Facility Well Name Deffenbaugh #2 **UIC Permit #** KS-01-091-002 **Month** July **Year** 2023

Submitted 08/07/2023 **Approved** 08/30/2023 **KOLAR Document ID** 1724743

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 29

Barrels per Day Maximum: 14,286

			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	2,011	1.36	77	77	-10.4	-10.0	0
Monthly Maximum	3,965	4.45	84	84	5.0	8.6	0
Monthly Minimum	0	0.00	76	76	-13.0	-13.2	0
Monthly Total	62,339						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
86.14	74.44	9.16	-13.23

Comments:

Deep well was down the 24th-26th. Went online the afternoon of the 26th in the afternoon and was off again until mid day on the 28th. Manifold at deep well was being worked on and pH face had to be replaced on the meter.

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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	pH Standard Units	Temperature degrees F
1	10:00	1,238.29	1.62	84	83.3	-12	-12.4	22	N/A	0	RLW	7.50	87.30
2	06:45	3,140.67	0.79	84	83.8	-13	-12.4	23	N/A	0	DWK	7.50	87.80
3	06:25	2,724.57	2.33	84	84.0	-13	-13.0	23	N/A	0	DWK	7.30	87.20
4	06:30	2,026.76	2.17	78	77.3	-13	-13.1	23	N/A	0	DWK	7.40	87.20
5	06:30	3,454.86	0.00	78	77.4	-11	-11.3	22	N/A	0	DWK	7.40	82.30
6	06:25	2,990.00	2.26	78	77.3	-13	-13.2	22	N/A	0	DWK	7.50	84.70
7	06:30	2,674.00	2.02	78	77.1	-13	-13.0	22	N/A	0	DWK	7.40	85.20
8	05:30	2,406.86	1.90	78	76.6	-13	-13.1	22	N/A	0	ARN	7.60	85.90
9	06:30	2,285.62	0.76	77	76.7	-13	-12.8	22	N/A	0	DWK	7.70	83.70
10	06:25	2,273.14	1.69	77	77.1	-13	-13.2	22	N/A	0	DWK	7.70	84.60
11	06:15	2,483.29	1.48	77	76.5	-13	-13.1	22	N/A	0	DWK	7.60	86.50
12	06:20	2,790.62	1.67	77	76.7	-13	-12.4	23	N/A	0	DWK	7.50	87.80
13	06:25	2,181.71	1.62	77	77.0	-13	-12.9	23	N/A	0	DWK	7.40	88.10
14	06:30	969.24	1.60	77	77.0	-13	-12.9	23	N/A	0	DWK	7.40	88.80
15	08:50	3,964.57	3.21	77	77.2	-13	-13.1	21	N/A	0	RLW	7.80	83.90
16	07:50	3,798.76	4.45	77	76.6	-13	-12.0	22	N/A	0	ARN	7.50	83.80
17	06:25	2,135.24	1.79	76	76.4	-13	-13.0	22	N/A	0	DWK	7.40	85.90
18	06:20	2,049.14	0.76	76	76.4	-13	-12.5	22	N/A	0	DWK	7.40	85.70
19	06:20	2,025.14	1.71	76	76.6	-13	-13.0	22	N/A	0	DWK	7.50	84.80
20	06:20	2,158.86	1.83	76	76.4	-13	-13.0	22	N/A	0	DWK	7.50	85.60
21	06:25	2,050.00	1.76	76	75.8	-13	-13.0	22	N/A	0	DWK	7.50	86.20
22	10:00	1,121.81	0.00	76	76.1	-13	-12.0	22	N/A	0	RLW	7.50	86.20
23	06:30	387.14	0.50	76	76.0	-12	-11.3	22	N/A	0	DWK	7.60	85.60
24	06:25	0.00	0.00	76	76.3	-1	-1.5	21	N/A	0	DWK	7.60	79.70
25	06:25	0.38	0.00	76	76.2	3	5.6	21	N/A	0	DWK	7.60	79.30
26	05:30	4.19	0.00	76	76.0	5	8.6	20	N/A	0	DWK	7.50	80.80
27	06:15	3,412.48	0.00	76	76.0	2	3.8	20	N/A	0	DWK	7.50	82.40
28	06:20	1,880.10	1.57	77	76.8	-13	-13.0	22	N/A	0	DWK	7.40	87.30
29	10:00	910.57	1.60	76	75.7	-12	-12.0	22	N/A	0	RLW	7.50	88.10
30	06:30	2,801.05	0.98	76	76.4	-12	-11.8	21	N/A	0	DWK	7.70	83.40
31	06:25	0.00	0.00	76	76.4	0	1.4	21	N/A	0	DWK	7.50	78.00

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 05/16/2023
Kansas Lab Certificate Number E-10277
Lab Name Pace Analytical National Center for Testing & Training

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

Constituent	Value	Units
1,1,1-Trichloroethane	<0.005	mg/l
1,1-Dichloroethane	<0.006	mg/l
1,2-Dichlorobenzene	<0.005	mg/l
1,2-Dichloroethane	<0.005	mg/l
1,1-Dichloroethylene	<0.009	mg/l
1,2-Dichloropropane	<0.010	mg/l
1,3-Dichloropropene	<0.011	mg/l
Acetone	4.610	mg/l
Arsenic	0.097	mg/l
Benzene	<0.004	mg/l
Calcium	43.100	mg/l
Chloride	3,010.000	mg/l
Chlorobenzene	<0.007	mg/l
Chloroethane	<0.007	mg/l
Chloroform	<0.004	mg/l
Cis-1,2-Dichloroethylene	<0.005	mg/l
Conductivity	20.000	Mmhos
Copper	0.430	mg/l
Dichloromethane (Methylene Chloride)	<0.054	mg/l
Ethylbenzene	0.088	mg/l
Heptachlor	<0.000	mg/l
Iron	3.130	mg/l
Lead	0.009	mg/l

Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	121.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	2.280	mg/l
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.041	mg/l
Nitrobenzene	<0.010	mg/l
Phenol	0.485	mg/l
Pyrene	<0.002	mg/l
Silver	<0.005	mg/l
Sulfate	175.000	mg/l
Tetrachloroethylene	<0.010	mg/l
Thallium	<0.002	mg/l
Toluene	<0.021	mg/l
Total Alkalinity as CaCO3	9,940.000	mg/l
Total Dissolved Solids	12,800.000	mg/l
Total Hardness as CaCO3	605.000	mg/l
Total Suspended Solids	35.500	mg/l
Trichloroethylene	<0.008	mg/l
Trichlorofluoromethane	<0.007	mg/l
Vinyl Chloride	<0.006	mg/l
Xylene	<0.016	mg/l
Zinc	0.217	mg/l