

CLOSURE REPORT

ANTELOPE RIDGE UNIT #5

NMOCD REF: 1RP#807

(Historic)

EPI REF: #160046

UL-L (NW¼ OF THE SW¼) OF SECTION 33, T23S, R34E

~20 MILES NORTHWEST OF JAL,

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 15' 36.66"

LONGITUDE: W 103° 28' 49.19"

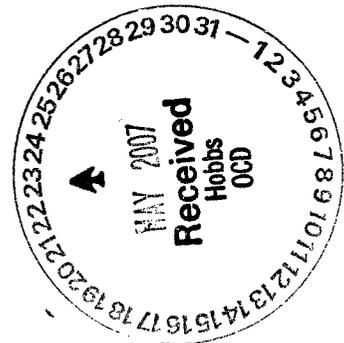
MAY 2007

PREPARED BY:

**ENVIRONMENTAL PLUS, INC.
2100 AVENUE O
EUNICE, NEW MEXICO 88231**

PREPARED FOR:


Chesapeake





Distribution List

Site Characterization

Antelope Ridge Unit #5

NMOCD Ref : 1RP #807

EPI Ref. #160046

Name	Title	Company or Agency	Mailing Address	e-mail
Chris Williams	Division 1 Supervisor	New Mexico Oil Conservation Division – Hobbs	1625 French Drive Hobbs, NM 88240	chris.williams@state.nm.us
Harlan Brown	Senior Environmental Representative	Chesapeake Operating, Inc.	6100 N. Western Avenue Oklahoma City, OK 73118	hbrown@chkenergy.com
Bradley Blevins	Field Supervisor	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, NM 88240-0190	bblevins@chkenergy.com
Jim Keller	--	Landowner	2811 County Road 460 Oakley, KS 67748	--
File	--	Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231-1558	ddominguez@envplus.net



STANDARD OF CARE

Closure Report

Antelope Ridge Unit #5

NMOCD Ref 1RP #807: EPI Ref. #160046

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993), the NMOCD Unlined Surface Impoundment Closure Guidelines (February, 1993) and Environmental Plus, Inc. (EPI) Standard Operating Procedures and Quality Assurance/Quality Control Plan. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were derived using currently accepted geologic, hydrogeologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered professional with a background in engineering, environmental and/or natural sciences.

Prepared by:



Daniel Dominguez
Environmental Consultant

5/10/07

Date

Reviewed by:



David P. Duncan
Civil Engineer

5/10/07

Date



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1.0 PROJECT SYNOPSIS

Site Specific:

- ◆ **Company Name:** Chesapeake Operating, Inc.
- ◆ **Facility Name:** Antelope Ridge Unit #5
- ◆ **Project Reference:** NMOCD Ref. 1RP#807; EPI Ref.#160046
- ◆ **Company Contacts:** Bradley Blevins
- ◆ **Site Location:** WGS84 N32° 15' 36.66"; W103° 28' 49.19"
- ◆ **Legal Description:** Unit Letter-L, (NW¼ of the SW¼), Section 33, T 23S, R 34E
- ◆ **General Location:** Approximately 20-miles northwest of Jal, New Mexico
- ◆ **Elevation:** 3,524-ft amsl
- ◆ **Depth to Ground Water:** approximately 475-ft bgs
- ◆ **Land Ownership:** Jim Keller
- ◆ **EPI Personnel:** Project Consultant – Iain Olness
Site Foreman – Kirt Tyree

Release Specific:

- ◆ **Product Released:** Petroleum and/or production fluids
- ◆ **Volume Released:** Historical **Volume Recovered:** Historical
- ◆ **Time of Occurrence:** Historical **Time of Discovery:** Historical
- ◆ **Release Source:** Various sources
- ◆ **Initial Surface Area Affected:** ~ 1,700 square feet

Remediation Specific:

- ◆ **Final Vertical extent of contamination:** 61-feet bgs at maximum depth
- ◆ **Water wells within 1,000-ft:** 0
- ◆ **Private domestic water sources within 200-ft:** 0
- ◆ **Surface water bodies within 1,000-ft:** 0
- ◆ **NMOCD Site Ranking Index:** 0 points
- ◆ **Remedial goals for Soil:** TPH – 5,000 mg/Kg; BTEX – 50 mg/Kg; Benzene – 10 mg/Kg; Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC Groundwater Standards of 250 mg/Kg and 600 mg/Kg, respectively.
- ◆ **RCRA Waste Classification:** Exempt
- ◆ **Remediation Option Selected:** a) Chloride impacted soil was excavated to a maximum depth of 6-ft bgs and transported to Sundance Services for disposal; b) laboratory analyses confirmed removal of highly impacted soil exceeding NMOCD remedial threshold goals in the excavation sidewalls; c) isolation of in-situ residual chlorides in excavation floor with a polyethylene barrier; d) backfilled excavation with caliche purchased from an off-site source; e) contoured disturbed area to provide natural drainage
- ◆ **Treatment/Disposal Facility:** Sundance Services – Eunice, New Mexico, 88231
- ◆ **Volume disposed:** approximately 4,584-yd³
- ◆ **Project Completion Date:** June 12, 2006



2.0 SITE AND RELEASE INFORMATION

2.1 **Describe the land use and pertinent geographic features within 1,000 feet of the site.**
Land surrounding the area is pastureland and utilized for livestock grazing.

2.2 **Identify and describe the source or suspected source(s) of the release.**
Various sources associated with a tank battery facility

2.3 **What is the volume of the release? (if known):** Historical barrels of Petroleum and/or production fluids

2.4 **What is the volume recovered? (if any):** Historical

2.5 **When did the release occur? (if known):** Historical

2.6 **Geological Description**

The United States Geological Survey (USGS) Ground-Water Report 6, "*Geology and Ground-water Conditions in Southern Lea County, New Mexico*," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments (i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation). Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil."

The release site is located in the Eunice Plain physiographic subdivision, described by Nicholson & Clebsch as an area "underlain by a hard caliche surface and is almost entirely covered by reddish-brown dune sand". The thickness of the sand cover ranges from 2 to 5 feet in most areas to as much as 20-30 feet in drift areas.

2.7 **Ecological Description**

Vegetation in the High Plains consists primarily of short prairie grasses interspersed with Honey Mesquite (*Prosopis glandulosa*), annual and perennial forbs. Mammals represented, include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, amphibians, and birds are numerous and typical of area. A survey of *Listed*, *Threatened*, or *Endangered* species was not conducted.

2.8 **Area Groundwater**

The unconfined groundwater aquifer at this site is projected to be approximately 475-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and United States Geological Survey data base (reference *Table 1*).

2.9 **Area Water Wells**

No public water supply wells exist within a 1,000-foot radius of the release site (reference *Table 1* and *Figure 2*).

2.10 **Area Surface Water Features**

No surface water features exist within a 1,000 foot radius of the release site (reference *Figure 2*).



3.0 NMOCD SITE RANKING

Contaminant delineation and remedial work done at this site indicate chemical parameters of the soil and physical parameters of the groundwater were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- ◆ *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*
- ◆ *Unlined Surface Impoundment Closure Guidelines (February, 1993)*
- ◆ *Pit and Below-Grade Tank Guidelines (November, 2004)*

Acceptable thresholds for contaminants/constituents of concern (CoC) were determined based on the NMOCD Ranking Criteria as follows:

- ◆ *Depth to Groundwater (i.e., distance from the lower most acceptable concentration to ground-water);*
- ◆ *Wellhead Protection Area (i.e., distance from fresh water supply wells);*
- ◆ *Distance to Surface Water Body (i.e., horizontal distance to all down gradient surface water bodies).*

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is zero (0) points with the soil remedial goals highlighted in the Site Ranking table presented below:

1. GROUNDWATER	2. WELLHEAD PROTECTION AREA	3. DISTANCE TO SURFACE WATER	
Depth to GW <50 feet: 20 points	If <1,000' from water source, or <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
Depth to GW 50 to 99 feet: 10 points		200-1,000 horizontal feet: 10 points	
Depth to GW >100 feet: 0 points	If >1,000' from water source, or >200' from private domestic water source: 0 points	>1,000 horizontal feet: 0 points	
Site Rank (1+2+3) = 0 + 0 + 0 = 0 points			
Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Site Ranking	20 or >	10	0
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm

¹ A field soil vapor headspace measurement of 100 ppm can be substituted in lieu of laboratory analyses for benzene and BTEX.



4.0 EXCAVATED SOIL INFORMATION

4.1 Was soil excavated for off-site treatment or disposal? *Yes* *No*

Date excavated: March 30, 2006 through May 31, 2006

Total volume removed: ~4,584cubic yards

4.2 Indicated soil treatment type:

<input checked="" type="checkbox"/>	<i>Disposal</i>
<input type="checkbox"/>	<i>Land Treatment</i>
<input type="checkbox"/>	<i>Composting/Biopiling</i>
<input type="checkbox"/>	<i>Other ()</i>

Name and location of treatment/disposal facility:
Sundance Services – Eunice, New Mexico, 88231



5.0 SAMPLING INFORMATION

5.1 *Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil.*

Soil samples collected from soil borings and excavation sidewalls/bottom were analyzed in the field for organic vapor and chloride concentrations utilizing methods described below:

Organic Vapor Concentrations – A portion of each soil sample was inserted into a self-sealing polyethylene bag to allow volatilization of organic vapors. After the samples equilibrated to ~70° F, they were analyzed for organic vapors utilizing a MiniRac® Photoionization Detector (PID) equipped with a 10.6 electron volt (eV) lamp and calibrated for benzene response.

Chloride Concentrations – A La Motte Chloride Test Kit was utilized for field chloride concentration analyses.

5.2 *Briefly describe the soil analytical sampling and handling procedures used.*

During advancement of soil borings, soil samples were collected at select intervals to total depth of each respective soil boring (reference *Table 2*). Soil samples collected from the excavation were collected utilizing hand and/or mechanical excavation equipment to gather the sample from at least 6-inches below/within the surface of the excavation. Prior to the collection of each soil sample, the sampling instrument was decontaminated with Alconox solution.

Upon collection of each sample, a portion was immediately placed in a laboratory provided container, labeled and set on ice for transport to an independent laboratory for quantification of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and total xylenes (BTEX), sulfates and/or chloride concentrations.

5.3 *Discuss sample locations and provide rationale for their locations.*

On January 31 and February 1, 2006 a series of four (4) soil borings (SB-1, SB-2, SB-3 and SB-4) were advanced within the tank battery area. Soil samples were collected at 2- and 5-ft bgs initially, then at 5-ft intervals thereafter. Soil borings were advanced until two consecutive field chloride analyses indicated concentrations were below remedial threshold goals of 250 mg/Kg. Maximum depths of soil borings were 61-ft bgs (SB-1), 51-ft bgs (SB-2), 56-ft bgs (SB-3) and 91-ft bgs (SB-4). Soil boring locations were chosen to delineate the vertical extent of impacted soil while providing adequate distance between soil borings (reference *Table 2* and *Figure 4*).

On May 22, 2006 soil samples were collected from the excavation floor in five (5) locations (BH-1 through BH-5) and from the sidewalls in twelve (12) locations (SW-1 through SW-12). Soil samples were collected from the excavation floor at 6-ft bgs and excavation sidewalls at 3-ft bgs (reference *Table 3* and *Figure 4*). Soil sample locations were chosen to provide the best representative example of soil within the excavation floor and sidewalls.

On May 30, 2006 excavation activities continued on the southeastern portion of the excavation. Soil samples (SW-13 and SW-14) were collected in two (2) locations from the excavation sidewalls (reference *Table 3* and *Figure 4*). Soil sample locations were chosen to provide the best representative example of soil within the excavation floor and sidewalls.



6.0 ANALYTICAL RESULTS

6.1 *Describe the vertical and horizontal extent and magnitude of soil contamination.*

Laboratory analyses of soil samples collected during the advancement of soil boring SB-1 indicated TPH and BTEX constituent concentrations were non-detectable (ND) at or above laboratory method detection limits (MDL). Reported chloride concentrations were above remedial threshold goals of 250 mg/Kg to a depth of 51-ft bgs. Reported sulfate concentrations ranged from 34 to 66.5 mg/Kg (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected during the advancement of soil boring SB-2 indicated TPH and BTEX constituent concentrations were ND at or above laboratory MDL. Reported chloride concentrations were above remedial threshold goals of 250 mg/Kg to a depth of 36-ft bgs. Reported sulfate concentrations ranged from 138 to 206 mg/Kg (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected during the advancement of soil boring SB-3 indicated TPH and BTEX constituent concentrations were ND at or above laboratory MDL. Reported chloride concentrations were above remedial threshold goals of 250 mg/Kg to a depth of 36-ft bgs. Reported sulfate concentrations ranged from 121 to 160 mg/Kg (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected during the advancement of soil boring SB-4 indicated benzene and BTEX concentrations were ND at or above laboratory MDL. Reported TPH concentration at 2 to 3-ft bgs were 183 mg/Kg. TPH concentrations in the remaining sample were reported as ND at or above laboratory MDL. Reported chloride concentrations were above remedial threshold goals of 250 mg/Kg to 61-ft bgs. Reported sulfate concentrations ranged from 194 to 203 mg/Kg (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected from the excavation floor on May 22, 2006 (i.e., BH-1 through BH-5) indicated chloride concentrations, with the exception of soil sample BH-1, were in excess of remedial threshold goals of 250 mg/Kg (reference *Table 3* and *Figure 4*).

Laboratory analyses of soil samples collected from the excavation sidewalls on May 22, 2006 (i.e., SW-1 through SW-12) indicated chloride concentrations ranged from 300 to 5,100 mg/Kg (reference *Table 3* and *Figure 4*).

After additional excavation activities in the southeast portion of the excavation, two soil samples (SW-13 and SW-14) were collected on May 30, 2006 from the excavation sidewalls. Laboratory analyses indicated chloride concentrations in both samples were 400 mg/Kg (reference *Table 3* and *Figure 4*).

6.2 *Is surface soil contamination present at the site (i.e., soil in the uppermost two feet that is visibly stained, contaminated at greater than 10 ppm (PID) or hydrocarbon saturated)?*

yes *no*

If yes, attach a site map identifying extent(s) of surface soil contamination.

Visibly stained soil have been excavated and transported to Sundance Services for disposal.



7.0 DISCUSSION

7.1 *Discuss the risks associated with the remaining soil contamination:*

While soil impacted with chlorides above remedial threshold goals remain in-situ, the chance of impacting local groundwater above NMWQCC Groundwater Standards of 250 mg/L is remote. In reviewing Table 2, *Summary of Soil Boring Analytical Results*, it is noted chloride concentrations diminish with vertical depth. Vertical depth of soil impacted with chlorides above remedial threshold goals extends to approximately 61 feet bgs. With depth of groundwater projected at 475 feet bgs, the vertical separation between impacted soil and groundwater is 414 feet. However, as a precautionary measure, an impermeable 20-mil thick polyethylene liner sandwiched between two (2) one (1) foot layers of bedding sand was installed over the floor of the excavation to mitigate vertical migration of residual chlorides.

