and the over excavation required for cement forms. However, if contamination is evident at total depth of the boring, the boring will continue until no contamination is observed in order to assess the vertical extent.

One boring will be placed in the center of each pedestrian walkway support foundation. Eight borings will be located in footing and foundation areas as illustrated on Figure 2. Each boring will be continuously cored using a 5-foot split core barrel or 1.5-foot modified split-spoon sampler. In the field, U&A will note any indication of soil contamination, including staining, odor, and readings from field equipment [photoionizing (PID) or flame-ionizing (FID) detectors].

Its assumed that two soil samples will be collected from each boring; one sample will be selected in the field and analyzed at a certified laboratory using EPA Method 8015 modified (fuel) and EPA Method 8020 (BTEX). If site conditions indicate that waste oils or solvents may be present in the USTs, the samples will be analyzed for volatile and semi-volatile organic compounds (EPA Methods 8240 and 8270), metals, and polyaromatic organic compounds (EPA Method 8310). Soil samples will be collected based on visual and soil screening (PID or FID). Selected sample intervals will be placed in a clean 6-inch long by 1.5-inch diameter brass sleeve. The sleeve will be sealed with 1.5-mil Teflon™ liners and end caps. Samples will be labeled with time, date, depth, boring number, and sampler name. The sample tracking will be documented on chain-of-custody forms.

Task 4: Volume Estimation and Report Preparation

Based upon the results and the distribution of contaminants encountered, U&A will estimate the excavated volumes of soil that can be disposed of at a Class III, II, and I facility. The report will provide a detailed summary of the field work conducted (including field notes and boring logs), the results of analytical analyses performed on the soil samples, and the findings and recommendations based on the laboratory results.

Project Schedule

U&A is planning to begin the field work on Tuesday February 23. The GPR and magnetic survey to locate and delineate the tanks and sampling of the tank contents will occur on Tuesday. U&A requests that representatives of the Port Engineering and Environmental Departments, the demolition contractor, and the drilling contractor meet on-site on Tuesday, February 23, at 10:00 am to determine the location of the planned building and pedestrian walkway foundations and footings and to stake the boring locations. In addition, site access issues could be discussed with the demolition contractor to insure that proper site access (i.e., removal of soil piles and debris at planned boring locations) is available and the investigation does not interfere with their operations.

Next, the investigative borings will occur on Thursday, February 25. Laboratory results will be available on Friday, March 12 (assuming a normal turn-around time on the analysis). A final report will be issued on Friday, March 19, 1993. Please note the original planned scheduled delivered a report by March 15, if the Port needs the information prior to March 19, an accelerated turn-around time of one week could be

requested for the laboratory analysis. The option would results in an increase of approximately 50-percent in laboratory analysis cost.

Project Budget

U&A proposes a project budget of $15,660. This budget, presented in the following table, is based upon the number of hours required to complete the tasks described in this workplan, and the associated subcontractor and equipment costs.

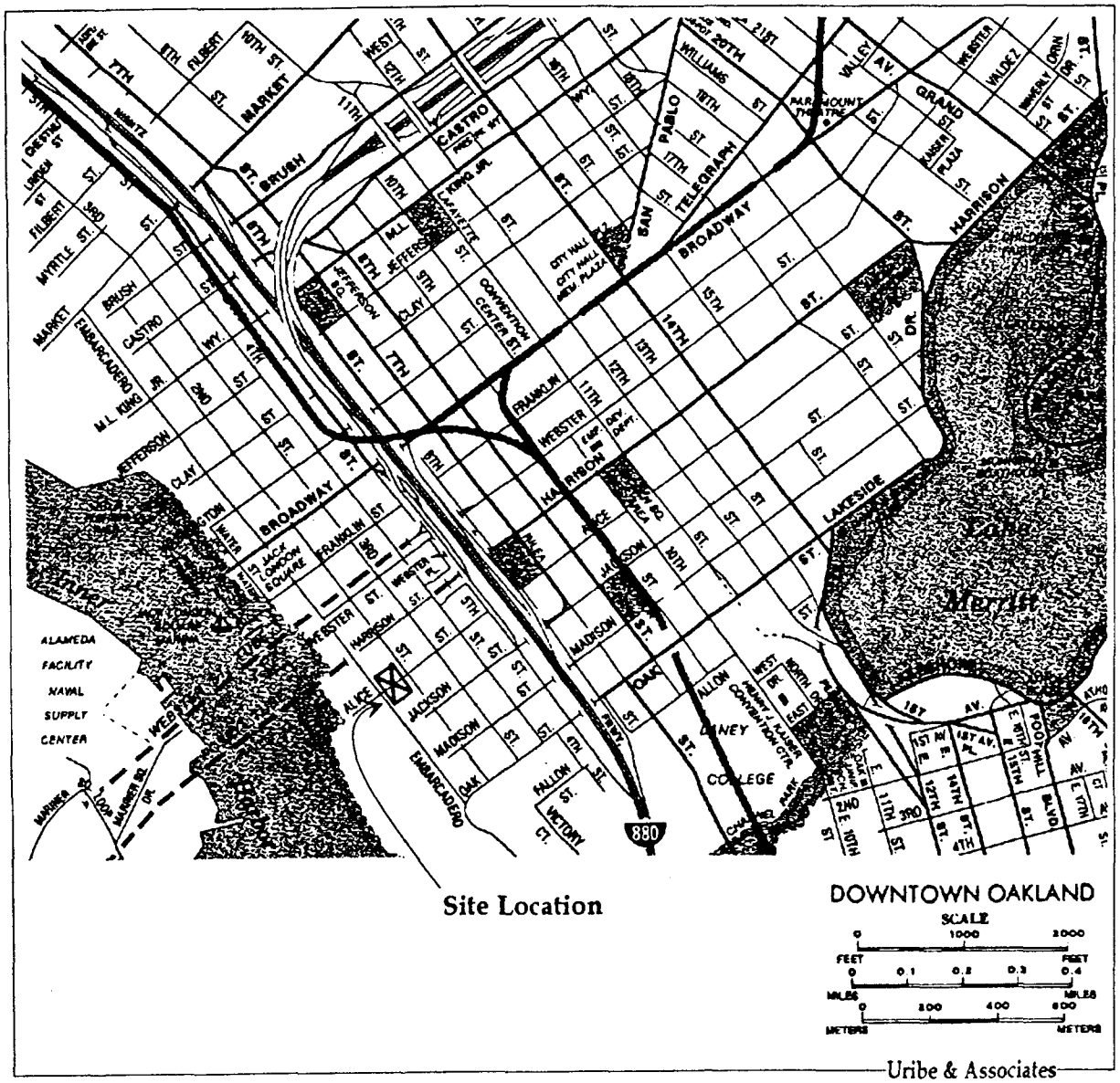


Figure 1: Site Location Map

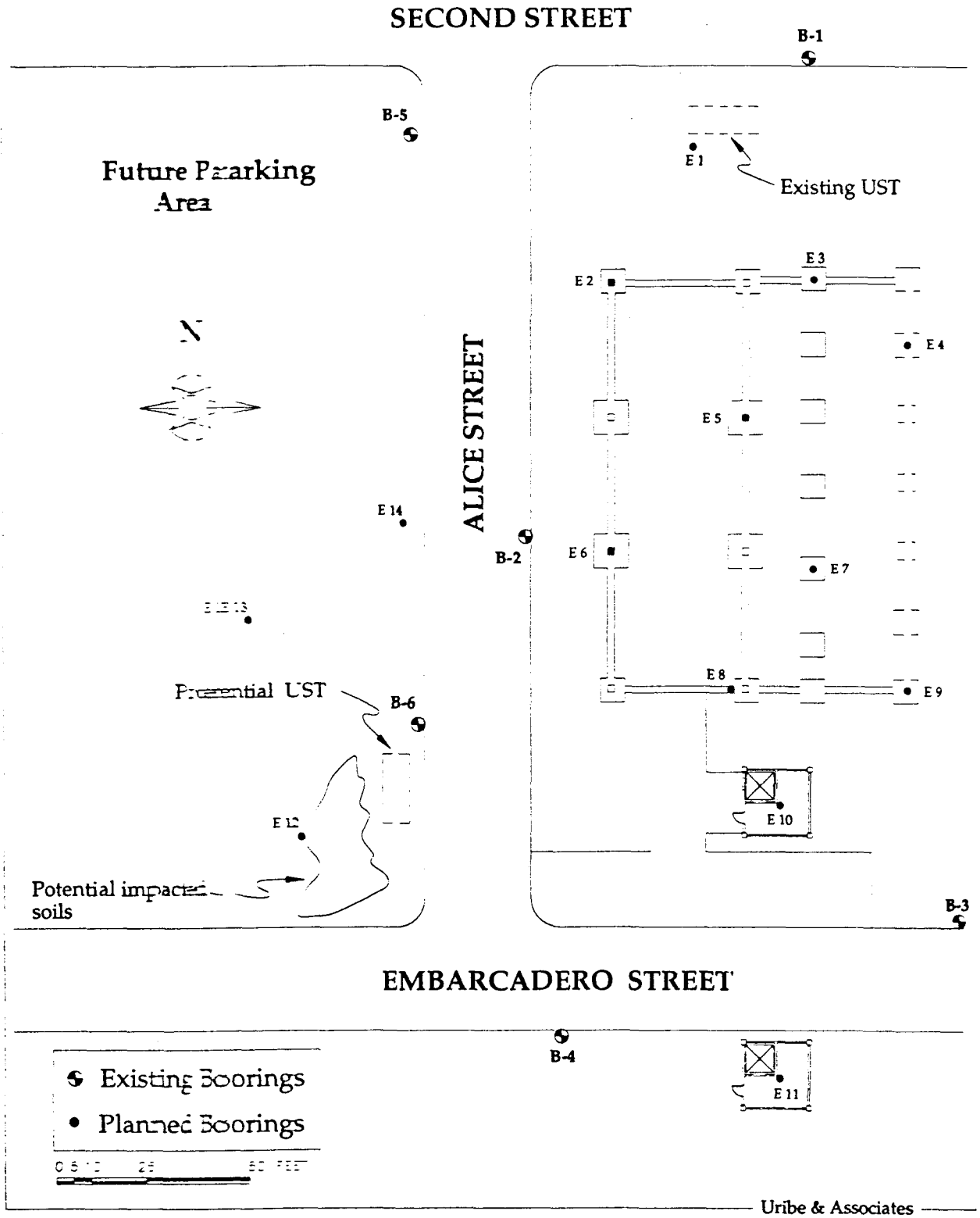


Figure 2: Boring Locations and USTs

SITE SAFETY PLAN FOR SITE INVESTIGATION AT AMTRAK STATION SITE

A. SITE DESCRIPTION

Date: February 25, 1993 Location: New Amtrak Station Site

Hazards: The overall hazard estimation is low. Hazards include: Drill rig, heavy equipment

Area Affected: (see work plan figure 2)

Surrounding Population: Industrial Topography: Generally Flat

Weather Conditions: Cool foggy mornings, typically warming later in the day. Moderate temperatures, generally heat stress is not a concern.

B. ENTER OBJECTIVES - The objectives of the initial entry to the contaminated area is to Investigate site for potential contamination.

C. ONSITE ORGANIZATION AND COORDINATION - The following personnel are designated to carry out the stated job functions on site.

Project Team Leader:	Alan White 832-2233
Site Safety Officer:	Alan White
Field Team Leader:	Alan White
Field Team Members:	Ken Koford
Client Reps:	Dan Schoenholz 272-1220
Contractor(s):	Great Sierra Drilling

D. HAZARD EVALUATION

The following substance(s) are known or suspected to be on site. The primary hazards of each are identified.

Substances Involved	Concentration (If known)	Primary Hazards
Gasoline/Diesel	Unknown	Dermal Contact

The following additional hazards are expected on site: heavy equipment, open excavations, confined space, noise, buried & over head power lines.

E. PERSONAL PROTECTIVE EQUIPMENT

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

Location	Job Function	Level of Protection
Drilling	Sampling	A B C D

Specific protective equipment for each level of protection is as follows:

Level A: Fully-encapsulation suit SCBA (disposable coveralls)
Level B: Splash gear (type) SCBA
Level C: Splash gear (type) Full-face canister respirator
Level D: Hard hat, steel toe boats, gloves (latex), safety glasses
Other: Working Life Vest and Level D Equipment

The Following protective clothing materials are required for the involved substances:

Substance	Material
Gasoline/Diesel	Level D

No changes to the specified levels of protection shall be made with the approval of the Site Safety Officer and the Project Team Leader!

