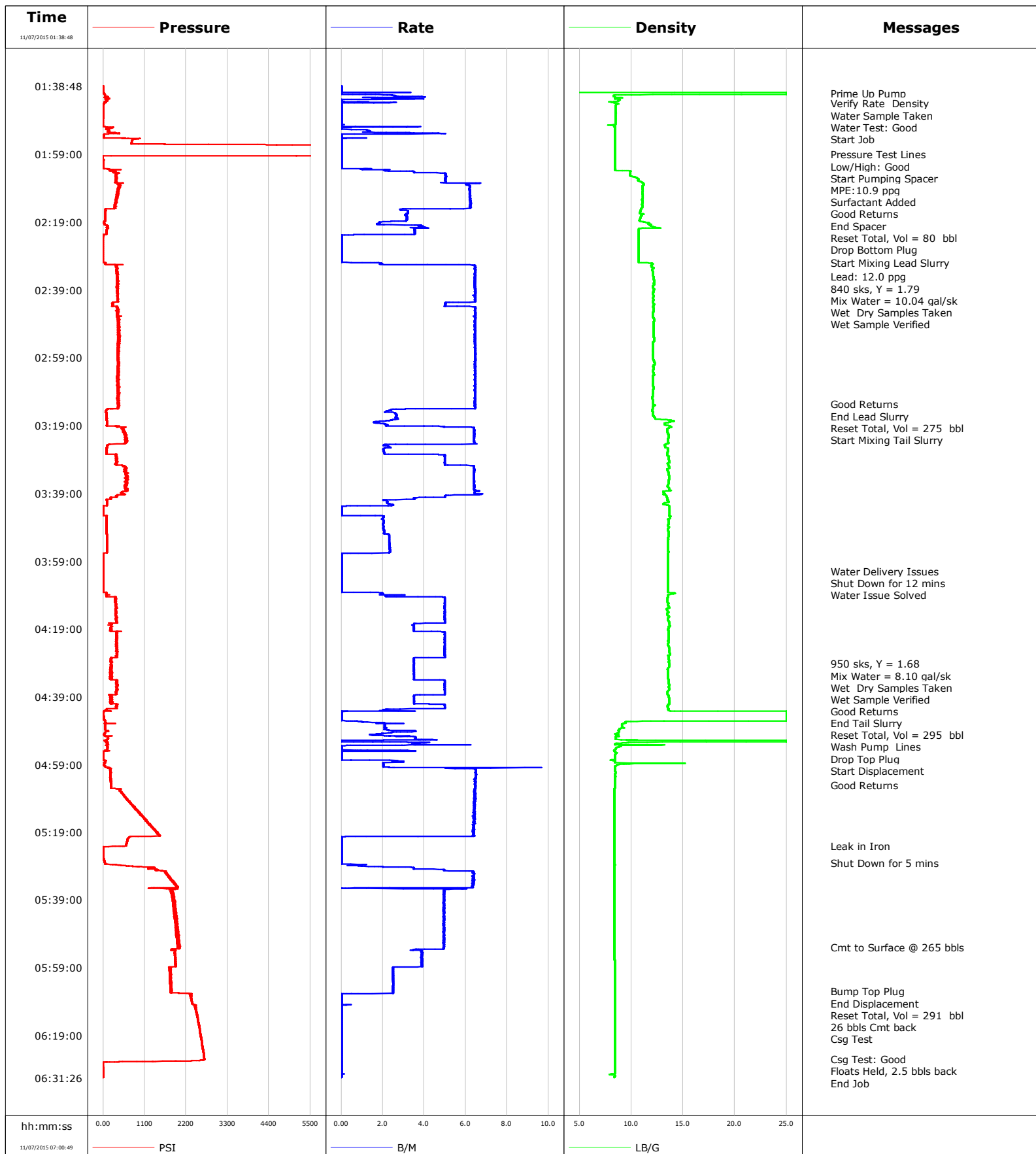


Well Cook 28N-16HZ
Field Wattenberg
Engineer Matlock/Evans
Country United States

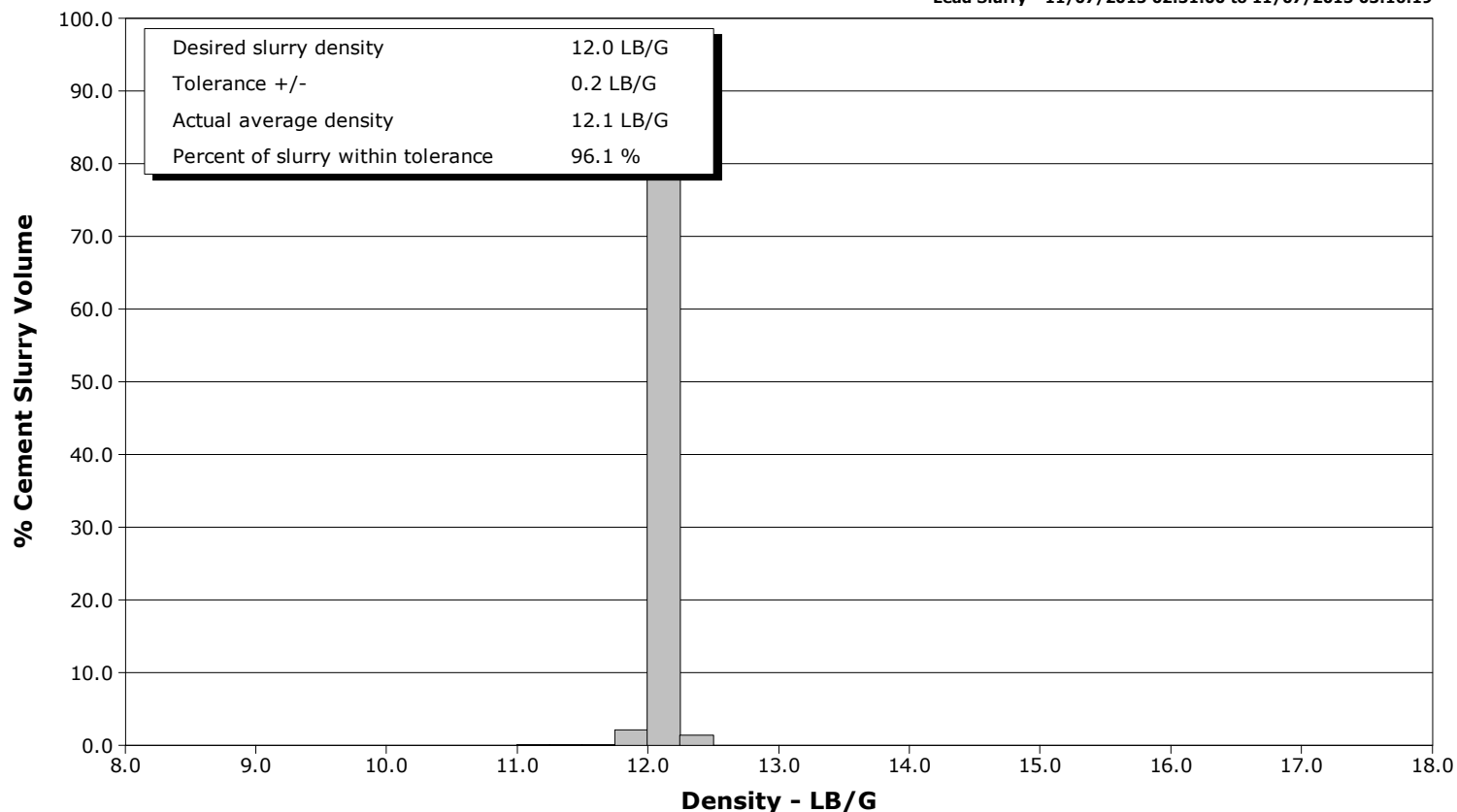
Client Anadarko
SIR No. DAXH-00484
Job Type Production
Job Date 11-07-2015



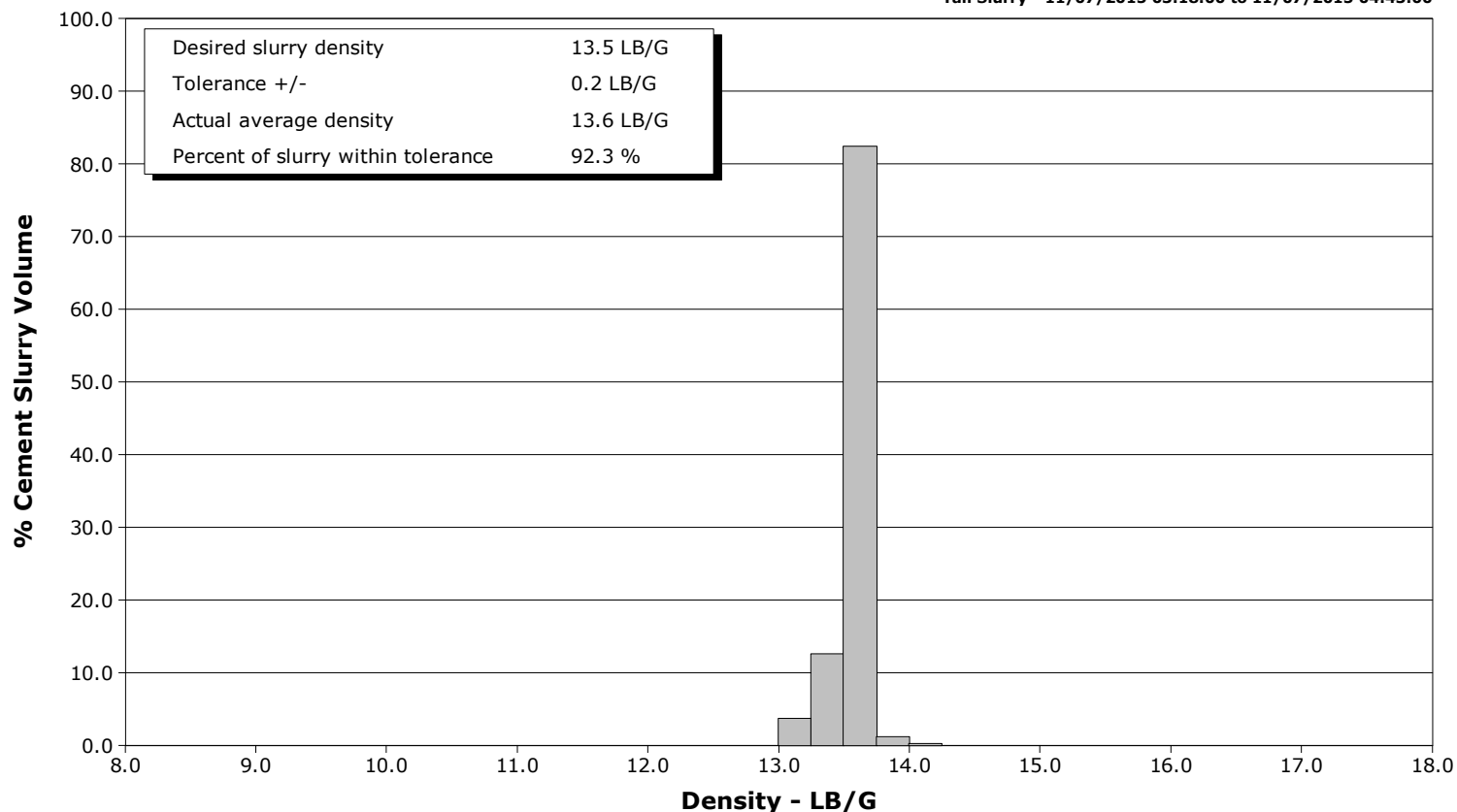
Well Cook 28N-16HZ
Field Wattenberg
Engineer Matlock/Evans
Country United States

Client Anadarko
SIR No. DAXH-00484
Job Type Production
Job Date 11-07-2015

Lead Slurry - 11/07/2015 02:31:00 to 11/07/2015 03:16:19



Tail Slurry - 11/07/2015 03:18:00 to 11/07/2015 04:43:00



Cementing Service Report

					Customer Anadarko			Job Number DAXH-00484							
Well Cook 28N-16HZ			Location (legal)			Schlumberger Location Cheyenne			Job Start Nov/06/2015						
Field Wattenberg		Formation Name/Type			Deviation deg		Bit Size 8.5 in		Well MD 12602.0 ft		Well TVD 7089.0 ft				
County Weld		State/Province CO			BHP psi		BHST 223 degF		BHCT 220 degF		Pore Press. Gradient lb/gal				
Well Master		API/UWI 05123421430000													
Rig Name H&P 307		Drilled For Oil		Service Via Land		Casing/ Liner									
						Depth, ft		Size, in		Weight, lb/ft		Grade	Thread		
Offshore Zone		Well Class New		Well Type Development		12602.0		5.5		17.0		P-110			
						0.0		0.0		0.0					
Drilling Fluid Type		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe									
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade	Thread
Service Line Cementing		Job Type Production													
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection Double Cement head		Perforations/Open Hole									
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval	
						ft		ft						ft	
						ft		ft						Diameter	
						ft		ft						in	
						Treat Down Casing		Displacement 291.0 bbl		Packer Type		Packer Depth ft			
						Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. bbl		Openhole Vol. 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 type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 12602.0 ft			Tool Type						
No. Centralizers		Top Plugs 1		Bottom Plugs 1		Stage Tool Type			Tool Depth ft						
Cement Head Type						Stage Tool Depth ft			Tail Pipe Size in						
Job Scheduled For Nov/06/2015 21:30		Arrived on Location Nov/06/2015 21:30		Leave Location Nov/07/2015		Collar Type Float			Tail Pipe Depth ft						
						Collar Depth 12515.0 ft			Sqz. Total Vol. bbl						
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message								
11/07/2015	01:38:48	0	0.0	0.01	0.0	0	Safety Mtg Held								
11/07/2015	01:40:28	0	0.0	0.01	0.0	0									
11/07/2015	01:41:00	35	0.0	25.00	0.1	0	Prime Up Pump								
11/07/2015	01:42:08	84	3.9	8.41	2.2	0									
11/07/2015	01:43:48	37	1.6	8.35	4.5	0									
11/07/2015	01:44:00	22	0.0	8.67	4.5	0	Verify Rate Density								
11/07/2015	01:45:20	5	0.0	8.47	4.5	0	Water Sample Taken								
11/07/2015	01:45:26	4	0.0	8.47	4.5	0	Water Test: Good								
11/07/2015	01:47:08	2	0.0	8.48	4.5	0									
11/07/2015	01:48:48	-1	0.0	8.46	4.5	0									
11/07/2015	01:50:28	-1	0.0	8.20	0.0	0									
11/07/2015	01:52:08	140	1.4	8.41	1.0	0									
11/07/2015	01:53:00	79	1.1	8.41	3.2	0	Start Job								
11/07/2015	01:53:48	13	0.0	8.41	3.3	0									
11/07/2015	01:55:28	754	0.0	8.41	3.4	0									
11/07/2015	01:57:08	5749	0.0	8.41	3.4	0									
11/07/2015	01:58:48	5665	0.0	8.41	3.4	0									
11/07/2015	01:59:00	5659	0.0	8.41	3.4	0	Pressure Test Lines								
11/07/2015	02:00:00	-16	0.0	8.41	3.4	0	Low/High: Good								
11/07/2015	02:00:28	-11	0.0	8.41	3.4	0									
11/07/2015	02:02:08	4	0.0	8.41	0.0	0									

Well			Field		Job Start		Customer		Job Number	
Cook 28N-16HZ			Wattenberg		Nov/06/2015		Anadarko		DAXH-00484	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
11/07/2015	02:04:00	320	3.4	9.93	1.4	26	Start Pumping Spacer			
11/07/2015	02:05:09	340	5.0	9.87	6.4	25	MPE:10.9 ppg			
11/07/2015	02:05:19	351	5.0	9.90	7.3	24	Surfactant Added			
11/07/2015	02:05:28	356	5.0	9.99	8.0	23				
11/07/2015	02:06:05	386	5.0	10.58	11.1	18	Good Returns			
11/07/2015	02:07:08	347	5.0	10.96	16.4	13				
11/07/2015	02:08:48	434	6.2	11.06	26.3	21				
11/07/2015	02:10:28	386	6.2	11.06	36.5	27				
11/07/2015	02:12:08	375	6.2	11.11	46.9	27				
11/07/2015	02:13:48	319	6.2	11.03	57.3	32				
11/07/2015	02:15:28	58	2.9	10.92	66.4	29				
11/07/2015	02:17:08	63	3.1	10.98	71.6	0				
11/07/2015	02:18:00	63	3.2	10.85	74.4	0	End Spacer			
11/07/2015	02:18:48	36	2.4	10.88	76.9	0				
11/07/2015	02:19:00	29	1.9	11.22	77.3	0	Reset Total, Vol = 80 bbl			
11/07/2015	02:20:28	120	3.9	12.16	81.2	24				
11/07/2015	02:22:08	87	3.5	10.72	87.2	7				
11/07/2015	02:23:48	-2	0.0	10.72	0.1	0				
11/07/2015	02:25:28	-0	0.0	10.72	0.1	0				
11/07/2015	02:26:00	-0	0.0	10.73	0.1	0	Drop Bottom Plug			
11/07/2015	02:27:08	-1	0.0	10.72	0.1	0				
11/07/2015	02:28:48	-0	0.0	10.72	0.1	0				
11/07/2015	02:30:28	-1	0.0	10.72	0.1	0				
11/07/2015	02:31:00	81	1.6	11.00	0.1	0	Start Mixing Lead Slurry			
11/07/2015	02:32:08	362	6.5	11.95	4.7	0				
11/07/2015	02:33:48	377	6.5	12.10	15.5	13				
11/07/2015	02:35:03	371	6.5	12.13	23.5	20	Lead: 12.0 ppg			
11/07/2015	02:35:04	373	6.4	12.14	23.7	20	840 sks, Y = 1.79			
11/07/2015	02:35:05	373	6.5	12.14	23.8	20	Wet Dry Samples Taken			
11/07/2015	02:35:28	365	6.4	12.15	26.2	21				
11/07/2015	02:37:08	379	6.4	12.18	37.0	22				
11/07/2015	02:38:48	403	6.5	12.20	47.7	4				
11/07/2015	02:40:28	381	6.5	12.12	58.5	22				
11/07/2015	02:42:08	393	6.4	12.13	69.2	18				
11/07/2015	02:43:48	255	5.0	12.14	78.3	14				
11/07/2015	02:45:28	369	6.5	12.16	88.9	22				
11/07/2015	02:47:08	413	6.5	12.10	99.7	21				
11/07/2015	02:48:48	439	6.5	12.16	110.4	18				
11/07/2015	02:50:28	405	6.4	12.15	121.2	22				
11/07/2015	02:52:08	391	6.4	12.16	131.9	24				
11/07/2015	02:53:48	397	6.4	12.19	142.7	26				
11/07/2015	02:55:28	397	6.5	12.12	153.4	19				
11/07/2015	02:57:08	403	6.5	12.08	164.2	19				
11/07/2015	02:58:48	395	6.5	12.09	174.9	23				
11/07/2015	03:00:28	393	6.4	12.23	185.7	26				
11/07/2015	03:02:08	420	6.4	12.16	196.4	30				
11/07/2015	03:03:48	393	6.5	12.16	207.2	30				
11/07/2015	03:05:28	380	6.4	12.09	217.9	29				
11/07/2015	03:07:08	380	6.5	12.07	228.7	24				
11/07/2015	03:08:48	376	6.4	12.11	239.4	18				
11/07/2015	03:10:28	383	6.5	12.05	250.2	21				
11/07/2015	03:12:08	393	6.4	12.11	260.9	16				
11/07/2015	03:12:41	394	6.5	12.09	264.5	14	Good Returns			
11/07/2015	03:13:48	406	6.5	12.04	271.7	17				

Well			Field		Job Start		Customer		Job Number	
Cook 28N-16HZ			Wattenberg		Nov/06/2015		Anadarko		DAXH-00484	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
11/07/2015	03:16:19	88	2.7	12.16	279.3	2	End Lead Slurry			
11/07/2015	03:16:20	87	2.7	12.16	279.3	2	Reset Total, Vol = 275 bbl			
11/07/2015	03:17:08	91	2.7	12.43	281.4	0				
11/07/2015	03:18:00	94	1.6	13.74	1.1	7	Start Mixing Tail Slurry			
11/07/2015	03:18:48	94	2.2	13.21	2.6	11				
11/07/2015	03:20:28	575	6.4	13.46	11.1	13				
11/07/2015	03:22:08	601	6.4	13.58	21.8	25				
11/07/2015	03:23:48	650	6.4	13.54	32.4	26				
11/07/2015	03:25:28	106	2.3	13.24	39.3	6				
11/07/2015	03:27:08	90	2.1	13.47	42.8	17				
11/07/2015	03:28:48	340	5.0	13.61	49.9	13				
11/07/2015	03:30:28	344	5.0	13.54	58.2	26				
11/07/2015	03:32:08	581	6.4	13.48	68.4	35				
11/07/2015	03:33:48	606	6.4	13.61	79.1	37				
11/07/2015	03:35:28	637	6.4	13.57	89.7	37				
11/07/2015	03:37:08	573	6.4	13.52	100.4	30				
11/07/2015	03:38:48	487	6.4	13.13	111.2	8				
11/07/2015	03:40:28	212	3.5	13.46	120.4	13				
11/07/2015	03:42:08	97	2.3	13.10	124.6	6				
11/07/2015	03:43:48	6	0.0	13.67	126.1	0				
11/07/2015	03:47:08	85	2.0	13.61	129.1	0				
11/07/2015	03:48:48	83	2.0	13.58	132.5	4				
11/07/2015	03:50:28	84	2.1	13.59	135.9	9				
11/07/2015	03:52:08	99	2.3	13.56	139.6	8				
11/07/2015	03:53:48	97	2.3	13.56	143.5	7				
11/07/2015	03:55:28	96	2.3	13.56	147.4	7				
11/07/2015	03:57:08	3	0.0	13.55	150.2	0				
11/07/2015	03:58:48	3	0.0	13.55	150.2	0				
11/07/2015	04:00:28	3	0.0	13.55	150.2	0				
11/07/2015	04:02:00	3	0.0	13.55	150.2	0	Water Delivery Issues			
11/07/2015	04:02:08	3	0.0	13.55	150.2	0				
11/07/2015	04:02:30	4	0.0	13.55	150.2	0	Shut Down for 12 mins			
11/07/2015	04:03:48	4	0.0	13.55	150.2	0				
11/07/2015	04:05:28	3	0.0	13.55	150.2	0				
11/07/2015	04:07:08	3	0.0	13.55	150.2	0				
11/07/2015	04:08:13	4	0.0	13.56	150.2	0	Water Issue Solved			
11/07/2015	04:08:48	83	1.9	13.80	151.3	0				
11/07/2015	04:10:28	319	5.0	13.49	157.4	7				
11/07/2015	04:12:08	353	5.0	13.56	165.7	12				
11/07/2015	04:13:48	324	5.0	13.50	174.0	25				
11/07/2015	04:15:28	341	5.0	13.66	182.3	24				
11/07/2015	04:17:08	357	5.0	13.65	190.6	30				
11/07/2015	04:18:48	207	3.5	13.57	196.8	35				
11/07/2015	04:20:28	346	5.0	13.57	203.6	36				
11/07/2015	04:22:08	361	5.0	13.58	211.9	36				
11/07/2015	04:23:48	349	5.0	13.55	220.2	36				
11/07/2015	04:25:28	367	5.0	13.66	228.5	38				
11/07/2015	04:27:08	356	5.0	13.58	236.8	39				
11/07/2015	04:28:48	238	3.5	13.61	243.2	38				
11/07/2015	04:29:15	203	3.5	13.65	244.8	38	950 sks, Y = 1.68			
11/07/2015	04:29:16	228	3.5	13.65	244.8	38	Mix Water = 8.10 gal/sk			
11/07/2015	04:29:17	197	3.5	13.65	244.9	38	Wet Dry Samples Taken			
11/07/2015	04:29:18	197	3.5	13.65	245.0	38	Good Returns			
11/07/2015	04:30:28	193	3.5	13.59	249.0	37				

Well			Field		Job Start		Customer		Job Number
Cook 28N-16HZ			Wattenberg		Nov/06/2015		Anadarko		DAXH-00484
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message		
11/07/2015	04:33:48	196	3.5	13.56	260.7	35			
11/07/2015	04:35:28	386	5.0	13.67	268.6	35			
11/07/2015	04:37:08	362	5.0	13.60	276.9	34			
11/07/2015	04:38:48	195	3.5	13.59	284.8	33			
11/07/2015	04:40:28	184	3.5	13.68	290.6	34			
11/07/2015	04:42:08	348	5.0	13.50	297.8	34			
11/07/2015	04:43:00	79	2.2	13.59	301.2	76	End Tail Slurry		
11/07/2015	04:43:48	10	0.0	25.00	301.8	0			
11/07/2015	04:44:00	9	0.0	25.00	301.8	0	Reset Total, Vol = 295 bbl		
11/07/2015	04:45:28	13	0.0	25.00	301.8	0			
11/07/2015	04:47:00	65	2.2	9.22	1.2	4	Wash Pump Lines		
11/07/2015	04:47:08	60	2.1	9.11	1.5	8			
11/07/2015	04:48:48	55	2.2	8.87	5.0	13			
11/07/2015	04:50:28	35	1.7	8.68	9.0	17			
11/07/2015	04:52:08	58	0.0	25.00	13.7	33			
11/07/2015	04:53:48	116	0.0	8.86	17.6	0			
11/07/2015	04:55:28	5	0.0	8.52	0.1	0			
11/07/2015	04:56:00	1	0.0	8.49	0.1	0	Drop Top Plug		
11/07/2015	04:57:00	3	0.0	8.42	0.1	0	Start Displacement		
11/07/2015	04:57:08	3	0.0	8.42	0.1	0			
11/07/2015	04:58:48	29	2.0	13.17	2.6	0			
11/07/2015	05:00:28	194	6.5	8.42	8.1	0			
11/07/2015	05:02:08	192	6.5	8.45	18.9	0			
11/07/2015	05:03:48	193	6.5	8.40	29.7	0			
11/07/2015	05:05:06	208	6.4	8.40	38.1	0	Good Returns		
11/07/2015	05:05:28	217	6.5	8.40	40.4	0			
11/07/2015	05:07:08	467	6.4	8.39	51.2	0			
11/07/2015	05:08:48	611	6.4	8.39	61.9	0			
11/07/2015	05:10:28	752	6.4	8.39	72.6	0			
11/07/2015	05:12:08	840	6.4	8.39	83.3	0			
11/07/2015	05:13:48	1011	6.4	8.39	94.0	0			
11/07/2015	05:15:28	1121	6.4	8.39	104.7	0			
11/07/2015	05:17:08	1253	6.4	8.39	115.4	0			
11/07/2015	05:18:48	1402	6.3	8.39	126.0	0			
11/07/2015	05:20:28	694	0.0	8.39	135.2	0			
11/07/2015	05:22:08	626	0.0	8.39	135.2	0			
11/07/2015	05:23:00	608	0.0	8.39	135.2	0	Leak in Iron		
11/07/2015	05:23:48	1	0.0	8.39	135.2	0			
11/07/2015	05:25:28	5	0.0	8.39	135.2	0			
11/07/2015	05:27:08	21	0.0	8.39	135.2	0			
11/07/2015	05:28:00	43	0.0	8.39	135.2	0	Shut Down for 5 mins		
11/07/2015	05:28:48	474	0.5	8.40	135.5	0			
11/07/2015	05:30:28	1634	6.2	8.39	141.0	0			
11/07/2015	05:32:08	1728	6.4	8.39	151.6	0			
11/07/2015	05:33:48	1853	6.3	8.39	162.2	0			
11/07/2015	05:35:28	1354	2.3	8.39	172.6	0			
11/07/2015	05:37:08	1858	4.9	8.39	180.1	0			
11/07/2015	05:38:48	1876	4.9	8.39	188.3	0			
11/07/2015	05:40:28	1871	4.9	8.39	196.5	0			
11/07/2015	05:42:08	1905	4.9	8.39	204.8	0			
11/07/2015	05:43:48	1910	4.9	8.39	213.0	0			
11/07/2015	05:45:28	1944	5.0	8.39	221.3	0			
11/07/2015	05:47:08	1967	5.0	8.39	229.5	0			
11/07/2015	05:48:48	1983	4.9	8.39	237.8	0			

Well			Field		Job Start		Customer		Job Number	
Cook 28N-16HZ			Wattenberg		Nov/06/2015		Anadarko		DAXH-00484	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message			
11/07/2015	05:52:08	1961	5.0	8.39	254.2	0				
11/07/2015	05:53:00	1987	4.9	8.39	258.5	0	Cmt to Surface @ 265 bbls			
11/07/2015	05:53:48	1831	3.5	8.39	262.1	0				
11/07/2015	05:55:28	1908	3.9	8.38	268.5	0				
11/07/2015	05:57:08	1907	3.9	8.41	275.0	0				
11/07/2015	05:58:48	1767	2.7	8.41	281.4	0				
11/07/2015	06:00:28	1796	2.5	8.41	285.6	0				
11/07/2015	06:02:08	1770	2.5	8.41	289.7	0				
11/07/2015	06:03:48	1808	2.5	8.41	293.9	0				
11/07/2015	06:05:28	1804	2.5	8.41	298.1	0				
11/07/2015	06:06:00	1793	2.5	8.41	299.4	0	Bump Top Plug			
11/07/2015	06:06:30	2172	2.5	8.41	300.7	0	End Displacement			
11/07/2015	06:06:40	2345	0.5	8.41	301.0	0	Reset Total, Vol = 291 bbl			
11/07/2015	06:07:00	2339	0.0	8.42	301.0	0	26 bbls Cmt back			
11/07/2015	06:07:08	2306	0.0	8.42	301.0	0				
11/07/2015	06:08:48	2347	0.0	8.42	301.0	0				
11/07/2015	06:09:00	2354	0.0	8.42	301.0	0	Csg Test			
11/07/2015	06:10:28	2431	0.0	8.42	301.0	0				
11/07/2015	06:12:08	2469	0.0	8.42	301.0	0				
11/07/2015	06:13:48	2502	0.0	8.42	301.0	0				
11/07/2015	06:15:28	2531	0.0	8.42	301.0	0				
11/07/2015	06:17:08	2558	0.0	8.42	301.0	0				
11/07/2015	06:18:48	2583	0.0	8.42	301.0	0				
11/07/2015	06:20:28	2607	0.0	8.42	301.0	0				
11/07/2015	06:22:08	2632	0.0	8.42	301.0	0				
11/07/2015	06:23:48	2656	0.0	8.42	301.0	0				
11/07/2015	06:25:28	2679	0.0	8.42	301.0	0				
11/07/2015	06:26:00	2686	0.0	8.42	301.0	0	Csg Test: Good			
11/07/2015	06:27:00	-11	0.0	8.42	301.0	0	Floats Held, 2.5 bbls back			
11/07/2015	06:27:08	-8	0.0	8.42	301.0	0				
11/07/2015	06:28:48	2	0.0	8.42	301.0	0				

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.8	N2	Mud	Maximum Rate 9.7		Total Slurry 570.0	Mud 0.0	Spacer 80.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 5892	Final 1	Average 657	Bump Plug to 2300	Breakdown	Type	Volume bbl		Density lb/gal
Avg. N2 Percent %		Designed Slurry Volume 548.0 bbl		Displacement 291.0 bbl	Mix Water Temp 60 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 26.0 bbl
						Washed Thru Perfs <input type="checkbox"/>		To ft
Customer or Authorized Representative Merle			Schlumberger Supervisor Matlock/Evans			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
						-		-