Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** September **Year** 2022

Submitted 10/19/2022 **Approved** 10/28/2022 **KOLAR Document ID** 1670060

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 29

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	2,218	1.54	98	99	2.9	3.2	
Monthly Maximum	6,069	4.21	110	109	5.0	5.0	
Monthly Minimum	0	0.00	90	92	2.0	2.6	
Monthly Total	66,552						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
123.04	0.04	17.46	1.89

Comments:

The annulus pressure and injection pressure continuous recorders were calibrated on 9/2/2022.

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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	2,857.38	1.98	100	98.2	3	2.8	10			JC		
2	07:00	1,694.40	1.17	95	96.0	2	2.8	10			AF		
3	07:00	2,430.52	1.69	96	97.1	2	2.8	11			MW		
4	07:00	2,475.76	1.71	93	93.1	3	2.8	10			MW		
5	07:00	1,337.14	0.93	90	93.5	2	2.8	9			MB		
6	07:00	2,467.19	1.71	96	96.1	2	2.7	10			MB		
7	07:00	2,289.60	1.60	95	96.0	2	2.8	10			AF		
8	07:00	2,391.10	1.67	95	94.9	2	2.7	10			AF		
9	07:00	2,082.52	1.45	90	92.9	2	2.9	9			MB		
10	07:00	1,749.60	1.21	92	92.9	2	2.7	10			BD		
11	07:00	2,659.19	1.86	96	94.2	2	2.6	7			BD		
12	07:00	2,524.12	1.76	101	102.5	2	2.8	9			CG		
13	07:00	3,762.17	2.62	104	104.4	2	2.7	9			CG		
14	07:00	3,235.88	2.24	106	108.5	2	2.8	10			BD		
15	07:00	2,563.55	1.79	106	106.4	2	2.8	9			BD		
16	07:00	3,328.45	2.31	106	106.9	2	2.8	10			MH		
17	07:00	2,227.19	1.55	110	108.1	3	3.2	9			MH		
18	07:00	437.83	0.31	106	104.0	5	4.7	9			CG		
19	07:00	791.31	0.55	104	106.0	2	2.9	9			TY		
20	07:00	1,531.19	1.07	104	106.0	5	4.1	9			TY		
21	07:00	87.43	0.07	104	102.6	5	4.5	9			CG		
22	07:00	834.17	0.57	95	93.7	3	3.1	8			CG		
23	07:00	571.55	0.40	95	95.4	4	3.7	8			TY		
24	07:00	0.00	0.00	90	91.7	5	3.9	7			TY		
25	07:00	909.60	0.64	94	96.9	2	2.9	7			TY		
26	07:00	946.29	0.67	96	94.7	5	5.0	7			MW		
27	07:00	5,986.62	4.17	95	95.8	5	4.8	8			MW		
28	07:00	6,068.90	4.21	95	97.6	3	2.7	8			TY		
29	07:00	3,827.67	2.67	95	94.9	3	2.7	8			TY		
30	07:00	2,484.00	1.71	95	95.4	3	2.8	8			MW		
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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	87.20	09/06/2022	7.98	09/06/2022	360.0	09/06/2022	09/29/2022		
2	84.20	09/13/2022	7.84	09/13/2022	446.0	09/13/2022	09/29/2022		
3	89.30	09/19/2022	8.22	09/19/2022	401.0	09/19/2022	10/07/2022		
4	79.00	09/27/2022	7.62	09/27/2022	423.0	09/27/2022	10/06/2022		
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No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 09/19/2022
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	0.640	mg/l
Benzene	ND	mg/l
Calcium	103.000	mg/l
Conductivity	2.010	Mmhos
Ethylbenzene	ND	mg/l
Iron	0.244	mg/l
Magnesium	9.400	mg/l
Oil & Grease	ND	mg/l
Sodium	244.000	mg/l
Sulfate	210.000	mg/l
Toluene	ND	mg/l
Total Alkalinity as CaCO3	166.000	mg/l
Total Dissolved Solids	1,130.000	mg/l
Total Suspended Solids	ND	mg/l
Trichloroethene	ND	mg/l
Xylene	ND	mg/l