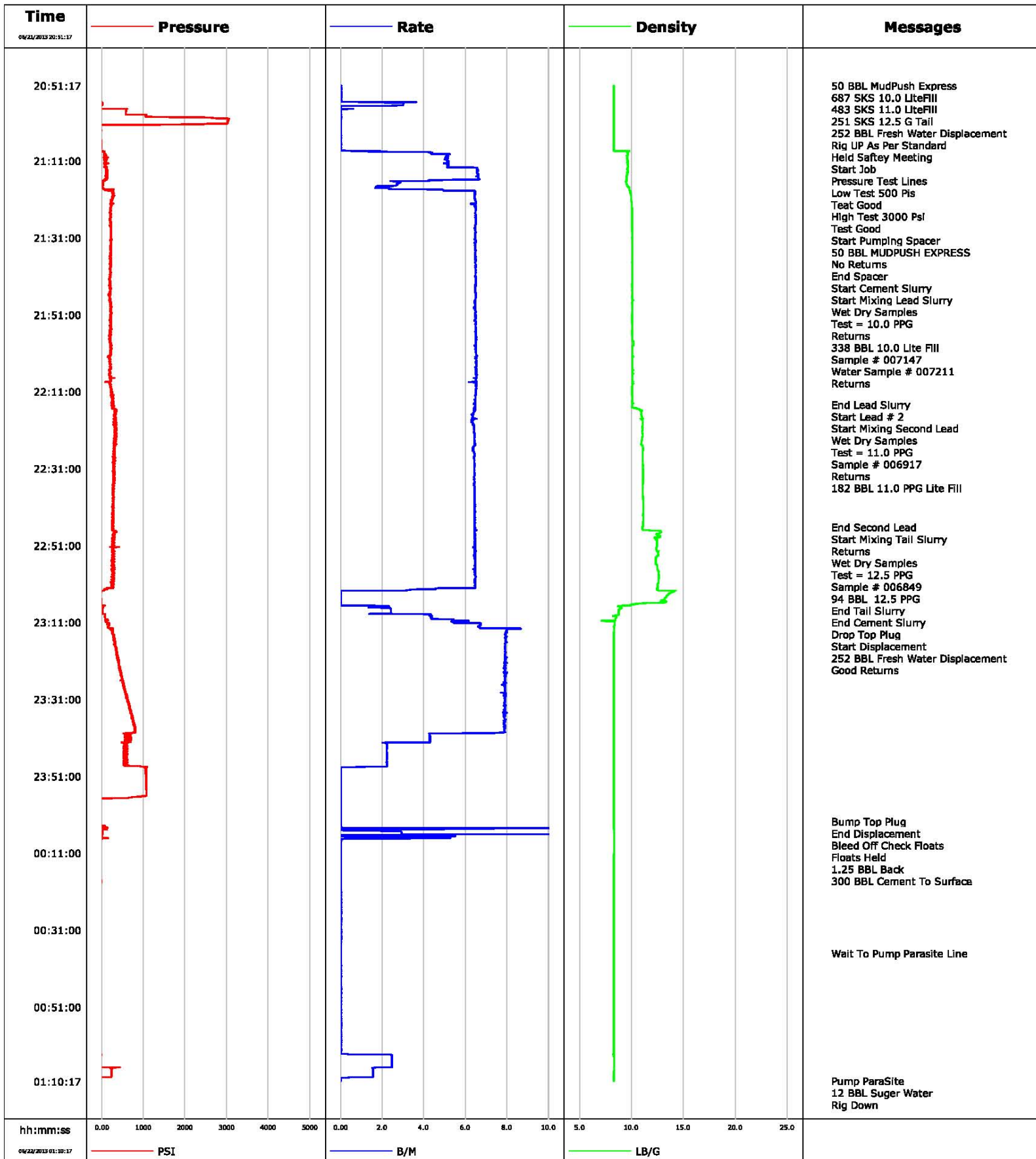


**Well** SGU 8502E  
**Field** Story Goltch  
**Engineer** Jorden Moreland  
**Country** United States

**Client** Encana  
**SIR No.