NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

HOBBS 1R002

November 1, 2004

Mr. Paul Mulkey
Duke Energy Field Services
11525 W. Carlsbad Hwy
Hobbs, NM 88240

pdmulkey@duke-energy.com

Re: Closure Approval: C-Extension #1 - #130001
Site Reference UL-F, Sec-30 T-20S R-37E
Initial Notification Date: April 5, 2004
Closure Request Dated: October 12, 2004

Dear Mr. Mulkey,

The **Final Closure Document** submitted to the New Mexico Oil Conservation Division (OCD) by Environmental Plus, Inc. for Duke Energy Field Services is **hereby approved**. According to the information provided, no further action is required at this time.

Please be advised that OCD approval does not relieve Duke Energy Field Services of liability should remaining contaminants pose a future threat to ground water, surface water, human health or the environment. Additionally, OCD approval does not relieve Duke Energy Field Services of responsibility for compliance with any other federal, state, or local laws and/or regulations.

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

Sincerely,

Larry Johnson - Environmental Engineer

Cc: Chris Williams - District I Supervisor
Ed Martin – Environmental Bureau
Paul Sheeley - Environmental Engineer
Iain Olness – EPI Consultant iolness@hotmail.com

12 October 2004

Mr. Larry Johnson
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1625 North French Drive
Hobbs, NM 88240

Re: Site Closure Documentation Duke Energy C-Extension #1 - #130001
UL-F Section 30 T20S R37E, Lea County, New Mexico
Land Owner: State of New Mexico

Dear Mr. Johnson,

Environmental Plus, Inc. (EPI), on behalf of Mr. Paul Mulkey, Duke Energy Field Services (DEFS), submits for your consideration this *Site Closure Documentation* for the above-referenced site. This report documents the delineation of the vertical and horizontal extents of hydrocarbon contamination at the site, the removal and disposal of the contaminated soil above NMOCD remedial thresholds and the backfilling of the excavation with clean soil obtained from the surrounding area. The completion of this project is consistent with the initial C-141 submitted to the NMOCD on April 6, 2004. EPI, on behalf of DEFS, therefore requests that the NMOCD consider the information included in this report and issue a "*No Further Action*" letter for the site.

All official correspondence should be addressed to:

Mr. Paul Mulkey
Duke Energy Field Services
1625 West Marland
Hobbs, NM 88240

Should you have any questions or concerns, please feel free to contact me at EPI's office or via e-mail at iolness@hotmail.com. Mr. Paul Mulkey of DEFS can be contacted at (505) 391-5716 or via e-mail at pdmulkey@duke-energy.com.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Paul Mulkey, DEFS – Hobbs
Lynn Ward, DEFS – Midland
Steve Weathers, DEFS - Denver
Sherry Miller, EPI President
Ben Miller, EPI Vice President and General Manager

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

ENVIRONMENTAL PLUS, INC.

Duke Energy Field Services

Hobbs
1R-002

SITE INVESTIGATION, REMEDIATION AND FINAL C-141 CLOSURE DOCUMENTATION

C-EXTENSION RELEASE SITE

DEFS REF: 130001

UL-F (SE¼ OF THE NW¼) OF SECTION 30 T20S R37E

~6 MILES SOUTHWEST OF MONUMENT

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 32' 43.70" LONGITUDE: W 103° 17' 38.69"

OCTOBER 12, 2004

PREPARED BY:

Environmental Plus, Inc.

2100 Avenue O

P.O. Box 1558

Eunice, NM 88231

Phone: (505)394-3481

FAX: (505)394-2601

iolness@hotmail.com

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Project Summary

Site Specific:

- **Company Name**: Duke Energy Field Services
- **Facility Name**: C-Extension Natural Gas Gathering Pipeline
- **Project Reference** 130001
- **Company Contacts**: Paul Mulkey
- **Site Location:** WGS84 N32° 32' 43.70"; W103° 17' 38.69"
- **Legal Description**: Unit Letter F, (SE¼ of the NW¼), Section 30, T20S, R37E
- **General Description**: approximately 6-miles southwest of Monument, New Mexico
- **Elevation**: 3,535-ft amsl **Depth to Ground Water**: ~57-ft
- **Land Ownership**: State of New Mexico
- **EPI Personnel**: Project Consultant – Iain Olness
  Site Foreman – Roger Boone

Release Specific:

- **Product Released**: Natural Gas & NGL
- **Volume Released**: ≈180-bbl reported **Volume Recovered**: ≈120-bbl
- **Time of Occurrence**: 5-April-04 **Time of Discovery**: 5-April-04
- **Release Source**: 16" steel NG pipeline; integrity lost due to internal corrosion; repaired by clamping with ultimate replacement of section.
- **Initial Surface Area Affected**: ~58,000-ft^2

Remediation Specific:

- **Final Vertical extent of contamination**: 4-ft bgs; Remaining depth to ground water: 53-ft
- **Water wells within 1,000-ft**: 0 **Surface water bodies within 1,000-ft**: 0
- **NMOCD Site Ranking Index**: 10 points (50-100 ft to top of water table)
- **Remedial goals for Soil**: TPH – 1,000 mg/kg; BTEX – 50 mg/kg; Benzene – 10 mg/kg; Chlorides – 250 mg/kg; Sulfates – 600 mg/kg
- **RCRA Waste Classification**: Exempt
- **Remediation Option Selected**: a) Excavation of contaminated soil above NMOCD remedial goals; b) disposal of the excavated soil at the South Monument Land Farm c) laboratory analyses to confirm removal of soil impacted of NMOCD remedial thresholds; d) backfill the excavation with soil obtained from the surrounding area (i.e., sand dunes)
- **Disposal Facility**: South Monument Land Farm **Volume disposed of**: 2,618-yd^3
- **Project Completion Date**: 7 May 2004
- **Additional Commentary**: None

1.0 Introduction & Background

This report addresses the site investigation and remediation of the Duke Energy Field Services (DEFS) "C-Extension" 16-inch natural gas gathering line remediation site. On April 5, 2004, Environmental Plus, Inc. (EPI) was notified by DEFS regarding a recently discovered natural gas and associated natural gas liquid (NGL) release along the C-Extension. This site is located approximately 6 miles southwest of Monument, Lea County, New Mexico (*reference Figure 1*). The initial C-141 Form submitted to the New Mexico Oil Conservation Division (NMOCD) on April 6, 2004, reports the release volume as approximately 180-barrels with 120-barrels recovered. EPI performed GPS surveying, photography and characterization of the site on April 5, 2004. The initial site consisted of an approximate 58,000 square feet (ft^2) visibly affected surface area (*reference Figure 3*).

Initial activities at the site consisted of the removal of saturated soil along the flow paths and transporting the soil to the South Monument Land Farm for disposal. Upon removal of the saturated soils, two soil borings were advanced on either side of the point of release to delineate the vertical extent of contamination. Samples were collected from the soil borings and analyzed in the field for the presence of organic vapors utilizing an UltraRae photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp. In addition, samples were submitted for laboratory confirmation to ensure the extents of contamination had been delineated.

Once the extents of contamination had been delineated, remediation activities commenced. Remediation of this site consisted of excavation and disposal of approximately 2,618 cubic yards (yds^3) of contaminated soil. The contaminated soil was disposed of at the South Monument Land Farm. The excavation bottom(s) and sidewalls associated with the point of release were sampled on April 23, 2004 and analyzed in the field for the presence of organic vapors utilizing an UltraRae photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp and submitted for laboratory quantification. Analytical results indicated all analytes were below the NMOCD remedial thresholds with the exception of chlorides. Chloride concentrations for these samples ranged from 336 parts per million (ppm) to 592 ppm. Discussions with Mr. Larry Johnson of the Hobbs office of the New Mexico Oil Conservation Division (NMOCD) resulted in the chloride impacted soil to remain in place. Analytical results for samples collected from the flow paths were below the NMOCD remedial thresholds for all analytes.

This release site is located in Unit Letter F, (SE¼ of the NW¼), Section 30, T20, R37E, N32° 32' 43.70" and W103° 17' 38.69". The site is approximately 6-miles southwest of Monument, New Mexico. The property is owned by the State of New Mexico *(reference Figures 1 through 3).*

2.0 Site Description

2.1 Geological Description

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

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

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Querqus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, amphibians, and birds are numerous and typical of area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

The unconfined groundwater aquifer at this site was projected to be 35-feet below ground surface (bgs) based on limited water depth data obtained from the New Mexico State Engineers Office data base. Due to the uncertainty as to the depth of groundwater, one of the soil borings, advanced to delineate the vertical extent of contamination, was advanced until groundwater was encountered. Groundwater was encountered at a depth of 57-feet bgs. Groundwater gradient in this area is generally to the east-southeast.

2.4 Area Water Wells

All recorded wells are greater than 1,000 horizontal feet from the site.

2.5 Area Surface Water Features

No surface water bodies exist within 1,000 horizontal feet of the site.

