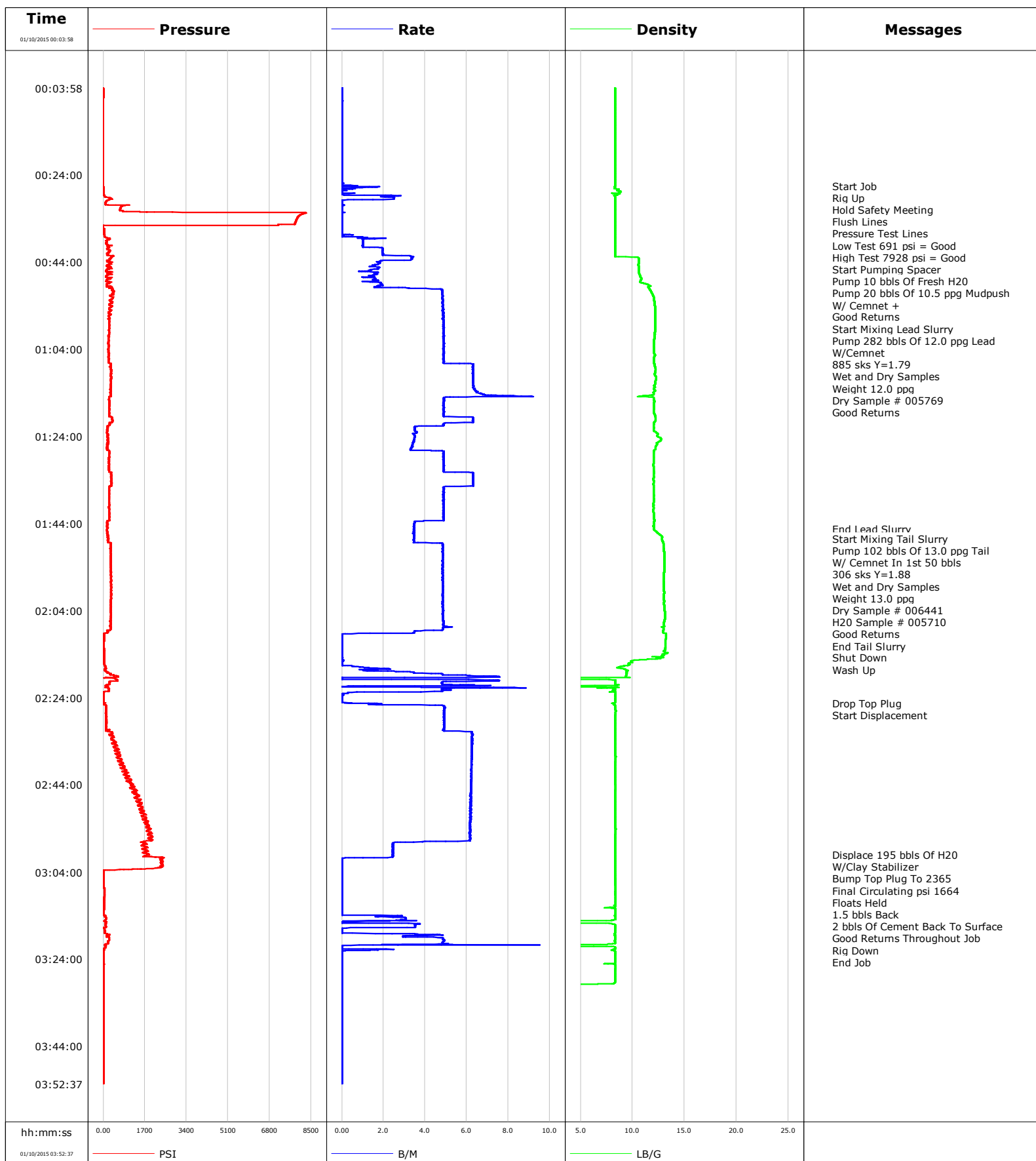


**Well** Snow King # 9-32  
**Field** Arikaree Creek  
**Engineer** Justin Zika/Baird  
**Country** United