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

JAN 22 2009
OCD-ARTESIA

Form C-141
Revised October 10, 2003

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

30-015-21552
nMLB0908236534

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **BP America Production Company**	Contact **Steve Pacheco**
Address **PO Box 129 Artesia, NM 88210**	Telephone No. **575-677-3642**
Facility Name **Empire Abo Unit L-191**	Facility Type **Produced Water Storage and Injection**

Surface Owner **BLM**	Mineral Owner **BLM**	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	~~North~~/South Line	Feet from the	~~East~~/West Line	County
	1	**18S**	**27E**	**660**		**1980**		**Eddy**

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **Unknown**	Volume Recovered **Unknown**
Source of Release **Produced Water Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historical Release

Describe Area Affected and Cleanup Action Taken.*
Work plan is attached.

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: Alton Callihan	OIL CONSERVATION DIVISION
Printed Name: Alton G. Callihan	Approved by District Supervisor: Signed By Wayne Price
Title: Permian Operating Center Manager	Approval Date: MARCH ~~APR~~ 23 2009 Expiration Date:
E-mail Address steve.pacheco@bp.com	Conditions of Approval: Remediation per OCD Rules & Guidelines Attached ☐
Date: 1/21/2009 Phone: 432-688-5535	

* Attach Additional Sheets If Necessary

2RP-298

Well Selection Criteria Quick Print

(tblWellMaster.api_wellno Like '30015215520000')

API Well #	Well Name and No.		Operator Name	Typ	Stat	County	Surf	UL	Sec	Twp	Rng	Ft N/S	Ft E/W	UICPrmt	Lst Insp Dt
30-015-21552-00-00	EMPIRE ABO UNIT	191	BP AMERICA PRODUCTION COM	O	A	Eddy	F	G	1	18 S	27 E	2500 N	2500 E	NSL-706	3/23/2009

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Tuesday, March 24, 2009 11:18 AM
To: 'steve.pacheco@bp.com'
Cc: 'etaylor@talonlpe.com'; 'james_amos@nm.blm.gov'
Subject: BP Empire Abo Unit 191
Attachments: BP America_EmpireAboUt_191.doc

Please see attachment

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

BP America Production Co.
PO Box 3092
Houston, TX 77253

March 24, 2009

Local:
BP America Production Co.
PO Box 129
Artesia, NM 88210
ATTN: Steve Pacheco

RE: Empire Abo Unit 191 (L-191) 30-015-21552 G-1-18s-27e Eddy County New Mexico

Mr. Pacheco,

The New Mexico Oil Conservation Division District 2 Office (OCD) is in receipt of a work plan proposal (plan) for finalizing the remediation project at the above referenced well site. The plan was submitted by your agent, Talon/LPE. The plan is approved as submitted with the following conditions:

- Notify the OCD 48 hours prior to installing liner
- Submit a Final Report C-141 upon satisfactory completion of project.
- Like approval by Bureau of Land Management.

Please be advised that this approval does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, this approval does not relieve the operator of responsibility for compliance with any other state, federal, local laws and/or regulations.

Sincerely,

Mike Bratcher
NMOCD District 2
1301 W. Grand Ave.
Artesia, NM 88210
575-748-1283 Ext.108
mike.bratcher@state.nm.us

TALON
"All the Pieces"

SOILS REMEDATION WORK PLAN
EMPIRE ABO UNIT L-191
EDDY COUNTY, NEW MEXICO
SEC 1-T18S-R27E

FEB 26 2009

Prepared for:

BP AMERICA PRODUCTION CO.
PO Box 3092
Houston, Texas 77253

Prepared by:

Talon/LPE
Eb Taylor
318 East Taylor
Hobbs, New Mexico 88240

February 25, 2009

TALON

January 14, 2009

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806 467.0622

AUSTIN
3003 Tom Gary Cove
Building C-100
Round Rock, Texas 78664
Phone 512 989 3428
Fax 512 989 3487

MIDLAND
2901 State Highway 349
Midland, Texas 79706
Phone 432 522 2133
Fax 432 522 2180

SAN ANTONIO
17170 Jordan Road
Suite 102
Selma, Texas 78154
Phone 210 579.0235
Fax 210 568 2191

TULSA
9906 East 43rd Street
Suite G
Tulsa, Oklahoma 74146
Phone 918 742 0871
Fax 918 742 0876

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505 393 4261
Fax 505 393.4658

TYLER
719 West Front Street
Suite 255
Tyler, Texas 75702
Phone 903.531.9971
Fax 903.531 9979

HOUSTON
3233 West 11th Street
Suite 400
Houston, Texas 77008
Phone 713.861 0081
Fax 713 868 3208

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

Toll Free 866 742 0742
www.talonlpe.com

RE: Soil Remediation Work Plan
Empire Abo Unit L-191
Sec 1-T18S-R27E
Empire Abo Oil Field in Eddy County, New Mexico

This letter transmits the Soil Remediation Work Plan (work plan) for chloride impacted soil identified at the above referenced site. The site is located in a rural area of the Empire Abo Oil Field in Eddy County, New Mexico (Sec 1-T18S-R27E). In October 2008, Talon/LPE (Talon) was contracted by BP America (BP) to conduct site reclamation activities at the Empire Abo Unit L-191. While inspecting the site, it appeared that there was possible chloride impact in the former tank battery area. On November 14, 2008, Talon conducted a site investigation and collected four soil samples. Additional details of the site investigation activities are provided within this work plan.

Regulatory Framework

The New Mexico Oil Conservation Division (NMOCD) has developed guidance for all federal, state, and fee lands in New Mexico for remediating contaminates resulting from leaks, spills, and releases of oil field wastes or products. This guidance assigns ranking scores to sites based on depth to groundwater, distance to water supply sources, and distance to surface water bodies. The guidance also provides remediation/clean-up levels for benzene, BTEX (benzene, toluene, ethyl benzene, and xylenes), and TPH (total petroleum hydrocarbons).

Based on site visits, the Empire Abo Unit L-191 is located in a rural area with no permanent residences within a 1,000 foot radius of the spill area. According to information obtained from the New Mexico Office of the State Engineer, there are no domestic water wells located in Sec 1-T18S-R27E. According to information obtained from the NMOCD, the depth to water is approximately 100 feet below ground surface (bgs).

