

1R - 426-234

REPORTS

DATE:

1-18-10

BD M-25 EOL
2009

RECEIVED

APR - 6 2010

Environmental Bureau
Oil Conservation Division

1R426-234

CLOSURE

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

RECEIVED
APP - 6 2010
Oil & Gas Division
Environmental Bureau

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS (FEET)		
Blinebry-Drinkard (BD)	M-25 EOL	M	25	21S	36E	Lea	Length	Width	Depth
							eliminated		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER George Brownlee OTHER _____

Depth to Groundwater 150 feet NMOC SITE ASSESSMENT RANKING SCORE: 10

Date Started 7/20/2009 Date Completed 9/22/2009 OCD Witness no

Soil Excavated 400.0 cubic yards Excavation Length 30 Width 30 Depth 12 feet

Soil Disposed 144 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS: Sample Date 8/3/2009, 8/12/2009, 9/22/2009 Sample Depth 12 ft, 24 ft, 90 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 NMOC guidelines.

CHLORIDE FIELD TESTS

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
4-WALL COMP.	0.0	<10.0	<10.0	880
BOTTOM COMP.	0.0	<10.0	43.4	1,150
BLENDED BACKFILL	0.0	<10.0	<10.0	208
SOIL BORING @ 24'	0.0	<10.0	<10.0	2,560
SOIL BORING @ 90'	0.0	<10.0	<10.0	240

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 soil samples at regular intervals producing a 30x30x12-ft deep excavation. Chloride field tests performed on each sample yielded slightly elevated concentrations. Organic vapors, measured using a PID, yielded low concentrations. Representative composite samples were sent to a commercial laboratory for analysis of chloride and TPH, which confirmed slightly elevated concentrations of chloride and low concentrations of TPH. The excavated soil was blended on site with clean, imported soil and returned to the excavation up to 5 ft below ground surface (BGS). At 5-4ft BGS, a 1-ft thick clay barrier was installed with a compaction test performed on 8/13/2009. The remaining fill was used to backfill the excavation to ground surface and to contour to the surrounding area. On 8/17/2009, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. To further investigate depth of chloride presence, a soil bore (SB #1) was initiated on 9/22/2009 at 9 ft east of the former junction box site. SB #1 was advanced to 90 ft BGS, while soil samples were collected at every 3 ft and field tested for chlorides and organic vapors. Chloride field tests yielded concentrations that decreased with depth. The 24 ft and 90 ft samples were analyzed by a commercial laboratory for chloride and TPH, which confirmed low concentrations of each. The entire borehole was plugged with bentonite to the ground surface.

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

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	692
bottom comp.	12'	887
blended backfill	n/a	250
background	6"	179
SOIL BORING 9 ft east of former junction (9/22/2009)	15'	1,415
	18'	531
	21'	902
	24'	2,087
	27'	1,559
	30'	1,180
	33'	1,052
	36'	1,138
	39'	840
	42'	745
	45'	586
	48'	530
	51'	466
	54'	493
	57'	391
	60'	368
	63'	338
	66'	405
	69'	404
	72'	405
	75'	350
	78'	340
	81'	314
	84'	322
	87'	328
	90'	355

