1R - 224

APPROVALS

YEAR(S):

CLOSED

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, September 29, 2006 3:11 PM
To: Price, Wayne, EMNRD; Carolyn Haynes; Kristin Pope
Cc: Johnson, Larry, EMNRD
Subject: RE: 1R0224 and 1R0427-96

correction.
OCD approves of ROC's Jan 11, 2006 request for closure.

From: Price, Wayne, EMNRD
Sent: Friday, September 29, 2006 3:10 PM
To: Carolyn Haynes; Kristin Pope
Cc: Johnson, Larry, EMNRD
Subject: 1R0224 and 1R0427-96

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 1530 0005 9895 4831

January 11, 2006

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: 2005 GROUNDWATER SAMPLING REPORT/SUMMARY
JUNCTION N-4-1, ELSIE REEVES RANCH
EME SWD SYSTEM
UNIT 'N', SEC. 4, T20S, R37E
NMOCD CASE #1R224

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2005 analytical results for the semi-annual sampling of the stock water well near the EME N-4-1 junction box site located in the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) System. ROC was granted approval to monitor this well on a semi-annual basis in a New Mexico Oil Conservation Division March 26, 2003 letter. In 2005, ROC collected a samples from the stock pond on two occasions and Environmental Lab of Texas of Odessa conducted the analysis of the water samples.

In 2005, concentrations of constituents of concern (COCs) were below the Water Quality Control Commission (WQCC) standards. Since the first water sampling in 2000 and the remediation of the junction box site in 2002 which included excavation, soil disposal, installation of compacted clay, and the import of clean soil, COCs have notably declined, leveling off at the current levels which have remained relatively stable for at least two years. **ROC requests regulatory closure of this file and approval to cease sampling of this well.**

ROC is the service provider (operator) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information and closure request. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

Kristin Farris Pope

Kristin Farris Pope
Project Scientist

enclosures: Summary table & graph
Analytical results
Map
Junction Box Disclosure Report
Junction Box Closure Report

cc: LBG, CDH, file, Rob Roy Industries, Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE *Operating Company*
Monitor Well Data Sheet

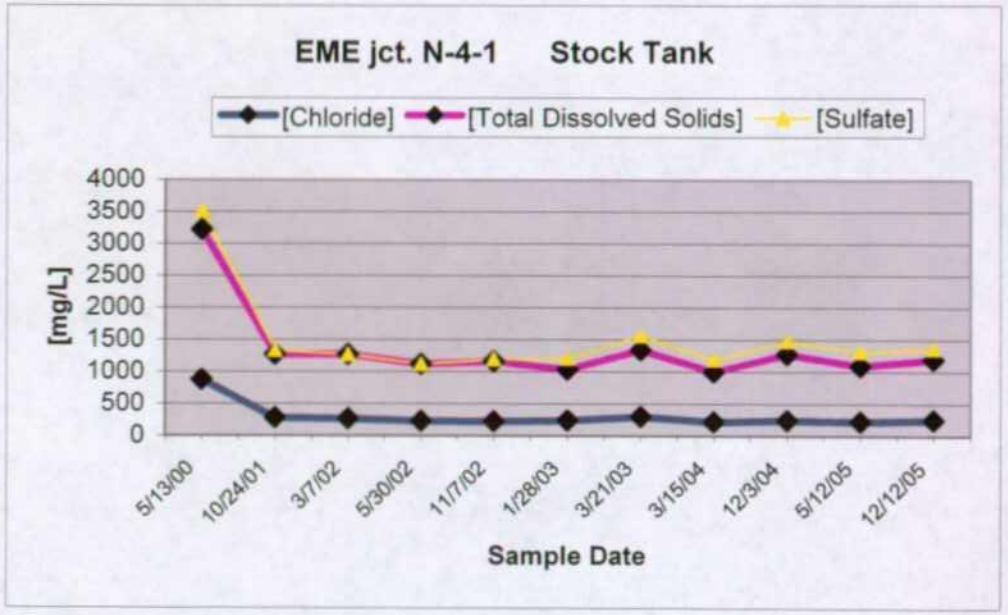
EME jct. N-4-1
unit 'N', Sec. 4, T20S, R37E

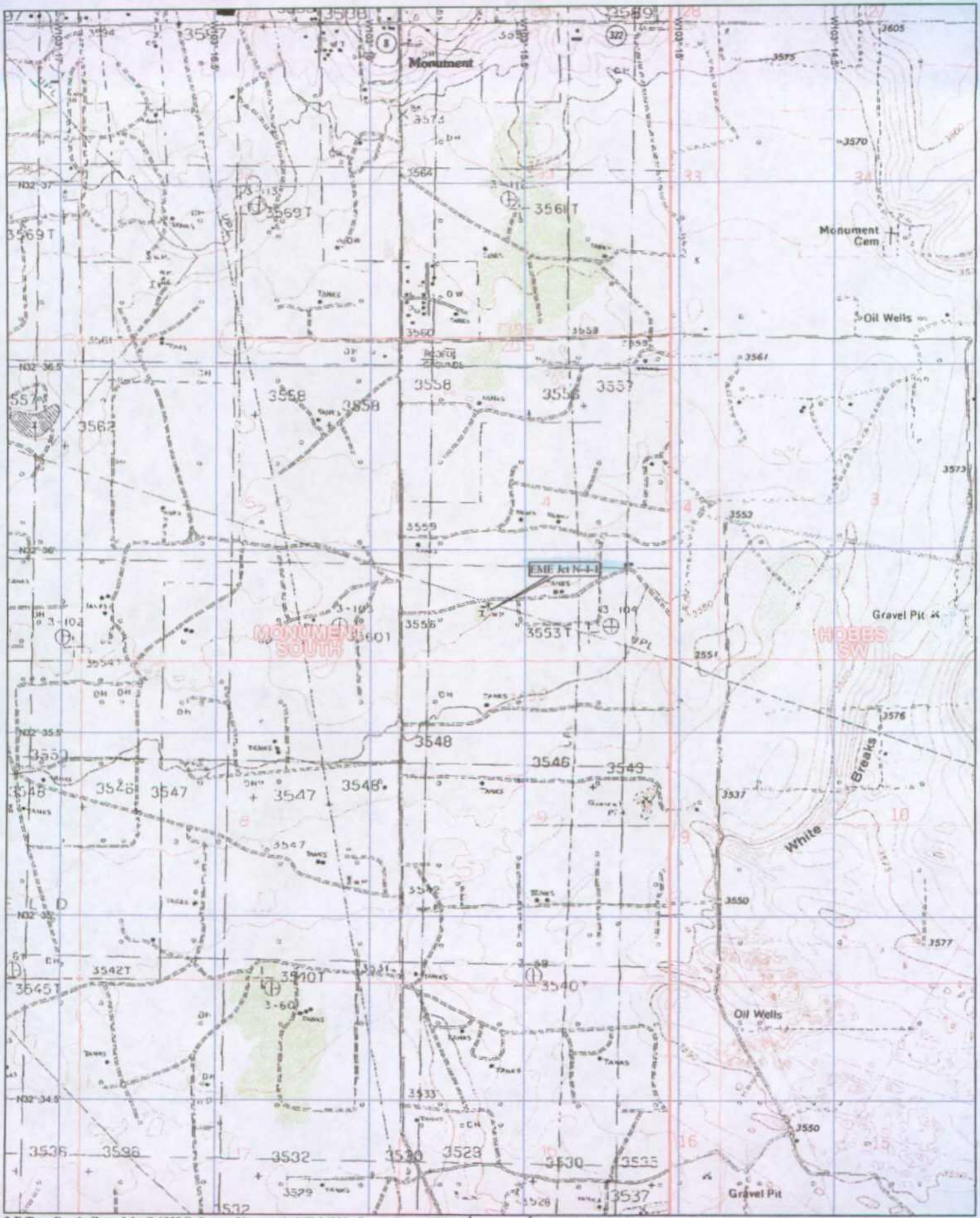
NMOCD Case #1R224

All concentrations are in mg/L

SAMPLE DATE	CHLORIDE	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE	COMMENTS
5/13/00	877	2342	XXX	XXX	XXX	XXX	299	
10/24/01	280	990	<0.002	<0.002	<0.002	<0.006	64	
3/7/02	264	1007	XXX	XXX	XXX	XXX	XXX	
5/30/02	228	890	XXX	XXX	XXX	XXX	XXX	
11/7/02	224	937	XXX	XXX	XXX	XXX	34	
1/28/03	240	797	<0.002	<0.002	<0.002	<0.006	175	
3/21/03	301	1040	XXX	XXX	XXX	XXX	224	
3/15/04	222	780	XXX	XXX	XXX	XXX	187	
12/3/04	247	1030	XXX	XXX	XXX	XXX	204	
5/12/05	227	861	XXX	XXX	XXX	XXX	223	
12/12/05	248	946	XXX	XXX	XXX	XXX	173	

STOCK POND





3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: EME Jct. N-4-1
Project Number: None Given
Location: None Given

Lab Order Number: 5E16009

Report Date: 05/18/05

Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	05/18/05 08:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Stock Pond	5E16009-01	Water	05/12/05 15:42	05/16/05 07:15

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	05/18/05 08:55

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Stock Pond (5E16009-01) Water									
Total Alkalinity	**120**	2.00	mg/L	1	EE51712	05/17/05	05/17/05	EPA 310.2M	
Chloride	**227**	5.00	"	10	EE51704	05/16/05	05/16/05	EPA 300.0	
Total Dissolved Solids	**861**	5.00	"	1	EE51711	05/16/05	05/17/05	EPA 160.1	
Sulfate	**223**	5.00	"	10	EE51704	05/16/05	05/16/05	EPA 300.0	

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.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	05/18/05 08:55

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Stock Pond (5E16009-01) Water									
Calcium	**41.3**	0.100	mg/L	10	EE51720	05/17/05	05/17/05	EPA 6010B	
Magnesium	**34.6**	0.0100	"	"	"	"	"	"	
Potassium	**12.1**	0.500	"	"	"	"	"	"	
Sodium	**180**	0.500	"	50	"	"	"	"	

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12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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
Batch EE51704 - General Preparation (WetChem)										
Blank (EE51704-BLK1)				Prepared & Analyzed: 05/16/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EE51704-BS1)				Prepared & Analyzed: 05/16/05						
Chloride	10.1		mg/L	10.0		101	80-120			
Sulfate	10.2		"	10.0		102	80-120			
Calibration Check (EE51704-CCV1)				Prepared & Analyzed: 05/16/05						
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	10.3		"	10.0		103	80-120			
Duplicate (EE51704-DUP1)		**Source: 5E16009-01**		Prepared & Analyzed: 05/16/05						
Chloride	228	5.00	mg/L		227			0.440	20	
Sulfate	223	5.00	"		223			0.00	20	
Batch EE51711 - Filtration Preparation										
Blank (EE51711-BLK1)				Prepared: 05/16/05 Analyzed: 05/17/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE51711-DUP1)		**Source: 5E12013-01**		Prepared: 05/16/05 Analyzed: 05/17/05						
Total Dissolved Solids	11200	5.00	mg/L		10700			4.57	20	
Batch EE51712 - General Preparation (WetChem)										
Blank (EE51712-BLK1)				Prepared & Analyzed: 05/17/05						
Total Alkalinity	ND	2.00	mg/L							

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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
Batch EE51712 - General Preparation (WetChem)										
Duplicate (EE51712-DUP1)	**Source: 5E16009-01**			Prepared & Analyzed: 05/17/05						
Total Alkalinity	121	2.00	mg/L		120			0.830	20	
Reference (EE51712-SRM1)				Prepared & Analyzed: 05/17/05						
Bicarbonate Alkalinity	231		mg/L	200		116	80-120			

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.

Total Metals 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
Batch EE51720 - 6010B/No Digestion										
Blank (EE51720-BLK1)				Prepared & Analyzed: 05/17/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EE51720-CCV1)				Prepared & Analyzed: 05/17/05						
Calcium	1.79		mg/L	2.00		89.5	85-115			
Magnesium	2.04		"	2.00		102	85-115			
Potassium	1.90		"	2.00		95.0	85-115			
Sodium	2.15		"	2.00		108	85-115			
Duplicate (EE51720-DUP1)		**Source: 5E16009-01**		Prepared & Analyzed: 05/17/05						
Calcium	41.5	0.100	mg/L		41.3			0.483	20	
Magnesium	33.3	0.0100	"		34.6			3.83	20	
Potassium	12.6	0.500	"		12.1			4.05	20	
Sodium	186	0.500	"		180			3.28	20	

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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
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Celey D. Keene Date: 05/19/05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas, Inc.

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Roy Rascon
Company Name: Rice Operating Company
Company Address: 122 W Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: 505-393-9174
Fax No: 505-397-1471
Sampler Signature: Israel Perry

Project Name: EME Jct N-4-1
Project #:
Project Loc:
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP: / TOTAL: Cl / TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	EC, CEC, SAR, ESP	Major cations/anions, TDS					RUSH TAT (Pre-Schedule)	Standard TAT
E16009																														
-01	Stock pond	5/12/05	3:42	1								X												X						

Special Instructions:

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 15.0°C
Laboratory Comments:
1 - L HDPE unpreserved w/label + seal

Relinquished by:	Date	Time	Received by:	Date	Time
Israel Perry	5-13-05	1800 MST	C.D. Hayman	5/13/05	17:00
Relinquished by:	Date	Time	Received by ELOT: From Black Box (drop box)	Date	Time
C.D. Hayman	5/16/05	6:40	Joann McMurry	05-16-05	0715

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co

Date/Time: 05-16-05 @ 0715

Order #: 5E16009

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	15.0 C
Shipping container/cooler in good condition?	Yes	No	N/A
Custody Seals intact on shipping container/cooler?	Yes	No	Not present N/A
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	Yes	(No)	Should be on ice @ 4°C
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

Variance Documentation:

Contact Person: - Ray Rascon Date/Time: 05-16-05 @ 0800 Contacted by: Jeanne McMurry

Regarding:

Sample temperature.

Corrective Action Taken:

Left message on voice mail and e-mailed concerning temperature.

Spoke to Carolyn Haynes 05-17-05 continue w/analysis (confirmed w/e-mail from Ray, 05-18-05

Jeanne McMurrey

From: "Roy Rascon" <rroyriceswd@leaco.net>
To: "Jeanne McMurrey" <jeanne@elabtexas.com>
Sent: Wednesday, May 18, 2005 12:34 PM
Subject: EME Jct N-4-1

Jeanne sorry about the delay on getting back to you. I just remembered my e-mail. I've been off for a few days and been trying to catch up. Please go ahead and run the requested analysis, I discuss this with Kristin F. Pope.
Thank you,
Roy

Roy R. Rascon
RICE Operating Company
122 W. Taylor
Hobbs, NM 88240
505-393-9174

--

This message has been scanned for viruses and dangerous content by MailScanner at **BasinBroadBand.com**, and is believed to be clean.

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

RECEIVED
DEC 2 0 2005

Analytical Report

Prepared for:

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

Project: EME Jct. N-4-1
Project Number: None Given
Location: EME

Lab Order Number: 5L13002

Report Date: 12/22/05

Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	12/22/05 13:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EME Jct. N-4-1 Stock Pond	5L13002-01	Water	12/12/05 14:55	12/13/05 08:30

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	12/23/05 15:29

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EME Jct. N-4-1 Stock Pond (5L13002-01) Water									
Total Alkalinity	**192**	2.00	mg/L	1	EL52109	12/21/05	12/21/05	EPA 310.2M	
Chloride	**248**	5.00	"	10	EL51912	12/15/05	12/22/05	EPA 300.0	
Total Dissolved Solids	**946**	5.00	"	1	EL51611	12/14/05	12/15/05	EPA 160.1	
Sulfate	**173**	5.00	"	10	EL51912	12/15/05	12/22/05	EPA 300.0	

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Rice Operating Co.	Project: EME Jct. N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	12/23/05 15:17

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EME Jct. N-4-1 Stock Pond (5L13002-01) Water									
Calcium	**140**	0.100	mg/L	10	EL52107	12/20/05	12/21/05	EPA 6010B	
Magnesium	**42.3**	0.0100	"	"	"	"	"	"	
Potassium	**11.2**	0.500	"	"	"	"	"	"	
Sodium	**196**	0.500	"	50	"	"	"	"	

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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
Batch EL51611 - General Preparation (WetChem)										
Blank (EL51611-BLK1)				Prepared: 12/14/05 Analyzed: 12/15/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EL51611-DUP1)		**Source: 5L13001-01**		Prepared: 12/14/05 Analyzed: 12/15/05						
Total Dissolved Solids	3360	5.00	mg/L		3430			2.06	5	
Batch EL51912 - General Preparation (WetChem)										
Blank (EL51912-BLK1)				Prepared: 12/15/05 Analyzed: 12/19/05						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EL51912-BS1)				Prepared: 12/15/05 Analyzed: 12/19/05						
Chloride	8.52		mg/L	10.0		85.2	80-120			
Sulfate	9.43		"	10.0		94.3	80-120			
Calibration Check (EL51912-CCV1)				Prepared: 12/15/05 Analyzed: 12/19/05						
Chloride	8.53		mg/L	10.0		85.3	80-120			
Sulfate	9.48		"	10.0		94.8	80-120			
Duplicate (EL51912-DUP1)		**Source: 5L13001-01**		Prepared: 12/15/05 Analyzed: 12/19/05						
Chloride	1070	25.0	mg/L		1040			2.84	20	
Sulfate	211	25.0	"		206			2.40	20	
Batch EL52109 - General Preparation (WetChem)										
Blank (EL52109-BLK1)				Prepared & Analyzed: 12/21/05						
Total Alkalinity	ND	2.00	mg/L							

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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
Batch EL52109 - General Preparation (WetChem)										
Duplicate (EL52109-DUP1)	**Source: 5L13002-01**			Prepared & Analyzed: 12/21/05						
Total Alkalinity	189	2.00	mg/L		190			0.528	20	
Reference (EL52109-SRM1)				Prepared & Analyzed: 12/21/05						
Bicarbonate Alkalinity	229		mg/L	200		114	80-120			

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Total Metals 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
Batch EL52107 - 6010B/No Digestion										
Blank (EL52107-BLK1)				Prepared: 12/20/05 Analyzed: 12/21/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EL52107-CCV1)				Prepared: 12/20/05 Analyzed: 12/21/05						
Calcium	2.25		mg/L	2.00		112	85-115			
Magnesium	2.22		"	2.00		111	85-115			
Potassium	1.91		"	2.00		95.5	85-115			
Sodium	1.80		"	2.00		90.0	85-115			
Duplicate (EL52107-DUP1)	**Source: 5L13002-01**			Prepared: 12/20/05 Analyzed: 12/21/05						
Calcium	89.7	0.100	mg/L		95.0			5.74	20	
Magnesium	42.1	0.0100	"		42.3			0.474	20	
Potassium	11.3	0.500	"		11.2			0.889	20	
Sodium	359	0.500	"		372			3.56	20	

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Notes and Definitions

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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: 12-23-05

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.

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Environmental Lab of Texas, Inc.

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Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris-Pope
Company Name: Rice Operating
Company Address: 122 W Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174
Fax No:
Sampler Signature: Melanie Franko

Project Name: EME Jct N-4-1
Project #:
Project Loc: EME
PO #:

LAB # (lab use only) 5L1802	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TDS / Cl / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	TOTAL: Mg Ca Na/Cations	RUSH TAT (Pre-Schedule)
-01	EME Jct N-4-1 Stock Pond	12/12/05	2:55pm	1	X					X		X				X								X	

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt: 0.5
Laboratory Comments: 4L-Poly-Seals/Labels

Relinquished by:	Date	Time	Received by:	Date	Time
Melanie Franko	12-12-05	3:45pm		12/12	18:00
	12/13	8:30	Received by ELOT:	12/13/05	8:30

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Dr.

Date/Time: 12/13/05 8:30

Order #: 5L13002

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

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Corrective Action Taken:

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RICE OPERATING COMPANY

JUNCTION BOX CLOSURE REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	jct. N-4-1	N	4	20S	37E	Lea	12	7	8

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER Elsie Reeves OTHER _____

Depth to Groundwater 31 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started XXX Date Completed XXX NMOCD Witness XXX

Soil Excavated XXX cubic yards Excavation Length XXX Width XXX Depth XXX feet

Soil Disposed XXX cubic yards Offsite Facility XXX Location XXX

General Description of Remedial Action:

For junction box remediation and upgrade activities, please refer to the previously-submitted Junction Box Disclosure Report (1/27/2003).

Since the remediation and upgrade at this junction box site, ROC has monitored groundwater quality at a nearby well be collecting samples from a stock pond. In 2005, concentrations of constituents of concern (COCs) were below the Water Quality Control Commission (WQCC) standards. COCs have notably declined, leveling off at the current levels which have remained relatively stable for at least two years. ***ROC requests regulatory closure of this file and approval to cease sampling of this well.***

enclosures: 2005 Groundwater report (map, summary table, lab results), Disclosure Report

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

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE Kristin Farris Pope

DATE 1/11/2006 TITLE Project Scientist

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	N--4-1	N	4	20S	37E	LEA	12	7	8

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER ELSIE REEVES OTHER _____

Depth to Groundwater 31 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 5/6/2002 Date Completed 8/8/2002 OCD Witness NO

Soil Excavated 400 cubic yards Excavation Length 40 Width 35 Depth 8 feet

Soil Disposed 168 cubic yards Offsite Facility J&L LANDFARM Location MONUMENT, NM

ANALYTICAL RESULTS:

Sample Date 8/6/2002 **Sample Depth** 8'

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS	<0.005	<0.005	<0.005	<0.015	<10	17.4	800
BOTTOM	<0.005	<0.005	<0.005	<0.015	79	734	592

General Description of Remedial Action: Four soil borings were completed at this site in October, 2001 to investigate possible groundwater impact. SB #1, adjacent to this junction box found chlorides to groundwater at 31' bgs and TPH stopped at 10' bgs. Water samples taken from all four soil borings indicated chlorides at WQCC guidelines. A groundwater well located just west of this site is sampled quarterly to monitor groundwater quality. All this information has been approved by the NMOCD and a copy is included in this report. Vertical delineation of the box to 12.5' bgs found chlorides diminishing from 3287 ppm at 5' to 554 ppm at 12.5' bgs. The lateral extent was delineated to 8' bgs and a compacted clay liner was installed and tested. The test results are included. Fresh soil was hauled and blended and backfilled. A water proof junction box installed. The groundwater well will continue to be sampled and an annual report will be sent to the NMOCD.

COPY

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
SIDEWALLS	6'	856
BOTTOM	8'	607
Vertical Trench	5'	3287
	9'	300
	11'	788
	12.5'	554

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

DATE January 27, 2003 PRINTED NAME D. E. Anderson

SIGNATURE _____ TITLE Project Leader - Environmental

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7002 2410 0000 4940 1756

RECEIVED
OIL CONSERVATION
DIVISION

January 19, 2005

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: 2004 GROUNDWATER SAMPLING REPORT/SUMMARY
JUNCTION N-4-1, ELSIE REEVES RANCH
EME SWD SYSTEM
UNIT 'N', SEC. 4, T20S, R37E
NMOCD CASE #1R224

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2004 analytical results for the semi-annual sampling of the stock water well near the EME N-4-1 junction box site located in the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) System. ROC was granted approval to monitor this well on a semi-annual basis in a New Mexico Oil Conservation Division March 26, 2003 letter. ROC collects a sample from the stock pond semi-annually and will continue these activities in 2005. Environmental Lab of Texas of Odessa will continue to conduct the analysis of the water samples.