According to NMOCD guidance, and based on depth to groundwater, distance from water supply sources, and distance to surface water bodies, the site ranking is zero (0). Based on the calculated rating, the applicable remediation guidelines for this site are as follows:

Constituent	Remediation/Clean-up Levels (mg/Kg)
Benzene	10
BTEX	50
TPH	100
Chlorides	250

Site Investigation and Excavation Activities

In an effort to determine if there was chloride impacted soil within the tank battery area, Talon personnel collected four samples from approximately four feet bgs on November 14, 2008. Personnel wearing new disposable gloves collected soil samples from a hand auger and placed the samples in laboratory-supplied containers, sealed with Teflon lined caps, labeled, and subsequently placed on ice in a covered, insulated cooler and chilled to 40°F. The soil samples were shipped to Trace Analyses for laboratory analysis. The collected soil samples were analyzed for BTEX by EPA Method SW-846-8021B, TPH GRO/DRO by EPA Method 8015 Modified and chlorides by EPA Method SW-846-300.0.

Analytical results from the collected soil samples indicate chloride concentrations below remediation/clean-up levels with the exception of BH-4. TPH concentrations were determined to be below remediation/clean-up levels in all of the soil samples with the exception of BH-2. Certified copies of the laboratory analytical results and proper chain of custody documentation are attached.

Based on the results of the sampling activities, Talon excavated the chloride and TPH impacted soil and transported it to the Lea Land Disposal facility located near Eunice, New Mexico. The area that was excavated is approximately 30 feet by 90 feet by 11 feet in depth. Approximately 1,200 yards of material was transported and disposed of at the Lea Land Disposal facility. Field screening for chlorides was conducted following excavation activities and it appeared chloride levels still exceeded remediation/clean-up levels. On December 15, 2008, Talon personnel collected two samples from the bottom of the excavation for laboratory analysis. Personnel wearing new disposable gloves collected soil samples and placed the samples in laboratory-supplied containers, sealed with Teflon lined caps, labeled, and subsequently placed on ice in a covered, insulated cooler and chilled to 40°F. The soil samples were shipped to Trace Analyses for laboratory analysis. The collected soil samples were analyzed for chlorides by EPA Method SW-846-300.0. Analytical results indicate chloride levels were still above remediation/clean-up levels. Certified copies of the laboratory analytical results and proper chain of custody documentation are attached.

On February 10, 2009 Talon excavated in the BH-1 area to a depth of 18 feet bgs and 16 feet bgs in the BH-2 area. Using field chloride screening Talon determined the chloride levels at these depths were non-detect. Personnel wearing new disposable gloves collected soil samples from the two excavations and placed the samples in laboratory supplied containers, sealed with Teflon lined caps, labeled, and subsequently placed on ice in a covered, insulated cooler chilled to 40°F. The samples were shipped to Trace Analyses for laboratory analysis. The collected samples were analyzed for chlorides by EPA Method SW-846-300.0, BTEX by Method SW-846-8021B, and TPH 418.1. Analytical results indicated chloride and BTEX levels were below NMOCD closure levels.

Site Remediation Plan

The site investigation and excavation analytical results indicate the presence of chloride impacted soils above the applicable NMOCD guidelines at approximately 15 to 16 feet bgs. Therefore, Talon and BP propose to line the excavation with a 20-millimeter geosynthetic liner to prevent the further migration of chlorides in the subsoil. Once approved for closure by the NMOCD and the Bureau of Land Management (BLM), the lined excavation will be backfilled

with caliche purchased from an approved BLM caliche pit with the top one foot of the excavation being backfilled with top soil. The excavation area will then be contoured to promote proper drainage and sustain vegetation. The area will be seeded with the proper BLM seed mixture.
If you have any questions or concerns regarding this work plan, please feel free to contact me at 432-238-6388.

Respectfully Submitted,

Eb Taylor
Talon/LPE New Mexico Division Manager

Attachments:

Attachment 1: **Soil Sample Analytical Data Reports and Chain of Custody Documentation**

Attachment 2: **Maps**

ATTACHMENT 1
ANALYTICAL

Summary Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM 88240

Report Date: November 26, 2008

Work Order: 8111724

Project Location: Eddy County, NM
Project Name: EAV L-191
Project Number: BPETR0030REL

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
179685	BH-1	soil	2008-11-14	08:00	2008-11-17
179686	BH-2	soil	2008-11-14	08:05	2008-11-17
179687	BH-3	soil	2008-11-14	08:10	2008-11-17
179688	BH-4	soil	2008-11-14	08:15	2008-11-17

Sample - Field Code	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
179685 - BH-1	**53.1**	**2.48**
179686 - BH-2	**1440**	<2.00
179687 - BH-3	**740**	<2.00
179688 - BH-4	<50.0	<1.00

Sample: 179685 - BH-1

Param	Flag	Result	Units	RL
Benzene	[1]	<0.0200	mg/Kg	0.0100
Toluene		<0.0200	mg/Kg	0.0100
Ethylbenzene		<0.0200	mg/Kg	0.0100
Xylene		<0.0200	mg/Kg	0.0100
Total BTEX		<0.120	mg/Kg	0.0600
Chloride		**362**	mg/Kg	3.25

Sample: 179686 - BH-2

[1]Sample ran at a dilution due to surfactants.

Param	Flag	Result	Units	RL
Benzene	[2]	<0.0200	mg/Kg	0.0100
Toluene		<0.0200	mg/Kg	0.0100
Ethylbenzene		<0.0200	mg/Kg	0 0100
Xylene		<0 0200	mg/Kg	0.0100
Total BTEX		<0.120	mg/Kg	0.0600
Chloride		**59.8**	mg/Kg	3.25

Sample: 179687 - BH-3

Param	Flag	Result	Units	RL
Benzene	[3]	<0.0200	mg/Kg	0.0100
Toluene		<0.0200	mg/Kg	0.0100
Ethylbenzene		<0.0200	mg/Kg	0.0100
Xylene		<0.0200	mg/Kg	0.0100
Total BTEX		<0.120	mg/Kg	0.0600
Chloride		**77.2**	mg/Kg	3.25

Sample: 179688 - BH-4

Param	Flag	Result	Units	RL
Benzene		<0.0100	mg/Kg	0.0100
Toluene		<0.0100	mg/Kg	0.0100
Ethylbenzene		<0.0100	mg/Kg	0.0100
Xylene		<0.0100	mg/Kg	0.0100
Total BTEX		<0.0600	mg/Kg	0.0600
Chloride		**10600**	mg/Kg	3.25

[2]Sample ran at a dilution due to surfactants.
[3]Sample ran at a dilution due to surfactants.

TRACEANALYSIS, INC.

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: November 26, 2008

Work Order: 8111724

Project Location: Eddy County, NM
Project Name: EAV L-191
Project Number: BPETR0030REL

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
179685	BH-1	soil	2008-11-14	08:00	2008-11-17
179686	BH-2	soil	2008-11-14	08:05	2008-11-17
179687	BH-3	soil	2008-11-14	08:10	2008-11-17
179688	BH-4	soil	2008-11-14	08:15	2008-11-17

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 EAV L-191 were received by TraceAnalysis, Inc. on 2008-11-17 and assigned to work order 8111724. Samples for work order 8111724 were received intact at a temperature of 3.7 deg. C.

