L Peter Galusky, Jr PE

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April 1, 2021

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

RE: **2020 Annual Report**
Rice Operating Company
Vacuum N-6-1 Jct, UL N, Sec 6, T18S, R35E
OCD Case Number 1R0479

Sent by E-mail

Mr. Billings:

This letter summarizes progress made over the past calendar year pursuant to the NMOCD approved Corrective Action Plan for this site (Appendix - Figure 1), which is operated by Rice Operating Company (ROC).

ROC submitted a Vadose Zone Corrective Action Plan (CAP) Update to NMOCD on November 8th, 2013, and approved on November 20th, 2013, which entailed the removal of high-chloride soils to 3 ft bgs and the installation of an impermeable, 20-mil reinforced synthetic liner to reduce the potential downward migration of residual soil chlorides (Appendix - Figure 2). This work was completed in 2014 and is summarized in the Vadose Zone CAP Report & Soil Closure Request dated and submitted to NMOCD on August 12th, 2014. NMOCD approved the report and granted 'Soil Closure' on September 18th, 2014.

ROC continued to monitor groundwater chloride concentrations during 2020. In brief,

- Approximately 41,927 barrels of chloride-affected groundwater have been removed from the source area between January 2008 and October 2019, when the system was shut down for the winter (Figure 3). The removed groundwater was hauled to an off-site location and utilized for a beneficial use. NMOCD granted temporary approval to cease groundwater recovery in 2020 and approval to reduce the sampling intervals to semi-annual.

- Average annual groundwater chloride concentrations in the near-source monitor well (MW-1) have dropped from 21,700 mg/l in 2006 to 5,100 mg/l in 2014 (Figure 3, Tables 1&2a). This well was replaced in summer 2014 with a new monitor well, MW-1R, after being damaged during the installation of the sub-surface soil liner. Groundwater chloride concentrations in MW-1R averaged 684 mg/l in 2020, up slightly from 503 mg/l in 2019 (Figure 3, Tables 1a, b & 2b).

- Groundwater chloride concentrations in up and down gradient monitor wells (MW-2, MW-3 and MW-4) have continued to remain low throughout 2020 with concentrations at or below 50 mg/l (Figure 3, Tables 1a, b & 2b – 2d).

- Average annual groundwater chloride concentrations in the (down-gradient) recovery well (RW-1) dropped substantially from 713 mg/l in 2019 to 530 mg/l in 2020. (Figure 3, Tables 1a, b & 2e).

Water-soluble petroleum hydrocarbons (BTEX) were not detected in any of the groundwater samples taken in 2020 nor in any prior years. In 2020, NMOCD granted approval to cease BTEX analysis.

ROC will continue groundwater recovery and quarterly sampling in 2021.

ROC is the service provider (agent) for the Vacuum Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. The Vacuum SWD 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.

Please contact either myself or Rice Operating Company if you have any questions or need additional information.

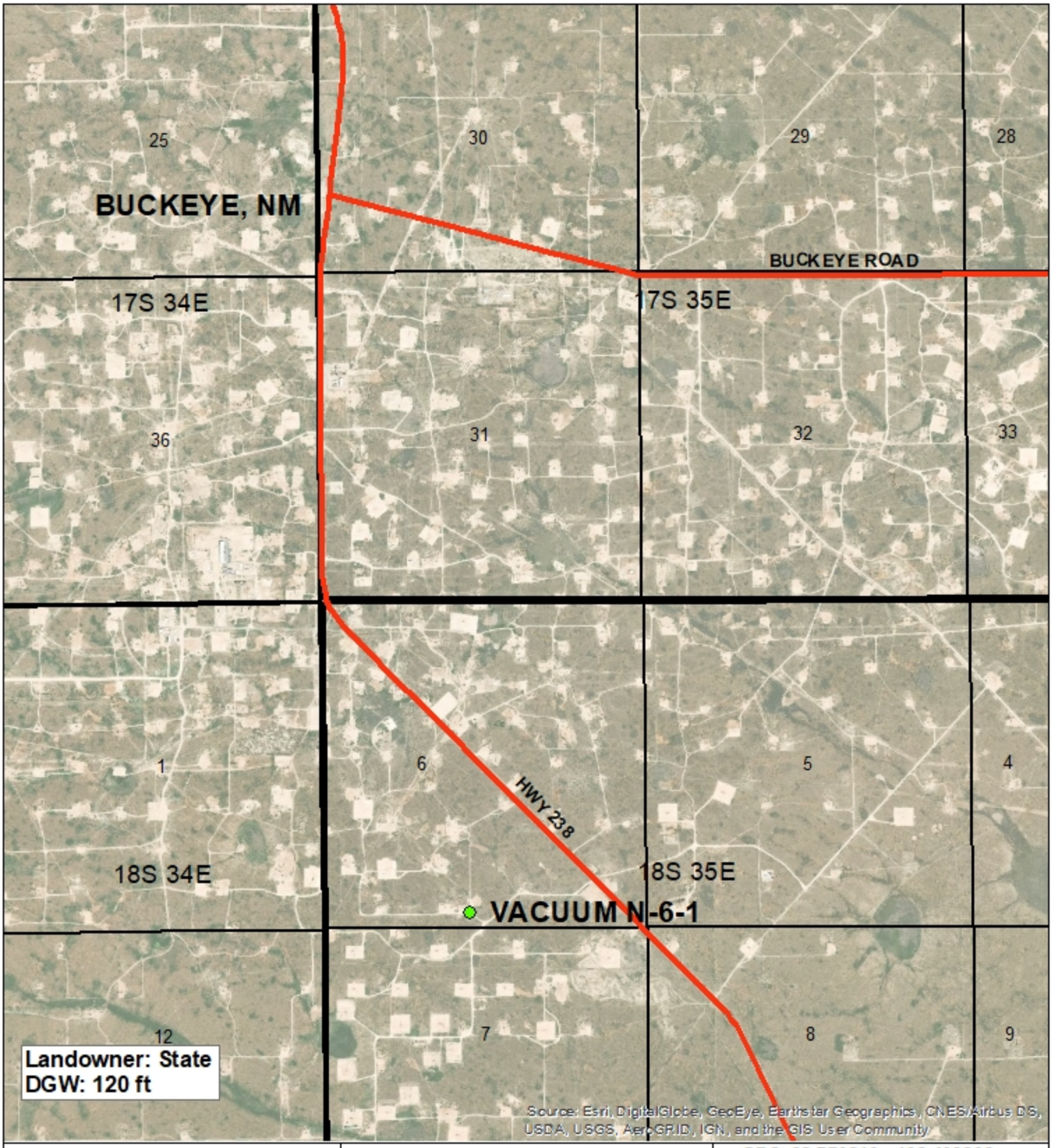
Sincerely,

L. Peter Galusky, Jr. P.E.
NM Prof. Engineer No. 22561

Copy: Rice Operating Company
Attachments: … as noted, above.

