112 West Taylor • Hobbs, New Mexico 88240 Phone: (575) 393-9174 • Fax: (575) 397-1471

**April 1, 2021** 

# **Bradford Billings**

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

> RE: Termination Request Rice Operating Company – EME SWD System Vacuum Jct. A-36 (1R425-83): UL/A, Sec. 36, T17S, R34E

Mr. Billings:

ROC is the service provider (agent) 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 Parties, who provide all operating capital on a percentage ownership/usage basis. The Vacuum system is now abandoned.

# **Background and Previous Work**

The site is located approximately ¼ mile SSE of Buckeye, New Mexico at UL/A, Sec. 36, T17S, R34E as shown on the Geographical Location and Area Map. Groundwater sampling at the site indicated the depth to groundwater is approximately 130 feet below ground surface (bgs).

In 2009, ROC initiated work on the former Vacuum A-36 junction box as part of the system abandonment. The former junction box and surrounding soil was removed from an excavation of approximately dimensions 10x10x12-ft deep. Soil samples were field analyzed at regular intervals for chloride and hydrocarbon. Representative samples were sent to a commercial laboratory for analysis, resulting in elevated chloride concentrations and hydrocarbon concentrations below detectable limits. The excavated soil was blended and returned to the excavation. A 1-ft thick compacted clay barrier was installed from 4 to 5 ft bgs. Clean, imported soil was installed above the clay barrier and the surface was returned to the natural contour and seeded. NMOCD was notified of potential groundwater impact on March  $12^{th}$ , 2010 and a Junction Box Disclosure Report was submitted with all the 2009 junction box closures and disclosures.

ROC initiated soil sampling and analysis as indicated in the Investigation and Characterization Plan (ICP) of February 15<sup>th</sup>, 2013, approved by NMOCD on March 5<sup>th</sup>, 2013. As part of the ICP, personnel were on site on May 7<sup>th</sup>, 2013, to conduct soil bore installation. One soil bore was installed at the closest possible distance, 30 feet north of the source, due to safety concerns. There are numerous safety hazards surrounding this site, including overhead power lines directly over the source and underground non-ROC pipelines. The overhead power line in combination with the non-ROC pipeline prevented a bore from being drilled south or east of the site. ROC was required to

remain at least 30 ft away from the overhead power line as well as a safe distance away from the non-ROC line (at least 10 ft). As the bore was advanced, samples were field tested for chloride and hydrocarbon. Representative samples from the bore were taken to a commercial laboratory for analysis of chloride and hydrocarbon. SB-1 returned laboratory chloride readings of 3,280 mg/kg at 30 ft bgs and decreased to 1,180 mg/kg at 95 ft bgs. GRO and DRO results were non-detect throughout the bore. The soil bore was plugged with bentonite to the ground surface.

An ICP Report was submitted to OCD on June 3<sup>rd</sup>, 2013 which summarized the soil bore installation results. Two additional soils were drilled in July and November 2014. As the bores were advanced, samples were field tested for chloride and hydrocarbon. Representative samples from each bore were sent to a commercial laboratory for analysis of chloride and hydrocarbon. SB-2 returned laboratory chloride readings of 64 mg/kg at the surface, 1,180 mg/kg at 25 ft bgs, which decreased to 80 mg/kg at 50 ft bgs. SB-3 returned laboratory chloride readings of 2,680 mg/kg at 15 ft bgs and 944 mg/kg at 95 ft bgs. GRO and DRO results were non-detect throughout each bore. The soil bores were plugged with bentonite to the ground surface.

Three verticals were excavated on March 24<sup>th</sup>, 2014. The 15 ft north vertical returned laboratory chloride reading below 250 mg/kg at a depth of 3 ft bgs. GRO and DRO results were below detectable limits. The 15 ft east vertical returned a laboratory chloride reading of 5,920 mg/kg at the surface, 3,440 mg/kg at 2 ft bgs, and 1,840 mg/kg at 8 ft bgs. GRO laboratory readings resulted in a concentration of 286 mg/kg at the surface, below detectable limits at 2 ft bgs, and 198 mg/kg at 8 ft bgs. DRO laboratory readings were below detectable limits. The 15 ft south vertical returned a laboratory chloride reading of 240 mg/kg at the surface, 1,470 mg/kg at 1 ft bgs, 528 mg/kg at 2 ft bgs, and 416 mg/kg at 3 ft bgs. GRO laboratory readings resulted in 300 mg/kg at 1 ft bgs, 15.1 mg/kg at 2 ft, and below detectable limits at the surface and 3 ft bgs. These verticals could not be excavated any deeper due to the presence of hard rock. A surface sample was collected to the west of the former junction box, resulting in a laboratory chloride, GRO, and DRO readings below detectable limits. To further delineate the area to the west, an additional vertical was excavated on March 22<sup>nd</sup>, 2015, resulting in laboratory chloride reading below detectable limit in the surface, 512 mg/kg at 1 ft bgs, and 80 mg/kg at 2 ft bgs. GRO and DRO results were below detectable limits throughout this vertical.

A Corrective Action Plan (CAP) summarizing the soil sampling was submitted to NMOCD and approved on May 15<sup>th</sup>, 2015. The CAP proposed installing a modified 70x42-ft, 20-mil reinforced liner at a depth of 3.5 ft bgs, due to the presence of hard rock in the area. In June 2015, the area was excavated to a depth of 3.5 ft bgs and the excavation was padded with 6 inches of imported blow sand. A 20-mil reinforced liner was installed and properly seated at a depth of 3 ft bgs. The top of the liner was padded with an additional 6 inches of imported blow sand. Approximately 282 cubic yards of excavated soil were exported to a NMOCD approved facility. The remaining excavated soil was returned to the excavation and imported soil was used to contour the site to the surrounding area. The disturbed area was then seeded with a blend of native vegetation.

On December 9<sup>th</sup> and 10<sup>th</sup>, 2015, a near-source monitoring well (MW-1) and an up-gradient monitoring well (MW-2) were installed at the site. The wells were developed and have been sampled quarterly since installation. Chloride concentrations in MW-1 have generally remained low, with concentrations decreasing to below 250 mg/L in 2019 and have remained below WQCC standards for eight consecutive quarters. Concentrations in MW-2 have remained below 250 mg/L since

installation. BTEX concentrations have remained below detectable limits in both wells since installation.

#### Recommendations

Based on the low concentrations observed in both monitoring wells, the liner installation approved by NMOCD in the CAP, and recovered vegetation, ROC respectfully requests remediation termination or similar closure status for this site. Once NMOCD grants termination, the both monitoring wells (MW-1 and MW-2) will be plugged and abandoned using Portland slurry and a three-foot cap of concrete at the surface. ROC acknowledges they have met the requirements of 19.15.29 NMAC and a final C-141 is attached.

Rice Operating Company appreciates the opportunity to work with you on this project. Please contact me at (575) 393-9174 or Edward Hansen at (505) 920-4965 at if you have any questions or wish to further discuss this site. Thank you for your time and consideration.

