

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC

For: Laramie

Date: Saturday, January 27, 2018

Bruton Federal 30-20W Surface PJR

API #: 05-077-10474

Sincerely,

Grand Junction Cement Engineering

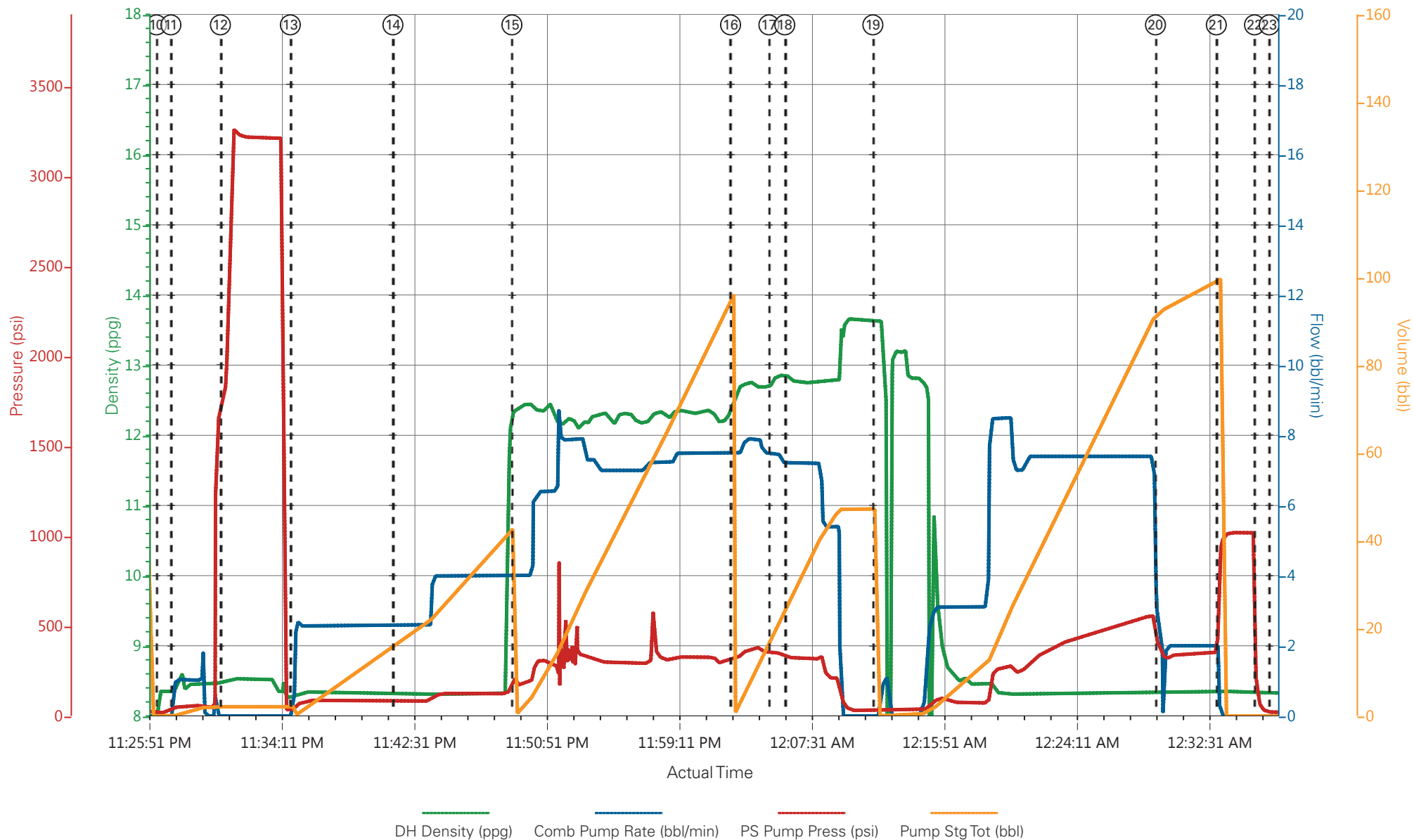
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	1/26/2018	15:30:00	USER					Requested on Location @ 21:30
Event	2	Pre-Convoy Safety Meeting	1/26/2018	18:30:00	USER					
Event	3	Crew Leave Yard	1/26/2018	18:45:00	USER					1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location	1/26/2018	20:30:00	USER					
Event	5	Assessment Of Location Safety Meeting	1/26/2018	20:45:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 443 degrees
Event	6	Pre-Rig Up Safety Meeting	1/26/2018	21:00:00	USER					
Event	7	Rig-Up Equipment	1/26/2018	21:15:00	USER					1 hardline to standpipe, water hoses to upright and day tank, bulk hose to 660.
Event	8	Other	1/26/2018	21:30:00	USER					Rig Circulated 1 hour prior to cement job at 10 bpm 130 psi. Mud report 9.3 ppg.
Event	9	Pre-Job Safety Meeting	1/26/2018	21:45:00	USER					All HES personnel, Rig Crew, and Company Rep.
Event	10	Start Job	1/26/2018	23:26:29	USER					TD 1575', TP 1565', SJ 41.2', OH 11", Csg. 8.625" 24 lb/ft J-55
Event	11	Fill Lines	1/26/2018	23:27:23	USER	8.4	2	130	2	Fresh water
Event	12	Test Lines	1/26/2018	23:30:30	COM6					Fresh water Held pressure 2