Geographic Location

FIGURE 1



RICE OPERATING COMPANY
ROC
SINCE 1955

VACUUM
N-6-1

1R0479

UL N SECTION 6
T-18-S R-35-E
LEA COUNTY, NM

GPS: 32.770216 -103.498268
NAD83 STATE PLANE PROJ
NM EAST ZONE

0 0.25 0.5
Miles

Drawing date: 2/5/20
Drafted by: T. Grieco

N
W E
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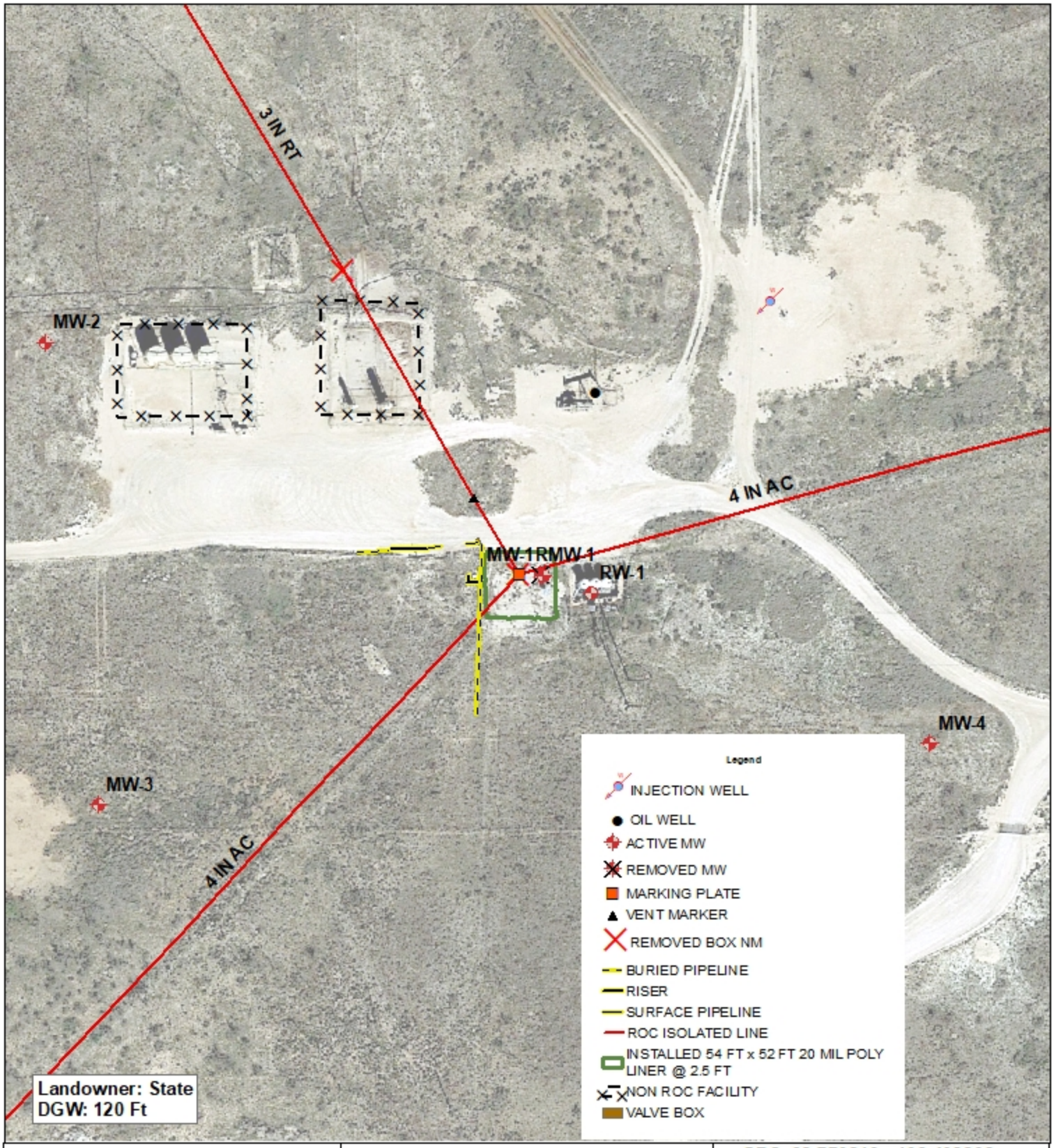
Site Map

FIGURE 2



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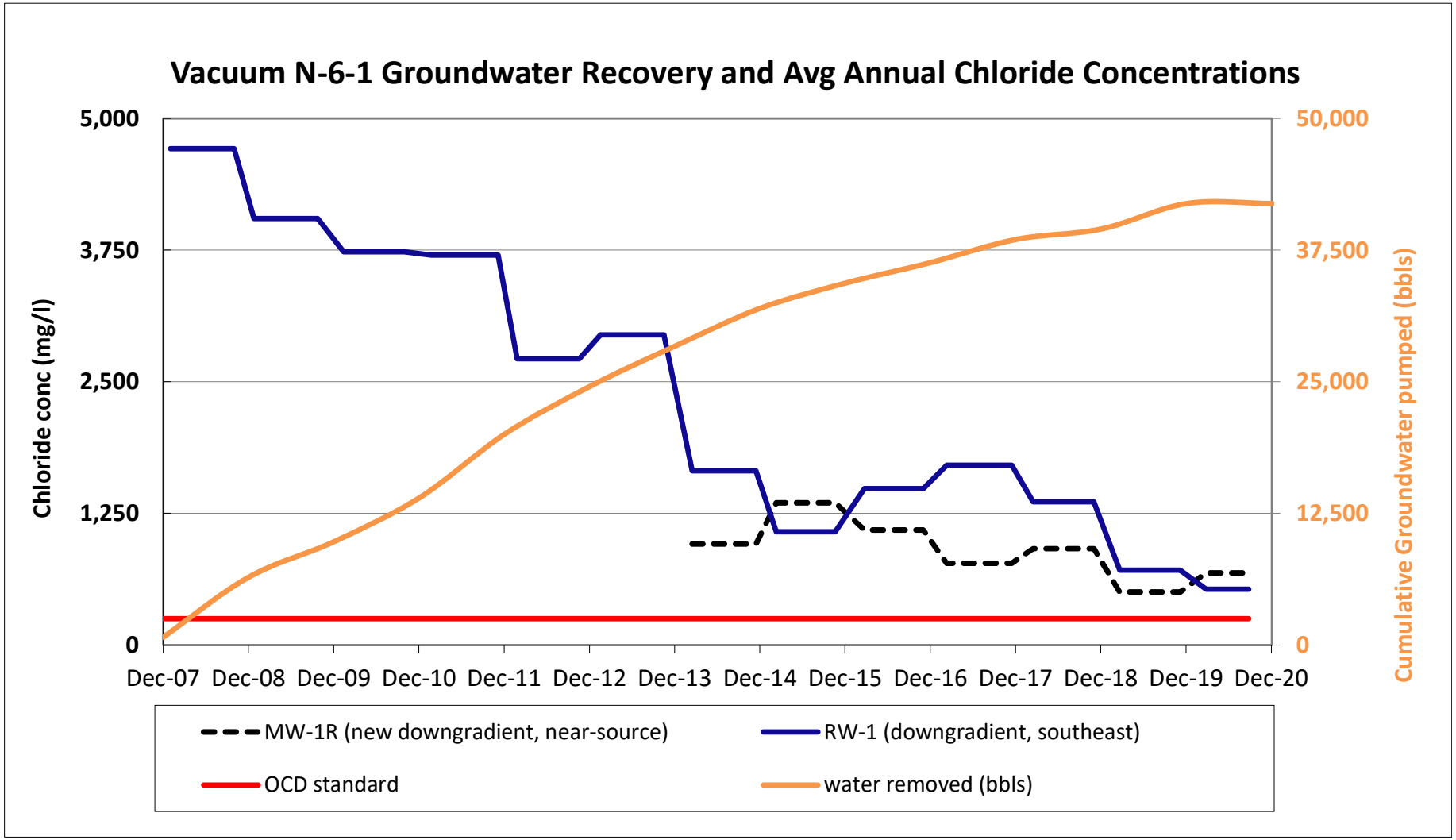
Vacuum N-6-1 Groundwater Recovery and Avg Annual Chloride Concentrations
Chloride conc (mg/l)
5,000
3,750
2,500
1,250
0
50,000
37,500
25,000
12,500
0
Cumulative Groundwater pumped (bbls)
Dec-07 Dec-08 Dec-09 Dec-10 Dec-11 Dec-12 Dec-13 Dec-14 Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20
MW-1R (new downgradient, near-source)
RW-1 (downgradient, southeast)
OCD standard
water removed (bbls)

