## 1R-428-69

# Annual GW Mon. REPORTS

DATE:
2000

## R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

March 14, 2011

Edward J. Hansen Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RECEIVED

RE:

2010 Annual Ground Water Monitoring Report

Hobbs O-5 Vent (Historic Site), Sec 05, T19S, R38E, Unit "O"

NMOCD Case #: 1R0428-69

MAR 1 3 2011

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Mr. Hansen,

R.T. Hicks Consultants, Ltd. is pleased to submit this 2010 Annual Ground Water Monitoring Report for the O-5 Vent (Historic Site) site located in the Hobbs Salt Water Disposal System (SWD). This report contains:

- 1. A table presenting all laboratory results and depth to ground water for each well at the site.
- 2. Graphs showing the concentration of chloride and TDS in ground water over time.
- 3. A plate presenting the location of the monitoring well and the most recent ground water sampling results.
- 4. The laboratory analysis from the most recent ground water sampling event.

Quarterly ground water monitoring continues at the site. In May 2010, ROC completed surface restoration including scraping the site, backfilling with appropriate soil, re-seeding and installing silt net fencing.

ROC is the service provider (agent) for the Hobbs Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. A consortium of oil producers who own the Hobbs Salt Water Disposal System (System Parties) provide all operating capital on a percentage ownership/usage basis. Major projects require System Parties' authorization for expenditures (AFE); approval and work begins as funds are received.

Thank you for your consideration. If you have any questions, please contact us at 505-266-5004, or Hack Conder at Rice Operating Company, 575-393-9174.

