

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC EBUSINESS

For: Laramie

Date: Thursday, January 18, 2018

BRUTON 30-20E Surface

API# 05-077-10467-00

Sincerely,

Grand Junction Cement Engineering

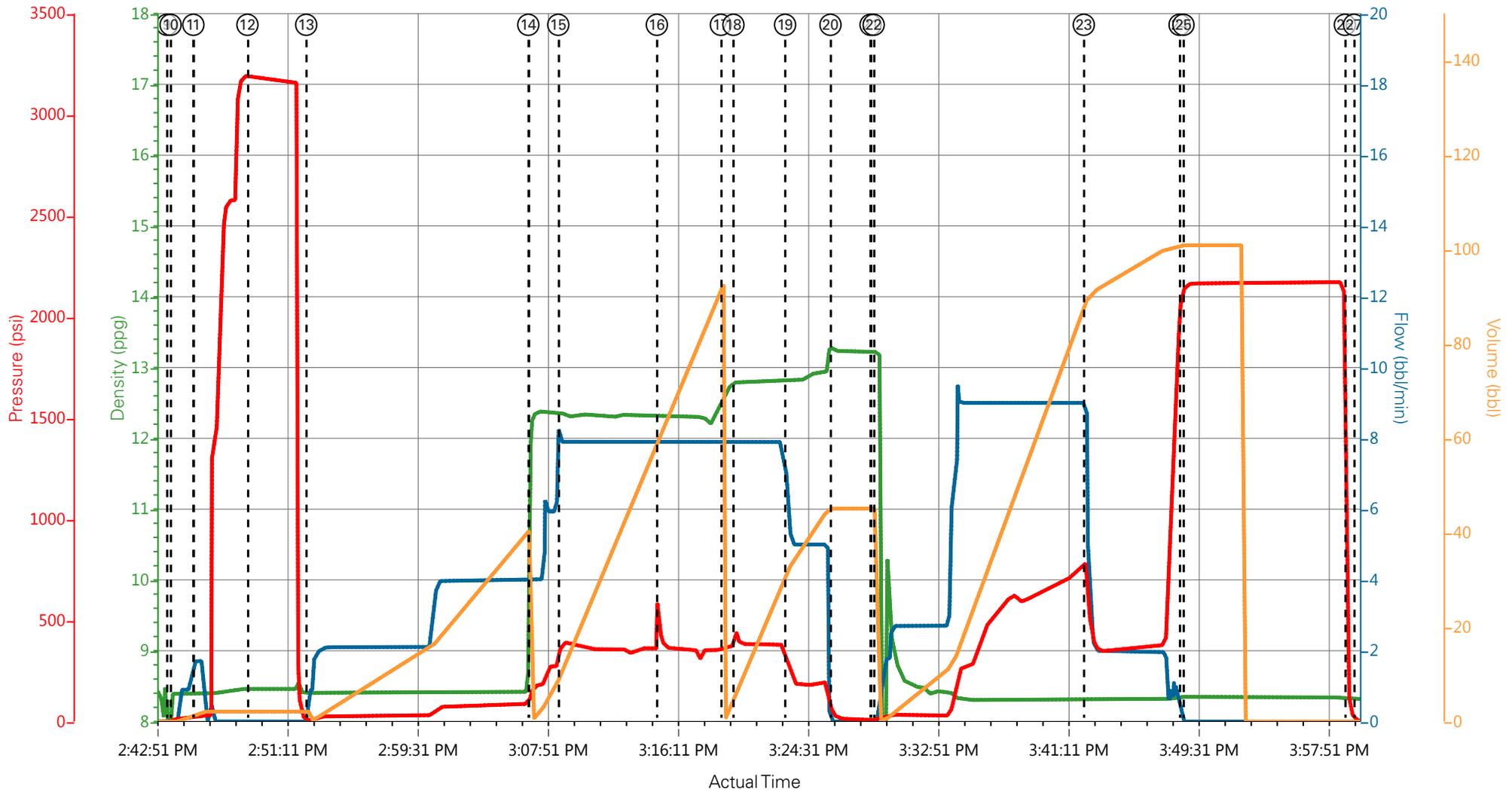
2.0 Real-Time Job Summary

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	1/18/2018	08:30:00	USER					REQUESTED ON LOCATION @ 14:00
Event	2	Pre-Convoy Safety Meeting	1/18/2018	11:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/18/2018	11:30:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCKS, 1 450 SERVICE PICKUP
Event	4	Arrive At Loc	1/18/2018	13:00:00	USER					RIG RUNNING CASING WHEN HES ARRIVED
Event	5	Assessment Of Location Safety Meeting	1/18/2018	13:15:00	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- 50F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	1/18/2018	13:20:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	1/18/2018	13:30:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	1/18/2018	14:41:32	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 9.5 BPM FOR .5HR PRIOR TO JOB, PRESSURE @160 PSI
Event	9	Start Job	1/18/2018	14:43:39	COM6					TD-1562', TP-1552', SJ-43.43', CSG-8.625" 24# J55, OH-11", MUD-9.1PPG
Event	10	Drop Bottom Plug	1/18/2018	14:43:53	USER					VERIFIED BY FLAG INDICATOR
Event	11	Prime Pumps	1/18/2018	14:45:21	COM6	8.33	2	25	2	8.33 PPG FRESH WATER
Event	12	Test Lines	1/18/2018	14:48:49	COM6			3194		ALL LINES HELD PRESSURE AT 3194 PSI
Event	13	Pump H2O Spacer	1/18/2018	14:52:34	COM6	8.33	4	150	40	FRESH WATER

Event	14	Pump Lead Cement	1/18/2018	15:06:47	COM6	12.3	8	360	86.3	197 SKS VARICEM GJ5 CMT 12.3 PPG, 2.46 FT3/SK, 14.17 GAL/SK
