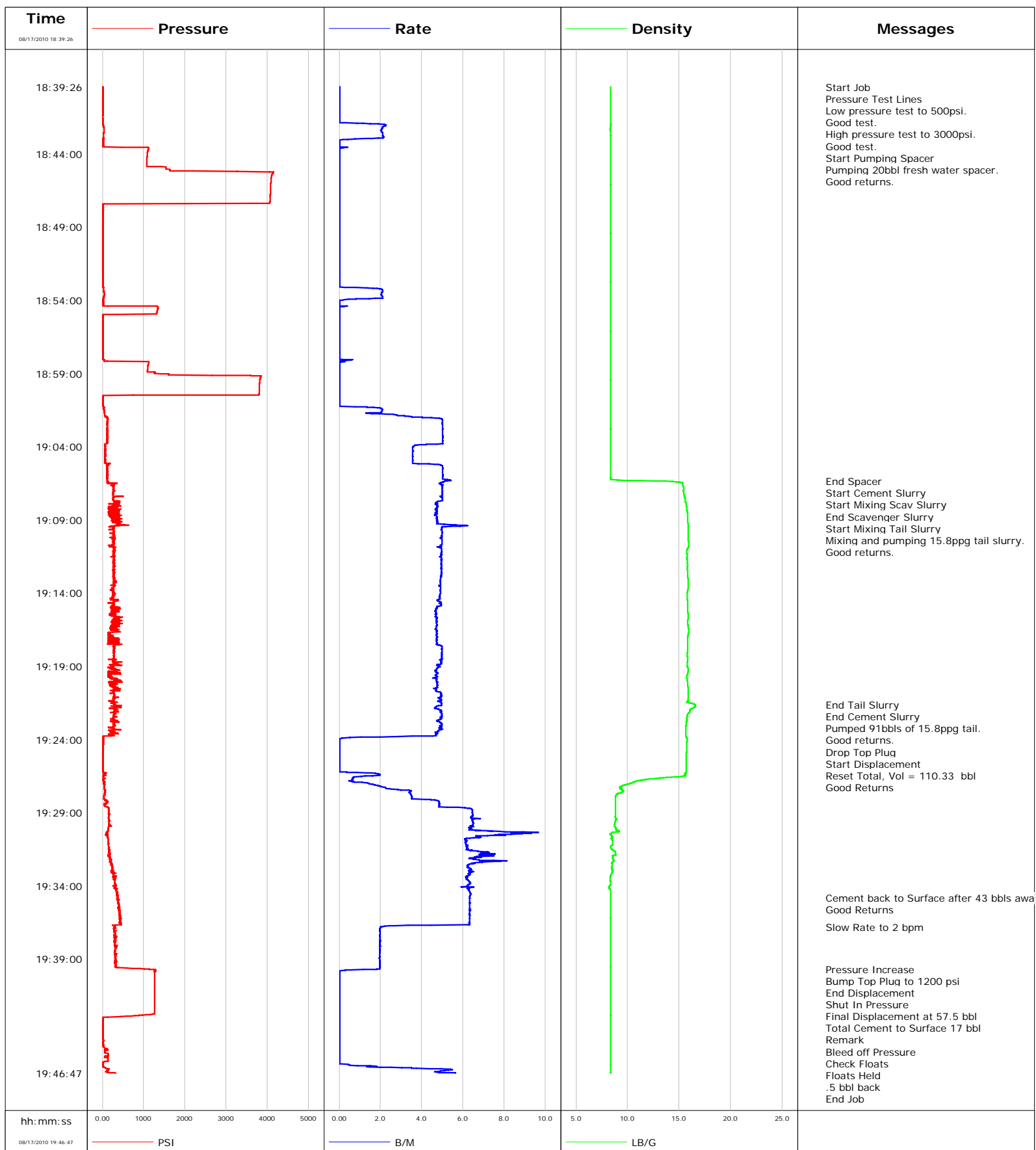


Well FEDERAL 20-6
Field Parachute
Engineer Jeff Patterson
Country United States

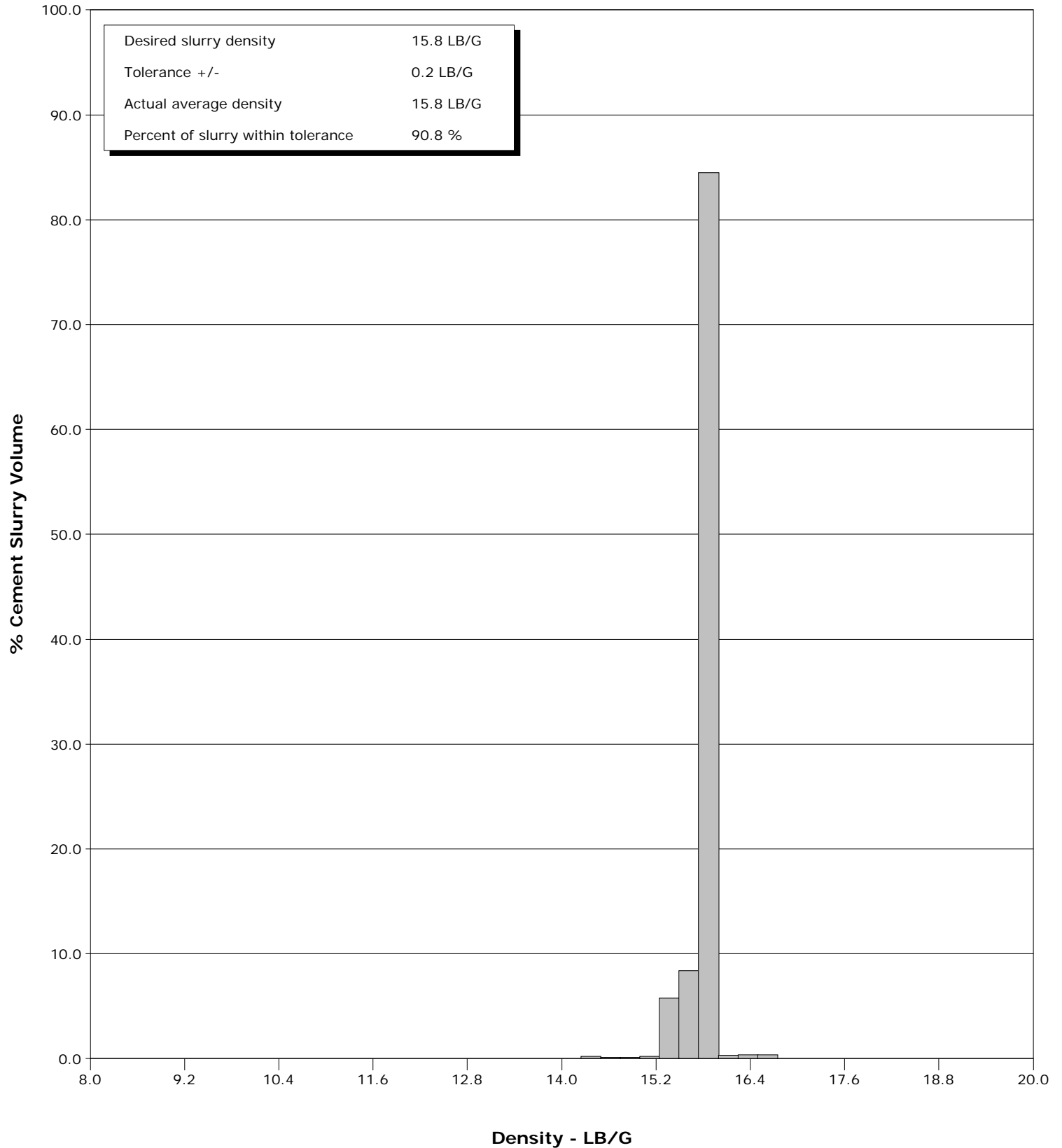
Client Encana
SIR No. BAD4-00159
Job Type Surface
Job Date 08-17-2010



Well FEDERAL 20-6
Field Parachute
Engineer Jeff Patterson
Country United States

Client Encana
SIR No. BAD4-00159
Job Type Surface
Job Date 08-17-2010

Cement Slurry - 08/17/2010 19:06:23 to 08/17/2010 19:21:39





Cementing Service Report

				Customer Encana		Job Number BAD4-00159		
Well FEDERAL GARDNER 20-6 FEDERAL GARDNER 20-6			Location (legal) PN-20		Schlumberger Location Grand Junction		Job Start Aug/17/2010	
Field Parachute		Formation Name/Type Shale		Deviation 0 deg	Bit Size 12.3 in	Well MD 828.0 ft		Well TVD 828.0 ft
County Garfield		State/Province Colorado		BHP	BHST 90 degF	BHCT 80 degF	Pore Press. Gradient	
Well Master 0631164429		API/UWI 05045191640000						
Rig Name M11	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	828.0	9.630	36.0	K55	8RD	
			0.0	0.000	0.0			
Drilling Fluid Type		Max. Density	Plastic Viscosity	Tubing/Drill Pipe				
				Depth,	Size,	Weight,	Grade	Thread
Service Line Cementing	Job Type Surface							
Max. Allowed Tub. Press 3000 psi	Max. Allowed Ann. Press	WH Connection 9 5/8" Cement Head	Perforations/Open Hole					
			Top,	Bottom,		No. of Shots	Total Interval	
							Diameter	
Service Instructions Cement 9 5/8" surface casing at 810ft in 12 1/2" OH 80% excess with: 20bbl water 438sks 15.8ppq tail Displace with water				Treat Down Casing	Displacement 60.5 bbl	Packer Type	Packer Depth	
			Tubing Vol.	Casing Vol. 64.0 bbl	Annular Vol. 55.0 bbl	Openhole Vol. 127.0 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 410 psi			Shoe Type Guide				Squeeze Type	
Pipe Rotated <input type="checkbox"/>	Pipe Reciprocated <input type="checkbox"/>		Shoe Depth 828.0 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 Aug/17/2010	Arrived on Location Aug/17/2010	Leave Location Aug/17/2010	Collar Type Float				Tail Pipe Depth	
			Collar Depth 783.0 ft				Sqz. Total Vol.	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message		
08/17/2010	18:07:15					Started Acquisition		
08/17/2010	18:39:26					Start Job		
08/17/2010	18:39:26	3	0.0	8.36	0.0			
08/17/2010	18:39:28					Pressure Test Lines		
08/17/2010	18:39:28	3	0.0	8.36	0.0			
08/17/2010	18:39:30					Low pressure test to 500psi.		
08/17/2010	18:39:30					Good test.		
08/17/2010	18:39:30					High pressure test to 3000psi.		
08/17/2010	18:39:30	3	0.0	8.36	0.0			
08/17/2010	18:39:31					Good test.		
08/17/2010	18:39:31	3	0.0	8.36	0.0			
08/17/2010	18:39:32					Start Pumping Spacer		
08/17/2010	18:39:32	3	0.0	8.36	0.0			
08/17/2010	18:39:34					Pumping 20bbl fresh water spacer.		
08/17/2010	18:39:34					Good returns.		
08/17/2010	18:39:34	3	0.0	8.36	0.0			
08/17/2010	18:40:35	3	0.0	8.36	0.0			
08/17/2010	18:42:15	36	2.1	8.34	0.7			
08/17/2010	18:43:55	1095	0.0	8.36	2.3			
08/17/2010	18:45:35	4097	0.0	8.36	2.3			
08/17/2010	18:47:15	4068	0.0	8.36	2.3			

Well FEDERAL GARDNER 20-6 FEDERAL GARDNER 20-6			Field Parachute		Job Start Aug/17/2010		Customer Encana		Job Number BAD4-00159	
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M	Density LB/G		Volume BBL		Message	
08/17/2010	18:50:35	9		0.0	8.36		2.3			
08/17/2010	18:52:15	9		0.0	8.36		2.3			
08/17/2010	18:53:55	7		0.8	8.36		3.8			
08/17/2010	18:55:35	9		0.0	8.36		3.8			
08/17/2010	18:57:15	9		0.0	8.36		3.8			
08/17/2010	18:58:55	1278		0.0	8.36		3.9			
08/17/2010	19:00:35	10		0.0	8.36		3.9			
08/17/2010	19:02:15	122		5.0	8.36		6.7			
08/17/2010	19:03:55	66		3.7	8.37		15.0			
08/17/2010	19:05:35	124		5.0	8.37		21.5			
08/17/2010	19:06:21								End Spacer	
08/17/2010	19:06:21	122		5.2	12.55		25.3			
08/17/2010	19:06:23								Start Cement Slurry	
08/17/2010	19:06:23	123		5.1	14.31		25.5			
08/17/2010	19:06:24								Start Mixing Scav Slurry	
08/17/2010	19:06:24	146		5.1	14.31		25.6			
08/17/2010	19:07:15	261		5.0	15.47		29.8			
08/17/2010	19:08:03								End Scavenger Slurry	
08/17/2010	19:08:03	424		4.7	15.70		33.7			
08/17/2010	19:08:04								Start Mixing Tail Slurry	
08/17/2010	19:08:04	444		4.8	15.71		33.8			
08/17/2010	19:08:07								Mixing and pumping 15.8ppg tail slurry.	
08/17/2010	19:08:07	153		4.8	15.72		34.1			
08/17/2010	19:08:08								Good returns.	
08/17/2010	19:08:08	153		4.8	15.72		34.1			
08/17/2010	19:08:55	406		4.7	15.83		37.8			
08/17/2010	19:10:35	286		5.0	15.93		46.2			
08/17/2010	19:12:15	272		4.9	15.81		54.4			
08/17/2010	19:13:55	268		4.9	15.81		62.6			
08/17/2010	19:15:35	249		4.7	15.87		70.6			
08/17/2010	19:17:15	189		4.7	15.82		78.5			
08/17/2010	19:18:55	177		4.7	15.80		86.7			
08/17/2010	19:20:35	264		4.7	15.88		94.6			
08/17/2010	19:21:38								End Tail Slurry	
08/17/2010	19:21:38	283		5.0	16.53		99.7			
08/17/2010	19:21:39								End Cement Slurry	
08/17/2010	19:21:39	294		5.0	16.56		99.8			
08/17/2010	19:21:42								Pumped 91bbls of 15.8ppg tail.	
08/17/2010	19:21:42								Good returns.	
08/17/2010	19:21:42	456		4.8	16.58		100.0			
08/17/2010	19:22:15	282		5.0	15.89		102.7			
08/17/2010	19:23:46								Drop Top Plug	
08/17/2010	19:23:46	213		4.5	15.66		110.1			
08/17/2010	19:23:48								Start Displacement	
08/17/2010	19:23:48	28		2.9	15.67		110.2			
08/17/2010	19:23:52								Reset Total, Vol = 110.33 bbl	
08/17/2010	19:23:52	17		0.5	15.75		110.3			
08/17/2010	19:23:53								Good Returns	
08/17/2010	19:23:53	17		0.5	15.75		110.3			
08/17/2010	19:23:55	17		0.1	15.76		110.3			
08/17/2010	19:25:35	9		0.0	15.67		110.3			
08/17/2010	19:27:15	46		2.1	9.33		111.6			
08/17/2010	19:28:55	161		6.5	8.83		118.7			
08/17/2010	19:30:35	105		7.2	8.45		130.0			

