1R - 431

REPORTS

DATE:

7/26/2005

Highlander Environmental Corp.

Midland, Texas

July 26, 2005

Mr. Ed Martin
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

1R-431

Re: Sidewall Excavation and Sampling Results for the Gruy Petroleum Management Company, Riddle State #1 Well, Located in Unit Letter B, Section 1, Township 22 South, Range 34 East, Lea County New Mexico.

30-025-36232

Dear Mr. Martin:

Highlander Environmental Corp. (Highlander) was contacted by Gruy Petroleum Management to investigate an open reserve pit at the Riddle State #1 well in Lea County, New Mexico (Site), located in Unit Letter B, Section 1, Township 22 South, Range 34 East. As requested in Item 2 of your June 17, 2005, work plan approval letter, excavation of the sidewalls and sampling was performed on the resulting stockpiles.

Excavation

On July 18, 2005, the sidewalls of the reserve pit and trench area were excavated and the material stockpiled inside the pit area. The material was segregated into seven stockpiles and composite soil samples were collected. Soil samples were analyzed for chloride by method EPA 300.0. Copies of laboratory analyses and chain-of-custody documentation are included in Appendix A. The location of the stock piles and sample locations are shown on Figure 1. The sample results show that chloride concentrations in three of the stockpiles are above 100 mg/kg. Those are Stockpiles SP-2 with 1130 mg/kg, SP-4 with 1160 mg/kg and SP-5 with 374 mg/kg. The remaining samples have chloride concentrations ranging from a low of 44.8 mg/kg to a high of 92.2 mg/kg.

Proposed Action

1. The three stockpiles with elevated chloride concentrations will be spread over the bottom of the reserve pit that is to be covered with the 40 mil liner. This material is very sandy and will be good bedding material under the liner.

2. The remaining stockpiles will be used for backfill material after the liner is in place.

3. The recovery well will be drilled and equipped upon completion of the backfill and recontouring of the reserve pit area.

4. The temporary monitor will was plugged by EPI on May 13, 2005. A copy of the email plugging report that was sent to you by EPI is also included in Appendix A.

If you have any question or comments concerning the sampling or proposed activities please call me at (432) 682-4559.

Respectfully submitted,
Highlander Environmental Corp.

Tim Reed

Timothy M. Reed, P.G.
Vice President

cc: Larry Johnson – NMOCD, Hobbs, NM
Bob Jennings – Gruy
Randy Ray - Gruy

FIGURES

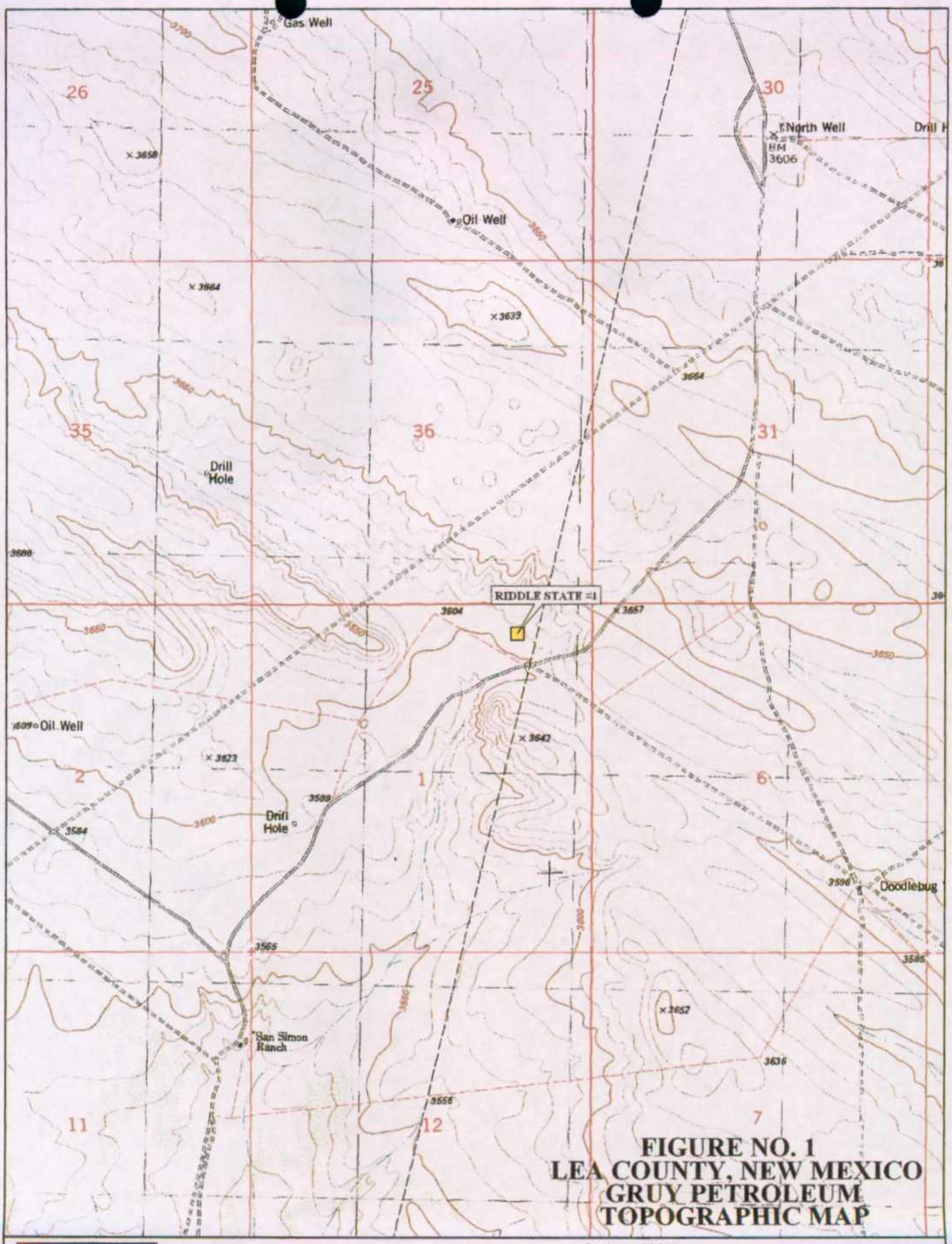
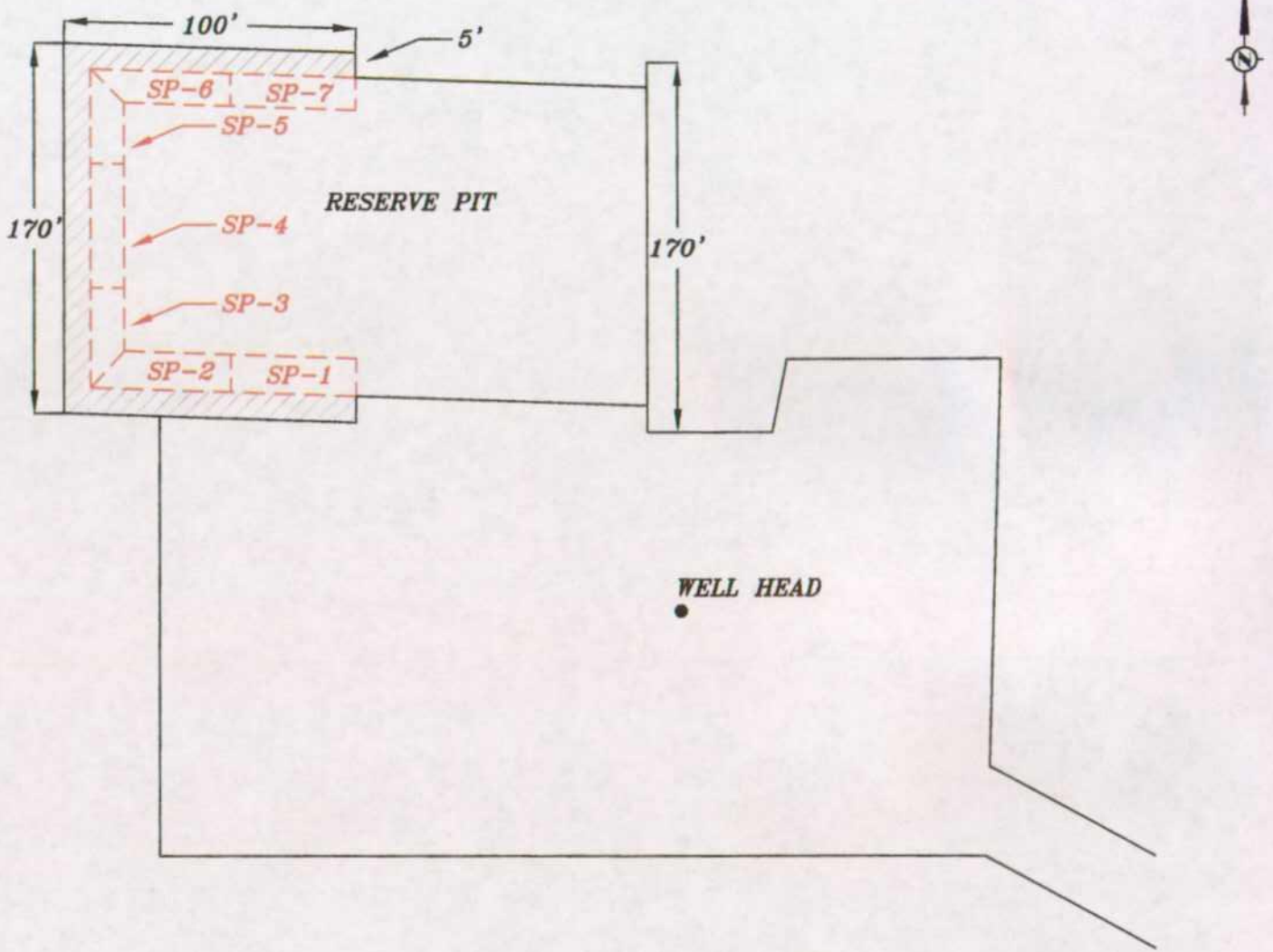


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
GRUY PETROLEUM
TOPOGRAPHIC MAP



SOIL STOCK PILES

ADDITIONAL EXCAVATION

NOT TO SCALE

FIGURE NO. 2

LEA COUNTY, NEW MEXICO

GRUY PETROLEUM
RIDDLE STATE #1
ADDITIONAL EXCAVATION & STOCK PILE

DATE: 7/26/05
DWN. BY: JJ
FILE: C:\FILES\GRUY\3331 RIDDLE STATE #1

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

PHOTOGRAPHS

PHOTOGRAPHIC DOCUMENTATION
Gruy Petroleum Management Company
Riddle State #1 Well
Lea County, New Mexico

1. Stock Piles 1 & 2.

2. Stock Piles 3, 4 & 5.

PHOTOGRAPHIC DOCUMENTATION
Gruy Petroleum Management Company
Riddle State #1 Well
Lea County, New Mexico

3. All stock piles after digging sidewalls.

APPENDIX A

Gary Miller

From: ENVIPLUS1@aol.com

Sent: Thursday, June 23, 2005 10:08 AM

To: emartin@state.nm.us

Cc: PSHEELEY@STATE.NM.US; lwjohnson@state.nm.us; Cmmg142@aol.com; lOlness@hotmail.com; GMiller@HEC-Enviro.com

Subject: Gruy Petroleum Riddle State #1 Temporary Monitoring Well P&A

Mr. Martin,

Re: Gruy Petroleum Riddle State #1
UL-B Section 1, T22S, R34E
Lea County NM

Environmental Plus, Inc. (EPI) installed the temporary monitoring well during initial delineation of the site. The well was not completed as a permanent monitoring well. Highlander Environmental subsequently took control of the site and requested that EPI plug the well. On May 13, 2005, EPI pulled the 2-inch diameter PVC tubing and screen and plugged the cavity to the surface with 12 sacks of bentonite hydrated with fresh water.

Sincerely,

Pat McCasland
Environmental Plus, Inc.
P.O. Box 1558
2100 West Avenue O
Eunice, New Mexico 88231
Office: 505.394.3481
Mobile: 505.390.7864
FAX: 505.394.2601

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Gary Miller

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Gruy Petroleum- Riddle Pit

Project Number: 2321

Location: None Given

Lab Order Number: 5G19009

Report Date: 07/26/05

Highlander Environmental Corp.	Project: Gruy Petroleum- Riddle Pit	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Gary Miller	07/26/05 10:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Stockpile (SP-6)	5G19009-08	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-5)	5G19009-09	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-4)	5G19009-10	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-3)	5G19009-11	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-2)	5G19009-12	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-1)	5G19009-13	Soil	07/18/05 00:00	07/19/05 15:50
Stockpile (SP-7)	5G19009-14	Soil	07/18/05 00:00	07/19/05 15:50

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Gruy Petroleum- Riddle Pit	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Gary Miller	07/26/05 10:58

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Stockpile (SP-6) (5G19009-08) Soil									
Chloride	**374**	5.00	mg/kg	10	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-5) (5G19009-09) Soil									
Chloride	**1160**	20.0	mg/kg	40	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-4) (5G19009-10) Soil									
Chloride	**92.2**	5.00	mg/kg	10	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-3) (5G19009-11) Soil									
Chloride	**54.7**	5.00	mg/kg	10	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-2) (5G19009-12) Soil									
Chloride	**1130**	20.0	mg/kg	40	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-1) (5G19009-13) Soil									
Chloride	**84.0**	5.00	mg/kg	10	EG52508	07/22/05	07/22/05	EPA 300.0	
Stockpile (SP-7) (5G19009-14) Soil									
Chloride	**63.9**	5.00	mg/kg	10	EG52508	07/22/05	07/22/05	EPA 300.0	

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Highlander Environmental Corp.	Project: Gruy Petroleum- Riddle Pit	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Gary Miller	07/26/05 10:58

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG52508 - Water Extraction										
Blank (EG52508-BLK1)				Prepared & Analyzed: 07/22/05						
Chloride	ND	0.500	mg/kg							
LCS (EG52508-BS1)				Prepared & Analyzed: 07/22/05						
Chloride	10.9		mg/L	10.0		109	80-120			
Calibration Check (EG52508-CCV1)				Prepared & Analyzed: 07/22/05						
Chloride	9.34		mg/L	10.0		93.4	80-120			
Duplicate (EG52508-DUP1)		**Source: 5G18015-17**		Prepared & Analyzed: 07/22/05						
Chloride	1540	25.0	mg/kg		1660			7.50	20	

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Highlander Environmental Corp.	Project: Gruy Petroleum- Riddle Pit	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Gary Miller	07/26/05 10:58

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Celey D. Keene Date: 7/26/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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Pg 1 of 1 4> per Gary 7-26

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 1

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Gray Petro
SITE MANAGER: G. Miller
PROJECT NO.: 2321
PROJECT NAME: Riddle Pit

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE
5019009 -08	7-18-05		S	X		Stock Pile (SP-6)	1					X
-09			S	X		Stock Pile (SP-5)	1					X
-10			S	X		Stock Pile (SP-4)	1					X
-11			S	X		Stock Pile (SP-3)	1					X
-12			S	X		Stock Pile (SP-2)	1					X
-13			S	X		Stock Pile (SP-1)	1					X
-14			S	X		Stock Pile (SP-7)	1					X

ANALYSIS REQUEST (Circle or Specify Method No.)

