

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Wednesday, January 23, 2019

GM 322-8 Production

API# 05-045-24022

Job Date: Wednesday, January 23, 2019

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 <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	1/23/2019	05:00:00	USER					Requested on Location @ 09:00
Event	2	Pre-Convoy Safety Meeting	1/23/2019	06:50:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	1/23/2019	07:00:00	USER					1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location from Service Center	1/23/2019	08:20:00	USER					Rig running casing
Event	5	Assessment Of Location Safety Meeting	1/23/2019	08:25:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 64 degrees
Event	6	Pre-Rig Up Safety Meeting	1/23/2019	08:45:00	USER					1 hardline to standpipe, water hoses to upright, bulk hose to 660 and silos
Event	7	Other	1/23/2019	10:14:00	USER					Rig Circulated 1 hour prior to cement job at 470 gpm 1100 psi
Event	8	Pre-Job Safety Meeting	1/23/2019	10:15:00	USER					All HES personnel, rig crew, and company rep
Event	9	Start Job	1/23/2019	11:08:50	USER	8.33	0.00	0.00	0.00	TD 7140', TP 7134.32, SJ 31.75', FC 7102.57 OH 12.25", Csg 4.5", 11.6 lb/ft, Mud 9.6 ppg. Scsg 13.375", 54.5 lb/ft, shoe at 1037'
Event	10	Fill Lines	1/23/2019	11:10:52	USER	8.33	2.00	185.00	3.00	Fresh Water
Event	11	Test Lines	1/23/2019	11:24:12	USER	8.33	0.00	5111.00	3.00	Held pressure 2 minutes no leaks
Event	12	Pump Spacer 1	1/23/2019	11:27:14	COM5	8.33	2.00	197.00	10.00	Fresh Water

Event	13	Pump Spacer 2	1/23/2019	11:31:17	COM5	8.40	4.00	270.00	20.00	Pump mud flush III
Event	14	Pump Lead Cement	1/23/2019	11:38:29	COM5	12.30	8.00	1400.00	299.00	815 Sks 12.3 ppg 2.06 yield, 1014 gal/sk
Event	15	Check Weight	1/23/2019	11:39:13	COM5					Density Verified via Mud Scales
Event	16	Pump Tail Cement	1/23/2019	12:21:55	COM5	12.50	8.00	1177.00	368.30	1055 Sks 12.5 ppg 1.96 yield, 9.4 gal/sk
Event	17	Check Weight	1/23/2019	12:22:55	COM5					Density Verified via Mud Scales
Event	18	Shutdown	1/23/2019	13:15:53	USER					Clean lines to wash up truck
Event	19	Drop Top Plug	1/23/2019	13:26:18	USER					Co-Rep Verify Plug Launched
Event	20	Pump Displacement	1/23/2019	13:28:09	USER	8.40	10.00	1977.00	110.00	3 lbs BE-6, 1 gal MMCR, 2% KCl
Event	21	Slow Rate	1/23/2019	13:39:00	USER	8.40	4.00	1093.00	100.00	Slowed Rate 10 bbls prior to calculated displacement
Event	22	Bump Plug	1/23/2019	13:41:36	USER	8.40	4.00	1280.00	110.00	Plug Bumped at 1280 psi, Brought up to 2027 psi
Event	23	Check Floats	1/23/2019	13:44:46	USER	8.40	0.00	2027.00	0.00	Floats held – 1 bbl back to the truck
Event	24	End Job	1/23/2019	13:45:32	USER					Good returns throughout job. Pipe was reciprocated during job.
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	1/23/2019	14:10:00	USER					No sugar, HES top plug used, 0 add hours
Event	26	Pre-Convoy Safety Meeting	1/23/2019	15:00:00	USER					All HES present
Event	27	Crew Leave Location	1/23/2019	15:15:00	USER					Thanks For Using Halliburton Cement. Andrew Brennecke And Crew.

3.0 Attachments

3.1 GM 322-8-Custom Results.png