ROC is the service provider (operator) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

Kristin Farris Pope

Kristin Farris Pope
Project Scientist

enclosures: Summary table & graph
Analytical results
map

cc: LBG, CDH, file, Rob Roy Industries, Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

RICE *Operating Company*
Monitor Well Data Sheet

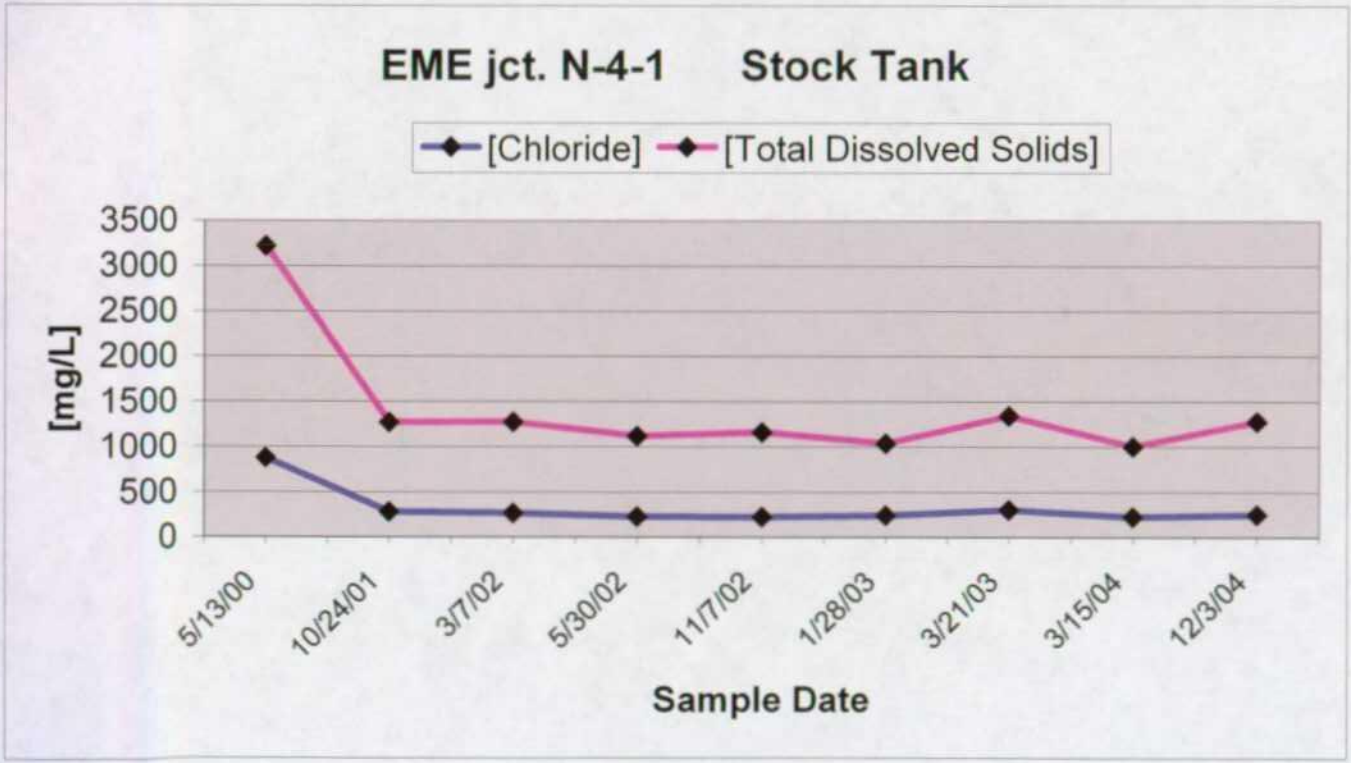
EME jct. N-4-1
unit 'N', Sec. 4, T20S, R37E

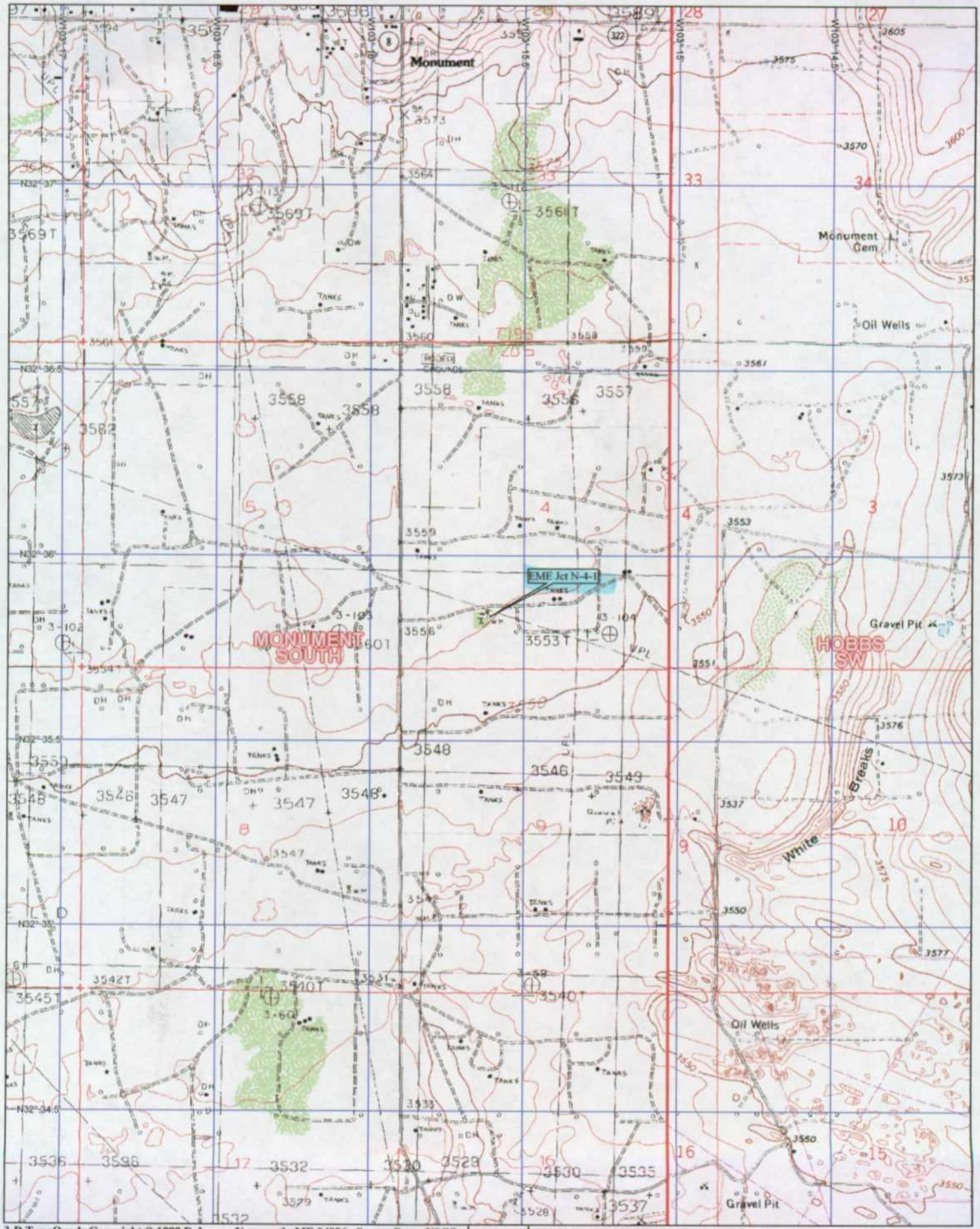
NMOCD Case #1R224

All concentrations are in mg/L

SAMPLE DATE	Cl⁻	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	COMMENTS
5/13/00	877	2342	XXX	XXX	XXX	XXX	
10/24/01	280	990	<0.002	<0.002	<0.002	<0.006	
3/7/02	264	1007	XXX	XXX	XXX	XXX	
5/30/02	228	890	XXX	XXX	XXX	XXX	
11/7/02	224	937	XXX	XXX	XXX	XXX	
1/28/03	240	797	<0.002	<0.002	<0.002	<0.006	
3/21/03	301	1040	XXX	XXX	XXX	XXX	
3/15/04	222	780	XXX	XXX	XXX	XXX	
12/3/04	247	1030	XXX	XXX	XXX	XXX	

STOCK TANK





3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: N-4-1
Project Number: None Given
Location: EME

Lab Order Number: 4C16002

Report Date: 03/23/04

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Water Pond	4C16002-01	Water	03/15/04 11:30	03/16/04 07:45

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Water Pond (4C16002-01)									
Carbonate Alkalinity	ND	0.100	mg/L	1	EC41817	03/17/04	03/17/04	EPA 310.2M	
Bicarbonate Alkalinity	**222**	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	**222**	5.00	"	"	EC41819	03/17/04	03/17/04	SW 846 9253	
Total Dissolved Solids	**780**	5.00	"	"	EC41831	03/18/04	03/18/04	EPA 160.1	
Sulfate	**187**	2.50	"	5	EC41813	03/17/04	03/17/04	EPA 375.4	

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.

Quality Assurance Review

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Water Pond (4C16002-01)									
Calcium	**64.8**	0.100	mg/L	10	EC41905	03/16/04	03/19/04	EPA 6010B	
Magnesium	**33.2**	0.0100	"	"	"	"	"	"	
Potassium	**9.41**	0.500	"	"	"	"	"	"	
Sodium	**149**	1.00	"	100	"	"	03/19/04	"	

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

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
Batch EC41813 - General Preparation (WetChem)										
Blank (EC41813-BLK1)				Prepared & Analyzed: 03/17/04						
Sulfate	ND	0.500	mg/L							
Calibration Check (EC41813-CCV1)				Prepared & Analyzed: 03/17/04						
Sulfate	49.1		mg/L	50.0		98.2	80-120			
Duplicate (EC41813-DUP1)		**Source: 4C16001-02**		Prepared & Analyzed: 03/17/04						
Sulfate	254	2.50	mg/L		248			2.39	20	
Batch EC41817 - General Preparation (WetChem)										
Blank (EC41817-BLK1)				Prepared & Analyzed: 03/17/04						
Carbonate Alkalinity	ND	0.100	mg/L							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							
Duplicate (EC41817-DUP1)		**Source: 4C16001-02**		Prepared & Analyzed: 03/17/04						
Carbonate Alkalinity	0.00	0.100	mg/L		0.00				20	
Bicarbonate Alkalinity	198	2.00	"		196			1.02	20	
Hydroxide Alkalinity	0.00	0.100	"		0.00				20	
Reference (EC41817-SRM1)				Prepared & Analyzed: 03/17/04						
Carbonate Alkalinity	0.0496		mg/L	0.0500		99.2	80-120			
Batch EC41819 - General Preparation (WetChem)										
Blank (EC41819-BLK1)				Prepared & Analyzed: 03/17/04						
Chloride	ND	5.00	mg/L							

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.

Quality Assurance Review

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

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
Batch EC41819 - General Preparation (WetChem)										
Matrix Spike (EC41819-MS1)		**Source: 4C16001-02**		Prepared & Analyzed: 03/17/04						
Chloride	363		mg/L	250	115	99.2	80-120			
Matrix Spike Dup (EC41819-MSD1)		**Source: 4C16001-02**		Prepared & Analyzed: 03/17/04						
Chloride	359		mg/L	250	115	97.6	80-120	1.11	20	
Reference (EC41819-SRM1)				Prepared & Analyzed: 03/17/04						
Chloride	4960		mg/L	5000		99.2	80-120			
Batch EC41831 - General Preparation (WetChem)										
Blank (EC41831-BLK1)				Prepared & Analyzed: 03/18/04						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EC41831-DUP1)		**Source: 4C16002-01**		Prepared & Analyzed: 03/18/04						
Total Dissolved Solids	793	5.00	mg/L		780			1.65	20	

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.

Quality Assurance Review

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

Total Metals 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
Batch EC41905 - General Preparation (Metals)										
Blank (EC41905-BLK1)				Prepared: 03/16/04 Analyzed: 03/19/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EC41905-CCV1)				Prepared: 03/16/04 Analyzed: 03/19/04						
Calcium	1.93		mg/L	2.00		96.5	85-115			
Magnesium	1.98		"	2.00		99.0	85-115			
Potassium	1.73		"	2.00		86.5	85-115			
Sodium	1.78		"	2.00		89.0	85-115			
Duplicate (EC41905-DUP1)	**Source: 4C12015-01**			Prepared: 03/16/04 Analyzed: 03/19/04						
Calcium	159	1.00	mg/L		158			0.631	20	
Magnesium	83.8	0.0100	"		83.6			0.239	20	
Potassium	12.9	0.500	"		12.8			0.778	20	
Sodium	202	1.00	"		198			2.00	20	

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.

Quality Assurance Review

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris	03/23/04 10:37

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

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.

Quality Assurance Review

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Environmental Lab of Texas, Inc.

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: RICE Operating Co.
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Kristin Farris

Project Name: N-4-1
Project #:
Project Loc: EME
PO #: 510

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TDS	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se (TCLP / TOTAL)	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Schedule)	Standard TAT
016002				L HDPE																					
-01	Water Pond	3/15/04	1130	1	x							x				X									

Special Instructions:
Anions & Cations

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Rec 2°C

Relinquished by:	Date	Time	Received by:	Date	Time
J. Smith	3/15/04	4:30			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
		17:45	Cal. ck 10	3/16/04	0745

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co.

Date/Time: 03-16-04 @ 0744

Order #: 4C16002

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	2 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

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Variance Documentation:

Contact Person: -_____ Date/Time: _____ Contacted by: _____

Regarding:

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Corrective Action Taken:

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ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Roy Rascon

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME N-4-1

Project Number: None Given

Location: None Given

Lab Order Number: 4L07003

Report Date: 12/16/04

Rice Operating Co.	Project: EME N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	12/16/04 15:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Water Well	4L07003-01	Water	12/03/04 15:30	12/07/04 07:45

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	12/16/04 15:22

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Water Well (4L07003-01) Water									
Total Alkalinity	**290**	2.00	mg/L	1	EL41406	12/10/04	12/10/04	EPA 310.2M	
Chloride	**247**	10.0	"	20	EL41320	12/09/04	12/09/04	EPA 300.0	
Total Dissolved Solids	**1030**	5.00	"	1	EL40910	12/08/04	12/09/04	EPA 160.1	
Sulfate	**204**	10.0	"	20	EL41320	12/09/04	12/09/04	EPA 300.0	

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.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	12/16/04 15:22

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Water Well (4L07003-01) Water									
Calcium	**118**	1.00	mg/L	100	EL41609	12/15/04	12/16/04	EPA 6010B	
Magnesium	**32.1**	0.0100	"	10	"	"	"	"	
Potassium	**9.35**	0.500	"	"	"	"	"	"	
Sodium	**162**	1.00	"	100	"	"	"	"	

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.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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
Batch EL40910 - 413.1										
Blank (EL40910-BLK1)				Prepared: 12/08/04 Analyzed: 12/09/04						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EL40910-DUP1)	**Source: 4L07003-01**			Prepared: 12/08/04 Analyzed: 12/09/04						
Total Dissolved Solids	1000	5.00	mg/L		1030			2.96	20	
Batch EL41320 - General Preparation (WetChem)										
Blank (EL41320-BLK1)				Prepared & Analyzed: 12/09/04						
Chloride	0.00	0.500	mg/L							
Sulfate	0.00	0.500	"							
LCS (EL41320-BS1)				Prepared & Analyzed: 12/09/04						
Chloride	10.1		mg/L	10.0		101	80-120			
Sulfate	11.4		"	10.0		114	80-120			
LCS Dup (EL41320-BSD1)				Prepared & Analyzed: 12/09/04						
Chloride	10.0		mg/L	10.0		100	80-120	0.995	20	
Sulfate	11.5		"	10.0		115	80-120	0.873	20	
Calibration Check (EL41320-CCV1)				Prepared & Analyzed: 12/09/04						
Chloride	10.3		mg/L	10.0		103	80-120			
Sulfate	11.5		"	10.0		115	80-120			
Duplicate (EL41320-DUP1)	**Source: 4L07003-01**			Prepared & Analyzed: 12/09/04						
Chloride	238	10.0	mg/L		247			3.71	20	
Sulfate	204	10.0	"		204			0.00	20	

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.

Rice Operating Co.	Project: EME N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	12/16/04 15:22

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
Batch EL41406 - General Preparation (WetChem)										
Blank (EL41406-BLK1)				Prepared & Analyzed: 12/10/04						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EL41406-DUP1)	**Source: 4L06003-01**			Prepared & Analyzed: 12/10/04						
Total Alkalinity	161	2.00	mg/L		160			0.623	20	
Reference (EL41406-SRM1)				Prepared & Analyzed: 12/10/04						
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			

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.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Total Metals 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
Batch EL41609 - 6010B/No Digestion										
Blank (EL41609-BLK1)				Prepared: 12/15/04 Analyzed: 12/16/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EL41609-CCV1)				Prepared: 12/15/04 Analyzed: 12/16/04						
Calcium	2.00		mg/L	2.00		100	85-115			
Magnesium	1.96		"	2.00		98.0	85-115			
Potassium	2.16		"	2.00		108	85-115			
Sodium	1.85		"	2.00		92.5	85-115			
Duplicate (EL41609-DUP1)	**Source: 4L07003-01**			Prepared: 12/15/04 Analyzed: 12/16/04						
Calcium	120	1.00	mg/L		118			1.68	20	
Magnesium	37.0	0.0100	"		32.1			14.2	20	
Potassium	10.5	0.500	"		9.35			11.6	20	
Sodium	144	1.00	"		162			11.8	20	

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.

Rice Operating Co.	Project: EME N-4-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Roy Rascon	12/16/04 15:22

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
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 12-20-04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
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.

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.

Environmental Lab of Texas, Inc.

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Roy Rascon
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174 505-631-1278
Fax No: (505) 397-1471
Sampler Signature:

Project Name: EME N-4-1
Project #:
Project Loc:
PO #:

LAB # (lab use only): 410703

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TDS/Cl/SAR/EC as per Roy 12-07-04	TOTAL: TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Schedule)	Standard TAT
-01	Water Well	12/3/04	3:30	1 L HDPE	X							X				X									

Special Instructions:
Major Cations & Anions

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 2.0°C
Laboratory Comments:
1 L HDPL

Relinquished by:	Date	Time	Received by:	Date	Time
Joe Gatt	12/6/04		Drop Box	12/07/04	7:45
Relinquished by:	Date	Time	Received by ELOT: (Courier Service)	Date	Time
			Samantha Sanchez	12/07/04	7:45

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating

Date/Time: 12-07-04 @ 0745

Order #: 4L07003

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	6.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

Variance Documentation:

Contact Person: - Roy Rascon Date/Time: 12-07-04 @ 0830 Contacted by: JeanneMcMurry

Regarding:

analysis

Corrective Action Taken:

Client wants to run anions, cations, TDS.

1R224

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

RECEIVED
FEB 9 2004
OIL CONSERVATION
DIVISION

CERTIFIED MAIL
RETURN RECEIPT NO. 7002 2410 0000 4940 1237

February 6, 2004

Mr. William C. Olson
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: Case #1R224
Jct. N-4-1/Elsie Reeves Ranch
Unit Letter N, Sec. 4, T20S, R37E
Lea County, New Mexico

Dear Mr. Olson:

As requested in the New Mexico Oil Conservation Division's February 14, 2002 "CASE #1R224, JUNCTION BOX N-4-1/ELSIE REEVES RANCH, MONUMENT, NEW MEXICO", Rice Operating Company (ROC) submits an annual report of analytical results for quarterly sampling of the stock water well near the abovementioned site for the 2003 year. Concentrations of chloride and total dissolved solids (TDS) have been below or only slightly higher than WQCC standards. ROC was granted approval to monitor this well on a semi-annual basis in a New Mexico Oil Conservation Division March 26, 2003 letter.

In 2004, ROC will continue to sample this well semi-annually with Environmental Lab of Texas or Cardinal Lab providing the analysis.

ROC is the service provider (operator) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Thank you for your consideration. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Projects Scientist

Enclosures: groundwater analysis for stock well,
NMOCD letter to ROC (March 26, 2003)

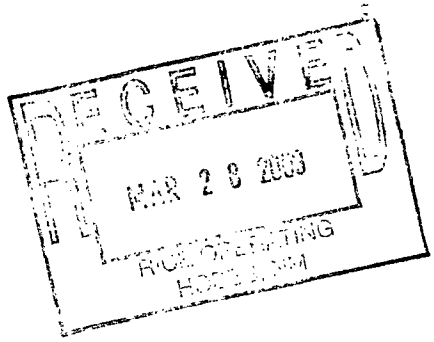
Cc: CDH, file, LBG, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 26, 2003



Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: CASE #1R224
JUNCTION BOX N-4-1/ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

Dear Mr. Anderson:

The New Mexico Oil Conservation Division (OCD) has reviewed Rice Operating Company's (Rice) January 31, 2003 "CASE #1R224, JCT. N-4-1/ELSIE REEVES RANCH, UNIT LETTER N, SEC 4, T20S, R37E, LEA COUNTY, NEW MEXICO". This document contains the results of Rice's soil remediation and ground water monitoring related to Junction Box N-4-1 located in Unit N, Section 4, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The document also proposes to modify the sampling schedule for monitoring ground water quality at the adjacent stock well from a quarterly basis to a semi-annual basis.

The above referenced proposal is approved. Please be advised that OCD approval does not relieve Rice of responsibility should the work plan fail to adequately monitor contamination related to Rice's operations, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve Rice of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

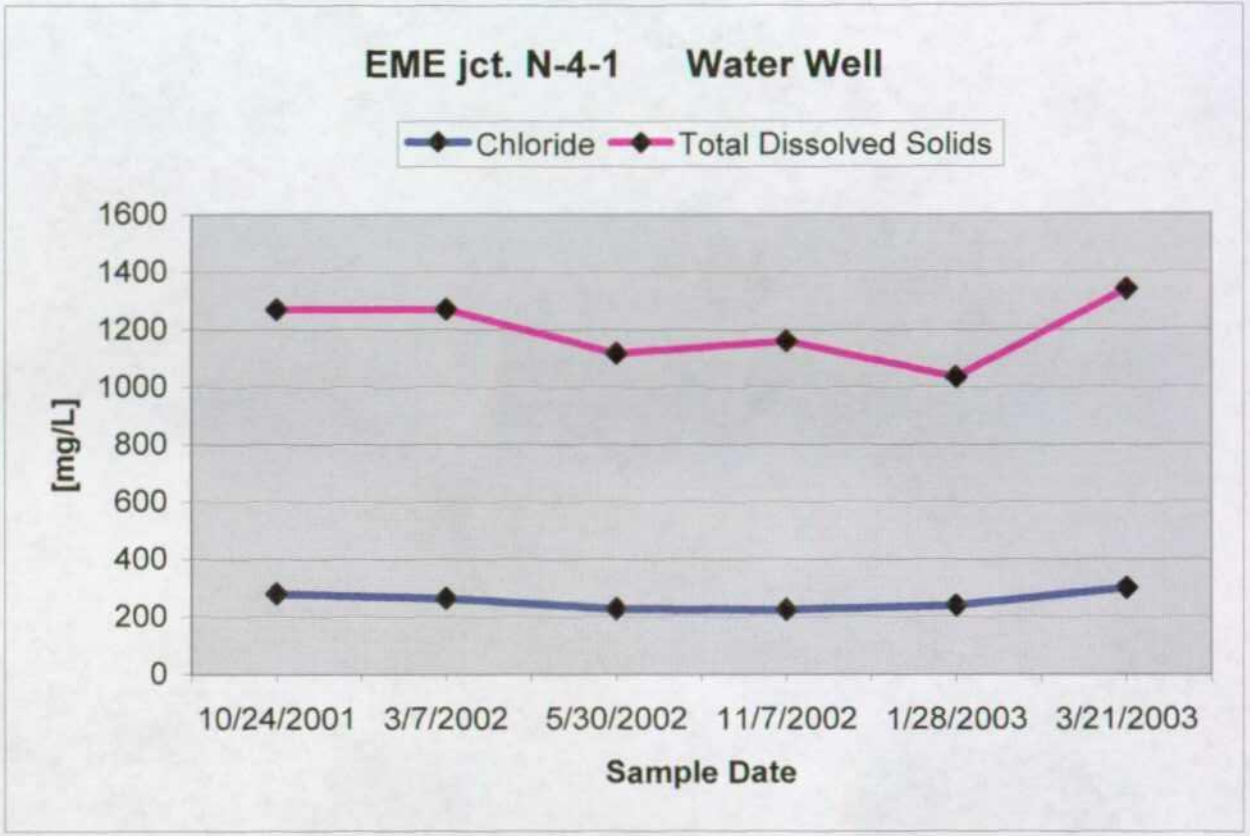
xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves

EME jct. N-4-1

N, 4, 20S, 37E

Rice Operating Co. Water Well Data Sheet

SAMPLE DATE	Cl^-	TDS
10/24/2001	280	990
3/7/2002	264	1007
5/30/2002	228	890
11/7/2002	224	937
1/28/2003	240	797
3/21/2003	301	1040



ANALYTICAL REPORT

Prepared for:

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

Project:	N-4-1
PO#:	510
Order#:	G0306059
Report Date:	03/27/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0306059
Project:
Project Name: N-4-1
Location: EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306059-01	Stock Pond	WATER	3/21/03	3/24/03 19:30	L HDPE	Ice

Lab Testing: **Rejected:** No **Temp:** 1.5 C

Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		**Order#:**	**G0306059**
Rice Operating		**Project:**	
122 W. Taylor		**Project Name:**	**N-4-1**
Hobbs, NM 88240		**Location:**	**EME**

Lab ID: 0306059-01
Sample ID: Stock Pond

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	66.2	mg/L	10	0.10	6010B	03/25/2003	3/25/03	SM
Magnesium	34.6	mg/L	10	0.010	6010B	03/25/2003	3/25/03	SM
Potassium	9.47	mg/L	10	0.50	6010B	03/25/2003	3/25/03	SM
Sodium	233	mg/L	10	0.10	6010B	03/25/2003	3/25/03	SM

Approval: Raland K Tuttle 3-28-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

N/A = Not Applicable **RL = Reporting Limit**

ENVIRONMENTAL LAB OF TEXAS I, LTD. **12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800**

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306059
Project:
Project Name: N-4-1
Location: EME

Lab ID: 0306059-01
Sample ID: Stock Pond

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	228	mg/L	1	2.00	310.1	3/25/03	CK
Carbonate Alkalinity	16.0	mg/L	1	0.10	310.1	3/25/03	CK
Chloride	301	mg/L	1	5.00	9253	3/25/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	3/25/03	CK
SULFATE, 375.4	224	mg/L	5	2.5	375.4	3/26/03	CK

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	1040	mg/L	1	5.0	160.1	3/26/03	TAL

Approval: Raland K Tuttle 3-28-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0306059

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0005043-01			<2.00		
Carbonate Alkalinity-mg/L	0005043-01			<0.10		
Chloride-mg/L	0005042-01			<5.00		
Hydroxide Alkalinity-mg/L	0005043-01			<0.10		
SULFATE, 375.4-mg/L	0005072-01			<0.5		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0306056-01	193		192		0.5%
Carbonate Alkalinity-mg/L	0306056-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0306056-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0306056-01	140		144		2.8%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0306056-01	230	500	718	97.6%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0306056-01	230	500	709	95.8%	1.3%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0005043-04		0.05	0.0524	104.8%	
Carbonate Alkalinity-mg/L	0005043-04		0.05	0.0524	104.8%	
Chloride-mg/L	0005042-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0005043-04		0.05	0.0524	104.8%	
SULFATE, 375.4-mg/L	0005072-04		50	57.5	115.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0306059

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0005058-02			<0.010		
Magnesium-mg/L	0005058-02			<0.001		
Potassium-mg/L	0005058-02			<0.050		
Sodium-mg/L	0005058-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0306056-01	138		138		0.%
Magnesium-mg/L	0306056-01	25.7		24.8		3.6%
Potassium-mg/L	0306056-01	5.86		5.90		0.7%
Sodium-mg/L	0306056-01	113		114		0.9%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0005058-05		2	2.30	115.%	
Magnesium-mg/L	0005058-05		2	2.10	105.%	
Potassium-mg/L	0005058-05		2	1.90	95.%	
Sodium-mg/L	0005058-05		2	2.12	106.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306059

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0005067-01			<5.0		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0306059-01	1040		1030		1.%

Environmental Lab of Texas, Inc.

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Joe Hall

Project Name: N-4-1
Project #:
Project Loc: EME
PO #: 510

030059

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP: TDS	TOTAL: TDS	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Anions	Cations			RUSH TAT (Pre-Schedule)	Standard TAT
01	Stock pond	032103		1 HDPE								X				X									X	X				

Special Instructions:
Major anions + cations

Relinquished by:	Date	Time	Received by:	Date	Time
K. Farris		1630			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
D Haynes	3/24/03	1930	[illegible]	3-24-03	1930

Sample Containers Intact? Y (N)
Temperature Upon Receipt:
Laboratory Comments:
Rec 1.5°C

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS. NM 88240

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

Receiving Date: 01/28/03
Reporting Date: 01/28/03
Project Number: N-4-1
Project Name: SAMPLE FROM WATER WELL @ N-4-1
Project Location: EME

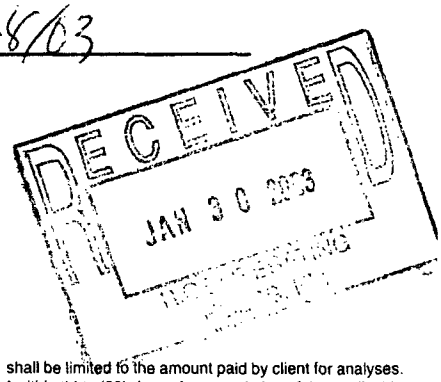
Sampling Date: 01/28/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NO. SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	01/28/03	01/28/03	01/28/03	01/28/03
H7433-1 SAMPLE FOR BTEX	<0.002	<0.002	<0.002	<0.006
Quality Control	0.104	0.100	0.102	0.295
True Value QC	0.100	0.100	0.100	0.300
% Recovery	104	100	102	98.2
Relative Percent Difference	8.2	6.3	6.9	6.7

METHOD: EPA SW-846 8260

Chemist

1/28/03
Date



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.

H7433BXLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS. NM 88240

1st quarter 2003

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

Receiving Date: 01/28/03
Reporting Date: 01/29/03
Project Number: N-4-1
Project Name: SAMPLE FROM WATER WELL @ N-4-1
Project Location: EME

Sampling Date: 01/28/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		01/28/03	01/28/03	01/28/03	01/28/03	01/28/03	01/28/03
H7433-1	SAMPLE FOR CATIONS & ANIONS	225	94	28	4.54	820	325
Quality Control		NR	42	41	4.67	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference		NR	0.8	1.4	1.0	0.7	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		01/28/03	01/28/03	01/28/03	01/28/03	01/28/03	01/29/03
H7433-1	SAMPLE FOR CATIONS & ANIONS	240	175	0	397	7.09	797
Quality Control		1000	50.20	NR	1068	6.90	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		100	100	NR	107	98.6	NR
Relative Percent Difference		5.0	0.7	NR	7.7	0.1	0.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

1/29/03
Date

RECEIVED
JAN 30 2003
RICE OPERATING
HOBBS, NM

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H7433

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

		BILL TO	
Company Name:	Rice Operating Co.	P.O. #:	
Project Manager:	Chris Rodriguez	Company:	
Address:	122 W. Taylor	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	393-9174 Fax #: 397-1471	City:	
Project #:	N-4-1 Project Owner:	State: Zip:	
Project Name:	Sample From Water Well @ N-4-1	Phone #:	
Project Location:	EME	Fax #:	
Sampler Name:			

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST														
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	Cation, Anions, TDS														
H7433-1	Sample for BTEX		✓	✓						✓	✓		1-28-03	9:45am	✓															
	Sample for Cl,		✓	✓									1-28-03	9:45am		✓														

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fee.