SAMPLE IDENTIFICATION	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride (Chloride circled)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
Stock Pile (SP-6)														X			
Stock Pile (SP-5)														X			
Stock Pile (SP-4)														X			
Stock Pile (SP-3)														X			
Stock Pile (SP-2)														X			
Stock Pile (SP-1)														X			
Stock Pile (SP-7)														X			

No 1/1/05 DRG

RELINQUISHED BY: (Signature) G. Miller Date: 7-19-05 Time: 3:50
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
RECEIVING LABORATORY: ELOT
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 7/19/05 TIME: 3:50

SAMPLED BY: (Print & Sign) G. Miller Date: 7-18-05 Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL # HAND DELIVERED UPS OTHER:
HIGHLANDER CONTACT PERSON: Gary Miller
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: Arrivn w/ seals/labels 8.0°C

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.

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Highlander Env.

Date/Time: 07-19-05 @ 1550

Order #: 5G19009

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	8.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	*
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

* Information not listed for Client Name, Site Manager, Project No. and Project Name.

Variance Documentation:

Contact Person: Gary Miller Date/Time: 07-26-05 @ 0800 Contacted by: Jeanne McMurray

Regarding:

*

Corrective Action Taken: as per Gary

Client Name: Gary Petro

Project No: 2321

Project Name: Riddle Pit

Project Manager: Gary Miller

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

June 17, 2005

Mr. Timothy M. Reed, P.G.
Highlander Environmental Corp.
1910 N. Big Spring
Midland, TX 79705

Re: Subsurface Investigation and Work Plan for the
Gruy Petroleum Management Co. Riddle State #1 Well
Located in Unit Letter B, Section 1, Township 22 South, Range 34 East
Lea County, New Mexico
NMOCD ref. 1R-0431

Dear Mr. Reed:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the report referenced above submitted by Highlander Environmental Corp. (Highlander) on behalf of Gruy Petroleum Management Co. (Gruy). The work plan is approved with the following conditions and understandings:

1. The temporary monitor well will be plugged using a slurry containing 3% - 5% bentonite. A report of this activity will be submitted to the NMOCD Santa Fe office upon completion.
2. Composite samples will be taken of the topsoil removed in a 5-foot radius around the western half of the reserve pit prior to using this material as backfill. These samples will be analyzed for chlorides and the results will be submitted to the NMOCD Santa Fe office prior to backfilling operations.
3. The 40-mil synthetic liner will be installed according the specifications set out in the report (figure 5).
4. The NMOCD Santa Fe office will be notified when the recovery well described in the report's "Proposed Work Plan" section has been completed.
5. The three monitor wells, as well as the recovery well will be sampled on a quarterly basis for BTEX and chlorides, and the results will be summarized in annual reports to be submitted to the NMOCD Santa Fe office by April 30th of each year. Such reports will be for the period ended on the previous December 31 and will include cumulative volumes of chloride-impacted groundwater recovered.

If you have any questions, contact me at (505) 476-3492 or ed.martin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Ed Martin

Edwin E. Martin
Environmental Bureau

Cc: NMOCD, Hobbs

Highlander Environmental Corp.

Midland, Texas

May 2, 2005

Mr. Ed Martin
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

1R-431

Re: Subsurface Investigation and Work Plan for the Gruy Petroleum Management Company, Riddle State #1 Well, Located in Unit Letter B, Section 1, Township 22 South, Range 34 East, Lea County New Mexico.

Dear Mr. Martin:

Highlander Environmental Corp. (Highlander) was contacted by Gruy Petroleum Management to investigate an open reserve pit at the Riddle State #1 well in Lea County, New Mexico (Site) located in Unit Letter B, Section 1, Township 22 South, Range 34 East. The Site is shown on Figure 1.

Background

This well, originally drilled by Matador, is temporarily abandoned. Prior to the well completion, it was sold to Tom Brown, Inc. and eventually to Gruy. The well was drilled prior to the implementation of the New Mexico Oil Conservation Division (NMOCD) Pit and Below Grade Tank Guidelines, issued November 1, 2004. According to information provided to Highlander, the reserve pit contents were planned to be buried in trenches located on the east and west ends of the reserve pit. In January 2005, Environmental Plus, Inc (EPI) of Eunice, New Mexico installed six hand auger holes and one borehole in and around the reserve pit and trenches. The hand auger holes indicated chloride impact to the west trench and reserve pit area. The borehole was installed outside the southwest end of the reserve pit. The borehole data showed increasing chloride concentrations with depth and was converted to a temporary monitor well (TMW-1). The reported depth to water was 45' below ground surface (bgs). Samples taken from the monitor well indicated chloride impact to the groundwater. The temporary monitor well location is shown on Figure 2.

Previous Correspondence

EPI submitted a "Written notification of groundwater impact and preliminary groundwater delineation plan", dated January 21, 2005. Three (3) permanent monitor wells were proposed for the site to establish hydraulic gradient and delineate groundwater impact. Soil sampling performed by EPI indicated that the only constituent of concern was chloride, as TPH and BTEX concentrations

were not detected at or above the method detection limits.

Regulatory and Groundwater

A risk-based evaluation was performed for the Site in accordance with the 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 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed RRAL for TPH is 100 mg/kg.

Pit Remediation

On March 1-8, 2005, Highlander personnel supervised the removal of the reserve pit contents down to native soil. The reserve pit contents were excavated out of the reserve pit and the east and west trenches by Sweatt Construction Company, Hobbs, New Mexico. A total of 4710 yds^3 of material was removed and hauled to Controlled Recovery, Inc. for disposal. After removal, the depth of the reserve pit was 5' to 8' below ground surface.

Borehole Installation and Sampling

On March 22-23, 2005, a total of eight (8) soil borings were placed in the bottom of the reserve pit and west trench to delineate residual chloride impact to subsurface soils. Soil borings indicated that the pit contents had been removed down to native soils. Soil samples were collected with a split spoon sampler in five foot increments. The boreholes were installed to depths of 37' below the bottom of the reserve pit excavation. Soil samples were analyzed for chloride by method EPA 300.0. Copies of laboratory analyses and chain-of-custody documentation are included in Appendix A. The location of the soil borings are shown on Figure 3. The results of the sampling are summarized in Table 1. Referring to Table 1, chloride impact to subsurface soils appears to be confined to the western end of the reserve pit area. Chloride concentrations from borehole samples in the eastern half of the reserve pit (BH-1 through BH-4), were all well below 100 mg/kg, with most under 50 mg/kg. In the western half of the reserve pit, boreholes BH-5, BH-6 and BH-8, show the greatest impact, with BH-7 indicative of the northwest edge of subsurface impact. The borehole previously placed by EPI, delineated the soil chloride impact to the south of the reserve pit. Copies of the boring logs are included in Appendix A. Borehole locations are shown on Figure 4.

Based on the soils assessment, subsurface chloride impact appears to have migrated to groundwater in the vicinity of boreholes BH-5, BH-6 and BH-8, and appear to be confined to the immediate vicinity of the reserve pit.

Monitor Well Installation and Sampling

On March 24, 2005, three monitor wells (MW-1, MW-2 and MW-3) were installed around the reserve pit. The wells were drilled to depths of 61-62' bgs and completed with 2" PVC screen and casing. According to published data, the groundwater gradient in the vicinity of the site is reportedly south-southwest. One monitor well was placed north of the reserve pit, one was placed

southwest of the well pad and one was placed southeast of the well pad. The monitor well locations are shown on Figure 2.

Following installation, the wells were developed by hand bailing using dedicated hand bailers to remove fine grained sediment, disturbed during drilling, and to ensure collection of representative groundwater samples. Purged water from the wells was taken to a Gruy tank battery north of the site for disposal into the water tank.

On March 30, 2005, Highlander purged three casing volumes from the three monitor wells and the temporary monitor well using a submersible pump. Groundwater samples were collected and analyzed for BTEX by method EPA 8021B and major anion and cations by methods EPA 160.1, 300.0, 310.2M, and 6010B. All samples were delivered to the laboratory under chain of custody control. Prior to sampling, the wells were gauged and inspected for the presence of phase-separated hydrocarbons (PSH). No PSH was encountered in the wells. Using the water level data, a potentiometric surface map was prepared, which indicates a south-southwest hydraulic gradient. The laboratory report and chain of custody are included in Appendix B. The results are summarized in Table 2. The potentiometic surface map is included as Figure 3.

Groundwater Sample Results

Referring to Table 2, no BTEX concentrations were detected at or above the reporting limits for any of the samples. The New Mexico Water Quality Control Commission (WQCC) limit of 250 mg/L chloride was exceeded only in the temporary monitor well, TMW-1, with a chloride concentration of 24,500 mg/L.

Conclusions

1. Soil sampling performed by EPI indicated that the only constituent of concern was chloride, as TPH and BTEX concentrations were not detected at or above the method detection limits.

2. Highlander personnel supervised the removal of the reserve pit contents down to native soil. The reserve pit contents were excavated out of the reserve pit and the east and west trenches by Sweatt Construction Company, Hobbs, New Mexico. A total of 4710 yds^3 of material was removed and hauled to Controlled Recovery, Inc. for disposal. After removal, the depth of the reserve pit was 5' to 8' below ground surface.

3. Based on the soils assessment, subsurface chloride impact appears to have migrated to groundwater in the vicinity of boreholes BH-5, BH-6 and BH-8, and appear to be confined to the immediate vicinity of the western end of the reserve pit area.

4. No BTEX concentrations were detected at or above the reporting limits for any of the groundwater samples. The New Mexico Water Quality Control Commission (WQCC) limit of 250 mg/L chloride was exceeded only in the temporary monitor well, TMW-1, with a chloride concentration of 24,500 mg/L.

Proposed Work Plan

1. EPI is scheduling the plugging of the temporary monitor well.

2. Highlander proposes to remove topsoil in a 5' radius around the western half of the reserve pit and place this material into the excavation. The topsoil will serve as bedding material for a 40 mil plastic cap. The plastic will extend to 5' outside the current excavation in order to adequately encapsulate residual chloride impact. The proposed placement of the cap is shown on Figure 5.

3. An Application for Water Exploration/Development was submitted on April 12, 2005 to the New Mexico Commissioner of Public Lands, for a recovery well at this site. The recovery well will be installed off the southwestern edge of the reserve pit on the well pad. The well will be equipped with a low flow recovery pump to remove chloride impacted groundwater. The water will be transferred to an above-ground storage tank for use in drilling operations.

4. The three monitor wells, as well as the recovery well will be sampled on a quarterly basis for BTEX and chloride, with the results submitted annually.

If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

Respectfully submitted,
Highlander Environmental Corp.