										minutes no leaks
Event	13	Pump H2O Spacer	1/26/2018	23:34:54	COM6	8.4	.5	3370	.5	Bottom plug released ahead of fresh water spacer.
Event	14	Check weight	1/26/2018	23:41:21	COM6					Density verified via mud scales
Event	15	Pump Lead Cement	1/26/2018	23:48:50	COM6	12.3	7.5	580	86.3	197 Sks 12.3 ppg 2.46 yield 14.17 gal/sk
Event	16	Pump Tail Cement	1/27/2018	00:02:35	COM6	12.8	8	375	42.3	109 Sks 12.8 ppg 2.18 yield 12.11 gal/sk
Event	17	Shutdown	1/27/2018	00:05:00	USER					Wash up on top of plug
Event	18	Drop Top Plug	1/27/2018	00:06:00	USER					Customer verified plug launched
Event	19	Pump Displacement	1/27/2018	00:11:32	COM6	8.4	7.5	540	96.6	Fresh Water
Event	20	Slow Rate	1/27/2018	00:29:18	USER			350		Slow Rate 10 bbls prior to Calculated Displacement
Event	21	Bump Plug	1/27/2018	00:33:08	USER			940		Plug Bumped at 380 psi, Brought up to 950 psi
Event	22	Check Floats	1/27/2018	00:35:32	USER					Floats held – ½ bbl back to the truck
Event	23	End Job	1/27/2018	00:36:27	USER					Good returns throughout job, pipe was not reciprocated during cement, 46 bbls of cement to surface
Event	24	Pre-Rig Down Safety Meeting	1/27/2018	00:45:00	USER					40 lbs sugar, No add hours
Event	25	Rig-Down Equipment	1/27/2018	00:50:00	USER					
Event	26	Pre-Convoy Safety Meeting	1/27/2018	01:30:00	USER					

Laramie Energy - Bruton 30-20W - Surface Casing



- | | | | | | |
|---|-----------------------------|--------------------|---------------------|--------------------------------|------------------------------|
| ① Call Out | ⑥ Pre-Rig Up Safety Meeting | ⑪ Fill Lines | ⑯ Pump Tail Cement | 21 Bump Plug | 26 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑦ Rig-Up Equipment | ⑫ Test Lines | ⑰ Shutdown | 22 Check Floats | |
| ③ Crew Leave Yard | ⑧ Other | ⑬ Pump H2O Space | ⑱ Drop Top Plug | 23 End Job | |
| ④ Arrive at Location | ⑨ Pre-Job Safety Meeting | ⑭ Check weight | ⑲ Pump Displacement | 24 Pre-Rig Down Safety Meeting | |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Start Job | ⑮ Pump Lead Cement | 20 Slow Rate | 25 Rig-Down Equipment | |

