

PARSONS ENGINEERING SCIENCE, INC.

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May 19, 1995

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

Re: Quarterly Status Report
Greyhound Terminal (Location No. 8934)
Oakland, California

Dear Ms. Hugo:

On behalf of Greyhound Lines, Inc. (Greyhound), Parsons Engineering Science, Inc. is pleased to present the April Quarterly Status Report for the Greyhound terminal in Oakland, California. The Quarterly Status Report provides the information specified 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 the enclosed report, and agrees with the conclusions and recommendations provided in the report. The report also serves as the April 1995 monthly monitoring report.

Ten groundwater samples were collected at the Oakland facility between April 11 and April 12, 1995, and analyzed for BTEX compounds (EPA Method 8020), total petroleum hydrocarbons as diesel (TPH-D, Modified EPA Method 8015), and total petroleum hydrocarbons as gasoline (TPH-G, Modified EPA Method 8015). Monitoring well locations are shown in Figure 1 of the Quarterly Status Report. Analytical results are summarized in Table 2.

The next groundwater sampling event will be conducted in July 1995. The Alameda County Department of Environmental Health (ACDEH) will be notified at least 1 week prior to the sampling event so that a representative from ACDEH may be on site when the samples are collected. The next quarterly status report will be prepared and submitted to your department on or before August 15, 1995.

05 MAY 23 1995
ENVIRONMENTAL
HEALTH DEPARTMENT
OAKLAND, CALIFORNIA

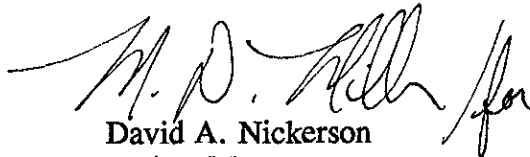
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As we recently discussed, Greyhound would like to meet with ACDEH and the Regional Water Quality Control Board to discuss the possibility of applying the "Non-Attainment" scenario for this location and establishing a long term monitoring-only program for this site. If you have any questions or require additional information, please call us at (315) 451-9560.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.


David A. Nickerson
Project Manager

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

MNM/DAN/DLC/lml

cc: T. Portele, GLI, Dallas, TX
Kevin Graves, Regional Water Quality Control Board

APRIL 1995
QUARTERLY STATUS REPORT
GREYHOUND TERMINAL
OAKLAND, CALIFORNIA

• **Site Background:**

A preliminary site investigation was completed by Engineering-Science, Inc. (ES) in January 1992. Five monitoring wells (ES-1 through ES-5 in Figure 1) 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 was initiated by Greyhound in June 1992 to assess the impact of former UST operations on groundwater. The program includes monthly groundwater level measurements, quarterly groundwater sampling, and reporting.

Based on the presence of measurable thicknesses of free product discovered in four onsite monitoring wells, 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).

In a letter to Greyhound dated October 23, 1992, ACDEH requested that Greyhound provide documentation regarding the underground fuel storage tank system (UST) removal, including disposal documentation. Greyhound subsequently prepared a Tank Closure Documentation Report for the 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 in Figure 1) were installed and sampled during the investigation. 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.

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QUARTERLY STATUS REPORT (CONTINUED)

- **Water level measurements from most recent sampling event:**

Monitoring well data obtained on April 11 and 12, 1995 are presented in Table 1. Groundwater elevations determined from the water level measurements are shown in Figure 2. The elevations indicate that the groundwater flow direction across the site is generally southward. Groundwater elevation contours were not drawn because of significant drawdown in the area of the recovery wells.

- **Water level measurements from previous monitoring visits:**

Monitoring well data obtained during prior quarterly sampling events are presented in Table 5. Free product thicknesses have been eliminated or significantly reduced in the four onsite recovery wells (ES-1, ES-2, ES-5, and BC-1) since the product recovery system was activated in January 1993.

- **Analytical results from most recent sampling event:**

Results from the groundwater samples collected in April 1995 are summarized in Table 2. Ten of the 14 monitoring wells located on or near the site were sampled. The samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method 8020; for total petroleum hydrocarbons as diesel (TPH-D) by Modified EPA Method 8015; and for total petroleum hydrocarbons as gasoline (TPH-G) by Modified EPA Method 8015. Laboratory reports including chain-of-custody documentation, are included in Appendix A.

BTEX compounds were only detected in two of the samples. Benzene (20 $\mu\text{g/l}$), toluene (7 $\mu\text{g/l}$), ethylbenzene (36 $\mu\text{g/l}$), and xylenes (22 $\mu\text{g/l}$) were detected in sample ES-3. Benzene (39 $\mu\text{g/l}$), toluene (4 $\mu\text{g/l}$), ethylbenzene (12 $\mu\text{g/l}$), and xylenes (24 $\mu\text{g/l}$) were detected in sample ES-4.

TPH-D was detected in sample ES-3 (0.39 mg/l). TPH-D was not detected in the other six samples. TPH-G was detected in samples ES-3 (0.94 mg/l), ES-4 (0.18 mg/l), and ES-11 (0.17 mg/l).

- **Analytical results from previous sampling events:**

A summary of the analytical results from previous groundwater sampling events is presented in Table 3. Table 4 is a summary of the analytical data from previously collected soil samples.

