Facility Well Name Northern (Cunningham) #3 **UIC Permit #** KS-05-151-003 **Month** January **Year** 2020

Submitted 02/04/2020 **Approved** 02/04/2020 **KOLAR Document ID** 1494510

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	636	0.59	110	110	-20.8	-20.2	0
Monthly Maximum	743	0.76	115	115	-19.0	-19.2	0
Monthly Minimum	466	0.43	101	101	-22.0	-21.3	0
Monthly Total	19,724						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
120.40	96.90	-13.10	-26.60

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	09:00	617.14	0.67	108	108.8	-21	-19.7	20		0	WV		
2	08:25	648.60	0.57	110	110.7	-21	-19.2	20		0	WV		
3	10:35	655.69	0.60	111	111.1	-22	-19.7	21		0	WV		
4	08:45	622.67	0.57	110	110.1	-21	-20.2	21		0	WV		
5	10:15	646.07	0.64	111	110.9	-22	-19.3	21		0	WV		
6	09:10	702.02	0.57	112	113.1	-21	-19.8	22		0	KS		
7	09:30	687.79	0.69	114	113.1	-20	-19.7	22		0	KS		
8	09:30	615.02	0.62	112	111.4	-19	-20.1	21		0	KS		
9	13:30	645.14	0.64	114	113.3	-21	-19.3	21		0	KS		
10	11:30	643.79	0.43	112	111.7	-21	-20.0	21		0	KS		
11	08:20	649.24	0.76	110	108.2	-19	-20.5	21		0	KS		
12	07:45	649.88	0.64	110	110.1	-20	-21.0	21		0	KS		
13	08:40	631.36	0.67	113	112.3	-20	-19.8	22		0	LF		
14	08:15	629.48	0.60	113	112.3	-21	-20.1	21		0	LF		
15	08:10	635.90	0.62	112	111.5	-21	-20.3	21		0	LF		
16	08:20	647.52	0.57	110	108.6	-21	-20.8	21		0	LF		
17	09:15	657.69	0.60	110	110.9	-21	-20.4	21		0	LF		
18	07:10	655.29	0.50	110	110.7	-21	-20.3	21		0	LF		
19	06:40	666.74	0.57	113	111.8	-21	-20.2	21		0	LF		
20	10:30	674.98	0.69	112	111.8	-22	-20.5	22		0	WV		
21	09:10	689.43	0.55	111	110.6	-20	-21.1	22		0	WV		
22	09:05	729.83	0.62	112	111.9	-21	-19.6	22		0	WV		
23	15:45	742.86	0.57	115	115.1	-21	-19.6	22		0	KS		
24	08:55	696.14	0.50	115	114.9	-21	-20.3	22		0	AB		
25	09:30	593.95	0.52	112	112.4	-21	-20.2	22		0	WV		
26	10:30	477.67	0.52	106	106.2	-22	-20.4	20		0	WV		
27	09:10	465.64	0.48	101	101.1	-22	-21.2	18		0	KS		
28	11:00	601.14	0.57	102	104.2	-21	-20.4	19		0	KS		
29	11:10	586.45	0.50	105	105.7	-19	-20.2	19		0	KS		
30	08:50	645.52	0.69	105	104.1	-20	-20.8	19		0	KS		
31	08:30	513.21	0.62	104	105.5	-20	-21.3	20		0	KS		

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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	70.00	01/06/2020	6.30	01/06/2020	N/A				
2	81.00	01/13/2020	6.30	01/13/2020	N/A				
3	84.00	01/20/2020	6.40	01/20/2020	N/A				
4	78.00	01/27/2020	6.80	01/27/2020	N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 1
Date Sample Collected
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		mg/l
Chloride		mg/l
Conductivity		Mmhos
Magnesium		mg/l
Sodium		mg/l
Sulfate		mg/l
Total Alkalinity as CaCO3		mg/l
Total Dissolved Solids		mg/l
Total Suspended Solids		mg/l