

1R - 426-118

**REPORTS**

**DATE:**

2-13-07

BD Jct P-35 Vent

1R-426-118

RECEIVED

APR - 3 2007

Environmental Bureau  
Oil Conservation Division

# Closure

**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	NEW BOX DIMENSIONS - FEET		
BD	P-35 vent	P	35	21S	37E	Lea	Length	Width	Depth
							no box--jct. eliminated		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER Geraldine Osborn \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater 44 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 9/26/2005 Date Completed 8/8/2006 NMOCD Witness no

Soil Excavated 333 cubic yards Excavation Length 30 Width 25 Depth 12 feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 6/12/2006, 10/18/2006 Sample Depth 12, 40 ft

5-point composite sample of bottom and 4-point composite sample of excavation sidewalls. TPH and chloride laboratory test results completed by using an approved laboratory 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.	3.1	<10.0	<10.0	527
BOTTOM COMP.	7.6	<10.0	<10.0	1350
BACKFILL	4.0	<10.0	<10.0	690
BORING #1 (15 ft North)	0.0	xxx	xxx	16
BORING #2 (15 ft East)	0.0	xxx	xxx	<16

LOCATION	DEPTH (ft)	ppm
SOIL BORING 15 ft North of jct.	15	254
	20	695
	25	1415
	30	662
	35	113
	40	55
SOIL BORING 15 ft East of jct.	15	398
	20	403
	25	266
	30	147
	35	181
	40	114
4-wall comp.	n/a	536
bottom comp.	12	1013
backfill comp.	n/a	710

**General Description of Remedial Action:**

This junction was eliminated with the pipeline replacement/upgrade program. After the box lumber was removed, the site was delineated using a backhoe to collect soil samples at regular intervals, producing a 30 x 25 x 12-ft deep excavation. Chloride field tests and PID readings were conducted on each sample collected. Although PID readings yielded very low concentrations, chloride concentrations warranted further delineation of depth. The excavated soil was blended on site and then returned to the excavation to 6 ft BGS where a clay barrier was installed to inhibit further downward migration of chloride. The remainder of the soil was backfilled on top of the clay. On 10/18/2006, soil borings were initiated at 15 ft North and East of the former junction. Both soil borings were advanced to depths of 40 ft BGS where chloride concentrations essentially ceased and a conclusive trend of decline was observed. The bore holes were plugged with bentonite clay. The disturbed surface was seeded with a blend of native vegetation and is expected to return to productive capacity at a normal rate.

enclosures: photos, lab results, PID field screenings, chloride graph, x-section, soil boring logs & diagram

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

SITE SUPERVISOR Darnell Mitchell SIGNATURE Darnell Mitchell COMPANY RICE Operating Company

