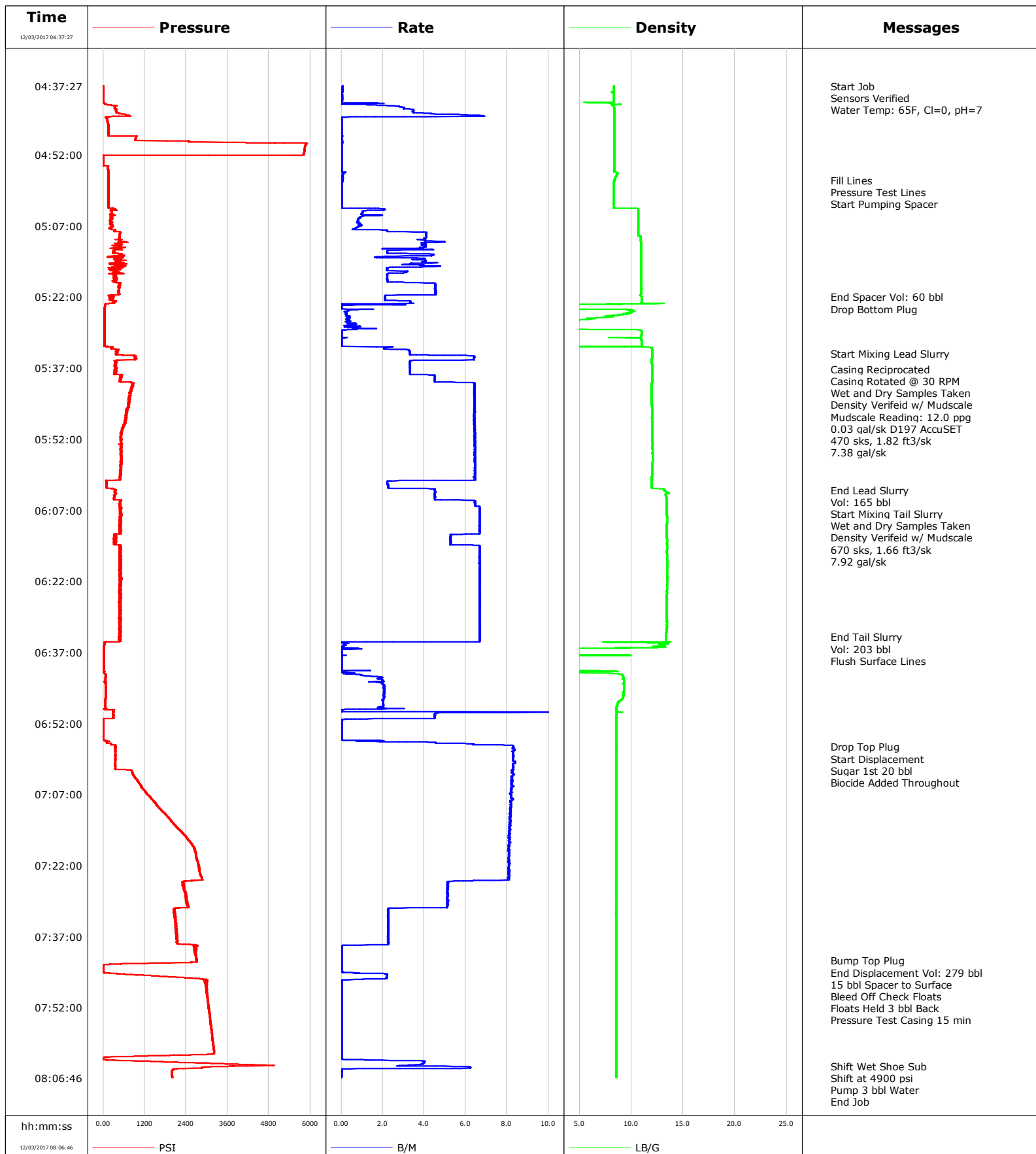


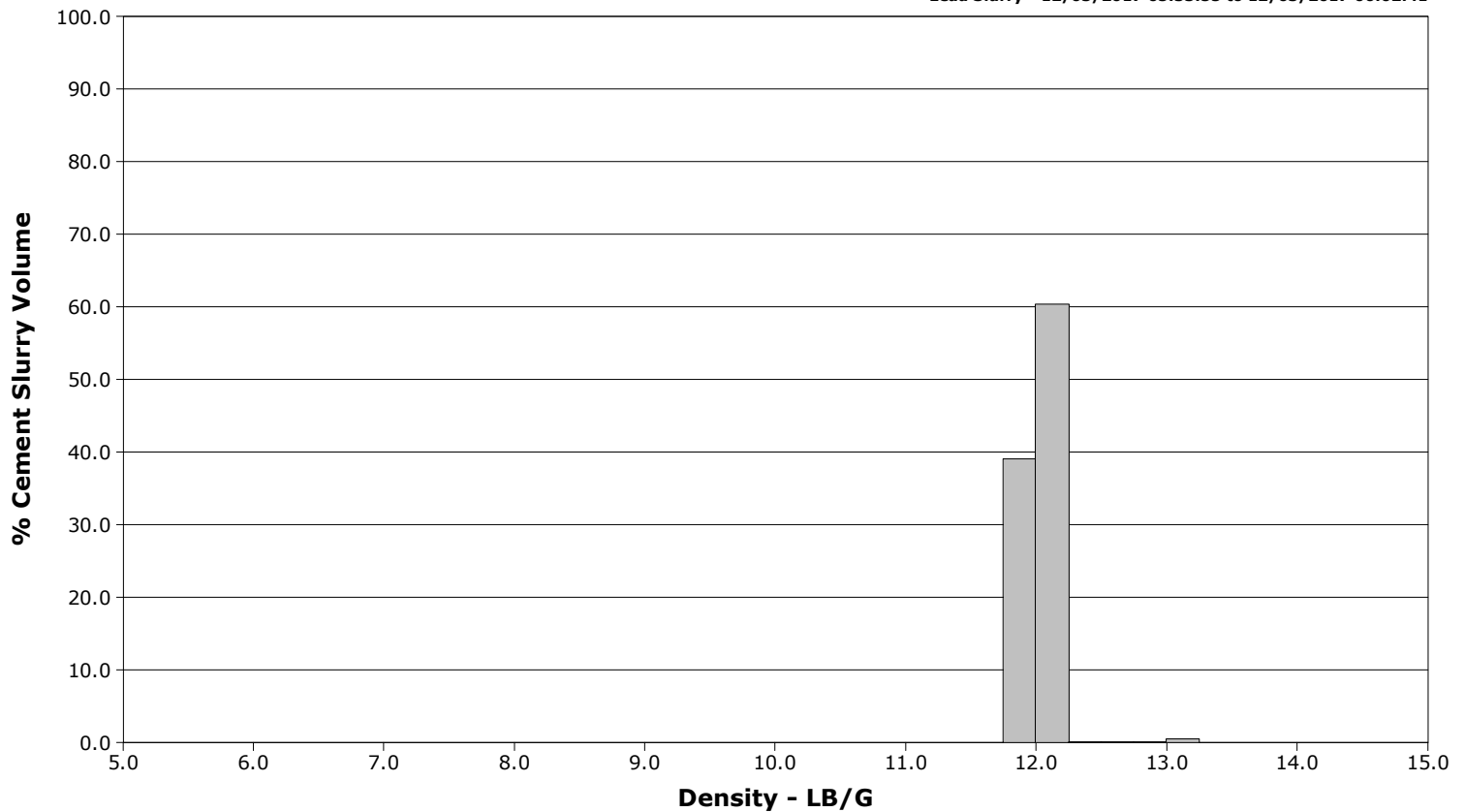
Well	Burough 27N-17HZ	Client	ANADARKO PETROLEUM COMPANY
Field	Wattenberg	SIR No.	CSS9-00868
Engineer	Billy Barg	Job Type	5.5" Production
Country	United States	Job Date	12-03-2017



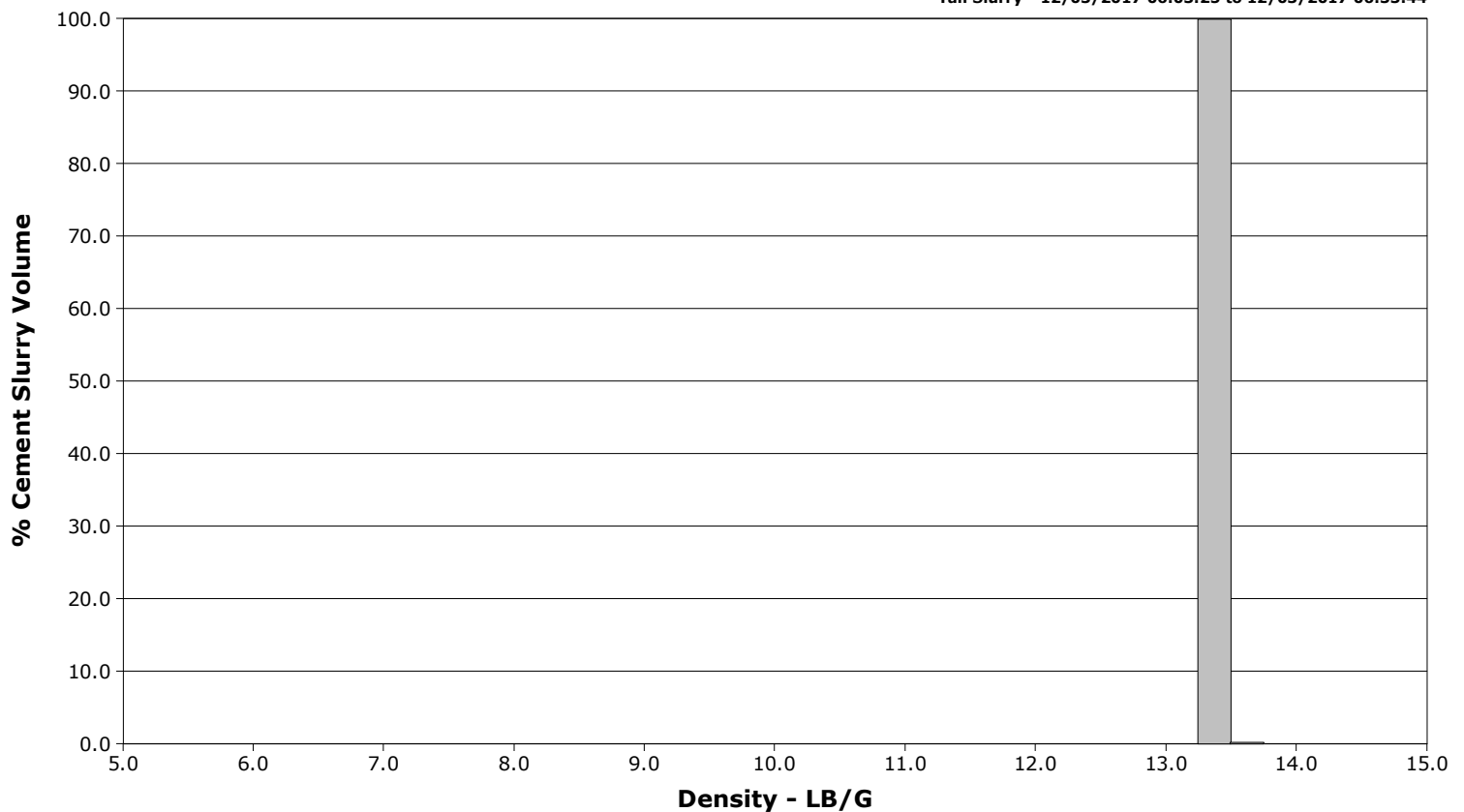
Well Burough 27N-17HZ
Field Wattenberg
Engineer Billy Barg
Country United States

Client ANADARKO PETROLEUM COMPANY
SIR No. CSS9-00868
Job Type 5.5" Production
Job Date 12-03-2017

Lead Slurry - 12/03/2017 05:33:55 to 12/03/2017 06:02:41



Tail Slurry - 12/03/2017 06:03:25 to 12/03/2017 06:33:44



Cementing Service Report

				Customer ANADARKO PETROLEUM COMPANY				Job Number CSS9-00868					
Well Burough 27N-17HZ 0631733325			Location (legal)			Schlumberger Location Cheyenne, WY			Job Start Dec/03/2017				
Field Wattenberg		Formation Name/Type			Deviation deg		Bit Size 7.9 in		Well MD 12015.0 ft		Well TVD 7320.0 ft		
County Weld		State/Province Colorado			BHP psi		BHST 229 degF		BHCT 204 degF		Pore Press. Gradient lb/gal		
Well Master 0631733325		API/UWI 05123452250000											
Rig Name PD #564		Drilled For Gas		Service Via Land		Casing/ Liner							
						Depth, ft		Size, in		Weight, lb/ft		Grade	
Offshore Zone		Well Class New		Well Type Development		1887.0		9.6		36.0		J-55	
						12008.0		5.5		17.0		C-90	
Drilling Fluid Type OBM		Max. Density 9.40 lb/gal		Plastic Viscosity 20.000 cP		Tubing/Drill Pipe							
						T/D		Depth, ft		Size, in		Weight, lb/ft	
Service Line Cementing		Job Type 5.5" Production											
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection 5.5" Head		Perforations/Open Hole							
						Top, ft		Bottom, ft		shot/ft		No. of Shots	
						ft		ft					
						ft		ft				Diameter	