7.2 *Discuss the risks associated with the impacted groundwater:* Not Applicable

7.3 *Discuss other concerns not mentioned above:* Not applicable



8.0 CONCLUSIONS AND RECOMMENDATIONS

- 8.1 *Recommendation for the site:*
- | | |
|-------------------------------------|------------------------------------------|
| <input checked="" type="checkbox"/> | <i>Site Closure</i> |
| <input type="checkbox"/> | <i>Additional Groundwater Monitoring</i> |
| <input type="checkbox"/> | <i>Corrective Action</i> |

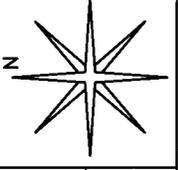
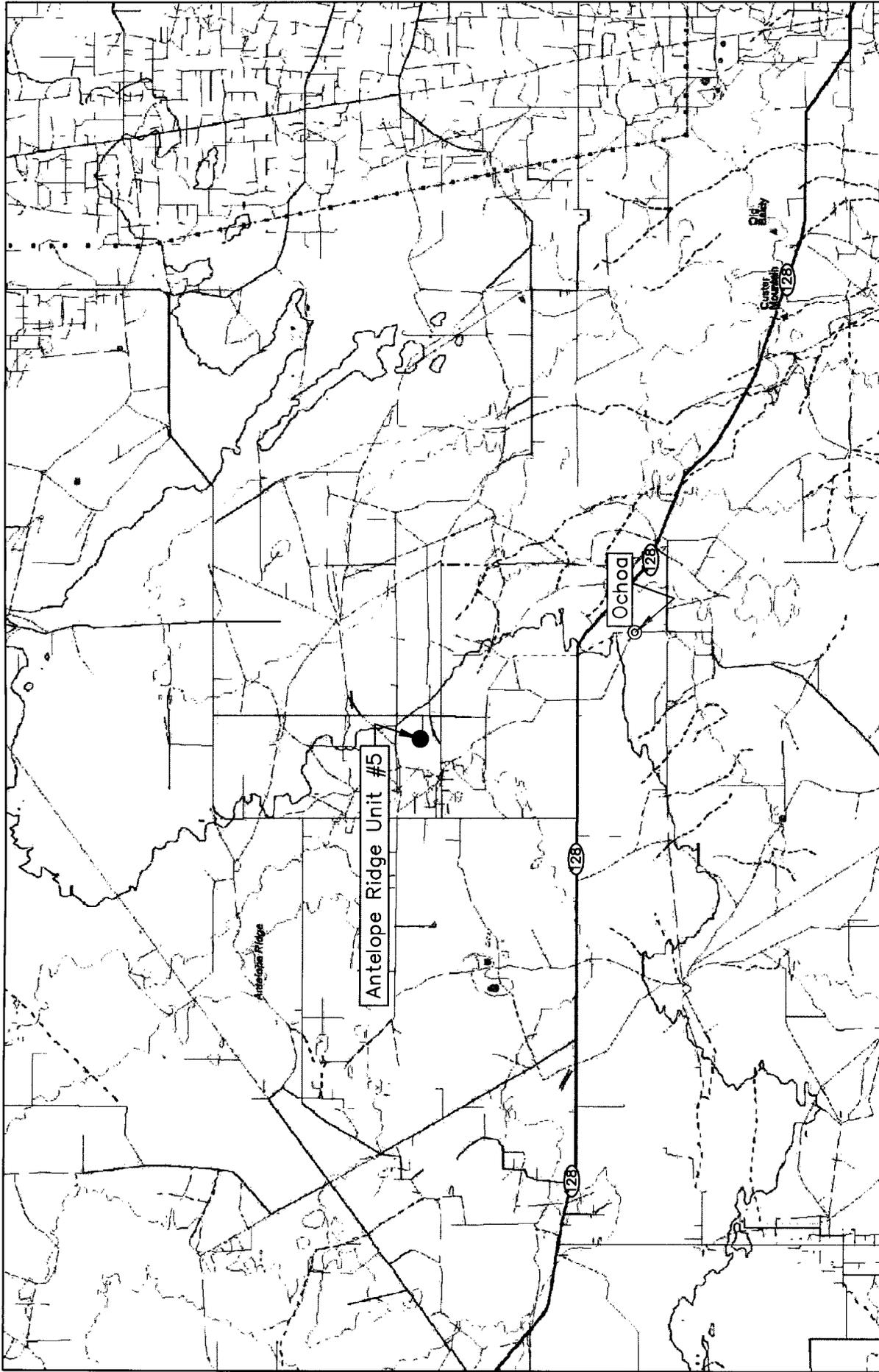
- 8.2 *Base the recommendation above on Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993). Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site specific risk issues have been adequately addressed or minimized to acceptable low risk levels.*

From March 30 to May 31, 2006 approximately 4,584 cubic yards of impacted soil were excavated and transported for disposal to Sundance Services, Inc. Laboratory analysis confirmed removal of highly impacted soil exceeding NMOCD Remedial Threshold goals in sidewalls and bottom of the excavation.

From May 20 to 24, 2006 EPI transported approximately 1,160 cubic yards of sand and from June 5 to 10, 2006 approximately 2,724 cubic yards of caliche from local pits to the excavation. This material was stockpiled on the job site in preparation for backfill operations. After cleaning and leveling the excavation bottom, EPI installed an impermeable 20-mil thick polyethylene liner sandwiched between two (2) one (1) foot layers of bedding sand. The remainder of the excavation was backfilled with caliche. The entire area was contoured to allow natural drainage.

- 8.3 *If additional groundwater and monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the NMOCD responds to this report.* Not Applicable
- 8.4 *If corrective action is recommended, provide a conceptual approach.*
Not Applicable

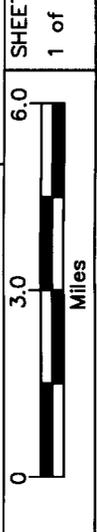
FIGURES



DWG By: Daniel Dominguez
January 2006

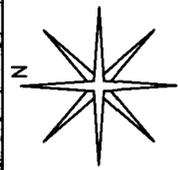
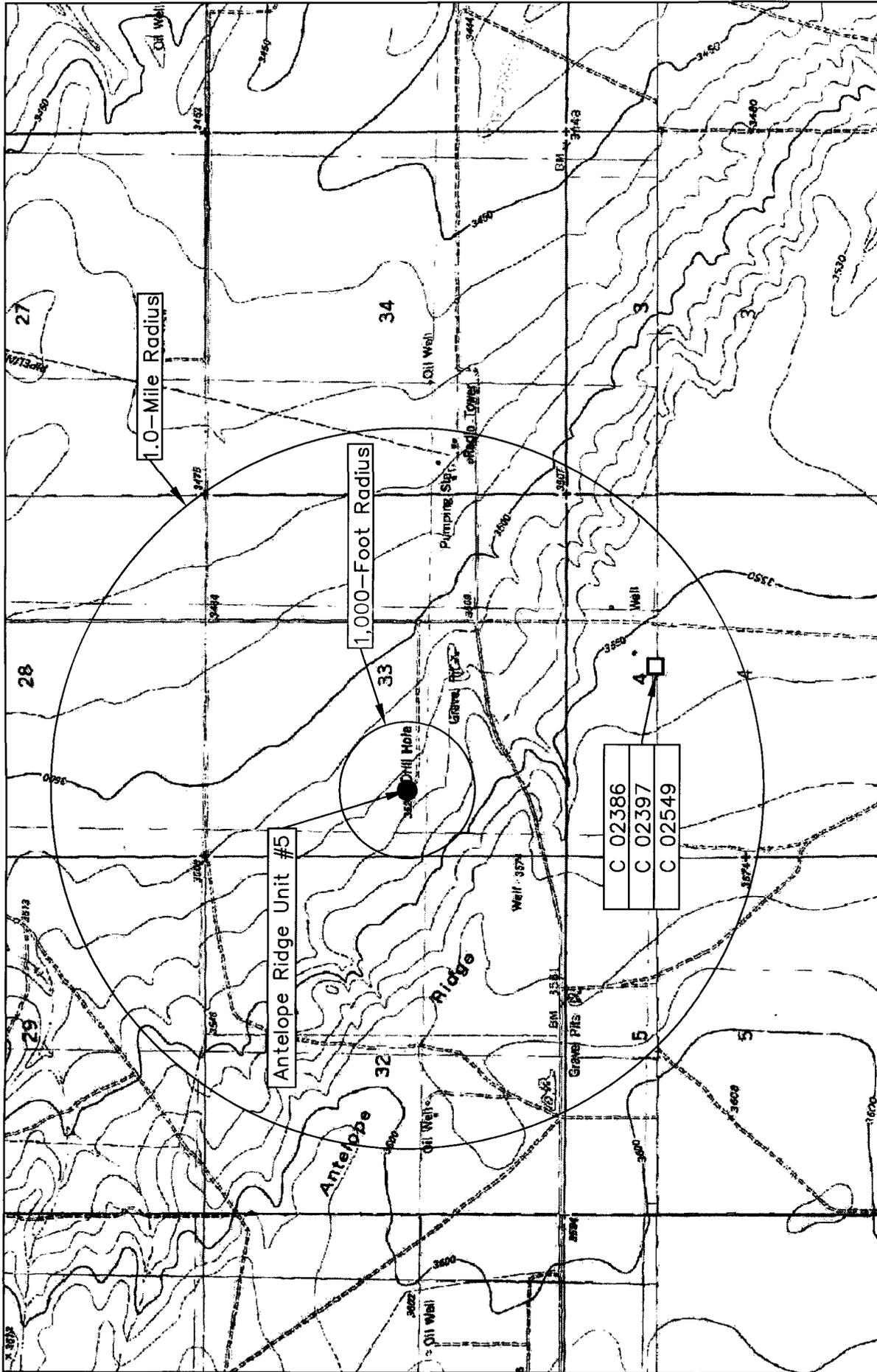
Lea County, New Mexico
NW 1/4 of the SW 1/4, Sec. 33, T23S, R34E
N 32° 15' 36.66" W 103° 28' 49.19"
Elevation: 3,524 feet amsl

Figure 1
Area Map
Chesapeake Energy
Antelope Ridge Unit #5

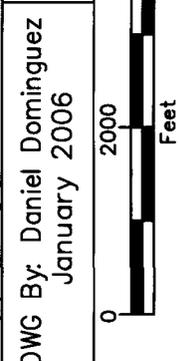


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1 of 1

0 3.0 6.0 SHEET
1 of 1



REVISED:
 DWG By: Daniel Dominguez
 January 2006

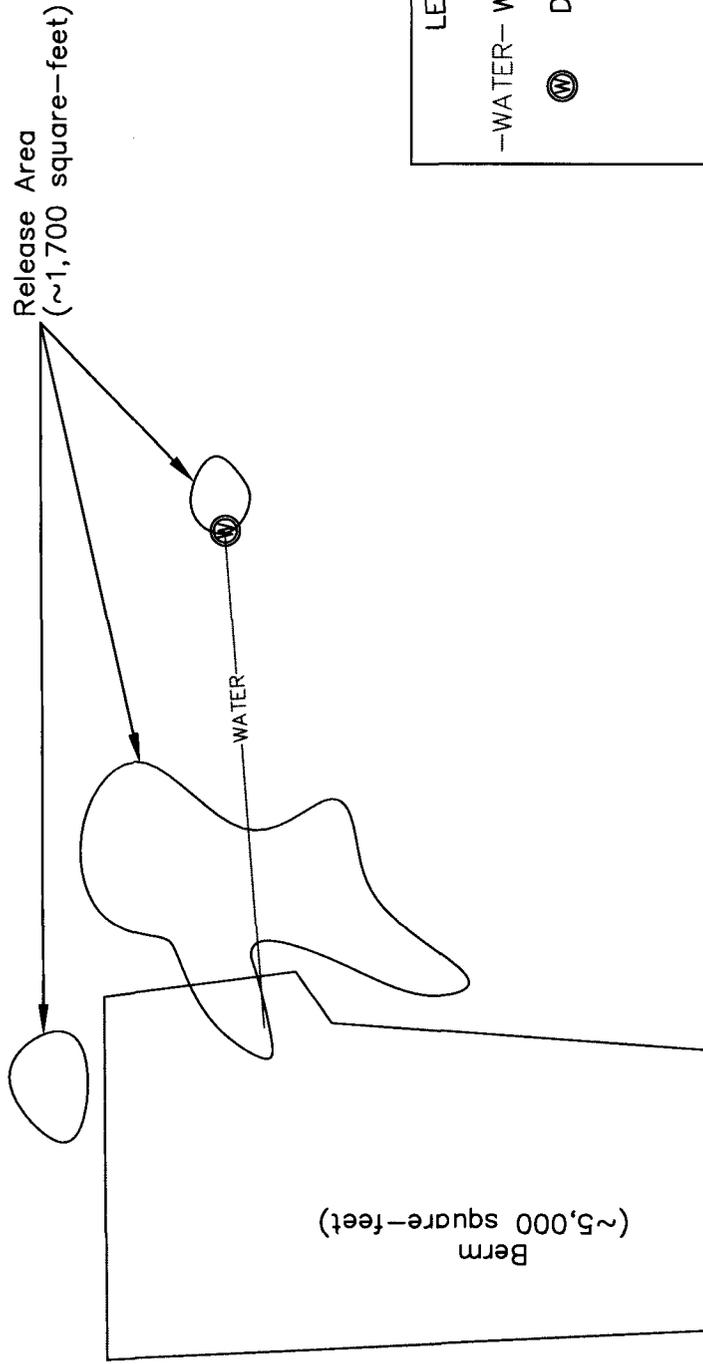


Lea County, New Mexico
 NW 1/4 of the SW 1/4, Sec. 33, T23S, R34E
 N 32° 15' 36.66" W 103° 28' 49.19"
 Elevation: 3,524 feet amsl