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

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
Total BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8111724 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: 179685 - BH-1

Laboratory:	Lubbock				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	54332	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[1]	<0.0200	mg/Kg	2	0.0100
Toluene		<0.0200	mg/Kg	2	0.0100
Ethylbenzene		<0.0200	mg/Kg	2	0.0100
Xylene		<0.0200	mg/Kg	2	0.0100
Total BTEX		<0.120	mg/Kg	2	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.11	mg/Kg	2	1.00	111	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	2	1.00	136	54.4 - 176.2

Sample: 179685 - BH-1

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	54625	Date Analyzed:	2008-11-25	Analyzed By:	RD
Prep Batch:	46705	Sample Preparation:	2008-11-25	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**362**	mg/Kg	10	3.25

Sample: 179685 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	54377	Date Analyzed:	2008-11-18	Analyzed By:	MN
Prep Batch:	46516	Sample Preparation:	2008-11-18	Prepared By.	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**53.1**	mg/Kg	1	50.0

[1]Sample ran at a dilution due to surfactants.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		161	mg/Kg	1	100	161	49.5 - 185

Sample: 179685 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	54333	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[2]	**2.48**	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	2	1.00	108	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	2	1.00	159	45.6 - 214.7

Sample: 179686 - BH-2

Laboratory:	Lubbock				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	54332	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[3]	<0.0200	mg/Kg	2	0.0100
Toluene		<0.0200	mg/Kg	2	0.0100
Ethylbenzene		<0.0200	mg/Kg	2	0.0100
Xylene		<0.0200	mg/Kg	2	0.0100
Total BTEX		<0.120	mg/Kg	2	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.22	mg/Kg	2	1.00	122	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	2	1.00	154	54.4 - 176.2

[2]Sample ran at a dilution due to surfactants.
[3]Sample ran at a dilution due to surfactants.

Sample: 179686 - BH-2

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	54625	Date Analyzed:	2008-11-25	Analyzed By:	RD
Prep Batch:	46705	Sample Preparation:	2008-11-25	Prepared By:	RD

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**59.8**	mg/Kg	10	3.25

Sample: 179686 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	54377	Date Analyzed:	2008-11-18	Analyzed By:	MN
Prep Batch:	46516	Sample Preparation:	2008-11-18	Prepared By:	MN

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**1440**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[4]	1300	mg/Kg	1	100	1300	49.5 - 185

Sample: 179686 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	54333	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	Result	RL Units	Dilution	RL
GRO	[5]	<2.00	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.26	mg/Kg	2	1.00	126	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	2	1.00	176	45.6 - 214.7

[4]High surrogate recovery due to peak interference.
[5]Sample ran at a dilution due to surfactants.

Sample: 179687 - BH-3

Laboratory:	Lubbock				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	54332	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[6]	<0.0200	mg/Kg	2	0.0100
Toluene		<0.0200	mg/Kg	2	0.0100
Ethylbenzene		<0.0200	mg/Kg	2	0.0100
Xylene		<0.0200	mg/Kg	2	0.0100
Total BTEX		<0.120	mg/Kg	2	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.05	mg/Kg	2	1.00	105	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.47	mg/Kg	2	1.00	147	54.4 - 176.2

Sample: 179687 - BH-3

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	54625	Date Analyzed:	2008-11-25	Analyzed By:	RD
Prep Batch:	46705	Sample Preparation:	2008-11-25	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**77.2**	mg/Kg	10	3.25

Sample: 179687 - BH-3

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	54377	Date Analyzed:	2008-11-18	Analyzed By:	MN
Prep Batch:	46516	Sample Preparation:	2008-11-18	Prepared By:	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**740**	mg/Kg	1	50.0

[6]Sample ran at a dilution due to surfactants.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[7]	800	mg/Kg	1	100	800	49.5 - 185

Sample: 179687 - BH-3

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	54333	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[8]	<2.00	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	2	1.00	102	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	2	1.00	152	45.6 - 214.7

Sample: 179688 - BH-4

Laboratory:	Lubbock				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	54332	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

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
Total BTEX		<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.29	mg/Kg	1	1.00	129	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.33	mg/Kg	1	1.00	133	54.4 - 176.2

[7]High surrogate recovery due to peak interference.
[8]Sample ran at a dilution due to surfactants

Sample: 179688 - BH-4

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	54625	Date Analyzed:	2008-11-25	Analyzed By:	RD
Prep Batch:	46705	Sample Preparation:	2008-11-25	Prepared By:	RD

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**10600**	mg/Kg	100	3.25

Sample: 179688 - BH-4

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	54377	Date Analyzed:	2008-11-18	Analyzed By:	MN
Prep Batch:	46516	Sample Preparation:	2008-11-18	Prepared By:	MN

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		121	mg/Kg	1	100	121	49.5 - 185

Sample: 179688 - BH-4

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method.	S 5035
QC Batch:	54333	Date Analyzed:	2008-11-17	Analyzed By:	ER
Prep Batch:	46480	Sample Preparation:	2008-11-17	Prepared By:	ER

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.33	mg/Kg	1	1.00	133	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.37	mg/Kg	1	1.00	137	45.6 - 214.7

Method Blank (1) QC Batch: 54332

QC Batch: 54332 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00347	mg/Kg	0.01
Toluene		<0.00525	mg/Kg	0.01
Ethylbenzene		<0.00607	mg/Kg	0.01
Xylene		<0.00724	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.990	mg/Kg	1	1.00	99	69.3 - 110.2
4-Bromofluorobenzene (4-BFB)		0.797	mg/Kg	1	1.00	80	24.4 - 114.6

Method Blank (1) QC Batch: 54333

QC Batch: 54333 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	83.3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.830	mg/Kg	1	1.00	83	34.5 - 105.8

Method Blank (1) QC Batch: 54377

QC Batch: 54377 | Date Analyzed: 2008-11-18 | Analyzed By: MN
Prep Batch: 46516 | QC Preparation: 2008-11-18 | Prepared By: MN

Parameter	Flag	MDL Result	Units	RL
DRO		<6.77	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		111	mg/Kg	1	100	111	49.5 - 185

Method Blank (1) QC Batch: 54625

QC Batch: 54625 | Date Analyzed: 2008-11-25 | Analyzed By: RD
Prep Batch: 46705 | QC Preparation: 2008-11-25 | Prepared By: RD

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Laboratory Control Spike (LCS-1)

