1R - 240

REPORTS

DATE:

1996

Shell Oil Products Company

Two Shell Plaza
P. O. Box 2099
Houston, TX 77252-2099

December 1, 1997

William Olson
State of New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, New Mexico 87504

SUBJECT: **POTENTIAL HYDROCARBON IMPACTS ON LEA STATION FROM OFF-SITE SOURCE**

Dear Mr. Olson,

For the past four years we have been monitoring the groundwater on a quarterly basis at the subject site. Groundwater levels fluctuate very little and the groundwater gradient is from northwest to southeast. North of the station are tank batteries that, at least when Shell owned the station, delivered into the station. I believe that the years of monitoring data and the location of known station piping raises the concern that the Phase Separated Hydrocarbon (PSH) in MW-11 may be from the tank battery immediately to the north, or it's associated piping. As shown on the enclosed map, MW-13 located immediately up-gradient of the Sun Tank Battery has had neither PSH nor dissolved hydrocarbon contaminants. Whereas the PSH impacted MW-11 is located immediately downgradient of this facility. Enclosed are two gas chromatograph scans of samples of MW-11 PSH from December 1996 and September 1997. Both scans are identical and show weathered crude oil with no n-alkanes remaining (a result of biodegradation). Furthermore a crude oil release in the MW-11 area could also have provided the source of the BTEX now being detected in the down gradient wells MW-3 and MW-12. Any assistance you could provide in determining the possible off-site contamination migrating onto Lea Station would be greatly appreciated.

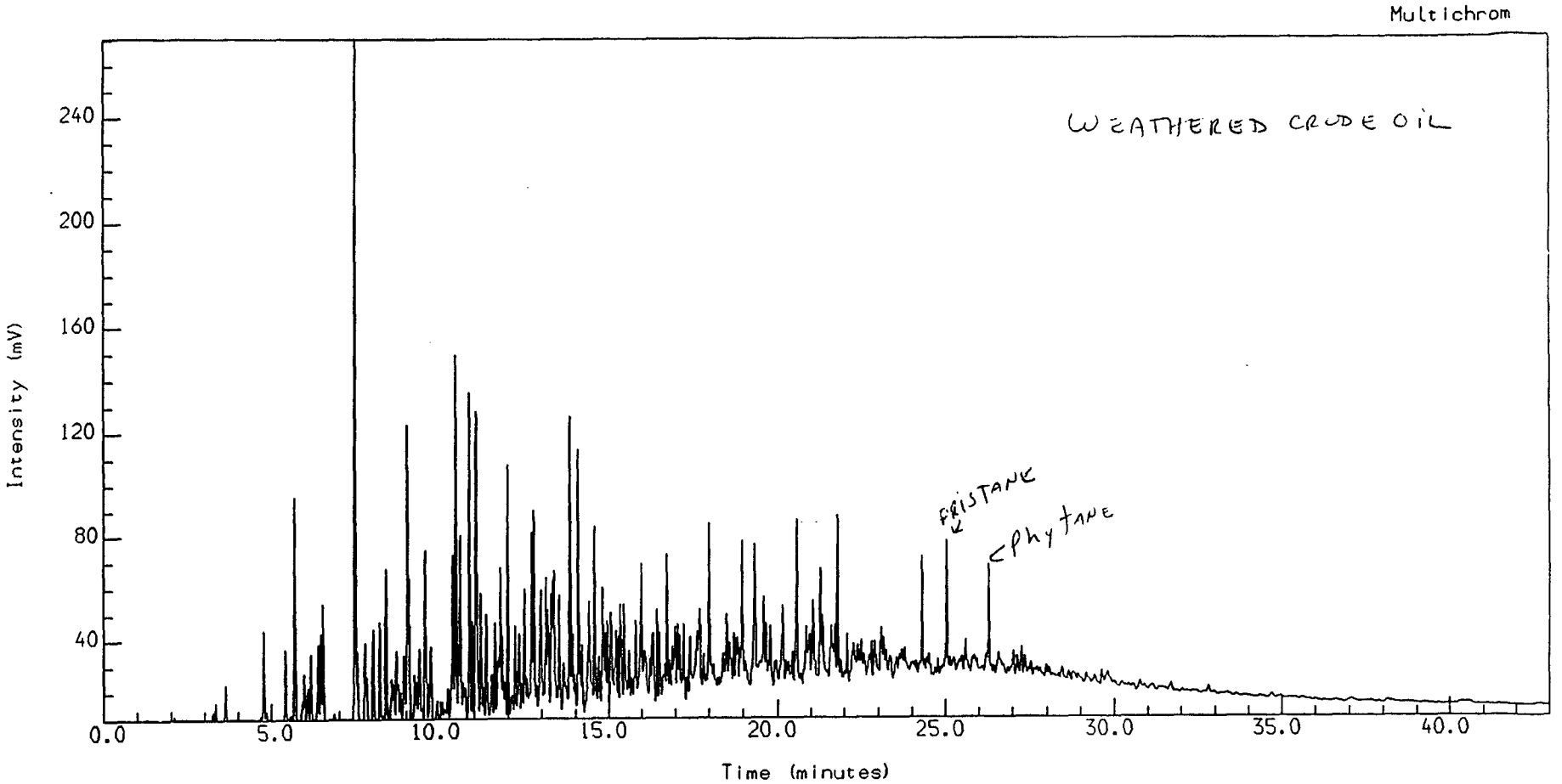
Sincerely,

Neal Stidham
Staff Engineer
Shell Oil Company
Representing Shell Pipe Line Corporation

cc: Paul Newman-EOTT Energy Corp.
Jerry Sexton-OCD Hobbs

Analysis Name : [GW-HW] 125 SL121996,3,1.

MW-11 LEA STATION Amount : 1.000



Instrument :

Channel Title : Channel #125

Sample ID :

Acquired on 19-DEC-1996 at 09:41

Reported on 19-DEC-1996 at 15:16

Method : SL121996

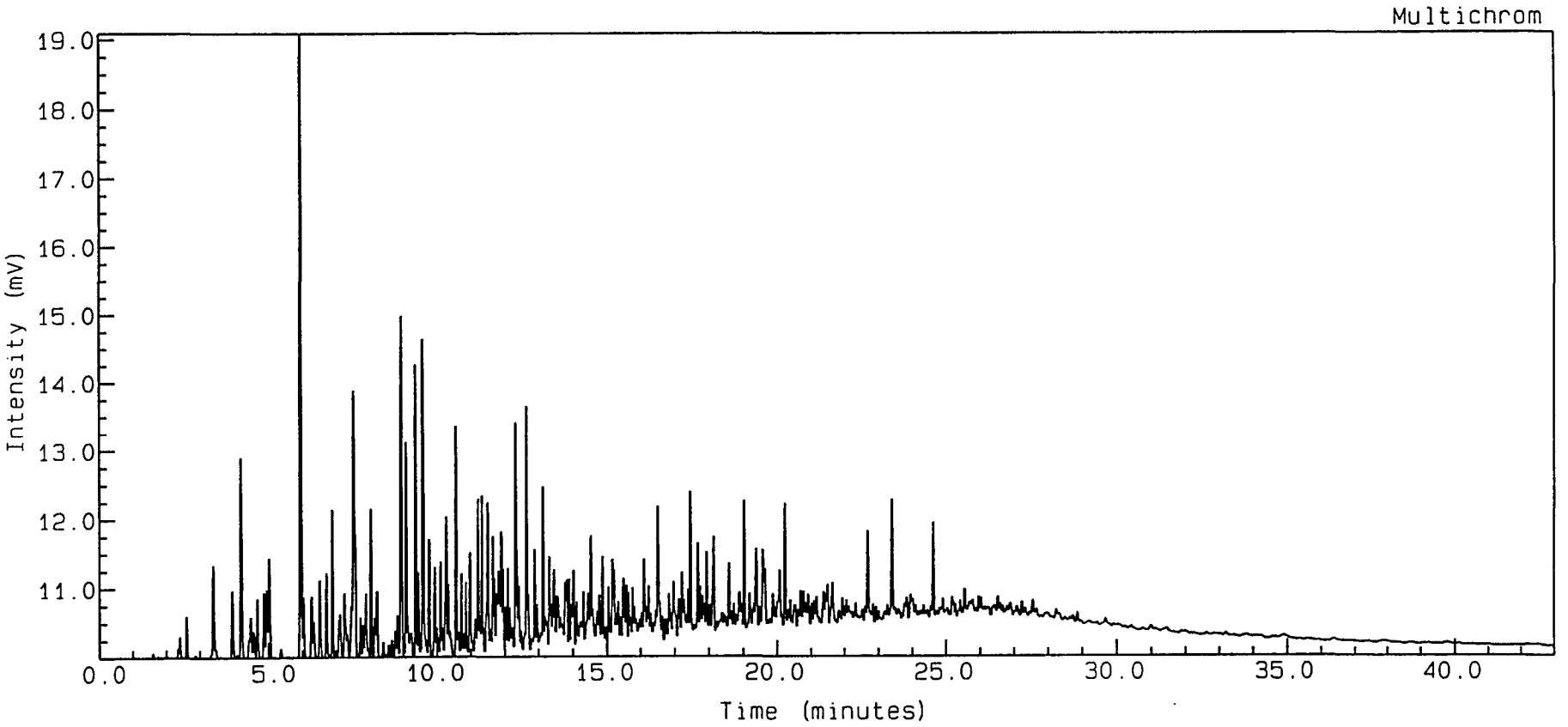
Calibration :

Run Sequence : SL121996

WR410A Westhollow Technology Center Multichrom System

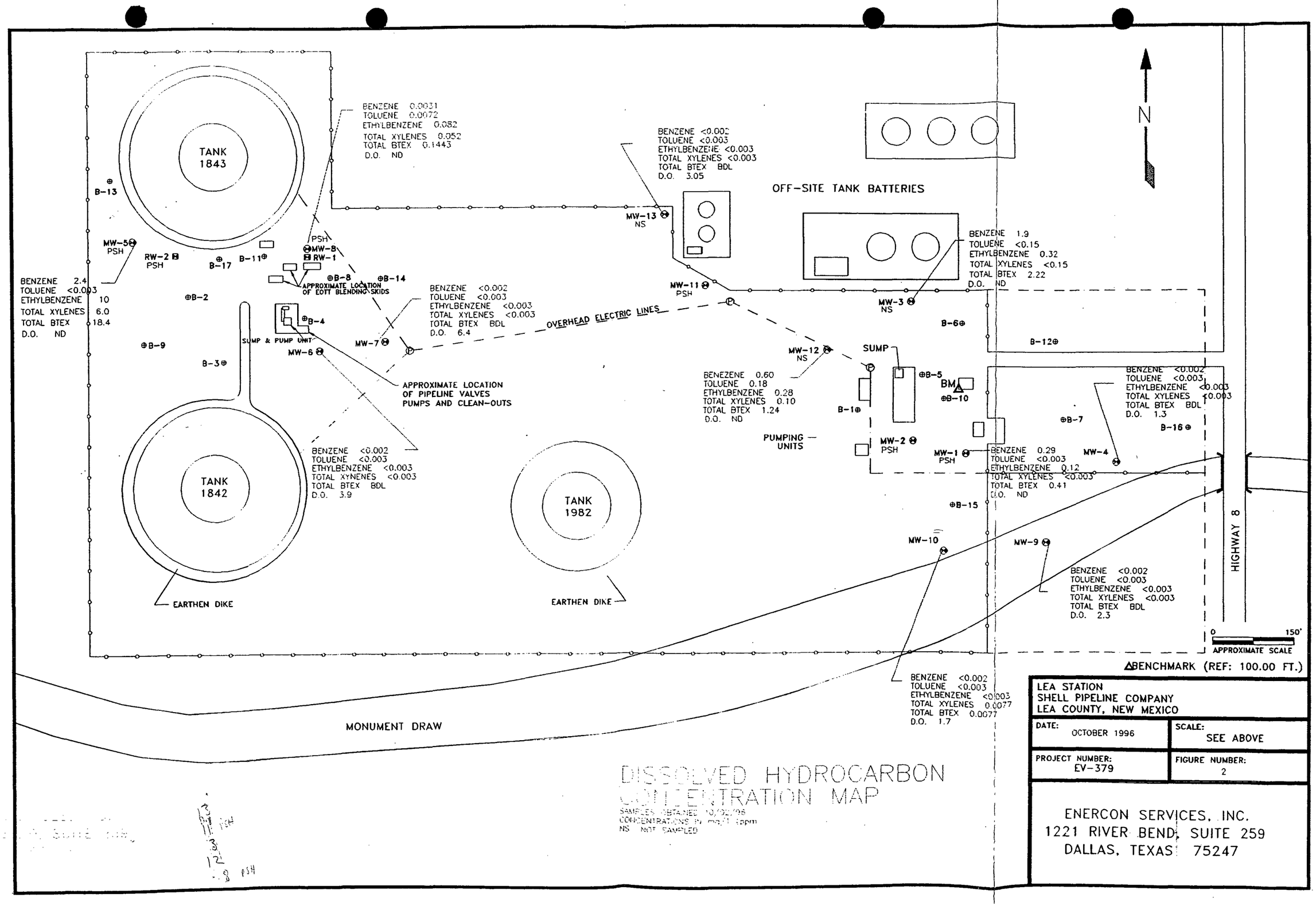
Analysis Name : [GW-HW] 105 SL090897, 16, 1.

MW-11 LEA STATION Amount : 1.000



Instrument :
Channel Title : Channel #105
Lims ID :
Acquired on 9-SEP-1997 at 16:10
Reported on 2-OCT-1997 at 09:50

Method : SL090897
Calibration : SL0908-A
Run Sequence : SL090897



BENCHMARK (REF: 100.00 FT.)

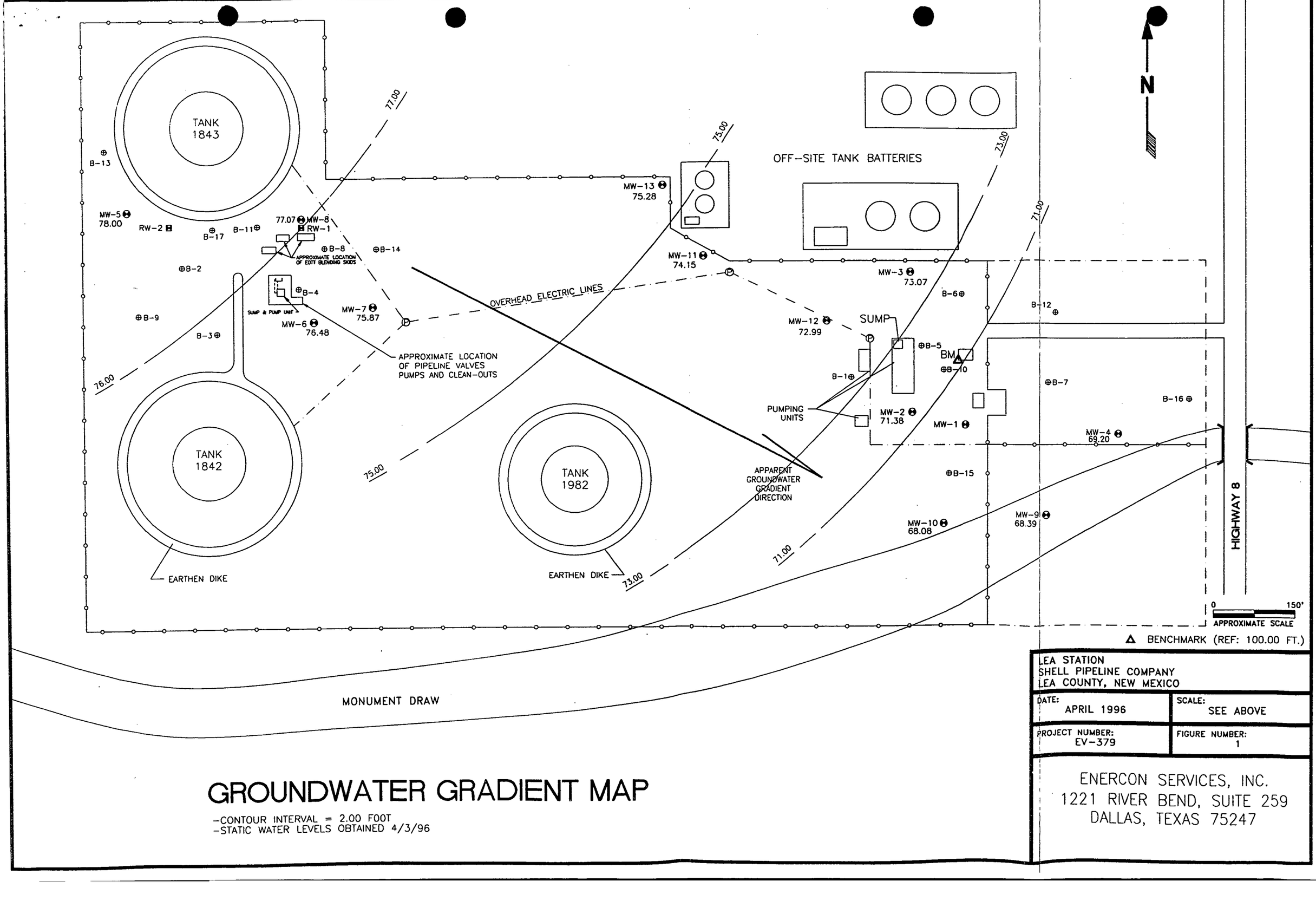
DISSOLVED HYDROCARBON CONCENTRATION MAP

SAMPLES OBTAINED 10/25/96
CONCENTRATIONS IN mg/L (ppm)
NS NOT SAMPLED

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCTOBER 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 2