Event	15	Check weight	1/18/2018	15:08:43	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	16	Rupture Bottom Plug	1/18/2018	15:15:01	USER					RUPTURED BOTTOM PLUG, PRESSURE SPIKED FROM 360 TO 590 PSI
Event	17	Pump Tail Cement	1/18/2018	15:19:07	COM6	12.8	8	380	42.3	109 SKS VARICEM GJ5 CMT 12.8 PPG, 2.18 FT3/SK, 12.11 GAL/SK
Event	18	Check weight	1/18/2018	15:19:56	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	19	Slow Rate	1/18/2018	15:23:14	USER					SLOWED RATE TO END CEMENT
Event	20	Shutdown	1/18/2018	15:26:08	COM6					END OF CEMENT, WASH UP ON TOP OF PLUG.
Event	21	Drop Top Plug	1/18/2018	15:28:42	COM6					VERIFIED BY FLAG INDICATOR
Event	22	Pump Displacement	1/18/2018	15:28:54	COM6	8.33	9	785	95.9	FRESH WATER
Event	23	Slow Rate	1/18/2018	15:42:22	USER	8.33	2	360	85.9	SLOW RATE TO 2 BPM TO BUMP PLUG
Event	24	Bump Plug	1/18/2018	15:48:29	COM6	8.33	2	380	95.9	LAND PLUG AT 380 PSI, BROUGHT UP TO 2160 PSI AND HELD FOR TEN MINS FOR CASING TEST
Event	25	Casing Test	1/18/2018	15:48:44	COM6					HELD 2160 PSI FOR TEN MINS
Event	26	Check Floats	1/18/2018	15:59:05	USER					FLOATS HELD, 1 BBL BACK TO TRUCK
Event	27	End Job	1/18/2018	15:59:40	COM6					RETURNS THROUGHOUT JOB, 42 BBLs CMT TO SURFACE, USED 40 POUNDS OF SUGAR
Event	28	Post-Job Safety Meeting (Pre Rig-Down)	1/18/2018	16:15:00	USER					ALL HES PRESENT
Event	29	Rig-Down Equipment	1/18/2018	16:30:00	USER					ALL HES PRESENT
Event	30	Pre-Convoy Safety Meeting	1/18/2018	17:00:00	USER					ALL HES PRESENT
Event	31	Crew Leave Location	1/18/2018	17:15:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, SHAWN BLOSSOM AND CREW

