

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC

For: Laramie

Date: Tuesday, December 19, 2017

BRUTON 30-15W Surface

API#05-077-10480

Sincerely,
Grand Junction Cement Engineering

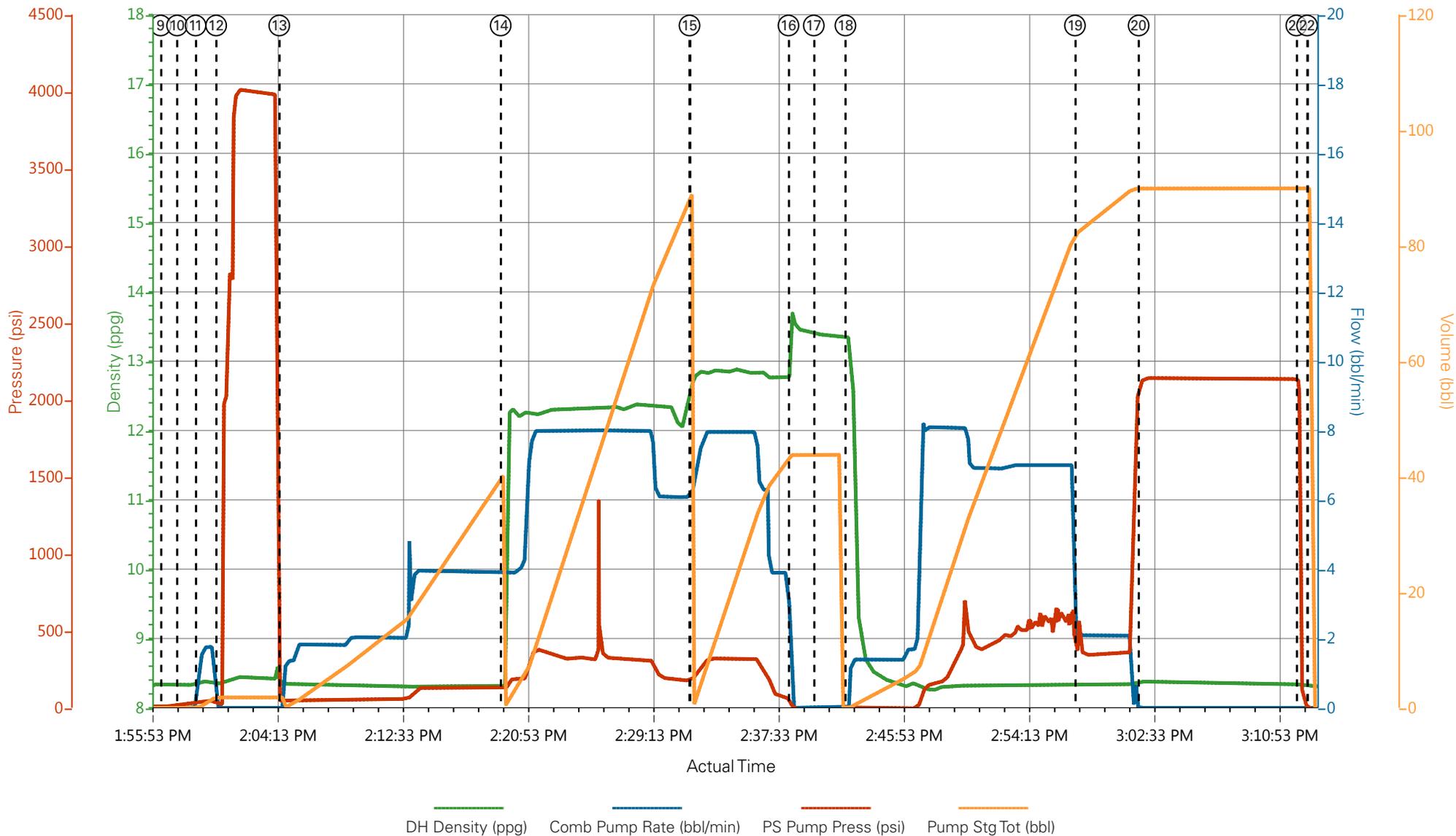
2.0 Real-Time Job Summary

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	12/19/2017	05:30:00	USER					REQUESTED ON LOCATION TIME 1130
Event	2	Pre-Convoy Safety Meeting	12/19/2017	08:00:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	12/19/2017	09:30:00	USER					ARRIVED ON LOCATION 2 HOURS EARLY, RIG PREPARING TO RUN CASING
Event	4	Meet With Company Rep	12/19/2017	09:35:00	USER					COMPANY REP OFFERED SDS / WATER TEST: TEMP: 50 PH: 7 CHLORIDES: 0
Event	5	Assessment Of Location Safety Meeting	12/19/2017	12:30:00	USER					ALL HES EMPLOYEES
Event	6	Pre-Rig Up Safety Meeting	12/19/2017	12:35:00	USER					ALL HES EMPLOYEES
Event	7	Rig-Up Equipment	12/19/2017	12:45:00	USER					1 HT-400 PUMP TRUCK (ELITE #2) 1 660 BULK TRUCK 1 F-550 PICKUP
Event	8	Pre-Job Safety Meeting	12/19/2017	13:33:00	USER					ALL HES EMPLOYEES AND RIG CREW RIG CIRCULATED @ 9 BPM PRIOR TO THE JOB @ 210 PSI
Event	9	Start Job	12/19/2017	13:56:38	COM5					TD: 1566 TP: 1556 SJ: 44.63 CSG: 8 5/8 24# J-55 OH: 11 MUD WT: 8.9 PPG 30 VIS
Event	10	Drop Bottom Plug	12/19/2017	13:57:43	USER					PLUG AWAY NO PROBLEMS
Event	11	Prime Lines	12/19/2017	13:58:57	COM5	8.33	2.0	45	2.0	PRIME LINES WITH 2 BBLs FRESH WATER
Event	12	Test Lines	12/19/2017	14:00:19	COM5	8.33	0.0	4016	2.0	PRESSURE TEST OK
Event	13	Pump Fresh Water Spacer	12/19/2017	14:04:31	COM5	8.33	4.0	125	40	PUMP 40 BBL FRESH WATER SPACER
Event	14	Pump Lead Cement	12/19/2017	14:19:15	COM5	12.3	8.0	330	86.3	197 SKS 12.3 PPG 2.46 YIELD 14.17 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES

Event	15	Pump Tail Cement	12/19/2017	14:31:49	COM5	12.8	8.0	380	42.3	109 SKS 12.8 PPG 2.18 YIELD 12.11 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	16	Shutdown	12/19/2017	14:38:25	COM5					SHUTDOWN TO DROP TOP PLUG
