Facility Well Name Northern (Mullinville) #1 **UIC Permit #** KS-01-097-001 **Month** February **Year** 2024

Submitted 03/08/2024 **Approved** 03/15/2024 **KOLAR Document ID** 1767204

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 13

Barrels per Day Maximum: 2,381

	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Annulus Pressure psig min 40 Gauge psig	Annulus Pressure Cont. Record psig	Injection Pressure Gauge psig	Injection Pressure Cont. Record psig	Amount Added to Seal Pot
Monthly Average	129	0.32	69	68	-25.0	-24.8	0
Monthly Maximum	786	2.38	71	70	-23.0	-23.0	0
Monthly Minimum	0	0.00	68	67	-27.0	-26.0	0
Monthly Total	3,738						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
70.00	67.00	-23.00	-26.00

Comments:

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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	09:09	23.81	2.38	68	68.0	-25	-25.0	58	N/A	0	AT		
2	11:35	0.00	0.00	69	68.0	-25	-25.0	58	N/A	0	AT		
3	09:42	0.00	0.00	68	67.0	-24	-24.0	58	N/A	0	AT		
4	09:54	0.00	0.00	68	67.0	-24	-24.0	59	N/A	0	AT		
5	09:44	0.00	0.00	68	69.0	-24	-24.0	58	N/A	0	AT		
6	08:22	0.00	0.00	68	68.0	-23	-23.0	58	N/A	0	AT		
7	09:07	238.10	0.00	68	68.0	-25	-25.0	56	N/A	0	LRC		
8	08:31	666.67	0.00	69	69.0	-26	-26.0	54	N/A	0	CDG		
9	14:20	23.81	2.29	70	70.0	-25	-25.0	55	N/A	0	DA		
10	08:00	119.05	0.00	69	69.0	-26	-26.0	55	N/A	0	CDG		
11	09:25	0.00	0.00	68	68.0	-25	-25.0	57	N/A	0	CDG		
12	09:30	0.00	0.00	69	69.0	-24	-24.0	58	N/A	0	CDG		
13	09:30	0.00	0.00	68	68.0	-23	-23.0	58	N/A	0	CDG		
14	09:00	0.00	0.00	68	68.0	-23	-23.0	59	N/A	0	LRC		
15	10:55	23.81	0.00	68	69.0	-23	-23.0	58	N/A	0	LRC		
16	10:43	500.00	2.38	68	70.0	-26	-26.0	46	N/A	0	LRC		
17	07:26	95.24	0.00	68	68.0	-26	-26.0	55	N/A	0	LRC		
18	09:05	0.00	0.00	69	69.0	-25	-25.0	47	N/A	0	LRC		
19	09:16	0.00	0.00	68	68.0	-24	-24.0	58	N/A	0	LRC		
20	09:50	0.00	0.00	69	69.0	-23	-23.0	58	N/A	0	LRC		
21	14:20	619.05	0.00	71	69.0	-27	-26.0	48	N/A	0	RS		
22	09:09	23.81	0.00	69	68.0	-27	-26.0	56	N/A	0	JN		
23	09:30	0.00	0.00	70	68.0	-26	-26.0	57	N/A	0	JN		
24	10:00	0.00	0.00	70	69.0	-26	-25.0	58	N/A	0	JN		
25	09:30	595.24	0.00	71	70.0	-27	-26.0	50	N/A	0	JN		
26	10:30	785.71	0.00	71	68.0	-26	-26.0	43	N/A	0	JN		
27	09:40	0.00	0.00	70	68.0	-26	-25.0	55	N/A	0	JN		
28	14:41	0.00	0.00	70	69.0	-26	-25.0	57	N/A	0	RS		
29	09:46	23.81	2.31	70	68.0	-25	-24.0	58	N/A	0	RS		
30													
31													

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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	69.40	02/01/2024	8.30	02/01/2024	N/A				
2	64.80	02/08/2024	7.30	02/08/2024	N/A				
3	56.20	02/15/2024	7.60	02/15/2024	N/A				
4	68.30	02/22/2024	7.90	02/22/2024	N/A				
5	60.20	02/29/2024	7.30	02/29/2024	N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 1
Date Sample Collected 01/19/2024
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	276,000.000	mg/l
Chloride	580.000	mg/l
Conductivity	3,510.000	Mmhos
Iron	440.000	mg/l
Magnesium	35,400.000	mg/l
Sulfate	614.000	mg/l
Total Alkalinity as CaCO3	82.900	mg/l
Total Dissolved Solids	2,290.000	mg/l
Total Hardness as CaCO3	835,000.000	mg/l