

Unknown

From: Debi Sport Smith [debi@sportenvironmental.com]
Sent: Monday, January 28, 2008 2:00 PM
To: Guye, Gerry, EMNRD
Cc: 'Jim O'Briant'; fyates@yatesenergy.com
Subject: YEC Yates State Lease Site Closure
Attachments: YSL Confirmation Sampling; January 25, 2008.pdf

Mr. Guye,

Thank you for taking the time to review the maps providing delineation information associated with trench sampling (conducted on September 18, 2007) and excavation floor and wall sampling (conducted on November 9, 12 and 21, 2007) previously emailed to your attention on December 19, 2007.

Analytical results and sample location points are denoted on the attached site maps. Background sampling was also conducted for comparison purposes. This information along with the analytical reports can be found in the attached (a hard copy to follow by mail). **Thank you for verbally granting us closure approval.** On January 25, 2008, the site excavation was filled with native, non-impacted soil and brought to grade. Today final polishing and ripping will take place. Final site photos will be taken and forwarded to your attention.

If you have any questions with regard to this matter, please give me a call.

Sincerely,
Debi Smith



Debi Sport Smith, M.E., R.E.P.A.

O'Briant and Associates, Inc., dba
Sport Environmental Services
505 North Big Spring Street
Energy Square, Suite 303
Midland, Texas 79701
Business: 432.683.1100
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**Yates Energy Corporation
Yates State Lease Site Clean-up**

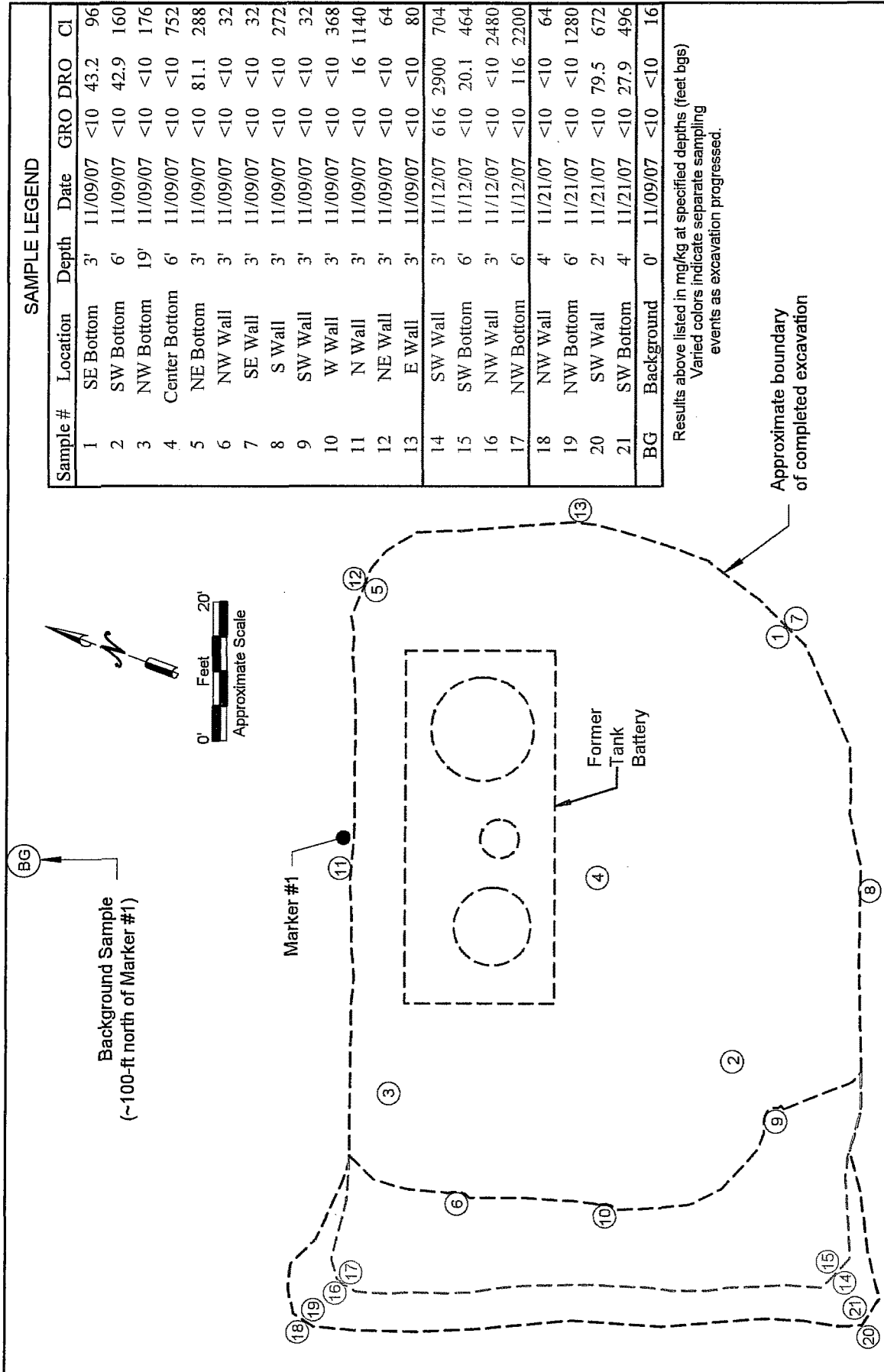
Confirmation Sampling



**Yates Energy Corporation
Yates State Lease
Section 32, T-18-S, R-30-E
Eddy County, New Mexico**

**Yates Energy Corporation
Yates State Lease Site Clean-up**

**Excavation Sample Map
and Associated Analytical Results**



YATES ENERGY CORP.
STATE LEASE
T-18-S, R-30-E, Section 32
EDDY COUNTY, NEW MEXICO

EXCAVATION SAMPLE MAP

[illegible]



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ANALYTICAL RESULTS FOR
YATES ENERGY CORPORATION
ATTN: JIM O'BRIANT
P.O. BOX 10487
MIDLAND, TX 79702
FAX TO: (432) 683-5903

Receiving Date: 11/20/07
Reporting Date: 11/21/07
Project Number: NOT GIVEN
Project Name: YATES STATE BATTERY
Project Location: YATES STATE LEASE

Sampling Date: 11/20/07
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: BC
Analyzed By: CK/KS

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₂) (mg/kg)	DRO (>C ₁₂ -C ₂₈) (mg/kg)	Cl* (mg/kg)
		11/21/07	11/21/07	11/21/07
H13763-1	NW WALL 4' BGS	<10.0	<10.0	64
H13763-2	NW BOTTOM 6' BGS	<10.0	<10.0	1280
H13763-3	SW WALL 2' BGS	<10.0	79.5	672
H13763-4	SW BOTTOM 4' BGS	<10.0	27.9	496
Quality Control		459	393	500
True Value QC		500	500	500
% Recovery		91.8	78.6	100
Relative Percent Difference		10.6	2.0	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Std. Methods 4500-CFB

*Analyses performed on 1:4 w/v aqueous extracts.

