

# PARSONS

**Parsons Engineering Science Inc.**

**A Unit of Parsons Infrastructure & Technology Group**

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570 • www.parsons.com

June 15, 2000

Ms. Susan Hugo  
Alameda County Department of  
Environmental Health  
1131 Harbor Bay Parkway  
Alameda County  
Alameda, California 94502

RE: Greyhound Terminal  
2103 San Pablo Avenue  
Oakland, California  
Risk Management Plan

Dear Ms. Hugo:

On behalf of Greyhound Lines, Inc. (Greyhound), Parsons Engineering Science, Inc. (Parsons ES) is pleased to provide the Alameda County Department of Environmental Health (ACDEH) with this Risk Management Plan (RMP) for the Greyhound Terminal facility located at 2103 San Pablo Avenue in Oakland, California (Figure 1). This RMP includes a description of prohibited uses and activities, known contaminants and their characteristics, and references to key regulatory contacts. A description of known environmental impacts still remaining at the site is referenced in the closure request letter dated June 15, 2000. The RMP also addresses health and safety issues as they relate to future development scenarios.

## **Risk Management Plan**

The following are stipulations and restrictions that must be followed in order to comply with all requirements of the RMP as specified by the ACDEH. The stipulations and restrictions are as follows:

- This document should be recorded in the Real Property Records of Alameda County and a copy of this RMP should be provided to the city of Oakland Planning / Building Department for its records.
- Notice of change in land use for this property should be sent to:

Alameda County Health Care Services Agency  
Environmental Health Services  
Environmental Protection (LOP)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502



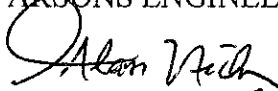
Ms. Susan Hugo  
ACDEH  
June 15, 2000  
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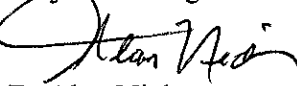
- The shallow groundwater beneath the property should not be used for any purpose, unless analyzed and treated, as necessary, to meet applicable use requirements. If water is proposed for use, appropriate notice shall be given to the ACDEH.
- Due to the detection of residual petroleum hydrocarbons in the soil between 16 and 18 feet below ground surface within the immediate area of the former UST locations, construction site workers who may handle soils in this area during future construction activities should take appropriate precautions in accordance with applicable Occupational Health and Safety Administration (OSHA) and ACDEH requirements.
- Due to the presence of residual dissolved petroleum hydrocarbons in the groundwater, construction workers, who may handle soils in this area during future construction activities should take appropriate precautions in accordance with applicable OSHA and ACDEH requirements.
- If petroleum-impacted soil or groundwater is removed during construction activities, a management plan should be developed in accordance with all applicable regulatory requirements.
- The site shall remain entirely paved with concrete or other impermeable cover as required by current regulations.
- Additional records of all known petroleum impacts to the property, including a Preliminary Risk Evaluation, are available at ACDEH. The deed-restricted closure of this facility is based on "current use" conditions. Future development will require compliance with applicable regulations pertaining to the health and safety of construction workers, as well as long-term occupants at and in the vicinity of the property.

If you have any questions or require additional information concerning this Risk Management Plan, please contact us at (315) 451-9560.

