J-4-2 Low Pressure Gathering Line Closure Report Duke Energy Field Services Lea County, New Mexico

NOVEMBER 2, 2001

16/2 30.03

Prepared For:

Duke Energy Field Services P. O. Box 5493 Denver, CO 80217

Site Name:

J-4-2 LOW PRESSURE GATHERING LINE

Site Location:

T19S, R35 E, SECTION 28, UNIT D

Prepared By:



PO Box 7624 Midland, Texas 79708



November 2, 2001

Mr. Steve Weathers
Duke Energy Field Services, LP
P. O. Box 5493
Denver, Colorado 80217

Re: Removal of Hydrocarbon-Impacted Soils from the J-4-2 Low-Pressure Gathering Line Site Township 19 South, Range 35 East, Section 28, Unit D

Dear Mr. Weathers:

Trident Environmental (Trident) was retained by Duke Energy Field Services Inc. (DEFS) to oversee the removal of hydrocarbon-impacted soil from an area along a pipeline right-of-way operated by DEFS in Lea County, New Mexico. The site (J-4-2) is located in Section 28 (Unit D), Township 19 South, Range 35. The excavation work was conducted between July 26 and August 24, 2001 in accordance with the work plan submitted to Mr. Paul Sheely at the New Mexico Oil Conservation Division (OCD) Hobbs, New Mexico office. The site is located state land and the surface is leased to Ms. Faye Klein. Trident personnel periodically collected soil samples to characterize the extent of hydrocarbon-impact and to verify when cleanup target levels had been achieved. This letter report describes the methods and results of the excavation, sampling, waste disposition, and backfilling for documentation that closure requirements have been satisfied.

Excavation and Sampling Procedures

On July 26, 2001, Walton Construction Company, Inc. (Hobbs, New Mexico) initiated excavation of the hydrocarbon-impacted area. Walton used one track hoe, one dozer, one loader, and 12 yd³ dump trucks for earthmoving services. During excavation operations, subsurface soil samples were collected and submitted to an analytical laboratory to determine if the remaining soils were within OCD guidelines. Upon completion of excavation activities, a minimum of the following closure samples was collected: one grab sample from each wall (north, south, east and west sides) in closest proximity to the location with the highest OVM reading. One grab sample was also collected from the floor of the excavation in closest proximity to the location with the highest OVM reading and/or in areas directly beneath the areas where hydrocarbon-stained soils were most evident on the surface. During the course of excavation activities, samples were also collected for headspace analysis using an organic vapor meter (OVM), which was calibrated to assume a benzene response factor. All soil sampling, headspace analysis, and laboratory analysis were performed in accordance with OCD "Guidelines for Remediation of Leaks, Spills, and Releases" (August 13, 1993). Unless noted otherwise, excavation operations were completed when laboratory analysis of collected samples indicated the extent of hydrocarbon-impacted soils remaining in the excavation were below the following concentrations:

100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons/(TPH),

10 mg/kg benzene,

• 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX)

Soil samples were submitted to both Cardinal Laboratories, Inc. (Hobbs, NM) and Environmental Laboratory of Texas (Odessa, Texas) and analyzed for gas and diesel range organics (GRO and DRO) using EPA Method 8015 to determine TPH concentrations. BTEX analyses were conducted only for soil samples that exceeded 100 ppm using the calibrated OVM or when GRO and/or DRO concentrations were above 100 mg/kg.

Soil Stockpiling, Waste Disposition, and Backfilling

An effort to segregate clean versus impacted soil during excavation was made. Only hydrocarbon-impacted soil that exceeded 100 mg/kg GRO/DRO, 10 mg/kg benzene, and/or 50 mg/kg total BTEX was transported to the South Monument Land Farm, which is owned and operated by Ms. Kena Kay Cooper (OCD Rule 711 Permit Approval NM-01-0032). These target cleanup levels are based on the ranking criteria in the OCD "Guidelines for Remediation of Leaks, Spills, and Releases". A total ranking score of greater than 19 points was assumed since groundwater is less than 50 feet below ground surface based on well records from the Office of the State Engineer.

Approximately 2,772 cubic yards of hydrocarbon-impacted soils were transported by Walton Construction to cell B-5 at the South Monument Land Farm. Completed Generator Certificate of Waste Status form (C-143) and Release Notification and Corrective Action forms (C-141) are included in Attachment A. Approximately 2,592 cubic yards of native soil provided by Mr. Dale Cooper was backfilled into the excavation. An additional 180 cubic yards of native topsoil provided by Ms. Faye Klein was placed on the surface to restore the excavation to a level grade.

Results

At the completion of excavation activities all areas had petroleum hydrocarbon concentrations below the OCD guidelines listed above. Soil sample locations and site features are depicted on the site map in Attachment A. A Site Data Form that includes a summary of the analytical results and photo documentation are also provided in Attachment A. Laboratory analytical reports, and chain-of-custody documentation for the samples collected are provided in Attachment B. Copies of the field logbook are in Attachment C.

Sincerely

Gilbert J. Van Deventer, REM

Project Manager

cc: Myra Meyers (New Mexico State Land Office, Hobbs, NM)

Attachments

C:DEFS\COOPER\J42\J42CLOSE.DOC

ATTACHMENT A

TOPOGRAPHIC MAP

SITE MAP

SITE DATA FORM

C-141 AND C-143 FORMS

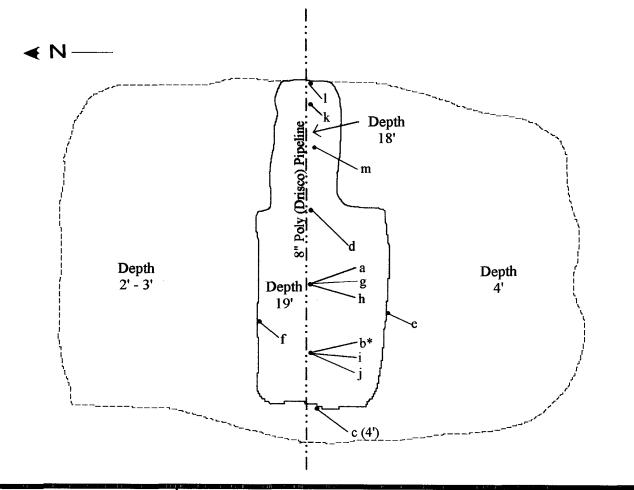
PHOTODOCUMENTATION

Letter	Sample ID	Lab	Sample Depth (feet)	Sample Date	OVM (ppm)	GRO (mg/kg)	DRO (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)
a	E. Floor-1	Cardinal	11	08/02/01	297	< 50	212	< 0.005	0.237
b*	W. Floor-1	Cardinal	12	08/02/01	587	< 50	154	0.014	0.252
b*	W. Floor-1	Cardinal	12	08/03/01	360	59.7	606	NA	NA
b*	W. Floor-1	Env. Lab of TX	12	08/03/01	360	210	984	NA	NA
С	W. Wall-1	Cardinal	4	08/02/01	2	< 50	< 50	NA	NA
<u>d</u> _	E. Wall-1	Cardinal	4	08/02/01	0	< 50	< 50	NA	NA
е	S. Wall-1	Cardinal	2	08/02/01	2	< 50	< 50	NA	NA
f	N. Wall-1	Cardinal	2	08/02/01	0	< 50	< 50	NA	NA
g	E. Floor-1	Cardinal	16	08/03/01	206	< 50	< 50	< 0.005	< 0.015
h	E. Floor-2	Env. Lab of TX	16	08/03/01	206	< 10	13	NA	NA
i_	W. Floor-2	Cardinal	16	08/07/01	299	80.8	798	0.009	4.40
i	W. Floor-3	Cardinal	19	08/09/01	50	< 50	< 50	0.005	0.038
k_	E. Wall-2	Cardinal	12	08/14/01	221	110	1290	< 0.005	< 0.015
1_	E. Wall-3	Cardinal	6	08/15/01	0	< 50	63.7	NA	NA
m	E. Floor-3	Cardinal	18	08/15/01	60	< 50	54.2	NA	NA
			NMO	CD Guidelines	100	100	100	10	50

b* - these samples are all duplicates taken from the same grab sample point.

NA indicates sample was not analyzed for this constituent.

Values in red indicate concentrations are above NMOCD guidelines.



