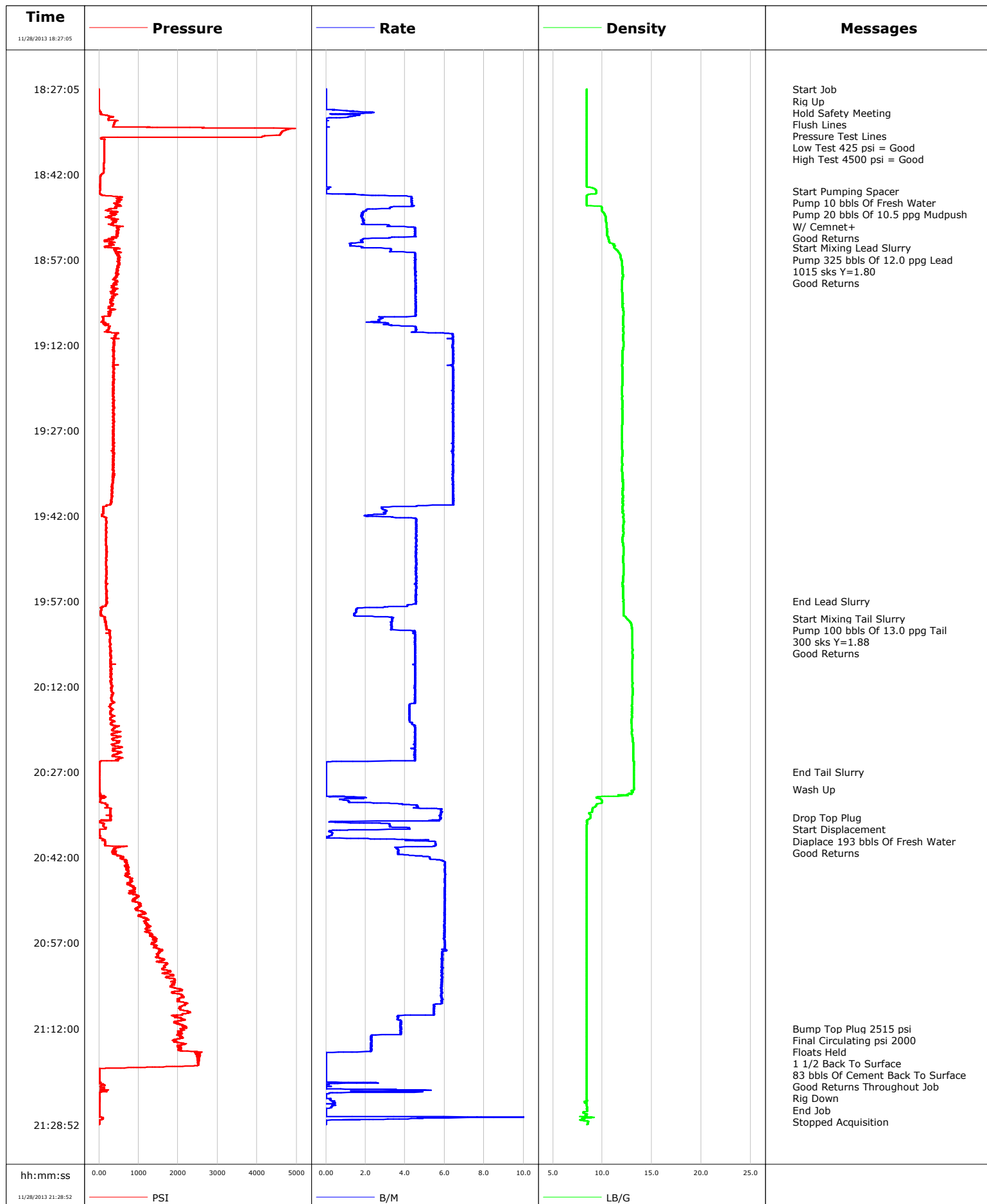


Well Big Sky 14-11
Field Wildcat
Engineer Justin Zika/Conley
Country United States