Annual Average Groundwater Chloride Concentrations (mg/l)

date	**MW-1** (downgradient, near source)	**MW-1R** (new downgradient, near-source)	**MW-2** (upgradient northwest)	**MW-3** (upgradient, southwest)	**MW-4** (downgradient, southeast)	**RW-1** (downgradient, southeast)
May-07	16,898		25	24	42	
Sep-07	16,898		25	24	42	
Oct-07	16,898		25	24	42	
Jan-08	14,425		32	27	41	4,713
Apr-08	14,425		32	27	41	4,713
Aug-08	14,425		32	27	41	4,713
Oct-08	14,425		32	27	41	4,713
Jan-09	13,200		30	27	34	4,050
Apr-09	13,200		30	27	34	4,050
Aug-09	13,200		30	27	34	4,050
Oct-09	13,200		30	27	34	4,050
Feb-10	10,375		27	23	39	3,733
Apr-10	10,375		27	23	39	3,733
Aug-10	10,375		27	23	39	3,733
Oct-10	10,375		27	23	39	3,733
Feb-11	8,433		27	25	37	3,700
Jun-11	8,433		27	25	37	3,700
Sep-11	8,433		27	25	37	3,700
Dec-11	8,433		27	25	37	3,700
Feb-12	5,700		31	24	38	2,718
Jun-12	5,700		31	24	38	2,718
Aug-12	5,700		31	24	38	2,718
Nov-12	5,700		31	24	38	2,718
Feb-13	4,295		30	28	31	2,945
May-13	4,295		30	28	31	2,945
Sep-13	4,295		30	28	31	2,945
Nov-13	4,295		30	28	31	2,945
Mar-14	5,100	960	64	28	37	1,653
Jun-14		960	64	28	37	1,653
Aug-14		960	64	28	37	1,653
Dec-14		960	64	28	37	1,653
Mar-15		1,350	37	27	30	1,075
Jun-15		1,350	37	27	30	1,075
Aug-15		1,350	37	27	30	1,075
Nov-15		1,350	37	27	30	1,075
Mar-16		1,093	47	24	43	1,485
Jun-16		1,093	47	24	43	1,485
Sep-16		1,093	47	24	43	1,485
Nov-16		1,093	47	24	43	1,485
Mar-17		776	39	34	37	1,708
Jun-17		776	39	34	37	1,708
Sep-17		776	39	34	37	1,708
Dec-17		776	39	34	37	1,708
Mar-18		915	51	37	41	1,360
Jun-18		915	51	37	41	1,360
Sep-18		915	51	37	41	1,360
Nov-18		915	51	37	41	1,360
Mar-19		503	33	34	32	713
Jun-19		503	33	34	32	713
Sep-19		503	33	34	32	713
Dec-19		503	33	34	32	713
Mar-20		684	32	28	50	530
Sep-20		684	32	28	50	530

TABLE 1b

Measured Groundwater Chloride Concentrations (mg/l)

date	MW-1 (downgradient, near source)	MW-1R (new downgradient, near-source)	MW-2 (upgradient northwest)	MW-3 (upgradient, southwest)	MW-4 (downgradient, southeast)	RW-1 (downgradient, southeast)
5/29/2007	18,500		24	24	37	
9/25/2007	15,795		24	24	44	5,398
10/17/2007	16,400		28	24	44	5,400
1/31/2008	15,400		28	24	40	5,300
4/24/2008	14,300		28	24	40	3,900
8/7/2008	14,000		32	24	44	3,800
10/30/2008	14,000		40	36	40	5,850
1/23/2009	13,600		36	36	36	5,600
4/29/2009	14,200		24	24	40	4,050
8/7/2009	12,800		36	24	24	3,000
10/22/2009	12,200		24	24	36	3,550
2/11/2010	12,100		28	24	36	3,900
4/26/2010	10,700		28	24	36	4,200
8/5/2010	9,800		28	24	40	3,800
10/28/2010	8,900		24	20	40	3,200
2/21/2011	7,730		24	24	40	2,550
6/6/2011	9,800		28	32	40	4,800
9/2/2011	9,300		32	20	24	4,200
12/4/2011	6,900		24	24	44	3,250
2/24/2012	6,000		24	24	36	2,800
6/1/2012	5,700		32	20	40	3,250
8/31/2012	5,700		40	28	36	2,550
11/16/2012	5,400		28	24	40	2,270
2/14/2013	4,850		36	28	44	3,900
5/23/2013	5,100		24	28	28	4,200
9/4/2013	4,100		28	24	24	1,880
11/13/2013	3,130		32	32	28	1,800
3/14/2014	5,100		68	40	40	2,070
6/24/2014			60	24	20	1,640
8/22/2014		1,300	60	24	28	1,400
12/12/2014		620	68	24	60	1,500
3/9/2015		2,270	24	24	36	1,300
6/8/2015		1,110	48	28	32	1,020
8/25/2015		1,100	36	28	24	1,100
11/17/2015		920	40	28	28	880
3/21/2016		1,300	60	28	60	840
6/3/2016		1,300	44	4	40	1,040
9/21/2016		710	28	28	32	2,130
11/28/2016		1,060	56	36	40	1,930
3/8/2017		1,340	32	32	32	1,930
6/8/2017		32	36	32	36	1,740
9/20/2017		570	32	28	24	1,580
12/11/2017		1,160	56	44	56	1,580
3/13/2018		1,520	80	44	60	1,580
6/8/2018		570	64	44	44	1,480
9/17/2018		510	32	28	28	1,500
11/29/2018		1,060	28	32	32	880
3/19/2019		730	44	48	48	870
6/14/2019		450	28	28	24	710
9/18/2019		428	28	28	28	650
12/3/2019		404	32	32	28	620
3/23/2020		860	32	28	72	550
9/22/2020		508	32	28	28	510

Groundwater Analyte Concentrations (mg/l)

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	116.4	125.8	1.5	10.0	10/18/2006	21,400	40,100	<0.001	<0.001	<0.001	<0.001	475	Silt to clear
1	116.7	125.1	1.4	10.0	3/7/2007	20,200	28,100	<0.001	<0.001	<0.001	<0.001	584	Silt to clear Slight odor
1	116.6	125.1	1.4	10.0	5/29/2007	18,500	35,900	<0.001	<0.001	<0.001	<0.001	449	Silt to clear Slight odor
1	117.0	125.1	1.3	5.0	9/25/2007	15,795	27,714	<0.002	<0.002	<0.002	<0.006	152	Silt to clear Slight odor
1	117.0	125.1	1.3	5.0	10/17/2007	16,400	27,927	<0.001	0.004	<0.001	<0.001	143	Silt to clear Slight odor
1	117.0	125.1	1.3	5.0	1/31/2008	15,400	28,300	<0.001	<0.001	<0.001	<0.003	148	Silt to clear Slight odor
1	117.2	125.1	1.3	5.0	4/24/2008	14,300	24,800	<0.001	<0.001	<0.001	<0.003	128	Silt to clear Slight odor
1	117.7	125.1	1.2	5.0	8/7/2008	14,000	24,900	<0.001	<0.001	<0.001	<0.003	158	Silt to clear Slight odor
1	117.6	125.1	1.2	5.0	10/30/2008	14,000	28,200	<0.001	<0.001	<0.001	<0.003	126	Silt to clear Slight odor
1	117.8	125.0	1.1	5.0	1/23/2009	13,600	24,200	<0.001	<0.001	<0.001	<0.003	109	Silt to clear Slight odor
1	118.1	125.0	1.1	5.0	4/29/2009	14,200	22,800	<0.001	<0.001	<0.001	<0.003	110	Silt to clear Slight odor
1	118.1	125.0	1.1	5.0	8/7/2009	12,800	21,200	<0.001	<0.001	<0.001	<0.003	102	Silt to clear Slight odor
1	118.4	125.0	1.0	5.0	10/22/2009	12,200	19,700	<0.001	<0.001	<0.001	<0.003	76	Silt to clear Slight odor
1	118.3	125.0	1.1	5.0	2/11/2010	12,100	20,700	<0.001	<0.001	<0.001	<0.003	94	Silt to clear Slight odor
1	118.8	125.0	1.0	5.0	4/26/2010	10,700	18,400	<0.001	<0.001	<0.001	<0.003	96	Silt to clear Slight odor
1	118.6	125.0	1.0	5.0	8/5/2010	9,800	15,600	<0.001	<0.001	<0.001	<0.003	79	Silt to clear Slight odor
1	119.0	125.0	1.0	5.0	10/28/2010	8,900	16,800	<0.001	<0.001	<0.001	<0.003	82	Silt to clear Slight odor
1	118.9	125.2	1.0	5.0	2/21/2011	7,730	13,200	<0.001	0.001	<0.001	<0.003	60	Silt to clear Slight odor
1	119.4	125.2	0.9	5.0	6/6/2011	9,800	13,700	<0.001	<0.001	<0.001	<0.003	78	Silt to clear Slight odor
1	120.2	125.2	0.8	5.0	9/2/2011	9,300	11,800	<0.001	<0.001	<0.001	<0.003	95	Silt to clear Slight odor
1	119.7	125.2	0.9	5.0	12/4/2011	6,900	11,500	<0.001	<0.001	<0.001	<0.003	81	Silt to clear Slight odor
1	119.8	125.2	0.9	5.0	2/24/2012	6,000	10,400	<0.001	<0.001	<0.001	<0.003	78	Silt to clear Slight odor
1	119.8	125.2	0.9	5.0	6/1/2012	5,700	10,100	<0.001	<0.001	<0.001	<0.003	77	Silt to clear Slight odor
1	119.8	125.2	0.9	5.0	8/31/2012	5,700	9,330	<0.001	<0.001	<0.001	<0.003	66	Silt to clear Slight odor
1	120.0	125.2	0.8	5.0	11/16/2012	5,400	9,240	<0.001	<0.001	<0.001	<0.003	72	Silt to clear Slight odor
1	120.0	125.2	0.8	5.0	2/14/2013	4,850	8,110	<0.001	<0.001	<0.001	<0.003	65	Silt to clear Slight odor
1	120.4	125.2	0.8	5.0	5/23/2013	5,100	8,230	<0.001	<0.001	<0.001	<0.003	74	Silt to clear Slight odor
1	120.6	125.2	0.7	5.0	9/4/2013	4,100	7,160	<0.001	<0.001	<0.001	<0.003	55	Silt to clear Slight odor
1	120.6	125.2	0.7	5.0	11/13/2013	3,130	6,910	<0.001	<0.001	<0.001	<0.003	61	Silt to clear Slight odor
1	120.6	125.2	0.7	5.0	3/14/2014	5,100	7,250	<0.001	<0.001	<0.001	<0.003	73	Silt to clear Slight odor
Groundwater Analyte Concentrations (mg/l)						MW-1R installed 7/17/2014							
1R	XXX	XXX	0.0	Running	8/22/2014	1,300	2,770	<0.001	<0.001	<0.001	<0.003	46	Silt to clear Slight odor
1R	XXX	168.3	0.0	100.0	12/13/2014	620	1,360	<0.001	<0.001	<0.001	<0.003	37	Silt to clear Slight odor
1R	XXX	168.3	0.0	100.0	3/9/2015	2,270	5,920	<0.001	<0.001	<0.001	<0.003	180	Silt to clear Slight odor
1R	XXX	168.0	0.0	Running	6/8/2015	1,110	2,670	<0.001	<0.001	<0.001	<0.003	48	Silt to clear Slight odor
1R	XXX	168.0	0.0	Running	8/25/2015	1,100	1,970	<0.001	<0.001	<0.001	<0.003	36	Silt to clear Slight odor
1R	XXX	168.0	0.0	Running	11/17/2015	920	1,780	<0.001	<0.001	<0.001	<0.003	40	Silt to clear Slight odor

