

1R - 427 - 30

REPORTS

DATE:

11-26-2003

EME F-1

1R0427-30

**FINAL
REPORT**

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	F-1	F	1	21S	35E	Lea	moved 80 ft north		

LAND TYPE: BLM _____ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 133 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 10/18/2003 Date Completed 11/24/2003 OCD Witness No

Soil Excavated 33 cubic yards Excavation Length 10 Width 10 Depth 9 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 11/19/2003 Sample Depth 9 ft bgs

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SIDEWALLS	0.0	<10.0	<10.0	640
BOTTOM	0.0	<10.0	<10.0	624
REMEDIAED	0.0	<10.0	<10.0	688

CHLORIDE FIELD TESTS

General Description of Remedial Action: This junction box was located 5 ft North of a production battery. Healthy vegetation surrounds the box and battery. The junction was delineated vertically and laterally with a backhoe and soil was tested regularly for chloride and hydrocarbon impact. Chloride concentrations exhibited vertical and lateral declines (see graphs). All PID readings were 0.0 at this site and lab results confirmed that TPH impact is nonexistent. The excavated soil from the 10 x 10 x 9-ft-deep hole was blended at the location and then backfilled. The disturbed surface is expected to naturally re-vegetate. The new water-tight junction box has been built 80 ft north of this location.

LOCATION	DEPTH (ft)	PPM
vertical @ jct.	5	754
	6	858
	7	828
	8	754
	9	655
	10	604
	11	446
	12	377
bottom comp.	9	504
4-wall comp.	n/a	625
remed. comp.	n/a	575

enclosures: chloride graphs, photos, lab results, diagram, PID readings

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 11/26/2003 PRINTED NAME Kristin Farris
SIGNATURE *Kristin Farris* TITLE Project Scientist