Client Nighthawk Production
SIR No.
Job Type Production
Job Date 11-28-2013

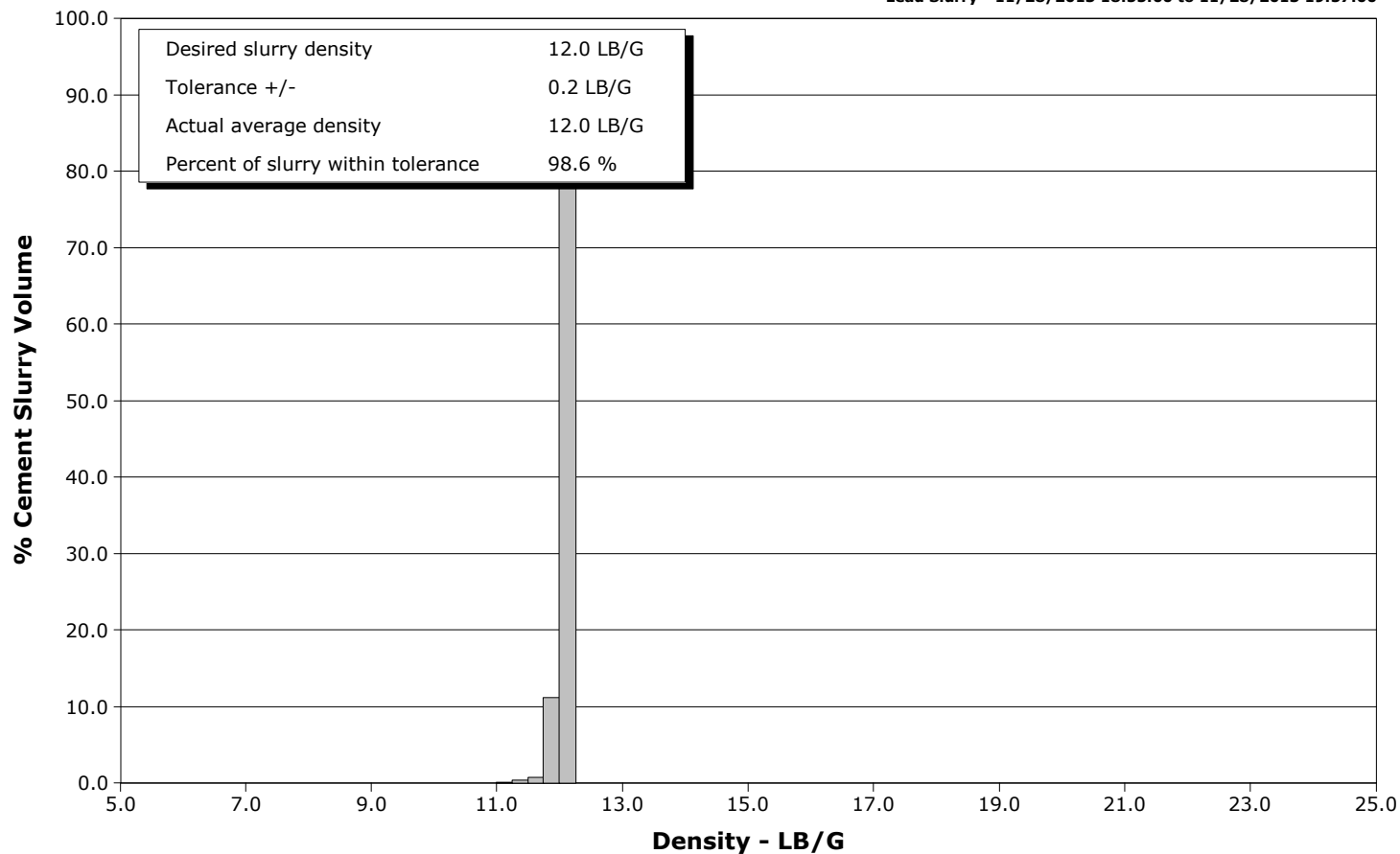


Schlumberger Cementing Qa/Qc Density Report

