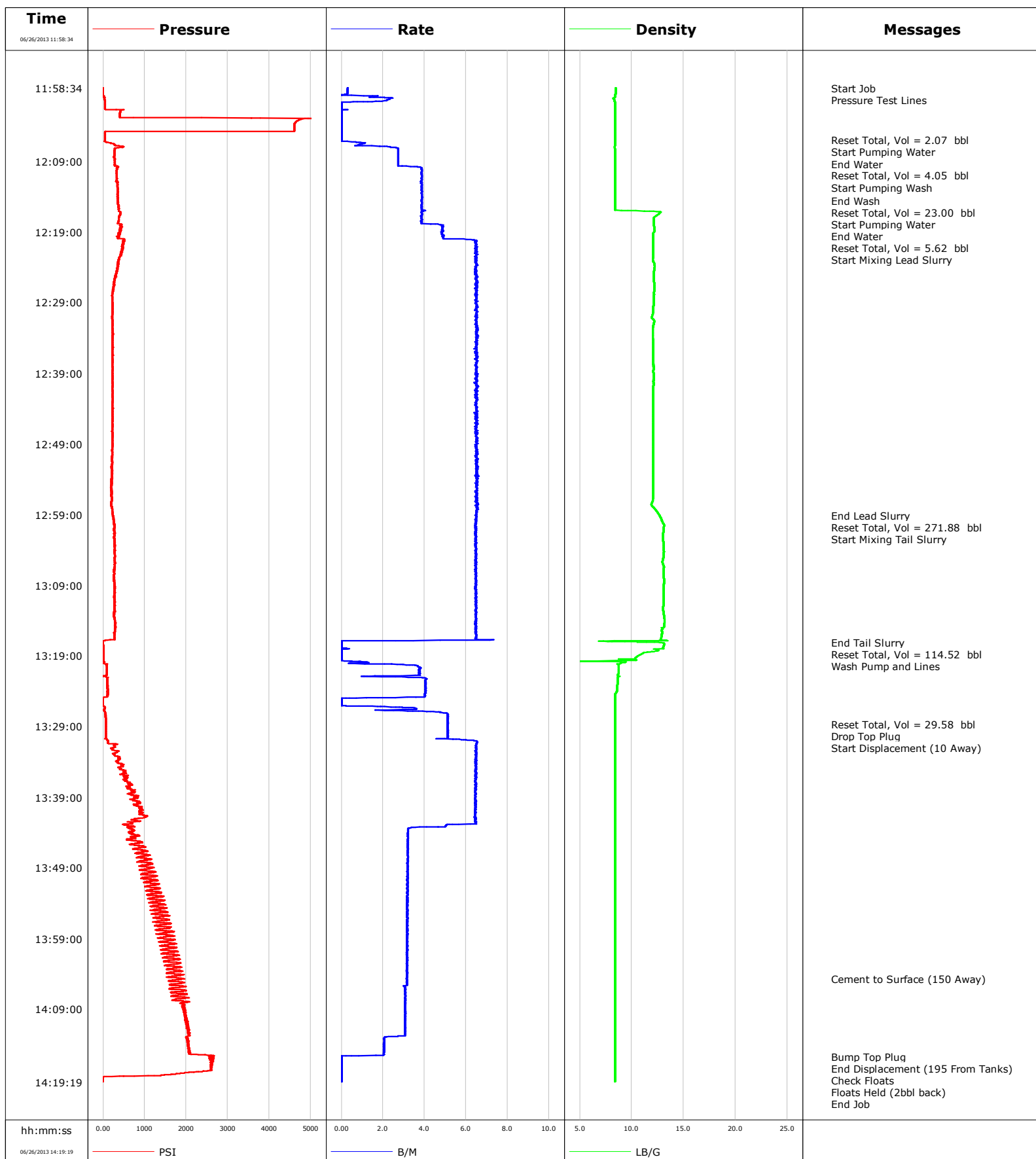


Well SnowBird 9-15
Field Jolly Ranch
Engineer
Country United States

Client KnightHawk
SIR No. CAIO-00572
Job Type Production
Job Date 06-26-2013

