ENGINEERING-SCIENCE, INC.

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February 26, 1994

Ms. Susan Hugo
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

94 MAR -7 PM 12:45
ALCO
HAZMAT

Re: Greyhound Terminal
Location #8934
Oakland, California
Quarterly Report

Dear Ms. Hugo:

Engineering-Science, Inc. (ES) is pleased to present, on behalf of Greyhound Lines, Inc. (Greyhound), this quarterly groundwater monitoring report for the Greyhound terminal in Oakland, California. The report also serves as the January 1994 monthly monitoring report.

The information contained in this Quarterly Status Report is presented in the format shown in "Appendix A" of the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 1990). Greyhound has reviewed and approved this report and has assigned ES to be their designated representative for preparation and submittal of the quarterly status reports. The enclosed quarterly report has been completed accurately, and in accordance with all applicable LUFT and Tri-Regional requirements. Greyhound agrees with the conclusions and recommendations outlined in this cover letter and the attached report.

Groundwater samples were collected at the Oakland facility on January 5, 1994 and analyzed for total petroleum hydrocarbons as diesel (TPH-D), as gasoline (TPH-G), and BTEX (EPA Method 602). A site map showing the monitoring well locations is included as Figure 1. The detection limits specified in the 1989 LUFT Manual (Appendix D, Table 3-5) were met by the analytical laboratory. All physical data for the monitoring wells sampled on January 5, 1994 are summarized on Table 1. The analytical results are summarized on Table 2. Previous groundwater analytical data have been summarized on Table 3.

The next groundwater sampling event will be conducted during the month of April 1994. The Alameda County Department of Environmental Health (ACDEH) will be notified at least one week prior to the sampling event so that a representative of ACDEH may be on site. The next quarterly status report will be prepared and submitted to your department on or before May 18, 1994.

If you have any questions or require additional information, please call us at (315) 451-9560.

Sincerely,

ENGINEERING-SCIENCE, INC.

David A. Nickerson
Project Manager

David L. Chaffin, R.G.
California Registered Geologist
(No. 4885)

DAN/DLC/lml

cc: T. Portele, GLI, Dallas, TX
Richard Hiett, Regional Water Quality Control Board

JANUARY 1994
QUARTERLY STATUS REPORT
GREYHOUND TERMINAL
OAKLAND, CALIFORNIA

- **Status of investigation and cleanup activities:**

  A preliminary site investigation was completed by Engineering-Science, Inc. (ES) in January 1992. Five monitoring wells (ES-1 through ES-5) were installed on-site and sampled during the investigation. The Preliminary Site Investigation report was submitted to the Alameda County Department of Environmental Health (ACDEH) on January 27, 1992.

  Based on the results of the preliminary investigation, a groundwater monitoring program consisting of monthly groundwater level measurements and quarterly groundwater sampling and reporting was initiated by Greyhound in June 1992 to better define the impact of former UST operations to groundwater.

  Based on measurable thicknesses of free product discovered in four existing monitoring wells on-site, Greyhound subsequently proposed the installation of an automated free product recovery system. Upon ACDEH approval in October 1992, Greyhound obtained the required permits and installed a recovery system on-site during the week of November 9, 1992. A report detailing recovery system installation was submitted to ACDEH on December 18, 1992. The recovery system was placed in operation during the week of January 4, 1993 after discharge permit conditions were finalized with the East Bay Municipal Utility District (EBMUD).

  ACDEH requested that Greyhound provide documentation regarding the underground fuel storage tank system (UST) removal, including disposal documentation in a letter to Greyhound dated October 23, 1992. Greyhound subsequently prepared a Tank Closure Documentation Report for this facility. The report was submitted to ACDEH on December 15, 1992.

  In July 1993, Greyhound implemented a Supplemental Site Assessment at the facility to define the full extent of contamination both on and off-site. Six monitoring wells (ES-6 through ES-11) were installed and sampled during the investigation. A site plan showing the locations of new monitoring wells ES-6 through ES-11 is included as Figure 1. Results of the Supplemental Site Assessment indicated that the residual soil and groundwater contamination is limited to the former tank pit area on site. Greyhound presented these results to ACDEH in a meeting on September 1, 1993. At that time ACDEH indicated that a risk assessment could be prepared to support "alternative points of compliance" or site-specific cleanup levels for this site. Greyhound submitted a Preliminary Risk Evaluation Report to ACDEH in October 1993. A Supplemental Site Assessment Report was submitted in November 1993.

- **Proposed continuing or next phase of investigation:**

  Based on the results of the Supplemental Site Assessment and Preliminary Risk Evaluation, Greyhound proposes to continue free product recovery and monthly groundwater monitoring. Greyhound has proposed that site-specific cleanup levels be established for this location.

- **Method of cleanup proposed or implemented to date:**

  In October 1992, Greyhound proposed a free product recovery system for the removal of free product in four wells. A hydrocarbon recovery system was installed in November 1992 after receiving approval from Ms. Susan Hugo (ACDEH). Recovery operations were initiated during the week of January 4, 1993. To date, approximately 780 gallons of free product and contaminated groundwater have been recovered and properly disposed off-site by Evergreen Vacuum Services, a State of California-certified waste hauler.

- **Time schedules for the completion of the investigation of the site and remediation:**

  The monthly groundwater monitoring, quarterly groundwater sampling, and hydrocarbon recovery programs should continue until free product has been removed from the groundwater. Greyhound proposes long-term groundwater monitoring beyond free product recovery, until the risk for off-site migration of residual contaminants has been shown to not exist.

- **Method and location of disposal of the released hazardous substance and any contaminated soil, groundwater or surface water:**

  Approximately 780 gallons of free product and contaminated groundwater have been recovered to date. Recovered diesel fuel and contaminated groundwater have been properly recycled off-site by Evergreen Vacuum Services, a California-certified waste hauler.

- **Manifest required for transport of hazardous substances:**

  All disposal/transport manifests for diesel fuel and contaminated groundwater recovered to date were included in Appendix A of the January 1993 Quarterly Status Report. Future manifests will be included in future quarterly status reports.

- **Monitoring well data:**

  The physical data obtained from the monitoring wells on January 5, 1994 are presented in Table 1. A site map showing the monitoring well locations is included as Figure 1. Physical data obtained during previous monthly monitoring visits are given in Table 5. Free product thicknesses have been eliminated or significantly reduced in the four recovery wells on-site (ES-1, ES-2, ES-5, and BC-1) since installation of the recovery system in November 1992. A groundwater elevation map (Figure 2) was constructed from groundwater level elevations measured on January 5, 1994. Note that groundwater flow direction is not well defined due to anomalous readings in the groundwater elevations around the recovery wells.

