Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** June **Year** 2022

Submitted 07/22/2022 **Approved** 07/28/2022 **KOLAR Document ID** 1657376

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

Barrels per Day Maximum: 34,286

			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	17,165	11.92	95	93	2.3	1.8	
Monthly Maximum	21,984	15.26	106	115	4.0	2.5	
Monthly Minimum	14,248	9.90	85	85	2.0	1.4	
Monthly Total	514,954						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
109.08	79.33	11.56	1.11

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	21,983.67	15.26	102	98.3	3	2.0	9			CG		
2	07:00	20,798.05	14.45	94	90.9	2	1.7	6			CG		
3	07:00	14,247.76	9.90	100	96.6	2	1.4	8			JC		
4	07:00	15,096.33	10.48	100	98.4	2	1.5	9			TY		
5	07:00	18,583.88	12.90	104	102.1	4	2.5	11			TY		
6	07:00	19,152.69	13.31	100	96.2	3	1.9	11			MB		
7	07:00	19,389.95	13.48	98	94.2	2	1.5	10			MB		
8	07:00	17,775.43	12.33	100	115.3	2	1.5	9			TY		
9	07:00	17,006.40	11.81	106	106.9	3	1.4	7			TY		
10	07:00	15,851.31	11.00	100	96.4	3	2.3	11			MB		
11	07:00	16,058.05	11.14	90	88.6	2	1.4	9			MW		
12	07:00	14,992.12	10.40	98	93.8	2	1.7	10			MB		
13	07:00	14,499.43	10.07	90	88.4	2	1.4	10			BD		
14	07:00	17,485.38	12.14	98	90.6	2	1.5	9			BD		
15	07:00	17,217.26	11.95	95	92.8	2	1.6	10			MB		
16	07:00	16,408.45	11.40	95	92.7	2	1.8	11			MB		
17	07:00	16,311.10	11.33	96	93.2	2	1.6	12			BD		
18	07:00	16,100.57	11.19	96	94.0	2	1.8	12			BF		
19	07:00	14,934.52	10.38	90	88.7	3	2.1	12			BD		
20	07:00	16,998.52	11.81	85	84.8	2	1.4	10			MH		
21	07:00	18,117.95	12.57	90	86.9	3	2.3	10			MH		
22	07:00	20,343.10	14.12	92	89.5	2	1.8	11			BD		
23	07:00	14,275.88	9.90	94	89.0	2	1.9	11			BD		
24	07:00	20,326.29	14.12	92	88.6	2	2.1	11			MH		
25	07:00	18,676.81	12.98	90	87.4	3	2.1	11			CG		
26	07:00	17,259.10	11.98	94	90.6	3	2.3	10			CG		
27	07:00	17,810.40	12.36	87	84.5	2	1.6	8			CG		
28	07:00	15,426.17	10.71	90	89.5	2	1.6	9			MW		
29	07:00	15,343.88	10.67	90	87.9	2	1.8	8			CG		
30	07:00	16,483.88	11.45	90	86.9	2	1.6	8			CG		
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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	98.10	06/07/2022	8.06	06/07/2022	786.0	06/07/2022	06/28/2022		
2	95.80	06/14/2022	7.59	06/14/2022	738.0	06/14/2022	06/28/2022		
3	85.00	06/24/2022	7.52	06/24/2022	811.0	06/24/2022	07/05/2022		
4	91.00	06/28/2022	7.32	06/28/2022	616.0	06/28/2022	07/08/2022		
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No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 06/24/2022
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
Ammonia	9.600	mg/l
Benzene	0.008	mg/l
Calcium	292.000	mg/l
Conductivity	12.200	Mmhos
Ethylbenzene	ND	mg/l
Iron	12.500	mg/l
Magnesium	28.900	mg/l
Oil & Grease	5.500	mg/l
Sodium	601.000	mg/l
Sulfate	712.000	mg/l
Toluene	0.003	mg/l
Total Alkalinity as CaCO3	427.000	mg/l
Total Dissolved Solids	3.020.000	mg/l
Total Hardness as CaCO3	119.000	mg/l
Total Suspended Solids	52.900	mg/l
Xylene	0.053	mg/l