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE Kristin Farris Pope

DATE 2/13/2007 TITLE Project Scientist

## BD P-35 vent

unit 'P', sec. 35, T21S, R37E



undisturbed junction box

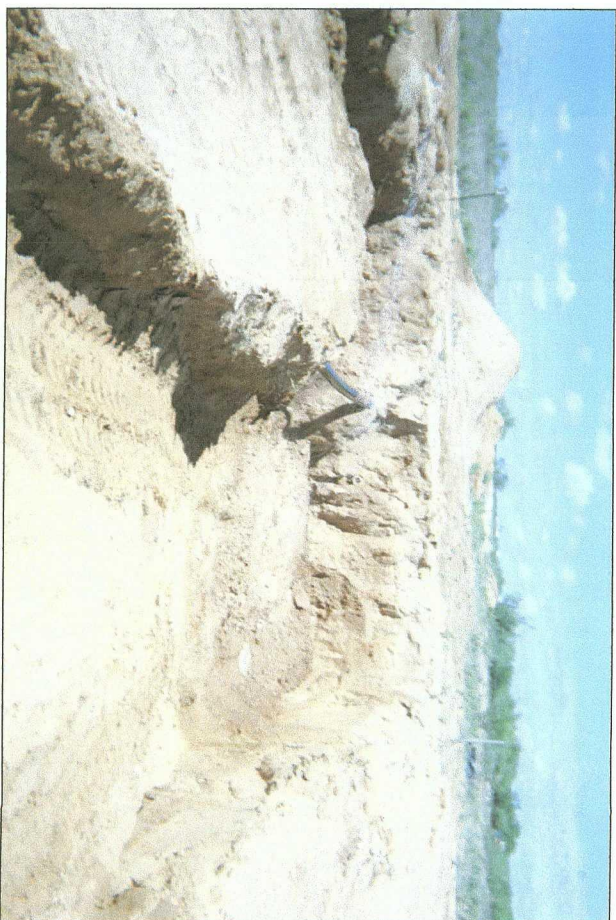
7/9/2003



new plumbing; junction and box removed



backfilling 30 x 25 x 12-ft-deep excavation Aug. 2006



backfilled to 6 ft BGS

8/4/2006



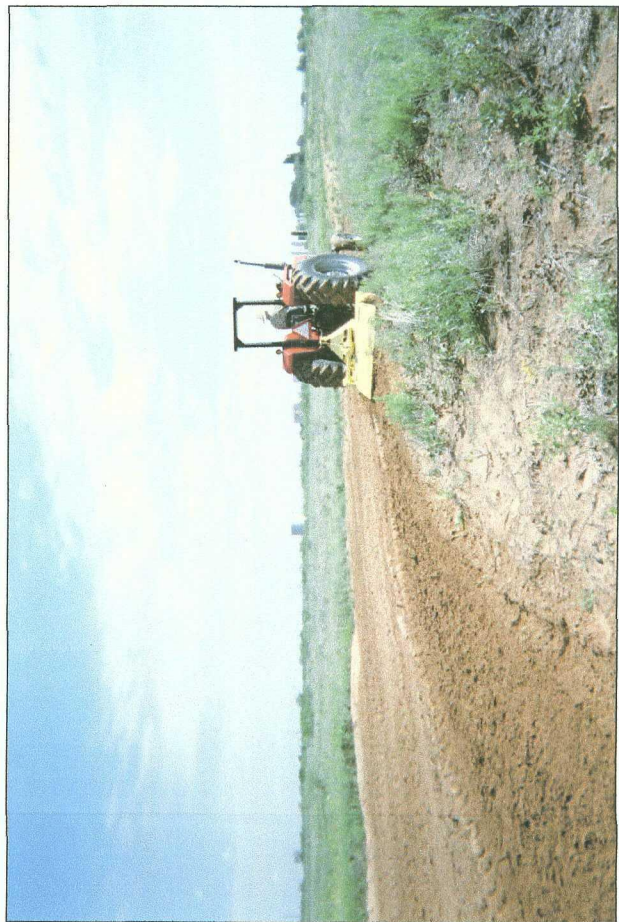
installing clay barrier at 6 ft BGS

Aug. 2006



installing clay barrier at 6 ft BGS

Aug. 2006



seeding disturbed surface

9/1/2006



plate at surface at former junction site (where boring was placed)