States

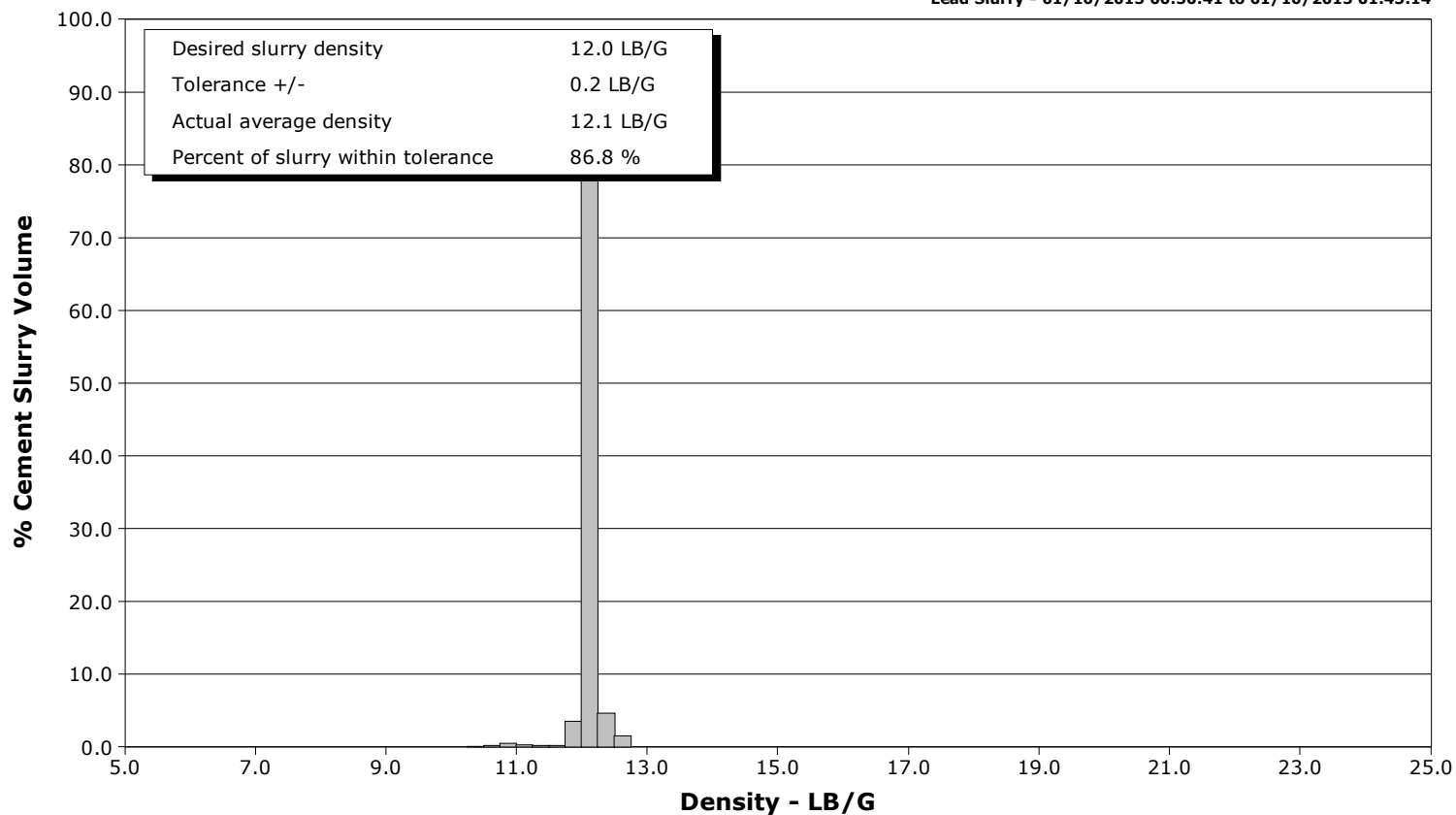
**Client** Nighthawk Production  
**SIR No.**  
**Job Type** Production  
**Job Date** 01-10-2015



