

1R - 426-252

REPORTS

DATE:

3-8-10

**BD O-36 EOL
2009**

1R426252

RECEIVED

U.S. DEPARTMENT OF
ENERGY
Environmental Energy
Oil Conservation Division

DISCLOSURE

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE REPORT

RECEIVED

APP - 6 2010

Environmental Bureau
Oil Conservation Division

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS, FEET	
							Length 6'	Width 7'
Blinebry-Drinkard (BD)	O-36 EOL	O	36	21S	36E	Lea	moved 40 ft west	

LAND TYPE: BLM STATE FEE LANDOWNER City of Eunice OTHER

Depth to Groundwater 134 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 3/2/2009 Date Completed 9/25/2009 OCD Witness no

Soil Excavated 133.3 cubic yards Excavation Length 30 Width 10 Depth 12 feet

Soil Disposed 108 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS: Sample Date 3/10/2009, 3/11/2009, 3/20/2009, 9/25/2009 Sample Depth 12 ft, 30 ft, 100 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 (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	64.5	<10.0	490	1,820
BOTTOM COMP.	8.5	<10.0	1,140	1,490
BLENDED BACKFILL	46.2	<10.0	817	1,060
BLENDED BACKFILL #2		<10.0	<10.0	48
SB #1 @ 30'	0.6	<10.0	<10.0	5,520
SB #1 @ 100'	0.3	<10.0	<10.0	160

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	1,600
bottom comp.	12'	1,095
blended backfill	n/a	1,121
background	6"	150
SOIL BORING at 15 ft southwest of the junction (9/25/2009)	15'	2,532
	18'	3,296
	21'	3,863
	24'	2,274
	27'	1,435
	30'	4,379
	33'	3,596
	36'	2,102
	39'	2,732
	42'	2,247
	45'	2,286
	48'	2,367
	51'	2,319
	54'	2,051
	57'	2,353
	60'	2,353
65'	2,519	
70'	2,282	
75'	2,057	
80'	2,356	
85'	1,539	
90'	286	
95'	1,829	
100'	195	

General Description of Remedial Action: This junction was eliminated during the pipeline replacement/upgrade program. After the former junction box was removed, an investigation was conducted using a backhoe to collect samples at regular intervals producing a 30x10x12-ft deep excavation. Chloride field tests performed on each sample yielded elevated concentrations. Organic vapors were measured using a PID which yielded generally low concentrations. The excavated soil was blended on site and representative composite samples were collected from the blended backfill, the bottom of the excavation, and the excavation walls. The representative samples were sent to a commercial laboratory for analysis of chloride and TPH. The excavated soil was blended on site and returned to the excavation up to 5 ft below ground surface(BGS). A 5-ft-deep shelf was excavated extending 5 ft out from the North, South, and West walls to prepare the surface for the clay barrier. At 5-4 ft BGS, a 1-ft thick clay barrier was installed with a compaction test performed on 3/18/2009. The remaining fill was used to backfill the excavation to ground surface and to contour to the surrounding area. An identification plate was placed on the surface at the former junction site to mark the presence of clay below. On 3/31/2009, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. A new, water-tight junction box was built 40 ft west of the former. To further investigate the depth of chloride presence, a soil bore was initiated on 9/25/2009 at 15 ft southwest of the former junction box. The boring was advanced to 100 ft BGS, while soil samples were collected every 3 feet from 15 to 60 ft BGS and every 5 ft from 60 to 100 ft BGS. Chloride field tests yielded elevated concentrations that did not sufficiently relent with depth. The 30 and 100 ft samples were sent to a commercial laboratory for analysis of chloride and TPH. The entire borehole was plugged with bentonite to the ground surface. NMOCD was notified of potential groundwater impact on 2/26/2010.

ADDITIONAL EVALUATION IS HIGH PRIORITY

enclosures: photos, boring log, lab results, PID (field) screening, cross-section, compaction test, chloride curve

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

SITE SUPERVISOR Eric Garrison SIGNATURE not available COMPANY RICE OPERATING COMPANY

