



August 7, 2003

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

Re: Removal of Hydrocarbon-Impacted Soils from the C-23-2 (Site #2) site
Township 20 South, Range 36 East, Section 25, Unit C



Dear Mr. Weathers:

Trident Environmental (Trident) was retained by Duke Energy Field Services, LP. (DEFS) to oversee the removal of hydrocarbon-impacted soil from an area along a pipeline right-of-way operated by DEFS near Monument, New Mexico in Lea County. The site, C-23-2 (Site #2), is located in Section 25 (Unit C), Township 20 South, Range 36 East on property owned by Dale Cooper and managed by Clay Cooper. The location of the C-23-2 (Site #2) is shown on the topographic map in Attachment A. The work was conducted in accordance with the work plan submitted to the New Mexico Oil Conservation Division (OCD). 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 operations for documentation that closure requirements have been satisfied.

Excavation and Sampling Procedures

Walton Construction Company, Inc. (Hobbs, New Mexico) performed excavation. Walton Construction used one trackhoe, one dozer, one loader, and 12 yd³ dump trucks for earthmoving services. An area adjacent to two pipelines was excavated where Mr. Cooper identified indications of hydrocarbon-impacted soils. The source of hydrocarbon-impacted soil was observed directly below a pipe clamp along the 12" steel (active) pipeline (C-23-2 line). The 12" steel pipeline had already been replaced with polyline adjacent to east side of excavation. Another 12-inch steel pipeline (F-3 line) located approx. 10 feet south of the active line is temporarily out of service and showed no indication of hydrocarbon-impacted soil beneath it. During excavation operations, subsurface soil samples were collected and submitted to an analytical laboratory to characterize the approximate lateral and vertical extent of hydrocarbon-impacted soil in each area. Samples were collected by Trident with stainless steel trowels. Grab samples were collected from the floor and walls (north, south, east, and west), as specified in the site data form in Attachment A. 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). 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)

Duke - 229153
facility - FPAC0605349836

inspect - ePAC0605349976
incident - nPAC0605350126
application - pPAC0605354085

Soil samples were submitted to 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 the soil samples with OVM or GRO concentrations exceeding 100 ppm.

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 Landfarm. 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 landowner's claims and well records from the Office of the State Engineer.

Approximately 1,172 cubic yards of hydrocarbon-impacted soils were transported by Walton Construction to cell C-4 at the South Monument Landfarm, which is owned and operated by Ms. Kena Kay Cooper (OCD Rule 711 Permit Approval NM-01-0032). A completed *Release Notification and Corrective Action* (C-141) form is included in Attachment A.

Excavated soils below the remediation action levels and as agreed upon by Mr. Cooper were returned to the excavation after sampling and analysis verification. Also, native soil from adjacent sand dunes in the area was provided by Mr. Cooper and used as additional backfill in the excavation to restore the excavation to a level grade.

Results

At the completion of excavation activities all areas had petroleum hydrocarbon concentrations below the OCD standards listed above. Soil sample locations are depicted on the Site Map in Attachment A. 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

Attachments

cc: Clay Cooper, landowner – Hobbs, NM



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

September 19, 2003

Duke Energy Field Services (DEFS)

Attn: Stephen Weathers

370 17th Street, Suite 900

Denver, CO 80202

Re: **Remediation Closure Approval for Removal of Hydrocarbon-Impacted Soils**

C-23-2, (sites: 1, 2, 3)

Site Location: UL-B, Sec 25-T20S-R36E

All Dated: August 7, 2003

Dear Mr. Weathers,

The remediation closures referenced above and submitted to the New Mexico Oil Conservation Division (OCD) by Trident Environmental for DEFS are hereby approved. According to the information provided no further action is required at this time.

Please be advised that OCD approval of this plan does not relieve DEFS of liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. In addition, OCD approval does not relieve DEFS of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance write or call: (505) 393-6161, ext. 113, or email:

psheeley@state.nm.us

Sincerely,

Paul Sheeley-Environmental Engineer

Cc: Roger Anderson - Environmental Bureau Chief

Chris Williams - District I Supervisor

Bill Olson - Hydrologist

Larry Johnson - Environmental Engr.

ATTACHMENT A

TOPOGRAPHIC MAP

SITE MAP

SITE DATA FORM

C-141 FORM

PHOTODOCUMENTATION



Site Data Form

Trident Technician: GJV Excavation Crew Names: Walton Construction Site ID: C-23-2 (Site #2)
 Site Location: Latitude 32° 33.081' N Longitude 103° 18.614' W County: Lea State: New Mexico
 Township 20 South Range 36 East Section 25 Unit C
 Begin Excavation (Date/Time) 01/24/03 Complete Excavation (Date/Time) 03/05/03

LAND USE: Residential Recreational Farm land
 (Check all that apply) Industrial School/Daycare Range land
 Oil & Gas Rural Other: _____

Depth to Groundwater: > 100 feet 50 - 99 < 50 feet
 Wellhead Protection Area: > 1,000 feet from a water source < 200 feet from private domestic water source
 Distance to Nearest Surface Water Body: > 1,000 feet 200 - 1,000 feet < 200 feet

SURFACE SOILS: Sand Gravel Silt
 Caliche Clay Other Silty clay at depth

EXCAVATION DIMENSIONS Length ~ 50 feet Width ~ 45 feet Average Depth 15 feet Maximum Depth 18 feet

VOLUME EXCAVATED: ~1,800 yd³ **VOLUME HAULED TO LANDFARM:** 1,172 yd³

SUMMARY OF ANALYTICAL RESULTS

Sample ID (Depth)	Sample Location	OVM (ppm)	GRO (mg/kg)	DRO (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
A (3')	Floor	1.0	< 10	< 10	NA	NA	NA	NA
B (5')	Floor	0.0	< 10	< 10	NA	NA	NA	NA
C (3')	Floor	211	2,660	11,200	1.28	2.26	6.24	22.4
C (8')	Floor	57	< 10	< 10	<0.025	<0.025	<0.025	<0.025
C (15')	Floor	2.2	< 10	< 10	NA	NA	NA	NA
D (18')	Floor	1.0	< 10	< 10	NA	NA	NA	NA
E (8')	East Wall	3.5	< 10	< 10	NA	NA	NA	NA
F (8')	North Wall	2.6	< 10	< 10	NA	NA	NA	NA
G (8')	West Wall	1.3	< 10	< 10	NA	NA	NA	NA
H (8')	South Wall	1.3	< 10	< 10	NA	NA	NA	NA
Backfill	Stockpile	0.5	< 10	< 10	NA	NA	NA	NA
Exc. Soil	Stockpile	275	1,030	4,840	2.01	6.04	2.73	8.42

Comments: The area below sample C (3'), directly below the clamp along the active 12" steel pipeline, was excavated further until concentrations were below OCD guidelines as confirmed by subsequent samples C (8'), C (15'), and D (18').