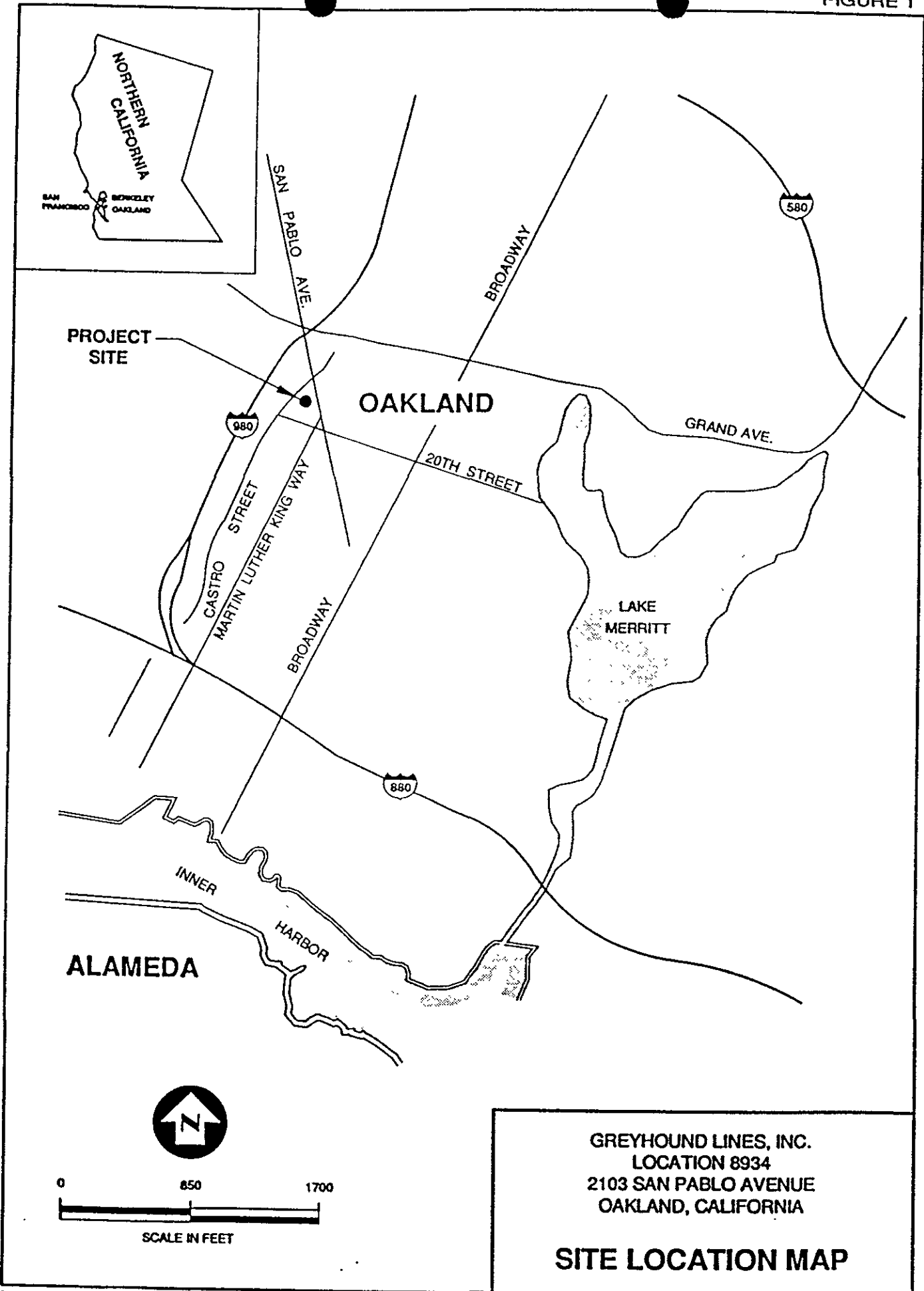
Sincerely,

PARSONS ENGINEERING SCIENCE, INC.

  
Edward J. Ashton <sup>For</sup>  
Project Geologist

  
D. Alan Nickerson  
Project Manager

cc: June Weirich, Greyhound Lines, Dallas, TX  
Project File: 735102.89340



GREYHOUND LINES, INC.  
LOCATION 8934  
2103 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA

**SITE LOCATION MAP**

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June 15, 2000

Ms. Susan Hugo  
Alameda County Department of  
Environmental Health  
1131 Harbor Bay Parkway  
Alameda County  
Alameda, California 94502

RE: Greyhound Terminal  
RWQCB LUSTIS Case No. 3809  
Oakland, California  
Final Closure Request

3809

Dear Ms. Hugo:

On behalf of Greyhound Lines, Inc. (Greyhound), Parsons Engineering Science, Inc. (Parsons ES) is pleased to provide the Alameda County Department of Environmental Health (ACDEH) with this final closure request for the Greyhound Terminal facility located at 2103 San Pablo Avenue in Oakland, California. Included with this transmittal are the following final reports as requested by the Alameda County Department of Environmental Health and California Regional Quality Control Board during our meeting on September 14, 1998:

- **Closure Report for No Further Action Status** (including the requested Tier II evaluation of benzene in low permeability soils for the maximum site concentration detected amended to  $1 \times 10^{-5}$  risk factor).
- **Central Valley Regional Water Quality Control Board's Case Closure Checklist**
- **Risk Management Plan for Closure With Deed Restriction (Current Use)**

Greyhound would appreciate your expedited review of these documents so that we can proceed with well abandonment. Please contact us at (315) 451-9560 if you have any questions or require additional information.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.