- **Analytical results of groundwater or soil sampling:**

  Results of the most recent quarterly groundwater sampling event (January 5, 1994) are summarized in Table 2. Ten of the 14 monitoring wells were sampled. The samples were analyzed for BTEX and TPH-D. Monitoring wells ES-1, ES-2, ES-5 and BC-1 were not sampled due to the presence of free product or hydrocarbon sheens. BC-2 was not sampled due to the well being dry at the time of sample collection.

  TPH-D was detected in one sample: BC-3 (1.8 mg/l). Note that there is no result for well MW-3 because the sample container was broken during shipment. TPH-G was detected in two samples: ES-3 (0.53 mg/l) and ES-4 (0.13 mg/l). Benzene was detected in two samples: ES-3 (13.0 μg/l) and ES-4 (15.0 μg/l).

  Toluene was detected in two samples: ES-3 (2.0 μg/l) and ES-4 (0.6 μg/l). Ethylbenzene was also detected in two samples: ES-3 (7.0 μg/l) and ES-4 (0.4 μg/l). Xylenes were detected in two samples: ES-3 (5.0 μg/l) and ES-4 (3.0 μg/l).

  BTEX and TPH concentrations in groundwater samples collected from wells ES-7 through ES-11 were below the laboratory detection limits.

  Groundwater analytical data from previous quarterly sampling events are summarized on Table 3. Soil analytical data from the preliminary and supplemental site investigations are shown on Table 4.

- **A site map showing the "zero line" of contamination, and changes in analyses and gradient measurements over the last quarter:**

  A map showing groundwater contaminant concentrations has been prepared and included as Figure 3.

- **Tabulated data for all monitoring wells including groundwater elevations collected to date:**

  The physical data collected to date for all of the monitoring wells located at the facility are presented in Table 5.

- **A site map delineating groundwater elevation contours based on recent data:**

  Groundwater elevations determined by water level measurements made on January 5, 1994 are shown on Figure 2. Due to anomalous conditions around the area of the recovery wells, groundwater elevation contours were not drawn.

- **Analytical results from all previous sampling events including laboratory reports for the most recent sampling event and chain-of-custody documentation:**

  A summary of the analytical results from previous groundwater sampling events is presented in Table 3. A summary of the analytical data for soil samples collected to date is presented in Table 4. The laboratory results from the most recent groundwater sampling event, including chain-of-custody documentation, are included in Appendix A.

- **Site map delineating contamination contours for soil and groundwater based on recent data:**

  Figure 3, showing analytical data for groundwater samples collected on January 5, 1994 plotted on a site base map, delineates the extent of groundwater contamination.

  Figure 4 is a site map indicating areas of soil contamination based on data obtained during the preliminary site investigation completed during November 1991 and the supplemental site assessment conducted in July 1993. Soil contamination is limited to the area near sample locations ES-1, ES-2, and ES-5. A 100 mg/kg TPH-D contour has been included to illustrate the extent of TPH-D contamination in this area. The extent of soil contamination at the site has been completely defined by the supplemental site assessment.

- **Tank owner commitment letter:**

  The cover letter submitted with this report is intended to serve as the tank owner commitment letter.

- **The quantity of groundwater and vapors removed during the reporting period and cumulative to date:**

  Approximately 780 gallons of recovered diesel fuel and contaminated groundwater have been removed to date. As of January 5, 1994, 72,010 gallons of carbon-treated groundwater have been processed through the recovery system on-site and discharged to the sanitary sewer.

- **Times and dates equipment was not operating, cause of shutdown, and a corrective action plan to insure similar shutdowns do not reoccur:**

  The system has been fully operational with only a brief shutdown period between October 6 and October 21, 1993 during which a problem with the system's air compressor caused a temporary shutdown. The system was repaired and placed back on-line on October 21, 1993, and is currently inspected by ES personnel during monthly monitoring visits and daily by facility personnel.

- **Timelines for activities currently underway or proposed:**

  Greyhound will continue the monthly groundwater monitoring, quarterly sampling, and hydrocarbon recovery program in accordance with all applicable LUFT and Tri-Regional requirements. The next quarterly status report will be prepared and submitted to ACDEH on or before April 18, 1994.

  Greyhound awaits ACDEH review of the Supplemental Site Assessment and Preliminary Risk Evaluation reports and ACDEH approval of recommendations.

- **Estimates of the quantity of contamination remaining in soil and groundwater, and time for completing remediation:**

  Greyhound has not prepared an estimate of the remaining volume of residual soil contamination, based on the recommendation presented in the Supplemental Site Assessment Report that no soil remediation be conducted at the site.

TABLE 1

MONITORING WELL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
January 5, 1994

Location	Elevation of PVC T.O.C[1] (Ft.)	Depth to Water (Ft.)	Groundwater Elevation[2]	Product Layer Thickness (ft.)
ES–1[3]	96.64	18.96	77.68	0
ES–2[3]	96.44	19.61	76.83	0.04
ES–3	96.96	19.52	77.44	0
ES–4	95.70	18.55	77.15	0
ES–5[3]	95.85	19.75	76.10	1.33
ES–6	97.84	21.76	76.08	0
ES–7	96.40	19.90	76.50	0
ES–8	96.64	19.10	77.54	0
ES–9	95.78	17.80	77.98	0
ES–10	95.24	17.27	77.97	0
ES–11	95.92	18.86	77.06	0
BC–1[3]	96.16	19.42	76.74	0.17
BC–2	96.32	16.76	79.56[4]	0
BC–3	96.20	17.51	78.69[4]	0

[1] T.O.C. – Top of PVC Casing.

[2] Elevations measured with respect to onsite datum (97.50 feet, measured on steel grate for storm sewer near wash rack).

[3] Recovery Wells.

[4] Approximate elevation – well casings not vertical.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
JANUARY 5, 1994

Location	Date Collected	Parameter	Result	Detection Limit
ES–3	1/5	Benzene[1]	13.0	0.3 ug/L
		Toluene[1]	2.0	0.3 ug/L
		Ethylbenzene[1]	7.0	0.3 ug/L
		Xylenes (total)[1]	5.0	0.6 ug/L
		TPH–D[2]	NA	0.5 mg/L
		TPH–G[3]	0.53	0.1 mg/L
ES–4	1/5	Benzene[1]	15.0	0.3 ug/L
		Toluene[1]	0.6	0.3 ug/L
		Ethylbenzene[1]	0.4	0.3 ug/L
		Xylenes (total)[1]	3.0	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	0.13	0.1 mg/L
ES–6	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L
ES–7	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L
ES–8	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L
ES–9	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L

TABLE 2
(Continued)
GROUNDWATER ANALYTICAL RESULTS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
JANUARY 5, 1994

Location	Date Collected	Parameter	Result	Detection Limit
ES–10	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L
ES–11	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	ND	0.6 ug/L
		TPH–D[2]	ND	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L
BC–2	1/5	Benzene[1]	NA	0.3 ug/L
		Toluene[1]	NA	0.3 ug/L
		Ethylbenzene[1]	NA	0.3 ug/L
		Xylenes (total)[1]	NA	0.6 ug/L
		TPH–D[2]	NA	0.5 mg/L
		TPH–G[3]	NA	0.1 mg/L
BC–3	1/5	Benzene[1]	ND	0.3 ug/L
		Toluene[1]	ND	0.3 ug/L
		Ethylbenzene[1]	ND	0.3 ug/L
		Xylenes (total)[1]	1.6	0.6 ug/L
		TPH–D[2]	1.8	0.5 mg/L
		TPH–G[3]	ND	0.1 mg/L

Notes:

[1] Analyzed by EPA Method 602. Concentrations in ug/l.

