

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC-EBUS

For: Laramie

Date: Monday, January 01, 2018

BRUTON 30-17E Surface

API#05-077-10477

Sincerely,

Grand Junction Cement Engineering

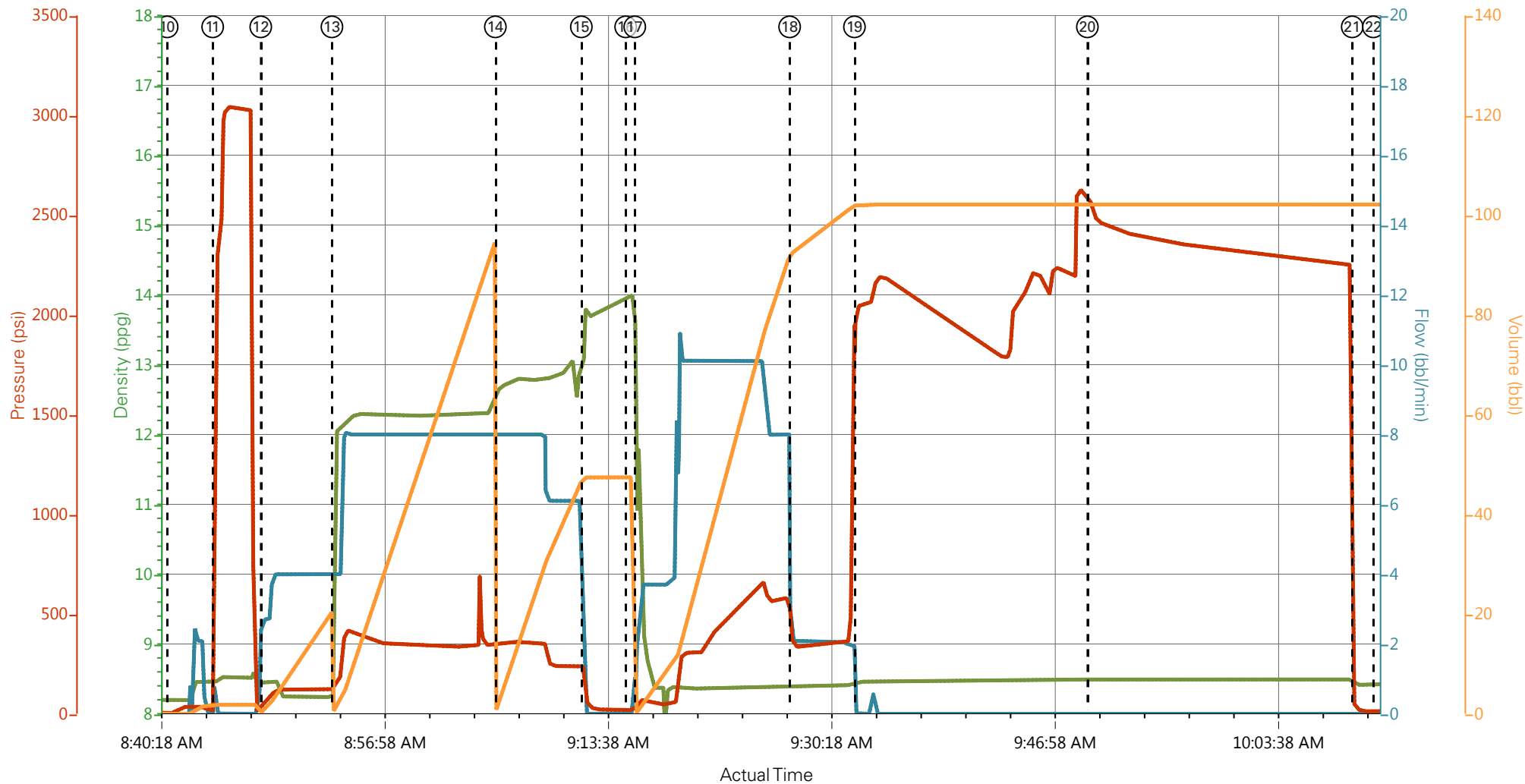
2.0 Real-Time Job Summary

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	1/1/2018	02:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	1/1/2018	03:50:00	USER					
Event	3	Crew Leave Yard	1/1/2018	04:00:00	USER					
Event	4	Arrive At Loc	1/1/2018	05:30:00	USER					CREW ARRIVED 1.5 HRS EARLY TO LOCATION (REQUESTED ON LOC TIME WAS 0700 1/1/18). RIG WAS RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	1/1/2018	05:35:00	USER					
Event	6	Spot Equipment	1/1/2018	05:40:00	USER					
Event	7	Pre-Rig Up Safety Meeting	1/1/2018	05:45:00	USER					
Event	8	Rig-Up Equipment	1/1/2018	05:50:00	USER					
Event	9	Pre-Job Safety Meeting	1/1/2018	06:51:14	USER					
Event	10	Start Job	1/1/2018	08:41:00	COM5					TD: 1584 TP: 1574 SJ: 43.4' MW: 9.5PPG 8 5/8" 24#/FT CSG IN 11" OH WATER TEST: PH: 6.5 POTASSIUM: 700 CHLORIDES: 0 SULFATES: <200 TEMP: 50 DEGREES
Event	11	Test Lines	1/1/2018	08:44:23	COM5	8.33	0.00	3000.00	2.0	3000 PSI TEST SUCCESSFUL
Event	12	Pump Spacer 1	1/1/2018	08:47:58	COM5	8.33	4.00	153.00	20.0	FRESH H2O SPACER
Event	13	Pump Lead Cement	1/1/2018	08:53:17	COM5	12.30	8.00	380.00	86.3	197 SKS @ 12.3 PPG 2.46 YLD 14.17 GAL/SK H2O
Event	14	Pump Tail Cement	1/1/2018	09:05:29	COM5	12.80	8.00	350.00	42.3	109 SKS @ 12.8 PPG 2.18 YLD 12.11 GAL/SK H2O
Event	15	Shutdown	1/1/2018	09:11:54	USER					
Event	16	Drop Top Plug	1/1/2018	09:15:12	COM5					PLUG AWAY

Event	17	Pump Displacement	1/1/2018	09:15:53	COM5	8.33	10.00	590.00	97.4	FRESH H2O DISPLACEMENT
Event	18	Slow Rate	1/1/2018	09:27:26	USER	8.33	2.00	353.00	87.0	
Event	19	Bump Plug	1/1/2018	09:32:16	COM5	8.33	2.00	2150.00	97.4	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE WAS 360 PSI, PRESSURED UP TO 2100PSI
Event	20	Other	1/1/2018	09:49:39	COM5	8.33	0.00	2557.00	0.00	10 MINUTE CASING TEST
Event	21	Check Floats	1/1/2018	10:09:25	USER					FLOATS HELD, GAINED 1/2 BBL BACK TO PUMP
Event	22	End Job	1/1/2018	10:11:00	COM5					
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	1/1/2018	10:20:00	USER					GOOD CIRCULATION THROUGHOUT JOB. PIPE WAS LEFT STATIC. CIRCULATED 27 BBL CEMENT TO SURFACE. 60# SUGAR USED, NO ADD HOURS CHARGED.
Event	24	Rig-Down Equipment	1/1/2018	10:30:00	USER					
Event	25	Pre-Convoy Safety Meeting	1/1/2018	11:15:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTIN OF GRAND JUNCTION, CO
Event	26	Crew Leave Location	1/1/2018	11:30:00	USER					ANTHONY ANDREWS AND CREW

LARAMIE ENERGY - BRUTON 30-17E - 8 5/8" SURFACE



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

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

▼ **HALLIBURTON** | iCem® Service

Created: 2018-01-01 06:44:47, Version: 4.2.393

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Customer : LARAMIE ENERGY LLC-EBUS