Event	17	Drop Top Plug	12/19/2017	14:40:06	COM5					PLUG AWAY NO PROBLEMS, WASHED UP ON TOP OF THE PLUG
Event	18	Pump Displacement	12/19/2017	14:42:12	COM5	8.33	8.0	650	96.1	FRESH WATER DISPLACEMENT
Event	19	Slow Rate	12/19/2017	14:57:28	USER	8.33	2.0	360	86	SLOW RATE TO BUMP PLUG
Event	20	Bump Plug	12/19/2017	15:01:43	COM5	8.33	2.0	2100	96.1	PSI BEFORE BUMPING PLUG @ 360 BUMPED PLUG UP TO 2100 PSI FOR 10 MINUTE CASING TEST
Event	21	Check Floats	12/19/2017	15:12:12	USER			2134		PRESSURE @ 2134 PRIOR TO CHECKING FLOATS. FLOATS HELD, 1 1/1 BBL BACK TO DISPLACEMENT TANKS
Event	22	End Job	12/19/2017	15:12:55	COM5					GOOD RETURNS THROUGHOUT JOB, PIPE STATIC THROUGHOUT JOB 36 BBLs OF CEMENT TO SURFACE. RIG USED 40#s OF SUGAR
Event	23	Pre-Rig Down Safety Meeting	12/19/2017	15:20:00	USER	0.00	0.00	-18.00	0.0	ALL HES EMPLOYEES
Event	24	Rig-Down Equipment	12/19/2017	15:30:00	USER	0.00	0.00	-13.00	0.0	
Event	25	Pre-Convoy Safety Meeting	12/19/2017	16:25:00	USER					ALL HES EMPLOYEES
Event	26	Crew Leave Location	12/19/2017	16:30:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT, DUSTIN SMITH AND CREW

LARAMIE - BRUTON 30-15W - 8 5/8 SURFACE



- | | | | | |
|---|--------------------------|---------------------------|--------------------------------|------------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Pump Fresh Water Spacer | ⑰ 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 Arrive At Loc | ⑨ Start Job | ⑮ Pump Tail Cement | 21 Check Floats | |
| ④ Meet With Company Rep | ⑩ Drop Bottom Plug | ⑯ Shutdown | 22 End Job | |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Prime Lines | ⑰ Drop Top Plug | 23 Pre-Rig Down Safety Meeting | |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Test Lines | ⑱ Pump Displacement | 24 Rig-Down Equipment | |

