L Peter Galusky, Jr PE

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April 1st, 2025

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

Re: **2024 Annual Report**
Rice Operating Company – Vacuum SWD System
Vacuum F-35 & G-35 SWDs (AP-59): Sec 35, T17S, R35E
NMOCD Application ID: pBAJ0627234077, pBAJ0627231156
Incident ID: nAPP2110336441

Sent via E-mail

Mr. Buchanan:

This letter summarizes the results of groundwater monitoring over the past year pursuant to the NMOCD's approval email letter of August 9th, 2024, for Rice Operating Company (ROC)'s Vacuum F&G-35 project. Project location, site schematic and groundwater flow maps are given in the Appendix, Figures 1, 2, 3 and 4, respectively. The depth to groundwater is approximately 59 ft bgs across both locations.

Vacuum F-35 SWD

Data for Vacuum F-35 SWD are summarized in the Appendix, Figure 5 and Table 1. The full dataset is given in the Appendix, Table 3.

Groundwater has not been sampled in the at-source monitor well (MW-1) since 2018, as free product has been observed since then. We have placed a recovery sock in the well and will attempt to sample it during 2025. Average annual groundwater chloride concentrations in the shallow down-gradient well (MW-3S) was little changed, measuring 72 mg/l in 2023 vs 84 mg/l in 2024. Average annual groundwater chloride concentrations in the deep down-gradient monitor

well (MW-3D) rose slightly from 62 mg/l in 2023 to 86 mg/l in 2024. Groundwater chlorides have remained below the OCD standard of 250 mg/l in both of these down-gradient monitor wells since sampling began in 2007. Groundwater chlorides are clearly not an issue at this location. However, the persistent presence of free product in the at-source monitor well (MW-1) warrants further consideration, which ROC will continue to monitor through 2025.

Vacuum G-35 SWD

Data for Vacuum G-35 SWD are summarized in the Appendix, Figure 6 and Table 2. The full dataset is given in the Appendix, Table 4.

Average annual groundwater chloride concentrations in the at-source monitor well (MW-1) measured 104 mg/l in 2023 and 116 mg/l in 2024. Average annual chloride concentrations in the shallow down-gradient well (MW-3S) dropped from 192 mg/l in 2023 to 168 mg/l. Average annual chloride concentrations in the deep down-gradient well (MW-3D) was essentially unchanged at 196 mg/l in 2023 vs 202 mg/l in 2024. Average annual groundwater chlorides in the near-source down-gradient monitor well (MW-4) remained low at 102 mg/l in 2023 to 118 mg/l in 2024. Groundwater chlorides in all of these wells have measured below the OCD standard of 250 mg/l for the past five years. Groundwater chlorides are clearly not an issue at this location.

The average annual benzene concentration in the at-source monitor well (MW-1) was below detection limits in 2023, versus measuring 0.002 mg/l in 2024. Average annual benzene concentrations in the near-source down-gradient well (MW-4) dropped from 0.002 mg/l in 2023 to below laboratory detection in 2024. We have placed a recovery sock in the well and will continue to sample it during 2025. BTEX concentrations have clearly dropped at G-35.

Path Forward

ROC has been using hydrocarbon recovery socks to remove free product from both locations for several years (see: https://envirotechonline.com/collections/filters-bailers-gloves/products/soakease-absorbent-socks). The recovery socks are monitored and changed regularly.

With respect to the monitor wells not impacted by free product, ROC will continue to monitor groundwater concentrations at both sites in 2025.

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.

We submit this report for your review and consideration. Please call Katie Davis at Rice Operating Company or me 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.

Exhibit 1

From: OCDOnline@state.nm.us
To: Katie Jones
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 327868
Date: Friday, August 9, 2024 10:42:52 AM

To whom it may concern (c/o Katie Davis for RICE OPERATING COMPANY),

The OCD has approved the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nAPP2110336441,
with the following conditions:

- **Review of the Vacuum F-35 & G-35 SWDs (AP-59) 2023 annual report: content satisfactory 1. Please specify in the next 2024 annual report which type of remediation sock is being utilized for removal of LNAPL in MW-1 at F-35 SWD. If recovery sock is not demonstrating successful results for removing free product, a different remediation technique/method will be required to be considered. 2. Please continue to conduct groundwater monitoring for the sites as prescribed. 3. Submit the 2024 annual report with results and update for MW-1 product removal, by April 1, 2025.**

The signed GROUND WATER ABATEMENT can be found in the OCD Online: Imaging under the incident ID (n#).

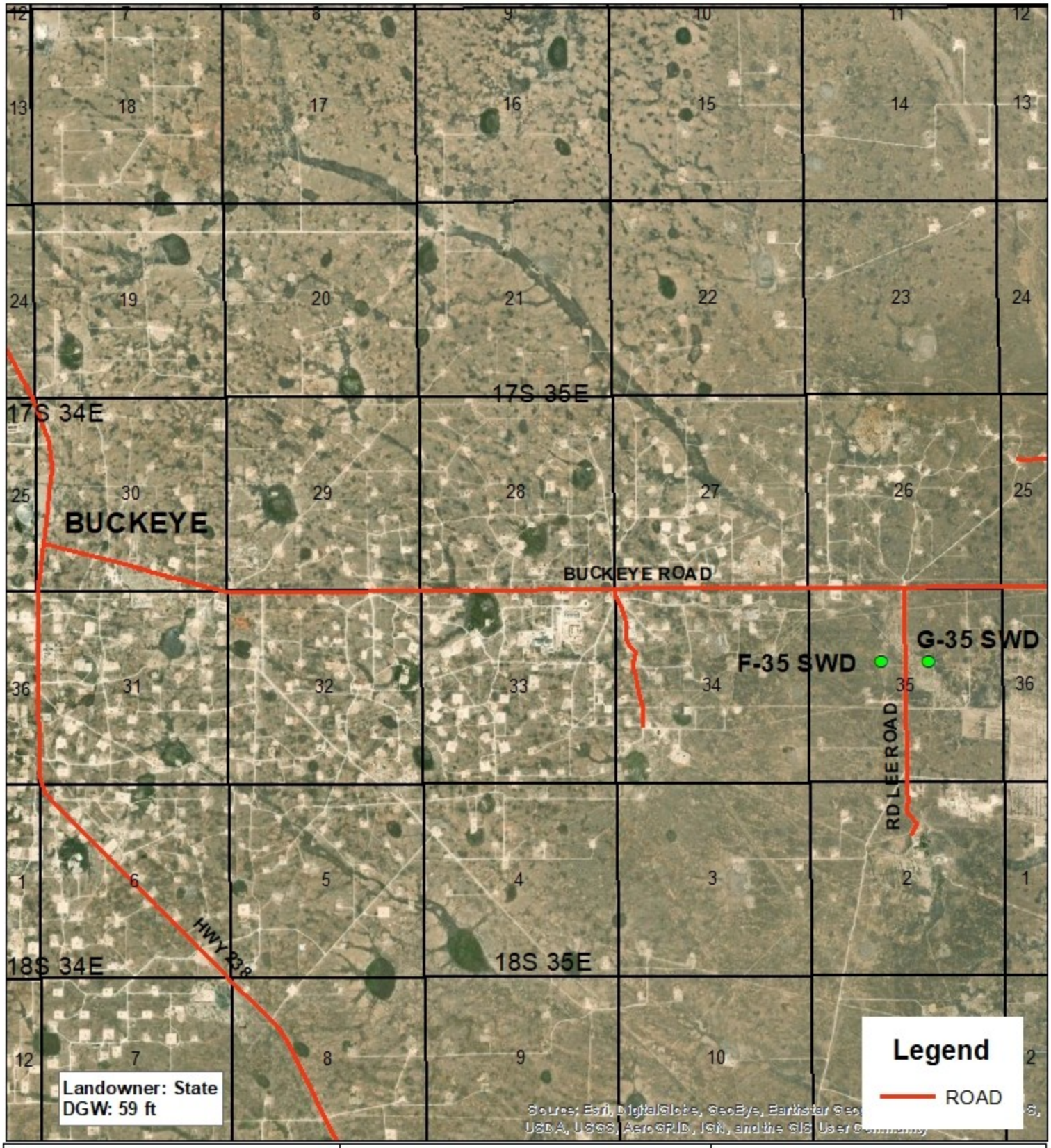
If you have any questions regarding this application, please contact me.

Thank you,
Michael Buchanan
Environmental Specialist
505-490-0798
Michael.Buchanan@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Geographic Location