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

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Duke Energy Field Services Inc.	Contact Mr. Steve Weathers
Address P. O. Box 5493, Denver, Colorado 80217	Telephone No. (303) 605-1718
Facility Name Site Name: C-23-2 (Site #2)	Facility Type Natural Gas Pipeline
Surface Owner Dale Cooper	Mineral Owner Unknown
Lease No.	

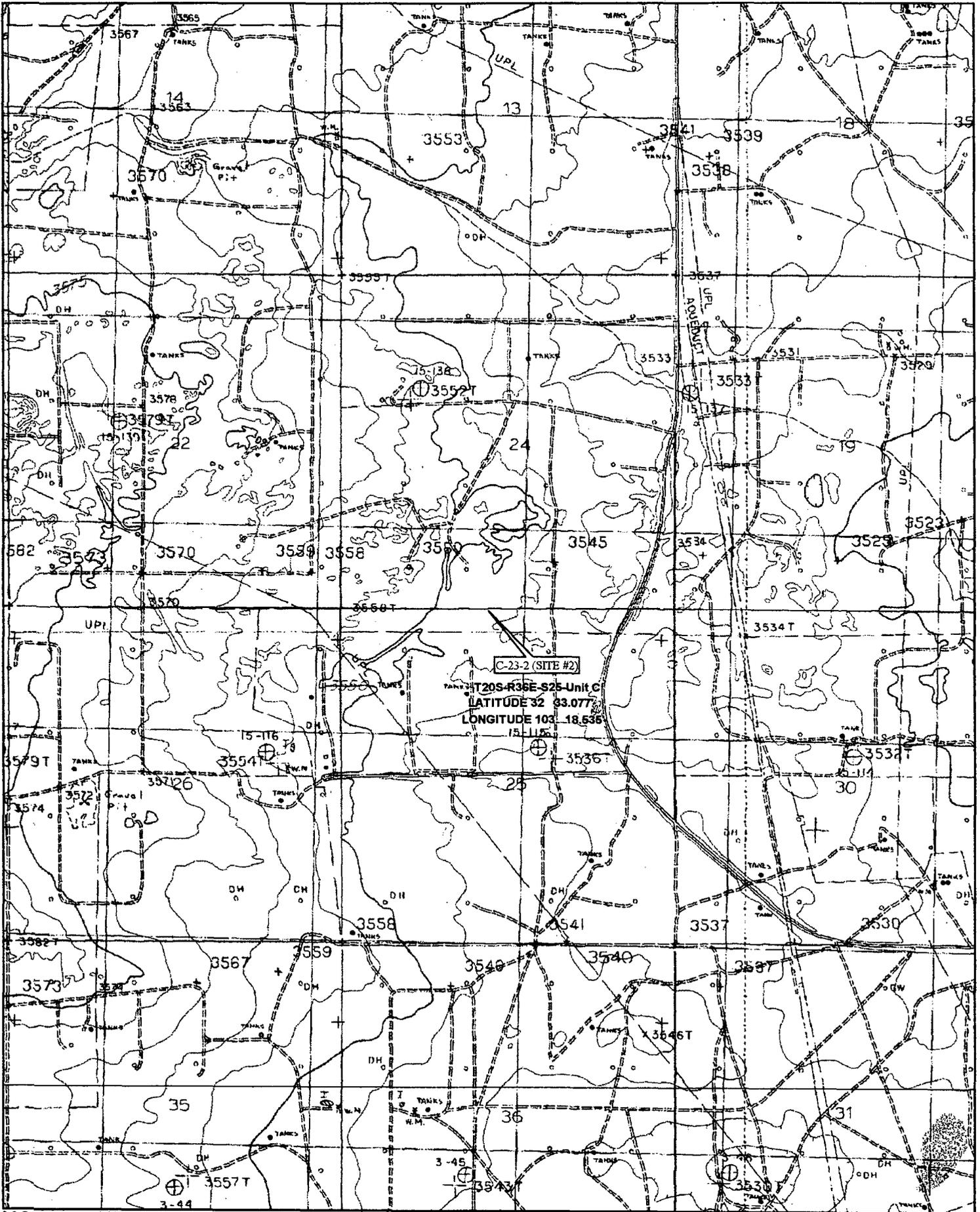
LOCATION OF RELEASE

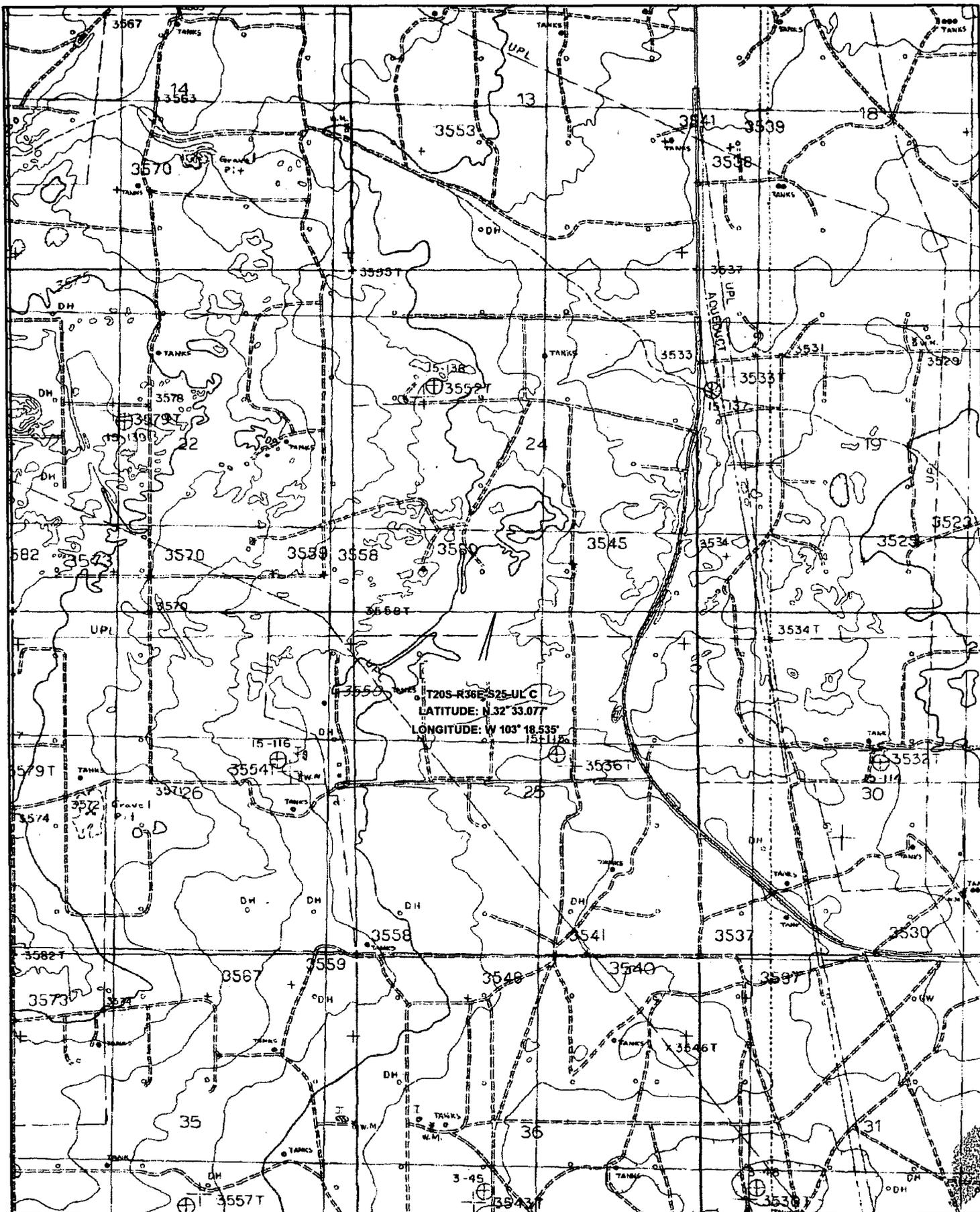
Unit Letter	Section	Township	Range	Feet from the North/South Line	Feet from the East/West Line	County
C	25	20S	36E	32° 33.081' N	103° 18.614' W	Lea

