

AP - 75

ANNUAL MONITORING REPORT

YEAR(S):
2011

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

CERTIFIED MAIL

RETURN RECEIPT NO. 7008 1140 0001 3070 6211

March 30th, 2012

Mr. Edward Hansen

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau

1220 S. St. Francis Drive

Santa Fe, New Mexico 87505

**RE: 2011 Annual Groundwater Monitoring Report
Rice Operating Company – BD SWD System
BD J-26 (AP-75): UL/J sec. 26 T21S R37E**

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the BD Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the BD 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 Parties, who provide all operating capital on a percentage ownership/usage basis.

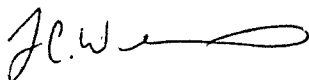
This 2011 Annual Groundwater Monitoring Report contains:

1. A table presenting all laboratory results and depths to groundwater for each well at the site.
2. Graphs showing the concentrations of chloride and TDS in groundwater over time.
3. A map showing the well locations.
4. The laboratory analytical results for the most recent sampling event.

Quarterly groundwater sampling will continue in 2012.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

Sincerely,



Lara Weinheimer

Project Scientist

RECS

(575) 441-0431

RECEIVED OCT

2012 APR -3 A 11:2

BD J-26 (AP-75)

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
			(mg/L)						
MW-1	43.02	10/29/2002	4520	9020	<0.001	<0.001	<0.001	<0.001	391
	42.33	2/28/2003	3470	6870	<0.001	<0.001	<0.001	<0.001	501
	42.52	6/5/2003	1460	3280	<0.001	<0.001	<0.001	<0.001	330
	43.72	8/22/2003	957	2620	<0.001	<0.001	<0.001	<0.001	431
	43.91	10/30/2003	620	2040	<0.001	<0.001	<0.001	<0.001	394
	43.7	2/18/2004	478	1630	<0.001	<0.001	<0.001	<0.001	292
	40.8	5/5/2004	390	1440	<0.001	<0.001	<0.001	<0.001	291
	37.02	8/10/2004	195	1080	<0.001	<0.001	<0.001	<0.001	322
	36.61	11/9/2004	177	1100	<0.001	<0.001	<0.001	<0.001	505
	36.62	2/9/2005	179	1090	<0.001	<0.001	<0.001	<0.001	254
	37	5/5/2005	179	1060	<0.001	<0.001	<0.001	<0.001	264
	37.56	8/13/2005	193	1000	<0.001	<0.001	<0.001	<0.001	227
	37.98	11/7/2005	233	1020	<0.001	<0.001	<0.001	<0.001	197
	38.39	2/6/2006	262	1080	<0.001	<0.001	<0.001	<0.001	201
	38.55	5/8/2006	282	1140	<0.001	<0.001	<0.001	<0.001	209
	39.21	10/23/2006	193	1010	XXX	XXX	XXX	XXX	263
	39.52	2/8/2007	182	912	XXX	XXX	XXX	XXX	239
	39.66	4/18/2007	161	898	XXX	XXX	XXX	XXX	227
	39.86	7/18/2007	149	900	XXX	XXX	XXX	XXX	210
	40.07	10/10/2007	160	915	XXX	XXX	XXX	XXX	228
	40.35	1/14/2008	152	904	XXX	XXX	XXX	XXX	281
	40.41	4/4/2008	140	890	XXX	XXX	XXX	XXX	284
	40.44	7/15/2008	132	907	XXX	XXX	XXX	XXX	232
	40.76	10/8/2008	128	952	XXX	XXX	XXX	XXX	259
	41.01	1/16/2009	136	890	XXX	XXX	XXX	XXX	245
	40.94	4/13/2009	140	899	XXX	XXX	XXX	XXX	243
	41.07	7/14/2009	144	893	XXX	XXX	XXX	XXX	206
	41.02	10/13/2009	148	911	XXX	XXX	XXX	XXX	199
	41.01	1/14/2010	144	891	XXX	XXX	XXX	XXX	130
	41.17	4/12/2010	156	922	XXX	XXX	XXX	XXX	250
	41.22	7/16/2010	164	939	XXX	XXX	XXX	XXX	231
	41.26	10/12/2010	164	922	XXX	XXX	XXX	XXX	234
	41.05	1/20/2011	164	918	XXX	XXX	XXX	XXX	235
	41.21	4/18/2011	164	910	XXX	XXX	XXX	XXX	220
	41.23	7/22/2011	168	860	XXX	XXX	XXX	XXX	209
	41.44	10/18/2011	172	910	XXX	XXX	XXX	XXX	243