▼ **HALLIBURTON** | iCem® Service

Created: 2018-01-26 18:16:24, Version: 4.2.393

Edit

Customer : LARAMIE ENERGY II LLC

Job Date : 1/26/2018 9:33:49 PM

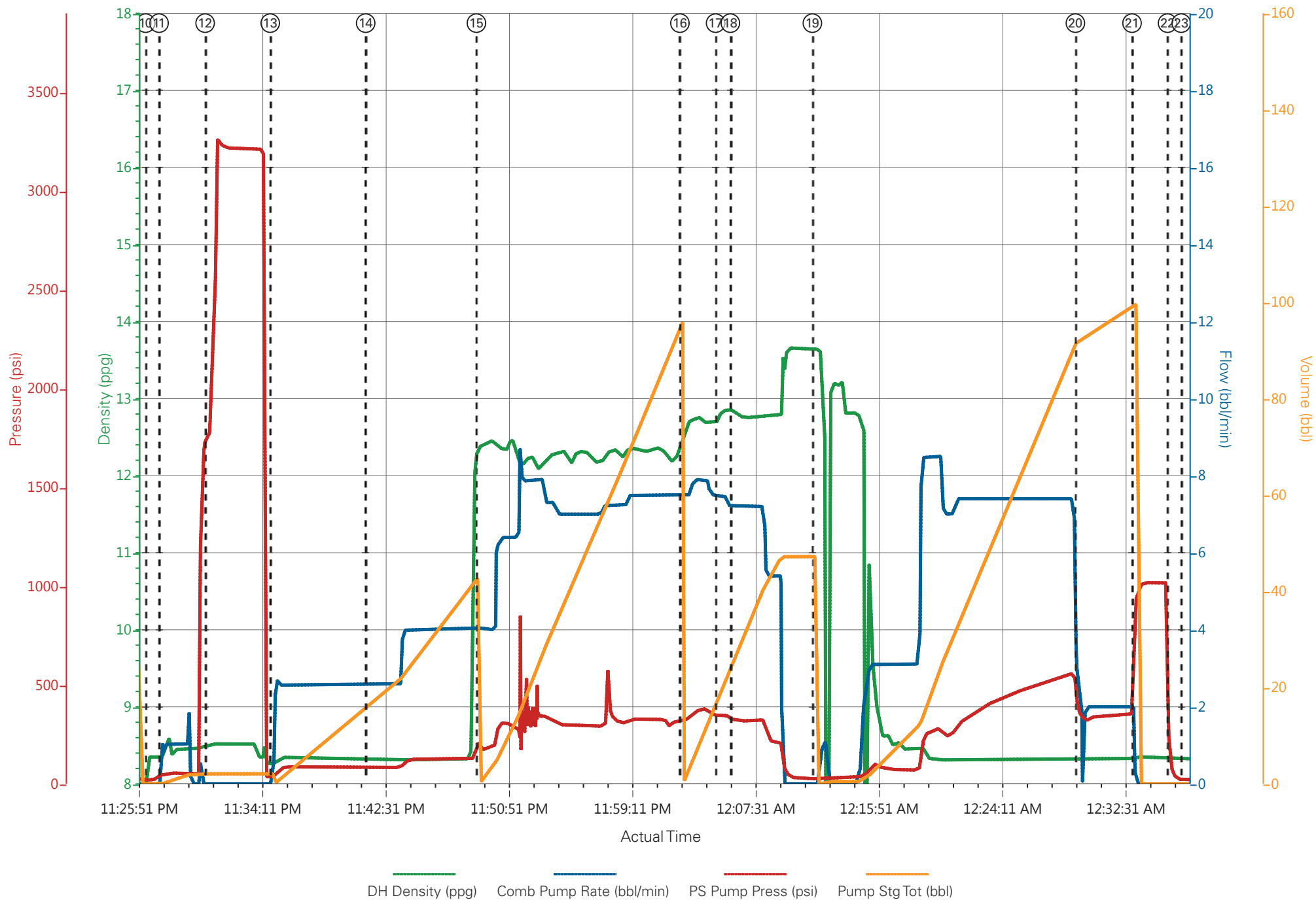
Well : Bruton 30-20W

Representative : Shane Heard

Sales Order # : 904597379

Elite 4 : Muhlestein/Angelo

Laramie Energy - Bruton 30-20W - Surface Casing



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC

For: Laramie

Date: Tuesday, January 30, 2018

BRUTON 30-20W Production PJR

API #: 05-077-10474

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

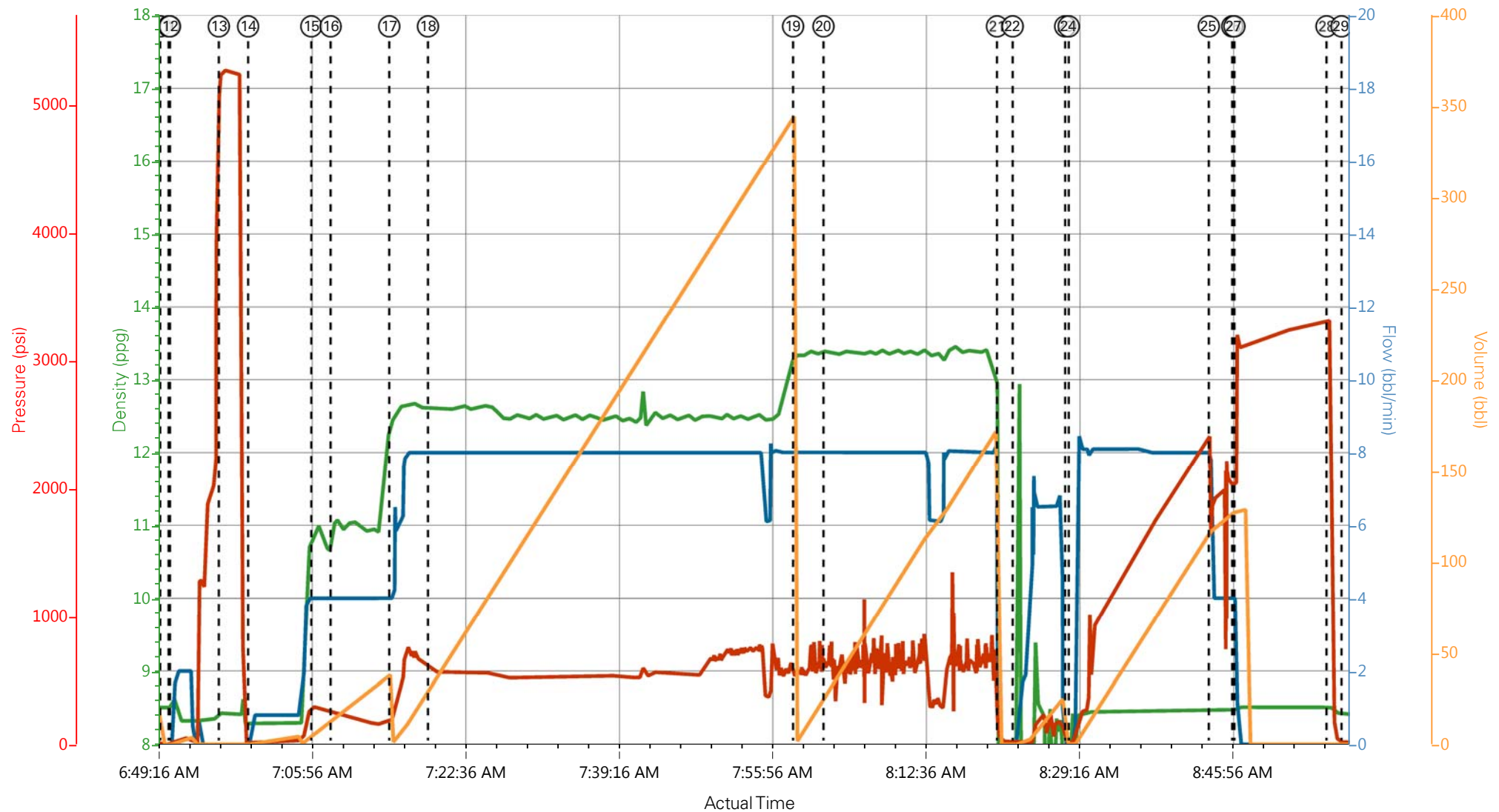
2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	1/29/2018	22:30:00	USER					ON LOCATION REQUESTED 5:00
Event	2	Pre-Convoy Safety Meeting	1/30/2018	02:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/30/2018	02:15:00	USER					
Event	4	Arrive at Location from Service Center	1/30/2018	03:30:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	1/30/2018	03:40:00	USER					MET WITH COMPANY REP DISCUSSED PROCEDURE, SDS OFFERED
Event	6	Pre-Rig Up Safety Meeting	1/30/2018	03:45:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	1/30/2018	05:00:00	USER					1-ELITE, 1-660 BULK TRAILER, 2-FIELD SILO, 2" PUMP IRON, 4" SUCTION HOSE, 4.5" QL
Event	8	Pre-Job Safety Meeting	1/30/2018	05:30:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Other	1/30/2018	05:35:00	USER					RIG CIRCULATED 1 HOUR AT 555GPM 1100PSI, AT 450 GPM 807 PSI , WATER:TEMP-40,PH-7, CL-0
Event	10	Start Job	1/30/2018	06:49:50	USER	8.40	0.00	0.00	0.0	TD-8344', TP-8339', SJ-83', CSG-4.5" 11.6# P110, SCSG-8.625" 24# J55, OH-7.875", MUD-9.3PPG