Job Date : 1/1/2018 6:46:04 AM

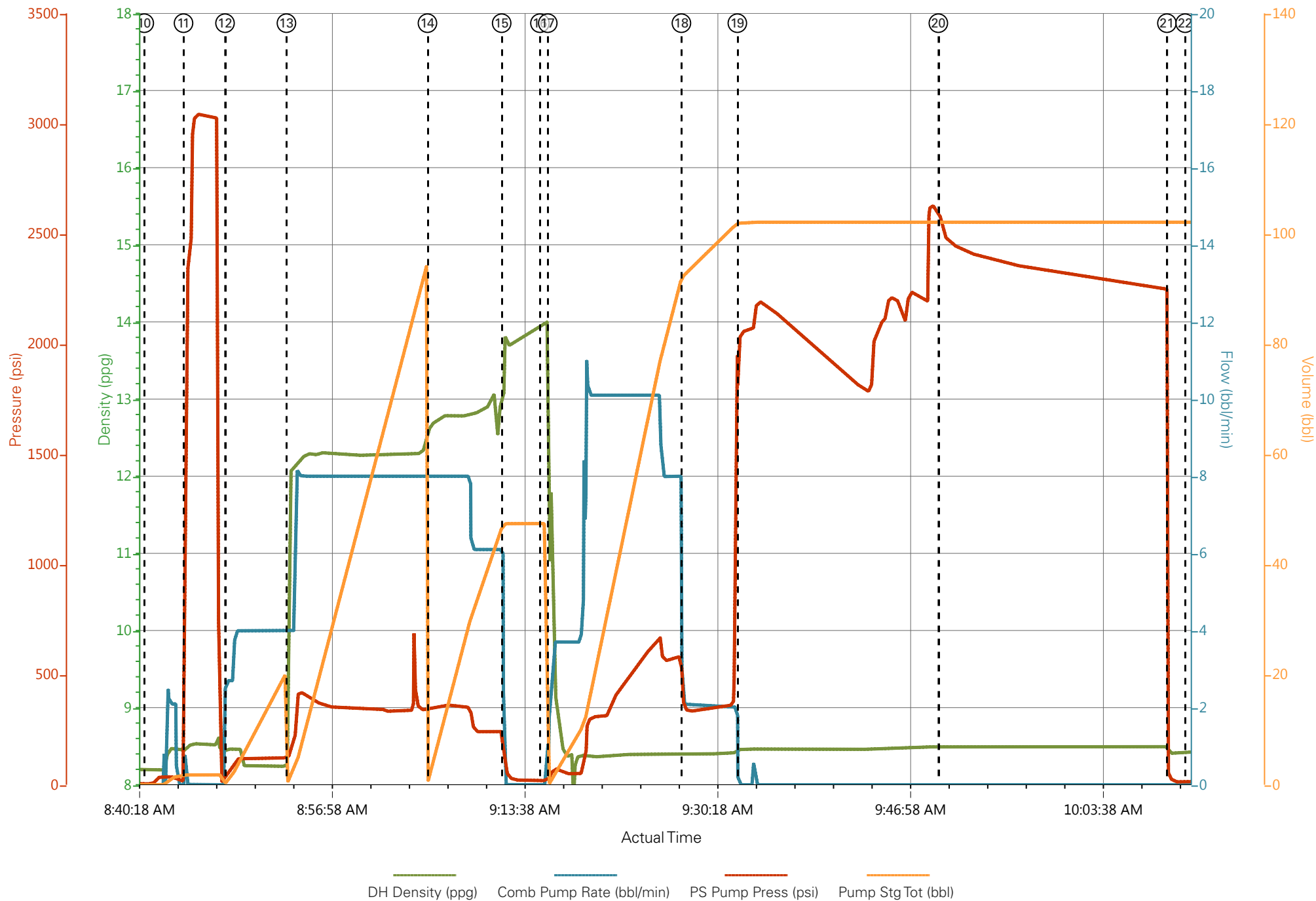
Well : BRUTON 30-17E

Representative : SHANE HERD

Sales Order # : 904544508

ELITE 4 : RYAN MARTIN/ ANTHONY ANDREWS

LARAMIE ENERGY - BRUTON 30-17E - 8 5/8" SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC EBUSINESS