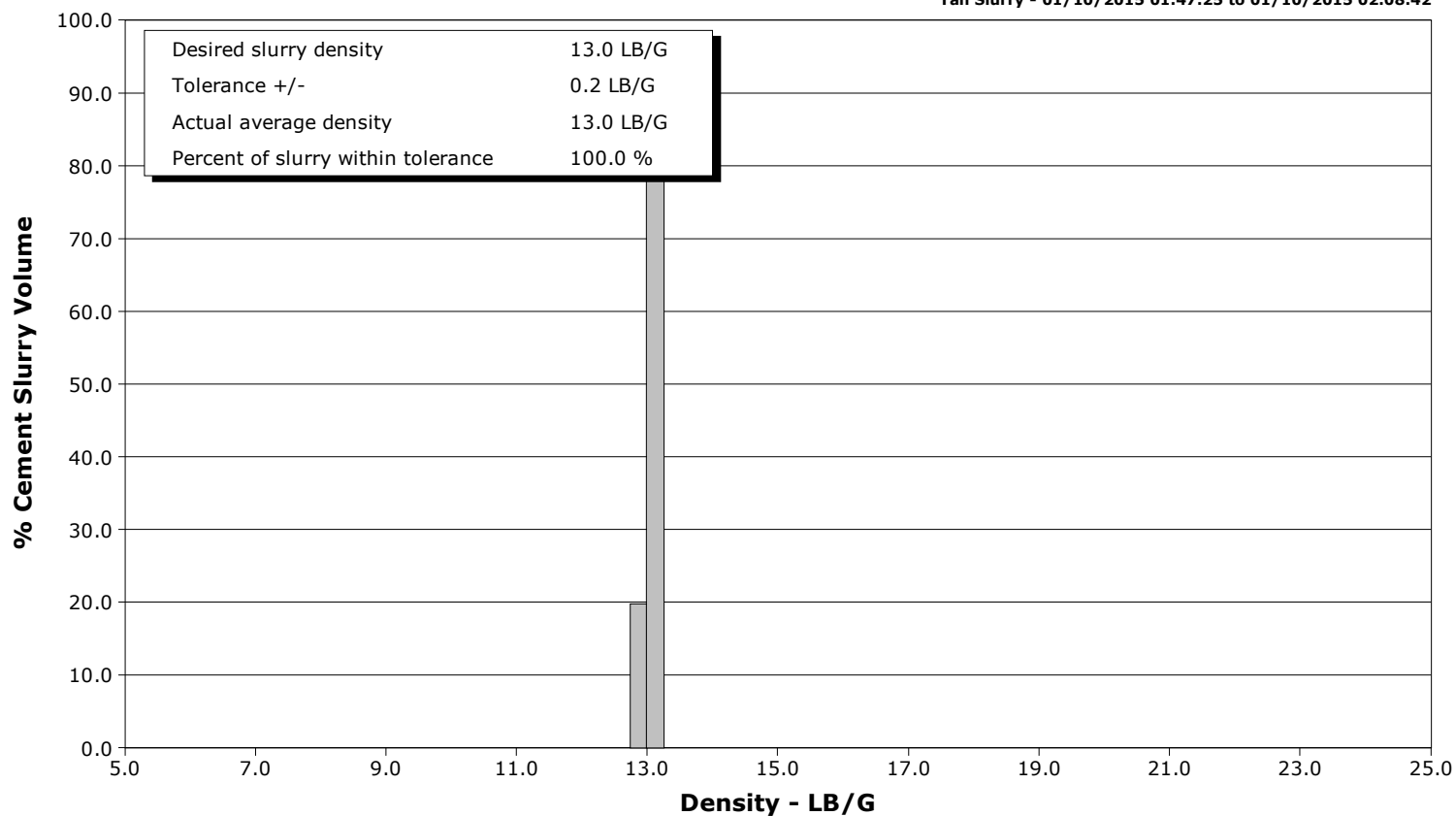
**Well** Snow King # 9-32  
**Field** Arikaree Creek  
**Engineer** Justin Zika/Baird  
**Country** United States

