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

Submitted 08/20/2019 **Approved** 09/01/2019 **KOLAR Document ID** 1469441

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

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	4,379	3.04	97	98	2.9	2.0	
Monthly Maximum	5,726	3.98	110	109	17.0	16.0	
Monthly Minimum	1,306	0.90	85	86	1.0	0.7	
Monthly Total	135,741						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
127.34	0.00	17.72	0.58

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	4,078.00	2.83	100	102.3	2	1.0	11			JC		
2	07:00	5,725.55	3.98	102	104.0	5	4.4	11			JC		
3	07:00	5,363.21	3.71	102	104.5	17	16.0	11			AS		
4	07:00	5,331.64	3.71	102	101.2	16	15.2	11			AS		
5	07:00	2,723.45	1.88	104	107.8	2	1.1	12			JC		
6	07:00	3,691.98	2.57	102	103.0	2	0.9	11			JC		
7	07:00	4,243.24	2.95	100	102.4	1	1.0	11			JC		
8	07:00	4,459.76	3.10	103	106.5	2	1.0	12			BF		
9	07:00	4,572.71	3.17	100	101.5	2	0.9	11			BF		
10	07:00	4,159.48	2.88	110	109.0	2	1.6	13			JC		
11	07:00	4,194.57	2.90	98	96.4	2	0.8	10			JC		
12	07:00	4,361.24	3.02	96	96.1	2	0.9	10			BF		
13	07:00	4,422.60	3.07	100	100.6	1	0.9	11			JC		
14	07:00	4,820.67	3.36	102	103.2	1	0.9	12			JC		
15	07:00	4,310.26	3.00	102	105.9	2	1.0	13			ZB		
16	07:00	3,469.33	2.40	98	96.9	2	1.0	11			ZB		
17	07:00	1,306.24	0.90	98	97.1	2	1.0	11			BF		
18	07:00	1,871.26	1.31	94	94.5	3	2.3	10			BF		
19	07:00	5,138.62	3.57	101	103.1	2	0.9	12			ZB		
20	07:00	5,091.69	3.55	99	100.2	2	1.0	12			ZB		
21	07:00	4,844.14	3.36	98	99.7	2	1.0	12			ZB		
22	07:00	4,109.88	2.86	90	91.0	2	0.8	10			AS		
23	07:00	4,655.29	3.24	85	86.0	1	0.8	9			AS		
24	07:00	4,892.17	3.40	91	87.1	1	0.7	9			ZB		
25	07:00	5,086.36	3.52	85	88.2	1	0.8	9			ZB		
26	07:00	4,865.86	3.38	88	89.3	3	0.9	9			AS		
27	07:00	4,782.24	3.31	88	88.6	2	0.7	9			AS		
28	07:00	5,215.48	3.62	92	91.8	2	0.9	10			AS		
29	07:00	4,145.36	2.88	98	93.2	1	0.8	10			JC		
30	07:00	4,967.17	3.45	96	92.4	2	0.8	11			JC		
31	07:00	4,841.12	3.36	95	94.5	2	0.9	11			AS		

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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	89.00	07/02/2019	7.70	07/02/2019	489.0	07/02/2019	07/15/2019		
2	91.50	07/09/2019	7.45	07/09/2019	490.0	07/09/2019	07/26/2019		
3	88.00	07/16/2019	8.48	07/16/2019	519.0	07/16/2019	07/26/2019		
4	84.00	07/23/2019	7.60	07/23/2019	522.0	07/23/2019	07/31/2019		
5	85.00	07/30/2019	7.65	07/30/2019	615.0	07/30/2019	08/14/2019		

No monthly injectate samples required.