Sampler Relinquished: Chris Rodriguez	Date: 1-28-03 Time: 10:30am	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 1-28-03 Time: 10:45	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	REMARKS:

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

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 26, 2003

Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: CASE #1R224
JUNCTION BOX N-4-1/ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

Dear Mr. Anderson:

The New Mexico Oil Conservation Division (OCD) has reviewed Rice Operating Company's (Rice) January 31, 2003 "CASE #1R224, JCT. N-4-1/ELSIE REEVES RANCH, UNIT LETTER N, SEC 4, T20S, R37E, LEA COUNTY, NEW MEXICO". This document contains the results of Rice's soil remediation and ground water monitoring related to Junction Box N-4-1 located in Unit N, Section 4, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The document also proposes to modify the sampling schedule for monitoring ground water quality at the adjacent stock well from a quarterly basis to a semi-annual basis.

The above referenced proposal is approved. Please be advised that OCD approval does not relieve Rice of responsibility should the work plan fail to adequately monitor contamination related to Rice's operations, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve Rice of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 1530 0005 9895 4640

RECEIVED
FEB 03 2003
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

January 31, 2003

Mr. William C. Olson
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: Case #1R224
Jct. N-4-1/Elsie Reeves Ranch
Unit Letter N, Sec. 4, T20S, R37E
Lea County, New Mexico

Dear Mr. Olson:

As requested in the New Mexico Oil Conservation Division's February 14, 2002 "CASE #1R224, JUNCTION BOX N-4-1/ELSIE REEVES RANCH, MONUMENT, NEW MEXICO", Rice Operating Company (ROC) submits an annual report of analytical results for quarterly sampling of the stock water well near the abovementioned site for the 2002 year. Concentrations of chloride and total dissolved solids (TDS) have been below or only slightly higher than WQCC standards. These concentrations are not detrimental to the livestock on the property that drink the water. ROC will to continue monitoring the well but would like to propose sampling only bi-annually due to the consistency of the results.

Remediation of the N-4-1 jct. box started May 6 and was completed on August 8, 2002. A disclosure form for the upgrade is also attached. The surface that was disturbed during remediation is scheduled to be re-seeded with native vegetation in February and will be monitored for growth.

ROC is the service provider (operator) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Projects Scientist

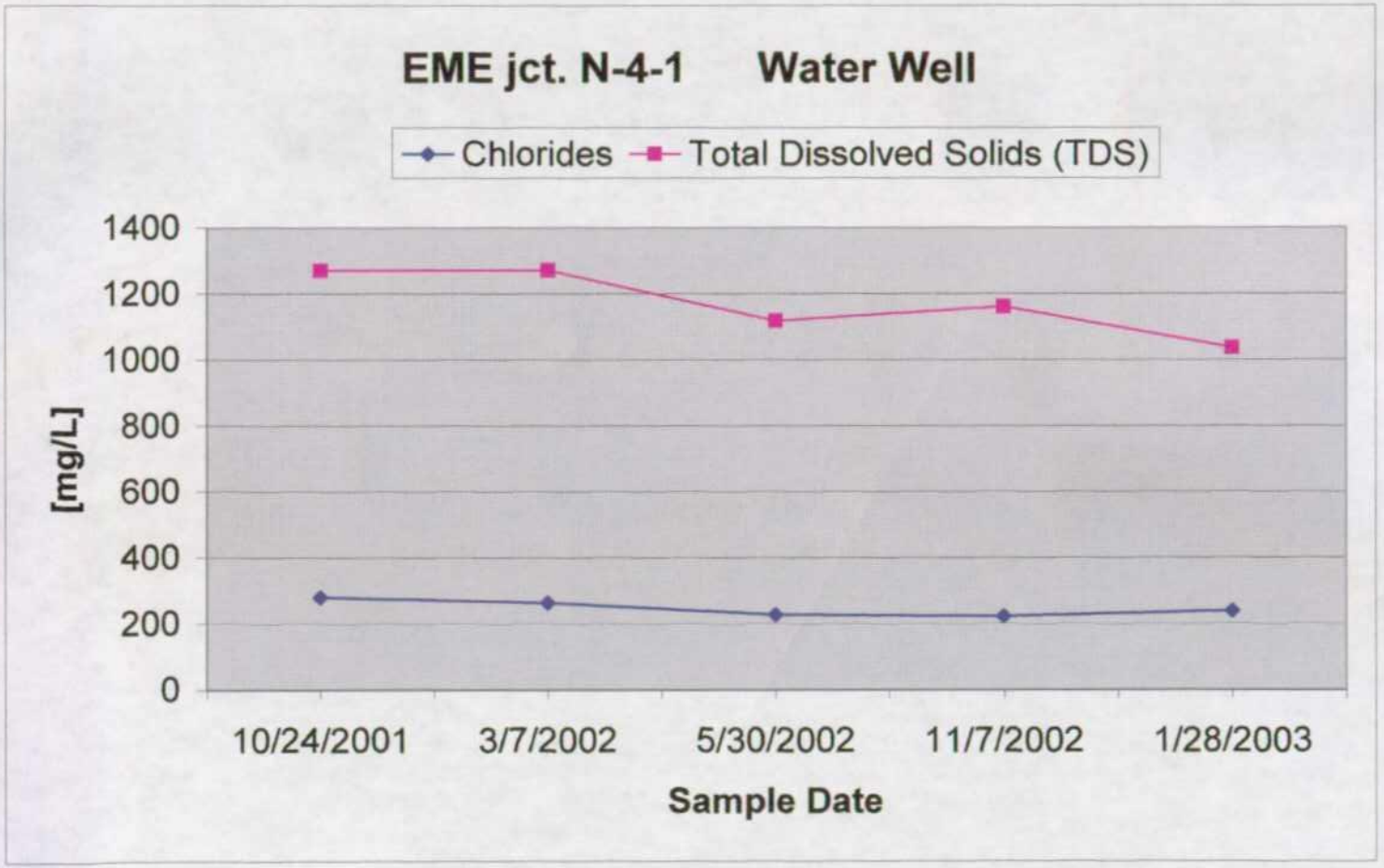
Enclosures: groundwater analysis for stock well,
jct. N-4-1 disclosure package,
NMOCD letter to ROC (February 14, 2002)

Cc: CDH, file, LBG, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

EME jct. N-4-1
N, 4, 20S, 37E

Rice Operating Co. Water Well Data Sheet

SAMPLE DATE	CL-	TDS
10/24/2001	280	990
3/7/2002	264	1007
5/30/2002	228	890
11/7/2002	224	937
1/28/2003	240	797



CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

1st quarter 2003

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

Receiving Date: 01/28/03
Reporting Date: 01/28/03
Project Number: N-4-1
Project Name: SAMPLE FROM WATER WELL @ N-4-1
Project Location: EME

Sampling Date: 01/28/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NO. SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	01/28/03	01/28/03	01/28/03	01/28/03
H7433-1 SAMPLE FOR BTEX	<0.002	<0.002	<0.002	<0.006
Quality Control	0.104	0.100	0.102	0.295
True Value QC	0.100	0.100	0.100	0.300
% Recovery	104	100	102	98.2
Relative Percent Difference	8.2	8.3	6.9	6.7

METHOD: EPA SW-846 8260

Chemist

1/28/03
Date

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H7433-1 XLS

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

Receiving Date: 01/28/03
Reporting Date: 01/29/03
Project Number: N-4-1
Project Name: SAMPLE FROM WATER WELL @ N-4-1
Project Location: EME

Sampling Date: 01/28/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	01/28/03	01/28/03	01/28/03	01/28/03	01/28/03	01/28/03
H7433-1 SAMPLE FOR CATIONS & ANIONS	225	94	28	4.54	820	325
Quality Control	NR	42	41	4.67	1322	NR
True Value QC	NR	50	50	5.00	1413	NR
% Recovery	NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference	NR	0.8	1.4	1.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	01/28/03	01/28/03	01/28/03	01/28/03	01/28/03	01/29/03
H7433-1 SAMPLE FOR CATIONS & ANIONS	240	175	0	397	7.09	797
Quality Control	1000	50.20	NR	1068	6.90	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	100	100	NR	107	98.6	NR
Relative Percent Difference	5.0	0.7	NR	7.7	0.1	0.4
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

1/29/03
Date

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H7433

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

4th Quarter 2002

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

Receiving Date: 11/07/02
Reporting Date: 11/11/02
Project Number: NOT GIVEN
Project Name: JCT N-4-1 WATER SAMPLE
Project Location: EME

Sampling Date: 11/07/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	11/11/02	11/08/02	11/08/02	11/08/02	11/08/02	11/08/02
H7186-1 -	167	77	27	11	1159	330
Quality Control	NR	43	48	4.62	1322	NR
True Value QC	NR	50	50	5.00	1413	NR
% Recovery	NR	86.0	96.0	92.4	93.6	NR
Relative Percent Difference	NR	0	0	9.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	11/08/02	11/08/02	11/08/02	11/08/02	11/08/02	11/11/02
H7186-1 -	224	34	0	403	7.15	937
Quality Control	1000	49.87	NR	991	7.04	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	100	99.7	NR	99.1	101	NR
Relative Percent Difference	5.0	1.3	NR	0	0	8.8
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

11-11-02
Date

RECEIVED
NOV 13 2002
RICE OPERATING
HOBBS, NM

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H7186

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101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: Rice Operating Company	BILL TO
Project Manager: ~~Chris~~ Dennie Anderson	P.O. #:
Address: 122 W. Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: 393-9174 Fax #: 397-1471	Address:
Project #: ~~397-1471~~ Project Owner: Rice	City:
Project Name: Lot N-4-1 water sample ~~from stock tank~~	State: Zip:
Project Location: EUNICE	Phone #:
Sampler Name: Water Sample from Stock Tank	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Cations	Anions	TDS
H7186-1			✓										11-7-02	2:00pm	✓	✓	✓

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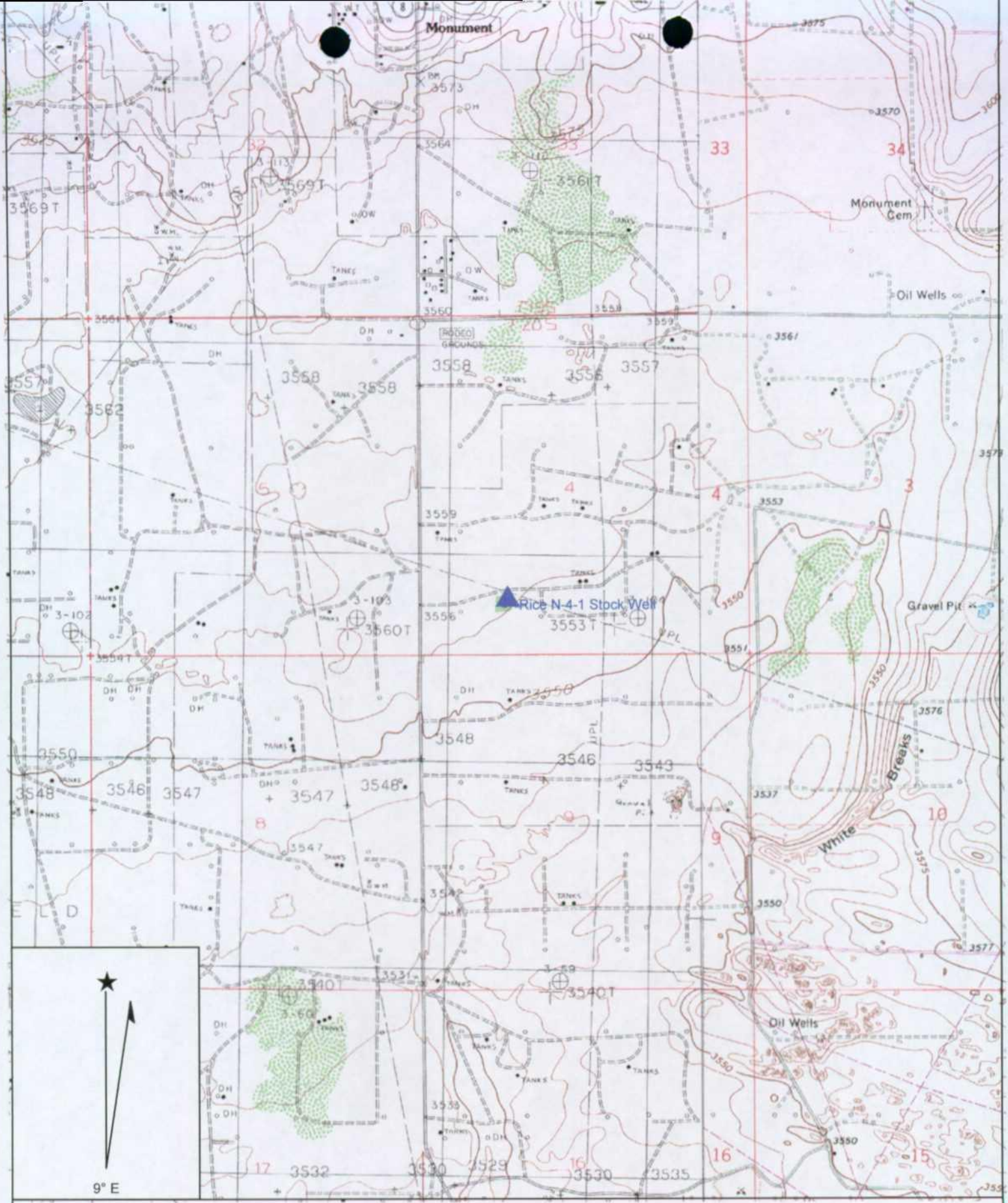
Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Chris Rodriguez	Date: 11-7-02 Time: 2:25pm	Received By:	Phone Result: ☐ Yes ☐ No
Relinquished By:	Date: 11/7/02 Time: 2:25	Received By: (Lab Staff) Amy Hill	Fax Result: ☐ Yes ☐ No
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Temp, °C / Intact? ☐ Yes ☐ No	Checked By: (Initials)	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to (915) 673-7020.



Name: MONUMENT SOUTH
Date: 4/10/2002
Scale: 1 inch equals 2000 feet

Location: 032° 35' 50.2" N 103° 15' 36.6" W
Caption: Figure 1. Location Map
Line N-4-1 Stock Well
Unit N, Section 4, T20S, R37E

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VI. Report Appendices

Appendix A
Copy of Analytical Results

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DAVE BOYER
703 E. CLINTON, STE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 06/04/02
Reporting Date: 06/05/02
Project Owner: RICE
Project Name: RICE JUNCTION BOX N-4-1
Project Location: MONUMENT, NM

Sampling Date: 05/30/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	06/05/02	06/04/02	06/04/02	06/04/02	06/04/02	06/04/02
H6778-1 N-4-1 WELL	154	97	32	4.47	1419	293
Quality Control	NR	48.3	50.2	5.21	1489	NR
True Value QC	NR	50.0	50.0	5.00	1413	NR
% Recovery	NR	96.5	100	105	105	NR
Relative Percent Difference	NR	0	0	1.2	0.3	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	06/04/02	06/04/02	06/04/02	06/04/02	06/04/02	06/05/02
H6778-1 N-4-1 WELL	228	96.6	0	358	7.09	890
Quality Control	980	52.43	NR	948	6.99	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	98.0	105	NR	94.8	99.9	NR
Relative Percent Difference	6.0	0.2	NR	2.7	0	8.8
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

06/05/2002
Date

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H6778

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	SESI	BILL TO	PO #:
Project Manager:	D. Boyer	Company:	SAME
Address:	703 E. CLINTON, #103	Attn:	KRISTI
City:	HOBBS State: NM Zip: 88240	Address:	
Phone #:	(505) 397-0510	City:	
Fax #:	(505) 393-4388	State:	Zip:
Project #:	Project Owner: Rice	Phone #:	
Project Name:	Rice Junction Box N-4-1	Fax #:	
Project Location:	Monument		

ANALYSIS REQUEST

Chlorides, Hydrocarbons

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H67784	N-4-1 Well	X	1	X							X		5/30/02	1815

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: D. Boyer	Date: 6/4/02 Time: 10:15 AM	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: Time:	Received By: (Lab Staff) Burgett A. Cook	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

Appendix B
Water Analysis Validation

Cations and Anions Calculation Check						
	Sample Name	Sample 1				
	Well Number	Rice N-4-1 Stock Well				
	Date	05/30/02				
Equivalent Weight:	Lab	Cardinal				
22.99	Sodium (mg/L)	154				
20.04	Calcium (mg/L)	97				
12.15	Magnesium (mg/L)	32				
39.09	Potassium (mg/L)	4.47				
35.45	Chloride (mg/L)	228				
48.04	Sulfate (mg/L)	97				
30.00	Carbonate (mg/L)	0.0				
61.01	Bicarbonate (mg/L)	358				
50.04	Alkalinity (mg/L CaCO3)	293				
62.00	Nitrate (mg/L)	0				
	Elect. Conductivity (umhos/cm)	1,419				
	Measured TDS (evap., mg/L)	890				
1.	**Bicarbonate check (mg/L)**	357				
	Sum Cations (meq/L)	14.3				
	Sum Anions (meq/L)	14.3				
2.	**Percent Difference**	0.0				
	TDS (calc. USGS sum, mg/L)	788				
3.	**TDS (meas.) / TDS (calc. USGS)**	1.1				
	TDS (calc. sum, mg/L)	970				
	*TDS (C*0.7, mg/L)*	993				
4.	**TDS (calc. USGS) / Conductivity**	0.56				
	Test Criteria					
1. Bicarbonate Check:			Check value = reported value			
2. Anion-Cation Balance:			Anion Sum	Max % diff.		
			0 - 3.0	± 0.2		
			3.0 - 10.0	± 2		
			10.0 - 800	± 5		
3. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2			
4. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7			

Rice Operating Company
Line N-4-1 Monitor Well Report
Section 4, T20S, R37E
Lea County, New Mexico

2nd Quarter 2002

June 2002

Prepared for:

Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

By:

Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510

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IV. Discussion of Results

The most recent analytical results show the stock well does not exceed New Mexico groundwater quality standards. Total dissolved solids and chloride concentrations are improved over a sample taken in March 2002. The location of the well is in an area where past historic oil and gas practices have caused extensive groundwater contamination problems. The earlier exceedance of standards in March was likely representative of current water quality conditions in the area and not due to impact from the N-4-1 Junction Box.

I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection at a stock watering well near the Line N-4-1 Junction Box (See Figure 1, Vicinity Map). The subject area is located in SE/4 SW/4 (OCD Unit letter N) of Section 4, Township 20 S, Range 37 E in Lea County, New Mexico. The location is approximately two miles south of Monument.

The stock well is located approximately 100 ft. west of the junction box, and fills an unlined stock pond. Water is pumped from the well several hours each a day with a submersible pump that is automatically turned on with a timer.

II. Work Performed

SESI's environmental technician arrived at the site on May 30, 2002. The pump was running at the time of arrival. The water sample was collected from the outlet pipe where it enters the pond. The sample was placed in clean glass jar and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses performed were for major Cations and Anions (See Analytical Results).

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

Table 1. Rice Line N-4-1 Stock Well Chemical Analyses
for Cations and Anions

Sample Identification	Sample Date	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
Stock Well	03/07/02	189	120	25	5.75	1,749	320
	05/30/02	154	97	32	4.47	1,419	293
Groundwater Standard		--	--	--	--	--	--

Sample Identification	Sample Date	Cl (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
Stock Well	03/07/02	**264**	124	0	390	7.53	**1,007**
	05/30/02	228	96.6	0	358	7.09	890
Groundwater Standard		250	600	--	--	6 - 9	1,000

* **Bold** exceeds NM WQCC Groundwater Standard

V. Report Figures

Figure 1. Location Map

Rice Operating Company
Line N-4-1 Monitor Well Report
Section 4, T20S, R37E
Lea County, New Mexico

April 8, 2002

1st Quarter 2002

Prepared for:

Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

By:

Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510

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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection at a stock watering well near the Line N-4-1 Junction Box (See Figure 1, Vicinity Map). The subject area is located in SE/4 SW/4 (OCD Unit letter N) of Section 4, Township 20 S Range 37 E in Lea County, New Mexico. The location is approximately two miles south of Monument.

The stock well is located approximately 100 ft. west of the junction box, and fills an unlined stock pond. Water is pumped from the well several hours each a day with a submersible pump that is automatically turned on with a timer.

II. Work Performed

SESI's environmental technician arrived at the site on March 7, 2002. He manually activated the timer and let the pump run for approximately 10 minutes. The sample was collected from the outlet pipe where it enters the pond. The sample was collected and placed in clean glass jar and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses were Major Cations and Anions (See Analytical Results).

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

Table 1. Rice Line N-4-1 Stock Well Chemical Analyses for Cations and Anions, March 7, 2002.

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
Stock Well	189	120	25	5.75	1,749	320
Groundwater Standard	--	--	--	--	--	--

SAMPLE ID	Cl (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
Stock Well	**264**	124	0	390	7.53	**1,007**
Groundwater Standard	250	600	--	--	6 - 9	1,000

* **Bold** exceeds NM WQCC Groundwater Standard

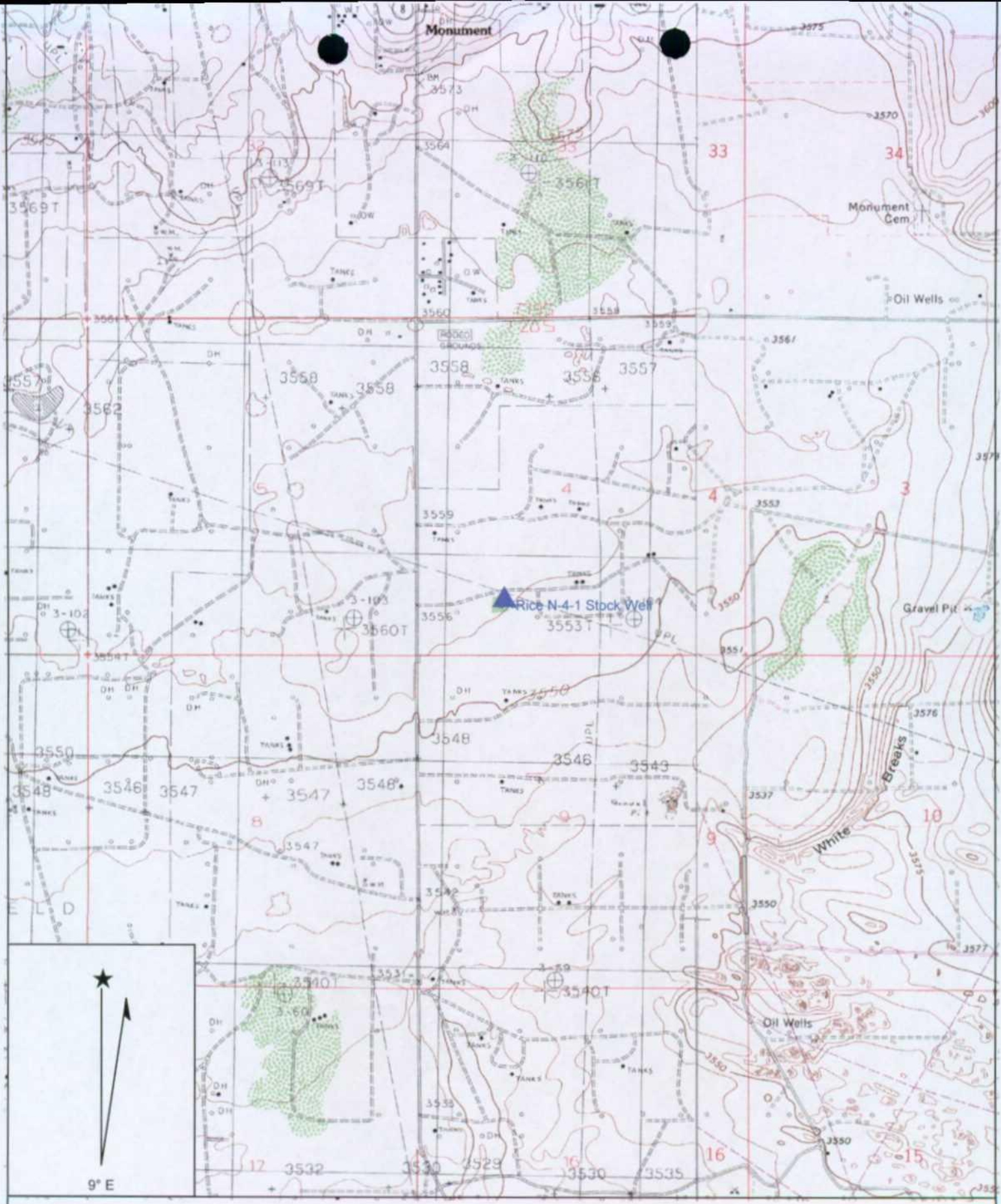
IV. Discussion of Results

The analytical results show the stock well slightly exceeds groundwater quality standards for chloride and total dissolved solids. However, the location of the well is in an area where past historic oil and gas practices have caused extensive groundwater contamination problems. Because the results are so close to groundwater standards, they are likely representative of current water quality conditions in the area and not due to impact from the N-4-1 Junction Box.

This is the first sampling of the well at this location. The well is scheduled to be sampled quarterly and future results will be compared to the current results for possible changes in water quality.

