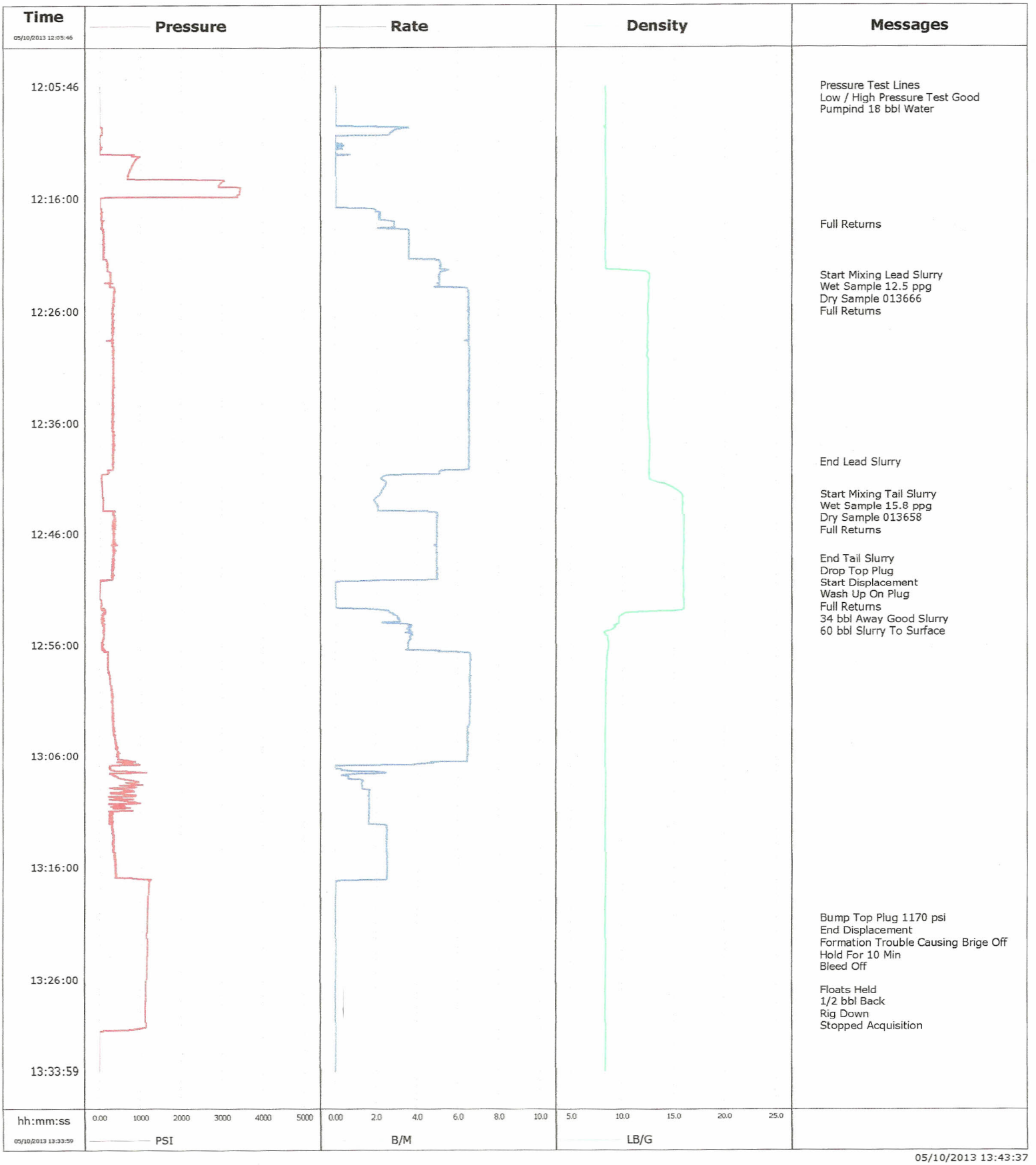
Schlumberger

Cementing Job Report

CemCAT v1.3

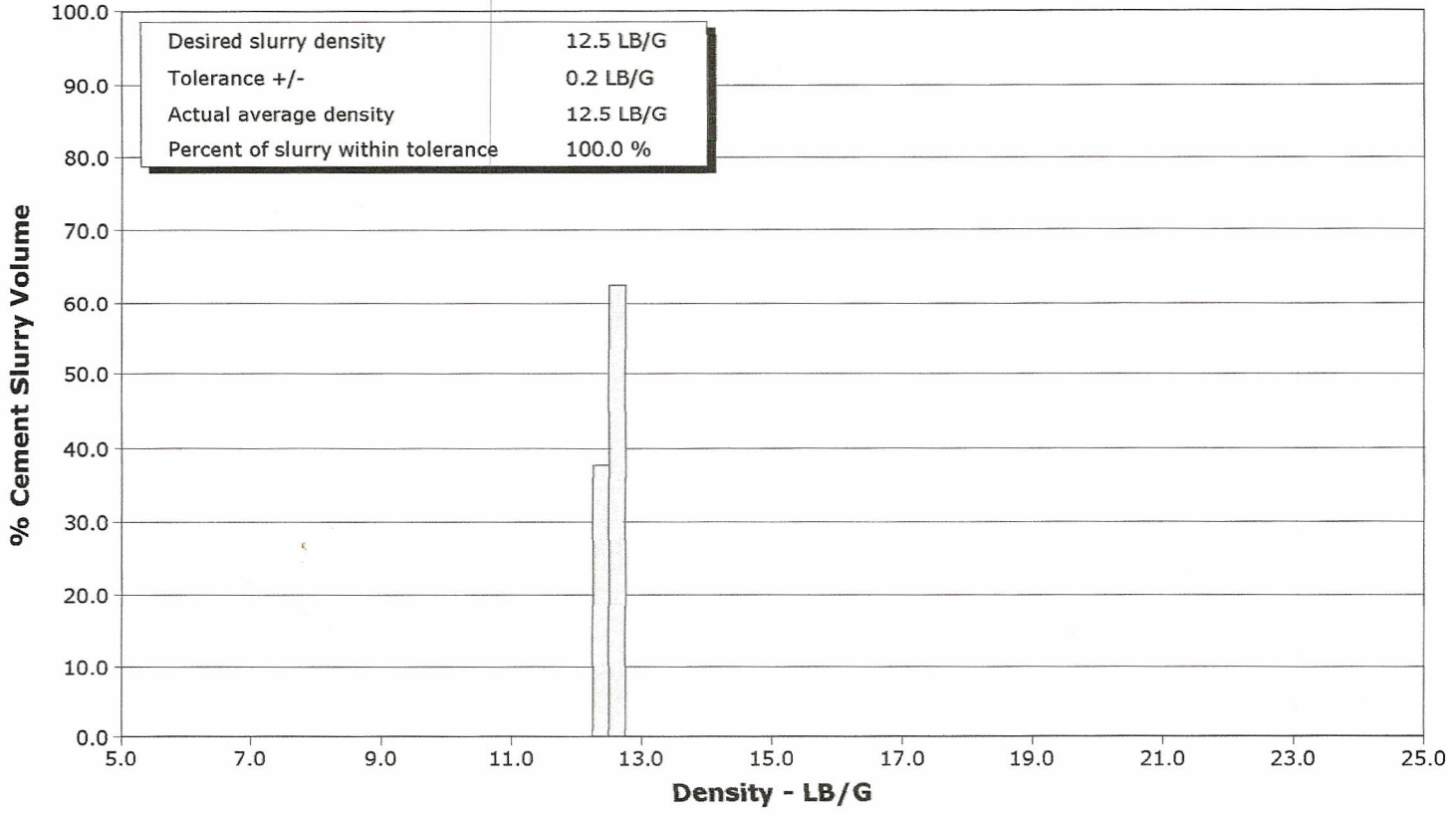
Well	ALP ~~FEE~~ Fed 24-12AA	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	CFA)-00429
Engineer	Travis Willardson / Cole Fairbrook	**Job Type**	9 5/8 Surface
Country	United States	**Job Date**	05-10-2013