Sincerely,

Katie Davis

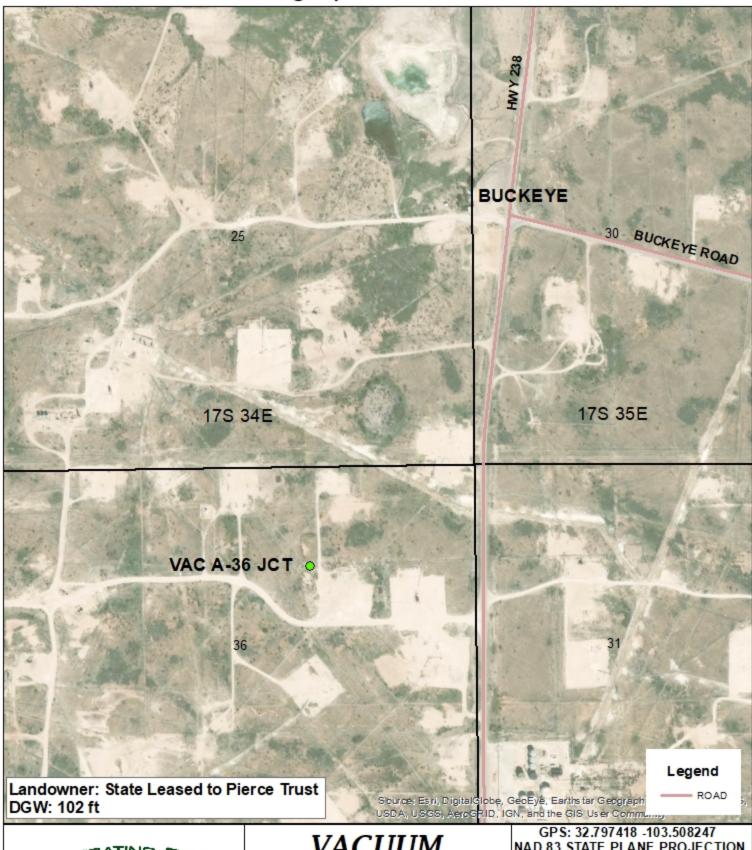
Environmental Manager RICE Operating Company

