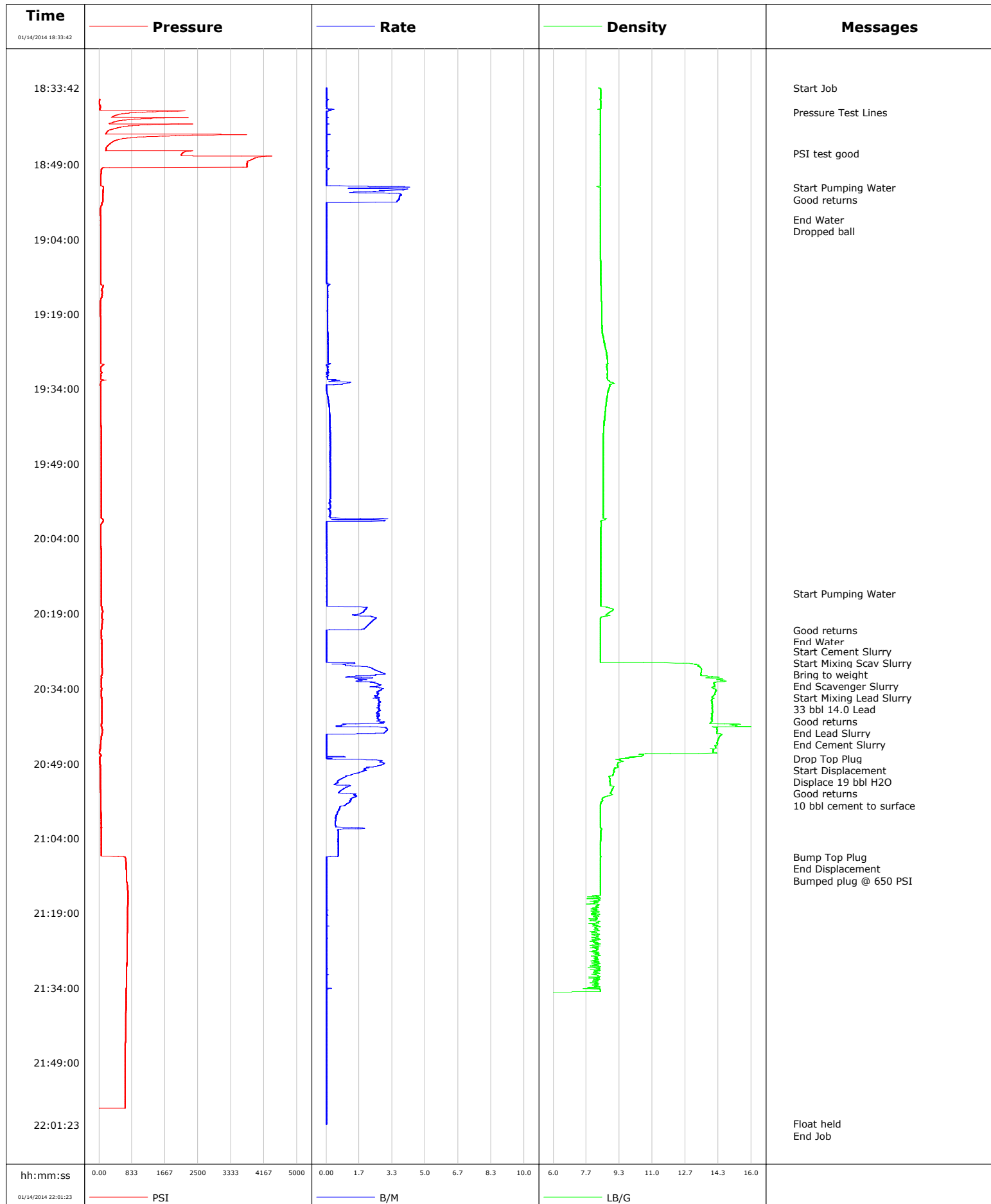


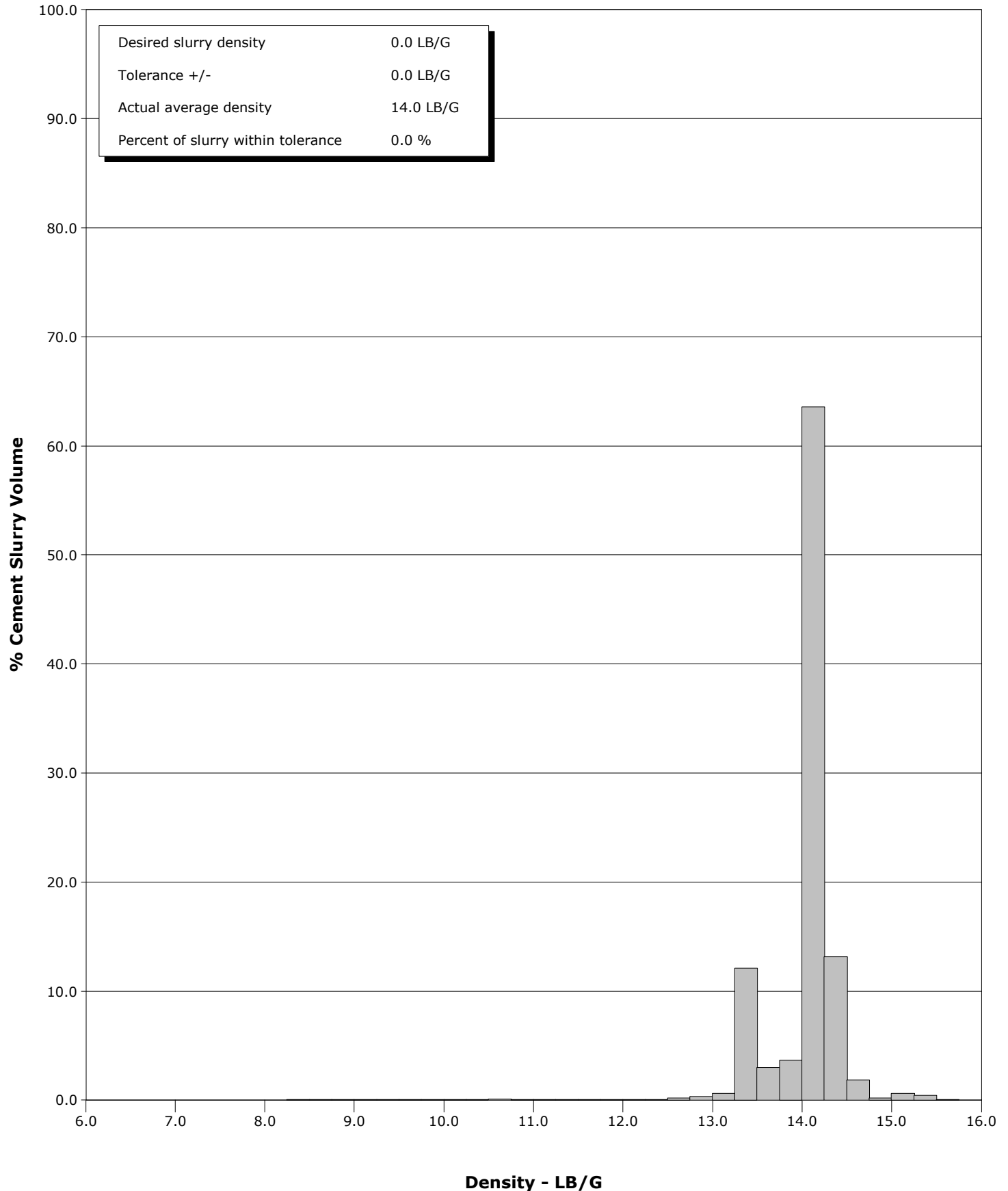
Well	Big Sky 5-11	Client	Nighthawk Production
Field	DJ	SIR No.	COU5-00317
Engineer	Matt Fair/Mike Reedy	Job Type	8 5/8 Surface
Country	United States	Job Date	01-14-2014



Well Big Sky 5-11
Field DJ
Engineer Matt Fair/Mike Reedy
Country United States

Client Nighthawk Production
SIR No. COU5-00317
Job Type 8 5/8 Surface
Job Date 01-14-2014

Cement Slurry - 01/14/2014 20:26:34 to 01/14/2014 20:43:04



					Customer Nighthawk Production			Job Number COU5-00317							
Well Big Sky 5-11				Location (legal)			Schlumberger Location			Job Start Jan/14/2014					
Field DJ		Formation Name/Type Shale			Deviation deg		Bit Size 12.3 in		Well MD 336.0 ft		Well TVD 336.0 ft				
County Lincoln		State/Province Colorado			BHP psi		BHST 84 degF		BHCT 80 degF		Pore Press. Gradient lb/gal				
Well Master 0631472961		API/UWI													
Rig Name		Drilled For Gas		Service Via Land		Casing/Liner									
						Depth, ft		Size, in		Weight, lb/ft		Grade	Thread		
Offshore Zone		Well Class New		Well Type Development		336.0		8.6		24.0		J55	8RD		
						0.0		0.0		0.0					
Drilling Fluid Type Bentonite		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 8 5/8 Surface													
Max. Allowed Tub. Press 2950 psi		Max. Allowed Ann. Press 1370 psi		WH Connection Single Cement head		Perforations/Open Hole									
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft	
Service Instructions 122sks/33bbl 14.0 G Y=1.54						ft		ft							
						ft		ft						Diameter in	
						ft		ft							
		Treat Down Casing		Displacement 19.0 bbl		Packer Type		Packer Depth ft							
		Tubing Vol. bbl		Casing Vol. 21.0 bbl		Annular Vol. 24.0 bbl		Openhole Vol. 45.0 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 138 psi				Shoe Type Float				Squeeze Type							