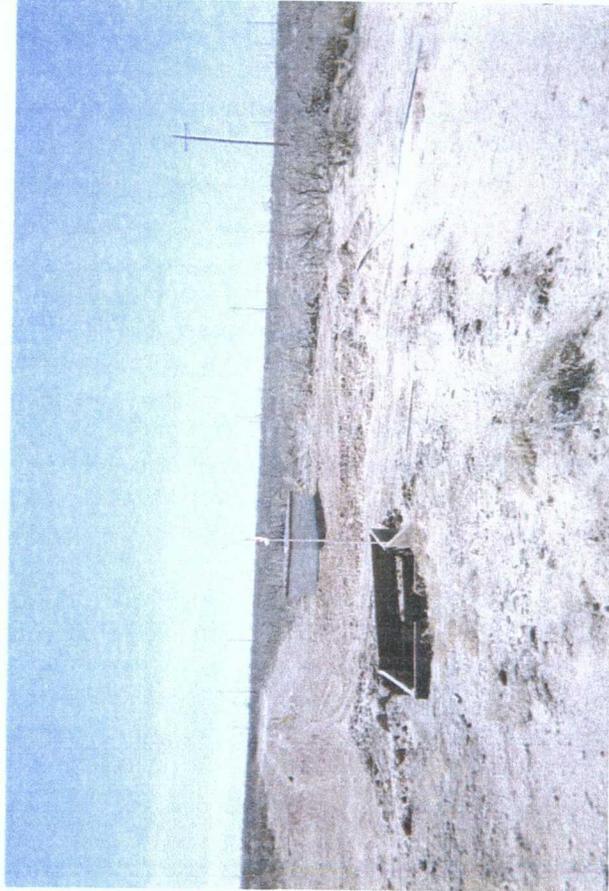
REPORT ASSEMBLED BY Katie Jones INITIAL KJ

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Baker Jr. DATE 3-8-10

"This site is a "DISCLOSURE." It will be placed on a prioritized list of similar sites for further consideration.

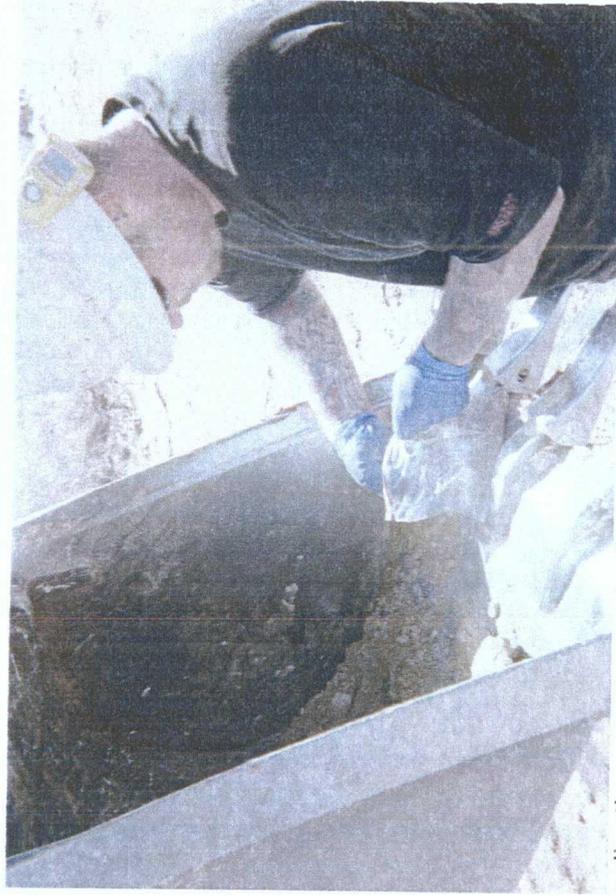
BD O-36 EOL

Unit O, Section 36, T21S, R36E



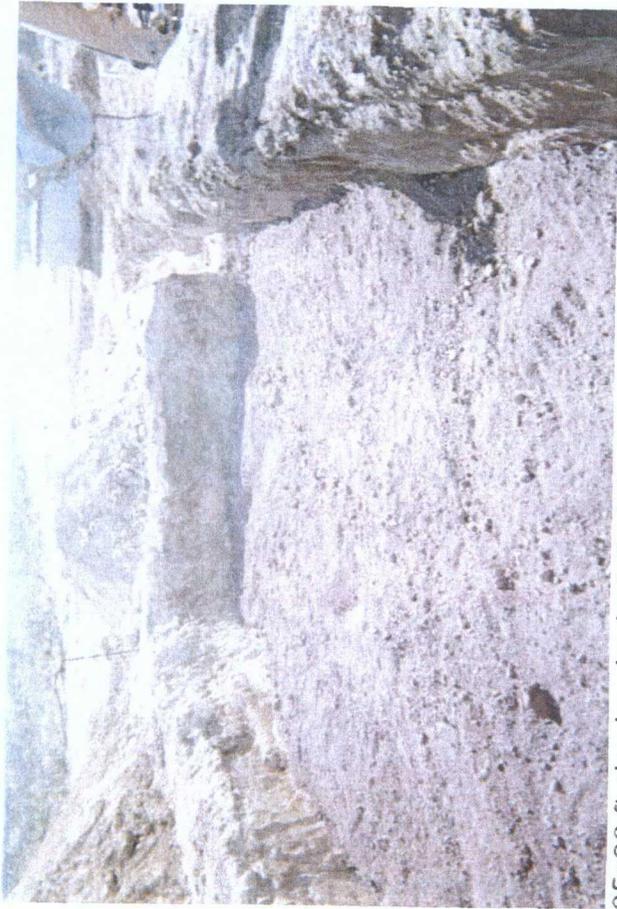
site prior to excavation with a new, watertight junction box 40 ft west

