District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

OCT 01 2008
HOBBS OCD

Form C-141
Revised June 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: OXY USA, Inc.	Contact: Mark Andersen
Address: 6 Desta Drive, Suite 6000, Midland, TX 79705	Telephone No. (432) 685-5824
Facility Name: E.C. Hill Federal #8 Well	Facility Type: Well

Surface Owner Unknown	Mineral Owner	Lease No.

LOCATION OF RELEASE

API # 30 025 31730

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	34	23S	37E	800'	South	1980'	East	Lea

Latitude 32° 1522.2N **Longitude** 103° 0855W

NATURE OF RELEASE

Type of Release Oil	Volume of Release 7 bbls	Volume Recovered 2 bbls
Source of Release Flowline	Date and Hour of Occurrence	Date and Hour of Discovery 12-26-07 @ 11:00 AM NM Time
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? BLM - Phone Message, NMOCD – Phone Message	
By Whom? Rodney Long	Date and Hour 12-26-07	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
A 3" poly flowline froze and burst at the edge of location. Approximately 2 barrels was picked up and saturated soil was removed.

Describe Area Affected and Cleanup Action Taken.*
Highlander (Tetra Tech) collected samples from excavation for evaluation for closure.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Mark Andersen

Printed Name: Mark Andersen

Title: Staff HES Specialist

E-mail Address: mark_andersen@oxy.com

Date: 9/15/08 Phone: (432) 685-5824

OIL CONSERVATION DIVISION

Approved by District Supervisor: ENVIRONMENTAL ENGINEER

Approval Date: 10.16.08 Expiration Date: 12.16.08

Conditions of Approval:
ALL MATERIAL CONTAMINATED TO BE REMOVED TO DISPOSAL

Attached ☐
IRP # 1982

* Attach Additional Sheets If Necessary

CLEANUP PLAN DENIED RESUBMIT BY → DEADLINE 12.16.08

fGRL 0834551401

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

OCT 01 2008
HOBBS OCD

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Report

Name of Company Latigo Petroleum, Inc.	Contact Pat Ellis
Address P.O. Box 10340 Midland, Tx 79702	Telephone No. (432) 685-8100
Facility Name E.C. Hill B Federal # 8	Facility Type flowline

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	34	23S	37E	800	South	1980	East	Lea

Latitude 32 15 22.2 N Longitude 103 08 55 W

NATURE OF RELEASE

Type of Release oil	Volume of Release 7 BBLS	Volume Recovered 2 BBLS
Source of Release flowline	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? 12-26-07 11:00 AM BLM - phone message OCD - phone message	
By Whom? Rodney Long	Date and Hour 12-26-07	
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

A 3" poly flowline froze and burst at the edge of location. Approximately 2 bbls was picked up and saturated soil removed.

Describe Area Affected and Cleanup Action Taken.*

Highlander Environmental will access site and take soil samples. Workplan to remediate will be submitted for closure.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Patrick L. Ellis	OIL CONSERVATION DIVISION
Printed Name: Patrick L. Ellis	Approved by District Supervisor:
Title: EH&S Supervisor	Approval Date: / Expiration Date:
E-mail Address: ellis@pogoproducing.com	Conditions of Approval: / Attached ☐
Date: 1-22-08 Phone: (432) 685-8100	

* Attach Additional Sheets If Necessary

SITE INFORMATION

General Site Information:	
Site:	**E.C. Hill Federal #8 Well**
Company:	**Pogo Producing Company (Now OXY, USA, Inc.)**
Section, Township and Range	**Section 34, T23S, R37 E**
Unit Letter:	**O**
Lease Number:	
County:	**Lea**
GPS:	**N32° 15'22.2" W 103° 08'55"**
Surface Owner:	
Mineral Owner:	
Directions:	From Jal, New Mexico, intersection of Hwy.18 and Hwy. 128, go North for 12.2 miles.
	Turn East onto lease road go 1.9 mi road will turn south go 1.6 mi to a T. Go left at T
	for 1.1 mi, Then turn right (southwest) for aprox 0.5 mi to the well location.

Release Data:	
Date Released:	12/26/2007
Type Release:	Oil
Source of Contamination:	Well- Flowline Leak
Fluid Released:	7 bbl
Fluids Recovered:	2 bbl

Official Communication:			
Name:	Mark Andersen		Ike Tavarez
Company:	OXY, USA, Inc.		Tetra Tech
Address:	6 Desta Drive, Suite 6000		1910 N. Big Spring
P.O. Box	50250		
City:	Midland Texas, 79705		Midland, Texas
Phone number:	(432) 685-5600		(432) 682- 4559
Email:	Mark Andersen@oxy.com		ike.tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	**0**	*>100 ft.*
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	*None*
Water Source >1,000 ft., Private >200 ft.	***0***	
Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	*None*
200 ft - 1,000 ft.	10	*None*
>1,000 ft.	**0**	
Total Ranking Score:	0	

Acceptable Soil RRAL (mg/kg)		
Benzene	*Total BTEX*	*TPH*
10	50	5,000

TETRA TECH

RECEIVED
OCT 01 2008
HOBBS OCD

September 10, 2008

Mr. Larry Johnson
Environmental Bureau
Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, New Mexico 88240

DENIED

Re: Assessment and Closure Request for the Pogo Producing Company (Now OXY, USA, Inc.), E.C. Hill Federal #8 Well, Located in Unit Letter O, Section 34, Township 23 South, Range 37 East, Lea County, New Mexico.

