

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC EBUSINESS

For: Laramie

Date: Saturday, December 09, 2017

BRUTON 30-14E Surface

API#05-077-10471

Sincerely,

Grand Junction Cement Engineering

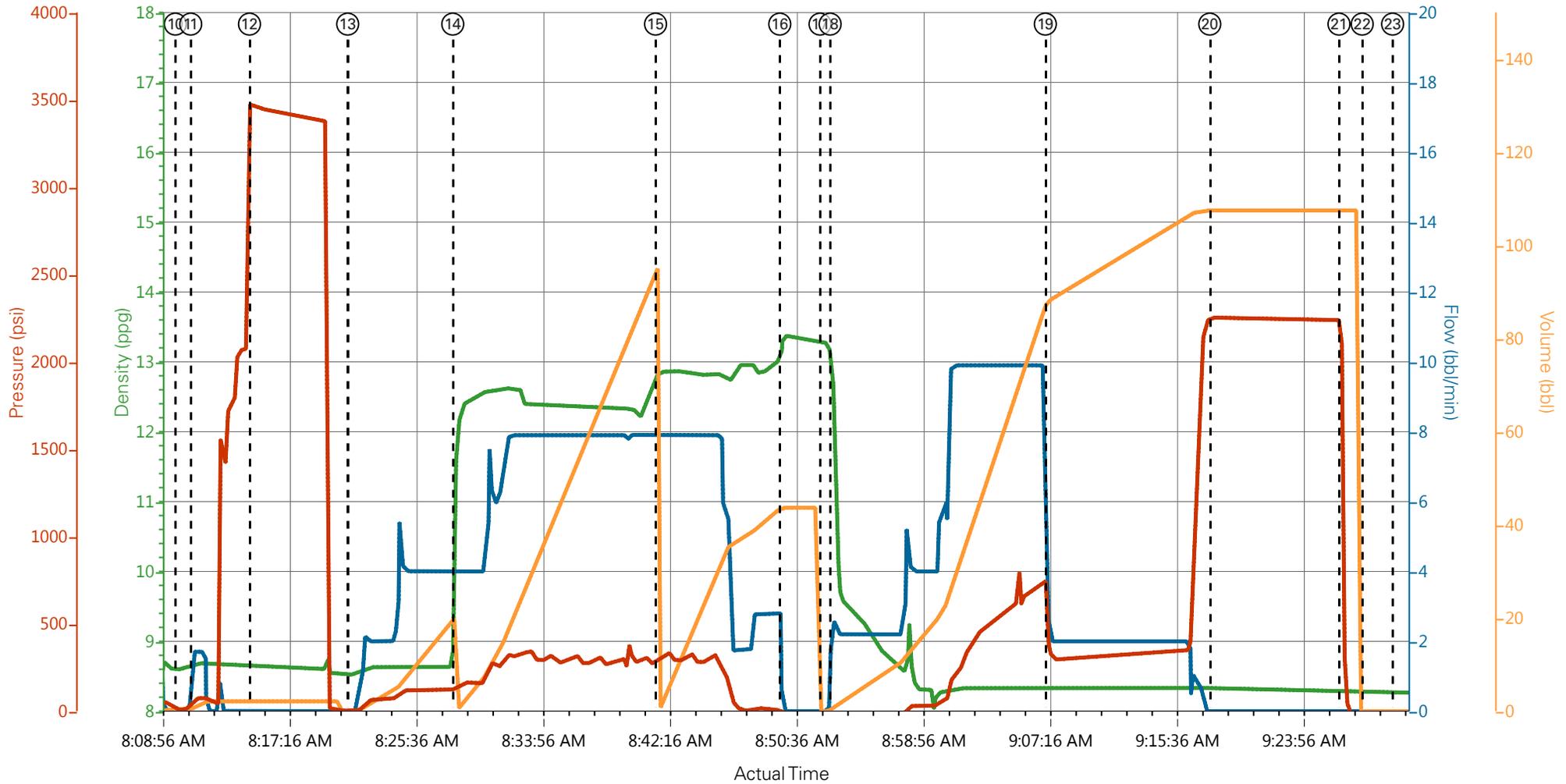
1.0 Real-Time Job Summary

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	12/8/2017	12:30:00	USER					REQUESTED ON LOCATION @ 0600
Event	2	Pre-Convoy Safety Meeting	12/9/2017	02:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	12/9/2017	02:30:00	USER					1 F550, 1 PUMP TRUCK & 1 660 BULK TURCK
Event	4	Arrive At Loc	12/9/2017	04:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	12/9/2017	04:30:00	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	12/9/2017	04:40:00	USER					ALL HES PRESENT
Event	7	Rig-up Lines	12/9/2017	06:45:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	12/9/2017	07:10:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Drop Bottom Plug	12/9/2017	07:30:00	USER					PLUG WENT
Event	10	Start Job	12/9/2017	08:09:58	COM3					TD 1565', TP 1555', SJ 44.64', OH 11'', CSG 8.625" 24#, MUD 9.4 PPG. RIG CIRCULATED WELL @ APPROX 10 BPM FOR 1 HR.
Event	11	Prime Pumps	12/9/2017	08:10:58	COM3	67.00	8.33	1.00	2.00	8.33 PPG FRESH WATER
Event	12	Test Lines	12/9/2017	08:14:50	COM3	3470.00	8.33	0.50	0.50	ALL LINES HELD PRESSURE AT 3094 PSI
Event	13	Pump Spacer 1	12/9/2017	08:21:17	COM3	124.00	8.33	4.00	20.00	8.33 PPG FRESH WATER (20BBL)
