Facility Well Name Northern (Bushton) #1 **UIC Permit #** KS-01-159-003 **Month** November **Year** 2021

Submitted 01/03/2022 **Approved** 02/01/2022 **KOLAR Document ID** 1603830

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 10

Barrels per Day Maximum: 3,840

			Annulus Pressure psig min 60		Injection Pressure		
	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Gauge psig	Cont. Record psig	Gauge psig	Cont. Record psig	Amount Added to Seal Pot
Monthly Average	35	0.00	128	124	-20.6	-19.2	0
Monthly Maximum	455	0.00	134	129	-12.0	-11.4	0
Monthly Minimum	0	0.00	121	117	-28.0	-25.9	0
Monthly Total	1,061						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
132.70	-26.20	-0.3	0.00

Comments:

Annulas pressure and injection minimum pressures are low due to maintenance on disposal well valve replacement. Well has been losing vaccum when not injecting. Trying to diagnose the issue.

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Daily Recorder Data

Day	Time 24 hr	Injection Volume Barrels Per Day	Injection Rate Barrels Per Minute	Annulus Pressure (Gauge) psig	Annulus Pressure (Continuous Recorder) psig	Injection Pressure (Gauge) + / -	Injection Pressure (Continuous Recorder) + / -	Seal Pot Fluid Level inches	Type of Fluid Added to Seal Pot	Amount of Fluid Added to Seal Pot gallons	Initials of Collector of Field Recordings		
1	06:00	0.00	0.00	126	124.6	-17	-15.9	7	N	0	RB		
2	06:30	15.07	0.00	126	124.2	-25	-23.9	7	N	0	RB		
3	06:40	0.00	0.00	129	124.2	-23	-21.8	6	N	0	DJ		
4	10:45	0.00	0.00	130	124.4	-22	-21.0	7	N	0	MW		
5	12:00	0.00	0.00	132	128.1	-20	-18.7	7	N	0	DJ		
6	09:00	0.00	0.00	130	125.1	-18	-17.1	7	N	0	DJ		
7	09:00	0.00	0.00	131	127.3	-16	-15.5	7	N	0	DJ		
8	09:00	0.00	0.00	134	129.0	-16	-14.6	7	N	0	LM		
9	09:00	0.00	0.00	132	127.5	-15	-13.5	7	N	0	LM		
10	07:30	0.00	0.00	131	127.0	-12	-11.4	7	N	0	LM		
11	07:00	0.00	0.00	131	128.0	-12	-11.4	7	N	0	MU		
12	07:00	0.00	0.00	132	127.0	-12	-12.1	7	N	0	MU		
13	07:30	34.74	0.00	127	124.7	-19	-17.7	7	N	0	MU		
14	06:00	0.00	0.00	128	125.1	-18	-15.5	7	N	0	MU		
15	09:00	0.00	0.00	129	125.2	-17	-14.8	7	N	0	BP		
16	09:30	0.00	0.00	131	126.4	-15	-14.6	7	N	0	DJ		
17	06:30	132.33	0.00	128	122.6	-23	-24.8	7	N	0	DJ		
18	06:00	0.00	0.00	125	121.5	-26	-24.3	7	N	0	DJ		
19	15:30	127.24	0.00	121	116.5	-28	-24.8	7	N	0	RB		
20	07:30	455.12	0.00	124	119.5	-25	-23.4	7	N	0	RB		
21	10:45	26.55	0.00	122	118.5	-20	-18.6	7	N	0	RB		
22	09:30	16.55	0.00	123	117.9	-28	-25.9	7	N	0	MU		
23	07:00	0.00	0.00	121	119.3	-28	-24.5	6	N	0	MU		
24	08:19	170.29	0.00	130	125.4	-28	-24.4	6	N	0	LM		
25	10:30	76.79	0.00	127	123.3	-27	-23.3	6	N	0	MU		
26	08:00	0.00	0.00	128	122.5	-23	-21.8	7	N	0	LM		
27	09:10	0.00	0.00	125	125.7	-21	-19.9	7	N	0	LM		
28	09:30	0.00	0.00	128	124.5	-20	-18.8	6	N	0	LM		
29	11:00	0.00	0.00	130	126.5	-17	-16.4	6	N	0	MU		
30	17:20	5.98	0.00	130	125.9	-27	-24.3	6	N	0	MW		
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Weekly Injectate Samples

Kansas Lab Certificate Number

Week	Temperature		pH		Chloride				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	65.00	11/01/2021	9.91	11/01/2021	N/A				
2	64.00	11/19/2021	9.84	11/19/2021	N/A				
3	59.00	11/23/2021	9.63	11/23/2021	N/A				
4	65.00	11/29/2021	6.05	11/29/2021	N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 08/11/2021
Kansas Lab Certificate Number E-10146
Lab Name Pace Analytical-Salina

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
Calcium	86.400	mg/l
Chloride	27.100	mg/l
Conductivity	57.700	Mmhos
Diethanolamine	<50.000	mg/l
Iron	3.770	mg/l
Magnesium	11.100	mg/l
Sulfate	18.000	mg/l
Total Alkalinity as CaCO3	268.000	mg/l
Total Dissolved Solids	366.000	mg/l
Total Hardness as CaCO3	261.000	mg/l