

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

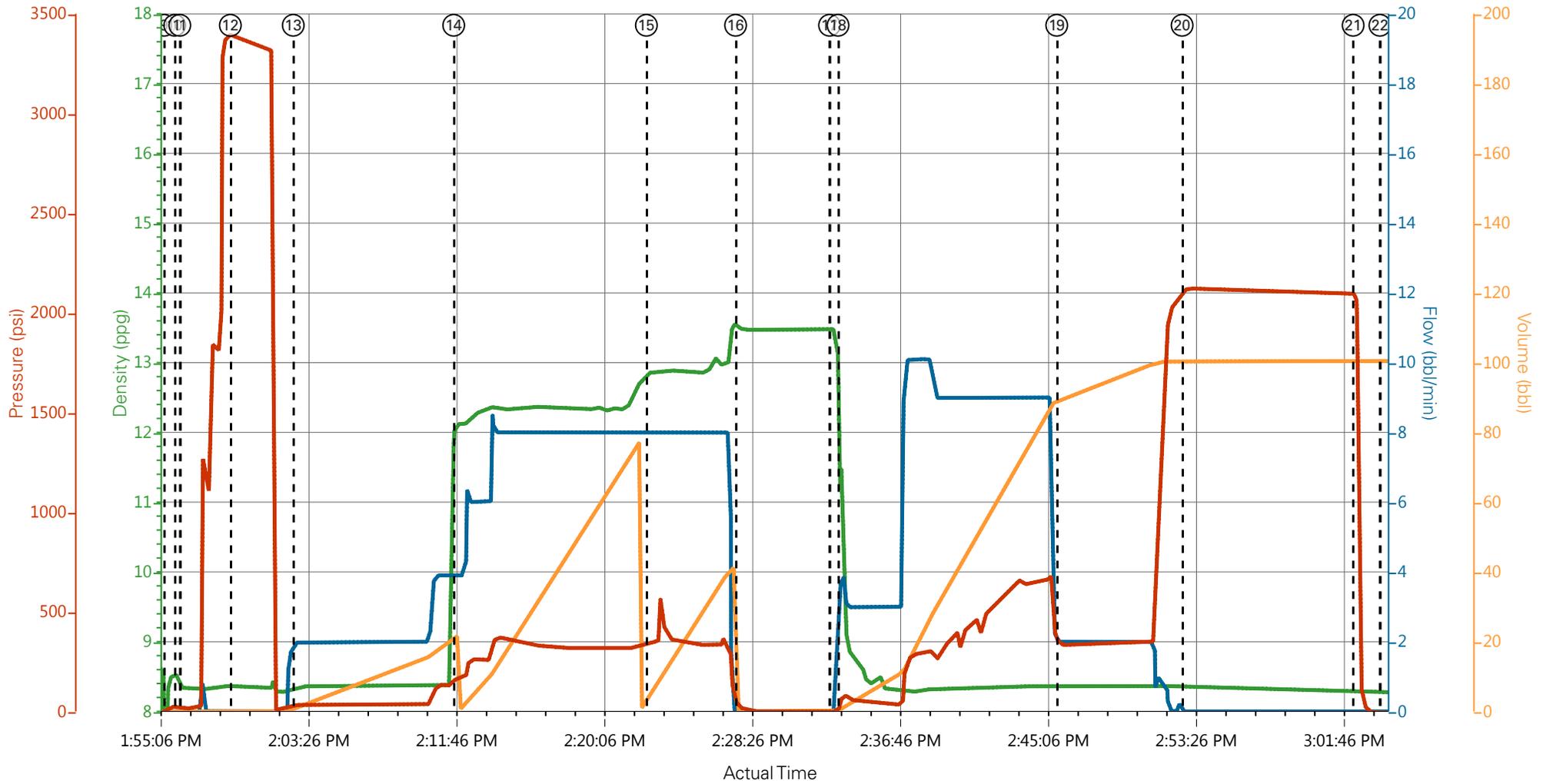
1.1 Job Event Log

