Facility Well Name Northern (Cunningham) #3 **UIC Permit #** KS-05-151-003 **Month** July **Year** 2022

Submitted 08/07/2022 **Approved** 08/10/2022 **KOLAR Document ID** 1659362

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 4,000

			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	589	0.50	111	111	-23.7	-22.8	0
Monthly Maximum	929	0.71	115	115	-22.0	-22.0	0
Monthly Minimum	375	0.43	104	103	-26.0	-24.0	0
Monthly Total	18,248						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
121.85	102.88	-9.87	-26.38

Comments:

Northern (Cunningham) #3 07/2022

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	09:10	617.88	0.52	109	108.1	-23	-22.0	20		0	JM		
2	10:00	617.81	0.52	109	109.0	-23	-23.0	20		0	JM		
3	12:00	619.45	0.52	110	110.4	-24	-23.0	21		0	JM		
4	07:55	625.07	0.50	110	109.6	-24	-23.0	21		0	BD		
5	09:00	633.33	0.52	110	111.4	-24	-23.0	21		0	BD		
6	08:56	638.02	0.52	112	112.9	-24	-22.0	21		0	BD		
7	08:05	375.36	0.50	111	112.1	-23	-22.0	21		0	BD		
8	09:56	393.07	0.71	104	103.4	-26	-24.0	19		0	BD		
9	09:23	593.36	0.48	106	107.6	-24	-23.0	20		0	BD		
10	08:18	580.71	0.50	109	108.4	-24	-23.0	20		0	BD		
11	09:50	595.83	0.50	110	111.6	-24	-23.0	21		0	DV		
12	09:35	586.31	0.48	112	111.9	-24	-23.0	21		0	DV		
13	08:50	597.98	0.48	110	110.8	-24	-23.0	21		0	DV		
14	09:35	929.19	0.48	113	112.7	-24	-23.0	21		0	DV		
15	10:40	596.02	0.48	115	114.8	-23	-24.0	22		0	DV		
16	08:45	626.64	0.48	113	113.7	-22	-23.0	22		0	DV		
17	08:30	607.31	0.48	114	113.5	-24	-23.0	22		0	DV		
18	08:45	570.88	0.50	114	112.0	-24	-23.0	21		0	KS		
19	11:40	561.76	0.45	114	112.8	-24	-23.0	22		0	AB		
20	08:45	547.12	0.50	113	112.0	-24	-23.0	22		0	KS		
21	08:25	570.19	0.52	108	109.2	-24	-23.0	21		0	KS		
22	07:50	549.48	0.55	107	112.8	-23	-22.0	22		0	KS		
23	07:20	564.83	0.55	108	113.7	-24	-23.0	22		0	KS		
24	07:45	563.83	0.45	115	115.3	-24	-22.0	22		0	AB		
25	10:02	566.40	0.45	112	112.6	-25	-22.0	22		0	GKB		
26	08:39	574.38	0.45	113	113.3	-25	-22.0	22		0	GKB		
27	09:55	557.36	0.48	112	112.8	-24	-23.0	22		0	GKB		
28	08:16	534.71	0.45	111	111.5	-22	-22.0	22		0	GKB		
29	09:17	559.43	0.50	111	111.2	-23	-23.0	22		0	GKB		
30	09:00	649.90	0.50	110	109.5	-23	-23.0	21		0	GKB		
31	08:37	644.83	0.43	115	115.0	-23	-22.0	23		0	GKB		

Northern (Cunningham) #3 07/2022

Weekly Injectate Samples

Kansas Lab Certificate Number E-10146

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	96.00	07/04/2022	6.78	07/04/2022	N/A				
2	99.00	07/11/2022	6.30	07/11/2022	N/A				
3	87.20	07/18/2022	6.71	07/18/2022	N/A				
4	89.00	07/22/2022	6.41	07/25/2022	N/A				
5					N/A				

No monthly injectate samples required.

Northern (Cunningham) #3 07/2022

Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/18/2022
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	2,060.000	mg/l
Chloride	27,700.000	mg/l
Conductivity	78.200	Mmhos
Magnesium	554.000	mg/l
Sodium	15,600.000	mg/l
Sulfate	2,190.000	mg/l
Total Alkalinity as CaCO3	294.000	mg/l
Total Dissolved Solids	57,300.000	mg/l
Total Suspended Solids	44.700	mg/l