

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

For: Garrett Wade

Date: Saturday, March 03, 2018

PA 21-25

Production

Job Date: Saturday, March 03, 2018

Sincerely,

Chris Martinez

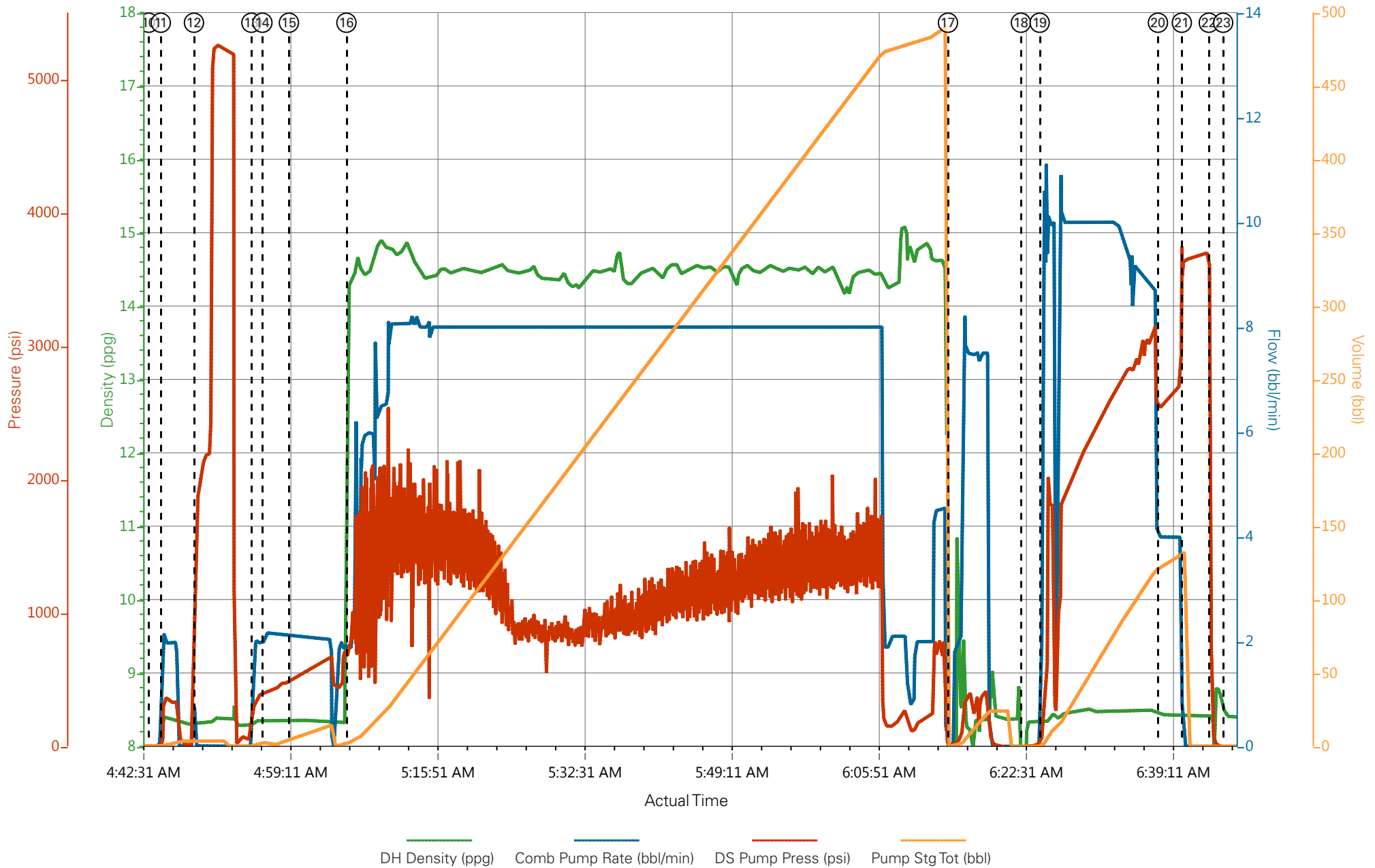
2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density <i>(ppg)</i>	Combined Pump Rate <i>(bbl/min)</i>	Driv-Side Pump Pressure <i>(psi)</i>	Pump Stage Total <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	3/2/2018	20:00:00						Requested on Location @ 0200
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/2/2018	22:00:00						
Event	3	Crew Leave Yard	Crew Leave Yard	3/2/2018	22:30:00						1 Elite, 1 660, 1 pickup
Event	4	Arrive At Loc	Arrive At Loc	3/3/2018	02:00:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	3/3/2018	02:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 50 degrees
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/3/2018	02:20:00						
Event	7	Rig-Up Equipment	Rig-Up Equipment	3/3/2018	02:30:00						DME iron to ground manifold, standpipe, hardline to pit. Water hose to upright, bulk hoses to silo and 660.
Event	8	Other	Other	3/3/2018	03:50:00						Rig Circulated 2 hrs prior to cement job at 13 bpm 1093 psi.
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/3/2018	04:00:00						All HES personnel, rig crew, and company rep
Event	10	Other	Start job	3/3/2018	04:43:27						TD 8540', OH 8 3/4, TP 8534.86, SJ 31.67, CSG 4 1/2" 11.6#, SURFACE CSG @ 1137', 9 5/8" 40#, MUD 12.6 PPG

