Facility Well Name Williams (Mitchell) #1 **UIC Permit #** KS-01-159-002 **Month** October **Year** 2019

Submitted 11/20/2019 **Approved** 11/27/2019 **KOLAR Document ID** 1483077

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

Barrels per Day Maximum: 20,476

			Annulus Pressure psig min 50		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	2,505	1.74	82	82	-17.6	-18.1	0
Monthly Maximum	11,548	8.02	89	89	16.0	1.5	0
Monthly Minimum	0	0.00	76	76	-28.0	-28.0	0
Monthly Total	77,643						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
91.95	74.68	1.51	-27.66

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	Meter Reading	
1	10:15	938.10	0.64	80	79.7	-15	-14.5	38	N/A	0	BJ		
2	11:05	830.95	0.57	78	77.5	-21	-21.8	38	N/A	0	BJ		
3	09:40	621.43	0.43	76	76.0	-28	-28.0	37	N/A	0	DF		
4	09:15	1,026.19	0.71	76	76.0	-28	-28.0	37	N/A	0	DF		
5	09:50	1,023.81	0.71	80	80.0	-27	-27.0	37	N/A	0	DF		
6	09:40	861.90	0.60	79	79.0	-6	-6.0	38	N/A	0	DF		
7	10:40	835.71	0.57	81	81.0	-27	-27.0	37	N/A	0	DF		
8	09:20	828.57	0.57	80	80.0	-28	-27.1	37	N/A	0	MY		
9	08:39	933.33	0.64	80	79.6	-28	-26.9	37	N/A	0	MY		
10	10:15	978.57	0.69	78	77.9	-4	-3.5	37	N/A	0	BD		
11	11:15	2,709.52	1.88	87	86.6	-27	-26.8	37	N/A	0	BJ		
12	12:15	545.24	0.38	88	87.1	-8	-8.2	37	N/A	0	BJ		
13	11:40	338.10	0.24	87	87.2	-28	-26.9	37	N/A	0	BJ		
14	11:45	414.29	0.29	83	83.4	-11	-11.3	37	N/A	0	DJ		
15	10:15	676.19	0.48	83	83.0	-10	-9.4	36	N/A	0	BJ		
16	08:43	4,202.38	2.93	81	81.4	9	1.5	37	N/A	0	LB		
17	19:45	3,559.52	2.48	89	89.0	16	1.5	38	N/A	0	DF		
18	10:02	2,257.14	1.57	86	85.7	-1	-1.3	37	N/A	0	MY		
19	09:45	1,035.71	0.71	83	83.0	-22	-20.6	37	N/A	0	MY		
20	09:55	1,095.24	0.76	82	82.0	-28	-26.7	36	N/A	0	MY		
21	09:55	890.48	0.62	80	80.0	-26	-26.0	35	N/A	0	DF		
22	10:00	6,266.67	4.36	83	83.0	-27	-27.0	36	N/A	0	DF		
23	12:50	1,619.05	1.12	85	85.0	-27	-27.0	36	N/A	0	DF		
24	08:25	611.90	0.43	80	80.0	-28	-28.0	36	N/A	0	DF		
25	08:50	1,228.57	0.86	79	79.0	-27	-27.0	35	N/A	0	DF		
26	10:00	9,340.48	6.48	81	81.0	-6	-6.0	35	N/A	0	DF		
27	07:35	8,621.43	5.98	80	79.1	-11	-10.1	35	N/A	0	BJ		
28	01:00	11,547.62	8.02	81	80.1	-10	-9.1	35	N/A	0	BJ		
29	10:35	8,402.38	5.83	80	79.8	-9	-9.2	35	N/A	0	BJ		
30	02:10	3,402.38	2.36	85	84.0	-27	-27.2	37	N/A	0	BJ		
31	09:10	0.00	0.00	82	82.0	-27	-27.0	36	N/A	0	DF		

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Weekly Injectate Samples

Kansas Lab Certificate Number E-10152

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	68.00	10/07/2019	6.70	10/07/2019	11,400.0	10/07/2019	11/04/2019		
2	59.10	10/11/2019	6.80	10/11/2019	12,200.0	10/11/2019	11/04/2019		
3	63.60	10/18/2019	6.85	10/18/2019	127,400.0	10/18/2019	11/04/2019		
4	71.00	10/25/2019	6.42	10/25/2019	36,000.0	10/25/2019	10/04/2019		
5									

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 4
Date Sample Collected 10/07/2019
Kansas Lab Certificate Number E-10152
Lab Name SDK Laboratories (Hutchinson)

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

Constituent	Value	Units
Calcium	1,420.000	mg/l
Conductivity	35,600.000	Mmhos
Iron	4.690	mg/l
Magnesium	110.000	mg/l
Sulfate	265.000	mg/l
Total Alkalinity as CaCO3	138.000	mg/l
Total Dissolved Solids	19,700.000	mg/l
Total Hardness as CaCO3	3,999.000	mg/l