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

Submitted 11/01/2023 **Approved** 11/21/2023 **KOLAR Document ID** 1735541

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	3,449	2.10	83	83	-12.9	-13.2	0
Monthly Maximum	7,095	5.43	85	85	-12.0	-12.2	0
Monthly Minimum	423	0.00	81	81	-13.0	-13.8	0
Monthly Total	106,921						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
91.15	80.21	-0.46	-13.87

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	pH Standard Units	Temperature degrees F
1	06:50	3,069.33	2.38	81	81.2	-13	-13.5	21	N/A	0	DWK	7.40	79.80
2	06:30	3,069.33	2.29	81	81.3	-13	-13.4	20	N/A	0	DWK	7.40	79.80
3	06:35	2,983.24	2.00	82	82.3	-13	-13.5	20	N/A	0	DWK	7.40	81.40
4	06:30	2,629.71	1.36	82	81.6	-13	-13.0	20	N/A	0	DWK	7.30	78.40
5	06:30	4,273.14	1.86	82	81.9	-13	-13.1	20	N/A	0	DWK	7.30	77.80
6	06:35	5,699.05	2.02	82	81.8	-13	-13.6	19	N/A	0	DWK	7.00	75.80
7	10:00	4,189.33	3.79	82	82.7	-13	-13.5	19	N/A	0	RLW	7.10	73.10
8	06:40	4,106.67	2.00	83	82.6	-13	-13.6	18	N/A	0	DWK	7.10	72.50
9	06:30	4,259.81	2.05	82	82.2	-13	-13.6	19	N/A	0	DWK	7.00	71.90
10	06:35	4,623.24	3.24	83	82.5	-13	-13.5	18	N/A	0	DWK	7.10	71.50
11	06:35	4,765.33	3.31	82	82.2	-13	-13.3	19	N/A	0	DWK	7.20	75.10
12	06:35	4,446.10	2.05	82	82.2	-13	-13.4	19	N/A	0	DWK	7.20	76.10
13	06:30	6,058.36	2.05	82	82.0	-13	-13.4	19	N/A	0	DWK	7.20	74.40
14	10:00	2,808.69	3.38	82	82.5	-13	-13.6	18	N/A	0	RLW	7.20	69.90
15	07:05	4,027.05	2.07	83	83.2	-13	-13.8	18	N/A	0	DWK	7.20	69.80
16	06:40	1,675.43	1.50	84	83.9	-13	-13.7	17	N/A	0	DWK	7.30	68.90
17	06:35	423.24	0.62	84	83.4	-13	-13.1	19	N/A	0	DWK	7.50	76.50
18	06:30	2,207.24	1.36	83	82.8	-13	-13.4	20	N/A	0	DWK	7.40	78.20
19	06:35	1,752.38	0.62	83	83.3	-13	-12.7	20	N/A	0	DWK	7.30	80.50
20	06:35	1,752.38	0.67	83	83.3	-13	-13.2	20	N/A	0	DWK	7.30	77.20
21	10:00	653.71	0.69	85	85.4	-13	-12.6	20	N/A	0	RLW	7.40	82.30
22	06:40	1,082.67	0.64	84	83.4	-13	-12.9	20	N/A	0	DWK	7.40	78.10
23	06:35	1,128.76	0.43	84	83.1	-13	-12.5	20	N/A	0	DWK	7.30	79.50
24	06:45	1,141.33	2.02	84	83.5	-13	-13.2	20	N/A	0	DWK	7.40	81.20
25	06:40	572.57	0.00	84	83.4	-12	-12.2	20	N/A	0	DWK	7.40	77.30
26	06:35	4,426.67	0.10	84	83.5	-12	-12.5	20	N/A	0	DWK	7.50	78.70
27	06:35	6,459.81	3.38	84	83.3	-13	-13.4	19	N/A	0	DWK	6.60	74.90
28	10:00	3,630.10	4.90	84	84.0	-13	-13.1	18	N/A	0	RLW	6.50	71.00
29	06:45	5,239.24	5.43	84	84.1	-13	-13.4	18	N/A	0	DWK	6.70	69.80
30	06:35	6,672.38	3.69	85	84.5	-13	-13.5	18	N/A	0	DWK	6.40	69.70
31	06:40	7,094.86	3.31	85	84.4	-13	-13.5	18	N/A	0	DWK	6.50	68.60

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 08/17/2023
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	<0.005	mg/l
Acetone	8.230	mg/l
Arsenic	0.178	mg/l
Benzene	0.008	mg/l
Calcium	31.500	mg/l
Chloride	4,830.000	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	720.000	Mmhos
Copper	0.426	mg/l
Dichloromethane (Methylene Chloride)	<0.054	mg/l
Ethylbenzene	0.008	mg/l
Heptachlor	<0.000	mg/l
Iron	3.210	mg/l
Lead	0.026	mg/l

Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	116.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	4.770	mg/l
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.047	mg/l
Nitrobenzene	<0.010	mg/l
Phenol	<0.880	mg/l
Pyrene	<0.001	mg/l
Silver	<0.011	mg/l
Sulfate	98.000	mg/l
Tetrachloroethylene	<0.010	mg/l
Thallium	<0.009	mg/l
Toluene	0.034	mg/l
Total Alkalinity as CaCO3	14,100.000	mg/l
Total Dissolved Solids	18,600.000	mg/l
Total Hardness as CaCO3	556.000	mg/l
Total Suspended Solids	46.700	mg/l
Trichloroethylene	<0.008	mg/l
Trichlorofluoromethane	<0.007	mg/l
Vinyl Chloride	<0.006	mg/l
Xylene	<0.027	mg/l
Zinc	0.262	mg/l