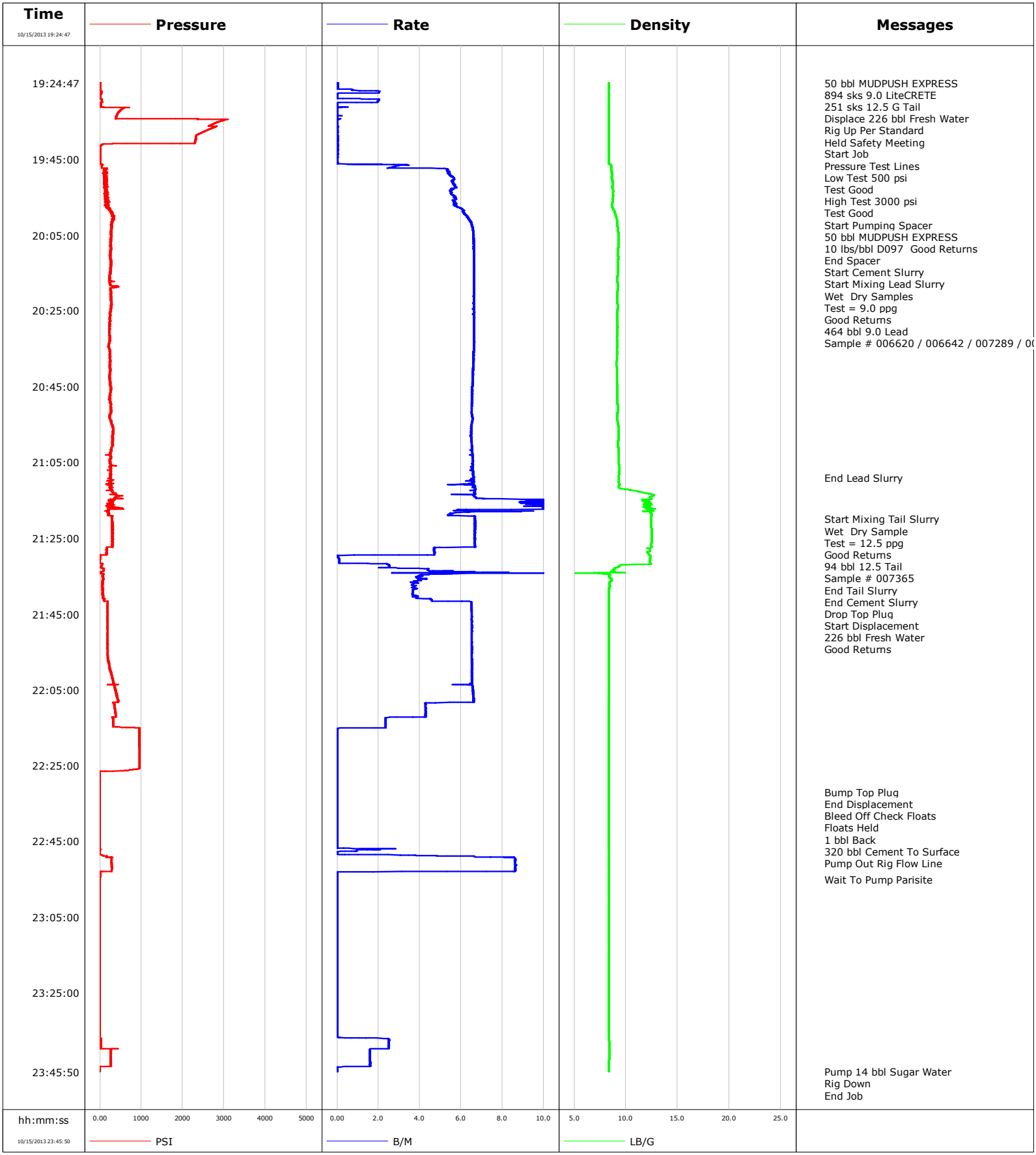
Schlumberger Cementing Job Report

CemCAT v1.3

Well	SGU 8514C-34	**Client**	Encana
Field	Story Gulch	**SIR No.**	CMI1-00375
Engineer	Jordan Moreland	**Job Type**	9 5/8 Surface
Country	United States	**Job Date**	10-15-2013



Cementing Service Report

Customer	Job Number
Encana	CMI1-00375

Well	Location (legal)	Schlumberger Location	Job Start
SGU 8514C-34	E34	GCO	Oct/15/2013

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Story Gulch			14.8 in		

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

Well Master	API/UWI

Rig Name	Drilled For	Service Via
Patterson 326	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
3000 psi		Single Cement head

Service Instructions

Rate And Density Checked
50 bbl MUDPUSH EXPRESS
894 sks 9.0 LiteCRETE
251 sks 12.5 Tail
Displace 226 bbl Fresh Water

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
2973.0	9.630	36.0	K55	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	226.0 bbl		

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
	229.0 bbl	378.0 bbl	625.0 bbl

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

Lift Pressure	1471 psi	Shoe Type	Guide	Squeeze Type	
Pipe Rotated	☐	Pipe Reciprocated	☐	Shoe Depth	2973.0 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	
Oct/15/2013	Oct/15/2013	Oct/15/2013			Collar Depth	2928.0 ft	Sqz. Total Vol.	

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/15/2013	18:31:14					Started Acquisition
10/15/2013	19:24:47	1	0.0	8.34	0.0	
10/15/2013	19:24:49					50 bbl MUDPUSH EXPRESS
10/15/2013	19:24:49					894 sks 9.0 LiteCRETE
10/15/2013	19:24:49	1	0.0	8.34	0.0	
10/15/2013	19:24:50					251 sks 12.5 G Tail
10/15/2013	19:24:50					Displace 226 bbl Fresh Water
10/15/2013	19:24:50					Rig Up Per Standard
10/15/2013	19:24:50					Held Safety Meeting
10/15/2013	19:24:50	1	0.0	8.35	0.0	
10/15/2013	19:24:52					Start Job
10/15/2013	19:24:52	1	0.0	8.35	0.0	
10/15/2013	19:24:53					Pressure Test Lines
10/15/2013	19:24:53	1	0.0	8.35	0.0	
10/15/2013	19:24:54					Low Test 500 psi
10/15/2013	19:24:54	1	0.0	8.34	0.0	
10/15/2013	19:24:55					Test Good
10/15/2013	19:24:55					High Test 3000 psi
10/15/2013	19:24:55					Test Good
10/15/2013	19:24:55	1	0.0	8.35	0.0	
10/15/2013	19:25:14	1	0.0	8.34	0.0	

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SGU 8514C-34	Story Gulch	Oct/15/2013	Encana	CMI1-00375

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/15/2013	19:29:14	39	2.0	8.34	2.0	
10/15/2013	19:31:14	63	0.5	8.34	3.7	
10/15/2013	19:33:14	411	0.0	8.34	3.7	
10/15/2013	19:35:14	2838	0.0	8.34	3.8	
10/15/2013	19:37:14	2619	0.0	8.34	3.8	
10/15/2013	19:39:14	2319	0.0	8.34	3.8	
10/15/2013	19:41:14	40	0.0	8.34	3.9	
10/15/2013	19:43:14	7	0.0	8.34	3.9	
10/15/2013	19:45:14	5	0.0	8.34	4.0	
10/15/2013	19:46:41					Start Pumping Spacer
10/15/2013	19:46:41	39	2.9	8.57	5.0	
10/15/2013	19:46:42					50 bbl MUDPUSH EXPRESS
10/15/2013	19:46:42					10 lbs/bbl D097 Good Returns
10/15/2013	19:46:42	39	2.9	8.57	5.1	
10/15/2013	19:47:14	42	2.6	8.58	6.6	
10/15/2013	19:49:14	112	5.5	8.63	16.9	
10/15/2013	19:51:14	117	5.6	8.70	28.1	
10/15/2013	19:53:14	135	5.5	8.76	39.3	
10/15/2013	19:55:14	163	5.7	8.74	50.5	
10/15/2013	19:57:14	202	5.7	8.63	61.9	
10/15/2013	19:59:14	293	6.2	8.95	73.9	
10/15/2013	20:00:00					End Spacer
10/15/2013	20:00:00	350	6.3	9.03	78.6	
10/15/2013	20:01:14	308	6.4	9.14	86.5	
10/15/2013	20:03:14	285	6.5	9.20	99.5	
10/15/2013	20:05:00					Start Cement Slurry
10/15/2013	20:05:00					Start Mixing Lead Slurry
10/15/2013	20:05:00	280	6.6	9.25	111.1	
10/15/2013	20:05:14	268	6.6	9.26	112.7	
10/15/2013	20:07:14	254	6.6	9.28	125.8	
10/15/2013	20:09:14	247	6.6	9.23	139.1	
10/15/2013	20:10:02					Wet Dry Samples
10/15/2013	20:10:02					Test = 9.0 ppg
10/15/2013	20:10:02					Good Returns
10/15/2013	20:10:02	244	6.6	9.23	144.4	
10/15/2013	20:10:03					464 bbl 9.0 Lead
10/15/2013	20:10:03					Sample # 006620 / 006642 / 007289 / 006653
10/15/2013	20:10:03	246	6.6	9.23	144.5	
10/15/2013	20:11:14	261	6.6	9.24	152.3	
10/15/2013	20:13:14	268	6.6	9.23	165.5	
10/15/2013	20:15:14	244	6.6	9.22	178.8	
10/15/2013	20:17:14	241	6.6	9.18	192.0	
10/15/2013	20:19:14	259	6.6	9.21	205.3	
10/15/2013	20:21:14	266	6.6	9.18	218.5	
10/15/2013	20:23:14	286	6.6	9.19	231.7	
10/15/2013	20:25:14	253	6.6	9.18	245.0	
10/15/2013	20:27:14	237	6.6	9.18	258.2	
10/15/2013	20:29:14	239	6.6	9.19	271.5	
10/15/2013	20:31:14	235	6.6	9.16	284.7	
10/15/2013	20:33:14	222	6.6	9.15	298.0	
10/15/2013	20:35:14	233	6.6	9.14	311.2	
10/15/2013	20:37:14	245	6.6	9.13	324.4	
10/15/2013	20:39:14	249	6.6	9.09	337.6	
10/15/2013	20:41:14	250	6.6	9.11	350.7	

