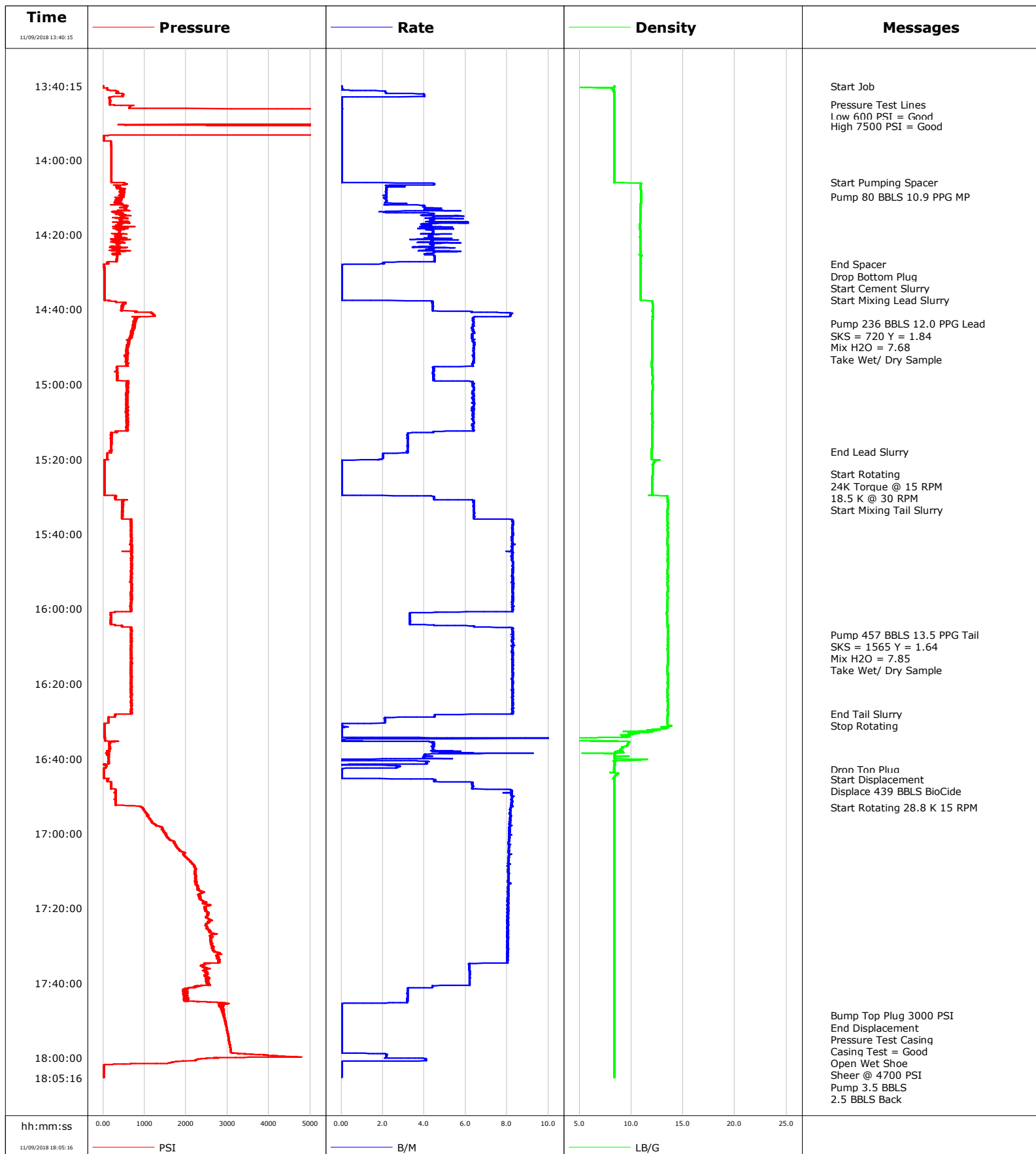


Well Castle Pines 19-2HZ
Field Wattenberg
Engineer Conley Jensen/ Sheldon Bell
Country