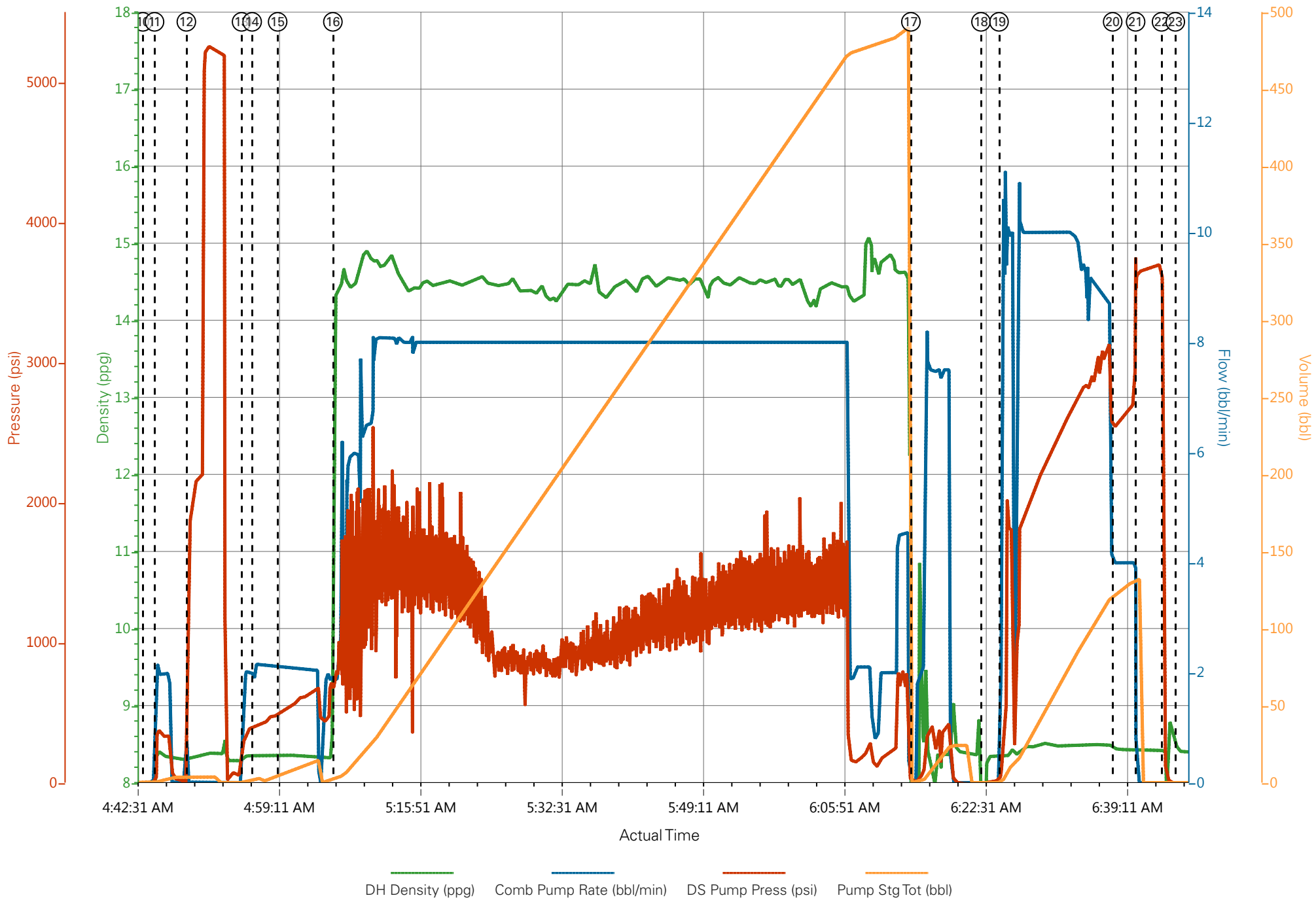
Event	11	Other	Fill lines	3/3/2018	04:44:50	8.33	2	390	5	Fresh water
Event	12	Test Lines	Test Lines	3/3/2018	04:48:35			5262		Held pressure 2 minutes
Event	13	Pump Spacer	Pump Spacer	3/3/2018	04:55:05	8.33	2	320	5	Fresh water
Event	14	Pump Spacer	Pump Spacer	3/3/2018	04:56:20	8.4				80 lbs. Mud Flush III
Event	15	Check Weight	Check weight	3/3/2018	04:59:21					Density verified via mud cup
Event	16	Pump Cement	Pump Cement	3/3/2018	05:05:51	14.5	8	1600	452.6	1925 sks, 14.5 ppg, 1.32 Yield, 5.85 gal/sk
Event	17	Shutdown	Shutdown	3/3/2018	06:14:01					Wash lines to pit
Event	18	Drop Top Plug	Drop Top Plug	3/3/2018	06:22:17					Co-Rep Verify Plug Launched
Event	19	Pump Displacement	Pump Displacement	3/3/2018	06:24:24	8.4	10	3000	131.8	3 lbs BE-6, 1 gal MMCR, 2% KCl
Event	20	Slow Rate	Slow Rate	3/3/2018	06:37:48	8.4	4	2700	121	Slow Rate 10 bbls to Calculated Displacement
Event	21	Bump Plug	Bump Plug	3/3/2018	06:40:30			3600		Plug Bumped at 2700 psi, Brought up to 3600 psi
Event	22	Check Floats	Check Floats	3/3/2018	06:43:34					Floats held, 1/2 bbl back to truck
Event	23	Other	End job	3/3/2018	06:45:11					Good returns throughout job. Pipe was reciprocated during job.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/3/2018	07:13:06					No sugar, HES top plug used, 0 add hours
Event	25	Rig-Down Equipment	Rig-Down Equipment	3/3/2018	07:18:52					
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/3/2018	07:49:14					
Event	27	Crew Leave Location	Crew leave location	3/3/2018	07:52:42					Thanks For using Halliburton cement. Chris Martinez and crew