V. Report Figures

Figure 1. Location Map



Name: MONUMENT SOUTH
Date: 4/10/2002
Scale: 1 inch equals 2000 feet

Location: 032° 35' 50.2" N 103° 15' 36.6" W
Caption: Figure 1. Location Map
Line N-4-1 Stock Well
Unit N, Section 4, T20S, R37E

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VI. Report Appendices

Appendix A
Copy of Analytical Results

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC
ATTN: DAVE BOYER
703 E. CLINTON
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 03/07/02
Reporting Date: 03/11/02
Project Number: NOT GIVEN
Project Name: RICE N-4-1 JCT BOX
Project Location: SEC4, T20S, R37E

Sampling Date: 03/07/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		03/08/02	03/08/02	03/08/02	03/08/02	03/08/02	03/08/02
H6575-1-1	RICE N-4-1	189	120	25	5.75	1749	320
	STOCK WELL						
Quality Control		NR	55	49	5.27	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	97.2	105	105	NR
Relative Percent Difference		NR	0	6.0	0	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		03/08/02	03/08/02	03/08/02	03/08/02	03/08/02	03/11/02
H6575-1-1	RICE N-4-1	264	124	0	390	7.53	1007
	STOCK WELL						
Quality Control		1040	52.66	NR	975	7.11	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		104	105	NR	97.5	102	NR
Relative Percent Difference		2.0	0.6	NR	2.7	0.4	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

3-11-02
Date

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H6575

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101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name:	Safety & Environmental	BILL TO	PO #:
Project Manager:	Dave Boyer	Company:	SESI
Address:	P.O. Box 1613	Attn:	Kristi
City:	Hobbs State: NM Zip: 88241	Address:	
Phone #:	397-0510	City:	
Fax #:	393-4388	State:	Zip:
Project #:	Project Owner:	Phone #:	
Project Name:	Rice N-4-1 Junction Box	Fax #:	
Project Location:	Section 4, T20S, R37E		

ANALYSIS REQUEST: Cl, BTEX, Mid Drag, TDS

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE (2002)	TIME	
H6575-1	Rice N-4-1 Stock Well	X	1	X									03/07	1555	X

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 03/07/02	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time: 1645		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS:
	Time:		
Delivered By: (Circle One)		Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:			

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

Appendix B
Water Analysis Validation

Cations and Anions Calculation Check							
	Sample Name	Sample 1					
	Well Number	Stock Well					
	Date	03/07/02					
Equivalent Weight:	Lab	Cardinal					
22.99	Sodium (mg/L)	189					
20.04	Calcium (mg/L)	120					
12.15	Magnesium (mg/L)	25					
39.09	Potassium (mg/L)	5.8					
35.45	Chloride (mg/L)	264					
48.04	Sulfate (mg/L)	124					
30.00	Carbonate (mg/L)	0.0					
61.01	Bicarbonate (mg/L)	390					
50.04	Alkalinity (mg/L CaCO3)	320					
62.00	Nitrate (mg/L)	0					
	Elect. Conductivity (umhos/cm)	1,749					
	Measured TDS (evap., mg/L)	1,007					
1.	**Bicarbonate check (mg/L)**	390					
	Sum Cations (meq/L)	16.4					
	Sum Anions (meq/L)	16.4					
2.	**Percent Difference**	0.0					
	TDS (calc. USGS sum, mg/L)	920					
3.	**TDS (meas.) / TDS (calc. USGS)**	1.1					
	TDS (calc. sum, mg/L)	1,118					
	*TDS (C*0.7, mg/L)*	1,224					
4.	**TDS (calc. USGS) / Conductivity**	0.53					
	Test Criteria						
1. Bicarbonate Check:			Check value = reported value				
2. Anion-Cation Balance:			Anion Sum	Max % diff.			
			0 - 3.0	± 0.2			
			3.0 - 10.0	± 2			
			10.0 - 800	± 5			
3. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2				
4. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7				

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	<0.002	<0.002	<0.002	<0.006
H6239-2	WATER WELL	<0.002	<0.002	<0.002	<0.006
Quality Control		0.114	0.105	0.104	0.305
True Value QC		0.100	0.100	0.100	0.300
% Recovery		114	105	104	102
Relative Percent Difference		0.5	2.1	4.6	4.6

METHOD: EPA SW-846 8260

Chemist

10/26/01
Date

RECEIVED
OCT 29 2001
RICE OPERATING
HOBBS, NM

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	66	150	43	7.29	1496	243
H6239-2	WATER WELL	68	160	67	5.53	1656	354
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/26/01
H6239-1	SB 2 >20 GAL	280	64	0	297	7.30	738
H6239-2	WATER WELL	280	80	0	431	7.15	990
Quality Control		970	50.95	NR	944	6.96	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	102	NR	94.4	99.4	NR
Relative Percent Difference		4.0	2.7	NR	5.9	0.1	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

10-26-01
Date

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CARDINAL LABORATORIES, INC.

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101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	Rice Operating Company
Project Manager:	Donnie Anderson
Address:	122 W. TAYLOR
City:	HOBBS State: NM Zip: 88240
Phone #:	393-9174 Fax #: 397-1471
Project #:	EME N-4-1 Project Owner: RICE
Project Name:	N-4-1 Soil borings
Project Location:	Lea County, NM
Sampler Name:	D. Anderson

BILL TO

P.O. #:	510
Company:	Rice
Attn:	D. Anderson
Address:	same
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	Correlation - cations + anions	Total Dissolved Solids	BTEX									
H10239-1	SB-2 >30gal.	G	1	X							X		10/24/01	1500	✓	✓	✓									
-2	WATERWELL	G	1	X							X		10/25/01	0980	✓	✓	✓									

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: D. Anderson	Date: 10/25/01 Time: 1020	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 10/25/01 Time: 10:25	Received By: (Lab Staff) Amy Hill	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)

REMARKS:

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

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	N--4-1	N	4	20S	37E	LEA	12	7	8

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER ELSIE REEVES OTHER _____

Depth to Groundwater 31 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 5/6/2002 Date Completed 8/8/2002 OCD Witness NO

Soil Excavated 400 cubic yards Excavation Length 40 Width 35 Depth 8 feet

Soil Disposed 168 cubic yards Offsite Facility J&L LANDFARM Location MONUMENT, NM

ANALYTICAL RESULTS:

Sample Date 8/6/2002 **Sample Depth** 8'

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS	<0.005	<0.005	<0.005	<0.015	<10	17.4	800
BOTTOM	<0.005	<0.005	<0.005	<0.015	79	734	592

General Description of Remedial Action: Four soil borings were completed at this site in October, 2001 to investigate possible groundwater impact. SB #1, adjacent to this junction box found chlorides to groundwater at 31' bgs and TPH stopped at 10' bgs. Water samples taken from all four soil borings indicated chlorides at WQCC guidelines. A groundwater well located just west of this site is sampled quarterly to monitor groundwater quality. All this information has been approved by the NMOCD and a copy is included in this report. Vertical delineation of the box to 12.5' bgs found chlorides diminishing from 3287 ppm at 5' to 554 ppm at 12.5' bgs. The lateral extent was delineated to 8' bgs and a compacted clay liner was installed and tested. The test results are included. Fresh soil was hauled and blended and backfilled. A water proof junction box installed. The groundwater well will continue to be sampled and an annual report will be sent to the NMOCD.

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
SIDEWALLS	6'	856
BOTTOM	8'	607
Vertical Trench	5'	3287
	9'	300
	11'	788
	12.5'	554

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

DATE January 27, 2003 PRINTED NAME D. E. Anderson

SIGNATURE _____ TITLE Project Leader - Environmental

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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

Receiving Date: 08/09/02
Reporting Date: 08/10/02
Project Owner: ROC
Project Name: EME JCT. BOX UPGRADE
Project Location: JCT N-4-1

Sampling Date: 08/06/02
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		08/10/02	08/10/02	08/10/02	08/10/02
H6947-1	8' BGS BTM. COMP.	<0.005	<0.005	<0.005	<0.015
H6947-2	6' BGS WALL COMP.	<0.005	<0.005	<0.005	<0.015
Quality Control		0.100	0.092	0.095	0.276
True Value QC		0.100	0.100	0.100	0.300
% Recovery		100	92.3	94.6	92.1
Relative Percent Difference		8.2	8.3	5.7	8.6

METHOD: EPA SW-846 8260

RECEIVED
AUG 13 2002
RICE OPERATING
HOBBS, NM

Chemist

8/10/02
Date

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

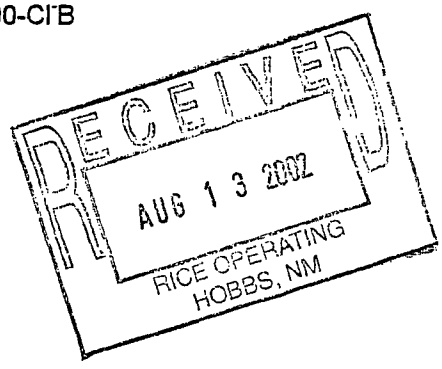
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: D. ANDERSON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 08/09/02
Reporting Date: 08/12/02
Project Owner: ROC
Project Name: EME JCT. BOX UPGRADE
Project Location: JCT N-4-1

Sampling Date: 08/06/02
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		08/10/02	08/10/02	08/12/02
H6947-1	8' BGS BTM. COMP.	78.9	734	592
H6947-2	6' BGS WALL COMP.	<10.0	17.4	800
Quality Control		812	788	1030
True Value QC		800	800	1000
% Recovery		102	98.5	91.0
Relative Percent Difference		0.6	4.2	1.2

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



Chemist

8/13/02
Date

H6947A.XLS

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name:	Rice Operating Company
Project Manager:	D. Anderson
Address:	122 W Taylor
City:	Hobbs State: NM Zip: 88240
Phone #:	393 9174 Fax #: 397-1471
Project #:	Project Owner: ROC
Project Name:	EME Jct box upgrade
Project Location:	Jct N-4-1
Sampler Name:	D. Anderson

BILL TO

P.O. #:	716
Company:	ROC
Attn:	D. Anderson
Address:	Same
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chlorides	TPH 8015M	BTEX
H6947-1	8' bgs btm comp.	✓	1			✓					✓		8/6/02	1700	✓	✓	✓
-2	6' bgs wall comp	✓	1			✓					✓		8/6/02	1700	✓	✓	✓

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Sampler Relinquished: D. Anderson	Date: 8/9/02 ~~8/6/02~~ Time: 1130	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 08/09/2002 Time: 11:30A	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler / UPS - Bus - Other:	Sample Condition: Cool ☐ Yes ☐ No Intact ☒ Yes ☐ No	CHECKED BY: (Initials)	REMARKS:

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

LABORATORY TEST REPORT

PETTIGREW and 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: Donnie Anderson
122 W. Taylor
Hobbs, New Mexico 88240

MATERIAL: Red Clay

TEST METHOD: ASTM: D 2922

PROJECT: Junction N 41

DATE OF TEST: August 7, 2002

DEPTH: Finished Subgrade

TEST NO.	LOCATION	DRY DENSITY % Maximum	% MOISTURE	DEPTH
SG-1	Junction Box N 41 " EME System"	93.3	18.3	

CONTROL DENSITY: 106.7
ASTM: D 698

OPTIMUM MOISTURE: 18.6%

REQUIRED COMPACTION: 95%

LAB NO.: 02-2697-2699

COPIES TO: Rice - Don Anderson

PETTIGREW and ASSOCIATES

BY: Don Reese E.T.

J & L LANDFARM, INC.
P.O. BOX 356
HOBBS, NEW MEXICO 88241-0356
PHONE (505) 393-9697 • PERMIT # NM-01-0023

0302

Generator/Company RICE OPERATING CO.

Authorized Representative DONNIE ANDERSON

Originating Site J.C.T. N-4-1 EME
S-4 T20S R37E

Transporter WALTON CONSTRUCTION CO

Authorized Representative Ramon Hernandez

Brief Description of Material NON-HAZ SOIL

Estimated Volume 168 YARDS

TPH SEE TEST

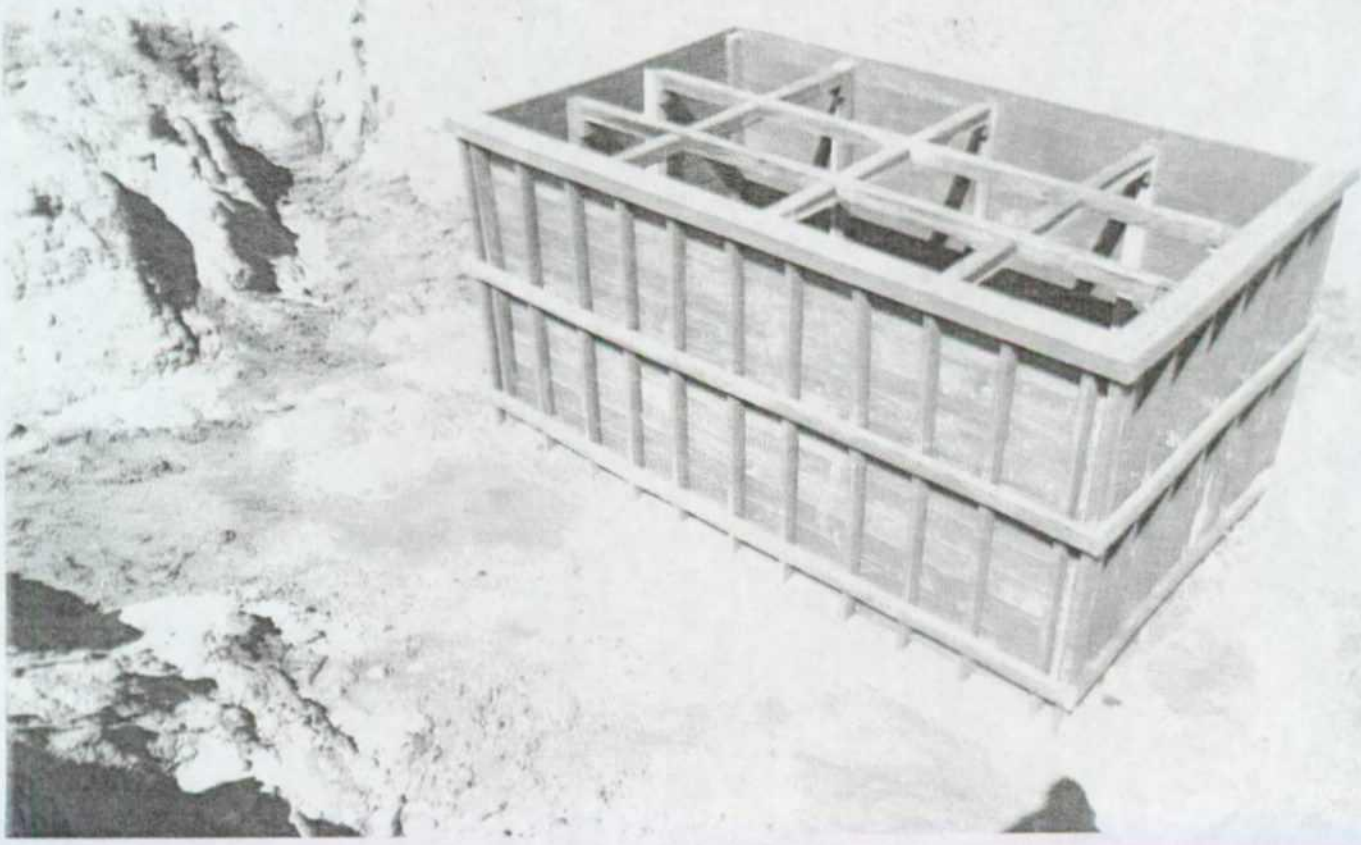
BE-TEX " "

CERTIFICATE OF CHEMICAL ANALYSIS (if required) N/A

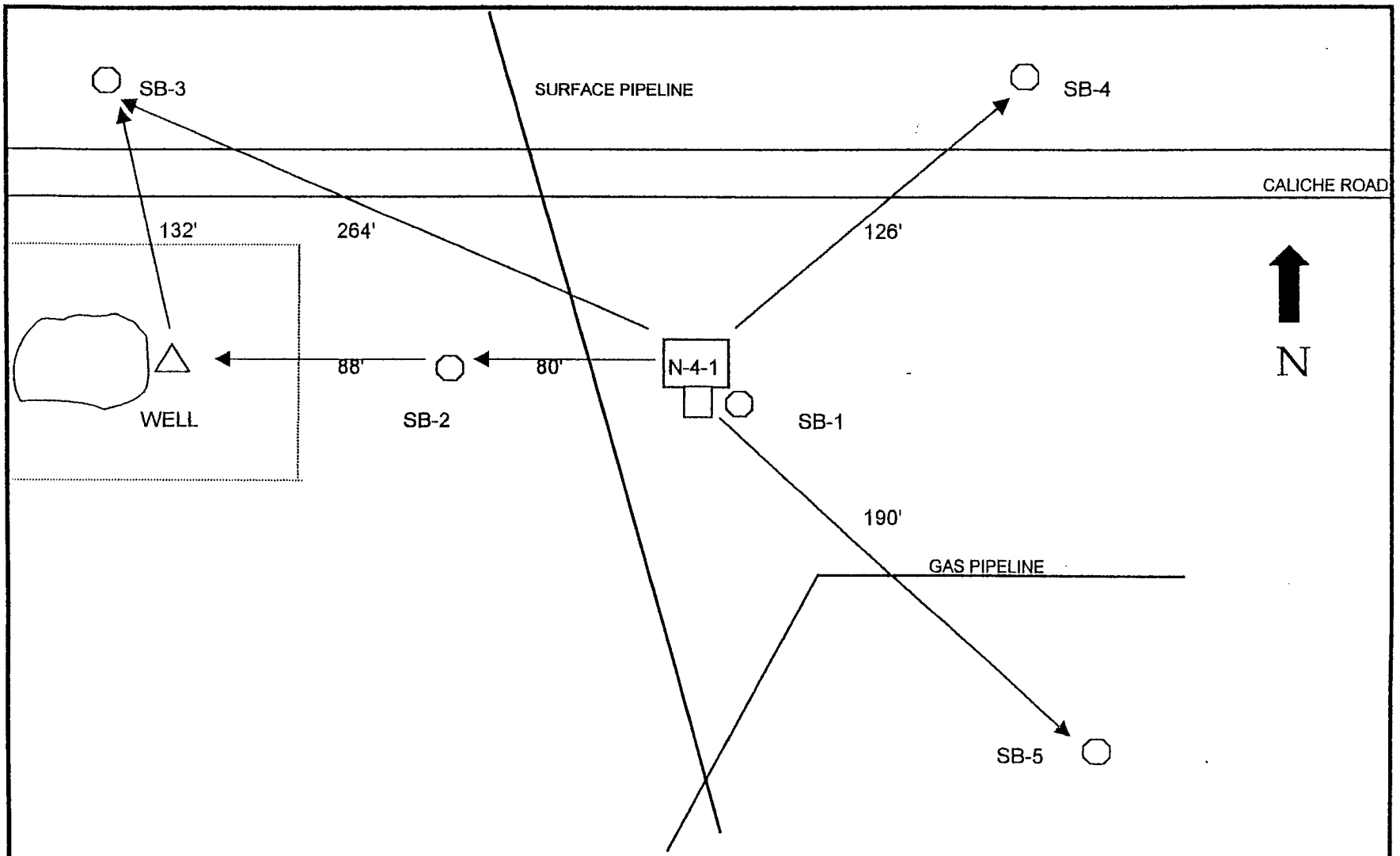
Lee M. Roberts
FACILITY AUTHORIZED REPRESENTATIVE

Aug. 6, 2002
DATE

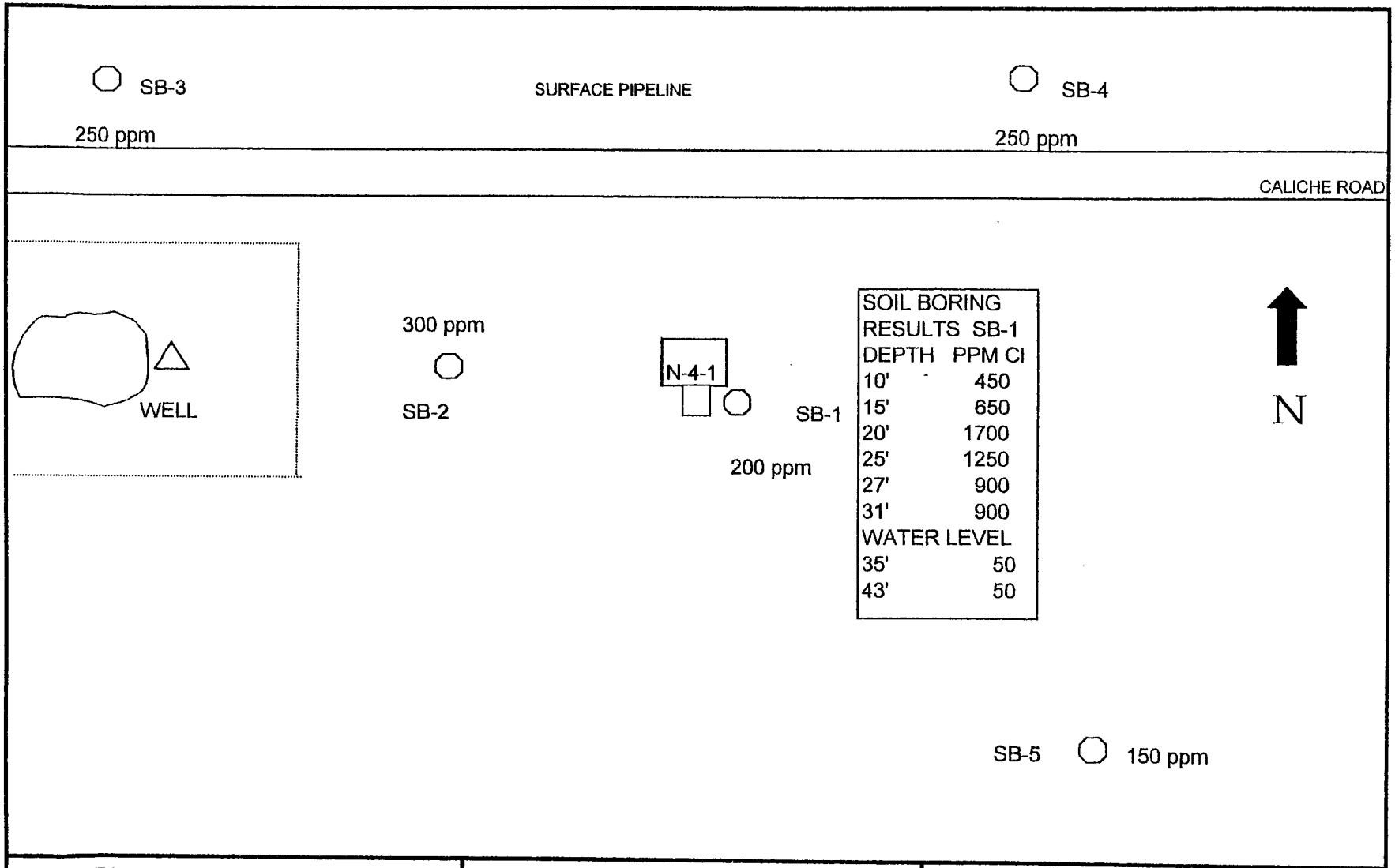
B-3186




DEERE
310E



Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/23/2001 SOIL BORING SITES	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico



Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/23/2001 SOIL BORING SITES FIELD CHLORIDE TEST RESULTS	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico

SB-3

PPM		
Cl	TDS	BTEX
240	616	<.006

SB-4

CALICHE ROAD

WELL

PPM			
DATE	Cl	TDS	BTEX
9/27/90	206	1063	
2/13/96	275	770	
5/10/00	877	2342	
10/25/01	280	990	<.006

SB-2

PPM		
Cl	TDS	BTEX
300	716	<.006
280	738	<.006*

* After bailing 20 gallons

N-4-1

SB-1

N

SB-5

Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/24/2001 SOIL BORING SITES LAB CHLORIDE TEST RESULTS	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico

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

Receiving Date: 10/23/01
Reporting Date: 10/24/01
Project Number: N-4-1
Project Name: N-4-1 SOIL BORINGS SAMPLES (WATER)
Project Location: EME

Sampling Date: 10/23/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/23/01	10/23/01	10/23/01	10/23/01
H6234-2	NH4-1 SB 2	<0.002	<0.002	<0.002	<0.006
H6234-3	NH4-1 BORE #3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.107	0.102	0.111	0.326
True Value QC		0.100	0.100	0.100	0.300
% Recovery		107	102	111	109
Relative Percent Difference		5.7	0.8	1.7	2.3

METHOD: EPA SW-846 8260

Chemist

10/24/01
Date

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

Receiving Date: 10/23/01
Reporting Date: 10/25/01
Project Number: N-4-1
Project Name: N-4-1 SOIL BORINGS SAMPLES (WATER)
Project Location: EME

Sampling Date: 10/23/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO3/L)
ANALYSIS DATE:		10/24/01	10/24/01	10/24/01	10/24/01	10/24/01	10/24/01
H6234-2	NH4-1 SB 2	32	150	49	143	1662	265
H6234-3	NH4-1 BORE #3	78	110	61	6.58	2001	288
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl⁻ (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/24/01	10/24/01	10/24/01	10/24/01	10/24/01	10/25/01
H6234-2	NH4-1 SB 2	300	135	0	324	7.36	716
H6234-3	NH4-1 BORE #3	240	125	0	288	7.47	616
Quality Control		970	50.95	NR	944	6.97	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	102	NR	94.4	99.6	NR
Relative Percent Difference		4.0	2.7	NR	5.9	0.6	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

10/25/2001
Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: Rice Operating Co.	BILL TO
Project Manager: Donnie Anderson	P.O. #:
Address: 122 W. TAYLOR	Company: Rice
City: Hobbs State: N.M. Zip: 88240	Attn: Donnie Anderson
Phone #: 393-9174 Fax #: 397-1471	Address: 122 W. TAYLOR
Project #: NM4-1 Project Owner:	City: Hobbs
Project Name: N-4-1 soil borings samples (WATER)	State: NM Zip: 88240
Project Location: E M E	Phone #: 393-9174
Sampler Name:	Fax #: 397-1471

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CATIONS / ANIONS	BTEX
H6234-1	NM4-1 - SB 1					X							10/23/2001		X	X
-2	NM4-1 - SB 2					X									X	X
-3	NM4-1 - BORE H 3					X									X	X
-4	NM-4-1 - BORE H 4					X									X	X
-5	NM-4-1 - BORE H 5					X									X	X

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Sampler Relinquished: Chris Rodriguez	Date:	Received By:	
	Time:		
Relinquished By:	Date: 10/23/2001	Received By: (Lab Staff)	
	Time: 4:35 PM		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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

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

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	<0.002	<0.002	<0.002	<0.006
H6239-2	WATER WELL	<0.002	<0.002	<0.002	<0.006
Quality Control		0.114	0.105	0.104	0.305
True Value QC		0.100	0.100	0.100	0.300
% Recovery		114	105	104	102
Relative Percent Difference		0.5	2.1	4.6	4.6

METHOD: EPA SW-846 8260

Chemist

10/26/01
Date

RECEIVED
OCT 29 2001
RICE OPERATING
HOBBS, NM

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3$/L)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	66	150	43	7.29	1496	243
H6239-2	WATER WELL	68	160	67	5.53	1656	354
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/26/01
H6239-1	SB 2 >20 GAL	280	64	0	297	7.30	738
H6239-2	WATER WELL	280	80	0	431	7.15	990
Quality Control		970	50.95	NR	944	6.96	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	102	NR	94.4	99.4	NR
Relative Percent Difference		4.0	2.7	NR	5.9	0.1	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

10-26-01
Date

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CARDINAL LABORATORIES, INC.