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Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/15/2013	20:45:14	254	6.5	9.16	377.0	
10/15/2013	20:47:14	240	6.5	9.17	390.0	
10/15/2013	20:49:14	261	6.5	9.19	403.1	
10/15/2013	20:51:14	270	6.5	9.20	416.1	
10/15/2013	20:53:14	239	6.5	9.14	429.2	
10/15/2013	20:55:14	294	6.5	9.24	442.2	
10/15/2013	20:57:14	321	6.5	9.28	455.2	
10/15/2013	20:59:14	310	6.5	9.24	468.2	
10/15/2013	21:01:14	280	6.5	9.25	481.2	
10/15/2013	21:03:14	248	6.6	9.30	494.2	
10/15/2013	21:05:14	259	6.6	9.32	507.4	
10/15/2013	21:07:14	264	6.6	9.36	520.5	
10/15/2013	21:09:00					End Lead Slurry
10/15/2013	21:09:00	261	6.6	9.32	532.1	
10/15/2013	21:09:14	253	6.6	9.32	533.6	
10/15/2013	21:11:14	252	6.6	9.33	546.6	
10/15/2013	21:13:14	375	6.7	12.09	559.9	
10/15/2013	21:15:14	262	10.3	11.71	575.2	
10/15/2013	21:17:14	399	12.0	12.82	596.2	
10/15/2013	21:19:14	290	6.6	12.44	609.7	
10/15/2013	21:19:56					Start Mixing Tail Slurry
10/15/2013	21:19:56	279	6.7	12.46	614.4	
10/15/2013	21:19:57					Wet Dry Sample
10/15/2013	21:19:57					Test = 12.5 ppg
10/15/2013	21:19:57					Good Returns
10/15/2013	21:19:57	279	6.7	12.46	614.5	
10/15/2013	21:19:58					94 bbl 12.5 Tail
10/15/2013	21:19:58					Sample # 007365
10/15/2013	21:19:58	297	6.7	12.46	614.6	
10/15/2013	21:21:14	297	6.7	12.43	623.1	
10/15/2013	21:23:14	301	6.7	12.51	636.4	
10/15/2013	21:25:14	296	6.7	12.50	649.7	
10/15/2013	21:27:14	307	6.7	12.50	663.0	
10/15/2013	21:28:00					End Tail Slurry
10/15/2013	21:28:00	156	4.7	12.31	667.1	
10/15/2013	21:29:00					End Cement Slurry
10/15/2013	21:29:00	154	4.7	12.13	671.8	
10/15/2013	21:29:14	156	4.7	12.21	672.9	
10/15/2013	21:31:14	-2	0.1	12.32	674.1	
10/15/2013	21:32:00					Drop Top Plug
10/15/2013	21:32:00					Start Displacement
10/15/2013	21:32:00					226 bbl Fresh Water
10/15/2013	21:32:00					Good Returns
10/15/2013	21:32:00	54	2.5	10.31	674.9	
10/15/2013	21:33:14	93	4.4	8.87	678.5	
10/15/2013	21:35:14	67	3.8	8.41	689.0	
10/15/2013	21:37:14	62	3.7	8.43	696.8	
10/15/2013	21:39:14	64	3.7	8.37	704.2	
10/15/2013	21:41:14	100	4.6	8.36	711.9	
10/15/2013	21:43:14	183	6.5	8.36	724.1	
10/15/2013	21:45:14	184	6.5	8.36	737.1	
10/15/2013	21:47:14	180	6.5	8.35	750.1	
10/15/2013	21:49:14	184	6.5	8.35	763.2	
10/15/2013	21:51:14	184	6.5	8.35	776.2	

Well	Field	Job Start	Customer	Job Number
SGU 8514C-34	Story Gulch	Oct/15/2013	Encana	CMI1-00375

