PC 1/20/06

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

Micro-Blaze Micro-Blaze Gel™

ENVIRONMENTAL PLUS, INC.

April 6, 2004

Mr. Larry Johnson
Environmental Engineer
New Mexico Oil Conservation Division
1625 North French
Hobbs, New Mexico 88240

Subject: Duke Energy Field Services Initial C-141

Re: C-Extension #1, #130001
UL-F, SE¼ of the NW¼ of Section 30 T20S R37E
Latitude N 32° 32' 43.70" and Longitude W 103° 17' 38.69"
Landowner: State of New Mexico

Dear Mr. Larry Johnson,

Environmental Plus, Inc. (EPI), on behalf of Mr. Paul Mulkey, Maintenance Construction Supervisor, Duke Energy Field Services, submits the attached New Mexico Oil Conservation Division (NMOCD) form C-141 for the above referenced leak site located on land owned by the State of New Mexico, approximately ~6 miles southwest of Monument, New Mexico. The New Mexico Office of the State Engineer records indicate an average area water level of approximately 35 feet below the ground surface. The attached site information and metrics form ranks the site in accordance with the **NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)** (Guidelines).

Duke Energy Field Services proposes to remediate the site consistent with the Guidelines and, if necessary, develop and submit a site specific remediation plan for NMOCD approval to address issues identified during delineation of the vertical and horizontal extents of contamination of the Constituents of Concern (CoCs) i.e., total petroleum hydrocarbon EPA method 8015m (TPH^{8015m}), benzene, and BTEX, i.e., the mass sum of benzene, toluene, ethylbenzene, and xylenes. Soil samples will also be analyzed for the presence of chlorides to

Duke-229153
facility- fPAC0602034381
incident- n PAC0602034497
application- pPAC0603150436

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

achieve chloride concentrations in the soil of less than 250 milligrams/kilogram (mg/Kg). The contaminated soil is exempt from RCRA 40 CFR Part 261.

Should you have any questions or concerns, please call Mr. Ben Miller or myself at the office or at 505.390.0288 and 505.390.7306, respectively or Mr. Paul Mulkey at 505.397.5716. All official communication should be addressed to:

Mr. Paul Mulkey
Duke Energy Field Services
11525 West Carlsbad Highway
Hobbs, New Mexico 88240

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Paul Mulkey, Duke Energy Field Services
Lynn Ward, Duke Energy Field Services
Steve Weathers, Duke Energy Field Services
Ben Miller, EPI Vice President and General Manager, w/o enclosure
Sherry Miller, EPI President, w/o enclosure
file

ENVIRONMENTAL PLUS, INC.

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 will be disposed of at an approved facility or remediated on site. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 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:	**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: April 6, 2004 Phone: 505.397.5716		