D. Alan Nickerson  
Project Manager

Attachments

cc: Mr. Chuck Headley, RWQCB  
Ms. June Weirich, Greyhound, Dallas, TX  
Project File: 735102.89340



# PARSONS

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2103 San Pablo Avenue  
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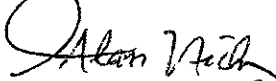
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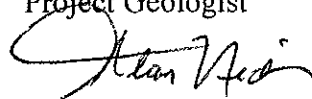
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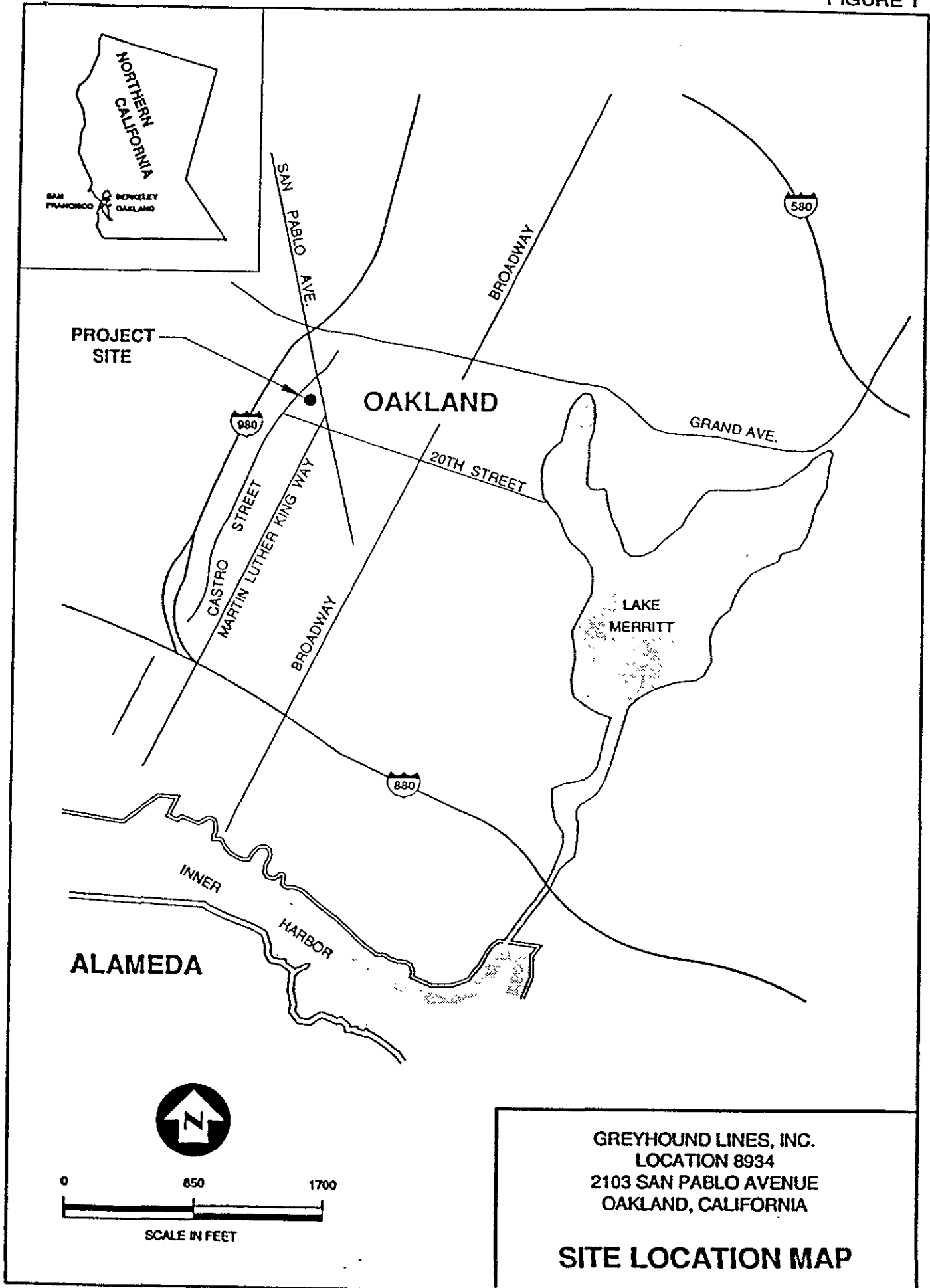
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Project Geologist