▼ HALLIBURTON | iCem® Service

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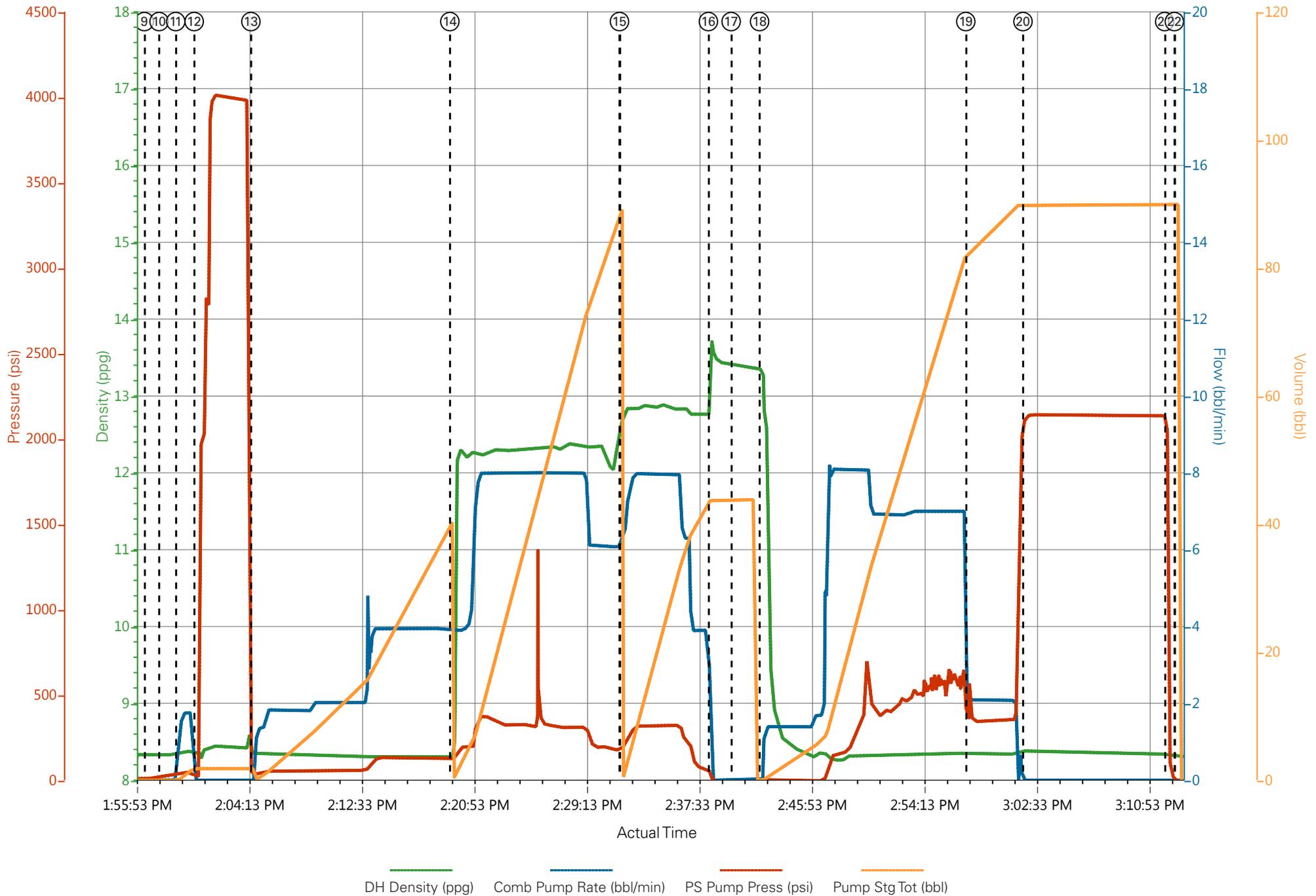
Edit