Event	14	Pump Lead Cement	12/9/2017	08:28:12	COM3	347.00	12.30	8.00	86.30	VARICEM CEMENT 197 SKS (86 BBLs), 12.3 PPG, 2.46 FT3/SK, 14.17 GAL/SK

Event	15	Pump Tail Cement	12/9/2017	08:41:32	COM3	283.00	12.80	8.00	42.30	VARICEM CEMENT 109 SKS (42 BBLs), 12.8 PPG, 2.18 FT3/SK, 12.11 GAL/SK.
Event	16	Shutdown	12/9/2017	08:49:42	USER					END OF CEMENT
Event	17	Drop Top Plug	12/9/2017	08:52:21	USER					PLUG WENT, WASH UP PUMPS AND LINES ON TOP OF PLUG
Event	18	Pump Displacement	12/9/2017	08:53:01	COM3	890.00	8.33	10.00	96.1	8.34 PPG FRESH WATER (96.1 BBLs)
Event	19	Slow Rate	12/9/2017	09:07:10	USER	702.00	8.32	2.00	86.1	SLOW RATE TO 2 BPM PER CO REP TO LAND PLUG
Event	20	Bump Plug	12/9/2017	09:17:58	USER	2254.00	8.33	2.00	96.1	LAND PLUG AT 350 PSI, BROUGHT UP TO 2253 PSI FOR CASING TEST
Event	21	Check Floats	12/9/2017	09:26:28	USER	2250.00	8.33			FLOATS HELD, 1 BBL BACK TO TRUCK
Event	22	End Job	12/9/2017	09:28:00	USER					RETURNS THROUGHOUT JOB, PIPE WAS NOT RECIPROCATED DURING THE JOB, 32 BBL OF CEMENT BACK TO SURFACE
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	12/9/2017	09:30:00	USER					ALL HES PRESENT
Event	24	Rig-Down Equipment	12/9/2017	10:00:00	USER					ALL HES PRESENT
Event	25	Pre-Convoy Safety Meeting	12/9/2017	10:25:00	USER					ALL HES PRESENT
Event	26	Crew Leave Location	12/9/2017	10:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