**Client** Nighthawk Production  
**SIR No.**  
**Job Type** Production  
**Job Date** 01-10-2015

**Lead Slurry - 01/10/2015 00:50:41 to 01/10/2015 01:45:14**



**Tail Slurry - 01/10/2015 01:47:25 to 01/10/2015 02:08:42**





# Cementing Service Report

				Customer Nighthawk Production			Job Number 2080692								
Well Snow King # 9-32 9-32			Location (legal) Cheyenne,WY			Schlumberger Location Cheyenne, WY			Job Start Jan/10/2015						
Field Arikaree Creek		Formation Name/Type Shale			Deviation		Bit Size 7.9 in		Well MD 8486.0 ft		Well TVD				
County Lincoln		State/Province Colorado			BHP		BHST		BHCT		Pore Press. Gradient				
Well Master 631566058		API/UWI 05-073-006637													
Rig Name Xtreme 11		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		8481.0		5.500		17.0		N80		8RD	
						0.0		0.000		0.0					
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 3000 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole									
						Top,		Bottom,				No. of Shots		Total Interval	
<b>Service Instructions</b> Rig Up Hold Safety Flush Lines Pressure Test Lines Pump 10 bbls Of H2O/20 bbls Of 10.5 ppg Mudpush With Cemnet + Pump 282 bbls Of 12.0 ppq Lead W/Cemnet Pump 102 bbls Of 13.0 ppq Tail W/Cemnet Shut Down/Wash Up/Drop Top Plug/Displace														Diameter	
Treat Down Casing				Displacement 195.0 bbl				Packer Type				Packer Depth			
Tubing Vol.				Casing Vol. 197.0 bbl				Annular Vol. 262.0 bbl				Openhole Vol. 460.0 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 6068 psi						Shoe Type Float				Squeeze Type					
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 8481.0 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 Jan/09/2015 21:00		Arrived on Location Jan/09/2015 22:00		Leave Location Jan/10/2015 04:00		Collar Type Float				Tail Pipe Depth					
						Collar Depth 8388.0 ft				Sqz. Total Vol.					
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message									
01/10/2015	00:03:53					Started Acquisition									
01/10/2015	00:03:58	-4	0.0	8.33	0.0										
01/10/2015	00:05:33	12	0.0	8.32	0.0										
01/10/2015	00:07:13	-6	0.0	8.31	0.0										
01/10/2015	00:08:53	-5	0.0	8.31	0.0										
01/10/2015	00:10:33	-5	0.0	8.31	0.0										
01/10/2015	00:12:13	-5	0.0	8.31	0.0										
01/10/2015	00:13:53	-5	0.0	8.31	0.0										
01/10/2015	00:15:33	-4	0.0	8.31	0.0										
01/10/2015	00:17:13	-4	0.0	8.32	0.0										
01/10/2015	00:18:53	-3	0.0	8.32	0.0										
01/10/2015	00:20:33	-4	0.0	8.32	0.0										
01/10/2015	00:22:13	-3	0.0	8.32	0.0										
01/10/2015	00:23:53	-8	0.0	8.32	0.0										
01/10/2015	00:25:33	-8	0.0	8.32	0.0										
01/10/2015	00:26:28					Start Job									
01/10/2015	00:26:28					Rig Up									
01/10/2015	00:26:28					Hold Safety Meeting									
01/10/2015	00:26:28					Flush Lines									
01/10/2015	00:26:28	-2	0.5	8.33	0.1										
01/10/2015	00:27:13	8	0.5	8.46	0.5										

