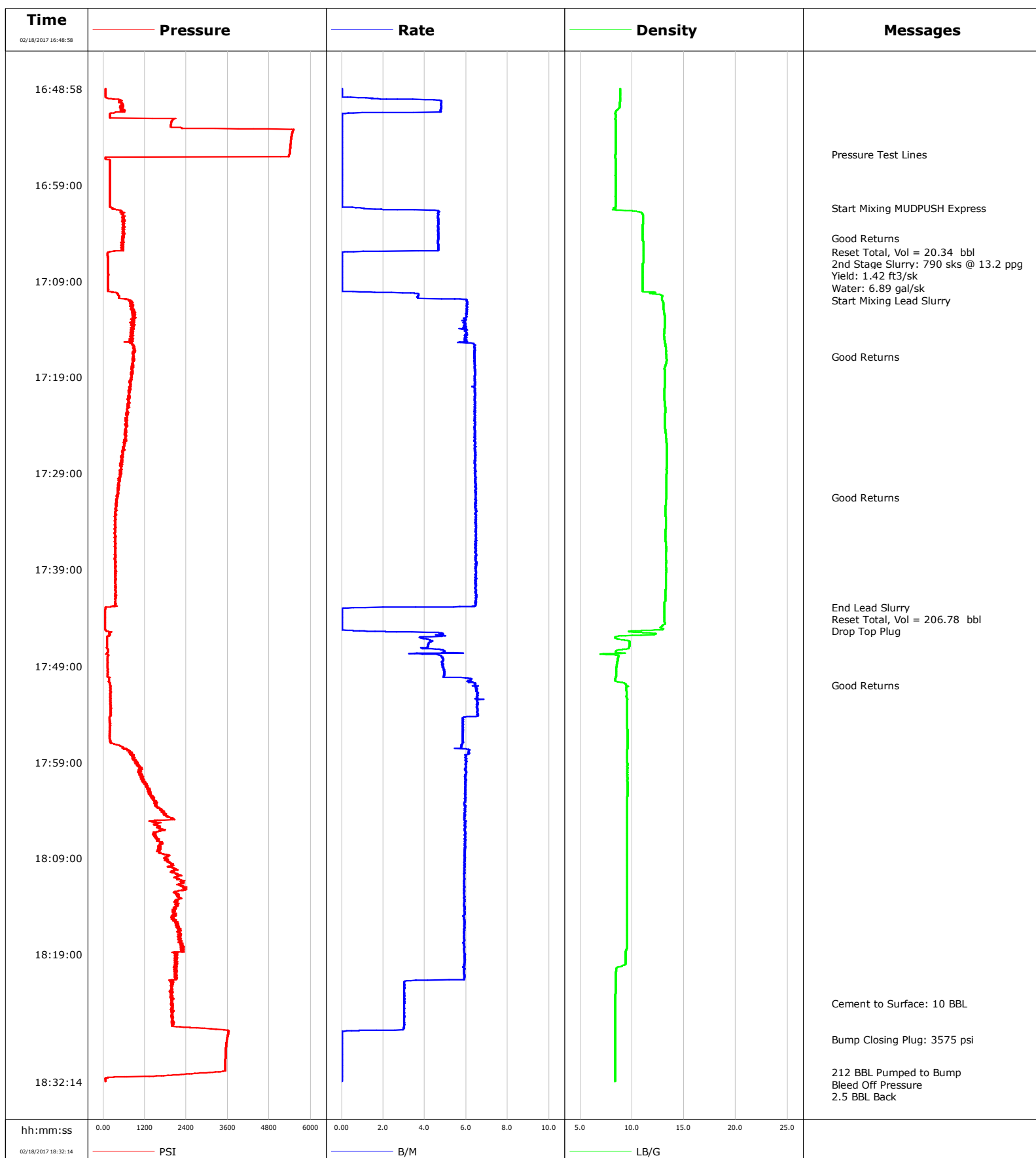


Well EWS 4
Field DJ Basin
Engineer Weston Brew/Justin Storey
Country United States