Mr. Johnson:

Tetra Tech (Formerly Highlander Environmental Corp.) was contacted by Pogo Producing Company (now OXY) to collect confirmation samples from a release that occurred at the E.C. Hill Federal #8 Well, located in Unit Letter O, Section 34, Township 23 South, Range 37 East, Lea County, New Mexico. The site location coordinates are N 32°15'22.2" W 103°08'55". The Site is shown on Figure 1.

Background

On December 26, 2007, a 3" poly line froze and broke at the edge of the location. Approximately 7 barrels of oil was released and 2 barrels were recovered. Pogo supervised the removal of the oil saturated soil. The excavated area measured approximately 25' x 25' at a depth of approximately 3' below ground surface (bgs). The State of New Mexico C-141 (Initial) is included in Appendix D.

Groundwater and Regulatory

According to the New Mexico Office of the State Engineer iWaters database, there are wells located in 9, 16 and 32 Township 23 S, Range 37E, with reported depths to water of 100, 115 and 106' bgs, respectively. Copies of the water level data are enclosed in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 mg/kg and 50 mg/kg for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based upon the apparent regional depth to groundwater, the proposed RRAL

Tetra Tech
1910 North Big Spring, Midland, TX 79705
Tel 432.682 4559 Fax 432.682.3946 www tetratech com

for TPH is 5,000 mg/kg.

Soil Assessment

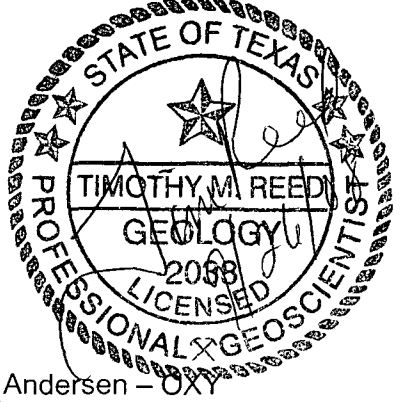
On January 11, 2008, Highlander personnel inspected and assessed the spill area. Prior to sampling, Pogo supervised the removal of approximately 3' of impacted soil from the spill area. Two (2) auger holes were installed inside the excavated area to assess the spill area. Samples were collected to the top of a dense caliche layer. Soil samples collected were analyzed for evaluation by method 8015M, BTEX by method 8021B and chloride by method 300.0. The sample locations are shown on Figure 2. The sampling results are summarized in Table 1.

Soil Sample Results

Referring to Table 1, none of the samples exceeded the RRALs for TPH or BTEX. The chloride concentrations ranged from 1270 mg/kg to 2260 mg/kg.

Based on the data, one borehole was installed in the excavation to a depth of 20' below the bottom of the excavation. The borehole location is shown on Figure 2. Chloride concentrations in the borehole were all below 1,000 mg/kg and declined with depth to less than 100 mg/kg at 13'. The borehole data is summarized in Table 1. A boring log is included in Appendix C. A sample of the stockpile showed TPH concentrations below the RRAL and chloride concentrations below 1000 mg/kg. Copies of the laboratory analyses are included in Appendix B.

Based upon the results of the sampling and depth to groundwater, OXY requests approval of placement of the stockpiled material back into the excavation and closure of the site. A copy of the C-141 (Final) is included in Appendix D. If you have any question or comments concerning the assessment or the closure request, please call me at (432) 682-4559.