Well			Field		Job Start		Customer		Job Number		
Snow King # 9-32 9-32			Arikaree Creek		Jan/10/2015		Nighthawk Production		2080692		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message					
01/10/2015	00:30:33	89	0.0	8.31	3.1						
01/10/2015	00:30:57					Pressure Test Lines					
01/10/2015	00:30:57					Low Test 691 psi = Good					
01/10/2015	00:30:57	1089	0.1	8.31	3.1						
01/10/2015	00:32:13	806	0.0	8.31	3.1						
01/10/2015	00:32:40					High Test 7928 psi = Good					
01/10/2015	00:32:40	8280	0.0	8.31	3.2						
01/10/2015	00:33:53	7929	0.0	8.31	3.2						
01/10/2015	00:35:33	487	0.0	8.31	3.2						
01/10/2015	00:37:13	38	0.0	8.31	3.2						
01/10/2015	00:38:15					Start Pumping Spacer					
01/10/2015	00:38:15					Pump 10 bbls Of Fresh H2O					
01/10/2015	00:38:15	81	1.0	8.31	3.3						
01/10/2015	00:38:53	206	1.0	8.31	4.0						
01/10/2015	00:40:33	204	1.0	8.31	5.7						
01/10/2015	00:42:13	162	2.0	8.30	8.9						
01/10/2015	00:42:59					Pump 20 bbls Of 10.5 ppg Mudpush					
01/10/2015	00:42:59					W/ Cemnet +					
01/10/2015	00:42:59					Good Returns					
01/10/2015	00:42:59	332	3.4	10.56	11.1						
01/10/2015	00:43:53	244	1.7	10.59	13.6						
01/10/2015	00:45:33	279	1.8	10.59	16.4						
01/10/2015	00:47:13	128	1.5	10.74	18.9						
01/10/2015	00:48:53	177	1.9	11.13	21.5						
01/10/2015	00:50:33	393	4.8	11.74	26.2						
01/10/2015	00:50:41					Start Mixing Lead Slurry					
01/10/2015	00:50:41					Pump 282 bbls Of 12.0 ppg Lead					
01/10/2015	00:50:41					W/Cemnet					
01/10/2015	00:50:41					885 sks Y=1.79					
01/10/2015	00:50:41					Wet and Dry Samples					
01/10/2015	00:50:41					Weight 12.0 ppg					
01/10/2015	00:50:41					Dry Sample # 005769					
01/10/2015	00:50:41					Good Returns					
01/10/2015	00:50:41	437	4.8	11.76	26.9						
01/10/2015	00:52:13	396	4.8	12.05	34.3						
01/10/2015	00:53:53	250	4.9	12.14	42.4						
01/10/2015	00:55:33	213	4.9	12.16	50.5						
01/10/2015	00:57:13	225	4.9	12.18	58.6						
01/10/2015	00:58:53	234	4.9	12.15	66.7						
01/10/2015	01:00:33	224	4.9	12.15	74.9						
01/10/2015	01:02:13	219	4.9	12.08	83.0						
01/10/2015	01:03:53	220	4.9	12.05	91.2						
01/10/2015	01:05:33	218	4.9	12.13	99.3						
01/10/2015	01:07:13	291	5.2	12.08	107.5						
01/10/2015	01:08:53	323	6.3	12.19	117.9						
01/10/2015	01:10:33	318	6.3	12.25	128.4						
01/10/2015	01:12:13	301	6.3	12.11	139.0						
01/10/2015	01:13:53	304	6.5	12.02	149.6						
01/10/2015	01:15:33	242	4.9	12.05	160.3						
01/10/2015	01:17:13	236	4.9	12.06	168.5						
01/10/2015	01:18:53	237	4.9	12.11	176.6						
01/10/2015	01:20:33	379	6.3	12.19	186.2						
01/10/2015	01:22:13	173	3.5	12.05	194.0						
01/10/2015	01:23:53	193	3.5	12.37	199.9						