* Attach Additional Sheets If Necessary

Duke = 229153
Facility = fPAC0602034381
Incident = nPAC0602034497

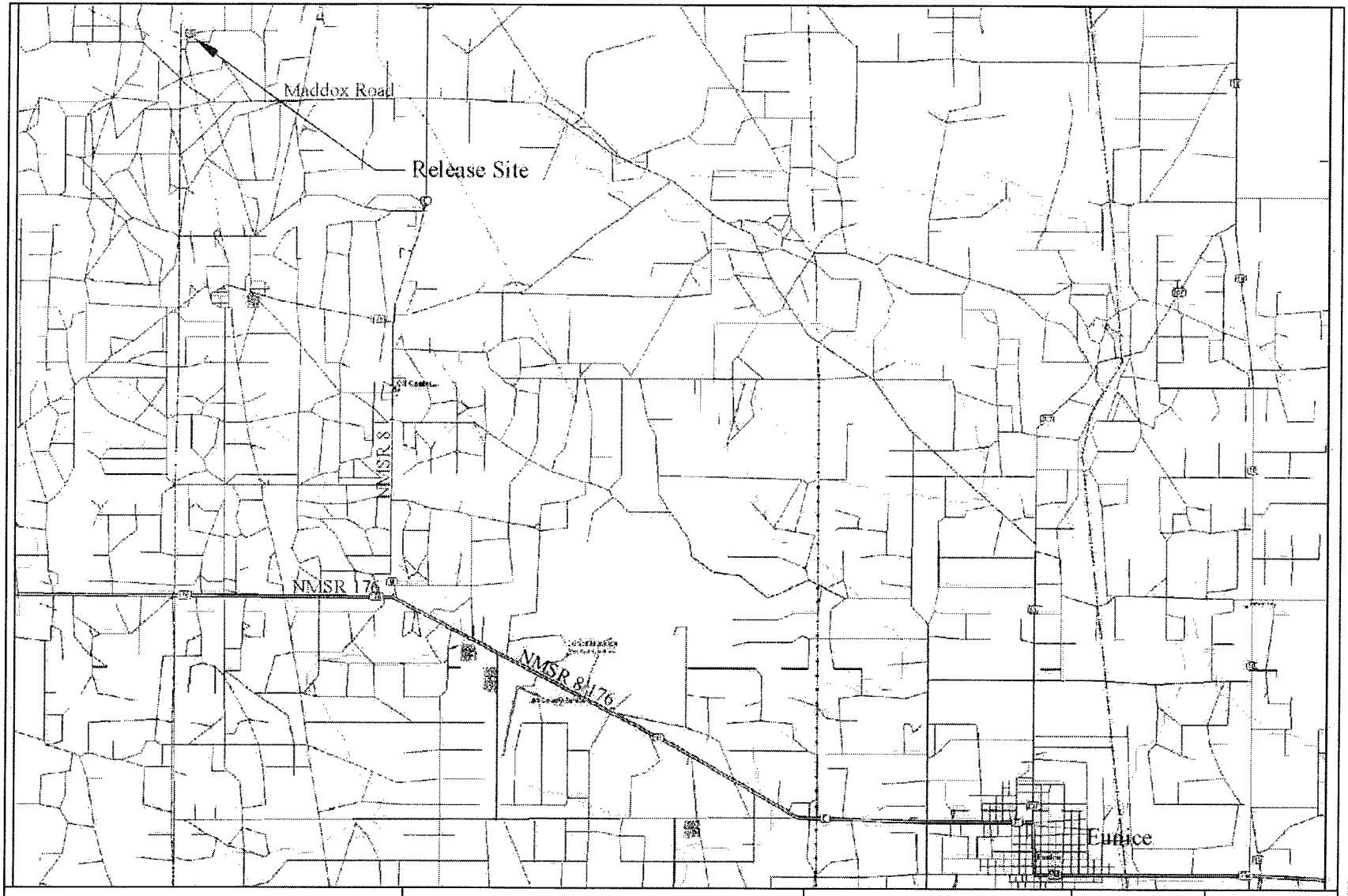

Figure 1 Area Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32 °32' 43.7" W 103 °17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness April 2004	REVISED:	N
		0 6,500 13,000 Feet	SHEET 1 of 1	

