

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Saturday, July 14, 2018

NR 11-3 Surface PJR

API #: 05-045-23923

Sincerely,

Grand Junction Cement Engineering

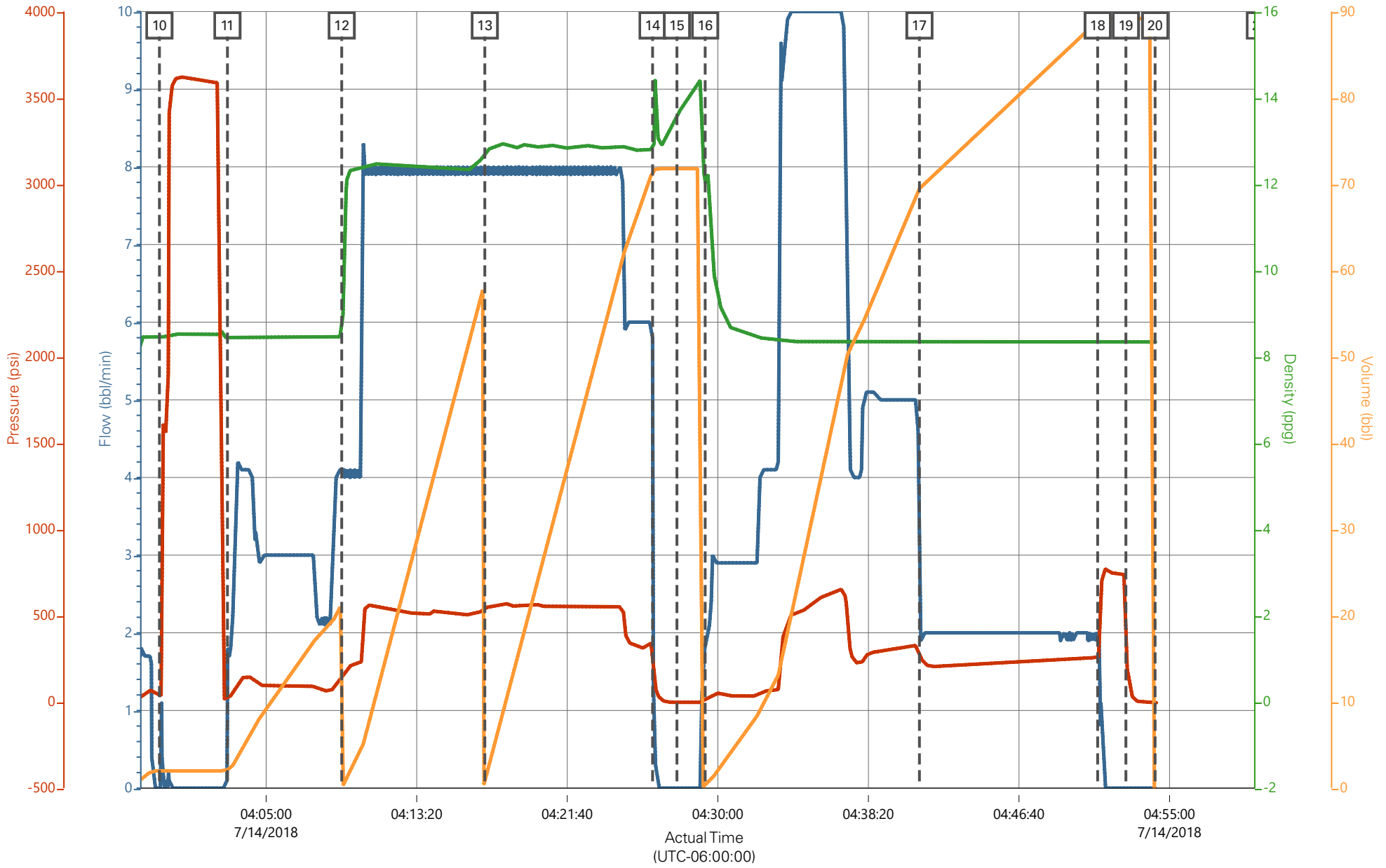
2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	7/13/2018	19:00:00	USER					REQUESTED ON LOCATION 7/14/18 @ 01:00
Event	2	Depart Yard Safety Meeting	7/13/2018	19:25:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	7/13/2018	19:30:00	USER					
Event	4	Arrive At Loc	7/13/2018	21:00:00	USER					CREW ARRIVED EARLY TO RIG UP EXCESS IRON, RIG DRILLING
Event	5	Assessment Of Location Safety Meeting	7/13/2018	21:15:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	7/13/2018	21:25:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	7/13/2018	21:30:00	USER					
Event	8	Pre-Job Safety Meeting	7/14/2018	03:45:00	USER					JSA COMPLETED
Event	9	Start Job	7/14/2018	03:56:09	COM4					9 5/8"-36# CASING IN 13 1/2" OH, TD 1138', TP 1131', ST 42.2', MUD 9.4 PPG, WATER TEMP 65, PH 7, CHLORIDES 0
Event	10	Test Lines	7/14/2018	03:59:06	COM4			3000.00		TEST LINES TO 3000 PSI
Event	11	Pump Spacer 1	7/14/2018	04:02:52	USER	3.00	8.33	90.00	20.00	20 BBL FRESH WATER SPACER
Event	12	Pump Lead Cement	7/14/2018	04:09:11	COM4	8.00	12.30	520.00	53.00	53 BBLs LEAD CEMENT, 125 SKS @ 12.3 PPG / 2.38 YLD / 13.77 GAL/SK