Well			Field		Job Start	Customer	Job Number
Snow King # 9-32 9-32			Arikaree Creek		Jan/10/2015	Nighthawk Production	2080692
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/10/2015	01:27:13	245	3.9	12.07	211.3		
01/10/2015	01:28:53	229	4.9	12.02	219.4		
01/10/2015	01:30:33	235	4.9	12.00	227.5		
01/10/2015	01:32:13	325	5.8	12.06	235.7		
01/10/2015	01:33:53	340	6.3	11.99	246.2		
01/10/2015	01:35:33	255	5.0	12.03	256.6		
01/10/2015	01:37:13	237	4.9	12.03	264.8		
01/10/2015	01:38:53	243	4.9	12.06	272.9		
01/10/2015	01:40:33	235	4.9	12.01	281.1		
01/10/2015	01:42:13	243	4.9	12.05	289.2		
01/10/2015	01:43:53	155	3.5	12.07	296.7		
01/10/2015	01:45:14					End Lead Slurry	
01/10/2015	01:45:14	163	3.5	12.05	301.4		
01/10/2015	01:45:33	150	3.5	12.08	302.5		
01/10/2015	01:47:13	199	3.5	12.84	308.3		
01/10/2015	01:47:25					Start Mixing Tail Slurry	
01/10/2015	01:47:25					Pump 102 bbls Of 13.0 ppg Tail	
01/10/2015	01:47:25					W/ Cemnet In 1st 50 bbls	
01/10/2015	01:47:25					306 sks Y=1.88	
01/10/2015	01:47:25					Wet and Dry Samples	
01/10/2015	01:47:25					Weight 13.0 ppg	
01/10/2015	01:47:25					Dry Sample # 006441	
01/10/2015	01:47:25					H2O Sample # 005710	
01/10/2015	01:47:25					Good Returns	
01/10/2015	01:47:25	189	3.5	12.84	309.0		
01/10/2015	01:48:53	309	4.9	12.96	314.6		
01/10/2015	01:50:33	294	4.8	13.05	322.7		
01/10/2015	01:52:13	313	4.8	13.09	330.8		
01/10/2015	01:53:53	313	4.9	13.06	338.9		
01/10/2015	01:55:33	321	4.8	13.04	346.9		
01/10/2015	01:57:13	329	4.8	13.00	355.0		
01/10/2015	01:58:53	318	4.9	13.04	363.1		
01/10/2015	02:00:33	315	4.8	13.02	371.2		
01/10/2015	02:02:13	317	4.8	13.02	379.3		
01/10/2015	02:03:53	315	4.9	13.09	387.4		
01/10/2015	02:05:33	319	4.9	13.11	395.4		
01/10/2015	02:07:13	299	4.9	13.02	403.6		
01/10/2015	02:08:42					End Tail Slurry	
01/10/2015	02:08:42					Shut Down	
01/10/2015	02:08:42	178	3.5	12.93	410.7		
01/10/2015	02:08:53	190	3.5	12.94	411.4		
01/10/2015	02:10:33	25	0.0	13.19	412.6		
01/10/2015	02:12:13	16	0.0	13.15	412.6		
01/10/2015	02:13:53	31	0.0	13.28	412.6		
01/10/2015	02:15:33	21	0.1	9.89	412.6		
01/10/2015	02:16:42					Wash Up	
01/10/2015	02:16:42	78	0.5	9.23	412.7		
01/10/2015	02:17:13	103	1.5	8.72	413.1		
01/10/2015	02:18:53	434	6.1	9.39	418.3		
01/10/2015	02:20:33	245	4.8	8.33	426.0		
01/10/2015	02:22:13	220	4.8	8.33	433.5		
01/10/2015	02:23:53	14	0.0	8.33	435.8		
01/10/2015	02:25:19					Drop Top Plug	
01/10/2015	02:25:19					Start Displacement	