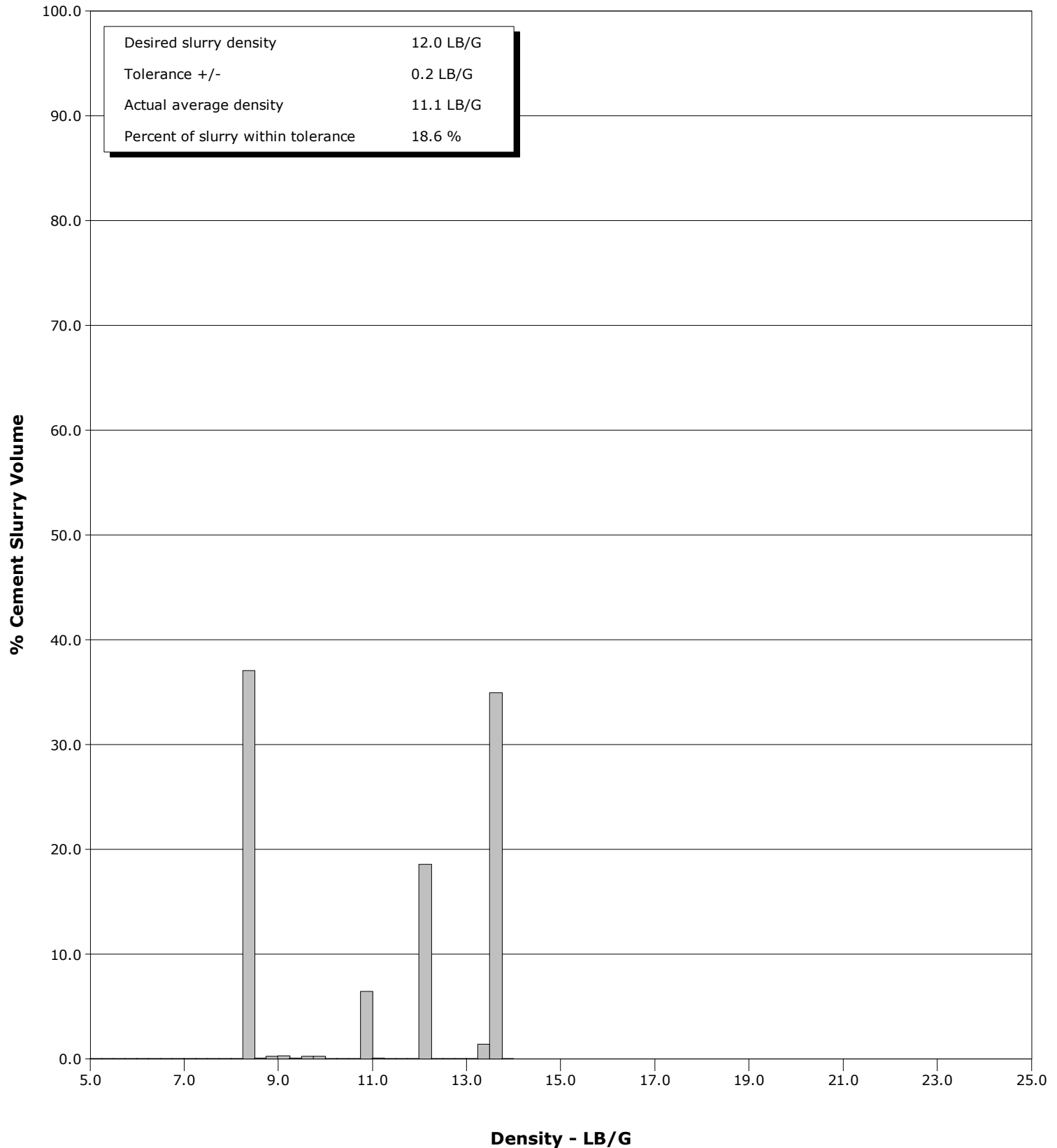
Client Anadarko
SIR No. 2843255
Job Type 5.5" Monobore
Job Date



