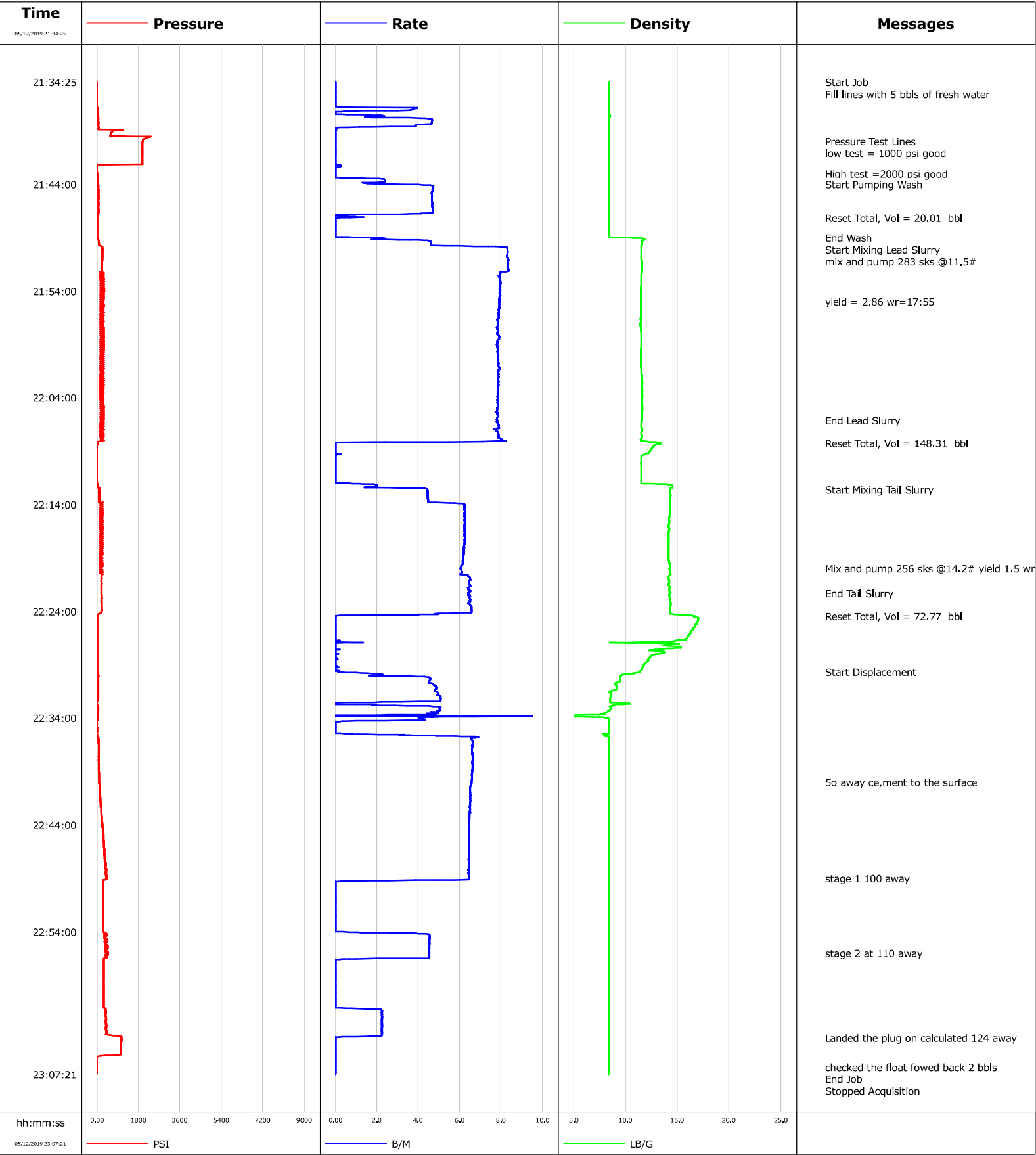


Well	AVIGNOA	Client	ENERPLUS
Field	WATTENBERG	SIR No.	2978122
Engineer	ALBERT SNYDER	Job Type	SURFACE
Country	United States	Job Date	05-12-2019