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 336.0 ft				Tool Type							
No. Centralizers		Top Plugs 1		Bottom Plugs 0		Stage Tool Type				Tool Depth ft					
Cement Head Type Single				Stage Tool Depth ft				Tail Pipe Size in							
Job Scheduled For Jan/14/2014 19:00		Arrived on Location Jan/14/2014 19:00		Leave Location Jan/14/2014 21:00		Collar Type Float				Tail Pipe Depth ft					
						Collar Depth 293.0 ft				Sqz. Total Vol. bbl					
Date	Time 24-hr clock	CPF1_DENSITY LB/G	CPF1_PRESS PSI	CPF1_TTL_RATE B/M	CPF1_TTL_STAGE BBL	CPF1_TTL_VOLUME BBL	Message								
01/14/2014	18:33:42	8.38	-5	0.0	0.0	0.0	Started Acquisition								
01/14/2014	18:33:46	8.28	-5	0.0	0.0	0.0	Start Job								
01/14/2014	18:36:12	8.38	19	0.1	0.0	0.0									
01/14/2014	18:38:34	8.37	1156	0.0	0.1	0.1	Pressure Test Lines								
01/14/2014	18:38:42	8.37	868	0.0	0.1	0.1									
01/14/2014	18:41:12	8.37	1005	0.0	0.2	0.2									
01/14/2014	18:43:42	8.37	835	0.0	0.2	0.2									
01/14/2014	18:46:12	8.37	173	0.0	0.3	0.3									
01/14/2014	18:46:50	8.37	2101	0.0	0.3	0.3	PSI test good								
01/14/2014	18:48:42	8.37	3739	0.0	0.3	0.3									
01/14/2014	18:51:12	8.37	48	0.0	0.4	0.4									
01/14/2014	18:53:40	8.36	104	3.9	1.3	1.3	Start Pumping Water								
01/14/2014	18:53:42	8.36	104	3.2	1.4	1.4									
01/14/2014	18:54:59	8.37	94	3.7	4.9	4.9	Good returns								
01/14/2014	18:56:12	8.37	93	3.7	9.4	9.4									
01/14/2014	18:58:42	8.37	35	0.0	11.2	11.2									
01/14/2014	19:00:05	8.37	37	0.0	0.0	11.2	End Water								
01/14/2014	19:00:07	8.37	38	0.0	0.0	11.2	Dropped ball								
01/14/2014	19:01:12	8.37	38	0.0	0.0	11.2									
01/14/2014	19:03:42	8.37	40	0.0	0.0	11.2									
01/14/2014	19:06:12	8.37	40	0.0	0.0	11.2									