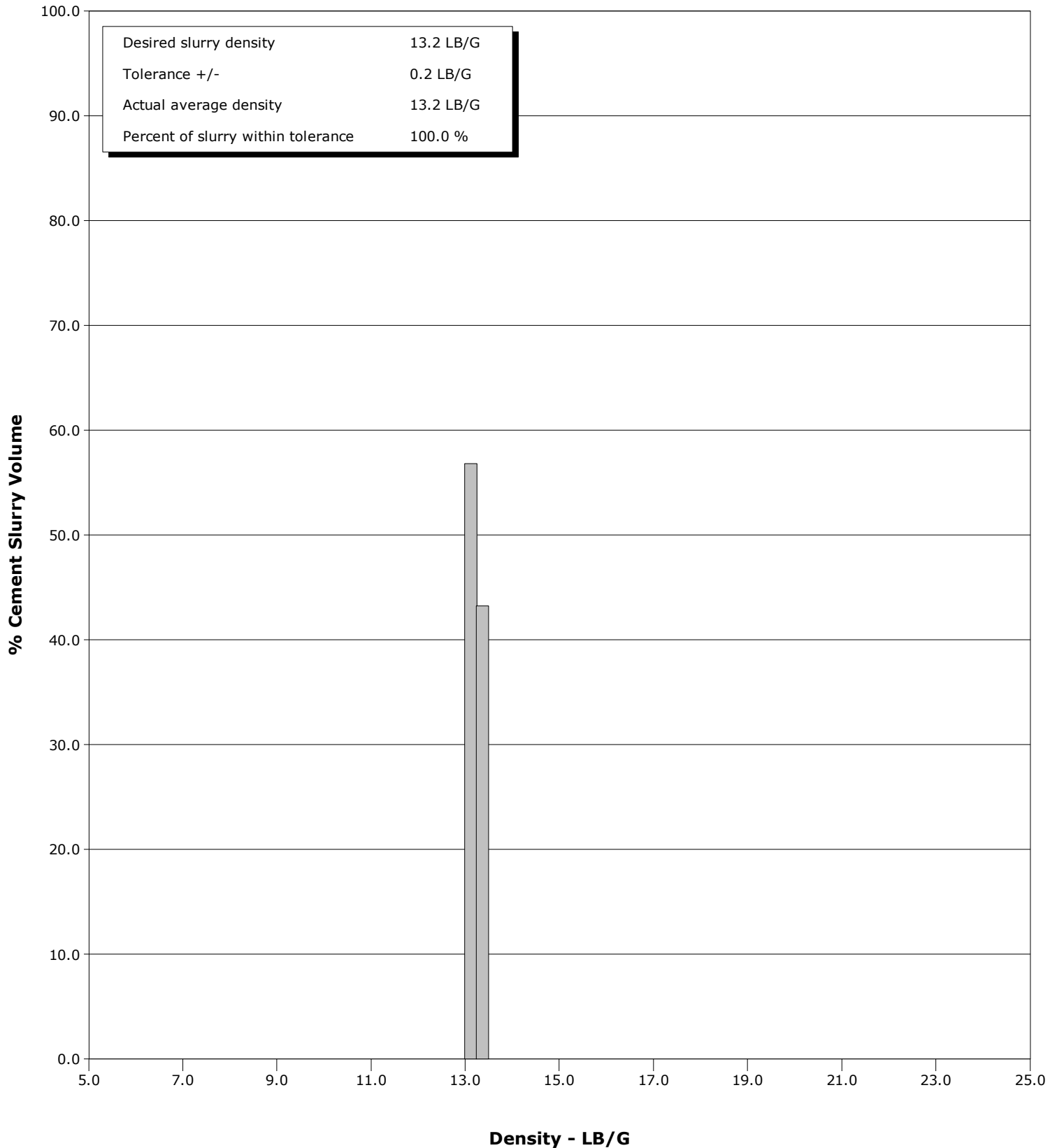
Client Expedition Water Solutions
SIR No. CSS9-00179
Job Type 2nd of 2 Stages Cement Job
Job Date 02-18-2017