Duke Energy Field Services

C-Extension #1
130001

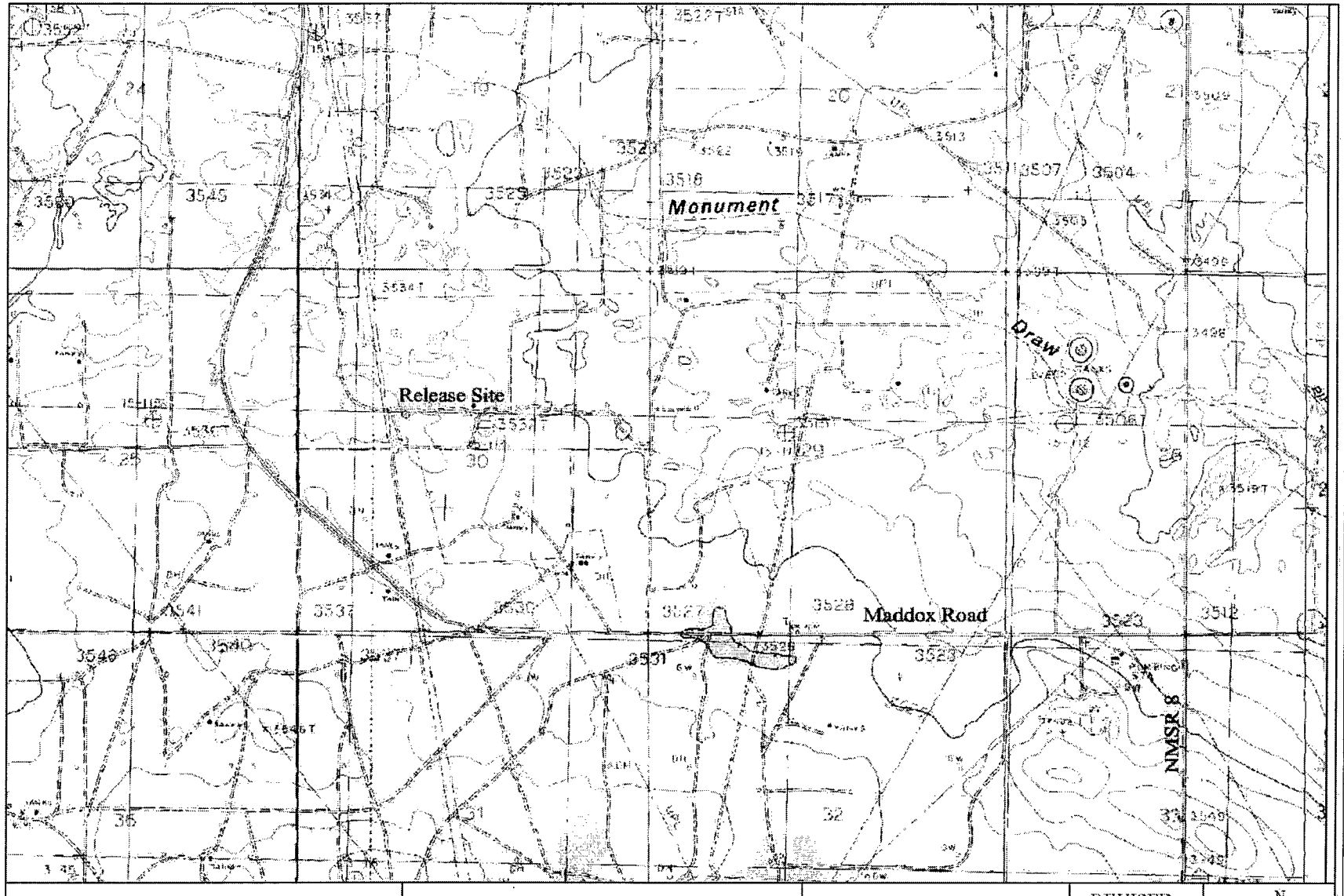

Figure 2 Site Location Map Duke Energy Field Services C-Extension #1 04-05-04	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 30, T20S, R37E N 32° 32' 43.7" W 103 °17' 38.7" Elevation: 3,535 feet amsl	DWG By: Iain Olness April 2004 0 2,000 4,000 Feet	REVISED: SHEET 1 of 1

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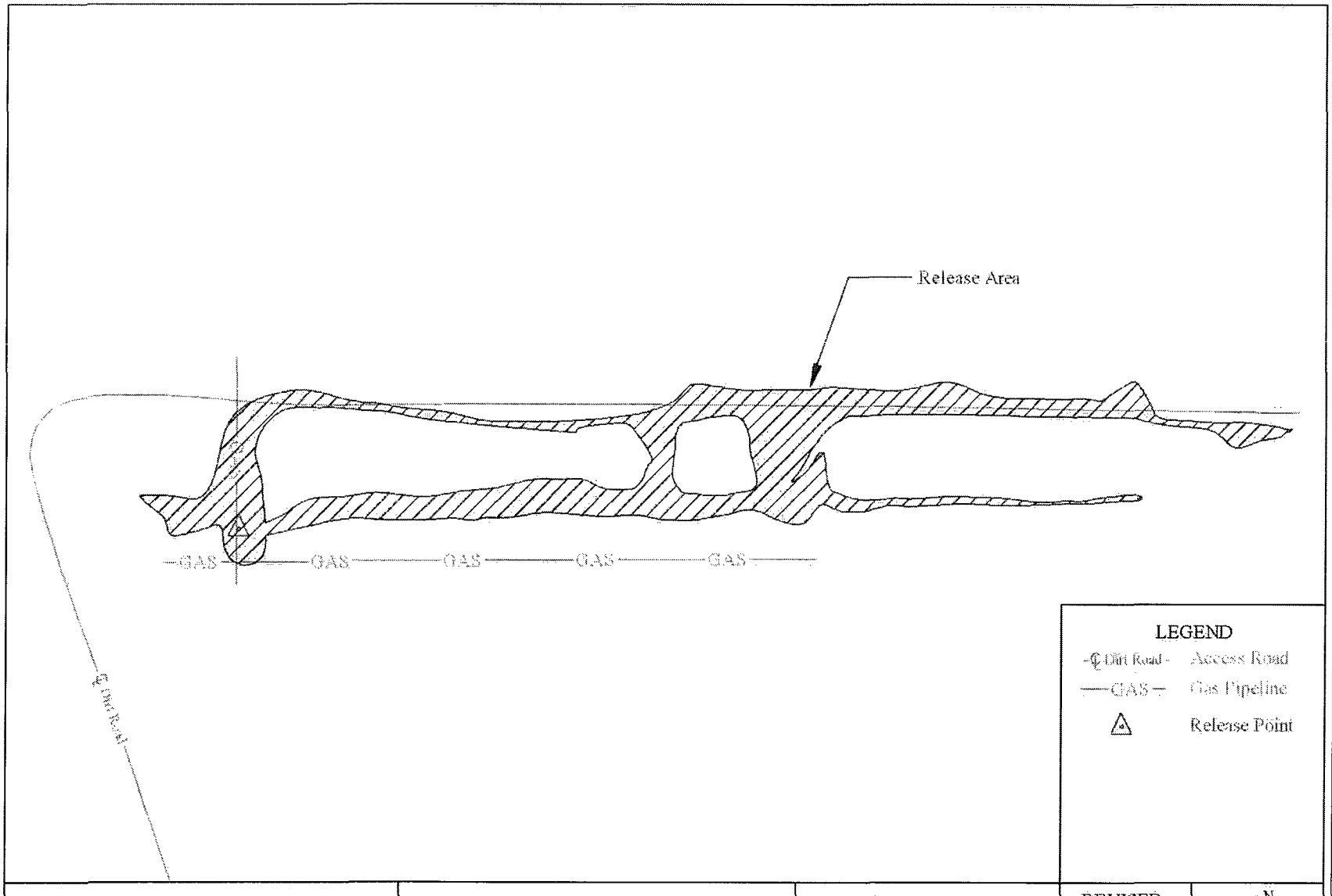
Duke Energy Field Services