XXX: Not Sampled per NMOCD approval or Data not available

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
			(mg/L)						
MW-2	43.99	8/22/2003	239	1180	<0.001	<0.001	<0.001	<0.001	384
	44.17	10/30/2003	239	1240	<0.001	<0.001	<0.001	<0.001	363
	43.91	2/18/2004	221	1150	<0.001	0.000954	<0.001	<0.001	308
	40.98	5/5/2004	204	1060	<0.001	<0.001	<0.001	<0.001	293
	37.14	8/10/2004	230	1120	<0.001	<0.001	<0.001	<0.001	352
	36.99	11/9/2004	230	1120	<0.001	<0.001	<0.001	<0.001	479
	37.03	2/9/2005	294	1220	<0.001	<0.001	<0.001	<0.001	248
	37.46	5/6/2005	257	1210	<0.001	<0.001	<0.001	<0.001	264
	38.02	8/13/2005	237	1180	<0.001	<0.001	<0.001	<0.001	260
	37.44	11/7/2005	206	1130	<0.001	<0.001	<0.001	<0.001	212
	38.83	2/6/2006	250	1090	<0.001	<0.001	<0.001	<0.001	250
	39.02	5/8/2006	332	1500	<0.001	<0.001	<0.001	<0.001	230
	39.71	10/23/2006	395	1370	XXX	XXX	XXX	XXX	231
	40.03	2/8/2007	378	1220	XXX	XXX	XXX	XXX	246
	40.09	4/18/2007	446	1380	XXX	XXX	XXX	XXX	174
	40.3	7/18/2007	679	1720	XXX	XXX	XXX	XXX	228
	40.52	10/10/2007	730	1838	XXX	XXX	XXX	XXX	204
	40.74	1/14/2008	810	2061	XXX	XXX	XXX	XXX	272
	40.8	4/4/2008	860	2470	XXX	XXX	XXX	XXX	292
	40.84	7/15/2008	600	2270	XXX	XXX	XXX	XXX	473
	41.2	10/8/2008	730	2470	XXX	XXX	XXX	XXX	289
	41.39	1/16/2009	710	1960	XXX	XXX	XXX	XXX	294
	40.94	4/13/2009	670	1890	XXX	XXX	XXX	XXX	279
	41.42	7/14/2009	690	2030	XXX	XXX	XXX	XXX	264
	41.31	10/13/2009	720	2010	XXX	XXX	XXX	XXX	282
	41.33	1/14/2010	740	2000	XXX	XXX	XXX	XXX	327
	41.33	4/12/2010	760	2000	XXX	XXX	XXX	XXX	282
	41.52	7/16/2010	1000	2220	XXX	XXX	XXX	XXX	250
	XXX	10/12/2010	1060	2910	XXX	XXX	XXX	XXX	473
	41.43	1/20/2011	1140	2440	XXX	XXX	XXX	XXX	286
	41.64	4/18/2011	1200	2410	XXX	XXX	XXX	XXX	258
	41.63	7/22/2011	1180	2590	XXX	XXX	XXX	XXX	225
	41.86	10/18/2011	1000	2280	XXX	XXX	XXX	XXX	298