1R	XXX	168.3	XXX	100.0	3/21/2016	1,300	2,880	<0.001	<0.001	<0.001	<0.003	209	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	6/3/2016	1,300	2,750	<0.001	<0.001	<0.001	<0.003	72	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	9/21/2016	710	1,500	<0.001	<0.001	<0.001	<0.003	40	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	11/28/2016	1,060	2,040	<0.001	<0.001	<0.001	<0.003	43	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	3/8/2017	1,340	2,790	<0.001	<0.001	<0.001	<0.003	204	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	6/8/2017	32	320	<0.001	<0.001	<0.001	<0.003	43	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	9/20/2017	570	1,470	<0.001	<0.001	<0.001	<0.003	42	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	12/11/2017	1,160	2,310	<0.001	<0.001	<0.001	<0.003	80	Silt to clear Slight odor
1R	XXX	168.0	XXX	100.0	3/13/2018	1,520	2,830	<0.001	<0.001	<0.001	<0.003	74	Silt to clear Slight odor
1R	XXX	168.0	XXX	100.0	6/8/2018	570	1,190	<0.001	<0.001	<0.001	<0.003	39	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	9/17/2018	510	1030	<0.001	<0.001	<0.001	<0.003	40	Silt to clear Slight odor
1R	XXX	168.0	XXX	100.0	11/29/2018	1,060	1,760	<0.001	<0.001	<0.001	<0.003	53	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	3/19/2019	730	1,540	<0.001	<0.001	<0.001	<0.003	70	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	6/14/2019	450	1,030	<0.001	<0.001	<0.001	<0.003	38	Silt to clear Slight odor
1R	XXX	168.3	XXX	Running	9/18/2019	428	966	<0.001	<0.001	<0.001	<0.003	40	Silt to clear Slight odor
1R	XXX	168.3	XXX	100.0	12/3/2019	404	828	<0.001	<0.001	<0.001	<0.003	40	Silt to clear Slight odor
1R	XXX	168.0	XXX	100.0	3/23/2020	860	1,650	<0.001	<0.001	<0.001	<0.003	47	Silt to clear Slight odor
1R	XXX	168.0	XXX	100.0	9/22/2020	508	1,100	XXX	XXX	XXX	XXX	64	Silt to clear Slight odor

Groundwater Analyte Concentrations (mg/l)

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	117.3	125.8	1.4	10.0	10/18/2006	20	308	j[0.000837]	<0.001	<0.001	<0.001	33	Clear
2	117.6	126.9	1.5	8.0	3/7/2007	21	278	<0.001	<0.001	<0.001	<0.001	31	Sand to clear No odor
2	117.6	126.9	1.5	2.0	5/29/2007	24	296	<0.001	<0.001	<0.001	<0.001	34	Sand to clear No odor
2	117.9	126.9	1.4	6.0	9/25/2007	24	319	<0.002	<0.002	<0.002	<0.006	38	Sand to clear No odor
2	117.9	126.9	1.4	6.0	10/17/2007	28	289	<0.001	0.005	<0.001	0.004	38	Sand to clear No odor
2	118.0	126.6	1.4	6.0	1/31/2008	28	325	<0.001	<0.001	<0.001	<0.003	36	Sand to clear No odor
2	118.1	126.6	1.4	6.0	4/24/2008	28	286	<0.001	<0.001	<0.001	<0.003	31	Sand to clear No odor
2	118.4	126.6	1.3	6.0	8/7/2008	32	324	<0.001	<0.001	<0.001	<0.003	48	Sand to clear No odor
2	118.5	126.6	1.3	6.0	10/30/2008	40	342	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
2	118.7	126.6	1.3	6.0	1/23/2009	36	365	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
2	118.8	126.6	1.2	6.0	4/29/2009	24	346	<0.001	<0.001	<0.001	<0.003	34	Sand to clear No odor
2	119.0	126.6	1.2	6.0	8/7/2009	36	24	<0.001	<0.001	<0.001	<0.003	302	Silt to clear No odor
2	119.1	126.6	1.2	6.0	10/22/2009	24	314	<0.001	<0.001	<0.001	<0.003	33	Sand to clear No odor
2	119.5	126.5	1.1	6.0	4/26/2010	28	324	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
2	119.3	126.5	1.2	6.0	2/11/2010	28	343	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
2	119.6	126.5	1.1	6.0	8/5/2010	28	316	<0.001	<0.001	<0.001	<0.003	35	Sand to clear No odor
2	119.7	126.5	1.1	6.0	10/28/2010	24	336	<0.001	<0.001	<0.001	<0.003	39	Sand to clear No odor
2	120.0	127.0	1.1	6.0	2/21/2011	24	311	<0.001	<0.001	<0.001	<0.003	35	Sand to clear No odor
2	120.1	127.0	1.1	6.0	6/6/2011	28	309	<0.001	<0.001	<0.001	<0.003	39	Sand to clear No odor
2	120.3	127.0	1.1	6.0	9/2/2011	32	270	<0.001	<0.001	<0.001	<0.003	49	Sand to clear No odor
2	120.5	127.0	1.0	6.0	12/4/2011	24	303	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
2	120.6	127.0	1.0	6.0	2/24/2012	24	343	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
2	120.7	127.0	1.0	6.0	6/1/2012	32	311	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
2	120.9	127.0	1.0	6.0	8/31/2012	40	320	<0.001	<0.001	<0.001	<0.003	36	Sand to clear No odor
2	121.1	127.0	0.9	6.0	11/16/2012	28	303	<0.001	<0.001	<0.001	<0.003	30	Sand to clear No odor
2	121.1	127.0	0.9	6.0	2/14/2013	36	326	<0.001	<0.001	<0.001	<0.003	56	Sand to clear No odor
2	121.3	127.0	0.9	6.0	5/23/2013	24	255	<0.001	<0.001	<0.001	<0.003	44	Sand to clear No odor
2	121.5	127.0	0.9	6.0	9/4/2013	28	290	<0.001	<0.001	<0.001	<0.003	33	Sand to clear No odor
2	121.5	127.0	0.9	6.0	11/13/2013	32	300	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
2	121.7	127.0	0.9	6.0	3/14/2014	68	336	<0.001	<0.001	<0.001	<0.003	37	Sand to clear No odor
2	121.8	127.0	0.8	6.0	6/24/2014	60	368	<0.001	<0.001	<0.001	<0.003	58	Sand to clear No odor
2	121.9	127.0	0.8	6.0	8/22/2014	60	426	<0.001	<0.001	<0.001	<0.003	32	Sand to clear No odor
2	121.3	127.0	0.9	6.0	12/12/2014	68	370	<0.001	<0.001	<0.001	<0.003	28	Sand to clear No odor
2	122.0	127.0	0.8	6.0	3/9/2015	24	284	<0.001	<0.001	<0.001	<0.003	27	Sand to clear No odor
2	122.1	127.0	0.8	6.0	6/8/2015	48	276	<0.001	<0.001	<0.001	<0.003	34	Sand to clear No odor
2	122.3	127.0	4.7	6.0	8/25/2015	36	390	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
2	122.4	127.0	0.7	6.0	11/17/2015	40	356	<0.001	<0.001	<0.001	<0.003	44	Sand to clear No odor