QC Batch: 54332 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.989	mg/Kg	1	1.00	<0.00347	99	80.5 - 115.5
Toluene	0.975	mg/Kg	1	1.00	<0.00525	98	80 - 114.7
Ethylbenzene	1.00	mg/Kg	1	1.00	<0.00607	100	77.1 - 114.2
Xylene	2.96	mg/Kg	1	3.00	<0.00724	99	77.6 - 114.5

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	0.951	mg/Kg	1	1.00	<0.00347	95	80.5 - 115.5	4	20
Toluene	0.961	mg/Kg	1	1.00	<0.00525	96	80 - 114.7	1	20
Ethylbenzene	0.972	mg/Kg	1	1.00	<0.00607	97	77.1 - 114.2	3	20
Xylene	2.94	mg/Kg	1	3.00	<0.00724	98	77.6 - 114.5	1	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
Trifluorotoluene (TFT)	0.987	0.920	mg/Kg	1	1.00	99	92	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	0.953	0.924	mg/Kg	1	1.00	95	92	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch: 54333 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.72	mg/Kg	1	10.0	<0.144	87	73.1 - 114.7

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	8.89	mg/Kg	1	10.0	<0.144	89	73.1 - 114.7	2	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
Trifluorotoluene (TFT)	0.915	0.934	mg/Kg	1	1.00	92	93	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.928	0.900	mg/Kg	1	1.00	93	90	70.3 - 116.1

Laboratory Control Spike (LCS-1)

QC Batch: 54377 | Date Analyzed: 2008-11-18 | Analyzed By: MN
Prep Batch: 46516 | QC Preparation: 2008-11-18 | Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	320	mg/Kg	1	250	<6.77	128	73.9 - 138

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	323	mg/Kg	1	250	<6.77	129	73.9 - 138	1	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	119	110	mg/Kg	1	100	119	110	49.5 - 185

Laboratory Control Spike (LCS-1)

QC Batch: 54625 | Date Analyzed: 2008-11-25 | Analyzed By: RD
Prep Batch: 46705 | QC Preparation: 2008-11-25 | Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.5	mg/Kg	1	100	<1.80	100	96.5 - 104.4

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	98.9	mg/Kg	1	100	<1.80	99	96.5 - 104.4	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: 179648

QC Batch: 54332 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.994	mg/Kg	1	1.00	<0.00347	99	42.9 - 130.7
Toluene	1.05	mg/Kg	1	1.00	<0.00525	105	46.9 - 135.4
Ethylbenzene	1.16	mg/Kg	1	1.00	<0.00607	116	48.3 - 149.3
Xylene	3.45	mg/Kg	1	3.00	<0.00724	115	48.8 - 150.9

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
Benzene	1.10	mg/Kg	1	1.00	<0.00347	110	42.9 - 130.7	10	20
Toluene	1.20	mg/Kg	1	1.00	<0.00525	120	46.9 - 135.4	13	20
Ethylbenzene	1.33	mg/Kg	1	1.00	<0.00607	133	48.3 - 149.3	14	20
Xylene	3.96	mg/Kg	1	3.00	<0.00724	132	48.8 - 150.9	14	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
Trifluorotoluene (TFT)	1.06	1.18	mg/Kg	1	1	106	118	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	1.12	1.25	mg/Kg	1	1	112	125	61.5 - 161.2

Matrix Spike (MS-1) Spiked Sample: 179684

QC Batch: 54333 | Date Analyzed: 2008-11-17 | Analyzed By: ER
Prep Batch: 46480 | QC Preparation: 2008-11-17 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	13.8	mg/Kg	1	10.0	<0.144	138	48.9 - 155.8

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	13.9	mg/Kg	1	10.0	<0.144	139	48.9 - 155.8	1	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
Trifluorotoluene (TFT)	1.37	1.26	mg/Kg	1	1	137	126	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	1.64	1.56	mg/Kg	1	1	164	156	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample: 179685

QC Batch: 54377 | Date Analyzed: 2008-11-18 | Analyzed By: MN
Prep Batch: 46516 | QC Preparation: 2008-11-18 | Prepared By: MN

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	293	mg/Kg	1	250	53.1	96	50.7 - 134

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	275	mg/Kg	1	250	53.1	89	50.7 - 134	6	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	174	166	mg/Kg	1	100	174	166	49.5 - 185

Matrix Spike (MS-1) Spiked Sample: 180397

QC Batch: 54625 | Date Analyzed: 2008-11-25 | Analyzed By: RD
Prep Batch: 46705 | QC Preparation: 2008-11-25 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	860	mg/Kg	10	500	420	88	74.7 - 123.2

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	876	mg/Kg	10	500	420	91	74.7 - 123.2	2	20

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

Standard (CCV-1)

QC Batch: 54332 | Date Analyzed: 2008-11-17 | Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0998	100	80 - 120	2008-11-17
Toluene		mg/Kg	0.100	0.0992	99	80 - 120	2008-11-17
Ethylbenzene		mg/Kg	0.100	0.0986	99	80 - 120	2008-11-17

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/Kg	0.300	0.298	99	80 - 120	2008-11-17

Standard (CCV-2)

QC Batch: 54332 Date Analyzed: 2008-11-17 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0986	99	80 - 120	2008-11-17
Toluene		mg/Kg	0.100	0.108	108	80 - 120	2008-11-17
Ethylbenzene		mg/Kg	0.100	0.100	100	80 - 120	2008-11-17
Xylene		mg/Kg	0.300	0.297	99	80 - 120	2008-11-17

Standard (CCV-3)

QC Batch: 54332 Date Analyzed: 2008-11-17 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2008-11-17
Toluene		mg/Kg	0.100	0.114	114	80 - 120	2008-11-17
Ethylbenzene		mg/Kg	0.100	0.107	107	80 - 120	2008-11-17
Xylene		mg/Kg	0.300	0.330	110	80 - 120	2008-11-17

Standard (CCV-1)

QC Batch: 54333 Date Analyzed: 2008-11-17 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.900	90	80 - 120	2008-11-17

Standard (CCV-3)

QC Batch: 54333 Date Analyzed: 2008-11-17 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	80 - 120	2008-11-17

Standard (CCV-1)

QC Batch: 54377 Date Analyzed: 2008-11-18 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	274	110	85 - 115	2008-11-18

Standard (CCV-2)

QC Batch: 54377 Date Analyzed: 2008-11-18 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	85 - 115	2008-11-18

Standard (ICV-1)

QC Batch: 54625 Date Analyzed: 2008-11-25 Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2008-11-25

Standard (CCV-1)

QC Batch: 54625 Date Analyzed: 2008-11-25 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-11-25

