Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** November **Year** 2019

Submitted 12/19/2019 **Approved** 12/23/2019 **KOLAR Document ID** 1485953

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	2,255	1.57	100	102	4.1	3.2	
Monthly Maximum	7,046	4.88	110	112	17.0	15.5	
Monthly Minimum	496	0.33	89	90	1.0	0.6	
Monthly Total	67,655						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
126.42	87.77	17.20	0.25

Comments:

CHS Refinery #3 11/2019

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	5,526.88	3.83	99	102.1	2	0.6	6			RM		
2	07:00	4,146.64	2.88	98	101.2	2	0.7	5			RM		
3	07:00	3,078.57	2.14	98	101.6	2	0.8	5			RM		
4	07:00	1,804.64	1.26	105	108.4	3	0.8	6			MW		
5	07:00	564.83	0.38	99	101.8	3	2.1	6			MW		
6	07:00	532.02	0.38	96	98.2	3	1.6	4			BF		
7	07:00	499.19	0.36	90	92.8	2	1.3	3			BF		
8	07:00	513.29	0.36	89	90.7	2	1.7	3			TB		
9	07:00	496.81	0.33	90	91.6	3	1.7	2			ZB		
10	07:00	496.29	0.33	92	94.7	2	1.5	2			ZB		
11	07:00	896.86	0.62	90	89.9	2	1.3	2			AS		
12	07:00	1,077.57	0.74	99	99.9	2	0.9	1			AS		
13	07:00	930.62	0.64	97	98.8	2	0.8	1			ZB		
14	07:00	869.26	0.60	100	102.2	2	1.1	1			MW		
15	07:00	811.36	0.57	99	101.8	2	1.0	1			MW		
16	07:00	772.00	0.55	105	100.8	2	1.5	1			MH		
17	07:00	777.33	0.55	105	105.4	2	1.4	1			MH		
18	07:00	767.74	0.52	103	106.0	2	1.2	1			MW		
19	07:00	771.95	0.55	102	105.7	3	1.5	1			MW		
20	07:00	746.55	0.52	105	108.7	2	1.4	1			MH		
21	07:00	728.74	0.50	102	103.9	2	1.6	1			MH		
22	07:00	733.31	0.50	98	98.1	2	1.3	1			MW		
23	07:00	882.57	0.62	98	96.5	1	0.9	1			JC		
24	07:00	838.05	0.57	98	98.9	2	1.6	1			JC		
25	07:00	3,930.17	2.74	99	101.4	2	1.3	1			BF		
26	07:00	6,880.10	4.79	110	111.5	17	15.5	5			BF		
27	07:00	6,754.29	4.69	100	101.6	16	15.2	4			JC		
28	07:00	6,814.55	4.74	104	109.0	3	2.7	5			JC		
29	07:00	7,045.62	4.88	109	111.0	16	15.4	5			BF		
30	07:00	6,967.43	4.83	108	111.7	16	14.7	6			BF		
31	07:00												

CHS Refinery #3 11/2019

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	71.10	11/05/2019	7.58	11/05/2019	460.0	11/05/2019	11/25/2019		
2	59.00	11/12/2019	7.62	11/12/2019	523.0	11/12/2019	11/25/2019		
3	68.00	11/19/2019	7.58	11/19/2019	483.0	11/19/2019	12/06/2019		
4	83.00	11/26/2019	7.30	11/26/2019	1,230.0	11/26/2019	12/06/2019		
5									

No monthly injectate samples required.