XXX: Not Sampled per NMOCD approval or Data not available

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
			(mg/L)						
MW-3	43.06	8/22/2003	160	904	<0.001	<0.001	<0.001	<0.001	183
	43.28	10/30/2003	168	1070	<0.001	<0.001	<0.001	<0.001	421
	43.03	2/18/2004	160	862	<0.001	<0.001	<0.001	<0.001	223
	40.04	5/5/2004	160	891	<0.001	<0.001	<0.001	<0.001	266
	36.55	8/10/2004	164	941	<0.001	<0.001	<0.001	<0.001	337
	36.22	11/9/2004	142	1160	<0.001	<0.001	<0.001	<0.001	464
	36.17	2/9/2005	138	1010	<0.001	<0.001	<0.001	<0.001	205
	36.56	5/6/2005	141	870	<0.001	<0.001	<0.001	<0.001	241
	37.12	8/13/2005	125	842	<0.001	<0.001	<0.001	<0.001	207
	37.55	11/7/2005	125	826	<0.001	<0.001	<0.001	<0.001	170
	37.84	2/6/2006	119	748	<0.001	<0.001	<0.001	<0.001	161
	38	5/8/2006	142	806	<0.001	<0.001	<0.001	<0.001	168
	38.68	10/23/2006	147	834	XXX	XXX	XXX	XXX	206
	39.01	2/8/2007	147	788	XXX	XXX	XXX	XXX	183
	39.16	4/18/2007	150	818	XXX	XXX	XXX	XXX	180
	39.4	7/18/2007	139	848	XXX	XXX	XXX	XXX	158
	39.6	10/10/2007	164	857	XXX	XXX	XXX	XXX	160
	39.9	1/14/2008	160	886	XXX	XXX	XXX	XXX	186
	39.95	4/4/2008	152	911	XXX	XXX	XXX	XXX	191
	39.99	7/15/2008	120	840	XXX	XXX	XXX	XXX	231
	40.27	10/8/2008	148	929	XXX	XXX	XXX	XXX	186
	40.54	1/16/2009	148	853	XXX	XXX	XXX	XXX	170
	40.5	4/13/2009	148	844	XXX	XXX	XXX	XXX	163
	40.63	7/14/2009	144	831	XXX	XXX	XXX	XXX	146
	40.61	10/13/2009	144	835	XXX	XXX	XXX	XXX	136
	40.6	1/14/2010	144	865	XXX	XXX	XXX	XXX	122
	40.65	4/12/2010	148	776	XXX	XXX	XXX	XXX	139
	40.64	7/16/2010	156	811	XXX	XXX	XXX	XXX	155
	40.68	10/12/2010	152	881	XXX	XXX	XXX	XXX	206
	40.67	1/20/2011	152	807	XXX	XXX	XXX	XXX	161
	40.83	4/18/2011	152	845	XXX	XXX	XXX	XXX	146
	40.82	7/22/2011	156	791	XXX	XXX	XXX	XXX	126
	41.08	10/18/2011	172	830	XXX	XXX	XXX	XXX	145

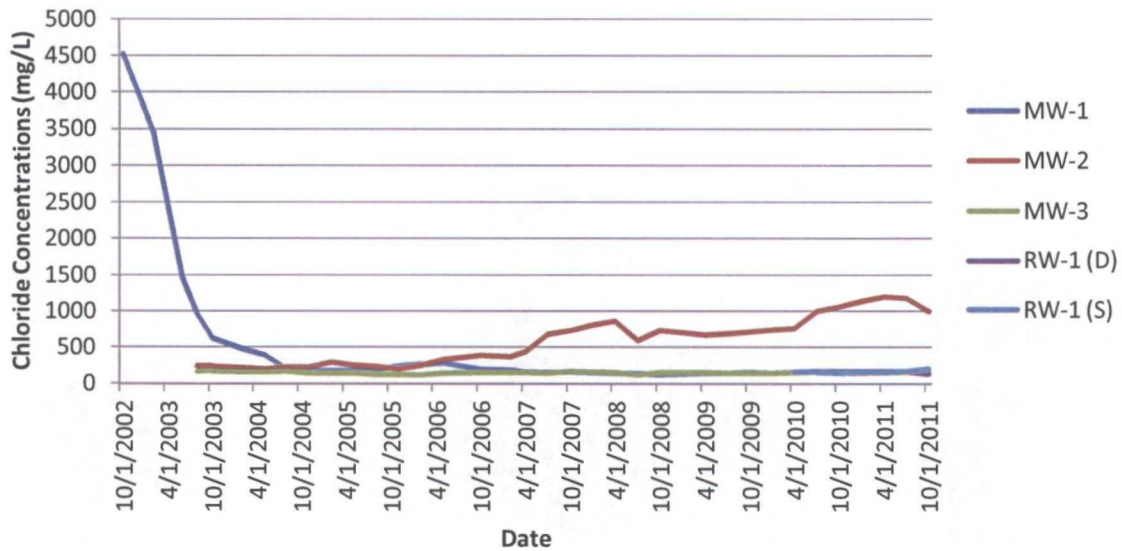
XXX: Not Sampled per NMOCD approval or Data not available

