ENVIRONMENTAL PLUS, INC. Micro-Bleze Misro-Blaze Onl

STATE APPROVED LAND FARM AND ENVIRONMENTAL SEB IRP-20105

16 September 2005

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

Closure Proposal for Duke Energy Field Services G-28-24 Release Site (Ref. #130015) RE: UL-A (NE¼ of the NE¼) of Section 2, Township 23 South, Range 36 East Latitude N 32° 20' 25.042" and Longitude W 103° 13" 40.062"

Dear Mr. Johnson:

On January 23, 2005, a release of approximately 15 barrels of natural gas liquids (NGL) occurred, of which 10 barrels were recovered) as a result of a line leak at the above-referenced site. DEFS retained Environmental Plus, Inc. (EPI) in February 2005 to delineate the extent of impacted soil at the site (for further information on delineation activities, please reference DEFS G-28-24 April 5, 2005 Letter Report). After delineation activities were completed, excavation of hydrocarbon impacted soil began. This letter report documents the results of the excavation activities and recommends how to proceed with the remediation of the impacted soil.

Site Background

The site is located in the NE¹/₄ of the NE¹/₄ of Section 15, Township 19 South, Range 34 East at an elevation of approximately 3,447 feet above mean sea level (reference Figures 1 and 2). The property is owned by the State of New Mexico and administered by the New Mexico State Land Office. A search for area water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). Due to the lack of wells located in the vicinity of the release site, the search for wells included all of Township 22 South, Range 36 East and all of Township 23 South, Range 36 East. A total of 45 wells were recorded in the databases searched and the average depth to water for these wells was reported to be approximately [177 feet bgs,] with recorded levels ranging from 22 feet bgs to 702 feet bgs. No water supply wells or bodies of surface water were found to be located within a 1,000-foot radius of the release location (reference Figure 2). Based on this information, it was determined that the distance between the contamination and groundwater was >100 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
ТРН	5,000 parts per million

CONTAM

**Chloride and Sulfate residuals may not be capable of impacting groundwater above NMWQCC of 250 mg/L and 650 mg/L, respectively

<u>Field Work</u>

Excavation of NGL-impacted soil began on July 6, 2005. The <u>eastern portion</u> of the release site was excavated to <u>five-feet bgs</u>, with excavated impacted soil stockpiled on site. On July 7, 2005, soil samples were collected from the excavation floor and benches, and submitted to an independent laboratory for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), total petroleum hydrocarbons (TPH) and chloride. On July 12, 2005, soil samples were collected from the northeast and southeast sidewalls. A portion of each sample was analyzed in the field for the presence of organic vapors. The remaining portion of each sample was submitted for laboratory quantification of BTEX constituents, TPH and chlorides. On July 19, 2005, soil samples were collected from the north, south and west sidewalls (reference *Figure 5*). A portion of each sample was submitted for laboratory quantification of BTEX constituents, TPH and chlorides, TPH and chloride. Field analyses indicated organic vapor concentrations ranged from 2 to 35.6 mg/Kg. Laboratory results confirmed NGL-impacted soil had been removed from the eastern portion of the release site (reference *Table 1*).

The western portion of the release site was excavated to five-feet bgs, whereupon NGL-impacted soil from historical releases was discovered to extend below previously delineated limits. Visually delineated excavation continued to 14-feet bgs. Soil samples were collected from the excavation floor and analyzed in the field for the presence of organic vapors utilizing a calibrated MiniRae[®] photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp. Field analyses indicated that organic vapor concentrations were in excess of 450 parts per million (ppm). Soil samples collected from a test hole dug to 19.5-feet bgs and analyzed in the field indicated organic vapor concentrations were still in excess of 450 ppm. On July 13, 2005, the test hole was extended to 26-feet bgs where soil samples were collected from the north side and bottom and submitted for laboratory analyses. Analytical results indicated TPH concentrations were in excess of remedial goals. On July 21, 2005, the test hole was extended to 30-feet bgs and soil samples were collected and submitted for laboratory analyses.

On August 9, 2005, a soil boring was advanced to a depth of 55-feet bgs to determine vertical extents of impacted soil remaining. Soil samples were collected at 35, 40, 45, 50, 55-feet bgs (reference *Figure 4*). A portion of each sample collected at 35, 40 and 45-feet bgs was placed in a self-sealing polyethylene bag and analyzed for the presence of organic vapors utilizing a PID equipped with a 9.8 electron-volt (eV) lamp. Field analyses indicated organic vapor concentrations were in excess of 300 ppm. The remaining portion of soil samples collected from 35 and 45 feet, and the samples from 50 and 55 feet were submitted for laboratory quantification of TPH, BTEX constituents and chloride.

On July 18-21, 2005, the excavated, stockpiled soil was separated into three cells (A, B and C) and blended with clean soil obtained from the surrounding area. Soil samples were collected from blending cells A (Blending Pile A) and B (Blending Pile B) on July 19, 2005. A portion of each sample was analyzed in the field for the presence of organic vapors. The remaining portion of each sample was submitted for laboratory quantification of TPH, BTEX constituents and chloride. PID field analyses indicated organic vapor concentrations in blending cell A were 305 mg/Kg, and blending cell B were 332 mg/Kg. On August 11, 2005, three composite soil samples were collected from blending cell C (Blending Pile C #1, #2 and #3) and analyzed in the field for the presence of

organic vapors. PID field analyses indicated organic vapor concentrations ranged from 40.8 to 55.4 mg/Kg (reference *Table 2* and *Figure 4*).

Upon completion of blending activities, the eastern excavation was backfilled with blended soil and contoured to allow natural drainage.

East Excavation Analytical Data

Analytical results for the soil samples collected from the east excavation indicated that benzene, total BTEX and total TPH concentrations were below NMOCD remedial thresholds. Reported chloride concentrations were below NMWQCC chloride standards for groundwater of 250 mg/L (reference *Table A*, *Table 1* and *Figure 5*).

Sóil Sample LD	Sample Depth	Sample Date	PID Reading (ppm)	Field Chloride	Benzene (mg/Kg)	Total BTEX (mg/Kg)	Total TPH (mg/Kg)	Chloride ¹ (mg/Kg)
EE N-Bottom	6	07-Jul-05	NA	NA	<0.025	<0.125	35.6	17.3
EE N-Bench	4	07-Jul-05	NA	400	<0.025	0.160	316	16.7
EE S-Bottom	6	07-Jul-05	NA	NA	<0.025	<0.125	55.8	30.7
EE S-Bench	4	07-Jul-05	NA	400	<0.025	<0.125	<20.0	21.1
EE NE Sidewall	4	12-Jul-05	14.6	NA	<0.005	<0.030	118	80
EE SE Sidewall	4	12-Jul-05	21.9	NA	<0.005	<0.030	26.5	·48
EE N. SIDEWALL (5')	5	19-Jul-05	2	400	<0.005	<0.030	<20.0	96
EE S. SIDEWALL (5')	5	19-Jul-05	35.6	400	<0.005	<0.030	483	64
EE W. SIDEWALL (5')	5	19-Jul-05	2	400	<0.005	<0.030	68.0	64
NMOCD Remed	lial Thresho	lds	100		10	50	5,000	250

TABLE A-East Excavation Soil Sample Analyses Summary

¹Chloride residuals may not be capable of impacting local groundwater above the NMWQCC standard of 250 mg/L.

Bolded values are in excess of NMOCD remedial thresholds.

NA= Not Analyzed

West Excavation Analytical Data

Analytical results of the soil samples collected from the sidewalls on July 26, 2005 indicated TPH and BTEX concentrations were below NMOCD remedial thresholds. Laboratory analyses of the excavation floor indicated that TPH and BTEX concentrations remained above NMOCD remedial thresholds. Analytical results from the test hole and soil boring (SB-1) indicated that contamination exists to a depth of approximately 40–feet bgs. Field PID analyses of composite soil samples collected from the blending cells indicate that TPH and BTEX concentrations were below NMOCD remedial thresholds. Chloride concentrations for all samples were below the NMWQCC chloride standards for groundwater of 250 mg/L (reference *Table B and Table 2* and *Figure 4*).

Soil Sample I.D.	Sample Depth	Sample Date	PID Reading	Field Chloride	Benzene	Total BTEX	Total TPH	Chloride	D'OCLEM
이상관할 것이 있는 것은 방법을 받는 것은 이 번 것은 것은 방법을 것을 받는 것은 것을 수 있다.	(feet bgs)		(ppm)		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	40 V
WE N@23'BGS	23	13-Jul-05	NA	NA	2.05	174	12,900	64	D'O KM
WE N-BOTTOM (26')	26	13-Jul-05	NA	NA	2.11	99	7,660	64 -	
WE-BOTTOM (30')	30	21-Jul-05	NA	NA	10.4	182	12,200	14.9	R
WENSW 15 ⁷	15	26-Jul-05	0.4	NA	0.006	0.006	<20.0	64	
WEESW 15'	15	26-Jul-05	0.3	NA	<0.005	< 0.03	<20.0	224	
WEWSW 15'	15	26-Jul-05	0.2	NA	<0.005	<0.03	<20.0	64	
WESSW 15'	15	26-Jul-05	0.0	NA	<0.005	< 0.03	34.9	128	
WENSW 26'	26	26-Jul-05	7.0	NA	<0.005	<0.03	<20.0	80	
WEESW 26'	26	26-Jul-05	2.2	NA	<0.005	< 0.03	<20.0	48	
WEWSW 26'	26	26-Jul-05	0.5	NA	<0.005	< 0.03	11	80	
WESSW 26'	26	26-Jul-05	0.8	NA	<0.005	<0.03	<20.0	80	
WEBH 31'	31	26-Jul-05	325	NA	0.937	111	12,500	64	
	35	09-Aug-05	334	NA	1.55	105	13,100	32	/
	40	09-Aug-05	333	NA	NA	NA	NA	NA	6
Soil Boring SB-1	45	09-Aug-05	67	NA	<0.005	0.055	202	96	
	50	09-Aug-05	3.6	NA	<0.005	<0.03	30.4	64	WHY THE
	55	09-Aug-05	1.8	NA	<0.005	< 0.03	24.3	80	MISSING
Blending Pile A	Comp.	19-Jul-05	305	400	<0.005	<0.03	1,230	80	10.1
Blending Pile B	Comp.	19-Jul-05	332	400	<0.005	0.243	3,120	64	
Blending Pile C #1	Comp.	11-Aug-05	40.8	NA	NA	NA	NA	NA	
Blending Pile C #2	Comp.	11-Aug-05	55.4	NA	NA	NA	NA	NA	
Blending Pile C #3	Comp.	11-Aug-05	41.1	NA	NA	NA	NA	NA	
NMOCD Reme	dial Thresho	olds	100		10	50	5,000	250	

 TABLE B- West Excavation Soil Sample Analyses Summary

¹Chloride residuals may not be capable of impacting local groundwater above the NMWQCC standard of 250 mg/L.

Bolded values are in excess of NMOCD remedial thresholds.

NA= Not Analyzed

Conclusions

Based on field and analytical analyses, NGL impacted soil above NMOCD remedial thresholds has been successfully removed from the eastern excavation and the sidewalls of the western excavation. However, soil impacted above the NMOCD remedial thresholds remains to a depth of approximately 40-feet bgs in the west excavation (reference *Table 2*). The excavated NGL impacted soil has been successfully blended below NMOCD remedial thresholds (reference *Table 2*).

Chloride concentrations were reported below the NMWQCC standards for groundwater in all samples collected during delineation. Due to the fact that reported chloride levels were below the NMWQCC chloride standards for groundwater, groundwater should not be impacted by chloride.

Recommendations

Based on field and analytical results, contamination appears to be limited to the area currently excavated. It is recommended that a 500 square foot, two-foot thick compacted clay layer be installed at 23 to 25-feet bgs in the west excavation to isolate remaining hydrocarbons. Installation

Mr. Larry Johnson 16 September 2005

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at <u>iolness@envplus.com</u>. Upon your approval, EPI will initiate the next phase of the remediation. All official correspondence should be submitted to Polo Rendon at:

Polo Rendon Duke Energy Field Services 1625 West Marland Hobbs, NM 88240 (505) 391-5705 psrendon@duke-energy.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

Youn A. Oleness

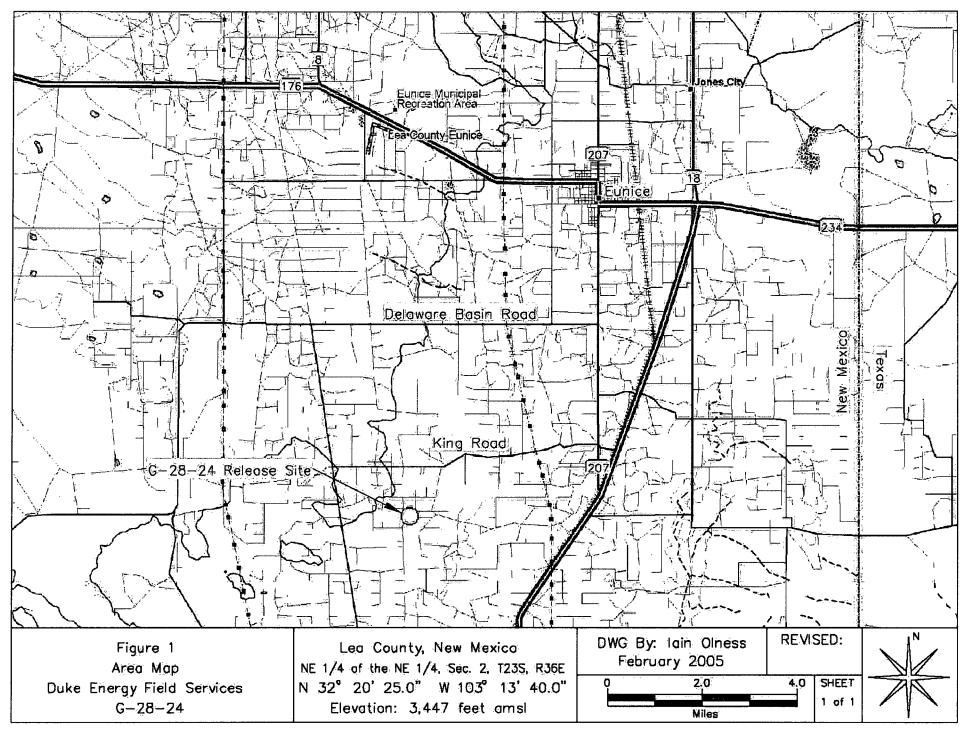
Iain A. Olness, P.G. Hydrogeologist

- cc: Polo Rendon, DEFS Hobbs, NM Steve Weathers, DEFS – Denver, CO Mark Owens, DEFS – Hobbs, NM Lynn Ward, DEFS – Midland, TX Cody Morrow- NMSLO – Sante Fe, NM File
- encl. Figure 1 Area Map Figure 2 – Site Location Map Figure 3 – Excavation Site Map Figure 4 – Western Excavation Site Map Figure 5 – Eastern Excavation Site Map Table 1 – Summary of East Excavation Soil Sample Field Analyses and Laboratory Analytical Results
 Table 2 – Summary of West Excavation Soil Sample Field Analyses and Laboratory Analytical Results
 Table 3 – Well Information Report Attachment I – Laboratory Results and Chain-of-Custody Form Attachment II – Copy of Initial C-141 Attachment III – Site Photographs