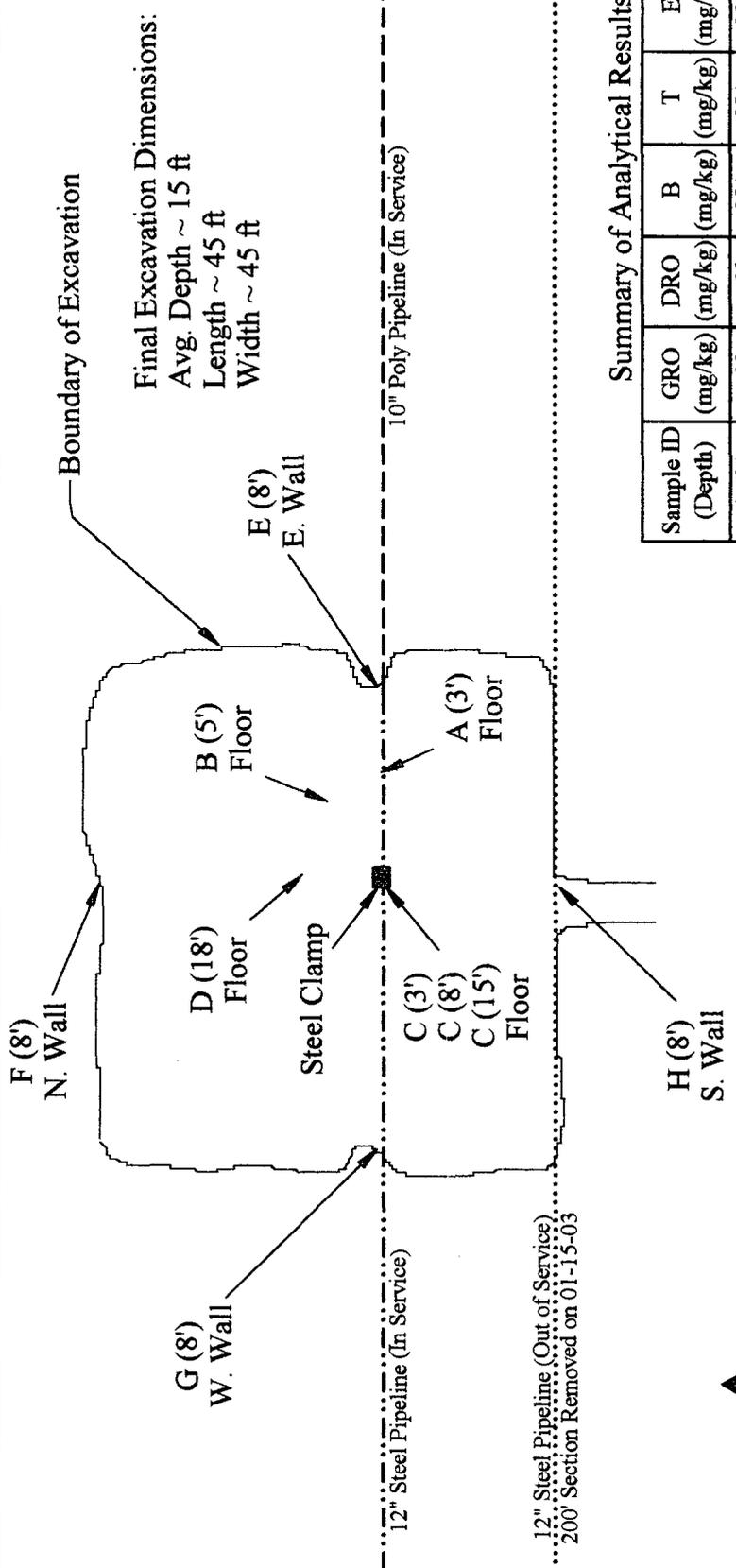
NATURE OF RELEASE

Type of Release Condensate	Volume of Release Unknown	Volume Recovered 1,172 yd ³ soil removed
Source of Release Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson, NMOCD District 1	
By Whom? Steve Weathers	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Historical condensate release caused by subsurface external corrosion. During excavation activities one clamp was visible along the 12" steel pipeline. The 12" steel pipeline was replaced with polyline adjacent to east side of excavation. Removal of impacted soil requested by landowner (Clay Cooper).		
Describe Area Affected and Cleanup Action Taken.* On 01/24/03 over-excavation was initiated. Excavation continued until 02/07/03. The excavation was approximately 15 ft deep and measured approx. 45 ft wide by 45 ft long. Approximately 1,172 cu yds of soil was transported to cell C-4 at the South Monument Land Farm. Backfilling of excavation was completed on 02/14/03. Closure report, analytical results, photographs, and site map are attached.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:		OIL CONSERVATION DIVISION
Printed Name: Stephen Weathers	Approved by District Supervisor:	
Title: Environmental Specialist	Approval Date:	Expiration Date:
Date: Phone: (303) 605-1718	Conditions of Approval:	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary



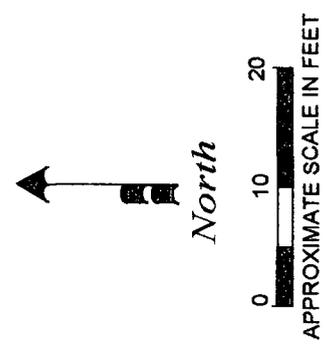




Final Excavation Dimensions:
 Avg. Depth ~ 15 ft
 Length ~ 45 ft
 Width ~ 45 ft

Summary of Analytical Results

Sample ID (Depth)	GRO (mg/kg)	DRO (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
A (3')	< 10	< 10	NA	NA	NA	NA
B (5')	< 10	< 10	NA	NA	NA	NA
C (3')	2,660	11,200	1.28	2.26	6.24	22.4
C (8')	< 10	< 10	< 0.025	< 0.025	< 0.025	< 0.025
C (15')	< 10	< 10	NA	NA	NA	NA
D (18')	< 10	< 10	NA	NA	NA	NA
E (8')	< 10	< 10	NA	NA	NA	NA
F (8')	< 10	< 10	NA	NA	NA	NA
G (8')	< 10	< 10	NA	NA	NA	NA
H (8')	< 10	< 10	NA	NA	NA	NA



CLIENT NAME: DUKE ENERGY FIELD SERVICES LP
 DATE: 03/05/03 REVISION NO.: 1
 DRAWN BY: GJV FILENAME: SITE2.TCW
 CHECKED BY: DTL SCALE: 1 INCH = 15 FT

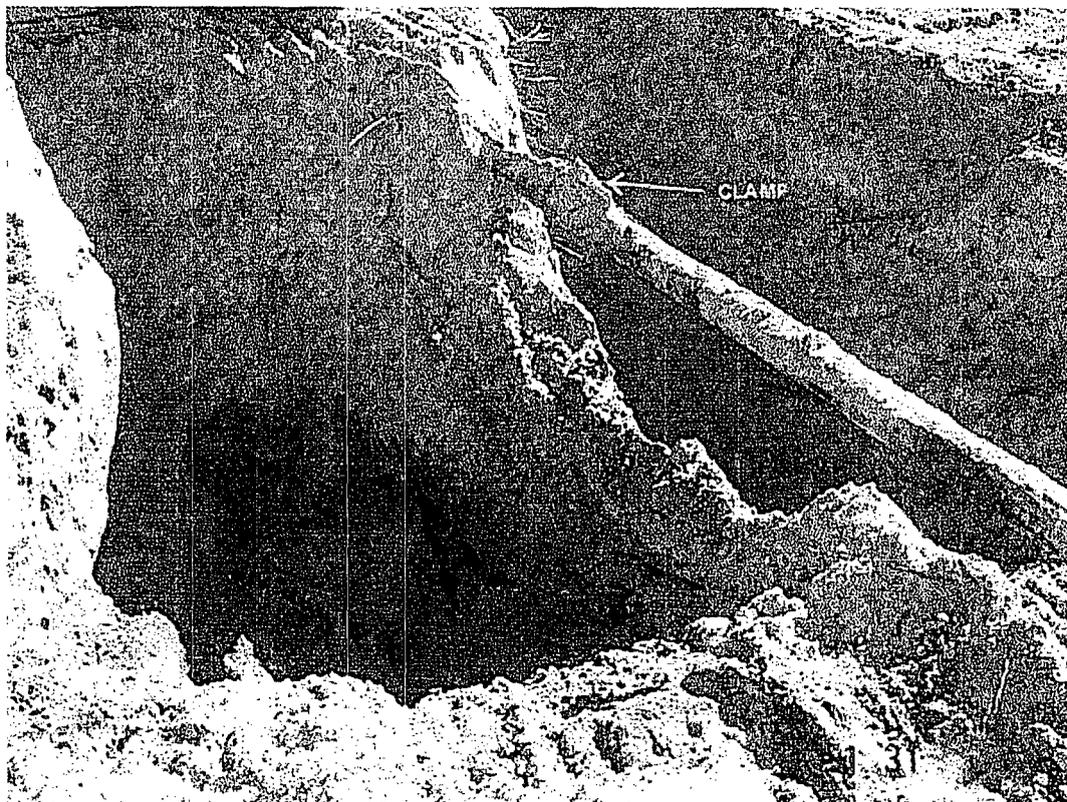


SITE MAP

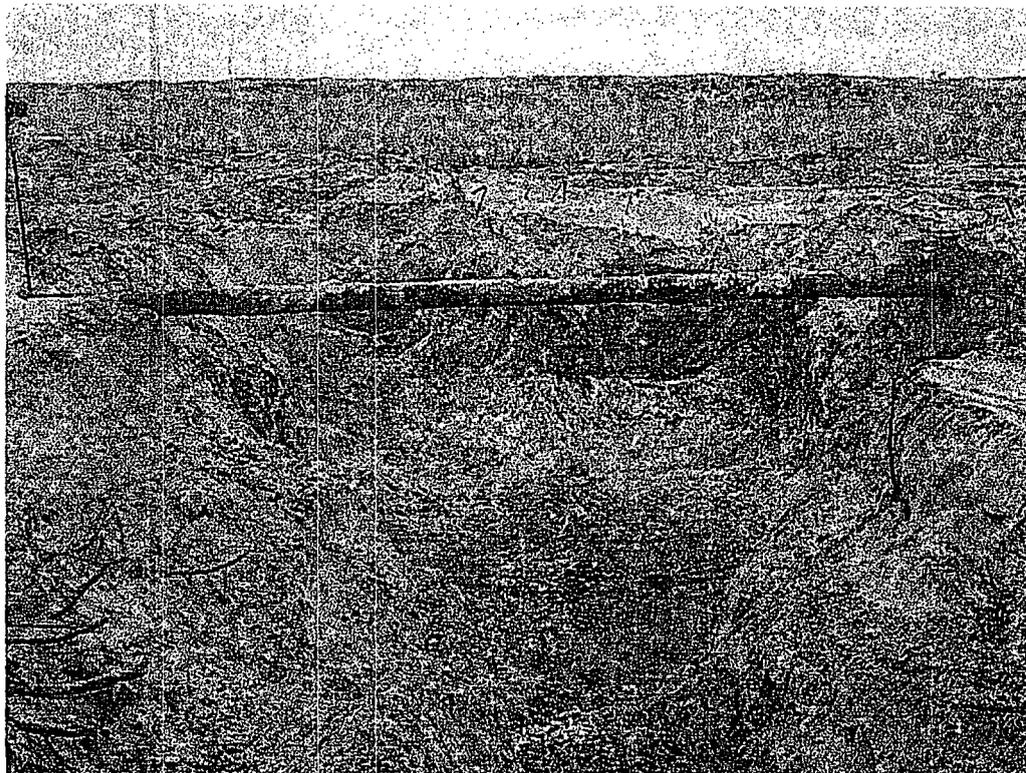
C-23-2 (Site #2)