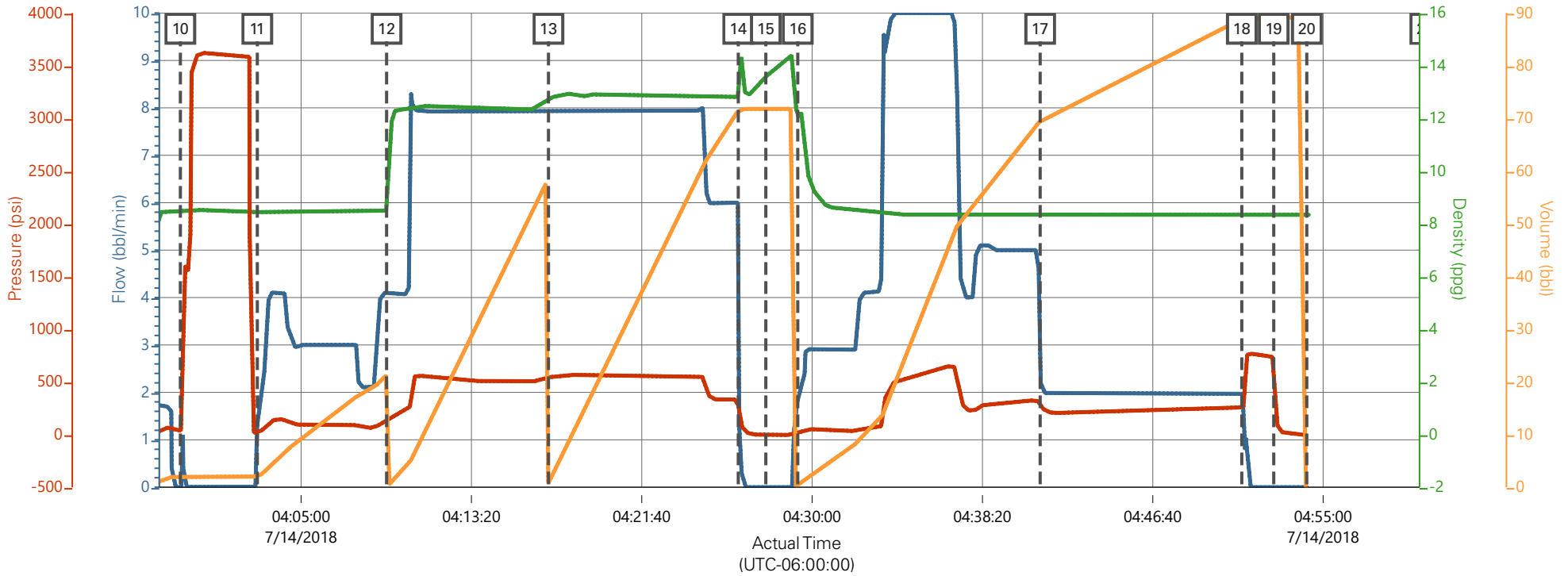
Event	13	Pump Tail Cement	7/14/2018	04:17:06	COM4	8.00	12.80	550.00	65.80	65.8 BBL TAIL CEMENT, 175 SKS @ 12.8 PPG / 2.11 YLD / 11.78 GAL/SK
Event	14	Shutdown	7/14/2018	04:26:23	USER					
Event	15	Drop Top Plug	7/14/2018	04:27:44	USER					PLUG AWAY
Event	16	Pump Displacement	7/14/2018	04:29:18	COM4	10.00	8.33	640.00	84.20	84.2 BBLS FRESH WATER DISPLACEMENT
Event	17	Slow Rate	7/14/2018	04:41:09	USER	2.00	8.33	330.00	64.00	SLOW RATE 20 BBLS OUT AS REQUESTED BY COMPANY REP, 330 PSI TO 205 PSI @ 2 BBL/MIN
Event	18	Bump Plug	7/14/2018	04:51:01	COM4	2.00	8.33	255.00	84.20	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE 255 PSI BROUGHT TO 780 PSI
Event	19	Check Floats	7/14/2018	04:52:35	COM4					FLOATS HELD, .5 BBL BACK TO PUMP
Event	20	End Job	7/14/2018	04:54:12	COM4					GOOD CIRCULATION THROUGHOUT, PIPE LEFT STATIC, 22 BBLS LEAD CEMENT TO SURFACE, 30# SUGAR USED, NO ADD HOURS CHARGED
Event	21	Pre-Rig Down Safety Meeting	7/14/2018	05:00:00	USER					JSA COMPLETED
Event	22	Rig-Down Equipment	7/14/2018	05:05:00	USER					
Event	23	Pre-Convoy Safety Meeting	7/14/2018	05:55:00	USER					JSA COMPLETED
Event	24	Crew Leave Location	7/14/2018	06:00:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