Well Castle Pines 19-2HZ
Field Wattenberg
Engineer Conley Jensen/ Sheldon Bell
Country

Client Anadarko
SIR No. 2843255
Job Type 5.5" Monobore
Job Date

Cement Slurry - 11/09/2018 13:40:15 to 11/09/2018 18:05:16



Cementing Service Report

				Customer Anadarko			Job Number 2843255				
Well Castle Pines 19-2HZ 19-2HZ			Location (legal)			Schlumberger Location CWY			Job Start Nov/09/2018		
Field Wattenberg		Formation Name/Type Shale		Deviation deg		Bit Size 8.5 in		Well MD 18886.0 ft		Well TVD 7328.0 ft	
County		State/Province Colorado		BHP psi		BHST 230 degF		BHCT 230 degF		Pore Press. Gradient lb/gal	
Well Master 0631785070		API/UWI 05123477210000									
Rig Name Precision 564	Drilled For		Service Via		Casing/ Liner						
					Depth, ft		Size, in	Weight, lb/ft		Grade	
Offshore Zone	Well Class New		Well Type Development		1860.0		9.6	36.0		J55	
					18886.0		5.5	17.0		P110	
Drilling Fluid Type		Max. Density lb/gal	Plastic Viscosity cP		Tubing/Drill Pipe						
					T/D	Depth, ft	Size, in	Weight, lb/ft		Grade	
Service Line Cementing	Job Type 5.5" Monobore										
Max. Allowed Tub. Press psi	Max. Allowed Ann. Press psi		WH Connection		Perforations/Open Hole						
					Top, ft		Bottom, ft		shot/ft		No. of Shots
					ft		ft				Total Interval ft
					ft		ft				Diameter in
					ft		ft				
					Treat Down Casing		Displacement 439.0 bbl		Packer Type		Packer Depth ft
					Tubing Vol. bbl		Casing Vol. 439.0 bbl		Annular Vol. 784.0 bbl		Openhole Vol. 1236.0 bbl
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools				Squeeze Job			
Lift Pressure psi				Shoe Type Float				Squeeze Type			
Pipe Rotated <input checked="" type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 18886.0 ft				Tool Type			
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type				Tool Depth ft	
Cement Head Type Double				Stage Tool Depth ft				Tail Pipe Size in			
Job Scheduled For Nov/09/2018 00:03		Arrived on Location Nov/09/2018 03:00		Leave Location Nov/09/2018 19:00		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 18876.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
11/09/2018	13:40:15	7	0.0	8.36	0.0	Started Acquisition					
11/09/2018	13:40:19	7	0.0	8.36	0.0	Start Job					
11/09/2018	13:41:45	349	2.1	8.34	0.5						
11/09/2018	13:43:15	177	0.3	8.35	5.2						
11/09/2018	13:44:45	167	0.0	8.35	5.2						
11/09/2018	13:45:11	166	0.0	8.35	5.2	Pressure Test Lines					
11/09/2018	13:45:12	167	0.0	8.35	5.2	Low 600 PSI = Good					
11/09/2018	13:46:15	630	0.0	8.35	5.2						
11/09/2018	13:47:45	7785	0.0	8.35	5.2						
11/09/2018	13:49:15	7968	0.0	8.35	5.2						
11/09/2018	13:50:45	548	0.0	8.35	5.2						
11/09/2018	13:51:00	7626	0.0	8.36	5.2	High 7500 PSI = Good					
11/09/2018	13:52:15	7495	0.0	8.35	5.2						
11/09/2018	13:53:45	13	0.0	8.35	5.2						
11/09/2018	13:55:15	186	0.0	8.35	5.2						
11/09/2018	13:56:45	195	0.0	8.35	5.2						
11/09/2018	13:58:15	200	0.0	8.36	5.2						
11/09/2018	13:59:45	201	0.0	8.36	5.2						
11/09/2018	14:01:15	201	0.0	8.36	5.2						
11/09/2018	14:02:45	200	0.0	8.36	5.2						
11/09/2018	14:04:15	201	0.0	8.36	5.2						

