
**REMOVAL OF INACTIVE
UNDERGROUND STORAGE TANKS**

**460 Grand Avenue
Oakland, California**

**29 January 1991
Project 1132A**

TREADWELL & ASSOCIATES, INC.
*Consulting Engineers and Scientists
San Francisco, California*

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100 PINE STREET, 21ST FLOOR
SAN FRANCISCO, CALIFORNIA 94111
TELEPHONE (415) 421-9696

91 JAN 30 AM 10:49

January 29, 1991

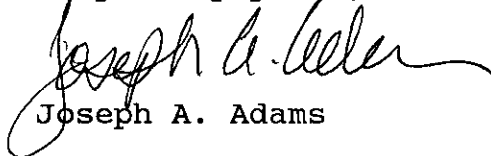
Mr. Gilbert Wistar
Hazardous Material Specialist
Alameda County Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Suite 200
Oakland, CA 94621

Re: Removal of Inactive Underground Storage Tanks
460 Grand Avenue
Oakland, California

Dear Mr. Wistar:

The enclosed report is submitted on behalf of Falaschi Brothers. The inactive underground storage tanks at the subject site were removed pursuant to your letter dated 31 January 1990 and in accordance with procedures established by your office. If you have any questions, please call me at your convenience.

Very truly yours,


Joseph A. Adams

JAA:jrs
Enclosure

TREADWELL & ASSOCIATES, INC.

Consulting Engineers and Scientists

353 Sacramento Street, Suite 560

San Francisco, California 94111

(415) 955-9040

29 January 1991
Project 1132A

Falасchi Brothers
c/o Joseph A. Adams, Receiver
Adams, Sadler & Hovis
100 Pine Street, 21st Floor
San Francisco, California 94111

Subject: Removal of Inactive Underground Storage Tanks
460 Grand Avenue
Oakland, California

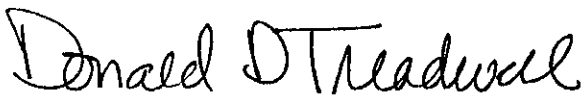
Dear Mr. Adams:

The removal of four inactive underground storage tanks from the property at 460 Grand Avenue in Oakland is described in the enclosed report. The work was performed in accordance with our proposal dated 11 May 1990.

We appreciate the opportunity to provide consulting services to Falасchi Brothers. If you have any questions or require further service, please call.

Sincerely yours,
TREADWELL & ASSOCIATES, INC.


Jon A. Rosso, P.E.
Senior Engineer


Donald D. Treadwell, Ph.D., P.E.
Principal Engineer

JAR:DDT:sre
Enclosure



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**29 January 1991
Project 1132A**

TREADWELL & ASSOCIATES, INC.
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REMOVAL OF INACTIVE UNDERGROUND STORAGE TANKS

460 Grand Avenue
Oakland, California

1.0 INTRODUCTION

The removal of four inactive underground storage tanks from the property at 460 Grand Avenue in Oakland is described in this report. Although the four tanks have been inactive since 1978, three of the tanks were previously used to store gasoline and the fourth was previously used to store waste oil. On behalf of the property owner, the removal of the tanks and associated piping was coordinated and observed by Treadwell & Associates in accordance with the guidelines of the Regional Water Quality Control Board and the Alameda County Department of Environmental Health (ACDEH).

In a letter dated 31 January 1990, the ACDEH notified the property owners (Falaschi Brothers) that the four underground tanks were to be removed. Subsequently, the owners engaged a licensed and experienced contractor (Bay Area Tank and Marine) to remove and dispose of the tanks and associated piping. They also retained Treadwell & Associates to provide consulting services, including coordination and observation of the removal operations, collection and analytical testing of samples of soil and water, and preparation of this report.

1.1 Background

As shown on Figure 1, the property is located at the northeast corner of the intersection of Grand Avenue and Bellevue Avenue in Oakland, California. The property was reportedly first developed

and operated as a service station in the late 1940s by a family partnership and Signal Oil & Gas Company (the successor-in-interest of which is apparently Allied Signal Corporation). From 1949 until 1961, the station was operated by a series of companies until it was purchased by Gulf Oil Corporation. After acquiring the property in 1961, Gulf Oil reportedly installed three new underground gasoline storage tanks to replace the underground tanks originally installed during Signal Oil & Gas Company's partial ownership of the property.

The property was purchased by Falaschi Brothers in August 1978 for commercial development purposes. At the time of purchase, the fuel dispenser units were removed and the ~~underground storage tanks~~ were emptied by the previous owner. *documentation?* Since 1978, the property has reportedly been used as a parking facility and fuel products and oils have not been delivered to, stored at, nor dispensed from the property. The current configuration of the property is shown on Figure 2.

Available historical construction drawings and aerial photographs indicate that a service station was constructed on the site in the late 1940s and subsequently remodelled and/or rebuilt in the 1960s. Construction drawings from the 1940s show three 6,000-gallon underground fuel storage tanks located in the northwestern quadrant of the site.

Building plans for the remodelling of the station in the 1960s show that the previous underground fuel storage tanks were removed and apparently replaced with three larger tanks, each of about 10,000 gallons in volume. The layout and position of the underground fuel storage tanks and pump islands in the 1960s plans are essentially the same as shown in the 1940s building plans.

The underground waste oil tank located north (at the rear) of the existing building is not shown in that position in building plans from the 1940s or the 1960s. The plans for the remodelling in the 1960s specified that a 280-gallon underground waste oil tank with a concrete apron was to have been installed south (at the front) of the existing building. Apparently, the waste oil tank planned in front of the facility was never installed.

2.0 FIELD ACTIVITIES

Field activities associated with the tank removals described in this report were performed between 27 November and 4 December 1990. The tank removal and associated activities, performed by Bay Area Tank and Marine and Treadwell & Associates, included the following:

- o demolition of concrete slabs
- o removal and disposal of liquids from the tanks
- o high pressure washing of tank interiors
- o rendering the tanks inert
- o tank removal, inspection, and disposal
- o piping removal, inspection, and disposal
- o collection of soil and groundwater samples

Prior to beginning the tank removal operations, the required Oakland Fire Department permit was obtained and a closure plan, including a site safety plan, was submitted to and approved by the ACDEH. In addition, a permit/notification form was filed with the Bay Area Air Quality Management District. Copies of the permit and the closure plan are presented in Appendix A and Appendix B, respectively.

Gilbert Wistar of the ACDEH and Gary Collins of the Oakland Fire Department were present during the tank removal activities.

Copies of their field records for 29 November and 30 November 1990 are presented in Appendix C.

2.1 Site Preparation

Site preparation activities at the property began on 27 November 1990. Initially, the concrete slabs overlying the storage tanks, vent lines, and product lines were demolished and removed. The concrete slabs overlying the storage tanks were found to be as thick as 12 inches.

Following demolition and removal of the concrete, the liquid contents of the fuel storage tanks were found to be primarily water about 1 to 2 percent hydrocarbons. (A total of about 10,000 gallons of the liquid was removed from the three tanks by vacuum trucks.) After liquid removal, the product lines were flushed with water and the interiors of the tanks were triple-rinsed with a high pressure spray unit. Following rinsing, about 235 gallons of rinse water were pumped to completely empty the tanks.

All of the liquids removed from the tanks were transported by licensed haulers under hazardous waste manifests to Refineries Services in Patterson, California. Copies of the uniform hazardous waste manifests for transportation of waste liquids are presented in Appendix D.

Prior to tank removal, dry ice was inserted into each tank to eliminate explosive vapors. Approximately three pounds of dry ice per 100 gallons of tank capacity was used to render each tank inert. An explosivity meter was used to measure the vapor content, expressed as a percent of the lower explosive limit and the oxygen percentage.

Gilbert Wistar of the ACDEH and Gary Collins of the Oakland Fire Department were present during the tank removal activities. Mr. Collins approved the fire protection measures and witnessed the tank stabilization process. Copies of the signed tank removal permits issued by the Oakland Fire Department verifying the satisfactory tank stabilization are presented in Appendix B.

2.2 Removal of Inactive Gasoline Tanks

The three underground gasoline storage tanks were of single-wall steel construction and each measured about eight feet in diameter and 27 feet in length. The gasoline tank excavation extended to about 13 feet below adjacent grade with plan dimensions of approximately 30 feet by 30 feet. The limits of excavation and the tank identification numbers are shown on Figure 2.

The gasoline tanks were overlain by 4 to 5 feet of backfill material, which also extended downward at the sides and ends of the tanks. The backfill soil consisted of a brown clayey sand similar to the surrounding native soil, as opposed to inert gravel backfill. At the time of excavation, groundwater was encountered at a depth of about 11 feet (about two feet above the bottom of the tanks) as shown on Figure 3. The gasoline storage tanks were not strapped down or otherwise anchored to offset potential buoyancy effects due to groundwater.

A large excavator unit was used to uncover, excavate, and remove the three gasoline storage tanks. Once removed, the tanks were inspected prior to being loaded on the trucks. In general, the tops of the tanks were found to be in good condition. However, severe and deep pitting of the steel was evident on the bottoms and sides of all three tanks. In addition, many small holes were observed in the tanks, especially in the sides of Tank 2 (the identification numbers of the tanks are shown on Figure 2).

During the excavation process, some apparent petroleum staining was observed near the fill stem of Tank 1. Staining was also observed along the south wall and at the southwest corner of the excavation. The north and east walls of the excavation showed no apparent signs of staining or leaks.

2.3 Removal of Inactive Waste Oil Tank

The inactive waste oil storage tank was of single-wall steel construction and measured about 3.5 feet in diameter and 4 feet in length. The waste oil tank excavation extended to a depth of about 6 feet below adjacent grade with plan dimensions of approximately 12 feet by 5 feet. During the excavation of the waste oil tank, obvious staining and signs of oil leaks were apparent in the sidewalls and in the excavated backfill material. The backfill material consisted of brown clayey sand and gravel and was similar to the surrounding native soil. No free water was observed in the waste oil tank excavation.

The removed waste oil tank was inspected at the surface prior to loading on the truck. Upon inspection, relatively large holes (about 2 to 3 inches in length) were noted in the walls of the tank. These holes were not caused by the excavation and removal activities and appear to be associated with corrosion or previous damage.

Based on the apparent leakage observed in the waste oil tank area, Gilbert Wistar of the ACDEH requested that the property owners file a underground storage tank unauthorized release (leak) and/or contamination site report. The unauthorized release form was submitted to the ACHED on 4 December 1990 and a copy is presented in Appendix E.

2.4 Tank Disposal

All four tanks were transported under uniform hazardous waste manifests by licensed haulers to a certified tank destruction facility (Erickson, Inc. of Richmond, California). The empty tanks were cleaned at the Erickson facility and then destroyed as documented by the Certificates of Destruction. Copies of the uniform hazardous waste manifests and certificates of destruction are presented in the Appendix F and Appendix G, respectively.