Katy Davis

Appendix

Figures

RICE Operating Company 112 West Taylor, Hobbs, NM 88240 Phone 575.393.9174

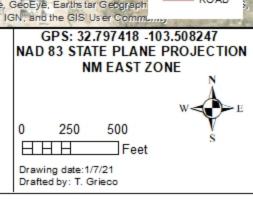


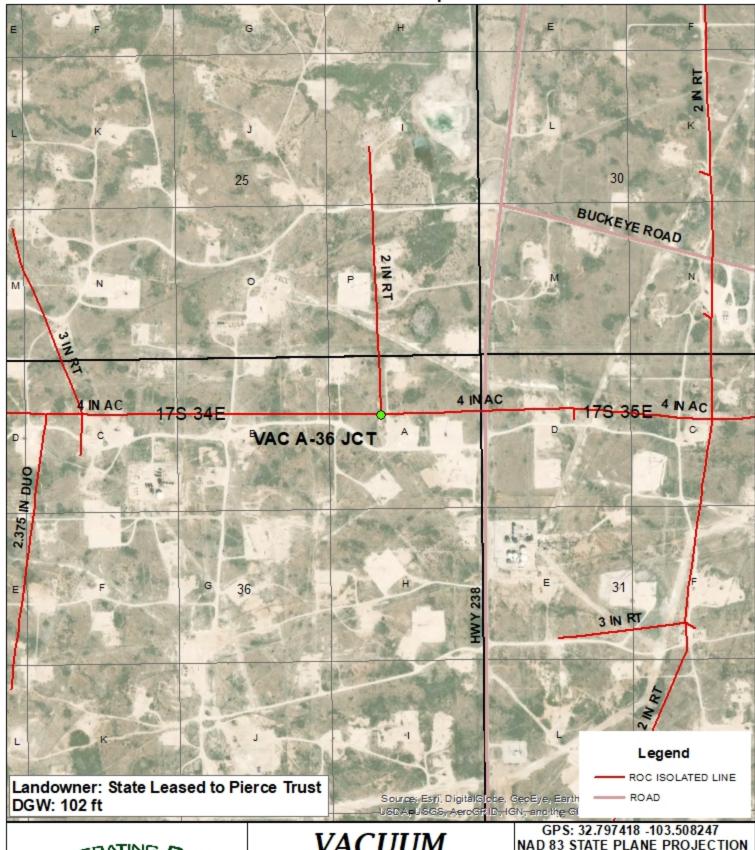


# VACUUM A-36 JCT

1R425-83

UL A SECTION 36 T-17-S R-34-E LEA COUNTY, NM



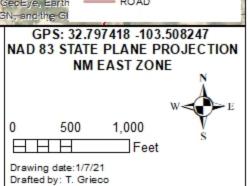


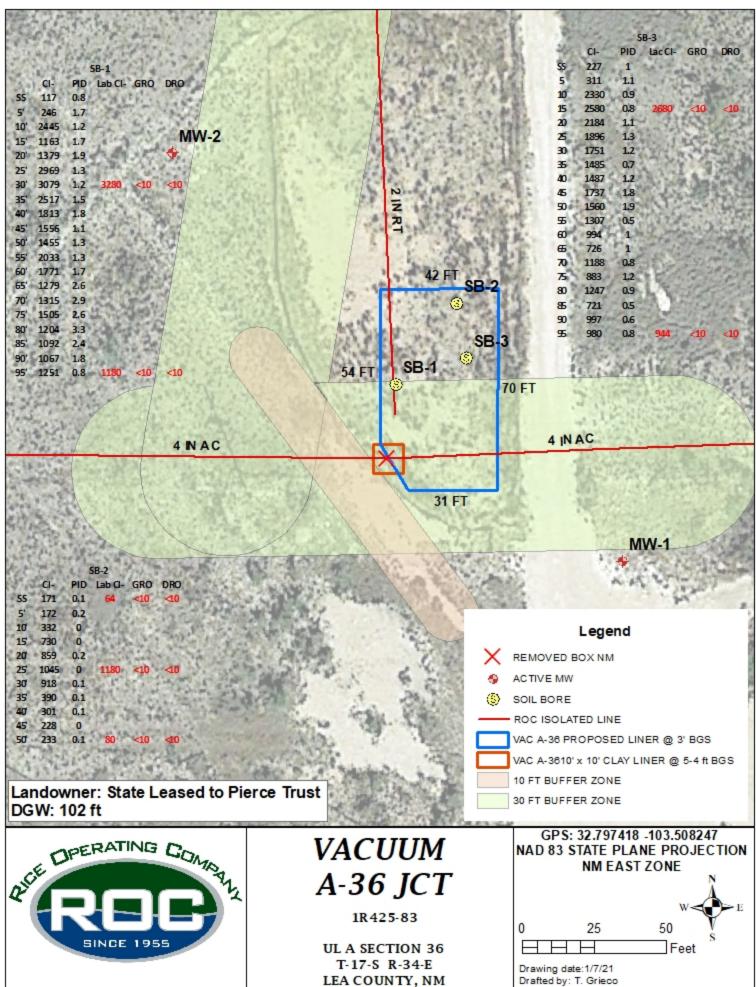


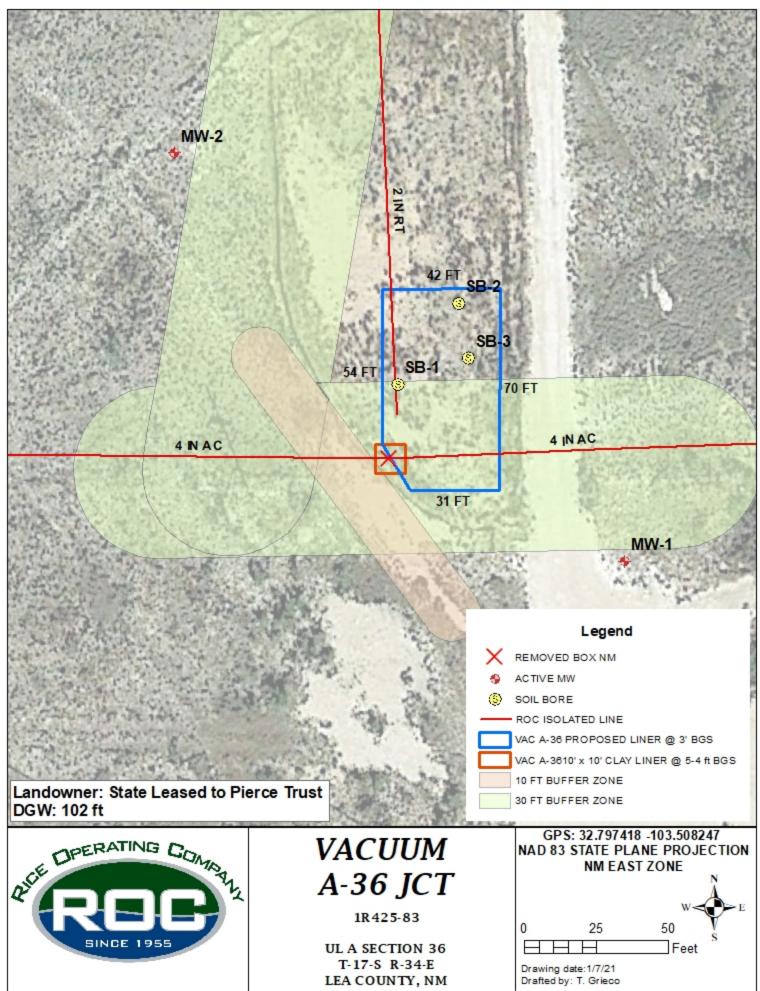
# VACUUM A-36 JCT

1R425-83

UL A SECTION 36 T-17-S R-34-E LEA COUNTY, NM







# Monitoring Well Sampling

RICE Operating Company 112 West Taylor, Hobbs, NM 88240 Phone 575.393.9174

ROC - Vacuum Jct. A-36 (1R425-83) Unit Letter A, Section 36, T17S, R34E

MW	Depth to	Total	Well	Volume	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl	Total	Sulfate	Comments
IVIVV	Water	Depth	Volume	Purged	Sample Date	J	103	benzene	Toluelle	Benzene	Xylenes	Sullate	Comments
1	128.05	168	26	100	3/18/2016	332	900	<0.001	<0.001	<0.001	<0.003	62.4	Clear No odor
1	128.41	168	25.7	100	6/2/2016	420	1,080	<0.001	<0.001	<0.001	<0.003	45.4	Clear No odor
1	128.05	168	26	100	3/18/2016	332	900	<0.001	<0.001	<0.001	<0.003	62.4	Clear No odor
1	128.5	168	26	100	9/19/2016	470	1,070	<0.001	<0.001	<0.001	<0.003	33	Clear No odor
1	128.54	168	26	100	11/22/2016	288	1,020	<0.001	<0.001	<0.001	<0.003	53	Clear No odor
1	128.37	168	26	100	3/7/2017	380	860	<0.001	<0.001	<0.001	<0.003	126	Clear No odor
1	128.46	168	26	100	6/9/2017	480	1,110	<0.001	<0.001	<0.001	<0.003	63	Clear No odor
1	128.24	168	26	100	9/18/2017	500	1,320	<0.001	<0.001	<0.001	<0.003	69	Clear No odor
1	127.93	168	26	100	12/8/2017	332	958	<0.001	<0.001	<0.001	<0.003	36	Clear No odor
1	127.94	168	26	100	3/8/2018	520	1,240	<0.001	<0.001	<0.001	<0.003	79	Clear No odor
1	128.37	168	25	100	6/7/2018	412	942	<0.001	<0.001	<0.001	<0.003	78	Clear No odor
1	128.53	168	25	100	9/25/2018	60	292	<0.001	<0.001	<0.001	<0.003	45	Clear No odor
1	128.65	168	25	100	11/26/2018	336	844	<0.001	<0.001	<0.001	<0.003	34	Clear No odor
1	128.52	168	25	100	3/18/2019	76	345	<0.001	<0.001	<0.001	<0.003	10	Clear No odor
1	128.21	168	25	100	6/12/2019	68	425	<0.001	<0.001	<0.001	<0.003	42	Clear No odor
1	129.62	168	25	100	9/9/2019	72	372	<0.001	<0.001	<0.001	<0.003	32	Clear No odor
1	130.2	168	25	100	12/26/2019	72	392	<0.001	<0.001	<0.001	<0.003	54	Clear No odor
1	131.6	168	24	100	3/12/2020	68	387	<0.001	<0.001	<0.001	<0.003	48.6	Clear No odor
1	131.68	168	24	100	6/24/2020	72	394	XXX	XXX	XXX	XXX	36.4	Clear No odor
1	131.51	168	24	100	9/21/2020	84	357	XXX	XXX	XXX	XXX	20.8	Clear No odor
1	131.52	168	24	100	11/18/2020	56	379	XXX	XXX	XXX	XXX	52	Clear No odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	127.26	140	2	10	3/18/2016	72	452	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
2	127.71	140	2	10	6/2/2016	96	560	<0.001	<0.001	<0.001	<0.003	33.6	Clear No odor
2	127.81	140	2	10	9/19/2016	112	416	<0.001	<0.001	<0.001	<0.003	27	Clear No odor
2	127.85	140	2	10	11/22/2016	60	398	<0.001	<0.001	<0.001	<0.003	79	Clear No odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	127.68	140	2	10	3/7/2017	64	404	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
2	127.77	140	2	10	6/9/2017	128	558	<0.001	<0.001	<0.001	<0.003	45	Clear No odor
2	127.53	140	2	10	9/18/2017	132	526	<0.001	<0.001	<0.001	<0.003	48	Clear No odor
2	127.25	140	2	10	12/8/2017	60	330	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
2	127.57	140	2	10	3/8/2018	84	274	<0.001	<0.001	<0.001	<0.003	46	Clear No odor
2	127.7	140	2	10	6/7/2018	64	428	<0.001	<0.001	<0.001	<0.003	68	Clear No odor
2	127.85	140	1.9	8	9/25/2018	28	218	<0.001	<0.001	<0.001	<0.003	44	Clear No odor
2	127.98	140	1.9	8	11/26/2018	80	338	<0.001	<0.001	<0.001	<0.003	46	Clear No odor
2	127.83	140	2	10	3/18/2019	56	194	<0.001	<0.001	<0.001	<0.003	48	Clear No odor
2	128.52	140	1.8	10	6/12/2019	44	544	<0.001	<0.001	<0.001	<0.003	53	Clear No odor
2	128.71	140	1.8	10	9/10/2019	44	417	<0.001	<0.001	<0.001	<0.003	41	Clear No odor
2	129.67	140	1.7	10	12/26/2019	76	418	<0.001	<0.001	<0.001	<0.003	52	Clear No odor
2	130.78	140	1.5	8	3/12/2020	64	241	<0.001	<0.001	<0.001	<0.003	47.9	Clear No odor
2	130.9	140	1.5	8	6/24/2020	72	401	XXX	XXX	XXX	XXX	43.2	Clear No odor
2	130.96	140	1.4	8	9/21/2020	84	300	XXX	XXX	XXX	XXX	11.1	Clear No odor
2	130.98	140	1.4	8	11/18/2020	32	259	XXX	XXX	XXX	XXX	32.6	Clear No odor



