

1R - 426-92

REPORTS

DATE:

9/15/2004

BD Vent M-12

Ro 426-92

**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
BD	vent M-16	M	16	21S	37E	Lea	Moved 30 ft West		

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

Depth to Groundwater 72 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 3/29/2004 Date Completed 6/2/2004 OCD Witness No

Soil Excavated 222 cubic yards Excavation Length 25 Width 20 Depth 12 feet

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

FINAL ANALYTICAL RESULTS: Sample Date 3/31/2004 Sample Depth 12 ft

Procure 5-point composite sample of bottom and 4-point 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
SIDEWALLS	0.0	<10.0	<10.0	320
BOTTOM	0.0	<10.0	<10.0	400
REMEDIAED	0.0	<10.0	171	768
SOIL BORE @ 29 ft	3.3	<10.0	<10.0	144

LOCATION	DEPTH (ft)	ppm
Vertical	4	2523
at source	6	2463
	8	4913
	10	3296
	12	2220
	13	315
	14	350
	15	382
	16	293
soil bore	20	389
	25	276
	26	173
	27	200
	28	184
	29	78
4-wall comp.	n/a	356
bottom comp.	12	719
remed. backfill	n/a	861

General Description of Remedial Action: This junction box site was delineated using a backhoe while chloride field tests and PID field screenings were conducted at regular intervals. Chloride concentrations exhibited an inconclusive trend vertically to 16 ft BGS with elevated readings from 4-12 ft as an area of concern. All PID readings were minimal and TPH lab analysis confirmed concentrations well below NMOCD guidelines. A soil bore was initiated on 6/2/04 to investigate chloride concerns. A conclusive trend of decline was observed (see graph) and the bore was stopped at 30 ft BGS. The 20 x 25 x 12-ft-deep excavation was backfilled with the excavated soil that was landfarmed on site to 6 ft BGS. At 6 ft, a compacted clay barrier was installed and the remainder of the hole was backfilled and contoured to the surface. An identification plate has been set on the surface to identify the clay barrier below. The disturbed surface will be seeded with a blend of native vegetation and will be monitored for growth. A new watertight junction box has been built 30 ft west of this site.

enclosures: chloride graph, photos, lab results, PID field screenings, clay test, soil bore log, diagram

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

SITE SUPERVISOR Joe Gatts SIGNATURE *Joe Gatts* COMPANY RICE Operating Company

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE *Kristin Farris Pope*
DATE 9/15/2004 TITLE Project Scientist