Well			Field	Job Start		Customer	Job Number
Castle Pines 19-2HZ 19-2HZ			Wattenberg	Nov/09/2018		Anadarko	2843255
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
11/09/2018	14:05:56	197	0.0	8.36	0.0	Start Pumping Spacer	
11/09/2018	14:07:15	400	3.1	10.93	3.7		
11/09/2018	14:08:45	532	2.2	10.96	7.0		
11/09/2018	14:10:00	464	2.2	10.95	10.3	Pump 80 BBLS 10.9 PPG MP	
11/09/2018	14:10:15	324	2.1	10.95	11.1		
11/09/2018	14:11:45	395	3.1	10.92	16.1		
11/09/2018	14:13:15	567	4.0	10.87	23.3		
11/09/2018	14:14:45	443	3.9	10.89	29.8		
11/09/2018	14:16:15	424	4.5	10.85	37.1		
11/09/2018	14:17:45	397	4.3	10.83	44.4		
11/09/2018	14:19:15	394	4.4	10.85	51.0		
11/09/2018	14:20:45	373	4.4	10.84	57.5		
11/09/2018	14:22:15	428	5.8	10.88	64.1		
11/09/2018	14:23:45	361	4.3	10.86	70.7		
11/09/2018	14:25:15	359	4.0	10.90	77.4		
11/09/2018	14:26:45	337	4.5	10.90	84.1		
11/09/2018	14:27:58	23	0.3	10.91	0.0	End Spacer	
11/09/2018	14:28:00	23	0.1	10.91	0.0	Drop Bottom Plug	
11/09/2018	14:28:15	23	0.0	10.91	0.0		
11/09/2018	14:29:45	24	0.0	10.90	0.0		
11/09/2018	14:30:18	25	0.0	10.90	0.0	Start Cement Slurry	
11/09/2018	14:31:15	25	0.0	10.90	0.0		
11/09/2018	14:32:45	26	0.0	10.90	0.0		
11/09/2018	14:34:15	26	0.0	10.90	0.0		
11/09/2018	14:35:45	26	0.0	10.90	0.0		
11/09/2018	14:37:15	26	0.0	10.90	0.0		
11/09/2018	14:37:24	25	0.0	10.90	0.0	Start Mixing Lead Slurry	
11/09/2018	14:38:45	499	4.4	12.04	4.9		
11/09/2018	14:40:15	454	4.4	12.04	11.5		
11/09/2018	14:41:45	1256	8.2	12.07	22.2		
11/09/2018	14:43:15	796	6.4	12.02	32.1		
11/09/2018	14:43:47	769	6.4	12.02	35.5	Pump 236 BBLS 12.0 PPG Lead	
11/09/2018	14:43:48	727	6.4	12.02	35.6	SKS = 720 Y = 1.84	
11/09/2018	14:43:49	786	6.4	12.03	35.7	Take Wet/ Dry Sample	
11/09/2018	14:44:45	726	6.3	12.00	41.6		
11/09/2018	14:46:15	705	6.4	12.02	51.2		
11/09/2018	14:47:45	657	6.3	12.00	60.6		
11/09/2018	14:49:15	603	6.4	12.03	70.2		
11/09/2018	14:50:45	594	6.4	12.02	79.8		
11/09/2018	14:52:15	568	6.3	12.02	89.3		
11/09/2018	14:53:45	585	6.4	11.99	98.9		
11/09/2018	14:55:15	330	5.3	11.98	108.4		
11/09/2018	14:56:45	326	4.4	12.03	115.1		
11/09/2018	14:58:15	349	4.4	12.05	121.8		
11/09/2018	14:59:45	603	6.3	12.01	129.6		
11/09/2018	15:01:15	609	6.4	12.06	139.2		
11/09/2018	15:02:45	552	6.4	12.01	148.7		
11/09/2018	15:05:45	588	6.4	12.02	167.8		
11/09/2018	15:07:15	593	6.3	12.01	177.4		
11/09/2018	15:08:45	559	6.4	12.01	186.9		
11/09/2018	15:10:15	567	6.4	12.04	196.5		
11/09/2018	15:11:45	572	6.4	12.02	206.0		
11/09/2018	15:13:15	197	3.2	12.00	213.8		
11/09/2018	15:14:45	207	3.2	12.00	218.6		