Figure 2
 Site Location Map
 Chesapeake Energy
 Antelope Rdige Unit #5

C 02386
C 02397
C 02549

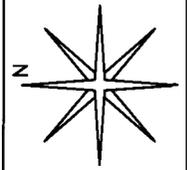
Historical Reserve Pit



LEGEND

—WATER— Waterline

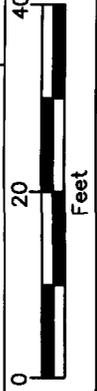
⊙ Disposal Well



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January 2006

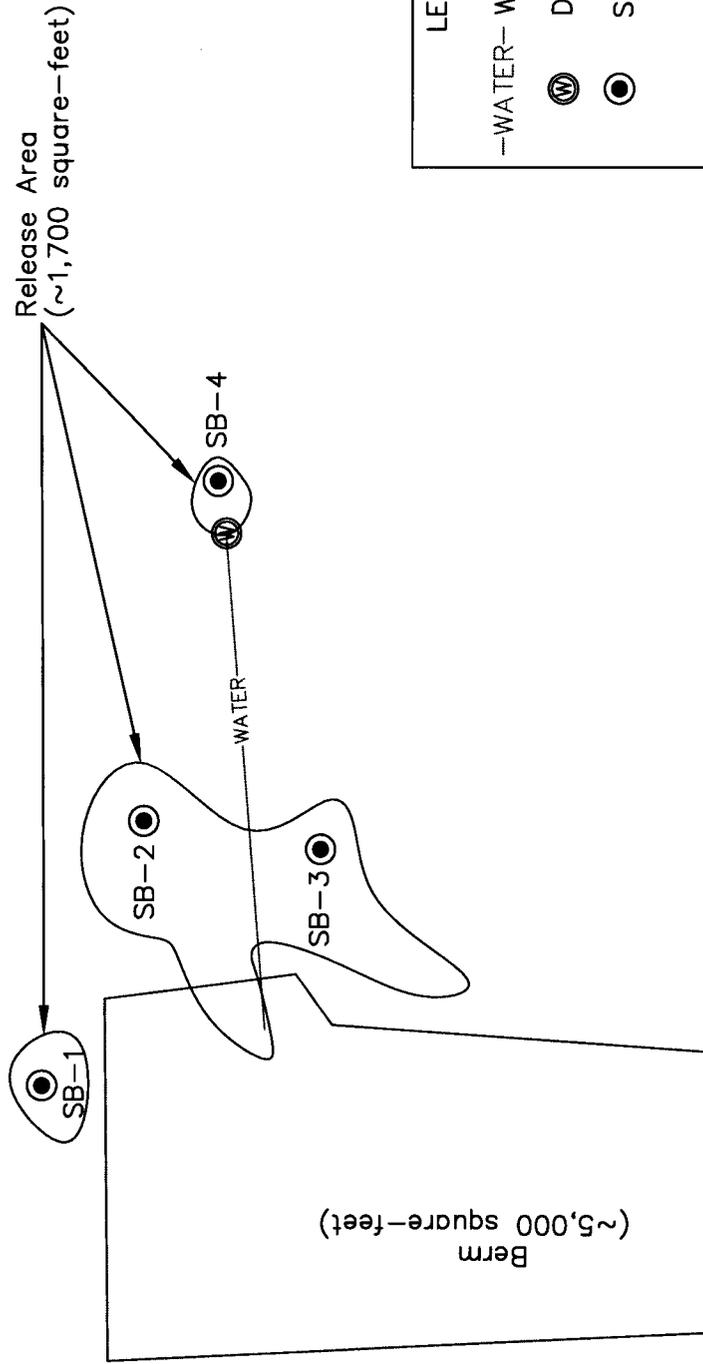
SHEET
1 of 1



Lea County, New Mexico
NW 1/4 of the SW 1/4, Sec. 33, T23S, R34E
N 32° 15' 36.66" W 103° 28' 49.19"
Elevation: 3,524 feet amsl

Figure 3
Site Map
Chesapeake Energy
Antelope Ridge Unit #5

Historical Reserve Pit



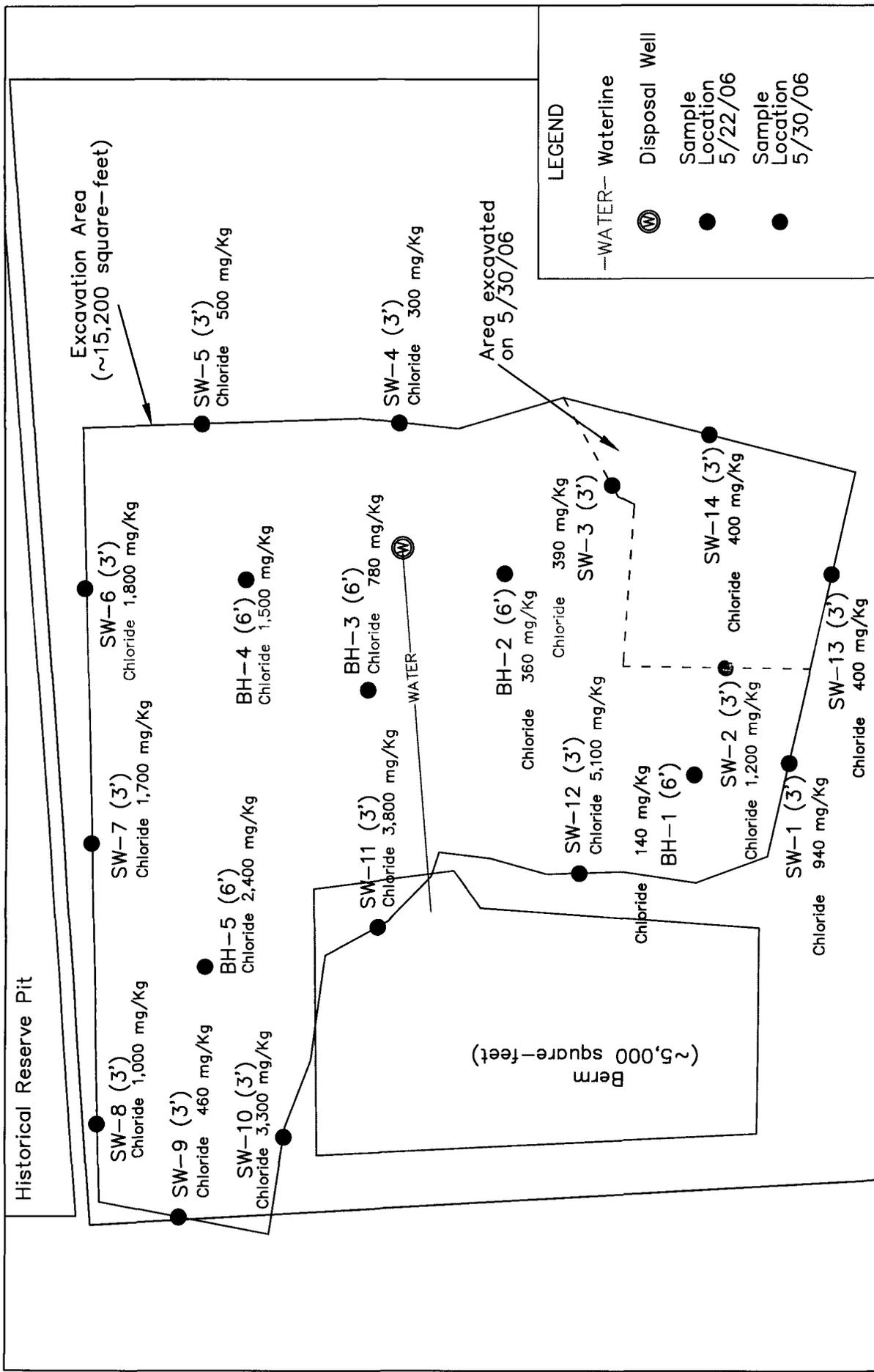
REVISED:

DWG By: Daniel Dominguez
January 2006

Lea County, New Mexico
NW 1/4 of the SW 1/4, Sec. 33, T23S, R34E
N 32° 15' 36.66" W 103° 28' 49.19"
Elevation: 3,524 feet amsl

Figure 4
Soil Boring Location Map
Chesapeake Energy
Antelope Ridge Unit #5

SHEET
1 of 1



<p>Figure 5</p> <p>Sample Location Map - 5/22-30/2006</p> <p>Chesapeake Energy</p> <p>Antelope Ridge Unit #5</p>	<p>Lea County, New Mexico</p> <p>NW 1/4 of the SW 1/4, Sec. 33, T23S, R34E</p> <p>N 32° 15' 36.66" W 103° 28' 49.19"</p> <p>Elevation: 3,524 feet amsl</p>	<p>DWG By: Daniel Dominguez</p> <p>January 2006</p>	<p>REVISED:</p> <p>June 2006</p>	<p>40</p> <p>0 20 Feet</p> <p>SHEET 1 of 1</p>
	<p>Scale: 0, 20, 40 Feet</p>			

TABLES

TABLE 1

Well Data

Chesapeake Energy - Antelope Ridge Unit #5 (Ref. # 160046)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
C 02386	3	RUBERT MADERA	DOM	24S	34E	04 2 1 4	N32° 15' 0.43"	W103° 28' 28.06"	31-Jan-60	3,555	475
C 02397	30	BERT MADERA	COM	24S	34E	04 2 1 4	N32° 15' 0.43"	W103° 28' 28.06"	31-Jan-60	3,555	475
C 02397	3	BERT MADERA	MUL	24S	34E	04 2 1 4	N32° 15' 0.43"	W103° 28' 28.06"	31-Jan-60	3,555	475

^A = In acre feet per annum

^B = Elevation interpolated from USGS topographical map based on referenced location.

COM = Commercial

MUL = 72-12-1 Multiple domestic households

DOM = 72-12-1 Domestic

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

Shaded area indicates wells not shown in Figure 2

TABLE 2
Summary of Soil Boring Analytical Results
Chesapeake- Antelope Ridge Unit #5 (Ref. #160046)

Soil Boring	Soil Sample I.D.	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Field Chloride Analyses (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (as gasoline) (mg/kg)	TPH (as diesel) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)	Sulfate (mg/kg)
SB-4	SB-4 (2'-3')	2-3	01-Feb-06	In Situ	5.4	720	<0.0250	0.0161 ^A	<0.0250	0.0246 ^A	<0.125	10	173	183	514	203
	SB-4 (5'-6')	5-6	01-Feb-06	In Situ	0.7	1,360	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	1,140	194
	SB-4 (10'-11')	10-11	01-Feb-06	In Situ	0.2	1,280	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	1,190	--
	SB-4 (15'-16')	15-16	01-Feb-06	In Situ	0.3	2,720	--	--	--	--	--	--	--	--	2,180	--
	SB-4 (20'-21')	20-21	01-Feb-06	In Situ	0.3	1,920	--	--	--	--	--	--	--	--	1,660	--
	SB-4 (25'-26')	25-26	01-Feb-06	In Situ	0.2	1,280	--	--	--	--	--	--	--	--	1,040	--
	SB-4 (30'-31')	30-31	01-Feb-06	In Situ	0.1	2,000	--	--	--	--	--	--	--	--	1,710	--
	SB-4 (35'-36')	35-36	01-Feb-06	In Situ	0.1	3,360	--	--	--	--	--	--	--	--	3,590	--
	SB-4 (40'-41')	40-41	01-Feb-06	In Situ	0.1	480	--	--	--	--	--	--	--	--	14,700	--
	SB-4 (45'-46')	45-46	01-Feb-06	In Situ	0.2	400	--	--	--	--	--	--	--	--	389	--
	SB-4 (50'-51')	50-51	01-Feb-06	In Situ	0.1	400	--	--	--	--	--	--	--	--	313	--
	SB-4 (55'-56')	55-56	01-Feb-06	In Situ	0.2	320	--	--	--	--	--	--	--	--	205	--
	SB-4 (60'-61')	60-61	01-Feb-06	In Situ	0.2	400	--	--	--	--	--	--	--	--	304	--
	SB-4 (65'-66')	65-66	01-Feb-06	In Situ	0.2	320	--	--	--	--	--	--	--	--	185	--
	SB-4 (70'-71')	70-71	01-Feb-06	In Situ	0.8	240	--	--	--	--	--	--	--	--	230	--
	SB-4 (75'-76')	75-76	01-Feb-06	In Situ	0.3	400	--	--	--	--	--	--	--	--	--	--
SB-4 (80'-81')	80-81	01-Feb-06	In Situ	0.3	240	--	--	--	--	--	--	--	--	--	--	
SB-4 (85'-86')	85-86	01-Feb-06	In Situ	0.4	240	--	--	--	--	--	--	--	--	--	--	
SB-4 (90'-91')	90-91	01-Feb-06	In Situ	0.4	240	--	--	--	--	--	--	--	--	--	--	
NMOCD Remedial Thresholds											100	10	50	5,000	250^B	600^B

Bolded values are in excess of the NMOCD Remediation Thresholds and/or NMWQCC groundwater standards.

-- = Not Analyzed

^A Detected below laboratory method detection limits, therefore an estimate.

^B Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 ppm and 600 ppm, respectively.

TABLE 3

Summary of Excavation Soil Sample Analytical Results

Chesapeake - Antelope Ridge Unit #5 (Ref. #160046)

Soil Sample I.D.	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Field Chloride Analyses (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)	
SW-1 (3')	3	22-May-06	In Situ	--	320	--	--	--	--	--	--	--	--	940	--	
SW-2 (3')	3	22-May-06	Excavated	--	480	--	--	--	--	--	--	--	--	1,200	--	
SW-3 (3')	3	22-May-06	Excavated	--	800	--	--	--	--	--	--	--	--	390	--	
SW-4 (3')	3	22-May-06	In Situ	--	1,120	--	--	--	--	--	--	--	--	300	--	
SW-5 (3')	3	22-May-06	In Situ	--	1,440	--	--	--	--	--	--	--	--	500	--	
SW-6 (3')	3	22-May-06	In Situ	--	640	--	--	--	--	--	--	--	--	1,800	--	
SW-7 (3')	3	22-May-06	In Situ	--	880	--	--	--	--	--	--	--	--	1,700	--	
SW-8 (3')	3	22-May-06	In Situ	--	480	--	--	--	--	--	--	--	--	1,000	--	
SW-9 (3')	3	22-May-06	In Situ	--	400	--	--	--	--	--	--	--	--	460	--	
SW-10 (3')	3	22-May-06	In Situ	--	560	--	--	--	--	--	--	--	--	3,300	--	
SW-11 (3')	3	22-May-06	In Situ	--	1,280	--	--	--	--	--	--	--	--	3,800	--	
SW-12 (3')	3	22-May-06	In Situ	--	1,520	--	--	--	--	--	--	--	--	5,100	--	
SW-13 (3')	3	30-May-06	In Situ	--	400	--	--	--	--	--	--	--	--	400	--	
SW-14 (3')	3	30-May-06	In Situ	--	400	--	--	--	--	--	--	--	--	400	--	
BH-1 (6')	6	22-May-06	In Situ	--	1,120	--	--	--	--	--	--	--	--	140	--	
BH-2 (6')	6	22-May-06	In Situ	--	560	--	--	--	--	--	--	--	--	360	--	
BH-3 (6')	6	22-May-06	In Situ	--	3,920	--	--	--	--	--	--	--	--	780	--	
BH-4 (6')	6	22-May-06	In Situ	--	2,400	--	--	--	--	--	--	--	--	1,500	--	
BH-5 (6')	6	22-May-06	In Situ	--	3,600	--	--	--	--	--	--	--	--	2,400	--	
NMOCD Remedial Thresholds											100	10	50	5,000	250^B	600^B

Bolded values are in excess of the NMOCD Remediation Thresholds and/or NMWQCC groundwater standards.

-- = Not Analyzed

^A Detected below laboratory method detection limits, therefore an estimate.

^B Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 ppm and 600 ppm, respectively.

