

# HALLIBURTON

iCem<sup>®</sup> Service

## **TEP ROCKY MOUNTAIN LLC-EBUS**

**For: TErra**

Date: Tuesday, August 08, 2017

**SR 411-12 Production**

Sincerely,

**Grand Junction Cement Engineering**

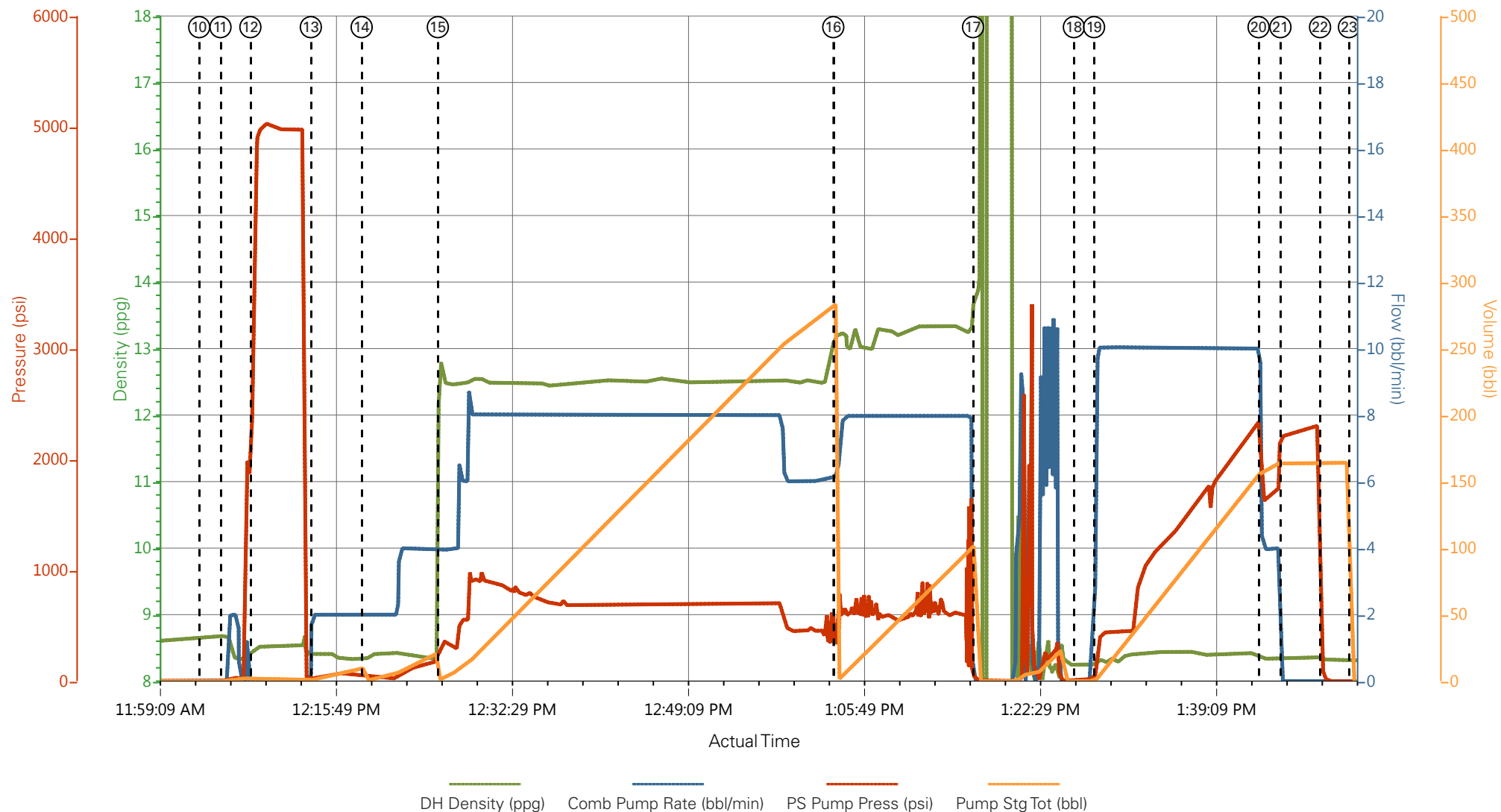
## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	8/7/2017	22:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	8/8/2017	01:55:00	USER					
Event	3	Crew Leave Yard	8/8/2017	02:00:00	USER					
Event	4	Arrive At Loc	8/8/2017	04:00:00	USER					
Event	5	Assessment Of Location Safety Meeting	8/8/2017	04:05:00	USER					
Event	6	Spot Equipment	8/8/2017	04:10:00	USER					
Event	7	Pre-Rig Up Safety Meeting	8/8/2017	04:20:00	USER					
Event	8	Rig-Up Equipment	8/8/2017	04:30:00	USER					
Event	9	Pre-Job Safety Meeting	8/8/2017	10:45:00	USER					
Event	10	Start Job	8/8/2017	12:03:11	COM5					TD: 10177 TP: 10170 SJ: 30.27 MW: 9.8PPG 4 1/2" 11.6#/FT CSG IN 8 3/4" OH WATER TEST: PH: 6.5 POTASSIUM 450 CHORIDES: 0 SULFATES: <200 TEMP: 66 DEGREES
Event	11	Prime Pumps	8/8/2017	12:05:11	COM5	8.33	2.00	120.00	2.0	
Event	12	Test Lines	8/8/2017	12:08:01	COM5	8.33	0.00	5000.00	2.0	5000 PSI TEST
Event	13	Pump Spacer 1	8/8/2017	12:13:45	COM5	8.33	4.00	140.00	10.0	FRESH H2O SPACER
Event	14	Pump Spacer 2	8/8/2017	12:18:33	COM5	8.40	4.00	165.00	20.0	MUDFLUSH SPACER
Event	15	Pump Lead Cement	8/8/2017	12:25:46	COM5	12.50	8.00	650.00	271.2	785 SKS @ 12.5PPG 1.94 YLD 9.6 GAL/SK H2O
Event	16	Pump Tail Cement	8/8/2017	13:03:12	COM5	13.3	8.0	520.00	81.6	265 SKS @ 13.3PPG 1.73YLD 7.81 GAL/SK H2O