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Cons

LAB Order ID # 8111724

Page ____ of ____

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Fax #:
Contact Person: EB Taylor
E-mail:
Invoice to: (If different from above)
Project #: BPETRO030 REL
Project Name: EAU L-191
Project Location (including state): EDDY COUNTY NM
Sampler Signature: [signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
179685	BH-1	1			X									11/4	8:00
686	BH-2	1			X									11/4	8:05
687	BH-3	1			X									11/4	8:10
688	BH-4	1			X									11/4	8:15

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB #	MTBE 8021B / 602 / 8260B / 624	BTEX (8021B) / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 (GRO) (DRO) TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Chlorides	Turn Around Time if different from standard
179685		X		X														X	
686		X		X														X	
687		X		X														X	
688		X		X														X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:
[signature]		11-17-08	9:30	[signature]		11 17 08	0930	3.7

LAB USE ONLY

Intact (Y) / N
Headspace Y / N / (NA)
Log-in-Review [initials]

REMARKS:

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check if Special Reporting Limits Are Needed

Summary Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM 88240

Report Date: December 17, 2008

Work Order: 8121621

Project Location: Lea Co., NM
Project Name: Empire ABO Unit L-191

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
182591	SP	soil	2008-12-15	08:30	2008-12-16
182592	BH-1	soil	2008-12-15	08:40	2008-12-16
182593	BH-2	soil	2008-12-15	08:48	2008-12-16

Sample: 182591 - SP

Param	Flag	Result	Units	RL
Chloride		**558**	mg/Kg	2.00

Sample: 182592 - BH-1

Param	Flag	Result	Units	RL
Chloride		**1080**	mg/Kg	2.00

Sample: 182593 - BH-2

Param	Flag	Result	Units	RL
Chloride		**800**	mg/Kg	2.00

TRACEANALYSIS, INC.

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: December 17, 2008

Work Order: 8121621

Project Location: Lea Co., NM
Project Name: Empire ABO Unit L-191
Project Number: Empire ABO Unit L-191

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
182591	SP	soil	2008-12-15	08:30	2008-12-16
182592	BH-1	soil	2008-12-15	08:40	2008-12-16
182593	BH-2	soil	2008-12-15	08:48	2008-12-16

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 Empire ABO Unit L-191 were received by TraceAnalysis, Inc. on 2008-12-16 and assigned to work order 8121621. Samples for work order 8121621 were received intact at a temperature of 3.1 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 8121621 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: 182591 - SP

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	55218	Date Analyzed:	2008-12-16	Analyzed By:	AR
Prep Batch:	47135	Sample Preparation:	2008-12-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**558**	mg/Kg	50	2.00

Sample: 182592 - BH-1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	55218	Date Analyzed:	2008-12-16	Analyzed By:	AR
Prep Batch:	47135	Sample Preparation:	2008-12-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1080**	mg/Kg	50	2.00

Sample: 182593 - BH-2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	55218	Date Analyzed:	2008-12-16	Analyzed By:	AR
Prep Batch:	47135	Sample Preparation:	2008-12-16	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**800**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 55218

QC Batch:	55218	Date Analyzed:	2008-12-16	Analyzed By:	AR
Prep Batch:	47135	QC Preparation:	2008-12-15	Prepared By:	AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 55218 | Date Analyzed: 2008-12-16 | Analyzed By: AR
Prep Batch: 47135 | QC Preparation: 2008-12-15 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	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	94.6	mg/Kg	1	100	<0.500	95	85 - 115	6	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: 182296

QC Batch: 55218 | Date Analyzed: 2008-12-16 | Analyzed By: AR
Prep Batch: 47135 | QC Preparation: 2008-12-15 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5130	mg/Kg	50	5000	173	99	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	5270	mg/Kg	50	5000	173	102	85 - 115	3	20

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

Standard (ICV-1)

QC Batch: 55218 | Date Analyzed: 2008-12-16 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2008-12-16

Standard (CCV-1)

QC Batch: 55218 | Date Analyzed: 2008-12-16 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-12-16

LAB Order ID # 8121621 Page 1 of 1

TraceAnalysis, Inc.

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5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689-6313
200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443
8808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: EA Taylor
Phone #: 432 238-4388
Address: (Street, City, Zip) 318 E Taylor Hobbs NM 88240
Fax #:
Contact Person: EA Taylor
E-mail:
Invoice to: (If different from above)
Project #:
Project Name: Empire Abo Unit L-191
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
182591	SP	1			X									12/15	8:30
592	BH-1	1			X									12/15	8:40
593	BH-2	1			X									12/15	8:48

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Chlorides				Turn Around Time if different from standard	Hold
																	X				24hr X	
																	X				X	
																	X				X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
[signature]	TAION	12/16	1:20	[signature]	TRACE	12-16-08	13:20	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:

LAB USE ONLY
Int Ct Y N
Headspace Y N NA
3.1
Log-in Review

REMARKS: All tests Midland

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Carry-D

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TRACEANALYSIS, INC.

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: February 25, 2009

Work Order: 9021718

Project Location: Eddy County, NM
Project Name: Empire ABO Unit L-191
Project Number: BPETR0030REC

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
187705	BH-1	soil	2009-02-10	09:45	2009-02-17
187706	BH-2	soil	2009-02-10	10:20	2009-02-17

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 Empire ABO Unit L-191 were received by TraceAnalysis, Inc. on 2009-02-17 and assigned to work order 9021718. Samples for work order 9021718 were received intact at a temperature of 4.0 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	48686	2009-02-18 at 09:58	56986	2009-02-18 at 09:58
Chloride (Titration)	SM 4500-Cl B	48644	2009-02-17 at 16:00	56958	2009-02-18 at 11:33
Total BTEX	S 8021B	48686	2009-02-18 at 09:58	56986	2009-02-18 at 09:58
TPH 418.1	E 418.1	48787	2009-02-24 at 12:00	57110	2009-02-24 at 14:39

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 9021718 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: 187705 - BH-1

Laboratory:	Midland				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	56986	Date Analyzed:	2009-02-18	Analyzed By:	ME
Prep Batch:	48686	Sample Preparation:	2009-02-18	Prepared By:	ME

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
Total BTEX		<0.0600		mg/Kg	1	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.983	mg/Kg	1	1.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.841	mg/Kg	1	1.00	84	45.2 - 144.3

Sample: 187705 - BH-1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	56958	Date Analyzed:	2009-02-18	Analyzed By:	AR
Prep Batch:	48644	Sample Preparation:	2009-02-17	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		<200		mg/Kg	50	4.00

Sample: 187705 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	57110	Date Analyzed:	2009-02-24	Analyzed By:	CM
Prep Batch:	48787	Sample Preparation:	2009-02-24	Prepared By:	CM

