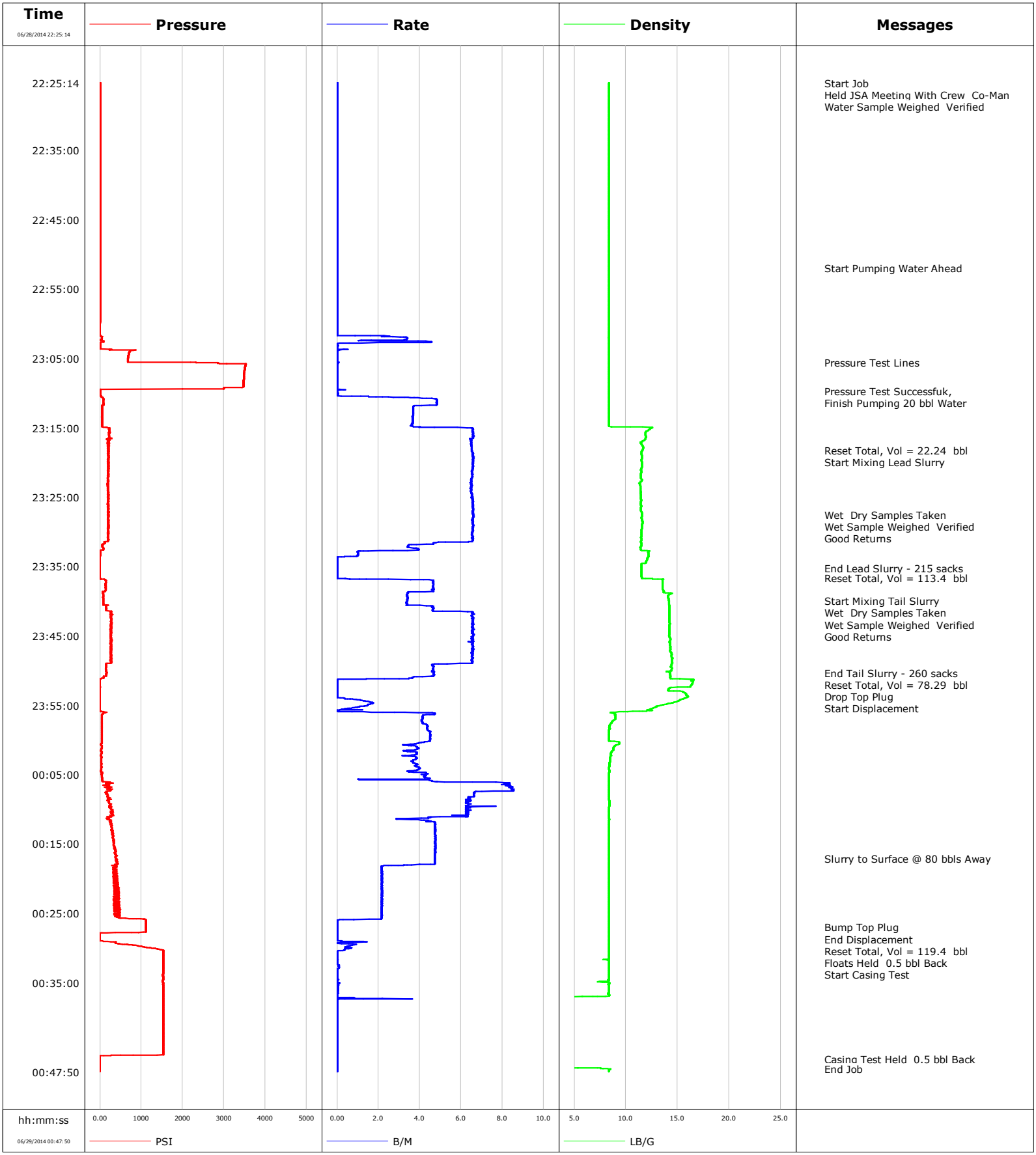
Schlumberger

Cementing Job Report

CemCAT v1.6

Well	Horsetail 30F-3105	**Client**	Whiting Oil Gas
Field	Wildcat	**SIR No.**	D0XZ-00059
Engineer	Jason Holt	**Job Type**	Surface
Country	United States	**Job Date**	06-28-2014



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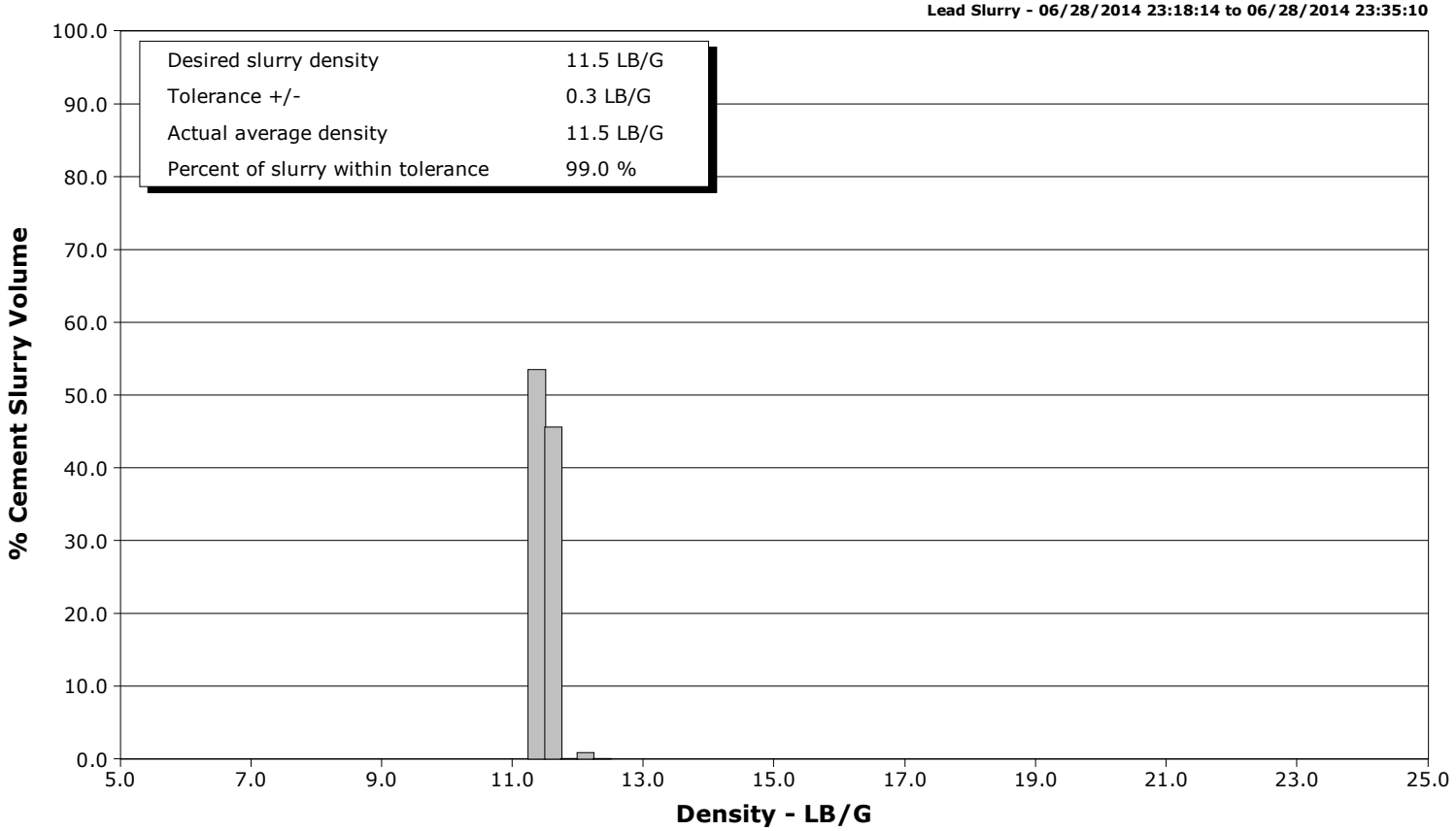
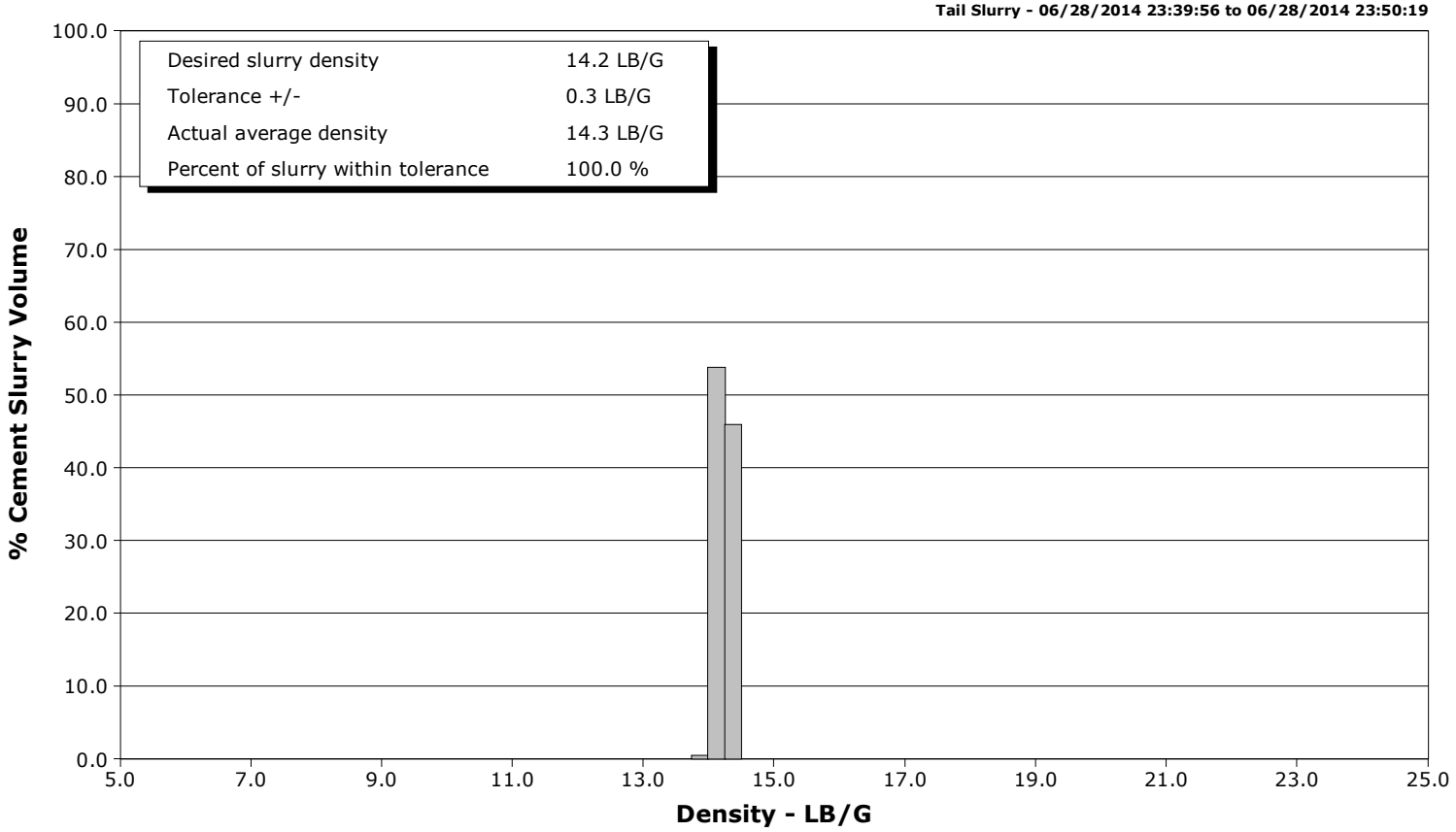
Cementing Qa/Qc Density Report