2.5 Stockpiles of Excavated Soil

The soil excavated during the tank removal operations was stockpiled on the property and covered by plastic sheeting to prevent direct contact with pavements and rainwater and to minimize volatilization of hydrocarbon constituents into the atmosphere. Approximately 250 to 300 cubic yards of soil were removed from the gasoline tank excavations and approximately 15 cubic yards of soil were removed from the waste oil tank excavation. The locations of the soil stockpiles are shown on Figure 2.

2.6 Removal of Associated Piping

The concrete slabs covering the product and vent lines were cut using concrete saws and removed. The product pipelines were covered with approximately one foot of brown clayey sand fill and the fiberglass vent was covered with about one foot of pea gravel. A backhoe was used to remove the piping and to stockpile the pipe in the northeast corner of the site. Observations during product line removal appear to indicate that leakage occurred at the pipeline joints located between the pump islands.

3.0 COLLECTION OF SOIL AND WATER SAMPLES

Under the direction of Gilbert Wistar of the ACHED, Treadwell & Associates collected eleven soil samples and one water sample. The samples were collected on 30 November 1990 and 4 December 1990. The sample locations and identification numbers are shown on Figure 2.

Six of the soil samples (samples T1-1, T1-2, T2-1, T2-2, T3-1, and T3-2) were collected from the sidewalls of the gasoline tank excavation, approximately one foot above the existing water level. One soil sample (sample T4-1) was collected from the bottom of the waste oil tank excavation, approximately 18 inches into native soil.

*was
water in
pit?*

In addition, four soil samples (samples P-1 through P-4) were collected from the product line trench, approximately 6 inches into the underlying native soil. The soil samples from the product line trench were collected about every 20 lineal feet.

For soil samples collected from the gasoline and waste oil tank excavations, a backhoe bucket was used to retrieve undisturbed soil from the desired sampling locations in the excavation. In the pipeline trench excavation, samples were collected after removal of about 6 inches of native soil from the bottom of the trench. The sampling procedures consisted of removing loose slough to expose an undisturbed soil surface and then pushing or driving a clean brass tube into the soil mass until full. The samples were retrieved and the ends of the full tube were covered with aluminum foil, plastic end caps, and sealed with polyvinyl chloride tape.

One sample (sample W-1) of the standing water in the main tank excavation was collected during tank removal at the location

shown in Figure 2 using a clean disposable plastic bailer. The bailer was lowered and allowed to fill at a point below the water surface. The water sample was retrieved and poured directly from the bailer into the appropriate containers and sealed. The integrity and quality of sealed water samples were observed by Treadwell & Associates and by Gilbert Wistar of the ACDEH. All water sample containers were provided by the laboratory and had been prepared in accordance with standard procedures for each analysis.

All samples were placed in ice-cooled chests from the time of collection until their delivery by Treadwell & Associates to the analytical laboratory. A chain-of-custody record was completed and accompanied each sample shipment (Appendix H).

4.0 ANALYTICAL METHODS

Soil and water samples obtained during tank and pipeline removal activities were analyzed by a state-certified laboratory (Curtis & Tompkins, Ltd. of Berkeley, California, Certification No. 159). The analytical testing program for soil samples from the fuel tank and product pipelines excavations (samples T1-1, T1-2, T2-1, T2-2, T3-1, T3-2, P-1, P-2, P-3, and P-4) included the following:

- o total volatile petroleum hydrocarbons (TVPH)
- o benzene, toluene, xylenes, and ethylbenzene (BTXE)
- o total lead concentrations

The soil sample collected from the waste oil tank excavation (sample T4-1) was analyzed using Regional Water Quality Control Board recommendations, as requested by the ACDEH, and included the following:

- o total volatile petroleum hydrocarbons (TVPH)
- o total extractable petroleum hydrocarbons (TEPH)
- o benzene, toluene, xylenes, and ethylbenzene (BTXE)
- o oil & grease (O&G)
- o volatile organic compounds (VOCs)
- o total metal concentrations of cadmium, chromium, lead, nickel, and zinc

The water sample (sample W-1) obtained from the fuel tank excavation was analyzed for TVPH, TEPH, and BTXE. Detection limits and method numbers for each analysis are included on the laboratory reports presented in Appendix I.

5.0 ANALYTICAL RESULTS

The analytical test results are summarized on Tables 1 through 4. Copies of the Curtis & Tompkins certified laboratory reports (dated 14 December and 17 December 1990) for the analyses described above are presented in Appendix I.

5.1 Underground Gasoline Storage Tanks

Analytical test results for soil samples (samples T1-1, T1-2, T2-1, T2-2, T3-1, and T3-2) collected from the sidewalls of the gasoline tank excavation are summarized in Table 1. The analytical results for the sidewall soil samples indicate no detectable concentrations of ethylbenzene, total xylenes, or petroleum hydrocarbons as gasoline. Toluene was detected in all the sidewall samples at concentrations ranging from 0.063 milligrams per kilogram (mg/kg) to 0.220 mg/kg. Benzene was detected in one sample (sample T2-2) at a concentration of 0.019 mg/kg.

Laboratory results for sample W-1, the standing water in the gasoline tank excavation area, are summarized in Table 2. Petroleum hydrocarbons as gasoline and associated products of benzene, toluene, total xylenes, and ethylbenzene were detected in the water sample at concentrations of 2.3 milligrams per liter (mg/l), 0.053 mg/l, 0.160 mg/l, 0.160 mg/l, and 0.036 mg/l, respectively. Petroleum hydrocarbons as diesel or kerosene were not detected at or above the laboratory reporting limit. The detected concentrations of total lead ranged from <2.5 mg/kg to 3.8 mg/kg in the samples tested.

5.2 Associated Piping

The results of analytical tests on the four samples (samples P-1, P-2, P-3, and P-4) from the product pipeline area are summarized in Table 3. Concentrations of petroleum hydrocarbons as gasoline ranged from <1.0 mg/kg to 1,700 mg/kg and concentrations BTXE ranged from <0.005 mg/kg to 260 mg/kg. The higher concentrations of TVPH as gasoline and BTXE were found beneath the product pipelines between the pump islands at sample location P-1 and to a lesser extent at sample location P-2. Substantially lower concentrations were detected in samples obtained at points closer to the storage tanks.

5.3 Underground Waste Oil Tank

Analytical data for the soil sample (sample T4-1) obtained from the waste oil tank excavation is summarized in Table 4. The laboratory test results indicate O&G, TEPH as diesel, and TVPH as gasoline at concentrations of 24,000 mg/kg, 7,100 mg/kg, and 400 mg/kg, respectively. The concentrations of BTXE ranged from 1.2 mg/kg to 35 mg/kg.

In addition, two volatile organic compounds, tetrachloroethylene and 1,1,1-trichloroethane, were detected at concentrations of 1.0 mg/kg and 0.25 mg/kg, respectively. Total metal concentrations for cadmium, chromium, lead, nickel and zinc were detected at 0.8 mg/kg, 12 mg/kg, 40 mg/kg, 22 mg/kg, and 41 mg/kg, respectively.

6.0 LIMITATIONS

Descriptions of specific field activities and historical events are based on our observations, discussions with others, and information provided by the property owners. The opinions and information presented in this report apply to site conditions and the information available at the time the work was performed and do not apply to changes of which we are not aware or have not had the opportunity to evaluate.

TABLE 1
 SIDEWALL SOIL SAMPLE ANALYTICAL DATA
 FUEL TANK EXCAVATION
 460 Grand Avenue
 Oakland, California

Sample No.	TVPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	Ethyl Benzene (mg/kg)	Lead (mg/kg)
T1-1	ND	ND	0.10	ND	ND	NT
T1-2	ND	ND	0.097	ND	ND	3.8
T2-1	ND	ND	0.14	ND	ND	NT
T2-2	ND	0.019	0.065	ND	ND	ND
T3-1	ND	ND	0.220	ND	ND	NT
T3-2	ND	ND	0.063	ND	ND	3.4
Detection Limit	1.0	0.005	0.005	0.005	0.005	2.5

Notes:

TVPH = total volatile petroleum hydrocarbons
 mg/kg = milligram per kilogram
 ND = not detected at or above reporting limit
 NT = not tested

but fuel tanks had holes

STL-5

TABLE 2
 ANALYTICAL DATA FOR WATER SAMPLE W-1
 FUEL TANK EXCAVATION
 460 Grand Avenue
 Oakland, California

Sample No. _____	TVPH as Gasoline (mg/l)	TEPH as Diesel (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Total Xylenes (mg/l)	Ethyl Benzene (mg/l)
W-1	2.3 = <i>2,300ppb</i>	ND	0.053 <i>= 53ppb</i>	0.160	0.160	0.036

Notes:

TVPH = total volatile petroleum hydrocarbons
 TEPH = total extractable petroleum hydrocarbons
 mg/l = milligrams per liter
 ND = not detected at or above reporting limit

TABLE 3

PIPELINE TRENCH SOIL SAMPLE ANALYTICAL DATA

460 Grand Avenue
Oakland, California

Sample No.	TVPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	Ethyl Benzene (mg/kg)
P-1	1,700	ND	8.7	260	47
P-2	90	ND	1.7	4.7	0.89
P-3	ND	0.0066	0.18	0.033	0.0053
P-4	ND	ND	0.036	0.0055	ND

These were collected from 6" into the native soil from the product line trench.

