

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC EBUSINESS

For: Laramie

Date: Friday, February 09, 2018

BRUTON 30-21W Surface PJR

API #: 05-077-10476

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

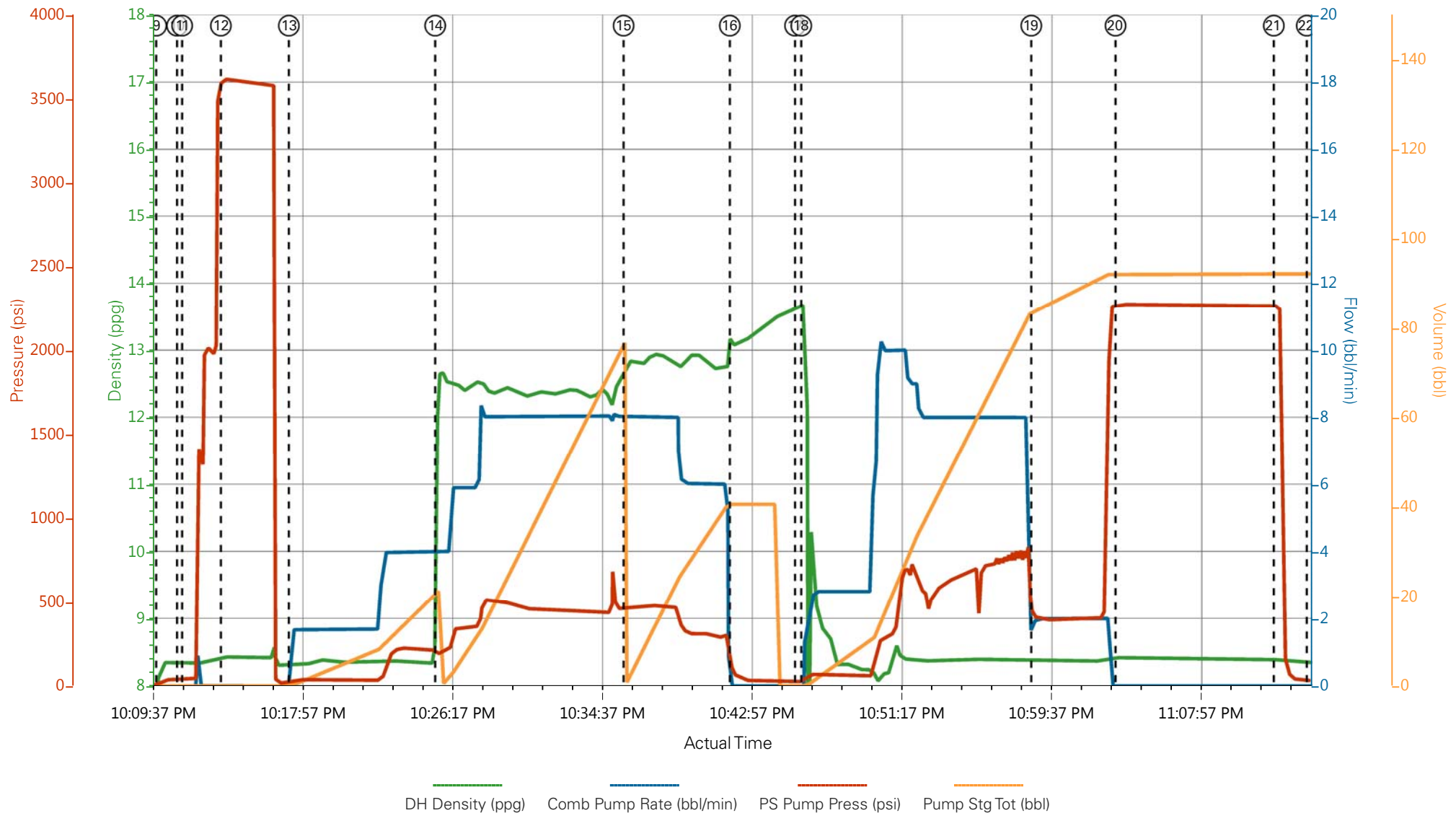
1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	2/9/2018	12:30:00	USER					REQUESTED ON LOCATION @ 1830
Event	2	Pre-Convoy Safety Meeting	2/9/2018	15:30:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	2/9/2018	15:45:00	USER					1 F550, 1 PUMP TRUCK & 1 660 BULK TURCK
Event	4	Arrive At Loc	2/9/2018	17:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	2/9/2018	17:15:00	USER					MET WITH COMP REP, TYLER, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 75F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	2/9/2018	17:25:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	2/9/2018	17:30:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	2/9/2018	21:49:59	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	2/9/2018	22:10:00	COM3					TD 1545', TP 1535', SJ 45', OH 11'', CSG 8.625" 28#, MUD 9 PPG. RIG CIRCULATED WELL @ 10 BPM WITH 200 PSI