C-Extension #1
130001



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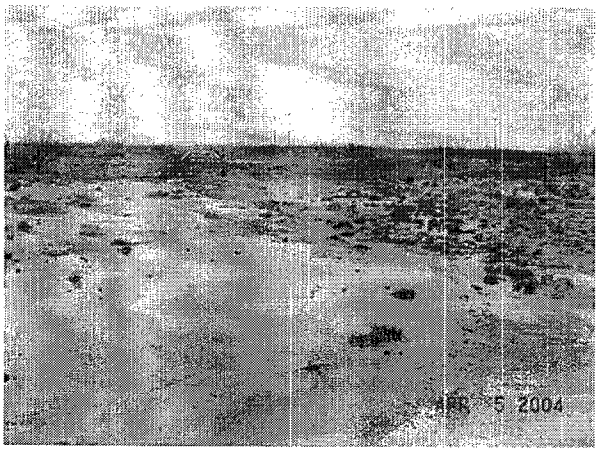
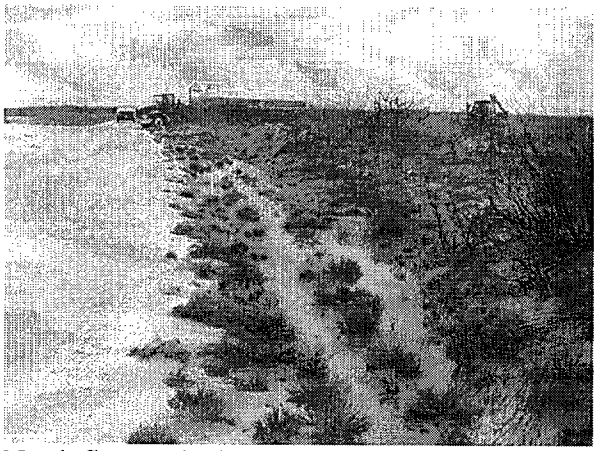
C-Extension #1
130001

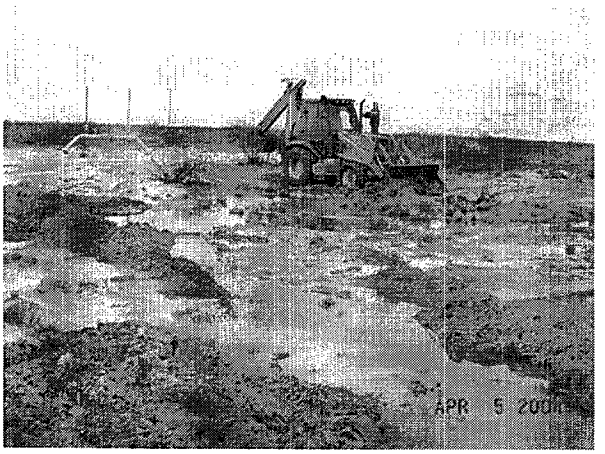
Duke Energy Field Services



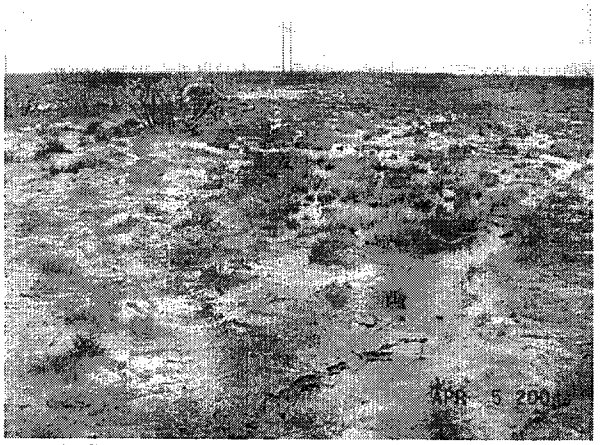
West pooling area, looking south. The release point is near the piping seen in the background.