[2] Analyzed by DHS/LUFT Method Modified EPA 8015 for Diesel. Concentrations in mg/l.

[3] Analyzed by DHS/LUFT Method Modified EPA 8015 for Gasoline. Concentrations in mg/l.

Wells ES–1, 2, 5, and BC–1 were not sampled due to the presence of free product or hydrocarbon sheens.

ND – Not detected above the analytical method detection limit.

NA – Well BC–2 was not sampled because it was dry at time of sample collection. Sample ES–3 could not be analyzed for TPH–D because of sample bottle breakage.

TABLE 3

SUMMARY OF ANALYTICAL DATA
GROUNDWATER ANALYSIS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Sampling Date	Location	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene ug/l	Total BTEX ug/l	TPH-D(*) mg/l	TPH-G(*) mg/l
07/08/92	ES-3	54	21	48	34	157	1.3	NA
	ES-4	31	5.6	ND	2.8	39.4	ND	NA
	BC-2	ND	ND	ND	8.4	8.4	2.1	NA
	BC-3	ND	2.5	ND	6.1	8.6	3.9	NA
10/06/92	ES-3	93	18	ND	11	122	ND	NA
	ES-4	100	8.2	ND	7.6	115.8	ND	NA
	BC-2	ND	1.1	0.9	7.2	9.2	ND	NA
	BC-3	ND	1.9	0.5	1.8	4.2	0.8	NA
01/07/93	ES-3	52	49	100	250	451	ND	NA
	ES-4	30	6.7	7.7	16	60.4	ND	NA
	BC-2	ND	1.1	1.5	9.5	12.1	ND	NA
	BC-3	ND	ND	ND	ND	ND	ND	NA
04/06/93	ES-3	53	ND	67	78	198	0.51	4.5
	ES-4	33	2.3	1.9	4.7	41.9	ND	0.36
	BC-2	ND	ND	ND	ND	ND	0.13	ND
	BC-3	ND	ND	ND	ND	ND	0.12	ND

TABLE 3
(Continued)
SUMMARY OF ANALYTICAL DATA
GROUNDWATER ANALYSIS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Sampling Date	Location	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene ug/l	Total BTEX ug/l	TPH–D(*) mg/l	TPH–G(*) mg/l
07/23/93	ES–3	28.0	5.9	4.6	4.6	43.1	0.6	1.5
	ES–4	24.0	1.1	0.7	8.3	34.1	ND	ND
	ES–6	ND	ND	ND	ND	ND	ND	ND
	ES–7	ND	ND	ND	ND	ND	ND	ND
	ES–8	ND	ND	ND	ND	ND	ND	ND
	ES–9	ND	ND	ND	ND	ND	ND	ND
	ES–10	ND	ND	ND	ND	ND	ND	ND
	ES–11	ND	0.7	ND	1.2	1.9	ND	ND
	BC–2	1.0	2.4	1.8	7.9	13.1	0.5	ND
	BC–3	2.7	3.6	3.6	7.9	17.8	NA	ND
10/07/93	ES–3	2.0	1.0	ND	2.0	5.0	ND	NA
	ES–4	8.0	ND	ND	2.0	10.0	ND	NA
	ES–6	1.0	ND	ND	ND	ND	ND	NA
	ES–7	ND	ND	ND	ND	ND	ND	NA
	ES–8	ND	ND	ND	ND	ND	ND	NA
	ES–9	ND	ND	ND	ND	ND	ND	NA
	ES–10	ND	ND	ND	ND	ND	ND	NA
	ES–11	ND	ND	ND	ND	ND	ND	NA
	BC–2	ND	ND	ND	ND	ND	1.4	NA
	BC–3	ND	ND	1.0	2.0	3.0	1.4	NA

TABLE 3
(Continued)
SUMMARY OF ANALYTICAL DATA
GROUNDWATER ANALYSIS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Sampling Date	Location	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene ug/l	Total BTEX ug/l	TPH–D(*) mg/l	TPH–G(*) mg/l
1/05/94	ES–3	13	2.0	7.0	5.0	27	NA	0.53
	ES–4	15	0.6	0.4	3.0	19	ND	0.13
	ES–6	ND	ND	ND	ND	ND	ND	ND
	ES–7	ND	ND	ND	ND	ND	ND	ND
	ES–8	ND	ND	ND	ND	ND	ND	ND
	ES–9	ND	ND	ND	ND	ND	ND	ND
	ES–10	ND	ND	ND	ND	ND	ND	ND
	ES–11	ND	ND	ND	ND	ND	ND	ND
	BC–2	NA	NA	NA	NA	NA	NA	NA
	BC–3	ND	ND	ND	1.6	1.6	1.8	ND

ND – Parameter analyzed for but not detected above method detection limit.
NA – Parameter not analyzed.
(*) – Total petroleum hydrocarbons diesel (TPH–D) and total petroleum hydrocarbons as gasoline (TPH–G) were analyzed by GCFID by the DHS/LUFT method (modified EPA method 8015/solution preparation method 3510).

TABLE 4
SOIL ANALYTICAL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Location Sample Depth	Date	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes ug/kg	Total BTEX[1] ug/kg	TPH–D[2] mg.kg	TPH–G[3] mg/kg
ES–1 (16–18)	11/91	ND	3,000	3,400	22,000	28,400	ND	NA
ES–2 (16–18)	11/91	ND	27,000	28,000	150,000	205,000	ND	NA
ES–3 (18–19)	11/91	ND	ND	ND	ND	ND	ND	NA
ES–4 (16–16.5)	11/91	ND	ND	ND	ND	ND	ND	NA
ES–5 (15–17)	11/91	ND	80	65	330	475	160	NA
ES–6 (15–16.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES–7 (20–21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES–8 (20–21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES–9 (15–16.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES–10 (20–21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES–11 (20–21.5)	7/93	ND	ND	ND	ND	ND	ND	ND

NA= Not analyzed.
ND= Non–detect; sample analyzed but did not exceed Method Detection Limit.

