

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC EBUSINESS

For: Laramie

Date: Friday, January 05, 2018

BRUTON 30-17W Surface

API# 05-077-10468

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

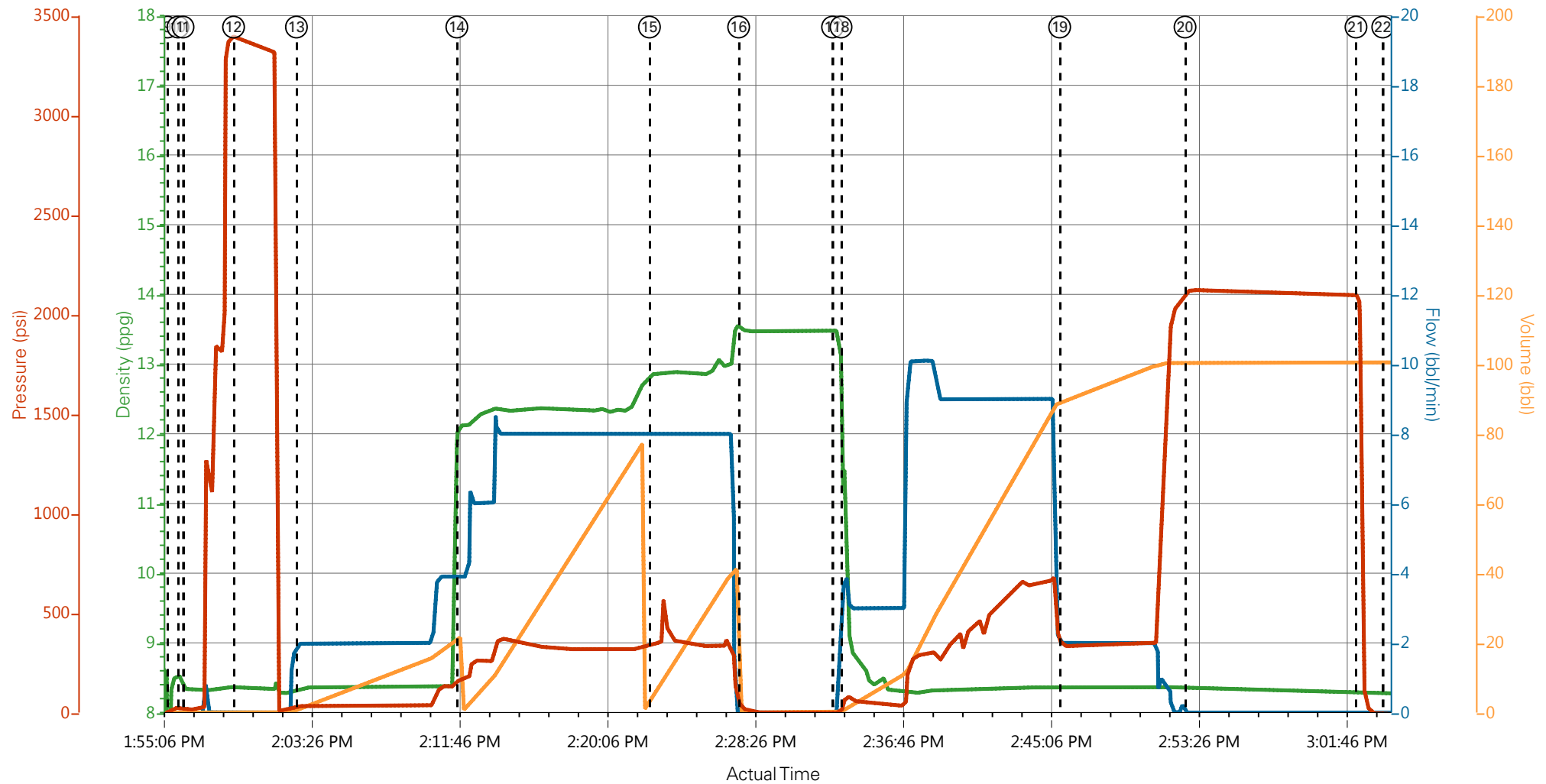
1.1 Job Event Log

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	1/5/2018	07:30:00	USER					REQUESTED ON LOCATION @ 1300
Event	2	Pre-Convoy Safety Meeting	1/5/2018	08:45:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/5/2018	09:00:00	USER					1 F550, 1 PUMP TRUCK & 1 660 BULK TURCK
Event	4	Arrive At Loc	1/5/2018	10:30:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	1/5/2018	10:45:00	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	1/5/2018	10:55:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	1/5/2018	11:10:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	1/5/2018	13:00:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	1/5/2018	13:55:30	COM6					TD 1551', TP 1541', SJ 44.7', OH 11'', CSG 8.625" 24#, MUD 9 PPG.
Event	10	Drop Bottom Plug	1/5/2018	13:56:05	USER					PLUG WENT, VERIFIED BY CO REP
Event	11	Prime Pumps	1/5/2018	13:56:22	USER	25.00	8.34	6x5	2.0	8.33 PPG FRESH WATER
Event	12	Test Lines	1/5/2018	13:59:13	COM6	3392.00	8.36	0.50	0.5	ALL LINES HELD PRESSURE AT 3394 PSI
Event	13	Pump Spacer 1	1/5/2018	14:02:46	COM6	130.00	8.34	4.00	19.9	8.33 PPG FRESH WATER (20BBL)