F. ONSITE WORK PLANS

Work party(s) consisting of ___1___ persons will perform the following tasks:

Project Team Leader	Tasks
Alan White - coordinate activities with client and field teams.	
Work Party #1 Ken Koford, Site Geologist - direct borings and sample collection	

G. COMMUNICATION PROCEDURES

Hand gripping throat .....Out of air, can't breathe
Grip partner's writs or
both hands around waist.....Leave area immediately
Hands on top of head.....Need assistance
Thumbs up.....OK, I'm all right, I understand
Thumbs down.....No, negative

Telephone communication to the Command Post should be established as soon as practicable. The phone number is 832-2233.

H. SITE SAFETY AND HEALTH PLAN

1. Alan White is the designated Site Safety Officer and is directly responsible to the Project Team Leader for safety recommendations on site.

2. Emergency Medical Care
none are the qualified EMTs on site. Alan White at 2930 Lakeshore Avenue Oakland, phone 832-2233 is located 10 minutes from this location.
Local ambulance service is available at phone 911.
Their response time is 10 minutes.

First-aid equipment is available is available on site at the following locations:

First-aid kit	Field Team Leader and Field Team Members

Emergency medical information for substances present:

Substance	Exposure Symptoms	First-Aid Instructions
Gasoline/Diesel	Skin Irritation, Nausea, Dizziness	Evacuate to Open Air

List of Emergency phone numbers:

Agency/Facility	Phone #	Contact
Police	911	
Fire	911	

Hospital Highland Hospital, ER 533-3712, 1411 E-31st
Airport Metropolitan Oakland International Airport, Airport Operator 577-4000
Poison Control 415-666-2845

3. Environmental Monitoring

The following environmental monitoring instruments shall be used on site (cross out if not applicable) at the specified intervals.

Combustible Gas Indicator	Continuous, Action Level @ 10% LEL
O_2 Monitor	Continuous, Action Level @ less 20% O_2
HNU/OVA	Continuous, Action Level @ 5 ppm in breathing zone

If an action level is met or exceeded, the site shall be evacuated immediately and no person can return to the site until clearance is approved by the Project Team Leader.

4. Emergency Procedures (should be modified as required for incident)

The following standard emergency procedures will be used by onsite personnel. The Site Safety Officer shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personnel Injury: Upon notification of an injury the designated emergency signal verbal shall be sounded. The Site Safety Officer will call an ambulance. The rescue team will remove the injured person to the hotline. The Site Safely Officer and Project Team Leader should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the Support Zone. The onsite EMT shall initiate the appropriate first aid, and contact should be made for an ambulance and with the designated medical facility (if required).

Personnel Injury in the Support Zone: Upon notification of an injury, the Project Team Leader and Site Safety Officer will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue.

Fire/Explosion: Upon notification of a fire or explosion on site, the designated emergency signal verbal shall be sounded. The fire department shall be alerted and all personnel moved to a safe distance from the involved area.

Personal Protective Equipment Failure: If any site worker experiences a failure or alternation of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the site. Re-enter shall not be permitted until the equipment has been repaired or replaced.

Other Equipment Failure: If any other equipment on site fails to operate properly, the Project Team Leader and Site Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan Tasks, all personnel shall leave the site until the situation is evaluated and appropriate actions taken.

In all situations, when an onsite emergency results in evacuation, personnel shall not re-enter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Site personnel have been briefed on any changes in the Site Safety Plan.
5. The Project Team Leader has approved reentry.

5. Personal Monitoring

The following personal monitoring will be in effect on site: Personal exposure sampling: Medical monitoring: The expected air temperature will be 68. If it is determined that heat stress monitoring is required (mandatory if over 70 degrees F) the following procedures shall be followed:

All site personnel have read the above plan and are familiar with its provisions.

Appendix B

Geophysical Investigation at the AMTRAK Site

Alice and 2nd Streets

March 1, 1993

by JR Associates

J R ASSOCIATES

Engineering Geophysics
1886 Emory Street
San Jose, CA 95126
(408) 293-7390

GEOPHYSICAL INVESTIGATION AT THE AMTRAK SITE ALICE AND 2ND STREETS OAKLAND, CALIFORNIA

March 1, 1993

For

Uribe and Associates
2930 Lakeshore Avenue, Suite 200
Oakland, California 94610

by

James Rezowalli, GP-921

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

I INTRODUCTION

This report presents the results of a geophysical investigation performed by J R Associates for Uribe and Associates. J R Associates performed the investigation at the new Amtrak site in Oakland, California. The investigation's purpose was to look for geophysical indications of buried tanks at the site. James Rezowalli, Principal Geophysicist, and Tom Barry, Technician, of J R Associates performed the field investigation on February 23, 1993.

A. Site

The Amtrak site is on Alice Street between Embarcadero and 2nd Street in Oakland, California (Drawing 1). Uribe and Associates had an old site plan indicating that tanks might be buried at the site. The old plan showed two areas where tanks might be buried. The first area was along the sidewalk on the west side of Alice Street (Drawing 2). The plan showed a buried tank near the manhole and railroad crossing guard. There were no signs of a tank visible from the ground surface.

The second area was along the sidewalk on the south side of Second Street. The plan showed a tank buried beneath the sidewalk approximately 85 feet from the corner of Second and Alice Streets. There appeared to be three tank fill spouts in the sidewalk in this area (Drawing 2).

There was no information available to determine if either of the two tanks shown on the old site plan were still buried at the site. The purpose of our investigation was to help to determine if the tanks were still buried in the ground. Also we looked for indications of additional tanks in the vicinity of the tanks shown on the old site plan.

II METHODS

Several geophysical techniques can detect buried metal objects such as fuel storage tanks. A ground penetrating radar was used for this study because of its ability to detect buried objects in the presence of surface metal. The radar transmits a radar pulse into the ground. The pulse can be reflected back to the surface by buried objects such as utilities or tanks. We call the reflected pulse a radar anomaly.

A. Radar Instrumentation

We used a SIR 3 ground penetrating radar system to collect radar data at the site. The SIR 3 has a radar control unit, a graphic profiler, and a 500 MHz antenna. The antenna transmits a radio frequency electromagnetic pulse into the ground. The pulse travels through the ground at approximately 2½ nanoseconds per foot. Buried objects, such as tanks, reflect the pulse back to the ground surface. The radar detects the returning reflections and plots them on the graphic profiler.

B. Radar Field Procedures

Radar data were collected along scan lines spaced approximately 2½ feet apart. Radar collection began by marking the beginning and the end of a scan line. A tape measure was then laid on the ground between the beginning and end marks. The antenna, connected to the control unit by a cable, was dragged along the line while collecting a radar profile next to the tape measure. Vertical dashed lines were marked on the radar records every time the radar antenna traveled 5 feet. The dashed lines were marked on the radar records by pressing a momentary switch connected to the antenna. After a traverse was completed, the tape measure was moved to the next scan line and the above

process was repeated. Drawing 3 shows the areas where we collected the radar data.

III RESULTS

A. Tank Locations

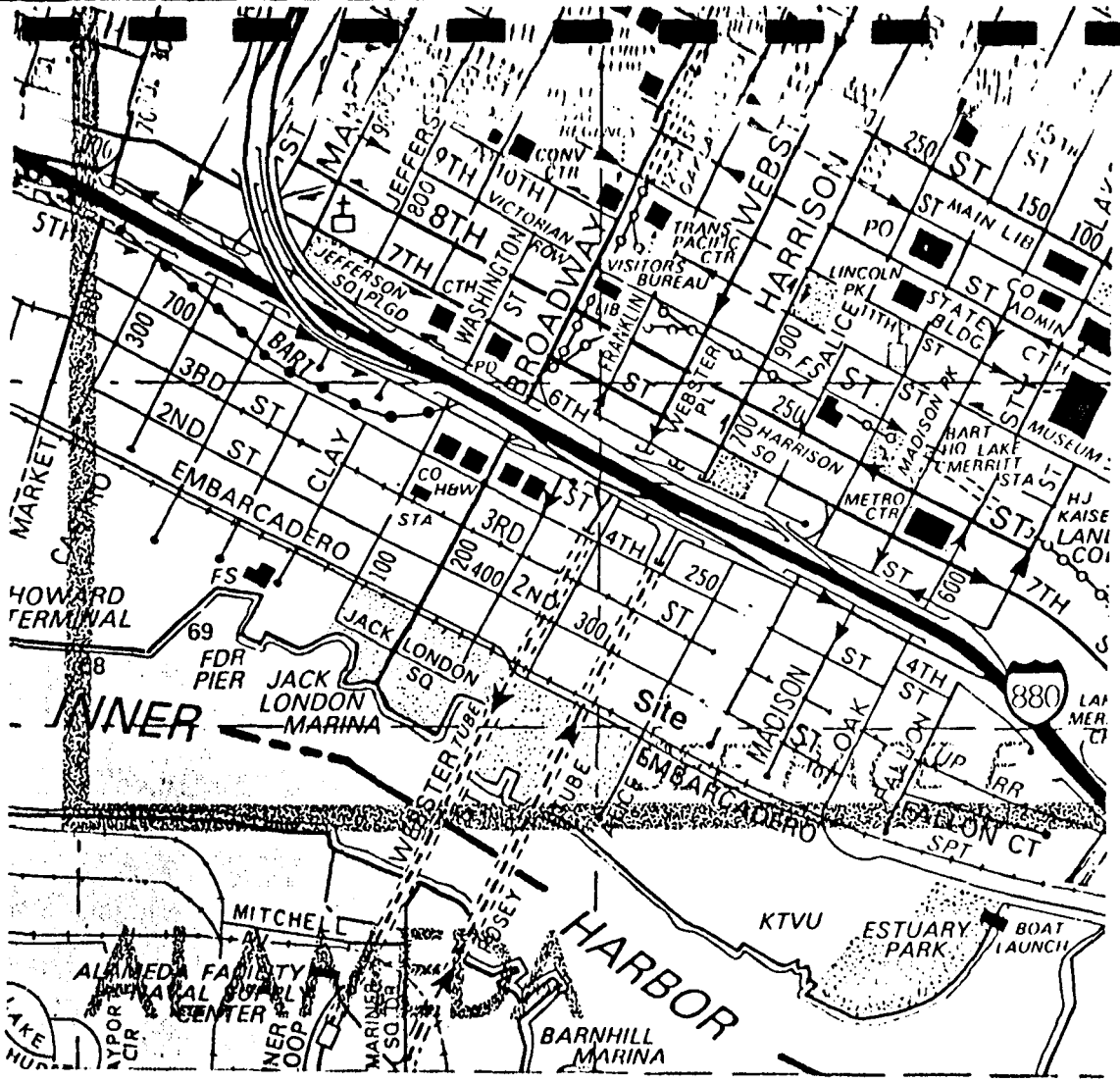
There were no geophysical indications of a tank buried beneath the sidewalk on the west side of Alice Street. There were indications of two tanks buried beneath the sidewalk on the south side of 2nd Street. Drawing 4 illustrates a radar profile collected over one tank. The profile shows a buried tank and pipeline. The tank is approximately 12 feet long and buried approximately 3½ feet beneath the sidewalk. There was a fill pipe at either end of the tank accounting for two of the three fill pipes in the area. Drawing 4 shows the location and orientation of this tank.

We found the second tank by opening up the third fill pipe. The bottom of the tank was approximately 11 feet beneath the sidewalk and the tank appeared to be at least 3½ feet in diameter. We could not determine the length or orientation of the tank because the tank was buried too deep to be detected by the radar.

B. Limitations

The radar's usefulness is limited by its depth of penetration. The depth of penetration can vary from a few inches to several feet. If a clear reflection is created by a buried object, the reflection can be used to help determine the size and depth of the object. If we see no reflections in an area, the results may be inconclusive. There could be no reflections because there are no buried objects or because the objects were buried deeper than the radar could penetrate. The depth of penetration at the Amtrak site appeared to be approximately 4 feet.

