

HALLIBURTON

iCem[®] Service

TEP ROCKY MOUNTAIN LLC

For: Abe Alexander/Lynn Cass/Mark Mewshaw

Date: Wednesday, September 21, 2016

RU 411-7 Production

API# 05-045-23234-00

Job Date: Wednesday, September 21, 2016

Sincerely,

Grand Junction Cement Department

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	9/21/2016	03:00:00	USER					Requested on Location @ 9:00
Event	2	Pre-Convoy Safety Meeting	9/21/2016	06:00:00	USER					
Event	3	Depart from Service Center or Other Site	9/21/2016	06:30:00	USER					1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location	9/21/2016	07:30:00	USER					Rig still running casing
Event	5	Assessment Of Location Safety Meeting	9/21/2016	07:45:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 60 degrees
Event	6	Pre-Rig Up Safety Meeting	9/21/2016	07:50:00	USER					
Event	7	Rig-Up Equipment	9/21/2016	10:24:39	USER					2" iron to ground manifold, standpipe, hardline to pit. Water hoses to upright and day tank, bulk hoses to silo and 660.
Event	8	Pre-Job Safety Meeting	9/21/2016	10:35:00	USER					All HES personnel, rig crew, and company rep
Event	9	Start Job	9/21/2016	11:03:00	USER					TD 9782', TP 9775.2', SJ 27.8', FC 9748' OH 8.75'', Csg 4.5" 11.6 lb/ft P-110, Prev. Csg. 9.625 32.3# @ 1171' Mud 10.0 ppg.
Event	10	Fill Lines	9/21/2016	11:05:00	USER	8.4	2	285	2	Fresh water