Tim Reed

Timothy M. Reed, P.G.
Vice President

cc: Larry Johnson – NMOCD, Hobbs, NM
Bob Jennings – Gruy

TABLES

Table 1, Borehole Samples
Gruy Petroleum Management Co.
Riddle State #1
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					
BH-1	03/22/05	1'-3'	-	-	-	-	-	-	-	44.3
BH-1	03/22/05	5'-7'	-	-	-	-	-	-	-	26
BH-1	03/22/05	10'-12'	-	-	-	-	-	-	-	27.2
BH-2	03/22/05	1'-3'	-	-	-	-	-	-	-	31.5
BH-2	03/22/05	5'-7'	-	-	-	-	-	-	-	27.2
BH-2	03/22/05	10'-12'	-	-	-	-	-	-	-	24.5
BH-3	03/22/05	1'-3'	-	-	-	-	-	-	-	21.6
BH-3	03/22/05	5'-7'	-	-	-	-	-	-	-	28.7
BH-3	03/22/05	10'-12'	-	-	-	-	-	-	-	30.2
BH-4	03/22/05	1'-3'	-	-	-	-	-	-	-	23
BH-4	03/22/05	5'-7'	-	-	-	-	-	-	-	34.5
BH-4	03/22/05	10'-12'	-	-	-	-	-	-	-	58.5
BH-5	03/22/05	1'-3'	-	-	-	-	-	-	-	8480
BH-5	03/22/05	5'-7'	-	-	-	-	-	-	-	4070
BH-5	03/22/05	10'-12'	-	-	-	-	-	-	-	2770
BH-5	03/22/05	15'-17'	-	-	-	-	-	-	-	2480
BH-5	03/22/05	20'-22'	-	-	-	-	-	-	-	3230
BH-5	03/22/05	25'-27'	-	-	-	-	-	-	-	5640
BH-5	03/22/05	30'-32'	-	-	-	-	-	-	-	4030
BH-5	03/22/05	35'-37'	-	-	-	-	-	-	-	1540
BH-6	03/23/05	1'-3'	-	-	-	-	-	-	-	19800
BH-6	03/23/05	5'-7'	-	-	-	-	-	-	-	18400
BH-6	03/23/05	10'-12'	-	-	-	-	-	-	-	4540
BH-6	03/23/05	15'-17'	-	-	-	-	-	-	-	881
BH-6	03/23/05	20'-22'	-	-	-	-	-	-	-	586
BH-6	03/23/05	25'-27'	-	-	-	-	-	-	-	2390
BH-6	03/23/05	30'-32'	-	-	-	-	-	-	-	723
BH-6	03/23/05	35'-37'	-	-	-	-	-	-	-	1360

(-) Not analyzed

Table 1, Borehole Samples
Gruy Petroleum Management Co.
Riddle State #1
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					
BH-7	03/22/05	1'-3'	-	-	-	-	-	-	-	355
BH-7	03/22/05	5'-7'	-	-	-	-	-	-	-	417
BH-7	03/22/05	10'-12'	-	-	-	-	-	-	-	444
BH-7	03/22/05	15'-17'	-	-	-	-	-	-	-	1680
BH-7	03/22/05	20'-22'	-	-	-	-	-	-	-	527
BH-7	03/22/05	25'-27'	-	-	-	-	-	-	-	828
BH-7	03/22/05	30'-32'	-	-	-	-	-	-	-	556
BH-7	03/22/05	35'-37'	-	-	-	-	-	-	-	590
BH-8	03/22/05	1'-3'	-	-	-	-	-	-	-	8600
BH-8	03/22/05	5'-7'	-	-	-	-	-	-	-	11000
BH-8	03/22/05	10'-12'	-	-	-	-	-	-	-	7660
BH-8	03/22/05	15'-17'	-	-	-	-	-	-	-	8860
BH-8	03/22/05	20'-22'	-	-	-	-	-	-	-	7860
BH-8	03/22/05	25'-27'	-	-	-	-	-	-	-	8120
BH-8	03/22/05	30'-32'	-	-	-	-	-	-	-	2250
BH-8	03/22/05	35'-37'	-	-	-	-	-	-	-	797

(-) Not analyzed

Table 2, Monitor Wells
Gruy Petroleum Management Co.
Riddle State #1
Lea County, NM

Sample ID	Date Sampled	Benzene (mg/l)	Toluene (mg/l)	Ethlybenzene (mg/l)	Xylene (mg/l)	Total Alkaliknity (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
MW-1	03/30/05	ND	ND	ND	ND	149	31.8	260	40.4
MW-2	03/30/05	ND	ND	ND	ND	170	50.8	330	81.2
MW-3	03/30/05	ND	ND	ND	ND	169	65.8	422	93.6
TMW-1	03/30/05	ND	ND	ND	ND	266	14200	24500	3490

(-) Not analyzed ND Not detected at or above the reporting limit

FIGURES

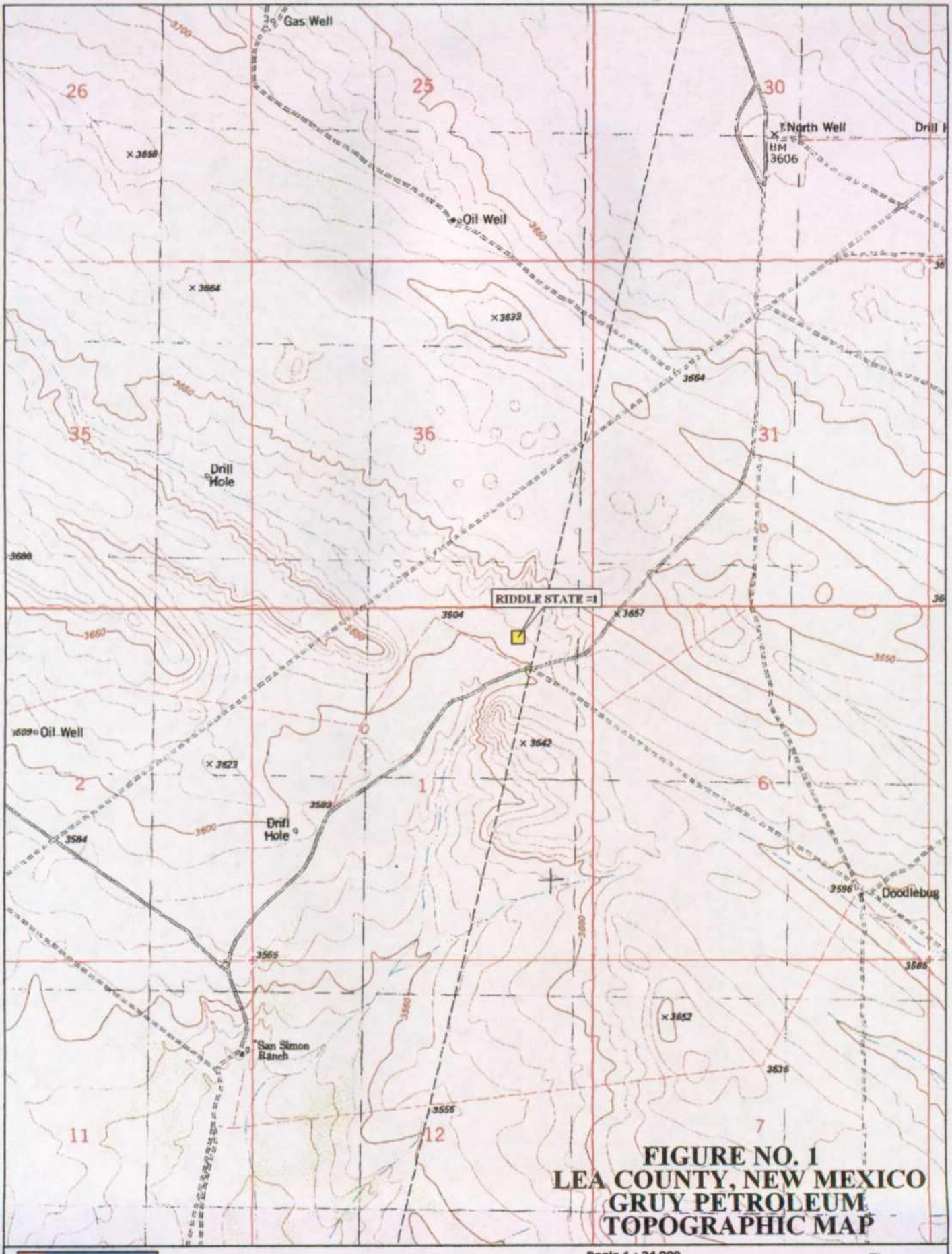


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
GRUY PETROLEUM
TOPOGRAPHIC MAP

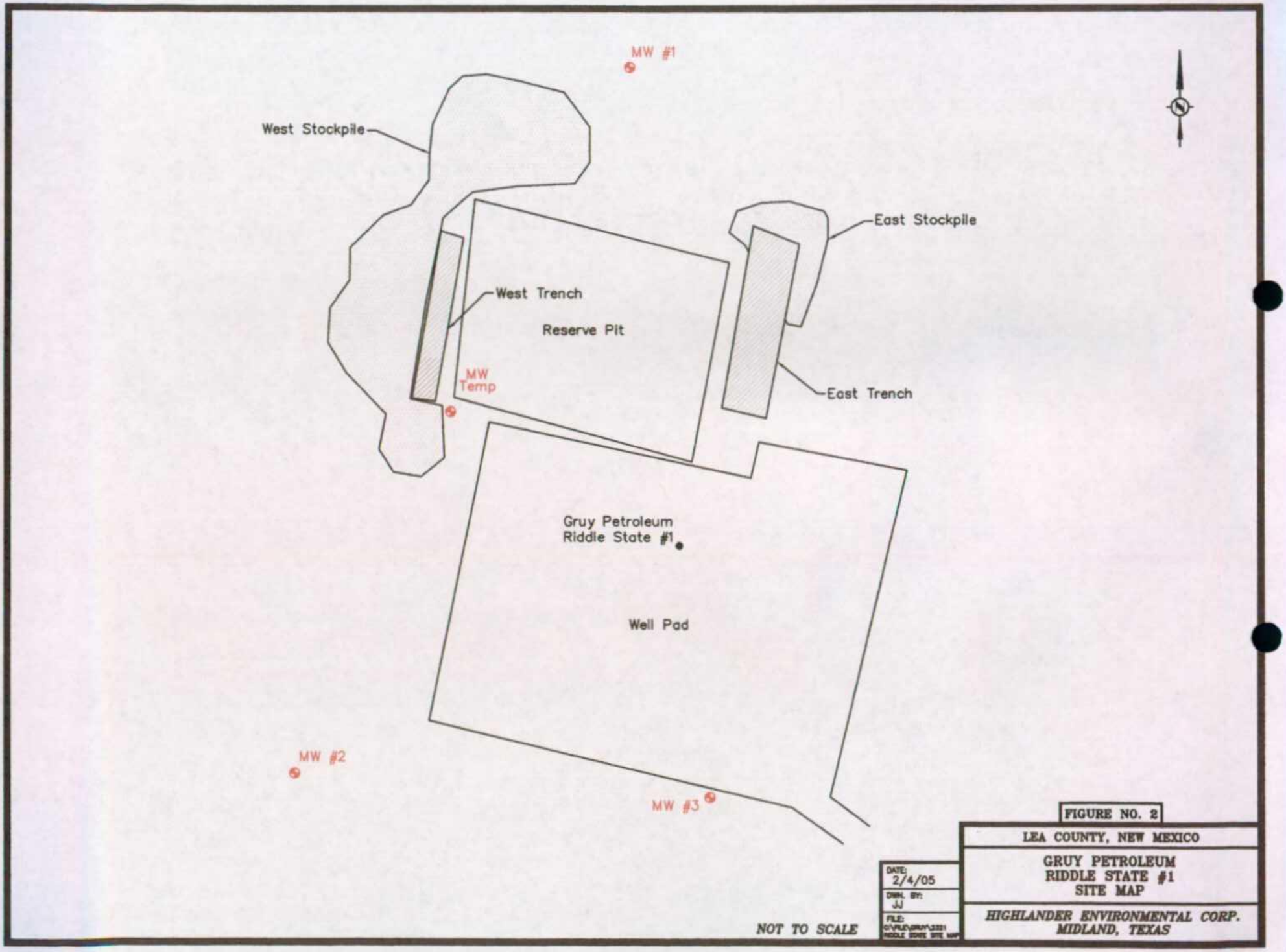
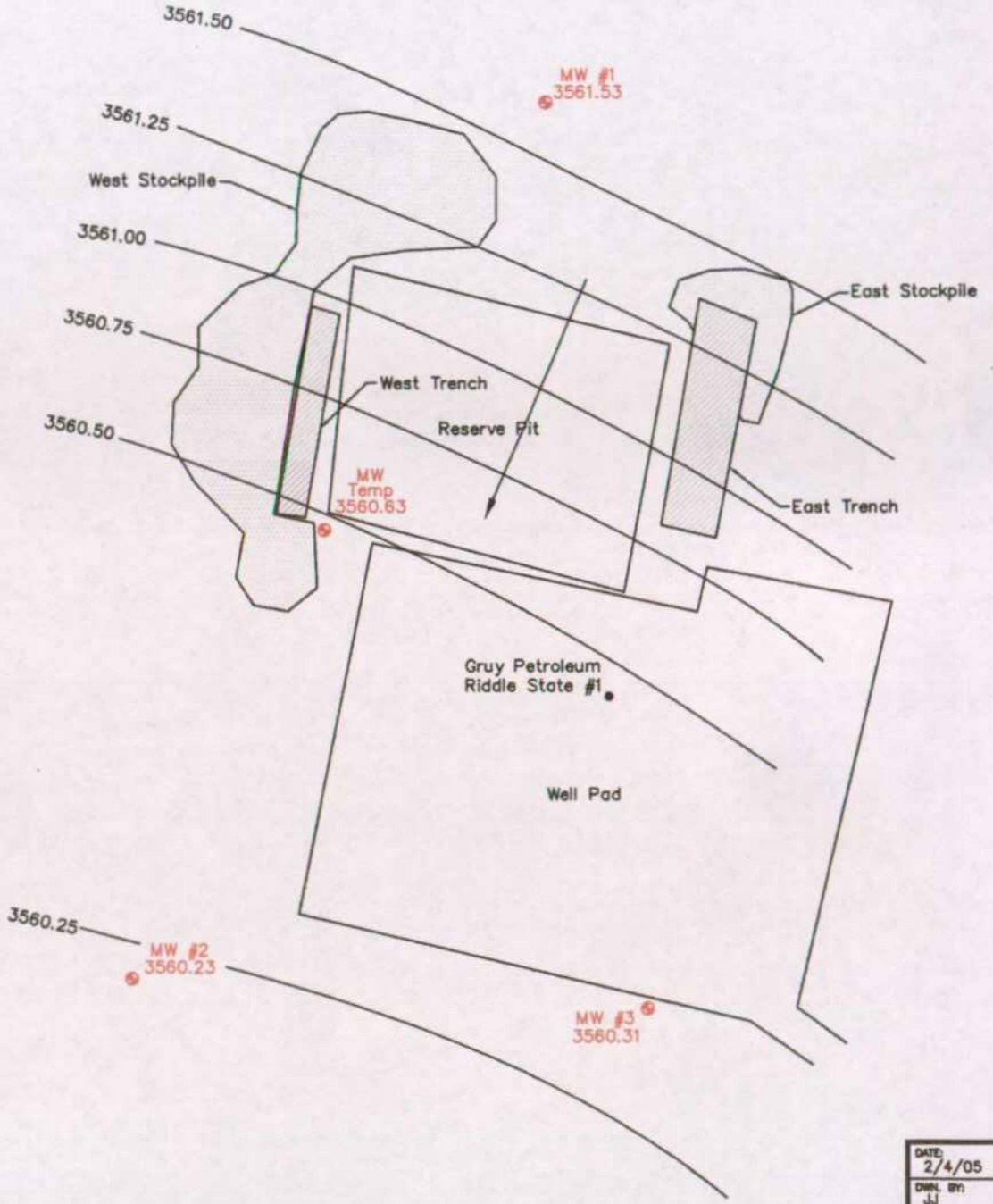