9/5/2006

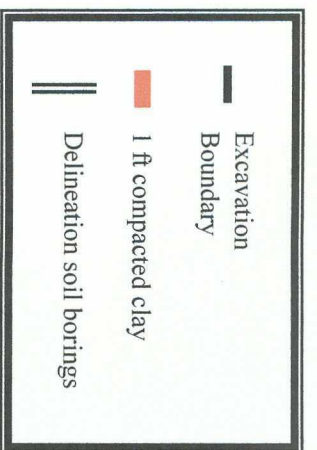
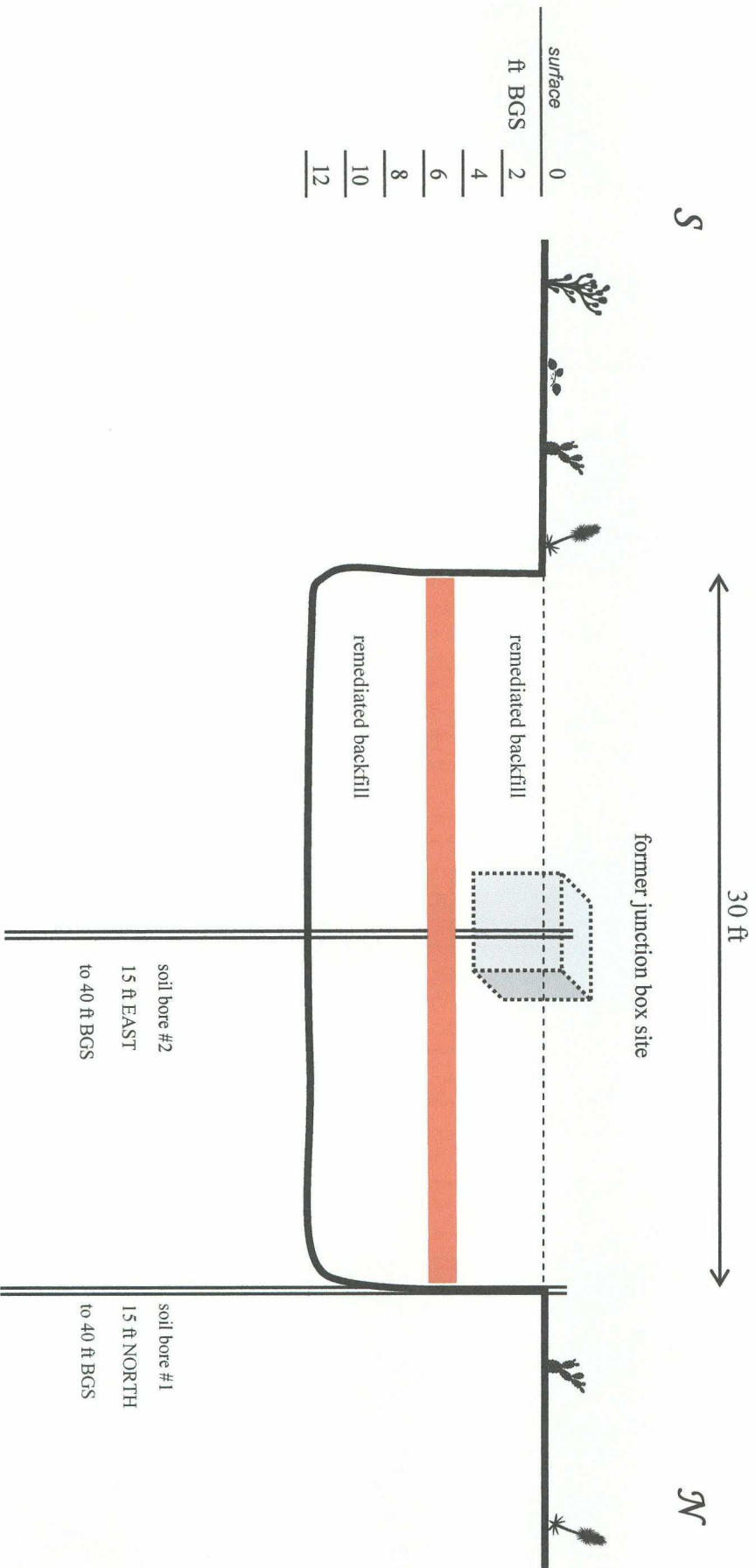