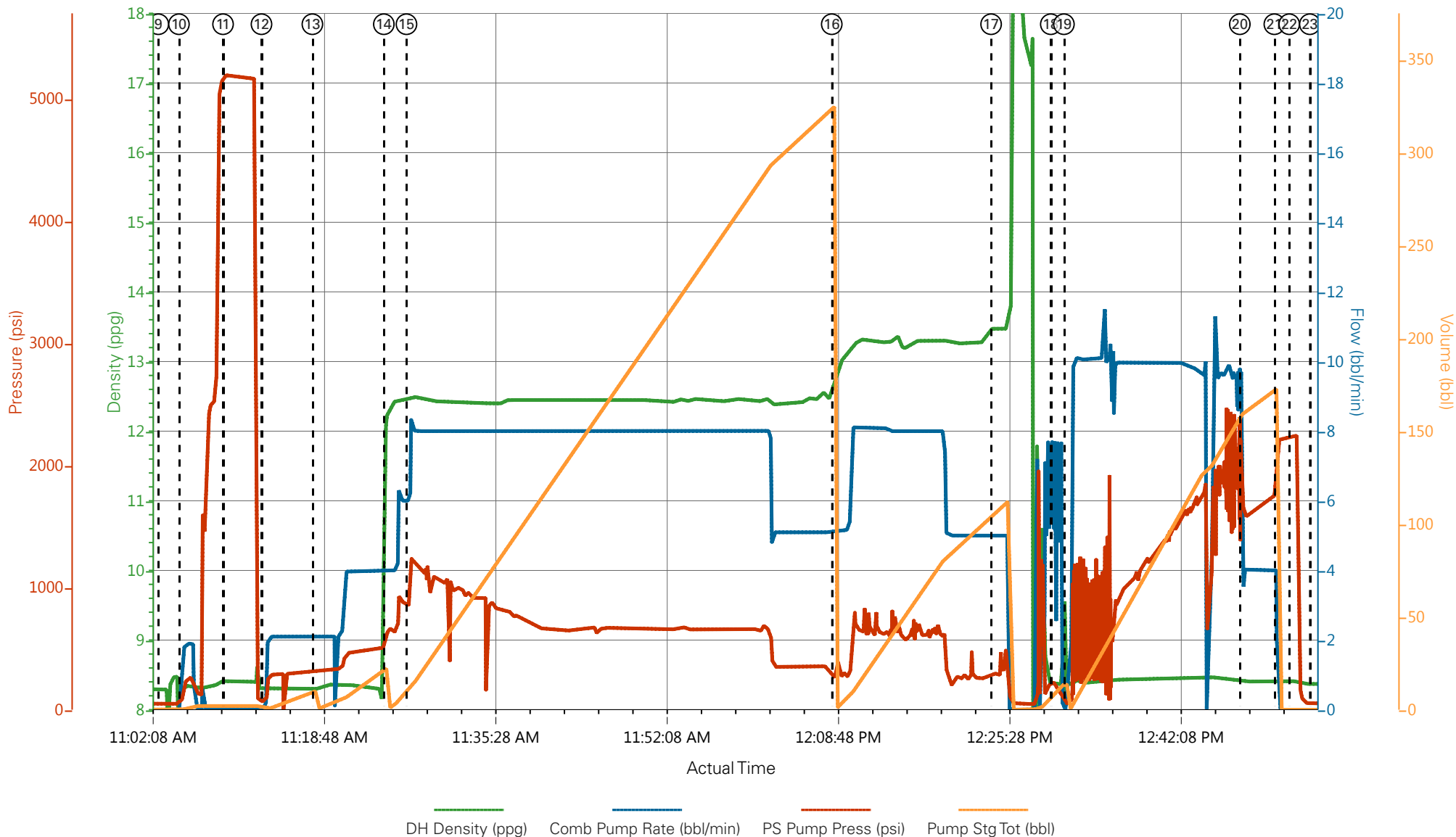
Event	11	Test Lines	9/21/2016	11:09:17	COM6	8.4	.5	5198.00	.5	Held pressure 2 minutes
Event	12	Fresh Water Spacer	9/21/2016	11:13:01	COM6	8.4	2	350	10	Fresh Water
Event	13	Mud Flush III Spacer	9/21/2016	11:17:58	COM6	8.4	3	480	20	Mud Flush III
Event	14	Pump Lead Cement	9/21/2016	11:24:55	COM6	12.3	8	1180	293.7	850 Sks 12.5 ppg 1.94 yield 9.58 gal/sk, 90 lbs of Tuff Fiber added on the fly
Event	15	Check weight	9/21/2016	11:27:07	COM6					Density verified via mud cup
Event	16	Pump Tail Cement	9/21/2016	12:08:29	COM6	12.8	8	620	82.1	265 Sks 13.3 ppg 1.74 yield 7.79 gal/sk
Event	17	Shutdown	9/21/2016	12:24:00	USER					Wash lines to pit
Event	18	Drop Plug	9/21/2016	12:29:48	COM6					Verify Plug Launched
Event	19	Pump Displacement	9/21/2016	12:31:04	COM6	8.4	10	1635	151.1	3 lbs BE-6, 1 gal MMCR, 2% KCl
Event	20	Slow Rate	9/21/2016	12:48:11	USER	8.4	4	1755	141	Slow Rate 10 bbls to Calculated Displacement
Event	21	Bump Plug	9/21/2016	12:51:32	COM6	8.4	4	2234	151.1	Plug Bumped at 1755 psi, Brought up to 2234 psi
Event	22	Check Floats	9/21/2016	12:53:00	USER					Floats held – 1 bbl back to the truck
Event	23	End Job	9/21/2016	12:55:00	USER					Good Returns Throughout job, Pipe was reciprocated during cement
Event	24	Other	9/21/2016	23:50:00	USER					Rig Circulated 2 hrs prior to cement job at 13 bpm 1082 psi. Mud report PV 12 YP 16
Event	25	Pre-Rig Down Safety Meeting	9/21/2016	23:51:00	USER					No sugar, No add hours
Event	26	Rig-Down Equipment	9/21/2016	23:52:00	USER					
Event	27	Pre-Convoy Safety	9/21/2016	23:53:00	USER					

Meeting

Event	28	Crew Leave Location	9/21/2016	23:54:00	USER
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Thank you for using
Halliburton – Ryan
Muhlestein and crew.

TEP Rocky Mountain - RU 411-7 - Production



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

- | | | | | |
|--|--------------------------|------------------------|---------------------|--------------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Mud Flush III Spacer | ⑰ Pump Displacement | 25 Pre-Rig Down Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑧ Pre-Job Safety Meeting | ⑭ Pump Lead Cement | ⑱ Slow Rate | 26 Rig-Down Equipment |
| ③ Depart from Service Center or Other Site | ⑨ Start Job | ⑮ Check weight | ⑲ Bump Plug | 27 Pre-Convoy Safety Meeting |
| ④ Arrive at Location | ⑩ Fill Lines | ⑯ Pump Tail Cement | ⑳ Check Floats | 28 Crew Leave Location |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Test Lines | ⑰ Shutdown | 23 End Job | |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Fresh Water Spacer | ⑱ Drop Plug | 24 Other | |