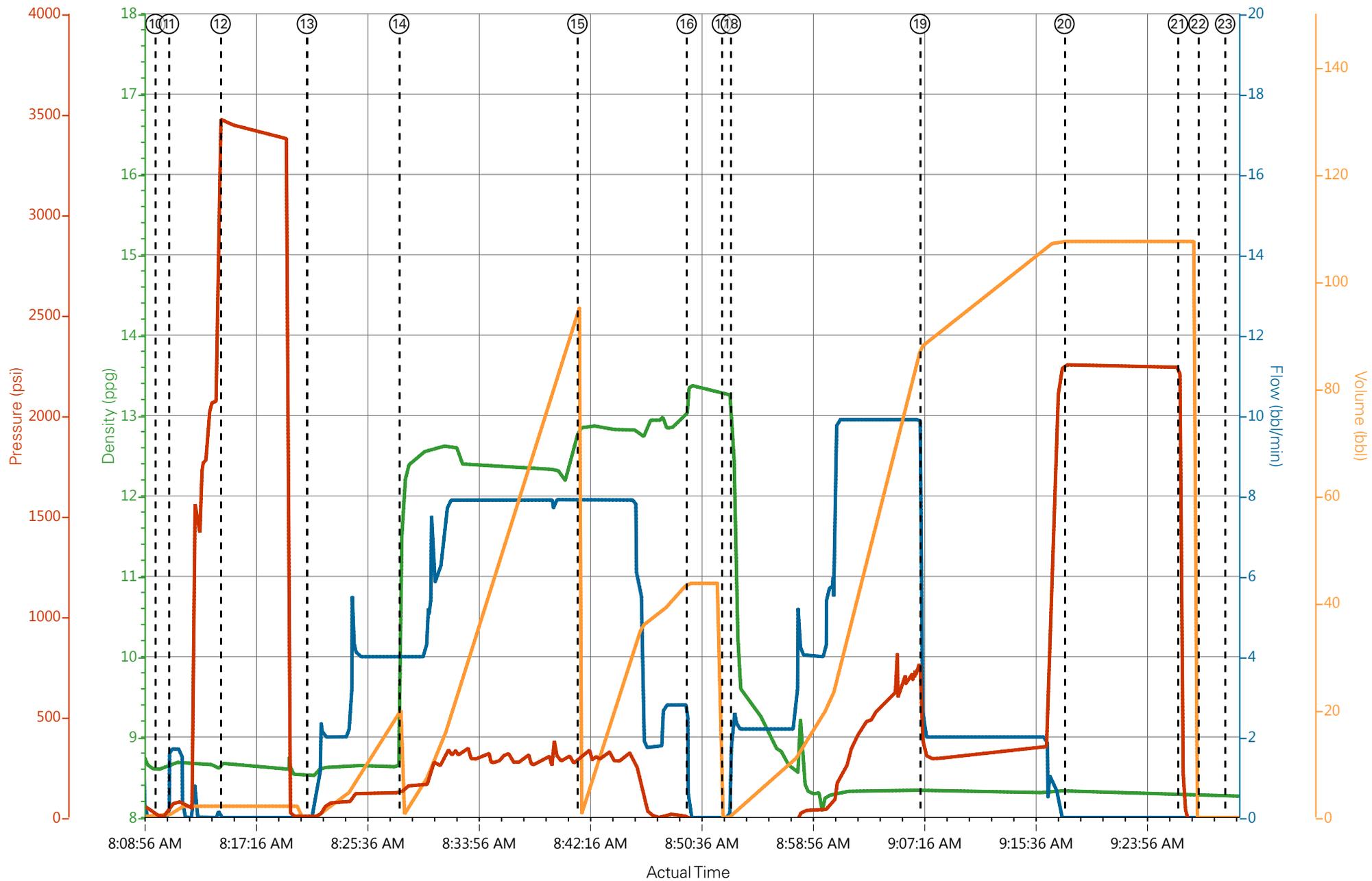
LARAMIE - BRUTON 30-14E - 8.625" SURFACE



— 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 Drop Bottom Plug | ⑯ Shutdown | ㉑ Post-Job Safety Meeting (Pre Rig-Down) |
| ③ Crew Leave Yard | ⑩ Start Job | 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 | ⑲ Slow Rate | ㉔ Crew Leave Location |
| ⑥ Pre-Rig Up Safety Meeting | ⑬ Pump Spacer 1 | ⑳ Bump Plug | |
| ⑦ Rig-up Lines | ⑭ Pump Lead Cement | ㉑ Check Floats | |

LARAMIE - BRUTON 30-14E - 8.625" 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: Thursday, December 14, 2017