FIGURE NO. 2

LEA COUNTY, NEW MEXICO

GRUY PETROLEUM
RIDDLE STATE #1
SITE MAP

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS



NOT TO SCALE

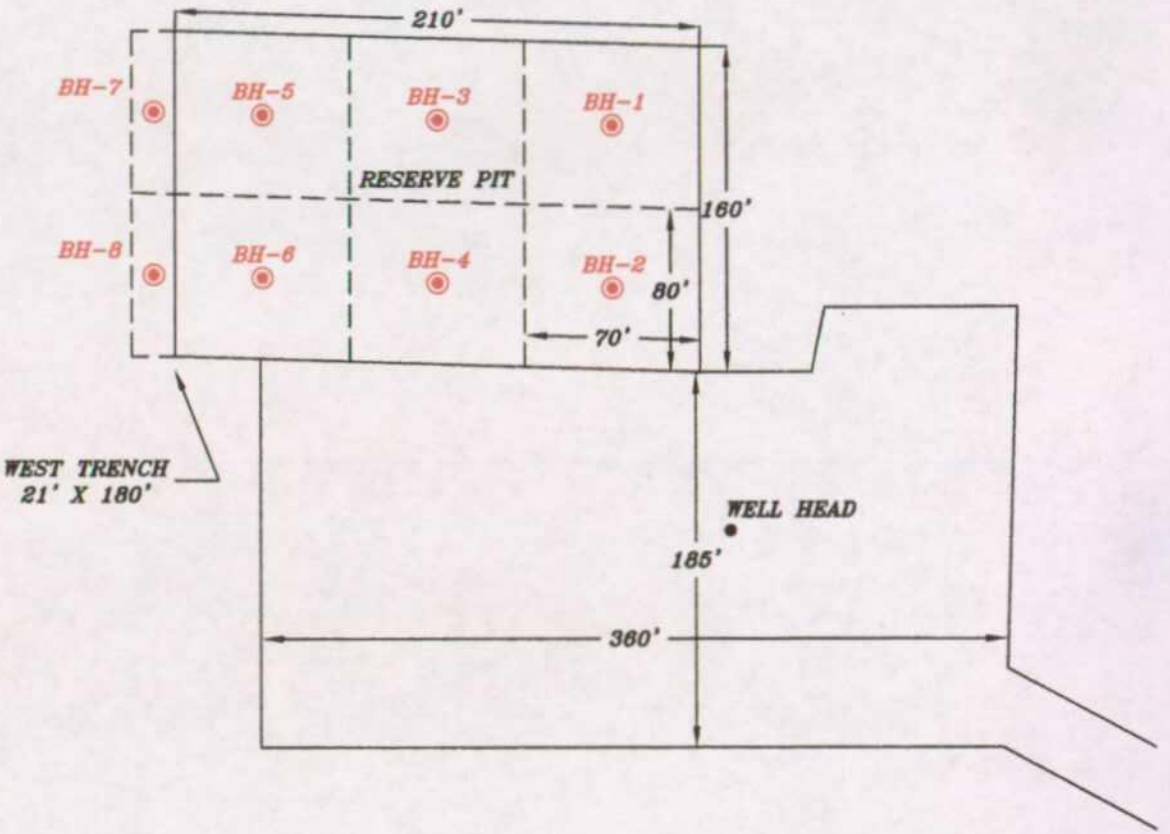
FIGURE NO. 3

LEA COUNTY, NEW MEXICO

GRUY PETROLEUM
RIDDLE STATE #1
GROUNDWATER TABLE MAP

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 2/4/05
DWN. BY: JJ
FILE: C:\FILE\GRUY\3321 RIDDLE STATE #1



BOREHOLE LOCATIONS

NOT TO SCALE

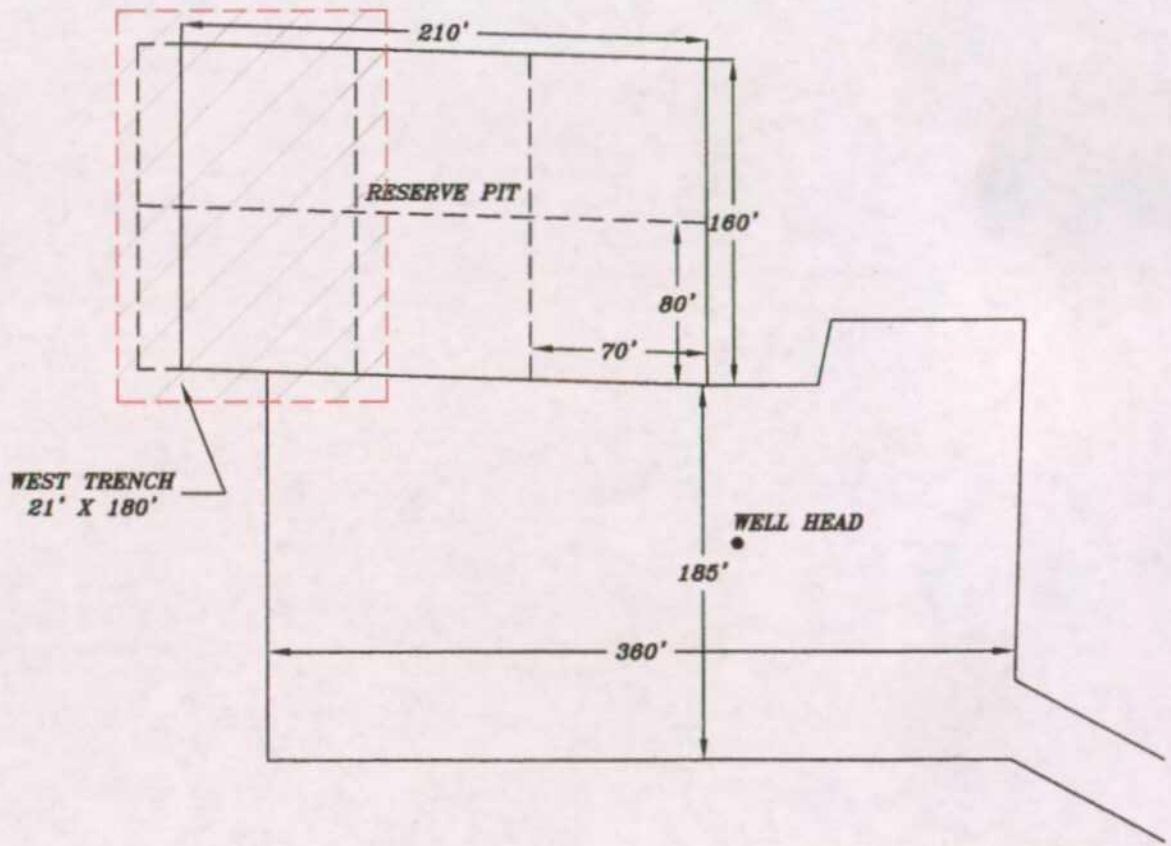
FIGURE NO. 4

LEA COUNTY, NEW MEXICO

GRUY PETROLEUM
RIDDLE STATE #1
BOREHOLE LOCATION MAP

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 2/4/05
DWN. BY: JJ
FILE: G:\FILES\GRUY\3331 RIDDLE STATE #1



SOIL CAP AREA 170' X 100'

NOT TO SCALE

FIGURE NO. 5

LEA COUNTY, NEW MEXICO

GRUY PETROLEUM
RIDDLE STATE #1
SOIL CAP DIAGRAM

DATE: 2/4/05

DWN. BY: JJ

FILE:

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

APPENDIX A

Boring Logs

BORING LOG

Boring/Well: **BH-1**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan fine - very fine sand.
5-10	Tan fine - very fine sand.
10-15	Tan fine - very fine sand.
15-20	Tan fine – very fine sand.
20-25	Tan fine – very fine sand.
25-30	Tan fine sand with some sandstone at 27' and sandstone stringers.
30-35	Tan fine sand and sandstone stringers.
35-37	Tan fine sand and sandstone stringers, harder at 37'. TD @37'.

BORING LOG

Boring/Well: **BH-2**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan/pink fine sand with nodules.
5-10	Tan/pink fine sand with nodules.
10-15	Tan fine sand.
15-20	Tan fine fine sand.
20-25	Tan fine sand, hard drilling at 22'.
25-30	Tan fine sand with sandstone at 27' and sandstone stringers.
30-35	Tan/ pink sandstone and fine sand, with sandstone stringers.
35-37	Tan fine sand with cream colored sandstone stringers. TD @37'.

BORING LOG

Boring/Well: **BH-3**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan fine sand.
5-10	Tan fine sand.
10-15	Tan fine sand.
15-20	Tan fine sand.
20-25	Tan fine sand.
25-30	Tan fine sand, hard at 27'.
30-35	Tan fine with hard nodules.
35-37	Tan fine sand and sandstone stringers. TD @37'.

BORING LOG

Boring/Well: **BH-4**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan/pink fine sand, slight cementation.
5-10	Tan/pink fine sand, slight cementation.
10-15	Tan fine sand.
15-20	Tan fine sand.
20-25	Tan fine sand with some cream sandstone stringers.
25-30	Cream colored sandstone and tan sand.
30-35	Cream colored sandstone and tan sand.
35-37	Tan sandy silty clay. TD @37'.

BORING LOG

Boring/Well: **BH-5**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan fine sand – sandy silt.
5-10	Tan sand with cream sandstone stringers.
10-15	Tan fine sand.
15-20	Tan fine sand.
20-25	Tan fine sand with some cream sandstone stringers.
25-30	Tan fine sand and sandstone.
30-35	Tan sandstone and fine sand.
35-37	Tan/brown sandy silty clay. TD @37'.

BORING LOG

Boring/Well: **BH-6**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/23/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan/pink silt – fine sand.
5-10	Tan fine - very fine sand.
10-15	Tan fine sand, with cream colored sandstone stringers.
15-20	Tan fine sand.
20-25	Tan fine sand.
25-30	Tan sandstone with fine sand.
30-35	Tan/brown sandy silty clay.
35-37	Tan/brown sandy silty clay. TD @37'.

BORING LOG

Boring/Well: BH-7
Site Location: Gruy – Riddle State # 1
Location: Lea County, New Mexico
Total Depth: 37' (Below Pit Bottom)
Date Installed: 3/22/05

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Tan/pink sandy silt - fine sand.
5-10	Tan fine sand.
10-15	Tan fine sand with sandstone @12'.
15-20	Tan fine sand with cream sandstone stringers.
20-25	Tan fine sand with cream sandstone stringers.
25-30	Tan fine sand with cream sandstone stringers.
30-35	Cream sandstone with some tan sand.
35-37	Tan sandy, silty clay. TD @37'.

BORING LOG

Boring/Well: **BH-8**
Site Location: **Gruy – Riddle State # 1**
Location: **Lea County, New Mexico**
Total Depth: **37' (Below Pit Bottom)**
Date Installed: **3/22/05**

DEPTH (Ft)	SAMPLE DESCRIPTION
1-5	Cream sandy silt and sand.
5-10	Tan, silty fine sand with sandstone @7'.
10-15	Tan fine sand.
15-20	Tan fine sand with cream sandstone stringers.
20-25	Tan fine sand.
25-30	Tan fine sand with sandstone at 27' and sandstone stringers.
30-35	Tan sandstone and fine sand.
35-37	Tan/brown silty clay. TD @37'.

