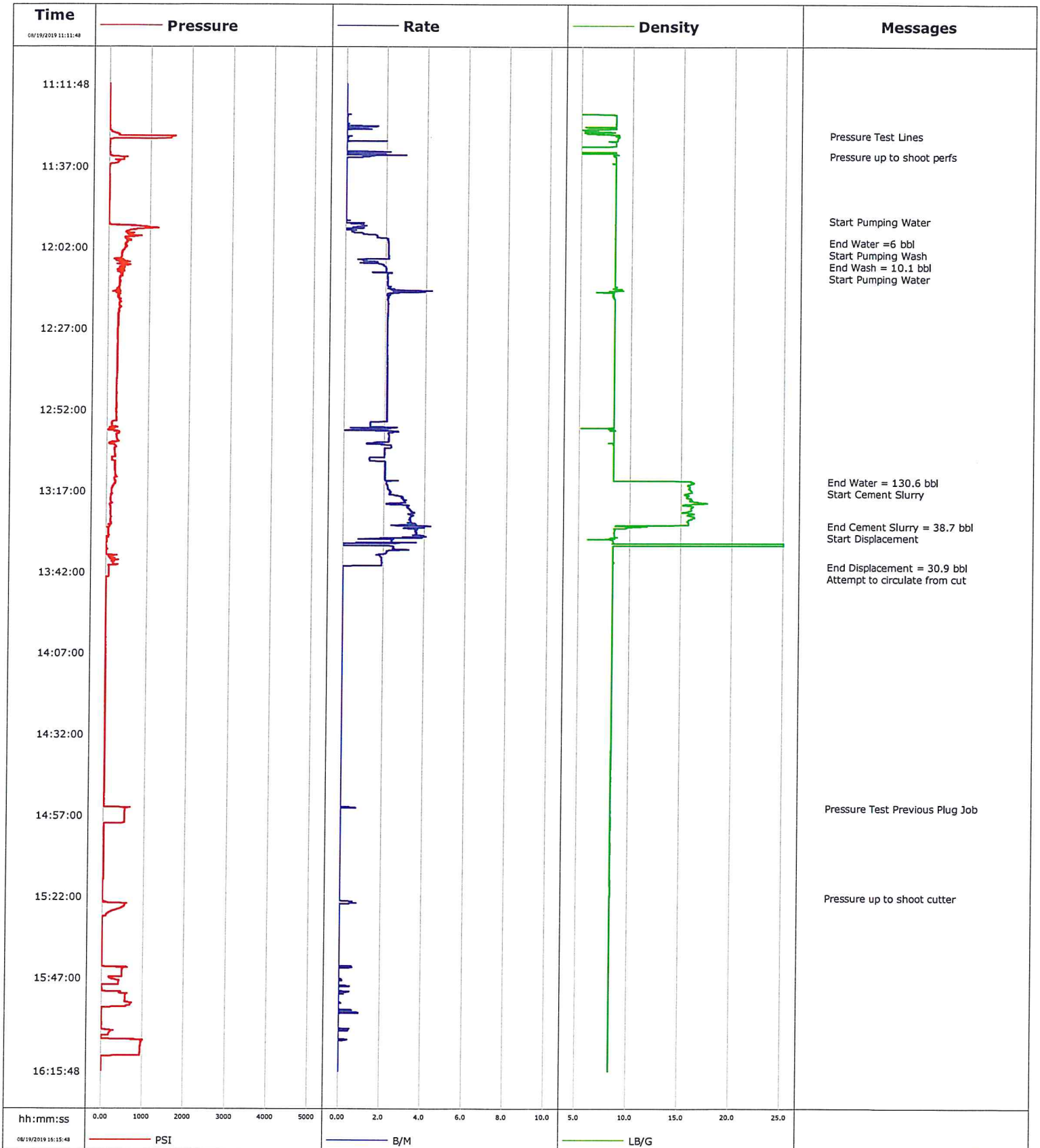


Well	Gruen 22-33	Client	Noble
Field	DJ	SIR No.	EA5Z-00024
Engineer	Richard White	Job Type	P A Rigless
Country	United States	Job Date	08-19-2019