BRUTON 30-14E Production

API#05-077-10478

Sincerely,
Grand Junction Cement Engineering

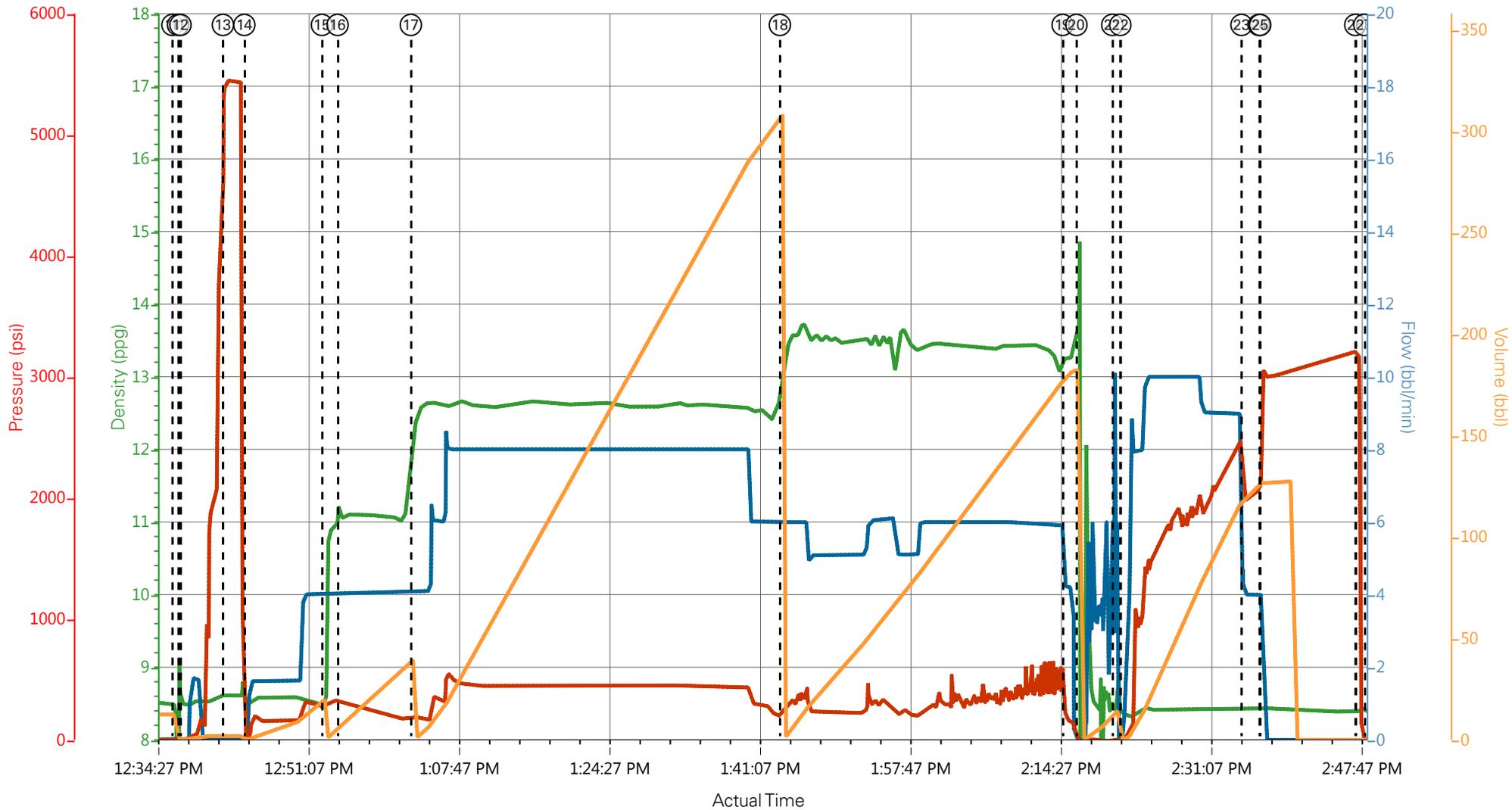
2.0 Real-Time Job Summary

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	12/14/2017	05:30:00	USER					ON LOCATION REQUESTED 11:00
Event	2	Pre-Convoy Safety Meeting	12/14/2017	08:30:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	12/14/2017	08:45:00	USER					
Event	4	Arrive at Location from Service Center	12/14/2017	10:15:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	12/14/2017	10:30:00	USER					MET WITH COMPANY REP DISCUSSED PROCEDURE, SDS OFFERED
Event	6	Pre-Rig Up Safety Meeting	12/14/2017	10:45:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	12/14/2017	11:45:00	USER					1-ELITE, 1-400 BODY LOAD, 2-FIELD SILO, 4.5" QL. 2" PUMP IRON, 4" SUCTION HOSE
Event	8	Pre-Job Safety Meeting	12/14/2017	12:15:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Other	12/14/2017	12:20:33	COM5					WATER: TEMP-55, CL-0, PH-7. RIG CIRCULATED 1.5 HOURS, 1000PSI AT 10.5BPM
Event	10	Start Job	12/14/2017	12:36:23	USER	8.38	0.00	0.00	0.0	TD-7897', TP-7892' SET @ 7887', SJ-91.65', OH-7.875", CSG-4.5" 11.6# L-80, SCSG-8.625" 24# SHOE @ 1565', MUD-9.1PPG
Event	11	Drop Bottom Plug	12/14/2017	12:37:00	USER	8.49	0.00	-1.00	0.0	PLUG AWAY
Event	12	Prime Pumps	12/14/2017	12:37:16	COM5	8.40	2.00	225.00	0.0	FRESH WATER
Event	13	Test Lines	12/14/2017	12:41:58	COM5	8.63	0.00	5445.00	1.9	ALL PRESSURE HELD
Event	14	Pump Mud Flush	12/14/2017	12:44:20	COM5	8.48	0.00	320.00	0.0	MUD FLUSH III