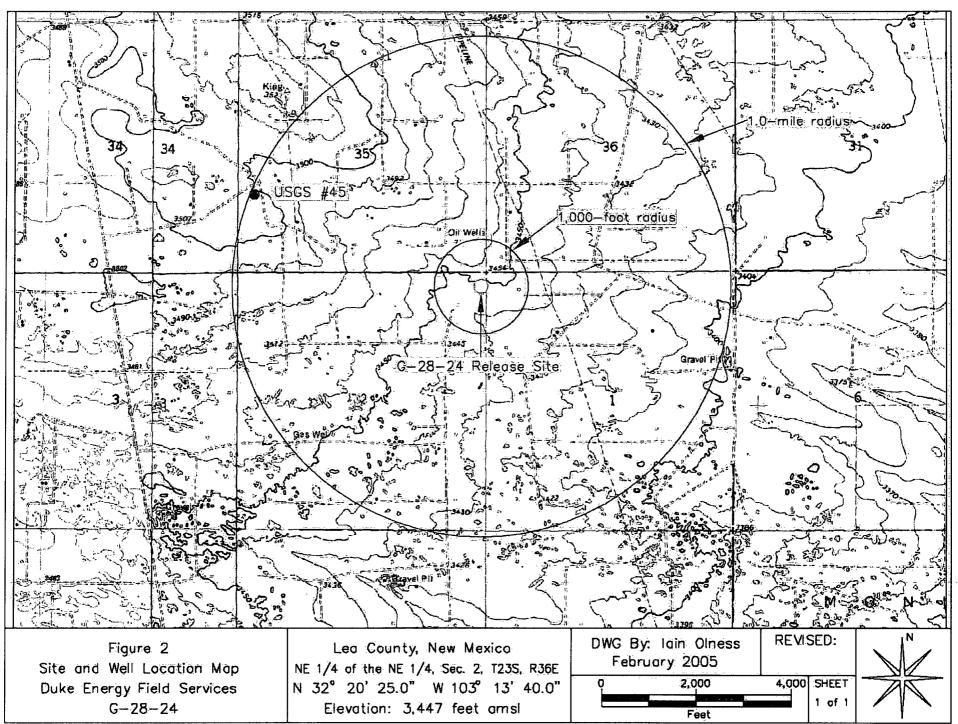
FIGURES

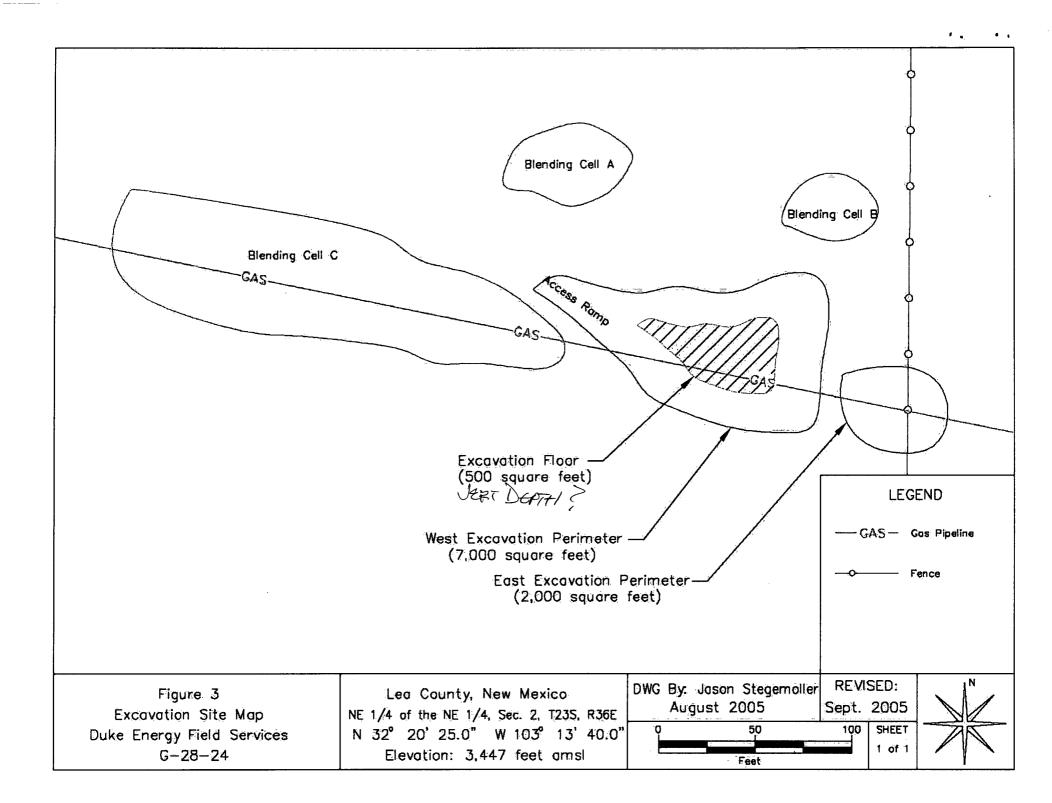
÷

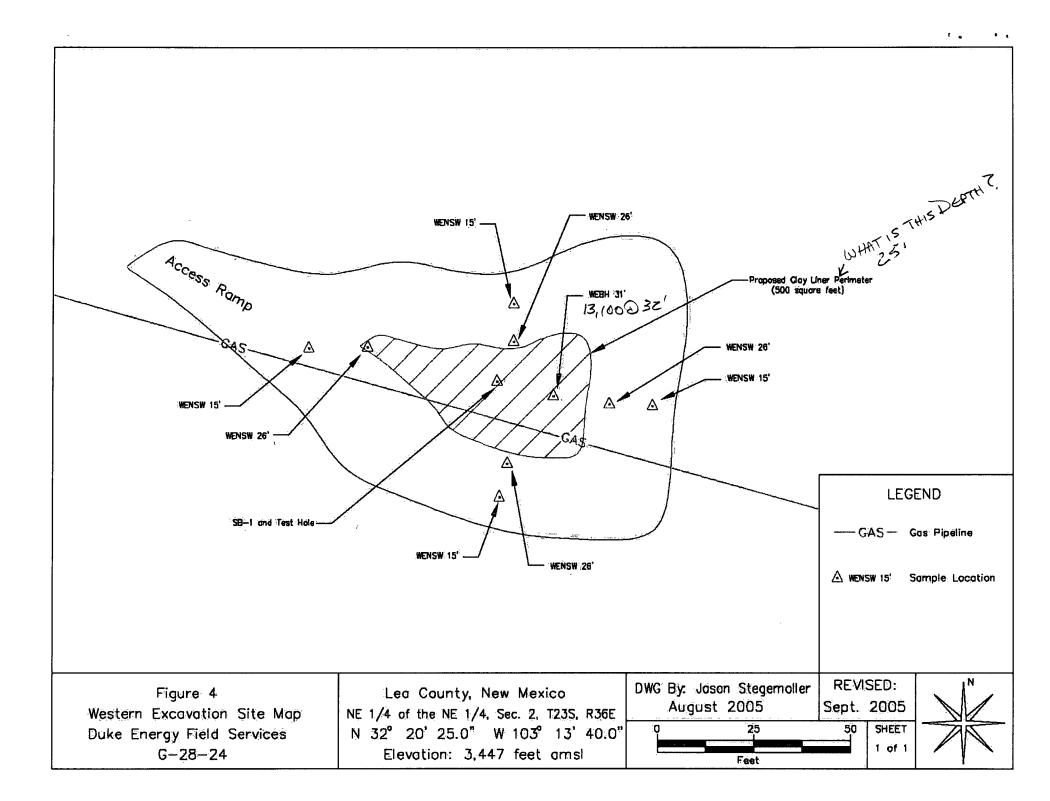


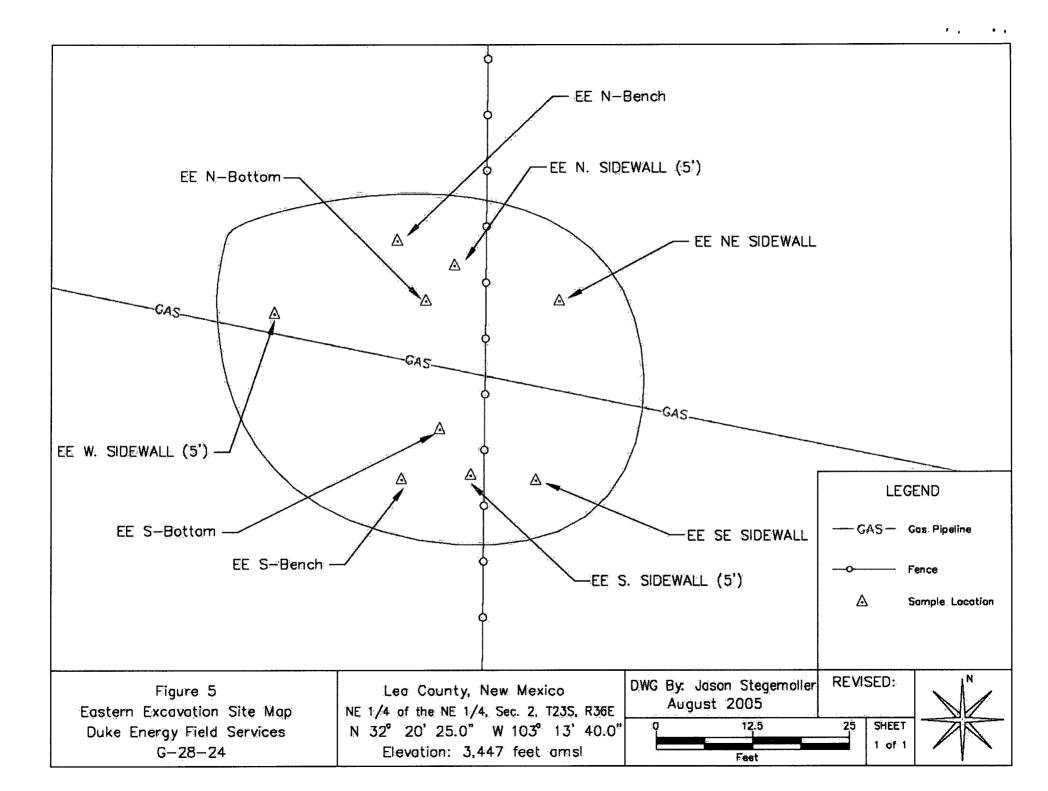












TABLES

:

TABLE 1

۰.

4 1

Summary of East Excavation Soil Sample Field Analyses and Laboratory Analytical Results DEFS G-28-24 (Ref. #130015)

~

Soil Sample I.D.	Depth (feet)	Sample Date	PID Reading	Field Chloride	Benzene (mg/Kg)	Toluene	Ethylbenzene	Total Xylenes (mg/Kg)	Total BTEX	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH	Chloride
G-28-24 E		24-Feb-05	108	400				<0.0250			38.8	38.8	17.9
0-26-24 E	3				< 0.0250	< 0.0250	<0.0250		<0.125	9.32 ⁴			
	5	24-Feb-05	481	400	10.6	74.2	38.8	152	276	5,890	8,390	14,300	16.5
G-28-24 F	8	24-Feb-05	273	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10	24-Feb-05	19.8	400	< 0.0250	< 0.0250	< 0.0250	0.0288	0.0288	12.8	59.1	71.9	17.1
EE N-Bottom	6	07-Jul-05	NA	NA	< 0.0250	< 0.0250	<0.0250	< 0.0250	<0.125	<10.0	35.6	35.6	17.3
EE N-Bench	4	07-Jul-05	NA	400	<0.0250	<0.0250	0.0169 ⁴	0.143	0.160	46.2	270	316	16.7
EE S-Bottom	6	07-Jul-05	NA	NA	< 0.0250	< 0.0250	< 0.0250	< 0.0250	<0.125	<10.0	55.8	55.8	30.7
EE S-Bench	4	07-Jul-05	NA	400	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.125	<10.0	<10.0	<20.0	21.1
EE NE SIDEWALL	4	12-Jul-05	14.6	NA	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	118	118	80
EE SE SIDEWALL	4	12-Jul-05	21.9	NA	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	26.5	26.5	48
EE N. SIDEWALL (5')	5	19-Jul-05	2	400	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	96
EE S. SIDEWALL (5')	5	19-Jul-05	35.6	400	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	483	483	64
EE W. SIDEWALL (5')	5	19-Jul-05	2	400	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	68.0	68.0	64
NMOCD I	Remedial T	hresholds	100 ³		10				50			5,000	250 ⁵

¹Bolded values are in excess of the NMOCD Remediation Thresholds

² NA = Not Analyzed

³ In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.

⁴ Detected, but below the reporting limit; therefore the result is an estimated concentration (CLP J-Flag)

⁵ Chloride residuals may not be capable of impacting local groundwaterabove the NMWQCCstandard of 250 mg/L

Summary of West Excavation Soil Sample Field Analyses and Laboratory Analytical Results

PID Field Total Total ТРН ТРН Total TPH Chloride Depth Sample Benzene Toluene Ethylbenzene Soil Sample ID Reading Chloride **Xylenes** BTEX (as diesel) (as gasoline) (feet) Date (mg/Kg) (ppm) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) 279 NA NA NA 24-Feb-05 NA NA NA NA NA NA NA 5 G-28-24 A < 0.0250 < 0.0250 < 0.050 8.094 36.90 37 18.6 10 24-Feb-05 38.4 400 < 0.0250 < 0.125 15 24-Feb-05 383 NA 0.0465 0.2172 0.347 47.8 183 231 17.7 5 24-Feb-05 169 400 0.0214^4 0.0618 G-28-24 B 24-Feb-05 NA NA NA NA NA NA 10 36.1 NA NA NA NA ŇA NA NA NA 2 24-Feb-05 102 NA NA NA NA NA NA 895 2.300 20.2 5 24-Feb-05 227 NA 0.925 9.00 11.0 37.0 58.0 3.200 G-28-24 C 10 24-Feb-05 431 480 NA 400 NA NA NA NA NA NA NA 15 24-Feb-05 190 7.64 24.8 < 0.0250 < 0.0250 < 0.0250 < 0.0250 < 0.125 46.5 46.5 G-28-24 D 24-Feb-05 13.6 400 5 WE N@23' BGS 23 NA 2.05 35.2 32.7 104 174 1,820 11,100 12.900 64 13-Jul-05 NA 1.026 6.630 64 NEED 56.7 99 7,660 WE N-BOTTOM (26') 26 13-Jul-05 NA NA 2.11 18.8 21.1 14.9 43.2 96.8 3.870 8,300 12.200 WE-BOTTOM (30') 21-Jul-05 NA 10.4 31.5 182 30 NA < 0.005 < 0.005 < 0.015 <10.0 <10.0 <20.0 64 0.006 0.006 WENSW 15' 15 26-Jul-05 0.4 NA WEESW 15 15 NA < 0.005 < 0.005 < 0.005 < 0.015 < 0.03 <10.0 <10.0 <20.0 224 26-Jul-05 0.3 < 0.005 WEWSW 15 15 26-Jul-05 0.2 NA < 0.005 < 0.005 < 0.015 < 0.03 <10.0 <10.0 <20.0 64 NA < 0.005 < 0.015 <0.03 <10.0 34.9 34.9 128 WESSW 15' 15 26-Jul-05 0.0 < 0.005 < 0.005 < 0.005 <10.0 <10.0 <20.0 80 WENSW 26 26 26-Jul-05 7.0 NA < 0.005 < 0.005 < 0.015 < 0.03 48 WEESW 26 < 0.005 < 0.005 < 0.005 < 0.015 < 0.03 <10.0 <10.0 <20.0 26 26-Jul-05 2.2 NA 26 0.5 NA < 0.005 < 0.005 < 0.005 < 0.015 < 0.03 <10.0 11 11 80 WEWSW 26' 26-Jul-05 NA < 0.005 < 0.015 <10.0 <10.0 <20.0 80 WESSW 26' 26 26-Jul-05 0.8 < 0.005 < 0.005 < 0.03 .64 325 0.937 16.7 22.6 71.3 111 2,400 10,100 12.500 WEBH 31' 31 26-Jul-05 NA 35 09-Aug-05 NA 1.55 12.4 26.4 64.8 105 2,230 10,900 13,100 32 334 40 09-Aug-05 333 NA Soil Boring 96 45 09-Aug-05 67 NA < 0.005 < 0.005 0.009 0.046 0.055 <10.0 202 202 SB-1 < 0.030 30.40 30.4 64 50 09-Aug-05 3.60 NA < 0.005 < 0.005 < 0.005 < 0.015 <10.0 < 0.005 < 0.005 < 0.015 80 55 09-Aug-05 NA < 0.005 < 0.030 <10.0 24.30 24.3 1.80 80 Comp < 0.005 < 0.005 < 0.005 < 0.015 < 0.030 183 1.050 1.230 **Blending Pile A** 19-Jul-05 305 400 64 400 < 0.005 < 0.005 0.006 0.237 0.243 458 2660 3120 **Blending Pile B** 19-Jul-05 332 Comp NA NA Blending Pile C #1 Comp 11-Aug-05 40.8 NA Blending Pile C #2 55.4 NA NA NA NA NA NA NA Comp 11-Aug-05 41.1 NA Blending Pile C #3 Comp 11-Aug-05 250⁵ 100^{3} **NMOCD Remedial Thresholds** 10 50 5.000

DEFS G-28-24 (Ref. #130015)

Bolded values are in excess of the NMOCD Remediation Thresholds

 $^{2}NA = Not Analyzed$

³ In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.

⁴ Detected, but below the reporting limit; therefore the result is an estimated concentration (CLP J-Flag)

⁵ Chloride residuals may not be capable of impacting local groundwaterabove the NMWQCCstandard of 250 mg/L

2

. .

10

4 g - 4 g

TABLE 3

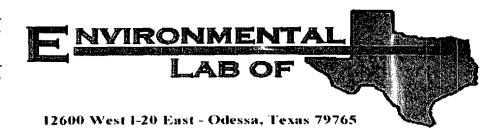
WELL INFORMATION REPORT*

Duke Energy Field Services G-28-24 - Ref #130015

Well Number	Diversion ^A	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
USGS #1				1	23 S	36 E	04 424		t	8-Mar-96	3,485	164.2
CP 00738	0	Dinwiddie Cattle Company	STK		23 S	36 E	14 3 4	N 32° 17' 49.46"	W 103° 14' 22.88"		3,360	T
CP 00737	0	Sun Exploration and Production	PRO	Shallow	23 S	36 E	15 314	N 32° 18' 2.64"	W 103° 15' 39.71"	24-Aug-88	3,410	
CP 00603	3	U.R. Cattle Company	DOM	Shallow	23 S	36 E	15 4 1 3	N 32° 18' 2.6"	W 103° 15' 8.98"	16-Feb-80	3,380	149
USGS #2					23 S	36 E	15 441			17-Dec-70	3,370	145.91
USGS #3					23 S	36 E	15 441			6-Mar-96	3,370	144.29
CP 00558	3	Ross L. Robinson, U.R. Cattle Co.	STK	Shallow	23 S	36 E	16 333	N 32° 17' 49.67"	W 103° 16' 41.34"	22-Jul-76	3,440	220
USGS #4					23 S	36 E	16 3 4 3			17-Dec-70	3,450	261.86
USGS #5					23 S	36 E	16 3 4 3			14-May-91	3,450	411.5
CP 00925	141.14	Energen Resources Corp.	SRO	1	23 S	36 E	22 4 4 4	N 32° 16' 57.18"	W 103° 14' 53.64"		3,400	
USGS #6				1	23 S	36 E	22 344			1-Dec-53	3,420	188.57
USGS #7	1				23 S	36 E	23 114			17-Dec-70	3,370	141.23
USGS #8	1				23 S	36 E	23 221			17-Dec-70	3,355	132.39
USGS #9					23 S	36 E	26 333			28-Feb-96	3,360	140.9
CP 00109	3	Deep Wells Ranch, Inc.	STK	Shallow	23 S	36 E	31 213	N 32° 15' 52.14"	W 103° 18' 13.55"	15-Jun-66	3,440	178
CP 00459	3	Deep Wells Ranch, Inc.	STK		23 S	36 E	31 333	N 32° 15' 12.93"	W 103° 18' 43.92"	19-Mar-68	3,465	200
USGS #10					23 S	36 E	31 214			21-Jan-76	3,435	174.93
USGS #11					23 S	36 E	31 214			7-Mar-96	3,435	174.14
USGS #12					23 S	36 E	31 233				3,445	
USGS #13					23 S	36 E	35 211			28-Feb-96	3,340	122.43
CP 00497	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 433	N 32° 15' 12.37"	W 103° 13' 6.12"	18-Apr-71	3,330	133
CP 00512	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 134	N 32° 15' 38.59"	W 103° 13' 36.84"	1-Dec-72	3,335	128
CP 00621	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 223	N 32° 15' 51.58"	W 103° 12' 50.72"	8-Jul-80	3,325	127
CP 00634	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 121	N 32° 15' 51.64"	W 103° 13' 21.46"	15-Jun-81	3,335	125
CP 00651	3	El Paso Natural Gas Company	IND	Shallow	23 S	36 E	36 132	N 32° 15' 38.59"	W 103° 13' 36.84"	1-Jul-82	3,340	123
CP 00682	3	El Paso Natural Gas Company	EXP		23 S	36 E	36 124	N 32° 15' 51.64"	W 103° 13' 21.46"	15-Sep-85	3,335	[]
USGS #14					23 S	36 E	36 131			20-Jan-76	3,330	122.58
USGS #15					23 S	36 E	36 314			22-Feb-96	3,340	120.92
USGS #16					23 S	36 E	36 341			17-Dec-70	3,335	136.21
USGS #17					23 S	36 E	36 342			20-Oct-65	3,335	142.17
CP 00763 EXP	0	Chevron USA, Inc.	SAN	Shallow	22 S		01 322	N 32° 25' 1.46"	W 103° 13' 21.77"	11-Oct-91	3,500	137
USGS #18					22 S	36 E	01 333			12-Nov-53	3,495	111.24
USGS #19					22 S	36 E	02 144				3,550	1
USGS #20					22 S		02 323				3,535	I
<u>U</u> SGS #21					22 S		02 444				3,500	
USGS #22					22 S	36 E	02 442			20-Jan-76	3,500	118.48
USGS #23					22 S	36 E	02 444				3,500	
USGS #24					22 S	36 E	04 222			3-Apr-68	3,560	702.23
CP 00727	3	Dasco Land Corporation	STK	Shallow	22 S	36 E	05 231	N 32° 25' 14.38"	W 103° 17' 12.71"	26-Apr-88	3,600	
CP 00469	3	W. T. Tivis, Jr.	STK		22 S	36 E	06 321	N 32° 25' 1.55"	W 103° 18' 29.6"	7-Feb-69	3,585	195
<u>USGS #25</u>					22 S	36 E	06 321			14-Feb-96	3,585	179.53
USGS #26					22 S	36 E	06 412			1-May-91	3,580	171.04
CP 00476 EXP		Ross Robinson	STK		22 S	36 E	07 231	N 32° 24' 22.28"	W 103° 18' 14.09"		3,595	
USGS #27					22 S	36 E	09 3 4 1			1-May-91	3,560	171.75
USGS #28	<u> </u>				22 S	36 E	09 3 4 1	L		3-Dec-70	3,560	172.27