Notes:

TVPH = total volatile petroleum hydrocarbons
mg/kg = milligram per kilogram
ND = not detected at or above reporting limit

TABLE 4

ANALYTICAL DATA FOR SOIL SAMPLE T4-1

WASTE OIL TANK EXCAVATION

460 Grand Avenue
Oakland, California

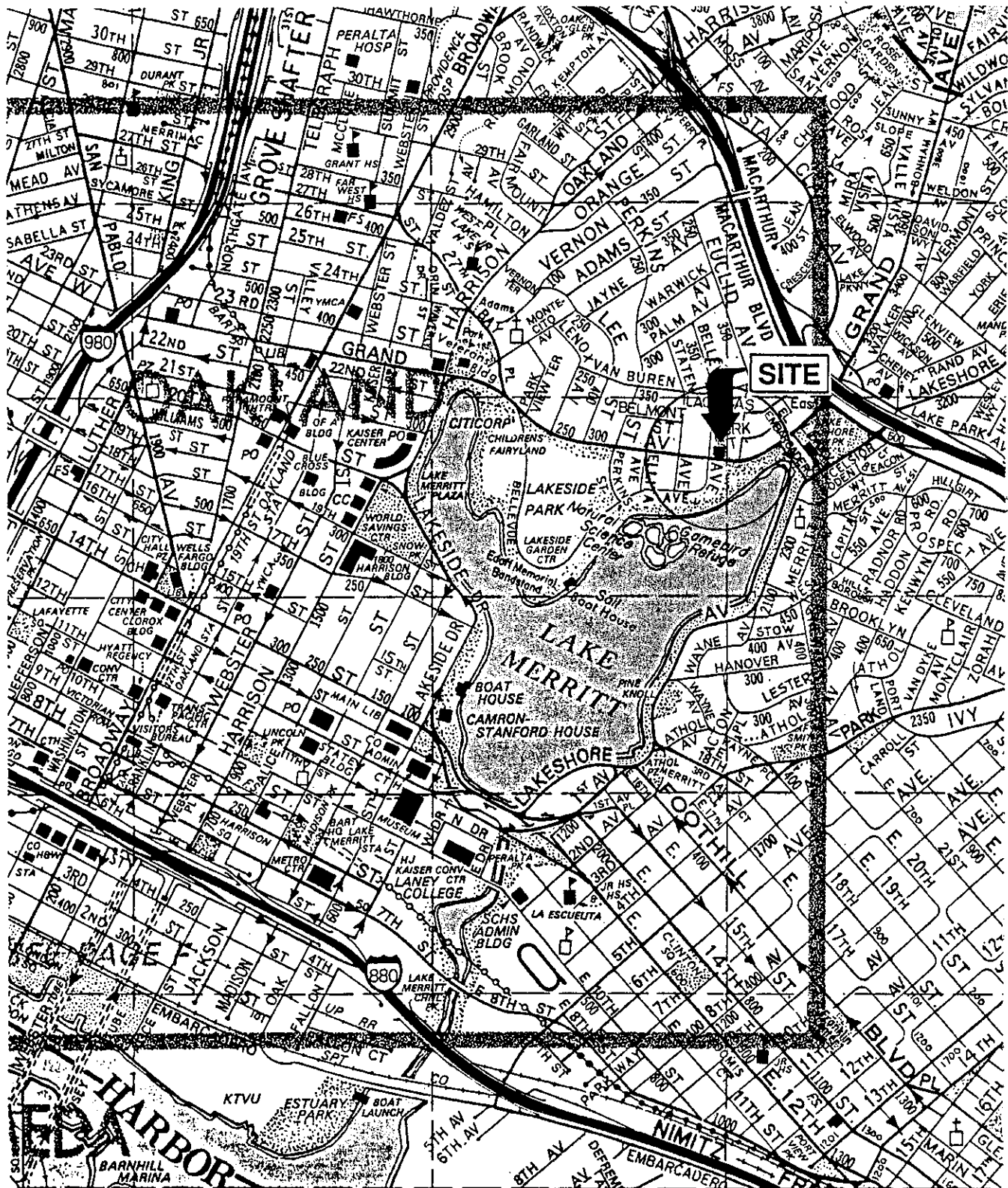
<u>Constituent</u>	<u>Sample T4-1 Concentration (mg/kg)</u>
TVPH as Gasoline	400
TEPH as Diesel	7,100
Oil & Grease	24,000
Tetrachloroethylene	1.0
1,1,1-Trichloroethane	0.25
Benzene	1.2
Toluene	10
Total Xylenes	35
Ethyl Benzene	5.2
Cadmium	0.8
Chromium	12
Lead	40
Nickel	22
Zinc	41

Notes:

mg/kg = milligram per kilogram

TVPH = total volatile petroleum hydrocarbons

TEPH = total extractable petroleum hydrocarbons



SITE

0 2200



Approximate Scale in Feet

Reference: Thomas Brothers Map, 1988

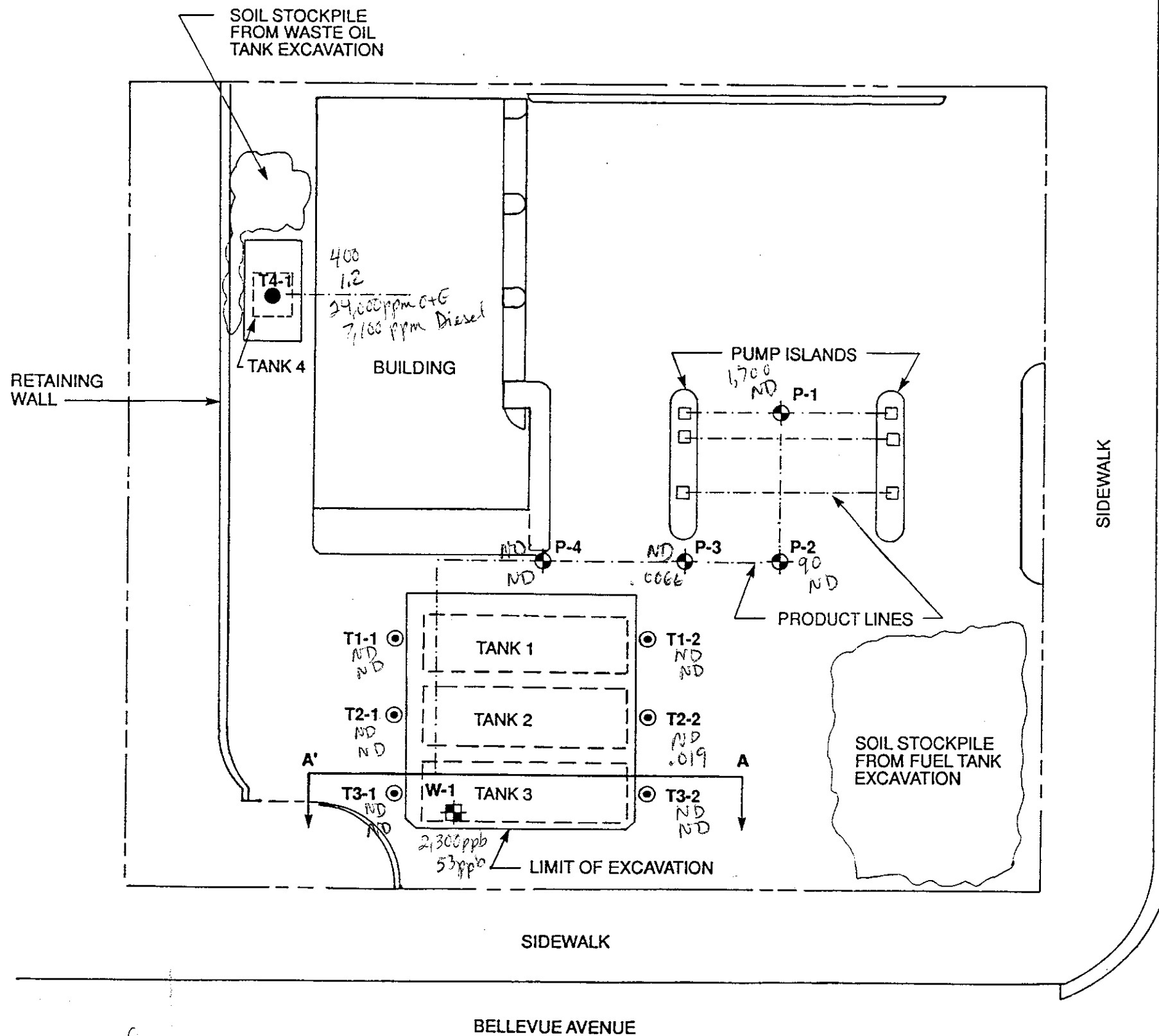
460 GRAND AVENUE (at BELLEVUE)
OAKLAND, CALIFORNIA

VICINITY MAP

TREADWELL & ASSOCIATES, INC.
Consulting Engineers and Scientists

Project No. 1132A

Figure 1



TANK NO.	CAPACITY	CONTENTS
1	10,000 gal.	GASOLINE
2	10,000 gal.	GASOLINE
3	10,000 gal.	GASOLINE
4	250 gal.	WASTE OIL

EXPLANATION

- ⊙ Sidewalk Soil Sample
- ⊕ Pipeline Trench Soil Sample
- Soil Sample Beneath Waste Oil Tank
- ⊠ Groundwater Sample From Tank Excavation



TPH-g (ppm)
benz (ppm)

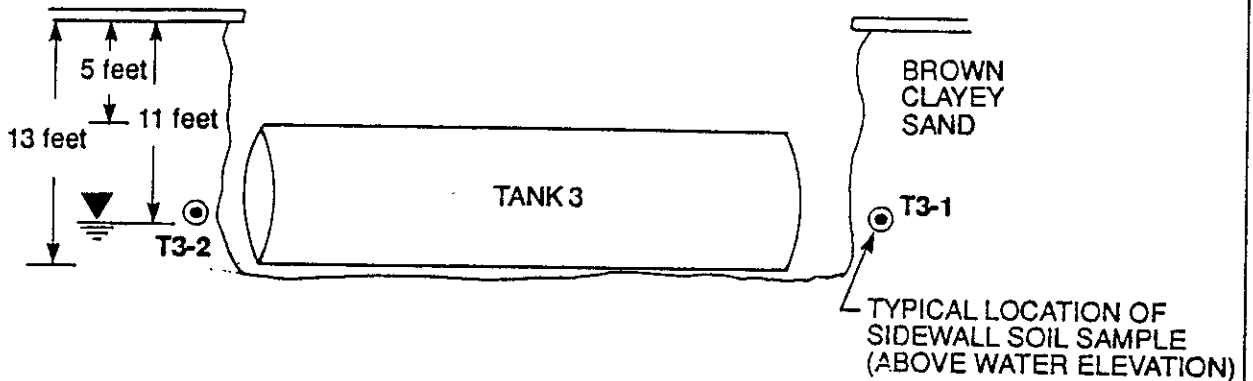
460 GRAND AVENUE (at BELLEVUE)
OAKLAND, CALIFORNIA

SITE PLAN

Project No. 1132A

Figure 2

TREADWELL & ASSOCIATES, INC.
Consulting Engineers and Scientists



EXPLANATION



OBSERVED GROUNDWATER ELEVATION, 11/30/90



<p>460 GRAND AVENUE (at BELLEVUE) OAKLAND, CALIFORNIA</p>	<p>CROSS-SECTION A - A'</p>	
<p>TREADWELL & ASSOCIATES, INC. <i>Consulting Engineers and Scientists</i></p>	<p>Project No. 1132A</p>	<p>Figure 3</p>

APPENDIX A

CITY OF OAKLAND TANK REMOVAL PERMIT
27 November 1990

Excavation Permit Granted _____ No. _____

CITY OF OAKLAND

Tank Permit

Permit to Excavate and Install, Repair, or Remove Inflammable Liquid Tanks. No. 9488

Oakland, California, November 27, 1990

PERMISSION IS HEREBY GRANTED TO ~~install~~ remove ~~repair~~ Gasoline tank and excavate commencing _____ feet inside property line

on the _____ side of _____ Street Avenue _____ feet _____ of _____ Street Avenue

House No. 460 Grand Avenue Street Avenue _____ Present Storage _____

Owner Falasci Brothers Address 1940 Webster Street Phone 531-1453

Applicant Bay Area Tank & Marine, Inc. Address 4851 Sunrise Drive Unit 104 Phone 372-4270

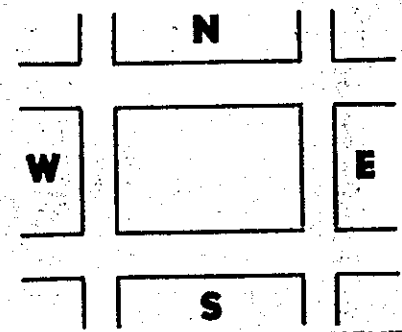
Dimensions of street (sidewalk) surface to be disturbed _____ X _____ Number of Tanks 3 Capacity 10,000 Gallons, each. 1 500

Remarks: _____

This Permit is granted in accordance with existing City Ordinances.
Owner hereby agrees to remove tanks on discontinuance of use or when notified by the City Authorities.
When installing, removing or repairing tanks, no open flame to be on or near premises.

