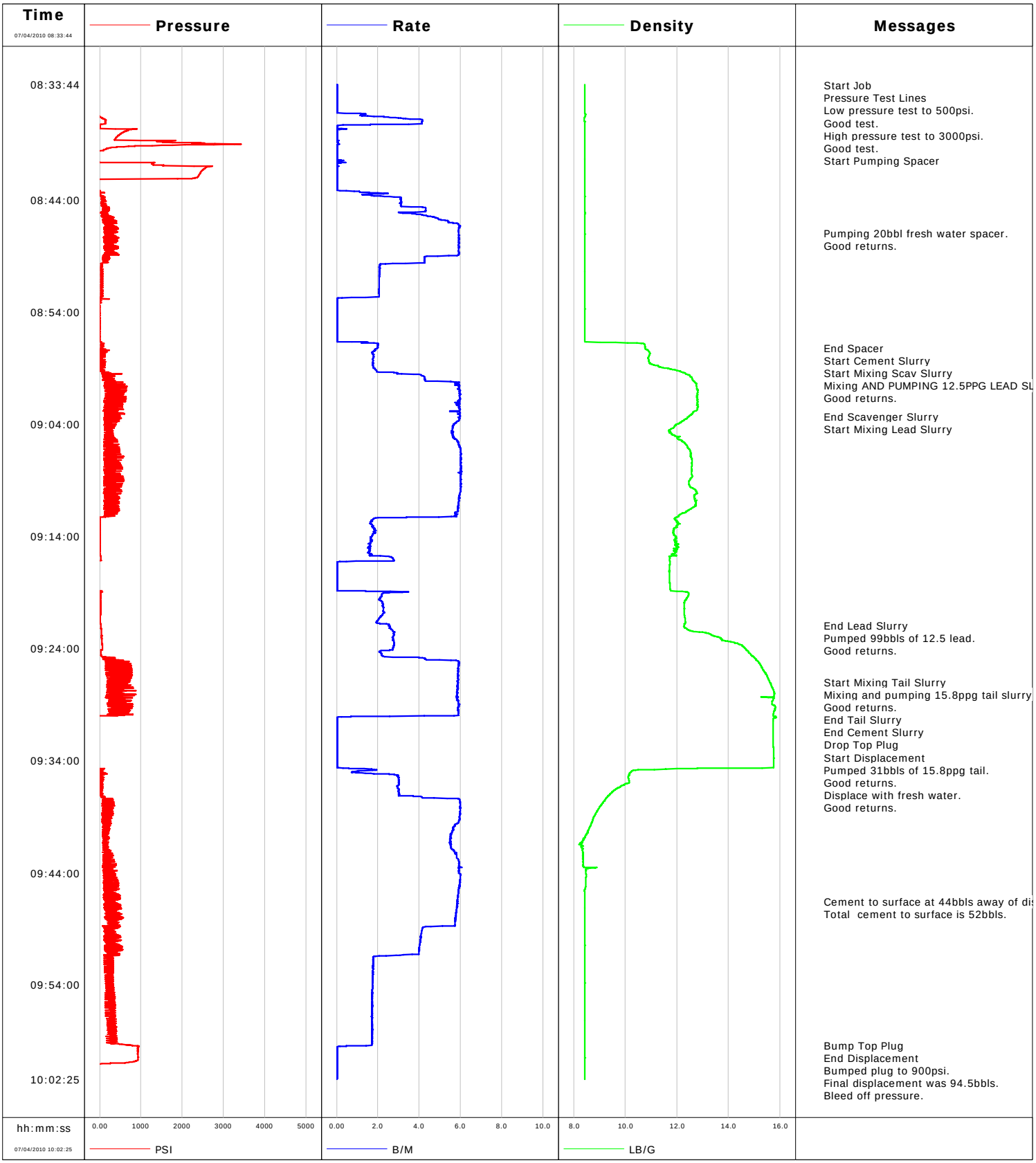
Schlumberger Cementing Job Report

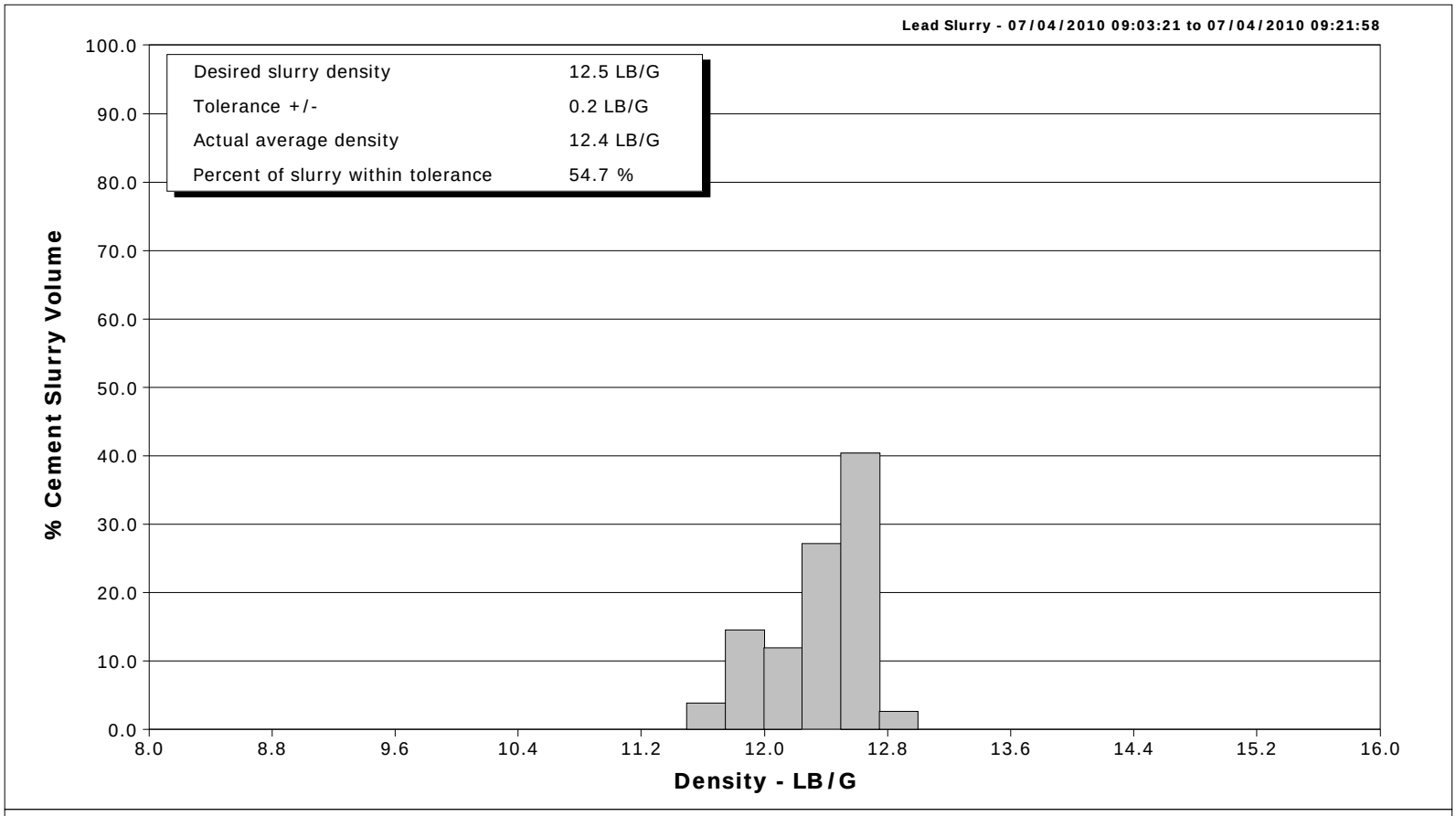
CemCAT v1.3

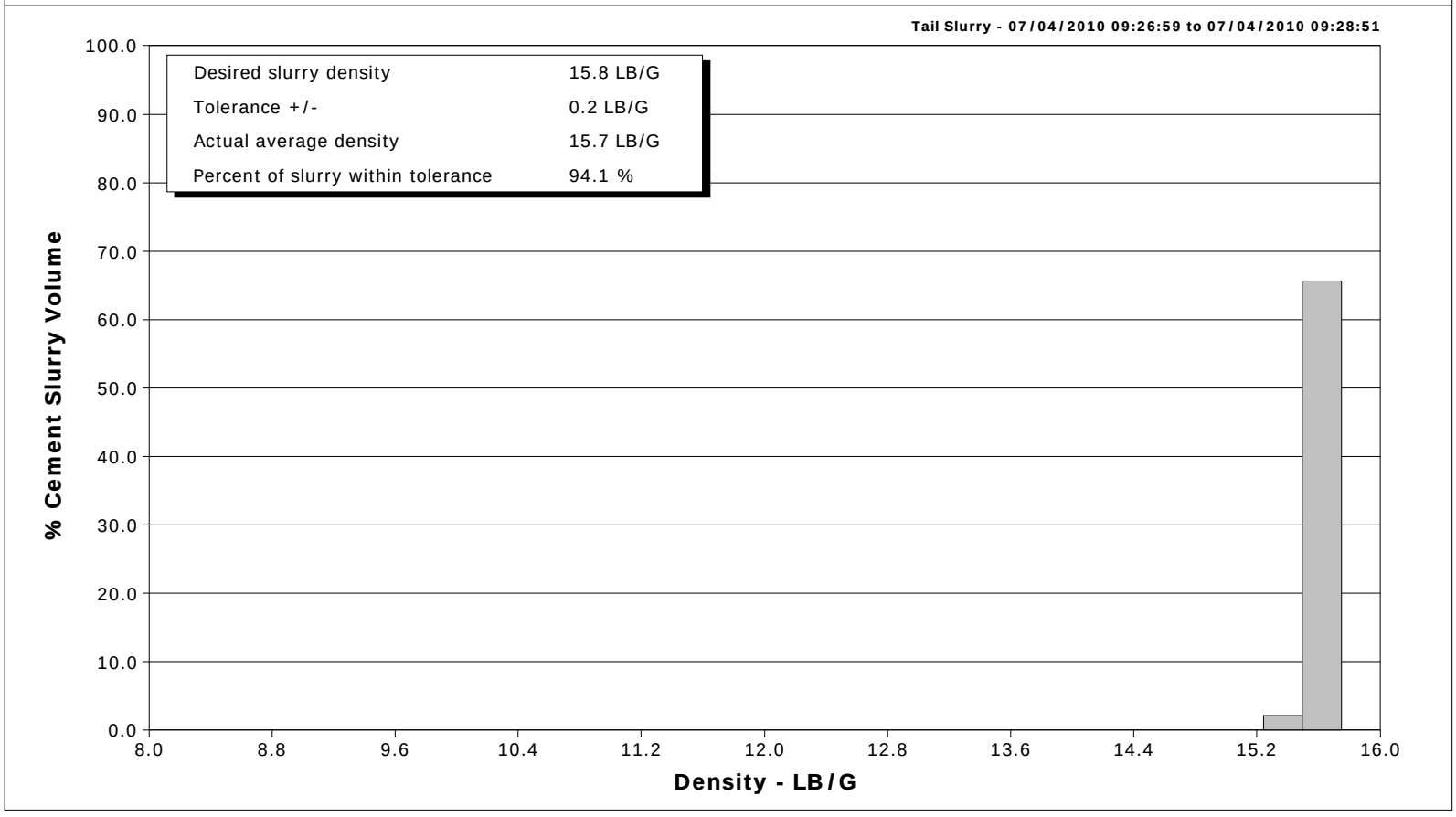
Well	GMR 8-5D	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	B2IJ-00186
Engineer	Jeff Patterson	**Job Type**	9 5/8" Surface.
Country	United States	**Job Date**	07-04-2010



Schlumberger Cementing Qa/Qc Density Report

Well	GMR 8-5D	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	B2IJ-00186
Engineer	Jeff Patterson	**Job Type**	9 5/8" Surface.
Country	United States	**Job Date**	07-04-2010





Cementing Service Report

Customer	Job Number
EnCana	B2IJ-00186

Well	Location (legal)	Schlumberger Location	Job Start
GMR 8-5D GMR 8-5D	K8W	Grand Junction, Colorado	Jul/04/2010

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Mamm Creek	Ohio Creek	0 deg	12.3 in	1290.0 ft	1290.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado		100 degF	83 degF	

Well Master	API/UWI
0631179472	

Rig Name	Drilled For	Service Via
Nabors M-13	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity

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

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
3000 psi		9 5/8" Cement Head

Service Instructions

Cement 9 5/8" Surface Casing at 1250ft
20bbls Water
264 12.5ppg Lead
149sks 15.8ppg Tail
80% Annular Excess

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1290.0	9.630	36.0	J55	8RD
0.0	0.000	0.0		

Tubing/Drill Pipe

Depth,	Size,	Weight,	Grade	Thread

Perforations/Open Hole

Top,	Bottom,		No. of Shots	Total Interval
				Diameter

Treat Down	Displacement	Packer Type	Packer Depth
Casing	96.3 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	99.7 bbl	75.0 bbl	178.0 bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement	Casing Tools	Squeeze Job
x	x		