December 10, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 11/20/20 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 11/20/2020 Sampling Date: 11/18/2020 Reported: 12/10/2020 Sampling Type: Water

Project Name: VACUUM JUNCTION A-36 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

# Sample ID: MONITOR WELL #1 (H003087-01)

Chloride, SM4500Cl-B	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	56.0	4.00	11/23/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg,	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	52.0	10.0	11/23/2020	ND	23.4	117	20.0	2.07	
TDS 160.1	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	379	5.00	11/24/2020	ND	494	98.8	500	0.971	

# Sample ID: MONITOR WELL #2 (H003087-02)

Chloride, SM4500Cl-B	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	32.0	4.00	11/23/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	32.6	10.0	11/23/2020	ND	23.4	117	20.0	2.07	
TDS 160.1	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	259	5.00	11/24/2020	ND	494	98.8	500	0.971	

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 whistoever 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. Keine



# **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

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Celeg D. Freene



October 01, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 09/25/20 15:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Celey D. Keine

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



09/21/2020

Water

# Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 09/25/2020 Sampling Date:
Reported: 10/01/2020 Sampling Type:

Project Name: VACUUM JUNCTION A-36 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

# Sample ID: MONITOR WELL #1 (H002552-01)

Chloride, SM4500Cl-B	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	84.0	4.00	09/28/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	20.8	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	
TDS 160.1	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	357	5.00	09/30/2020	ND	535	107	500	1.08	

# Sample ID: MONITOR WELL #2 (H002552-02)

Chloride, SM4500CI-B	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	84.0	4.00	09/28/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	11.1	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	
TDS 160.1	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	300	5.00	09/30/2020	ND	535	107	500	1.08	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



# **Notes and Definitions**

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

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 whistoever 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 inclured 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

Released to Imaging: 12/8/2021 10:24:12 AM

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RICE Operating Company Project Manager:		RICE		Addres		COI	ipai	ıy	(Stre	et, C	City, Z	ip)								(Cire	cle o	r Sp	ecify	/ Me	thod	No.	.)				,		٦ ٦
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July 07, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 06/29/20 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received:06/29/2020Sampling Date:06/24/2020Reported:07/07/2020Sampling Type:Water

Project Name: VACUUM JUNCTION A-36 Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

# Sample ID: MONITOR WELL #1 (H001695-01)

mg,	/L	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
72.0	4.00	06/30/2020	ND	104	104	100	0.00	
mg	/L	Analyze	d By: GM					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
36.4	10.0	06/30/2020	ND	19.8	98.8	20.0	8.58	
mg	/L	Analyze	d By: GM					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
394	5.00	07/01/2020	ND	519	104	500	3.05	
	Result 72.0 mg, Result 36.4 mg, Result	72.0 4.00  mg/L  Result Reporting Limit  36.4 10.0  mg/L  Result Reporting Limit	Result         Reporting Limit         Analyzed           72.0         4.00         06/30/2020           mg/L         Analyze           Result         Reporting Limit         Analyzed           36.4         10.0         06/30/2020           mg/L         Analyze           Result         Reporting Limit         Analyzed	Result         Reporting Limit         Analyzed         Method Blank           72.0         4.00         06/30/2020         ND           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank           36.4         10.0         06/30/2020         ND           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank	Result         Reporting Limit         Analyzed         Method Blank         BS           72.0 4.00 06/30/2020 ND 104           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS           36.4 10.0 06/30/2020 ND 19.8           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed Method Blank         BS	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           72.0         4.00         06/30/2020         ND         104         104           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           36.4         10.0         06/30/2020         ND         19.8         98.8           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           72.0         4.00         06/30/2020         ND         104         104         100           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           36.4         10.0         06/30/2020         ND         19.8         98.8         20.0           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           72.0         4.00         06/30/2020         ND         104         104         100         0.00           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           36.4         10.0         06/30/2020         ND         19.8         98.8         20.0         8.58           mg/L         Analyzed By: GM           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD

# Sample ID: MONITOR WELL #2 (H001695-02)

Chloride, SM4500CI-B	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	72.0	4.00	06/30/2020	ND	104	104	100	0.00	
Sulfate 375.4	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	43.2	10.0	06/30/2020	ND	19.8	98.8	20.0	8.58	
TDS 160.1	mg	/L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	401	5.00	07/01/2020	ND	519	104	500	3.05	

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



#### **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

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Celeg D. Freene

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March 23, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 03/18/20 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 03/18/2020 Sampling Date: 03/12/2020 Reported: 03/23/2020 Sampling Type: Water

Project Name: VACUUM JUNCTION A-36 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

# Sample ID: MONITOR WELL #1 (H000845-01)

BTEX 8021B	mg/	L	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/20/2020	ND	0.020	102	0.0200	0.694	
Toluene*	< 0.001	0.001	03/20/2020	ND	0.020	99.6	0.0200	1.42	
Ethylbenzene*	< 0.001	0.001	03/20/2020	ND	0.020	101	0.0200	1.17	
Total Xylenes*	<0.003	0.003	03/20/2020	ND	0.059	98.4	0.0600	0.916	
Total BTEX	<0.006	0.006	03/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	58.2-13	3						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	68.0	4.00	03/19/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	48.6	10.0	03/19/2020	ND	21.6	108	20.0	10.1	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	387	5.00	03/23/2020	ND	5 <del>4</del> 7	109	500	2.80	

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 whistoever 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



# Analytical Results For:

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

Received: 03/18/2020 Reported: 03/23/2020

Project Name: **VACUUM JUNCTION A-36** Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM Sampling Date: 03/12/2020 Sampling Type: Water