Event	11	Drop Bottom Plug	1/30/2018	06:50:44	USER	8.40	0.80	22.00	0.2	PLUG AWAY
Event	12	Prime Pumps	1/30/2018	06:50:53	USER	8.41	2.00	68.00	3.0	FRESH WATER
Event	13	Test Lines	1/30/2018	06:56:11	USER	8.43	0.00	5268.00	3.1	ALL PRESSURE HELD ON LINES
Event	14	Pump Water	1/30/2018	06:59:22	USER	8.38	0.80	49.00	4.5	WATER TO ESTABLISH RETURNS
Event	15	Pump TUNED SPACER III	1/30/2018	07:06:13	USER	11.00	4.00	297.00	5.2	TUNED SPACER III, 40BBLs, 11.0PPG, 4.86CF/SK, 31.9GAL/SK
Event	16	Check weight	1/30/2018	07:08:19	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	17	Pump Lead Cement	1/30/2018	07:14:41	USER	12.50	8.00	675.00	313.7	NEOCER LEAD 908SKS, 12.5PPG, 1.94CF/SK, 9.6GAL/SK
Event	18	Check weight	1/30/2018	07:18:53	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	19	Pump Tail Cement	1/30/2018	07:58:31	USER	13.35	8.00	700.00	142.0	THERMACER TAIL 461SKS, 13.3PPG, 1.73CF/SK, 7.81GAL/SK
Event	20	Check weight	1/30/2018	08:01:49	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	21	Shutdown	1/30/2018	08:20:39	USER					END OF CEMENT
Event	22	Clean Lines	1/30/2018	08:22:22	USER					CLEANED PUMPS AND LINES TO CELLAR
Event	23	Drop Top Plug	1/30/2018	08:28:03	USER					PLUG AWAY
Event	24	Pump Displacement	1/30/2018	08:28:27	USER	8.44	8.00	2422.00	128.0	FRESH WATER, 5 GAL CLAWEB, 1 GAL MMCR
Event	25	Slow Rate	1/30/2018	08:43:39	USER	8.47	4.00	1855.00	117.6	SLOW RATE LAST 10 BBLs
Event	26	Bump Plug	1/30/2018	08:46:11	USER	8.47	4.00	2034.00	128.0	PLUG BUMPED 2034PSI
Event	27	Casing Test	1/30/2018	08:46:26	USER	8.50	0.00	3084.00	128.5	10 MINUTE CASING TEST

