

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

For: Darrell Leatherman

Date: Sunday, September 15, 2019

PA 522-24

API# 05-045-23892

Case 1

Job Date: Sunday, September 15, 2019

Sincerely,

Rock Springs 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	9/15/2019	08:45:00	USER					Requested on location at 1400
Event	2	Depart Yard Safety Meeting	9/15/2019	10:45:00	USER					All HES Present
Event	3	Depart from Service Center	9/15/2019	11:00:00	USER					
Event	4	Arrive at Location	9/15/2019	13:00:00	USER					Meet with customer and go over job parameters and procedure. Walk around location and collected water sample (PH - 7.5, Chlorides - 0, Temp - 65F). Customer was offered SDS For all chemicals used by HES.
Event	5	Assess Location	9/15/2019	13:15:00	USER					All HES Present
Event	6	Pre-Rig Up Safety Meeting	9/15/2019	14:20:00	USER					All HES Present
Event	7	Spot Equipment	9/15/2019	14:30:00	USER					1 F550, 1 Elite Pump Truck & 1 660 Bulk Truck
Event	8	Rig Up Equipment	9/15/2019	14:45:00	USER					Equipment rigged up without entering the red zone
Event	9	Pre-Job Safety Meeting	9/15/2019	16:30:00	USER					Discuss all job related safety issues and pump schedule with Company Rep., HES crew, and rig crew.
Event	10	Start Job	9/15/2019	16:49:06	USER					TD 1134', TP 1130.1', SJ 38.7, FC 1091.4', Surface Csg. 9 5/8" 36# J-55, OH 13.5", Mud 10.5 ppg
Event	11	Fill Lines	9/15/2019	16:50:07	USER	8.4	2	55	2	Fresh Water
Event	12	Test Lines	9/15/2019	16:52:14	USER	8.4	.5	2800	.5	HES lines held 2800 psi for 2 Minutes
Event	13	Fresh Water Spacer	9/15/2019	16:57:12	COM4	8.4	6	190	20	20 bbls Fresh Water
Event	14	Check Weight	9/15/2019	17:00:41	COM4					Density verified with pressurized mud scales
Event	15	Pump Lead Cement	9/15/2019	17:01:57	COM4	12.3	8	590	53	VariCem 125 sks (53 bbls), 12.3 ppg, 2.38 ft3/sk, 13.77 gal/sk

Event	16	Pump Tail Cement	9/15/2019	17:08:35	COM4	12.8	8	530	65.8	VariCem 175 sks (65.8 bbls), 12.8 ppg, 2.11 ft3/sk, 11.78 gal/sk.
Event	17	Shutdown	9/15/2019	17:17:10	USER					Wash up on top of the plug.
Event	18	Drop Top Plug	9/15/2019	17:19:55	USER					Customer witnessed releasing the top plug.
Event	19	Pump Displacement	9/15/2019	17:20:57	COM4	8.4	10	695	84.4	
Event	20	Slow Rate	9/15/2019	17:29:42	USER	8.4	2	240	74.4	Slow to 2 bpm to land plug
Event	21	Bump Plug	9/15/2019	17:33:58	USER	8.4	2	803	84.4	Bump plug at 240 psi and held 500 psi over for 3 minutes
Event	22	Check Floats	9/15/2019	17:35:26	USER					Floats held, 1 bbl back to the truck.
Event	23	End Job	9/15/2019	17:36:28	USER					Good returns throughout job, 21 bbls Cement back to surface, 50 lbs. sugar used.
Event	24	Post-Job Safety Meeting (Pre Rig-Down)	9/15/2019	17:55:00	USER					All HES Present
Event	25	Rig-Down Equipment	9/15/2019	18:00:00	USER					
Event	26	Pre-Convoy Safety Meeting	9/15/2019	18:25:00	USER					All HES Present
Event	27	Depart Location	9/15/2019	18:30:00	USER					Thank you for using Halliburton Cement, Ryan Muhlestein and Crew

2.0 Attachments

2.1 Chart.png

