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# REPORTS

DATE:

MARCH 27, 2006

**RICE** *Operating Company*

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1R0425

March 27, 2006

Mr. Wayne Price  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87504

RE: JUNCTION BOX UPGRADE REPORT for 2005  
VACUUM SWD SYSTEM  
Lea County, New Mexico

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2005. Enclosed is a list of the completed junction boxes and their respective closure/disclosure dates. These boxes are located in the Vacuum Salt Water Disposal (SWD) System.

ROC completed 22 junction box sites in 2005. Vacuum System Partners have decided to abandon the Vacuum SWD System. In 2006, junction boxes will continue to be evaluated with the objective of abandonment of the System.

Enclosed are the 2005 results from the PID/BTEX study described in the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). This comparison study is ongoing and data will continue to be collected in 2006. From the data collected thus far, no definitive conclusions can be drawn from the composite methods analyzed. An analysis of ROC's 2005 chloride field tests compared to chloride laboratory analysis is also enclosed. The study of this data continues to validate the accuracy of the chloride field tests employed by ROC.

ROC is the service provider (operator) for the Vacuum 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. Replacement/closure projects of this magnitude require System Partner AFE approval and work begins as funds are received.

Thank you for your consideration of this Junction Box Upgrade Report for 2005.

RICE OPERATING COMPANY

A handwritten signature in cursive script that reads "Kristin Farris Pope".