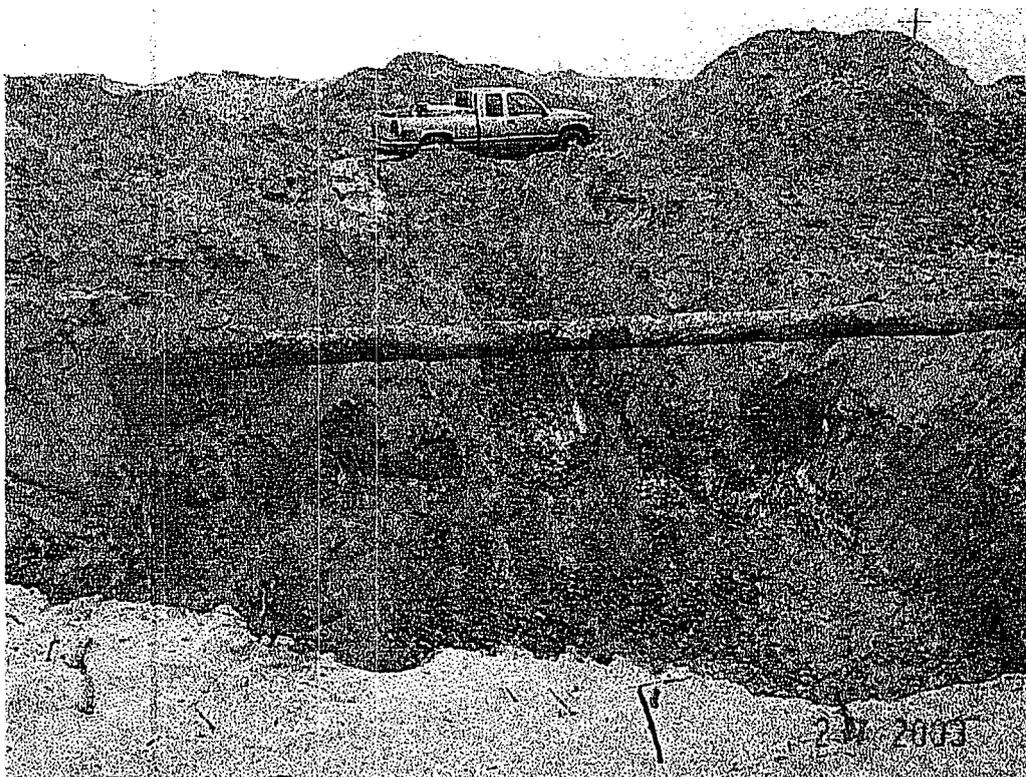
1 View facing west showing initial excavation. Pipeline marker (center) marks where 12-inch steel line (west side) is joined with 10-inch poly line (east side) along active pipeline. Inactive 12-inch steel pipeline (upper left) is shown where a 200-ft section was cut off and removed. 01-24-03



2 View facing southeast showing hydrocarbon-stained soil and location of pipe clamp along 12-inch active pipeline (top center). 01-31-03



3 View facing north showing floor and north wall after completion of excavation. 02-07-03



4 View facing south showing floor and south wall after completion of excavation. 02-07-03

ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION

C-23(#2)

ANALYTICAL REPORT

Prepared for:

**GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708**

Project: Duke Energy Field Services
PO#: V-106
Order#: G0305553
Report Date: 01/27/2003

Certificates

US EPA Laboratory Code TX00158

C-23(#2)

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0305553
Project:
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0305553-01	A (3')	SOIL	1/24/03 12:25	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-02	B (5')	SOIL	1/24/03 12:30	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-03	Backfill	SOIL	1/24/03 12:40	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-04	Exc. Soil	SOIL	1/24/03 12:45	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0305553
Project:
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

Lab ID: 0305553-01
Sample ID: A (3')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		1/25/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	112%	70	130
1-Chlorooctadecane	121%	70	130

Lab ID: 0305553-02
Sample ID: B (5')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		1/25/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	118%	70	130
1-Chlorooctadecane	126%	70	130

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
 TRIDENT ENVIRONMENTAL
 P.O. BOX 7624
 MIDLAND, TX 79708

Order#: G0305553
 Project:
 Project Name: Duke Energy Field Services
 Location: C-23 (Site #2)

Lab ID: 0305553-03
 Sample ID: Backfill

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		1/25/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	125%	70	130

Lab ID: 0305553-04
 Sample ID: Exc. Soil

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		1/25/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	130%	70	130

Approval: *Raland K Tuttle* 1-27-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0305553

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004451-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305554-01	1127	952	1860	77%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305554-01	1127	952	2030	94.9%	8.7%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004451-05		1000	834	83.4%	

Trident Environmental
 P.O. Box 7624
 Midland, Texas 79708
 (915) 682-0808
 (915) 689-4578 (Fax)
 682-0727

V-106-C-23-1-02

Chain of Custody

Date: 1-24-03 Page 1 of 1

Lab Name: Environmental Lab of Texas, Inc.			Analysis Request																
Address: 12600 West I-20 East																			
Odessa, TX 79763																			
Telephone: (915) 563-1800			Fax: (915) 563-1713																
Sample Type: G-Grab, C-Composite																			
Samplers (SIGNATURES)																			
Sample Identification	Matrix	Date	Time	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	TCLP Metals	Number of Containers	
A(3)	Soil	1-24-03	1225									✓	✓						030553-01
B(5)	Soil	1-24-03	1230									✓	✓						07
Backfill	Soil	1-24-03	1240									✓	✓						03
Exc. Soil	Soil	1-24-03	1245									✓	✓						01
Project Information				Relinquished By: (1) (Company)															
Project Name: Duke Energy Field Services				Trident Environmental															
Project Location: C-23 (Site#2)				Relinquished By: (2) (Company)															
Project Manager: Gil Van Deventer				Relinquished By: (3) (Company)															
Cost Center No.: V-106				Relinquished By: (Signature)															
Shipping ID No.:				Relinquished By: (Date)															
Bill to (see below): Duke Energy Field Services				Relinquished By: (Date)															
Special Instructions: Attn: Steve Weathers				Relinquished By: (Date)															
PO Box 5493				Relinquished By: (Date)															
Denver, CO 80217				Relinquished By: (Date)															
Sample Receipt				Relinquished By: (Date)															
Total Containers:				Relinquished By: (Date)															
COC Seals:				Relinquished By: (Date)															
Rec'd Good Cond/Cold: 302				Relinquished By: (Date)															
Conforms to Records:				Relinquished By: (Date)															
Lab No.:				Relinquished By: (Date)															
Received By: (1) (Company)				Received By: (1) (Company)															
Gil Van Deventer				Received By: (2) (Company)															
Signature: <i>Gil Van Deventer</i>				Received By: (2) (Company)															
Date: 1-24-03				Received By: (2) (Company)															
Time: 1:30 p				Received By: (2) (Company)															
Received By: (1) (Company)				Received By: (2) (Company)															
Env. Lab of TX				Received By: (2) (Company)															
Signature: <i>Jeanne McMurray</i>				Received By: (2) (Company)															
Date: 01-24-03				Received By: (2) (Company)															
Time: 1:30				Received By: (2) (Company)															
Signature: <i>Jeanne McMurray</i>				Received By: (2) (Company)															
Date: 01-24-03				Received By: (2) (Company)															
Time: 1:30				Received By: (2) (Company)															