Parameter	Flag	Result	RL	Units	Dilution	RL
TRPHC		<10.0		mg/Kg	1	10.0

Sample: 187706 - BH-2

Laboratory:	Midland				
Analysis:	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	56986	Date Analyzed:	2009-02-18	Analyzed By:	ME
Prep Batch:	48686	Sample Preparation:	2009-02-18	Prepared By:	ME

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
Total BTEX		<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.806	mg/Kg	1	1.00	81	45.2 - 144.3

Sample: 187706 - BH-2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	56958	Date Analyzed:	2009-02-18	Analyzed By:	AR
Prep Batch:	48644	Sample Preparation:	2009-02-17	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 187706 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	57110	Date Analyzed:	2009-02-24	Analyzed By:	CM
Prep Batch:	48787	Sample Preparation:	2009-02-24	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Method Blank (1) QC Batch: 56958

QC Batch:	56958	Date Analyzed:	2009-02-18	Analyzed By:	AR
Prep Batch:	48644	QC Preparation:	2009-02-17	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.01	mg/Kg	4

Method Blank (1) QC Batch: 56986

QC Batch:	56986	Date Analyzed:	2009-02-18	Analyzed By:	ME
Prep Batch:	48686	QC Preparation:	2009-02-18	Prepared By:	ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.993	mg/Kg	1	1.00	99	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		0.827	mg/Kg	1	1.00	83	51.9 - 128.1

Method Blank (1) QC Batch: 57110

QC Batch:	57110	Date Analyzed:	2009-02-24	Analyzed By:	CM
Prep Batch:	48787	QC Preparation:	2009-02-24	Prepared By:	CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5.28	mg/Kg	10

Laboratory Control Spike (LCS-1)

QC Batch:	56958	Date Analyzed:	2009-02-18	Analyzed By:	AR
Prep Batch:	48644	QC Preparation:	2009-02-17	Prepared By:	AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.7	mg/Kg	1	100	<2.01	98	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	99.4	mg/Kg	1	100	<2.01	99	85 - 115	2	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: 56986 | Date Analyzed: 2009-02-18 | Analyzed By: ME
Prep Batch: 48686 | QC Preparation: 2009-02-18 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.832	mg/Kg	1	1.00	<0.00100	83	72.7 - 129.8
Toluene	0.825	mg/Kg	1	1.00	<0.00100	82	71.6 - 129.6
Ethylbenzene	0.810	mg/Kg	1	1.00	<0.00110	81	70.8 - 129.7
Xylene	2.38	mg/Kg	1	3.00	<0.00360	79	70.9 - 129.4

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	0.957	mg/Kg	1	1.00	<0.00100	96	72.7 - 129.8	14	20
Toluene	0.962	mg/Kg	1	1.00	<0.00100	96	71.6 - 129.6	15	20
Ethylbenzene	0.962	mg/Kg	1	1.00	<0.00110	96	70.8 - 129.7	17	20
Xylene	2.83	mg/Kg	1	3.00	<0.00360	94	70.9 - 129.4	17	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
Trifluorotoluene (TFT)	0.981	0.980	mg/Kg	1	1.00	98	98	65.9 - 132
4-Bromofluorobenzene (4-BFB)	0.861	0.867	mg/Kg	1	1.00	86	87	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 57110 | Date Analyzed: 2009-02-24 | Analyzed By: CM
Prep Batch: 48787 | QC Preparation: 2009-02-24 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	260	mg/Kg	1	250	<5.28	104	75.5 - 136

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
TRPHC	265	mg/Kg	1	250	<5.28	106	75.5 - 136	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: 187706

QC Batch: 56958 | Date Analyzed: 2009-02-18 | Analyzed By: AR
Prep Batch. 48644 | QC Preparation: 2009-02-17 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5150	mg/Kg	50	5000	130	100	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	5110	mg/Kg	50	5000	130	100	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: 187705

QC Batch: 56986 | Date Analyzed: 2009-02-18 | Analyzed By: ME
Prep Batch: 48686 | QC Preparation: 2009-02-18 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.925	mg/Kg	1	1.00	<0.00100	92	58.6 - 165 2
Toluene	0.921	mg/Kg	1	1.00	<0.00100	92	64.2 - 153.8
Ethylbenzene	0.934	mg/Kg	1	1.00	<0.00110	93	61.6 - 159.4
Xylene	2.71	mg/Kg	1	3.00	<0.00360	90	64.4 - 155.3

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
Benzene	0.975	mg/Kg	1	1.00	<0.00100	98	58.6 - 165.2	5	20
Toluene	0.975	mg/Kg	1	1.00	<0.00100	98	64.2 - 153.8	6	20
Ethylbenzene	0.995	mg/Kg	1	1.00	<0.00110	100	61.6 - 159.4	6	20
Xylene	2.91	mg/Kg	1	3.00	<0.00360	97	64.4 - 155.3	7	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
Trifluorotoluene (TFT)	1.00	0.999	mg/Kg	1	1	100	100	76 - 127.9
4-Bromofluorobenzene (4-BFB)	0.793	0.829	mg/Kg	1	1	79	83	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 187705

QC Batch: 57110 | Date Analyzed: 2009-02-24 | Analyzed By: CM
Prep Batch: 48787 | QC Preparation: 2009-02-24 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	224	mg/Kg	1	250	<5.28	90	10 - 354

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
TRPHC	235	mg/Kg	1	250	<5.28	94	10 - 354	5	20

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

Standard (ICV-1)

QC Batch: 56958 | Date Analyzed: 2009-02-18 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-02-18

Standard (CCV-1)

QC Batch: 56958 | Date Analyzed: 2009-02-18 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2009-02-18

Standard (ICV-1)

QC Batch: 56986 | Date Analyzed: 2009-02-18 | Analyzed By: ME

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0980	98	85 - 115	2009-02-18
Toluene		mg/Kg	0.100	0.0982	98	85 - 115	2009-02-18
Ethylbenzene		mg/Kg	0.100	0.0992	99	85 - 115	2009-02-18
Xylene		mg/Kg	0.300	0.290	97	85 - 115	2009-02-18

Standard (CCV-1)

QC Batch: 56986 Date Analyzed: 2009-02-18 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0992	99	85 - 115	2009-02-18
Toluene		mg/Kg	0.100	0.0990	99	85 - 115	2009-02-18
Ethylbenzene		mg/Kg	0.100	0.100	100	85 - 115	2009-02-18
Xylene		mg/Kg	0.300	0.295	98	85 - 115	2009-02-18

Standard (ICV-1)

QC Batch: 57110 Date Analyzed: 2009-02-24 Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	98.0	98	80 - 120	2009-02-24

Standard (CCV-1)

QC Batch: 57110 Date Analyzed: 2009-02-24 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	91.5	92	80 - 120	2009-02-24

LAB Order ID # 9021718 Page 1 of 1

TraceAnalysis, Inc.