Well			Field	Job Start		Customer		Job Number	
Castle Pines 19-2HZ 19-2HZ			Wattenberg		Nov/09/2018		Anadarko		2843255
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
11/09/2018	15:17:45	187	3.2	11.98	228.2				
11/09/2018	15:18:00	183	3.2	11.98	229.0	End Lead Slurry			
11/09/2018	15:19:15	105	2.0	11.97	232.0				
11/09/2018	15:20:45	29	0.0	12.17	234.0				
11/09/2018	15:22:15	31	0.0	12.07	0.0				
11/09/2018	15:23:45	31	0.0	12.05	0.0				
11/09/2018	15:24:00	31	0.0	12.05	0.0	Start Rotating			
11/09/2018	15:24:03	31	0.0	12.05	0.0	24K Torque @ 15 RPM			
11/09/2018	15:25:15	32	0.0	12.03	0.0				
11/09/2018	15:26:45	32	0.0	12.03	0.0				
11/09/2018	15:27:00	32	0.0	12.03	0.0	18.5 K @ 30 RPM			
11/09/2018	15:28:15	33	0.0	12.03	0.0				
11/09/2018	15:29:31	32	0.0	12.03	0.0	Start Mixing Tail Slurry			
11/09/2018	15:29:45	319	2.5	12.87	0.0				
11/09/2018	15:31:15	474	6.4	13.52	7.3				
11/09/2018	15:32:45	484	6.4	13.53	16.9				
11/09/2018	15:34:15	458	6.4	13.50	26.5				
11/09/2018	15:35:45	451	6.4	13.49	36.1				
11/09/2018	15:37:15	681	8.3	13.53	48.0				
11/09/2018	15:38:45	675	8.3	13.51	60.3				
11/09/2018	15:40:15	669	8.2	13.52	72.7				
11/09/2018	15:41:45	684	8.2	13.51	85.1				
11/09/2018	15:43:15	691	8.2	13.53	97.5				
11/09/2018	15:44:45	693	8.2	13.53	109.8				
11/09/2018	15:46:15	707	8.2	13.54	122.2				
11/09/2018	15:47:45	683	8.3	13.52	134.6				
11/09/2018	15:49:15	700	8.3	13.53	147.0				
11/09/2018	15:50:45	689	8.3	13.51	159.4				
11/09/2018	15:52:15	696	8.3	13.51	171.7				
11/09/2018	15:53:45	694	8.3	13.51	184.0				
11/09/2018	15:55:15	690	8.2	13.53	196.6				
11/09/2018	15:56:45	698	8.3	13.51	209.0				
11/09/2018	15:58:15	664	8.2	13.48	221.4				
11/09/2018	15:59:45	688	8.3	13.50	233.7				
11/09/2018	16:01:15	189	3.3	13.41	244.3				
11/09/2018	16:02:45	199	3.3	13.44	249.2				
11/09/2018	16:04:15	295	4.0	13.52	254.2				
11/09/2018	16:05:45	672	8.3	13.55	264.8				
11/09/2018	16:06:52	688	8.3	13.54	274.0	Pump 457 BBLS 13.5 PPG Tail			
11/09/2018	16:06:53	698	8.3	13.54	274.1	Mix H2O = 7.85			
11/09/2018	16:07:15	678	8.3	13.55	277.2				
11/09/2018	16:08:45	678	8.3	13.52	289.6				
11/09/2018	16:10:15	672	8.2	13.53	302.0				
11/09/2018	16:11:45	668	8.3	13.53	314.4				
11/09/2018	16:13:15	691	8.2	13.53	326.8				
11/09/2018	16:14:45	692	8.3	13.53	339.2				
11/09/2018	16:16:15	687	8.3	13.51	351.5				
11/09/2018	16:17:45	705	8.3	13.52	363.9				
11/09/2018	16:19:15	690	8.2	13.52	376.3				
11/09/2018	16:20:45	681	8.3	13.52	388.7				
11/09/2018	16:22:15	676	8.2	13.51	401.1				
11/09/2018	16:23:45	670	8.2	13.50	413.5				
11/09/2018	16:25:15	663	8.2	13.52	425.9				
11/09/2018	16:26:45	681	8.2	13.52	438.3				