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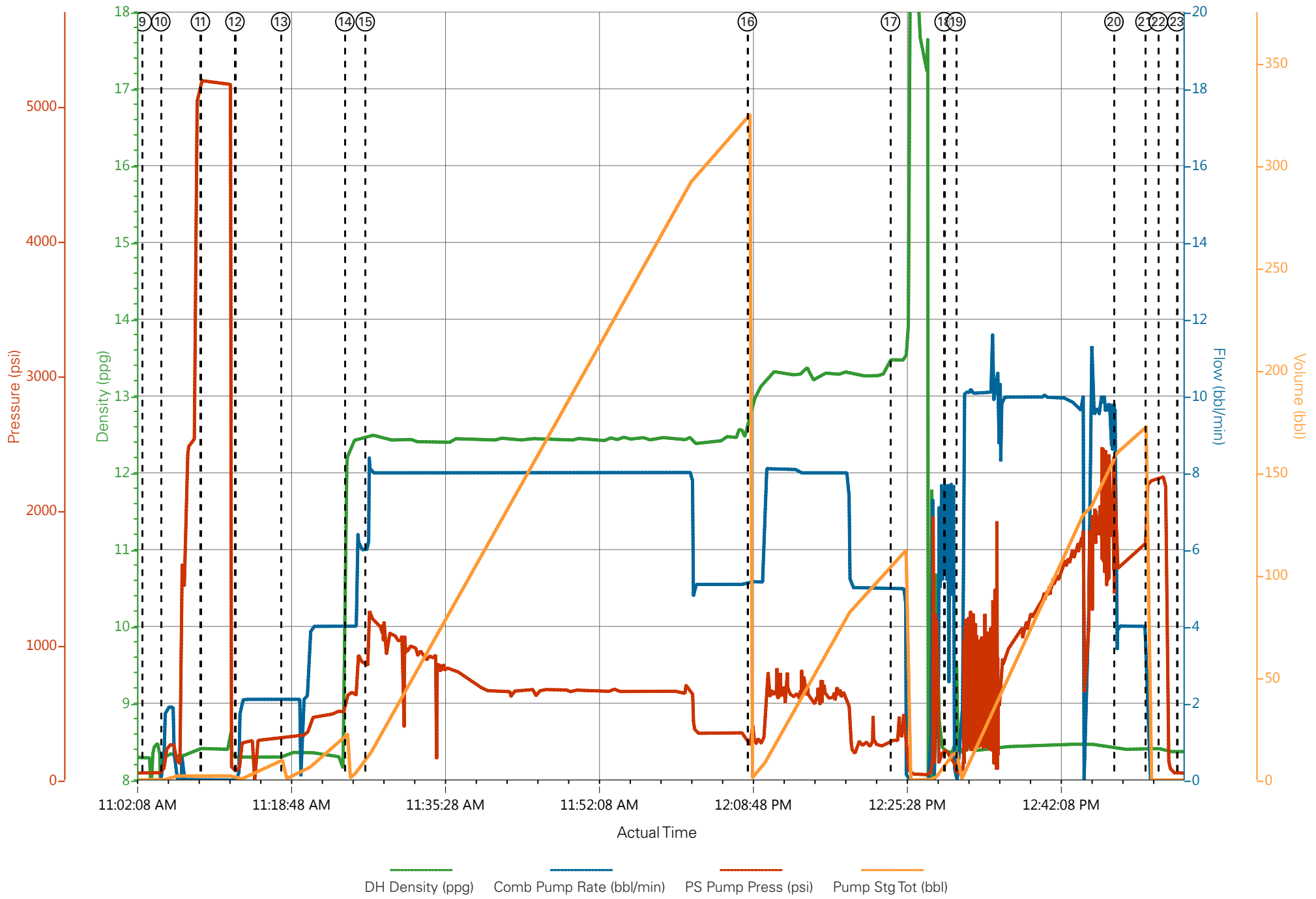
Edit

Customer : TEP ROCKY MOUNTAIN LLC
 Representative : Beaudé Oaks

Job Date : 9/21/2016 10:16:03 AM
 Sales Order # : 903547977

Well : RU 411-7
 Elite 8 : Muhlestein/Angelo

TEP Rocky Mountain - RU 411-7 - Production



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

Job Information

Request/Slurry	2340252/2	Rig Name	H&P 318	Date	16/SEP/2016
Submitted By	Ryan Keeran	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 411-7