Customer: LARAMIE ENERGY II LLC
 Representative: SHANE HEARD

Job Date: 12/19/2017 1:13:05 PM
 Sales Order #: 0904514711

Well: BRUTON 30-15W
 ELITE # 2: DUSTIN SMITH / JAMES LEIST

LARAMIE - BRUTON 30-15W - 8 5/8 SURFACE



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

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC

For: Laramie

Date: Saturday, December 23, 2017

BRUTON 30-15W Production

API#05-077-10480

Sincerely,
Grand Junction Cement Engineering

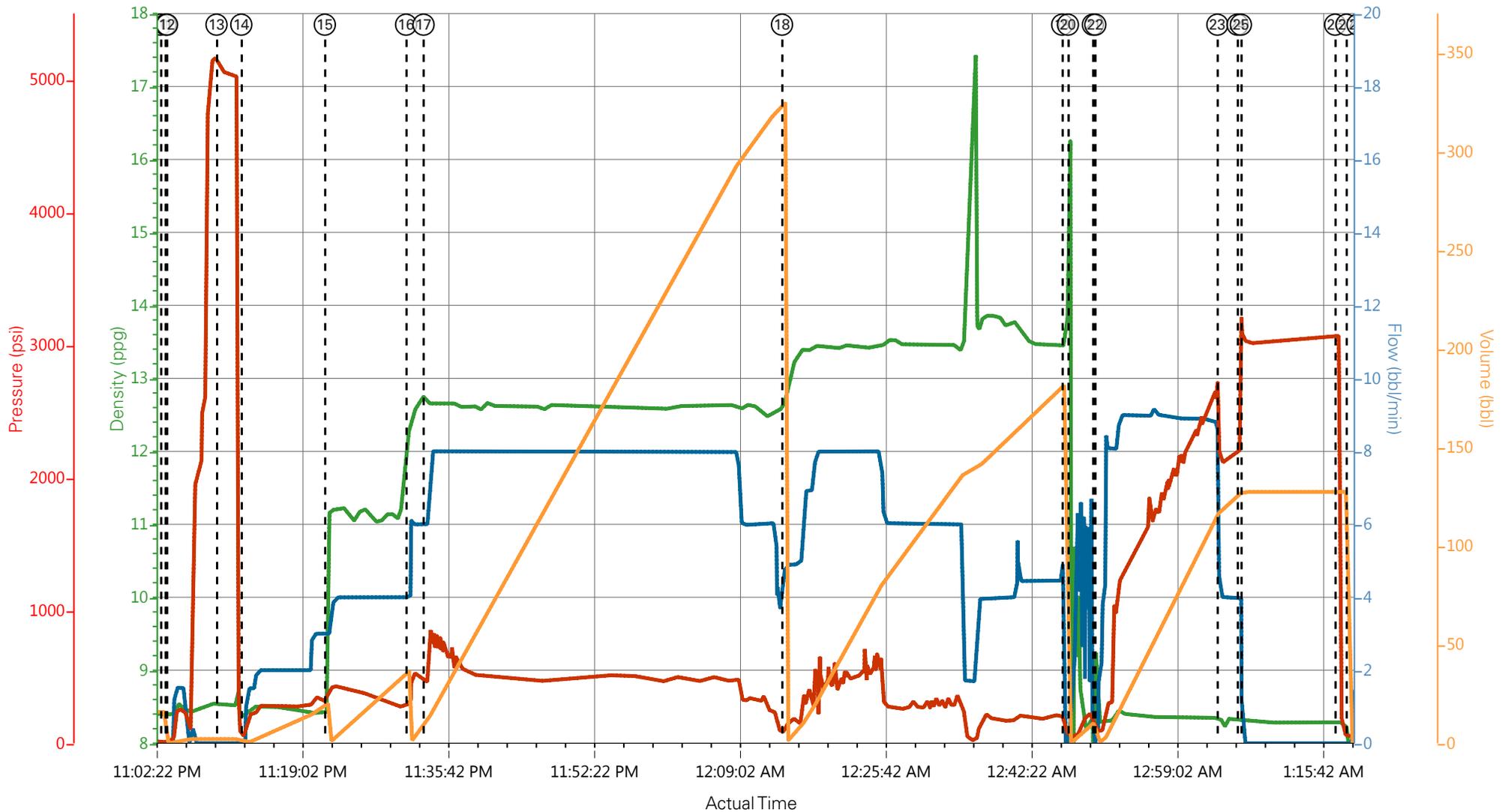
2.0 Real-Time Job Summary

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	12/22/2017	14:30:00	USER					ON LOCATION REQUESTED 20:30
Event	2	Pre-Convoy Safety Meeting	12/22/2017	18:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	12/22/2017	18:15:00	USER					
Event	4	Arrive at Location from Service Center	12/22/2017	20:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	12/22/2017	20:15:00	USER					MET WITH COMPANY REP DISCUSSED JOB PROCEDURE SDS OFFERED
Event	6	Pre-Rig Up Safety Meeting	12/22/2017	20:30:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	12/22/2017	21:45:00	USER					1-ELITE,1-660 BULK TRAILER, 2-FIELD SILO, 4.5" QL PLUG CONTAINER, 2" IRON, 4" SUCTION HOSE
Event	8	Other	12/22/2017	21:50:00	USER					WATER:TEMP-50, CL-0,PH-7. RIG CIRCULATED 1 HOUR 40 MINS AT 410GPM 700PSI
Event	9	Pre-Job Safety Meeting	12/22/2017	22:20:00	USER					ALL HES AND RIG CREW PRESENT
Event	10	Start Job	12/22/2017	23:03:11	USER	8.40	0.00	10.00	0.00	TD-8225', TP-8220' SET @ 8214', SJ-91.71', OH-7.875", CSG-4.5" 11.6# I-80, SCSG-1556' 8.625" 24#, MUD-9.1PPG 36 VISC
Event	11	Prime Pumps	12/22/2017	23:03:45	COM5	8.40	2.00	240.00	2.0	FRESH WATER
Event	12	Drop Bottom Plug	12/22/2017	23:03:55	COM5					PLUG AWAY
Event	13	Test Lines	12/22/2017	23:09:34	COM5	8.53	0.00	5084.00	2.1	PRESSURE HELD ON LINES
Event	14	Pump Mud Flush	12/22/2017	23:12:24	COM5	8.39	3.00	315.00	20.0	MUD FLUSH III