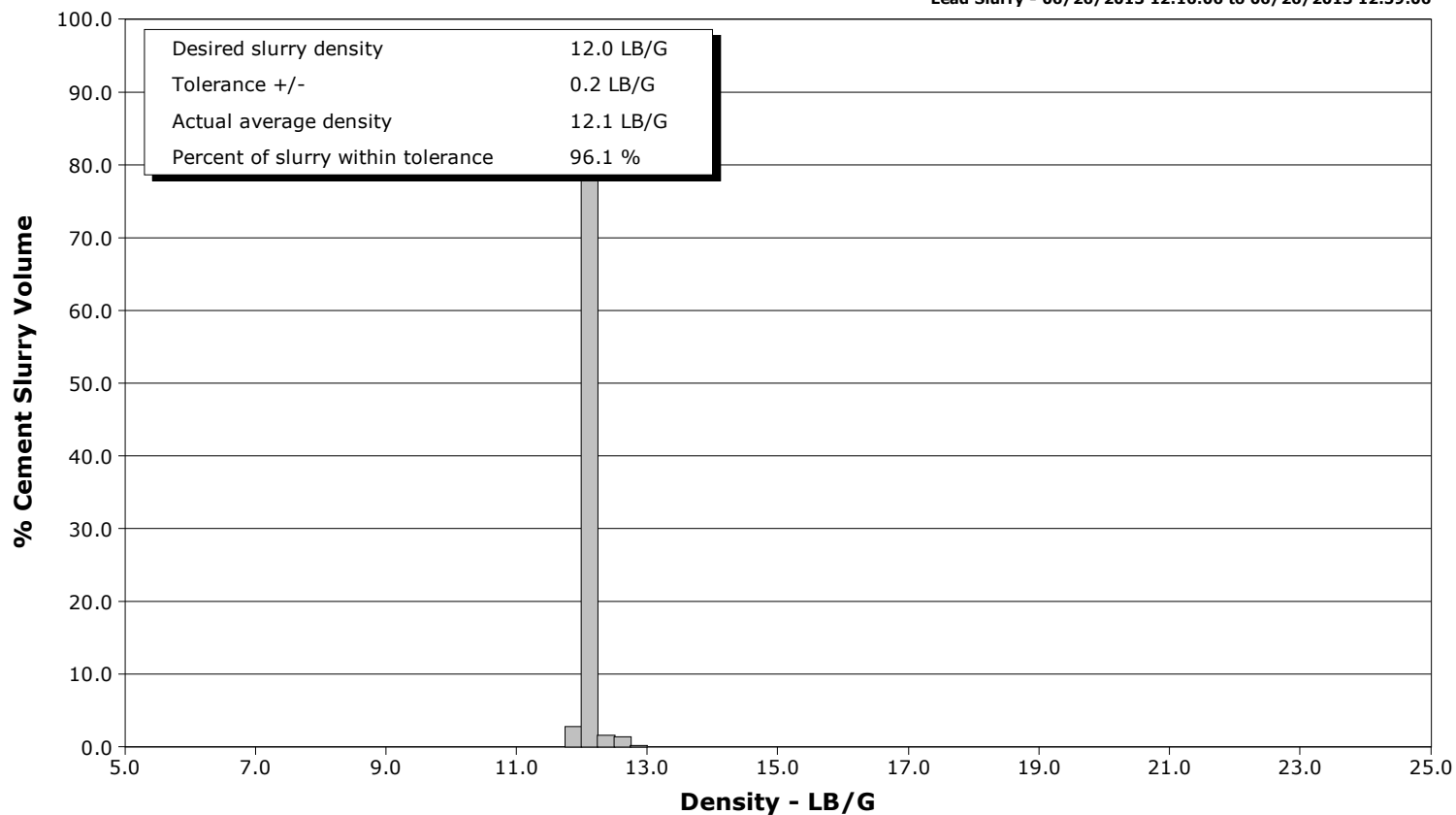


Schlumberger Cementing Qa/Qc Density Report

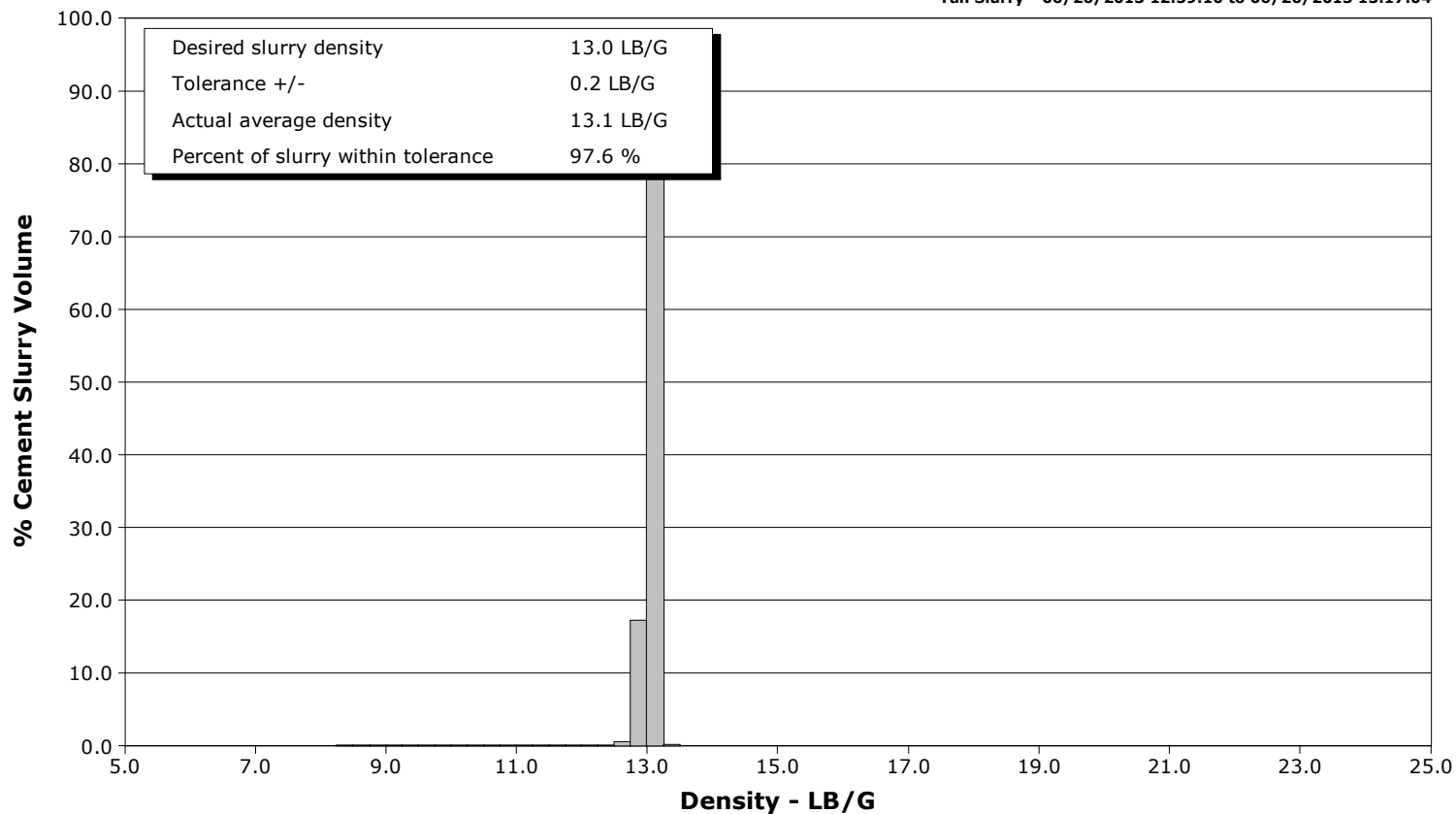
Well SnowBird 9-15
Field Jolly Ranch
Engineer
Country United States