Respectfully submitted,
Tetra Tech

Tim Reed, P.G.
Sr. Project Manager

cc: Mark Andersen – OXY

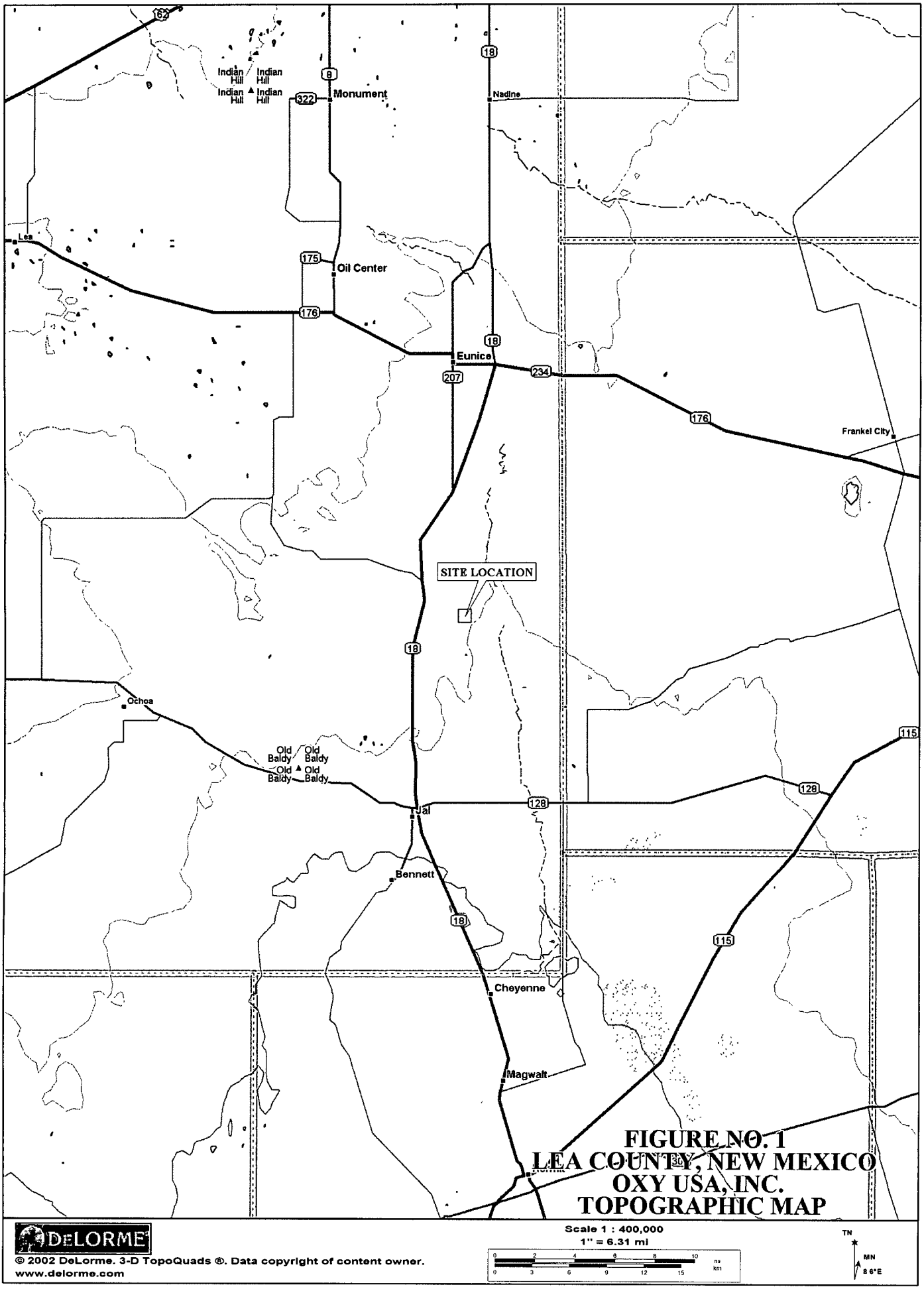


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
OXY USA, INC.
TOPOGRAPHIC MAP