APPENDIX B

Analytical Reports

Analytical Report

3/30/2005

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Tim Reed

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Gruy Petroleum/ Riddle State #1

Project Number: 2321

Location: None Given

Lab Order Number: 5C25006

Report Date: 03/30/05

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	03/30/05 15:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 (1'-3')	5C25006-01	Soil	03/22/05 10:50	03/24/05 17:00
BH-1 (5'-7')	5C25006-02	Soil	03/22/05 10:55	03/24/05 17:00
BH-1 (10'-12')	5C25006-03	Soil	03/22/05 11:00	03/24/05 17:00
BH-2 (1'-3')	5C25006-09	Soil	03/22/05 11:45	03/24/05 17:00
BH-2 (5'-7')	5C25006-10	Soil	03/22/05 11:50	03/24/05 17:00
BH-2 (10'-12')	5C25006-11	Soil	03/22/05 11:55	03/24/05 17:00
BH-3 (1'-3')	5C25006-17	Soil	03/22/05 13:00	03/24/05 17:00
BH-3 (5'-7')	5C25006-18	Soil	03/22/05 13:05	03/24/05 17:00
BH-3 (10'-12')	5C25006-19	Soil	03/22/05 13:10	03/24/05 17:00
BH-4 (1'-3')	5C25006-25	Soil	03/22/05 13:45	03/24/05 17:00
BH-4 (5'-7')	5C25006-26	Soil	03/22/05 13:50	03/24/05 17:00
BH-4 (10'-12')	5C25006-27	Soil	03/22/05 13:55	03/24/05 17:00
BH-5 (1'-3')	5C25006-33	Soil	03/22/05 14:40	03/24/05 17:00
BH-5 (5'-7')	5C25006-34	Soil	03/22/05 14:45	03/24/05 17:00
BH-5 (10'-12')	5C25006-35	Soil	03/22/05 14:50	03/24/05 17:00
BH-6 (1'-3')	5C25006-41	Soil	03/23/05 09:30	03/24/05 17:00
BH-6 (5'-7')	5C25006-42	Soil	03/23/05 09:40	03/24/05 17:00
BH-6 (10'-12')	5C25006-43	Soil	03/23/05 09:42	03/24/05 17:00
BH-7 (1'-3')	5C25006-49	Soil	03/22/05 15:35	03/24/05 17:00
BH-7 (5'-7')	5C25006-50	Soil	03/22/05 15:37	03/24/05 17:00
BH-7 (10'-12')	5C25006-51	Soil	03/22/05 15:45	03/24/05 17:00
BH-8 (1'-3')	5C25006-57	Soil	03/22/05 16:20	03/24/05 17:00
BH-8 (5'-7')	5C25006-58	Soil	03/22/05 16:25	03/24/05 17:00
BH-8 (10'-12')	5C25006-59	Soil	03/22/05 16:30	03/24/05 17:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (1'-3') (5C25006-01) Soil									
Chloride	**44.3**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-1 (5'-7') (5C25006-02) Soil									
Chloride	**26.0**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-1 (10'-12') (5C25006-03) Soil									
Chloride	**27.2**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-2 (1'-3') (5C25006-09) Soil									
Chloride	**31.5**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-2 (5'-7') (5C25006-10) Soil									
Chloride	**27.2**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-2 (10'-12') (5C25006-11) Soil									
Chloride	**24.5**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-3 (1'-3') (5C25006-17) Soil									
Chloride	**21.6**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-3 (5'-7') (5C25006-18) Soil									
Chloride	**28.7**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-3 (10'-12') (5C25006-19) Soil									
Chloride	**30.2**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-4 (1'-3') (5C25006-25) Soil									
Chloride	**23.0**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-4 (5'-7') (5C25006-26) Soil									
Chloride	**34.5**	5.00	mg/kg	10	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-4 (10'-12') (5C25006-27) Soil									
Chloride	**58.5**	10.0	mg/kg	20	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-5 (1'-3') (5C25006-33) Soil									
Chloride	**8480**	1000	mg/kg	2000	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-5 (5'-7') (5C25006-34) Soil									
Chloride	**4070**	100	mg/kg	200	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-5 (10'-12') (5C25006-35) Soil									
Chloride	**2770**	100	mg/kg	200	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-6 (1'-3') (5C25006-41) Soil									
Chloride	**19800**	2500	mg/kg	5000	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-6 (5'-7') (5C25006-42) Soil									
Chloride	**18400**	2500	mg/kg	5000	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-6 (10'-12') (5C25006-43) Soil									
Chloride	**4540**	100	mg/kg	200	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-7 (1'-3') (5C25006-49) Soil									
Chloride	**355**	25.0	mg/kg	50	EC53013	03/29/05	03/29/05	EPA 300.0	
BH-7 (5'-7') (5C25006-50) Soil									
Chloride	**417**	25.0	mg/kg	50	EC53013	03/29/05	03/29/05	EPA 300.0	

Highlander Environmental Corp.
1910 N. Big Spring St.
Midland TX, 79705

Project: Gruy Petroleum/ Riddle State #1
Project Number: 2321
Project Manager: Tim Reed

Fax: (432) 682-3946

Reported:
03/30/05 15:18

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-7 (10'-12') (5C25006-51) Soil									
Chloride	**444**	25.0	mg/kg	50	EC53014	03/30/05	03/30/05	EPA 300.0	
BH-8 (1'-3') (5C25006-57) Soil									
Chloride	**8600**	1000	mg/kg	2000	EC53014	03/30/05	03/30/05	EPA 300.0	
BH-8 (5'-7') (5C25006-58) Soil									
Chloride	**11000**	1000	mg/kg	2000	EC53014	03/30/05	03/30/05	EPA 300.0	
BH-8 (10'-12') (5C25006-59) Soil									
Chloride	**7660**	1000	mg/kg	2000	EC53014	03/30/05	03/30/05	EPA 300.0	

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC53013 - Water Extraction										
Blank (EC53013-BLK1)				Prepared & Analyzed: 03/29/05						
Chloride	ND	0.500	mg/kg							
LCS (EC53013-BS1)				Prepared & Analyzed: 03/29/05						
Chloride	10.4		mg/L	10.0		104	80-120			
Calibration Check (EC53013-CCV1)				Prepared & Analyzed: 03/29/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Duplicate (EC53013-DUP1)		Source: 5C25006-26		Prepared & Analyzed: 03/29/05						
Chloride	38.3	5.00	mg/kg		34.5			10.4	20	
Batch EC53014 - Water Extraction										
Blank (EC53014-BLK1)				Prepared & Analyzed: 03/30/05						
Chloride	ND	0.500	mg/kg							
LCS (EC53014-BS1)				Prepared & Analyzed: 03/30/05						
Chloride	10.5		mg/L	10.0		105	80-120			
Calibration Check (EC53014-CCV1)				Prepared & Analyzed: 03/30/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Duplicate (EC53014-DUP1)		Source: 5C25006-51		Prepared & Analyzed: 03/30/05						
Chloride	449	25.0	mg/kg		444			1.12	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 3-31-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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

Client: Highlander Env.

Date/Time: 03-24-05 @ 1700

Order #: 5C25006

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	16.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

Containers in boxes on top of ice

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

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

CLIENT NAME: Gruy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-01	3-22-05	10:50				BH-1 (1'-3')	1				X															X			
-02	3-22-05	10:55				BH-1 (5'-7')	1				X															X			
-03		11:00				BH-1 (10'-12')	1				X															X			
-04		11:05				BH-1 (15'-17')	1				X																		
-05		11:10				BH-1 (20'-22')	1				X																		
-06		11:20				BH-1 (25'-27')	1				X																		
-07		11:25				BH-1 (30'-32')	1				X																		
-08		11:30				BH-1 (35'-37')	1				X																		
-09		11:45				BH-2 (1'-3')	1				X															X			
-10		11:50				BH-2 (5'-7')	1				X															X			

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:10
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed Date: 3/24/05 Time: 4:00 PM

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: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jason McMurry
DATE: 03-24-05 TIME: 1700
HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: 4oz glass on ice w/seals on containers + cooler. Hold remaining Samples

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.

Analysis Request and Chain of Custody Record

PAGE: 2 OF: 7

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Arcy Petroleum
SITE MANAGER:
PROJECT NO.: 2321
PROJECT NAME: Reddie State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-11	3/22/05	11:55				BH-2 (10'-12')	1				X															X			
-12		12:00				BH-2 (15'-17')	1				X																		
-13		12:02				BH-2 (20-22')	1				X																		
-14		12:05				BH-2 (25'-27')	1				X																		
-15		12:15				BH-2 (30'-32')	1				X																		
-16		12:20				BH-2 (35'-37')	1				X																		
-17		13:00				BH-3 (1'-3')	1				X															X			
-18		13:05				BH-3 (5'-7')	1				X															X			
-19		13:10				BH-3 (10'-12')	1				X															X			
-20		13:15				BH-3 (15'-17')	1				X																		

RELINQUISHED BY: (Signature) [signature] Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed [signature] Date: 3/24/05 Time: 4:00

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jeanie McMurry
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil (circled) SL-Sludge O-Other
REMARKS: Hold Remaining Samples
4oz glass on ice w/seals on containers + cool

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.

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

CLIENT NAME: Gray Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Reddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	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	RCI	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)
-21	3/22/05	13:20				BH-3 (20'-22')	1				X															X			
-22		13:22				BH-3 (25'-27')	1				X																		
-23		13:25				BH-3 (30'-32')	1				X																		
-24		13:30				BH-3 (35'-37')	1				X																		
-25		13:45				BH-4 (1'-3')	1				X															X			
-26		13:50				BH-4 (5'-7')	1				X															X			
-27		13:55				BH-4 (10'-12')	1				X															X			
-28		14:00				BH-4 (15'-17')	1				X																		
-29		14:05				BH-4 (20'-22')	1				X																		
-30		14:10				BH-4 (25'-27')	1				X																		

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 14:00

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: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jenna McMurry
DATE: 03 24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C

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

REMARKS: Hold remaining Samples
4 oz glass on ice w/seals on containers + cooler

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.

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

CLIENT NAME: Gray Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

LAB I.D. NUMBER 5C25006	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-31	3/24/05	14:15				BH-4 (30'-32')	1				X															X			
-32		14:20				BH-4 (35'-37')	1				X																			
-33		14:40				BH-5 (1'-3')	1				X															X				
-34		14:45				BH-5 (5'-7')	1				X															X				
-35		14:50				BH-5 (10'-12')	1				X															X				
-36		14:53				BH-5 (15'-17')	1				X																			
-37		14:55				BH-5 (20'-22')	1				X																			
-38		15:00				BH-5 (25'-27')	1				X																			
-39		15:05				BH-5 (30-32')	1				X																			
-40		15:15				BH-5 (35-37')	1				X																			

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 14:00

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jaime Mcmurry
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0C

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

REMARKS: 4oz glass on ice w/seals on containers + coolers
Hold remaining Samples

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.

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

CLIENT NAME: Key Petroleum SITE MANAGER: Tim Reed

PROJECT NO.: 2321 PROJECT NAME: Riddle State #1

LAB I.D. NUMBER 5C25006	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-41	3-23-05	9:30				BH-6 (1'-3')	1				X															X			
-42	3-23-05	9:40				BH-6 (5'-7')	1				X															X			
-43	3-23-05	9:42				BH-6 (10'-12')	1				X															X			
-44	3-23-05	9:45				BH-6 (15'-17')	1				X																		
-45	3-23-05	9:55				BH-6 (20'-22')	1				X																		
-46	3-23-05	10:00				BH-6 (25'-27')	1				X																		
-47	3-23-05	10:05				BH-6 (30'-32')	1				X																		
-48	3-23-05	10:15				BH-6 (35'-37')	1				X																		
-49	3-22-05	15:35				BH-7 (1'-3')	1				X															X			
-50		15:37				BH-7 (5'-7')	1				X															X			

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:

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

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

SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 16:00?

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: Envirotech Labs of TX
ADDRESS:
CITY: Bloomfield STATE: NM ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jamie Mowery
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C

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

REMARKS: Hold remaining sample 4 oz glass on ice w/seals on containers + cooler

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.

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

CLIENT NAME: Gruy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

LAB I.D. NUMBER 5C25006	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-S1	3-22-05	15:45				BH-7 (10'-12')	1				X															X			
-S2		15:47				BH-7 (15'-17')	1				X																		
-S3		15:50				BH-7 (20'-22')	1				X																		
-S4		15:55				BH-7 (25'-27')	1				X																		
-S5		16:00				BH-7 (30'-32')	1				X																		
-S6		16:10				BH-7 (35'-37')	1				X																		
-S7	3-22-05	16:20				BH-8 (1'-3')	1				X															X			
-S8		16:25				BH-8 (5'-7')	1				X															X			
-S9		16:30				BH-8 (10'-12')	1				X															X			
-10		16:35				BH-8 (15'-17')	1				X																		

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:10
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 4:06 PM

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: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jaime Moreno
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: 4oz glass orijee w/seals on Containers + cooler
Hold Remaining Samples

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.

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

CLIENT NAME: Gray Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 7321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride (circled)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-61	3-22-05	16:40				BH-8 (20' - 22')	1				X																		
-62		16:45				BH-8 (25' - 27')	1				X																		
-63		16:50				BH-8 (30' - 32')	1				X																		
-64		16:55				BH-8 (35' - 37')	1				X																		

RELINQUISHED BY: (Signature) [signature] Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 03-24-05 TIME: 1700

SAMPLED BY: (Print & Sign) Tim Reed [signature] Date: 3/24/05 Time: 4:00
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL # ; HAND DELIVERED (circled) UPS OTHER:
HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil (circled) SL-Sludge O-Other
REMARKS: 4oz glass on ice w/seals on containers + cooler
Hold remaining sample

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.

