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

Submitted 01/02/2024 **Approved** 01/19/2024 **KOLAR Document ID** 1743224

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

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	3,766	2.91	76	76	-12.6	-12.7	0
Monthly Maximum	6,698	6.62	78	78	-11.0	-11.0	0
Monthly Minimum	842	0.24	76	75	-13.0	-13.3	0
Monthly Total	116,747						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
79.59	74.99	-0.61	-13.68

Comments:

Deffenbaugh #2 12/2023

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	pH Standard Units	Temperature degrees F
1	06:25	6,698.29	4.26	77	76.8	-13	-12.8	17	N/A	0	DWK	6.20	67.90
2	10:00	3,314.29	4.07	77	76.6	-13	-12.5	17	N/A	0	RLW	6.10	68.40
3	06:50	4,440.38	3.38	77	76.5	-13	-12.8	17	N/A	0	DWK	6.10	67.90
4	06:35	3,447.24	3.55	77	77.0	-13	-12.9	17	N/A	0	DWK	6.30	69.00
5	06:35	1,823.62	1.79	76	76.1	-13	-13.3	17	N/A	0	DWK	6.00	64.60
6	06:40	984.00	0.55	78	78.0	-13	-13.1	18	N/A	0	DWK	7.10	75.20
7	06:40	1,715.43	0.24	77	76.7	-13	-12.6	19	N/A	0	DWK	7.20	78.00
8	06:35	841.52	0.57	78	77.6	-13	-12.5	19	N/A	0	DWK	7.10	77.50
9	10:00	1,344.38	1.50	76	75.2	-13	-12.9	18	N/A	0	RLW	7.00	70.30
10	06:50	5,275.05	0.74	77	76.8	-12	-12.3	17	N/A	0	DWK	6.80	66.50
11	06:40	2,223.24	1.33	77	76.8	-13	-13.2	17	N/A	0	DWK	6.40	69.40
12	06:40	5,628.95	6.62	76	75.9	-12	-12.5	18	N/A	0	DWK	7.10	70.50
13	06:35	5,674.29	4.81	77	76.7	-12	-12.4	18	N/A	0	DWK	6.50	72.80
14	06:50	5,353.14	3.67	77	76.7	-13	-13.1	18	N/A	0	DWK	6.60	73.80
15	06:35	6,164.95	4.64	76	76.0	-12	-12.5	18	N/A	0	DWK	6.70	73.90
16	08:30	3,796.19	4.79	76	76.3	-12	-12.3	18	N/A	0	RLW	6.50	71.30
17	07:15	3,381.71	3.00	76	76.6	-13	-13.2	18	N/A	0	DWK	6.50	69.30
18	06:55	3,558.86	1.98	77	76.9	-13	-13.3	18	N/A	0	DWK	6.70	69.30
19	10:00	2,480.38	1.38	77	77.0	-13	-13.3	18	N/A	0	RLW	6.60	68.30
20	08:50	2,745.14	1.48	76	76.0	-13	-13.3	18	N/A	0	RLW	6.50	68.90
21	09:50	2,384.38	3.50	76	76.3	-13	-13.1	18	N/A	0	RLW	6.60	71.90
22	09:00	2,723.05	1.43	76	76.2	-13	-13.2	18	N/A	0	RLW	6.50	70.10
23	09:30	2,193.90	1.45	76	76.1	-13	-13.3	18	N/A	0	RLW	6.60	69.10
24	06:45	5,809.90	1.36	76	76.4	-13	-13.3	18	N/A	0	DWK	6.60	71.10
25	06:45	5,705.52	5.90	76	75.8	-12	-12.1	17	N/A	0	DWK	6.20	70.10
26	06:45	4,816.00	3.38	76	76.7	-12	-12.0	17	N/A	0	DWK	6.20	67.80
27	06:45	5,034.67	4.26	76	76.2	-12	-11.8	17	N/A	0	DWK	6.00	67.30
28	06:45	4,750.48	5.83	76	76.1	-12	-11.7	17	N/A	0	DWK	6.30	67.30
29	06:45	5,565.33	6.57	76	76.5	-11	-11.0	17	N/A	0	DWK	6.20	67.10
30	10:00	3,185.90	1.83	76	75.8	-13	-12.9	17	N/A	0	RLW	6.20	67.10
31	06:55	3,686.48	0.43	76	75.4	-12	-12.8	17	N/A	0	DWK	6.30	66.60

Deffenbaugh #2 12/2023

Quarterly Injectate Samples

Quarter 4
Date Sample Collected 10/30/2023
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	<0.006	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	3.850	mg/l
Arsenic	0.032	mg/l
Benzene	0.008	mg/l
Calcium	384.000	mg/l
Chloride	888.000	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	9.200	Mmhos
Copper	0.018	mg/l
Dichloromethane (Methylene Chloride)	<0.054	mg/l
Ethylbenzene	<0.008	mg/l
Heptachlor	<0.000	mg/l
Iron	25.800	mg/l
Lead	0.006	mg/l

Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	86.800	mg/l
Methyl Ethyl Ketone (2-Butanone)	6.640	mg/l
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.041	mg/l
Nitrobenzene	<0.001	mg/l
Phenol	0.137	mg/l
Pyrene	<0.001	mg/l
Silver	<0.005	mg/l
Sulfate	504.000	mg/l
Tetrachloroethylene	<0.010	mg/l
Thallium	<0.002	mg/l
Toluene	<0.021	mg/l
Total Alkalinity as CaCO3	3,240.000	mg/l
Total Dissolved Solids	4,580.000	mg/l
Total Hardness as CaCO3	1,320.000	mg/l
Total Suspended Solids	86.000	mg/l
Trichloroethylene	<0.008	mg/l
Trichlorofluoromethane	<0.007	mg/l
Vinyl Chloride	<0.006	mg/l
Xylene	<0.018	mg/l
Zinc	0.486	mg/l