Trident Environmental

P. O. Box 7624 Midland, Texas 79708 SITE: J-4-2 Low Pressure Gathering Line

LOCATION: UNIT D, SEC. 28, T19S, R35E

DATE: 8/15/01 | DRN BY: GJV

APPROXIMATE SCALE: 1 INCH = 20 FEET

J-4-2 SITE MAP



Site Data Form

TRW Te	TRW Technician: GJV/DTL Excavation Crew Names: Walton Construction Site ID: J-4-2 low pressure gathering line Site Location: Latitude 32°38'9.1" Longitude 103°28'-10.5" County: Lea State: New Mexico													
Site Loca	tion: Latitud	le <u>32° 38° 9.1"</u>	Longitude	/103° 28'	10:5"	_County:	/Lea->	_State: New	Mexico					
_		ownship 19				_								
Begin Ex	cavation (Da	te/Time) <u>~7/26</u>	5/01	Comple	ete Excavation	n (Date/Time)	8/15/01						
	AND USE:	☐ Resider☐ Industr		☐ Recre	eational ol/Daycare		☐ Farm lan ■ Range la	·· 						
(Check	all that appl	y) ■ Oil & (Gas	□ Rura	•		Other:							
Wellhead	Depth to Groundwater: □ > 100 feet □ 50 - 99													
SURFACE SOILS: ☐ Sand ☐ Gravel ☐ Silt ☐ Caliche ☐ Clay ☐ Other Silty sandy clay and silty clay														
	CAVATION MENSIONS		ength			•	Depth		-					
			20 reet	<u> 15 - 10</u>	00 feet	12	feet	19						
VOLUM	ME EXCAVA	ATED:	00-12000 y	d³ VOL	UME HAUL	ED TO LA	NDFARM:		2,772 yd ³					
	VOLUME EXCAVATED: 4,000 00 yd³ VOLUME HAULED TO LANDFARM: 2,772 yd³ SUMMARY OF OVM, GRO, DRO, BENZENE & BTEX CONCENTRATIONS													
Letter	Sample ID	Lab	Sample	Sample	OVM	GRO	DRO	Benzene	BTEX					
			Depth	Date	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)					
9	F Floor 1	Cardinal	(feet)	08/02/01	207	< 50	212	< 0.005	0.237					
-								0.252						
a E. Floor-1 Cardinal 11 08/02/01 297 < 50 212 < 0.005 0.23														
b*	W. Floor-1	Env. Lab of TX	12	08/03/01	360	210	984	NA	NA					
c	W. Wall-1	Cardinal	4	08/02/01	2	< 50	< 50	NA	NA					
d	E. Wall-1	Cardinal	4	08/02/01	0	< 50	< 50	NA	NA					
e	S. Wall-1	Cardinal	2	08/02/01	2	< 50	< 50	NA	NA					
f	N. Wall-1	Cardinal	2	08/02/01	0	< 50	< 50	NA	NA					
g	E. Floor-1	Cardinal	16	08/03/01	206	< 50	< 50	< 0.005	< 0.015					
h	E. Floor-2	Env. Lab of TX	16	08/03/01	206	< 10	13	NA	NA					
ì	W. Floor-2	Cardinal	16	08/07/01	299	80.8	798	0.009	4.40					
j	W. Floor-3	Cardinal	19	08/09/01	50	< 50	< 50	0.005	0.038					
k	E. Wall-2	Cardinal	12	08/14/01	221	110	1290	< 0.005	< 0.015					
1	E. Wall-3	Cardinal	6	08/15/01	0	< 50	63.7	NA	NA					
m	E. Floor-3	Cardinal	18	08/15/01	60	< 50	54.2	NA	NA					
				O Guidelines	100	100	100	10	50					
1	=	all duplicates taker		-	point.				ļ					
NA ind	icates sample	was not analyzed fo	r this constitue	ent.										
Values	in red indicate	concentrations are	above NMOCI) guidelines.										
						.,								
Comme	ents:													
														
														

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Form C-141

Revised March 17, 1999

Release Notification and Corrective Action

				OPERA	TOR	In	tial Report Final Report							
Name of Co		Energy Field	1 Service	es Inc	Contact	Mr Steve	Weathers)							
Address	Duke	Energy 1 ich	2 GOLVICE	.5 IIIC.	Telephone N		W Cathors							
		5493, Denve	r, Colora	ado 80217	E112 E	(303) 60)5-1718							
Facility Nar		ow Pressure	Gatheri	ng Line	Facility Typ	e Natural Ga	s Pineline	1						
		OW I IOSSAIC	Gauletti			(17tttatat Ge		·						
Surface Ow		State Land (Office	Mineral Owner	Unknow	n	Lease No).						
11,50	W_IVICATOO	Date Dana S	<u> </u>	LOCATION			1							
Unit Letter	Section	Township	Range				West Line	County						
D	28	19S	35E	/32° 3	8' 9.1"N)	/103° 2	8'_10.5" W) Iea						
							3-23-5							
T aCD ala				NATURE O	F RELEAS Volume of Re		Volume R	anavarad						
Type of Rele		eline liquids	(Condens	ate)\	1	,260 gallons		2 yd ³ soil removed						
Source of Re	lease				Date and Hou	ir of Occurrence	Date and	d Hour of Discovery						
Was Immedi		ressure Gathe	ering Line	5-J-4-2	If YES, To W	1/01 i12:01 AM /hom?	05/3	1/01 08:45 PM						
			Yes	No Not Required		E. L. Gonzal	es, NMOCD							
By Whom?		Stan Sh	aver		Date and Hour 05/31/01									
Was a Water	course Read	ched?			If YES, Volu	me Impacting the Wate	rcourse.							
				No	N/A									
If a Watercon	urse was Im	pacted, Descr	ibe Fully.	*										
N/A														
Describe Car	use of Probl	em and Reme	dial Actio	on Taken.*										
				nal corrosion. The steel pi	peline was first	clamped on June 1, 20	001 and later re	eplaced with 8"						
		and Cleanup	Action Ta	over-excavation work.										
On 7/26/01		- tian zena imitia	tad Evan	マろし' vation continued until 8/1	5/01 whom total	l matmalassum besidmaaamba	floor	d seedle seeme bedoor						
				directly beneath the pipeli										
				ation, approximately 120										
				f-soil was transported to c il results, photographs, and			arm. Backnin	ng of excavation was						
I hereby cert	ify that the	information gi	ven abov	e is true and complete to t	he best of my k	nowledge and understa								
				oort and/or file certain rele e acceptance of a C-141 re										
of liability sl	hould their o	perations hav	e failed t	o adequately investigate a	nd remediate co	ontamination that pose	a threat to grou	and water, surface						
water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of response compliance with any other federal, state, or local laws and/or regulations.														
Compliance		or reservat, Sta	, or 100	a laws and of regulations.		OIL CONSERVA	TION DIV	ISION						
Signature:	1	16/												
	~ <i>yy</i> ·				Approved by District Supervisor:									
Printed Nam	e: Step	hen Weathers			1									
Title:	Envi	ronmental Sp	ecialist		Approval Da	te:	Expiration D	Pate:						
Date:	19/01			ne: (303) 605-1718	718 Conditions of Approval: Attached									
* Attach A	ddítional S	heets If Nec	essarv											

(505) 393-6161 French Dr S. NM 88240 Strict II - (503) 748-1283 811 S. First Antesia, NM 88210 District III - (505) 334-6178 1000 Rio Brazos Road Aztec, NM 87410

District IV - (505) 827-7131

2040 S. Pacheco Santa Fe, NM 87505

New Mexico

Form C-143 3/15/00

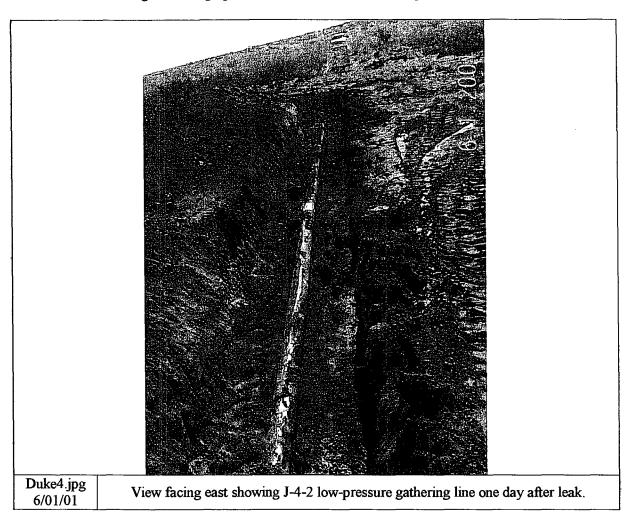
Energy Minerals and Natural Resources Department

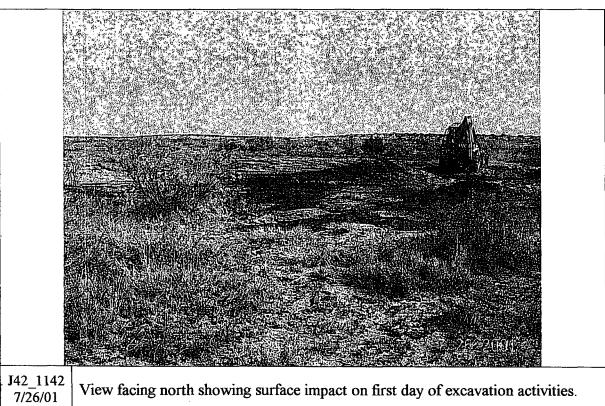
Oil Conservation Division

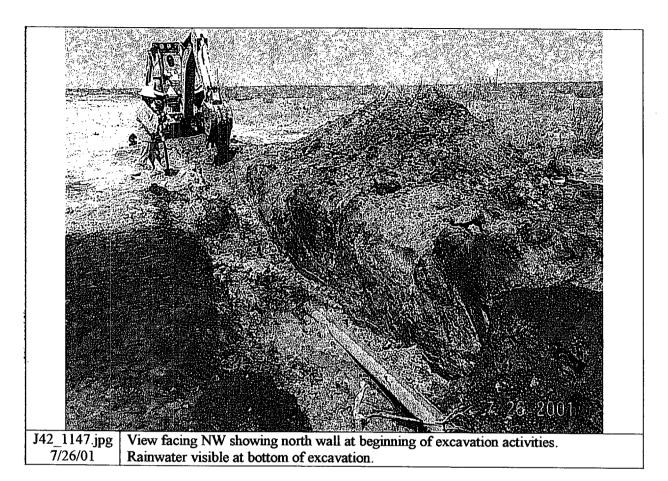
2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 Submit to OCD Permitted Surface Waste Management Facility