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QUARTERLY STATUS REPORT (CONTINUED)

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

Figure 3 shows the analytical results from the most recent groundwater sampling event. The figure indicates the extent of groundwater contamination.

Figure 4 shows the analytical results from soil samples collected during the preliminary site investigation (November 1991) and the supplemental site assessment (October 1993). The figure indicates that soil contamination is limited to the area near sample locations ES-1, ES-2, and ES-5.

- **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.

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

In October 1992, Greyhound proposed a free product recovery system to remove free product discovered in four onsite wells. A hydrocarbon recovery system was installed in November 1992 after receiving approval from Ms. Susan Hugo (ACDEH). The recovery system was activated during the week of January 4, 1993.

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

With the exception of a brief shutdown between October 6 and October 21, 1993 due to an air compressor problem, the product recovery system has been active since startup. The system is inspected daily by onsite personnel and monthly during monitoring visits by ES personnel.

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

To date, approximately 1,015 gallons of free product and contaminated groundwater have been recovered and properly disposed off site by Safety Clean, Inc. and Evergreen Vacuum Services, State of California-certified waste haulers. In addition, 76,943

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QUARTERLY STATUS REPORT (CONTINUED)

gallons of carbon-treated groundwater have been processed through the recovery system on site and discharged to the sanitary sewer under a permit issued by EBMUD.

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

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

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

In November 1993, based on the results of the Supplemental Site Assessment and Preliminary Risk Evaluation, Greyhound proposed: (1) to continue free product recovery at the site; (2) to continue the groundwater monitoring program, including monthly water level measurements, quarterly groundwater sampling and analysis, and reporting; and (3) that site-specific cleanup levels be established for the site based on the non-attainment area for groundwater contamination.

The next quarterly status report will be prepared and submitted to ACDEH on or before August 15, 1995.

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

Greyhound anticipates that the groundwater monitoring program will continue until free product has been removed from the groundwater. After the free product has been removed, a long-term groundwater monitoring program will be proposed to ensure that residual contaminants do not migrate off site.

- **Tank owner commitment letter:**

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

TABLE 1
 MONITORING WELL DATA SUMMARY
 GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
 April 11 and 12, 1995

Location	Elevation of T.O.C ¹ (Ft.)	Depth to Groundwater (Ft.)	Groundwater Elevation ² (Ft.)	Product Layer Thickness (Ft.)
ES-1 ³	96.64	16.25	80.39	0
ES-2 ³	96.44	16.71	79.73	0
ES-3	96.96	16.95	80.01	0
ES-4	95.70	16.14	79.56	0
ES-5 ³	95.85	16.00	79.85	0
ES-6	97.84	19.56	78.28	0
ES-7	96.40	17.35	79.05	0
ES-8	96.64	16.41	80.23	0
ES-9	95.78	15.23	80.55	0
ES-10	95.24	14.82	80.42	0
ES-11	95.92	16.54	79.38	0
BC-1 ³	96.16	16.55	79.61	0
BC-2 ⁴	96.32	15.56	80.76	0
BC-3 ⁴	96.20	15.08	81.12	0

¹ Elevations of top of PVC casing measured with respect to on-site datum (97.50 feet, measured on steel grate for storm sewer near wash rack).

² Groundwater elevation (Elevation of T.O.C. - depth to groundwater).

³ Recovery Wells.

⁴ Approximate elevation - well casings not vertical.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
APRIL 11 AND 12, 1995

Location	Date Collected	Parameter	Result	Detection Limit
ES-3	4/12	Benzene ¹	20	0.3 ug/L
		Toluene ¹	7	0.3 ug/L
		Ethylbenzene ¹	36	0.3 ug/L
		Xylenes (total) ¹	22	0.6 ug/L
		TPH-D ²	0.39	0.1 mg/L
		TPH-G ³	0.94	0.1 mg/L
ES-4	4/12	Benzene ¹	39	0.3 ug/L
		Toluene ¹	4	0.3 ug/L
		Ethylbenzene ¹	12	0.3 ug/L
		Xylenes (total) ¹	24	0.6 ug/L
		TPH-D ²	ND	0.1 mg/L
		TPH-G ³	0.18	0.1 mg/L
ES-6	4/11	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L
ES-7	4/11	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L
ES-8	4/11	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L
ES-9	4/11	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L

**TABLE 2
(Continued)**

Location	Date Collected	Parameter	Result	Detection Limit
ES-10	4/11	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L
ES-11	4/12	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	0.1 mg/L
		TPH-G ³	0.17	0.1 mg/L
BC-2	4/12	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L
BC-3	4/12	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	0.1 mg/L
		TPH-G ³	ND	0.1 mg/L

Notes:

¹ Analyzed by EPA Method 8020. 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.

ND – Not detected above the practical quantitation limit.