Client KnightHawk
SIR No. CAI0-00572
Job Type Production
Job Date 06-26-2013

Lead Slurry - 06/26/2013 12:16:06 to 06/26/2013 12:59:06



Tail Slurry - 06/26/2013 12:59:10 to 06/26/2013 13:17:04



Cementing Service Report

					Customer KnightHawk			Job Number CAI0-00572		
Well SnowBird 9-15			Location (legal)			Schlumberger Location			Job Start Jun/26/2013	
Field Jolly Ranch		Formation Name/Type			Deviation		Bit Size		Well MD	
County Lincoln		State/Province Colorado			BHP		BHST		BHCT	
Well Master		API/UWI							Pore Press. Gradient	
Rig Name		Drilled For Oil		Service Via Land		Casing/Liner				
						Depth, ft		Size, in		Weight, lb/ft
										Grade
Offshore Zone		Well Class New		Well Type Exploration		8485.0		5.500		17.0
						0.0		0.000		0.0
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe				
						Depth,		Size,		Weight,
										Grade
Service Line Cementing		Job Type Production								
Max. Allowed Tub. Press		Max. Allowed Ann. Press		WH Connection		Perforations/Open Hole				
						Top,		Bottom,		No. of Shots
										Total Interval
Service Instructions										Diameter
Treat Down Casing				Displacement 195.0 bbl		Packer Type		Packer Depth		
Tubing Vol.				Casing Vol.		Annular Vol.		Openhole Vol.		
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools			Squeeze Job			
Lift Pressure 2100 psi		Shoe Type Guide			Squeeze Type					
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input checked="" type="checkbox"/>			Shoe Depth 8485.0 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 Jun/26/2013		Arrived on Location Jun/26/2013		Leave Location Jun/26/2013		Collar Type Float			Tail Pipe Depth	
					Collar Depth 8393.0 ft			Sqz. Total Vol.		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message			
06/26/2013	11:58:34	-2	0.3	8.44	0.0	0.0				
06/26/2013	11:58:36						Start Job			
06/26/2013	11:58:36	-3	0.3	8.44	0.0	0.0				
06/26/2013	11:58:46						Pressure Test Lines			
06/26/2013	11:58:46	-3	0.3	8.44	0.1	0.1				
06/26/2013	12:01:04	43	0.0	8.40	2.1	2.1				
06/26/2013	12:03:34	4621	0.0	8.39	2.1	2.1				
06/26/2013	12:05:59						Reset Total, Vol = 2.07 bbl			
06/26/2013	12:05:59	45	0.0	8.39	2.1	2.1				
06/26/2013	12:06:04	45	0.0	8.39	0.0	0.0				
06/26/2013	12:06:05						Start Pumping Water			
06/26/2013	12:06:05	44	0.0	8.39	0.0	0.0				
06/26/2013	12:08:07						End Water			
06/26/2013	12:08:07	263	2.7	8.39	4.0	4.0				
06/26/2013	12:08:09						Reset Total, Vol = 4.05 bbl			
06/26/2013	12:08:09	264	2.7	8.39	4.0	4.0				
06/26/2013	12:08:13						Start Pumping Wash			
06/26/2013	12:08:13	267	2.7	8.39	4.2	0.2				
06/26/2013	12:08:34	282	2.7	8.40	5.2	1.1				
06/26/2013	12:11:04	332	3.9	8.41	13.5	9.5				
06/26/2013	12:13:34	358	3.9	8.40	23.2	19.1				