Sincerely,

R.T. Hicks Consultants

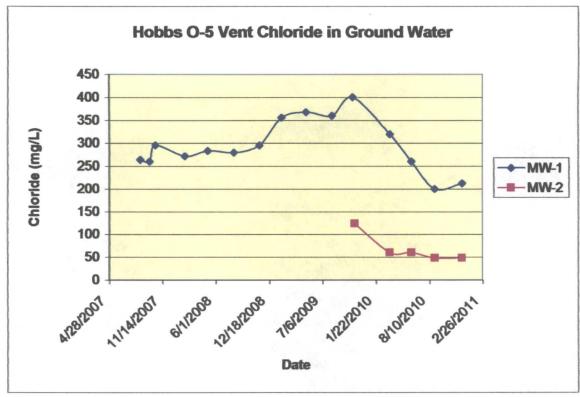
Katie Lee

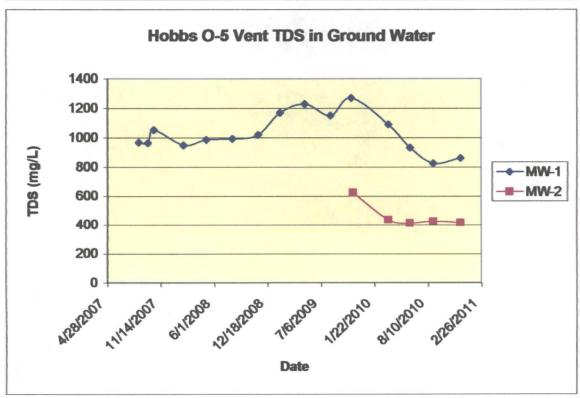
**Project Scientist** 

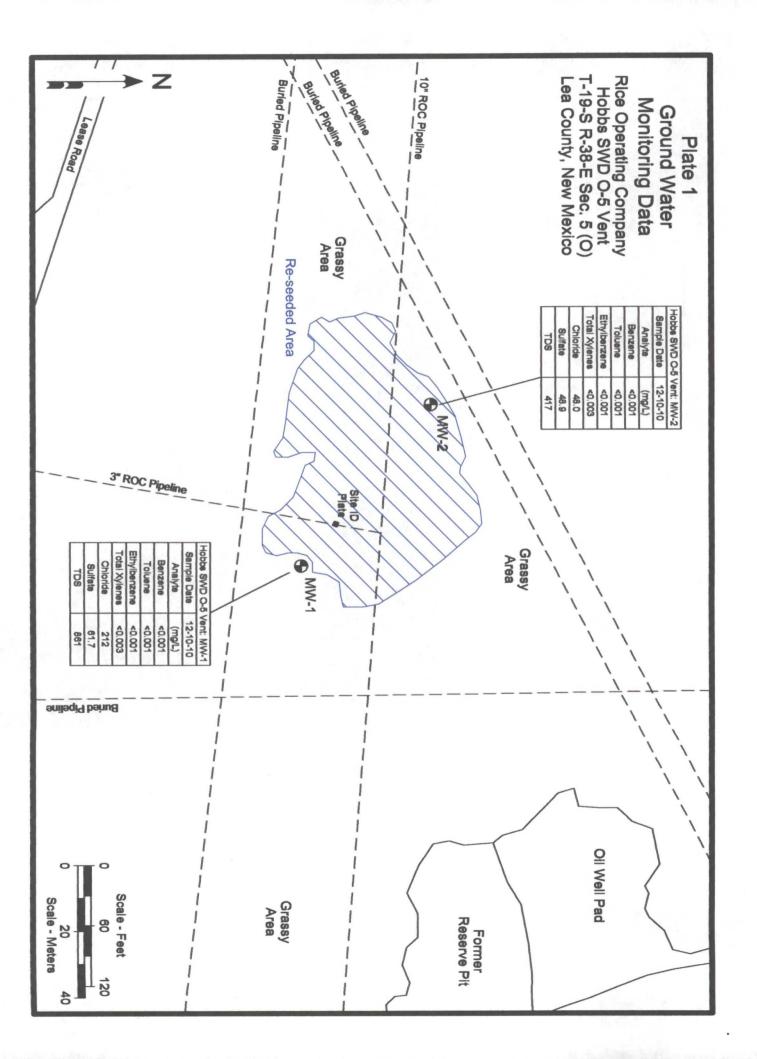
Copy: Hack Conder, Rice Operating Company

Hobbs O-5 Vent NMOCD Case #: 1R428-69

264         968         <0.002	Depth to Water	Water	ا مادسی	CI	TDS	Benzene	Toluene	Ethyl Benzene	<b>Total Xylenes</b>	Sulfate
264         968         <0.002         <0.0002         <0.0001           260         963         0.002         <0.0001         <0.0001           296         1052         0.003         0.0001         <0.0001           272         949         0.003         0.0001         <0.0001           284         985         <0.0001         <0.0001         <0.0001           280         992         <0.0001         <0.0001         <0.0001           296         1020         <0.0001         <0.0001         <0.0001           360         1150         <0.0001         <0.0001         <0.0001           360         1150         <0.0001         <0.0001         <0.0001           400         1270         0.0002         <0.0001         <0.0001           260         931         <0.0001         <0.0001         <0.0001           260         931         <0.0001         <0.0001         <0.0001           260         931         <0.0001         <0.0001         <0.0001           272         861         <0.0001         <0.0001         <0.0001           60         437         <0.0001         <0.0001         <0.0001	(ff)	180 0	iipie Dale					(mg/L)		
260         963         0.002         < 0.001         < 0.001           296         1052         0.003         0.001         < 0.001	31.62 8/	8	23/2007	264	896	<0.002	<0.002	<0.002	<0.006	62.4
296         1052         0.003         0.001         <0.001	31.61	6	727/2007	260	963	0.002	<0.001	<0.001	<0.003	57.6
272         949         0.003         0.001         <0.002	31.58 10	10	/19/2007	296	1052	0.003	0.001	<0.001	<0.003	59.3
284         985         <0.002	31.63 2/	2/	17/2008	272	949	0.003	0.001	<0.001	<0.003	67.8
280         992         < 0.001         < 0.001         < 0.001           296         1020         < 0.001	31.81 5	5	5/2/2008	284	985	<0.002	<0.002	<0.002	<0.006	75.2
296         1020         <0.001	32.16 8/	8	8/8/2008	280	992	<0.001	<0.001	<0.001	<0.003	69
356         1170         <0.001	32.38 11/		/12/2008	296	1020	<0.001	<0.001	<0.001	<0.003	61.3
368         1230         < 0.001	32.54 2/		/2/2009	356	1170	<0.001	<0.001	<0.001	<0.003	45
360         1150         < 0.001         < 0.001         < 0.001           400         1270         0.002         < 0.001	32.78 5/	5/	//5/2009	368	1230	<0.001	<0.001	<0.001	<0.003	41.8
400         1270         0.002         <0.001         <0.001           320         1090         <0.001	33.07	8/1	0/2009	360	1150	<0.001	<0.001	<0.001	<0.003	34.5
320         1090         <0.001	33.29 10/	10/;	/27/2009	400	1270	0.002	<0.001	<0.001	<0.003	34.5
260         931         <0.001	33.57 3/1	3/1	3/15/2010	320	1090	<0.001	<0.001	<0.001	<0.003	47.2
200         825         <0.001         <0.001         <0.001           212         861         <0.001	33.74 6/	/9	6/4/2010	260	931	<0.001	<0.001	<0.001	<0.003	50.3
212         861         <0.001	33.54 8/3	€/8	8/30/2010	200	825	<0.001	<0.001	<0.001	<0.003	22
124     625     <0.001	33.6 12/	12/	12/10/2010	212	861	<0.001	<0.001	<0.001	<0.003	61.7
60       437       <0.001	32.83	11	1/3/2009	124	625	<0.001	<0.001	<0.001	<0.003	70
60     413     <0.001	33.1 3/	3/	15/2010	09	437	<0.001	<0.001	<0.001	<0.003	59
48 426 <0.001 <0.001 <0.001 48 417 <0.001 <0.001	33.22 6	9	6/4/2010	60	413	<0.001	<0.001	<0.001	<0.003	32.1
48 417 <0.001 <0.001 <0.001	33.01	/8	8/30/2010	48	426	<0.001	<0.001	<0.001	<0.003	44.5
100:00	33.14	12	12/10/2010	48	417	<0.001	<0.001	<0.001	<0.003	48.9