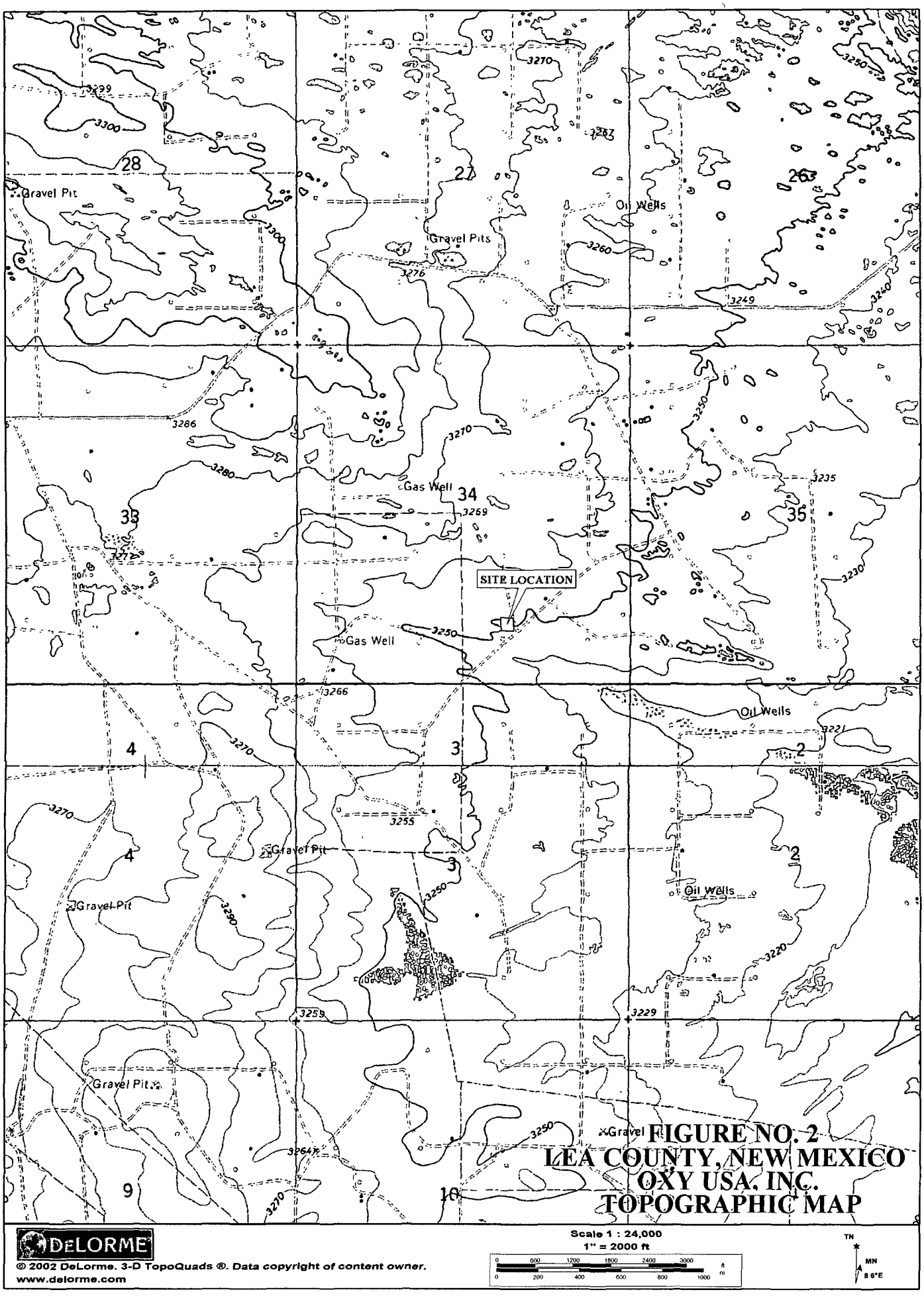
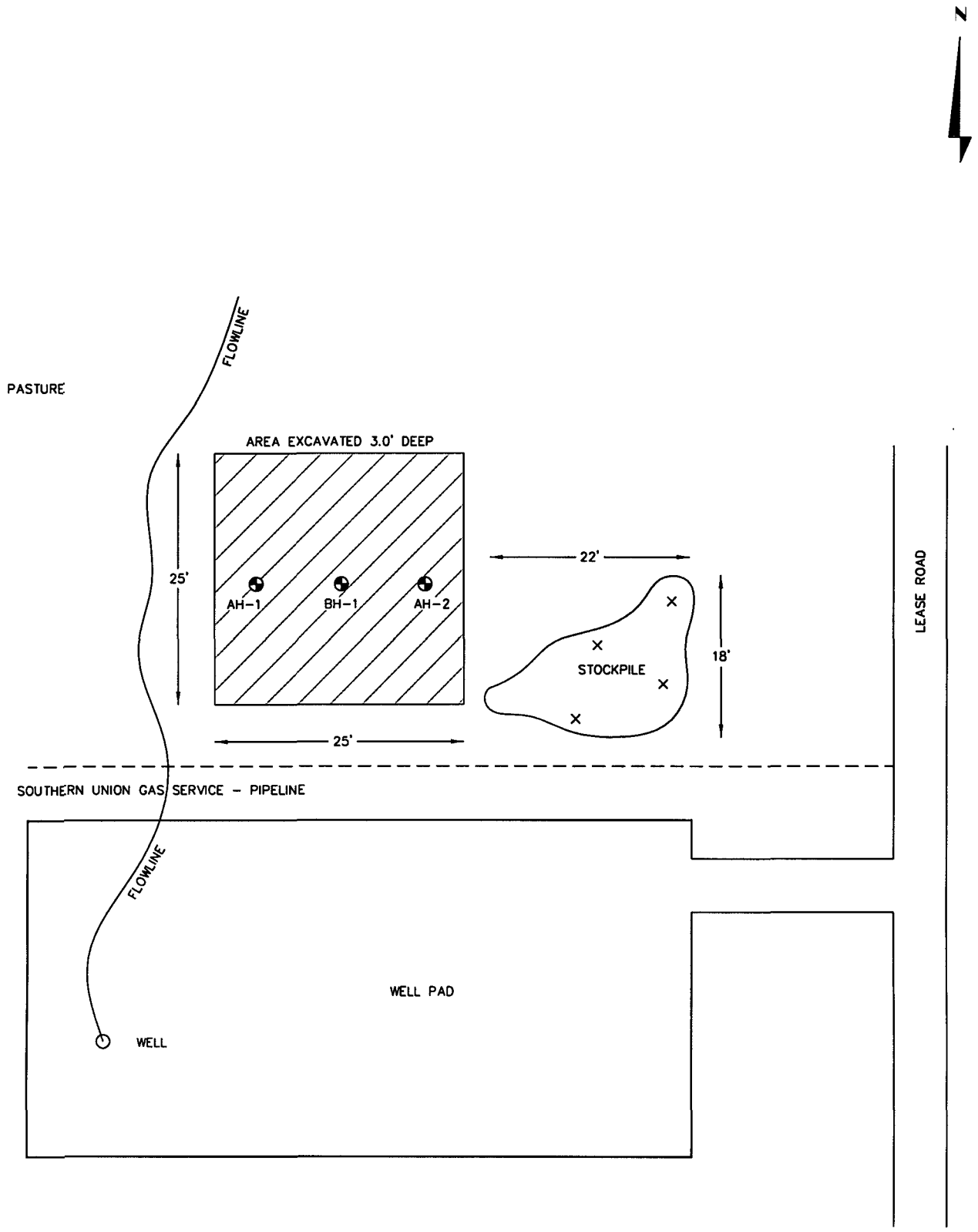


FIGURE NO. 2
LEA COUNTY, NEW MEXICO
OXY USA, INC.
TOPOGRAPHIC MAP



EXCAVATED AREA
AUGER HOLE
BORE HOLE

NOT TO SCALE

FIGURE NO. 3

LEA COUNTY, NEW MEXICO

PXP

E.C. HILL "B" FED. #8
FLOWLINE

DATE: 3/11/08
DWN. BY: RC
FILE: C:\FILE\PXP\3347

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

Table 1

OXY, USA, Inc.

E.C. Hill Fed. #8 Flowline

Lea County, NM

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
AH-1	1/11/2008	0-1'	<50.0	1.23	1.23	<0.0100	<0.0100	<0.0100	<0.0100	1820
	1/11/2008	1'-1.5'	<50.0	<1.00	<1.00	-	-	-	-	2060
	1/11/2008	2'-2.5'	-	-	-	-	-	-	-	2260
AH-2	1/11/2008	0-1'	<50.0	2.85	2.85	<0.0100	<0.0100	<0.0100	<0.0100	1610
	1/11/2008	1'-1.5'	<50.0	<1.00	<1.00	-	-	-	-	1270
	1/11/2008	2'-2.5'	-	-	-	-	-	-	-	2110
SB-1	8/26/2008	3-5	-	-	-	-	-	-	-	639
	8/26/2008	8-10	-	-	-	-	-	-	-	880
	8/26/2008	13-15	-	-	-	-	-	-	-	<100
	8/26/2008	18-20	-	-	-	-	-	-	-	220
Stockpile	1/11/2008	composite	2,310	743	3,053	-	-	-	-	922