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	Rice Operating Company
Project Manager:	Donnie Anderson
Address:	122 W. TAYLOR
City:	HOBBS State: NM Zip: 88240
Phone #:	393-9174 Fax #: 397-1471
Project #:	EME N-4-1 Project Owner: RICE
Project Name:	N-4-1 Soil borings
Project Location:	Lea County, NM
Sampler Name:	D. Anderson

BILL TO

P.O. #:	510
Company:	Rice
Attn:	D. Anderson
Address:	same
City:	
State:	Zip:
Phone #:	
Fax #:	

LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	ANALYSIS REQUEST: Cation/Anion - Cations + Anions	Total Dissolved Solids	BTEX
H10231-1	SB-2 >30 gal.	G	1	X							X		10/24/01	1500	✓	✓	✓
-2	WATER WELL	G	1	X							X		10/25/01	0900	✓	✓	✓

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished:	Date: 10/25/01 Time: 1020	Received By:	
Relinquished By:	Date: 10/25/01 Time: 10:25	Received By: (Lab Staff)	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#1

WELL LOG

From	To	FORMATION
0	1	Top Soil
1	13	Caliche
13	24	Dry Clay
24	30	Sand and Clay Stringers
30	46	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#3

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	13	Caliche
13	22	Dry Sandy Clay
22	29	Sand
29	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044

Irrigation - Domestic - Environmental - Test Holes

1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#2

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	13	Caliche
13	17	Sand and Clay Stringers
17	30	Dry Clay
30	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#4

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	12	Caliche
12	17	Sand and Clay Stringers
17	27	Dry Clay
27	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD 1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#5

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	12	Caliche
12	27	Sand and Sandy Brown Clay Stringers
27	31	Sandy Brown Clay
31	32	Sand and Sandstone Stringers
32	45	Sandy and Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD 1332

RICE Operating Company
122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 1530 0005 9895 4312

November 20, 2001

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: GROUNDWATER CONTAMINATION
ELSIE REEVES RANCH
Unit Letter N, Sec. 4, T20S, R37E
LEA COUNTY, NEW MEXICO

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to summarize the environmental investigative work completed at the Eunice Monument Eumont (EME) SWD System Jct. N-4-1.

ROC was asked by the NMOCD on November 8, 2000, to initiate a work plan for investigation of potential contamination at this site. A water sample taken from the landowner's stock water well, approximately 170' west of Jct. N-4-1, was analyzed on June 6, 2000. The results of this analysis included 877 ppm chlorides and 2342 ppm Total Dissolved Solids (TDS). The results of this sample lead the NMOCD to initiate their request to ROC. A work plan was submitted January 4, 2001 and approved October 3, 2001.

In accordance with the work plan, ROC completed 5 soil borings around Jct. N-4-1 on October 23, 2001 and collected soil and water samples from each of the borings. Ground water in this area is 31' bgs.

Soil samples were collected at 5' intervals and field-tested for chlorides from the five soil borings. The results of these field tests are listed on the following table.

SITE	Depth	5'	10'	15'	20'	25'	30'
SB-1	Cl ppm	1000	450	650	1700	1250	900
SB-1	TPH ppm	N/A	956	40	N/A	N/A	N/A
SB-2	Cl ppm	175	50	50	50	50	50
SB-3	Cl ppm	N/A	132	N/A	110	N/A	50
SB-4	Cl ppm	N/A	150	N/A	150	N/A	50
SB-5	Cl ppm	N/A	57	N/A	100	N/A	10

The field tests of the soil samples from SB-1 demonstrate shallow TPH impact and some chloride impact to the soil under the junction box. Soil samples from > 15' showed no odor, so were not tested for TPH.

The water sample results are listed on the following table.

Soil Borings	Field Test	Lab Tests		
Location	Chlorides (ppm)	Chlorides (ppm)	TDS (ppm)	BTEX (ppm)
SB 1	200	N/A	N/A	N/A
SB 2	300	300	716	<.006
SB 2	After bailing 20 gal	280	738	<.006
SB 3	250	240	606	<.006
SB 4	250	N/A	N/A	N/A
SB 5	150	N/A	N/A	N/A
Water Well	N/A	280	990	<.006

The TDS results from the livestock water well are within the WQCC limits of 1000 ppm TDS. The chlorides results from the boring water samples indicate there is some natural variation of chlorides in the groundwater.

The landowner pumps the water well once a day for 2.5 hours to maintain water in the dirt tank for his livestock. This well pumps at an estimated rate of 12-15 gallons per minute. This consistent pumping of the well has improved the water quality.

ROC proposes quarterly monitoring water quality of the livestock water well as a long-term evaluation of the groundwater quality at this site. This well is in close proximity to Jct. N-4-1 and the water withdrawal is adequate enough to cause ground water to be drawn from beneath Jct. N-4-1 toward the well. A qualified third party, Safety and Environmental Solutions, will conduct the sampling according to NMOCD guidelines. These samples will be taken to a NMOCD certified lab and analyzed for major anions and cations, Total Dissolved Solids and BTEX using EPA approved methods. A copy of the results will be sent to the landowner and to the local NMOCD office. ROC also proposes plugging the soil borings with hydrated bentonite to prevent any foreign matter from entering the ground water.

ROC has conducted NORM screening at Jct. N-4-1 and found the NORM level to be greater than 50μR/hr. This result determines that the site must be first handled as a NORM impacted area with subsequent site characterization conducted in accordance with the NMOCD approved Remediation Plan for Below Grade junction boxes. (The NORM concentration is not of a level that prioritized this site to be included in the first year's list of junction box work.)

The junction box area will be excavated to a level of constituents that will not adversely impact the ground water and a compacted clay liner will be installed to contain/isolate impact and prevent downward percolation or migration of the constituents to groundwater. Highly impacted soil will be hauled to a permitted facility. ROC is scheduled to initiate the junction box work plan at Jct. N-4-1 in early 2002.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of the pipeline, well or facility. The EME System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis

Thank you for your consideration of this proposal. Please call if you have any questions.

RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Enclosures
Jct. N-4-1 Maps
Lab Results
Boring Logs

Cc: CDH, file,
Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

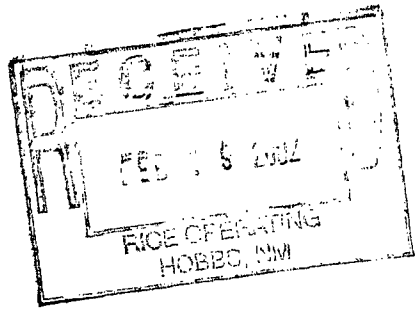
NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Acting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

February 14, 2002

CERTIFIED MAIL
RETURN RECEIPT NO: 7001-1940-0004-3929-7150



Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: CASE #1R224
JUNCTION BOX N-4-1/ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

Dear Mr. Anderson:

The New Mexico Oil Conservation Division (OCD) has reviewed Rice Operating Company's (Rice) November 20, 2001 "GROUND WATER CONTAMINATION, ELSIE REEVES RANCH, UNIT LETTER N, SEC 4, T20S, R37E, LEA COUNTY, NEW MEXICO". This document contains the results of Rice's investigation of the extent of contamination related to Junction Box N-4-1 located in Unit N, Section 4, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The document also contain a plan to remediate contaminated soils pursuant to Rice's previously approved remediation plan for below grade junction boxes and monitor ground water quality at the adjacent stock well on a quarterly basis.

The above referenced remediation and monitoring plans are approved with the following conditions:

1. All wastes generated during the investigation shall be disposed of at an OCD approved facility.

2. Rice shall submit a report containing the results of the soil remediation activities to the OCD by April 15, 2002 with a copy provided to the OCD Hobbs District Office.

   a. A description of the remediation activities which occurred including conclusions and recommendations.

   b. A site map showing the location of the junction box, pipelines, excavated areas, samples, borings, monitor wells, and any other pertinent site features.

c. A cross-sectional diagram of the excavation showing the area excavated and the liner system.

d. The disposition of all wastes generated.

3. Rice shall submit the results of the quarterly ground water monitoring to the OCD in an annual report. The report shall be submitted to the OCD Santa Fe Office by February 2, 2003 with a copy provided to the OCD Hobbs District Office and shall include:

a. A description of the monitoring activities which occurred including conclusions and recommendations.

b. A site map showing the location of the junction box, pipelines, borings, monitor wells, and any other pertinent site features.

c. Summary tables of all soil and ground water quality sampling results and copies of all laboratory analytical data sheets and associated quality assurance/quality control (QA/QC) data.

d. The disposition of all wastes generated.

Please be advised that OCD approval does not relieve Rice of responsibility should the work plan fail to adequately define the extent of contamination related to Rice's operations, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve Rice of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 2510 0007 2763 5169

April 26, 2002

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: CASE #1R224
JCT. N-4-1/ELSIE REEVES RANCH
Unit Letter N, Sec. 4, T20S, R37E
LEA COUNTY, NEW MEXICO

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to respond to your condition of approval for the above referenced remediation and monitoring plan. Thank you for your conditional approval of the remediation and monitoring plan. You requested a report on the results of the soil remediation activities by April 15, 2002.

I apologize for this late response to your request. This junction box is part of the Generic Junction Box Upgrade Plan for the Eunice Monument Eumont (EME) SWD System. While implementing the upgrade plan in the EME, we have encountered some sites that have unexpectedly required extensive work which has put us behind our anticipated schedule. The upgrade of Jct. N-4-1 is now scheduled for May 6, 2002. At the completion of this process, ROC will submit a report to the NMOCD complying with your request.

Thank you for your consideration of this response. Please call if you have any questions.

RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Cc: CDH, file,

Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

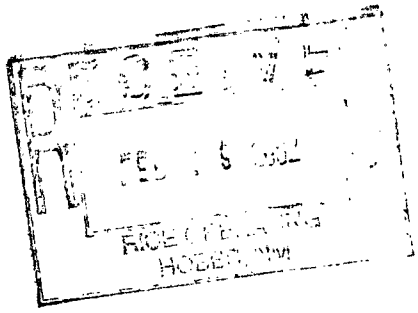
NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Acting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

February 14, 2002

CERTIFIED MAIL
RETURN RECEIPT NO: 7001-1940-0004-3929-7150



Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

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Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 2510 0007 2763 5169

RECEIVED
MAY 03 2002
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

April 26, 2002

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: CASE #1R224
JCT. N-4-1/ELSIE REEVES RANCH
Unit Letter N, Sec. 4, T20S, R37E
LEA COUNTY, NEW MEXICO

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RICE OPERATING COMPANY

Donnie Anderson
Project Leader-Environmental

Cc: CDH, file,
Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Acting Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

February 14, 2002

CERTIFIED MAIL
RETURN RECEIPT NO: 7001-1940-0004-3929-7150

Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

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

OIL CONSERVATION DIV.
01 NOV 26 PM 3:49

CERTIFIED MAIL
RETURN RECEIPT NO. 7000 1530 0005 9895 4312

November 20, 2001

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87505

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Unit Letter N, Sec. 4, T20S, R37E
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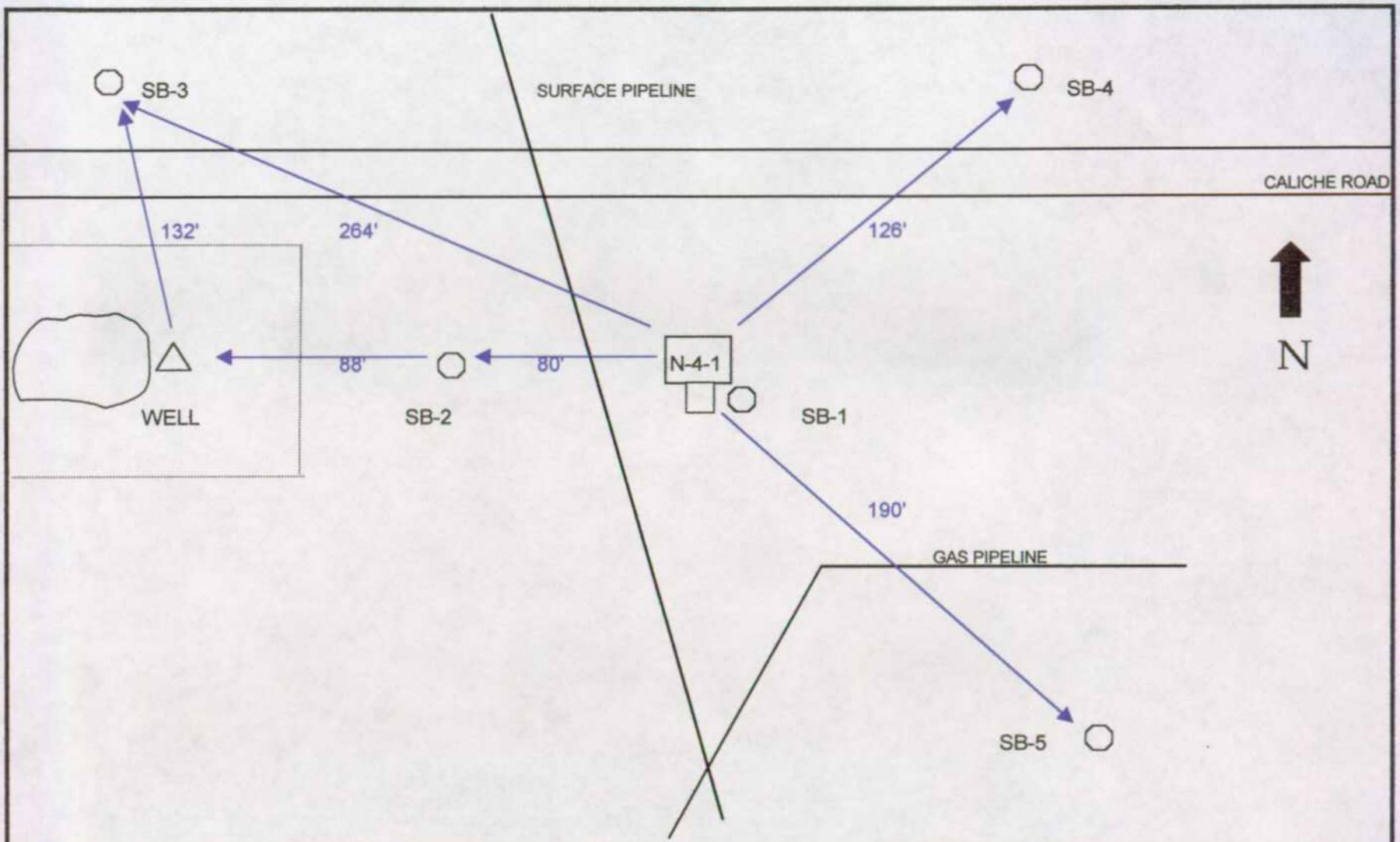
Thank you for your consideration of this proposal. Please call if you have any questions.

RICE OPERATING COMPANY

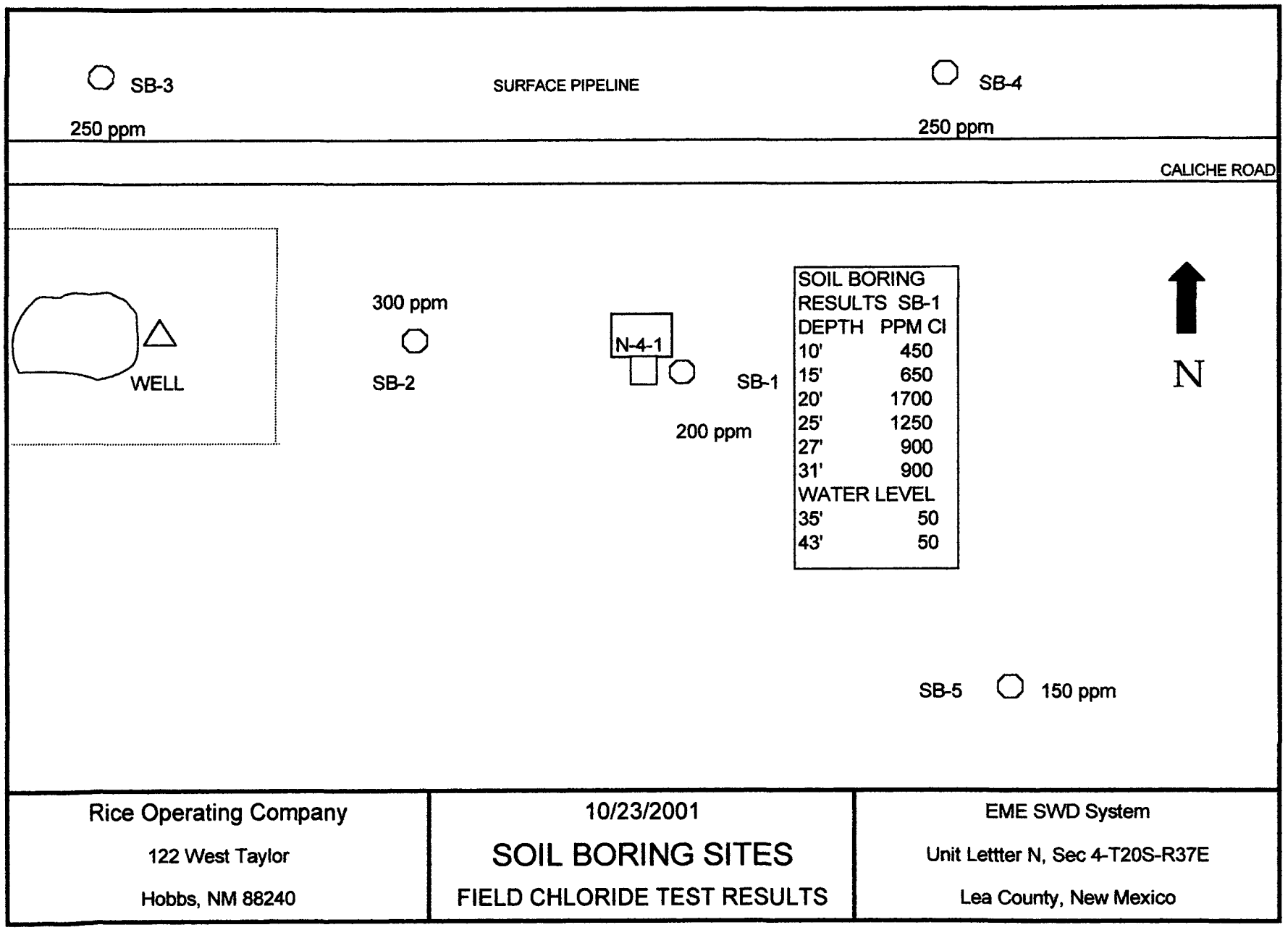
Donnie Anderson
Project Leader-Environmental

Enclosures
Jct. N-4-1 Maps
Lab Results
Boring Logs

Cc: CDH, file,
Mr. Chris Williams
NMOCD, District 1 Office
1625 N. French Drive
Hobbs, NM 88240



Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/23/2001 SOIL BORING SITES	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico



Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/23/2001 SOIL BORING SITES FIELD CHLORIDE TEST RESULTS	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico

SB-3

PPM		
Cl	TDS	BTEX
240	616	<.006

SB-4

CALICHE ROAD

WELL

PPM			
DATE	Cl	TDS	BTEX
9/27/90	206	1063	
2/13/96	275	770	
5/10/00	877	2342	
10/25/01	280	990	<.006

SB-2

PPM		
Cl	TDS	BTEX
300	716	<.006
280	738	<.006*

* After bailing 20 gallons

N-4-1

SB-1

N

SB-5

Rice Operating Company 122 West Taylor Hobbs, NM 88240	10/24/2001 SOIL BORING SITES LAB CHLORIDE TEST RESULTS	EME SWD System Unit Lettter N, Sec 4-T20S-R37E Lea County, New Mexico

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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

Receiving Date: 10/23/01
Reporting Date: 10/24/01
Project Number: N-4-1
Project Name: N-4-1 SOIL BORINGS SAMPLES (WATER)
Project Location: EME

Sampling Date: 10/23/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/23/01	10/23/01	10/23/01	10/23/01
H6234-2	NH4-1 SB 2	<0.002	<0.002	<0.002	<0.006
H6234-3	NH4-1 BORE #3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.107	0.102	0.111	0.326
True Value QC		0.100	0.100	0.100	0.300
% Recovery		107	102	111	109
Relative Percent Difference		5.7	0.8	1.7	2.3

METHOD: EPA SW-846 8260

Chemist

10/24/01
Date

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.

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

Receiving Date: 10/23/01
Reporting Date: 10/25/01
Project Number: N-4-1
Project Name: N-4-1 SOIL BORINGS SAMPLES (WATER)
Project Location: EME

Sampling Date: 10/23/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		10/24/01	10/24/01	10/24/01	10/24/01	10/24/01	10/24/01
H6234-2	NH4-1 SB 2	32	150	49	143	1662	265
H6234-3	NH4-1 BORE #3	78	110	61	6.58	2001	288
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/24/01	10/24/01	10/24/01	10/24/01	10/24/01	10/25/01
H6234-2	NH4-1 SB 2	300	135	0	324	7.36	716
H6234-3	NH4-1 BORE #3	240	125	0	288	7.47	616
Quality Control		970	50.95	NR	944	6.97	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	102	NR	94.4	99.6	NR
Relative Percent Difference		4.0	2.7	NR	5.9	0.6	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

10/25/2001
Date

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CARDINAL LABORATORIES, INC.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name: Rice Operating Co.	BILL TO
Project Manager: Donnie Anderson	P.O. #:
Address: 122 W. TAYLOR	Company: Rice
City: Hobbs State: N.M. Zip: 88240	Attn: Donnie Anderson
Phone #: 393-9174 Fax #: 397-1471	Address: 122 W. TAYLOR
Project #: N4-1 Project Owner:	City: Hobbs
Project Name: N-4-1 soil borings samples (WATER)	State: NM Zip: 88240
Project Location: E M E	Phone #: 393-9174
Sampler Name:	Fax #: 397-1471

ANALYSIS REQUEST: Cations / Anions; BTEX

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H6234-1	NH4-1 - SB -1												10/23/2001	
-2	NH4-1 - SB 2													
-3	NH4-1 - Bore # 3													
-4	NH-4-1 - Bore # 4													
-5	NH-4-1 - Bore # 5													

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Chris Rodriguez	Date:	Received By:	
	Time:		
Relinquished By:	Date: 10/23/2001	Received By: (Lab Staff)	
	Time: 4:35 PM		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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

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

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	<0.002	<0.002	<0.002	<0.006
H6239-2	WATER WELL	<0.002	<0.002	<0.002	<0.006
Quality Control		0.114	0.105	0.104	0.305
True Value QC		0.100	0.100	0.100	0.300
% Recovery		114	105	104	102
Relative Percent Difference		0.5	2.1	4.6	4.6

METHOD: EPA SW-846 8260

Chemist

10/26/01
Date

RECEIVED
OCT 29 2001
RICE OPERATING
HOBBS, NM

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

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

Receiving Date: 10/25/01
Reporting Date: 10/26/01
Project Number: EME N-4-1
Project Name: N-4-1 SOIL BORINGS
Project Location: LEA COUNTY, NM

Sampling Date: 10/24/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/25/01
H6239-1	SB 2 >20 GAL	66	150	43	7.29	1496	243
H6239-2	WATER WELL	68	160	67	5.53	1656	354
Quality Control		NR	55	46	5.29	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	92.0	106	105	NR
Relative Percent Difference		NR	1.6	4.0	0.4	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/25/01	10/25/01	10/25/01	10/25/01	10/25/01	10/26/01
H6239-1	SB 2 >20 GAL	280	64	0	297	7.30	738
H6239-2	WATER WELL	280	80	0	431	7.15	990
Quality Control		970	50.95	NR	944	6.96	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	102	NR	94.4	99.4	NR
Relative Percent Difference		4.0	2.7	NR	5.9	0.1	5.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

10-26-01
Date

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

		BILL TO	
Company Name:	Rice Operating Company	P.O. #:	510
Project Manager:	Donnie Anderson	Company:	Rice
Address:	122 W. Taylor	Attn:	D. Anderson
City:	Hobbs	State: NM Zip: 88240	Address: same
Phone #:	393-9174	Fax #: 397-1471	City:
Project #:	EME N-4-1	Project Owner: Rice	State: Zip:
Project Name:	N-4-1 Soil borings		Phone #:
Project Location:	Lea County, NM		Fax #:
Sampler Name:	D. Anderson		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chlorides + Anions	Total Dissolved Solids	BTEX
H10239-1	SB-2 >20gal.	G	1	X							X		10/24/01	1500	✓	✓	✓
-2	Waterwell	G	1	X							X		10/25/01	0900	✓	✓	✓

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: D. Anderson	Date: 10/25/01 Time: 1030	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 10/25/01 Time: 10:25	Received By: (Lab Staff) Amy Hill	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)	REMARKS:

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

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#5

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	12	Caliche
12	27	Sand and Sandy Brown Clay Stringers
27	31	Sandy Brown Clay
31	32	Sand and Sandstone Stringers
32	45	Sandy and Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD 1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#4

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	12	Caliche
12	17	Sand and Clay Stringers
17	27	Dry Clay
27	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD 1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#3

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	13	Caliche
13	22	Dry Sandy Clay
22	29	Sand
29	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#2

WELL LOG

From	To	FORMATION
0	2	Top Soil
2	13	Caliche
13	17	Sand and Clay Stringers
17	30	Dry Clay
30	45	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

EADES DRILLING
& PUMP SERVICE

LICENSES
Gene: TX 1853WI NM 982 Alan: TX 2330WI NM 1044
Irrigation - Domestic - Environmental - Test Holes
1200 E. Bender
Hobbs, N.M. 88240
(505) 392-2457

Rice - SB#1

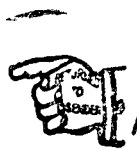
WELL LOG

From	To	FORMATION
0	1	Top Soil
1	13	Caliche
13	24	Dry Clay
24	30	Sand and Clay Stringers
30	46	Sandy Brown Clay

Date 10-23-2001 Driller Frederick D. Root - WD1332

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

1220 South Saint Francis Drive
P.O. Box 6429
Santa Fe, New Mexico 87505-5472



Mr. Malcolm Coombes
P.O. Box 2501
Hobbs

NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 3, 2001

CERTIFIED MAIL
RETURN RECEIPT NO: 5357-7973

Ms. Carolyn Doran Haynes
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: CASE #1R224
JUNCTION BOX N-4-1/ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

Dear Ms. Haynes:

The New Mexico Oil Conservation Division (OCD) has reviewed Rice Operating Company's (Rice) January 4, 2001 "GROUND WATER CONTAMINATION, ELSIE REEVES RANCH, EME SALT WATER DISPOSAL SYSTEM, UNIT LETTER N, SEC 4, T20S, R37E, NMPM, LEA COUNTY, NEW MEXICO". This document contains Rice's proposed work plan for investigation of the extent of contamination related to the Junction Box N-4-1 located in Unit N, Section 4, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico.

The above referenced work plan is approved with the following conditions:

1. All soil and ground water samples shall be obtained and analyzed using EPA approved methods and quality assurance/ quality control (QA/QC).

2. All wastes generated during the investigation shall be disposed of at an OCD approved facility.

3. Rice shall submit the results of the investigation to the OCD by December 3, 2001, 2001. The report shall be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office and shall include:

   a. A description of the investigation activities which occurred including conclusions and recommendations.

   b. A geologic/lithologic log for each soil boring and monitor well.

c. A site map showing the location of the junction box, pipelines, borings, monitor wells, and any other pertinent site features.

d. Summary tables of all soil and ground water quality sampling results and copies of all laboratory analytical data sheets and associated QA/QC data.

e. The disposition of all wastes generated.

Please be advised that OCD approval does not relieve Rice of responsibility should the investigation actions fail to adequately define the extent of contamination related to Rice's operations, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve Rice of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 827-7154 .