BD M-16 vent



Box and connections removed 11/5/2003



Testing compacted clay at 6 ft 5/10/2004



Delineation & excavation

March 2004

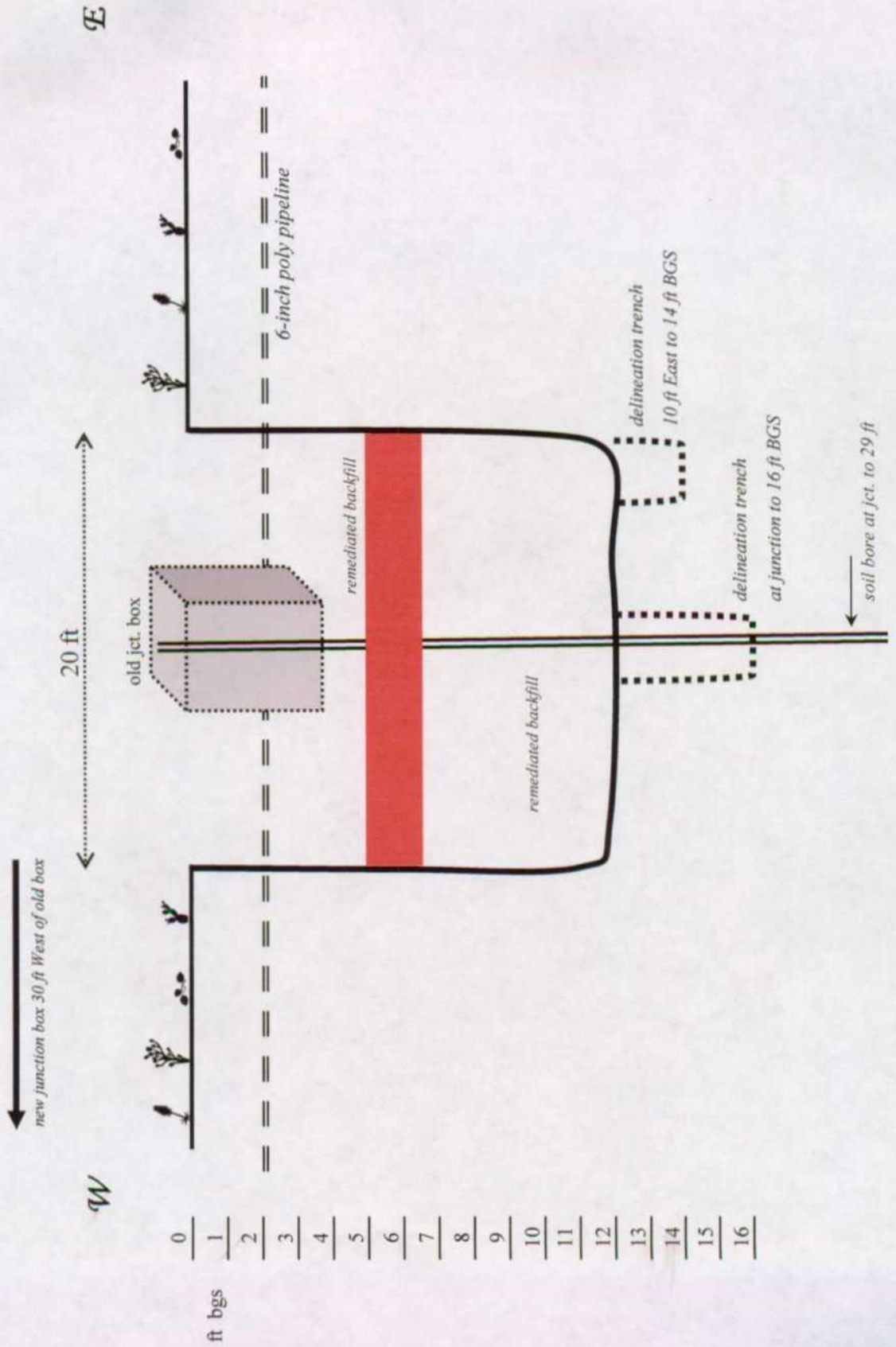
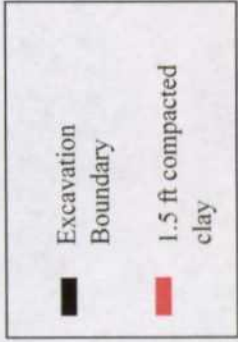