(-) Not Analyzed

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 23S Range: 37E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○Non-Domestic ○Domestic
◉All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 08/29/2008

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	23S	37E	09				1	100	100	100
CP	23S	37E	16				1	115	115	115
CP	23S	37E	32				1	106	106	106

Record Count: 3

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: January 17, 2008

Work Order: 8011433

Project Location: Lea County, NM
Project Name: PxP/E.C. Hill B Fed. #8 Flowline
Project Number: 3347

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
147898	AH-1 (0-1')	soil	2008-01-11	00:00	2008-01-14
147899	AH-1 (1-1.5')	soil	2008-01-11	00:00	2008-01-14
147900	AH-1 (2-2.5')	soil	2008-01-11	00:00	2008-01-14
147901	AH-2 (0-1')	soil	2008-01-11	00:00	2008-01-14
147902	AH-2 (1-1.5')	soil	2008-01-11	00:00	2008-01-14
147903	AH-2 (2-2.5')	soil	2008-01-11	00:00	2008-01-14
147904	Stockpile	soil	2008-01-11	00:00	2008-01-14

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
147898 - AH-1 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**1.23**
147899 - AH-1 (1-1.5')					<50.0	<1.00
147901 - AH-2 (0-1')	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**2.85**
147902 - AH-2 (1-1.5')					<50.0	<1.00
147904 - Stockpile					**2310**	**743**

Sample: 147898 - AH-1 (0-1')

Param	Flag	Result	Units	RL
Chloride		**1820**	mg/Kg	2.00

Sample: 147899 - AH-1 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**2060**	mg/Kg	2.00

Sample: 147900 - AH-1 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**2260**	mg/Kg	2.00

Sample: 147901 - AH-2 (0-1')

Param	Flag	Result	Units	RL
Chloride		**1610**	mg/Kg	2.00

Sample: 147902 - AH-2 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**1270**	mg/Kg	2.00

Sample: 147903 - AH-2 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**2110**	mg/Kg	2.00

Sample: 147904 - Stockpile

Param	Flag	Result	Units	RL
Chloride		**922**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: January 22, 2008

Work Order: 8011433

Project Location: Lea County, NM
Project Name: PxP/E.C. Hill B Fed. #8 Flowline
Project Number: 3347

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
147898	AH-1 (0-1')	soil	2008-01-11	00:00	2008-01-14
147899	AH-1 (1-1.5')	soil	2008-01-11	00:00	2008-01-14
147900	AH-1 (2-2.5')	soil	2008-01-11	00:00	2008-01-14
147901	AH-2 (0-1')	soil	2008-01-11	00:00	2008-01-14
147902	AH-2 (1-1.5')	soil	2008-01-11	00:00	2008-01-14
147903	AH-2 (2-2.5')	soil	2008-01-11	00:00	2008-01-14
147904	Stockpile	soil	2008-01-11	00:00	2008-01-14

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 147898 - AH-1 (0-1')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	44741	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		<0.0100		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		<0.0100		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.996	mg/Kg	1	1.00	100	70 - 130

Sample: 147898 - AH-1 (0-1')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44722	Date Analyzed:	2008-01-15	Analyzed By:	AR
Prep Batch:	38510	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1820**		mg/Kg	50	2.00

Sample: 147898 - AH-1 (0-1')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44685	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	Sample Preparation:	2008-01-15	Prepared By:	LD

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		119	mg/Kg	1	100	119	39.1 - 137.7

Sample: 147898 - AH-1 (0-1')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	**1.23**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.945	mg/Kg	1	1.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)		0.963	mg/Kg	1	1.00	96	70 - 130

Sample: 147899 - AH-1 (1-1.5')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44722	Date Analyzed:	2008-01-15	Analyzed By:	AR
Prep Batch:	38510	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2060**	mg/Kg	50	2.00

Sample: 147899 - AH-1 (1-1.5')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44685	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	Sample Preparation:	2008-01-15	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		118	mg/Kg	1	100	118	39.1 - 137.7

Sample: 147899 - AH-1 (1-1.5')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.943	mg/Kg	1	1.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)		0.954	mg/Kg	1	1.00	95	70 - 130

Sample: 147900 - AH-1 (2-2.5')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	Sample Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2260**	mg/Kg	50	2.00

Sample: 147901 - AH-2 (0-1')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	44741	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)		0.991	mg/Kg	1	1.00	99	70 - 130

Sample: 147901 - AH-2 (0-1')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	Sample Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1610**	mg/Kg	50	2.00

Sample: 147901 - AH-2 (0-1')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44685	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	Sample Preparation:	2008-01-15	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[1]	141	mg/Kg	1	100	141	39.1 - 137.7

Sample: 147901 - AH-2 (0-1')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	*B*	**2.85**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.943	mg/Kg	1	1.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)		0.960	mg/Kg	1	1.00	96	70 - 130

Sample: 147902 - AH-2 (1-1.5')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	Sample Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1270**	mg/Kg	50	2.00

Sample: 147902 - AH-2 (1-1.5')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44685	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	Sample Preparation:	2008-01-15	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		115	mg/Kg	1	100	115	39.1 - 137.7

Sample: 147902 - AH-2 (1-1.5')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

[1] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.940	mg/Kg	1	1.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)		0.950	mg/Kg	1	1.00	95	70 - 130

Sample: 147903 - AH-2 (2-2.5')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	Sample Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2110**	mg/Kg	50	2.00