Analytical Report

4/06/2005

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Tim Reed

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Gruy Petroleum/ Riddle State #1

Project Number: 2321

Location: None Given

Lab Order Number: 5C31011

Report Date: 04/06/05

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/06/05 14:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-5 (15'-17')	5C31011-01	Soil	03/22/05 14:53	03/24/05 17:00
BH-5 (20'-22')	5C31011-02	Soil	03/22/05 14:55	03/24/05 17:00
BH-6 (15'-17')	5C31011-03	Soil	03/23/05 09:45	03/24/05 17:00
BH-6 (20'-22')	5C31011-04	Soil	03/23/05 09:55	03/24/05 17:00
BH-7 (15'-17')	5C31011-05	Soil	03/22/05 15:47	03/24/05 17:00
BH-7 (20'-22')	5C31011-06	Soil	03/22/05 15:50	03/24/05 17:00
BH-8 (15'-17')	5C31011-07	Soil	03/22/05 16:35	03/24/05 17:00
BH-8 (20'-22')	5C31011-08	Soil	03/22/05 16:40	03/24/05 17:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/06/05 14:47

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-5 (15'-17') (5C31011-01) Soil									
Chloride	**2480**	50.0	mg/kg	100	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-5 (20'-22') (5C31011-02) Soil									
Chloride	**3230**	100	mg/kg	200	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-6 (15'-17') (5C31011-03) Soil									
Chloride	**881**	25.0	mg/kg	50	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-6 (20'-22') (5C31011-04) Soil									
Chloride	**586**	100	mg/kg	200	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-7 (15'-17') (5C31011-05) Soil									
Chloride	**1680**	50.0	mg/kg	100	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-7 (20'-22') (5C31011-06) Soil									
Chloride	**527**	10.0	mg/kg	20	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-8 (15'-17') (5C31011-07) Soil									
Chloride	**8860**	1000	mg/kg	2000	ED50504	04/01/05	04/01/05	EPA 300.0	
BH-8 (20'-22') (5C31011-08) Soil									
Chloride	**7860**	1000	mg/kg	2000	ED50505	04/02/05	04/02/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/06/05 14:47

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED50504 - Water Extraction										
Blank (ED50504-BLK1)				Prepared & Analyzed: 04/01/05						
Chloride	ND	0.500	mg/kg							
LCS (ED50504-BS1)				Prepared & Analyzed: 04/01/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Calibration Check (ED50504-CCV1)				Prepared & Analyzed: 04/01/05						
Chloride	10.7		mg/L	10.0		107	80-120			
Duplicate (ED50504-DUP1)	**Source: 5C31001-09**			Prepared & Analyzed: 04/01/05						
Chloride	354	10.0	mg/kg		353			0.283	20	
Batch ED50505 - Water Extraction										
Blank (ED50505-BLK1)				Prepared & Analyzed: 04/02/05						
Chloride	ND	0.500	mg/kg							
LCS (ED50505-BS1)				Prepared & Analyzed: 04/02/05						
Chloride	10.4		mg/L	10.0		104	80-120			
Calibration Check (ED50505-CCV1)				Prepared & Analyzed: 04/02/05						
Chloride	10.1		mg/L	10.0		101	80-120			
Duplicate (ED50505-DUP1)	**Source: 5C31011-08**			Prepared & Analyzed: 04/02/05						
Chloride	7800	1000	mg/kg		7860			0.766	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/06/05 14:47

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 4/6/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins. Chemist/Geologist
Sandra Sanchez. Lab Tech.

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

CLIENT NAME: Getty Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 232
PROJECT NAME: Eddie Dale #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
5C25006 -31	3/24/05	14:15				BH-4 (30'-32')	1				X	
-32		14:20				BH-4 (35'-37')	1				X	
-33		14:40				BH-5 (1'-3')	1				X	
-34		14:45				BH-5 (5'-7')	1				X	
-35		14:50				BH-5 (10'-12')	1				X	
-01 -36		14:53				BH-5 (15'-17')	1				X	
-02 -37		14:55				BH-5 (20'-22')	1				X	
-38		15:00				BH-5 (25'-27')	1				X	
-39		15:05				BH-5 (30-32')	1				X	
-40		15:15				BH-5 (35-37')	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

ETEX 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	RCI	GC-MS Vol. 8240/8260/624	GC-MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chlorides *	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
													X			
													X			
													X			
													X			
													X			
													X			
													X			

COPY

RELINQUISHED BY: (Signature) Date: 3/24/05 Time: 5:30
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 14:00
SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: Environmental Lab of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jaime Mendoza
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0C

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

REMARKS: 4oz glass on ice w/seals on containers + coolers
Hold remaining Samples
* Add 03-31-05 as per attached e-mail

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.

Analysis Request and Chain of Custody Record

PAGE: 5 OF: 7

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Arcy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Kiddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C31011	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-41	3-23-05	9:30				BH-6 (1'-3')	1				X															X			
-42	3-23-05	9:40				BH-6 (5'-7')	1				X															X			
-43	3-23-05	9:42				BH-6 (10'-12')	1				X															X			
-44	3-23-05	9:45				BH-6 (15'-17')	1				X															X			
-45	3-23-05	9:55				BH-6 (20'-22')	1				X															X			
-46	3-23-05	10:00				BH-6 (25'-27')	1				X																		
-47	3-23-05	10:05				BH-6 (30'-32')	1				X																		
-48	3-23-05	10:15				BH-6 (35'-37')	1				X																		
-49	3-22-05	15:35				BH-7 (1'-3')	1				X															X			
-50		15:37				BH-7 (5'-7')	1				X															X			

COPY

RELINQUISHED BY: (Signature) [signature] Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed [signature] Date: 3/24/05 Time: 14:40

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature] McMurry
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: 4 oz glass on ice w/seals on containers + cooler
Hold remaining samples

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.

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

CLIENT NAME: Gray Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.): 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; RCI; GC.MS Vol. 8240/8260/624; GC.MS Semi. Vol. 8270/625; PCB's 8080/608; Pest. 808/608; BOD, TSS, pH, TDS, (Chloride); Gamma Spec.; Alpha Beta (Air); PLM (Asbestos)

LAB I.D. NUMBER (5C31011)	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BOD, TSS, pH, TDS, Chloride
-51	3-22-05	15:45				BH-7 (10'-12')	1				X		X
-05 -52		15:47				BH-7 (15'-17')	1				X		X
-06 53		15:50				BH-7 (20'-22')	1				X		X
-54		15:55				BH-7 (25'-27')	1				X		
-55		16:00				BH-7 (30'-32')	1				X		
-56		16:10				BH-7 (35'-37')	1				X		
-57	3-22-05	16:20				BH-8 (1'-3')	1				X		X
-58		16:25				BH-8 (5'-7')	1				X		X
-59		16:30				BH-8 (10'-12')	1				X		X
-07 -60		16:35				BH-8 (15'-17')	1				X		X

COPY

RELINQUISHED BY: (Signature) [signature] Date: 3/23/05 Time: [illegible]
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed [signature] Date: 3/24/05 Time: 4:00 PM
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:
HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 03-24-05 TIME: 1700
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: 4oz glass or jar w/seals on containers + cooler. Hold Remaining Samples

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.

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: 7 OF: 7

CLIENT NAME: Gray Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 7321
PROJECT NAME: Riddle State #1

Submit # 5C31011

LAB I.D. NUMBER 5C25006	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE
-08 -61	3-22-05	16:40				BH-8 (20' - 22')	1				X	
-62		16:45				BH-8 (25' - 27')	1				X	
-63		16:50				BH-8 (30' - 32')	1				X	
-64		16:55				BH-8 (35' - 37')	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D.	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride (circled)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-61														X			
-62																	
-63																	
-64																	

COPY

RELINQUISHED BY: (Signature) [signature] Date: 3-24-05 Time: [illegible]
RECEIVED BY: (Signature) Date: Time:

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) [signature]
DATE: 03-24-05 TIME: 1700

SAMPLED BY: (Print & Sign) Tim Reed [signature] Date: 3/24/05 Time: 4:00

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL # UPS OTHER: HAND DELIVERED (circled)

HIGHLANDER CONTACT PERSON: Tim Reed

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C

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

REMARKS: Hold remaining sample
4oz glass on ice w/seals on container + cooler

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.

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

Client: Highlander Env.

Date/Time: 03-24-05 @ 1700

Order #: ~~562S006~~ Resubmit # 5C31011

Initials: JMM

COPY

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	16.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Apolicable)

Other observations:

Containers in boxes on top of ice

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

Jeanne McMurrey

From: "Gary Miller" <gmiller@hec-enviro.com>
To: <jeanne@elabtexas.com>
Sent: Thursday, March 31, 2005 2:41 PM
Subject: Highlander Project Number 2321, Riddle State #1

Jeanne, please run the following samples for Project #2321, Riddle State #1, Chlorides only.

BH-5 (15'-17')
BH-5 (20'-22')
BH-6 (15'-17')
BH-6 (20'-22')
BH-7 (15'-17')
BH-7 (20'-22')
BH-8 (15'-17')
BH-8 (20'-22')

Thanks,

Gary E. Miller
Highlander Environmental Corp.
1910 N. Big Spring
Midland, Texas 79705

432-682-4559 office
432-557-4681 cell
432-682-3946 fax

--

Analytical Report

4/12/2005

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Tim Reed

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Gruy Petroleum/ Riddle State #1

Project Number: 2321

Location: None Given

Lab Order Number: 5D06005

Report Date: 04/12/05

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/12/05 15:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-5 (25'-27')	5D06005-01	Soil	03/22/05 15:00	03/24/05 17:00
BH-5 (30-32')	5D06005-02	Soil	03/22/05 15:05	03/24/05 17:00
BH-5 (35'-37')	5D06005-03	Soil	03/22/05 15:15	03/24/05 17:00
BH-6 (25'-27')	5D06005-04	Soil	03/23/05 10:00	03/24/05 17:00
BH-6 (30'-32')	5D06005-05	Soil	03/23/05 10:05	03/24/05 17:00
BH-6 (35'-37')	5D06005-06	Soil	03/23/05 10:15	03/24/05 17:00
BH-7 (25'-27')	5D06005-07	Soil	03/22/05 15:55	03/24/05 17:00
BH-7 (30'-32')	5D06005-08	Soil	03/22/05 16:00	03/24/05 17:00
BH-7 (35'-37')	5D06005-09	Soil	03/22/05 16:10	03/24/05 17:00
BH-8 (25'-27')	5D06005-10	Soil	03/22/05 16:45	03/24/05 17:00
BH-8 (30'-32')	5D06005-11	Soil	03/22/05 16:50	03/24/05 17:00
BH-8 (35'-37')	5D06005-12	Soil	03/22/05 16:55	03/24/05 17:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-5 (25'-27') (5D06005-01) Soil									
Chloride	**5640**	1000	mg/kg	2000	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-5 (30-32') (5D06005-02) Soil									
Chloride	**4030**	100	mg/kg	200	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-5 (35'-37') (5D06005-03) Soil									
Chloride	**1540**	50.0	mg/kg	100	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-6 (25'-27') (5D06005-04) Soil									
Chloride	**2390**	50.0	mg/kg	100	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-6 (30'-32') (5D06005-05) Soil									
Chloride	**723**	50.0	mg/kg	100	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-6 (35'-37') (5D06005-06) Soil									
Chloride	**1360**	50.0	mg/kg	100	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-7 (25'-27') (5D06005-07) Soil									
Chloride	**828**	25.0	mg/kg	50	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-7 (30'-32') (5D06005-08) Soil									
Chloride	**556**	20.0	mg/kg	40	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-7 (35'-37') (5D06005-09) Soil									
Chloride	**590**	25.0	mg/kg	50	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-8 (25'-27') (5D06005-10) Soil									
Chloride	**8120**	1000	mg/kg	2000	ED51211	04/08/05	04/08/05	EPA 300.0	

Highlander Environmental Corp.	Project: Gruy Petroleum/ Riddle State #1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2321	**Reported:**
Midland TX, 79705	Project Manager: Tim Reed	04/12/05 15:20

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-8 (30'-32') (5D06005-11) Soil									
Chloride	**2250**	50.0	mg/kg	100	ED51211	04/08/05	04/08/05	EPA 300.0	
BH-8 (35'-37') (5D06005-12) Soil									
Chloride	**797**	25.0	mg/kg	50	ED51211	04/08/05	04/08/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED51211 - Water Extraction										
Blank (ED51211-BLK1)				Prepared & Analyzed: 04/08/05						
Chloride	ND	0.500	mg/kg							
LCS (ED51211-BS1)				Prepared & Analyzed: 04/08/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Calibration Check (ED51211-CCV1)				Prepared & Analyzed: 04/08/05						
Chloride	10.9		mg/L	10.0		109	80-120			
Duplicate (ED51211-DUP1)		**Source: 5D06005-11**		Prepared & Analyzed: 04/08/05						
Chloride	2280	50.0	mg/kg		2250			1.32	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 4-14-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Analysis Request and Chain of Custody Record

PAGE: 4 OF: 7

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Gruy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	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	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride *	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-31	3/22/05	14:15				BH-4 (30'-32')	1				X																		
-32		14:20				BH-4 (35'-37')	1				X																		
-33		14:40				BH-5 (1'-3')	1				X															X			
-34		14:45				BH-5 (5'-7')	1				X															X			
-35		14:50				BH-5 (10'-12')	1				X															X			
.01 -36		14:53				BH-5 (15'-17')	1				X															X			
.02 -37		14:55				BH-5 (20'-22')	1				X															X			
.01 -38		15:00				BH-5 (25'-27')	1				X															X			
.02 -39		15:05				BH-5 (30-32')	1				X															X			
.03 -40		15:15				BH-5 (35-37')	1				X															X			

COPY

Resubmit # 5D06005

RELINQUISHED BY: (Signature) [illegible] Date: 3/24/05 Time: [illegible]
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jeanie McMurray
DATE: 03-24-05 TIME: 1700

SAMPLED BY: (Print & Sign) Tim Reed / Tim Reed Date: 3/22/05 Time: 14:00
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL # HAND DELIVERED (circled) UPS OTHER:
HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil (circled) SL-Sludge O-Other
REMARKS: 4oz glass on ice w/seals on containers + coolers
Hold Remaining Samples

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.