Chemist

Date

H13763TCL YATES ENERGY

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ANALYTICAL RESULTS FOR
YATES ENERGY CORP.
ATTN: MIKE STUBBLEFIELD
P.O. BOX 10487
MIDLAND, TX 79702
FAX TO: (432) 683-5903

Receiving Date: 11/12/07
Reporting Date: 11/13/07
Project Number: NOT GIVEN
Project Name: YATES STATE LEASE
Project Location: NOT GIVEN

Sampling Date: 11/09/07 & 11/12/07
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: SB
Analyzed By: BC/KS

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
		11/13/07	11/13/07	11/13/07
H13691-1	BACKGROUND	<10.0	<10.0	16
H13691-2	SW WALL (3')	616	2900	704
H13691-3	SW BOTTOM	<10.0	20.1	464
H13691-4	NW WALL (3')	<10.0	<10.0	2480
H13691-5	NW BOTTOM	<10.0	116	2200
Quality Control		756	768	500
True Value QC		800	800	500
% Recovery		94.5	96.0	100.0
Relative Percent Difference		0.1	1.3	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

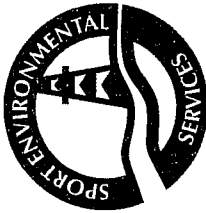
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

Date

H13691 YATES

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Sample Data Summary

p. 1 of 1

Project Name: Yates Energy Corporation; Yates State Lease
Project Location: Eddy County, New Mexico

Analytical Results																
Methods: EPA 8015M (TPH), EPA 8021B (BTEX), SW 846 9253 (Cl)																
Sample ID	Lab ID	Matrix	Latitude/Longitude	Date Sampled	Date Received	Carbon Ranges C6-C12 (mg/kg dry)	Carbon Ranges C12-C28	Carbon Ranges C28-C35	Total Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Chloride (Cl) (mg/kg wet)	% Moisture
SE bottom 3' BGL	H13683-1	Soil		11/9/2007 13:20	11/9/2007 15:54	<10.0	43.2		43.2						96	
SW bottom 6' BGL	H13683-2	Soil		11/9/2007 13:15	11/9/2007 15:54	<10.0	42.9		42.9						160	
NW bottom 19' BGL	H13683-3	Soil		11/9/2007 12:30	11/9/2007 15:54	<10.0	<10.0		<10.0						176	
Center btm 6' BGL	H13683-4	Soil		11/9/2007 13:30	11/9/2007 15:54	<10.0	<10.0		<10.0						752	
NE bottom 3' BGL	H13683-5	Soil		11/9/2007 13:21	11/9/2007 15:54	<10.0	81.1		81.1						288	
NW wall 3'	H13683-6	Soil		11/9/2007 14:29	11/9/2007 15:54	<10.0	<10.0		<10.0						32	
SE wall 3'	H13683-7	Soil		11/9/2007 14:36	11/9/2007 15:54	<10.0	<10.0		<10.0						32	
S wall 3'	H13683-8	Soil		11/9/2007 14:23	11/9/2007 15:54	<10.0	<10.0		<10.0						272	
SW wall 3'	H13683-9	Soil		11/9/2007 14:27	11/9/2007 15:54	<10.0	<10.0		<10.0						32	
W wall 3'	H13683-10	Soil		11/9/2007 1:28	11/9/2007 15:54	<10.0	<10.0		<10.0						368	
N wall 3'	H13683-11	Soil		11/9/2007 2:22	11/9/2007 15:54	<10.0	16.0		16.0						1140	
NE wall 3'	H13683-12	Soil		11/9/2007 2:20	11/9/2007 15:54	<10.0	<10.0		<10.0						64	
E wall 3'	H13683-13	Soil		11/9/2007 2:24	11/9/2007 15:54	<10.0	<10.0		<10.0						80	



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ANALYTICAL RESULTS FOR
YATES ENERGY CORP.
ATTN: MIKE STUBBLEFIELD
P.O. BOX 10487
MIDLAND, TX 79702
FAX TO: (432) 683-5903

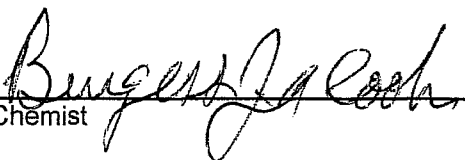
Receiving Date: 11/09/07
Reporting Date: 11/13/07
Project Number: NOT GIVEN
Project Name: YATES STATE TANK BTTY. CLEAN-UP
Project Location: EDDY CTY.

Sampling Date: 11/09/07
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: SB
Analyzed By: BC/HM/KS

LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)	(mg/Kg)
	ANALYSIS DATE	11/12/07	11/12/07	11/12/07
H13683-1	SE BOTTOM 3' BGL	<10.0	43.2	96
H13683-2	SW BOTTOM 6' BGL	<10.0	42.9	160
H13683-3	NW BOTTOM 19' BGL	<10.0	<10.0	176
H13683-4	CENTER BOTTOM 6' BGL	<10.0	<10.0	752
H13683-5	NE BOTTOM 3' BGL	<10.0	81.1	288
H13683-6	NW WALL 3'	<10.0	<10.0	32
H13683-7	SE WALL 3'	<10.0	<10.0	32
H13683-8	S WALL 3'	<10.0	<10.0	272
H13683-9	SW WALL 3'	<10.0	<10.0	32
H13683-10	W WALL 3'	<10.0	<10.0	368
H13683-11	N WALL 3'	<10.0	16.0	1140
H13683-12	NE WALL 3'	<10.0	<10.0	64
H13683-13	E WALL 3'	<10.0	<10.0	80
Quality Control		756	768	500
True Value QC		800	800	500
% Recovery		94.5	96.0	100.0
Relative Percent Difference		0.1	1.3	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI'B

*Analyses performed on 1:4 w:v aqueous extracts.