Figure 1



RICE OPERATING COMPANY
ROC
SINCE 1955

VACUUM F-35 & G-35 SWD

AP-59

UL F & G SECTION 35
T17S, R35E
LEA COUNTY, NM

GPS: F-35 SWD 32.793056 -103.430348
G-35 SWD 32.793016 -103.426052
NAD83 STATE PLANE PROJ
NM EAST ZONE

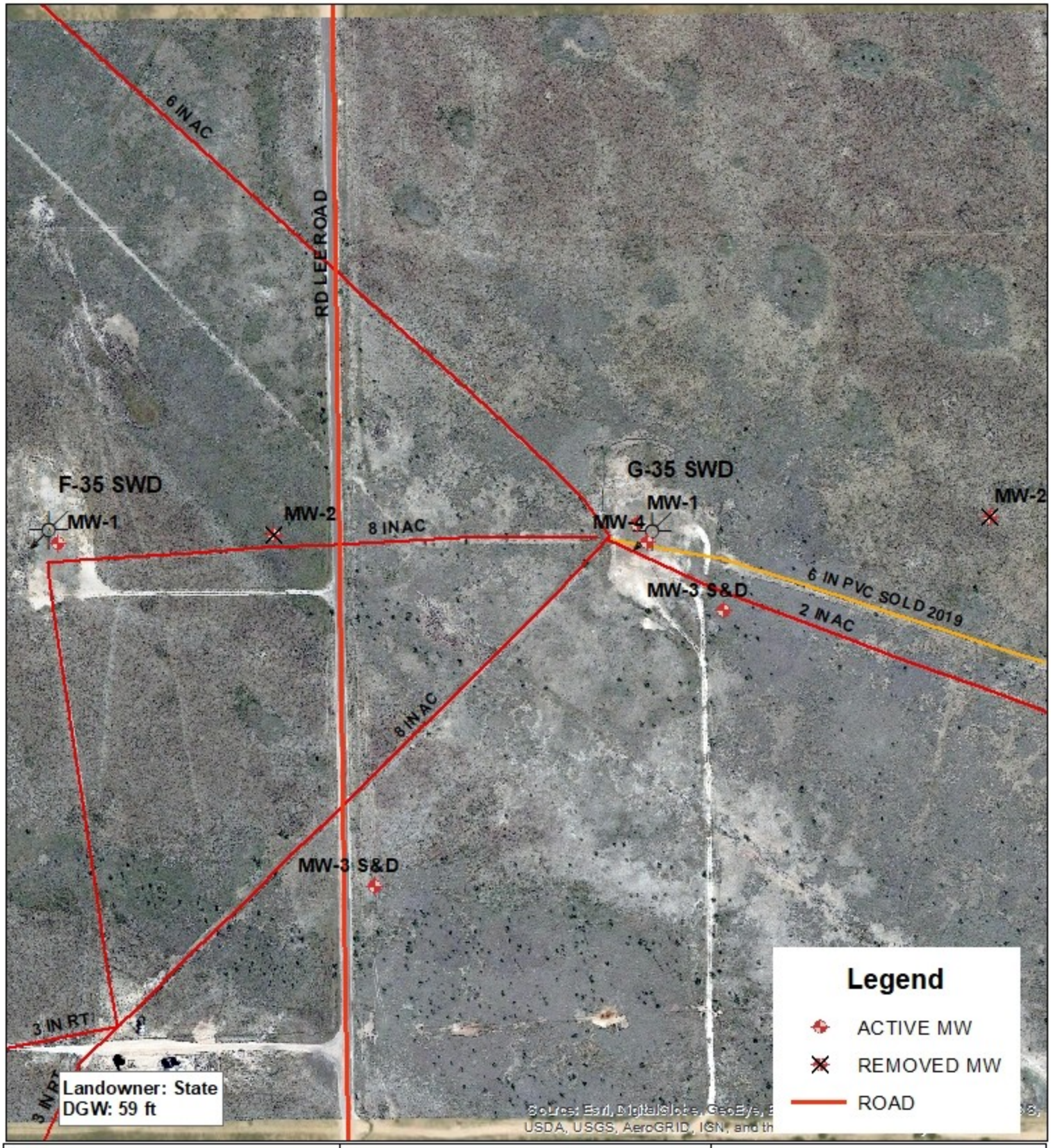
0 2,500 5,000 Feet

N W E S

Drawing date: 2/4/20
Drafted by: T. Grieco

Site Map

Figure 2



RICE OPERATING COMPANY
ROC
SINCE 1955

VACUUM F-35 & G-35 SWD

AP-59

UL F & G SECTION 35
T17S, R35E
LEA COUNTY, NM

GPS: F-35 SWD 32.793056 -103.430348
G-35 SWD 32.793016 -103.426052
NAD83 STATE PLANE PROJ
NM EAST ZONE

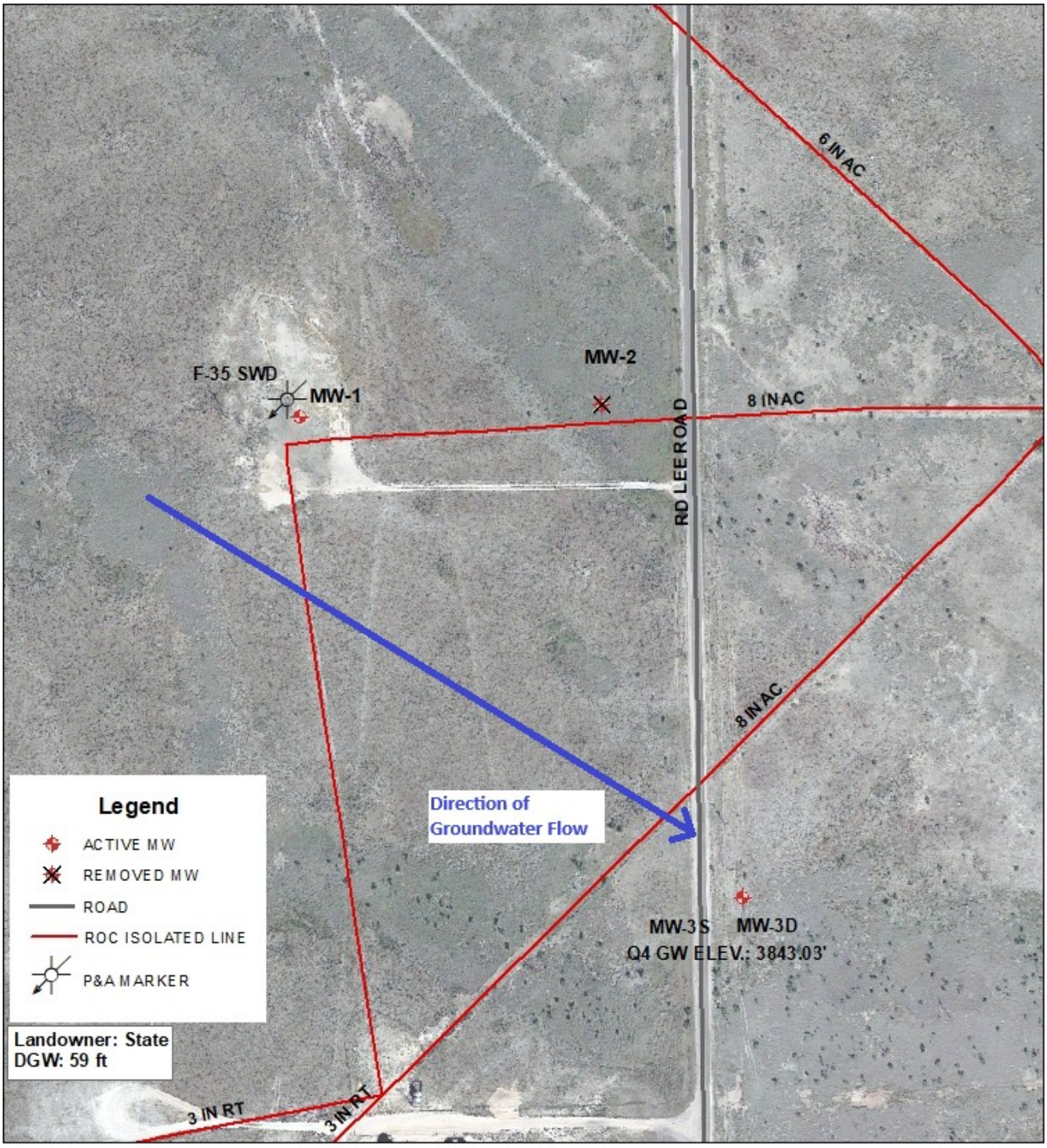
0 250 500 Feet

N W E S

Drawing date: 2/4/20
Drafted by: T. Grieco

Figure 3

Groundwater Elevation 4Q 2024



RICE OPERATING COMPANY ROC SINCE 1955

VACUUM
F-35
SWD
AP-59

UL F & G SECTION 35
T17S, R35E
LEA COUNTY, NM

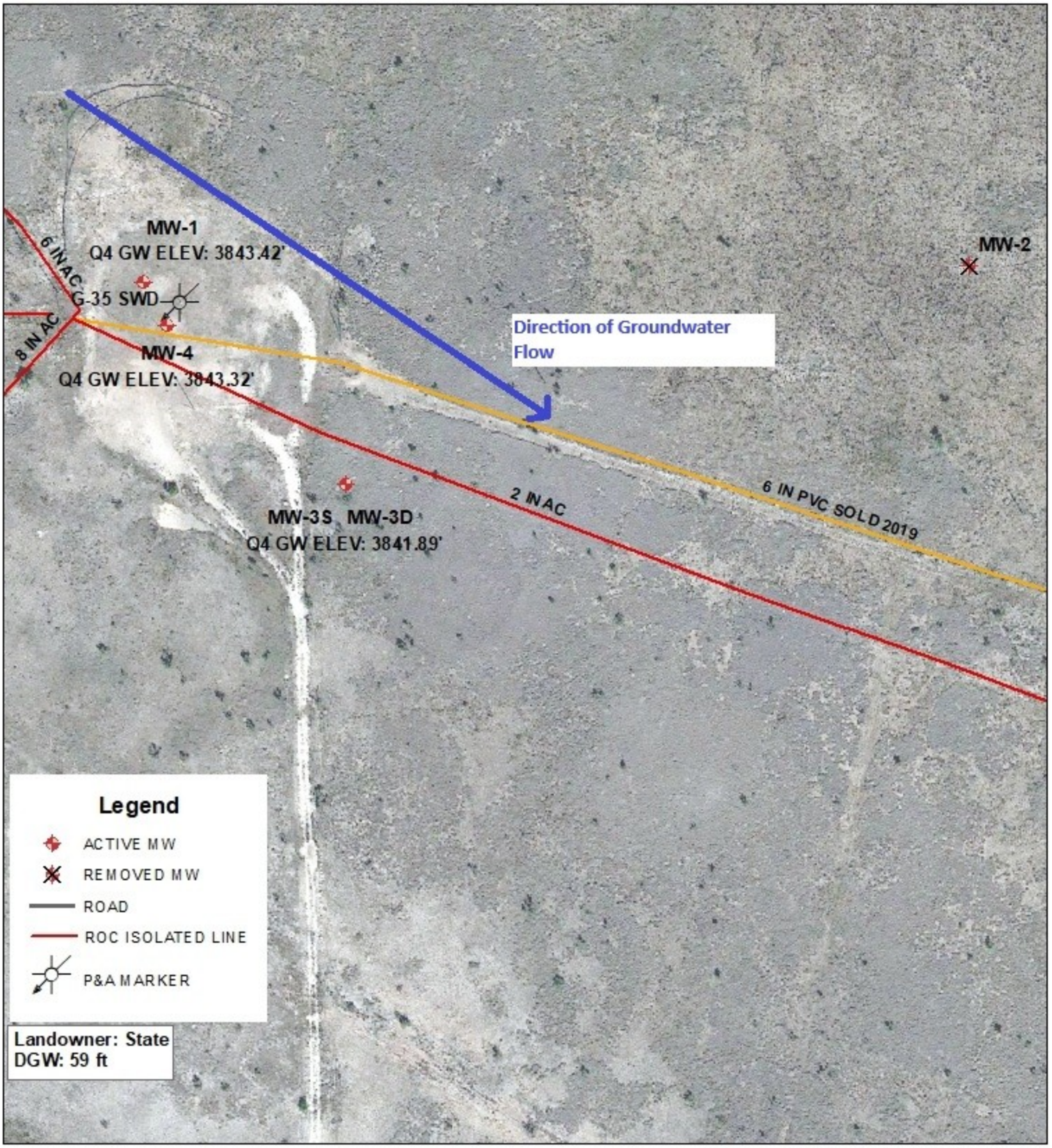
GPS: F-35 SWD 32.793056 -103.430348
NAD83 STATE PLANE PROJ
NM EAST ZONE
0 100 200
Feet

Drawing date: 1/28/25
Drafted by: T. Grieco

N W E S

Groundwater Elevation

Figure 4



RICE OPERATING COMPANY
ROC
SINCE 1955

VACUUM
G-35 SWD

AP-59

UL F & G SECTION 35
T17S, R35E
LEA COUNTY, NM

GPS: G-35 SWD 32.793016 -103.426052
NAD83 STATE PLANE PROJ
NM EAST ZONE

0 50 100
Feet

N
W E
S

Drawing date: 1/27/24
Drafted by: T. Grieco

Figure 5

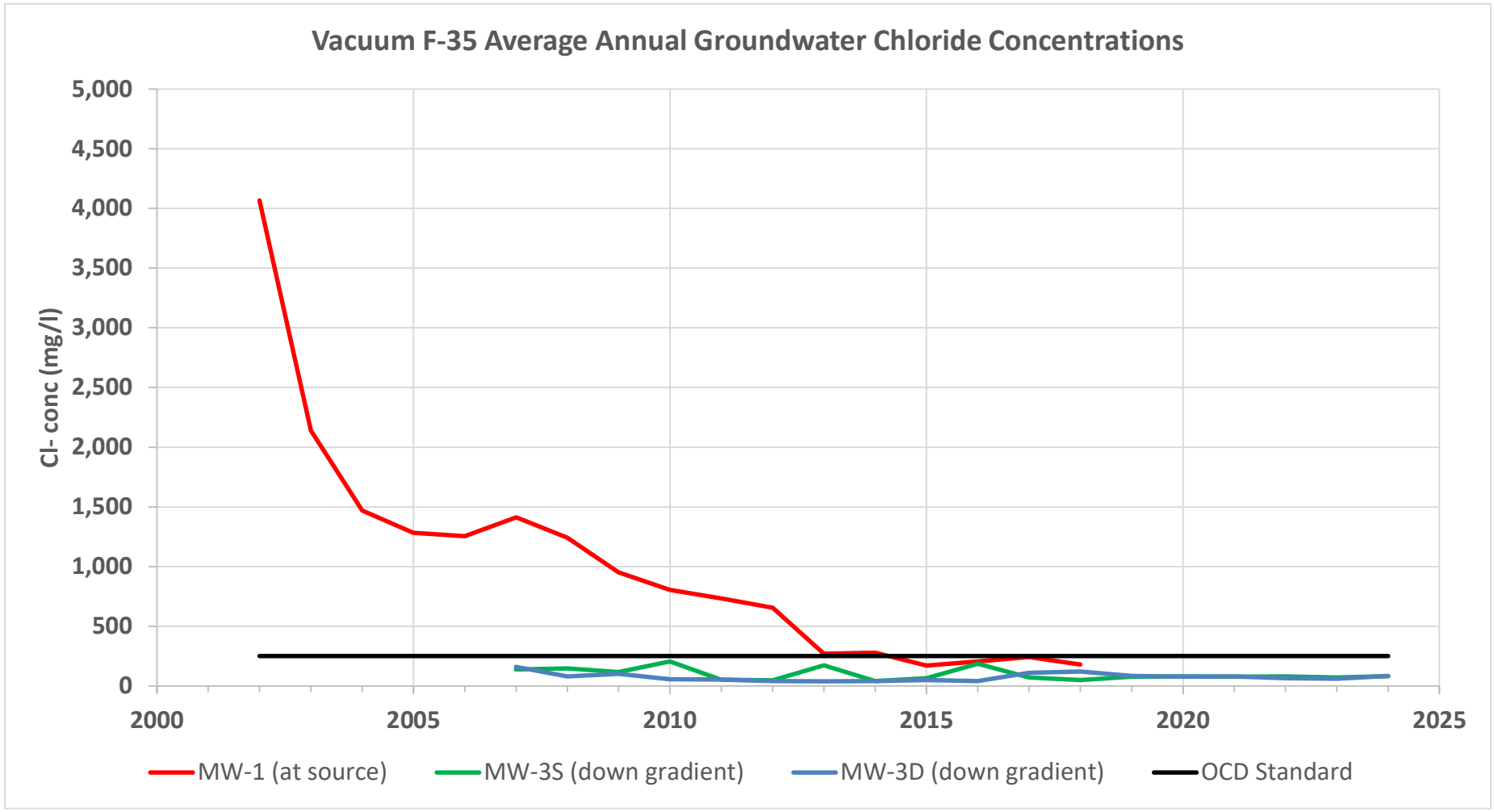

Vacuum F-35 Average Annual Groundwater Chloride Concentrations
Cl- conc (mg/l)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2000
2005
2010
2015
2020
2025
MW-1 (at source)
MW-3S (down gradient)
MW-3D (down gradient)
OCD Standard

Table 1

Vacuum F-35 SWD

Average Annual Groundwater Chloride & BTEX Concentrations (mg/l)

	Chlorides (mg/l)					**Total BTEX** (mg/l)				
year	MW-1 (at source)	MW-2 (east of source)	MW-3S (down gradient)	MW-3D (down gradient)	OCD Standard	MW-1 (at source)	MW-2 (east of source)	MW-3S (down gradient)	MW-3D (down gradient)	
2002	4,068				250	0.677				
2003	2,140				250	0.739				
2004	1,470				250	0.388				
2005	1,283				250					
2006	1,255	93			250	0.379	BD			
2007	1,413	96	139	161	250	0.666	BD	BD	BD	
2008	1,243	98	149	81	250	0.183	BD	BD	BD	
2009	953	80	116	102	250	0.197				
2010	805	128	206	56	250	0.034				
2011	735		52	54	250	0.064				
2012	655		48	42	250	0.051				
2013	270		172	38	250	0.050				
2014	280		42	40	250	0.037				
2015	172		66	50	250	0.036				
2016	206		186	40	250	0.023				
2017	242		72	110	250	0.030				
2018	180		50	122	250	0.071				
2019			80	86	250					
2020			82	78	250					
2021			80	82	250					
2022			82	66	250					
2023			72	62	250					
2024			84	86	250					

Figure 6

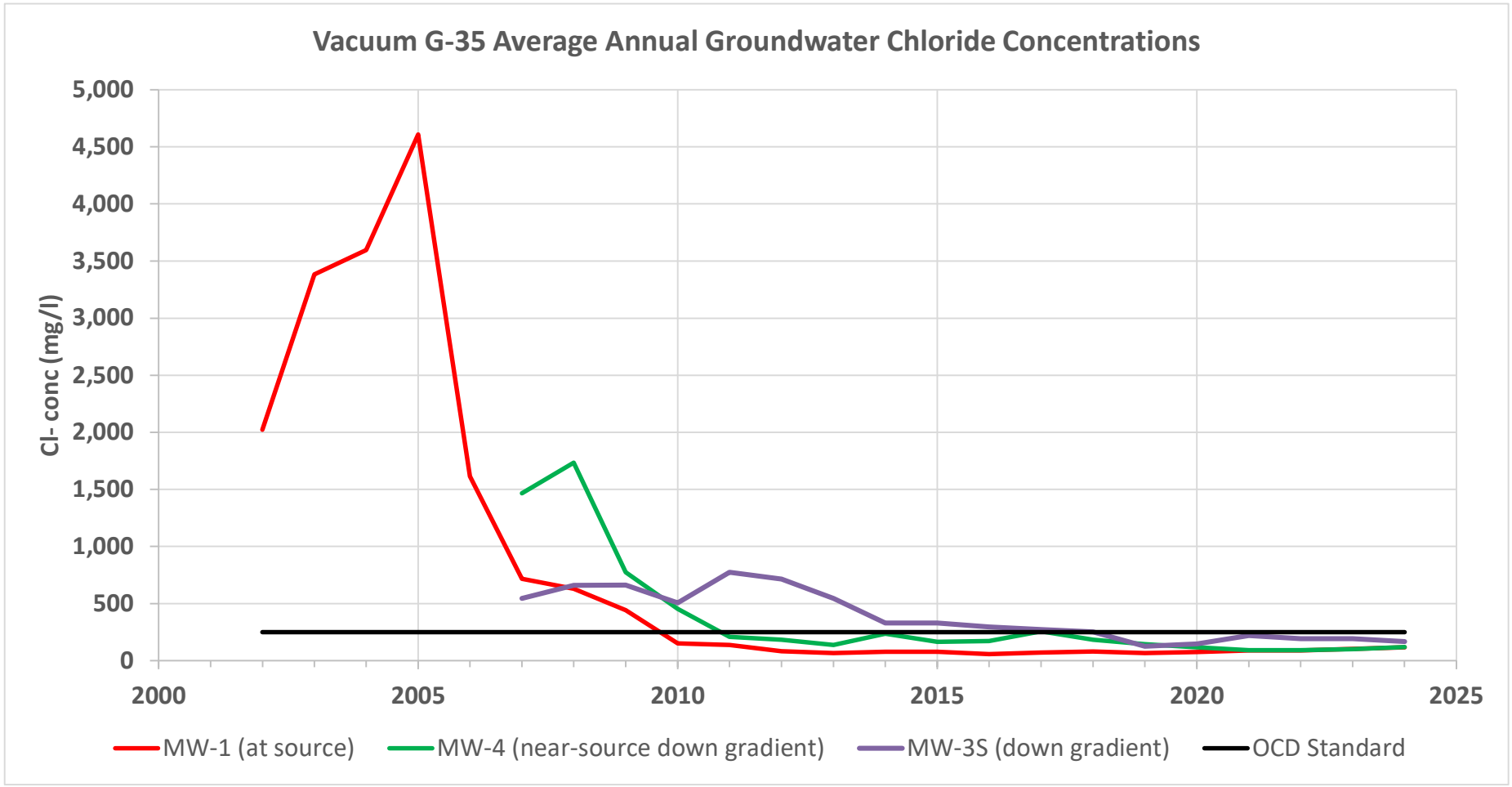

Vacuum G-35 Average Annual Groundwater Chloride Concentrations
Cl- conc (mg/l)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2000
2005
2010
2015
2020
2025
MW-1 (at source)
MW-4 (near-source down gradient)
MW-3S (down gradient)
OCD Standard

Table 2

Vacuum G-35 SWD

Average Annual Groundwater Chloride & BTEX Concentrations (mg/l)

Chlorides (mg/l)

year	MW-1 (at source)	MW-2 (east of source)	MW-3S (down gradient)	MW-3D (down gradient)	MW-4 (near-source down gradient)	OCD Standard
2002	2,025					250
2003	3,383					250
2004	3,595					250
2005	4,608					250
2006	1,617	15				250
2007	717	16	547	525	1,467	250
2008	630	16	661	858	1,735	250
2009	442	41	663	1,113	775	250
2010	152	17	508	828	455	250
2011	138		775	750	208	250
2012	84		715	990	186	250
2013	68		545	985	138	250
2014	78		330	675	238	250
2015	80		332	519	166	250
2016	58		296	298	174	250
2017	72		272	308	258	250
2018	82		254	248	184	250
2019	68		126	142	144	250
2020	76		148	168	116	250
2021	90		220	218	92	250
2022	90		192	200	94	250
2023	104		192	196	102	250
2024	116		168	202	118	250