PA 21-25 Production



Pre-Job Safety Meeting 0;0;1;0	19 Pump Spacer 8.34;1.8;310;0.4	17 Shutdown 0.11;0;15;0	21 Bump Plug 8.43;0;3655;131.9	25 Rig-Down Equipment n/a;n/a;n/a;n/a
Start job 0;0;0;0	14 Pump Spacer 8.35;2.2;390;2.9	18 Drop Top Plug 6.48;0;1;0	22 Check Floats 8.42;0;227;0	26 Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
Fill lines 8.41;2.1;380;0.7	15 Check weight 8.34;2.1;502;5.2	19 Pump Displacement 8.36;5.7;143;0.8	23 End job 8.42;0;-5;0	27 Crew leave location n/a;n/a;n/a;n/a
Test Lines 8.32;0.1;1632;3.6	16 Pump Cement 14.35;1.8;780;2.7	20 Slow Rate 8.44;4;2536;122.5	24 Pre-Rig Down Safety Meeting n/a;n/a;n/a;n/a	

PA 21-25 Production



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

Job Information

Request/Slurry	2456530/3	Rig Name	H&P 271	Date	24/FEB/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	PA 21-25

Well Information

Casing/Liner Size	4.5 in	Depth MD	8525 ft	BHST	102°C / 216°F
Hole Size	8.75 in	Depth TVD	7974 ft	BHCT	63°C / 146°F
Pressure	4882 psi				

Drilling Fluid Information

Mud Supplier Name	AMC	Mud Trade Name		Density	
--------------------------	-----	-----------------------	--	----------------	--