3/2/2009

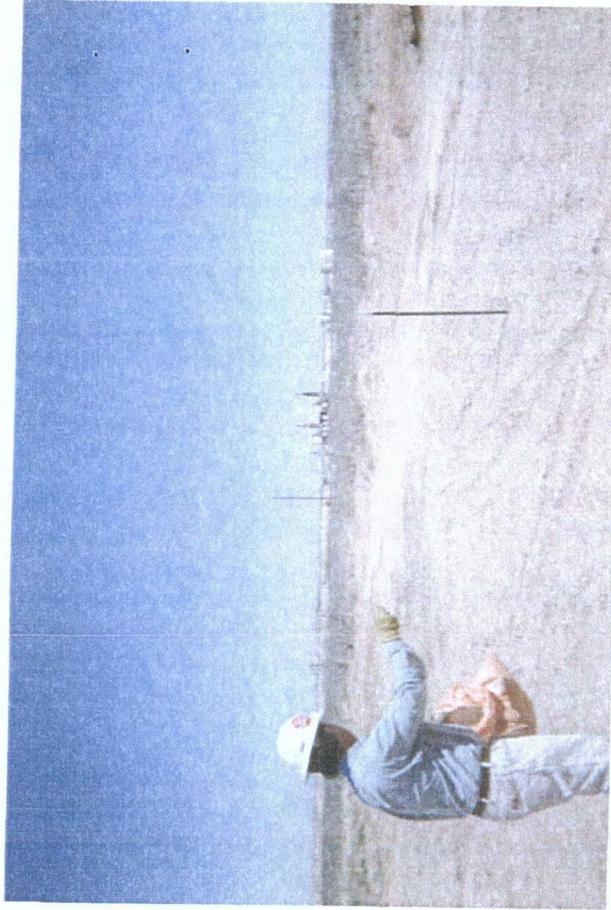


collecting a soil sample, facing west

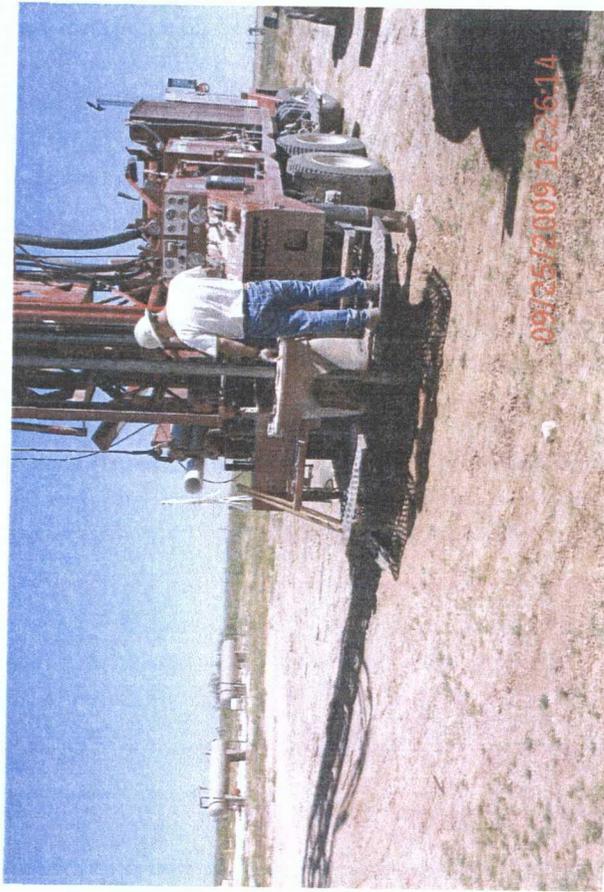
3/2/2009



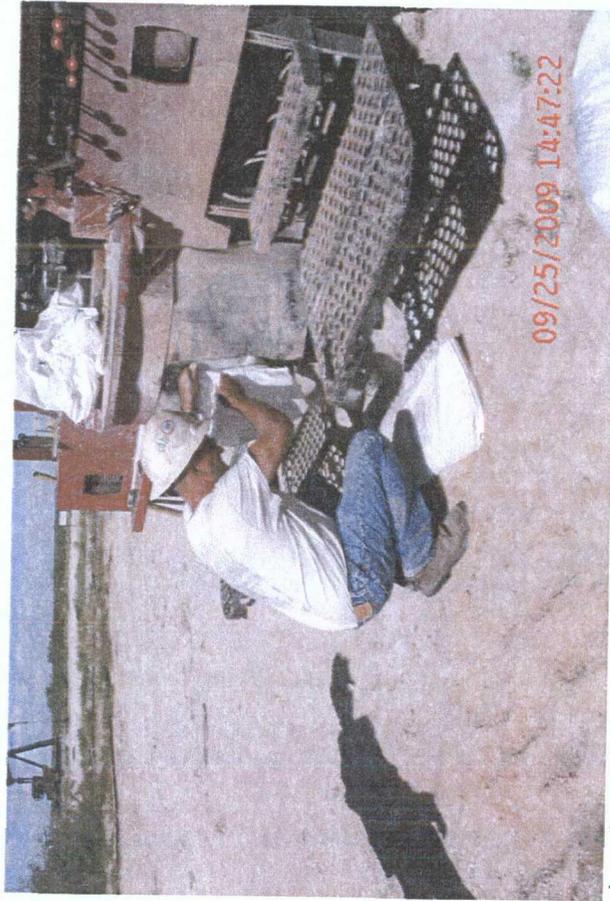
35x20 ft clay barrier installed, facing west 3/18/2009



seeding the backfilled site, facing east 3/31/2009



drilling SB #1 15 ft southwest of the former junction 9/25/2009



plugging SB #1 with bentonite 9/25/2009

Logger:	Lara Weinheimer
Driller:	Harrison & Cooper, Inc. Drilling
Consultant:	None - junction box upgrade plan
Drilling Method:	Air rotary
Start Date:	9/25/2009
End Date:	9/25/2009



Comments: All samples from cuttings; a hard sandstone layer existed at 96 - 99 feet.
 Located 15 feet south-west of the former junction box site.
 TD = 100 ft Estimated depth to GW = 134

Project Name: BD O-36 EOL **Well ID:** SB #1
Location: UL/O sec. 36 T21S R36E
Lat: N32°25'45.44" **County:** Lea
Long: W103°12'56.611" **State:** NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction		
				10 - 15 ft				
