

**1R - 427 - 146**

---

# REPORTS

**DATE:**

8-25-04

---

EME Gullally "A" EOL

1R0427-146

**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	Gullully 'A' EOL	O	24	20S	36E	Lea	Eliminated		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER Dale Cooper Family Trust OTHER \_\_\_\_\_

Depth to Groundwater 36-117? feet NMOCD SITE ASSESSMENT RANKING SCORE: ? \*

Date Started 5/20/2004 Date Completed 6/16/2004 OCD Witness No

Soil Excavated 89 cubic yards Excavation Length 10 Width 20 Depth 12 feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 5/24/2004 Sample Depth 12 ft

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

**CHLORIDE FIELD TESTS**

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
3-WALL COMP.	XXX	<10.0	<10.0	213
BOTTOM	XXX	<10.0	<10.0	<20
REMEDIAED	XXX	<10.0	<10.0	85.1

LOCATION	DEPTH (ft)	ppm
Vertical	5	749
at box	6	809
	7	779
	8	539
	9	629
	10	539
	11	629
	12	479
15 ft West	6	1139
	7	1289
	8	1499
	9	1559
	10	1349
	11	1109
	12	929
3-wall comp.	n/a	599
bottom comp.	12	149
remed. comp.	n/a	300

General Description of Remedial Action: This end-of-line (EOL) box was located west of an active production facility. Delineation and excavation were performed with a backhoe as chloride tests and PID readings were conducted at regular intervals. The source at the box yielded a conclusive trend of declination to a depth of 12 ft BGS (see graph), indicative of non-saturated conditions in the vadose zone below the box. All PID field screenings were 0.0 ppm and lab results confirmed TPH concentrations well below NMOCD guidelines. The excavated soil from the 10 x 20 x 12-ft deep hole was blended on site and then backfilled. The disturbed surface was contoured and seeded with a blend of native vegetation. This EOL has been eliminated with a new pipeline re-plumbed straight through. No excavation was conducted east of the box due to proximity of the battery.

\* Depth to groundwater here is ambiguous. USGS maps indicate that the site is located on a hydrogeologic boundary north of which groundwater is around 36 ft but is 117 ft to the south.

enclosures: chloride graphs, photos, lab results, PID field screenings, groundwater map

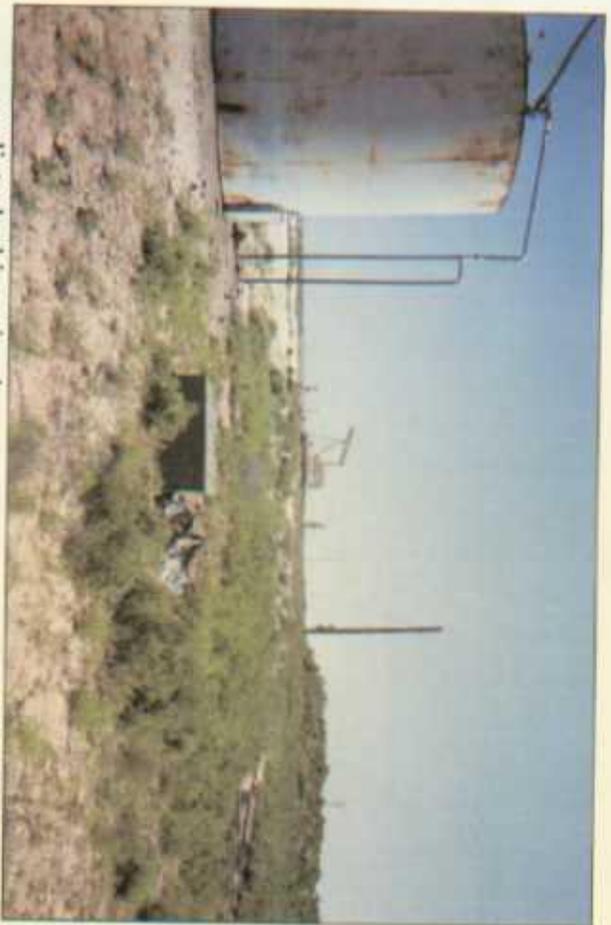
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SITE SUPERVISOR Rob Elam SIGNATURE *Rob Elam* COMPANY Curt's Environmental—Odessa, TX

