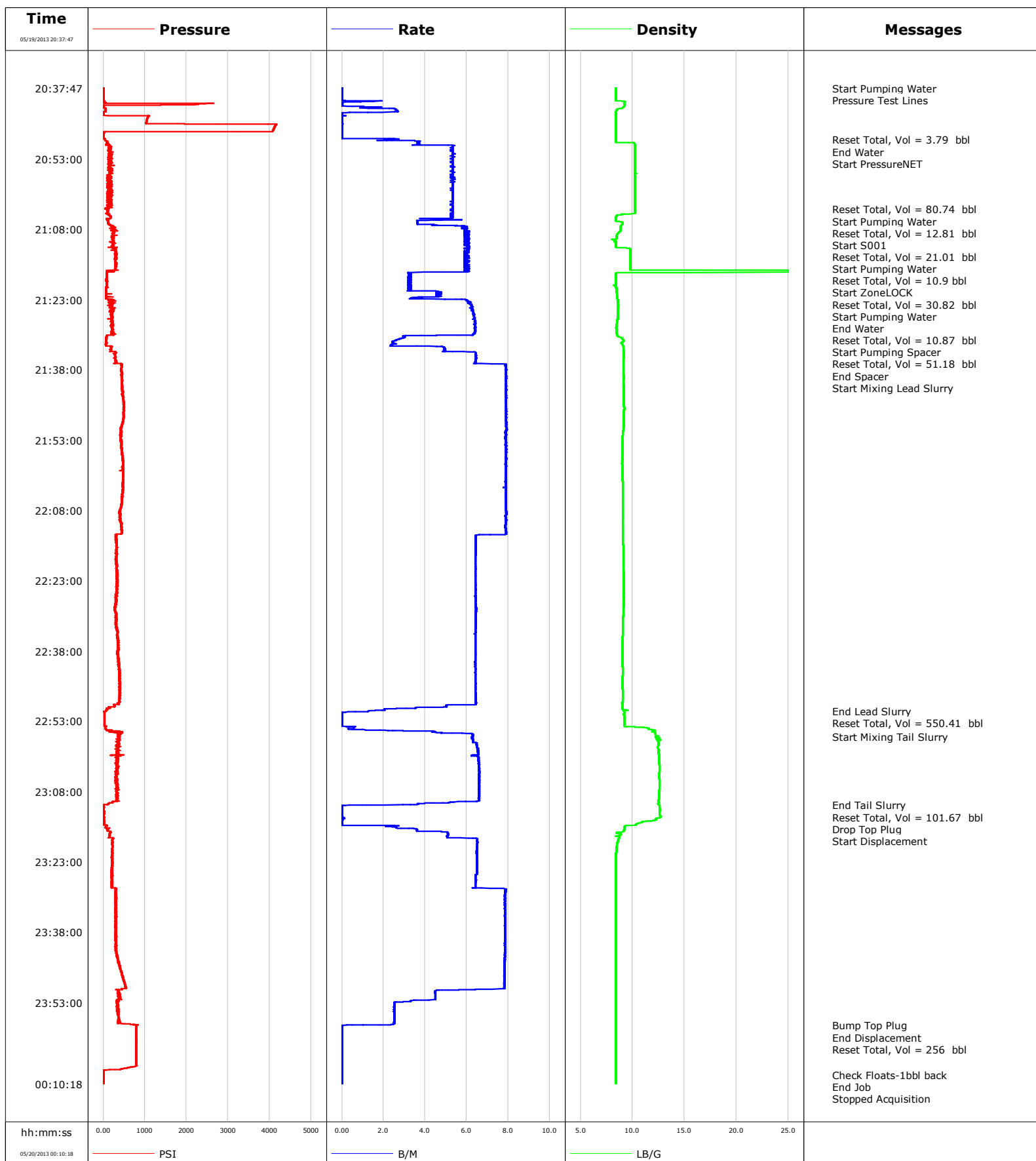


**Well** SGU 8505C-24 L24 496  
**Field** Story Gulch  
**Engineer** Michael Simon  
**Country** United States

**Client** Encana  
**SIR No.