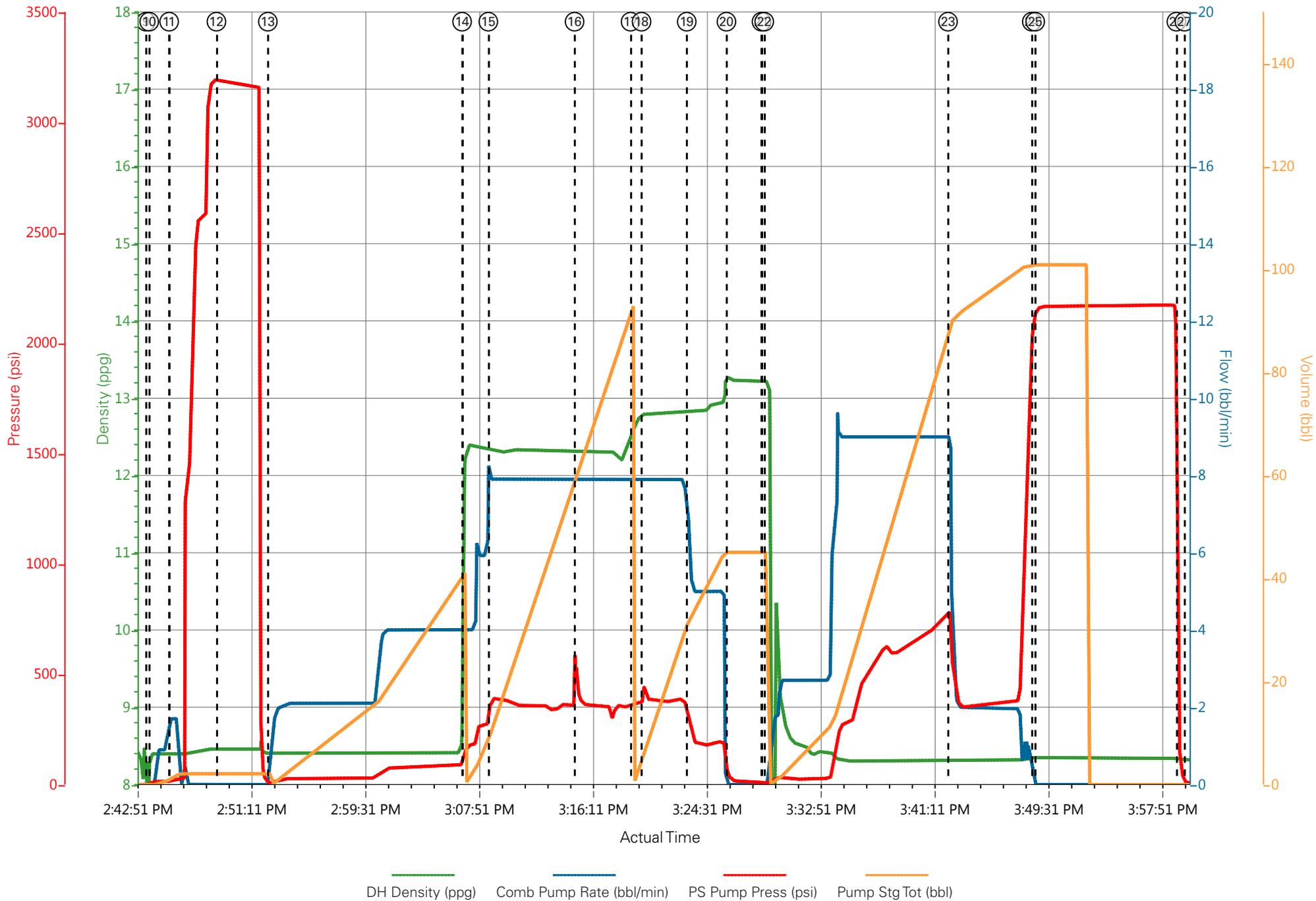
LARAMIE BRUTON 30-20E, 8 5/8" SURFACE



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

- | | | | | | |
|---|--------------------------|-----------------------|----------------------|---|------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Pump H2O Spacer | ⑰ Slow Rate | 25 Casing Test | 31 Crew Leave Location |
| ② Pre-Convoy Safety Meeting | ⑧ Pre-Job Safety Meeting | ⑭ Pump Lead Cement | 20 Shutdown | 26 Check Floats | |
| ③ Crew Leave Yard | ⑨ Start Job | ⑮ Check weight | 21 Drop Top Plug | 27 End Job | |
| ④ Arrive At Loc | ⑩ Drop Bottom Plug | ⑯ Rupture Bottom Plug | 22 Pump Displacement | 28 Post-Job Safety Meeting (Pre Rig-Down) | |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Prime Pumps | ⑰ Pump Tail Cement | 23 Slow Rate | 29 Rig-Down Equipment | |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Test Lines | ⑱ Check weight | 24 Bump Plug | 30 Pre-Convoy Safety Meeting | |

LARAMIE BRUTON 30-20E, 8 5/8" SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY

For: Laramie Energy

BRUTON 30-20E

Bruton 30-20E Production
API# 05-077-10467-00
Job Date: Sunday, January 21, 2018

Sincerely,
Grand Junction Cement Engineering

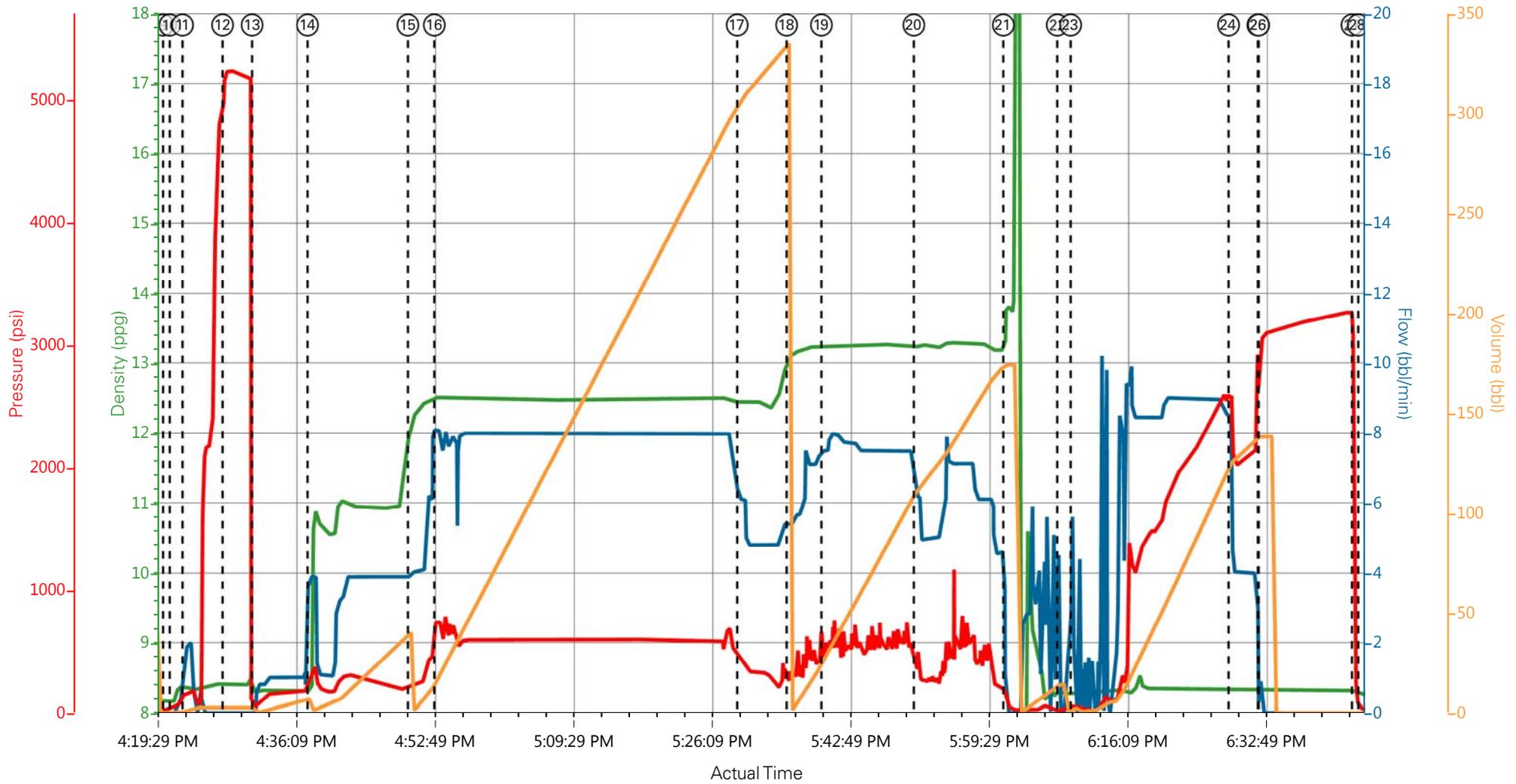
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density <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	1/21/2018	06:30:00	USER					REQUESTED ON LOCATION @ 14:30
Event	2	Pre-Convoy Safety Meeting	1/21/2018	09:20:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/21/2018	09:30:00	USER					1 HT 400 PUMP TRUCK E4, 1 660 BULK TRUCK, 1 450 SERVICE PICKUP
Event	4	Arrive At Loc	1/21/2018	12:30:00	USER					RIG RUNNING CASING WHEN HES ARRIVED AT LOCATION
Event	5	Assessment Of Location Safety Meeting	1/21/2018	12:45:00	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- 60F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	1/21/2018	13:00:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	1/21/2018	13:10:00	USER					HES RIGGED UP 1 HT400 PUMP TRUCK, 1 660 BULK TRUCK, 2 CEMENT SILOS, 2" DISCHARGE IRON, AND 4" SUCTION HOSE WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	1/21/2018	15:50:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 9.5 BPM PRIOR TO JOB PRESSURE @ 780 PSI.
Event	9	Start Job	1/21/2018	16:20:30	COM6					TD 8350', TP 8340' OF 4 ½" 11.6# P110 CSG, SJ 82.86', SURFACE CSG 8 5/8" 24# J55 SET @ 1552', OH 7 7/8", MUD 9.3 PPG 33 VIS
Event	10	Drop Bottom Plug	1/21/2018	16:21:18	USER					VERIFIED BY PLUG INDICATOR
Event	11	Prime Pumps	1/21/2018	16:22:50	COM6	8.33	2	195	2	8.33 PPG FRESH WATER

