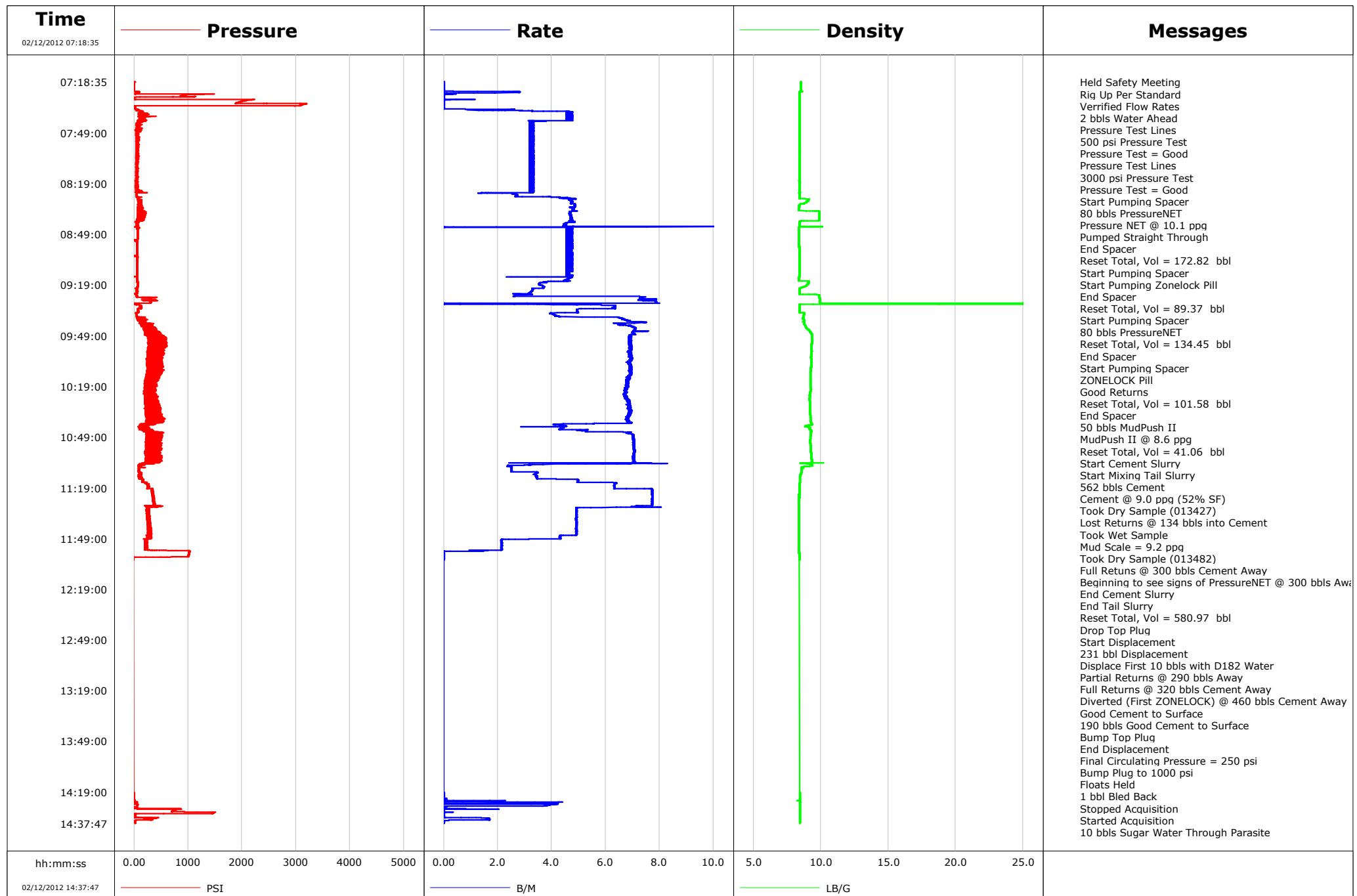


Well SG WD16A-19
Field Story Gulch
Engineer Ryan Bowditch
Country United States

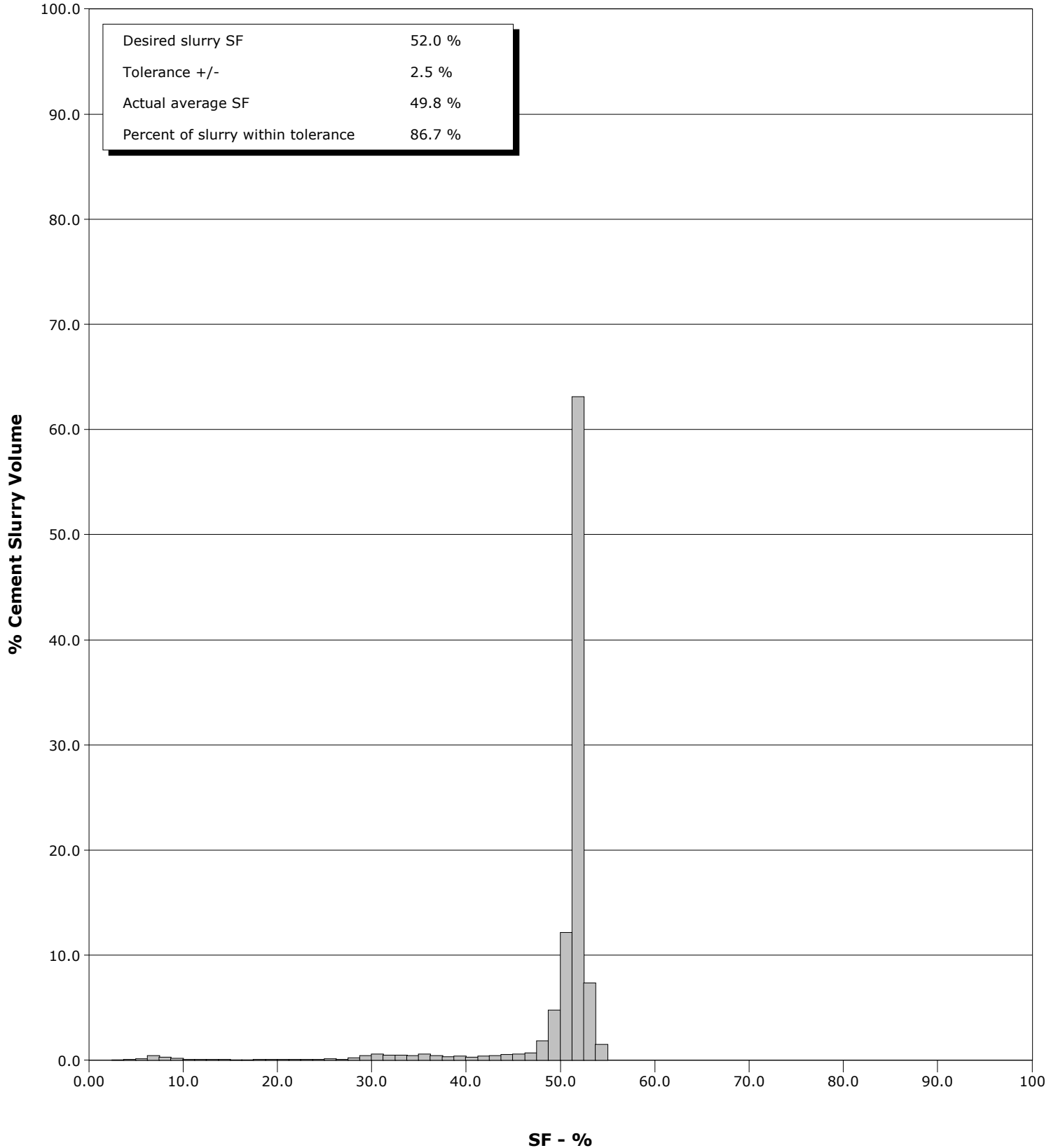
Client EnCana
SIR No. BTX1-00114
Job Type 9 5/8" Surface Casing
Job Date 02-12-2012



Well SG WD16A-19
Field Story Gulch
Engineer Ryan Bowditch
Country United States

Client EnCana
SIR No. BTX1-00114
Job Type 9 5/8" Surface Casing
Job Date 02-12-2012

Cement Slurry - 02/12/2012 09:42:51 to 02/12/2012 11:02:00



Cementing Service Report

					Customer EnCana			Job Number BTX1-00114									
Well SG WD16A-19			Location (legal)			Schlumberger Location Grand Junction, CO			Job Start Feb/12/2012								
Field Story Gulch		Formation Name/Type Shale			Deviation 10 deg		Bit Size 14.8 in		Well MD 3040.0 ft		Well TVD 3040.0 ft						
County Garfield		State/Province Colorado			BHP psi		BHST 115 degF		BHCT 95 degF		Pore Press. Gradient lb/gal						
Well Master		API/UWI															
Rig Name Patterson 330		Drilled For Gas		Service Via Land		Casing/Liner											
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread			
Offshore Zone		Well Class New		Well Type Development		120.0		20.0		94.0							
						3040.0		9.6		36.0		K55		8RD			
Drilling Fluid Type		Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe											
						T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line Cementing		Job Type 9 5/8" Surface Casing															
Max. Allowed Tub. Press 3000 psi		Max. Allowed Ann. Press 1500 psi		WH Connection Single Cement head		Perforations/Open Hole											
						Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval ft			
Service Instructions Cement 9 5/8" Surface Casing with: 80 bbls PressureNET ZONELOCK Pill 80 bbls PressureNET ZONELOCK Pill 50 bbls 8.6 ppg MUDPUSH II 562 bbls 9.0 ppg LiteCRETE (1128 sks @ 2.80 cft/sk) 231 bbls Water Displacement						ft		ft						Diameter in			
						ft		ft									