BD Vent P-35 Soil Bore

# BD P-35 vent

## 30 x 25 x 12-ft-deep

### Excavation Cross-Section



# BD P-35 vent

unit 'P', Sec. 35, T21S, R37E

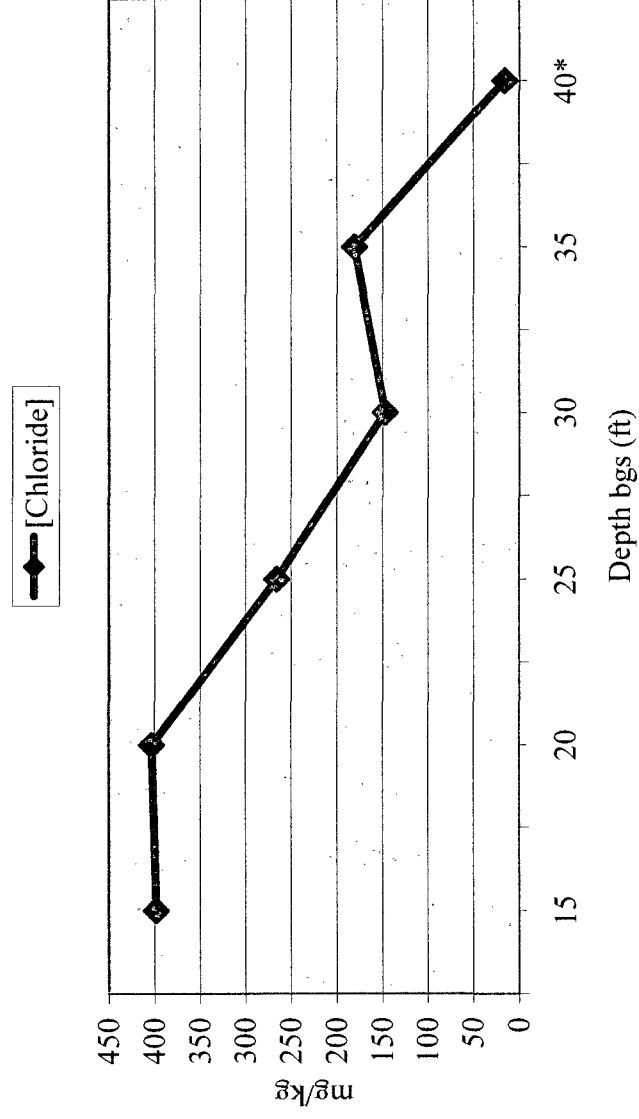
SOIL BORING 15 ft east of jct.

Depth bgs (ft)	[Cl <sup>-</sup> ] mg/kg
15	398
20	403
25	266
30	147
35	181
40*	16

\* Lab analysis <16 mg/kg

Groundwater = 44 ft

Chloride Concentration vs. Depth



# RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240

Phone: (505) 393-9174 Fax: (505) 397-1471

## VOC FIELD TEST REPORT FORM

PID METER READING & CALIBRATION

CK.  
MODEL  
NO.

<input checked="checked" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

MODEL: PGM 761S  
MODEL: PGM 761S  
MODEL: PGM 7600

SERIAL NO: 104412  
SERIAL NO: 104490  
SERIAL NO: 110-12383

LOT NO: \_\_\_\_\_

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

FILL DATE: \_\_\_\_\_

EXP. DATE: \_\_\_\_\_

ACCURACY: +/- 2%

METER READING ACCURACY: 100.2

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
BD	VENT P-35	P	35	215	37E

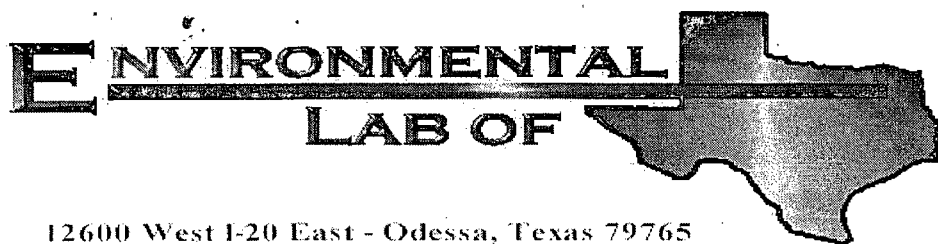
FINAL SAMPLES 25' L X 30' X 12' D

SAMPLE	PID Results	Sample	PID Results
N WALL	1.7		
S. WALL	21.2		
E. WALL	9.2		
W. WALL	8.3		
4-WALL Comp.	3.1		
5PT BTM Comp	7.6		
Blend BACKfill	4.0		

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

SIGNATURE: \_\_\_\_\_

DATE: 6-12-06



32 x 30 x 12 ft

12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

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

Project: BD Vent P-35  
Project Number: None Given  
Location: None Given

Lab Order Number: 6F13004

Report Date: 06/16/06

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Backfill Blend	6F13004-01	Soil	06/12/06 10:55	06/13/06 08:00
4 Wall Comp. 30X32X12	6F13004-02	Soil	06/12/06 12:10	06/13/06 08:00
Bottom Comp.	6F13004-03	Soil	06/12/06 10:24	06/13/06 08:00

