INITIAL SUBSURFACE INVESTIGATION REPORT

EXXON COMPANY, USA
EXXON LOCATION # 4-3998
470 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA

DELTA PROJECT NO. 50-92-037

9-30-92

Delta
Environmental Consultants, Inc.

6701 Carmel Road
Suite 200
Charlotte, NC 28226-3901
704/541-9890
FAX: 704/543-4035

September 30, 1992

Exxon Company, USA
P.O. Box 30451
Charlotte, North Carolina 28230-0451

Attention: Mr. Frank Medlin

Subject: Initial Subsurface Investigation Report
Exxon Location #4-3998
4701 West Market Street
Greensboro, North Carolina
Delta Project No. 50-92-037.01

Dear Mr. Medlin:

Enclosed please find three copies of the completed Initial Subsurface Investigation Report for the above referenced site. The report was completed using information and analytical data collected for this site by Delta to date.

As a result of these preliminary findings, additional activities are recommended to complete a comprehensive subsurface investigation. Recommended activities include the installation of additional monitoring wells to determine if contamination has migrated off site. Following their installation, ground water samples should be collected from the wells and submitted to the laboratory for analyses. Those wells located beyond the boundaries of the site may require access agreements with the respective property owners or encroachment agreements with the local or state Department of Transportation.

If you have any questions or require additional information, please don't hesitate to contact me at (704) 541-9890.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Kathleen Pfeiffer

Kathleen Pfeiffer
Project Manager

c: Mr. David Curlis, Delta Environmental Consultants, Inc.

INITIAL SUBSURFACE INVESTIGATION REPORT

EXXON COMPANY, USA

EXXON LOCATION #4-3998

4701 WEST MARKET STREET

GREENSBORO, NORTH CAROLINA

DELTA PROJECT NO. 50-92-037.01

This Report was Prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226-3901
(704) 541-9890

September 30, 1992

Kathleen Pfeiffer
Project Manager

J. David Curlis, P.G.
Project Geologist, License #1147

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INITIAL SUBSURFACE INVESTIGATION
EXXON COMPANY, USA
EXXON LOCATION #4-3998
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037.01

1.0 INTRODUCTION

1.1 Purpose

The purpose of this report is to present information obtained during assessment activities which occurred during August and September, 1992. The assessment was initiated in response to a suspected release from the underground storage tank system. Indications of a release were discovered during tankfield upgrades at the site.

1.2 Site Location

The site is located at 4701 West Market Street in Greensboro, North Carolina as shown on Figure 1. The site is located at the intersection of West Market Street and Spring Garden Street. The adjacent properties consist of retail businesses including another service station, and a plumbing repair shop.

1.3 Site History

There are currently four underground storage tanks on site. The tank capacity and contents are listed below:

Tank Capacity	Tank Contents
12,000 gallons	Regular Unleaded
12,000 gallons	Plus Unleaded
12,000 gallons	Supreme Unleaded
1,000 gallons	Used Oil

These tanks were installed in 1991 following the removal of older tanks from a previous tank basin located near the southeast corner of the property (Figure 2). According to the Tank Excavation Assessment Report which was submitted to the North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR), when the tanks were removed, petroleum constituents were detected in the soils near the former tank basin and product line trenches. This site is currently active.

2.0 SITE DESCRIPTION

2.1 Site Geology

The site is located in the Carolina Slate belt of North Carolina which is composed primarily of rocks of volcanic or sedimentary origin that have been subjected to low-grade metamorphism. The Carolina Slate belt is bordered on the southeast by the sedimentary rocks of the Triassic basins and on the northwest by the igneous and higher grade metamorphic rocks of the Charlotte belt. Surficial rocks in the vicinity consist of metamorphosed granite which is megacrystic, well foliated, and locally contains hornblende. The overlying soil consists of reddish brown, silty clay with a measured thickness of approximately 30 feet in one of the soil borings advanced at the site.

2.2 Sensitive Receptors

A Sensitive Receptor Survey was completed for this site in December, 1991. According to this survey, there are no surface water bodies, basements, tunnels/subways, or private water wells located within 1,000 feet of the site, or municipal wells within 2000 feet of the site (Figure 3). Water is provided to the site by the City of Greensboro. The water supply is derived from Lake Townsend located to the north of the site. The primary aquifer has the classification of Class II, and is a sole source aquifer. The depth to the aquifer was estimated to be 15 feet.

2.3 Local Land Usage

The surrounding properties consist primarily of commercial properties (Figure 1). These properties include another service station, other retail businesses, and a plumbing repair shop.

3.0 SITE INVESTIGATION

3.1 Soil Borings

A total of four soil borings were advanced during this phase of the investigation at the locations shown in Figure 2. Each of these soil borings was completed as a ground water monitoring well and each is designated MW-1 through MW-4. During borehole advancement, soil samples were collected at five foot intervals using a split spoon sampling barrel. Each soil sample was scanned for organic vapors using a photo-ionization detector (PID). The readings that were recorded for each sample are shown in Table 1.

3.2 Soil Sampling

One sample from each borehole that displayed the highest organic vapor reading was submitted to the laboratory for analyses using EPA Methods 8020 (BTEX) and 3550/5030 (TPH). The results of these analyses are shown in Table 2. Appendix A contains the complete laboratory report.

3.3 Well Installation

Each borehole was competed as a two-inch diameter, ground water monitoring well. The depths of monitoring wells MW-1 through MW-4 range from 25 to 30 feet below grade. Each well was checked for the presence of liquid phase hydrocarbons (LPH) and the depth to ground water was measured using an electronic water level indicator. No LPH were detected in any of the wells. These measurements are shown in Table 3.

Monitoring wells were completed in accordance with the provisions set forth in monitoring well permit number 40-1045-WM-0456, issued on August 11, 1992 by the NCDEHNR. Copies of the permit along with the well construction records are included as Appendix B.

3.4 Ground Water Sampling

After allowing the ground water to reach equilibrium in each monitoring well, samples were collected and submitted to the laboratory for analyses using EPA Methods 601, 602 and 625. A summary of the results of these analyses is shown in Table 4. The complete laboratory report is included as Appendix A.

4.0 RESULTS

The results of the soil scanning revealed values ranging from 0.2 parts per million (ppm) to 110 ppm. The highest vapor values were detected in the samples from MW-2 and MW-3. Of the soil samples submitted for laboratory analyses, the highest BTEX (benzene, toluene, ethylbenzene, and xylenes) and TPH (total petroleum hydrocarbons) concentrations were also found in the samples from MW-2 and MW-3.

The measured depth to ground water in the monitoring wells ranged from 22.99 to 24.5 feet below grade. Based on these data, a ground water elevation contour map (Figure 4) was constructed. The map shows the ground water flow direction is northeastward with a gradient of approximately 0.008. The analytical results for ground water samples collected from these monitoring wells showed elevated BTEX concentrations in the samples from MW-1, MW-2, and MW-3. Only xylene was detected (4.0 ug/l) in the ground water sample collected from MW-4. Several other targeted constituents were also detected (using EPA Methods 601 and 625) in the ground water samples from monitoring wells MW-2 and MW-3. Based on these analytical results, a dissolved phase hydrocarbon isopleth map (Figure 5) was constructed using the total BTEX value for each sample.

5.0 FINDINGS

A summary of information collected during this investigation is encompassed in the tables and figures contained herein. Laboratory analytical results indicate the presence of petroleum hydrocarbons in the soil and ground water in the areas near monitoring wells MW-1, MW-2 and MW-3. Based on Delta's calculations, ground water appears to be flowing northeastward beneath the site toward MW-3.

This report was prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

J. David Curlis, P.G.
Project Geologist, License #1147

9-30-92
Date

Kathleen Pfeiffer
Project Manager

9-30-92
Date

TABLE 1

ORGANIC VAPOR ANALYZER (PID) READINGS - PPM
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037.01

	SB/MW-1	SB/MW-2	SB/MW-3	SB/MW-4
Date Sampled:	08-13-92	08-13-92	08-14-92	08-14-92
Sample Depth (ft-bgl)				
5-7	5	60	10	0.2
10-12	5	100	15	0.2
15-17	8	NR	100	0.2
20-22	NR	100	110	0.2

Notes:

PPM = parts per million, measured with 10.2 eV lamp calibrated to 56 ppm benzene.
NR = No reading recorded.

TABLE 2

SOIL ANALYSES
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037.01

		SB/MW-1	SB/MW-2	SB/MW-3	SB/MW-4
Date Sampled:		08-13-92	08-13-92	08-14-92	08-14-92
Sample Depth (ft-bgl)		15-17	20-22	20-22	20-22
Compounds:					
Benzene	(ug/kg)	15.0	1,500	470	<2.0
Toluene	(ug/kg)	2.0	6,300	3,400	<2.0
Ethylbenzene	(ug/kg)	2.2	760	700	<2.0
Xylenes	(ug/kg)	10.0	4,500	4,000	<2.0
TPH - 3550	(mg/kg)	<10	15	64	<10
TPH - 5030	(mg/kg)	220	48,000	44,000	<50

Notes:

ug/kg - micrograms per kilogram
mg/kg - milligrams per kilogram

TABLE 3

WATER LEVEL MEASUREMENTS
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037.01

	MW-1	MW-2	MW-3	MW-4
Date measured:	08-20-92	08-20-92	08-20-92	08-20-92
Depth to Top of Screen (ft)	10.0	15.0	15.0	15.0
Depth to Ground Water (ft)	23.45	22.99	24.49	24.5
Top of Casing Elevation (ft)	96.50	96.56	96.92	97.92
Ground Water Elevation (ft)	73.05	73.57	72.43	73.42
Liquid Phase Hydrocarbon (ft)	—	—	—	—