Well			Field	Job Start		Customer		Job Number	
Castle Pines 19-2HZ 19-2HZ			Wattenberg		Nov/09/2018		Anadarko		2843255
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
11/09/2018	16:28:15	299	4.7	13.52	450.5				
11/09/2018	16:29:45	122	2.1	13.51	455.4				
11/09/2018	16:31:15	34	0.1	13.94	457.2				
11/09/2018	16:32:45	35	0.0	10.24	457.3				
11/09/2018	16:34:15	36	0.0	9.87	457.3				
11/09/2018	16:35:45	159	4.4	9.73	462.1				
11/09/2018	16:37:15	182	4.4	9.11	5.5				
11/09/2018	16:38:45	117	4.7	8.22	13.1				
11/09/2018	16:40:15	138	0.0	11.51	18.6				
11/09/2018	16:41:45	16	0.0	8.42	22.4				
11/09/2018	16:42:46	16	0.0	8.36	24.5	Drop Top Plug			
11/09/2018	16:43:15	17	0.0	8.35	24.5				
11/09/2018	16:44:45	19	0.0	8.41	0.0				
11/09/2018	16:45:28	109	4.2	8.36	0.3	Start Displacement			
11/09/2018	16:45:36	110	4.5	8.37	0.8	Displace 439 BBLS BioCide			
11/09/2018	16:46:15	195	5.8	8.38	3.8				
11/09/2018	16:47:45	197	6.3	8.38	13.3				
11/09/2018	16:49:15	305	8.2	8.36	24.6				
11/09/2018	16:50:45	302	8.2	8.36	37.0				
11/09/2018	16:52:15	300	8.2	8.36	49.3				
11/09/2018	16:53:00	945	8.2	8.36	55.5	Start Rotating 28.8 K 15 RPM			
11/09/2018	16:53:45	984	8.1	8.36	61.6				
11/09/2018	16:55:15	1081	8.2	8.37	73.7				
11/09/2018	16:56:45	1170	8.1	8.36	86.0				
11/09/2018	16:58:15	1400	8.1	8.36	98.2				
11/09/2018	16:59:45	1479	8.1	8.36	110.4				
11/09/2018	17:01:15	1572	8.1	8.36	122.6				
11/09/2018	17:02:45	1733	8.1	8.36	134.7				
11/09/2018	17:04:15	1839	8.1	8.36	146.8				
11/09/2018	17:05:45	1934	8.1	8.36	159.0				
11/09/2018	17:07:15	2069	8.1	8.36	171.1				
11/09/2018	17:08:45	2189	8.0	8.36	183.2				
11/09/2018	17:10:15	2215	8.0	8.36	195.2				
11/09/2018	17:11:45	2242	8.0	8.36	207.3				
11/09/2018	17:13:15	2250	8.1	8.37	219.4				
11/09/2018	17:14:45	2291	8.0	8.36	231.5				
11/09/2018	17:16:15	2338	8.1	8.36	243.6				
11/09/2018	17:17:45	2342	8.0	8.36	255.6				
11/09/2018	17:19:15	2581	8.0	8.36	267.7				
11/09/2018	17:20:45	2489	8.0	8.36	279.8				
11/09/2018	17:22:15	2491	8.0	8.36	291.8				
11/09/2018	17:23:45	2578	8.0	8.36	303.8				
11/09/2018	17:25:15	2512	8.0	8.36	315.9				
11/09/2018	17:26:45	2644	8.0	8.36	327.9				
11/09/2018	17:28:15	2584	8.0	8.36	339.9				
11/09/2018	17:29:45	2626	8.0	8.36	352.0				
11/09/2018	17:31:15	2636	8.0	8.36	364.0				
11/09/2018	17:32:45	2759	8.0	8.36	376.0				
11/09/2018	17:34:15	2789	8.0	8.36	388.0				
11/09/2018	17:35:45	2449	6.2	8.36	398.2				
11/09/2018	17:37:15	2513	6.2	8.36	407.4				
11/09/2018	17:38:45	2534	6.2	8.36	416.7				
11/09/2018	17:40:15	2556	6.2	8.36	426.0				
11/09/2018	17:41:45	2014	3.2	8.36	432.7				