Chemist

11/13/07
Date

H13683 YATES

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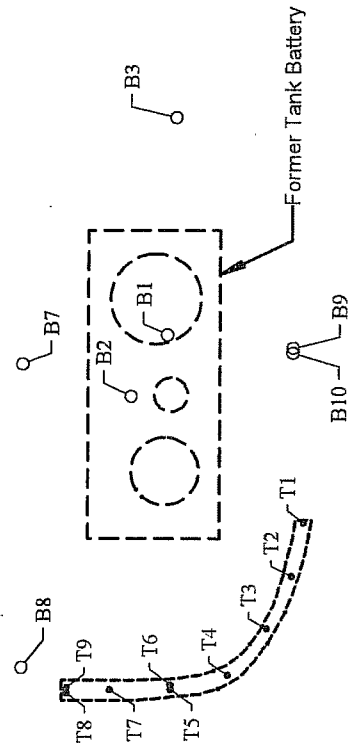
**Yates Energy Corporation
Yates State Lease Site Clean-up**

**Trenching Sample Map
and Associated Analytical Results**



YATES ENERGY CORP.
STATE LEASE
T-18-S, R-30-E, Section 32
EDDY COUNTY, NEW MEXICO

TRENCHING SAMPLE MAP



Hand Auger Samples Collected on November 2, 2007

Borehole #	Sample #	Depth	GRO	DRO	TPH	CI
B1	BH-1A	7'	4960	11950	16910	213
	BH-1	9'	<18	21.2	21.2	1280
	BH-2	10'	117	394	511	1700
	BH-3	13'	<16.5	<16.5	<16.5	1190
B2	BH-4	7'	3690	9358	13048	170
B3	BH-5	13'	4080	9528	13608	2550
	BH-6	0'	92.2	828	920	63.8
	BH-7	3'	431	2930	3361	63.8
	BH-9	2'	<16.1	19.1	19.1	638
B5	BH-10	0'	<15.9	<15.9	<15.9	128
B6	BH-11	2'	<15.9	<15.9	<15.9	42.5
	BH-12	0'	17.5	201	219	42.5
	BH-13	2'	<15.7	22.6	22.6	63.8
	BH-14	0'	<15.7	46	46	1030
B7	BH-15	2'	<16.6	<16.6	<16.6	1740
B8	BH-16	0'	<15.2	<15.2	<15.2	42.5
	BH-17	2'	<15.2	<15.2	<15.2	106
	BH-18	0'	<15.4	75.1	75.1	42.5
	BH-19	2'	<15.8	160	160	85.1
B10	BH-20	0'	<15.1	<15.1	<15.1	42.5
B11	BH-21	2'	<15.1	29.7	29.7	95.7

Results above listed in mg/kg at specified depths (feet bgs)

Trench Samples Collected on September 18, 2007

Sample #	Depth	GRO	DRO	TPH	CI
T1	2'	<11.6	<11.6	<11.6	1400
T2	2.5'	1690	8590	10280	170
T3	4'	<10.9	<10.9	<10.9	1020
T4	5'	<53.7	1507	1507	468
T5	4.5'	<10.6	61.6	61.6	277
T6	2.5'	<10.6	257	257	287
T7	3'	<54.0	450	450	234
T8	2'	<11.2	<11.2	<11.2	723
T9	3.5'	990	5596	6586	1450

Results above listed in mg/kg at specified depths (feet bgs)

B11



Sample Data Summary

p. 1 of 2

Project Name: Yates Energy Corporation; Yates State Lease
Project Location: Eddy County, New Mexico

Analytical Results																
Methods: EPA 8015M (TPH), EPA 8021B (BTEX), SW 846 9253 (Cl)																
Sample ID	Lab ID	Matrix	Latitude/Longitude	Date Sampled	Date Received	Carbon Ranges C6-C12 (mg/kg dry)	Carbon Ranges C12-C28	Carbon Ranges C28-C35	Total Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Chloride (Cl) (mg/kg wet)	% Moisture
Borehole Sampling																
BH #1A	292422-001	Soil		11/2/2007 10:20	11/3/2007 11:41	4960	10700	1250	16910						213	19.0
BH #1	292422-002	Soil		11/2/2007 10:28	11/3/2007 11:41	ND	21.2	ND	21.2						1280	16.8
BH #2	292422-003	Soil		11/2/2007 10:31	11/3/2007 11:41	117	394	ND	511						1700	19.5
BH #3	292422-004	Soil		11/2/2007 10:48	11/3/2007 11:41	ND	ND	ND	ND						1190	9.05
BH #4	292422-005	Soil		11/2/2007 10:55	11/3/2007 11:41	3690	8390	968	13048						170	11.3
BH #5	292422-006	Soil		11/2/2007 11:10	11/3/2007 11:41	4080	8590	938	13608						2550	11.0
BH #6	292422-007	Soil		11/2/2007 11:22	11/3/2007 11:41	92.2	625	203	920.2						63.8	4.10
BH #7	292422-008	Soil		11/2/2007 11:30	11/3/2007 11:41	431	2560	370	3361						63.8	5.99
BH #8	Sample lost No reporting	Soil		11/2/2007 11:40	11/3/2007 11:41											
BH #9	292422-010	Soil		11/2/2007 11:45	11/3/2007 11:41	ND	19.1	ND	19.1						638	6.75
BH #10	292422-011	Soil		11/2/2007 11:55	11/3/2007 11:41	ND	ND	ND	ND						128	5.75
BH #11	292422-012	Soil		11/2/2007 12:01	11/3/2007 11:41	ND	ND	ND	ND						42.5	5.72
BH #12	292422-013	Soil		11/2/2007 12:10	11/3/2007 11:41	17.5	163	38.1	218.6						42.5	12.3

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Analytical Report 292422

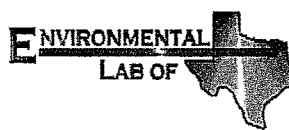
for

O'Briant & Assoc., Inc. dba Sport Environmental Svcs.