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Phone #: 432 238-6388
Address: (Street, City, Zip) 318 E TAYLOR HOBBS NM 88240
Fax #:
Contact Person: EB TAY
E-mail:
Invoice to: (If different from above)
Project #: BPETRO030REC
Project Name: EMPIRE ABO UNIT L191
Project Location (including state): EDDY COUNTY NM
Sampler Signature: Eb

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/2007	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	CHLORIDES					Turn Around Time if different from standard	Hold
87705	BH-1	1			X									2/10	9:45		X	X														X	X					
706	BH-2	1			X									2/10	10:20		X	X														X	X					

Relinquished by: Date: Time:
Eb 2/17/09 11:22
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
2/17/09 11:22

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 4.0 °
Log-in-Review

REMARKS:
~~All to Lvbbock~~ - Midland
BTEX, Chlorides - Midland
418.1 - Lubbock

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # Courier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C

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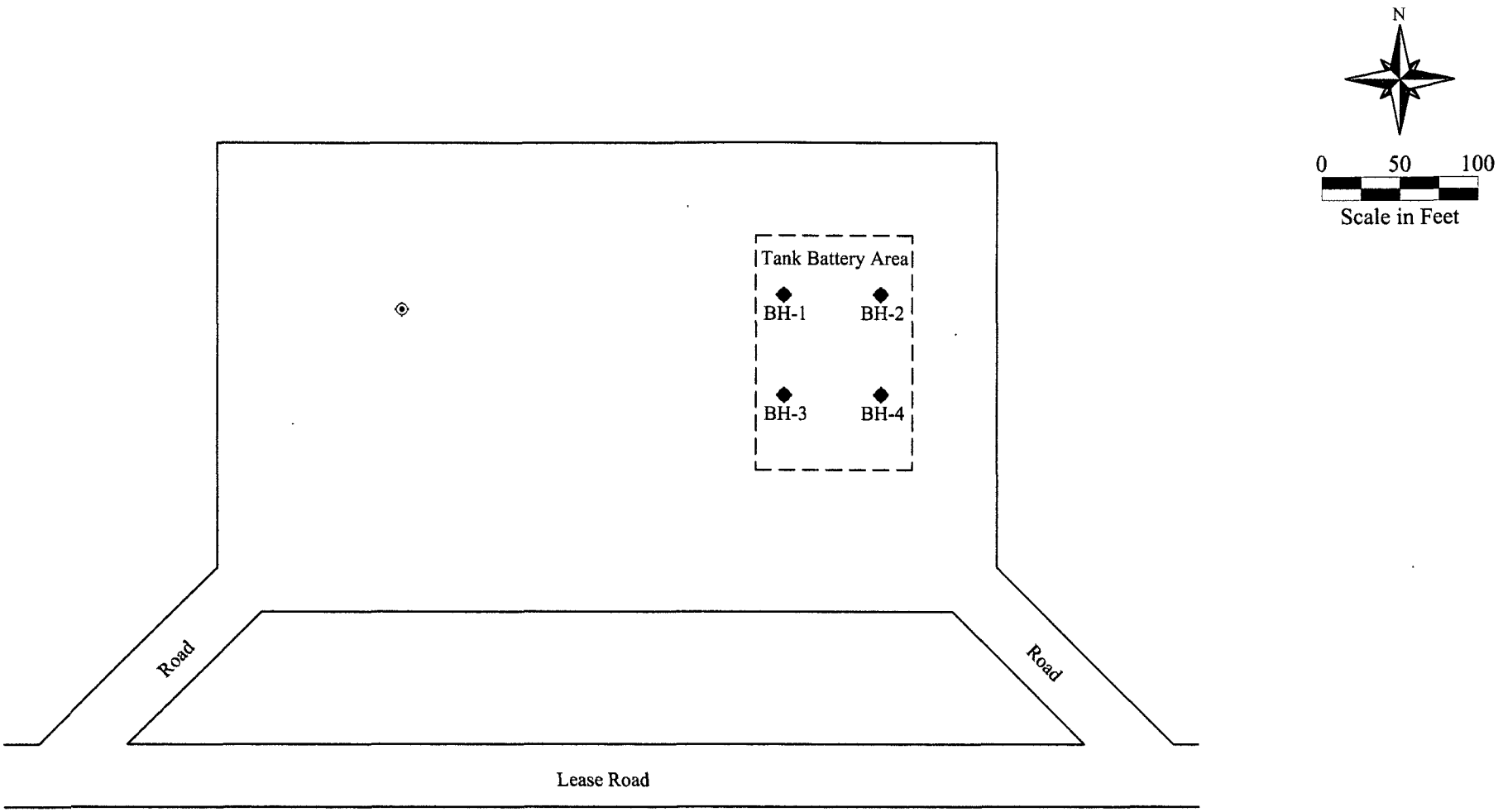
ATTACHMENT 2
MAPS