1 Total BTEX= analyzed by EPA Method 8020. Results reported in ug/kg. Refer to analytical laboratory reports for method detection limit.

2 TPH–Diesel= Total Petroleum Hydrocarbons (TPH) for diesel by EPA Method 3510/8015. Results reported in mg/kg. Refer to analytical laboratory reports for method detection limits.

3 TPH–Gasoline= Total Petroleum Hydrocarbons (TPH) for Gasoline by EPA Method 3510/8015. Results reported in mg/kg. Refer to analytical laboratory reports for method detection limits.

TABLE 5

MONITORING WELL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
6/16/92	ES–1	20.18	23.78	3.60
	ES–2	18.63	18.64	.01
	ES–3	19.41	19.41	0
	ES–4	18.40	18.40	0
	ES–5	15.32	15.65	.33
	BC–1	20.64	20.84	.20
	BC–2	16.25	16.25	0
	BC–3	16.48	16.48	0
7/7/92	ES–1	18.60	18.60	0
	ES–2	20.02	19.62	.40
	ES–3	19.52	19.52	0
	ES–4	18.51	18.51	0
	ES–5	22.23	20.23	2.0
	BC–1	19.55	20.66	1.11
	BC–2	16.89	16.89	0
	BC–3	16.68	16.68	0
8/4/92	ES–1	18.80	18.81	.01
	ES–2	19.17	19.76	.59
	ES–3	19.68	19.68	0
	ES–4	18.66	18.66	0
	ES–5	18.16	20.43	2.27
	BC–1	18.47	20.90	2.43
	BC–2	18.46	18.46	0
	BC–3	19.24	19.24	0
9/31/92	ES–1	18.96	18.97	.01
	ES–2	19.29	19.90	.61
	ES–3	19.80	19.80	0
	ES–4	18.79	18.79	0
	ES–5	18.24	20.80	2.56
	BC–1	18.68	21.02	2.34
	BC–2	18.89	18.89	0
	BC–3	19.10	19.10	0

TABLE 5
(Continued)
MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
10/6/92	ES–1	19.08	19.10	.02
	ES–2	19.41	20.00	.59
	ES–3	19.96	19.96	0
	ES–4	18.92	18.92	0
	ES–5	18.24	21.37	3.13
	BC–1	18.82	21.14	2.32
	BC–2	18.50	18,50	0
	BC–3	18.93	18.93	0
11/6/92	ES–1	18.52	18.53	.01
	ES–2	18.84	19.44	.60
	ES–3	18.84	19.84	0
	ES–4	18.94	18.94	0
	ES–5	17.60	20.92	3.32
	BC–1	18.24	20.69	2.45
	BC–2	15.98	15.98	0
	BC–3	16.81	16.81	0
12/12/92	ES–1	18.55	18.55	0
	ES–2	18.75	19.10	.35
	ES–3	19.10	19.10	0
	ES–4	18.51	18.51	0
	ES–5	17.50	20.35	2.85
	BC–1	18.25	20.75	2.50
	BC–2	12.17	12.17	0
	BC–3	17.84	17.84	0
01/07/93	ES–1	20.25	20.26	.01
	ES–2	20.05	20.40	.35
	ES–3	19.20	19.20	0
	ES–4	18.76	18.76	0
	ES–5	19.35	22.00	2.65
	BC–1	19.60	21.76	2.16
	BC–2	13.50	13.50	0
	BC–3	16.55	16.55	0

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
02/04/93	ES-1	17.56	17.56	0
	ES-2	18.12	18.19	0.07
	ES-3	18.32	18.32	0
	ES-4	17.56	17.56	0
	ES-5	17.34	17.95	0.61
	BC-1	17.81	17.96	0.15
	BC-2	15.46	15.46	0
	BC-3	16.16	16.16	0
03/05/93	ES-1	17.95	17.95	0
	ES-2	18.25	18.31	0.06
	ES-3	17.98	17.98	0
	ES-4	17.32	17.32	0
	ES-5	17.40	17.99	0.59
	BC-1	18.05	18.06	0.01
	BC-2	14.58	14.58	0
	BC-3	15.50	15.50	0
04/06/93	ES-1	17.08	17.88	0
	ES-2	18.20	18.31	0.11
	ES-3	15.92	15.92	0
	ES-4	17.26	17.26	0
	ES-5	17.28	17.28	0
	BC-1	18.26	18.26	0
	BC-2	15.20	15.20	0
	BC-3	15.44	15.44	0
05/06/93	ES-1	18.36	18.36	0
	ES-2	18.95	18.96	0.01
	ES-3	18.64	18.64	0
	ES-4	18.80	18.80	0
	ES-5	18.20	18.21	0.01
	BC-1	18.61	18.71	0.10
	BC-2	16.89	16.89	0
	BC-3	16.34	16.34	0

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
06/10/93	ES–1	18.60	18.60	0
	ES–2	19.10	19.11	0.01
	ES–3	NR	NR	NR
	ES–4	17.93	17.93	0
	ES–5	18.31	18.36	0.05
	BC–1	18.85	18.91	0.06
	BC–2	16.58	16.58	0
	BC–3	16.71	16.71	0
07/03/93	ES–1	18.68	18.68	0
	ES–2	19.31	19.32	0.01
	ES–3	18.12	18.12	0
	ES–4	18.08	18.08	0
	ES–5	19.50	19.50	0
	BC–1	19.05	19.15	0.10
	BC–2	17.75	17.75	0
	BC–3	16.81	16.81	0
08/04/93	ES–1	18.85	18.85	0
	ES–2	19.15	19.18	0.03
	ES–3	19.18	19.18	0
	ES–4	18.16	18.16	0
	ES–5	18.61	18.61	0
	BC–1	19.30	19.40	0.10
	BC–2	18.10	18.10	0
	BC–3	18.82	18.82	0

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
09/01/93	ES-1	18.90	18.90	0
	ES-2	19.50	19.59	0.09
	ES-3	19.36	19.36	0
	ES-4	18.46	18.46	0
	ES-5	18.79	18.80	0.01
	ES-6	21.94	21.94	0
	ES-7	19.71	19.71	0
	ES-8	18.88	18.88	0
	ES-9	19.74	19.74	0
	ES-10	18.04	18.04	0
	ES-11	18.74	18.74	0
	BC-1	19.23	19.32	0.09
	BC-2	18.48	18.48	0
	BC-3	18.40	18.40	0
10/07/93	ES-1	19.02	19.03	0.01
	ES-2	19.57	19.60	0.03
	ES-3	19.62	19.62	0
	ES-4	18.62	18.62	0
	ES-5	18.65	19.33	0.68
	ES-6	21.81	21.81	0
	ES-7	19.99	19.99	0
	ES-8	19.13	19.13	0
	ES-9	17.90	17.90	0
	ES-10	17.40	17.40	0
	ES-11	18.90	18.90	0
	BC-1	19.25	19.43	0.18
	BC-2	19.02	19.02	0
	BC-3	18.58	18.58	0

