Facility Well Name Northern (Bushton) #1 **UIC Permit #** KS-01-159-003 **Month** November **Year** 2020

Submitted 12/10/2020 **Approved** 12/11/2020 **KOLAR Document ID** 1538872

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 24

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	62	0.12	126	123	-27.5	-25.0	0
Monthly Maximum	101	1.83	130	127	-27.0	-24.5	0
Monthly Minimum	0	0.00	120	118	-28.0	-26.0	0
Monthly Total	1,875						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
129.20	115.80	-12.80	-25.70

Comments:

Northern (Bushton) #1 11/2020

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	07:30	86.40	0.00	126	124.2	-28	-25.5	12	N	0	DJ		
2	09:30	86.12	0.00	126	124.5	-28	-25.5	11	N	0	RB		
3	10:00	86.19	0.00	126	125.0	-28	-26.0	11	N	0	RB		
4	07:00	0.00	0.00	129	125.7	-27	-24.9	12	N	0	MU		
5	06:00	99.26	0.00	127	124.6	-27	-25.0	12	N	0	MU		
6	13:00	85.60	0.00	130	127.3	-27	-24.8	12	N	0	MW		
7	08:00	0.00	0.00	130	125.7	-27	-24.8	12	N	0	MW		
8	06:45	85.52	0.00	127	124.6	-27	-24.7	12	N	0	MW		
9	07:45	0.00	0.00	128	124.0	-27	-24.7	12	N	0	LM		
10	06:45	94.74	0.00	127	122.7	-27	-24.8	12	N	0	DJ		
11	07:45	85.64	0.00	125	121.0	-27	-25.0	12	N	0	LM		
12	08:00	0.00	0.00	127	123.0	-28	-24.9	12	N	0	LM		
13	06:00	86.26	0.00	127	122.6	-28	-24.9	12	N	0	MU		
14	06:00	83.10	0.00	121	117.8	-28	-24.6	12	N	0	MU		
15	06:00	0.00	0.00	126	122.7	-28	-25.1	12	N	0	MU		
16	13:00	60.71	0.00	130	125.6	-28	-25.1	12	N	0	LM		
17	08:00	44.21	1.81	122	119.0	-28	-24.9	12	N	0	LM		
18	08:30	42.55	0.00	127	124.1	-28	-25.0	12	N	0	MW		
19	07:30	85.12	0.00	125	121.7	-27	-24.8	12	N	0	MW		
20	11:30	0.00	0.00	125	122.0	-28	-25.4	12	N	0	RB		
21	10:30	84.67	0.00	126	123.0	-28	-25.4	12	N	0	RB		
22	09:45	84.88	0.00	127	123.5	-28	-25.4	12	N	0	RB		
23	06:00	84.69	0.00	126	122.8	-28	-25.2	12	N	0	MU		
24	06:00	84.57	0.00	120	124.7	-27	-24.5	12	N	0	MU		
25	09:00	85.81	0.00	127	122.6	-27	-25.0	12	N	0	MU		
26	07:00	84.95	0.00	125	121.9	-27	-24.9	12	N	0	MU		
27	07:45	21.57	1.83	125	121.2	-27	-24.6	12	N	0	LM		
28	08:00	44.24	0.00	125	121.8	-27	-24.7	12	N	0	LM		
29	07:30	87.14	0.00	125	121.8	-27	-24.7	12	N	0	LM		
30	10:30	100.71	0.00	124	119.7	-27	-25.0	12	N	0	RB		
31													

Northern (Bushton) #1 11/2020

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	11/04/2020	7.21	11/04/2020	N/A				
2	69.00	11/09/2020	7.02	11/09/2020	N/A				
3	62.00	11/17/2020	6.90	11/17/2020	N/A				
4	61.00	11/23/2020	7.05	11/23/2020	N/A				
5	62.00	11/30/2020	7.14	11/30/2020	N/A				

No monthly injectate samples required.

Northern (Bushton) #1 11/2020

Quarterly Injectate Samples

Quarter 4
Date Sample Collected 11/17/2020
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	225.000	mg/l
Chloride	1,100.000	mg/l
Conductivity	379.000	Mmhos
Diethanolamine	<100.000	mg/l
Iron	6.040	mg/l
Magnesium	32.400	mg/l
Sulfate	22.500	mg/l
Total Alkalinity as CaCO3	231.000	mg/l
Total Dissolved Solids	2,790.000	mg/l
Total Hardness as CaCO3	695.000	mg/l