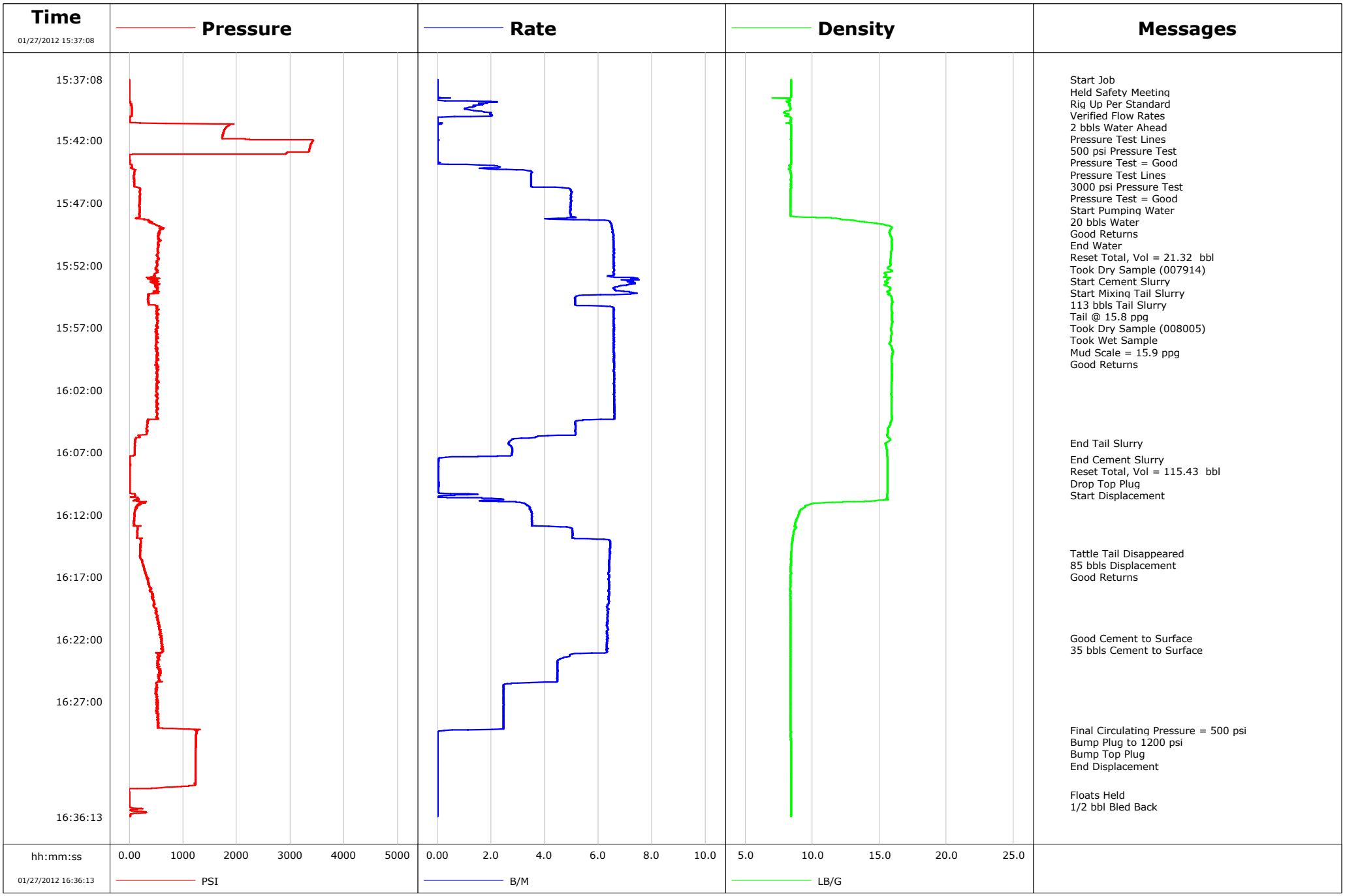
Schlumberger Cementing Job Report

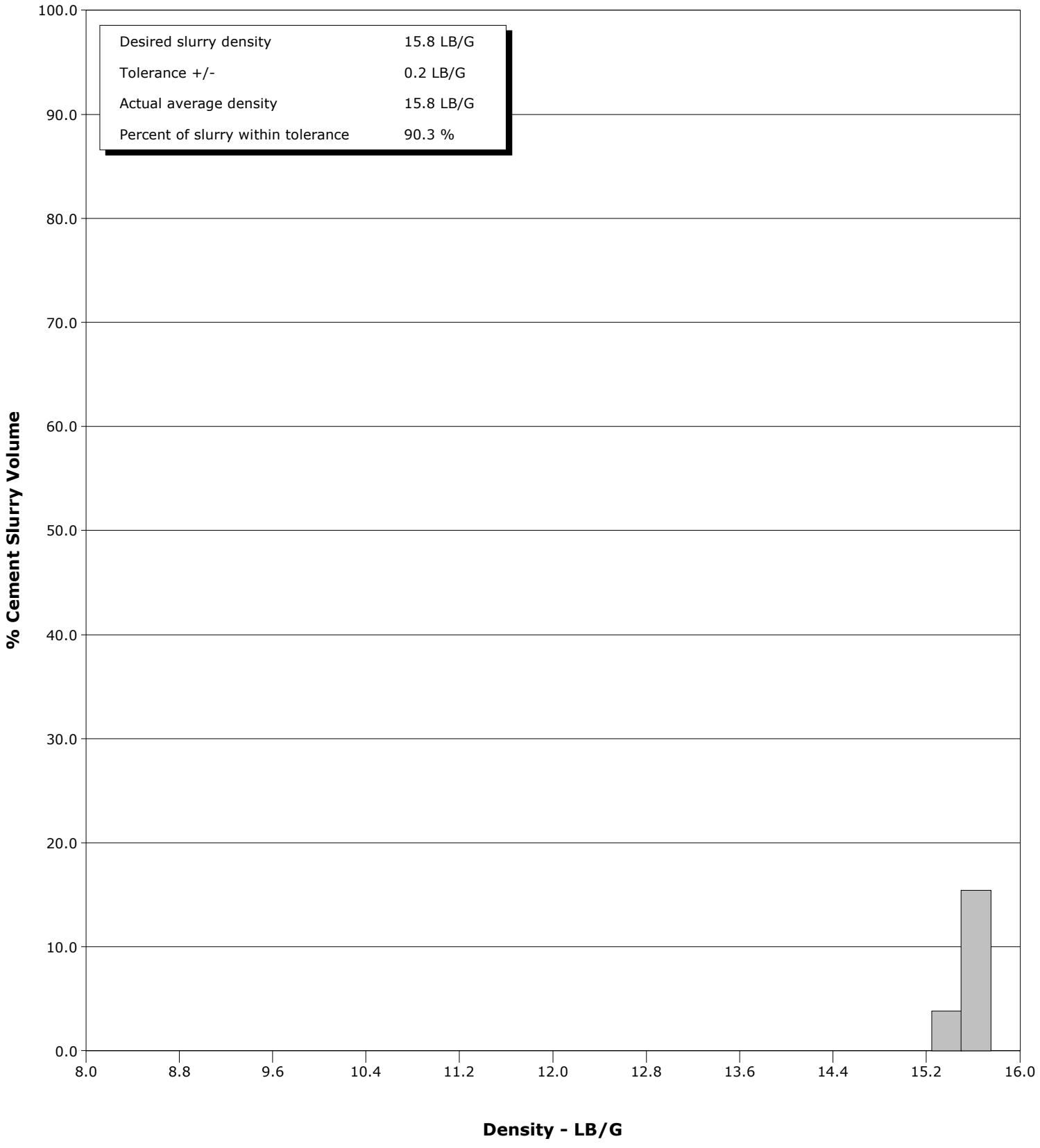
Well	Twin Creek 12-5D2	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	C0BA-00075
Engineer	Ryan Bowditch	**Job Type**	9 5/8" Surface Casing
Country	United States	**Job Date**	01-27-2012