Event	14	Pump Lead Cement	1/5/2018	14:11:48	COM6	333.00	12.30	8.00	86.3	VARICEM CEMENT 197 SKS (86 BBLS), 12.3 PPG, 2.46 FT3/SK, 14.17 GAL/SK
Event	15	Pump Tail Cement	1/5/2018	14:22:40	COM6	348.00	12.86	8.00	42.8	VARICEM CEMENT 109 SKS (42 BBLS), 12.8 PPG, 2.18

FT3/SK, 12.11 GAL/SK.

Event	16	Shutdown	1/5/2018	14:27:41	USER					END OF CEMENT
Event	17	Drop Top Plug	1/5/2018	14:32:59	USER					PLUG WENT, VERIFIED BY CO REP
Event	18	Pump Displacement	1/5/2018	14:33:27	COM6	667.00	8.31	9.00	85.5	8.34 PPG FRESH WATER (95.3 BBLS)
Event	19	Slow Rate	1/5/2018	14:45:47	USER	338.00	8.35	2.00	10.0	SLOW RATE TO 2 BPM PER CO REP TO LAND PLUG
Event	20	Bump Plug	1/5/2018	14:52:51	USER	2119.00	8.35	0.00	95.5	LAND PLUG AT 351 PSI, BROUGHT UP TO 2123 PSI FOR CASING TEST
Event	21	Check Floats	1/5/2018	15:02:29	USER	2026.00	8.29	0.00	95.5	FLOATS HELD, 1 BBL BACK TO TRUCK
Event	22	End Job	1/5/2018	15:04:00	USER					RETURNS THROUGHOUT JOB, PIPE WAS NOT RECIPROCATED, 20 BBL OF CEMENT BACK TO SURFACE
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	1/5/2018	15:05:14	USER					ALL HES PRESENT
Event	24	Rig-Down Equipment	1/5/2018	15:10:00	USER					ALL HES PRESENT
Event	25	Pre-Convoy Safety Meeting	1/5/2018	15:40:00	USER					ALL HES PRESENT
Event	26	Crew Leave Location	1/5/2018	15:45:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

LARAMIE - BRUTON FED 30-17W - 8.625" SURFACE



— DH Density (ppg)
 — Comb Pump Rate (bbl/min)
 — PS Pump Press (psi)
 — Pump Stg Tot (bbl)