Event	15	Pump Tuned Spacer	12/22/2017	23:21:57	COM5	11.00	4.00	420.00	40.0	TUNED SPACER III, 40 BBL, 11.0PPG, 4.86CF/SK, 31.9GAL/SK
Event	16	Pump Lead Cement	12/22/2017	23:31:14	COM5	12.50	8.00	760.00	301.9	NEOCEM 874SKS, 12.5PPG, 1.94CF/SK, 9.6GAL/SK
Event	17	Check weight	12/22/2017	23:33:14	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	18	Pump Tail Cement	12/23/2017	00:14:12	COM5	13.30	8.00	480.00	142.0	THERMACEM 461SKS, 13.3PPG, 1.73CF/SK, 7.81GAL/SK
Event	19	Shutdown	12/23/2017	00:46:14	USER					
Event	20	Clean Lines	12/23/2017	00:46:53	USER					CLEANED PUMPS AND LINES TO CELLAR
Event	21	Drop Top Plug	12/23/2017	00:49:44	COM5					PLUG AWAY
Event	22	Pump Displacement	12/23/2017	00:50:01	COM5	8.28	9.00	2650.00	125.7	FRESH WATER 5 GAL CLA WEB, 1 GAL MMCR
Event	23	Slow Rate	12/23/2017	01:03:58	USER	8.32	4.00	2112.00	115.0	SLOW RATE LAST 10 BBLS
Event	24	Bump Plug	12/23/2017	01:06:16	COM5	8.31	4.00	2250.00	125.7	PLUG BUMPED 2250 PSI
Event	25	Casing Test	12/23/2017	01:06:39	COM5	8.30	0.00	3017.00	125.7	10 MINUTE CASING TEST
Event	26	Check Floats	12/23/2017	01:17:26	USER	8.29	0.00	3075.00	125.7	FLOATS HELD 1 BBL BACK
Event	27	End Job	12/23/2017	01:18:43	COM5					GOOD RETURNS THROUGH OUT JOB, 40 BBLS TUNED SPACER TO SURFACE
Event	28	Post-Job Safety Meeting (Pre Rig-Down)	12/23/2017	01:20:00	USER					ALL HES PRESENT
Event	29	Rig-Down Completed	12/23/2017	02:30:00	USER					
Event	30	Pre-Convoy Safety Meeting	12/23/2017	02:45:00	USER					ALL HES PRESENT
Event	31	Crew Leave Location	12/23/2017	03:00:00	USER					THANK YOU FOR CHOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

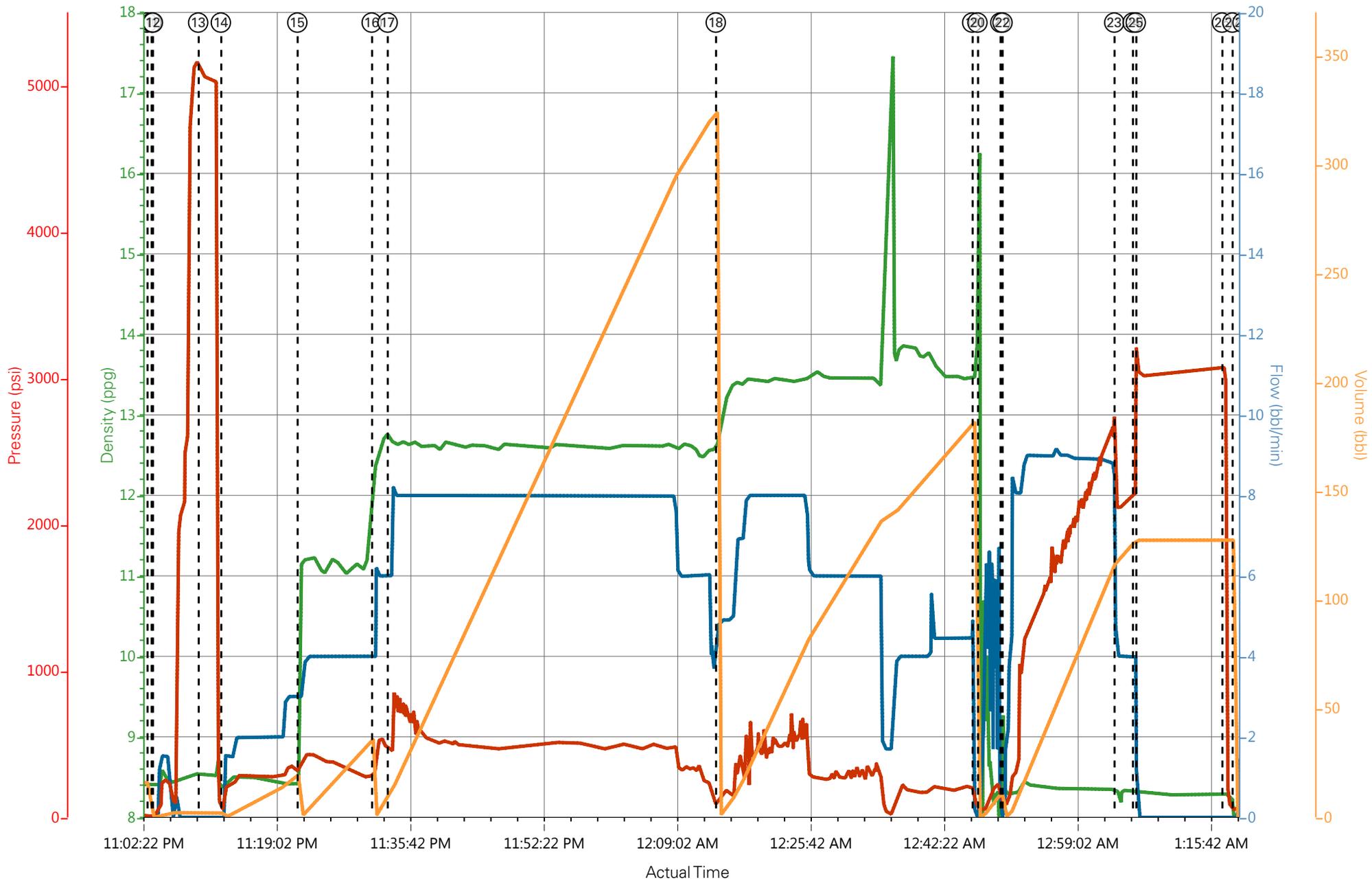
LARAMIE - BRUTON 30-15W - 4.5" PRODUCTION