Benzene (mg/l)

year	MW-1 (at source)	MW-2 (east of source)	MW-3S (down gradient)	MW-3D (down gradient)	MW-4 (near-source down gradient)
2002	0.513				
2003	0.499				
2004	0.805				
2005	1.780				
2006	0.428	BD			
2007	0.131	BD	BD	BD	0.078
2008	0.492	BD	BD	BD	0.334
2009	0.242				0.098
2010	0.006				0.021
2011	0.031				0.006
2012	0.045				0.150
2013	0.012				0.136
2014	0.007				0.194
2015	0.012				0.064
2016	0.004				0.039
2017	0.003				0.022
2018	0.030				0.030
2019	0.003				0.008
2020	0.011				0.007
2021	0.002				0.005
2022	0.001				0.003
2023	BD				0.002
2024	0.002				BD

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	58	66	1.3	3.9	1/10/2002	5,200	9,425	0.05	0.053	0.05	0.09	5	
1	XXX	XXX	XXX	XXX	5/15/2002	3,720	7,050	0.744	0.207	0.51	0.309	3.2	
1	XXX	XXX	XXX	XXX	8/19/2002	3,630	6,040	0.705	0.172	0.112	0.076	10.7	
1	XXX	XXX	XXX	XXX	11/11/2002	3,720	6,020	1.21	0.343	0.835	0.431	2.8	
1	XXX	XXX	XXX	XXX	2/28/2003	2,200	4,040	0.909	0.84	0.321	0.124	26.2	
1	XXX	XXX	XXX	XXX	6/5/2003	2,300	4,180	0.632	0.134	0.061	0.067	20.3	
1	XXX	XXX	XXX	XXX	8/21/2003	2,060	4,000	0.617	0.36	0.202	0.192	4.9	
1	XXX	XXX	XXX	XXX	11/19/2003	2,000	3,760	0.797	0.301	0.264	0.248	5.1	
1	58.2	64	0.93	2.78	2/18/2004	1,819	3,932	0.349	0.038	0.121	0.027	0.19	
1	58.5	64	0.88	2.64	5/27/2004	1,759	4,008	0.726	0.176	0.268	0.215	8.7	
1	58.2	64.2	0.96	2.9	9/7/2004	1,040	3,000	0.429	0.221	0.143	0.2247	19.9	mod. odor; gray
1	57.81	64.2	1.02	3.1	11/24/2004	1,260	2,740	0.0489	0.313	0.209	0.2507	51	mod. odor; gray
1	57.18	64.2	1.2	3.6	3/21/2005	1,220	2,210	2.2	1.61	0.848	1.283	110	mod. odor; gray
1					5/11/2005	1,490	2,970	686	451	374	176.2	24.6	
1	58.4	64.2	0.9	2.8	8/15/2005	1,340	2,890	0.819	0.393	0.666	0.584	69.5	
1	57.45	64.2	1.1	4	10/25/2005	1,080	2,540	0.779	0.243	0.394	0.3062	72.7	
1	57.38	64.2	1.1	4	1/23/2006	886	2,080	0.447	0.222	0.28	0.3006	88.2	Heavy skim of Oil: Septic Odor
1	57.58	64.2	1.1	4	4/25/2006	1,420	3,040	0.227	0.0956	0.174	0.1614	62.5	
1	XXX	64.2	XXX	XXX	10/24/2006	1,460	3,190	0.462	0.489	0.23	0.745	45.2	Clear Strong septic odor
1	XXX	64.2	XXX	5	1/9/2007	1,510	2,980	0.486	0.577	0.185	0.333	67.2	Clear Strong septic odor
1	XXX	64.2	XXX	XXX	5/23/2007	1,500	2,850	0.557	0.387	0.323	0.681	44.4	Clear Strong septic odor
1	XXX	64.2	XXX	XXX	9/19/2007	1,380	2,902	0.902	0.706	0.582	1.14	23.2	Clear Strong septic odor
1	XXX	64.2	XXX	XXX	11/19/2007	1,260	2,642	0.719	0.203	0.429	0.665	44.2	Clear Strong septic odor
1	XXX	64.2	XXX	XXX	2/15/2008	1,240	2,650	0.305	0.099	0.218	0.563	49.7	Clear Strong septic odor
1	58.38	63.08	0.8	4	6/3/2008	1,460	2,840	<0.002	<0.002	<0.002	<0.006	25.4	Sand/silt to clear Strong septic odor
1	XXX	XXX	XXX	XXX	7/28/2008	1,120	2,510	0.051	0.023	0.066	0.172	35	Clear Strong septic odor
1	59.12	64.2	0.8	5	10/23/2008	1,150	2,580	0.193	0.013	0.232	0.526	27	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	XXX	1/28/2009	1,150	2,440	0.431	0.044	0.332	0.362	16.8	Clear Sheen Strong septic odor

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	XXX	XXX	XXX	XXX	4/28/2009	980	1,970	0.26	0.038	0.234	0.282	15.2	Clear Sheen Strong septic odor
1	XXX	XXX	XXX	5	8/5/2009	740	1,660	0.063	0.024	0.116	0.236	18.7	Clear Sheen Strong hydrocarbon odor
1	XXX	XXX	XXX	5	10/26/2009	940	1,890	0.034	0.019	0.136	0.177	15.6	Clear Sheen Strong hydrocarbon odor
1	XXX	XXX	XXX	5	3/3/2010	970	2,010	0.041	0.02	0.122	0.154	15.8	Sheen present Strong septic odor
1	XXX	XXX	XXX	6	5/12/2010	880	1,840	0.004	0.011	0.05	0.08	22.1	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	6	8/4/2010	630	1,540	0.017	0.022	0.059	0.117	23.8	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	6	11/1/2010	740	1,850	0.075	0.115	0.312	0.584	18.1	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	6	6/2/2011	900	2,170	0.071	0.032	0.191	0.239	<10.0	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	6	11/30/2011	570	1,310	0.057	0.011	0.2	0.183	31.3	Clear Sheen present Strong septic odor
1	XXX	XXX	XXX	6	5/25/2012	580	1,420	0.061	0.016	0.078	0.085	30.8	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	11/13/2012	730	1,900	0.04	0.013	0.058	0.057	34.9	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	6/6/2013	280	887	0.06	0.059	0.099	0.149	63.1	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	11/18/2013	260	810	0.04	0.015	0.064	0.063	26.2	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	6/26/2014	296	834	0.025	0.004	0.033	0.04	44.1	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	12/10/2014	264	810	0.048	0.006	0.075	0.05	55.2	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	6/24/2015	172	914	0.018	<0.005	0.08	0.018	75	Gray color/Product present with Strong septic odor
1	XXX	XXX	0	2	11/11/2015	172	762	0.053	0.052	0.213	0.1	55	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	5/23/2016	196	738	0.023	0.018	0.051	0.039	48.8	Gray color/Product present with Strong septic odor

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	XXX	64.2	XXX	6	11/15/2016	216	660	0.023	0.017	0.07	0.046	67	Gray color/Product present with Strong septic odor
1	XXX	64.2	XXX	6	5/31/2017	232	780	0.032	0.015	0.077	0.038	64	Gray color/Product present with Strong septic odor
1	XXX	64.2	XXX	6	12/5/2017	252	864	0.028	<0.001	0.052	<0.003	63	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	5/23/2018	192	560	0.123	<0.001	0.052	<0.003	70.8	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	6	11/27/2018	168	628	0.018	0.004	0.008	0.045	57.3	Gray color/Product present with Strong septic odor
1	XXX	XXX	XXX	XXX	6/7/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	11/18/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	6/11/2020	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	11/12/2020	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	6/16/2021	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	9/16/2021	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	6/9/2022	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	11/28/2022	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	6/6/2023	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	10/13/2023	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	6/6/2024	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well
1	XXX	XXX	XXX	XXX	10/30/2024	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present PSH sock placed in well

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	52.57	68.1	2.5	10	6/6/2006	97.6	724	<0.001	<0.001	<0.001	<0.001	63.3	Clear no odor
2	52.77	68.1	2.5	10	10/24/2006	89.1	598	<0.001	<0.001	<0.001	<0.001	67.2	
2	52.91	68.1	2.4	10	1/9/2007	101	590	<0.001	<0.001	<0.001	<0.001	69.4	Clear No Odor
2	53.12	67.24	2.3	10	5/23/2007	88.3	512	<0.001	<0.001	<0.001	<0.001	61	Clear No Odor
2	53.33	67.24	2.2	10	9/19/2007	100	587	<0.002	<0.002	<0.002	<0.006	71.7	Clear No Odor
2	53.41	67.24	2.2	10	11/18/2007	96	571	<0.002	<0.002	<0.002	<0.006	85.7	Clear No odor
2	53.49	67.4	2.2	10	2/4/2008	100	652	<0.002	<0.002	<0.002	<0.006	60.6	Clear No odor
2	53.5	67.4	2.2	10	4/28/2008	96	604	<0.002	<0.002	<0.002	<0.006	79.8	Clear No odor
2	53.68	67.4	2.2	10	7/28/2008	96	586	<0.001	<0.001	<0.001	<0.003	62	Clear No odor
2	53.84	67.4	2.2	10	10/23/2008	100	710	<0.001	<0.001	<0.001	<0.003	77.7	Clear No odor
2	53.91	68.07	2.3	10	1/28/2009	96	660	XXX	XXX	XXX	XXX	73.2	Clear No odor
2	53.98	68.07	2.3	10	4/28/2009	100	663	XXX	XXX	XXX	XXX	73.6	Clear No odor
2	54.12	68.07	2.2	10	8/5/2009	104	666	XXX	XXX	XXX	XXX	76.2	Clear No odor
2	54.21	68.07	2.2	10	10/26/2009	20	296	XXX	XXX	XXX	XXX	21.3	Clear No odor
2	54.39	67.98	2.2	10	3/3/2010	124	689	XXX	XXX	XXX	XXX	84.8	Clear No odor
2	54.44	67.98	2.2	10	5/12/2010	128	680	XXX	XXX	XXX	XXX	99.8	Clear No odor
2	54.53	67.98	2.2	10	8/4/2010	132	733	XXX	XXX	XXX	XXX	91	Clear No odor
MW-2 Plugged 10/20/2010													

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Shallow	52.35	102.75	32.8	100	1/9/2007	144	512	<0.001	0.015	<0.001	<0.001	99	Clear Slight Odor
3 Shallow	52.5	102.75	32.7	100	5/23/2007	117	494	<0.001	0.0013	<0.001	<0.001	56.9	Clear Slight Odor
3 Shallow	52.82	102.75	32.5	100	9/19/2007	192	789	<0.002	<0.002	<0.002	<0.006	73.5	Clear Slight Odor
3 Shallow	52.82	102.75	32.5	150	11/19/2007	104	467	<0.002	<0.002	<0.002	<0.006	66.3	Clear Slight odor
3 Shallow	52.92	102.75	32.4	200	2/5/2008	212	821	<0.002	<0.002	<0.002	<0.006	60.6	Clear Slight odor
3 Shallow	52.93	102.75	32.4	200	4/28/2008	116	502	<0.002	<0.002	<0.002	<0.006	63.1	Clear Slight odor
3 Shallow	53.12	102.75	32.3	200	7/28/2008	164	650	<0.001	<0.001	<0.001	<0.003	58	Clear Slight odor
3 Shallow	53.31	102.75	32.1	200	10/22/2008	104	690	<0.001	<0.001	<0.001	<0.003	74.3	Clear Slight odor
3 Shallow	53.38	101.09	31	200	1/28/2009	100	445	XXX	XXX	XXX	XXX	65	Clear Slight odor

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Shallow	53.44	101.09	31	200	4/28/2009	128	579	XXX	XXX	XXX	XXX	74	Clear Slight odor
3 Shallow	53.6	101.09	31	200	8/5/2009	128	560	XXX	XXX	XXX	XXX	70.6	Clear Slight odor
3 Shallow	53.67	101.09	31	200	10/26/2009	108	535	XXX	XXX	XXX	XXX	63.1	Clear Slight odor
3 Shallow	53.84	101.09	31	200	3/4/2010	108	541	XXX	XXX	XXX	XXX	77.4	Clear Slight odor
3 Shallow	53.89	101.09	31	200	5/12/2010	80	442	XXX	XXX	XXX	XXX	79.2	Clear Slight odor
3 Shallow	53.93	101.09	31	200	8/3/2010	64	430	XXX	XXX	XXX	XXX	63.6	Clear Slight odor
3 Shallow	54.03	101.09	31	200	11/2/2010	570	1,320	XXX	XXX	XXX	XXX	19.4	Clear Slight odor
3 Shallow	54.13	101.09	31	200	6/2/2011	52	375	XXX	XXX	XXX	XXX	61.8	Clear Slight odor
3 Shallow	54.26	101.09	30	200	11/30/2011	52	420	XXX	XXX	XXX	XXX	64.6	Clear Slight odor
3 Shallow	54.5	101.09	30	200	5/25/2012	52	406	XXX	XXX	XXX	XXX	54.9	Clear Slight odor
3 Shallow	54.55	101.09	30	200	11/14/2012	44	393	XXX	XXX	XXX	XXX	61.9	Clear Slight odor
3 Shallow	54.62	101.09	30	200	6/7/2013	292	1,090	XXX	XXX	XXX	XXX	47.2	Clear Slight odor
3 Shallow	54.86	101.09	30	200	11/17/2013	52	380	XXX	XXX	XXX	XXX	60.5	Clear Slight odor
3 Shallow	55.04	101.09	30	200	6/27/2014	56	358	XXX	XXX	XXX	XXX	59.9	Clear Slight odor
3 Shallow	54.67	101.09	30	200	12/10/2014	28	246	XXX	XXX	XXX	XXX	29	Clear Slight odor
3 Shallow	55.17	101.09	30	200	6/24/2015	52	510	XXX	XXX	XXX	XXX	99	Clear Slight odor
3 Shallow	55.51	101.09	29.63	200	11/11/2015	80	500	XXX	XXX	XXX	XXX	62.3	Clear Slight odor
3 Shallow	55.48	101.09	30	200	5/23/2016	300	1,070	XXX	XXX	XXX	XXX	62	Clear Slight odor
3 Shallow	55.6	101.09	29	200	11/15/2016	72	456	XXX	XXX	XXX	XXX	34	Clear Slight odor
3 Shallow	56.05	101.09	29	200	5/31/2017	84	452	XXX	XXX	XXX	XXX	56	Clear Slight odor
3 Shallow	59.92	101.09	29	200	12/5/2017	60	374	XXX	XXX	XXX	XXX	57	Clear Slight odor
3 Shallow	56.04	101.09	29	200	5/23/2018	36	347	XXX	XXX	XXX	XXX	76.5	Clear Slight odor
3 Shallow	56.42	101.09	29	200	11/27/2018	64	345	XXX	XXX	XXX	XXX	49.1	Clear Slight odor
3 Shallow	56.82	101.09	29	100	6/7/2019	84	399	XXX	XXX	XXX	XXX	49	Clear Slight odor
3 Shallow	57.14	101.09	29	100	11/18/2019	76	236	XXX	XXX	XXX	XXX	48	Clear Slight odor
3 Shallow	57.2	101.09	29	100	6/11/2020	72	369	XXX	XXX	XXX	XXX	54.7	Clear Slight odor
3 Shallow	57.42	101.09	28	100	11/12/2020	92	387	XXX	XXX	XXX	XXX	54	Clear Slight Odor
3 Shallow	58.13	101.09	28	100	6/15/2021	80	424	XXX	XXX	XXX	XXX	50.7	Clear Slight Odor
3 Shallow	58.5	101.09	28	100	9/17/2021	80	423	XXX	XXX	XXX	XXX	69.7	Clear Slight Odor
3 Shallow	58.41	101.09	28	200	6/9/2022	72	386	XXX	XXX	XXX	XXX	54.5	Clear Slight Odor
3 Shallow	58.62	101.09	28	200	11/28/2022	92	472	XXX	XXX	XXX	XXX	52.6	Clear Slight Odor

