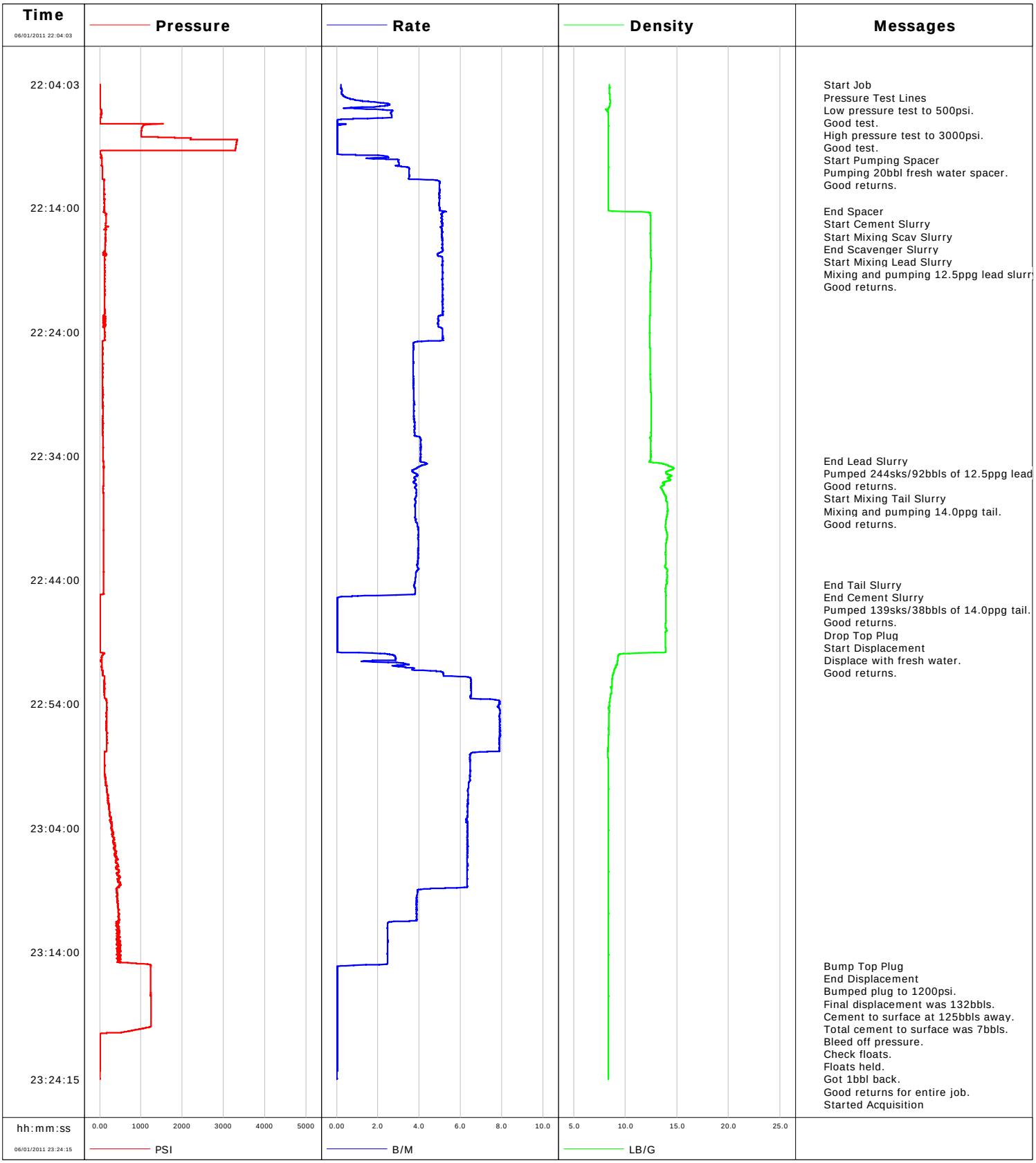
Schlumberger Cementing Job Report

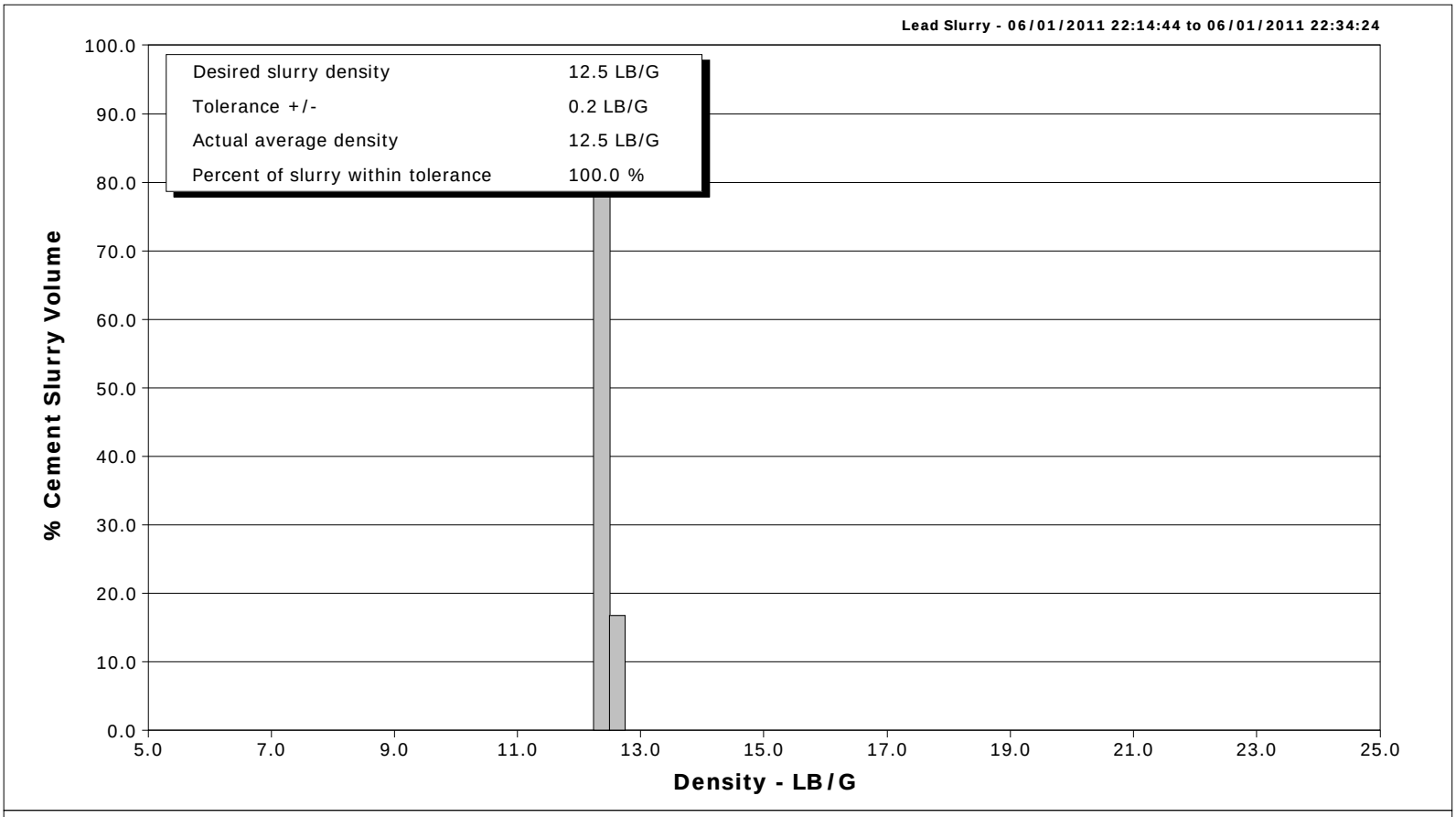
CemCAT v1.3

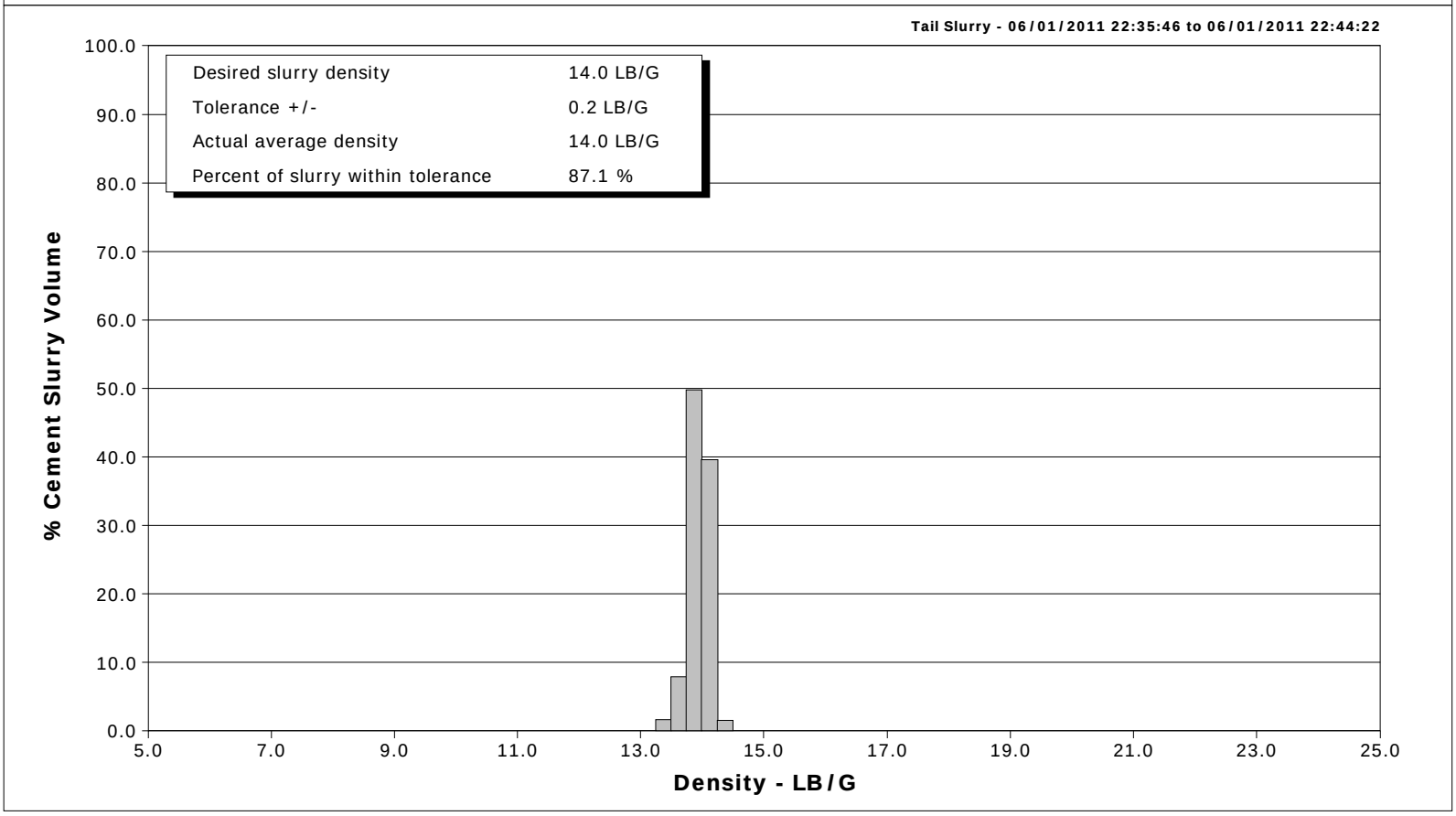
Well	WF03A-25 H26 596	**Client**	ENCANA
Field	NORTH PARACHUTE	**SIR No.**	BRWT-00068
Engineer	JEFF PATTERSON	**Job Type**	9 5/8" SURFACE
Country	United States	**Job Date**	06-01-2011



Schlumberger Cementing Qa/Qc Density Report

Well	WF03A-25 H26 596	**Client**	ENCANA
Field	NORTH PARACHUTE	**SIR No.**	BRWT-00068
Engineer	JEFF PATTERSON	**Job Type**	9 5/8" SURFACE
Country	United States	**Job Date**	06-01-2011