2	122.4	127.0	0.7	6.0	3/21/2016	60	362	<0.001	<0.001	<0.001	<0.003	39	Sand to clear No odor
2	122.5	127.0	0.7	6.0	6/3/2016	44	320	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
2	123.0	127.0	0.6	6.0	9/21/2016	28	288	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
2	123.0	127.0	0.6	6.0	11/28/2016	56	376	<0.001	<0.001	<0.001	<0.003	46	Sand to clear No odor
2	123.2	127.0	0.6	5.0	3/8/2017	32	320	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
2	123.3	127.0	0.6	5.0	6/8/2017	36	332	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
2	123.2	127.0	0.6	6.0	9/20/2017	32	340	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
2	123.2	127.0	0.6	6.0	12/11/2017	56	396	<0.001	<0.001	<0.001	<0.003	54	Sand to clear No odor
2	123.4	127.0	0.6	5.0	3/13/2018	80	386	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
2	123.6	127.0	0.5	5.0	6/8/2018	64	312	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
2	123.7	127.0	0.5	5.0	9/17/2018	32	250	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
2	123.8	127.0	0.5	3.0	11/29/2018	28	299	<0.001	<0.001	<0.001	<0.003	41	Sand to clear No odor
2	123.9	127.0	0.5	3.0	3/19/2019	44	338	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
2	123.8	127.0	0.5	3.0	6/14/2019	28	330	<0.001	<0.001	<0.001	<0.003	44	Sand to clear No odor
2	124.0	127.0	0.5	3.0	9/18/2019	28	266	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
2	124.2	127.0	0.5	3.0	12/3/2019	32	311	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
2	124.4	127.0	0.4	3.0	3/23/2020	32	281	<0.001	<0.001	<0.001	<0.003	50	Sand to clear No odor
2	124.6	127.0	0.4	3.0	9/22/2020	32	267	XXX	XXX	XXX	XXX	43	Sand to clear No odor

Groundwater Analyte Concentrations (mg/l)

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	117.1	129.0	1.9	10.0	10/18/2006	20	342	<0.001	<0.001	<0.001	<0.001	35	Clear
3	117.4	127.6	1.6	8.0	3/7/2007	20	236	<0.001	<0.001	<0.001	<0.001	34	Sand to clear No odor
3	117.4	127.6	1.6	8.0	5/29/2007	24	290	<0.001	<0.001	<0.001	<0.001	40	Sand to clear No odor
3	117.7	127.6	1.6	6.0	9/25/2007	24	332	<0.002	<0.002	<0.002	<0.006	41	Sand to clear No odor
3	117.8	127.6	1.6	6.0	10/17/2007	24	281	<0.001	0.004	<0.001	0.004	40	Sand to clear No odor
3	117.9	127.6	1.6	6.0	1/31/2008	24	291	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	118.0	127.6	1.5	6.0	4/24/2008	24	306	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	118.2	127.6	1.5	6.0	8/7/2008	24	264	<0.001	<0.001	<0.001	<0.003	51	Sand to clear No odor
3	118.3	127.6	1.5	6.0	10/30/2008	36	325	<0.001	<0.001	<0.001	<0.003	48	Sand to clear No odor
3	118.5	127.5	1.4	6.0	1/23/2009	36	328	<0.001	<0.001	<0.001	<0.003	46	Sand to clear No odor
3	118.5	127.5	1.4	6.0	4/29/2009	24	229	<0.001	<0.001	<0.001	<0.003	36	Sand to clear No odor
3	118.8	127.5	1.4	6.0	8/7/2009	24	313	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	119.0	127.5	1.4	6.0	10/22/2009	24	319	<0.001	<0.001	<0.001	<0.003	35	Sand to clear No odor
3	119.4	127.6	1.3	6.0	4/26/2010	24	312	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
3	119.1	127.6	1.4	6.0	2/11/2010	24	297	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
3	119.4	127.6	1.3	6.0	8/5/2010	24	257	<0.001	<0.001	<0.001	<0.003	34	Sand to clear No odor
3	119.6	127.6	1.3	6.0	10/28/2010	20	289	<0.001	<0.001	<0.001	<0.003	33	Sand to clear No odor
3	119.2	127.7	1.4	6.0	2/21/2011	24	294	<0.001	<0.001	<0.001	<0.003	34	Sand to clear No odor
3	119.9	127.7	1.2	6.0	6/6/2011	32	291	<0.001	<0.001	<0.001	<0.003	41	Sand to clear No odor
3	120.2	127.7	1.2	6.0	9/2/2011	20	263	<0.001	<0.001	<0.001	<0.003	46	Sand to clear No odor
3	120.4	127.7	1.2	6.0	12/4/2011	24	275	<0.001	<0.001	<0.001	<0.003	41	Sand to clear No odor
3	120.4	127.4	1.2	6.0	2/24/2012	24	294	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	120.5	127.7	1.1	6.0	6/1/2012	20	307	<0.001	<0.001	<0.001	<0.003	32	Sand to clear No odor
3	120.8	127.7	1.1	6.0	8/31/2012	28	289	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
3	120.8	127.7	1.1	6.0	11/16/2012	24	296	<0.001	<0.001	<0.001	<0.003	32	Sand to clear No odor
3	120.9	127.7	1.1	6.0	2/14/2013	28	278	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	121.0	127.7	1.1	6.0	5/23/2013	28	287	<0.001	<0.001	<0.001	<0.003	44	Sand to clear No odor
3	121.3	127.7	1.0	6.0	9/4/2013	24	305	<0.001	<0.001	<0.001	<0.003	35	Sand to clear No odor
3	121.3	127.7	1.0	6.0	11/13/2013	32	316	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
3	121.5	127.7	1.0	6.0	3/14/2014	40	138	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
3	121.7	127.7	1.0	6.0	6/24/2014	24	286	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	121.8	127.7	0.9	6.0	8/22/2014	24	300	<0.001	<0.001	<0.001	<0.003	34	Silt to clear No odor
3	121.2	127.7	1.0	6.0	12/12/2014	24	266	<0.001	<0.001	<0.001	<0.003	33	Sand to clear No odor
3	122.0	127.7	0.9	6.0	3/9/2015	24	296	<0.001	<0.001	<0.001	<0.003	30	Sand to clear No odor
3	122.1	127.7	0.9	6.0	6/8/2015	28	266	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
3	122.2	127.7	0.9	6.0	8/25/2015	28	270	<0.001	<0.001	<0.001	<0.003	26	Sand to clear No odor
3	122.4	127.7	0.9	6.0	11/17/2015	28	330	<0.001	<0.001	<0.001	<0.003	37	Sand to clear No odor