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

# Sample ID: MONITOR WELL #2 (H000845-02)

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BTEX 8021B	mg/	L	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/20/2020	ND	0.020	102	0.0200	0.694	
Toluene*	< 0.001	0.001	03/20/2020	ND	0.020	99.6	0.0200	1.42	
Ethylbenzene*	< 0.001	0.001	03/20/2020	ND	0.020	101	0.0200	1.17	
Total Xylenes*	<0.003	0.003	03/20/2020	ND	0.059	98.4	0.0600	0.916	
Total BTEX	<0.006	0.006	03/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 58.2-13	3						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	64.0	4.00	03/19/2020	ND	100	100	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	47.9	10.0	03/19/2020	ND	21.6	108	20.0	10.1	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	241	5.00	03/23/2020	ND	547	109	500	2.80	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



# **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

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Released to Imaging: 12/8/2021 10:24:12 AM



January 02, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 12/27/19 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 12/27/2019 Sampling Date: 12/26/2019
Reported: 01/02/2020 Sampling Type: Water

Project Name: VACUUM JUNCTION A-36 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

A .. . l. ... . d D. .. MC

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

# Sample ID: MONITOR WELL #1 (H904300-01)

DTEV 0021D

			d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.001	0.001	12/31/2019	ND	0.019	94.3	0.0200	0.980	
<0.001	0.001	12/31/2019	ND	0.018	92.4	0.0200	1.90	
<0.001	0.001	12/31/2019	ND	0.018	89.4	0.0200	1.53	
<0.003	0.003	12/31/2019	ND	0.053	88.6	0.0600	1.83	
<0.006	0.006	12/31/2019	ND					
102 %	6 58.2-13	3						
mg/	L	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
72.0	4.00	12/27/2019	ND	104	104	100	3.77	
mg/	L	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
54.5	10.0	12/30/2019	ND	20.6	103	20.0	2.49	
mg/l	L	Analyze	d By: AC					
- 3,								
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
_	<0.001 <0.001 <0.001 <0.003 <0.006  102 % mg/l  Result 72.0 mg/l  Result 54.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Cardinal Laboratories \*=Accredited Analyte

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# Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 12/27/2019 Reported: 01/02/2020

Project Name: **VACUUM JUNCTION A-36** 

Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM Sampling Date: 12/26/2019

Sampling Type: Water Sampling Condition: Cool & Intact

Sample Received By: Tamara Oldaker

# Sample ID: MONITOR WELL #2 (H904300-02)

BTEX 8021B	mg/	L	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/31/2019	ND	0.019	94.3	0.0200	0.980	
Toluene*	<0.001	0.001	12/31/2019	ND	0.018	92.4	0.0200	1.90	
Ethylbenzene*	<0.001	0.001	12/31/2019	ND	0.018	89.4	0.0200	1.53	
Total Xylenes*	<0.003	0.003	12/31/2019	ND	0.053	88.6	0.0600	1.83	
Total BTEX	<0.006	0.006	12/31/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	80.5	58.2-13	3						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	76.0	4.00	12/27/2019	ND	104	104	100	3.77	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	52.4	10.0	12/30/2019	ND	20.6	103	20.0	2.49	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	418	5.00	12/30/2019	ND	534	101	527	0.611	

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Celey D. Keene



# **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  $6^{\circ}\text{C}$ 

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene

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Received by OCD: 4/19/2021 10:23:20 AM



September 17, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 09/11/19 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 09/11/2019 Reported: 09/17/2019

Project Name: **VACUUM JUNCTION A-36** 

Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM Sampling Date: 09/10/2019 Sampling Type: Water

Sampling Condition: Cool & Intact Sample Received By:

Tamara Oldaker

# Sample ID: MONITOR WELL #1 (H903145-01)

BTEX 8021B	mg/	L	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	09/12/2019	ND	0.021	104	0.0200	1.81	
Toluene*	<0.001	0.001	09/12/2019	ND	0.021	104	0.0200	0.145	
Ethylbenzene*	<0.001	0.001	09/12/2019	ND	0.021	107	0.0200	0.975	
Total Xylenes*	<0.003	0.003	09/12/2019	ND	0.065	108	0.0600	1.24	
Total BTEX	<0.006	0.006	09/12/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.9 %	% 81.3-12	8						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	72.0	4.00	09/13/2019	ND	104	104	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	32.5	10.0	09/13/2019	ND	21.2	106	20.0	0.950	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	372	5.00	09/16/2019	ND	532	101	527	0.269	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



Sample Received By:

09/10/2019

Cool & Intact

Tamara Oldaker

Water

# Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 09/11/2019 Sampling Date: Reported: 09/17/2019 Sampling Type: Project Name: **VACUUM JUNCTION A-36** Sampling Condition:

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

NONE GIVEN

# Sample ID: MONITOR WELL #2 (H903145-02)

Project Number:

BTEX 8021B	mg/	L	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.001	0.001	09/12/2019	ND	0.021	104	0.0200	1.81	
Toluene*	< 0.001	0.001	09/12/2019	ND	0.021	104	0.0200	0.145	
Ethylbenzene*	< 0.001	0.001	09/12/2019	ND	0.021	107	0.0200	0.975	
Total Xylenes*	<0.003	0.003	09/12/2019	ND	0.065	108	0.0600	1.24	
Total BTEX	<0.006	0.006	09/12/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.2 %	6 81.3-12	8						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	44.0	4.00	09/13/2019	ND	104	104	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	41.5	10.0	09/13/2019	ND	21.2	106	20.0	0.950	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	417	5.00	09/16/2019	ND	532	101	527	0.269	

Cardinal Laboratories \*=Accredited Analyte

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Celecy D. Keene



### **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  $6^{\circ}\text{C}$ 

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene

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June 20, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 06/13/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 06/13/2019 Reported: 06/20/2019

Project Name: VACUUM JUNCTION A-36

Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

Sampling Date: 06/12/2019

Sampling Type: Water

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

### Sample ID: MONITOR WELL #1 (H902063-01)

BTEX 8021B	mg/	L	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/18/2019	ND	0.021	107	0.0200	0.889	
Toluene*	<0.001	0.001	06/18/2019	ND	0.022	109	0.0200	0.536	
Ethylbenzene*	<0.001	0.001	06/18/2019	ND	0.020	99.9	0.0200	1.37	
Total Xylenes*	<0.003	0.003	06/18/2019	ND	0.061	101	0.0600	0.642	
Total BTEX	<0.006	0.006	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 %	% 81.3-12	8						
Chloride, SM4500CI-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	68.0	4.00	06/18/2019	ND	100	100	100	4.08	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	42.6	10.0	06/19/2019	ND	20.8	104	20.0	2.43	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	425	5.00	06/20/2019	ND	523	99.2	527	11.3	

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Cardinal Laboratories \*=Accredited Analyte

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Celeg & Frence



### Analytical Results For:

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

Received: 06/13/2019

06/20/2019

Project Name: **VACUUM JUNCTION A-36** Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM Sampling Date: 06/12/2019 Sampling Type: Water

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

### Sample ID: MONITOR WELL #2 (H902063-02)

Reported:

P									
BTEX 8021B	mg/	L	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.001	0.001	06/18/2019	ND	0.021	107	0.0200	0.889	
Toluene*	< 0.001	0.001	06/18/2019	ND	0.022	109	0.0200	0.536	
Ethylbenzene*	< 0.001	0.001	06/18/2019	ND	0.020	99.9	0.0200	1.37	
Total Xylenes*	<0.003	0.003	06/18/2019	ND	0.061	101	0.0600	0.642	
Total BTEX	<0.006	0.006	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 %	6 81.3-12	8						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	44.0	4.00	06/18/2019	ND	100	100	100	4.08	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	53.8	10.0	06/19/2019	ND	20.8	104	20.0	2.43	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	544	5.00	06/19/2019	ND	523	99.2	527	11.3	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



### **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

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Celeg D. Freene

Cardinal Laboratories, Inc.   East Mariand-Hobbs, NM 84240	
RICE Operating Company  Project Manager:  Katie Jones  Address: (Street, City, Zip)  Katie Jones  Address: (Street, City, Zip)  Phone#: Fax#: (575) 393-9174  Project #: Project Name:  Vacuum Junction A-36  Project Location:  T18S-R35E-Sec36 A ~ Lea County New Mexico  Address: (Street, City, Zip)  Phone#: Fax#: (575) 397-1471  Project #: Project Name:  Vacuum Junction A-36  Project Location:  T18S-R35E-Sec36 A ~ Lea County New Mexico  AMATRIX PRESERVATIVE METHOD  MATRIX PRESERVATIVE SAMPLING METHOD  AMATRIX PRESERVATIVE S	
RICE Operating Company   Rice Operating Comp	
Project Manager:   Address: (Street, City, Zip)   Curicle of Spectry Method No.)	
Address: (Street, City, Zip)	
122 W Taylor Street ~ Hobbs, New Mexico 88240  Project #:  Project Name:  Vacuum Junction A-36  Project Location:  T18S-R35E-Sec36 A ~ Lea County New Mexico  In [Ritles Ag Ag & Ba Cd Cl Db Se Hg (Cd D	1 /
122 W Taylor Street ~ Hobbs, New Mexico 88240 (575) 393-9174 (575)	
# CONTAINERS SOIL AIR  SULDGE  # CONTAINERS  # CONTAINERS  # CONTAINER  SULDGE  # CONTAINERS  # CONTAINERS  # CONTAINERS  # CONTAINER  # CONTAINERS  # CONTAINERS  # CONTAINER  # CONTA	
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# CONTAINERS SOIL  AIR  SILUDGE  MATER  SOIL  AIR  AIR  SOIL  AIR  SILUDGE  DATE (2019)  WATER  SOIL  AIR  SILUDGE  DATE (2019)  MATER  SOIL  AIR  AIR  SILUDGE  DATE (2019)  MATER  SOIL  AIR  AIR  AIR  AIR  SILUDGE  DATE (2019)  AIR  AIR  AIR  AIR  AIR  AIR  AIR  AI	
Contains	ဖွ
# CONTAINERS # CON	in o
ANATER SOLL AIR SOLL AIR SOLL (2 40ml VOA) HNO3 HONE SOLL AIR SOLL SOLL TIME MTBE 8021B/602 TPH 418.1/TX1005 PAH 8270C TOTAL Metals Ag As TCLP Metals Ag As TCLP Notatiles TCLP Volatiles TCLP Volatiles TCLP Semi Volatile GC/MS Semi. Vol. PCB's 8082/608 GC/MS Semi. Vol. SCB's GC/MS SEMI. SCB's GC/MS S	~ 24 }
	Chlorides Turn Around Time ~ 24 Hours
) Monitor Well #1 G 3 X 2 1 1 6/12 13:15 X X	X
A Monitor Well #2 G 3 X 2 1 6/12 9:25 X X	X
Relinquished by: Date: Time: Received by: Date: Time: Phone Results Yes No	
Rozanne Johnson 1 143 7019 15:15 Jamara Marker 6-13-9 15:15 Fax Results Yes No Additional Fax Number:	
Retinquished by: / Date: Time: Received By: (Laboratory Staff) Date: Time: REMARKS:	
Email Results: kjones@riceswd.com	
Delivered By: (Circle One) Sample Condition CHECKED BY: rozanne11@windstream.net	
Cool Intact	
Yes Yes (Initials)	
Sampler) - UPS - Bus - Other: No No No To	

Released to Imaging: 12/8/2021 10:24:12 AM



March 26, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: VACUUM JUNCTION A-36** 

Enclosed are the results of analyses for samples received by the laboratory on 03/18/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



### Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 03/18/2019 Reported: 03/26/2019

Project Name: VACUUM JUNCTION A-36

Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM

mg/L

Sampling Date: 03/18/2019

Sampling Type: Water

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

### Sample ID: MONITOR WELL #1 (H901041-01)

BTEX 8021B

BIEX 8021B	ilig/	<u> </u>	Allalyze	u by. M3					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/20/2019	ND	0.020	102	0.0200	2.30	
Toluene*	<0.001	0.001	03/20/2019	ND	0.020	98.8	0.0200	2.51	
Ethylbenzene*	<0.001	0.001	03/20/2019	ND	0.020	97.5	0.0200	0.470	
Total Xylenes*	<0.003	0.003	03/20/2019	ND	0.063	105	0.0600	1.28	
Total BTEX	<0.006	0.006	03/20/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 %	% 81.3-12	8						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	76.0	4.00	03/19/2019	ND	100	100	100	3.92	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	<10.0	10.0	03/19/2019	ND	22.7	113	20.0	1.31	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	345	5.00	03/22/2019	ND	524	99.4	527	24.2	

Analyzed By: MS

Cardinal Laboratories \*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

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

Received: 03/18/2019 Reported: 03/26/2019

Project Name: **VACUUM JUNCTION A-36** Project Number: NONE GIVEN

Project Location: T18S-R35E-SEC36 A-LEA CTY., NM Sampling Date: 03/18/2019 Sampling Type: Water

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

### Sample ID: MONITOR WELL #2 (H901041-02)

BTEX 8021B	mg/	L	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/20/2019	ND	0.020	102	0.0200	2.30	
Toluene*	<0.001	0.001	03/20/2019	ND	0.020	98.8	0.0200	2.51	
Ethylbenzene*	<0.001	0.001	03/20/2019	ND	0.020	97.5	0.0200	0.470	
Total Xylenes*	<0.003	0.003	03/20/2019	ND	0.063	105	0.0600	1.28	
Total BTEX	<0.006	0.006	03/20/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 81.3-12	8						
Chloride, SM4500Cl-B	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	56.0	4.00	03/19/2019	ND	100	100	100	3.92	
Sulfate 375.4	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	48.7	10.0	03/19/2019	ND	22.7	113	20.0	1.31	
TDS 160.1	mg/	L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	194	5.00	03/22/2019	ND	524	99.4	527	24.2	

Cardinal Laboratories \*=Accredited Analyte

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Mike Snyder For Celey 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  $6^{\circ}\text{C}$ 