Well			Field		Job Start		Customer	Job Number
Big Sky 5-11			DJ		Jan/14/2014		Nighthawk Production	COU5-00317
Date	Time 24-hr clock	CPF1_DENSITY LB/G	CPF1_PRESS PSI	CPF1_TTL_RATE B/M	CPF1_TTL_STAGE BBL	CPF1_TTL_VOLUME BBL	Message	
01/14/2014	19:11:12	8.39	42	0.0	0.1	11.3		
01/14/2014	19:13:42	8.41	88	0.1	0.2	11.4		
01/14/2014	19:16:12	8.42	40	0.1	0.4	11.5		
01/14/2014	19:18:42	8.43	36	0.1	0.5	11.7		
01/14/2014	19:21:12	8.45	40	0.1	0.7	11.8		
01/14/2014	19:23:42	8.52	41	0.1	0.9	12.0		
01/14/2014	19:26:12	8.65	43	0.1	1.1	12.2		
01/14/2014	19:28:42	8.74	45	0.1	1.3	12.4		
01/14/2014	19:31:12	8.72	42	0.1	1.5	12.6		
01/14/2014	19:33:42	8.84	37	0.0	2.2	13.4		
01/14/2014	19:36:12	8.69	43	0.1	2.4	13.5		
01/14/2014	19:38:42	8.62	46	0.2	2.7	13.9		
01/14/2014	19:41:12	8.56	49	0.2	3.2	14.3		
01/14/2014	19:43:42	8.52	51	0.2	3.6	14.8		
01/14/2014	19:46:12	8.51	53	0.2	4.1	15.3		
01/14/2014	19:48:42	8.51	54	0.2	4.6	15.8		
01/14/2014	19:51:12	8.51	54	0.2	5.1	16.3		
01/14/2014	19:53:42	8.50	54	0.2	5.7	16.8		
01/14/2014	19:56:12	8.50	54	0.2	6.2	17.4		
01/14/2014	19:58:42	8.50	54	0.2	6.7	17.8		
01/14/2014	20:01:12	8.41	49	0.0	8.4	19.5		
01/14/2014	20:03:42	8.39	46	0.0	8.4	19.6		
01/14/2014	20:06:12	8.38	49	0.0	8.5	19.6		
01/14/2014	20:08:42	8.39	52	0.0	8.5	19.7		
01/14/2014	20:11:12	8.38	54	0.0	8.6	19.7		
01/14/2014	20:13:42	8.38	56	0.0	8.6	19.8		
01/14/2014	20:14:57	8.38	57	0.0	8.7	19.8	Start Pumping Water	
01/14/2014	20:16:12	8.38	58	0.0	8.7	19.9		
01/14/2014	20:18:42	8.87	91	1.9	10.8	21.9		
01/14/2014	20:21:12	8.37	69	2.1	16.0	27.2		
01/14/2014	20:22:17	8.37	59	0.2	18.2	29.4	Good returns	
01/14/2014	20:22:26	8.37	60	0.0	0.0	29.4	End Water	
01/14/2014	20:23:42	8.37	61	0.0	0.0	29.4		
01/14/2014	20:26:12	8.37	64	0.0	0.0	29.4		
01/14/2014	20:26:34	8.37	64	0.0	0.0	29.4	Start Cement Slurry	