Sample: 147904 - Stockpile

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	Sample Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**922**	mg/Kg	50	2.00

Sample: 147904 - Stockpile

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44718	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	Sample Preparation:	2008-01-15	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2310**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[2]	372	mg/Kg	10	100	372	39.1 - 137.7

Sample: 147904 - Stockpile

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	Sample Preparation:	2007-01-15	Prepared By:	DC

[2]High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**743**	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.0	mg/Kg	20	20.0	95	70 - 130
4-Bromofluorobenzene (4-BFB)	[3]	27.2	mg/Kg	20	20.0	136	70 - 130

Method Blank (1) QC Batch: 44685

QC Batch: 44685 | Date Analyzed: 2008-01-15 | Analyzed By: LD
Prep Batch: 38481 | QC Preparation: 2008-01-15 | Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		133	mg/Kg	1	100	133	33.3 - 157.4

Method Blank (1) QC Batch: 44718

QC Batch: 44718 | Date Analyzed: 2008-01-15 | Analyzed By: LD
Prep Batch: 38481 | QC Preparation: 2008-01-15 | Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		18.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		95.1	mg/Kg	1	100	95	33.3 - 157.4

Method Blank (1) QC Batch: 44722

QC Batch: 44722 | Date Analyzed: 2008-01-15 | Analyzed By: AR
Prep Batch: 38510 | QC Preparation: 2008-01-15 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

[3]High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 44734

QC Batch:	44734	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	QC Preparation:	2008-01-15	Prepared By:	DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.634	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.972	mg/Kg	1	1.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)		0.965	mg/Kg	1	1.00	96	70 - 130

Method Blank (1) QC Batch: 44741

QC Batch:	44741	Date Analyzed:	2008-01-15	Analyzed By:	DC
Prep Batch:	38509	QC Preparation:	2008-01-15	Prepared By:	DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00300	mg/Kg	0.01
Toluene		<0.00300	mg/Kg	0.01
Ethylbenzene		<0.00400	mg/Kg	0.01
Xylene		<0.0140	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)		0.981	mg/Kg	1	1.00	98	70 - 130

Method Blank (1) QC Batch: 44746

QC Batch:	44746	Date Analyzed:	2008-01-16	Analyzed By:	AR
Prep Batch:	38528	QC Preparation:	2008-01-16	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch:	44685	Date Analyzed:	2008-01-15	Analyzed By:	LD
Prep Batch:	38481	QC Preparation:	2008-01-15	Prepared By:	LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	238	mg/Kg	1	250	<14.6	95	48.1 - 140.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	248	mg/Kg	1	250	<14.6	99	48.1 - 140.9	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	92.9	79.8	mg/Kg	1	100	93	80	42.1 - 138.9

Laboratory Control Spike (LCS-1)

QC Batch: 44718 | Date Analyzed: 2008-01-15 | Analyzed By: LD
Prep Batch: 38481 | QC Preparation: 2008-01-15 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	259	mg/Kg	1	250	<14.6	104	48.1 - 140.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	285	mg/Kg	1	250	<14.6	114	48.1 - 140.9	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	99.0	106	mg/Kg	1	100	99	106	42.1 - 138.9

Laboratory Control Spike (LCS-1)

QC Batch: 44722 | Date Analyzed: 2008-01-15 | Analyzed By: AR
Prep Batch: 38510 | QC Preparation: 2008-01-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	92.9	mg/Kg	1	100	<0.500	93	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	93.9	mg/Kg	1	100	<0.500	94	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 44734 | Date Analyzed: 2008-01-15 | Analyzed By: DC
Prep Batch: 38509 | QC Preparation: 2008-01-15 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.28	mg/Kg	1	10.0	<0.0118	83	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.77	mg/Kg	1	10.0	<0.0118	88	70 - 130	6	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.982	0.987	mg/Kg	1	1.00	98	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.990	1.00	mg/Kg	1	1.00	99	100	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 44741 | Date Analyzed: 2008-01-15 | Analyzed By: DC
Prep Batch: 38509 | QC Preparation: 2008-01-15 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.936	mg/Kg	1	1.00	<0.00300	94	70 - 130
Toluene	0.927	mg/Kg	1	1.00	<0.00300	93	70 - 130
Ethylbenzene	0.919	mg/Kg	1	1.00	<0.00400	92	70 - 130
Xylene	2.77	mg/Kg	1	3.00	<0.0140	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.967	mg/Kg	1	1.00	<0.00300	97	70 - 130	3	
Toluene	0.962	mg/Kg	1	1.00	<0.00300	96	70 - 130	4	
Ethylbenzene	0.952	mg/Kg	1	1.00	<0.00400	95	70 - 130	4	
Xylene	2.87	mg/Kg	1	3.00	<0.0140	96	70 - 130	4	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.00	1.01	mg/Kg	1	1.00	100	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.988	0.984	mg/Kg	1	1.00	99	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 44746 | Date Analyzed: 2008-01-16 | Analyzed By: AR
Prep Batch: 38528 | QC Preparation: 2008-01-16 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	94.4	mg/Kg	1	100	<0.500	94	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	95.4	mg/Kg	1	100	<0.500	95	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 147844

QC Batch: 44685 | Date Analyzed: 2008-01-15 | Analyzed By: LD
Prep Batch: 38481 | QC Preparation: 2008-01-15 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	245	mg/Kg	1	250	<14.6	98	35.6 - 173.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	240	mg/Kg	1	250	<14.6	96	35.6 - 173.6	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	111	97.8	mg/Kg	1	100	111	98	33 - 156.2