Event	12	Test Lines	1/21/2018	16:27:39	COM6	8.33	0.00	5240	.5	ALL LINES HELD PRESSURE AT 5240 PSI
Event	13	Pump H2O Spacer	1/21/2018	16:31:12	COM6	8.33	1	173	5	PUMPED WATER TO ESTABLISH RETURNS
Event	14	Tuned Spacer III	1/21/2018	16:37:52	COM6	11	4	314	40	40 BBL TUNED SPACER III, 11 PPG, 4.86 FT3/SK, 31.9 GAL/SK
Event	15	Pump Lead Cement	1/21/2018	16:49:56	COM6	12.5	8	730	309.2	895 SKS OF NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.6 GAL/SK.
Event	16	Check weight	1/21/2018	16:53:07	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	17	Slow Rate	1/21/2018	17:29:32	USER					SLOWED TO END LEAD SILO
Event	18	Pump Tail Cement	1/21/2018	17:35:28	COM6	13.3	7.5	560	142	461 SKS THERMACEM CMT 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK.
Event	19	Check weight	1/21/2018	17:39:39	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	20	Slow Rate	1/21/2018	17:50:46	USER					SLOWED TO END TAIL SILO
Event	21	Shutdown	1/21/2018	18:01:31	USER					END OF CEMENT. CLEAN PUMPS AND LINES TO CELLAR.
Event	22	Drop Top Plug	1/21/2018	18:08:00	COM6					VERIFIED BY PLUG INDICATOR
Event	23	Pump Displacement	1/21/2018	18:09:37	COM6	8.4	9	2580	128	1 GAL MMCR IN FIRST 10 BBLs, 5 GALS CLAY WEB THROUGHOUT DISPLACEMENT
Event	24	Slow Rate	1/21/2018	18:28:36	USER	8.4	4	2000	118	SLOW RATE TO 4 BPM TO BUMP PLUG
Event	25	Bump Plug	1/21/2018	18:32:07	COM6					LANDED PLUG AT 2150 PSI, BROUGHT UP TO 3100 PSI
Event	26	Casing Test	1/21/2018	18:32:13	COM6					HELD 3100 PSI FOR TEN MINS
Event	27	Check Floats	1/21/2018	18:43:26	USER					FLOATS HELD, 1.5 BBL BACK TO TRUCK
Event	28	End Job	1/21/2018	18:44:12	COM6					RETURNS THROUGHOUT JOB, 40BBLs OF TUNED SPACER TO SURFACE
Event	29	Post-Job Safety Meeting (Pre Rig-Down)	1/21/2018	18:47:23	USER					ALL HES PRESENT
Event	30	Rig-Down Equipment	1/21/2018	18:55:00	USER					ALL HES PRESENT
Event	31	Pre-Convoy Safety Meeting	1/21/2018	20:20:00	USER					ALL HES PRESENT
Event	32	Crew Leave Location	1/21/2018	20:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, SHAWN BLOSSOM AND CREW