IV DRAWINGS



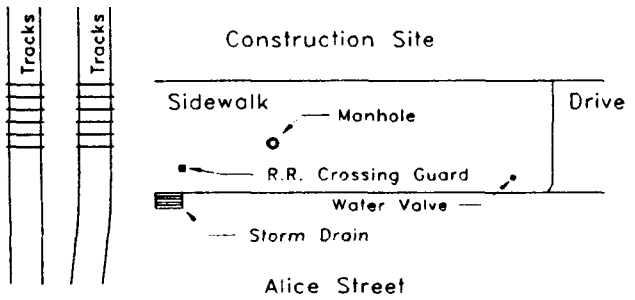
Vicinity Map- Amtrak Site
Uribe and Associates
Oakland, California

SCALE: No Scale		DRAWN BY J.J.R
DATE: 3-1-1993	Job Number: 069105-93	REVISED

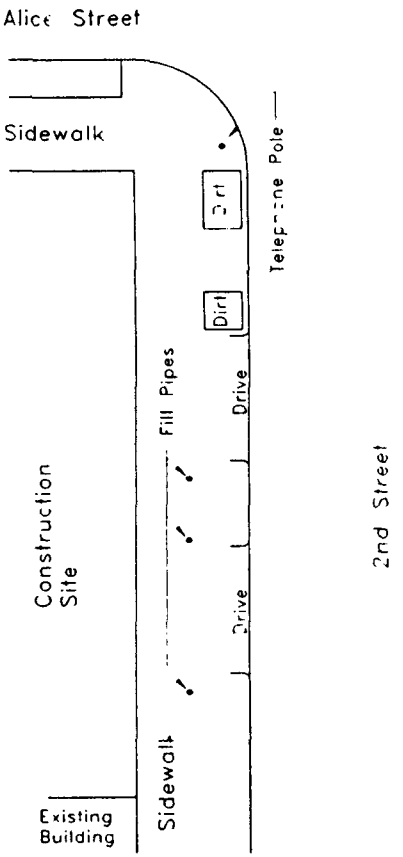
J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 294-7800
1886 Emory Street, San Jose, CA 95126 (408) 294-7800

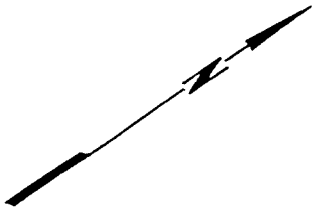
DRAWING NUMBER
1

Alice Street Area



2nd Street Area





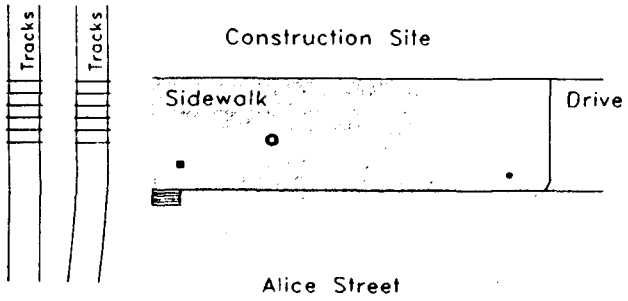
Site Map- Amtrak Site
Uribe and Associates
Oakland, California

SCALE 1" = 20'		DRAWN BY JJR
DATE 3-1-1993	Job Number: 069105-93	REVISED

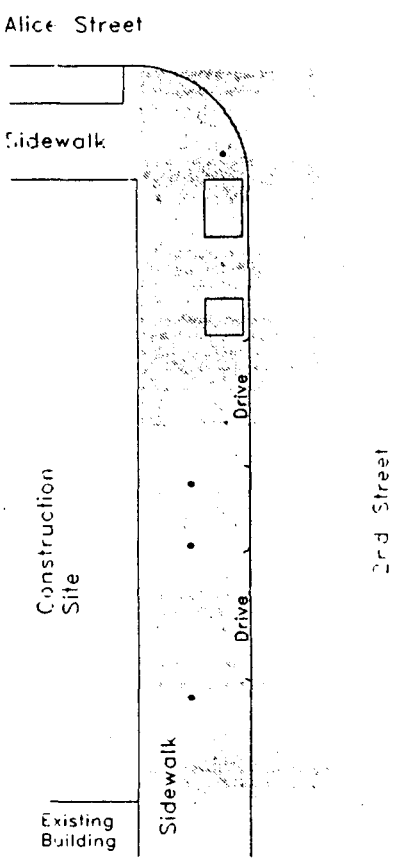
J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose CA 95126 (408) 293-7390

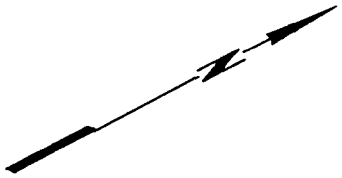
DRAWING NUMBER 2

Alice Street Area



2nd Street Area





EXPLANATION:

Area Investigated

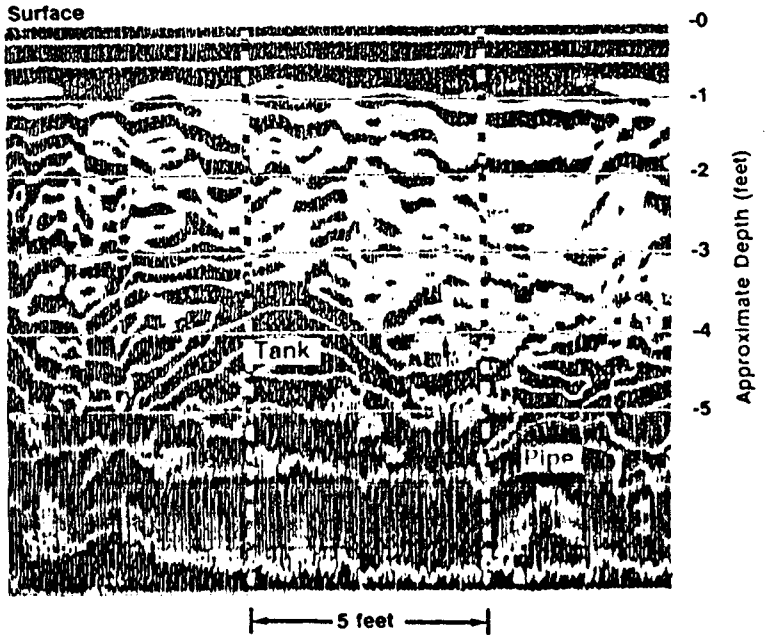
Areas Investigated- Amtrak Site
Uribe and Associates
Oakland, California

SCALE 1" = 20'		DRAWN BY J.J.R
DATE 3-1-1993	Job Number 069105.93	REVISED

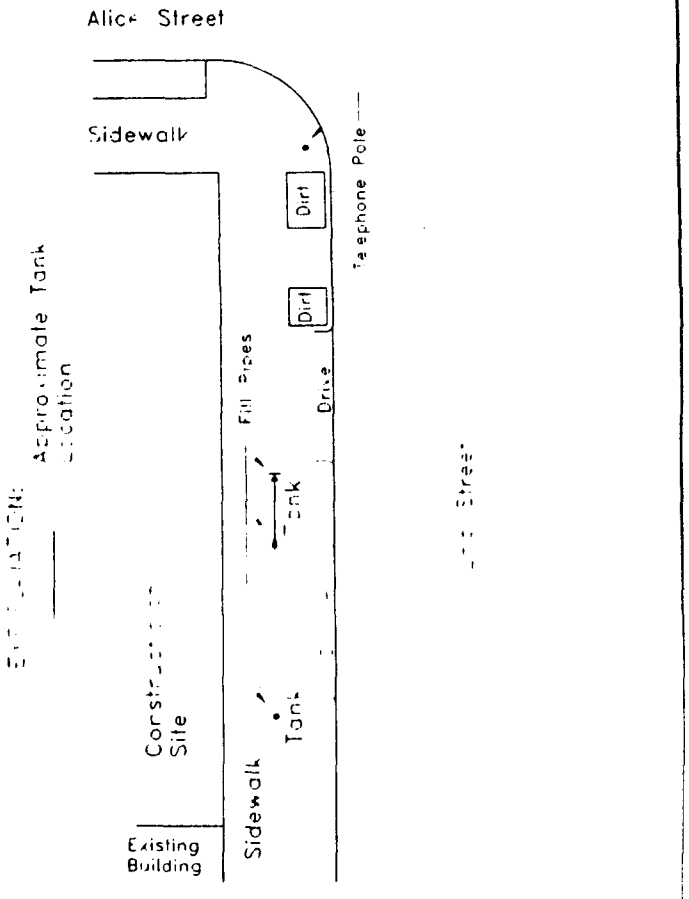
J R ASSOCIATES Engineering Geophysics
1888 Emory Street, San Jose, CA 95126 (408) 293-7390

DRAWING NUMBER 3

Example Radar Anomaly



2nd Street Area



Tank Locations- Amtrak Site
Uribe and Associates
Oakland, California

SCALE 1" = 20		DRAWN BY J J R
DATE 3-1-1993	Job Number 069105-93	REVISED

J R ASSOCIATES Engineering Geophysics
1886 Emory Street, San Jose, CA 95126 (408) 293-7300

DRAWING NUMBER 4

Appendix C

Letter from the Port of Oakland to

Alameda County Health Services Agency

February 10, 1993

PORT OF OAKLAND

February 10, 1993

Jennifer Eberle
Alameda County Health Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Dear Ms. Eberle:

SUBJECT: DISCOVERY OF POTENTIALLY-CONTAMINATED SOILS AT SITE OF FUTURE OAKLAND AMTRAK STATION (Port Env. # 91-071)

The purpose of this letter is to inform you of our discovery of soils potentially contaminated with petroleum hydrocarbons at the former location of Port Building F-228 (255 2nd St., Oakland).

The Port recently let a contract for demolition of three buildings at the site of the future Oakland Amtrak Station. During demolition activities at 255 2nd St. on February 9, 1993, an area of soil was uncovered which exhibited strong petroleum hydrocarbon odors. Construction personnel are no longer working in the immediate area. The Port will require that any further work in the area where petroleum hydrocarbon odors were noted be performed by hazardous waste trained personnel, and that they work under an approved health and safety plan and use appropriate personal protective equipment.

The Port will conduct an investigation to determine the extent of contamination and to try to determine the source. We intend for the site investigation to be completed by March 15, 1993. We will provide you with a copy of the final investigation report.

If you have any questions, please contact me at (510) 272-1220.

Sincerely,

Dan Schoenholz

Dan Schoenholz
Associate Port Environmental Scientist

cc: Rich Hiett, RWQCB

530 Water Street ■ Jack London's Waterfront ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ Cable address, PORTOFOAK, Oakland

Appendix D

Boring Logs,

Field Notes, and

Alameda County Flood Control District

Boring Permit

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

CATION OF PROJECT Intersections of Alice Street and 2nd Street in Oakland, CA

PERMIT NUMBER

LOCATION NUMBER

CLIENT

Name Port Of Oakland-- Dan Schoenholz

ress 530 Water Street Voice 272-1220

Oakland Zip 94607

PLICANT

me Uribe & Associates -- Alan White

Fax 832-2237

ddress 2930 Lakeshore Voice 832-2233

Oakland Zip 94610

YPE OF PROJECT

Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring		Well Destruction	

ROPOSED WATER SUPPLY WELL USE

Domestic ___ Industrial ___ Other ___

Municipal ___ Irrigation ___

DRILLING METHOD:

d Rotary ___ Air Rotary ___ Auger X

ble ___ Other ___

ILLER'S LICENSE NO. C57-610487

WELL PROJECTS

Drill Hole Diameter	in.	Maximum	
Casing Diameter	in.	Depth	ft.
Surface Seal Depth	ft.	Number	

OTECHNICAL PROJECTS

Number of Borings	14	Maximum	
Hole Diameter	8 in.	Depth	10 ft.

TIMATED STARTING DATE February 25, 1993

ESTIMATED COMPLETION DATE February 26, 1993

ereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

PPLICANT'S GNATURE Alan White Date 2/23/93

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved ___ Date ___

91992

IBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: E-1
PROJECT:		LOCATION:
DRILLING CO:		HOLE DIAMETER: / ELEVATION:
DRILLING METHOD:		DATE:
SAMPLING METHOD:		RECORDED BY:
		REGISTERED GEOLOGIST:

DEPTH (feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	FILL LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
	1 50#			0-~~4"~~ Concrete		
1				4"- 1.2 Sand dk brn, loose FILL		
				1.2 - 2.0 Concrete		
2				0-8.0 Fill 4" concrete cap + conc		
				rubble + ~~...~~ 2.0		
3				2.0 - 7.0 FILL Sand, dk br. loose		
		N		trace concrete, fragments		
4				glass 6.2' fine grained, non cohesive		
	2					
5						
			WT	(Driller's estimate)		
6				Fill sand as above dk brn, compact	Hold	
				non cohesive moist (wet at 5.5)	E-1-6.5-7.0	12:25
7				no brick, few frags concrete, no odor		
				~~no odor~~	E-1-7.5-8.0	1:00
8				7.0-8.0. Fill Sand, black, organic	Analize	
				odor prob not petrol. compact wet		
9				8.0-12 MERRITT FM? Sand yellow		
	100			brown some silty streaks no		
10				definite bedding, loose, wet		
11						
12						
				TD 12.0' Completed 1 PM		
13				Rig broke shaft on core retriever		
				and stopped for day		
14						
15						
16						
17						
18						
19						
20						

...IENT: Port of Oakland	JOB NO:	BOREHOLE NUMBER: E2	
...JECT: Amtrack Sta		LOCATION: NE corner nearest 2nd & Alice	
...LLING CO: Great Sierra Expl		HOLE DIAMETER:	ELEVATION:
...LLING METHOD: Coutin core/Auger		DATE: 2/26/93	
...PLING METHOD: fill 6" sleeve		RECORDED BY: Ken Koford	
		REGISTERED GEOLOGIST: Ken Koford	