Approved _____ Fire Marshal

Approved _____ Drainage Division Engineering Dept.



EXCAVATING PERMIT

Issued in accordance with Ord. No. 278 CMS, Sec. 6-2.04

_____ square feet of digging or removal granted.

The receipt of \$ _____ special deposit is hereby acknowledged.

GENERAL DEPOSIT.

BUREAU OF PERMITS AND LICENSES.

CERTIFICATE OF TANK AND EQUIPMENT INSPECTION

Inspected and passed on _____ 19 _____

By _____ Fire Marshal

Inspection Fee Paid - - - - - \$ 160.00 ck#1487 rec#639053 (\$40.00 due)

Received by D. Clemons

FIRE PREVENTION BUREAU

NOTICE

Before Covering Tanks, Above Certificate Must Be Signed.

When ready for inspection notify Fire Prevention Bureau, 273-3851

THIS PERMIT MUST BE LEFT ON THE WORK AS AUTHORITY THEREFOR.



**City of Oakland
CASH RECEIPT**

Cash Receipt No 639074

Cash Receipt Voucher # C R _____

Cash
Check #1490

Payment Received from: Bay Area Bank + Marine, Inc.

DIRECT CASH CREDITS

Item	Remarks	Fund/SF	Organization	Account	Proj/Grant/ Cost Ctr/WO	Yr	Loc	Task	Dept Specific	Fixed Asset No	Trans ID	Revenue Source	Amount
1	U.S. bank	10100	20310	42410		1							40.00
2	removal												.
3													.
4													.
5													.
											SUBTOTAL	40.00	

Auxiliary Receipt Reference # Additional fee for

Explanation: not 460 fund fee.

ACCOUNTS RECEIVABLES

Item	Description	Customer Number	Invoice Number	Amount
1				.
2				.
3				.
4				.
5				.
SUBTOTAL				
TOTAL				40.00

<u>Fine Preston</u> Department Collecting the Cash <u>G. M. Johnson</u> 11/27/90 Received by	Received by: _____ Entered by: _____ Treasury Section RRCC or Grant Fiscal Affairs
---	---

APPENDIX B

UNDERGROUND TANK CLOSURE PLANS
Alameda County Department of Environmental Health
25 October 1990

8. Contact Person for Investigation

Name _____ Title _____

Phone _____

9. Total No. of Tanks at facility 4

10. Have permit applications for all tanks been submitted to this office?
Yes No []

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name Re Finerics Service EPA I.D. No. CAD083166728

Address 13331 N. Highway 33

city Patterson State Ca zip 95363

b) Rinsate Transporter

Name Re Finerics Service EPA I.D. No. CAD083166728

Address 13331 N. Highway 33

city Patterson State Ca zip 95363

c) Tank Transporter

Name H & H Ship Service EPA I.D. No. CAD004771168

Address 220 China Basin rd

city San Francisco State Ca zip 94107

d) Tank Disposal Site

Name H & H Ship Service EPA I.D. No. _____

Address 220 China Basin rd

city San Francisco State Ca zip _____

e) Contaminated Soil Transporter

Name Bay Area Tank & Marine EPA I.D. No. CAL00027690

Address 4851 Sunrise Drive, Unit 104

city Martinez State Ca zip 94553

12. Sample Collector

Name Company representative
 Company Treadwell + Associates
 Address 353 Sacramento St., Suite 569
 City San Francisco State Ca Zip 94553 Phone (415) 955 9040

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
10,000	Gas		
10,000	Gas		
10,000	Gas		
500	Waste Oil		

14. Have tanks or pipes leaked in the past? Yes [] No [] unknown
 If yes, describe. _____

15. NFPA methods used for rendering tank inert? Yes No []
 If yes, describe. Dry ice will be placed into tank at a rate of 3 lbs dry ice per 100 Gallon Capacity.
 An explosion proof combustible gas meter shall be used to verify tank inertness.

16. Laboratories

Name Superior Lab
 Address 825 Arnold Drive Suite 114
 City Martinez State Ca Zip 94553
 State Certification No. 319,220

17: Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
GAS TANKS ↙ Gasoline, BTEX	5030	EPA 8015, 8020
TPH - gasoline	5030	8015
TPH - diesel	3550	8015
BTEX	5030	8020
Total oil & grease		5520 D/F
cl. hydrocarbons		8010 / 8240

18. Submit Site Safety Plan

19. Workman's Compensation: Yes [] No []

Copy of Certificate enclosed? Yes [] No [] → on File already

Name of Insurer State Comp Insur Fund

20. Plot Plan submitted? Yes [] No []

21. Deposit enclosed? Yes [] No []

22. Please forward to this office the following information within 60 days after receipt of sample results.

- a) Chain of Custody Sheets
- b) Original Signed Laboratory Reports
- c) TSD to Generator copies of wastes shipped and received
- d) Attachment A summarizing laboratory results

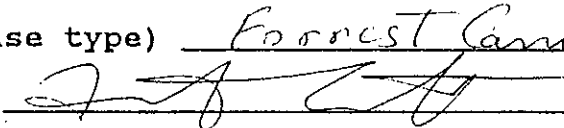
I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

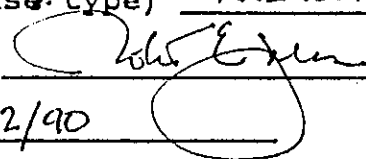
I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel and safety.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) after approval of this closure plan in advance to schedule any required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

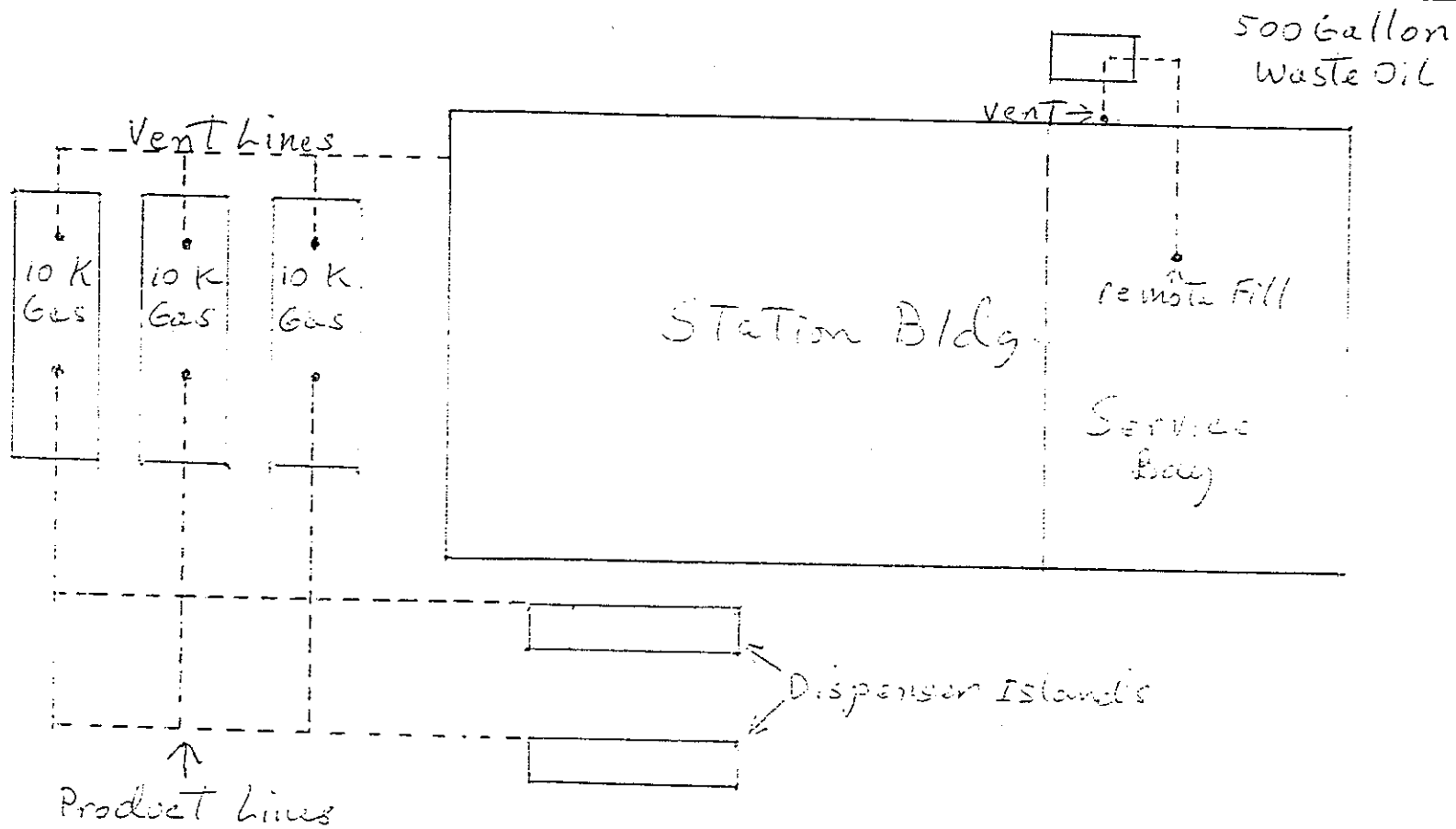
Signature of Contractor

Name (please type) Forrest Carrutt
Signature 
Date 10/16/90

Signature of Site Owner or Operator

Name (please type) FALASCHI BROTHERS
Signature 
Date 10/22/90

Bellvue



460 Grand Avenue

Contractor:

Bay Area Tank & Marine
4851 Sunrise Dr, Unit 104
Martinez, Ca 94553

Site Address:

Former Service Station
460 Grand Avenue
Oakland, Ca

Property Owner:

Mrs. Robert Falaschi
1940 Webster
Oakland, Ca 94612

NOT
TO
SCALE

SCOPE OF WORK

the scope of work for this project is to: obtain the tank removal permits; pump and dispose of the liquids in the tank as a hazardous waste; breaking and disposal of the concrete islands and pads over the tanks; excavation; removal and disposal of the tanks, pumps and piping at a licensed TSDF; sampling and analysis of the soil beneath each tank; backfill and compaction of the excavations; resurfacing of the excavations with asphalt. (optional work: Clean the trench in the car wash; appropriately dispose of collected wastes; clean the separator sump; break and remove the sump; seal piping leading to the sewer; backfill and compact the excavation; resurface with asphalt to match existing conditions.