01/14/2014	20:26:36	8.37	64	0.0	0.0	29.4	Start Mixing Scav Slurry	
01/14/2014	20:26:37	8.37	64	0.0	0.0	29.4	Bring to weight	
01/14/2014	20:28:42	8.37	65	0.0	0.0	29.4		
01/14/2014	20:31:12	13.46	72	2.7	4.8	34.2		
01/14/2014	20:31:44	14.05	58	1.1	5.9	35.3	End Scavenger Slurry	
01/14/2014	20:31:45	14.29	57	1.0	5.9	35.3	Start Mixing Lead Slurry	
01/14/2014	20:31:46	14.29	57	1.0	5.9	35.3	33 bbl 14.0 Lead	
01/14/2014	20:31:57	13.93	61	2.3	6.3	35.6	Good returns	
01/14/2014	20:33:42	14.20	58	2.2	10.1	39.5		
01/14/2014	20:36:12	14.00	63	2.7	16.6	46.0		
01/14/2014	20:38:42	14.04	65	2.6	23.3	52.7		
01/14/2014	20:41:12	15.45	61	0.9	29.8	59.2	End Lead Slurry	
01/14/2014	20:43:04	14.26	72	2.3	34.2	63.6	End Cement Slurry	
01/14/2014	20:43:42	14.39	59	0.0	0.0	63.8		
01/14/2014	20:46:12	14.07	25	0.0	0.0	63.8		
01/14/2014	20:48:06	9.46	21	0.3	0.1	63.9	Drop Top Plug	
01/14/2014	20:48:07	9.42	21	0.3	0.1	63.9	Start Displacement	
01/14/2014	20:48:08	9.39	22	0.2	0.1	63.9	Displace 19 bbl H2O	
01/14/2014	20:48:42	9.48	22	2.7	1.2	65.0		

Well			Field		Job Start		Customer		Job Number
Big Sky 5-11			DJ		Jan/14/2014		Nighthawk Production		COU5-00317
Date	Time 24-hr clock	CPF1_DENSITY LB/G	CPF1_PRESS PSI	CPF1_TTL_RATE B/M	CPF1_TTL_STAGE BBL	CPF1_TTL_VOLUME BBL	Message		
01/14/2014	20:51:12	9.02	31	1.4	6.8	70.6			
01/14/2014	20:53:42	9.05	35	1.1	8.9	72.7			
01/14/2014	20:55:00	8.89	41	0.6	9.9	73.7	10 bbl cement to surface		
01/14/2014	20:56:12	8.46	47	1.2	11.6	75.4			
01/14/2014	20:58:42	8.37	49	0.6	13.9	77.7			
01/14/2014	21:01:12	8.37	50	0.5	15.1	78.9			
01/14/2014	21:03:42	8.38	56	0.6	16.9	80.7			
01/14/2014	21:06:12	8.38	57	0.6	18.4	82.2			
01/14/2014	21:07:46	8.38	637	0.1	19.3	83.1	Bump Top Plug		
01/14/2014	21:07:48	8.38	646	0.0	19.3	83.1	End Displacement		