Event	10	Prime Pumps	2/9/2018	22:11:09	COM3	39.00	8.34	1.00	2.0	8.33 PPG FRESH WATER
Event	11	Drop Bottom Plug	2/9/2018	22:11:26	USER					PLUG WENT, VERIFIED BY CO REP
Event	12	Test Lines	2/9/2018	22:13:35	COM3	3615.00	8.33	0.50	0.5	ALL LINES HELD PRESSURE AT 3616 PSI
Event	13	Pump Spacer 1	2/9/2018	22:17:22	COM3	127.00	8.33	4.00	20.0	8.33 PPG FRESH WATER (20BBL)
Event	14	Pump Lead Cement	2/9/2018	22:25:31	COM3	688.00	12.35	8.00	77.0	VARICEM CEMENT 175 SKS (77 BBLs), 12.3 PPG, 2.46 FT3/SK, 14.17 GAL/SK
Event	15	Pump Tail Cement	2/9/2018	22:36:00	COM3	466.00	12.79	8.00	42.0	VARICEM CEMENT 109 SKS (42 BBLs), 12.8 PPG, 2.18 FT3/SK, 12.11 GAL/SK.
Event	16	Shutdown	2/9/2018	22:41:54	USER					END OF CEMENT, WASH UP ON TOP OF PLUG.
Event	17	Drop Top Plug	2/9/2018	22:45:32	USER					PLUG WENT, VERIFIED BY CO REP
Event	18	Pump Displacement	2/9/2018	22:45:52	COM3	760.00	8.33	9.00	0.0	8.34 PPG FRESH WATER (92.9 BBLs)
Event	19	Slow Rate	2/9/2018	22:58:40	USER	463.00	8.33	2.00	82.7	SLOW RATE TO 2 BPM PER CO REP TO LAND PLUG
Event	20	Bump Plug	2/9/2018	23:03:21	USER	2271.00	8.33	2.00	10.0	LAND PLUG AT 460 PSI, BROUGHT UP TO 2271 PSI FOR CASING TEST
Event	21	Check Floats	2/9/2018	23:12:10	USER	2264.00	8.33	0.00	92.7	FLOATS HELD, 1 BBL BACK TO TRUCK
Event	22	End Job	2/9/2018	23:14:00	USER	33.00	8.35	0.00	92.7	RETURNS THROUGHOUT JOB, PIPE WAS NOT RECIPROCATED DURING THE JOB, 40 BBL OF CEMENT BACK TO SURFACE
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	2/9/2018	23:15:00	USER					ALL HES PRESENT