ATTACHMENT I

LABORATORY RESULTS AND CHAIN-OF-CUSTODY FORM



Analytical Report

Prepared for:

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

Project: Duke Energy Field Services Project Number: None Given Location: UL-A, Sec 2, T23S, R36E

Lab Order Number: 5C03003

Report Date: 03/09/05

Reported: 03/09/05 16:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-28-24 A(10')	5C03003-01	Soil	02/24/05 13:10	03/03/05 14:15
G-28-24 B(5')	5C03003-02	Soil	02/24/05 13:40	03/03/05 14:15
G-28-24 C(5')	5C03003-04	Soil	02/24/05 10:50	03/03/05 14:15
G-28-24 D(5')	5C03003-06	Soil	02/24/05 11:45	03/03/05 14:15
G-28-24 E(5')	5C03003-07	Soil	02/24/05 15:00	03/03/05 14:15
G-28-24 F(5')	5C03003-08	Soil	02/24/05 14:35	03/03/05 14:15
G-28-24 F(10')	5C03003-09	Soil	02/24/05 15:13	03/03/05 14:15

Reported: 03/09/05 16:38

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-28-24 A(10') (5C03003-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	ND	0.0250		"	н	н	и	**	
Ethylbenzene	ND	0.0250		"	*	u.		"	
Xylene (p/m)	ND 0.02		**	"	n	n	н	**	
Xylene (o)	ND	0.0250	"		"	н	"	n	
Surrogate: a,a,a-Trifluorotoluene		89.7 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.3 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	J [8.09]	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	2
Diesel Range Organics >C12-C35	36.9	10.0	"	**	"	"	"	"	
Total Hydrocarbon C6-C35			"		"	"			
Surrogate: 1-Chlorooctane			67.6-	140	"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.8 %	70-1	30	"	"	"	"	
G-28-24 B(5') (5C03003-02) Soil				_					
Benzene	J [0.0214]	0.0250	mg/kg dry	25	EC50408	03/03/05	03/04/05	EPA 8021B	
Toluene	0.0618	0.0250	"	"	н	11	н	н	
Ethylbenzene	0.0465	0.0250	"	11		"	"	u	
Xylene (p/m)	0.154	0.0250	н	**	"	"	u	n	
Xylene (o)	0.0632	0.0250	"	n		"	n	21	
Surrogate: a,a,a-Trifluorotoluene		96.6 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99 .4 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	47.8	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	
Diesel Range Organics >C12-C35	183	10.0						"	
Total Hydrocarbon C6-C35	231	10.0	н	"	u	"	н	**	
Surrogate: 1-Chlorooctane		85.2 %	67.6-	140	"	"	"	"	-
Surrogate: 1-Chlorooctadecane		99.2 %	70-1	30	n	"	"	"	
G-28-24 C(5') (5C03003-04) Soil									
Benzene	0.925	0.100	mg/kg dry	100	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	9.00	0.100	"	"	"	"	"	"	
Ethylbenzene	11.0	0.100	**	11	н	н	"	"	
Xylene (p/m)	27.2	0.100	"	,1			ν		
Xylene (o)	9.84	0.100	"	"	II.	н	"	R	
Surrogate: a,a,a-Trifluorotoluene		163 %	80-1	20	"	"	a	"	S-04
Surrogate: 4-Bromofluorobenzene		114 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	895	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	
Diesel Range Organics >C12-C35	2300	10.0	"		"	н	"	"	
Total Hydrocarbon C6-C35	3200	10.0	"	"		"	"	n	

Environmental Lab of Texas

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

Page 2 of 11

Reported: 03/09/05 16:38

Organics by GC Environmental Lab of Texas													
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes				
G-28-24 C(5') (5C03003-04) Soil													
Surrogate: 1-Chlorooctane		109 %	67.6-	-140	EC50307	03/03/05	03/04/05	EPA 8015M	·······				
Surrogate: 1-Chlorooctadecane		110 %	7 0	130	*1	и	**	8					
G-28-24 D(5') (5C03003-06) Soil													
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/03/05	EPA 8021B					
Toluene	ND	0.0250	n	"	"	"	"	n					
Ethylbenzene	ND	0.0250	"	н	**	R		"					
Xylene (p/m)	ND	0.0250	"	"	"	n	N	TT					
Xylene (o)	ND	0.0250	"	"			"	"					
Surrogate: a,a,a-Trifluorotoluene		94.8 %	80-1	120	"	"	"	"					
Surrogate: 4-Bromofluorobenzene		89.4 %	80-1	120	"	"	"	"					
Gasoline Range Organics C6-C12	J [7.64]	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	l				
Diesel Range Organics >C12-C35	46.5	10.0	"	"	и	u	u						
Total Hydrocarbon C6-C35	46.5	10.0	"	н	*1	11	н						
Surrogate: 1-Chlorooctane		77.0 %	67.6-	140	"	"	"	11					
Surrogate: 1-Chlorooctadecane		95.6 %	70-1	130	n	"	n	n					
G-28-24 E(5') (5C03003-07) Soil													
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/03/05	EPA 8021B					
Toluene	ND	0.0250	"	"	"	и	и	**					
Ethylbenzene	ND	0.0250	"	**	"	n	n	16					
Xylene (p/m)	ND	0.0250	н	"	н	n	н	*/					
Xylene (o)	ND	0.0250	н	"	"	"	"	u.					
Surrogate: a,a,a-Trifluorotoluene		92.6 %	80-1	120	"	"	"	"					
Surrogate: 4-Bromofluorobenzene		86.2 %	80-1	120	"	"	"	"					

Environmental Lab of Texas

Gasoline Range Organics C6-C12

Diesel Range Organics >C12-C35

Total Hydrocarbon C6-C35

Surrogate: 1-Chlorooctadecane

Surrogate: 1-Chlorooctane

J [9.32]

38.8

38.8

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

J

EPA 8015M

17

н

"

,,

03/04/05

"

...

H

"

10.0 mg/kg dry

11

67.6-140

70-130

10.0

10.0

79.6 %

95.6 %

EC50307

...

..

n

"

1

...

03/03/05

...

н

,,

,,

Reported: 03/09/05 16:38

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-28-24 F(5') (5C03003-08) Soil									
Benzene	10.6	0.100	mg/kg dry	100	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	74.2	0.100	и	"	"	"	н		
Ethylbenzene	38.8	0.100	"	"	"	14		ч	
Xylene (p/m)	115	0.100	Ħ		и	н	"	н	
Xylene (o)	37.1	0.100	"	"	н	14	"	н	
Surrogate: a,a,a-Trifluorotoluene		573 %	80-1	20	"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		127 %	80-1	20	"	"	"	n	S-04
Gasoline Range Organics C6-C12	5890	50.0	mg/kg dry	5	EC50307	03/03/05	03/07/05	EPA 8015M	
Diesel Range Organics >C12-C35	8390	50.0	"	"	"			н	
Total Hydrocarbon C6-C35	14300	50.0	"	"	H	н	"	"	
Surrogate: 1-Chlorooctane		9.86 %	67.6-	140	"	"	"	"	S-00
Surrogate: 1-Chlorooctadecane		19.3 %	70-1	30	"	"	n	n	S-06
G-28-24 F(10') (5C03003-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/04/05	EPA 8021B	
Toluene	ND	0.0250	"	"	**	"	"	**	
Ethylbenzene	ND	0.0250	"	"		н	"		
Xylene (p/m)	0.0288	0.0250	"	и	"	"	н	"	
Xylene (o)	ND	0.0250	11	"	••	"	н	"	
Surrogate: a,a,a-Trifluorotoluene		94.5 %	80-1	20	,,	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	12.8	10.0	mg/kg dry	1	EC50307	03/03/05	03/07/05	EPA 8015M	
Diesel Range Organics >C12-C35	59.1	10.0	"	"	"	"	н	"	
Total Hydrocarbon C6-C35	71.9	10.0	"	n	"	н	"	"	
Surrogate: 1-Chlorooctane		83.0 %	67.6-	140	"	"	"	"	

78.2 %

70-130

Environmental Lab of Texas

Surrogate: 1-Chlorooctadecane

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas. Page 4 of 11

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
G-28-24 A(10') (5C03003-01) Soil									
Chloride	18.6	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.9	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 B(5') (5C03003-02) Soil									
Chloride	17.7	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	15.7	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 C(5') (5C03003-04) Soil									
Chloride	20.2	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.0	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 D(5') (5C03003-06) Soil									
Chloride	24.8	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.3	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 E(5') (5C03003-07) Soil									
Chloride	17.9	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	12.6	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 F(5') (5C03003-08) Soil									
Chloride	16.5	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	9.4	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 F(10') (5C03003-09) Soil									
Chloride	17.1	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	5.4	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	

Environmental Lab of Texas

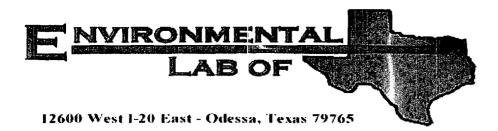
The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Environmental Lab of Texas, Inc.

12600	Weet	1-20	Fact	Odessa	Toyas	79763	
12000	MC21	F20	caal,	VUC33a	16742	19/03	

432-563-1800 FAX: 432-563-1713																										
Company Name	Environmental Pl	ıs, In	c.							6	10											0.8	152			
EPI Project Man	ager: lain Olness										_					Ι			Γ							
Mailing Address	: P.O. BOX 1558					ļ					n		100					ļ								
City, State, Zip:	Eunice New Mexi	:0 88	231]		A					ke Hgy.			ļ										ĺ
EPI Phone#/Fax	#: 505-394-3481 / 50	5-394	-26()1				A.					rgy.	5												
Client Company	Duke Energy Field	Servic	es																							
Facility Name:	G-28-24 (Ref. #130	015)							At	tn: I	Pole	o Re	endon					ļ								
Project Location	:: UL-A, Sec 2, T23S	, R36	E				11	152	5 W	est	Car	lsb	ad Highw	/ay,												
EPI Sampler Nar	me: Felix Hernandez					l 			h	ddô	s, ř	ivi é	38240		1					ĺ			1			
			Τ			MA'	FRIX			PR	ESE	RV.	SAMF	PLING]											
LAB I.D. 5003003	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI)	SULFATES (SO4 ^ª)	РН	тсгр	OTHER >>>	PAH		والمعرفة والمتعالم والمتعالم والمتعالم والمتعالم والمتعالم والمتعالم والمتعالم والمعالم		
-0 1	G-28-24 A(10')	G	1	T	T	X					X		24-Feb	13:10	X		and the second second			<u> </u>		1	 	1		<u> </u>
The second s	G-28-24 B(5')	G	1	1		X					X		24-Feb	13:40	X	X	Concession of the local division of the loca		†	†				Î	1	
-03 3	G-28-24 B(8')	G	1	1		X					X		24-Feb	13:50	X	X	X			SE	EE F	REM	AR	KS		
	G-28-24 C(5')	G	1	Γ	Γ	X					X		24-Feb	10:50	X	X	X	İ	Γ					Γ	Τ	
-05 5	G-28-24 C(15')	G	1	Ι		X					X		24-Feb	11:20	X	X	X		0	SE	EF	REM	AR	KS		1000 Die 1
-06 6	G-8-24 D(5')	G	1	Ι		X					X		24-Feb	11:45	X	X	X		Τ				Γ	T	Ι	
-07 7	G-28-24 E(5')	G	1			X					X		24-Feb	15:00	X	X	X		1					1	1	
-08 8	G-28-24 F(5')	G	1			X					Х		24-Feb	14:35	X	X	X		1					Γ	1	
-09 9	G-28-24 F(10')	G	1			X					Х		24-Feb	15:13	X	X	X							F	1	
={OCK 10		Τ	Γ												Ī	T T		[Î		
													2													
Sample/ Relinquished:	Date Tring UCC Date Tane	2		By: By: (xm) UL	Ď	313 Q	105		REM ppm, 28-2 G-28	BTE: 4 C(5'	esuits to: i S: Only analyz X > 50 ppm ar) indicated be (5') are >250 p	e G-28-24 B nd/or TPH >5 nzene >10 p ppm, then an	(8') it <i>e</i> ,000 p om, B' atyze	analyt opm. (TEX > G-28-	cal re Dnly a 50 p 24 B(inalyz pm ar 8') foi	te G-2 nd/or r chioi	8-24 (TPH > fide. II	C(15') -5,000 I chior	i if ana) ppm ride re	alytica . If ch Isuits	al resu Noride for G	ults for resul -28-24	r G- ts for I
Delivered by:							Che	cked	Ву:				-250 ppm, the 94-3481.	n analyze G-1 +* C_	28-24	C(15') tor c	hlorid	ie. An		ESTI	ONS,	PLEA	ASE (ALL	AIN

Chain of Custody Form



Analytical Report

Prepared for:

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

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Location: UL-A, Sect. 2, T 23 S, R 36 E

Lab Order Number: 5G12008

Report Date: 07/18/05

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/18/05 08:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EE N-Bottom	5G12008-01	Soil	07/07/05 13:10	07/12/05 15:00
EE N-Bench	5G12008-02	Soil	07/07/05 13:20	07/12/05 15:00
EE S-Bottom	5G12008-03	Soil	07/07/05 13:30	07/12/05 15:00
EE S-Bench	5G12008-04	Soil	07/07/05 13:40	07/12/05 15:00

.

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/18/05 08:37

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
EE N-Bottom (5G12008-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG51305	07/13/05	07/13/05	EPA 8021B	
Toluene	ND	0.0250	"	"	н	H	"	"	
Ethylbenzene	ND	0.0250	"	11		и	**	"	
Xylene (p/m)	ND	0.0250	и	"	"	u	n	"	
Xylene (o)	ND	0.0250	W	n	"	и	"	*1	
Surrogate: a,a,a-Trifluorotoluene		90.3 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-1	20	"	n	"	,,	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG51223	07/12/05	07/13/05	EPA 8015M	
Diesel Range Organics >C12-C35	35.6	10.0	"	"	"		"	н	
Total Hydrocarbon C6-C35	35.6	10.0	11	"		"	n	"	
Surrogate: 1-Chlorooctane		80.0 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		77.8 %	70-1	30	"	"	"	"	
EE N-Bench (5G12008-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG51305	07/13/05	07/13/05	EPA 8021B	
Toluene	ND	0.0250	17		"	"	"		
Ethylbenzene	J [0.0169]	0.0250			ч	"	"	м	
Xylene (p/m)	0.114	0.0250	н	"	n	н	n	"	
Xylene (0)	0.0287	0.0250	n		"	н	ч	"	
Surrogate: a,a,a-Trifluorotoluene		92.1 %	80-1	20	"	"	π	"	
Surrogate: 4-Bromofluorobenzene		118 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	46.2	10.0	mg/kg dry	1	EG51223	07/12/05	07/13/05	EPA 8015M	
Diesel Range Organics >C12-C35	270	10.0	"		"	ч	"	н	
Total Hydrocarbon C6-C35	316	10.0	11	n	н	"		"	
Surrogate: 1-Chlorooctane		76.6 %	70-1	30	"	"	п	"	
Surrogate: 1-Chlorooctadecane		83.0 %	70-1	30	"	"	"	"	
EE S-Bottom (5G12008-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG51305	07/13/05	07/13/05	EPA 8021B	
Toluene	ND	0.0250	"	**	u	u	n	n	
Ethylbenzene	ND	0.0250	"		н	н	"	и	
Xylene (p/m)	ND	0.0250	*	"	"	11		"	
Xylene (o)	ND	0.0250		м	"		u		
Surrogate: a,a,a-Trifluorotoluene		90.2 %	80-1	20	"	"	<i>n</i>	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG51223	07/12/05	07/13/05	EPA 8015M	
Diesel Range Organics >C12-C35	55.8	10.0	**		U	**	"		
Total Hydrocarbon C6-C35	55.8	10.0			н		**	"	

Environmental Lab of Texas

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

Page 2 of 9

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/18/05 08:37

Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EE S-Bottom (5G12008-03) Soil	- <u></u>								
Surrogate: 1-Chlorooctane		78.2 %	70-1	130	EG51223	07/12/05	07/13/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		78.8 %	70-1	30	"	"	"	11	
EE S-Bench (5G12008-04) Soil			_						
Benzene	ND	0.0250	mg/kg dry	25	EG51305	07/13/05	07/13/05	EPA 8021B	
Toluene	ND	0.0250	"	н		н	"	"	
Ethylbenzene	ND	0.0250	"	**	"	н	"	"	
Xylene (p/m)	ND	0.0250	м	**		"	"	"	
Xylene (0)	ND	0.0250	n	13	n	n	n	55	
Surrogate: a,a,a-Trifluorotoluene		88.5 %	80-1	20	n	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	80-1	20	n	"	"	n	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG51223	07/12/05	07/13/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	11	H	H	"	н	
Total Hydrocarbon C6-C35	ND	10.0	н	**		"	н	"	
Surrogate: 1-Chlorooctane		80.0 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.8 %	70-1	30	"	"	"	"	

Environmental Lab of Texas

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

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/18/05 08:37

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EE N-Bottom (5G12008-01) Soil									
Chloride	17.3	5.00	mg/kg	10	EG51508	07/14/05	07/14/05	EPA 300.0	
% Moisture	10.4	0.1	%	I	EG51301	07/12/05	07/13/05	% calculation	
EE N-Bench (5G12008-02) Soil									_
Chloride	16.7	5.00	mg/kg	10	EG51508	07/14/05	07/14/05	EPA 300.0	
% Moisture	13.7	0.1	%	1	EG51301	07/12/05	07/13/05	% calculation	
EE S-Bottom (5G12008-03) Soil		-					_		
Chloride	30.7	5.00	mg/kg	10	EG51508	07/14/05	07/14/05	EPA 300.0	· · · · · ·
% Moisture	5.8	0.1	%	1	EG51301	07/12/05	07/13/05	% calculation	
EE S-Bench (5G12008-04) Soil									
Chloride	21.1	5.00	mg/kg	10	EG51508	07/14/05	07/14/05	EPA 300.0	
% Moisture	8.3	0.1	%	1	EG51301	07/12/05	07/13/05	% calculation	

Environmental Lab of Texas

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

Environmental Lab of Texas, Inc.