Cementing Service Report

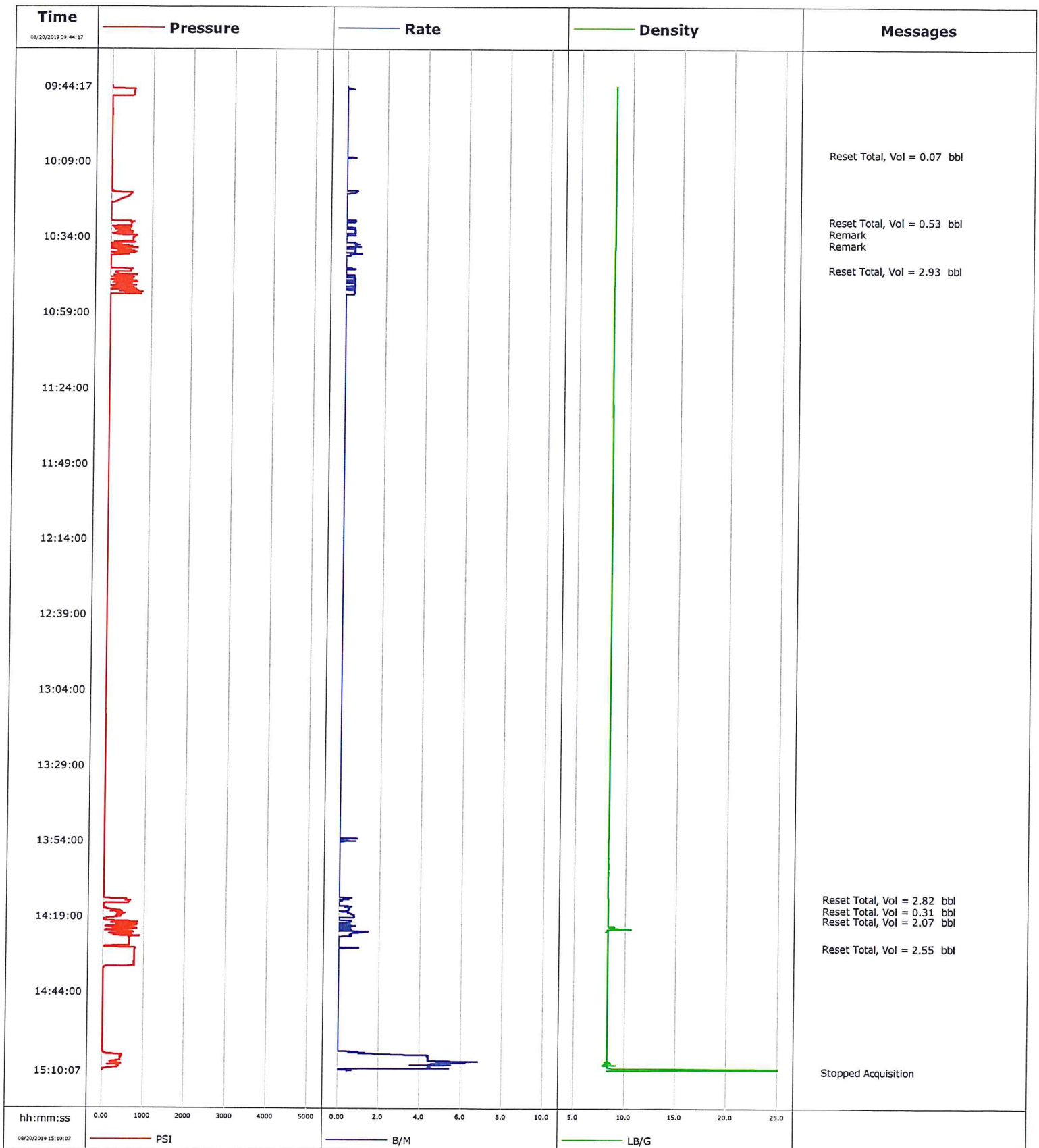
				Customer Noble		Job Number EA5Z-00024	
Well Gruen 22-33			Location (legal) CWY		Schlumberger Location Cheyenne		Job Start Aug/19/2019
Field DJ		Formation Name/Type		Deviation deg	Bit Size in	Well MD 2500.0 ft	Well TVD 2500.0 ft
County Weld		State/Province Colorado		BHP psi	BHST 165 degF	BHCT 125 degF	Pore Press. Gradient lb/gal
Well Master 630568420		API/UWI					
Rig Name Rigless		Drilled For Oil and Gas	Service Via Land		Casing/Liner		
					Depth, ft	Size, in	Weight, lb/ft
Offshore Zone		Well Class Old	Well Type Other		2501.0	4.5	11.6
					0.0	0.0	0.0
Drilling Fluid Type Other		Max. Density 8.40 lb/gal	Plastic Viscosity cP		Tubing/Drill Pipe		
					T/D	Depth, ft	Size, in
Service Line Cementing		Job Type P & A Rigless					
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
					ft	ft	
					ft	ft	
					Treat Down Casing	Displacement 30.8 bbl	Packer Type
							Packer Depth ft
					Tubing Vol. bbl	Casing Vol. bbl	Annular Vol. bbl
							Openhole Vol. bbl
Service Instructions Pressure Test/ Well circulation/ 2501 ft courtesy Plug Plug From 2501 ft to 1992 ft Pump 6 bbl water pump 10 bbl ccmwash Pump 130 bbl Fresh water Pump 38 bbl cmt @15.8ppg 1.16 y 185 sks 5.13 gps Pump 30.8 bbl Disp. Attempt to get circulation @ 992 ft							