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

▼ **HALLIBURTON** | iCem® Service

Created: 2018-01-05 11:40:45, Version: 4.2.393

Edit

Customer : LARAMIE ENERGY II LLC EBUSINESS

Job Date : 1/5/2018

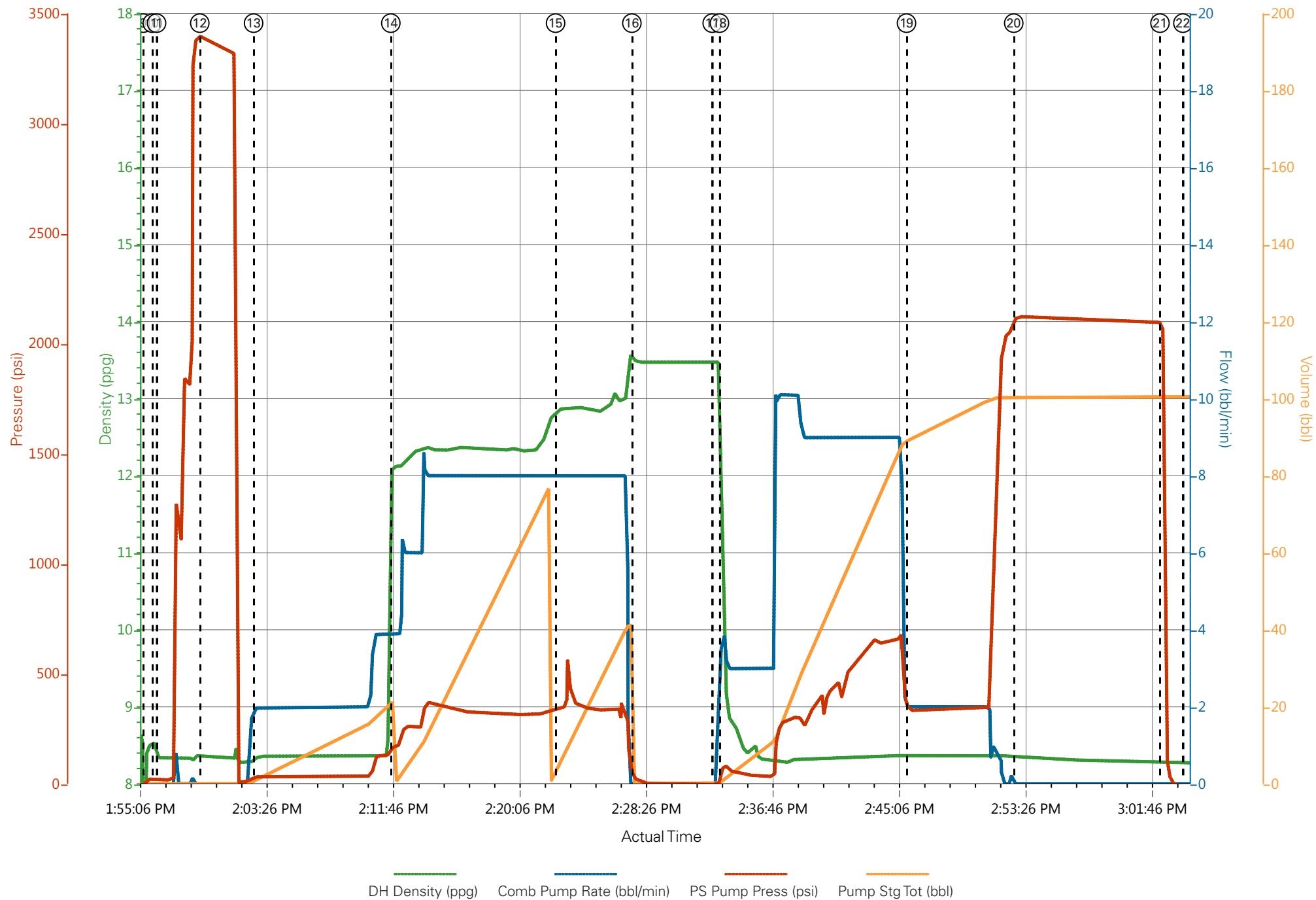
Well : BRUTON 30-17W

Representative : T.HALE

Sales Order # : 904553311

ELITE 8 : C.SMITH/D.PORTER

LARAMIE - BRUTON FED 30-17W - 8.625" SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC EBUSINESS

