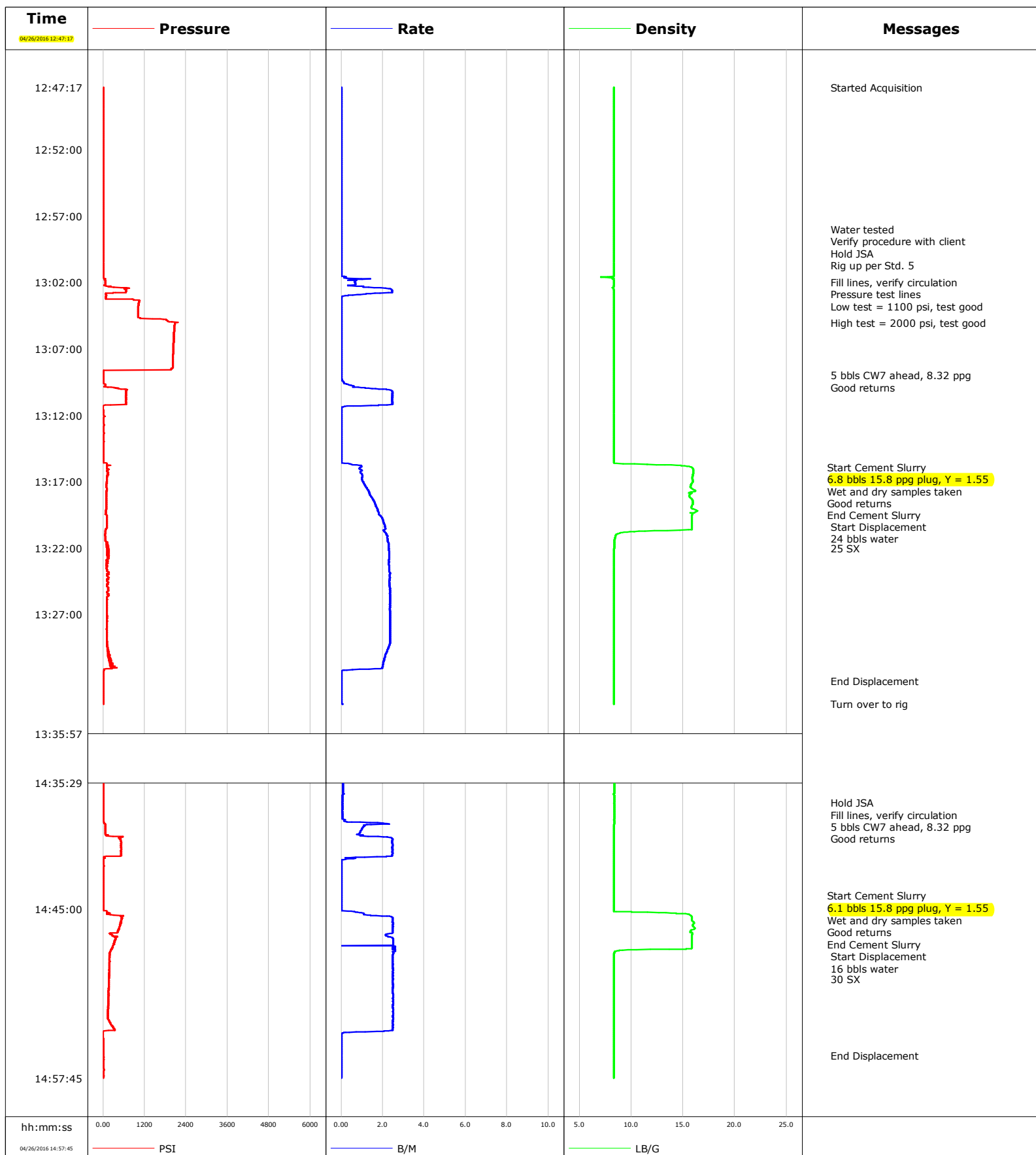


**Well** HSR Hall 12-31  
**Field** DJ  
**Engineer** Langley/Storey  
**Country** United States

**Client** Anadarko  
**SIR No.** D5VO-01162  
**Job Type** PA  
**Job Date** 04-26-2016



# Cementing Service Report

					Customer Anadarko			Job Number D5VO-01162		
Well HSR Hall 12-31 12-31			Location (legal) Concord 7			Schlumberger Location Cheyenne		Job Start Apr/26/2016		
Field DJ		Formation Name/Type			Deviation deg	Bit Size in		Well MD ft	Well TVD ft	
County Weld		State/Province Colorado			BHP psi	BHST degF	BHCT degF	Pore Press. Gradient lb/gal		
Well Master		API/UWI 05123167530000								
Rig Name Concord 7		Drilled For Oil		Service Via Land	Casing/ Liner					
					Depth, ft	Size, in	Weight, lb/ft	Grade	Thread	
Offshore Zone		Well Class Old		Well Type Workover						
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 P&A								
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection	Perforations/Open Hole					
					Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval	
<b>Service Instructions</b> Procedure verified with client:  Niobrara plug: 5 bbls 8.32 ppg CW7 6.8 bbls 15.8 ppg slurry 1.9 bbls 8.32 CW7 Water displacement  Sussex Plug: 5 bbls 8.32 ppg CW7					ft	ft			ft	
					ft	ft			Diameter	
					ft	ft			in	
					Treat Down		Displacement bbl		Packer Type	
Tubing Vol. bbl		Casing Vol. bbl		Annular Vol. bbl		Openhole Vol. bbl				
Casing/Tubing Secured <input type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input type="checkbox"/>			Casing Tools			Squeeze Job		