				VERY FINE TO FINE SAND WITH CALICHE orangey-brown, dry, no odor				
15	2532		0.6					
				15 - 18 ft				
				VERY FINE TO FINE SAND WITH CALICHE light orangey-brown, dry, no odor				
18	3296		0.4					
				18 - 21 ft				
				VERY FINE TO FINE SAND WITH CALICHE AND CONSOL. ROCK tan, dry, no odor				
21	3863		0.2					
				21 - 33 ft				
				VERY FINE TO FINE SAND WITH CONSOLIDATED ROCK light brown, dry, no odor				
24	2274		0.4					
				27			1435	
				30	4379	Cl- 5520 GRO <10.0 DRO <10.0	0.6	
				33	3596		0.5	
				33 - 36 ft				
				VERY FINE TO FINE SAND light reddish-brown, dry, no odor				
36	2102		0.3					

39	2732		0.4
42	2247		0.3
45	2286		0.4
48	2367		0.6
51	2319		0.4
54	2051		0.4
57	2353		0.3
60	2353		0.2
65	2519		0.6
70	2282		0.5
75	2057		0.6

36 - 48 ft
 VERY FINE TO FINE SAND
 WITH CONSOL. ROCK
 light reddish-brown, dry, no odor

48 - 60 ft
 VERY FINE TO FINE SAND
 WITH CONSOL. ROCK
 light orangey-brown, dry, no odor

60 - 65 ft
 VERY FINE TO FINE SAND WITH
 SANDSTONE
 light orangey-brown, dry, no odor