3.0 NMOCD Site Ranking

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

- ***Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)***
- ***Unlined Surface Impoundment Closure Guidelines (February 1993)***

Acceptable thresholds for contaminants/constituents of concern (CoC), i.e., TPH^{8015m}, benzene, and the mass sum of benzene, toluene, ethylbenzene, and total xylenes (BTEX), were determined based on the NMOCD Ranking Criteria as follows:

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

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is 10 points with the 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***
Ground Water Score = 10	**Wellhead Protection Score= 0**	**Surface Water Score= 0**
Site Rank (1+2+3) = 0 + 0 + 0 = 10 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

The vertical extent of hydrocarbon contamination at the site was determined by advancing two soil borings along side the point of release. Field analyses of soil samples collected during the advancement of the soil borings indicated contamination was restricted to the near surface (i.e., <5 feet bgs). Submission of samples to an independent laboratory confirmed the field analyses (*reference Table 1*).

Excavation of the flow paths continued until field analyses of soil samples indicated organic vapor concentrations were below 50 ppm. The flow paths were divided into five separate quadrants (reference *Figure* 4), with excavation depths varying from 1 to 3 feet below ground surface in each of the quadrants. Grab samples were collected from each quadrant and analyzed in the field for the presence of organic vapors utilizing an UltraRae® photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. Once field analyses indicated organic vapor concentrations were below 50 ppm, samples were collected and submitted to an independent laboratory for quantification of GRO, DRO, BTEX and chloride. Analytical results for these samples reported contaminant concentrations below the NMOCD remedial thresholds for all analytes (*reference Table 1*).

Approximately 33 cubic yards of soil (22 feet long X 10 feet wide X 4 feet deep) were removed from the excavation at the point of release (reference *Figure 5*). Grab samples were collected from each sidewall and the bottom of the excavation and analyzed in the field for the presence of organic vapors utilizing an UltraRae® PID equipped with a 10.6 eV lamp. Once field analyses indicated organic vapor concentrations were below 50 ppm, samples were collected and submitted to an

independent laboratory for quantification of GRO, DRO, BTEX and chloride. Analytical results for these samples reported contaminant concentrations below the NMOCD remedial thresholds for all analytes with the exception of chloride, which was above the NMOCD remedial threshold of 250 milligrams per kilogram (mg/Kg) for all the samples. (*reference Table 1*).

5.0 Ground Water Investigation

The projected depth to ground water at this site was ~35-feet bgs. However, during the advancement of the soil borings to delineate the vertical extent of contamination, one of the soil borings was advanced until groundwater was encountered. Groundwater was encountered at a depth of 57-feet bgs in this soil boring. Field analyses for soil samples collected from the soil borings indicated organic vapor concentrations ranging from 0.5 to 33.4 ppm *(reference Table 1)*. In addition, analytical results for samples collected from the surface, 5-feet bgs and 10-feet bgs in soil boring BH-1 indicated concentrations below NMOCD remedial thresholds (*reference Table 1*). The soil borings were sealed utilizing bentonite pellets.

Soil samples were collected from the flow paths during the excavation of the impacted soil along the flow paths. The samples were analyzed in the field utilizing an UltraRae PID equipped with a 10.6 eV lamp. Excavation activities continued until field analyses indicated organic vapor concentrations were below 50 ppm. Soil samples were then collected and submitted to an independent laboratory for quantification of GRO, DRO, BTEX and chloride.

Based on the removal of impacted soil to below remedial goal concentrations and adequate depth to ground water, there is no need for further groundwater investigation at this site.

6.0 Remediation Process

Remediation of the site commenced on April 6, 2004 and continued through May 7, 2004. Remedial activities at the site consisted of excavation and disposal of 2,618 yd^3 of NGL contaminated soil from the site. The contaminated soil was disposed of at the South Monument Land Farm. After field analyses of soil samples collected from the excavation indicated successful removal of impacted soil, samples were submitted to an independent laboratory to verify remedial goals had been attained. The only analyte that was reported above NMOCD remedial thresholds was chloride in the samples collected from the sidewalls and bottom of the excavation at the point of release. Subsequent conversations with Mr. Larry Johnson of the Hobbs, New Mexico office of the NMOCD resulted in verbal approval of leaving the chloride impacted soil in place and the excavation was backfilled with soil from the surrounding area (i.e., sand dunes). The backfilling and contouring of the site were completed on May 7, 2004.

7.0 Closure Justification

This report documents successful removal of impacted soil above the remedial thresholds discussed in Section 3 above and confirmed via laboratory analyses for this release site. The only exceptions were the samples collected from the excavation associated with the point of release, which indicated chloride concentrations above the NMOCD remedial thresholds. However, conversations with Mr. Larry Johnson of the Hobbs office of the NMOCD resulted in verbal approval of leaving the soil in place. Due to the depth to groundwater (i.e., >50 feet), it is suggested that the remaining impacted soil will not impact the groundwater and can be left in place. The impacted soil was excavated and disposed of at the South Monument Land Farm. Clean soil was obtained from the surrounding area to backfill the excavation. Based on the data presented in this report, Environmental Plus, Inc., on

behalf of Duke Energy Field Services, requests that the NMOCD require "no further action" at this site and issue a *Site Closure Letter*.

FIGURES

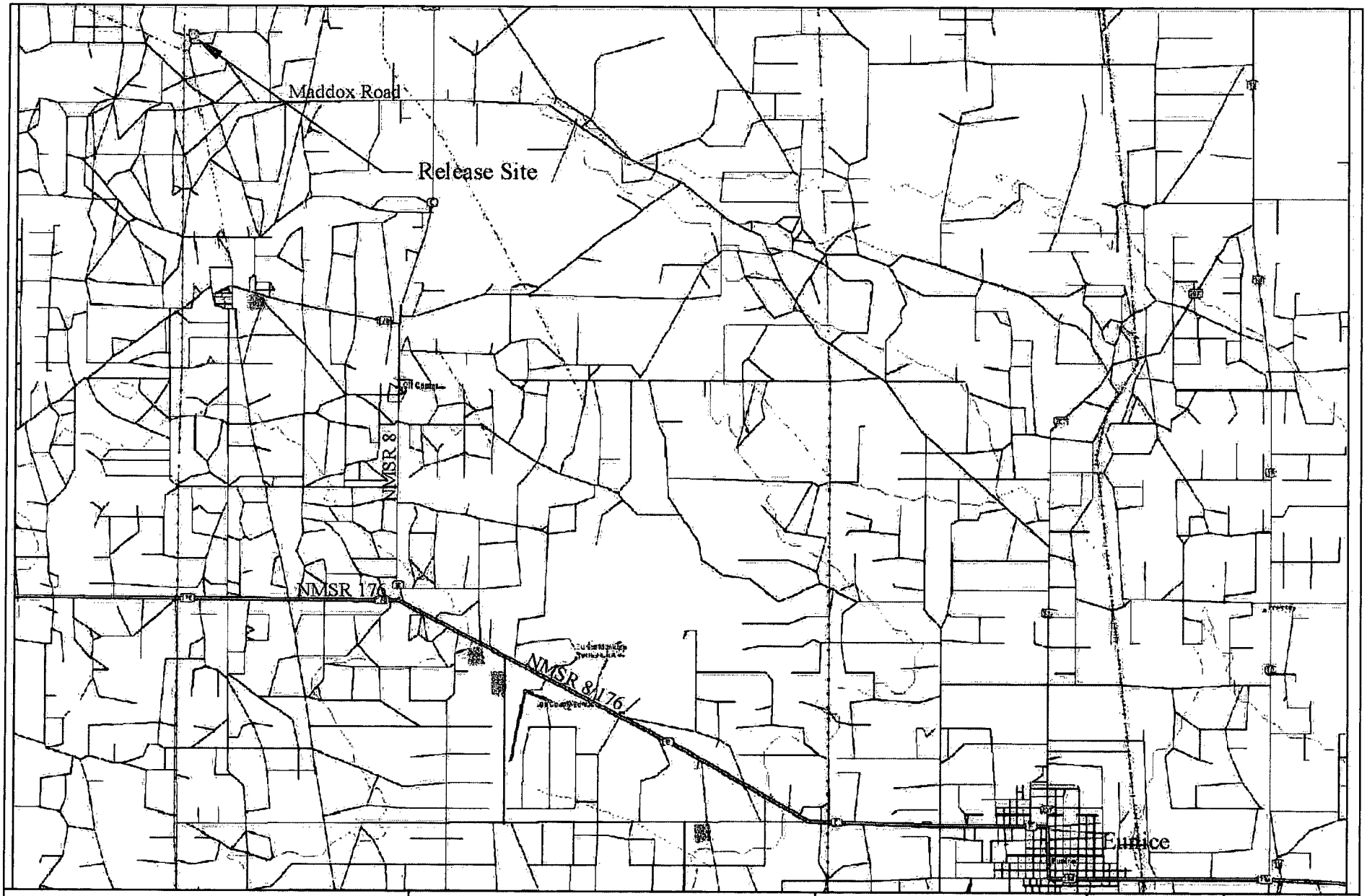

Figure 1 Area Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32 ° 32' 43.7" W 103 ° 17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness April 2004 0 6,500 13,000 Feet	REVISED SHEET 1 of 1