* Add 03-31-05 as per attached e-mail
* Add [illegible] @ 11:00 as per attached e-mail

Analysis Request and Chain of Custody Record

PAGE: 5 OF: 7

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Arcy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER: 5C31011 / 5026006

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	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	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-41	3-23-05	9:30				BH-6 (1'-3')	1				X															X			
-42	3-23-05	9:40				BH-6 (5'-7')	1				X															X			
-43	3-23-05	9:42				BH-6 (10'-12')	1				X															X			
-03 -44	3-23-05	9:45				BH-6 (15'-17')	1				X															X			
-04 -45	3-23-05	9:55				BH-6 (20'-22')	1				X															X			
-04 -46	3-23-05	10:00				BH-6 (25'-27')	1				X															X			
-05 -47	3-23-05	10:05				BH-6 (30'-32')	1				X															X			
-06 -48	3-23-05	10:15				BH-6 (35'-37')	1				X															X			
-49	3-22-05	15:35				BH-7 (1'-3')	1				X															X			
-50		15:37				BH-7 (5'-7')	1				X															X			

COPY

RELINQUISHED BY: (Signature) [signature] Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) Date: Time:

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

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

RECEIVING LABORATORY: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jeanne McMurry
DATE: 03-24-05 TIME: 1700

SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3/24/05 Time: 14:00

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

HIGHLANDER CONTACT PERSON: Tim Reed

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C

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

REMARKS: 4 oz glass on ice w/ seals on containers + cooler
Hold remaining samples

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.

5C31011 #1 subm: x 5026005

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

CLIENT NAME: Gruy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 2321
PROJECT NAME: Riddle State #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER 5C25006	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	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-01	3-22-05	15:45				BH-7 (10'-12')	1				X															X			
-02		15:47				BH-7 (15'-17')	1				X															X			
-03		15:50				BH-7 (20'-22')	1				X															X			
-04		15:55				BH-7 (25'-27')	1				X															X			
-05		16:00				BH-7 (30'-32')	1				X															X			
-06		16:10				BH-7 (35'-37')	1				X															X			
-07	3-22-05	16:20				BH-8 (1'-3')	1				X															X			
-08		16:25				BH-8 (5'-7')	1				X															X			
-09		16:30				BH-8 (10'-12')	1				X															X			
-10		16:35				BH-8 (15'-17')	1				X															X			

COPY

RELINQUISHED BY: (Signature) Date: 3-24-05 Time: 5:10
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed Tim Reed Date: 3-24-05 Time: 4:00 PM

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: Environ Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jesse McMurray
DATE: 03-24-05 TIME: 1700

HIGHLANDER CONTACT PERSON: Tim Reed

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C

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

REMARKS: 4 oz glass on ice w/seals on containers + cooler
Hold on Running Samples

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.

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

CLIENT NAME: Gruy Petroleum
SITE MANAGER: Tim Reed
PROJECT NO.: 7321
PROJECT NAME: Reddle State #1

LAB I.D. NUMBER 5C25000	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
-09-01	3-22-05	16:40				BH-8 (20'-22')	1				X	
-10-02		16:45				BH-8 (25'-27')	1				X	
-11-03		16:50				BH-8 (30'-32')	1				X	
-12-04		16:55				BH-8 (35'-37')	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

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	RCI	GC-MS Vol. 8240/8260/624	GC-MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
													X			
													X			
													X			
													X			

COPY

RELINQUISHED BY: (Signature) — Date: 3/24/05 Time: 5:00
RECEIVED BY: (Signature) — Date: Time:
SAMPLED BY: (Print & Sign) Tim Reed — Date: 3/24/05 Time: 4:00

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle)

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

RECEIVING LABORATORY: Envirotech Labs of TX
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Joani McMurray
DATE: 03-24-05 TIME: 1700
HIGHLANDER CONTACT PERSON: Tim Reed
Results by:
RUSH Charges Authorised: Yes No

SAMPLE CONDITION WHEN RECEIVED: 16.0°C
MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other
REMARKS: 4oz glass on ice w/seals on containers + cooler
Hold remaining sample

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.

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

Client: Highlander Env.

Date/Time: 03-24-05 @ 1700

Order #: 5C25006 ~~5C31011~~ Resubmit #5D06005 (3rd) COPY

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	16.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

Containers in boxes on top of ice

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

Martin, Ed

From: Randy Ray [rray@magnumhunter.com]

Sent: Friday, February 04, 2005 8:39 AM

To: emartin@state.nm.us

Cc: PSHEELEY@STATE.NM.US; gmiller@hec-enviro.com; itavarez@hec-enviro.com; Bob Jennings; Reggie Reston

Subject: Gruy Petroleum - Riddle State #1 Groundwater Delineation

Mr. Martin:

I am in receipt of your recent letter dated 1/26/05 concerning the notification of groundwater impact at the Gruy operated Riddle State #1 well site. Gruy has contracted Highlander Environmental to proceed with the proposed groundwater delineation project as originally proposed by Pat McCasland with Environmental Plus. Mr. Gary Miller with Highlander Environmental has submitted the water well easement and appropriate fees to the State of New Mexico to permit the 3 monitor wells on Gruy's behalf. Highlander is also currently contracting a water well rig to drill these 3 monitor wells wells as soon as possible. I want to assure you that we will forward these results to your office as soon as the information is obtained. If you should have any questions, please feel free to contact me at the numbers listed below, or Highland Environmental at (432) 682-4559.

Thanks,

Randy Ray

****

Randy W. Ray
Permian Operations Manager
Gruy Petroleum Management
rray@magnumhunter.com
(432) 571 - 7800 office
(432) 571 - 7832 fax

****

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

January 26, 2005

Mr. Randy W. Ray
Gruy Petroleum Management Co.
508 West Wall Street
Suite 600
Midland, TX 79701

Dear Mr. Ray:

The New Mexico Oil Conservation Division (NMOCD) has received a written notification of groundwater impact and preliminary groundwater delineation proposal for the Gruy Petroleum Co. (Gruy) Riddle State #1 site located in UL-B, Sec. 1, T22S, R34E, Lea County New Mexico. Environmental Plus, Inc prepared this report on Gruy's behalf. I have responded via email to Mr. Pat McCasland approving the preliminary groundwater delineation proposal.

Please ensure that the delineation phase commences shortly and proceeds swiftly. Please keep this office informed of any problems encountered at the site and the results of the delineation.

If you have any questions, contact me at 505-476-3492 or emartin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Ed Martin

Edwin E. Martin
Environmental Engineer

cc: Paul Sheeley, NMOCD Hobbs office
Pat McCasland, Environmental Plus, Inc.

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

January 21, 2005

Mr. Ed Martin
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division, Environmental Bureau
P.O. Box 6429
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

1R-431

Subject: Written notification of groundwater impact and preliminary groundwater delineation proposal.

Re: Gruy Petroleum
Riddle State #1
UL-B; NW¼ of the NE¼ of Section 1 T22S R34E
Lea County New Mexico
Latitude: 32°25'36.87"N Longitude: 103°25'07.52"W
Landowner: State of New Mexico

Dear Mr. Martin,

Consistent with NMAC Title 20.6.2.1203 (NOTIFICATION OF DISCHARGE), Environmental Plus, Inc. (EPI), Eunice, New Mexico, on behalf of Gruy Petroleum (Gruy), submits this written notification of groundwater impact. During implementation of the New Mexico Oil Conservation Division (NMOCD) "Riddle State #1 Pit Delineation Work Plan," groundwater at the site was encountered at approximately 45 feet below ground surface. This information was needed to determine an accurate depth to groundwater for the site to support subsequent pit closure strategies. After saturation was encountered in the soil boring, the decision was made to install and develop a temporary 2" PVC monitor well and purge and sample it for selected New Mexico Water Quality Control Commission (WQCC) groundwater parameters. Laboratory results indicate the groundwater exceeds the WQCC standards for chloride, sulfate, and total dissolved standards as listed in NMAC 20.6.2.3103. The analytical results are summarized below and the reports attached along with site maps.

P.O. BOX 1558 ••• 2100 WEST AVE. O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 FAX 505•394•2601

ENVIRONMENTAL PLUS, INC.

It is not known if the exceedances are due to impacted groundwater encroaching from an up gradient source or from the pit. Gruy proposes to install, survey and sample one up-gradient and two down-gradient monitoring wells. Information from these wells be used to accurately determine the groundwater gradient and if impacts are due to on-site or off-site activities not associated with the pit. The up-gradient well will identify encroaching sources and the two down-gradient wells will provide information as to the extent of impact. The USGS Report #6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico, A. Nicholson and A. Clebsch, 1961," suggests the groundwater gradient at the site is to the south (refer to the attached groundwater elevation map) therefore, the up-gradient monitor well (MW4) will be installed approximately 200-feet north of the pit perimeter upgradient of the site, the southeast down-gradient well (MW2) will be installed approximately 300-feet due south of the southeast corner of the pit and the southwest well (MW3) approximately 300-feet south of the southwest corner of the pit at a bearing of 206°.

If information from the monitor wells indicates the groundwater impact is from the drilling pit, a delineation and remediation work plan addressing soil and ground water will be developed consistent with the "**New Mexico Oil Conservation Division (NMOCD) Pit and Below-Grade Tank Guidelines (November 1, 2004)**" and the "**NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)**" and submitted to you for approval. There are no surface water bodies or domestic, agricultural, or public water supply wells within 1,000 feet of the site. All official communication should be sent to;

Gruy Petroleum Management Co.
Mr. Randy W. Ray
508 West Wall Street
Suite 600
Midland, Texas 79701
Email: rray@magnumhunter.com

P.O. BOX 1558 ••• 2100 WEST AVE. O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 FAX 505•394•2601

If there are any questions or more information is required please call Cody Miller or me at the office or Mr. Randy Ray at 432.571.7800.

Sincerely,

Pat McCasland
EPI Technical Services Manager (enviplus1@aol.com)

cc: Paul Sheeley, NMOCD Hobbs (PSHEELEY@STATE.NM.US)
Randy Ray, Gruy (rray@magnumhunter.com)
Reggie Reston, Gruy (rreston@magnumhunter.com)
Bob Jennings, Gruy (bjennings@magnumhunter.com)
Cody Miller, EPI Vice President and General Manager (enviplus1@aol.com)
Sherry Miller, EPI President (enviplus1@aol.com)
File

Attachments:

1. Gruy Riddle State #1 Pit Delineation Groundwater Data Summary January 2005
2. Annotated USGS topographical map
3. Delineation Sample Location map
4. Proposed monitoring well location map
5. Laboratory Reports

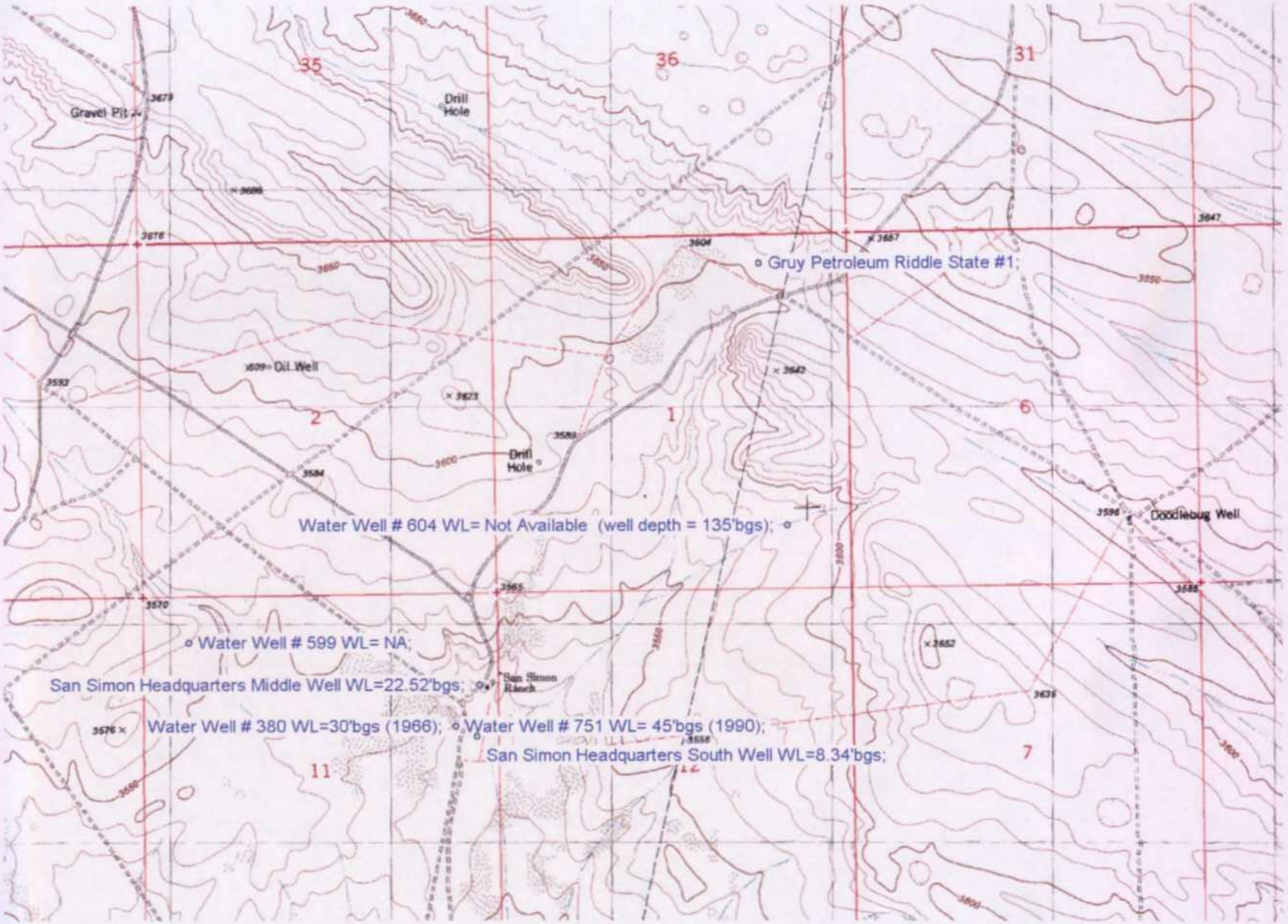
ENVIRONMENTAL PLUS, INC.