3	122.4	127.7	0.8	6.0	3/21/2016	28	272	<0.001	<0.001	<0.001	<0.003	19	Sand to clear No odor
3	122.5	127.7	0.8	6.0	6/3/2016	4	180	<0.001	<0.001	<0.001	<0.003	17	Sand to clear No odor
3	122.9	127.7	0.8	6.0	9/21/2016	28	294	<0.001	<0.001	<0.001	<0.003	38	Sand to clear No odor
3	123.0	127.7	0.7	6.0	11/28/2016	36	286	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
3	123.1	127.7	0.7	5.0	3/8/2017	32	292	<0.001	<0.001	<0.001	<0.003	41	Sand to clear No odor
3	123.2	127.7	0.7	5.0	6/8/2017	32	312	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
3	123.1	127.7	0.7	6.0	9/20/2017	28	310	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
3	123.2	127.7	0.7	6.0	12/11/2017	44	334	<0.001	<0.001	<0.001	<0.003	47	Sand to clear No odor
3	123.4	127.7	0.7	5.0	3/13/2018	44	330	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
3	123.6	127.7	0.6	5.0	6/8/2018	44	168	<0.001	<0.001	<0.001	<0.003	46	Sand to clear No odor
3	123.7	127.7	0.6	3.0	9/17/2018	28	276	<0.001	<0.001	<0.001	<0.003	41	Sand to clear No odor
3	123.9	127.7	0.6	3.0	11/29/2018	32	285	<0.001	<0.001	<0.001	<0.003	45	Sand to clear No odor
3	123.8	127.7	0.6	3.0	3/19/2019	48	261	<0.001	<0.001	<0.001	<0.003	37	Sand to clear No odor
3	123.8	127.7	0.6	3.0	6/14/2019	28	303	<0.001	<0.001	<0.001	<0.003	40	Sand to clear No odor
3	124.1	127.7	0.6	3.0	9/18/2019	28	266	<0.001	<0.001	<0.001	<0.003	42	Sand to clear No odor
3	124.2	127.7	0.6	3.0	12/3/2019	32	160	<0.001	<0.001	<0.001	<0.003	43	Sand to clear No odor
3	124.4	127.7	0.5	3.0	3/23/2020	28	285	<0.001	<0.001	<0.001	<0.003	65	Sand to clear No odor
3	124.6	127.7	0.5	3.0	9/22/2020	28	291	XXX	XXX	XXX	XXX	36	Sand to clear No odor

Groundwater Analyte Concentrations (mg/l)

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	115.5	126.0	1.7	10.0	10/18/2006	38	288	<0.001	<0.001	<0.001	<0.001	45	Clear
4	115.8	125.3	1.5	8.0	3/7/2007	39	296	<0.001	<0.001	<0.001	<0.001	43	Silt to clear No odor
4	115.9	125.2	1.5	8.0	5/29/2007	37	316	<0.001	<0.001	<0.001	<0.001	40	Silt to clear No odor
4	116.1	125.2	1.5	6.0	9/25/2007	44	358	<0.002	<0.002	<0.002	<0.006	54	Silt to clear No odor
4	116.1	125.2	1.5	6.0	10/17/2007	44	337	<0.001	0.004	<0.001	<0.003	48	Silt to clear No odor
4	116.2	125.0	1.4	6.0	1/31/2008	40	326	<0.001	<0.001	<0.001	<0.003	50	Silt to clear No odor
4	116.4	125.0	1.4	6.0	4/24/2008	40	297	<0.001	<0.001	<0.001	<0.003	40	Silt to clear No odor
4	116.6	125.0	1.3	6.0	8/7/2008	44	357	<0.001	<0.001	<0.001	<0.003	52	Silt to clear No odor
4	116.8	125.0	1.3	6.0	10/30/2008	40	358	<0.001	<0.001	<0.001	<0.003	49	Silt to clear No odor
4	116.9	124.5	1.2	6.0	1/23/2009	36	354	<0.001	<0.001	<0.001	<0.003	45	Silt to clear No odor
4	117.1	124.5	1.2	6.0	4/29/2009	40	247	<0.001	<0.001	<0.001	<0.003	45	Silt to clear No odor
4	117.3	124.5	1.2	6.0	8/7/2009	24	351	<0.001	<0.001	<0.001	<0.003	37	Silt to clear No odor
4	117.2	124.5	1.2	6.0	10/22/2009	36	362	<0.001	<0.001	<0.001	<0.003	42	Silt to clear No odor
4	117.8	125.0	1.2	6.0	4/26/2010	36	330	<0.001	<0.001	<0.001	<0.003	71	Silt to clear No odor
4	117.5	125.0	1.2	6.0	2/11/2010	36	325	<0.001	<0.001	<0.001	<0.003	50	Silt to clear No odor
4	117.9	125.0	1.1	6.0	8/5/2010	40	284	<0.001	<0.001	<0.001	<0.003	44	Silt to clear No odor
4	118.0	125.0	1.1	6.0	10/28/2010	40	246	<0.001	<0.001	<0.001	<0.003	41	Silt to clear No odor
4	118.2	125.9	1.2	6.0	2/21/2011	40	338	<0.001	<0.001	<0.001	<0.003	41	Silt to clear No odor
4	118.4	125.9	1.2	6.0	6/6/2011	40	321	<0.001	<0.001	<0.001	<0.003	50	Silt to clear No odor
4	118.6	125.9	1.2	6.0	9/2/2011	24	268	<0.001	<0.001	<0.001	<0.003	44	Silt to clear No odor
4	118.8	125.9	1.1	6.0	12/4/2011	44	304	<0.001	<0.001	<0.001	<0.003	63	Silt to clear No odor
4	118.8	125.9	1.1	6.0	2/24/2012	36	323	<0.001	<0.001	<0.001	<0.003	39	Silt to clear No odor
4	118.9	125.9	1.1	6.0	6/1/2012	40	349	<0.001	<0.001	<0.001	<0.003	51	Silt to clear No odor
4	119.2	125.9	1.1	6.0	8/31/2012	36	302	<0.001	<0.001	<0.001	<0.003	43	Silt to clear No odor
4	119.3	125.9	1.0	6.0	11/16/2012	40	340	<0.001	<0.001	<0.001	<0.003	43	Silt to clear No odor
4	119.4	125.9	1.0	6.0	2/14/2013	44	317	<0.001	<0.001	<0.001	<0.003	52	Silt to clear No odor
4	119.5	125.9	1.0	6.0	5/23/2013	28	265	<0.001	<0.001	<0.001	<0.003	43	Silt to clear No odor
4	119.8	125.9	1.0	6.0	9/4/2013	24	296	<0.001	<0.001	<0.001	<0.003	33	Silt to clear No odor
4	119.8	125.9	1.0	6.0	11/13/2013	28	283	<0.001	<0.001	<0.001	<0.003	44	Silt to clear No odor
4	120.0	125.9	0.9	6.0	3/14/2014	40	316	<0.001	<0.001	<0.001	<0.003	46	Silt to clear No odor
4	120.1	125.9	0.9	6.0	6/24/2014	20	216	<0.001	<0.001	<0.001	<0.003	38	Silt to clear No odor
4	120.2	125.9	0.9	6.0	8/22/2014	28	294	<0.001	<0.001	<0.001	<0.003	34	Silt to clear No odor
4	119.6	125.9	1.0	6.0	12/12/2014	60	400	<0.001	<0.001	<0.001	<0.003	27	Silt to clear No odor
4	120.4	125.9	0.9	6.0	3/9/2015	36	338	<0.001	<0.001	<0.001	<0.003	25	Silt to clear No odor
4	120.4	125.9	0.9	6.0	6/8/2015	32	264	<0.001	<0.001	<0.001	<0.003	36	Silt to clear No odor
4	120.5	125.9	0.9	6.0	8/25/2015	24	318	<0.001	<0.001	<0.001	<0.003	36	Silt to clear No odor
4	120.7	125.9	0.8	6.0	11/17/2015	28	210	<0.001	<0.001	<0.001	<0.003	36	Silt to clear No odor