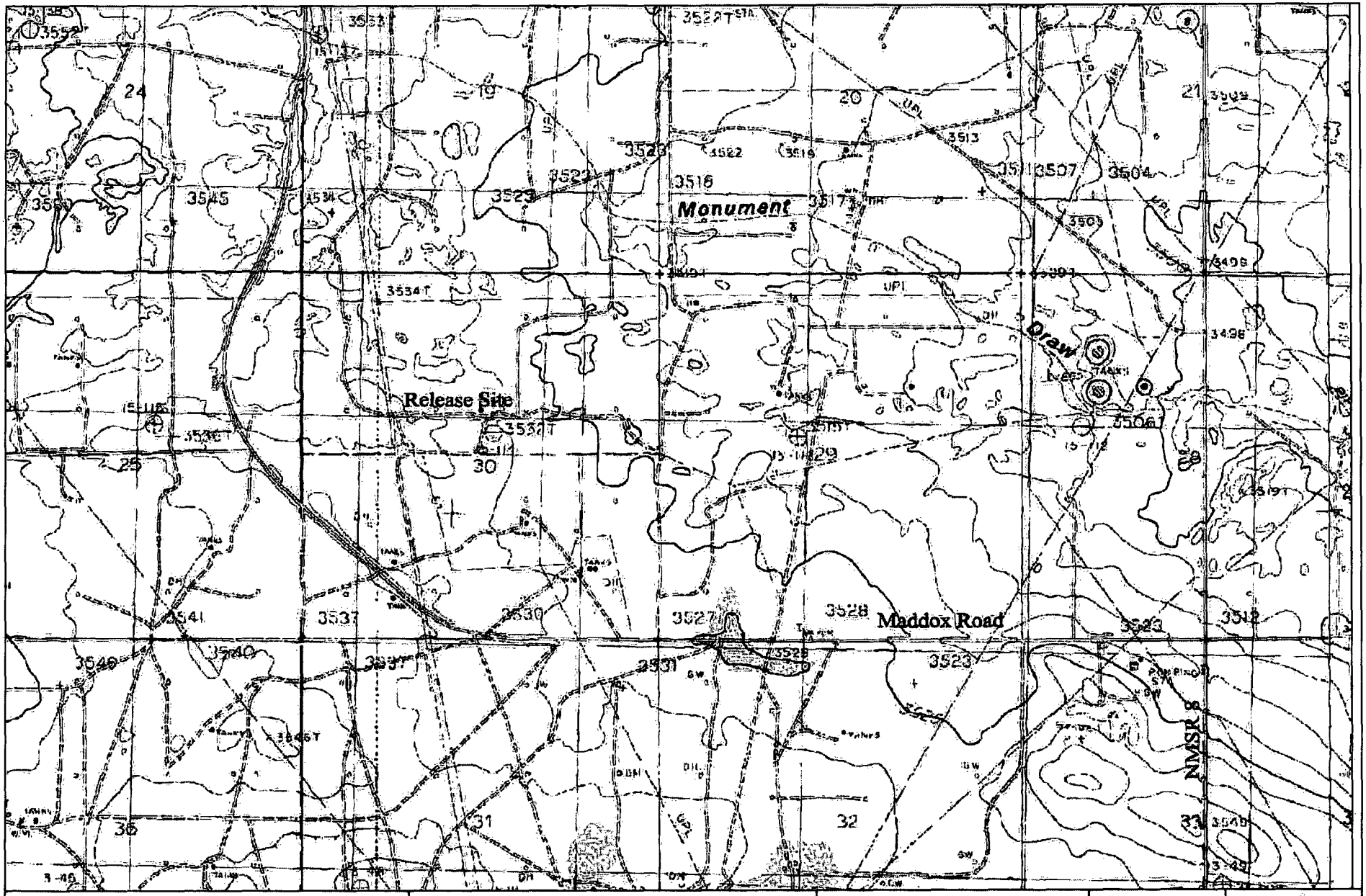

Figure 2
Site Location Map
Duke Energy Field Services
C-Extension #1 04-05-04

Lea County, New Mexico
SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E
N 32° 32' 43.7" W 103° 17' 38.7"
Elevation: 3,535 feet amsl

DWG By: Iain Olness
April 2004

REVISED:

0 2,000 4,000
Feet

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1 of 1

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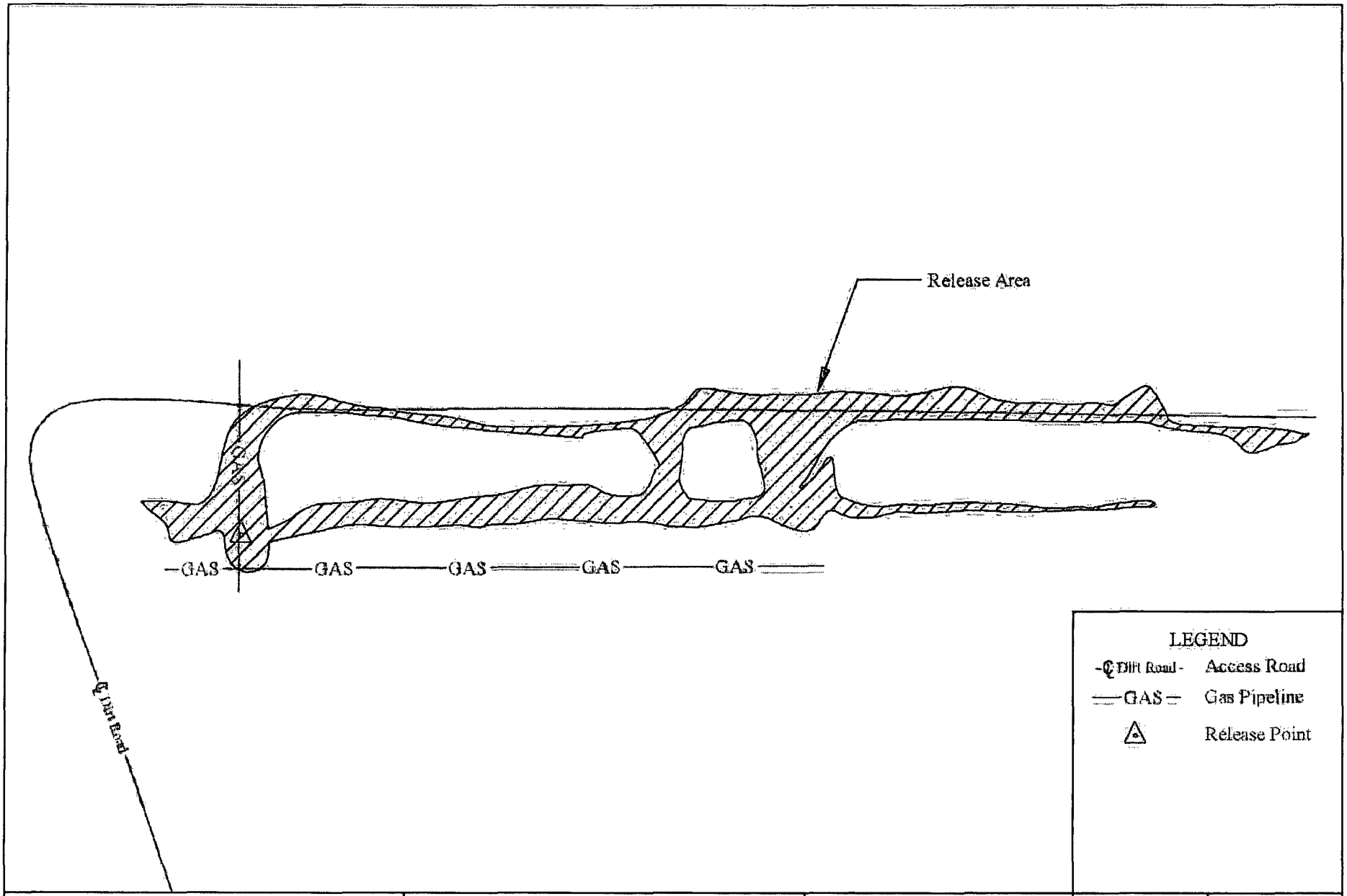

Figure 3 Site Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32° 32' 43.7" W 103 °17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness March 2004 0 135 270 Feet	REVISED: SHEET 1 of 1	N

