Facility Well Name Northern (Bushton) #1 **UIC Permit #** KS-01-159-003 **Month** December **Year** 2022

Submitted 01/30/2023 **Approved** 02/03/2023 **KOLAR Document ID** 1684248

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 21

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	98	0.11	118	117	-25.7	-23.8	0
Monthly Maximum	1,393	1.10	126	125	-13.0	-13.7	0
Monthly Minimum	0	0.00	107	106	-29.0	-25.8	0
Monthly Total	3,046						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
125.60	102.70	-11.50	-26.90

Comments:

Northern (Bushton) #1 12/2022

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	09:00	0.00	0.00	118	117.0	-21	-20.5	6	N	0	RB		
2	13:00	0.00	0.00	120	119.7	-17	-16.0	6	N	0	DJ		
3	08:30	0.00	0.00	120	118.0	-15	-15.2	6	N	0	DJ		
4	11:30	0.00	0.00	120	118.9	-13	-13.7	6	N	0	DJ		
5	09:26	0.00	0.00	118	116.8	-26	-25.4	6	N	0	LM		
6	12:11	0.00	0.00	120	118.9	-25	-24.0	6	N	0	LM		
7	11:05	22.31	0.07	118	116.5	-28	-25.5	6	N	0	LM		
8	08:47	1,392.62	1.07	107	106.1	-28	-25.4	4	N	0	LM		
9	08:00	177.50	0.00	118	117.0	-28	-25.4	4	N	0	MU		
10	10:00	110.12	0.00	118	119.5	-28	-25.0	4	N	0	MU		
11	13:00	0.00	0.00	118	119.0	-28	-24.5	4	N	0	MU		
12	06:30	19.62	1.10	116	114.9	-27	-25.1	6	N	0	DJ		
13	08:42	89.79	0.00	119	116.6	-28	-24.9	6	N	0	BP		
14	17:00	90.57	0.00	119	116.9	-26	-24.5	6	N	0	DJ		
15	06:40	0.00	0.00	116	115.3	-26	-24.0	6	N	0	DJ		
16	09:54	97.74	0.00	115	114.4	-26	-24.9	6	N	0	RB		
17	09:17	5.10	0.00	116	115.1	-26	-25.0	6	N	0	RB		
18	09:09	134.90	0.00	120	118.8	-26	-25.2	6	N	0	RB		
19	12:30	48.02	0.00	119	110.2	-29	-25.0	6	N	0	MU		
20	13:30	0.00	0.00	120	119.2	-28	-24.0	6	N	0	MU		
21	00:30	87.62	0.00	119	117.7	-28	-25.2	6	N	0	MU		
22	16:00	94.83	0.00	118	114.7	-22	-22.0	6	N	0	MU		
23	09:15	87.31	0.00	114	108.4	-27	-25.7	6	N	0	LM		
24	11:00	87.98	0.00	118	120.0	-27	-25.4	6	N	0	LM		
25	11:47	88.10	0.00	117	115.6	-28	-25.6	6	N	0	LM		
26	07:42	0.00	0.00	120	120.0	-28	-25.3	6	N	0	LM		
27	10:30	95.60	0.00	116	115.7	-28	-25.5	6	N	0	MW		
28	06:19	87.45	0.00	122	120.9	-27	-24.6	6	N	0	RB		
29	06:15	87.10	0.00	125	121.0	-27	-25.0	6	N	0	RB		
30	15:58	87.29	0.00	126	124.9	-28	-25.8	6	N	0	DJ		
31	11:15	54.24	1.07	119	117.2	-28	-25.2	6	N	0	DJ		

Northern (Bushton) #1 12/2022

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	61.00	12/05/2022	6.13	12/05/2022	N/A				
2	60.00	12/13/2022	6.31	12/13/2022	N/A				
3	56.00	12/19/2022	7.18	12/19/2022	N/A				
4	54.00	12/27/2022	6.80	12/27/2022	N/A				
5					N/A				

No monthly injectate samples required.

Northern (Bushton) #1 12/2022

Quarterly Injectate Samples

Quarter 4
Date Sample Collected 11/14/2022
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	36.600	mg/l
Chloride	4,470.000	mg/l
Conductivity	9.220	Mmhos
Diethanolamine	61.800	mg/l
Iron	79.300	mg/l
Magnesium	46.000	mg/l
Sulfate	4.800	mg/l
Total Alkalinity as CaCO3	434.000	mg/l
Total Dissolved Solids	5,200.000	mg/l
Total Hardness as CaCO3	1,100.000	mg/l