C-23 (#2)

ANALYTICAL REPORT

Prepared for:

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Project: Duke Energy Field Services
PO#: V-106
Order#: G0305607
Report Date: 02/07/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0305607
Project: V-106
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305607-01	C (3')	SOIL	1/31/03 9:30	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		
0305607-02	C (8')	SOIL	1/31/03 9:35	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		
0305607-03	C (15')	SOIL	1/31/03 10:05	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 4 C		
0305607-04	D (18')	SOIL	1/31/03 11:00	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 4 C		
0305607-05	Exc. Soil	SOIL	1/31/03 10:10	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
 TRIDENT ENVIRONMENTAL
 P.O. BOX 7624
 MIDLAND, TX 79708

Order#: G0305607
 Project: V-106
 Project Name: Duke Energy Field Services
 Location: C-23 (Site #2)

Lab ID: 0305607-01
 Sample ID: C (3')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		1/31/03	1	10		

Parameter	Result mg/kg	RL
GRO, C6-C12	2660	100
DRO, >C12-C35	11200	100
TOTAL, C6-C35	13860	100

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	14%	70	130
1-Chlorooctadecane	28%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	RKT	8021B
0004551-02		2/6/03	1	200		
		1:37				

Parameter	Result mg/kg	RL
Benzene	1.28	0.200
Toluene	2.26	0.200
Ethylbenzene	6.24	0.200
p/m-Xylene	15.9	0.200
o-Xylene	6.48	0.200

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	127%	80	120
Bromofluorobenzene	128%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0305607
Project: V-106
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

Lab ID: 0305607-02
Sample ID: C (8')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		1/31/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	90%	70	130
1-Chlorooctadecane	91%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0004510-02		2/2/03	1	1	RKT	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	98%	80	120
Bromofluorobenzene	116%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
 TRIDENT ENVIRONMENTAL
 P.O. BOX 7624
 MIDLAND, TX 79708

Order#: G0305607
 Project: V-106
 Project Name: Duke Energy Field Services
 Location: C-23 (Site #2)

Lab ID: 0305607-03
 Sample ID: C (15')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		1/31/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	86%	70	130
1-Chlorooctadecane	87%	70	130

Lab ID: 0305607-04
 Sample ID: D (18')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		1/31/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	92%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0305607
Project: V-106
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

Lab ID: 0305607-05
Sample ID: Exc. Soil

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/31/03	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	1030	50.0
DRO, >C12-C35	4840	50.0
TOTAL, C6-C35	5870	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	22%	70	130
1-Chlorooctadecane	34%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004510-02		2/2/03	1	1	RKT	8021B

Parameter	Result mg/kg	RL
Benzene	2.01	0.10
Toluene	6.04	0.100
Ethylbenzene	2.73	0.100
p/m-Xylene	6.28	0.100
o-Xylene	2.14	0.100

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	244%	80	120
Bromofluorobenzene	139%	80	120

Approval:

Raland K Tuttle 2-07-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305607

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004510-02			< 0.025		
Benzene-mg/kg		0004551-02			<0.025		
Toluene-mg/kg		0004510-02			< 0.025		
Toluene-mg/kg		0004551-02			<0.025		
Ethylbenzene-mg/kg		0004510-02			< 0.025		
Ethylbenzene-mg/kg		0004551-02			<0.025		
p/m-Xylene-mg/kg		0004510-02			< 0.025		
p/m-Xylene-mg/kg		0004551-02			<0.025		
o-Xylene-mg/kg		0004510-02			< 0.025		
o-Xylene-mg/kg		0004551-02			<0.001		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305598-01	0.041	2.73	2.58	94.5%	
Benzene-mg/kg		0305630-01	0	0.1	0.110	110.0%	
Toluene-mg/kg		0305598-01	0.2	2.73	2.68	90.8%	
Toluene-mg/kg		0305630-01	0	0.1	0.117	117.0%	
Ethylbenzene-mg/kg		0305598-01	0.094	2.73	2.72	99.6%	
Ethylbenzene-mg/kg		0305630-01	0	0.1	0.129	129.0%	
p/m-Xylene-mg/kg		0305598-01	0.358	5.45	5.85	100.8%	
p/m-Xylene-mg/kg		0305630-01	0	0.2	0.253	126.5%	
o-Xylene-mg/kg		0305598-01	0.082	2.73	2.725	99.8%	
o-Xylene-mg/kg		0305630-01	0	0.1	0.127	127.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305598-01	0.041	2.73	2.62	94.5%	1.5%
Benzene-mg/kg		0305630-01	0	0.1	0.106	106.0%	3.7%
Toluene-mg/kg		0305598-01	0.2	2.73	2.82	96.0%	5.1%
Toluene-mg/kg		0305630-01	0	0.1	0.118	118.0%	0.9%
Ethylbenzene-mg/kg		0305598-01	0.094	2.73	2.98	105.7%	9.1%
Ethylbenzene-mg/kg		0305630-01	0	0.1	0.129	129.0%	0.0%
p/m-Xylene-mg/kg		0305598-01	0.358	5.45	6.28	108.7%	7.1%
p/m-Xylene-mg/kg		0305630-01	0	0.2	0.258	129.0%	2.0%
o-Xylene-mg/kg		0305598-01	0.082	2.73	2.98	106.2%	8.9%
o-Xylene-mg/kg		0305630-01	0	0.1	0.122	122.0%	4.0%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004510-05		0.1	0.102	102.0%	
Benzene-mg/kg		0004551-05		0.1	0.111	111.0%	
Toluene-mg/kg		0004510-05		0.1	0.104	104.0%	
Toluene-mg/kg		0004551-05		0.1	0.111	111.0%	
Ethylbenzene-mg/kg		0004510-05		0.1	0.096	96.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0305607