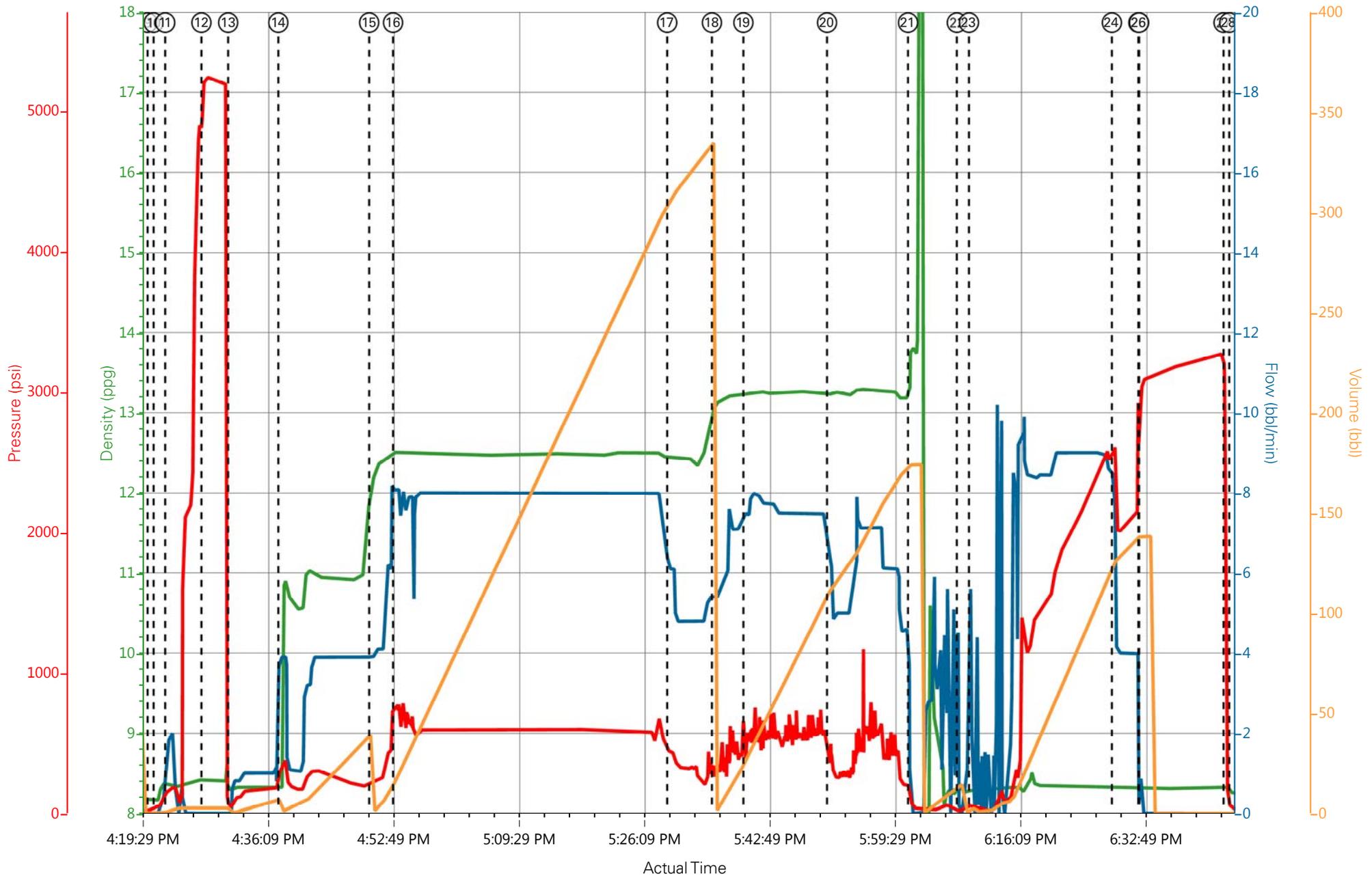
LARAMIE BRUTON 30-20E, 4.5" PRODUCTION



DH Density (ppg) 8.25 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) 28 Pump Stg Tot (bbl) 0

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|---|--------------------------|--------------------|----------------------|---|------------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Pump H2O Spacer | ⑰ Check weight | 25 Bump Plug | 31 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑧ Pre-Job Safety Meeting | ⑭ Tuned Spacer III | ⑱ Slow Rate | 26 Casing Test | 32 Crew Leave Location |
| ③ Crew Leave Yard | ⑨ Start Job | ⑮ Pump Lead Cement | 21 Shutdown | 27 Check Floats | |
| ④ Arrive At Loc | ⑩ Drop Bottom Plug | ⑯ Check weight | 22 Drop Top Plug | 28 End Job | |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Prime Pumps | ⑰ Slow Rate | 23 Pump Displacement | 29 Post-Job Safety Meeting (Pre Rig-Down) | |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Test Lines | ⑱ Pump Tail Cement | 24 Slow Rate | 30 Rig-Down Equipment | |