Well			Field		Job Start		Customer		Job Number	
Snow King # 9-32 9-32			Arikaree Creek		Jan/10/2015		Nighthawk Production		2080692	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
01/10/2015	02:25:33	22	1.3	8.29	436.3					
01/10/2015	02:27:13	114	4.9	8.38	444.1					
01/10/2015	02:28:53	119	4.9	8.33	452.3					
01/10/2015	02:30:33	110	4.9	8.33	460.5					
01/10/2015	02:32:13	370	6.3	8.33	469.3					
01/10/2015	02:33:53	417	6.3	8.33	479.7					
01/10/2015	02:35:33	542	6.2	8.33	490.2					
01/10/2015	02:37:13	659	6.2	8.33	500.6					
01/10/2015	02:38:53	783	6.2	8.33	511.0					
01/10/2015	02:40:33	943	6.2	8.33	521.3					
01/10/2015	02:42:13	1007	6.2	8.33	531.7					
01/10/2015	02:43:53	1219	6.2	8.33	542.1					
01/10/2015	02:45:33	1251	6.2	8.33	552.4					
01/10/2015	02:47:13	1389	6.2	8.33	562.7					
01/10/2015	02:48:53	1477	6.2	8.33	573.0					
01/10/2015	02:50:33	1635	6.2	8.33	583.3					
01/10/2015	02:52:13	1762	6.2	8.33	593.6					
01/10/2015	02:53:53	1814	6.2	8.33	603.9					
01/10/2015	02:55:33	1861	6.2	8.33	614.2					
01/10/2015	02:57:13	1552	2.7	8.33	623.8					
01/10/2015	02:58:53	1715	2.5	8.33	627.9					
01/10/2015	03:00:00					Displace 195 bbls Of H2O				
01/10/2015	03:00:00					W/Clay Stabilizer				
01/10/2015	03:00:00	1867	2.5	8.33	630.6					
01/10/2015	03:00:28					Bump Top Plug To 2365				
01/10/2015	03:00:28					Final Circulating psi 1664				
01/10/2015	03:00:28					Floats Held				
01/10/2015	03:00:28					1.5 bbls Back				
01/10/2015	03:00:28					2 bbls Of Cement Back To Surface				
01/10/2015	03:00:28					Good Returns Throughout Job				
01/10/2015	03:00:28					Rig Down				
01/10/2015	03:00:28					End Job				
01/10/2015	03:00:28	1661	2.5	8.33	631.8					
01/10/2015	03:00:33	1890	2.5	8.33	632.0					
01/10/2015	03:02:13	2396	0.0	8.33	632.4					
01/10/2015	03:03:53	13	0.0	8.33	632.4					
01/10/2015	03:05:33	12	0.0	8.33	632.4					
01/10/2015	03:07:13	12	0.0	8.33	632.4					
01/10/2015	03:08:53	47	0.0	8.34	632.4					
01/10/2015	03:10:33	40	0.0	8.33	632.4					
01/10/2015	03:12:13	39	0.0	7.38	632.4					
01/10/2015	03:13:53	13	0.0	8.34	632.4					
01/10/2015	03:15:33	110	0.0	-0.05	636.0					
01/10/2015	03:17:13	45	0.0	8.33	639.6					
01/10/2015	03:18:53	125	2.9	8.33	642.4					
01/10/2015	03:20:33	151	5.0	7.84	650.4					
01/10/2015	03:22:13	10	0.0	8.32	652.2					
01/10/2015	03:23:53	12	0.0	8.33	652.2					
01/10/2015	03:25:33	12	0.0	8.34	652.2					
01/10/2015	03:27:13	13	0.0	8.33	652.2					
01/10/2015	03:28:53	14	0.0	8.33	652.2					
01/10/2015	03:30:33	10	0.0	-0.01	652.2					
01/10/2015	03:32:13	10	0.0	-0.01	652.2					
01/10/2015	03:33:53	11	0.0	0.00	652.2					

Well			Field		Job Start	Customer	Job Number
Snow King # 9-32 9-32			Arikaree Creek		Jan/10/2015	Nighthawk Production	2080692
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/10/2015	03:37:13	10	0.0	-0.01	652.2		
01/10/2015	03:38:53	9	0.0	-0.01	652.2		
01/10/2015	03:40:33	9	0.0	-0.01	652.2		
01/10/2015	03:42:13	9	0.0	-0.01	652.2		
01/10/2015	03:43:53	9	0.0	-0.01	652.2		
01/10/2015	03:45:33	9	0.0	-0.01	652.2		
01/10/2015	03:47:13	9	0.0	-0.01	652.2		
01/10/2015	03:48:53	8	0.0	-0.01	652.2		
01/10/2015	03:50:33	9	0.0	-0.01	652.2		

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected, bbl					
Slurry	N2	Mud	Maximum Rate		Total Slurry 385.0	Mud	Spacer 30.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 3000	Final 1664	Average	Bump Plug to 2365	Breakdown	Type		Volume		Density	
Avg. N2 Percent		Designed Slurry Volume 385.0 bbl		Displacement 195.0 bbl		Mix Water Temp 65 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 2.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative				Schlumberger Supervisor				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
Jim Weir				Justin Zika				-		-