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Backfill Blend (6F13004-01) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF61312	06/13/06	06/14/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		98.8 %	70-130		"	"	"	"	
<b>4 Wall Comp. 30X32X12 (6F13004-02) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF61312	06/13/06	06/14/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		97.8 %	70-130		"	"	"	"	
<b>Bottom Comp. (6F13004-03) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF61312	06/13/06	06/14/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.6 %	70-130		"	"	"	"	

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Backfill Blend (6F13004-01) Soil</b>									
Chloride	<b>690</b>	10.0	mg/kg	20	EF61406	06/14/06	06/14/06	EPA 300.0	
% Moisture	<b>11.8</b>	0.1	%	1	EF61407	06/13/06	06/14/06	% calculation	
<b>4 Wall Comp. 30X32X12 (6F13004-02) Soil</b>									
Chloride	<b>527</b>	10.0	mg/kg	20	EF61406	06/14/06	06/14/06	EPA 300.0	
% Moisture	<b>7.5</b>	0.1	%	1	EF61407	06/13/06	06/14/06	% calculation	
<b>Bottom Comp. (6F13004-03) Soil</b>									
Chloride	<b>1350</b>	25.0	mg/kg	50	EF61406	06/14/06	06/14/06	EPA 300.0	
% Moisture	<b>13.3</b>	0.1	%	1	EF61407	06/13/06	06/14/06	% calculation	

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

**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
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**Batch EF61312 - Solvent Extraction (GC)**

**Blank (EF61312-BLK1)**

Prepared: 06/13/06 Analyzed: 06/14/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	58.4		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	58.6		"	50.0		117	70-130			

**LCS (EF61312-BS1)**

Prepared: 06/13/06 Analyzed: 06/14/06

Carbon Ranges C6-C12	447	10.0	mg/kg wet	500		89.4	75-125			
Carbon Ranges C12-C28	508	10.0	"	500		102	75-125			
Total Hydrocarbon nC6-nC35	955	10.0	"	1000		95.5	75-125			
Surrogate: 1-Chlorooctane	57.2		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	61.6		"	50.0		123	70-130			

**Calibration Check (EF61312-CCV1)**

Prepared: 06/13/06 Analyzed: 06/15/06

Carbon Ranges C6-C12	205		mg/kg	250		82.0	80-120			
Carbon Ranges C12-C28	294		"	250		118	80-120			
Total Hydrocarbon nC6-nC35	499		"	500		99.8	80-120			
Surrogate: 1-Chlorooctane	63.7		"	50.0		127	70-130			
Surrogate: 1-Chlorooctadecane	62.1		"	50.0		124	70-130			

**Matrix Spike (EF61312-MS1)**

Source: 6F13007-01

Prepared: 06/13/06 Analyzed: 06/14/06

Carbon Ranges C6-C12	518	10.0	mg/kg dry	569	ND	91.0	75-125			
Carbon Ranges C12-C28	533	10.0	"	569	ND	93.7	75-125			
Total Hydrocarbon nC6-nC35	1050	10.0	"	1140	ND	92.1	75-125			
Surrogate: 1-Chlorooctane	60.3		mg/kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	52.0		"	50.0		104	70-130			

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

**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
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**Batch EF61312 - Solvent Extraction (GC)**

**Matrix Spike Dup (EF61312-MSD1)**      **Source: 6F13007-01**      Prepared: 06/13/06      Analyzed: 06/14/06

Carbon Ranges C6-C12	511	10.0	mg/kg dry	569	ND	89.8	75-125	1.36	20	
Carbon Ranges C12-C28	527	10.0	"	569	ND	92.6	75-125	1.13	20	
Total Hydrocarbon nC6-nC35	1040	10.0	"	1140	ND	91.2	75-125	0.957	20	
Surrogate: 1-Chlorooctane	59.8		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	51.6		"	50.0		103	70-130			