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

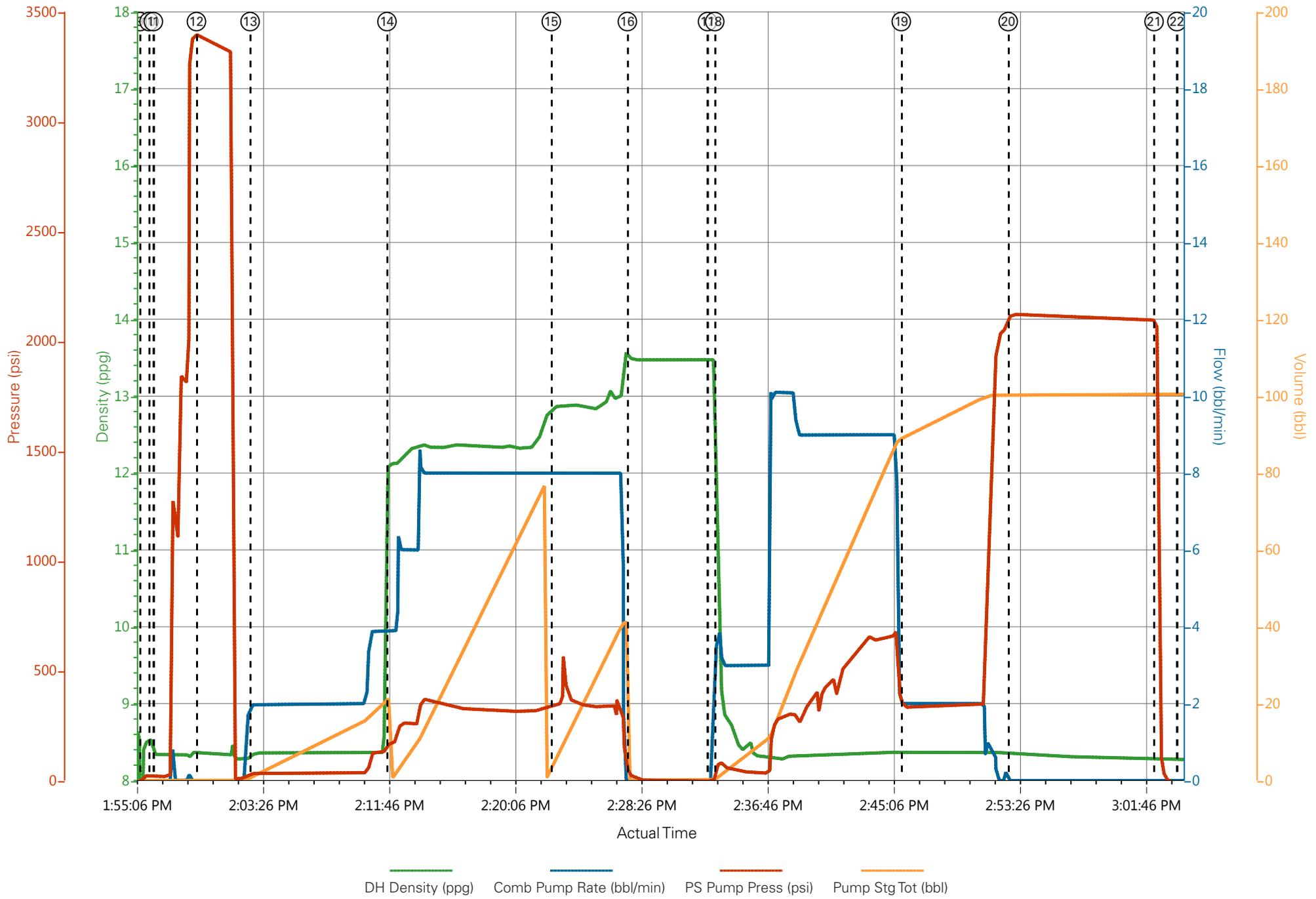
LARAMIE - BRUTON FED 30-17W - 8.625" SURFACE