						ft		ft									
		Treat Down Casing		Displacement 231.4 bbl		Packer Type		Packer Depth ft									
Tubing Vol. bbl		Casing Vol. 235.1 bbl		Annular Vol. 386.0 bbl		Openhole Vol. 681.0 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 250 psi		Shoe Type Float		Squeeze Type													
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 3040.0 ft				Tool Type									
No. Centralizers		Top Plugs 1		Bottom Plugs		Stage Tool Type				Tool Depth ft							
Cement Head Type Single		Stage Tool Depth ft		Tail Pipe Size in													
Job Scheduled For Feb/12/2012		Arrived on Location Feb/12/2012		Leave Location Feb/12/2012		Collar Type Float				Tail Pipe Depth ft							
						Collar Depth 2993.0 ft				Sqz. Total Vol. bbl							
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message										
02/12/2012	07:18:35	-5	0.0	8.52	0.0	0	Started Acquisition										
02/12/2012	07:18:36	7	0.0	8.52	0.0	0	Held Safety Meeting										
02/12/2012	07:18:37	7	0.0	8.52	0.0	0	2 bbls Water Ahead										
02/12/2012	07:20:15	-9	0.0	8.52	0.0	0											
02/12/2012	07:21:55	-8	0.0	8.52	0.0	0											
02/12/2012	07:23:35	-7	0.0	8.53	0.0	0											
02/12/2012	07:25:15	37	0.0	8.39	2.4	0											
02/12/2012	07:26:55	878	0.0	8.39	2.4	0											
02/12/2012	07:28:35	-3	0.0	8.40	2.4	0											
02/12/2012	07:30:00	2012	0.0	8.40	2.5	0	Pressure Test Lines										
02/12/2012	07:30:15	1983	0.0	8.40	2.5	0											
02/12/2012	07:31:55	3137	0.0	8.41	2.5	0											
02/12/2012	07:31:59	3129	0.0	8.41	2.5	0	Pressure Test Lines										
02/12/2012	07:32:00	3129	0.0	8.41	2.5	0	3000 psi Pressure Test										
02/12/2012	07:33:35	11	0.0	8.41	2.5	0											
02/12/2012	07:35:15	81	0.0	8.41	3.8	0											
02/12/2012	07:35:42	63	0.0	8.41	4.8	0	Start Pumping Spacer										
02/12/2012	07:35:43	93	0.0	8.41	4.8	0	80 bbls PressureNET										
02/12/2012	07:35:44	93	0.0	8.41	4.9	0	Pressure NET @ 10.1 ppg										
02/12/2012	07:36:55	114	0.0	8.41	9.9	0											
02/12/2012	07:38:35	176	0.0	8.40	17.6	0											

Well			Field		Job Start	Customer		Job Number
SG WD16A-19			Story Gulch		Feb/12/2012	EnCana		BTX1-00114
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
02/12/2012	07:40:15	115	0.0	8.40	25.4	0		
02/12/2012	07:41:55	173	0.0	8.40	32.8	0		
02/12/2012	07:43:35	83	0.0	8.40	38.2	0		
02/12/2012	07:45:15	47	0.0	8.40	43.6	0		
02/12/2012	07:46:55	48	0.0	8.40	49.1	0		
02/12/2012	07:48:35	54	0.0	8.40	54.5	0		
02/12/2012	07:50:15	31	0.0	8.41	59.9	0		
02/12/2012	07:51:55	41	0.0	8.41	65.3	0		
02/12/2012	07:53:35	71	0.0	8.41	70.7	0		
02/12/2012	07:55:15	74	0.0	8.43	76.1	0		
02/12/2012	07:56:55	66	0.0	8.42	81.5	0		
02/12/2012	07:58:35	62	0.0	8.42	86.9	0		
02/12/2012	08:00:15	48	0.0	8.41	92.4	0		
02/12/2012	08:01:55	66	0.0	8.42	97.8	0		
02/12/2012	08:03:35	39	0.0	8.41	103.2	0		
02/12/2012	08:05:15	50	0.0	8.40	108.6	0		
02/12/2012	08:06:55	53	0.0	8.41	114.0	0		
02/12/2012	08:08:35	50	0.0	8.41	119.5	0		
02/12/2012	08:10:15	62	0.0	8.40	124.9	0		
02/12/2012	08:11:55	55	0.0	8.41	130.3	0		
02/12/2012	08:13:35	38	0.0	8.42	135.7	0		
02/12/2012	08:15:15	50	0.0	8.41	141.1	0		
02/12/2012	08:16:55	35	0.0	8.41	146.6	0		
02/12/2012	08:18:35	37	0.1	8.44	152.0	0		
02/12/2012	08:20:15	23	0.0	8.42	157.4	0		
02/12/2012	08:21:55	50	0.0	8.41	162.8	0		
02/12/2012	08:23:35	53	0.0	8.42	168.2	0		
02/12/2012	08:25:15	38	2.6	8.41	172.6	5	End Spacer	
02/12/2012	08:25:21	38	2.7	8.41	172.8	5	Reset Total, Vol = 172.82 bbl	
02/12/2012	08:25:27	37	2.7	8.41	173.1	5	Start Pumping Spacer	
02/12/2012	08:25:29	37	2.7	8.41	173.2	5	Start Pumping Zonelock Pill	
02/12/2012	08:26:55	55	4.3	8.41	177.6	7		
02/12/2012	08:28:35	78	4.6	9.08	185.3	0		
02/12/2012	08:30:15	94	4.7	8.85	193.2	0		
02/12/2012	08:31:55	78	4.8	8.39	201.2	0		
02/12/2012	08:33:35	155	4.8	8.38	209.2	0		
02/12/2012	08:35:15	202	4.7	9.82	217.2	0		
02/12/2012	08:36:55	69	4.7	9.89	225.0	0		
02/12/2012	08:38:35	108	4.7	9.89	232.9	0		
02/12/2012	08:40:15	159	4.8	9.89	240.7	0		
02/12/2012	08:41:55	45	4.7	8.41	248.7	8		
02/12/2012	08:43:35	80	4.5	8.40	256.2	11		
02/12/2012	08:45:10	64	0.0	8.37	262.1	0	End Spacer	
02/12/2012	08:45:11	64	0.0	8.37	262.1	0	Reset Total, Vol = 89.37 bbl	
02/12/2012	08:45:13	93	0.0	8.37	262.3	0	Start Pumping Spacer	
02/12/2012	08:45:15	62	0.0	8.38	262.4	0	80 bbls PressureNET	
02/12/2012	08:46:55	60	0.0	8.38	270.2	0		
02/12/2012	08:48:35	59	0.0	8.38	277.9	0		
02/12/2012	08:50:15	60	0.0	8.38	285.7	0		
02/12/2012	08:51:55	59	0.0	8.38	293.4	0		
02/12/2012	08:53:35	54	0.0	8.39	301.1	0		
02/12/2012	08:55:15	55	0.0	8.39	308.8	0		
02/12/2012	08:56:55	54	0.0	8.39	316.6	0		
02/12/2012	08:58:35	52	0.0	8.39	324.3	0		

Well			Field		Job Start	Customer		Job Number
SG WD16A-19			Story Gulch		Feb/12/2012	EnCana		BTX1-00114
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
02/12/2012	09:01:55	9	0.0	8.39	339.7	0		
02/12/2012	09:03:35	54	0.0	8.40	347.5	0		
02/12/2012	09:05:15	54	0.0	8.40	355.2	0		
02/12/2012	09:06:55	53	0.0	8.40	362.9	0		
02/12/2012	09:08:35	53	0.0	8.40	370.6	0		
02/12/2012	09:10:15	52	0.0	8.40	378.3	0		
02/12/2012	09:11:55	52	0.0	8.40	386.0	0		
02/12/2012	09:13:35	51	0.0	8.41	393.7	0		
02/12/2012	09:14:15	48	4.2	8.38	396.6	12	Reset Total, Vol = 134.45 bbl	
02/12/2012	09:14:18	49	4.6	8.37	396.8	12	End Spacer	
02/12/2012	09:14:21	49	4.7	8.37	397.1	12	Start Pumping Spacer	
02/12/2012	09:14:22	49	4.7	8.37	397.1	12	ZONELOCK Pill	
02/12/2012	09:15:15	51	4.6	8.37	401.3	12		
02/12/2012	09:16:55	56	3.9	9.09	408.8	0		
02/12/2012	09:18:35	62	3.5	9.06	414.8	0		
02/12/2012	09:20:15	59	3.7	8.66	420.9	0		
02/12/2012	09:21:55	45	3.3	8.41	426.6	0		
02/12/2012	09:23:35	48	3.2	8.41	432.0	0		
02/12/2012	09:25:15	41	2.6	9.88	437.0	0		
02/12/2012	09:26:55	295	7.8	9.91	446.6	0		
02/12/2012	09:27:05	303	7.8	9.91	447.8	0	Good Returns	
02/12/2012	09:28:35	312	7.9	9.92	459.3	0		
02/12/2012	09:30:15	-4	0.0	25.00	468.5	0		
02/12/2012	09:31:55	122	6.3	8.41	477.7	0		
02/12/2012	09:33:35	71	4.9	8.41	487.5	0		
02/12/2012	09:35:15	73	4.9	8.41	495.8	0		
02/12/2012	09:35:47	37	3.9	8.77	498.1	0	Reset Total, Vol = 101.58 bbl	
02/12/2012	09:36:38	42	4.1	8.74	501.5	0	End Spacer	
02/12/2012	09:36:40	41	4.1	8.74	501.7	0	50 bbls MudPush II	
02/12/2012	09:36:55	43	4.2	8.72	502.7	0		
02/12/2012	09:38:35	70	6.6	8.67	511.3	7		
02/12/2012	09:40:15	125	6.8	8.76	522.5	10		
02/12/2012	09:41:55	328	6.6	8.75	534.2	22		
02/12/2012	09:42:41	147	6.6	8.82	539.2	27	Reset Total, Vol = 41.06 bbl	
02/12/2012	09:42:51	157	6.9	8.84	540.3	28	Start Cement Slurry	
02/12/2012	09:43:35	136	7.0	8.87	545.4	32		
02/12/2012	09:45:15	244	7.1	9.05	557.1	40		
02/12/2012	09:46:55	205	7.0	9.22	568.9	48		
02/12/2012	09:48:35	396	6.9	9.34	580.6	51		
02/12/2012	09:50:15	599	6.9	9.35	592.1	52		
02/12/2012	09:50:30	257	6.9	9.35	593.9	52	Start Mixing Tail Slurry	
02/12/2012	09:50:33	512	6.9	9.35	594.2	52	562 bbls Cement	
02/12/2012	09:51:55	271	6.9	9.34	603.6	52		
02/12/2012	09:53:35	380	6.9	9.31	615.1	51		
02/12/2012	09:55:15	397	6.9	9.29	626.7	52		
02/12/2012	09:56:55	403	6.9	9.29	638.2	52		
02/12/2012	09:58:04	287	6.9	9.31	646.2	52	Took Dry Sample (013427)	
02/12/2012	09:58:35	307	6.8	9.30	649.7	52		
02/12/2012	10:00:15	400	6.9	9.31	661.2	52		
02/12/2012	10:01:55	486	7.0	9.26	672.7	49		
02/12/2012	10:02:21	350	7.0	9.28	675.7	50	Lost Returns @ 134 bbls into Cement	
02/12/2012	10:03:35	513	6.9	9.30	684.3	52		
02/12/2012	10:05:15	521	6.9	9.29	695.8	53		
02/12/2012	10:06:55	242	6.9	9.28	707.3	52		

Well			Field		Job Start	Customer		Job Number
SG WD16A-19			Story Gulch		Feb/12/2012	EnCana		BTX1-00114
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
02/12/2012	10:10:15	246	6.9	9.23	730.3	52		
02/12/2012	10:11:36	362	6.9	9.22	739.7	52	Took Wet Sample	
02/12/2012	10:11:55	308	6.9	9.22	741.9	52		
02/12/2012	10:12:39	240	6.9	9.22	746.9	52	Took Dry Sample (013482)	
02/12/2012	10:13:35	423	6.9	9.22	753.3	52		
02/12/2012	10:15:15	361	6.8	9.22	764.7	52		
02/12/2012	10:16:55	356	6.8	9.22	776.1	52		
02/12/2012	10:18:35	420	6.8	9.21	787.4	51		
02/12/2012	10:20:15	196	6.7	9.25	798.7	51		
02/12/2012	10:21:55	186	6.8	9.23	809.9	50		
02/12/2012	10:23:35	201	6.7	9.17	821.2	51		
02/12/2012	10:25:15	209	6.8	9.16	832.3	53		
02/12/2012	10:26:55	237	6.8	9.16	843.6	52		
02/12/2012	10:28:35	402	6.8	9.18	855.0	52		
02/12/2012	10:30:15	294	6.8	9.19	866.5	51		
02/12/2012	10:31:55	299	6.9	9.19	877.9	52		
02/12/2012	10:33:35	483	7.0	9.18	889.4	52		
02/12/2012	10:35:15	295	6.9	9.19	900.9	50		
02/12/2012	10:36:55	226	6.8	9.21	912.3	50		
02/12/2012	10:38:35	284	6.7	9.24	923.7	50		
02/12/2012	10:40:15	500	6.9	9.26	935.1	49		
02/12/2012	10:41:55	276	4.3	9.30	944.1	6		
02/12/2012	10:43:35	272	4.4	9.14	951.3	31		
02/12/2012	10:44:27	294	4.3	9.18	955.1	38	Full Retuns @ 300 bbls Cement Away	
02/12/2012	10:44:51	325	5.1	9.24	957.0	43	Beginning to see signs of PressureNET @ 300 bbls Away	
02/12/2012	10:45:15	207	5.3	9.29	959.0	46		
02/12/2012	10:46:55	416	6.9	9.25	969.4	53		
02/12/2012	10:48:35	457	7.0	9.23	981.0	54		
02/12/2012	10:50:15	288	7.0	9.20	992.7	52		
02/12/2012	10:51:55	260	7.1	9.20	1004.5	52		
02/12/2012	10:53:35	446	7.0	9.23	1016.2	52		
02/12/2012	10:55:15	358	7.0	9.25	1027.9	52		
02/12/2012	10:56:55	447	7.1	9.27	1039.7	52		
02/12/2012	10:58:35	451	7.0	9.28	1051.5	52		
02/12/2012	11:00:15	361	7.1	9.30	1063.2	52		
02/12/2012	11:01:55	404	7.0	9.31	1074.9	52		
02/12/2012	11:02:00	479	7.0	9.31	1075.5	52	End Cement Slurry	
02/12/2012	11:03:35	322	7.1	9.33	1086.6	52		
02/12/2012	11:05:15	100	3.2	9.30	1097.4	50		
02/12/2012	11:06:55	199	2.5	8.66	1101.8	50		
02/12/2012	11:08:35	84	2.5	8.56	1105.9	50		
02/12/2012	11:10:15	136	3.5	8.55	1110.7	50		
02/12/2012	11:11:55	121	3.4	8.46	1116.4	50		
02/12/2012	11:13:01	134	3.4	8.45	1120.1	42	Reset Total, Vol = 580.97 bbl	
02/12/2012	11:13:02	134	3.4	8.45	1120.2	42	Drop Top Plug	
02/12/2012	11:13:04	92	3.4	8.45	1120.3	42	Start Displacement	
02/12/2012	11:13:05	92	3.5	8.45	1120.4	42	231 bbl Displacement	
02/12/2012	11:13:35	91	3.5	8.45	1122.1	40		
02/12/2012	11:14:27	152	5.0	8.44	1125.9	38	Partial Returns @ 290 bbls Away	
02/12/2012	11:14:51	148	5.0	8.44	1127.9	39	Diverted (First ZONELOCK) @ 460 bbls Cement Away	
02/12/2012	11:15:15	168	5.0	8.44	1129.9	41		
02/12/2012	11:16:55	241	6.3	8.41	1139.6	0		
02/12/2012	11:18:35	284	6.3	8.40	1150.1	0		
02/12/2012	11:20:15	326	7.7	8.39	1161.6	0		

Well			Field		Job Start	Customer		Job Number
SG WD16A-19			Story Gulch		Feb/12/2012	EnCana		BTX1-00114
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message	
02/12/2012	11:23:35	343	7.7	8.39	1187.3	0		
02/12/2012	11:25:15	354	7.7	8.39	1200.2	0		
02/12/2012	11:26:55	360	7.7	8.39	1213.1	0		
02/12/2012	11:28:35	367	7.7	8.38	1225.9	0		
02/12/2012	11:30:15	324	7.1	8.39	1238.4	0		
02/12/2012	11:31:55	251	4.9	8.38	1247.6	0		
02/12/2012	11:33:35	274	4.9	8.38	1255.8	0		
02/12/2012	11:35:15	266	4.9	8.38	1263.9	0		
02/12/2012	11:35:40	257	4.9	8.38	1266.0	0	Good Cement to Surface	
02/12/2012	11:35:49	291	4.9	8.38	1266.7	0	190 bbls Good Cement to Surface	
02/12/2012	11:36:55	254	4.9	8.38	1272.1	0		
02/12/2012	11:38:35	258	4.9	8.38	1280.3	0		
02/12/2012	11:40:15	244	4.9	8.38	1288.5	0		
02/12/2012	11:41:55	292	4.9	8.38	1296.7	0		
02/12/2012	11:43:35	273	4.9	8.38	1304.8	0		
02/12/2012	11:45:15	270	4.9	8.38	1313.0	0		
02/12/2012	11:46:55	292	4.9	8.38	1321.2	0		
02/12/2012	11:48:35	317	4.3	8.38	1328.6	0		
02/12/2012	11:50:15	229	2.1	8.38	1334.0	0		
02/12/2012	11:51:55	198	2.1	8.38	1337.6	0		
02/12/2012	11:53:35	200	2.1	8.38	1341.1	0		
02/12/2012	11:55:15	197	2.1	8.38	1344.7	0		
02/12/2012	11:56:55	1025	0.0	8.39	1347.0	0		
02/12/2012	11:58:35	1014	0.0	8.39	1347.0	0		
02/12/2012	11:59:04	1011	0.0	8.39	1347.0	0	Bump Top Plug	
02/12/2012	11:59:05	1011	0.0	8.39	1347.0	0	End Displacement	
02/12/2012	11:59:07	1011	0.0	8.39	1347.0	0	Final Circulating Pressure = 250 psi	
02/12/2012	12:00:15	1	0.0	8.39	1347.0	0		
02/12/2012	12:01:03	-13	0.0	8.39	1347.0	0	Floats Held	
02/12/2012	12:01:04	-12	0.0	8.39	1347.0	0	1 bbl Bled Back	
02/12/2012	14:19:37	-6	0.0	8.44	1378.8	0	10 bbls Sugar Water Through Parasite	
02/12/2012	14:20:15	-7	0.0	8.45	1378.8	0		
02/12/2012	14:21:55	-7	0.0	8.45	1378.8	0		
02/12/2012	14:23:35	-6	0.0	8.46	1378.8	0		
02/12/2012	14:25:15	36	3.4	8.45	1379.5	0		
02/12/2012	14:26:55	56	3.9	8.45	1383.3	0		
02/12/2012	14:28:35	47	0.0	8.45	1386.3	0		
02/12/2012	14:30:15	722	0.0	8.44	1386.6	0		
02/12/2012	14:31:55	1454	0.0	8.45	1386.7	0		
02/12/2012	14:33:35	-6	0.0	8.45	1386.7	0		
02/12/2012	14:35:15	345	1.7	8.45	1387.9	0		
02/12/2012	14:36:55	16	0.0	8.43	1389.1	0		
02/12/2012	14:37:40	20	0.0	8.43	1389.1	0	Pumped Through Parasite OK	

Well SG WD16A-19	Field Story Gulch	Job Start Feb/12/2012	Customer EnCana	Job Number BTX1-00114
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry 5.0	N2	Mud	Maximum Rate 8.2	Total Slurry 562.0	Mud 0.0	Spacer 300.0	N2		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum 3197	Final 20	Average 236	Bump Plug to 1000	Breakdown	Type	Volume bbl	Density lb/gal		
Avg. N2 Percent %	Designed Slurry Volume 562.0 bbl	Displacement 231.0 bbl	Mix Water Temp 76 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 190.0 bbl			
				Washed Thru Perfs <input type="checkbox"/>		To ft			
Customer or Authorized Representative			Schlumberger Supervisor			Circulation Lost <input checked="" type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		
Randy Burke			Ryan Bowditch			-	-		