Facility Well Name Northern (Cunningham) WIW #3 **UIC Permit #** KS-05-151-003 **Month** May **Year** 2023

Submitted 06/01/2023 **Approved** 06/08/2023 **KOLAR Document ID** 1716060

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 29

Barrels per Day Maximum: 4,000

	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Annulus Pressure psig min 60 Gauge psig	Annulus Pressure Cont. Record psig	Injection Pressure Gauge psig	Injection Pressure Cont. Record psig	Amount Added to Seal Pot
Monthly Average	159	0.27	92	91	-23.3	-23.3	0
Monthly Maximum	239	0.62	100	98	-19.0	-20.0	0
Monthly Minimum	0	0.00	88	88	-25.0	-25.0	0
Monthly Total	4,926						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
103.26	86.05	-0.42	-29.35

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	09:45	148.00	0.38	93	90.1	-24	-24.0	12		0	CWA		
2	10:04	191.55	0.33	90	88.3	-23	-23.0	11		0	GKB		
3	09:07	189.40	0.14	90	87.7	-24	-23.0	10		0	GKB		
4	09:57	177.12	0.36	90	89.5	-23	-24.0	11		0	GKB		
5	09:21	190.88	0.24	90	89.0	-23	-23.0	10		0	GKB		
6	08:05	166.21	0.12	90	89.4	-24	-24.0	11		0	GKB		
7	09:11	181.12	0.38	90	89.5	-24	-24.0	11		0	GKB		
8	09:30	176.64	0.62	92	90.8	-24	-24.0	11		0	DMH		
9	09:55	102.33	0.29	92	90.3	-23	-23.0	11		0	JWM		
10	09:24	0.00	0.00	95	95.7	-23	-22.0	14		0	JWM		
11	09:27	8.55	0.43	100	97.7	-22	-22.0	14		0	JWM		
12	09:07	141.71	0.33	100	98.3	-19	-20.0	14		0	JWM		
13	08:20	238.55	0.12	88	89.2	-22	-22.0	10		0	DMH		
14	10:35	188.71	0.12	91	89.6	-24	-24.0	11		0	JWM		
15	11:25	182.95	0.36	91	89.5	-24	-24.0	11		0	BD		
16	11:58	59.62	0.33	94	92.4	-24	-25.0	12		0	BD		
17	10:54	168.88	0.31	92	90.8	-25	-24.0	11		0	BD		
18	09:10	197.98	0.36	91	91.7	-24	-24.0	11		0	BD		
19	11:37	194.45	0.33	93	91.1	-23	-24.0	11		0	BD		
20	06:00	165.57	0.33	90	88.9	-23	-24.0	11		0	BD		
21	08:45	207.36	0.33	92	91.0	-23	-24.0	11		0	BD		
22	09:45	194.26	0.33	91	89.6	-23	-23.0	11		0	HS		
23	09:10	200.88	0.33	91	90.1	-23	-23.0	11		0	HS		
24	09:34	193.43	0.12	91	90.5	-25	-24.0	11		0	GKB		
25	10:53	183.62	0.33	93	92.3	-25	-24.0	12		0	GKB		
26	09:52	206.55	0.36	91	90.6	-24	-24.0	11		0	GKB		
27	11:25	211.45	0.12	95	91.5	-23	-23.0	11		0	DKO		
28	07:17	202.26	0.12	93	91.3	-22	-23.0	11		0	DKO		
29	08:10	171.05	0.31	94	91.4	-23	-22.0	11		0	AB		
30	09:45	84.57	0.29	92	91.8	-23	-23.0	12		0	AB		
31	08:30	0.00	0.00	98	97.8	-22	-23.0	14		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	72.30	05/01/2023	6.40	05/01/2023	N/A				
2	70.30	05/08/2023	7.60	05/08/2023	N/A				
3	74.00	05/15/2023	6.40	05/15/2023	N/A				
4	74.40	05/22/2023	6.43	05/22/2023	N/A				
5	73.00	05/29/2023	6.55	05/29/2023	N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 04/06/2023
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	2,230.000	mg/l
Chloride	99,600.000	mg/l
Conductivity	78.200	Mmhos
Magnesium	563.000	mg/l
Sodium	15,700.000	mg/l
Sulfate	2,590.000	mg/l
Total Alkalinity as CaCO3	307.000	mg/l
Total Dissolved Solids	55,000.000	mg/l
Total Suspended Solids	28.000	mg/l