  
D. Alan Nickerson  
Project Manager

cc: June Weirich, Greyhound Lines, Dallas, TX  
Project File: 735102.89340

FIGURE 1



GREYHOUND LINES, INC.  
LOCATION 8934  
2103 SAN PABLO AVENUE  
OAKLAND, CALIFORNIA

**SITE LOCATION MAP**

# CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD CASE CLOSURE CHECKLIST

## Leaking Underground Storage Tank Program

This checklist, CASE Closure letter, and the Unauthorized Release Report Form (URF) is to be retained by the Regional Board and Local Implementing Agency as documentation of release and subsequent closure action. All files and reports will be placed on microfiche for review.

### I. Case Information

LUSTIS Case No. 3809 URF filing date \_\_\_\_\_ Closure date \_\_\_\_\_

Site name/county Greyhound Lines, Inc., Terminal / Alameda County

Site address 2103 San Pablo Ave City Oakland Zip 94608 Phone 510-834-3213

Table 1 - Responsible Party Information

Responsible Party	Name	Address, City, Zip	Phone
Property Owner	<i>Greyhound Lines, Inc., June Weirich</i>	<i>One Dallas Center 350 N. St. Paul, Dallas, TX 75201</i>	<i>214-849-8842</i>
Operator 1			
Operator 2			
Operator 3			

### II. Release and Site Characterization Information

Tank size(s) 6 Tanks of various sizes Fuel Type(s) diesel fuel

Chemical type(s) and quantity(ies) released Unknown quantity(ies)

Table II - Lateral and Vertical Extent of Contamination (see <sup>(1)</sup> note below)

Environment	Lateral (ft)	Vertical (ft)	Contaminant	Concentration Range
Soil	≈20	≈18	BTEX TPH-D	ND to 205 mg/kg ND to .160 mg/kg
Groundwater	≈40	≈30	MTBE BTEX TPH-G TPH-D PAHs	ND to 350 ug/l ND to 4840 ug/l ND to 31 mg/l ND to 484 mg/l ND to 4343 ug/l

Soil type at the site Unconsolidated Pleistocene (Merritt sand, alluvial deposits & older alluvium)

Source of drinking water under SWRCB POLICY 88-63 East Bay Municipal Utility District (EBMUD)

Were nearby wells (Domestic, Municipal, AG, etc.) monitored? Yes X No \_\_\_\_\_

Wells affected (Domestic, Municipal, AG, etc.) Approximately 384 wells are located within section 26. The vast majority (99%) of these wells are used to monitor or extract contaminated groundwater at commercial/ industrial sites. One well is used for irrigation. None of the wells are used for municipal water supplies.

Highest and lowest depths to groundwater 18' to 22' below surface (bgs)

Seasonal groundwater gradient(s) and direction(s) Southeast

Name of Regional Water Quality Control Plan (Basin Plan) aquifer affected (see attached)

NA - No aquifer affected.

#### Notes

<sup>(1)</sup> Refer to Attachment A for groundwater summary table of analytical results collected to date and figures depicting analytical results, and summary table for soil analytical results provided.

NA - Non Applicable



Surface water impacted? Yes \_\_\_\_\_ No X

Name of surface water body affected NA

**III. Soil Remediation Information** All information collected Parsons ES reports, "Tank Closure Documentation, Greyhound Terminal Oakland, CA," dated December 1992.