For: Laramie

Date: Tuesday, January 09, 2018

BRUTON 30-17W Production

API# 05-077-10468-00

Sincerely,
Grand Junction Cement Engineering

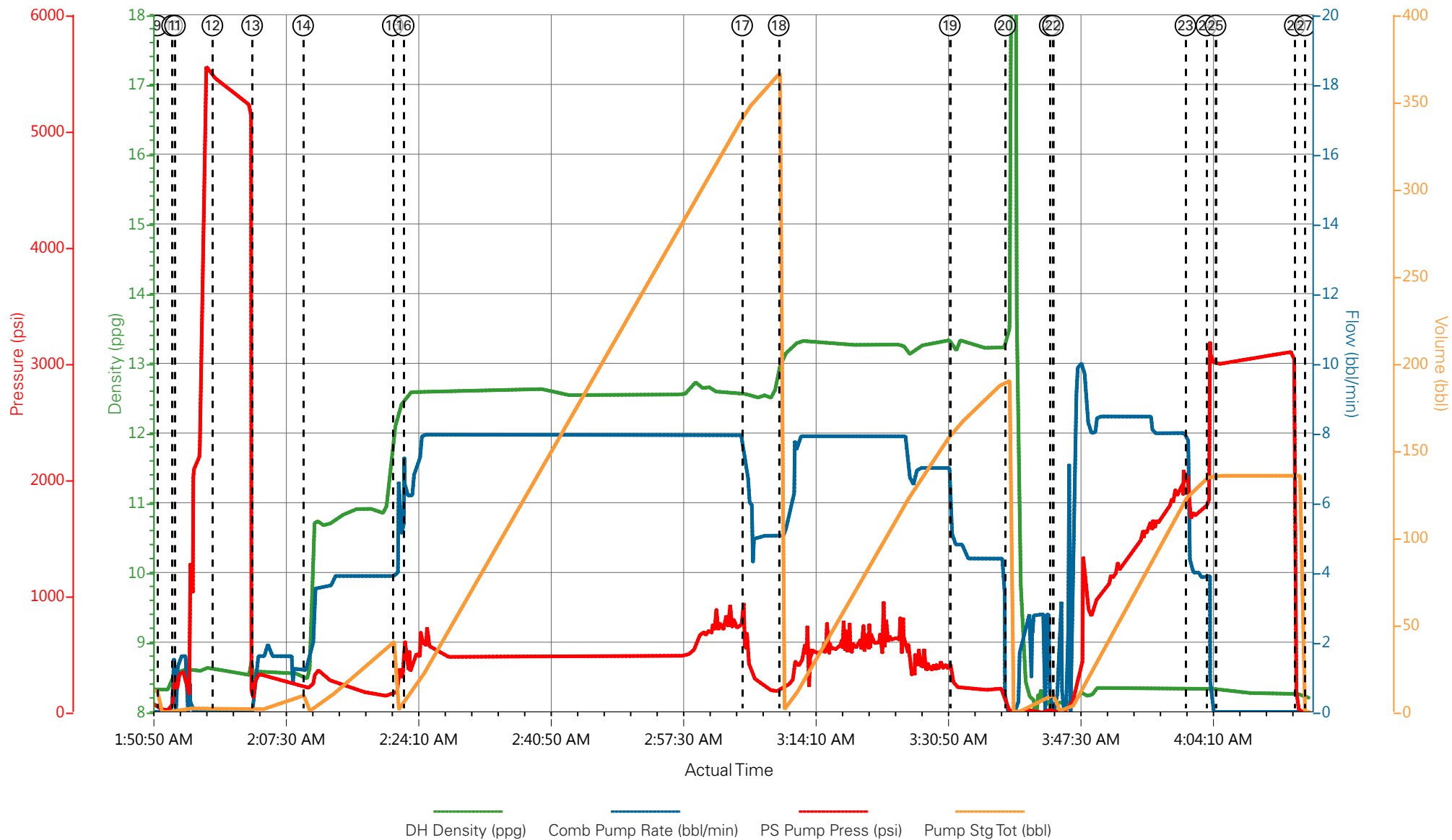
2.0 Real-Time Job Summary

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	1/8/2018	18:00:00	USER					REQUESTED ON LOCATION @ 00:30
Event	2	Pre-Convoy Safety Meeting	1/8/2018	21:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/8/2018	21:15:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 450 SERVICE PICKUP
Event	4	Arrive At Loc	1/9/2018	00:00:00	USER					RIG RUNNING CASING WHEN HES ARRIVED AT LOCATION
Event	5	Assessment Of Location Safety Meeting	1/9/2018	00:15:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7.0, CHLORIDES- 0, TEMP- 80F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	1/9/2018	00:20:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	1/9/2018	00:30:00	USER					HES RIGGED UP TWO CEMENT SILOS, 1 HT 400 PUMP, 1 660 BULK TRUCK, 2" DISCHARGE IRON, AND 4" SUCTION HOSE WITH OUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	1/9/2018	01:20:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 10.5 BPM PRIOR TO JOB PRESSURE @ 850 PSI.
Event	9	Start Job	1/9/2018	01:51:42	COM6					TD 8313', TP 8303' OF 4 1/2" 11.6# CSG, SJ 80', SURFACE CSG 8 5/8" 24# J55 SET @ 1541', OH 7 7/8", MUD 9.1 PPG VIS 35
Event	10	Drop Bottom Plug	1/9/2018	01:53:35	USER					VERIFIED VIA PLUG INDICATOR
Event	11	Prime Lines	1/9/2018	01:53:56	COM6	8.33	2	345	2	8.33 PPG FRESH WATER
Event	12	Test Lines	1/9/2018	01:58:39	COM6	8.33		5283		ALL LINES HELD PRESSURE AT 5283 PSI