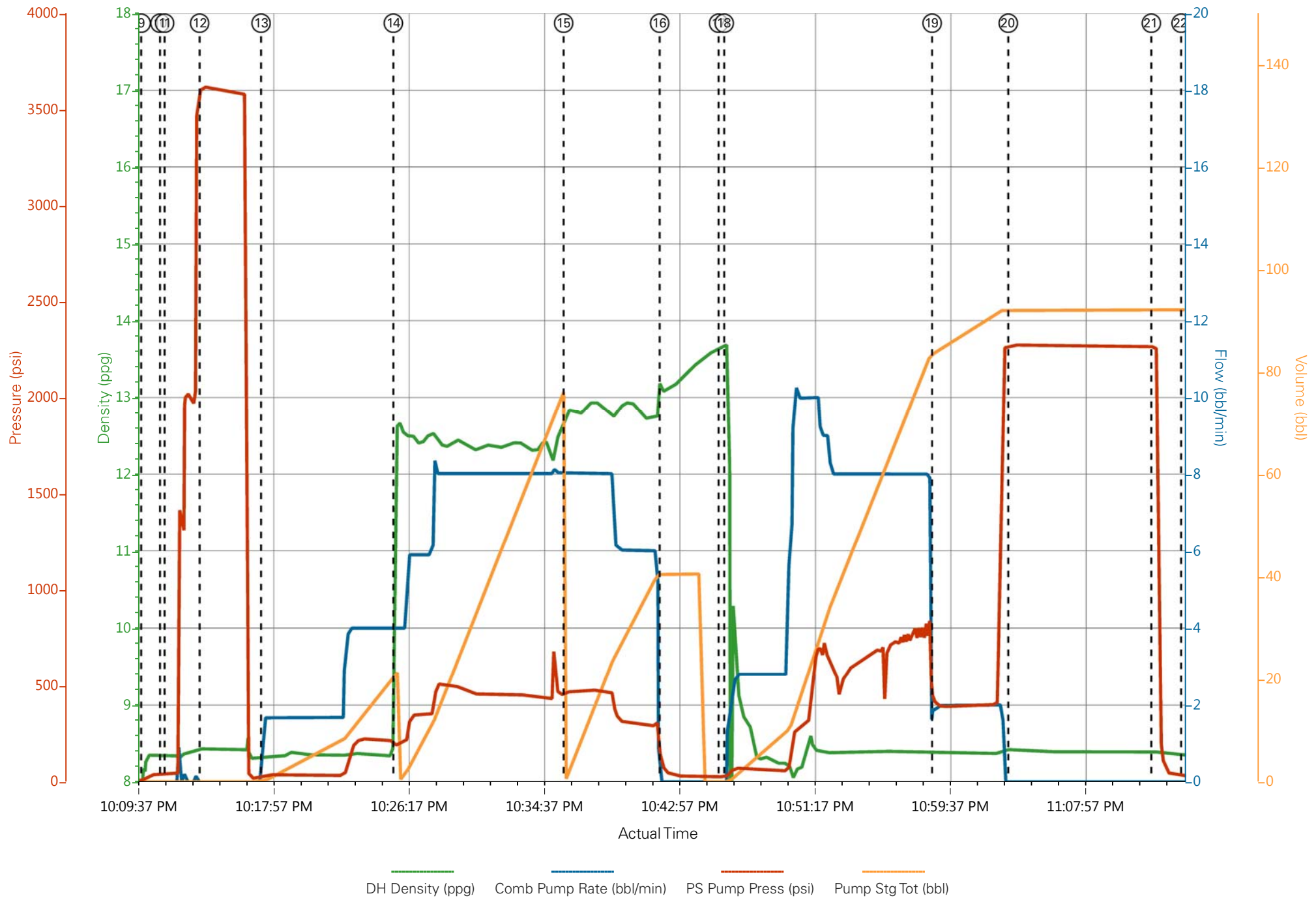
Event	24	Rig-Down Equipment	2/9/2018	23:25:00	USER	ALL HES PRESENT
Event	25	Pre-Convoy Safety Meeting	2/9/2018	23:30:00	USER	ALL HES PRESENT
Event	26	Crew Leave Location	2/9/2018	23:35:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

LARAMIE - BRUTON 30-21W - 8.625" SURFACE



- | | | | | |
|---|--------------------------|---------------------|---|------------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Pump Spacer 1 | ⑲ Slow Rate | 25 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑧ Pre-Job Safety Meeting | ⑭ Pump Lead Cement | 20 Bump Plug | 26 Crew Leave Location |
| ③ Crew Leave Yard | ⑨ Start Job | ⑮ Pump Tail Cement | 21 Check Floats | |
| ④ Arrive At Loc | ⑩ Prime Pumps | ⑯ Shutdown | 22 End Job | |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Drop Bottom Plug | ⑰ Drop Top Plug | 23 Post-Job Safety Meeting (Pre Rig-Down) | |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Test Lines | ⑱ Pump Displacement | 24 Rig-Down Equipment | |

LARAMIE - BRUTON 30-21W - 8.625" SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC

For: Laramie

Date: Tuesday, February 13, 2018

Bruton Federal 30-21W Production

API#05-077-10476

Job Date: Tuesday, February 13, 2018

Sincerely,

Grand Junction Cement Engineering

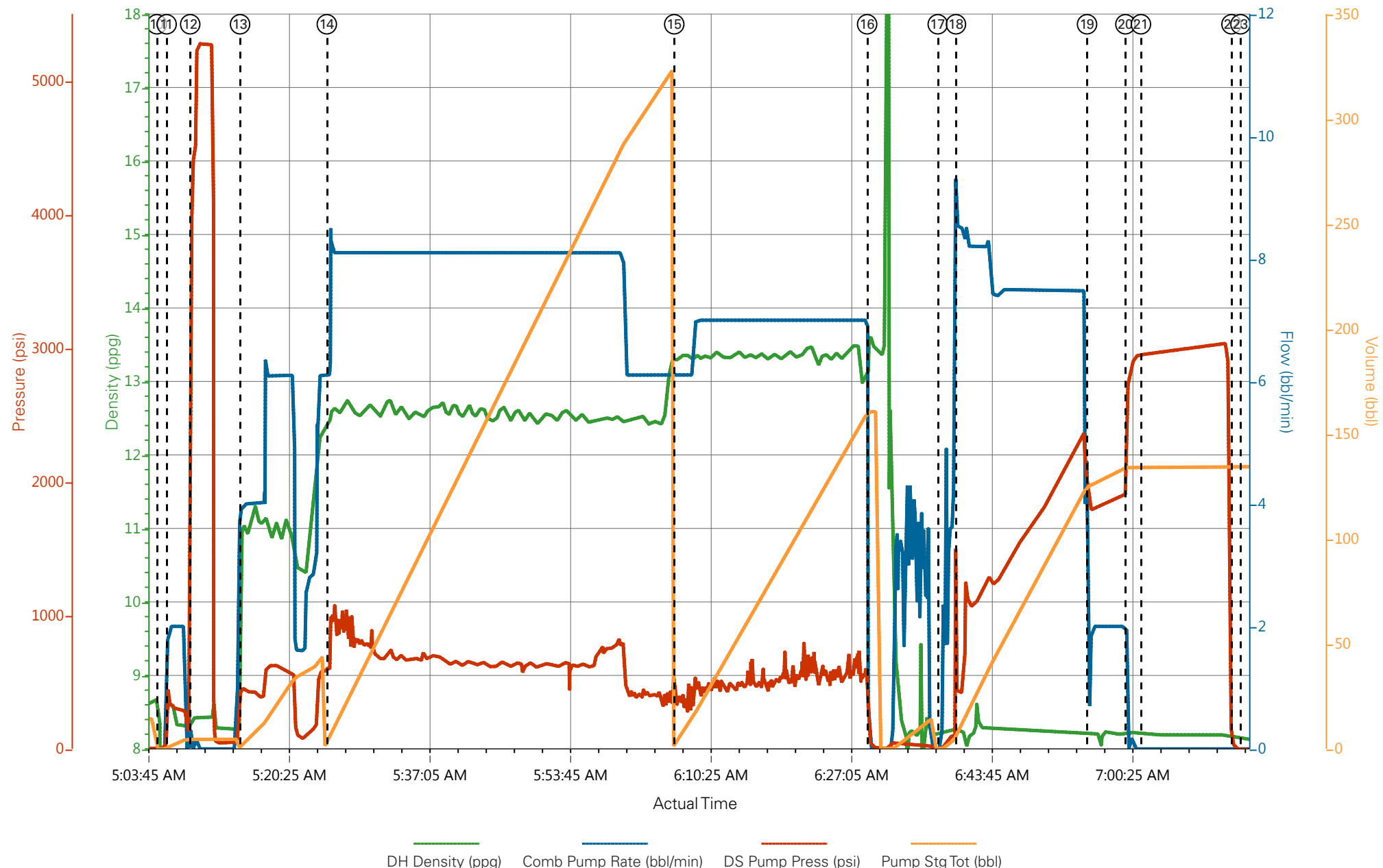
2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	2/12/2018	20:00:00						Requested on Location @ 02:00
Event	2	Pre-Convoy Safety Meeting	2/12/2018	22:00:00						
Event	3	Crew Leave Yard	2/12/2018	22:30:00						1 Elite, 1 660, 1 pickup
Event	4	Arrive At Loc	2/13/2018	02:00:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	2/13/2018	02:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, CI <200, temp 50 degrees
Event	6	Pre-Rig Up Safety Meeting	2/13/2018	02:15:00						
Event	7	Rig-Up Equipment	2/13/2018	02:22:00						DME iron to ground manifold, standpipe, hardline to pit. Water hoses to uprights, bulk hoses to silo and 660.
Event	8	Pre-Job Safety Meeting	2/13/2018	04:27:21						All HES personnel, rig crew, and company rep.
Event	9	Other	2/13/2018	04:43:30						Rig Circulated 2 hrs prior to cement job at 10 bpm 750 psi.
Event	10	Start Job	2/13/2018	05:05:06						TD 8489, OH 7 7/8", TP 8479, SJ 85, CSG 4 1/2" 11.6#, Surface CSG 8 5/8" 24# @ 1535'
Event	11	Fill Lines	2/13/2018	05:06:15		8.33	2	425	5	Fresh Water
Event	12	Test Lines	2/13/2018	05:09:03				5283		Held pressure 2 minutes
Event	13	Tuned Spacer	2/13/2018	05:14:58		11	6	675	40	40 BBL @ 11#
Event	14	Pump Lead Cement	2/13/2018	05:25:15		12.5	8	770	320	926 sks, 12.5 ppg, 1.94 yield, 9.6 gal/sk
Event	15	Pump Tail Cement	2/13/2018	06:06:26		13.3	7	550	142	461 sks, 13.3 ppg, 1.73 yield, 7.81 gal/sk
Event	16	Shutdown	2/13/2018	06:29:18						Clean Lines