Well Information

Casing/Liner Size	4.5 in	Depth MD	9763 ft	BHST	116°C / 240°F
Hole Size	8.75 in	Depth TVD	9423 ft	BHCT	77°C / 170°F
Pressure	5896 psi				

Drilling Fluid Information

Mud Supplier Name	Baroid	Mud Trade Name	BARADRIL-N	Density	10.4 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™ Cement				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.941	ft ³ /sack
						Water Requirement	9.623	gal/sack
						Total Mix Fluid	9.623	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Thickening Time

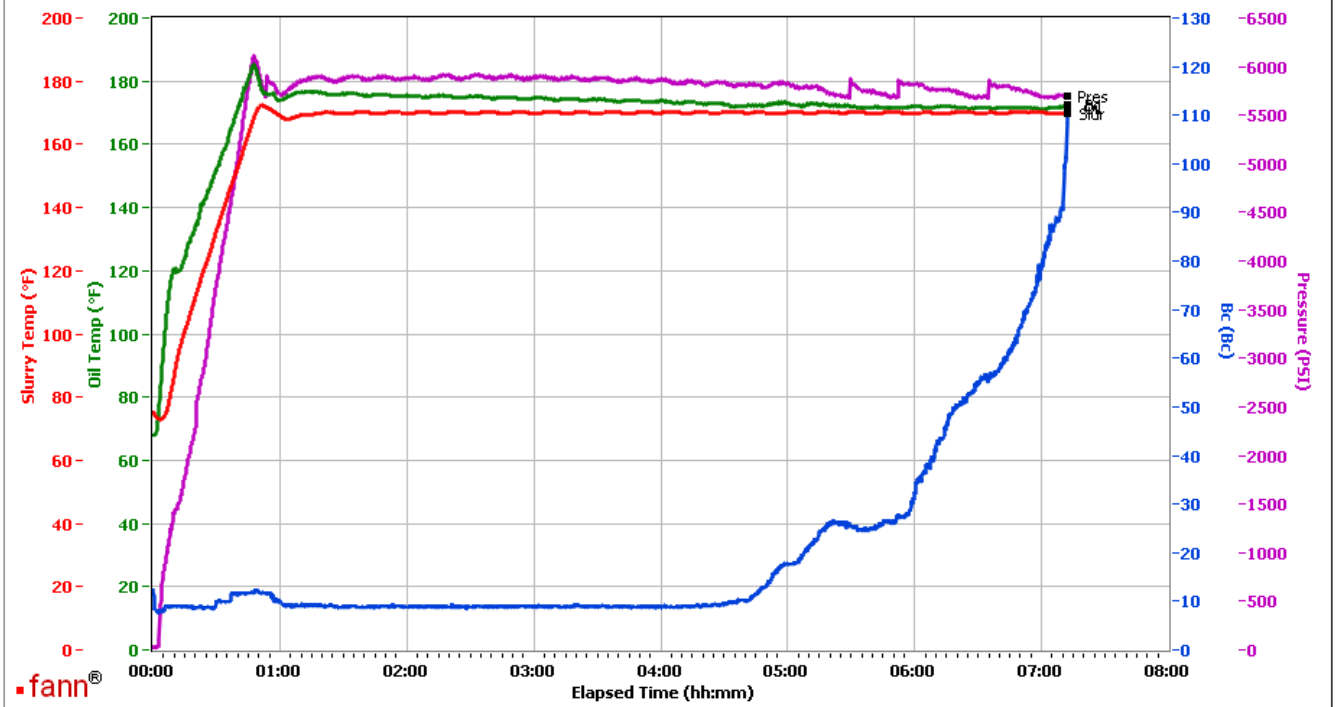
18/SEP/2016

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
170	5896	47	8	5:58	6:09	6:19	6:53	7:11

CS0883 TR#8658 425 SKS

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2340252-2	Job Type		30.00 Bc	05h:58m
Test ID	GJ2340252-2 TERRA BULK LEAD	Cement Type		40.00 Bc	06h:09m
Request ID		Cement Weight	Standard	50.00 Bc	06h:19m
Tested by	DEBA	Test Date	09/17/16	70.00 Bc	06h:53m
Customer	TERRA ENERGY	Test Time	02:47 PM	100.00 Bc	07h:11m
Well No	RU 411-7	Temp. Units	degF	00h:30m	9.84
Rig		Pressure Units	PSI	01h:00m	10.01
Casing/Liner Size		SW Version	2.1.0.507	01h:30m	8.79