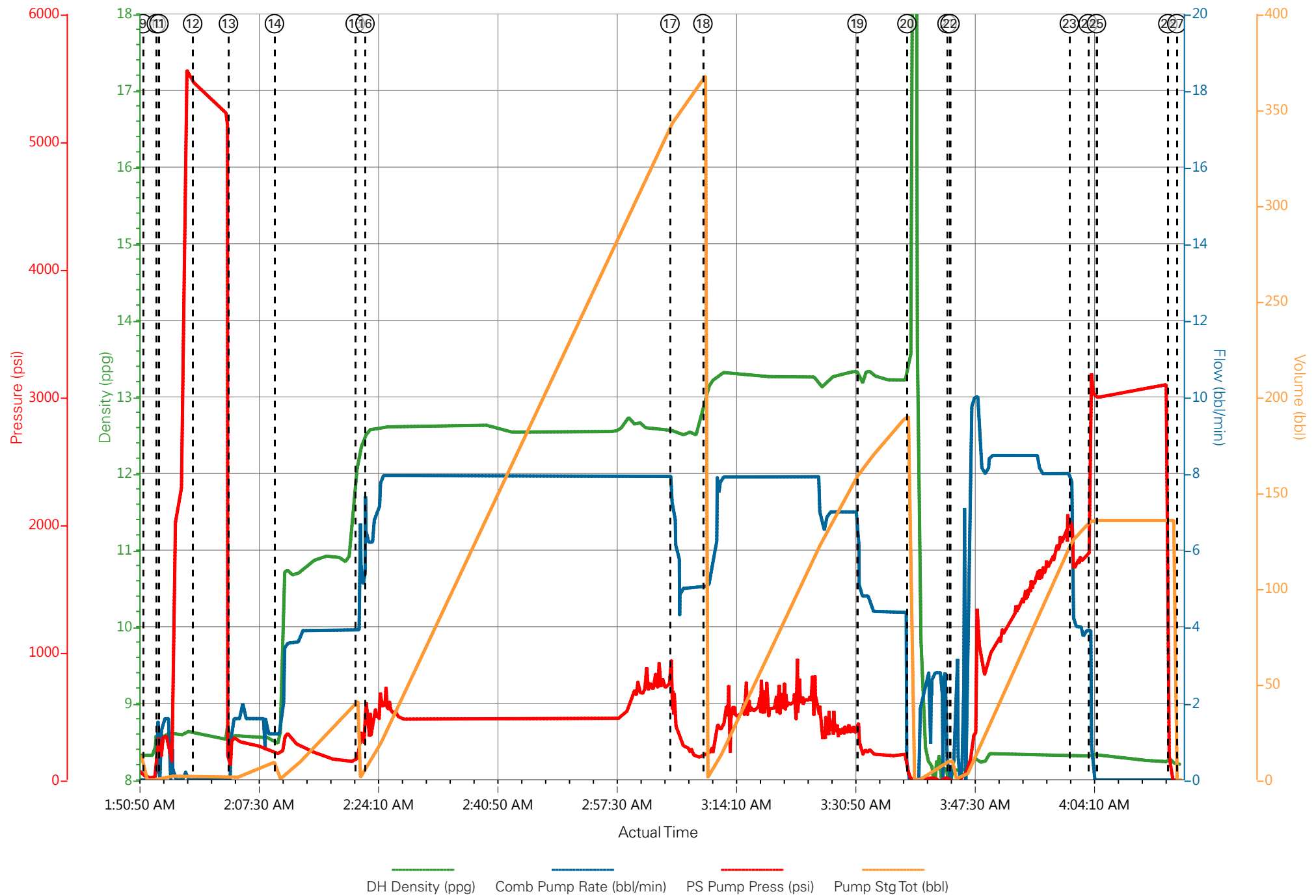
Event	13	H2o Spacer	1/9/2018	02:03:39	COM6	8.33	1.5	300	10	PUMPED TO ESTABLISH RETURNS
Event	14	Tuned Spacer III	1/9/2018	02:10:04	COM6	11	4	360	40	40 BBL TUNED SPACER III, 11 PPG, 4.86 FT3/SK, 31.9 GAL/SK
Event	15	Pump Lead Cement	1/9/2018	02:21:21	COM6	12.5	8	740	308.9	894 SKS OF NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.6 GAL/SK.
Event	16	Check weight	1/9/2018	02:22:43	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	17	Slow Rate	1/9/2018	03:05:19	USER					SLOWED TO END LEAD SILO
Event	18	Pump Tail Cement	1/9/2018	03:09:55	COM6	13.3	8	600	142	461 SKS THERMACEM CMT 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK.
Event	19	Slow Rate	1/9/2018	03:31:27	USER					SLOWED TO END TAIL SILO
Event	20	Shutdown	1/9/2018	03:38:25	COM6					END OF CEMENT. CLEAN PUMPS AND LINES TO CELLAR.
Event	21	Drop Top Plug	1/9/2018	03:44:01	COM6					VERIFIED VIA PLUG INDICATOR
Event	22	Pump Displacement	1/9/2018	03:44:26	COM6	8.4	8.5	1900	127.5	1 GAL MMCR IN FIRST 10 BBLs, 5 GALS CLAY WEB THROUGHOUT DISPLACEMENT
Event	23	Slow Rate	1/9/2018	04:01:06	USER	8.4	4	1690	117.5	SLOW RATE TO 4 BPM TO BUMP PLUG
Event	24	Bump Plug	1/9/2018	04:03:44	COM6	8.4	4	1800	127.5	LANDED PLUG AT 1800 PSI, BROUGHT UP TO 3000 PSI
Event	25	Casing Test	1/9/2018	04:04:53	COM6					HELD 3000 PSI FOR TEN MINUTES
Event	26	Check Floats	1/9/2018	04:14:51	USER					FLOATS HELD, 1.5 BBL BACK TO TRUCK
Event	27	End Job	1/9/2018	04:16:06	COM6					RETURNS THROUGHOUT JOB. USED 20 LBS SUGAR. 30BBL OF TUNED SPACER TO SURFACE.
Event	28	Post-Job Safety Meeting (Pre Rig-Down)	1/9/2018	04:30:00	USER					ALL HES PRESENT
Event	29	Rig-Down Equipment	1/9/2018	04:45:00	USER					ALL HES PRESENT
Event	30	Pre-Convoy Safety Meeting	1/9/2018	05:30:00	USER					ALL HES PRESENT
Event	31	Crew Leave Location	1/9/2018	05:45:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, SHAWN BLOSSOM AND CREW