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/15/2013	21:55:14	186	6.5	8.35	802.3	
10/15/2013	21:57:14	203	6.5	8.35	815.3	
10/15/2013	21:59:14	242	6.5	8.35	828.4	
10/15/2013	22:01:14	285	6.5	8.34	841.4	
10/15/2013	22:03:14	320	6.5	8.34	854.5	
10/15/2013	22:05:14	366	6.6	8.34	867.5	
10/15/2013	22:07:14	421	6.6	8.33	880.7	
10/15/2013	22:09:14	356	4.3	8.33	891.9	
10/15/2013	22:11:14	367	4.3	8.33	900.5	
10/15/2013	22:13:14	318	2.3	8.33	907.2	
10/15/2013	22:15:14	963	0.0	8.33	911.6	
10/15/2013	22:17:14	952	0.0	8.33	911.6	
10/15/2013	22:19:14	953	0.0	8.33	911.7	
10/15/2013	22:21:14	953	0.0	8.33	911.7	
10/15/2013	22:23:14	955	0.0	8.33	911.7	
10/15/2013	22:25:14	955	0.0	8.33	911.7	
10/15/2013	22:27:14	-6	0.0	8.33	911.8	
10/15/2013	22:29:14	-9	0.0	8.33	911.8	
10/15/2013	22:31:14	-8	0.0	8.33	911.8	
10/15/2013	22:32:00					Bump Top Plug
10/15/2013	22:32:00					End Displacement
10/15/2013	22:32:00					Bleed Off Check Floats
10/15/2013	22:32:00					Floats Held
10/15/2013	22:32:00					1 bbl Back
10/15/2013	22:32:00					320 bbl Cement To Surface
10/15/2013	22:32:00	-8	0.0	8.33	911.8	
10/15/2013	22:33:14	-9	0.0	8.33	911.8	
10/15/2013	22:35:14	-8	0.0	8.33	911.9	
10/15/2013	22:37:14	-7	0.0	8.33	911.9	
10/15/2013	22:39:14	-8	0.0	8.33	911.9	
10/15/2013	22:41:14	-7	0.0	8.33	911.9	
10/15/2013	22:43:14	-8	0.0	8.33	912.0	
10/15/2013	22:45:14	-7	0.0	8.33	912.0	
10/15/2013	22:47:14	-6	1.5	8.34	912.5	
10/15/2013	22:49:14	282	8.6	8.36	916.6	
10/15/2013	22:49:23					Pump Out Rig Flow Line
10/15/2013	22:49:23	281	8.6	8.36	917.8	
10/15/2013	22:51:14	276	8.6	8.34	933.8	
10/15/2013	22:53:14	2	0.0	8.34	949.1	
10/15/2013	22:55:00					Wait To Pump Parisite
10/15/2013	22:55:00	-7	0.0	8.34	949.1	
10/15/2013	22:55:14	-8	0.0	8.34	949.1	
10/15/2013	22:57:14	-8	0.0	8.34	949.2	
10/15/2013	22:59:14	-8	0.0	8.34	949.2	
10/15/2013	23:01:14	-7	0.0	8.34	949.2	
10/15/2013	23:03:14	-7	0.0	8.34	949.2	
10/15/2013	23:05:14	-7	0.0	8.34	949.3	
10/15/2013	23:07:14	-7	0.0	8.34	949.3	
10/15/2013	23:09:14	-6	0.0	8.34	949.3	
10/15/2013	23:11:14	-6	0.0	8.34	949.3	
10/15/2013	23:13:14	-6	0.0	8.34	949.4	
10/15/2013	23:15:14	-6	0.0	8.34	949.4	
10/15/2013	23:17:14	-5	0.0	8.34	949.4	
10/15/2013	23:19:14	-5	0.0	8.34	949.4	

Well	Field	Job Start	Customer	Job Number
SGU 8514C-34	Story Gulch	Oct/15/2013	Encana	CMI1-00375

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/15/2013	23:23:14	-5	0.0	8.34	949.5	
10/15/2013	23:25:14	-5	0.0	8.34	949.5	
10/15/2013	23:27:14	-5	0.0	8.34	949.5	
10/15/2013	23:29:14	-5	0.0	8.34	949.5	
10/15/2013	23:31:14	-5	0.0	8.34	949.6	
10/15/2013	23:33:14	-5	0.0	8.34	949.6	
10/15/2013	23:35:14	-5	0.0	8.34	949.6	
10/15/2013	23:37:14	14	2.5	8.36	950.4	
10/15/2013	23:39:14	13	2.5	8.38	955.4	
10/15/2013	23:41:14	259	1.6	8.38	959.1	
10/15/2013	23:43:14	257	1.6	8.35	962.3	
10/15/2013	23:45:14	-7	0.0	8.35	964.3	
10/15/2013	23:45:45					Pump 14 bbl Sugar Water
10/15/2013	23:45:45	-1	0.0	8.35	964.3	
10/15/2013	23:45:46					Rig Down
10/15/2013	23:45:46	-1	0.0	8.35	964.3	
10/15/2013	23:45:48					End Job
10/15/2013	23:45:48	-1	0.0	8.35	964.3	

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	Cement Circulated to Surface?	Volume
			65 degF	X	
				Washed Thru Perfs ☐	To

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Mark Shultz	Jordan Moreland	☐	X
		-	-