

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

For: Terra

Date: Monday, August 28, 2017

GM 41-10

API #: 05-045-22698-00

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

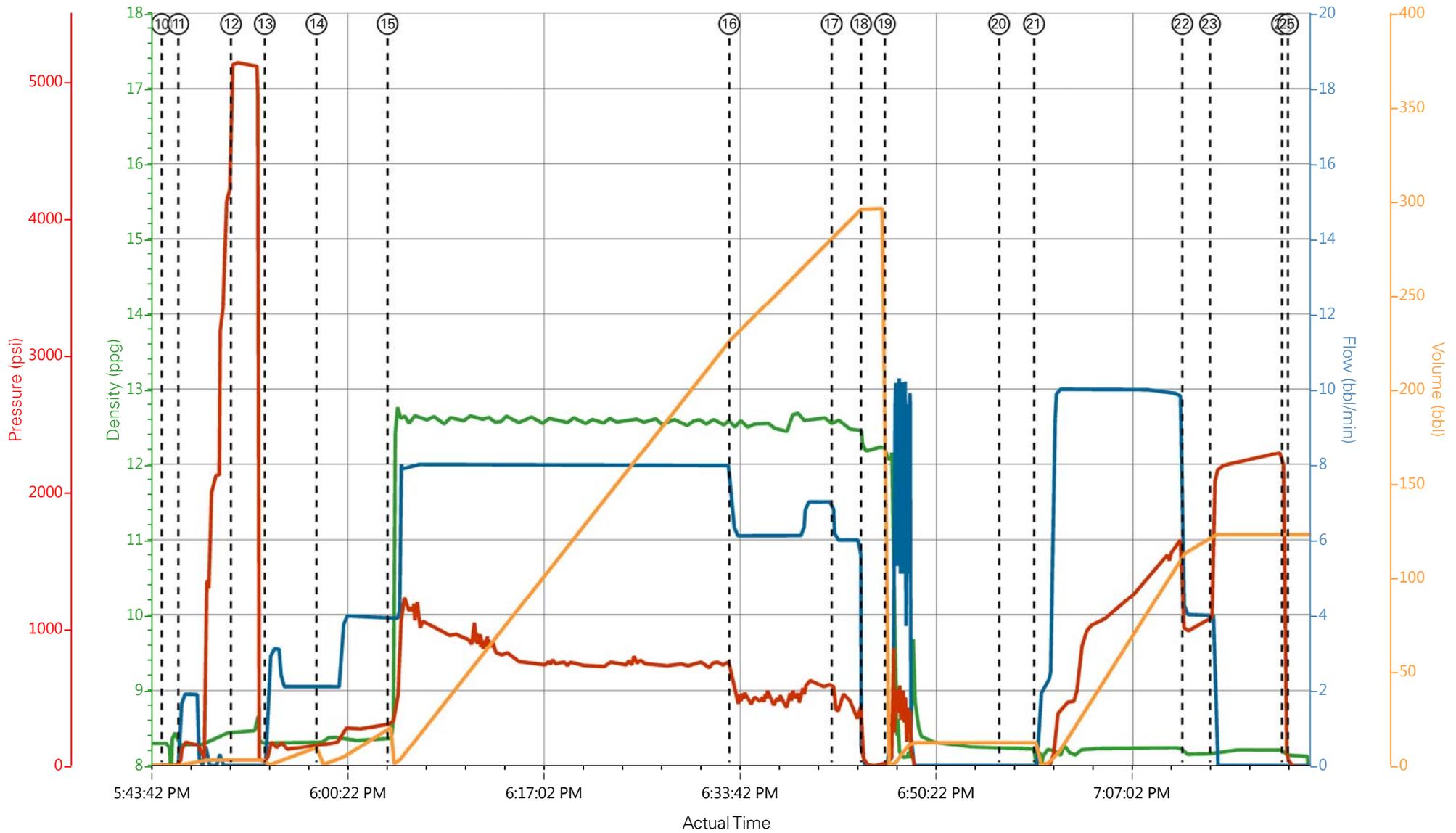
2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	8/28/2017	03:00:00	USER					ON LOCATION TIME REQUESTED 8:30
Event	2	Pre-Convoy Safety Meeting	8/28/2017	05:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Location	8/28/2017	05:15:00	USER					
Event	4	Arrive at Location from Other Job or Site	8/28/2017	07:30:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	8/28/2017	07:45:00	USER					MET WITH COMPANY REP DISCUSSED NUMBERS, SDS OFFERED
Event	6	Pre-Rig Up Safety Meeting	8/28/2017	08:00:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	8/28/2017	09:30:00	USER					1-ELITE, 1-660 BULK TRAILER, 1-550 PICK UP, 4.5" QUICK LATCH, 2" PUMP IRON, 4" SUCTION HOSE
Event	8	Pre-Job Safety Meeting	8/28/2017	17:00:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Other	8/28/2017	17:40:00	USER					WATER: TEMP-70, CL-0, PH-7, RIG CIRCULATED 440 STROKES @ 443 GPM 750 PSI PRIOR TO CEMENTINTING