						ft		ft				in	
						Treat Down Casing		Displacement 279.0 bbl		Packer Type		Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. 90.9 bbl		Openhole Vol. 312.4 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 8600 psi						Shoe Type Float				Squeeze Type			
Pipe Rotated <input checked="" type="checkbox"/>		Pipe Reciprocated <input checked="" type="checkbox"/>				Shoe Depth 12008.0 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 Dec/02/2017 23:00		Arrived on Location Dec/02/2017 23:00		Leave Location Dec/03/2017 09:30		Collar Type Float				Tail Pipe Depth ft			
						Collar Depth 12006.0 ft				Sqz. Total Vol. bbl			
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M		Density LB/G		Message					
12/03/2017	04:37:27	2		0.1		8.34		Started Acquisition					
12/03/2017	04:37:29	1		0.1		8.34		Start Job					
12/03/2017	04:37:32	1		0.1		8.34		Sensors Verified					
12/03/2017	04:37:33	1		0.1		8.34		Water Temp: 65F, Cl=0, pH=7					
12/03/2017	04:39:07	1		0.0		8.34							
12/03/2017	04:40:47	5		0.1		8.34							
12/03/2017	04:42:27	381		3.5		8.35							
12/03/2017	04:44:07	74		0.0		8.37							
12/03/2017	04:47:27	148		0.0		8.36							
12/03/2017	04:49:07	2485		0.0		8.35							
12/03/2017	04:50:47	5826		0.0		8.35							
12/03/2017	04:52:27	1		0.0		8.35							
12/03/2017	04:54:07	3		0.0		8.35							
12/03/2017	04:55:47	152		0.1		8.62							
12/03/2017	04:57:21	152		0.1		8.39		Fill Lines					
12/03/2017	04:57:27	152		0.1		8.40							
12/03/2017	04:57:28	152		0.1		8.40		Pressure Test Lines					
12/03/2017	04:57:55	152		0.0		8.34		Start Pumping Spacer					
12/03/2017	04:59:07	153		0.0		8.34							
12/03/2017	05:00:47	154		0.0		8.34							
12/03/2017	05:02:27	154		0.0		8.34							

Well Borough 27N-17HZ 0631733325			Field Wattenberg		Job Start Dec/03/2017	Customer ANADARKO PETROLEUM COMPANY	Job Number CSS9-00868
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Message		
12/03/2017	05:05:47	212	0.8	10.67			
12/03/2017	05:07:27	182	0.7	10.68			
12/03/2017	05:09:07	480	4.1	10.69			
12/03/2017	05:10:47	492	4.0	10.95			
12/03/2017	05:12:27	326	2.2	10.98			
12/03/2017	05:14:07	512	3.5	10.96			
12/03/2017	05:15:47	224	2.3	10.96			
12/03/2017	05:17:27	324	2.2	10.96			
12/03/2017	05:19:07	462	4.5	10.95			
12/03/2017	05:20:47	472	4.6	10.97			
12/03/2017	05:22:01	254	2.1	11.01	End Spacer Vol: 60 bbl		
12/03/2017	05:22:04	306	2.1	11.01	Drop Bottom Plug		
12/03/2017	05:22:27	295	2.1	11.02			
12/03/2017	05:24:07	44	0.0	0.73			
12/03/2017	05:25:47	40	0.2	8.89			
12/03/2017	05:27:27	40	0.3	3.76			
12/03/2017	05:29:07	39	0.0	10.96			
12/03/2017	05:30:47	39	0.0	10.93			
12/03/2017	05:32:27	39	0.0	6.02			
12/03/2017	05:33:55	397	3.3	12.01	Start Mixing Lead Slurry		
12/03/2017	05:34:07	381	3.3	12.01			
12/03/2017	05:35:47	386	3.3	11.98			
12/03/2017	05:37:14	383	3.3	12.03	Casing Reciprocated		
12/03/2017	05:37:27	335	3.3	12.02			
12/03/2017	05:38:36	508	4.5	12.00	Casing Rotated @ 30 RPM		
12/03/2017	05:39:07	486	4.5	12.00			
12/03/2017	05:40:47	870	6.4	11.97			
12/03/2017	05:41:44	816	6.4	11.97	Wet and Dry Samples Taken		
12/03/2017	05:41:53	810	6.4	11.96	Density Verifeid w/ Mudscale		
12/03/2017	05:42:17	759	6.4	11.97	Mudscale Reading: 12.0 ppg		
12/03/2017	05:42:27	799	6.4	11.96			
12/03/2017	05:44:07	754	6.4	11.97			
12/03/2017	05:45:47	697	6.4	12.01			
12/03/2017	05:46:19	666	6.4	12.01	0.03 gal/sk D197 AccuSET		
12/03/2017	05:47:27	672	6.4	11.99			
12/03/2017	05:49:07	599	6.4	12.02			
12/03/2017	05:50:47	522	6.4	11.99			
12/03/2017	05:51:46	518	6.4	12.00	470 sks, 1.82 ft3/sk		
12/03/2017	05:52:00	519	6.4	12.01	7.38 gal/sk		
12/03/2017	05:52:27	543	6.4	12.02			
12/03/2017	05:54:07	504	6.5	12.03			
12/03/2017	05:55:47	525	6.4	12.05			
12/03/2017	05:57:27	532	6.5	12.01			
12/03/2017	05:59:07	497	6.4	12.00			
12/03/2017	06:00:47	99	3.2	11.98			
12/03/2017	06:02:27	263	3.9	12.48			
12/03/2017	06:02:41	358	4.5	13.20	End Lead Slurry		
12/03/2017	06:03:07	347	4.5	13.35	Vol: 165 bbl		
12/03/2017	06:03:25	371	4.5	13.64	Start Mixing Tail Slurry		
12/03/2017	06:04:07	329	4.5	13.37			
12/03/2017	06:05:16	474	6.5	13.39	Wet and Dry Samples Taken		
12/03/2017	06:05:17	504	6.5	13.39	Density Verifeid w/ Mudscale		
12/03/2017	06:05:47	496	6.4	13.40			
12/03/2017	06:07:27	529	6.7	13.41			

Well Borough 27N-17HZ 0631733325			Field Wattenberg		Job Start Dec/03/2017	Customer ANADARKO PETROLEUM COMPANY	Job Number CSS9-00868
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Message		
12/03/2017	06:10:47	507	6.7	13.41			
12/03/2017	06:12:25	382	5.3	13.41	670 sks, 1.66 ft3/sk		
12/03/2017	06:12:27	322	5.3	13.41			
12/03/2017	06:12:36	389	5.3	13.41	7.92 gal/sk		
12/03/2017	06:14:07	315	5.3	13.42			
12/03/2017	06:15:47	485	6.7	13.41			
12/03/2017	06:17:27	477	6.7	13.46			
12/03/2017	06:19:07	483	6.7	13.45			
12/03/2017	06:20:47	485	6.7	13.46			
12/03/2017	06:22:27	529	6.7	13.45			
12/03/2017	06:24:07	506	6.7	13.42			
12/03/2017	06:25:47	495	6.7	13.42			
12/03/2017	06:27:27	496	6.7	13.41			
12/03/2017	06:29:07	462	6.7	13.41			
12/03/2017	06:30:47	504	6.7	13.42			
12/03/2017	06:32:27	500	6.7	13.42			
12/03/2017	06:33:44	495	6.7	13.34	End Tail Slurry		
12/03/2017	06:33:50	512	6.7	13.34	Vol: 203 bbl		
12/03/2017	06:33:55	446	6.7	13.34	Flush Surface Lines		
12/03/2017	06:34:07	481	6.7	13.34			
12/03/2017	06:35:47	26	0.0	13.26			
12/03/2017	06:37:27	26	0.0	0.77			
12/03/2017	06:39:07	25	0.0	0.89			
12/03/2017	06:40:47	25	0.0	0.65			
12/03/2017	06:42:27	73	1.9	9.23			
12/03/2017	06:44:07	74	2.1	9.30			
12/03/2017	06:45:47	74	2.1	9.25			
12/03/2017	06:47:27	70	2.0	8.78			
12/03/2017	06:49:07	255	0.0	8.55			
12/03/2017	06:50:47	308	4.5	8.55			
12/03/2017	06:52:27	10	0.0	8.55			
12/03/2017	06:54:07	11	0.0	8.55			
12/03/2017	06:55:47	112	0.7	8.55			
12/03/2017	06:56:54	352	8.3	8.56	Drop Top Plug		
12/03/2017	06:56:55	356	8.3	8.56	Start Displacement		
12/03/2017	06:57:27	345	8.3	8.57			
12/03/2017	06:58:22	354	8.3	8.58	Sugar 1st 20 bbl		
12/03/2017	06:58:33	358	8.3	8.58	Biocide Added Throughout		
12/03/2017	06:59:07	372	8.3	8.55			
12/03/2017	07:00:47	346	8.3	8.55			
12/03/2017	07:02:27	847	8.2	8.55			
12/03/2017	07:04:07	980	8.2	8.55			
12/03/2017	07:05:47	1141	8.2	8.55			
12/03/2017	07:07:27	1351	8.2	8.55			
12/03/2017	07:09:07	1525	8.2	8.55			
12/03/2017	07:10:47	1754	8.2	8.55			
12/03/2017	07:12:27	1960	8.2	8.55			
12/03/2017	07:14:07	2165	8.1	8.54			
12/03/2017	07:15:47	2390	8.1	8.54			
12/03/2017	07:17:27	2561	8.1	8.55			
12/03/2017	07:19:07	2676	8.1	8.54			
12/03/2017	07:20:47	2710	8.1	8.54			
12/03/2017	07:22:27	2773	8.1	8.55			
12/03/2017	07:24:07	2820	8.1	8.54			

Well			Field	Job Start	Customer	Job Number
Borough 27N-17HZ 0631733325			Wattenberg	Dec/03/2017	ANADARKO PETROLEUM COMPANY	CSS9-00868
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Message	
12/03/2017	07:27:27	2367	5.1	8.54		
12/03/2017	07:29:07	2410	5.1	8.54		
12/03/2017	07:30:47	2457	5.1	8.54		
12/03/2017	07:32:27	2087	2.3	8.54		
12/03/2017	07:34:07	2112	2.3	8.54		
12/03/2017	07:35:47	2103	2.3	8.54		
12/03/2017	07:37:27	2125	2.3	8.54		
12/03/2017	07:39:07	2620	0.0	8.55		
12/03/2017	07:40:47	2667	0.0	8.55		
12/03/2017	07:42:01	2708	0.0	8.55	Bump Top Plug	
12/03/2017	07:42:27	2559	0.0	8.55		
12/03/2017	07:43:00	11	0.0	8.55	15 bbl Spacer to Surface	
12/03/2017	07:43:49	13	0.0	8.55	Bleed Off Check Floats	
12/03/2017	07:43:56	13	0.0	8.55	Floats Held 3 bbl Back	
12/03/2017	07:44:07	13	0.0	8.55		
12/03/2017	07:45:47	2610	2.2	8.55		
12/03/2017	07:46:07	3032	0.3	8.55	Pressure Test Casing 15 min	
12/03/2017	07:47:27	3013	0.0	8.55		
12/03/2017	07:49:07	3015	0.0	8.55		
12/03/2017	07:50:47	3032	0.0	8.55		
12/03/2017	07:52:27	3061	0.0	8.55		
12/03/2017	07:54:07	3089	0.0	8.55		
12/03/2017	07:55:47	3117	0.0	8.55		
12/03/2017	07:57:27	3145	0.0	8.55		
12/03/2017	07:59:07	3174	0.0	8.55		
12/03/2017	08:00:47	3199	0.0	8.55		
12/03/2017	08:02:27	70	0.0	8.55		
12/03/2017	08:04:07	4577	3.3	8.55		
12/03/2017	08:04:20	3768	4.5	8.55	Shift Wet Shoe Sub	
12/03/2017	08:04:21	3666	5.0	8.55	Shift at 4900 psi	
12/03/2017	08:04:31	3010	6.2	8.55	Pump 3 bbl Water	
12/03/2017	08:05:47	1985	0.0	8.55		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.0	N2	Mud	Maximum Rate 16.5		Total Slurry 368.0	Mud 0.0	Spacer 60.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5895	Final 2000	Average 1012	Bump Plug to 2700	Breakdown	Type	Volume bbl		Density lb/gal
Avg. N2 Percent %		Designed Slurry Volume 350.0 bbl		Displacement 279.0 bbl	Mix Water Temp 66 degF	Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl
						Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Joe Wallem			Schlumberger Supervisor Billy Barg			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
						-		-