CLOSURE REPORT

BONANZA FEDERAL NO. 1

CHESAPEAKE REF: 160047
NMOCD REF: 1RP#810

UL-I (NE¼ OF THE SE¼) OF SECTION 28, T 23 S, R 34 E

~20 MILES NORTHWEST OF JAL, LEA

COUNTY, NEW MEXICO

LATITUDE: N 32° 16' 22.34" LONGITUDE: W 103° 28' 06.98"

SEPTEMBER 2006

PREPARED BY:

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

PREPARED FOR:

Chesapeake

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

October 5, 2006

Brad Blevins
Chesapeake Operating
West Bender Blvd.
Hobbs, NM 88240

Re: Remediation Closure: Chesapeake Bonanza Fed. #1 NMOCD 1RP-801
Site Reference: UL- I, Sec. 28 T-23S R-34E
Initial C-141 Date: None – Previous Operator Various Spills Cleanup
Closure Report Date: September 27, 2006

Dear Mr. Blevins,

The referenced **closure report** submitted to the New Mexico Oil Conservation Division (NMOCD) by Environmental Plus, Inc as agent for Chesapeake Operating is **hereby approved.** Based on the information provided no further action is required at this time.

Please be advised that NMOCD approval of this plan does not relieve Chesapeake Operating of responsibility should remaining contaminants pose a future threat to ground water, surface water, human health or the environment. Additionally, NMOCD approval does not relieve Chesapeake Operating of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance, please call me at (505) 393-6161, x111 or email lwjohnson@state.nm.us

Sincerely,

Larry Johnson - Environmental Engineer

Cc:
Chris Williams - District I Supervisor
Wayne Price – Environmental Bureau Chief
Patricia Caperton - Environmental Tech

Distribution List

Site Closure Report

Chesapeake Energy - Bonanza Federal #1 (Ref. #160047)

Name	Title	Company or Agency	Mailing Address	e-mail
Larry Johnson	Environmental Engineer	New Mexico Oil Conservation Division-Hobbs	1625 N. French Drive Hobbs, New Mexico 88240	mike.bratcher@state.nm.us
Bradley Blevins	Field Supervisor	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, New Mexico 88240-0190	bblevins@chkenergy.com
Harlan M. Brown	Senior Environmental Representative	Chesapeake Energy Corporation	6100 N. Western Avenue Oklahoma City, Oklahoma 73118	hbrown@chkenergy.com
Curtis Blake	Superintendent	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, New Mexico 88240-0190	cblake@chkenergy.com
Paul Evans	Environmental Protection Specialist	U.S. Department of Interior-Bureau of Land Management	U.S. Department of Interior Bureau of Land Management 620 E. Greene Street Carlsbad, New Mexico 88220	Paul_Evans@nm.blm.gov
Jim Keller	Land Owner	--	2811 County Road 460 Oakley, Kansas 67748	(785) 672-3257 (Business)
File	--	Environmental Plus, Inc.	2100 Avenue O P.O. Box 1558 Eunice, NM 88231	dduncan@envplus.net

STANDARD OF CARE

Closure Report

Bonanza Federal No. 1
Ref. #160047

The information provided in this report was collected consistent with the New Mexico Oil Conversation 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 EPI professional with a background in engineering, environmental and/or natural sciences.

Prepared by:

David P. Duncan
Civil Engineer

9/26/06
Date

Reviewed by:

Jason Stegemoller, MS
Environmental Scientist

September 26, 2006
Date

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FIGURES

TABLES

APPENDICES

Project Synopsis

Site Specific:

- **Company Name**: Chesapeake Operating, Inc.
- **Facility Name**: Bonanza Federal #1
- **Project Reference:** 160047
- **Company Contacts:** Bradley Blevins
- **Site Location:** WGS84 N32° 16' 22.34"; W103° 28' 06.98"
- **Legal Description:** Unit Letter-I, (NE¼ of the SE¼), Section 28, T 23 S, R 34 E
- **General Location:** Approximately 20-miles northwest of Jal, Lea County, New Mexico
- **Elevation:** 3,475-ft amsl
- **Land Ownership:** Mr. Jim Keller
- **EPI Personnel:** Project Consultant – Iain Olness
  Site Foremen – Danny Deaton/Kirt Tyree

Release Specific:

- **Product Released:** Crude oil and produced water
- **Volume Released:** Historical
- **Volume Recovered:** Unknown
- **Time of Occurrence:** Unknown
- **Time of Discovery:** Unknown
- **Release Source**: Historical releases associated with a Tank Battery and Production Well
- **Initial Surface Area Affected:** Release Area ~ 1,700 ft^2

Remediation Specific:

- **Final Vertical Extent of Contamination:** 6-ft bgs
- **Depth to Groundwater:** ~ 275-feet
- **Water Wells Within 1,000-ft:** None
- **Surface Water Bodies Within 1,000-ft:** None
- **NMOCD Site Ranking Index:** Zero (0) points (>100-ft to top of water table and >1,000-ft to water source)
- **Remedial Goals for Soil:** TPH – 5,000 mg/Kg; BTEX – 50 mg/Kg; Benzene – 10 mg/Kg; Chloride – 250 mg/Kg; Sulfate – 600 mg/Kg
- **RCRA Waste Classification:** Exempt
- **Remediation Option Selected:** a) Excavated soil impacted above NMOCD remedial goals with disposal at Sundance Services, Inc.; b) laboratory analyses confirmed removal of soil impacted above NMOCD remedial thresholds in sidewalls and bottom of the excavations; c) backfilled excavated areas with caliche and pea gravel around the production well head; d) graded release site for natural drainage of the area
- **Disposal Facility:** Sundance Services, Inc., Eunice, NM
- **Volume Disposed:** Approximately 840-yd^3
- **Project Completion Date:** May 31, 2006

1.0 Summary

Addressed in this report is investigation and remediation of two (2) historical release sites located on the Bonanza Federal #1 Tank Battery operated by Chesapeake Operating, Inc. The Tank Battery is located in Unit Letter I (NE¼ of the SE¼) of Section 28, Township 23 South, Range 34 East. More specifically, it is located approximately twenty (20) mile northwest of Jal, Lea County, New Mexico (reference *Figures 1 and 2*). The release site is located on property owned by Mr. Jim Keller.

In January, 2006 Chesapeake Operating, Inc., (Chesapeake) acquired the Bonanza Federal #1 Tank Battery and several other production sites from an independent oil company. An encumbrance placed on the site(s) was assessment and remediation of historical releases which impacted soil(s) above New Mexico Oil Conservation Division (NMOCD) remedial threshold goals. On January 17, 2006 Environmental Plus, Inc., (EPI) performed an assessment of Bonanza Federal #1 Tank Battery utilizing GPS surveying and photography for characterization of the site. Two (2) predominant areas displayed signs of surface impacts from historical releases. One (1) area was located on the caliche pad north of the tank battery and the other was surrounding a production wellhead. The release sites consisted of approximately 1,700 square feet (ft^2) of visibly affected surface area (reference *Figure 3*).

Four (4) soil borings (BH-1 thru BH-4) were advanced within the perimeter of the release areas on January 31, 2006 to delineate the vertical extent of production fluid impacted soil (reference *Figure 4* for locations). Based on field and laboratory analytical data obtained from sole borings BH-1 thru BH-4, EPI mobilized equipment to the site and started excavating the impacted areas on March 23, 2006. While in the process of excavating and stockpiling impacted soil on the site, EPI submitted an initial Form C-141 with an Information and Metrics form to the NMOCD on March 30, 2006 outlining generalized remedial methods for cleanup based upon NMOCD Site ranking score. Impacted soil was excavated and stockpiled on the job site from March 23 thru April 21, 2006.

Remediation of the release site commenced on April 25 and continued through May 30, 2006. Approximately 840 cubic yards (yds^3) of impacted soil excavated from the release site was transported to Sundance Services, Inc., for disposal. On return trips from the land farm, approximately 660 yds^3 of caliche were transported from a State owned pit to the release area. The area confined within the tank battery perimeter was backfilled to original ground surface with caliche. The excavated area around the wellhead was backfilled to within one (1) foot of original ground surface with caliche. The remainder of the excavation was backfilled with pea gravel. The entire release site was graded to allow natural drainage of the area with care taken not to contaminate the pea gravel.

2.0 Site Description

2.1 Geological Description

The New Mexico Bureau of Mines and Mineral Resources Ground-Water Report 6, "*Geology and Ground-Water Conditions in Southern Lea County, New Mexico*", by Alexander Nicholson and Alfred Clebsch, Jr., 1961, describes the surface geology near the release site as the Ogallala formation interspersed with sand. The Ogallala formation is chiefly sand, poorly to well cemented with calcium carbonate; contains some clay, silt, and gravel; capped in most places by caliche. The ground surface is covered by a thin

layer of drift sand in most places, but local dunes may exist from 20-40 feet high. Sand and gravel exists along dry washes; silt and sand in lake beds; includes some wind deposited sand around depressions.

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of sandy soil covered with short semi-arid grasses, interspersed with Honey Mesquite and 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 the area. A survey of Listed, Threatened or Endangered species was not conducted.

2.3 Area Groundwater

Information obtained from the New Mexico Office of the State Engineer's website and United States Geological Survey (USGS) database indicate groundwater in the unconfined aquifer at this site was projected to be >275-ft below ground surface (bgs) (reference *Table 1*). Soil borings BH-4 advanced to a depth of thirty-one feet (31-ft.) below ground surface (bgs) on January 31, 2006 encountered no groundwater. Groundwater gradient for this area is generally in the southerly direction.

2.4 Area Water Wells

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

2.5 Area Surface Water Features

No surface water bodies 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 groundwater were 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);*** and
- ***Unlined Surface Impoundment Closure Guidelines (February 1993)***

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

- *Depth to Groundwater (i.e., distance from the lower most acceptable concentration to the groundwater);*
- *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 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 soil remedial goals highlighted in the Site Ranking table presented below:

1. Ground Water	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			
Parameter	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 may be substituted for a laboratory analysis of the benzene and BTEX concentration limits.

4.0 Subsurface Soil Investigation

Vertical extent of hydrocarbon contamination at the release site was determined from both field and laboratory analyses. During advancement of soil borings BH-1 thru BH-4, soil samples were collected at two feet (2-ft) and three feet (3-ft) intervals initially, then at five foot (5-ft) intervals to total depth (TD) of each respective soil boring. A portion of each soil sample was placed in an approved container, appropriately labeled, placed in a laboratory provided cooler, iced down and transported to an independent laboratory under Chain-of-Custody protocol for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline and diesel range organics (TPH), chloride and sulfate concentrations. The remaining portions of the soil sample collected from these intervals were analyzed in the field for presence of organic vapors utilizing a MiniRae® photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. Chloride concentrations were analyzed utilizing a LaMotte Chloride Test Kit (reference *Table 2*).

Soil boring BH-1 was advanced to a TD of eleven feet (11-ft) below ground surface (bgs). Field analyses of soil samples collected during the advancement of soil boring BH-1 indicated organic vapor concentrations ranged from 0.4 parts per million (ppm) (2'-3' and 10'-11' bgs) to 0.5 ppm (5'-6' bgs). Chloride concentrations of 160 milligrams per Kilograms (mg/Kg) were uniform from ground surface to TD of the soil boring. Laboratory analytical results indicated BTEX concentrations were not detected (ND) at or above laboratory analytical method detection limits

(MDL) from ground surface to TD of the well boring. TPH concentrations ranged from ND at or above laboratory analytical MDL (5'-6' and 10'-11' bgs) to 15.3 mg/Kg (2'-3' bgs). Chloride concentrations ranged from 19.9 mg/Kg (2'-3' bgs) to 31.2 mg/Kg (5'-6' bgs). Sulfate concentrations ranged from 23.2 mg/Kg (2'-3' bgs) to 62.4 mg/Kg (5'-6' bgs). BTEX, TPH, chloride and sulfate concentrations for soil samples collected from soil boring SB-1 were below NMOCD remedial threshold goals (reference *Table 2*).

Soil boring SB-2 was advanced to a TD of sixteen feet (16-ft) bgs. Field analyses of organic vapor concentrations ranged from 0.7 ppm (10'-11' bgs) to 6.1 ppm (2'-3' bgs). Chloride analyses ranged from 160 mg/Kg (10'-11' and 15'-16' bgs) to 800 mg/Kg (5'-6' bgs). Laboratory analytical results for BTEX concentrations ranged from ND at or above laboratory analytical MDL (5'-6', 10'-11' and 15'-16' bgs) to 0.043 mg/Kg (2'-3' bgs). TPH concentrations ranged from ND at or above laboratory analytical MDL (10'-11' and 15'-16' bgs) to 1,090 mg/Kg (2'-3' bgs). Chloride concentrations ranged from 12.2 mg/Kg (10'-11' bgs) to 672 mg/Kg (5'-6' bgs). Sulfate concentrations ranged from 27.5 mg/Kg (5'-6' bgs) to 31.1 mg/Kg (5'-6' bgs).

Soil Boring SB-3 was advanced to a TD of sixteen feet (16-ft) bgs. Field analyses of organic vapors ranged from 0.4 ppm (5'-6' and 10'-11' bgs) to 2.0 ppm (2'-3' bgs). Chloride concentrations ranged from 160 mg/Kg (5'-6' and 10'-11' bgs) to 560 mg/Kg (2'-3'). Laboratory analytical results for BTEX concentrations were ND at or above laboratory analytical MDL from ground surface to TD of the soil boring. TPH concentrations ranged from ND at or above laboratory analytical MDL (5'-6' and 10'-11' bgs) to 52.8 mg/Kg (2'-3'). Chloride concentrations ranged from 16.2 mg/Kg (10'-11' bgs) to 409 mg/Kg (2'-3' bgs). Sulfate concentrations ranged from 16.9 mg/Kg (5'-6' bgs) to 74.1 mg/Kg (2'-3' bgs).

Soil boring SB-4 was advanced to a TD of thirty-one feet (31-ft) bgs. Field analysis of organic vapors ranged from 0.8 ppm (30'-31' bgs) to 26.8 ppm (2'-3' bgs). Chloride concentrations ranged from 160 mg/Kg (25'-26' and 31'-31' bgs) to 2,640 mg/Kg (20'-21' bgs). Laboratory analytical results for BTEX concentrations ranged from ND at or above laboratory analytical MDL (5'-6' and 10'-11' bgs) to 0.359 mg/Kg (2'-3' bgs). Chloride concentrations ranged from 602 mg/Kg (2'-3' bgs) to 742 mg/Kg (15'-16- bgs). Sulfate concentrations ranged from 6.8 mg/Kg (10'-11' bgs) to 45.2 mg/Kg (2'-3' bgs).

During excavation of the release area, soil samples were collected from various locations for both laboratory and field analyses. Laboratory and field analytical procedures were identical to those utilized in the advancement of soil borings BH-1 through BH-4 as described above. Areas where organic vapor or chloride concentrations exceeded NMOCD remedial threshold goals were excavated until the goals were met. However, compliance with NMOCD remedial threshold goals for BTEX, TPH, chloride and sulfate concentrations was determined by laboratory analytical data (reference *Table 3*).

5.0 Groundwater Investigation

As noted in Section 2, Article 2.1, *Geological Description* and Article 2.3, *Area Groundwater*, projected groundwater depth was estimated to be >275-ft bgs. Boring hole BH-4 drilled on January 31, 2006 was advanced to a total depth (TD) of thirty-one vertical feet (31-vf) without encountering groundwater.

Supplemental information in Section 2, Article 2.4, *Area Water Wells* and Article 2.5, *Area Surface Water Features* indicated no additional groundwater investigations were warranted.