TABLE 4

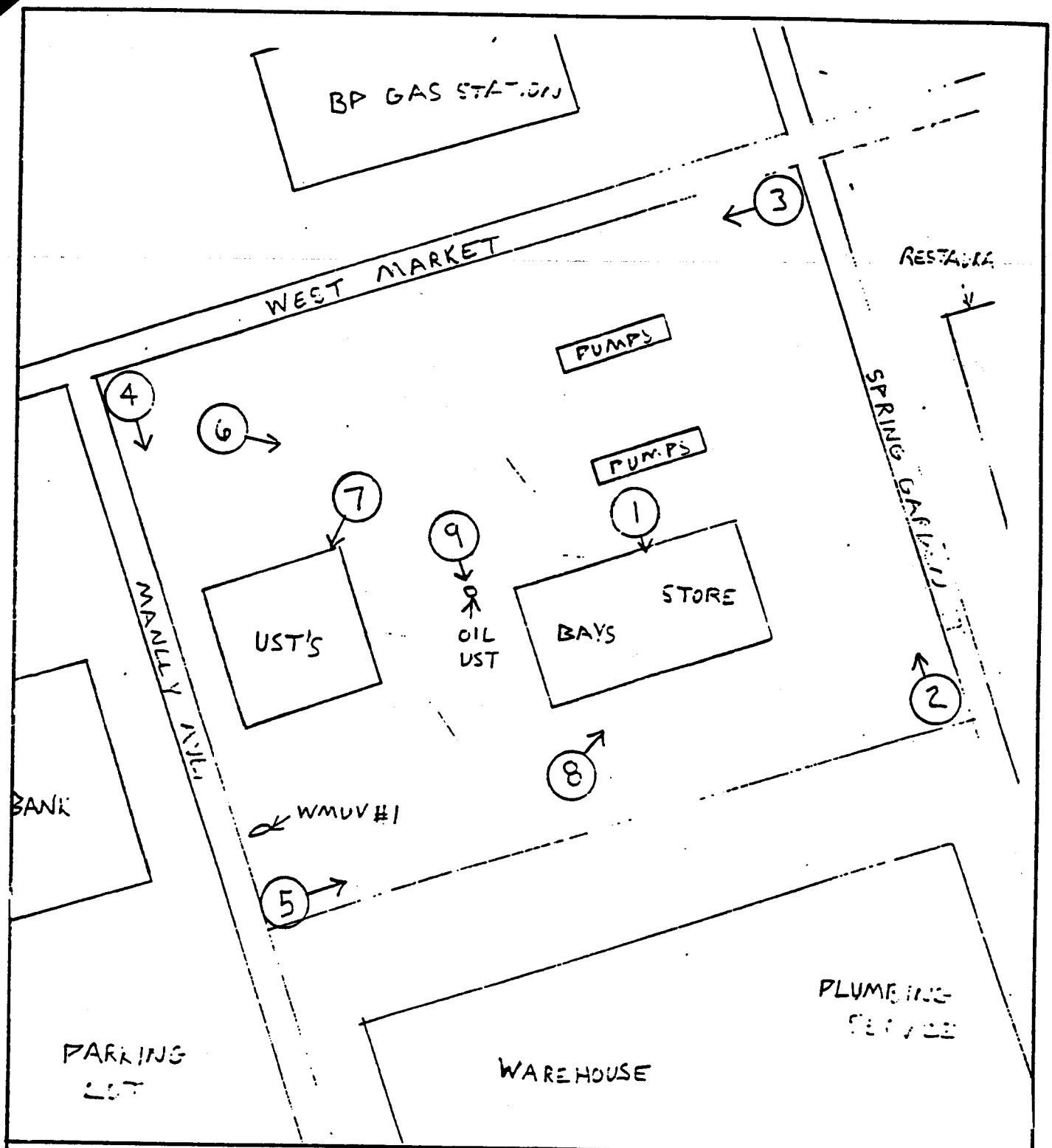
WATER ANALYSES
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037.01

	MW-1	MW-2	MW-3	MW-4
Date Sampled:	08-20-92	08-20-92	08-20-92	08-20-92
Compounds:				
EPA 601				
1,2-Dichloroethane	<150	<80	400	<3
1,1,2,2-Tetrachloroethane	<50	40	110	<1
all other Method 601 compounds	BDL	BDL	BDL	BDL
EPA 602				
Benzene	5,000	1,400	11,000	<2
Toluene	35,000	4,900	41,000	<2
Ethylbenzene	3,900	1,600	4,800	<2
Xylenes	22,000	6,000	28,000	4
Total BTEX	65,900	13,900	84,800	4
MTBE	<500	<250	<500	<10
EPA 625				
Di-n-butylphthalate	---	15.9	---	---
Naphthalene	---	189	---	---
all other Method 625 compounds	---	BDL	---	---

Other Tentatively Identified Compounds - see Laboratory Report

Notes:

Results in micrograms per liter (ug/l)
BDL - Below Detection Limit
--- - No 625 analysis for this well; worst case well only



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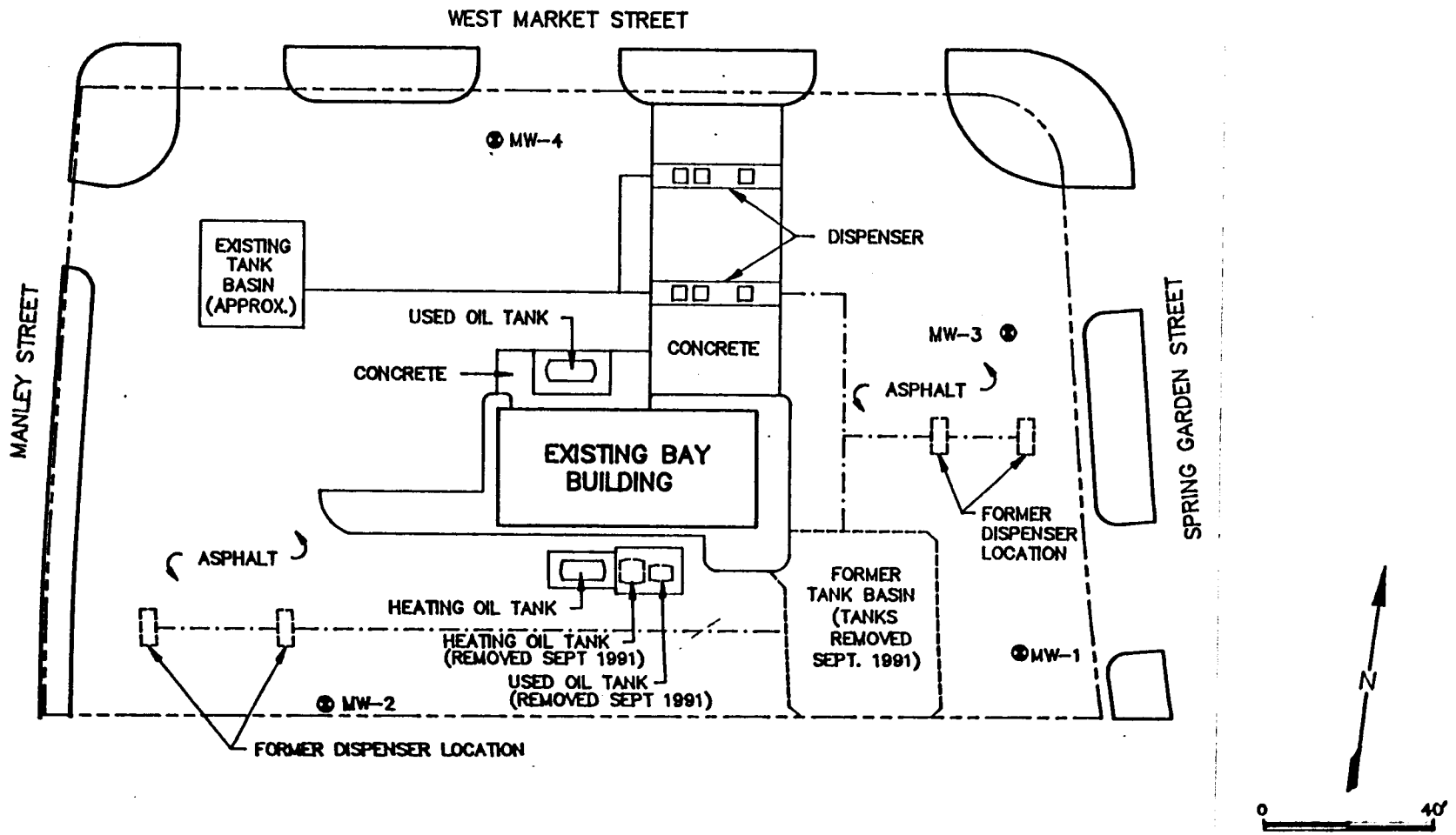
NOTE:

THIS MAP ADAPTED FROM PILCO & ASSOCIATES, INC.