Event	28	Check Floats	1/30/2018	08:56:26	USER	8.50	0.00	3270.00	0.0	FLOATS HELD, 1.5BBLS BACK TO DISPLACEMENT TANK
Event	29	End Job	1/30/2018	08:58:03	COM5					GOOD RETURNS THROUGHOUT JOB, 40 BBLS TUNED SPACER TO SURFACE
Event	30	Post-Job Safety Meeting (Pre Rig-Down)	1/30/2018	09:03:23	USER					ALL HES PRESENT
Event	31	Rig-Down Completed	1/30/2018	10:00:00	USER					
Event	32	Pre-Convoy Safety Meeting	1/30/2018	10:15:00	USER					ALL HES PRESENT
Event	33	Crew Leave Location	1/30/2018	10:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

LARAMIE - BRUTON 30-20W - 4.5" PRODUCTION



- | | | | | | | |
|--|---|--------------------|----------------------|--------------------|----------------------|-----------------|
| ① Call Out | ⑤ Assessment Of Location Safety Meeting | ⑨ Other | ⑬ Test Lines | ⑰ Pump Lead Cement | 21 Shutdown | 25 Slow Rate |
| ② Pre-Convoy Safety Meeting | ⑥ Pre-Rig Up Safety Meeting | ⑩ Start Job | ⑭ Pump Water | ⑱ Check weight | 22 Clean Lines | 26 Bump Plug |
| ③ Crew Leave Yard | ⑦ Rig-Up Completed | ⑪ Drop Bottom Plug | ⑮ Pump Mud Flush III | ⑲ Pump Tail Cement | 23 Drop Top Plug | 27 Casing Test |
| ④ Arrive at Location from Service Center | ⑧ Pre-Job Safety Meeting | ⑫ Prime Pumps | ⑯ Check weight | 20 Check weight | 24 Pump Displacement | 28 Check Floats |