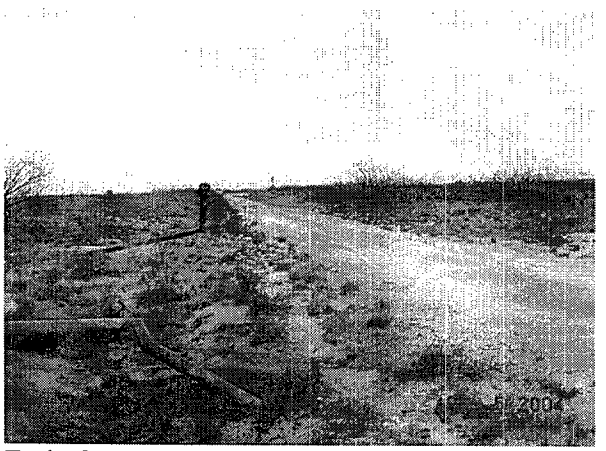
North flow path along access road, looking east from the west pooling.



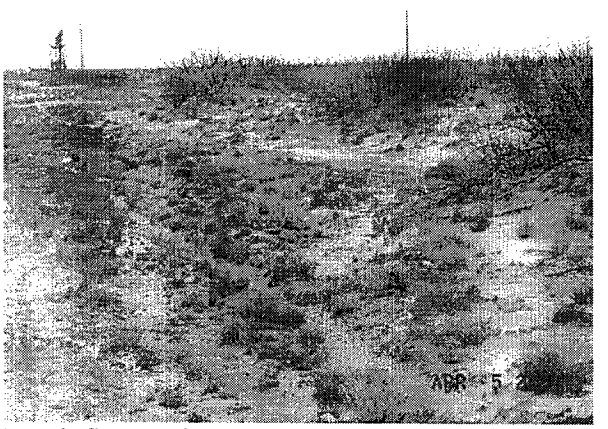
Central pooling area, looking south.



South flow path looking west towards the release point.



End of north flow path, looking west.



North flow path on north side of service road, looking west.

2100 Avenue O
P.O. Box 1558
Eunice, New Mexico 88231
TEL: 505.394.3481
FAX: 505.394.2601

ENVIRONMENTAL PLUS, INC.

Fax

Micro-Blaze

To:	Cody Morrow NMSLO-Right of Way Manager	**From:**	Iain Olness
Fax:	505.827.5711	**Pages:**	4
Phone:	505.827.5729	**Date:**	4/7/2004
Re:	Right of entry request	**CC:**	Paul Mulkey Maintenance Construction Supervisor

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Dear Mr. Morrow,

Environmental Plus, Inc. (EPI), on behalf of Paul Mulkey, Maintenance Construction Supervisor, Duke Energy Field Services, submits this request for a "Right of Entry Permit" to address a Natural Gas Pipeline Fluids release that occurred on land owned by the State of New Mexico and managed by the New Mexico State Land Commissioner. The project information is listed below.