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 Aug/19/2019		Arrived on Location Aug/19/2019		Leave Location Aug/19/2019		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	
08/19/2019	11:11:48	6	0.0	0.05	0.0	Started Acquisition	
08/19/2019	11:27:26	229	0.0	8.66	0.5	Pressure Test Lines	
08/19/2019	11:33:40	18	2.9	8.07	0.3	Pressure up to shoot perfs	
08/19/2019	11:53:41	9	0.0	8.36	1.2	Start Pumping Water	
08/19/2019	12:00:21	446	2.1	8.36	6.1	End Water = 6 bbl	
08/19/2019	12:00:22	434	2.1	8.36	0.0	Start Pumping Wash	
08/19/2019	12:05:06	311	2.1	8.36	10.0	End Wash = 10.1 bbl	
08/19/2019	12:05:07	319	2.1	8.36	0.0	Start Pumping Water	
08/19/2019	13:13:56	205	2.2	15.48	140.6	End Water = 130.6 bbl	
08/19/2019	13:13:57	207	2.2	15.68	0.0	Start Cement Slurry	
08/19/2019	13:27:37	59	2.5	12.70	38.6	End Cement Slurry = 38.7 bbl	
08/19/2019	13:27:38	62	2.4	11.10	0.0	Start Displacement	
08/19/2019	13:40:14	72	0.0	8.36	30.9	End Displacement = 30.9 bbl	
08/19/2019	13:43:49	19	0.0	8.36	0.0	Attempt to circulate from cut	
08/19/2019	14:54:34	47	0.5	8.34	0.0	Pressure Test Previous Plug Job	