** CAIO-00142  
**Job Type** Surface  
**Job Date** 05-19-2013

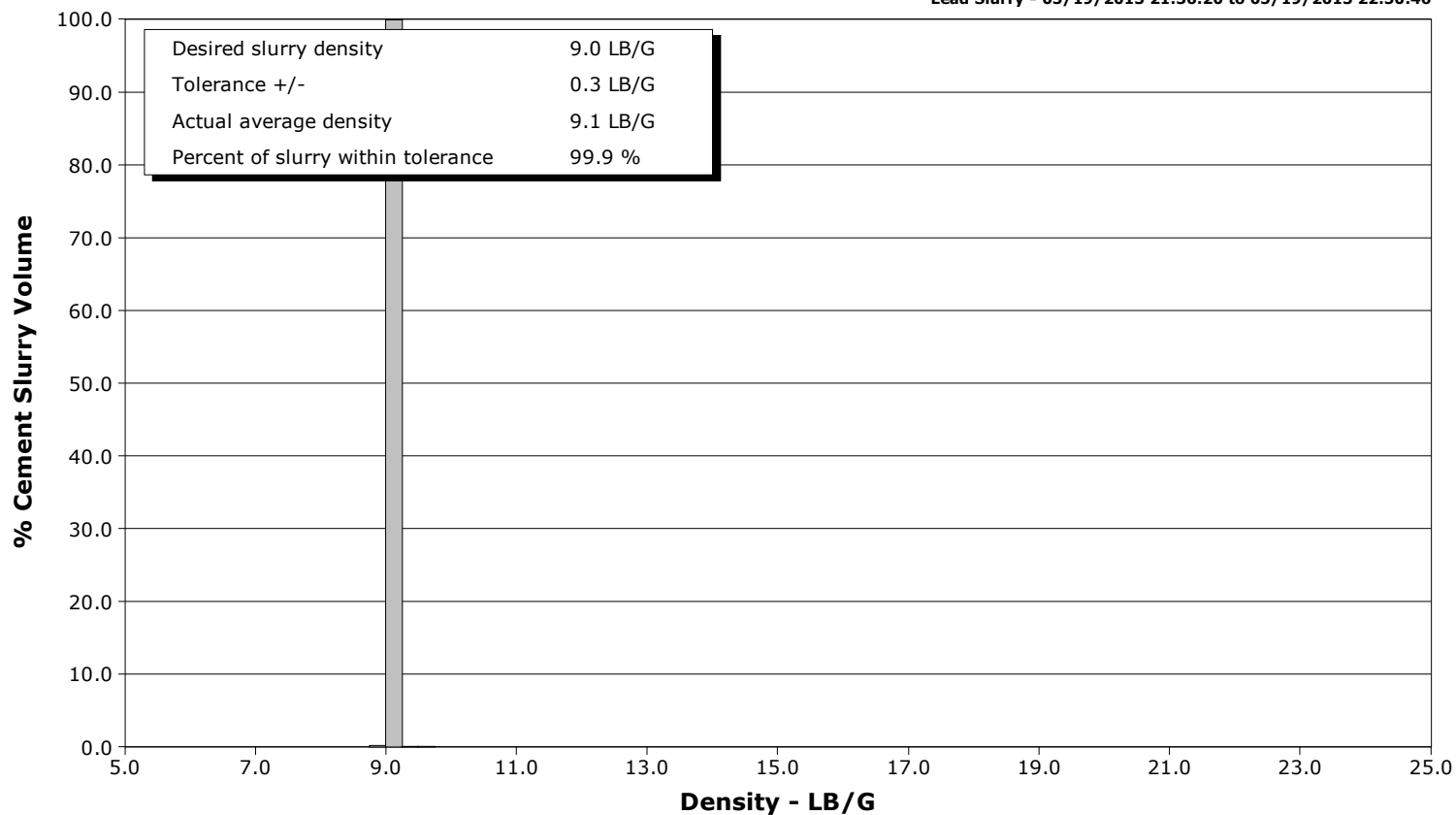


# Schlumberger Cementing Qa/Qc Density Report

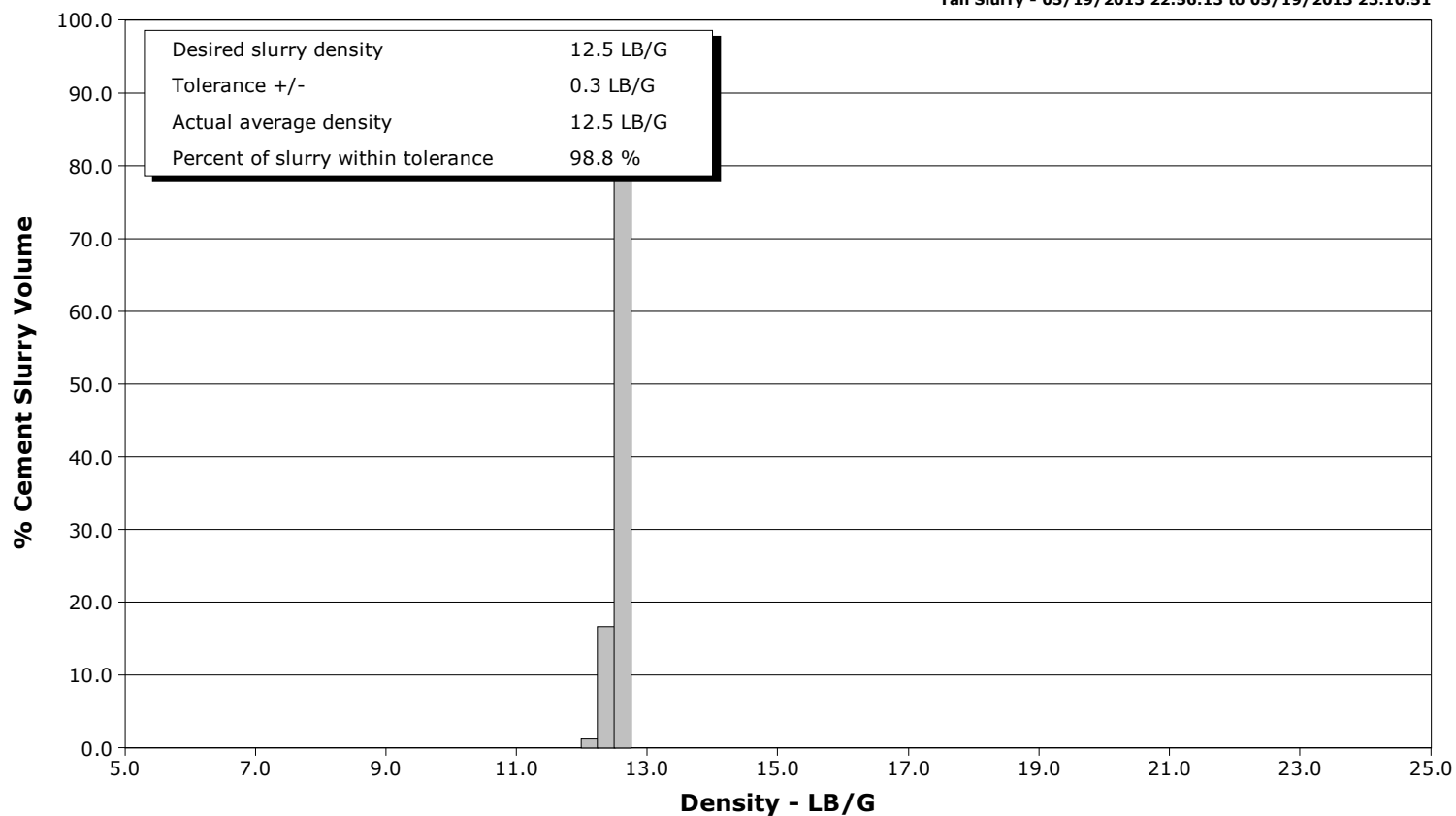
**Well** SGU 8505C-24 L24 496  
**Field** Story Gulch  
**Engineer** Michael Simon  
**Country** United States

**Client** Encana  
**SIR No.** CAIO-00142  
**Job Type** Surface  
**Job Date** 05-19-2013

**Lead Slurry - 05/19/2013 21:36:20 to 05/19/2013 22:50:46**



**Tail Slurry - 05/19/2013 22:56:13 to 05/19/2013 23:10:51**





# Cementing Service Report

				Customer Encana			Job Number CAIO-00142								
Well SGU 8505C-24 L24 496 SGU 8505C-24 L24 496			Location (legal) Grand Junction			Schlumberger Location Rock Springs			Job Start May/19/2013						
Field Story Gulch		Formation Name/Type Shale			Deviation		Bit Size 14.8 in		Well MD 3346.0 ft		Well TVD 3346.0 ft				
County Garfield		State/Province Colorado			BHP		BHST 125 degF		BHCT 97 degF		Pore Press. Gradient				
Well Master 0631465734		API/UWI													
Rig Name Patterson 330		Drilled For Oil & Gas		Service Via Land		Casing/Liner									
Offshore Zone		Well Class New		Well Type Development		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
						3344.5		9.630		36.0		J55		8RD	
Drilling Fluid Type		Max. Density 8.90 lb/gal		Plastic Viscosity		Tubing/Drill Pipe									
						Depth,		Size,		Weight,		Grade		Thread	
Service Line Cementing		Job Type Surface													
Max. Allowed Tub. Press 4500 psi		Max. Allowed Ann. Press		WH Connection Single Cement head		Perforations/Open Hole									
Service Instructions						Top,		Bottom,				No. of Shots		Total Interval	
														Diameter	
						Treat Down		Displacement 256.0 bbl		Packer Type		Packer Depth			
Tubing Vol.		Casing Vol. 258.5 bbl		Annular Vol. 423.0 bbl		Openhole Vol. 699.0 bbl									
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>		Casing Tools				Squeeze Job							
Lift Pressure 1655 psi		Shoe Type Float				Squeeze Type									
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 3344.5 ft				Tool Type					
No. Centralizers 22		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth					
Cement Head Type Single		Stage Tool Depth				Tail Pipe Size									
Job Scheduled For May/19/2013		Arrived on Location May/19/2013		Leave Location May/19/2013		Collar Type Float				Tail Pipe Depth					
						Collar Depth 3298.8 ft				Sqz. Total Vol.					
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message								
05/19/2013	20:15:29						Started Acquisition								
05/19/2013	20:37:43						Start Job								
05/19/2013	20:37:47	2	0.0	8.41	0.0	0.0									
05/19/2013	20:37:53						Start Pumping Water								
05/19/2013	20:37:53	2	0.0	8.41	0.0	0.0									
05/19/2013	20:37:56						Pressure Test Lines								
05/19/2013	20:37:56	2	0.0	8.41	0.0	0.0									
05/19/2013	20:39:29	2	0.0	8.41	0.0	0.0									
05/19/2013	20:42:29	56	2.6	8.47	1.7	1.7									
05/19/2013	20:45:29	1787	0.0	8.42	3.2	3.2									
05/19/2013	20:48:29	6	0.0	8.42	3.2	3.2									
05/19/2013	20:48:53						Reset Total, Vol = 3.79 bbl								
05/19/2013	20:48:53	39	2.5	8.42	3.8	3.8									
05/19/2013	20:48:59						End Water								
05/19/2013	20:48:59	41	2.3	8.42	0.2	0.2									
05/19/2013	20:49:31						Start PressureNET								
05/19/2013	20:49:31	79	3.6	10.13	2.0	2.0									
05/19/2013	20:51:29	234	5.3	10.20	11.7	11.7									
05/19/2013	20:54:29	140	5.3	10.21	27.7	27.7									
05/19/2013	20:57:29	138	5.2	10.21	43.6	43.6									
05/19/2013	21:00:29	166	5.3	10.21	59.6	59.6									

Well			Field		Job Start		Customer		Job Number	
SGU 8505C-24 L24 496 SGU 8505C-24 L24 496			Story Gulch		May/19/2013		Encana		CAIO-00142	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message			
05/19/2013	21:03:42						Reset Total, Vol = 80.74 bbl			
05/19/2013	21:03:42	128	5.3	10.22	76.7	76.7				
05/19/2013	21:05:08						Start Pumping Water			
05/19/2013	21:05:08	168	5.2	8.43	7.6	7.6				
05/19/2013	21:06:12						Reset Total, Vol = 12.81 bbl			
05/19/2013	21:06:12	115	3.6	8.41	12.8	12.8				
05/19/2013	21:06:29	120	3.6	9.00	1.0	1.0				
05/19/2013	21:06:36						Start S001			
05/19/2013	21:06:36	124	3.6	9.03	1.5	1.5				
05/19/2013	21:09:29	241	6.0	8.46	17.4	17.4				
05/19/2013	21:10:05						Reset Total, Vol = 21.01 bbl			
05/19/2013	21:10:05	229	5.9	8.28	21.0	21.0				
05/19/2013	21:10:13						Start Pumping Water			
05/19/2013	21:10:13	221	6.0	8.14	0.8	0.8				
05/19/2013	21:12:29	270	6.0	9.79	14.4	14.4				
05/19/2013	21:12:38						Reset Total, Vol = 10.9 bbl			
05/19/2013	21:12:38	303	6.0	9.79	15.3	15.3				
05/19/2013	21:12:56						Start ZoneLOCK			
05/19/2013	21:12:56	301	5.9	9.79	1.8	1.8				
05/19/2013	21:15:29	299	6.0	9.79	17.0	17.0				
05/19/2013	21:18:29	90	3.2	8.41	31.4	31.4				
05/19/2013	21:20:28						Reset Total, Vol = 30.82 bbl			
05/19/2013	21:20:28	72	3.2	8.43	37.8	37.8				
05/19/2013	21:20:37						Start Pumping Water			
05/19/2013	21:20:37	68	3.2	8.43	0.5	0.5				
05/19/2013	21:20:40						End Water			
05/19/2013	21:20:40	64	3.3	8.43	0.7	0.7				
05/19/2013	21:20:44						Reset Total, Vol = 10.87 bbl			
05/19/2013	21:20:44	67	3.2	8.43	0.9	0.9				
05/19/2013	21:21:19						Start Pumping Spacer			
05/19/2013	21:21:19	68	4.6	8.47	2.1	2.1				
05/19/2013	21:21:29	70	4.6	8.46	2.9	2.9				
05/19/2013	21:24:29	211	6.3	8.62	18.5	18.5				
05/19/2013	21:27:29	217	6.4	8.54	37.5	37.5				
05/19/2013	21:30:29	203	6.3	8.52	56.7	56.7				
05/19/2013	21:33:29	179	4.9	9.14	66.4	66.4				
05/19/2013	21:35:55						Reset Total, Vol = 51.18 bbl			
05/19/2013	21:35:55	298	6.5	9.14	81.2	81.2				
05/19/2013	21:36:08						End Spacer			
05/19/2013	21:36:08	313	6.4	9.14	1.4	1.4				
05/19/2013	21:36:20						Start Mixing Lead Slurry			
05/19/2013	21:36:20	314	6.4	9.14	2.7	2.7				
05/19/2013	21:36:29	318	6.4	9.14	3.6	3.6				
05/19/2013	21:39:29	439	7.9	9.15	27.0	27.0				
05/19/2013	21:42:29	449	7.9	9.17	50.7	50.7				
05/19/2013	21:45:29	497	7.9	9.18	74.4	74.4				
05/19/2013	21:48:29	487	7.9	9.16	98.0	98.0				
05/19/2013	21:51:29	429	7.9	9.08	121.7	121.7				
05/19/2013	21:54:29	443	7.9	9.01	145.4	145.4				
05/19/2013	21:57:29	480	7.9	9.00	169.1	169.1				
05/19/2013	22:00:29	478	7.9	9.03	192.7	192.7				
05/19/2013	22:03:29	461	7.9	9.06	216.3	216.3				
05/19/2013	22:06:29	450	7.9	9.07	240.0	240.0				
05/19/2013	22:09:29	406	7.9	9.07	263.7	263.7				