Lift Pressure		Shoe Type	Guide	Squeeze Type	
Pipe Rotated	☐	Shoe Depth	1290.0 ft	Tool Type	
Pipe Reciprocated	☐	Stage Tool Type		Tool Depth	
No. Centralizers	Top Plugs: 1	Bottom Plugs		Tail Pipe Size	
Cement Head Type	Single	Stage Tool Depth			
Job Scheduled For	Arrived on Location	Leave Location	Collar Type	Float	Tail Pipe Depth	
Jul/04/2010	Jul/04/2010	Jul/04/2010	Collar Depth	1246.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
07/04/2010	07:54:30					Started Acquisition
07/04/2010	08:33:44	-39	0.0	8.44	0.0	
07/04/2010	08:33:47					Start Job
07/04/2010	08:33:47	-39	0.0	8.44	0.0	
07/04/2010	08:33:51					Pressure Test Lines
07/04/2010	08:33:51	-39	0.0	8.44	0.0	
07/04/2010	08:33:53					Low pressure test to 500psi.
07/04/2010	08:33:53	-39	0.0	8.44	0.0	
07/04/2010	08:33:54					Good test.
07/04/2010	08:33:54					High pressure test to 3000psi.
07/04/2010	08:33:54					Good test.
07/04/2010	08:33:54	-41	0.0	8.44	0.0	
07/04/2010	08:33:56					Start Pumping Spacer
07/04/2010	08:33:56	-42	0.0	8.44	0.0	
07/04/2010	08:34:30	-41	0.0	8.44	0.0	
07/04/2010	08:36:10	-40	0.0	8.44	0.0	
07/04/2010	08:37:50	690	0.0	8.44	3.1	
07/04/2010	08:39:30	159	0.0	8.44	3.2	
07/04/2010	08:41:10	2568	0.0	8.44	3.2	
07/04/2010	08:42:50	-28	0.0	8.44	3.3	
07/04/2010	08:44:30	42	3.1	8.44	6.4	

Well	Field	Job Start	Customer	Job Number
GMR 8-5D GMR 8-5D	Mamm Creek	Jul/04/2010	EnCana	B2IJ-00186

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
07/04/2010	08:47:00					Pumping 20bbl fresh water spacer.
07/04/2010	08:47:00					Good returns.
07/04/2010	08:47:00	248	5.9	8.44	18.7	
07/04/2010	08:47:50	118	5.9	8.44	23.7	
07/04/2010	08:49:30	171	4.3	8.43	32.7	
07/04/2010	08:51:10	29	2.1	8.43	36.6	
07/04/2010	08:52:50	-46	0.0	8.43	39.9	
07/04/2010	08:54:30	-11	0.0	8.43	39.9	
07/04/2010	08:56:10	-1	0.0	8.43	39.9	
07/04/2010	08:57:12					End Spacer
07/04/2010	08:57:12	29	2.0	10.77	40.9	
07/04/2010	08:57:14					Start Cement Slurry
07/04/2010	08:57:14	34	2.0	10.77	40.9	
07/04/2010	08:57:16					Start Mixing Scav Slurry
07/04/2010	08:57:16	31	2.0	10.78	41.0	
07/04/2010	08:57:20					Mixing AND PUMPING 12.5PPG LEAD SLURRY.
07/04/2010	08:57:20					Good returns.
07/04/2010	08:57:20	9	1.9	10.79	41.1	
07/04/2010	08:57:50	121	1.8	10.94	42.0	
07/04/2010	08:59:30	68	2.9	12.34	45.1	
07/04/2010	09:01:10	604	6.0	12.81	53.7	
07/04/2010	09:02:50	168	5.9	12.75	63.6	
07/04/2010	09:03:19					End Scavenger Slurry
07/04/2010	09:03:19	126	6.0	12.49	66.4	
07/04/2010	09:03:21					Start Mixing Lead Slurry
07/04/2010	09:03:21	210	6.0	12.46	66.6	
07/04/2010	09:04:30	298	5.6	11.77	73.3	
07/04/2010	09:06:10	188	6.0	12.44	82.9	
07/04/2010	09:07:50	536	6.0	12.57	92.9	
07/04/2010	09:09:30	108	6.0	12.49	102.9	
07/04/2010	09:11:10	381	5.9	12.73	112.8	
07/04/2010	09:12:50	-0	1.7	12.01	120.5	
07/04/2010	09:14:30	-3	1.7	11.99	123.4	
07/04/2010	09:16:10	38	2.8	11.72	126.5	
07/04/2010	09:17:50	-42	0.0	11.71	126.7	
07/04/2010	09:19:30	13	2.1	12.40	128.1	
07/04/2010	09:21:10	11	2.1	12.31	131.8	
07/04/2010	09:21:58					End Lead Slurry
07/04/2010	09:21:58	29	2.5	12.28	133.5	
07/04/2010	09:22:08					Pumped 99bbls of 12.5 lead.
07/04/2010	09:22:08					Good returns.
07/04/2010	09:22:08	34	2.6	12.28	133.9	
07/04/2010	09:22:50	49	2.8	13.36	135.8	
07/04/2010	09:24:30	33	2.2	14.84	140.2	
07/04/2010	09:26:10	159	5.9	15.42	148.5	
07/04/2010	09:26:59					Start Mixing Tail Slurry
07/04/2010	09:26:59	732	5.9	15.59	153.3	
07/04/2010	09:27:04					Mixing and pumping 15.8ppg tail slurry.
07/04/2010	09:27:04					Good returns.
07/04/2010	09:27:04	701	5.9	15.61	153.8	
07/04/2010	09:27:50	237	5.8	15.75	158.3	
07/04/2010	09:28:51					End Tail Slurry
07/04/2010	09:28:51	503	5.9	15.68	164.2	
07/04/2010	09:28:55					End Cement Slurry