Cement Information - Primary 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>		
		ExpandaCem				Slurry Density	14.5	lbm/gal
						Slurry Yield	1.32	ft ³ /sack
						Water Requirement	5.849	gal/sack
						Total Mix Fluid	5.849	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2456530/3

Thickening Time - ON-OFF-ON

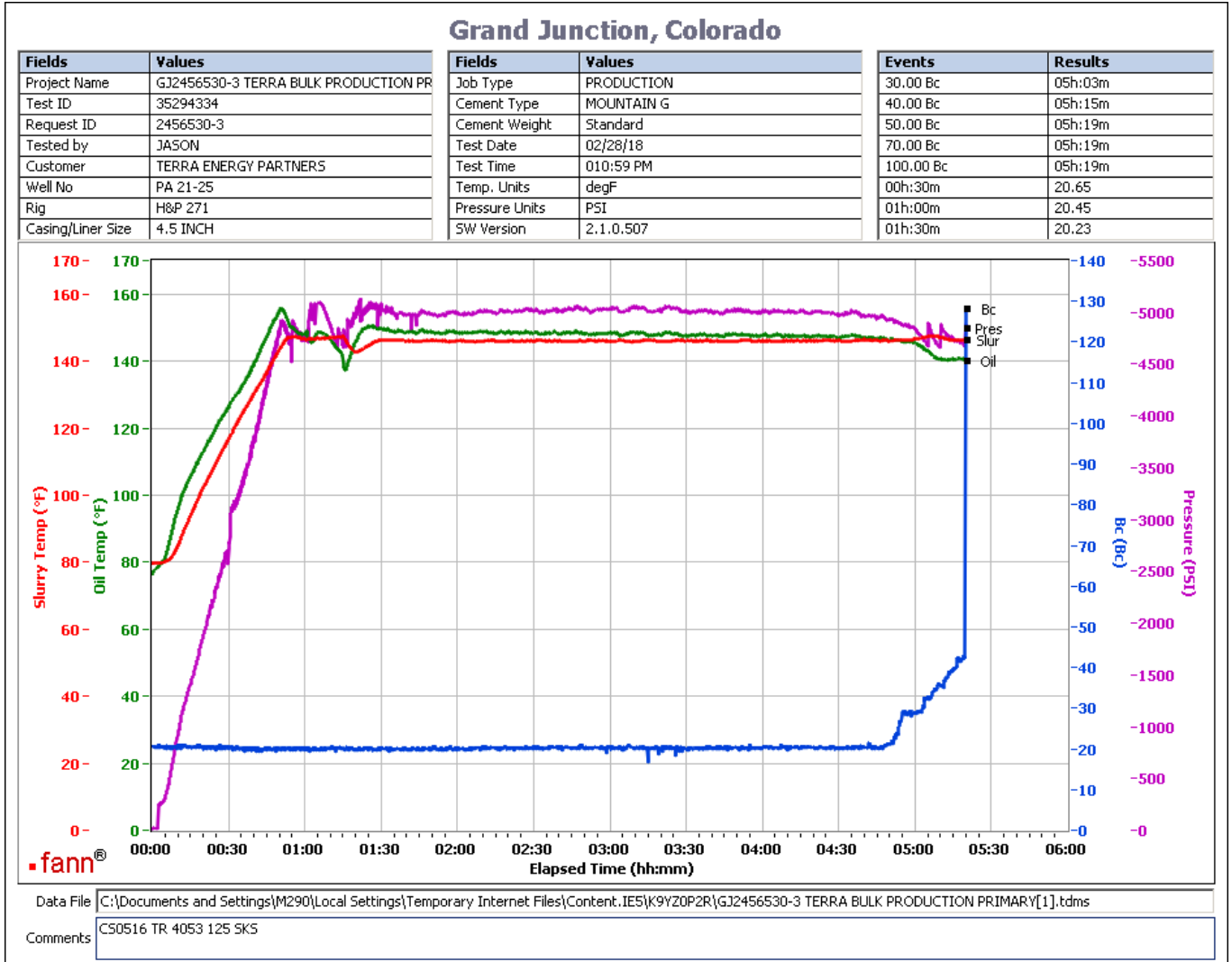
28/FEB/2018

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)
146	4882	50	5:03	5:19	5:19	5:19	21	60	15	20