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE *Kristin Farris Pope*  
DATE 8/25/2004 TITLE Project Scientist

# EME Gullyully 'A' EOL

unit 'O', sec. 24, T20S, R36E



undisturbed junction box

1/12/2004



final excavation

5/24/2004



backfilling excavation

6/16/2004



seeding backfilled site

8/4/2004

**CHLORIDE CONCENTRATION CURVE**

**RICE Operating Company**

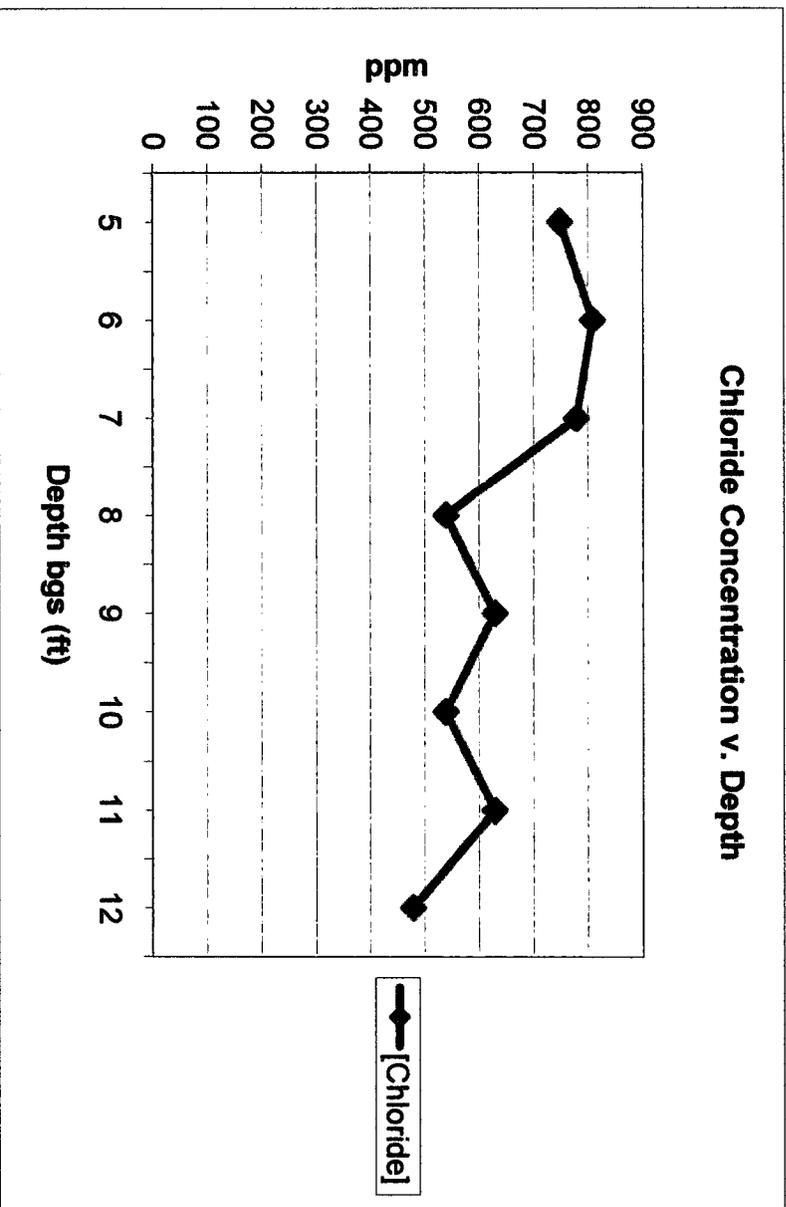
**EME Gully 'A' FOL**

Unit 'O', Sec. 24, T20S, R36E

*Vertical Delineation at Source*

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
5	749
6	809
7	779
8	539
9	629
10	539
11	629
12	479

Depth to groundwater here is ambiguous. USGS maps indicate that the site is located on a hydrogeologic boundary line to the north of which groundwater depth is ~36 ft and 117 ft to the south.