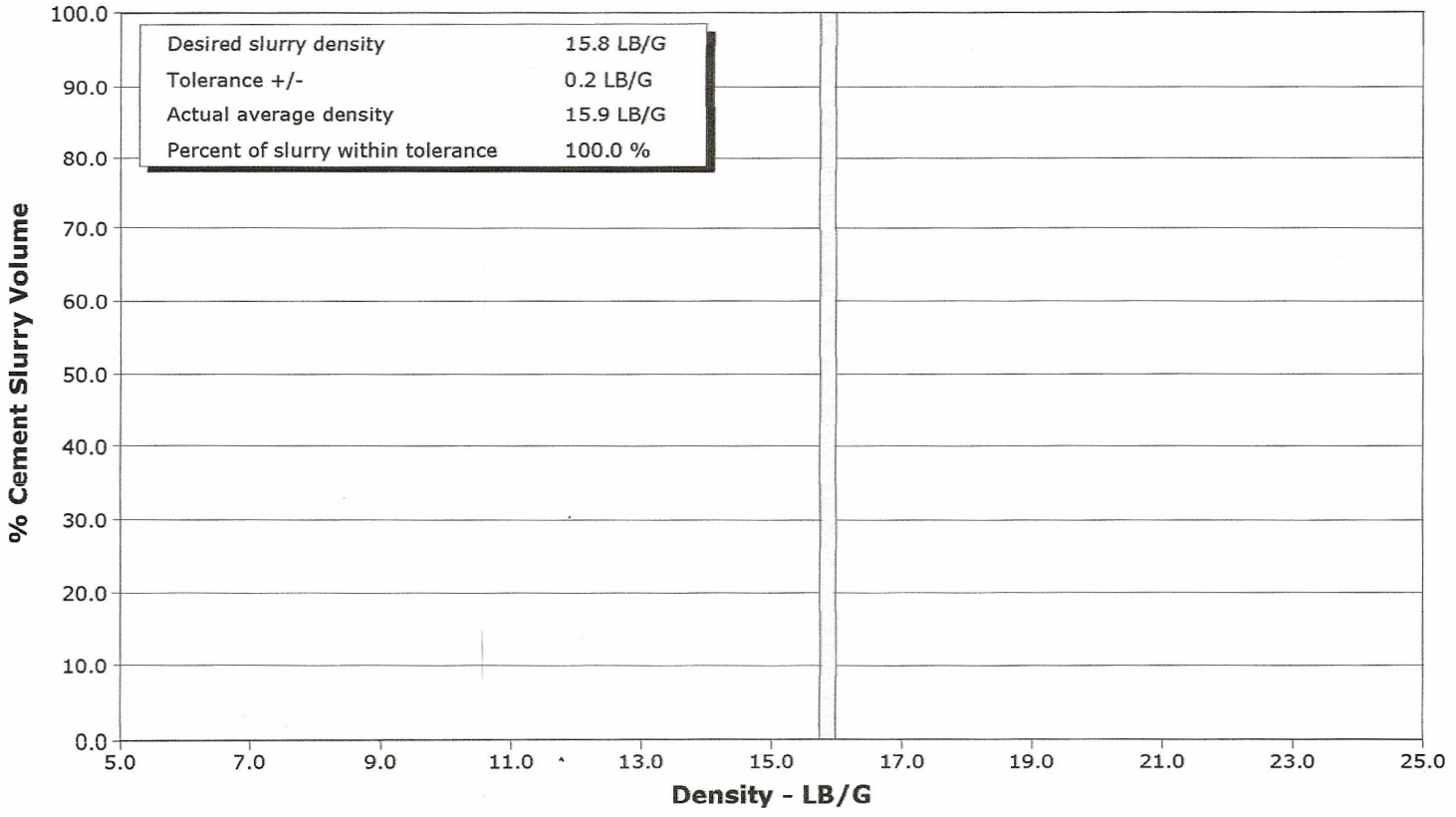
Schlumberger Cementing Qa/Qc Density Report

Well	ALP FEE 24-12AA	**Client**	EnCana
Field	Mamm Creek	**SIR No.**	CFA)-00429
Engineer	Travis Willardson / Cole Fairbrook	**Job Type**	9 5/8 Surface
Country	United States	**Job Date**	05-10-2013

Lead Slurry - 05/10/2013 12:22:51 to 05/10/2013 12:39:32



Tail Slurry - 05/10/2013 12:42:28 to 05/10/2013 12:48:17



Schlumberger

Cementing Service Report

Customer	Job Number
EnCana	CFA)-00429

Well	Location (legal)	Schlumberger Location	Job Start
Federal ALP ~~FEE~~ 24-12AA 24-~~12AA~~	J24NW	Grand Junction	May/10/2013

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Mamm Creek	Dirty-Sandstone		12.3 in	1267.0 ft	

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado		97 degF	86 degF	

Well Master	API/UWI
0631429180	05045218010000

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
Bentonite		

Service Line	Job Type
Cementing	9 5/8 Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
		Single Cement head

Service Instructions

20 bbl Water
12.5 # 313 sks 2.11 ft3/sk
15.8 # 150 sks 1.16 ft3/sk

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
40.0	16.000	65.0	N/A	N/A
1267.0	9.630	36.0	J55	8RD

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	94.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
		74.0 bbl	175.0 bbl

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

Lift Pressure	627 psi	Shoe Type	Float	Squeeze Type	
Pipe Rotated	☐	Pipe Reciprocated	☐	Shoe Depth	1267.0 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	Arrived on Location	Leave Location		Collar Type	Float	Tail Pipe Depth	
May/10/2013	May/10/2013	May/10/2013		Collar Depth	1221.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
05/10/2013	11:02:21					Started Acquisition
05/10/2013	12:05:46	-2	0.0	8.37	0.0	
05/10/2013	12:05:50					Pressure Test Lines
05/10/2013	12:05:50	-2	0.0	8.37	0.0	
05/10/2013	12:05:53					Low / High Pressure Test Good
05/10/2013	12:05:53					Pumpind 18 bbl Water
05/10/2013	12:05:53	-2	0.0	8.37	0.0	
05/10/2013	12:09:01	-7	0.0	8.37	0.0	
05/10/2013	12:12:21	896	0.0	8.37	2.4	
05/10/2013	12:15:41	3345	0.0	8.37	2.4	
05/10/2013	12:18:21					Full Returns
05/10/2013	12:18:21	55	2.9	8.37	6.0	
05/10/2013	12:19:01	87	3.6	8.37	8.1	
05/10/2013	12:22:21	195	5.3	11.46	21.7	
05/10/2013	12:22:51					Start Mixing Lead Slurry
05/10/2013	12:22:51	256	5.1	12.65	24.3	
05/10/2013	12:22:55					Wet Sample 12.5 ppg
05/10/2013	12:22:55	266	5.1	12.65	24.6	
05/10/2013	12:22:57					Dry Sample 013666
05/10/2013	12:22:57	256	5.0	12.65	24.8	
05/10/2013	12:24:04					Full Returns

Well	Field	Job Start	Customer	Job Number
ALP FEE 24-12AA 24-12AA	Mamm Creek	May/10/2013	EnCana	CFA)-00429

