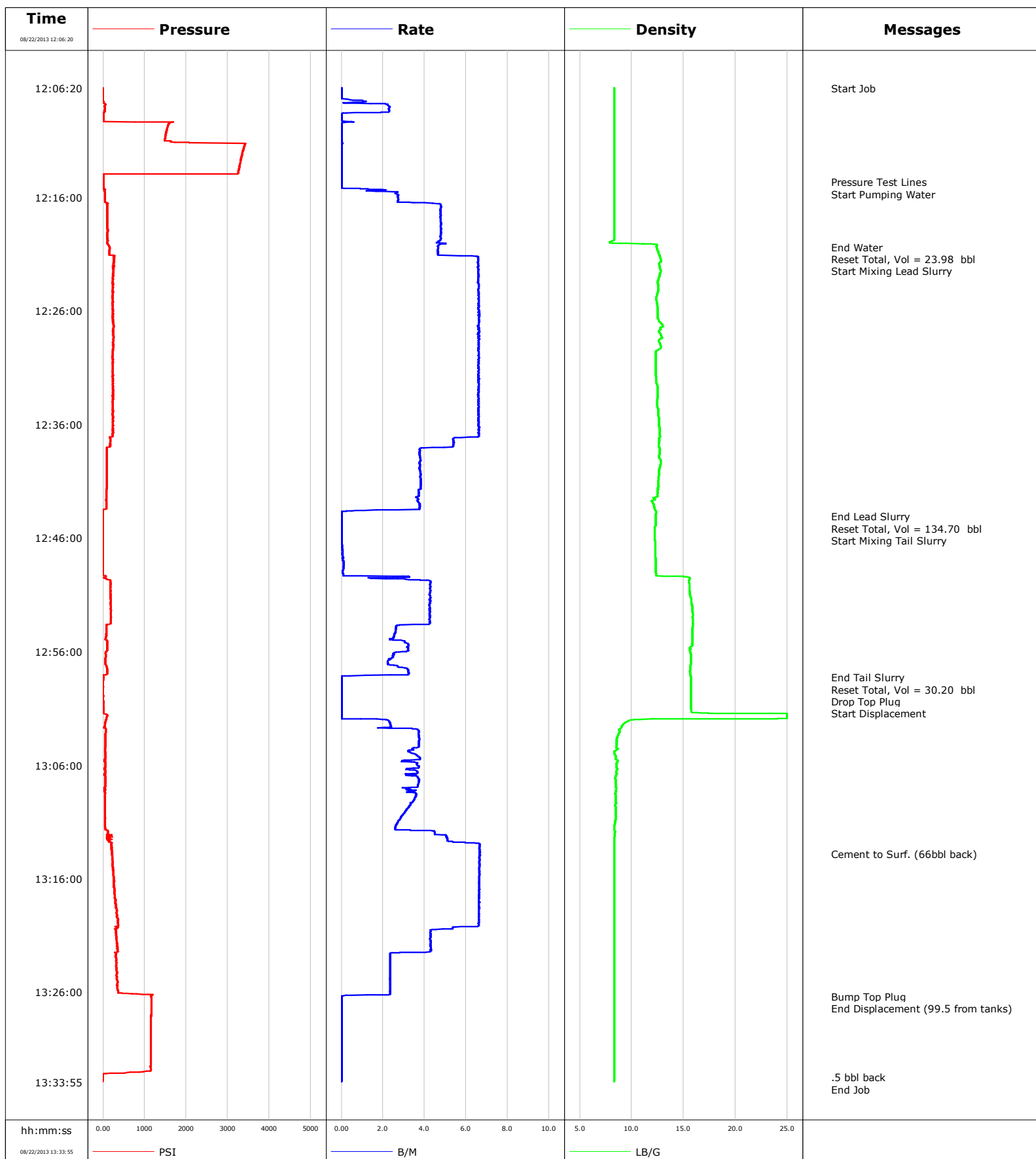


Well HMU 6-15A
Field Mamm Creek
Engineer
Country United States

Client Encana
SIR No. CFAO-00870
Job Type Surface
Job Date 08-22-2013

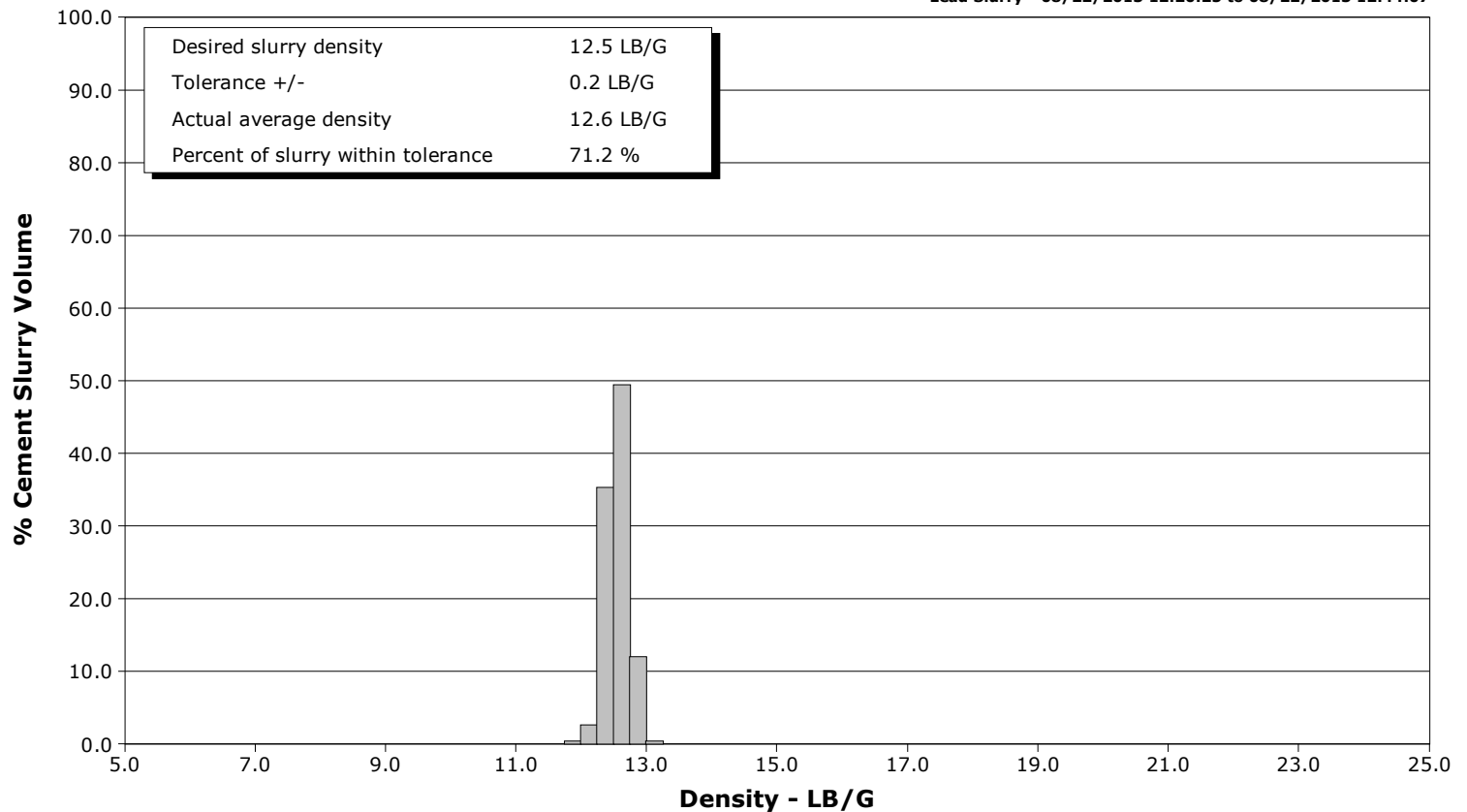


Schlumberger Cementing Qa/Qc Density Report

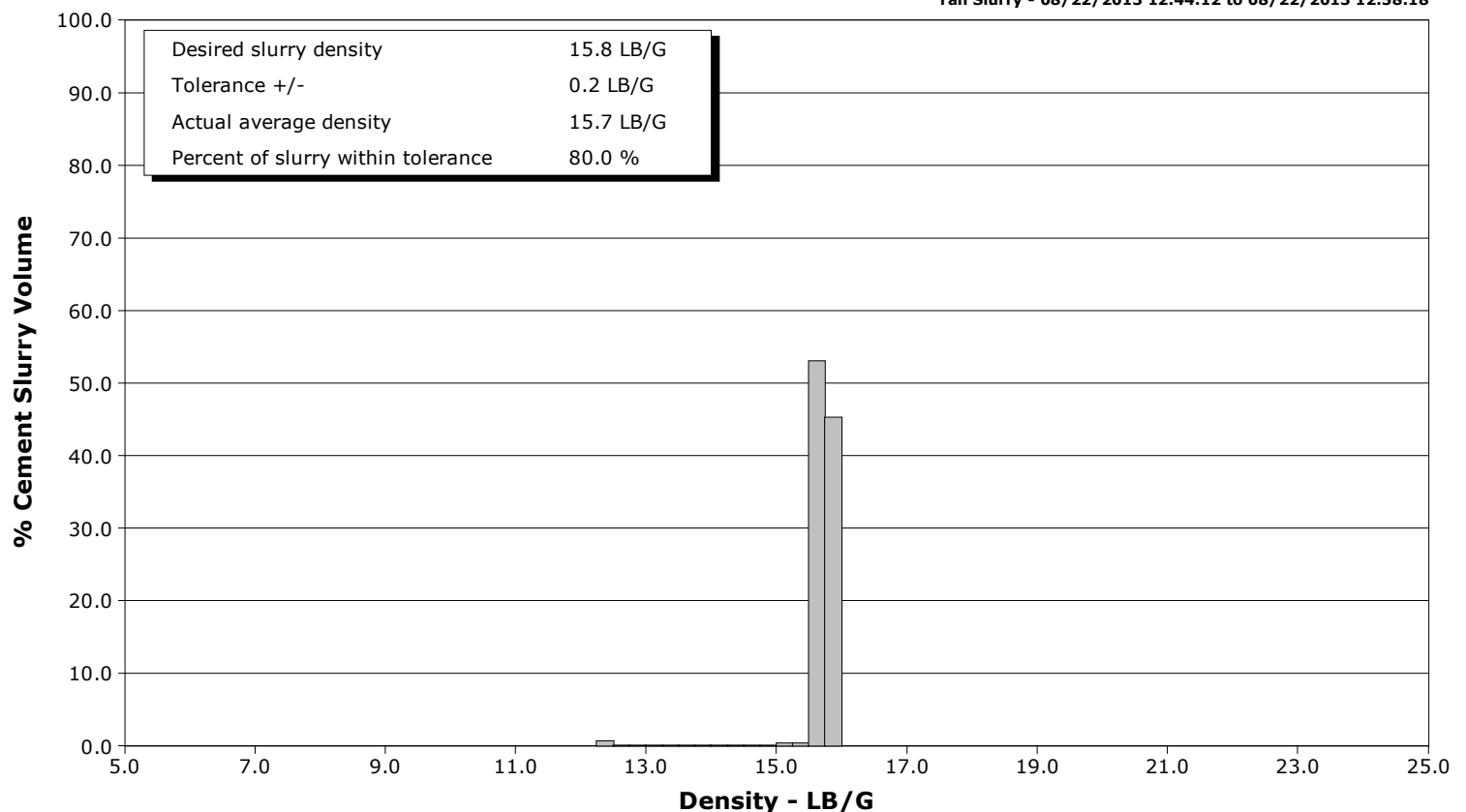
Well HMU 6-15A
Field Mamm Creek
Engineer
Country United States

Client Encana
SIR No. CFAO-00870
Job Type Surface
Job Date 08-22-2013

Lead Slurry - 08/22/2013 12:20:25 to 08/22/2013 12:44:07



Tail Slurry - 08/22/2013 12:44:12 to 08/22/2013 12:58:18





Cementing Service Report

					Customer Encana		Job Number CFAO-00870		
Well HMU 6-15A			Location (legal)		Schlumberger Location			Job Start Aug/22/2013	
Field Mamm Creek		Formation Name/Type		Deviation	Bit Size		Well MD		Well TVD