Soil bore at backfilled site (new box in background) 6/2/2004

BD M-16 vent

25 x 20 x 12-ft-deep

Excavation Cross-Section



BD M-16 vent

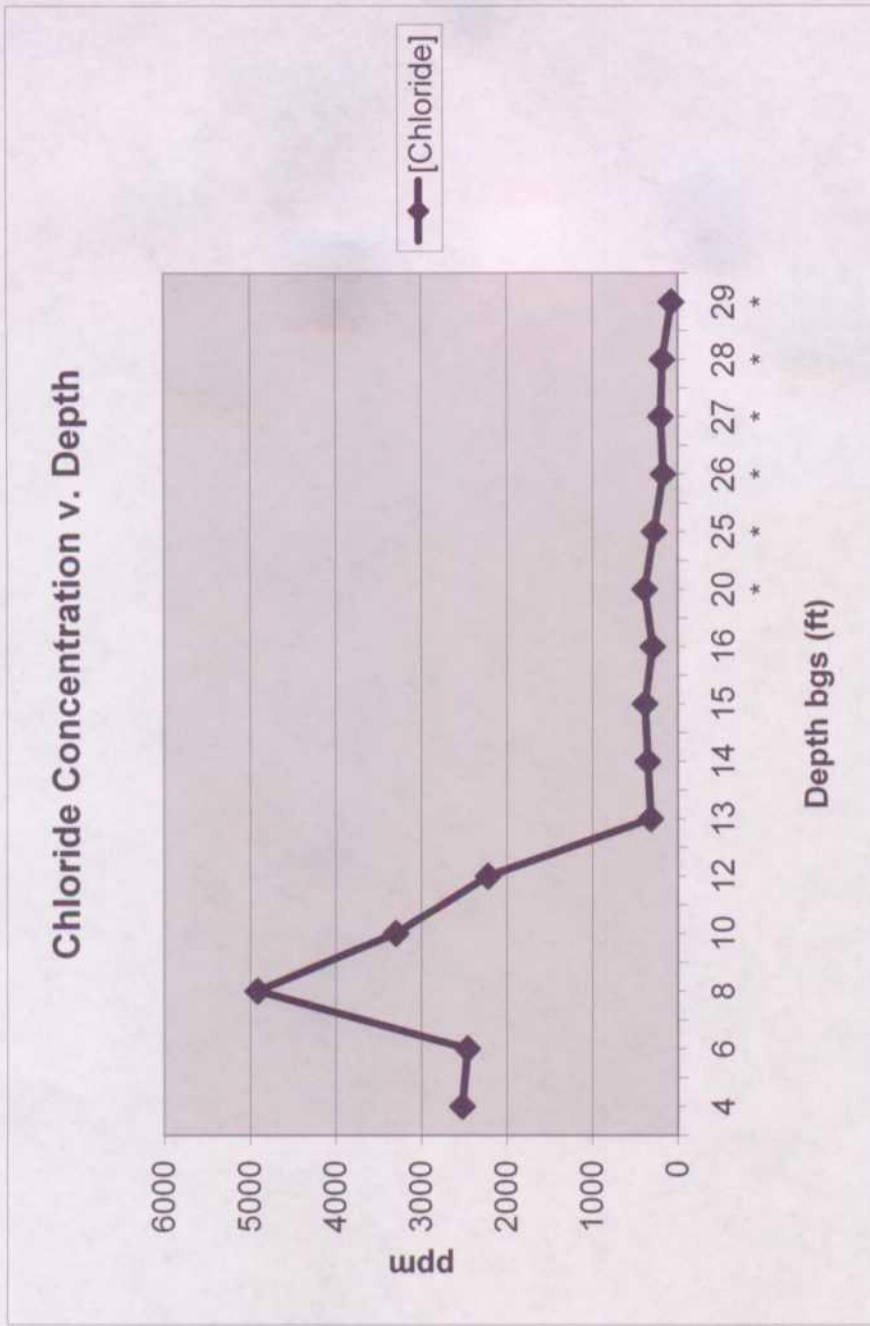
T21S, R37E

Vertical Delineation at Source

Depth bgs (ft)	[Cl ⁻] ppm
4	2523
6	2463
8	4913
10	3296
12	2220
13	315
14	350
15	382
16	293
20*	389
25*	276
26*	173
27*	200
28*	184
29*	78

* Soil bore samples

Groundwater = 72 ft



LOG OF BORING

K. Farris
RICE Operating Company

Logger:	Israel Juarez; Mort Bates	Client:	RICE Operating Company	Well ID: SB-1
Driller:	Atkins Engineering Associates, Inc.	Project Name:	BD M-16 vent	
Drilling Method:	Hollow Stem Auger	Location:	BD SWD System	
Start Date:	6/2/2004		Sec. 16, T21S, R37E	
End Date:	6/2/2004		Lea County, NM	
Notes:	At junction box TD = 30 ft Groundwater = 72 ft			

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes
	chloride	PID			
0.0					
1.0					
2.0					
3.0					
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0	389	5.9	0-15 ft CLAYEY SAND with CALICHE loose, tan, dry		
21.0					
22.0					
23.0					
24.0					
25.0	276	2.3	23-27 ft SILTY GRAVELS with CALICHE firm, white, dry		
26.0	173	4.4			
27.0	200	2.7			
28.0	184	6.0			
29.0	78	3.3	27-30 ft CLAYEY SAND loose, brown, dry		
30.0					

remainder of bore hole backfilled with drill cuttings

27-30 ft
hydrated
bentonite
seal

lab = 144 ppm Cl

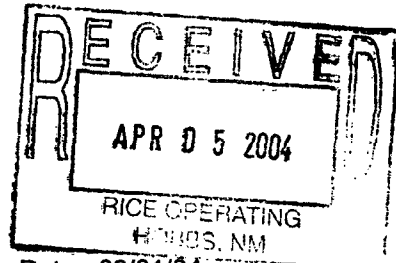


**ARDINAL
LABORATORIES**

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:



Receiving Date: 03/031/04
Reporting Date: 04/01/04
Project Number: NOT GIVEN
Project Name: M-16
Project Location: B-D

Sampling Date: 03/31/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER SAMPLE ID	GRO	DRO	Cl*
	(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)	(mg/Kg)
ANALYSIS DATE	04/01/04	04/01/04	04/01/04
H8582-1 BOTT. COMP. 12' BGS	<10.0	<10.0	400
H8582-2 4 WALL COMP.	<10.0	<10.0	320
H8582-3 REMD. BACKFILL	<10.0	171	768
Quality Control	834	823	1010
True Value QC	800	800	1000
% Recovery	104	103	101
Relative Percent Difference	7.9	3.6	3.0

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

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

Bryan R. Coche
Chemist

4/1/04
Date

H8582.XLS

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <i>Kyle Operations</i>		BILL TO		ANALYSIS REQUEST												
Project Manager: <i>Kenneth Ferriss</i>		P.O. #:														
Address: <i>122 W. Taylor</i>		Company:														
City: <i>Hobbs</i>		Attn:														
State: <i>NM</i>		Address:														
Zip: <i>88240</i>		City:														
Phone #: <i>393-9174</i>		State:														
Fax #:		Phone #:														
Project #:		Fax #:														
Project Name: <i>M-16</i>		Project Owner:														
Project Location: <i>B-D</i>																
Sampler Name: <i>J Coatts</i>																
FOR LAB USE ONLY																
Lab I.D.	Sample I.D.	# CONTAINERS	(G)RAB OR (C)OMP.	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER:	DATE	TIME		
<i>HE582-1</i>	<i>Batt. Comp 12' bgs</i>	<i>1</i>	<i>C</i>	<i>X</i>		<i>X</i>			<i>X</i>				<i>3/31</i>	<i>3:00</i>	<i>X</i>	
<i>-2</i>	<i>4 WAIL Comp</i>	<i>1</i>	<i>C</i>	<i>X</i>						<i>X</i>			<i>3/31</i>	<i>3:15</i>	<i>X</i>	
<i>-3</i>	<i>Round Backfill</i>	<i>1</i>	<i>C</i>	<i>X</i>						<i>X</i>			<i>3/31</i>	<i>3:15</i>	<i>X</i>	

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Terms and Conditions: Invoiced will be charged on all accounts more than 30 days past due at the rate of 2 1/2% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: *J Coatts*

Received By:
Date: *3/31/04*
Time: *4:00 P*

Relinquished By: *J Coatts*

Received By: (Lab Staff) *J Coatts*

Delivered By: (Circle One)
 Sampler - UPS Bus Other:

Checked By: *J Coatts* (Initials)

Sample Condition:
Cool Intact
Yes No

REMARKS:



**ARDINAL
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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 06/03/04
Reporting Date: 06/03/04
Project Number: NOT GIVEN
Project Name: BD M-16 @ 29'
Project Location: NOT GIVEN

Sampling Date: 06/01/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC/AH

LAB NO.	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
	ANALYSIS DATE	06/03/04	06/03/04	06/03/04
H8782-1	BD VENT M-16 @ 29'	<10.0	<10.0	144
	Quality Control	790	785	950
	True Value QC	800	800	1000
	% Recovery	98.8	98.2	95.0
	Relative Percent Difference	0.9	7.2	6.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl*: Std. Methods 4500-ClB
*Analysis performed on a 1:4 w:v aqueous extract.