WORK PLAN

Bay Area Tank & Marine will perform the tank removal services in accordance with all applicable codes and regulations. The services performed will include the following items:

1.0 Permits:

Bay Area Tank & Marine will obtain the permits necessary for removal of the underground tanks. The permits required will include Fire Department and Public Health Department.

2.0 Site Preparation:

The site will be prepared for excavation of the tanks by: pumping all liquids from the tank and transporting the liquids as a waste to a licensed TSDF; inerting the tanks; securing the work area with barricades or fencing; posting the applicable warning signs; locating utilities; shutting off the electrical current to the pumps and any other

electrically operated apparatus in the work area.

3.0 Tank Excavation:

The underground tanks will be removed by breaking the concrete cover over the gasoline tanks and the concrete dispenser islands using a back-hoe mounted concrete breaker or other device. The rubble that is generated from the breaking will be loaded onto trucks and transported to a recycler or class 3 landfill for disposal. Once the cover is removed, the back fill material around the tanks will be removed using an excavator or back-hoe. The backfill will be field tested as it is excavated using combustible gas meters and olfactory senses to identify and separate any contaminated material that may be encountered.

4.0 Tank removal and disposal:

Once the back fill has been excavated from around the tanks, the tanks will be lifted from the excavation using an excavator or crane, cleaned off for inspection by the attending regulating agency(s), and loaded onto trucks for transportation and disposal (under manifest) at a licensed TSDF. Documentation of the tanks final destination will be provided at the completion of the project.

5.0 Sampling and analysis:

After the tanks have been removed from the excavation, an excavator or back hoe will be used to obtain soil from the excavation and piping trenches for sampling (from areas specified by the health department inspector). The samples will be taken, transported and analyzed at a DOHS approved laboratory. The method of analysis and material to be analyzed will be determined by the Health Department. The analytical results will be transmitted to the Health Department for evaluation within the time limits described in the tank removal permit.

6.0 Backfill and compaction:

The tank excavation will be backfilled and compacted using the following material: Drain rock will be placed in the excavation if it contains ground water, otherwise a sandy fill will be placed and compacted in twelve inch lifts to within nine inches from grade and base rock will be placed and compacted from nine inches to three inches from grade.

7.0 Resurfacing:

The area around each tank excavation will be saw cut and resurfaced with a three inch layer of asphalt.

8.0 Report:

At the completion of the project, a report will be provided that describes the field activities, and includes: sample analysis results; chain of custodies; documentation of disposal of the tanks.

9.0 Timetable:

Bay area Tank & Marine Inc. can begin work on this project within five days of notification to proceed. The estimated completion time from start of work is 30 calendar days.

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

11/8/70

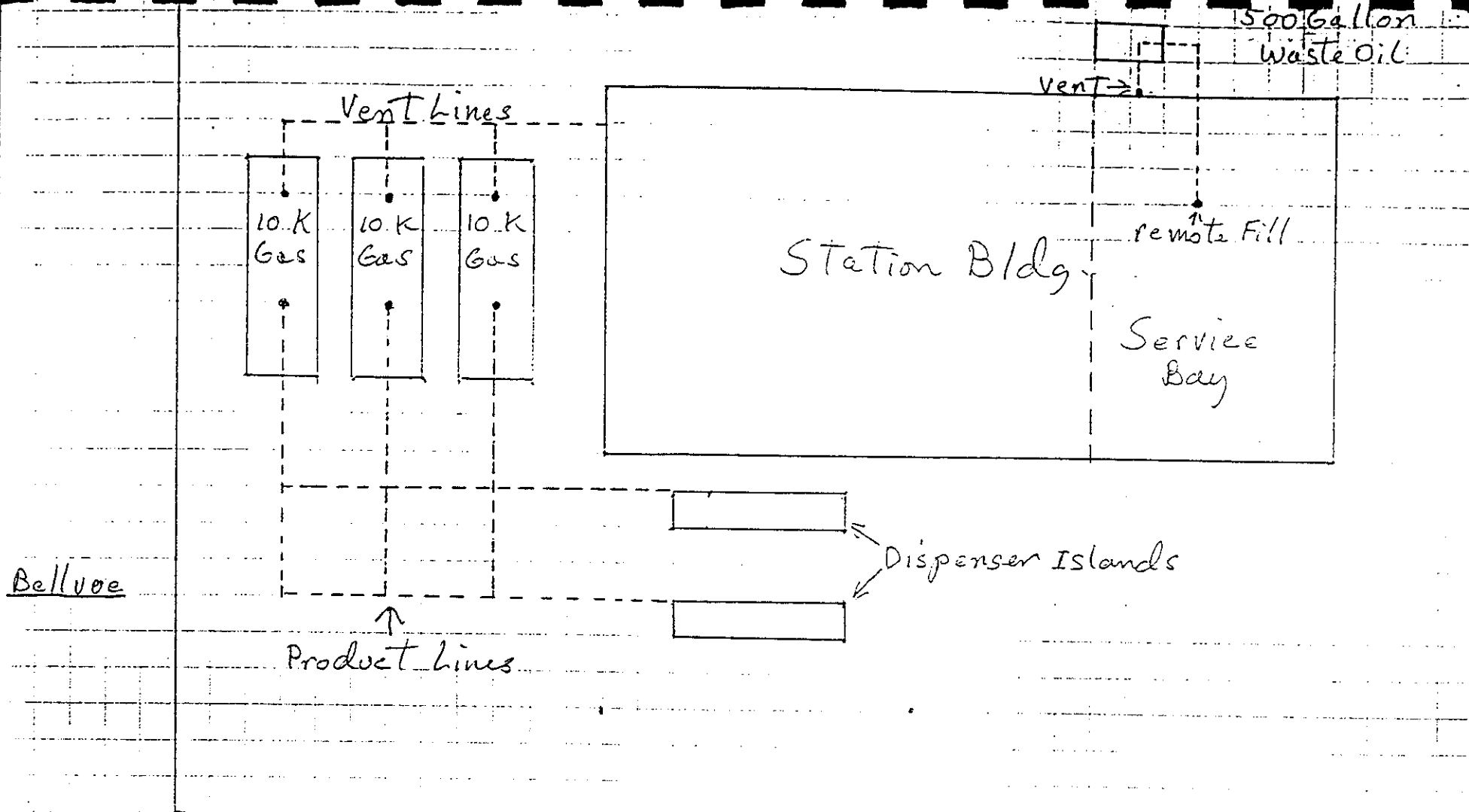
gms

* All pipes to be removed from tanks.

Project # 577697
Fee Paid 7933.00
Date 10/25/90

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Former Service Station
Business Owner Closed
2. Site Address 460 Grand Avenue
City Oakland Zip 94612 Phone None
3. Mailing Address 1940 Webster
City Oakland Zip 94612 Phone (415) 531-1453
4. Land Owner Falasci Brothers a partnership
Address 1940 Webster City, State Oakland Ca Zip 94612
5. EPA I.D. No. CAC 000 530 544
6. Contractor Bay Area Tanks & Marine inc.
Address 4851 Sunrise Drive, Unit 104
City Martinez, Ca Zip 94553 Phone (415) 372-4270
License Type A ID# 572244
7. Consultant Treadwell & Associates
Address 353 Sacramento St, Suite 569
City San Francisco Ca 94111 Phone (415) 955-9040



460 Grand Avenue

<p>not To Scale</p>	<p>Contractor: Bay Area Tank & Marine 4851 Sunrise Dr, Unit 104 Martinez, Ca 94553</p>	<p>Site Address: Former Service Station 460 Grand Avenue Oakland, Ca</p>	<p>Property Owner: Mr. Robert Falaschi 1940 Webster Oakland, Ca 94612</p>
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STATE
COMPENSATION
INSURANCE
FUND

P.O. BOX 807, SAN FRANCISCO, CA 94101 0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

April 20, 1989

POLICY NUMBER 1098627-88
CERTIFICATE EXPIRES 10-1-90

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon ten days' advance written notice to the employer.

We will also give you 10 days' advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.


PRESIDENT

EMPLOYER

Bay Area Tank & Marine
2681 Over Look Drive
Walnut Creek, CA 94596

SCOPE OF WORK

The scope of work for this project is to: obtain the tank removal permits; pump and dispose of the liquids in the tank as a hazardous waste; breaking and disposal of the concrete islands and pads over the tanks; excavation; removal and disposal of the tanks, pumps and piping at a licensed TSDF; sampling and analysis of the soil beneath each tank; backfill and compaction of the excavations; resurfacing of the excavations with asphalt. (optional work: Clean the trench in the car wash; appropriately dispose of collected wastes; clean the separator sump; break and remove the sump; seal piping leading to the sewer; backfill and compact the excavation; resurface with asphalt to match existing conditions.

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The site will be prepared for excavation of the tanks by: pumping all liquids from the tank and transporting the liquids as a waste to a licensed TSDF; inerting the tanks; securing the work area with barricades or fencing; posting the applicable warning signs; locating utilities; shutting off the electrical current to the pumps and any other

electrically operated apparatus in the work area.

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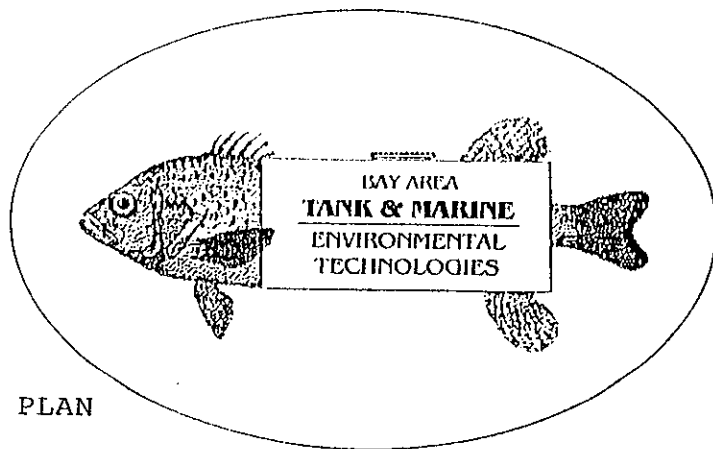
8.0 Report:

At the completion of the project, a report will be provided that describes the field activities, and includes: sample analysis results; chain of custody; documentation of disposal of the tanks.

9.0 Timetable:

Bay Area Tank & Marine Inc. can begin work on this project within five days of notification to proceed. The estimated completion time from start of work is 30 calendar days.