TEP - CLOUGH NR 11-3 - 9 5/8" SURFACE CASING



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

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 — DH Density (ppg)
 — PS Pump Press (psi)
 — Pump Stg Tot (bbl)

Description	Actual Time (UTC-06:00:00)	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)
11 Pump Spacer 1	04:02:52	1.30	8.44	18.00	2.10
12 Pump Lead Cement	04:09:11	4.10	8.50	137.00	0.00
13 Pump Tail Cement	04:17:06	8.00	12.74	550.00	0.80
14 Shutdown	04:26:23	5.80	12.80	302.00	71.50
15 Drop Top Plug	04:27:44	0.00	13.58	-4.00	71.80
16 Pump Displacement	04:29:18	1.80	11.95	12.00	0.40
17 Slow Rate	04:41:09	2.70	8.35	286.00	69.50
18 Bump Plug	04:51:01	2.00	8.35	256.00	88.90
19 Check Floats	04:52:35	0.00	8.37	522.00	89.20
20 End Job	04:54:12	0.00	8.34	-5.00	0.00

▼ **HALLIBURTON** | iCem® Service

Created: 2018-07-14 01:25:33, (UTC-06:00), Version: 4.5.139

Edit

Customer : TERRA ENERGY PARTNERS
 Representative : ROBERT BROWN

Job Date : 7/14/2018
 Sales Order # : 904993377

Well : CLOUGH
 ELITE #8 : KIEL CRIST / RYAN MARTIN