Well Gruen 22-33	Field DJ	Job Start Aug/19/2019	Customer Noble	Job Number EA5Z-00024
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 1.9	N2	Mud	Maximum Rate 4.3	Total Slurry 230.6	Mud 0.0	Spacer 0.0	N2			
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 1596	Final 9	Average 146	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 Chris H.			Schlumberger Supervisor Richard White			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>			
						-	-			

Well	Gruen 22-33	Client	Noble
Field	DJ	SIR No.	1234
Engineer	Richard White	Job Type	P A Circ. attempt
Country	United States	Job Date	08-21-2019



Cementing Service Report

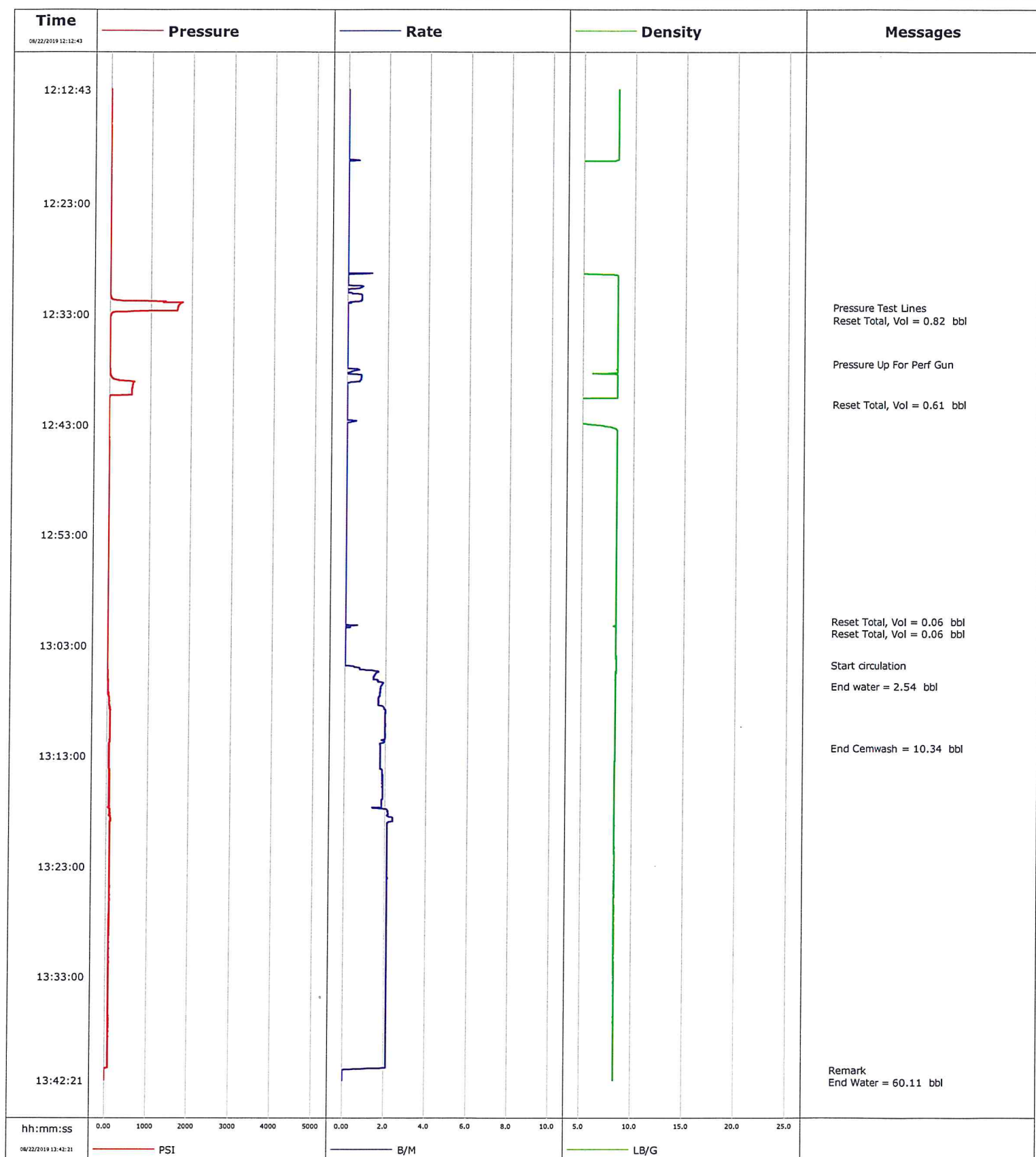
				Customer Noble		Job Number 1234	
Well Gruen 22-33			Location (legal) CWY		Schlumberger Location Cheyenne		Job Start Aug/21/2019
Field DJ		Formation Name/Type		Deviation deg	Bit Size in	Well MD 992.0 ft	Well TVD 992.0 ft
County Weld		State/Province Colorado		BHP psi	BHST 90 degF	BHCT 70 degF	Pore Press. Gradient lb/gal
Well Master 1234		API/UWI					
Rig Name Rigless		Drilled For Oil and Gas		Service Via Land		Casing/Liner	
				Depth, ft	Size, in	Weight, lb/ft	Grade
							Thread
Offshore Zone		Well Class Old		Well Type Other			
				992.0	4.5	11.6	n/a
				0.0	0.0	0.0	
Drilling Fluid Type Other		Max. Density 8.40 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 Circ. attempt					
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
				ft	ft		Total Interval ft
				ft	ft		Diameter in
				ft	ft		
				Treat Down Casing	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 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		Tool Depth ft	
Cement Head Type				Stage Tool Type		Tool Depth ft	
Job Scheduled For Aug/21/2019		Arrived on Location Aug/21/2019		Leave Location Aug/21/2019		Tail Pipe Size in	
						Tail Pipe Depth ft	
				Collar Type		Sqz. Total Vol. bbl	
				Collar Depth ft			
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
08/20/2019	09:44:17	0	0.0	8.36	0.0	Started Acquisition	
08/20/2019	10:06:28	2	0.0	8.36	0.1	Reset Total, Vol = 0.07 bbl	
08/20/2019	10:28:32	9	0.0	8.36	0.5	Reset Total, Vol = 0.53 bbl	
08/20/2019	10:30:21	496	0.0	8.36	0.2	Remark	
08/20/2019	10:35:19	548	0.0	8.35	1.1	Remark	
08/20/2019	10:44:27	13	0.2	8.34	2.9	Reset Total, Vol = 2.93 bbl	
08/20/2019	14:12:51	15	0.0	8.30	2.8	Reset Total, Vol = 2.82 bbl	
08/20/2019	14:15:26	16	0.0	8.32	0.3	Reset Total, Vol = 0.31 bbl	
08/20/2019	14:20:12	29	0.0	8.34	2.1	Reset Total, Vol = 2.07 bbl	
08/20/2019	14:29:09	55	0.0	8.33	2.6	Reset Total, Vol = 2.55 bbl	