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 1	CLIENT/LOCATION EXXON COMPANY USA GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION VICINITY MAP RAS #4-3998		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 9-30-92	SCALE UNKNOWN	CAD NO. 037-VM

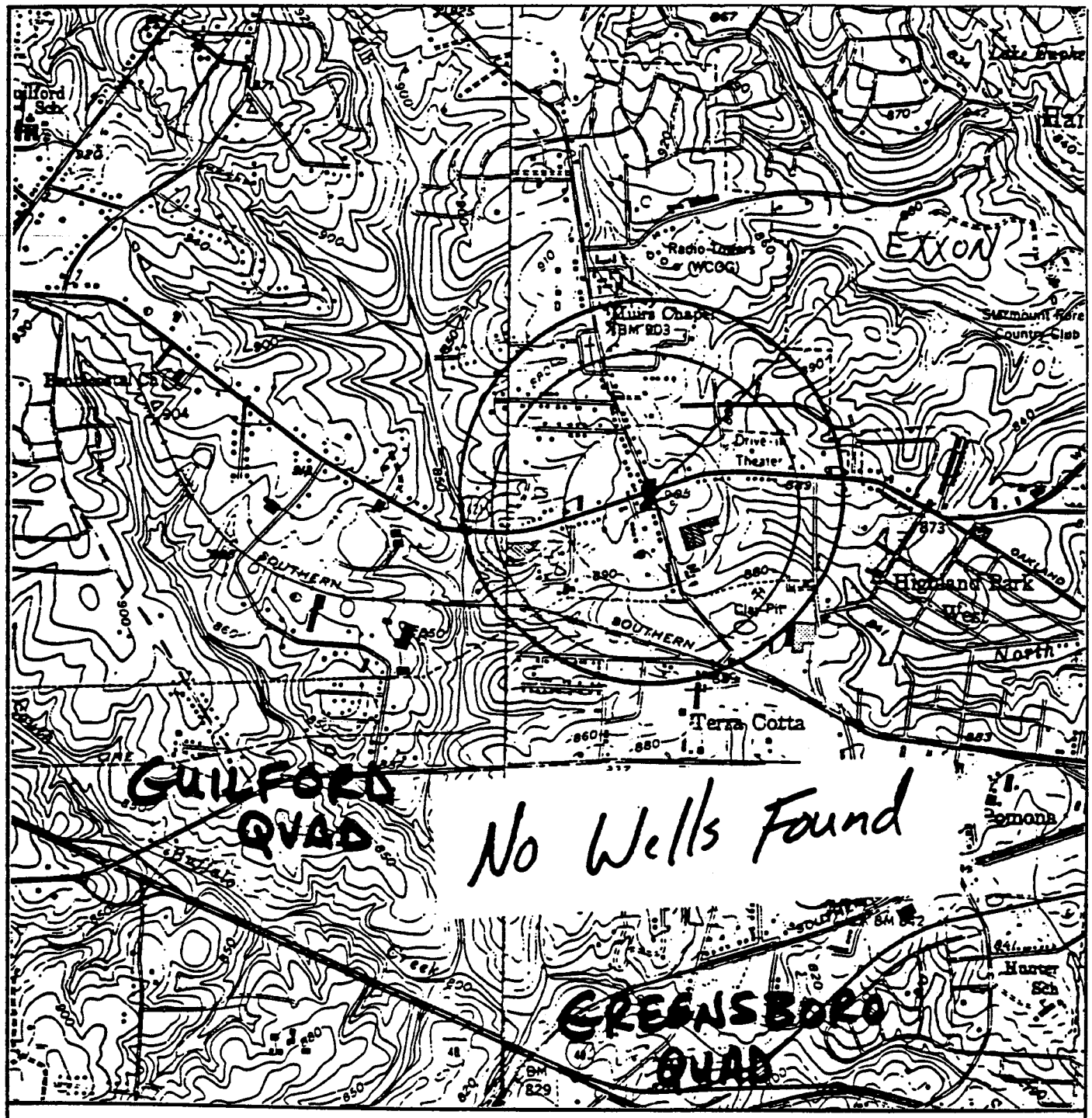


LEGEND:

- ⊗ MONITORING WELL LOCATION
- ——— EXISTING DISTRIBUTION LINE (APPROX LOCATION)
- —·— FORMER DISTRIBUTION LINE (APPROX LOCATION) – REMOVED SEPT 1991
- ----- PROPERTY BOUNDARY

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 2	CLIENT/LOCATION: EXXON COMPANY, USA GREENSBORO, NC
DELTA PROJECT NO. 50-92-037	DESCRIPTION: SITE MAP RAS #4-3998
DRAWN BY C. HAITHCOX	
REVIEWED BY	DATE 9-21-92 / SCALE 1" = 40' / CAD NO. 037-



GREENSBORO QUAD

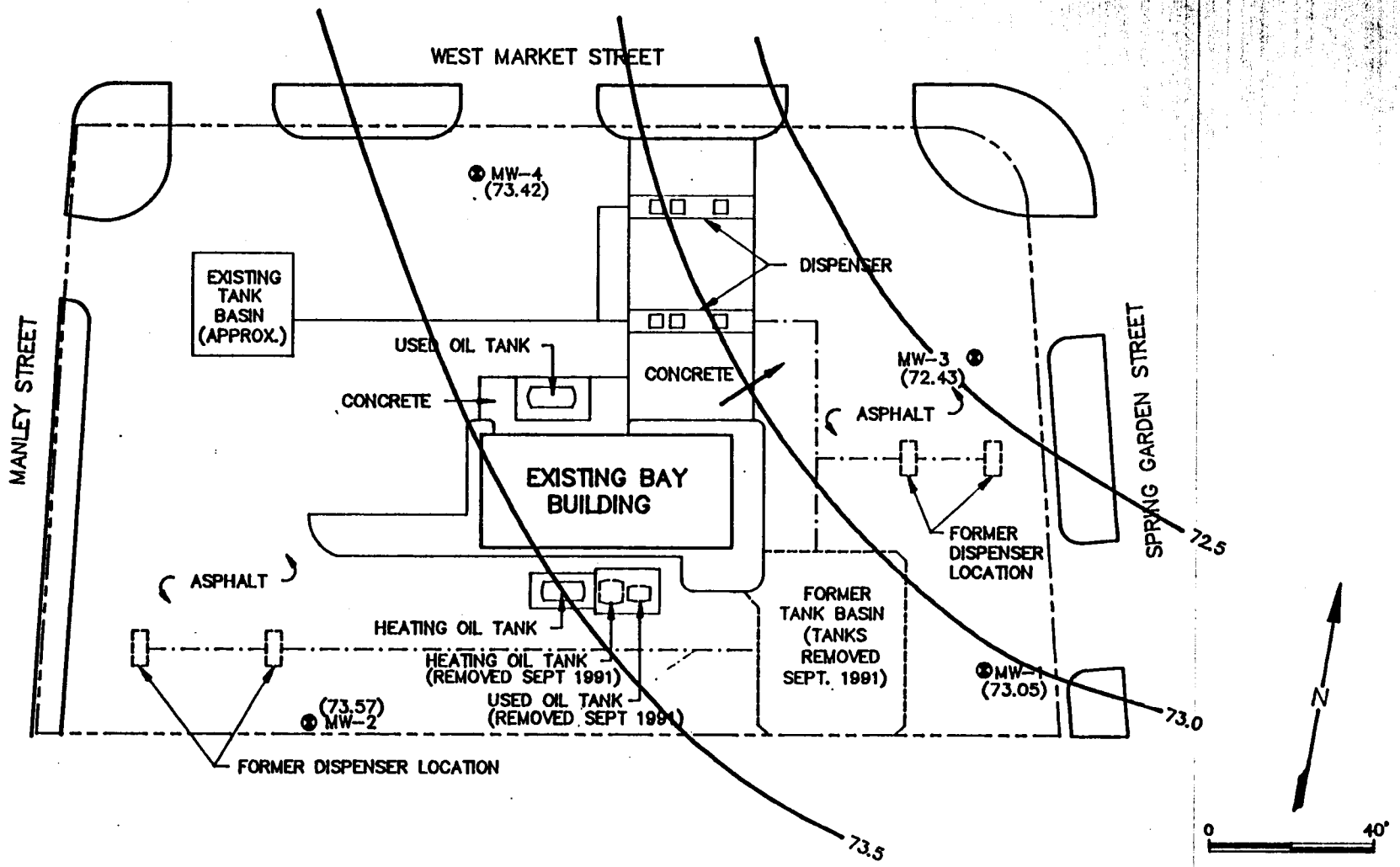
N

0 1 MILE

SCALE

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO.	CLIENT/LOCATION		
3	EXXON COMPANY USA GREENSBORO, NC		
DELTA PROJECT NO.	DESCRIPTION		
50-92-037	SENSITIVE RECEPTOR MAP RAS #4-3998		
DRAWN BY			
C. HAITHCOX			
REVIEWED BY	DATE	SCALE	CAD NO.
	9-30-92	AS SHOWN	037-TOPO



LEGEND:

- MONITORING WELL LOCATION
- EXISTING DISTRIBUTION LINE (APPROX LOCATION)
- FORMER DISTRIBUTION LINE (APPROX LOCATION) – REMOVED SEPT 1991
- PROPERTY BOUNDARY
- (73.57) GROUND WATER ELEVATION (8/20/92)
- GROUND WATER FLOW DIRECTION