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

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EF61406 - Water Extraction**

**Blank (EF61406-BLK1)**

Prepared & Analyzed: 06/14/06

Chloride	ND	0.500	mg/kg							
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**LCS (EF61406-BS1)**

Prepared & Analyzed: 06/14/06

Chloride	10.2	0.500	mg/kg	10.0		102	80-120			
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**Calibration Check (EF61406-CCV1)**

Prepared & Analyzed: 06/14/06

Chloride	10.1		mg/L	10.0		101	80-120			
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**Duplicate (EF61406-DUP1)**

Source: 6F12012-04

Prepared & Analyzed: 06/14/06

Chloride	804	25.0	mg/kg		791			1.63	20	
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**Duplicate (EF61406-DUP2)**

Source: 6F13007-02

Prepared & Analyzed: 06/14/06

Chloride	288	10.0	mg/kg		278			3.53	20	
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**Matrix Spike (EF61406-MS1)**

Source: 6F12012-04

Prepared & Analyzed: 06/14/06

Chloride	1430	25.0	mg/kg	500	791	128	80-120			S-07
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**Matrix Spike (EF61406-MS2)**

Source: 6F13007-02

Prepared & Analyzed: 06/14/06

Chloride	494	10.0	mg/kg	200	278	108	80-120			
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**Batch EF61407 - General Preparation (Prep)**

**Blank (EF61407-BLK1)**

Prepared: 06/13/06 Analyzed: 06/14/06

% Solids	100		%							
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**Duplicate (EF61407-DUP1)**

Source: 6F12025-01

Prepared: 06/13/06 Analyzed: 06/14/06

% Solids	95.0		%		95.1			0.105	20	
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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EF61407 - General Preparation (Prep)**

**Duplicate (EF61407-DUP2)**                      **Source: 6F13004-02**                      Prepared: 06/13/06    Analyzed: 06/14/06

% Solids	92.3		%		92.5			0.216	20	
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**Duplicate (EF61407-DUP3)**                      **Source: 6F13009-02**                      Prepared: 06/13/06    Analyzed: 06/14/06

% Solids	94.4		%		94.4			0.00	20	
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**Duplicate (EF61407-DUP4)**                      **Source: 6F13009-22**                      Prepared: 06/13/06    Analyzed: 06/14/06

% Solids	94.8		%		94.0			0.847	20	
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**Duplicate (EF61407-DUP5)**                      **Source: 6F13013-04**                      Prepared: 06/13/06    Analyzed: 06/14/06

% Solids	89.4		%		89.4			0.00	20	
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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: BD Vent P-35  
Project Number: None Given  
Project Manager: Roy Rascon

Fax: (505) 397-1471

### Notes and Definitions

S-07 Recovery outside Laboratory historical or method prescribed limits.  
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  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: Raland K Tuttle Date: 6-19-06

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

12600 West I-20 East  
Odessa, Texas 79763  
Phone: 915-563-1800  
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: B.D Vent P-35

**Project #:**

Project Loc:

३०५

Fax No: 505-397-1471

Danell Mitchell

[illegible]

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: Rice DP.

Date/Time: 6/13/06 8:00

Order #: 6F13004

Initials: CK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	60	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No		
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/>	No	Not present	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/>	No	Not present	
Chain of custody present?	<input checked="" type="checkbox"/>	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No		
Container labels legible and intact?	<input checked="" type="checkbox"/>	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No		
Samples properly preserved?	<input checked="" type="checkbox"/>	No		
Sample bottles intact?	<input checked="" type="checkbox"/>	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No		
OC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable	

Other observations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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.

