Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** July **Year** 2023

Submitted 08/17/2023 **Approved** 08/30/2023 **KOLAR Document ID** 1725878

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 34,286

	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Annulus Pressure psig min 60 Gauge psig	Annulus Pressure Cont. Record psig	Injection Pressure Gauge psig	Injection Pressure Cont. Record psig	Amount Added to Seal Pot
Monthly Average	14,795	10.27	93	90	3.3	4.8	
Monthly Maximum	20,862	14.48	104	102	15.0	13.4	
Monthly Minimum	5,773	4.00	80	77	2.0	2.1	
Monthly Total	458,629						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
118.36	32.80	13.82	1.96

Comments:

The continuous recorder annulus pressure on the well went below 60 psia during MIT testing on the well during the month. There was no water directed to the well during this time.

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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	15,476.90	10.74	92	89.1	2	3.3	10			JC		
2	07:00	14,202.17	9.86	98	90.2	2	3.3	10			JC		
3	07:00	14,178.52	9.86	95	91.1	2	3.3	11			NB		
4	07:00	16,203.43	11.26	92	87.6	3	3.6	10			NB		
5	07:00	17,218.29	11.95	100	94.5	2	3.9	11			JC		
6	07:00	16,289.14	11.31	90	88.7	3	3.9	9			JC		
7	07:00	16,047.43	11.14	92	89.4	3	4.0	10			NB		
8	07:00	16,743.43	11.62	94	91.8	3	4.0	10			NB		
9	07:00	17,123.67	11.88	94	91.4	3	3.8	10			NB		
10	07:00	15,435.43	10.71	96	90.1	2	3.8	9			BD		
11	07:00	17,624.90	12.24	102	99.9	4	3.0	13			MB		
12	07:00	5,772.69	4.00	90	85.4	8	9.1	9			NB		
13	07:00	8,514.86	5.90	104	102.0	14	12.8	13			NB		
14	07:00	16,568.24	11.50	90	88.7	15	13.4	11			MB		
15	07:00	17,944.12	12.45	90	84.9	3	6.2	12			MB		
16	07:00	14,293.71	9.93	90	89.1	2	6.5	13			MB		
17	07:00	12,083.67	8.38	80	77.0	2	2.8	10			MH		
18	07:00	12,759.76	8.86	98	95.8	3	5.3	9			CG		
19	07:00	20,861.83	14.48	96	92.4	3	5.5	10			MH		
20	07:00	19,863.76	13.79	100	97.6	2	4.5	12			CG		
21	07:00	15,378.52	10.69	90	87.7	2	4.6	10			CG		
22	07:00	13,220.57	9.19	96	93.3	2	4.6	11			CG		
23	07:00	9,992.24	6.93	96	92.2	2	4.8	11			CG		
24	07:00	12,182.05	8.45	98	93.6	2	5.0	12			TY		
25	07:00	13,586.05	9.43	90	88.1	2	4.7	11			TY		
26	07:00	13,821.95	9.60	94	89.2	2	4.5	11			CG		
27	07:00	12,612.00	8.76	85	83.3	2	2.1	10			CG		
28	07:00	15,507.43	10.76	84	81.5	2	2.9	9			TY		
29	07:00	15,820.45	10.98	84	83.5	2	3.2	9			TY		
30	07:00	15,554.05	10.81	88	84.8	2	3.0	10			NB		
31	07:00	15,748.12	10.93	91	84.0	2	3.2	10			RI		

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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	93.00	07/04/2023	6.88	07/04/2023	784.0	07/04/2023	07/25/2023		
2	92.80	07/11/2023	7.32	07/11/2023	765.0	07/11/2023	07/25/2023		
3	96.50	07/18/2023	6.88	07/18/2023	912.0	07/18/2023	07/25/2023		
4	95.30	07/25/2023	7.21	07/25/2023	1,020.0	07/25/2023	08/07/2023		
5									

No monthly injectate samples required.