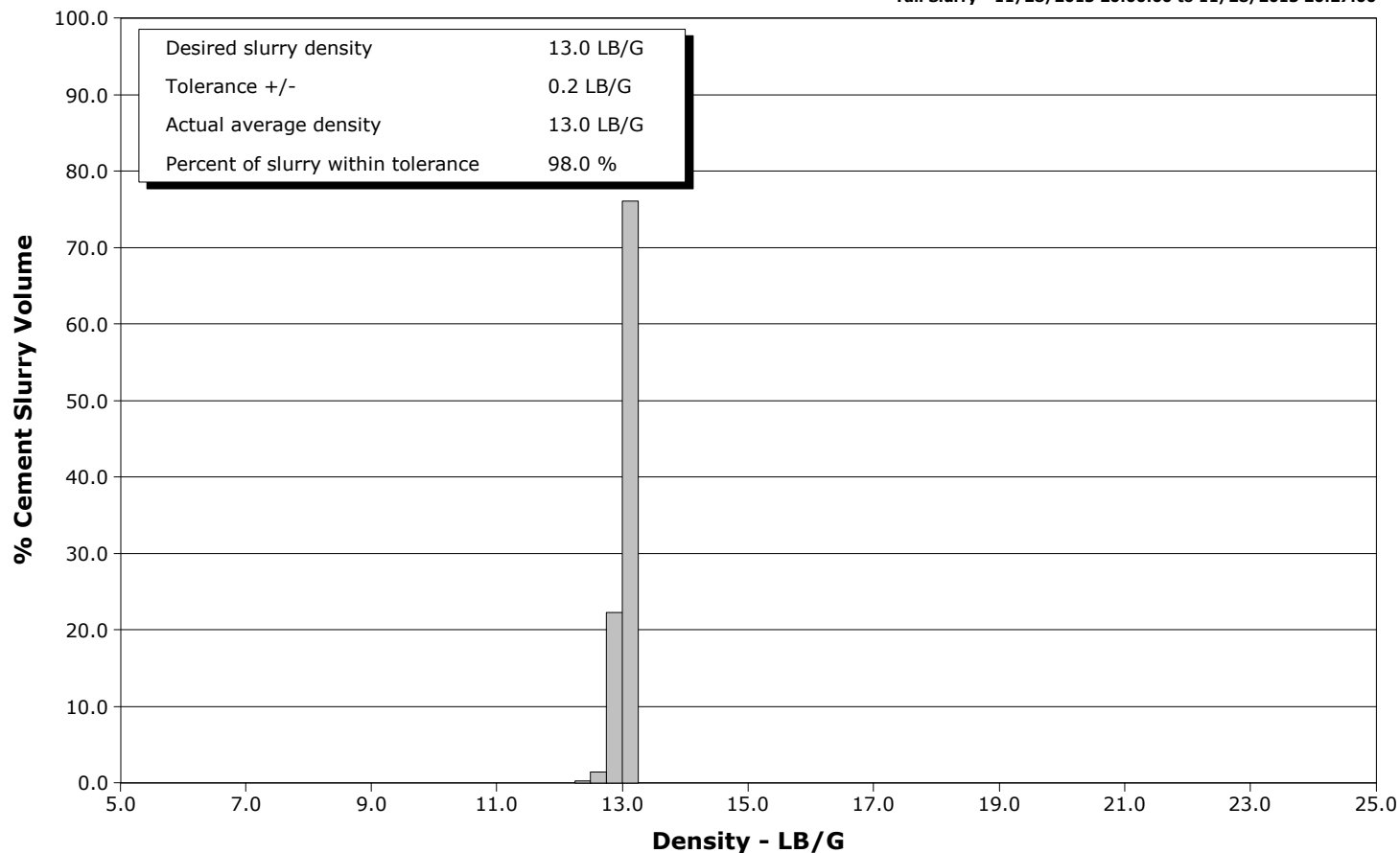
Well Big Sky 14-11
Field Wildcat
Engineer Justin Zika/Conley
Country United States