DEPTH (feet)	BLOWS / 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
			Dry	0-5.5 FILL Gravel Broken concrete brick & broken rock, dry loose		
2		30%				
4			W	Driller estimate (barrel wet)		
6	E2-1	0%		some brick frag.	Hold E2-1-5.5	8:05
	E2-2-1			6.5 - Bay Mud ? Black wet sandy silty clay no odor	E2-2-6.5 T test	8:12
8		100		Bay Mud ? Yellow brown, wet soft slightly plastic sharp contact w/ fill		
10				TD 10'		
12						
14						
16						
18						
20						

RIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES — BOREHOLE LOG FORM

CLIENT: Port of Oakland	JOB NO:	BOREHOLE NUMBER: E-3	
PROJECT: Amtrack Sta		LOCATION: 2nd + Alice SE corner near Bldg	
DRILLING CO: Great Sierra Exp/		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD: Auger w/ continuous core		DATE: 2/26/93	
SAMPLING METHOD: steel 6" sleeve		RECORDED BY: KK	
		REGISTERED GEOLOGIST: Ken Koford	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
1				0-4" Concrete		
				4"- FILL yellow brown compacted		
2	7 8 6		sl moist	fine sand, friable clean no odor slightly moist.		
3						
4	8 9 8					
5			dry		Hold	
6				6.5-7.0 black wet, sand, fine nail in core ~~loose~~ loose soft	E3-1-6	918
7	E3-2			7.0-10.0 Sand Merrit Fn? wet soft loose yellow brown	E3-2-7	920
8						
9		40				
10						
				TD 10.0		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

E & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

ENT: Port of Oakland	JOB NO:	BOREHOLE NUMBER: E4	
ECT: Amtrack Sta.		LOCATION: SE pad near rubble pile	
LLING CO: Great Sierra Expl		HOLE DIAMETER:	ELEVATION:
ILLING METHOD: Auger, Continuous core		DATE: 2/26/97	
PLING METHOD: Stuff 6" ~~to~~ tube		RECORDED BY: KK	
		REGISTERED GEOLOGIST: Ken Koford	

DEPTH (ft)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
			dry	Fill Concrete rubble brown dry at top moist at 1' compacted, sandy matrix		
1		100%	moist			
2						
3						
4						
5	100		▽		Hold	
				brick fragments to 6' grad. contact	E4-1-5.5	1020
				Merritt Fm? Sand, yellow brown soft wet darker brown stringers or layers w 20° dip, gray & brown at base compact wet	E4-2-6.0	1025
7						
8						
	100%					
10				TD 10'		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: E5	
PROJECT:		LOCATION:	
DRILLING CO:		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD:		DATE:	
SAMPLING METHOD:		RECORDED BY:	
		REGISTERED GEOLOGIST:	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
1		X 75%		Sand 0-6 FILL, Brown upper foot dry disturbed w/ concrete, minor concrete + trace wood to 5' no petr odor		
2						
3						
4		100%				
5			Est ▽			
6						
7				6-10 Merrit Fm? yellow brown sd fn, soft, wet, no odor	Hold E5-1-7.5	1104
8		X			E5-2-8.0	1106
9		90%		Merrit Fm? gray & brn banded 20-30° dip of gray & brown layering compact wet soft no petr odor		
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES — BOREHOLE LOG FORM

CLIENT: Port of Oakland	JOB NO:	BOREHOLE NUMBER: E6	
PROJECT: Outlook Station		LOCATION: 2nd Ave	
DRILLING CO: Great Sierra Expl		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD: Auger w/continuous core		DATE: 2/26/93	
SAMPLING METHOD: 6" brass sleeves		RECORDED BY: KHK	
		REGISTERED GEOLOGIST: Ken Koford	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
1		80%		0-4' FILL Gravelly sand (brick concrete rock <1" ø) brn, s/y compact, moist to 2'	PID 0	
2				2-4 blackish/ brick		
3						
4						
5		70%	Est 8	4-8 Merritt? sand, Black w/some light gray w/greenish cast, moist compact	Held E6-1-5.0	4 PM
6				PID 68		
7						
8				gradational contact PID 116	E6-2	4 08
9		100%		8-11 Sand - Merritt? green no bedding plane, uniform, wet soft		
10				PID 0		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

E & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

ENT: Port of Oakland	JOB NO:
ECT: Amtrack Station	BOREHOLE NUMBER: E7
ILLING CO: Great Sierra Exp	LOCATION: 2nd + Alice Oakland West Ct.
ILLING METHOD: Auger w/ continuous core	HOLE DIAMETER: / ELEVATION:
PLING METHOD: 6" brass sleeves	DATE: 2/26
	RECORDED BY: KK
	REGISTERED GEOLOGIST: Ken Koford

PTH (feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
		X		0– FILL Brown + minor green Sd + Rock		
1			moist	with concrete rubble + some tile		
		75%		loose in upper 2 ft.		
2						
				NO recovery – found wood in bit so		
3				moved 5' East for Hole E7A		
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: E7A	
PROJECT:		LOCATION: 5' East of E7 (redrill)	
DRILLING CO:		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD:		DATE: 2/26/93	
SAMPLING METHOD:		RECORDED BY: KHK	
		REGISTERED GEOLOGIST: Ken Koford	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
1				0-4 FILL - Gravel, sandy, broken concrete dk brn		
2		90%				
3						
4						
5		100%			✓ Hold	
		1X		Black bottom foot, organic PID 320	E7A-1-05	140
6		X		Merrit Fm ? Dark brown Sd soft wet PID 30	E7A-2-06	142
7	30					
8						
9		100%				
10	P100					
				TD 10.0		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES — BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: E9	
PROJECT:		LOCATION: Near 5 well West end	
DRILLING CO:		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD:		DATE: 2/26/93	
SAMPLING METHOD:		RECORDED BY:	
		REGISTERED GEOLOGIST: Ken Katoroff	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
				Gravel (Sd+rock+concr.)		
1		100	Sl. Moist	0-4 FILL/Brown to dark brown Sl. moist, compact, no odor PID 0		
					PID 0	2:15
2						
3						
4						
5		60%	Est	4.0-7'0(T.D.) Merrit Fm? Black fine sand Soft wet non cohesive / Hold		
					PID 0	E9-1-5.5 2 25
6						
					PID 68	E9-2-6.5 230
7						
8				lost core-hole full of water.		
9				Tried 10'-12', NO rec.		
10				measured water as 5.0'		
11				TO 12'		
12						
13						
14						
15						
16						
17						
18						
19						
20						

E & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES — BOREHOLE LOG FORM

NT:	JOB NO:	BOREHOLE NUMBER: E-12	
ECT:		LOCATION: ~2' inside rail West side, N of tank 5	
LING CO:		HOLE DIAMETER:	ELEVATION:
ILLING METHOD:		DATE:	
PLING METHOD:		RECORDED BY:	
		REGISTERED GEOLOGIST:	

DEPTH	BLOWS 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS REMARKS	SAMPLE I.D. #	SAMPLE TIME
				0-5.0 Fill Gravelly ang. up to 2" brick,		
1			moist	frags. asphalt cover remnant, disturbed	Hold	
2	5-	1		loam to 1' brown, stained,	1.5-2.0	10:50
3						
4				4.5' asphalt fragment		
5				less gravel below 5 compact st		
				5.0-6.5 Sand fallow, compact moist		
				6.0 brick fragments		
				6.5 greenish cast, sd		
7	5-2			6.5-9.5 black sand, odor (organics?)		
8				moist Bay Mud - Clayey sand	6.5-7.0 analyze	11:20
				no petrol odor		
9						
10				9.5-10.0 Sand silty, non cohesive,		
				greenish gray, no odor		
11						
12				TD 12' (in OK gray silty sand)		
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: E13	
PROJECT:		LOCATION:	
DRILLING CO:		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD:		DATE:	
SAMPLING METHOD:		RECORDED BY:	
		REGISTERED GEOLOGIST:	

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
1	1			0-1 FILL Gravel, angular rock frags upto 2" w/sand matrix, moist, sl compact		
2				1-4 FILL Sandy, med. brown, compact med-crs,		
3						
4				4.0-		
5				4.0-4.5 Sand yellow brown, wet, compact 4.5-~~10.0~~ 5.0 Sand black layer, petr odor, wet, compact, non-cohesive	4.5-5.0 ↑ hold	9:25
6						
7	2			5.0-10.0 - Sand gray - wet, compact no odor, non cohesive,		
8						
9	3					
10				9.5-10.0 as above but greenish cast		
11				TD 10.0 ft ↑ odor but probably not petr	9.5-10.0 ↑ duplicate	9:50
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT: Port of Oakland	JOB NO:
PROJECT: Ar-track Sta	BOREHOLE NUMBER: E 14
DRILLING CO: Great Amer Expl.	LOCATION: NE corner of S parcel
DRILLING METHOD: Auger continuous core	HOLE DIAMETER: / ELEVATION:
SAMPLING METHOD: 6" brass sleeve	DATE: 2/26/93
	RECORDED BY:
	REGISTERED GEOLOGIST: Ken Kaford

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
				0-3 FILL		
1		75%	Sl. Moist			
				PID 0		
2		1				
				(same as others but all may be 0-1)		
3				0-1? instead of Moist	Hold	
				~~Moist~~ 3-10 Sand Black 3'-4.5 PID 88	E14-1-3.5	4:19
4		80%		Yellow brown below 5.0 ft wet		
5						
6			∇			
				PID 63	E14-2-6.5	4:25
7		2				
8						
				8.5-9.5 iron staining + cemented		
9		100%		layer - harder, compact dk brown moist		
10						
				TD 10.0 PID 0		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

IBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

LIENT:	JOB NO:	BOREHOLE NUMBER: ~~B4~~ B14	
OJECT: Am Track Sta		LOCATION: Parking lot for Amtrack Sta	
ILLING CO:		HOLE DIAMETER:	ELEVATION:
DRILLING METHOD:		DATE: 3/3/93	
MPLING METHOD:		RECORDED BY:	
		REGISTERED GEOLOGIST: Ken Katenz	

DEPTH (eet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
				Asphalt at Surface		
1				0- SAND FILL YELLOW BRN		
				COMPACTED CLEAN MOIST		
2	8					
	9			MERE - [illegible]		
3	11			~~BC~~ SAND DARK BROWN, MOIST		
	4			CLE[illegible]	Save	
4	4					
	4				~~AMB4-1-4.5~~	1102
5	2				AMB14	
	5					
6	11					
	2					
7	4					
	4				TEST	
8	6			Sand as above w/brown vertical	B14	
	1			sand streak odor(sour) no PID	AMB4-2-8.5	1110
9	1				AMB4 3-9.0	1113
				TD 9'		
10					Save	
11				B14		
12						
13						
14						
15						
16						
17						
18						
19						
20						

URIBE & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

CLIENT:	JOB NO:	BOREHOLE NUMBER: AMB-10
PROJECT:		LOCATION:
DRILLING CO:		HOLE DIAMETER: / ELEVATION:
DRILLING METHOD:		DATE:
SAMPLING METHOD:		RECORDED BY:
		REGISTERED GEOLOGIST: Ken Kaheri

DEPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
			Moist	0-7 FILL loose Asphalt Surface		
1				wet at 2' Black clayey sand,		
2			▽			
			wet			
3						
4		1				
5						
		2				
6						
7		3		~~~~~~~~~~		
				7-9.0 OLDER DUMPED FILL? somewhat		
8				harder but pushed, Dark brown, wet		
		4 [1]			AMB10-1-8.5	1130
9		[2]			AMB10-2-9	1132
				TD 9.0	8"0'0'	
10						
11				note recent excavation last		
				week went at least 3' someplaces		
12				50- 50 more so all or most may		
				be fill from across the street		
13						
14						
15						
16						
17						
18						
19						
20						

E & ASSOCIATES - ENVIRONMENTAL CONSULTING SERVICES

BOREHOLE LOG FORM

ENT:	JOB NO:	BOREHOLE NUMBER: AMB-8
JECT:		LOCATION:
LING CO:		HOLE DIAMETER: / ELEVATION:
RILLING METHOD:		DATE:
PLING METHOD:		RECORDED BY: Koukatert
		REGISTERED GEOLOGIST:

EPTH (Feet)	BLOWS/ 6 INCH	CORE RECOV.	MOISTURE CONTENT	LITHOLOGIC DESCRIPTIONS / REMARKS	SAMPLE I.D. #	SAMPLE TIME
				0-4'? Dumped fill, loose, moist at		
1			Moist	surface wet at Dark brown		
				mor freeof rubble (clean)		
				Augered to 3' PID=0		
				no odor		
3						
4		1	∇	4.0-10.5		
				Brick fragment in bit no rec		
			WET	May be older fill below 4'		
		2		no odor		
7		3		only more brick fragments no rec.		
				cuttings are wet sand fill as above		
				PID=0 no odor		
		3				
				MERRIT SA FM		
	7			9.0-10.5 ~~OLDER FILL (PRIOR TO PRESENT~~	AMB-1-9.5	12:[illegible]
10	9	4		COMPACT CLEAN FILL SAND, MED [illegible])	AMB-1-10.0	12:12
	12			BROWN, NO ODOR NO PID		
	[illegible]			TD 10.5		
13						
16						
19						

Client: Port of Oakland Job No. ______ Sheet 1 of ______
Subject: Drilling K Kofod By ______ Date 3/3/93
Ckd. ______ Rev. ______

1 K Kofod arrived at 7^{30} (to start at 5) Ivat Secino arrived at 8^{15} Driller Tom Schmidt Helper Jim Burlon U+A Eng water sampler John Oppenhiemer!