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

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

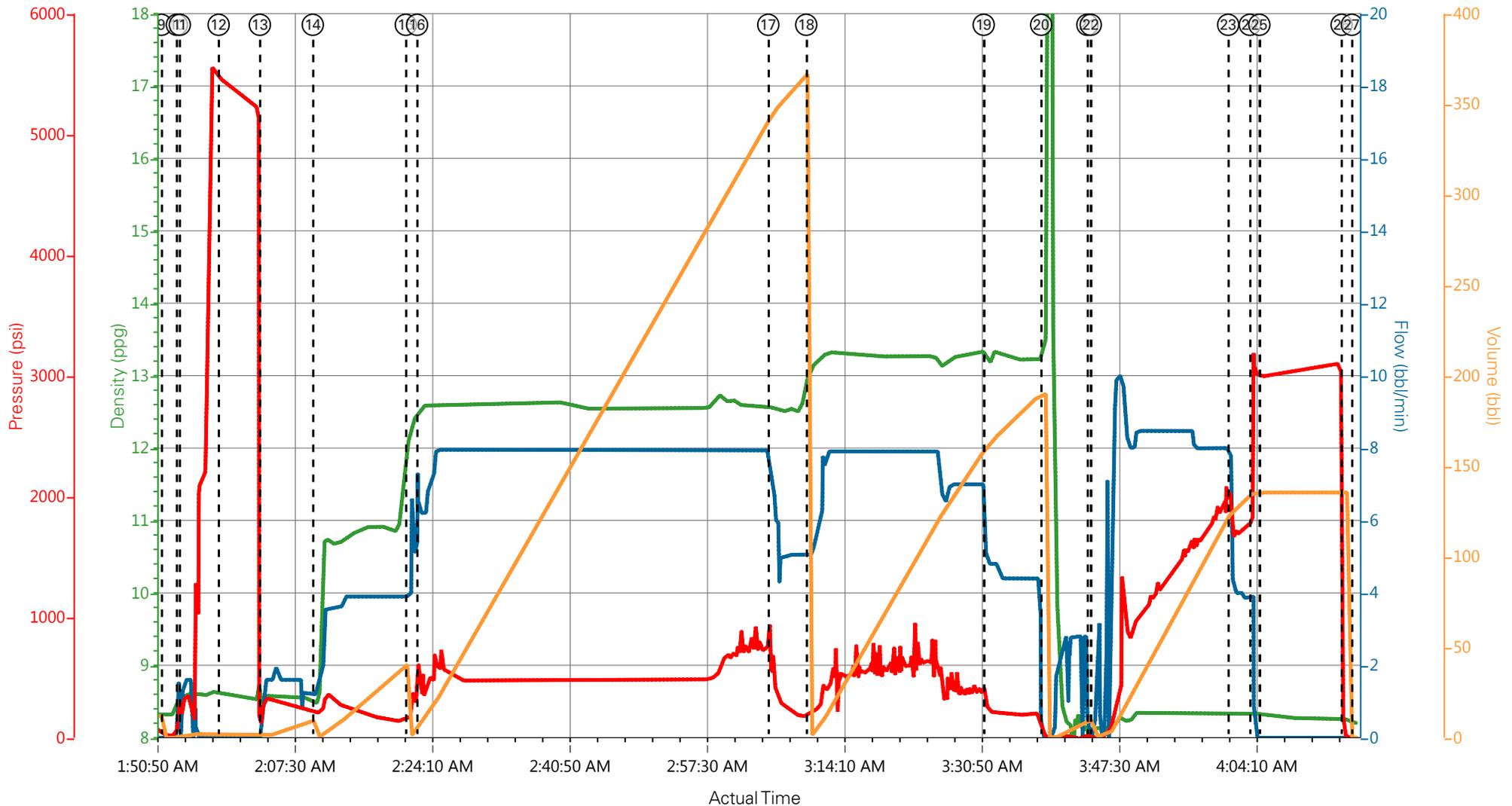
2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	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 THROUGH 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 THROUGH 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