For: Laramie

Date: Thursday, January 04, 2018

BRUTON 30-17E Production

API#05-077-10477

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

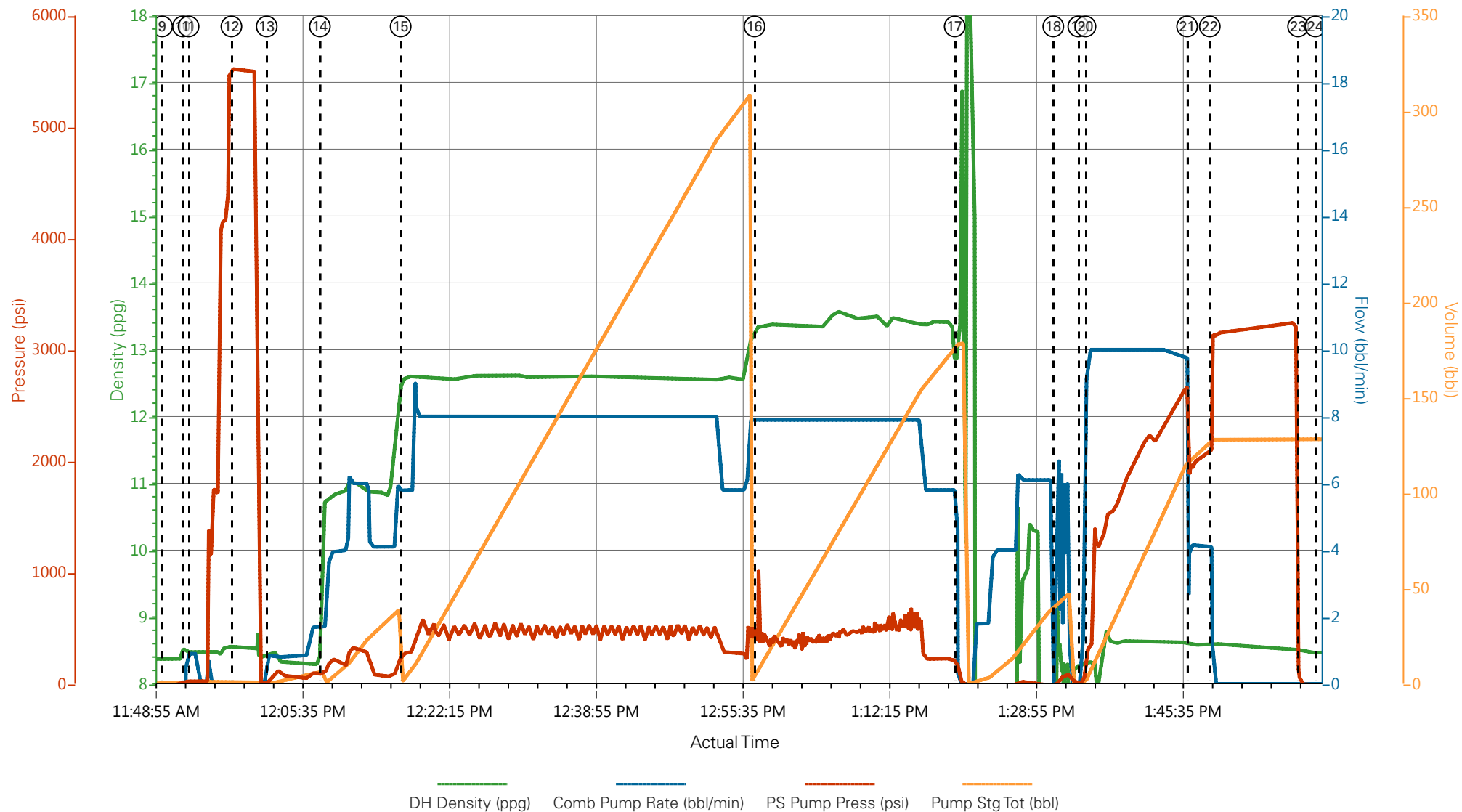
1.1 Job Event Log

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	1/4/2018	04:45:00	USER					REQUESTED ON LOCATION @ 09:30
Event	2	Pre-Convoy Safety Meeting	1/4/2018	06:50:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/4/2018	06:55:00	USER					1 F550, 1 PUMP TRUCK & 1 660 BULK TURCK
Event	4	Arrive At Loc	1/4/2018	09:15:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	1/4/2018	09:35:00	USER					MET WITH COMP REP AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 71F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	1/4/2018	09:45:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	1/4/2018	09:55:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	1/4/2018	11:30:29	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	1/4/2018	11:50:00	COM6					TD 8006', TP 7996', SJ 78.11', OH 7.875'', CSG 4.5'' 11.6#, MUD 9.2 PPG. RIG CIRCULATED WELL @ APPROX 10 BPM WITH 780 PSI.
Event	10	Drop Bottom Plug	1/4/2018	11:52:21	USER					PLUG WENT, VERIFIED BY CO REP.
Event	11	Prime Pumps	1/4/2018	11:53:00	USER	41.00	8.39	1.90	2.0	8.33 PPG FRESH WATER
Event	12	Test Lines	1/4/2018	11:57:52	COM6	5524.00	8.36	0.50	0.5	ALL LINES HELD PRESSURE AT 5520 PSI
Event	13	Pump Spacer 1	1/4/2018	12:01:52	COM6	64.00	8.36	2.00	5.3	FRESH WATER SPACER (5BBL), 8.33 PPG
Event	14	Pump Spacer 2	1/4/2018	12:07:55	COM6	358.00	10.97	6.00	39.6	TUNED SPACER III (40 BBL), 11 PPG
Event	15	Pump Lead Cement	1/4/2018	12:17:05	COM6	520.00	12.56	8.00	288.0	NEOCEM CEMENT 834 SKS (288 BBLs), 12.5 PPG, 1.94