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



GROUNDWATER GRADIENT MAP

-CONTOUR INTERVAL = 2.00 FOOT
-STATIC WATER LEVELS OBTAINED 4/3/96

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
APRIL 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 1

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247

Shell Oil Products Company

Two Shell Plaza
P. O. Box 2099
Houston, TX 77252-2099

December 6, 1996

William Olson
State of New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, New Mexico 87504

SUBJECT: LEA STATION, 1996 ANNUAL MONITORING REPORT

Dear Mr. Olson,

Enclosed is the 1996 Annual Monitoring Report for Lea Station. Groundwater BTEX remained consistent with historical concentrations except for xylene and toluene, in July, from MW-9 and MW-10 respectively. However in October both of these returned to their previous non-detect levels, which leads me to believe these to be anomalies. As a change from past practices, wells with a trace of PSH were developed and sampled. A trace is considered either visible droplets in a bailer or detectable but not measurable PSH with an interface probe. Phase separated hydrocarbon was not noted in any new wells and absorbent booms were maintained in MW-1, MW-2, MW-5, MW-8, and MW-11. Total PSH recovered this year was about 16.8 gallons with a cumulative total of 94 gallons. The majority of PSH recovered in 1996 was from MW-8 and MW-2. The rate of PSH inflow to MW-8 has decreased whereas the rate into MW-11 is remaining constant if not slightly increasing. A sample of PSH from MW-11 was sent to the laboratory for analyses. I suspect the impacts in this area is from an off-site source and will forward a copy of the laboratory results. As we discussed earlier, the vacuum assist at RW-1 and RW-2 has had no noticeable effect on increasing PSH volumes in the wells. The recovery pumps have been removed and the blower restarted. The system now functions as an Soil Vapor Extraction System removing volatiles from the soil. These wells continue to be monitored and will have booms installed if PSH is found.

In 1997 I plan to continue the quarterly monitoring, PSH recovery, and looking for the off-site source of product on the northeast corner of the property. If you have any questions please do not hesitate to call me at 713-241-2961.

Sincerely,

Neal Stidham
Staff Engineer
Shell Oil Products Company
Representing Shell Pipe Line Corporation

cc: Paul Newman-EOTT Energy Corp.
Jerry Sexton-OCD Hobbs

ENERCON SERVICES, INC.
An Employee Owned Company

1221 River Bend, Suite 259
Dallas, TX 75247
(214) 631-7693
FAX (214) 631-7699

November 1, 1996

Mr. Neal Stidham
Shell Oil Products Company
Two Shell Plaza, Room 1452
777 Walker Street
Houston, Texas 77002

RE: ANNUAL GROUNDWATER MONITORING REPORT
LEA STATION
LEA COUNTY, NEW MEXICO

ENERCON PROJECT NO. EV-379

Mr. Stidham:

Enercon Services, Inc., has completed the 1996 Annual Groundwater Sampling and Monitoring operations at the above-mentioned site. The sampling and monitoring program consisted of four separate quarterly events.

The 1996 Annual Report contains results from all four of the quarterly events and includes the collection of groundwater elevation measurements and groundwater samples from thirteen (13) onsite monitoring wells (MW-1 through MW-13). Outlined in this report are the gauging, purging, and sampling operations conducted on February 7, April 3, July 18, and October 2, 1996. Additionally all groundwater elevation data collected during nine separate site visits beginning February 7, 1996 are also presented.

Groundwater Gradient

All monitoring wells were gauged in order to determine the depth to the groundwater table and the thickness of any phase-separated hydrocarbons (PSH). A summary of the groundwater elevations and PSH thicknesses is presented as Table 1. Figure 1 consists of a groundwater gradient map constructed from gauging data collected on October 2, 1996. This map is representative of current groundwater flow conditions and is concurrent with historical data. The apparent goundwater flow direction is to the south-southeast.

PSH Recovery

Absorbent booms are maintained in monitoring wells MW-1, MW-2, MW-5, MW-8, MW-11, and RW-2. Only monitoring wells MW-2 and MW-11 had measurable amounts of PSH during the October 2, 1996 gauging event. Approximately 94 gallons of PSH have been recovered at the site to date. Soil Vapor Extraction (SVE) operations were initiated at the site on August 1, 1996. Table 3 details the results of the SVE operations.

Groundwater Sampling

Following the gauging and purging operations monitoring wells MW-4, MW-6, MW-7, MW-9, and MW-10 were developed and sampled during the first three sampling events. All samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and dissolved oxygen content (DO). During the first quarter event (February 7, 1996) all samples were also analyzed for poly-aromatic hydrocarbons (PAHs). All sampling was done in accordance with the requirements of the New Mexico Oil Conservation Division (NMOCD). Because the New Mexico Water Quality Control Commission (WQCC) regulations do not contain a groundwater standard for total petroleum hydrocarbons (TPH) none of the samples were submitted for TPH analysis. Monitoring Wells MW-1, MW-2, MW-5, MW-8, and MW-11 were not sampled due to the presence of PSH. BTEX concentrations for monitoring wells MW-3, MW-12 and MW-13 have historically been below laboratory detection limits (BDL) and therefore were not sampled for the first three quarters of 1996. For the final quarterly event these monitoring wells were sampled.

Historical water sample analytical results from this location are presented in Table 2. Figure 2 is a map of dissolved hydrocarbon concentrations constructed with the analytical results from the most recent sampling event (October 2, 1996). For all four quarterly events in 1996, BTEX concentrations for monitoring wells MW-4 and MW-7 have been reported to be below laboratory detection limits. Total BTEX concentrations for monitoring well MW-6 have ranged from BDL to 2.6 ppm with the most recent concentrations being below laboratory detection limits. Analytical results from monitoring well MW-9 reported total BTEX levels to be BDL for the first two quarters of 1996 but increased to 2.6 ppm for the third quarter. The final monitoring event reported total BTEX levels below laboratory detection limits. For monitoring well MW-10, total BTEX concentrations have remained between BDL and 1.8 ppm with the most recent concentration to be 0.0077 ppm. Monitoring wells MW-12 and MW-13 were sampled only during the fourth quarter of 1996. Monitoring well MW-12 reported a total BTEX concentration of 1.24 ppm and monitoring well MW-13 reported levels below laboratory detection limits.

BTEX concentrations were consistent with historical results and ranged from non-detect in monitoring wells MW-4, MW-6, MW-7, MW-9, and MW-13 to 2.22 ppm in MW-3. No PAH compounds were detected in any of the sampled monitoring wells.

ENERCON appreciates the opportunity to provide you with our professional consulting services. If you have any questions or concerns, please do not hesitate to contact us at (214) 631-7693.

Sincerely,
Enercon Services, Inc.

Michelle Williams
Environmental Geologist

Charles D. Harlan
Project Manager

Attachments

APPENDIX A
TABLES

TABLE 1
LEA STATION
SUMMARY OF RELATIVE GROUNDWATER LEVEL ELEVATIONS AND PHASE-SEPARATED HYDROCARBON THICKNESSES

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-1	10/17/95	98.88	100.73	33.15	68.09	0.63
	2/7/96	98.88	100.73	30.39	70.34	Trace
	4/3/96	98.88	100.73	---	---	0.00
	6/12/96	98.88	100.73	30.22	70.51	Trace
	6/20/96	98.88	100.73	31.35	69.38	Trace
	6/27/96	98.88	100.73	31.51	69.22	0.00
	7/5/96	98.88	100.73	30.67	70.06	0.00
	7/18/96	98.88	100.73	30.69	70.04	Trace
	8/1/96	98.88	100.73	30.86	69.87	Trace
	10/2/96	**98.88**	**100.73**	**28.06**	**70.18**	**Trace**
MW-2	10/17/95	100.78	102.37	32.04	70.45	0.15
	2/7/96	100.78	102.37	31.38	71.21	0.24
	4/3/96	100.78	102.37	31.29	71.38	0.33
	6/12/96	100.78	102.37	31.32	71.12	0.00
	6/20/96	100.78	102.37	32.25	70.12	0.00
	6/27/96	100.78	102.37	31.33	71.04	0.00
	7/5/96	100.78	102.37	30.67	70.89	0.00
	7/18/96	100.78	102.37	31.58	70.80	0.01
	8/1/96	100.78	102.37	31.83	70.54	0.00
	10/2/96	**100.78**	**102.37**	**32.71**	**70.18**	**0.58**
MW-3	10/17/95	101.79	103.61	32.67	70.94	0.00
	2/7/96	101.79	103.61	30.57	73.04	0.00
	4/3/96	101.79	103.61	30.54	73.07	0.00
	7/18/96	101.79	103.61	31.43	72.18	0.00
	8/1/96	101.79	103.61	---	---	---
	10/2/96	**101.79**	**103.61**	**31.99**	**71.62**	**0.00**
MW-4	10/17/95	93.80	96.08	27.20	68.88	0.00
	2/7/96	93.80	96.08	26.82	69.26	0.00
	4/3/96	93.80	96.08	26.88	69.20	0.00
	7/18/96	93.80	96.08	27.54	68.54	0.00
	8/1/96	93.80	96.08	---	---	---
	10/2/96	**93.80**	**96.08**	**28.06**	**68.02**	**0.00**

TABLE 1
LEA STATION
SUMMARY OF RELATIVE GROUNDWATER LEVEL ELEVATIONS AND PHASE-SEPARATED HYDROCARBON THICKNESSES

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-5	10/17/95	107.08	109.21	33.26	76.09	0.18
	2/7/96	107.08	109.21	31.51	77.70	Trace
	4/3/96	107.08	109.21	31.21	78.00	Trace
	6/12/96	107.08	109.21	31.30	77.91	0.00
	6/20/96	107.08	109.21	31.43	77.78	0.00
	6/27/96	107.08	109.21	31.62	77.59	0.00
	7/5/96	107.08	109.21	31.76	77.45	0.00
	7/18/96	107.08	109.21	31.94	77.27	Trace
	8/1/96	107.08	109.21	32.12	77.09	Trace
	10/2/96	**107.08**	**109.21**	**32.64**	**76.57**	**Trace**
MW-6	10/17/95	103.66	106.26	32.07	74.19	0.00
	2/7/96	103.66	106.26	29.87	76.39	0.00
	4/3/96	103.66	106.26	29.78	76.48	0.00
	7/18/96	103.66	106.26	30.51	75.75	0.00
	8/1/96	103.66	106.26	---	---	---
	10/2/96	**103.66**	**106.26**	**31.09**	**75.14**	**0.00**
MW-7	10/17/95	104.34	106.27	32.20	74.07	0.00
	2/7/96	104.34	106.27	30.50	75.77	0.00
	4/3/96	104.34	106.27	30.40	75.87	0.00
	7/18/96	104.34	106.27	31.24	75.03	0.00
	8/1/96	104.34	106.27	---	---	---
	10/2/96	**104.34**	**106.27**	**31.80**	**74.47**	**0.00**
MW-8	10/17/95	105.52	107.44	33.22	75.54	1.60
	2/7/96	105.52	107.44	---	---	---
	4/3/96	105.52	107.44	30.37	77.07	0.00
	6/12/96	105.52	107.44	30.35	77.14	0.06
	6/20/96	105.52	107.44	30.63	76.81	0.00
	6/27/96	105.52	107.44	30.77	76.67	0.00
	7/5/96	105.52	107.44	31.70	75.74	0.00
	7/18/96	105.52	107.44	30.85	76.59	Trace
	8/1/96	105.52	107.44	31.13	76.31	Trace
	10/2/96	**105.52**	**107.44**	**31.40**	**76.04**	**Trace**

TABLE 1
LEA STATION
SUMMARY OF RELATIVE GROUNDWATER LEVEL ELEVATIONS AND PHASE-SEPARATED HYDROCARBON THICKNESSES

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-9	10/17/95	93.76	97.21	31.14	66.07	0.00
	2/7/96	93.76	97.21	28.76	68.45	0.00
	4/3/96	93.76	97.21	28.82	68.39	0.00
	7/18/96	93.76	97.21	29.65	67.56	0.00
	8/1/96	93.76	97.21	---	---	---
	10/2/96	**93.76**	**97.21**	**30.16**	**67.05**	**0.00**
MW-10	10/17/95	99.63	102.51	35.41	67.10	0.00
	2/7/96	99.63	102.51	34.41	68.10	Trace
	4/3/96	99.63	102.51	34.43	68.08	0.00
	7/18/96	99.63	102.51	35.22	67.29	0.00
	8/1/96	99.63	102.51	---	---	---
	10/2/96	**99.63**	**102.51**	**34.79**	**67.72**	**0.00**
MW-11	10/17/95	104.48	105.62	32.48	73.26	0.15
	2/7/96	104.48	105.62	32.31	73.90	0.65
	4/3/96	104.48	105.62	32.13	74.15	0.73
	6/12/96	104.48	105.62	32.07	73.83	0.31
	6/20/96	104.48	105.62	31.96	73.71	0.05
	6/27/96	104.48	105.62	31.78	73.84	0.00
	7/5/96	104.48	105.62	32.12	73.50	0.00
	7/18/96	104.48	105.62	32.12	73.50	Trace
	8/1/96	104.48	105.62	32.37	73.25	Trace
	10/2/96	**104.48**	**105.62**	**33.14**	**72.70**	**0.24**
MW-12	10/17/95	---	103.90	32.41	71.49	0.00
	2/7/96	---	103.90	31.00	72.90	0.00
	4/3/96	---	103.90	30.91	72.99	0.00
	7/18/96	---	103.90	31.70	72.20	0.00
	8/1/96	---	103.90	---	---	---
	10/2/96	---	**103.90**	**32.20**	**71.70**	**0.00**
MW-13	10/17/95	---	103.89	32.61	71.28	0.00
	2/7/96	---	103.89	28.75	75.14	0.00
	4/3/96	---	103.89	28.61	75.28	0.00
	7/18/96	---	103.89	29.69	74.20	0.00
	8/1/96	---	103.89	---	---	---
	10/2/96	---	**103.89**	**31.21**	**73.68**	**0.00**

TABLE 1
LEA STATION
SUMMARY OF RELATIVE GROUNDWATER LEVEL ELEVATIONS AND PHASE-SEPARATED HYDROCARBON THICKNESSES

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
RW-1	4/3/96	---	---	27.36	---	0.00
	7/18/96	---	---	28.25	---	0.00
	8/1/96	---	---	28.47	---	Trace
	10/2/96	---	---	---	---	---
RW-2	4/3/96	---	---	28.93	---	0.18
	7/18/96	---	---	29.81	---	0.15
	8/1/96	---	---	30.14	---	Trace
	10/2/96	---	---	---	---	---

* Measured from a relative datum (benchmark = 100.00 feet).
** Correction Equation for Phase-Separated Hydrocarbons: Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - [SG] [PSH Thickness])
Specific Gravity (SG) = 0.9 for crude oil.

