

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Thursday, May 31, 2018

RU 24-17 Surface PJR

API #: 05-045-23749

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)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	5/30/2018	14:30:00						Requested on Location @ 19:30
Event	2	Pre-Convoy Safety Meeting	5/30/2018	16:30:00						
Event	3	Crew Leave Yard	5/30/2018	16:45:00						1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location from Service Center	5/30/2018	19:30:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	5/30/2018	19:45:00						JSA completed - Customer offered/received SDS - water test pH 7.0, CI <200, temp 60 degrees
Event	6	Pre-Rig Up Safety Meeting	5/30/2018	20:00:00						1 hardline to standpipe, water hoses to upright, bulk hose to 660.
Event	7	Other	5/30/2018	22:00:00						Rig Circulated 30 mins prior to cement job at 450 gpm 300 psi
Event	8	Pre-Job Safety Meeting	5/30/2018	22:33:12						All HES personnel, rig crew, and company rep
Event	9	Start Job	5/30/2018	23:12:29						TD 1142', TP 1134.63, SJ 46.93', FC 1087.7 OH 13.5'', Csg 9.625'' 32.3 lb/ft H-40, Mud 9.1 ppg.
Event	10	Fill Lines	5/30/2018	23:13:04		8.33	1	23	5	Fresh Water
Event	11	Test Lines	5/30/2018	23:16:50				2272		Held pressure 2 minutes no leaks

Event	12	Pump Spacer 1	5/30/2018	23:21:06	8.33	4	122	15	Fresh Water
Event	13	Check Weight	5/30/2018	23:24:50					Density Verified via Mud Scales
Event	14	Pump Lead Cement	5/30/2018	23:26:29	12.3	8	542	53	125 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	15	Pump Tail Cement	5/30/2018	23:33:42	12.8	8	535	65.8	175 Sks 12.8 ppg 2.11 yield 11.78 gal/sk
Event	16	Shutdown	5/30/2018	23:42:55					Wash up on top of plug
Event	17	Drop Top Plug	5/30/2018	23:44:24					
Event	18	Pump Displacement	5/30/2018	23:45:58	8.33	10	700	85.6	Fresh Water
Event	19	Slow Rate	5/30/2018	23:56:45	8.33	2	280	75	Slow Rate 10 bbls to calculated displacement
Event	20	Bump Plug	5/31/2018	00:03:47			810		Plug Bumped at 280 psi, Brought up to 810 psi
Event	21	Check Floats	5/31/2018	00:06:28					Floats held – ½ bbl back to the truck
Event	22	End Job	5/31/2018	00:07:07					Good returns throughout job, 16 bbls of cement to surface.
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	5/31/2018	00:08:07					40 lbs sugar, No add hours
Event	24	Pre-Convoy Safety Meeting	5/31/2018	00:11:27					
Event	25	Crew Leave Location	5/31/2018	00:12:35					Thanks For Using Halliburton Cement. Chris Martinez And Crew.

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