65 - 90 ft
 VERY FINE TO FINE SAND
 orangey-brown, slightly moist, no odor

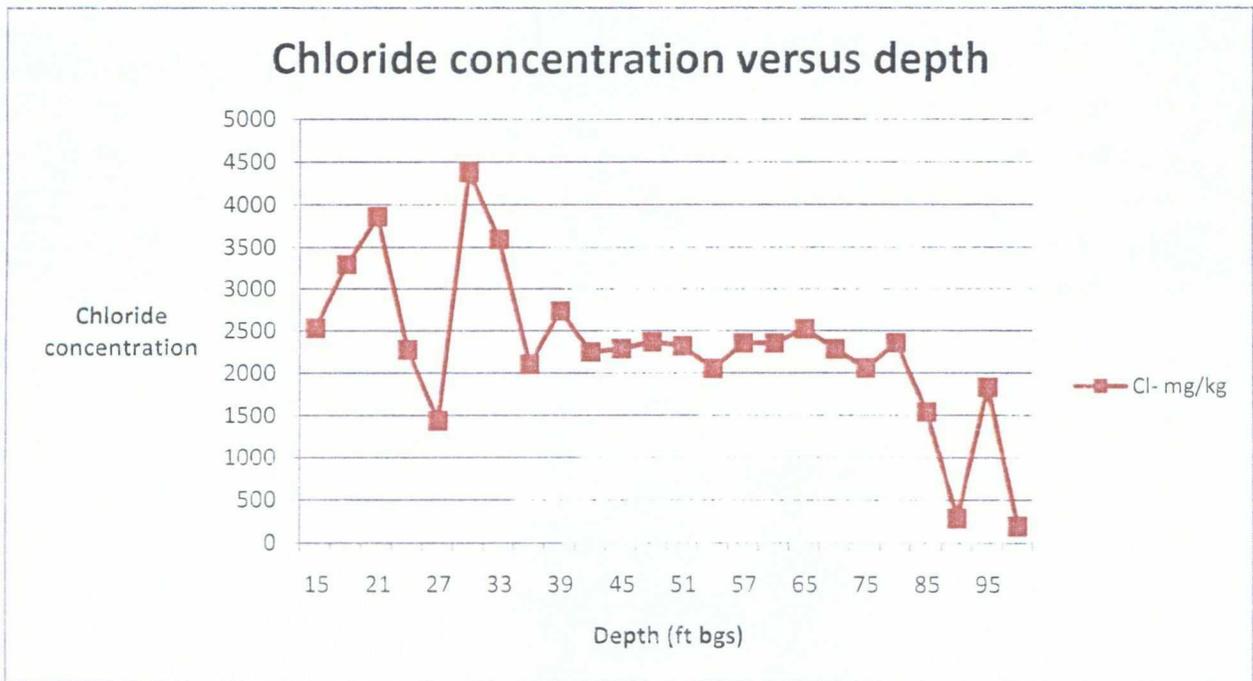
COPY



bentonite
 seal

80	2356		0.4	
85	1539		0.2	
90	286		0.4	
95	1829		0.1	
100	195	Cl- 160	0.3	
		GRO		
		<10.0		
		DRO		
		<10.0		

90 - 100 ft
VERY FINE TO FINE SAND WITH SANDSTONE
light brown, dry, no odor





ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 09/25/09
Reporting Date: 09/30/09
Project Owner: NOT GIVEN
Project Name: BD O-36 EOL
Project Location: BD O-36 EOL

Sampling Date: 09/25/09
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: AB
Analyzed By: AB/HM

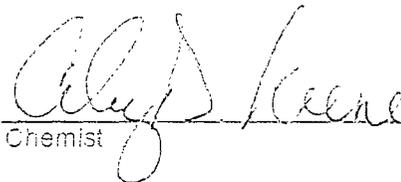
COPY

LAB NUMBER	SAMPLE ID	GRO (C ₅ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₅) (mg/kg)	Cl ⁻ (mg/kg)
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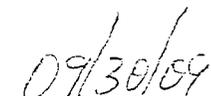
ANALYSIS DATE		09/29/09	09/29/09	09/27/09
H18341-1	SB #1 @ 30'	<10.0	<10.0	5,520
H18341-2	SB #1 @ 100'	<10.0	<10.0	160
Quality Control		490	514	500
True Value QC		500	500	500
% Recovery		98.0	103	100
Relative Percent Difference		1.8	0.6	<0.1

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

*Analyses performed on 1:4 w/v aqueous extracts. Reported on wet weight.



Chemist



Date

H18341 TOL RICE

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RICE OPERATING COMPANY

122 West Taylor ~ Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

CK	<input type="checkbox"/>
MODEL	<input checked="" type="checkbox"/>
NO.	<input type="checkbox"/>
	<input type="checkbox"/>

MODEL: PGM 7300	SERIAL NO: 590-000183
MODEL: PGM 7300	SERIAL NO: 590-000504
MODEL: PGM 7600	SERIAL NO: 110-12383
MODEL: PGM 7600	SERIAL NO: 110-02920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 924903	EXPIRATION DATE: 7-29-2012
FILL DATE: 7-30-09	METER READING ACCURACY: ± 1% 100.1 ppm

ACCURACY: +/- 2%

SYSTEM	SITE	URP	SECTION	TOWNSHIP	RANGE
BD	0-36 EOL	0	36	T21S	R36E

SAMPLE ID: soil 1.2.2 #1

DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
15'	0.6	45'	0.4	85'	0.2		
18'	0.4	48'	0.6	90'	0.4		
21'	0.2	51'	0.4	95'	0.1		
24'	0.4	54'	0.4	100'	0.3		
27'	0.7	57'	0.3				
DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
30'	0.6	60'	0.2				
33'	0.5	65'	0.6				
36'	0.3	70'	0.5				
39'	0.4	75'	0.6				
42'	0.3	80'	0.4				

I verify that I have calibrated the above instrument in accordance to the manufacturer's operation manual.