Cementing Service Report

				Customer ENERPLUS			Job Number 2978122	
Well AVIGNOA 8-67-32-31C			Location (legal) 8-67-32-31C		Schlumberger Location CWY		Job Start May/12/2019	
Field WATTENBERG		Formation Name/Type		Deviation deg	Bit Size in	Well MD 1645.0 ft	Well TVD 1645.0 ft	
County WELD		State/Province Colorado		BHP psi	BHST 110 degF	BHCT 80 degF	Pore Press. Gradient lb/gal	
Well Master 05-123-49663		API/UWI 05-123-49663						
Rig Name CARTELL 88	Drilled For Oil and Gas		Service Via Land		Casing/ Liner			
				Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
Offshore Zone N/A	Well Class New		Well Type Exploration		100.0	16.0	55.0	110
				1645.0	9.6	36.0	110	8RD
Drilling Fluid Type Spud Mud		Max. Density 8.90 lb/gal	Plastic Viscosity cP		Tubing/Drill Pipe			
					T/D	Depth, ft	Size, in	Weight, lb/ft
Service Line Cementing		Job Type SURFACE						
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 ft
								Diameter in
						Treat Down Casing	Displacement 124.0 bbl	Packer Type
								Packer Depth ft
						Tubing Vol. bbl	Casing Vol. 127.0 bbl	Annular Vol. bbl
								Openhole Vol. 117.0 bbl
Casing/Tubing Secured <input type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools		Squeeze Job		
Lift Pressure 748 psi				Shoe Type Guide		Squeeze Type		
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1645.0 ft		Tool Type		
No. Centralizers		Top Plugs		Bottom Plugs		Stage Tool Type		Tool Depth ft
Cement Head Type Single						Stage Tool Depth ft		Tail Pipe Size in
Job Scheduled For May/12/2019 19:00		Arrived on Location May/12/2019 00:21		Leave Location May/12/2019 00:23		Collar Type Float		Tail Pipe Depth ft
						Collar Depth 1605.0 ft		Sqz. Total Vol. bbl
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
05/12/2019	21:34:25	-5	0.0	8.38	0.0	Remark		
05/12/2019	21:34:26	-5	0.0	8.38	0.0	Start Job		
05/12/2019	21:35:00	-5	0.0	8.38	0.0	Fill lines with 5 bbls of fresh water		
05/12/2019	21:36:25	-5	0.0	8.38	0.0			
05/12/2019	21:38:25	51	4.2	8.38	4.6			
05/12/2019	21:39:58	1982	0.0	8.39	5.6	Pressure Test Lines		
05/12/2019	21:40:00	1982	0.0	8.39	5.6	low test = 1000 psi good		
05/12/2019	21:40:25	1974	0.0	8.39	5.6			
05/12/2019	21:42:25	-1	0.2	8.39	5.6			
05/12/2019	21:43:00	0	0.0	8.39	5.6	High test =2000 psi good		
05/12/2019	21:44:00	55	2.6	8.39	6.8	Start Pumping Wash		
05/12/2019	21:44:25	64	4.7	8.39	8.6			
05/12/2019	21:46:25	67	4.7	8.39	17.9			
05/12/2019	21:47:10	3	0.2	8.39	20.0	Reset Total, Vol = 20.01 bbl		
05/12/2019	21:48:25	1	0.0	8.39	0.0			
05/12/2019	21:49:00	15	1.2	9.38	0.0	End Wash		
05/12/2019	21:49:28	79	4.6	11.59	1.5	Start Mixing Lead Slurry		
05/12/2019	21:50:00	230	8.3	11.55	4.6	mix and pump 283 sks @11.5#		
05/12/2019	21:50:25	243	8.3	11.53	8.1			
05/12/2019	21:52:25	151	7.9	11.55	24.6			
05/12/2019	21:54:25	217	8.0	11.50	40.5			