6.0 Remediation Procedure

On January 17, 2006 Chesapeake Operating, Inc., retained Environmental Plus, Inc. (EPI) to perform an assessment of historical releases on the Bonanza Federal #1 Tank Battery. The site is located approximately twenty (20) miles northwest of Jal, Lea County, New Mexico. EPI performed surveying, photography and characterization of two (2) predominant areas displaying signs of surface impacts within the tank battery confines. The release sites consisted of approximately 1,700 ft^2 of visibly affected surface area.

To determine the vertical extent of impacted soil, four (4) soil borings were advanced within the perimeters of the release areas on January 31, 2006 (note *Figure 4* for locations). After compilation of field and laboratory analytical data as outlined in Article 4, *Subsurface Soil Investigation*, EPI mobilized equipment and personnel to the Bonanza Federal #1 locale.

Excavation of the impacted areas started on March 23 and concluded on April 21, 2006. Impacted soil from the excavation was stockpiled on the release area in this interim. During the excavation process, soil samples were collected and analyzed in the field for organic vapor and chloride concentrations. Excavation of impacted areas continued until organic vapor concentrations were below 100 ppm (reference *Table 3*). Chloride concentrations were of primary concern during the excavation activities. Due to depth of groundwater (>275-ft bgs) in this locale, general consensus was to excavate the impacted soil until chloride concentrations were below 1,000 mg/Kg as possibilities of impacting groundwater above NMWQCC Groundwater Standards of 250 mg/Kg were very remote (reference *Table 1*).

From April 24 to April 27, 2006 approximately 840 yds^3 of impacted soil were transported from the excavations to Sundance Services, Inc., for disposal. On return trips from the landfarm, approximately 600 yds^3 of caliche was transported from a State owned caliche pit to the excavations for use as backfill material. On May 26, 2006 an additional 40 yds^3 of caliche plus 20-tons of pea gravel were transported to the excavations. Approximately 20 yds^3 of caliche were transported to the excavations on May 30, 2006. Backfilling of the excavations started on April 24 and finished on May 30. 2006. Excavation #1 located on tank battery caliche pad was backfilled to original ground surface with caliche. Excavation #2 was backfilled with caliche to within one (1) foot of original ground surface and the remainder with pea gravel. The entire remediated area was graded to allow natural drainage with care taken not to contaminate the pea gravel around the production well head.

7.0 Closure Justification

Documented in this report is the successful excavation and backfilling of the Bonanza Federal #1 as noted in Sections *1.0* through *6.0* inclusive. Impacted soil was excavated and disposed at Sundance Services, Inc. The primary area was backfilled with caliche while the secondary area was backfilled with caliche overlain with pea gravel. The entire area was graded to allow natural drainage of the site. Based on data presented in this report, Environmental Plus, Inc., recommends "no supplemental remedial action" is required on this site.

On behalf of Chesapeake Operating, Inc., EPI requests a formal written letter of approval from NMOCD indicating Site Closure is complete with no additional remedial action required.

FIGURES

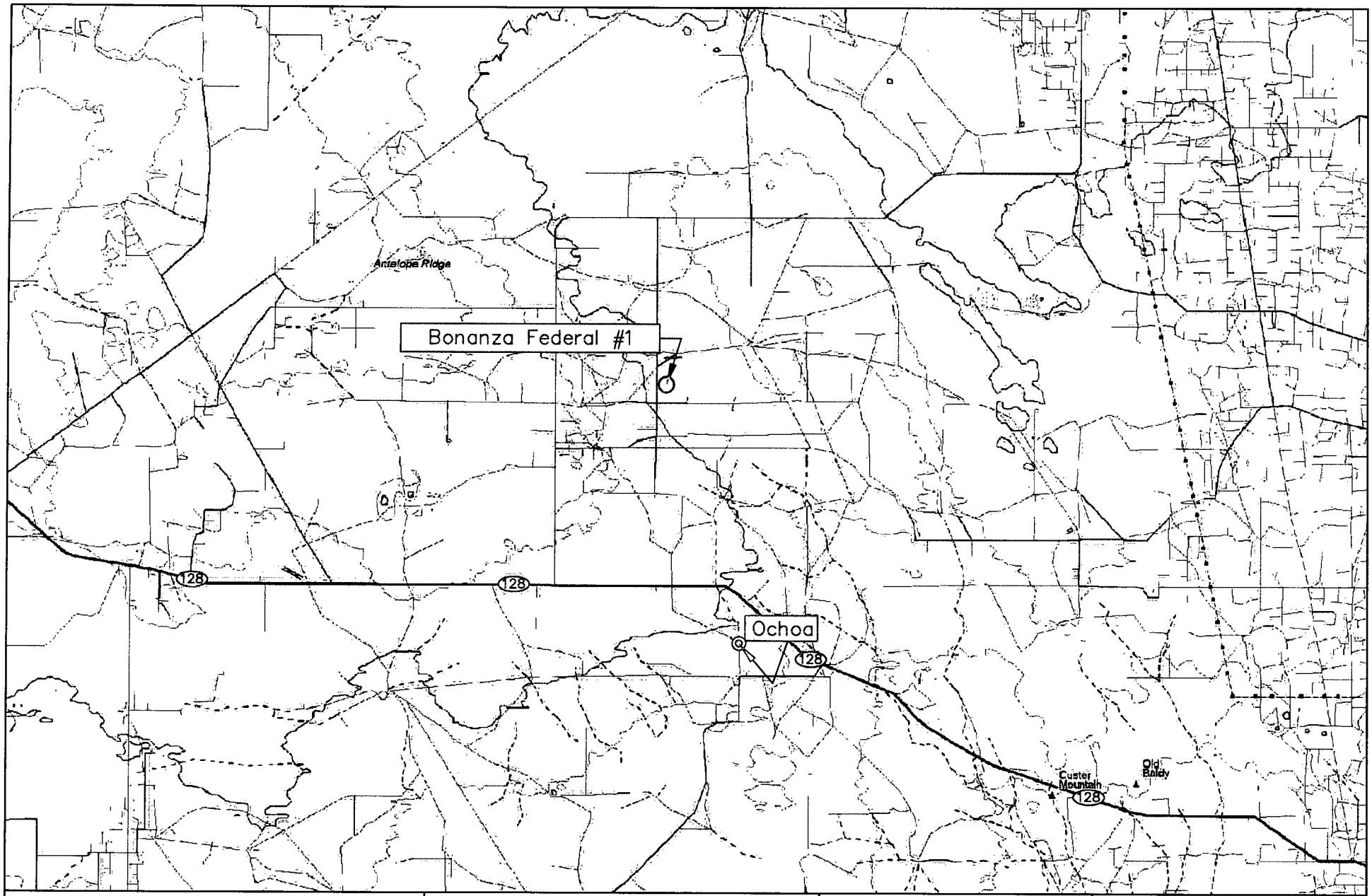

Figure 1
Area Map
Chesapeake Energy
Bonanza Federal #1

Lea County, New Mexico
NE 1/4 of the SE 1/4, Sec. 28, T23S, R34E
N 32°16' 22.34" W 103°28' 06.98"
Elevation: 3,475 feet amsl

DWG By: Daniel Dominguez
January 2006

REVISED:

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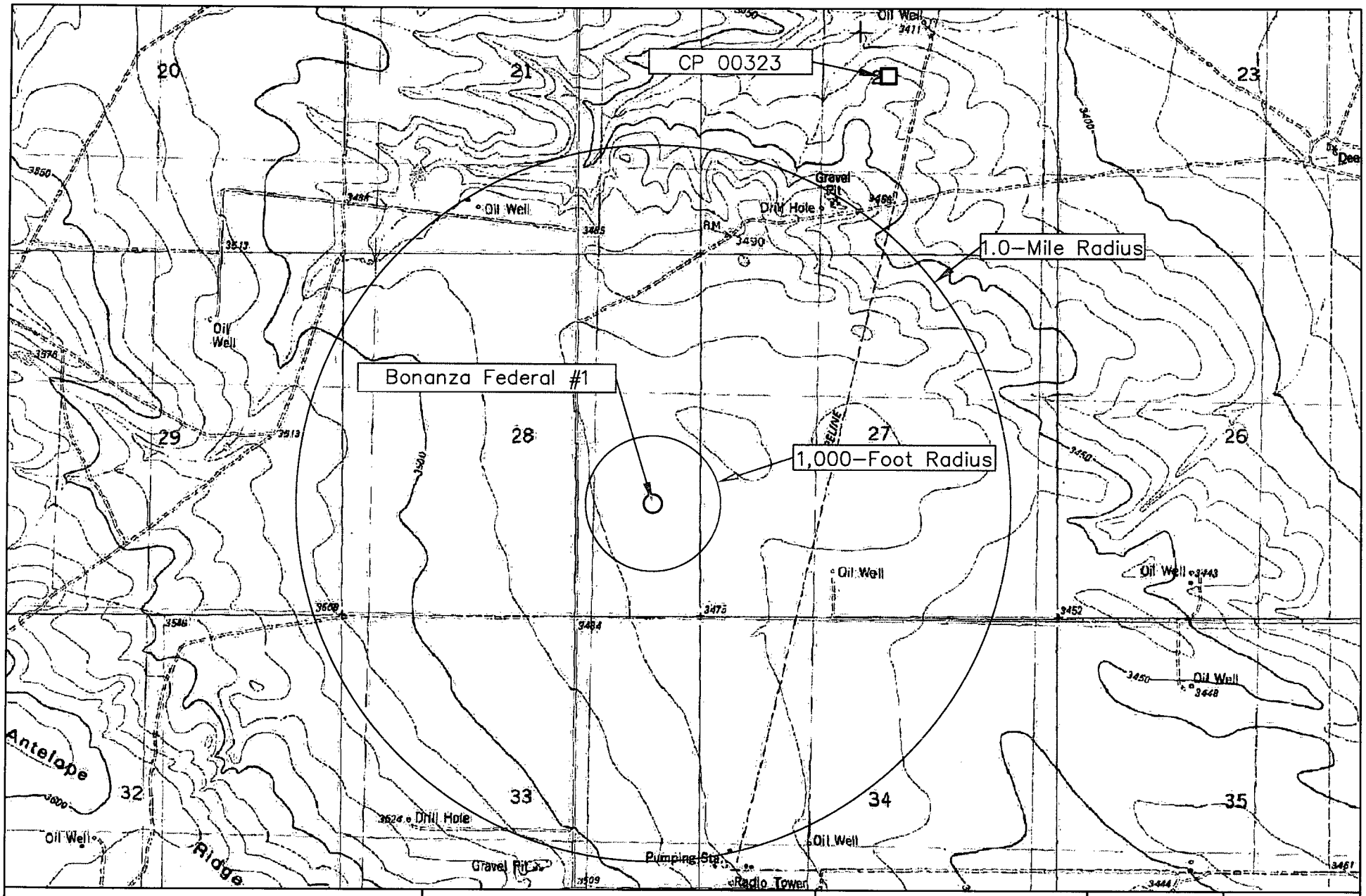

Figure 2
Site Location Map
Chesapeake Energy
Bonanza Federal #1

Lea County, New Mexico
NE 1/4 of the SE 1/4, Sec. 28, T23S, R34E
N 32°16' 22.34" W 103°28' 06.98"
Elevation: 3,475 feet amsl

DWG By: Daniel Dominguez
January 2006

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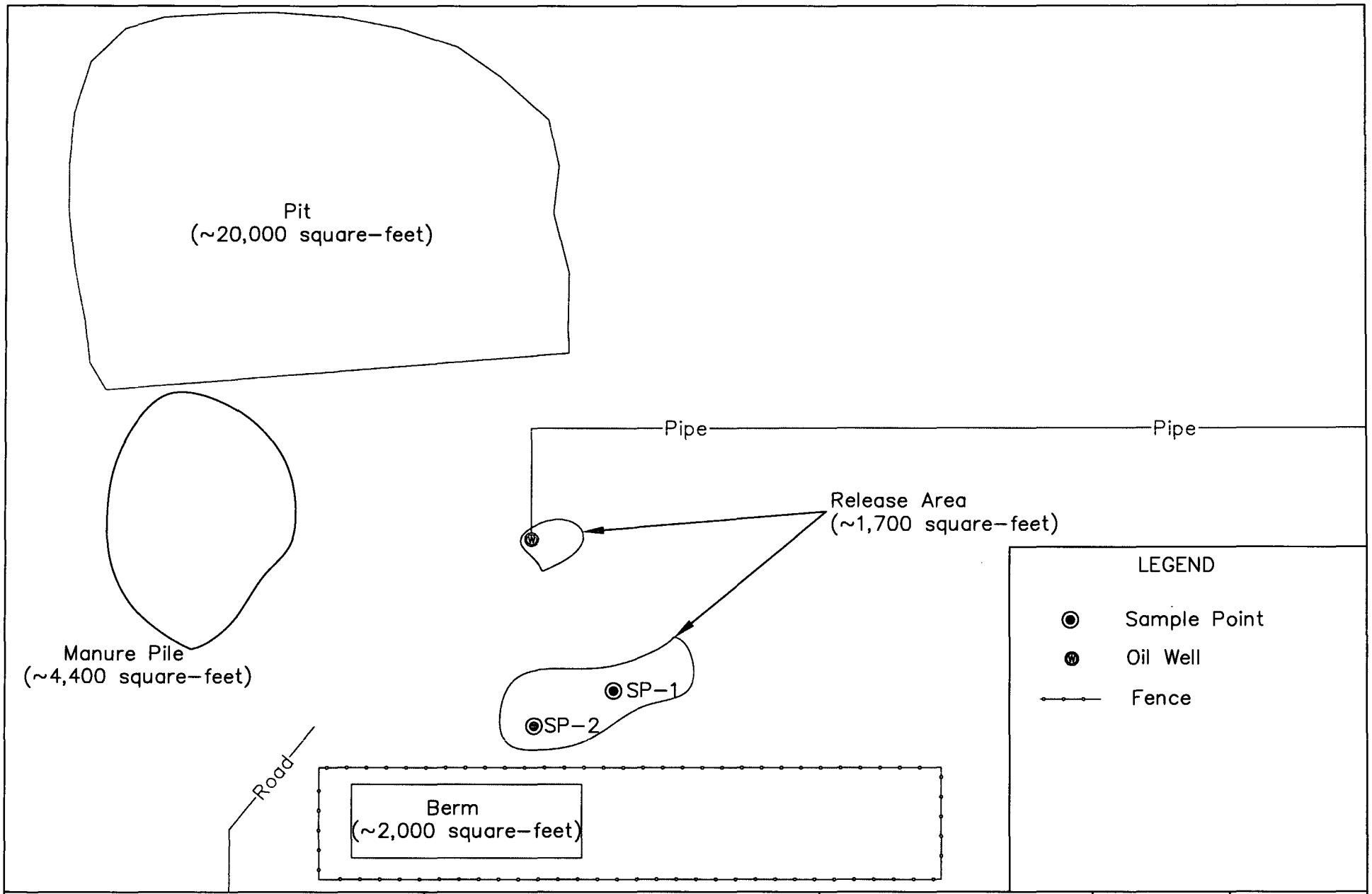

Figure 3 Site Map Chesapeake Energy Bonanza Federal #1	Lea County, New Mexico NE 1/4 of the SE 1/4, Sec. 28, T23S, R34E N 32°16' 22.34" W 103°28' 06.98" Elevation: 3,475 feet amsl	DWG By: Daniel Dominguez January 2006	REVISED:	N
		0 45 90 Feet	SHEET 1 of 1	