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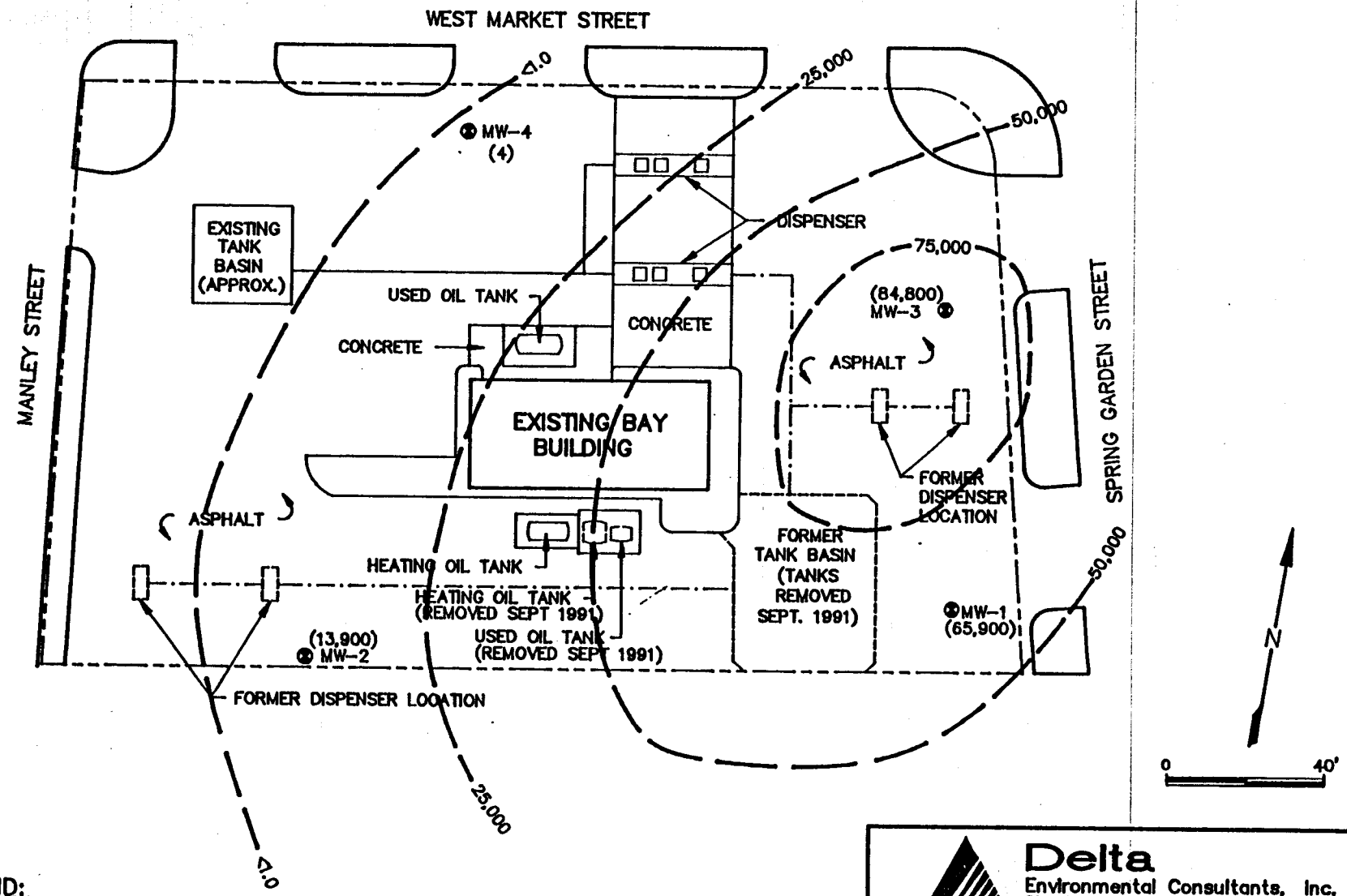
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 4	CLIENT/LOCATION: EXXON COMPANY, USA GREENSBORO, NC
DELTA PROJECT NO. 50-92-037	DESCRIPTION: GROUND WATER CONTOUR MAP RAS #4-3998
DRAWN BY C. HAITHCOX	
REVIEWED BY	DATE 9-21-92 / SCALE 1" = 40' / CAD NO. 037-SM



LEGEND:

- MONITORING WELL LOCATION
- EXISTING DISTRIBUTION LINE (APPROX LOCATION)
- FORMER DISTRIBUTION LINE (APPROX LOCATION) – REMOVED SEPT 1991
- PROPERTY BOUNDARY
- (13,900) TOTAL BTEX CONCENTRATION – ug/L
- TOTAL BTEX ISOCONCENTRATION LINE

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Charlotte, North Carolina 28226

FIGURE NO. 5	CLIENT/LOCATION: EXXON COMPANY, USA GREENSBORO, NC
DELTA PROJECT NO. 50-92-037	DESCRIPTION: DISSOLVED PHASE HYDROCARBON MAP RAS #4-3998
DRAWN BY C. HAITHCOX	
REVIEWED BY	DATE 9-30-92 / SCALE 1" = 40' / CAD NO. 037-SM

NDRC LABORATORIES, INC.

A member of Inchcape Environmental

1089 East Collins Blvd., Richardson, Texas 75081 • (214) 238-5591 • FAX (214) 238-5592

BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037.01 Exxon 4-3998

JOB NUMBER : D92-8979
REPORT DATE : 24-AUG-199

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	SB-1 Greensboro, NC	Soil	13-AUG-1992
2	SB-2 Greensboro, NC	Soil	13-AUG-1992
3	SB-3 Greensboro, NC	Soil	14-AUG-1992
4	SB-4 Greensboro, NC	Soil	14-AUG-1992

BTEX ANALYSIS, EPA 8020		1	2	3	4
Benzene	µg/Kg	15.0	1500	470	< 2.0
Toluene	µg/Kg	2.0	6300	3400	< 2.0
Ethyl benzene	µg/Kg	2.2	760	700	< 2.0
Xylenes	µg/Kg	10.0	4500	4000	< 2.0
BTEX (total)	µg/Kg	29.2	13100	8570	< 2.0

TPH BY GAS CHROMATOGRAPHY, 3540/3550/8000		1	2	3	4
Total Petroleum Hydrocarbon	mg/Kg	< 10	15	64	< 10

TRPH BY EPA METHOD MODIFIED 8015, EPA 3030/8015		1	2	3	4
Total Petroleum Hydrocarbon	µg/Kg	220	48000	44000	< 50

MISCELLANEOUS ANALYSES		1	2	3	4
Total Solids	%	84.6	83.7	83.9	84.1

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-1
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-1
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
ANALYSIS METHOD : EPA 8020
ANALYZED BY : SAP
ANALYZED ON : 21-AUG-1992
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	2.0 µg/Kg	15.0 µg/Kg
Toluene	2.0 µg/Kg	2.0 µg/Kg
Ethyl benzene	2.0 µg/Kg	2.2 µg/Kg
Xylenes	2.0 µg/Kg	10.0 µg/Kg
BTEX (total)		29.2 µg/Kg #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/Kg	96.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

NDRC LABORATORIES, INC.

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REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-1
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
PREPARATION METHOD : EPA 3550
PREPARED BY : TAP
PREPARED ON : 19-AUG-1992
ANALYSIS METHOD : 3540/3550/8000
ANALYZED BY : JAW
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	62.9 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-1
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-1
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : SAP
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	220 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/Kg	90.0 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-1
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-1
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	84.6 %
Analyzed using EPA 160.3 on 21-AUG-1992 by KOB		

NDRC Laboratories, Inc. David R. Godwin v 2

David R. Godwin, Ph.D.
Chief Executive Officer

NDRC LABORATORIES, INC.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-2
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-2
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
ANALYSIS METHOD : EPA 8020
ANALYZED BY : SAP
ANALYZED ON : 19-AUG-1992
DILUTION FACTOR : 250

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	500	µg/Kg	1500	µg/Kg	
Toluene	500	µg/Kg	6300	µg/Kg	
Ethyl benzene	500	µg/Kg	760	µg/Kg	
Xylenes	500	µg/Kg	4500	µg/Kg	
BTEX (total)			13100	µg/Kg	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/Kg	95.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-2
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-2
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
PREPARATION METHOD : EPA 3550
PREPARED BY : TAP
PREPARED ON : 19-AUG-1992
ANALYSIS METHOD : 3540/3550/8000
ANALYZED BY : JAW
ANALYZED ON : 21-AUG-1992
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	15 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	70.3 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

NDRC LABORATORIES, INC.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-2
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-2
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : SAP
ANALYZED ON : 19-AUG-1992
DILUTION FACTOR : 250

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	12500 µg/Kg	48000 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/Kg	91.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-2
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-2
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 13-AUG-1992

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	83.7 %
Analyzed using EPA 160.3 on 21-AUG-1992 by KOB		

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-3
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-3
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
ANALYSIS METHOD : EPA 8020
ANALYZED BY : RJD
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 25

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	50	µg/Kg	470	µg/Kg	
Toluene	50	µg/Kg	3400	µg/Kg	
Ethyl benzene	50	µg/Kg	700	µg/Kg	
Xylenes	50	µg/Kg	4000	µg/Kg	
BTEX (total)			8570	µg/Kg	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/Kg	84.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-3
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-3
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
PREPARATION METHOD : EPA 3550
PREPARED BY : TAP
PREPARED ON : 19-AUG-1992
ANALYSIS METHOD : 3540/3550/8000
ANALYZED BY : JAW
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	64 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	78.0 %

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-3
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 25

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	1250 µg/Kg	44000 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/Kg	77.0 %

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BEAUMONT DALLAS HOUSTON

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REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-3
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	83.9 %
Analyzed using EPA 160.3 on 21-AUG-1992 by KOB		

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-4
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-4
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
ANALYSIS METHOD : EPA 8020
ANALYZED BY : RJD
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	2.0 µg/Kg	< 2.0 µg/Kg
Toluene	2.0 µg/Kg	< 2.0 µg/Kg
Ethyl benzene	2.0 µg/Kg	< 2.0 µg/Kg
Xylenes	2.0 µg/Kg	< 2.0 µg/Kg
BTEX (total)		< 2.0 µg/Kg #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/Kg	102 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. David R. Godwin

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 18-AUG-1992

REPORT NUMBER : D92-8979-4
REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-4
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
PREPARATION METHOD : EPA 3550
PREPARED BY : TAP
PREPARED ON : 19-AUG-1992
ANALYSIS METHOD : 3540/3550/8000
ANALYZED BY : JAW
ANALYZED ON : 20-AUG-1992
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	69.6 %

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REPORT DATE : 24-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-4
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 21-AUG-1992
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	< 50 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/Kg	93.0 %

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ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-4
: Greensboro, NC
PROJECT : 50-92-037.01 Exxon 4-3998
DATE SAMPLED : 14-AUG-1992

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	84.1 %
Analyzed using EPA 160.3 on 21-AUG-1992 by KOB		

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 18-AUG-1992

REPORT NUMBER: D92-8979
REPORT DATE: 24-AUG-1992

SUBMITTED BY: Delta Environmental

LABORATORY ANALYSIS
QUALITY CONTROL REPORT

ANALYSIS: Total Solids
Technician: KOB
Extraction Date: ----
Date Analyzed: 8/21/92
QC Date: 8/21/92
QC Sample Number: D92-9083-8