8:30 Ed Kildorf & Tom arrived checked job & left

8 25 Started drilling B21 completed 910 & decond equip

92 Completed washing equip and left site for 2nd Ave & Alice Antracks Project.

3/3 K Kofod arrived at Antracks site at 10 AM. We had to wait for the big backhoe to get out of the way & then set up on B at 11^{00} Continuous sampling to 8' w/ 2 samples (zone 1) Top 3 feet or more is just dumped fill so we augered to 3' and continuously split spoon sampled to 8' Andy got truck moved from parking lot spot

1:30 John went back to office day hot & sunny (rained last night)

Completed B 8 at 12:30 and moved to parking area after decon

MAIN

Client ______ Job No. ______ Sheet ___ of ___

Subject ______ By ______ Date ______

Ckd. ______ Rev. ______

Notes On Track Station

0700 arrived office met Alan White

0800 at site with Alan & Sequoia Expl. arrived located 2 + poss 3 holes on North site (parking lot) surface 1-2 ft gravelly fill over sand. Dal met for & , discussed job had safety + work plan meeting

0902 Started E-13 in from driveway + just off asphalt Drilled to 10'

10:25 Drilling 2nd hole E-12 west end near track augered surf core band 0-2 sample in organ smelling od 1.5-2.0

10 50 ~~aug 2-7~~ Continuous core 0-2, 2-7, 7-12 TD

no contamination, Alan returned w/ help to survey location

11 30 moved, steam cleaned + set up on E1 ~~4~~ inside fence near two tanks

1200 started E-1 ~~+ ran~~ drilling thru concrete at surface and ran into more concrete to a couple feet down Hand dug to find out what it was - fragment concrete

12 ~~1~~0 Resumed drilling Continuous cored to 12' Broke tip on core retrieve at 12 50 and stopped for day to take rig back to shop + repair part

Summary 3 holes completed 8-1 PM, remaining holes laid out except 3 where backhoe was working in the way. Six samples taken, 3 for analysis weather ~~clear~~ cloudy, N. site wet at fill surface so only took borings at edges + on asphalt in N. site KK worked 7³⁰-2³⁰ 7 HRS

Daily Report

Name: John Oppenheim

Time: 7:00 a.m. to 4:00 p.m.

Date: Feb. 23rd, 1993

Miles: 10 mi.

U&A Project No: 96-205

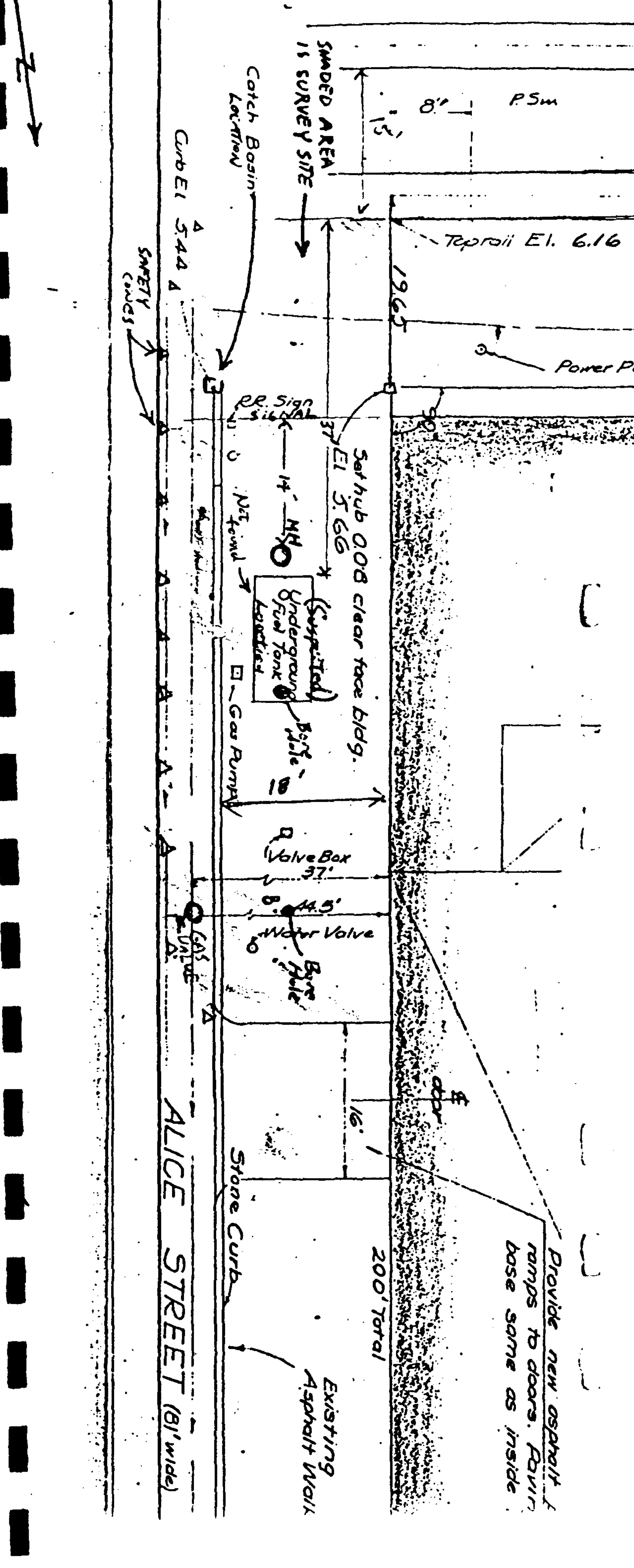
Activity Last 24 Hours LOCATION: NEW AMTRAK STATION

On-site investigation for underground ~~storage tanks~~ (USTs) in (2) separate areas at the Port of Oakland (2nd & Alice St. across from the proposed Amtrak station. Supervised ground penetrating radar (GPR) testing of sidewalk & streets in vicinity of excavations to determine location & dimensions of USTs. At Alice St. location (next to RR. crossing) no UST was found. At 2nd St. location (next to proposed Amtrak building) two tanks were located. Only one of them was at a depth where the radar could penetrate to give an accurate profile. The other was approximated for size and location. Grid lines were spaced 2ft apart (except in the street where 5ft intervals were used.)

Activity Next 24 Hours

None

	Daily Cost	Cumulative Cost
U&A staff		
Contractors		
Laboratory Analysis		
Equipment Rental		
Other	$78.99 (24 Exp. disp. camera)	
Total	$78.99	



(CONT.) RG-2 2-23-9

11 15 a.m JR & ASSOC. RELOCATES GPR EQUIP TO AREA ADJ. TO NEW AMTRAK BLDG SITE WHERE KNOWN UST RESIDES. HANDHELD PIPE LOCATORS AND GPR USE TO DETERMINE APPX. DIMENSIONS OF TANK NO. 1 (APPX 11.5' L). TOOK X-SECTIONS OF SIDEWALK AREA FROM BLDG CORNER TO ALICE STREET AT 2.5' INTERVALS.

12 20 a.m LOCATED 2nd SMALLER TANK DIRECTLY EAST OF TANK NO. 1. IT WAS SET TOO DEEP TO GET AN ACCURATE DIMENSION OR LOCATION. HOWEVER, IT APPEARED TO BE SET AT LOCATION SHOWN ON SKETCH AFTER USING HANDHEL UNIT.

1 00 a.m BREAK FOR LUNCH (ACROSS THE STRE

1 30 a.m CHAIN LINK FENCE IS MOVED TO ALLOW GPR TESTING TO CONTINU OUT INTO 2nd STREET. LINES WE SPACED FIVE FEET APART. NO OTI ADD'L TANKS OR UNUSUAL PIPELINI WERE FOUND IN THE ROADWAY

3 00 a.m SURVEY IS RESUMED IN PREVIOUS LOCATION ON ALICE ST. WHERE EARLIER FLOODING HAD OCCURRED. CONES RESE MORE MEASUREMENT FROM RR TRACKS ARE TAKEN GAS LINE LOCATION IS CONFIRMED AND AREA OF PREVIOUS EXCAVATION IN SUSPECTED TANK LOCATI IS NOTED ON RADAR READOUT

MAIN

Client ___ - tes Job No. ___ Sheet 1 of 3

Subject ___ By ___ Date ___

Ckd. ___ Rev. ___

2/26 Friday Anthro... job Alice & 2nd Oakland
0650 I [illegible] arrive at site - rained hard last nite not raining at present
0715 Great Sierra crew arrived - moved on to E-2
746 Started hole
820 Finished E2 at [illegible] Corner nearest 2nd & Alice
Moved to E3 Contractor used bobcat to clear concrete rubble

855 Started drilling concrete at E3 - 4" concrete

930 Finished hole 3
935 Crew with loader found buried tank at west end
I called U&A [illegible] site & reported it. It is not leaking only the top has been uncovered Est 5' dia X 10'?
940 Crew cleaning drill equipment
955 Start E4 no tank as yet, ok for rig to drive over
Andy brought [illegible].

1040 Start E-5
1120 Finished E5 cleaned auger
1130 Start E7 (~~skipped~~ E6 for now as easier to move to E7)
Andy located ~~another~~ hole NE corner & asked me to inspect 8 + 10
1140-1200 Down ~~with sand line hooked at reel~~ Auxiliary wire line came off reel. Took until 12:30 to repair then stopped to eat lunch (1HR DOWN TIME)
Elec. Power Generator Sta 1911 was in location according to "Port Specialist ~~Dan~~ Schonfeld on messy soils" according to Mike Devaney who ~~first~~ [illegible] ... It was a surprise to them & they researched it because of the thick foundations.
1PM Crew started drilling again used PID on black layer at bottom of Fill & ~~got~~ reading of 320 No readings below

LOCATION: NEW AMTRAK STATION
WEATHER: 50° WINDY RAIN & COLD
2-23-93
JOB # 96-205

IN ATTENDANCE: JR & ASSOC - 2 MAN CREW
URIBE & ASSOC - J. OPPENHEIM PORT OF OAKLAND

TIME LOG

8 $^{00}_{a.m.}$ ARRIVE AT CORNER OF ALICE & 2nd ST. MEET W/ JR & ASSOC. DISCUSS JOB REQUIREMENT PARKING LOT CONSTRUCTION IN ~~2000~~ REGS