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

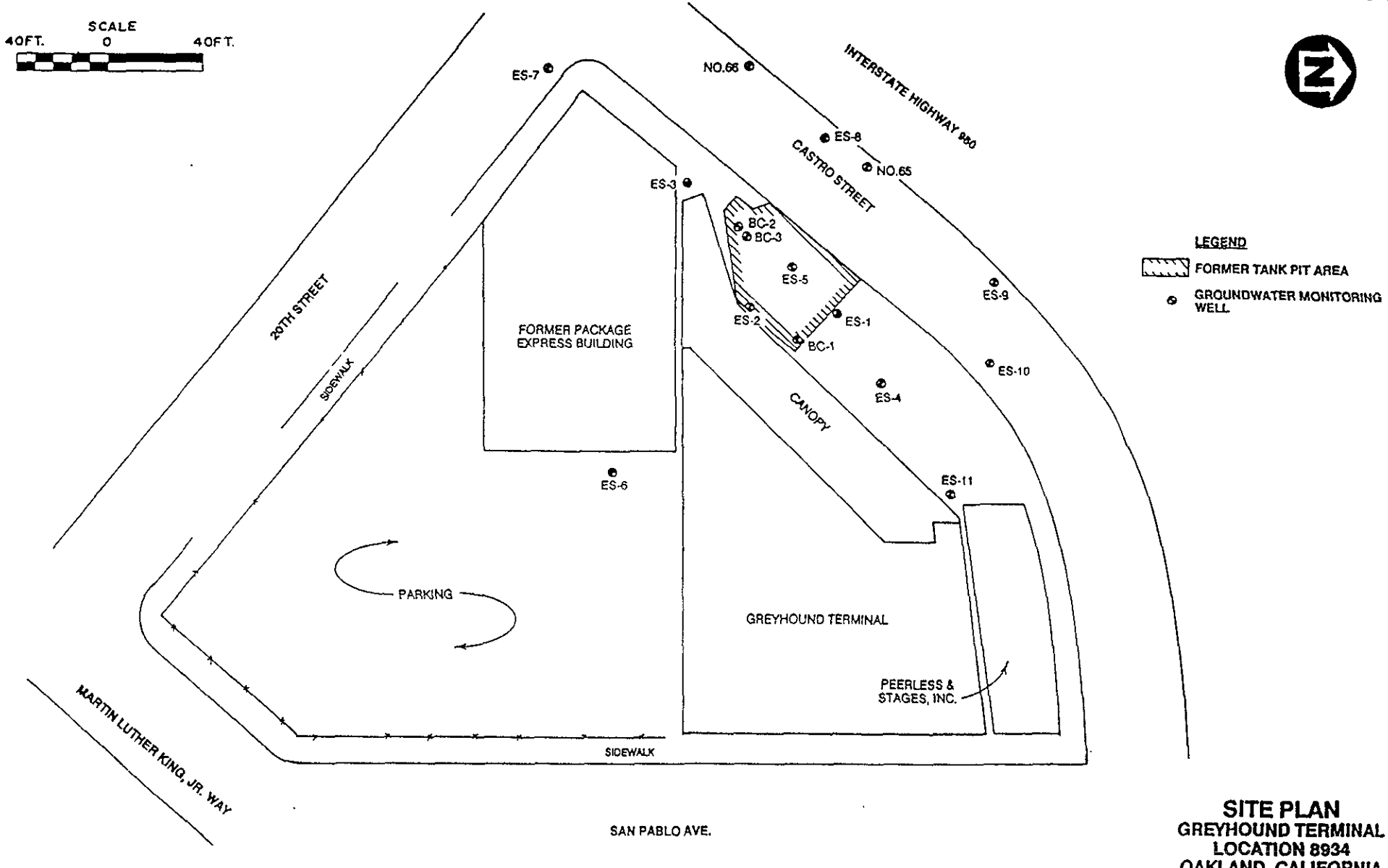
Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
11/02/93	ES–1	19.20	19.20	0
	ES–2	19.60	19.61	0.01
	ES–3	19.70	19.70	0
	ES–4	18.74	18.74	0
	ES–5	18.91	19.45	0.54
	ES–6	21.91	21.91	0
	ES–7	20.12	20.12	0
	ES–8	19.26	19.26	0
	ES–9	17.99	17.99	0
	ES–10	17.46	17.46	0
	ES–11	19.00	19.00	0
	BC–1	19.42	19.61	0.19
	BC–2	18.76	18.76	0
	BC–3	18.53	18.53	0
12/06/93	ES–1	19.15	19.15	0
	ES–2	19.71	19.74	0.03
	ES–3	19.68	19.68	0
	ES–4	18.72	18.72	0
	ES–5	18.78	19.25	0.47
	ES–6	21.90	21.90	0
	ES–7	20.15	20.15	0
	ES–8	19.24	19.24	0
	ES–9	18.00	18.00	0
	ES–10	17.44	17.44	0
	ES–11	19.02	19.02	0
	BC–1	19.31	19.53	0.22
	BC–2	18.87	18.87	0
	BC–3	18.67	18.67	0

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
1/05/94	ES–1	18.96	18.96	0
	ES–2	19.57	19.61	0.04
	ES–3	19.52	19.52	0
	ES–4	18.55	18.55	0
	ES–5	18.42	19.75	1.33
	ES–6	21.76	21.76	0
	ES–7	19.90	19.90	0
	ES–8	19.10	19.10	0
	ES–9	17.80	17.80	0
	ES–10	17.27	17.27	0
	ES–11	18.86	18.86	0
	BC–1	19.25	19.42	0.17
	BC–2	16.76	16.76	0
	BC–3	17.51	17.51	0