10/16/90



SITE SAFETY PLAN
for
Underground Tank Removals
At 460 Grand Avenue,
Oakland, Ca.

The following site safety plan has been prepared to address the health and safety requirements for the removal of underground tanks at Grand Avenue in the city of Oakland, California.

1.0 FACILITY BACKGROUND

Located at the south corner of Bellvue and Grand Avenue in the city of Oakland is a former automotive service station. The building and fueling system have not been removed from the site. The fueling system consists of three 10,000 gallon underground gasoline storage tanks (the tanks are located parallel to Bellvue and are contained in a single excavation) and one 500 gallon underground waste oil tank (located behind building along the eastern border of the property).

2.0 SCOPE OF WORK:

The scope of work to: obtain permits; remove tanks according to the site specific work plan; sample and analyze the excavation; backfill and resurface the excavation as required; perform all work without threat to the environment, public, and workers.

3.0 KEY PERSONNEL AND RESPONSIBILITIES:

The key personnel and responsibilities for this project are as follows: Forrest Canutt, Project manager, Bay Area Tank & Marine inc., responsible for safety of public and workers, performance of tasks and adherence to health and safety

requirements; Treadwell & Associates Inc., Property owners representative, contact for regulatory and technical information.

Telephone numbers of key responsible parties:

Bay Area Tank & Marine Inc.: (415) 944-9219

Treadwell & Associates Inc.: (415) 955-9040

4.0 JOB HAZARD ANALYSIS

The potential chemical and physical hazards at this site are as follows:

4.1 PHYSICAL HAZARDS:

- 4.1.1 slip, trip, fall hazards due to uneven work area
- 4.1.2 noise, eye and bodily hazards while operating equipment
- 4.1.3 hazards to hands and feet when handling heavy or sharp materials or equipment
- 4.1.4 exposure to heat or cold stress
- 4.1.5 Moving heavy equipment
- 4.1.6 Steps to Minimize Hazards: Wear proper protective equipment, familiarize workers with site conditions, monitor for heat and cold stress, operate equipment in a safe manner and designate restricted work zones before starting work.

4.2 CHEMICAL HAZARDS:

- 4.2.1 Gasoline contamination may be present at the site. The exposure limits of the petroleum contaminants are as follows:

<u>NAME</u>	<u>WARNING CONCENTRATION</u>	<u>TLV</u>	<u>IDLH</u>
Gasoline	.005-10 PPM	300 PPM	-
Benzene	4.68 PPM	10 PPM	2K PPM

Ethyl Benzene	0.25-200 PPM	100 PPM	2K PPM
Toluene	.17-40 PPM	100 PPM	2K PPM
Xylene	0.05-200	100 PPM	10K PPM

4.2.2 ROUTES OF EXPOSURE:

Inhalation: Gas, BTEX
Ingestion: Gas, BTEX
Absorption: Gas, BTEX

5.0 RISK ASSESSMENT

- 5.1 General Public: The site is fenced and restricted from public access.
- 5.2 Other Workers: All work being performed by others is being conducted outside of the work area and is unrelated to the work being performed.
- 5.3 Surrounding Property: There are no structures in the area that will be impaired by the treatment operation.
- 5.4 Workers Performing Services: The risks associated with the remediation operation can be minimized by safe work practices and proper protective equipment.

6.0 EXPOSURE MONITORING PLAN:

- 6.1 Hazardous Vapors: The work site will be monitored using a Draeger and or combustible gas meter. Meter and or Draeger readings will be taken and documented before and during work.
- 6.2 Heat and Cold Stress: These will be monitored by measuring the ambient temperature with a thermometer and will be recorded during work at regular times.

7.0 PERSONNEL PROTECTIVE EQUIPMENT:

- 7.1 Laborers and supervisors -- Level D protective equipment:
- Hard Hat
 - Coveralls or poly-tyvec
 - Half-face cartridge respirator if needed
 - Organic vapor cartridges if needed
 - safety glasses

PVC gloves and steel toe boots
Goggles

7.2 Consultant or Project Manager -- Level D protective equipment:

Hard Hat
Coveralls
Half-face cartridge respirator if needed
Organic vapor cartridges if needed
Safety glasses
PVC gloves and steel toe boots

8.0 WORK ZONES AND SECURITY MEASURES:

Three work zones will be established before proceeding with work:

8.1 Support or Security Zone: Will be the property border, barricades and or other device will be used to restrict public access.

8.2 Contamination Reduction Zone: An area designated at the site will be used to don and doff protective equipment.

8.3 Exclusion Zone: Will be the area where work is being conducted. Only workers or authorized persons wearing the proper protective equipment will be allowed into the exclusion zone.

9.0 DECONTAMINATION PROCEDURES:

Decontamination Procedures will be conducted as follows:

9.1 Personnel will remove protective equipment in the contamination reduction zone. Expendable items such as tyvecs, gloves and respirator cartridges will be placed in drums for disposal with other contaminated materials.

9.2 Bathrooms are located across the street and there will be waterless hand cleaner at the site to wash hands when necessary.

10.0 GENERAL SAFE WORK PRACTICES

No horse play.
No smoking.
No eating.

Operate all equipment properly.
Plan ahead.
Follow instructions and adhere to safety guidelines.

11.0 STANDARD OPERATING PROCEDURES:

- 11.1 All personnel will don and doff protective equipment while in the contamination reduction zone.
- 11.2 Remove protective clothing in the following order: Tyvec suit, boots, respirator, gloves.
- 11.3 Hard hat, safety glasses and steel toe boots are to be worn on site at all times.

12.0 CONTINGENCY PLAN:

- 12.1 All hospital, fire and emergency telephone numbers will be posted near the work area with directions to the hospital.
- 12.2 Personnel currently trained in first aid, CPR and CFR 1910.120:

Project Manager; First Aid, CPR, CFR 1910.120
Work crews; CFR 1910.120
Consultant; Unknown

- 12.3 Personnel injured in the exclusion zone will be moved to the contamination reduction zone (if possible) where personnel protective equipment will be removed in order to administer first aid.

13.0 TRAINING REQUIREMENTS:

- 13.1 All personnel working in areas considered potentially hazardous will have had, as a minimum, forty hours' training in the hazards and protections associated with handling hazardous waste (per CFR 1910.120).
- 13.2 Tailgate safety meetings will be conducted at the beginning of each shift, and will highlight the hazards that may be encountered during the shift.

14.0 MEDICAL SURVEILLANCE:

14.1 All personnel working at the site will have had a thorough physical examination within one year of performing work.

14.2 Minimal exposure risk during the project does not merit base-line physicals before and after the project.

15.0 RECORD KEEPING:

All documentation pertaining to this project, e.g., exposure monitoring, temperature, safety meetings, etc., will be recorded and maintained at the office of the general contractor:

Bay Area Tank & Marine, Inc.
2681 Overlook Drive
Walnut Creek, Ca. 94596



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

REGULATION 8, RULE 40
Aeration of Contaminated Soil and
Removal of Underground Storage Tanks

NOTIFICATION FORM

- Removal or Replacement of Tanks
- Excavation of Contaminated Soil

SITE INFORMATION

SITE ADDRESS 469 Grand Avenue
 CITY, STATE, ZIP Oakland, Ca 94612
 OWNER NAME Robert Polaschi
 SPECIFIC LOCATION OF PROJECT Between Grand Ave, Oakland

<p>TANK REMOVAL</p> <p>SCHEDULED STARTUP DATE <u>11/10/90</u></p> <p>VAPORS REMOVED BY:</p> <p><input checked="" type="checkbox"/> WATER WASH</p> <p><input type="checkbox"/> VAPOR FREEING (CO²)</p> <p><input type="checkbox"/> VENTILATION</p>	<p>CONTAMINATED SOIL EXCAVATION</p> <p>SCHEDULED STARTUP DATE <u>11/10/90</u></p> <p>STOCKPILES WILL BE COVERED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):</p> <p>_____</p> <p>(MAY REQUIRE PERMIT)</p>
---	--

CONTRACTOR INFORMATION

NAME Environmental Solutions CONTACT Forrest Cornett
 ADDRESS 2150 Shattuck Blvd, Berkeley PHONE (415) 322-4270
 CITY, STATE, ZIP Berkeley, Ca 94703

**CONSULTANT INFORMATION
(IF APPLICABLE)**

NAME _____ CONTACT _____
 ADDRESS _____ PHONE () _____
 CITY, STATE, ZIP _____

FOR OFFICE USE ONLY

DATE RECEIVED _____ BY _____
 CC: INSPECTOR NO. _____ DATE _____ (INIT.) _____
 TELEPHONE UPDATE: CALLED _____ CHARGE MADE _____
 BAAQMD # _____

APPENDIX C

FIELD RECORDS

Gilbert Wistar, Alameda County
Gary Collins, City of Oakland

BAY AREA TANK & MARINE TEL:415-825-1907

Jan 18.91 15:23 No.004 P.02

CITY OF OAKLAND
REPORT OF FIRE INSPECTION

ENGINE CO.

ADDRESS 460 GRAND AVE

NAME BAY AREA TANK & MARINE

GENERAL INSPECTION PERMIT HAZARD NOTED HAZARD ABATED
OTHER

NOTICE LEFT LETTER 1st NOTICE 2nd NOTICE FINAL

DATE	VIOLATION	O.P.C.	CONTACTED
11/30/90	WITNESSED REMOVAL OF WORK OIL TANK LEL 1%, O ₂ 6%, GASOLINE TANK O ₂ 1% LEL 12%		

A REINSPECTION WILL BE MADE WITHIN _____ DAYS.

FIRE PREVENTION BUREAU - PHONE 273-3851

338-6 (Rev. 5-77)

INSPECTOR GARY COLLINS

CITY OF OAKLAND
REPORT OF FIRE INSPECTION

ENGINE CO. _____

ADDRESS 4101 (S) DAVIS ST

NAME Bay Area Bank & Finance

GENERAL INSPECTION

PERMIT
OTHER

HAZARD NOTED

HAZARD ABATED

NOTICE LEFT LETTER

1st NOTICE

2nd NOTICE

FINAL

DATE	VIOLATION	O.F.C.	CONTACTED
	Unintended removal of fire alarm		
	Alarm not working L.C. 6/22/77		

REINSPECTION WILL BE MADE WITHIN _____ DAYS.