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Page 4 of 5

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Katie Jones			122 W	Taylo	r Stre	et ~ F	lobbs,	New	Mex	ico 8	8240									11	98												
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Phone #: (575) 393-91	174	Fax #: (575)	397-	147	1												32)	15						1									
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Project Location:					Samp	oler Si	gnatur	é: /	Roza	anne	John	son (5	75)631	9310			EX	1	2 2				1	۵,			-1		33				2
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			0		MA	TRIX		Ľ			VATI HOD	VE	SAM	PLING			TPH 418.1/TX1005 / TX1005 Extended (C35)		Lotal Metals Ag As Ba Cd Cr Pb Se Hg 601 05/200.7 TCLP Metals Ag As Ba Cd Cr Pb Se Hg		S		GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625		808	h	Sa. K	Anions (CI, SO4, CO3, HCO3)		Total Dissolved Solids		Turn Around Time ~ 24 Hours
LAB#		(G)rab or (C)omp	# CONTAINERS					(A)			Į.	E)			602	302	1006		g As		TCLP Semi Volatiles	ß	260E	S.	8	Pesticides 8081A/608	1	Noisture Content Cations (Ca. Mg. I	24,		S D		Lime
	FIELD CODE	Θ̈	l ₹					HCL (2 40ml VOA)	Ш			NONE (1-1LITER HUPE)	DATE (2019)		MTBE 8021B/602	BTEX 8021B/602	ΙĚΙ	ပ္ဆုိ	als A	TCLP Volatiles	TCLP Semi Volat		8	E.	PCB's 8082/608	808	BOD, TSS, pH	2 6	S 'S		lo k		<u>a</u>
/ LAB USE \		ö	\( \)	WATER		AIR	5	2 40	_	NaHSO <sub>4</sub>	4	۶I	50		80	805	18.	PAH 8270C	neta Met	Vola	Ser	8	l s	Se	80	des	SS	<u> </u>	ျှင့	S	Sic	des	ē
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H901041		<u> </u>	#	3	SC	AIR	7	  王	토	g	ェ 도	<u> </u>	ă	F	Σ	ВТ	TPI	PA	<u> </u>	2	2 2		3 3	99	PC	Pe	8	Sal	An	Sul	to d	5	٦
1	Monitor Well #1	G	3	Х				2				1	3/18	12:50		Х														х	X	x	
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Rezanne dobnsor	3/18/2019 15:15		Rua	KA	de	M	al	ell	1	3-1	18-1	19	15:	15	Fax	Re	sults	iii		Yes		N	0	Ad	ditio	nal F	ax N	umb	er:				
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Delivered By: (	(Circle One)	Sample	Condit	ion			Т	СН	ECKE	ED B	RY:									1						111	.ne						
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Sampler - U	JPS - Bus - Other:		No		No			Y	0	٠																							

## **Excavation and Liner Installation**

RICE Operating Company 112 West Taylor, Hobbs, NM 88240 Phone 575.393.9174

### Vacuum Jct. A-36 (1R425-83) Unit Letter A, Section 36, T17S, R34E



Site prior, facing south

2/12/2014



Excavating the site, facing north

6/3/2015



Exporting excavated soil, facing north 6/4/2015



Importing blow sand, facing east

6/4/2015



Padding excavation, facing north

6/8/2015



Installing 20-mil, reinforced liner, facing southwest

6/10/2015



Liner is installed at 3.5 ft bgs,



Backfilling with the excavation with imported blow sand, facing northeast 6/12/2015



Site complete, facing southeast 10/12/2015



Padding the top of liner, facing north 6/10/2015



Seeding the backfilled site, facing southeast

10/12/2015



June 11, 2015

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM JCT A-36

Enclosed are the results of analyses for samples received by the laboratory on 06/04/15 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

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 KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 06/04/2015 Sampling Date: 06/04/2015

Reported: 06/11/2015 Sampling Type: Soil

Project Name: VACUUM JCT A-36 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: T-17S R-34E

### Sample ID: IMPORTED BLOW SAND (H501449-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/09/2015	ND	416	104	400	3.92	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene



### **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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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## ARD

### ARDINAL LABORATORIES

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	Rice Operating								Ł	3//	44 70					-	ANAL	YSIS	RE	QUE	ST			
Project Manager:	Katie Jones / Jacob Kamplain / L	aura	Flor	res			Р.	0. #	:															
Address: 419 V							Co	omp	any:	:							S							
City: Hobbs	State: NM	Zip:	882	40			At	tn:									o							
Phone #: 575-39	93-2967 Fax #: 575-39	3-02	93				Ad	ddre	ss:								'n							
Project #:	Project Owner	:					Ci	ty:					1 ,,	Σ		ェ	1/8							
Project Name:		1					St	ate:	15		Zip:		les	15	×	<u>P</u>	n							
Project Location:	Vacuum Jct. A-36 (	175	5 3	46	(3		Ph	none	#:				Chlorides	801	BTEX	Texas TPH	Cations/Anions	TDS						
Sampler Name:	Karania Lewis						Fa	x #:					] 은		BT	xa	Ö	F						
FOR LAB USE ONLY	d		F	_	MATE	RIX	1	PRI	ESEF	RV.	SAMPL	ING	O	PH		le le	te							
Lab I.D. 11501449	Sample I.D.  Emported Blow Sand	G)RAB OR (C)OM	# CONTAINERS	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME 2:00					Complete							
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	Damages. Cardinal's liability and client's exclusive remedy for a	Ш	$\perp$																					

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 consequental damages, including without limitan, business instituruptions, loss of use, or loss of profits incurred by clent, 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.

Karanja Lewis Relinquished By:	6-4-15 Time:00 /	Received By:	Moon		sinenv.c		Add'l Fax #:  orman@basinenv.com; jkamplain@basinenv; er@basinenv; cursanic@basinenv;
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	3.60	Sample Condition Cool Intact Yes Yes No No	CHECKED BY:	sedwards@b environmenta company: kj	al tech:	Kleu	

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

## RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

CK.	-5-1	MODEL: PGM 7300	SERIAL NO:	590-000508
MODEL	X	MODEL: PGM 7300	SERIAL NO:	590-000504
NO.		MODEL: PGM 7320	SERIAL NO:	592-903318
		MODEL: PGM	SERIAL NO:	590-902124

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: IAM-248-100-6	EXPIRATION DATE: 8-15-16
	METER READING ACCURACY: 100.0

ACCURACY: +/- 2%

COMPANY	
ROC	

SITE	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum Jct, A-36	A	36	17S	34E

SAMPLE ID	PID	SAMPLE ID	PID
Imported Blow Sand	0.4		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE:

DATE: 6/4/2015



June 12, 2015

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM JCT. A-36

Enclosed are the results of analyses for samples received by the laboratory on 06/11/15 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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: 06/11/2015 Sampling Date: 06/11/2015

Reported: 06/12/2015 Sampling Type: Soil

Project Name: VACUUM JCT. A-36 Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: BLENDED BACKFILL (H501525-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/12/2015	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/12/2015	ND	175	87.4	200	1.24	
DRO >C10-C28	21.6	10.0	06/12/2015	ND	191	95.7	200	0.512	
Surrogate: 1-Chlorooctane	97.4	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	124	% 52.1-17	<i>'</i> 6						

