

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

For: Terra

Date: Saturday, November 18, 2017

GM 323-4 Re-Cement

Sincerely,

Grand Junction Cement Engineering

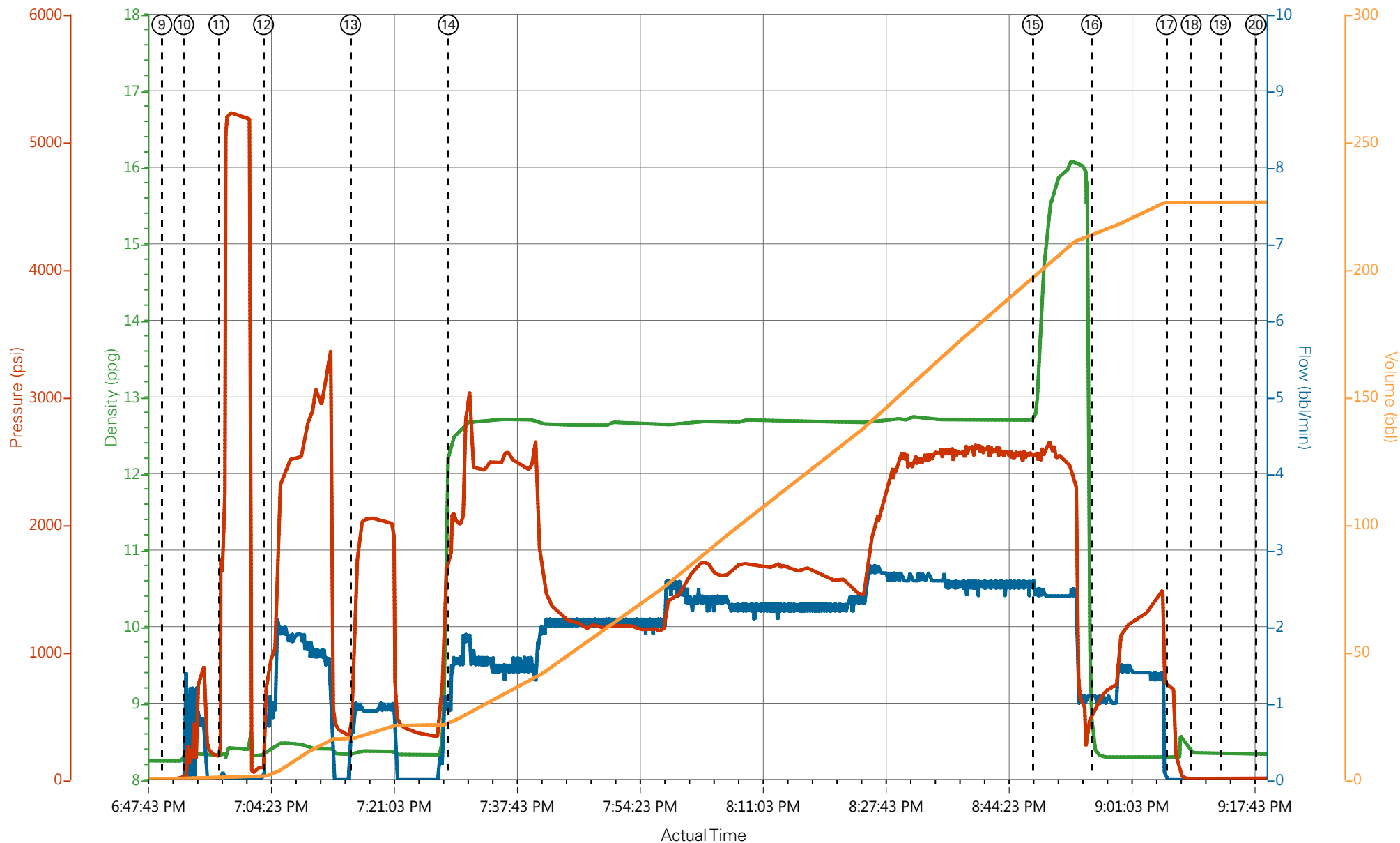
2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Combined Pump Total (bbl)	Comments
Event	1	Call Out	11/18/2017	06:00:00						On Location @ 1400
Event	2	Pre-Convoy Safety Meeting	11/18/2017	08:00:00						
Event	3	Crew Leave Yard	11/18/2017	08:30:00						
Event	4	Arrive At Loc	11/18/2017	14:00:00						Rig Running In Tubbing
Event	5	Assessment Of Location Safety Meeting	11/18/2017	14:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 40 degrees
Event	6	Pre-Rig Up Safety Meeting	11/18/2017	14:20:00						
Event	7	Rig-Up Equipment	11/18/2017	14:30:00						
Event	8	Pre-Job Safety Meeting	11/18/2017	18:39:09						All HES personnel, rig crew, and company
Event	9	Start Job	11/18/2017	18:50:00						4 1/2" csg 11.6#, 2 3/8" tbg 4.7#, Ret @ 6080', Perfs @ 6130
Event	10	Fill Lines	11/18/2017	18:52:57		8.33	1	1000	1	Fresh Water
Event	11	Test Lines	11/18/2017	18:57:43				5145		Held pressure 2 minutes, No Leaks
Event	12	Injection Test	11/18/2017	19:03:47		8.33	2	2550	10	Fresh Water
Event	13	Pump Mud Flush Spacer	11/18/2017	19:15:35		8.4	1	2043	20	Mud Flush
Event	14	Pump Lead Cement	11/18/2017	19:28:49		12.5	2.5	2630	214.7	615 sks, 12.5 ppg, 1.96 Yield, 9.4 Gal/Sk
Event	15	Pump Tail Cement	11/18/2017	20:48:01		15.8	2.5	2460	15.4	75 sks, 15.8 ppg, 1.15 Yield, 4.98 Gal/Sk
Event	16	Pump Displacement	11/18/2017	20:56:00		8.33	1.5	1810	23	Fresh Water
Event	17	Shutdown	11/18/2017	21:06:11						
Event	18	Sting out	11/18/2017	21:09:32						Sting Out Of Retainer