FIRE PREVENTION BUREAU — PHONE 273-3851

INSPECTOR 5-12-77

APPENDIX D
UNIFORM HAZARDOUS WASTE MANIFESTS
Transportation of Waste Liquids

Please print or type. (Form designed for use on elite (12-pitch typewriter).)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. _____ Manifest Document No. _____
2. Page 1 of _____ Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

FALASCHI BROS.
1940 Webster St., Oakland, CA. 94612

4. Generator's Phone (916) 832-1234

6. Transporter 1 Company Name **Refineries Services** 6. US EPA ID Number _____

7. Transporter 2 Company Name _____ 8. US EPA ID Number _____

9. Designated Facility Name and Site Address **Refineries Services** 10. US EPA ID Number _____

13331 N. HWY. 33
Patterson, CA. 95624

A. State Manifest Document Number **89804855**

B. State Generator's ID _____

C. State Transporter's ID **102270**

D. Transporter's Phone **209 892-6742**

E. State Transporter's ID _____

F. Transporter's Phone _____

G. State Facility's ID _____

H. Facility's Phone **209 892-6742**

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) 12. Containers No. Type 13. Total Quantity 14. Unit Wt/Vol 15. Waste No.

a. **NON RCRA HAZARDOUS WASTE LIQUID** 12. 011 13. 13.111 14. G 15. State 134

b. _____ 15. EPA/Other EXEMPT State

c. _____ 15. EPA/Other

d. _____ 15. State

_____ 15. EPA/Other

J. Additional Descriptions for Materials Listed Above

PETROLEUM HYDROCARBON APPROX 27
WATER APPROX 752
SLUDGE APPROX

K. Handling Codes for Wastes Listed Above

a. _____ b. _____

c. _____ d. _____

15. Special Handling Instructions and Additional Information

WEAR GLOVES, GOGGLES & PROTECTIVE CLOTHING
IN CASE OF SPILL CALL EMERGENCY RESPONSES
800-874-4444 OR (916) 892-6742

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name **Joe Davis** Signature _____ Month Day Year **11/21/90**

17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name **Stanley R. Voss** Signature _____ Month Day Year **11/21/90**

18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____

19. Discrepancy Indication Space _____

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name _____ Signature _____ Month Day Year _____

89804855
IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-862-7550
GENERATOR
TRANSPORTER
FACILITY

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address FALASCHI BROS. 1940 Webster St., Oakland, CA. 94612						A. State Manifest Document Number 89804851	
4. Generator's Phone						B. State Generator's ID	
5. Transporter 1 Company Name Refineries Service			6. US EPA ID Number			C. State Transporter's ID 102070	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone 209 892-6742	
9. Designated Facility Name and Site Address Refineries Service 13331 N. HWY. 35 Patterson, CA. 95761						E. State Transporter's ID	
10. US EPA ID Number						F. Transporter's Phone	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						G. State Facility's ID	
12. Containers No. Type						H. Facility's Phone	
13. Total Quantity						I. Waste No.	
14. Unit Wt/Vol						State	
15. Additional Descriptions for Materials Listed Above						EPA/Other	
16. Special Handling Instructions and Additional Information						State	
17. Generator's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.						EPA/Other	
18. Discrepancy Indication Space						State	
19. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						EPA/Other	
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						State	

89804851
 GENERATOR
 TRANSPORTER
 FACILITY
 IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7560

J. Additional Descriptions for Materials Listed Above
PETROLEUM HYDROCARBON APPROX 17
WATER APPROX 997
SLUDGE APPROX

15. Special Handling Instructions and Additional Information
WEAR GLOVES, GOGGLES & PROTECTIVE CLOTHING
IN CASE OF SPILL CALL EMERGENCY RESPONSE
800-874-4444 OR (209) 892-6742

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
 If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: _____ Signature: _____ Month Day Year: 11/27/90

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name: **J. Frank P. V.** Signature: _____ Month Day Year: 11/27/90

18. Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name: _____ Signature: _____ Month Day Year: _____

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
 Printed/Typed Name: _____ Signature: _____ Month Day Year: _____

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

TREADWELL & ASSOCIATES

APPENDIX E

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE REPORT

4 December 1990

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.
REPORT DATE 1 ^m 2 ^m 0 ^d 4 ^d 9 ^y 0 ^y	CASE #	SIGNED: _____ DATE: _____

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Joseph A. Adams	PHONE (415) 421-9696	SIGNATURE <i>Joseph A. Adams Receiver</i>	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER	COMPANY OR AGENCY NAME Faraschi Brothers by Joseph A. Adams, Receiver		
	ADDRESS 100 Pine Street, 21st Floor San Francisco CA 94111			

RESPONSIBLE PARTY	NAME To be determined <input type="checkbox"/> UNKNOWN	CONTACT PERSON Joseph A. Adams	PHONE (415) 421-9696	
	ADDRESS 100 Pine Street, 21st Floor San Francisco CA 94111			
	STREET CITY STATE ZIP			

SITE LOCATION	FACILITY NAME (IF APPLICABLE) N/A	OPERATOR N/A	PHONE ()	
	ADDRESS 460 Grand Avenue Oakland Alameda 94612			
	STREET CITY COUNTY ZIP			
	CROSS STREET Bellevue Avenue			

IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME Alameda County Department of Environmental Health	CONTACT PERSON Gilbert M. Wistar	PHONE (415) 430-4530
	REGIONAL BOARD	PHONE ()	

SUBSTANCES INVOLVED	(1) NAME Waste Oil from 500-gallon tank	QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2)	<input type="checkbox"/> UNKNOWN

DISCOVERY/ABATEMENT	DATE DISCOVERED 1 ^m 1 ^m 3 ^d 0 ^d 9 ^y 0 ^y	HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER		
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input checked="" type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 1 ^m 1 ^m 3 ^d 0 ^d 9 ^y 0 ^y	<input checked="" type="checkbox"/> OTHER Removed tank (C)		
	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER			

CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)			
	CURRENT STATUS CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input checked="" type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY			

REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)			
	<input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> VACUUM EXTRACT (VE)	<input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)	<input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> TREATMENT AT HOOKUP (HU)	<input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VENT SOIL (VS)

A Signature is for reporting purposes only
 B Legal actions have been initiated to determine the "responsible party"
 C Station has not been used since 1978. Contents of tank consisted of waste oil and water.

APPENDIX F

UNIFORM HAZARDOUS WASTE MANIFESTS

Transportation of Stabilized Storage Tanks

Please print or type. (Form designed for use on elite (12-pitch typewriter).)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. CAC0000630544T34704		Manifest Document No. 4		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address PALASCHE BROS 1940 WEBSTER OAKLAND, CA.						A. State Manifest Document Number 89891087				
4. Generator's Phone (415) 531-1153						B. State Generator's ID				
5. Transporter 1 Company Name JACK PARKER TRUCKING CO			6. US EPA ID Number CA14000027709			C. State Transporter's ID 106472/1.26.92		D. Transporter's Phone 415/237-2212		
7. Transporter 2 Company Name						E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Erickson, Inc. 255 Parr Blvd. Richmond, Ca. 94801						10. US EPA ID Number CA00002466392		G. State Facility's ID		
						H. Facility's Phone (415) 235-1393				
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	15. Waste No.
a. Waste Empty Storage Tank NON-RCFA Hazardous Waste Solid.					002 / 105				F	State 512 EPA/Other NONE
b.										State EPA/Other
c.										State EPA/Other
d.										State EPA/Other
J. Additional Descriptions for Materials Listed Above Qty. 2 Empty Storage Tank (s) #5129, 5130. Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Gal. Capacity.						K. Handling Codes for Wastes Listed Above a. b. c. d.				
16. Special Handling Instructions and Additional Information Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Eric Erickson					Signature Eric Erickson			Month Day Year 11/20/90		
17. Transporter 1 Acknowledgement of Receipt of Materials					Printed/Typed Name David Phillips			Signature David Phillips		Month Day Year 11/20/90
18. Transporter 2 Acknowledgement of Receipt of Materials					Printed/Typed Name			Signature		Month Day Year
19. Discrepancy Indication Space										
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.										
Printed/Typed Name					Signature			Month Day Year		

89891087

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APPENDIX G
CERTIFICATES OF TANK DESTRUCTION

No 5127 - 734/84
 Bay Area Tank & Marine

CERTIFICATE
 Certified Services Company
 255 Parr Boulevard
 Richmond, California 94801

Day or Night
 Telephone
 (415) 235-1393

For: Erickson, Inc. Tank No.(s.) 5127 Location: Richmond Date: 12-04-90 Time: 10:00 a.m.
 Test Method: Visual Gastech/1314 SMPN Last Product: Loaded Gas

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based

on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1- <u>10,000 Gal. Tank</u>	Safe For Fire Oxy 20.9% LEL less than 0.1%

Remarks: _____

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the

undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

[Signature]
 Representative

Title

[Signature]
 Inspector

No 5128-73484
Bay Area Tank Marine

CERTIFICATE
Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night
Telephone
(415) 235-1393

For: Erickson, Inc. Tank No.(s) 5128 Location: Richmond Date: 12-03-90 Time: 8:00 a.m.
Test Method: Visual Gastech/1314 SMPN Last Product: Unleaded Gas

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based

on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1- <u>10,000</u> Gal. Tank	Safe For Fire Oxy 20.9% LEL-Less than 0.1%

Remarks:

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the

undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

K. Hughes
Representative

Title

Jim Cox
Inspector

Jan 22, 91 16:14 No. 008 P. 03
BAY AREA TANK & MARINE TEL: 415-225-1907

No 5129 - 734184
Bay Area tank & Marine

CERTIFICATE
Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night
Telephone
(415) 235-1393

For: Prickson, Inc. Tank No.(s) 5129 Location: Richmond Date: 12-04-90 Time: 8:00 a.m.
Test Method: Visual Gastech/1314 GMDN Last Product: Unleaded Gas

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based

on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1- <u>10,000 Gal. Tank</u>	<u>Safe For Fire</u>
	<u>Oxy 20.9%</u>
	<u>LEL Less than 0.1%</u>

Remarks:

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the

undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

K. Hanks
Representative

[Signature]
Inspector



NE 5130-73484

Bay Area Tank & Maintenance

CERTIFICATE
Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night
Telephone
(415) 235-1393

For: Erickson, Inc. Tank No.(s) 5130 Location: Richmond Date: 12-04-90 Time: 8:00 a.m.
Test Method: Visual Gastech/1314 SMPN Last Product: Waste oil

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based

on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1- 500 Gal. Tank	Safe For Fire Oxy 20.9% LEL-Less than 0.1%

Remarks: _____

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the

undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

[Signature]
Representative

[Signature]
Inspector



APPENDIX H
CHAIN-OF CUSTODY RECORDS

NEW & UPDATED REQUEST

TREADWELL & ASSOCIATES, INC.
 353 Sacramento Street, Suite 560
 San Francisco, California 94111
 (415) 955-9040