LARAMIE BRUTON 30-20E, 4.5" PRODUCTION



DH Density (ppg) 8.25 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) 28 Pump Stg Tot (bbl) 0

Job Information

Request/Slurry	2446788/1	Rig Name	H&P 522	Date	19/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-20E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8373 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7689 ft	BHCT	77°C / 171°F
Pressure	4682 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		

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Operation Test Results Request ID 2446788/1

Thickening Time - ON-OFF-ON

20/JAN/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)
171	4682	49	4:05	4:34	5:07	5:25	16	59	15	13

Total sks = 895

CS0201, Trailer 1656, 447.5 sks

CS0202, Trailer 1513, 447.5 sks

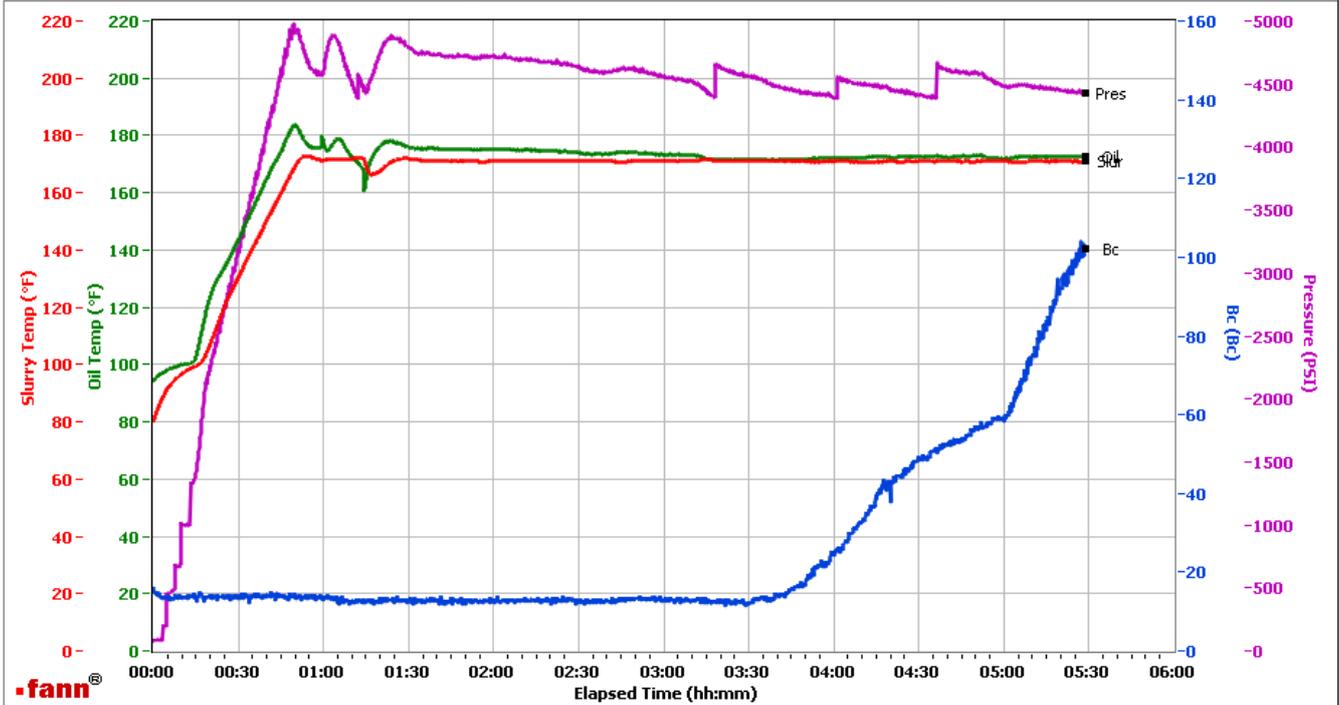
Deflection: 13 - 13

Grand Junction Colorado

Fields	Values
Project Name	2446788-1 LARAMIE BULK PRODUCTION LEAD
Test ID	35190227 - TT
Request ID	2446788-1
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON 30-20E
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	01/20/18
Test Time	06:47 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	04h:05m
40.00 Bc	04h:15m
50.00 Bc	04h:34m
70.00 Bc	05h:07m
100.00 Bc	05h:25m
00h:30m	13.32
01h:00m	12.70
01h:30m	12.94



