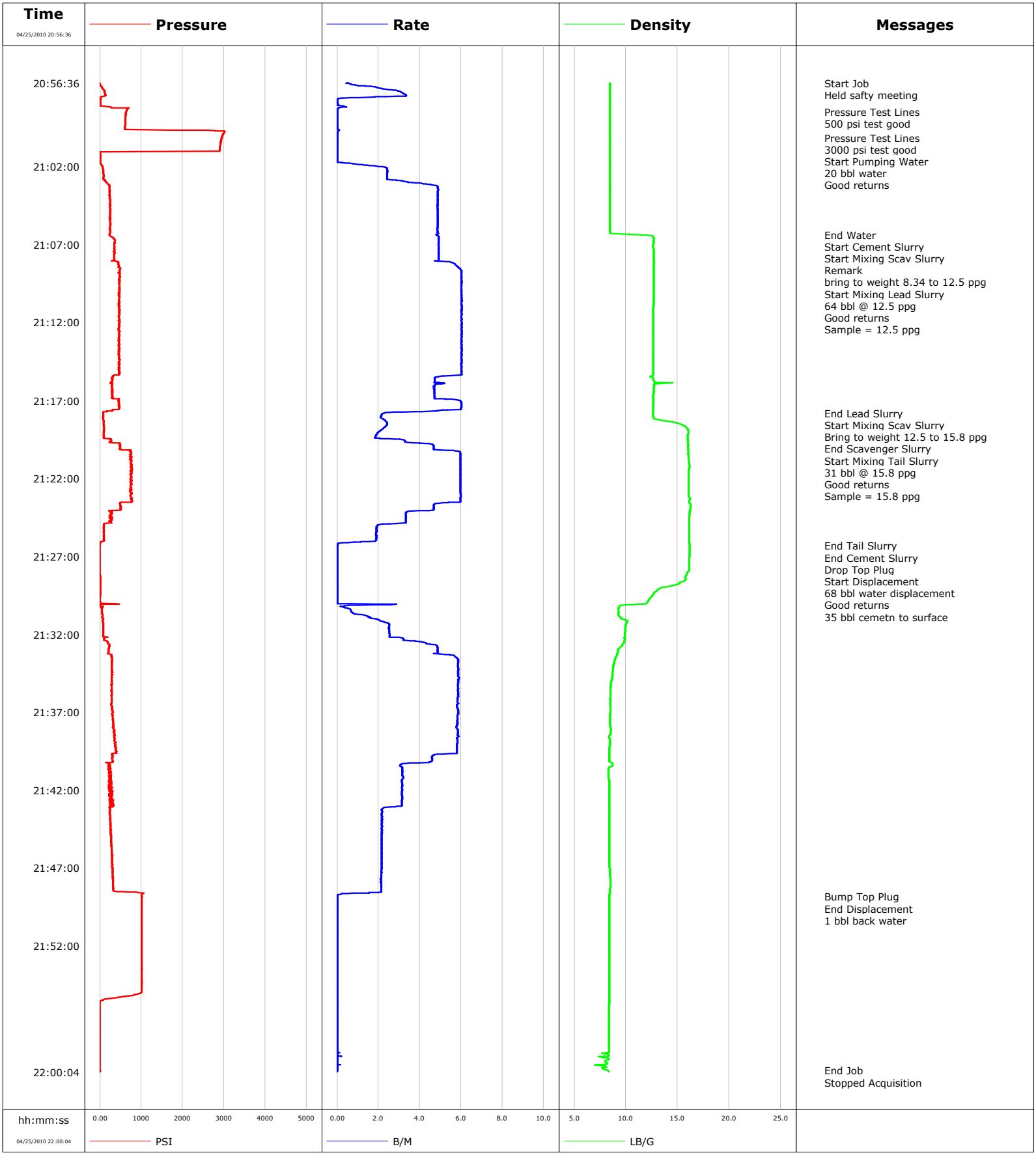
Schlumberger Cementing Job Report

CemCAT v1.3

Well	SHIDELER 31-3C	**Client**	Encana
Field	Mamm Creek	**SIR No.**	B708-00107
Engineer	Terry Borg	**Job Type**	9 5/8 Surface
Country	United States	**Job Date**	04-25-2010



Schlumberger

Cementing Service Report

Customer	Job Number
Encana	B708-00107

Well	Location (legal)	Schlumberger Location	Job Start
SHIDELER 31-3C 31-3C	31-3C	GCO	Apr/25/2010

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Mamm Creek	Shale	0 deg	12.3 in	921.0 ft	921.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Garfield	Colorado		100 degF	85 degF	

Well Master	API/UWI
0631144239	

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
4000 psi	1500 psi	9 5/8

Service Instructions

Cement 9 5/8" surface casing @ 921ft in 12 1/4" OH with
20 bbl water
170 sks 12.5 ppg Lead
149 sks 15.8 ppg Tail
Displace with water

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
921.0	9.630	36.0	j	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	68.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	71.0 bbl	91.0 bbl	142.0 bbl