Analysis Method: EPA 160.3
Extraction Method: ----
MS/MSD RPD: ----
Average Spike Recovery: ----
Duplicate RPD: 0 %
Method Blank: ----
Blank Spike Recovery: ----

ANALYSIS: TPH
Technician: JAW
Extraction Date: 8/19/92
Date Analyzed: 8/19/92
QC Date: 8/19/92
QC Sample Number: D92-8979-4

Analysis Method: EPA 8000
Extraction Method: EPA 3550
MS/MSD RPD: 1.2 %
Average Spike Recovery: 76.1 %
Duplicate RPD: ----
Method Blank: <10 mg/Kg
Blank Spike Recovery: 90 %

ANALYSIS: Benzene
Technician: SAP
Extraction Date: 8/19/92
Date Analyzed: 8/19/92
QC Date: 8/18/92
QC Sample Number: D92-8870-5

Analysis Method: EPA 8020
Extraction Method: EPA 5030
MS/MSD RPD: 4.0 %
Average Spike Recovery: 125 %
Duplicate RPD: ----
Method Blank: <2.0 µg/Kg
Blank Spike Recovery: 107 %

ANALYSIS: Ethyl Benzene
Technician: SAP
Extraction Date: 8/19/92
Date Analyzed: 8/19/92
QC Date: 8/18/92
QC Sample Number: D92-8870-5

Analysis Method: EPA 8020
Extraction Method: EPA 5030
MS/MSD RPD: 4.9 %
Average Spike Recovery: 95.8 %
Duplicate RPD: ----
Method Blank: <2.0 µg/Kg
Blank Spike Recovery: 110 %

ANALYSIS: TPH
Technician: SAP
Extraction Date: 8/19/92
Date Analyzed: 8/19/92
QC Date: 8/21/92
QC Sample Number: D92-9052-7

Analysis Method: EPA 8015
Extraction Method: EPA 5030
MS/MSD RPD: 3.4 %
Average Spike Recovery: 95.9 %
Duplicate RPD: ----
Method Blank: <50 µg/Kg
Blank Spike Recovery: 111 %

ORIGINAL

CHAIN OF CUSTODY RECORD

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

EXXON Company, USA
Regional Laboratory Program

CASE NARRATIVE

QC REPORT

Page 1 of 1

Consultant's Name : Delta Environmental Consultants Inc.			
Address : 6701 Carmel Rd, Charlotte NC, 28226; Suite 200			
Project : Exxon Co. USA	Consultant Proj # : 50-92-037.01		Consultant Work Release # : 92077663
Project Contact : David Curlis	Phone : 7045419890	Fax : 7045434035	Laboratory Work Release # : 92087876
Alternate Contact : Kathleen Pfeiffer	Phone :	Fax :	Site Location : Greensboro NC
EXXON Contact : FRANK MedLin EE / C&M (circle one)	Phone :	Fax :	EXXON RAS # : 43998
Sampled by (print) : LUBA K. GROSS	Sampler's Signature : Luba K. Gross		
Shipment Method : Burlington	Air Bill # :		
Shipment Date : 08/17/92			

Sample Condition as Received
Temperature °C : 4
Cooler # : N/A
Inbound Sealed Yes No
Outbound Sealed Yes No

ANALYSIS REQUIRED
Number of Containers

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	TPH 5030/ 3550	BTEX 8020	COMMENTS
SB-1	08/13/92		soil		soil boring	4	4 - 250mL	8979 - 1
SB-2	08/13/92					4	4-	2
SB-3	08/14/92					3	3-	3
SB-4	08/14/92					4	4-	4

Due 8-21-92
Soil
WIC

FAXED 8-25

Turn around time ☐ 24 hr ☐ 48 hr ☒ 72 hr ☐ Standard ☐ Other _____ Total # of Containers : 15

(1) Relinquished by Signature: Luba K. Gross	Date: 08/17/92	(2) Relinquished by Signature: Luba K. Gross	Date: 08/17/92	(3) Relinquished by Signature: Luba K. Gross	Date: 08/17/92
Company : Delta	Time:	Company : Delta	Time:	Company : Delta	Time:
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature: Colleen Flan	Date: 8-
Company :	Time:	Company :	Time:	Company : NDRC	T

SEP 14 1992

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-19

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

VOLATILE HALOCARBONS, EPA 601		1	2	3	4
Bromodichloromethane	µg/L	< 50	< 30	< 30	< 1
Bromoform	µg/L	< 100	< 50	< 50	< 2
Bromomethane	µg/L	< 600	< 300	< 300	< 12
Carbon tetrachloride	µg/L	< 100	< 50	< 50	< 2
Chlorobenzene	µg/L	< 150	< 80	< 80	< 3
Chloroethane	µg/L	< 300	< 150	< 150	< 6
2-Chloroethylvinyl ether	µg/L	< 150	< 80	< 80	< 3
Chloroform	µg/L	< 50	< 30	< 30	< 1
Chloromethane	µg/L	< 250	< 130	< 130	< 5
Dibromochloromethane	µg/L	< 50	< 30	< 30	< 1
1,2-Dichlorobenzene	µg/L	< 100	< 50	< 50	< 2
1,3-Dichlorobenzene	µg/L	< 200	< 100	< 100	< 4
1,4-Dichlorobenzene	µg/L	< 150	< 80	< 80	< 3
Dichlorodifluoromethane	µg/L	< 1000	< 500	< 500	< 20
1,1-Dichloroethene	µg/L	< 100	< 50	< 50	< 2
1,2-Dichloroethane (.38 ppb)	µg/L	< 150	< 80	400	< 3
1,1-Dichloroethane	µg/L	< 50	< 30	< 30	< 1
trans-1,2-Dichloroethene	µg/L	< 50	< 30	< 30	< 1
1,2-Dichloropropane	µg/L	< 50	< 30	< 30	< 1
cis-1,3-Dichloropropene	µg/L	< 100	< 50	< 50	< 2

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SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: Delta Env. Job No: 8979.

No. of Cooler(s): 1 Temperature of Cooler(s): 4°C

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments

No Preservation

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

NJK
Preserved by

8-18-92
Date/Time

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-1992

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2	3	4
trans-1,3-Dichloropropene	µg/L	< 100	< 50	< 50	< 2
Methylene chloride	µg/L	< 250	< 130	< 130	< 5
1,1,2,2-Tetrachloroethane (NA)	µg/L	< 50	40	110	< 1
Tetrachloroethene	µg/L	< 50	< 30	< 30	< 1
1,1,1-Trichloroethane	µg/L	< 50	< 30	< 30	< 1
1,1,2-Trichloroethane	µg/L	< 50	< 30	< 30	< 1
Trichloroethene	µg/L	< 50	< 30	< 30	< 1
Trichlorofluoromethane	µg/L	< 250	< 130	< 130	< 5
Vinyl chloride	µg/L	< 250	< 130	< 130	< 5

VOLATILE AROMATICS, EPA 602		1	2	3	4
Benzene (1 ppb)	µg/L	5000	1400	11000	< 2
Chlorobenzene	µg/L	< 100	< 50	< 50	< 2
1,2-Dichlorobenzene	µg/L	< 200	< 100	< 100	< 4
1,3-Dichlorobenzene	µg/L	< 200	< 100	< 100	< 4
1,4-Dichlorobenzene	µg/L	< 150	< 80	< 80	< 3
Ethyl benzene (29 ppb)	µg/L	3900	1600	4800	< 2
Toluene (1000 ppb)	µg/L	35000	4900	41000	< 2
Xylenes (400 ppb)	µg/L	22000	6000	28000	4

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-19

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

ACID EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
4-Chloro-3-methylphenol	µg/L	-	< 3.0	-	-
2-Chlorophenol	µg/L	-	< 3.3	-	-
2,4-Dichlorophenol	µg/L	-	< 2.7	-	-
2,4-Dimethylphenol	µg/L	-	< 2.7	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	< 24.0	-	-
2,4-Dinitrophenol	µg/L	-	< 42.0	-	-
2-Methylphenol	µg/L	-	< 5.0	-	-
2-Nitrophenol	µg/L	-	< 3.6	-	-
4-Nitrophenol	µg/L	-	< 2.4	-	-
Pentachlorophenol	µg/L	-	< 3.6	-	-
Phenol	µg/L	-	< 1.5	-	-
2,4,6-Trichlorophenol	µg/L	-	< 2.7	-	-

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
Acenaphthene	µg/L	-	< 1.9	-	-
Acenaphthylene	µg/L	-	< 3.5	-	-
Anthracene	µg/L	-	< 1.9	-	-
Benzidine	µg/L	-	< 44.0	-	-
Benzo(a)anthracene	µg/L	-	< 7.8	-	-
Benzo(b)fluoranthene	µg/L	-	< 4.8	-	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

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JOB NUMBER : D92-9159
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SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
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3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Benzo(k)fluoranthene	µg/L	-	< 2.5	-	-
Benzo(g,h,i)perylene	µg/L	-	< 4.1	-	-
Benzo(a)pyrene	µg/L	-	< 2.5	-	-
Bis(2-chloroethoxy)methane	µg/L	-	< 5.3	-	-
Bis(2-chloroethyl)ether	µg/L	-	< 5.7	-	-
Bis(2-chloroisopropyl)ether	µg/L	-	< 5.7	-	-
Bis(2-ethylhexyl)phthalate	µg/L	-	< 2.5	-	-
4-Bromophenylphenyl ether	µg/L	-	< 1.9	-	-
Butyl benzyl phthalate	µg/L	-	< 2.5	-	-
2-Chloronaphthalene	µg/L	-	< 1.9	-	-
4-Chlorophenylphenyl ether	µg/L	-	< 4.2	-	-
Chrysene	µg/L	-	< 2.5	-	-
Dibenz(a,h)anthracene	µg/L	-	< 2.5	-	-
2,3,7,8-Tetrachorodibenzodioxin		-	Negative	-	-
Di-n-butylphthalate	µg/L	-	15.9	-	-
1,3-Dichlorobenzene	µg/L	-	< 1.9	-	-
1,4-Dichlorobenzene	µg/L	-	< 4.4	-	-
1,2-Dichlorobenzene	µg/L	-	< 1.9	-	-
3,3'-Dichlorobenzidine	µg/L	-	< 16.5	-	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-19