Client Nighthawk Production
SIR No.
Job Type Production
Job Date 11-28-2013

Lead Slurry - 11/28/2013 18:55:00 to 11/28/2013 19:57:00



Tail Slurry - 11/28/2013 20:00:00 to 11/28/2013 20:27:00





Cementing Service Report

				Customer Nighthawk Production			Job Number 1027728								
Well Big Sky 14-11 14-11			Location (legal) Cheyenne,WY			Schlumberger Location CWY			Job Start Nov/28/2013						
Field Wildcat		Formation Name/Type Shale			Deviation		Bit Size 7.9 in		Well MD 8380.0 ft		Well TVD 8400.0 ft				
County Lincoln			State/Province Colorado			BHP		BHST 187 degF		BHCT 154 degF		Pore Press. Gradient			
Well Master			API/UWI												
Rig Name Xtreme 11		Drilled For Oil		Service Via Land		Casing/Liner									
Offshore Zone		Well Class New		Well Type Development		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
						8380.0		5.500		17.0		N80		8RD	
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe									
						Depth,		Size,		Weight,		Grade		Thread	
Service Line Cementing		Job Type Production													
Max. Allowed Tub. Press 4999 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole									
Service Instructions Rig Up Hold Safety Meeting Flush Lines Pressure Test Lines Pump 10 bbls Of Fresh Water Pump 20 bbls Of 10.5 ppq Mudpush W/Cemnet+ Pump 325 bbls Of 12.0 ppq Lead Pump 100 bbls Of 13.0 ppq Tail Shut Down Drop Plug Displace						Top,		Bottom,				No. of Shots		Total Interval	
						Treat Down Casing		Displacement 193.0 bbl		Packer Type		Packer Depth			
						Tubing Vol.		Casing Vol. 195.0 bbl		Annular Vol. 260.0 bbl		Openhole Vol. 456.0 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 5996 psi						Shoe Type Float				Squeeze Type					
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 8380.0 ft				Tool Type					
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth					
Cement Head Type Single						Stage Tool Depth				Tail Pipe Size					
Job Scheduled For Nov/28/2013 12:00		Arrived on Location Nov/28/2013 14:00		Leave Location Nov/28/2013 23:00		Collar Type Float				Tail Pipe Depth					
						Collar Depth 8288.0 ft				Sqz. Total Vol.					
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M		Density LB/G		Volume BBL		Message					
11/28/2013	17:45:06									Started Acquisition					
11/28/2013	18:27:05	-1		0.0		8.40		0.0							
11/28/2013	18:27:07									Start Job					
11/28/2013	18:27:07	-0		0.0		8.40		0.0							
11/28/2013	18:27:09									Rig Up					
11/28/2013	18:27:09									Hold Safety Meeting					
11/28/2013	18:27:09									Flush Lines					
11/28/2013	18:27:09	-1		0.0		8.40		0.0							
11/28/2013	18:27:15									Pressure Test Lines					
11/28/2013	18:27:15	-0		0.0		8.40		0.0							
11/28/2013	18:27:18									Low Test 425 psi = Good					
11/28/2013	18:27:18									High Test 4500 psi = Good					
11/28/2013	18:27:18	-1		0.0		8.40		0.0							
11/28/2013	18:28:26	-3		0.0		8.40		0.0							
11/28/2013	18:30:06	-3		0.0		8.40		0.0							
11/28/2013	18:31:46	217		1.5		8.39		1.5							
11/28/2013	18:33:26	365		0.0		8.39		1.9							
11/28/2013	18:35:06	4575		0.0		8.39		1.9							
11/28/2013	18:36:46	128		0.0		8.39		1.9							
11/28/2013	18:38:26	131		0.0		8.39		1.9							
11/28/2013	18:40:06	123		0.0		8.39		1.9							

