Facility Well Name Sunflower (Fort Dodge) #1 **UIC Permit #** KS-01-057-003 **Month** June **Year** 2019

Submitted 08/21/2019 **Approved** 09/01/2019 **KOLAR Document ID** 1469631

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 2

Barrels per Day Maximum: 20,571

	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	71	0.00	255	245	-12.4	-12.3	
Monthly Maximum	1,150	0.00	565	555	0.0	1.2	
Monthly Minimum	0	0.00	210	200	-24.0	-25.7	
Monthly Total	2,138						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
561.27	140.33	1.36	-26.38

Comments:

The actual injection rate showed negative values when the well had no flow and was changed to 0. Annulus pressure high during times well was shut in and returned to normal as releif valve bled off excess pressure

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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	08:52	0.00	0.00	210	200.3	0	1.1	37			LF		
2	08:40	0.00	0.00	211	200.8	0	1.1	37			LF		
3	16:39	0.00	0.00	211	201.4	0	1.2	37			MH		
4	08:18	0.00	0.00	212	201.6	0	1.2	37			LF		
5	08:32	0.00	0.00	212	202.3	0	1.2	37			KK		
6	08:18	0.00	0.00	212	202.3	0	1.2	37			LF		
7	08:21	0.00	0.00	213	202.7	0	1.2	37			KK		
8	07:56	0.00	0.00	213	203.2	0	1.2	37			KK		
9	08:36	0.00	0.00	213	203.7	0	0.9	37			KK		
10	08:07	0.00	0.00	214	203.7	0	0.7	37			DA		
11	08:12	0.00	0.00	214	204.1	0	1.0	37			KK		
12	08:04	0.00	0.00	214	204.6	0	1.0	37			KK		
13	08:15	988.31	0.00	565	554.9	-24	-25.7	33			KK		
14	08:07	1,150.02	0.00	474	465.3	-24	-25.4	33			KK		
15	08:21	0.00	0.00	440	430.7	-24	-24.8	34			LF		
16	08:57	0.00	0.00	408	398.4	-23	-24.2	35			LF		
17	08:05	0.00	0.00	347	337.8	-23	-23.7	35			DA		
18	08:20	0.00	0.00	270	261.1	-22	-23.1	36			LF		
19	08:26	0.00	0.00	218	208.2	-22	-22.4	36			LF		
20	08:10	0.00	0.00	215	205.5	-21	-21.8	36			LF		
21	08:16	0.00	0.00	220	210.1	-21	-21.0	36			LF		
22	08:08	0.00	0.00	222	213.8	-21	-20.7	36			MH		
23	08:44	0.00	0.00	222	213.9	-20	-20.2	36			MH		
24	08:21	0.00	0.00	212	200.5	-19	-19.8	36			MH		
25	07:57	0.00	0.00	212	202.5	-19	-19.3	36			DA		
26	07:53	0.00	0.00	212	204.2	-19	-18.9	36			MH		
27	07:54	0.00	0.00	213	205.5	-18	-18.4	36			MH		
28	08:28	0.00	0.00	217	206.5	-18	-18.0	36			LF		
29	07:49	0.00	0.00	217	207.1	-18	-17.5	36			CG		
30	07:38	0.00	0.00	217	206.5	-17	-17.1	36			CG		
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Weekly Injectate Samples

Kansas Lab Certificate Number E-10150

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	64.50	06/12/2019	7.23	06/12/2019	520.0	06/12/2019	06/13/2019		
2									
3									
4									
5									

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 06/12/2019
Kansas Lab Certificate Number E-10150
Lab Name Servi-Tech Lab

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
Ammonia	ND	mg/l
Calcium	689.000	mg/l
Chloride	520.000	mg/l
Conductivity	5,920.000	Mmhos
Magnesium	154.000	mg/l
Sodium	521.000	mg/l
Sulfate	1,900.000	mg/l
Total Alkalinity as CaCO3	840.000	mg/l (as CaCO3)
Total Dissolved Solids	4,670.000	mg/l
Total Hardness as CaCO3	2,400.000	mg/l (as CaCO3)
Total Suspended Solids	ND	mg/l