Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** September **Year** 2021

Submitted 10/13/2021 **Approved** 10/22/2021 **KOLAR Document ID** 1594556

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	1,907	1.33	93	94	4.9	7.8	
Monthly Maximum	3,447	2.40	104	108	12.0	13.3	
Monthly Minimum	811	0.57	80	78	2.0	5.8	
Monthly Total	57,212						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
121.50	0.03	13.80	5.77

Comments:

Injection pressure and annulus pressure continuous recorders calibrated on 9/24/21.

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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	2,380.45	1.64	104	108.3	2	13.3	13			TY		
2	07:00	1,503.76	1.05	102	105.1	4	8.6	13			TY		
3	07:00	2,178.17	1.52	100	102.6	3	8.4	12			MB		
4	07:00	2,635.88	1.83	101	102.0	4	8.0	12			MB		
5	07:00	2,056.45	1.43	98	98.4	3	8.5	12			MB		
6	07:00	1,450.62	1.00	97	96.8	5	7.8	11			BF		
7	07:00	1,578.86	1.10	96	97.8	4	7.6	11			BF		
8	07:00	1,059.43	0.74	95	94.9	8	7.4	11			MB		
9	07:00	1,241.83	0.86	90	92.3	7	7.3	11			MB		
10	07:00	1,424.57	1.00	93	93.6	2	7.3	11			BF		
11	07:00	1,145.83	0.79	92	93.9	4	7.2	11			MW		
12	07:00	2,314.98	1.62	95	96.1	4	8.0	12			MW		
13	07:00	1,255.19	0.88	94	92.1	3	7.7	12			MH		
14	07:00	3,446.74	2.40	92	94.5	4	8.2	11			MH		
15	07:00	1,457.83	1.02	91	92.9	8	8.2	12			MW		
16	07:00	2,372.24	1.64	92	93.2	4	7.7	12			MW		
17	07:00	2,145.26	1.50	92	93.9	4	7.4	12			MH		
18	07:00	3,398.74	2.36	90	89.7	6	7.5	12			MH		
19	07:00	3,115.88	2.17	92	91.8	5	8.1	12			MH		
20	07:00	1,621.38	1.12	90	92.8	4	8.0	13			TY		
21	07:00	1,657.02	1.14	80	82.8	4	7.3	11			TY		
22	07:00	1,842.52	1.29	80	78.0	4	7.0	10			MH		
23	07:00	1,115.31	0.79	80	81.1	4	5.8	10			MH		
24	07:00	2,180.90	1.52	80	79.8	4	6.6	9			TY		
25	07:00	1,300.45	0.90	82	88.4	4	6.9	8			TY		
26	07:00	1,902.86	1.33	90	89.5	12	7.4	7			TY		
27	07:00	2,340.00	1.62	95	94.3	5	7.4	9			MB		
28	07:00	1,303.19	0.90	95	96.5	9	7.4	9			MB		
29	07:00	2,974.98	2.07	100	98.1	6	7.7	9			JC		
30	07:00	810.86	0.57	98	96.5	6	7.6	10			JC		
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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	88.20	09/07/2021	7.70	09/07/2021	192.0	09/07/2021	09/28/2021		
2	88.40	09/14/2021	7.49	09/14/2021	211.0	09/14/2021	09/28/2021		
3	81.20	09/21/2021	7.49	09/21/2021	235.0	09/21/2021	10/02/2021		
4	85.50	09/28/2021	7.94	09/28/2021	236.0	09/28/2021	10/05/2021		
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No monthly injectate samples required.

Quarterly Injectate Samples

Quarter 3
Date Sample Collected 09/14/2021
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	42.000	mg/l
Conductivity	1.000	Mmhos
Ethylbenzene	ND	mg/l
Iron	0.340	mg/l
Magnesium	4.200	mg/l
Oil & Grease	ND	mg/l
Sodium	199.000	mg/l
Sulfate	97.000	mg/l
Toluene	ND	mg/l
Total Alkalinity as CaCO3	94.000	mg/l
Total Dissolved Solids	736.000	mg/l
Total Suspended Solids	ND	mg/l
Trichloroethene	ND	mg/l
Xylene	ND	mg/l