County Garfield		State/Province Colorado		BHP	BHST	BHCT	Pore Press. Gradient		
Well Master		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 Exploration	1357.0	9.630	36.0	K55	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 Surface							
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 101.0 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 350 psi				Shoe Type Guide		Squeeze Type			
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 1357.0 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 Aug/22/2013		Arrived on Location Aug/22/2013	Leave Location Aug/22/2013	Collar Type Float			Tail Pipe Depth		
				Collar Depth 1312.0 ft			Sqz. Total Vol.		
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message		
08/22/2013	12:06:20	-7	0.0	8.32	0.0	0.0			
08/22/2013	12:06:21						Start Job		
08/22/2013	12:06:21	-8	0.0	8.32	0.0	0.0			
08/22/2013	12:08:50	9	0.0	8.32	2.1	2.1			
08/22/2013	12:11:20	3416	0.0	8.32	2.2	2.2			
08/22/2013	12:13:50	3252	0.0	8.32	2.2	2.2			
08/22/2013	12:14:40						Pressure Test Lines		
08/22/2013	12:14:40	9	0.0	8.32	2.2	2.2			
08/22/2013	12:14:43						Start Pumping Water		
08/22/2013	12:14:43	8	0.0	8.32	2.2	2.2			
08/22/2013	12:16:20	47	2.7	8.31	4.9	4.9			
08/22/2013	12:18:50	108	4.8	8.31	16.5	16.5			
08/22/2013	12:20:22						End Water		
08/22/2013	12:20:22	158	4.6	12.39	23.8	23.8			
08/22/2013	12:20:24						Reset Total, Vol = 23.98 bbl		
08/22/2013	12:20:24	153	4.6	12.41	24.0	24.0			
08/22/2013	12:20:25						Start Mixing Lead Slurry		
08/22/2013	12:20:25	153	4.6	12.42	24.1	0.1			
08/22/2013	12:21:20	272	6.6	12.74	28.7	4.7			
08/22/2013	12:23:50	233	6.6	12.56	45.2	21.2			
08/22/2013	12:26:20	240	6.6	12.48	61.7	37.7			