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	SOIL						
TOTAL, C6-C35-mg/kg		0004515-02			<10.0		
CONTROL		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	SOIL						
TOTAL, C6-C35-mg/kg		0004515-03		952	760	79.8%	
CONTROL DUP		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	SOIL						
TOTAL, C6-C35-mg/kg		0004515-04		952	1000	105.%	27.3%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	SOIL						
TOTAL, C6-C35-mg/kg		0004515-05		1000	850	85.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305607

<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Ethylbenzene-mg/kg		0004551-05		0.1	0.120	120.0%	
p/m-Xylene-mg/kg		0004510-05		0.2	0.214	107.0%	
p/m-Xylene-mg/kg		0004551-05		0.2	0.231	115.5%	
o-Xylene-mg/kg		0004510-05		0.1	0.097	97.0%	
o-Xylene-mg/kg		0004551-05		0.1	0.114	114.0%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0305607

Project: Duke Energy Field Services

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

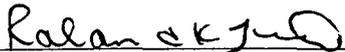
SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
C (3')	0305607-01	SOIL	01/31/2003	01/31/2003
C (8')	0305607-02	SOIL	01/31/2003	01/31/2003
C (15')	0305607-03	SOIL	01/31/2003	01/31/2003
D (18')	0305607-04	SOIL	01/31/2003	01/31/2003
Exc. Soil	0305607-05	SOIL	01/31/2003	01/31/2003

Surrogate recoveries are outside control limits due to matrix interference from coeluting compounds. BTEX (0305607-01 & 02)

Surrogate recoveries are outside the control limits because they were diluted out. 1005 (0305607-01, -05)

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By:


Environmental Lab of Texas I, Ltd.

Date:

2-07-03

C-23 (#2)

ANALYTICAL REPORT

Prepared for:

**GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708**

Project: Duke Energy Field Services
PO#: V-106
Order#: G0305669
Report Date: 02/11/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0305669
Project: V-106
Project Name: Duke Energy Field Services
Location: C-23 (Site #2)

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305669-01	E (8')	SOIL	2/7/03 8:30	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-02	F (8')	SOIL	2/7/03 8:35	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-03	G (8')	SOIL	2/7/03 8:40	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-04	H (8')	SOIL	2/7/03 8:45	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
 TRIDENT ENVIRONMENTAL
 P.O. BOX 7624
 MIDLAND, TX 79708

Order#: G0305669
 Project: V-106
 Project Name: Duke Energy Field Services
 Location: C-23 (Site #2)

Lab ID: 0305669-01
 Sample ID: E (8')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CDH	8015M
		2/10/03	1	1		

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	93%	70	130

Lab ID: 0305669-02
 Sample ID: F (8')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CDH	8015M
		2/10/03	1	1		

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	94%	70	130
1-Chlorooctadecane	93%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
 TRIDENT ENVIRONMENTAL
 P.O. BOX 7624
 MIDLAND, TX 79708

Order#: G0305669
 Project: V-106
 Project Name: Duke Energy Field Services
 Location: C-23 (Site #2)

Lab ID: 0305669-03
 Sample ID: G (8')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		2/10/03	1	1	CDH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	94%	70	130

Lab ID: 0305669-04
 Sample ID: H (8')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		2/10/03	1	1	CDH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	99%	70	130

Approval: *Raland K Tuttle* 2-11-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0305669

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004576-02			<10.0		
TOTAL, C6-C35-mg/kg		0004583-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305663-01	0	952	989	103.9%	
TOTAL, C6-C35-mg/kg		0305670-01	0	1073.86	935	87.1%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305663-01	0	952	998	104.8%	0.9%
TOTAL, C6-C35-mg/kg		0305670-01	0	1073.86	949	88.4%	1.5%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004576-05		1000	1060	106.0%	
TOTAL, C6-C35-mg/kg		0004583-05		952	909	95.5%	

Trident Environmental
 P.O. Box 7624
 Midland, Texas 79708
 (915) 682-0808
 (915) 689-4578 (Fax)



V-106-C-23-2-3

Chain of Custody

Date 2-7-03 Page 1 of 1

Lab Name: Environmental Lab of Texas, Inc.
 Address: 12600 West I-20 East
 Odessa, TX 79763
 Telephone: (915) 563-1800 Fax: (915) 563-1713

Signatures (SIGNATURES)

[Signature]

Sample Identification	Matrix	Date	Time
E(8')	Soil	2-7-03	0830
F(8')	Soil	2-7-03	0835
G(8')	Soil	2-7-03	0840
H(8')	Soil	2-7-03	0845

Analysis Request													Sample Receipt			
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	TCLP Metals	Number of Containers		
								✓	✓							
								✓	✓							
								✓	✓							
								✓	✓							

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental (Printed Name) Gil Van Deventer (Signature) 2-7-03 (Date)		
Received By: (1) (Company) EECT (Signature) RALAND K. TALLE (Signature) 2-7-03 (Date)	Received By: (2) (Company)	Received By: (3) (Company)
Lab No.:		

Project Information
 Project Name: Duke Energy Field Services
 Project Location: C-23 (Site#2)
 Project Manager: Gil Van Deventer
 Cost Center No.: V-106
 Shipping ID No.:
 Bill to (see below): Duke Energy Field Services
 Special Instructions: Attn: Steve Weathers
 POBox 5493
 Denver, CO 80217

ATTACHMENT C

FIELD BOOK NOTES

C-23 (H2) 17

On site at 2:30 pm to collect floor sample beneath C-23 line below connection to 4" steel line (C-23-4) and a sample from the southeast wall beneath the C-23-4 line.



Time	OVM
F(9')	46
G(5')	56

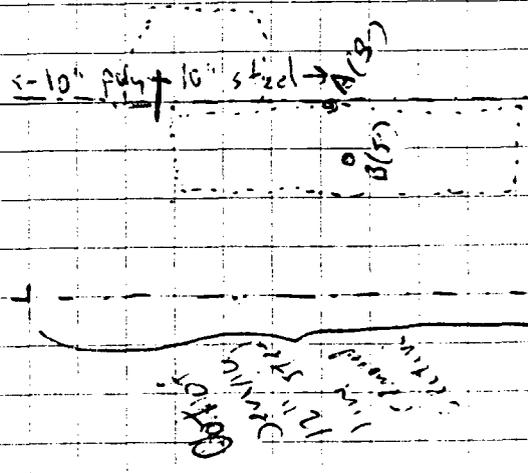
Calibrated OVM 98 ppm prior to sampling
 98 ppm after sampling

GP Van Dine

C-23 (H2) 0

1200 C-23 (H2) Site

Backfilled soil was moved inside for access. Not much excavation was done at this point at this deposit appear to be much contamination (no dark stained soil) however top sand dune soil has strong odor (yeast smell) light gray color.



