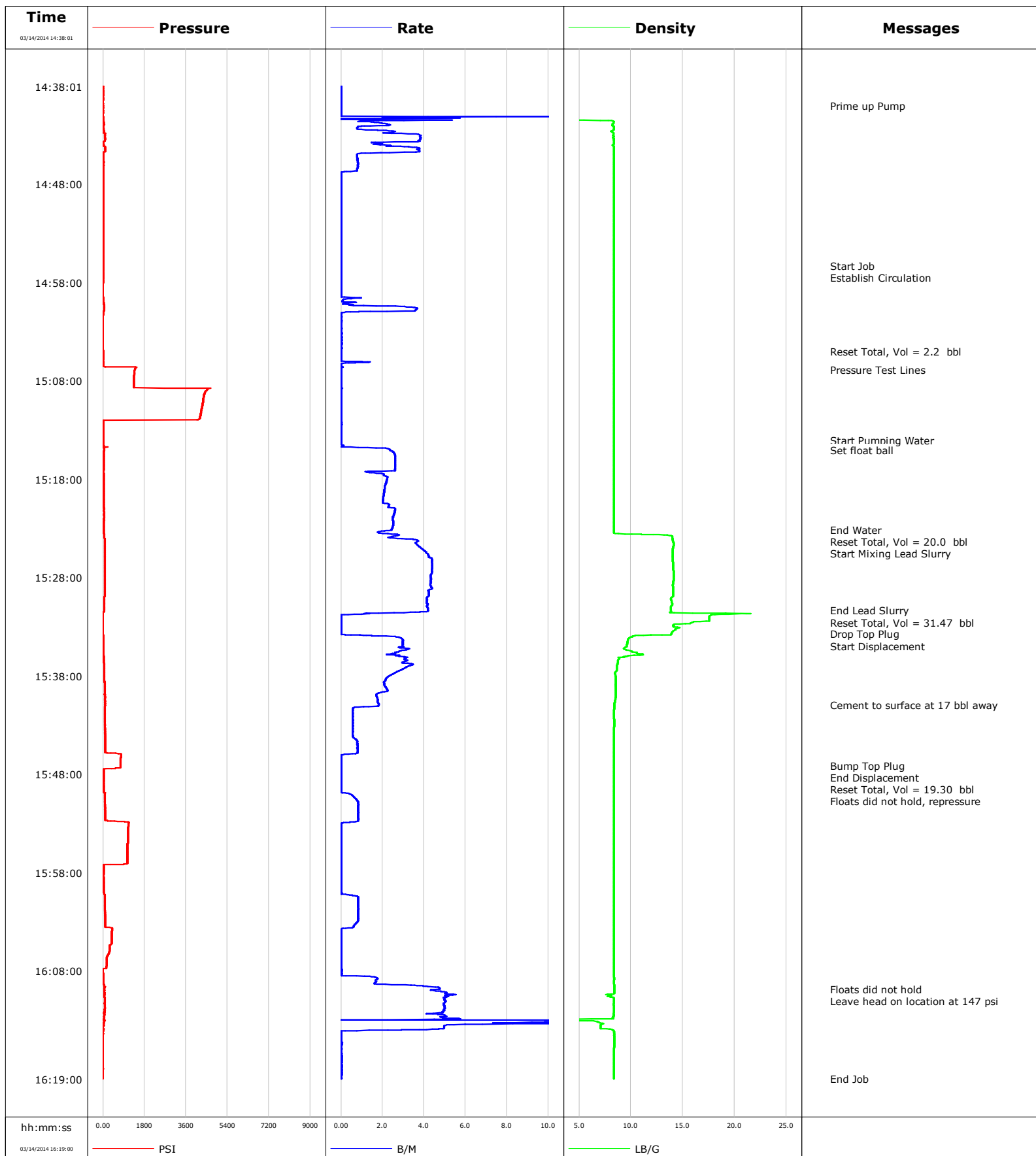


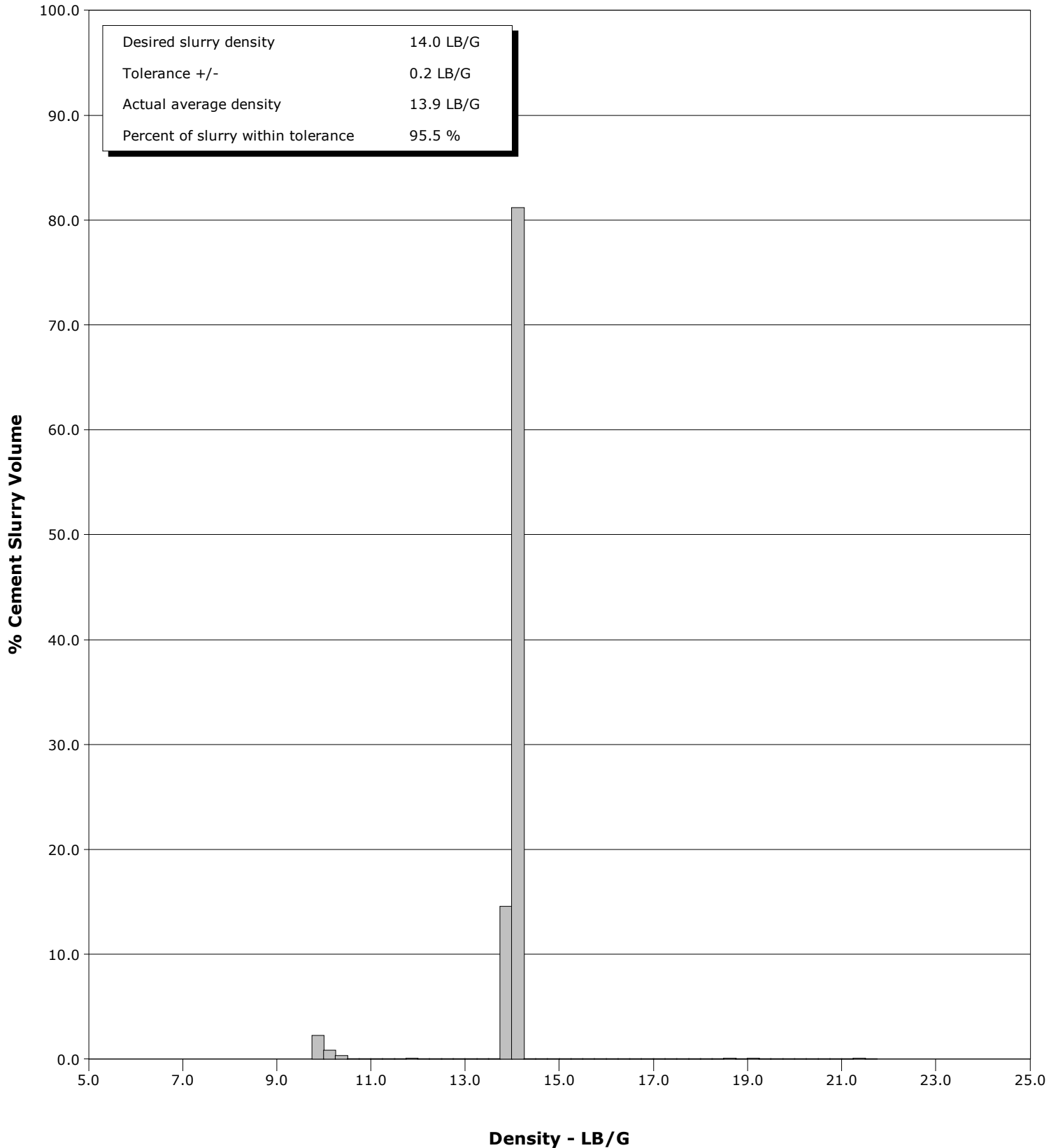
Well	SNOWKING 13-33	Client	NIGHTHAWK PRODU
Field	ARIKAREE CREEK	SIR No.	1929433
Engineer	William Smith	Job Type	SURFACE
Country	United States	Job Date	03-14-2014



Well SNOWKING 13-33
Field ARIKAREE CREEK
Engineer William Smith
Country United States