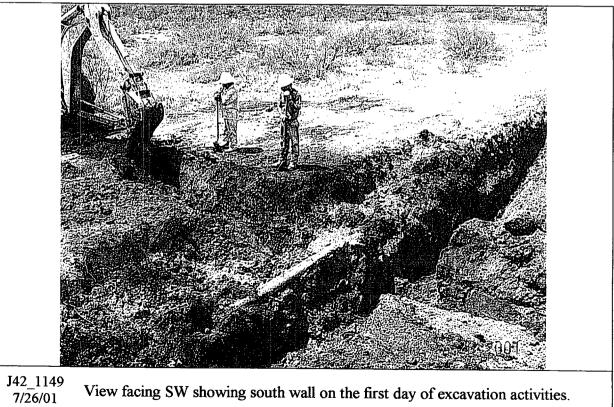
GENERATOR CERTIFICATE OF WASTE STATUS

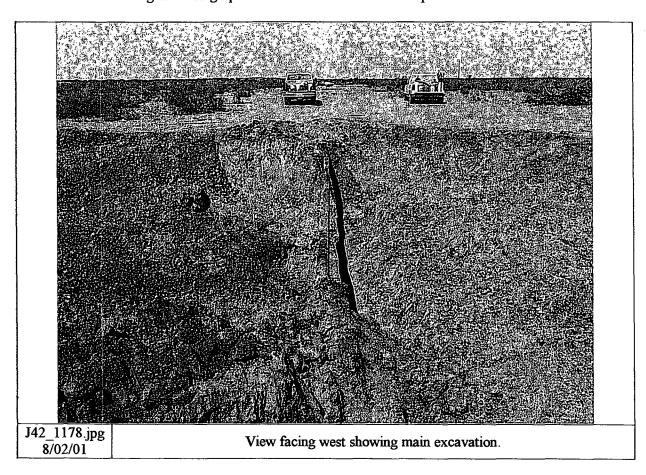
Waste Generator Name and Address:	Permit Number (if waste generated at an OCD permitted facility)
Duke Energy Field Services Inc. P. O. Box 5493	
Denver, Colorado 80217	
3. Description of Waste and Generating Process:	4. Location of Waste (Street address &/or ULSTR):
Hydrocarbon-impacted soil generated from pipeline leak from low pressure gathering line	Site Name: J-4-2 low pressure gathering line Sec. 28, T19S, R35E
5. Destination (Surface Waste Management Facility):	6. Transporter:
S. Monument Land Farm (NM-01-0032)	Walton Construction (Hobbs, NM)
7. Estimated Volume cy/bbls	
1	
For NON-EXEMPT waste only, the following documentation in	s attached (check appropriate items):
MSDS Information	RCRA Hazardous Waste Analysis (With Chain of Custody).
Other (Description)	
Generator certifies that, according to the Resource Conserva Agency's July 1988 regulatory determination, the above desc	ntion and Recovery Act (RCRA) and the Environmental Protection cribed waste is: (check appropriate classification)
X EXEMPT oilfield waste.	NON-EXEMPT oilfield waste that is non-hazardous
	pursuant to 40 CFR Part 261. (Attach appropriate documentation)
does not contain Naturally Occurring Radioactive Material (N Subpart 1403	
Generator Signature:	Date: ² /9/0/
Generator Signature: Stephen W. Weathers	Date: ² /9/0/
	Date: ² /9/0/

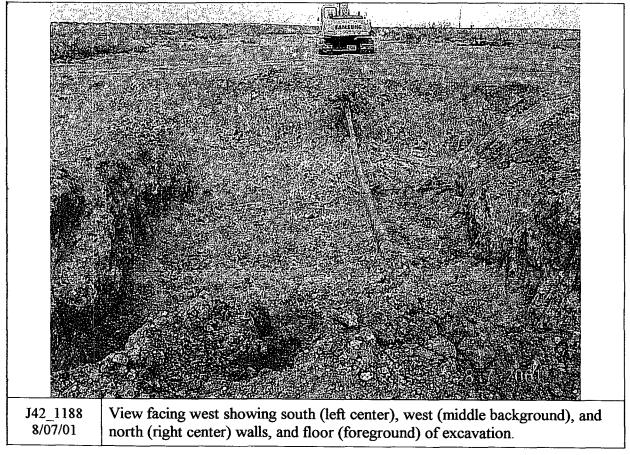


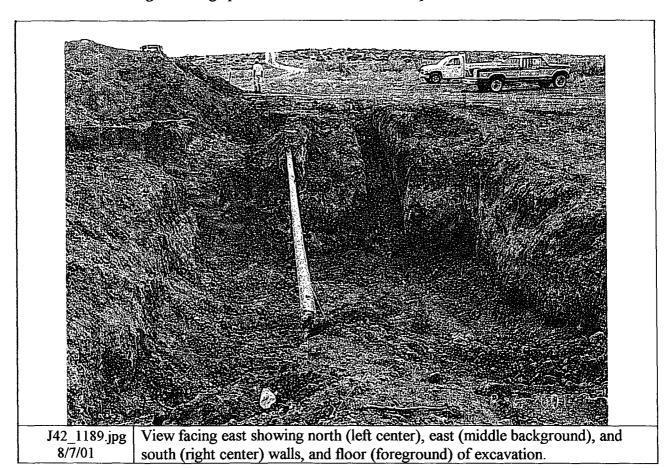


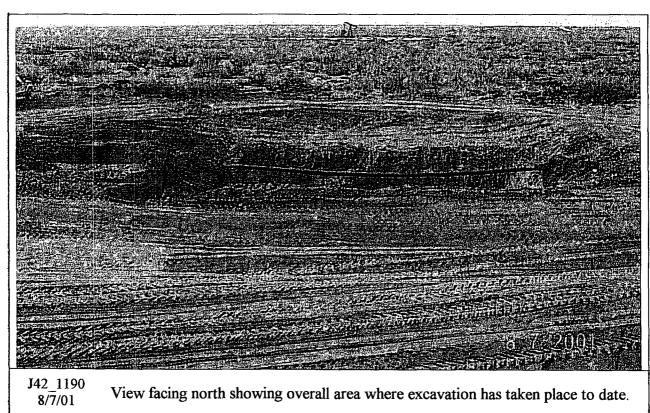










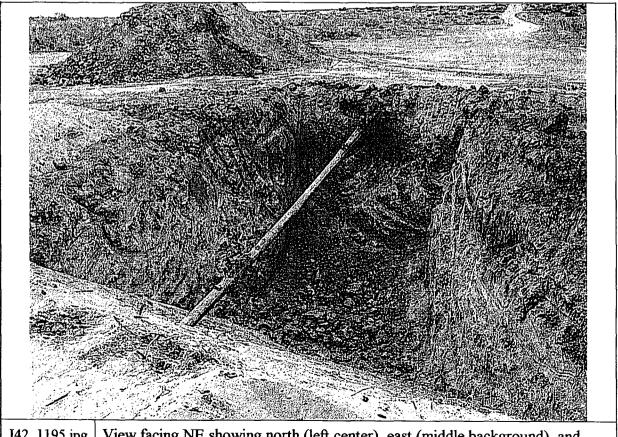


Digital Photographs of the J-4-2 Low-Pressure Pipeline Leak Site



8/14/01

backfilling for pipeline support to allow further excavation on east end.



J42_1195.jpg 8/15/01

View facing NE showing north (left center), east (middle background), and south (right center) walls, and floor (foreground) at completion of excavation.

ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT J. VANDENTER P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/02/01 Reporting Date: 08/03/01

Project Number: NOT GIVEN

Project Name: DUKE ENRGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/02/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

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

ANALYSIS [DATE:	08/02/01	08/02/01
H6039-1	a) E. FLOOR-1 (11')	<50	212
H6039-2	b) W. FLOOR-1 (12')	<50	154
H6039-3	c) W. WALL-1 (4')	<50	<50
H6039-4	d) E. WALL-1 (4')	<50	<50
H6039-5	e) S. WALL-1 (2')	<50	<50
H6039-6	f) N. WALL-1 (2')	<50	<50
Quality Cont	rol	713	762
True Value (QC .	800	800
% Recovery		89.1	95.3
Relative Per	cent Difference	7.1	2.9

METHOD: SW-846 8015 M

Chemist Chemist

8/2/01

H6039A.XLS



ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT J. VANDENTER

P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/02/01

Reporting Date: 08/03/01

Project Number: NOT GIVEN
Project Name: DUKE ENRGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/02/01 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DA	\TE	08/02/01	08/02/01	08/02/01	08/02/01
H6039-1	a) E. FLOOR-1 (11')	<0.005	0.027	0.036	0.174
H6039-2	b) W. FLOOR-1 (12')	0.014	0.043	0.043	0.152
Quality Contro	ol	0.109	0.102	0.106	0.317
True Value Q0		0.100	0.100	0.100	0.300
% Recovery		109	102	106	106
Relative Perce	ent Difference	7.9	12.6	14.7	14.3

METHOD: EPA SW-846 8260

Chemist

Date

H6039B.XLS



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-1 Chain of Custody

Date 8-7-01 Page 1 of 1

ARDINAL PHONE (915) 673-7001 - 2111 BEECHWOOD - ABILENE, TEXAS 79603				<u> </u>				-					Ar	alys	is R	eque	est					-	·		
LABORATORIES PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240 Samplers (\$49NATURES)					BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	ТРН (ЕРА 418.1)	тРн (ТХ-1005)	тРН (ТХ-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	P Metals							Number of Containers
Sample Identification	Matrix	Date	Time	Sample G - Grat	вте	MTE	SVC	PA	δ	표	Ŧ	Ē	GRO	PRO	<u>1</u>	Anic	Tota	ТСГР							N
a) E. Floor -1 (11')	560)	8-201	1045		\checkmark									7											1
b) W. Floor -1 (12-) Soil 8-2-01 1055				\								~	/											5	
) W. Wall-1 (4-) Soil 8-2-01 1100													V	/											í
) E. Wall-1 (4') Soil 8-2-01 1105													/	/											1
e) 5. Wall-1 (2-)													7	\											1
f) N. Wall-1 (2') Soil 8-2-01 //30												/	/											1	
																		,							
	,																								
Project Information Project Name: Duke Energy F	ield Services		ple Receipt	lo i	(1) (C	uished ompany)	ronr	nent	el			quished							quished				<u>*************************************</u>	
Project Location: J-4-2 Line I		COC Seals:		NX		d Name			$\overline{}$	Deve.	nta-	(Printe	d Name)	-		····		(Printe	d Name)				
Project Manager: Gil Van Dev	****	Rec'd Good	Cond/Cold:	1	(Signa	ture	201	1/am	Z.	*		(Signa	iture)				****	•	(Signa	ture)					
Cost Center No.: V-109		G	D	V	(Date)	3-2	-01	<u> </u>	(Time)	00/	24	(Date)	-			(Time)			(Date)				(Time)		
Shipping ID No.: Bill to (see below):				481	Recei	ved By	<u>C</u> AR	יטועי	4L L	AR	(,		ived By ompany							ved By					
Bill to (see below):									لهم	ghi	م	(2)(0	ompany	,					(0) (0	ompany					
Special Instructions/Comments: Please send invoice direct to clien					(Plinte	d Nating	G	7-1-	JA.	(00	KE	(Printe	d Name)				,	(Printe	d Name)				
Duke Energy Field Services, Attention: Steve Weat				thers	(Signa	ture)						(Signa	iture)						(Signa	ture)					
P. O. Box 5493, Denver, Colorado 80				0217	(Date)	81	2/0		(Time)	1200	Du	(Date)				(Time)			(Date)				(Time)		





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT J. VANDENTER P.O. BOX 7624

MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/03/01 Reporting Date: 08/06/01

Project Number: NOT GIVEN

Project Name: DUKE ENERGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/03/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

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

ANALYSIS DATE:	08/03/01	08/03/01				
H6049-1 b) W. FLOOR-1 (12')	59.7	606				
H6049-2 6 FE, FLOOR-1 (16')	<50	<50				
by .						
پر بر						
Quality Control	730	728				
True Value QC	800	800				
% Recovery	91.3	91.0				
Relative Percent Difference	2.5	3.8				

METHOD: SW-846 8015 M

Burgest Ad Looke Chemist

Date

H6049A.XLS





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT J. VANDENTER P.O. BOX 7624 MIDLAND, TX 79708

FAX TO: (915) 682-0727

Receiving Date: 08/03/01 Reporting Date: 08/06/01

Reporting Date: 08/06/01
Project Number: NOT GIVEN

Project Name: DUKE ENERGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/03/01 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NO. SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE	08/02/01	08/02/01	08/02/01	08/02/01
H6049-2 4 XE. FLOOR-1 (16')	<0.005	<0.005	<0.005	<0.015
AN V				
Quality Control	0.098	0.095	0.096	0.293
True Value QC	0.100	0.100	0.100	0.300
% Recovery	97.3	95.3	95.9	97.6
Relative Percent Difference	3.3	6.0	5.3	7.3

METHOD: EPA SW-846 8260

Chemist 0 /

Date

H6049B.XLS



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-3 Chain of Custody

Date 8-3-01 Page \ of (

Lab Name:	Lab Name:													Λ-	- l. r -	i- P		-4								
Address:	ARI	DINAL	462											Ar	alys	is R	eque	est				1	_			
Address.	LABO	RATORIES -																						ŀ	ĺ	
Telephone: 101 E.			<u> </u>		site																				Ī	je i
· · · · · · · · · · · · · · · · · · ·	E (505) 393-2326 •				Composite	(18)	21B)	<u> </u>		6	▗▗			်ပွဲ	رق	=										igi gi
Samplers (SIGNATURES)	/	n ,			ار در او	802	80.	4 82	8270	826(418.	02)	(90	801	801	99	STO		y,							8
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(). L) _ _			Sample Type: G - Grab, C- Composi	EPA	(EP/	(EP	ΡĄ	PA	Þ.	X-10	X-10	ΡĀ	ΡĀ	PA	Çatî	etals	Aetal			:				ō
- Char	Samuel Identification Add Dr. Time					Ĭ	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	ТРН (ЕРА 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals						l	Number of Containers
Sample Identification Matrix Date Time				တီ ပ	B.	Σ	Ś	ď	>	₽	<u> </u>	₽	Ö	ă	尸	Ā	40	2							ž	
b) W, Floor -1 (12') Soil 8-3-01 0920												\checkmark	J								<u> </u>			1		
8) E. Floor -2 (16') Soil 8-3-01 0905				ł	\checkmark								5	/												
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Project Info	ormation	L	Sam	ple Receipt		Reling	uished	By:					Relinq	uished	Ву:				_	Relino	uished	d By:				
			<u> </u>		$\overline{}$		mpany	•					(2) (Co	ompany)						(3) (3	ompany)				
			Total Contair	iers:	<u> </u>				ronn	nent	al	_	(Printer	d Name		·				/Drinte	d Name					
Project Location: J-4	-2 Line L	<u>-eak</u>	COC Seals:		ļ.,	(Printed		<u> </u>	an	Vey	1ent	2	_							,		,				
Project Manager: Gil	Van Deve	enter	Rec'd Good (Cond/Cold:	V	(Signat	<u>Z</u>	th.f	Va	<u>k</u>	<u>~ev}</u>	5	(Signat	ture)						(Signat	ture)					
Cost Center No.: V-1	09		Conforms to	Records:	V-	(Ďate)	8-3	-01		(Time)	12:	50p	(Date)				(Time)			(Date)				(Time)		
Shipping ID No.:			Lab No.:				ed By:							ved By ompany						Receiv	ved By					
Bill to (see below):	100000								LA	KAD.	A-TAI		(2) (00	ипрану)						ره) رد	outhan)					
Special Instructions/Comment					t:	(Printed	d Name	ail	1 4	701	1 101	4	(Printed	d Name)		-			(Printe	d Name)				\neg
Duke Energy Field Services, Attention: Steve Weat				thers	(Signat	inte)	735	<u> </u>	11	70 M	<u>c</u>						(Signature)									
P. O. Box 5493, Denver, Colorado 80				80217 (Date) (Cate) (Date) (Date) (Date)			(Time)																			
P. O. Box 3493, Deriver, Colorado ac							1/3[0	· · · · · ·	120	90		L							<u> </u>						

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL

ATTN: MR. GILBERT VAN DEVENTER

P.O. BOX 7624

MIDLAND, TEXAS 79708

FAX: 682-0727

Sample Type: Soil

Sample Condition: Intact/ Iced/ 4.0 deg C

Project #: V-109

Project Name: Duke Energy Field Services

Project Location: J-4-2 Line Leak

Sampling Date: 08/03/01 Receiving Date: 08/03/01 Analysis Date: 08/05/01

ELT# FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	
0101279-01 W. Floor-2 (12') 0101279-02 E. Floor-2 (16')	210 <10	984 13	

QUALITY CONTROL	473	440
TRUE VALUE	500	500
% INSTRUMENT ACCURACY	95	88
SPIKED AMOUNT	476	476
ORIGINAL SAMPLE	<10	<10
SPIKE	579	545
SPIKE DUP	588	545
% EXTRACTION ACCURACY	122	114
BLANK	<10	<10
RPD	1.5	0.0

Methods: EPA SW 846-8015M GRO/DRO

Roland K Juwe Raland K, Tuttle



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-4 Chain of Custody

Date 8-3-01

Lab Name: Environmental Lab of Texas																			·			_ · ·			
		as	·····										An	alys	is R	eque	st								
Address: 12600 W I-20															1						l				ı
Odessa, Texa				<u>e</u>									ı				- 1						ŀ	.	စ္က
Telephone: (915) 563-180	00			Composite	e e	<u>6</u>								اي									-		aji
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Samplers (SIGNATURES)	Ret			Sample Type: G - Grab, C- Compos	EX (EPA 80	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	тРН (ТХ-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals							Number of Containers
Sample Identification	Matrix	Date	Time	San G	BTE	₩ E	SVC	PA	Š	[₺]	횬	臣	GR	ă	Ĕ	Ank	Tota	걸							ž
b/ W, Floor -2(12')	Soil	8-3-01	0920										/	7											1
\$) E. Floor -2 (16')	Soil	8-3-01	0905										1	/											7
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Project Information	<u> </u>	Sar	nple Receipt			uished	•						uished	•				<u> </u>		quished	•			1	
Project Name: Duke Energy F	ield Senvices	Total Contai	nare.	П		ompany: lent		ronr	nent	al		(2) (C	ompany)	l					(3) (C	ompany	")				
Project Location: J-4-2 Line I		COC Seals:		—		d Name				ente		(Printe	d Name)						(Printe	d Name),				
Project Manager: Gil Van Dev		Rec'd Good	Cond/Cold:	4,0°		tug		- I				(Signal	ture)						(Signa	ture)					
Cost Center No.: V-109				1111		7-3-			(Time)	1800	2	(Date)				(Time)			(Date)				(Time)		\neg
Cost Center No.: V-109 Conforms to Records: Shipping ID No.: Lab No.:				1	-			. ریرانا -	~~~~	.tr. 1/	ab		ved By:					.,		ved By					
Bill to (see below):					Received By: (1) (Company) Environmental Lab Teana Manuray (Printed Name) Received By: (2) (Company) (2) (Company) (Printed Name)								(3) (0	ompany											
Special Instructions/Comments: Please send invoice direct to clien				t:	(Printe	ر در. d Name))	<u>ر-ر</u>	<u></u>	• = 4		(Printe	d Name))					(Printe	d Name)				
Duke Energy Field Services, Attention: Steve Weat			thers	ers (Signature) (Signature) (Signature)								一													
P. O. Box 5493, Denver, Colorado 8			0217							(Time)															
		-																							





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT VAN DEVENTER

P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/07/01 Reporting Date: 08/08/01

Project Number: V-109 (DEFS)

Project Name: J-4-2 GATHERING LINE LEAK

Project Location: UNIT A, SEC29 T19S R35E

Sampling Date: 08/07/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

ANALYSIS DATE:	08/07/01	08/07/01
H6059-1 W. FLOOR-2 (16')	80.8	798
ha . (
· · · · · · · · · · · · · · · · · · ·		
Quality Control	741	783
True Value QC	800	800
% Recovery	92.6	97.9
Relative Percent Difference	1.5	8.5

METHOD: SW-846 8015 M

Swylld A ash

Date

H6059.XLS





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL

ATTN: GILBERT VAN DEVENTER

P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/07/01

Reporting Date: 08/09/01

Project Number: V-109 (DEFS)

Project Name: J-4-2 GATHERING LINE LEAK Project Location: UNIT A, SEC29 T19S R35E

Sampling Date: 08/07/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

TOTAL

8.9

Sample Received By: GP

Analyzed By: BC

ETHYL

10.3

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	BENZENE (mg/Kg)	XYLENES (mg/Kg)
ANALYSIS [DATE	08/09/01	08/09/01	08/09/01	08/09/01
H6059-1) Ø W. FLOOR-2 (16')	0.009	0.589	0.873	2.93
	Jon V				
Quality Cont		0.105 0.100	0.093 0.100	0.095 0.100	0.286
% Recovery		105	92.7	95.3	95.2

6.0

METHOD: EPA SW-846 8260

Relative Percent Difference

7.8

H6059B.XLS

ARDINAL LABORATORIES,

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page (of |

	(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476																	rage_	<u> </u>	<u> </u>	-				
Company Name	ir ident En	viron mental										L TO						ANA	LYSIS	RE	QUES	ST			
Project Manage	Gilbert	Van Devente	V					F	.O. #	k ú	T-1	1-2													
	0 Box 7624	f										EFS							1	İ					
City: \mathcal{N}	lidland	State: 🌾							ttn:	5fe	ve	Weath	1ers					İ		ĺ		ļ			
Phone #: 915/	682-0808	Fax #: 915	/	68	2-	07	27	Α				Box 5							1	1	ţ i	İ			
Project #: -2	4-2 V-109	Project Owner		DI	EF.	5		c	ity:	De	en	1ev		9						1					
Project Name:	J-4-2 G	on thering Li	ñe	L	enl	ζ		s	tate:	Co	> :	Zip: 80	217	ORO				1	1	1		ļ			
Project Location	: Unif A. Se	c 29, T19	S	, K	3:	55		Р	hone	#: 〔	503	1605-1	1718	\sim	BTEX)			1	1			ĺ			
Sampler Name:	Gilbert V	an Devente	/					F	ax #:	30	3/	389-1	957	6R0	17				1	İ		1			
FOR LAB USE ONLY						MA	TRIX			ESEI		SAMPL		9	2		ļ		1			l			
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grafyses. All dailms including	d Damages. Cardina's liability and di g those for negligence and any other o	couse whatsoover shall be door	med we	ded ii	Joes ma	de in writ	ing and	receive	i by Car	drei wi	Bain 30	days after comp	detion of the appli						rus and Co days post d						
affiliates or successors arisis	rdinal be liable for incidental or conse ng out of or related to the performanc	e of services hereunder by Car	dinal, r	egarde	es of wh	other sur							er otherwise.						all costs e		, including	attomey's i	.		
Sampler Relinqu	ulshed:	Date: 8-7-01	Re	celv	ed B	y:		-					Phone Re Fax Resu		Z Yes		No No		Phone Fax #:	# :					
19/1/2	N.A.	Time: 10 20	1	· .								REMARK		,	=		1								
Relinquished By	1: V = 10	Date: 06/07/2001	Re	celved By: (Lab Staff)								l													
	06/07/2001 Jime 30 D						•			•	•			-											
Delivered By	Delivered By: (Circle One) Sample Con						Con	ndition CHECKED BY:					[
	Cool Inta					Intac	ect (initials)																		
Sampler UPS	mpler UPS - Bus - Other:					台	No No					<u> </u>					_								

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GIL VAN DEVENTER

P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/09/01 Reporting Date: 08/10/01

Project Number: NOT GIVEN

Project Name: DUKE ENERGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/09/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

Project Location: J-4-2 Line Li	=Ar\				natyzed by: B	C
LAB NUMBER SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:	08/09/01	08/09/01	08/09/01	08/09/01	08/09/01	08/09/01
H6068-1 3) W. FLOOR-3 (19') BGS	<50	<50	<0.005	0.011	0.005	0.022
	-					
Quality Control	741	783	0.105	0.093	0.095	0.286
True Value QC	800	800	0.100	0.100	0.100	0.300
% Recovery	92.6	97.9	105	92.7	95.3	95.2
Relative Percent Difference	1.5	8.5	6.0	7.8	10.3	8.9

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

Burgess J. A. Cobke, Ph. D.

Date

H6068.XLS



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

Rush!

V-109-0701-6

Chain of Custody

Date 8/9/01 Page 1 of 1

Lab Name: Cardinal Labo											Ar	alys	is R	eque	est										
Address: 101 East Mark				1																					
Hobbs, New M Telephone: 505-393-2326		0		g g		1												ļ	ļ	1				- 1	E 3
Telephone. 303-393-2320	<u> </u>	 .		Composit	9	(6)	ē	_					ĝ	e e				ļ					:		Containers
Samplers (SIGNATURES)				Š	802	905	4 827	8270	8260	118.1	<u>(5</u>	(90	8015	8015	160.1	suo	.	Ja							قِ
Dalit Litt	Duly			Sample Type: G - Grab, C- Compos	X (B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	тРН (ТХ-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metak							Number of
Sample Identification	Matrix	Date	Time	S O	Ш	٤	ર્જે	ď	8	Ē	E	프	GR	Š	Ĕ	Ani	Ę	P		<u> </u>					ž
W. Floor-3 (19') BGS	Soil	2/9/01	12:45	G	V								V	5											Ш
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Project Information		Sam	ple Receipt			owneun, fraeuer						(2) (C		•						owssun Anguer	•				
Project Name: Duke Energy Fi	eld Services	Total Contain	ners:	L_	Tric	lent l	Envi	ronn	nent	al															
Project Location: J-4-2 Line L	_eak	COC Seals:	<u></u>		Da	d Name	4	tler	oh vs			Ĺ	i Name)						d Name	')]
Project Manager: Gil Van Deve	enter	Rec'd Good	Cond/Cold:	/	(Şigna	ture) -	71	DUE				(Signat	ure)						(Signa						
Cost Center No.: V-109		Conforms to	Records:	V	(Date)	3/9	101	Ç	(Time)	8		(Date)				(Time)			(Date)				(Time)		
Shipping ID No.:	Shipping ID No.:				Recei	ved Rv			46. 6	HIS		Recei (2) (Co	AGG BY							ved By					
Bill to (see below):					RURGESS JACOBRE					(3) (Company)				ı											
Special Instructions/Comments: Please send invoice direct to clie				;	(Printed Name) (Printed Name))															
Duke Energy Field Services, Attention: Steve Wea				hers	ers (Signature) 25 Sp ((Signature)																				
P. O. Box 5493, Denver, Colorado				(Date) (Time) (Date) (Time) (Date) (Time)						(Time)															
															_					-					