Lift Pressure psi					Shoe Type			Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>			Shoe Depth ft			Tool Type		
No. Centralizers		Top Plugs		Bottom Plugs	Stage Tool Type			Tool Depth ft		
Cement Head Type					Stage Tool Depth ft			Tail Pipe Size in		
Job Scheduled For Apr/26/2016		Arrived on Location Apr/26/2016		Leave Location Apr/26/2016	Collar Type			Tail Pipe Depth ft		
					Collar Depth 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			
04/26/2016	12:47:17	5	0.0	8.33	0.0	0	Started Acquisition			
04/26/2016	12:49:17	5	0.0	8.33	0.0	0				
04/26/2016	12:51:17	5	0.0	8.33	0.0	0				
04/26/2016	12:53:17	9	0.0	8.33	0.0	0				
04/26/2016	12:55:17	4	0.0	8.33	0.0	0				
04/26/2016	12:57:17	3	0.0	8.33	0.0	0				
04/26/2016	12:58:00	3	0.0	8.33	0.0	0	Water tested			
04/26/2016	12:59:17	1	0.0	8.33	0.0	0				
04/26/2016	13:01:17	2	0.0	8.33	0.0	0				
04/26/2016	13:02:00	68	0.7	8.31	0.2	0	Fill lines, verify circulation			
04/26/2016	13:03:17	878	0.0	8.33	1.6	0				
04/26/2016	13:05:00	2155	0.0	8.33	1.6	0	High test = 2000 psi, test good			
04/26/2016	13:05:17	2064	0.0	8.33	1.6	0				
04/26/2016	13:07:17	2025	0.0	8.33	1.6	0				
04/26/2016	13:09:00	3	0.0	8.33	1.6	0	5 bbls CW7 ahead, 8.32 ppg			
04/26/2016	13:09:17	13	0.0	8.33	1.6	0				
04/26/2016	13:11:17	-1	1.0	8.33	5.0	0				
04/26/2016	13:13:17	14	0.0	8.33	5.0	0				
04/26/2016	13:15:17	11	0.0	8.33	5.0	0				
04/26/2016	13:15:55	112	0.9	15.84	5.2	49	Start Cement Slurry			
04/26/2016	13:16:00	113	0.9	15.93	5.3	46	6.8 bbls 15.8 ppg plug, Y = 1.55			

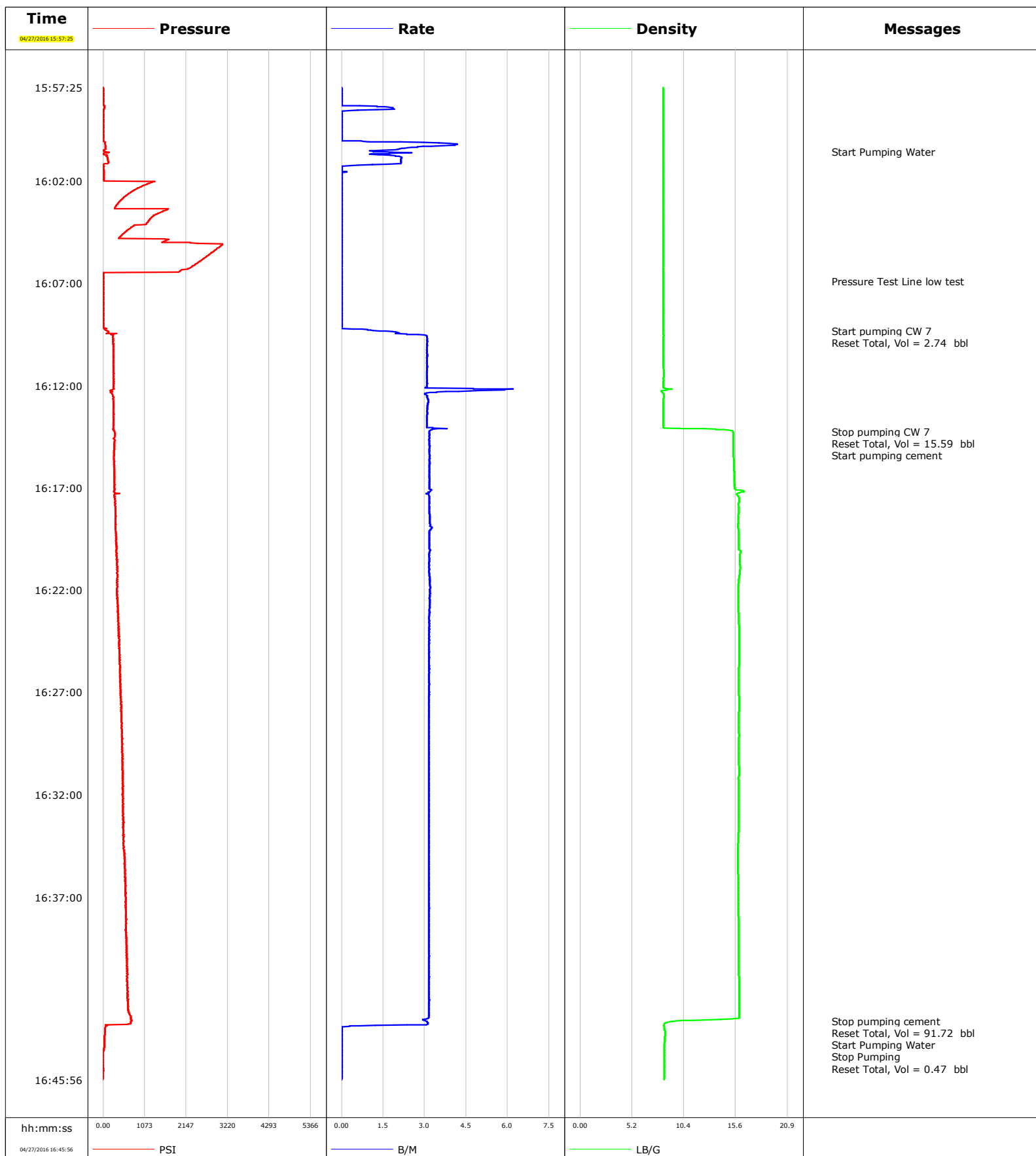
Well			Field		Job Start	Customer		Job Number
HSR Hall 12-31 12-31			DJ		Apr/26/2016	Anadarko		D5VO-01162
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
04/26/2016	13:19:00	88	1.7	15.85	9.1	0	End Cement Slurry	
04/26/2016	13:19:17	83	1.8	16.22	9.6	1		
04/26/2016	13:20:00	109	2.0	15.84	11.0	43	Start Displacement	
04/26/2016	13:21:00	48	2.2	8.55	13.1	0	24 bbls water	
04/26/2016	13:21:17	68	2.2	8.41	13.7	0		
04/26/2016	13:23:17	134	2.3	8.34	18.3	0		
04/26/2016	13:25:17	118	2.3	8.34	22.9	0		
04/26/2016	13:27:17	119	2.4	8.33	27.6	0		
04/26/2016	13:29:17	111	2.3	8.33	32.3	0		
04/26/2016	13:31:17	13	0.0	8.33	36.3	0		
04/26/2016	13:32:00	13	0.0	8.33	36.3	0	End Displacement	
04/26/2016	13:33:17	5	0.0	8.33	36.3	0		
04/26/2016	13:33:43	4	0.0	8.34	36.3	0	Turn over to rig	
04/26/2016	14:37:00	0	0.1	8.37	3.4	0	Hold JSA	
04/26/2016	14:37:17	0	0.1	8.37	3.4	0		
04/26/2016	14:39:17	62	0.9	8.33	4.5	0		
04/26/2016	14:41:17	6	0.1	8.34	8.5	0		
04/26/2016	14:43:17	8	0.0	8.33	8.5	0		
04/26/2016	14:44:00	8	0.0	8.34	8.5	0	Start Cement Slurry	
04/26/2016	14:45:00	8	0.0	8.33	8.5	0	6.1 bbls 15.8 ppg plug, Y = 1.55	
04/26/2016	14:45:17	159	1.0	13.36	8.6	43		
04/26/2016	14:47:17	359	2.5	15.85	13.2	41		
04/26/2016	14:47:30	320	2.5	15.86	13.7	41	End Cement Slurry	
04/26/2016	14:48:00	243	2.5	15.32	14.9	0	Start Displacement	
04/26/2016	14:49:00	182	2.5	8.33	17.5	0	16 bbls water	
04/26/2016	14:49:17	179	2.5	8.33	18.2	0		
04/26/2016	14:51:17	153	2.5	8.33	23.1	0		
04/26/2016	14:53:17	142	2.5	8.33	28.1	0		
04/26/2016	14:55:17	5	0.0	8.33	30.5	0		
04/26/2016	14:56:00	5	0.0	8.33	30.5	0	End Displacement	

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 1.1		N2	Mud	Maximum Rate 21.8	Total Slurry 63.7		Mud 0.0	Spacer 0.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 2155	Final 13	Average 127	Bump Plug to	Breakdown	Type		Volume bbl		Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 0.0 bbl		Displacement 0.0 bbl		Mix Water Temp degF		Cement Circulated to Surface? <input type="checkbox"/>		Volume bbl	
								Washed Thru Perfs <input type="checkbox"/>		To ft	
Customer or Authorized Representative Ryan Thompson				Schlumberger Supervisor Langley/Storey				Circulation Lost <input type="checkbox"/>		Job Completed <input type="checkbox"/>	
								-		-	

**Well** HSR Hall 12-31  
**Field** Old 10  
**Engineer** Eugene Harris  
**Country** United States

**Client** Anadarko  
**SIR No.** 2300520  
**Job Type** PA  
**Job Date** 04-27-2016



# Cementing Service Report

				Customer Anadarko		Job Number 2300520		
Well HSR Hall 12-31			Location (legal)		Schlumberger Location		Job Start Apr/27/2016	
Field Old 10		Formation Name/Type		Deviation deg	Bit Size in	Well MD 1040.0 ft	Well TVD ft	
County		State/Province Colorado		BHP psi	BHST degF	BHCT 80 degF	Pore Press. Gradient lb/gal	
Well Master		API/UWI						
Rig Name	Drilled For Other	Service Via Land		Casing/Liner				
				Depth, ft	Size, in	Weight, lb/ft	Grade Thread	
Offshore Zone	Well Class Old	Well Type Other						
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 P&A			T	1040.0	2.4	4.7 J-55 EUE	
					0.0	0.0		
Max. Allowed Tub. Press 700 psi	Max. Allowed Ann. Press psi	WH Connection BX152 10K		Perforations/Open Hole				
				Top, ft	Bottom, ft	shot/ft	No. of Shots Total Interval	
Service Instructions Provide equipment and personnel to set cement plug.				ft	ft		ft	
				ft	ft		Diameter in	
				ft	ft			
				Treat Down Tubing		Displacement 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		Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth ft		Tool Type		
No. Centralizers		Top Plugs	Bottom Plugs	Stage Tool Type		Tool Depth ft		
Cement Head Type				Stage Tool Depth ft		Tail Pipe Size in		
Job Scheduled For Apr/27/2016 15:00		Arrived on Location Apr/27/2016 14:00		Leave Location Apr/27/2016 18:00		Collar Type Tail Pipe Depth ft		
				Collar Depth ft		Sqz. Total Vol. bbl		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
04/27/2016	15:57:25	5	0.0	8.38	0.0			
04/27/2016	15:58:25	30	1.8	8.38	0.1			
04/27/2016	15:59:25	2	0.0	8.38	0.3			
04/27/2016	16:00:25	61	2.2	8.37	1.1			
04/27/2016	16:00:34	41	1.2	8.37	1.4	Start Pumping Water		
04/27/2016	16:01:25	8	0.0	8.38	2.7			
04/27/2016	16:02:25	836	0.0	8.38	2.7			
04/27/2016	16:03:25	1646	0.0	8.38	2.7			
04/27/2016	16:04:25	625	0.0	8.38	2.7			
04/27/2016	16:05:25	2864	0.0	8.38	2.7			
04/27/2016	16:06:25	1988	0.0	8.38	2.7			
04/27/2016	16:06:54	7	0.0	8.38	2.7	Pressure Test Line low test		
04/27/2016	16:07:25	5	0.0	8.38	2.7			
04/27/2016	16:08:25	6	0.0	8.38	2.7			
04/27/2016	16:09:19	95	1.1	8.38	2.7	Start pumping CW 7		
04/27/2016	16:09:25	134	2.1	8.37	0.2			
04/27/2016	16:10:25	265	3.1	8.38	3.2			
04/27/2016	16:11:25	270	3.1	8.40	6.3			
04/27/2016	16:12:25	237	3.0	8.39	9.7			
04/27/2016	16:13:25	271	3.1	8.38	12.9			
04/27/2016	16:14:15	296	3.2	15.36	15.5	Stop pumping CW 7		

Well			Field		Job Start	Customer	Job Number
HSR Hall 12-31			Old 10		Apr/27/2016	Anadarko	2300520
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
04/27/2016	16:14:25	296	3.2	15.40	0.4		
04/27/2016	16:14:37	294	3.2	15.39	1.1	Start pumping cement	
04/27/2016	16:15:25	283	3.2	15.42	3.6		
04/27/2016	16:16:25	289	3.2	15.49	6.8		
04/27/2016	16:17:25	302	3.2	15.88	10.0		
04/27/2016	16:18:25	322	3.2	15.91	13.2		
04/27/2016	16:19:25	337	3.2	15.96	16.4		
04/27/2016	16:20:25	361	3.2	16.06	19.6		
04/27/2016	16:21:25	360	3.2	15.98	22.8		
04/27/2016	16:22:25	359	3.2	15.92	26.0		
04/27/2016	16:23:25	398	3.2	15.95	29.2		
04/27/2016	16:24:25	411	3.2	15.98	32.4		
04/27/2016	16:25:25	423	3.2	15.99	35.5		
04/27/2016	16:26:25	440	3.2	15.95	38.7		
04/27/2016	16:27:25	457	3.2	15.98	41.9		
04/27/2016	16:28:25	474	3.2	15.96	45.1		
04/27/2016	16:29:25	481	3.2	15.96	48.2		
04/27/2016	16:30:25	492	3.2	15.95	51.4		
04/27/2016	16:31:25	510	3.2	15.92	54.6		
04/27/2016	16:32:25	506	3.2	15.95	57.8		
04/27/2016	16:33:25	518	3.2	15.96	60.9		
04/27/2016	16:34:25	524	3.2	15.87	64.1		
04/27/2016	16:35:25	565	3.2	15.87	67.3		
04/27/2016	16:36:25	569	3.2	15.89	70.4		
04/27/2016	16:37:25	577	3.2	15.90	73.6		
04/27/2016	16:38:25	585	3.2	15.94	76.8		
04/27/2016	16:39:25	612	3.2	15.95	80.0		
04/27/2016	16:40:25	622	3.2	15.96	83.1		
04/27/2016	16:41:25	624	3.2	15.98	86.3		
04/27/2016	16:42:25	651	3.2	15.98	89.5		
04/27/2016	16:43:04	737	3.1	9.72	91.5	Stop pumping cement Reset	
04/27/2016	16:43:08	714	3.1	8.74	91.7	Total, Vol = 91.72 bbl 445SX	
04/27/2016	16:43:12	719	3.1	8.47	0.2	Start Pumping Water	
04/27/2016	16:43:25	50	0.0	8.45	0.5		
04/27/2016	16:43:35	45	0.0	8.55	0.5	Stop Pumping	
04/27/2016	16:43:43	41	0.0	8.55	0.5	Reset Total, Vol = 0.47 bbl	
04/27/2016	16:44:25	25	0.0	8.47	0.0		

## Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 3.1	N2	Mud	Maximum Rate 3.0	Total Slurry 92.0	Mud 0.0	Spacer 15.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 3093	Final -2	Average 453	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 92.0 bbl		Displacement 1.0 bbl		Mix Water Temp 60 degF			
						Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 2.0 bbl		
						Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative Ryan Thomas			Schlumberger Supervisor Eugene Harris			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		
						-	-		