Well Gruen 22-33	Field DJ	Job Start Aug/21/2019	Customer Noble	Job Number 1234
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum	Final 0	Average	Bump Plug to	Breakdown	Type	Volume bbl		Density lb/gal
Avg. N2 Percent %	Designed Slurry Volume 0.0 bbl		Displacement 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 Tyson H			Schlumberger Supervisor Richard White			Circulation Lost <input type="checkbox"/>	Job Completed <input type="checkbox"/>	
					-		-	

Well	Gruen 22-33	Client	Noble
Field	DJ	SIR No.	EA5Z-00024
Engineer	Richard White	Job Type	Perf and circulate
Country	United States	Job Date	08-23-2019



Cementing Service Report

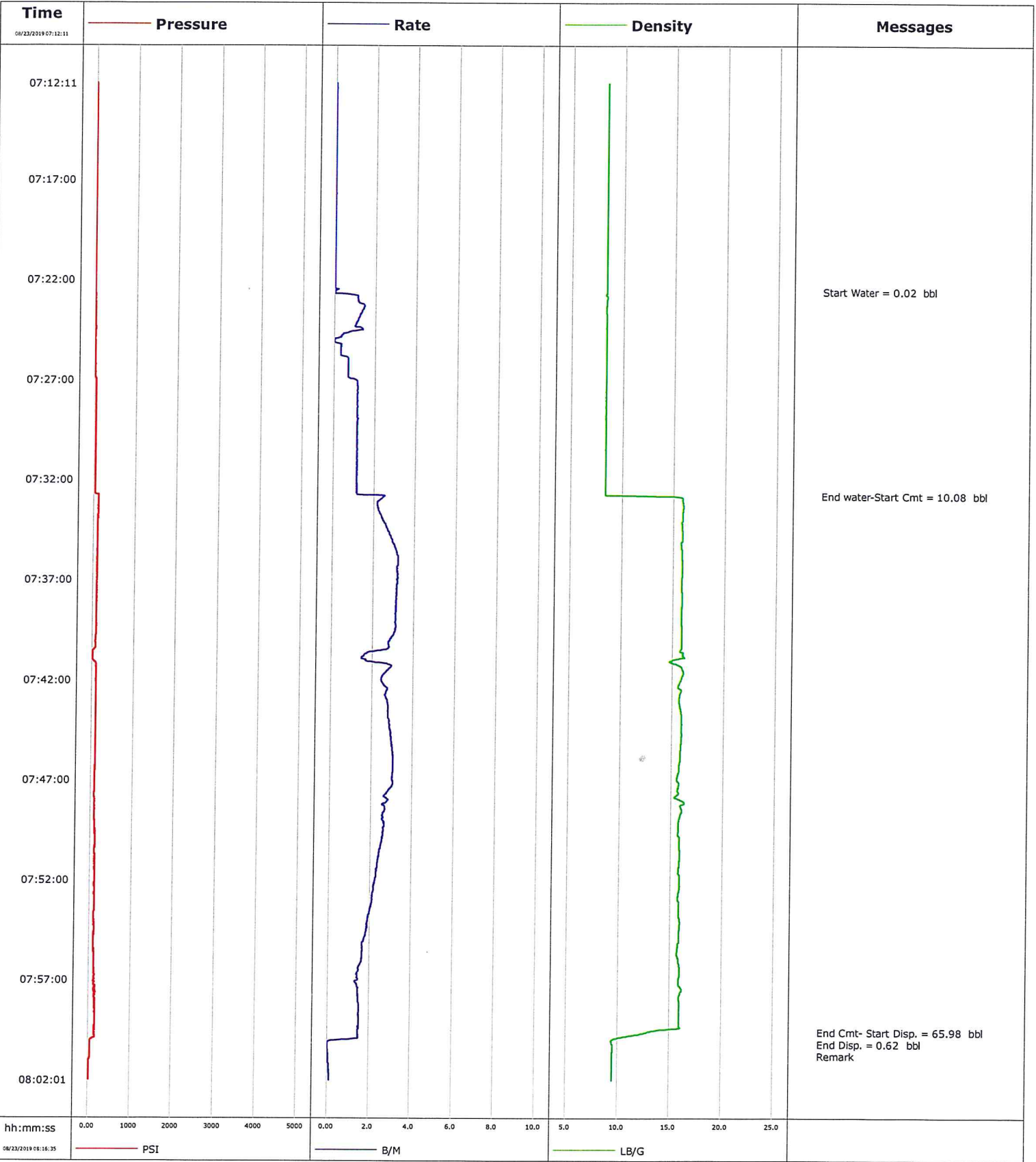
				Customer Noble		Job Number EA5Z-00024	
Well Gruen 22-33			Location (legal) CWY		Schlumberger Location Cheyenne		Job Start Aug/23/2019
Field DJ		Formation Name/Type		Deviation deg	Bit Size in	Well MD 977.0 ft	Well TVD 977.0 ft
County Weld		State/Province Colorado		BHP psi	BHST 90 degF	BHCT 70 degF	Pore Press. Gradient lb/gal
Well Master 1234		API/UWI					
Rig Name Rigless		Drilled For Oil and Gas		Service Via Land		Casing/Liner	
				Depth, ft	Size, in	Weight, lb/ft	Grade
							Thread
Offshore Zone		Well Class Old		Well Type Other			
				977.0	4.5	11.6	n/a
				0.0	0.0	0.0	
Drilling Fluid Type Other		Max. Density 8.40 lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe	