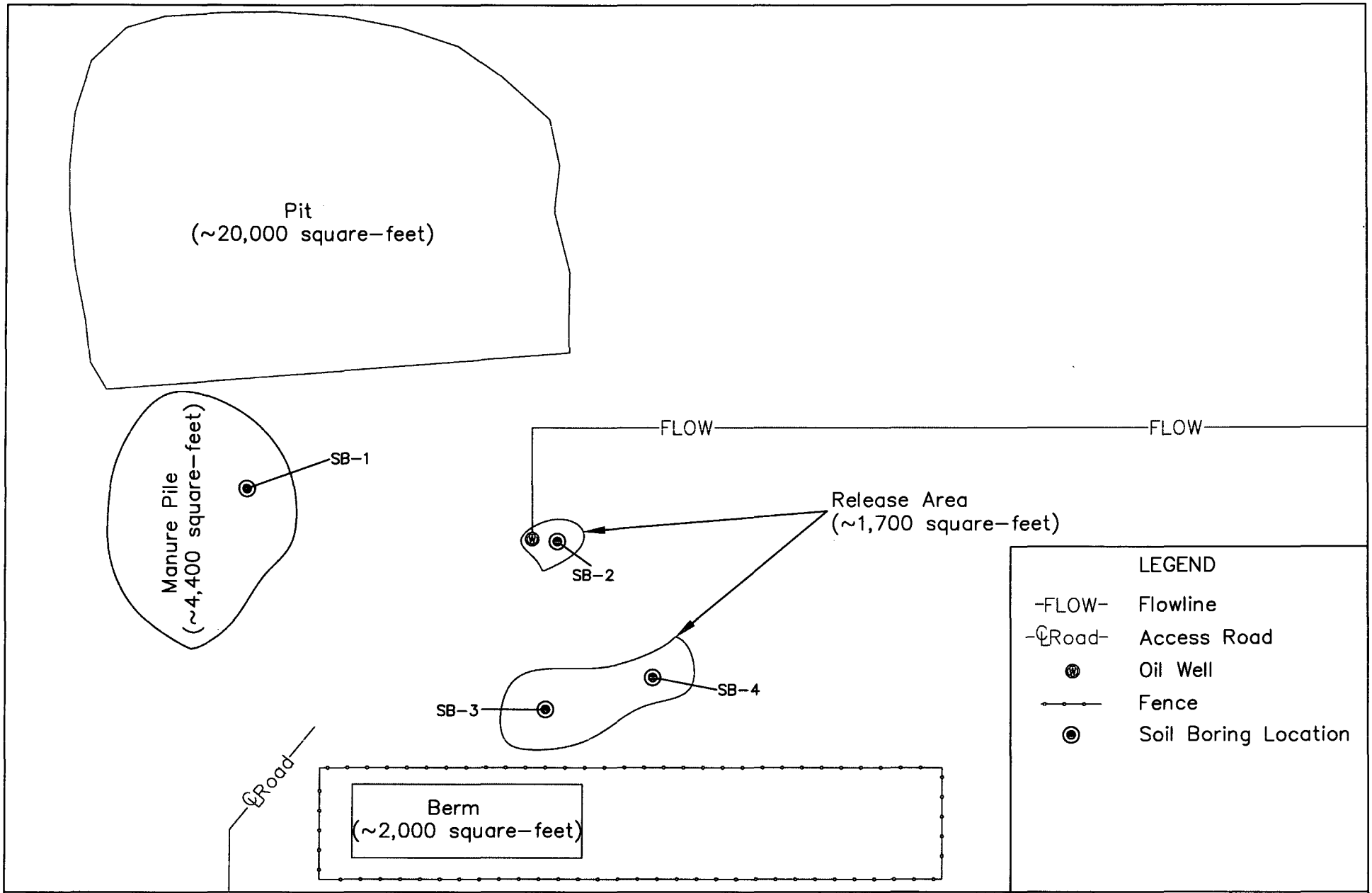

Figure 4
Soil Boring Location Map
Chesapeake Energy
Bonanza Federal #1

Lea County, New Mexico
NE 1/4 of the SE 1/4, Sec. 28, T23S, R34E
N 32°16' 22.34" W 103°28' 06.98"
Elevation: 3,475 feet amsl

DWG By: Daniel Dominguez
January 2006

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JCS, Feb. 2006

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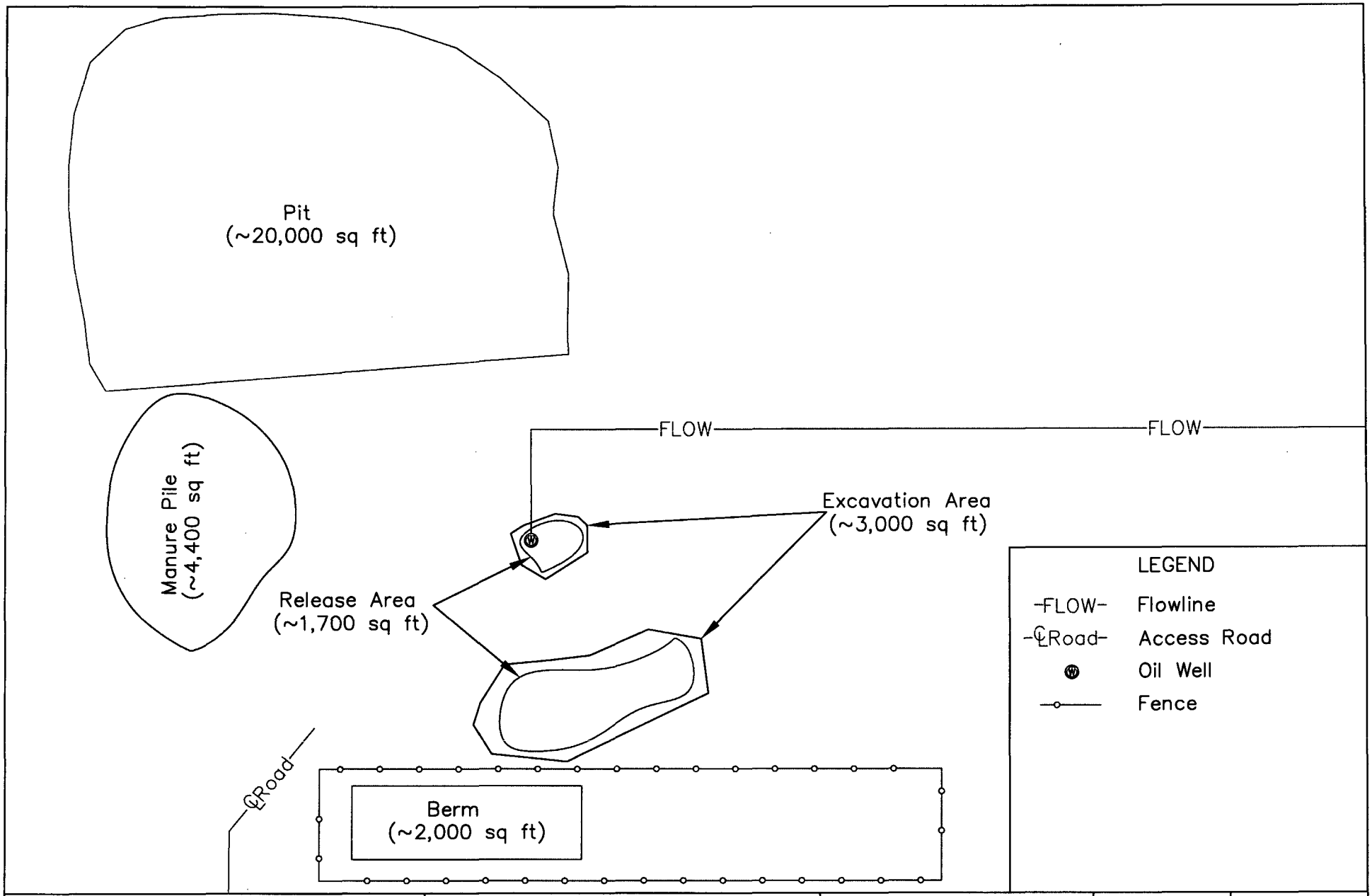

Figure 5 Excavation Map – 06–07–06 Chesapeake Energy Bonanza Federal #1	Lea County, New Mexico NE 1/4 of the SE 1/4, Sec. 28, T23S, R34E N 32°16' 22.34" W 103°28' 06.98" Elevation: 3,475 feet amsl	DWG By: Daniel Dominguez January 2006	REVISED: June 2006	N
		0 45 90 Feet	SHEET 1 of 1	

TABLES

TABLE 1

Well Data

Chesapeake Operating, Inc. - Bonanza Federal #1 (Ref. # 160047)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Depth to Water (ft bgs)
CP 00323 EXP	0	SHELL OIL COMPANY	PRO	23S	34E	22 2 3	N32° 17' 24.05"	W103° 27' 26.74"		3,445	

[B] = Elevation interpolated from USGS topographical map based on referenced location.
PRO = 72-12-1 Prospecting or Development of natural resource
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

ChesapeakeOperating, Inc. - Bonanza Federal #1 (Ref. #160047)

Soil Boring	Soil Sample I.D.	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Field Chloride Analyses (mg/Kg)	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)	TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
SB-1	SB-1 (2'-3')	2-3	31-Jan-06	In Situ	0.4	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	15.3	15.3	19.9	23.2
	SB-1 (5'-6')	5-6	31-Jan-06	In Situ	0.5	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	31.2	62.4
	SB-1 (10'-11')	10-11	31-Jan-06	In Situ	0.4	160	--	--	--	--	--	<10.0	<10.0	<10.0	--	--
SB-2	SB-2 (2'-3')	2-3	31-Jan-06	Excavated	6.1	240	<0.0250	0.0130 [A]	0.0143 [A]	0.0434	0.0434	100	1,090	1,190	26.5	27.5
	SB-2 (5'-6')	5-6	31-Jan-06	Excavated	3.1	800	<0.0250	<0.0250	<0.0250	0.0232 [A]	<0.125	13.4	42.4	55.8	**672**	31.1
	SB-2 (10'-11')	10-11	31-Jan-06	In Situ	0.7	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	12.2	--
	SB-2 (15'-16')	15-16	31-Jan-06	In Situ	0.9	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	21.2	--
SB-3	SB-3 (2'-3')	2-3	31-Jan-06	Excavated	2.0	560	<0.0250	<0.0250	<0.0250	<0.050	<0.125	8.23 [A]	52.8	52.8	**409**	74.1
	SB-3 (5'-6')	5-6	31-Jan-06	Excavated	0.4	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	35.4	16.9
	SB-3 (10'-11')	10-11	31-Jan-06	In Situ	0.4	160	--	--	--	--	--	<10.0	<10.0	<10.0	16.2	--
	SB-3 (15'-16')	15-16	31-Jan-06	In Situ	0.4	160	--	--	--	--	--	--	--	--	--	--
SB-4	SB-4 (2'-3')	2-3	31-Jan-06	Excavated	26.8	560	<0.0250	<0.0250	0.0939	0.265	0.359	194	3,660	3,850	**602**	45.2
	SB-4 (5'-6')	5-6	31-Jan-06	Excavated	2.3	640	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	63.8	63.8	**605**	37.2
	SB-4 (10'-11')	10-11	31-Jan-06	In Situ	1.7	640	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	549	6.8
	SB-4 (15'-16')	15-16	31-Jan-06	In Situ	1.1	880	--	--	--	--	--	<10.0	16.0	16.0	742	--
	SB-4 (20'-25')	20-21	31-Jan-06	In Situ	0.9	2,640	--	--	--	--	--	--	--	--	--	--
	SB-4 (25'-26')	25-26	31-Jan-06	In Situ	1.0	160	--	--	--	--	--	--	--	--	--	--
	SB-4 (30'-31')	30-31	31-Jan-06	In Situ	0.8	160	--	--	--	--	--	--	--	--	--	--
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 Mmg/L and 600 mg/L, respectively.*

Shaded cells indicate soil samples taken from soil remaining In-situ

TABLE 3

Summary of Excavation Soil Sample Analytical Results

Chesapeake Operating, Inc. - Bonanza Federal #1 (Ref. #160047)

Soil Boring	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges (C6-C12) (mg/Kg)	Carbon Ranges (C12-C28) (mg/Kg)	Carbon Ranges (C28-C35) (mg/Kg)	TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
E1-BH-1 (2')	2	03-Apr-06	Excavated	19	<0.025	<0.025	<0.025	<0.050	<0.125	<10.0	<10.0	<10.0	<30	<50.0	32.5 ^
E1-BH-1 (4')	4	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	<10	14
E1-BH-1A (4')	4	20-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	19	--
E1-BH-2 (2')	2	03-Apr-06	In Situ	29.8	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	1,120	14.0 ^
E1-BH-3 (2')	2	03-Apr-06	Excavated	12.3	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	292	388
E1-BH-3 (4')	4	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	510	43
E1-BH-4 (2')	2	03-Apr-06	In Situ	21.0	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	160	488
E1-SW-1 (1')	1	03-Apr-06	Excavated	28.7	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	2,020	42.5
E1-SW-1 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	35	110
E1-SW-2 (1')	1	03-Apr-06	Excavated	16.6	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	479	49.5
E1-SW-2 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	41	<5.0
E1-SW-3 (1')	1	03-Apr-06	Excavated	34.2	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	1,300	89.5
E1-SW-3 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	520	<25
E1-SW-4 (1')	1	03-Apr-06	Excavated	32.5	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	106	519
E1-SW-4 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	28	21
E1-SW-5 (1')	1	03-Apr-06	Excavated	30.3	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	79.8	400
E1-SW-5 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	460	120
E1-SW-6 (1')	1	03-Apr-06	Excavated	30.8	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	346	456
E1-SW-6 (2')	2	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	2100	<100
E1-SW-6A (2')	2	20-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	320	--

TABLE 3

Summary of Excavation Soil Sample Analytical Results

Chesapeake Operating, Inc. - Bonanza Federal #1 (Ref. #160047)

Soil Boring	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges (C6-C12) (mg/Kg)	Carbon Ranges (C12-C28) (mg/Kg)	Carbon Ranges (C28-C35) (mg/Kg)	TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
E1-SW-7 (2')	2	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	1,800	<100
E1-SW-7A (2')	2	20-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	1,300	--
E1-SW-7A (2.5')	2.5	21-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	110	--
E1-SW-8 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	150	<20
E2-BH-1 (1')	1	03-Apr-06	Excavated	0.3	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	1,520	97.5
E2-BH-1 (4')	4	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	2,800	190
E2-BH-1A (6')	6	20-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	830	--
E2-BH-2 (1')	1	03-Apr-06	Excavated	0.5	<0.025	<0.025	<0.025	<0.050	<0.125	<10	<10	<10	<30	744	175 [A]
E2-BH-2 (4')	4	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	59	12
E2-SW-1 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	780	180
E2-SW-2 (2')	2	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	2,800	190
E2-SW-2A (3')	3	20-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	3,800	--
E2-SW-2B (3')	3	21-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	250	--
E2-SW-3 (2')	2	18-Apr-06	Excavated	--	--	--	--	--	--	--	--	--	--	3,000	120
E2-SW-3A (3')	3	20-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	321	--
E2-SW-4 (2')	2	18-Apr-06	In Situ	--	--	--	--	--	--	--	--	--	--	836	71
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 but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).*

[B] *Chloride and sulfate residuals may not be capable of impacting groundwater above the NMWQCC groundwater standards of 250 mg/L and 600 mg/L, respectively.*

Shaded cells indicate soil samples taken from soil remaining In-situ

APPENDIX I

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY FORM

ENVIRONMENTAL 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/ Bonanza Fed. #1