01/14/2014	21:07:49	8.38	650	0.0	19.3	83.1	Bumped plug @ 650 PSI		
01/14/2014	21:08:42	8.37	674	0.0	19.3	83.1			
01/14/2014	21:11:12	8.37	690	0.0	19.3	83.1			
01/14/2014	21:13:42	8.37	713	0.0	19.3	83.1			
01/14/2014	21:16:12	7.97	726	0.0	19.3	83.1			
01/14/2014	21:18:42	8.14	721	0.0	19.3	83.1			
01/14/2014	21:21:12	8.05	716	0.0	19.3	83.1			
01/14/2014	21:23:42	8.20	709	0.0	19.4	83.2			
01/14/2014	21:26:12	8.16	704	0.0	19.4	83.2			
01/14/2014	21:28:42	8.18	700	0.0	19.4	83.2			
01/14/2014	21:31:12	8.13	694	0.0	19.4	83.2			
01/14/2014	21:33:42	8.18	688	0.0	19.4	83.2			
01/14/2014	21:36:12	-0.00	680	0.0	19.4	83.2			
01/14/2014	21:38:42	-0.00	674	0.0	19.4	83.2			
01/14/2014	21:41:12	-0.00	669	0.0	19.4	83.2			
01/14/2014	21:43:42	-0.00	666	0.0	19.4	83.2			
01/14/2014	21:46:12	-0.00	659	0.0	19.4	83.2			
01/14/2014	21:48:42	-0.00	654	0.0	19.4	83.2			
01/14/2014	21:51:12	-0.00	655	0.0	19.4	83.2			
01/14/2014	21:53:42	-0.00	654	0.0	19.4	83.2			
01/14/2014	21:56:12	-0.00	653	0.0	19.4	83.2			
01/14/2014	21:58:42	-0.00	-5	0.0	19.4	83.2			
01/14/2014	22:01:12	-0.00	-1	0.0	19.4	83.2			
01/14/2014	22:01:13	-0.00	-1	0.0	19.4	83.2	Float held		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 0.6	N2	Mud	Maximum Rate 4.2		Total Slurry 83.2	Mud 0.0	Spacer 29.4	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 4374	Final -2	Average 287	Bump Plug to 500	Breakdown	Type	Volume bbl		Density lb/gal		
Avg. N2 Percent %		Designed Slurry Volume 33.0 bbl		Displacement 19.3 bbl	Mix Water Temp 45 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 10.0 bbl		
						Washed Thru Perfs <input type="checkbox"/>		To ft		
Customer or Authorized Representative			Schlumberger Supervisor			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>		
Jim Weir			Matt Fair/Mike Reedy			-		-		