4	120.8	125.9	0.8	6.0	3/21/2016	60	356	<0.001	<0.001	<0.001	<0.003	43	Silt to clear No odor
4	120.9	125.9	0.8	5.0	6/3/2016	40	286	<0.001	<0.001	<0.001	<0.003	20	Silt to clear No odor
4	121.3	125.9	0.7	6.0	9/21/2016	32	250	<0.001	<0.001	<0.001	<0.003	59	Silt to clear No odor
4	121.4	125.9	0.7	6.0	11/28/2016	40	336	<0.001	<0.001	<0.001	<0.003	44	Silt to clear No odor
4	121.6	125.9	0.7	5.0	3/8/2017	32	314	<0.001	<0.001	<0.001	<0.003	41	Silt to clear No odor
4	121.7	125.9	0.7	5.0	6/8/2017	36	338	<0.001	<0.001	<0.001	<0.003	39	Silt to clear No odor
4	121.6	125.9	0.7	5.0	9/20/2017	24	472	<0.001	<0.001	<0.001	<0.003	54	Silt to clear No odor
4	121.6	125.9	0.7	5.0	12/11/2017	56	332	<0.001	<0.001	<0.001	<0.003	49	Silt to clear No odor
4	121.8	125.9	0.7	5.0	3/13/2018	60	348	<0.001	<0.001	<0.001	<0.003	44	Silt to clear No odor
4	122.0	125.9	0.6	5.0	6/8/2018	44	286	<0.001	<0.001	<0.001	<0.003	41	Silt to clear No odor
4	122.3	125.9	0.6	3.0	9/17/2018	28	244	<0.001	<0.001	<0.001	<0.003	40	Silt to clear No odor
4	122.3	125.9	0.6	3.0	11/29/2018	32	253	<0.001	<0.001	<0.001	<0.003	42	Silt to clear No odor
4	122.3	125.9	0.6	3.0	3/19/2019	48	333	<0.001	<0.001	<0.001	<0.003	48	Silt to clear No odor
4	122.3	125.9	0.6	3.0	6/14/2019	24	311	<0.001	<0.001	<0.001	<0.003	43	Silt to clear No odor
4	122.5	125.9	0.6	3.0	9/18/2019	28	308	<0.001	<0.001	<0.001	<0.003	41	Silt to clear No odor
4	123.7	125.9	0.4	3.0	12/3/2019	28	283	<0.001	<0.001	<0.001	<0.003	42	Silt to clear No odor
4	122.9	125.9	0.5	3.0	3/23/2020	72	310	<0.001	<0.001	<0.001	<0.003	89	Silt to clear No odor
4	123.1	125.9	0.4	3.0	9/22/2020	28	137	XXX	XXX	XXX	XXX	39	Silt to clear No odor

Groundwater Analyte Concentrations (mg/l)

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
RW-1	116.2	143.3	17.6	70.0	6/20/2007	4,220	8,110	0.0022	<0.001	<0.001	<0.002	119	Silt to clear Slight odor
RW-1	116.3	143.3	17.6	60.0	9/25/2007	5,398	9,775	<0.002	<0.002	<0.002	<0.006	67	Silt to clear Slight odor
RW-1	XXX	XXX	XXX	60.0	10/17/2007	5,400	9,071	<0.001	0.004	<0.001	<0.003	57	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	1/31/2008	5,300	9,320	<0.001	<0.001	<0.001	<0.003	55	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	4/24/2008	3,900	6,870	<0.001	<0.001	<0.001	<0.003	45	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	8/7/2008	3,800	7,180	<0.001	<0.001	<0.001	<0.003	68	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	10/30/2008	5,850	13,700	<0.001	<0.001	<0.001	<0.003	83	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	1/26/2009	5,600	10,700	<0.001	<0.001	<0.001	<0.003	83	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	4/29/2009	4,050	7,700	<0.001	<0.001	<0.001	<0.003	54	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	8/7/2009	3,000	5,450	<0.001	<0.001	<0.001	<0.003	54	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	10/22/2009	3,550	5,820	<0.001	<0.001	<0.001	<0.003	56	Clear Slight odor
RW-1	XXX	XXX	XXX	XXX	4/26/2010	4,200	7,240	<0.001	<0.001	<0.001	<0.003	71	Clear Slight odor
RW-1	XXX	XXX	XXX	80.0	2/11/2010	3,900	6,600	<0.001	<0.001	<0.001	<0.003	89	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	8/5/2010	3,800	6,480	<0.001	<0.001	<0.001	<0.003	62	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	10/28/2010	3,200	6,970	<0.001	<0.001	<0.001	<0.003	54	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	5/23/2013	2,550	4,480	<0.001	<0.001	<0.001	<0.003	67	Purged with Solar Pump Clear Slight odor
RW-1	XXX	XXX	XXX	80.0	2/21/2011	4,800	8,430	<0.001	<0.001	<0.001	<0.003	78	Clear Slight odor
RW-1	XXX	XXX	XXX	80.0	6/6/2011	4,200	5,850	<0.001	<0.001	<0.001	<0.003	62	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	9/2/2011	3,250	4,850	<0.001	<0.001	<0.001	<0.003	63	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	12/4/2011	2,800	4,790	<0.001	<0.001	<0.001	<0.003	62	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	2/24/2012	3,250	5,170	<0.001	<0.001	<0.001	<0.003	60	Clear Slight odor
RW-1	XXX	XXX	XXX	Running	6/1/2012	2,550	4,960	<0.001	<0.001	<0.001	<0.003	60	Purged with Solar Pump Clear Slight odor
RW-1	XXX	XXX	XXX	Running	8/31/2012	2,270	4,150	<0.001	<0.001	<0.001	<0.003	59	Purged with Solar Pump Clear Slight odor
RW-1	XXX	XXX	XXX	Running	11/16/2012	3,900	6,800	<0.001	<0.001	<0.001	<0.003	78	Purged with Solar Pump Clear Slight odor
RW-1	Pump in Well	XXX	XXX	100.0	2/14/2013	4,200	6,840	<0.001	<0.001	<0.001	<0.003	72	Purged with Solar Pump Clear Slight odor
RW-1	XXX	XXX	XXX	Running	9/4/2013	1,880	3,730	<0.001	<0.001	<0.001	<0.003	65	Purged with Solar Pump Clear Slight odor

RW-1	XXX	XXX	XXX	Running	11/13/2013	1,800	3,550	<0.001	<0.001	<0.001	<0.003	60	Purged with Solar Pump Clear Slight odor
RW-1	XXX	XXX	XXX	100.0	3/14/2014	2,070	3,900	<0.001	<0.001	<0.001	<0.003	67	Purged with Solar Pump
RW-1	XXX	XXX	XXX	Running	6/24/2014	1,640	3,730	<0.001	<0.001	<0.001	<0.003	60	Purged with Solar Pump
RW-1	XXX	XXX	XXX	Running	8/22/2014	1,400	3,180	<0.001	<0.001	<0.001	<0.003	52	Purged with Solar Pump Clear Slight odor
RW-1	120.3	143.3	14.9	60.0	12/12/2014	1,500	3,140	<0.001	<0.001	<0.001	<0.003	54	Clear Slight odor
RW-1	120.4	143.3	14.9	60.0	3/10/2015	1,300	2,960	<0.001	<0.001	<0.001	<0.003	61	Clear Slight odor
RW-1	120.5	143.3	14.8	50.0	6/8/2015	1,020	2,670	<0.001	<0.001	<0.001	<0.003	49	Clear Slight odor
RW-1	120.7	143.5	14.7	50.0	8/25/2015	1,100	2,070	<0.001	<0.001	<0.001	<0.003	37	Clear Slight odor
RW-1	120.9	143.3	14.6	50.0	11/17/2015	880	1,780	<0.001	<0.001	<0.001	<0.003	53	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	3/21/2016	840	1,690	<0.001	<0.001	<0.001	<0.003	39	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	6/3/2016	1,040	2,100	<0.001	<0.001	<0.001	<0.003	57	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	9/21/2016	2,130	4,110	<0.001	<0.001	<0.001	<0.003	77	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	11/28/2016	1,930	3,690	<0.001	<0.001	<0.001	<0.003	75	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	3/8/2017	1,930	3,680	<0.001	<0.001	<0.001	<0.003	78	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	6/8/2017	1,740	3,560	<0.001	<0.001	<0.001	<0.003	70	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	9/20/2017	1,580	3,850	<0.001	<0.001	<0.001	<0.003	88	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	12/11/2017	1,580	2,740	<0.001	<0.001	<0.001	<0.003	72	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	3/12/2018	1,580	2,700	<0.001	<0.001	<0.001	<0.003	71	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	6/8/2018	1,480	2,740	<0.001	<0.001	<0.001	<0.003	69	Clear Slight odor
RW-1	XXX	143.3	XXX	50.0	9/17/2018	1,500	2370	<0.001	<0.001	<0.001	<0.003	63	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	11/30/2018	880	1,870	<0.001	<0.001	<0.001	<0.003	93	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	3/20/2019	870	1,770	<0.001	<0.001	<0.001	<0.003	76	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	6/14/2019	710	1,410	<0.001	<0.001	<0.001	<0.003	79	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	9/18/2019	650	1,450	<0.001	<0.001	<0.001	<0.003	74	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	12/4/2019	620	1,420	<0.001	<0.001	<0.001	<0.003	72	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	3/24/2020	550	1,260	<0.001	<0.001	<0.001	<0.003	69	Clear Slight odor
RW-1	XXX	143.3	XXX	100.0	9/21/2020	510	1,300	XXX	XXX	XXX	XXX	63	Clear Slight odor

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 01, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM N-6-1

Enclosed are the results of analyses for samples received by the laboratory on 03/25/20 13:45.