▼ **HALLIBURTON** | iCem® Service

Created: 2018-01-30 00:49:48, Version: 4.2.393

Edit

Customer : LARAMIE ENERGY II LLC

Job Date : 1/30/2018 4:50:46 AM

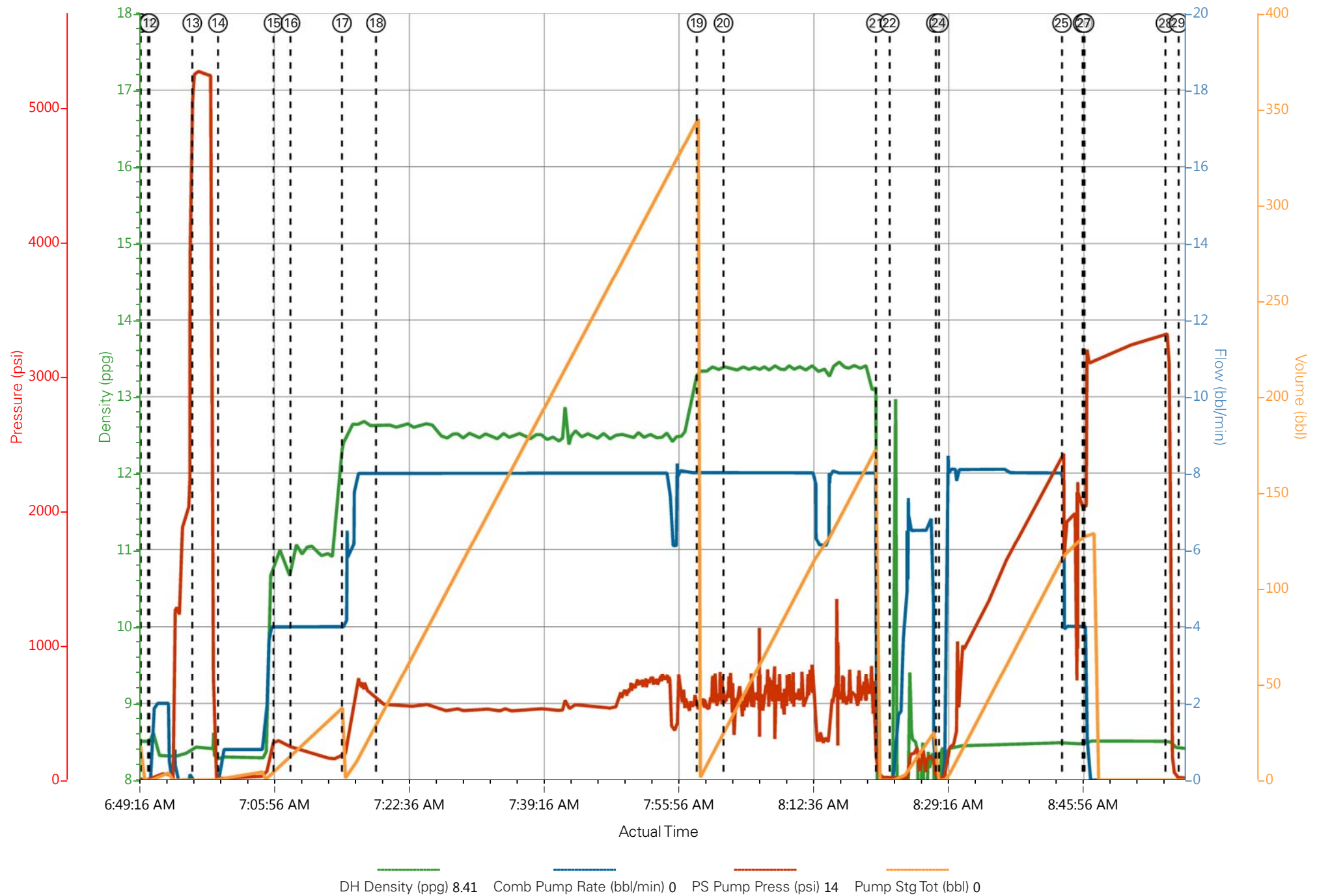
Well : BRUTON 30-20W

Representative : TYLER HALE

Sales Order # : 904606640

ELITE #1 : R.HOEY

LARAMIE - BRUTON 30-20W - 4.5" PRODUCTION



Job Information

Request/Slurry	2449543/2	Rig Name	H&P 522	Date	28/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-20W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8443 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7665 ft	BHCT	77°C / 170°F
Pressure	4666 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		
						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 2449543/2

Thickening Time - ON-OFF-ON

29/JAN/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)	Termination time (hh:mm)	Termination Bc
170	4666	48	3:25	4:05	4:45	11	58	15	15	5:44	82

Total sks = 908

CS0292 TR#8678 454 SKS

no deflection was observed. 15Bc--- > 15Bc

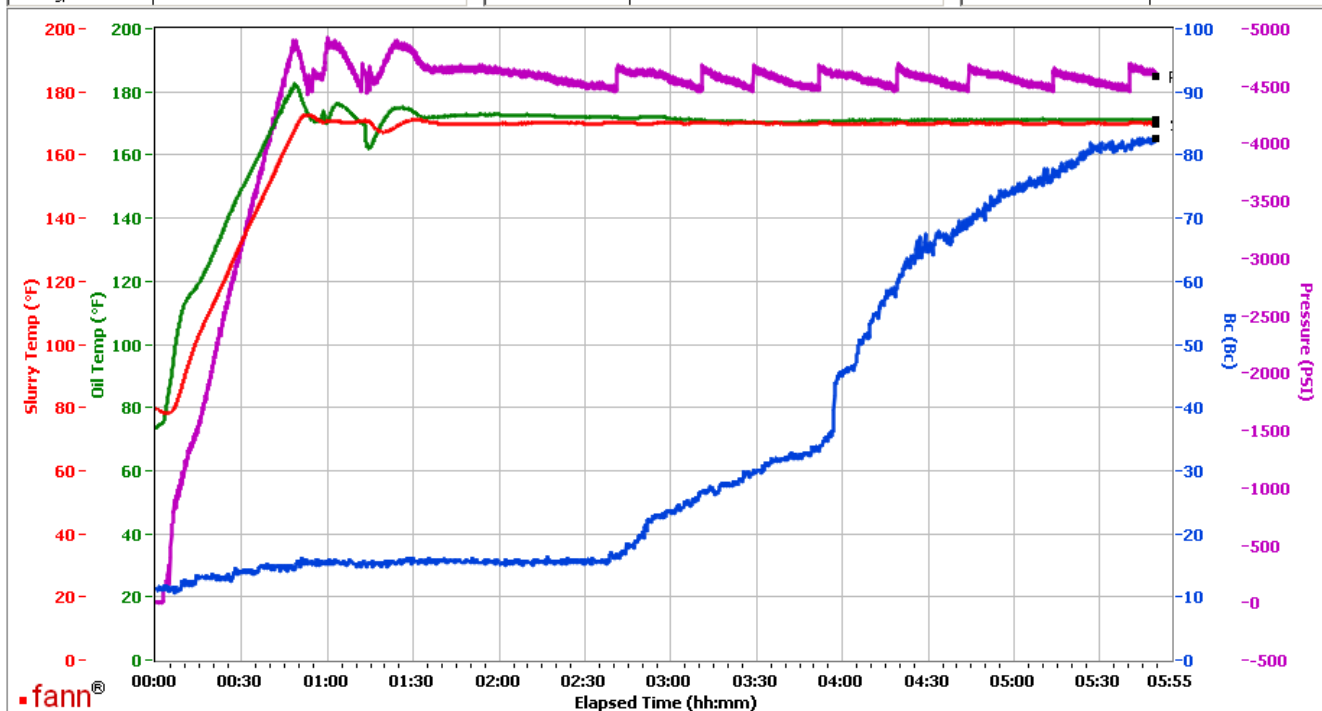
test was taken off at 82Bc per Engineer's request.