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
			(mg/L)						
RW-1 Deep	40.83	5/24/2010	152	825	XXX	XXX	XXX	XXX	152
	40.8	7/16/2010	152	820	XXX	XXX	XXX	XXX	135
	40.79	10/12/2010	144	858	XXX	XXX	XXX	XXX	114
	40.52	1/20/2011	152	819	XXX	XXX	XXX	XXX	155
	40.68	4/18/2011	160	842	XXX	XXX	XXX	XXX	155
	40.67	7/22/2011	168	934	XXX	XXX	XXX	XXX	199
	40.9	10/18/2011	136	845	XXX	XXX	XXX	XXX	161

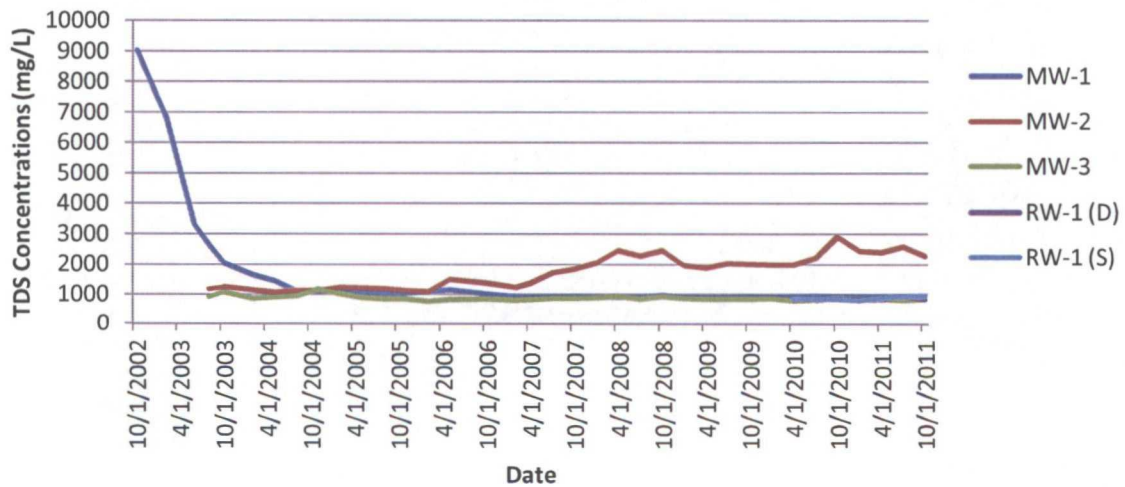
MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
			(mg/L)						
RW-1 Shallow	40.83	5/24/2010	152	846	XXX	XXX	XXX	XXX	143
	40.8	7/16/2010	152	834	XXX	XXX	XXX	XXX	137
	40.79	10/12/2010	144	833	XXX	XXX	XXX	XXX	108
	40.52	1/20/2011	156	804	XXX	XXX	XXX	XXX	151
	40.68	4/18/2011	152	874	XXX	XXX	XXX	XXX	158
	40.67	7/22/2011	168	913	XXX	XXX	XXX	XXX	201
	40.9	10/18/2011	200	937	XXX	XXX	XXX	XXX	175