LARAMIE BRUTON 30-17W, 4 1/2" PRODUCTION



- | | | | | | | |
|-----------------------------|---|--------------------|--------------------|--------------------|----------------------|-------------------------------|
| ① Call Out | ⑤ Assessment Of Location Safety Meeting | ⑨ Start Job | ⑬ H2o Spacer | ⑰ Slow Rate | 21 Drop Top Plug | 25 Casing Test |
| ② Pre-Convoy Safety Meeting | ⑥ Pre-Rig Up Safety Meeting | ⑩ Drop Bottom Plug | ⑭ Tuned Spacer III | ⑱ Pump Tail Cement | 22 Pump Displacement | 26 Check Floats |
| ③ Crew Leave Yard | ⑦ Rig-Up Equipment | ⑪ Prime Lines | ⑮ Pump Lead Cement | ⑲ Slow Rate | 23 Slow Rate | 27 End Job |
| ④ Arrive At Loc | ⑧ Pre-Job Safety Meeting | ⑫ Test Lines | ⑯ Check weight | 20 Shutdown | 24 Bump Plug | 28 Post-Job Safety Meeting (P |

LARAMIE BRUTON 30-17W, 4 1/2" PRODUCTION



Job Information

Request/Slurry	2442692/1	Rig Name	H&P 522	Date	05/JAN/2018
Submitted By	Lukas Van Zyl	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-17W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8355 ft	BHST	115°C / 239°F
Hole Size	7.875 in	Depth TVD	7703 ft	BHCT	77°C / 171°F
Pressure	4692 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.9 lbm/gal
-------------------	----------------	---------	-------------

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		

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2442692/1

Thickening Time - ON-OFF-ON

06/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
171	4692	49	4:22	4:32	4:59	9	59	15	8	9:32	87

Total sks = 894

Composite:

CS0041 TR 2878 447 SKS

CS0043 TR 0813 447 SKS

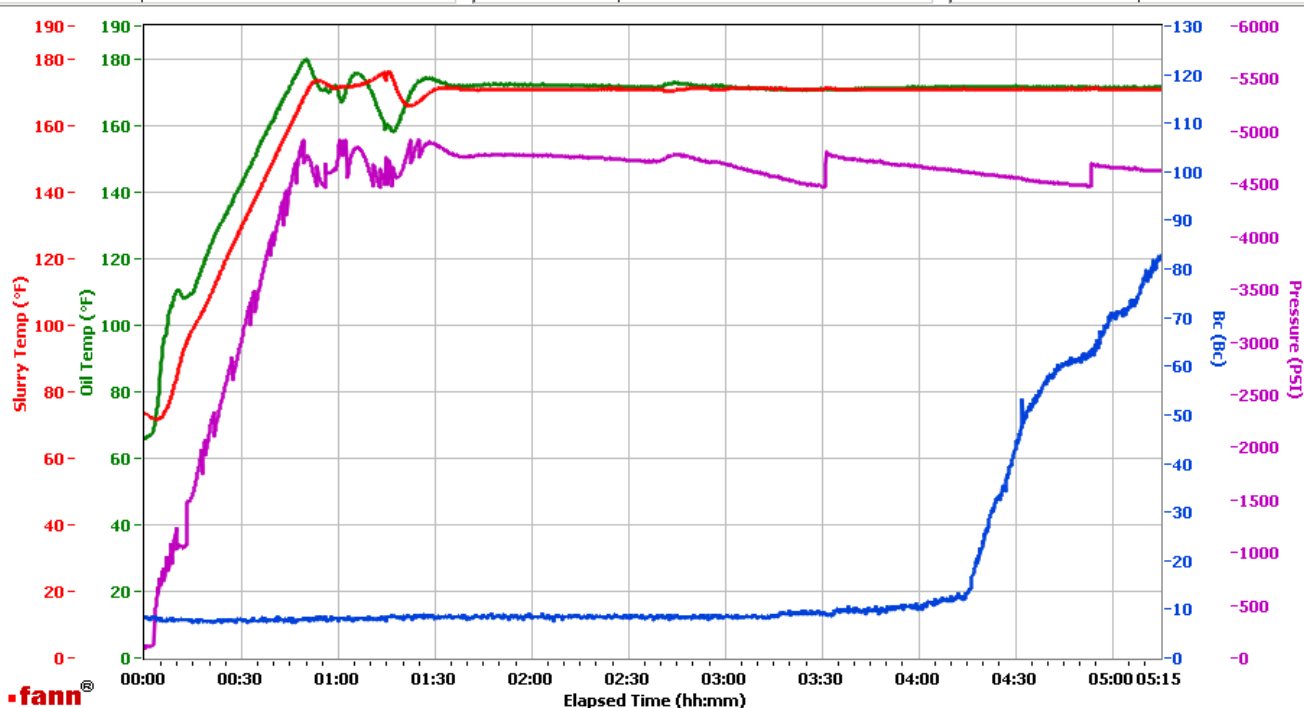
No deflection

Grand Junction Colorado

Fields	Values
Project Name	GJ2442692-1 LARAMIE PRODUCTION LEAD
Test ID	35154157
Request ID	2442692-1
Tested by	JASON
Customer	LARAMIE ENERGY
Well No	BRUTON 30-17W
Rig	H&P 522
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION
Cement Type	HOLCIM TYPE I-II
Cement Weight	Light Weight
Test Date	02/12/11
Test Time	09:34 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.1219