FIGURE 1

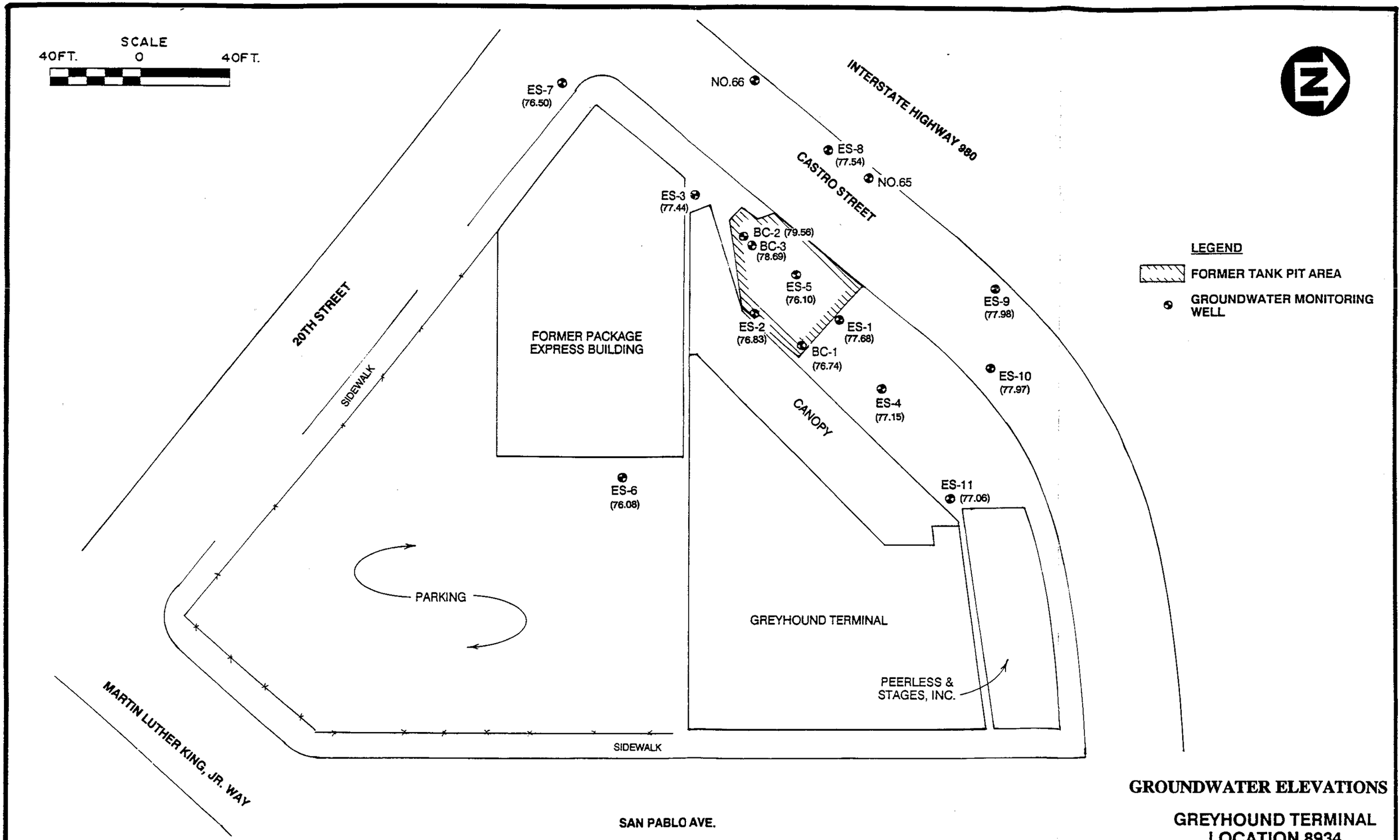


SITE PLAN
GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA

SY356.06

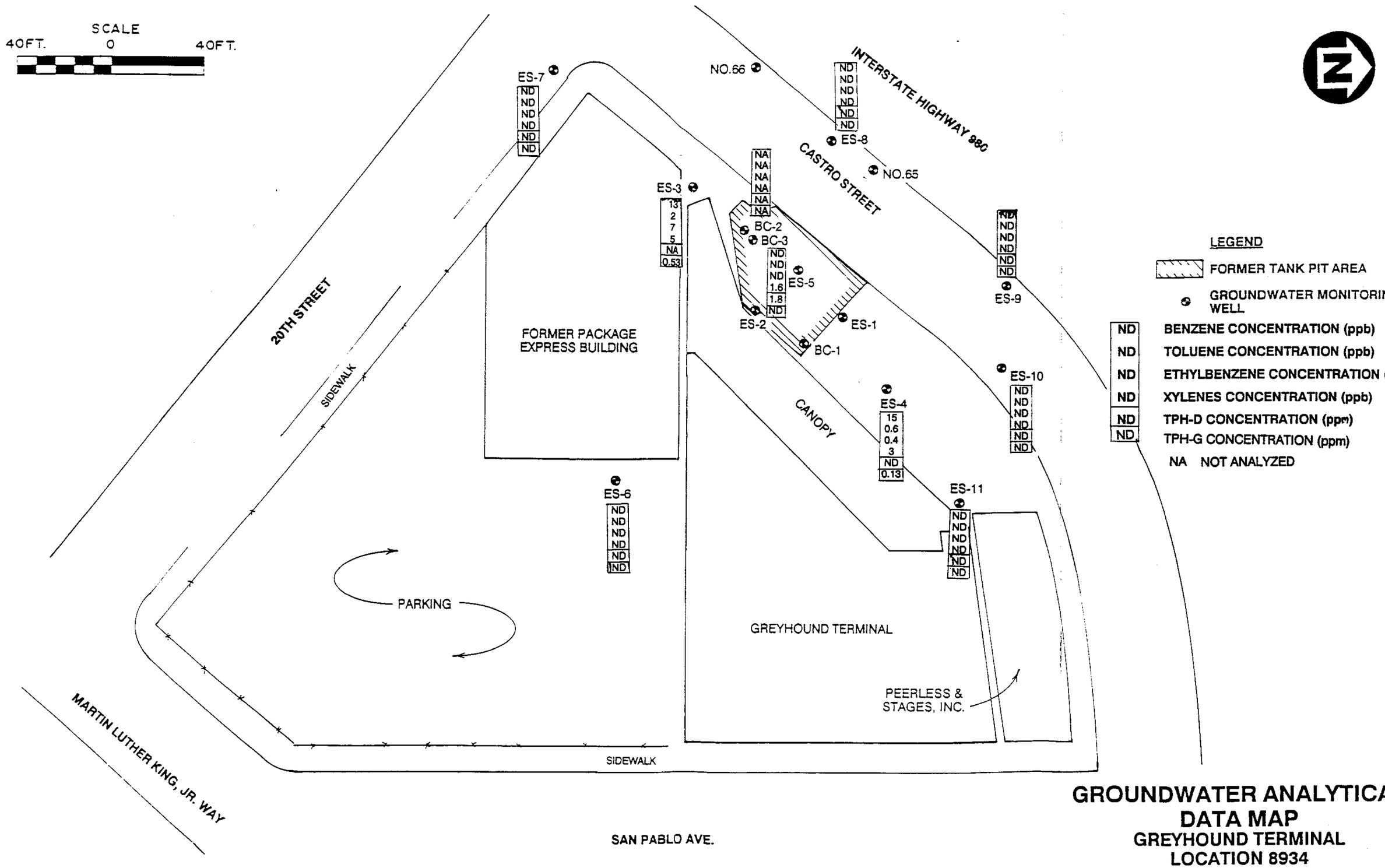
ENGINEERING-SCIENCE

FIGURE 2

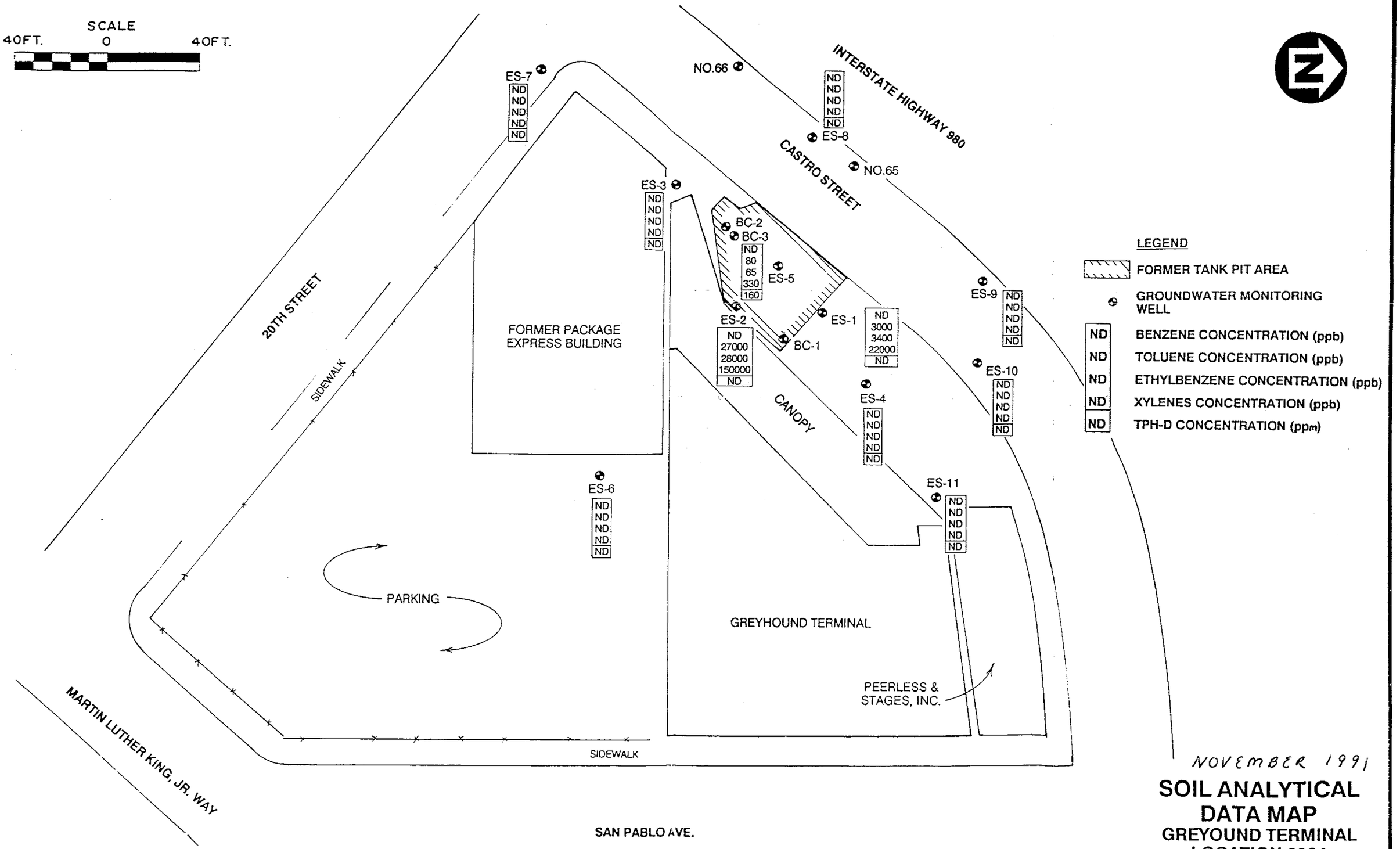


GROUNDWATER ELEVATIONS

GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA
JANUARY 5, 1994



GROUNDWATER ANALYTICAL DATA MAP
GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA
JANUARY 5, 1994



NOVEMBER 1991

SOIL ANALYTICAL DATA MAP
GREYOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA

APPENDIX A

ANALYTICAL LABORATORY REPORT AND CHAIN-OF-CUSTODY

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 94-01-095

Approved for release by:

S. Sample, Laboratory Director Date: 1/19/94

K. Landry, Project Manager Date: 1/17/94

S. Gfice, UST Coordinator Date: 1/18/94

SPL®

Certificate of Analysis No. 9401095-01

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-3

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 14:15:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	13	0.3 P	ug/L
TOLUENE	2	0.3 P	ug/L
ETHYLBENZENE	7	0.3 P	ug/L
TOTAL XYLENE	5	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	27		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	84		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	0.53	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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SPL, Inc., - Shari L. Grice

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Certificate of Analysis No. 9401095-02

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-4

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 13:45:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	15	0.3 P	ug/L
TOLUENE	0.6	0.3 P	ug/L
ETHYLBENZENE	0.4	0.3 P	ug/L
TOTAL XYLENE	3	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	19		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	81		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	0.13	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-03

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-6

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 11:40:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	79		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-04

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-7

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 12:15:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	80		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-05

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-8