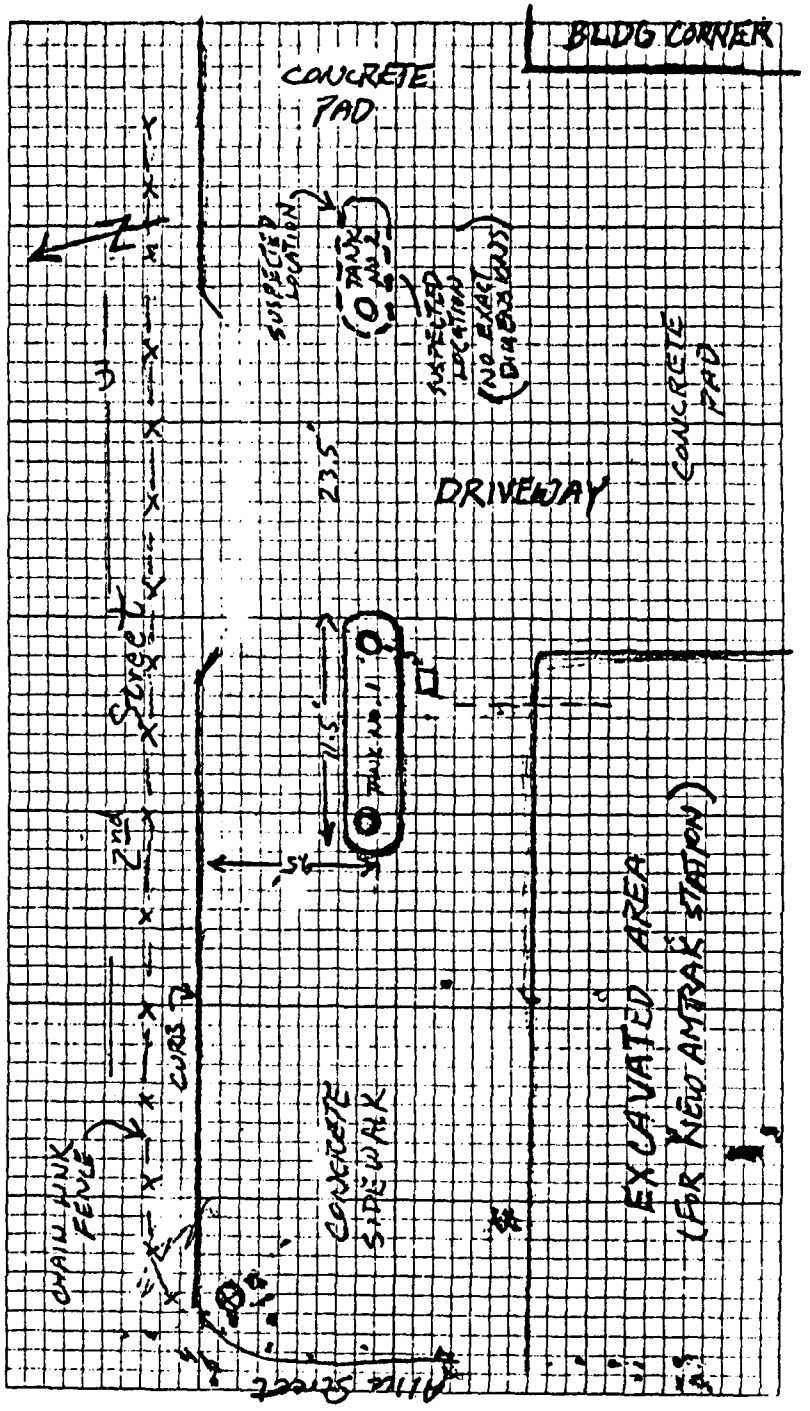
8 $^{30}_{a.m.}$ REQUEST CONST. ENGR TO RELOCATE HEAVY EQUIP. WHERE USE IS KNOWN ADJ. TO AMTRAK BLDG SITE ALSO LOCATED OWNER OF WHITE VAN PARKED IN FRONT OF UST SUSPECT AREA AND HAD HIM MOVE VEHICLE ACROSS STREET

8 $^{45}_{a.m.}$ AFTER INITIAL SET UP & CLEARING OF DEBRIS, JR & ASSOC BEGINS GPR OF SIDEWALK USING RANDOM SECTIONS. NO UST IS FOUND

9 $^{15}_{a.m.}$ RAINING HEAVILY, STREET FLOODING GPR X-SECTIONS ARE TAKEN EVERY 2.5 ALONG SIDEWALK FROM RR. TRACKS TO DRIVEWAY UG PIPE (APPX. 6' DEEP) FOUND NO UST FOUND.

10 $^{00}_{a.m.}$ ALAN WHITE & PORT OF OAKLAND PERSONNEL ARRIVE TO SURVEY AREA

JR & ASSOC. CONTINUES SEARCH FOR TANK ALONG ALICE STREET. THE GUTTER CONTINUES TO FLOOD DUE TO OVERFLOW FROM STORM DRAIN.



MAIN

Client: Port of Oakland | Job No. | Sheet 2 of 3

Subject: Inspection of holes 8 & 10 | By | Date

Ckd. | Rev.

as the 235 backhoe is in the way removing old concrete foundations

E10 location - Hole is full of gravel fill, broken concrete, rebar up to 1/2" dia and some water. the fill material was used to fill in an older foundation that was not removed. It was about 3' below the present surface and appears to have been up to a foot or more thick with vertical cross walls. A UST was found during the excavation today south of the E-10 location and separated by a wall. The gravel contains rounded pebbles & is imported. The small amount of water seeping into the excavation has no oil sheen and there is no odor of petroleum according to Mike Devany there had been an elec. generating station at this site in 1911. I took zip lock bag sample & got a pid reading of 30

MAIN

Client _____ Job No. _____ Sheet 3 of 3

Subject _____ By _____ Date _____

_____ Ckd. _____ Rev. _____

1:20 moved to 9 (8 cancelled) near S wall. Readings of 30 +68 in black material between 2+7
Drilled 7-10 but core slipped out. Tried 10.-12 no rec water level up to 5' Moved back to E6 at 2 50

Filled tanks w/water from rig
Moved back to E 6 to drill
Airdry tools sleeve samples to office
3 25 Completed E6 moved to E 14 in NE corner
completed E14 at 4 45 Crew cleaning equipment
Left site at 5 PM Crew also ledring Pat fence back.

Appendix E

Laboratory Results and

Chains of Custody

PORT OF OAKLAND ENVIRONMENTAL DEPT.
MAR 12 A10:27
RECEIVED

Orig: Office Services - contract file

cc: D. Schoenholz
Osantowski

CH2M HILL Engineers Planners Economists Scientists

March 5, 1993

Imee T. Osantowski, P.E.
Engineering Design Department
Port of Oakland
530 Water Street
Oakland, California 94607

Dear Ms. Osantowski:

Per your request, we are sending to you the laboratory analytical testing results conducted on the soil cuttings generated during the geotechnical drilling exploration for the Amtrak Passenger Rail Station.

The laboratory analyses did not reveal detectable levels of contaminants in the drilling spoils except for the following:

1) The analytical data for soil samples retrieved from Borings B-1 and B-3 (client sample ID #ARSSS0301 and #ARSSS0103) revealed detectable concentrations of lead, 0.94 mg/L and 1.56 mg/L, respectively. These analytical levels are below the California Title 22 hazardous waste criteria of 5 mg/L.

2) Soil samples from Boring B-1 also revealed low levels of fuel constituents including: TFH-Gas, TFH-Diesel, and total xylenes.
1.5 ppm 0.017 ppm

3) For Boring B-6 (client sample ID #ARSSS0006), the laboratory results indicate the presence of moderate levels of fuel constituents in the soil samples tested. In addition, lead was detected at a concentration of 8.44 mg/L, which is above the California Title 22 hazardous waste criteria of 5 mg/L. The results for Boring B-6 correspond to the 55-gallon drum that disappeared from the warehouse on the east side of Alice Street. Therefore, these results do not have to be considered for soil disposal purposes. However, during the excavation portion of construction for the rail station, we recommend that the contractor be required to retain an industrial hygienist or site safety specialist to develop a site safety plan and determine what level of additional training or personal protective equipment should be required for the construction personnel. In addition, testing of the excavated soil should be performed to determine soil disposal requirements.

A copy of these analytical laboratory results have been sent to BFI Landfill in Livermore, CA, for their review. The levels of fuel constituents detected in the soils for Boring B-1 appear to be within BFI's acceptance criteria. Therefore, at the present time we anticipate that BFI Landfill will accept the soils for disposal.

Once BFI has determined if they will accept the soils or not, we will contact you and discuss the next step in disposal of the soils. Until that time, please have your Environmental Department review this letter and the test results. If you have any questions, please phone me.

Sincerely,

David Mog, P.E.
Project Manager

Enclosures

METHOD: 8020/8015(MOD)
TBME, BTEX & TFH Gas

Client: AMTRAK PASSENGER RAIL
Client Sample ID: ARSSS0006

Reference No: 35148006

Date Sampled: 02-15-93
Date Received: 02-16-93
Date Extracted: 02-17-93
Date Analyzed: 02-17-93

Sample Matrix: Soil
Dilution Factor: 1

Compound	Reporting Limit	Sample Result	Units
tert-Butyl methyl ether	0.005	U	mg/kg
Benzene	0.005	U	mg/kg
Toluene	0.005	0.024	mg/kg
Ethyl Benzene	0.005	0.54	mg/kg
Total Xylenes	0.005	3.2	mg/kg
TFH Gas	1.0	97	mg/kg
Surrogate (SS1)		98	% Rec.
Surrogate (SS2)		87	% Rec.

U = Compound analyzed for but not detected above reporting limit.

SS = Surrogate Standard reported as percent recovery.
(SS1) Fluorobenzene used as surrogate standard.
(SS2) 1,4-Difluorobenzene used as surrogate standard.

Comments:

Approved By: _____

Jas57

CH2M HILL Quality Analytical Laboratory
5090 Caterpillar Road, Redding, California 96003-1412
916.244.5227
FAX 916.244.4

REPORT OF ANALYTICAL RESULTS

Date: 03/02

Client: CH2M HILL/SFO
1111 BROADWAY, SUITE 1000
OAKLAND, CA 94607-4046

Project Number: SFO34790.DD.Z
AMTRAK PASSENGER RAIL STATION
Laboratory Number: 35148
Date Received: 02/16/93

Atten: MR. DAVE HOG

Sample Description: ARSSS0006-C STLC CITRATE
Laboratory Sample Number: 35148012 Date Collected: 02/15/93 Matrix: SOIL

Analytical Parameter	Method	Rep Limit	Result	Units	Ana
Lead,STLC	SW6010/EPA200.7	0.66	8.44	mg/L	03/0

Results for non-aqueous matrices are based on dry sample weight unless noted otherwise

Reviewed by: [signature]

INRPRPT(v91032

000014

REPORT OF ANALYTICAL RESULTS Date: 03/[illegible]

Client: CH2M HILL/SFO
1111 BROADWAY, SUITE 1000
OAKLAND, CA 94607-4046

Atten: MR. DAVE MOG

Project Number: SFO34790.D[illegible]
AMTRAK PASSENGER RAIL STATIO
Laboratory Number: 35148
Date Received: 02/16/93

Sample Description: ARSSS0006
Laboratory Sample Number: 35148006 Date Collected: 02/15/93 Matrix: SOIL

Analytical Parameter	Method	Rep Limit	Result	Units	[illegible]
Ignitability	SW846(1C):7.1	----	NON-FLAMMABLE	----	D[illegible]
Oil and Grease	SW3550/9071	298	424	mg/Kg	D[illegible]
pH	SW9045	N/A	8.04	UNITS	D[illegible]
Reactive Cyanide	SW7.3.3.2	0.12	<0.12	mg/Kg	D[illegible]
Reactive Sulfide	SW7.3.4.2	4.77	<4.77	mg/kg	D[illegible]

Results for non-aqueous matrices are based on dry sample weight unless noted otherwi[illegible]

Reviewed by: [signature]

INRPRPT(v91[illegible]
00000[illegible]

CH2M HILL Quality Analytical Laboratory
5090 Caterpillar Road, Redding,
California 96003-1412
916.244.52[illegible]
FAX 916.244[illegible]

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

March 15, 1993

Mr. Alan White
URIBE & ASSOCIATES
2930 Lakeshore Ave, Ste. 200
Oakland, CA 94610

Client Ref. 96-205
Clayton Project No. 93030.22

Dear Mr. White:

Attached is our analytical laboratory report for the samples received on March 2, 1993. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Suzanne Silvera, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.22

Sample Identification:	T1-A	Date Sampled:	03/02/93
Lab Number:	9303022-01A	Date Received:	03/02/93
Sample Matrix/Media:	LIQUID	Date Prepared:	03/11/93
Preparation Method:	EPA 5030	Date Analyzed:	03/11/93
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	13,000	5
Ethylbenzene	100-41-4	21,000	5
Toluene	108-88-3	87,000	5
o-Xylene	95-47-6	35,000	5
p,m-Xylenes	--	74,000	5
Gasoline	--	1,000,000	300
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	120	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable
Results are reported on a wet weight basis, as received

Note: Sample is a pure hydrocarbon product.

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.22

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9303022-02A	Date Received:	--
Sample Matrix/Media:	LIQUID	Date Prepared:	03/11/93
Preparation Method:	EPA 5030	Date Analyzed:	03/11/93
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
Toluene	108-88-3	ND	0.005
o-Xylene	95-47-6	ND	0.005
p,m-Xylenes	--	ND	0.005
Gasoline	--	ND	0.3
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	80	50 - 150

ND: Not detected at or above limit of detection
-: Information not available or not applicable
Results are reported on a wet weight basis, as received

ENVIRONMENTAL CONSULTANTS

A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	
Batch No.	9303022
Ind. Code	W.P.
Date Logged In 3/3/93	By TS

REPORT RESULTS TO

Name: Alan White — Title: Operations Dir.

Company: Uribe and Associates — Dept.

Mailing Address: 2930 Lakeshore Ave

City, State, Zip: Oakland CA 94610

Telephone No. (510) 832-2233 — Telefax No.

Purchase Order No. 101816 — Client Job No. 96-205

SEND INVOICE TO

Name: Port of Oakland

Company: Dan Schoenholz — Dept. Env.

Address: 530 Water St.