Well			Field		Job Start	Customer	Job Number
Big Sky 14-11 14-11			Wildcat		Nov/28/2013	Nighthawk Production	1027728
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
11/28/2013	18:43:26	27	0.0	8.39	1.9		
11/28/2013	18:45:00					Start Pumping Spacer	
11/28/2013	18:45:00					Pump 10 bbls Of Fresh Water	
11/28/2013	18:45:00					Pump 20 bbls Of 10.5 ppg Mudpush	
11/28/2013	18:45:00					W/ Cemnet+	
11/28/2013	18:45:00					Good Returns	
11/28/2013	18:45:00	22	0.0	9.39	2.0		
11/28/2013	18:45:06	21	0.0	9.39	2.0		
11/28/2013	18:46:46	453	4.3	8.39	6.6		
11/28/2013	18:48:26	163	2.0	9.95	12.7		
11/28/2013	18:50:06	375	1.9	10.33	15.8		
11/28/2013	18:51:46	481	4.5	10.46	20.8		
11/28/2013	18:53:26	301	1.9	10.61	27.7		
11/28/2013	18:55:00					Start Mixing Lead Slurry	
11/28/2013	18:55:00					Pump 325 bbls Of 12.0 ppg Lead	
11/28/2013	18:55:00					1015 sks Y=1.80	
11/28/2013	18:55:00					Good Returns	
11/28/2013	18:55:00	445	2.6	11.20	30.2		
11/28/2013	18:55:06	492	3.2	11.28	30.5		
11/28/2013	18:56:46	531	4.5	11.86	37.3		
11/28/2013	18:58:26	473	4.5	12.03	44.8		
11/28/2013	19:00:06	414	4.5	12.06	52.3		
11/28/2013	19:01:46	371	4.5	11.97	59.9		
11/28/2013	19:03:26	393	4.5	12.03	67.4		
11/28/2013	19:05:06	332	4.5	12.05	75.0		
11/28/2013	19:06:46	290	4.5	12.12	82.6		
11/28/2013	19:08:26	189	2.9	12.08	87.7		
11/28/2013	19:10:06	415	6.4	12.12	95.3		
11/28/2013	19:11:46	375	6.4	12.13	106.0		
11/28/2013	19:13:26	373	6.4	12.04	116.7		
11/28/2013	19:15:06	367	6.4	12.02	127.4		
11/28/2013	19:16:46	374	6.4	12.06	138.1		
11/28/2013	19:18:26	369	6.4	12.03	148.8		
11/28/2013	19:20:06	353	6.4	12.00	159.5		
11/28/2013	19:21:46	361	6.4	12.01	170.2		
11/28/2013	19:23:26	373	6.4	12.01	180.9		
11/28/2013	19:25:06	371	6.4	12.04	191.6		
11/28/2013	19:26:46	371	6.4	12.00	202.3		
11/28/2013	19:28:26	377	6.4	11.99	213.0		
11/28/2013	19:30:06	352	6.4	12.00	223.7		
11/28/2013	19:31:46	374	6.4	12.00	234.4		
11/28/2013	19:33:26	368	6.4	11.99	245.0		
11/28/2013	19:35:06	364	6.4	12.02	255.7		
11/28/2013	19:36:46	330	6.4	12.08	266.4		
11/28/2013	19:38:26	331	6.4	12.07	277.1		
11/28/2013	19:40:06	289	6.4	12.06	287.8		
11/28/2013	19:41:46	75	2.6	12.13	293.3		
11/28/2013	19:43:26	180	4.6	12.11	299.8		
11/28/2013	19:45:06	184	4.6	12.11	307.4		
11/28/2013	19:46:46	183	4.6	12.06	315.0		
11/28/2013	19:48:26	196	4.5	12.11	322.5		
11/28/2013	19:50:06	183	4.6	12.08	330.1		
11/28/2013	19:51:46	189	4.5	12.13	337.7		
11/28/2013	19:53:26	180	4.6	12.07	345.3		

Well			Field		Job Start	Customer	Job Number
Big Sky 14-11 14-11			Wildcat		Nov/28/2013	Nighthawk Production	1027728
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
11/28/2013	19:56:46	192	4.5	12.12	360.5		
11/28/2013	19:57:00					End Lead Slurry	
11/28/2013	19:57:00	195	4.5	12.11	361.5		
11/28/2013	19:58:26	63	1.6	12.15	366.7		
11/28/2013	20:00:00					Start Mixing Tail Slurry	
11/28/2013	20:00:00					Pump 100 bbls Of 13.0 ppg Tail	
11/28/2013	20:00:00					300 sks Y=1.88	
11/28/2013	20:00:00					Good Returns	
11/28/2013	20:00:00	149	3.4	12.44	369.6		
11/28/2013	20:00:06	146	3.3	12.50	369.9		
11/28/2013	20:01:46	194	3.3	12.98	375.5		
11/28/2013	20:03:26	280	4.5	13.02	382.6		
11/28/2013	20:05:06	283	4.5	13.02	390.1		
11/28/2013	20:06:46	303	4.5	13.06	397.6		
11/28/2013	20:08:26	294	4.5	13.02	405.1		
11/28/2013	20:10:06	306	4.5	13.02	412.6		
11/28/2013	20:11:46	325	4.5	13.02	420.1		
11/28/2013	20:13:26	327	4.5	13.04	427.6		
11/28/2013	20:15:06	288	4.2	13.00	435.1		
11/28/2013	20:16:46	300	4.2	13.01	442.1		
11/28/2013	20:18:26	301	4.4	12.94	449.2		
11/28/2013	20:20:06	439	4.5	12.98	456.6		
11/28/2013	20:21:46	468	4.5	13.09	464.2		
11/28/2013	20:23:26	560	4.5	13.11	471.6		
11/28/2013	20:25:06	32	0.8	13.19	479.0		
11/28/2013	20:26:46	9	0.0	13.18	479.0		
11/28/2013	20:27:00					End Tail Slurry	
11/28/2013	20:27:00	12	0.0	13.18	479.0		
11/28/2013	20:28:26	11	0.0	13.17	479.0		
11/28/2013	20:30:00					Wash Up	
11/28/2013	20:30:00	14	0.0	13.19	479.0		
11/28/2013	20:30:06	14	0.0	13.18	479.0		
11/28/2013	20:31:46	29	0.7	9.85	479.7		
11/28/2013	20:33:26	304	5.7	9.01	484.9		
11/28/2013	20:35:00					Drop Top Plug	
11/28/2013	20:35:00					Start Displacement	
11/28/2013	20:35:00					Diaplace 193 bbls Of Fresh Water	
11/28/2013	20:35:00					Good Returns	
11/28/2013	20:35:00	290	5.8	8.78	494.0		
11/28/2013	20:35:06	290	5.8	8.77	494.6		
11/28/2013	20:36:46	176	4.2	8.42	500.4		
11/28/2013	20:38:26	31	0.0	8.42	502.2		
11/28/2013	20:40:06	615	4.6	8.42	509.5		
11/28/2013	20:41:46	557	4.9	8.42	515.8		
11/28/2013	20:43:26	656	6.0	8.42	525.3		
11/28/2013	20:45:06	733	6.0	8.42	535.3		
11/28/2013	20:46:46	782	6.0	8.42	545.3		
11/28/2013	20:48:26	854	6.0	8.42	555.3		
11/28/2013	20:50:06	995	6.0	8.42	565.3		
11/28/2013	20:51:46	1175	6.0	8.42	575.3		
11/28/2013	20:53:26	1157	6.0	8.42	585.3		
11/28/2013	20:55:06	1178	6.0	8.42	595.3		
11/28/2013	20:56:46	1430	6.0	8.42	605.2		
11/28/2013	20:58:26	1545	6.0	8.42	615.3		