December 21, 2010

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: HOBBS O-5 SITE** 

Enclosed are the results of analyses for samples received by the laboratory on 12/15/10 9:10.

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 Hydorcarbons** 

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

Cardinal Laboratories is accreditated 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

Celey D. Keine



### Analytical Results For:

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

Fax To:

(575) 397-1471

Received: Reported: 12/15/2010

12/21/2010

Project Name:

HOBBS O-5 SITE

Project Number: Project Location: NONE GIVEN

T19S-R38E-SEC5 O-LEA CTY., NM

Sampling Date:

12/10/2010

Sampling Type:

Water

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: MONITOR WELL #1 (H021526-01)

BTEX 8021B	mg/	L	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.001	0.001	12/17/2010	ND	0.056	112	0.0500	19.7	
Toluene*	< 0.001	0.001	12/17/2010	ND	0.054	108	0.0500	18.8	
Ethylbenzene*	< 0.001	0.001	12/17/2010	ND	0.052	103	0.0500	13.7	
Total Xylenes*	<0.003	0.003	12/17/2010	ND	0.150	100	0.150	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	105 %	6 80-120					· · · · · · · · · · · · · · · · · · ·		
Chloride, SM4500CI-B	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD .	Qualifier
Chloride	212	4.00	12/15/2010	ND	104	104	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate	61.7	10.0	12/20/2010	ND	38.3	95.8	40.0	0.536	
TDS 160.1	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS	861	5.00	12/15/2010	ND	•	•	•	7.87	

### Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Uability 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 subcloadres, affiliates for successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such

Celey D. Keine



### Analytical Results For:

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

Fax To:

(575) 397-1471

Received:

12/15/2010

Reported: Project Name: 12/21/2010 **HOBBS O-5 SITE** 

Project Number:

NONE GIVEN

Project Location:

T19S-R38E-SEC5 O-LEA CTY., NM

Sampling Date:

12/10/2010

Sampling Type:

Water

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: MONITOR WELL #2 (H021526-02)

BTEX 8021B	mg/	'L	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/17/2010	ND	0.056	112	0.0500	19.7	
Toluene*	<0.001	0.001	12/17/2010	ND	0.054	108	0.0500	18.8	
Ethylbenzene*	<0.001	0.001	12/17/2010	ND	0.052	103	0.0500	13.7	
Total Xylenes*	<0.003	0.003	12/17/2010	ND	0.150	100	0.150	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	109 9	% 80-120			2 - 31 - 41				
Chloride, SM4500Cl-B	mg/	<u>'L</u>	Analyze	d By: HM		. <u></u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	4.00	12/15/2010	ND	104	104	100	0.00	
Sulfate 375.4	mg/	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate	48.9	10.0	12/20/2010	ND	38.3	95.8	40.0	0.536	
TDS 160.1	mg/	'L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS	417	5.00	12/15/2010	ND				13.6	

Cardinal Laboratories \*=Accredited Analyte

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### **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 MOTE: Liability and Damages. Candinal's lability 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 waved 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 including, without limitation, business interruptions, loss of use, or loss of profits including without limitation, the claim of 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. Keine

Page 1 of 1

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