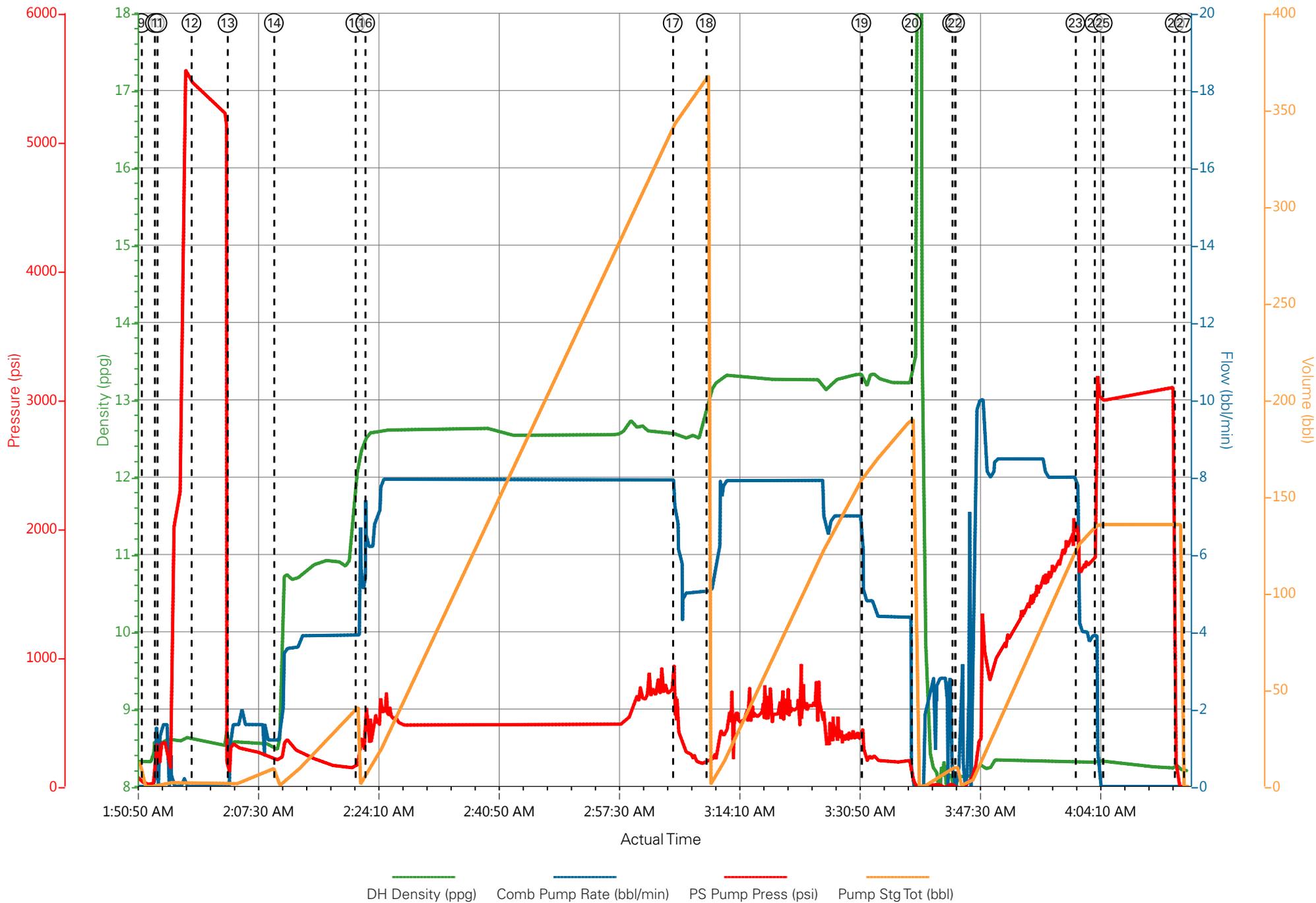
LARAMIE BRUTON 30-17W, 4 1/2" PRODUCTION