Event	10	Start Job	8/28/2017	17:44:53	COM5	8.30	0.00	0.00	0.0	TD-7902, TP-7901.25', SJ-32.1', CSG-4.5" 11.6# P110, SCSG-9.625" 32.3# 1087', OH-8.75", MUD-9.6PPG CASING RECIPRICATED THROUGH OUT JOB
Event	11	Prime Pumps	8/28/2017	17:46:17	USER	8.29	2.00	182.00	3.0	FRESH WATER
Event	12	Test Lines	8/28/2017	17:50:45	COM5	8.46	0.00	5141.00	3.0	ALL PRESSURE HELD ON LINES
Event	13	Pump Spacer 1	8/28/2017	17:53:37	COM5	8.31	2.00	156.00	10.0	FRESH WATER
Event	14	Pump Spacer 2	8/28/2017	17:58:01	COM5	8.31	4.00	304.00	20.0	MUD FLUSH III
Event	15	Pump Lead Cement	8/28/2017	18:04:03	COM5	12.50	8.00	1257.00	296.1	NEOCHEM CEMENT 850SKS, 12.5PPG, 1.96CF/SK, 9.38GAL/SK
Event	16	Slow Rate End of Silo	8/28/2017	18:33:04	COM5					
Event	17	Slow Rate	8/28/2017	18:41:46	COM5					
Event	18	Shutdown	8/28/2017	18:44:16	COM5					END OF CEMENT
Event	19	Clean Lines	8/28/2017	18:46:18	COM5					CLEANED PUMPS AND LINES TO PIT, LINES BLOWN BACK TO PIT
Event	20	Drop Top Plug	8/28/2017	18:56:00	COM5					LATCH DOWN PLUG AWAY
Event	21	Pump Displacement	8/28/2017	18:58:57	COM5	8.40	10.00	1660.00	111.9	KCL WATER, 1-GAL

										7	MMCR, 3-1#BE6
Event	22	Slow Rate	8/28/2017	19:11:32	COM5	8.40	4.00	1000.00	10.0	SLOW RATE LAST 10 BBLs	
Event	23	Bump Plug	8/28/2017	19:13:54	COM5	8.35	4.00	1060.00	121.9	PLUG BUMPED 1060 PSI	
Event	24	Check Floats	8/28/2017	19:20:01	COM5	8.33	0.00	2289.00	121.9	FLOATS HELD, 1 BBL BACK	
Event	25	End Job	8/28/2017	19:20:31	COM5					GOOD RETURNS THROUGH OUT JOB	
Event	26	Pre-Rig Down Safety Meeting	8/28/2017	19:25:00	USER					ALL HES PRESENT	
Event	27	Rig-Down Completed	8/28/2017	19:25:01	USER						
Event	28	Pre-Convoy Safety Meeting	8/28/2017	19:25:02	USER					ALL HES PRESENT	
Event	29	Crew Leave Location	8/28/2017	19:25:03	USER					THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW	