**CHLORIDE CONCENTRATION CURVE**

**RICE Operating Company**

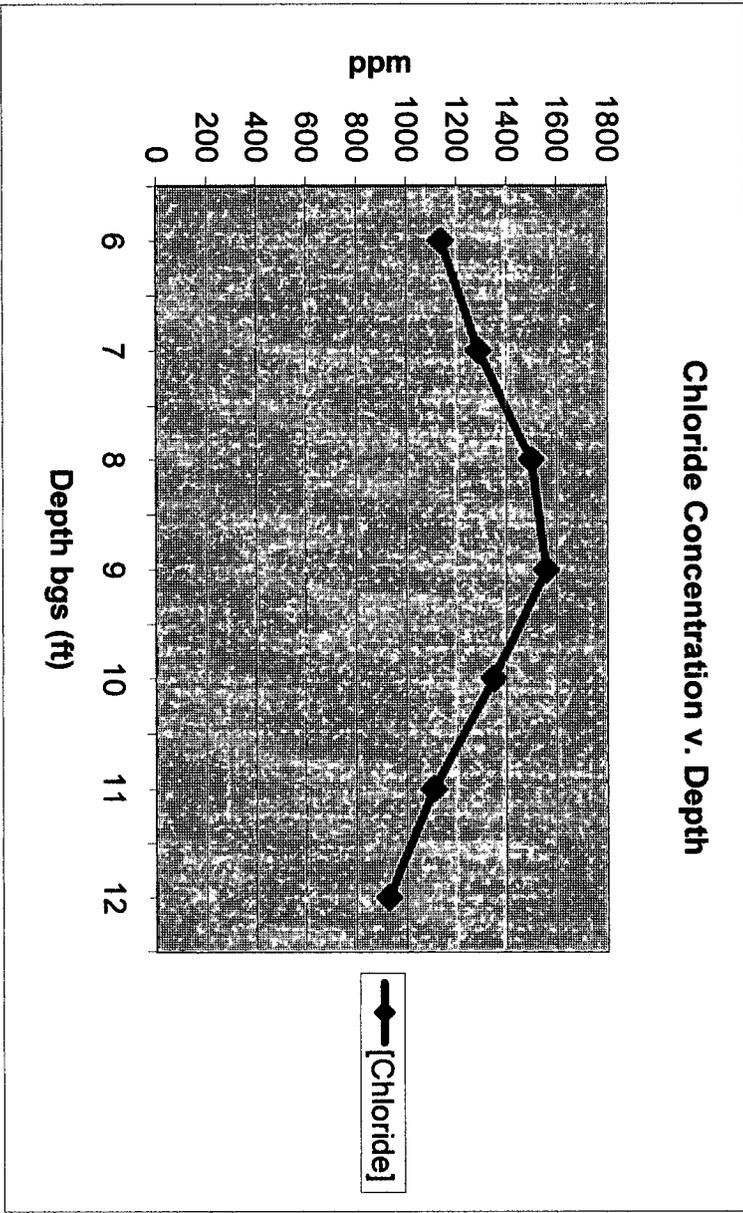
**EME Gully 'A' EOL**

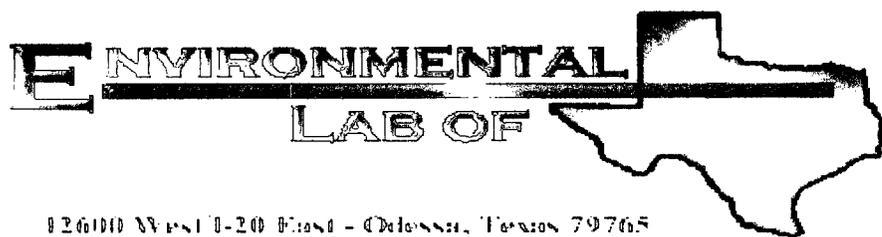
Unit 'O', Sec. 24, T20S, R36E

*15 ft West of box*

Depth bgs (ft)	Cl <sup>-</sup> ppm
6	1139
7	1289
8	1499
9	1559
10	1349
11	1109
12	929

Depth to groundwater here is ambiguous. USGS maps indicate that the site is located on a hydrogeologic boundary line to the north of which groundwater depth is ~36 ft and 117 ft to the south.