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Shallow	58.76	101.09	28	200	6/6/2023	80	429	XXX	XXX	XXX	XXX	70.1	Clear Slight Odor
3 Shallow	58.88	101.09	27	100	10/13/2023	64	454	XXX	XXX	XXX	XXX	69.7	Clear Slight Odor
3 Shallow	59.03	101.09	27	100	6/6/2024	84	438	XXX	XXX	XXX	XXX	60.8	Clear Slight Odor
3 Shallow	59.06	101.09	27	100	10/30/2024	84	447	XXX	XXX	XXX	XXX	57	Clear Slight Odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Deep	52.35	102.75	32.8	100	1/9/2007	133	500	<0.001	0.0103	<0.001	<0.001	86.9	Clear Slight Odor
3 Deep	52.5	102.75	32.7	100	5/23/2007	92	452	<0.001	0.00241	<0.001	<0.001	47.5	Clear Slight Odor
3 Deep	52.82	102.75	32.5	100	9/19/2007	204	772	<0.002	<0.002	<0.002	<0.006	72.8	Clear Slight Odor
3 Deep	52.82	102.75	32.5	150	11/19/2007	216	735	<0.002	<0.002	<0.002	<0.006	64.6	Clear Slight odor
3 Deep	52.92	102.75	32.4	200	2/5/2008	52	393	<0.002	<0.002	<0.002	<0.006	59.8	Clear Slight odor
3 Deep	52.93	102.75	32.4	200	4/28/2008	104	485	<0.002	<0.002	<0.002	<0.006	65.2	Clear Slight odor
3 Deep	53.12	102.75	32.2	200	7/28/2008	96	510	<0.001	<0.001	<0.001	<0.003	52	Clear Slight odor
3 Deep	53.31	102.75	32.1	200	10/22/2008	72	665	<0.001	<0.001	<0.001	<0.003	160	Clear Slight odor
3 Deep	53.38	101.09	31	200	1/28/2009	84	477	XXX	XXX	XXX	XXX	65	Clear Slight odor
3 Deep	53.44	101.09	31	200	4/28/2009	60	416	XXX	XXX	XXX	XXX	61.9	Clear Slight odor
3 Deep	53.6	101.09	30.9	200	8/5/2009	56	397	XXX	XXX	XXX	XXX	58.4	Clear Slight odor
3 Deep	53.67	101.09	30.8	200	10/26/2009	208	542	XXX	XXX	XXX	XXX	42	Clear Slight odor
3 Deep	53.84	101.09	30.7	200	3/4/2010	56	428	XXX	XXX	XXX	XXX	70.4	Clear Slight odor
3 Deep	53.89	101.09	30.7	200	5/12/2010	64	397	XXX	XXX	XXX	XXX	74.1	Clear Slight odor
3 Deep	53.93	101.09	30.7	200	8/3/2010	52	396	XXX	XXX	XXX	XXX	59.8	Clear Slight odor
3 Deep	54.03	101.09	30.6	200	11/2/2010	52	382	XXX	XXX	XXX	XXX	64.7	Clear Slight odor
3 Deep	54.13	101.09	30.5	200	6/2/2011	68	423	XXX	XXX	XXX	XXX	66.3	Clear Slight odor
3 Deep	54.26	101.09	30.4	200	11/30/2011	40	352	XXX	XXX	XXX	XXX	59.5	Clear Slight odor
3 Deep	54.5	101.09	30.3	200	5/25/2012	44	368	XXX	XXX	XXX	XXX	54.6	Clear Slight odor
3 Deep	54.55	101.09	30.3	200	11/14/2012	40	362	XXX	XXX	XXX	XXX	55.6	Clear Slight odor
3 Deep	54.62	101.09	30.2	200	6/7/2013	32	599	XXX	XXX	XXX	XXX	24.8	Clear Slight odor
3 Deep	54.86	101.09	30	200	11/17/2013	44	343	XXX	XXX	XXX	XXX	60.3	Clear Slight odor
3 Deep	55.04	101.09	29.9	200	6/27/2014	52	354	XXX	XXX	XXX	XXX	60.2	Clear Slight odor

Table 3

ROC - Vacuum F-35 (AP-59)
Unit Letter F, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Deep	54.67	101.09	30.2	200	12/10/2014	28	252	XXX	XXX	XXX	XXX	25.6	Clear Slight odor
3 Deep	55.07	101.09	29.9	200	6/24/2015	56	394	XXX	XXX	XXX	XXX	52.2	Clear Slight odor
3 Deep	55.51	101.09	29.63	200	11/11/2015	44	578	XXX	XXX	XXX	XXX	34.2	Clear Slight odor
3 Deep	55.48	101.09	30	200	5/23/2016	40	372	XXX	XXX	XXX	XXX	69.5	Clear Slight odor
3 Deep	55.6	101.09	29	200	11/15/2016	40	560	XXX	XXX	XXX	XXX	38	Clear Slight odor
3 Deep	56.05	101.09	29	200	5/31/2017	168	564	XXX	XXX	XXX	XXX	63	Clear Slight odor
3 Deep	59.92	101.09	29	200	12/5/2017	52	378	XXX	XXX	XXX	XXX	64	Clear Slight odor
3 Deep	56.04	101.09	29.3	200	5/23/2018	164	546	XXX	XXX	XXX	XXX	71.8	Clear Slight odor
3 Deep	56.42	101.09	29	200	11/27/2018	80	273	XXX	XXX	XXX	XXX	49.1	Clear Slight odor
3 Deep	56.82	101.09	29	100	6/7/2019	96	428	XXX	XXX	XXX	XXX	55	Clear Slight odor
3 Deep	57.14	101.09	29	100	11/18/2019	76	273	XXX	XXX	XXX	XXX	48	Clear Slight odor
3 Deep	57.2	101.09	29	100	6/11/2020	80	407	XXX	XXX	XXX	XXX	86	Clear Slight odor
3 Deep	57.2	101.09	29	100	11/12/2020	76	386	XXX	XXX	XXX	XXX	54.6	Clear Slight odor
3 Deep	58.13	101.09	28	100	6/15/2021	80	417	XXX	XXX	XXX	XXX	52.9	Clear Slight Odor
3 Deep	58.5	101.09	28	100	9/17/2021	84	450	XXX	XXX	XXX	XXX	74.2	Clear Slight Odor
3 Deep	58.41	101.09	28	200	6/9/2022	52	436	XXX	XXX	XXX	XXX	55.1	Clear Slight Odor
3 Deep	58.62	101.09	28	200	11/28/2022	80	487	XXX	XXX	XXX	XXX	52.9	Clear Slight Odor
3 Deep	58.76	101.09	28	100	6/6/2023	68	434	XXX	XXX	XXX	XXX	72.2	Clear Slight Odor
3 Deep	58.88	101.09	27	100	10/13/2023	56	494	XXX	XXX	XXX	XXX	76.7	Clear Slight Odor
3 Deep	59.03	101.09	27	100	6/6/2024	84	453	XXX	XXX	XXX	XXX	68.1	Clear Slight Odor
3 Deep	59.06	101.09	27	100	10/30/2024	88	432	XXX	XXX	XXX	XXX	51.9	Clear Slight Odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	53.6	64.3	1.8	5.3	1/10/2002	568	1,284	0.011	0.022	0.034	0.055	23	
1	52.89	65.03	1.94	6	5/15/2002	1,950	3,260	0.414	0.057	0.131	0.065	2.1	oil skim
1	53.02	64.75	1.877	5.75	8/19/2002	1,950	3,850	0.705	0.598	0.209	0.253	7	
1	53.08	64.7	1.859	5.6	11/11/2002	3,630	6,740	0.921	0.078	0.154	0.131	5.8	oil skim; yellow
1	53.06	64.19	1.78	5.3	2/28/2003	2,730	4,770	0.713	0.01	0.018	0.027	24.6	
1	53.2	64.2	1.75	5.28	5/22/2003	3,860	7,320	0.583	0.002	0.12	0.027	5.3	
1	53.21	64.1	1.74	5.2	8/21/2003	5,010	8,850	0.689	0.004	0.307	0.032	3.5	
1	53.29	64.2	1.746	5.2	11/19/2003	1,930	3,590	0.012	0.002	0.09	0.003	20.9	
1	53.3	64.15	1.73	5.2	2/18/2004	2,579	5,000	0.059	<0.002	0.35	0.007	1.49	
1	52.9	64.15	1.8	5	5/27/2004	1,899	4,188	1.17	0.308	0.357	0.319	2.15	
1	52.6	64.4	1.89	5.66	9/7/2004	4,700	8,270	1.11	0.0525	0.346	0.1382	17.7	mod. odor; gray
1	52.91	64.4	1.84	5.5	11/24/2004	5,200	10,400	0.881	0.0226	0.133	0.0717	799	mod. odor; gray
1	52.4	64.4	1.92	5.8	3/21/2005	5,750	9,190	2.76	0.247	0.399	0.2862	136	mod. odor; gray; sheen
1					5/11/2005	5,890	10,700	2.49	466	672	693	9.75	
1	52.35	64.4	1.93	5.8	8/15/2005	4,430	6,960	1.07	0.226	0.396	0.2417	126	
1	52.51	64.4	1.9	6	10/25/2005	2,360	4,420	0.799	0.0607	0.146	0.0839	166	light skim oil: strong septic odor
1	52.46	64.4	1.9	6	1/23/2006	1,960	3,540	0.141	J[0.00537]	0.078	0.0229	80.5	light skim oil: strong septic odor
1	52.7	64.4	1.9	6	4/25/2006	1,540	3,280	0.749	0.0143	0.093	0.0282	67.4	
1	52.88	64.4	1.8	6	10/25/2006	1,350	2,800	0.394	0.0204	0.0774	0.0438	45.2	Light
1	53.08	64.4	1.8	6	1/9/2007	873	1,950	0.188	<0.001	0.0883	0.00764	34.6	Light skim of oil Clear to dark gray Strong septic odor
1	53.2	64.4	1.8	10	5/24/2007	873	1,820	0.143	0.00735	0.0664	0.0227	41.2	Light skim of oil Clear to dark gray Strong septic odor
1	53.37	64.4	1.8	10	9/20/2007	800	1,738	0.189	0.004	0.082	0.029	22.2	Light skim of oil Clear to dark gray Strong septic odor
1	53.39	64.4	1.8	10	11/20/2007	320	969	0.003	<0.002	<0.002	<0.006	35.3	Light skim of oil Clear to dark gray Strong septic odor

Table 4

1	53.68	64.4	1.7	6	2/4/2008	540	1,380	0.159	0.061	0.087	0.058	23.1	Light skim of oil Clear to dark gray Strong septic odor
1	53.74	64.4	1.7	6	4/29/2008	440	1,150	0.109	0.02	0.074	0.038	22.4	Light skim of oil Clear to dark gray Strong septic odor
1	53.81	64.4	1.7	6	7/29/2008	860	2,160	0.915	0.261	0.74	0.649	<10	Light skim of oil Clear to dark gray Strong septic odor
1	53.9	64.4	1.7	6	10/23/2008	680	1,790	0.785	0.192	0.531	0.45	<10	Clear turning to dark gray Light sheen Strong septic odor
1	53.77	64.45	1.7	6	1/26/2009	500	1,330	0.62	0.044	0.372	0.173	<10	Clear turning to dark gray Light sheen Strong septic odor
1	54.04	64.45	1.7	6	4/27/2009	550	1,300	0.216	0.004	0.212	0.11	14.9	Clear turning to dark gray Light sheen Strong septic odor
1	54.23	64.45	1.6	6	8/6/2009	384	1,090	0.091	0.016	0.086	0.109	14.8	Clear turning to dark gray Light sheen Strong septic odor
1	54.32	64.45	1.6	6	10/23/2009	332	896	0.04	0.001	0.086	0.037	10.9	Clear turning to dark gray Light sheen Strong septic odor
1	54.5	64.39	1.6	6	3/3/2010	232	795	0.013	0.004	0.075	0.041	22.6	Light sheen Clear to dark gray Strong septic odor
1	54.55	64.39	1.6	6	5/13/2010	152	599	<0.001	<0.001	0.016	0.005	29.9	Light sheen Clear to dark gray Strong septic odor
1	54.6	64.39	1.6	6	8/3/2010	124	520	0.003	0.001	0.023	0.006	24.1	Light sheen Clear to dark gray Strong septic odor
1	54.65	64.39	1.6	6	11/1/2010	100	489	0.003	0.003	0.031	0.008	25.4	Light sheen Clear to dark gray Strong septic odor
1	54.81	64.39	1.5	6	6/2/2011	156	565	0.018	<0.001	0.076	0.025	30.9	Light sheen Clear to dark gray Strong septic odor
1	54.96	64.39	1.5	6	11/30/2011	120	526	0.043	0.001	0.078	0.011	29.1	Light sheen Clear to dark gray Strong septic odor
1	55.08	64.39	1.5	6	5/25/2012	100	488	0.072	0.003	0.054	0.017	26.2	Light sheen Clear to dark gray Strong septic odor
1	55.24	64.39	1.5	6	11/13/2012	68	421	0.017	<0.001	0.058	0.012	30.9	Light sheen Clear to dark gray Strong septic odor
1	55.33	64.39	1.4	6	6/6/2013	72	441	0.002	0.001	<0.001	<0.003	38.6	Light sheen Clear to dark gray Strong septic odor

Table 4

1	55.53	64.39	1.4	6	11/18/2013	64	425	0.022	0.002	0.08	0.007	40.1	Light sheen Clear to dark gray Strong septic odor
1	55.79	64.39	1.4	6	6/26/2014	68	408	0.003	<0.001	<0.001	<0.003	38	Light sheen Clear to dark gray Strong septic odor
1	55.65	64.39	1.4	6	12/9/2014	88	432	0.01	0.002	0.001	<0.003	44.6	Light sheen Clear to dark gray Strong septic odor
1	55.77	64.39	1.4	6	6/23/2015	84	492	0.02	<0.001	0.054	0.003	45.4	Light sheen Clear to dark gray Strong septic odor
1	55.98	64.39	1.35	6	11/12/2015	76	422	0.004	<0.001	<0.001	<0.003	52.8	Light sheen Clear to dark gray Strong septic odor
1	56.14	64.39	1.3	6	5/24/2016	56	372	0.002	<0.001	<0.001	<0.003	43.4	Light sheen Clear to dark gray Strong septic odor
1	56.28	64.39	1.3	6	11/14/2016	60	422	0.005	<0.001	<0.001	<0.003	39	Light sheen Clear to dark gray Strong septic odor
1	56.43	64.39	1.3	6	5/30/2017	52	420	<0.001	<0.001	<0.002	<0.003	74	Light sheen Clear to dark gray Strong septic odor

Table 4

1	56.62	64.39	1.2	6	12/4/2017	92	492	0.003	<0.001	<0.001	<0.003	37	Light sheen Clear to dark gray Strong septic odor
1	56.77	64.39	1.2	6	5/22/2018	88	476	0.008	<0.001	0.004	<0.003	38.5	Light sheen Clear to dark gray Strong septic odor
1	57.03	64.39	1.2	6	11/26/2018	76	481	0.051	<0.001	0.044	0.009	31.8	Light sheen Clear to dark gray Strong septic odor
1	57.38	64.39	1.1	6	6/6/2019	64	439	0.004	0.004	0.004	<0.003	36	Light sheen Clear to dark gray Strong septic odor
1	57.62	64.39	1.1	6	11/19/2019	72	451	0.002	<0.001	0.005	<0.003	33	Light sheen Clear to dark gray Strong septic odor
1	57.81	64.39	1.1	6	6/12/2020	72	461	0.011	<0.001	<0.001	<0.003	38.9	Light sheen Clear to dark gray Strong septic odor
1	57.94	64.39	1	6	11/13/2020	80	373	<0.001	<0.001	<0.001	<0.003	36.5	Light sheen Clear to dark gray Strong septic odor
1	58.32	64.39	1	6	6/16/2021	92	490	0.002	<0.001	<0.001	<0.003	32.5	Light sheen Clear to dark gray Strong septic odor
1	58.64	64.39	1	6	9/16/2021	88	484	<0.001	<0.001	<0.001	<0.003	37.5	Light sheen Clear to dark gray Strong septic odor
1	58.96	64.39	1	6	6/10/2022	96	465	0.001	<0.001	<0.001	<0.003	70.5	Light sheen Clear to dark gray Strong septic odor
1	59.13	64.39	0.8	6	11/29/2022	84	499	<0.001	<0.001	<0.001	<0.003	51.4	Light sheen Clear to dark gray Strong septic odor
1	59.28	64.39	0.8	3	6/5/2023	92	382	<0.001	<0.001	<0.001	<0.003	69.6	Light sheen Clear to dark gray Strong septic odor
1	59.48	64.39	0.8	3	10/13/2023	116	526	<0.001	<0.001	<0.001	<0.003	26.2	Light sheen Clear to dark gray Strong septic odor
1	59.55	64.39	0.8	3	6/5/2024	120	546	0.002	<0.001	<0.001	<0.003	29	Light sheen Clear to dark gray Strong septic odor
1	59.57	64.39	0.8	3	10/31/2024	112	487	<0.001	<0.001	<0.001	<0.003	50.8	Light sheen Clear to dark gray Strong septic odor