Well			Field		Job Start		Customer		Job Number	
Castle Pines 19-2HZ 19-2HZ			Wattenberg		Nov/09/2018		Anadarko		2843255	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
11/09/2018	17:44:45	2013	3.2	8.36	442.3					
11/09/2018	17:46:15	2875	0.0	8.36	444.2					
11/09/2018	17:47:45	2878	0.0	8.36	444.2					
11/09/2018	17:48:44	2910	0.0	8.36	444.2	Bump Top Plug 3000 PSI				
11/09/2018	17:48:46	2932	0.0	8.36	444.2	End Displacement				
11/09/2018	17:48:49	2900	0.0	8.37	444.2	Pressure Test Casing				
11/09/2018	17:49:15	2919	0.0	8.37	444.2					
11/09/2018	17:52:15	2979	0.0	8.37	444.2					
11/09/2018	17:53:45	3007	0.0	8.37	444.2					
11/09/2018	17:55:00	3028	0.0	8.37	444.2	Casing Test = Good				
11/09/2018	17:55:01	3028	0.0	8.37	444.2	Open Wet Shoe				
11/09/2018	17:55:15	3032	0.0	8.37	444.2					
11/09/2018	17:56:00	3045	0.0	8.37	444.2	Sheer @ 4700 PSI				
11/09/2018	17:56:01	3045	0.0	8.37	444.2	Pump 3.5 BBLS				
11/09/2018	17:56:45	3056	0.0	8.37	444.2					
11/09/2018	17:58:15	3079	0.0	8.37	444.2					
11/09/2018	17:59:45	4758	2.2	8.36	2.1					
11/09/2018	18:01:15	1630	0.0	8.36	3.6					
11/09/2018	18:02:45	17	0.0	8.36	3.6					

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate		Total Slurry 693.0	Mud	Spacer 80.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum	Final 0	Average	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %		Designed Slurry Volume 693.0 bbl	Displacement 439.0 bbl	Mix Water Temp 58 degF	Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl	
					Washed Thru Perfs <input type="checkbox"/>		To ft	
Customer or Authorized Representative			Schlumberger Supervisor			Circulation Lost <input type="checkbox"/>	Job Completed	<input checked="" type="checkbox"/>
James Adkins			Conley Jensen/ Sheldon Bell			-	-	



Service Order #:	
Date:	Nov/09/2018
Operating Time (hh:mm):	00:00
Client Rep:	James Adkins
Schlumberger Engineer:	Conley Jensen/ Sheldon Bell
Schlumberger FSM:	

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

4	Evaluation				
4a	Main job objective achieved with no consequential non-productive time	10	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
Sub-total					0%

Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)

Client:	Schlumberger:
Client Signature:	Schlumberger Signature: