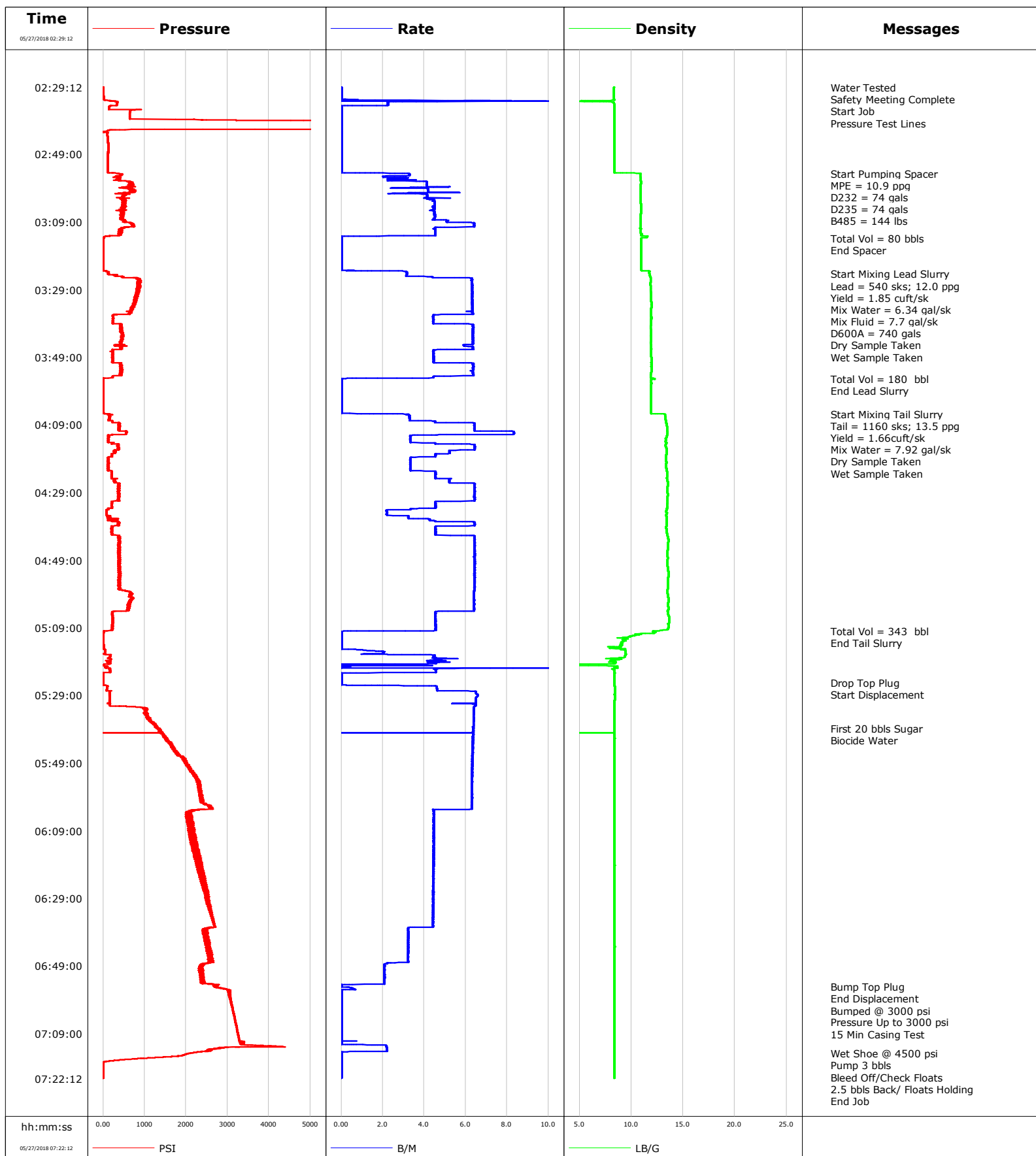


**Well** Verde 13-8HZ  
**Field** Wattenberg  
**Engineer** Michael Lopez  
**Country** United States

**Client** ANADARKO PETROLEUM COMPANY (ED)  
**SIR No.** E0ZP-00217  
**Job Type** 5.5 Production  
**Job Date** 05-27-2018



# Cementing Service Report

				Customer ANADARKO PETROLEUM COMPANY (ED)				Job Number E0ZP-00217									
Well Verde 13-8HZ 0631752591			Location (legal)			Schlumberger Location CWY			Job Start May/27/2018								
Field Wattenberg		Formation Name/Type			Deviation deg		Bit Size 7.9 in		Well MD 18573.0 ft		Well TVD ft						
County		State/Province Colorado			BHP psi		BHST 228 degF		BHCT 228 degF		Pore Press. Gradient lb/gal						
Well Master 0631752591		API/UWI 05123462560000															
Rig Name Precision 564		Drilled For Oil & Gas		Service Via Land		Casing/ Liner											
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread			
Offshore Zone		Well Class New		Well Type Exploration		1866.0		9.6		36.0		J55		N/A			
						18555.0		5.5		17.0		P110		8RD			
Drilling Fluid Type OBM		Max. Density 9.20 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe											
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line Cementing		Job Type 5.5 Production															
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection 2 3/8" 4.7# T/S		Perforations/Open Hole											
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval			
Service Instructions 7 7/8" OH to TD OH Excess: 4% Top of Lead Cement: 2,500' Top of Tail Cement: 8,000' TD: 18,573' Shoe: 18555.43'						ft		ft						ft			
						ft		ft						Diameter		in	
						ft		ft									
		Treat Down Casing				Displacement 430.0 bbl				Packer Type				Packer Depth ft			
		Tubing Vol. bbl				Casing Vol. 430.0 bbl				Annular Vol. 605.0 bbl				Openhole Vol. 516.0 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 18555.0 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 May/27/2018 20:30		Arrived on Location May/27/2018 20:30		Leave Location May/27/2018 08:30		Collar Type Float				Tail Pipe Depth ft							
						Collar Depth 18543.0 ft				Sqz. Total Vol. bbl							
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message											
05/27/2018	02:29:12	4	0.0	8.35	0.0	Started Acquisition											
05/27/2018	02:29:13	3	0.0	8.35	0.0	Safety Meeting Complete											
05/27/2018	02:29:17	3	0.0	8.35	0.0	Start Job											
05/27/2018	02:29:19	3	0.0	8.35	0.0	Pressure Test Lines											
05/27/2018	02:54:46	383	3.3	10.89	5.6	Start Pumping Spacer											
05/27/2018	02:54:47	375	3.3	10.89	5.7	MPE = 10.9 ppg											
05/27/2018	02:54:48	391	3.3	10.89	5.8	D232 = 74 gals											
05/27/2018	02:54:49	382	3.3	10.88	5.8	D235 = 74 gals											
05/27/2018	02:54:50	393	3.3	10.87	5.9	B485 = 144 lbs											
05/27/2018	03:13:51	12	0.0	10.97	85.5	Total Vol = 80 bbls											
05/27/2018	03:13:52	12	0.0	10.97	85.5	End Spacer											
05/27/2018	03:24:24	133	3.2	11.75	88.3	Start Mixing Lead Slurry											
05/27/2018	03:24:27	132	3.2	11.75	88.4	Lead = 540 sks; 12.0 ppg											
05/27/2018	03:24:28	120	3.2	11.75	88.5	Yield = 1.85 cuft/sk											
05/27/2018	03:24:29	118	3.2	11.75	88.6	Mix Fluid = 7.7 gal/sk											
05/27/2018	03:24:30	112	3.2	11.76	88.6	D600A = 740 gals											
05/27/2018	03:26:56	890	6.3	11.85	101.1	Dry Sample Taken											
05/27/2018	03:44:33	390	6.3	11.89	207.3	Wet Sample Taken											
05/27/2018	03:55:24	9	0.0	12.23	266.3	Total Vol = 180 bbl											
05/27/2018	03:55:27	10	0.0	12.23	266.3	End Lead Slurry											
05/27/2018	04:05:46	96	1.9	12.53	266.4	Start Mixing Tail Slurry											

Well			Field		Job Start	Customer	Job Number
Verde 13-8HZ 0631752591			Wattenberg		May/27/2018	ANADARKO PETROLEUM COMPANY (ED	E0ZP-00217
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
05/27/2018	04:05:57	111	3.2	13.27	266.9	Yield = 1.66cuft/sk	
05/27/2018	04:05:58	148	3.2	13.27	267.0	Mix Water = 7.92 gal/sk	
05/27/2018	04:05:59	131	3.2	13.27	267.0	Dry Sample Taken	
05/27/2018	05:09:58	14	0.8	12.18	610.1	Total Vol = 343 bbl	
05/27/2018	05:10:01	13	0.1	12.09	610.2	End Tail Slurry	
05/27/2018	05:25:19	5	0.0	8.37	632.7	Drop Top Plug	
05/27/2018	05:25:21	5	0.0	8.37	632.7	Start Displacement	
05/27/2018	05:38:44	1340	6.4	8.37	711.0	First 20 bbls Sugar	
05/27/2018	05:39:03	1379	6.3	8.37	713.0	Biocide Water	
05/27/2018	06:55:01	2760	0.0	8.37	1064.4	Bump Top Plug	
05/27/2018	06:55:03	2671	0.0	8.37	1064.4	End Displacement	
05/27/2018	06:55:31	2887	0.5	8.37	1064.5	Bumped @ 3000 psi	
05/27/2018	06:57:44	3062	0.0	8.37	1064.8	Pressure Up to 3000 psi	
05/27/2018	06:57:59	3067	0.0	8.37	1064.8	15 Min Casing Test	
05/27/2018	07:14:50	2072	0.0	8.37	1069.3	Wet Shoe @ 4500 psi	
05/27/2018	07:14:51	2064	0.0	8.37	1069.3	Pump 3 bbls	
05/27/2018	07:14:55	2048	0.0	8.37	1069.3	Bleed Off/Check Floats	
05/27/2018	07:18:04	5	0.0	8.37	1069.3	2.5 bbls Back/ Floats Holding	

### Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 5.0	N2	Mud	Maximum Rate 15.0	Total Slurry 522.0	Mud 0.0	Spacer 80.0	N2				
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 5840	Final 4	Average 1071	Bump Plug to 3000	Breakdown	Type	Volume bbl	Density lb/gal				
Avg. N2 Percent %		Designed Slurry Volume 516.0 bbl		Displacement 430.0 bbl		Mix Water Temp 65 degF		Cement Circulated to Surface? <input type="checkbox"/>	Volume bbl		
								Washed Thru Perfs <input type="checkbox"/>	To ft		
Customer or Authorized Representative John Trewit			Schlumberger Supervisor Michael Lopez			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>			
						-		-			