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GIL VAN DEVENTER P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/14/01 Reporting Date: 08/15/01

Project Number: V-109

Project Name: DUKE ENERGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/14/01 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

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

ANALYSIS DATE:	08/14/01	08/14/01
H6078-1 K EAST WALL-2 (12')	110	1290
Quality Control	743	750
True Value QC	800	800
% Recovery	92.9	93.8
Relative Percent Difference	0.9	7.8

METHOD: SW-846 8015 M

Chemist

Date

H6078.XLS



ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GIL VAN DEVENTER P.O. BOX 7624

MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/14/01 Reporting Date: 08/16/01

Project Number: V-109

Project Name: DUKE ENERGY FIELD SERVICES Project Location: J-4-2 LINE LEAK

Sampling Date: 08/14/01 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

LAB NO. SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE	08/16/01	08/16/01	08/16/01	08/16/01
H6078-1 қ) EAST WALL-2 (12')	<0.005	<0.005	<0.005	<0.015
,				
and the second s		:		
Att and the second of the seco				*******
Quality Control	0.099	0.090	0.093	0.274
True Value QC	0.100	0.100	0.100	0.300
% Recovery	99.1	90.2	93.2	91.3
Relative Percent Difference	7.3	9.9	6.4	7.9

METHOD: EPA SW-846 8260

Chemist

Date

H6078B.XLS

Rush 8015 only



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-7

Chain of Custody

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Lab Name: Cardinal	Laboratories			T	Τ		4		*****	• • • •			ιA	nalys	is R	eque	est						-		_
Address: 101 East Hobbs, N Telephone: (505) 393	New Mexico 882	40		mposite	21B)	21B)	(02	6	()	5															ntainers
Samplers (SIGNATURES) Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Compos	3TEX (EPA 80)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals							Number of Containers
East Wall + 2 (12')	soil	8/14/01	1250	6	1		, , , , , , , , , , , , , , , , , , ,						V	1			-							_	-
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Project Information		Sam	ple Receipt	<u> </u>	Reline	quished	By:	l				Relino	uished	By:					Reling	uished	Bv:				
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1.40::	rgy Field Services		ners:	 	(Printe	lent d Name	<u>⊨nvi</u>	ronr	nent	aı		(Printe	d Name)					(Printed	d Name))				
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ill to (see below): pecial Instructions/Comments: Please send invoice direct to clien				nt·		d Name		TE 1		<u> </u>		(Printed	d Name)						(Printed	d Name)					
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Duke Energy Field Services, Attention: Steve Weath			101513 0217	Ø 8	<u> </u>	200	1 - 1	' S.	2 M		(Date)			п	ime)			(Date)			(Ti	me)			
	P. O. Box 5493, Denver, Colorado				ľ ,			,							(,	,		1	[,			,			

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC. 2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

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Page	L	of		_

Company Name	Trident Ev	NUIVONWAN	+2	Ţ	<u></u>				Ì			81	LL TO		ANALYSIS REQUEST											
Project Manage	r. Bate Gil	Van Dev.	cut	ter	_				P.	0.#	. [} }	549	3												
Address: PC	3 Box 7626	+							_				Dake													
City: Miai	and	State: TY	Ziŗ	ر. :	70	170	8		At	tn:	St	کن	و سمه	hev S											'	
Phone #: 91	5/682-0808	Fax#: 915	169	32·	-0	<u>ر</u> کر،	7		Ac	idre	68 :	P.	0,54	93	$_{\rm M}$	5			l			ľ			('	1
Project #: U		Project Owner:						1	Ci	ty:	N	Seu	10-4V		(X)	~									-	'
Project Name:	1-4-2								St	ate:	C	,0	Zip: 80	217	7	\sim	•								1 '	1 '
Project Location	n: East Wal	lot bit							Pf	none	# :				6										'	1
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FOR LAS USE ONLY						M	LATRI	X.	_	PR	ESE	RV.	SAMPL	NG.		G R					}		1		1 '	
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DI SASE MOVE: Labery or	nd Demages. Cardinal's liability and clien	To analysis comments for arm					- contri		<u></u>		_		amount mald by t	- clert for the	<u>. </u>				<u> </u>			 	a be obere		counts more	
analyses. All claims including	ng those for negligence and any other case erdinal be liable for incidental or consequ	ume whatsoover shall be door	med w	mbod u	21000 1	made in s	writing as	nd rea	selved t	by Card	ب لعنگ	400 in 30	days after com	detion of the appli	cable				30	days past :	due at the o	rate of 24%		n from the c	original date	
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Oumpio.	#10110 a.	Time:		••••	•	. ,.	-							Fax Resul	k:	□Ye		No		Fax#:						
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Sampler - UPS	- Bus - Other:			ı	'		es K		8		,	(Initi	ais)													

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GIL VAN DEVENTER P.O. BOX 7624

MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/15/01 Reporting Date: 08/16/01

Project Number: V-109

Project Name: DEFS J-4-2

Project Location: UNIT /K, SEC26 T20S R35E

Z8

Sampling Date: 08/15/01 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

GRO DRO (C_6-C_{10}) (>C₁₀-C₂₈) LAB NUMBER SAMPLE ID (mg/Kg) (mg/Kg)

ANALYSIS DATE:	08/14/01	08/14/01
H6087-1 () E. WALL-3 (6')	<50	63.7
H6087-2 m E. FLOOR-3 (18')	<50	54.2
	:	
Quality Control	790	808
True Value QC	800	800
% Recovery	98.7	101
Relative Percent Difference	1.4	3.0

METHOD: SW-846 8015 M

H6087.XLS



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-8

Chain of Custody Date 3-15-0/ Page / of /

																					_			
Lab Name: Cardinal Laboratories	···			<u> </u>	, ,							Ar	alys	is R	eque	est			,					!
Address: 101 East Marland Blvd.																								
Hobbs, New Mexico 882	10		يو ا															-						<u>ي</u>
Telephone: 505-393-2326			g	ଳ	(a)							٦					l		ļ					ji ji
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Samplers (SIGNATURES)			<u>8</u> 0	Α̈́	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals							Number of Containers
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E, Floor -3 (18') Soi)	8-15-01	1550	6									1)
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Project Information	So.	ple Receipt	<u> </u>	Relinc	uished	By:					Relino	ulshed	By:]		<u> </u>	Relina	uishe	By:	<u></u>			
· · · · · · · · · · · · · · · · · · ·	 	-			ompany						(2) (C	ompany)					(3) (C	ompany	1				
Project Name: Duke Energy Field Services	Total Contain	ners:	-		ent l						/Drinte	d Name						/Printe	d Name					
Project Location: J-4-2 Line Leak	COC Seals:		_	Gi	o er	<u>1 v</u>	lap_	Deve	ente		(Signat							(Signa		· ·				
Project Manager: Gil Van Deventer	Rec'd Good	Cond/Cold:	ļ		200) 2		Van	Dr	A			ure;		_	œiis				ture;			(Times)		
Cost Center No.: V-109	Conforms to	Records:			8-1-		<i>!</i>	(Time)	1:40	Apr	(Date)				(Time)			(Date)				(Time)		
Shipping ID No.: Hand deliny	Lab No.:				ved By							ved By							ved By					
Bill to (see below):	H608	7		/.	50	4	2	t		2														
Special Instructions/Comments: Please set	nd invoice di	rect to clien	t: Z	(Printe	d Name) Pe	7	سور	,		(Printe	d Name)					(Printe	d Name	*)				
Duke Energy Field Services	, Attention:	Steve Wea	thers	(Signal	ture)	4	(118	3		(Signa	ture)						(Signa	ture)					
P. O. Box 54	93, Denver,	Colorado 8	0217	(Date)	15/2	001	4	(Time)	5P		(Date)				(Time)			(Date)				(Time)		

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240

	(915) 673-7001 Fax	(915) 673-7020	(50	35) 3	393-2	326	Fax	(50)5) 3	393-	247	76								:	Page	4	of/	-	
Company Name	Trident											L TO						ANA	LYSK	RE	QUE	ST			
Project Manager	· Cil Van	Deventer						P.C). 休		,			T	Τ										
Address:	PO Box 7	624						Ç	mpa	ny:	Į.)EF	2]	١		1	1	}	1	}	}			
City:	Midland	State: 7	Zip:	##	797	10	6	Att	n:									İ	1	[1				İ
Phone #: 9(5)	1682-0803	Fax #: 915/	68	7 0	72	7		Ade	dres	8:						ı			l		İ				
	-109	Project Owner:			land		t w	City	y:					18						l	l		1		
Project Name:	DEFJ- J-4 Unit A, Sa	-2. 8 9	n J					Sta	ite:		Z	ip:] a	1	i	1		ł	ĺ	ŀ	l			
Project Location	: Unit At, Sa	29 TZ	>5	R	3-5E			Pho	one :	#:			,] \	1	1		1	İ	ļ	1				
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PLEASE NOTE: Liability and	Damagos, Cardina's liability and olien those for negligence and any other car	t's exclusive remedy for any o	day arlah	wheth	er besed	in contro	of or for	il, el	be in	abod to	the air	ecust paid by t	no ollent for the											reunia more	
service. In no event shall Car	rdinal be liable for incidental or consequence of out of or related to the perfermence of	ental damages, including with	us firitati	on, busi	ness Itali	Tupifions,	loss of	ues, c	or loss	of profit	s hou	rred by client, i	is exhaldingles,	•					d all costs o						
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		Date: 08/15/2001 Time: 45 P	/	\int_{Ω}	14	4		_							- (į						*		
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Sampler - UPS		•			Cool	Inta	ıct	- 1			itiai														!
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[†] Cardinal cannot accept verbal changes, Please fax written changes to 505-393-2476.