**  
**Job Type** 9 5/8 Surface  
**Job Date** 06-21-2013

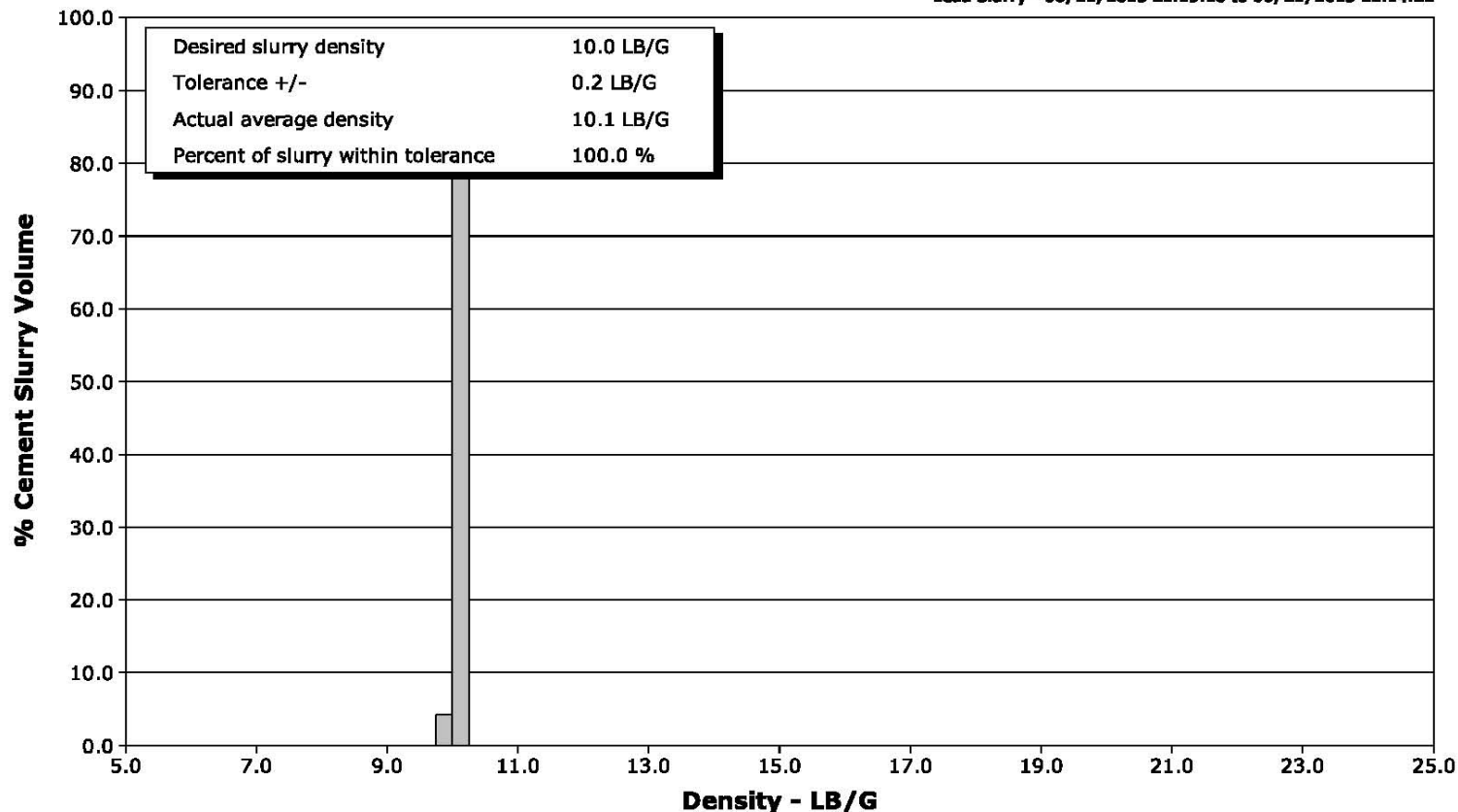


# Schlumberger Cementing Qa/Qc Density Report

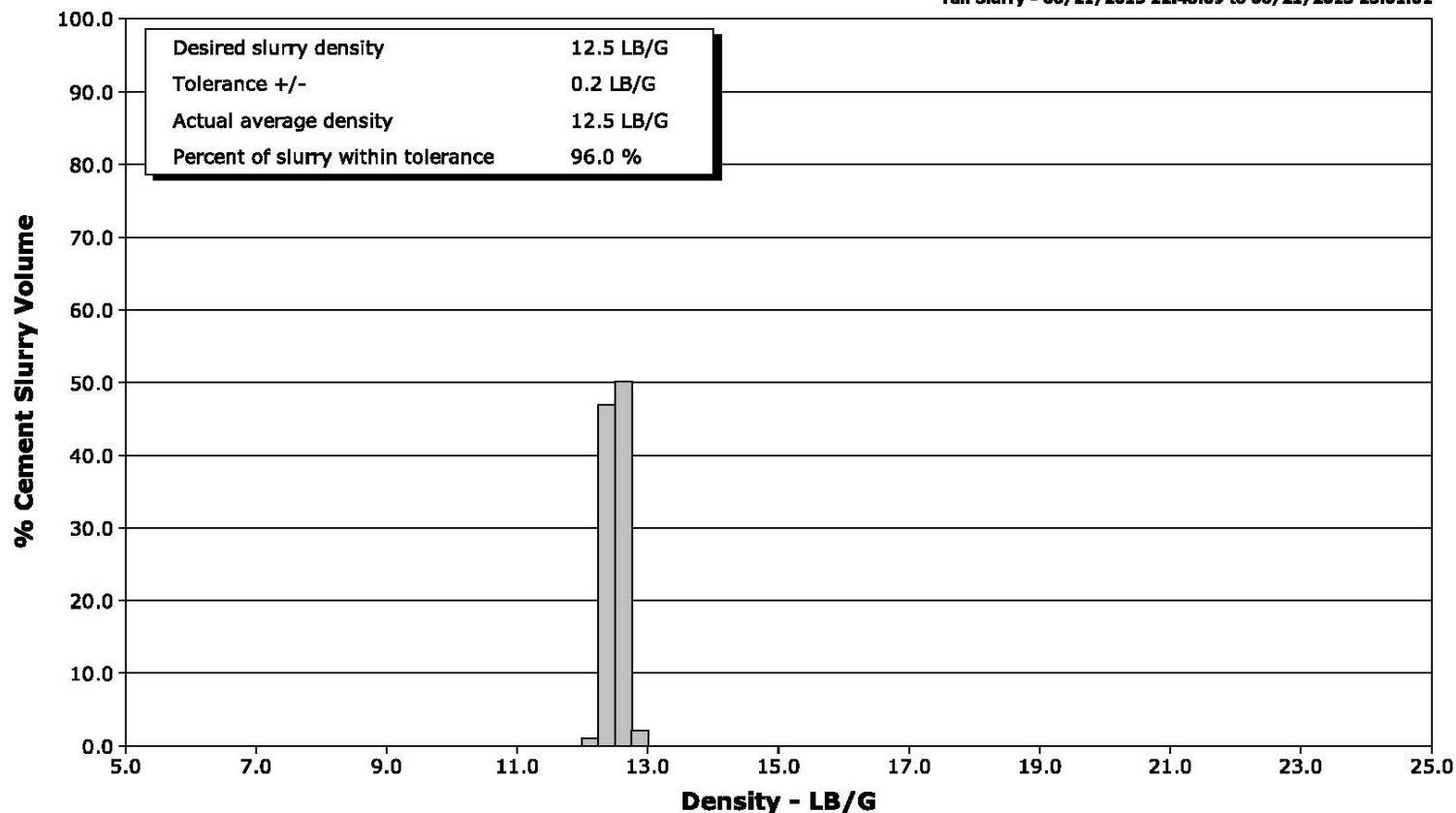
**Well** SGU 8502E  
**Field** Story Goltch  
**Engineer** Jorden Moreland  
**Country** United States

**Client** Encana  
**SIR No.**  
**Job Type** 9 5/8 Surface  
**Job Date** 06-21-2013

Lead Slurry - 06/21/2013 21:19:10 to 06/21/2013 22:14:22



Tail Slurry - 06/21/2013 22:48:09 to 06/21/2013 23:01:01





# Cementing Service Report

				Customer Encana		Job Number CAIO-00148	
Well SGU 8502E		Location (legal)		Schlumberger Location GCO		Job Start Jun/21/2013	
Field Story Goltch		Formation Name/Type		Deviation		Well MD 3309.0 ft	
County Garfield		State/Province Colorado		BHP		Well TVD	
Well Master 0631465740		API/UWI		BHST 125 degF		BHCT 97 degF	
Rig Name Patterson 330		Drilled For Gas		Service Via Land		Casing/Liner	
Offshore Zone		Well Class New		Well Type Development		Depth, ft 3309.0	
Drilling Fluid Type		Max. Density		Plastic Viscosity		Size, in 9.630	
Service Line Cementing		Job Type 9 5/8 Surface				Weight, lb/ft 36.0	
Max. Allowed Tub. Press 3000 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Grade J55	
<b>Service Instructions</b> Rate and Density Checked 50 BBL MUDPUSH EXPRESS 687 SKS 10.0 LITEFILL 483 SKS 11.0 LITEFILL 251 SKS 12.5 G TAIL Displace 252.2 Fresh Water						Thread 8RD	
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools		Squeeze Job	
Lift Pressure 1637 psi		Pipe Rotated <input type="checkbox"/>		Shoe Type Guide		Squeeze Type	
Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 3309.0 ft		Tool Type			
No. Centralizers		Top Plugs		Stage Tool Type		Tool Depth	
Cement Head Type Single		Stage Tool Depth		Tail Pipe Size			
Job Scheduled For Jun/21/2013		Arrived on Location Jun/21/2013		Leave Location Jun/21/2013		Collar Type Float	
						Tail Pipe Depth	
						Seq. Total Vol.	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
06/21/2013	20:31:15					Started Acquisition	
06/21/2013	20:51:17					50 BBL MudPush Express	
06/21/2013	20:51:17					687 SKS 10.0 LiteFill	
06/21/2013	20:51:17					483 SKS 11.0 LiteFill	
06/21/2013	20:51:17	-34	0.0	8.31	0.0		
06/21/2013	20:51:18					251 SKS 12.5 G Tail	
06/21/2013	20:51:18					252 BBL Fresh Water Displacement	
06/21/2013	20:51:18					Rig UP As Per Standard	
06/21/2013	20:51:18					Held Safety Meeting	
06/21/2013	20:51:18	-34	0.0	8.31	0.0		
06/21/2013	20:51:19					Start Job	
06/21/2013	20:51:19	-34	0.0	8.31	0.0		
06/21/2013	20:51:20					Pressure Test Lines	
06/21/2013	20:51:20	-34	0.0	8.31	0.0		
06/21/2013	20:51:21					Low Test 500 PIs	
06/21/2013	20:51:21					Test Good	
06/21/2013	20:51:21					High Test 3000 Psi	
06/21/2013	20:51:21	-34	0.0	8.31	0.0		
06/21/2013	20:51:22					Test Good	
06/21/2013	20:51:22	-34	0.0	8.31	0.0		
06/21/2013	20:53:15	-33	0.0	8.31	0.0		



Well			Field	Job Start		Customer	Job Number
SGU 8502E			Story Goltch	Jun/21/2013		Encana	CAIO-00148
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
06/21/2013	21:00:35	3034	0.0	8.31	2.9		
06/21/2013	21:04:15	-17	0.0	8.31	2.9		
06/21/2013	21:07:55	-15	0.0	8.31	3.0		
06/21/2013	21:08:28					Start Pumping Spacer	
06/21/2013	21:08:28	8	2.0	9.79	3.2		
06/21/2013	21:08:33					50 BBL MUDPUSH EXPRESS	
06/21/2013	21:08:33					No Returns	
06/21/2013	21:08:33	67	1.0	9.77	3.3		
06/21/2013	21:11:35	84	5.1	9.62	18.2		
06/21/2013	21:15:15	114	6.6	9.56	40.8		
06/21/2013	21:18:01					End Spacer	
06/21/2013	21:18:01	14	1.7	9.78	50.9		
06/21/2013	21:18:51					Start Cement Slurry	
06/21/2013	21:18:51	246	6.5	9.89	54.3		
06/21/2013	21:18:55	251	6.5	9.88	54.7		
06/21/2013	21:19:10					Start Mixing Lead Slurry	
06/21/2013	21:19:10	246	6.5	9.90	56.3		
06/21/2013	21:20:47					Wet Dry Samples	
06/21/2013	21:20:47					Test = 10.0 PPG	
06/21/2013	21:20:47					Returns	
06/21/2013	21:20:47	250	6.4	9.96	66.7		
06/21/2013	21:20:48					338 BBL 10.0 Lite Fill	
06/21/2013	21:20:48					Sample # 007147	
06/21/2013	21:20:48					Water Sample # 007211	
06/21/2013	21:20:48	250	6.4	9.96	66.8		
06/21/2013	21:22:35	220	6.5	10.02	78.4		
06/21/2013	21:26:15	196	6.5	10.08	102.2		
06/21/2013	21:29:55	204	6.5	10.10	125.9		
06/21/2013	21:33:35	218	6.5	10.11	149.7		
06/21/2013	21:37:15	211	6.5	10.10	173.5		
06/21/2013	21:40:55	206	6.5	10.10	197.2		
06/21/2013	21:44:35	204	6.5	10.10	221.0		
06/21/2013	21:48:15	223	6.5	10.11	244.8		
06/21/2013	21:51:04					Returns	
06/21/2013	21:51:04	215	6.5	10.10	263.0		
06/21/2013	21:51:55	203	6.5	10.08	268.6		
06/21/2013	21:55:35	203	6.5	10.09	292.4		
06/21/2013	21:59:15	201	6.5	10.14	316.2		
06/21/2013	22:02:55	201	6.5	10.12	340.1		
06/21/2013	22:06:35	181	6.5	10.12	364.0		
06/21/2013	22:10:15	214	6.5	10.05	387.8		
06/21/2013	22:13:55	275	6.5	10.10	411.6		
06/21/2013	22:14:22					End Lead Slurry	
06/21/2013	22:14:22	259	6.5	10.10	414.5		
06/21/2013	22:14:37					Start Lead # 2	
06/21/2013	22:14:37					Start Mixing Second Lead	
06/21/2013	22:14:37	268	6.5	10.10	416.1		
06/21/2013	22:14:50					Wet Dry Samples	
06/21/2013	22:14:50	294	6.5	10.11	417.5		
06/21/2013	22:15:02					Test = 11.0 PPG	
06/21/2013	22:15:02	262	6.4	10.07	418.8		
06/21/2013	22:15:03					Sample # 006917	
06/21/2013	22:15:03					Returns	
06/21/2013	22:15:03					182 BBL 11.0 PPG Lite Fill	



Well			Field		Job Start		Customer		Job Number	
SGU 8502E			Story Goltch		Jun/21/2013		Encana		CAIO-00148	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
06/21/2013	22:17:35	325	6.3	11.03	435.1					
06/21/2013	22:21:15	343	6.4	11.03	458.5					
06/21/2013	22:24:55	322	6.4	11.00	482.1					
06/21/2013	22:28:35	292	6.4	11.08	505.6					
06/21/2013	22:32:15	301	6.4	11.11	529.1					
06/21/2013	22:35:55	280	6.4	11.06	552.7					
06/21/2013	22:39:35	267	6.4	11.17	576.3					
06/21/2013	22:43:15	252	6.4	11.14	599.9					
06/21/2013	22:46:15					End Second Lead				
06/21/2013	22:46:15	267	6.4	11.08	619.2					
06/21/2013	22:46:55	275	6.5	11.07	623.5					
06/21/2013	22:48:09					Start Mixing Tail Slurry				
06/21/2013	22:48:09	269	6.5	12.43	631.4					
06/21/2013	22:48:28					Returns				
06/21/2013	22:48:28	283	6.5	12.69	633.5					
06/21/2013	22:48:29					Wet Dry Samples				
06/21/2013	22:48:29					Test = 12.5 PPG				
06/21/2013	22:48:29					Sample # 006849				
06/21/2013	22:48:29	266	6.5	12.69	633.6					
06/21/2013	22:50:35	273	6.5	12.46	647.2					
06/21/2013	22:54:15	246	6.5	12.36	670.9					
06/21/2013	22:57:55	259	6.5	12.62	694.6					
06/21/2013	23:00:32					94 BBL 12.5 PPG				
06/21/2013	23:00:32	285	6.5	12.58	711.5					
06/21/2013	23:01:01					End Tail Slurry				
06/21/2013	23:01:01	265	6.5	12.55	714.6					
06/21/2013	23:01:05					End Cement Slurry				
06/21/2013	23:01:05	287	6.5	12.52	715.1					
06/21/2013	23:01:15					Drop Top Plug				
06/21/2013	23:01:15	231	6.5	12.53	716.2					
06/21/2013	23:01:21					Start Displacement				
06/21/2013	23:01:21	241	6.5	12.55	716.8					
06/21/2013	23:01:35	259	6.5	12.55	718.3					
06/21/2013	23:05:15	-14	0.0	13.18	724.0					
06/21/2013	23:08:55	80	4.4	8.78	729.3					
06/21/2013	23:12:35	255	8.6	8.37	749.9					
06/21/2013	23:14:21					252 BBL Fresh Water Displacement				
06/21/2013	23:14:21	286	7.9	8.31	764.1					
06/21/2013	23:14:22					Good Returns				
06/21/2013	23:14:22	286	7.9	8.31	764.2					
06/21/2013	23:16:15	303	7.9	8.31	779.1					
06/21/2013	23:19:55	381	7.9	8.31	808.1					
06/21/2013	23:23:35	450	7.9	8.31	837.1					
06/21/2013	23:27:15	534	7.8	8.31	866.1					
06/21/2013	23:30:55	605	7.9	8.32	895.0					
06/21/2013	23:34:35	706	7.9	8.32	924.0					
06/21/2013	23:38:15	779	7.9	8.31	952.9					
06/21/2013	23:41:55	662	4.3	8.31	974.1					
06/21/2013	23:45:35	548	2.2	8.31	982.9					
06/21/2013	23:49:15	1060	0.0	8.31	989.6					
06/21/2013	23:52:55	1066	0.0	8.31	989.7					
06/21/2013	23:56:35	649	0.0	8.32	989.7					
06/22/2013	00:00:15	-31	0.0	8.32	989.8					
06/22/2013	00:02:42					Bump Top Plug				