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 www.tceq.texas.gov/field/qa/lab_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.

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

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	03/25/2020	Sampling Date:	03/23/2020
Reported:	04/01/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #1R (H000919-01)

BTEX 8021B mg/L Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.249	
Toluene*	<0.001	0.001	03/30/2020	ND	0.021	103	0.0200	0.0779	
Ethylbenzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.659	
Total Xylenes*	<0.003	0.003	03/30/2020	ND	0.061	102	0.0600	0.741	
Total BTEX	<0.006	0.006	03/30/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**860**	4.00	03/26/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**47.4**	10.0	03/26/2020	ND	23.4	117	20.0	18.5	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1650**	5.00	03/30/2020	ND	528	106	500	0.901	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	03/25/2020	Sampling Date:	03/23/2020
Reported:	04/01/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H000919-02)

BTEX 8021B mg/L Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.249	
Toluene*	<0.001	0.001	03/30/2020	ND	0.021	103	0.0200	0.0779	
Ethylbenzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.659	
Total Xylenes*	<0.003	0.003	03/30/2020	ND	0.061	102	0.0600	0.741	
Total BTEX	<0.006	0.006	03/30/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**32.0**	4.00	03/26/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**50.0**	10.0	03/26/2020	ND	23.4	117	20.0	18.5	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**281**	5.00	03/30/2020	ND	528	106	500	0.901	

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	03/25/2020	Sampling Date:	03/23/2020
Reported:	04/01/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H000919-03)

BTEX 8021B mg/L Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.249	
Toluene*	<0.001	0.001	03/30/2020	ND	0.021	103	0.0200	0.0779	
Ethylbenzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.659	
Total Xylenes*	<0.003	0.003	03/30/2020	ND	0.061	102	0.0600	0.741	
Total BTEX	<0.006	0.006	03/30/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**28.0**	4.00	03/26/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**64.7**	10.0	03/26/2020	ND	23.4	117	20.0	18.5	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**285**	5.00	03/30/2020	ND	528	106	500	0.901	

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	03/25/2020	Sampling Date:	03/23/2020
Reported:	04/01/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #4 (H000919-04)

BTEX 8021B mg/L Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.249	
Toluene*	<0.001	0.001	03/30/2020	ND	0.021	103	0.0200	0.0779	
Ethylbenzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.659	
Total Xylenes*	<0.003	0.003	03/30/2020	ND	0.061	102	0.0600	0.741	
Total BTEX	<0.006	0.006	03/30/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**72.0**	4.00	03/26/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**88.6**	25.0	03/26/2020	ND	23.4	117	20.0	18.5	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**310**	5.00	03/30/2020	ND	528	106	500	0.901	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	03/25/2020	Sampling Date:	03/24/2020
Reported:	04/01/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: RECOVERY WELL #1 (H000919-05)

BTEX 8021B mg/L Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.249	
Toluene*	<0.001	0.001	03/30/2020	ND	0.021	103	0.0200	0.0779	
Ethylbenzene*	<0.001	0.001	03/30/2020	ND	0.021	104	0.0200	0.659	
Total Xylenes*	<0.003	0.003	03/30/2020	ND	0.061	102	0.0600	0.741	
Total BTEX	<0.006	0.006	03/30/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**550**	4.00	03/26/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**69.3**	10.0	03/26/2020	ND	23.4	117	20.0	18.5	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1260**	5.00	03/30/2020	ND	528	106	500	0.901	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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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

Celey D. Keene, Lab Director/Quality Manager

Page 1 of 1

101 East Marland - Hobbs, NM 88240
Tel (575) 393-2326
Fax (575) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: RICE Operating Company	BILL TO Company: RICE Operating Company PO#
Project Manager: Katie Jones	Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone#: (575) 393-9174 Fax#: (575)397-1471
Phone #: (575) 393-9174	Fax #: (575) 397-1471
Project #:	Project Name: Vacuum N-6-1
Project Location: T17S-R35E-Sec 6 N ~ Lea County New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY H000919)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2020)	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Sulfates	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
1	Monitor Well #1R	G	3	X				2				1		3/23	15:05		X																X	X	X	
2	Monitor Well #2	G	3	X				2				1		3/23	12:35		X																X	X	X	
3	Monitor Well #3	G	3	X				2				1		3/23	11:00		X																X	X	X	
4	Monitor Well #4	G	3	X				2				1		3/23	9:20		X																X	X	X	
5	Recovery Well #1	G	3	X				2				1		3/24	11:15		X																X	X	X	

Relinquished by: Rozanne Johnson	Date: 3/25/2020	Time: 13:15	Received by: [signature]
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials)	

Phone Results		Yes		No
Fax Results		Yes		No Additional Fax Number:

REMARKS:

Email Results: kjones@riceswd.com
rozanne11@windstream.net

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 06, 2020

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM N-6-1

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 www.tceq.texas.gov/field/qa/lab_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.

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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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:	09/22/2020
Reported:	10/06/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #1R (H002551-01)

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**508**	4.00	09/28/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**63.8**	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1100**	5.00	09/30/2020	ND	827	82.7	1000	23.8	

Sample ID: MONITOR WELL #2 (H002551-02)

Chloride, SM4500Cl-B mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**32.0**	4.00	09/28/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**42.5**	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**267**	5.00	09/29/2020	ND	827	82.7	1000	23.8	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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:	09/22/2020
Reported:	10/06/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H002551-03)

Chloride, SM4500Cl-B mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**28.0**	4.00	09/28/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**36.0**	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**291**	5.00	09/29/2020	ND	827	82.7	1000	23.8	

Sample ID: MONITOR WELL #4 (H002551-04)

Chloride, SM4500Cl-B mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**28.0**	4.00	09/28/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**38.8**	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**137**	5.00	09/29/2020	ND	827	82.7	1000	23.8	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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:	09/21/2020
Reported:	10/06/2020	Sampling Type:	Water
Project Name:	VACUUM N-6-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC6 N-LEA CTY., NM		

Sample ID: RECOVERY WELL #1 (H002551-05)

Chloride, SM4500Cl-B mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**510**	4.00	09/28/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**62.6**	10.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1300**	5.00	09/30/2020	ND	535	107	500	1.08	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

Celey D. Keene, Lab Director/Quality Manager

101 East Marland - Hobbs, NM 88240
Tel (575) 393-2326
Fax (575) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: RICE Operating Company	BILL TO Company: RICE Operating Company PO#
Project Manager: Katie Jones	Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone#: (575) 393-9174 Fax#: (575)397-1471
Phone #: (575) 393-9174	Fax #: (575) 397-1471
Project #:	Project Name: Vacuum N-6-1
Project Location: T17S-R35E-Sec 6 N ~ Lea County New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (4 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2020)	TIME
H002551															
1	Monitor Well #1R	G	1	X								1		9/22	14:50
2	Monitor Well #2	G	1	X								1		9/22	12:05
3	Monitor Well #3	G	1	X								1		9/22	10:40
4	Monitor Well #4	G	1	X								1		9/22	9:15
5	Recovery Well #1	G	1	X								1		9/21	15:20

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Sulfates	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
																		X	X	X	
																		X	X	X	
																		X	X	X	
																		X	X	X	
																		X	X	X	

Relinquished by: Rozanne Johnson	Date: 9/25/2020	Time: 15:45	Received by:	Date: 9-25-20	Time: 1545
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:

Phone Results		Yes		No	
Fax Results		Yes		No	Additional Fax Number:

REMARKS:

Email Results: rozanne@sdacres.com
~~rozanne11@windstream.net~~
rozanne@sdacres.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials) T.O.

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
District IV
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

COMMENTS

Action 24252

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
RICE OPERATING COMPANY	122 W Taylor	Hobbs, NM88240	19174	24252	GROUND WATER ABATEMENT

Created By	Comment	Comment Date
bbillings	Overall trends for Cl look fine and more or less in right direction.	04/19/2021

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
District IV
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 24252

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
RICE OPERATING COMPANY 122 W Taylor Hobbs, NM88240	19174	24252	GROUND WATER ABATEMENT

OCD Reviewer	Condition
bbillings	Please continue procedures as per outline in most recent report.