Events	Results
30.00 Bc	04h:22m
40.00 Bc	04h:29m
50.00 Bc	04h:32m
70.00 Bc	04h:59m
100.00 Bc	NaN
00h:30m	7.91
01h:00m	7.49
01h:30m	8.11



Data File C:\Documents and Settings\HPHT\Desktop\Test Data\GJ2442692-1 LARAMIE PRODUCTION LEAD BULK.tdms

Comments CS0041 TR 2878 447 SKS CS0043 TR 0813 447 SKS

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

HALLIBURTON

Rockies, Grand Junction

Lab Results- Tail

Job Information

Request/Slurry	2442693/2	Rig Name	H&P 522	Date	05/JAN/2018
Submitted By	Lukas Van Zyl	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton Federal 30-17W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8355 ft	BHST	115°C / 239°F
Hole Size	7.875 in	Depth TVD	7703 ft	BHCT	77°C / 171°F
Pressure	4692 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.9 lbm/gal
-------------------	----------------	---------	-------------

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	

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2442693/2

Thickening Time - ON-OFF-ON

06/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)
171	4652	49	3:55	4:12	4:16	5:12	11	59	15	11

sks Total = 461

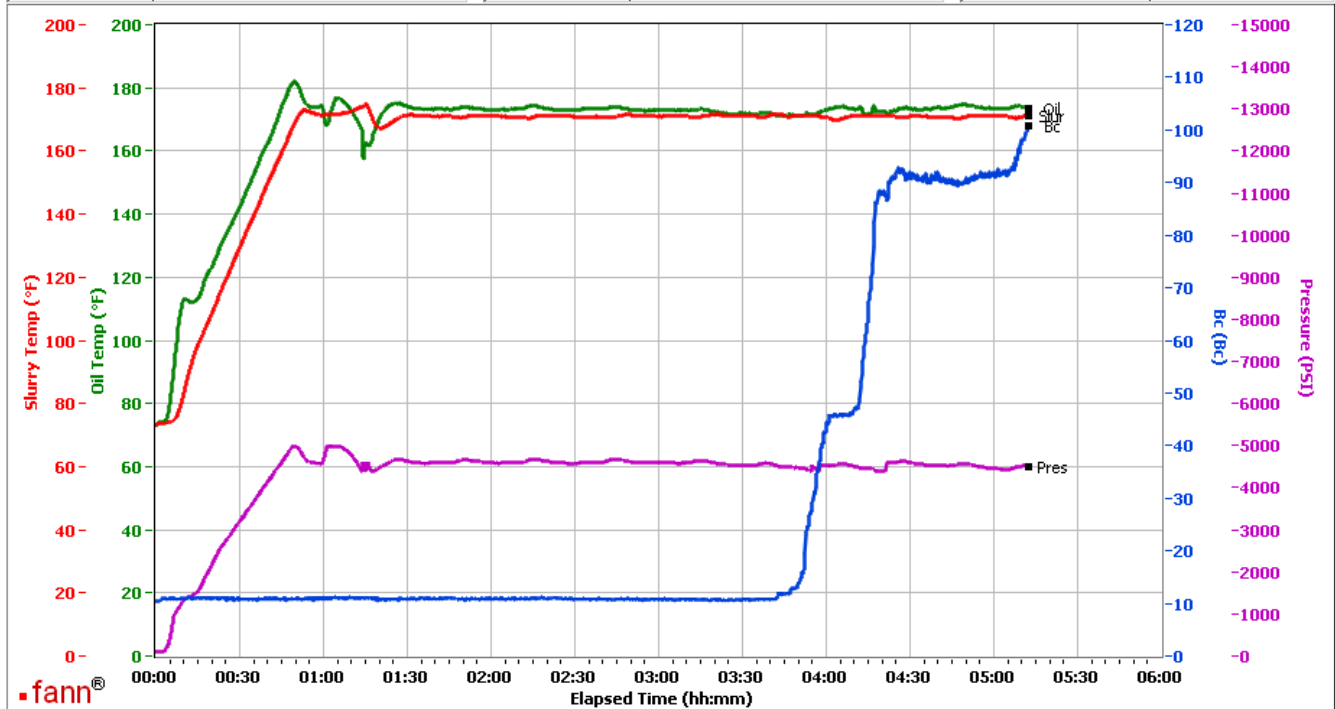
CS0048 TR 4064 100 SKS

Grand Junction Colorado

Fields	Values
Project Name	GJ2442693-2 LARAMIE PRODUCTION TAIL
Test ID	35155975
Request ID	2442693-2
Tested by	JASON
Customer	LARAMIE ENERGY
Well No	BRUTON FEDERAL 30-17W
Rig	H&P 522
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION
Cement Type	MOUNTAIN G
Cement Weight	Light Weight
Test Date	01/06/18
Test Time	09:35 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:55m
40.00 Bc	03h:58m
50.00 Bc	04h:12m
70.00 Bc	04h:16m
100.00 Bc	05h:12m
00h:30m	10.79
01h:00m	11.17
01h:30m	10.97