826110 West I-20 Blvd - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Kristin Farris  
Rice Operating Co.  
122 W. Taylor  
Hobbs, NM 88240

Project: Gullully 'A' EOL  
Project Number: None Given  
Location: EME

Lab Order Number: 4E25003

Report Date: 05/28/04

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: Gullully 'A' EOL  
Project Number: None Given  
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:  
05/28/04 10:46

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Wall Composite	4E25003-01	Soil	05/24/04 11:30	05/25/04 08:05
12' Bottom Composite	4E25003-02	Soil	05/24/04 13:30	05/25/04 08:05
Stockpile	4E25003-03	Soil	05/24/04 16:00	05/25/04 08:05

Rice Operating Co. 122 W. Taylor Hobbs NM, 88240	Project: Gullully 'A' EOL Project Number: None Given Project Manager: Kristin Farris	Fax: (505) 397-1471  Reported: 05/28/04 10:46
--	--	--

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Wall Composite (4E25003-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE42503	05/25/04	05/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		90.4 %	70-130		"	"	"	"	
<b>12' Bottom Composite (4E25003-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE42503	05/25/04	05/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		87.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		91.0 %	70-130		"	"	"	"	
<b>Stockpile (4E25003-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE42503	05/25/04	05/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		77.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		80.6 %	70-130		"	"	"	"	

Environmental Lab of Texas

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

*Roland K. Smith*

Quality Assurance Review

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: Gullully 'A' EOL  
Project Number: None Given  
Project Manager: Kristin Farris

Fax: (505) 397-1471  
Reported:  
05/28/04 10:46

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Wall Composite (4E25003-01) Soil</b>									
Chloride	213	20.0	mg/kg Wet	2	EE42609	05/26/04	05/26/04	SW 846 9253	
% Solids	77.0		%	1	EE42605	05/25/04	05/25/04	% calculation	
<b>12' Bottom Composite (4E25003-02) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EE42609	05/26/04	05/26/04	SW 846 9253	
% Solids	90.0		%	1	EE42605	05/25/04	05/25/04	% calculation	
<b>Stockpile (4E25003-03) Soil</b>									
Chloride	85.1	20.0	mg/kg Wet	2	EE42609	05/26/04	05/26/04	SW 846 9253	
% Solids	99.0		%	1	EE42605	05/25/04	05/25/04	% calculation	

Environmental Lab of Texas

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

*Roland K. Smith*

Quality Assurance Review

Page 3 of 6

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: Gullully 'A' EOL  
Project Number: None Given  
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:  
05/28/04 10:46

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
<b>Batch EE42503 - Solvent Extraction (GC)</b>									
<b>Blank (EE42503-BLK1)</b>					Prepared & Analyzed: 05/25/04				
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet						
Diesel Range Organics >C12-C35	ND	10.0	"						
Total Hydrocarbon C6-C35	ND	10.0	"						
Surrogate: 1-Chlorooctane	43.3		mg/kg	50.0		86.6	70-130		
Surrogate: 1-Chlorooctadecane	43.4		"	50.0		86.8	70-130		
<b>LCS (EE42503-BS1)</b>					Prepared & Analyzed: 05/25/04				
Gasoline Range Organics C6-C12	417		mg/kg	500		83.4	75-125		
Diesel Range Organics >C12-C35	448		"	500		89.6	75-125		
Total Hydrocarbon C6-C35	865		"	1000		86.5	75-125		
Surrogate: 1-Chlorooctane	47.5		"	50.0		95.0	70-130		
Surrogate: 1-Chlorooctadecane	35.9		"	50.0		71.8	70-130		
<b>Calibration Check (EE42503-CCV1)</b>					Prepared: 05/25/04 Analyzed: 05/27/04				
Gasoline Range Organics C6-C12	403		mg/kg	500		80.6	80-120		
Diesel Range Organics >C12-C35	479		"	500		95.8	80-120		
Total Hydrocarbon C6-C35	882		"	1000		88.2	80-120		
Surrogate: 1-Chlorooctane	55.9		"	50.0		112	70-130		
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130		
<b>Matrix Spike (EE42503-MS1)</b>					Source: 4E25003-02 Prepared: 05/25/04 Analyzed: 05/26/04				
Gasoline Range Organics C6-C12	469	10.0	mg/kg dry	556	ND	84.4	75-125		
Diesel Range Organics >C12-C35	522	10.0	"	556	ND	93.9	75-125		
Total Hydrocarbon C6-C35	991	10.0	"	1110	ND	89.3	75-125		
Surrogate: 1-Chlorooctane	57.1		mg/kg	50.0		114	70-130		
Surrogate: 1-Chlorooctadecane	40.8		"	50.0		81.6	70-130		
<b>Matrix Spike Dup (EE42503-MSD1)</b>					Source: 4E25003-02 Prepared: 05/25/04 Analyzed: 05/26/04				
Gasoline Range Organics C6-C12	512	10.0	mg/kg dry	556	ND	92.1	75-125	8.77	20
Diesel Range Organics >C12-C35	539	10.0	"	556	ND	96.9	75-125	3.20	20
Total Hydrocarbon C6-C35	1050	10.0	"	1110	ND	94.6	75-125	5.78	20
Surrogate: 1-Chlorooctane	59.9		mg/kg	50.0		120	70-130		
Surrogate: 1-Chlorooctadecane	43.1		"	50.0		86.2	70-130		