Event	15	Pump Tuned Spacer	12/14/2017	12:52:56	COM5	11.00	4.00	290.00	0.0	TUNED SPACER III, 40BBLs, 11PPG, 4.86CF/SK, 31.9GAL/SK
Event	16	Check weight	12/14/2017	12:54:40	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	17	Pump Lead Cement	12/14/2017	13:02:47	COM5	12.50	8.00	540.00	282.0	NEOCEM, 816SKS, 12.5PPG, 1.94CF/SK, 9.62GAL/SK
Event	18	Pump Tail Cement	12/14/2017	13:43:40	COM5	13.30	6.00	400.00	142.0	THERMACEM, 461SKS, 13.3PPG, 1.73CF/SK, 7.81GAL/SK
Event	19	Shutdown	12/14/2017	14:15:00	USER					END OF CEMENT
Event	20	Clean Lines	12/14/2017	14:16:31	COM5					CLEANED PUMPS AND LINES TO CELLAR
Event	21	Drop Top Plug	12/14/2017	14:20:30	COM5					PLUG AWAY
Event	22	Pump Displacement	12/14/2017	14:21:23	COM5	8.36	10.00	2450.00	120.9	FRESH WATER. 5 GAL CLA WEB, 1 GAL MMCR
Event	23	Slow Rate	12/14/2017	14:34:49	USER	8.42	4.00	2016.00	110.9	SLOW RATE LAST 10 BBLs
Event	24	Bump Plug	12/14/2017	14:36:45	COM5	8.42	3.90	2115.00	120.9	PLUG BUMPED 2115 PSI
Event	25	Casing Test	12/14/2017	14:36:53	COM5	8.44	0.00	3210.00	120.9	10 MINUTE CASING TEST
Event	26	Check Floats	12/14/2017	14:47:25	USER	8.39	0.00	3210.00	0.0	1.5 BBLs BACK, FLOATS HELD
Event	27	End Job	12/14/2017	14:48:25	COM5					GOOD RETURNS THROUGH JOB, 40 BBLs TSIII TO SURFACE
Event	28	Post-Job Safety Meeting (Pre Rig-Down)	12/14/2017	14:50:00	USER					ALL HES PRESENT
Event	29	Rig-Down Completed	12/14/2017	16:00:00	USER					
Event	30	Pre-Convoy Safety Meeting	12/14/2017	16:15:00	USER					ALL HES PRESENT
Event	31	Crew Leave Location	12/14/2017	16:20:00	USER					THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

LARAMIE - BRUTON 30-14E - 4.5" PRODUCTION



DH Density (ppg) 8.38 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -21 Pump Stg Tot (bbl) 0

- | | | | | | | |
|--|-----------------------------|---------------------|--------------------|----------------------|---|--------|
| ① Call Out | ⑥ Pre-Rig Up Safety Meeting | ⑪ Drop Bottom Plug | ⑯ Check weight | 21 Drop Top Plug | 26 Check Floats | 31 Cre |
| ② Pre-Convoy Safety Meeting | ⑦ Rig-Up Completed | ⑫ Prime Pumps | ⑰ Pump Lead Cement | 22 Pump Displacement | 27 End Job | |
| ③ Crew Leave Yard | ⑧ Pre-Job Safety Meeting | ⑬ Test Lines | ⑱ Pump Tail Cement | 23 Slow Rate | 28 Post-Job Safety Meeting (Pre Rig-Down) | |
| ④ Arrive at Location from Service Center | ⑨ Other | ⑭ Pump Mud Flush | ⑲ Shutdown | 24 Bump Plug | 29 Rig-Down Completed | |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Start Job | ⑮ Pump Tuned Spacer | 20 Clean Lines | 25 Casing Test | 30 Pre-Convoy Safety Meeting | |

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Created: 2017-12-14 11:11:42, Version: 4.2.393