Signature [Signature]

Date 9-25-09

SITE MAP



ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 W. TAYLOR
HOBBS, NM 88240

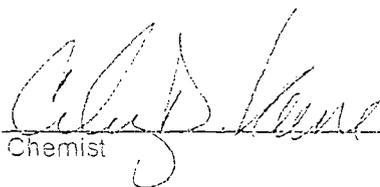
Receiving Date: 03/10/09
Reporting Date: 03/12/09
Project Number: NOT GIVEN
Project Name: BD O-36 EOL
Project Location: BD O-36 EOL

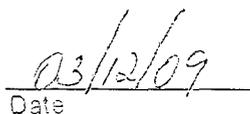
Sampling Date: 03/10/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB/TR

COPY

LAB NUMBER	SAMPLE ID	GRO	DRO	Cl*
		(C ₈ -C ₁₀) (mg/kg)	(>C ₁₀ -C ₂₈) (mg/kg)	(mg/kg)
	ANALYSIS DATE	03/11/09	03/11/09	03/11/09
H17047-1	5PT. BTM @ 12'	<10.0	1,140	1,490
H17047-2	4 WALL COMP @ 10'x30'	<10.0	490	1,820
	Quality Control	506	462	500
	True Value QC	500	500	500
	% Recovery	101	112	100
	Relative Percent Difference	3.2	5.9	<0.1

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


Chemist


Date

H17047 TCL RICE



CARDINAL LABORATORIES
 101 East Marland, Hobbs, NM 88240
 (575) 393-2325 Fax (575) 393-2476

BILL TO				ANALYSIS REQUEST			
P.O. #:							
Company:							
Attn:							
Address:							
City:							
State:							
Phone #:							
Fax #:							
Lab I.D. Sample ID	# CONTAINERS (G) RA3 OR (C)OMP	MATRIX		PRESERV.	SAMPLING	DATE	TIME
		GROUNDWATER	WASTEWATER				
H1097-1	1	WASTEWATER	WASTEWATER	1		3-10-07	2:33
H1097-2	1	WASTEWATER	WASTEWATER	1		3-10-07	3:39

COPY

BEGM TPA 70

Date: 3-10-07
 Time: 4:50
 Relinquished By: *M. J. Labat*
 Received By: *M. J. Labat*
 Date: _____
 Time: _____
 Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: _____
 Checked By: (initials) *MLB*

Phone Result: No Add'l Phone #:
 Fax Result: No Add'l Fax #:
 REMARKS:
Ruswats
B Bawser @ Rice suod.com
J Bawser @ Rice suod.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



**ARDINAL
LABORATORIES**

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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 03/11/09
Reporting Date: 03/16/09
Project Number: NOT GIVEN
Project Name: BD O-36 EOL
Project Location: BD O-36 EOL

COPY

Sampling Date: 03/11/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB/TR

LAB NUMBER	SAMPLE ID	GRO (C ₅ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₉) (mg/kg)	CI* (mg/kg)
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ANALYSIS DATE	03/13/09	03/13/09	03/12/09
H17051-1 BLENDED BACKFILL	<10.0	817	1,060
Quality Control	478	529	500
True Value QC	500	500	500
% Recovery	95.6	106	100
Relative Percent Difference	6.5	10.9	<0.1

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

Colby S. Kane
Chemist

03/16/09
Date

H17051 TCL RICE

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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 W. TAYLOR
HOBBS, NM 88240

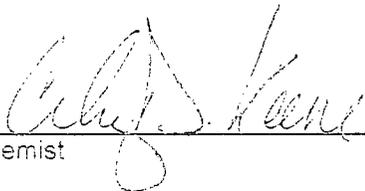
Receiving Date: 03/20/09
Reporting Date: 03/23/09
Project Number: NOT GIVEN
Project Name: BD O-36 EOL
Project Location: BD O-36 EOL

Sampling Date: 03/20/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: AB/HM