TABLE 2
LEA STATION
WATER SAMPLE ANALYTICAL RESULTS

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	Dissolved Oxygen
MW-1	10/17/95	PSH	PSH	PSH	PSH	PSH	---
	2/7/96	PSH	PSH	PSH	PSH	PSH	---
	4/3/96	NS	NS	NS	NS	NS	---
	7/18/96	NS	NS	NS	NS	NS	---
	10/2/96	**0.29**	**<0.003**	**0.12**	**<0.003**	**0.410**	**ND**
MW-2	10/17/95	PSH	PSH	PSH	PSH	PSH	---
	2/7/96	PSH	PSH	PSH	PSH	PSH	---
	4/3/96	PSH	PSH	PSH	PSH	PSH	---
	7/18/96	PSH	PSH	PSH	PSH	PSH	---
	10/2/96	**PSH**	**PSH**	**PSH**	**PSH**	**PSH**	**NS**
MW-3	10/17/95	2.000	<0.005	0.120	0.120	2.240	1.8
	2/7/96	NS	NS	NS	NS	NS	---
	4/3/96	NS	NS	NS	NS	NS	---
	7/18/96	NS	NS	NS	NS	NS	---
	10/2/96	**1.9**	**<0.15**	**0.32**	**<0.15**	**2.22**	**ND**
MW-4	10/17/95	0.019	0.001	<0.001	<0.001	0.020	4.7
	2/7/96	<0.005	<0.005	<0.005	<0.005	<0.005	3.1
	4/3/96	<0.001	<0.001	<0.001	<0.001	<0.001	2.6
	7/18/96	<0.001	<0.001	<0.001	<0.001	<0.001	1.7
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**<0.003**	**BDL**	**1.3**
MW-5	10/17/95	PSH	PSH	PSH	PSH	PSH	---
	2/7/96	PSH	PSH	PSH	PSH	PSH	---
	4/3/96	PSH	PSH	PSH	PSH	PSH	---
	7/18/96	PSH	PSH	PSH	PSH	PSH	---
	10/2/96	**0.002**	**<0.003**	**0.010**	**0.006**	**0.018**	**ND**
MW-6	10/17/95	<0.001	0.002	0.021	0.021	0.044	1.5
	2/7/96	<0.001	<0.001	0.002	0.009	0.011	4.5
	4/3/96	<0.001	<0.001	0.004	0.004	0.008	3.3
	7/18/96	<0.001	2.6	<0.001	<0.001	2.6	2.7
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**<0.003**	**BDL**	**3.9**
MW-7	10/17/95	<0.001	<0.001	<0.001	<0.001	<0.001	2.0
	2/7/96	<0.001	<0.001	<0.001	<0.001	<0.001	3.5
	4/3/96	< 0.001	<0.001	<0.001	<0.001	<0.001	3.5
	7/18/96	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6.7
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**<0.003**	**BDL**	**6.4**

TABLE 2
LEA STATION
WATER SAMPLE ANALYTICAL RESULTS

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	Dissolved Oxygen
MW-8	10/17/95	PSH	PSH	PSH	PSH	PSH	---
	2/7/96	---	---	---	---	---	---
	4/3/96	NS	NS	NS	NS	NS	---
	7/18/96	PSH	PSH	PSH	PSH	PSH	---
	10/2/96	**0.003**	**0.007**	**0.082**	**0.052**	**0.144**	**ND**
MW-9	10/17/95	<0.001	<0.001	<0.001	<0.001	<0.001	4.6
	2/7/96	<0.005	<0.005	<0.005	<0.005	<0.005	5.1
	4/3/96	<0.001	<0.001	<0.001	<0.001	<0.001	5.4
	7/18/96	<0.001	<0.001	<0.001	2.6	2.6	3.75
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**<0.003**	**BDL**	**2.3**
MW-10	10/17/95	<0.001	0.003	<0.001	<0.001	0.003	7.4
	2/7/96	<0.005	<0.005	<0.005	<0.005	<0.005	6.3
	4/3/96	0.001	< 0.001	<0.001	0.002	0.003	3.5
	7/18/96	< 0.001	1.8	< 0.001	< 0.001	1.8	2.35
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**0.008**	**0.008**	**1.7**
MW-11	10/17/95	PSH	PSH	PSH	PSH	PSH	---
	2/7/96	PSH	PSH	PSH	PSH	PSH	---
	4/3/96	PSH	PSH	PSH	PSH	PSH	---
	7/18/96	PSH	PSH	PSH	PSH	PSH	---
	10/2/96	**PSH**	**PSH**	**PSH**	**PSH**	**PSH**	
MW-12	10/17/95	1.400	0.440	0.300	0.163	2.303	1.5
	2/7/96	NS	NS	NS	NS	NS	---
	4/3/96	NS	NS	NS	NS	NS	---
	7/18/96	NS	NS	NS	NS	NS	---
	10/2/96	**0.68**	**0.18**	**0.28**	**0.10**	**1.24**	**ND**
MW-13	10/17/95	<0.001	<0.001	<0.001	<0.001	<0.001	2.3
	2/7/96	NS	NS	NS	NS	NS	---
	4/3/96	NS	NS	NS	NS	NS	---
	7/18/96	NS	NS	NS	NS	NS	---
	10/2/96	**<0.002**	**<0.003**	**<0.003**	**<0.003**	**BDL**	**3.05**

A total dissolved solids (TDS) concentration of 2,380 ppm was reported for MW-1 in December, 1992. A TDS concentration of 2,500 ppm was recoeded for MW-6 in February, 1993 and a TDS concentration of 2,130 ppm was recorded for MW-9 in August, 1993.
BTEX and DO results listed in mg/l (parts per million; ppm) with method detection limits listed on the certificate of analysis. Analyses were conducted using EPA Method 8020 (BTEX) by SPL.
NS - Not Sampled
ND - Not Detected
BDL - Below Laboratory Detection Limits.

TABLE 3
LEA STATION
PHASE-SEPARATED HYDROCARBON RECOVERY

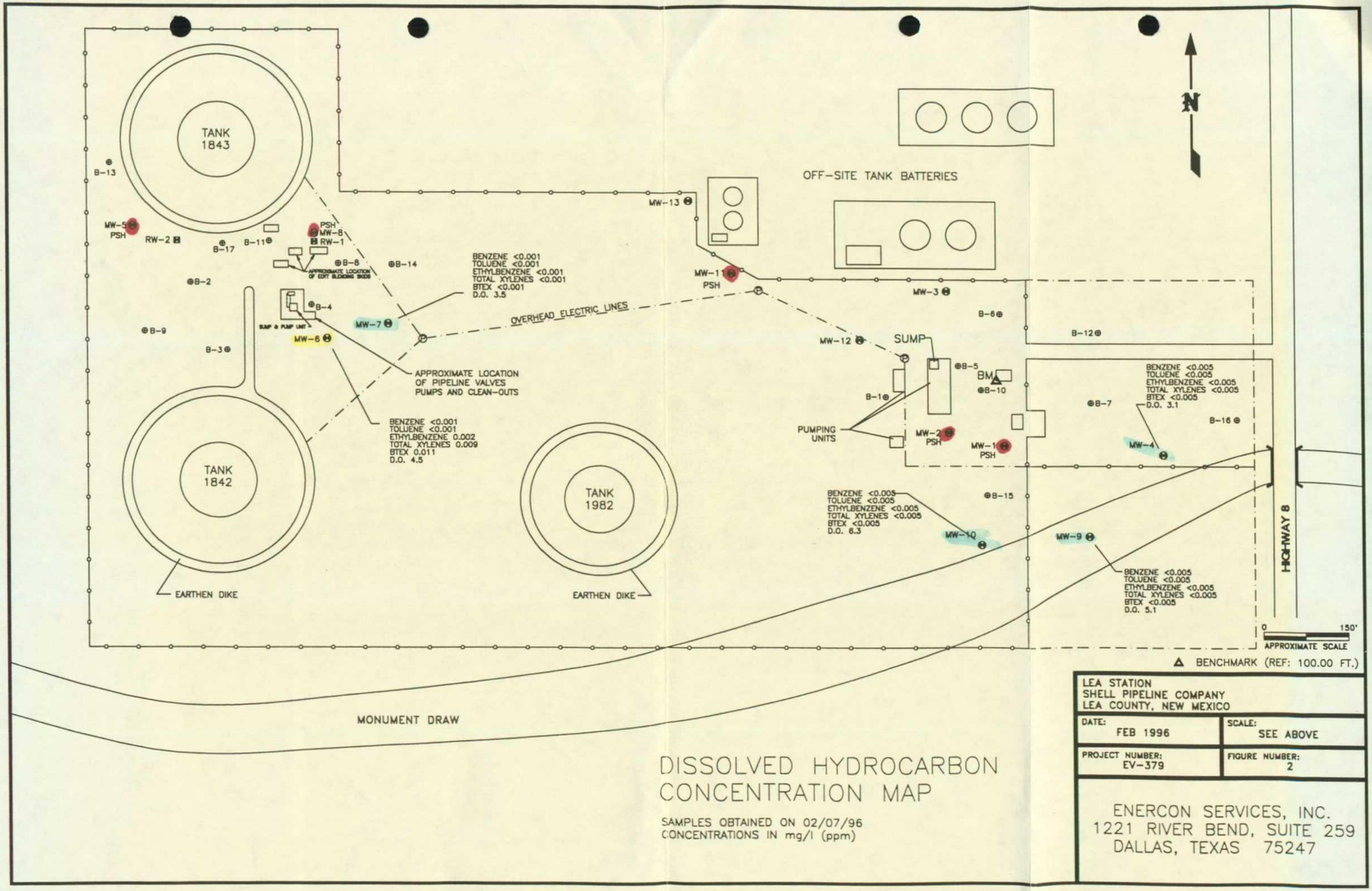
Monitor Well	Date	PSH Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-1	10/17/95	0.63	1.5	9	Absorption Boom
	2/7/96	Trace	1	10	Absorption Boom
	4/3/96	0.00	---	10	Boom Removed
	6/12/96	Trace	0.00	10	Absorption Boom
	6/20/96	Trace	0.00	10	Absorption Boom
	6/27/96	0.00	0.00	10	Absorption Boom
	7/5/96	0.00	0.11	10.11	Absorption Boom
	7/18/96	Trace	0.65	10.76	Absorption Boom
	8/1/96	Trace	0.28	11.04	Absorption Boom
	10/2/96	**Trace**	**0.22**	**11.26**	**Absorption Boom**
MW-2	10/17/95	0.15	0.5	4.5	Absorption Boom
	2/7/96	0.24	1.5	6	Absorption Boom
	4/3/96	0.33	0.25	6.25	Hand Bailed
	6/12/96	0.08	0.78	7.03	Absorption Boom
	6/20/96	0.00	0.38	7.41	Absorption Boom
	6/27/96	0.00	0.11	7.52	Absorption Boom
	7/5/96	0.00	0.05	7.57	Absorption Boom
	7/18/96	0.01	0.33	7.90	Absorption Boom
	8/1/96	0.00	0.55	8.45	Absorption Boom
	10/2/96	**0.58**	**0.33**	**8.78**	**Absorption Boom**
MW-3	10/17/95	0.00	0.0	0.0	---
	2/7/96	0.00	0.0	0.0	---
	4/3/96	0.00	0.0	0.0	---
	7/18/96	0.00	0.0	0.0	---
	8/1/96	---	---	---	---
	10/2/96	**0.00**	**0.00**	**0.00**	---
MW-5	10/17/95	0.18	1	5.3	Absorption Boom
	2/7/96	Trace	0.1	5.4	Hand Bailed
	4/3/96	Trace	0.1	5.5	Hand Bailed
	6/12/96	0.00	0.21	5.71	Absorption Boom
	6/20/96	0.00	0.05	5.76	Absorption Boom
	6/27/96	0.00	0.03	5.79	Absorption Boom
	7/5/96	0.00	0.05	5.84	Absorption Boom
	7/18/96	Trace	0.27	6.11	Absorption Boom
	8/1/96	Trace	0.41	6.52	Absorption Boom
	10/2/96	**Trace**	**0.05**	**6.57**	**Absorption Boom**

TABLE 3
LEA STATION
PHASE-SEPARATED HYDROCARBON RECOVERY

Monitor Well	Date	PSH Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-8	10/17/95	1.60	1.5	31.6	Absorption Boom
	2/7/96	---	---	31.6	Absorption Boom
	4/3/96	0.00	0.0	31.6	Boom Removed
	6/12/96	0.06	0.00	31.6	Absorption Boom
	6/20/96	0.00	0.38	31.98	Absorption Boom
	6/27/96	0.00	0.21	32.19	Absorption Boom
	7/5/96	0.00	0.11	32.30	Absorption Boom
	7/18/96	Trace	0.16	32.46	Absorption Boom
	8/1/96	Trace	0.28	32.74	Absorption Boom
	10/2/96	**Trace**	**0.16**	**32.90**	**Absorption Boom**
MW-11	10/17/95	0.15	1.0	9.5	Absorption Boom
	2/7/96	0.65	1.0	10.5	Absorption Boom
	4/3/96	0.73	0.25	10.75	Hand Bailed
	6/12/96	0.31	0.85	11.60	Absorption Boom
	6/20/96	0.05	0.85	12.45	Absorption Boom
	6/27/96	0.00	0.33	12.78	Absorption Boom
	7/5/96	0.00	0.27	13.05	Absorption Boom
	7/18/96	Trace	0.21	13.26	Absorption Boom
	8/1/96	Trace	0.55	13.81	Absorption Boom
	10/2/96	**0.24**	**0.98**	**14.79**	**Absorption Boom**
RW-1	10/17/95	---	3.0	8.0	Recovery System
	2/7/96	Trace	---	8.0	Recovery System
	4/3/96	0.00	0.0	8.0	Boom Installed
	7/18/96	0.00	0.0	8.0	Absorption Boom
	8/1/96	Trace	0.0	8.0	No Boom
	10/2/96	**—**	**—**	**—**	**No Boom**
RW-2	10/17/95	---	3.0	8.0	Recovery System
	2/7/96	0.17	---	8.0	Recovery System
	4/3/96	0.18	0.25	8.25	Hand Bailed
	7/18/96	0.15	0.98	9.23	Absorption Boom
	8/1/96	Trace	2.48	11.71	Absorption Boom
	10/2/96	**—**	**—**	**—**	**No Boom**

Total cumulative recovery as of 10/2/96 = 94.01 gallons.
Started up SVE system on August 1, 1996. No booms installed in RW-1 and RW-2 while SVE is running.

APPENDIX B
FIGURES



△ BENCHMARK (REF: 100.00 FT.)