Kristin Farris Pope  
Project Scientist

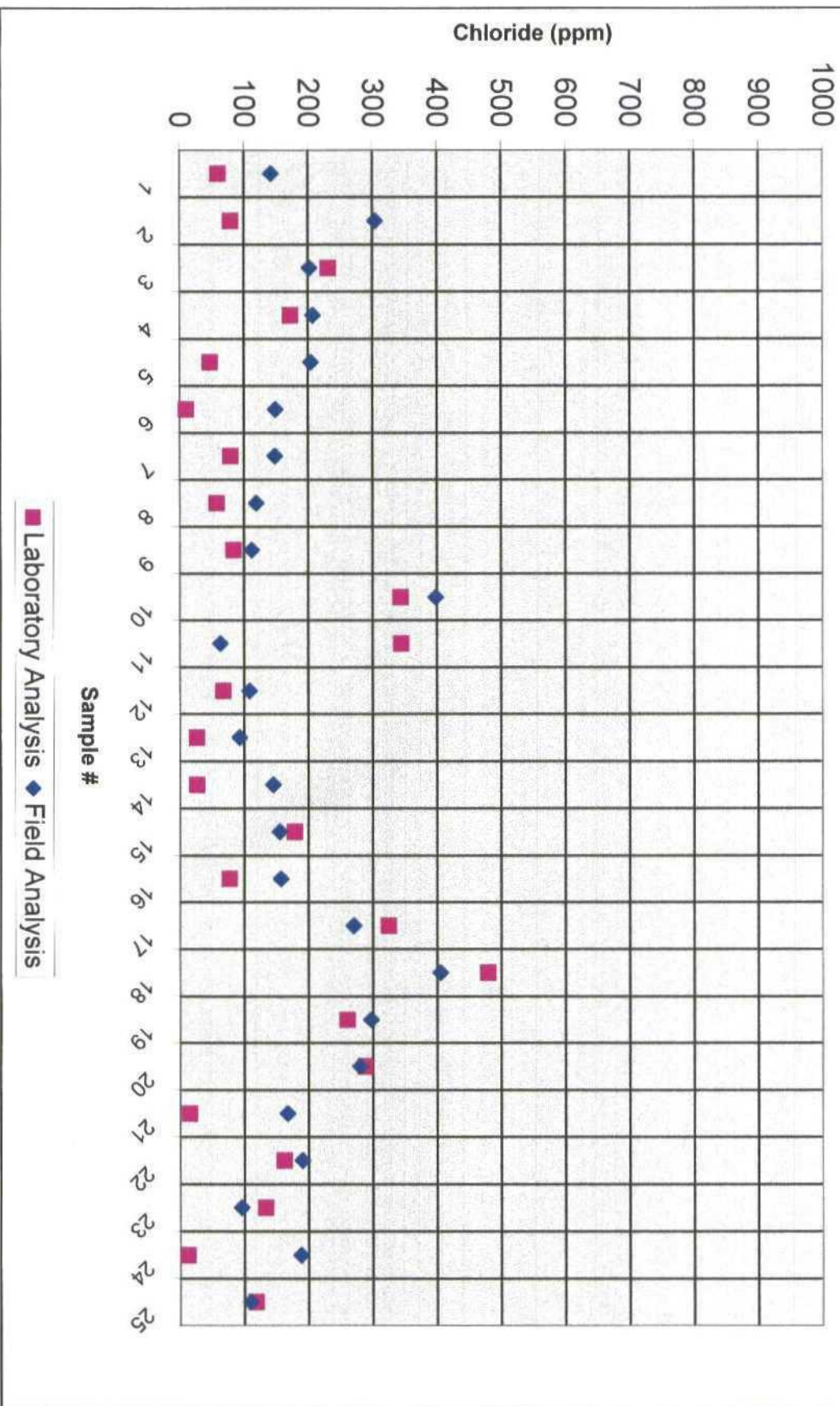
enclosures as stated

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

**RICE** Operating CompanyVacuum SWD SYSTEM Junction Box Upgrade Project  
2005 Completed Boxes

	Junction Box	Legal Description				Completion Date	OCD Assessment Score	Report Status
		Unit	Sec	T	R			
1	jct. F-30	F	30	17S	35E	7/26/2005	0	Closure
2	Exxon State 'J' EOL	L	19	17S	35E	7/26/2005	0	Closure
3	jct. M-25	M	25	17S	34E	7/26/2005	10	Closure
4	jct. G-33	G	33	17S	35E	11/21/2005	10	Closure
5	Southwestern VC EOL	L	36	17S	35E	11/23/2005	10	Closure
6	jct. K-30	K	30	17S	35E	11/23/2005	10	Closure
7	jct. J-26-2	J	26	17S	35E	11/23/2005	10	Closure
8	jct. B-36	B	36	17S	34E	11/23/2005	0	Closure
9	Mobil 'I' CC Unit EOL	L	36	17S	34E	12/2/2005	0	Closure
10	Marathon Warn State 1 EOL	F	31	17S	35E	12/2/2005	0	Closure
11	B-5-1 boot vent	B	5	18S	35E	12/2/2005	10	Closure
12	jct. M-29	M	29	17S	35E	12/13/2005	10	Closure
13	OXY Swigart EOL	I	25	17S	34E	12/19/2005	10	Closure
14	jct. C-36	C	36	17S	34E	12/19/2005	0	Closure
15	K-33 vent	K	33	17S	35E	12/20/2005	10	Closure
16	Chevron 4-27 EOL	J	27	17S	35E	12/20/2005	10	Closure
17	jct. N-30	N	30	17S	35E	12/21/2005	10	Closure
18	Mack Energy EOL	F	7	18S	35E	12/22/2005	10	Closure
19	jct. A-31-1	A	31	17S	35S	12/23/2005	0	Closure
20	Phillips 'B' Santa Fe EOL	O	30	17S	35E	12/23/2005	0	Closure
21	Conoco Phillips Glorietta (Santa Fe) EOL	N	27	17S	35E	12/23/2005	10	Disclosure
22	jct. H-27	H	27	17S	35E	12/23/2005	10	Closure

# Chloride Field Test vs. Laboratory Analysis 2005



### Laboratory vs. Field Chloride Test Results 2005

Sample #	Location	Date	Location of Sample	LABORATORY analysis (ppm)	FIELD analysis (ppm)
1	Vacuum jct. M-25	7/13/05	grab @ 8 ft	59.3	142
2	Vacuum Southwestern VC EOL	8/11/05	bottom grab @12 ft	79.2	304
3	Vacuum Exxon St. 'J' EOL	7/13/05	grab @ 9 ft	231	202
4	Vacuum jct. F-30	7/13/05	grab @ 8 ft	172	207
5	EME Amerada Mattern EOL	6/17/05	bottom comp. @ 12 ft	46.9	204
6	Vacuum K-33 vent	9/1/05	bottom grab @ 7 ft	9.63	149
7	Vacuum Chevron 4-27 EOL	7/28/05	bottom grab @ 10 ft	78.9	148
8	EME jct. G-5-1	6/22/05	vertical grab @ 12 ft	57.4	119
9	EME EI Paso EOL	6/22/05	vertical @ 12 ft	83.7	112
10	Vacuum Mack Energy EOL	8/29/05	bottom comp. @ 12 ft	343	398
11	BD jct. A-35	10/4/05	vertical @ 8 ft	344	63
12	Vacuum jct. G-33	9/13/05	vertical @ source 6 ft	67.1	108
13	Vacuum Phillips 'B' Santa Fe EOL	9/6/05	vertical @ source 6 ft	25.7	93
14	Vacuum jct. N-30	9/6/05	vertical @ 13 ft	26.3	145
15	Vacuum OXY Swigart EOL	9/19/05	vertical @ 3 ft	178	155
16	EME jct. K-4	10/11/05	grab @ 7 ft	76.8	157
17	Vacuum jct. C-36	3/16/05	vertical @ 9 ft	324	270
18	EME Amerada St. 'Q' EOL	11/29/04	bottom comp. @ 12 ft	479	405
19	EME Burleson St. 'A' EOL	2/16/05	bottom comp. @ 12 ft	260	297
20	BD jct. K-21-1	6/11/03	vertical @ 12 ft	288	280
21	BD jct. P-26-3	10/25/05	grab @ 9 ft	14.6	167
22	EME jct. P-31	11/9/05	vertical @ source 12 ft	162	190
23	EME jct. P-2	11/7/05	bottom comp @ 12 ft	133	95.5
24	EME Conoco St. A-2A EOL	11/9/05	vertical @ 12 ft	11.6	188
25	Vacuum jct. H-27	7/29/05	vertical @ 7 ft	118	110