Project Manager: Debi Smith, M.E., R.E.P.A

**Yates Energy; Yates State Lease
Eddy County, NM**

12-NOV-07



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12-NOV-07

Project Manager: **Debi Smith, M.E., R.E.P.A**
O'Briant & Assoc., Inc. dba Sport Environmental Svcs.
500 W. Texas Ave., Ste 303
Midland, TX 79701

Reference: XENCO Report No: **292422**
Yates Energy; Yates State Lease
Project Address:

Debi Smith, M.E., R.E.P.A:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 292422. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 292422 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 292422



O'Briant & Assoc., Inc. dba Sport Environmental Svcs., Midland, TX

Yates Energy; Yates State Lease

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH #1 A	S	Nov-02-07 10:20	6" In	292422-001
BH #1	S	Nov-02-07 10:28	28" In	292422-002
BH #2	S	Nov-02-07 10:31	40" In	292422-003
BH #3	S	Nov-02-07 10:48	78" In	292422-004
BH #4	S	Nov-02-07 10:55	6" In	292422-005
BH #5	S	Nov-02-07 11:10	84" In	292422-006
BH #6	S	Nov-02-07 11:22	6" In	292422-007
BH #7	S	Nov-02-07 11:30	36 In	292422-008
BH #9	S	Nov-02-07 11:45	18 In	292422-010
BH #10	S	Nov-02-07 11:55	6" In	292422-011
BH #11	S	Nov-02-07 12:01	18 In	292422-012
BH #12	S	Nov-02-07 12:10	6 In	292422-013
BH #13	S	Nov-02-07 12:16	18 In	292422-014
BH #14	S	Nov-02-07 12:20	6 In	292422-015
BH #15	S	Nov-02-07 12:26	18 In	292422-016
BH #16	S	Nov-02-07 12:30	6 In	292422-017
BH #17	S	Nov-02-07 12:33	18 In	292422-018
BH #18	S	Nov-02-07 12:40	6 In	292422-019
BH #19	S	Nov-02-07 12:45	18 In	292422-020
BH #20	S	Nov-02-07 13:50	6 In	292422-021
BH #21	S	Nov-02-07 13:54	18 In	292422-022



Certificate of Analysis Summary 292422
O'Brian & Associates, Inc. dba Sport Environmental Svcs., Midland, TX
Project Name: Yates Energy; Yates State Lease

Project Id: Eddy County, NM
Contact: Debi Smith, M.E., R.E.P.A
Project Location:

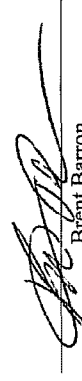
Date Received in Lab: Sat Nov-03-07 11:41 am
Report Date: 12-NOV-07

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	292422-001	292422-002	292422-003	292422-004	292422-005	292422-006
	Field Id:	BH #1 A	BH #1	BH #2	BH #3	BH #4	BH #5
	Depth:	6"- In	28"- In	40"- In	78"- In	6"- In	84"- In
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-02-07 10:20	Nov-02-07 10:28	Nov-02-07 10:31	Nov-02-07 10:48	Nov-02-07 10:55	Nov-02-07 11:10
Percent Moisture	Extracted:						
	Analyzed:	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00
	Units/RL:	%	%	%	%	%	%
		19.0	16.8	19.5	9.05	11.3	11.0
		1.00	1.00	1.00	1.00	1.00	1.00
TPH by SW8015 Mod	Extracted:	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00
	Analyzed:	Nov-08-07 12:51	Nov-08-07 13:17	Nov-08-07 13:43	Nov-08-07 14:09	Nov-08-07 14:35	Nov-08-07 17:12
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		4960	ND	117	ND	3690	4080
		185	18.0	93.2	16.5	169	169
		10700	21.2	394	ND	8390	8590
		185	18.0	ND	16.5	169	169
		1250	ND	ND	ND	968	938
		16910	21.2	511	ND	13048	13608
Total Chloride by EPA 325.3	Extracted:						
	Analyzed:	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		213	1280	1700	1190	170	2550
		5.00	5.00	5.00	5.00	5.00	5.00
Chloride							

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 292422

O'Brian & Associates, Inc. dba Sport Environmental Svcs., Midland, TX

Project Id: Eddy County, NM
Contact: Debi Smith, M.E., R.E.P.A
Project Location:

Project Name: Yates Energy; Yates State Lease
Date Received in Lab: Sat Nov-03-07 11:41 am
Report Date: 12-NOV-07
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	292422-007	292422-008	292422-010	292422-011	292422-012	292422-013
	Field Id:	BH #6	BH #7	BH #9	BH #10	BH #11	BH #12
	Depth:	6'- In	36'- In	18'- In	6'- In	18'- In	6'- In
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-02-07 11:22	Nov-02-07 11:30	Nov-02-07 11:45	Nov-02-07 11:55	Nov-02-07 12:01	Nov-02-07 12:10
Percent Moisture	Extracted:						
	Analyzed:	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00	Nov-05-07 14:00
	Units/RL:	% 4.10 1.00	% 5.99 1.00	% 6.75 1.00	% 5.75 1.00	% 5.72 1.00	% 12.3 1.00
TPH by SW8015 Mod	Extracted:						
	Analyzed:	Nov-09-07 10:16	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00	Nov-07-07 15:00	Nov-09-07 10:16
	Units/RL:	mg/kg 92.2 15.6	mg/kg 431 160	mg/kg ND 16.1	mg/kg ND 15.9	mg/kg ND 15.9	mg/kg 17.5 17.1
	C6-C12 Gasoline Range Hydrocarbons	625 15.6	2560 160	19.1 16.1	ND 15.9	ND 15.9	163 17.1
	C12-C28 Diesel Range Hydrocarbons	203 15.6	370 160	ND 16.1	ND 15.9	ND 15.9	38.1 17.1
Total Chloride by EPA 325.3	Extracted:						
	Analyzed:	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00	Nov-06-07 00:00
	Units/RL:	mg/kg 63.8 5.00	mg/kg 63.8 5.00	mg/kg 638 5.00	mg/kg 128 5.00	mg/kg 42.5 5.00	mg/kg 42.5 5.00
Chloride							

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 292422
O'Briant & Assoc., Inc. dba Sport Environmental Svcs., Midland, TX

Project Id: Eddy County, NM
Contact: Debi Smith, M.E., R.E.P.A

Project Name: Yates Energy; Yates State Lease

Date Received in Lab: Sat Nov-03-07 11:41 am

Project Location:

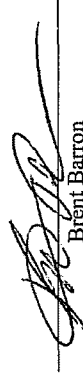
Report Date: 12-NOV-07

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		292422-014		292422-015		292422-016		292422-017		292422-018		292422-019	
	Field Id:	Depth:	BH #13	18- In	BH #14	6- In	BH #15	18- In	BH #16	6- In	BH #17	18- In	BH #18	6- In
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-02-07 12:16	Nov-02-07 12:20	Nov-02-07 12:26	Nov-02-07 12:30	Nov-02-07 12:33	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40	Nov-02-07 12:40
Percent Moisture	Extracted:													
	Analyzed:													
TPH by SW8015 Mod	Units/RL:													
C6-C12 Gasoline Range Hydrocarbons	Extracted:													
	Analyzed:													
C12-C28 Diesel Range Hydrocarbons	Units/RL:													
C28-C35 Oil Range Hydrocarbons	Extracted:													
	Analyzed:													
Total TPH	Units/RL:													
Total Chloride by EPA 325.3	Extracted:													
	Analyzed:													
Chloride	Units/RL:													

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Odessa Laboratory Director



Certificate of Analysis Summary 292422

O'Briant & Assoc., Inc. dba Sport Environmental Svcs., Midland, TX

Project Id: Eddy County, NM
Contact: Debi Smith, M.E., R.E.P.A
Project Location:

Project Name: Yates Energy; Yates State Lease
Date Received in Lab: Sat Nov-03-07 11:41 am
Report Date: 12-NOV-07
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		292422-020		292422-021		292422-022	
	Field Id:	Depth:	BH #19	18- In	BH #20	6- In	BH #21	18- In
Percent Moisture	Matrix:	SOIL	Nov-02-07 12:45		Nov-02-07 13:50		Nov-02-07 13:54	
	Sampled:							
TPH by SW8015 Mod	Extracted:		Nov-05-07 14:00		Nov-05-07 14:00		Nov-05-07 14:00	
	Analyzed:							
C6-C12 Gasoline Range Hydrocarbons	Units/RL:		5.34		ND		ND	
			RL		RL		RL	
C12-C28 Diesel Range Hydrocarbons	Extracted:		Nov-09-07 13:35		Nov-09-07 13:35		Nov-09-07 13:35	
	Analyzed:		Nov-10-07 15:43		Nov-10-07 16:09		Nov-10-07 16:35	
C28-C35 Oil Range Hydrocarbons	Units/RL:		ND		ND		ND	
			120		15.1		15.1	
Total TPH	Extracted:		40.0		ND		ND	
	Analyzed:		160		ND		29.7	
Total Chloride by EPA 325.3	Units/RL:		Nov-06-07 00:00		Nov-07-07 14:02		Nov-07-07 14:02	
			mg/kg		mg/kg		mg/kg	
Chloride	Extracted:		85.1		42.5		95.7	
	Analyzed:		5.00		5.00		5.00	

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Odessa Laboratory Director



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the MQL and above the SQL.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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Form 2 - Surrogate Recoveries

Project Name: Yates Energy; Yates State Lease



Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708169

Sample: 292422-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	159	100	159	70-135	**
o-Terphenyl	52.1	50.0	104	70-135	

Lab Batch #: 708169

Sample: 292422-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.4	100	76	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

Lab Batch #: 708169

Sample: 292422-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

Lab Batch #: 708169

Sample: 292422-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 708169

Sample: 292422-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	70.1	100	70	70-135	
o-Terphenyl	37.6	50.0	75	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708169

Sample: 292422-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.5	100	75	70-135	
o-Terphenyl	38.8	50.0	78	70-135	

Lab Batch #: 708169

Sample: 292422-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	138	100	138	70-135	**
o-Terphenyl	50.4	50.0	101	70-135	

Lab Batch #: 708169

Sample: 292422-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

Lab Batch #: 708169

Sample: 292422-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	100	79	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 708169

Sample: 292422-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.7	100	73	70-135	
o-Terphenyl	38.3	50.0	77	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708169

Sample: 292422-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.4	100	76	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 708169

Sample: 292422-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	75.1	100	75	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 708169

Sample: 501291-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	44.3	50.0	89	70-135	

Lab Batch #: 708169

Sample: 501291-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

Lab Batch #: 708169

Sample: 501291-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Yates Energy; Yates State Lease



Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708201

Sample: 292422-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	78.8	100	79	70-135	
o-Terphenyl	38.7	50.0	77	70-135	

Lab Batch #: 708201

Sample: 292422-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.6	100	93	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 708201

Sample: 501309-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 708201

Sample: 501309-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	54.2	50.0	108	70-135	

Lab Batch #: 708201

Sample: 501309-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708283

Sample: 292422-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 708283

Sample: 292422-014 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	91.9	100	92	70-135	
o-Terphenyl	42.9	50.0	86	70-135	

Lab Batch #: 708283

Sample: 292422-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	79.9	100	80	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 708283

Sample: 292422-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	84.7	100	85	70-135	
o-Terphenyl	45.0	50.0	90	70-135	

Lab Batch #: 708283

Sample: 292422-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	78.6	100	79	70-135	
o-Terphenyl	39.1	50.0	78	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708283

Sample: 292422-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	83.7	100	84	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 708283

Sample: 292422-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	40.4	50.0	81	70-135	

Lab Batch #: 708283

Sample: 292422-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	71.4	100	71	70-135	
o-Terphenyl	38.3	50.0	77	70-135	

Lab Batch #: 708283

Sample: 292422-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.2	100	76	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 708283

Sample: 292422-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	80.9	100	81	70-135	
o-Terphenyl	41.9	50.0	84	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Lab Batch #: 708283

Sample: 501342-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	50.4	50.0	101	70-135	

Lab Batch #: 708283

Sample: 501342-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.3	100	92	70-135	
o-Terphenyl	50.4	50.0	101	70-135	

Lab Batch #: 708283

Sample: 501342-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.1	50.0	96	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID:

Eddy County, NM

Lab Batch #: 707980

Sample: 707980-1-BKS

Matrix: Solid

Date Analyzed: 11/06/2007

Date Prepared: 11/06/2007

Analyst: IRO

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Total Chloride by EPA 325.3	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	ND	100	93.6	94	75-125	

Lab Batch #: 707981

Sample: 707981-1-BKS

Matrix: Solid

Date Analyzed: 11/07/2007

Date Prepared: 11/07/2007

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Total Chloride by EPA 325.3	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
Chloride	ND	100	97.8	98	75-125	

Blank Spike Recovery $[D] = 100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Analyst: SHE