Table 4

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	52.08	63.65	1.9	6	6/6/2006	17	286	<0.001	J[0.000839]	J[0.000385]	0.0044	24.7	
2	52.35	63.65	1.8	6	10/25/2006	13	264	<0.001	<0.001	<0.001	<0.001	22.8	Clear
2	52.56	63.65	1.8	6	1/9/2007	14	322	<0.001	J[0.000540]	<0.001	<0.001	21.7	Clear No odor Well pumps off
2	52.66	63.94	1.8	6	5/24/2007	17	254	<0.001	<0.001	<0.001	<0.001	20.1	Clear No odor Well pumps off
2	52.84	63.94	1.8	6	9/20/2007	16	262	<0.002	<0.002	<0.002	<0.006	25.6	Clear No odor Well pumps off
2	52.86	63.94	1.8	6	11/20/2007	16	283	<0.002	<0.002	<0.002	<0.006	25	Clear No odor Well pumps off
2	52.95	64.2	1.8	6	2/4/2008	16	296	<0.002	<0.002	<0.002	<0.006	23	Clear No odor Well pumps off
2	53.01	64.2	1.8	6	4/29/2008	16	283	<0.002	<0.002	<0.002	<0.006	23.8	Clear No odor Well pumps off
2	53.15	64.2	1.8	6	7/29/2008	16	312	<0.001	<0.001	<0.001	<0.003	24	Clear No odor Well pumps off
2	53.36	64.2	1.7	6	10/23/2008	16	386	<0.001	<0.001	<0.001	<0.003	24.6	Clear No odor
2	53.42	66.51	2.1	6	1/28/2009	16	282	XXX	XXX	XXX	XXX	24	Clear No odor
2	53.51	66.51	2.1	8	4/27/2009	16	288	XXX	XXX	XXX	XXX	21.6	Clear No odor
2	53.62	66.51	2.1	8	8/6/2009	16	296	XXX	XXX	XXX	XXX	21.2	Clear No odor
2	53.66	66.51	2.1	8	10/23/2009	116	666	XXX	XXX	XXX	XXX	71	Clear No odor
2	53.8	66.51	2	8	3/3/2010	16	333	XXX	XXX	XXX	XXX	26.2	Clear No odor
2	53.86	66.51	2	8	5/13/2010	16	273	XXX	XXX	XXX	XXX	22.6	Clear No odor
2	53.87	66.51	2	8	8/4/2010	20	311	XXX	XXX	XXX	XXX	19.3	Clear No odor
MW-2 Plugged 10/20/2010													

Table 4

MW	Depth to	Total	Well	Volume	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl	Total	Sulfate	Comments
3 Shallow	52.77	103.05	32.7	100	1/9/2007	311	804	<0.001	0.0191	<0.001	<0.001	48.9	Clear Slight odor
3 Shallow	52.9	103.05	32.6	100	5/24/2007	599	1,070	<0.001	j[0.00038	<0.001	<0.001	34.5	Clear Slight odor
3 Shallow	53.11	103.05	32.5	120	9/20/2007	500	1,373	<0.002	<0.002	<0.002	<0.006	39.1	Clear Strong odor
3 Shallow	53.15	103.05	32.4	150	11/20/2007	776	1,670	<0.002	<0.002	<0.002	<0.006	40.4	Clear Strong odor
3 Shallow	53.29	103.05	32.3	200	2/5/2008	670	1,590	<0.002	<0.002	<0.002	<0.006	34.3	Clear Strong odor
3 Shallow	53.31	103.05	32.3	200	4/29/2008	750	1,790	<0.002	<0.002	<0.002	<0.006	31.8	Clear Strong odor
3 Shallow	53.47	103.05	32.2	200	7/29/2008	760	1,870	<0.001	<0.001	<0.001	<0.003	27	Clear Strong odor
3 Shallow	53.6	103.05	32.1	200	10/22/2008	464	1,570	<0.001	<0.001	<0.001	<0.003	68.6	Clear Strong odor
3 Shallow	53.68	102.95	32	200	1/28/2009	710	1,690	XXX	XXX	XXX	XXX	24.3	Clear Strong odor
3 Shallow	53.79	102.95	32	200	4/27/2009	630	1,790	XXX	XXX	XXX	XXX	18.8	Clear Strong odor
3 Shallow	53.59	102.95	32.1	200	8/6/2009	710	1,680	XXX	XXX	XXX	XXX	16.5	Clear Strong odor
3 Shallow	53.97	102.95	31.8	200	10/23/2009	600	1,320	XXX	XXX	XXX	XXX	17.3	Clear Strong odor
3 Shallow	54.13	102.95	31.7	200	3/4/2010	740	1,950	XXX	XXX	XXX	XXX	26.9	Clear Strong odor
3 Shallow	54.21	102.95	31.7	200	5/12/2010	660	1,620	XXX	XXX	XXX	XXX	25.8	Clear Strong odor
3 Shallow	54.23	102.95	31.7	200	8/3/2010	580	1,470	XXX	XXX	XXX	XXX	21	Clear Strong odor
3 Shallow	54.25	102.95	31.7	200	11/2/2010	52	396	XXX	XXX	XXX	XXX	62.1	Clear Strong odor
3 Shallow	54.45	102.95	31.5	200	6/2/2011	770	1,560	XXX	XXX	XXX	XXX	34.6	Clear Strong odor
3 Shallow	54.56	102.95	31.5	200	11/30/2011	780	1,690	XXX	XXX	XXX	XXX	38.7	Clear Strong odor
3 Shallow	54.71	102.95	31.4	200	5/25/2012	830	1,680	XXX	XXX	XXX	XXX	38.7	Clear Strong odor
3 Shallow	54.8	102.95	31.3	200	11/14/2012	600	1,380	XXX	XXX	XXX	XXX	30.3	Clear Strong odor
3 Shallow	54.89	102.95	31.2	200	6/7/2013	630	1,410	XXX	XXX	XXX	XXX	64.3	Clear Strong odor
3 Shallow	55.18	102.95	31.1	200	11/17/2013	460	1,200	XXX	XXX	XXX	XXX	35.9	Clear Strong odor
3 Shallow	55.41	102.95	30.9	200	6/27/2014	428	1,140	XXX	XXX	XXX	XXX	30.3	Clear Strong odor
3 Shallow	55.09	102.95	31.1	200	12/9/2014	232	600	XXX	XXX	XXX	XXX	24	Clear Strong odor
3 Shallow	55.39	102.95	30.9	200	6/26/2015	348	874	XXX	XXX	XXX	XXX	27.2	Clear Strong odor
3 Shallow	55.61	102.95	30.77	200	11/12/2015	316	1,130	XXX	XXX	XXX	XXX	48.8	Clear Strong odor
3 Shallow	55.78	102.95	30.7	200	5/24/2016	300	1,070	XXX	XXX	XXX	XXX	37.8	Clear Strong odor
3 Shallow	55.89	102.95	29	200	11/14/2016	292	1,070	XXX	XXX	XXX	XXX	50	Clear Strong odor
3 Shallow	56.04	102.95	30	200	5/30/2017	296	998	XXX	XXX	XXX	XXX	48	Clear Strong odor
3 Shallow	56.23	102.95	30	200	12/4/2017	248	922	XXX	XXX	XXX	XXX	35	Clear Strong odor
3 Shallow	56.39	102.95	30.3	200	5/22/2018	232	896	XXX	XXX	XXX	XXX	58.1	Clear Strong odor
3 Shallow	56.66	102.95	30.1	200	11/26/2018	276	906	XXX	XXX	XXX	XXX	39.6	Clear Strong odor
3 Shallow	57.01	102.95	30	100	6/6/2019	116	806	XXX	XXX	XXX	XXX	27	Clear Strong odor

Table 4

3 Shallow	57.25	102.95	30	100	11/19/2019	136	471	XXX	XXX	XXX	XXX	38	Clear Strong odor
3 Shallow	57.45	102.95	30	200	6/12/2020	148	661	XXX	XXX	XXX	XXX	33.3	Clear Strong odor
3 Shallow	57.61	102.95	29	200	11/13/2020	148	661	XXX	XXX	XXX	XXX	33.3	Clear Strong odor

Table 4

3 Shallow	57.97	102.95	30	100	6/16/2021	224	862	XXX	XXX	XXX	XXX	25.5	Clear Strong odor
3 Shallow	58.25	102.95	30	100	9/16/2021	216	946	XXX	XXX	XXX	XXX	14.4	Clear Strong odor
3 Shallow	58.59	102.95	29	200	6/10/2022	212	939	XXX	XXX	XXX	XXX	<10	Clear Strong odor
3 Shallow	58.76	102.95	29	200	11/29/2022	172	898	XXX	XXX	XXX	XXX	26.6	Clear Strong odor
3 Shallow	58.89	102.95	29	100	6/5/2023	228	643	XXX	XXX	XXX	XXX	61.2	Clear Strong odor
3 Shallow	59.08	102.95	29	100	10/13/2023	156	840	XXX	XXX	XXX	XXX	23.2	Clear Strong odor
3 Shallow	59.16	102.95	28	100	6/5/2024	192	683	XXX	XXX	XXX	XXX	39.4	Clear Strong odor
3 Shallow	59.2	102.95	28	100	10/31/2024	144	675	XXX	XXX	XXX	XXX	48.6	Clear Strong odor

Table 4

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Deep	52.77	103.05	32.7	100	1/9/2007	313	830	<0.001	0.0136	<0.001	<0.001	46.5	Clear Slight odor
3 Deep	52.9	103.05	32.6	100	5/24/2007	648	1,090	<0.001	j[0.000320]	<0.001	<0.001	34.7	Clear Slight odor
3 Deep	53.11	103.05	32.5	120	9/20/2007	570	1,442	<0.002	<0.002	<0.002	<0.006	34	Clear Strong Odor
3 Deep	53.15	103.05	32.4	150	11/20/2007	570	1,312	<0.002	<0.002	<0.002	<0.006	42.5	Clear Strong odor
3 Deep	53.29	103.05	32.3	200	2/5/2008	820	1,710	<0.002	<0.002	<0.002	<0.006	32.7	Clear Strong odor
3 Deep	53.31	103.05	32.3	200	4/29/2008	930	1,920	<0.002	<0.002	<0.002	<0.006	36.7	Clear Strong odor
3 Deep	53.47	103.05	32.2	200	7/29/2008	1,010	2,110	<0.001	<0.001	<0.001	<0.003	40	Clear Strong odor
3 Deep	53.6	103.05	32.1	200	10/22/2008	670	1,710	<0.001	<0.001	<0.001	<0.003	<10	Clear Strong odor
3 Deep	53.68	102.95	32	200	1/28/2009	1,560	3,000	XXX	XXX	XXX	XXX	31	Clear Strong odor
3 Deep	53.79	102.95	32	200	4/27/2009	1,080	2,770	XXX	XXX	XXX	XXX	19.2	Clear Strong odor
3 Deep	53.59	102.95	32.1	200	8/6/2009	1,090	2,110	XXX	XXX	XXX	XXX	26.8	Clear Strong odor
3 Deep	53.97	102.95	31.8	200	10/23/2009	720	1,930	XXX	XXX	XXX	XXX	14.4	Clear Strong odor
3 Deep	54.13	102.95	31.7	200	3/4/2010	810	1,860	XXX	XXX	XXX	XXX	32.2	Clear Strong odor
3 Deep	54.21	102.95	31.7	200	5/12/2010	760	1,940	XXX	XXX	XXX	XXX	28.2	Clear Strong odor
3 Deep	54.23	102.95	31.7	200	8/3/2010	790	1,510	XXX	XXX	XXX	XXX	29.4	Clear Strong odor
3 Deep	54.25	102.95	31.7	200	11/2/2010	950	2,050	XXX	XXX	XXX	XXX	22.4	Clear Strong odor
3 Deep	54.45	102.95	31.5	200	6/2/2011	570	1,400	XXX	XXX	XXX	XXX	48.6	Clear Strong odor
3 Deep	54.56	102.95	31.5	200	11/30/2011	930	2,140	XXX	XXX	XXX	XXX	23.2	Clear Strong odor
3 Deep	54.71	102.95	31.4	200	5/25/2012	940	2,090	XXX	XXX	XXX	XXX	35.5	Clear Strong odor
3 Deep	54.8	102.95	31.3	200	11/14/2012	1,040	2,450	XXX	XXX	XXX	XXX	27.6	Clear Strong odor
3 Deep	54.89	102.95	31.2	200	6/7/2013	1,040	2,520	XXX	XXX	XXX	XXX	55.1	Clear Strong odor
3 Deep	55.18	102.95	31.1	200	11/17/2013	930	2,090	XXX	XXX	XXX	XXX	29	Clear Strong odor
3 Deep	55.71	102.95	30.7	200	6/27/2014	940	2,200	XXX	XXX	XXX	XXX	22.2	Clear Strong odor
3 Deep	55.09	102.95	31.1	200	12/9/2014	410	1,040	XXX	XXX	XXX	XXX	27.6	Clear Strong odor
3 Deep	55.39	102.95	30.9	200	6/23/2015	328	998	XXX	XXX	XXX	XXX	27.4	Clear Strong odor
3 Deep	55.61	102.95	30.77	200	11/12/2015	710	1,500	XXX	XXX	XXX	XXX	37.4	Clear Strong odor
3 Deep	55.78	102.95	30.7	200	5/24/2016	304	1,070	XXX	XXX	XXX	XXX	41.1	Clear Strong odor
3 Deep	55.89	102.95	30.6	200	11/14/2016	292	1,070	XXX	XXX	XXX	XXX	50.8	Clear Strong odor
3 Deep	56.04	102.95	30	200	5/30/2017	392	992	XXX	XXX	XXX	XXX	68	Clear Strong odor
3 Deep	56.23	102.95	30	200	12/4/2017	224	956	XXX	XXX	XXX	XXX	19	Clear Strong odor
3 Deep	56.39	102.95	30.3	200	5/22/2018	260	794	XXX	XXX	XXX	XXX	61.6	Clear Strong odor
3 Deep	56.66	102.95	30.1	200	11/26/2018	236	452	XXX	XXX	XXX	XXX	33.5	Clear Strong odor

Table 4

3 Deep	57.01	102.95	29	200	6/6/2019	116	806	XXX	XXX	XXX	XXX	27	Clear Strong odor
3 Deep	67.25	102.95	29	200	11/19/2019	168	535	XXX	XXX	XXX	XXX	27	Clear Strong odor
3 Deep	57.45	102.95	30	200	6/12/2020	160	669	XXX	XXX	XXX	XXX	36	Clear Strong odor