TEP - GM 41-10 - 4.5" PRODUCTION

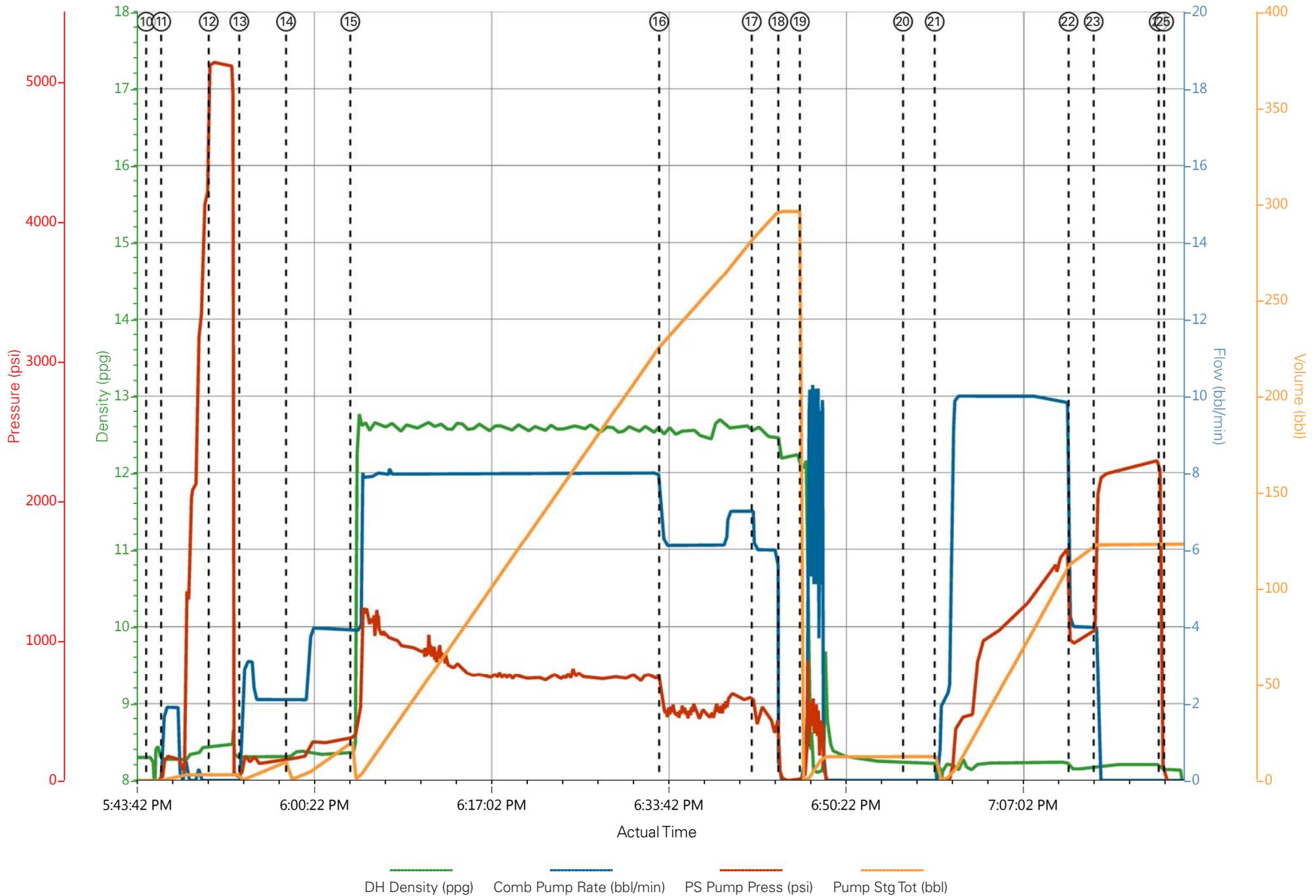


— DH Density (ppg)
 — Comb Pump Rate (bbl/min)
 — PS Pump Press (psi)
 — Pump Stg Tot (bbl)

- ① Call Out ③ Crew Leave Location ⑤ Assessment Of Location Safety Meeting ⑦ Rig-Up Completed ⑨ Other ⑪ Prime Pumps ⑬ Pump Spacer 1
- ② Pre-Convoy Safety Meeting ④ Arrive at Location from Other Job or Site ⑥ Pre-Rig Up Safety Meeting ⑧ Pre-Job Safety Meeting ⑩ Start Job ⑫ Test Lines ⑭ Pump Spacer 2



TEP - GM 41-10 - 4.5" PRODUCTION



Job Information

Request/Slurry	2412205/2	Rig Name	H&P 273	Date	22/AUG/2017
Submitted By	Patrick Ealey	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	GM 41-10

Well Information

Casing/Liner Size	4.5 in	Depth MD	8006 ft	BHST	93°C / 199°F
Hole Size	8.75 in	Depth TVD	7011 ft	BHCT	56°C / 133°F
Pressure	4210 psi				