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
04/07/94	ES-3	10	9	26	34	79	0.91	0.85
	ES-4	11	ND	ND	ND	11	ND	0.17
	ES-6	ND	ND	ND	ND	ND	ND	0.16
	ES-7	ND	ND	ND	ND	ND	0.10	0.11
	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	0.35	ND
	BC-2	NA	NA	NA	NA	NA	NA	NA
	BC-3	ND	ND	ND	ND	ND	0.85	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
07/13/94	ES-3	2.0	0.9	0.8	3.0	6.7	0.28	0.37
	ES-4	9.0	ND	ND	0.7	9.7	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	NA	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	ND	ND	0.20	ND
10/06/94	ES-3	ND	ND	ND	ND	ND	ND	ND
	ES-4	18.0	ND	2.0	3.0	23.0	ND	0.10
	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	ND	ND	0.82	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
1/13/95,	ES-3	19	15	72	88	194	1.1	1.6
1/16/95	ES-4	12	ND	ND	2	14	ND	0.15
	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	1.1	ND
	ES-10	ND	ND	ND	ND	ND	ND	ND
	ES-11	ND	ND	ND	ND	ND	ND	ND
	BC-2	ND	ND	ND	ND	ND	1.1	ND
	BC-3	ND	ND	ND	ND	ND	0.89	ND
4/11/95,	ES-3	20	7	36	22	85	0.39	0.94
4/12/95,	ES-4	39	4	12	24	79	ND	0.18
	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	0.17
	BC-2	ND	ND	ND	ND	ND	ND	ND
	BC-3	ND	ND	ND	ND	ND	ND	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)
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
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
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
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

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
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
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	
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	

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
04/07/94	ES-1	18.50	18.68	0.18
	ES-2	19.10	19.19	0.09
	ES-3	19.00	19.00	0
	ES-4	18.80	18.80	0
	ES-5	18.37	18.38	0
	ES-6	21.30	21.30	0
	ES-7	19.44	19.44	0
	ES-8	18.44	18.44	0
	ES-9	17.24	17.24	0
	ES-10	16.74	16.74	0
	ES-11	18.38	18.38	0
	BC-1	18.10	18.20	0.10
	BC-2	NR	NR	NR
BC-3	17.70	17.70	0	
07/13/94	ES-1	NR	18.08	NR
	ES-2	NR	18.78	NR
	ES-3	18.71	18.71	0
	ES-4	18.13	18.13	0
	ES-5	NR	18.30	NR
	ES-6	21.40	21.40	0
	ES-7	19.11	19.11	0
	ES-8	18.50	18.50	0
	ES-9	17.40	17.40	0
	ES-10	16.10	16.10	0
	ES-11	18.60	18.60	0
	BC-1	NR	18.70	NR
	BC-2	17.10	17.10	0
BC-3	18.10	18.10	0	

TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY

Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
10/06/94	ES-1	18.39	18.43	0.04
	ES-2	18.86	18.86	0
	ES-3	19.24	19.24	0
	ES-4	18.25	18.25	0
	ES-5	18.23	18.23	0
	ES-6	21.58	21.58	0
	ES-7	19.73	19.73	0
	ES-8	18.76	18.76	0
	ES-9	17.46	17.46	0
	ES-10	16.96	16.96	0
	ES-11	18.55	18.55	0
	BC-1	18.58	18.58	0
	BC-2	NM	NM	NM
BC-3	18.58	18.58	0	
01/16/95	ES-1	18.39	18.43	0.04
	ES-2	18.86	18.86	0
	ES-3	17.35	17.35	0
	ES-4	16.77	16.77	0
	ES-5	18.23	18.23	0
	ES-6	20.25	20.25	0
	ES-7	18.11	18.11	0
	ES-8	16.83	16.83	0
	ES-9	15.80	15.80	0
	ES-10	15.42	15.42	0
	ES-11	17.16	17.16	0
	BC-1	18.58	18.58	0
	BC-2	12.80	12.80	0
BC-3	15.40	15.40	0	