Total SKS= 1925

CS0516 TR 4053 125 SKS

no deflection 20Bc--- > 20Bc



This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2456530/2

Thickening Time - ON-OFF-ON

28/FEB/2018

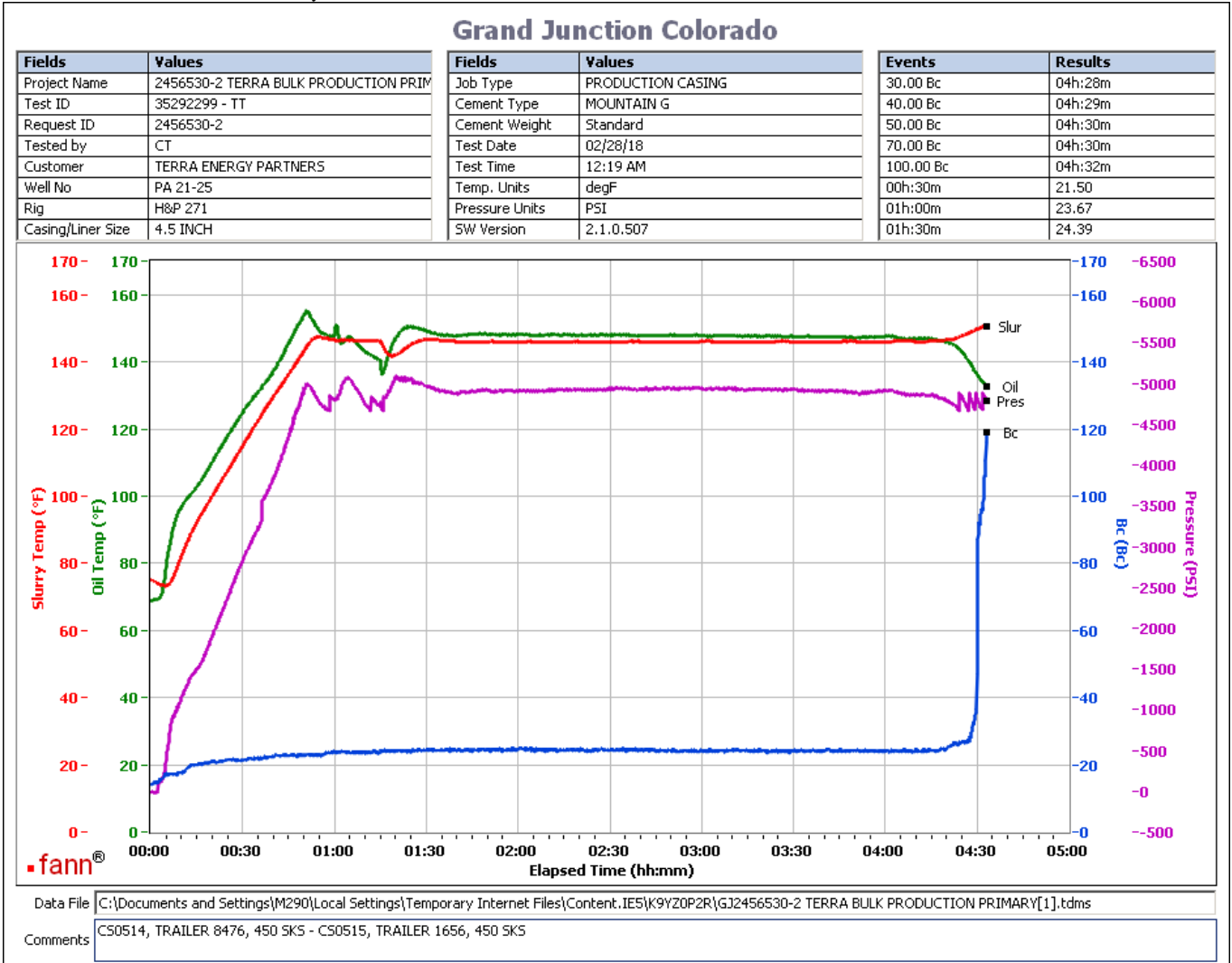
Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
146	4882	50	4:28	4:30	4:30	4:32	14	60	15	24

Total SKS = 1925

CS0514, Trailer 8476, 450 sks

CS0515, Trailer 1656, 450 sks

No deflection. Please note that heat of hydration started around 4:15.