Project Number: 160047

Location: UL-I, Sect. 28, T 23 S, R 34 E

Lab Order Number: 6B01013

Report Date: 02/09/06

Environmental Plus, Incorporated	Project: Chesapeake/ Bonanza Fed. #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160047	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	02/09/06 17:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 2'-3'	6B01013-01	Soil	01/31/06 08:10	02/01/06 11:40
SB-1 5'-6'	6B01013-02	Soil	01/31/06 08:15	02/01/06 11:40
SB-1 10'-11'	6B01013-03	Soil	01/31/06 08:30	02/01/06 11:40
SB-2 2'-3'	6B01013-04	Soil	01/31/06 09:05	02/01/06 11:40
SB-2 5'-6'	6B01013-05	Soil	01/31/06 09:10	02/01/06 11:40
SB-2 10'-11'	6B01013-06	Soil	01/31/06 09:20	02/01/06 11:40
SB-2 15'-16'	6B01013-07	Soil	01/31/06 09:30	02/01/06 11:40
SB-3 2'-3'	6B01013-08	Soil	01/31/06 09:50	02/01/06 11:40
SB-3 5'-6'	6B01013-09	Soil	01/31/06 09:55	02/01/06 11:40
SB-3 10'-11'	6B01013-10	Soil	01/31/06 10:05	02/01/06 11:40
SB-4 2'-3'	6B01013-12	Soil	01/31/06 10:30	02/01/06 11:40
SB-4 5'-6'	6B01013-13	Soil	01/31/06 10:35	02/01/06 11:40
SB-4 10'-11'	6B01013-14	Soil	01/31/06 10:45	02/01/06 11:40
SB-4 15'-16'	6B01013-15	Soil	01/31/06 10:50	02/01/06 11:40

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

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 2'-3' (6B01013-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	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		*88.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60214	02/02/06	02/06/06	EPA 8015M	
Diesel Range Organics >C12-C35	**15.3**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**15.3**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*91.8 %*	*70-130*		"	"	"	"	
SB-1 5'-6' (6B01013-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	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		*83.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60214	02/02/06	02/02/06	EPA 8015M	
Diesel Range Organics >C12-C35	**ND**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*94.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
SB-1 10'-11' (6B01013-03) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60711	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*89.4 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 2'-3' (6B01013-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	EPA 8021B	
Toluene	**J [0.0130]**	0.0250	"	"	"	"	"	"	J
Ethylbenzene	**J [0.0143]**	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	**0.0434**	0.0250	"	"	"	"	"	"	
Xylene (o)	**ND**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*112 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**100**	10.0	mg/kg dry	1	EB60214	02/02/06	02/03/06	EPA 8015M	
Diesel Range Organics >C12-C35	**1090**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**1190**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*116 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*140 %*	*70-130*		"	"	"	"	*S-04*
SB-2 5'-6' (6B01013-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**J [0.0232]**	0.0250	"	"	"	"	"	"	J
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**13.4**	10.0	mg/kg dry	1	EB60214	02/02/06	02/03/06	EPA 8015M	
Diesel Range Organics >C12-C35	**42.4**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**55.8**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*116 %*	*70-130*		"	"	"	"	
SB-2 10'-11' (6B01013-06) 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		*90.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60609	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 10'-11' (6B01013-06) Soil									
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*EB60609*	*02/07/06*	*02/08/06*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	
SB-2 15'-16' (6B01013-07) 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		*93.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60711	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*79.6 %*	*70-130*		"	"	"	"	
SB-3 2'-3' (6B01013-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	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		*97.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**J [8.23]**	10.0	mg/kg dry	1	EB60214	02/02/06	02/03/06	EPA 8015M	J
Diesel Range Organics >C12-C35	**52.8**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**52.8**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*115 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 5'-6' (6B01013-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	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		*98.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60214	02/02/06	02/03/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*101 %*	*70-130*		"	"	"	"	
SB-3 10'-11' (6B01013-10) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60711	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*79.4 %*	*70-130*		"	"	"	"	
SB-4 2'-3' (6B01013-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/04/06	EPA 8021B	
Toluene	**ND**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**0.0939**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.185**	0.0250	"	"	"	"	"	"	
Xylene (o)	**0.0800**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*104 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**194**	20.0	mg/kg dry	2	EB60214	02/02/06	02/03/06	EPA 8015M	
Diesel Range Organics >C12-C35	**3660**	20.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**3850**	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*49.8 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*60.8 %*	*70-130*		"	"	"	"	*S-06*

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 5'-6' (6B01013-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EB60317	02/03/06	02/05/06	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		*90.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60214	02/02/06	02/03/06	EPA 8015M	
Diesel Range Organics >C12-C35	**63.8**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**63.8**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*108 %*	*70-130*		"	"	"	"	
SB-4 10'-11' (6B01013-14) 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	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*84.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60609	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*109 %*	*70-130*		"	"	"	"	
SB-4 15'-16' (6B01013-15) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EB60711	02/07/06	02/08/06	EPA 8015M	
Diesel Range Organics >C12-C35	**16.0**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**16.0**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*99.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*92.0 %*	*70-130*		"	"	"	"	

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' (6B01013-01) Soil									
Chloride	**19.9**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**5.1**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**23.2**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-1 5'-6' (6B01013-02) Soil									
Chloride	**31.2**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**4.9**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**62.4**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-1 10'-11' (6B01013-03) Soil									
% Moisture	**6.2**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	
SB-2 2'-3' (6B01013-04) Soil									
Chloride	**26.5**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**1.1**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**27.5**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-2 5'-6' (6B01013-05) Soil									
Chloride	**672**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**2.7**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**31.1**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-2 10'-11' (6B01013-06) Soil									
Chloride	**12.2**	5.00	mg/kg	10	EB60803	02/03/06	02/08/06	EPA 300.0	
% Moisture	**3.6**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	
SB-2 15'-16' (6B01013-07) Soil									
Chloride	**21.2**	5.00	mg/kg	10	EB60803	02/03/06	02/08/06	EPA 300.0	
% Moisture	**1.5**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 2'-3' (6B01013-08) Soil									
Chloride	**409**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**3.1**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**74.1**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-3 5'-6' (6B01013-09) Soil									
Chloride	**35.4**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**1.9**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**16.9**	5.00	mg/kg	10	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-3 10'-11' (6B01013-10) Soil									
Chloride	**16.2**	5.00	mg/kg	10	EB60803	02/03/06	02/08/06	EPA 300.0	
% Moisture	**3.8**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	
SB-4 2'-3' (6B01013-12) Soil									
Chloride	**602**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**9.4**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**45.2**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-4 5'-6' (6B01013-13) Soil									
Chloride	**605**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
% Moisture	**6.2**	0.1	%	1	EB60208	02/01/06	02/02/06	% calculation	
Sulfate	**37.2**	10.0	mg/kg	20	EB60608	02/03/06	02/03/06	EPA 300.0	
SB-4 10'-11' (6B01013-14) Soil									
Chloride	**549**	10.0	mg/kg	20	EB60803	02/03/06	02/08/06	EPA 300.0	
% Moisture	**6.8**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	
SB-4 15'-16' (6B01013-15) Soil									
Chloride	**742**	10.0	mg/kg	20	EB60803	02/03/06	02/08/06	EPA 300.0	
% Moisture	**5.2**	0.1	%	1	EB60208	02/07/06	02/07/06	% calculation	

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
Batch EB60214 - Solvent Extraction (GC)										
Blank (EB60214-BLK1)				Prepared & Analyzed: 02/02/06						
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	*44.0*		*mg/kg*	*50.0*		*88.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.9*		*"*	*50.0*		*91.8*	*70-130*			
LCS (EB60214-BS1)				Prepared & Analyzed: 02/02/06						
Gasoline Range Organics C6-C12	461	10.0	mg/kg wet	500		92.2	75-125			
Diesel Range Organics >C12-C35	588	10.0	"	500		118	75-125			
Total Hydrocarbon C6-C35	1050	10.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	*58.6*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.9*		*"*	*50.0*		*106*	*70-130*			
Calibration Check (EB60214-CCV1)				Prepared: 02/02/06 Analyzed: 02/03/06						
Gasoline Range Organics C6-C12	471		mg/kg	500		94.2	80-120			
Diesel Range Organics >C12-C35	557		"	500		111	80-120			
Total Hydrocarbon C6-C35	1030		"	1000		103	80-120			
Surrogate: 1-Chlorooctane	*52.7*		*"*	*50.0*		*105*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.2*		*"*	*50.0*		*108*	*70-130*			
Matrix Spike (EB60214-MS1)	**Source: 6B01013-08**			Prepared & Analyzed: 02/02/06						
Gasoline Range Organics C6-C12	532	10.0	mg/kg dry	516	8.23	102	75-125			
Diesel Range Organics >C12-C35	567	10.0	"	516	52.8	99.7	75-125			
Total Hydrocarbon C6-C35	1100	10.0	"	1030	52.8	102	75-125			
Surrogate: 1-Chlorooctane	*53.9*		*mg/kg*	*50.0*		*108*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.4*		*"*	*50.0*		*113*	*70-130*			
Matrix Spike Dup (EB60214-MSD1)	**Source: 6B01013-08**			Prepared & Analyzed: 02/02/06						
Gasoline Range Organics C6-C12	526	10.0	mg/kg dry	516	8.23	100	75-125	1.13	20	
Diesel Range Organics >C12-C35	562	10.0	"	516	52.8	98.7	75-125	0.886	20	
Total Hydrocarbon C6-C35	1090	10.0	"	1030	52.8	101	75-125	0.913	20	
Surrogate: 1-Chlorooctane	*53.4*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*55.4*		*"*	*50.0*		*111*	*70-130*			

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
Batch EB60317 - EPA 5030C (GC)										
Blank (EB60317-BLK1)				Prepared: 02/03/06 Analyzed: 02/04/06						
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	*32.1*		*ug/kg*	*40.0*		*80.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.1*		*"*	*40.0*		*85.2*	*80-120*			
LCS (EB60317-BS1)				Prepared: 02/03/06 Analyzed: 02/04/06						
Benzene	0.0468	0.00100	mg/kg wet	0.0500		93.6	80-120			
Toluene	0.0481	0.00100	"	0.0500		96.2	80-120			
Ethylbenzene	0.0493	0.00100	"	0.0500		98.6	80-120			
Xylene (p/m)	0.0929	0.00100	"	0.100		92.9	80-120			
Xylene (o)	0.0478	0.00100	"	0.0500		95.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.4*		*ug/kg*	*40.0*		*83.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*44.6*		*"*	*40.0*		*112*	*80-120*			
Calibration Check (EB60317-CCV1)				Prepared: 02/03/06 Analyzed: 02/06/06						
Benzene	46.1		ug/kg	50.0		92.2	80-120			
Toluene	49.8		"	50.0		99.6	80-120			
Ethylbenzene	50.4		"	50.0		101	80-120			
Xylene (p/m)	94.1		"	100		94.1	80-120			
Xylene (o)	47.1		"	50.0		94.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.0*		*"*	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.3*		*"*	*40.0*		*85.8*	*80-120*			
Matrix Spike (EB60317-MS1)	**Source: 6B01013-01**			Prepared: 02/03/06 Analyzed: 02/04/06						
Benzene	1.27	0.0250	mg/kg dry	1.32	ND	96.2	80-120			
Toluene	1.35	0.0250	"	1.32	ND	102	80-120			
Ethylbenzene	1.37	0.0250	"	1.32	ND	104	80-120			
Xylene (p/m)	2.57	0.0250	"	2.63	ND	97.7	80-120			
Xylene (o)	1.24	0.0250	"	1.32	ND	93.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.0*		*ug/kg*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.8*		*"*	*40.0*		*104*	*80-120*			

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
Batch EB60317 - EPA 5030C (GC)										
Matrix Spike Dup (EB60317-MSD1)	**Source: 6B01013-01**			Prepared: 02/03/06 Analyzed: 02/04/06						
Benzene	1.27	0.0250	mg/kg dry	1.32	ND	96.2	80-120	0.00	20	
Toluene	1.35	0.0250	"	1.32	ND	102	80-120	0.00	20	
Ethylbenzene	1.38	0.0250	"	1.32	ND	105	80-120	0.957	20	
Xylene (p/m)	2.59	0.0250	"	2.63	ND	98.5	80-120	0.815	20	
Xylene (o)	1.30	0.0250	"	1.32	ND	98.5	80-120	4.78	20	
Surrogate: a,a,a-Trifluorotoluene	*39.9*		*ug/kg*	*40.0*		*99.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.1*		*"*	*40.0*		*108*	*80-120*			
Batch EB60609 - Solvent Extraction (GC)										
Blank (EB60609-BLK1)				Prepared: 02/06/06 Analyzed: 02/08/06						
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	*43.9*		*mg/kg*	*50.0*		*87.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*41.9*		*"*	*50.0*		*83.8*	*70-130*			
LCS (EB60609-BS1)				Prepared: 02/06/06 Analyzed: 02/08/06						
Gasoline Range Organics C6-C12	430	10.0	mg/kg wet	500		86.0	75-125			
Diesel Range Organics >C12-C35	486	10.0	"	500		97.2	75-125			
Total Hydrocarbon C6-C35	916	10.0	"	1000		91.6	75-125			
Surrogate: 1-Chlorooctane	*55.5*		*mg/kg*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.5*		*"*	*50.0*		*95.0*	*70-130*			
Calibration Check (EB60609-CCV1)				Prepared: 02/06/06 Analyzed: 02/08/06						
Gasoline Range Organics C6-C12	457		mg/kg	500		91.4	80-120			
Diesel Range Organics >C12-C35	563		"	500		113	80-120			
Total Hydrocarbon C6-C35	1020		"	1000		102	80-120			
Surrogate: 1-Chlorooctane	*61.3*		*"*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.7*		*"*	*50.0*		*99.4*	*70-130*			

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
Batch EB60609 - Solvent Extraction (GC)										
Matrix Spike (EB60609-MS1)	**Source: 6B03010-01**			Prepared: 02/06/06 Analyzed: 02/08/06						
Gasoline Range Organics C6-C12	440	10.0	mg/kg dry	502	ND	87.6	75-125			
Diesel Range Organics >C12-C35	545	10.0	"	502	ND	109	75-125			
Total Hydrocarbon C6-C35	985	10.0	"	1000	ND	98.5	75-125			
Surrogate: 1-Chlorooctane	*56.8*		*mg/kg*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
Matrix Spike Dup (EB60609-MSD1)	**Source: 6B03010-01**			Prepared: 02/06/06 Analyzed: 02/08/06						
Gasoline Range Organics C6-C12	449	10.0	mg/kg dry	502	ND	89.4	75-125	2.02	20	
Diesel Range Organics >C12-C35	561	10.0	"	502	ND	112	75-125	2.89	20	
Total Hydrocarbon C6-C35	1010	10.0	"	1000	ND	101	75-125	2.51	20	
Surrogate: 1-Chlorooctane	*57.1*		*mg/kg*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.7*		*"*	*50.0*		*95.4*	*70-130*			
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*			

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
Batch EB60701 - EPA 5030C (GC)										
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*			
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*			
Batch EB60711 - Solvent Extraction (GC)										
Blank (EB60711-BLK1)				Prepared & Analyzed: 02/07/06						
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	*44.0*		*mg/kg*	*50.0*		*88.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*42.2*		"	*50.0*		*84.4*	*70-130*			

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
Batch EB60711 - Solvent Extraction (GC)										
LCS (EB60711-BS1)				Prepared & Analyzed: 02/07/06						
Gasoline Range Organics C6-C12	441	10.0	mg/kg wet	500		88.2	75-125			
Diesel Range Organics >C12-C35	491	10.0	"	500		98.2	75-125			
Total Hydrocarbon C6-C35	932	10.0	"	1000		93.2	75-125			
Surrogate: 1-Chlorooctane	*49.8*		*mg/kg*	*50.0*		*99.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.6*		"	*50.0*		*93.2*	*70-130*			
Calibration Check (EB60711-CCV1)				Prepared: 02/07/06 Analyzed: 02/08/06						
Gasoline Range Organics C6-C12	466		mg/kg	500		93.2	80-120			
Diesel Range Organics >C12-C35	521		"	500		104	80-120			
Total Hydrocarbon C6-C35	987		"	1000		98.7	80-120			
Surrogate: 1-Chlorooctane	*51.4*		*"*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.4*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike (EB60711-MS1)	**Source: 6B01013-03**			Prepared & Analyzed: 02/07/06						
Gasoline Range Organics C6-C12	530	10.0	mg/kg dry	533	ND	99.4	75-125			
Diesel Range Organics >C12-C35	629	10.0	"	533	ND	118	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1070	ND	108	75-125			
Surrogate: 1-Chlorooctane	*55.8*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.7*		*"*	*50.0*		*101*	*70-130*			
Matrix Spike Dup (EB60711-MSD1)	**Source: 6B01013-03**			Prepared & Analyzed: 02/07/06						
Gasoline Range Organics C6-C12	546	10.0	mg/kg dry	533	ND	102	75-125	2.97	20	
Diesel Range Organics >C12-C35	611	10.0	"	533	ND	115	75-125	2.90	20	
Total Hydrocarbon C6-C35	1160	10.0	"	1070	ND	108	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*57.0*		*mg/kg*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.8*		*"*	*50.0*		*106*	*70-130*			