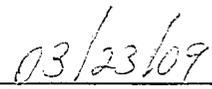
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LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)	CI* (mg/kg)
ANALYSIS DATE		03/21/09	03/21/09	03/23/09
H17101-1	BLENDED BACKFILL #2	<10.0	<10.0	48
Quality Control		473	535	490
True Value QC		500	500	500
% Recovery		94.6	107	98.0
Relative Percent Difference		0.7	2.9	2.0

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



Chemist



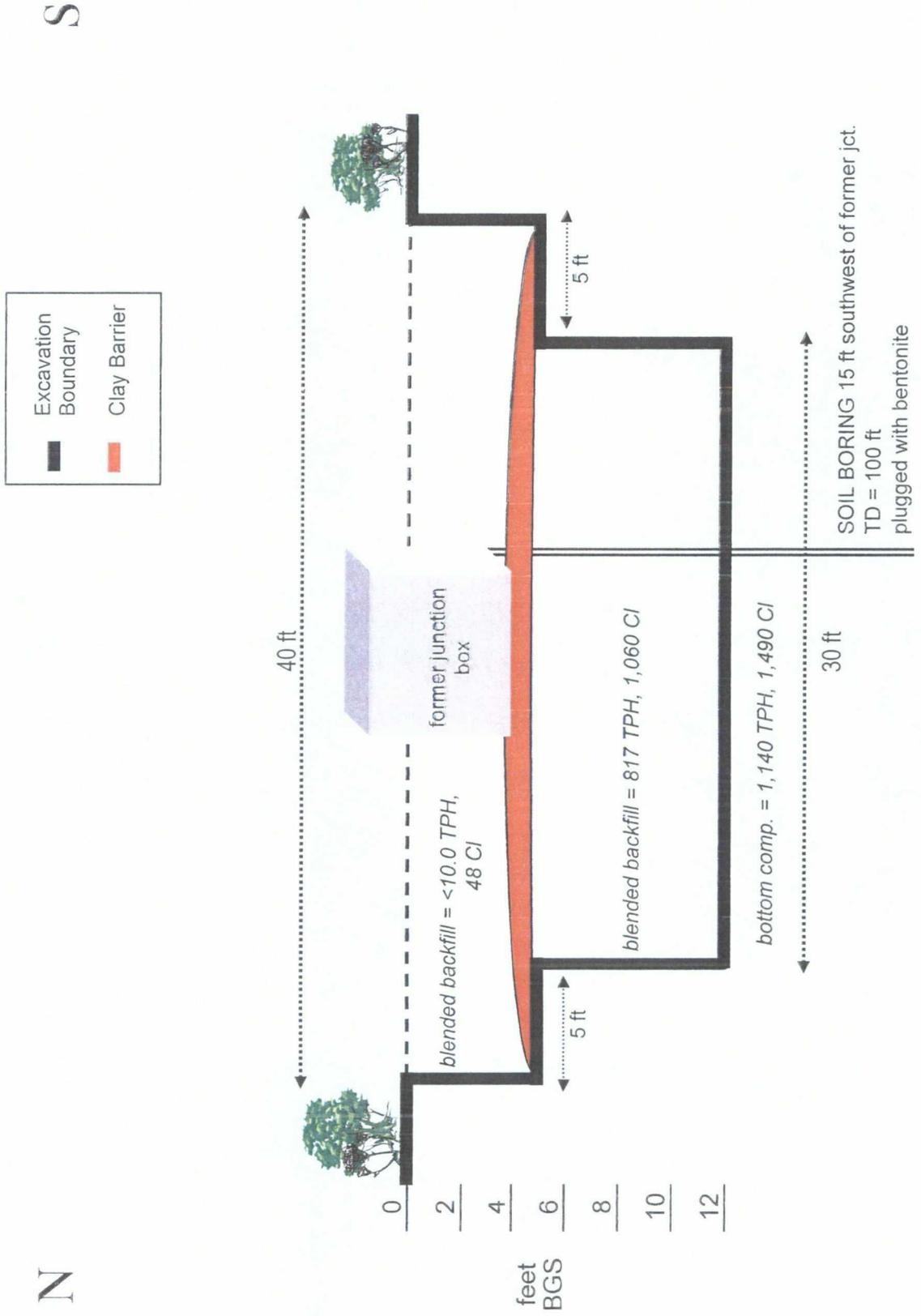
Date

H17101 TCL RICE

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BD O-36 EOL
 Unit 'O', Sec. 36, T21S, R36E