Client NIGHTHAWK PRODU
SIR No. 1929433
Job Type SURFACE
Job Date 03-14-2014

Cement Slurry - 03/14/2014 15:24:00 to 03/14/2014 15:34:20



Cementing Service Report

				Customer NIGHTHAWK PRODU			Job Number 1929433											
Well SNOWKING 13-33 13-33			Location (legal)			Schlumberger Location Rock Springs, WY			Job Start Mar/14/2014									
Field ARIKAREE CREEK			Formation Name/Type			Deviation deg		Bit Size 12.3 in		Well MD 356.0 ft		Well TVD ft						
County LINCOLN			State/Province CO			BHP psi		BHST 84 degF		BHCT 80 degF		Pore Press. Gradient lb/gal						
Well Master 0631527984			API/UWI															
Rig Name SPUD RIG		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		356.0		8.6		28.0		J55		LTC				
						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 SURFACE															
Max. Allowed Tub. Press 5000 psi			Max. Allowed Ann. Press 0 psi		WH Connection Single Cement head		Perforations/Open Hole											
							Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft			
Service Instructions							ft		ft									
							ft		ft						Diameter in			
							ft		ft									
							Treat Down		Displacement 19.3 bbl		Packer Type		Packer Depth ft					
							Tubing Vol. bbl		Casing Vol. 22.0 bbl		Annular Vol. 26.0 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 169 psi						Shoe Type Guide			Squeeze Type									
Pipe Rotated <input type="checkbox"/>			Pipe Reciprocated <input type="checkbox"/>			Shoe Depth 356.0 ft			Tool Type									
No. Centralizers			Top Plugs 1		Bottom Plugs		Stage Tool Type			Tool Depth ft								
Cement Head Type Single						Stage Tool Depth ft			Tail Pipe Size in									
Job Scheduled For Mar/14/2014 13:00			Arrived on Location Mar/14/2014 13:00		Leave Location Mar/14/2014 18:00		Collar Type Float			Tail Pipe Depth ft								
							Collar Depth 312.0 ft			Sqz. Total Vol. bbl								
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message												
03/14/2014	14:38:01	0	0.0	0.00	0.0	Started Acquisition												
03/14/2014	14:40:00	0	0.0	0.00	0.0	Prime up Pump												
03/14/2014	14:41:01	0	0.0	0.00	0.0													
03/14/2014	14:44:01	30	2.3	8.22	0.0													
03/14/2014	14:47:01	3	0.0	8.35	0.0													
03/14/2014	14:50:01	1	0.0	8.36	0.0													
03/14/2014	14:53:01	0	0.0	8.35	0.0													
03/14/2014	14:56:14	0	0.0	8.36	0.0	Start Job												
03/14/2014	14:56:22	0	0.0	8.35	0.0	Establish Circulation												
03/14/2014	14:59:01	-2	0.0	8.35	0.0													
03/14/2014	15:02:01	-3	0.0	8.35	2.2													
03/14/2014	15:05:00	1	0.0	8.35	2.3	Reset Total, Vol = 2.2 bbl												
03/14/2014	15:05:01	1	0.0	8.35	2.3													
03/14/2014	15:06:49	1379	0.0	8.35	2.5	Pressure Test Lines												
03/14/2014	15:08:01	1341	0.0	8.35	2.5													
03/14/2014	15:11:01	4266	0.0	8.35	2.5													
03/14/2014	15:14:00	12	0.0	8.35	2.5	Start Pumping Water												
03/14/2014	15:15:01	62	2.4	8.35	0.5	Set float ball												
03/14/2014	15:17:01	31	2.6	8.35	5.7													
03/14/2014	15:20:01	35	2.0	8.34	12.0													
03/14/2014	15:23:01	41	2.5	8.34	19.2													

Well			Field		Job Start		Customer		Job Number	
SNOWKING 13-33 13-33			ARIKAREE CREEK		Mar/14/2014		NIGHTHAWK PRODU		1929433	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
03/14/2014	15:23:07	40	2.4	8.34	19.5	Reset Total, Vol = 20.0 bbl				
03/14/2014	15:24:00	67	2.5	14.01	1.4	Start Mixing Lead Slurry				
03/14/2014	15:26:01	77	4.3	14.03	9.2					
03/14/2014	15:29:01	72	4.4	14.06	22.2					
03/14/2014	15:31:20	58	4.2	13.84	32.0	End Lead Slurry				
03/14/2014	15:31:57	-14	0.0	17.54	0.0	Reset Total, Vol = 31.47 bbl				
03/14/2014	15:31:59	-14	0.0	17.54	0.0	Drop Top Plug				
03/14/2014	15:32:00	-14	0.0	17.54	0.0	Start Displacement				
03/14/2014	15:32:01	-13	0.0	17.54	0.0					
03/14/2014	15:35:01	6	3.0	9.62	3.2					
03/14/2014	15:38:01	58	2.3	8.53	12.0					
03/14/2014	15:40:57	80	1.8	8.41	17.8	Cement to surface at 17 bbl away				
03/14/2014	15:41:01	82	1.8	8.41	17.9					
03/14/2014	15:44:01	87	0.6	8.35	19.8					
03/14/2014	15:47:01	760	0.0	8.35	21.3					
03/14/2014	15:47:07	758	0.0	8.35	21.3	Bump Top Plug				
03/14/2014	15:47:08	758	0.0	8.35	21.3	End Displacement				
03/14/2014	15:47:15	758	0.0	8.35	21.3	Reset Total, Vol = 19.30 bbl				
03/14/2014	15:49:09	39	0.0	8.35	21.3	Floats did not hold, repressure				
03/14/2014	15:50:01	76	0.4	8.35	21.3					
03/14/2014	15:53:01	1112	0.0	8.35	23.6					
03/14/2014	15:56:01	1065	0.0	8.35	23.6					
03/14/2014	15:59:01	32	0.0	8.35	23.6					
03/14/2014	16:02:01	81	0.8	8.34	25.0					
03/14/2014	16:05:01	377	0.0	8.35	26.3					
03/14/2014	16:08:01	-5	0.0	8.35	26.3					
03/14/2014	16:09:51	61	4.8	8.41	29.5	Floats did not hold				
03/14/2014	16:09:58	74	4.4	8.41	30.1	Leave head on location at 147 psi				
03/14/2014	16:11:01	72	5.0	8.37	35.3					
03/14/2014	16:14:01	4	2.9	8.22	53.2					
03/14/2014	16:17:01	-4	0.0	8.38	53.5					

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl						
Slurry 2.1	N2	Mud	Maximum Rate 25.0		Total Slurry 32.3	Mud 0.0	Spacer 0.0	N2			
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 4661	Final -5	Average 310	Bump Plug to 700	Breakdown	Type	Volume bbl	Density lb/gal				
Avg. N2 Percent %	Designed Slurry Volume 30.0 bbl		Displacement 19.3 bbl	Mix Water Temp 62 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 JIM			Schlumberger Supervisor William Smith			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>				
						-	-				