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 EB60208 - General Preparation (Prep)										
Blank (EB60208-BLK1)				Prepared: 02/01/06 Analyzed: 02/02/06						
% Solids	100		%							
Duplicate (EB60208-DUP1)		**Source: 6A25026-01**		Prepared: 02/01/06 Analyzed: 02/02/06						
% Solids	98.9		%		98.9			0.00	20	
Duplicate (EB60208-DUP2)		**Source: 6B01007-05**		Prepared: 02/01/06 Analyzed: 02/02/06						
% Solids	86.4		%		86.5			0.116	20	
Duplicate (EB60208-DUP3)		**Source: 6B01012-01**		Prepared: 02/01/06 Analyzed: 02/02/06						
% Solids	85.8		%		85.7			0.117	20	
Batch EB60608 - Water Extraction										
Blank (EB60608-BLK1)				Prepared & Analyzed: 02/03/06						
Sulfate	ND	0.500	mg/kg							
Chloride	ND	0.500	"							
LCS (EB60608-BS1)				Prepared & Analyzed: 02/03/06						
Sulfate	9.81		mg/L	10.0		98.1	80-120			
Chloride	8.98		"	10.0		89.8	80-120			
Calibration Check (EB60608-CCV1)				Prepared & Analyzed: 02/03/06						
Sulfate	10.1		mg/L	10.0		101	80-120			
Chloride	9.05		"	10.0		90.5	80-120			
Duplicate (EB60608-DUP1)		**Source: 6B01006-03**		Prepared & Analyzed: 02/03/06						
Chloride	200	10.0	mg/kg		200			0.00	20	
Sulfate	190	10.0	"		192			1.05	20	

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 EB60803 - Water Extraction										
Blank (EB60803-BLK1)				Prepared: 02/06/06 Analyzed: 02/08/06						
Chloride	ND	0.500	mg/kg							
LCS (EB60803-BS1)				Prepared: 02/06/06 Analyzed: 02/08/06						
Chloride	8.66		mg/L	10.0		86.6	80-120			
Calibration Check (EB60803-CCV1)				Prepared: 02/06/06 Analyzed: 02/08/06						
Chloride	8.81		mg/L	10.0		88.1	80-120			
Duplicate (EB60803-DUP1)		**Source: 6B03015-01**		Prepared: 02/06/06 Analyzed: 02/08/06						
Chloride	69.5	20.0	mg/kg		74.0			6.27	20	

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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: Raland K Tuttle Date: 2/9/2006

Raland 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.

Environmental Plus, Inc.

Chain of Custody Form

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

LAB: ELT

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
EPI Sampler Name	George Blackburn

Bill To

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

ANALYSIS REQUEST

LAB I.D. 160103		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
-01	1	SB-1 (2'-3')	G	1			X					X		31-Jan-06	8:10	X	X	X	X							
-02	2	SB-1 (5'-6')	G	1			X					X		31-Jan-06	8:15	X	X	X	X							
-03	3	SB-1 (10'-11')	G	1			X					X		31-Jan-06	8:30	X	X	X	X							
-04	4	SB-2 (2'-3')	G	1			X					X		31-Jan-06	9:05	X	X	X	X							
-05	5	SB-2 (5'-6')	G	1			X					X		31-Jan-06	9:10	X	X	X	X							
-06	6	SB-2 (10'-11')	G	1			X					X		31-Jan-06	9:20	X	X	X	X							
-07	7	SB-2 (15'-16')	G	1			X					X		31-Jan-06	9:30	X	X	X	X							
-08	8	SB-3 (2'-3')	G	1			X					X		31-Jan-06	9:50	X	X	X	X							
-09	9	SB-3 (5'-6')	G	1			X					X		31-Jan-06	9:55	X	X	X	X							
-10	10	SB-3 (10'-11')	G	1			X					X		31-Jan-06	10:05	X	X	X	X							

Sampler Relinquished: Iain Olness — Date 2/1/06 Time 0852 — Received By: [signature]

Relinquished by: [signature] — Date 2/1/06 Time 1240 — Received By: (lab staff) Celeste Kelly

Delivered by:

Sample Cool & Intact (Yes) No — Checked By: CK

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!!!**

30 jar seal / label

Environmental Plus, Inc.

Chain of Custody Form

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

LAB: ELT

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
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.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
60501 03																									
71	1	SB-3 (15'-16')	G	1			X					X		31-Jan-06	10:15	X	X	X	X							
72	2	SB-4 (2'-3')	G	1			X					X		31-Jan-06	10:30	X	X	X	X							
73	3	SB-4 (5'-6')	G	1			X					X		31-Jan-06	10:35	X	X	X	X							
74	4	SB-4 (10'-11')	G	1			X					X		31-Jan-06	10:45	X	X	X	X							
75	5	SB-4 (15'-16')	G	1			X					X		31-Jan-06	10:50	X	X	X	X							
76	6	SB-4 (20'-21')	G	1			X					X		31-Jan-06	10:55	X	X	X	X							
77	7	SB-4 (25'-26')	G	1			X					X		31-Jan-06	11:00	X	X	X	X							
78	8	SB-4 (30'-31')	G	1			X					X		31-Jan-06	11:05	X	X	X	X							
	9																								
	10																								

Sampler Relinquished: Iain Olness	Date 2/1/06 Time 0822	Received By:	e-mail results to iolness@envplus.net
Relinquished by:	Date 2/1/06 Time 1:40	Received By: (lab staff) Carrie Kelly	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!!!**
Delivered by:	Sample Cool & Intact Yes No	Checked By:	3.0 jar Seal / Lube /

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

Client: EPI

Date/Time: 2/1/04 11:40

Order #: 160101013

Initials: CK

Sample Receipt Checklist

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

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL 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/ Bonanza Fed. #1

Project Number: 160047

Location: UL-1, Sect. 28, T 23 S, R 34 E

Lab Order Number: 6D04009

Report Date: 04/14/06

Environmental Plus, Incorporated	Project: Chesapeake/ Bonanza Fed. #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160047	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	04/14/06 15:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E1-BH-1 2'	6D04009-01	Soil	04/03/06 13:40	04/04/06 10:30
E1-BH-2 2'	6D04009-02	Soil	04/03/06 13:44	04/04/06 10:30
E1-BH-3 2'	6D04009-03	Soil	04/03/06 13:46	04/04/06 10:30
E1-BH-4 2'	6D04009-04	Soil	04/03/06 13:49	04/04/06 10:30
E1-SW-1 1'	6D04009-05	Soil	04/03/06 13:54	04/04/06 10:30
E1-SW-2 1'	6D04009-06	Soil	04/03/06 13:57	04/04/06 10:30
E1-SW-3 1'	6D04009-07	Soil	04/03/06 14:01	04/04/06 10:30
E1-SW-4 1'	6D04009-08	Soil	04/03/06 14:03	04/04/06 10:30
E1-SW-5 1'	6D04009-09	Soil	04/03/06 14:06	04/04/06 10:30
E1-SW-6 1'	6D04009-10	Soil	04/03/06 14:09	04/04/06 10:30
E2-BH-1 1'	6D04009-11	Soil	04/03/06 14:15	04/04/06 10:30
E2-BH-2 1'	6D04009-12	Soil	04/03/06 14:17	04/04/06 10:30

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

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E1-BH-1 2' (6D04009-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED60711	04/07/06	04/09/06	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		*88.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*114 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
E1-BH-2 2' (6D04009-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*81.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*86.6 %*	*70-130*		"	"	"	"	
E1-BH-3 2' (6D04009-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*83.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	

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

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E1-BH-3 2' (6D04009-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*113 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
E1-BH-4 2' (6D04009-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*113 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*82.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*82.4 %*	*70-130*		"	"	"	"	
E1-SW-1 1' (6D04009-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*87.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*86.6 %*	*70-130*		"	"	"	"	

Environmental Plus, Incorporated	Project: Chesapeake/ Bonanza Fed. #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160047	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	04/14/06 15:53

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E1-SW-2 1' (6D04009-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*103 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*85.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*84.0 %*	*70-130*		"	"	"	"	
E1-SW-3 1' (6D04009-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*110 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*108 %*	*70-130*		"	"	"	"	
E1-SW-4 1' (6D04009-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*111 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E1-SW-4 1' (6D04009-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
E1-SW-5 1' (6D04009-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*106 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*115 %*	*70-130*		"	"	"	"	
E1-SW-6 1' (6D04009-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*106 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60511	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E2-BH-1 1' (6D04009-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*107 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60510	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*111 %*	*70-130*		"	"	"	"	
E2-BH-2 1' (6D04009-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED61004	04/07/06	04/09/06	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		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	ED60510	04/05/06	04/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*108 %*	*70-130*		"	"	"	"	

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Environmental Plus, Incorporated	Project: Chesapeake/ Bonanza Fed. #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160047	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	04/14/06 15:53

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E1-BH-1 2' (6D04009-01) Soil									
Chloride	ND	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**8.9**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**J [32.5]**	125	mg/kg	25	ED61301	04/12/06	04/13/06	EPA 9038	J
E1-BH-2 2' (6D04009-02) Soil									
Chloride	**1120**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**8.7**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**J [14.0]**	25.0	mg/kg	5	ED61301	04/12/06	04/13/06	EPA 9038	J
E1-BH-3 2' (6D04009-03) Soil									
Chloride	**292**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**7.7**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**388**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-BH-4 2' (6D04009-04) Soil									
Chloride	**160**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**4.5**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**488**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-SW-1 1' (6D04009-05) Soil									
Chloride	**2020**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**5.9**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**42.5**	25.0	mg/kg	5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-SW-2 1' (6D04009-06) Soil									
Chloride	**479**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**8.4**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**49.5**	25.0	mg/kg	5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-SW-3 1' (6D04009-07) Soil									
Chloride	**1300**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**7.3**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**89.5**	25.0	mg/kg	5	ED61301	04/12/06	04/13/06	EPA 9038	

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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
E1-SW-4 1' (6D04009-08) Soil									
Chloride	**106**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**7.2**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**519**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-SW-5 1' (6D04009-09) Soil									
Chloride	**79.8**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**3.0**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**400**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	
E1-SW-6 1' (6D04009-10) Soil									
Chloride	**346**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**8.2**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**456**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	
E2-BH-1 1' (6D04009-11) Soil									
Chloride	**1520**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**7.9**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**97.5**	25.0	mg/kg	5	ED61301	04/12/06	04/13/06	EPA 9038	
E2-BH-2 1' (6D04009-12) Soil									
Chloride	**744**	50.0	mg/kg Wet	5	ED61211	04/12/06	04/12/06	SW 846 9253	
% Moisture	**6.2**	0.1	%	1	ED60417	04/04/06	04/05/06	% calculation	
Sulfate	**J [175]**	312	mg/kg	62.5	ED61301	04/12/06	04/13/06	EPA 9038	J

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
Batch ED60510 - Solvent Extraction (GC)										
Blank (ED60510-BLK1)				Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*38.4*		*mg/kg*	*50.0*		*76.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*40.5*		"	*50.0*		*81.0*	*70-130*			
LCS (ED60510-BS1)				Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	566	10.0	mg/kg wet	500		113	75-125			
Carbon Ranges C12-C28	561	10.0	"	500		112	75-125			
Total Hydrocarbon C6-C35	1130	10.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*61.1*		*mg/kg*	*50.0*		*122*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.4*		"	*50.0*		*123*	*70-130*			
Calibration Check (ED60510-CCV1)				Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	271		mg/kg	250		108	80-120			
Carbon Ranges C12-C28	282		"	250		113	80-120			
Total Hydrocarbon C6-C35	553		"	500		111	80-120			
Surrogate: 1-Chlorooctane	*59.7*		"	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.2*		"	*50.0*		*122*	*70-130*			
Matrix Spike (ED60510-MS1)	**Source: 6D04009-12**			Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	629	10.0	mg/kg dry	533	ND	118	75-125			
Carbon Ranges C12-C28	596	10.0	"	533	ND	112	75-125			
Total Hydrocarbon C6-C35	1220	10.0	"	1070	ND	114	75-125			
Surrogate: 1-Chlorooctane	*62.7*		*mg/kg*	*50.0*		*125*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.1*		"	*50.0*		*120*	*70-130*			

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
Batch ED60510 - Solvent Extraction (GC)										
Matrix Spike Dup (ED60510-MSD1)	**Source: 6D04009-12**			Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	638	10.0	mg/kg dry	533	ND	120	75-125	1.42	20	
Carbon Ranges C12-C28	608	10.0	"	533	ND	114	75-125	1.99	20	
Total Hydrocarbon C6-C35	1250	10.0	"	1070	ND	117	75-125	2.43	20	
Surrogate: 1-Chlorooctane	*63.2*		*mg/kg*	*50.0*		*126*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.7*		*"*	*50.0*		*121*	*70-130*			
Batch ED60511 - Solvent Extraction (GC)										
Blank (ED60511-BLK1)				Prepared & Analyzed: 04/05/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*42.6*		*mg/kg*	*50.0*		*85.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.8*		*"*	*50.0*		*87.6*	*70-130*			
LCS (ED60511-BS1)				Prepared & Analyzed: 04/05/06						
Carbon Ranges C6-C12	546	10.0	mg/kg wet	500		109	75-125			
Carbon Ranges C12-C28	543	10.0	"	500		109	75-125			
Total Hydrocarbon C6-C35	1090	10.0	"	1000		109	75-125			
Surrogate: 1-Chlorooctane	*56.5*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.5*		*"*	*50.0*		*101*	*70-130*			
Calibration Check (ED60511-CCV1)				Prepared: 04/05/06 Analyzed: 04/06/06						
Carbon Ranges C6-C12	254		mg/kg	250		102	80-120			
Carbon Ranges C12-C28	293		"	250		117	80-120			
Total Hydrocarbon C6-C35	547		"	500		109	80-120			
Surrogate: 1-Chlorooctane	*52.1*		*"*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.3*		*"*	*50.0*		*94.6*	*70-130*			

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
Batch ED60511 - Solvent Extraction (GC)										
Matrix Spike (ED60511-MS1)	**Source: 6D04008-11**			Prepared & Analyzed: 04/05/06						
Carbon Ranges C6-C12	555	10.0	mg/kg dry	530	ND	105	75-125			
Carbon Ranges C12-C28	539	10.0	"	530	ND	102	75-125			
Total Hydrocarbon C6-C35	1090	10.0	"	1060	ND	103	75-125			
Surrogate: 1-Chlorooctane	*55.2*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
Matrix Spike Dup (ED60511-MSD1)	**Source: 6D04008-11**			Prepared & Analyzed: 04/05/06						
Carbon Ranges C6-C12	561	10.0	mg/kg dry	530	ND	106	75-125	1.08	20	
Carbon Ranges C12-C28	534	10.0	"	530	ND	101	75-125	0.932	20	
Total Hydrocarbon C6-C35	1100	10.0	"	1060	ND	104	75-125	0.913	20	
Surrogate: 1-Chlorooctane	*54.6*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.7*		*"*	*50.0*		*93.4*	*70-130*			
Batch ED60711 - EPA 5030C (GC)										
Blank (ED60711-BLK1)				Prepared & Analyzed: 04/07/06						
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	*33.8*		*ug/kg*	*40.0*		*84.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.7*		*"*	*40.0*		*81.8*	*80-120*			
LCS (ED60711-BS1)				Prepared & Analyzed: 04/07/06						
Benzene	0.0408	0.00100	mg/kg wet	0.0500		81.6	80-120			
Toluene	0.0406	0.00100	"	0.0500		81.2	80-120			
Ethylbenzene	0.0541	0.00100	"	0.0500		108	80-120			
Xylene (p/m)	0.0944	0.00100	"	0.100		94.4	80-120			
Xylene (o)	0.0464	0.00100	"	0.0500		92.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.4*		*ug/kg*	*40.0*		*91.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.8*		*"*	*40.0*		*110*	*80-120*			