APPENDICES

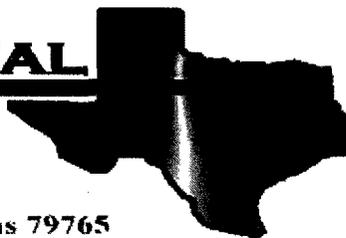
APPENDIX I

LABORATORY ANALYTICAL REPORTS

AND

CHAIN-OF-CUSTODY FORM

E NVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Iain Olness

Environmental Plus, Incorporated

P.O. Box 1558

Eunice, NM 88231

Project: Chesapeake/ Antelope Ridge Unit #5

Project Number: 160046

Location: UL-L, Sect. 33, T 23 S, R 34 E

Lab Order Number: 6B02016

Report Date: 02/21/06

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 (2'-3')	6B02016-01	Soil	01/31/06 12:45	02/02/06 14:45
SB-1 (5'-6')	6B02016-02	Soil	01/31/06 12:50	02/02/06 14:45
SB-1 (10'-11')	6B02016-03	Soil	01/31/06 13:00	02/02/06 14:45
SB-1 (15'-16')	6B02016-04	Soil	01/31/06 13:10	02/02/06 14:45
SB-1 (20'-21')	6B02016-05	Soil	01/31/06 13:20	02/02/06 14:45
SB-1 (25'-26')	6B02016-06	Soil	01/31/06 13:30	02/02/06 14:45
SB-1 (30'-31')	6B02016-07	Soil	01/31/06 13:40	02/02/06 14:45
SB-1 (35'-36')	6B02016-08	Soil	01/31/06 13:50	02/02/06 14:45
SB-1 (40'-41')	6B02016-09	Soil	01/31/06 14:00	02/02/06 14:45
SB-1 (45'-46')	6B02016-10	Soil	01/31/06 14:05	02/02/06 14:45
SB-1 (50'-51')	6B02016-11	Soil	01/31/06 14:10	02/02/06 14:45
SB-1 (55'-56')	6B02016-12	Soil	01/31/06 14:23	02/02/06 14:45
SB-1 (60'-61')	6B02016-13	Soil	01/31/06 14:30	02/02/06 14:45
SB-2 (2'-3')	6B02016-14	Soil	01/31/06 15:00	02/02/06 14:45
SB-2 (5'-6')	6B02016-15	Soil	01/31/06 15:05	02/02/06 14:45
SB-2 (10'-11')	6B02016-16	Soil	01/31/06 15:15	02/02/06 14:45
SB-2 (15'-16')	6B02016-17	Soil	01/31/06 15:23	02/02/06 14:45
SB-2 (20'-21')	6B02016-18	Soil	01/31/06 15:30	02/02/06 14:45
SB-2 (25'-26')	6B02016-19	Soil	01/31/06 15:38	02/02/06 14:45
SB-2 (30'-31')	6B02016-20	Soil	01/31/06 15:45	02/02/06 14:45
SB-2 (35'-36')	6B02016-21	Soil	01/31/06 15:50	02/02/06 14:45
SB-2 (40'-41')	6B02016-22	Soil	01/31/06 15:55	02/02/06 14:45
SB-2 (45'-46')	6B02016-23	Soil	01/31/06 16:00	02/02/06 14:45
SB-3 (2'-3')	6B02016-25	Soil	02/01/06 09:30	02/02/06 14:45
SB-3 (5'-6')	6B02016-26	Soil	02/01/06 09:35	02/02/06 14:45
SB-3 (10'-11')	6B02016-27	Soil	02/01/06 09:50	02/02/06 14:45
SB-3 (15'-16')	6B02016-28	Soil	02/01/06 10:10	02/02/06 14:45
SB-3 (20'-21')	6B02016-29	Soil	02/01/06 10:20	02/02/06 14:45
SB-3 (25'-26')	6B02016-30	Soil	02/01/06 10:30	02/02/06 14:45
SB-3 (30'-31')	6B02016-31	Soil	02/01/06 10:40	02/02/06 14:45
SB-3 (35'-36')	6B02016-32	Soil	02/01/06 10:50	02/02/06 14:45
SB-3 (40'-41')	6B02016-33	Soil	02/01/06 11:00	02/02/06 14:45
SB-3 (45'-46')	6B02016-34	Soil	02/01/06 11:10	02/02/06 14:45
SB-4 (2'-3')	6B02016-37	Soil	02/01/06 11:40	02/02/06 14:45

Environmental Plus, Incorporated
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Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-4 (5'-6')	6B02016-38	Soil	02/01/06 11:45	02/02/06 14:45
SB-4 (10'-11')	6B02016-39	Soil	02/01/06 11:53	02/02/06 14:45
SB-4 (15'-16')	6B02016-40	Soil	02/01/06 11:59	02/02/06 14:45
SB-4 (20'-21')	6B02016-41	Soil	02/01/06 12:05	02/02/06 14:45
SB-4 (25'-26')	6B02016-42	Soil	02/01/06 12:11	02/02/06 14:45
SB-4 (30'-31')	6B02016-43	Soil	02/01/06 12:17	02/02/06 14:45
SB-4 (35'-36')	6B02016-44	Soil	02/01/06 12:25	02/02/06 14:45
SB-4 (40'-41')	6B02016-45	Soil	02/01/06 12:30	02/02/06 14:45
SB-4 (45'-46')	6B02016-46	Soil	02/01/06 12:35	02/02/06 14:45
SB-4 (50'-51')	6B02016-47	Soil	02/01/06 12:40	02/02/06 14:45
SB-4 (55'-56')	6B02016-48	Soil	02/01/06 12:45	02/02/06 14:45
SB-4 (60'-61')	6B02016-49	Soil	02/01/06 12:50	02/02/06 14:45
SB-4 (65'-66')	6B02016-50	Soil	02/01/06 13:00	02/02/06 14:45
SB-4 (70'-71')	6B02016-51	Soil	02/01/06 13:10	02/02/06 14:45

Environmental Lab of Texas

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Page 2 of 20

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 (2'-3') (6B02016-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.2 %		80-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.2 %		80-120	"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		104 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %		70-130	"	"	"	"	
SB-1 (5'-6') (6B02016-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.2 %		80-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.0 %		80-120	"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		74.0 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		72.2 %		70-130	"	"	"	"	
SB-2 (2'-3') (6B02016-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.0 %		80-120	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.0 %		80-120	"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 (2'-3') (6B02016-14) Soil									
Surrogate: 1-Chlorooctane		95.0 %	70-130		EB60312	02/03/06	02/04/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		92.4 %	70-130		"	"	"	"	
SB-2 (5'-6') (6B02016-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		99.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		85.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		84.8 %	70-130		"	"	"	"	
SB-3 (2'-3') (6B02016-25) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.0 %	70-130		"	"	"	"	

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 (5'-6') (6B02016-26) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		85.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		84.4 %	70-130		"	"	"	"	
SB-4 (2'-3') (6B02016-37) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	J [0.0161]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	J [0.0246]	0.0250	"	"	"	"	"	"	J
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	10.2	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	173	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	183	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		92.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.6 %	70-130		"	"	"	"	
SB-4 (5'-6') (6B02016-38) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 (5'-6') (6B02016-38) Soil									
Surrogate: 1-Chlorooctane		90.2 %	70-130		EB60312	02/03/06	02/04/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		91.6 %	70-130		"	"	"	"	
SB-4 (10'-11') (6B02016-39) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60701	02/07/06	02/08/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60312	02/03/06	02/04/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.4 %	70-130		"	"	"	"	

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Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 (2'-3') (6B02016-01) Soil									
Chloride	653	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	4.4	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	34.0	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-1 (5'-6') (6B02016-02) Soil									
Chloride	770	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	6.4	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	66.5	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-1 (10'-11') (6B02016-03) Soil									
Chloride	913	20.0	mg/kg	40	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-1 (15'-16') (6B02016-04) Soil									
Chloride	509	10.0	mg/kg	20	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-1 (20'-21') (6B02016-05) Soil									
Chloride	307	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-1 (25'-26') (6B02016-06) Soil									
Chloride	322	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-1 (30'-31') (6B02016-07) Soil									
Chloride	760	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-1 (35'-36') (6B02016-08) Soil									
Chloride	400	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-1 (40'-41') (6B02016-09) Soil									
Chloride	589	25.0	mg/kg	50	EB61607	02/14/06	02/14/06	EPA 300.0	

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Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 (45'-46') (6B02016-10) Soil									
Chloride	3670	50.0	mg/kg	100	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-1 (50'-51') (6B02016-11) Soil									
Chloride	1200	20.0	mg/kg	40	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-1 (55'-56') (6B02016-12) Soil									
Chloride	207	5.00	mg/kg	10	EB61618	02/17/06	02/20/06	EPA 300.0	
SB-1 (60'-61') (6B02016-13) Soil									
Chloride	193	5.00	mg/kg	10	EB61618	02/17/06	02/20/06	EPA 300.0	
SB-2 (2'-3') (6B02016-14) Soil									
Chloride	1500	25.0	mg/kg	50	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	4.9	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	138	25.0	mg/kg	50	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-2 (5'-6') (6B02016-15) Soil									
Chloride	1090	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	7.0	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	206	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-2 (10'-11') (6B02016-16) Soil									
Chloride	935	20.0	mg/kg	40	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-2 (15'-16') (6B02016-17) Soil									
Chloride	1070	20.0	mg/kg	40	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-2 (20'-21') (6B02016-18) Soil									
Chloride	1770	25.0	mg/kg	50	EB61303	02/11/06	02/13/06	EPA 300.0	

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Project Number: 160046
Project Manager: Iain Olness

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General Chemistry Parameters by EPA / Standard Methods
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 (25'-26') (6B02016-19) Soil									
Chloride	554	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-2 (30'-31') (6B02016-20) Soil									
Chloride	1060	20.0	mg/kg	40	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-2 (35'-36') (6B02016-21) Soil									
Chloride	619	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-2 (40'-41') (6B02016-22) Soil									
Chloride	249	10.0	mg/kg	20	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-2 (45'-46') (6B02016-23) Soil									
Chloride	244	10.0	mg/kg	20	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-3 (2'-3') (6B02016-25) Soil									
Chloride	1010	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	4.7	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	160	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-3 (5'-6') (6B02016-26) Soil									
Chloride	999	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	7.5	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	121	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-3 (10'-11') (6B02016-27) Soil									
Chloride	663	10.0	mg/kg	20	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-3 (15'-16') (6B02016-28) Soil									
Chloride	271	25.0	mg/kg	50	EB61002	02/09/06	02/10/06	EPA 300.0	

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General Chemistry Parameters by EPA / Standard Methods
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 (20'-21') (6B02016-29) Soil									
Chloride	409	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-3 (25'-26') (6B02016-30) Soil									
Chloride	283	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-3 (30'-31') (6B02016-31) Soil									
Chloride	299	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-3 (35'-36') (6B02016-32) Soil									
Chloride	386	10.0	mg/kg	20	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-3 (40'-41') (6B02016-33) Soil									
Chloride	224	10.0	mg/kg	20	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-3 (45'-46') (6B02016-34) Soil									
Chloride	131	5.00	mg/kg	10	EB61607	02/14/06	02/14/06	EPA 300.0	
SB-4 (2'-3') (6B02016-37) Soil									
Chloride	514	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	5.6	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	203	10.0	mg/kg	20	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-4 (5'-6') (6B02016-38) Soil									
Chloride	1140	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
% Moisture	5.6	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	
Sulfate	194	20.0	mg/kg	40	EB60705	02/04/06	02/08/06	EPA 300.0	
SB-4 (10'-11') (6B02016-39) Soil									
Chloride	1190	20.0	mg/kg	40	EB61002	02/09/06	02/10/06	EPA 300.0	
% Moisture	3.2	0.1	%	1	EB60607	02/03/06	02/06/06	% calculation	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 (15'-16') (6B02016-40) Soil									
Chloride	2180	50.0	mg/kg	100	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-4 (20'-21') (6B02016-41) Soil									
Chloride	1660	25.0	mg/kg	50	EB61002	02/09/06	02/10/06	EPA 300.0	
SB-4 (25'-26') (6B02016-42) Soil									
Chloride	1040	20.0	mg/kg	40	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-4 (30'-31') (6B02016-43) Soil									
Chloride	1710	25.0	mg/kg	50	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-4 (35'-36') (6B02016-44) Soil									
Chloride	3590	50.0	mg/kg	100	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-4 (40'-41') (6B02016-45) Soil									
Chloride	14700	200	mg/kg	400	EB61303	02/11/06	02/13/06	EPA 300.0	
SB-4 (45'-46') (6B02016-46) Soil									
Chloride	389	10.0	mg/kg	20	EB61608	02/15/06	02/15/06	EPA 300.0	
SB-4 (50'-51') (6B02016-47) Soil									
Chloride	313	10.0	mg/kg	20	EB61608	02/15/06	02/15/06	EPA 300.0	
SB-4 (55'-56') (6B02016-48) Soil									
Chloride	205	5.00	mg/kg	10	EB61608	02/15/06	02/15/06	EPA 300.0	
SB-4 (60'-61') (6B02016-49) Soil									
Chloride	304	10.0	mg/kg	20	EB61608	02/15/06	02/15/06	EPA 300.0	
SB-4 (65'-66') (6B02016-50) Soil									
Chloride	185	5.00	mg/kg	10	EB61608	02/15/06	02/15/06	EPA 300.0	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 (70'-71') (6B02016-51) Soil									
Chloride	230	5.00	mg/kg	10	EB61608	02/15/06	02/15/06	EPA 300.0	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
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Batch EB60312 - Solvent Extraction (GC)

Blank (EB60312-BLK1)

Prepared: 02/03/06 Analyzed: 02/04/06

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	55.4		"	50.0		111	70-130			

LCS (EB60312-BS1)

Prepared: 02/03/06 Analyzed: 02/04/06

Gasoline Range Organics C6-C12	503	10.0	mg/kg wet	500		101	75-125			
Diesel Range Organics >C12-C35	583	10.0	"	500		117	75-125			
Total Hydrocarbon C6-C35	1090	10.0	"	1000		109	75-125			
Surrogate: 1-Chlorooctane	55.1		mg/kg	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	56.0		"	50.0		112	70-130			

Calibration Check (EB60312-CCV1)

Prepared: 02/03/06 Analyzed: 02/04/06

Gasoline Range Organics C6-C12	498		mg/kg	500		99.6	80-120			
Diesel Range Organics >C12-C35	568		"	500		114	80-120			
Total Hydrocarbon C6-C35	1070		"	1000		107	80-120			
Surrogate: 1-Chlorooctane	54.2		"	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	52.4		"	50.0		105	70-130			

Matrix Spike (EB60312-MS1)

Source: 6B02015-01

Prepared: 02/03/06 Analyzed: 02/04/06

Gasoline Range Organics C6-C12	524	10.0	mg/kg dry	544	ND	96.3	75-125			
Diesel Range Organics >C12-C35	610	10.0	"	544	ND	112	75-125			
Total Hydrocarbon C6-C35	1130	10.0	"	1090	ND	104	75-125			
Surrogate: 1-Chlorooctane	56.1		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	56.4		"	50.0		113	70-130			

Matrix Spike Dup (EB60312-MSD1)

Source: 6B02015-01

Prepared: 02/03/06 Analyzed: 02/04/06

Gasoline Range Organics C6-C12	544	10.0	mg/kg dry	544	ND	100	75-125	3.75	20	
Diesel Range Organics >C12-C35	634	10.0	"	544	ND	117	75-125	3.86	20	
Total Hydrocarbon C6-C35	1180	10.0	"	1090	ND	108	75-125	4.33	20	
Surrogate: 1-Chlorooctane	57.7		mg/kg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	57.6		"	50.0		115	70-130			