Table 4

3 Deep	57.61	102.95	29	200	11/13/2020	176	715	XXX	XXX	XXX	XXX	32.5	Clear Strong odor
3 Deep	57.97	102.95	29	200	6/16/2021	220	873	XXX	XXX	XXX	XXX	24.6	Clear Strong odor
3 Deep	58.25	102.95	29	200	9/16/2021	216	939	XXX	XXX	XXX	XXX	11	Clear Strong odor
3 Deep	58.59	102.95	29	200	6/10/2022	212	942	XXX	XXX	XXX	XXX	<10	Clear Strong odor
3 Deep	58.76	102.95	29	200	11/29/2022	188	908	XXX	XXX	XXX	XXX	25	Clear Strong odor
3 Deep	58.89	102.95	29	100	6/5/2023	240	765	XXX	XXX	XXX	XXX	62.1	Clear Strong odor
3 Deep	59.08	102.95	29	100	10/13/2023	152	825	XXX	XXX	XXX	XXX	27.9	Clear Strong odor
3 Deep	59.16	102.95	28	100	6/5/2024	208	691	XXX	XXX	XXX	XXX	41	Clear Strong odor
3 Deep	59.2	102.95	28	100	10/31/2024	196	772	XXX	XXX	XXX	XXX	55.3	Clear Strong odor

Table 4

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	52.98	68.25	9.9	35	5/24/2007	1,200	2,050	0.0521	0.0582	0.017	0.02819	43.2	Clear to gray Strong odor Light sheen of oil
4	53.18	68.25	9.8	35	9/20/2007	1,600	3,262	0.146	0.058	0.023	0.042	17.8	Clear to gray Strong odor Light sheen of oil
4	53.21	68.25	9.8	35	11/20/2007	1,600	3,256	0.036	0.034	0.01	0.017	26	Clear to gray Strong odor Light sheen of oil
4	53.28	68.25	9.7	35	2/4/2008	2,680	5,140	0.411	0.151	0.082	0.092	9.94	Clear to gray Light sheen of oil Clear to dark gray Strong septic odor
4	53.33	68.25	9.7	35	4/29/2008	1,800	3,370	0.529	0.222	0.15	0.176	11.2	Clear turning to dark gray Light sheen of oil Strong septic odor
4	53.43	68.25	9.6	35	7/29/2008	1,420	2,620	0.208	0.086	0.041	0.06	20	Clear turning to dark gray Light sheen of oil Strong septic odor
4	53.52	68.25	9.6	35	10/23/2008	1,040	2,110	0.189	0.137	0.078	0.109	21.5	Clear turning to dark gray Light sheen of oil Strong septic odor
4	53.58	68.17	9.5	35	1/26/2009	730	1,650	0.196	0.16	0.048	0.059	21.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.72	68.17	9.4	35	4/27/2009	940	1,970	0.097	0.033	0.037	0.032	20.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.72	68.17	9.4	35	8/6/2009	770	1,750	0.079	0.055	0.046	0.069	16.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.94	68.17	9.2	35	10/23/2009	660	1,420	0.018	0.012	0.012	0.01	13.6	Clear turning to dark gray Light sheen Strong septic odor
4	54.13	68.17	9.1	35	3/3/2010	670	1,490	0.066	0.064	0.025	0.047	20.2	Product present Sock in well Clear to gray Strong odor
4	54.19	66.17	9.1	35	5/13/2010	500	1,270	0.002	0.005	0.002	0.005	26.4	Product present Sock in well Clear to gray Strong odor
4	54.22	68.17	9.1	35	8/3/2010	396	1,010	0.011	0.008	0.003	0.005	23.3	Product present Sock in well Clear to gray Strong odor

Table 4

4	54.27	68.17	9	35	11/1/2010	252	689	0.006	0.007	0.003	0.004	24.5	Heavy sheen Clear to gray Strong odor Sock in well
4	54.42	68.17	8.9	35	6/2/2011	328	887	0.003	0.003	0.003	<0.003	32.5	Heavy sheen Clear to gray Strong odor Sock in well
4	54.64	68.17	8.8	35	11/30/2011	88	457	0.008	0.006	0.003	<0.003	30.8	Heavy sheen Clear to gray Strong odor Sock in well
4	54.78	68.17	8.7	35	5/25/2012	280	792	0.157	0.405	0.212	0.363	25.9	Heavy sheen Clear to gray Strong odor Sock in well
4	54.91	68.17	8.6	35	11/13/2012	92	469	0.142	0.224	0.2	0.314	27.4	Heavy sheen Clear to gray Strong odor Sock in well
4	55.01	68.17	8.6	35	6/6/2013	96	462	0.153	0.019	0.118	0.023	23.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.24	68.17	8.4	35	11/18/2013	180	590	0.118	0.05	0.195	0.043	23.3	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.49	68.17	8.2	35	6/27/2014	144	478	0.244	0.082	0.177	0.055	13.8	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.12	68.17	8.5	35	12/9/2014	332	852	0.143	0.086	0.156	0.044	28.5	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.47	68.17	8.3	35	6/23/2015	180	656	0.08	0.025	0.101	0.016	15.8	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.6	68.17	8	35	11/12/2015	152	604	0.048	0.015	0.076	0.009	12.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor

Table 4

4	55.84	68.17	8	35	5/24/2016	204	666	0.074	0.011	0.032	0.006	33.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.95	68.17	8	35	11/14/2016	144	800	0.003	<0.001	<0.001	<0.003	48	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.1	68.17	7.8	35	5/30/2017	312	988	0.02	<0.001	0.052	0.072	64	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.28	68.17	7.7	35	12/4/2017	204	650	0.023	0.007	0.008	0.004	27	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.45	68.17	7.6	35	5/22/2018	208	600	0.031	0.007	0.008	0.005	30.1	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.85	68.17	7.4	35	11/26/2018	160	624	0.028	0.01	0.01	0.007	37.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.08	67.17	7.2	35	6/6/2019	148	574	0.009	0.004	0.004	<0.003	28	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.32	67.17	7.1	25	11/19/2019	140	552	0.007	0.003	0.003	<0.003	28	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.52	68.17	6.9	35	6/12/2020	112	513	0.007	0.003	0.002	<0.003	30.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.65	68.17	6.8	35	11/13/2020	120	509	<0.001	<0.001	<0.001	<0.003	30.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.07	67.17	6.6	35	6/16/2021	96	494	0.005	0.003	0.001	<0.003	32.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor

Table 4

4	58.39	67.17	6.6	35	9/16/2021	88	477	<0.001	<0.001	<0.001	<0.003	40.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.64	67.17	6.2	30	6/10/2022	104	467	0.003	0.002	<0.001	<0.003	15.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.81	67.17	6.2	30	11/29/2022	84	491	<0.001	<0.001	<0.001	<0.003	53.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.94	67.17	6	20	6/5/2023	84	474	<0.001	<0.001	<0.001	<0.003	64.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.1	68.17	5.9	20	10/13/2023	120	468	0.002	<0.001	<0.001	<0.003	25.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.18	68.17	5.8	20	6/5/2024	132	543	<0.001	<0.001	<0.001	<0.003	26.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.22	68.17	5.8	20	10/31/2024	104	473	<0.001	<0.001	<0.001	<0.003	50.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	53.6	64.3	1.8	5.3	1/10/2002	568	1,284	0.011	0.022	0.034	0.055	23	
1	52.89	65.03	1.94	6	5/15/2002	1,950	3,260	0.414	0.057	0.131	0.065	2.1	oil skim
1	53.02	64.75	1.877	5.75	8/19/2002	1,950	3,850	0.705	0.598	0.209	0.253	7	
1	53.08	64.7	1.859	5.6	11/11/2002	3,630	6,740	0.921	0.078	0.154	0.131	5.8	oil skim; yellow
1	53.06	64.19	1.78	5.3	2/28/2003	2,730	4,770	0.713	0.01	0.018	0.027	24.6	
1	53.2	64.2	1.75	5.28	5/22/2003	3,860	7,320	0.583	0.002	0.12	0.027	5.3	
1	53.21	64.1	1.74	5.2	8/21/2003	5,010	8,850	0.689	0.004	0.307	0.032	3.5	
1	53.29	64.2	1.746	5.2	11/19/2003	1,930	3,590	0.012	0.002	0.09	0.003	20.9	
1	53.3	64.15	1.73	5.2	2/18/2004	2,579	5,000	0.059	<0.002	0.35	0.007	1.49	
1	52.9	64.15	1.8	5	5/27/2004	1,899	4,188	1.17	0.308	0.357	0.319	2.15	
1	52.6	64.4	1.89	5.66	9/7/2004	4,700	8,270	1.11	0.0525	0.346	0.1382	17.7	mod. odor; gray
1	52.91	64.4	1.84	5.5	11/24/2004	5,200	10,400	0.881	0.0226	0.133	0.0717	799	mod. odor; gray
1	52.4	64.4	1.92	5.8	3/21/2005	5,750	9,190	2.76	0.247	0.399	0.2862	136	mod. odor; gray; sheen
1					5/11/2005	5,890	10,700	2490	466	672	693	9.75	
1	52.35	64.4	1.93	5.8	8/15/2005	4,430	6,960	1.07	0.226	0.396	0.2417	126	
1	52.51	64.4	1.9	6	10/25/2005	2,360	4,420	0.799	0.0607	0.146	0.0839	166	light skim oil: strong septic odor
1	52.46	64.4	1.9	6	1/23/2006	1,960	3,540	0.141	J[0.00537]	0.078	0.0229	80.5	light skim oil: strong septic odor
1	52.7	64.4	1.9	6	4/25/2006	1,540	3,280	0.749	0.0143	0.093	0.0282	67.4	
1	52.88	64.4	1.8	6	10/25/2006	1,350	2,800	0.394	0.0204	0.0774	0.0438	45.2	Light
1	53.08	64.4	1.8	6	1/9/2007	873	1,950	0.188	<0.001	0.0883	0.00764	34.6	Light skim of oil Clear to dark gray Strong septic odor
1	53.2	64.4	1.8	10	5/24/2007	873	1,820	0.143	0.00735	0.0664	0.0227	41.2	Light skim of oil Clear to dark gray Strong septic odor
1	53.37	64.4	1.8	10	9/20/2007	800	1,738	0.189	0.004	0.082	0.029	22.2	Light skim of oil Clear to dark gray Strong septic odor
1	53.39	64.4	1.8	10	11/20/2007	320	969	0.003	<0.002	<0.002	<0.006	35.3	Light skim of oil Clear to dark gray Strong septic odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	53.68	64.4	1.7	6	2/4/2008	540	1,380	0.159	0.061	0.087	0.058	23.1	Light skim of oil Clear to dark gray Strong septic odor
1	53.74	64.4	1.7	6	4/29/2008	440	1,150	0.109	0.02	0.074	0.038	22.4	Light skim of oil Clear to dark gray Strong septic odor
1	53.81	64.4	1.7	6	7/29/2008	860	2,160	0.915	0.261	0.74	0.649	<10	Light skim of oil Clear to dark gray Strong septic odor
1	53.9	64.4	1.7	6	10/23/2008	680	1,790	0.785	0.192	0.531	0.45	<10	Clear turning to dark gray Light sheen Strong septic odor
1	53.77	64.45	1.7	6	1/26/2009	500	1,330	0.62	0.044	0.372	0.173	<10	Clear turning to dark gray Light sheen Strong septic odor
1	54.04	64.45	1.7	6	4/27/2009	550	1,300	0.216	0.004	0.212	0.11	14.9	Clear turning to dark gray Light sheen Strong septic odor
1	54.23	64.45	1.6	6	8/6/2009	384	1,090	0.091	0.016	0.086	0.109	14.8	Clear turning to dark gray Light sheen Strong septic odor
1	54.32	64.45	1.6	6	10/23/2009	332	896	0.04	0.001	0.086	0.037	10.9	Clear turning to dark gray Light sheen Strong septic odor
1	54.5	64.39	1.6	6	3/3/2010	232	795	0.013	0.004	0.075	0.041	22.6	Light sheen Clear to dark gray Strong septic odor
1	54.55	64.39	1.6	6	5/13/2010	152	599	<0.001	<0.001	0.016	0.005	29.9	Light sheen Clear to dark gray Strong septic odor
1	54.6	64.39	1.6	6	8/3/2010	124	520	0.003	0.001	0.023	0.006	24.1	Light sheen Clear to dark gray Strong septic odor
1	54.65	64.39	1.6	6	11/1/2010	100	489	0.003	0.003	0.031	0.008	25.4	Light sheen Clear to dark gray Strong septic odor
1	54.81	64.39	1.5	6	6/2/2011	156	565	0.018	<0.001	0.076	0.025	30.9	Light sheen Clear to dark gray Strong septic odor
1	54.96	64.39	1.5	6	11/30/2011	120	526	0.043	0.001	0.078	0.011	29.1	Light sheen Clear to dark gray Strong septic odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	55.08	64.39	1.5	6	5/25/2012	100	488	0.072	0.003	0.054	0.017	26.2	Light sheen Clear to dark gray Strong septic odor
1	55.24	64.39	1.5	6	11/13/2012	68	421	0.017	<0.001	0.058	0.012	30.9	Light sheen Clear to dark gray Strong septic odor
1	55.33	64.39	1.4	6	6/6/2013	72	441	0.002	0.001	<0.001	<0.003	38.6	Light sheen Clear to dark gray Strong septic odor
1	55.53	64.39	1.4	6	11/18/2013	64	425	0.022	0.002	0.08	0.007	40.1	Light sheen Clear to dark gray Strong septic odor
1	55.79	64.39	1.4	6	6/26/2014	68	408	0.003	<0.001	<0.001	<0.003	38	Light sheen Clear to dark gray Strong septic odor
1	55.65	64.39	1.4	6	12/9/2014	88	432	0.01	0.002	0.001	<0.003	44.6	Light sheen Clear to dark gray Strong septic odor
1	55.77	64.39	1.4	6	6/23/2015	84	492	0.02	<0.001	0.054	0.003	45.4	Light sheen Clear to dark gray Strong septic odor
1	55.98	64.39	1.35	6	11/12/2015	76	422	0.004	<0.001	<0.001	<0.003	52.8	Light sheen Clear to dark gray Strong septic odor
1	56.14	64.39	1.3	6	5/24/2016	56	372	0.002	<0.001	<0.001	<0.003	43.4	Light sheen Clear to dark gray Strong septic odor
1	56.28	64.39	1.3	6	11/14/2016	60	422	0.005	<0.001	<0.001	<0.003	39	Light sheen Clear to dark gray Strong septic odor
1	56.43	64.39	1.3	6	5/30/2017	52	420	<0.001	<0.001	<0.002	<0.003	74	Light sheen Clear to dark gray Strong septic odor
1	56.62	64.39	1.2	6	12/4/2017	92	492	0.003	<0.001	<0.001	<0.003	37	Light sheen Clear to dark gray Strong septic odor
1	56.77	64.39	1.2	6	5/22/2018	88	476	0.008	<0.001	0.004	<0.003	38.5	Light sheen Clear to dark gray Strong septic odor
1	57.03	64.39	1.2	6	11/26/2018	76	481	0.051	<0.001	0.044	0.009	31.8	Light sheen Clear to dark gray Strong septic odor
1	57.38	64.39	1.1	6	6/6/2019	64	439	0.004	0.004	0.004	<0.003	36	Light sheen Clear to dark gray Strong septic odor
1	57.62	64.39	1.1	6	11/19/2019	72	451	0.002	<0.001	0.005	<0.003	33	Light sheen Clear to dark gray Strong septic odor
1	57.81	64.39	1.1	6	6/12/2020	72	461	0.011	<0.001	<0.001	<0.003	38.9	Light sheen Clear to dark gray Strong septic odor
1	57.94	64.39	1	6	11/13/2020	80	373	<0.001	<0.001	<0.001	<0.003	36.5	Light sheen Clear to dark gray Strong septic odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	58.32	64.39	1	6	6/16/2021	92	490	0.002	<0.001	<0.001	<0.003	32.5	Light sheen Clear to dark gray Strong septic odor
1	58.64	64.39	1	6	9/16/2021	88	484	<0.001	<0.001	<0.001	<0.003	37.5	Light sheen Clear to dark gray Strong septic odor
1	58.96	64.39	1	6	6/10/2022	96	465	0.001	<0.001	<0.001	<0.003	70.5	Light sheen Clear to dark gray Strong septic odor
1	59.13	64.39	0.8	6	11/29/2022	84	499	<0.001	<0.001	<0.001	<0.003	51.4	Light sheen Clear to dark gray Strong septic odor
1	59.28	64.39	0.8	3	6/5/2023	92	382	<0.001	<0.001	<0.001	<0.003	69.6	Light sheen Clear to dark gray Strong septic odor
1	59.48	64.39	0.8	3	10/13/2023	116	526	<0.001	<0.001	<0.001	<0.003	26.2	Light sheen Clear to dark gray Strong septic odor
1	59.55	64.39	0.8	3	6/5/2024	120	546	0.002	<0.001	<0.001	<0.003	29	Light sheen Clear to dark gray Strong septic odor
1	59.57	64.39	0.8	3	10/31/2024	112	487	<0.001	<0.001	<0.001	<0.003	50.8	Light sheen Clear to dark gray Strong septic odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	52.08	63.65	1.9	6	6/6/2006	17	286	<0.001	j[0.000839]	j[0.000385]	0.0044	24.7	
2	52.35	63.65	1.8	6	10/25/2006	13	264	<0.001	<0.001	<0.001	<0.001	22.8	Clear
2	52.56	63.65	1.8	6	1/9/2007	14	322	<0.001	j[0.000540]	<0.001	<0.001	21.7	Clear No odor Well pumps off
2	52.66	63.94	1.8	6	5/24/2007	17	254	<0.001	<0.001	<0.001	<0.001	20.1	Clear No odor Well pumps off
2	52.84	63.94	1.8	6	9/20/2007	16	262	<0.002	<0.002	<0.002	<0.006	25.6	Clear No odor Well pumps off
2	52.86	63.94	1.8	6	11/20/2007	16	283	<0.002	<0.002	<0.002	<0.006	25	Clear No odor Well pumps off
2	52.95	64.2	1.8	6	2/4/2008	16	296	<0.002	<0.002	<0.002	<0.006	23	Clear No odor Well pumps off
2	53.01	64.2	1.8	6	4/29/2008	16	283	<0.002	<0.002	<0.002	<0.006	23.8	Clear No odor Well pumps off