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 09:40:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	81		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-06

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-9

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 10:20:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	83		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-07

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-10

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 11:00:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	82		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-08

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: ES-11

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 13:15:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	ND	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	82		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	ND	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9401095-12

Engineering Science, Inc.
290 Elwood Davis Rd
Liverpool, NY 13088
ATTN: Martin Miller

DATE: 01/17/94

PROJECT: Greyhound Lines, Inc.
SITE: Oakland, California
SAMPLED BY: Engineering Science
SAMPLE ID: BC-3

PROJECT NO: 54360.18
MATRIX: LIQUID
DATE SAMPLED: 01/05/94 14:35:00
DATE RECEIVED: 01/06/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	ug/L
TOLUENE	ND	0.3 P	ug/L
ETHYLBENZENE	ND	0.3 P	ug/L
TOTAL XYLENE	1.6	0.6 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	2		ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	85		
METHOD 602 *			
Analyzed by: KA			
Date: 01/10/94			
Petroleum Hydrocarbons-Gasoline (Water)	ND	0.10	mg/L
Modified 8015 - Gasoline			
Analyzed by: KA			
Date: 01/10/94 11:42:00			
Petroleum Hydrocarbons-Diesel	1.8	0.5	mg/L
Mod. Calfornia DHS			
Analyzed by: SG			
Date: 01/10/94 17:58:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Shari L. Grice

SPL, Inc., - Shari L. Grice

Matrix:	Aqueous	**Reported on:**	01/17/94 11:56:21
Sample ID:	9401091-10A	**Analyzed on:**	01/10/94 01:25:10
Batch ID:	VARJ940110012510	**Analyst:**	KA

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX on Water
METHOD 602**

COMPOUND	Sample Value ug/L	Spike Added ug/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
BENZENE	ND	20	99	102	3
TOLUENE	ND	20	95	96	1
ETHYLBENZENE	ND	20	97	96	0
O XYLENE	ND	20	97	95	2
M & P XYLENE	ND	40	103	102	1

NOTES

column to be used to flag recovery and RPD values with an asterisk
* values outside of QC Limits.