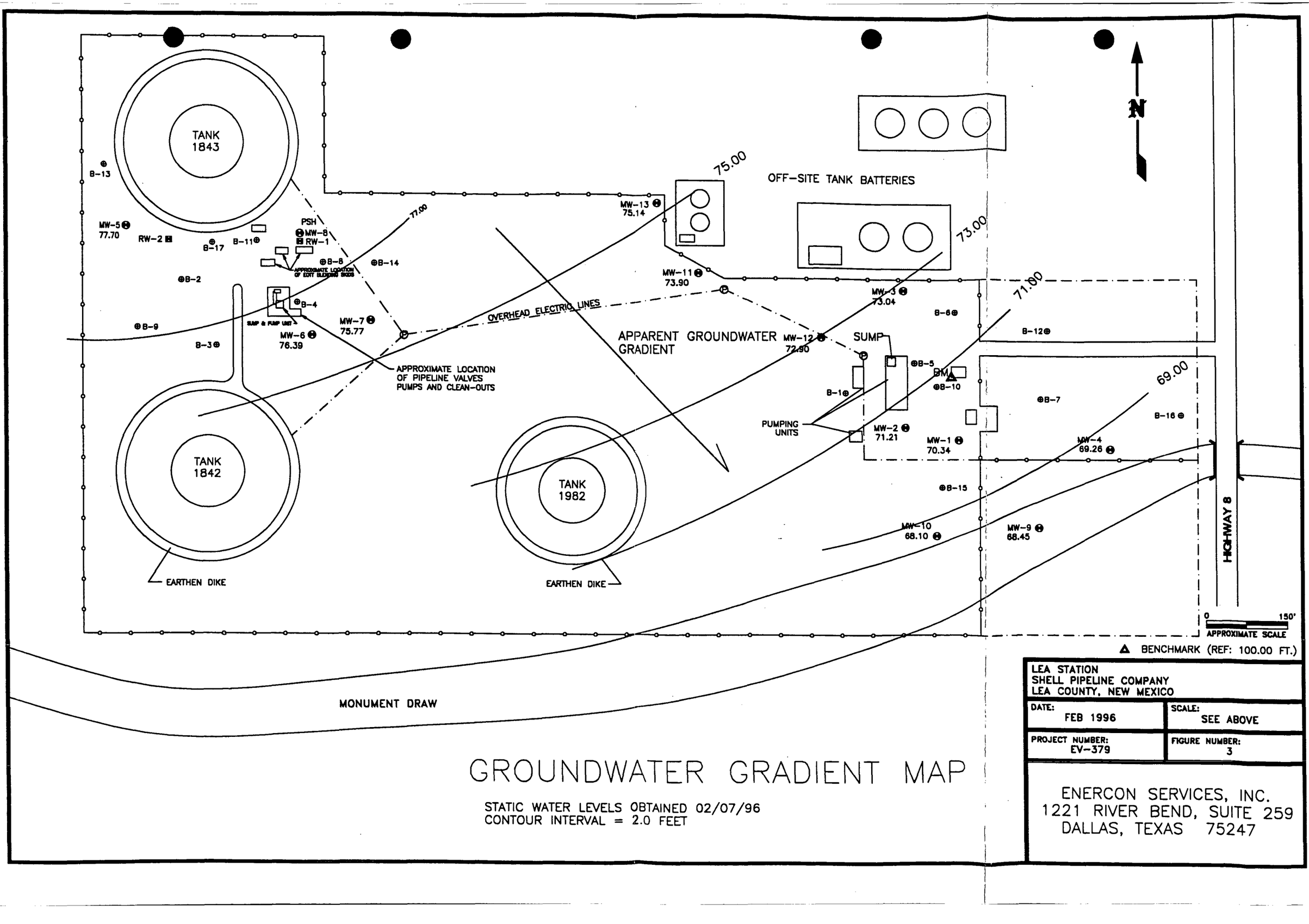
DISSOLVED HYDROCARBON CONCENTRATION MAP

SAMPLES OBTAINED ON 02/07/96
CONCENTRATIONS IN mg/l (ppm)

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
FEB 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 2

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



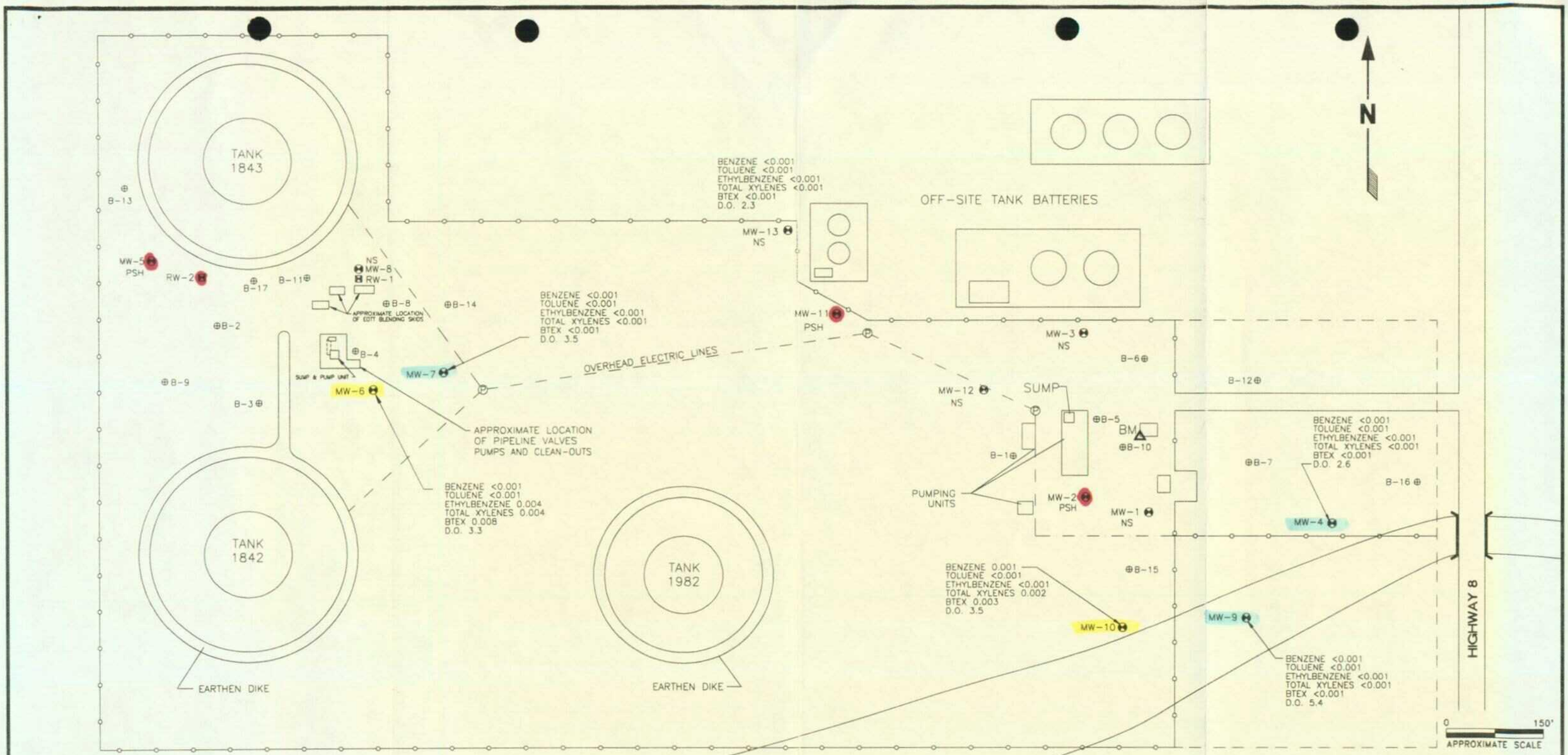
GROUNDWATER GRADIENT MAP

STATIC WATER LEVELS OBTAINED 02/07/96
CONTOUR INTERVAL = 2.0 FEET

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
FEB 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 3

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



△ BENCHMARK (REF: 100.00 FT.)

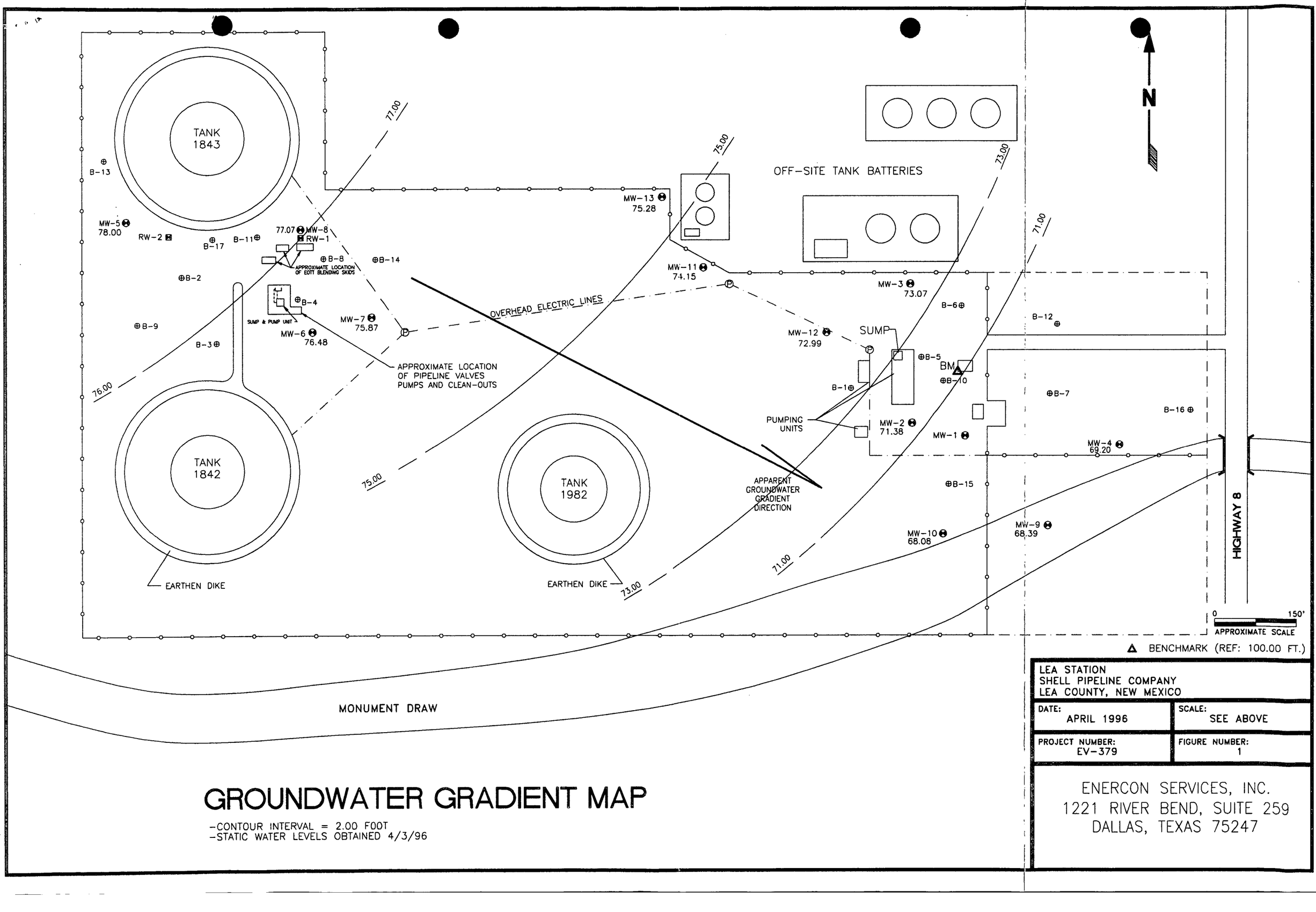
DISSOLVED HYDROCARBON MAP

SAMPLES OBTAINED ON 4/3/96
MONITOR WELLS HYDROCARBON CONCENTRATIONS IN mg/l (ppm)
NS–NOT SAMPLED

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
APRIL 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 2

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



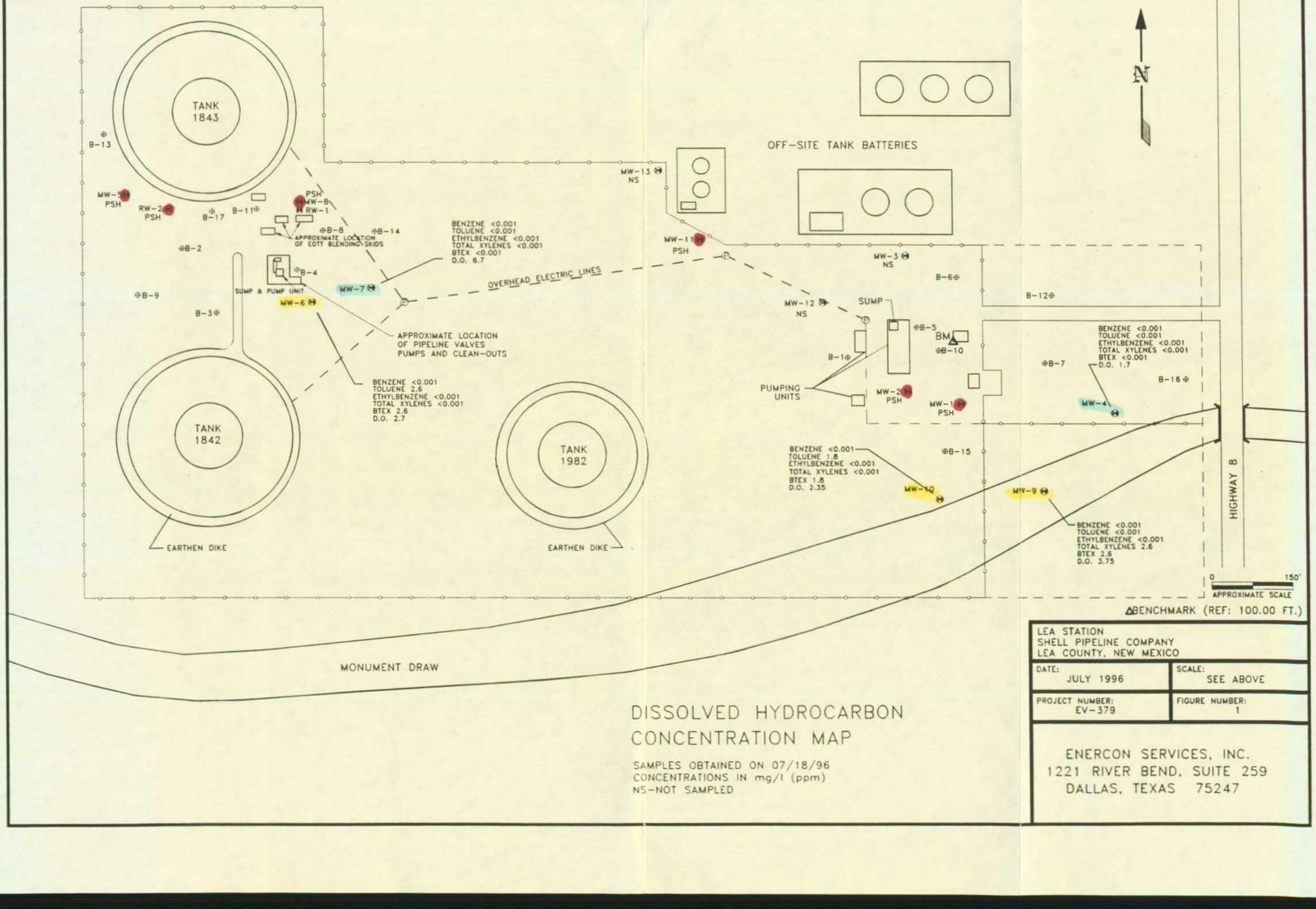
GROUNDWATER GRADIENT MAP

-CONTOUR INTERVAL = 2.00 FOOT
-STATIC WATER LEVELS OBTAINED 4/3/96

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
APRIL 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 1

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



ΔBENCHMARK (REF: 100.00 FT.)

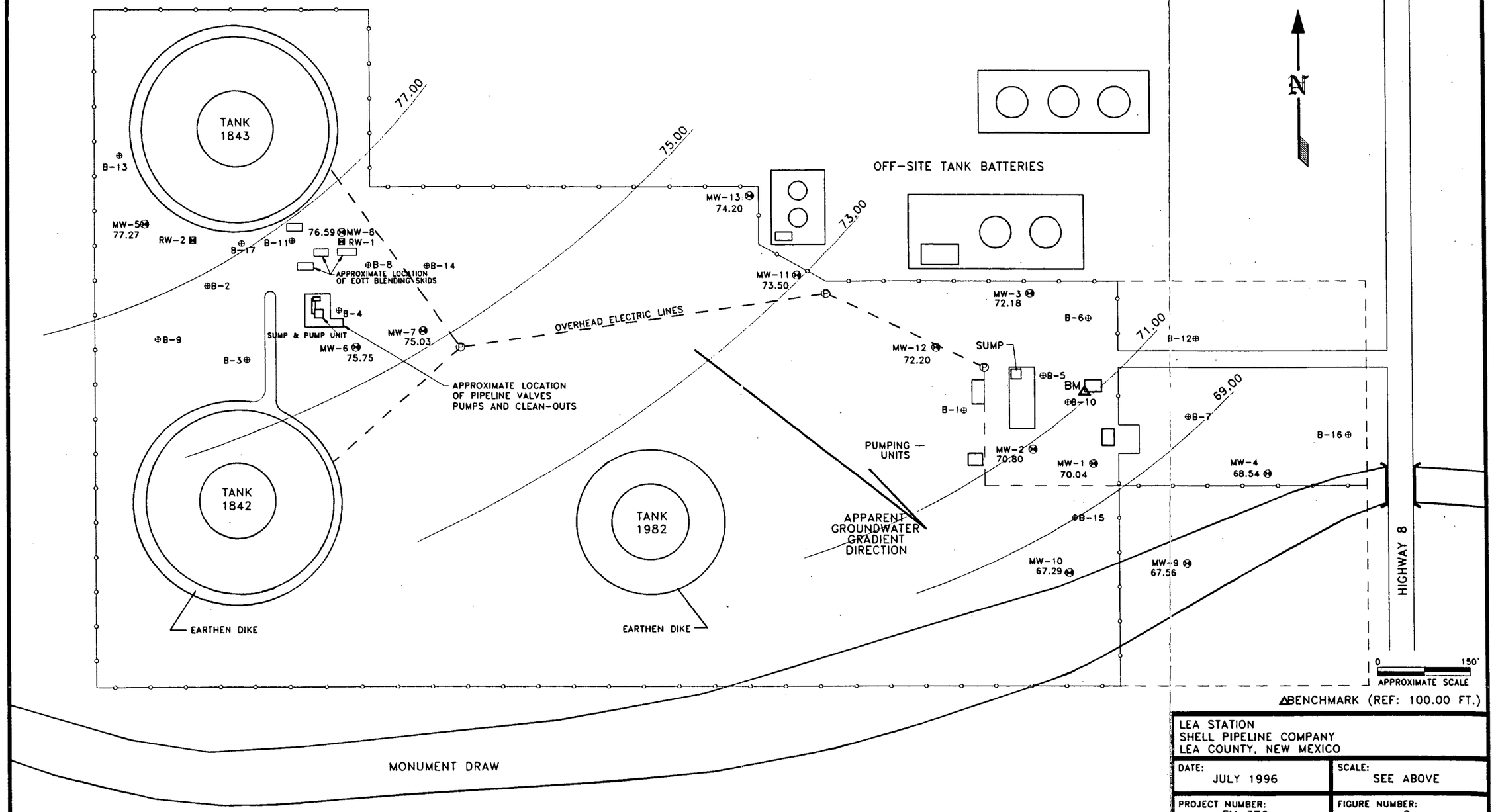
DISSOLVED HYDROCARBON CONCENTRATION MAP

SAMPLES OBTAINED ON 07/18/96
CONCENTRATIONS IN mg/l (ppm)
NS-NOT SAMPLED

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
JULY 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 1

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



△BENCHMARK (REF: 100.00 FT.)