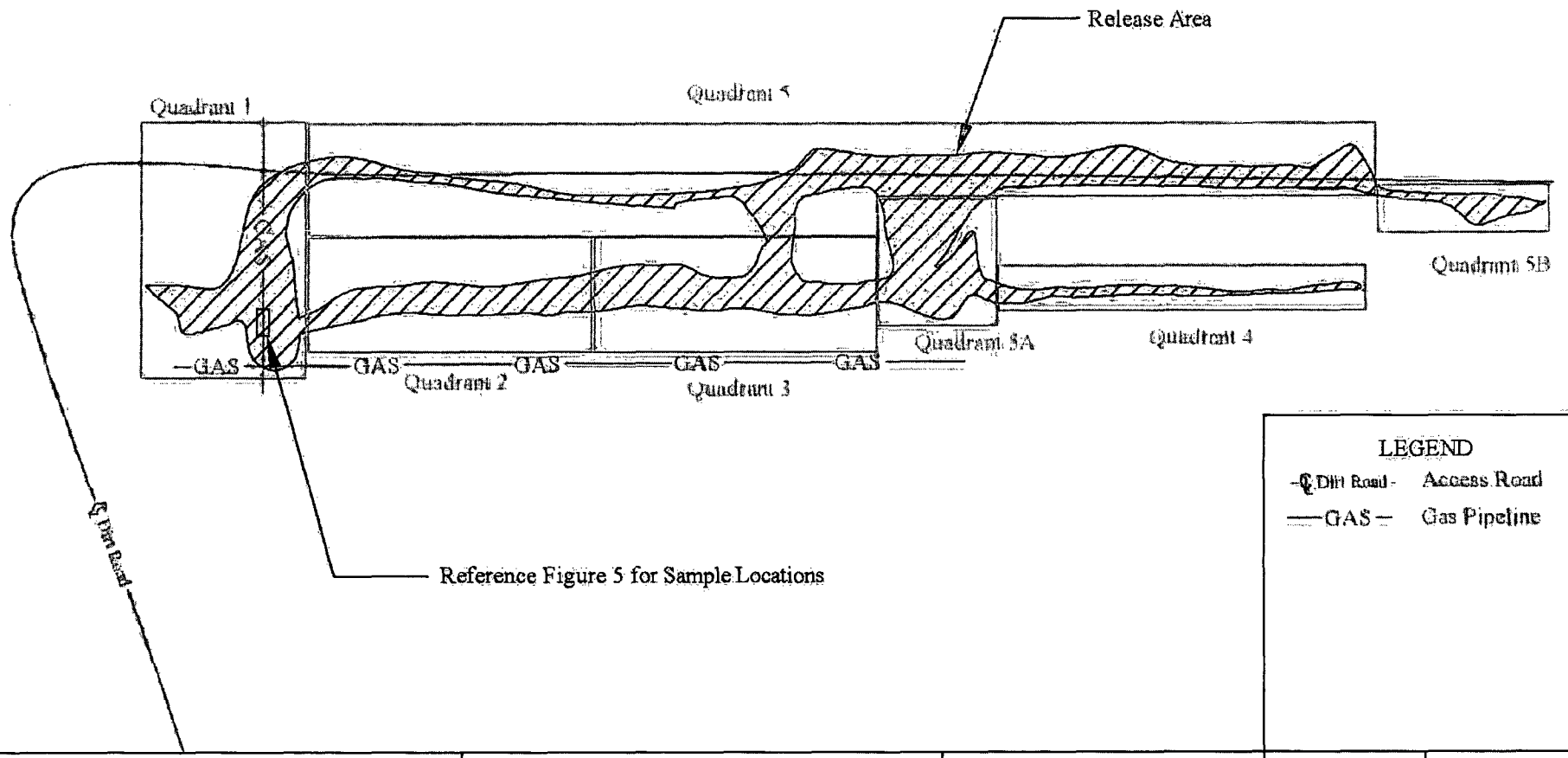

Figure 4 Sample Location Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32° 32' 43.7" W 103 °17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness March 2004 0 135 270 Feet	REVISED: SHEET 1 of 1	N

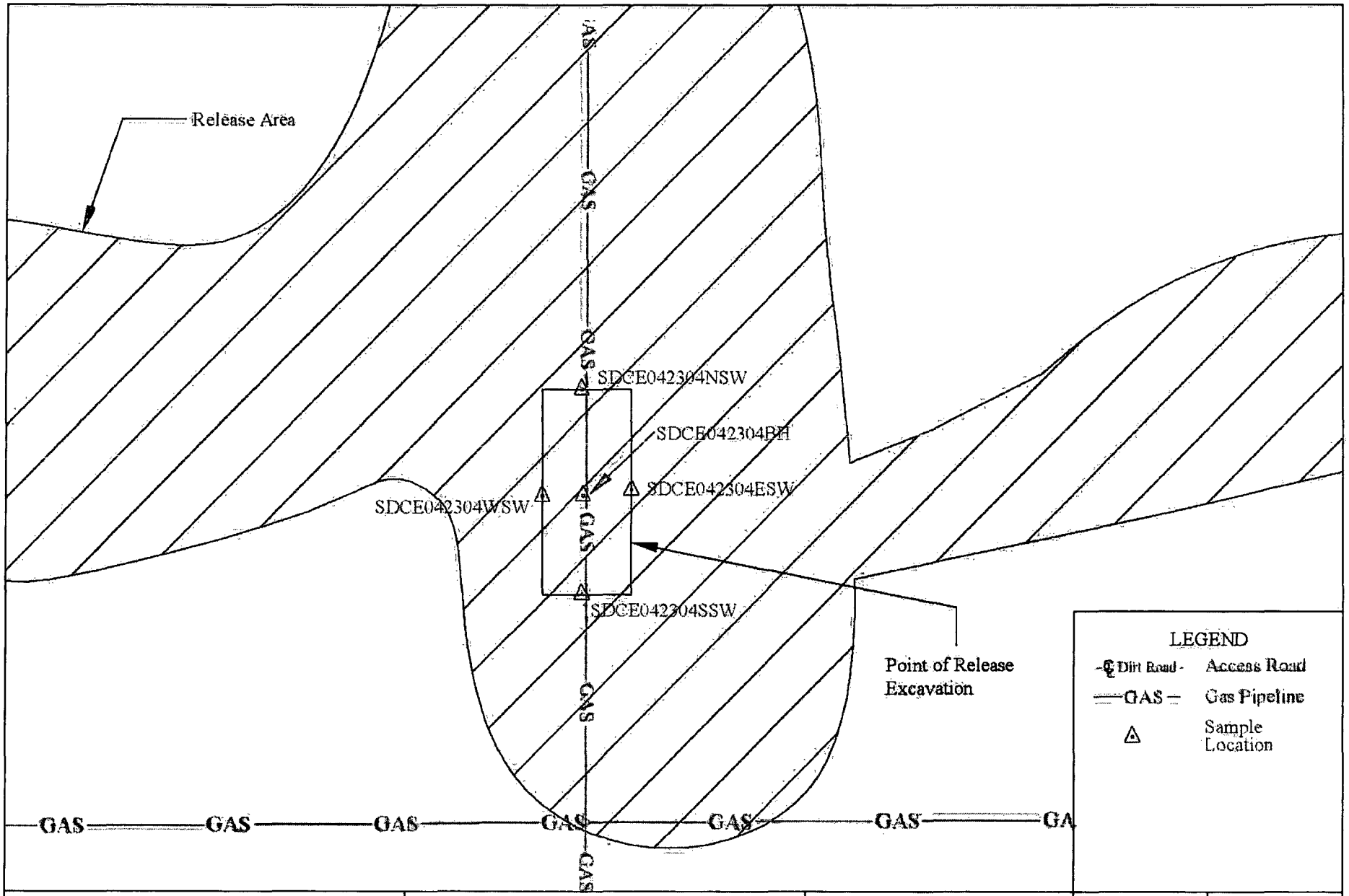

Figure 5 POR Sample Location Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32° 32' 43.7" W 103 °17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness August 2004 0 15 30 Feet	REVISED: SHEET 1 of 1	N

TABLES

TABLE 1

Summary of Soil Analytical Results

C-Extension - Ref #130001

Sample ID	Sample Date	Sample Location	Field Analysis (ppm)	Depth (feet)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
SDCE041304BH1-1'	13-Apr-04	Soil Boring BH-1	33.4	1	<0.005	0.051	0.022	0.039	0.11	<10.0	<10.0	<20.0	96	6.24
SDCE041304BH1-5'	13-Apr-04	Soil Boring BH-1	10.9	5	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	208	83.9
SDCE041304BH1-10'	13-Apr-04	Soil Boring BH-1	2.5	10	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	208	68.9
SDCE041304BH1-15'	13-Apr-04	Soil Boring BH-1	1.4	15	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-20'	13-Apr-04	Soil Boring BH-1	0.5	20	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-25'	13-Apr-04	Soil Boring BH-1	0.8	25	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-30'	13-Apr-04	Soil Boring BH-1	1.3	30	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-35'	13-Apr-04	Soil Boring BH-1	1.3	35	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-40'	13-Apr-04	Soil Boring BH-1	1.0	40	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-45'	13-Apr-04	Soil Boring BH-1	1.0	45	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-50'	13-Apr-04	Soil Boring BH-1	0.9	50	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-55'	13-Apr-04	Soil Boring BH-1	0.5	55	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH1-56'	13-Apr-04	Soil Boring BH-1	1.0	56	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH2-1'	13-Apr-04	Soil Boring BH-2	19.9	1	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH2-5'	13-Apr-04	Soil Boring BH-2	1.7	5	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
SDCE041304BH2-10'	13-Apr-04	Soil Boring BH-2	0.5	10	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
[illegible]	19-Apr-04	Quadrant 1 - Composite	38.2	1	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	137	137	128	*NA*
[illegible]	19-Apr-04	Quadrant 2 - Composite	27.0	3	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	541	541	64	*NA*
[illegible]	19-Apr-04	Quadrant 3 - Composite	10.2	3	<0.005	<0.005	<0.005	<0.005	<0.030	<10.0	557	557	48	*NA*
[illegible]	19-Apr-04	Quadrant 4 - Composite	10.0	1	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	48.8	48.8	80	*NA*
[illegible]	19-Apr-04	Quadrant 5A - Composite	45.2	1	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	271	271	48	*NA*
[illegible]	19-Apr-04	Quadrant 5B - Composite	22.1	1	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	576	576	4	*NA*
[illegible]	20-Apr-04	Quadrant 5 - Composite	22.7	2	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	431	431	80	*NA*
SDCE042304NSW	23-Apr-04	North Sidewall - Composite	16.7	0-4	<0.005	0.054	0.011	<0.015	0.065	<10.0	350	350	496	*NA*
SDCE042304ESW	23-Apr-04	East Sidewall - Composite	12.5	0-4	<0.005	0.006	0.013	<0.015	0.019	<10.0	213	213	560	*NA*
SDCE042304SSW	23-Apr-04	South Sidewall - Composite	16.5	0-4	<0.005	<0.005	0.006	<0.015	0.006	<10.0	50.3	50.3	336	*NA*
SDCE042304WSW	23-Apr-04	West Sidewall - Composite	2.2	0-4	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	35.0	35.0	592	*NA*
SDCE042304BH	23-Apr-04	Bottomhole Composite	21.6	4	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	411	411	336	*NA*
NMOCD Remedial Thresholds					**10**				**50**			**1,000**	**250**	