[illegible]

# HARRISON & COOPER, INC.

Drilling & Pump Professionals

7414 85<sup>th</sup> Street, Lubbock, Texas 79424-4951

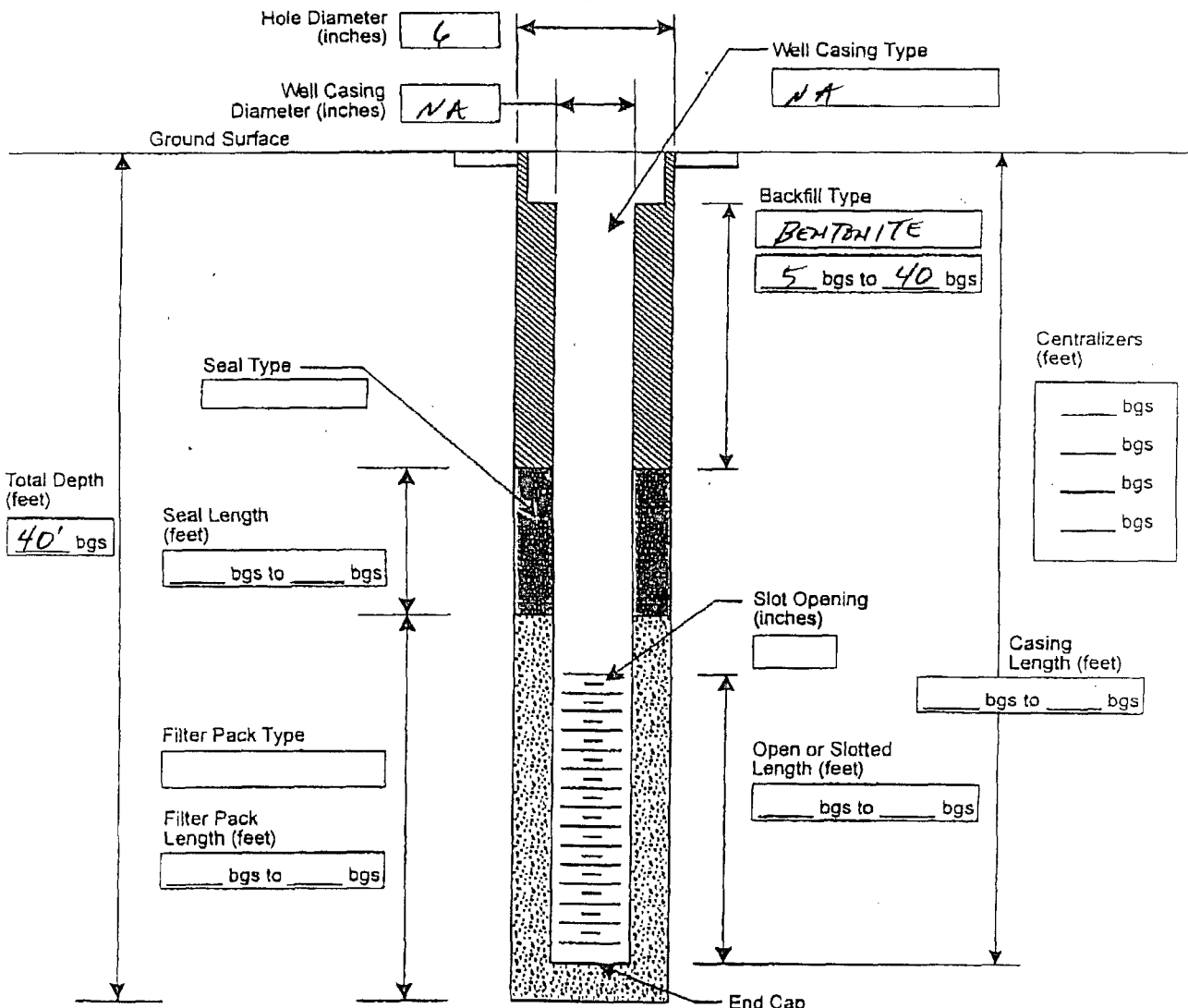
P.O. Box 96, Wolfforth, Texas 79382-0096

Ph: (806) 866-4026

Fax: (806) 866-4044

Email: [harrisoncooperinc@msn.com](mailto:harrisoncooperinc@msn.com)

Client RICE Project No. \_\_\_\_\_  
Well No. SB (2) Site BD VENT P-35 Date Installed 10-18-06  
Formation of Completion \_\_\_\_\_  
Personnel G. BARNETT Driller C. HARRISON



Comments

2 SOIL BORINGS TO 40' 7" DIA HOLES W/ BENTONITE