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 1-18-10

BD M-25 EOL

Unit M, Section 25, T21S, R36E



excavating the former junction box site, facing north 7/20/2009



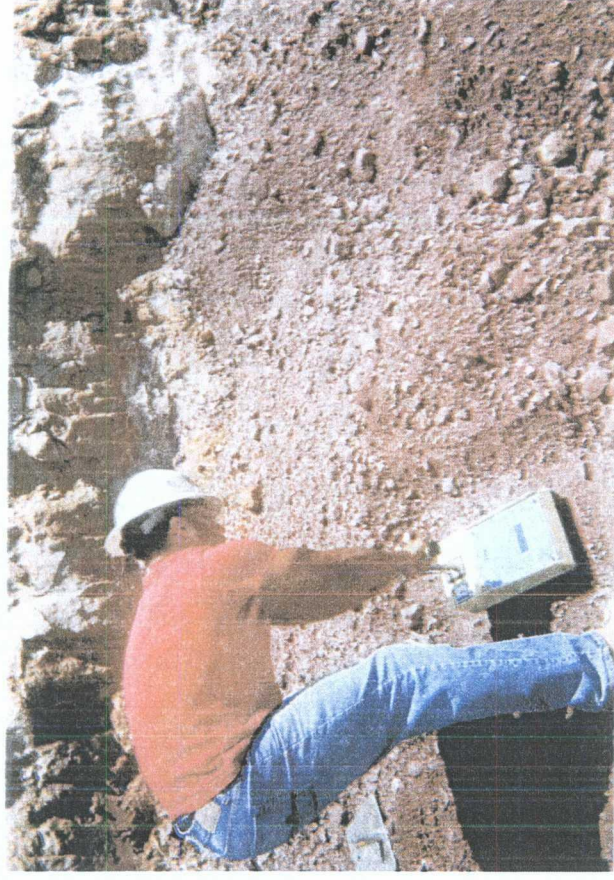
collecting a soil sample, facing north

7/20/2009



final 30x30x12-ft excavation, facing north

8/11/2009



compaction test of the clay barrier

8/13/2009




seeding backfilled site, facing south

8/17/2009



drilling SB #1 at the former junction box site

9/22/2009

Logger:	Tony Grieco				
Driller:	Harrison & Cooper, Inc. Drilling				
Consultant:	none - junction box upgrade plan				
Drilling Method:	Air rotary				
Start Date:	9/22/2009				
End Date:	9/22/2009			Project Name:	Well ID:
Comments: split spoon sampling 15 - 27 ft. All other were from air rotary cuttings				BD jct. M-25 EOL	SB #1
Located: 9 ft east of the center of the former junction box				Location:	UL/M sec. 25 T21S R36E
TD = 90 ft GW = 150 ft				Lat: N32°26'39.393"	County: Lea
				Long: W103°13'24.067"	State: NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
15	1415		0	VERY FINE TO FINE SAND orangey-brown, dry		
18	531		0			
21	902		0			
24	2087		0			
27	1559		0			
30	1180		0			
33	1052		0			
36	1138		0			
39	840		0			
42	745		0			

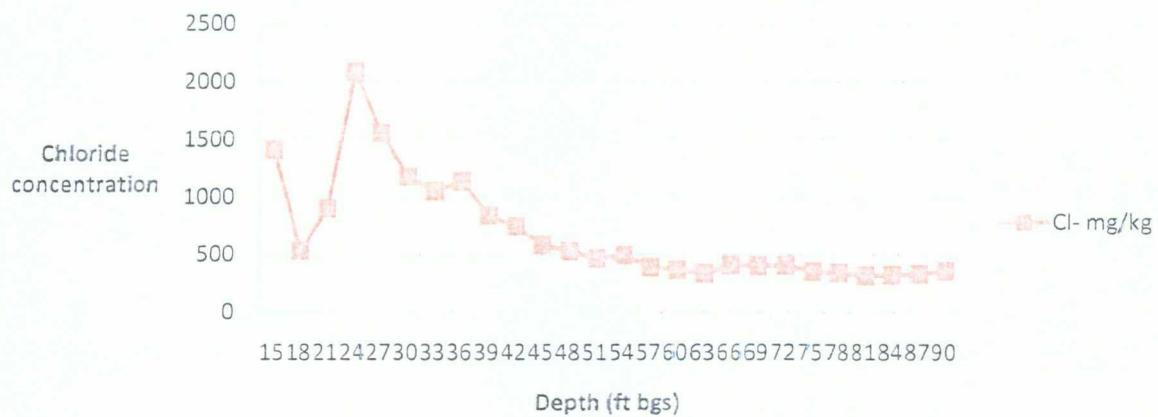
45	586		0
48	530		0
51	466		0
54	493		0
57	391		0
60	368		0
63	338		0
66	405		0
69	404		0
72	405		0
75	350		0
78	340		0