***BTEX** = Benzene, Toluene, Ethylbenzene, Total Xylenes*

***GRO** = Gasoline Range Organics*

***DRO** = Diesel Range Organics*

***TPH** = Total Petroleum Hydrocarbons*

***ppm** = parts per million, which is equivalent to milligrams per kilogram (mg/Kg)*

***mg/Kg** = milligrams per kilogram, which is equivalent to parts per million (ppm)*

***NA** = Not Analyzed*

Red, bold values are in excess of NMOCD remedial thresholds

APPENDIX I

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY FORMS

CARDINAL LABORATORIES

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

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

Receiving Date: 04/14/04
Reporting Date: 04/15/04
Project Owner: DUKE ENERGY FIELD SERVICES
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/13/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Sulfate (mg/Kg)	Cl (mg/Kg)
ANALYSIS DATE:		04/15/04	04/15/04
H8605-1	SDCE041304BH1-1'	6.24	96
H8605-2	SDCE041304BH1-5'	83.9	208
H8605-3	SDCE041304BH1-10'	68.9	208
Quality Control		53.65	950
True Value QC		50.00	1000
% Recovery		107	95.0
Relative Percent Difference		1.5	6.0

METHODS: EPA 600/4-79-02	375.4	SM 4500-Cl

Amy Hill
Chemist

4/15/04
Date

H8605

CARDINAL LABORATORIES

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

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

Receiving Date: 04/14/04
Reporting Date: 04/15/04
Project Owner: DUKE ENERGY FIELD SERVICES
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/13/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		04/14/04	04/14/04	04/14/04	04/14/04	04/14/04	04/14/04
H8605-1	SDCE041304BH1-1'	<10.0	<10.0	<0.005	0.051	0.022	0.039
H8605-2	SDCE041304BH1-5'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8605-3	SDCE041304BH1-10'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		793	827	0.092	0.098	0.098	0.285
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		99.2	103	92.1	98.2	98.4	94.9
Relative Percent Difference		4.3	0.9	8.4	6.0	7.2	8.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

4/15/04
Date

H8605.XLS

Cardinal Laboratories Inc.

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

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

Company Name	Duke Energy Field Services
Project Manager	Paul Mulkey
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	
Project Name	C Extension # 1
Project Location	31001
Sampler Name	Roger Boone

Bill To

E.P.I.

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH 8015M	Cl	REACTIVITY	Ignitability	Corrosivity	TCLP	Sulfates
H8605-1	SDCE041304BH1-1'	G	1			X					X		4/13	8:00	X	X	X					X
-2	SDCE041304BH1-5'	G	1			X					X		4/13	8:30	X	X	X					X
-3	SDCE041304BH1-10'	G	1			X					X		4/13	9:00	X	X	X					X

Sampler Relinquished:	04/14/2004 Time	Received By:	Fax Results To Iain Olnessat 505-394-2601
Relinquished by: Brett Clay	Date 4/14/04 Time 12:35pm	Received By: (lab staff)	REMARKS:
Delivered by Sampler	Sample Cool & Intact: (Yes) No	Checked By:	

CARDINAL LABORATORIES

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

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

Receiving Date: 04/19/04
Reporting Date: 04/20/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/19/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		04/19/04	04/19/04	04/20/04
H8613-1	SDCE041904Q1C	<10.0	137	128
H8613-2	SDCE041904Q2C	<10.0	541	64
H8613-3	SDCE041904Q3C	<10.0	557	48
H8613-4	SDCE041904Q4C	<10.0	48.8	80
H8613-5	SDCE041904Q5AC	<10.0	271	48
H8613-6	SDCE041904Q5BC	<10.0	576	96
Quality Control		777	736	1000
True Value QC		800	800	1000
% Recovery		97.2	92.0	100
Relative Percent Difference		2.6	0.4	5.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

4/20/04
Date

H8613A.XLS

CARDINAL LABORATORIES

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

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

Receiving Date: 04/19/04
Reporting Date: 04/20/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/19/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		04/19/04	04/19/04	04/19/04	04/19/04
H8613-1	SDCE041904Q1C	<0.005	<0.005	<0.005	<0.015
H8613-2	SDCE041904Q2C	<0.005	<0.005	<0.005	<0.015
H8613-3	SDCE041904Q3C	<0.005	<0.005	<0.005	<0.015
H8613-4	SDCE041904Q4C	<0.005	<0.005	<0.005	<0.015
H8613-5	SDCE041904Q5AC	<0.005	<0.005	<0.005	<0.015
H8613-6	SDCE041904Q5BC	<0.005	<0.005	<0.005	<0.015
Quality Control		0.102	0.099	0.102	0.307
True Value QC		0.100	0.100	0.100	0.300
% Recovery		102	99.0	102	102
Relative Percent Difference		5.9	0.2	4.0	5.8

METHOD: EPA SW-846 8260

Chemist

4/20/04
Date

Cardinal Laboratories Inc.

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

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

Company Name	Duke Energy
Project Manager	Paul Mulkey
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	
Project Name	C Extension #1
Project Location	
Sampler Name	Roger Boone

Bill To

Environmental Plus Inc.

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH8015M	Cl
N8613-1	SDCE041904Q1C	C	1			X					X		4/19	8:00	X	X	X
-2	SDCE041904Q2C	C	1			X					X		4/19	8:30	X	X	X
-3	SDCE041904Q3C	C	1			X					X		4/19	9:00	X	X	X
-4	SDCE041904Q4C	C	1			X					X		4/19	9:45	X	X	X
-5	SDCE041904Q5AC	C	1			X					X		4/19	10:10	X	X	X
-6	SDCE041904Q5BC	C	1			X					X		4/19	10:20	X	X	X

Sampler Relinquished: Roger Boone	Date 4-19	Received By:	Fax Results To Iain Olness 505-394-2601
	Time 10:34 AM		Remarks
Relinquished by:	Date	Received By: (lab staff) Bridgett Cook	
	Time		
Delivered by Sampler	Sample Cool & Intact: (Yes) No	Checked By:	

CARDINAL LABORATORIES

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

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

Receiving Date: 04/21/04
Reporting Date: 04/22/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/20/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		04/21/04	04/21/04	04/22/04
H8623-1	SDCE041904Q5C	<10.0	431	80
Quality Control		777	736	1000
True Value QC		800	800	1000
% Recovery		97.2	92.0	100
Relative Percent Difference		2.6	0.4	5.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analysis performed on a 1:4 w:v aqueous extract.

Chemist

4/22/04
Date

H8623A.XLS

CARDINAL LABORATORIES

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

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

Receiving Date: 04/21/04
Reporting Date: 04/22/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/20/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NO. SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE	04/21/04	04/21/04	04/21/04	04/21/04
H8623-1 SDCE041904Q5C	<0.005	<0.005	<0.005	<0.015
Quality Control	0.097	0.100	0.098	0.292
True Value QC	0.100	0.100	0.100	0.300
% Recovery	97.0	99.7	98.3	97.3
Relative Percent Difference	1.0	3.9	0.4	0.3

METHOD: EPA SW-846 8260

Chemist

4/22/04
Date

H8623E.XLS

Cardinal Laboratories Inc.

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

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

Company Name	Duke Energy
Project Manager	Paul Mulkey
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	
Project Name	C Extension #1
Project Location	
Sampler Name	R Bonner

Bill To

Environmental Plus Inc.