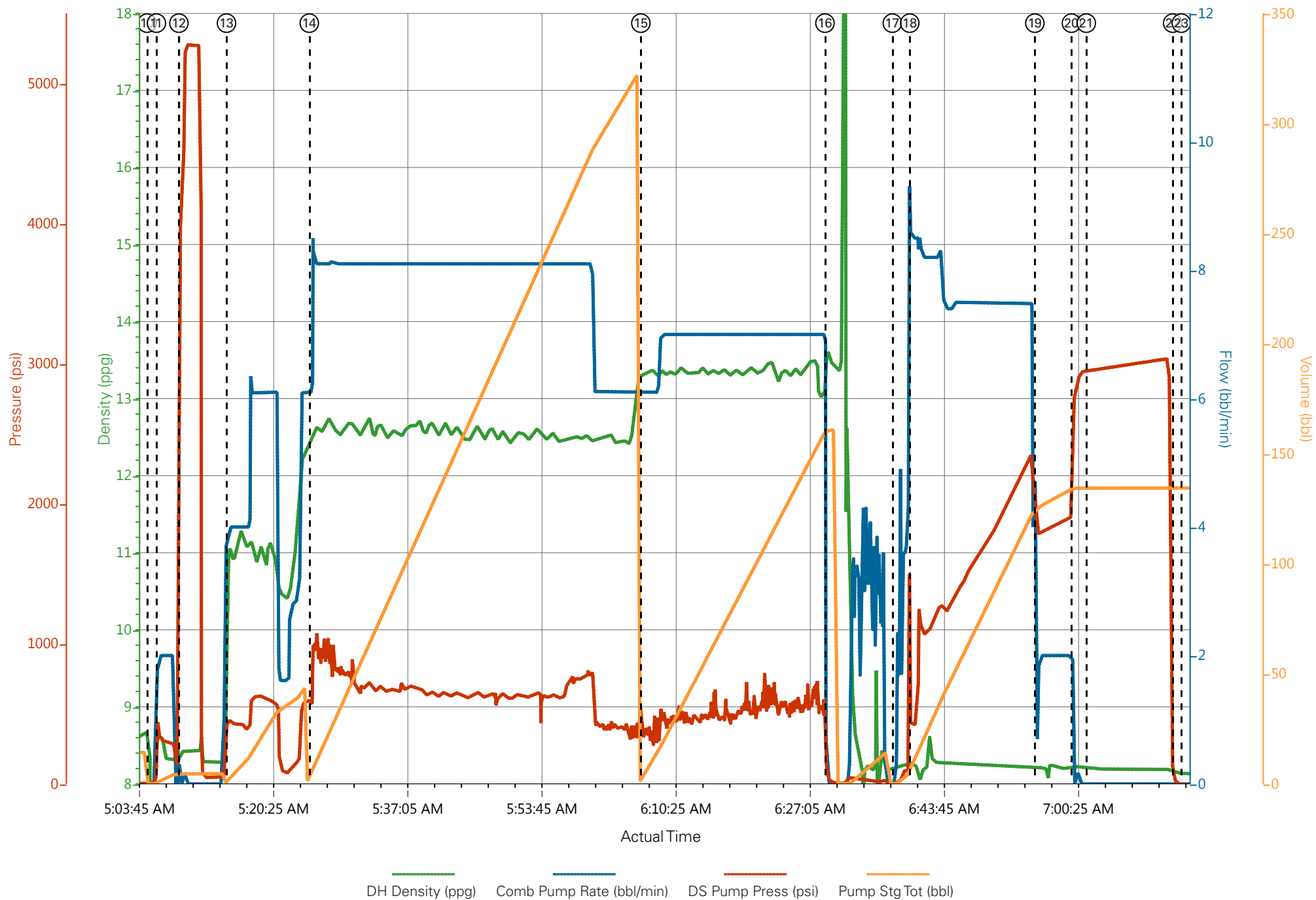
Event	17	Drop Top Plug	2/13/2018	06:37:41					Driller Verify Plug Launched
Event	18	Pump Displacement	2/13/2018	06:39:50	8.33	8	2340	130.1	5 Gal Clay-Web, 1 Gal MMCR
Event	19	Slow Rate	2/13/2018	06:55:23	8.33	2	1800	120	Slow Rate 10 bbls to Calculated Displacement
Event	20	Bump Plug	2/13/2018	06:59:56	8.33		3000		Plug Bumped at 1800 psi, Brought up to 3000 psi
Event	21	Test Casing	2/13/2018	07:01:46					Held 3000 PSI for 10 Min
Event	22	Check Floats	2/13/2018	07:12:30					Floats held – 1.5 bbl back to the truck
Event	23	End Job	2/13/2018	07:13:35					Good returns throughout job. Pipe was not reciprocated during job. 30 BBL of Tuned Spacer To Surface
Event	24	Pre-Rig Down Safety Meeting	2/13/2018	07:41:29					60# sugar, HES top and bottom plug used, 0 add hours
Event	25	Rig-Down Equipment	2/13/2018	07:46:57					
Event	26	Pre-Convoy Safety Meeting	2/13/2018	08:02:05					
Event	27	Crew Leave Location	2/13/2018	08:05:39					Thanks For Using Halliburton Cement. Chris Martinez And Crew