COPY

bentonite
seal

81	314		0
84	322		0
87	328		0
90	355		0

Chloride concentration versus depth



Abandoned box location

⑤ SB-1

COPY

ROC abandoned line

0 5 10 20 Feet



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) 397-11471

COPY

Receiving Date: 09/23/09
Reporting Date: 09/25/09
Project Owner: NOT GIVEN
Project Name: BD M-25
Project Location: NOT GIVEN

Sampling Date: 09/22/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB/HM

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (C ₁₀ -C ₂₈) (mg/kg)	CP (mg/kg)
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ANALYSIS DATE	09/24/09	09/24/09	09/24/09
H18302-1 SB 1 24'	<10.0	<10.0	2,560
H18302-2 SB 1 90'	<10.0	<10.0	240
Quality Control	473	507	500
True Value QC	500	500	500
% Recovery	94.6	101	100
Relative Percent Difference	2.4	1.2	<0.1

METHODS: TPH GRO & DRO, EPA SW-846 8015 M; CP: Std. Methods 4500-CIB

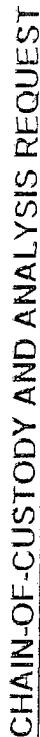
*Analyses performed on 1:4 w/v aqueous extracts. Reported on wet weight.

Chemist

09/25/09
Date

H18302 TOL RICE

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101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

[illegible]

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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
MODEL
NO.

✓

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

COPY

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 424903	EXPIRATION DATE: 5/12/12
FILL DATE: 6/7/07	METER READING ACCURACY: 10%

ACCURACY: +/- 2%

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
BD	M-25	M	25	21S	37E

SAMPLE ID: SB 1

DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
15	0	45	0	75	0		
18	0	48	0	78	0		
21	0	51	0	81	0		
24	0	54	0	84	0		
27	0	57	0	87	0		

DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
30	0	60	0	90	0		
33	0	63	0				
36	0	66	0				
39	0	69	0				
42	0	72	0				

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

Signature: [Signature]

Date: 5/22/07

SITE MAP





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

COPY

Receiving Date: 08/04/09
Reporting Date: 08/07/09
Project Number: NOT GIVEN
Project Name: BD M-25 EOL
Project Location: BD M-25 EOL

Sampling Date: 08/03/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: CK/HM

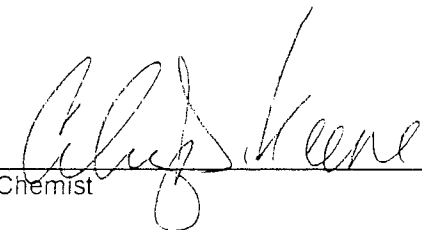
LAB NUMBER	SAMPLE ID	GRO	DRO	Cl*
		(C ₆ -C ₁₀) (mg/kg)	(>C ₁₀ -C ₂₈) (mg/kg)	

ANALYSIS DATE		08/06/09	08/06/09	08/05/09
H17918-1	5 PT BTTM COMP @ 12'	<10.0	43.4	1,150
H17918-2	4 WALL COMP @ 30X30	<10.0	<10.0	880
Quality Control		506	611	500
True Value QC		500	500	500
% Recovery		101	122	100.0
Relative Percent Difference		2.4	1.8	<0.1

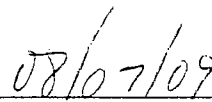
METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl*: Std. Methods 4500-Cl*B

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

Reported on wet weight.



