

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Sunday, September 02, 2018

NR 322-3 Surface PJR

API# 05-045-23905-00

Sincerely,

Grand Junction Cement Engineering

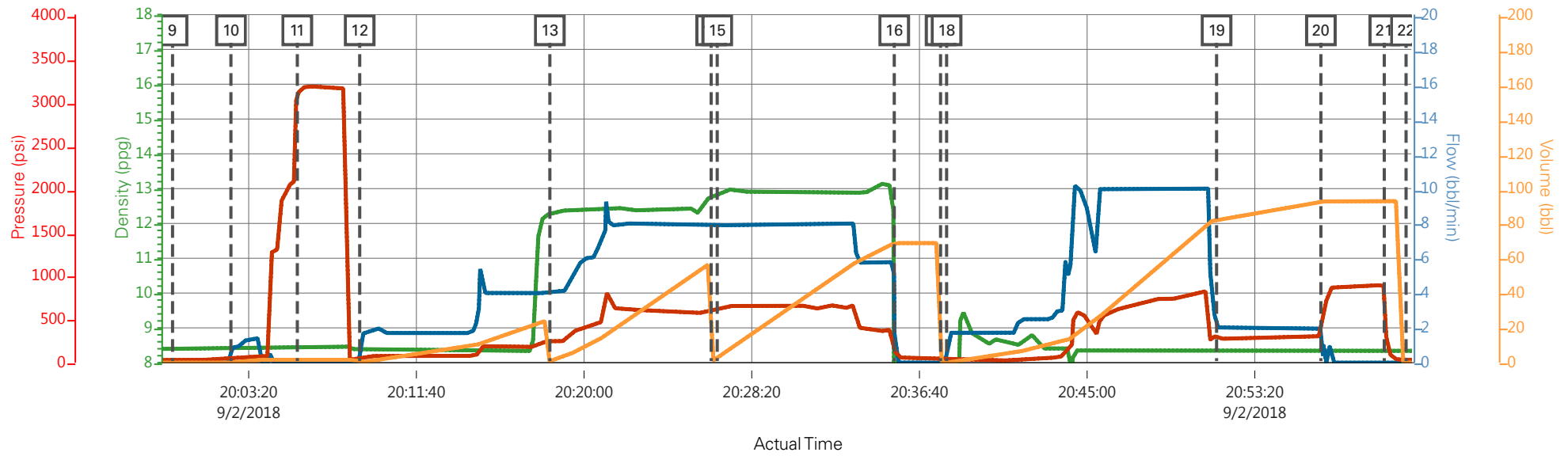
2.0 Real-Time Job Summary

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	9/2/2018	13:00:00	USER					Requested on Location @ 17:30
Event	2	Pre-Convoy Safety Meeting	9/2/2018	15:15:00	USER					All HES Present
Event	3	Crew Leave Yard	9/2/2018	15:30:00	USER					1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location from Service Center	9/2/2018	16:40:00	USER					Rig running casing
Event	5	Assessment Of Location Safety Meeting	9/2/2018	16:45:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 65 degrees
Event	6	Pre-Rig Up Safety Meeting	9/2/2018	16:55:00	USER					1 hardline to standpipe, water hoses to upright, bulk hose to 660.
Event	7	Pre-Job Safety Meeting	9/2/2018	19:30:00	USER					All HES personnel, rig crew, and company rep
Event	8	Other	9/2/2018	19:31:00	USER					Rig Circulated 30 mins prior to cement job at 450 gpm 350 psi
Event	9	Start Job	9/2/2018	19:59:33	USER	8.39	0.00	1.00	0.00	TD 1153', TP 1147.05', SJ 43.33', FC 1103.72' OH 13.5", Csg 9.625" 36 lb/ft H-40, Mud 9.5 ppg.
Event	10	Fill Lines	9/2/2018	20:02:27	USER	8.39	1.50	64.00	2.00	Fresh Water
Event	11	Test Lines	9/2/2018	20:05:45	USER	8.44	0.00	3177.00	2.00	Held pressure 2 minutes no leaks
Event	12	Pump Spacer 1	9/2/2018	20:08:51	USER	8.39	4.00	155.00	20.00	Fresh Water
Event	13	Pump Lead Cement	9/2/2018	20:18:18	USER	12.30	8.00	638.00	52.90	125 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	14	Pump Tail Cement	9/2/2018	20:26:19	USER	12.80	8.00	658.00	65.80	175 Sks 12.8 ppg 2.11 yield 11.78 gal/sk

Event	15	Check Weight	9/2/2018	20:26:37	COM5					Density Verified via Mud Scales
Event	16	Shutdown	9/2/2018	20:35:25	USER					Wash up on top of plug
Event	17	Drop Top Plug	9/2/2018	20:37:43	USER					Plug away
Event	18	Pump Displacement	9/2/2018	20:38:01	USER	8.34	10.00	795.00	85.30	Fresh Water
Event	19	Slow Rate	9/2/2018	20:51:26	USER	8.34	2.00	291.00	75.10	Slow Rate 10 bbls to calculated displacement
Event	20	Bump Plug	9/2/2018	20:56:37	USER	8.34	2.00	300.00	85.30	Plug Bumped at 300 psi, Brought up to 880 psi
Event	21	Check Floats	9/2/2018	20:59:46	USER	8.36	0.00	880.00	85.30	Floats held – ½ bbl back to the truck
Event	22	End Job	9/2/2018	21:00:51	USER					Good returns throughout job, 20 bbls of cement to surface.
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	9/2/2018	21:03:00	USER					50 lbs sugar, No add hours
Event	24	Pre-Convoy Safety Meeting	9/2/2018	22:25:00	USER					All HES Present
Event	25	Crew Leave Location	9/2/2018	22:30:00	USER					Thanks For Using Halliburton Cement. Andrew Brennecke And Crew.

TERRA ENERGY - NR 322-3 - 9.625" SURFACE



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

Description	Actual Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	
9 Start Job	19:59:33	8.39	0.00	31.00	0.00	
10 Fill Lines	20:02:27	8.39	0.50	54.00	0.00	
11 Test Lines	20:05:45	8.44	0.00	3077.00	1.60	
12 Pump Spacer 1	20:08:51	8.39	1.80	43.00	0.10	
13 Pump Lead Cement	20:18:18	12.28	4.00	236.00	0.90	
14 Pump Tail Cement	20:26:19	12.78	8.00	613.00	0.50	
15 Check Weight	20:26:37	12.82	7.90	617.00	2.90	
16 Shutdown	20:35:25	5.51	1.70	142.00	68.70	
17 Drop Top Plug	20:37:43	0.05	0.00	34.00	0.00	
18 Pump Displacement	20:38:01	0.05	0.00	34.00	0.00	
19 Slow Rate	20:51:26	8.34	2.00	291.00	82.10	
20 Bump Plug	20:56:37	8.34	2.00	305.00	92.50	
21 Check Floats	20:59:46	8.36	0.00	880.00	92.80	
22 End Job	21:00:51	8.34	0.00	26.00	0.00	

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