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
Batch ED60711 - EPA 5030C (GC)										
Calibration Check (ED60711-CCV1)				Prepared: 04/07/06 Analyzed: 04/09/06						
Benzene	50.3		ug/kg	50.0		101	80-120			
Toluene	50.2		"	50.0		100	80-120			
Ethylbenzene	51.2		"	50.0		102	80-120			
Xylene (p/m)	102		"	100		102	80-120			
Xylene (o)	50.8		"	50.0		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.0*		*"*	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.2*		*"*	*40.0*		*80.5*	*80-120*			
Matrix Spike (ED60711-MS1)		**Source: 6D04008-20**		Prepared: 04/07/06 Analyzed: 04/09/06						
Benzene	1.11	0.0250	mg/kg dry	1.32	ND	84.1	80-120			
Toluene	1.09	0.0250	"	1.32	ND	82.6	80-120			
Ethylbenzene	1.16	0.0250	"	1.32	ND	87.9	80-120			
Xylene (p/m)	2.38	0.0250	"	2.64	ND	90.2	80-120			
Xylene (o)	1.12	0.0250	"	1.32	ND	84.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*40.4*		*ug/kg*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.6*		*"*	*40.0*		*91.5*	*80-120*			
Matrix Spike Dup (ED60711-MSD1)		**Source: 6D04008-20**		Prepared: 04/07/06 Analyzed: 04/09/06						
Benzene	1.11	0.0250	mg/kg dry	1.32	ND	84.1	80-120	0.00	20	
Toluene	1.11	0.0250	"	1.32	ND	84.1	80-120	1.80	20	
Ethylbenzene	1.16	0.0250	"	1.32	ND	87.9	80-120	0.00	20	
Xylene (p/m)	2.43	0.0250	"	2.64	ND	92.0	80-120	1.98	20	
Xylene (o)	1.15	0.0250	"	1.32	ND	87.1	80-120	2.68	20	
Surrogate: a,a,a-Trifluorotoluene	*42.0*		*ug/kg*	*40.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.5*		*"*	*40.0*		*98.8*	*80-120*			
Batch ED61004 - EPA 5030C (GC)										
Blank (ED61004-BLK1)				Prepared: 04/07/06 Analyzed: 04/09/06						
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	*47.8*		*ug/kg*	*40.0*		*120*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.4*		*"*	*40.0*		*93.5*	*80-120*			

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
Batch ED61004 - EPA 5030C (GC)										
LCS (ED61004-BS1)				Prepared: 04/07/06 Analyzed: 04/10/06						
Benzene	1.39	0.0250	mg/kg wet	1.25		111	80-120			
Toluene	1.46	0.0250	"	1.25		117	80-120			
Ethylbenzene	1.47	0.0250	"	1.25		118	80-120			
Xylene (p/m)	2.99	0.0250	"	2.50		120	80-120			
Xylene (o)	1.49	0.0250	"	1.25		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.1*		*ug/kg*	*40.0*		*95.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.4*		*"*	*40.0*		*96.0*	*80-120*			
Calibration Check (ED61004-CCV1)				Prepared: 04/07/06 Analyzed: 04/10/06						
Benzene	59.0		ug/kg	50.0		118	80-120			
Toluene	59.3		"	50.0		119	80-120			
Ethylbenzene	58.7		"	50.0		117	80-120			
Xylene (p/m)	120		"	100		120	80-120			
Xylene (o)	59.5		"	50.0		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*"*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.6*		*"*	*40.0*		*89.0*	*80-120*			
Matrix Spike (ED61004-MS1)	**Source: 6D04010-01**			Prepared: 04/07/06 Analyzed: 04/09/06						
Benzene	1.51	0.0250	mg/kg dry	1.29	ND	117	80-120			
Toluene	1.53	0.0250	"	1.29	ND	119	80-120			
Ethylbenzene	1.54	0.0250	"	1.29	ND	119	80-120			
Xylene (p/m)	3.08	0.0250	"	2.58	ND	119	80-120			
Xylene (o)	1.44	0.0250	"	1.29	ND	112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.6*		*ug/kg*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.6*		*"*	*40.0*		*96.5*	*80-120*			
Matrix Spike Dup (ED61004-MSD1)	**Source: 6D04010-01**			Prepared: 04/07/06 Analyzed: 04/09/06						
Benzene	1.51	0.0250	mg/kg dry	1.29	ND	117	80-120	0.00	20	
Toluene	1.47	0.0250	"	1.29	ND	114	80-120	4.29	20	
Ethylbenzene	1.52	0.0250	"	1.29	ND	118	80-120	0.844	20	
Xylene (p/m)	3.06	0.0250	"	2.58	ND	119	80-120	0.00	20	
Xylene (o)	1.47	0.0250	"	1.29	ND	114	80-120	1.77	20	
Surrogate: a,a,a-Trifluorotoluene	*45.4*		*ug/kg*	*40.0*		*114*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.1*		*"*	*40.0*		*100*	*80-120*			

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 ED60417 - General Preparation (Prep)										
Blank (ED60417-BLK1)				Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	100		%							
Duplicate (ED60417-DUP1)	**Source: 6D04001-01**			Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	97.6		%		97.8			0.205	20	
Duplicate (ED60417-DUP2)	**Source: 6D04007-01**			Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	93.9		%		93.9			0.00	20	
Duplicate (ED60417-DUP3)	**Source: 6D04008-05**			Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	92.2		%		91.4			0.871	20	
Duplicate (ED60417-DUP4)	**Source: 6D04009-05**			Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	93.8		%		94.1			0.319	20	
Duplicate (ED60417-DUP5)	**Source: 6D04012-01**			Prepared: 04/04/06 Analyzed: 04/05/06						
% Solids	87.9		%		86.4			1.72	20	
Batch ED61211 - Water Extraction										
Blank (ED61211-BLK1)				Prepared & Analyzed: 04/12/06						
Chloride	ND	20.0	mg/kg Wet							
LCS (ED61211-BS1)				Prepared & Analyzed: 04/12/06						
Chloride	95.7		mg/kg	100		95.7	80-120			
Matrix Spike (ED61211-MS1)	**Source: 6D04009-01**			Prepared & Analyzed: 04/12/06						
Chloride	510	50.0	mg/kg Wet	500	0.00	102	80-120			

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 ED61211 - Water Extraction										
Matrix Spike Dup (ED61211-MSD1)	**Source: 6D04009-01**			Prepared & Analyzed: 04/12/06						
Chloride	500	50.0	mg/kg Wet	500	0.00	100	80-120	1.98	20	
Reference (ED61211-SRM1)				Prepared & Analyzed: 04/12/06						
Chloride	5000		mg/kg	5000		100	80-120			
Batch ED61301 - Water Extraction										
Blank (ED61301-BLK1)				Prepared & Analyzed: 04/13/06						
Sulfate	ND	25.0	mg/kg							
Calibration Check (ED61301-CCV1)				Prepared & Analyzed: 04/13/06						
Sulfate	52.8		mg/kg	50.0		106	80-120			
Duplicate (ED61301-DUP1)	**Source: 6D04009-01**			Prepared & Analyzed: 04/13/06						
Sulfate	32.8	125	mg/kg		32.5			0.919	20	J

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: Raland K. Tuttle Date: 4/14/2006

Raland 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.

Environmental Plus, Inc.

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

Chain of Custody Form

LAB: ELT

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
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.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
01	1 E1-BH-1 (2')	G	1			X					X		03-Apr-06	13:40	X	X	X	X							
02	2 E1-BH-2 (2')	G	1			X					X		03-Apr-06	13:44	X	X	X	X							
03	3 E1-BH-3 (2')	G	1			X					X		03-Apr-06	13:46	X	X	X	X							
04	4 E1-BH-4 (2')	G	1			X					X		03-Apr-06	13:49	X	X	X	X							
05	5 E1-SW-1 (1')	G	1			X					X		03-Apr-06	13:54	X	X	X	X							
06	6 E1-SW-2 (1')	G	1			X					X		03-Apr-06	13:57	X	X	X	X							
07	7 E1-SW-3 (1')	G	1			X					X		03-Apr-06	14:01	X	X	X	X							
08	8 E1-SW-4 (1')	G	1			X					X		03-Apr-06	14:03	X	X	X	X							
09	9 E1-SW-5 (1')	G	1			X					X		03-Apr-06	14:06	X	X	X	X							
10	10 E1-SW-6 (1')	G	1			X					X		03-Apr-06	14:09	X	X	X	X							

Sampler Relinquished: — Date: 4.4 Time: 702 — Received By:

Relinquished by: — Date: 4/4/06 Time: 1020 — Received By: (lab staff)

Delivered by:

Sample Cool & Intact: Yes / No

Checked By:

e-mail results to iolness@envplus.net

NOTES:

10
4oz glass
seal jar/ label

Environmental Plus, Inc.

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

Chain of Custody Form

LAB: ELT

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
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.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
(D04009																									
1	E2-BH-1 (1')	G	1			X					X		03-Apr-06	14:15	X	X	X	X							
2	E2-BH-2 (1')	G	1			X					X		03-Apr-06	14:17	X	X	X	X							
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Sampler Relinquished:	Date: 4-4	Received By:	e-mail results to iolness@envplus.net
Relinquished by:	Time: 702	Received By: (lab staff)	NOTES:
Delivered by:	Date: 4/4/06 Time: 10:30	Sample Cool & Intact: Yes / No	Checked By:

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

ent: ENV. PLUS

/Time: 4/4/06 10:30

er #: 6D04009

tials: CK

Sample Receipt Checklist

mperature of container/cooler?	Yes	No	4.0 C
cing container/cooler in good condition?	Yes	No	
body Seals intact on shipping container/cooler?	Yes	No	Not present (duct tape)
stody Seals intact on sample bottles?	Yes	No	Not present
n of custody present?	Yes	No	
ple Instructions complete on Chain of Custody?	Yes	No	
ain of Custody signed when relinquished and received?	Yes	No	
ain of custody agrees with sample label(s)	Yes	No	
ainer labels legible and intact?	Yes	No	
ple Matrix and properties same as on chain of custody?	Yes	No	
mples in proper container/bottle?	Yes	No	
ples properly preserved?	Yes	No	
ple bottles intact?	Yes	No	
eservations documented on Chain of Custody?	Yes	No	
ntainers documented on Chain of Custody?	Yes	No	
cient sample amount for indicated test?	Yes	No	
samples received within sufficient hold time?	Yes	No	
OC samples have zero headspace?	Yes	No	Not Applicable

ner observations:

Variance Documentation:

ntact Person: - Date/Time: Contacted by:

egarding:

orrective Action Taken:

argon laboratories

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

REPORT DATE: 04/20/06
SAMPLE DATE: 04/18/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160047
Bonanza Fed. #1
UL-I, Sect. 28, T 23 S, R 34 E

AL JOB #: A04201

Project Summary:

On April 19 2006, this laboratory received 16 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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04201

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Reporting Limit	Units	Analyzed	Method	Notes
E2-BH-2 (4') (A04207 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	59	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	12	5.0	mg/Kg	"	"	
E1-BH-3 (4') (A04208 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06')**				
Chloride	510	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	43	5.0	mg/Kg	"	"	
E1-SW-1 (2') (A04209 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	35	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	110	5.0	mg/Kg	"	"	
E1-SW-2 (2') (A04210 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	41	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	<5.0	5.0	mg/Kg	"	"	
E1-SW-3 (2') (A04211 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	520	50	mg/Kg	04/19/06	EPA 300.0	
Sulfate	<25	25	mg/Kg	"	"	
E1-SW-4 (2') (A04212 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	28	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	21	5.0	mg/Kg	"	"	

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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04201

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Reporting Limit	Units	Analyzed	Method	Notes
E2-BH-1 (4') (A04201 Soil) Sampled: 04/18/06 Received: 04/19/06						
Chloride	2,800	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	190	5.0	mg/Kg	"	"	
E2-SW-1 (2') (A04202 Soil) Sampled: 04/18/06 Received: 04/19/06')						
Chloride	780	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	180	5.0	mg/Kg	"	"	
E2-SW-2 (2') (A04203 Soil) Sampled: 04/18/06 Received: 04/19/06						
Chloride	2,800	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	190	5.0	mg/Kg	"	"	
E2-SW-3 (2') (A04204 Soil) Sampled: 04/18/06 Received: 04/19/06						
Chloride	3,000	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	120	5.0	mg/Kg	"	"	
E2-SW-4 (2') (A04205 Soil) Sampled: 04/18/06 Received: 04/19/06						
Chloride	530	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	71	5.0	mg/Kg	"	"	
E1-BH-1 (4') (A04206 Soil) Sampled: 04/18/06 Received: 04/19/06						
Chloride	<10	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	14	5.0	mg/Kg	"	"	

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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04201

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Reporting Limit	Units	Analyzed	Method	Notes
E1-SW-5 (2') (A04213 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	460	10	mg/Kg	04/19/06	EPA 300.0	
Sulfate	120	5.0	mg/Kg	"	"	
E1-SW-6 (2') (A04214 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06')**				
Chloride	2,100	200	mg/Kg	04/19/06	EPA 300.0	
Sulfate	<100	100	mg/Kg	"	"	
E1-SW-7 (2') (A04215 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	1,800	200	mg/Kg	04/19/06	EPA 300.0	
Sulfate	<100	100	mg/Kg	"	"	
E1-SW-8 (2') (A04216 Soil)	**Sampled: 04/18/06**	**Received: 04/19/06**				
Chloride	150	40	mg/Kg	04/19/06	EPA 300.0	
Sulfate	<20	20	mg/Kg	"	"	

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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04201

EPA Method 300.0 - Quality Control

Analyte	MS Rec	MSD Rec	RPD	Reporting Limit	Units	Notes
Matrix Spike / Matrix Spike Duplicate						*Spiked Sample ID: A04234*
Chloride	95%	96%	1%	10	mg/Kg	

Analyte	LCS Rec	LCSD Rec	RPD	Reporting Limit	Units	Notes
Laboratory Control Spike / Laboratory Control Spike Duplicate						*LCS ID: LCS20419A*
Chloride	105%	101%	4%	10	mg/Kg	
Sulfate	105%	105%	0%	5.0	mg/Kg	

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

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email: info@argonlabs.com

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Plus, Inc. Date & Time Received: 4/19/2006 14:20

Project Name: Bonanza Fed. #1 Client Project Number: 160047

Received By: HC Matrix: Water ☐ Soil ☑

Sample Carrier: Client ☑ Laboratory ☐ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: A04201

Shipper Container in good condition? N/A____ Yes ☑ No ☐

Samples received under refrigeration? Yes ☑ No ☐

Chain of custody present? Yes ☑ No ☐

Chain of Custody signed by all parties? Yes ☑ No ☐

Chain of Custody matches all sample labels? Yes ☑ No ☐

Samples received in proper containers? Yes ☑ No ☐

Samples received intact? Yes ☑ No ☐

Sufficient sample volume for requested test Yes ☑ No ☐

Samples received within holding time? Yes ☑ No ☐

Do samples contain proper preservative? N/A ☑ 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: _____

Environmental Plus, Inc.