Soil remediation method(s) Excavation of soils from removal of six USTS (April 1990)

Volume treated and/or removed 713.68 tons of petroleum contaminated soil.

Contaminated soil disposal site Gibson Oil Refinery, Bakersfield, California

If contamination is remaining, describe concentration range and volume (cubic yards or meters)

SEE NOTE <sup>(1)</sup> BELOW.

Table III – Maximum documented contaminant concentrations in soil before and after cleanup **NA**

Contaminant	Method Used	Before (mg/kg)	After (mg/kg)	Depth (ft)	Contaminant	Method Used	Before (mg/kg)	After (mg/kg)	Depth (ft)
TPH (Gas)	NA	NA	NA	NA	Benzene	8020	ND	NA	≈15-25.5
TPH (Diesel)	8015	0.160	NA	≈26-26.5	Toluene	8020	27.0	NA	≈16-18
Other Fuel	NA	NA	NA	NA	Ethylbenzene	8020	28.0	NA	≈16-18
Heavy metals	NA	NA	NA	NA	Xylene	8020	150	NA	≈16-18
Other_____	NA	NA	NA	NA	Other_____	NA	NA	NA	NA

**IV. Groundwater Remediation Information**

Groundwater remediation method(s) Free product recovery/total fluid pumping system with phase separation and carbon treatment

Volume treated and/or removed 1,015 gallons of phase separated hydrocarbons and groundwater were removed and 82,610 gallons of petroleum-impacted groundwater was treated and discharged to the sanitary sewer under a permit issued by the East Bay Municipal Utility District.

If contamination is remaining, describe concentration range and volume (gallons or liters)

No measurable gallons of phase separated hydrocarbons based on quarterly monitoring program.

Table IV – Maximum documented contaminant concentrations in groundwater before and after cleanup (see <sup>(2)</sup> note below)

Contaminant	Method Used	Before (mg/l)	After (mg/l)	Depth (ft)	Contaminant	Method Used	Before (mg/l)	After (mg/l)	Depth (ft)
TPH (Gas)	8015	1.5	31	≈30	Benzene	8020	0.810	0.310	≈16-22
TPH (Diesel)	8015	950	484	≈30	Toluene	8020	1.80	0.600	≈16-22
Other Fuel	NA	NA	NA	NA	Ethylbenzene	8020	0.430	0.370	≈16-22
Heavy metals	NA	NA	NA	NA	Xylene	8020	1.80	1.90	≈16-22
Other PAHs	8310	0.2203	4.34	≈30	Other_____				

**V. Closure**

Does Regional Board concur with closure? Yes \_\_\_\_\_ No \_\_\_\_\_

Rationale for closure \_\_\_\_\_

Location or reports on file (Agency/Room) \_\_\_\_\_

County \_\_\_\_\_ Staff Person \_\_\_\_\_ Phone \_\_\_\_\_

Regional Board Office \_\_\_\_\_ Staff Person \_\_\_\_\_ Phone \_\_\_\_\_

**Notes:**

(1) *No estimate of remaining volume of residual soil contamination was prepared, based on the recommendation presented in the supplemental site assessment report that no soil remediation be conducted at the site.*

(2) *Refer to Attachment A for groundwater summary table of analytical results collected to date and figure depicting analytical results. No summary table for soil analytical results provided.*

NA – Non Applicable

**ATTACHMENT A**  
**ANALYTICAL SUMMARY**

8934  
OAKLAND CA  
TERMINAL

PAGE 1

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
7/08/92	BC-02	WATER	NA	ND	ND	ND	8.4	8.4	2.1	NA	NA
7/08/92	BC-03	WATER	NA	ND	2.5	ND	6.1	8.6	3.9	NA	NA
7/08/92	ES-03	WATER	NA	54	21	48	34	157	1.3	NA	NA
7/08/92	ES-04	WATER	NA	31	5.6	ND	2.8	39.4	ND	NA	NA

