Facility Well Name Kansas Ethanol #5 **UIC Permit #** KS-01-159-007 **Month** April **Year** 2019

Submitted 05/28/2019 **Approved** 06/04/2019 **KOLAR Document ID** 1461034

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

Barrels per Day Maximum: 13,714

			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	4,784	3.50	76	78	-22.0	-18.4	
Monthly Maximum	11,067	7.14	79	81	-5.0	-4.1	
Monthly Minimum	2,000	0.00	74	77	-29.0	-24.3	
Monthly Total	143,520						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
83.80	76.80	-4.10	-24.30

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	08:45	4,142.86	3.07	74	77.0	-25	-21.3	10	N/A		BF		
2	08:45	4,309.52	3.00	75	77.0	-25	-21.2	10	N/A		BF		
3	08:30	4,380.95	3.10	75	77.0	-25	-20.8	10	N/A		BF		
4	09:15	4,476.19	3.10	75	78.0	-25	-19.8	10	N/A		BF		
5	09:30	4,380.95	3.10	76	79.0	-24	-20.0	10	N/A		BF		
6	09:00	3,976.19	3.14	76	79.0	-24	-19.9	10	N/A		ZK		
7	08:45	3,023.81	0.00	76	79.0	-28	-22.0	10	N/A		ZK		
8	08:45	2,714.29	3.24	76	79.0	-24	-20.0	10	N/A		BF		
9	08:30	3,833.33	3.17	76	78.0	-24	-20.6	10	N/A		BF		
10	08:30	4,428.57	3.57	76	78.0	-23	-19.5	10	N/A		BF		
11	08:15	4,571.43	3.62	76	78.0	-23	-19.2	10	N/A		BF		
12	09:30	5,452.38	3.57	75	77.0	-23	-20.3	10	N/A		BF		
13	08:45	4,738.10	3.71	75	78.0	-24	-19.9	10	N/A		AC		
14	09:00	5,190.48	3.69	75	78.0	-24	-19.6	10	N/A		AC		
15	09:15	4,500.00	3.71	76	79.0	-23	-19.1	10	N/A		BF		
16	09:00	4,714.29	3.74	77	80.0	-22	-18.3	10	N/A		BF		
17	08:15	4,690.48	3.64	77	80.0	-23	-19.5	10	N/A		BF		
18	08:30	2,000.00	3.86	79	81.0	-23	-19.5	11	N/A		BF		
19	08:45	5,476.19	3.74	76	77.0	-24	-20.5	10	N/A		BF		
20	09:15	5,380.95	3.62	75	77.0	-24	-20.4	10	N/A		PH		
21	09:20	4,404.76	3.67	75	78.0	-23	-19.6	10	N/A		PH		
22	09:00	3,285.71	3.74	76	78.0	-23	-19.7	10	N/A		BF		
23	06:15	4,119.05	0.00	76	79.0	-28	-23.2	10	N/A		BF		
24	06:30	2,476.19	5.90	77	79.0	-5	-4.1	10	N/A		BF		
25	06:30	6,880.95	6.52	77	78.0	-8	-5.9	10	N/A		BF		
26	08:15	8,571.43	6.71	76	78.0	-8	-6.2	10	N/A		BF		
27	08:30	7,333.33	0.00	76	78.0	-28	-23.2	10	N/A		AC		
28	08:20	4,619.05	0.00	76	77.0	-29	-24.3	10	N/A		AC		
29	08:15	4,380.95	7.14	75	78.0	-11	-8.9	10	N/A		BF		
30	08:15	11,067.14	5.95	76	77.0	-16	-14.3	10	N/A		BF		
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Weekly Injectate Samples

Kansas Lab Certificate Number E-10152

Week	Temperature		pH		Chloride				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	67.60	04/04/2019	7.54	04/04/2019	387.0	04/04/2019	04/09/2019		
2	71.20	04/09/2019	7.59	04/09/2019	380.0	04/09/2019	04/11/2019		
3	67.30	04/16/2019	7.53	04/16/2019	340.0	04/16/2019	04/18/2019		
4	72.50	04/22/2019	7.66	04/22/2019	330.0	04/22/2019	04/25/2019		
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No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 04/04/2019
Kansas Lab Certificate Number E-10152
Lab Name SDK Laboratories (Hutchinson)

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

Constituent	Value	Units
Calcium	262.000	mg/l
Conductivity	2,850.000	Mmhos
Iron	0.398	mg/l
Magnesium	49.800	mg/l
Sulfate	288.000	mg/l
Total Alkalinity as CaCO3	600.000	mg/l
Total Dissolved Solids	1,980.000	mg/l
Total Hardness as CaCO3	859.000	mg/l