Well			Field		Job Start	Customer		Job Number
SnowBird 9-15			Jolly Ranch		Jun/26/2013	KnightHawk		CAI0-00572
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message	
06/26/2013	12:14:32	356	3.9	8.41	26.9	22.9		
06/26/2013	12:14:34						Reset Total, Vol = 23.00 bbl	
06/26/2013	12:14:34	350	3.9	8.41	27.0	23.0		
06/26/2013	12:14:36						Start Pumping Water	
06/26/2013	12:14:36	347	3.9	8.41	27.2	0.1		
06/26/2013	12:15:59						End Water	
06/26/2013	12:15:59	370	4.1	9.01	32.5	5.5		
06/26/2013	12:16:01						Reset Total, Vol = 5.62 bbl	
06/26/2013	12:16:01	375	4.0	10.39	32.7	5.6		
06/26/2013	12:16:04	384	3.9	11.74	32.9	0.2		
06/26/2013	12:16:06						Start Mixing Lead Slurry	
06/26/2013	12:16:06	395	3.9	12.43	33.0	0.3		
06/26/2013	12:18:34	429	4.9	12.17	43.2	10.5		
06/26/2013	12:21:04	442	6.5	12.08	57.0	24.4		
06/26/2013	12:23:34	360	6.5	12.16	73.3	40.6		
06/26/2013	12:26:04	259	6.5	12.14	89.5	56.8		
06/26/2013	12:28:34	221	6.5	12.14	105.7	73.1		
06/26/2013	12:31:04	220	6.5	11.92	122.0	89.3		
06/26/2013	12:33:34	234	6.6	12.04	138.2	105.6		
06/26/2013	12:36:04	227	6.5	12.07	154.5	121.8		
06/26/2013	12:38:34	225	6.5	12.10	170.7	138.1		
06/26/2013	12:41:04	224	6.5	12.09	187.0	154.3		
06/26/2013	12:43:34	224	6.5	12.08	203.2	170.6		
06/26/2013	12:46:04	223	6.5	12.07	219.5	186.8		
06/26/2013	12:48:34	222	6.5	12.06	235.7	203.1		
06/26/2013	12:51:04	212	6.5	12.08	252.0	219.3		
06/26/2013	12:53:34	211	6.6	12.07	268.3	235.6		
06/26/2013	12:56:04	204	6.5	12.09	284.6	251.9		
06/26/2013	12:58:34	225	6.5	12.42	300.9	268.2		
06/26/2013	12:59:06						End Lead Slurry	
06/26/2013	12:59:06	237	6.4	12.67	304.3	271.7		
06/26/2013	12:59:08						Reset Total, Vol = 271.88 bbl	
06/26/2013	12:59:08	234	6.5	12.67	304.5	271.9		
06/26/2013	12:59:10						Start Mixing Tail Slurry	
06/26/2013	12:59:10	240	6.5	12.68	304.8	0.2		
06/26/2013	13:01:04	272	6.4	13.08	317.1	12.5		
06/26/2013	13:03:34	271	6.5	13.08	333.2	28.7		
06/26/2013	13:06:04	272	6.5	13.02	349.4	44.8		
06/26/2013	13:08:34	266	6.5	13.10	365.6	61.0		
06/26/2013	13:11:04	272	6.5	13.07	381.7	77.2		
06/26/2013	13:13:34	276	6.5	13.12	397.9	93.4		
06/26/2013	13:16:04	270	6.5	12.88	414.1	109.5		
06/26/2013	13:17:04						End Tail Slurry	
06/26/2013	13:17:04	-11	0.0	11.47	419.1	114.5		
06/26/2013	13:17:10						Reset Total, Vol = 114.52 bbl	
06/26/2013	13:17:10	-7	0.0	12.95	419.1	114.5		
06/26/2013	13:17:11						Wash Pump and Lines	
06/26/2013	13:17:11	-7	0.0	13.01	419.1	0.0		
06/26/2013	13:18:34	0	0.0	11.17	419.1	0.0		
06/26/2013	13:21:04	90	3.7	8.74	422.8	3.7		
06/26/2013	13:23:34	107	4.1	8.59	432.2	13.1		
06/26/2013	13:26:04	-9	0.0	8.40	437.6	18.5		
06/26/2013	13:28:34	65	5.1	8.40	448.4	29.3		
06/26/2013	13:28:37						Reset Total, Vol = 29.58 bbl	