Idelis Williams, QC Officer

Matrix:	Aqueous	**Reported on:**	01/17/94 11:56:35
Sample ID:	9401091-07A	**Analyzed on:**	01/10/94 23:19:10
Batch ID:	VARJ940110231910	**Analyst:**	KA

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

BTEX on Water
METHOD 602**

COMPOUND	Sample Value ug/L	Spike Added ug/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
BENZENE	ND	20	101	103	2
TOLUENE	ND	20	101	103	2
ETHYLBENZENE	ND	20	105	106	1
O XYLENE	ND	20	102	103	1
M & P XYLENE	ND	40	108	111	3

NOTES

column to be used to flag recovery and RPD values with an asterisk
* values outside of QC Limits.

Idelis Williams, QC Officer

Matrix:	Aqueous	**Reported on:**	01/17/94 11:56:27
Sample ID:	9401095-01A	**Analyzed on:**	01/10/94 11:42:00
Batch ID:	VARJ940110114200	**Analyst:**	KA

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Petroleum Hydrocarbons-Gasoline
Modified 8015

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
MODWG	0.53	5.00	96	96	0

NOTES

column to be used to flag recovery and RPD values with an asterisk
* values outside of QC Limits.

Idelis Williams, QC Officer

Matrix:	Aqueous	**Reported on:**	01/17/94 11:56:02
Sample ID:	940107CXBSD	**Analyzed on:**	01/10/94 17:58:00
Batch ID:	VARC940110175800	**Analyst:**	SG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Petroleum Hydrocarbons-Diesel
Modified 8015

COMPOUND	Sample Value mg/L	Spike Added mg/L	MS % Recovery #	MSD % Recovery #	Relative % Difference #
MODWD	ND	5.8	126	126	0

NOTES

column to be used to flag recovery and RPD values with an asterisk
* values outside of QC Limits.

Idelis Williams, QC Officer

9401095

Environmental Laboratory
8880 Interchange Drive
Houston, Texas 77054
713/660-0901

Analysis Request and Chain of Custody Record

Project No.	Client/Project Name	Project Location
54360.18	Greyhound Lines, Inc	OAKLAND, CA

Field Sample No / Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
ES-3	1/5/94 1415	X		3-40ml 1-1L	LIQUID	HCl	602 / TPH-D ~~GC~~	1/6 BOTTEE FOR TPH RECEIVE BROKEN .. HF
ES-4	1/5/94 1345	X						
ES-6	1/5/94 1140	X						
ES-7	1/5/94 1315	X						
ES-8	1/5/94 0940	X						
ES-9	1/5/94 1020	X						
ES-10	1/5/94 1100	X						
ES-11	1/5/94 1315	X		↓	↓	↓	↓	
Before CARBON	1/5/94 1453	X		3-40ml	↓	↓	624	
After CARBON	1/5/94 1505	X		3-40ml	↓	↓	624	

Samplers: (Signature)	Relinquished by: (Signature)	Date: 1/5/94 Time: 1600	Received by: (Signature)	Date: Time:	Intact
Affiliation	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact 3°C
SAMPLER REMARKS 8096035080			Received for laboratory (Signature)	Date: 1-6-94 Time: 9:20	Laboratory No
Seal # 8096035441			Data Results to.		

9401095

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Environmental Laboratory
8880 Interchange Drive
Houston, Texas 77054
713/660-0901

Analysis Request and Chain of Custody Record

Project No.	Client/Project Name	Project Location
54360.18	Greyhound Lines, Inc	OAKLAND, CA

Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
Between	1/5/94 1500	X		3-40ml	LIQUID	HCl	624	
BC-3	1/5/94 1435	X		3-40ml 1-1L	LIQUID	HCl	602 / TPHD & G	

Samplers: (Signature)	Relinquished by: (Signature)	Date: 1/5/94 Time: 1600	Received by: (Signature)	Date: Time:	Intact
Martin N. Tebbe	Martin N. Tebbe				
ENG-SCI	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	Intact
Affiliation					
	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time.	Intact 3°C
SAMPLER REMARKS.			Received for laboratory: (Signature)	Date: 1-6-94 Time: 9:00	Laboratory No
Seal #			Data Results to:		

SPL HOUSTON ENVIRONMENTAL LABORATORY

SAMPLE LOGIN CHECKLIST

DATE: 1/6 TIME: 9:00 CLIENT NO. _____
LOT NO. _____ CONTRACT NO. _____

CLIENT SAMPLE NOS. _____

SPL SAMPLE NOS.: 9401095

		YES	NO
1.	Is a Chain-of-Custody form present?	✓	
2.	Is the COC properly completed?	✓	
	If no, describe what is incomplete:		
	If no, has the client been contacted about it?		
	(Attach subsequent documentation from client about the situation)		
3.	Is airbill/packing list/bill of lading with shipment?	✓	
	If yes, ID#: Fed Ex: 8096035080, 441		
4.	Is a USEPA Traffic Report present?		✓
5.	Is a USEPA SAS Packing List present?		
6.	Are custody seals present on the package?	✓	
	If yes, were they intact upon receipt?	✓	
7.	Are all samples tagged or labeled?	✓	
	Do the sample tags/labels match the COC?	✓	
	If no, has the client been contacted about it?		
	(Attach subsequent documentation from client about the situation)		
8.	Do all shipping documents agree?	✓	
	If no, describe what is in nonconformity:		

9. Condition/temperature of shipping container: Intact 3°C
10. Condition/temperature of sample bottles: Good 3°C
11. Sample Disposal?: SPL disposal ✓ Return to client ____

NOTES (reference item number if applicable): _____

ATTEST: Kim Adams DATE: 1/6/94
DELIVERED FOR RESOLUTION: REC'D _____ DATE: _____
RESOLVED: _____ DATE: _____