Well AVIGNOA 8-67-32-31C			Field WATTENBERG		Job Start May/12/2019	Customer ENERPLUS	Job Number 2978122
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
05/12/2019	21:56:25	261	7.9	11.49	56.3		
05/12/2019	21:58:25	197	7.9	11.55	72.0		
05/12/2019	22:00:25	138	7.8	11.49	87.6		
05/12/2019	22:02:25	311	7.9	11.59	103.3		
05/12/2019	22:04:25	293	7.8	11.59	119.0		
05/12/2019	22:06:08	175	7.8	11.57	132.4	End Lead Slurry	
05/12/2019	22:06:25	175	7.8	11.55	134.6		
05/12/2019	22:08:15	2	0.0	13.29	148.3	Reset Total, Vol = 148.31 bbl	
05/12/2019	22:08:25	0	0.0	12.91	0.0		
05/12/2019	22:10:25	-2	0.0	11.52	0.0		
05/12/2019	22:12:25	35	1.5	14.49	0.7		
05/12/2019	22:12:37	107	4.4	14.28	1.4	Start Mixing Tail Slurry	
05/12/2019	22:14:25	263	6.2	14.29	10.4		
05/12/2019	22:16:25	231	6.2	14.20	22.9		
05/12/2019	22:18:25	153	6.2	14.16	35.3		
05/12/2019	22:20:00	155	6.0	14.24	45.0	Mix and pump 256 sks @14.2# yield 1.5 wr=7.58	
05/12/2019	22:20:25	148	6.1	14.29	47.6		
05/12/2019	22:22:18	197	6.4	14.29	59.6	End Tail Slurry	
05/12/2019	22:22:25	207	6.4	14.22	60.4		
05/12/2019	22:24:25	2	0.0	16.56	72.8		
05/12/2019	22:24:26	2	0.0	16.66	72.8	Reset Total, Vol = 72.77 bbl	
05/12/2019	22:26:25	3	0.0	15.99	0.0		
05/12/2019	22:28:25	1	0.0	12.26	0.1		
05/12/2019	22:29:40	3	0.3	11.36	0.1	Start Displacement	
05/12/2019	22:30:25	53	4.6	9.48	2.1		
05/12/2019	22:32:25	49	5.0	8.52	11.8		
05/12/2019	22:34:25	-12	0.0	8.39	18.7		
05/12/2019	22:36:25	67	6.6	8.39	24.0		
05/12/2019	22:38:25	74	6.6	8.39	37.2		
05/12/2019	22:40:00	103	6.6	8.39	47.6	50 away ce,ment to the surface	
05/12/2019	22:40:25	122	6.5	8.39	50.4		
05/12/2019	22:42:25	176	6.5	8.39	63.4		
05/12/2019	22:44:25	260	6.4	8.39	76.3		
05/12/2019	22:46:25	328	6.4	8.39	89.2		
05/12/2019	22:48:25	365	6.4	8.39	102.0		
05/12/2019	22:49:00	388	6.4	8.39	105.7	stage 1 100 away	
05/12/2019	22:50:25	266	0.0	8.39	107.3		
05/12/2019	22:52:25	263	0.0	8.39	107.3		
05/12/2019	22:54:25	310	4.5	8.39	108.6		
05/12/2019	22:56:00	404	4.5	8.39	115.8	stage 2 at 110 away	
05/12/2019	22:56:25	386	4.5	8.39	117.7		
05/12/2019	22:58:25	290	0.0	8.39	118.3		
05/12/2019	23:00:25	288	0.0	8.39	118.3		
05/12/2019	23:03:57	1056	0.0	8.39	124.1	Landed the plug on calculated 124 away	
05/12/2019	23:04:25	1053	0.0	8.39	124.1		
05/12/2019	23:06:25	-3	0.0	8.39	124.1		
05/12/2019	23:06:42	-4	0.0	8.39	124.1	checked the float fowed back 2 bbls	
05/12/2019	23:06:44	-3	0.0	8.39	0.0	End Job	

Well AVIGNOA 8-67-32-31C	Field WATTENBERG	Job Start May/12/2019	Customer ENERPLUS	Job Number 2978122
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 6,0	N2	Mud	Maximum Rate 6,0		Total Slurry 213,0	Mud	Spacer 20,0	N2	
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 200	Final 100	Average 150	Bump Plug to 300	Breakdown	Type		Volume bbl		Density 8,33 lb/gal
Avg. N2 Percent %		Designed Slurry Volume 0,0 bbl	Displacement 124.0 bbl	Mix Water Temp 60 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>			Volume 74,0 bbl	
					Washed Thru Perfs <input type="checkbox"/>			To ft	
Customer or Authorized Representative hAHN CARY			Schlumberger Supervisor ALBERT SNYDER			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>	
						-		-	