

1R - 427-15

**GENERAL  
CORRESPONDENCE**

**YEAR(S):  
2008**

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# RICE Operating Company

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

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7005 1820 0001 6804 4929**

February 27, 2008

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

**RE: NOTIFICATION OF GROUNDWATER IMPACT**  
**EME State 'H' EOL, #1R0427-15**  
**Unit E, Sec. 17, T20S, R37E**

Mr. Price:

Rice Operating Company (ROC) notifies the Director of the New Mexico Oil Conservation Division (OCD), Environmental Bureau of groundwater impact at the above-referenced site in accordance with NM Rule 116. The remediation of this site may be subject to NM Rule 19 procedures.

The following work was performed in accordance with the OCD-approved (verbal 7/18/2007) Investigation and Characterization Plan submitted by the consulting company, Texerra Environmental Engineering (Texerra), to investigate potential groundwater concerns at this junction box site near Monument. A soil boring for vertical delineation of chloride and a 2-inch monitoring well were installed on November 28, 2007 under the supervision of L. Peter Galusky, Jr. of Texerra. Groundwater was encountered at approximately 31 feet. The well was developed and sampled pursuant to OCD guidelines by Arc Environmental (Arc) of Lovington. Laboratory analyses of two sampling events confirm the Water Quality Control Commission standards for chloride and Total Dissolved Solids (TDS) are exceeded at the monitoring well. Arc will continue to sample the well on a quarterly basis. Texerra will be evaluating this groundwater data and investigating regional groundwater information in preparation for the submission of a Corrective Action Plan. Chloride and TDS concentrations are known to be elevated on a regional scale in this area near Monument.

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ROC is the service provider (agent) for the EME Salt Water Disposal System and has no ownership of any portion of the pipelines, wells, or facilities. The EME System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental remediation projects of this magnitude require System Partner AFE approval and work begins as funds are received.

Please accept this notification for the above-referenced site. Should you have any questions or concerns regarding this site, please do not hesitate to contact me.

RICE OPERATING COMPANY

A handwritten signature in black ink that reads "Kristin Farris Pope". The signature is written in a cursive style with a large, prominent 'P' at the end.

Kristin Farris Pope  
Project Scientist

enclosures: 2 water analyses, soil boring log, monitoring well log, satellite map,  
driving directions

cc: SC, Texerra, file, Mr. Chris Williams  
NMOCD, District 1 Office  
1625 N. French Drive  
Hobbs, NM 88240



# Driving Directions

**EME State 'H' EOL**  
UL/E Sec. 17 T20S R37E  
NAD 27 N32.57653° W103.27999°

From the intersection of Hwy 8 and jct. 322, travel west 2.3 miles to Maddox Road. Continue south on Maddox Road 2.5 miles. Turn left and travel east 0.3 miles to a battery. Stay on the main lease road as it turns and continue east 0.5 miles to an intersection. At the intersection turn left and travel on the main lease road north-east 1.0 miles through a turn which takes you south-east to the EOL. The site is on the left hand side of the road.

<b>Logger:</b>	L. Pete Galusky, Jr., Texerra	<b>Client:</b>	Well ID:  SB - 1
<b>Driller:</b>	Atkins Engineering Assoc., Inc.	RICE Operating Company	
<b>Drilling Method:</b>	Rotary Auger	<b>Project Name:</b>	
<b>Start Date:</b>	11-28-07	EME State 'H' EOL	
<b>End Date:</b>	11-28-07	<b>Location:</b>	
<b>Comments:</b> Located at former junction box site.  TD = 28 ft      GW = 32 ft		EME SWD System unit 'E' Sec.17 T20S, R37E Lea County, NM	

Depth (feet)	chloride field tests	PID	Description	Lithology	Soil Bore Construction
			0 - 5 ft		
2.5			LOAMY SAND light brown, dry		
5	751	0.6			
			5 - 10 ft		
7.5			LOAMY SAND olive brown, oily		
10	730	1.8			
			10 - 20 ft		
12.5			CALICHE light gray, oily		
15	961	1.5			
			20 - 25 ft		
17.5			CALICHE gray, oily		
20	982	1.2	Lab Cl- = 1980 ppm		
			25 - 28 ft		
22.5			SANDY CLAY gray, wet		
25	886	1.3	Lab Cl- = 432 ppm		
28	402	1			

<b>Logger:</b>	L. Pete Galusky, Jr., Texerra	<b>Client:</b>	RICE Operating Company	<b>Well ID:</b>  MW - 1
<b>Driller:</b>	Atkins Engineering Assoc., Inc.	<b>Project Name:</b>	EME State 'H' EOL	
<b>Drilling Method:</b>	Rotary Auger	<b>Location:</b>	EME SWD System	
<b>Start Date:</b>	11-28-07		unit 'E' Sec.17 T20S, R37E	
<b>End Date:</b>	11-28-07		Lea County, NM	
<b>Comments:</b>				
Located 29 ft south-east of frmr. jct. box site. Located 29 ft at 230° of N to frmr jct. box site. TD = 45 ft      GW = 32 ft				