12600 West I-20 East, Odessa Texas 79763

432-563-1800 FAX: 432-563-1713

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 Cillent Company: Duke Energy Field Services Facility Name: C-28-24 (Ref. #130015) Project Location: UL-A, Sec 2, 7238, R36E EPI Phone#/Fax#: David Robinson Maining Normano: David Robinson Maining Normano: David Robinson Maining Normano: David Robinson Marker With With Marker With With Marker PRESERV. SAMPLE LD. Sampler Name: Diagona Sampler Name: <td< th=""><th>Company Name</th><th colspan="6"></th><th></th><th></th><th></th><th></th><th></th><th></th><th>6</th><th></th><th></th><th></th><th></th><th></th><th></th><th>19.6</th><th>EC</th><th></th><th>I</th><th></th><th></th></td<>	Company Name													6							19.6	EC		I		
City, State, Zip: Eunice New Mexico 86231 EPI Phone#/Fax#: 505-394-2601 Cilent Company: Duke Energy Field Services Facility Name: G-28-24 (Ref. #130016) Project Location: UL-A, Sec 2, T235, R38E EPI Phone#/Fax#: David Robinson Attn: Polo Rendon 1825 West Carisbad Highway Hobbs, NM 89240 NM 89240 EPI Sampler Name: David Robinson Attn: Polo Rendon 1825 West Carisbad Highway Hobbs, NM 89240 NM 87600 W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W W																				\square	Π		\square			
Client Company: Duke Energy Field Services Facility Name: G-28-24 (Ref. #130015) Project Location: UL-A, Sec 2, T23S, R36E EPI Sampler Name: David Robinson MATRIX PRESERV: SAMPLE I.D. Source 1 Bill SAMPLE I.D. Bill Sampler Name: David Robinson MATRIX Bill Sampler Name: David Robinson Gill Bill Sampler Name: David Robinson Gill Sampler Name: David Robinson Gill X Gill X Gill X Sampler Name: Gill Gill X Sampler Sebrotom	The second se]					h	o si	ka												
Client Company: Duke Energy Field Services Facility Name: G-28-24 (Ref. #130015) Project Location: UL-A, Sec 2, T23S, R36E EPI Sampler Name: David Robinson MATRIX PRESERV: SAMPLE I.D. Source 1 Bill SAMPLE I.D. Bill Sampler Name: David Robinson MATRIX Bill Sampler Name: David Robinson Gill Bill Sampler Name: David Robinson Gill Sampler Name: David Robinson Gill X Gill X Gill X Sampler Name: Gill Gill X Sampler Sebrotom			-	and the second second																						
Facility Name: G-28-24 (Ref. #130015) Attn: Polo Rendon Project Location: UL-A, Sec 2, T23S, R36E David Robinson MATRIX PRESERV. SAMPLING LAB I.D. Matrix PRESERV. SAMPLING UL-A, Sec 2, T23S, R36E Project Location: UL-A, Sec 2, T23S, R36E LAB I.D. Matrix PRESERV. SAMPLING WEIGHT HILL O (1) EE N-Bottom G 1 X X X X X X X X X O (1) EE N-Bottom G 1 X X X 77-Jul-05 13:20 X X X X O (2) EE N-Bottom G 1 X X X 77-Jul-05 13:20 X X X X O (2) EE N-Bottom G 1 X X 77-Jul-05 13:40 X X X X O (2) EE N-Bottom G 1 X X 77-Jul-05 13:40 <t< td=""><td>EPI Phone#/Fax</td><td>#: 505-394-3481 / 505-3</td><td>94-</td><td>260</td><td>1</td><td></td><td>]</td><td></td><td></td><td></td><td>P</td><td>E.</td><td></td><td>ngy.</td><td></td><td></td><td>ļ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	EPI Phone#/Fax	#: 505-394-3481 / 5 05-3	94-	260	1]				P	E.		ngy.			ļ									
Project Location: UL-A, Sec 2, T23S, R86E 1625 West Carlsbad Highway Hobbs, NM 88240 EPI Sampler Name: David Robinson MATRix PRESERV. SAMPLING LAB ID. SAMPLE I.D. W W W W B B G G G WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	Client Company	: Duke Energy Field Se	rvic	es													[
EPI Sampler Name: David Robinson Hobbs, NM 88240 LAB I.D. SAMPLE I.D. MATRIX PRESERV. SAMPLING WWWW SAMPLE I.D. WWWW IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Facility Name:	G-28-24 (Ref. #1300	15)								Attr): P	olo	Rendon												
LAB I.D. SAMPLE I.D. MATRIX PRESERV. SAMPLING WOOD SAMPLE I.D. B	the second s		361]		16	25	Wes	st C	aris	bad Highway	/											
LAB I.D. SAMPLE I.D. BUSCONT OF SAMPLE I.D. <td>EPI Sampler Nar</td> <td>ne: David Robinson</td> <td></td> <td>Contractory of the local division of the loc</td> <td>Contractor and the second second second</td> <td></td>	EPI Sampler Nar	ne: David Robinson											Contractory of the local division of the loc	Contractor and the second second second												
-0 1 E N-Bottom G 1 X X 07-Jul-05 13:10 X X X -0 2 EE N-Bench G 1 X X 07-Jul-05 13:20 X			<u>.</u>				MA	TRIX			PR	ESE	RV.	SAMPL	ING]	ļ									
C I EE N-Bottom G 1 X X 07-Jul-05 13:10 X X X O C 2 EE N-Bench G 1 X X 07-Jul-05 13:20 X X X O C 2 EE N-Bench G 1 X X 07-Jul-05 13:20 X <th< td=""><td>LAB 1.0. 5512000</td><td></td><td>Concession of the local division of the loca</td><td># CONTAINERS</td><td>GROUND WATER</td><td>WASTEWATER</td><td>and the second second</td><td>CRUDE OIL</td><td>SLUDGE</td><td>OTHER:</td><td>ACID/BASE</td><td>ICE/COOL</td><td>отнея</td><td>DATE</td><td>TIME</td><td></td><td>TPH 8015M</td><td></td><td>SULFATES (SO4")</td><td>РН</td><td>TCLP</td><td>OTHER >>></td><td>РАН</td><td></td><td></td><td></td></th<>	LAB 1.0. 5512000		Concession of the local division of the loca	# CONTAINERS	GROUND WATER	WASTEWATER	and the second second	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	отнея	DATE	TIME		TPH 8015M		SULFATES (SO4")	РН	TCLP	OTHER >>>	РАН			
OS 3 EE S-Bottom G 1 X X 07-Jul-05 13:30 X X X O4 4 EE S-Bench G 1 X X 07-Jul-05 13:30 X <thx< th=""> <thx< th=""> X</thx<></thx<>		A	G	1			X							07-Jul-05	13:10	X	X	X								
M4 EE S-Bench G 1 X X 07-Jul-05 13:40 X <td></td> <td></td> <td>G</td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td>07-Jul-05</td> <td>13:20</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			G	1			X					X		07-Jul-05	13:20	X	X	X								
5 6 7 8 9 10 Sampler Refinquishedk Manual Annes Refinquished by: Phillippi Received By: Phil	-03.3	EE S-Bottom	G	1			X					X		07-Jul-05	13:30	X	X	X								
Sampler Relinquisheek Augustant Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Received By: Date Ingle 4 K Ingle 4 K In		OC 2 EE N-Bench G 1 OS 3 EE S-Bottom G 1					X					X		07-Jul-05	13:40	X	X	X								
Sampler Relinquisheek Augustant Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Received By: Date Ingle 4 K Ingle 4 K In	5																									
Sampler Pellinguisheek August Peceived By: August Peceived By: August Peceived By: Part of August Peceived By: Pereilinguisheek Pereilinguishe	6																									
Sampler Relinquisheek Augustant Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Received By: Date Ingle 4 K Ingle 4 K In	7																									
Sampler Relinquisheek Augustant Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Received By: Date Ingle 4 K Ingle 4 K In	8				_						_					L		L								
Sampler Relinquisheek Augustant Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Relinquisheek Received By: Date Ingle 4 K Ingle 4 K In	9															L	L	ļ								
Aundres The finance March Bar Refinentished by: Daniel Station Daniel Station Acron Boone The station Checked By Delivered by: Sample-Cool & Intact Checked By Mar No Hot I	10			Sectors	asasiala			-		-	atheres	Non-William					L									
Delivered by: Delivered by: Delive						sh fa	Ba	<u>)</u>) ()	2 2 2 0	,		E-IT REM	nail ro Arks	esults to: iolne ::	s@hotma	ail.co	om 8	psr	endo	sn@i	duke	÷ene	ərgy.	com	I	
1×10^{-1} 1×10^{-1} 1×10^{-1}	Delivered by: Sample-Cool & Intact					<u>.</u>	K	J.J.	ĽĽ	1 and			A	re jur				W-LING/A		G ur Car anda	-			Robert & Carlow		an state

Chain of Custody Form

۰.

• •



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: 07/13/05 Reporting Date: 07/15/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (Ref. #130015) Project Location: UL-A. SEC 2, T23S, R36E Sampling Date: 1&2-07/13/05 3&4-0712/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: NF Analyzed By: BC/AH

	GRO	DRO	
	(C ₆ -C ₁₀)	(>C ₁₀ -C ₂₈)	CI*
LAB NUMBER SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)

ANALYSIS	DATE	07/14/05	07/14/05	07/14/05
H9945-1	WE N-BOTTOM (26')	**	**	**
H9945-2	WE N @ 23' BGS	1820	11100	**
H9945-3	EE NE SIDEWALL	<10.0	118	80
H9945-4	EE SE SIDEWALL	<10.0	26.5	48
Quality Con	trol	820	761	960
True Value	QC	800	800	1000
% Recovery	/	102	95.2	96.0
Relative Pe	rcent Difference	4.8	4.8	5.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI⁻: Std. Methods 4500-CI⁻B *Analyses performed on 1:4 w:v aqueous extracts. **Not reported, as per client instructions.

yetopa ooke

1/15/0

Date

H9945A.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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: (5050 394-2601

Receiving Date: 07/13/05 Reporting Date: 07/15/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (Ref. #130015) Project Location: UL-A. SEC 2, T23S, R36E

Sampling Date: 1&2-07/13/05 3&4-0712/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: NF Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DA	TE	07/14/05	07/14/05	07/14/05	07/14/05
H9945-1	WE N-BOTTOM (26')	*	*	*	*
H9945-2	WE N @ 23' BGS	*	*	*	*
H9945-3	EE NE SIDEWALL	<0.005	< 0.005	<0.005	<0.015
H9945-4	EE SE SIDEWALL	<0.005	<0.005	<0.005	<0.015
		· · · · · · · · · · · · · · · · · · ·	······		
Quality Control		0.098	0.098	0.100	0.308
True Value QC		0.100	0.100	0.100	0.300
% Recovery		98.0	98.0	100	103
Relative Perce	nt Difference	3.5	5.0	6.0	5.7

*Not reported, as per client instructions.

METHOD: EPA SW-846 8260

burgest for Cooke

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses All claims, inpuding the participant of the any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no sont shall be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Environmental Lab of Texas, Inc.

12600 West I-20 East, Odessa Texas 79763

432-563-1800 FAX: 432-563-1713

Company Name											1.207	B		o				A	NAI	YS	IS R	EQ	UES	ST		N E
EPI Project Mana		SS																								
Mailing Address									A	2.1			a "													
City, State, Zip:		ew Mexico	882	231					þ				ر بر بار م	ke ergy.			ļ									
EPI Phone#/Fax	#: 505-394-3	8481 / 505-3	394-	260	1				L				JE	Hgy.				ļ								
Client Company		gy Field Se		es																						
Facility Name:		Ref. #1300 ⁻	-							A	ttn:	Ро	lo F	Rendon												
Project Location		2, T23S, F	R 36	E				1	1152					bad Highwa	ay,											
EPI Sampler Nar	ne: David Ro	binson			_			_		ł				88240												
							MA				PR	ESE	RV.	SAMPL	ING		ľ									
LAB I.D.	SAMPLE I.	D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI')	SULFATES (SO₄ ⁼)	Н	TCLP	OTHER >>>	РАН			
	ן אראסין 1 WE N-Bottom (26') G 1					X					Χ		13-Jul-05	10:45	X	X	X		SE	EE R	₹EM	AR	ĸs			
- 72	WE N @ 23' bgs		G	1			Χ					X		13-Jul-05	11:25	X	X	X		SE	EE R	EM	AR	KS		
- 33	FE NE Sidewall		6	t			χ					Ϋ́		12-Jul-05	1234	Х	ĸ	Х						\Box		
- 4	RE SESIDEWAL	(G	i			\boldsymbol{X}					\times		12-Juleur	12:32	X	X	X								
5																										
6																		_								
7																		<u> </u>						\square		
8																		 								
<u>y</u>																					\square	┝──┦		\square		$\vdash \downarrow$
10																	201251-1		tin te	-			L.	******	1403005	6440904 H
Sampler Relinguished:		Date	Rece	ived l	Rv:		÷										i inge	1.0								1997
principobuson Time faron						_	on	L			REM	ARKS	esults to: ioin S: Analyze sample	WE N @ 23	bgs	first. I	f TPH	l conc	entrat	tions a	are <5	5,000	ppm, t	then		
Relinquished by: CHADA BOON 1 TID2, 55 THAT					ab/sta	2					chlor benz	ide. If ene is	r BTEX. If BTEX c TPH concentrations >10 ppm and/or NS, CONTACT IA	ons are <5,00 chloride is rej	0 ppn portec	n, and d at >3	l/or B 250 p	TEX c pm, th	oncer nen ar	ntratio	ns or	>50 p	opm ai	nd/or		
elivered by: Sample Cool & Intact							-	ne N		By:			•				1.51	(000)	0540	,401						

•

. .

Chain of Custody Form



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: 07/19/05 Reporting Date: 07/22/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (REF. #130015) Project Location: UL-A, SEC 2, T23S, R36E Sampling Date: 07/19/05 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	S DATE:	07/20/05	07/20/05	07/20/05	07/20/05	07/20/05	07/20/05
H9970-1	EE N. SIDEWALL (5')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H9970-2	EE S. SIDEWALL (5')	<10.0	483	<0.005	<0.005	<0.005	<0.015
H9970-3	EE W. SIDEWALL (5')	<10.0	68.0	<0.005	<0.005	<0.005	<0.015
H9970-4	BLENDING PILE A	183	1050	<0.005	<0.005	<0.005	<0.015
H9970-5	BLENDING PILE B	458	2660	<0.005	<0.005	0.006	0.237
Quality Co		814	812	0.096	0.091	0.095	0.299
True Valu		800	800	0.100	0.100	0.100	0.300
% Recove	ery	102	101	96.2	91.4	94.8	99.6
Relative P	Percent Difference	2.1	1.5	4.3	1.0	5.5	4.9

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

Burgess U. A. Codke. Ph. D.

1/22/05

Date

H9970A.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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: 07/19/05 Reporting Date: 07/22/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (REF. #130015) Project Location: UL-A, SEC 2, T23S, R36E Analysis Date: 07/21/05 Sampling Date: 07/19/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: AH

CI-

LAB NUMBER	SAMPLE ID	(mg/Kg)
H9970-1	EE NORTH SIDEWALL (5')	96
H9970-2	EE SOUTH SIDEWALL (5')	64
H9970-3	EE WEST SIDEWALL (5')	64
H9970-4	BLENDING PILE A	80
H9970-5	BLENDING PILE B	64
Quality Control		950
True Value QC		1000
% Recovery		95.0
Relative Percent	Difference	1.0

METHOD: STANDARD METHODS 4500-CI-B

Note: Analyses performed on 1:4 w:v aqueous extracts.

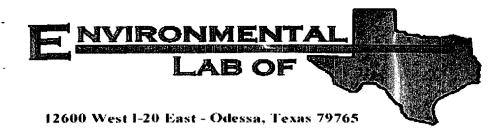
PLEASE NOTE: Liability and Danages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In Syddt shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profils incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Cardinal Laboratories Inc.

Chain of Custody Form

	t Marland, Hobbs, NM 88240 -2326 Fax 505-393-2476													e, TX 79603												
				_			915	<u>5-67</u>	3-70	001				673-7020		- Charles	1.0.00			S. Comest S.	0.00000000000	With States			our autor La	1
Company Name:		ental Plus	<u>, Inc</u>	;		!						Bi	III	0 ¹⁰ 07 <u>−</u> 11 –				A	NAL	<u>MS</u>	ISIR	EQ	UES	洒翻		
EPI Project Mana	V						1																			1
Mailing Address		_				!	1						s af													
City, State, Zip:		ew Mexico					1		P		# 1		94 94	ke ergy.												1
EPI Phone#/Fax#	and the second se	481 / 505-3	394- :	260	1				L	634		GJ.	R:	HYY.												
Client Company:	Duke Energ	gy Field Sei	rvice)S																		i I				
Facility Name:	G-28-24 (F	Ref. #13001	15)							A	ttn:	Po	lo F	Rendon								1				
Project Location	: UL-A, Sec	: 2, T23S, F	136	-				1	152	25 V	Ves	t Ca	ırlsł	bad Highwa	ay,											
EPI Sampler Nan	ne: David Rot	oinson								ŀ	lob	bs,	NM	88240												
				\square			MAT	RIX			PR	ESE	RV.	SAMPL	ING	1										
LAB I.D.	SAMPLE I.C	Э.	(G)RAB OR (C)OMP	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI')	SULFATES (SO4 [®])	Hd	TCLP	OTHER >>>	РАН			
H9970-1 1	EE North Sidewall (5')	G	1		\Box	X					X		19-Jul-05	7:55	X	Χ	Χ						\Box		\square
	EE South Sidewall (5')	G	1		\Box	X					X		19-Jul-05	7:57	X	Χ	Χ								
-7 3	EE West Sidewall (5	·')	G	1		\Box	X					X		19-Jul-05	8:01	X	Χ	X							\square	
<u> </u>	Blending Pile A		С	1		\Box	X					X		19-Jul-05	8:04	X	Χ	Χ				\square		\square		\square
-< 5	Blending Pile B		С	1		\Box	X					X		19-Jul-05	8:08	X	Χ	Х		\square		\square	\square		\square	
6						\Box	\Box													\square	\square					\square
7						\Box	\Box					\Box									\square					
8						\Box	\Box														\square					\square
9						\Box	\Box																		\square	
10						\Box	\Box																			
								-14		a, f									i.			S H				
Sampler Belinquished:		Time	re Received By: (lab staff) re Sample Cool & Intac(J. ecked	/ By:				esults to: iolr S: ANY QUESTIO				-					-		om	

•



Analytical Report

Prepared for:

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

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Location: UL-A, Sec.2, T23S, R36E

Lab Order Number: 5G22011

Report Date: 07/26/05

•1

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WE- Bottom (30')	5G22011-01	Soil	07/21/05 13:25	07/22/05 13:21

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/26/05 15:05

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WE- Bottom (30') (5G22011-01) Soil						_			
Benzene	10.4	0.500	mg/kg dry	500	EG52501	07/25/05	07/26/05	EPA 8021B	
Toluene	43.2	0.500	U	"	н	н	н	н	
Ethylbenzene	31.5	0.500	11	н	11	Ħ	"	11	
Xylene (p/m)	76.2	0.500	"	"	"	н	"	n	
Xylene (0)	20.6	0.500			v		"	"	
Surrogate: a,a,a-Trifluorotoluene		91.2 %	80-1	20	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		82.3 %	80-1	20	"	"	"	п	
Gasoline Range Organics C6-C12	3870	100	mg/kg dry	10	EG52214	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	8300	100		н		н	*	11	
Total Hydrocarbon C6-C35	12200	100	п	**		"		14	
Surrogate: 1-Chlorooctane		17.4 %	70-1	30	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		8.04 %	70-1	30	"	"	"	"	S-06

Environmental Lab of Texas

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

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

Project: Duke Energy- G-28-24 (Ref. #130015) Project Number: None Given Project Manager: Iain Olness

Reported: 07/26/05 15:05

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte WE- Bottom (30') (5G22011-01) Soil	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	14.9	5.00	mg/kg	10	EG52606	07/25/05	07/25/05	EPA 300.0	
% Moisture	7.2	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	

Environmental Lab of Texas

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

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

.

Environmental Lab of Texas, Inc.