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Project Manager: Iain Olness

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60701 - EPA 5030C (GC)

Blank (EB60701-BLK1)

Prepared & Analyzed: 02/07/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	38.0		ug/kg	40.0		95.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.4		"	40.0		81.0	80-120			

LCS (EB60701-BS1)

Prepared & Analyzed: 02/07/06

Benzene	0.0482	0.00100	mg/kg wet	0.0500		96.4	80-120			
Toluene	0.0497	0.00100	"	0.0500		99.4	80-120			
Ethylbenzene	0.0501	0.00100	"	0.0500		100	80-120			
Xylene (p/m)	0.0949	0.00100	"	0.100		94.9	80-120			
Xylene (o)	0.0475	0.00100	"	0.0500		95.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.4		ug/kg	40.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	39.4		"	40.0		98.5	80-120			

Calibration Check (EB60701-CCV1)

Prepared: 02/07/06 Analyzed: 02/08/06

Benzene	43.8		ug/kg	50.0		87.6	80-120			
Toluene	49.1		"	50.0		98.2	80-120			
Ethylbenzene	50.4		"	50.0		101	80-120			
Xylene (p/m)	94.1		"	100		94.1	80-120			
Xylene (o)	47.2		"	50.0		94.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.7		"	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	33.5		"	40.0		83.8	80-120			

Matrix Spike (EB60701-MS1)

Source: 6B01013-06

Prepared: 02/07/06 Analyzed: 02/08/06

Benzene	1.11	0.0250	mg/kg dry	1.30	ND	85.4	80-120			
Toluene	1.19	0.0250	"	1.30	ND	91.5	80-120			
Ethylbenzene	1.21	0.0250	"	1.30	ND	93.1	80-120			
Xylene (p/m)	2.30	0.0250	"	2.59	ND	88.8	80-120			
Xylene (o)	1.11	0.0250	"	1.30	ND	85.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.4		ug/kg	40.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	39.1		"	40.0		97.8	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60701 - EPA 5030C (GC)

Matrix Spike Dup (EB60701-MSD1)	Source: 6B01013-06			Prepared: 02/07/06		Analyzed: 02/08/06				
Benzene	1.16	0.0250	mg/kg dry	1.30	ND	89.2	80-120	4.35	20	
Toluene	1.25	0.0250	"	1.30	ND	96.2	80-120	5.01	20	
Ethylbenzene	1.27	0.0250	"	1.30	ND	97.7	80-120	4.82	20	
Xylene (p/m)	2.39	0.0250	"	2.59	ND	92.3	80-120	3.87	20	
Xylene (o)	1.15	0.0250	"	1.30	ND	88.5	80-120	3.57	20	
Surrogate: a,a,a-Trifluorotoluene	36.6		ug/kg	40.0		91.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.4		"	40.0		86.0	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB60607 - General Preparation (Prep)

Blank (EB60607-BLK1)				Prepared: 02/03/06 Analyzed: 02/06/06						
% Solids	100		%							
Duplicate (EB60607-DUP1)				Source: 6B02016-01 Prepared: 02/03/06 Analyzed: 02/06/06						
% Solids	96.3		%		95.6			0.730	20	
Duplicate (EB60607-DUP2)				Source: 6B03002-02 Prepared: 02/03/06 Analyzed: 02/06/06						
% Solids	98.6		%		99.6			1.01	20	
Duplicate (EB60607-DUP3)				Source: 6B03005-01 Prepared: 02/03/06 Analyzed: 02/06/06						
% Solids	97.5		%		97.4			0.103	20	

Batch EB60705 - Water Extraction

Blank (EB60705-BLK1)				Prepared: 02/04/06 Analyzed: 02/08/06						
Sulfate	ND	0.500	mg/kg							
Chloride	ND	0.500	"							
LCS (EB60705-BS1)				Prepared: 02/04/06 Analyzed: 02/08/06						
Chloride	9.14		mg/L	10.0		91.4	80-120			
Sulfate	9.58		"	10.0		95.8	80-120			
Calibration Check (EB60705-CCV1)				Prepared: 02/04/06 Analyzed: 02/08/06						
Sulfate	9.98		mg/L	10.0		99.8	80-120			
Chloride	9.32		"	10.0		93.2	80-120			
Duplicate (EB60705-DUP1)				Source: 6B03003-01 Prepared: 02/04/06 Analyzed: 02/08/06						
Chloride	188	5.00	mg/kg		186			1.07	20	
Sulfate	64.0	5.00	"		63.3			1.10	20	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

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 EB61002 - Water Extraction

Blank (EB61002-BLK1)

Prepared: 02/09/06 Analyzed: 02/10/06

Chloride ND 0.500 mg/kg

LCS (EB61002-BS1)

Prepared: 02/09/06 Analyzed: 02/10/06

Chloride 8.93 mg/L 10.0 89.3 80-120

Calibration Check (EB61002-CCV1)

Prepared: 02/09/06 Analyzed: 02/10/06

Chloride 9.37 mg/L 10.0 93.7 80-120

Duplicate (EB61002-DUP1)

Source: 6B06018-33

Prepared: 02/09/06 Analyzed: 02/10/06

Chloride 12.2 5.00 mg/kg 12.2 0.00 20

Batch EB61303 - Water Extraction

Blank (EB61303-BLK1)

Prepared: 02/11/06 Analyzed: 02/13/06

Chloride ND 0.500 mg/kg

LCS (EB61303-BS1)

Prepared: 02/11/06 Analyzed: 02/13/06

Chloride 9.10 mg/L 10.0 91.0 80-120

Calibration Check (EB61303-CCV1)

Prepared: 02/11/06 Analyzed: 02/13/06

Chloride 9.34 mg/L 10.0 93.4 80-120

Duplicate (EB61303-DUP1)

Source: 6B08020-12

Prepared: 02/11/06 Analyzed: 02/13/06

Chloride 747 20.0 mg/kg 629 17.2 20

Batch EB61607 - Water Extraction

Blank (EB61607-BLK1)

Prepared & Analyzed: 02/14/06

Chloride ND 0.500 mg/kg

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

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 EB61607 - Water Extraction

LCS (EB61607-BS1)				Prepared & Analyzed: 02/14/06						
Chloride	9.05		mg/L	10.0		90.5	80-120			
Calibration Check (EB61607-CCV1)				Prepared & Analyzed: 02/14/06						
Chloride	9.22		mg/L	10.0		92.2	80-120			
Duplicate (EB61607-DUP1)		Source: 6B02016-09		Prepared & Analyzed: 02/14/06						
Chloride	585	25.0	mg/kg		589			0.681	20	

Batch EB61608 - Water Extraction

Blank (EB61608-BLK1)				Prepared & Analyzed: 02/15/06						
Chloride	ND	0.500	mg/kg							
LCS (EB61608-BS1)				Prepared & Analyzed: 02/15/06						
Chloride	9.06		mg/L	10.0		90.6	80-120			
Calibration Check (EB61608-CCV1)				Prepared & Analyzed: 02/15/06						
Chloride	9.16		mg/L	10.0		91.6	80-120			
Duplicate (EB61608-DUP1)		Source: 6B02016-46		Prepared & Analyzed: 02/15/06						
Chloride	407	10.0	mg/kg		389			4.52	20	

Batch EB61618 - Water Extraction

Blank (EB61618-BLK1)				Prepared: 02/16/06 Analyzed: 02/20/06						
Chloride	ND	0.500	mg/kg							

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

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 EB61618 - Water Extraction

LCS (EB61618-BS1)

Prepared: 02/16/06 Analyzed: 02/20/06

Chloride 9.13 0.500 mg/kg 10.0 91.3 80-120

Calibration Check (EB61618-CCV1)

Prepared: 02/16/06 Analyzed: 02/20/06

Chloride 9.96 mg/L 10.0 99.6 80-120

Duplicate (EB61618-DUP1)

Source: 6B15003-05

Prepared: 02/16/06 Analyzed: 02/20/06

Chloride 1360 25.0 mg/kg 1370 0.733 20

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ Antelope Ridge Unit #5
Project Number: 160046
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
02/21/06 13:10

Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
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:

Roland K Tuttle

Date:

2/21/2006

Roland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 20 of 20

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
 (505) 394-3481 FAX: (505) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: EUJ

Company Name Environmental Plus, Inc. EPI Project Manager Iain Olness Mailing Address P.O. BOX 1558 City, State, Zip Eunice New Mexico 88231 EPI Phone#/Fax# 505-394-3481 / 505-394-2601 Client Company Chesapeake Energy Facility Name Antelope Ridge Unit #5 Location UL-L, Sect. 33, T 23 S, R 34 E Project Reference 160046 EPI Sampler Name George Blackburn		Bill To  Attn: Iain Olness P.O. Box 1558 Eunice, NM 88231		ANALYSIS REQUEST													
LAB I.D.	SAMPLE I.D.	MATRIX						PRESERV.		SAMPLING		PH	TCLP	OTHER >>	PAH		
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE					TIME	
		(G) RAB OR (C)OMP.	# CONTAINERS														
6D 02016																	
	- 01 SB-1 (2'-3')	G 1	1	X				X				X	X	X	X	X	X
	- 02 SB-1 (5'-8')	G 1	1	X				X				X	X	X	X	X	X
	- 03 SB-1 (10'-11')	G 1	1	X				X				X	X	X	X	X	X
	- 04 SB-1 (15'-16')	G 1	1	X				X				X	X	X	X	X	X
	- 05 SB-1 (20'-21')	G 1	1	X				X				X	X	X	X	X	X
	- 06 SB-1 (25'-26')	G 1	1	X				X				X	X	X	X	X	X
	- 07 SB-1 (30'-31')	G 1	1	X				X				X	X	X	X	X	X
	- 08 SB-1 (35'-36')	G 1	1	X				X				X	X	X	X	X	X
	- 09 SB-1 (40'-41') * see 07	G 1	1	X				X				X	X	X	X	X	X
	- 10 SB-1 (50'-51')	G 1	1	X				X				X	X	X	X	X	X

Sampler Relinquished: *[Signature]* Received By: *[Signature]* Date: 2/1/06

Relinquished by: *[Signature]* Received By: (lab staff) *[Signature]* Date: 2/2/06

Delivered by: *[Signature]* Sample Cool & Intact: Yes No

Checked By: *[Signature]*

PLEASE READ!!!
 e-mail results to iainness@envplus.net
 NOTES: Analyze subsequent samples in each soil boring for each analyte until two successive samples are ND for organics and/or <250 mg/Kg for chlorides and/or <600 mg/Kg for sulfates. ANY QUESTIONS, PLEASE CALL IAIN OLNESS AT (505) 394-3481.
 3.0 Acc. glass jar seal label

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
 (505) 394-3481 FAX: (505) 394-2601
 P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: ELT

Company Name Environmental Plus, Inc.		Bill To	
EPI Project Manager Iain Olness		EPI	
Mailing Address P.O. BOX 1558		Attn: Iain Olness	
City, State, Zip Eunice New Mexico 88231		P.O. Box 1558	
EPI Phone#/Fax# 505-394-3481 / 505-394-2601		Eunice, NM 88231	
Client Company Chesapeake Energy			
Facility Name Antelope Ridge Unit #5			
Location UL-L, Sect. 33, T 23 S, R 34 E			
Project Reference 160046			
EPI Sampler Name George Blackburn			

LAB I.D.	SAMPLE I.D.	MATRIX							PRESERV.			SAMPLING		TPH 8015M	CHLORIDES (Cl)	SULFATES (SO ₄)	PH	TCLP	OTHER >>	PAH	
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME									
32	1 SB-3 (35'-36')	X								X					X	X	X				
33	2 SB-3 (40'-41')	X								X					X	X	X				
34	3 SB-3 (45'-46')	X								X					X	X	X				
35	4 SB-3 (50'-51')	X								X					X	X	X				
36	5 SB-3 (55'-56')	X								X					X	X	X				
37	6 SB-4 (2'-3')	X								X					X	X	X				
38	7 SB-4 (5'-6')	X								X					X	X	X				
39	8 SB-4 (10'-11')	X								X					X	X	X				
40	9 SB-4 (15'-16')	X								X					X	X	X				
41	10 SB-4 (20'-21')	X								X					X	X	X				

Sampler Relinquished by: <i>Iain Olness</i>	Date 4/10/06	Received By: <i>Carol Miller</i>
Relinquished by: <i>Carol Miller</i>	Time 11:06	Received By: (lab staff) <i>Carol Miller</i>
Delivered by: <i>Carol Miller</i>	Time 2:45	Sample Cool & Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Checked By: <i>ck</i>

e-mail results to iolness@envplus.net
 NOTES: Analyze subsequent samples in each soil boring for each analyte until two successive samples are ND for organics and/or <250 mg/kg for chlorides and/or <600 mg/kg for sulfates. ANY QUESTIONS, PLEASE CALL IAIN OLNESS AT (505) 394-3481. **PLEASE READ!!**

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
 (505) 394-3481 FAX: (505) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: ELT

Company Name Environmental Plus, Inc.	
EPI Project Manager Iain Olness	Attn: Iain Olness
Mailing Address P.O. BOX 1558	P.O. Box 1558
City, State, Zip Eunice New Mexico 88231	Eunice, NM 88231
EPI Phone#/Fax# 505-394-3481 / 505-394-2601	
Client Company Chesapeake Energy	
Facility Name Antelope Ridge Unit #5	
Location UL-L, Sect. 33, T 23 S, R 34 E	
Project Reference 160046	
EPI Sampler Name George Blackburn	



LAB I.D.	SAMPLE I.D.	MATRIX			PRESERV.			DATE	TIME	PH	TCLP	OTHER >>	PAH
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:						
42	1 SB-4 (25'-26')	G	1	X									
43	2 SB-4 (30'-31')	G	1	X									
44	3 SB-4 (35'-36')	G	1	X									
45	4 SB-4 (40'-41')	G	1	X									
46	5 SB-4 (45'-46')	G	1	X									
47	6 SB-4 (50'-51')	G	1	X									
48	7 SB-4 (55'-56')	G	1	X									
49	8 SB-4 (60'-61')	G	1	X									
50	9 SB-4 (65'-66')	G	1	X									
51	10 SB-4 (70'-71')	G	1	X									

Sampler Relinquished: <i>George Blackburn</i>	Date 2/1/06	Received By: <i>Iain Olness</i>
Relinquished by: <i>George Blackburn</i>	Time 11:06	Received By: (lab staff) <i>Corrie</i>
Delivered by: <i>George Blackburn</i>	Time 2:45	Checked By: <i>Ch</i>
Sample Cool & Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

e-mail results to iolness@envplus.net
 NOTES: Analyze subsequent samples in each soil boring for each analyte until two successive samples are ND for organics and/or <250 mg/Kg for chlorides and/or <600 mg/Kg for sulfates. ANY QUESTIONS, PLEASE CALL IAIN OLNESS AT (505) 394-3481. **PLEASE READ!!**

