Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** September **Year** 2020

Submitted 10/15/2020 **Approved** 10/21/2020 **KOLAR Document ID** 1533194

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

Barrels per Day Maximum: 51,429

			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	1,889	1.31	109	109	3.4	2.5	
Monthly Maximum	3,442	2.38	118	116	13.0	11.6	
Monthly Minimum	606	0.43	102	102	2.0	1.2	
Monthly Total	56,659						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
127.31	0.04	18.44	0.56

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	07:00	1,772.57	1.24	105	109.3	5	4.6	8			RM		
2	07:00	1,674.52	1.17	108	116.0	3	2.0	9			JC		
3	07:00	2,052.69	1.43	104	102.5	3	2.4	8			JC		
4	07:00	1,014.52	0.71	102	105.3	4	3.0	8			JM		
5	07:00	983.67	0.69	105	106.2	3	2.3	7			JM		
6	07:00	1,254.86	0.88	103	103.8	4	2.9	7			JM		
7	07:00	606.17	0.43	110	108.9	4	3.4	9			BF		
8	07:00	2,085.95	1.45	102	102.4	4	3.0	8			BF		
9	07:00	1,958.40	1.36	103	105.4	3	1.4	4			JM		
10	07:00	1,601.83	1.12	104	105.9	3	1.5	4			RM		
11	07:00	1,595.67	1.12	108	109.7	13	11.6	4			BF		
12	07:00	2,100.33	1.45	112	112.0	3	1.9	5			BF		
13	07:00	1,992.00	1.38	112	113.9	3	1.3	6			MW		
14	07:00	1,537.71	1.07	115	114.7	2	1.9	6			MH		
15	07:00	1,548.33	1.07	114	112.9	3	1.7	6			MH		
16	07:00	1,736.24	1.21	118	112.8	5	3.7	6			MW		
17	07:00	1,688.24	1.17	114	112.5	2	1.3	6			MH		
18	07:00	2,362.29	1.64	112	110.7	2	1.4	6			MH		
19	07:00	1,764.69	1.21	110	109.2	2	1.7	6			MH		
20	07:00	2,193.26	1.52	108	107.3	2	1.9	6			MH		
21	07:00	2,848.45	1.98	108	107.8	2	1.7	6			MH		
22	07:00	1,911.10	1.33	110	108.6	2	1.4	7			MH		
23	07:00	2,662.62	1.86	112	111.6	3	1.9	6			MH		
24	07:00	1,962.86	1.36	110	108.0	5	3.9	6			MH		
25	07:00	2,484.33	1.71	110	111.6	4	1.7	7			MW		
26	07:00	2,555.67	1.79	115	112.2	2	1.4	7			JM		
27	07:00	1,624.45	1.12	113	113.0	5	4.1	8			TB		
28	07:00	3,441.95	2.38	102	104.8	2	1.2	6			JM		
29	07:00	2,378.05	1.64	103	104.7	2	1.5	5			JM		
30	07:00	1,265.48	0.88	110	109.4	2	1.2	5			MH		
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Weekly Injectate Samples

Kansas Lab Certificate Number E-10116

Week	Temperature		pH		Chloride				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	84.00	09/01/2020	7.86	09/01/2020	231.0	09/01/2020	09/12/2020		
2	78.00	09/08/2020	7.44	09/08/2020	228.0	09/08/2020	09/30/2020		
3	78.30	09/15/2020	7.47	09/15/2020	221.0	09/15/2020	09/29/2020		
4	80.60	09/22/2020	7.22	09/22/2020	185.0	09/22/2020	10/05/2020		
5	70.00	09/29/2020	7.88	09/29/2020	214.0	09/29/2020	10/06/2020		

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 09/29/2020
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
1,2 Dichloroethene	ND	mg/l
Ammonia	ND	mg/l
Benzene	ND	mg/l
Calcium	50.000	mg/l
Conductivity	1.000	Mmhos
Ethylbenzene	ND	mg/l
Iron	0.170	mg/l
Magnesium	4.900	mg/l
Oil and Grease	ND	mg/l
Sodium	162.000	mg/l
Sulfate	107.000	mg/l
Toluene	ND	mg/l
Total Alkalinity as CaCO3	110.000	mg/l (as CaCO3)
Total Dissolved Solids	724.000	mg/l
Total Suspended Solids	ND	mg/l
Trichloroethene	ND	mg/l
Xylene	ND	mg/l