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	53.15	64.2	1.8	6	7/29/2008	16	312	<0.001	<0.001	<0.001	<0.003	24	Clear No odor Well pumps off
2	53.36	64.2	1.7	6	10/23/2008	16	386	<0.001	<0.001	<0.001	<0.003	24.6	Clear No odor
2	53.42	66.51	2.1	6	1/28/2009	16	282	XXX	XXX	XXX	XXX	24	Clear No odor
2	53.51	66.51	2.1	8	4/27/2009	16	288	XXX	XXX	XXX	XXX	21.6	Clear No odor
2	53.62	66.51	2.1	8	8/6/2009	16	296	XXX	XXX	XXX	XXX	21.2	Clear No odor
2	53.66	66.51	2.1	8	10/23/2009	116	666	XXX	XXX	XXX	XXX	71	Clear No odor
2	53.8	66.51	2	8	3/3/2010	16	333	XXX	XXX	XXX	XXX	26.2	Clear No odor
2	53.86	66.51	2	8	5/13/2010	16	273	XXX	XXX	XXX	XXX	22.6	Clear No odor
2	53.87	66.51	2	8	8/4/2010	20	311	XXX	XXX	XXX	XXX	19.3	Clear No odor
MW-2 Plugged 10/20/2010													

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Shallow	52.77	103.05	32.7	100	1/9/2007	311	804	<0.001	0.0191	<0.001	<0.001	48.9	Clear Slight odor
3 Shallow	52.9	103.05	32.6	100	5/24/2007	599	1,070	<0.001	j[0.00038	<0.001	<0.001	34.5	Clear Slight odor
3 Shallow	53.11	103.05	32.5	120	9/20/2007	500	1,373	<0.002	<0.002	<0.002	<0.006	39.1	Clear Strong odor
3 Shallow	53.15	103.05	32.4	150	11/20/2007	776	1,670	<0.002	<0.002	<0.002	<0.006	40.4	Clear Strong odor
3 Shallow	53.29	103.05	32.3	200	2/5/2008	670	1,590	<0.002	<0.002	<0.002	<0.006	34.3	Clear Strong odor
3 Shallow	53.31	103.05	32.3	200	4/29/2008	750	1,790	<0.002	<0.002	<0.002	<0.006	31.8	Clear Strong odor
3 Shallow	53.47	103.05	32.2	200	7/29/2008	760	1,870	<0.001	<0.001	<0.001	<0.003	27	Clear Strong odor
3 Shallow	53.6	103.05	32.1	200	10/22/2008	464	1,570	<0.001	<0.001	<0.001	<0.003	68.6	Clear Strong odor
3 Shallow	53.68	102.95	32	200	1/28/2009	710	1,690	XXX	XXX	XXX	XXX	24.3	Clear Strong odor
3 Shallow	53.79	102.95	32	200	4/27/2009	630	1,790	XXX	XXX	XXX	XXX	18.8	Clear Strong odor
3 Shallow	53.59	102.95	32.1	200	8/6/2009	710	1,680	XXX	XXX	XXX	XXX	16.5	Clear Strong odor
3 Shallow	53.97	102.95	31.8	200	10/23/2009	600	1,320	XXX	XXX	XXX	XXX	17.3	Clear Strong odor
3 Shallow	54.13	102.95	31.7	200	3/4/2010	740	1,950	XXX	XXX	XXX	XXX	26.9	Clear Strong odor
3 Shallow	54.21	102.95	31.7	200	5/12/2010	660	1,620	XXX	XXX	XXX	XXX	25.8	Clear Strong odor
3 Shallow	54.23	102.95	31.7	200	8/3/2010	580	1,470	XXX	XXX	XXX	XXX	21	Clear Strong odor
3 Shallow	54.25	102.95	31.7	200	11/2/2010	52	396	XXX	XXX	XXX	XXX	62.1	Clear Strong odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Shallow	54.45	102.95	31.5	200	6/2/2011	770	1,560	XXX	XXX	XXX	XXX	34.6	Clear Strong odor
3 Shallow	54.56	102.95	31.5	200	11/30/2011	780	1,690	XXX	XXX	XXX	XXX	38.7	Clear Strong odor
3 Shallow	54.71	102.95	31.4	200	5/25/2012	830	1,680	XXX	XXX	XXX	XXX	38.7	Clear Strong odor
3 Shallow	54.8	102.95	31.3	200	11/14/2012	600	1,380	XXX	XXX	XXX	XXX	30.3	Clear Strong odor
3 Shallow	54.89	102.95	31.2	200	6/7/2013	630	1,410	XXX	XXX	XXX	XXX	64.3	Clear Strong odor
3 Shallow	55.18	102.95	31.1	200	11/17/2013	460	1,200	XXX	XXX	XXX	XXX	35.9	Clear Strong odor
3 Shallow	55.41	102.95	30.9	200	6/27/2014	428	1,140	XXX	XXX	XXX	XXX	30.3	Clear Strong odor
3 Shallow	55.09	102.95	31.1	200	12/9/2014	232	600	XXX	XXX	XXX	XXX	24	Clear Strong odor
3 Shallow	55.39	102.95	30.9	200	6/26/2015	348	874	XXX	XXX	XXX	XXX	27.2	Clear Strong odor
3 Shallow	55.61	102.95	30.77	200	11/12/2015	316	1,130	XXX	XXX	XXX	XXX	48.8	Clear Strong odor
3 Shallow	55.78	102.95	30.7	200	5/24/2016	300	1,070	XXX	XXX	XXX	XXX	37.8	Clear Strong odor
3 Shallow	55.89	102.95	29	200	11/14/2016	292	1,070	XXX	XXX	XXX	XXX	50	Clear Strong odor
3 Shallow	56.04	102.95	30	200	5/30/2017	296	998	XXX	XXX	XXX	XXX	48	Clear Strong odor
3 Shallow	56.23	102.95	30	200	12/4/2017	248	922	XXX	XXX	XXX	XXX	35	Clear Strong odor
3 Shallow	56.39	102.95	30.3	200	5/22/2018	232	896	XXX	XXX	XXX	XXX	58.1	Clear Strong odor
3 Shallow	56.66	102.95	30.1	200	11/26/2018	276	906	XXX	XXX	XXX	XXX	39.6	Clear Strong odor
3 Shallow	57.01	102.95	30	100	6/6/2019	116	806	XXX	XXX	XXX	XXX	27	Clear Strong odor
3 Shallow	57.25	102.95	30	100	11/19/2019	136	471	XXX	XXX	XXX	XXX	38	Clear Strong odor
3 Shallow	57.45	102.95	30	200	6/12/2020	148	661	XXX	XXX	XXX	XXX	33.3	Clear Strong odor
3 Shallow	57.61	102.95	29	200	11/13/2020	148	661	XXX	XXX	XXX	XXX	33.3	Clear Strong odor
3 Shallow	57.97	102.95	30	100	6/16/2021	224	862	XXX	XXX	XXX	XXX	25.5	Clear Strong odor
3 Shallow	58.25	102.95	30	100	9/16/2021	216	946	XXX	XXX	XXX	XXX	14.4	Clear Strong odor
3 Shallow	58.59	102.95	29	200	6/10/2022	212	939	XXX	XXX	XXX	XXX	<10	Clear Strong odor
3 Shallow	58.76	102.95	29	200	11/29/2022	172	898	XXX	XXX	XXX	XXX	26.6	Clear Strong odor
3 Shallow	58.89	102.95	29	100	6/5/2023	228	643	XXX	XXX	XXX	XXX	61.2	Clear Strong odor
3 Shallow	59.08	102.95	29	100	10/13/2023	156	840	XXX	XXX	XXX	XXX	23.2	Clear Strong odor
3 Shallow	59.16	102.95	28	100	6/5/2024	192	683	XXX	XXX	XXX	XXX	39.4	Clear Strong odor
3 Shallow	59.2	102.95	28	100	10/31/2024	144	675	XXX	XXX	XXX	XXX	48.6	Clear Strong odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Deep	52.77	103.05	32.7	100	1/9/2007	313	830	<0.001	0.0136	<0.001	<0.001	46.5	Clear Slight odor
3 Deep	52.9	103.05	32.6	100	5/24/2007	648	1,090	<0.001	J[0.00052 0]	<0.001	<0.001	34.7	Clear Slight odor
3 Deep	53.11	103.05	32.5	120	9/20/2007	570	1,442	<0.002	<0.002	<0.002	<0.006	34	Clear Strong Odor
3 Deep	53.15	103.05	32.4	150	11/20/2007	570	1,312	<0.002	<0.002	<0.002	<0.006	42.5	Clear Strong odor
3 Deep	53.29	103.05	32.3	200	2/5/2008	820	1,710	<0.002	<0.002	<0.002	<0.006	32.7	Clear Strong odor
3 Deep	53.31	103.05	32.3	200	4/29/2008	930	1,920	<0.002	<0.002	<0.002	<0.006	36.7	Clear Strong odor
3 Deep	53.47	103.05	32.2	200	7/29/2008	1,010	2,110	<0.001	<0.001	<0.001	<0.003	40	Clear Strong odor
3 Deep	53.6	103.05	32.1	200	10/22/2008	670	1,710	<0.001	<0.001	<0.001	<0.003	<10	Clear Strong odor
3 Deep	53.68	102.95	32	200	1/28/2009	1,560	3,000	XXX	XXX	XXX	XXX	31	Clear Strong odor
3 Deep	53.79	102.95	32	200	4/27/2009	1,080	2,770	XXX	XXX	XXX	XXX	19.2	Clear Strong odor
3 Deep	53.59	102.95	32.1	200	8/6/2009	1,090	2,110	XXX	XXX	XXX	XXX	26.8	Clear Strong odor
3 Deep	53.97	102.95	31.8	200	10/23/2009	720	1,930	XXX	XXX	XXX	XXX	14.4	Clear Strong odor
3 Deep	54.13	102.95	31.7	200	3/4/2010	810	1,860	XXX	XXX	XXX	XXX	32.2	Clear Strong odor
3 Deep	54.21	102.95	31.7	200	5/12/2010	760	1,940	XXX	XXX	XXX	XXX	28.2	Clear Strong odor
3 Deep	54.23	102.95	31.7	200	8/3/2010	790	1,510	XXX	XXX	XXX	XXX	29.4	Clear Strong odor
3 Deep	54.25	102.95	31.7	200	11/2/2010	950	2,050	XXX	XXX	XXX	XXX	22.4	Clear Strong odor
3 Deep	54.45	102.95	31.5	200	6/2/2011	570	1,400	XXX	XXX	XXX	XXX	48.6	Clear Strong odor
3 Deep	54.56	102.95	31.5	200	11/30/2011	930	2,140	XXX	XXX	XXX	XXX	23.2	Clear Strong odor
3 Deep	54.71	102.95	31.4	200	5/25/2012	940	2,090	XXX	XXX	XXX	XXX	35.5	Clear Strong odor
3 Deep	54.8	102.95	31.3	200	11/14/2012	1,040	2,450	XXX	XXX	XXX	XXX	27.6	Clear Strong odor
3 Deep	54.89	102.95	31.2	200	6/7/2013	1,040	2,520	XXX	XXX	XXX	XXX	55.1	Clear Strong odor
3 Deep	55.18	102.95	31.1	200	11/17/2013	930	2,090	XXX	XXX	XXX	XXX	29	Clear Strong odor
3 Deep	55.71	102.95	30.7	200	6/27/2014	940	2,200	XXX	XXX	XXX	XXX	22.2	Clear Strong odor
3 Deep	55.09	102.95	31.1	200	12/9/2014	410	1,040	XXX	XXX	XXX	XXX	27.6	Clear Strong odor
3 Deep	55.39	102.95	30.9	200	6/23/2015	328	998	XXX	XXX	XXX	XXX	27.4	Clear Strong odor
3 Deep	55.61	102.95	30.77	200	11/12/2015	710	1,500	XXX	XXX	XXX	XXX	37.4	Clear Strong odor
3 Deep	55.78	102.95	30.7	200	5/24/2016	304	1,070	XXX	XXX	XXX	XXX	41.1	Clear Strong odor
3 Deep	55.89	102.95	30.6	200	11/14/2016	292	1,070	XXX	XXX	XXX	XXX	50.8	Clear Strong odor
3 Deep	56.04	102.95	30	200	5/30/2017	392	992	XXX	XXX	XXX	XXX	68	Clear Strong odor
3 Deep	56.23	102.95	30	200	12/4/2017	224	956	XXX	XXX	XXX	XXX	19	Clear Strong odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3 Deep	56.39	102.95	30.3	200	5/22/2018	260	794	XXX	XXX	XXX	XXX	61.6	Clear Strong odor
3 Deep	56.66	102.95	30.1	200	11/26/2018	236	452	XXX	XXX	XXX	XXX	33.5	Clear Strong odor
3 Deep	57.01	102.95	29	200	6/6/2019	116	806	XXX	XXX	XXX	XXX	27	Clear Strong odor
3 Deep	67.25	102.95	29	200	11/19/2019	168	535	XXX	XXX	XXX	XXX	27	Clear Strong odor
3 Deep	57.45	102.95	30	200	6/12/2020	160	669	XXX	XXX	XXX	XXX	36	Clear Strong odor
3 Deep	57.61	102.95	29	200	11/13/2020	176	715	XXX	XXX	XXX	XXX	32.5	Clear Strong odor
3 Deep	57.97	102.95	29	200	6/16/2021	220	873	XXX	XXX	XXX	XXX	24.6	Clear Strong odor
3 Deep	58.25	102.95	29	200	9/16/2021	216	939	XXX	XXX	XXX	XXX	11	Clear Strong odor
3 Deep	58.59	102.95	29	200	6/10/2022	212	942	XXX	XXX	XXX	XXX	<10	Clear Strong odor
3 Deep	58.76	102.95	29	200	11/29/2022	188	908	XXX	XXX	XXX	XXX	25	Clear Strong odor
3 Deep	58.89	102.95	29	100	6/5/2023	240	765	XXX	XXX	XXX	XXX	62.1	Clear Strong odor
3 Deep	59.08	102.95	29	100	10/13/2023	152	825	XXX	XXX	XXX	XXX	27.9	Clear Strong odor
3 Deep	59.16	102.95	28	100	6/5/2024	208	691	XXX	XXX	XXX	XXX	41	Clear Strong odor
3 Deep	59.2	102.95	28	100	10/31/2024	196	772	XXX	XXX	XXX	XXX	55.3	Clear Strong odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	52.98	68.25	9.9	35	5/24/2007	1,200	2,050	0.0521	0.0582	0.017	0.02819	43.2	Clear to gray Strong odor Light sheen of oil
4	53.18	68.25	9.8	35	9/20/2007	1,600	3,262	0.146	0.058	0.023	0.042	17.8	Clear to gray Strong odor Light sheen of oil
4	53.21	68.25	9.8	35	11/20/2007	1,600	3,256	0.036	0.034	0.01	0.017	26	Clear to gray Strong odor Light sheen of oil
4	53.28	68.25	9.7	35	2/4/2008	2,680	5,140	0.411	0.151	0.082	0.092	9.94	Clear to gray Light sheen of oil Clear to dark gray Strong septic odor
4	53.33	68.25	9.7	35	4/29/2008	1,800	3,370	0.529	0.222	0.15	0.176	11.2	Clear turning to dark gray Light sheen of oil Strong septic odor
4	53.43	68.25	9.6	35	7/29/2008	1,420	2,620	0.208	0.086	0.041	0.06	20	Clear turning to dark gray Light sheen of oil Strong septic odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	53.52	68.25	9.6	35	10/23/2008	1,040	2,110	0.189	0.137	0.078	0.109	21.5	Clear turning to dark gray Light sheen of oil Strong septic odor
4	53.58	68.17	9.5	35	1/26/2009	730	1,650	0.196	0.16	0.048	0.059	21.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.72	68.17	9.4	35	4/27/2009	940	1,970	0.097	0.033	0.037	0.032	20.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.72	68.17	9.4	35	8/6/2009	770	1,750	0.079	0.055	0.046	0.069	16.9	Clear turning to dark gray Light sheen Strong septic odor
4	53.94	68.17	9.2	35	10/23/2009	660	1,420	0.018	0.012	0.012	0.01	13.6	Clear turning to dark gray Light sheen Strong septic odor
4	54.13	68.17	9.1	35	3/3/2010	670	1,490	0.066	0.064	0.025	0.047	20.2	Product present Sock in well Clear to gray Strong odor
4	54.19	66.17	9.1	35	5/13/2010	500	1,270	0.002	0.005	0.002	0.005	26.4	Product present Sock in well Clear to gray Strong odor
4	54.22	68.17	9.1	35	8/3/2010	396	1,010	0.011	0.008	0.003	0.005	23.3	Product present Sock in well Clear to gray Strong odor
4	54.27	68.17	9	35	11/1/2010	252	689	0.006	0.007	0.003	0.004	24.5	Heavy sheen Clear to gray Strong odor Sock in well
4	54.42	68.17	8.9	35	6/2/2011	328	887	0.003	0.003	0.003	<0.003	32.5	Heavy sheen Clear to gray Strong odor Sock in well
4	54.64	68.17	8.8	35	11/30/2011	88	457	0.008	0.006	0.003	<0.003	30.8	Heavy sheen Clear to gray Strong odor Sock in well
4	54.78	68.17	8.7	35	5/25/2012	280	792	0.157	0.405	0.212	0.363	25.9	Heavy sheen Clear to gray Strong odor Sock in well
4	54.91	68.17	8.6	35	11/13/2012	92	469	0.142	0.224	0.2	0.314	27.4	Heavy sheen Clear to gray Strong odor Sock in well