DH Density (ppg) 11.57 Comb Pump Rate (bbl/min) 1.8 PS Pump Press (psi) 74 Pump Stg Tot (bbl) 1.7

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

LARAMIE - BRUTON 30-15W - 4.5" PRODUCTION



DH Density (ppg) 11.57 Comb Pump Rate (bbl/min) 1.8 PS Pump Press (psi) 74 Pump Stg Tot (bbl) 1.7

Job Information

Request/Slurry	2439170/1	Rig Name	H&P 522	Date	18/DEC/2017
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-15W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8251 ft	BHST	116°C / 240°F
Hole Size	7.875 in	Depth TVD	7725 ft	BHCT	78°C / 172°F
Pressure	4720 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>	<u>Cement Properties</u>		
		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	N/A	

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Operation Test Results Request ID 2439170/1

Thickening Time - ON-OFF-ON

20/DEC/2017

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)
172	4720	49	3:44	3:48	4:07	10:31	8	59	15	8

Total sks = 874

Composite:

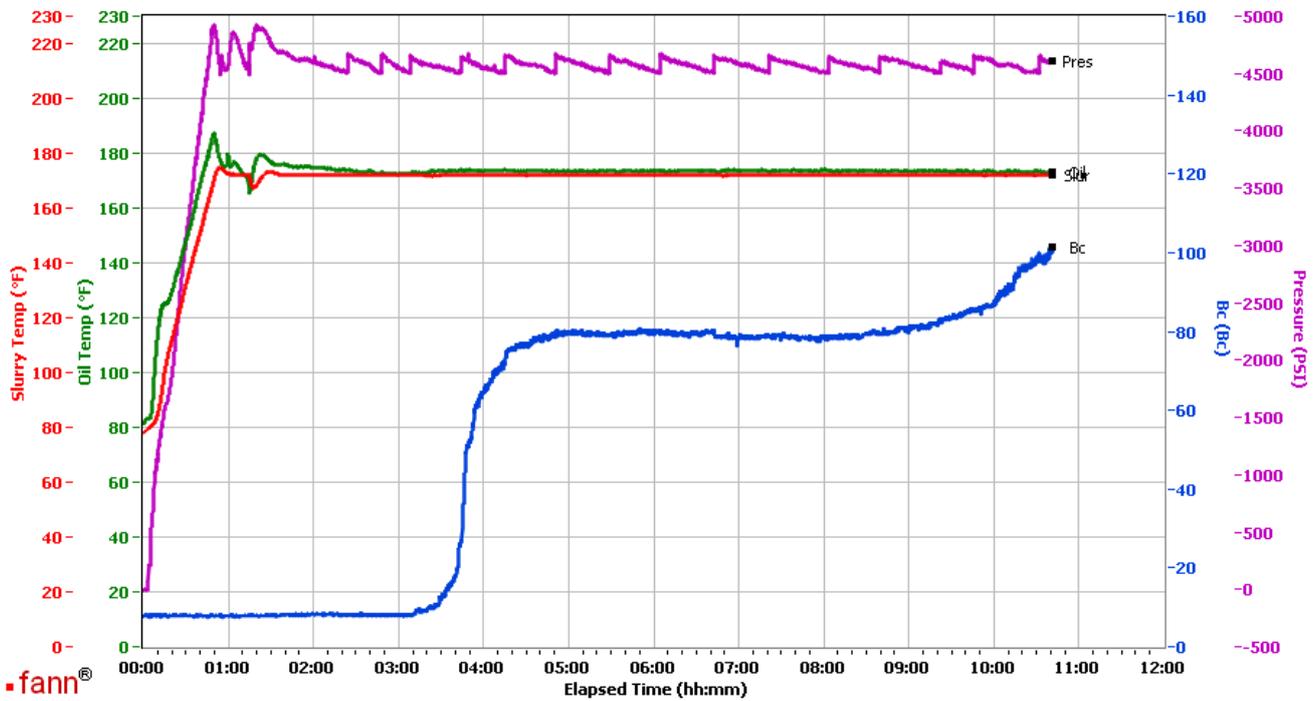
CS3425 TR 1656 437 SKS

CS3438 TR 8476 437 SKS

Deflection: 8 - 8

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2439170-1 LARAMIE PRODUCTION LEAD	Job Type	PRODUCTION	30.00 Bc	03h:44m
Test ID	35114309	Cement Type	HOLCIM TYPE I-II	40.00 Bc	03h:46m