Schlumberger Cementing Qa/Qc Density Report

Well	Twin Creek 12-5D2	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	C0BA-00075
Engineer	Ryan Bowditch	**Job Type**	9 5/8" Surface Casing
Country	United States	**Job Date**	01-27-2012

Cement Slurry - 01/27/2012 15:49:19 to 01/27/2012 16:07:36



Schlumberger Cementing Service Report

Customer	Job Number
EnCana	C0BA-00075

Well	Location (legal)	Schlumberger Location	Job Start
Twin Creek 12-5D2		Grand Junction, CO	Jan/27/2012

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Mamm Creek	Shale	10 deg	12.3 in	1152.0 ft	1152.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado	psi	100 degF	81 degF	lb/gal

Well Master	API/UWI

Rig Name	Drilled For	Service Via
Nabors M15	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
	lb/gal	cP

Service Line	Job Type
Cementing	9 5/8" Surface Casing

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
3000 psi	1500 psi	Single Cement head

Service Instructions

Cement 9 5/8" Surface Casing with:
20 bbls Water
113 bbls 15.8 ppg Cement (547 sks @ 1.16 cft/sk)
85 bbls Water Displacement

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
40.0	16.0	65.0		
1152.0	9.6	36.0	K55	8RD

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	85.4 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	89.1 bbl	67.0 bbl	160.0 bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement
X	X

Lift Pressure	Pipe Rotated	Pipe Reciprocated
500 psi		

No. Centralizers	Top Plugs	Bottom Plugs
	1	

Cement Head Type
Single

Job Scheduled For	Arrived on Location	Leave Location
Jan/27/2012	Jan/27/2012	Jan/27/2012

Casing Tools

Shoe Type	Float
Shoe Depth	1152.0 ft
Stage Tool Type	
Stage Tool Depth	ft
Collar Type	Float
Collar Depth	1105.0 ft

Squeeze Job

Squeeze Type	
Tool Type	
Tool Depth	ft
Tail Pipe Size	in
Tail Pipe Depth	ft
Sqz. Total Vol.	bbl

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message
01/27/2012	15:37:08	-9	0.0	8.41	0.0	0	Started Acquisition
01/27/2012	15:37:09	-9	0.0	8.41	0.0	0	Start Job
01/27/2012	15:37:10	-9	0.0	8.41	0.0	0	Held Safety Meeting
01/27/2012	15:37:11	-8	0.0	8.41	0.0	0	2 bbls Water Ahead
01/27/2012	15:38:48	-7	0.0	8.37	0.0	0	
01/27/2012	15:40:28	7	0.0	8.36	2.1	0	
01/27/2012	15:41:30	1743	0.0	8.39	2.1	0	Pressure Test Lines
01/27/2012	15:42:08	3406	0.0	8.39	2.1	0	
01/27/2012	15:42:15	3389	0.0	8.39	2.1	0	Pressure Test Lines
01/27/2012	15:43:48	7	0.1	8.39	2.1	0	
01/27/2012	15:45:27	84	3.5	8.39	6.6	0	Start Pumping Water
01/27/2012	15:45:28	84	3.5	8.39	6.7	0	
01/27/2012	15:45:29	84	3.5	8.39	6.8	0	20 bbls Water
01/27/2012	15:47:08	191	5.0	8.39	14.5	0	
01/27/2012	15:48:28	381	6.4	13.19	21.1	54	End Water
01/27/2012	15:48:29	381	6.4	13.36	21.2	55	Reset Total, Vol = 21.32 bbl
01/27/2012	15:48:32	350	6.5	13.73	21.5	55	Took Dry Sample (007914)
01/27/2012	15:48:48	491	6.5	15.46	23.3	54	
01/27/2012	15:49:19	566	6.5	15.76	26.6	50	Start Cement Slurry
01/27/2012	15:49:21	558	6.5	15.75	26.8	51	113 bbls Tail Slurry
01/27/2012	15:50:28	538	6.6	15.93	34.2	50	

Well	Field	Job Start	Customer	Job Number
Twin Creek 12-5D2	Mamm Creek	Jan/27/2012	EnCana	C0BA-00075