12600 West I-20 East, Odessa Texas 79763

432-563-1800 FAX: 432-563-1713

Company Name:	: Environmental Plu	s, In	C.								R						A			IS T	60		<u>ST</u>		
EPI Project Mana	ager: Iain Olness																							\Box	
Mailing Address								ſ		> /		s sí	Leo										1	'	
City, State, Zip:	Eunice New Mexic								圐	爲 國												1	1	1	
EPI Phone#/Fax#	#: 505-394-3481 / 505	-394	Sector se				Duke Energy.					ļ							'	!		'			
Client Company:	: Duke Energy Field S	ervic	es			J								1							1			1	
Facility Name:	G-28-24 (Ref. #130	015)							F	Attn:	: Pa	olo F	Rendon								'	'		'	
Project Location		R36	Ē]	•	115;					bad Highwa	₽y,									'	'	
EPI Sampler Nan	ne: David Robinson												88240)							1	'		'	
			Γ	L		MA	TRIX			PR	ESE	RV.	SAMPL	ING											
LAB 1.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.		GROUND WATER	WASTEWATER	-	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	and the second second	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI')	<u> </u>	Hd	TCLP	OTHER >>>	РАН			
-0 1	WE - Bottom (30')	G	1			X					X		21-Jul-05	13:25	X	X	X								
2							\Box	\Box	\Box												\Box				
3		L	L				Ľ																		
4			┶		_ '	_ _'	\square'				[
5		-				_ _'	Ľ			\downarrow	L														
6		<u> </u>	4	┶	<u> </u>	↓ ′	\square		<u> </u>	<u> </u> '															
7		_ _	Ļ	┶	 '	↓ '	<u> </u> '		 '	\square	 	-						Ļ	L		_ _'	_ _'	_		
8			╄	_	 '	′	└─ ′	<u> </u> '	<u> </u> _'	\vdash	┢──	+			Ļ		<u> </u>		ļ		 _'	Ļ	<u> </u>	┺	Ļ
9		<u> </u>	–	_		₋	<u> </u> '	\vdash	 '	′	 	┟──┤	ļ		 		 			Ļ	 '	 '		┶	
10										1.501.000								SPACE AND		ouropage	-	Alemony		L	
Sampler Fiblinguishell:	Page /22/05	Rec	eived	l By:									results to: ioin												
	en Time 32									!	REN	AARKS	S: ANY QUESTIO	NS. CONTAC	T IAI	N OL	NESS	S AT E	epi a'	r (505	i) 394	-3481	. FAX	(RES	JULTS
Relinquished by:	Date Time	- Hec	bived	IBy: (I	ab sta	in a	h	2					5 * a	B (505) 354-2	1001										
Delivered by:		ple Coo es		ntact No			Che	ecked	By:	Π															

Chain of Custody Form



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: 07/27/05 Reporting Date: 07/28/05 Project Owner: DUKE Project Name: G-28-24 Project Location: NOT GIVEN

Sampling Date: 07/26/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: AH Analyzed By: BC/AH

		GRO	DRO	
		(C ₆ -C ₁₀)	(>C ₁₀ -C ₂₈)	Cl*
LAB NUMBER	SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)
F				
ANALYSIS DA	ГЕ	07/28/05	07/28/05	07/28/05
H10003-1	WENSW 15'	<10.0	<10.0	64
H10003-2	WEESW 15'	<10.0	<10.0	224
H10003-3	WEWSW 15'	<10.0	<10.0	64
H10003-4	WESSW 15'	<10.0	34.9	128
H10003-5	WENSW 26'	<10.0	<10.0	80
H10003-6	WEESW 26'	<10.0	<10.0	48
H10003-7	WEWSW 26'	<10.0	11.1	80
H10003-8	WESSW 26'	<10.0	<10.0	80
H10003-9	WEBH 31'	2400	10100	64
Quality Control		767	746	1020
True Value QC		800	800	1000
% Recovery		95.9	93.2	102
Relative Percer	nt Difference	0.9	6.7	7.0

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

Burgett & Cooke

Date

H10003A.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incidental or otherwise.



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: 07/27/05 Reporting Date: 07/28/05 Project Owner: DUKE Project Name: G-28-24 Project Location: NOT GIVEN Sampling Date: 07/26/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: AH Analyzed By: BC

				ETHYL	TOTAL
		BENZENE	TOLUENE	BENZENE	XYLENES
LAB NUMBER	SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
ANALYSIS DA	TE	07/27/05	07/25/05	07/25/05	07/25/05
H10003-1	WENSW 15'	0.006	<0.005	<0.005	<0.015
H10003-2	WEESW 15'	< 0.005	<0.005	<0.005	<0.015
H10003-3	WEWSW 15'	< 0.005	<0.005	<0.005	<0.015
H10003-4	WESSW 15'	< 0.005	<0.005	<0.005	<0.015
H10003-5	WENSW 26'	<0.005	<0.005	<0.005	<0.015
H10003-6	WEESW 26'	<0.005	<0.005	<0.005	<0.015
H10003-7	WEWSW 26'	<0.005	<0.005	<0.005	<0.015
H10003-8	WESSW 26'	< 0.005	<0.005	<0.005	<0.015
H10003-9	WEBH 31'	0.937	16.7	22.6	71.3
Quality Control		0.092	0.093	0.092	0.278
True Value QC		0.100	0.100	0.100	0.300
% Recovery	·	92.0	93.4	92.2	92.6
Relative Perce	nt Difference	2.5	7.4	8.4	7.5

METHOD: EPA SW-846 8260

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims in original cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Cardinal Laboratories Inc. 2111 Beechwood, Abilene, TX 79603 015 672 7001 For 015 672 7020

101 East Marland, Hobbs, NM 88240

. .

■ 1

	001 Fax 915-673-7020					906	9-99	3-Z	970		ax	906	-393-	24/0											
	Name Duke									Bil	l'Tc							A	nal	ysis	Rec	ques	t		
Project M	lanager Polo Rendon																								
Address																									
City, Stat	e, Zip		_																						
Phone#/F	'ax#						D .'	lea T	7		Tia	14 0	ervic												
Project #/	Owner						Du	Ke t	sne	rgy	r ie	ia s	ervic	es		ied									
Project N	ame G-28-24														11B	dif		w			ß	SN			
Project L	ocation														BTEX 8021B	TPH 8015Modified	_	Sulfates	ບ	SC	ANIONS	CATAIONS			
Sampler 1	Name David Robinson	1													X	015	CI	ulf	EC	TDS	Ē	TA			
		Ŀ.		Γ		MAI	rix			PR	ESE	RV.	SAMP	LING	BTJ	I 8(Ś			A	CA			
		NO	ERS.	E	~										-	Η									
		0	Ę	E E	ЧЛВ		ЭЩ	E	ننه	SE	OL	~												1	
LAB I.D.	SAMPLE I.D.	BO	CONTAINERS	A	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER													
		RAF	S	S S	LLS	۵.	RU	SLI	Q	CII	CE	OT													
		(G)RAB OR (C)OMP.	#	GROUND WATER	WA		0			A			DATE	TIME											
HINN03-1	WENSW 15'	G	1	Ť		X					X		7/26	9:00	X	X	X								
	WEESW 15'	G	1			X					X		7/26	9:03	X	X	X								_
	WEWSW 15'	G	1			X					X		7/26	9:06	X	X	X								-1
-u	WESSW 15'	G	1			X					X		7/26	9:09	X	X	X								
-5	WENSW 26'	G	1			X					X		7/26	9:15	X	X	X								
·-io	WEESW 26'	G	1			X					X		7/26	9:19	X	X	X							1	
	WEWSW 26'	G	1			X					X		7/26	9:23	Χ	Χ	X								
-5	WESSW 26'	G	1			X					X		7/26	9:49	Χ	X	X								
	WEBH 31'	G	1			X					X		7/26	9:12	X	X	X								
Samplar Relin	quished Date 7-27	Rece	eiyed	By:		2-			>		Fax	resul	ts to Iai	n Olnes	s 505	-394-	2601								
Kird	Johnson 9:00	H		-h	U	À	L				Rem	arks													
Relinquished h				By:	(lab s	taff)	~ /	177																	
h	Time 30	/	tr	NN	Y	H	ιX	J/																	
- mange	Soft-To	to	182 II	ntaot		<u></u>	Che	cked	By:																
Delivere	d by Sampler			No	/																				
	<u> </u>		/													_									



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: 08/09/05 Reporting Date: 08/11/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (REF. #130015) Project Location: UL-A, SEC 2, T23S, R36E Sampling Date: 08/09/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: AH Analyzed By: BC/AH

	GRO	DRO	
	(C ₆ -C ₁₀)	(>C ₁₀ -C ₂₈)	Cl*
LAB NUMBER SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)
	00/40/05	00/40/05	00/40/05
ANALYSIS DATE	08/10/05	08/10/05	08/10/05
H10060-1 SB-1 (35')	2230	10900	32
H10060-2 SB-1 (45')	<10.0	202	96
H10060-3 SB-1 (50')	<10.0	30.4	64
H10060-4 SB-1 (55')	<10.0	24.3	80
Quality Control	775	804	970
True Value QC	800	800	1000
% Recovery	96.9	101	97.0
Relative Percent Difference	1.2	0.7	3.0

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

Date

H10060A.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, toss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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: 08/09/05 Reporting Date: 08/11/05 Project Owner: DUKE ENERGY FIELD SERVICES Project Name: G-28-24 (REF. #130015) Project Location: UL-A, SEC 2, T23S, R36E Sampling Date: 08/09/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: AH Analyzed By: BC

			ETHYL	TOTAL
	BENZENE	TOLUENE	BENZENE	XYLENES
LAB NUMBER SAMPLE ID	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
ANALYSIS DATE	08/09/05	08/09/05	08/09/05	08/09/05
H10060-1 SB-1 (35')	1.55	12.4	26.4	64.8
H10060-2 SB-1 (45')	<0.005	<0.005	0.009	0.046
H10060-3 SB-1 (50')	<0.005	<0.005	<0.005	<0.015
H10060-4 SB-1 (55')	<0.005	<0.005	<0.005	<0.015
		······································		
· · · · · · · · · · · · · · · · · · ·				
Quality Control	0.092	0.091	0.099	0.312
True Value QC	0.100	0.100	0.100	0.300
% Recovery	91.5	91.4	99.0	104.0
Relative Percent Difference	4.7	1.0	1.5	1.1

METHOD: EPA SW-846 8260

myets factor

Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims_I programmed and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incidental by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 505-393-2326 Fax 505-393-2476 915-673-7001 Fax 915-673-7020 **Company Name: Environmental Plus. Inc.** ANALYSIS REQUEST Bill To EPI Project Manager: lain 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: Duke Energy Field Services** G-28-24 (Ref. #130015) Facility Name: Attn: Polo Rendon **Project Location:** UL-A, Sec 2, T23S, R36E 11525 West Carlsbad Highway, **EPI Sampler Name:** George Blackburn Hobbs, NM 88240 MATRIX PRESERV. SAMPLING (G)RAB OR (C)OMP. **GROUND WATER** SULFATES (SO4[¯]) CHLORIDES (CI) # CONTAINERS WASTEWATER BTEX 8021B SAMPLE I.D. LAB I.D. CRUDE OIL ACID/BASE ^ ^ ^ **TPH 8015M** ICE/COOL SLUDGE OTHER: OTHER OTHER TCLP SOIL PAH Hd DATE TIME G Х Х 09-Aug-05 X H10060 -1 SB-1 (35') 1 X Х 8:30 2 SB-1 (45') G Х X Χ 09-Aug-05 10:20 Χ Х - 2 1 G Χ X X 3 SB-1 (50') 09-Aug-05 11:03 Χ Х 1 SB-1 (55') С X X SEE REMARKS Х 09-Aua-05 11:40 X X - L 8 g 10 Received By: Sampler Relinguished: Date 8. 9. US E-mail results to: iolness@hotmail.com & psrendon@duke-energy.com

Checked By:

Sample Cool & Intact

No

Yes

 Beconved By:
 E-mail results to: iolness@hotmail.com & psrendon@duke-energy.com

 Time 2: >>>
 A

 Date
 Received By: (lab staff)

 Time
 A

 Time
 A

Chain of Custody Form

Cardinal Laboratories Inc.

Relinquished by:

Delivered by:

ATTACHMENT II COPY OF INITIAL C-141

\$

Duke Energy Field Services Site	Tuke Energy Field Services Site Incident Date: NMOCD Notified:							
Information and Metrics	23 January 2005 3 Feb	ruary 2005						
Site: G-28-24	Assigned Site Referen	ce #: 130015						
Company: Duke Energy Field Services								
Street Address:								
Mailing Address: 1625 West Marland								
City, State, Zip: Hobbs, New Mexico	88240							
Representative: Mark Owens								
Representative Telephone: (505) 397	5541							
Telephone:								
Fluid volume released (bbls): 15 barre	s Recovered (bb	bls): 10 barrels						
>25 bbls: Notify NM	OCD verbally within 24 hrs and submit for plies to unauthorized releases >500 mcf l							
	thin 15 days (Also applies to unauthorize							
Leak, Spill, or Pit (LSP) Name: G-28		<u>an an la statut de la s</u>						
Source of contamination: 8" steel line be	gan leaking, probably due to internal corros	sion. Line clamp installed, line shut-in and						
scheduled for		•						
Land Owner, i.e., BLM, ST, Fee, Other	: State of New Mexico							
LSP Dimensions: 40 feet by 50 feet								
LSP Area: ≈2,000 ft ²		······································						
Location of Reference Point (RP):								
Location distance and direction from F	P:	· · · · · · · · · · · · · · · · · · ·						
Latitude: N 32° 20' 25.042"		······						
Longitude: W 103° 13' 40.062"		······································						
Elevation above mean sea level: 3,447								
Feet from South Section Line:								
Feet from West Section Line:								
Location- Unit or 144: NE4 of the N	Via Unit Letter: A							
Location- Section: 2	C/4 Chill Letter: A							
	and the second							
Location- Township: T23S								
Location- Range: R36E								
Surface water body within 1000 ' radiu	s of site none							
Domestic water wells within 1000' radi								
Agricultural water wells within 1000 Tau	The second se							
Public water supply wells within 1000'		······································						
Depth from land surface to ground was	ter (DG): >150 teet							
Depth of contamination (DC): ≈ 5 feet								
Depth to ground water $(DG - DC = Dt)$								
1. Ground Water	2. Wellhead Protection Area							
If Depth to GW <50 feet: 20 points	If <1000' from water source, or;<200							
If Depth to GW 50 to 99 feet: 10 points	private domestic water source: 20 poi	and a second						
If Depth to GW >100 feet: 0 points	If >1000' from water source, or; >200 private domestic water source: 0 point	ts >1000 horizontal feet. 0 points						
Ground water Score = 0	Wellhead Protection Area Score= 0	Surface Water Score= 0						
Site Rank $(1+2+3) = 0$								
Total S	te Ranking Score and Acceptable Co	ncentrations						
Parameter >19	10-19	0-9						
Benzene ¹ 10 ppm	10 ppm	10 ppm						
	i i o ppm							
	50 ppm 1,000 ppm	50 ppm 5,000 ppm						

۲. ۲

······	·		ि Fiel	d Services
	and the second second	ources		Form C-141 sed October 10, 2003
			District Of	pies to appropriate fice in accordance Rule 116 on back
				side of form
	· · · ·		· · · ·	х
	······································		Fn	nal Report
			-5541	
fineral Ov	nér:		Lease N	ó.:
ATION O	F RELEASE			
et from the	North/South Line	Feet from the	East/West Li	ne County Lea
5 042" Lo	ngitude: W 103	0 13' 40 062'		
		15 10.002	_	
UNEOF		ase: 13 barrels)		covered: 10 ⁻²
			Date and H	our of Discovery:
Not Poquin	If YES, To Wh		23 January 2	2005
I Not Kequi				
	2 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4		Watercourse.	
t Applicable				
	lamp was installed a	nd the line shut-in	until it can be r	eplaced with
p the free liqui en installed, the an be complete	ds. A total of 10 barre excavation was back d. The line was shut-	els of NGPF was i filled and the rele in and is currently	recovered. The l ease area was ba scheduled for 1	eak origin was ck dragged to eplacement.
and/or file cert			orrective actions	
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept ws and/or regulation	the NMOCD maind remediate con ance of a C-141 r	tamination that	eport" does not pose a threat to
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept two and/or regulation	the NMOCD maind remediate con ance of a C-141 r	tamination that eport does not r	eport" does not pose a threat to elieve the operator
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept ws and/or regulation OIL C	the NMOCD main and remediate contance of a C-141 r s. CONSERVA	tamination that eport does not r	eport" does not pose a threat to elieve the operator
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept two and/or regulation	the NMOCD main and remediate contance of a C-141 r s. CONSERVA	tamination that eport does not r	eport" does not pose a threat to elieve the operator
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept ws and/or regulation OIL C	the NMOCD main and remediate contance of a C-141 r s. CONSERVA	tamination that eport does not r	eport" does not pose a threat to elieve the operator
we failed to ad ment. In addi	of a C-141 report by equately investigate a tion, NMOCD accept ws and/or regulation <u>OIL C</u> Approved by Dis	the NMOCD main and remediate contain ance of a C-141 r s. CONSERVA	tamination that eport does not r TION DIV	eport" does not pose a threat to elieve the operator
	gy Minerals Oil Conse 1220 Sout Santa F rective A OR ervices 4 88240 fineral Ow ATION O et from the 5.042 ²² Lo TURE OF Not Require s ⊠ No t Applicable en.* osion. A line c The affected a p the free liquid an be complete ind complete to	Oil Conservation Division 1220 South St. Francis Dr Santa Fe, NM 87505 rective Action –INFO OR Contact: Mail 188240 Telephone No Facility Type fineral Owner: CATION OF RELEASE et from the North/South Line 5.042" Longitude: W 103 URE OF RELEASE Volume of Rele Date and Hour 23 January 2005 If YES, To Wh Not Required Date and Hour s ⊠ No If YES, Volume t Applicable en.* osion. A line clamp was installed and the excavation was backed and be completed. The line was shut- minstalled, the excavation was backed and be completed. The line was shut- min complete to the best of my know	gy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 rective Action –INFORMATION OR Initial Report ervices Contact: Mark Owens 1 88240 Telephone No.: (505) 397 Facility Type: §"steel.pip fineral Owner: CATION OF RELEASE et from the North/South Line Feet from the 5.042" Longitude: W 103° 13' 40.062 URE OF RELEASE Volume of Release: (5 barrels) Date and Hour of Occurrence: 23 January 2005 I YES, To Whom? Not Required Date and Hour s 🖾 No If YES, Volume Impacting the t Applicable ren.* osion. A line clamp was installed and the line shut-in The affected area consists of approximately 2,000 so pothe free liquids. A total of 10 barrels of NGPF was in installed, the excavation was backfilled and the relean and be completed. The line was shut-in and is currently ind complete to the best of my knowledge and unders	gy Minerals and Natural Resources Revis Oil Conservation Division Submit 2°Co District Of 1220 South St. Francis Dr. Santa Fe, NM 87505 rective Action —INFORMATIONAL ONL 'OR Initial Report Fir ervices Contact: Mark Owens 4 88240 Telephone No.: (505) 397-5541 Facility Type: ® steel pipeline fineral Owner: Lease N 'ATION OF RELEASE et from the North/South Line Feet from the East/West Line 5.042" Longitude: W 103° 13' 40.062" 'URE OF RELEASE to Date and Hour of Occurrence: Date and H 23 January 2005 13' January 2 Not Required Date and Hour s ⊠ No If YES, Volume Impacting the Watercourse. t Applicable

ATTACHMENT III

4 4 6

SITE PHOTOGRAPHS



Photograph #1- Western excavation current status, looking easterly down access ramp.