Bill To ANALYSIS REQUEST

BTEX 8021B
 TPH 8015M
 CHLORIDES (Cl)
 SULFATES (SO₄)

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
 (505) 394-3481 FAX: (505) 394-2601
 P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: ELT

Company Name Environmental Plus, Inc.		Bill To		ANALYSIS REQUEST	
EPI Project Manager Iain Olness		PRESERV.		SAMPLING	
Mailing Address P.O. BOX 1558		ACID/BASE		TIME	
City, State, Zip Eunice New Mexico 88231		OTHER:		DATE	
EPI Phone# / Fax# 505-394-3481 / 505-394-2601		SLUDGE		01-Feb-06 13:20	
Client Company Chesapeake Energy		CRUDE OIL		01-Feb-06 13:33	
Facility Name Antelope Ridge Unit #5		SOIL		01-Feb-06 13:50	
Location UL-L, Sect. 33, T 23 S, R 34 E		WASTEWATER		01-Feb-06 14:10	
Project Reference 160046		GROUND WATER		31-Jan-06 14:05	
EPI Sampler Name George Blackburn		# CONTAINERS		BTEX 8021B	
LAB I.D. 6B02014		(G)RAB OR (C)OMP.		PH	
1 SB-4 (75'-76')		G 1		SULFATES (SO ₄)	
2 SB-4 (80'-81')		G 1		CHLORIDES (Cl)	
3 SB-4 (85'-86')		G 1		TPH 8015M	
4 SB-4 (90'-91')		G 1		OTHER VV	
5				TCLP	
6 SB-1 (45'-46')		G 1		PAH	
7					
8					
9					
10					

Attn: Iain Olness
 P.O. Box 1558
 Eunice, NM 88231



Sample Returned: *Iain Olness*
 Relinquished by: *Iain Olness*
 Delivered by: *Iain Olness*

Received By: *Geoff Miller*
 Received By: (lab staff) *Geoff Miller*

Sample Cool & Intact: Yes No
 Checked By: *Geoff Miller*

e-mail results to iolness@envplus.net
NOTES: Analyze subsequent samples in each soil boring for each analyte until two successive samples are ND for organics and/or <250 mg/kg for chlorides and/or <600 mg/kg for sulfates. ANY QUESTIONS, PLEASE CALL IAIN OLNESS AT (505) 394-3481. **PLEASE READ!!**

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

Client: EPI

Date/Time: 2/2/06 2:45

Order #: 6B02016

Initials: CR

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	3.0	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No		
Custody Seals intact on shipping container/cooler?	Yes	No	Not present	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/>	No	Not present	
Chain of custody present?	<input checked="" type="checkbox"/>	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No		
Container labels legible and intact?	<input checked="" type="checkbox"/>	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No		
Samples properly preserved?	<input checked="" type="checkbox"/>	No		
Sample bottles intact?	<input checked="" type="checkbox"/>	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable	

Other observations:

Variance Documentation:

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

Corrective Action Taken:

argon laboratories

ENVIRONMENTAL PLUS, INC.
2100 AVENUE O
EUNICE, NM 88231

REPORT DATE: 05/24/06
SAMPLE DATE: 05/22/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160046
ANTELOPE RIDGE UNIT #5

AL JOB #: A05221

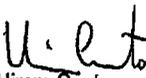
Project Summary:

On May 23, 2006, this laboratory received 17 soil samples.

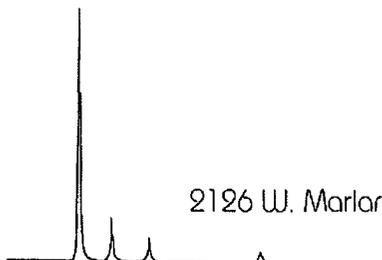
Samples were analyzed according to instructions in accompanying chain-of-custody. Results of analysis are summarized on the following pages. Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Sample Control at (505) 397-0295


Hiram Cueto
Lab Manager

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
PO Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05221

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Rep. Lim. @ D.F.=1	Units	Analyzed	Method	Notes
BH-1 (6') (A05221) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	140	10	mg/Kg	05/24/06	EPA 300.0	
BH-2 (6') (A05222) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	360	10	mg/Kg	05/24/06	EPA 300.0	
BH-3 (6') (A05223) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	780	10	mg/Kg	05/24/06	EPA 300.0	
BH-4 (6') (A05224) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	1,500	10	mg/Kg	05/24/06	EPA 300.0	
BH-5 (6') (A05225) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	2,400	10	mg/Kg	05/24/06	EPA 300.0	
SW-1 (3') (A05226) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	940	10	mg/Kg	05/24/06	EPA 300.0	
SW-2 (3') (A05227) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	1,200	10	mg/Kg	05/24/06	EPA 300.0	
SW-3 (3') (A05228) Soil						
		Sampled: Sample ID	Received: BH-1 (6')			
Chloride	390	10	mg/Kg	05/24/06	EPA 300.0	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com

argon laboratories

Environmental Plus, Inc.
PO Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05221

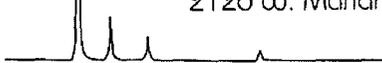
Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Rep. Lim.		Analyzed	Method	Notes
		@ D.F.=1	Units			
SW-4 (3') (A05229) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	300	10	mg/Kg	05/24/06	EPA 300.0	
SW-5 (3') (A05230) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	500	10	mg/Kg	05/24/06	EPA 300.0	
SW-6 (3') (A05231) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	1,800	10	mg/Kg	05/24/06	EPA 300.0	
SW-7 (3') (A05232) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	1,700	10	mg/Kg	05/24/06	EPA 300.0	
SW-8 (3') (A05233) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	1,000	10	mg/Kg	05/24/06	EPA 300.0	
SW-9 (3') (A05234) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	460	10	mg/Kg	05/24/06	EPA 300.0	
SW-10 (3') (A05235) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	3,300	10	mg/Kg	05/24/06	EPA 300.0	
SW-11 (3') (A05236) Soil						
		Sampled: 05/22/06	Received: 05/23/06			
Chloride	3,800	10	mg/Kg	05/24/06	EPA 300.0	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
PO Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05221

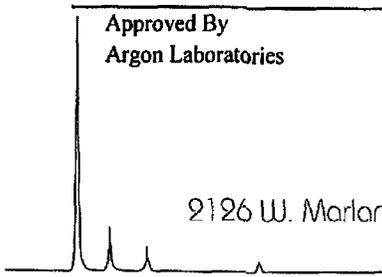
Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Rep. Lim.		Analyzed	Method	Notes
		@ D.F.=1	Units			
SW-12 (3') (A05237) Soil	Sampled: 05/22/06	Received: 05/23/06				
Chloride	5,100	10	mg/Kg	05/24/06	EPA 300.0	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05221

EPA 300.0 - Quality Control

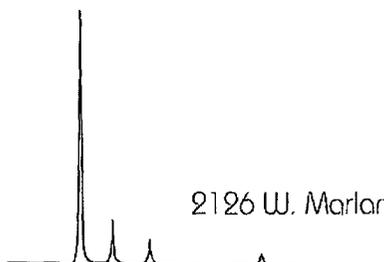
Analyte	MS Rec	MSD Rec	RPD	Reporting Limit	Units	Notes
Matrix Spike / Matrix Spike Duplicate						<i>Spiked Sample ID: A05201</i>

Chloride	107%	101%	6%	10	mg/Kg	
----------	------	------	----	----	-------	--

Analyte	LCS Rec	LCSD Rec	RPD	Reporting Limit	Units	Notes
Laboratory Control Spike / Laboratory Control Spike Duplicate						<i>LCS ID: LCS0524A</i>

Chloride	98%	104%	6%	10	mg/Kg	
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Note: Daily method blank showed no contamination at or above the reporting limits.



2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Plus, Inc. Date & Time Received: 05/23/06 15:08

Project Name: Antelope Ridge Unit #5 Client Project Number: 160046

Received By: Pat Matrix: Water Soil

Sample Carrier: Client Laboratory Fed Ex UPS Other

Argon Labs Project Number: A05221

Shipper Container in good condition? Yes No Samples received in proper containers? Yes No

N/A Yes No Samples received intact? Yes No

Samples received under refrigeration? Yes No Sufficient sample volume for requested tests? Yes No

Chain of custody present? Yes No Samples received within holding time? Yes No

Chain of Custody signed by all parties? Yes No Do samples contain proper preservative?
N/A Yes No

Chain of Custody matches all sample labels? Yes No Do VOA vials contain zero headspace?
(None submitted) Yes No

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments: _____

Action Taken: _____

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments: _____

argon laboratories

ENVIRONMENTAL PLUS, INC.
2100 AVENUE O
EUNICE, NM 88231

REPORT DATE: 06/01/06
SAMPLE DATE: 05/30/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160046
ANTELOPE RIDGE UNIT #5

AL JOB #: A05261

Project Summary:

On May 30, 2006, this laboratory received 2 soil samples.

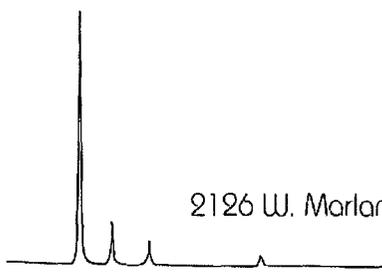
Samples were analyzed according to instructions in accompanying chain-of-custody. Results of analysis are summarized on the following pages. Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Sample Control at (505) 397-0295


Hiram Cueto
Lab Manager

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
PO Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05261

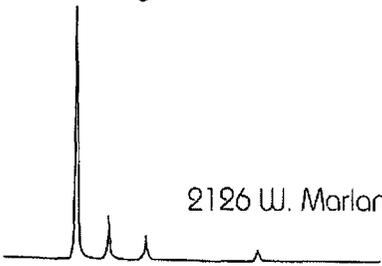
Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Rep. Lim. @ D.F.=1	Units	Analyzed	Method	Notes
SW-13 (3') (A05261) Soil						
Chloride	110	10	mg/Kg	05/31/06	EPA 300.0	
SW-14 (3') (A05262) Soil						
Chloride	150	10	mg/Kg	05/31/06	EPA 300.0	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296
email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

Project Number: 160046
Project Name: Antelope Ridge Unit #5
Project Manager: Iain Olness

Work Order #:
A05261

EPA Method 300.0 - Quality Control

Analyte	MS Rec	MSD Rec	RPD	Reporting Limit	Units	Notes
Matrix Spike / Matrix Spike Duplicate						<i>Spiked Sample ID: A05273</i>

Chloride	95%	90%	5%	10	mg/Kg	
----------	-----	-----	----	----	-------	--

Analyte	LCS Rec	LCSD Rec	RPD	Reporting Limit	Units	Notes
Laboratory Control Spike / Laboratory Control Spike Duplicate						<i>LCS ID: LCS0531A</i>

Chloride	97%	95%	2%	10	mg/Kg	
----------	-----	-----	----	----	-------	--

Note: Daily method blank showed no contamination at or above the reporting limits.



Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
 (505) 394-3481 FAX: (505) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: Argon

Company Name Environmental Plus, Inc. EPI Project Manager Iain Olness Mailing Address P.O. BOX 1558 City, State, Zip Eunice New Mexico 88231 EPI Phone#/Fax# 505-394-3481 / 505-394-2601 Client Company Chesapeake Energy Facility Name Antelope Ridge Unit #5 Location UL-L, Sect. 33, T 23 S, R 34 E Project Reference 160046 EPI Sampler Name Kirt Tyree		Bill To  Attn: Iain Olness P.O. Box 1558 Eunice, NM 88231		ANALYSIS REQUEST									
LAB I.D. 1 SW-13 (3') 2 SW-14 (3') 3 4 5 6 7 8 9 10	SAMPLE I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER WASTEWATER SOIL CRUDE OIL SLUDGE OTHER:	ACID/BASE ICE/COOL OTHER	PRESERV.	DATE	TIME	BTEX 8021B TPH 8015M	CHLORIDES (Cl) SULFATES (SO ₄) PH TCLP OTHER ** PAH	ANALYSIS REQUEST	
			G 1	1	X		X		30-May-06	12:30		X	
			G 1	1	X		X		30-May-06	12:35		X	

Sample Relinquished: *Iain Olness*
 Relinquished by: *Iain Olness*
 Delivered by: *[Signature]*

Received By: *[Signature]*
 Received By: (lab staff) *[Signature]*
 Time 07:30

Sample Cool & Intact
 Yes No
 Checked By: *[Signature]*

e-mail results to iolness@envplus.net
24-HR RUSH!!!
 NOTES:

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Plus, Inc. Date & Time Received: 05/31/06/07:30

Project Name: Antelope Ridge Unit #5 Client Project Number: 160046

Received By: Hiram Matrix: Water Soil

Sample Carrier: Client Laboratory Fed Ex UPS Other

Argon Labs Project Number: A05261

Shipper Container in good condition? N/A Yes No Samples received in proper containers? Yes No

Samples received intact? Yes No

Samples received under refrigeration? Yes No Sufficient sample volume for requested tests? Yes No

Chain of custody present? Yes No Samples received within holding time? Yes No

Chain of Custody signed by all parties? Yes No Do samples contain proper preservative?
N/A Yes No

Chain of Custody matches all sample labels? Yes No Do VOA vials contain zero headspace?
(None submitted) Yes No

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments: _____

Action Taken: _____

ADDITIONAL TEST(S) REQUEST / OTHER

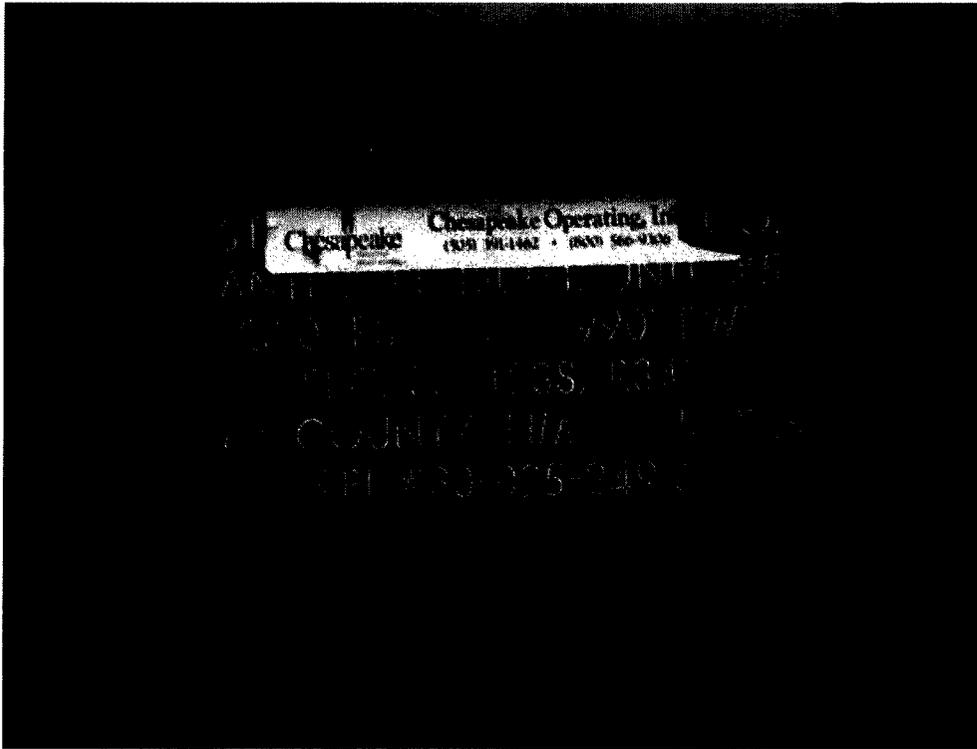
Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments: _____