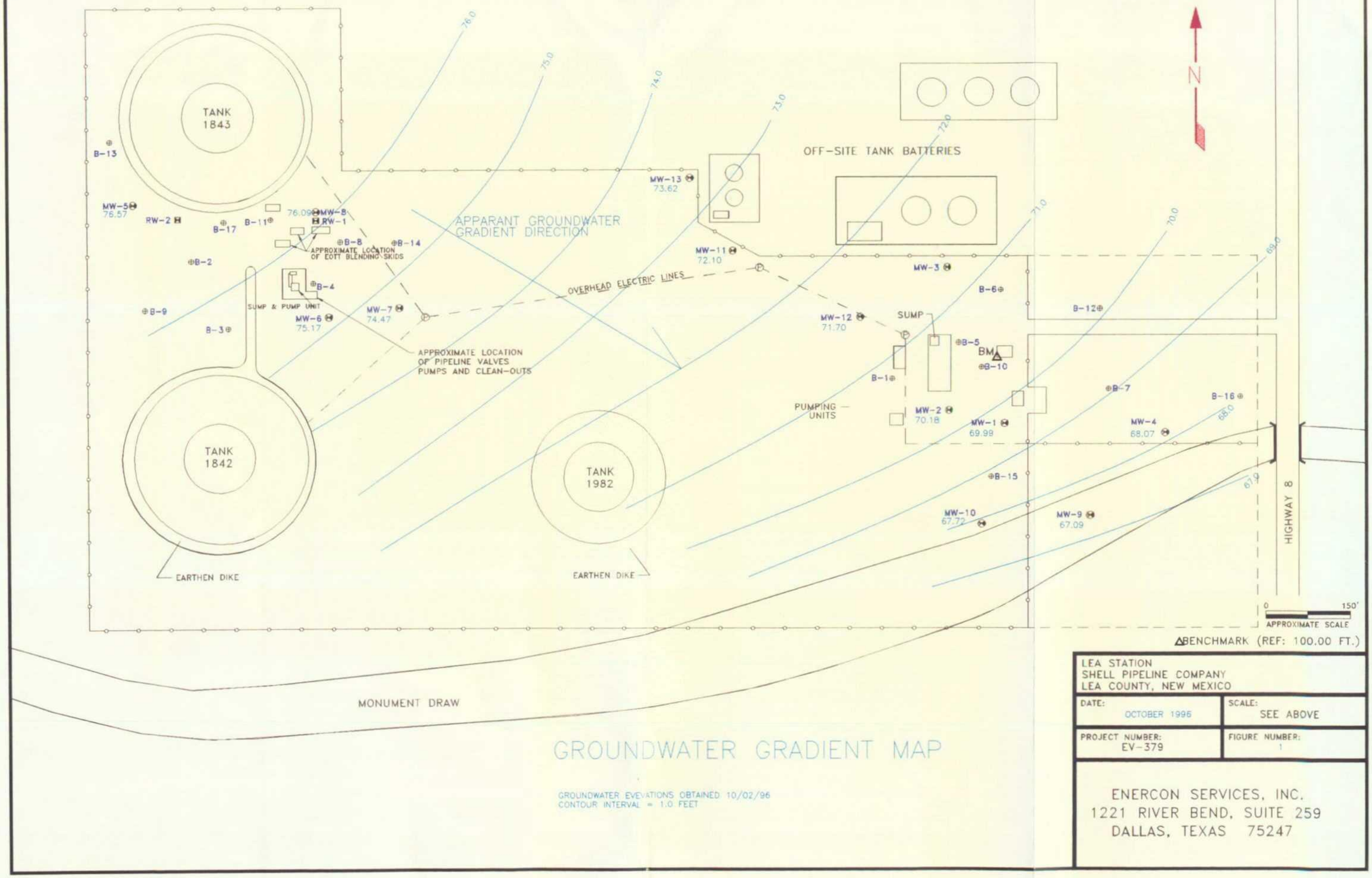
LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
JULY 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 2

GROUNDWATER GRADIENT MAP

-GROUNDWATER ELEVATIONS OBTAINED 07/18/96
-CONTOUR INTERVAL = 2.00 FEET

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



ΔBENCHMARK (REF: 100.00 FT.)

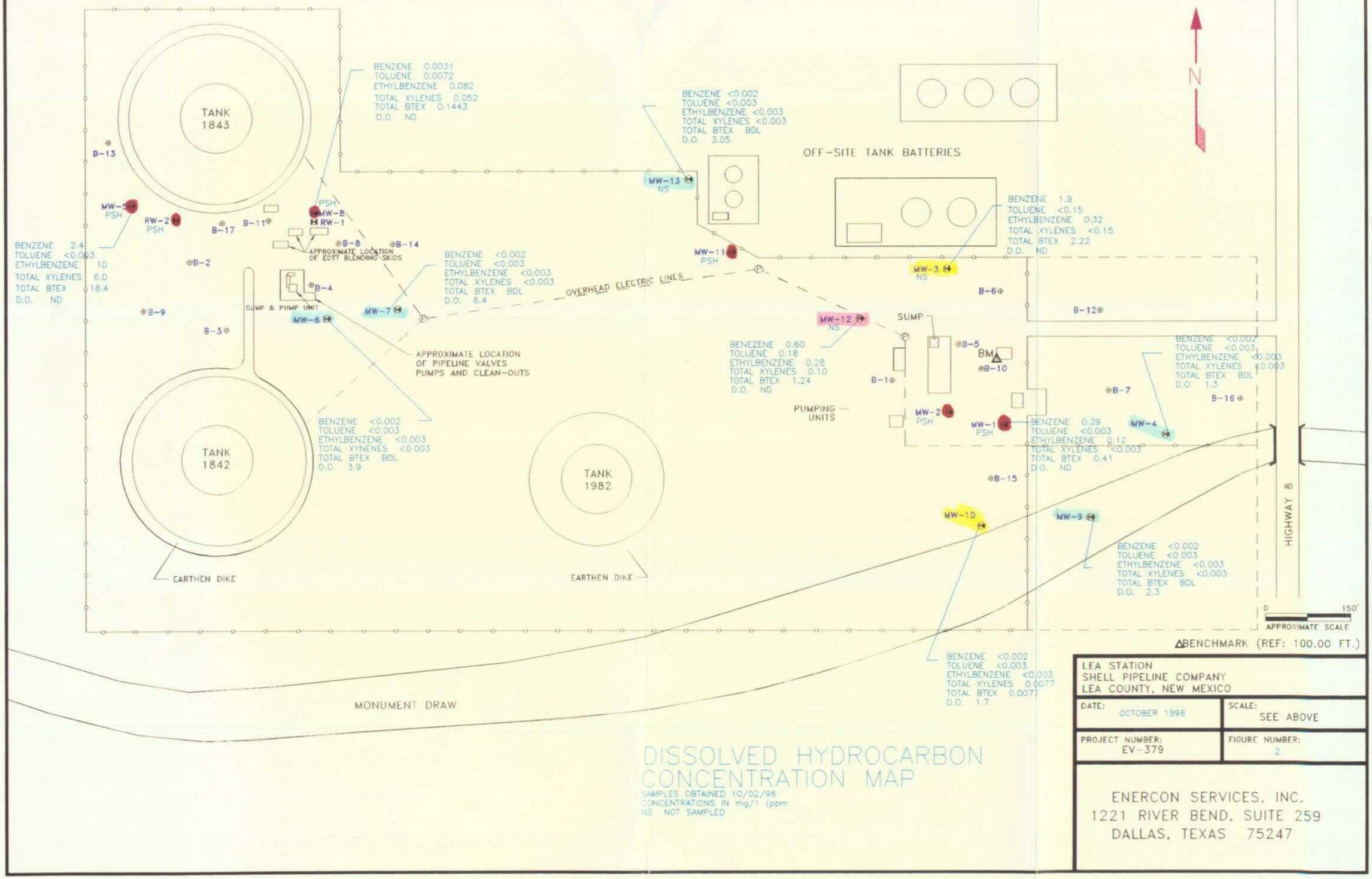
GROUNDWATER GRADIENT MAP

GROUNDWATER EVEVATIONS OBTAINED: 10/02/96
CONTOUR INTERVAL = 1.0 FEET

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCTOBER 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 1

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247



BENCHMARK (REF: 100.00 FT.)

DISSOLVED HYDROCARBON CONCENTRATION MAP

SAMPLES OBTAINED 10/02/96
CONCENTRATIONS IN mg/l (ppm
NS NOT SAMPLED

LEA STATION
SHELL PIPELINE COMPANY
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCTOBER 1996	SEE ABOVE
PROJECT NUMBER: EV-379	FIGURE NUMBER: 2

ENERCON SERVICES, INC.
1221 RIVER BEND, SUITE 259
DALLAS, TEXAS 75247

APPENDIX C
ANALYTICAL RESULTS

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

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 02 - 439

Approved for release by:

M. Scott Sample Date: 2/19/96

M. Scott Sample, Laboratory Director

Debbie Proctor Date: 2/19/96

Debbie Proctor, Project Manager

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

CASE NARRATIVE

WORKORDER NO.: 9602439

Southern Petroleum Laboratories (SPL) is pleased to present the results of laboratory analysis to ENERCON Services, Inc on behalf of Shell Pipeline. Five water samples were received at our laboratory on 2/10/96 at a temperature of 4 degrees Celsius. The following is a brief narrative of the laboratory analysis.

The samples were analyzed for BTEX by SW 8020 and TPH by EPA 418.1. There were no deviations from the methods.

All of the quality control data was within acceptable limits for the samples associated with this work order, with the exception of surrogate recoveries for the 8310, Polynuclear Aromatic Hydrocarbons analyses, as listed below.

Sample No.	Sample ID	Method	Failure
9602439-03	MW-7	8310	Surrogate recovery for Coronene is lower than the QC limits.
9602439-04	MW-6	8310	Surrogates diluted out due to dilution for matrix interference of non-target analytes.
9602439-05	MW-10	8310	Surrogates diluted out due to dilution for matrix interference of non-target analytes.

Please refer to this project by **9602439** to expedite any further discussions. I will be happy to address any questions or concerns you may have.

SOUTHERN PETROLEUM LABORATORIES

Debbie Proctor
Project Manager

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

March 8, 1996

Charles Harlan
Enercon Services
1221 Riverbend
Dallas, TX 75247

Subject: Amended analytical reports

Dear Charles:

Enclosed you will find a copy of an analytical report for Lea Station, Job #EV-379 which has been amended for the addition of 1-Methyl Naphthalene and 2-Methyl Naphthalene to the PNA results. I apologize for any inconvenience this has caused. All future reports will include these naphthalene isomers in the analyte list.

Please feel free to call me at (713) 660-0901 if you have any questions or require additional information.

Sincerely,

Debbie Proctor
Project Manager
Southern Petroleum Laboratory

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

Certificate of Analysis No. H9-9602439-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5 P	µg/L
TOLUENE	ND	5 P	µg/L
ETHYLBENZENE	ND	5 P	µg/L
TOTAL XYLENE	ND	5 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	97
4-Bromofluorobenzene	93

METHOD 5030/8020 ***
Analyzed by: YN
Date: 02/13/96

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, 18th 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.

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

Certificate of Analysis No. H9-9602439-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	MDL*	UNITS
Naphthalene	ND	0.09	µg/L
Acenaphthylene	ND	0.05	µg/L
Acenaphthene	ND	0.1	µg/L
Fluorene	ND	0.2	µg/L
Phenanthrene	ND	0.2	µg/L
Anthracene	ND	0.1	µg/L
Fluoranthene	ND	0.1	µg/L
Pyrene	ND	0.1	µg/L
Chrysene	ND	0.08	µg/L
Benzo (a) anthracene	ND	0.08	µg/L
Benzo (b) fluoranthene	ND	0.06	µg/L
Benzo (k) fluoranthene	ND	0.07	µg/L
Benzo (a) pyrene	ND	0.03	µg/L
Dibenzo (a,h) anthracene	ND	0.07	µg/L
Benzo (g,h,i) perylene	ND	0.1	µg/L
Indeno (1,2,3-cd) pyrene	ND	0.08	µg/L
1-Methylnaphthalene	ND	0.17	µg/L
2-Methylnaphthalene	ND	0.17	µg/L

SURROGATES	% RECOVERY
Biphenyl	99
Coronene	63

ANALYZED BY: JZL DATE/TIME: 02/16/96 00:52:41
EXTRACTED BY: DR DATE/TIME: 02/12/96 09:00:10
METHOD: 8310 Polynuclear Aromatic Hydrocarbons
NOTES: * - Method Detection Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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

Certificate of Analysis No. H9-9602439-02

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-9

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5 P	µg/L
TOLUENE	ND	5 P	µg/L
ETHYLBENZENE	ND	5 P	µg/L
TOTAL XYLENE	ND	5 P	µg/L
TOTAL BTEX	ND		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	98		
4-Bromofluorobenzene	94		

METHOD 5030/8020 ***
Analyzed by: YN
Date: 02/13/96

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, 18th 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.

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

Certificate of Analysis No. H9-9602439-02

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-9

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	MDL*	UNITS
Naphthalene	ND	0.09	µg/L
Acenaphthylene	ND	0.05	µg/L
Acenaphthene	ND	0.1	µg/L
Fluorene	ND	0.2	µg/L
Phenanthrene	ND	0.2	µg/L
Anthracene	ND	0.1	µg/L
Fluoranthene	ND	0.1	µg/L
Pyrene	ND	0.1	µg/L
Chrysene	ND	0.08	µg/L
Benzo (a) anthracene	ND	0.08	µg/L
Benzo (b) fluoranthene	ND	0.06	µg/L
Benzo (k) fluoranthene	ND	0.07	µg/L
Benzo (a) pyrene	ND	0.03	µg/L
Dibenzo (a,h) anthracene	ND	0.07	µg/L
Benzo (g,h,i) perylene	ND	0.1	µg/L
Indeno (1,2,3-cd) pyrene	ND	0.08	µg/L
1-Methylnaphthalene	ND	0.17	µg/L
2-Methylnaphthalene	ND	0.17	µg/L

SURROGATES	% RECOVERY
Biphenyl	109
Coronene	57

ANALYZED BY: JZL DATE/TIME: 02/16/96 01:43:40
EXTRACTED BY: DR DATE/TIME: 02/12/96 09:00:10
METHOD: 8310 Polynuclear Aromatic Hydrocarbons
NOTES: * - Method Detection Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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

Certificate of Analysis No. H9-9602439-03

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-7

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

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

METHOD 5030/8020 ***
Analyzed by: YN
Date: 02/13/96

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, 18th 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.