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
05/10/2013	12:25:41	312	6.5	12.51	41.2	
05/10/2013	12:29:01	324	6.5	12.44	62.8	
05/10/2013	12:32:21	341	6.5	12.44	84.5	
05/10/2013	12:35:41	316	6.5	12.52	106.2	
05/10/2013	12:39:01	324	6.5	12.62	127.8	
05/10/2013	12:39:32					End Lead Slurry
05/10/2013	12:39:32	317	6.5	12.61	131.2	
05/10/2013	12:42:21	82	2.2	15.75	141.4	
05/10/2013	12:42:28					Start Mixing Tail Slurry
05/10/2013	12:42:28	83	2.1	15.85	141.7	
05/10/2013	12:42:32					Wet Sample 15.8 ppg
05/10/2013	12:42:32	84	2.1	15.90	141.8	
05/10/2013	12:42:33					Dry Sample 013658
05/10/2013	12:42:33	84	2.1	15.90	141.8	
05/10/2013	12:43:25					Full Returns
05/10/2013	12:43:25	93	2.1	15.90	143.6	
05/10/2013	12:45:41	339	4.9	15.91	153.3	
05/10/2013	12:48:17					End Tail Slurry
05/10/2013	12:48:17	365	4.9	15.93	166.1	
05/10/2013	12:48:20					Drop Top Plug
05/10/2013	12:48:20	345	5.0	15.93	166.3	
05/10/2013	12:48:21					Start Displacement
05/10/2013	12:48:21	326	4.9	15.93	166.4	
05/10/2013	12:48:22					Wash Up On Plug
05/10/2013	12:48:22	354	4.9	15.93	166.5	
05/10/2013	12:48:24					Full Returns
05/10/2013	12:48:24	332	5.0	15.93	166.7	
05/10/2013	12:48:25					34 bbl Away Good Slurry
05/10/2013	12:48:25	332	5.0	15.93	166.7	
05/10/2013	12:48:26					60 bbl Slurry To Surface
05/10/2013	12:48:26	313	5.0	15.93	166.8	
05/10/2013	12:49:01	350	5.0	15.91	169.7	
05/10/2013	12:52:21	37	0.0	15.94	175.5	
05/10/2013	12:55:41	57	3.5	8.64	185.3	
05/10/2013	12:59:01	264	6.6	8.39	204.9	
05/10/2013	13:02:21	336	6.5	8.37	226.7	
05/10/2013	13:05:41	475	6.5	8.37	248.3	
05/10/2013	13:09:01	583	1.6	8.37	256.8	
05/10/2013	13:12:21	318	2.5	8.38	262.5	
05/10/2013	13:15:41	361	2.5	8.38	270.9	
05/10/2013	13:19:01	1182	0.0	8.38	274.3	
05/10/2013	13:20:27					Bump Top Plug 1170 psi
05/10/2013	13:20:27	1174	0.0	8.38	274.3	
05/10/2013	13:20:28					End Displacement
05/10/2013	13:20:28	1174	0.0	8.38	274.3	
05/10/2013	13:20:31					Formation Trouble Causing Brige Off
05/10/2013	13:20:31					Hold For 10 Min
05/10/2013	13:20:31	1174	0.0	8.38	274.3	
05/10/2013	13:21:49					Bleed Off
05/10/2013	13:21:49	1166	0.0	8.38	274.3	
05/10/2013	13:22:21	1163	0.0	8.38	274.3	
05/10/2013	13:25:41	1144	0.0	8.38	274.3	
05/10/2013	13:26:56					Floats Held
05/10/2013	13:26:56					1/2 bbl Back

Well	Field	Job Start	Customer	Job Number
ALP FEE 24-12AA 24-12AA	Mamm Creek	May/10/2013	EnCana	CFA)-00429

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
05/10/2013	13:26:57					Rig Down
05/10/2013	13:26:57	1136	0.0	8.38	274.3	
05/10/2013	13:29:01	1124	0.0	8.38	274.3	
05/10/2013	13:32:21	-4	0.0	8.38	274.3	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
4.6		0.0	6.6	155.0	0.0	0.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3419	-3	487	1337			250.0 bbl	

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
	149.0 bbl	95.0 bbl	58 degF	Cement Circulated to Surface? [X]	Volume 60.0 bbl
				Washed Thru Perfs [ ]	To

Customer or Authorized Representative	Schlumberger Supervisor		
Tony Ketterling	Travis Willardson / Cole Fairbrook	Circulation Lost [ ]	Job Completed [X]
		-	-