APPENDIX II

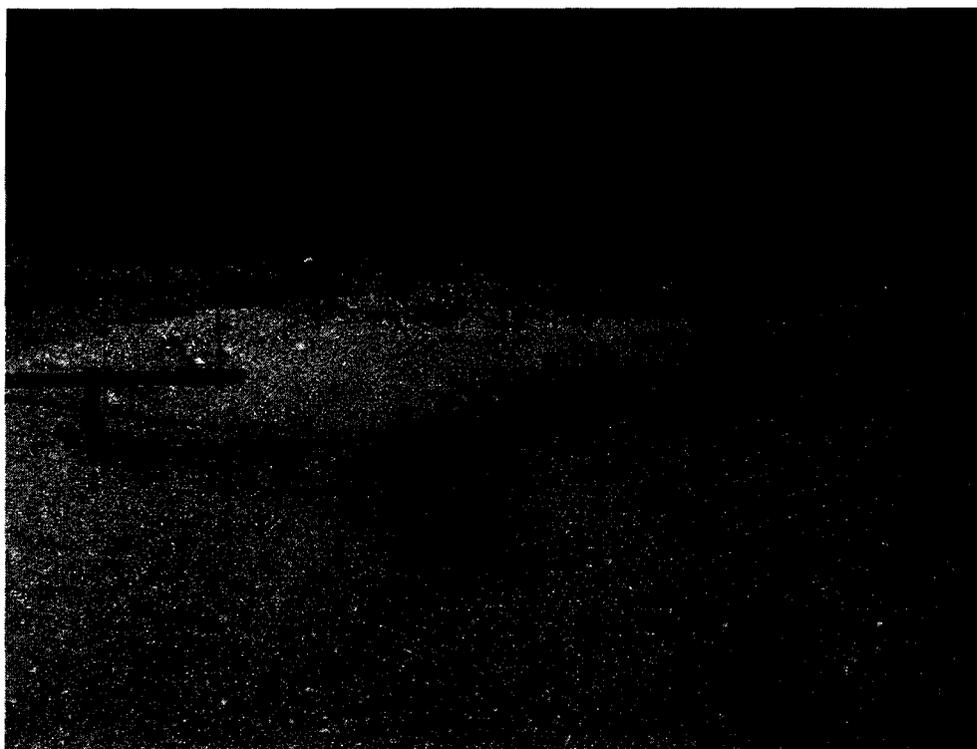
PROJECT PHOTOGRAPHS



Photograph #1 – Lease Sign.



Photograph #2 – Looking westerly at bermed tank battery.

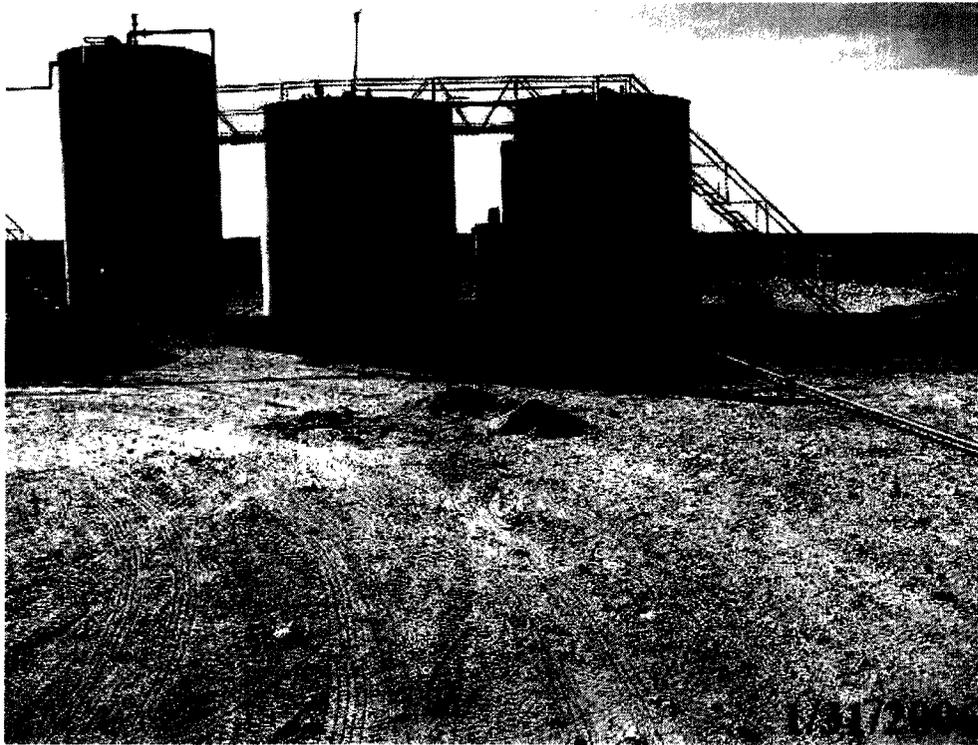


Photograph #3 – Looking northerly at tank battery.



Photograph #4 – Looking at well head.

1/31/2006



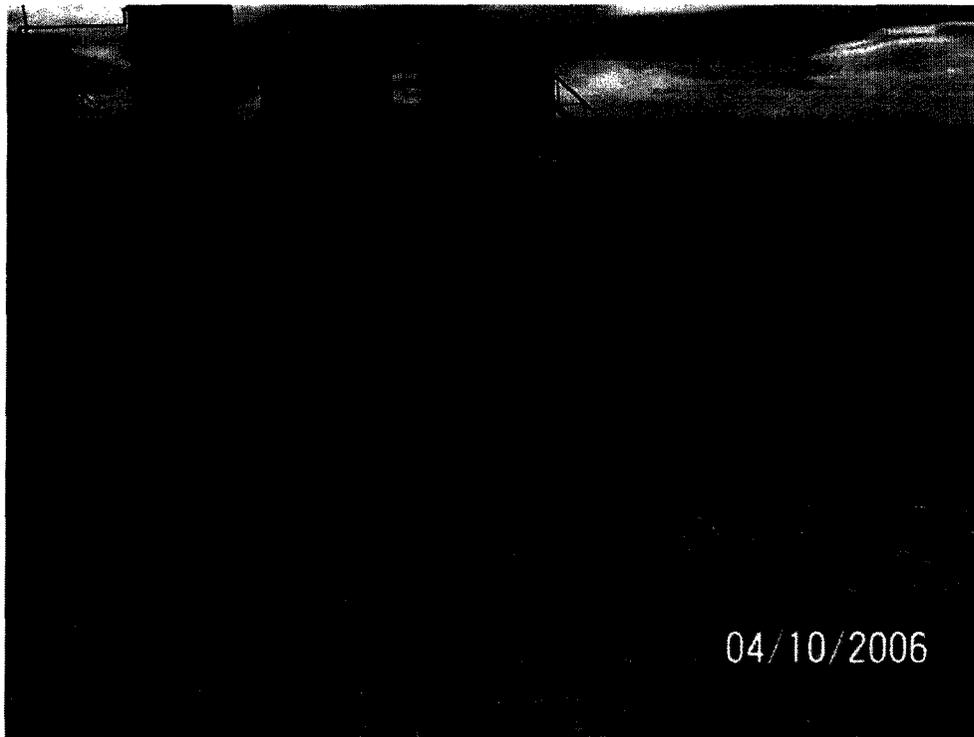
Photograph #5 – Looking westerly at tank battery.



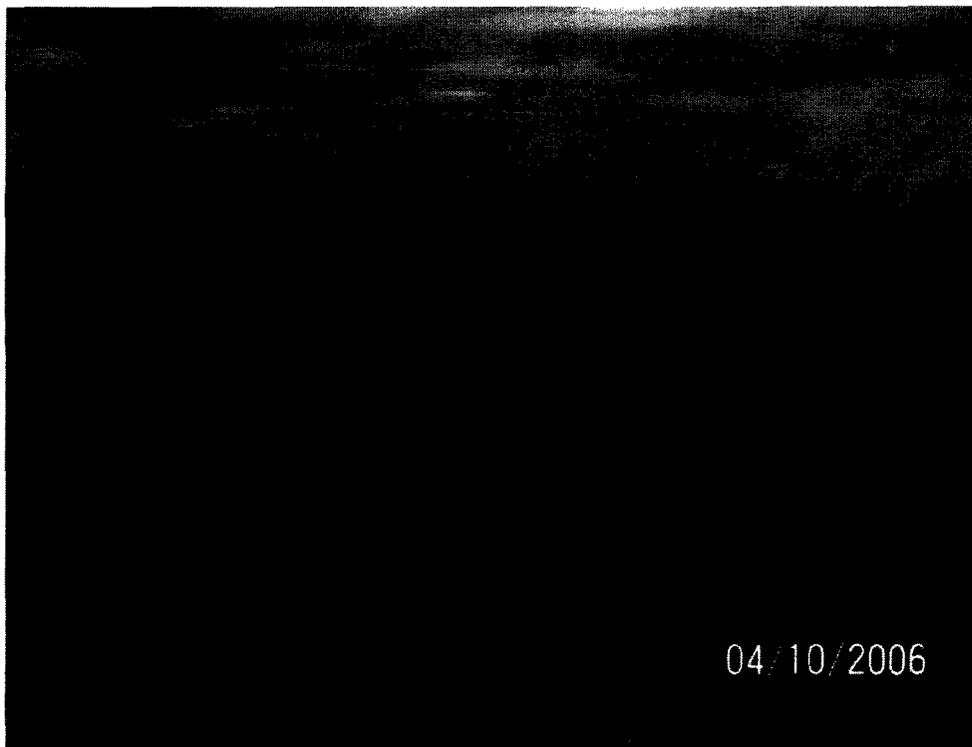
Photograph #6 – Looking southerly at initial excavation area.



Photograph #7 – Looking northerly at initial excavation area.



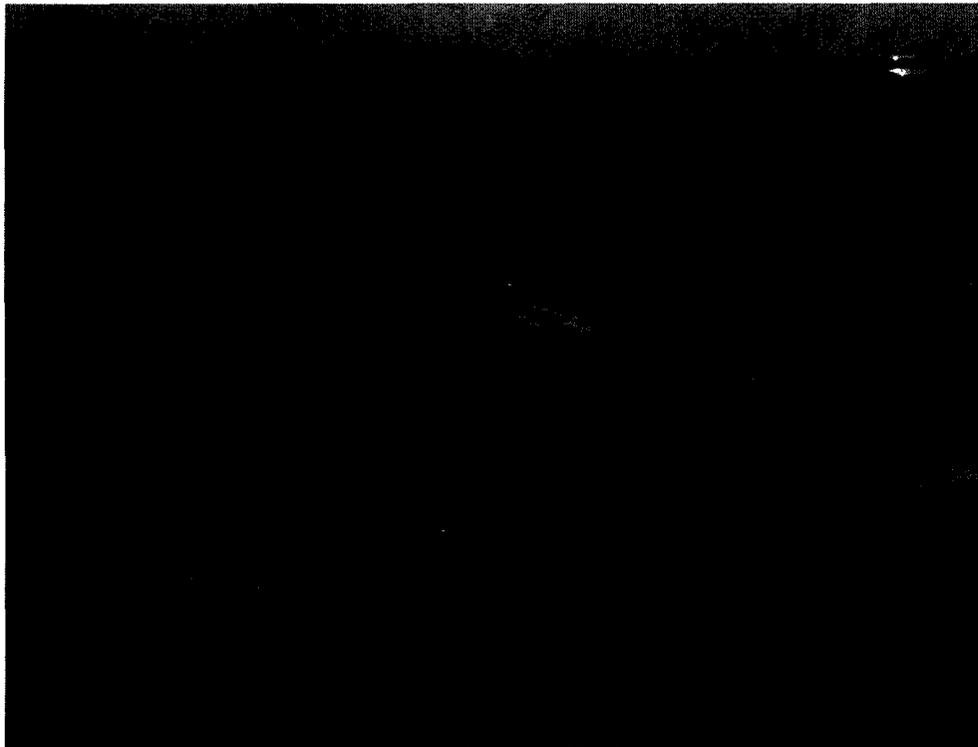
Photograph #8 – Looking westerly at initial excavation area.



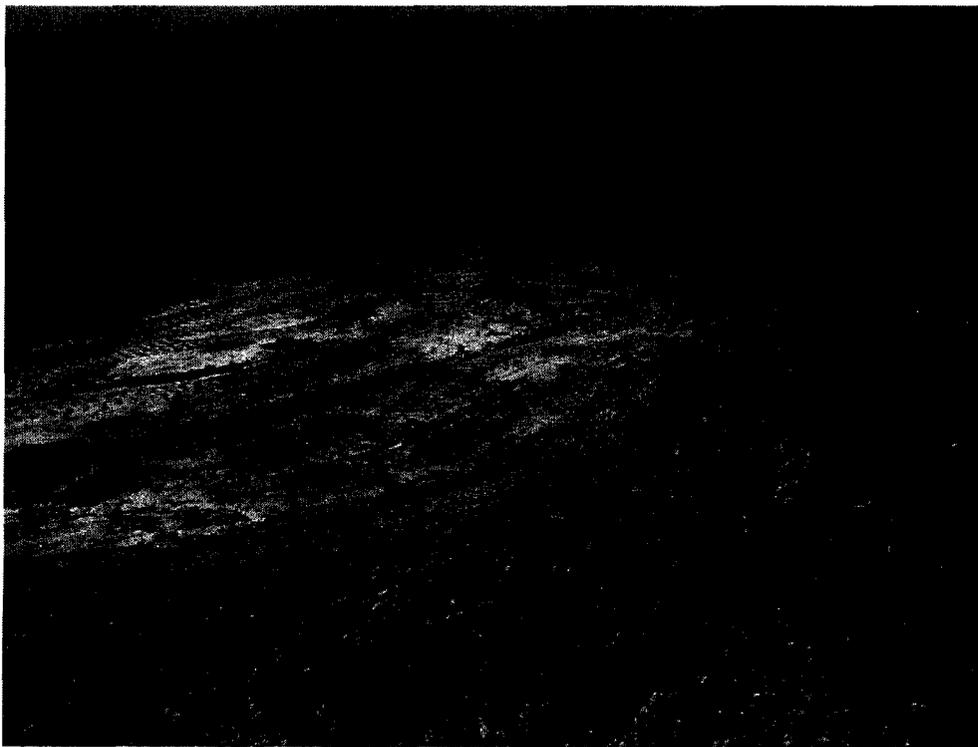
Photograph #9 – Looking westerly at initial excavation area.



Photograph #10 – Looking easterly at excavation area.