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

Certificate of Analysis No. H9-9602439-03

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-7

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	MDL*	UNITS
Naphthalene	ND	0.09	µg/L
Acenaphthylene	ND	0.05	µg/L
Acenaphthene	ND	0.1	µg/L
Fluorene	ND	0.2	µg/L
Phenanthrene	ND	0.2	µg/L
Anthracene	ND	0.1	µg/L
Fluoranthene	ND	0.1	µg/L
Pyrene	ND	0.1	µg/L
Chrysene	ND	0.08	µg/L
Benzo (a) anthracene	ND	0.08	µg/L
Benzo (b) fluoranthene	ND	0.06	µg/L
Benzo (k) fluoranthene	ND	0.07	µg/L
Benzo (a) pyrene	ND	0.03	µg/L
Dibenzo (a,h) anthracene	ND	0.07	µg/L
Benzo (g,h,i) perylene	ND	0.1	µg/L
Indeno (1,2,3-cd) pyrene	ND	0.08	µg/L
1-Methylnaphthalene	ND	0.17	µg/L
2-Methylnaphthalene	ND	0.17	µg/L

SURROGATES	% RECOVERY
Biphenyl	101
Coronene	38 «

ANALYZED BY: JZL DATE/TIME: 02/16/96 02:34:40
EXTRACTED BY: DR DATE/TIME: 02/12/96 09:00:10
METHOD: 8310 Polynuclear Aromatic Hydrocarbons
NOTES: * - Method Detection Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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

Certificate of Analysis No. H9-9602439-04

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	2	1 P	µg/L
TOTAL XYLENE	9	1 P	µg/L
TOTAL BTEX	11		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	120		

METHOD 5030/8020 ***
Analyzed by: YN
Date: 02/13/96

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, 18th 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.

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

Certificate of Analysis No. H9-9602439-04

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/07/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	MDL*	UNITS
Naphthalene	ND	1.80	µg/L
Acenaphthylene	ND	1.00	µg/L
Acenaphthene	ND	2.0	µg/L
Fluorene	ND	4.0	µg/L
Phenanthrene	ND	4.0	µg/L
Anthracene	ND	2.0	µg/L
Fluoranthene	ND	2.0	µg/L
Pyrene	ND	2.0	µg/L
Chrysene	ND	1.60	µg/L
Benzo (a) anthracene	ND	1.60	µg/L
Benzo (b) fluoranthene	ND	1.20	µg/L
Benzo (k) fluoranthene	ND	1.40	µg/L
Benzo (a) pyrene	ND	0.60	µg/L
Dibenzo (a,h) anthracene	ND	1.40	µg/L
Benzo (g,h,i) perylene	ND	2.0	µg/L
Indeno (1,2,3-cd) pyrene	ND	1.60	µg/L
1-Methylnaphthalene	ND	3.40	µg/L
2-Methylnaphthalene	ND	3.40	µg/L

SURROGATES	% RECOVERY
Biphenyl	D
Coronene	D

ANALYZED BY: JZL DATE/TIME: 02/16/96 04:16:41
EXTRACTED BY: DR DATE/TIME: 02/12/96 09:00:10
METHOD: 8310 Polynuclear Aromatic Hydrocarbons
NOTES: * - Method Detection Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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

Certificate of Analysis No. H9-9602439-05

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-10

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/08/96 17:00:00
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	5 P	µg/L
TOLUENE	ND	5 P	µg/L
ETHYLBENZENE	ND	5 P	µg/L
TOTAL XYLENE	ND	5 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	118
4-Bromofluorobenzene	127

METHOD 5030/8020 ***
Analyzed by: JZL
Date: 02/16/96

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, 18th 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.

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

Certificate of Analysis No. H9-9602439-05

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Enercon Services
SAMPLE ID: MW-10

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 02/08/96 17:00:00
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	MDL*	UNITS
Naphthalene	ND	1.80	µg/L
Acenaphthylene	ND	1.00	µg/L
Acenaphthene	ND	2.0	µg/L
Fluorene	ND	4.0	µg/L
Phenanthrene	ND	4.0	µg/L
Anthracene	ND	2.0	µg/L
Fluoranthene	ND	2.0	µg/L
Pyrene	ND	2.0	µg/L
Chrysene	ND	1.60	µg/L
Benzo (a) anthracene	ND	1.60	µg/L
Benzo (b) fluoranthene	ND	1.20	µg/L
Benzo (k) fluoranthene	ND	1.40	µg/L
Benzo (a) pyrene	ND	0.60	µg/L
Dibenzo (a,h) anthracene	ND	1.40	µg/L
Benzo (g,h,i) perylene	ND	2.0	µg/L
Indeno (1,2,3-cd) pyrene	ND	1.60	µg/L
1-Methylnaphthalene	ND	3.40	µg/L
2-Methylnaphthalene	ND	3.40	µg/L

SURROGATES	% RECOVERY
Biphenyl	D
Coronene	D

ANALYZED BY: JZL DATE/TIME: 02/16/96 18:34:58
EXTRACTED BY: DR DATE/TIME: 02/12/96 09:00:10
METHOD: 8310 Polynuclear Aromatic Hydrocarbons
NOTES: * - Method Detection Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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

Certificate of Analysis No. H9-9602439-06

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 03/06/96

PROJECT: Water Analysis
SITE: Lea Station Job # EV-379
SAMPLED BY: Provided by SPL
SAMPLE ID: Trip Blank

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 05/06/96
DATE RECEIVED: 02/10/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	97		
4-Bromofluorobenzene	91		

METHOD 5030/8020 ***
Analyzed by: YN
Date: 02/13/96

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, 18th 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.

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_R960213123500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	46	92.0	62 - 121
Toluene	ND	50	44	88.0	66 - 136
EthylBenzene	ND	50	45	90.0	70 - 136
O Xylene	ND	50	46	92.0	74 - 134
M & P Xylene	ND	100	93	93.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	9.7	20	28	91.5	27	86.5	5.62	25	39 - 150
TOLUENE	ND	20	17	85.0	17	85.0	0	26	56 - 134
ETHYLBENZENE	ND	20	17	85.0	17	85.0	0	38	61 - 128
O XYLENE	ND	20	18	82.5	19	87.5	5.88	29	40 - 130
M & P XYLENE	1.7	40	37	88.2	38	90.8	2.91	20	43 - 152

Analyst: YN
Sequence Date: 02/13/96
SPL ID of sample spiked: 9602437-01A
Sample File ID: R___488.TX0
Method Blank File ID:
Blank Spike File ID: R___483.TX0
Matrix Spike File ID: R___485.TX0
Matrix Spike Duplicate File ID: R___486.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID):

9602446-02A 9602439-04A 9602439-03A 9602418-05A
9602418-04A 9602418-03A 9602446-03A 9602439-06A
9602432-01A 9602418-06A 9602418-02A 9602371-08A
9602418-01A 9602446-01A 9602371-07A 9602437-01A
9602439-02A 9602439-01A 9602438-01A

QC Officer

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_R960216064800

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	45	90.0	62 - 121
Toluene	ND	150	140	93.3	66 - 136
EthylBenzene	ND	50	47	94.0	70 - 136
O Xylene	ND	100	97	97.0	74 - 134
M & P Xylene	ND	200	190	95.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	ND	50	62	124	61	122	1.63	25	39 - 150
TOLUENE	ND	150	180	120	180	120	0	26	56 - 134
ETHYLBENZENE	ND	50	58	116	59	118	1.71	38	61 - 128
O XYLENE	ND	100	120	120	120	120	0	29	40 - 130
M & P XYLENE	ND	100	120	120	120	120	0	20	43 - 152

Analyst: JZL
Sequence Date: 02/16/96
SPL ID of sample spiked: 9602383-07A
Sample File ID: R___610.TX0
Method Blank File ID:
Blank Spike File ID: R___599.TX0
Matrix Spike File ID: R___601.TX0
Matrix Spike Duplicate File ID: R___602.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID): 9602380-07A 9602384-03A 9602383-07A 9602383-09A 9602383-10A 9602383-05A 9602383-06A 9602534-01A 9602534-04A 9602534-05A 9602534-10A 9602502-01A 9602534-12A 9602534-09A 9602383-17A 9602439-05A 9602441-08A

QC Officer

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

** SPL BATCH QUALITY CONTROL REPORT ** PAGE

METHOD EPA 8310

Matrix: Aqueous Batch Id: 1960215194600

Units: µg/L

BLANK SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(**) (Advisory) RPD Max.	QC Limits(**) (Advisory) Recovery Range
NAPHTHALENE	ND	0.5	0.453	90.6	0.42	84.0	7.56	30	1 - 122
ACENAPHTHYLENE	ND	0.5	0.416	83.2	0.434	86.8	4.24	30	1 - 124
ACENAPHTHENE	ND	0.5	0.440	88.0	0.411	82.2	6.82	30	1 - 124
FLUORENE	ND	0.5	0.425	85.0	0.407	81.4	4.33	30	1 - 142
PHENANTHRENE	ND	0.5	0.483	96.6	0.466	93.2	3.58	30	1 - 155
ANTHRACENE	ND	0.5	0.410	82.0	0.399	79.8	2.72	30	1 - 126
FLUORANTHENE	ND	0.5	0.468	93.6	0.467	93.4	0.214	30	14 - 123
PYRENE	ND	0.5	0.471	94.2	0.445	89.0	5.68	30	1 - 140
CHRYSENE	ND	0.5	0.445	89.0	0.433	86.6	2.73	30	1 - 199
BENZO (A) ANTHRACENE	ND	0.5	0.460	92.0	0.445	89.0	3.31	30	12 - 135
BENZO (B) FLUORANTHENE	ND	0.5	0.472	94.4	0.464	92.8	1.71	30	6 - 150
BENZO (K) FLUORANTHENE	ND	0.5	0.471	94.2	0.465	93.0	1.28	30	1 - 159
BENZO (A) PYRENE	ND	0.5	0.423	84.6	0.421	84.2	0.474	30	1 - 128
DIBENZO (A,H) ANTHRACENE	ND	0.5	0.455	91.0	0.453	90.6	0.441	30	1 - 110
BENZO (G,H,I) PERYLENE	ND	0.5	0.479	95.8	0.472	94.4	1.47	30	1 - 116
INDENO (1,2,3-CD) PYRENE	ND	0.5	0.479	95.8	0.485	97.0	1.24	30	1 - 116

Analyst: JZL

Sequence Date: 02/05/96

Method Blank File ID:

Sample File ID:

Blank Spike File ID: 960205A\003-0201

Matrix Spike File ID:

Matrix Spike Duplicate File ID:

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL Temporary Limits

SAMPLES IN BATCH(SPL ID): 9602439-01B 9602439-02B 9602439-03B 9602439-04B 9602439-05B

QC Officer

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD EPA 8310

Matrix: Aqueous
Units: µg/L

Batch Id: 1960215194600

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Naphthalene	ND	0.5	0.52	104	1 - 122
Acenaphthylene	ND	0.5	0.46	92.0	1 - 124
Acenaphthene	ND	0.5	0.5	100	1 - 124
Fluorene	ND	0.5	0.6	120	1 - 142
Phenanthrene	ND	0.5	0.6	120	1 - 155
Anthracene	ND	0.5	0.5	100	1 - 126
Fluoranthene	ND	0.5	0.5	100	14 - 123
Pyrene	ND	0.5	0.5	100	1 - 140
Chrysene	ND	0.5	0.46	92.0	1 - 199
Benzo (a) anthracene	ND	0.5	0.48	96.0	12 - 135
Benzo (b) fluoranthene	ND	0.5	0.49	98.0	6 - 150
Benzo (k) fluoranthene	ND	0.5	0.49	98.0	1 - 159
Benzo (a) pyrene	ND	0.5	0.48	96.0	1 - 128
Dibenzo (a,h) anthracene	ND	0.5	0.47	94.0	1 - 110
Benzo (g,h,i) perylene	ND	0.5	0.5	100	1 - 116
Indeno (1,2,3-cd) pyrene	ND	0.5	0.52	104	1 - 116

Analyst: JZL
Sequence Date: 02/13/96
SPL ID of sample spiked: 960212CXLCS
Sample File ID:
Method Blank File ID:
Blank Spike File ID: 960213A\005-0201
Matrix Spike File ID:
Matrix Spike Duplicate File ID: 960213A\005-0201

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: 8310, Table 3
(***) = Source: 8310, Table 3

SAMPLES IN BATCH(SPL ID): 9602439-01B 9602439-02B 9602439-03B 9602439-04B 9602439-05B

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

7602439 [illegible] 2/12/96 TE [illegible] [illegible]

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 23642

Date: 2/7/96
Page 1 **of** 1

SITE ADDRESS: LEA STATION
Job# EV-379

WIC #:

CONSULTANT NAME & ADDRESS: ENERCON SERVICES, INC.

CONSULTANT CONTACT: CHARLES HARLAN

PHONE (214) 631-7693 FAX (214) 631-7699

SAMPLED BY: CHARLES HARLAN

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☒ 5461
- SITE INVESTIGATION ☐ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER ______ ☐

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

- BTEX 602 ☐ 8020 ☒ WITH MTBE ☐
- BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE
- VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
- PNA/PAH 8310 ☒ 8100 ☐ 610 ☐
- SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
- TPH/IR 418.1 ☐ SM503 ___ ☐ ___ ☐ ___ ☐
- TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐
- TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐
- EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐
- REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H2O	MATRIX SOIL	MATRIX AIR	MATRIX SLUDGE	OTHER	METHOD PRESERVED HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602	BTEX/GAS HYDROCARBONS PID/FID	VOL 624/PPL	PNA/PAH 8310	SEMI-VOL 625/PPL	TPH/IR 418.1	TPH/GC 8015 Mod. GAS	TCLP METALS	EP TOX METALS	REACTIVITY	OTHER	REMARKS
MW-4	2/7/96			✓	✓					✓					4		✓			✓								
MW-9	11			✓	✓					✓					4		✓			✓								
MW-7	11			✓	✓					✓					4		✓			✓								
MW-6	11			✓	✓					✓					4		✓			✓								
MW-10	2/8/96	17:00		✓	✓					✓					4		✓			✓								

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	2/8/96	19:00	[signature]	2/10/96	11:30

BILL NO.:

LABORATORY:

SHELL CONTACT: [illegible] PHONE: (713) 241-[illegible] FAX:

TURN AROUND TIME (CHECK ONE)

- 7 DAYS ☐
- 48 HOURS ☐
- 14 DAYS ☒ (NORMAL) PER SHELL CONTRACT
- OTHER ☐

Intact 4°C

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with

MPS 913 7140 065

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
2/10/96	11:30

SPL Sample ID:
9602439

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4 C	
10	Method of sample delivery to SPL:	**SPL Delivery**		
		Client Delivery		
		FedEx Delivery (airbill #)	913714006	
		Other:		
11	Method of sample disposal:	SPL Disposal		
		HOLD		
		Return to Client		

Name:	Date:
Elicia Brown	2/10/96

7602437 (JP) 2/12/96

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 23642

Date: 2/7/96
Page 1 of 1

SITE ADDRESS: LEA STATION
Job# EV-379
WIC #:
CONSULTANT NAME & ADDRESS: ENVIRCON SERVICES, INC.
CONSULTANT CONTACT: CHARLES HARLAN
PHONE (214) 631-7693 FAX: (214) 631-7699
SAMPLED BY: CHARLES HARLAN

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☒ 5461
- SITE INVESTIGATION ☐ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: BTEX 602 ☐	BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE	VOL 624/PPL ☐	PNA/PAH 8310 ☐	SEMI - VOL 625/PPL ☐	TPH/IR 418.1 ☐	TPH/GC 8015 Mod. GAS ☐	TCLP METALS ☐	EP TOX METALS ☐	REACTIVITY ☐	OTHER	REMARKS
MW-4	2/7/96			✓	✓					✓					4		✓			✓								
MW-9	"			✓	✓					✓					4		✓			✓								
MW-7	"			✓	✓					✓					4		✓			✓								
MW-6	"			✓	✓					✓					4		✓			✓								
MW-10	2/8/96	17:00		✓	✓					✓					4		✓			✓								

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Charles N. Harlan	2/8/96	9:00	[signature]	2/10/96	11:30
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

BILL NO.:
LABORATORY:
SHELL CONTACT: NICK STRATHAM PHONE: (713) 241-3961 FAX:

TURN AROUND TIME (CHECK ONE)
7 DAYS ☐ 14 DAYS ☒ (NORMAL) PER SHELL CONTRACT
48 HOURS ☐ Intact ice OTHER ☐

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESU

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with

MPS 913 7140 065

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 23642

Date: ____ Page 1 of 1

SITE ADDRESS: LEA STATION
Job# EV-379

WIC #:

CONSULTANT NAME & ADDRESS: ENERCON SERVICES, INC.