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

Lift Pressure	456 psi	Shoe Type	Guide	Squeeze Type	
Pipe Rotated	☐	Pipe Reciprocated	☐	Shoe Depth	921.0 ft	Tool Type	
No. Centralizers	10	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	Diff-Fill	Tail Pipe Depth	
Apr/25/2010 17:00	Apr/25/2010 19:00	Apr/25/2010 22:30			Collar Depth	883.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	Volume BBL	Message
04/25/2010	20:03:50				Started Acquisition
04/25/2010	20:56:36	-10	8.45	0.0	
04/25/2010	20:56:37				Start Job
04/25/2010	20:56:37	-8	8.45	0.0	
04/25/2010	20:56:43				Held safty meeting
04/25/2010	20:56:43	-1	8.45	0.1	
04/25/2010	20:58:27				Pressure Test Lines
04/25/2010	20:58:27	636	8.45	2.2	
04/25/2010	20:58:29				500 psi test good
04/25/2010	20:58:29	634	8.45	2.2	
04/25/2010	20:58:50	618	8.45	2.2	
04/25/2010	21:00:07				Pressure Test Lines
04/25/2010	21:00:07	2950	8.45	2.2	
04/25/2010	21:00:09				3000 psi test good
04/25/2010	21:00:09	2946	8.45	2.2	
04/25/2010	21:01:20				Start Pumping Water
04/25/2010	21:01:20	4	8.45	2.2	
04/25/2010	21:01:21				20 bbl water
04/25/2010	21:01:21				Good returns
04/25/2010	21:01:21	1	8.45	2.2	
04/25/2010	21:03:50	225	8.45	9.0	

Well	Field	Job Start	Customer	Job Number
SHIDELER 31-3C 31-3C	Mamm Creek	Apr/25/2010	Encana	B708-00107

Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	Volume BBL	Message
04/25/2010	21:06:22	229	11.04	21.3	
04/25/2010	21:06:23				Start Cement Slurry
04/25/2010	21:06:23	233	11.62	21.4	
04/25/2010	21:06:24				Start Mixing Scav Slurry
04/25/2010	21:06:24	233	12.10	21.5	
04/25/2010	21:06:28				Remark
04/25/2010	21:06:28	264	12.63	21.8	
04/25/2010	21:06:32				bring to weight 8.34 to 12.5 ppg
04/25/2010	21:06:32	309	12.68	22.1	
04/25/2010	21:06:34				Start Mixing Lead Slurry
04/25/2010	21:06:34	322	12.68	22.3	
04/25/2010	21:06:43				64 bbl @ 12.5 ppg
04/25/2010	21:06:43	368	12.69	23.0	
04/25/2010	21:06:47				Good returns
04/25/2010	21:06:47	358	12.69	23.4	
04/25/2010	21:06:50				Sample = 12.5 ppg
04/25/2010	21:06:50	353	12.69	23.6	
04/25/2010	21:08:50	494	12.69	34.1	
04/25/2010	21:13:50	461	12.65	64.2	
04/25/2010	21:17:48				End Lead Slurry
04/25/2010	21:17:48	76	12.65	85.7	
04/25/2010	21:17:51				Start Mixing Scav Slurry
04/25/2010	21:17:51	75	12.64	85.8	
04/25/2010	21:18:04				Bring to weight 12.5 to 15.8 ppg
04/25/2010	21:18:04	71	12.65	86.3	
04/25/2010	21:18:41				End Scavenger Slurry
04/25/2010	21:18:41	95	15.81	87.7	
04/25/2010	21:18:43				Start Mixing Tail Slurry
04/25/2010	21:18:43	96	15.84	87.8	
04/25/2010	21:18:45				31 bbl @ 15.8 ppg
04/25/2010	21:18:45	96	15.90	87.9	
04/25/2010	21:18:48				Good returns
04/25/2010	21:18:48	95	15.97	88.0	
04/25/2010	21:18:49				Sample = 15.8 ppg
04/25/2010	21:18:49	96	15.99	88.0	
04/25/2010	21:18:50	96	15.99	88.1	
04/25/2010	21:23:50	492	16.26	113.7	
04/25/2010	21:26:19				End Tail Slurry
04/25/2010	21:26:19	-1	16.15	119.9	
04/25/2010	21:26:20				End Cement Slurry
04/25/2010	21:26:20	-2	16.15	119.9	
04/25/2010	21:26:26				Drop Top Plug
04/25/2010	21:26:26	-2	16.15	119.9	
04/25/2010	21:26:29				Start Displacement
04/25/2010	21:26:29	-2	16.15	119.9	
04/25/2010	21:26:30				68 bbl water displacement
04/25/2010	21:26:30	-2	16.15	119.9	
04/25/2010	21:26:32				Good returns
04/25/2010	21:26:32	-2	16.15	119.9	
04/25/2010	21:26:34				35 bbl cemetn to surface
04/25/2010	21:26:34	-4	16.15	119.9	
04/25/2010	21:28:50	3	14.81	119.9	
04/25/2010	21:33:50	293	8.85	131.6	
04/25/2010	21:38:50	346	8.45	160.9	

Well	Field	Job Start	Customer	Job Number
SHIDELER 31-3C 31-3C	Mamm Creek	Apr/25/2010	Encana	B708-00107

Date	Time 24-hr clock	Treating Pressure PSI	Density LB/G	Volume BBL	Message
04/25/2010	21:48:50				Bump Top Plug
04/25/2010	21:48:50	1015	8.42	189.2	
04/25/2010	21:48:51				End Displacement
04/25/2010	21:48:51	1014	8.42	189.2	
04/25/2010	21:48:57				1 bbl back water
04/25/2010	21:48:57	1008	8.41	189.2	
04/25/2010	21:53:50	1009	8.42	189.2	
04/25/2010	21:58:50	-4	8.34	189.2	
04/25/2010	22:00:00				End Job
04/25/2010	22:00:00	8	8.31	189.2	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
4.2		0.0	6.0	95.0	0.0	20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3020	13	456	900				

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
	95.0 bbl	69.4 bbl	60 degF	[X]	35.0 bbl
				Washed Thru Perfs [ ]	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Ed Asuchak	Terry Borg	-	- [X]