This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2456530/1

Thickening Time - ON-OFF-ON

28/FEB/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)
146	4882	50	4:27	4:33	4:33	4:33	17	60	15	19

Total SKS= 1925

CS0512, Trailer 2878, 450 sks

CS0513, Trailer 1513, 450 sks

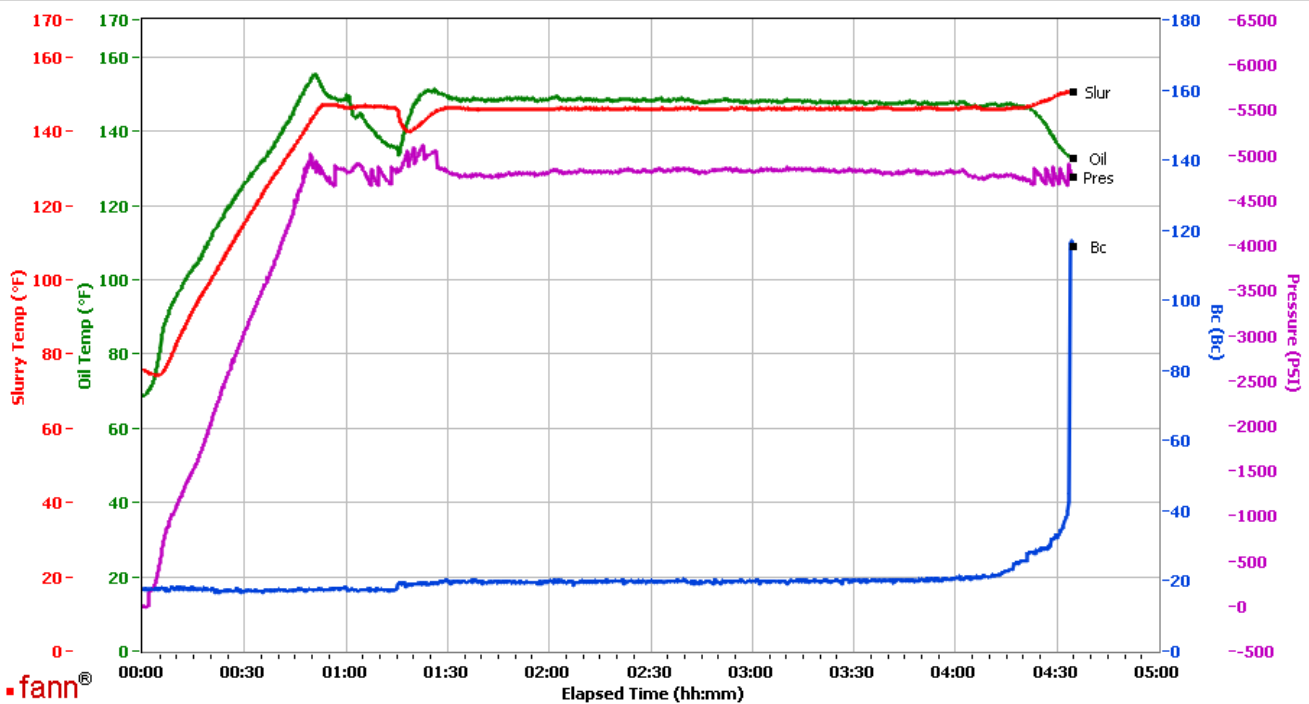
Deflected 17--> 19. Please note that heat of hydration started around 4:18.

Grand Junction, Colorado

Fields	Values
Project Name	2456530-1 TERRA BULK PRODUCTION PRIM
Test ID	35283863 - TT
Request ID	2456530-1
Tested by	CT
Customer	TERRA ENERGY PARTNERS
Well No	PA 21-25
Rig	H&P 271
Casing/Liner Size	4.5 INCH

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	MOUNTAIN G
Cement Weight	Standard
Test Date	02/28/18
Test Time	04:25 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	04h:27m
40.00 Bc	04h:33m
50.00 Bc	04h:33m
70.00 Bc	04h:33m
100.00 Bc	04h:33m
00h:30m	17.09
01h:00m	17.95
01h:30m	19.78



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\OHU90BIZ\GJ2456530-1 TERRA BULK PRODUCTION PRIMARY[1].tdms

Comments CS0512, TRAILER 2878, 450 SKS - CS0513, TRAILER 513, 450 SKS

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.