City, State, Zip: Oakland

Date Results Req.: — Rush Charges Authorized? ☐ Yes ☒ No — Phone / Fax Results ☐ ☒

Samples are: (check if applicable) ☐ Drinking Water ☐ Collected in the State of New York

Special Instructions: (method, limit of detection, etc.)

Explanation of Preservative:

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added.)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-G 8015 mod	BTEX 8020 / EPA 624.2								FOR LAB USE ONLY
T1-a	3/2	*Liq.	N/A	1	X	X								01A
T1-b	3/2	Liq.	N/A	1	X	X								

CHAIN OF CUSTODY

Collected by: Andrew Meyer (print) — Collector's Signature: Andrew J Meyer

Relinquished by: Andrew J Meyer — Date/Time 3/2/93 4:15 — Received by: — Date/Time

Relinquished by: — Date/Time — Received at Lab by: Terry Satto — Date/Time 3/2/93 4:15p

Method of Shipment: — Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Authorized by: ____________ Date ____________

(Client Signature Must Accompany Request)

Liq. * - GASOLINE

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48375, (313) 344-1770

Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (908) 225-6040

400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500

1252 Quarry Lane, Pleasanton, CA 94566, (510) 426-2657

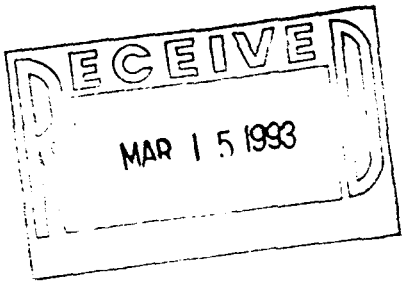
DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

2/92

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS



March 12, 1993

Mr. Alan White
URIBE & ASSOCIATES
2930 Lakeshore Avenue, Ste. 200
Oakland, CA 94610

Client Ref. 96-205
Clayton Project No. 93030.001

Dear Mr. White:

Attached is our analytical laboratory report for the samples received on March 1, 1993. As requested, we will analyze the sample labeled Tank SW Corner for Cadmium, Chromium, Lead, Zinc, and Copper. Results for this sample will presented in a separate report. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Suzanne Silvera, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/sam
Attachments

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification: E-13-5.0
Lab Number: 9303001-[illegible]
Sample Matrix/Media: SOIL
Extraction Method: EPA 5030
Analytical Method: EPA 8020

Date Sampled: 02/25/93
Date Received: 03/01/93
Date Extracted: 03/05/93
Date Analyzed: 03/08/93

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	102	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E-12-7.0	Date Sampled:	02/25/93
Lab Number:	9303001-03A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	98	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 336-205
Clayton Project No. 303030.01

Sample Identification:	E-1-8.0	Date Sampled:	02/25/93
Lab Number:	9303001-06A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	94	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E7A-2-6	Date Sampled:	02/26/93
Lab Number:	9303001-09A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzzene	100-41-4	ND	0.005
p,m-Xylennes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogatees		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trrifluorotoluene	98-08-8	99	50 -	150

ND Not deetected at or above limit of detection
-- Inforrmation not available or not applicable
Results arre reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E3-2-07	Date Sampled:	02/26/93
Lab Number:	9303001-11A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	0.006	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	99	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	TANK SW CORNER	Date Sampled:	02/26/93
Lab Number:	9303001-12A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.05
Toluene	108-88-3	ND	0.05
Ethylbenzene	100-41-4	ND	0.05
p,m-Xylenes	---	ND	0.05
o-Xylene	95-47-6	ND	0.05

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	95	50 - 150	

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Note: Detection limits increased due to presence of heavier hydrocarbons.

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E6-2-7.5	Date Sampled:	02/26/93
Lab Number:	9303001-13A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	96	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E14-2-6.5	Date Sampled:	02/26/93
Lab Number:	9303001-15A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	93	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E4-2-06	Date Sampled:	02/26/93
Lab Number:	9303001-18A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	0.38	0.005
Toluene	108-88-3	0.17	0.005
Ethylbenzene	100-41-4	0.051	0.005
p,m-Xylenes	---	0.37	0.005
o-Xylene	95-47-6	0.12	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	411*	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

* Surrogate out of control limits due to matrix interference

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E2-2-6.5	Date Sampled:	02/26/93
Lab Number:	9303001-19A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	102	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E5-2-8.0	Date Sampled:	02/26/93
Lab Number:	9303001-21A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	0.14	0.03
Toluene	108-88-3	0.07	0.03
Ethylbenzene	100-41-4	ND	0.03
p,m-Xylenes	---	0.08	0.03
o-Xylene	95-47-6	ND	0.03

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	119	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Note: Detection limits increased due to presence of heavier hydrocarbons

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	E9-2-6.5	Date Sampled:	02/26/93
Lab Number:	9303001-23A	Date Received:	03/01/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/05/93
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	94	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9303001-28A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Extracted:	
Extraction Method:	EPA 5030	Date Analyzed:	03/08/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	88	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	T3-A	Date Sampled:	03/26/93
Lab Number:	9303001-24A	Date Received:	03/01/93
Sample Matrix/Media:	LIQUID	Date Prepared:	03/05/93
Preparation Method:	EPA 3580	Date Analyzed:	03/05/93
Analytical Method:	EPA 8015 (Modified)		

Qualitative Identification	CAS #	Estimated * Concentration (mg/kg)
Intermediate diesel/oil Quantitation based on oil standard	--	1,000,000

* Estimated concentration based on total peak area response.

-- Information not available or not applicable

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	T3-B	Date Sampled:	02/26/93
Lab Number:	9303001-23A	Date Received:	03/01/93
Sample Matrix/Media:	LIQUID	Date Prepared:	03/05/93
Preparation Method:	EPA 3580	Date Analyzed:	03/05/93
Analytical Method:	EPA 8015 (Modified)		

Qualitative Identification	CAS #	Estimated * Concentration (mg/kg)
Intermediate Oil/Diesel Quantitation based on oil standard	--	320,000

* Estimated concentration based on total peak area response.

-- Information not available or not applicable

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.01

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9303001-29A	Date Received:	--
Sample Matrix/Media:	LIQUID	Date Prepared:	03/05/93
Preparation Method:	EPA 3580	Date Analyzed:	03/05/93
Analytical Method:	EPA 8015 (Modified)		

Qualitative Identification	CAS #	Estimated * Concentration (mg/kg)
None Detected	--	<50

* Estimated concentration based on total peak area response.

-- Information not available or not applicable

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No.: 93030.01

Sample Matrix/Media: SOIL
Preparation Method: EPA 3550
Analysis Method: EPA 8015

Date Received: 03/01/93
Date Prepared: 03/03/93
Date Analyzed: 03/04/93

Lab Number	Sample Identification	Date Sampled	Diesel (mg/kg)	Detection Limit (mg/kg)
02A	E-13-5.0	02/25/93	48 a	1
03A	E-12-7.0	02/25/93	14 a	1
06A	E-1-8.0	02/25/93	6 a	1
09A	E7A-2-6	02/26/93	65 a	1
11A	E3-2-07	02/26/93	1,300 a	1
12A	TANK SW CORNER	02/26/93	31,000 a	1
13A	E6-2-7.5	02/26/93	54 a	1
15A	E14-2-6.5	02/26/93	ND	1
18A	E4-2-06	02/26/93	80 a	1
19A	E2-2-6.5	02/26/93	ND	1
21A	E5-2-8.0	02/26/93	630 a	1
23A	E9-2-6.5	02/26/93	210 a	1
28A	METHOD BLANK	--	ND	1

ND Not detected at or above limit of detection
Not detected at or above limit of detection
-- Information not available or not applicable

Results are reported on a wet weight basis, as received
a The hydrocarbons detected in these samples appear to be intermediate between diesel and motor oil: quantitation was based on diesel stardards

Clayton
ENVIRONMENTAL CONSULTANTS
A Marsh & McLennan Company

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page ____ of ____
Project No.	
Batch No. 9303001	
Ind. Code	W.P.
Date Logged In 3/1/93	By [illegible]

Purch # 101816

RESULTS TO			
Name [illegible]	Title		
Company Uribe and Associates	Dept.		
Mailing Address 2130 Lakeshore Ave. Suite 200			
City, State, Zip Oakland CA 94610			
Telephone No. (510) 832-2233	Telefax No.		

Purchase Order No. | Client Job No.

SEND INVOICE TO	
Name	
Company	Dept.
Address	
City, State, Zip	

Date Results Req.: | Rush Charges Authorized? ☐ Yes ☐ No | Phone / Fax Results ☐ ☐

Special Instructions: (method, limit of detection, etc.)

Explanation of Preservative:

Samples are: (check if applicable)
☐ Drinking Water
☐ Collected in the State of New York

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added. *)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	EPA 8015m (Quantify substance)	EPA 8020 BTEX										FOR LAB USE ONLY
T3-a	2/26		11 SL	1	X	X										24A
T3-b	2/26		✓	1	X	X										25 ✓

CHAIN OF CUSTODY			
Collected by: Andrew Meyer (Andrew Meyer) (print)		Collector's Signature: Andrew Meyer	
Relinquished by: Andrew Meyer	Date/Time 2/26 4:15	Received by: Ed Kiloloff	Date/Time 2/26/93 4:15
Relinquished by: Ed Kiloloff	Date/Time 3/1/93 8:22	Received at Lab by: [illegible]	Date/Time 3/1/93 8:23am
Method of Shipment:		Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)	

Authorized by: ____________________ Date ____________
(Client Signature Must Accompany Request)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive
Novi, MI 48375
(313) 344-1770

Raritan Center
160 Fieldcrest Ave.
Edison, NJ 08837
(908) 225-6040

400 Chastain Center Blvd., N.W.
Suite 490
Kennesaw, GA 30144
(404) 499-7500

1252 Quarry Lane
Pleasanton, CA 94566
(510) 426-2657

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

2/92

SAMPLE CHAIN-OF-CUSTODY ANALYSIS REQUEST

Fed Ex 10/8/96

PACIFIC ENVIRONMENTAL LABORATORY
674 HARRISON STREET
SAN FRANCISCO, CA 94107
415 243 2580 FAX 415 243 9390

POSSIBLE HAZARDS: Petroleum Hydrocarbons

Identify

Date 2-26-'93
Source of Samples Outtrack
Sampler Name Andrew Meyer / Ken Koford
Company Uribe and Associates
Phone (510) 832-2233
Project No. 96-205

Report To Alan White
Company Uribe and Associates
Address 2930 Lakeshore Ave
Oakland CA 94610
Suite 200
Phone (510) 832-2233

ANALYSES REQUESTED

Send unused sample to:

Lab Destination:

Carrier/Way Bill:

LAB ID No.	Client ID No.	COLLECTION Date	COLLECTION Time	Type	Depth	Composite	Note 4	Turn-around time	Note 6 Lab Disposal	8015 mod.	BTEX 8020	COMMENTS/CONDITIONS: (Container type, container number, etc.)
-17A	ES-1-7.5	2/26	1108		7'-7.5'							hold
-18	E4-2-06	2/26	1025		5.5'-6'					X	X	
-19	E2-2-6.5	2/26	8:12		6'-6.5'					X	X	Per A White #1
-20	E7A-1-5.0	2/26	1:40		4.5'-5'							hold
-21	ES 2-8 0	2/26	1102		7.5'-8'					X	X	
-22	E4-1-5.5	2/26	1020		5'-5.5'							hold
-23	E9-2-6.5	2/26	2 25		6'-6.5'					X	X	Per A. White #1

1) Write only one sample number in each space.
2) Specify type of sample(s): Water(W), Solid (S), or indicate type.
3) Mark each sample which should be composited in Laboratory as follows: Place an "A" in box for each sample that should be composited into one sample; use sequential letter for additional groups.
4) Preservation of sample.
5) Write each analyses requested across top. Place an "X" in appropriate column to indicate type of analysis needed for each sample.
6) Write address where unused sample should be sent or "X" Lab Disposal box if Lab should bill client for sample disposal.