Environmental Lab of Texas

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

*Roland K. Roberts*

Quality Assurance Review

Page 4 of 6

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: Gullully 'A' EOL  
Project Number: None Given  
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:  
05/28/04 10:46

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

---

Environmental Lab of Texas

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

*Roland Kristin*

Quality Assurance Review

Page 6 of 6

**RICE OPERATING COMPANY**  
 122 WEST TAYLOR  
 HOBBS, NEW MEXICO 88240  
 PHONE: (505) 393-9174 FAX: (505) 397-1471  
**VOC FIELD TEST REPORT FORM**  
 MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S  
 CALIBRATION GAS  
 GAS COMPOSITION: ISOBUTYLENE  
                                   AIR  
 LOT NO: 0-22-30  
 EXP. DATE: 11-20-04  
 METER READING  
 ACCURACY: 100.1

SERIAL NO: 104412  
 100 PPM  
 BALANCE  
 FILL DATE: 6-20-03  
 ACCURACY: 100-200

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	Occidental Gully A	0	24	20-S	36E

Source 5' West

SAMPLE	PID RESULT	SAMPLE	PID RESULT
5'	Q	5'	Q
6'	Q	6'	Q
7'	Q	7'	Q
8'	Q	8'	Q
9'	Q	9'	Q
10'	Q	10'	Q
11'	Q	11'	Q
12'	Q	12'	Q

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

Rob Elam  
 Signature

5-20-04  
 Date

RICE OPERATING COMPANY

122 WEST TAYLOR

HOBBS, NEW MEXICO 88240

PHONE: (505) 393-9174 FAX: (505) 397-1471

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 104412

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 0-22-30

FILL DATE: 6-20-03

EXP. DATE: 11-20-04

ACCURACY: + or - 2%

METER READING

ACCURACY: 100%

10' West

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	Occidental Gully A	0	24	20-S	36-E

10' West

15' West

SAMPLE	PID RESULT	SAMPLE	PID RESULT
5'	0		
6'	0	6'	0
7'	0	7'	0
8'	0	8'	0
9'	0	9'	0
10'	0	10'	0
11'	0	11'	0
12'	0	12'	0
13'	0		
14'	0		
15'	0		

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

Robt Chen  
Signature

5-20 & 5-21  
Date

**RICE OPERATING COMPANY**  
 122 WEST TAYLOR  
 HOBBS, NEW MEXICO 88240  
 PHONE: (505) 393-9174 FAX: (505) 397-1471  
**VOC FIELD TEST REPORT FORM**  
 MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S  
 CALIBRATION GAS  
 GAS COMPOSITION: ISOBUTYLENE  
                                   AIR  
 LOT NO: 0-22-30  
 EXP. DATE: 11-20-09  
 METER READING  
 ACCURACY: 100.1

SERIAL NO: 104412  
 100 PPM  
 BALANCE  
 FILL DATE: 6-20-03  
 ACCURACY: 400-290

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	Occidental Gullally A	0	24	20-S	36E

