

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

**For: Terra**

Date: Monday, August 06, 2018

**PA 312-26 Surface PJR**

API# 05-045-23721-00

Sincerely,

**Grand Junction Cement Engineering**

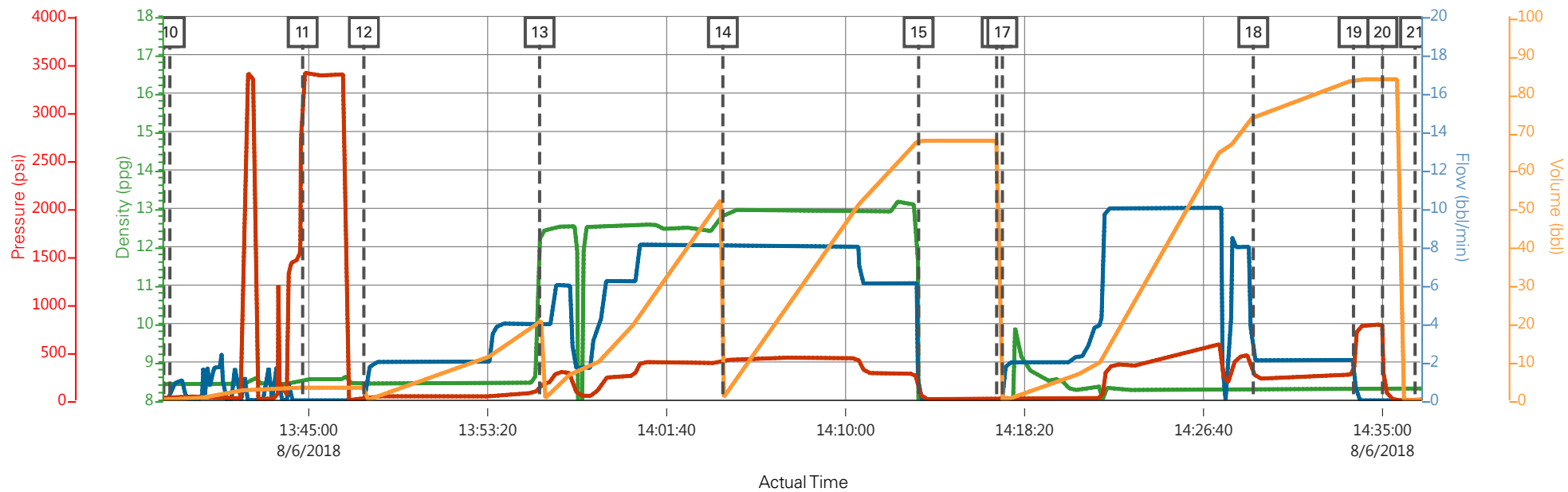
## 2.0 Real-Time Job Summary

## 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	8/6/2018	05:00:00	USER					Requested on Location @ 10:30
Event	2	Pre-Convoy Safety Meeting	8/6/2018	08:45:00	USER					
Event	3	Crew Leave Yard	8/6/2018	09:00:00	USER					1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location from Service Center	8/6/2018	10:15:00	USER					Rig running casing
Event	5	Assessment Of Location Safety Meeting	8/6/2018	10:20:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 75 degrees
Event	6	Pre-Rig Up Safety Meeting	8/6/2018	10:30:00	USER					1 hardline to standpipe, water hoses to upright, bulk hose to 660.
Event	7	Other	8/6/2018	10:45:00	USER					Rig Circulated 30 mins prior to cement job at 707 gpm 229 psi
Event	8	Pre-Job Safety Meeting	8/6/2018	13:00:00	USER					All HES personnel, rig crew, and company rep
Event	9	Start Job	8/6/2018	13:38:15	USER	8.42	0.00	9.00	0.00	TD 1138', TP 1133.22, SJ 45.63', FC 1087.7 OH 13.5", Csg 9.625" 36 lb/ft, Mud 9.5 ppg.
Event	10	Fill Lines	8/6/2018	13:38:32	USER	8.42	0.00	39.00	0.00	Fresh Water
Event	11	Test Lines	8/6/2018	13:44:43	USER	8.51	0.00	3417.00	3.30	Held pressure 2 minutes no leaks
Event	12	Pump Spacer 1	8/6/2018	13:47:34	USER	8.45	4.00	70.00	20.00	Fresh Water
Event	13	Pump Lead Cement	8/6/2018	13:55:45	USER	12.30	8.00	405.00	52.9	125 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	14	Pump Tail Cement	8/6/2018	14:04:17	USER	12.81	8.00	445.00	65.8	175 Sks 12.8 ppg 2.11 yield 11.78 gal/sk

Event	15	Shutdown	8/6/2018	14:13:24	USER					Wash up on top of plug
Event	16	Drop Top Plug	8/6/2018	14:17:02	USER					Plug Away
Event	17	Pump Displacement	8/6/2018	14:17:18	USER	8.33	10.00	562.00	84.1	Fresh Water
Event	18	Slow Rate	8/6/2018	14:28:59	USER	8.30	2.10	282.00	73.70	Slow Rate 10 bbls to calculated displacement
Event	19	Bump Plug	8/6/2018	14:33:39	USER	8.32	2.10	280.00	84.1	Plug Bumped at 280 psi, Brought up to 789 psi
Event	20	Check Floats	8/6/2018	14:35:00	USER	8.34	0.00	789.00	84.1	Floats held – ½ bbl back to the truck
Event	21	End Job	8/6/2018	14:36:31	USER	8.31	0.00	0.00	0.00	Good returns throughout job, 17 bbls of cement to surface.
Event	22	Post-Job Safety Meeting (Pre Rig-Down)	8/6/2018	14:39:00	USER					40 lbs sugar, No add hours
Event	23	Pre-Convoy Safety Meeting	8/6/2018	15:30:00	USER					
Event	24	Crew Leave Location	8/6/2018	15:45:00	USER					Thanks For Using Halliburton Cement. Andrew Brennecke And Crew.

## TEP PA 312-26 Surface



Description	Actual Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	
9 Start Job	13:38:15	8.42	0.00	39.00	0.00	
10 Fill Lines	13:38:32	8.42	0.00	39.00	0.00	
11 Test Lines	13:44:43	8.51	0.00	3417.00	3.30	
12 Pump Spacer 1	13:47:34	8.45	0.00	7.00	3.30	
13 Pump Lead Cement	13:55:45	12.11	4.00	135.00	20.40	
14 Pump Tail Cement	14:04:17	12.81	8.00	410.00	0.50	
15 Shutdown	14:13:24	6.05	0.00	97.00	67.60	
16 Drop Top Plug	14:17:02	0.11	0.00	7.00	67.60	
17 Pump Displacement	14:17:18	0.11	0.00	7.00	0.00	
18 Slow Rate	14:28:59	8.30	2.10	282.00	73.70	
19 Bump Plug	14:33:39	8.32	2.10	269.00	83.50	
20 Check Floats	14:35:00	8.34	0.00	698.00	83.60	
21 End Job	14:36:31	8.31	0.00	0.00	0.00	

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