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves
Malcolm Coombes

NEW MEXICO ENERGY, MINERALS and
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 3, 2001

CERTIFIED MAIL
RETURN RECEIPT NO: 5357-7973

Ms. Carolyn Doran Haynes
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: CASE #1R224
JUNCTION BOX N-4-1/ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

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Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves
Malcolm Coombes

RICE *OPERATING COMPANY*
122 WEST TAYLOR
HOBBS, NM 88240
Phone: (505) 393-9174
Fax: (505) 397-1471

TO: Bill Olson **DATE:** 10-1-01

ATTN: NMOCD 505 476 3462

FROM: CAROLYN HAYNES

SUBJECT: ELSIE REEVES RANCH

COVER PAGE PLUS 10 **PAGE(S) TO FOLLOW**

COMMENTS:

I also sent a letter to Wayne outlining all of the reports/closures/responses Rice has in to OCD + has not received response - That was in May-June - included this item

Any Question, please call

Carolyn Haynes

IF YOU DO NOT RECEIVE ALL PAGES INCLUDED, PLEASE CALL THE OFFICE PHONE NUMBER LISTED AT THE TOP OF THIS PAGE.

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CERTIFIED MAIL RECEIPT
(Domestic Mail Only: No Insurance Coverage Provided)

Article Sent To: Mr. William C. Olson

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 3.42

USPS Postmark Here JAN 2001 88240 NM HOBBS

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept
Oil Conservation Division, Environmental Bureau
2040 S Pacheco
Santa Fe, NM 87505

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- ☐ Print your name and address on the reverse of this form so that we can return this card to you.
- ☐ Attach this form to the front of the mailpiece, or on the back if space does not permit.
- ☐ Write *"Return Receipt Requested"* on the mailpiece below the article number.
- ☐ The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☒ Addressee's Address
2. ☐ Restricted Delivery

3. Article Addressed to:
Mr. William C. Olson
NM Energy, Minerals, and Natural
Oil Conservation Division, Environ
2040 S Pacheco
Santa Fe, NM 87505

4a. Article Number: 7099 3220 0002 3946 8028

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery: JAN 2001

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature *(Addressee or Agent)*

PS Form **3811**, December 1994 102595-99-B-0223 Domestic Return Receipt

Thank you for using Return Receipt Service.

RICE Operating Company
122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7099 3220 0002 3946 8028

January 4, 2001

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

RE: GROUND WATER CONTAMINATION
ELSIE REEVES RANCH
EME SALT WATER DISPOSAL SYSTEM
UNIT LETTER N, SEC 4, T20S, R37E, NMPM
LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

Rice Operating Company (ROC) is in receipt of your letter informing of groundwater contamination at the above-described site. ROC confirms that the Eunice Monument Eumont (EME) Salt Water Disposal System has a junction box at the above-described location. Inside this junction box, Jct. N-4-1, is the pipeline intersection for an 8" AC lateral line to the 6" AC main line. Both lines are active at this site and have been in service since First Quarter, 1960.

ROC has completed the background investigation regarding historical leaks, spills and disposal activities. There is no recorded evidence of a reportable or non-reportable leak or spill occurring at Jct. N-4-1. On December 19, 2000, a visual inspection of the junction box interior revealed that at some time in the past there has been pipeline maintenance performed such as valve or fitting replacements, routine pipeline pigging, etc. There was no standing fluid in the box. The structure of the box has deteriorated on one side to a point that rainwater and run-off will collect inside the box. The surface area surrounding the box has patches of limited vegetation growth, which could be due to ranch-cattle traffic. Hydrocarbon or chloride staining was not visually apparent on the surface area. A north-south steel pipeline runs along the east side of the box.

ROC has conducted NORM screening at Jct. N-4-1 and found the NORM level to be greater than 50 µR/hr. This result determines that the site must first be handled as a NORM impacted area with subsequent further site characterization conducted in accordance with the NMOCD approved Remediation Plan for Below Grade Junction Boxes. (The NORM concentration is not of a level that prioritized this site to be included in the first year's list of junction box work.) A copy of this work plan is included with this letter.

ROC is prepared to initiate the junction box work plan at Jct. N-4-1 as soon as NMOCD responds to this letter. After the NORM material is recovered and visually impacted soils are excavated, ROC proposes to expand the TPH and Chloride delineation (Step 5 of the Plan) to include a five-point boring plan as designated on the attached diagram.

Each of the following additional actions will be conducted pursuant to NMOCD guidelines and EPA methods. NMOCD Hobbs Office will be notified in advance of any significant events occurring at this site.

A. A boring will be made at each of the five points designated in the Jct. N-4-1 Boring Diagram Proposal. Borings will be such that the borehole could be completed with 2" PVC casing and screen. Each borehole will be drilled to a depth of at least 15' below the groundwater interface (interface @ 29-30' BGS) and will be protected to prevent any foreign matter from entering the bore. (Completion of the borehole into a monitor well will be decided after groundwater sample results are discussed with NMOCD.)
B. Soil will be collected during the boring operation at 5' intervals for field-testing of TPH and Chlorides. Strategic soil samples will be tested at Cardinal Labs for confirmation of field results. A soil morphology log will be prepared for each boring.
C. Borings will be left uncased, but will be developed by pumping or bailing a minimum of 20 gallons of fluid. Ground water samples will be recovered from each boring and tested at Cardinal Labs for major cations and anions, BTEX and TDS.
D. All lab and field results, photos, and logs will be compiled and submitted to the NMOCD.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. The EME SWD System is owned by a consortium of oil producers called System Partners, who provide all operating capital on a percentage ownership/usage basis. If you have any questions or if I can be of any service, please don't hesitate to call.

RICE OPERATING COMPANY

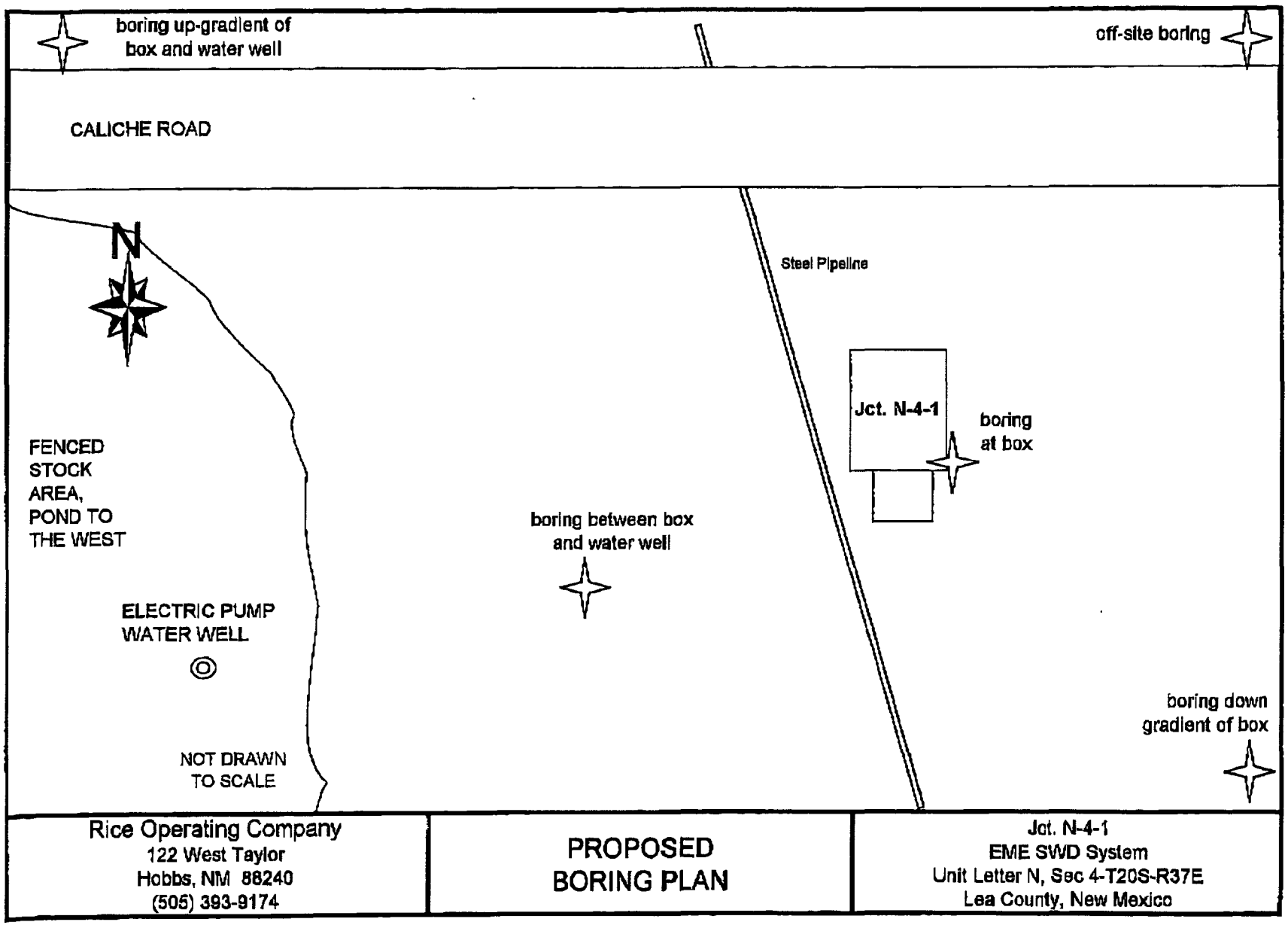
Carolyn Doran Haynes

Carolyn Doran Haynes
Operations Engineer

Attachment: Jct. N-4-1 Boring Diagram Proposal

Enclosure: Remediation Plan for Below Grade Junction Boxes

Cc: file, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Midland, TX 79702


boring up-gradient of box and water well
off-site boring
CALICHE ROAD
N
Steel Pipeline
Jct. N-4-1
boring at box
FENCED STOCK AREA, POND TO THE WEST
boring between box and water well
ELECTRIC PUMP WATER WELL
boring down gradient of box
NOT DRAWN TO SCALE
Rice Operating Company
122 West Taylor
Hobbs, NM 88240
(505) 393-9174
PROPOSED BORING PLAN
Jct. N-4-1
EME SWD System
Unit Letter N, Sec 4-T20S-R37E
Lea County, New Mexico

Rice

From: Price, Wayne <WPrice@state.nm.us>
To: 'riceswd' <riceswd@gte.net>
Sent: Monday, July 24, 2000 4:40 PM
Subject: RE: Junction Box Upgrade Project - Generic Work Plan

This plan is approved subject to the following conditions:

1. All sampling and testing shall be pursuant EPA methods.

2. Please be advised that NMOCD approval of this plan does not relieve Rice Operating Company of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Rice Operating Company of responsibility for compliance with any other federal, state, or local laws and/or regulations.

> -----
> From: riceswd[SMTP:riceswd@gte.net]
> Sent: Monday, July 24, 2000 11:54 AM
> To: Price, Wayne
> Cc: Anderson, Ruby
> Subject: Junction Box Upgrade Project - Generic Work Plan
>
> <<File: GenericJctBxFlowchart.xls>><<File:
> GenericJunctionBox72400.doc>><<File: GenericJunctionBoxRvsn72400.doc>>
> The following attachments are the cover letter, work plan with revisions,
> and the flowchart. A hard copy will be mailed today.
>
> Thank you so much for your time on Friday morning. We are pleased that
> our presentation was met with a positive reception and we are very ready
> to start the project. John Moody is finalizing the list of junction boxes
> that we will be working on, so the list will be ready to submit when the
> plan is approved.
>
> Thanks again!
> Carolyn
>

RICE Operating Company
122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7099 3220 0002 3946 8158

July 24, 2000

Mr. Wayne Price
NM Energy, Minerals and Natural Resources Department
Oil Conservation Division, Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Re: Generic Work Plan for Junction Box Upgrade Project

Mr. Price:

Rice Operating Company (ROC) is submitting a generic work plan for upgrading junction boxes that are presently used in the ROC-operated SWD systems in Lea County. (ROC has no ownership of pipelines, wells, or facilities. Each system is owned by a consortium of oil producers, System Partners, who provide operating capital based on percent ownership or usage. This type of capital improvement project requires AFE approval and pre-work funding.)

The site assessments, work plans, time schedules, sample and test plans, impacted soil removal, replacement junction boxes will be specifically fitted to the particular site, but will generally follow this generic plan. NMOCD will be notified in advance of significant events and will be consulted throughout the work plan process for concurrence of any plan alterations, assessment and analytical interpretations, etc.

The impact target values of this work plan reflect the present NMOCD guidelines. Should these guideline values be adjusted in the course of the TPH and Chlorides Workgroup results, the target values mentioned in this plan will be adjusted to reflect the new guideline values.

ROC asks that the NMOCD review this plan for approval. As mentioned during the initial presentation of this work plan on July 21, an AFE has been approved and work will begin immediately after receiving approval.

Thank you for your time and consideration of this work plan. We look forward to hearing from you soon. If there are any additional questions, please contact me at the above phone number.

Carolyn Doran Haynes

Carolyn Doran Haynes
Operations Engineer

Enclosures
Cc KH; file; Mr. Roger Anderson, NMOCD, Santa Fe, NM; Ms. Donna Williams, OCD District I, Hobbs, NM

RICE *Operating Company*

Remediation Plan for Below Grade Junction Boxes

1. Submit to NMOCD a yearly work plan of site-specific locations, site assessments, time schedule, sampling and testing plan, etc., all pursuant to NMOCD guidelines.

2. Excavate junction box, removing and containing any NORM impacted soils for proper storage or disposal at a permitted facility. Excavate obvious hot spots as is practical and properly dispose of highly impacted soils. Use caution to ensure pipeline integrity or temporarily re-route.

3. Procure soil samples from excavation bottom (2-4' below pipeline). Follow Flowchart for applicable target values, vadose zone/groundwater parameters and delineation procedures.

4. If impact reaches target value above groundwater depth or if groundwater is not impacted, evaluate site for risk-based assessment: representative depth to groundwater, nearest domestic water well, nearest water source well, nearest surface water body, etc. Procure composite samples of bottom (5-point) and sides (4-point) for lab analysis of TPH, BTEX, Chlorides using approved laboratory testing procedures as per NMOCD guidelines.

5. If 100 ppm TPH is not identified before reaching groundwater, then boring and sampling will continue to ground water. Upon reaching groundwater, the borehole will be cased and developed pursuant to NMOCD guidelines. Ground water sample will be procured and tested for major cations and anions, TDS and BTEX levels with approved laboratory testing as per NMOCD guidelines. If ground water is found to exceed WQCC standards, NMOCD will be notified immediately and the closure plan will move into Rule 19 procedures.

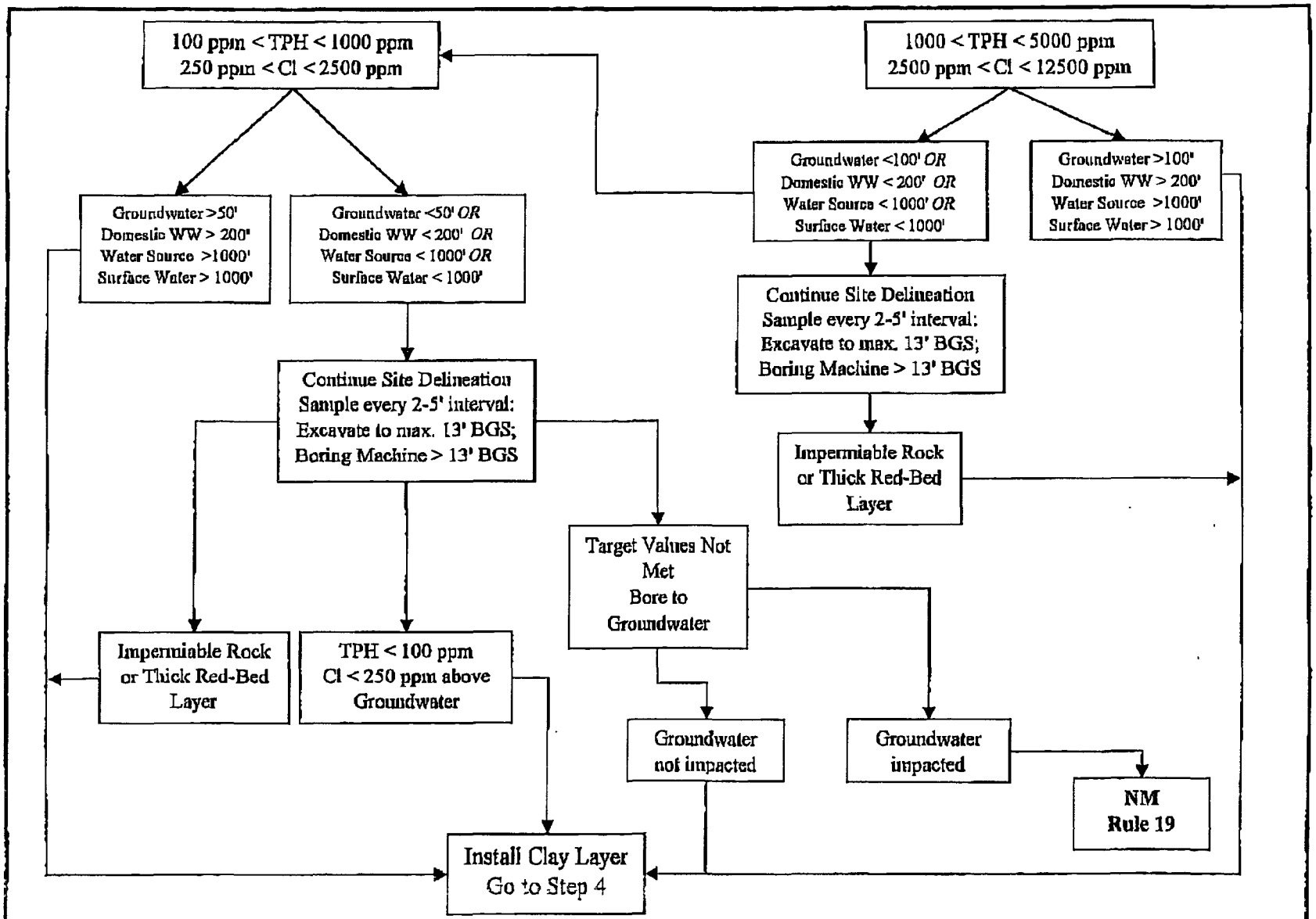
6. If in Rule 19, discuss with NMOCD for verbal approval to proceed with clay layer and backfill to get the site back into operation. Rule 19 will direct groundwater implications.

7. For containment/isolation of impact and prevention of downward percolation or migration, install compacted clay liner (layer 10-12") to meet or exceed 95% of a Proctor Test ASTM-D-698 with permeability (hydraulic conductivity) equal to or less than $1x10^{-7}$ cm/sec. Test density randomly for compliance.

8. Backfill excavation (with clean or NMOCD approved level of impacted soils) to within 2' of bottom of pipeline. Spread clay and tamp (compact) to a level surface. Construct watertight containment (junction box) around pipeline connections. Backfill remainder of excavation with tamped clay to provide semi-secondary containment. Cover junction box with lid.

9. Submit to NMOCD yearly a summary report of locations, activities and laboratory results.

July 24, 2000
Submitted by Carolyn Doran Haynes



RICE Operating Company 122 West Taylor Hobbs, NM 88240 505-393-9174	**FLOWCHART JUNCTION BOX ENVIRONMENTAL EVENTS**	Proposal to NMOCD for Junction Box Remediation Submitted July 24, 2000

RICE Operating Company

EME SWD SYSTEM Junction Box UpGrade Project Work Schedule

Expected Start Date	Junction Box	Legal Descrip			Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
		Sec	T	R					
June 2001	N-16-1	16	20	37	15	NO	NO	NO	20
June 2001	P-1	1	21	35					
September 2001	C-12-2	12	20	36	25-29	NO	NO	NO	20
September 2001	K-15	15	20	37	No Wells	NO	NO	NO	
September 2001	K-6	6	20	37	29	NO	NO	NO	20
July 2001	K-36	36	20	36	115	NO	Yes	Yes	20
July 2001	Penroc Cooper Fed D	26	20	36	90-122	NO	NO	NO	0
September 2001	A-2	2	20	36	27-30	NO	NO	NO	20
October 2001	A-20	20	20	37	15-23	NO	NO	NO	20
June 2001	Conoco Britt B15	15	20	37	No Wells	NO	NO	NO	
June 2001	K-15-1	15	20	37	No Wells	NO	NO	NO	
October 2001	M-16-1	16	20	37	15	NO	NO	NO	20
July 2001	M-34	34	19	37	23-31	NO	NO	NO	20
August 2001	M-3-2	3	21	36	120-200	NO	NO	NO	0
August 2001	M-3-1-A	3	21	36	120-200	NO	NO	NO	0
September 2001	ARCO FDE	19	21	36	217	NO	NO	NO	0
September 2001	O-24	24	20	36	30-60	NO	NO	NO	20
August 2001	C-2	2	20	36	27-30	NO	NO	NO	20
July 2001	G-32	32	19	37	12	NO	NO	yES	20
October 2001	A-26-B	26	20	36	107	NO	NO	YES	20
October 2000	N-6	6	21	36	157	NO	NO	NO	0
July 2001	D-28	28	21	36	245	NO	NO	NO	0
October 2001	O-17-1	17	20	37	15-30	NO	NO	NO	20
July 2001	K-33-1	33	19	37	12-30	NO	NO	NO	20
October 2001	N-5	5	20	37	30	NO	NO	NO	20
August 2001	B-1-1	1	20	36	23-26	NO	NO	NO	20

RICE Operating Company

EME SWD SYSTEM Junction Box UpGrade Project Work Schedule

Expected Start Date	Junction Box	Legal Descrip Sec	T	R	Depth to GW	Water Well < 200'	Surf Water <1000'	Water Well <1000'	NMOCD Assessment #
October 2000	I-35	35	20	36	115-122	NO	NO	NO	0
November 2000	K-1	1	20	36	26	NO	NO	NO	20
December 2000	B-30	30	19	37	17-27-58	NO	NO	NO	20
Jjanuary 2001	J-9	9	20	37	25	NO	NO	NO	20
February 2001	F-29-1	29	19	37	17	NO	NO	NO	20
November 2000	F-29-2	29	19	37	17	NO	NO	NO	20
December 2000	C-1-1	1	20	36	23-27	NO	NO	NO	20
January 2001	K-32	32	20	37	37-80	NO	NO	NO	10-20
February 2001	I-1-A	1	20	37	48	NO	NO	NO	20
March 2001	I-1-C	1	20	37	48	NO	NO	NO	20
April 2001	B-6	6	20	37	23-31	NO	NO	NO	20
April 2001	P-36-2	36	19	36	22-37	NO	NO	NO	20
April 2001	L-20	20	20	37	23-27	NO	NO	NO	20
April 2001	U-6-1	6	21	36	157	NO	NO	NO	0
April 2001	E-12	12	20	36	29-32	NO	NO	NO	20
May 2001	H-31	31	19	37	17	NO	NO	NO	20
Spetember 2000	M-10	10	21	36	120-200	NO	NO	NO	0
October 2000	Q-6-1	6	21	36	157	NO	NO	NO	0
September 2000	F-20	20	22	36	216	NO	NO	NO	0
September 2000	E-4	4	21	37					
May 2001	D-7	7	21	36	157	NO	NO	NO	0
May 2001	J-10	10	21	36	120-200	NO	NO	NO	0
May 2001	V-5	5	21	36	150-200	NO	NO	NO	0
May 2001	L-31	31	20	37	80	NO	NO	Yes	20

10/01/2001 15:32 FAX 011

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

November 8, 2000

CERTIFIED MAIL
RETURN RECEIPT NO: 5051-3815

Ms. Carolyn Doran Haynes
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

RE: GROUND WATER CONTAMINATION
ELSIE REEVES RANCH
MONUMENT, NEW MEXICO

Dear Ms. Haynes:

The New Mexico Oil Conservation Division (OCD) recently obtained water samples from Ms. Elsie Reeves east water well on her private property south of Monument, New Mexico. The well which is used for livestock watering is located in Section 4, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. This water well was found to be contaminated with chlorides and total dissolved solids (TDS) in excess of New Mexico Water Quality Control Commission ground water standards. Enclosed is a copy of the OCD's laboratory analytical results.

A Rice Operating Company (ROC) pipeline and junction box is located just east of Ms. Reeves water well. A prior July 11, 2000 OCD inspection showed that the junction box, labeled N-4-1, contained standing fluids. The OCD requires that ROC provide all information related to leaks, spills and disposal activities related to ROC's pipeline and junction box, and provide a work plan for investigation of potential contamination. Please submit this information to the OCD Santa Fe Office by January 8, 2000 with a copy provided to the OCD Hobbs District Office. If you have any questions, please contact me at (505) 827-7154 .

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Elsie Reeves
Malcolm Coombes

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

November 8, 2000

Ms. Elsie Reeves
P.O. Box 90706
White Mountain Lake, Arizona 85912

RE: WATER WELL SAMPLE ANALYSES

Dear Ms. Reeves:

Enclosed you will find a copy of the laboratory analytical results of the water samples that the New Mexico Oil Conservation Division (OCD) obtained from 2 of your stock wells south of Monument, New Mexico on August 24, 2000. The sample analyses did not detect any petroleum contaminants in the wells. However, elevated levels of chloride and total dissolved solids were found to be present in the water. Chloride was present at a concentration of 490 mg/l in the west well and 410 mg/l in the east well which is above the New Mexico Water Quality Control Commission (WQCC) drinking water standard of 250 mg/l. Total dissolved solids were found to be present at a concentration of 1300 mg/l in the west well and 2000 mg/l in the east well which is above the WQCC standard of 1000 mg/l for drinking water. It is possible that these salts are a result of oilfield activities since brine waters are generated during the production of oil and natural gas. Since these wells are used for stock watering, the OCD recommends that you contact the local agricultural extension agent for information on the salt concentration ranges that livestock can tolerate.