Lab Batch ID: 708169

Sample: 501291-1-BKS

Units: mg/kg

Date Prepared: 11/07/2007

Batch #: 1

Project ID: Eddy County, NM
Date Analyzed: 11/08/2007

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		C6-C12 Gasoline Range Hydrocarbons	ND	1000	873	87	1000	87	0	70-135	35	
		C12-C28 Diesel Range Hydrocarbons	ND	1000	827	83	1000	831	83	0	70-135	35

Analyst: SHE

Lab Batch ID: 708201

Sample: 501309-1-BKS

Units: mg/kg

Date Prepared: 11/09/2007

Batch #: 1

Date Analyzed: 11/09/2007

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
Analytes	TPH by SW8015 Mod										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	799	80	1000	801	80	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	788	79	1000	791	79	0	70-135	35	

Relative Percent Difference RPD = $200 * (D-F) / (D+F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Project ID: Eddy County, NM

Analyst: SHE

Date Analyzed: 11/10/2007

Lab Batch ID: 708283

Date Prepared: 11/09/2007

Sample: 501342-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	842	84	1000	791	79	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	829	83	1000	771	77	7	70-135	35	

Relative Percent Difference $RPD = 200 * (D - F) / (D + F)$
Blank Spike Recovery $[D] = 100 * (C) / [B]$
Blank Spike Duplicate Recovery $[G] = 100 * (F) / [E]$
All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries

Project Name: Yates Energy; Yates State Lease



Work Order #: 292422

Lab Batch #: 708283

Date Analyzed: 11/10/2007

QC- Sample ID: 292422-014 S

Reporting Units: mg/kg

Project ID: Eddy County, NM

Analyst: SHE

Date Prepared: 11/09/2007

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1050	791	75	70-135	
C12-C28 Diesel Range Hydrocarbons	22.6	1050	810	75	70-135	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: Yates Energy; Yates State Lease



Work Order #: 292422

Lab Batch ID: 708169

Date Analyzed: 11/08/2007

Reporting Units: mg/kg

Project ID: Eddy County, NM

QC- Sample ID: 292422-002 S Batch #: 1 Matrix: Soil

Date Prepared: 11/07/2007 Analyst: SHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons		ND	1200	1050	88	1090	91	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons		21.2	1200	1030	84	1080	88	5	70-135	35	

Lab Batch ID: 707980

Date Analyzed: 11/06/2007

Reporting Units: mg/kg

QC- Sample ID: 292422-001 S Batch #: 1 Matrix: Soil

Date Prepared: 11/06/2007 Analyst: IRO

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Total Chloride by EPA 325.3 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	213	10000	10600	104	10000	10600	104	0	75-125	30	

Lab Batch ID: 707981

Date Analyzed: 11/07/2007

Reporting Units: mg/kg

QC- Sample ID: 292422-021 S Batch #: 1 Matrix: Soil

Date Prepared: 11/07/2007 Analyst: LATCOR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Total Chloride by EPA 325.3 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Chloride	42.5	1000	947	90	1000	968	93	3	75-125	30

Matrix Spike Percent Recovery $[D] = 100 \times (C-A)/B$
Relative Percent Difference $RPD = 200 \times (D-G)/(D+G)$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A)/E$



Sample Duplicate Recovery



Project Name: Yates Energy; Yates State Lease

Work Order #: 292422

Lab Batch #: 707959
Date Analyzed: 11/06/2007
QC- Sample ID: 292485-004 D
Reporting Units: %

Project ID: Eddy County, NM
Date Prepared: 11/06/2007
Analyst: RBA
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.67	6.67	37	20	F

Lab Batch #: 707972
Date Analyzed: 11/05/2007
QC- Sample ID: 292375-001 D
Reporting Units: %

Date Prepared: 11/05/2007
Analyst: RBA
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.24	1.56	23	20	F

Lab Batch #: 707983
Date Analyzed: 11/05/2007
QC- Sample ID: 292422-016 D
Reporting Units: %

Date Prepared: 11/05/2007
Analyst: RBA
Batch #: 1
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.67	8.93	8	20	

Spike Relative Difference $RPD = 200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.

A Xenco Laboratories Company

Project Manager:	Dahl S. Smith, M.E. REPA Environmental Consultant	Project Name:	Yates Energy, Yates State Lease
Company Name	O'Brian and Associates, Inc. dba Sport Environmental Services		Eddy County, NM
Company Address:	506 N. Big Spring Street, Suite 303	Project Loc:	
City/State/Zip:	Midland, TX 79701	PQ #:	

Telephone No: (432) 883-1100

Fax No: (432) 883-5903

Report Format: ☐ Standard ☐ NPDES ☐ TRRP

e-mail: sportenvironmental@t3wireless.com

Sampler Signature: _____

[illegible]

913

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager:	Debi S. Smith, ME, REPA Environmental Consultant	Project Name:	Yates Energy; Yates State Lease
Company Name	O'Brian and Associates, Inc. dba Sport Environmental Services	Project Loc:	Eddy County, NM
Company Address:	505 N. Big Spring Street, Suite 303	PO #:	
City/State/Zip:	Midland, TX 79701	Report Format:	☐ Standard ☐ TRRP ☐ NPDES
Telephone No:	(432) 683-1100	Fax No:	(432) 683-5903
Sampler Signature:	e-mail: sportenviromental@t3wireless.com		

[illegible]

P.2/3

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: O'Brian & Assoc.
Date/ Time: 11/03/07 11:41
Lab ID #: 292,422
Initials: gms

Sample Receipt Checklist

	Yes	No	Temperature	Client Initials
#1 Temperature of container/ cooler?	☒	☐	22.0 °C	<u>[Signature]</u>
#2 Shipping container in good condition?	☒	☐		
#3 Custody Seals intact on shipping container/ cooler?	☒	☐	Not Present	
#4 Custody Seals intact on sample bottles/ container?	☒	☐	Not Present	
#5 Chain of Custody present?	☒	☐		
#6 Sample instructions complete of Chain of Custody?	☒	☐		
#7 Chain of Custody signed when relinquished/ received?	☒	☐		
#8 Chain of Custody agrees with sample label(s)?	☒	☐	ID written on Cont./ Lid ☒	
#9 Container label(s) legible and intact?	☒	☐	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	☒	☐		
#11 Containers supplied by ELOT?	☒	☐		
#12 Samples in proper container/ bottle?	☒	☐	See Below	
#13 Samples properly preserved?	☒	☐	See Below	
#14 Sample bottles intact?	☒	☐		
#15 Preservations documented on Chain of Custody?	☒	☐		
#16 Containers documented on Chain of Custody?	☒	☐		
#17 Sufficient sample amount for indicated test(s)?	☒	☐	See Below	
#18 All samples received within sufficient hold time?	☒	☐	See Below	
#19 Subcontract of sample(s)?	☒	☐	Not Applicable	
#20 VOC samples have zero headspace?	☒	☐	Not Applicable	