XXX: Not Sampled per NMOCD approval or Data not available

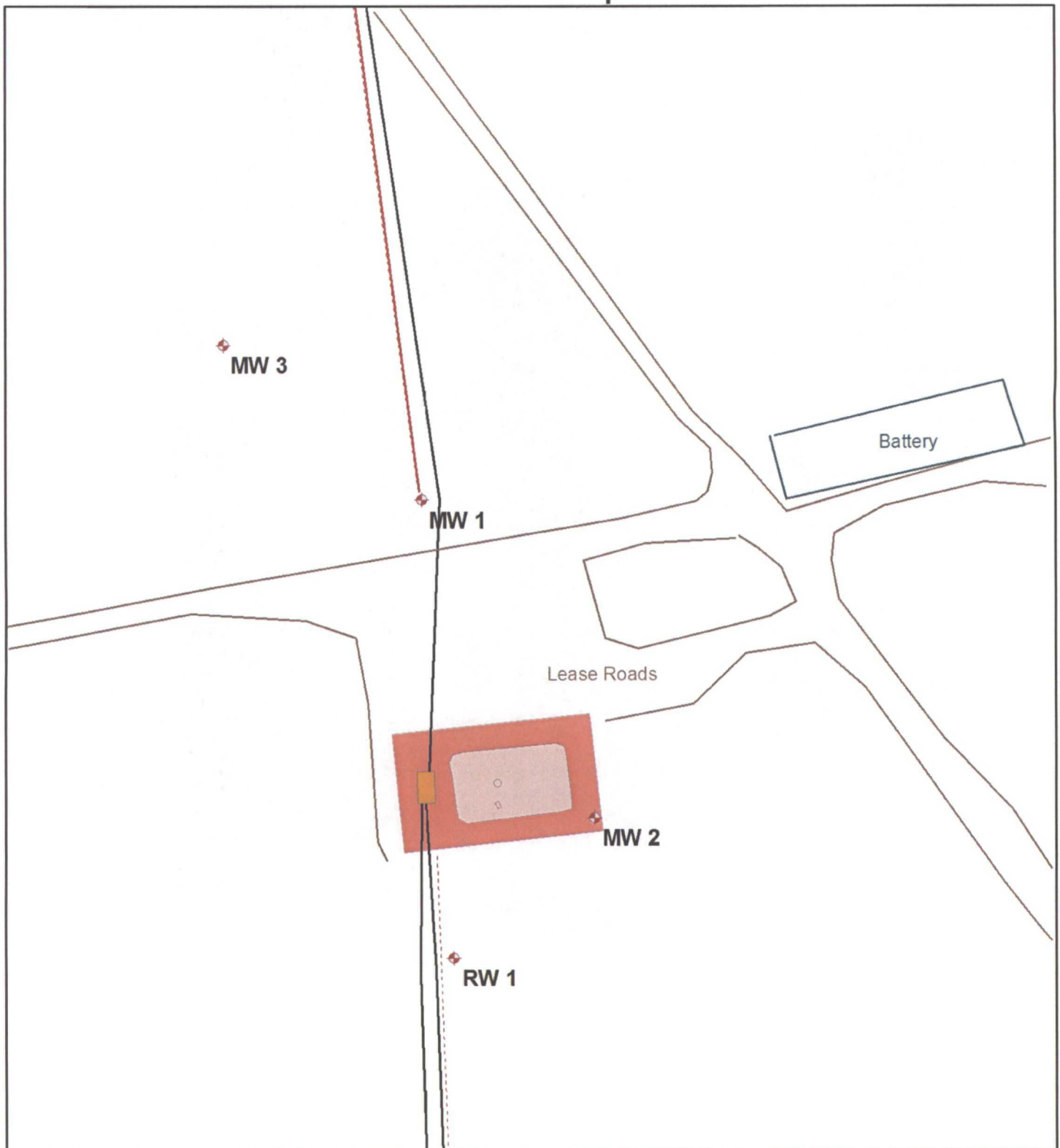
Chloride Concentrations Vesus Time Graph