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OAKLAND CA  
TERMINAL

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
10/06/92	BC-02	WATER	NA	ND	1.1	0.9	7.2	9.2	ND	NA	NA
10/06/92	BC-03	WATER	NA	ND	1.9	0.5	1.8	4.2	0.8	NA	NA
10/06/92	ES-03	WATER	NA	93	18	ND	11	122	ND	NA	NA
10/06/92	ES-04	WATER	NA	100	8.2	ND	7.6	115.8	ND	NA	NA

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TERMINAL

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Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
1/07/93	BC-02	WATER	NA	ND	1.1	1.5	9.5	12.1	ND	NA	NA
1/07/93	BC-03	WATER	NA	ND	ND	ND	ND	ND	ND	NA	NA
1/07/93	ES-03	WATER	NA	52	49	100	250	451	ND	NA	NA
1/07/93	ES-04	WATER	NA	30	6.7	7.7	16	60.4	ND	NA	NA

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OAKLAND CA  
TERMINAL

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
4/06/93	BC-02	WATER	NA	ND	ND	ND	ND	ND	0.13	ND	NA
4/06/93	BC-03	WATER	NA	ND	ND	ND	ND	ND	0.12	ND	NA
4/06/93	ES-03	WATER	NA	53	ND	67	78	198	0.51	4.5	NA
4/06/93	ES-04	WATER	NA	33	2.3	1.9	4.7	41.9	ND	0.36	NA

8934  
OAKLAND CA  
TERMINAL

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
7/23/93	ES-03	WATER	NA	28	5.9	4.6	4.6	43.1	0.06	1500	NA
7/23/93	ES-04	WATER	NA	24	1.1	0.07	8.3	33.47	ND	ND	NA
7/23/93	ES-06	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
7/23/93	ES-07	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
7/23/93	ES-08	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
7/23/93	ES-09	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
7/23/93	ES-10	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
7/23/93	ES-11	WATER	NA	ND	0.7	ND	1.2	1.9	ND	ND	NA







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OAKLAND CA  
TERMINAL

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Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
4/07/94	BC-02	WATER	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/07/94	BC-03	WATER	NA	ND	ND	ND	ND	ND	0.85	ND	NA
4/07/94	ES-03	WATER	NA	10	9	26	34	79	0.91	0.85	NA
4/07/94	ES-04	WATER	NA	11	ND	ND	ND	11	ND	0.17	NA
4/07/94	ES-06	WATER	NA	ND	ND	ND	ND	ND	ND	0.16	NA
4/07/94	ES-07	WATER	NA	ND	ND	ND	ND	ND	0.10	0.11	NA
4/07/94	ES-08	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
4/07/94	ES-09	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
4/07/94	ES-10	WATER	NA	ND	ND	ND	ND	ND	ND	ND	NA
4/07/94	ES-11	WATER	NA	ND	ND	ND	ND	ND	0.35	ND	NA

















8934  
OAKLAND CA  
TERMINAL

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
4/09/96	ES-03	WATER	NA	ND	ND	ND	ND	ND	0.12	NA	NA
4/09/96	ES-04	WATER	NA	57	3	17	19	96	ND	NA	NA
4/09/96	ES-06	WATER	NA	ND	ND	ND	ND	ND	0.22	NA	NA









8934  
OAKLAND CA  
TERMINAL

Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
7/15/97	BC-1	WATER	100	520	130	170	290	1110	95	11000	203
7/15/97	BC-2	WATER	ND	ND	ND	ND	ND	ND	0.68	ND	ND
7/15/97	BC-3	WATER	ND	ND	ND	ND	ND	ND	0.49	ND	ND
7/15/97	ES-2	WATER	81	190	140	73	250	653	16	3700	194
7/15/97	ES-3	WATER	ND	ND	ND	ND	ND	ND	0.17	ND	ND
7/15/97	ES-4	WATER	ND	110	11	42	40	203	0.37	920	18.40
7/15/97	ES-6	WATER	ND	ND	ND	ND	ND	ND	0.06	ND	ND