Grand Junction Colorado

Fields	Values
Project Name	GJ2449543-2 LARAMIE PRODUCTION BULK
Test ID	35215108
Request ID	GJ2449543-2
Tested by	DEBA
Customer	LARAMIE ENERGY
Well No	BRUTONFEDERAL 30-20W
Rig	H&P 522
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	HOLCIM TYPE I-II
Cement Weight	Standard
Test Date	01/29/18
Test Time	06:19 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:25m
40.00 Bc	03h:57m
50.00 Bc	04h:05m
70.00 Bc	04h:45m
100.00 Bc	NaN
00h:30m	13.76
01h:00m	15.58
01h:30m	15.90



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Comments CS0292 TR#8678 454 sks

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Operation Test Results Request ID 2449543/1

Thickening Time - ON-OFF-ON

29/JAN/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	4660	48	4:25	4:32	4:53	5:25	13	58	15	12

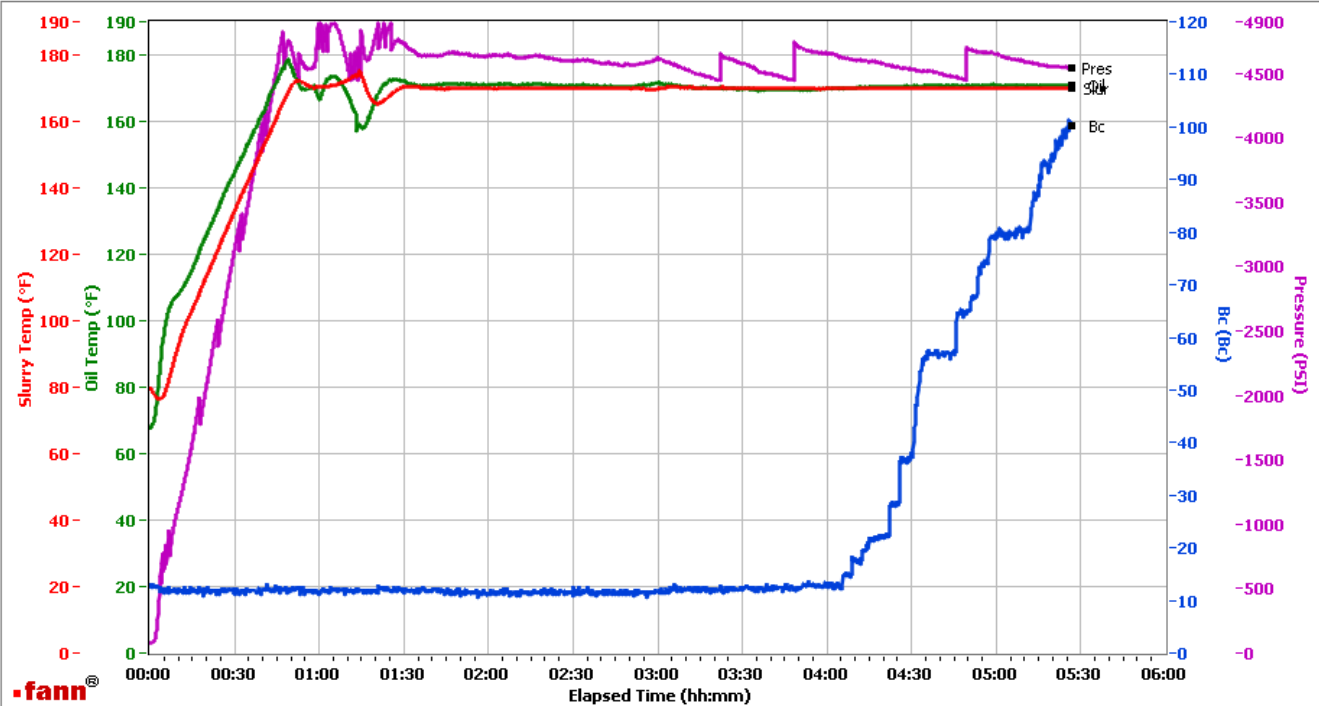
Total sks = 908

CS0289 TR# 8658 454 SKS

no deflection was observed. 12Bc--- > 12Bc

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2449543-1 LARAMIE PRODUCTION BULK	Job Type	PRODUCTION CASING	30.00 Bc	04h:25m
Test ID	35211934	Cement Type	HOLCIM TYPE I-II	40.00 Bc	04h:30m
Request ID	GJ2449543-1	Cement Weight	Standard	50.00 Bc	04h:32m
Tested by	DEBA	Test Date	1/29/18	70.00 Bc	04h:53m
Customer	LARAMIE ENERGY	Test Time	02:36 PM	100.00 Bc	05h:25m
Well No	BRUTON FEDERAL 30-20W	Temp. Units	degF	00h:30m	12.12
Rig	H&P 522	Pressure Units	PSI	01h:00m	11.74
Casing/Liner Size	4.5"	SW Version	2.1.0.1219	01h:30m	12.25