Excavation Cross-Section





LABORATORY TEST REPORT
PETTIGREW & ASSOCIATES, P.A.
 1110 N. GRIMES
 HOBBS; NM 88240
 (575) 393-9827



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

To: Rice Operating Company
 Attn: Hack Conder
 122 W. Taylor
 Hobbs, NM 88240

Material: Cooper Red Clay

Project: General Information
 Project No. 2008.1069

Test Method: ASTM: D 2922

Date of Test: March 18, 2009

Depth: See Below

COPY

Depth of Probe: 6"

Test No.	Location	Dry Density		Depth
		% Max	% Moisture	
SG 10	Building Box - 36' W. & 12' S. of NE Corner	92.1	12.5	3' Below FG

Control Density: 100.4
 ASTM: D 698

Optimum Moisture: 21.6%

Required Compaction: 90 - 95%

Densometer ID: 5357

Lab No.: 09 1990-1991

PETTIGREW & ASSOCIATES

Copies To: Rice Operating

BY: Erica M. Haef

BY: [Signature] P.E.

CHLORIDE CONCENTRATION CURVE

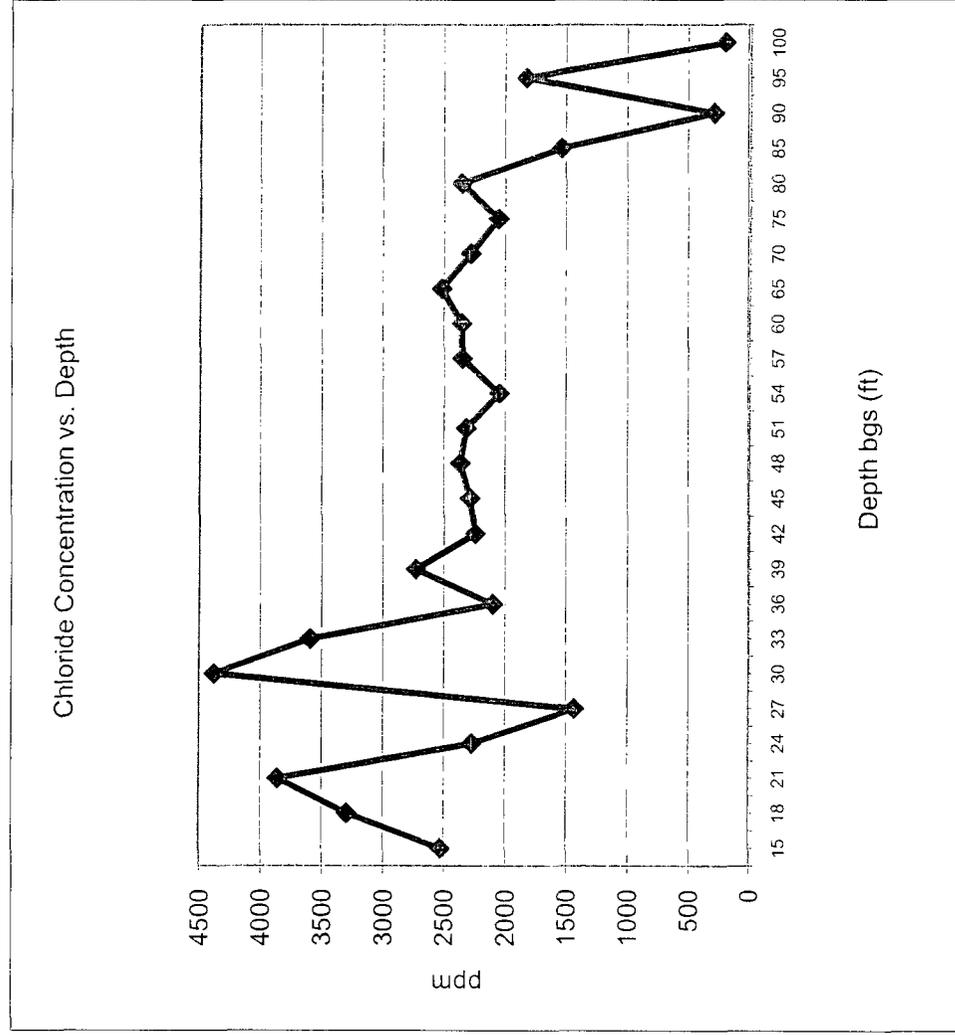
RICE Operating Company

BD O-36 EOL

Unit 'O', Sec. 36, T21S, R36E

SOIL BORING samples at 15 ft southwest of the junction (source)

Depth (ft)	Concentration
15	2532
18	3296
21	3863
24	2274
27	1435
30	4379
33	3596
36	2102
39	2732
42	2247
45	2286
48	2367
51	2319
54	2051
57	2353
60	2353
65	2519
70	2282
75	2057
80	2356
85	1539
90	286
95	1829
100	195



Groundwater = 134 ft