EME jct. F-1



Wooden Junction Box Before NORM Removal 7/25/2003



After Wood and NORM Removal 11/18/2003



10 x 10 x 9 ft Excavation 11/19/2003



New Junction Box Construction 80 ft North



Backfilled Excavation in Foreground
New Junction Box 80 ft North in Background

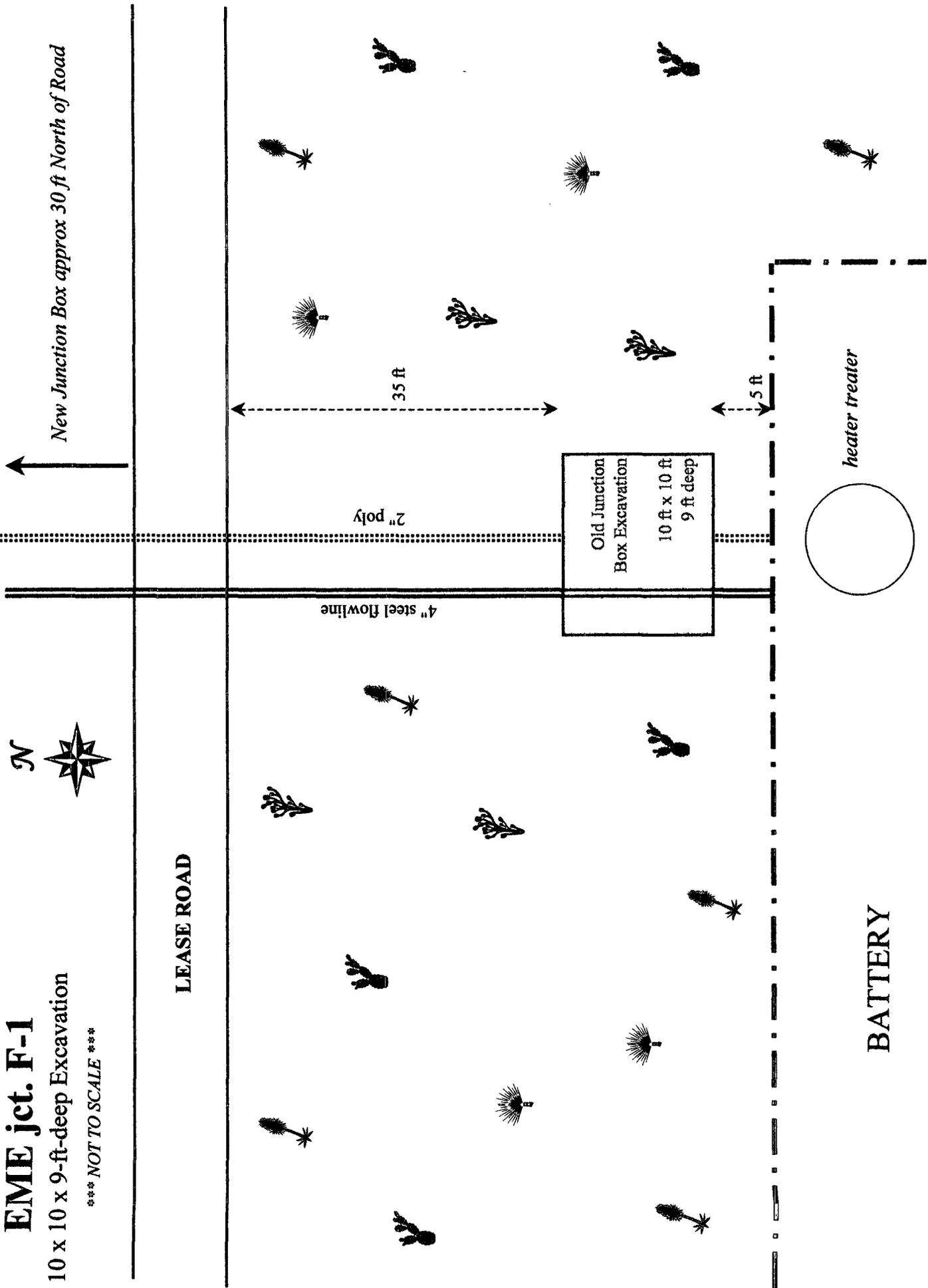
EME jct. F-1

10 x 10 x 9-ft-deep Excavation

*** NOT TO SCALE ***



New Junction Box approx 30 ft North of Road

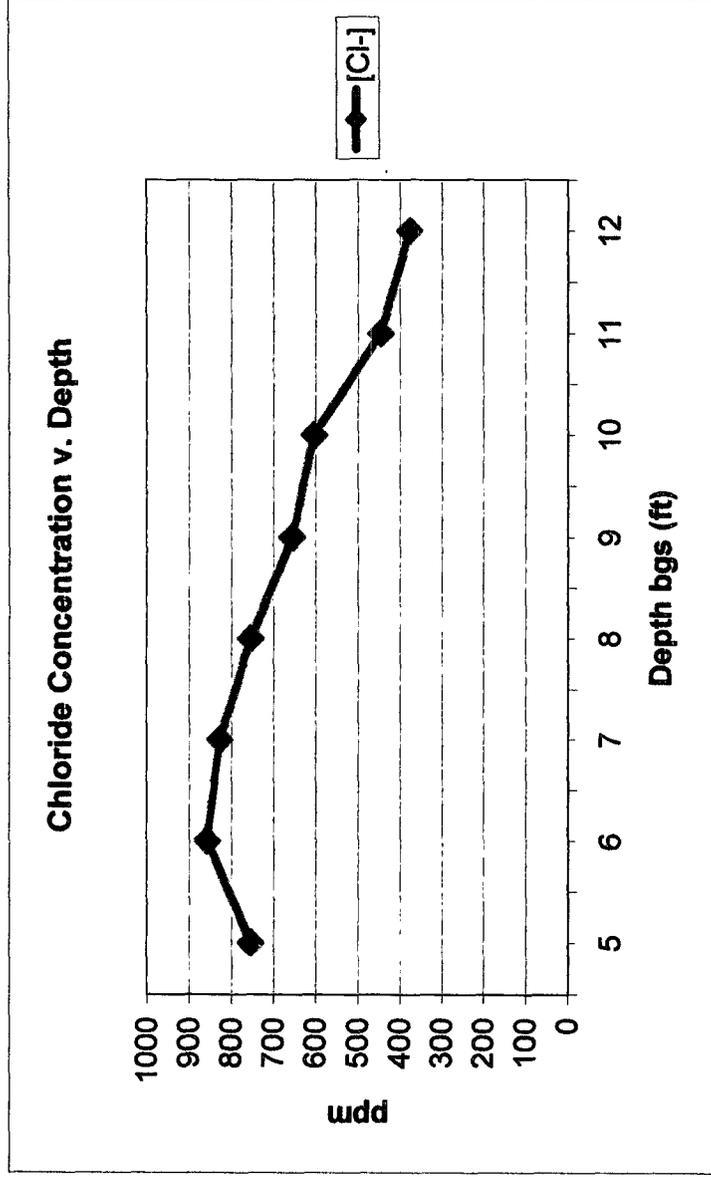


EME jct. F-1
T21S, R35E

Vertical Delineation at Source

Depth bgs (ft)	[Cl ⁻] ppm
5	754
6	858
7	828
8	754
9	655
10	604
11	446
12	377

Groundwater = 133 ft



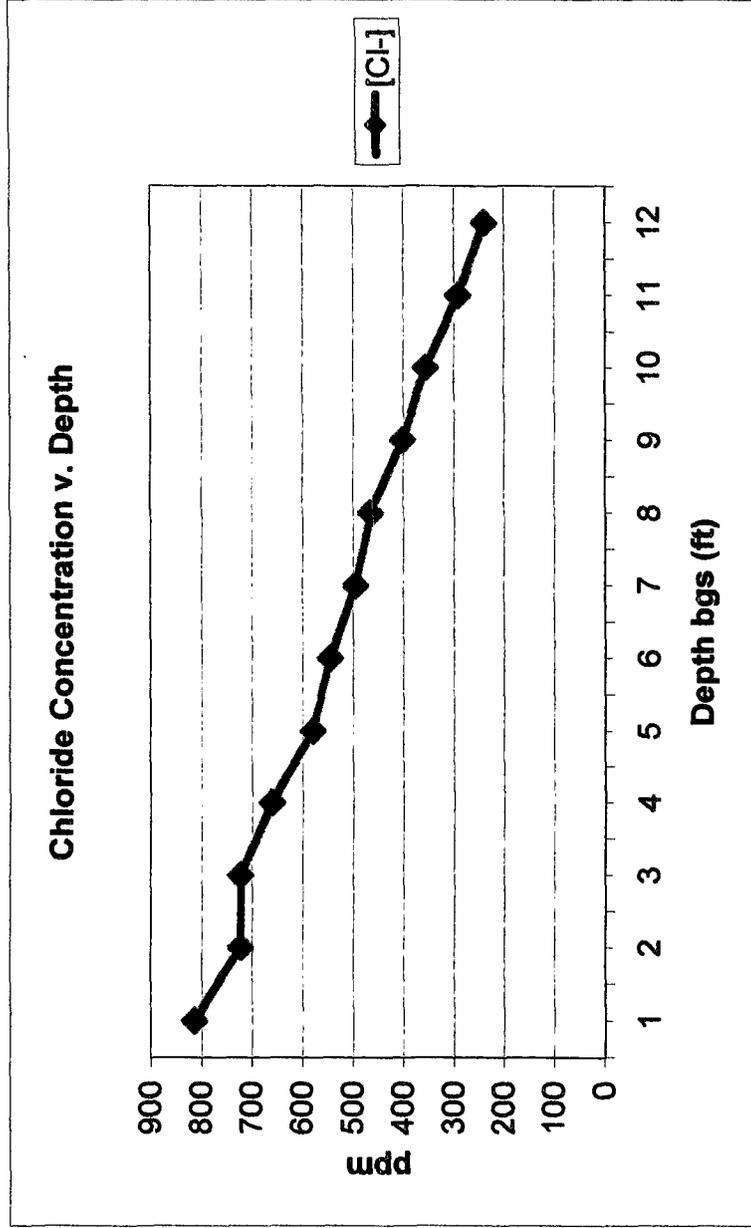
EME jct. F-1

T21S, R35E

10 ft North of Junction

Depth bgs (ft)	[Cl ⁻] ppm
1	815
2	723
3	723
4	661
5	580
6	546
7	495
8	465
9	402
10	356
11	292
12	239

Groundwater = 133 ft



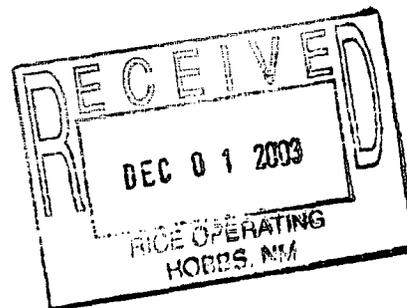


ARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
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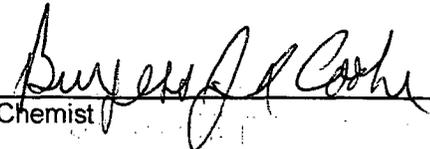
Receiving Date: 11/21/03
Reporting Date: 11/24/03
Project Number: NOT GIVEN
Project Name: EME F-1
Project Location: LEA CO., NM

Sampling Date: 11/19/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
	ANALYSIS DATE	11/21/03	11/21/03	11/21/03
H8195-1	BOTTOM 9'	<10.0	<10.0	624
H8195-2	REMEDIATED BACKFILL	<10.0	<10.0	688
H8195-3	4 WALL COMP.	<10.0	<10.0	640
	Quality Control	777	837	1000
	True Value QC	800	800	1000
	% Recovery	97.2	105	100
	Relative Percent Difference	7.3	6.1	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

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


Chemist

11/24/03
Date

H8195.XLS

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



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VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

100 PPM

GAS COMPOSITION: ISOBUTYLENE

BALANCE

AIR

LOT NO: 67401

FILL DATE: 11-19-03

EXP. DATE: 11/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.1

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EMIE	F-1	F	1	21	35

SAMPLE	PID RESULT	SAMPLE	PID RESULT
External		Composite	
5' North		10'x10'x9'	
9'	0.0	Remediated	
5' South		6'x10'x11'	0.0
9'	0.0		
5' West		bottom 9'	0.0
9'	0.0		
5' East		4 Well	0.0
9'	0.0		
	0.0	North Well	0.0
		South Well	0.0
		West Well	0.0
		East Well	0.0

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

11-19-03
Date