ANALYTICAL RESULTS FOR TRIDENT ENVIRONMENTAL ATTN: GILBERT J. VANDENTER

P.O. BOX 7624 MIDLAND, TX 79708 FAX TO: (915) 682-0727

Receiving Date: 08/02/01 Reporting Date: 08/03/01

Project Number: NOT GIVEN

Project Name: DUKE ENRGY FIELD SERVICES

Project Location: J-4-2 LINE LEAK

Sampling Date: 08/02/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

	,		GRO	DRO
			(C_6-C_{10})	(>C ₁₀ -C ₂₈)
L	AB NUMBER	SAMPLE ID	(mg/Kg)	(mg/Kg)

ANALYSIS DATE:	08/02/01	08/02/01
H6040-1 BACKFILL-1	<50	<50
·		
Quality Control	713	762
True Value QC	800	800
% Recovery	89.1	95.3
Relative Percent Difference	7.1	2.9

METHOD: SW-846 8015 M

Burgest Ja Cashe

Date

H6040A.XLS

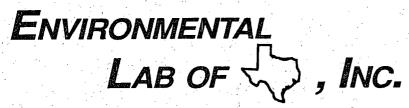


Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 682-0808 (915) 682-0727 (Fax)

V-109-0701-2 Chain of Custody

Date 8-2-01 Page (of (

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ARDI	NAL PHONE (915) 673-7 ORIES PHONE (505) 393-2	7001 - 2111 BEECHWC 2326 - 101 E. MARLAN	DOD • ABILENE, TEX	EXICO 88240	site										,										iners
Samplers (SIGNAFU	RES) Val	Æ			Sample Type: G - Grab, C- Composite	PA	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	тРН (ТХ-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals						Number of Container
Sample Ide	entification	Matrix	Date	Time	San G-	918	N N	SVC	PA	χ	产	Ē	횬	GRC	DRC	ğ	Ank	Tota	둳						호
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	roject Information			ple Receipt	Ţ	(1) (C	ompany)	·	4	_1			mpany							ompany	•			
Project Name: Project Location:	Duke Energy Fi J-4-2 Line (Total Contain COC Seals:	ners:	╁		lent d Name / Der					2~	(Printe	d Name)		_			(Printe	d Name)	 		\dashv
Project Manager:	Gil Van Dev		Rec'd Good	Cond/Cold:	V	Signa	ture	16	1/a	. K	A		(Signa	ture)						(Signat	ture)				
Cost Center No.:	V-109		Conforms to	Records:	V	(Date)	8-Z	-01		(Time)	1:00	ph	(Date)				(Time)			(Date)			(Time)		
Shipping ID No.:			Lab No.:	40-1		Recei (1) (C	ved By ompany	r: ')						ved By ompany							ved By ompany				
Bill to (see below):	~	D1	1 160	407		(Datas	CAK	<u> (10) /</u>	VA	4	455		(Delete	d Name						/D-1-4-					
Special Instructions/0		Please sen				(Signal)/Q/ M(re)	TES	لإك	A.C	00K	_	(Signa		,					(Signal	d Name	''	 		
	Duke Energy Fig	eid Services . O. Box 549						44	44/k	(Time)	<u>sou</u>		(Date)				(Time)			(Date)		•	 (Time)		
	F.	. 	o, Delivel,	Colorado 6	VE 17	<u> </u>	8/	\mathbb{Z} / \mathbb{Z}	1	1	200	P.M	<u> </u>							<u> </u>			,		



"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL

ATTN: MR. GILBERT VAN DEVENTER

P.O. BOX 7624

MIDLAND, TEXAS 79708

FAX: 689-4578

Sample Type: Soil

Sample Condition: Intact/ Iced/ -0.5 deg C

Project #: None Given

Project Name: Duke Energy Field Services

Project Location: J-4-2

Sampling Date: 07/26/01 Receiving Date: 07/26/01

Analysis Date: 07/27/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0101231-02	J-4-2 Exc. Soil	0.193	2.47	2.85	7.93	4.02

QUALITY CONTROL	0.093	0.092	0.089	0.196	0.091
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% INSTRUMENT ACCURACY	93	92	89	98	91
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	<0.025	<0.025	<0.025	< 0.025
SPIKE	0.099	0.100	0.097	0.220	0.102
SPIKE DUP	0.097	0.097	0.095	0.214	0.099
% EXTRACTION ACCURACY	99	100	97	110	102
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	2	3	. 2	3	3

METHODS: EPA SW 846-8021B ,5030

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL

ATTN: MR. GILBERT VAN DEVENTER

P.O. BOX 7624

MIDLAND, TEXAS 79708

FAX: 689-4578

Sample Type: Soil

Sample Condition: Intact/ Iced/ -0.5 deg C

Project #: None Given

Project Name: Duke Energy Field Services

Project Location: J-4-2

Sampling Date: 07/26/01 Receiving Date: 07/26/01

Analysis Date: 07/27/01

		GRO C6-C10	DRO >C10-C28
ELT#	FIELD CODE	mg/kg	mg/kg
		1	
0101231-01	J-4-2 Background	<10	<10
0101231-02	1-4-2 Exc. Soil	561	2560

QUALITY CONTROL	533	524
TRUE VALUE	500	500
% INSTRUMENT ACCURACY	107	105
SPIKED AMOUNT	476	476
ORIGINAL SAMPLE	<10	116
SPIKE	498	504
SPIKE DUP	530	507
% EXTRACTION ACCURACY	105	106
BLANK	<10	<10
RPD	6	. 1

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-30*-0/*



Trident Environmental P.O. Box 7624 Midland, Texas 79708 (915) 528-3878 (915) 689-4578 (Fax)

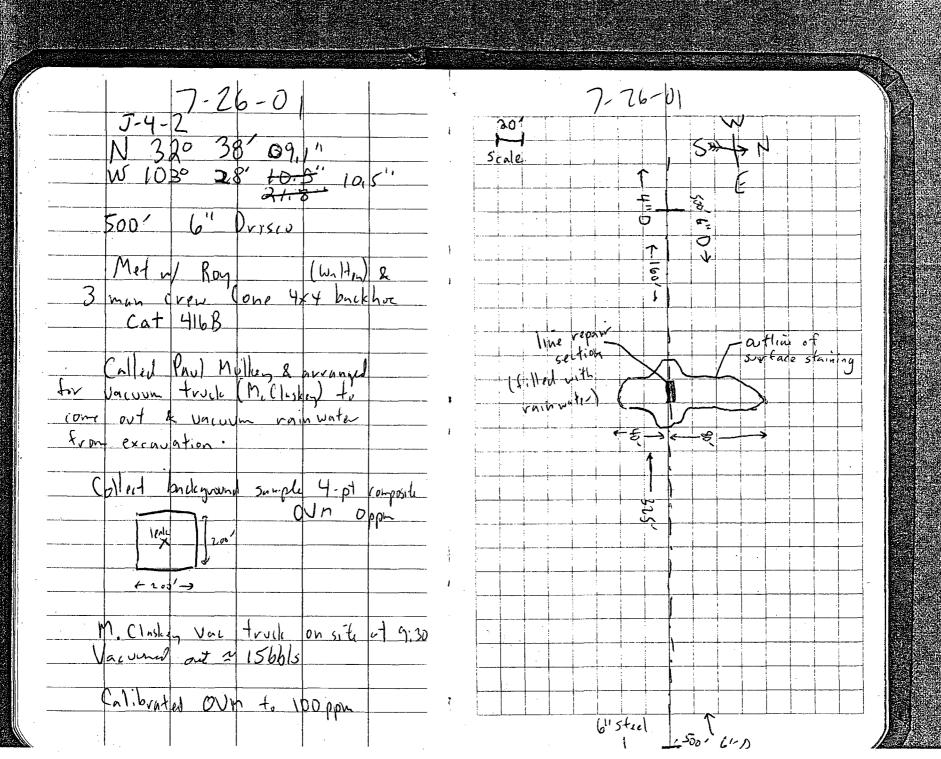
V-106- มี-นุ- A Chain of Custody

Date 7-26-0) Page | of)