Well			Field		Job Start	Customer		Job Number
SGU 8505C-24 L24 496 SGU 8505C-24 L24 496			Story Gulch		May/19/2013	Encana		CAIO-00142
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message	
05/19/2013	22:15:29	312	6.4	9.10	307.6	307.6		
05/19/2013	22:18:29	310	6.4	9.12	326.8	326.8		
05/19/2013	22:21:29	337	6.4	9.15	346.1	346.1		
05/19/2013	22:24:29	332	6.4	9.16	365.4	365.4		
05/19/2013	22:27:29	316	6.4	9.15	384.7	384.7		
05/19/2013	22:30:29	312	6.4	9.10	404.0	404.0		
05/19/2013	22:33:29	332	6.4	9.06	423.3	423.3		
05/19/2013	22:36:29	368	6.4	9.02	442.6	442.6		
05/19/2013	22:39:29	344	6.4	9.03	461.8	461.8		
05/19/2013	22:42:29	389	6.4	9.05	481.1	481.1		
05/19/2013	22:45:29	406	6.4	9.04	500.3	500.3		
05/19/2013	22:48:29	382	6.4	9.05	519.6	519.6		
05/19/2013	22:50:46						End Lead Slurry	
05/19/2013	22:50:46	62	1.3	9.24	530.4	530.4		
05/19/2013	22:50:47						Reset Total, Vol = 550.41 bbl	
05/19/2013	22:50:47	62	1.3	9.24	530.4	530.4		
05/19/2013	22:51:29	31	0.0	9.19	0.2	0.2		
05/19/2013	22:54:29	45	0.5	11.53	0.5	0.5		
05/19/2013	22:56:13						Start Mixing Tail Slurry	
05/19/2013	22:56:13	411	6.3	12.38	7.7	7.7		
05/19/2013	22:57:29	376	6.4	12.49	15.6	15.6		
05/19/2013	23:00:29	359	6.6	12.54	35.1	35.1		
05/19/2013	23:03:29	335	6.6	12.59	54.9	54.9		
05/19/2013	23:06:29	353	6.6	12.60	74.7	74.7		
05/19/2013	23:09:29	354	6.6	12.55	94.4	94.4		
05/19/2013	23:10:51						End Tail Slurry	
05/19/2013	23:10:51	12	0.7	12.58	101.7	101.7		
05/19/2013	23:10:53						Reset Total, Vol = 101.67 bbl	
05/19/2013	23:10:53	11	0.3	12.59	101.7	101.7		
05/19/2013	23:11:08						Drop Top Plug	
05/19/2013	23:11:08	12	0.0	12.61	0.0	0.0		
05/19/2013	23:11:09						Start Displacement	
05/19/2013	23:11:09	12	0.0	12.61	0.0	0.0		
05/19/2013	23:12:29	21	0.0	12.61	0.0	0.0		
05/19/2013	23:15:29	65	2.4	9.20	0.8	0.8		
05/19/2013	23:18:29	214	6.5	8.60	15.1	15.1		
05/19/2013	23:21:29	209	6.5	8.42	34.6	34.6		
05/19/2013	23:24:29	209	6.5	8.42	54.1	54.1		
05/19/2013	23:27:29	207	6.4	8.41	73.5	73.5		
05/19/2013	23:30:29	282	7.8	8.41	95.4	95.4		
05/19/2013	23:33:29	308	7.8	8.41	118.9	118.9		
05/19/2013	23:36:29	309	7.8	8.41	142.5	142.5		
05/19/2013	23:39:29	310	7.8	8.41	166.0	166.0		
05/19/2013	23:42:29	319	7.8	8.41	189.5	189.5		
05/19/2013	23:45:29	399	7.8	8.41	213.0	213.0		
05/19/2013	23:48:29	514	7.8	8.41	236.5	236.5		
05/19/2013	23:51:29	358	4.5	8.41	255.7	255.7		
05/19/2013	23:54:29	341	2.5	8.41	265.5	265.5		
05/19/2013	23:57:29	438	2.5	8.41	273.0	273.0		
05/19/2013	23:57:50						Bump Top Plug	
05/19/2013	23:57:50	787	0.1	8.41	273.6	273.6		
05/19/2013	23:57:52						End Displacement	
05/19/2013	23:57:52	791	0.0	8.41	273.6	273.6		
05/19/2013	23:57:54						Reset Total, Vol = 256 bbl	

Well			Field		Job Start	Customer	Job Number
SGU 8505C-24 L24 496 SGU 8505C-24 L24 496			Story Gulch		May/19/2013	Encana	CAIO-00142
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Stage BBL	Message
05/20/2013	00:00:29	790	0.0	8.41	0.0	0.0	
05/20/2013	00:03:29	793	0.0	8.41	0.0	0.0	
05/20/2013	00:06:29	796	0.0	8.42	0.0	0.0	
05/20/2013	00:08:22						Check Floats-1bbl back
05/20/2013	00:08:22	2	0.0	8.42	0.0	0.0	
05/20/2013	00:09:29	2	0.0	8.42	0.0	0.0	
05/20/2013	00:10:17						End Job
05/20/2013	00:10:17	2	0.0	8.42	0.0	0.0	
05/20/2013	00:10:18	2	0.0	8.42	0.0	0.0	

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl							
Slurry 6.2	N2	Mud 0.0	Maximum Rate 7.9	Total Slurry 651.0	Mud 0.0	Spacer 51.0	N2					
Treating Pressure Summary, psi					Breakdown Fluid							
Maximum 4166	Final 2	Average 346	Bump Plug to 696	Breakdown	Type	Volume	Density					
Avg. N2 Percent		Designed Slurry Volume 616.0 bbl		Displacement 256.0 bbl		Mix Water Temp 65 degF		Cement Circulated to Surface?		<input checked="" type="checkbox"/>	Volume 285.0 bbl	
								Washed Thru Perfs		<input type="checkbox"/>	To	
Customer or Authorized Representative Buddy Burke				Schlumberger Supervisor Michael Simon				Circulation Lost		<input type="checkbox"/>	Job Completed	<input checked="" type="checkbox"/>
								-		-		