Request ID	2439170-1	Cement Weight	Light Weight	50.00 Bc	03h:48m
Tested by	JASON	Test Date	12/19/17	70.00 Bc	04h:07m
Customer	LARAMIE ENERGY	Test Time	08:36 PM	100.00 Bc	10h:31m
Well No	BRUTON 30-15W	Temp. Units	degF	00h:30m	8.26
Rig	H&P 522	Pressure Units	PSI	01h:00m	7.97
Casing/Liner Size	4.5"	SW Version	2.1.0.507	01h:30m	7.87



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\4TIJ89YN\GJ2439170-1 LARAMIE PRODUCTION LEAD BULK[1].tdms

Comments CS3435 TR 1656 437 SKS CS3438 TR 8476 437 SKS

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Job Information

Request/Slurry	2439171/2	Rig Name	H&P 522	Date	18/DEC/2017
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-15W

Well Information

Casing/Liner Size	4.5 in	Depth MD	8251 ft	BHST	116°C / 240°F
Hole Size	7.875 in	Depth TVD	7725 ft	BHCT	78°C / 172°F
Pressure	4720 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	
		ThermaCem				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 2439171/2

Thickening Time - ON-OFF-ON

20/DEC/2017

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:min)	Termination Bc
172	4720	49	3:22	3:32	3:51	23	59	15	18	4:30	73

CS3442 TR 7094 100 SKS

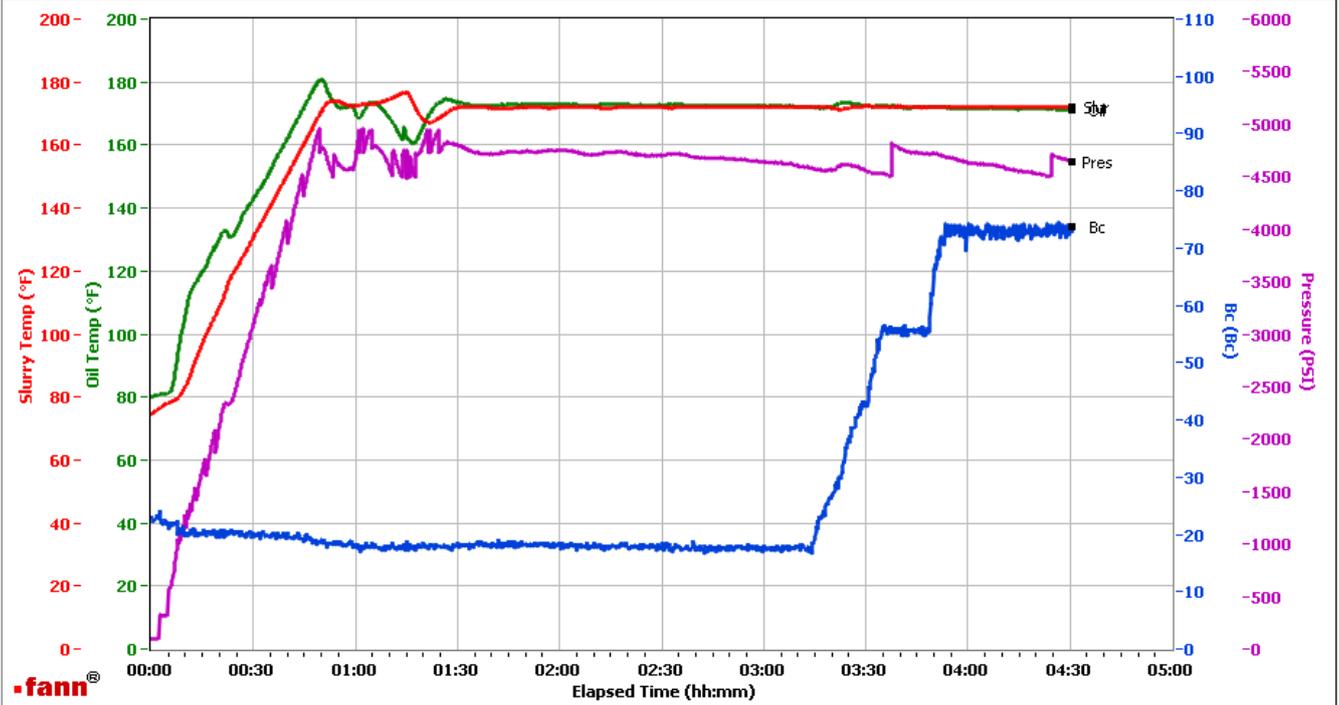
No deflection. Test pulled per Engineer.