Well			Field		Job Start	Customer		Job Number
Big Sky 14-11 14-11			Wildcat		Nov/28/2013	Nighthawk Production		1027728
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
11/28/2013	21:01:46	1718	5.9	8.41	634.8			
11/28/2013	21:03:26	1894	5.8	8.41	644.6			
11/28/2013	21:05:06	2062	5.8	8.41	654.3			
11/28/2013	21:06:46	2008	5.9	8.42	664.1			
11/28/2013	21:08:26	2044	5.5	8.41	673.6			
11/28/2013	21:10:06	2029	3.6	8.41	681.9			
11/28/2013	21:11:46	2146	3.8	8.41	688.1			
11/28/2013	21:12:00					Bump Top Plug 2515 psi		
11/28/2013	21:12:00					Final Circulating psi 2000		
11/28/2013	21:12:00					Floats Held		
11/28/2013	21:12:00					1 1/2 Back To Surface		
11/28/2013	21:12:00					83 bbls Of Cement Back To Surface		
11/28/2013	21:12:00					Good Returns Throughout Job		
11/28/2013	21:12:00					Rig Down		
11/28/2013	21:12:00					End Job		
11/28/2013	21:12:00	2123	3.8	8.41	689.0			
11/28/2013	21:13:26	2063	2.3	8.41	693.9			
11/28/2013	21:15:06	2046	2.3	8.41	697.7			
11/28/2013	21:16:46	2550	0.0	8.41	700.1			
11/28/2013	21:18:26	2504	0.0	8.42	700.1			
11/28/2013	21:20:06	4	0.0	8.42	700.1			
11/28/2013	21:21:46	114	0.0	8.42	700.4			
11/28/2013	21:23:26	13	0.1	8.41	702.6			
11/28/2013	21:25:06	4	0.4	8.34	702.8			
11/28/2013	21:26:46	2	0.0	8.07	703.1			
11/28/2013	21:28:26	5	0.0	8.56	706.1			

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry 426.0	Mud	Spacer 30.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 2000	Final 2000	Average	Bump Plug to 2515	Breakdown	Type	Volume	Density	
Avg. N2 Percent		Designed Slurry Volume 426.0 bbl		Displacement 193.0 bbl	Mix Water Temp 70 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 83.0 bbl	
						Washed Thru Perfs <input type="checkbox"/>	To	
Customer or Authorized Representative Jim Weir			Schlumberger Supervisor Justin Zika/Conley			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	