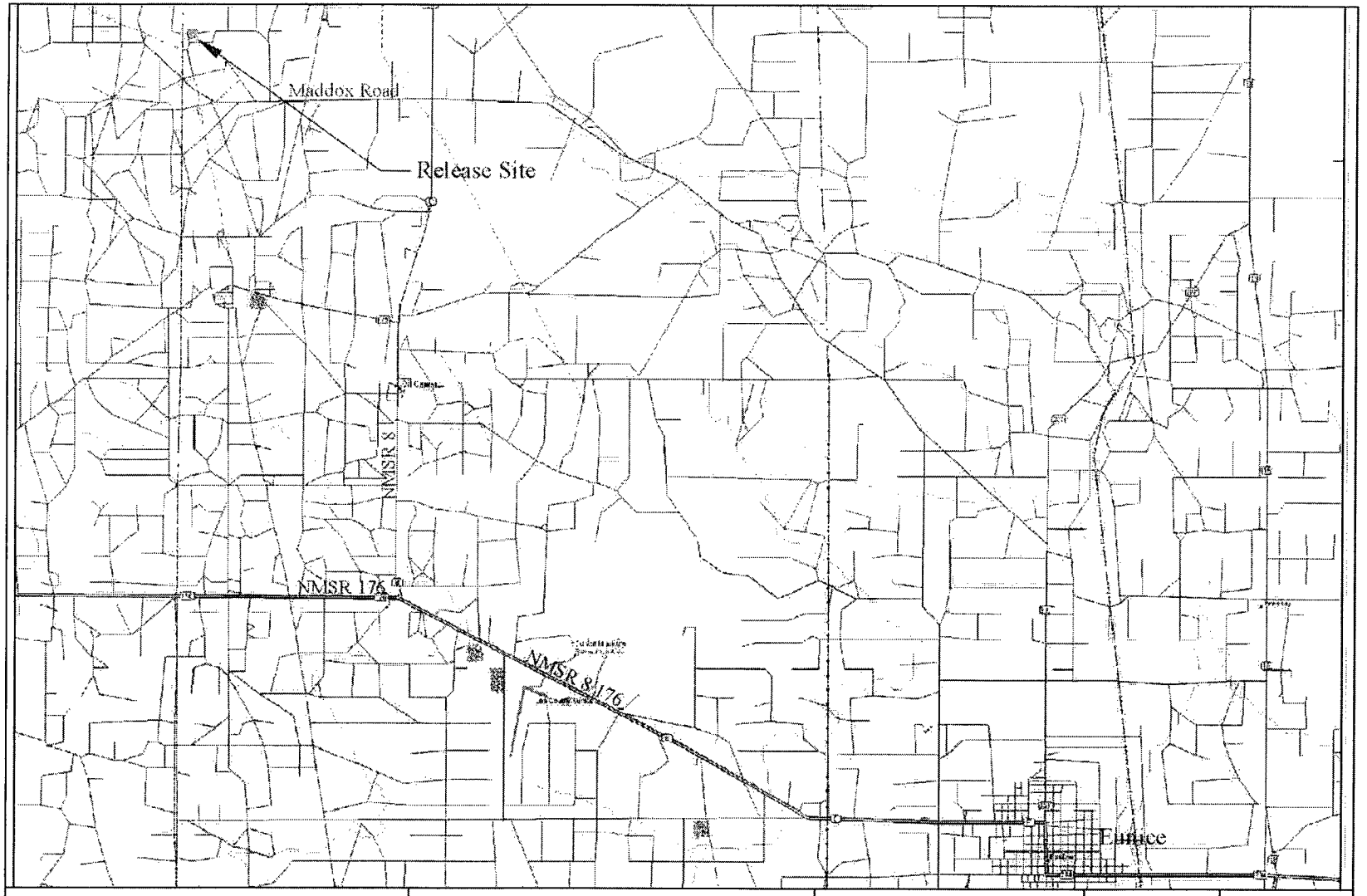
- Client: Duke Energy Field Services, 11525 West Carlsbad Highway, Hobbs, New Mexico 88240
- Site Name: C-Extension #1 130001
- Legal Description: UL- F, SE¼ of the NW¼ of Section 30 T20S R37E
- Latitude N 32° 32' 43.70" and Longitude W 103° 17' 38.69"
- Affected Area: 57,998 sqft ~1190' x 171'
- Purpose:
  1. To delineate the extents of Natural Gas Pipeline Fluids by excavating or soil boring, and possibly, the installation of monitor or recovery wells as appropriate for delineation of ground water contamination.
  2. To remediate the contaminated soil in a manner acceptable to the New Mexico Oil Conservation Division and the New Mexico State Land Office. Remediation alternatives may include disposal, blending, or landfarming depending on location. Soil may also be mechanically shredded and aerated to separate rock and soil and promote volatization. MicroBlaze spill control (MSDS sent previously) may also be applied to reduce vapor emissions and promote biological attenuation. Delineation and remediation work plans will be implemented only after agency approval and consensus.
- Duration: 6 months for current surface use.
- Attachments: USGS Map and site map

Please call if you have any questions or more information is needed. I would request also that the "Right of Entry Permit" be **faxed** to me at 505.394.2601.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, PG
Hydrogeologist