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Diethylphthalate	µg/L	-	< 1.9	-	-
Dimethylphthalate	µg/L	-	< 1.6	-	-
2,4-Dinitrotoluene	µg/L	-	< 5.7	-	-
2,6-Dinitrotoluene	µg/L	-	< 1.9	-	-
Di-n-octylphthalate	µg/L	-	< 2.5	-	-
Fluoranthene	µg/L	-	< 2.2	-	-
Fluorene	µg/L	-	< 1.9	-	-
Hexachlorobenzene	µg/L	-	< 1.9	-	-
Hexachlorobutadiene	µg/L	-	< 0.9	-	-
Hexachlorocyclopentadiene	µg/L	-	< 5.0	-	-
Hexachloroethane	µg/L	-	< 1.6	-	-
Indeno(1,2,3-cd)pyrene	µg/L	-	< 3.7	-	-
Isophorone	µg/L	-	< 2.2	-	-
Naphthalene (NA)	µg/L	-	189	-	-
Nitrobenzene	µg/L	-	< 1.9	-	-
N-Nitrosodimethylamine	µg/L	-	< 5.0	-	-
N-Nitrosodiphenylamine	µg/L	-	< 5.0	-	-
N-Nitrosodipropylamine	µg/L	-	< 5.0	-	-
Phenanthrene	µg/L	-	< 5.4	-	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-1992

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Pyrene	µg/L	-	< 1.9	-	-
1,2,4-Trichlorobenzene	µg/L	-	< 1.9	-	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-19

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, N.C.	Water	20-AUG-1992
2	MW-2 Greensboro, N.C.	Water	20-AUG-1992
3	MW-3 Greensboro, N.C.	Water	20-AUG-1992
4	MW-4 Greensboro, N.C.	Water	20-AUG-1992

TENTATIVELY IDENTIFIED COMPOUNDS		1	2	3	4
1,2,3,4-Tetramethylbenzene (NA)	µg/L	-	14	-	-
1,2,3,5-Tetramethylbenzene	µg/L	-	15	-	-
1,2,3-Trimethylbenzene	µg/L	-	450	-	-
1,3,5-Trimethylbenzene	µg/L	-	130	-	-
1-Ethyl-2-methylbenzene	µg/L	-	400	-	-
1-Ethyl-3-methylbenzene	µg/L	-	180	-	-
1-Ethyl-4-methylbenzene	µg/L	-	190	-	-
1-Methyl-2-propylbenzene	µg/L	-	38	-	-
1-Methyl-3-propylbenzene	µg/L	-	110	-	-
2,3-Dihydro-4-methylindene	µg/L	-	25	-	-
4-Ethyl-1,2-dimethylbenzene	µg/L	-	81	-	-
Diethylbenzene	µg/L	-	58	-	-
Ethenyl-2-methylbenzene	µg/L	-	100	-	-
Ethyl-1,2,4-trimethylbenzene	µg/L	-	11	-	-
Ethyl-1,3-dimethylbenzene	µg/L	-	140	-	-
Isopropylbenzene	µg/L	-	42	-	-
Propylbenzene	µg/L	-	110	-	-

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2	3	4
Methyl Tertiary Butyl Ether	µg/L	< 500	< 250	< 500	< 10.0

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : Exxon 4-3998

JOB NUMBER : D92-9159
REPORT DATE : 28-AUG-1992

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	Trip Blank Greensboro, N.C.	Water	20-AUG-1992

VOLATILE AROMATICS, EPA 602		5			
Benzene	µg/L	< 2			
Chlorobenzene	µg/L	< 2			
1,2-Dichlorobenzene	µg/L	< 4			
1,3-Dichlorobenzene	µg/L	< 4			
1,4-Dichlorobenzene	µg/L	< 3			
Ethyl benzene	µg/L	< 2			
Toluene	µg/L	< 2			
Xylenes	µg/L	< 2			

METHYL TERTIARY BUTYL ETHER, EPA 602		5			
Methyl Tertiary Butyl Ether	µg/L	< 10.0			

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-1
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 500

VOLATILE HALOCARBONS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Bromodichloromethane	50 µg/L	< 50 µg/L
Bromoform	100 µg/L	< 100 µg/L
Bromomethane	600 µg/L	< 600 µg/L
Carbon tetrachloride	100 µg/L	< 100 µg/L
Chlorobenzene	150 µg/L	< 150 µg/L
Chloroethane	300 µg/L	< 300 µg/L
2-Chloroethylvinyl ether	150 µg/L	< 150 µg/L
Chloroform	50 µg/L	< 50 µg/L
Chloromethane	250 µg/L	< 250 µg/L
Dibromochloromethane	50 µg/L	< 50 µg/L
1,2-Dichlorobenzene	100 µg/L	< 100 µg/L
1,3-Dichlorobenzene	200 µg/L	< 200 µg/L
1,4-Dichlorobenzene	150 µg/L	< 150 µg/L
Dichlorodifluoromethane	1000 µg/L	< 1000 µg/L
1,1-Dichloroethene	100 µg/L	< 100 µg/L
1,2-Dichloroethane	150 µg/L	< 150 µg/L
1,1-Dichloroethane	50 µg/L	< 50 µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-1
ANALYSIS METHOD : EPA 601

LATILE HALOCARBONS					
EST REQUESTED	DETECTION LIMIT		RESULTS		
ans-1,2-Dichloroethene	50	µg/L	<	50	µg/L
2-Dichloropropane	50	µg/L	<	50	µg/L
is-1,3-Dichloropropene	100	µg/L	<	100	µg/L
rans-1,3-Dichloropropene	100	µg/L	<	100	µg/L
Methylene chloride	250	µg/L	<	250	µg/L
1,1,2,2-Tetrachloroethane	50	µg/L	<	50	µg/L
Tetrachloroethene	50	µg/L	<	50	µg/L
1,1,1-Trichloroethane	50	µg/L	<	50	µg/L
1,1,2-Trichloroethane	50	µg/L	<	50	µg/L
Trichloroethene	50	µg/L	<	50	µg/L
Trichlorofluoromethane	250	µg/L	<	250	µg/L
Vinyl chloride	250	µg/L	<	250	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene (SS)	50.0	µg/L	106	%	

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-1
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 500

VOLATILE AROMATICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	100 µg/L	5000 µg/L
Chlorobenzene	100 µg/L	< 100 µg/L
1,2-Dichlorobenzene	200 µg/L	< 200 µg/L
1,3-Dichlorobenzene	200 µg/L	< 200 µg/L
1,4-Dichlorobenzene	150 µg/L	< 150 µg/L
Ethyl benzene	100 µg/L	3900 µg/L
Toluene	100 µg/L	35000 µg/L
Xylenes	100 µg/L	22000 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene	50.0 µg/L	99.0 %

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REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : SAP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 50

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	500 µg/L	< 500 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	90.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 250

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	30	µg/L	<	30	µg/L
Bromoform	50	µg/L	<	50	µg/L
Bromomethane	300	µg/L	<	300	µg/L
Carbon tetrachloride	50	µg/L	<	50	µg/L
Chlorobenzene	80	µg/L	<	80	µg/L
Chloroethane	150	µg/L	<	150	µg/L
2-Chloroethylvinyl ether	80	µg/L	<	80	µg/L
Chloroform	30	µg/L	<	30	µg/L
Chloromethane	130	µg/L	<	130	µg/L
Dibromochloromethane	30	µg/L	<	30	µg/L
1,2-Dichlorobenzene	50	µg/L	<	50	µg/L
1,3-Dichlorobenzene	100	µg/L	<	100	µg/L
1,4-Dichlorobenzene	80	µg/L	<	80	µg/L
Dichlorodifluoromethane	500	µg/L	<	500	µg/L
1,1-Dichloroethene	50	µg/L	<	50	µg/L
1,2-Dichloroethane	80	µg/L	<	80	µg/L
1,1-Dichloroethane	30	µg/L	<	30	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
[illegible] TESTED	DETECTION LIMIT		RESULTS		
[illegible]dichloroethene	30	µg/L	<	30	µg/L
[illegible]propene	30	µg/L	<	30	µg/L
[illegible]chloropropene	50	µg/L	<	50	µg/L
[illegible]chloropropene	50	µg/L	<	50	µg/L
[illegible]ride	130	µg/L	<	130	µg/L
[illegible]trachloroethane	30	µg/L		40	µg/L
[illegible]thane	30	µg/L	<	30	µg/L
[illegible]loroethane	30	µg/L	<	30	µg/L
[illegible]ethane	30	µg/L	<	30	µg/L
[illegible]	30	µg/L	<	30	µg/L
[illegible]romethane	130	µg/L	<	130	µg/L
[illegible]	130	µg/L	<	130	µg/L

[illegible] DATA					
[illegible]	SPIKE LEVEL		SPIKE RECOVERED		
[illegible]ane (SS)	50.0	µg/L	113	%	