Variance Documentation

Contact: JM Contacted by: Carm Date/ Time: _____
Regarding: #8 - Sample #8 was not received

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event



Sample Data Summary

p. 1 of 1

Project Name: Yates Energy Corporation; Yates State Lease
Project Location: Eddy County, New Mexico

Analytical Results																
Methods: EPA 8015M (TPH), EPA 8021B (BTEX), SW 846 9253 (Cl)																
Sample ID	Lab ID	Matrix	Latitude/Longitude	Date Sampled	Date Received	Carbon Ranges C6-C10 (mg/kg dry)	Carbon Ranges C10-C28	Carbon Ranges C28-C35	Total Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Chloride (Cl) (mg/kg wet)	% Moisture
Trench Sampling																
T-001	289911-001	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	ND	ND	ND						1400	14.1
T-002	289911-002	Soil		9/18/2007 0:00	9/19/2007 18:35	1690	7460	1130	10280						170	7.83
T-003	289911-003	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	ND	ND	ND						1020	8.25
T-004	289911-004	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	1050	457	1507						468	6.83
T-005	289911-005	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	36.4	25.2	61.6						277	5.41
T-006	289911-006	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	170	86.9	256.9						287	5.90
T-007	289911-007	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	283	167	450						234	7.36
T-008	289911-008	Soil		9/18/2007 0:00	9/19/2007 18:35	ND	ND	ND	ND						723	10.4
T-009	289911-009	Soil		9/18/2007 0:00	9/19/2007 18:35	990	4860	736	6586						1450	7.75

Analytical Report 289911

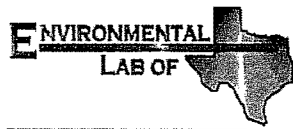
for

O'Briant & Assoc., Inc. dba Sport Environmental Srvs.

Project Manager: Debi Smith, M.E., R.E.P.A

Yates Energy; Yates State Lse. Trench Sampling

25-SEP-07



12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta



25-SEP-07

Project Manager: **Debi Smith, M.E., R.E.P.A**
O'Briant & Assoc., Inc. dba Sport Environmental Svcs.
500 W. Texas Ave., Ste 1425
Midland, TX 79701

Reference: XENCO Report No: **289911**
Yates Energy; Yates State Lse. Trench Sampling
Project Address:

Debi Smith, M.E., R.E.P.A:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 289911. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 289911 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron

Odessa Laboratory Director

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 289911

O'Briant & Assoc., Inc. dba Sport Environmental Svcs., Midland, TX

Yates Energy; Yates State Lse. Trench Sampling

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-001 (0')	S	Sep-18-07 00:00	24 In	289911-001
T-002 (10')	S	Sep-18-07 00:00	30 In	289911-002
T-003 (20')	S	Sep-18-07 00:00	48 In	289911-003
T-004 (30')	S	Sep-18-07 00:00	60 In	289911-004
T-005 (40')	S	Sep-18-07 00:00	54 In	289911-005
T-006 (40')	S	Sep-18-07 00:00	30 In	289911-006
T-007 (50')	S	Sep-18-07 00:00	36 In	289911-007
T-008 (60')	S	Sep-18-07 00:00	24 In	289911-008
T-009 (60')	S	Sep-18-07 00:00	42 In	289911-009



Certificate of Analysis Summary 289911
O'Briant & Assoc., Inc. dba Sport Environmental Svcs., Midland, TX
Project Name: Yates Energy; Yates State Lse. Trench Sampling

Project Id: **289911**
Contact: **Debi Smith, M.E., R.E.P.A**
Project Location: **Yates State Lse. Trench Sampling**

Date Received in Lab: **Wed Sep-19-07 06:35 pm**
Report Date: **25-SEP-07**

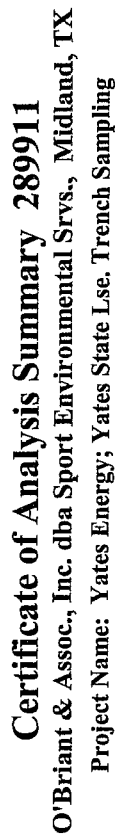
Project Manager: **Brent Barron, II**

Analysis Requested	Lab Id:		289911-001		289911-002		289911-003		289911-004		289911-005		289911-006	
	Field Id:	Depth:	T-001 (0')	24- In	T-002 (10')	30- In	T-003 (20')	48- In	T-004 (30')	60- In	T-005 (40')	54- In	T-006 (40')	30- In
	Matrix:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:		Sep-18-07 00:00		Sep-18-07 00:00		Sep-18-07 00:00		Sep-18-07 00:00		Sep-18-07 00:00		Sep-18-07 00:00	
Percent Moisture	Extracted:		Sep-20-07 10:30		Sep-20-07 10:30		Sep-20-07 10:30		Sep-20-07 10:30		Sep-20-07 10:30		Sep-20-07 10:30	
	Analyzed:	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
			14.1	1.00	7.83	1.00	8.25	1.00	6.83	1.00	5.41	1.00	5.90	1.00
TPH by SW8015 Mod	Extracted:		Sep-20-07 14:33		Sep-20-07 14:33		Sep-20-07 14:33		Sep-20-07 14:33		Sep-20-07 14:33		Sep-20-07 14:33	
	Analyzed:	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
			ND	11.6	1690	54.2	ND	10.9	ND	53.7	ND	10.6	ND	10.6
			ND	11.6	7460	54.2	ND	10.9	1050	53.7	36.4	10.6	170	10.6
			ND	11.6	1130	54.2	ND	10.9	457	53.7	25.2	10.6	86.9	10.6
			ND		10280		ND		1507		61.6		256.9	
Total Chloride by EPA 325.3	Extracted:		Sep-20-07 11:00		Sep-20-07 11:00		Sep-20-07 11:00		Sep-20-07 11:00		Sep-20-07 11:00		Sep-20-07 11:00	
	Analyzed:	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
			1400	5.00	170	5.00	1020	5.00	468	5.00	277	5.00	287	5.00
Chloride														