Event	19	Reverse Circ Well	11/18/2017	21:13:28	Rig Reverse Circ. Well
Event	20	End Job	11/18/2017	21:18:16	
Event	21	Pre-Rig Down Safety Meeting	11/18/2017	21:21:07	
Event	22	Rig-Down Equipment	11/18/2017	21:25:26	
Event	23	Pre-Convoy Safety Meeting	11/18/2017	21:37:28	
Event	24	Crew Leave Location	11/18/2017	21:39:14	Thanks For Using Halliburton Cement, Chris Martinez And Crew

Custom Results



DH Density (ppg) Comb Pump Rate (bbl/min) DS Pump Press (psi) Comb Pump Total (bbl)

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|---|---|-----------------------------------|--|-----------------------------------|
| ① Call Out n/a;n/a;n/a;n/a | ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑨ Start Job 8.24;0;6;0 | ⑬ Pump Mud Flush Spacer 8.36;0.9;1204;16.2 | ⑰ Shutdown 8.29;0;0;0 |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑩ Fill Lines 8.35;1;272;0.3 | ⑭ Pump Lead Cement 12.39;1.5;1989;22.6 | ⑱ Sting out 8.35;0;0;0 |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑦ Rig-Up Equipment n/a;n/a;n/a;n/a | ⑪ Test Lines 8.34;0;1619;1.3 | ⑮ Pump Tail Cement 12.81;2.4;2508;198.2 | ⑲ Reverse Circ We n/a;n/a;n/a;n/a |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑧ Pre-Job Safety Meeting 8.26;0;10;0 | ⑫ Injection Test 8.37;0.8;776;1.6 | ⑯ Pump Displacement 8.41;1.1;534;214.2 | ⑳ End Job 8.34;0;0;0 |

Custom Results