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 Comments CS0883 TR#8678 425 SKS

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Thickening Time

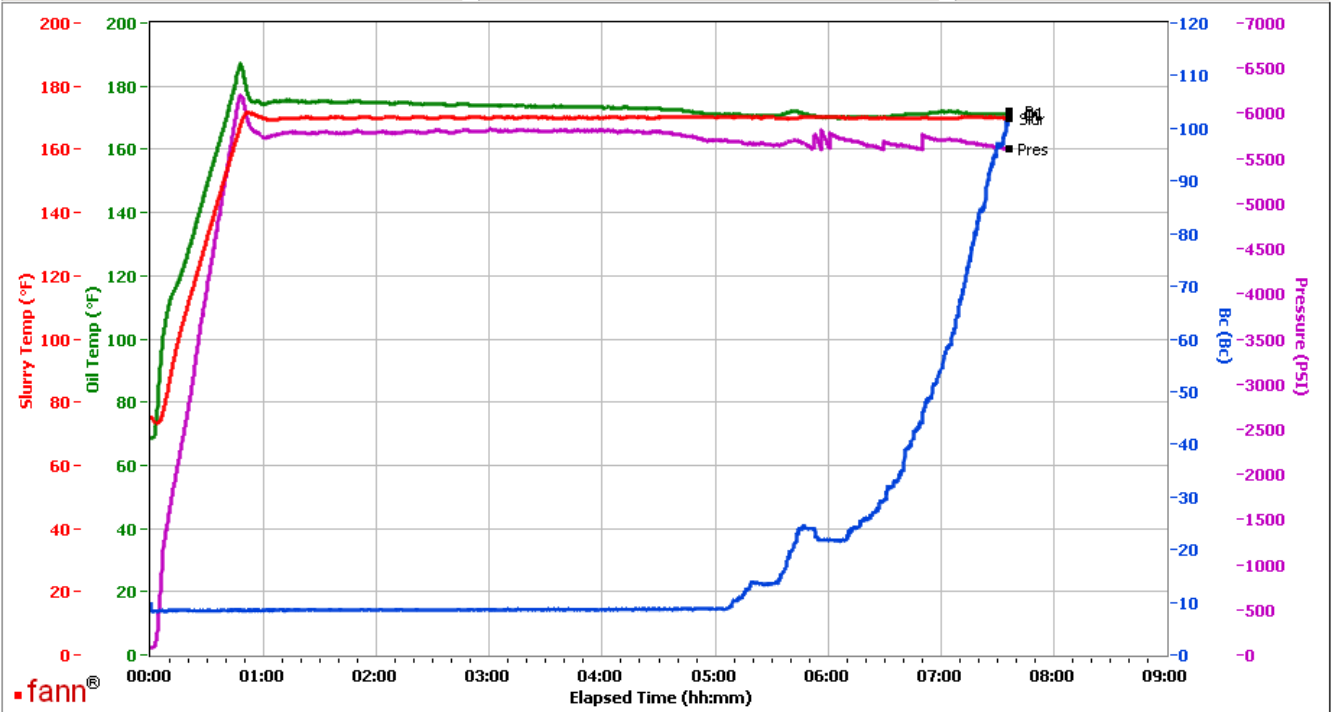
18/SEP/2016

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
170	5896	47	10	6:31	6:44	6:55	7:12	7:34

CS0884 TR#8678 425 SKS

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2340252-1	Job Type		30.00 Bc	06h:31m
Test ID	GJ2340252-1 TERRA BULK LEAD	Cement Type		40.00 Bc	06h:44m
Request ID		Cement Weight	Standard	50.00 Bc	06h:55m
Tested by	DEBA	Test Date	09/17/16	70.00 Bc	07h:12m
Customer	TERRA ENERGY	Test Time	10:41 PM	100.00 Bc	07h:34m
Well No	RU 411-7	Temp. Units	degF	00h:30m	8.41
Rig		Pressure Units	PSI	01h:00m	8.57
Casing/Liner Size		SW Version	2.1.0.507	01h:30m	8.52



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Job Information

Request/Slurry	2340253/1	Rig Name	H&P 318	Date	16/SEP/2016
Submitted By	Ryan Keeran	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 411-7