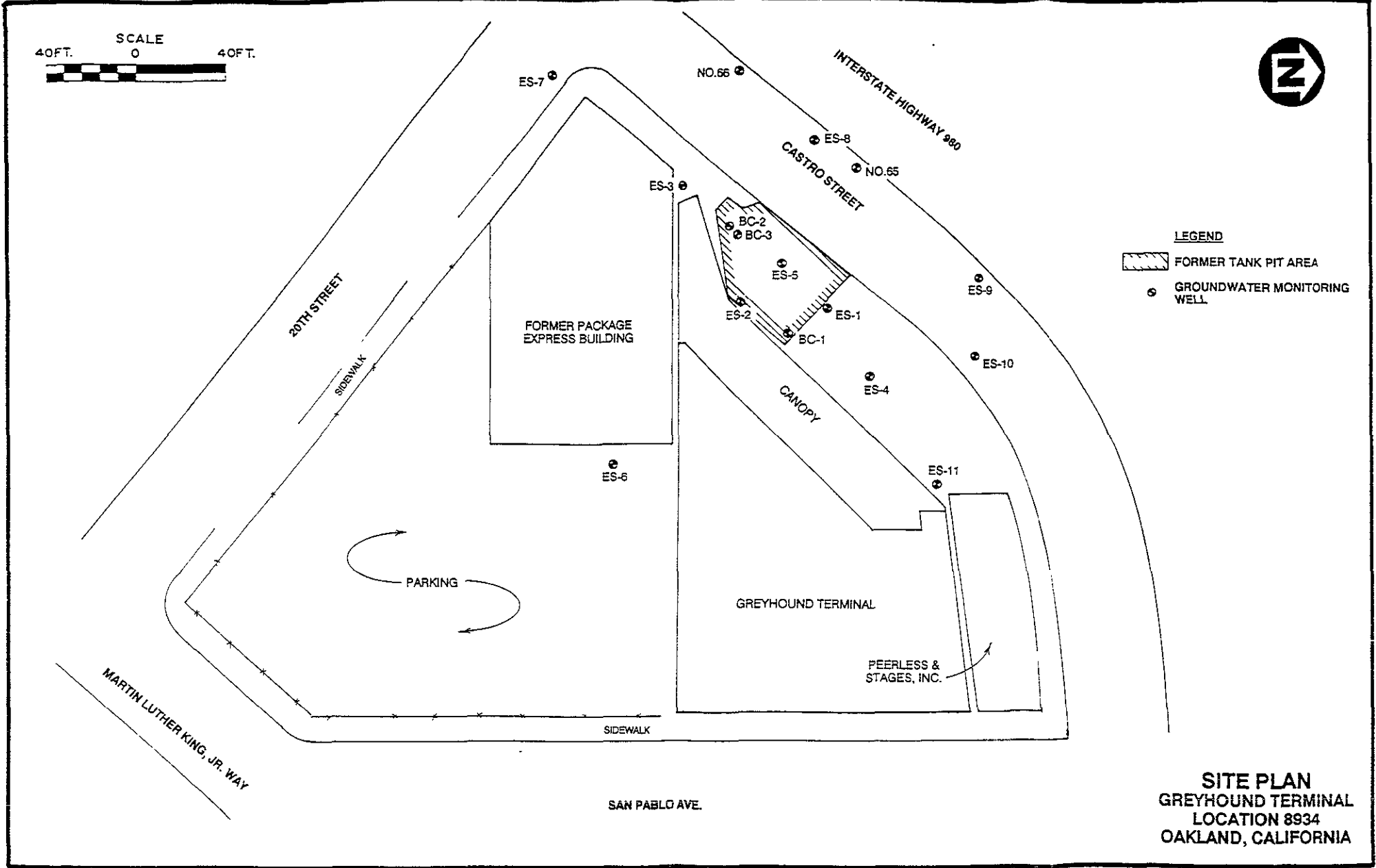
TABLE 5
(Continued)

MONITORING WELL DATA SUMMARY


Date	Well Location	Depth to Liquid (Feet)	Depth to Water (Feet)	Free Product Thickness (Feet)
04/11/95,	ES-1	16.25	16.25	0
04/12/95	ES-2	16.71	16.71	0
	ES-3	16.95	16.95	0
	ES-4	16.14	16.14	0
	ES-5	16.00	16.00	0
	ES-6	19.56	19.56	0
	ES-7	17.35	17.35	0
	ES-8	16.41	16.41	0
	ES-9	15.23	15.23	0
	ES-10	14.82	14.82	0
	ES-11	16.54	16.54	0
	BC-1	16.55	16.55	0
	BC-2	15.56	15.56	0
	BC-3	15.08	15.08	0


NR = Not recorded due to equipment theft.
 NM = Not measured due to dry well.

