Facility Well Name Sunflower (Fort Dodge) #1 **UIC Permit #** KS-01-057-003 **Month** October **Year** 2023

Submitted 11/27/2023 **Approved** 11/30/2023 **KOLAR Document ID** 1736833

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 6

Barrels per Day Maximum: 20,571

			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	810	0.31	352	349	-4.1	-2.6	
Monthly Maximum	6,816	2.64	595	593	0.0	1.4	
Monthly Minimum	0	0.00	188	181	-27.0	-26.2	
Monthly Total	25,107						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
592.17	139.99	1.41	-26.28

Comments:

The actual injection rate (GPM) reading showed negative values throughout the month when the injection well had no flow and was recorded as negative but changed to 0 for the report to indicate no flow at that time. The annulus pressure readings on 10/05 & 10/07 were flagged indicating a maximum of 500 psig. Requesting an update to flag at a higher pressure (600 psig). We are working to reduce the annulus pressure below 600 psig.

Sunflower (Fort Dodge) #1 10/2023

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	01:04	5,220.33	2.43	257	251.7	-27	-26.0	23			LF		
2	01:50	5,816.00	2.36	295	288.3	-27	-26.2	24			CS		
3	02:46	3,771.05	2.64	270	262.2	-27	-26.0	24			CS		
4	01:08	6,816.38	2.29	188	181.0	-27	-26.0	24			LF		
5	00:07	3,304.48	0.00	595	593.1	-12	-10.3	24			TK		
6	01:16	0.00	0.00	324	322.8	-2	0.6	27			TK		
7	01:05	179.12	0.00	544	544.8	-1	1.3	25			LF		
8	01:20	0.00	0.00	317	314.3	-1	1.4	27			LF		
9	01:13	0.00	0.00	352	350.5	-1	1.3	27			LF		
10	01:08	0.00	0.00	372	369.8	0	1.3	28			LF		
11	01:02	0.00	0.00	385	380.8	0	1.4	28			CS		
12	04:48	0.00	0.00	390	387.2	0	1.4	28			CS		
13	04:19	0.00	0.00	392	387.1	0	1.1	28			CS		
14	01:43	0.00	0.00	390	389.0	-1	1.2	28			KK		
15	01:28	0.00	0.00	390	388.0	0	1.3	28			BM		
16	01:26	0.00	0.00	386	384.9	0	1.3	29			KK		
17	01:53	0.00	0.00	382	380.1	0	1.4	29			KK		
18	01:01	0.00	0.00	377	375.0	0	1.4	29			SM		
19	01:05	0.00	0.00	371	368.8	0	1.2	29			SM		
20	01:27	0.00	0.00	366	362.2	0	1.3	28			LF		
21	00:13	0.00	0.00	360	355.4	0	1.3	29			TK		
22	00:59	0.00	0.00	352	347.8	0	1.3	29			CG		
23	01:02	0.00	0.00	344	340.6	0	1.3	29			TK		
24	00:56	0.00	0.00	338	333.8	0	1.3	29			CG		
25	09:49	0.00	0.00	330	324.5	0	1.3	29			BM		
26	08:05	0.00	0.00	327	318.6	0	1.3	29			BM		
27	08:50	0.00	0.00	318	312.1	0	1.1	29			TK		
28	07:26	0.00	0.00	310	306.8	0	1.3	29			CG		
29	07:33	0.00	0.00	306	302.3	0	1.3	29			TK		
30	08:20	0.00	0.00	300	298.1	0	1.3	29			KK		
31	08:26	0.00	0.00	297	294.0	-1	1.2	30			KK		

Sunflower (Fort Dodge) #1 10/2023

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	10/03/2023	7.56	10/03/2023	462.0	10/03/2023	10/04/2023		
2									
3									
4									
5									

No monthly injectate samples required.

Sunflower (Fort Dodge) #1 10/2023

Quarterly Injectate Samples

Quarter 4
Date Sample Collected 10/03/2023
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	674.000	mg/l
Chloride	462.000	mg/l
Conductivity	5,420.000	Mmhos
Magnesium	150.000	mg/l
Sodium	387.000	mg/l
Sulfate	1,900.000	mg/l
Total Alkalinity as CaCO3	670.000	mg/l
Total Dissolved Solids	4,510.000	mg/l
Total Hardness as CaCO3	2,300.000	mg/l
Total Suspended Solids	17.000	mg/l