FT3/SK, 9.6 GAL/SK

Event	16	Pump Tail Cement	1/4/2018	12:57:17	COM6	474.00	13.35	7.90	142.0	THERMACEM CEMENT 461 SKS (142 BBLS), 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK.
Event	17	Shutdown	1/4/2018	13:20:01	USER					END OF CMT
Event	18	Clean Lines	1/4/2018	13:31:13	USER					WASH UP PUMPS AND LINES
Event	19	Drop Top Plug	1/4/2018	13:34:04	USER					PLUG WENT, VERIFIED BY CO REP.
Event	20	Pump Displacement	1/4/2018	13:34:52	COM6	2785.00	8.33	10.00	4.8	8.34 PPG CLAY WEB (122.7 BBLS) & 1 GAL MMCR
Event	21	Slow Rate	1/4/2018	13:46:25	USER	2150.00	8.30	4.00	112.9	SLOW RATE TO 4 BPM PER CO REP TO LAND PLUG
Event	22	Bump Plug	1/4/2018	13:49:00	USER	3122.00	8.31	4.00	122.9	LAND PLUG AT 2150 PSI, BROUGHT UP TO 3082 PSI FOR A 10 MIN CASING TEST.
Event	23	Check Floats	1/4/2018	13:58:23	USER	3229.00				FLOATS HELD, 1 BBL BACK TO TRUCK
Event	24	End Job	1/4/2018	14:01:00	USER					PIPE WAS NOT RECIPROCATED DURING THE JOB, 40 BBL OF SPACER BACK TO SURFACE
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	1/4/2018	14:05:01	USER					ALL HES PRESENT
Event	26	Rig-Down Equipment	1/4/2018	14:15:00	USER					ALL HES PRESENT
Event	27	Pre-Convoy Safety Meeting	1/4/2018	15:00:00	USER					ALL HES PRESENT
Event	28	Crew Leave Location	1/4/2018	15:15:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

LARAMIE - BRUTON 30-17E - 4.5" PRODUCTION



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

▼ **HALLIBURTON** | iCem® Service

Created: 2018-01-04 10:18:22, Version: 4.2.393

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Customer : LARAMIE ENERGY II LLC EBUSINESS

