Facility Well Name Deffenbaugh #2 **UIC Permit #** KS-01-091-002 **Month** November **Year** 2020

Submitted 12/04/2020 **Approved** 12/07/2020 **KOLAR Document ID** 1538159

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

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	1,929	1.19	78	78	-12.0	-13.0	0
Monthly Maximum	3,836	2.93	83	82	-12.0	-12.5	0
Monthly Minimum	1,436	0.14	74	74	-12.0	-13.5	0
Monthly Total	57,858						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
82.90	72.40	-12.40	-13.70

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	07:00	1,574.05	1.19	81	81.1	-12	-13.1	24	N/A	0	DWK	7.10	81.70
2	06:40	1,580.71	0.19	82	81.6	-12	-12.8	23	N/A	0	DWK	7.10	81.20
3	07:00	1,703.48	0.19	82	81.6	-12	-12.7	24	N/A	0	DWK	7.10	83.10
4	06:40	1,585.52	0.19	82	82.0	-12	-12.8	23	N/A	0	DWK	7.00	82.50
5	06:40	1,539.48	0.38	83	82.3	-12	-12.7	24	N/A	0	DWK	7.10	84.10
6	06:40	1,806.86	1.24	78	78.5	-12	-12.8	24	N/A	0	DWK	7.10	84.10
7	06:55	1,817.10	0.36	78	78.1	-12	-12.6	24	N/A	0	AWK	7.00	83.20
8	06:55	1,772.62	1.26	78	77.7	-12	-12.8	24	N/A	0	DWK	7.00	85.00
9	06:40	1,926.05	0.14	78	77.6	-12	-12.6	24	N/A	0	DWK	7.00	85.30
10	06:40	3,835.76	1.45	78	77.6	-12	-12.8	24	N/A	0	DWK	7.00	83.60
11	06:40	1,900.48	2.76	77	77.3	-12	-13.4	21	N/A	0	DWK	6.90	71.10
12	06:35	2,087.71	1.33	78	77.3	-12	-12.9	23	N/A	0	DWK	7.00	81.30
13	06:35	2,171.33	1.19	78	77.5	-12	-13.0	23	N/A	0	DWK	6.90	79.80
14	09:30	1,694.10	0.21	78	77.0	-12	-12.5	23	N/A	0	RLW	7.10	84.30
15	06:46	1,736.57	1.14	78	77.6	-12	-13.0	23	N/A	0	AWK	7.10	80.10
16	06:58	1,524.57	1.26	78	77.1	-12	-13.1	23	N/A	0	AWK	7.00	78.90
17	06:57	1,436.19	1.19	78	77.1	-12	-13.2	23	N/A	0	AWK	7.10	80.80
18	06:42	1,503.24	1.21	78	77.3	-12	-13.1	23	N/A	0	AWK	7.10	81.40
19	06:46	1,611.62	1.43	78	77.0	-12	-12.8	24	N/A	0	AWK	7.10	81.30
20	06:58	1,637.33	0.52	77	76.8	-12	-12.7	24	N/A	0	AWK	7.10	82.90
21	03:30	1,543.24	0.14	77	76.7	-12	-13.0	24	N/A	0	RLW	7.00	82.80
22	06:50	1,562.10	0.21	78	77.3	-12	-13.1	23	N/A	0	DWK	7.10	80.70
23	06:40	2,345.90	2.67	78	77.6	-12	-13.3	23	N/A	0	DWK	7.10	80.50
24	06:30	2,792.02	0.17	77	76.9	-12	-12.8	22	N/A	0	DWK	7.10	80.10
25	06:35	2,808.98	2.64	77	77.1	-12	-13.3	21	N/A	0	DWK	6.90	71.70
26	08:00	3,004.52	2.74		77.4		-13.1	21	N/A	0	DSB	7.10	83.20
27	06:45	2,837.52	2.50	77	77.0	-12	-13.5	21	N/A	0	DWK	6.70	69.20
28	06:44	1,562.71	2.93	74	74.3	-12	-13.4	21	N/A	0	AWK	7.20	70.30
29	06:50	1,493.57	2.69	75	75.0	-12	-12.9	23	N/A	0	DWK	6.90	83.10
30	06:35	1,463.14	0.21	75	74.3	-12	-12.8	23	N/A	0	DWK	7.00	80.10
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Quarterly Injectate Samples

Quarter 4
Date Sample Collected 10/13/2020
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	<0.003	mg/l
1,1-Dichloroethane	<0.003	mg/l
1,2-Dichlorobenzene	<0.003	mg/l
1,2-Dichloroethane	<0.003	mg/l
1,1-Dichloroethylene	<0.003	mg/l
1,2-Dichloropropane	<0.003	mg/l
1,3-Dichloropropene	<0.005	mg/l
Acetone	3.360	mg/l
Arsenic	0.085	mg/l
Benzene	0.003	mg/l
Calcium	69.500	mg/l
Chloride	1,800.000	mg/l
Chlorobenzene	<0.003	mg/l
Chloroethane	<0.013	mg/l
Chloroform	<0.003	mg/l
Cis-1,2-Dichloroethylene	<0.003	mg/l
Conductivity	15.600	Mmhos
Copper	0.010	mg/l
Dichloromethane (Methylene Chloride)	<0.013	mg/l
Ethylbenzene	0.005	mg/l
Heptachlor	<0.000	mg/l
Iron	2.520	mg/l
Lead	0.008	mg/l

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Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	115.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	1.600	mg/l
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.015	mg/l
Nitrobenzene	<0.200	mg/l
Phenol	0.316	mg/l
Pyrene	<0.020	mg/l
Silver	<0.018	mg/l
Sulfate	205.000	mg/l
Tetrachloroethylene	<0.003	mg/l
Thallium	<0.018	mg/l
Toluene	0.014	mg/l
Total Alkalinity as CaCO3	6,430.000	mg/l
Total Dissolved Solids	8,520.000	mg/l
Total Hardness as CaCO3	649.000	mg/l
Total Suspended Solids	21.600	mg/l
Trichloroethylene	<0.003	mg/l
Trichlorofluoromethane	<0.013	mg/l
Vinyl Chloride	<0.003	mg/l
Xylene	0.011	mg/l
Zinc	0.123	mg/l