Well Information

Casing/Liner Size	4.5 in	Depth MD	9763 ft	BHST	116°C / 240°F
Hole Size	8.75 in	Depth TVD	9423 ft	BHCT	77°C / 170°F
Pressure	5896 psi				

Drilling Fluid Information

Mud Supplier Name	Baroid	Mud Trade Name	BARADRIL-N	Density	10.4 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>	<u>Cement Properties</u>		
		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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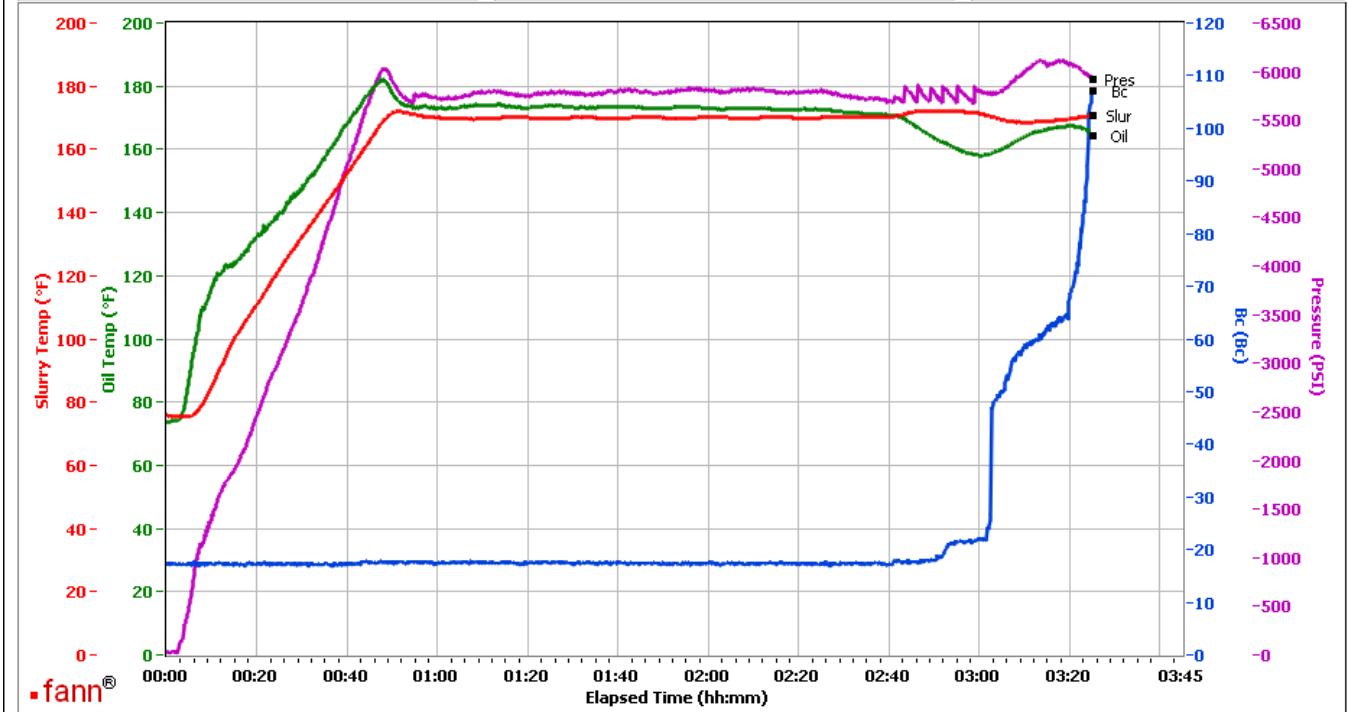
18/SEP/2016

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
170	5896	47	16	3:02	3:02	3:05	3:20	3:24

CS0888 TR#7094 265 SKS

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2340253-1	Job Type		30.00 Bc	03h:02m
Test ID	GJ2340253-1 TERRA BULK TAIL	Cement Type		40.00 Bc	03h:02m
Request ID		Cement Weight	Standard	50.00 Bc	03h:05m
Tested by	DEBA	Test Date	09/18/16	70.00 Bc	03h:20m
Customer	TERRA ENERGY	Test Time	12:29 PM	100.00 Bc	03h:24m
Well No	RU 411-7	Temp. Units	degF	00h:30m	17.25
Rig		Pressure Units	PSI	01h:00m	17.37
Casing/Liner Size		SW Version	2.1.0.507	01h:30m	17.02



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