Job Date : 1/4/2018

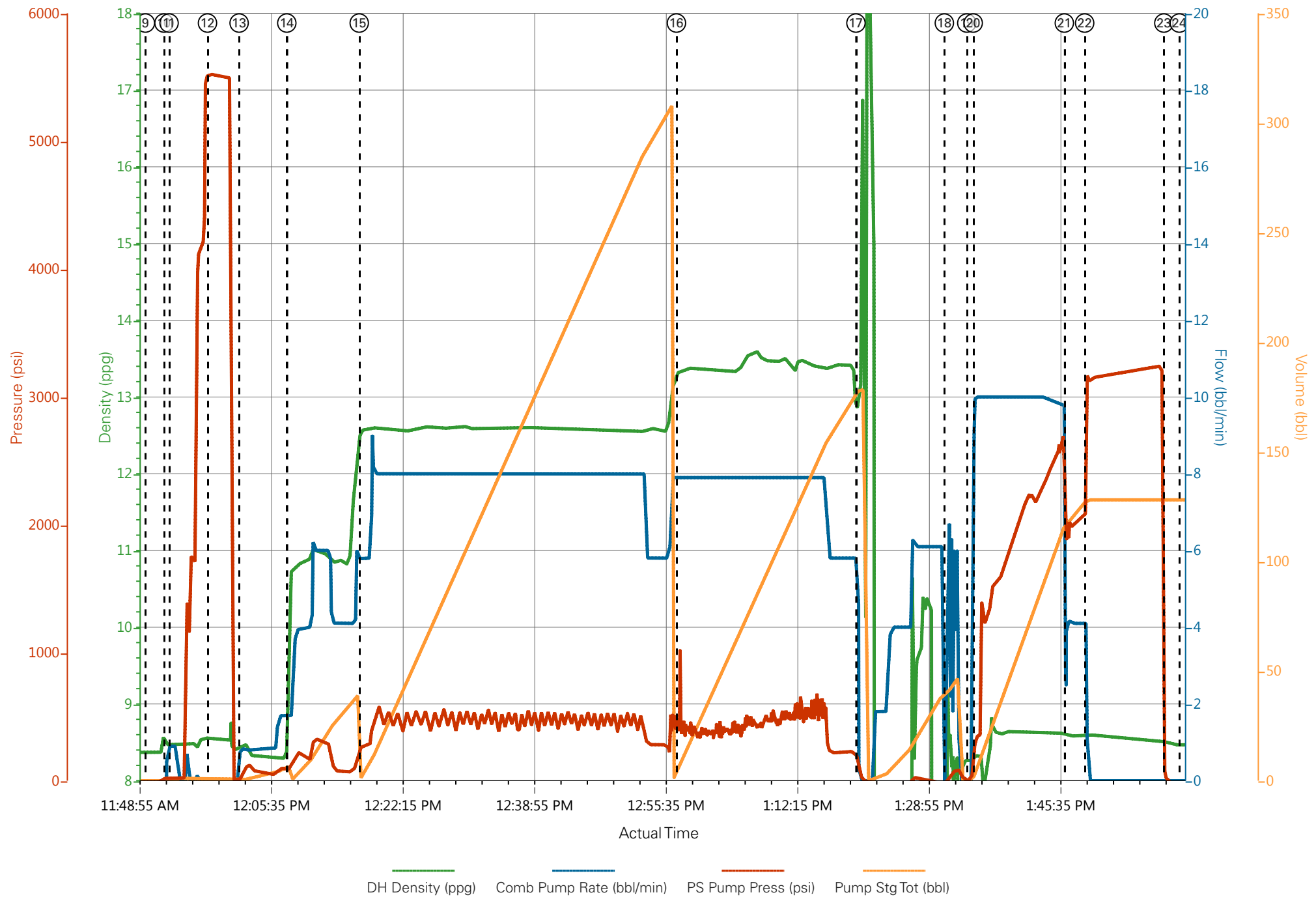
Well : BRUTON 30-17E

Representative : T. HALE

Sales Order # : 904548274

ELITE 8 : C.SMITH/ D.PORTER

LARAMIE - BRUTON 30-17E - 4.5" PRODUCTION



Job Information

Request/Slurry	2441984/1	Rig Name	H&P 522	Date	02/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-17E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8027 ft	BHST	119°C / 246°F
Hole Size	7.875 in	Depth TVD	7800 ft	BHCT	81°C / 177°F
Pressure	4919 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	9.5 lbm/gal
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Cement Information - Lead Design



Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		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 2441984/1**Thickening Time - ON-OFF-ON****03/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)
177	4919	33	3:09	3:09	3:23	4:11	43	15	15

Total sks = 834

Composite:

CS0013 TR 2878 417 SKS

CS0014 TR 0813 417 SKS

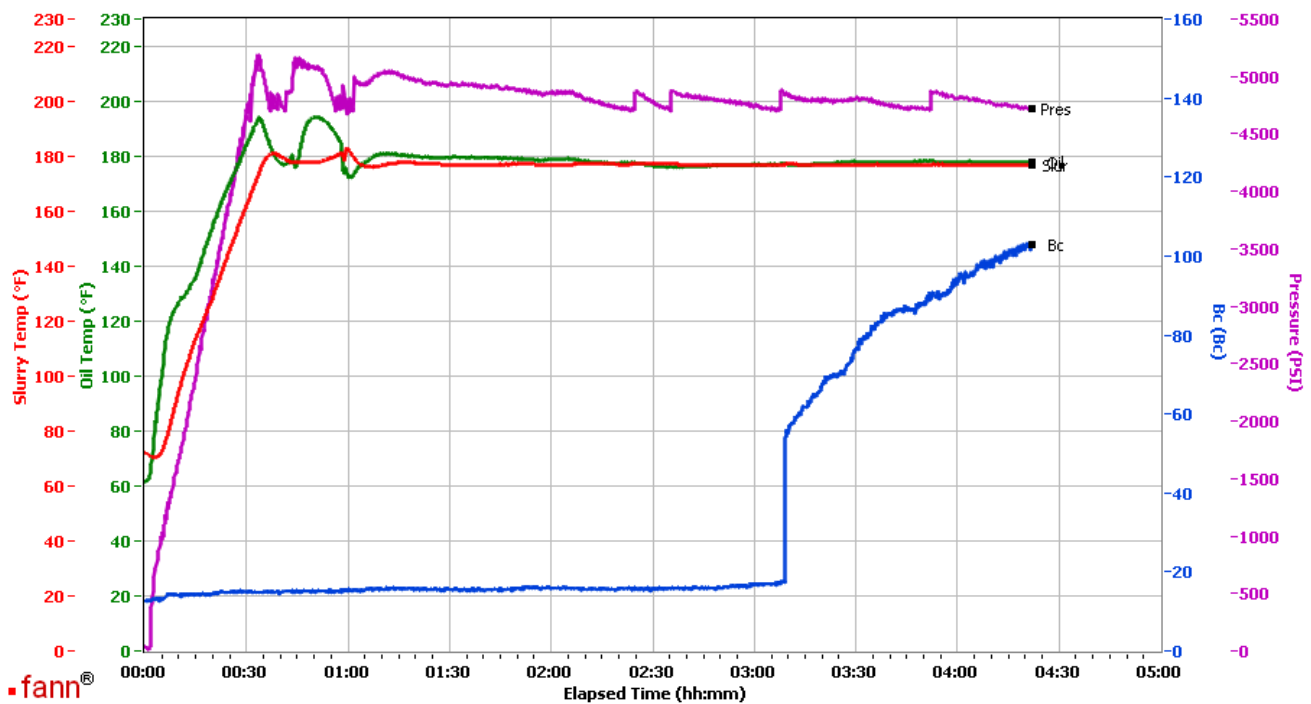
Deflection: 15 - 15

Grand Junction Colorado

Fields	Values
Project Name	GJ2441984-1 LARAMIE PRODUCTION LEAD
Test ID	35146305
Request ID	2441984-1
Tested by	JASON
Customer	LARAMIE ENERGY
Well No	BRUTON 30-17E
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	01/02/18
Test Time	10:40 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:09m
40.00 Bc	03h:09m
50.00 Bc	03h:09m
70.00 Bc	03h:23m
100.00 Bc	04h:11m
00h:30m	15.12
01h:00m	15.63
01h:30m	15.39