Schlumberger

Cementing Service Report

Customer	Job Number
ENCANA	BRWT-00068

Well	Location (legal)	Schlumberger Location	Job Start
WF03A-25 H26 596 WF03A-25 H26 596	WF H26	GRAND JUNCTION,COLORADO	Jun/01/2011

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
NORTH PARACHUTE	SHALE	0 deg	12.3 in	1748.0 ft	1748.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
GARFIELD	Colorado		100 degF	87 degF	

Well Master	API/UWI
0631280597	

Rig Name	Drilled For	Service Via
PATTERSON 303	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
2500 psi		9 5/8" CEMENT HEAD

Service Instructions

CEMENT 9 5/8" SURFACE CASING WITH.
20BBLS WATER.
244SKS 12.5PPG LEAD.
139SKS 14.0PPG TAIL.
DISPLACE WITH WATER.

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1753.0	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	132.2 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	135.5 bbl	107.0 bbl	253.0 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	☐	Pipe Reciprocated	☐	Shoe Depth	1753.0 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	
Jun/01/2011	Jun/01/2011	Jun/01/2011		Collar Depth	1710.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/01/2011	21:14:10					Started Acquisition
06/01/2011	22:04:03	3	0.2	8.48	0.0	
06/01/2011	22:04:04					Start Job
06/01/2011	22:04:04	3	0.2	8.48	0.0	
06/01/2011	22:04:07					Pressure Test Lines
06/01/2011	22:04:07	3	0.2	8.48	0.0	
06/01/2011	22:04:08					Low pressure test to 500psi.
06/01/2011	22:04:08					Good test.
06/01/2011	22:04:08	3	0.2	8.48	0.0	
06/01/2011	22:04:09					High pressure test to 3000psi.
06/01/2011	22:04:09					Good test.
06/01/2011	22:04:09	3	0.2	8.48	0.0	
06/01/2011	22:04:10					Start Pumping Spacer
06/01/2011	22:04:10	3	0.2	8.48	0.0	
06/01/2011	22:04:12					Pumping 20bbl fresh water spacer.
06/01/2011	22:04:12					Good returns.
06/01/2011	22:04:12	3	0.2	8.48	0.0	
06/01/2011	22:05:50	3	2.1	8.49	1.5	
06/01/2011	22:07:30	1032	0.0	8.38	3.7	
06/01/2011	22:09:10	3293	0.0	8.38	3.7	
06/01/2011	22:10:50	72	3.5	8.38	6.8	

Well	Field	Job Start	Customer	Job Number
WF03A-25 H26 596 WF03A-25 H26 596	NORTH PARACHUTE	Jun/01/2011	ENCANA	BRWT-00068

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/01/2011	22:14:10	116	5.0	8.39	22.0	
06/01/2011	22:14:17					End Spacer
06/01/2011	22:14:17	109	5.2	8.74	22.6	
06/01/2011	22:14:19					Start Cement Slurry
06/01/2011	22:14:19	111	5.3	11.53	22.8	
06/01/2011	22:14:20					Start Mixing Scav Slurry
06/01/2011	22:14:20	96	5.3	11.53	22.9	
06/01/2011	22:14:43					End Scavenger Slurry
06/01/2011	22:14:43	152	5.1	12.46	24.8	
06/01/2011	22:14:44					Start Mixing Lead Slurry
06/01/2011	22:14:44	152	5.1	12.46	24.9	
06/01/2011	22:14:46					Mixing and pumping 12.5ppg lead slurry.
06/01/2011	22:14:46					Good returns.
06/01/2011	22:14:46	156	5.1	12.46	25.1	
06/01/2011	22:15:50	146	5.1	12.46	30.5	
06/01/2011	22:17:30	126	5.1	12.47	39.1	
06/01/2011	22:19:10	128	5.1	12.49	47.5	
06/01/2011	22:20:50	119	5.1	12.42	56.1	
06/01/2011	22:22:30	130	5.1	12.40	64.6	
06/01/2011	22:24:10	121	5.1	12.37	73.0	
06/01/2011	22:25:50	73	3.7	12.41	80.0	
06/01/2011	22:27:30	75	3.7	12.43	86.2	
06/01/2011	22:29:10	78	3.7	12.50	92.4	
06/01/2011	22:30:50	75	3.7	12.54	98.6	
06/01/2011	22:32:30	88	4.0	12.43	104.9	
06/01/2011	22:34:10	87	4.1	12.48	111.7	
06/01/2011	22:34:24					End Lead Slurry
06/01/2011	22:34:24	84	4.1	12.43	112.7	
06/01/2011	22:34:30					Pumped 244sks/92bbls of 12.5ppg lead.
06/01/2011	22:34:30	91	4.1	12.35	113.1	
06/01/2011	22:34:31					Good returns.
06/01/2011	22:34:31	90	4.2	12.48	113.1	
06/01/2011	22:35:46					Start Mixing Tail Slurry
06/01/2011	22:35:46	98	3.7	14.12	118.0	
06/01/2011	22:35:49					Mixing and pumping 14.0ppg tail.
06/01/2011	22:35:49	99	3.8	14.14	118.2	
06/01/2011	22:35:50					Good returns.
06/01/2011	22:35:50	98	3.8	14.18	118.3	
06/01/2011	22:37:30	89	3.8	13.92	124.7	
06/01/2011	22:39:10	92	3.8	13.95	131.0	
06/01/2011	22:40:50	94	3.9	13.97	137.6	
06/01/2011	22:42:30	93	3.9	13.96	144.1	
06/01/2011	22:44:10	92	3.8	14.02	150.6	
06/01/2011	22:44:22					End Tail Slurry
06/01/2011	22:44:22	92	3.8	13.96	151.4	
06/01/2011	22:44:24					End Cement Slurry
06/01/2011	22:44:24	90	3.8	13.94	151.5	
06/01/2011	22:44:25					Pumped 139sks/38bbls of 14.0ppg tail.
06/01/2011	22:44:25					Good returns.
06/01/2011	22:44:25	93	3.8	13.93	151.5	
06/01/2011	22:44:29					Drop Top Plug
06/01/2011	22:44:29	91	3.7	13.92	151.8	
06/01/2011	22:44:30					Start Displacement
06/01/2011	22:44:30	91	3.7	13.92	151.9	

Well	Field	Job Start	Customer	Job Number
WF03A-25 H26 596 WF03A-25 H26 596	NORTH PARACHUTE	Jun/01/2011	ENCANA	BRWT-00068

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/01/2011	22:44:31					Good returns.
06/01/2011	22:44:31	89	3.7	13.93	151.9	
06/01/2011	22:45:50	3	0.0	13.94	154.8	
06/01/2011	22:47:30	10	0.0	13.91	154.8	
06/01/2011	22:49:10	6	0.0	13.91	154.8	
06/01/2011	22:50:50	52	3.5	9.19	157.3	
06/01/2011	22:52:30	115	6.5	8.71	165.9	
06/01/2011	22:54:10	171	7.9	8.45	177.5	
06/01/2011	22:55:50	166	7.9	8.40	190.7	
06/01/2011	22:57:30	176	7.9	8.35	203.8	
06/01/2011	22:59:10	119	6.5	8.37	215.1	
06/01/2011	23:00:50	175	6.4	8.38	225.8	
06/01/2011	23:02:30	226	6.3	8.38	236.4	
06/01/2011	23:04:10	298	6.3	8.38	247.0	
06/01/2011	23:05:50	388	6.3	8.38	257.5	
06/01/2011	23:07:30	466	6.3	8.39	268.1	
06/01/2011	23:09:10	420	3.9	8.37	277.9	
06/01/2011	23:10:50	448	3.9	8.39	284.4	
06/01/2011	23:12:30	481	2.5	8.39	289.5	
06/01/2011	23:14:10	478	2.5	8.39	293.6	
06/01/2011	23:15:07					Bump Top Plug
06/01/2011	23:15:07	1245	0.2	8.39	295.8	
06/01/2011	23:15:08					End Displacement
06/01/2011	23:15:08	1240	0.2	8.39	295.8	
06/01/2011	23:15:09					Bumped plug to 1200psi.
06/01/2011	23:15:09					Final displacement was 132bbls.
06/01/2011	23:15:09					Cement to surface at 125bbls away.
06/01/2011	23:15:09	1240	0.1	8.39	295.8	
06/01/2011	23:15:10					Total cement to surface was 7bbls.
06/01/2011	23:15:10					Bleed off pressure.
06/01/2011	23:15:10					Check floats.
06/01/2011	23:15:10					Floats held.
06/01/2011	23:15:10	1238	0.0	8.39	295.8	
06/01/2011	23:15:11					Got 1bbl back.
06/01/2011	23:15:11					Good returns for entire job.
06/01/2011	23:15:11	1240	0.0	8.39	295.8	
06/01/2011	23:15:50	1237	0.0	8.39	295.8	
06/01/2011	23:17:30	1240	0.0	8.39	295.8	
06/01/2011	23:19:10	1244	0.0	8.39	295.8	
06/01/2011	23:20:50	4	0.0	8.39	295.8	
06/01/2011	23:22:30	5	0.0	8.39	295.8	
06/01/2011	23:24:12					Started Acquisition
06/01/2011	23:24:12	5	0.0	8.39	141.2	