Grand Junction Colorado

Fields	Values
Project Name	2439171-2 LARAMIE BULK PRODUCTION TA
Test ID	35119994 - TT
Request ID	2439171-2
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON 30-15W
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	01/27/11
Test Time	12:33 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.1219

Events	Results
30.00 Bc	03h:22m
40.00 Bc	03h:27m
50.00 Bc	03h:32m
70.00 Bc	03h:51m
100.00 Bc	NaN
00h:30m	20.01
01h:00m	17.67
01h:30m	18.58



Data File C:\Documents and Settings\HPHT\Desktop\Test Data\GJ2439171-2 LARAMIE BULK PRODUCTION TAIL.tdms

Comments CS3442 TR 7094 100 SKS

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Operation Test Results Request ID 2439171/1

Thickening Time - ON-OFF-ON

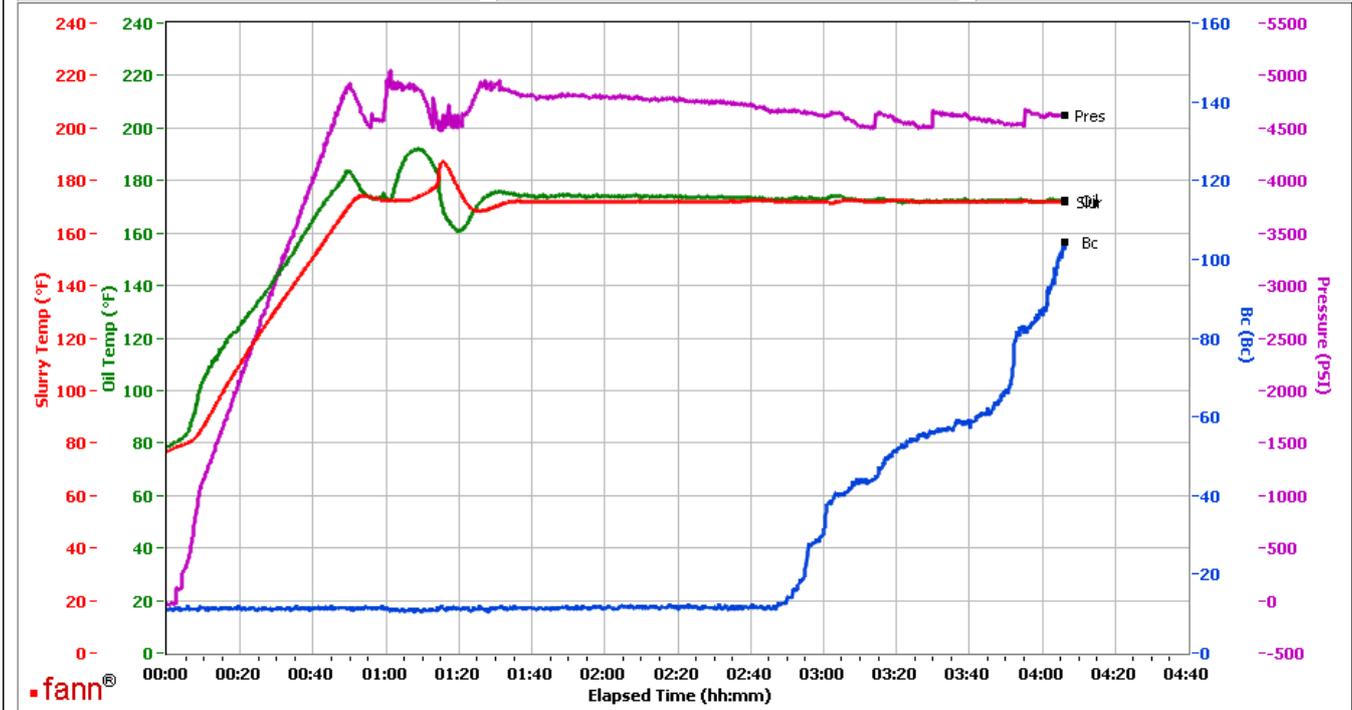
20/DEC/2017

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)
172	4720	49	3:00	3:18	3:51	4:04	11	59	15	11

total sks = 461
 CS3439 TR 8658 361 SKS
 Deflection: 11 - 11

Grand Junction, Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2439171-1 LARAMIE PRODUCTION TAIL	Job Type	PRODUCTION	30.00 Bc	03h:00m
Test ID	35114311	Cement Type	MOUNTAIN G	40.00 Bc	03h:03m
Request ID	2439171-1	Cement Weight	Light Weight	50.00 Bc	03h:18m
Tested by	JASON	Test Date	12/20/17	70.00 Bc	03h:51m
Customer	LARAMIE ENERGY	Test Time	06:23 AM	100.00 Bc	04h:04m
Well No	BRUTON 30-15W	Temp. Units	degF	00h:30m	11.68
Rig	H8P 522	Pressure Units	PSI	01h:00m	11.79
Casing/Liner Size	4.5"	SW Version	2.1.0.507	01h:30m	11.48



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\K9YZ0P2R\GJ2439171-1 LARAMIE PRODUCTION TAIL BULK[1].tdms
 Comments CS3439 TR 8658 361 SKS

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