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Comments CS0013 TR 2878 417 SKS CS0014 TR 0813 417 SKS

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Job Information

Request/Slurry	2441985/2	Rig Name	H&P 522	Date	02/JAN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-17E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8027 ft	BHST	119°C / 246°F
Hole Size	7.875 in	Depth TVD	7800 ft	BHCT	81°C / 177°F
Pressure	4919 psi				

Drilling Fluid Information

Mud Supplier Name		Mud Trade Name		Density	9.5 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	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 2441985/2

Thickening Time - ON-OFF-ON

04/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)
177	4919	33	8:25	9:28	9:33	9:33	11	43	15	13

Total sks = 461

CS0019 TR 7304 100 SKS

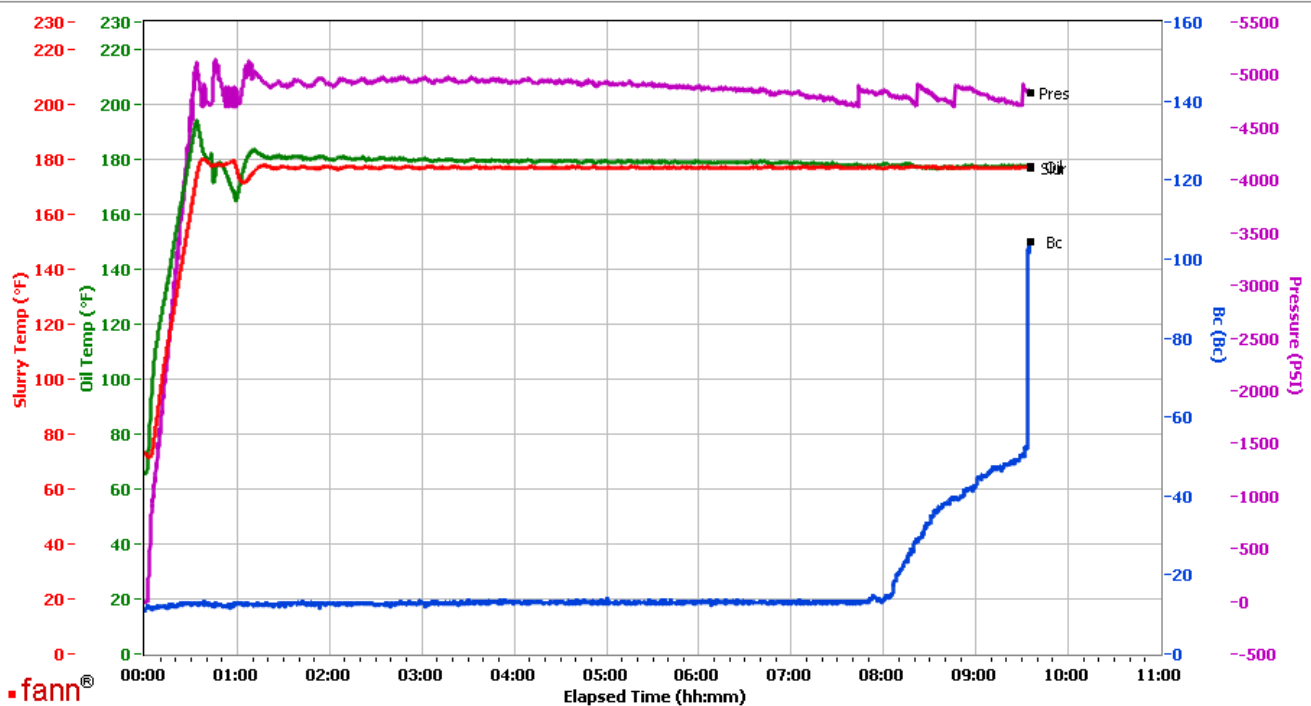
Deflection: 12 – 13

Grand Junction, Colorado

Fields	Values
Project Name	2441985-2 LARAMIE BULK PRODUCTION TA
Test ID	35148548 - TT
Request ID	2441985-2
Tested by	CT
Customer	LARAMIE ENERGY
Well No	BRUTON 30-17E
Rig	H8P 522
Casing/Liner Size	4.5 INCH