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

- | | | | | | | |
|-----------------------------|---|--------------------|--------------------|--------------------|----------------------|-------------------------------|
| 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
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Cement Information - Lead Design

<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties	
						Slurry Density	12.5 lbm/gal
						Slurry Yield	1.941 ft ³ /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 2442692/1

Thickening Time - ON-OFF-ON

06/JAN/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)	Termination time (hh:min)	Termination Bc
171	4692	49	4:22	4:32	4:59	9	59	15	8	9:32	87

Total sks = 894

Composite:

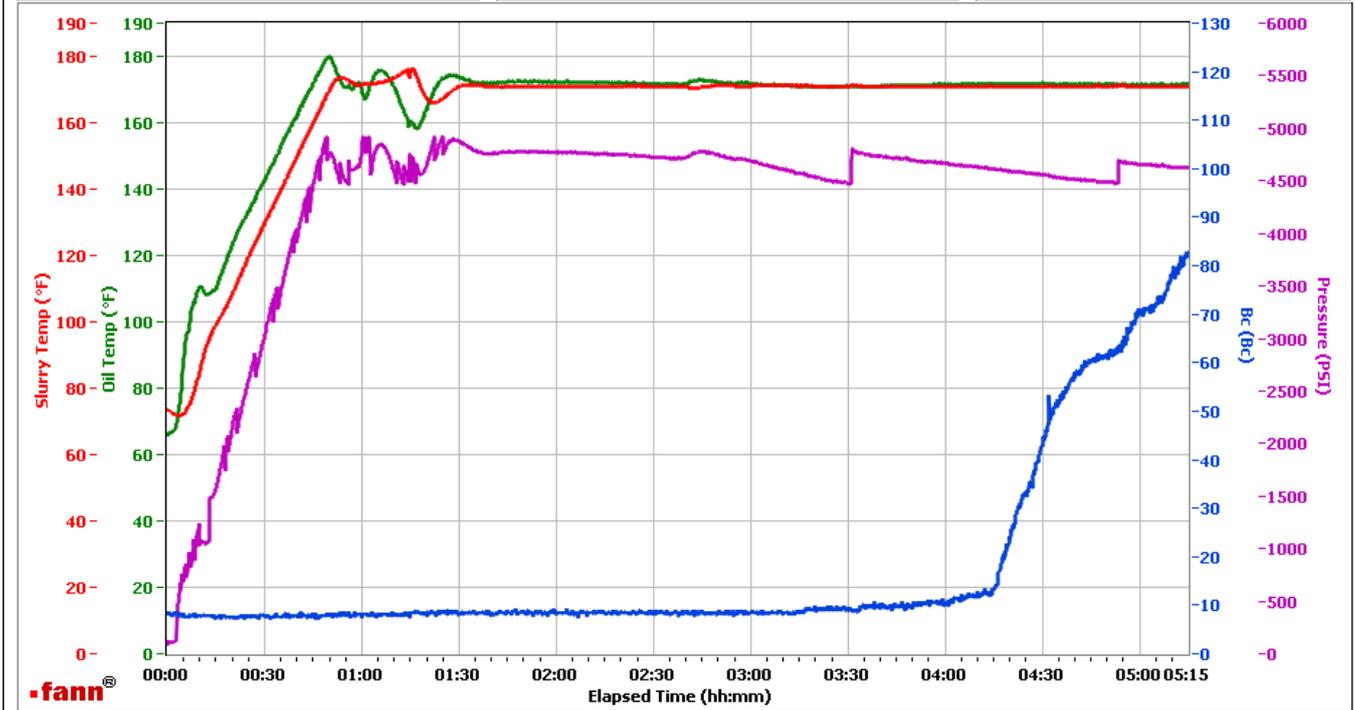
CS0041 TR 2878 447 SKS

CS0043 TR 0813 447 SKS

No deflection

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2442692-1 LARAMIE PRODUCTION LEAD	Job Type	PRODUCTION	30.00 Bc	04h:22m
Test ID	35154157	Cement Type	HOLCIM TYPE I-II	40.00 Bc	04h:29m
Request ID	2442692-1	Cement Weight	Light Weight	50.00 Bc	04h:32m
Tested by	JASON	Test Date	02/12/11	70.00 Bc	04h:59m
Customer	LARAMIE ENERGY	Test Time	09:34 PM	100.00 Bc	NaN
Well No	BRUTON 30-17W	Temp. Units	degF	00h:30m	7.91
Rig	H&P 522	Pressure Units	PSI	01h:00m	7.49
Casing/Liner Size	4.5"	SW Version	2.1.0.1219	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

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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
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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>	Cement Properties	
						Slurry Density	13.3 lbm/gal
						Slurry Yield	1.733 ft ³ /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 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