Bruton Federal 30-21W Production



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|---|---|------------------------------|--------------------------------------|-----------------------------|
| ① Call Out n/a;n/a;n/a;n/a | ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑨ Other 0.04;0;-1;0 | ⑬ Tunned Spacer 11.08;4;452;2.4 | ⑰ Drop Top Plug 8.2;0;0;0 |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑩ Start Job 3.88;0;-1;0 | ⑭ Pump Lead Cement 12.48;6.2;612;5.2 | ⑱ Pump Displacement 8.24; |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑦ Rig-Up Equipment n/a;n/a;n/a;n/a | ⑪ Fill Lines 8.61;2;329;0.9 | ⑮ Pump Tail Cement 13.28;6.1;379;4.4 | ⑲ Slow Rate 8.2;1.6;1795;12 |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑧ Pre-Job Safety Meeting 0;0;0;0 | ⑫ Test Lines 8.43;0;4433;4.6 | ⑯ Shutdown 13.63;0;41;160.6 | ⑳ Bump Plug 8.23;0;2780;13 |

Bruton Federal 30-21W Production



Job Information

Request/Slurry	2452139/1	Rig Name	H&P 522	Date	08/FEB/2018
Submitted By	Patrick Ealey	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-21W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8544 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7668 ft	BHCT	77°C / 170°F
Pressure	4668 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.9 lbm/gal
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Cement Information - Lead Design



Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		NeoCem				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.941	ft3/sack
						Water Requirement	9.623	gal/sack
						Total Mix Fluid	9.623	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Operation Test Results Request ID 2452139/1

Thickening Time - ON-OFF-ON

11/FEB/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
170	4668	49	4:17	5:46	7:41	9:19	10	59	15	8