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 250

VOLATILE AROMATICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	50 µg/L	1400 µg/L
Chlorobenzene	50 µg/L	< 50 µg/L
1,2-Dichlorobenzene	100 µg/L	< 100 µg/L
1,3-Dichlorobenzene	100 µg/L	< 100 µg/L
1,4-Dichlorobenzene	80 µg/L	< 80 µg/L
Ethyl benzene	50 µg/L	1600 µg/L
Toluene	50 µg/L	4900 µg/L
Xylenes	50 µg/L	6000 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene	50.0 µg/L	99.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
PREPARATION METHOD : EPA 625
PREPARED BY : TAP
PREPARED ON : 21-AUG-1992
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 25-AUG-1992
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
4-Chloro-3-methylphenol	3.0 µg/L	< 3.0 µg/L
2-Chlorophenol	3.3 µg/L	< 3.3 µg/L
2,4-Dichlorophenol	2.7 µg/L	< 2.7 µg/L
2,4-Dimethylphenol	2.7 µg/L	< 2.7 µg/L
4,6-Dinitro-2-methylphenol	24.0 µg/L	< 24.0 µg/L
2,4-Dinitrophenol	42.0 µg/L	< 42.0 µg/L
2-Methylphenol	5.0 µg/L	< 5.0 µg/L
2-Nitrophenol	3.6 µg/L	< 3.6 µg/L
4-Nitrophenol	2.4 µg/L	< 2.4 µg/L
Pentachlorophenol	3.6 µg/L	< 3.6 µg/L
Phenol	1.5 µg/L	< 1.5 µg/L
2,4,6-Trichlorophenol	2.7 µg/L	< 2.7 µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-2
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	30.7 %
2-Fluorophenol (SS)	100 µg/L	44.8 %
2,4,6-Tribromophenol (SS)	100 µg/L	92.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
PREPARATION METHOD : EPA 625
PREPARED BY : TAP
PREPARED ON : 21-AUG-1992
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 26-AUG-1992
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Acenaphthene	1.9 µg/L	< 1.9 µg/L
Acenaphthylene	3.5 µg/L	< 3.5 µg/L
Anthracene	1.9 µg/L	< 1.9 µg/L
Benzidine	44.0 µg/L	< 44.0 µg/L
Benzo(a)anthracene	7.8 µg/L	< 7.8 µg/L
Benzo(b)fluoranthene	4.8 µg/L	< 4.8 µg/L
Benzo(k)fluoranthene	2.5 µg/L	< 2.5 µg/L
Benzo(g,h,i)perylene	4.1 µg/L	< 4.1 µg/L
Benzo(a)pyrene	2.5 µg/L	< 2.5 µg/L
Bis(2-chloroethoxy)methane	5.3 µg/L	< 5.3 µg/L
Bis(2-chloroethyl)ether	5.7 µg/L	< 5.7 µg/L
Bis(2-chloroisopropyl)ether	5.7 µg/L	< 5.7 µg/L
Bis(2-ethylhexyl)phthalate	2.5 µg/L	< 2.5 µg/L
4-Bromophenylphenyl ether	1.9 µg/L	< 1.9 µg/L
Butyl benzyl phthalate	2.5 µg/L	< 2.5 µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
2-Chloronaphthalene	1.9 µg/L	< 1.9 µg/L
4-Chlorophenylphenyl ether	4.2 µg/L	< 4.2 µg/L
Chrysene	2.5 µg/L	< 2.5 µg/L
Dibenz(a,h)anthracene	2.5 µg/L	< 2.5 µg/L
2,3,7,8-Tetrachorodibenzodioxin		Negative
Di-n-butylphthalate	2.5 µg/L	15.9 µg/L
1,3-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
1,4-Dichlorobenzene	4.4 µg/L	< 4.4 µg/L
1,2-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
3,3'-Dichlorobenzidine	16.5 µg/L	< 16.5 µg/L
Diethylphthalate	1.9 µg/L	< 1.9 µg/L
Dimethylphthalate	1.6 µg/L	< 1.6 µg/L
2,4-Dinitrotoluene	5.7 µg/L	< 5.7 µg/L
2,6-Dinitrotoluene	1.9 µg/L	< 1.9 µg/L
Di-n-octylphthalate	2.5 µg/L	< 2.5 µg/L
Fluoranthene	2.2 µg/L	< 2.2 µg/L
Fluorene	1.9 µg/L	< 1.9 µg/L
Hexachlorobenzene	1.9 µg/L	< 1.9 µg/L
Hexachlorobutadiene	0.9 µg/L	< 0.9 µg/L
Hexachlorocyclopentadiene	5.0 µg/L	< 5.0 µg/L
Hexachloroethane	1.6 µg/L	< 1.6 µg/L
Indeno(1,2,3-cd)pyrene	3.7 µg/L	< 3.7 µg/L
Isophorone	2.2 µg/L	< 2.2 µg/L
Naphthalene	1.6 µg/L	189 µg/L
Nitrobenzene	1.9 µg/L	< 1.9 µg/L
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	71.8 %
2-Fluorobiphenyl(SS)	50.0 µg/L	78.8 %
Terphenyl-d14 (SS)	50.0 µg/L	104 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYZED BY : EMA
ANALYZED ON : 26-AUG-1992

TENTATIVELY IDENTIFIED COMPOUNDS			
COMPOUND	RETENTION TIME	FRACTION	RESULT
Propylbenzene	9.21	ABN	110 µg/L
Isopropylbenzene	8.57	ABN	42 µg/L
1-Ethyl-2-methylbenzene	9.50	ABN	400 µg/L
1,3,5-Trimethylbenzene	9.61	ABN	130 µg/L
1,2,3-Trimethylbenzene	10.20	ABN	450 µg/L
1-Ethyl-3-methylbenzene	10.69	ABN	180 µg/L
1-Methyl-3-propylbenzene	11.22	ABN	110 µg/L
Diethylbenzene	11.30	ABN	58 µg/L
4-Ethyl-1,2-dimethylbenzene	11.36	ABN	81 µg/L
1-Methyl-2-propylbenzene	11.51	ABN	38 µg/L
1,2,3,4-Tetramethylbenzene	12.42	ABN	14 µg/L
2,3-Dihydro-4-methylindene	13.03	ABN	25 µg/L
1-Ethyl-4-methylbenzene	9.82	ABN	190 µg/L
1,2,3,5-Tetramethylbenzene	12.49	ABN	15 µg/L
Ethyl-1,2,4-trimethylbenzene	13.78	ABN	11 µg/L
Ethenyl-2-methylbenzene	10.94	ABN	100 µg/L
Ethyl-1,3-dimethylbenzene	11.87	ABN	140 µg/L

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-2
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 25

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	250 µg/L	< 250 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	91.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-3
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 250

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	30	µg/L	<	30	µg/L
Bromoform	50	µg/L	<	50	µg/L
Bromomethane	300	µg/L	<	300	µg/L
Carbon tetrachloride	50	µg/L	<	50	µg/L
Chlorobenzene	80	µg/L	<	80	µg/L
Chloroethane	150	µg/L	<	150	µg/L
2-Chloroethylvinyl ether	80	µg/L	<	80	µg/L
Chloroform	30	µg/L	<	30	µg/L
Chloromethane	130	µg/L	<	130	µg/L
Dibromochloromethane	30	µg/L	<	30	µg/L
1,2-Dichlorobenzene	50	µg/L	<	50	µg/L
1,3-Dichlorobenzene	100	µg/L	<	100	µg/L
1,4-Dichlorobenzene	80	µg/L	<	80	µg/L
Dichlorodifluoromethane	500	µg/L	<	500	µg/L
1,1-Dichloroethene	50	µg/L	<	50	µg/L
1,2-Dichloroethane	80	µg/L		400	µg/L
1,1-Dichloroethane	30	µg/L	<	30	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-3
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	30	µg/L	<	30	µg/L
1,2-Dichloropropane	30	µg/L	<	30	µg/L
Cis-1,3-Dichloropropene	50	µg/L	<	50	µg/L
trans-1,3-Dichloropropene	50	µg/L	<	50	µg/L
Methylene chloride	130	µg/L	<	130	µg/L
1,1,2,2-Tetrachloroethane	30	µg/L		110	µg/L
Tetrachloroethene	30	µg/L	<	30	µg/L
1,1,1-Trichloroethane	30	µg/L	<	30	µg/L
1,1,2-Trichloroethane	30	µg/L	<	30	µg/L
Trichloroethene	30	µg/L	<	30	µg/L
Trichlorofluoromethane	130	µg/L	<	130	µg/L
Vinyl chloride	130	µg/L	<	130	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	116	%

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REPORT NUMBER : D92-9159-3
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 250

VOLATILE AROMATICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	50	µg/L		11000	µg/L
Chlorobenzene	50	µg/L	<	50	µg/L
1,2-Dichlorobenzene	100	µg/L	<	100	µg/L
1,3-Dichlorobenzene	100	µg/L	<	100	µg/L
1,4-Dichlorobenzene	80	µg/L	<	80	µg/L
Ethyl benzene	50	µg/L		4800	µg/L
Toluene	50	µg/L		41000	µg/L
Xylenes	50	µg/L		28000	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
4-Bromofluorobenzene	50.0	µg/L	92.0	%

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-3
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : SAP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 50

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	500 µg/L	< 500 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	88.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-4
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D92-9159-4
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	114	%

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

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REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : FJP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 10

VOLATILE AROMATICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	2 µg/L	< 2 µg/L
Chlorobenzene	2 µg/L	< 2 µg/L
1,2-Dichlorobenzene	4 µg/L	< 4 µg/L
1,3-Dichlorobenzene	4 µg/L	< 4 µg/L
1,4-Dichlorobenzene	3 µg/L	< 3 µg/L
Ethyl benzene	2 µg/L	< 2 µg/L
Toluene	2 µg/L	< 2 µg/L
Xylenes	2 µg/L	4 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene	50.0 µg/L	93.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-4
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : SAP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	93.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-5
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : FJP
ANALYZED ON : 25-AUG-1992
DILUTION FACTOR : 10

VOLATILE AROMATICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	2 µg/L	< 2 µg/L
Chlorobenzene	2 µg/L	< 2 µg/L
1,2-Dichlorobenzene	4 µg/L	< 4 µg/L
1,3-Dichlorobenzene	4 µg/L	< 4 µg/L
1,4-Dichlorobenzene	3 µg/L	< 3 µg/L
Ethyl benzene	2 µg/L	< 2 µg/L
Toluene	2 µg/L	< 2 µg/L
Xylenes	2 µg/L	< 2 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene	50.0 µg/L	102 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 21-AUG-1992