Matrix Spike (MS-1) Spiked Sample: 147920

QC Batch: 44718 | Date Analyzed: 2008-01-15 | Analyzed By: LD
Prep Batch: 38481 | QC Preparation: 2008-01-15 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	102	mg/Kg	1	250	<14.6	41	35.6 - 173.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO [4]	133	mg/Kg	1	250	<14.6	53	35.6 - 173.6	26	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane [5]	155	160	mg/Kg	1	100	155	160	33 - 156.2

Matrix Spike (MS-1) Spiked Sample: 147899

QC Batch: 44722 | Date Analyzed: 2008-01-15 | Analyzed By: AR
Prep Batch: 38510 | QC Preparation: 2008-01-15 | Prepared By: AR

[4]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[5]High surrogate recovery due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	6490	mg/Kg	50	5000	2064.26	88	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	6540	mg/Kg	50	5000	2064.26	90	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 147936

QC Batch: 44734 | Date Analyzed: 2008-01-15 | Analyzed By: DC
Prep Batch: 38509 | QC Preparation: 2008-01-15 | Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	11.6	mg/Kg	1	10.0	1.7047	99	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	10.8	mg/Kg	1	10.0	1.7047	91	70 - 130	7	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.923	0.916	mg/Kg	1	1	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.994	1.03	mg/Kg	1	1	99	103	70 - 130

Matrix Spike (MS-1) Spiked Sample: 147898

QC Batch: 44741 | Date Analyzed: 2008-01-15 | Analyzed By: DC
Prep Batch: 38509 | QC Preparation: 2008-01-15 | Prepared By: DC

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	[6]	1.51	mg/Kg	1	1.00	<0.00300	151	70 - 130
Toluene	[7]	1.53	mg/Kg	1	1.00	<0.00300	153	70 - 130
Ethylbenzene	[8]	1.56	mg/Kg	1	1.00	<0.00400	156	70 - 130
Xylene	[9]	4.67	mg/Kg	1	3.00	<0.0140	156	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

[6]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[7]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[8]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene [10]	1.34	mg/Kg	1	1.00	<0.00300	134	70 - 130	12	
Toluene [11]	1.35	mg/Kg	1	1.00	<0.00300	135	70 - 130	12	
Ethylbenzene [12]	1.38	mg/Kg	1	1.00	<0.00400	138	70 - 130	12	
Xylene [13]	4.15	mg/Kg	1	3.00	<0.0140	138	70 - 130	12	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.02	1.02	mg/Kg	1	1	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.999	0.994	mg/Kg	1	1	100	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 147909

QC Batch: 44746 | Date Analyzed: 2008-01-16 | Analyzed By: AR
Prep Batch: 38528 | QC Preparation: 2008-01-16 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5150	mg/Kg	50	5000	222.117	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5190	mg/Kg	50	5000	222.117	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-2)

QC Batch: 44685 | Date Analyzed: 2008-01-15 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	233	93	85 - 115	2008-01-15

Standard (CCV-3)

QC Batch: 44685 | Date Analyzed: 2008-01-15 | Analyzed By: LD

[10]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[12]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
[13]Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	286	114	85 - 115	2008-01-15

Standard (ICV-1)

QC Batch: 44718 Date Analyzed: 2008-01-15 Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	85 - 115	2008-01-15

Standard (CCV-1)

QC Batch: 44718 Date Analyzed: 2008-01-15 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	85 - 115	2008-01-15

Standard (ICV-1)

QC Batch: 44722 Date Analyzed: 2008-01-15 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	105	105	85 - 115	2008-01-15

Standard (CCV-1)

QC Batch: 44722 Date Analyzed: 2008-01-15 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	94.8	95	85 - 115	2008-01-15

Standard (ICV-1)

QC Batch: 44734 Date Analyzed: 2008-01-15 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.08	108	85 - 115	2008-01-15

Standard (CCV-1)

QC Batch: 44734 | Date Analyzed: 2008-01-15 | Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2008-01-15

Standard (ICV-1)

QC Batch: 44741 | Date Analyzed: 2008-01-15 | Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0993	99	85 - 115	2008-01-15
Toluene		mg/Kg	0.100	0.0988	99	85 - 115	2008-01-15
Ethylbenzene		mg/Kg	0.100	0.0983	98	85 - 115	2008-01-15
Xylene		mg/Kg	0.300	0.296	99	85 - 115	2008-01-15

Standard (CCV-1)

QC Batch: 44741 | Date Analyzed: 2008-01-15 | Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0955	96	85 - 115	2008-01-15
Toluene		mg/Kg	0.100	0.0944	94	85 - 115	2008-01-15
Ethylbenzene		mg/Kg	0.100	0.0927	93	85 - 115	2008-01-15
Xylene		mg/Kg	0.300	0.279	93	85 - 115	2008-01-15

Standard (ICV-1)

QC Batch: 44746 | Date Analyzed: 2008-01-16 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2008-01-16

Standard (CCV-1)

QC Batch: 44746 | Date Analyzed: 2008-01-16 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.3	96	85 - 115	2008-01-16

WO# 8011433

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: OF:

CLIENT NAME: PxP

SITE MANAGER: IKE TAVAREZ

PROJECT NO.: 33417

PROJECT NAME: PxP / E.C. Hill "B" FED #8 FLOWLINE
LEA CO, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
897	01/11/08		S		X	AH-1 (0-1')	1				X	
899			S		X	AH-1 (1-1.5')	1				X	
900			S		X	AH-1 (2-2.5')	1				X	
901			S		X	AH-2 (0-1')	1				X	
902			S		X	AH-2 (1-1.5')	1				X	
903			S		X	AH-2 (2-2.5')	1				X	
904			S	X	X	STOCKPILE	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