Well	Horsetail 30F-3105	**Client**	Whiting Oil Gas
Field	Wildcat	**SIR No.**	D0XZ-00059
Engineer	Jason Holt	**Job Type**	Surface
Country	United States	**Job Date**	06-28-2014

Lead Slurry - 06/28/2014 23:18:14 to 06/28/2014 23:35:10



Tail Slurry - 06/28/2014 23:39:56 to 06/28/2014 23:50:19



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Cementing Service Report

Customer	Job Number
Whiting Oil & Gas	D0XZ-00059

Well	Location (legal)	Schlumberger Location	Job Start
Horsetail 30F-3105 0631546516	SENW 30-T10N-R57W	Rock Springs	Jun/28/2014

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Wildcat	Dirty-Sandstone	deg	13.5 in	1588.0 ft	1588.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Weld	Colorado	390 psi	99 degF	83 degF	lb/gal

Well Master	API/UWI
0631546516	05-123-39202000

Rig Name	Drilled For	Service Via
Xtreme 18	Oil	Land

Offshore Zone	Well Class	Well Type
	New	Exploration

Drilling Fluid Type	Max. Density	Plastic Viscosity
Bentonite	8.40 lb/gal	cP

Service Line	Job Type
Cementing	Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	9 5/8''

Service Instructions

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1588.0	9.6	36.0	J-55	LTC
0.0	0.0	0.0		

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	119.4 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	122.8 bbl	138.2 bbl	bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement	Lift Pressure	Pipe Rotated	Pipe Reciprocated	No. Centralizers	Top Plugs	Bottom Plugs	Cement Head Type
X	X	786 psi	☐	☐		1		Single

Job Scheduled For	Arrived on Location	Leave Location
Jun/28/2014	Jun/28/2014	Jun/28/2014

Casing Tools

Shoe Type	Guide
Shoe Depth	1631.7 ft
Stage Tool Type	
Stage Tool Depth	ft
Collar Type	Float
Collar Depth	1588.0 ft

Squeeze Job

Squeeze Type	
Tool Type	
Tool Depth	ft
Tail Pipe Size	in
Tail Pipe Depth	ft
Sqz. Total Vol.	bbl

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/28/2014	22:25:14	2	0.0	8.36	0.0	Started Acquisition
06/28/2014	22:25:17	2	0.0	8.36	0.0	Start Job
06/28/2014	22:25:20	3	0.0	8.36	0.0	Held JSA Meeting With Crew Co-Man
06/28/2014	22:30:14	3	0.0	8.36	0.0	
06/28/2014	22:35:14	2	0.0	8.36	0.0	
06/28/2014	22:40:14	2	0.0	8.36	0.0	
06/28/2014	22:45:14	2	0.0	8.36	0.0	
06/28/2014	22:50:14	2	0.0	8.36	0.0	
06/28/2014	22:51:53	2	0.0	8.36	0.0	Start Pumping Water Ahead
06/28/2014	22:55:14	2	0.0	8.36	0.0	
06/28/2014	23:00:14	-0	0.0	8.36	0.0	
06/28/2014	23:05:14	674	0.0	8.35	3.3	
06/28/2014	23:05:32	672	0.0	8.35	3.3	Pressure Test Lines
06/28/2014	23:09:42	11	0.0	8.35	3.4	Pressure Test Successfuk,
06/28/2014	23:10:13	7	0.0	8.35	3.4	Finish Pumping 20 bbl Water
06/28/2014	23:10:14	7	0.0	8.35	3.4	
06/28/2014	23:15:14	233	6.6	12.29	22.8	
06/28/2014	23:18:13	207	6.5	11.60	42.2	Reset Total, Vol = 22.24 bbl
06/28/2014	23:18:14	209	6.5	11.60	42.4	Start Mixing Lead Slurry
06/28/2014	23:20:14	205	6.6	11.55	55.5	
06/28/2014	23:25:14	199	6.5	11.47	88.1	

Well	Field	Job Start	Customer	Job Number
Horsetail 30F-3105 0631546516	Wildcat	Jun/28/2014	Whiting Oil & Gas	D0XZ-00059

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/28/2014	23:27:52	193	6.6	11.52	105.4	Wet Sample Weighed Verified
06/28/2014	23:28:07	203	6.5	11.53	107.0	Good Returns
06/28/2014	23:30:14	182	6.5	11.48	120.9	
06/28/2014	23:35:10	-5	0.0	11.49	134.8	End Lead Slurry
06/28/2014	23:35:14	-4	0.0	11.49	134.8	
06/28/2014	23:36:42	10	0.0	11.55	134.8	Reset Total, Vol = 113.4 bbl
06/28/2014	23:39:56	82	3.4	14.16	147.5	Start Mixing Tail Slurry
06/28/2014	23:40:14	76	3.3	14.17	148.5	
06/28/2014	23:40:17	75	3.3	14.18	148.7	Wet Dry Samples Taken
06/28/2014	23:41:54	275	6.6	14.22	156.6	Wet Sample Weighed Verified
06/28/2014	23:43:44	267	6.5	14.23	168.6	Good Returns
06/28/2014	23:45:14	269	6.5	14.26	178.5	
06/28/2014	23:50:14	162	4.7	14.24	208.9	
06/28/2014	23:50:19	161	4.7	14.28	209.3	End Tail Slurry
06/28/2014	23:51:22	-0	0.0	16.57	213.1	Reset Total, Vol = 78.29 bbl
06/28/2014	23:51:27	-1	0.0	16.32	213.1	Drop Top Plug
06/28/2014	23:51:28	-0	0.0	16.29	213.1	Start Displacement
06/28/2014	23:55:14	-5	1.0	12.94	214.7	
06/29/2014	00:00:14	39	4.4	9.12	233.5	
06/29/2014	00:05:14	46	4.2	8.36	252.6	
06/29/2014	00:10:14	282	6.2	8.37	285.4	
06/29/2014	00:15:14	336	4.7	8.35	309.9	
06/29/2014	00:17:08	393	4.7	8.35	318.9	Slurry to Surface @ 80 bbls Away
06/29/2014	00:20:14	415	2.2	8.35	327.9	
06/29/2014	00:25:14	358	2.2	8.35	338.7	
06/29/2014	00:26:58	1112	0.0	8.36	340.1	Bump Top Plug
06/29/2014	00:27:00	1111	0.0	8.36	340.1	End Displacement
06/29/2014	00:27:02	1111	0.0	8.36	340.1	Reset Total, Vol = 119.4 bbl
06/29/2014	00:27:50	44	0.0	8.36	340.1	Floats Held 0.5 bbl Back
06/29/2014	00:30:14	1473	0.4	8.36	340.9	
06/29/2014	00:30:53	1528	0.0	8.36	340.9	Start Casing Test
06/29/2014	00:35:14	1524	0.1	8.28	341.0	
06/29/2014	00:40:14	1529	0.0	0.00	341.3	
06/29/2014	00:45:14	1530	0.0	0.00	341.3	
06/29/2014	00:46:03	-5	0.0	0.00	341.3	Casing Test Held 0.5 bbl Back

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
3.8			8.6	191.7	0.0	20.2	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
3545	-3	421	889		FreshWater	119.4 bbl	8.34 lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
%	182.0 bbl	119.4 bbl	72 degF	X	39.4 bbl
				Washed Thru Perfs ☐	To ft

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Lewis Young	Jason Holt	-	X -