Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** September **Year** 2023

Submitted 10/20/2023 **Approved** 11/01/2023 **KOLAR Document ID** 1734114

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	4,237	2.94	84	84	3.7	3.3	
Monthly Maximum	4,610	3.19	94	96	6.0	5.8	
Monthly Minimum	3,948	2.74	78	79	2.0	2.7	
Monthly Total	127,113						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
111.85	78.09	17.19	2.27

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	4,001.48	2.79	92	90.5	3	2.9	15			NB		
2	07:00	3,975.76	2.76	94	96.0	3	3.0	15			NB		
3	07:00	4,087.19	2.83	82	85.8	3	2.8	15			NB		
4	07:00	4,328.90	3.00	90	89.4	2	2.8	15			MB		
5	07:00	4,093.02	2.83	90	90.3	3	2.8	15			MB		
6	07:00	4,112.24	2.86	82	84.3	3	2.8	15			NB		
7	07:00	4,382.40	3.05	90	85.6	3	2.9	15			NB		
8	07:00	4,410.86	3.07	90	85.9	2	2.8	15			MB		
9	07:00	4,377.60	3.05	85	85.1	3	2.9	15			MB		
10	07:00	4,254.86	2.95	90	87.2	5	3.9	15			MB		
11	07:00	4,362.86	3.02	88	82.0	4	3.4	14			CG		
12	07:00	4,366.62	3.02	78	78.6	3	3.1	13			CG		
13	07:00	4,610.05	3.19	80	81.9	4	3.4	14			BD		
14	07:00	4,321.38	3.00	80	81.1	4	3.0	14			BD		
15	07:00	4,234.62	2.95	82	82.6	3	2.8	13			CG		
16	07:00	4,209.95	2.93	84	82.0	3	3.1	13			CG		
17	07:00	4,292.90	2.98	84	84.1	3	2.9	14			CG		
18	07:00	4,254.17	2.95	81	82.7	6	5.8	14			TY		
19	07:00	4,229.48	2.93	88	87.2	6	4.1	14			CG		
20	07:00	4,221.60	2.93	83	84.3	3	2.8	14			MH		
21	07:00	4,386.52	3.05	82	82.7	5	4.5	14			MH		
22	07:00	4,274.40	2.98	81	82.0	5	4.8	14			TY		
23	07:00	4,253.83	2.95	82	82.5	5	3.7	14			TY		
24	07:00	4,244.24	2.95	80	79.7	3	2.7	14			TY		
25	07:00	4,228.81	2.93	80	81.3	3	2.9	14			NB		
26	07:00	4,205.48	2.93	80	81.0	3	2.8	14			NB		
27	07:00	4,192.81	2.90	80	80.9	6	5.4	14			TY		
28	07:00	4,197.60	2.90	80	80.0	4	2.9	13			TY		
29	07:00	4,053.26	2.81	80	81.9	4	3.4	14			NB		
30	07:00	3,947.67	2.74	80	82.5	4	3.1	14			NB		
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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	94.30	09/05/2023	7.15	09/05/2023	354.0	09/05/2023	10/02/2023		
2	88.80	09/12/2023	7.05	09/12/2023	831.0	09/12/2023	10/02/2023		
3	92.80	09/19/2023	7.48	09/19/2023	771.0	09/19/2023	10/02/2023		
4	90.30	09/26/2023	7.12	09/26/2023	563.0	09/26/2023	10/02/2023		
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No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 09/26/2023
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	2.800	mg/l
Benzene	0.080	mg/l
Calcium	277.000	mg/l
Conductivity	3.750	Mmhos
Ethylbenzene	0.009	mg/l
Iron	11.500	mg/l
Magnesium	25.700	mg/l
Oil & Grease	9.700	mg/l
Sodium	438.000	mg/l
Sulfate	664.000	mg/l
Toluene	0.038	mg/l
Total Alkalinity as CaCO3	390.000	mg/l
Total Dissolved Solids	2,310.000	mg/l
Total Suspended Solids	43.500	mg/l
Trichloroethene	ND	mg/l
Xylene	0.088	mg/l