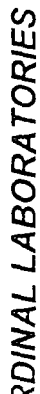
Chemist



Date

H17918 TCL RICE

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Page of

Company Name: <u>WILL OPERATING</u>				P.O. #:				BILL TO				ANALYSIS REQUEST			
Project Manager: <u>ERIC GARRISON</u>				Company:				PRESERV:				SAMPLING			
Address: <u>172 W Taylor</u>				Attn:				OTHER:				DATE			
City: <u>ALBANY</u>				State: <u>NY</u>				Zip: <u>12240</u>				TIME			
Phone #: <u>518-486-5555</u>				Address:				ACID/BASE:				7-3-09			
Project #:				City:				Phone #:				7-3-09			
Project Name: <u>RD 22-25 EOC</u>				Fax #:				OTHER:				16.15			
Project Location: <u>RD 22-25 EOC</u>				Matrix:				ICE / COOL				16.30			
Sample Name: <u>SPRINKLER</u>				# CONTAINERS				SLUDGE				OTHER:			
Lab I.D.:				(G)RAB OR (C)OMP				OIL				DATE			
Sample I.D.:				WASTEWATER				SOIL				TIME			
FOR LAB USE ONLY:				Sample I.D.:				WASTEWATER				SOIL			
H1918-1				SPRINKLER				X				7-3-09			
-2				SPRINKLER				X				7-3-09			

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Project Manager: <u>ERIC GARRISON</u>		Company:		PRESERV:		SAMPLING	
Address: <u>172 W Taylor</u>		Attn:		OTHER:		DATE	
City: <u>ALBANY</u>		State: <u>NY</u>		Zip: <u>12240</u>		TIME	
Phone #: <u>518-486-5555</u>		Address:		ACID/BASE:		7-3-09	
Project #:		City:		Phone #:		7-3-09	
Project Name: <u>RD 22-25 EOC</u>		Fax #:		OTHER:		16.15	
Project Location: <u>RD 22-25 EOC</u>		Matrix:		ICE / COOL		16.30	
Sample Name: <u>SPRINKLER</u>		# CONTAINERS		SLUDGE		OTHER:	
Lab I.D.:		(G)RAB OR (C)OMP		OIL		DATE	
Sample I.D.:		WASTEWATER		SOIL		TIME	

FOR LAB USE ONLY:

Sample I.D.:

H1918-1 SPRINKLER

-2 SPRINKLER

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Project Manager: <u>ERIC GARRISON</u>		Company:		PRESERV:		SAMPLING	
Address: <u>172 W Taylor</u>		Attn:		OTHER:		DATE	
City: <u>ALBANY</u>		State: <u>NY</u>		Zip: <u>12240</u>		TIME	
Phone #: <u>518-486-5555</u>		Address:		ACID/BASE:		7-3-09	
Project #:		City:		Phone #:		7-3-09	
Project Name: <u>RD 22-25 EOC</u>		Fax #:		OTHER:		16.15	
Project Location: <u>RD 22-25 EOC</u>		Matrix:		ICE / COOL		16.30	
Sample Name: <u>SPRINKLER</u>		# CONTAINERS		SLUDGE		OTHER:	
Lab I.D.:		(G)RAB OR (C)OMP		OIL		DATE	
Sample I.D.:		WASTEWATER		SOIL		TIME	

FOR LAB USE ONLY:

Sample I.D.:

H1918-1 SPRINKLER

-2 SPRINKLER


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Company Name: <u>WILL OPERATING</u>		P.O. #:		BILL TO		ANALYSIS REQUEST	
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COPY

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LOT NO: 08-3425	EXPIRATION DATE: 08-23-09
FILL DATE: 02-23-08	METER READING ACCURACY: 100 PPM

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
AD	M-25	M	25	21S	36E

[illegible]

SIGNATURE: *E. J. [illegible]*

DATE: 8-3-09



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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

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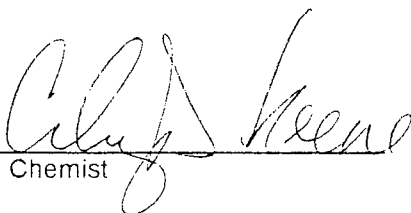
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Reporting Date: 08/13/09
Project Number: NOT GIVEN
Project Name: BD M-25 EOL
Project Location: BD M-25 EOL

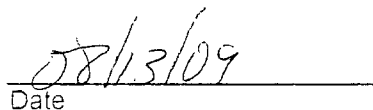
Analysis Date: 08/13/09
Sampling Date: 08/12/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl ⁻ (mg/kg)
H17981-1	BLENDED BACKFILL	208
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods 4500-Cl⁻B

Note: Analysis performed on a 1:4 w:v aqueous extract.