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end user of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 289911

O'Briant & Assoc., Inc. dba Sport Environmental Srvs., Midland, TX

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Date Received in Lab: Wed Sep-19-07 06:35 pm

Report Date: 25-SEP-07

Project Manager: Brent Barron, II

Project Id: **Contact:** Debi Smith, M.E., R.E.P.A

Project Location:

Analysis Requested		Lab Id:	289911-007	289911-008	289911-009		
		Field Id:	T-007 (50')	T-008 (60')	T-009 (60')		
		Depth:	36- In	24- In	42- In		
		Matrix:	SOIL	SOIL	SOIL		
		Sampled:	Sep-18-07 00:00	Sep-18-07 00:00	Sep-18-07 00:00		
Percent Moisture		Extracted:					
		Analyzed:	Sep-20-07 10:30	Sep-20-07 10:30	Sep-20-07 10:30		
		Units/RL:	% RL	% RL	% RL		
Percent Moisture			7.36 1.00	10.4 1.00	7.75 1.00		
TPH by SW8015 Mod		Extracted:	Sep-20-07 14:33	Sep-20-07 14:33	Sep-20-07 14:33		
		Analyzed:	Sep-21-07 09:18	Sep-21-07 09:47	Sep-24-07 13:49		
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons			ND 54.0	ND 11.2	990 54.2		
C12-C28 Diesel Range Hydrocarbons			283 54.0	ND 11.2	4860 54.2		
C28-C35 Oil Range Hydrocarbons			167 54.0	ND 11.2	736 54.2		
Total TPH			450	ND	6586		
Total Chloride by EPA 325.3		Extracted:					
		Analyzed:	Sep-20-07 11:00	Sep-20-07 11:00	Sep-20-07 11:00		
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride			234 5.00	723 5.00	1450 5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the MQL and above the SQL.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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Form 2 - Surrogate Recoveries

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Project ID:

Lab Batch #: 704889

Sample: 289905-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	36.9	50.0	74	70-135	
1-Chlorooctane	55.1	50.0	110	70-135	

Lab Batch #: 704889

Sample: 289905-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	39.7	50.0	79	70-135	
1-Chlorooctane	57.3	50.0	115	70-135	

Lab Batch #: 704889

Sample: 289911-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	38.7	50.0	77	70-135	
1-Chlorooctane	44.9	50.0	90	70-135	

Lab Batch #: 704889

Sample: 289911-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	60.0	50.0	120	70-135	
1-Chlorooctane	74.9	50.0	150	70-135	**

Lab Batch #: 704889

Sample: 289911-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	39.6	50.0	79	70-135	
1-Chlorooctane	45.9	50.0	92	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Project ID:

Lab Batch #: 704889

Sample: 289911-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	39.3	50.0	79	70-135	
1-Chlorooctane	45.5	50.0	91	70-135	

Lab Batch #: 704889

Sample: 289911-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	44.4	50.0	89	70-135	
1-Chlorooctane	52.4	50.0	105	70-135	

Lab Batch #: 704889

Sample: 289911-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	37.1	50.0	74	70-135	
1-Chlorooctane	42.1	50.0	84	70-135	

Lab Batch #: 704889

Sample: 289911-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	32.4	50.0	65	70-135	**
1-Chlorooctane	37.9	50.0	76	70-135	

Lab Batch #: 704889

Sample: 289911-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	37.1	50.0	74	70-135	
1-Chlorooctane	42.9	50.0	86	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Project ID:

Lab Batch #: 704889

Sample: 289911-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	39.9	50.0	80	70-135	
1-Chlorooctane	65.6	50.0	131	70-135	

Lab Batch #: 704889

Sample: 499565-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	42.2	50.0	84	70-135	
1-Chlorooctane	60.1	50.0	120	70-135	

Lab Batch #: 704889

Sample: 499565-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	52.0	50.0	104	70-135	
1-Chlorooctane	62.6	50.0	125	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Blank Spike Recovery

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Project ID:

Lab Batch #: 704889

Sample: 499565-1-BKS

Matrix: Solid

Date Analyzed: 09/20/2007

Date Prepared: 09/20/2007

Analyst: SHE

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	ND	500	522	104	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	500	360	72	70-135	

Blank Spike Recovery [D] = $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.



Form 3 - MS / MSD Recoveries

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Lab Batch ID: 704889

Date Analyzed: 09/24/2007

Reporting Units: mg/kg

Project ID:

QC-Sample ID: 289905-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 09/20/2007 Analyst: SHE

Reporting Units: mg/kg											
TPH by SW8015 Mod Analytes		MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY									
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	534	494	93	534	524	98	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	534	435	81	534	470	88	8	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 \times (C-A)/B$
Relative Percent Difference $RPD = 200 \times (D-G)/(D+G)$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not
ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A)/E$



Sample Duplicate Recovery

Project Name: Yates Energy; Yates State Lse. Trench Sampling

Work Order #: 289911

Lab Batch #: 704725

Date Analyzed: 09/20/2007

QC- Sample ID: 289911-001 D

Reporting Units: %

Project ID:

Analyst: RBA

Date Prepared: 09/20/2007

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	14.1	15.3	8	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: J'Briant : Associates

Date/ Time: 09-19-07 @ 1835

Lab ID #: 289911

Initials: JMF

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	<u>Yes</u>	No	22 ° C	
#2	Shipping container in good condition? <u>Grocery bag</u>	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present <u>N/A</u>	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	<u>Not Present</u>	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	Yes	<u>No</u>	Not TPA method	<u>11?</u>
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	<u>Not Applicable</u>	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by ELOT?	Yes	<u>No</u>		
#12	Samples in proper container/ bottle?	Yes	<u>No</u>	See Below	
#13	Samples properly preserved?	Yes	<u>No</u>	See Below	<u>DSS</u>
#14	Sample bottles intact? <u>bags</u>	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	<u>Not Applicable</u>	
#20	VOC samples have zero headspace?	Yes	<u>No</u>	Not Applicable	

Variance Documentation

Contact: Debbie Smith Contacted by: Brent Barron Date/ Time: 09-19-07 @ 1635

Regarding: proper sample preservation, method TPA EXEM, And CI only

Corrective Action Taken:

Check all that Apply:

☐

See attached e-mail/ fax

☒

Client understands and would like to proceed with analysis

☐

Cooling process had begun shortly after sampling event