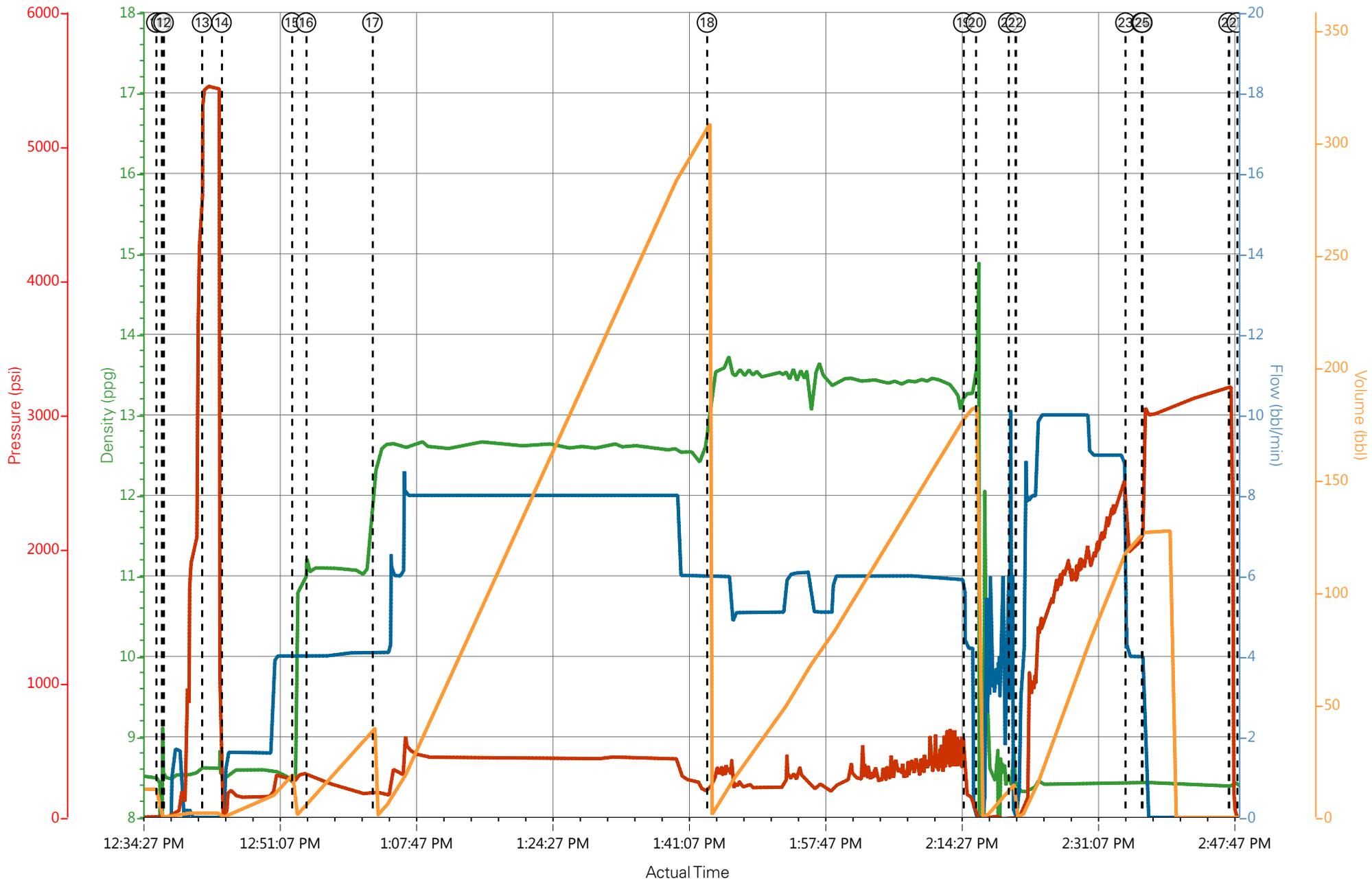
[Edit](#)

Customer : LARAMIE ENERGY II LLC
 Representative : TYLER HALE

Job Date : 12/14/2017 11:22:14 AM
 Sales Order # : 904497398

Well : BRUTON 30-14E
 ELITE#8 : S.BLOSSOM

LARAMIE - BRUTON 30-14E - 4.5" PRODUCTION



DH Density (ppg) 8.38 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) -21 Pump Stg Tot (bbl) 0

Job Information

Request/Slurry	2437244/1	Rig Name	H&P 522	Date	08/DEC/2017
Submitted By	Derek James	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-14E

Well Information

Casing/Liner Size	4.5 in	Depth MD	7928 ft	BHST	116°C / 240°F
Hole Size	7.875 in	Depth TVD	7771 ft	BHCT	78°C / 172°F
Pressure	4740 psi				

Drilling Fluid Information

Mud Supplier Name		Mud Trade Name		Density	9.9 lbm/gal
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Cement Information - Lead Design