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

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
EPI Sampler Name	Kirt Tyree

Bill To

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

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH
1	E2-BH-1 (4')	G	1			X					X		18-Apr-06	10:20	[redacted]	[redacted]	X	X				
2	E2-SW-1 (2')	G	1			X					X		18-Apr-06	10:30			X	X				
3	E2-SW-2 (2')	G	1			X					X		18-Apr-06	11:00			X	X				
4	E2-SW-3 (2')	G	1			X					X		18-Apr-06	11:05			X	X				
5	E2-SW-4 (2')	G	1			X					X		18-Apr-06	11:10			X	X				
6	E1-BH-1 (4')	G	1			X					X		18-Apr-06	11:15			X	X				
7	E1-BH-2 (4')	G	1			X					X		18-Apr-06	11:20			X	X				
8	E1-BH-3 (4')	G	1			X					X		18-Apr-06	11:25			X	X				
9	E1-SW-1 (2')	G	1			X					X		18-Apr-06	11:30			X	X				
10	E1-SW-2 (2')	G	1			X					X		18-Apr-06	11:35			X	X				

Sampler Relinquished: Iain Olness — Date 4/19/06 Time 330 — Received By:

Relinquished by: — Date 041906 Time 14:20 — Received By: (lab staff)

Delivered by:

Sample Cool & Intact Yes No

Checked By:

e-mail results to iolness@envplus.net

NOTES: RUSH - 24 hr

Environmental Plus, Inc.

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

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
EPI Sampler Name	Kirt Tyree

Bill To

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

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH
1	E1-SW-3 (2')	G	1			X					X		18-Apr-06	11:40	[redacted]	[redacted]	X	X				
2	E1-SW-4 (2')	G	1			X					X		18-Apr-06	11:45			X	X				
3	E1-SW-5 (2')	G	1			X					X		18-Apr-06	11:50			X	X				
4	E1-SW-6 (2')	G	1			X					X		18-Apr-06	11:55			X	X				
5	E1-SW-7 (2')	G	1			X					X		18-Apr-06	12:00			X	X				
6	E1-SW-8 (2')	G	1			X					X		18-Apr-06	12:05			X	X				
7																						
8																						
9																						
10																						

Sampler Relinquished: Iain Olness	Date 4/19/06 Time 1330	Received By:	e-mail results to iolness@envplus.net
Relinquished by:	Date 041906 Time 14:20	Received By: (lab staff)	NOTES: RUSH - 24 hr
Delivered by:	Sample Cool & Intact Yes No	Checked By:	

argon laboratories

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

REPORT DATE: 04/21/06
SAMPLE DATE: 04/20/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160047
Bonanza Fed. #1
UL-I, Sect. 28, T 23 S, R 34 E

AL JOB #: A04241

Project Summary:

On April 20, 2006, this laboratory received 6 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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04241

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Reporting Limit	Units	Analyzed	Method	Notes
E2-BH-1 A (6') (A04241 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	830	10	mg/Kg	04/20/06	EPA 300.0	
E2-SW-2A (3') (A04242 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	3,800	10	mg/Kg	04/20/06	EPA 300.0	
E2-SW-3A (3') (A04243 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	320	10	mg/Kg	04/20/06	EPA 300.0	
E1-SW-6A (2') (A04244 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	820	10	mg/Kg	04/20/06	EPA 300.0	
E1-SW-7A (2') (A04245 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	1,300	10	mg/Kg	04/20/06	EPA 300.0	
E1-BH-1A (4') (A04246 Soil)	**Sampled: 04/20/06**	**Received: 04/20/06**				
Chloride	19	10	mg/Kg	04/20/06	EPA 300.0	

Approved By
Argon Laboratories

QC Officer

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email: info@argonlabs.com

argon laboratories

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04241

EPA Method 300.0 - Quality Control

Analyte	MS Rec	MSD Rec	RPD	Reporting Limit	Units	Notes
Matrix Spike / Matrix Spike Duplicate						*Spiked Sample ID: A04246*
Chloride	109%	113%	4%	10	mg/Kg	

Analyte	LCS Rec	LCSD Rec	RPD	Reporting Limit	Units	Notes
Laboratory Control Spike / Laboratory Control Spike Duplicate						*LCS ID: LCS20420A*
Chloride	104%	107%	3%	10	mg/Kg	
Sulfate	97%	102%	5%	5.0	mg/Kg	

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

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email: info@argonlabs.com

Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Plus, Inc. Date & Time Received: 4/20/2006 14:40

Project Name: Bonanza Fed. #1 Client Project Number: 160047

Received By: PJS Matrix: Water ☐ Soil ☑

Sample Carrier: Client ☑ Laboratory ☐ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: A04241

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 tes	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: _____

Environmental Plus, Inc.

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

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
EPI Sampler Name	Kirt Tyree

Bill To

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

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
1	E2-BH-1A (6')	G	1			X					X		20-Apr-06	10:20			X								
2	E2-SW-2A (3')	G	1			X					X		20-Apr-06	10:30			X								
3	E2-SW-3A (3')	G	1			X					X		20-Apr-06	11:00			X								
4	E1-SW-6A (2')	G	1			X					X		20-Apr-06	11:05			X								
5	E1-SW-7A (2')	G	1			X					X		20-Apr-06	11:10			X								
6	E1-BH-1A (4')	G	1			X					X		20-Apr-06	11:15			X								
7																									
8																									
9																									
10																									

Sampler Relinquished: Iain Olness	Date 4-20-06 Time 4:40pm	Received By:
Relinquished by:	Date / Time	Received By: (lab staff)
Delivered by:	Sample Cool & Intact Yes No	Checked By:

e-mail results to iolness@envplus.net

NOTES: **RUSH - 24 HR**

argon laboratories

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

REPORT DATE: 04/24/06
SAMPLE DATE: 04/21/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160047
BONANZA FED. #1
UL-I, Sect. 28, T 23 S, R 34 E

AL JOB #: A04261

Project Summary:

On April 21 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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04261

Anions by Ion Chromatography - EPA Method 300.0

Analyte	Result	Reporting Limit	Units	Analyzed	Method	Notes
E2-SW-2B (3') (A04261 Soil) Sampled: 04/21/06 Received: 04/21/06						
Chloride	250	10	mg/Kg	04/23/06	EPA 300.0	
E1-SW-7A (2.5') (A04262 Soil) Sampled: 04/21/06 Received: 04/21/06						
Chloride	110	10	mg/Kg	04/23/06	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

Environmenal Plus, Inc.	Project Number: 160047	
2100 Avenue O	Project Name: Bonanza Fed. #1	Work Order #:
Eunice, NM 88231	Project Manager: Iain Olness	A04261

EPA Method 300.0 - Quality Control

Analyte	MS Rec	MSD Rec	RPD	Reporting Limit	Units	Notes
Matrix Spike / Matrix Spike Duplicate						*Spiked Sample ID: A04196*
Chloride	118%	111%	6%	10	mg/Kg	

Analyte	LCS Rec	LCSD Rec	RPD	Reporting Limit	Units	Notes
Laboratory Control Spike / Laboratory Control Spike Duplicate						*LCS ID: LCS0423A*
Chloride	106%	104%	2%	10	mg/Kg	
Sulfate	100%	99%	1%	5.0	mg/Kg	

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: 4/21/2006 4:45

Project Name: Bonanza Fed. #1 Client Project Number: 160047

Received By: HC Matrix: Water ☐ Soil ☑

Sample Carrier: Client ☑ Laboratory ☐ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: A04261

Shipper Container in good condition?			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 tes	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: _____

Environmental Plus, Inc.

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

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	Bonanza Fed. #1
Location	UL-I, Sect. 28, T 23 S, R 34 E
Project Reference	160047
EPI Sampler Name	Kirt Tyree

Bill To

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

ANALYSIS REQUEST

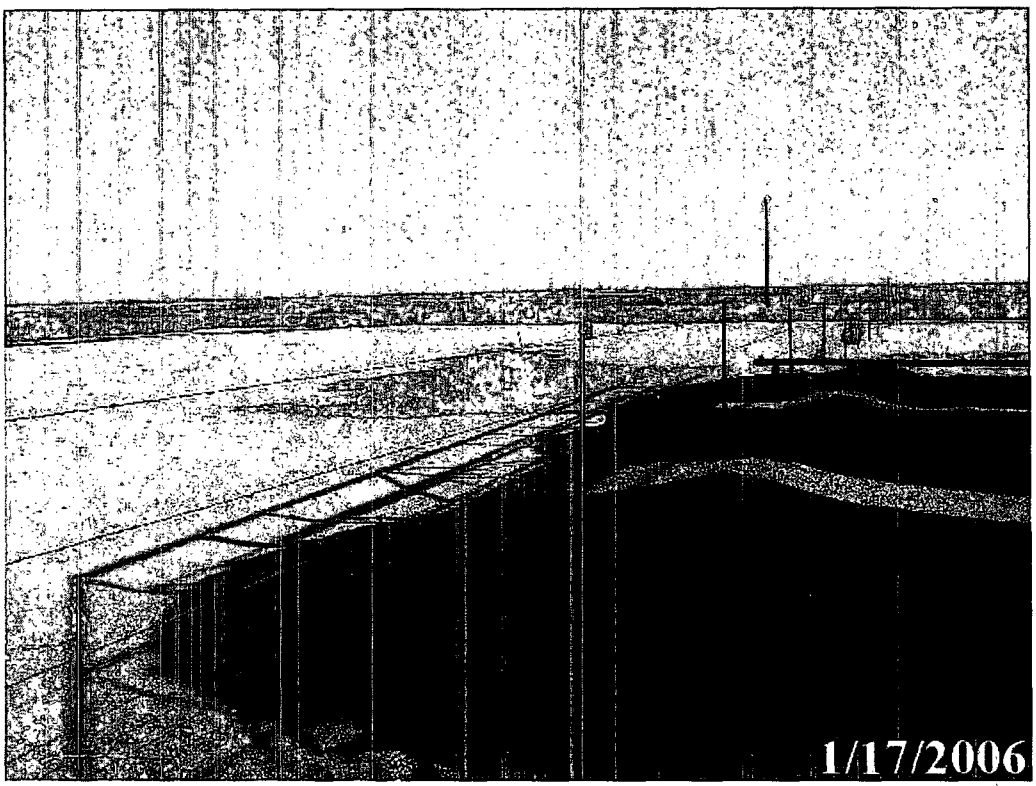
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
1	E2-SW-2B (3')	G	1			X					X		21-Apr-06	11:30			X								
2	E1-SW-7A (2.5')	G	1			X					X		21-Apr-06	11:45			X								
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Sampler Relinquished:	Date 4/21/06 Time 4:45	Received By:	e-mail results to iolness@envplus.net
Relinquished by:	Date / Time	Received By: (lab staff)	NOTES: **RUSH - 24 HR**
Delivered by:	Sample Cool & Intact Yes No	Checked By:	