Photograph #11 – Looking west at excavation area.



Photograph #12 – Looking northerly at excavation area.

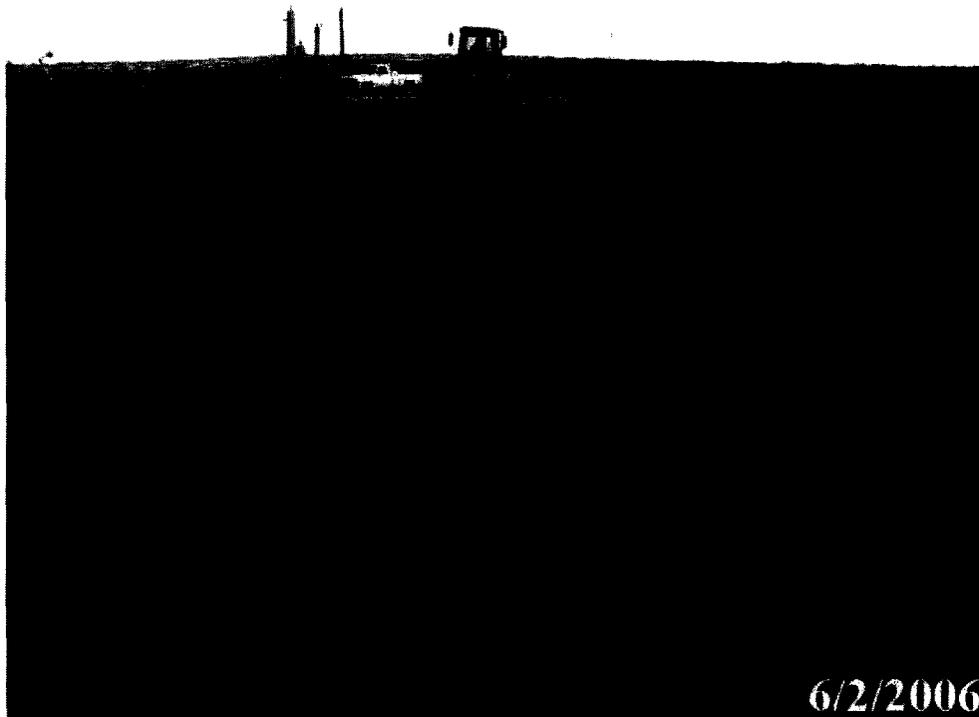


Photograph #13 – Looking westerly at liner placement.



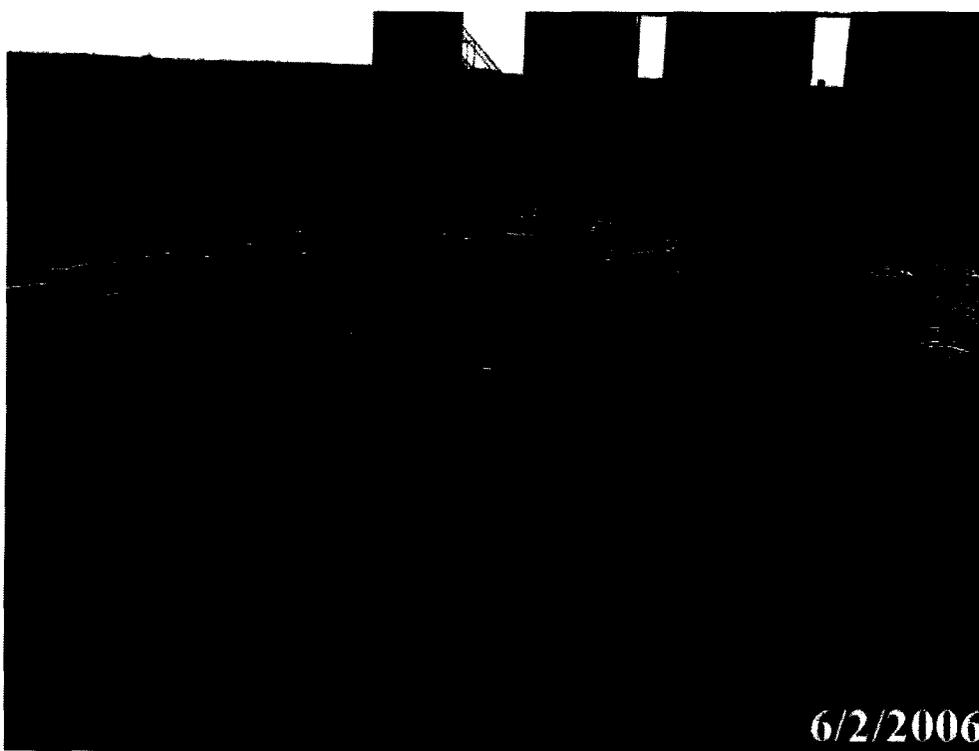
Photograph #14 – Looking westerly at liner placement.

6/2/2006



6/2/2006

Photograph #15 – Looking southeasterly at liner placement.

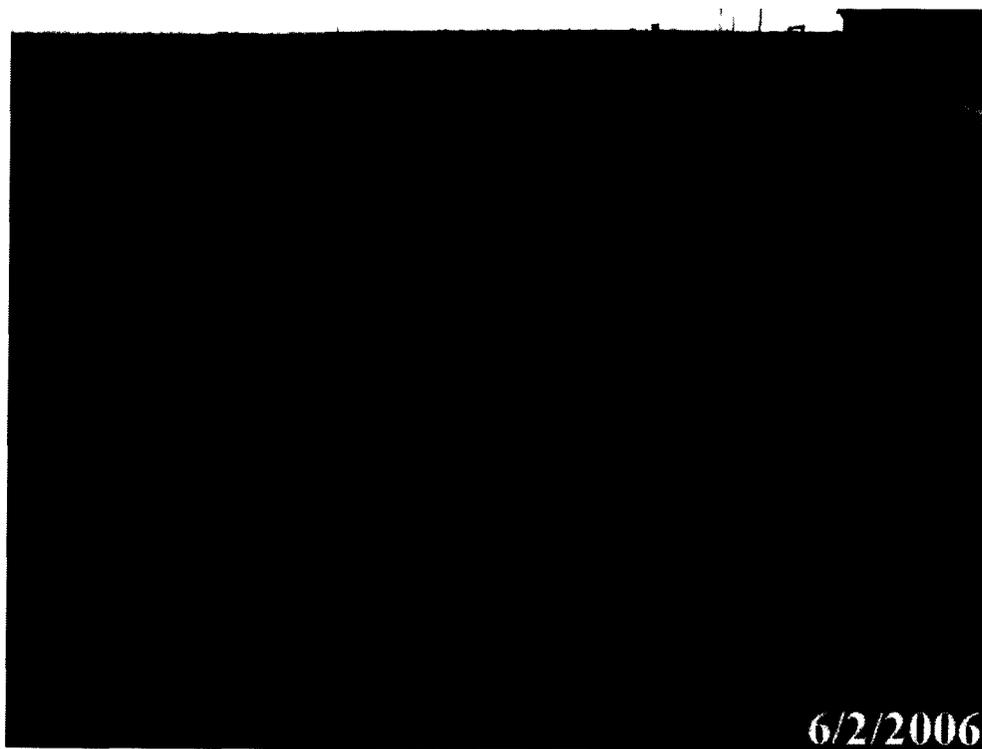


6/2/2006

Photograph #16 – Looking westerly at liner placement.



Photograph #17 – Looking southwesterly at liner placement.



Photograph #18 – Looking southerly at liner placement.

6/2/2006



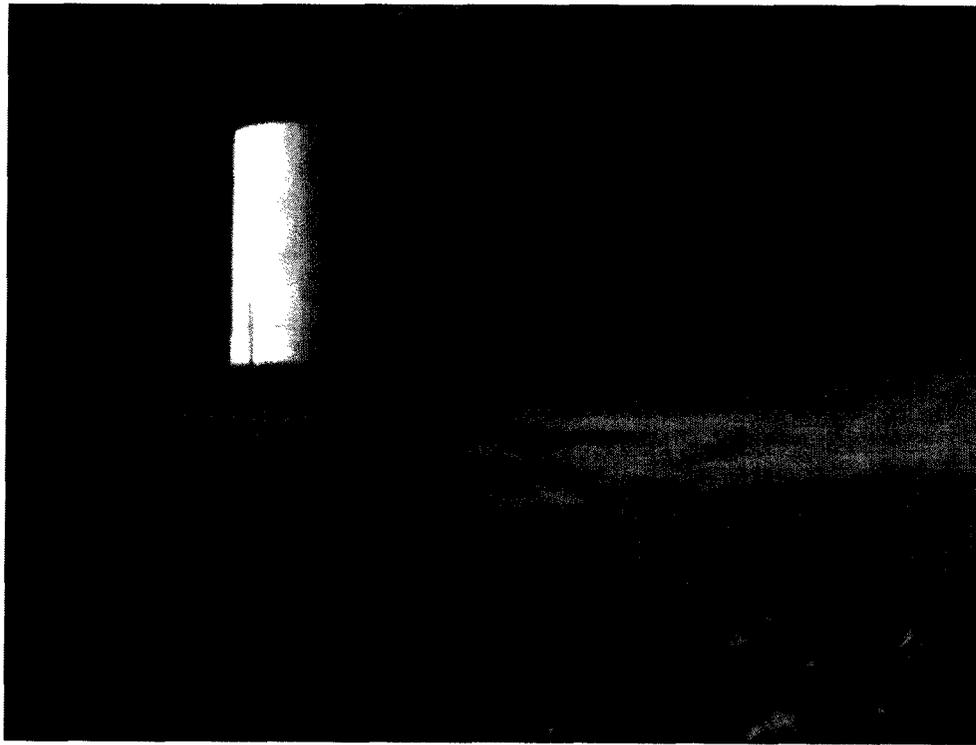
Photograph #19 – Backfilling excavation.



Photograph #20 – Backfilling excavation.



Photograph #21 – Remediated site.



Photograph #22 – Remediated site.

APPENDIX III

INFORMATION AND METRICS FORM

INITIAL AND FINAL

NMOCD FORM C-141

Chesapeake
Information and Metrics

Incident Date:
 Historical

NMOCD Notified:

Site: Antelope Ridge Unit #5		Assigned Site Reference : #160046	
Company: Chesapeake Energy			
Street Address: 1616 West Bender			
Mailing Address: P.O. Box 190			
City, State, Zip: Hobbs, New Mexico 88240			
Representative: Bradley Blevins			
Representative Telephone: (505) 391-1462 ext. 6224			
Telephone:			
Fluid volume released (bbls): Unknown		Recovered (bbls): Unknown	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: Antelope Ridge Unit #5			
Source of contamination:			
Land Owner, i.e., BLM, ST, Fee, Other: Jim Keller			
LSP Dimensions: 100 feet by 17 feet			
LSP Area: ~1,700 ft ²			
Location of Reference Point (RP):			
Location distance and direction from RP:			
Latitude: N 32° 15' 36.66"			
Longitude: W 103° 28' 49.19"			
Elevation above mean sea level: 3,524 feet			
Feet from North Section Line:			
Feet from West Section Line:			
Location- Unit or ¼: NW¼ of the SW¼		Unit Letter: L	
Location- Section: 33			
Location- Township: T23S			
Location- Range: R34E			
Surface water body within 1000' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to groundwater (DG): ~475 feet			
Depth of contamination (DC): unknown			
Depth to groundwater (DG - DC = DtGW): ~475 feet			
1. Groundwater		2. Wellhead Protection Area	
If Depth to GW <50 feet: <i>20 points</i>		If <1000' from water source, or; <200' from private domestic water source: <i>20 points</i>	
If Depth to GW 50 to 99 feet: <i>10 points</i>			
If Depth to GW >100 feet: <i>0 points</i>		If >1000' from water source, or; >200' from private domestic water source: <i>0 points</i>	
		<200 horizontal feet: <i>20 points</i>	
		200-1000 horizontal feet: <i>10 points</i>	
		>1000 horizontal feet: <i>0 points</i>	
Site Rank (1+2+3) = 0			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company: Chesapeake Energy		Contact: Bradley Blevins	
Address: P.O. Box 190		Telephone No.: (505) 391-1462 ext. 6224	
Facility Name: Antelope Ridge Unit #5		Facility Type: Tank Battery	
Surface Owner: Jim Keller	Mineral Owner:	Lease No.:	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	33	23S	34E	2,310	S	990	W	Lea

Latitude: N 32° 15' 36.66" Longitude: W 103° 28' 49.19"

RP 807

NATURE OF RELEASE

Type of Release: Petroleum and/or production fluids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Various sources	Date and Hour of Occurrence: Historical	Date and Hour of Discovery: Historical
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Bradley Blevins	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: Not Applicable	
Depth to groundwater: ~475 ft bgs		
If a Watercourse was Impacted, Describe Fully.* Not Applicable		

Describe Cause of Problem and Remedial Action Taken.* The release is historical from various sources.
Describe Area Affected and Cleanup Action Taken.* Approximately 1,700 square-feet of surface area was impacted by the release. Soil borings were advanced to collect soil samples to delineate extent of impacted soil. A remediation proposal will be developed based on soil sample analyses.
 I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Bradley Blevins	Approved by District Supervisor: 	
Title: Field Supervisor	Approval Date: 5.23.07	Expiration Date: _____
E-mail Address: bblevins@chkenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-22-07 Phone: (505) 391-1462 ext. 6224		

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003
Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company: Chesapeake Energy	Contact: Bradley Blevins
Address: P.O. Box 190	Telephone No.: (505) 391-1462 ext. 6224
Facility Name: Antelope Ridge Unit #5	Facility Type: Tank Battery

Surface Owner: Jim Keller	Mineral Owner:	Lease No.:
----------------------------------	-----------------------	-------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	33	23S	34E	2,310	S	990	W	Lea

Latitude: N 32° 15' 36.66" **Longitude:** W 103° 28' 49.19"

NATURE OF RELEASE

RP 807

Type of Release: Petroleum and/or production fluids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Various sources	Date and Hour of Occurrence: Historical	Date and Hour of Discovery: Historical
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Bradley Blevins	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: Not Applicable	

Depth to groundwater: ~475 ft bgs

If a Watercourse was Impacted, Describe Fully.* Not Applicable

Describe Cause of Problem and Remedial Action Taken.* The release is historical from various sources.

Describe Area Affected and Cleanup Action Taken.* Approximately 1,700 square-feet of surface area was impacted by the release. Chloride impacted soil was excavated to a maximum depth of 6-ft bgs and transported to Sundance Services for disposal. Laboratory analyses confirmed removal of most soil impacted above NMOCD remedial threshold goals in the excavation sidewalls. Residual chlorides in excavation floor were isolated with a polyethylene barrier. The excavation was backfilled with caliche purchased from an off-site source and the disturbed area contoured to provide natural drainage.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Bradley Blevins	Approved by District Supervisor: 	
Title: Field Supervisor	Approval Date: 5-23-07	Expiration Date:
E-mail Address: bblevins@chkenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-22-07 Phone: (505) 391-1462 ext. 6224		

* Attach Additional Sheets If Necessary