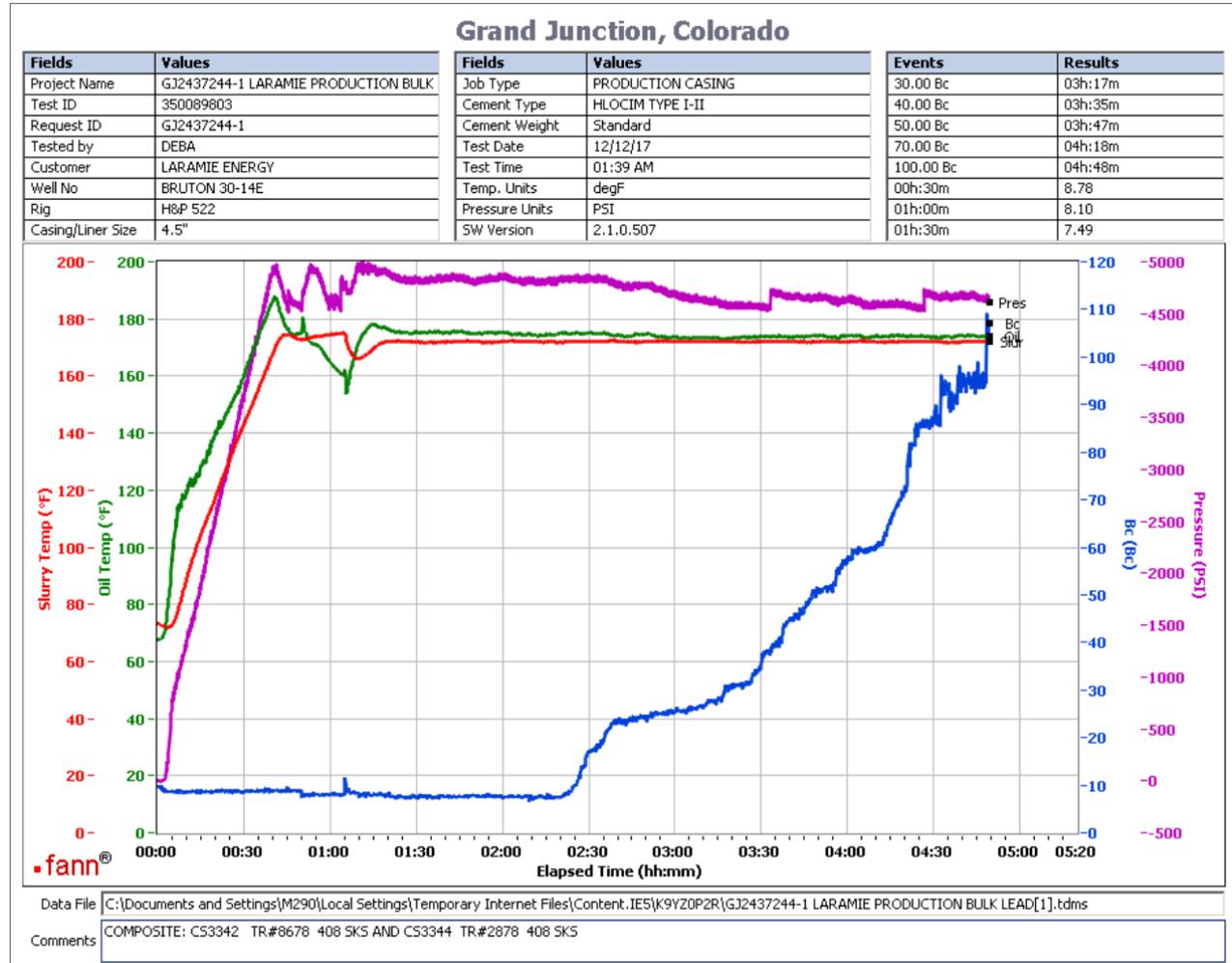
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		NeoCem Lead w/Super CBL				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.941	ft3/sack
						Water Requirement	9.623	gal/sack
						Total Mix Fluid	9.623	gal/sack
						Water Source	Field (Fresh) Water	
						Water Chloride		

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Thickening Time - ON-OFF-ON

11/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	4740	40	3:17	3:47	4:18	4:48	9	50	15	14



composite:
 CS3342 TR#8678 408 SKS
 CS3344 TR#2878 408 SKS
 deflected from 8Bc---- > 14Bc--- > 11Bc within one minute.