SAMPLE RELINQUISHED BY:

SAMPLE RECEIVED BY:

Print Name	Signature	Company	Date	Time	Print Name	Signature	Company	Date	Time
Andrew Meyer	Andrew Meyer	Uribe CA	2/26	4:15	Ken Koford	Kenneth R. Koford	UEA	2/26	4:15
Ken Koford	Kenneth R. Koford	UEA	2/26	5:40	Courier	[illegible]	UEA	2/26	5:40
Ed Kilduff	Ed Kilduff	UEA	3/1	8:22	Terry Salvo	Terry Salvo	C.E.E.	3/1/93	8:23Am

Logged in at PEL by:

SAMPLE CHAIN-OF-CUSTODY ANALYSIS REQUEST

Port Proj 101816

PACIFIC ENVIRONMENTAL LABORATORY
674 HARRISON STREET
SAN FRANCISCO, CA 94107
415-243-2580 FAX 415-243-9390

POSSIBLE HAZARDS: Petroleum HydroCarbons

Date 2-25-93
Source of Samples Central St.
Sampler Name Ken Koford
Company U & A
Phone ~~(415)~~ (510) 832-2233
Project No. 96-205

Report To Alan White
Company ~~Uribe and Associates~~
Address 2930 Lakeshore Ave
Oakland CA 94610
Phone (510) 832-2233

ANALYSES REQUESTED (IDENTIFY): TPH gas; BTEX

Send unused sample to:
Lab Destination:
Carrier/Way Bill:

LAB ID No.	Client ID No.	COLLECTION Date	COLLECTION Time	Type	Depth	Composite	Note 4	Turn-around time	Note 6 Lab Disposal	TPH gas	BTEX							COMMENTS/CONDITIONS: (Container type, container number, etc.)
-01A	E-13-10	2/25	0955		9.5'-10'													hold ok
-02	E-13-5.0	2/25	0945		4.5'-5'					X	X							
-03	E-12-7.0	2/25	1120		6.5'-7'					X	X							
-04	E-12-2.0	2/25	1050		1.5'-2'													hold
-05	E-1-7.0	2/25	1225		6.5-7.0													hold
-06	E-1-8.0	2/25	1:00		7.5-8.0					X	X							

1) Write only one sample number in each space.
2) Specify type of sample(s): Water(W), Solid (S), or indicate type.
3) Mark each sample which should be composited in Laboratory as follows: Place an "A" in box for each sample that should be composited into one sample; use sequential letter for additional groups.
4) Preservation of sample.
5) Write each analyses requested across top. Place an "X" in appropriate column to indicate type of analysis needed for each sample.
6) Write address where unused sample should be sent or "X" Lab Disposal box if Lab should bill client for sample disposal.

SAMPLE RELINQUISHED BY: / SAMPLE RECEIVED BY:

Print Name	Signature	Company	Date	Time	Print Name	Signature	Company	Date	Time
Ken Koford	Kenneth K Koford	U&A	2/25/93	1410	Alan White	[signature]	U.A	2/25/93	1410
Ed Kuloff	Ed Kuloff	U&A	3/1	8:22	Terry Salus	Terry Salvo	C.E.C.	3/1/93	8:23

Logged in at PEL by:

9303603

SAMPLE CHAIN-OF-CUSTODY ANALYSIS REQUEST

PACIFIC ENVIRONMENTAL LABORATORY
674 HARRISON STREET
SAN FRANCISCO, CA 94107
415 243-2580 FAX 415 243-9390

POSSIBLE HAZARDS: Petroleum Hydrocarbons for Proj 101816

Date 2-26-93 | Report To Alan White

Source of Samples Amtrak | Company Uribe and Associates

Sampler Name Andrew Meyer/Ken Koford | Address 2930 Lakeshore Ave

Company Uribe and Associates | Oakland CA 94610

Phone (510) 832-2233 | Suite 200

Project No. 96-205 | Phone (510) 832-2233

Send unused sample to: _____

Lab Destination: _____

Carrier/Way Bill: _____

LAB ID No.	Client ID No.	COLLECTION Date	COLLECTION Time	Type	Depth	Composite	Note 4	Turn-around time	Note 6 Lab Disposal	IDENTIFY ANALYSES REQUESTED: 8015 mod.	BTEX 8020	COMMENTS/CONDITIONS: (Container type, container number, etc.)
-07A	E9-1-5.5	2/26	2:25		5'-5.5'							hold
-08	E3-1-06	2/26	9:18		5.5'-6'							hold
-09	E7A-2-6	2/26	1:42		5.5'-6'					X	X	
-10	E2-1-5.5	2/26	8:05		5'-5.5'							hold
-11	E3-2-07	2/26	9:20		6.5'-7'					X	X	
-12	Tank SW corner	2/26	2:35		2'					X		Unknown oil (heating oil??) If W.C. analyze Cd, Cr, Pb, Zn and Cu. 8240/8270. (oil)

1) Write only one sample number in each space.
2) Specify type of sample(s): Water(W), Solid (S), or indicate type.
3) Mark each sample which should be composited in Laboratory as follows: Place an "A" in box for each sample that should be composited into one sample; use sequential letter for additional groups.
4) Preservation of sample. Alan White before comp
5) Write each analyses requested across top. Place an "X" in appropriate column to indicate type of analysis needed for each sample.
6) Write address where unused sample should be sent or "X" Lab Disposal box if Lab should bill client for sample disposal.

SAMPLE RELINQUISHED BY:

Print Name	Signature	Company	Date	Time
Andrew Meyer	Andrew Meyer	U and A	2/26	4:15
Ken Koford	Kenneth R Koford	U+A	2/26	5:40
~~Ed Kinoff~~	Ed Kinoff	UEA	3/1	8:22

SAMPLE RECEIVED BY:

Print Name	Signature	Company	Date	Time
Ken Koford	Kenneth R Koford	U+A	2/26	4:15
Ed Kinoff	Ed Kinoff	UEA	2/26	5:40
Terry Salv	Terry Salv	PEC	3/1/93	8:23AM

9303001

SAMPLE CHAIN-OF-CUSTODY ANALYSIS REQUEST

Port Proj # 101816

PACIFIC ENVIRONMENTAL LABORATORY
674 HARRISON STREET
SAN FRANCISCO CA 94107
415 243 2580 FAX 415 243 9390

POSSIBLE HAZARDS: Petroleum Hydrocarbons

Date: 2-26-93
Source of Samples: Amtrak
Sampler Name: Ken Koford
Company: Uribe and Associates
Phone: (510) 832 2233
Project No.: 96-205

Report To: Alan White
Company: Uribe and Associates
Address: 2930 Lakeshore Ave, Oakland CA 94610, Suite 200
Phone: (510) 832-2233

ANALYSES REQUESTED: IDENTIFY; 8015 mod; BTEX 8020

Send unused sample to:
Lab Destination:
Carrier/Way Bill:

LAB ID No.	Client ID No.	COLLECTION Date	COLLECTION Time	Type	Depth	Composite	Note 4	Turn-around time	Note 6 Lab Disposal	IDENTIFY	8015 mod	BTEX 8020					COMMENTS/CONDITIONS: (Container type, container number, etc.)
-13A	E6-2-7.5	2/26	4:08		7'-7.5'					X	X	X					ok
-14	~~E6-2~~ E6-1-5 AN	2/26	4:00		4.5'-5'												hold
-15	E14-2-6.5	2/26	4:25		6'-6.5'						X	X					
-16	E14-1-3.5	2/26	4:19		3'-3.5'												hold

1) Write only one sample number in each space.
2) Specify type of sample(s): Water(W), Solid (S), or indicate type.
3) Mark each sample which should be composited in Laboratory as follows: Place an "A" in box for each sample that should be composited into one sample; use sequential letter for additional groups.
4) Preservation of sample.
5) Write each analyses requested across top. Place an "X" in appropriate column to indicate type of analysis needed for each sample.
6) Write address where unused sample should be sent or "X" Lab Disposal box if Lab should bill client for sample disposal.

SAMPLE RELINQUISHED BY: / SAMPLE RECEIVED BY:

Print Name	Signature	Company	Date	Time	Print Name	Signature	Company	Date	Time
Ken Koford	Kenneth H. Koford	U&A	2/26/93	6:15	Ed Kiloff	Ed Kiloff	U&A	2/26/93	6:15pm
Ed Kiloff	Ed Kiloff	U&A	3/1/93	8:22	Terry Salvo	Terry Salvo	P.E.L.	3/1/93	8:23am

Logged in at PEL by:

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

March 18, 1993

Mr. Alan White
URIBE & ASSOCIATES
2930 Lakeshore Ave, Ste. 200
Oakland, CA 94610

Client Ref. 96-205
Clayton Project No. 93030.67

Dear Mr. White:

Attached is our analytical laboratory report for the samples received on March 5, 1993. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Suzanne Silvera, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Identification:	E8-1-9.5	Date Sampled:	03/03/93
Lab Number:	9303067-02A	Date Received:	03/05/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/12/93
Extraction Method:	EPA 5030	Date Analyzed:	03/12/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
Toluene	108-88-3	ND	0.005
o-Xylene	95-47-6	ND	0.005
p,m-Xylenes	--	ND	0.005
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	99	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Identification:	E10-1-9.5	Date Sampled:	03/03/93
Lab Number:	9303067-03A	Date Received:	03/05/93
Sample Matrix/Media:	SOIL	Date Extracted:	03/12/93
Extraction Method:	EPA 5030	Date Analyzed:	03/12/93
Analytical Method:	EPA 8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene	71-43-2	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
Toluene	108-88-3	ND	0.005
o-Xylene	95-47-6	ND	0.005
p,m-Xylenes	--	ND	0.005
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	91	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Identification:	E11-2-8.5	Date Sampled:	03/03/93
Lab Number:	9303067-06A	Date Received:	03/05/93
Sample Matrix/Media:	SOIL	Date Prepared:	03/12/93
Preparation Method:	EPA 5030	Date Analyzed:	03/12/93
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
Toluene	108-88-3	ND	0.005
o-Xylene	95-47-6	ND	0.005
p,m-Xylenes	--	ND	0.005
Gasoline	--	ND	0.3
Surrogates		**Recovery (%)**	**QC Limits (%)**
a,a,a-Trifluorotoluene	98-08-8	99	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9303067-08A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Prepared:	03/12/93
Preparation Method:	EPA 5030	Date Analyzed:	03/12/93
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
Toluene	108-88-3	ND	0.005
o-Xylene	95-47-6	ND	0.005
p,m-Xylenes	--	ND	0.005
Gasoline	--	ND	0.3
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	84	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable
Results are reported on a wet weight basis, as received

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Matrix/Media: SOIL
Preparation Method: EPA 3550
Analysis Method: EPA 8015 (Modified)

Date Received: 03/05/93
Date Prepared: 03/15/93
Date Analyzed: 03/16/93

Lab Number	Sample Identification	Date Sampled	Diesel (mg/kg)	Detection Limit (mg/kg)
06A	E11-2-8.5	03/03/93	ND	1
08A	METHOD BLANK	--	ND	1

ND Not detected at or above limit of detection
< Not detected at or above limit of detection
-- Information not available or not applicable

Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Uribe & Associates/ Port of Oakland

Client Reference: 96-205
Clayton Project No. 93030.67

Sample Matrix/Media: SOIL
Preparation Method: EPA 3550
Analysis Method: EPA 8015 (Modified)

Date Received: 03/05/93
Date Prepared: 03/15/93
Date Analyzed: 03/16/93

Lab Number	Sample Identification	Date Sampled	TPH as Oil (mg/kg)	Detection Limit (mg/kg)
02A	E8-1-9.5	03/03/93	ND	4
03A	E10-1-9.5	03/03/93	19	4
08A	METHOD BLANK	--	ND	4

ND Not detected at or above limit of detection
< Not detected at or above limit of detection
-- Information not available or not applicable

Results are reported on a wet weight basis, as received

U&A
[redacted]
2930 LAKESHORE AVENUE
SUITE TWO HUNDRED
OAKLAND, CALIFORNIA 94610
510 446-832-2233
FAX 446-832-2237
510

CHAIN OF CUSTODY RECORD

PROJ. NO. 96-205

PROJECT NAME: Amtrak (150 Harrison (wo# 101816 Port of Oakland))

SAMPLERS: (Signature) Ken Koford / Alan White

NO	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	ANALYSIS: 8015 Identify Fuel	8020 BTEX	REMARKS
					7/19/93 E8				
1	3/3/93	1212	[redacted]	X	~~AMB~~ 8-2-10.0	1 Soil			Hold
2	3/3/93	1210	[redacted]	X	~~AMB~~ 8-1-9.5	1 Soil	X	X	EPA 8015 as Oil
3	3/3/93	1130		X	~~AMB~~ 10-1-9.5	1 Soil	X	X	" " " "
4	3/3/93	1132		X	~~AMB~~ 10-2-9.0	1 Soil			Hold
5	3/3/93	1102		X	~~AMB~~ 14-1-4.5	1 Soil			Hold
6	3/3/93	1110		X	~~AMB~~ 14-2-8.5	1 Soil	X	X	EPA 8015 as GRS &
7	3/3/93	1113		X	~~AMB~~ 14-3-9.0	1 Soil			Hold Diesel*

*Maybe heavier hydrocarbons present

Note: Discussed sample # changes with S. Silveira Clayton; 7/19/93 @ 0900 hrs

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	3/5/93 1445	[signature]			
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	3/5/93 1545	Received for Laboratory by: (Signature) [signature]		3/5/93 345	

NAME

ADDRESS

PHONE NO.