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WF03A-25 H26 596 WF03A-25 H26 596	NORTH PARACHUTE	Jun/01/2011	ENCANA	BRWT-00068

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			6.0	130.0		20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
2500	1200	300	1200				

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
	130.0 bbl	132.0 bbl	65 degF	X	7.0 bbl
				Washed Thru Perfs ☐	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
	JEFF PATTERSON	-	X
			-

Schlumberger Service Quality Evaluation

Client:	ENCANA
Field:	NORTH PARACHUTE
Rig:	PATTERSON 303
Well:	WF03A-25 H26 596
Service Line:	Cementing
Job Type:	9 5/8" SURFACE

Service Order #:	
Date:	Jun/01/2011
Operating Time:	0.0
Client Rep:	ENCANA
Schlumberger Engineer:	JEFF PATTERSON
Schlumberger FSM:	

Main Objective:

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No		Result
1	**HSE**				
1a	Free of lost time injury and compliance with SLB and loc. spec. HSE practice	5	**yes** ☐	**no** ☒	0
1b	Free of environmental spill or non-compliant discharge	5	**yes** ☐	**no** ☒	0
1c	Free of RIRs	5	**yes** ☐	**no** ☒	0
1d	Wellsite left clean	4	**yes** ☐	**no** ☒	0
				Sub-total	0%
2	**Design / Preparation**				
2a	Program incl. job simulation (CemCADE) & pump schedule / tool hydraulic calcs	3	**yes** ☐	**no** ☒	0
2b	Equipment maintenance schedule completed / Green tagged	2	**yes** ☐	**no** ☒	0
2c	All materials and equipment required for job/contingency checked & on location	2	**yes** ☐	**no** ☒	0
2d	Safety / pre-job meeting conducted with all involved present	2	**yes** ☐	**no** ☒	0
				Sub-total	0%
3	**Execution**				
3a	Lost time < 30 mins	3	**yes** ☐	**no** ☒	0
3b	Equipment pressure tested succesfully	3	**yes** ☐	**no** ☒	0
3c	All key parameters monitored and recorded accurately (Pressure, Rate, Density)	2	**yes** ☐	**no** ☒	0
3d	Plugs / darts released and tested succesfully	2	**yes** ☐	**no** ☒	0
3e	Density variation met expectations	2	**yes** ☐	**no** ☒	0
3f	Personnel performed as per expectations	2	**yes** ☐	**no** ☒	0
3g	Equipment performed as per expectations	2	**yes** ☐	**no** ☒	0
3h	Job pumped per design	3	**yes** ☐	**no** ☒	0
3i	Did job start on time	2	**yes** ☐	**no** ☒	0
3j	Free of Operational failures (screen out, Cementing Example, etc.)	3	**yes** ☐	**no** ☒	0
				Sub-total	0%
4	**Evaluation**				
4a	Main job objective achieved with no consequential non-productive time	10	**yes** ☐	**no** ☒	0
				Sub-total	0%

Total 0%

Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)

Client:	**Schlumberger:**
Client Signature:	**Schlumberger Signature:**