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH8015M	Cl
18623-1	SDCE041904Q5C	C	1			X					X		4/20	3:00	X	X	X

Sampler Relinquished: Roger Bonner	Date 4/21/04 Time 7:00	Received By: Cody Mabb	Fax Results To Iain Olness 505-394-2601
Relinquished by: Cody Mabb	Date 4/21/04 Time	Received By: (lab staff)	Remarks
Delivered by Sampler	Sample Cool & Intact (Yes) No	Checked By:	

CARDINAL LABORATORIES

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

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

Receiving Date: 04/26/04
Reporting Date: 04/28/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/23/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		04/26/04	04/26/04	04/26/04
H8639-1	SDCE042304NSW	<10.0	350	496
H8639-2	SDCE042304ESW	<10.0	213	560
H8639-3	SDCE042304SSW	<10.0	50.3	336
H8639-4	SDCE042304WSW	<10.0	35.0	592
H8639-5	SDCE042304BH	<10.0	411	336
Quality Control		790	762	980
True Value QC		1000	1000	1000
% Recovery		98.8	95.3	98.0
Relative Percent Difference		2.5	6.3	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

4/28/04
Date

H8639A.XLS

CARDINAL LABORATORIES

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

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

Receiving Date: 04/26/04
Reporting Date: 04/28/04
Project Owner: DUKE ENERGY
Project Name: C EXTENSION #1
Project Location: NOT GIVEN

Sampling Date: 04/23/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		04/27/04	04/27/04	04/27/04	04/27/04
H8639-1	SDCE042304NSW	<0.005	0.054	0.011	<0.015
H8639-2	SDCE042304ESW	<0.005	0.006	0.013	<0.015
H8639-3	SDCE042304SSW	<0.005	<0.005	0.006	<0.015
H8639-4	SDCE042304WSW	<0.005	<0.005	<0.005	<0.015
H8639-5	SDCE042304BH	<0.005	<0.005	<0.005	<0.015
Quality Control		0.100	0.092	0.086	0.258
True Value QC		0.100	0.100	0.100	0.100
% Recovery		99.9	92.4	86.2	85.9
Relative Percent Difference		6.9	9.6	12.3	10.6

METHOD: EPA SW-846 8260

Chemist

4/28/04
Date

Fax: 394-2601

Cardinal Laboratories Inc.

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

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

Company Name	Duke Energy
Project Manager	Paul Mulkey
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	130001
Project Name	C Extension #1
Project Location	
Sampler Name	Roger Boone

Bill To

Environmental Plus Inc.

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH8015M	Cl
H8634-1	SDCE042304NSW	C	1			X					X		4/23	10:00	X	X	X
-2	SDCE042304ESW	C	1			X					X		4/23	10:05	X	X	X
-3	SDCE042304SSW	C	1			X					X		4/23	10:10	X	X	X
-4	SDCE042304WSW	C	1			X					X		4/23	10:15	X	X	X
-5	SDCE042304BH	C	1			X					X		4/23	10:20	X	X	X

Sampler Relinquished: Roger Boone	Date: 4/24 Time: 7:00	Received By: Cody Mabb	Fax Results To Iain Olness 505-394-2601
Relinquished by: Cody Mabb	Date: 4/24/04 Time:	Received By: (Lab staff)	Remarks
Delivered by Sampler	Sample Cool & Intact: Yes / No	Checked By:	

APPENDIX II

PROJECT PHOTOGRAPHS

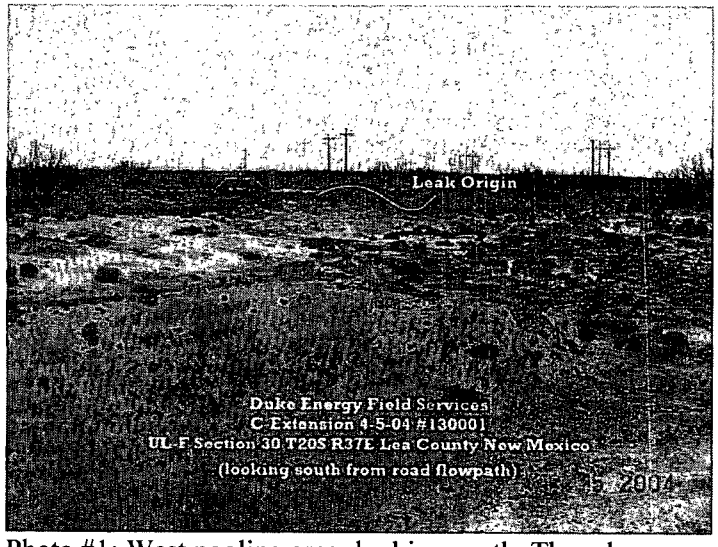

Photo #1: West pooling area, looking south. The release point is near the piping seen in the background.

Photo #2: North flow path along access road, looking east from the west pooling area.

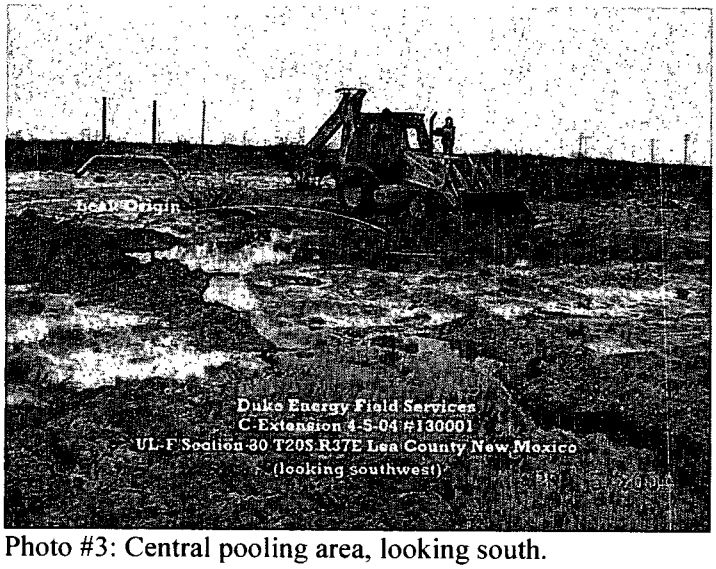

Photo #3: Central pooling area, looking south.

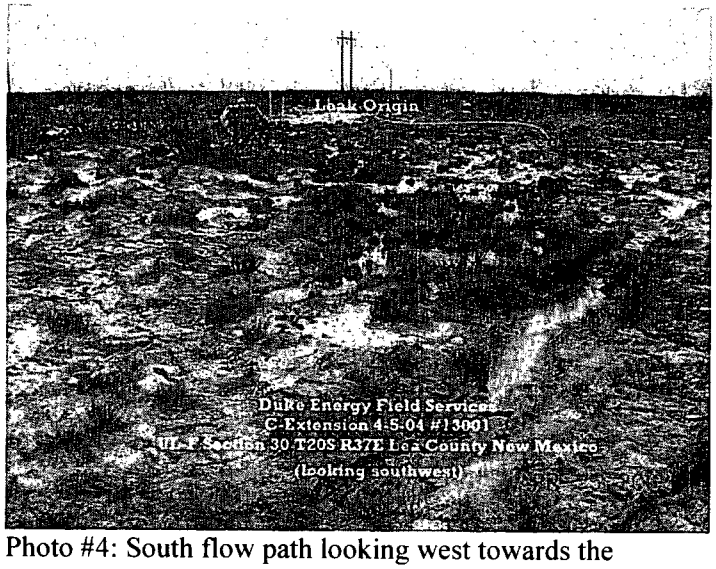

Photo #4: South flow path looking west towards the point of release.

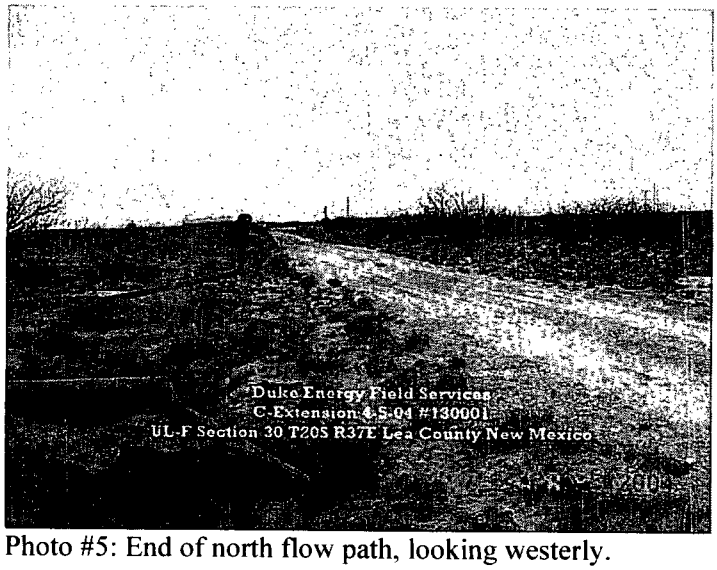

Photo #5: End of north flow path, looking westerly.