A(3) 1 ppm
 B(5) 0
 Backfill 0
 Exc Se 10

GP Van Dine

C-23 (H2) 2

1-30-03 C-23 (#2)

At the Received Lab results on Monday (1-27-03) and all samples A, B, Exc Soil, & Backfill had GRV & DRV less than 10 mg/kg. Paul Sheeley (OCD) that hole was clean and we intended to back fill ~~Wed~~ ^{Thurs} afternoon. Since excavation appeared clean, Paul Sheeley approved back filling and was on site Wed afternoon. However, later in afternoon, Mike found some dark hydrocarbon stained soil further east. So I notified Steve W. & Paul Sheeley again that we would resume excavating/delineating on Friday morning.

Bill Van Dukt

1-31-02 C-23 (#2)

0700-0900 Drive Midland to C-23 (#2) site
103 miles

0900 - Observed excav. trail, took photos. Observed source of leak to be from directly beneath a steel/rubber clamp. Size of impacted area does not appear very large or deep. Collected two samples C(3') & C(8') directly beneath clamp where highest observed staining was observed.

Sample ID	Time	OUM
C(3')	0930	211 ppm
C(8')	0935	57 ppm

OUM calibration
Initial reading 26 ppm of calib gas
100 ppm after calibration, before sampling
104 ppm after sampling

0940 ~~0940~~ Paul Sheeley & Larry Johnson arrived on site. Took photos and were satisfied with our work on project. Paul asked us to excavate further east which we intended to do. They left at 0955.

Bill Van Dukt

1-31-03 C-23 (#2)

Mile excavated deeper below clamp below bottom of observed contamination (15' below pipeline) so I could collect another bottom sample. Also collected another composite sample of excavated soil.
* Clamp is located 20 ft east of pipe line marker where 10" poly line from west is connected to 12" line which continues east.

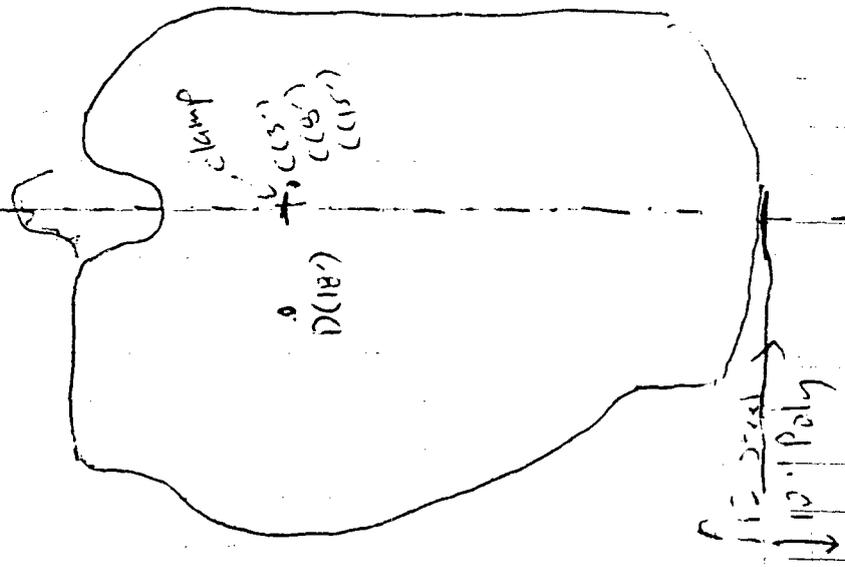
Sample ID	Time	QVM
C(15')	1005	212 ppm
Exc. Soil-2	1010	275 ppm
D(18')	1100	1 ppm

1130 MST Left site to deliver samples to Env. Lab of TX

Exc. Soil is being put in cell C-4

1-31-03

C-23 (#2)



2-7-03 C-23 (#2)

2-7-03

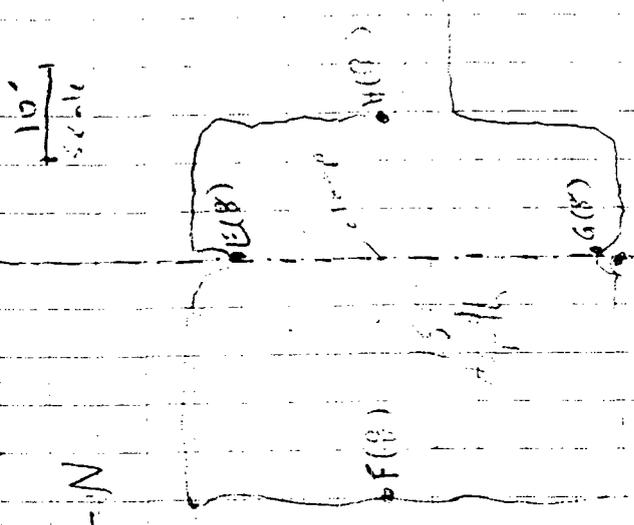
0600-0800 Drive Millard to site
Objective: collect closure samples.
Excavation is expected to be complete (pending analytical results of samples taken today. Crew has been busy on another site for another client (Phillips near Buckeye), so not much work done at this location until recently.

Equipment: PPE, camera, sampling tools, OUM

Weather: cold (25°F) light winds SE at 5-15 mph

Collected well samples E(B), G(B), directly below pipeline and F(B) & H(B) directly north & south of clamp, respectively.

OUM Calibration
106 ppm before sampling
102 ppm after sampling



Sample ID / Location	Time	OUM
E(B) East Well	0830	3.5
F(B) North Well	0831	2.6
G(B) South Well	0832	1.3
H(B) East Well	0835	1.3

Left side of page

2-11-02

C-23 (#2)

Received word from En. Lab. Tx (Balant) that all samples (C, F, G & H) were <10 mg/kg. GRS & DRU. E-mail Steve Weather & Paul Shockey that we ~~will~~ planned on backfilling excavation as early as Wednesday afternoon.

~~After~~

2-12-02

Received call from Steve Weather approving the backfill of C-23 (#2)

2-13-02

Received call from Roy Ruseon (Walter Coast) on okay to backfill. I requested to Roy that they minimize surface damage as much as possible. Roy will call tomorrow to let me know damages (sq ft) and amount of soil (yds) hauled to cell for C-23 (#1) side.

3-5-03

Received call from Roy:

Site #2

C-23 (#2)

Total 1172 yds³ hauled to cell C-4
170' x 180' - damaged

C-23 (Site #3)

Hauled 28 loads into cell C-1

Roy said that at C-23 (#3) they began excavating with a backhoe yesterday. Down to about 6' deep (20'-30' long). Had to remove old steel out-of-service pipe line which had a riser and a $\frac{3}{4}$ " hole (external corrosion).

No (excavating) activity scheduled for today, will resume tomorrow morning.