Facility Well Name Koch Fertilizer #3 **UIC Permit #** KS-01-057-002 **Month** January **Year** 2020

Submitted 02/28/2020 **Approved** 03/02/2020 **KOLAR Document ID** 1507622

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 20,143

			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	8,271	4.28	157	157	-23.7	-21.3	0
Monthly Maximum	18,413	13.45	166	165	-19.0	-14.8	0
Monthly Minimum	357	0.00	149	149	-25.0	-23.6	0
Monthly Total	256,409						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
166.40	145.20	-13.10	-25.00

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		
1	09:50	1,236.33	0.00	156	155.0	-25	-23.1	16		0	PS		
2	08:57	1,499.48	11.93	155	154.0	-24	-20.5	16		0	PS		
3	13:40	2,305.64	0.00	166	165.0	-24	-23.5	17		0	JL		
4	13:30	356.90	0.00	158	157.0	-25	-22.9	16		0	JL		
5	14:00	10,430.26	13.31	161	160.0	-21	-16.2	17		0	JL		
6	10:50	16,568.76	12.40	157	156.0	-24	-19.7	16		0	JL		
7	11:46	16,578.00	0.00	160	160.0	-25	-23.6	17		0	DV		
8	16:52	746.69	0.00	161	161.0	-25	-23.1	17		0	DV		
9	12:08	7,836.19	0.00	160	158.0	-24	-22.8	16		0	DV		
10	11:07	8,743.40	0.00	160	159.0	-25	-23.3	17		0	DV		
11	11:56	7,162.21	13.24	151	150.0	-20	-15.9	22		0	BB		
12	11:59	17,263.36	0.14	149	149.0	-24	-23.0	22		0	BB		
13	10:42	17,565.76	13.21	152	150.0	-21	-15.7	15		0	KB		
14	10:28	16,940.48	0.00	152	151.0	-25	-22.7	15		0	KB		
15	09:17	1,509.40	0.00	162	162.0	-24	-23.5	17		0	PS		
16	10:10	2,386.19	3.05	156	153.0	-20	-22.1	16		0	PS		
17	12:50	7,478.90	0.00	161	160.0	-25	-22.3	18		0	PS		
18	10:00	1,535.64	0.00	158	157.0	-25	-23.6	16		0	PS		
19	13:45	513.38	13.40	157	156.0	-22	-16.6	16		0	JL		
20	15:00	18,413.14	0.00	158	157.0	-25	-23.6	16		0	JL		
21	14:20	12,885.24	0.00	154	153.0	-25	-22.3	16		0	JL		
22	15:40	4,318.38	0.00	157	164.0	-25	-23.3	17		0	WT		
23	14:30	2,092.93	0.00	163	163.0	-25	-23.5	17		0	DV		
24	11:09	7,679.17	0.00	158	157.0	-24	-23.4	16		0	DV		
25	13:16	8,108.81	0.00	157	157.0	-25	-23.0	16		0	DV		
26	10:17	5,457.52	13.36	156	156.0	-19	-14.8	15		0	DV		
27	12:42	10,464.24	0.00	156	156.0	-25	-23.4	16		0	BB		
28	11:49	8,107.62	13.45	154	154.0	-20	-20.1	22		0	BB		
29	11:58	16,536.69	13.12	157	157.0	-24	-16.5	16		0	KB		
30	10:15	14,324.05	12.02	156	156.0	-24	-19.4	16		0	KB		
31	14:08	9,364.62	0.00	163	163.0	-25	-23.5	17		0	PS		

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Weekly Injectate Samples

Kansas Lab Certificate Number E-10116

Week	Temperature		pH		Chloride			Nitrate	Orthophosphate
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed	mg/l	mg/l
1	74.00	01/06/2020	9.25	01/06/2020	191.0	01/06/2020	01/10/2020	32.30000	0.36000
2	80.10	01/13/2020	7.06		188.0	01/13/2020	01/17/2020	26.10000	1.10000
3	86.70	01/20/2020	5.75	01/20/2020	199.0	01/20/2020	01/24/2020	129.00000	1.20000
4	86.90	01/27/2020	8.45	01/27/2020	185.0	01/27/2020	02/04/2020	24.90000	1.10000
5									

Monthly Injectate Samples

Date Sample Collected 01/06/2020

Kansas Lab Certificate Number 10116

Constituent	Value	Units
Chromium	0.0311	mg/l

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Quarterly Injectate Samples

Quarter 1
Date Sample Collected 01/06/2020
Kansas Lab Certificate Number E-10116
Lab Name Pace Analytical-Lenexa

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

Constituent	Value	Units
Calcium	206.000	mg/l
Conductivity	4,760.000	Mmhos
Iron	0.071	mg/l
Magnesium	85.100	mg/l
Sodium	262.000	mg/l
Specific Gravity	1.000	N/A
Sulfate	1,390.000	mg/l
Total Alkalinity as CaCO3	861.000	mg/l
Total Dissolved Solids	1,990.000	mg/l
Total Hardness as CaCO3	864.000	mg/l
Zinc	0.144	mg/l