Chemist


Date

H17981 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

COPY

Check Model Number:

X

Model: PGM 7300

Serial No: 590-000183

Model: PGM 7300

Serial No: 590-000308

Model: PGM 7300

Serial No: 590-000504

Model: PGM 7600

Serial No: 110-023920

Model: PGM 7600

Serial No: 110-013744

Model: PGM 7600

Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 08-31125	EXPIRATION DATE: 08-29-09
FILL DATE: 08-29-08	METER READING ACCURACY: 100PPM

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	M-25	M	25	21 S	36 E

SAMPLE ID	PID	SAMPLE ID	PID
Blendable Fill			
shore clay	D.O		

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

SIGNATURE:

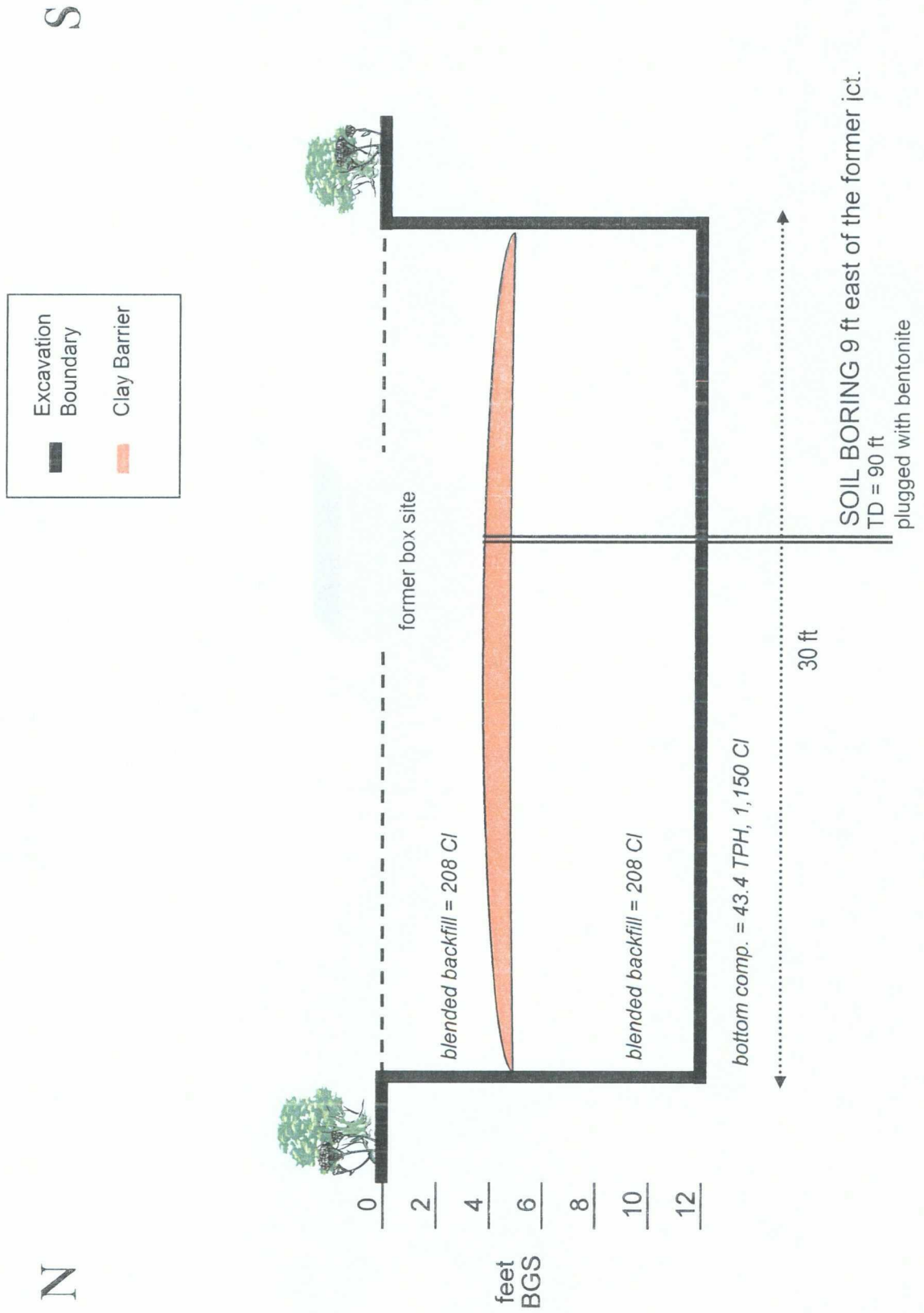
[Signature]