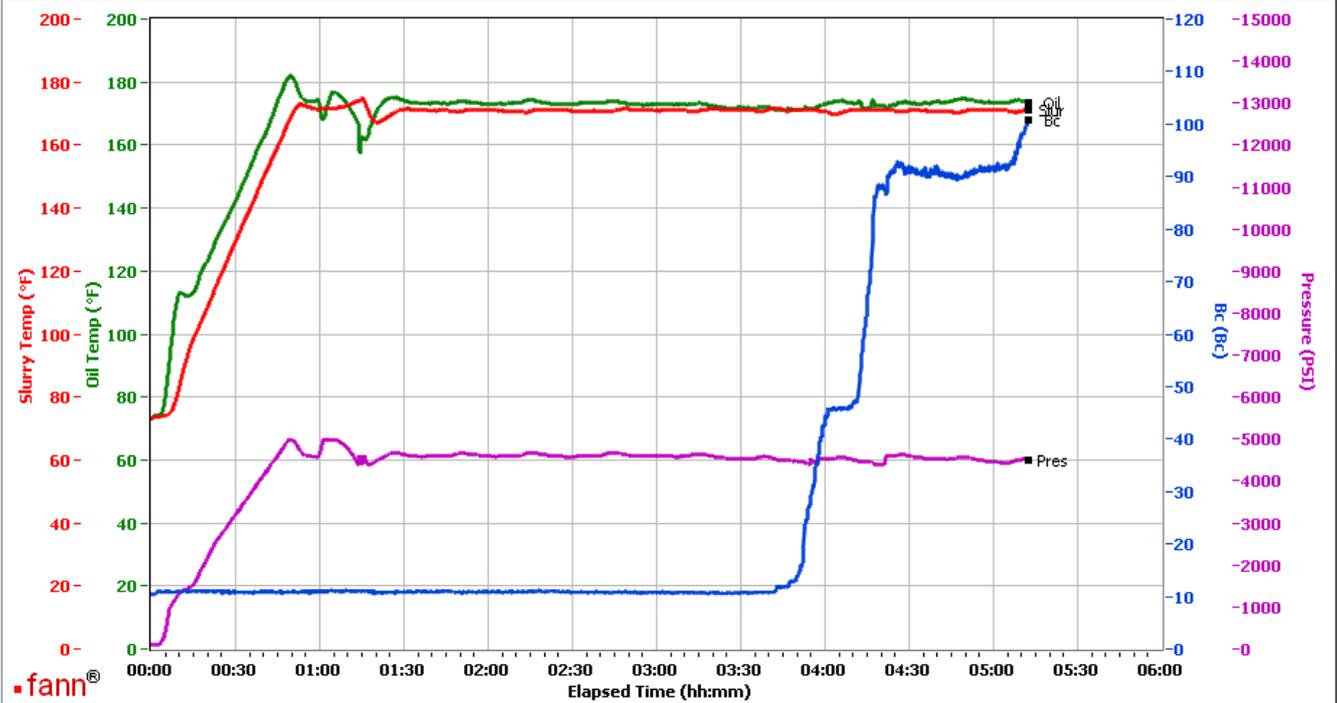
CS0048 TR 4064 100 SKS

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

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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