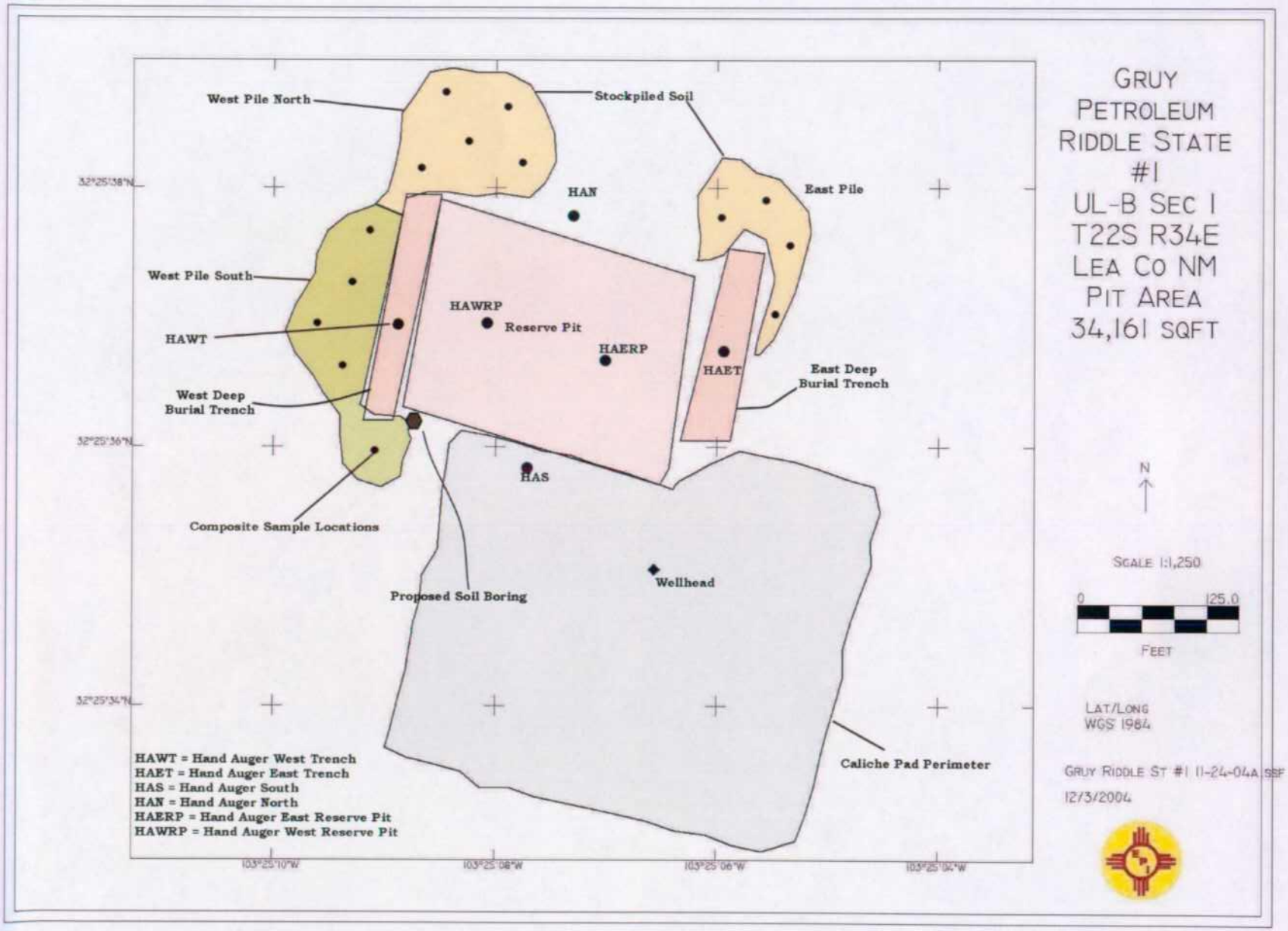
P.O. BOX 1558 ••• 2100 WEST AVE. O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 FAX 505•394•2601

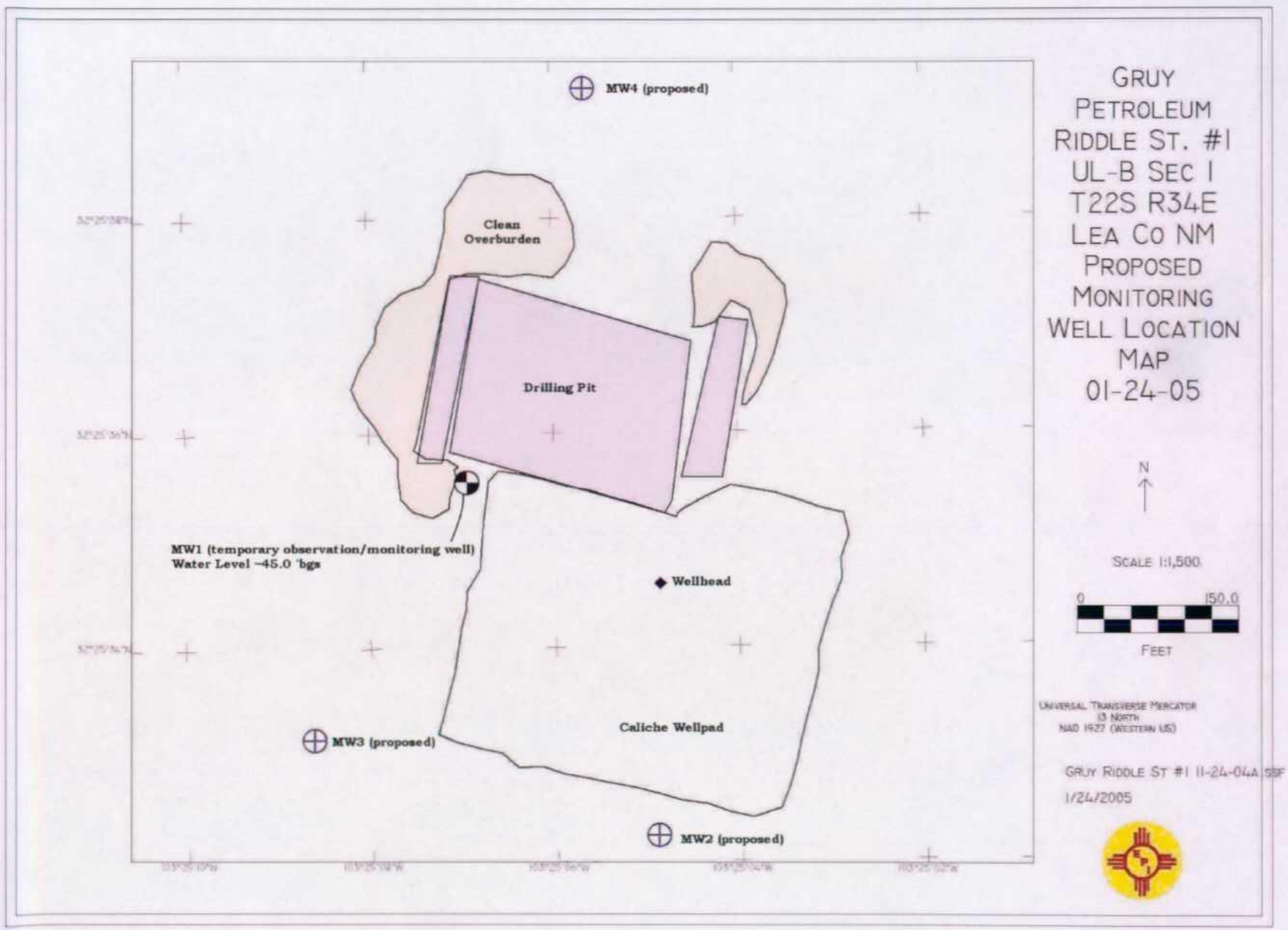
Gruy Petroleum
Riddle State #1 Drilling Pit Delineation Groundwater Data January 2005

Sample Location	Water Level (FT. BGS[1])	SAMPLE ID#	Date	Sodium (Na)	Calcium (Ca)	Magnesium (Mg)	Potassium (K)	Conductivity	T-Alkalinity	Chloride (Cl)	Sulfate (SO_4)
				mg/L	mg/L	mg/L	mg/L	(µS/cm)	($mgCaCO_3/L$)	mg/L	mg/L
BH1	44.8	BH! Monitor	1/12/2005	11914	2922	650	261	40044	180	24992	799
NM Water Quality Control Commission Standard				--	--	--	--	--	--	250	600

Sample Location	Water Level (FT. BGS[1])	SAMPLE ID#	Date	Carbonate (CO_3)	Bicarbonate (HCO_3)	pH	Total Dissolved Solids (TDS)	Benzene	Toluene	Ethylbenzene	m,p, & o Xylenes
				mg/L	mg/L	S.U.	mg/L	mg/L	mg/L	mg/L	mg/L
BH1	44.8	BH! Monitor	1/12/2005	0	220	7	41800	<0.002	<0.002	<0.002	<0.006
NM Water Quality Control Commission Standard				--	--	6-9	1000	0.01	0.75	0.75	0.62


35
36
31
Gravel Pit
Drill Hole
Gruy Petroleum Riddle State #1;
Oil Well
2
1
6
Drill Hole
Water Well # 604 WL= Not Available (well depth = 135'bgs);
Doodlebug Well
Water Well # 599 WL= NA;
San Simon Headquarters Middle Well WL=22.52'bgs;
San Simon Ranch
Water Well # 380 WL=30'bgs (1966);
Water Well # 751 WL= 45'bgs (1990);
San Simon Headquarters South Well WL=8.34'bgs;
11
7


West Pile North
Stockpiled Soil
East Pile
HAN
West Pile South
HAWRP
Reserve Pit
HAWT
HAERP
HAET
East Deep Burial Trench
West Deep Burial Trench
HAS
Composite Sample Locations
Wellhead
Proposed Soil Boring
Caliche Pad Perimeter
32°25'38"N
32°25'36"N
32°25'34"N
103°25'10"W
103°25'08"W
103°25'06"W
103°25'04"W
HAWT = Hand Auger West Trench
HAET = Hand Auger East Trench
HAS = Hand Auger South
HAN = Hand Auger North
HAERP = Hand Auger East Reserve Pit
HAWRP = Hand Auger West Reserve Pit
GRUY PETROLEUM
RIDDLE STATE
#1
UL-B SEC 1
T22S R34E
LEA CO NM
PIT AREA
34,161 SQFT
N
SCALE 1:1,250
0
125.0
FEET
LAT/LONG
WGS 1984
GRUY RIDDLE ST #1 11-24-04A SBF
12/3/2004


MW4 (proposed)
Clean Overburden
Drilling Pit
MW1 (temporary observation/monitoring well)
Water Level ~45.0 'bgs
Wellhead
MW3 (proposed)
Caliche Wellpad
MW2 (proposed)
GRUY PETROLEUM RIDDLE ST. #1 UL-B SEC 1 T22S R34E LEA CO NM PROPOSED MONITORING WELL LOCATION MAP 01-24-05
N
SCALE 1:1,500
0
150.0
FEET
UNIVERSAL TRANSVERSE MERCATOR
13 NORTH
NAD 1927 (WESTERN US)
GRUY RIDDLE ST #1 11-24-04A SSF
1/24/2005

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 01/18/05
Reporting Date: 01/19/05
Project Owner: GRUY PETROLEUM
Project Name: RIDDLE STATE #1
Project Location: NOT GIVEN

Sampling Date: 01/12/05
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		01/19/05	01/19/05	01/19/05	01/19/05	01/19/05	01/19/05
H9480-4	GPH2O MW1	11914	2922	650	261	40044	180
Quality Control		NR	58	54	4.90	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	116	108	98.0	93.6	NR
Relative Percent Difference		NR	3.1	3.8	0.8	0.7	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		01/19/05	01/19/05	01/19/05	01/19/05	01/19/05	01/19/05
H9480-4	GPH2O MW1	24992	799	0	220	6.93	41800
Quality Control		970	50.33	NR	961	7.03	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	101	NR	96.1	103	NR
Relative Percent Difference		4.0	0.2	NR	1.6	0.8	1.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

1/19/05
Date

Cardinal Laboratories Inc.

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

Company Name	Gruy Petroleum
Project Manager	Pat McCasland
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	
Project Name	Riddle State #1
Project Location	
Sampler Name	Manuel Gonzales

BILL TO: ENVIRONMENTAL PLUS INC.

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	Analysis Request: BTEX 8021B	TPH 8015Modified	Cl	SAR	EC	TDS	ANIONS	CATAIONS
H9460-1	HAET Top Soil	G	1			X					X		1/12	8:01	X	X	X					
-2	HAET 5'	G	1			X					X		1/12	8:19			X					
-3	HAET6'6"	G	1			X					X		1/12	8:57			X					
-4	GPH2O MW1	G	1	X		X					X		1/12	10:29			X			X	X	X
-5	BH1 MONITER	G	2	X							X		1/12	3:29	X							
-6	HAWT TopSoil	G	1			X					X		1/12	11:10			X					
-7	HAWT 5'	G	1			X					X		1/12	11:38			X					
-8	HAWRP Top Soil	G	1			X					X		1/12	11:47			X					
-9	HAWRP 4'5"	G	1			X					X		1/12	11:53			X					
-10	HAERP Top Soil	G	1			X					X		1/12	12:12			X					
-11	HAERP 3'5"	G	1			X					X		1/12	12:20			X					

Sampler Relinquished: Manuel Gonzales

Relinquished by:

Date: 4/16/03
Time:

Received By: Roger Bosse

Received By: (lab staff)

Delivered by Sampler

Sample Cool & Intact: (Yes) No

Checked By:

Fax results to Pat McCasland 505-394-2601

Remarks: