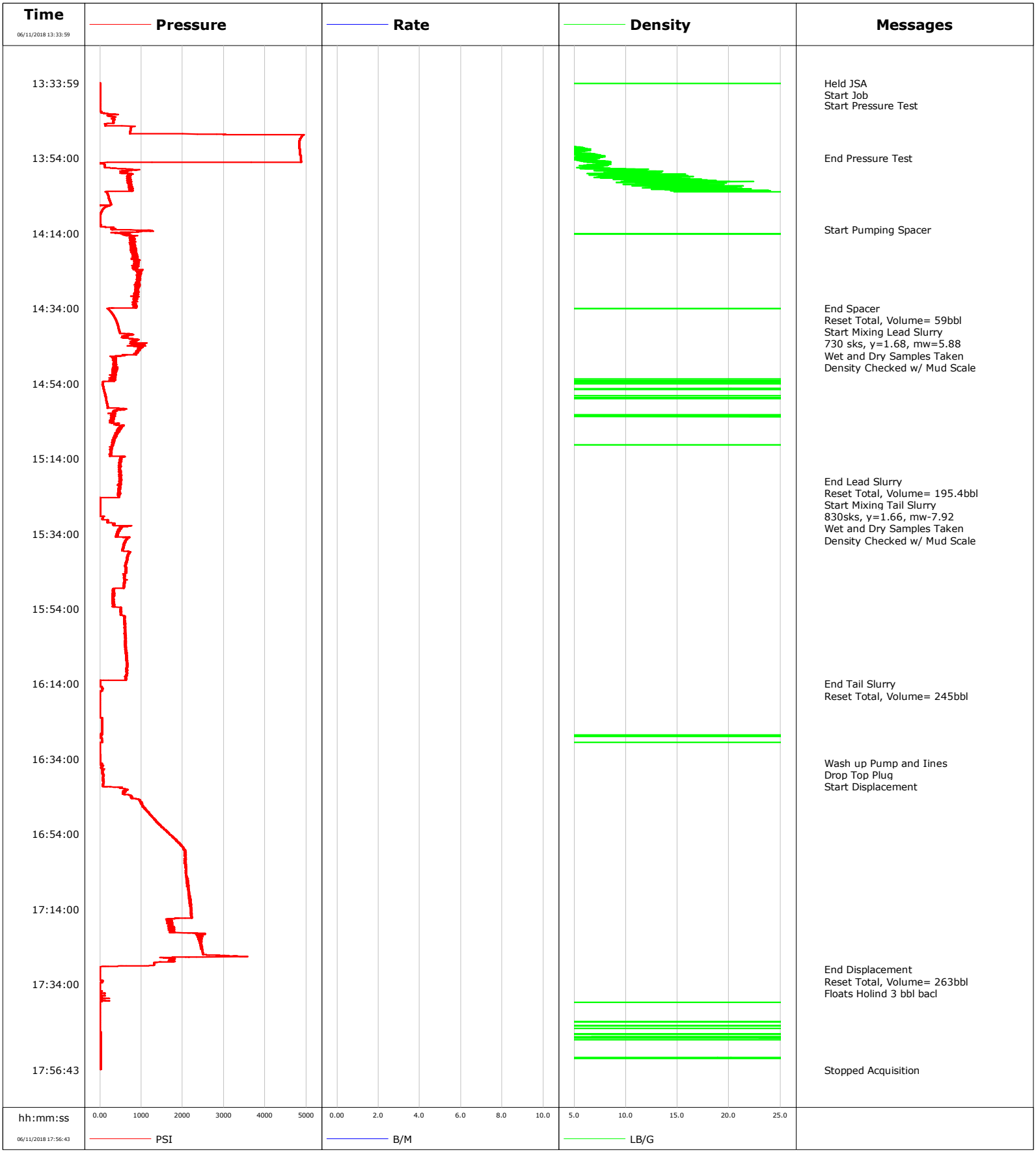
Schlumberger

Cementing Job Report

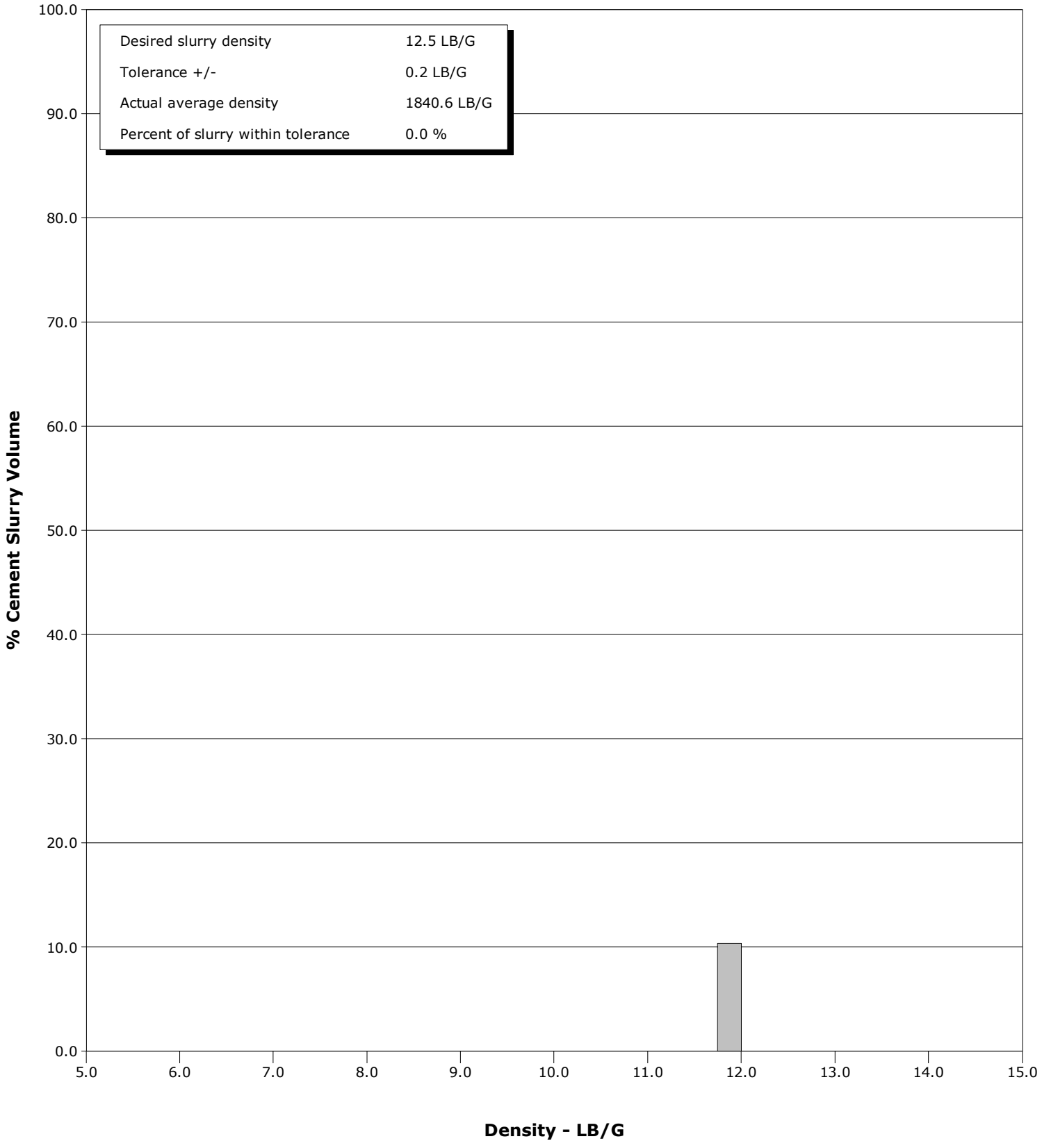
Well	Ruegge 3F-4H	**Client**	Crestone
Field	Wattenburg	**SIR No.**	E0ZP-00248
Engineer	Caleb Baldwin	**Job Type**	5.5" Production
Country		**Job Date**	



Schlumberger Cementing Qa/Qc Density Report

Well	Ruegge 3F-4H	**Client**	Crestone
Field	Wattenburg	**SIR No.**	E0ZP-00248
Engineer	Caleb Baldwin	**Job Type**	5.5" Production
Country		**Job Date**	

Cement Slurry - 06/11/2018 13:33:59 to 06/11/2018 17:56:43



Schlumberger Cementing Service Report

Customer	Job Number
Crestone	E0ZP-00248

Well	Location (legal)	Schlumberger Location	Job Start
Ruegge 3F-4H		Cheyenne	Jun/26/2018