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. Keine



### **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

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Celey D. Keene

Released to Imaging: 12/8/2021 10:24:12 AM

# OF.

### ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: Rice Operating	T.						BILL TO							ANAI	LYSIS	REQ	UEST					
Project Manager: Katie Jones / Jacob Kamplain / La	aura	a Fl	ores	3			Р.	P.O. #:														
Address: 419 W Cain		-11-					C	Company:							SI							
City: Hobbs State: NM	Zip	: 88	240	)			At	tn:									ior					
Phone #: 575-393-2967 Fax #: 575-39	#: 575-393-0293				A	ddre	ss:							,	۸							
Project #: Project Owner	Project Owner:  wom Jct. A-36 (348175)  mja Lewis				Ci	ty:					l w	Σ		エ	Cations/Anions							
Project Name:					St	ate:			Zip:		g	15	×	입	on	(n)						
Project Location: Vacuum Jct. A-36				Phone #:					Chlorides	PH 801	BTEX	exas TPH	ati	TDS								
Sampler Name: Karanja Lewis	_	_	_		IATR	Fax #: RIX PRESERV SAMPLING			1 =	I	m'	×		-								
Lab I.D. Sample I.D.  H501575  I Blended Backfill	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER				OTHER:	ACID/BASE:		OTHER:		TIME		T D			Complete					
																					-	

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 consequental damages, including without fluiding, business instruptions, 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.

Relinguished By:	Date: Recei	ved By:	Phone Result: ☐ Yes ☑ No Add	I Phone #:
	6-11-15		Fax Result: ☐ Yes ☐ No Add'	I Fax #:
Daranja Lewis	Time: 40	de servoor	REMARKS: TPH Ack	dea 6/12/15
Relinquished By:	Date: Recei	ved By:	email results:	
	V		hconder@basinenv.com; knormar	n@basinenv.com; jkamplain@basinenv;
	Time:		Iflores@basinenv; lweinheimer@b	
Delivered By: (Circle One)		Sample Condition CHECKED B	sedwards@basineny	
	11/10	Cool Intact (Initials)	environmental tech: Klewis	@basinenv
Sampler - UPS - Bus - Other:	4.40	Yes Yes No No	company: kjones@riceswd.com	

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393 2476





## RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

LOT NO: I	IAM-248-	100-6	EXPIRATION DATE: 8-15-16					
			: ISOBUTYLENE 100PPM / AIR: BALANCE					
NO.		MODEL: PGM 7320 MODEL: PGM	SERIAL NO: 592-903318 SERIAL NO: 590-902124					
MODEL	X	MODEL: PGM 7300 SERIAL NO: 590-000504						
CK.		MODEL: PGM 7300	SERIAL NO: 590-000508					

COMPANY

ROC

SITE	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum Jct. A-36	A	36	17S	34E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfill	0.4		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE.

DATE: 6/11/2015



Hobbs, NM 88241 Phone: (575) 393-4411 Fax: (575) 393-0293

### **VEGETATION FORM**

1. General Informa	ation											
Site name: V	acuum J	ct A-36										
U/L		Section		Towns	ship	R	ange		Cou	nty	Latitude	Longitude
Α		36	1	175	3	] 3		Lea		a	32.405257	-103.176614
Contact Name: K	atie Jone	es Davis			B	Ben J. Arguijo	)			·		
Email: kj	ones@ri	iceswd.com			b	ojarguijo@ba	sinenv.c	om				
Site size: 75	5'x86'					6447 sq f1						
2. Soils		*Do	not rip	caliche s	subsoils; c	caliche rocks t	orought to	o the surface by	ripp	oing shall be remo	ved.	
Salvaged from site		Bioremediated			Imported			Blended			th (in)	
Texture:	Тор	Soil	-		Des	scribe soil &	subsoil:				Top Soil	
Soil prep methods:	1	Rip	T		Depth (i	n)		Disc X		Dep	oth (in) 6"	Rollerpack
Date completed:		7/14/2015	٠			<u> </u>				_		
Туре:					-					Describe:	14 bags of cu	istom mix.
Lbs/acre:		<del>-</del>		<u> </u>			•			_	·	<del></del>
4. Seeding	*Au	tach seed bag tags to	this fo	rm. Seed	bag tags	shall contain	the site n	ame and S-T-R				T-W-POLS
Custom Seed Mix	Х	Prescribed Mix			Seed Mi	x Name:		Warm Season,			Date:	7/14/2015
Broadcast X							Meth	od: I	rop	Seeder		
Soil conditions dur	ing seed	: Dry	X	Damp		Wet						
Observations:		Tilled into soil								<u> </u>		<del> </del>
5. Certification		reby certify that the info	rmation	in this for			nd comple	te to the best of t	ny kn	owledge and belief.	Date:	7/14/2015
Name: Abe Re	decop					tle: En	vironme	ntal Tech			Date.	
Signature:			/r		11/1							

Final C-141

RICE Operating Company 112 West Taylor, Hobbs, NM 88240 Phone 575.393.9174

Page 64 of 66

Incident ID	
District RP	1R425-83
Facility ID	
Application ID	pEJH1015950593

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC									
Noting Photographs of the remediated site prior to backfill or photos of the liner must be notified 2 days prior to liner inspection)	ntegrity if applicable (Note: appropriate OCD District office								
□ Laboratory analyses of final sampling (Note: appropriate ODC District off)	ce must be notified 2 days prior to final sampling)								
□ Description of remediation activities									
I hereby certify that the information given above is true and complete to the be rules and regulations all operators are required to report and/or file certain relea which may endanger public health or the environment. The acceptance of a C-liability should their operations have failed to adequately investigate and remed water, human health or the environment. In addition, OCD acceptance of a C-compliance with any other federal, state, or local laws and/or regulations. The restore, reclaim, and re-vegetate the impacted surface area to the conditions that accordance with 19.15.29.13 NMAC including notification to the OCD when reprinted Name:  Katie Davis  Title: Environmental Manager  Signature:  Date: 4/1/2021  Telephone: 575-393-9174	se notifications and perform corrective actions for releases 141 report by the OCD does not relieve the operator of iate contamination that pose a threat to groundwater, surface 41 report does not relieve the operator of responsibility for responsible party acknowledges they must substantially a existed prior to the release or their final land use in								
OCD Only									
Received by: Da	re:								
Closure approval by the OCD does not relieve the responsible party of liabilit and remediate contamination that poses a threat to groundwater, surface wateresponsible party of compliance with any other federal, state, or local laws and	r, human health, or the environment nor does not relieve the								
Closure Approved by: Bradford Billings	Date: 12/08/2021								
	Title: Envi. Spec. A								
<del>_</del>									

Vacuum Jct. A-36 (1R425-83) Unit A, Section 36, T17S, R34E



Facing North 11/10/2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 24463

### **CONDITIONS**

Operator:	OGRID:
RICE OPERATING COMPANY	19174
122 W Taylor	Action Number:
Hobbs, NM 88240	24463
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
bbillings	P&A monitor wells as per OSE regulations.	12/8/2021