The OCD is continuing to investigate the possibility that your wells are contaminated as a result of oilfield activities and the OCD will copy you on all correspondence that they send out regarding this matter. If you have any questions regarding the laboratory analyses of your water or the OCD's investigations, please feel free to call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

Enclosure

xc w/enclosure: Chris Williams, OCD Hobbs District Supervisor
Malcolm Coombes
Carolyn Doran Haynes, Rice Operating Company

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Bill Olson
OCD
2040 S. Pacheco
Santa Fe, NM 87505

RECEIVED
SEP 29 2000
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Report Date: September 26, 2000

Order ID Number: A00082806

Project Number: N/A
Project Name: N/A
Project Location: Elsie Reeves

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
152329	200008241500 (West Well)	Water	8/24/00	15:00	8/26/00
152330	200008241430 (East Well)	Water	8/24/00	14:30	8/26/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 152329 - 200008241500 (West Well)

Analysis:	Alkalinity	Analytical Method:	E 310.1	QC Batch:	QC04609	Date Analyzed:	9/1/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB04012	Date Prepared:	9/1/00

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		296	mg/L as CaCo3	1	1
Total Alkalinity		296	mg/L as CaCo3	1	1

Sample: 152329 - 200008241500 (West Well)

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC04583	Date Analyzed:	8/30/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB03988	Date Prepared:	8/30/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.087	mg/L	1	0.10	87	72 - 128
4-BFB		0.104	mg/L	1	0.10	104	72 - 128

Sample: 152329 - 200008241500 (West Well)

Analysis:	Conductivity	Analytical Method:	SM 2510B	QC Batch:	QC04619	Date Analyzed:	8/29/00
Analyst:	LD	Preparation Method:	N/A	Prep Batch:	PB04022	Date Prepared:	8/29/00

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		2200	uMHOS/cm	1	

Sample: 152329 - 200008241500 (West Well)

Analysis:	Dissolved Metals	Analytical Method:	E 200.7	QC Batch:	QC04771	Date Analyzed:	9/5/00
Analyst:	RR	Preparation Method:	E 3005A	Prep Batch:	PB03936	Date Prepared:	8/29/00

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		202	mg/L	1	5
Dissolved Magnesium		47	mg/L	1	5
Dissolved Potassium		<5.0	mg/L	1	5
Dissolved Sodium		162	mg/L	1	5

Sample: 152329 - 200008241500 (West Well)

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04502 Date Analyzed: 8/26/00
Analyst: JS Preparation Method: N/A Prep Batch: PB03921 Date Prepared: 8/26/00

Param	Flag	Result	Units	Dilution	RDL
CL	[1]	490	mg/L	1	0.50
Fluoride		2.2	mg/L	1	0.20
Nitrate-N		2.7	mg/L	1	0.20
Sulfate	[2]	110	mg/L	1	0.50

Sample: 152329 - 200008241500 (West Well)

Analysis: TDS Analytical Method: E 160.1 QC Batch: QC04611 Date Analyzed: 8/31/00
Analyst: LD Preparation Method: N/A Prep Batch: PB04015 Date Prepared: 8/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids	[3]	1300	mg/L	1	10

Sample: 152329 - 200008241500 (West Well)

Analysis: pH Analytical Method: E 150.1 QC Batch: QC04585 Date Analyzed: 8/26/00
Analyst: RS Preparation Method: N/A Prep Batch: PB03992 Date Prepared: 8/26/00

Param	Flag	Result	Units	Dilution	RDL
pH	[4]	7.0	s.u.	1	1

Sample: 152330 - 200008241430 (East Well)

Analysis: Alkalinity Analytical Method: E 310.1 QC Batch: QC04609 Date Analyzed: 9/1/00
Analyst: RS Preparation Method: N/A Prep Batch: PB04012 Date Prepared: 9/1/00

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		292	mg/L as CaCo3	1	1
Total Alkalinity		292	mg/L as CaCo3	1	1

Sample: 152330 - 200008241430 (East Well)

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04769 Date Analyzed: 9/7/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB04150 Date Prepared: 9/7/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001

Continued ...

[1] Chloride re-ran on IC090100-2.sch (PB04071; QC04678). ICV %IA = 94; CCV %IA = 97; matrix spikes RPD = 0; matrix spikes %EA = 97.

[2] Sulfate re-ran on IC090100-2.sch (PB04071; QC04678). ICV %IA = 95; CCV %IA = 99; matrix spikes RPD = 1; matrix spikes %EA = 97.

[3] sample ran at a x2 dilution

[4] Out of holding time.

... *Continued* Sample: 152330 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Toluene		<0.001	mg/L	1	0.001
Ethylbenzene		<0.001	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		<0.001	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.117	mg/L	1	0.10	117	72 - 128
4-BFB		0.1	mg/L	1	0.10	100	72 - 128

Sample: 152330 - 200008241430 (East Well)

Analysis: Conductivity Analytical Method: SM 2510B QC Batch: QC04619 Date Analyzed: 8/29/00
Analyst: LD Preparation Method: N/A Prep Batch: PB04022 Date Prepared: 8/29/00

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		2000	uMHOS/cm	1	

Sample: 152330 - 200008241430 (East Well)

Analysis: Dissolved Metals Analytical Method: E 200.7 QC Batch: QC04771 Date Analyzed: 9/5/00
Analyst: RR Preparation Method: E 3005A Prep Batch: PB03936 Date Prepared: 8/29/00

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		118	mg/L	1	5
Dissolved Magnesium		29	mg/L	1	5
Dissolved Potassium		<5.0	mg/L	1	5
Dissolved Sodium		214	mg/L	1	5

Sample: 152330 - 200008241430 (East Well)

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04502 Date Analyzed: 8/26/00
Analyst: JS Preparation Method: N/A Prep Batch: PB03921 Date Prepared: 8/26/00

Param	Flag	Result	Units	Dilution	RDL
CL	[5]	410	mg/L	1	0.50
Fluoride		2.3	mg/L	1	0.20
Nitrate-N		3.0	mg/L	1	0.20
Sulfate	[6]	130	mg/L	1	0.50

[5] Chloride re-ran on IC090100-2.sch (PB04071; QC04678). ICV %IA = 94; CCV %IA = 97; matrix spikes RPD = 0; matrix spikes %EA = 97.

[6] Sulfate re-ran on IC090100-2.sch (PB04071; QC04678). ICV %IA = 95; CCV %IA = 99; matrix spikes RPD = 1; matrix spikes %EA = 97.

Sample: 152330 - 200008241430 (East Well)

Analysis:	TDS	Analytical Method:	E 160.1	QC Batch:	QC04611	Date Analyzed:	8/31/00
Analyst:	LD	Preparation Method:	N/A	Prep Batch:	PB04015	Date Prepared:	8/30/00

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids	[7]	1200	mg/L	1	10

Sample: 152330 - 200008241430 (East Well)

Analysis:	pH	Analytical Method:	E 150.1	QC Batch:	QC04585	Date Analyzed:	8/26/00
Analyst:	RS	Preparation Method:	N/A	Prep Batch:	PB03992	Date Prepared:	8/26/00

Param	Flag	Result	Units	Dilution	RDL
pH	[8]	7.2	s.u.	1	1

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC04502

Param	Flag	Results	Units	Reporting Limit
CL		<0.5	mg/L	0.50
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<0.5	mg/L	0.50

Sample: Method Blank QCBatch: QC04583

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.089	mg/L	0.10	89	72 - 128
4-BFB		0.106	mg/L	0.10	106	72 - 128

[7] sample ran at a x2 dilution
[8] Out of holding time.

Sample: Method Blank QCBatch: QC04609

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	1
Total Alkalinity		<4.0	mg/L as CaCo3	1

Sample: Method Blank QCBatch: QC04611

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Sample: Method Blank QCBatch: QC04619

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		12.2	uMHOS/cm	

Sample: Method Blank QCBatch: QC04769

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		0.11	mg/L	0.10	120	72 - 128
4-BFB		0.105	mg/L	0.10	105	72 - 128

Sample: Method Blank QCBatch: QC04771

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<5.0	mg/L	5
Dissolved Magnesium		<5.0	mg/L	5
Dissolved Potassium		<5.0	mg/L	5
Dissolved Sodium		<5.0	mg/L	5

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC04583

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.104	mg/L	1	0.10	<0.001	104	3	80 - 120	20
Benzene		0.098	mg/L	1	0.10	<0.001	98	2	80 - 120	20
Toluene		0.096	mg/L	1	0.10	<0.001	96	3	80 - 120	20
Ethylbenzene		0.095	mg/L	1	0.10	<0.001	95	6	80 - 120	20
M,P,O-Xylene		0.282	mg/L	1	0.30	<0.001	94	5	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.089	mg/L	1	0.10	89	72 - 128
4-BFB		0.103	mg/L	1	0.10	103	72 - 128

Sample: LCSD QC Batch: QC04583

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.106	mg/L	1	0.10	<0.001	106	2	80 - 120	20
Benzene		0.1	mg/L	1	0.10	<0.001	100	2	80 - 120	20
Toluene		0.098	mg/L	1	0.10	<0.001	98	2	80 - 120	20
Ethylbenzene		0.096	mg/L	1	0.10	<0.001	96	1	80 - 120	20
M,P,O-Xylene		0.283	mg/L	1	0.30	<0.001	94	0	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.091	mg/L	1	0.10	91	72 - 128
4-BFB		0.104	mg/L	1	0.10	104	72 - 128

Sample: LCS QC Batch: QC04769

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.104	mg/L	1	0.10	<0.001	104		80 - 120	20
Benzene		0.116	mg/L	1	0.10	<0.001	116		80 - 120	20
Toluene		0.116	mg/L	1	0.10	<0.001	116		80 - 120	20
Ethylbenzene		0.116	mg/L	1	0.10	<0.001	116		80 - 120	20
M,P,O-Xylene		0.359	mg/L	1	0.30	<0.001	119		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.126	mg/L	1	0.10	126	72 - 128
4-BFB		0.115	mg/L	1	0.10	115	72 - 128

Sample: LCSD QC Batch: QC04769

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		0.105	mg/L	1	0.10	<0.001	105	1	80 - 120	20
Benzene		0.117	mg/L	1	0.10	<0.001	117	1	80 - 120	20
Toluene		0.118	mg/L	1	0.10	<0.001	118	2	80 - 120	20
Ethylbenzene		0.118	mg/L	1	0.10	<0.001	118	2	80 - 120	20
M,P,O-Xylene		0.357	mg/L	1	0.30	<0.001	119	0	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		0.127	mg/L	1	0.10	127	72 - 128
4-BFB		0.115	mg/L	1	0.10	115	72 - 128

Sample: LCS QC Batch: QC04771

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1011	mg/L	1	1000	<5.0	101		75 - 125	20
Dissolved Magnesium		1013	mg/L	1	1000	<5.0	101		75 - 125	20
Dissolved Potassium		999	mg/L	1	1000	<5.0	99		75 - 125	20
Dissolved Sodium		1010	mg/L	1	1000	<5.0	101		75 - 125	20

Sample: LCSD QC Batch: QC04771

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1010	mg/L	1	1000	<5.0	101	0	75 - 125	20
Dissolved Magnesium		1016	mg/L	1	1000	<5.0	101	0	75 - 125	20
Dissolved Potassium		963	mg/L	1	1000	<5.0	96	4	75 - 125	20
Dissolved Sodium		985	mg/L	1	1000	<5.0	98	2	75 - 125	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04502

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		19.83	mg/L	1	12.50		102		80 - 120	20
Nitrate-N		31.21	mg/L	1	25	8.8	89		80 - 120	20
Sulfate		761.35	mg/L	1	625		75		80 - 120	20

Sample: MSD QC Batch: QC04502

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Fluoride		19.78	mg/L	1	12.50		102	0	80 - 120	20
Nitrate-N		31.06	mg/L	1	25	8.8	89	1	80 - 120	20
Sulfate		766.78	mg/L	1	625		76	1	80 - 120	20

Sample: MS QC Batch: QC04771

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1186	mg/L	1	1000	216	97		75 - 125	20
Dissolved Magnesium		1030	mg/L	1	1000	38	99		75 - 125	20
Dissolved Potassium		980	mg/L	1	1000	<5.0	98		75 - 125	20
Dissolved Sodium		1546	mg/L	1	1000	476	107		75 - 125	20

Sample: MSD QC Batch: QC04771

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Dissolved Calcium		1200	mg/L	1	1000	216	98	1	75 - 125	20
Dissolved Magnesium		1030	mg/L	1	1000	38	99	0	75 - 125	20
Dissolved Potassium		980	mg/L	1	1000	<5.0	98	0	75 - 125	20
Dissolved Sodium		1545	mg/L	1	1000	476	106	0	75 - 125	20

Quality Control Report
Duplicate Samples

Sample: Duplicate QC Batch: QC04585

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		8.3		s.u.	1	1	20

Sample: Duplicate QC Batch: QC04609

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	20
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity		156	158	mg/L as CaCo3	1	1	20
Total Alkalinity		156	158	mg/L as CaCo3	1	1	20

Sample: Duplicate QC Batch: QC04611

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1182	1200	mg/L	1	2	20

Sample: Duplicate QC Batch: QC04619

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		1999	2000	uMHOS/cm	1	0	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC04502

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.52	92	80 - 120	8/26/00
Fluoride		mg/L	2.50	2.48	99	80 - 120	8/26/00
Nitrate-N		mg/L	5	4.56	91	80 - 120	8/26/00
Sulfate		mg/L	12.50	11.79	94	80 - 120	8/26/00

Sample: ICV (1) QC Batch: QC04502

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.48	91	80 - 120	8/26/00
Fluoride		mg/L	2.50	2.46	98	80 - 120	8/26/00
Nitrate-N		mg/L	5	4.57	91	80 - 120	8/26/00
Sulfate		mg/L	12.50	11.70	93	80 - 120	8/26/00

Sample: CCV (1)

QC Batch: QC04583

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.101	101	80 - 120	8/30/00
Toluene		mg/L	0.10	0.1	100	80 - 120	8/30/00
Ethylbenzene		mg/L	0.10	0.1	100	80 - 120	8/30/00
M,P,O-Xylene		mg/L	0.30	0.295	98	80 - 120	8/30/00

Sample: CCV (2)

QC Batch: QC04583

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.098	98	80 - 120	8/30/00
Toluene		mg/L	0.10	0.096	96	80 - 120	8/30/00
Ethylbenzene		mg/L	0.10	0.095	95	80 - 120	8/30/00
M,P,O-Xylene		mg/L	0.30	0.28	93	80 - 120	8/30/00

Sample: ICV (1)

QC Batch: QC04583

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.096	96	80 - 120	8/30/00
Toluene		mg/L	0.10	0.095	95	80 - 120	8/30/00
Ethylbenzene		mg/L	0.10	0.096	96	80 - 120	8/30/00
M,P,O-Xylene		mg/L	0.30	0.284	94	80 - 120	8/30/00

Sample: CCV (1)

QC Batch: QC04585

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	8/26/00

Sample: ICV (1) QC Batch: QC04585

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	80 - 120	8/26/00

Sample: CCV (1) QC Batch: QC04609

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	9/1/00
Carbonate Alkalinity		mg/L as CaCo3	0	220	0	80 - 120	9/1/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	12	0	80 - 120	9/1/00
Total Alkalinity		mg/L as CaCo3	240	232	96	80 - 120	9/1/00

Sample: ICV (1) QC Batch: QC04609

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0	<1.0	0	80 - 120	9/1/00
Carbonate Alkalinity		mg/L as CaCo3	0	224	0	80 - 120	9/1/00
Bicarbonate Alkalinity		mg/L as CaCo3	0	6	0	80 - 120	9/1/00
Total Alkalinity		mg/L as CaCo3	240	230	95	80 - 120	9/1/00

Sample: CCV (1) QC Batch: QC04611

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	996	99	80 - 120	8/31/00

Sample: ICV (1) QC Batch: QC04611

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	995	99	80 - 120	8/31/00

Sample: CCV (1) QC Batch: QC04619

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1413	1399	99	80 - 120	8/29/00

Sample: ICV (1) QC Batch: QC04619

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1413	1375	97	80 - 120	8/29/00

Sample: CCV (1) QC Batch: QC04769

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.115	115	80 - 120	9/7/00
Toluene		mg/L	0.10	0.115	115	80 - 120	9/7/00
Ethylbenzene		mg/L	0.10	0.116	116	80 - 120	9/7/00
M,P,O-Xylene		mg/L	0.30	0.36	120	80 - 120	9/7/00

Sample: CCV (2) QC Batch: QC04769

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.107	107	80 - 120	9/7/00
Toluene		mg/L	0.10	0.107	107	80 - 120	9/7/00
Ethylbenzene		mg/L	0.10	0.107	107	80 - 120	9/7/00
M,P,O-Xylene		mg/L	0.30	0.322	107	80 - 120	9/7/00

Sample: ICV (1) QC Batch: QC04769

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.10	0.116	116	80 - 120	9/7/00
Toluene		mg/L	0.10	0.116	116	80 - 120	9/7/00
Ethylbenzene		mg/L	0.10	0.117	117	80 - 120	9/7/00
M,P,O-Xylene		mg/L	0.30	0.358	119	80 - 120	9/7/00

Sample: CCV (1) QC Batch: QC04771

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	10	19.8	198	75 - 125	9/5/00
Dissolved Magnesium		mg/L	10	20.1	201	75 - 125	9/5/00
Dissolved Potassium		mg/L	10	19.6	196	75 - 125	9/5/00
Dissolved Sodium		mg/L	10	19.4	194	75 - 125	9/5/00

Sample: ICV (1) QC Batch: QC04771

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	10	19.1	191	75 - 125	9/5/00
Dissolved Magnesium		mg/L	10	19.7	197	75 - 125	9/5/00
Dissolved Potassium		mg/L	10	19.2	192	75 - 125	9/5/00
Dissolved Sodium		mg/L	10	18.8	188	75 - 125	9/5/00

152329-30

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A00092806

Company Name: New Mexico Oil Conservation Division
Phone #: (505) 827-7154
Address: (Street, City, Zip) 2040 S. Pacheco, Santa Fe, NM 87505
Fax #: (505) 827-8177
Contact Person: Bill Olson
Invoice to: (If different from above) same
Project #:
Project Name:
Project Location: Elsie Reaves
Sampler Signature: Bill Olson

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
152329	20000824/1500 (West Well)	2	40ml	✓				✓					✓		8/24/00	1500
152330	20000824/1430 (East Well)	2	40ml	✓				✓					✓		8/24/00	1430
152329	20000824/1500 (West Well)	1	1 liter	✓									✓		8/24/00	1500
152330	20000824/1430 (East Well)	1	1 liter	✓									✓		8/24/00	1430

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	DCO Gen Chem				Turn Around Time if different from standard	Hold
	2'																			
	2'																			
															1					
															1					

Relinquished by: Bill Olson Date: 8/25/00 Time: 1030
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Jennifer Schmidt 8/26 Date: 0930 Time:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N
Headspace Y / N
Temp 4 °C
Log-in Review MS

REMARKS: 9/27/00

Carrier # Bus 902 439 6612

ORIGINAL COPY

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time	Date 8/9/00

Originating Party	Other Parties
Elsie Reeves - Laughlin Properties (520) 537-8761	Bill Olson - Envir. Bureau

Subject

Monument Ranch Wells

Discussion

She believes stock wells on her property are contaminated. Currently Malcolm Coombes leases land for cattle. Mr. Coombes said water burned when he tested it recently.
Wells are approximately 1-1.5 miles south of Monument

Elsie Reeves
P.O. Box 90706
White Mountain Lake, Arizona 85912

Conclusions or Agreements

OCD will get with Mr. Coombes to sample wells.

Distribution

Chris Williams - OCD Hobbs

Signed Bill Olson

Olson, William
From: Williams, Donna
Sent: Monday, July 17, 2000 9:13 AM
To: Olson, William
Subject: Rice/Malcomb Coombes

Bill,

I think I spoke with you on this water well. This is the one that the gentleman that came in said he took a drink of the water and it burned his lips. And at a later date he had some samples ran for analysis on chlorides only. There were two test ran from the water well...one was 1,000ppm and the other was 3,000ppm....I went out to do a visual inspection on the 30th of June and he came back into my office on the 11th of July said he thought he knew who the culprits were. We then went back to the location and he showed me the Rice box that was roughly 175 feet east of his water well (directly east). I then took more notes, took pictures, and told him I would get back to him. I am going to email you the pictures taken I am bringing with me a copy of the most recent site visit on the 11th of July. You should have in your office a copy of June 30th 's visit. I have since talked with John Moody and he stated they would look into it on their part.


Scan1-7-11-00.jpg


Scan2-7-11-00.jpg


Scan3-7-11-00.jpg


Scan4-7-11-0.jpg


Scan5-7-11-00.jpg

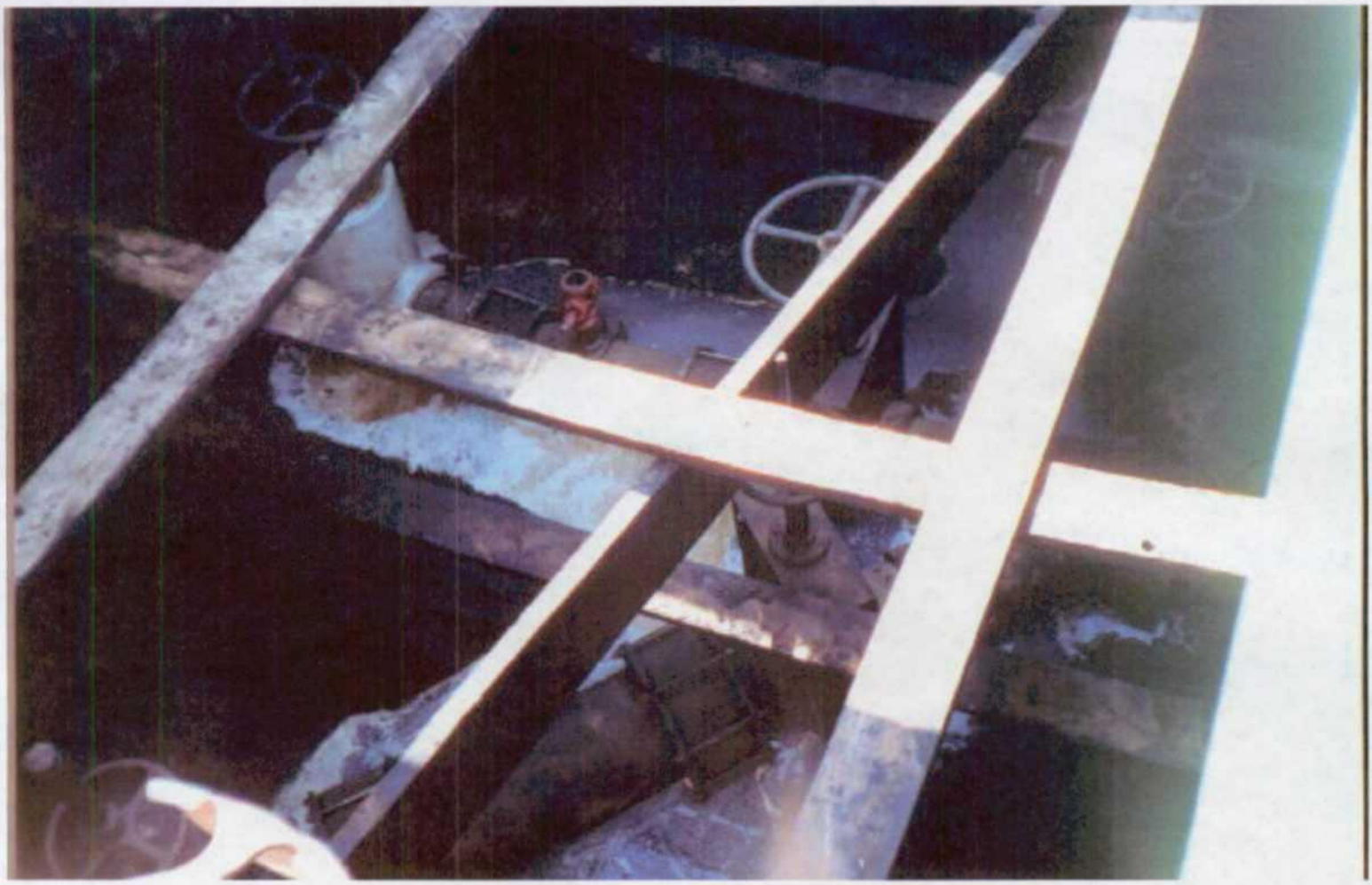

Scan6-7-11-00.jpg

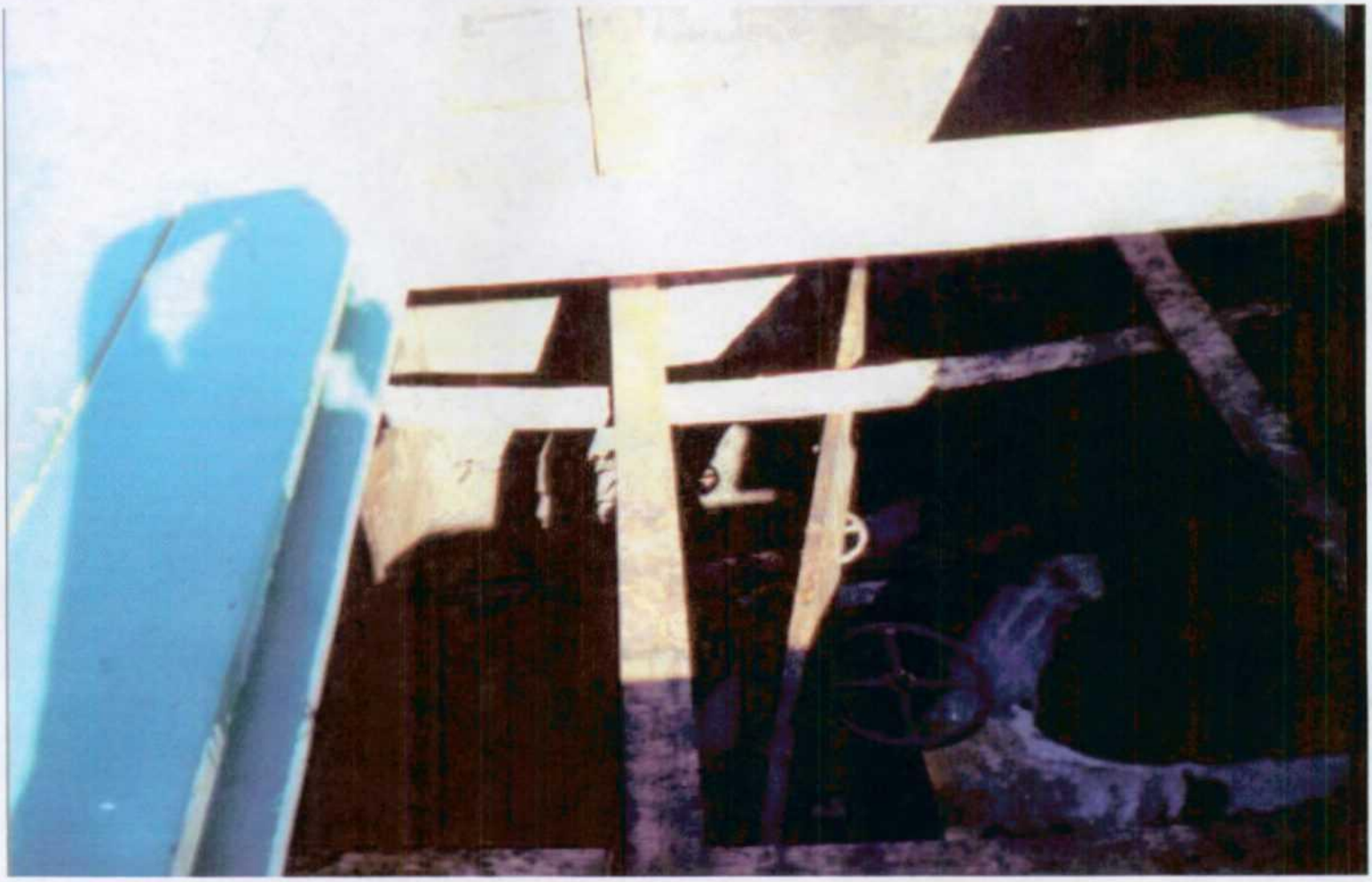

Scan7-7-11-00.jpg


Scan8-7-00.jpg


Scan9-7-11-00.jpg

It is pretty much in your hands.....?? Let me know what if anything I need to do.
Thanks Donna





07-11-00

Q.W

* Malcomb ~~[illegible]~~ Coombes

Rice's Box closest to Water Well. estimated ≈ 175 feet from Well EAST of Well

3 58 x3 174

- * Cattle feeds waters from this Tank -

* Need to get W/Santa Fe & send letter to Rice Or Call Rice

- Water recently contaminated

- He needs Water for his Cattle

* Visited w/ John Moody on 7-13-00 @ ≈ 8:30 a.m. in my office HE HAS A COPY OF this.

* John will get Back w/me on This →

Malcomb showed me inside of a Rice Box

→ highly Saturated Soil. Some standing fluids

→ appears that rice has a problem - - -

probably connected w/ Contaminated ~~[illegible]~~ Water in the Stock Tanks + his well well located West of Stock Tank.