Drilling Fluid Information

Mud Supplier Name	Baroid	Mud Trade Name	BARADRIL-N	Density	9.2 lbm/gal
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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>		
						Slurry Density	12.5	lbm/gal
						Slurry Yield	1.962	ft ³ /sack
						Water Requirement	9.434	gal/sack
						Total Mix Fluid	9.434	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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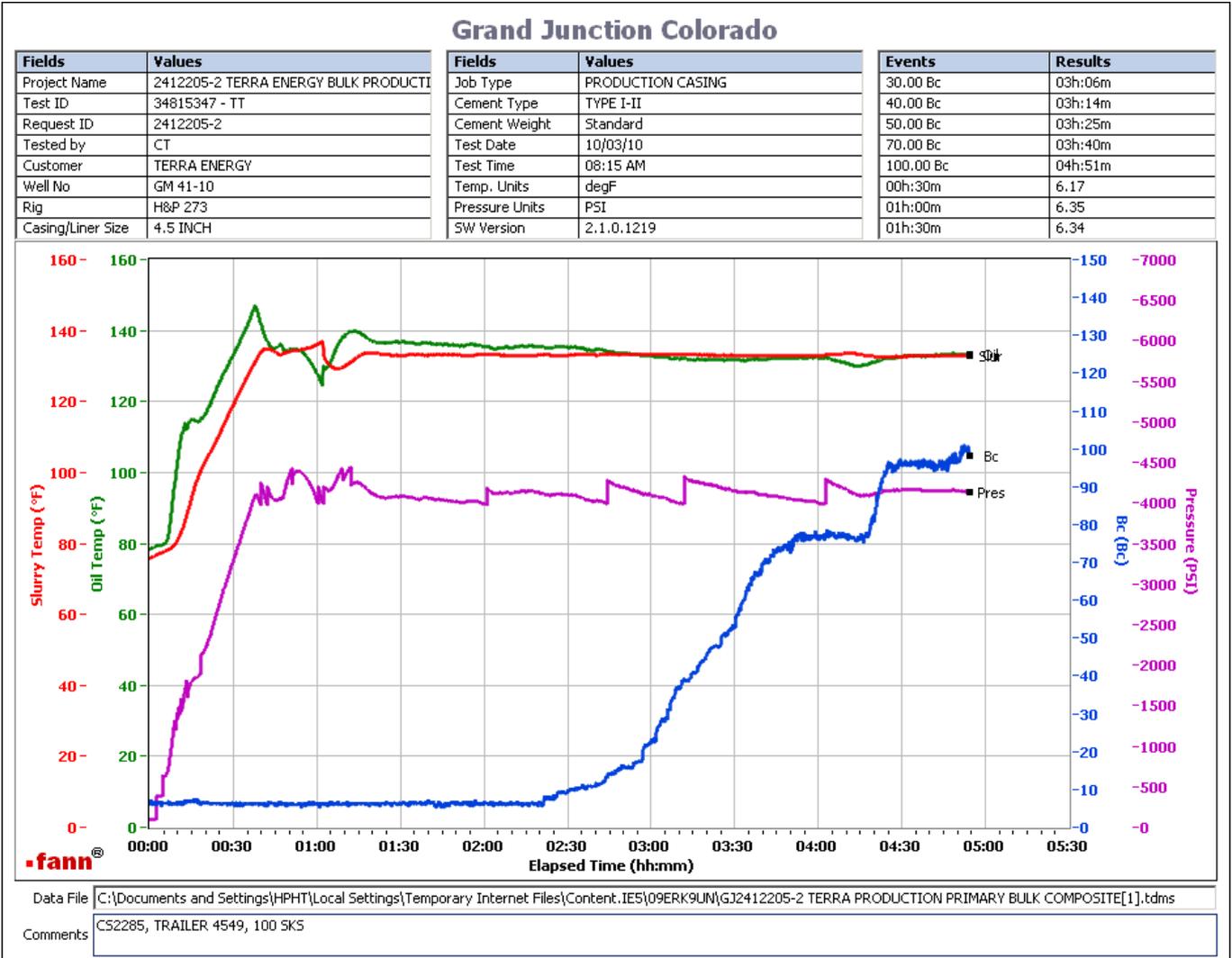
Operation Test Results Request ID 2412205/2

Thickening Time - ON-OFF-ON

26/AUG/2017

Test Temp (°F)	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)
133	4210	37	3:06	3:25	3:40	4:51	7	47	15	7

Total sks = 850
 CS2285, Trailer 4549, 100 sks
 Deflection: 6 – 7



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Operation Test Results Request ID 2412205/1

Thickening Time - ON-OFF-ON

26/AUG/2017

Test Temp (°F)	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)
133	4210	37	3:44	4:01	4:16	5:00	16	47	15	7