Well EWS 4
Field DJ Basin
Engineer Weston Brew/Justin Storey
Country United States

Client Expedition Water Solutions
SIR No. CSS9-00179
Job Type 2nd of 2 Stages Cement Job
Job Date 02-18-2017

Cement Slurry - 02/18/2017 17:10:58 to 02/18/2017 17:42:29



Cementing Service Report

				Customer Expedition Water Solutions				Job Number CSS9-00179			
Well EWS 4			Location (legal)			Schlumberger Location Williston			Job Start Feb/18/2017		
Field DJ Basin		Formation Name/Type		Deviation deg		Bit Size 8.8 in		Well MD 8546.0 ft		Well TVD ft	
County Weld		State/Province Colorado		BHP psi		BHST degF		BHCT degF		Pore Press. Gradient lb/gal	
Well Master 0631706658		API/UWI									
Rig Name Ensign 121		Drilled For Oil		Service Via Land		Casing/Liner					
						Depth, ft		Size, in		Weight, lb/ft	
Offshore Zone		Well Class New		Well Type Development		8546.0		7.0		26.0	
						0.0		0.0		0.0	
Drilling Fluid Type WBM		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe					
						T/D		Depth, ft		Size, in	
Service Line Cementing		Job Type 2nd of 2 Stages Cement Job									
Max. Allowed Tub. Press psi		Max. Allowed Ann. Press psi		WH Connection		Perforations/Open Hole					
						Top, ft		Bottom, ft		shot/ft	
						ft		ft		ft	
						ft		ft		ft	
						Treat Down Casing		Displacement 326.0 bbl		Packer Type	
						Tubing Vol. 0.0 bbl		Casing Vol. 327.0 bbl		Annular Vol. 30.0 bbl	
										Packer Depth ft	
										Openhole Vol. 202.0 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 2200 psi				Shoe Type Guide				Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 8546.0 ft				Tool Type			
No. Centralizers		Top Plugs		Bottom Plugs		Stage Tool Type				Tool Depth ft	
Cement Head Type Double						Stage Tool Depth 5566.0 ft				Tail Pipe Size in	
Job Scheduled For Feb/18/2017		Arrived on Location Feb/18/2017		Leave Location Feb/18/2017		Collar Type Float				Tail Pipe Depth ft	
						Collar Depth 8501.0 ft				Sqz. Total Vol. bbl	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
02/18/2017	16:48:58	59	0.0	8.87	0.0						
02/18/2017	16:51:38	194	0.0	8.40	0.2						
02/18/2017	16:54:18	5426	0.0	8.40	0.2						
02/18/2017	16:55:48	5383	0.0	8.40	0.2	Pressure Test Lines					
02/18/2017	16:56:58	189	0.0	8.40	0.2						
02/18/2017	16:59:38	195	0.0	8.40	0.0						
02/18/2017	17:01:23	281	0.9	8.27	0.0	Start Mixing MUDPUSH Express					
02/18/2017	17:02:18	596	4.6	11.05	3.6						
02/18/2017	17:04:29	606	4.6	11.01	13.7	Good Returns					
02/18/2017	17:04:58	595	4.6	11.10	16.0						
02/18/2017	17:05:56	198	0.6	11.10	20.3	Reset Total, Vol = 20.34 bbl					
02/18/2017	17:06:56	135	0.0	11.09	20.4	2nd Stage Slurry: 790 sks @ 13.2 ppg					
02/18/2017	17:07:05	136	0.0	11.08	20.4	Yield: 1.42 ft3/sk					
02/18/2017	17:07:24	138	0.0	11.00	20.4	Water: 6.89 gal/sk					
02/18/2017	17:07:38	139	0.0	11.00	20.4						
02/18/2017	17:10:18	419	3.7	11.90	0.4						
02/18/2017	17:10:59	804	6.0	12.91	3.3	Start Mixing Lead Slurry					
02/18/2017	17:12:58	801	6.0	13.17	15.2						
02/18/2017	17:15:38	853	6.4	13.20	31.2						
02/18/2017	17:16:53	859	6.4	13.30	39.2	Good Returns					
02/18/2017	17:18:18	852	6.4	13.15	48.2						