Photograph #2- Western excavation current status, looking southeasterly at south wall.



14157

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

5 April 2005

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

9.2605 -STRUS

Sadoli

Devisory

SOC AN

Duke Energy Field Services G-28-24 Release Site (Ref. #130015)~32 RE: UL-A (NE¹/₄ of the NE¹/₄) of Section 2, Township 23 South, Range 36 East Latitude N 32° 20' 25.042" and Longitude W 103° 18' 40.062"(0)

Dear Mr. Johnson:

On January 23, 2005, a release of approximately 15 barrels result of a line leak at the above-referenced site, of which 10 barrels were recovered. DEFS retained Environmental Plus, Inc. (EPI) in February 2005 to delineate the extended in provide soil at the site. This letter report documents the results of the delineation activities and recommends how to proceed with the remediation of the impacted soil.

Site Background

The site is located in the NE¼ of the NE¼ of Section 15, Township 19 South, Range 34 East at an elevation of approximately 3,447 feet above mean sea level (reference Figures 1 and 2). The property is cowned by the State of New Mexico and administered by the New Mexico State Land Office. A search for area water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). No wells were found to be located in Section 2 and only one well was found to be located in one of the eight adjacent sections (i.e., sections 1, 3, 7, 8 and 9 of Township 23 South, Range 36 East and sections 34, 35 and 36 of Township 22 South, Range 36 East). The depth to water in this well was reported to be approximately 181 feet below ground surface (bgs) (reference Table 2). Due to the lack of wells located in the vicinity of the release site, the search for wells was expanded to include all of Township 22 South, Range 36 East and all of Township 23 South, Range 36 East. A total of 45 wells were recorded in the databases searched and the average depth to water for these wells was reported to be approximately 177 feet bgs, with recorded levels ranging from 22 feet bgs to 702 feet bgs. No water supply wells or bodies of surface water were found to be located within a 1,000-foot radius of the release location (reference Figure 2). Based on this information, it was determined that the distance between the contamination and groundwater was >100 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	5,000 parts per million

Field Work

EPI was on site on February 24, 2005 to delineate the extent of NGL-impacted soil. Delineation activities were completed by excavating trenches within the release area utilizing a back-hoe (reference *Figure 4*). During the excavation of the trenches, samples were collected with a portion of the sample being placed in a laboratory provided container and the remainder placed in a self sealing polyethylene bag. The samples placed in laboratory provided containers were immediately placed on ice for potential transport to Environmental Lab of Texas of Odessa, Texas, for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO) and chloride.

The portion of the samples placed in the self-sealing polyethylene bag were placed in a heated environment (i.e., cab of a truck) to allow the volatilization of organic vapors. After the samples had been allowed to equilibrate to $\approx 70^{\circ}$ F, they were analyzed for the presence of organic vapors utilizing a calibrated MiniRae[®] photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp.

The first trench was excavated to a depth of 15 feet below ground surface (bgs) and samples were collected at various depths. Field analyses of these samples indicated the presence of organic vapors at concentrations ranging from 13.6 parts per million (ppm) at 5 feet bgs approximately 15 feet south of the pipeline to 431 ppm at 10 feet bgs approximately 5 feet south of the pipeline (reference *Table 1*). The second trench was excavated to a depth of 10 feet bgs and samples collected at various depths. Field analyses of these indicated the presence of organic vapors at concentrations ranging from 19.8 ppm to 10 feet bgs approximately 5 feet south of the pipeline.

Representative samples were also analyzed in the field for the presence of chlorides. Prior to conducting any chloride analyses, a background sample was collected upgradient from the site. Field analysis for this sample indicated chloride concentrations of approximately 400 mg/Kg. Field analyses for the samples collected from the excavation indicated chloride concentrations of 400 mg/Kg in all the samples analyzed, with the exception of the sample collected at 10 feet bgs, approximately 5 feet south of the pipeline. Field analysis of this sample indicated chloride concentrations of 480 mg/Kg.

During excavation activities, the lithology was defined as sand to a depth of at least 15 feet bgs.

Analytical Data

Analytical results for the samples collected from trench #1 indicated soil impacted above the NMOCD remedial thresholds does not extend past a depth of 10 feet bgs (reference *Table 1*). Only one sample indicated contaminants above the NMOCD remedial thresholds. This sample was collected from a depth of 5 feet bgs approximately 5 feet south of the pipeline (i.e., G-28-24 C(5')) and analytical results indicated BTEX concentrations of 58.0 mg/Kg, slightly above the NMOCD remedial threshold of 50 mg/Kg.

Analytical results for the samples collected from trench #2 indicated soil impacted above the NMOCD remedial thresholds does not extend past a depth of 10 feet bgs (reference *Table 1*). Only one sample indicated contaminants above the NMOCD remedial thresholds. This sample was collected from a depth of 5 feet bgs approximately 5 feet south of the pipeline (i.e., G-28-24 F (5')) and analytical results indicated BTEX concentrations of 276 mg/Kg and TPH concentrations of 14,300 mg/Kg. analytical results for the sample collected from a depth of 10 feet bgs at this location indicated BTEX concentrations of 71.9 mg/Kg, both well below the NMOCD remedial thresholds for this site.

Chloride concentrations for the samples obtained during delineation were reported ranging from 16.5 mg/Kg to 24.8 mg/Kg. The reported concentrations are below the New Mexico Water Quality Control

Mr. Larry Johnson 4 April 2005

Commission's (NMWQCC) chloride standards for groundwater of 250 mg/L for all samples (reference *Table 2*).

Conclusions

Based on field and analytical analyses, soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 5-feet bgs (reference *Table 2*). The release area is approximately 3,200 square feet in size. The volume of soil that is required to be treated is unknown; however, if the entire release area was excavated to a depth of 5-feet bgs, the volume of soil excavated would be approximately 590 cubic yards (*in situ*). Due to the fact that impacts above the NMOCD remedial thresholds are not expected to extend to a depth of 5 feet across the entire area, the volume of impacted soil is actually less than 590 cubic yards.

Chloride concentrations were reported below the NMWQCC standards for groundwater in all samples collected during delineation. Due to the fact that reported chloride levels were below the NMWQCC chloride standards for groundwater, groundwater would not be impacted by chloride.

Recommendations

Based on field and analytical results, it is recommended that soil impacted above the remedial limits be excavated. The final lateral and vertical extents will be determined via field analyses of soil samples collected during excavation activities. Upon completion of excavation activities, the excavation basin will be sampled (i.e., grab samples collected from the sidewalls and floor) and the samples submitted to an independent laboratory for quantification of TPH, BTEX and chlorides.

The excavated soil impacted above the NMOCD remedial thresholds can be treated either by (a) transporting it to a State approved land treatment facility and backfilling the excavation with clean soil obtained off-site or (b) blending the soil with clean soil obtained from along the right-of-way until NMOCD remedial goals are achieved. Samples would be collected from the blended soil and analyzed in the field to ascertain when NMOCD guidelines had been achieved and samples submitted to an independent laboratory to verify field analyzes. Upon receipt of analytical results verifying the blending of the soil to NMOCD remedial guidelines or below, the excavation should be backfilled, contoured to allow natural drainage and reseeded.

Bound

Mr. Larry Johnson 4 April 2005

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at <u>iolness@hotmail.com</u>. Upon your approval, EPI will initiate the next phase of the remediation. All official correspondence should be submitted to Polo Rendon at:

Polo Rendon Duke Energy Field Services 1625 West Marland Hobbs, NM 88240

(505) 391-5705 psrendon@duke-energy.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

ant

Iain A. Olness, P.G. Hydrogeologist

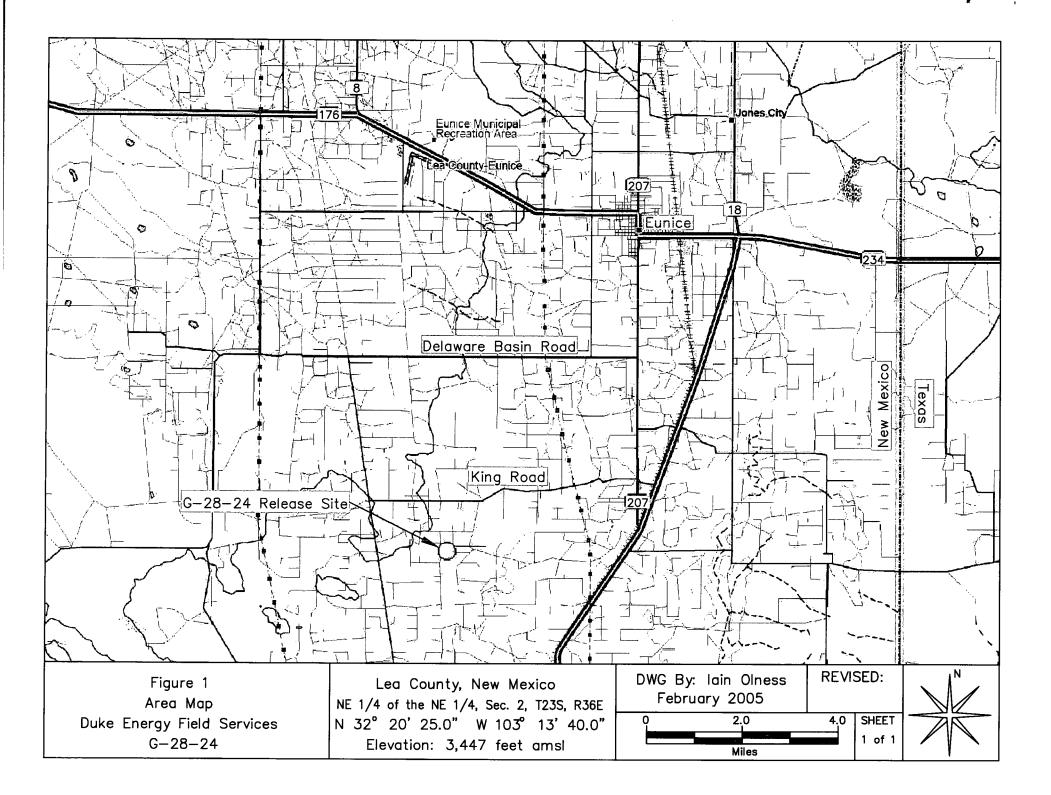
- cc: Polo Rendon, DEFS Hobbs, NM Mark Owens, DEFS – Hobbs, NM Lynn Ward, DEFS – Midland, TX Steve Weathers, DEFS – Denver, CO File
- encl. Figure 1 Area Map
 Figure 2 Site Location Map
 Figure 3 Site Map
 Figure 4 Delineation Sampling Map
 Table 1 Summary of Soil Field Analyses and Laboratory Analytical Results
 Table 2 Well Information Report
 Attachment I Laboratory Results and Chain-of-Custody Form
 Attachment II Copy of Initial C-141

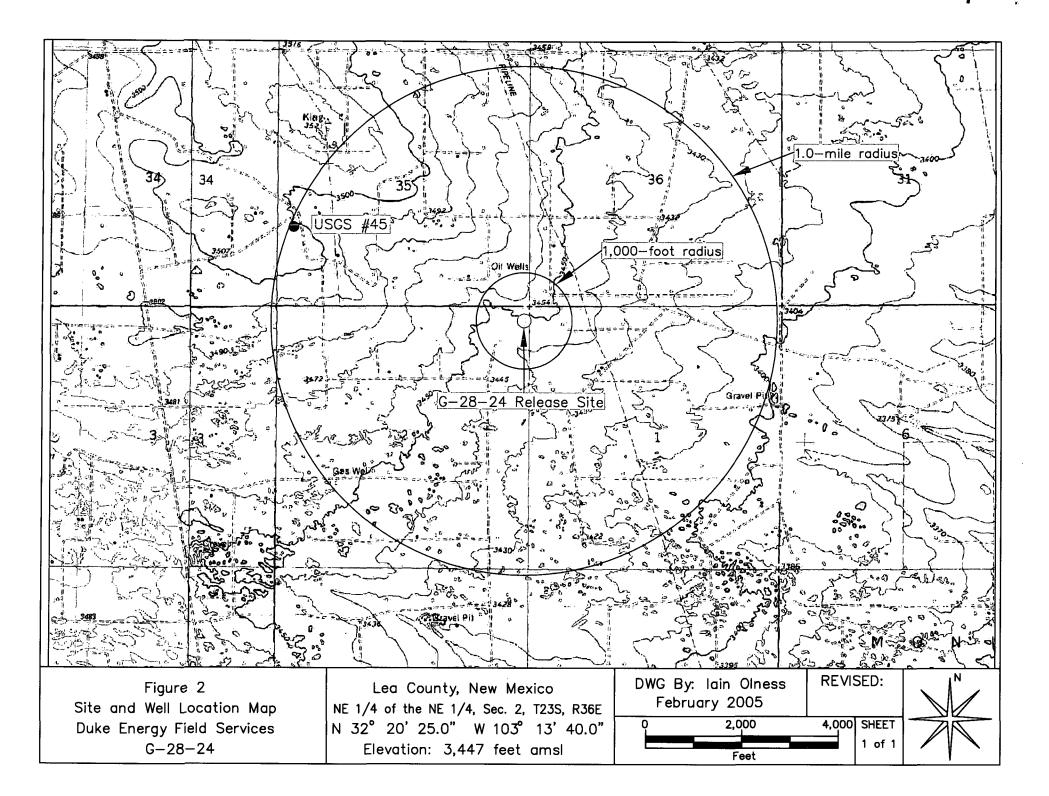
FIGURES

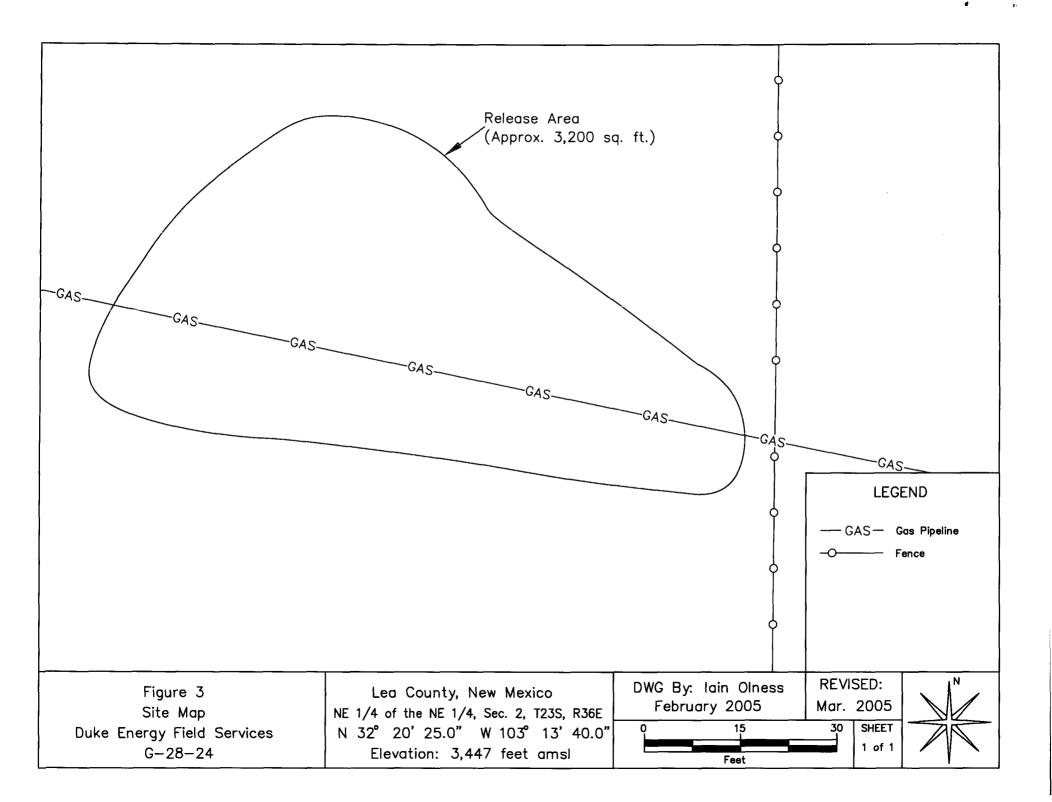
•

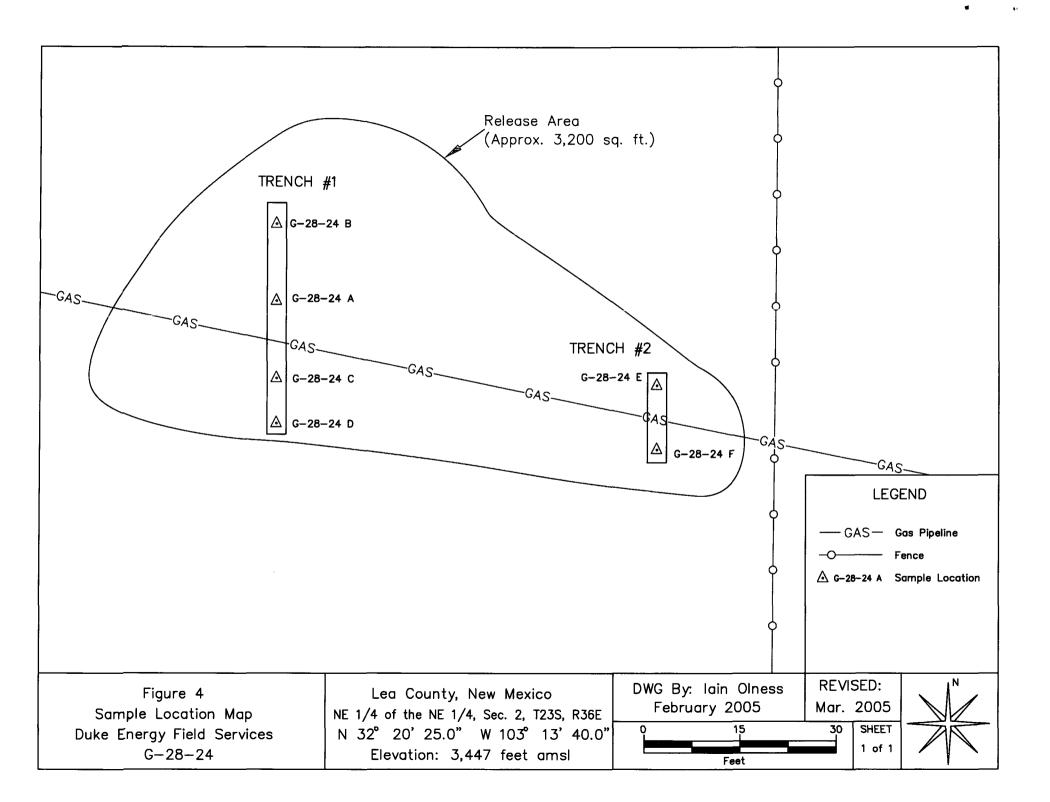
.

.









TABLES

÷

-

TABLE 1

*

۶.