Depth (feet)	chloride field tests	PID	Description	Lithology	Monitor Well Construction
			0 - 5 ft FINE SAND light tan, dry		concrete cap
5	139	0			
			5 - 25 ft CALICHE light gray, dry  LAB Cl- = 560 ppm		2 in. PVC casing  bentonite seal
10	361	0.7			
15	643	0.6			
20	430	1			
			25 - 30 ft CALICHE gray, damp		sand pack
25	411	1.2			
30	332	1.8			
			30 - 45 ft SANDY CLAY LOAM gray, wet LAB Cl- = 224 ppm		screen slot diameter = 0.01"
35	280	1.1			
40	266	0.8			
45	312	2.6			





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

Receiving Date: 12/14/07  
 Reporting Date: 12/20/07  
 Project Number: NOT GIVEN  
 Project Name: EME STATE "H" EOL  
 Project Location: T20S-R37E-SEC17E~LEA COUNTY, NM

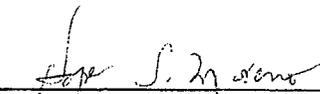
Sampling Date: 12/14/07  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: CK  
 Analyzed By: AB/HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:		12/19/07	12/18/07	12/18/07	12/19/07	12/18/07	12/18/07
H13926-1	MONITOR WELL #1	671	71.9	33.9	14.5	3,520	232
Quality Control		NR	49.2	54.0	3.19	1,411	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	98.5	108	106	99.9	NR
Relative Percent Difference		NR	< 0.1	6.1	10.2	0.7	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)	
ANALYSIS DATE:		12/18/07	12/19/07	12/18/07	12/18/07	12/14/07	
H13926-1	MONITOR WELL #1	772	459	0	283	7.75	2,154
Quality Control		490	27.8	NR	1000	7.06	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		98.0	111	NR	100	101	NR
Relative Percent Difference		2.0	17.4	NR	< 0.1	0.3	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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 Chemist

12-21-07  
 Date





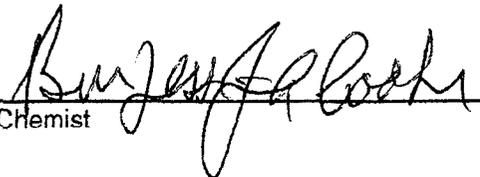


ANALYTICAL RESULTS FOR  
 RICE OPERATING COMPANY  
 ATTN: KRISTIN FARRIS-POPE  
 122 W. TAYLOR STREET  
 HOBBS, NM 88240  
 FAX TO: (575) 397-1471

Receiving Date: 02/13/08      Sampling Date: 02/11/08  
 Reporting Date: 02/18/08      Sample Type: WATER  
 Project Number: NOT GIVEN      Sample Condition: COOL & INTACT  
 Project Name: EME STATE "H" EOL      Sample Received By: NF  
 Project Location: T20S-R37E-SEC17E ~ LEA COUNTY, NM      Analyzed By: AB

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
	ANALYSIS DATE	02/15/08	02/15/08	02/15/08	02/15/08
H14249-1	MONITOR WELL #1	<0.001	<0.001	<0.001	<0.003
	Quality Control	0.099	0.092	0.087	0.272
	True Value QC	0.100	0.100	0.100	0.300
	% Recovery	99.4	92.4	87.0	90.6
	Relative Percent Difference	1.0	1.8	1.7	1.3

METHOD: EPA SW-846 8021 B

  
 Chemist

2/18/08  
 Date

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

Receiving Date: 02/13/08  
 Reporting Date: 02/18/08  
 Project Number: NOT GIVEN  
 Project Name: EME STATE "H" EOL  
 Project Location: T20S-R37E-SEC17E~LEA COUNTY, NM

Sampling Date: 02/11/08  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: NF  
 Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:	02/15/08	02/15/08	02/15/08	02/15/08	02/14/08	02/14/08
H14249-1 MONITOR WELL #1	578	33.3	20.2	10.8	2,930	272
Quality Control	NR	49.2	51.6	2.97	1,417	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	98.4	103	99.1	100	NR
Relative Percent Difference	NR	< 0.1	4.7	0.7	1.0	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	02/14/08	02/15/08	02/14/08	02/14/08	02/14/08	02/14/08
H14249-1 MONITOR WELL #1	710	157	0	332	7.87	1,700
Quality Control	500	26.3	NR	988	7.06	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	100	105	NR	98.8	101	NR
Relative Percent Difference	2.0	3.0	NR	1.2	< 0.1	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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*Kristin Suprobo*  
 Chemist

02/18/08  
 Date

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