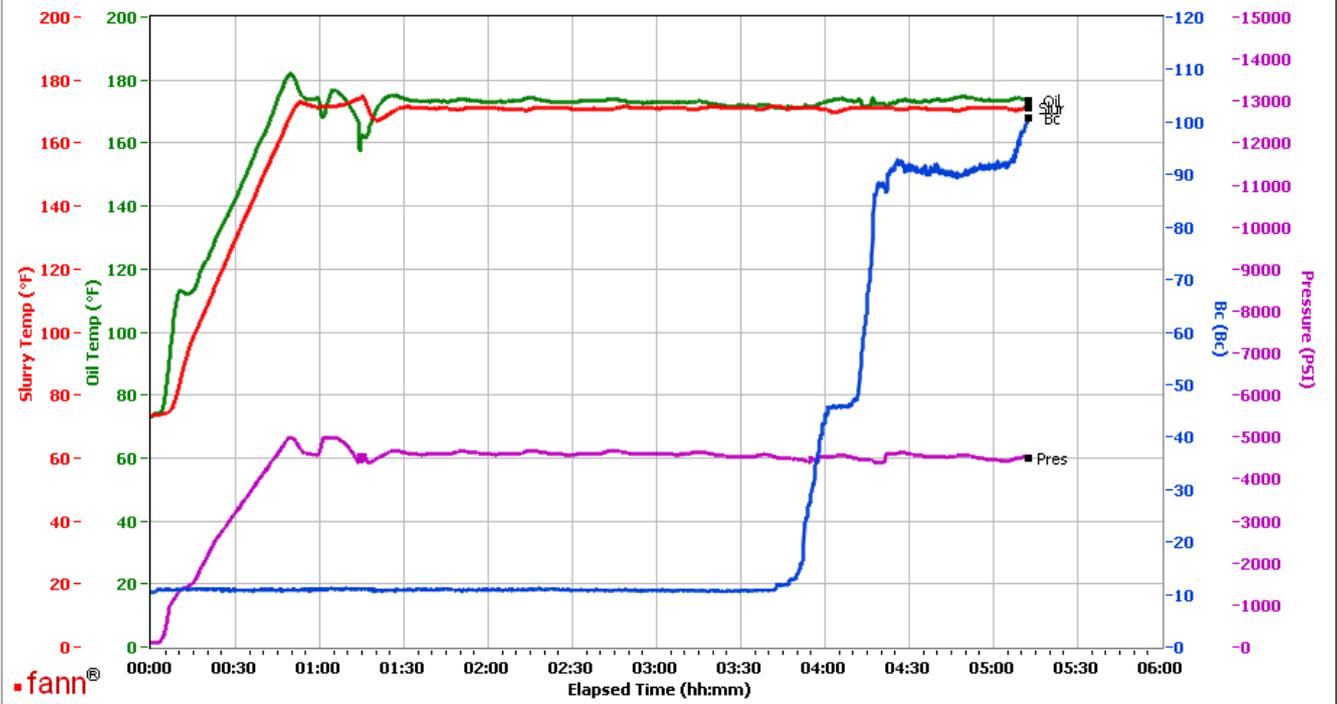
sks Total = 461
 CS0042 TR 1513 361 SKS
 No deflection

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

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