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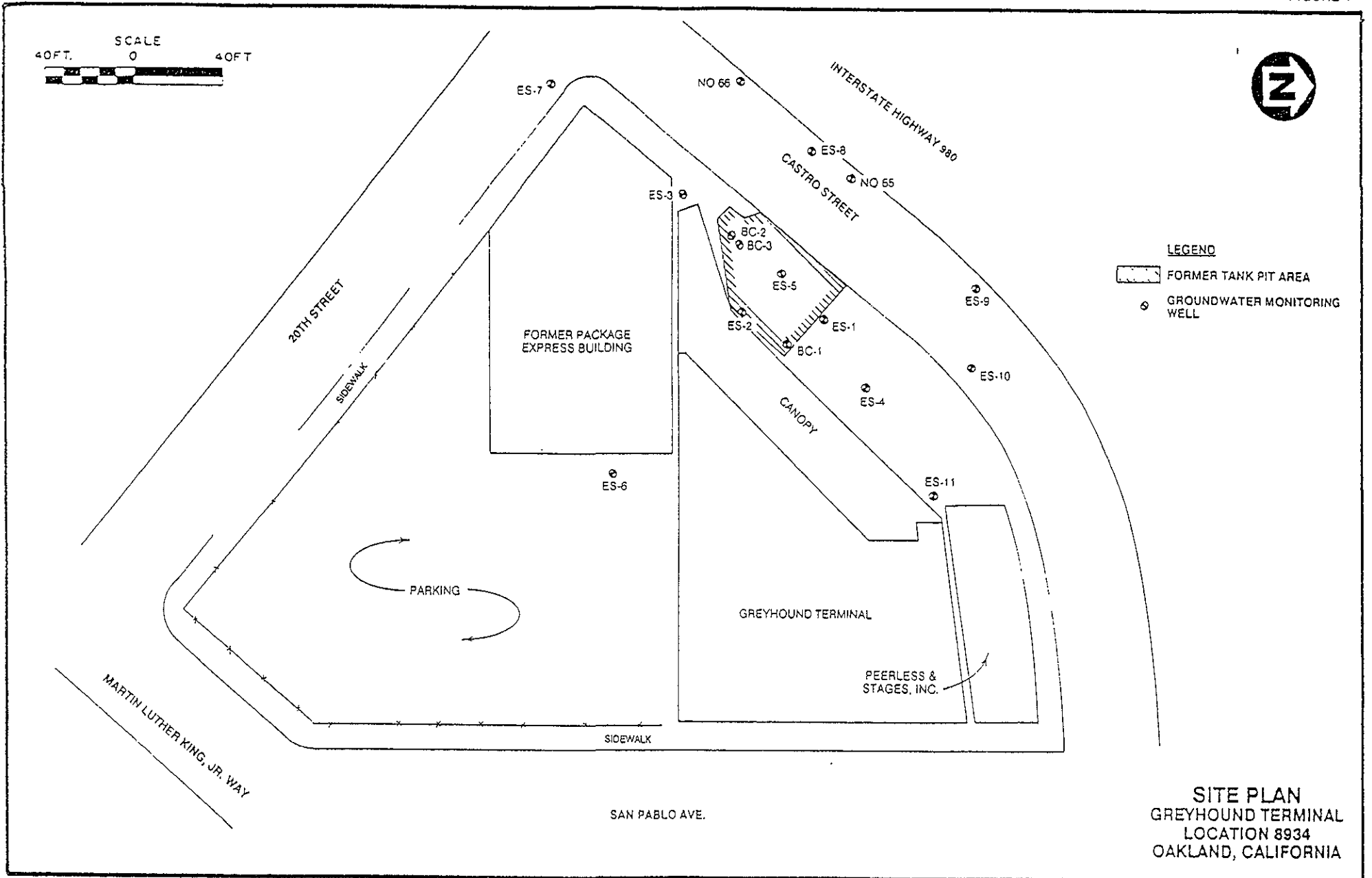
OAKLAND CA  
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Date	Location	Matrix	MTBE	Benzene	Toulene	Ethyl- benzene	Total Xylenes	Total Btex	TPH diesel	TPH gasoline	Total PAHs
7/16/1997	ES - 1	WATER	ND	76	8.2	11	25	120.2	1.2	960	13.64
7/16/1997	ES - 5	WATER	350	810	1800	430	1800	4840	15	27000	215.6