Event	17	Shutdown/ Clean Lines	8/8/2017	13:16:26	COM5					
Event	18	Drop Top Plug	8/8/2017	13:25:59	COM5					PLUG AWAY
Event	19	Pump Displacement	8/8/2017	13:27:54	COM5	8.48	10.0	705.00	157.2	FRESH H2O DISPLACEMENT W/ MCCR, BE-6, KCL
Event	20	Slow Rate	8/8/2017	13:43:28	COM5	8.48	4.0	1620.00	147.0	PRESSURE @ 1640 AFTER SLOWING RATE.
Event	21	Bump Plug	8/8/2017	13:45:33	COM5	8.35	4.0	2212.00	157.2	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE 1670PSI
Event	22	Check Floats	8/8/2017	13:49:18	USER					FLOATS HELD, GAINED 1.5 BBL BACK TO PUMP.
Event	23	End Job	8/8/2017	13:52:02	COM5					
Event	24	Post-Job Safety Meeting (Pre Rig-Down)	8/8/2017	14:00:00	USER					GOOD CIRCULATION THROUGHOUT JOB. PIPE WAS LEFT STATIC THROUGHOUT JOB. NO ADD HOURS CHARGED.
Event	25	Rig-Down Equipment	8/8/2017	14:30:00	USER					
Event	26	Pre-Convoy Safety Meeting	8/8/2017	15:15:00	USER					
Event	27	Crew Leave Location	8/8/2017	15:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, COLORADO ANTHONY ANDREWS AND CREW

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① Call Out n/a;n/a;n/a;n/a	⑧ Rig-Up Equipment n/a;n/a;n/a;n/a	⑮ Pump Lead Cement 12.79;3.9;362;1.8	②② Check Floats 8.33;0;61;164.1
② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a	⑨ Pre-Job Safety Meeting 8.29;0;0;0	⑯ Pump Tail Cement 13.2;6.1;491.31;0.14	②③ End Job 8.31;0;0;0
③ Crew Leave Yard n/a;n/a;n/a;n/a	⑩ Start Job 8.65;0;1;0	⑰ Shutdown/ Clean Lines 13.8;0;12;101.5	②④ Post-Job Safety Meeting (Pre Rig-Down) n/a;n/a;n/a;n/a
④ Arrive At Loc n/a;n/a;n/a;n/a	⑪ Prime Pumps 8.67;0;5;0	⑱ Drop Top Plug 8.24;0;15;0	②⑤ Rig-Down Equipment n/a;n/a;n/a;n/a
⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a	⑫ Test Lines 8.47;0;3849;2	⑲ Pump Displacement 8.33;9.8;261;2.1	②⑥ Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
⑥ Spot Equipment n/a;n/a;n/a;n/a	⑬ Pump Spacer 1 8.38;2;33;0.6	⑳ Slow Rate 8.34;4.27;1613.07;157.63	②⑦ Crew Leave Location n/a;n/a;n/a;n/a
⑦ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a	⑭ Pump Spacer 2 8.34;2;50;0	⑲① Bump Plug 8.35;0;2212;164.1	

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