

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Wednesday, July 10, 2019

FEDERAL RWF 324-8 Surface

API#05-045-24031

GARFIELD, FEDERAL RWF 324-8

905824474

Job Date: Wednesday, July 10, 2019

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	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	Call Out	7/10/2019	06:30:00	USER					REQUESTED ON LOCATION 7/10/19 @ 13:00
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	7/10/2019	10:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	Crew Leave Shop	7/10/2019	11:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	7/10/2019	12:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	7/10/2019	12:05:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/10/2019	12:10:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	Rig-Up Equipment	7/10/2019	12:15:00	USER					
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/10/2019	14:00:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	Start Job	7/10/2019	14:56:00	COM4					9.625"-36# CASING IN 13.5" OH, TD 1116', TP 1109.4', ST 42.5', MUD 9.3 PPG, WATER TEMP 50, PH 7, CHLORIDES 0
Event	10	Test Lines	Test Lines	7/10/2019	14:58:23	COM4			5000.00		TEST LINES TO 3000 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	7/10/2019	15:05:12	COM4	4.00	8.33	50.00	20.00	20 BBLS FRESH WATER
Event	12	Pump Lead Cement	Pump Lead Cement	7/10/2019	15:14:27	COM4	8.00	12.30	450.00	53.00	53 BBLS LEAD CEMENT, 125 SKS @ 12.3 PPG / 2.38 YLD / 13.77 GAL/SK

Event	13	Pump Tail Cement	Pump Tail Cement	7/10/2019	15:21:50	COM4	8.00	12.80	550.00	65.80	65.8 BBLS TAIL CEMENT, 175 SKS @ 12.8 PPG / 2.11 YLD / 11.78 GAL/SK
Event	14	Drop Top Plug	Drop Top Plug	7/10/2019	15:33:42	COM4					PLUG AWAY
Event	15	Pump Displacement	Pump Displacement	7/10/2019	15:34:27	COM4	10.00	8.33	700.00	82.50	82.5 BBLS FRESH WATER DISPLACEMENT
Event	16	Bump Plug	Bump Plug	7/10/2019	15:48:37	COM4	2.00	8.33	250.00	82.50	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL LIFT PRESSURE 250 PSI @ 2 BBL/MIN, BROUGHT TO 860 PSI
Event	17	Other	CHECK FLOATS	7/10/2019	15:49:45	COM4			860.00		FLOATS HELD, .5 BBL BACK TO PUMP
Event	18	End Job	End Job	7/10/2019	15:50:31	COM4					PIPE LEFT STATIC, GOOD RETURNS THROUGHOUT, 14 BBLS LEAD CEMENT TO SURFACE, NO SUGAR AND NO ADD HOURS
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/10/2019	15:55:00	USER					JSA COMPLETED
Event	20	Rig-Down Equipment	Rig-Down Equipment	7/10/2019	16:00:00	USER					
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/10/2019	16:55:00	USER					JSA COMPLETED
Event	22	Crew Leave Location	Crew Leave Location	7/10/2019	17:00:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

3.0 Attachments

3.1 905824474-Custom Results.png