Data File C:\Documents and Settings\HPHT\Local Settings\Temporary Internet Files\Content.IE5\09ERK9UN\GJ2449543-1 LARAMIE PRODUCTION BULK LEAD[1].tdms

Comments CS0289 TR#8658 454 SKS

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HALLIBURTON

Rockies, Grand Junction

Lab Results- Tail

Job Information

Request/Slurry	2449544/1	Rig Name	H&P 522	Date	28/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-20W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8443 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7665 ft	BHCT	77°C / 170°F
Pressure	4666 psi				

Drilling Fluid Information

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



<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<u>Cement Properties</u>	
						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 2449544/1

Thickening Time - ON-OFF-ON

30/JAN/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)	Termination time (hh:mm)	Termination Bc
170	4666	48	4:01	4:13	5:32	16	58	15	18	5:34	71

Total sks = 461

Composite:

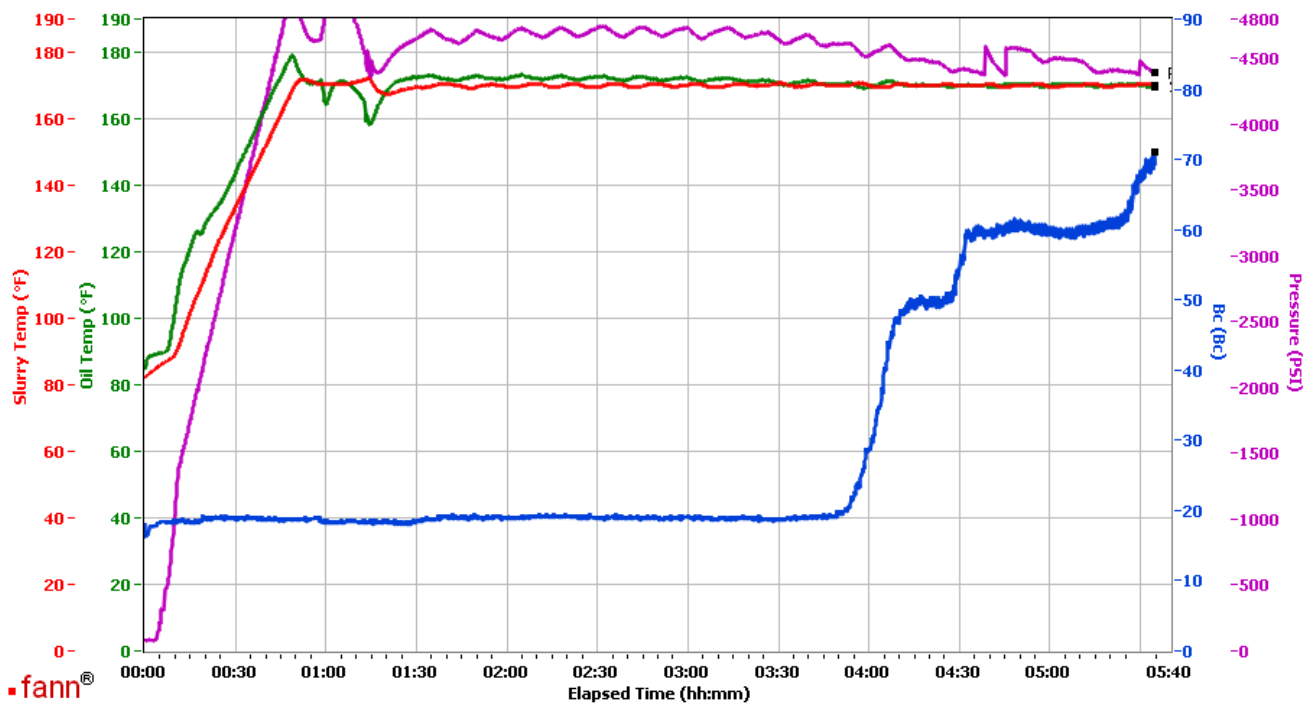
CS0290 TR#7428 100 SKS

CS0293 TR#8476 361 SKS

no deflection was observed. 18Bc--- > 18Bc

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2449544-1 IARAMIE PRODUCTION BULK T	Job Type	PRODUCTION CASING	30.00 Bc	04h:01m
Test ID	35211536	Cement Type	MOUNTAIN G	40.00 Bc	04h:05m
Request ID	GJ2449544-1	Cement Weight	Standard	50.00 Bc	04h:13m
Tested by	DEBA	Test Date	01/30/18	70.00 Bc	05h:32m
Customer	IARAMIE ENERGY	Test Time	02:23 AM	100.00 Bc	NaN
Well No	BRUTON FEDERAL 30-20W	Temp. Units	degF	00h:30m	18.77
Rig	H8P522	Pressure Units	PSI	01h:00m	18.46
Casing/Liner Size	4.5"	SW Version	2.1.0.507	01h:30m	18.39



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\4TIJ89YN\GJ2449544-1 IARAMIE PRODUCTION BULK TAIL[1].tdms

Comments COMPOSITE: CS0290 TR#7428 100 SKS & CS0293 TR#8476 361 SKS

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