Total sks = 850

Composite:

CS2283 TR MT201 375 SKS

CS2284 TR MT613 375 SKS

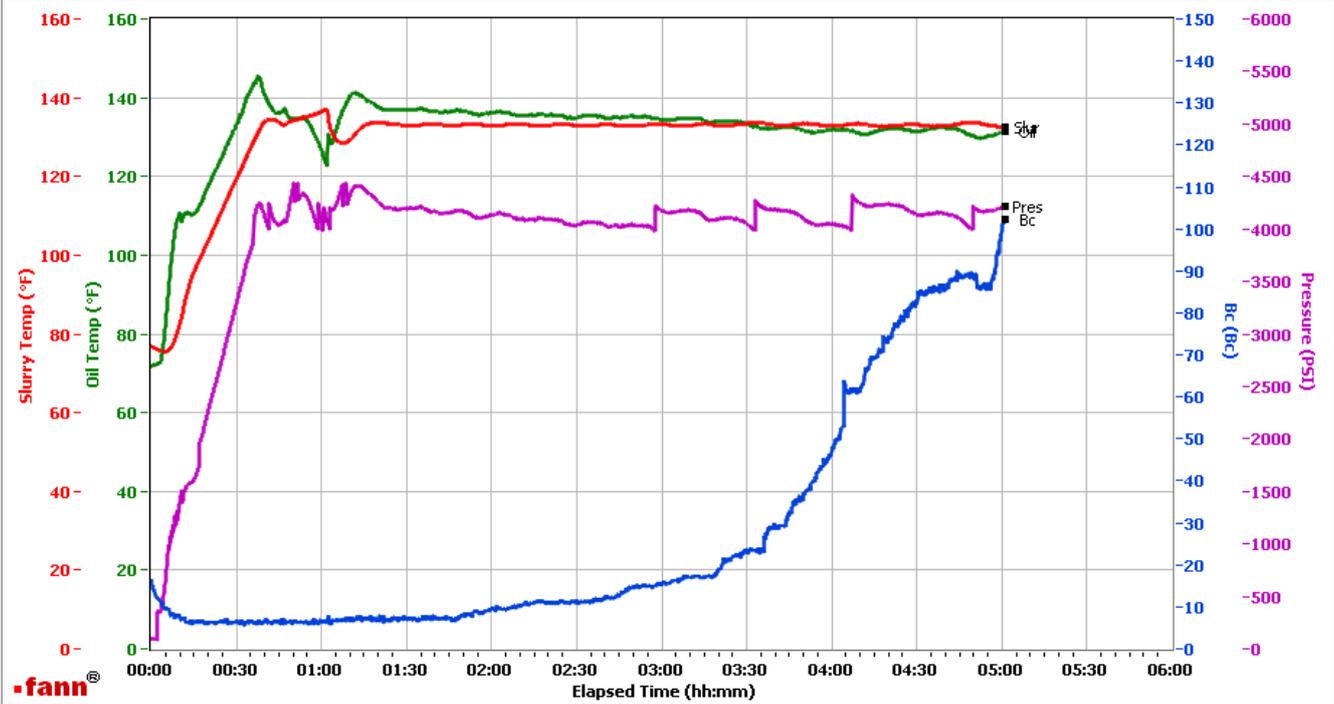
Deflection: 6 – 7

Grand Junction Colorado

Fields	Values
Project Name	GJ2412205-1 TERRA PRODUCTION PRIMAR
Test ID	34805615
Request ID	GJ2412205-1
Tested by	JASON
Customer	TERRA ENERGY PARTNERS
Well No	GM 41-10
Rig	H&P 273
Casing/Liner Size	4.5"

Fields	Values
Job Type	PRODUCTION
Cement Type	HOLCIM TYPE I-II
Cement Weight	Light Weight
Test Date	10/02/10
Test Time	07:51 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.1219

Events	Results
30.00 Bc	03h:44m
40.00 Bc	03h:54m
50.00 Bc	04h:01m
70.00 Bc	04h:16m
100.00 Bc	05h:00m
00h:30m	6.31
01h:00m	6.48
01h:30m	7.01



Data File C:\Documents and Settings\HPHT\Local Settings\Temporary Internet Files\Content.IE5\8HEN6T6Z\GJ2412205-1 TERRA PRODUCTION PRIMARY BULK COMPOSITE[1].tdms
 Comments CS2283 TR MT201 375 SKS CS2284 TR MT613 375 SKS

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