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	55.01	68.17	8.6	35	6/6/2013	96	462	0.153	0.019	0.118	0.023	23.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.24	68.17	8.4	35	11/18/2013	180	590	0.118	0.05	0.195	0.043	23.3	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.49	68.17	8.2	35	6/27/2014	144	478	0.244	0.082	0.177	0.055	13.8	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.12	68.17	8.5	35	12/9/2014	332	852	0.143	0.086	0.156	0.044	28.5	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.47	68.17	8.3	35	6/23/2015	180	656	0.08	0.025	0.101	0.016	15.8	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.6	68.17	8	35	11/12/2015	152	604	0.048	0.015	0.076	0.009	12.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.84	68.17	8	35	5/24/2016	204	666	0.074	0.011	0.032	0.006	33.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	55.95	68.17	8	35	11/14/2016	144	800	0.003	<0.001	<0.001	<0.003	48	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.1	68.17	7.8	35	5/30/2017	312	988	0.02	<0.001	0.052	0.072	64	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.28	68.17	7.7	35	12/4/2017	204	650	0.023	0.007	0.008	0.004	27	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.45	68.17	7.6	35	5/22/2018	208	600	0.031	0.007	0.008	0.005	30.1	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	56.85	68.17	7.4	35	11/26/2018	160	624	0.028	0.01	0.01	0.007	37.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor

Table 4

ROC - Vacuum G-35 (AP-59)
Unit Letter G, Section 35, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	57.08	67.17	7.2	35	6/6/2019	148	574	0.009	0.004	0.004	<0.003	28	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.32	67.17	7.1	25	11/19/2019	140	552	0.007	0.003	0.003	<0.003	28	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.52	68.17	6.9	35	6/12/2020	112	513	0.007	0.003	0.002	<0.003	30.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	57.65	68.17	6.8	35	11/13/2020	120	509	<0.001	<0.001	<0.001	<0.003	30.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.07	67.17	6.6	35	6/16/2021	96	494	0.005	0.003	0.001	<0.003	32.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.39	67.17	6.6	35	9/16/2021	88	477	<0.001	<0.001	<0.001	<0.003	40.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.64	67.17	6.2	30	6/10/2022	104	467	0.003	0.002	<0.001	<0.003	15.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.81	67.17	6.2	30	11/29/2022	84	491	<0.001	<0.001	<0.001	<0.003	53.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	58.94	67.17	6	20	6/5/2023	84	474	<0.001	<0.001	<0.001	<0.003	64.2	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.1	68.17	5.9	20	10/13/2023	120	468	0.002	<0.001	<0.001	<0.003	25.4	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.18	68.17	5.8	20	6/5/2024	132	543	<0.001	<0.001	<0.001	<0.003	26.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor
4	59.22	68.17	5.8	20	10/31/2024	104	473	<0.001	<0.001	<0.001	<0.003	50.6	Heavy sheen present/Sock placed in well/Clear to gray/Strong odor

CARDINAL Laboratories

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

June 19, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-35 SWD AND G-35 SWD

Enclosed are the results of analyses for samples received by the laboratory on 06/11/24 9:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	06/11/2024	Sampling Date:	06/06/2024
Reported:	06/19/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: F -35 SWD MONITOR WELL #3- SHALLOW (H243328-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**84.0**	4.00	06/13/2024	ND	100	100	100	3.92	

Sulfate 375.4 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**60.8**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

TDS 160.1 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**438**	5.00	06/13/2024	ND	466	93.2	500	1.11	

Sample ID: F -35 SWD MONITOR WELL #3- DEEP (H243328-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**84.0**	4.00	06/13/2024	ND	100	100	100	3.92	

Sulfate 375.4 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**68.1**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

TDS 160.1 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**453**	5.00	06/13/2024	ND	466	93.2	500	1.11	

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*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Lab Reports

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:	06/11/2024	Sampling Date:	06/05/2024
Reported:	06/19/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #1 (H243328-03)

BTEX 8021B mg/L Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.002**	0.001	06/11/2024	ND	0.020	101	0.0200	0.452	
Toluene*	<0.001	0.001	06/11/2024	ND	0.020	101	0.0200	0.520	
Ethylbenzene*	<0.001	0.001	06/11/2024	ND	0.019	95.6	0.0200	1.26	
Total Xylenes*	<0.003	0.003	06/11/2024	ND	0.060	99.8	0.0600	1.35	
Total BTEX	<0.006	0.006	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.9 %* *77.5-125*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**120**	4.00	06/13/2024	ND	100	100	100	3.92	

Sulfate 375.4 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**29.0**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

TDS 160.1 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**546**	5.00	06/13/2024	ND	466	93.2	500	1.11	

Cardinal Laboratories

*=Accredited Analyte

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:	06/11/2024	Sampling Date:	06/05/2024
Reported:	06/19/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #3 - SHALLOW (H243328-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**192**	4.00	06/13/2024	ND	100	100	100	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**39.4**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**683**	5.00	06/13/2024	ND	466	93.2	500	1.11	

Sample ID: G-35 SWD MONITOR WELL #3 - DEEP (H243328-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**208**	4.00	06/13/2024	ND	100	100	100	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**41.0**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**691**	5.00	06/17/2024	ND	848	84.8	1000	0.994	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Lab Reports

CARDINAL Laboratories

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Analytical Results For:

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Fax To: (575) 397-1471

Received:	06/11/2024	Sampling Date:	06/05/2024
Reported:	06/19/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #4 (H243328-06)

BTEX 8021B mg/L Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/11/2024	ND	0.020	101	0.0200	0.452	
Toluene*	<0.001	0.001	06/11/2024	ND	0.020	101	0.0200	0.520	
Ethylbenzene*	<0.001	0.001	06/11/2024	ND	0.019	95.6	0.0200	1.26	
Total Xylenes*	<0.003	0.003	06/11/2024	ND	0.060	99.8	0.0600	1.35	
Total BTEX	<0.006	0.006	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.9 %* *77.5-125*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**132**	4.00	06/13/2024	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**26.6**	10.0	06/12/2024	ND	19.2	96.2	20.0	0.0520	

TDS 160.1 mg/L Analyzed By: CT

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**543**	5.00	06/17/2024	ND	848	84.8	1000	0.994	

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

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 # 1243328

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 F-35 SWD and G-35 SWD	
Project Location: T17S-R35E-Sec35 F and G ~ Lea County - New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310

LAB # (LAB USE ONLY)	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 (2024)	TIME
1243328-1	F-35 SWD Monitor Well #3-Shallow	G	1	X								1		6/6	10:35
-2	F-35 SWD Monitor Well #3-Deep	G	1	X								1		6/6	10:30
-3	G-35 SWD Monitor Well #1	G	3	X				2				1		6/5	14:20
-4	G-35 SWD Monitor Well #3-Shallow	G	1	X								1		6/5	17:50
-5	G-35 SWD Monitor Well #3-Deep	G	1	X								1		6/5	17:45
-6	G-35 SWD Monitor Well #4	G	3	X				2				1		6/5	15:40

ANALYSIS REQUEST
(Circle or Specify Method No.)

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	

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

REMARKS:

Email Results to: kjones@riceswd.com rozanne@sdacres.com

Relinquished by: Rozanne Johnson Date: 6/11/2024 Time: 8:00

Relinquished by: Date: 6/11/2024 Time:

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

Received by: Date: 6/11/2024 Time: 8:01

Received By: (Laboratory Staff) Date: 6-11-24 Time: 0940

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

CHECKED BY: (Initials)

CARDINAL Laboratories

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

November 14, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM F-35 SWD AND G-35 SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/05/24 8:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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:	11/05/2024	Sampling Date:	10/30/2024
Reported:	11/14/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: F -35 SWD MONITOR WELL #3- SHALLOW (H246717-01)

Chloride, SM4500Cl-B (Water) mg/L **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**84.0**	4.00	11/11/2024	ND	112	112	100	3.64	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**57.0**	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**447**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Sample ID: F -35 SWD MONITOR WELL #3- DEEP (H246717-02)

Chloride, SM4500Cl-B (Water) mg/L **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**88.0**	4.00	11/11/2024	ND	112	112	100	3.64	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**51.9**	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**432**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Lab Reports

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:	11/05/2024	Sampling Date:	10/31/2024
Reported:	11/14/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #1 (H246717-03)

BTEX 8021B mg/L Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	11/11/2024	ND	0.021	105	0.0200	1.52	
Toluene*	<0.001	0.001	11/11/2024	ND	0.021	107	0.0200	1.85	
Ethylbenzene*	<0.001	0.001	11/11/2024	ND	0.022	108	0.0200	2.28	
Total Xylenes*	<0.003	0.003	11/11/2024	ND	0.064	107	0.0600	2.58	
Total BTEX	<0.006	0.006	11/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *77.5-125*

Chloride, SM4500Cl-B (Water) mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**112**	4.00	11/11/2024	ND	112	112	100	3.64	

Sulfate 375.4 mg/L Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**50.8**	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91	

TDS 160.1 mg/L Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**487**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Cardinal Laboratories

*=Accredited Analyte

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:	11/05/2024	Sampling Date:	10/31/2024
Reported:	11/14/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #3 - SHALLOW (H246717-04)

Chloride, SM4500Cl-B (Water) **mg/L** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**144**	4.00	11/11/2024	ND	112	112	100	3.64	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**48.6**	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**675**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Sample ID: G-35 SWD MONITOR WELL #3 - DEEP (H246717-05)

Chloride, SM4500Cl-B (Water) **mg/L** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**196**	4.00	11/11/2024	ND	112	112	100	3.64	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**55.3**	10.0	11/07/2024	ND	16.7	83.6	20.0	4.09	QM-07

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**772**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Lab Reports

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:	11/05/2024	Sampling Date:	10/31/2024
Reported:	11/14/2024	Sampling Type:	Water
Project Name:	VACUUM F-35 SWD AND G-35 SWD	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC35 F&G-LEA CTY., NM		

Sample ID: G-35 SWD MONITOR WELL #4 (H246717-06)

BTEX 8021B mg/L Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	11/11/2024	ND	0.021	105	0.0200	1.52	
Toluene*	<0.001	0.001	11/11/2024	ND	0.021	107	0.0200	1.85	
Ethylbenzene*	<0.001	0.001	11/11/2024	ND	0.022	108	0.0200	2.28	
Total Xylenes*	<0.003	0.003	11/11/2024	ND	0.064	107	0.0600	2.58	
Total BTEX	<0.006	0.006	11/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *77.5-125*

Chloride, SM4500Cl-B (Water) mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**104**	4.00	11/11/2024	ND	112	112	100	3.64	

Sulfate 375.4 mg/L Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**50.6**	10.0	11/07/2024	ND	16.7	83.6	20.0	4.09	

TDS 160.1 mg/L Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**473**	5.00	11/08/2024	ND	817	81.7	1000	2.43	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

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 F-35 SWD and G-35 SWD
Project Location: T17S-R35E-Sec35 F and G ~ Lea County - New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310

LAB # (LAB USE ONLY)	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 (2024)	TIME
H246717-1	F-35 SWD Monitor Well #3-Shallow	G	1	X								1		10/30	10:55
2	F-35 SWD Monitor Well #3-Deep	G	1	X								1		10/30	11:00
3	G-35 SWD Monitor Well #1	G	3	X				2				1		10/31	9:45
4	G-35 SWD Monitor Well #3-Shallow	G	1	X								1		10/31	14:00
5	G-35 SWD Monitor Well #3-Deep	G	1	X								1		10/31	14:05
6	G-35 SWD Monitor Well #4	G	3	X				2				1		10/31	11:40

ANALYSIS REQUEST

(Circle or Specify Method No.)

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	X	
	X																	X	X	X	

Relinquished by: Rozanne Johnson	Date: 11/5/2024	Time: 8:00	Received by:	Date: 11/5/2024	Time: 8:01
Relinquished by:	Date: 11/5/2024	Time:	Received By: (Laboratory Staff)	Date: 11.5.24	Time: 838

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

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

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

CHECKED BY: (Initials) AP

REMARKS:

Email Results to: kjones@riceswd.com rozanne@sdacres.com

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
RICE OPERATING COMPANY PO Box 5630 Hobbs, NM 88241	19174
	Action Number: 447153
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Review of the Vacuum F-35 & G-35 SWDs (AP-59) 2023 annual report: approved 1. Specify in the 2025 annual report which type of remediation sock is being utilized for removal of LNAPL in MW-1 at F-35 SWD. If the recovery sock is not demonstrating successful results for removing free product after the first sampling, a different remediation technique/method will be required to be considered. 2. Please continue to conduct groundwater monitoring for the sites as prescribed. 3. Submit the 2025 annual report with results and update for MW-1 product removal, by April 1, 2026.	7/22/2025