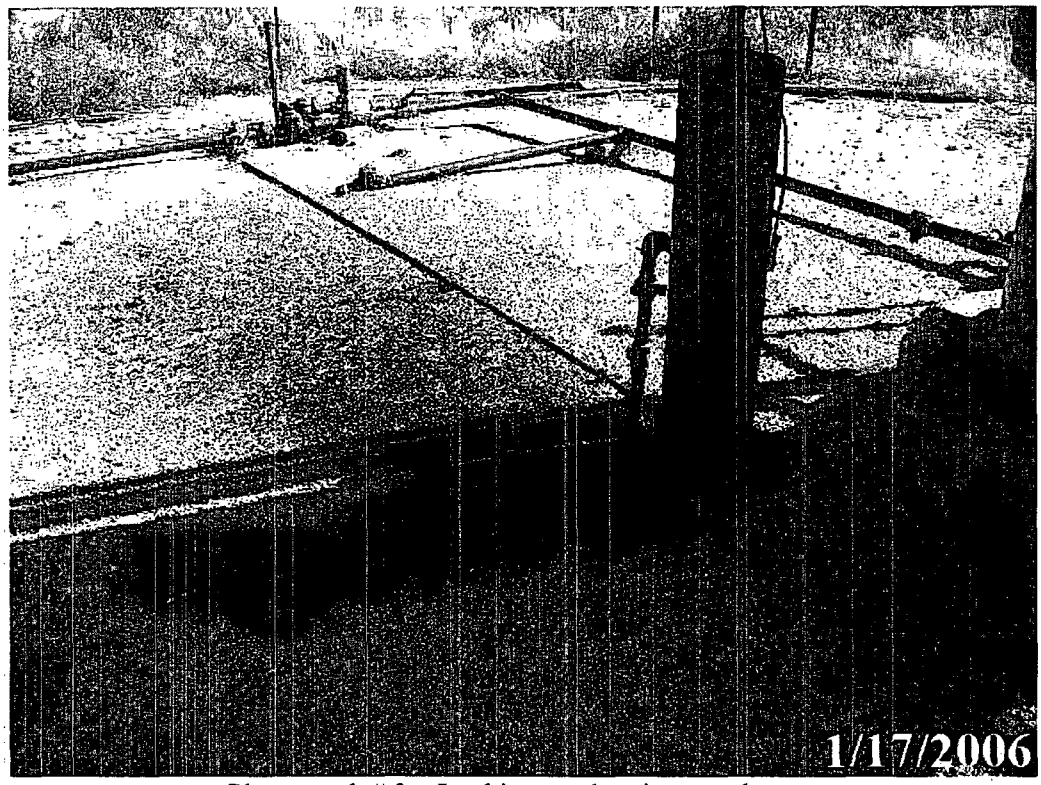
APPENDIX II

PROJECT PHOTOGRAPHS

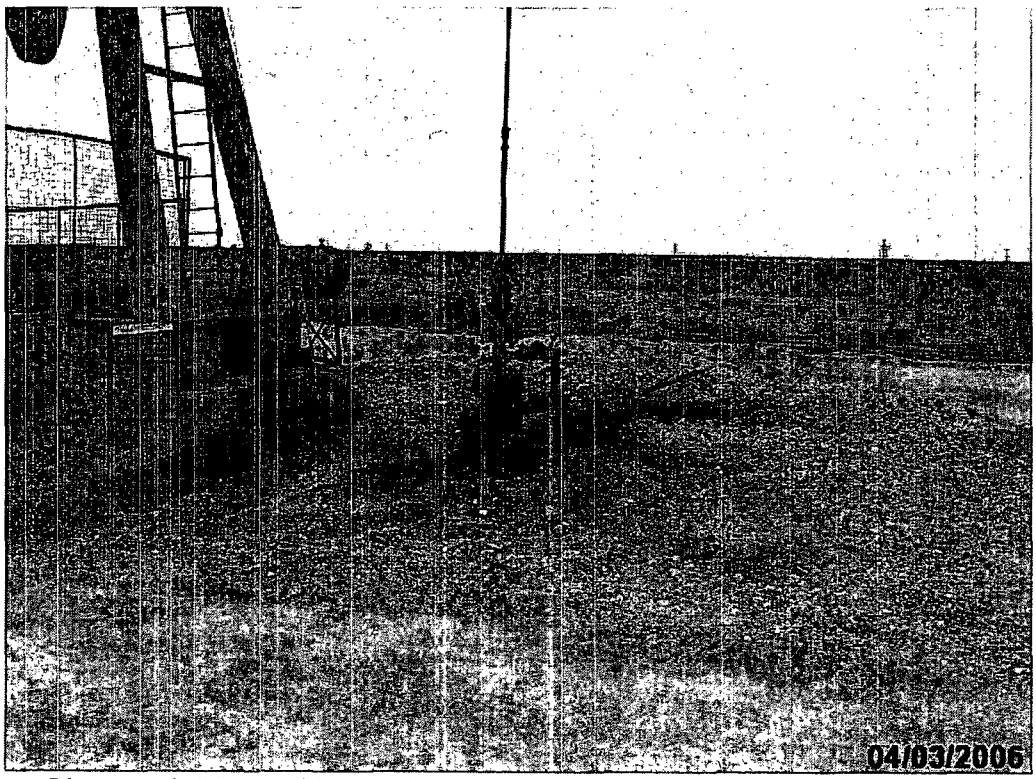
Photograph #1 – Lease Sign



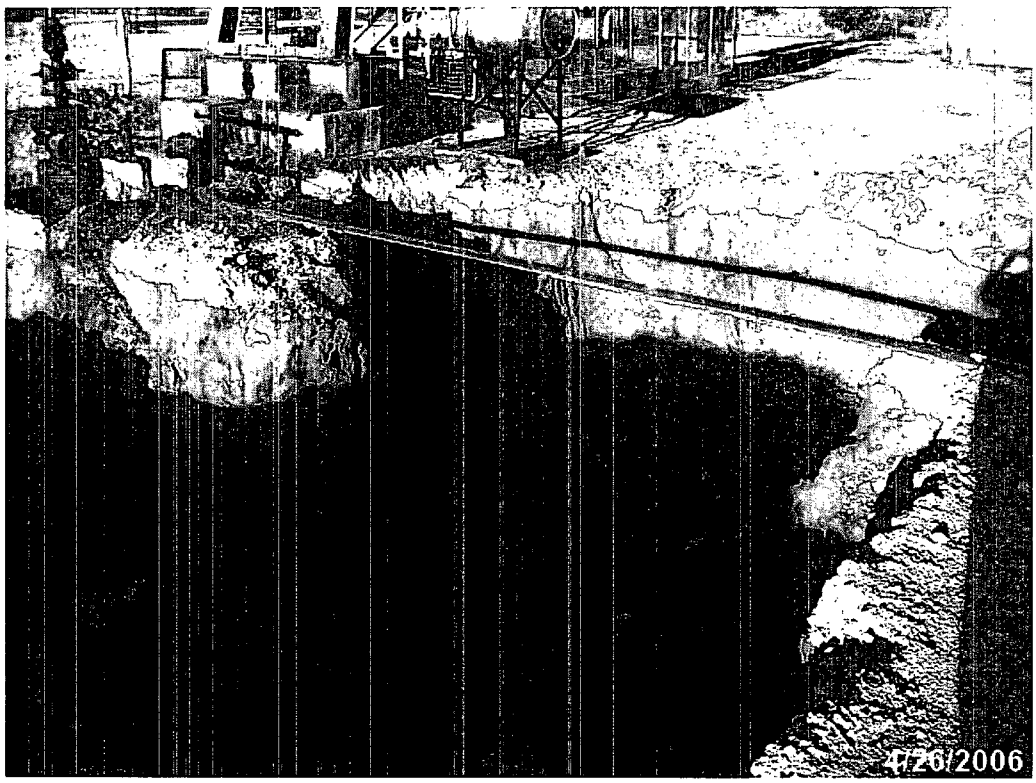
Photograph #2 – Looking east at impacted soil on caliche pad (north side)



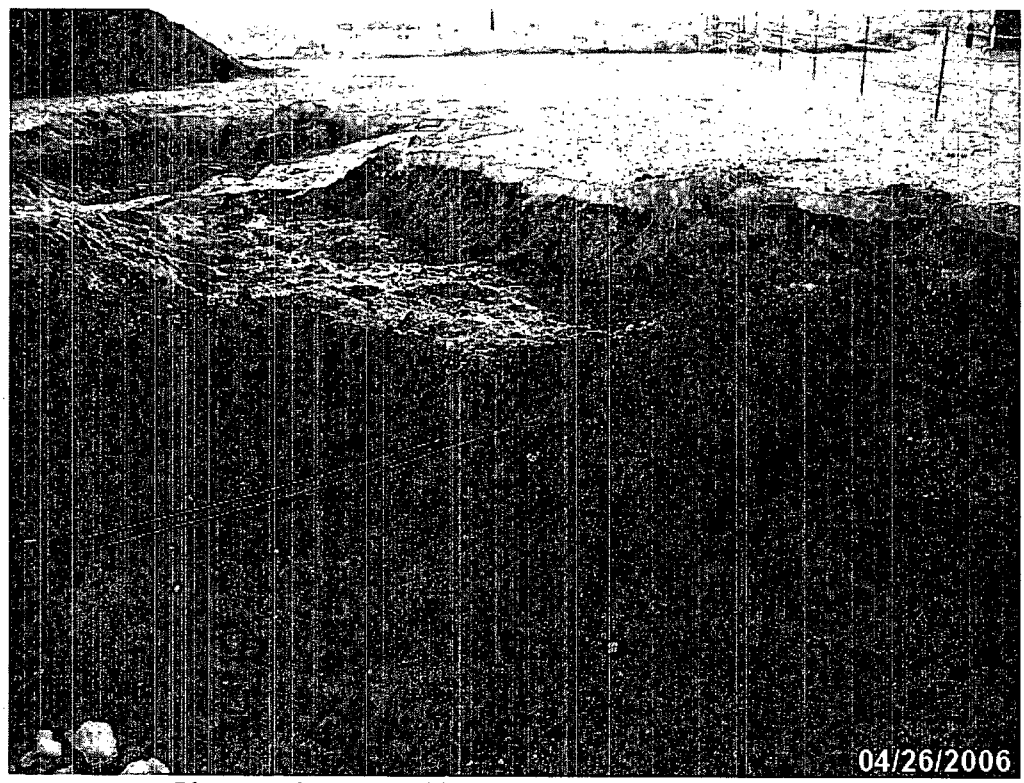
Photograph # 3 – Looking north at impacted area



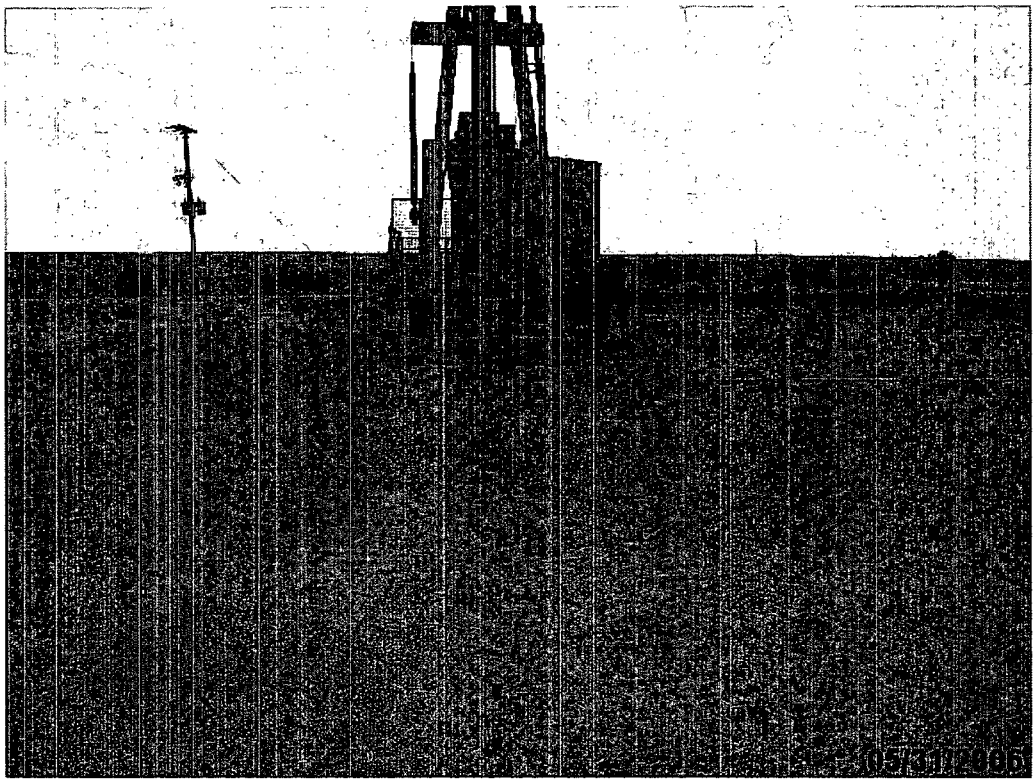
Photograph #4 – Looking north at impacted area around production well head



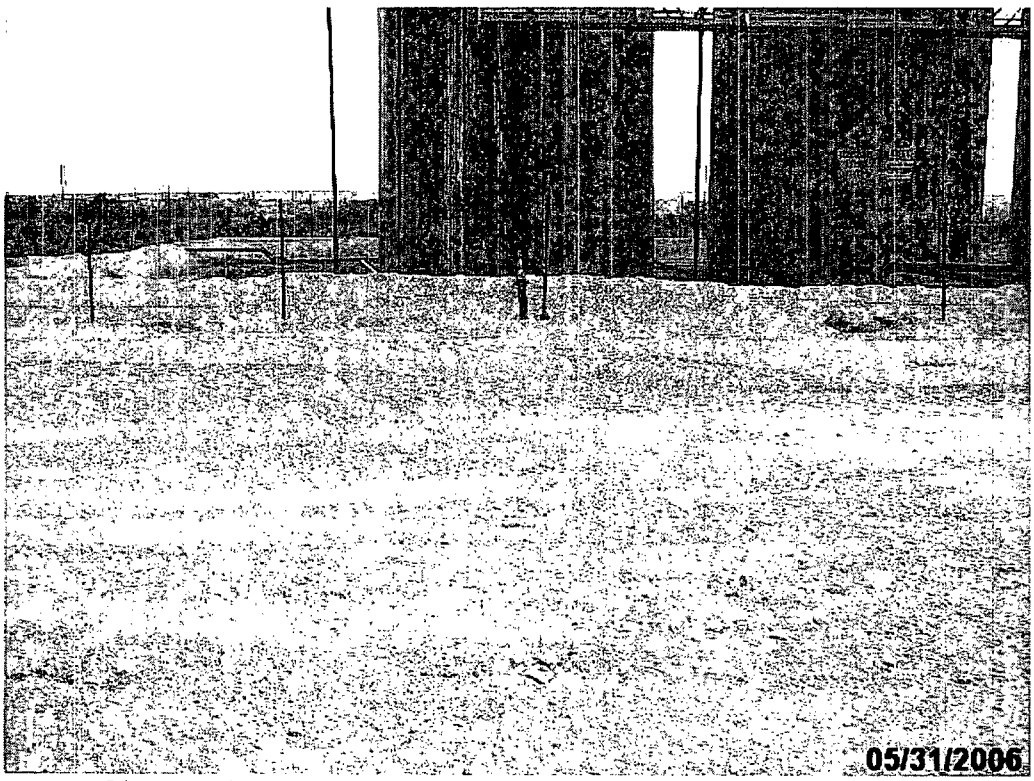
Photograph #5 – Looking easterly at excavation around production well head



Photograph #6 – Looking easterly at excavation on caliche pad



Photograph #7 – Looking west at caliche and pea gravel around production well head



Photograph #8 – Looking south at caliche backfill on tank battery pad

APPENDIX III

Soil Boring Logs

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: 160047

Project Name: Chesapeake Bonanza Federal #1

Location: UL-I, Section 28, Township 23 South, Range 34 East

Boring Number: SB-1 | Surface Elevation: 3,475

Start Date: 1/31/2006 Time: 0810 hrs

Completion Date: 1/31/2006 Time: 0830 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
0810				.4	160			2-3' SAND/Clay, Red
0815				.5	160		5	5-6' SAND/Clay, Red
0830				.4	160		10	10-11' SAND/Caliche, Redish Tan
								End of Soil Boring at 11'
							15	
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5' ID

Backfill Method: Bentonite

Field Representative: GB

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: 160047

Project Name: Chesapeake Bonanza Federal #1

Location: UL-I, Section 28, Township 23 South, Range 34 East

Boring Number: SB-2 | Surface Elevation: 3,475

Start Date: 1/31/2006 Time: 0905 hrs

Completion Date: 1/31/2006 Time: 0930 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
0905				6.1	240		0	2-3' CLAY/Sand, Red
0910				3.1	800		5	5-6' CLAY/Sand, Red
0920				.7	160		10	10-11' CALICHE/Sand, Tanish
0930				.9	160		15	15-16' CALICHE/Sand, Tanish
								End of Soil Boring at 16'
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: GB

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: 160047

Project Name: Chesapeake Bonanza Federal #1

Location: UL-I, Section 28, Township 23 South, Range 34 East

Boring Number: SB-3 | Surface Elevation: 3,475

Start Date: 1/31/2006 Time: 0950 hrs

Completion Date: 1/31/2006 Time: 1015 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
0950	PS	12		2.0	560			2-3' SAND/Clay, Red
0955	PS	6		.4	160		5	5-6' SAND/Clay, Red
1005	PS	8		.4	160		10	10-11' CALICHE/Sand, Pinkish
1015	PS	6		.4	160		15	15-16' CALICHE/Sand, Pinkish
								End of Soil Boring at 16'
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: GB

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160047

Project Name: Chesapeake Bonanza Federal #1

Location: UL-I, Section 28, Township 23 South, Range 34 East

Boring Number: SB-4 | Surface Elevation: 3,475

Start Date: 1/31/2006 Time: 1030 hrs

Completion Date: 1/31/2006 Time: 1105 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1030				26.7	560			2-3' SAND, Brown
1035				2.3	640		5	5-6' CLAY/Sand, Red
1045				1.7	640		10	10-11' CALICHE/Sand, Tanish
1050				1.1	880		15	15-16' CALICHE/Sand, Redish
1055				.9	2,640		20	20-21' CALICHE/Sand, Redish
1100				1.0	160		25	25-26' SAND, Redish
1105				.8	160		30	30-31' CALICHE/Sand, Tan
								End of Soil Boring at 31'

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5' ID

Backfill Method: Bentonite

Field Representative: GB

APPENDIX IV

INFORMATION AND METRICS

FINAL COPY OF THE NMOCD C-141 FORM

Chesapeake
Information and Metrics

Incident Date: Historical	**NMOCD Notified:**

Site: Bonanza Federal #1	**Assigned Site Reference :** #160047
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: Bonanza Federal #1	
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° 16' 22.34"	
Longitude: W 103° 28' 06.98"	
Elevation above mean sea level: 3,475 feet	
Feet from South Section Line: 1650	
Feet from East Section Line: 660	
Location- Unit or ¼¼: NE¼ of the SE¼	**Unit Letter:** I
Location- Section: 28	
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): ~275 feet	
Depth of contamination (DC): unknown	
Depth to groundwater (DG – DC = DtGW): ~275 feet	

1. Groundwater	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-1000 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
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: Bonanza Federal #1	**Facility Type:** Tank Battery

Surface Owner: Jim Keller	**Mineral Owner:**	**Lease No.:** LC 067715

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	28	23S	34E	1,650	S	660	E	Lea

Latitude: N 32° 16' 22.34" **Longitude:** W 103° 28' 06.98"

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:**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	**If YES, To Whom?**	
By Whom? Bradley Blevins	**Date and Hour:**	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** Not Applicable	

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(s). Remedial activities included: a) Excavated soil impacted above NMOCD threshold limits with disposal at Sundance Services, Inc.; b) laboratory analyses confirmed removal of soil impacted above NMOCD threshold limits in sidewalls and bottom of the excavation; c) backfilled excavated areas with caliche and pea gravel around production well head; d) graded release site for natural drainage of the area

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:**	**Expiration Date:**
E-mail Address: bblevins@chkenergy.com	**Conditions of Approval:**	**Attached** ☐
Date: **Phone:** (505) 391-1462 ext. 6224		

*** Attach Additional Sheets If Necessary**