Facility Well Name Holly Frontier #1 **UIC Permit #** KS-01-115-001 **Month** July **Year** 2019

Submitted 08/28/2019 **Approved** 09/01/2019 **KOLAR Document ID** 1470321

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 6,167

			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	1,215	0.86	142	140	-24.0	-25.0	
Monthly Maximum	1,415	1.02	157	153	-23.0	-20.9	
Monthly Minimum	687	0.45	125	126	-25.0	-25.6	
Monthly Total	37,679						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
160.80	126.40	-19.00	-25.70

Comments:

Holly Frontier #1 07/2019

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	01:00	1,269.00	0.90	148	146.0	-25	-25.1	19			RTM		
2	08:45	1,276.12	0.88	148	144.0	-24	-25.2	19			RC		
3	10:00	1,143.17	0.79	144	141.0	-24	-25.2	18			RC		
4	08:02	1,265.98	0.95	145	143.0	-24	-25.2	18			TN		
5	08:40	1,306.50	0.79	148	146.0	-24	-25.0	18			RC		
6	08:55	1,234.76	0.95	147	145.0	-24	-25.1	19			GAO		
7	09:36	1,035.31	0.71	140	138.0	-24	-25.3	17			GAO		
8	07:10	1,037.76	0.74	140	138.0	-23	-25.4	17			RC		
9	08:00	1,383.19	0.71	148	147.0	-24	-24.9	18			RC		
10	07:55	1,415.26	0.86	157	153.0	-24	-24.8	19			RC		
11	08:00	1,195.81	0.98	148	145.0	-24	-25.0	19			RC		
12	07:30	1,188.40	0.60	142	140.0	-24	-25.1	18			RC		
13	07:10	1,266.95	0.86	148	144.0	-24	-25.0	19			PS		
14	10:00	1,316.40	0.90	150	144.0	-24	-25.0	19			PS		
15	07:25	1,278.33	0.93	144	142.0	-24	-25.2	18			RC		
16	06:25	1,119.17	0.95	142	139.0	-24	-25.2	18			CM		
17	06:55	1,145.43	0.88	145	141.0	-23	-25.0	18			RC		
18	16:50	1,241.69	0.86	150	148.0	-23	-24.9	18			SW		
19	07:40	1,263.12	0.90	142	141.0	-24	-25.1	18			CM		
20	08:00	1,277.02	0.88	142	140.0	-23	-25.2	18			GAO		
21	09:05	1,237.24	1.02	143	141.0	-23	-25.1	18			GAO		
22	07:10	687.45	0.45	130	127.0	-24	-25.6	17			SW		
23	07:20	903.10	0.69	129	126.0	-25	-25.6	16			SW		
24	10:45	1,162.17	0.86	126	134.0	-24	-25.3	17			SW		
25	07:00	1,214.67	0.83	125	133.0	-24	-25.4	17			SW		
26	06:55	1,247.29	0.93	135	134.0	-25	-25.3	17			SW		
27	08:04	1,267.29	0.93	136	135.0	-24	-25.2	18			TN		
28	07:33	1,261.81	0.95	138	136.0	-24	-20.9	18			TN		
29	08:05	1,345.86	1.00	142	138.0	-24	-25.3	18			RC		
30	06:30	1,353.31	0.93	140	139.0	-25	-25.4	19			CM		
31	10:50	1,339.64	0.90	140	139.0	-25	-25.2	18			CM		

Holly Frontier #1 07/2019

Weekly Injectate Samples

Kansas Lab Certificate Number E-10146

Week	Temperature		pH		Chloride				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	111.97	07/02/2019	7.10	07/02/2019	74.1	07/02/2019	07/05/2019		
2	114.42	07/10/2019	8.10	07/10/2019	73.4	07/10/2019	07/16/2019		
3	114.25	07/17/2019	7.80	07/17/2019	91.5	07/17/2019	07/22/2019		
4	110.18	07/24/2019	9.00	07/24/2019	99.4	07/24/2019	07/26/2019		
5	113.05	07/31/2019	8.70		210.0	07/31/2019	08/06/2019		

No monthly injectate samples required.

Holly Frontier #1 07/2019

Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/31/2019
Kansas Lab Certificate Number E-10146
Lab Name Pace Analytical-Salina

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
Ammonia	7.310	mg/l
Arsenic	0.020	mg/l
Benzene	<0.005	mg/l
Calcium	133.000	mg/l
Chromium	0.0080	mg/l
Conductivity	16,200.000	Mmhos
Cyanide	0.040	mg/l
Ethylbenzene	<0.005	mg/l
Iron	0.470	mg/l
Magnesium	18.800	mg/l
Oil and Grease	15.800	mg/l
Sodium	2,030.000	mg/l
Sulfate	9,190.000	mg/l
Toluene	<0.005	mg/l
Total Alkalinity as CaCO3	259.000	mg/l
Total Dissolved Solids	14,100.000	mg/l
Total Suspended Solids	11.000	mg/l
Xylene	<0.002	mg/l