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	MOUNTAIN G
Cement Weight	Standard
Test Date	01/04/18
Test Time	02:03 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	08h:25m
40.00 Bc	08h:50m
50.00 Bc	09h:28m
70.00 Bc	09h:33m
100.00 Bc	09h:33m
00h:30m	12.18
01h:00m	13.04
01h:30m	12.50



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Comments CS0019 TR 7304 100 SKS

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Operation Test Results Request ID 2441985/1

Thickening Time - ON-OFF-ON

03/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)
177	4919	33	3:23	3:24	3:35	4:17	5	43	15	5

Total sks = 461

CS0015 TR 0812 361 SKS

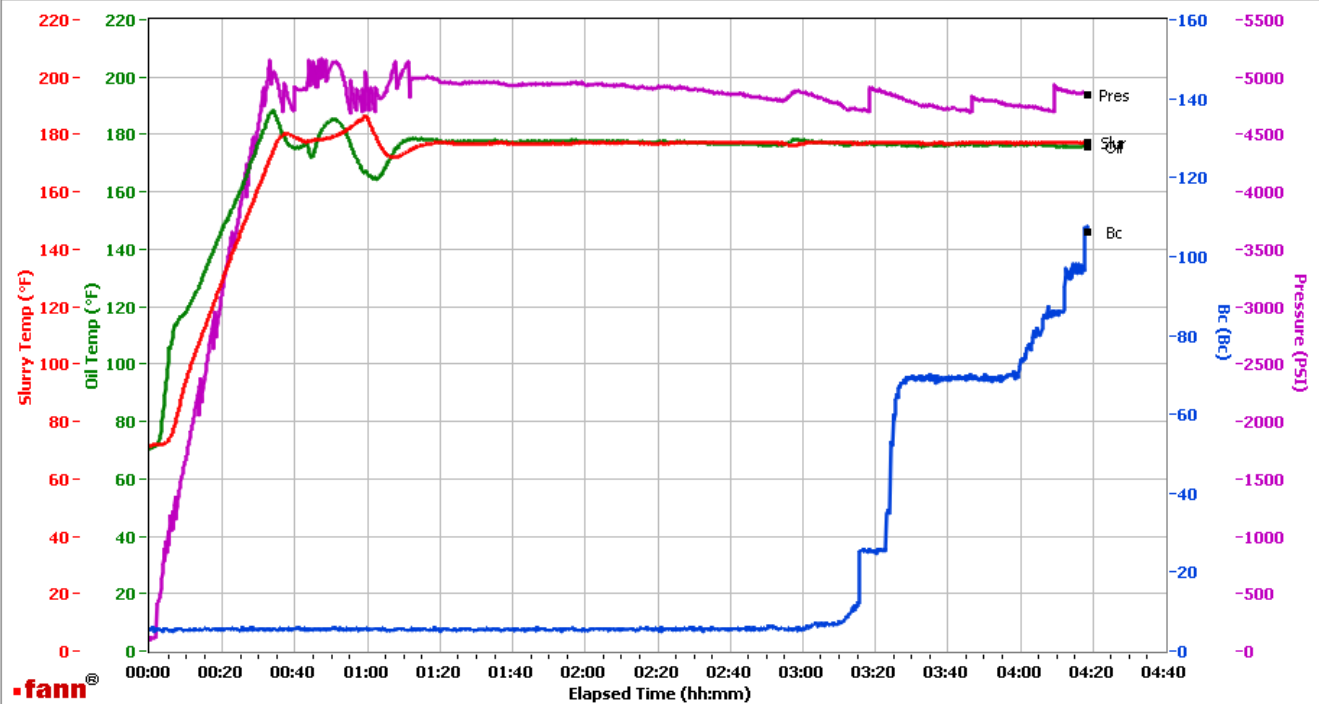
Deflection: 5 – 5

Grand Junction Colorado

Fields	Values
Project Name	GJ2441985-1 LARAMIE PRODUCTION TAIL
Test ID	35146307
Request ID	2441985-1
Tested by	JASON
Customer	LARAMIE ENERGY
Well No	BRUTON 30-17E
Rig	H&P 522
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION
Cement Type	MOUNTAIN G
Cement Weight	Light Weight
Test Date	02/09/11
Test Time	10:01 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.1219

Events	Results
30.00 Bc	03h:23m
40.00 Bc	03h:24m
50.00 Bc	03h:24m
70.00 Bc	03h:35m
100.00 Bc	04h:17m
00h:30m	5.28
01h:00m	5.72
01h:30m	5.36



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Comments CS0015 TR 0812 361 SKS

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