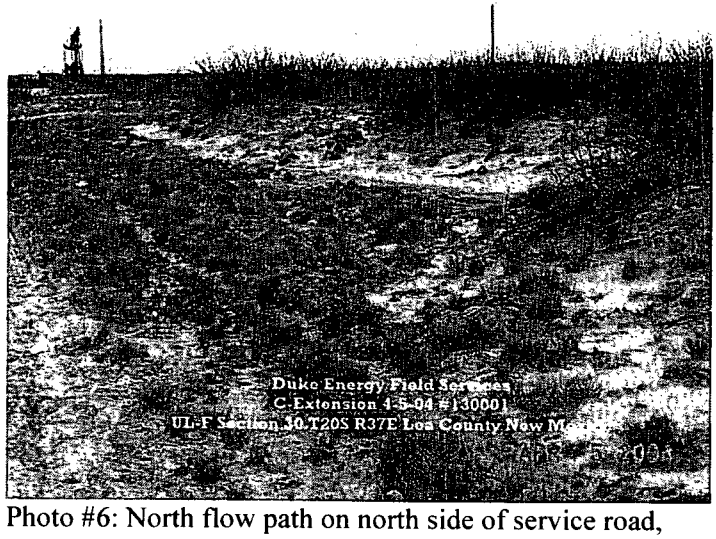

Photo #6: North flow path on north side of service road, looking westerly.

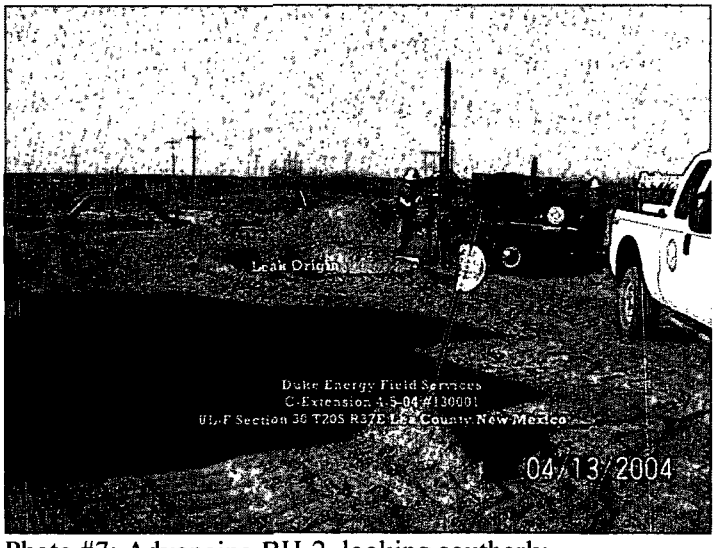

Photo #7: Advancing BH-2, looking southerly.

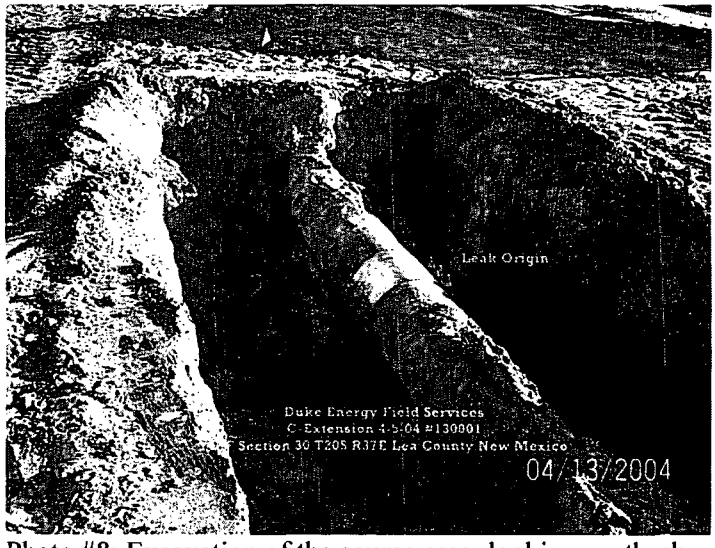

Photo #8: Excavation of the source area, looking southerly.

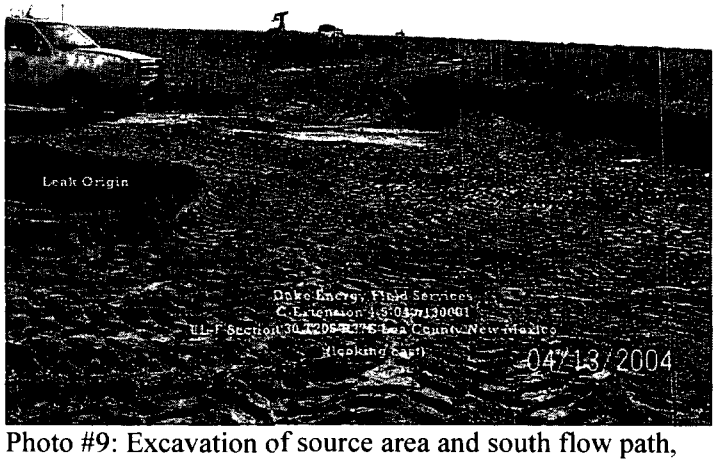

Photo #9: Excavation of source area and south flow path, looking easterly.

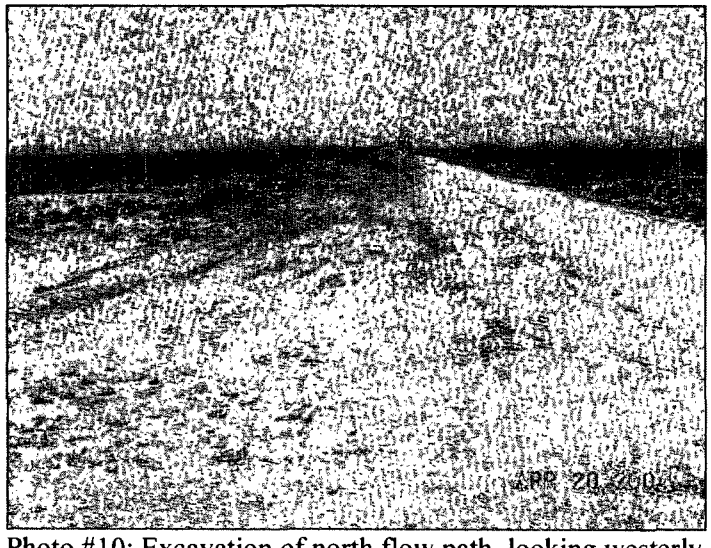

Photo #10: Excavation of north flow path, looking westerly.

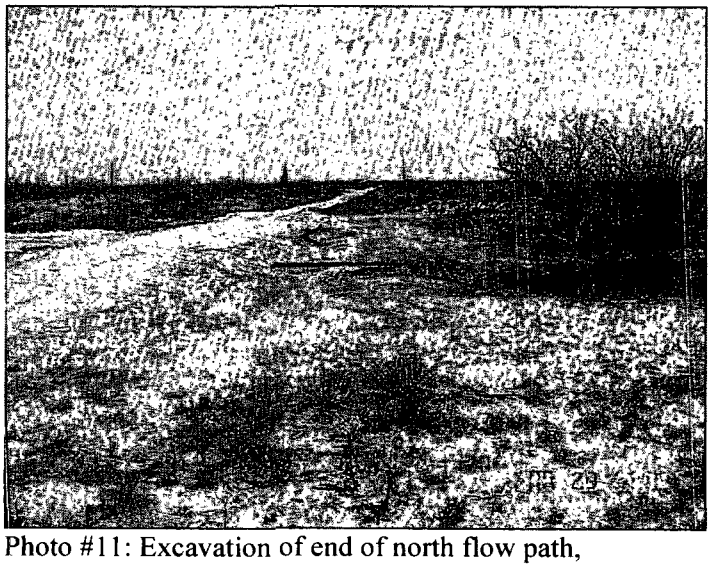

Photo #11: Excavation of end of north flow path, looking easterly.

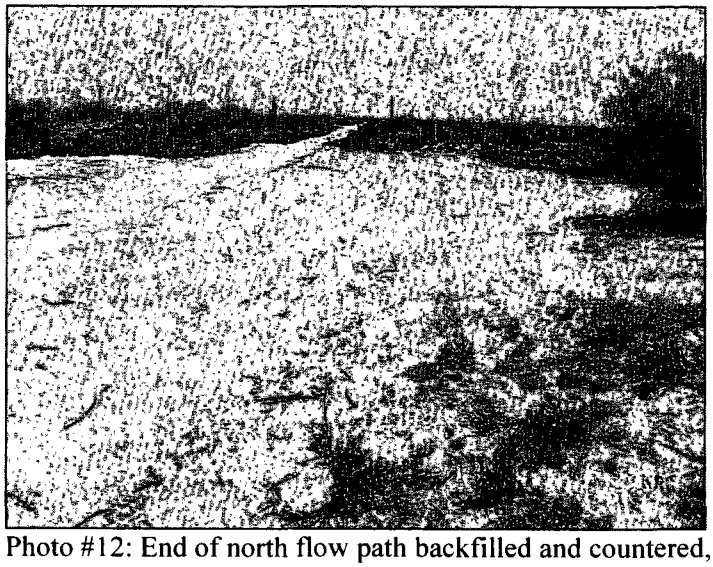

Photo #12: End of north flow path backfilled and countered, looking easterly.