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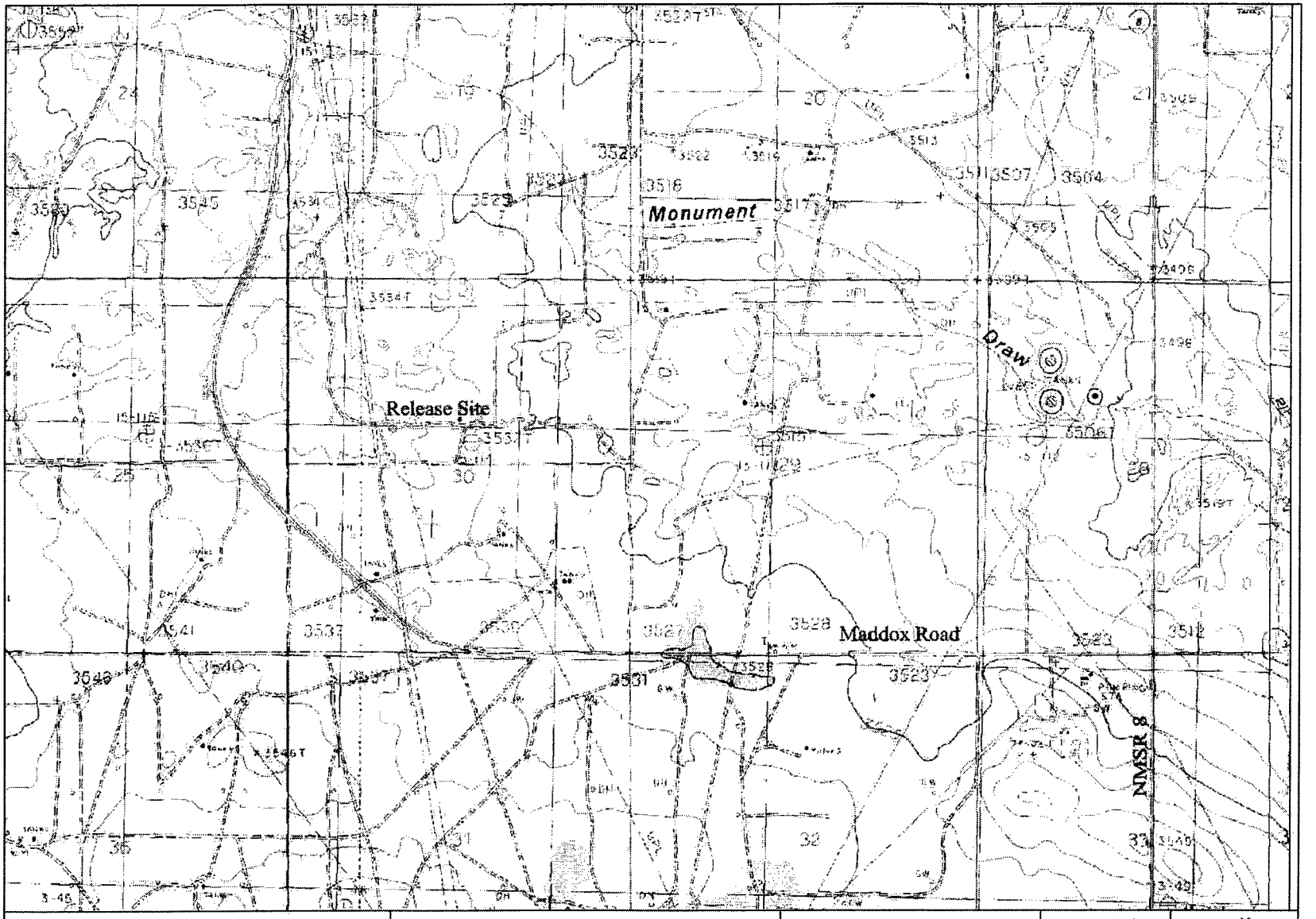
N

C-Extension #1
130001

Duke Energy Field Services



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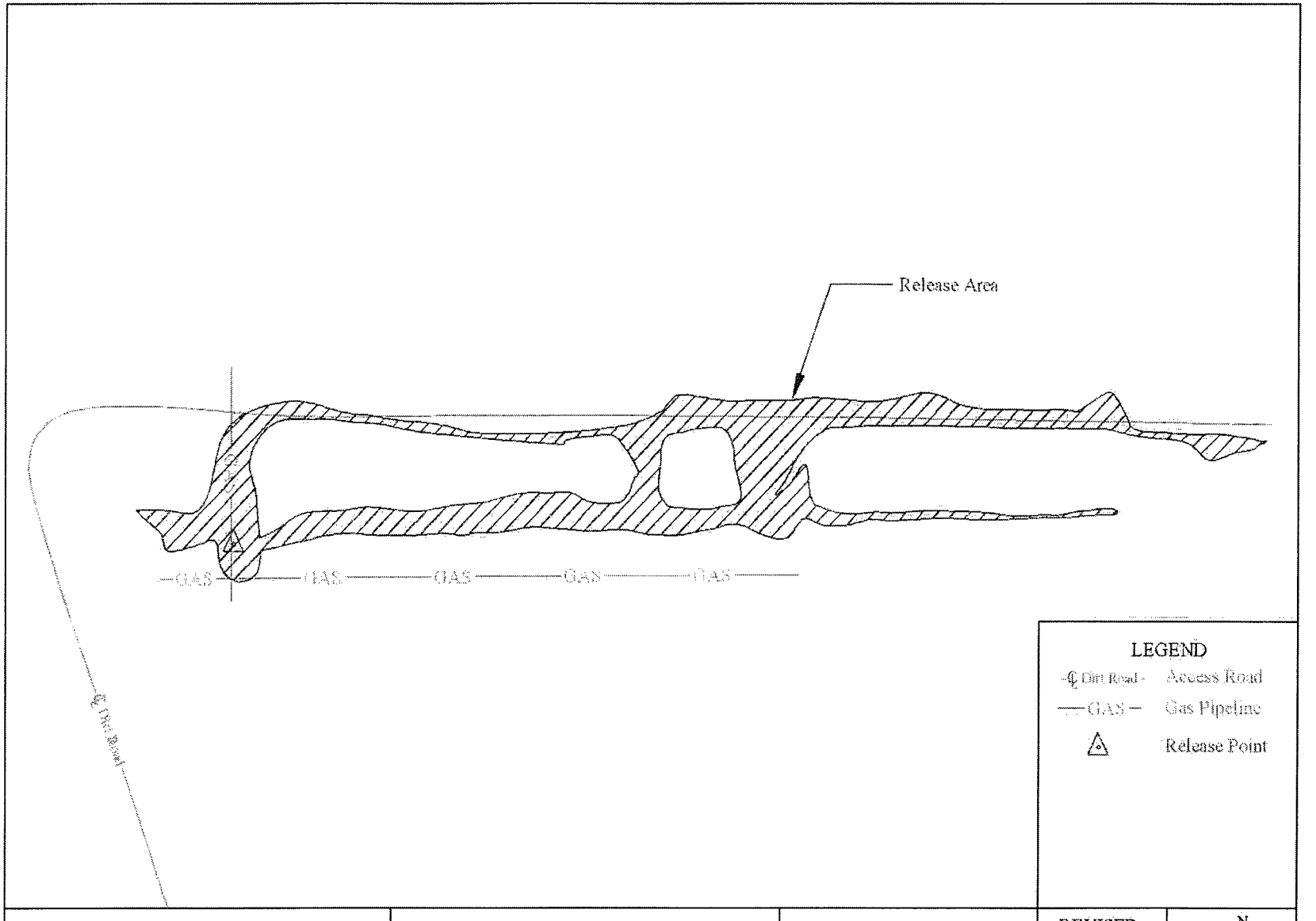
N