REPORT NUMBER: D92-9159
REPORT DATE: 28-AUG-1992

SUBMITTED BY: Delta Environmental

LABORATORY ANALYSIS
QUALITY CONTROL REPORT

ANALYSIS: Vinyl Chloride
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 601
Extraction Method: EPA 601
MS/MSD RPD: 7.2 %
Average Spike Recovery: 92.2 %
Duplicate RPD: ----
Method Blank: <5.0 µg/L
Blank Spike Recovery: 90.8 %

ANALYSIS: Chloroform
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 601
Extraction Method: EPA 601
MS/MSD RPD: 6.6 %
Average Spike Recovery: 111 %
Duplicate RPD: ----
Method Blank: <1.0 µg/L
Blank Spike Recovery: 113 %

ANALYSIS: Bromodichloromethane
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 601
Extraction Method: EPA 601
MS/MSD RPD: 5.9 %
Average Spike Recovery: 113 %
Duplicate RPD: ----
Method Blank: <1.0 µg/L
Blank Spike Recovery: 110 %

ANALYSIS: Chlorobenzene
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 601
Extraction Method: EPA 601
MS/MSD RPD: 1 %
Average Spike Recovery: 91.4 %
Duplicate RPD: ----
Method Blank: <3.0 µg/L
Blank Spike Recovery: 90.3 %

ANALYSIS: 1,2-Dichlorobenzene
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 601
Extraction Method: EPA 601
MS/MSD RPD: 7.3 %
Average Spike Recovery: 117 %
Duplicate RPD: ----
Method Blank: <2.0 µg/L
Blank Spike Recovery: 120 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 21-AUG-1992

REPORT NUMBER : D92-9159-5
REPORT DATE : 28-AUG-1992

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, N.C.
PROJECT : Exxon 4-3998
DATE SAMPLED : 20-AUG-1992
ANALYSIS METHOD : EPA 602
ANALYZED BY : SAP
ANALYZED ON : 24-AUG-1992
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	90.0 %

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BEAUMONT DALLAS HOUSTON

SUBMITTED BY: Delta Environmental

LABORATORY ANALYSIS
QUALITY CONTROL REPORT

ANALYSIS: Benzene
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 602
Extraction Method: EPA 602
MS/MSD RPD: 11 %
Average Spike Recovery: 98.9 %
Duplicate RPD: ----
Method Blank: <2.0 µg/L
Blank Spike Recovery: 95.7 %

ANALYSIS: Ethyl Benzene
Technician: FJP
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: D92-9159-4

Analysis Method: EPA 602
Extraction Method: EPA 602
MS/MSD RPD: 14 %
Average Spike Recovery: 103 %
Duplicate RPD: ----
Method Blank: <2.0 µg/L
Blank Spike Recovery: 99.4 %

ANALYSIS: MTBE
Technician: RJD
Extraction Date: 8/24/92
Date Analyzed: 8/24/92
QC Date: 8/24/92
QC Sample Number: Reagent Water

Analysis Method: EPA 602
Extraction Method: EPA 602
MS/MSD RPD: 7.6 %
Average Spike Recovery: 104 %
Duplicate RPD: ----
Method Blank: <10 µg/L
Blank Spike Recovery: 95 %

ORIGINAL

QC REPORT

RUSH

CASE NARRATIVE REQUIRED

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

Page 1 of 1

Consultant's Name: DELTA ENVIRONMENTAL CONSULTANTS INC.
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Project: EXXON CO USA
Project Contact: DAVID CURLIS
Alternate Contact: KATHLEEN PFEIFFER
EXXON Contact: FRANK MEDLIN EE / C&M (circle one)
Sampled by (print): ED SMITH
Shipment Method: BURLINGTON
Air Bill #: 647692065
Shipment Date: 8/20/92

Consultant Proj #:
Phone: 704-541-9890 Fax: 704-543-4035
Phone: Fax:
Phone: Fax:
Sampler's Signature: Ed Smith

Consultant Work Release #: 92077653
Laboratory Work Release #: 92090601
Site Location: GREENSBORO N.C.
EXXON RAS #: 4-3998

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C: 4
Cooler #: EX1080
Inbound Sealed Yes (No)
Outbound Sealed Yes (No)

SAMPLE ID	DATE 1992	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	602	8010/602	XYLENE	625				COMMENTS
MW1	8/20	15:20	WATER		EXXON Stat.	X	X	X	X		6-VOAS			9159-1
MW2	8/20	16:00				X	X	X	X	X			+2-Ambs	
MW3	8/20	14:45				X	X	X	X					
MW4	8/20	14:15				X	X	X	X					
Trip Blank							X	X	X					

625 ⇒ Due 8-25-92 per Marty
Water WIC + 6C
Everything Else ⇒ Due 8-24-92

Turn around time ☐ 24 hr ☐ 48 hr ☒ 72 hr ☐ Standard ☐ Other _____
Total # of Containers:

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
Company: FED-X	Time:	Company: DELTA	Time: 20:00	Company:	Time:
(1) Received by Signature: D. Wilson	Date: 8-21-92	(2) Received by Signature	Date	(3) Received by Signature	Date
Company: NDRC	Time: 10:00	Company:	Time:	Company:	Time:

9159-1
0453

NDRC LABORATORIES, INC. № 16818

Dallas - 1089 East Collins Blvd. • Richardson, Texas 75081 • (214) 238-5591 • Fax (214) 238-5592

SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☒ Incoming Samples ☐

GENERAL

Company: Delta Job No: 9159.1.5

No. of Cooler(s): 1 Temperature of Cooler(s): 4°C

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
9159-2		1AG	1L	8	6.2	6.2	1	NP
	NJK							

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

NJK
Preserved by

8-21-92
Date/Time

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon Station #43998
4701 W. Market St.
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #1

Method: Hammer adv. ____, Thru auger X, Rotary ____, Split Spoon X
Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0-3.0		post holed	No	Redish silty clay
1	10.0-12.0		SS	No	Redish silty clay
2	20.0-22.0		SS	Moist	Redish silty clay
	22.0-25.0		Auger	Wet	Redish silty clay
	25.0-30.0		Auger	Wet	Redish silty clay
					BORING TERMINATED AT 22.0

Performance DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #2

Method: Hammer adv. ____, Thru auger X, Rotary ____, Split Spoon X
Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		Post holed	No	Red brown silty clay
1	10.0-12.0		SS	No	Red brown silty clay
2	20.0-22.0		SS	Yes	Red brown silty clay
3	30.0-32.0		SS	Yes	Red brown silty clay
	32.0-35.0		Auger	Yes	Red brown silty clay
					BORING TERMINATED AT 32.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-14-92
Boring #: MW #3

Method: Hammer adv. ____, Thru auger: X, Rotary ____, Split Spoon X
Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post holed	No	Red brown silty clay
1	10.0-12.0	2,2,3,4	SS	No	Red brown silty clay
2	20.0-22.0	3,2,2,2	SS	Yes	Red brown silty clay
	22.0-30.0		Auger	Yes	Red brown silty clay
					BORING TERMINATED AT 22.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location Exxon # 43998
4701 W. Market St. Greensboro, NC
Client Delta Environmental
Project# 50-92-037.01

Driller Roy Wilcox
Drill Crew Chris
Boring Date 8-14-92
Boring # MW #4

Method: Hammer adv. _____, Thru auger X, Rotary _____, Split Spoon X, Shelby Tube _____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post hole	No	Redish silt sand
	0.0 - 10.0		Auger	No	Redish silt sand
	10.0-12.0	2,3,5,7	SS	No	Redish silt sand
	10.0-20.0		Auger	NO	Redish silt sand
	20.0-22.0	2,2,2,5	SS	Moist	Redish silt sand
	20.0-30.0		Auger	Wet	Redish silt sand
					BORING TERMINATED AT 22.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon Station #43998
4701 W. Market St.
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #1

Method: Hammer adv. _____, Thru auger X, Rotary _____, Split Spoon X
Shelby Tube _____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0-3.0		post holed	No	Redish silty clay
1	10.0-12.0		SS	No	Redish silty clay
2	20.0-22.0		SS	Moist	Redish silty clay
	22.0-25.0		Auger	Wet	Redish silty clay
	25.0-30.0		Auger	Wet	Redish silty clay
					BORING TERMINATED AT 22.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #2

Method: Hammer adv. ____, Thru auger X, Rotary ____. Split Spoon X, Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		Post holed	No	Red brown silty clay
1	10.0-12.0		SS	No	Red brown silty clay
2	20.0-22.0		SS	Yes	Red brown silty clay
3	30.0-32.0		SS	Yes	Red brown silty clay
	32.0-35.0		Auger	Yes	Red brown silty clay
					BORING TERMINATED AT 32.0

Performance
DESIGN SYSTEMS

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Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-14-92
Boring #: MW #3

Method: Hammer adv.____, Thru auger X, Rotary ____, Split Spoon ____, Shelby Tube ____.

Static water level: 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post holed	No	Red brown silty clay
1	10.0-12.0	2,2,3,4	SS	No	Red brown silty clay
2	20.0-22.0	3,2,2,2	SS	Yes	Red brown silty clay
	22.0-30.0		Auger	Yes	Red brown silty clay
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Performance
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Driller: Roy Wilcox
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Boring Date: 8-14-92
Boring #: MW #4

Method: Hammer adv.____, Thru auger X, Rotary ____, Split Spoon ____, Shelby Tube ____.

Static water level: 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post hole	No	Redish silt sand
	0.0 - 10.0		Auger	No	Redish silt sand
	10.0-12.0	2,3,5,7	SS	No	Redish silt sand
	10.0-20.0		Auger	NO	Redish silt sand
	20.0-22.0	2,2,2,5	SS	Moist	Redish silt sand
	20.0-30.0		Auger	Wet	Redish silt sand
					BORING TERMINATED AT 22.0