Well			Field		Job Start		Customer		Job Number	
SGU 8502E			Story Goltch		Jun/21/2013		Encana		CAIO-00148	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
06/22/2013	00:02:42	-32	0.0	8.31	989.8					
06/22/2013	00:02:43					Bleed Off Check Floats				
06/22/2013	00:02:43	-33	0.0	8.32	989.8					
06/22/2013	00:02:44					Floats Held				
06/22/2013	00:02:44					1.25 BBL Back				
06/22/2013	00:02:44					300 BBL Cement To Surface				
06/22/2013	00:02:44	-33	0.0	8.32	989.8					
06/22/2013	00:03:55	72	0.0	8.31	989.8					
06/22/2013	00:07:35	-25	0.0	8.34	997.7					
06/22/2013	00:11:15	-29	0.0	8.34	997.7					
06/22/2013	00:14:55	-29	0.0	8.33	997.8					
06/22/2013	00:18:35	-5	0.0	8.33	997.8					
06/22/2013	00:22:15	-20	0.0	8.33	997.9					
06/22/2013	00:25:55	-20	0.0	8.33	997.9					
06/22/2013	00:29:35	-20	0.0	8.33	998.0					
06/22/2013	00:33:15	-20	0.0	8.33	998.0					
06/22/2013	00:36:55	-29	0.0	8.33	998.1					
06/22/2013	00:37:04					Wait To Pump Parasite Line				
06/22/2013	00:37:04	-30	0.0	8.32	998.1					
06/22/2013	00:40:35	-29	0.0	8.32	998.2					
06/22/2013	00:44:15	-29	0.0	8.32	998.2					
06/22/2013	00:47:55	-29	0.0	8.32	998.3					
06/22/2013	00:51:35	-29	0.0	8.32	998.4					
06/22/2013	00:55:15	-29	0.0	8.32	998.4					
06/22/2013	00:58:55	-29	0.0	8.32	998.5					
06/22/2013	01:02:35	-32	0.0	8.32	998.6					
06/22/2013	01:06:15	-17	2.5	8.34	1005.7					
06/22/2013	01:09:55	-33	0.0	8.33	1011.0					
06/22/2013	01:10:12					Pump ParaSite				
06/22/2013	01:10:12					12 BBL Sugar Water				
06/22/2013	01:10:12	-32	0.0	8.33	1011.0					
06/22/2013	01:10:13					Rig Down				
06/22/2013	01:10:13	-33	0.0	8.33	1011.0					
06/22/2013	01:10:17	-33	0.0	8.33	1011.0					

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected,			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2	
Treating Pressure Summary,					Breakdown Fluid			
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density	
Avg. N2 Percent		Designed Slurry Volume		Displacement	Mix Water Temp 72 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume	
						Washed Thru Perfs <input type="checkbox"/>	To	
Customer or Authorized Representative Ira Cox			Schlumberger Supervisor Jorden Moreland			Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>	
						-	-	