32° 32.730
103° 17.640

MM
11

C-Extension #1
130001



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C-Extension #1
130001

Duke Energy Field Services

Johnson, Larry

From: Iain Olness [iolness@hotmail.com]
Sent: Thursday, April 29, 2004 5:30 PM
To: lwjohnson@state.nm.us
Subject: Duke C-Extension #1 and G28-4

Dear Mr. Johnson:

EPI was recently retained to conduct remediation activities at two separate Duke Energy Field Services (DEFS) sites. The first of these sites, the C-Extension #1, consisted of a release of approximately 180 barrels of natural gas pipeline fluids (NGPF), of which 180 barrels were recovered. The release occurred on April 5, 2004, after the area had received significant amounts or rainfall. Due to the saturated conditions at the time of the release, the NGPF flowed horizontally and did not migrate vertically.

Approximately 2,600 cubic yards of soil were excavated from the source area and flow paths associated with the release. Composite samples were collected from the flow paths and source area and submitted for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), total petroleum hydrocarbons as gasoline (TPH-gasoline), total petroleum hydrocarbons as diesel (TPH-diesel) and chlorides. Analytical results indicated that benzene, BTEX and Total TPH were below the remedial action levels for the site (i.e., <10 ppm for benzene, < 50 ppm for BTEX, and <1,000 ppm for TPH).

5.12 JEEBAR OK

Chloride concentrations along the flow paths were <250 ppm. The only area where chloride concentrations were >250 ppm was the release area. Chloride concentrations in this area ranged from 336 ppm to 592 ppm from 4 to 5 feet below ground surface (BGS). A soil boring was completed at the site to delineate the vertical extent of contamination and determine the depth to groundwater. Groundwater was encountered at approximately 57 feet BGS.

Based on this information, it is suggested that the chloride concentrations encountered in the release area will not adversely impact groundwater beneath the site and it is recommended that the excavation be backfilled with clean soil. Please let me know at your earliest convenience if you concur with this recommendation.

5.12 DRL TO SFC JEEBAR EXTENT

The second site, the G28-4, occurred on April 14, 2004. Approximately 770 cubic yards of soil have been excavated at this site and transported to an approved land farm. Samples were collected from depths of 5 and 10 feet BGS and submitted for quantification of BTEX, TPH-gasoline, TPH-diesel and chlorides. Analytical results for these samples indicated benzene concentrations ranging from <0.005 to 38.5 ppm, BTEX concentrations ranging from <0.03 to 1,184.6 ppm, TPH-gasoline concentrations ranging from <10 to 23,400 ppm, TPH-diesel concentrations ranging from 97.8 to 35,200 ppm and chloride concentrations ranging from 48 to 112 ppm. Based on the New Mexico Office of the State Engineers website, groundwater occurs in this area at an average depth of approximately 160 feet BGS.

Based on this information, EPI was considering the installation of a clay barrier at a depth of approximately 10 feet BGS and subsequent backfilling with native soil. Please let me know at your earliest convenience if you concur with this recommendation.

Should you have any questions, please feel free to contact me at (505) 394-3481.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.