CONSULTANT CONTACT: CHARLES HARLAN

PHONE (214) 631-7693 FAX (214) 631-7699

SAMPLED BY: CHARLES HARLAN

CHECK ONE BOX ONLY CT/DT

- [x] QUARTERLY MONITORING 5461
- [ ] SITE INVESTIGATION 5441
- [ ] SOIL FOR DISPOSAL 5442
- [ ] WATER FOR DISPOSAL 5443
- [ ] AIR SAMPLER - SYS O+M 5452
- [ ] WATER SAMPLE - SYS O+M 5453
- [ ] OTHER ______

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

- BTEX 602 ☐ 8020 ☒ WITH MTBE ☐
- BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE
- VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
- PNA/PAH 8310 ☒ 8100 ☐ 610 ☐
- SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
- TPH/IR 418.1 ☐ SM503 ___ ☐ ___ ☐ ___ ☐
- TPH/GC 8015 Mod GAS ☐ 8015 Mod DIESEL ☐
- TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐
- EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐
- REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO_3	H_2SO_4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602 / 8020	BTEX/GAS HYDROCARBONS	VOL 624	PNA/PAH 8310	SEMI-VOL 625	TPH/IR 418.1	TPH/GC 8015	TCLP METALS	EP TOX METALS	REACTIVITY	OTHER	REMARKS
MW-4	2/7/96			✓	✓					✓					4		✓			✓								
MW-9	11			✓	✓					✓					4		✓			✓								
MW-7	11			✓	✓					✓					4		✓			✓								
MW-6	11			✓	✓					✓					4		✓			✓								
MW-10	2/8/96			✓	✓					✓					4		✓			✓								

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	2/8/96	9:00			

BILL NO.:

LABORATORY:

SHELL CONTACT: [illegible] PHONE: [illegible] FAX:

TURN AROUND TIME (CHECK ONE)

- 7 DAYS ☐
- 48 HOURS ☐
- 14 DAYS ☒ (NORMAL) PER Shell Contract [illegible]
- OTHER ☐ ______

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

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

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 02 - 438

Approved for release by:

M. Scott Sample Date: 2/15/96

M. Scott Sample, Laboratory Director

Debbie Proctor Date: 2/15/96

Debbie Proctor, Project Manager

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_R960213123500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	46	92.0	62 - 121
Toluene	ND	50	44	88.0	66 - 136
EthylBenzene	ND	50	45	90.0	70 - 136
O Xylene	ND	50	46	92.0	74 - 134
M & P Xylene	ND	100	93	93.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	9.7	20	28	91.5	27	86.5	5.62	25	39 - 150
TOLUENE	ND	20	17	85.0	17	85.0	0	26	56 - 134
ETHYLBENZENE	ND	20	17	85.0	17	85.0	0	38	61 - 128
O XYLENE	ND	20	18	82.5	19	87.5	5.88	29	40 - 130
M & P XYLENE	1.7	40	37	88.2	38	90.8	2.91	20	43 - 152

Analyst: YN
Sequence Date: 02/13/96
SPL ID of sample spiked: 9602437-01A
Sample File ID: R___488.TX0
Method Blank File ID:
Blank Spike File ID: R___483.TX0
Matrix Spike File ID: R___485.TX0
Matrix Spike Duplicate File ID: R___486.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID):

9602446-02A 9602439-04A 9602439-03A 9602418-05A
9602418-04A 9602418-03A 9602446-03A 9602439-06A
9602432-01A 9602418-06A 9602418-02A 9602371-08A
9602418-01A 9602446-01A 9602371-07A 9602437-01A
9602439-02A 9602439-01A 9602438-01A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9662438 T 9/66 4/0 DF 2/10/96 2/12/96

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 23643

Date: _____
Page ____ of ____

SITE ADDRESS: LEA STATION
JOB# EV-379
WIC #: _____
CONSULTANT NAME & ADDRESS: ENVIRON SERVICES, INC.
CONSULTANT CONTACT: CHARLES HAGLAN
PHONE (214) 631-7693 FAX: (214) 631-7699
SAMPLED BY: CHARLES HAGLAN

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☒ 5461
- SITE INVESTIGATION ☐ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER _____ ☐

SAMPLE I D	DATE	TIME	COMP	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602 ☐ 8020 ☐ WITH MTBE ☐	BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE	VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	PNA/PAH 8310 ☐ 8100 ☐ 610 ☐	SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	TPH/IR 418.1 ☐ SM503 ___ ☐ ___ ☐ ___	TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐	TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐	EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐	REACTIVITY ☐ CORROSIVITY ☐ IGNITABLITY ☐	OTHER: BENZENE			REMARKS
DW-COMP.	2/7/96		✓		✓					✓					3												✓				

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

REMARKS

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	2/8/96	9:00	[signature]	2/10/96	11:30
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

BILL NO.: _____
LABORATORY: _____
SHELL CONTACT: NEAL STANDRIDGE PHONE (713) 241-2961 FAX: _____

TURN AROUND TIME (CHECK ONE)
7 DAYS ☐
14 DAYS ☒ (NORMAL) PER SHELL CONTRACT
48 HOURS ☐ Contact 4C
OTHER ☐ _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESU

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with

fedEx 913 7140 065
CUSTOMER PACKAGE TRACKING NUMBER - PULL UP PURPLE TAB

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
2/10/96	11:30

SPL Sample ID:
9602438

		Yes	No
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	4 C	
10	Method of sample delivery to SPL:	**SPL Delivery**	
		Client Delivery	
		FedEx Delivery (airbill #)	913714006 5
		Other:	
11	Method of sample disposal:	SPL Disposal	
		HOLD	
		Return to Client	

Name:	Date:
Elieta Brown	2/10/96

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

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 04 - 313

Approved for release by:

M. Scott Sample Date: 4/17/96

M. Scott Sample, Laboratory Director

Debbie Proctor Date: 4/16/96

Debbie Proctor, Project Manager

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

Certificate of Analysis No. H9-9604313-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Enercon Services
SAMPLE ID: MW-4

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 04/03/96 10:00:00
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	109
4-Bromofluorobenzene	72

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/11/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9604313-02

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Enercon Services
SAMPLE ID: MW-6

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 04/03/96 15:15:00
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	4	1 P	µg/L
TOTAL XYLENE	4	1 P	µg/L
TOTAL BTEX	8		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	107
4-Bromofluorobenzene	93

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/11/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9604313-03

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Enercon Services
SAMPLE ID: MW-7

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 04/03/96 14:30:00
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	110
4-Bromofluorobenzene	78

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/11/96

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, 18th 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.

SPL, Inc. - Project Manager

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

Certificate of Analysis No. H9-9604313-04

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Enercon Services
SAMPLE ID: MW-9

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 04/03/96 11:00:00
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	110
4-Bromofluorobenzene	84

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/11/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9604313-05

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Enercon Services
SAMPLE ID: MW-10

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 04/03/96 11:50:00
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	2	1 P	µg/L
TOTAL BTEX	3		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	110
4-Bromofluorobenzene	80

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/11/96

(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, 18th 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.

SPL, Inc. - Project Manager

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

Certificate of Analysis No. H9-9604313-06

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 04/15/96

PROJECT: Job #EV-379
SITE: Lea Pump Station
SAMPLED BY: Provided by SPL
SAMPLE ID: Trip Blank

PROJECT NO: H 17658
MATRIX: WATER
DATE SAMPLED: 03/29/96
DATE RECEIVED: 04/06/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	111
4-Bromofluorobenzene	67

METHOD 5030/8020 ***
Analyzed by: AA
Date: 04/10/96

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, 18th 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.

SPL, Inc., - Project Manager

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

Matrix: Aqueous
Units: µg/L

Batch Id: HP_J960410032200

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	48	96.0	20 - 110
Benzene	ND	50	51	102	62 - 121
Toluene	ND	50	49	98.0	66 - 136
EthylBenzene	ND	50	51	102	70 - 136
O Xylene	ND	50	52	104	74 - 134
M & P Xylene	ND	100	110	110	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	860	20	1200	NC	1100	NC	NC	20	39 - 150
BENZENE	ND	20	19	95.0	18	90.0	5.41	25	39 - 150
TOLUENE	ND	20	17	85.0	18	90.0	5.71	26	56 - 134
ETHYLBENZENE	ND	20	17	85.0	17	85.0	0	38	61 - 128
O XYLENE	ND	20	18	90.0	18	90.0	0	29	40 - 130
M & P XYLENE	ND	40	36	90.0	36	90.0	0	20	43 - 152

Analyst: AA
Sequence Date: 04/10/96
SPL ID of sample spiked: 9604096-05A
Sample File ID: J___728.TX0
Method Blank File ID:
Blank Spike File ID: J___719.TX0
Matrix Spike File ID: J___723.TX0
Matrix Spike Duplicate File ID: J___724.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9604096-05A 9604138-04A 9604313-06A 9604138-06A
9604138-05A 9604138-02A 9604138-03A 9604287-03A
9604287-13A 9604287-05A 9604287-07A 9604287-11A
9604287-14A 9604313-01A 9604313-02A 9604313-03A
9604313-04A 9604313-05A 9604287-12A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

TC/SS 4/6   9604315

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 17658

Date: 4/3/96
Page 1 of 1

SITE ADDRESS: LEA PUMP STATION
JOB# EV-379

WIC #:

CONSULTANT NAME & ADDRESS: ENERCON SERVICES, INC.
1221 RIVER BEND SUITE 259 DALLAS, TX 75247

CONSULTANT CONTACT: CHARLES HARLAN

PHONE: (214) 631-7693   FAX: 631-7699

SAMPLED BY: CHARLES HARLAN

CHECK ONE BOX ONLY CT/DT

- ☒ QUARTERLY MONITORING 5461
- ☐ SITE INVESTIGATION 5441
- ☐ SOIL FOR DISPOSAL 5442
- ☐ WATER FOR DISPOSAL 5443
- ☐ AIR SAMPLER - SYS O+M 5452
- ☐ WATER SAMPLE - SYS O+M 5453
- ☐ OTHER ______

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

- BTEX 602 ☐ 8020 ☒ WITH MTBE ☐
- BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE
- VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
- PNA/PAH 8310 ☐ 8100 ☐ 610 ☐
- SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
- TPH/IR 418.1 ☐ SM503 ___ ☐ ___ ☐ ___ ☐
- TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐
- TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐
- EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐
- REACTIVITY ☐ CORROSIVITY ☐ IGNITABLITY ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602/8020	BTEX/GAS HYDROCARBONS	OTHER	REMARKS
MW-4	4/3/96	10:00		X	X					X					3		✓			
MW-6	〃	15:15		X	X					X					3		✓			
MW-7	〃	14:30		X	X					X					3		✓			
MW-9	〃	11:00		X	X					X					3		✓			
MW-10	〃	11:50		X	X					X					3		✓			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	4/5/96	8:30	[signature]	4/6/96	0945

BILL NO.:
LABORATORY:
SHELL CONTACT: [signature]   PHONE: (713) 241-2961   FAX:

TURN AROUND TIME (CHECK ONE)
- 7 DAYS ☐ ([redacted])
- 48 HOURS ☐
- 14 DAYS ☐
- OTHER ☐ ______

NORMAL TURN

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

intact 4C

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
4-6-96	0945

SPL Sample ID:
9604313

			Yes	N
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	8277535	
		Other:	9137097	
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD	—	
		Return to Client		

Name:	Date:
Eleta Brown	4/6/96

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-06-753

Approved for Release by:

Debbie Proctor, Project Manager Date: 6/25/96

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

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

Certificate of Analysis No. H9-9606753-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 06/24/96

PROJECT: Benzene Analysis
SITE: Lea Station
SAMPLED BY: Enercon Services
SAMPLE ID: D.W.

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 06/12/96 17:00:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	ND	1 M	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	104		
4-Bromofluorobenzene	112		

METHOD 8020***
Analyzed by: RL
Date: 06/21/96

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th 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.

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_U960620050500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	45	90.0	62 - 121
Toluene	ND	50	42	84.0	66 - 136
EthylBenzene	ND	50	43	86.0	70 - 136
O Xylene	ND	50	43	86.0	74 - 134
M & P Xylene	ND	100	86	86.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	ND	20	19	95.0	20	100	5.13	25	39 - 150
TOLUENE	ND	20	19	95.0	19	95.0	0	26	56 - 134
ETHYLBENZENE	ND	20	18	90.0	19	95.0	5.41	38	61 - 128
O XYLENE	ND	20	19	95.0	19	95.0	0	29	40 - 130
M & P XYLENE	ND	40	38	95.0	39	97.5	2.60	20	43 - 152

Analyst: RL
Sequence Date: 06/20/96
SPL ID of sample spiked: 9606722-03A
Sample File ID: U___443.TX0
Method Blank File ID: .
Blank Spike File ID: U___437.TX0
Matrix Spike File ID: U___440.TX0
Matrix Spike Duplicate File ID: U___441.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID):

9606722-03A	9606722-01A	9606722-02A	9606722-04A
9606753-01A	9606754-01A	9606783-01A	9606783-02A
9606783-03A	9606783-04A	9606752-01A	9606752-02A
9606752-03A	9606752-04A	9606752-05A	9606760-18A
9606760-19A	9606672-01A	9606470-01A	9606470-03A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

P/SB 6/15/96

96067539 6/11/96

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 17859

Date: 6-14-96
Page 1 of 1

SITE ADDRESS: LEA STATION
EV-

WIC #:

CONSULTANT NAME & ADDRESS: ENERCON SERVICES INC.
1221 RIVER BEND, STE 259
DALLAS, TX

CONSULTANT CONTACT: Charles Harlan

PHONE (214)631-7693 FAX: (214)631-7699

SAMPLED BY: BILL D. SMITH

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☐ 5461
- SITE INVESTIGATION ☐ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER ☐

SAMPLE I D	DATE	TIME	COMP	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602 ☐ 8020 ☐ WITH MTBE ☐	BTEX/GAS-HYDROCARBONS PID/FID ☐ WITH MTBE	VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	PNA/PAH 8310 ☐ 8100 ☐ 610 ☐	SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	TPH/IR 418.1 ☐ SM503 ☐ ☐ ☐	TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐	TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐	EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐	REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐	OTHER: BENZENE	REMARKS
D.W.	6/12/96	1700	✓		✓					✓				✓	3	40 ml											✓	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Bill Smith	6/14/96	1400	[signature]	6/5/96	1000
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

BILL NO.: PC Intact

LABORATORY:

SHELL CONTACT: Neil Hellman PHONE: 241-2961 FAX:

TURN AROUND TIME (CHECK ONE)

7 DAYS ☐ (NORMAL) 14 DAYS ☐

48 HOURS ☐ OTHER ☐ Abnormal

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

FedEx 1188471196

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
6/14/96	1000

SPL Sample ID:
9606753

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		2° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	118847196	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
S. West	6/14/96

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-07-936

Approved for Release by:

Debbie Proctor, Project Manager

Date: 7/22/96

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

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

Certificate of Analysis No. H9-9607936-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Enercon Services, Inc.
SAMPLE ID: MW-4

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96 10:55:00
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	107
4-Bromofluorobenzene	100

METHOD 5030/8020 ***
Analyzed by: AA
Date: 07/22/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9607936-02

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Enercon Services, Inc.
SAMPLE ID: MW-6

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96 12:30:00
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	2.6	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	2.6		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	110
4-Bromofluorobenzene	107

METHOD 5030/8020 ***
Analyzed by: AA
Date: 07/22/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9607936-03

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Enercon Services, Inc.
SAMPLE ID: MW-7

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96 13:05:00
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	107
4-Bromofluorobenzene	103

METHOD 5030/8020 ***
Analyzed by: AA
Date: 07/22/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9607936-04

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Enercon Services, Inc.
SAMPLE ID: MW-9

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96 11:00:00
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	2.6	1 P	µg/L
TOTAL BTEX	2.6		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	107
4-Bromofluorobenzene	100

METHOD 5030/8020 ***
Analyzed by: AA
Date: 07/22/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9607936-05

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Enercon Services, Inc.
SAMPLE ID: MW-10

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96 12:10:00
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	1.8	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	1.8		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	110
4-Bromofluorobenzene	100

METHOD 5030/8020 ***
Analyzed by: RL
Date: 07/24/96

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, 18th 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.