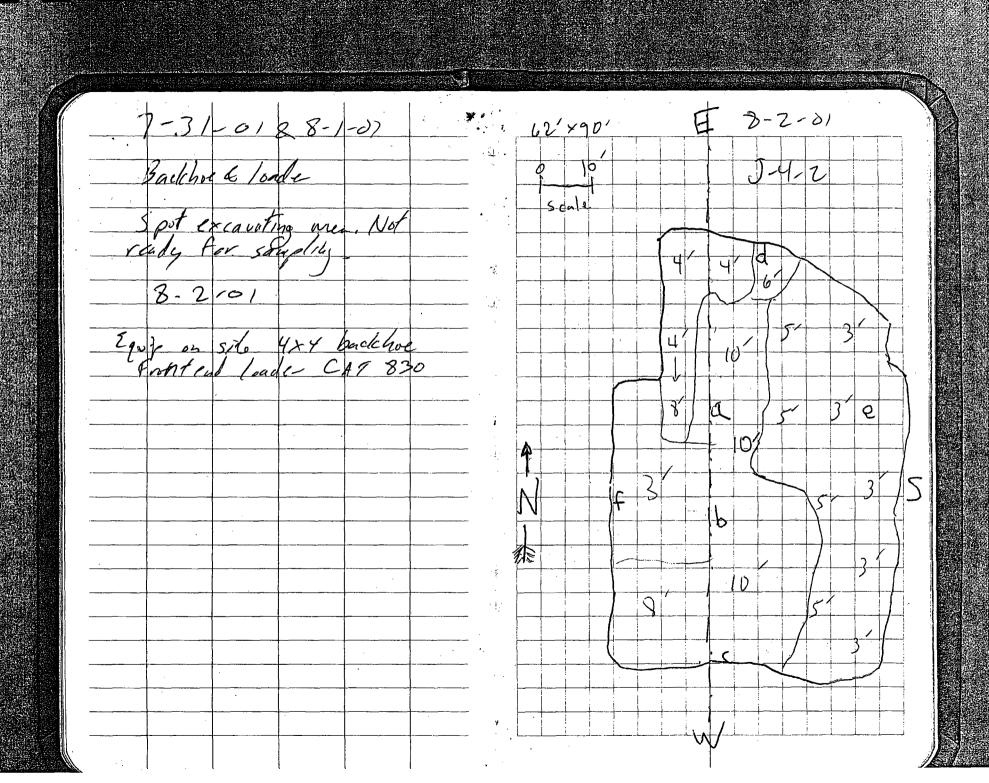
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Lab Name: Environmental Lab of Texas Address: 12600 W I-20 East	-	\vdash	1							Ar	alys	SIS K	eque	est	1	1					Т	
Odessa, Texas 79765	-														l		l	1				
Telephone: (915) 563-1800	—	g l																				Sie
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Self Vale	Sample Typ	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	P Metals							Number of Containers
Sample Identification Matrix Date Tim	Sar	E	₩	S	₽Ā	Š	Ĕ	Ē	百	ğ	Ř	Ĕ	Ani	Į Į	1d.P							Ž
1-4-2 Background Soil 7-2601 099) C									<	✓							1				<u> </u>
2 J-4-2 Exc. Soil Soil 7-26-01 115	C	1								~	\ <u> \</u>											7
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		72-52				L			D-6-		15.0		<u> </u>			Dalia		<u> </u>				
Project Information Sample Rece			quished company							quished ompany	•					Reline (3) (C	quisne ompany	•				
Project Name: Duke Energy Field Services Total Containers:	12		dent		ronr	nent	al															_
Project Location: J-4-2 COC Seals:		(Print	d Name) Va	an b) eve	nte	<u>.</u>	(Printe	d Name)					(Printe	d Name	8)				
Project Manager: Gil Van Deventer Rec'd Good Cond/Co	: 40	(Sign	ture	41		Ro			(Signa	ture)					•	(Signa	ture)					
Cost Center No.: Conforms to Records	17	(Date	7-2	6-01		<u>, </u>	5-3	5 Ph	(Date)				(Time)			(Date)				(Time)		
Shipping ID No.: Lab No.: $-\mathcal{O}$	5°C	Rece	ived By	;		,		7		ved By							ved By					***************************************
Bill to (see below):		(1)(0	company	1.	_//	100	n l	7 ,	(2)(0	ompany)					(2) (C	ompany	y)				
Special Instructions/Comments: Please send invoice direct to	lient:	(Print	od Name		$\times \mu$	11	lak		(Printe	d Name) .					(Printe	d Name	e)				
Duke Energy Field Services, Attention: Steve \		S (Signa	ature)	10 x	<u>Inen</u>		1.39		(Signa	iture)				-		(Signa	ture)					—
P. O. Box 5493, Denver, Colora			1-2	400	/	(Time)	_ ر .	<u>ر</u>	(Date)				(Time)			(Date)	,			(Time)		
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ATTACHMENT C

FIELD BOOK NOTES

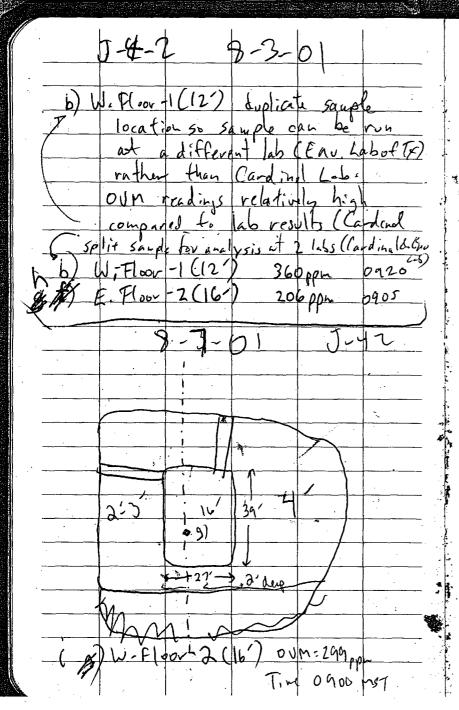


Started executing ut source area Touchage St: 11 expanding. No other equipment on site Executing area around lenk until Moon Collected composit sample of excurred soil at 1155 am excavition east side first lalmost west will have to take road a take road out. 256 pph w OVA Brease holder Faye Klein طالغت Returned to CCH6 Mile V. still exerciting. Didnit
get very deep or wide be corrected
had to spend glot of time
clearing/mothering clean done sand
One tracker & one londer working today



DUM Time E, Ploor-1(11') 297 1045 W. Floor -1 (12) 587 1055 W. Wall-1 (4) 1100 E. Wall-1 (4) 0 1105 S. Wall-1 (21) 1125 N. Wall -1 (21) 1130 Based on OUM rendings from floor at low spots execution needs to go deeper at least SFflor nive it odor still understely strong. Since the exeauction is already at about 10 below the pipe line it will be necessary to bring a trackbook to replace backhoel Roy arranging get trudche from CCH6 NE which will be suspended for a day or so. Used hand auger to get +120x samples (Augened about 3 ff below current excavation depth

3-2-01 J-4-2	
(Balcfill- 2 1150 MST) from backfill being brought in from CCHG project Looks/Smelle clean! (Oppm on DUM)	2
Looks/smelle clean! (Oppmonoun)	
Delivered samples to Cardinal &	a5
Left lab to go to CC#6 see next page	
	_

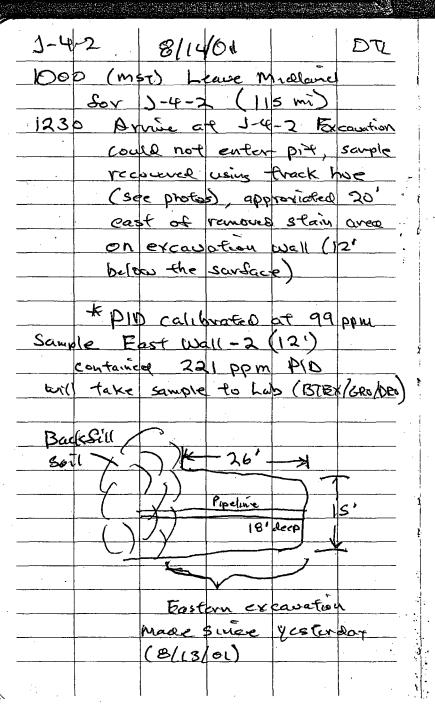


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and the control of th

5-4-2 8-8-01 Lond count por Ro Received ye-pal results for sample 1) W-Floor-2 (16) from Gry & Potte of unival Lab as follows 6RO = 80.8 mg/kg DRO = 798 mg/kg were sent to S. Monument Land Far 792 gd (66 londs) of clean backfills. brought in from CCHG area Called Mike & late hand from Roy said he would apply a end of the job to make up for
a possible discrepency of short?

Nords per Paul Mulkey who said one
the first few days of loading with
the small lackchoe he thought they ty beneath and extending were running light of other is spins on



		· 1	
DTL		8/14/01	1-4-2
		tos of exco	vat-on
	Egupmen	on site	
	o Samsano	s track hoe	TO SE2
		ront loader	930
	o cat De	244	
	4-		h
	change	Tracks to	ck Cil
,	(1 truck pe	Mins a back hie	500
1320		Site Sov L	
1356	Leave	Las for	Midland
1535	(mst) A	survive at Mid	land
	(2	19 mi)	
		<u> </u>	

3-24/01 8-30-01 CC#6 Par Ran y Valbon 7-9 Leave Midland Arrive at CC6 called Paul Sheely en route to notify of sampling activity. Paul said he'd come out on site. 2772 oils dirt hand to land fam ? 2592 backfli sand brought in Mike w/ Walton (post. has
cleared out & widered the north
end of excavation to a depth of 33

He also extended west end of
South and of excavation to a

New 250 took out the access Plan to use ~ 180 yd top soil
from nerby landounce roud to a dept of 8 feet