Burgess A. Cooke
Chemist

6/3/04
Date

H8782.XLS

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

Company Name: <u>RICE Operating</u>		P.O. #:	
Project Manager: <u>Kristin Farris</u>		Company:	
Address: <u>182 W. Taylor</u>		Attn:	
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Address:	
Phone #: <u>(505) 393-9174</u> Fax #: <u>(505) 397-1471</u>		City:	
Project #: <u> </u>		State:	
Project Name: <u>BD M-16 @ 29'</u>		Phone #:	
Project Location:		Fax #:	
Sampler Name: <u>K. Farris</u>		Matrix	
FOR USE ONLY		PRESERV	
Lab I.D. <u>Sample I.D.</u>		SAMPLING	
Date: <u>11/28/04</u>		DATE: <u>6-2-04</u>	
Time: <u>14:30</u>		TIME: <u>2:25</u>	
Sampler Requisition #: <u> </u>		OTHER: <u> </u>	
Date: <u> </u>		CE/COOL <u> </u>	
Time: <u> </u>		ACID/ALK <u> </u>	
Date: <u> </u>		OTHER: <u> </u>	
Time: <u> </u>		SLUDGE <u> </u>	
Date: <u> </u>		GRADE OR <u> </u>	
Time: <u> </u>		SOIL <u> </u>	
Date: <u> </u>		WASTEWATER <u> </u>	
Time: <u> </u>		GROUNDWATER <u> </u>	
Date: <u> </u>		# CONTAINERS <u> </u>	
Time: <u> </u>		(G) RAB OR (COMP) <u> </u>	

Terms and Conditions: <u> </u>	
30 days past due at the rate of 15% per annum from the original date of invoice, and all costs of collection, including attorney's fee.	
Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	ADD'l Phone #:
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	ADD'l Fax #:
REMARKS:	
Received By: <u> </u>	
Date: <u> </u>	Time: <u> </u>
Date: <u>6/30/04</u>	Time: <u>14:30</u>
Relinquished By: <u>Kristin Farris</u>	Received By: (Lab Staff) <u> </u>
Date: <u>6/30/04</u>	Time: <u>14:30</u>
Delivered By: (Circle One)	Checked By: (Initials)
Sampler - UPS - Bus - Other:	Sample Condition
	Cool Intact
	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Yes <input type="checkbox"/> No <input type="checkbox"/>

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

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: 02-22-30

FILL DATE: 5/20/03

EXP. DATE: 11/20/04

ACCURACY: +0.2-270

METER READING

ACCURACY: 99.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
DD	M-16	M	16	21	37

SAMPLE	PID RESULT	SAMPLE	PID RESULT
N. WALL	0		
S. WALL	0		
E. WALL	0		
W. WALL	0		
WALL Comp	0		
Bott. Comp	0		
Remed.	0		

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


Signature

3/31/04
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: 02-2230

FILL DATE: 5-20-03

EXP. DATE: 11-20-04

ACCURACY: ± 2%

METER READING

ACCURACY: 99.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
BD	Vent M-16	M	16	21	37

SAMPLE	PID RESULT	SAMPLE	PID RESULT
20'	3 5.9		
25'	2.3		
26'	4.4		
27'	2.7		
28'	6.0		
29	3.3		

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

Israel Anwar
Signature

6/2/04
Date



LABORATORY TEST REPORT
PETTIGREW & ASSOCIATES, P.A.
1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827



DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS, III, P.E./P.S.

To: Rice Operating
Attn: Carolyn Haynes
122 W. Taylor
Hobbs, NM 88240

Material: Red Clay

Test Method: ASTM: D 2922

Project: BD M - 16

Date of Test: May 10, 2004

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	Pit - 10' W. & 5' S. of the NE Corner	97.5	19.6	

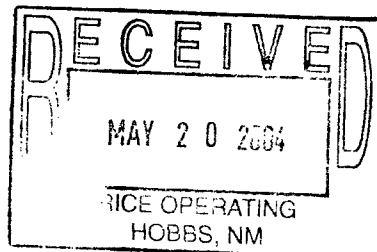
Control Density: 109.5
ASTM: D 698

Optimum Moisture: 16.6%

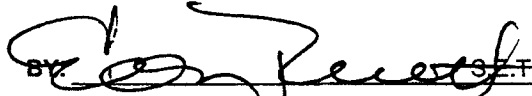
Required Compaction: 95%

Lab No.: 04 6433

Copies To: Rice



PETTIGREW & ASSOCIATES

BY:  P.E./L.S.I.