Well	Field	Job Start	Customer	Job Number
GMR 8-5D GMR 8-5D	Mamm Creek	Jul/04/2010	EnCana	B2IJ-00186

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
07/04/2010	09:28:58					Drop Top Plug
07/04/2010	09:28:58	196	5.9	15.68	164.9	
07/04/2010	09:29:01					Start Displacement
07/04/2010	09:29:01	792	5.9	15.70	165.2	
07/04/2010	09:29:03					Pumped 31bbls of 15.8ppg tail.
07/04/2010	09:29:03					Good returns.
07/04/2010	09:29:03					Displace with fresh water.
07/04/2010	09:29:03	394	5.9	15.72	165.4	
07/04/2010	09:29:04					Good returns.
07/04/2010	09:29:04	792	5.9	15.72	165.5	
07/04/2010	09:29:30	274	5.9	15.80	168.0	
07/04/2010	09:31:10	-33	0.0	15.73	171.4	
07/04/2010	09:32:50	-37	0.0	15.74	171.4	
07/04/2010	09:34:30	-37	0.0	15.75	171.4	
07/04/2010	09:36:10	36	3.0	9.97	174.9	
07/04/2010	09:37:50	202	6.0	9.12	181.4	
07/04/2010	09:39:30	102	5.9	8.72	191.4	
07/04/2010	09:41:10	83	5.5	8.36	200.8	
07/04/2010	09:42:50	82	5.9	8.36	210.2	
07/04/2010	09:44:30	101	6.0	8.48	220.1	
07/04/2010	09:46:10	244	5.9	8.43	230.0	
07/04/2010	09:46:35					Cement to surface at 44bbls away of displacement.
07/04/2010	09:46:35	294	5.8	8.43	232.4	
07/04/2010	09:47:08					Total cement to surface is 52bbls.
07/04/2010	09:47:08	109	5.8	8.43	235.6	
07/04/2010	09:47:50	215	5.8	8.43	239.7	
07/04/2010	09:49:30	399	4.1	8.43	248.1	
07/04/2010	09:51:10	295	4.0	8.44	254.9	
07/04/2010	09:52:50	224	1.8	8.44	258.3	
07/04/2010	09:54:30	340	1.7	8.44	261.2	
07/04/2010	09:56:10	358	1.7	8.44	264.1	
07/04/2010	09:57:50	290	1.7	8.44	266.9	
07/04/2010	09:59:24					Bump Top Plug
07/04/2010	09:59:24	779	1.7	8.44	269.6	
07/04/2010	09:59:26					End Displacement
07/04/2010	09:59:26	794	1.4	8.44	269.7	
07/04/2010	09:59:30					Bumped plug to 900psi.
07/04/2010	09:59:30					Final displacement was 94.5bbls.
07/04/2010	09:59:30					Bleed off pressure.
07/04/2010	09:59:30					Check floats.
07/04/2010	09:59:30					Floats held.
07/04/2010	09:59:30	931	0.2	8.44	269.7	
07/04/2010	09:59:31					52bbls of good cement to surface.
07/04/2010	09:59:31					Got .5bbls back of water.
07/04/2010	09:59:31	957	0.1	8.44	269.7	
07/04/2010	10:01:10	-35	0.0	8.44	269.7	
07/04/2010	10:02:27					Stopped Acquisition

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GMR 8-5D GMR 8-5D	Mamm Creek	Jul/04/2010	EnCana	B2IJ-00186

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
6.0			8.0	130.0		20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3000	900	300	900				

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
	130.0 bbl	96.0 bbl	60 degF	X	52.0 bbl
				Washed Thru Perfs ☐	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Charlie Brown	Jeff Patterson	-	X
			-