

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

United States of America, COLORADO

### **For: Terra**

Date: Friday, November 30, 2018

### **FEDERAL GM 12-8 Surface**

API#05-045-24025

Sincerely,

**Grand Junction Cement Engineering**

## 1.0 Real-Time Job Summary

## 1.1 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	11/29/2018	21:30:00	USER					
Event	2	Depart Yard Safety Meeting	11/29/2018	23:30:00	USER					
Event	3	Crew Leave Yard	11/29/2018	23:35:00	USER					
Event	4	Arrive At Loc	11/30/2018	02:00:00	USER					REQUESTED ON LOC TIME WAS 0330, CREW ARRIVED AT 0200. RIG WAS FINISHING PULLING BHA.
Event	5	Assessment Of Location Safety Meeting	11/30/2018	02:05:00	USER					
Event	6	Spot Equipment	11/30/2018	02:15:00	USER					
Event	7	Pre-Rig Up Safety Meeting	11/30/2018	02:25:00	USER					
Event	8	Rig-Up Equipment	11/30/2018	02:30:00	USER					
Event	9	Pre-Job Safety Meeting	11/30/2018	09:30:00	USER					
Event	10	Start Job	11/30/2018	10:44:00	COM5					TD: 1007 TP: 1014 SJ: 45.4 MW: 9.2 13 3/8" 54.5#/FT CSG IN 17 1/2" OH WATER TEST: PH: 7 POTASSIUM: 450 CHLORIDES: 0 SULFATES: <200 TEMP: 60 DEGREES
Event	11	Test Lines	11/30/2018	10:46:06	COM5			3000.00		3000 PSI TEST SUCCESSFUL
Event	12	Pump Spacer 1	11/30/2018	10:51:32	COM5	8.33	4.00	180.00	20.0	20 BBL FRESH H2O SPACER
Event	13	Pump Lead Cement	11/30/2018	10:58:11	COM5	12.30	8.00	587.00	74.2	175 SKS @ 12.3 PPG 2.38 YLD 13.77 GAL/SK H2O
Event	14	Pump Tail Cement	11/30/2018	11:08:22	COM5	12.80	8.00	617.00	80.8	215 SKS @ 12.8 PPG 2.11 YLD 11.78 GAL/SK H2O
Event	15	Shutdown	11/30/2018	11:19:46	COM5					
Event	16	Drop Plug	11/30/2018	11:22:34	COM5					

Event	17	Pump Displacement	11/30/2018	11:23:39	COM5	8.33	8.00	455.00	149.70	FRESH H2O DISPLACEMENT. HAD TO SLOW RATE/ SHUTDOWN A COUPLE TIMES DURING DISPLACEMENT DUE TO RIG'S CELLAR PUMPS NOT WORKING.
Event	18	Slow Rate	11/30/2018	11:52:56	COM5	8.33	2.00	268.00	139.0	
Event	19	Bump Plug	11/30/2018	11:58:50	COM5	8.33	2.00	846.00	149.7	PLUG BUMPED AT CALCULATED DISPLACEMENT
Event	20	Check Floats	11/30/2018	11:59:51	COM5					FLOATS HELD, GAINED 3/4 BBL BACK TO PUMP.
Event	21	Casing Test	11/30/2018	12:02:33	COM5	8.33	0.00	1210.00	0.00	30 MINUTE CASING TEST @ 1200 PSI
Event	22	Release Casing Pressure	11/30/2018	12:33:30	USER					
Event	23	End Job	11/30/2018	12:34:45	COM5					
Event	24	Post-Job Safety Meeting (Pre Rig-Down)	11/30/2018	12:45:00	USER					GOOD CIRCULATION THROUGHOUT JOB. PIPE WAS LEFT STATIC. CIRCULATED 50 BBL CEMENT TO SURFACE. NO SUGAR USED, USED CUSTOMER SUPPLIED TOP PLUG, 2 ADD HOURS CHARGED.
Event	25	Rig-Down Equipment	11/30/2018	12:50:00	USER					
Event	26	Pre-Convoy Safety Meeting	11/30/2018	13:50:00	USER					
Event	27	Crew Leave Location	11/30/2018	14:00:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING ANTHONY ANDREWS AND CREW

2.0 Attachments

2.1 905309632-Custom Results.png