FIGURE 1



LEGEND

 FORMER TANK PIT AREA

 GROUNDWATER MONITORING WELL

SITE PLAN
GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA

FIGURE 2

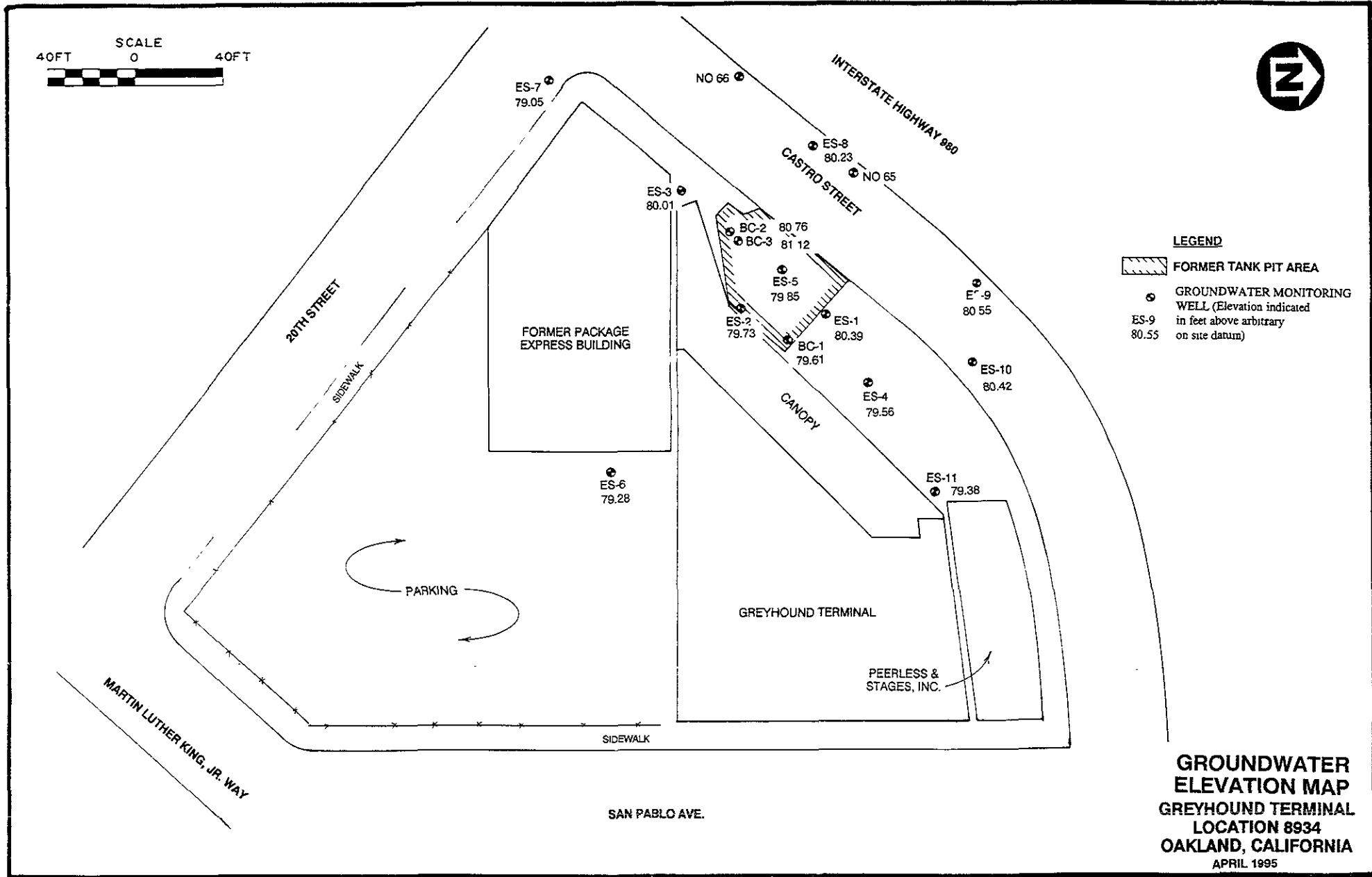


FIGURE 3

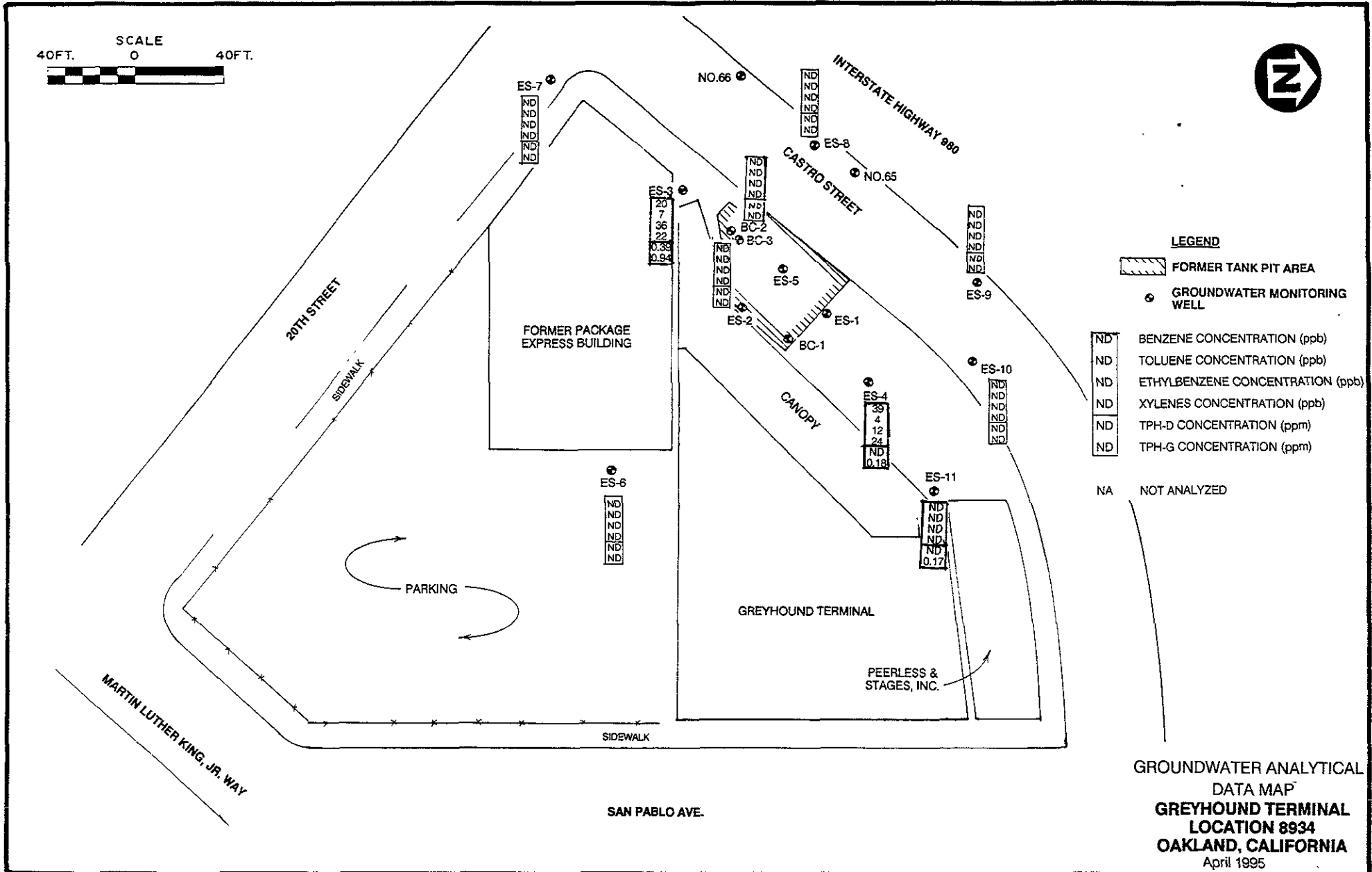
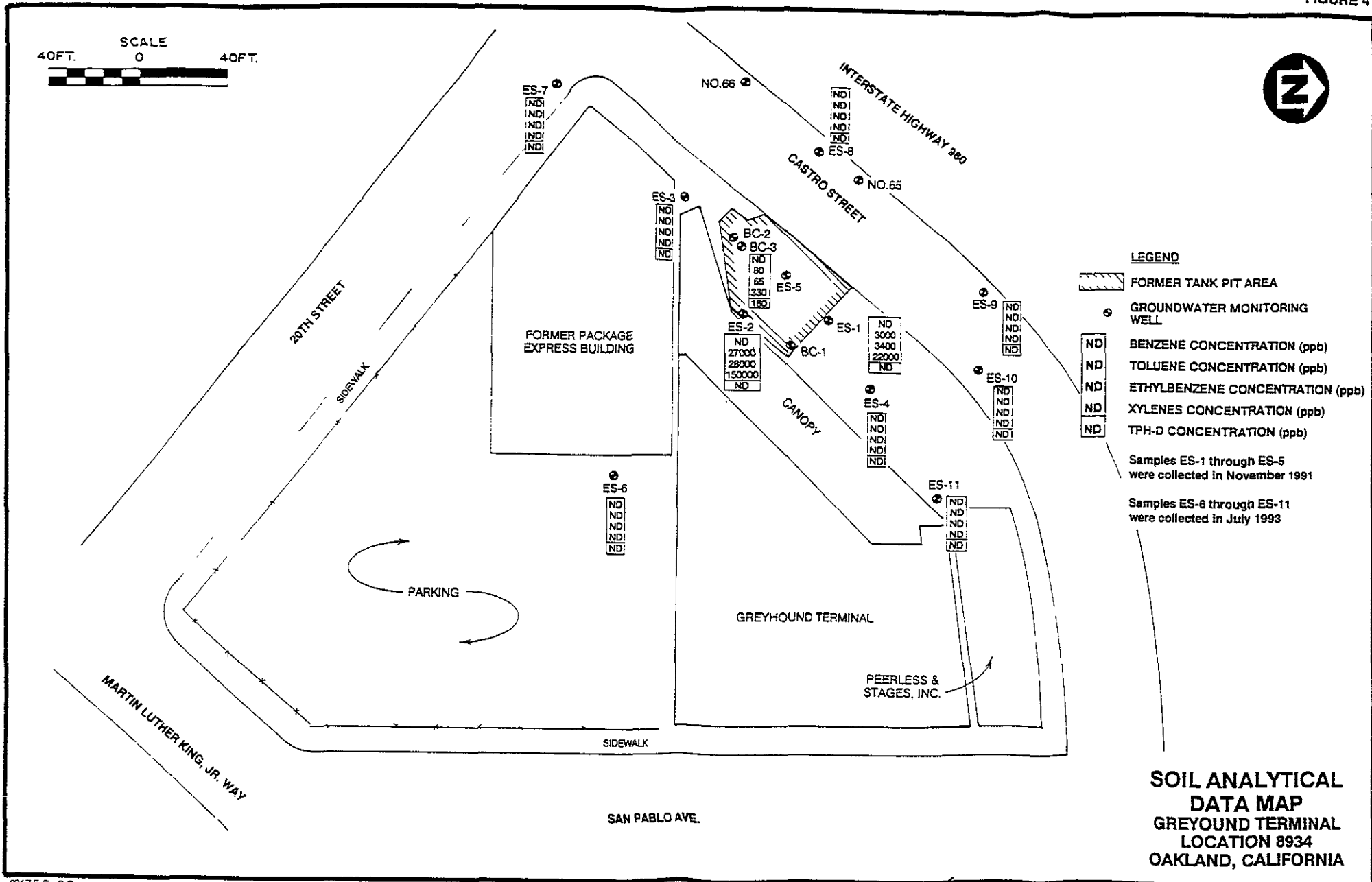


FIGURE 4



APPENDIX A
LABORATORY REPORTS



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0801

Certificate of Analysis No. H9-9504489-02

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-3

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 11:30:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	20	0.3 P	µg/L
TOLUENE	7	0.3 P	µg/L
ETHYLBENZENE	36	0.3 P	µg/L
TOTAL XYLENE	22	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	85		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 116
 4-Bromofluorobenzene 112

METHOD 8020***

Analyzed by: DAO

Date: 04/25/95

Petroleum Hydrocarbons - Gasoline 0.94 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 88
 4-Bromofluorobenzene 148