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message
01/27/2012	15:53:48	506	6.6	15.77	56.5	54	
01/27/2012	15:55:24	511	6.5	15.87	66.0	53	Took Dry Sample (008005)
01/27/2012	15:55:28	512	6.6	15.87	66.4	52	
01/27/2012	15:56:12	524	6.6	15.92	71.2	50	Took Wet Sample
01/27/2012	15:56:13	501	6.6	15.92	71.3	50	Mud Scale = 15.9 ppg
01/27/2012	15:57:08	509	6.6	15.85	77.3	48	
01/27/2012	15:57:39	503	6.6	15.87	80.7	47	Good Returns
01/27/2012	15:58:48	516	6.6	15.95	88.3	49	
01/27/2012	16:00:28	525	6.6	15.92	99.3	48	
01/27/2012	16:02:08	506	6.6	15.88	110.3	48	
01/27/2012	16:03:48	506	6.6	15.88	121.2	48	
01/27/2012	16:05:28	320	5.2	15.63	130.7	47	
01/27/2012	16:06:14	103	2.7	15.51	133.6	33	End Tail Slurry
01/27/2012	16:07:08	99	2.8	15.56	136.1	61	
01/27/2012	16:07:36	3	0.0	15.59	136.8	0	End Cement Slurry
01/27/2012	16:07:38	5	0.0	15.59	136.8	0	Reset Total, Vol = 115.43 bbl
01/27/2012	16:07:39	5	0.0	15.59	136.8	0	Drop Top Plug
01/27/2012	16:07:40	5	0.0	15.59	136.8	0	Start Displacement
01/27/2012	16:08:48	3	0.0	15.58	136.8	0	
01/27/2012	16:10:28	102	0.3	15.56	137.0	60	
01/27/2012	16:12:08	95	3.5	8.94	141.5	22	
01/27/2012	16:13:48	144	5.0	8.54	148.6	16	
01/27/2012	16:15:06	196	6.4	8.42	156.7	3	Tattle Tail Disappeared
01/27/2012	16:15:07	196	6.4	8.42	156.8	4	Good Returns
01/27/2012	16:15:28	202	6.4	8.41	159.1	10	
01/27/2012	16:17:08	353	6.4	8.36	169.8	12	
01/27/2012	16:18:48	437	6.4	8.38	180.4	3	
01/27/2012	16:20:28	514	6.3	8.39	191.0	0	
01/27/2012	16:21:53	573	6.3	8.37	200.0	0	Good Cement to Surface
01/27/2012	16:22:08	602	6.3	8.39	201.5	0	
01/27/2012	16:23:48	527	4.5	8.39	211.0	0	
01/27/2012	16:25:28	524	4.0	8.39	218.5	0	
01/27/2012	16:27:08	518	2.5	8.39	222.7	0	
01/27/2012	16:28:48	531	2.5	8.39	226.8	0	
01/27/2012	16:29:18	1283	0.6	8.39	228.0	0	Final Circulating Pressure = 500 psi
01/27/2012	16:29:19	1240	0.3	8.39	228.0	0	Bump Plug to 1200 psi
01/27/2012	16:29:37	1243	0.0	8.39	228.0	0	Bump Top Plug
01/27/2012	16:29:38	1242	0.0	8.39	228.0	0	End Displacement
01/27/2012	16:30:28	1235	0.0	8.39	228.0	0	
01/27/2012	16:32:08	1230	0.0	8.39	228.0	0	
01/27/2012	16:33:48	973	0.0	8.39	228.0	0	
01/27/2012	16:34:27	-8	0.0	8.39	228.0	0	Floats Held
01/27/2012	16:34:28	-8	0.0	8.39	228.0	0	1/2 bbl Bled Back

Well	Field	Job Start	Customer	Job Number
Twin Creek 12-5D2	Mamm Creek	Jan/27/2012	EnCana	C0BA-00075

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
4.8			7.5	113.0	0.0	20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3424	10	518	1200			bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
%	113.0 bbl	85.0 bbl	65 degF	X	35.0 bbl
				Washed Thru Perfs ☐	To ft

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Robert Tate	Ryan Bowditch	-	X
		-	-