DIFFERENT COLORS INDICATE DIFFERENT TECHNICIAN SAMPLERS

# 2005 BTEX Study

## Revised Junction Box Upgrade Plan (2003)

System: EME  
 Site: Amerada St. 'Q' EOL

Date: 11/29/2004  
 Sampler: Joe Gatts

Laboratory: Environmental Lab  
 of Texas

Location	Component Sample	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	102.6	0.0223	0.280	0.806	3.104
	2	104.7				
	3	468.0				
	4	172.0				
	5	16.6				
			LAB COMPOSITE (mg/kg)			
			0.0201	0.243	0.811	2.706

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed "W" pattern. Revised Junction Box Upgrade Work Plan (July 16, 2003)

# 2005 BTEX Study

# Revised Junction Box Upgrade Plan (2003)

System: EME  
 Site: jct. A-2-1

Date: 3/2/2004  
 Sampler: Gary Stark (ETGI-Hobbs)

Laboratory: Environmental Lab  
 of Texas

Location	Component	PID reading (ppm)
bottom composite at 12 ft BGS	1	1424
	2	682
	3	1910
	4	1869
	5	842

FIELD COMPOSITE (mg/kg)			
Benzene	Toluene	Ethyl Benzene	Total Xylenes
0.425	1.20	11.90	22.140
LAB COMPOSITE (mg/kg)			
1.17	1.87	17.7	28.73

4-wall composite		1402

FIELD COMPOSITE (mg/kg)			
0.122	0.486	4.05	5.958
LAB COMPOSITE (mg/kg)			
0.492	1.09	10.4	13.27

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)



# 2005 BTEX Study

# Revised Junction Box Upgrade Plan (2003)

System: EME Date: 9/16/2004 Laboratory: Environmental Lab  
 Site: Gilluly 'B' boot Sampler: Joe Gatts of Texas

Location	Component Sample	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12-18 ft BGS	1	16.9	<0.025	<0.025	0.554	0.2029
	2	150.0				
	3	331.0				
	4	363.0				
	5	34.3				
LAB COMPOSITE (mg/kg)			<0.025	<0.025	0.0626	0.2368

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.  
 Revised Junction Box Upgrade Work Plan (July 16, 2003)

# 2005 BTEX Study

# Revised Junction Box Upgrade Plan (2003)

System: Justis Date: 12/7/2004 Laboratory: Environmental Lab  
 Site: D-1 vent Sampler: Joe Gatts of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	1523.0	0.0435	0.740	4.62	10.82
	2	18.2				
	3	219.0				
	4	0.1				
	5	0.1				
			LAB COMPOSITE (mg/kg)			
			0.0942	1.47	7.24	18.56

4-wall composite	FIELD COMPOSITE (mg/kg)			
	Benzene	Toluene	Ethyl Benzene	Total Xylenes
4-wall composite	0.0181	0.181	1.59	4.023
	LAB COMPOSITE (mg/kg)			
	<0.025	0.0981	0.579	1.555

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)

# 2005 BTEX Study

# Revised Junction Box Upgrade Plan (2003)

System: EME Date: 10/21/2004 Laboratory: Environmental Lab  
 Site: Conoco A-17 EOL Sampler: Roy Rascon of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 13 ft BGS	1	1433.0	<0.025	0.286	0.449	1.814
	2	55.4				
	3	4.4				
	4	2.4				
	5	4.5				
			LAB COMPOSITE (mg/kg)			
			<0.025	0.150	0.352	1.326

4-wall composite	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
		Benzene	Toluene	Ethyl Benzene	Total Xylenes
4-wall composite	634.0	<0.025	0.177	0.338	1.551
		LAB COMPOSITE (mg/kg)			
		<0.025	0.203	0.479	2.073

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern. Revised Junction Box Upgrade Work Plan (July 16, 2003)