Total sks = 926

CS0415, Trailer 8677, 463 sks

CS0418, Trailer 8678, 463 sks

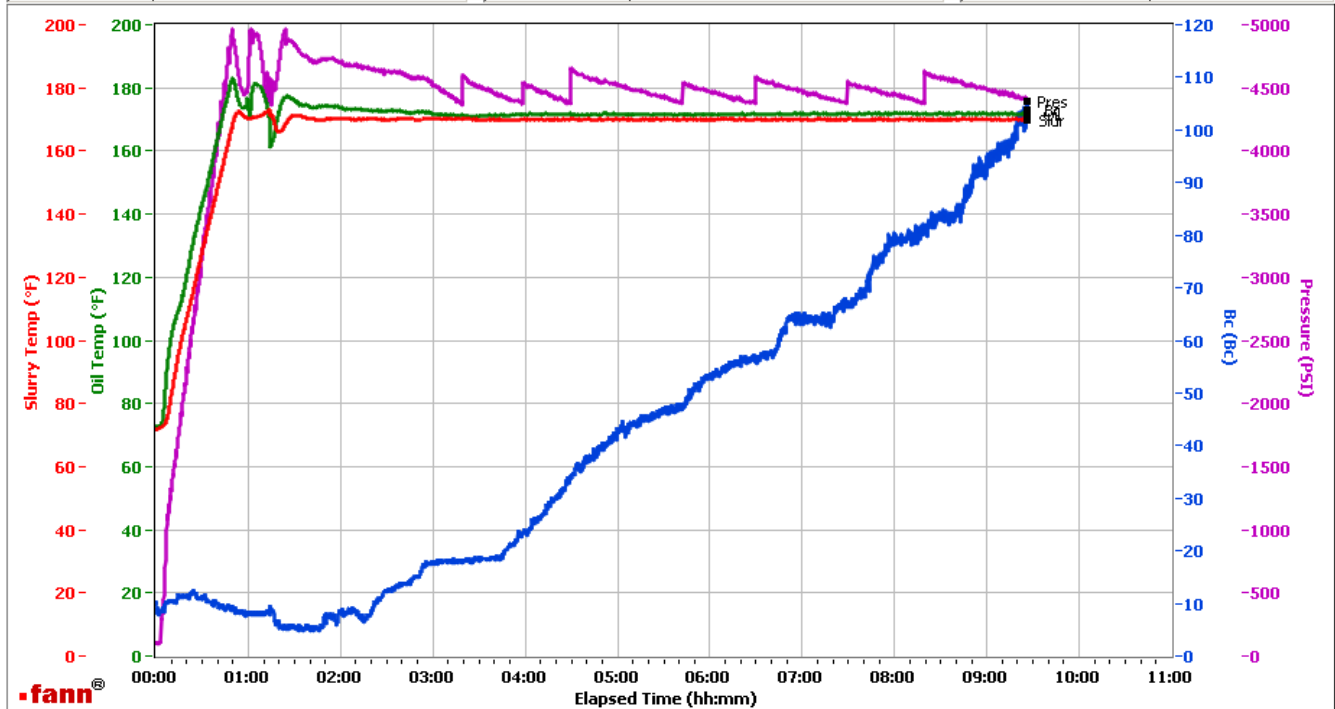
no deflection was recorded on the graph. 8Bc--- > 8Bc

Grand Junction Colorado

Fields	Values
Project Name	2452139-1 LARAMIE BULK PRODUCTION LE
Test ID	35242185 - TT
Request ID	2452139-1
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON FEDERAL 30-21W
Rig	H&P 522
Casing/Liner Size	4.5 INCH

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	HOLCIM TYPE I-II
Cement Weight	Standard
Test Date	02/11/18
Test Time	03:26 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	04h:17m
40.00 Bc	04h:48m
50.00 Bc	05h:46m
70.00 Bc	07h:41m
100.00 Bc	09h:19m
00h:30m	11.10
01h:00m	7.89
01h:30m	5.62



Data File C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files\Content.IE5\O3KLGZVR\GJ2452139-1 LARAMIE BULK PRODUCTION LEAD[1].tdms

Comments CS0415, TRAILER 8677, 463 SKS - CS0418, TRAILER 8678, 463 SKS

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HALLIBURTON

Rockies, Grand Junction

Lab Results- Tail

Job Information

Request/Slurry	2452140/1	Rig Name	H&P 522	Date	08/FEB/2018
Submitted By	Patrick Ealey	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-21W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8544 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7668 ft	BHCT	77°C / 170°F
Pressure	4668 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.9 lbm/gal
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Cement Information - Tail Design



Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		ThermaCem				Slurry Density	13.3	lbm/gal
						Slurry Yield	1.733	ft3/sack
						Water Requirement	7.799	gal/sack
						Total Mix Fluid	7.799	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Operation Test Results Request ID 2452140/1

Thickening Time - ON-OFF-ON

11/FEB/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
170	4668	49	3:05	3:06	3:24	4:35	15	59	15	12

Total sks = 461

CS0416, Trailer 2878, 361 sks

CS0417, Trailer 7094, 100 sks

deflected from 15Bc--- > 12Bc

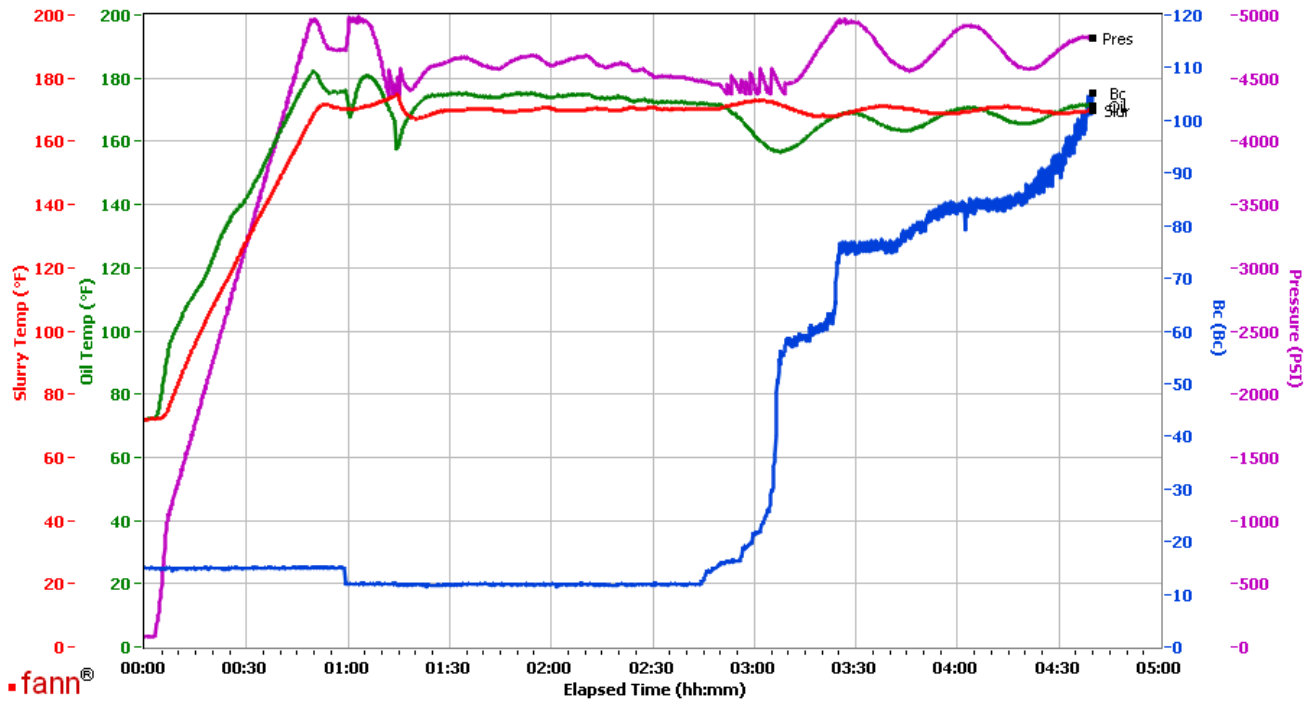
please see heat of hydration at 2:50

Grand Junction Colorado

Fields	Values
Project Name	2452140-1 LARAMIE BULK PRODUCTION TA
Test ID	35242187 - TT
Request ID	2452140-1
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON FEDERAL 30-21W
Rig	H&P 522
Casing/Liner Size	4.5 INCH

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	MOUNTAIN G
Cement Weight	Standard
Test Date	02/11/18
Test Time	01:18 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:05m
40.00 Bc	03h:06m
50.00 Bc	03h:06m
70.00 Bc	03h:24m
100.00 Bc	04h:35m
00h:30m	15.13
01h:00m	12.08
01h:30m	12.15



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Comments CS0416, TRAILER 2878, 361 SKS - CS0417, TRAILER 7094, 100 SKS

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