Well			Field		Job Start	Customer	Job Number
SnowBird 9-15			Jolly Ranch		Jun/26/2013	KnightHawk	CAIO-00572
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
06/26/2013	13:28:46						Drop Top Plug
06/26/2013	13:28:46						Start Displacement (10 Away)
06/26/2013	13:28:46	70	5.1	8.40	449.4	0.8	
06/26/2013	13:31:04	115	6.5	8.40	461.4	12.8	
06/26/2013	13:33:34	390	6.5	8.40	477.6	29.0	
06/26/2013	13:36:04	515	6.4	8.40	493.8	45.2	
06/26/2013	13:38:34	670	6.5	8.40	510.0	61.3	
06/26/2013	13:41:04	928	6.5	8.40	526.1	77.5	
06/26/2013	13:43:34	694	3.2	8.40	540.7	92.0	
06/26/2013	13:46:04	1024	3.2	8.40	548.6	100.0	
06/26/2013	13:51:04	1061	3.2	8.40	564.5	115.9	
06/26/2013	13:53:34	1358	3.2	8.40	572.5	123.8	
06/26/2013	13:56:04	1253	3.2	8.40	580.4	131.8	
06/26/2013	13:58:34	1675	3.2	8.40	588.3	139.7	
06/26/2013	14:01:04	1456	3.2	8.40	596.2	147.6	
06/26/2013	14:03:34	1838	3.1	8.40	604.1	155.5	
06/26/2013	14:04:43						Cement to Surface (150 Away)
06/26/2013	14:04:43	1917	3.1	8.40	607.8	159.1	
06/26/2013	14:06:04	1618	3.1	8.40	612.0	163.3	
06/26/2013	14:08:34	1914	3.1	8.40	619.7	171.0	
06/26/2013	14:11:04	2007	3.1	8.40	627.3	178.7	
06/26/2013	14:13:34	2029	2.0	8.40	634.3	185.7	
06/26/2013	14:15:41						Bump Top Plug
06/26/2013	14:15:41	2660	0.0	8.40	638.5	189.8	
06/26/2013	14:15:45						End Displacement (195 From Tanks)
06/26/2013	14:15:45	2642	0.0	8.40	638.5	189.8	
06/26/2013	14:16:04	2658	0.0	8.40	638.5	189.8	
06/26/2013	14:17:49						Check Floats
06/26/2013	14:17:49	2405	0.0	8.40	638.5	189.8	
06/26/2013	14:18:34	92	0.0	8.40	638.5	189.8	
06/26/2013	14:18:39						Floats Held (2bbl back)
06/26/2013	14:18:39	-8	0.0	8.40	638.5	189.8	
06/26/2013	14:19:16						End Job

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl					
Slurry 5.0	N2	Mud 0.0	Maximum Rate 7.4		Total Slurry 385.0	Mud 0.0	Spacer 33.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid					
Maximum 5044	Final -3	Average 675	Bump Plug to 2600	Breakdown	Type		Volume		Density	
Avg. N2 Percent		Designed Slurry Volume 369.0 bbl		Displacement 195.0 bbl		Mix Water Temp 70 degF		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 45.0 bbl
								Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative Jim Weir				Schlumberger Supervisor				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>
								-		-