Well			Field		Job Start		Customer		Job Number	
FEDERAL GARDNER 20-6 FEDERAL GARDNER 20-6			Parachute		Aug/17/2010		Encana		BAD4-00159	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
08/17/2010	19:33:55	309	6.3	8.36	151.6					
08/17/2010	19:34:50					Cement back to Surface after 43 bbls away				
08/17/2010	19:34:50					Good Returns				
08/17/2010	19:34:50	367	6.3	8.37	157.3					
08/17/2010	19:35:35	400	6.3	8.37	162.1					
08/17/2010	19:36:49					Slow Rate to 2 bpm				
08/17/2010	19:36:49	297	2.0	8.36	169.3					
08/17/2010	19:37:15	318	2.0	8.37	170.2					
08/17/2010	19:38:55	306	2.0	8.37	173.5					
08/17/2010	19:39:42					Pressure Increase				
08/17/2010	19:39:42	1134	1.8	8.37	175.0					
08/17/2010	19:39:51					Bump Top Plug to 1200 psi				
08/17/2010	19:39:51	1281	0.0	8.37	175.1					
08/17/2010	19:39:53					End Displacement				
08/17/2010	19:39:53	1260	0.0	8.37	175.1					
08/17/2010	19:40:17					Shut In Pressure				
08/17/2010	19:40:17					Final Displacement at 57.5 bbl				
08/17/2010	19:40:17	1265	0.0	8.37	175.1					
08/17/2010	19:40:35	1265	0.0	8.37	175.1					
08/17/2010	19:41:59					Total Cement to Surface 17 bbl				
08/17/2010	19:41:59	1267	0.0	8.37	175.1					
08/17/2010	19:42:10					Remark				
08/17/2010	19:42:10	1267	0.0	8.37	175.1					
08/17/2010	19:42:15	1267	0.0	8.37	175.1					
08/17/2010	19:43:28					Bleed off Pressure				
08/17/2010	19:43:28					Check Floats				
08/17/2010	19:43:28	10	0.0	8.37	175.1					
08/17/2010	19:43:30					Floats Held				
08/17/2010	19:43:30	10	0.0	8.37	175.1					
08/17/2010	19:43:55	10	0.0	8.37	175.1					
08/17/2010	19:45:35	139	0.0	8.37	175.1					
08/17/2010	19:45:42					.5 bbl back				
08/17/2010	19:45:42	58	0.0	8.37	175.1					
08/17/2010	19:46:44					End Job				
08/17/2010	19:46:44	133	4.8	8.36	176.9					

Post Job Summary

Average Pump Rates,					Volume of Fluid Injected, bbl						
Slurry	N2	Mud	Maximum Rate 8.0		Total Slurry 91.0	Mud	Spacer 20.0	N2			
Treating Pressure Summary, psi					Breakdown Fluid						
Maximum 3000	Final 1200	Average 200	Bump Plug to 1200	Breakdown	Type		Volume		Density		
Avg. N2 Percent		Designed Slurry Volume 91.0 bbl		Displacement		Mix Water Temp		Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 18.0 bbl	
						64 degF		Washed Thru Perfs <input type="checkbox"/>		To	
Customer or Authorized Representative Tony Ketterling			Schlumberger Supervisor Jeff Patterson				Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>		
							-		-		