Well			Field		Job Start	Customer		Job Number
HMU 6-15A			Mamm Creek		Aug/22/2013	Encana		CFAO-00870
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message	
08/22/2013	12:31:20	235	6.6	12.32	94.7	70.7		
08/22/2013	12:33:50	233	6.6	12.47	111.2	87.3		
08/22/2013	12:36:20	229	6.6	12.69	127.7	103.8		
08/22/2013	12:38:50	90	3.8	12.66	140.9	116.9		
08/22/2013	12:41:20	84	3.8	12.57	150.4	126.4		
08/22/2013	12:43:50	-4	0.0	12.34	158.7	134.7		
08/22/2013	12:44:07						End Lead Slurry	
08/22/2013	12:44:07	-3	0.0	12.31	158.7	134.7		
08/22/2013	12:44:10						Reset Total, Vol = 134.70 bbl	
08/22/2013	12:44:10	-3	0.0	12.30	158.7	134.7		
08/22/2013	12:44:12						Start Mixing Tail Slurry	
08/22/2013	12:44:12	-3	0.0	12.30	158.7	0.0		
08/22/2013	12:46:20	-2	0.0	12.24	158.7	0.0		
08/22/2013	12:48:50	-1	0.1	12.33	158.8	0.2		
08/22/2013	12:51:20	179	4.3	15.72	166.8	8.1		
08/22/2013	12:53:50	82	2.6	15.86	177.1	18.4		
08/22/2013	12:56:20	60	2.5	15.68	184.1	25.4		
08/22/2013	12:58:18						End Tail Slurry	
08/22/2013	12:58:18	1	0.0	15.70	188.9	30.2		
08/22/2013	12:58:19						Reset Total, Vol = 30.20 bbl	
08/22/2013	12:58:19	1	0.0	15.70	188.9	30.2		
08/22/2013	12:58:21						Drop Top Plug	
08/22/2013	12:58:21						Start Displacement	
08/22/2013	12:58:21	1	0.0	15.70	188.9	0.0		
08/22/2013	12:58:50	-1	0.0	15.69	188.9	0.0		
08/22/2013	13:01:20	5	0.0	15.76	188.9	0.0		
08/22/2013	13:03:50	54	3.7	8.57	194.7	5.8		
08/22/2013	13:06:20	27	3.1	8.63	203.6	14.7		
08/22/2013	13:08:50	47	3.6	8.45	212.5	23.6		
08/22/2013	13:11:20	47	2.6	8.33	220.2	31.3		
08/22/2013	13:13:49						Cement to Surf. (66bbl back)	
08/22/2013	13:13:49	215	6.7	8.31	233.1	44.2		
08/22/2013	13:13:50	205	6.7	8.31	233.2	44.3		
08/22/2013	13:16:20	258	6.6	8.31	249.8	60.9		
08/22/2013	13:18:50	334	6.6	8.31	266.3	77.5		
08/22/2013	13:21:20	327	4.2	8.31	280.6	91.7		
08/22/2013	13:23:50	316	2.4	8.31	288.8	99.9		
08/22/2013	13:26:20	1177	0.1	8.32	294.5	105.6		
08/22/2013	13:26:23						Bump Top Plug	
08/22/2013	13:26:23	1165	0.0	8.32	294.5	105.6		
08/22/2013	13:26:24						End Displacement (99.5 from tanks)	
08/22/2013	13:26:24	1155	0.0	8.32	294.5	105.6		
08/22/2013	13:28:50	1154	0.0	8.32	294.5	105.6		
08/22/2013	13:31:20	1151	0.0	8.32	294.5	105.6		
08/22/2013	13:33:31						.5 bbl back	
08/22/2013	13:33:31	-8	0.0	8.32	294.6	105.7		
08/22/2013	13:33:50						End Job	

Well	HMU 6-15A	Field	Mamm Creek	Job Start	Aug/22/2013	Customer	Encana	Job Number	CFAO-00870
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Post Job Summary

Average Pump Rates,					Volume of Fluid Injected,			
Slurry	N2	Mud	Maximum Rate		Total Slurry	Mud	Spacer	N2
Treating Pressure Summary,					Breakdown Fluid			
Maximum	Final	Average	Bump Plug to 1155	Breakdown	Type	Volume	Density	
Avg. N2 Percent	Designed Slurry Volume 160.0 bbl		Displacement	Mix Water Temp 70 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 66.0 bbl		
Customer or Authorized Representative Tony Ketterling			Schlumberger Supervisor		Washed Thru Perfs <input type="checkbox"/>	To		
					Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		
					-			