Modified 8015 - Gasoline

Analyzed by: KA

Date: 04/24/95

Total Petroleum Hydrocarbons-Diesel 0.39 0.1 P mg/L

(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., - Project Manager



HOUSTON LABORATORY
 8800 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9504489-02

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-3

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 11:30:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		109		
2-Fluorobiphenyl		54		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/21/95 09:24:00				
Liquid-liquid extraction		04/18/95		
METHOD 3510 ***				
Analyzed by: RS				
Date: 04/18/95				

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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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9504489-05

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-4

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 14:45:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	39	0.3 P	µg/L
TOLUENE	4	0.3 P	µg/L
ETHYLBENZENE	12	0.3 P	µg/L
TOTAL XYLENE	24	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	79		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	106
4-Bromofluorobenzene	101

METHOD 8020***

Analyzed by: DAO
 Date: 04/19/95

Petroleum Hydrocarbons - Gasoline	0.18	0.1 P	mg/L
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Surrogate	% Recovery
1,4-Difluorobenzene	88
4-Bromofluorobenzene	105

Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/19/95

Total Petroleum Hydrocarbons-Diesel	ND	0.1 P	mg/L
-------------------------------------	----	-------	------

(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.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 0880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504489-05

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-4

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 14:45:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		68		
2-Fluorobiphenyl		67		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/21/95 09:24:00				
Liquid-liquid extraction		04/18/95		
METHOD 3510 ***				
Analyzed by: RS				
Date: 04/18/95				

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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HOUSTON LABORATORY
 8800 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504488-01

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-6

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 10:40:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 97
 4-Bromofluorobenzene 99
 METHOD 8020***
 Analyzed by: DAO
 Date: 04/19/95

Petroleum Hydrocarbons - Gasoline ND 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 83
 4-Bromofluorobenzene 98
 Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/19/95

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

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.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77064
 PHONE (713) 800-0901

Certificate of Analysis No. H9-9504488-01

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-6

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 10:40:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Surrogate	% Recovery		
o-Terphenyl	84		
2-Fluorobiphenyl	59		
Mod. 8015 - Diesel			
Analyzed by: SEG			
Date: 04/20/95 13:54:00			
Liquid-liquid extraction	04/14/95		
METHOD 3510 ***			
Analyzed by: RN			
Date: 04/14/95			

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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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504488-02

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-7

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 12:00:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 97
 4-Bromofluorobenzene 98
 METHOD 8020***
 Analyzed by: DAO
 Date: 04/20/95

Petroleum Hydrocarbons - Gasoline ND 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 84
 4-Bromofluorobenzene 102
 Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/20/95

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

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.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0801

Certificate of Analysis No. H9-9504488-02

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-7

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 12:00:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		76		
2-Fluorobiphenyl		72		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/20/95 13:54:00				
Liquid-liquid extraction		04/14/95		
METHOD 3510 ***				
Analyzed by: RN				
Date: 04/14/95				

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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HOUSTON LABORATORY
 8800 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9504488-03

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-8

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 14:20:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 97
 4-Bromofluorobenzene 96
 METHOD 8020***
 Analyzed by: DAO
 Date: 04/19/95

Petroleum Hydrocarbons - Gasoline ND 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 84
 4-Bromofluorobenzene 99
 Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/19/95

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

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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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9504488-03

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-8

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 14:20:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		75		
2-Fluorobiphenyl		56		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/17/95 20:48:00				
Liquid-liquid extraction		04/14/95		
METHOD 3510 ***				
Analyzed by: RN				
Date: 04/14/95				

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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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77064
 PHONE (713) 680-0901

Certificate of Analysis No. H9-9504488-04

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-9

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 15:45:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
BENZENE	ND		0.3 P	µg/L
TOLUENE	ND		0.3 P	µg/L
ETHYLBENZENE	ND		0.3 P	µg/L
TOTAL XYLENE	ND		0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND			µg/L
Surrogate	% Recovery			
1,4-Difluorobenzene	97			
4-Bromofluorobenzene	95			
METHOD 8020***				
Analyzed by: DAO				
Date: 04/19/95				
Petroleum Hydrocarbons - Gasoline	ND		0.1 P	mg/L
Surrogate	% Recovery			
1,4-Difluorobenzene	84			
4-Bromofluorobenzene	100			
Modified 8015 - Gasoline				
Analyzed by: DAO				
Date: 04/19/95				
Total Petroleum Hydrocarbons-Diesel	ND		0.1 P	mg/L

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.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 8800 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9504488-04

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-9

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 15:45:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Surrogate	† Recovery		
o-Terphenyl	93		
2-Fluorobiphenyl	69		
Mod. 8015 - Diesel			
Analyzed by: SEG			
Date: 04/17/95 20:48:00			
Liquid-liquid extraction	04/14/95		
METHOD 3510 ***			
Analyzed by: RN			
Date: 04/14/95			

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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 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504488-05