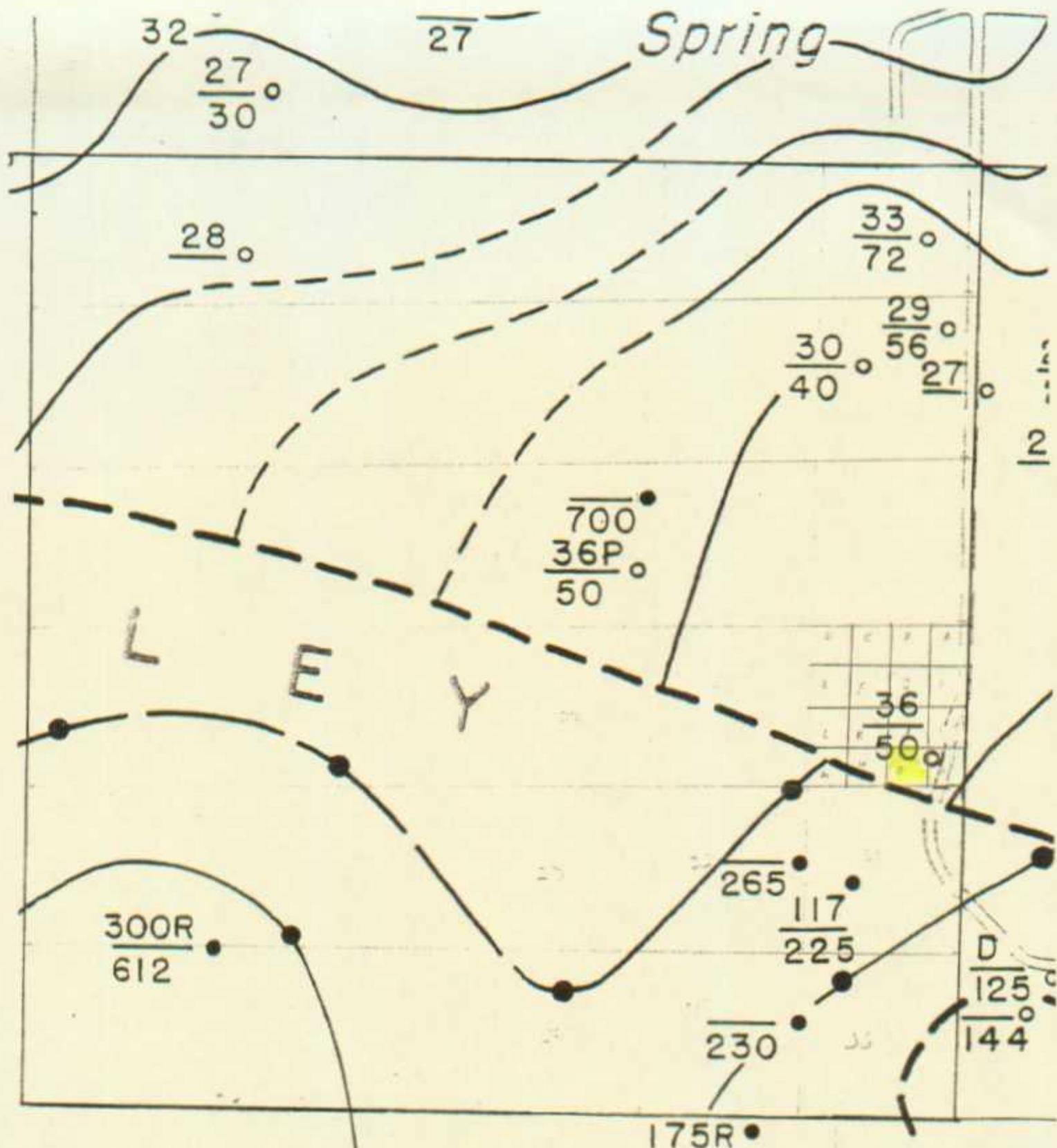
5' South

SAMPLE	PID RESULT	SAMPLE	PID RESULT
6'	0	6'	0
7'	0	7'	0
8'	0	8'	0
9'	0	9'	0
10'	0	10'	0
11'	0	11'	0
12'	0	12'	0
13'	0		
14'	0		
15'	0		

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

  
 \_\_\_\_\_  
 Signature

5-21-5-24  
 \_\_\_\_\_  
 Date



enlarged from Plate 2 "Groundwater Map of Southern  
Map Lea County, New Mexico"

from USGS book "Geology + Groundwater Conditions in Southern  
Lea County, New Mexico"

by Nicholson + Clebsch 1961