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

Submitted 01/10/2020 **Approved** 01/21/2020 **KOLAR Document ID** 1487763

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

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	4,181	2.70	71	74	-24.7	-20.4	
Monthly Maximum	5,595	3.21	72	76	-23.0	-18.7	
Monthly Minimum	2,286	0.00	70	72	-28.0	-22.4	
Monthly Total	129,619						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
78.00	71.70	-17.60	-23.00

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	Conduc-tivity	
1	09:15	3,380.95	0.00	71	74.1	-28	-22.2	11	N/A		PH	3,101.00	
2	08:30	3,095.24	3.10	71	74.2	-24	-20.5	11	N/A		BF	2,680.00	
3	09:00	4,523.81	3.10	71	74.6	-24	-20.1	11	N/A		BF	2,592.00	
4	08:00	4,190.48	3.07	72	75.1	-24	-20.0	11	N/A		BF	2,518.00	
5	08:30	4,309.52	3.12	72	75.2	-24	-19.7	11	N/A		BF	2,555.00	
6	08:45	4,357.14	3.07	72	75.3	-24	-19.9	11	N/A		BF	2,390.00	
7	08:40	4,214.29	0.00	72	74.4	-26	-20.3	11	N/A		DW	2,569.00	
8	08:45	4,285.71	3.14	72	75.1	-24	-22.4	11	N/A		DW	2,912.00	
9	08:45	4,309.52	3.07	71	74.8	-24	-19.6	11	N/A		BF	2,999.00	
10	08:45	4,261.90	3.14	70	72.8	-24	-19.7	10	N/A		BF	2,800.00	
11	08:30	4,428.57	3.07	70	72.7	-24	-20.7	10	N/A		BF	2,805.00	
12	09:30	4,642.86	3.07	71	74.6	-24	-20.5	10	N/A		BF	3,106.00	
13	09:00	4,309.52	3.07	71	74.3	-24	-19.7	10	N/A		BF	3,310.00	
14	08:15	4,333.33	3.07	71	74.5	-24	-19.9	11	N/A		PH	3,121.00	
15	08:20	3,952.38	3.12	70	72.3	-25	-19.9	10	N/A		PH	2,732.00	
16	09:15	3,714.29	3.10	70	72.2	-24	-20.1	10	N/A		BF	3,048.00	
17	08:30	4,238.10	3.02	70	71.6	-24	-20.8	10	N/A		BF	3,166.00	
18	06:45	4,023.81	3.02	70	72.3	-24	-21.2	10	N/A		BF	3,008.00	
19	06:45	5,595.24	3.10	70	72.9	-24	-21.0	10	N/A		BF	2,861.00	
20	06:45	4,333.33	0.00	70	73.4	-28	-20.4	10	N/A		BF	2,999.00	
21	09:00	4,666.67	3.10	70	72.8	-28	-22.2	10	N/A		DW	2,772.00	
22	09:00	4,238.10	3.21	70	73.5	-28	-20.5	10	N/A		DW	2,853.00	
23	08:15	4,238.10	3.10	71	73.4	-24	-20.0	10	N/A		LB	2,921.00	
24	09:30	4,476.19	0.00	71	73.8	-28	-20.0	10	N/A		AT	3,230.00	
25	08:00	3,928.57	3.19	72	75.5	-24	-22.0	10	N/A		CP	3,119.00	
26	01:00	5,238.10	3.14	71	74.7	-24	-18.7	10	N/A		AJR	2,958.00	
27	01:15	4,357.14	3.21	70	73.6	-24	-19.7	10	N/A		AJR	2,895.00	
28	08:15	3,380.95	3.07	71	74.4	-23	-19.9	10	N/A		CP	2,496.00	
29	08:20	2,285.71	3.02	70	73.8	-24	-19.3	10	N/A		CP	2,447.00	
30	06:50	4,071.43	3.10	70	72.6	-24	-19.9	10	N/A		BF	2,555.00	
31	06:45	4,238.10	3.14	70	72.7	-24	-20.3	10	N/A		BF	2,911.00	

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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	59.50	12/04/2019	7.85	12/04/2019	310.0	12/04/2019	12/05/2019		
2	53.40	12/11/2019	7.88	12/11/2019	315.0	12/11/2019	12/12/2019		
3	59.50	12/18/2019	7.82	12/18/2019	345.0	12/18/2019	12/20/2019		
4	60.80	12/26/2019	7.71	12/26/2019	340.0	12/26/2019	12/31/2019		
5	56.10	12/31/2019	7.47	12/31/2019	315.0	12/31/2019	01/03/2020		

No monthly injectate samples required.