Summary of Soil Field Analyses and Laboratory Analytical Results

DEFS G-28-24 (Ref. #130016)

Soil Boring	Depth (feet)	Sample Date	PID Reading	Field Chloride (mg/Kg)	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	0-Xylene (mg/Kg)	Total BTEX	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH	Chloride
	5	24-Feb-05	279	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G-28-24 A	10	24-Feb-05	38.4	400	< 0.0250	<0.0250	<0.0250	< 0.0250	< 0.0250	<0.125	8.09 ⁴	36.90	37	18.6
	15	24-Feb-05	383	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G-28-24 B	5	24-Feb-05	169	400	0.02144	0.0618	0.0465	0.154	0.0632	0.347	47.8	183	231	17.7
G-20-24 D	10	24-Feb-05	36.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2	24-Feb-05	102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G-28-24 C	5	24-Feb-05	227	NA	0.925	9.00	11.0	27.2	9.84	58.0	895	2,300	3,200	20.2
0-20-24 C	10	24-Feb-05	431	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	15	24-Feb-05	190	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G-28-24 D	5	24-Feb-05	13.6	400	< 0.0250	< 0.0250	< 0.0250	<0.0250	< 0.0250	<0.125	7.64 ⁴	46.5	46.5	24.8
G-28-24 E	5	24-Feb-05	108	400	<0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250	<0.125	9.32 ⁴	38.8	38.8	17.9
	5	24-Feb-05	481	400	10.6	74.2	38.8	115	37.1	276	5,890	8,390	14,300	16.5
G-28-24 F	8	24-Feb-05	273	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10	24-Feb-05	19.8	400	<0.0250	< 0.0250	< 0.0250	0.0288	< 0.0250	0.0288	12.8	59.1	71.9	17.1
NMOCD	Remedia	Thresholds	100 ³		10					50			5,000	250 ⁵

⁷Bolded values are in excess of the NMOCD Remediation Thresholds

² NA = Not Analyzed

³ In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.

⁴ Detected, but below the reporting limit; therefore the result is an estimated concentration (CLP J-Flag)

⁵ Chloride residuals may not be capable of impacting local groundwaterabove the NMWQCCstandard of 250 mg/L

TABLE 2

.

.

WELL INFORMATION REPORT*

Duke Energy Field Services G-28-24 - Ref #130015

Well Number	Diversion ^A	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
USGS #1	<u> </u>				23 S	36 E	04 424			8-Mar-96	3,485	164.2
CP 00738	0	Dinwiddie Cattle Company	STK		23 S	36 E	14 34	N 32º 17' 49.46"	W 103° 14' 22.88"		3,360	
CP 00737	0	Sun Exploration and Production	PRO	Shallow	23 S	36 E	15 314	N 32° 18' 2.64"	W 103° 15' 39.71"	24-Aug-88	3,410	
CP 00603	3	U.R. Cattle Company	DOM	Shallow	23 S	36 E	15 413	N 32° 18' 2.6"	W 103° 15' 8.98"	16-Feb-80	3,380	149
USGS #2					23 S	36 E	15 4 4 1			17-Dec-70	3,370	145.91
USGS #3	<u> </u>				23 S	36 E	15 4 4 1			6-Mar-96	3,370	144.29
CP 00558	3	Ross L. Robinson, U.R. Cattle Co.	STK	Shallow	23 S	36 E	16 3 3 3	N 32° 17' 49.67"	W 103° 16' 41.34"	22-Jul-76	3,440	220
USGS #4					23 S	36 E	16 3 4 3			17-Dec-70	3,450	261.86
USGS #5					23 S	36 E	16 3 4 3			14-May-91	3,450	411.5
CP 00925	141.14	Energen Resources Corp.	SRO		23 S	36 E	22 444	N 32° 16' 57.18"	W 103° 14' 53.64"	1	3,400	
USGS #6			<u> </u>		23 S	36 E	22 344			1-Dec-53	3,420	188.57
USGS #7					23 S	36 E	23 114			17-Dec-70	3,370	141.23
USGS #8					23 S	36 E	23 221			17-Dec-70	3,355	132.39
USGS #9					23 S	36 E	26 333			28-Feb-96	3,360	140.9
CP 00109	3	Deep Wells Ranch, Inc.	STK	Shallow	23 S	36 E	31 213	N 32° 15' 52.14"	W 103° 18' 13.55"	15-Jun-66	3,440	178
CP 00459	3	Deep Wells Ranch, Inc.	STK		23 S	36 E	31 333	N 32° 15' 12.93"	W 103° 18' 43.92"	19-Mar-68	3,465	200
USGS #10					23 S	36 E	31 214			21-Jan-76	3,435	174.93
USGS #11					23 S	36 E	31 214			7-Mar-96	3,435	174.14
USGS #12					23 S	36 E	31 233				3,445	_
USGS #13					23 S	36 E	35 211			28-Feb-96	3,340	122.43
CP 00497	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 433		W 103° 13' 6.12"	18-Apr-71	3,330	133
CP 00512	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 134		W 103° 13' 36.84"	1-Dec-72	3,335	128
CP 00621	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 223	N 32° 15' 51.58"	W 103° 12' 50.72"	8-Jul-80	3,325	127
CP 00634	3	El Paso Natural Gas Company	EXP	Shallow	23 S	36 E	36 121		W 103° 13' 21.46"	15-Jun-81	3,335	125
CP 00651	3	El Paso Natural Gas Company	IND	Shallow	23 S	36 E	36 132	N 32° 15' 38.59"	W 103° 13' 36.84"	1-Jul-82	3,340	123
CP 00682	3	El Paso Natural Gas Company	EXP		23 S	36 E	36 124	N 32° 15' 51.64"	W 103° 13' 21.46"	15-Sep-85	3,335	
USGS #14					23 S	36 E	36 131			20-Jan-76	3,330	122.58
USGS #15					23 S	36 E	36 314			22-Feb-96	3,340	120.92
USGS #16					23 S	36 E	36 341			17-Dec-70	3,335	136.21
USGS #17					23 S	36 E	36 342			20-Oct-65	3,335	142.17
CP 00763 EXP	0	Chevron USA, Inc.	SAN	Shallow	22 S	36 E	01 322	N 32° 25' 1.46"	W 103° 13' 21.77"	11-Oct-91	3,500	137
USGS #18					22 S	36 E	01 333			12-Nov-53	3,495	111.24
USGS #19					22 S	36 E	02 144	L			3,550	L
USGS #20	I			L	22 S	36 E	02 323	L		L	3,535	<u> </u>
USGS #21					22 S	36 E	02 444				3,500	Ļ
USGS #22	L			<u> </u>	22 S	36 E	02 442	<u> </u>		20-Jan-76	3,500	118.48
USGS #23				L	<u>22 S</u>	36 E	02 444	L			3,500	<u> </u>
USGS #24					22 S	36 E	04 222			3-Apr-68	3,560	702.23
CP 00727	3	Dasco Land Corporation	STK	Shallow	22 S	36 E	05 231		W 103° 17' 12.71"	26-Apr-88	3,600	<u> </u>
CP 00469	3	W. T. Tivis, Jr.	STK		22 S	36 E	06 321	N 32° 25' 1.55"	W 103° 18' 29.6"	7-Feb-69	3,585	195
USGS #25				└ ──┤	_22 S	36 E	06 321			14-Feb-96	3,585	179.53
USGS #26					22 S	36 E	06 412			1-May-91	3,580	<u>171.04</u>
CP 00476 EXP	Į	Ross Robinson	STK		22 S	36 E	07 231	N 32° 24' 22.28"	W 103° 18' 14.09"	<u> </u>	3,595	
USGS #27					22 S	36 E	09 341	<u> </u>		1-May-91	3,560	171.75
USGS #28				L	22 S	36 E	09 341			3-Dec-70	3,560	172.27

TABLE 2

1

.

WELL INFORMATION REPORT*

Duke Energy Field Services G-28-24 - Ref #130015

Well Number	Diversion ^A	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
USGS #29					22 S	36 E	09 341			3-Dec-70	3,560	178.05
L 11013	3	Dasco Land Corporation	STK		22 S	36 E	10 3 3 3	N 32° 23' 56.1"	W 103° 15' 40.14"		3,545	
USGS #30					22 S	36 E	11 214				3,525	
USGS #31					22 S	36 E	11 224				3,505	
USGS #32					22 S	36 E	11 223			3-Dec-70	3,520	125.42
USGS #33					22 S	36 E	12 311			15-Feb-96	3,475	124.13
USGS #34					22 S	36 E	13 222			20-Jan-76	3,450	23.41
CP 00070 2	3	McVay Drilling Company	STK	Shallow	22 S	36 E	16 122	N 32° 23' 42.95"	W 103° 16' 26.28"	5-Oct-72	3,565	170
USGS #35					22 S	36 E	16 211			15-Feb-96	3,450	175.28
USGS #36					22 S	36 E	16 211			7-Mar-86	3,450	174.09
USGS #37					22 S	36 E	17 141			3-Dec-70	3,565	484.06
CP 00485 EXP		El Paso Natural Gas Company	NON		22 S	36 E	22 133	N 32° 22' 37.79"	W 103° 15' 40.09"		3,515	
CP 00609	3	U.R. Cattle Company	DOM		22 S	36 E	22 4 3 1	N 32° 22' 11.77"	W 103° 15' 9.23"	28-Jun-80	3,565	22
USGS #38				[22 S	36 E	25 434			15-Feb-96	3,430	117.83
USGS #39					22 S	36 E	25 4 3 4			9-Dec-70	3,430	121.52
USGS #40					22 S	36 E	25 4 3 4			21-Oct-65	3,430	118.07
USGS #41					22 S	36 E	26 414				3,480	
CP 00575	3	Millard Deck	STK	Shallow	22 S	36 E	27 433	N 32° 21' 19.49"	W 103° 15' 9.39"	13-Nov-78	3,505	160
USGS #42					22 S	36 E	27 222			21-Jan-76	3,500	166.68
USGS #43					22 S	36 E	27 444			21-Feb-96	3,515	188.39
USGS #44					22 S	36 E	33 232			20-Feb-96	3,475	474.08
			7 327 -24		22 S=1	36 E	35 313			15-Feb-96	3,490	-180,81

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1) and USGS Database.

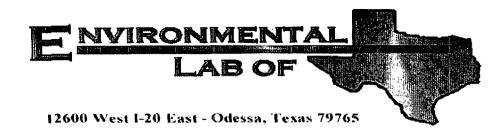
Shaded well information indicates well location shown on Figure 2

^A = in acre feet per annum

^B = Interpolated from USGS Topographical Map
IND = Industrial
STK = Livestock Watering
CLW = Change Location of Well (Ground)
EXP = Expired
(quarters are 1=NW, 2=NE, 3=SW, 4=SE)
(quarters are biggest to smallest - X Y are in Feet - UTM are in Meters)

ATTACHMENT I

LABORATORY RESULTS AND CHAIN-OF-CUSTODY FORM



~

5

Analytical Report

Prepared for:

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

Project: Duke Energy Field Services Project Number: None Given Location: UL-A, Sec 2, T23S, R36E

Lab Order Number: 5C03003

Report Date: 03/09/05

Environmental Plus, Incorporated	Project:	Duke Energy Field Services	Fax: 505-394-2601
P.O. Box 1558	Project Number:	None Given	Reported:
Eunice NM, 88231	Project Manager:	Iain Olness	03/09/05 16:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-28-24 A(10')	5C03003-01	Soil	02/24/05 13:10	03/03/05 14:15
G-28-24 B(5')	5C03003-02	Soil	02/24/05 13:40	03/03/05 14:15
G-28-24 C(5')	5C03003-04	Soil	02/24/05 10:50	03/03/05 14:15
G-28-24 D(5')	5C03003-06	Soil	02/24/05 11:45	03/03/05 14:15
G-28-24 E(5')	5C03003-07	Soil	02/24/05 15:00	03/03/05 14:15
G-28-24 F(5')	5C03003-08	Soil	02/24/05 14:35	03/03/05 14:15
G-28-24 F(10')	5C03003-09	Soil	02/24/05 15:13	03/03/05 14:15

.

.

Г

Project: Duke Energy Field Services Project Number: None Given Project Manager: Iain Olness

Reported: 03/09/05 16:38

Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-28-24 A(10') (5C03003-01) Soil	· · · · ·								
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	ND	0.0250	"	11	"	"	"	11	
Ethylbenzene	ND	0.0250	H	**	"	н		**	
Xylene (p/m)	ND	0.0250	"	**	n	н		"	
Xylene (o)	ND	0.0250	"	"	"	"	"		
Surrogate: a,a,a-Trifluorotoluene		89.7 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.3 %	80	120	"	"	"	"	
Gasoline Range Organics C6-C12	J [8.09]	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	J
Diesel Range Organics >C12-C35	36.9	10.0	"	"	"		"	"	
Total Hydrocarbon C6-C35	36.9	10.0	"	"	"	"	н	v	
Surrogate: 1-Chlorooctane		81.2 %	67.6	-140	"	n	"	"	
Surrogate: 1-Chlorooctadecane		99.8 %	70	130	"	"	"	"	
G-28-24 B(5') (5C03003-02) Soil									
Benzene	J [0.0214]	0.0250	mg/kg dry	25	EC50408	03/03/05	03/04/05	EPA 8021B	J
Toluene	0.0618	0.0250	"	'n	n	n	n	"	
Ethylbenzene	0.0465	0.0250	**	**	"	"	н	11	
Xylene (p/m)	0.154	0.0250	11	**	"	"	н	**	
Xylene (o)	0.0632	0.0250	11	**	11	н	и	н	
Surrogate: a,a,a-Trifluorotoluene		96.6 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	80-	120	"	"	"	"	
Gasoline Range Organics C6-C12	47.8	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	
Diesel Range Organics >C12-C35	183	10.0	**		н	"	"	11	
Total Hydrocarbon C6-C35	231	10.0		"	n	"	H	и	
Surrogate: 1-Chlorooctane		85.2 %	67.6	-140	"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.2 %	70	130	"	"	"	"	
G-28-24 C(5') (5C03003-04) Soil									
Benzene	0.925	0.100	mg/kg dry	100	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	9.00	0.100	"	"	н	"	"		
Ethylbenzene	11.0	0.100	"	**	11	н	н		
Xylene (p/m)	27.2	0.100			"	"	u		
Xylene (o)	9.84	0.100	"	"	11	"	U	11	
Surrogate: a,a,a-Trifluorotoluene		163 %	80	120	n	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		114 %	80-	120	"	"	"	"	
Gasoline Range Organics C6-C12	895	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	
Diesel Range Organics >C12-C35	2300	10.0	"	*1	"	"	"	11	
Total Hydrocarbon C6-C35	3200	10.0	"	н	н	н	"	**	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples

received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 2 of 11

Environmental Plus, Incorporated	Project:	Duke Energy Field Services	Fax: 505-394-2601
P.O. Box 1558	Project Number:	None Given	Reported:
Eunice NM, 88231	Project Manager:	Iain Olness	03/09/05 16:38

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-28-24 C(5') (5C03003-04) Soil									
Surrogate: 1-Chlorooctane		109 %	67.6-	140	EC50307	03/03/05	03/04/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		110 %	70-1	30	#	"	"	n	
G-28-24 D(5') (5C03003-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	ND	0.0250	н	"	"	"	н	"	
Ethylbenzene	ND	0.0250	"		"	"		H	
Xylene (p/m)	ND	0.0250	"	"	"		н	*	
Xylene (0)	ND	0.0250	u	"	"	н	"	H	
Surrogate: a,a,a-Trifluorotoluene		94.8 %	80-1	20	"	"	,,	"	
Surrogate: 4-Bromofluorobenzene		89.4 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	J [7.64]	10.0	mg/kg dry	1	EC50307	03/03/05	03/04/05	EPA 8015M	
Diesel Range Organics >C12-C35	46.5	10.0	"	"	н			*	
Total Hydrocarbon C6-C35	46.5	10.0	**	19	11	н	н	It	
Surrogate: 1-Chlorooctane		77.0 %	67.6-	140	"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.6 %	70-1	30	"	"	"	"	
G-28-24 E(5') (5C03003-07) Soil									

EPA 8021B Benzene ND 0.0250 mg/kg dry 25 EC50408 03/03/05 03/03/05 11 Toluene ND 0.0250 . ,, 11 ., 0.0250 Ethylbenzene ND ... ,, Xylene (p/m) ND 0.0250 ** . ,, 99 . н Xylene (o) ND 0.0250 92.6 % 80-120 " " " N Surrogate: a,a,a-Trifluorotoluene 80-120 " " " . 86.2 % Surrogate: 4-Bromofluorobenzene EPA 8015M **Gasoline Range Organics C6-C12** J [9.32] 10.0 mg/kg dry EC50307 03/03/05 03/04/05 I 1 .. Diesel Range Organics >C12-C35 38.8 " 10.0 18 ** .. 38.8 H Total Hydrocarbon C6-C35 10.0 н н H " ,, " 79.6 % " Surrogate: 1-Chlorooctane 67.6-140 70-130 " " Surrogate: 1-Chlorooctadecane 95.6 % " "

Environmental Lab of Texas

Ŧ

6

Project: Duke Energy Field Services Project Number: None Given Project Manager: Iain Olness

Reported: 03/09/05 16:38

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-28-24 F(5') (5C03003-08) Soil									
Benzene	10.6	0.100	mg/kg dry	100	EC50408	03/03/05	03/03/05	EPA 8021B	
Toluene	74.2	0.100	ч	**	"	**	и		
Ethylbenzene	38.8	0.100	11	**		"	"		
Xylene (p/m)	115	0.100	11		н	"	u	•	
Xylene (0)	37.1	0.100	н	"	н	**	н		
Surrogate: a,a,a-Trifluorotoluene		573 %	80-1	120	"	"	"	17	S-04
Surrogate: 4-Bromofluorobenzene		127 %	80-1	120	"	"	"	"	S-0-
Gasoline Range Organics C6-C12	5890	50.0	mg/kg dry	5	EC50307	03/03/05	03/07/05	EPA 8015M	
Diesel Range Organics >C12-C35	8390	50.0	"		"	"		**	
Total Hydrocarbon C6-C35	14300	50.0	n	"	"	u	и	"	
Surrogate: 1-Chlorooctane		9.86 %	67.6-	-140	"	"	"	"	S-0
Surrogate: 1-Chlorooctadecane		19.3 %	70-1	130	"	"	"	"	S-06
G-28-24 F(10') (5C03003-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC50408	03/03/05	03/04/05	EPA 8021B	
Toluene	ND	0.0250	"	н		u	•	•	
Ethylbenzene	ND	0.0250	"	"	**	н	•	**	
Xylene (p/m)	0.0288	0.0250	"	"	"		"	11	
Xylene (o)	ND	0.0250			"	"	"	*	
Surrogate: a,a,a-Trifluorotoluene		94.5 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %	80-1	120	"	"	"	"	
Gasoline Range Organics C6-C12	12.8	10.0	mg/kg dry	I	EC50307	03/03/05	03/07/05	EPA 8015M	
Diesel Range Organics >C12-C35	59.1	10.0	н	и	н	"	11	"	
Total Hydrocarbon C6-C35	71.9	10.0	"	и	н	"	н	n	
Surrogate: 1-Chlorooctane		83.0 %	67.6-	140	17	n	"	"	
Surrogate: 1-Chlorooctadecane		78.2 %	70-1	130	"	"	"	"	

Environmental Lab of Texas

Project:Duke Energy Field ServicesProject Number:None GivenProject Manager:Iain Olness

Reported: 03/09/05 16:38

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
G-28-24 A(10') (5C03003-01) Soil									
Chloride	18.6	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.9	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 B(5') (5C03003-02) Soil									
Chloride	17.7	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	13.7	0.1	%	I	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 C(5') (5C03003-04) Soil									
Chloride	20.2	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.0	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 D(5') (5C03003-06) Soil									
Chloride	24.8	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	10.3	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 E(5') (5C03003-07) Soil									
Chloride	17.9	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	12.6	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 F(5') (5C03003-08) Soil									
Chloride	16.5	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	9.4	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	
G-28-24 F(10') (5C03003-09) Soil									
Chloride	17.1	5.00	mg/kg	10	EC50905	03/07/05	03/07/05	EPA 300.0	
% Moisture	5.4	0.1	%	1	EC50401	03/03/05	03/04/05	% calculation	

Environmental Lab of Texas

.