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Wattenburg		deg	in	11868.0 ft	7055.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
	Colorado	psi	222 degF	191 degF	lb/gal

Well Master	API/UWI
0631761950	

Rig Name	Drilled For	Service Via
Ensign 140	Oil & Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

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

Service Line	Job Type
Cementing	5.5" Production

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	

Service Instructions

Provide cement and services for production cement
treatment.
TD = 11,941 ft (7,055 ft)
Top of 12.5 ppg FlexSEAL WELLBOND = 1,200 ft (est. 710')
Top of 13.5 ppg PozG Tail = 6,000 ft (est. 2623)
8.5" open hole to TD
10% excess from surface – 6,000 ft
0% excess from 6,000 ft – TD
27 bbls spacer to surface

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
2483.0	9.6	40.0	j55	
11868.0	5.5	20.0	p110	

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
	bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	bbl	bbl	bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement
☐	☐

Lift Pressure	psi

Pipe Rotated	Pipe Reciprocated
☐	☐

No. Centralizers	Top Plugs	Bottom Plugs
	1	

Cement Head Type

Job Scheduled For	Arrived on Location	Leave Location
Jun/10/2018 15:00	Jun/26/2018 15:00	Jun/11/2018 02:30

Casing Tools	
Shoe Type	Float
Shoe Depth	11868.0 ft
Stage Tool Type	
Stage Tool Depth	ft
Collar Type	Float
Collar Depth	11858.0 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 NULL	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/11/2018	13:33:59	0	0.0	585.95	0.0	Started Acquisition
06/11/2018	13:34:00	0	0.0	586.83	8491245.0	Held JSA
06/11/2018	13:35:00	0	0.0	-1.10	517965920.0	Start Job
06/11/2018	13:40:00	0	0.0	-2.19	3065354752.0	Start Pressure Test
06/11/2018	14:13:00	0	2.2	2776.99	19328378880.0	Start Pumping Spacer
06/11/2018	14:34:00	0	0.4	3309.17	28468432896.0	End Spacer
06/11/2018	14:34:30	0	0.0	2524.57	28729628672.0	Reset Total, Volume= 59bbl
06/11/2018	14:35:00	0	0.0	2959.84	28991928320.0	Start Mixing Lead Slurry
06/11/2018	14:36:00	0	0.0	2980.14	29516529664.0	730 sks, y=1.68, mw=5.88
06/11/2018	14:36:30	0	0.0	2946.78	29778829312.0	Wet and Dry Samples Taken
06/11/2018	14:37:00	0	0.0	2948.21	30041128960.0	Density Checked w/ Mud Scale
06/11/2018	15:20:00	0	4.1	3762.88	49781395456.0	End Lead Slurry
06/11/2018	15:21:00	0	4.1	3582.01	50215374848.0	Start Mixing Tail Slurry
06/11/2018	15:22:00	0	4.1	3650.61	50649354240.0	830sks, y=1.66, mw-7.92
06/11/2018	15:23:00	0	4.1	3372.39	51083333632.0	Wet and Dry Samples Taken
06/11/2018	15:24:00	0	4.1	4863.34	51517313024.0	Density Checked w/ Mud Scale
06/11/2018	16:14:00	0	0.0	2957.65	73767657472.0	End Tail Slurry
06/11/2018	16:35:00	0	0.2	-514.07	84621393920.0	Wash up Pump and Iines
06/11/2018	16:37:00	0	2.2	-517.25	85469650944.0	Drop Top Plug
06/11/2018	16:38:00	0	2.1	-517.58	85903826944.0	Start Displacement
06/11/2018	17:30:00	0	0.0	-504.41	109171040256.0	End Displacement

Well	Field	Job Start	Customer	Job Number
Ruegge 3F-4H	Wattenburg	Jun/26/2018	Crestone	E0ZP-00248

Date	Time 24-hr clock	Treating Pressure NULL	Flow Rate B/M	Density LB/G	Volume BBL	Message
06/11/2018	17:35:00	0	0.0	-504.74	111736012800.0	Floats Holind 3 bbl bacl

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
	0					bbl	lb/gal

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

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost ☐	Job Completed ☐
	Caleb Baldwin	-	-