Well			Field	Job Start	Customer	Job Number
EWS 4			DJ Basin	Feb/18/2017	Expedition Water Solutions	CSS9-00179
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
02/18/2017	17:23:38	686	6.4	13.14	82.4	
02/18/2017	17:26:18	578	6.4	13.36	99.5	
02/18/2017	17:28:58	494	6.4	13.33	116.7	
02/18/2017	17:31:30	412	6.4	13.28	133.0	Good Returns
02/18/2017	17:31:38	383	6.4	13.28	133.8	
02/18/2017	17:34:18	346	6.5	13.26	151.1	
02/18/2017	17:36:58	345	6.5	13.28	168.3	
02/18/2017	17:39:38	362	6.5	13.26	185.5	
02/18/2017	17:42:18	356	6.4	13.22	202.7	
02/18/2017	17:42:53	215	5.4	13.12	206.5	End Lead Slurry
02/18/2017	17:42:57	62	0.6	13.12	206.7	Reset Total, Vol = 206.78 bbl
02/18/2017	17:43:01	60	0.1	13.12	206.7	Drop Top Plug
02/18/2017	17:44:58	54	0.0	12.76	0.0	
02/18/2017	17:47:38	122	4.9	8.47	9.6	
02/18/2017	17:50:18	173	6.2	8.40	22.6	
02/18/2017	17:51:01	205	6.4	9.42	27.1	Good Returns
02/18/2017	17:52:58	211	6.6	9.50	39.8	
02/18/2017	17:55:38	192	5.8	9.55	56.3	
02/18/2017	17:58:18	875	6.0	9.54	72.0	
02/18/2017	18:00:58	1112	6.0	9.55	87.9	
02/18/2017	18:03:38	1505	5.9	9.54	103.8	
02/18/2017	18:06:18	1463	5.9	9.53	119.6	
02/18/2017	18:08:58	1767	5.9	9.53	135.4	
02/18/2017	18:11:38	2334	5.9	9.53	151.2	
02/18/2017	18:14:18	2064	5.9	9.53	166.9	
02/18/2017	18:16:58	2247	5.9	9.53	182.6	
02/18/2017	18:19:38	2079	5.9	9.36	198.4	
02/18/2017	18:22:18	2002	3.0	8.43	212.4	
02/18/2017	18:24:05	2014	3.0	8.39	217.7	Cement to Surface: 10 BBL
02/18/2017	18:24:58	2013	3.0	8.39	220.4	
02/18/2017	18:27:38	3587	0.0	8.37	226.3	
02/18/2017	18:27:51	3575	0.0	8.37	226.3	Bump Closing Plug: 3575 psi
02/18/2017	18:30:18	3527	0.0	8.37	226.3	
02/18/2017	18:31:16	3168	0.0	8.38	226.3	212 BBL Pumped to Bump
02/18/2017	18:31:55	58	0.0	8.38	226.3	Bleed Off Pressure

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2		
5.7			6.9		207.0	0.0	20.0			
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density			
5512	59	1109	3575			bbl	lb/gal			
Avg. N2 Percent		Designed Slurry Volume		Displacement	Mix Water Temp	Cement Circulated to Surface?		Volume		
%		200.0 bbl		212.0 bbl	70 degF	<input checked="" type="checkbox"/>		10.0 bbl		
						Washed Thru Perfs		To		
						<input type="checkbox"/>		ft		
Customer or Authorized Representative				Schlumberger Supervisor			Circulation Lost	Job Completed		
Bill Stone				Weston Brew/Justin Storey			<input type="checkbox"/>	<input checked="" type="checkbox"/>		
							-	-		