ATTACHMENT 2



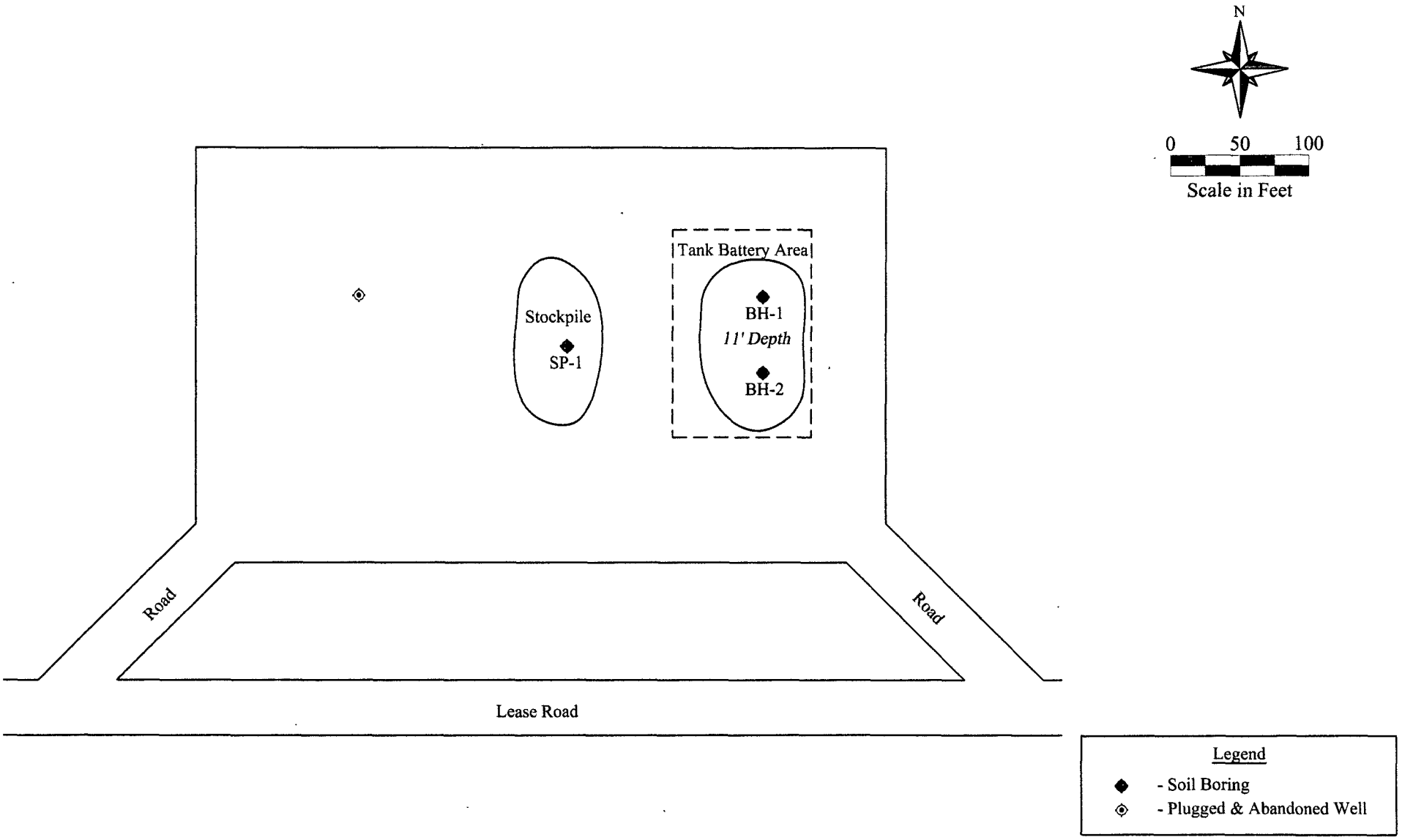
Project # BPETRP030REC

Note: Approximate scale, not for engineering reference

TALON LPE

Date: 02/26/2009
Scale: 1" = 100'
Drawn By: SJA

BP America
Empire ABO Unit L-191
Eddy County, New Mexico
Site Plan and Sample Locations Map (11-14-2008)



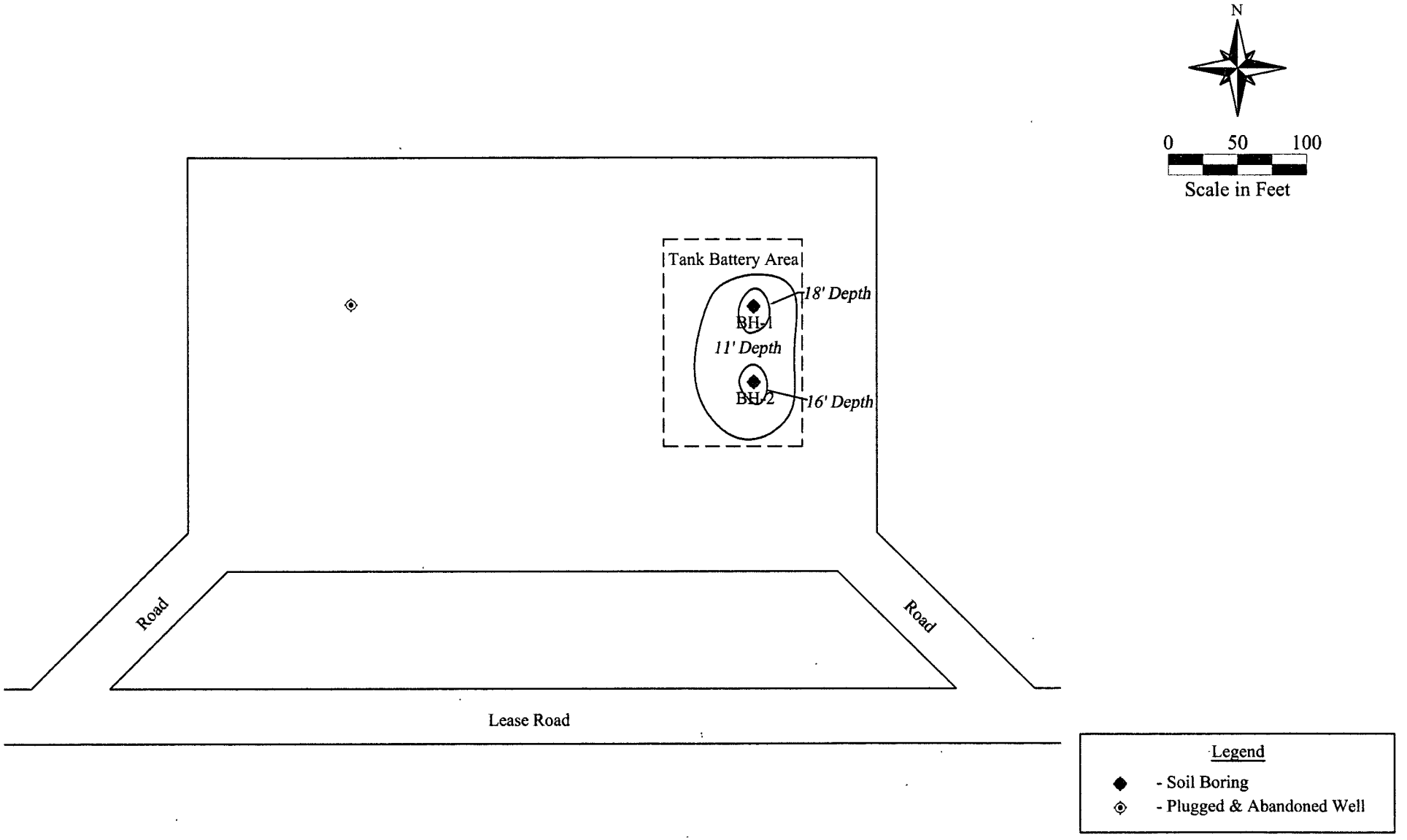
Project # BPETRP030REC

Note: Approximate scale, not for engineering reference

TALON LPE

Date: 02/26/2009
Scale: 1" = 100'
Drawn By: SJA

BP America
Empire ABO Unit L-191
Eddy County, New Mexico
Site Plan and Sample Locations Map (12-15-2008)



Project # BPETRP030REC

Note: Approximate scale, not for engineering reference

TALON LPE

Date: 02/26/2009
Scale: 1" = 100'
Drawn By: SJA

BP America
Empire ABO Unit L-191
Eddy County, New Mexico
Site Plan and Sample Locations Map (02-10-2009)