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Comments CS0201, TRAILER 1656, 447.5 SKS - CS0202, TRAILER 1513, 447.5 SKS

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Job Information

Request/Slurry	2446789/1	Rig Name	H&P 522	Date	19/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-20E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8373 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7689 ft	BHCT	77°C / 171°F
Pressure	4682 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 2446789/1

Thickening Time - ON-OFF-ON

20/JAN/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)
171	4682	49	2:23	2:39	2:39	2:47	20	59	15	14

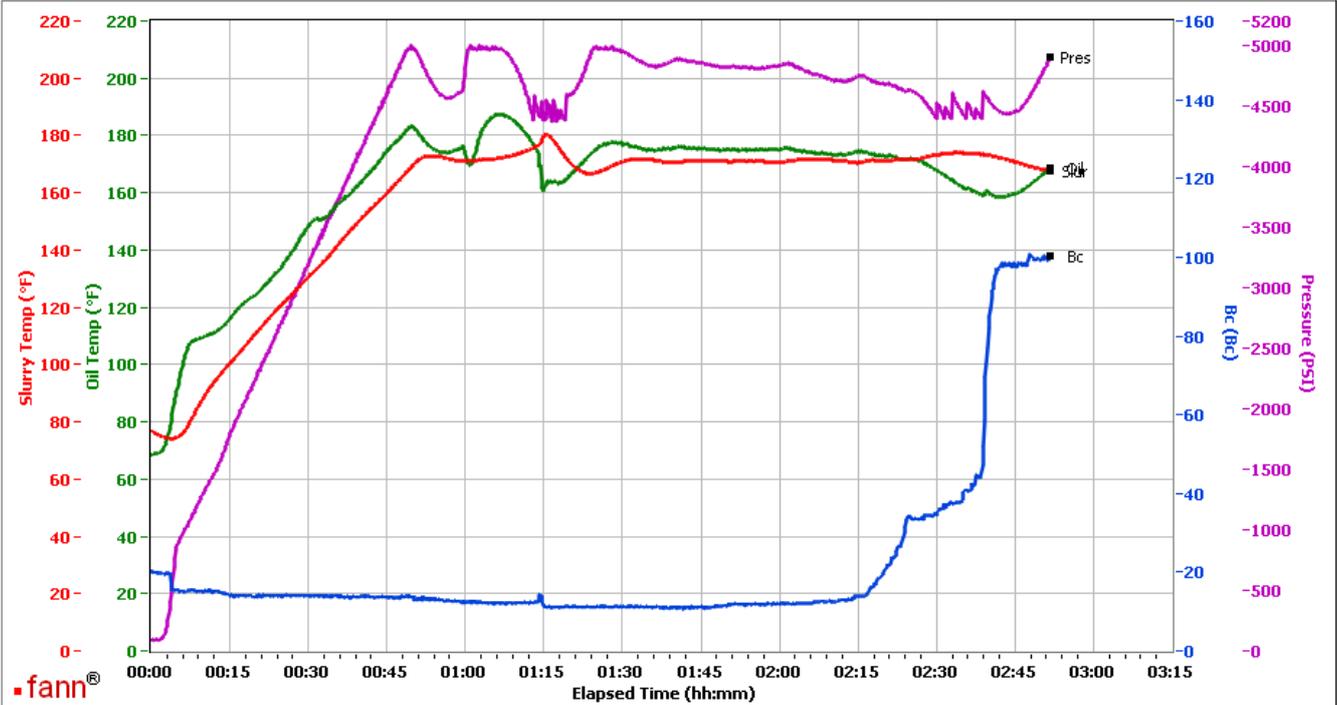
Total sks = 461
 CS0203, Trailer 8658, 361 sks
 CS0204, Trailer 4053, 100 sks
 Deflection: 12-14

Grand Junction Colorado

Fields	Values
Project Name	2446789-1 LARAMIE BULK PRODUCTION TA
Test ID	35190229 - TT
Request ID	2446789-1
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON 30-20E
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	01/20/18
Test Time	09:59 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	02h:23m
40.00 Bc	02h:35m
50.00 Bc	02h:39m
70.00 Bc	02h:39m
100.00 Bc	02h:47m
00h:30m	13.96
01h:00m	12.23
01h:30m	11.05



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\K9YZ0P2R\GJ2446789-1 LARAMIE BULK PRODUCTION TAIL[1].tdms

Comments CS0203, TRAILER 8658, 361 SKS - CS0204, TRAILER 4053, 100 SKS

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