Facility Well Name Northern (Cunningham) #2 **UIC Permit #** KS-05-151-002 **Month** July **Year** 2021

Submitted 08/06/2021 **Approved** 08/19/2021 **KOLAR Document ID** 1585518

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 23

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	915	1.27	105	104	-22.9	-23.1	0
Monthly Maximum	1,515	1.90	112	112	-5.0	-4.7	0
Monthly Minimum	0	0.00	99	101	-25.0	-25.5	0
Monthly Total	28,357						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
113.81	98.99	-0.64	-28.37

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	10:25	1,511.98	1.67	112	110.6	-24	-23.6	15		0	WV		
2	14:55	1,514.57	1.76	112	111.5	-23	-23.4	16		0	AB		
3	07:10	1,500.29	1.74	111	110.6	-24	-24.4	17		0	WV		
4	07:25	1,511.43	1.90	111	110.0	-23	-23.2	17		0	WV		
5	09:05	1,492.38	1.67	110	109.1	-23	-23.2	18		0	WV		
6	08:45	1,496.40	1.79	109	107.5	-23	-23.9	18		0	WV		
7	08:20	1,486.90	1.71	108	106.6	-24	-23.9	18		0	WV		
8	08:50	1,477.67	1.81	106	104.8	-23	-22.9	18		0	WV		
9	08:00	1,491.05	1.69	105	103.6	-23	-23.1	19		0	WV		
10	09:35	1,493.74	1.88	103	102.3	-23	-23.4	19		0	WV		
11	08:40	1,498.38	1.83	102	101.1	-24	-23.7	19		0	WV		
12	08:00	1,493.50	1.67	101	101.4	-24	-23.0	19		0	KS		
13	08:15	1,488.57	1.69	101	101.2	-24	-23.0	19		0	KS		
14	09:30	1,475.33	1.76	100	101.2	-24	-23.0	20		0	KS		
15	08:20	1,489.10	1.67	99	102.1	-24	-22.0	20		0	KS		
16	08:45	1,488.43	1.67	100	100.8	-23	-22.9	20		0	KS		
17	08:20	1,434.81	1.71	100	101.0	-22	-23.0	20		0	KS		
18	06:40	1,371.52	1.57	100	100.9	-22	-23.4	20		0	KS		
19	08:25	532.24	1.60	105	105.0	-23	-23.2	20		0	AB		
20	09:10	0.00	0.00	103	101.6	-22	-22.1	17		0	AB		
21	10:15	0.00	0.00	103	102.0	-5	-4.7	16		0	AB		
22	17:30	9.24	1.48	102	101.7	-21	-21.8	16		0	AB		
23	14:00	614.71	1.64	103	101.4	-21	-22.1	16		0	AB		
24	07:30	437.52	1.64	111	111.2	-24	-24.4	16		0	AB		
25	08:10	0.00	0.00	108	106.8	-24	-25.2	15		0	AB		
26	09:45	0.00	0.00	106	104.8	-25	-25.3	16		0	WV		
27	10:35	0.00	0.00	103	102.7	-25	-25.5	15		0	WV		
28	08:35	0.00	0.00	102	101.3	-25	-25.5	15		0	WV		
29	08:10	47.52	1.69	101	100.7	-25	-25.3	15		0	WV		
30	09:40	0.00	0.00	105	103.0	-25	-25.5	15		0	AB		
31	08:40	0.00	0.00	103	101.5	-25	-25.5	15		0	AB		

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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	99.00	07/06/2021	7.00	07/06/2021	N/A				
2	90.00	07/12/2021	6.70	07/12/2021	N/A				
3	94.00	07/19/2021	6.60	07/19/2021	N/A				
4	77.00	07/29/2021	6.30	07/29/2021	N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/14/2021
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	2,500.000	mg/l
Chloride	33,300.000	mg/l
Conductivity	71.400	Mmhos
Magnesium	644.000	mg/l
Sodium	15,500.000	mg/l
Sulfate	2,180.000	mg/l
Total Alkalinity as CaCO3	289.000	mg/l
Total Dissolved Solids	53,400.000	mg/l
Total Suspended Solids	90.500	mg/l