Total Dissolved Solids Concentrations Versus Time Graph



Site map



BD J-26

Legals: UL/J sec. 26
T21S R37E
NMOCD Case #: AP-75



0 25 50 100
Feet

Drawing date: 3-30-12
Drafted by: L. Weinheimer

October 31, 2011

Hack Conder
Rice Operating Company
112 W. Taylor
Hobbs, NM 88240

RE: BD JUNCTION J-26

Enclosed are the results of analyses for samples received by the laboratory on 10/20/11 14:25.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

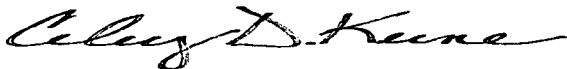
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 Rice Operating Company
 Hack Conder
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

 Received: 10/20/2011
 Reported: 10/31/2011
 Project Name: BD JUNCTION J-26
 Project Number: NONE GIVEN
 Project Location: T21S R37E SEC26 J~LEA CTY, NM

 Sampling Date: 10/18/2011
 Sampling Type: Water
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: MONITOR WELL #1 (H102274-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	172	4.00	10/28/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate	243	10.0	10/28/2011	ND	20.9	104	20.0	13.8		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS	910	5.00	10/25/2011	ND	235	97.9	240	0.00		

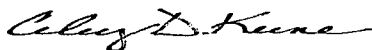
Sample ID: MONITOR WELL #2 (H102274-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1000	4.00	10/28/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate	298	10.0	10/28/2011	ND	20.9	104	20.0	13.8		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS	2280	5.00	10/25/2011	ND	235	97.9	240	0.00		

Cardinal Laboratories

*=Accredited Analyte

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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Rice Operating Company
 Hack Conder
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

 Received: 10/20/2011
 Reported: 10/31/2011
 Project Name: BD JUNCTION J-26
 Project Number: NONE GIVEN
 Project Location: T21S R37E SEC26 J~LEA CTY, NM

 Sampling Date: 10/18/2011
 Sampling Type: Water
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: MONITOR WELL #3 (H102274-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	172	4.00	10/28/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate	145	10.0	10/28/2011	ND	20.9	104	20.0	13.8		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS	830	5.00	10/25/2011	ND	235	97.9	240	0.00		

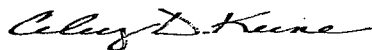
Sample ID: RECOVERY WELL 1 DEEP (H102274-04)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	136	4.00	10/28/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate	161	10.0	10/28/2011	ND	20.9	104	20.0	13.8		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS	845	5.00	10/25/2011	ND	235	97.9	240	0.00		

Cardinal Laboratories

*=Accredited Analyte

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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Rice Operating Company
 Hack Conder
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

 Received: 10/20/2011
 Reported: 10/31/2011
 Project Name: BD JUNCTION J-26
 Project Number: NONE GIVEN
 Project Location: T21S R37E SEC26 J~LEA CTY, NM

 Sampling Date: 10/18/2011
 Sampling Type: Water
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

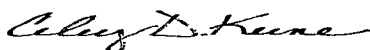
Sample ID: RECOVERY WELL 1 SHALLOW (H102274-05)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	200	4.00	10/28/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate	175	10.0	10/28/2011	ND	20.9	104	20.0	13.8		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS	937	5.00	10/25/2011	ND	235	97.9	240	0.00		

Cardinal Laboratories

* = Accredited Analyte

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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Caley D. Keene, Lab Director/Quality Manager

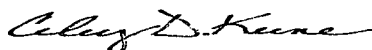
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

[illegible]