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Job Information

Request/Slurry	2437245/1	Rig Name	H&P 522	Date	08/DEC/2017
Submitted By	Derek James	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Bruton 30-14E

Well Information

Casing/Liner Size	4.5 in	Depth MD	7928 ft	BHST	116°C / 240°F
Hole Size	7.875 in	Depth TVD	7771 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 

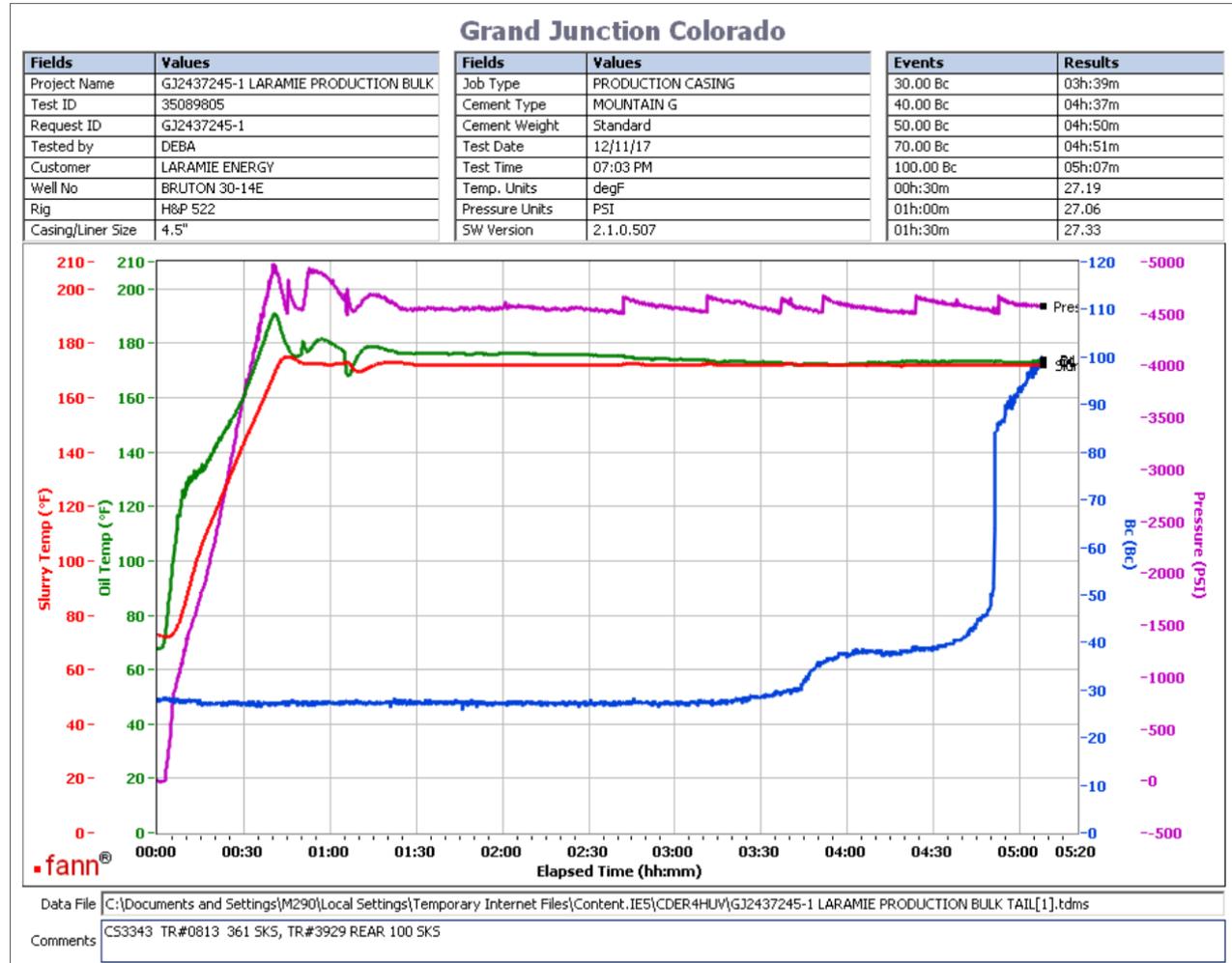
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		ThermaCem Tail				Slurry Density	13.3	lbm/gal
						Slurry Yield	1.733	ft3/sack
						Water Requirement	7.799	gal/sack
						Total Mix Fluid	7.799	gal/sack
						Water Source	Field (Fresh) Water	
						Water Chloride		

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Thickening Time - ON-OFF-ON

11/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	40	3:39	4:50	4:51	5:07	28	50	15	27



total sks 461
 Composite:
 CS3343 TR#0813 361 sks
 CS3345 TR#3929 Rear 100 sks
 no deflection was observed. 27Bc--- > 27Bc

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