8

Project:Duke Energy Field ServicesProject Number:None GivenProject Manager:Iain Olness

Reported: 03/09/05 16:38

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 EC50307 - Solvent Extraction (GC)										
Blank (EC50307-BLK1)				Prepared: ()3/03/05 A	nalyzed: 0	3/04/05			
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	37.5		mg/kg	50.0		75.0	67.6-140			
Surrogate: 1-Chlorooctadecane	35.4		"	50.0		70.8	70-130			
LCS (EC50307-BS1)				Prepared: ()3/03/05 A	nalyzed: 03	3/04/05			
Gasoline Range Organics C6-C12	437	10.0	mg/kg wet	500		87.4	76.3-104			
Diesel Range Organics >C12-C35	433	10.0	"	500		86.6	76.1-118			
Total Hydrocarbon C6-C35	870	10.0	н	1000		87.0	81.8-105			
Surrogate: 1-Chlorooctane	37.1		mg/kg	50.0		74.2	67.6-140			
Surrogate: 1-Chlorooctadecane	38.6		"	50.0		77.2	70-130			
Calibration Check (EC50307-CCV1)				Prepared: (03/03/05 A	nalyzed: 03	3/04/05			
Gasoline Range Organics C6-C12	478		mg/kg	500		95.6	80-120			
Diesel Range Organics >C12-C35	527		"	500		105	80-120			
Total Hydrocarbon C6-C35	1000			1000		100	80-120			
Surrogate: 1-Chlorooctane	56.0		"	50.0		112	67.6-140			· · · · -·
Surrogate: 1-Chlorooctadecane	57.2		"	50.0		114	70-130			
Matrix Spike (EC50307-MS1)	Sour	ce: 5C02018	3-01	Prepared: (03/03/05 A	nalyzed: 0.	3/07/05			
Gasoline Range Organics C6-C12	491	10.0	mg/kg dry	556	ND	88.3	75.9-114			
Diesel Range Organics >C12-C35	550	10.0	н	556	ND	98.9	85.3-122			
Total Hydrocarbon C6-C35	1040	10.0	и	1110	ND	93.7	84.4-115			
Surrogate: 1-Chlorooctane	37.4		mg/kg	50.0		74.8	67.6-140			
Surrogate: 1-Chlorooctadecane	36.9		"	50.0		73.8	70-130			
Matrix Spike Dup (EC50307-MSD1)	Sour	ce: 5C02018	3-01	Prepared: (03/03/05 A	nalyzed: 0.	3/07/05			
Gasoline Range Organics C6-C12	507	10.0	mg/kg dry	556	ND	91.2	75.9-114	3.21	10.4	
Diesel Range Organics >C12-C35	518	10.0	11	556	ND	93.2	85.3-122	5.99	10.4	
Fotal Hydrocarbon C6-C35	1030	10.0	п	1110	ND	92.8	84.4-115	0.966	7.6	
Surrogate: 1-Chlorooctane	35.9		mg/kg	50.0		71.8	67.6-140			
Surrogate: 1-Chlorooctadecane	35.6		"	50.0		71.2	70-130			

Environmental Lab of Texas

Project: Duke Energy Field Services Project Number: None Given Project Manager: Iain Olness Fax: 505-394-2601

Reported: 03/09/05 16:38

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EC50408 - EPA 5030C (GC)										
Blank (EC50408-BLK1)				Prepared: 0)3/03/05 A	nalyzed: 03	/04/05			
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	н							
Ethylbenzene	ND	0.0250	n							
Xylene (p/m)	ND	0.0250	н							
Xylene (0)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	91.9		ug/kg	100		91.9	80-120			-
Surrogate: 4-Bromofluorobenzene	98.1		"	100		98.1	80-120			
LCS (EC50408-BS1)				Prepared &	Analyzed:	03/03/05				
Benzene	111		ug/kg	100		111	80-120			
Foluene	115		"	100		115	80-120			
Ethylbenzene	113		"	100		113	80-120			
Xylene (p/m)	238		11	200		119	80-120			
Xylene (0)	118		"	100		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	111		"	100		111	80-120	-		
Surrogate: 4-Bromofluorobenzene	112		"	100		112	80-120			
Calibration Check (EC50408-CCV1)				Prepared: 0	3/03/05 A	nalyzed: 03	/04/05			
Benzene	101		ug/kg	100		101	80-120			
Foluene	101			100		101	80-120			
Ethylbenzene	89.3		11	100		89.3	80-120			
Xylene (p/m)	199		н	200		99.5	80-120			
Xylene (0)	96.7		11	100		96.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	99.0		n	100		99.0	80-120			
Surrogate: 4-Bromofluorobenzene	85.2		"	100		<i>85.2</i>	80-120			
Matrix Spike (EC50408-MS1)	Sou	rce: 5C03004	-02	Prepared &	Analyzed:	03/03/05				
Benzene	114		ug/kg	100	ND	114	80-120			_
Foluene	120		"	100	ND	120	80-120			
Ethylbenzene	110			100	ND	110	80-120			
Xylene (p/m)	237		"	200	ND	118	80-120			
Kylene (o)	117			100	ND	117	80-120			
Surrogate: a,a,a-Trifluorotoluene	117		"	100		117	80-120			
Surrogate: 4-Bromofluorobenzene	112		"	100		112	80-120			

Environmental Lab of Texas

c

8

Project: Duke Energy Field Services Project Number: None Given Project Manager: Iain Olness

Reported: 03/09/05 16:38

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EC50408 - EPA 5030C (GC)

Matrix Spike Dup (EC50408-MSD1)	Source: 5	Source: 5C03004-02			Prepared & Analyzed: 03/03/05			
Benzene	99.8	ug/kg	100	ND	99.8	80-120	13.3	20
Toluene	100		100	ND	100	80-120	18.2	20
Ethylbenzene	92.6	"	100	ND	92.6	80-120	17.2	20
Xylene (p/m)	208	"	200	ND	104	80-120	12.6	20
Xylene (0)	101	"	100	ND	101	80-120	14.7	20
Surrogate: a,a,a-Trifluorotoluene	94.2		100		94.2	80-120		
Surrogate: 4-Bromofluorobenzene	91.7	"	100		91.7	80-120		

Environmental Lab of Texas

Environmental Plus, Incorporated	Project:	Duke Energy Field Services	Fax: 505-394-2601
P.O. Box 1558	Project Number:	None Given	Reported:
Eunice NM, 88231	Project Manager:	Iain Olness	03/09/05 16:38

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 EC50401 - General Preparation (Prep)										
Blank (EC50401-BLK1)				Prepared: ()3/03/05 A	nalyzed: 03	/04/05			
% Moisture	0.1	0.1	%							
Duplicate (EC50401-DUP1)	Sou	rce: 5C02018-	01	Prepared: 0)3/03/05 A	nalyzed: 03	/04/05			
% Moisture	12.0	0.1	%		10.1			17.2	20	
Batch EC50905 - Water Extraction										
Blank (EC50905-BLK1)				Prepared &	Analyzed:	03/07/05				
Chloride	ND	0.500	mg/kg							
Blank (EC50905-BLK2)				Prepared &	Analyzed:	03/07/05				
Chloride	ND	0.500	mg/kg							
LCS (EC50905-BS1)				Prepared &	Analyzed:	03/07/05				
Chloride	9.87		mg/L	10.0		98.7	80-120			
LCS (EC50905-BS2)				Prepared &	Analyzed:	03/07/05				
Chloride	9.76		mg/L	10.0		97.6	80-120			
Calibration Check (EC50905-CCV1)				Prepared &	Analyzed:	03/07/05				
Chloride	9.45		mg/L	10.0		94.5	80-120			
Calibration Check (EC50905-CCV2)				Prepared &	Analyzed:	03/07/05				
Chloride	9.38		mg/L	10.0		93.8	80-120			
Duplicate (EC50905-DUP1)	Sou	rce: 5C03002-	01	Prepared &	Analyzed:	03/07/05				
Chloride	284	10.0	mg/kg		282			0.707	20	

Environmental Lab of Texas

Environmental Plus, Incorporated	Project:	Duke Energy Field Services	Fax: 505-394-2601
P.O. Box 1558	Project Number:	None Given	Reported:
Eunice NM, 88231	Project Manager:	Iain Olness	03/09/05 16:38

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 EC50905 - Water Extraction										
Duplicate (EC50905-DUP2)	Sou	irce: 5C04012-	-02	Prepared &	Analyzed:	03/07/05				
Chloride	986	50.0	mg/kg		1040			5.33	20	

¢

8

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 Just

3/9/2005

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

Date:

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

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

Environmental Lab of Texas

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

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

Page 11 of 11

Environmental Lab of Texas, Inc.

12600 West I-20 East, Odessa Texas 79763

432-563-1800 FAX: 432-563-1713

Company Name	Environmen	ital Plus,	, In	C.								Bil	1						2 N				CIL			
EPI Project Man	ager: lain Olness					******	Ī							in a har in the state of the	المترجع المتعلم المتعاد المتعاد المتعادين	Τ	Γ	Γ	I	Γ	Γ	Γ	Γ		Т	
Mailing Address	s: P.O. BOX 15	558]					n	a si										ļ			
City, State, Zip:	Eunice New	Mexico	88	231			1		Į.					ke Ygy												
EPI Phone#/Fax	:#: 505-394-348	1 / 505-3	394-	-260)1		1		Ĺ				t (÷	rgy.			{									
Client Company	r: Duke Energy	Field Ser	rvic	es]															1				
Facility Name:	G-28-24 (Re	f. #13001	15)]			At	tn:	Pol	o Re	endon												
Project Location	n: UL-A, Sec 2,	, T23S, F	736	Ē]	1	152	5 W	est	Ca	lsb	ad Highw	vay,	I				l						
EPI Sampler Na	me: Felix Hernar	ndez]			Н	obb	s, I	IM 8	38240												
			<u>.</u>	1			MA	TRIX	(PR	ESE	RV.	SAM	PLING]										
LAB I.D. 50.03003	SAMPLE I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI)	SULFATES (SO4 [°])	þł	тсер	OTHER >>>	РАН			
-0 1	G-28-24 A(10')		G	1			X					X		24-Feb	13:10	X	X	X								
	G-28-24 B(5')		G	1			X					X		24-Feb	13:40	X	X	X								
the second state of the se	G-28-24 B(8')		G	Concession of the local division of the loca			X					X		24-Feb	13:50	X	X	X			SI	EF	REN	AR	(S	
	G-28-24 C(5')	Colore and the second	G	4			X					X		24-Feb	10:50	X	X	X								
	G-28-24 C(15')		G			L	X	L			L	X		24-Feb	11:20	X	X	X			S	EEF	REN	IARM	(S	
The second s	G-8-24 D(5')		G	1	L		X				L	X		24-Feb	11:45	X	X	X		L						
	G-28-24 E(5')		G	1	L	L	X	ļ				X		24-Feb	15:00	X	X	X	<u> </u>		L	L	l			
and the second	G-28-24 F(5')		G	1	Ļ	Ļ	X			_		X		24-Feb	14:35	X	X	Second Second		L	ļ		ļ			
	G-28-24 F(10')		G	1	Ļ	Ļ	X				L	X		24-Feb	15:13	X	X	X	L	L	L		L			
={OCK 10																				L						
				X.										Sec.							1					
ample/ Relinquished:	eran Time	Marchos 1800	Rece	lved	By:							REN	ARK	esults to: i 5: Only analyz	e G-28-24 8	(8') it a	analyt	ical re								
lelinquished by:	Date Time		Rece	`	By: (LL	lab ste	att) U	IJ	313	105	, 5	28-2 G-28	4 C(5' -24 B	X > 50 ppm ar) indicated be (5') are >250 p	nzene >10 p; ppm, then an	om, B alyze	TEX > G-28	50 p 24 B(pm ai 8') foi	nd/or chior	TPH : ride. I	-5,00 chia	0 ppm ride re	. If chie sults fo	oride i or G-2	resuli 28-24
Peliverad by:	Farm	Sample Yes)		& int				Che	ecked	By:				250 ppm, thei 94-3481.	n analyze G-; †* 车	28-24	C(15') tor c	nlorid	e. An	IY QU	ESTI	ONS,	PLEA	SE C/	ALL

Aoz jar

Chain of Custody Form

7 10 1

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

Client:	Suke Energy
Date/Time:	3/3/05 2:00
Order #:	51.03003
Initials:	· CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	Na	4.0 C
Shipping container/cooler in good condition?	XES)	No	
Custody Seals intact on shipping container/cooler?	XASS	No	Not present
Custody Seals intact on sample bottles?	(B)	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)	(es	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Aco,	No	
Samples in proper container/bottle?	Ves	No	
Samples properly preserved?	(E)	No	
Sample bottles intact?	YES	No	
Preservations documented on Chain of Custody?	(Pes	No	
Containers documented on Chain of Custody?	des	No	
Sufficient sample amount for indicated test?	(C)	No	
All samples received within sufficient hold time?		No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance I	Documentation:
------------	----------------

.

۰.

Contact Person:	-	Date/Time:	 Contacted b	y: .
Regarding:				

Corrective Action Taken:

ATTACHMENT II

Ç

۲

COPY OF INITIAL C-141

facility ID = PPAC052846478 Inspect 46750 application 11707 46792

								ke Energy₄ Id Services
District I 1625 N. French I District II 1301 W. Grand A District III 1000 Rio Brazos District IV 1220 S. St. Franc	venue, Artes Road, Aztec,	ia, NM 88210 NM 87410	E	Energy Minerals Oil Conser 1220 South	New Mexico and Natural Res rvation Division h St. Francis Dr e, NM 87505	n	Submit 2 Co District C	Form C-141 (sed October 10, 2003) opies to appropriate office in accordance h Rule 116 on back side of form
Dold		tification	and C	the second s	ction –INFO	PMATION	JAL ONI	V
Neit		uncation		ATOR		Initial Report	_	nal Report
Name of C	ompany	: Duke Ener			Contact: Ma			
		st Marland,			Telephone N		-5541	
Facility Na	me: G-2	28-24			Facility Type	e: 8" steel pip	oeline	
Surface Ov	wner: Sta	ate of New I	Mexico	Mineral Ow	ner:		Lease N	No.:
L				OCATION O	F DEI E ASE			· · · · · · · · · · · · · · · · · · ·
Unit Letter A	Section 2	Township 23 S	L Range 36 E		North/South Line	Feet from the	East/West L	ine County Lea
<u>A</u>						20 122 40 0(2)		
]	Latitude: <u>N</u>	<u>32°20</u>	<u>25.042</u> Lo	ngitude: <u>W 10</u>	<u>3° 13' 40.062'</u>		
(m) (a) (a) (a) (a) (a) (a) (a) (a) (a) (a				NATURE OF I		151	TT L D	10
Type of Releas	se: Natural (Gas Pipeline Flu	uids		Volume of Kel	ease: 15 barrels	barrels	ecovered: 10
Source of Rele	ase: 8" low	-pressure steel	pipeline	1.000	Date and Hour 23 January 200	of Occurrence:	Date and I 23 January	Hour of Discovery:
Was Immedia	te Notice G		s 🗌 No) 🖾 Not Require	If YES, To Wh			
By Whom?					Date and Hour	1000 million (1000 million (10		
Was a Watercou			e Fully *	Yes X No Not Applicable	If YES, Volum	e Impacting the	Watercourse.	· · · · · · · · · · · · · · · · · · ·
			· · ·					
		e m and Remedi g, probably due			lamp was installed a	and the line shut-in	until it can be	replaced with
B. W. Dinwidd excavated and "blend" the soi	lie. A vacuu a clamp inst l until such	m truck was uti talled. After the time that remed	lized to pi clamp had lial activit	ick up the free liquid d been installed, the ies can be complete	rea consists of appro ds. A total of 10 barn excavation was bac d. The line was shut	rels of NGPF was kfilled and the rele- in and is currently	recovered. The ease area was b y scheduled for	leak origin was ack dragged to replacement.
rules and regul which may end relieve the ope ground water, s	ations all op langer public rator of liab surface wate	perators are required to the end of the end	ired to repenvironme or operation or the en	port and/or file certa int. The acceptance ns have failed to add vironment. In addit	 the best of my kno ain release notification of a C-141 report be equately investigate tion, NMOCD acception ws and/or regulation 	ons and perform co y the NMOCD ma and remediate con otance of a C-141 r	orrective action rked as "Final 1 itamination tha	s for releases Report" does not t pose a threat to
					······································	CONSERVA	TION DIV	ISION
Signature:								
Printed Name	: Mark Ow	ens			Approved by Dis	strict Supervisor:		
Title: Constru	ction Maint	enance Supervi	sor		Approval Date:		Expiration 1	Date:
		s@duke-energy			Conditions of Ap	oproval:		Attached
Date:			Phone:	2				

* Attach Additional Sheets If Necessary

() ()

.

	Duke Energy Field Services Site Incident Date:			NMOCD Notified:		
	Information and Metrics 23 January 2005			3 February 2005		
Site: G-28-24 Assigned Site Reference #: 130015						
Company: Duke Energy Field Services						
Street Address:						
Mailing Address: 1625 West Marland						
City, State, Zip: Hobbs, New Mexico 88240						
Representative: Mark Owens						
Representative Telephone: (505) 397-5541						
Telephone:						
Fluid volume released (bbls): 15-barrels Recovered (bbls): 10 barrels						
>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: G-28-24						
Source of contamination: 8" steel line began leaking, probably due to internal corrosion. Line clamp installed, line shut-in and						
scheduled for replacement.						
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico						
LSP Dimensions: 40 feet by 50 feet						
LSP Area: 2,000 ft ²						
Location of Reference Point (RP):						
Location distance and direction from RP:						
Latitude: N 32° 20' 25.042"						
Longitude: W 103° 13' 40.062"						
Elevation above mean sea level: 3,447						
Feet from South Section Line:						
Feet from West Section Line:						
Location- Unit or ¼¼: NE¼ of the NE¼ Unit Letter: 🏠						
Location- Section: 2						
Location- Township: T23S						
Location- Range: R36E						
LUCANUN- Matige: MJOL						
Surface water hady within 1000 (redine of site, none						
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 ground water (DG): >150 feet						
Depth of contamination (DC): ≈5 feet						
Depth to ground water (DG – DC = DtGW): >100 feet						
1. Ground Water		2. Wellhead Protection Area		3. Distance to Surface Water Body		
	<50 feet: 20 points		n water source, o		<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10 points		private domestic water source: 20 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 = 0 Wellhead Protection Area Score = 0 Surface Water Score = 0						
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	
BTEX1	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						

Ţ

D 9

CS