				T/D	Depth, ft	Size, in	Weight, lb/ft
							Grade
							Thread
Service Line Cementing		Job Type Perf and circulate					
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
				ft	ft		Total Interval ft
				ft	ft		Diameter in
				ft	ft		
				Treat Down Casing	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		Tool Depth ft	
Cement Head Type				Stage Tool Type		Tool Depth ft	
Job Scheduled For Aug/23/2019		Arrived on Location Aug/23/2019		Leave Location Aug/23/2019		Tail Pipe Size in	
						Tail Pipe Depth ft	
				Collar Type		Sqz. Total Vol. bbl	
				Collar Depth ft			
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
08/22/2019	12:12:43	1	0.0	8.36	0.0	Started Acquisition	
08/22/2019	12:32:23	1653	0.0	8.39	0.8	Pressure Test Lines	
08/22/2019	12:33:31	8	0.0	8.39	0.8	Reset Total, Vol = 0.82 bbl	
08/22/2019	12:37:29	10	0.0	8.39	0.0	Pressure Up For Perf Gun	
08/22/2019	12:41:08	-4	0.0	0.07	0.6	Reset Total, Vol = 0.61 bbl	
08/22/2019	13:00:49	1	0.0	8.37	0.1	Reset Total, Vol = 0.06 bbl	
08/22/2019	13:00:59	2	0.0	8.37	0.0	Reset Total, Vol = 0.06 bbl	
08/22/2019	13:04:46	2	0.0	8.40	0.1	Start circulation	
08/22/2019	13:06:42	31	1.8	8.36	2.5	End water = 2.54 bbl	
08/22/2019	13:12:15	67	1.8	8.35	10.3	End Cemwash = 10.34 bbl	
08/22/2019	13:41:25	-6	0.1	8.35	60.1	Remark	