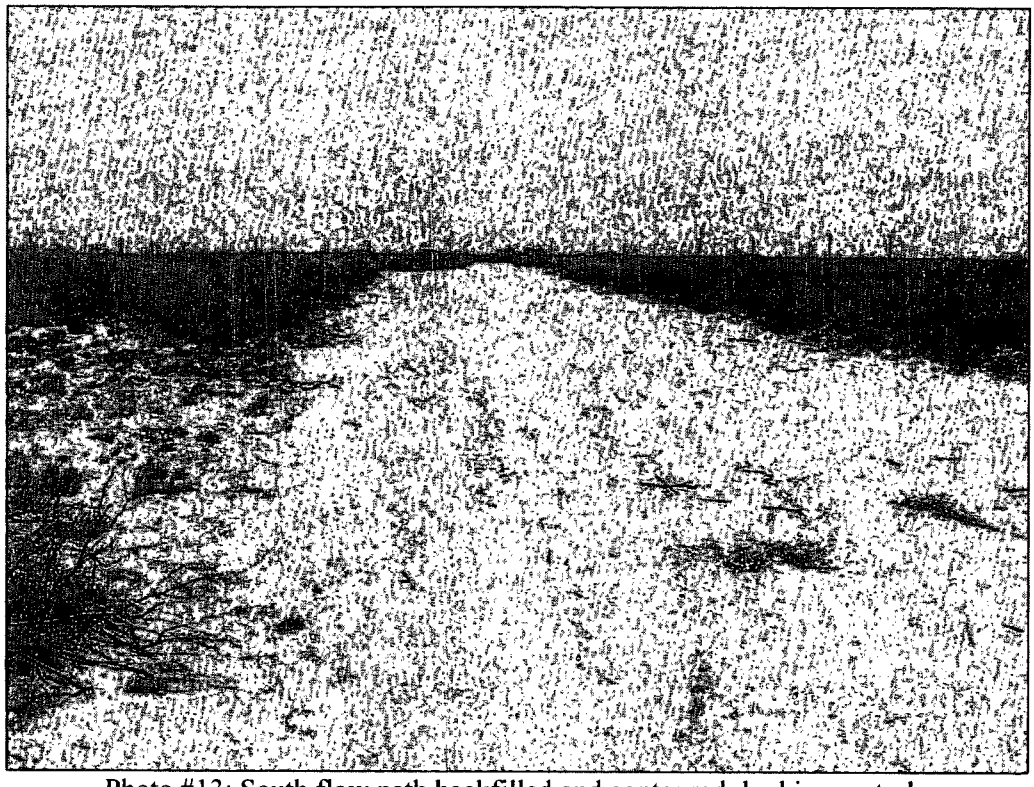

Photo #13: South flow path backfilled and contoured, looking easterly

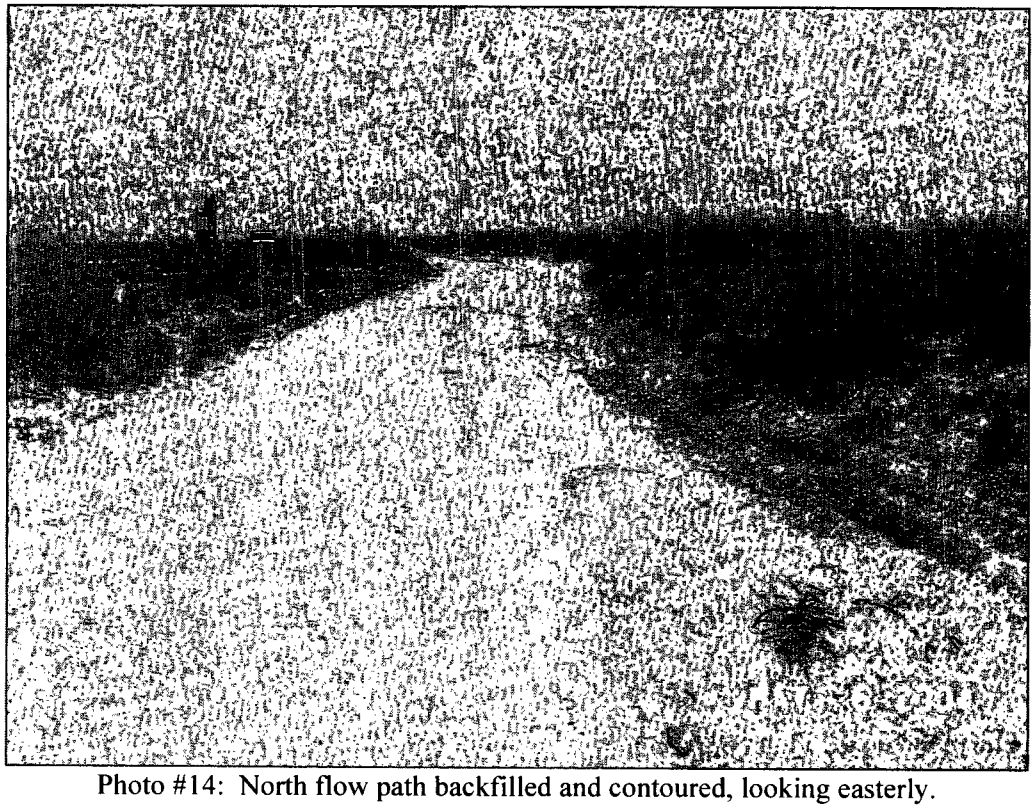

Photo #14: North flow path backfilled and contoured, looking easterly.

APPENDIX III

SITE INFORMATION AND METRICS FORM
AND
FINAL NMOCD C-141 FORM

Duke Energy Field Services	Site Information and Metrics	Incident Date: **4-5-04 @ 8:00 AM**	NMOCD Notified: 4-5-04 @ 4:45 PM MST

SITE: C-Extension #1	Assigned Site Reference #: 130001
Company: Duke Energy Field Services	
Street Address:	
Mailing Address: 11525 West Carlsbad Highway	
City, State, Zip: Hobbs, New Mexico 88240	
Representative: Paul Mulkey	
Representative Telephone: 505.397.5716	
Telephone:	
Fluid volume released (bbls): 180 bbls	Recovered (bbls): 120 bbls
>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: C-Extension #1	
Source of contamination: 16" Steel Pipeline	
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico	
LSP Dimensions 1190' x 171'	
LSP Area: 57,998 sqft ft^2	
Location of Reference Point (RP)	
Location distance and direction from RP	
Latitude: 32^0 32' 43.70"N	
Longitude: 103^0 17' 38.69"W	
Elevation above mean sea level: 3,535'amls	
Feet from South Section Line	
Feet from West Section Line	
Location- Unit or ¼¼: SE¼ of the NW¼	Unit Letter: F
Location- Section: 30	
Location- Township: T20S	
Location- Range: R37E	
Surface water body within 1000 ' radius of site: none	
Domestic water wells within 1000' radius of site: none	
Domestic water wells within 1000' radius of site:	
Agricultural water wells within 1000' radius of site: none	
Agricultural water wells within 1000' radius of site:	
Public water supply wells within 1000' radius of site: none	
Depth from land surface to ground water (DG) ~35'bgs	
Depth of contamination (DC) – ?	
Depth to ground water (DG – DC = DtGW) - ?	

1. Ground Water	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*		200-100 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*
Ground water Score = 20	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*
Site Rank (1+2+3) = 20		

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	1000 ppm	5000 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 March 17, 1999

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: **Duke Energy Field Services**	Contact: **Paul Mulkey**
Address **11525 West Carlsbad Highway Hobbs, New Mexico 88240**	Telephone No. **505.397.5716**
Facility Name **C-Extension #1 #130001**	Facility Type **16" Steel Pipeline**
Surface Owner: **State of New Mexico**	Mineral Owner / Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
F	**30**	**T20S**	**R37E**					**Lat. 32° 32' 43.70"N** **Lon. 103° 17' 38.69"W**

Latitude: 32° 32' 43.70"N **Longitude:** 103° 17' 38.69"W

NATURE OF RELEASE

Type of Release **Natural Gas Pipeline Fluids**	Volume of Release **180 bbls barrels**	Volume Recovered **120 bbls barrels**
Source of Release **16" Steel Pipeline**	Date and Hour of Occurrence **4-5-04 @ 8:00 AM**	Date and Hour of Discovery **4-5-04 @ 10:00 AM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Gary Wink**	
By Whom? **Lynn Ward, Duke**	Date and Hour: **4-5-04 @ 4:45 PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
16" Steel Pipeline **Pipe repair clamp installed.**

Describe Area Affected and Cleanup Action Taken.*
57,998 sqft 1190' x 171': Soil contaminated above the NMOCD Remedial Guidelines was excavated and disposed of at an approved facility. Remedial Goals: TPH 8015m = 1,000 mg/Kg, Benzene = 10 mg/Kg, and BTEX = 50 mg/Kg.

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: Paul Mulkey	**OIL CONSERVATION DIVISION**	
Printed Name: Paul Mulkey	Approved by District Supervisor:	
E-mail Address: pdmulkey@duke-energy.com	Approval Date:	Expiration Date:
Title: Maintenance Construction Supervisor	Conditions of Approval:	Attached ☐
Date: 10/12/04 Phone: 505.397.5716		

* Attach Additional Sheets If Necessary