**FIGURES**



**SITE PLAN**  
**GREYHOUND TERMINAL**  
**LOCATION 8934**  
**OAKLAND, CALIFORNIA**

FIGURE 2

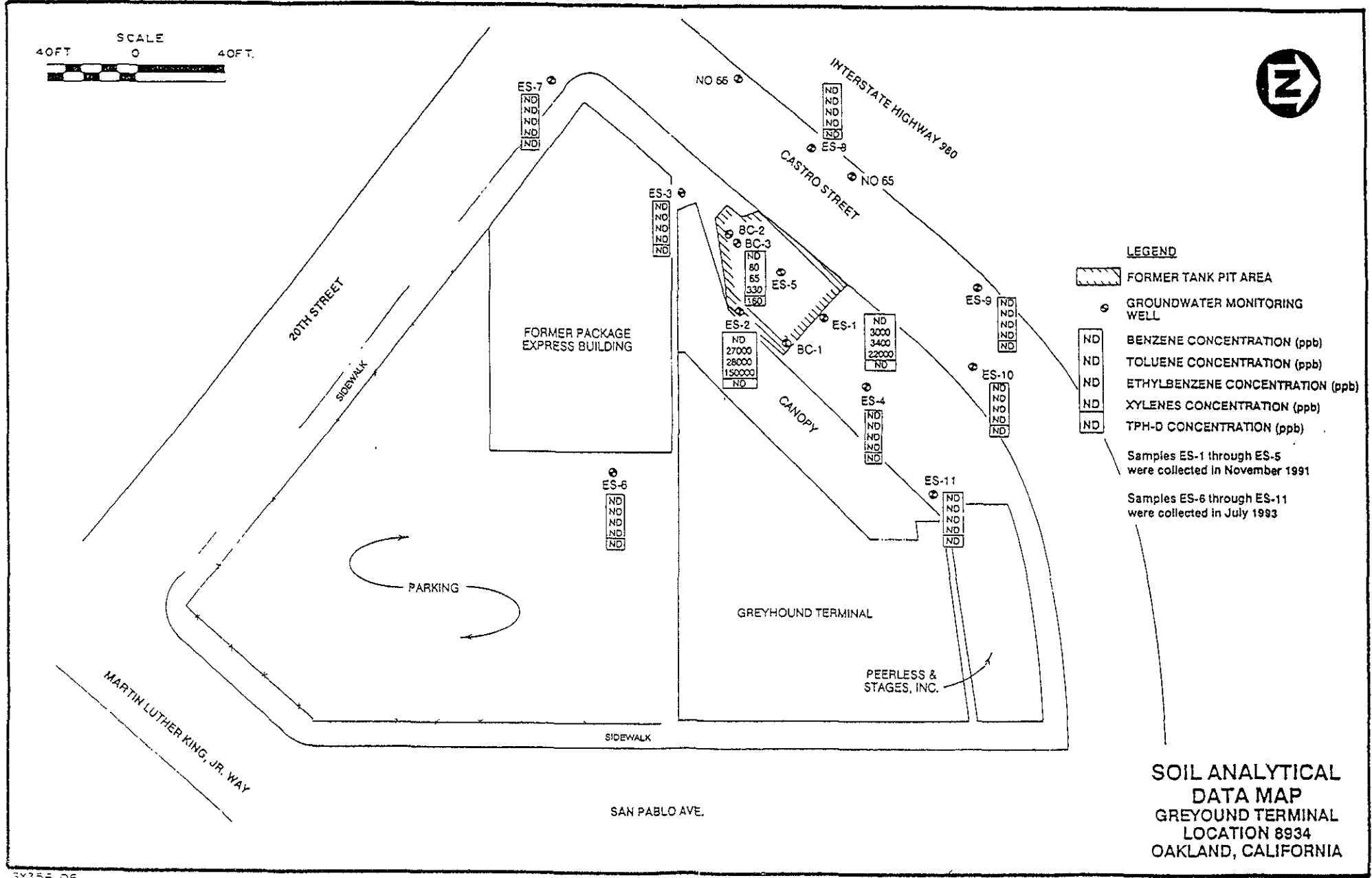


FIGURE 3