Well Gruen 22-33	Field DJ	Job Start Aug/23/2019	Customer Noble	Job Number EA5Z-00024
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum	Final 0	Average	Bump Plug to	Breakdown	Type	Volume bbl		Density lb/gal
Avg. N2 Percent %	Designed Slurry Volume 0.0 bbl		Displacement 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 Tyson H.			Schlumberger Supervisor Richard White			Circulation Lost <input type="checkbox"/>	Job Completed <input type="checkbox"/>	
					-		-	

Well	Gruen 22-33	Client	Noble
Field	DJ	SIR No.	EA5Z-00024
Engineer	Richard White	Job Type	P A Surface Plug
Country	United States	Job Date	08-23-2019



Cementing Service Report

				Customer Noble				Job Number EA5Z-00024									
Well Gruen 22-33				Location (legal) CWY				Schlumberger Location Cheyenne				Job Start Aug/23/2019					
Field DJ		Formation Name/Type		Deviation deg		Bit Size in		Well MD 977.0 ft		Well TVD 977.0 ft							
County Weld		State/Province Colorado		BHP psi		BHST 80 degF		BHCT 70 degF		Pore Press. Gradient lb/gal							
Well Master 1234		API/UWI															
Rig Name Rigless		Drilled For Oil and Gas		Service Via Land		Casing/Liner											
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread			
Offshore Zone		Well Class Old		Well Type Other		977.0		4.5		11.6		n/a		n/a			
						0.0		0.0		0.0							
Drilling Fluid Type Other		Max. Density 8.40 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 Surface Plug															
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			
Service Instructions Surface Plug Plug From 977 ft to surface 10 bbl water 66 bbl cmt @ 15.8ppg 1.16 yield 322 sks 5.13 gps 0.5 bbl Disp.						ft		ft						Diameter in			
						ft		ft									
						ft		ft									
						Treat Down Casing		Displacement 0.5 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 Aug/23/2019		Arrived on Location Aug/23/2019		Leave Location Aug/23/2019		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											
08/23/2019	07:12:11	0	0.0	8.36	0.0	Started Acquisition											
08/23/2019	07:22:32	2	0.1	8.36	0.0	Start Water = 0.02 bbl											
08/23/2019	07:32:46	121	2.1	9.29	10.0	End water-Start Cmt = 10.08 bbl											
08/23/2019	07:59:35	150	1.5	13.11	66.0	End Cmt- Start Disp. = 65.98 bbl											
08/23/2019	08:00:11	56	0.0	9.47	0.6	End Disp. = 0.62 bbl											
08/23/2019	08:00:14	55	0.0	9.52	0.0	Remark											
08/23/2019	08:16:35	24	0.0	0.07	22.1	Stopped Acquisition											

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
Treating Pressure Summary, psi				Breakdown Fluid			
Maximum	Final 0	Average	Bump Plug to	Breakdown	Type	Volume bbl	Density lb/gal
Avg. N2 Percent %		Designed Slurry Volume 0.0 bbl		Displacement bbl	Mix Water Temp degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume bbl
						Washed Thru Perfs <input type="checkbox"/>	To ft
Customer or Authorized Representative Tyson H.				Schlumberger Supervisor Richard White		Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>
						-	-