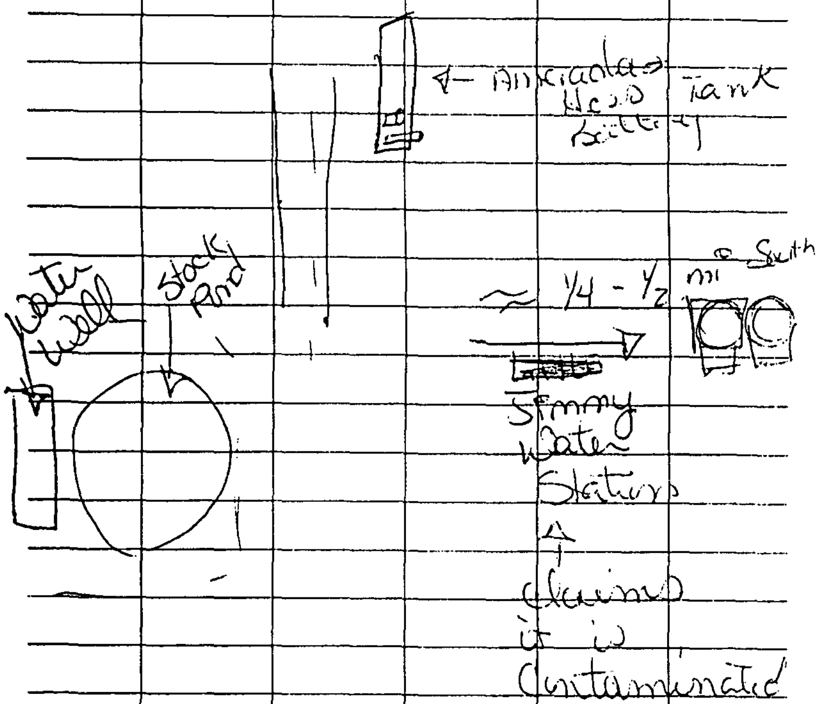
Rice Box has N-4-1 on it

Box is 6.0 feet deep ← estimated

& has standing fluid inside of it.

West Side

across the Road



Amerada Hess

SE/SE - Sec 5 - 20S - 37E

Oc: 30 ...
W.I.D

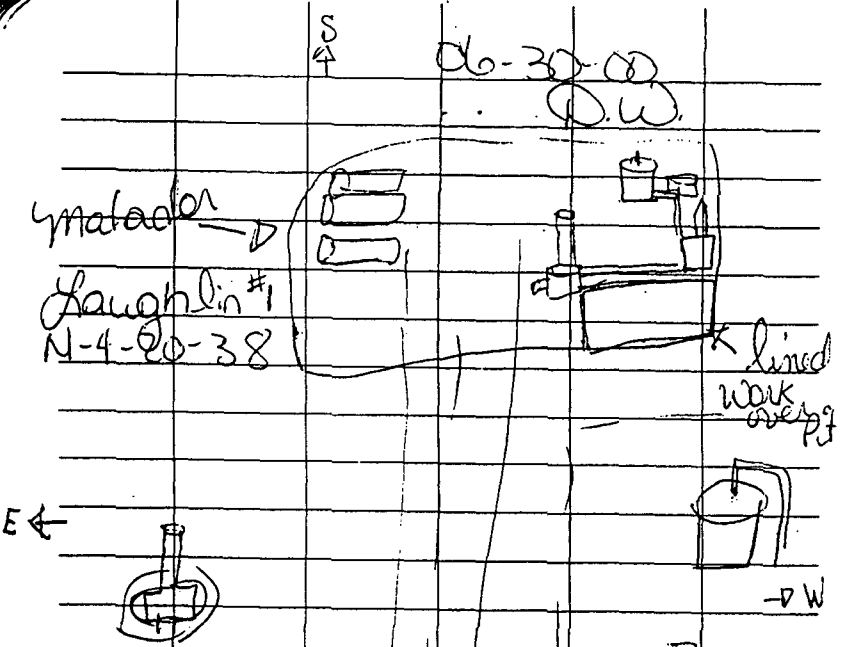
Malcomb Combs

* There was an odor - gas - Malcomb thinks it is either Sid Richardson or Dynegy -

Doyle Hartman
South of Amerada Hess
(Rip Laughlin)

300-400' South from Amerada's well

06-30-08
D.W.



AmeradA
Hess
North
Monument
GSAU well #14

Exxon mobil
ELLmont GAS Comm
1 W2011 #3
Unit U N - Sec 4.
T20S - R37E

06-30-08
D.W

East Side

These wells are
Roughly ~ 1/8 mi.

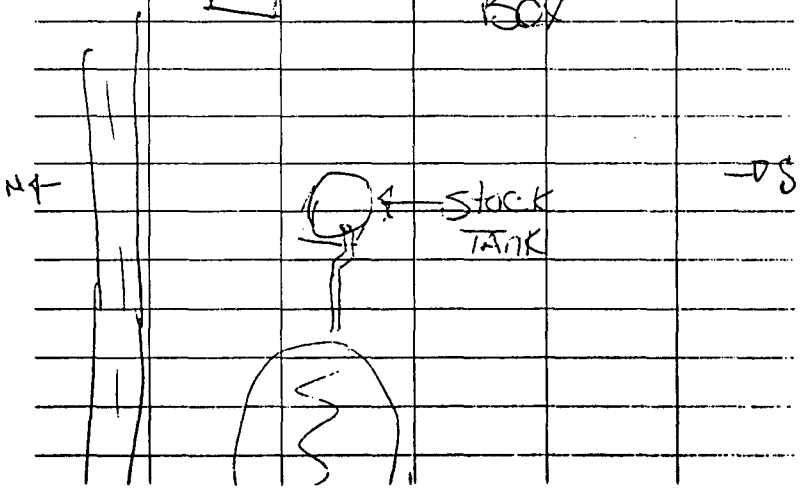
from Stock Tank

* Malcomb - Don't feel Matador is the problem
* Matador was working on lease when discovered
Malcomb leaks when matador was pumping H2O
on lease - at them
Doubled contaminations
Towards the well.

E ↑ East Side

Matador's Pumper
- Hugo -

* Rice Engineering has a box
200-300' East of Stock Tank



06-28-00
30 D.W.

- Elsie Reeves - lives in Quitaque
* Malcolm Combes off 396-746 cell 369-4
MATADOR -
drilled a well
- dips Burning after samples
- Baker Chemical - by
Sample Retrieved - B.J. - by matador
Cattle drinking water

* Paw Bills Walker Rd
go to 3rd yellow gate
≈ 1 mi & 1/2 from
Matador Cafe

Oil Conservation Division
1625 N. French Dr.
Hobbs, NM 88240

Memo

To: Bill Olson

From: Donna Williams

Date: 07/05/00

Re: Malcolm Coombes

Bill,

I had a visit by this guy on 6-30-00, and we went out to where he leases the land he keeps his cattle on. And later on that same day he brought me a copy of the analyticals dated 10-01-90 & 02-16-96, that was faxed to him by the landowner. I am enclosing all information given to me for your review. Let me know if you need anything more.

Thank you,

Donna Williams

Environmental Engineer Specialist

Coombes

Trucking Inc.

OILFIELD TRUCKING & FORKLIFT SERVICE

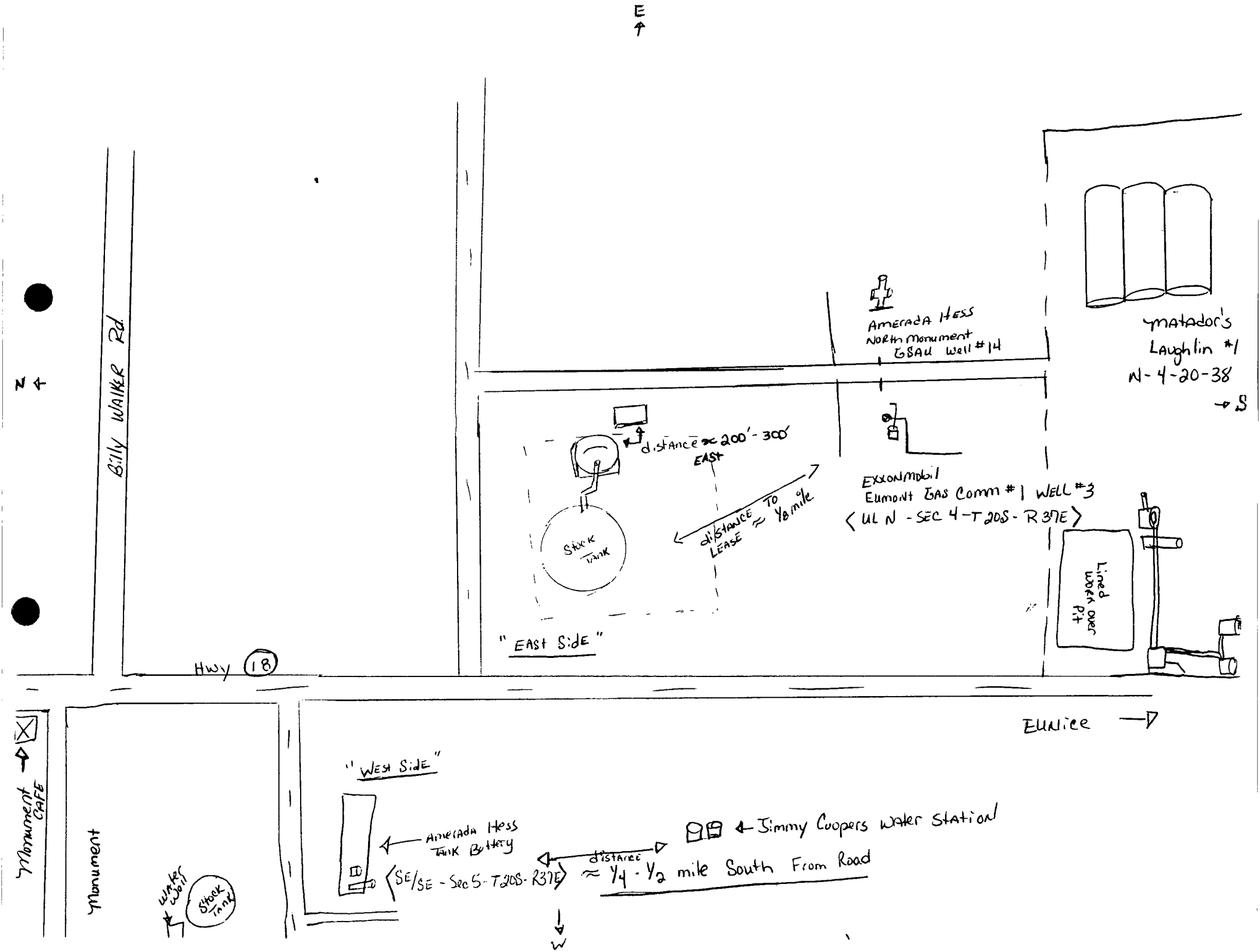
Business
P.O. Box 2591
Hobbs, NM 88241
(505) 392-7466
Fax (505) 392-6443

Malcolm Coombes
(505) 393-9517
(505) 369-4796

Garth Coombes
(505) 392-7350
(505) 369-0099

Rooster Coombes
(505) 397-2796
(505) 369-0198

Craig Coombes
(505) 392-2535
(505) 369-4792


E
N
S
W
Billy WALKER Rd
Hwy 18
Amerada Hess
North Monument
GSAU Well #14
Matador's
Laughlin #1
N-4-20-38
distance ≈ 200' - 300'
EAST
Stock Tank
distance to LEASE ≈ ½ mile
EXXONMobil
Elmont Gas Comm #1 WELL #3
(UL N - SEC 4 - T20S - R37E)
Lined open pit
"EAST Side"
Eunice
"West Side"
Amerada Hess
Tank Battery
(SE/SE - Sec 5 - T20S - R37E)
distance
≈ ¼ - ½ mile South From Road
Jimmy Coopers water station
Monument Cafe
Monument
Water Well
Stock Tank

3/12/00

Malcon

West Side -

Specific Gravity - 1.010

H_2S - .5 ppm

Chlorides - 1000 ppm

(350ppm)

East Side -

Water Well w/Stock Tanks

Specific Gravity - 1.010

H_2S - .10 ppm

Chlorides - 3000 ppm

Samples: Clear - NO Solids

East side well has more chlorides than the west side, however the water is still fairly fresh. Have state Extension office check the water. I think they charge $10.

Ron Matthews
Baker Petrolite

600 North Pearl, Suite 2320
Dallas, Texas 75201
Phone: 214-220-9200
Fax: 214-220-0227

BJ SERVICES, USA

BJ Fax

Malcolm + Garth Coombes

To: ~~Mr John Bell~~ From: John Tabor - Senior Account Manager

Fax: 392-6993 Date: 6/6

Phone: Pages: 3 Including Cover Sheet

Re: CC:

☐ Urgent ☑ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Please call (214) 220-9200 if all or part of this telecopy needs to be re-sent.

Comments: Here is ~~anayti~~ analysis of water from your water well & a nearby station.

John Bell

06-30-00
Malcomb
Brought
Heat into Office

BJ SERVICES

Water Analysis

Date: 13-May-00

2708 West County Road, Hobbs NM 88240
Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Company	Well Name	County	State
matador	laughlin 1	Lea	New Mexico

Sample Source Wellhead **Sample #** station

Formation **Depth**

Specific Gravity	1.000	SG @ 60 °F	1.004
pH	7.00	Sulfides	Absent
Temperature (°F)	78	Reducing Agents	Absent

Cations

Sodium (Calc)	in Mg/L	986	in PPM	981
Calcium	in Mg/L	152	in PPM	151
Magnesium	in Mg/L	55	in PPM	55
Soluable Iron (FE2)	in Mg/L	0.0	in PPM	0

Anions

Chlorides	in Mg/L	1,360	in PPM	1,355
Sulfates	in Mg/L	350	in PPM	349
Bicarbonates	in Mg/L	610	in PPM	608

1355

Total Hardness (as CaCO3)	in Mg/L	650	in PPM	648
Total Dissolved Solids (Calc)	in Mg/L	3,522	in PPM	3,509
Equivalent NaCl Concentration	in Mg/L	2,948	in PPM	2,937

Scaling Tendencies

*Calcium Carbonate Index 92.720

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 63.200

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks rw= 10

Report # 473

* Talk TO agriculture Extension Agent W/county

BJ SERVICES

Water Analysis

Date: 13-May-00

2708 West County Road, Hobbs NM 88240
Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Company	Well Name	County	State
matador	laughlin 1	Lea	New Mexico

Sample Source Wellhead **Sample #** well water well

Formation **Depth**

Specific Gravity	1.000	SG @ 60 °F	1.003
pH	7.00	Sulfides	Absent
Temperature (°F)	76	Reducing Agents	Absent

Cations

Sodium (Calc)	in Mg/L	391	in PPM	389
Calcium	in Mg/L	280	in PPM	279
Magnesium	in Mg/L	84	in PPM	84
Soluable Iron (FE2)	in Mg/L	0.0	in PPM	0

Anions

Chlorides	in Mg/L	880	in PPM	877
Sulfates	in Mg/L	300	in PPM	299
Bicarbonates	in Mg/L	415	in PPM	413

8771 ppm

Total Hardness (as CaCO3)	in Mg/L	1,050	in PPM	1,047
Total Dissolved Solids (Calc)	in Mg/L	2,349	in PPM	2,342
Equivalent NaCl Concentration	in Mg/L	1,960	in PPM	1,954

Scaling Tendencies

*Calcium Carbonate Index 116,144

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 84,000

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment

Remarks Iws 3.5

Report # 472

Parcel & Office Accessories Store

Facsimile Cover

Date: 6/30/00

~~* Malcumb Coombes~~

* Malcolm Coombes

To: Brenda

From: Lee

All 5 pages came in good at the post office Thanks

No. Pages including cover 4

Please call us at 520.537.4670 if there is a deficiency in this fax transmission. Our return fax # is also 520.537.4670

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 990229
SAMPLE RECEIVED 9-27-90
RESULTS REPORTED 10-1-90

TO: Mr. Eric Haas
P. O. Drawer "D", Monument, NM 88265

COMPANY Amerada Hess Corporation LEASE
FIELD OR POOL
SECTION 9 BLOCK SURVEY T-20S & R-37E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Windmill #3. (Arnold Ranch Windmill #4
NO. 2
NO. 3 (Correct location is Sec. 4 — NM Windmill #4 Sec. 9)
NO. 4
REMARKS:

EAST well

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	9/14/96, Sec 4	NO. 3	Sec 5
Specific Gravity at 60° F.	1.0022	1.001 (Sec 4)		1.002 Sec 5
pH When Sampled				
pH When Received	7.38	7.20		7.35
Bicarbonate as HCO_3	393	328		364
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	398	456		444
Calcium as Ca	121	192		186
Magnesium as Mg	23	264		258
Sodium and/or Potassium	170	.019 (Potassium)		0.15 (Potassium)
Sulfate as SO_4	150	160		85
Chloride as Cl	206	297		275
Iron as Fe	0.32	.06		0.53
Barium as Ba		0.00		0.00
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,063	830 (dissolved)		770 (dissolved)
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	0.0	0.0		0.00
Resistivity, ohms/m at 77° F.	7.05	10 AT 28.9°C		10.0000 AT 25 °C
Suspended Oil		40		0.00
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.7	2.44		0.88

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Ronnie D. Tucker
Ronnie D. Tucker, B.S.

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

WATER ANALYSIS

EAST WELL

COMPANY Elsie Reeves

SAMPLE Stock Watering Well Section 4
SAMPLED BY

DATE TAKEN 02-14-96
REMARKS Ogalala Aquafier is the underground water in this area.

			TEST FROM ANC. 10-1-90	± %
Barium as Ba	0.00		NOT RECORDED	
Carbonate alkalinity PPM	0			
Bicarbonate alkilinity PPM	328		393	-
pH at Lab	7.20		7.38	-
Specific Gravity @ 60° F	1.001		1.0022	-
Magnesium as Mg	264		23	+
Total Hardness as CaCO3	456		398	+
Chlorides as Cl	297		306	+
Sulfate as SO4	160		150	+
Iron as Fe (SUBMERSIBLE PUMP INSTALLED C. 1994)	0.06		0.32	-
Potassium	0.19		170	-
Hydrogen Sulfide	0.00		0.0	
Resistivity Ohms	10.00	23.9° C	7.05 AT 77° F	+
Total Dissolved Solids	830		1063	-
Calcium as CA	192		121	+
Nitrate	2.64		0.7	+
Oil in Water	4.00		NOT RECORDED	

Results reported as Parts per Million unless stated

Langelier Saturation Index +0.

Analysis by Rolland Perry
Date: 02-16-96

LOCATION:
SW¼ SW¼ Sec 4
WINDMILL

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

West well

WATER ANALYSIS

COMPANY Elsie Reeves

SAMPLE Stock watering well Section #5
SAMPLED BY Elsie Reeves

DATE TAKEN 02-13-96
REMARKS

Barium as Ba	0.00	
Carbonate alkalinity PPM	0	
Bicarbonate alkilinity PPM	364	
pH at Lab	7.25	
Specific Gravity @ 60° F	1.002	
Magnesium as Mg	258	
Total Hardness as CaCO3	444	
Chlorides as Cl	275	
Sulfate as SO4	85	
Iron as Fe	0.53	
Potassium	0.15	
Hydrogen Sulfide	0.00	
Resistivity Ohms	10.0000	23.4° C
Total Dissolved Solids	770	
Calcium as CA	186	
Nitrate	0.88	
Oil In Water	0.00	

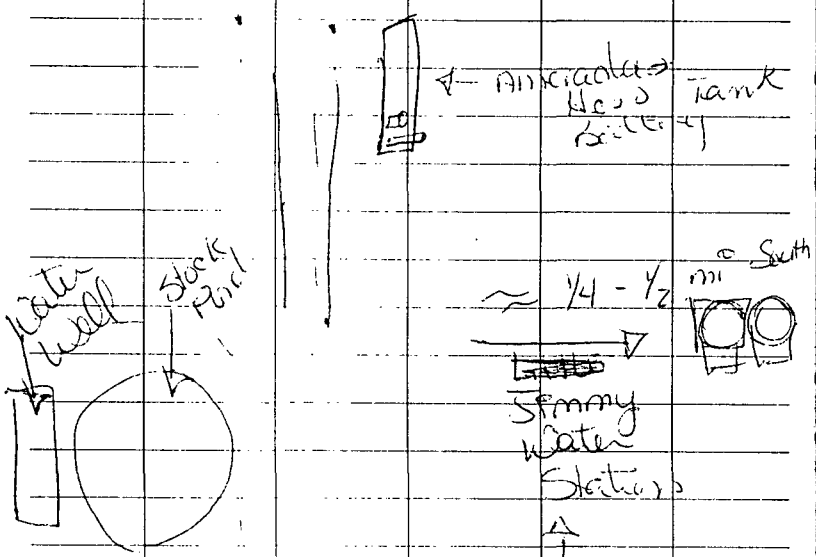
Results reported as Parts per Million unless stated

Langelier Saturation Index +0.05

Analysis by Rolland Perry
Date: 02-14-96

West Side

Across the Road



Amerada Hess
SE/SE - Sec 5 - 30S - 37E

Dec 30-00

D.10

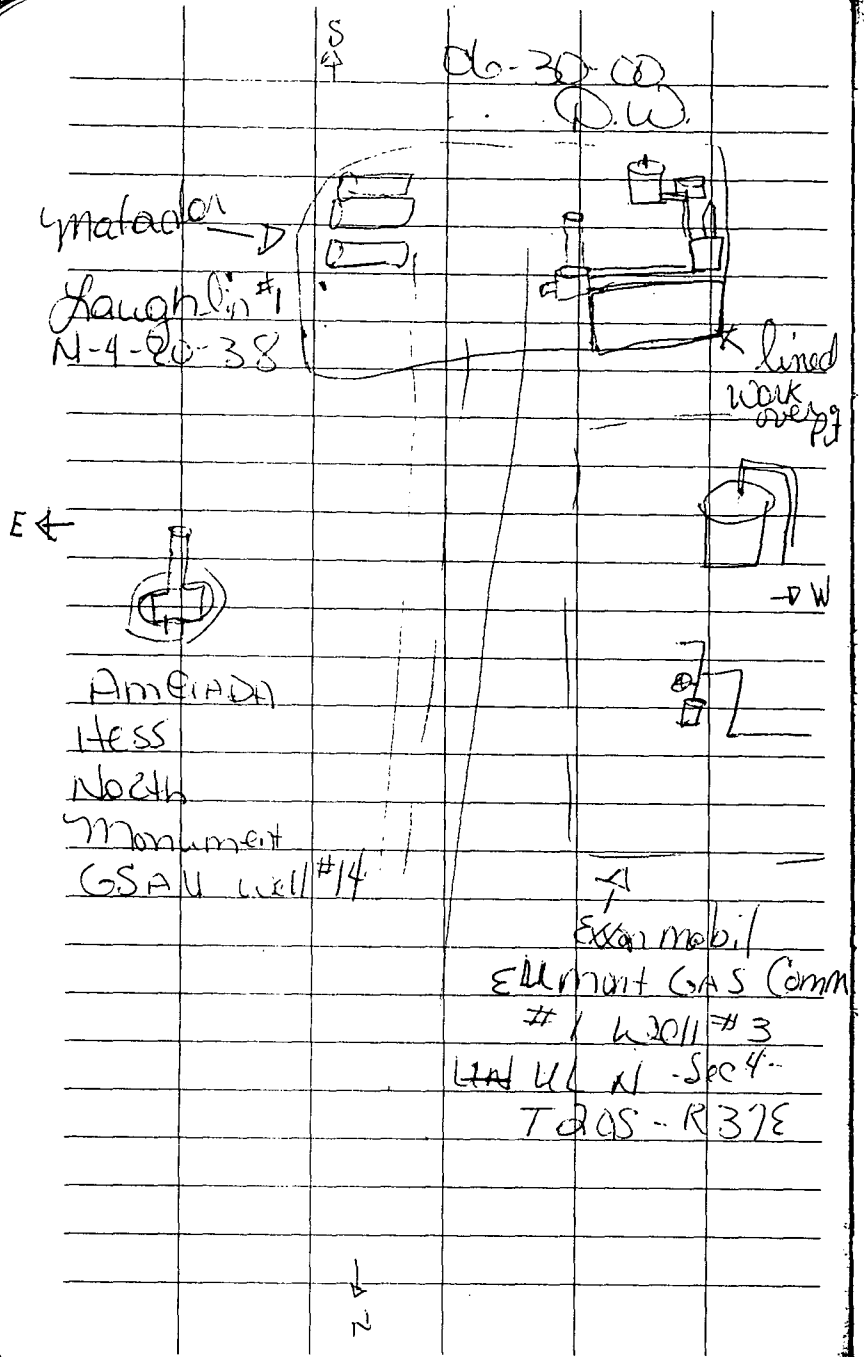
Malcomb Combs

- Here was an odor - gas - Malcomb thinks it is either Sid Richardson or Dynegy -

Doyle Hartman
South of Amerada Hess
(Rip Laughlin)
360 400' South from Amerada's well

06-30-08

D.W.



06-30-08

D.W.

East Side

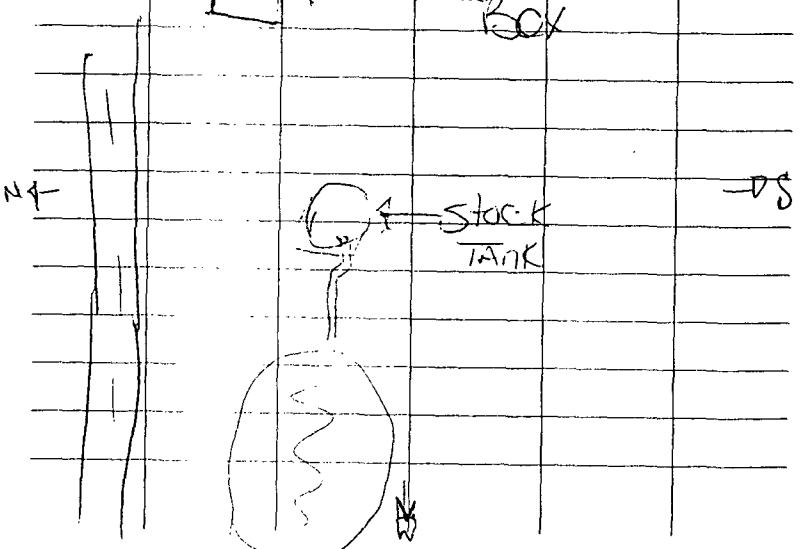
These wells are Roughly ≈ 1/8 mi from Stock Tank

* Malcomb - Don't feel Matador is the problem
* Matador was working on lease when discovered
* Malcomb feels when Matador was pumping it to for use - it then pulled contamination towards the well.

E ↑ EAST SIDE

Matador's Pumper
- Hugo -

* Rice Engineering
has a box
200-300' East of Stock Tank



06-30-00
D.W.

- Elsie Reeves - lives in Arizona
* Malcolm Coombes off 396-7466
MATADOR - cell 369-4796
drilled a well

- lips Burning after sampling
- Baker Chemical - by
Samples Retrieved
- B.S. - by matador

Cattle drinking water

* Pass Billy Walker Rd
go to 3rd yellow gate
≈ 1 mi & 1/2 from
Monument Cafe