SPL, Inc., - Project Manager

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

Certificate of Analysis No. H9-9607936-06

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

DATE: 07/26/96

PROJECT: Water Samples
SITE: Lea Station
SAMPLED BY: Provided by SPL
SAMPLE ID: Trip Blank

PROJECT NO: EV-379
MATRIX: WATER
DATE SAMPLED: 07/18/96
DATE RECEIVED: 07/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL BTEX	ND		µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	107
4-Bromofluorobenzene	107

METHOD 5030/8020 ***
Analyzed by: AA
Date: 07/22/96

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, 18th 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.

SPL, Inc., - Project Manager

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_U960721110700

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	52	104	62 - 121
Toluene	ND	50	48	96.0	66 - 136
EthylBenzene	ND	50	44	88.0	70 - 136
O Xylene	ND	50	52	104	74 - 134
M & P Xylene	ND	100	97	97.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	ND	20	22	110	23	115	4.44	25	39 - 150
TOLUENE	ND	20	20	100	21	105	4.88	26	56 - 134
ETHYLBENZENE	ND	20	18	90.0	18	90.0	0	38	61 - 128
O XYLENE	ND	20	22	110	21	105	4.65	29	40 - 130
M & P XYLENE	ND	40	44	110	37	92.5	17.3	20	43 - 152

Analyst: AA
Sequence Date: 07/21/96
SPL ID of sample spiked: 9607925-01A
Sample File ID: U___392.TX0
Method Blank File ID: .
Blank Spike File ID: U___384.TX0
Matrix Spike File ID: U___387.TX0
Matrix Spike Duplicate File ID: U___388.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID): 9607925-01A 9607936-01A 9607936-03A 9607941-01A 9607935-10A 9607936-04A 9607936-02A 9607808-03A 9607808-04A 9607935-07A 9607925-03A 9607936-06A

QC Officer

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

* SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_U960724041800

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	48	96.0	62 - 121
Toluene	ND	50	47	94.0	66 - 136
EthylBenzene	ND	50	42	84.0	70 - 136
O Xylene	ND	50	50	100	74 - 134
M & P Xylene	ND	100	99	99.0	77 - 140

MATRIX SPIKES

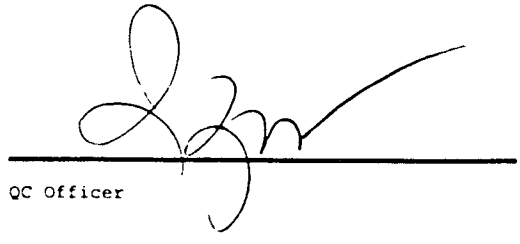
SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	1.6	20	27	127	27	127	0	25	39 - 150
TOLUENE	ND	20	25	125	23	115	8.33	26	56 - 134
ETHYLBENZENE	ND	20	21	105	21	105	0	38	61 - 128
O XYLENE	ND	20	26	130	25	125	3.92	29	40 - 130
M & P XYLENE	ND	40	51	128	50	125	2.37	20	43 - 152

Analyst: RL
Sequence Date: 07/24/96
SPL ID of sample spiked: 9607984-05A
Sample File ID: U___492.TX0
Method Blank File ID:.
Blank Spike File ID: U___484.TX0
Matrix Spike File ID: U___513.TX0
Matrix Spike Duplicate File ID: U___514.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '94)

SAMPLES IN BATCH(SPL ID):

9607984-05A 9607984-04A 9607984-07A 9607A37-01A
9607B00-01A 9607984-03A 9607984-02A 9607984-01A
9607941-05A 9607A58-01A 9607A37-02A 9607A58-05A
9607A46-03A 9607A46-01A 9607936-05A



QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

Tabb 7/20 96-07-436 [illegible]

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 19185

Date: 7-19-96
Page 1 of 1

SITE ADDRESS: Lea Station
EV-379

WIC #:

CONSULTANT NAME & ADDRESS: Enercon Services, Inc.
1221 River Bend, Ste 259, Dallas TX 75247

CONSULTANT CONTACT: Charles Harlan

PHONE: (214)631-7693 FAX: (214)631-7699

SAMPLED BY: Steve Hallmark

CHECK ONE BOX ONLY CT/DT

- ☐ QUARTERLY MONITORING 5461
- ☐ SITE INVESTIGATION 5441
- ☐ SOIL FOR DISPOSAL 5442
- ☐ WATER FOR DISPOSAL 5443
- ☐ AIR SAMPLER - SYS O+M 5452
- ☐ WATER SAMPLE - SYS O+M 5453
- ☐ OTHER ______

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

- BTEX 602 ☐ 8020 ☒ WITH MTBE ☐
- BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE
- VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
- PNA/PAH 8310 ☐ 8100 ☐ 610 ☐
- SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
- TPH/IR 418.1 ☐ SM503 ☐ ___ ☐ ___ ☐ ___ ☐
- TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐
- TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐
- EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐
- REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐

OTHER: pH

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED HCl	HNO3	H2SO4	NONE	OTHER ICE	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 8020	OTHER pH
MW-4	7-18-96	1055		✓	✓					✓				✓	3	40 ml	✓	|
MW-6	7-18-96	1230		✓	✓					✓				✓	3	40 ml	✓	|
MW-7	7-18-96	1305		✓	✓					✓				✓	3	40 ml	✓	|
MW-9	7-18-96	1100		✓	✓					✓				✓	3	40 ml	✓	|
MW-10	7-18-96	1210		✓	✓					✓				✓	3	40 ml	✓	|

REMARKS: FedEx 914 5886 005 CUSTOMER PACKAGE TRACKING NUMBER - PULL UP PURPLE TAB
2°C Rat

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	7-19-96	1030	[signature]	7-20-96	1000

BILL NO.:
LABORATORY:
SHELL CONTACT: Neal Stidham PHONE: 241-2961 FAX:

TURN AROUND TIME (CHECK ONE)
7 DAYS ☐ ~~(NORMAL)~~ 14 DAYS ☐
48 HOURS ☐ OTHER ☐ Normal

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS
DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

Report
Prepared
for

ENERCON SERVICES, INC.
1221 River Bend, Suite 259
Dallas, Texas 75247

Attention: Charles Harlan

by

RECRA LabNet-Houston
8300 Westpark Drive
Houston, Texas 77063
(713)266-6800

CERTIFIED BY: Gerardo Uría

J .Gerardo Uría
Project Manager

PROJECT ID : Shell Pipeline Corp Lea Station (EV-379)
P.O. Number : NA

Work Order : H96-2751
Date Received : 04-Oct-1996

SHELL PIPELINE CORPORATION
SHELL PIPELINE CORPORATION
ANALYTICAL RESULTS

SDG: EV-379	Client Sample ID:	MW-1	MW-10	MW-12	MW-13	MW-3
	Job Number & Lab Sample ID:	H96-2751 H6275101	H96-2751 H6275109	H96-2751 H6275110	H96-2751 H6275111	H96-2751 H6275102
	Sample Date:	10/02/96	10/02/96	10/02/96	10/02/96	10/02/96
Analyte (UG/L)		Result	Result	Result	Result	Result
METHOD 8020 - BTEX						
Benzene		290	2.0 U	680	2.0 U	1900
Toluene		30 U	3.0 U	180	3.0 U	150 U
Ethylbenzene		120	3.0 U	280	3.0 U	320
Total Xylenes		30 U	7.7	100	3.0 U	150 U

U = Undetected at the Listed Detection Limit
* Indicates Result is Outside QC Limits
NA = Not Applicable

SDG: EV-379	Client Sample ID:	MW-4	MW-5	MW-6	MW-7	MW-8
	Job Number & Lab Sample ID:	H96-2751 H6275103	H96-2751 H6275104	H96-2751 H6275105	H96-2751 H6275106	H96-2751 H6275107
	Sample Date:	10/02/96	10/02/96	10/02/96	10/02/96	10/02/96
Analyte (UG/L)		Result	Result	Result	Result	Result
METHOD 8020 - BTEX						
Benzene		2.0 U	2.4	2.0 U	2.0 U	3.1
Toluene		3.0 U	3.0 U	3.0 U	3.0 U	7.2
Ethylbenzene		3.0 U	10	3.0 U	3.0 U	82
Total Xylenes		3.0 U	6.0	3.0 U	3.0 U	52

U = Undetected at the Listed Detection Limit
* Indicates Result is Outside QC Limits
NA = Not Applicable

Shell Oil Products Company

Two Shell Plaza
P. O. Box 2099
Houston, TX 77252-2099

July 2, 1996

William Olson
State of New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, New Mexico 87504

SUBJECT: DEVELOPMENT WATER, DENTON AND LEA STATIONS

Dear Mr. Olson,

Enclosed are copies of the laboratory results from sampling the development water at the subject stations. All samples were non-detect for benzene. Unless I hear otherwise from you, I plan to surface discharge this water at the time we are on site. If you have any questions please call me at 713-241-2961.

Sincerely,

Neal Stidham
Staff Engineer
Shell Oil Company
Representing Shell Pipe Line Corporation

cc: Paul Newman-EOTT Energy Corp.
Jerry Sexton-OCD Hobbs

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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-06-753

Approved for Release by:

Debbie Proctor, Project Manager Date:

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

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

Certificate of Analysis No. H9-9606753-01

Shell Pipe Line Corporation
P.O. Box 2648
Houston, TX 77252
ATTN: Neal Stidham

P.O.# MESA-CAO-B-131201-PX-4204-NS
DATE: 06/24/96

PROJECT: Benzene Analysis
SITE: Lea Station
SAMPLED BY: Enercon Services
SAMPLE ID: D.W.

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 06/12/96 17:00:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Benzene	ND	1 M	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	104		
4-Bromofluorobenzene	112		

METHOD 8020***
Analyzed by: RL
Date: 06/21/96

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th 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.

QUALITY CONTROL

DOCUMENTATION

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

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

Matrix: Aqueous
Units: µg/L

Batch Id: HP_U960620050500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	45	90.0	62 - 121
Toluene	ND	50	42	84.0	66 - 136
EtnylBenzene	ND	50	43	86.0	70 - 136
O Xylene	ND	50	43	86.0	74 - 134
M & P Xylene	ND	100	86	86.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
BENZENE	ND	20	19	95.0	20	100	5.13	25	39 - 150
TOLUENE	ND	20	19	95.0	19	95.0	0	26	66 - 134
ETHYLBENZENE	ND	20	18	90.0	19	95.0	5.41	38	61 - 128
O XYLENE	ND	20	19	95.0	19	95.0	0	29	40 - 130
M & P XYLENE	ND	40	38	95.0	39	97.5	2.60	20	43 - 152

Analyst: RL
Sequence Date: 06/20/96
SPL ID of sample spiked: 9606722-03A
Sample File ID: U___443.TX0
Method Blank File ID:
Blank Spike File ID: U___437.TX0
Matrix Spike File ID: U___440.TX0
Matrix Spike Duplicate File ID: U___441.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = [(<4> - <5> / [<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data 3rd Q '95)
(***) = Source: SPL-Houston Historical Data 4th Q '94)

SAMPLES IN BATCH(SPL ID):

9606722-03A 9606722-01A 9606722-02A 9606722-04A
9606753-01A 9606754-01A 9606783-01A 9606783-02A
9606783-03A 9606783-04A 9606752-01A 9606752-02A
9606752-03A 9606752-04A 9606752-05A 9606760-18A
9606760-19A 9606672-01A 9606470-01A 9606470-03A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

RF/GWB 6/15/96 9606753

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 17859

Date: 6-14-96
Page 1 of 1

SITE ADDRESS: LEA STATION
EV-

WIC #:

CONSULTANT NAME & ADDRESS: ENERCON SERVICES INC
1221 RIVER BEND, STE 257
DALLAS, TX

CONSULTANT CONTACT: Charles Harlan

PHONE: (214) 631-7695 FAX: (214) 631-7699

SAMPLED BY: Bill D. Smith

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING [ ] 5461
- SITE INVESTIGATION [ ] 5441
- SOIL FOR DISPOSAL [ ] 5442
- WATER FOR DISPOSAL [ ] 5443
- AIR SAMPLER - SYS O/M [ ] 5452
- WATER SAMPLE - SYS O/M [ ] 5453
- OTHER ____ [ ]

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

- BTEX 602 ☐ 8020 ☐ WITH MTBE ☐
- BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE
- VOL 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
- PNA/PAH 8310 ☐ 8100 ☐ 610 ☐
- SEMI-VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
- TPH/IR 418.1 ☐ SM503 ____ ☐ ____ ☐ ____ ☐
- TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐
- TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐
- EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐
- REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐

OTHER: Benzene

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX H2O	MATRIX SOIL	MATRIX AIR	MATRIX SLUDGE	OTHER	METHOD PRESERVED HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	OTHER (Benzene)	REMARKS
D.W.	6-14-96	1700	✓		✓					✓				ICE ✓	3	40 ml	✓	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Bill D. Smith	6-14-96	1400	[signature]	6-15-96	1000

BILL NO.: 2nd Overnight

LABORATORY:

SHELL CONTACT: Neil Stidham PHONE: 241-2961 FAX:

TURN AROUND TIME (CHECK ONE)

7 DAYS [ ] (NORMAL) 14 DAYS [ ]
48 HOURS [ ] OTHER [ ] Normal

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
6/14/96	1000

SPL Sample ID:
9606753

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		2° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	✓ 8247119	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[illegible]	[illegible]

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 14, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-556

Mr. Neal Stidham
Shell Pipe Line Corporation
Two Shell Plaza
P.O. Box 2099
Houston, Texas 77252-2099

RE: GROUND WATER MONITORING REPORTS
DENTON AND LEA CRUDE PUMP STATION
LEA COUNTY, NEW MEXICO

Dear Mr. Stidham:

The New Mexico Oil Conservation Division (OCD) has reviewed Shell Oil Products Company's (SOPC) January 18, 1996 "QUARTERLY GROUNDWATER MONITORING REPORTING, DENTON AND LEA STATIONS, LEA COUNTY, NEW MEXICO". This document contains SOPC's request to submit the results of quarterly ground water monitoring for the Denton and Lea Crude Stations on an annual basis.

The above referenced request is approved on the condition that the annual reports be submitted to the OCD by April 1 of each respective year.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price , OCD Hobbs Office

OIL CONSERVATION DIVISION
RECEIVED
'96 JAN 22 AM 8 52

Shell Oil Products Company

Two Shell Plaza
P. O. Box 2099
Houston, TX 77252-2099

January 18, 1996

William Olson
State of New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, New Mexico 87504

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORTING, DENTON AND LEA STATIONS, LEA COUNTY NEW MEXICO

Dear Mr. Olson,

By way of this letter I am requesting approval to modify our quarterly reporting requirement to annual reporting for Lea and Denton Stations. This request will affect neither the number nor frequency of wells currently monitored or sampled at either station. After three years of monitoring, we have seen very little intra-well variation. However should significant change be detected, such as the development of Phase Separated Hydrocarbon were none had been detected earlier, I will notify you within 7 days of receipt of the report.

This request will not affect the reporting of the additional delineation we have proposed at Denton nor any future work of this nature. Furthermore I realize that based upon the Denton work the number of wells in the monitoring program is subject to change.

I feel approval of this request will save the State of New Mexico and myself time and money while fully protecting both the environment and public. Thank you for your consideration of this request. If you have any questions please call me at 713-241-2961.

Sincerely,

Neal Stidham

Neal Stidham
Staff Engineer
Shell Oil Company
Representing Shell Pipe Line Corporation

cc: Paul Newman-EOTT Energy Corp.
Jerry Sexton-OCD Hobbs