DATE:

8-61-09

BD M-25 EOL
Unit 'M', Sec. 25, 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: Bruce
122 W. Taylor
Hobbs, NM 88240

Material: Wallach Red Clay

Test Method: ASTM: D 2922

Project: General Information
BD - M25 EOL
Project No. 2008.1069

COPY

Date of Test: August 13, 2009

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density		Depth
		% Max	% Moisture	
SG 19	Junction Box - 15' W. & 40' S. of NE Corner	92.6	14.1	5' Below Surface

Control Density: 100.7
ASTM: D 698

Optimum Moisture: 20.7%

Required Compaction: 90 - 95%

Densometer ID: 5357
PETTIGREW & ASSOCIATES

Lab No.: 09 4886-4887

Copies To: Rice Operating

BY: Erica M. Hunt

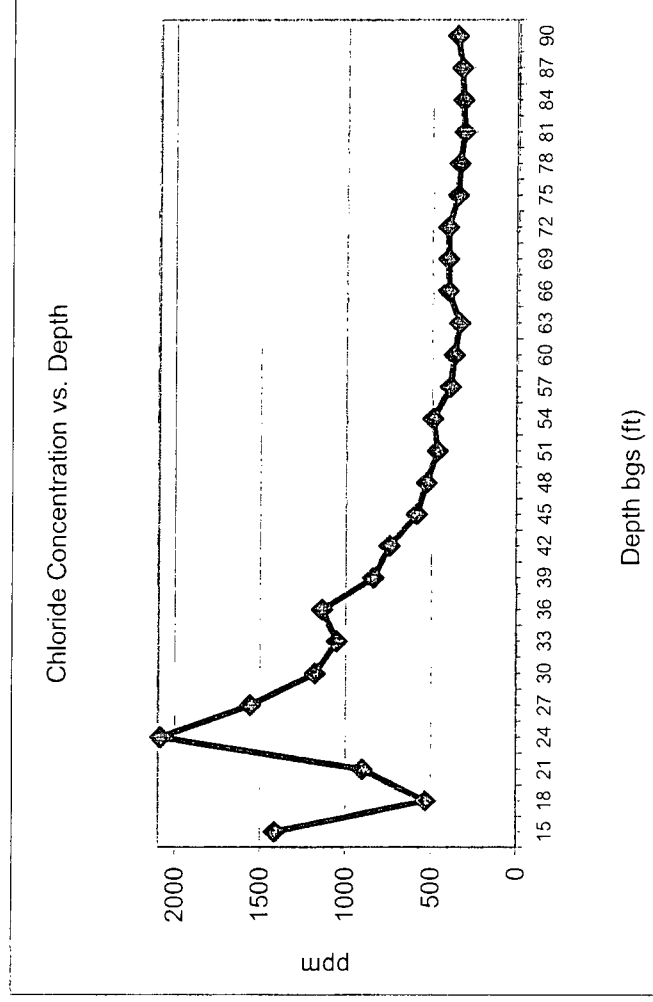
BY: [Signature] P.E.

BD M-25 EOL

Unit 'M', Sec. 25, T21S, R36E

Soil Boring samples at 9 ft east of the junction (source)

Depth bgs (ft)	[Cl ⁻] ppm
15	1415
18	531
21	902
24	2087
27	1559
30	1180
33	1052
36	1138
39	840
42	745
45	586
48	530
51	466
54	493
57	391
60	368
63	338
66	405
69	404
72	405
75	350
78	340
81	314
84	322
87	328
90	355



Groundwater = 150 ft