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2442693-2 LARAMIE PRODUCTION TAIL BULK.tdms

Comments CS0048 TR 4064 100 SKS

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2442693/1

Thickening Time - ON-OFF-ON

06/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)
171	4692	49	3:34	3:46	3:56	4:00	14	59	15	14

sks Total = 461

CS0042 TR 1513 361 SKS

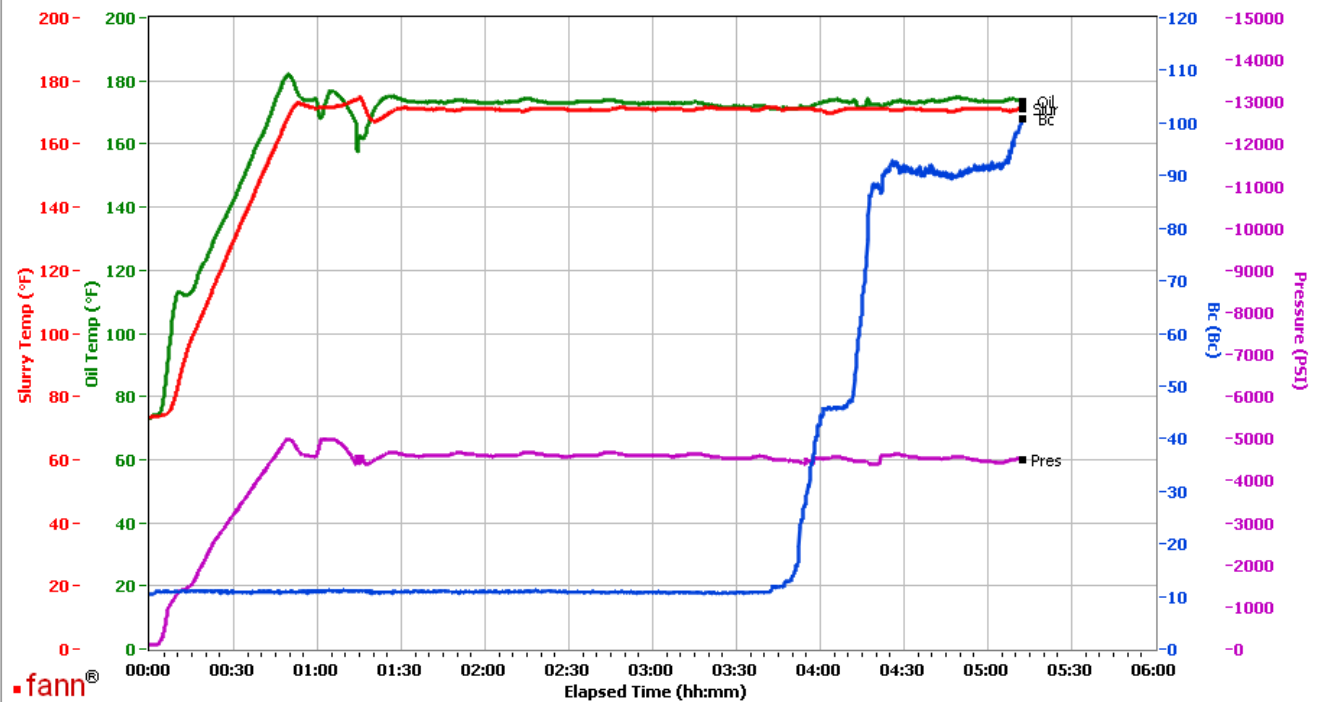
No deflection

Grand Junction Colorado

Fields	Values
Project Name	GJ2442693-2 LARAMIE PRODUCTION TAIL
Test ID	35155975
Request ID	2442693-2
Tested by	JASON
Customer	LARAMIE ENERGY
Well No	BRUTON FEDERAL 30-17W
Rig	H&P 522
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION
Cement Type	MOUNTAIN G
Cement Weight	Light Weight
Test Date	01/06/18
Test Time	09:35 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:55m
40.00 Bc	03h:58m
50.00 Bc	04h:12m
70.00 Bc	04h:16m
100.00 Bc	05h:12m
00h:30m	10.79
01h:00m	11.17
01h:30m	10.97



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2442693-2 LARAMIE PRODUCTION TAIL BULK.tdms

Comments CS0048 TR 4064 100 SKS

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.