CHAIN OF CUSTODY RECORD

Project #: 11324 Project Name: Grand Ave @ Belkrow Date: 11-30-90 Page: 1 of 1

Date	Sample Number	Total Lead	Analysis					Number of Containers	Sample Information	Relinquished By (Sampler):		
			Asph. Aqueous	TPH including asph. & oil & grease	TPH including asph. & oil & grease	TPH including asph. & oil & grease	TPH including asph. & oil & grease			Chlorinated hydrocarbons	Signature	Printed Name
11/30/90	T1-1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	1	Remark	<i>Dean H. Iwasa</i>	
	T1-2	✓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	2	#3		
	T1-3							1	Hold 3			
	T2-1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	4			
	T2-2	✓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	5			
	T3-1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	6			
	T3-2	✓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	7			
	T4-1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	8			
	W1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	9			
Call & Find out info												
									Received By (Lab):			
									<i>Nancy J. Wilson</i>			
									Signature			
									Printed Name			
									CIT Lab			
									Lab			
									Date: <u>11/30/90</u> Time: <u>5:35</u>			
									Lab Comments:			
									Reg. TAT			
							Total Number of Containers	11				

REMARKS:

- 1) Lab analysis request was modified to obtain lower detection limit for aged gasoline in soil samples. FAX 486-0532
- 2) Water Sample W1 should be analyzed for petroleum hydrocarbons using TPH and TEH test methods
- 3) Please retain all soil samples after testing

TREADWELL & ASSOCIATES, INC.
 353 Sacramento Street, Suite 560
 San Francisco, California 94111
 (415) 955-9040

CHAIN OF CUSTODY RECORD

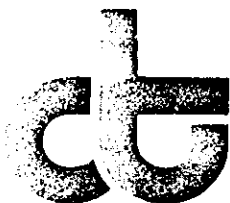
Project #: 1132A Project Name: Grand e Bellevue Date: 12/4/90 Page: 1 of 1

Date	Sample Number	Analysis				Number of Containers	Sample Information	Relinquished By (Sampler):	
		BTX#E	TPH including Gasoline					Signature	Printed Name
12/4/90	P-1	✓	✓			1	Remark #1	Signature: <i>[Signature]</i>	Printed Name: <u>Dean H. Juresk</u>
	P-2	✓	✓			1		Date: <u>12-4-90</u> Time: <u>16:30</u>	
	P-3	✓	✓			1		Received By:	
	P-4	✓	✓			1		Signature	
								Printed Name	
								Company	
								Date: Time:	
								Relinquished By:	
								Signature	
								Printed Name	
								Company	
								Date: Time:	
								Method of Shipment:	
								Received By (Lab):	
								Signature: <i>[Signature]</i>	
								Printed Name: <u>JOHN GOYETTE</u>	
								Lab: <u>CURTIS TOMPKINS</u>	
								Date: <u>12-4-90</u> Time: <u>16:30</u>	
								Lab Comments:	
						4		<u>Normal TAT</u>	
		Total Number of Containers							

REMARKS: 1) Retain Sample after testing. 102454

TREADWELL & ASSOCIATES

APPENDIX I
ANALYTICAL LABORATORY REPORTS



Curtis & Tompkins, Ltd., Analytical Laboratories. Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

RECEIVED
DEC 20 1990
TREADWELL & ASSOCIATES

DATE RECEIVED: 11/30/90
DATE REPORTED: 12/17/90

LAB NUMBER: 102416

CLIENT: TREADWELL & ASSOCIATES

REPORT ON: 7 SOILS SAMPLES & 1 WATER SAMPLE

PROJECT #: 1132A
LOCATION: GRAND AVE @ BELLEVUE

RESULTS: SEE ATTACHED



QA/QC Approval



Final Approval



LAB NUMBER: 102416
CLIENT: TREADWELL & ASSOCIATES
PROJECT # : 1132A
LOCATION: GRAND AVE @ BELLEVUE

DATE RECEIVED: 11/30/90
DATE ANALYZED: 12/04/90
DATE REPORTED: 12/17/90

ANALYSIS: HYDROCARBON OIL AND GREASE
METHOD: SMWW 17:5520EF

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
102416-8	T4-1	24,000	mg/Kg	50

ND = Not detected at or above reporting limit

QA/QC SUMMARY

RPD, %	6
RECOVERY, %	90

LABORATORY NUMBER: 102416-8
 CLIENT: TREADWELL & ASSOCIATES
 PROJECT ID: 1132A
 LOCATION: GRAND AVE @ BELLEVUE

DATE RECEIVED: 11/30/90
 DATE EXTRACTED: 12/07/90
 DATE ANALYZED: 12/13/90
 DATE REPORTED: 12/17/90

Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
102416-8	T4-1	ND	7,100	1,000

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, % 5
 RECOVERY, % 83



LABORATORY NUMBER: 102416
CLIENT: TREADWELL & ASSOCIATES
PROJECT ID: 1132A

DATE RECEIVED: 11/30/90
DATE ANALYZED: 12/03/90
DATE REPORTED: 12/17/90

=====
ANALYSIS: LEAD
ANALYSIS METHOD: EPA7420
=====

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
102416-2	T1-2	3.8	mg /Kg	2.5
102416-5	T2-2	ND	mg /Kg	2.5
102416-7	T3-2	3.4	mg /Kg	2.5
102416-8	T4-1	40	mg /Kg	2.5

QA/QC SUMMARY

=====
RPD, % 2
RECOVERY, % 91
=====



LABORATORY NUMBER: 102416-8
CLIENT: TREADWELL & ASSOCIATES
PROJECT ID: 1132A
SAMPLE ID: T4-1

DATE RECEIVED: 11/30/90
DATE ANALYZED: 12/04/90
DATE REPORTED: 12/17/90

PARAMETER	RESULT	UNITS	REPORTING LIMIT	METHOD
CADMIUM	0.8	mg / Kg	0.5	EPA 6010
CHROMIUM	12	mg / Kg	0.5	EPA 6010
NICKEL	22	mg / Kg	0.5	EPA 6010
ZINC	41	mg / Kg	0.5	EPA 6010

QA/QC SUMMARY

	RPD, %	RECOVERY, %
CADMIUM	3	91
CHROMIUM	<1	98
NICKEL	6	99
ZINC	1	95

LABORATORY NUMBER: 102416-8
 CLIENT: TREADWELL & ASSOCIATES
 PROJECT ID: 1132A
 SAMPLE ID: T4-1

DATE RECEIVED: 11/30/90
 DATE ANALYZED: 12/06/90
 DATE REPORTED: 12/17/90

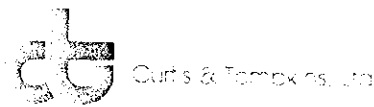
EPA 8010: Volatile Halocarbons in Soil & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
chloromethane	ND	
bromomethane	ND	400
vinyl chloride	ND	400
chloroethane	ND	400
methylene chloride	ND	400
trichlorofluoromethane	ND	200
1,1-dichloroethene	ND	200
1,1-dichloroethane	ND	200
1,2-dichloroethene (total) <i>DCE</i>	ND	200
chloroform	ND	200
freon 113	ND	200
1,2-dichloroethane <i>DCA</i>	ND	200
1,1,1-trichloroethane	ND	200
carbon tetrachloride	250	200
bromodichloromethane	ND	200
1,2-dichloropropane <i>DCC</i>	ND	200
cis-1,3-dichloropropene	ND	200
trichloroethylene	ND	200
1,1,2-trichloroethane	ND	200
trans-1,3-dichloropropene	ND	200
dibromochloromethane	ND	200
2-chloroethylvinyl ether	ND	200
bromoform	ND	400
tetrachloroethylene	ND	200
1,1,2,2-tetrachloroethane	1,000	200
chlorobenzene	ND	200
1,3-dichlorobenzene	ND	200
1,2-dichlorobenzene <i>DCB</i>	ND	200
1,4-dichlorobenzene	ND	200
	ND	200

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference	6 %
Spike: Average % Recovery	93 %



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 102416
CLIENT: TREADWELL & ASSOCIATES
PROJECT ID: 1132A
JOB LOCATION: GRAND AVE @ BELLEVUE

DATE RECEIVED: 11/30/90
DATE ANALYZED: 12/07/90
DATE REPORTED: 12/17/90

Total Volatile Hydrocarbons with BTXE in Soils & Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
102416-1	T1-1	ND(1.0)	ND(5.0)	100	ND(5.0)	ND(5.0)
102416-2	T1-2	ND(1.0)	ND(5.0)	97	ND(5.0)	ND(5.0)
102416-4	T2-1	ND(1.0)	ND(5.0)	140	ND(5.0)	ND(5.0)
102416-5	T2-2	ND(1.0)	19	65	ND(5.0)	ND(5.0)
102416-6	T3-1	ND(1.0)	ND(5.0)	220	ND(5.0)	ND(5.0)
102416-7	T3-2	ND(1.0)	ND(5.0)	63	ND(5.0)	ND(5.0)
102416-8	T4-1	400	1,200	10,000	5,200	35,000

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	90



LABORATORY NUMBER: 102416
CLIENT: TREADWELL & ASSOCIATES
PROJECT ID: 1132A
JOB LOCATION: GRAND AVE & BELLEVUE

DATE RECEIVED: 11/30/90
DATE ANALYZED: 12/05/90
DATE REPORTED: 12/17/90

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
102416-9	W-1	2,300	53	160	36	160

QA/QC SUMMARY

RPD, %

RECOVERY, %

<1
86



LABORATORY NUMBER: 102416-9
CLIENT: TREADWELL & ASSOCIATES
JOB #: 1132A
LOCATION: GRAND AVE @ BELLEVUE

DATE RECEIVED: 11/30/90
DATE EXTRACTED: 12/05/90
DATE ANALYZED: 12/13/90
DATE REPORTED: 12/17/90

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

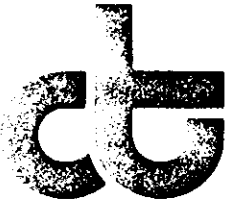
LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
102416-9	W1	ND	ND	50

ND = Not detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	6
RECOVERY, %	85



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 12/04/90
DATE REPORTED: 12/14/90

RECEIVED

DEC 20 1990

TREADWELL & ASSOCIATES

LAB NUMBER: 102454

CLIENT: TREADWELL AND ASSOCIATES


REPORT ON: FOUR SOIL SAMPLES

PROJECT #: 1132A
LOCATION: GRAND AVENUE AT BELLEVUE

RESULTS: SEE ATTACHED



QA/QC Approval



Final Approval



LABORATORY NUMBER: 102454
CLIENT: TREADWELL AND ASSOCIATES
PROJECT ID: 1132A
JOB LOCATION: GRAND AVE. AT BELLEVUE

DATE RECEIVED: 12/04/90
DATE ANALYZED: 12/06/90
DATE REPORTED: 12/14/90

Total Volatile Hydrocarbons with BTXE in Soils & Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
102454-1	P-1	1,700	ND (400)	8,700	47,000	260,000
102454-2	P-2	90	ND (400)	1,700	890	4,700
102454-3	P-3	ND (1.0)	6.6	180	5.3	33
102454-4	P-4	ND (1.0)	ND (5.0)	36	ND (5.0)	5.5

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	87