RTEX 8020/602	MTBE 8020/602	8015 MOD. TX1005 TPH 418.1	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	HCl	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/808	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
X		X											X			
		X											X			
		X											X			
X		X											X			
		X											X			
		X											X			
		X											X			

RELINQUISHED BY: (Signature) Date: 01/14/08 Time: 9:28
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) J. RUSSO / K. HARRISON Date: 01/14/08 Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 1-14-08 TIME: 16:20

HIGHLANDER CONTACT PERSON: IKE TAVAREZ

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2.8°C intact

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

AR

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

Summary Report

Tim Reed
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 29, 2008

Work Order: 8082620

Project Name: E.C. Hill 'B' Fed. #8
Project Number: 3347

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
171853	SB-1 (3-5')	soil	2008-08-26	00:00	2008-08-26
171854	SB-1 (8-10')	soil	2008-08-26	00:00	2008-08-26
171855	SB-1 (13-15')	soil	2008-08-26	00:00	2008-08-26
171856	SB-1 (18-20')	soil	2008-08-26	00:00	2008-08-26

Sample: 171853 - SB-1 (3-5')

Param	Flag	Result	Units	RL
Chloride		**639**	mg/Kg	2.00

Sample: 171854 - SB-1 (8-10')

Param	Flag	Result	Units	RL
Chloride		**880**	mg/Kg	2.00

Sample: 171855 - SB-1 (13-15')

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 171856 - SB-1 (18-20')

Param	Flag	Result	Units	RL
Chloride		**220**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
200 East Sunset Road, Suite E | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•4944
5002 Basin Street, Suite A1 | Midland, Texas 79703 | | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260 |
E-Mail: lab@traceanalysis.com

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: September 2, 2008

Work Order: 8082620

Project Name: E.C. Hill 'B' Fed. #8
Project Number: 3347

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
171853	SB-1 (3-5')	soil	2008-08-26	00:00	2008-08-26
171854	SB-1 (8-10')	soil	2008-08-26	00:00	2008-08-26
171855	SB-1 (13-15')	soil	2008-08-26	00:00	2008-08-26
171856	SB-1 (18-20')	soil	2008-08-26	00:00	2008-08-26

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project E.C. Hill 'B' Fed. #8 were received by TraceAnalysis, Inc. on 2008-08-26 and assigned to work order 8082620. Samples for work order 8082620 were received intact at a temperature of 4.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Chloride (Titration)	SM 4500-Cl B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8082620 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 171853 - SB-1 (3-5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	51912	Date Analyzed:	2008-08-29	Analyzed By:	AR
Prep Batch:	44518	Sample Preparation:	2008-08-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**639**	mg/Kg	50	2.00

Sample: 171854 - SB-1 (8-10')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	51912	Date Analyzed:	2008-08-29	Analyzed By:	AR
Prep Batch:	44518	Sample Preparation:	2008-08-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**880**	mg/Kg	50	2.00

Sample: 171855 - SB-1 (13-15')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	51912	Date Analyzed:	2008-08-29	Analyzed By:	AR
Prep Batch:	44518	Sample Preparation:	2008-08-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 171856 - SB-1 (18-20')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	51912	Date Analyzed:	2008-08-29	Analyzed By:	AR
Prep Batch:	44518	Sample Preparation:	2008-08-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**220**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 51912

QC Batch: 51912 Date Analyzed: 2008-08-29 Analyzed By: AR
Prep Batch: 44518 QC Preparation: 2008-08-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 51912 Date Analyzed: 2008-08-29 Analyzed By: AR
Prep Batch: 44518 QC Preparation: 2008-08-28 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.9	mg/Kg	1	100	<0.500	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 171856

QC Batch: 51912 Date Analyzed: 2008-08-29 Analyzed By: AR
Prep Batch: 44518 QC Preparation: 2008-08-28 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5360	mg/Kg	50	5000	220	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5460	mg/Kg	50	5000	220	105	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 51912 Date Analyzed: 2008-08-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	103	103	85 - 115	2008-08-29

Standard (CCV-1)

QC Batch: 51912 Date Analyzed: 2008-08-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.8	97	85 - 115	2008-08-29

8082620

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Oxy USA

SITE MANAGER: Jeff Kindley

PROJECT NO.: 3347

PROJECT NAME: E.C. Hill 'B' Fed #8

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	REI	GC-MS Vol. 8240/8260/624	GC-MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
17853	08/26/08		S		✓	SB-1 (3-5')	1					✓														✓			
854	08/26/08		S		✓	SB-1 (8-10')	1					✓														✓			
855	08/26/08		S		✓	SB-1 (13-15')	1					✓														✓			
856	08/26/08		S		✓	SB-1 (18-20')	1					✓														✓			

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Jeffrey Kindley	Date: August 26, 2008 Time: 16:00	RECEIVED BY: (Signature) Lindsey Wilson	Date: 08-26-08 Time: 16:00	SAMPLED BY: (Print & Sign) Jeffrey Kindley Jeffrey Kindley	Date: August 26, 2008 Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL # OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:		
RECEIVING LABORATORY: Trace Analysis ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:		RECEIVED BY: (Signature) Lindsey Wilson DATE: 08-26-08 TIME: 16:00		HIGHLANDER CONTACT PERSON: Jeff Kindley	Results by: RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4.0°C

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: 4.0° All tests Midland

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.