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-10

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 17:20:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA		RESULTS	DETECTION LIMIT	UNITS
BENZENE			ND	0.3 P	µg/L
TOLUENE			ND	0.3 P	µg/L
ETHYLBENZENE			ND	0.3 P	µg/L
TOTAL XYLENE			ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS			ND		µg/L
Surrogate		% Recovery			
1,4-Difluorobenzene		97			
4-Bromofluorobenzene		97			
METHOD 8020***					
Analyzed by: DAO					
Date: 04/19/95					
Petroleum Hydrocarbons - Gasoline			ND	0.1 P	mg/L
Surrogate		% Recovery			
1,4-Difluorobenzene		83			
4-Bromofluorobenzene		96			
Modified 8015 - Gasoline					
Analyzed by: DAO					
Date: 04/19/95					
Total Petroleum Hydrocarbons-Diesel			ND	0.1 P	mg/L

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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 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504488-05

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-10

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95 17:20:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		92		
2-Fluorobiphenyl		67		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/17/95 20:48:00				
Liquid-liquid extraction		04/14/95		
METHOD 3510 ***				
Analyzed by: RN				
Date: 04/14/95				

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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 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9504489-01

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-11

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 10:00:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

97
 100

METHOD 8020***

Analyzed by: KA

Date: 04/22/95

Petroleum Hydrocarbons - Gasoline

0.17

0.1 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

83
 101

Modified 8015 - Gasoline

Analyzed by: KA

Date: 04/22/95

Total Petroleum Hydrocarbons-Diesel

ND

0.1 P

mg/L

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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HOUSTON LABORATORY
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 HOUSTON, TEXAS 77054
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504489-01

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: MW-11

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 10:00:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		71		
2-Fluorobiphenyl		68		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/21/95 09:24:00				
Liquid-liquid extraction		04/18/95		
METHOD 3510 ***				
Analyzed by: RS				
Date: 04/18/95				

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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 HOUSTON, TEXAS 77054
 PHONE (713) 860-0901

Certificate of Analysis No. H9-9504489-04

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: BC-2

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 12:35:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 96
 4-Bromofluorobenzene 95

METHOD 8020***
 Analyzed by: DAO
 Date: 04/19/95

Petroleum Hydrocarbons - Gasoline ND 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 83
 4-Bromofluorobenzene 98

Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/19/95

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

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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 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9504489-04

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: BC-2

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 12:35:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Surrogate		% Recovery		
o-Terphenyl		48		
2-Fluorobiphenyl		41		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/21/95 09:24:00				
Liquid-liquid extraction		04/18/95		
METHOD 3510 ***				
Analyzed by: RS				
Date: 04/18/95				

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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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77064
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504489-03

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: BC-3

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 12:05:00
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

98
 95

METHOD 8020***

Analyzed by: DAO

Date: 04/19/95

Petroleum Hydrocarbons - Gasoline

ND 0.1 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
 4-Bromofluorobenzene

84
 97

Modified 8015 - Gasoline

Analyzed by: DAO

Date: 04/19/95

Total Petroleum Hydrocarbons-Diesel

ND 0.1 P

mg/L

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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 HOUSTON, TEXAS 77064
 PHONE (713) 880-0801

Certificate of Analysis No. H9-9504489-03

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Engineering Science
 SAMPLE ID: BC-3

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95 12:05:00
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
Surrogate	* Recovery			
o-Terphenyl		36		
2-Fluorobiphenyl		74		
Mod. 8015 - Diesel				
Analyzed by: SEG				
Date: 04/21/95 09:24:00				
Liquid-liquid extraction		04/18/95		
METHOD 3510 ***				
Analyzed by: RS				
Date: 04/18/95				

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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 HOUSTON, TEXAS 77054
 PHONE (713) 000-0901

Certificate of Analysis No. H9-9504488-06

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Provided by SPL
 SAMPLE ID: Trip Blank

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/11/95
 DATE RECEIVED: 04/13/95

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
BENZENE	RESULTS		0.3 P	µg/L
TOLUENE	ND		0.3 P	µg/L
ETHYLBENZENE	ND		0.3 P	µg/L
TOTAL XYLENE	ND		0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND			µg/L
Surrogate		% Recovery		
1,4-Difluorobenzene		96		
4-Bromofluorobenzene		95		
METHOD 8020***				
Analyzed by: KA				
Date: 04/23/95				
Petroleum Hydrocarbons - Gasoline	RESULTS		0.1 P	mg/L
Surrogate		% Recovery		
1,4-Difluorobenzene		83		
4-Bromofluorobenzene		95		
Modified 8015 - Gasoline				
Analyzed by: KA				
Date: 04/23/95				

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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 HOUSTON, TEXAS 77064
 PHONE (713) 880-0901

Certificate of Analysis No. H9-9504489-06

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

DATE: 04/26/95

PROJECT: Parsons Engineering-Science
 SITE: Oakland, CA
 SAMPLED BY: Provided by SPL
 SAMPLE ID: Trip Blank

PROJECT NO: 727211.08934
 MATRIX: WATER
 DATE SAMPLED: 04/12/95
 DATE RECEIVED: 04/13/95

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.3 P	µg/L
TOLUENE	ND	0.3 P	µg/L
ETHYLBENZENE	ND	0.3 P	µg/L
TOTAL XYLENE	ND	0.6 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 96
 4-Bromofluorobenzene 96

METHOD 8020***
 Analyzed by: DAO
 Date: 04/19/95

Petroleum Hydrocarbons - Gasoline ND 0.1 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 84
 4-Bromofluorobenzene 99

Modified 8015 - Gasoline
 Analyzed by: DAO
 Date: 04/19/95

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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