

HALLIBURTON

iCem[®] Service

TEP ROCKY MOUNTAIN LLC

For: Terra

Date: Saturday, December 31, 2016

RU 424-7 Production

API# 05-045-23258-00

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

1.1 Job Event Log

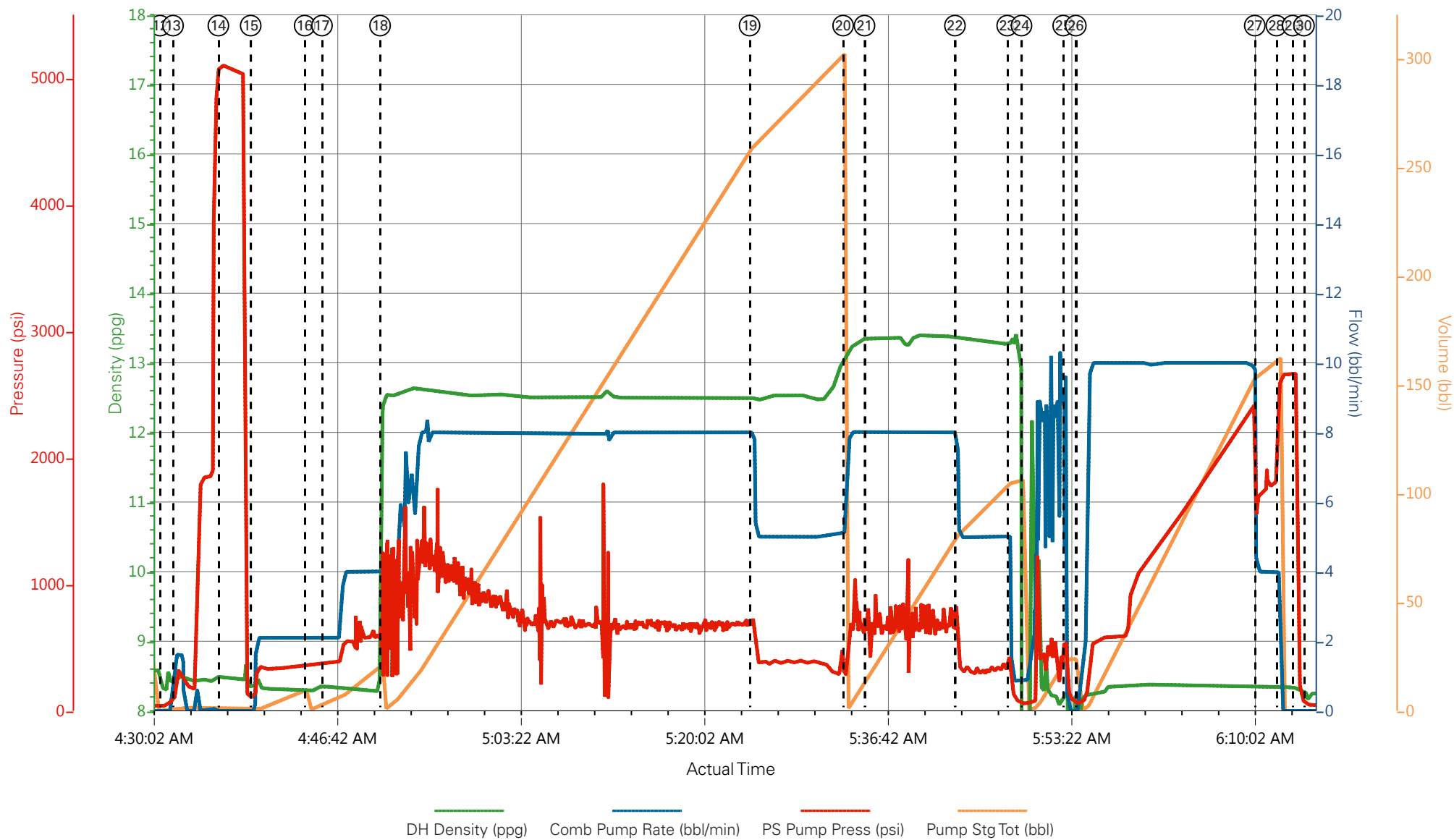
Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Call Out	12/30/2016	16:00:00	USER					REQUESTED ON LOCATION @ 23:00
Event	2	Pre-Convoy Safety Meeting	12/30/2016	17:45:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	12/30/2016	18:00:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	4	Arrive At Loc	12/30/2016	21:00:00	USER					ARRIVED TWO HOURS EARLY TO LOCATION. RIG RUNNING CASING WHEN HES ARRIVED ON LOCATION
Event	5	Assessment Of Location Safety Meeting	12/30/2016	21:15:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7.0, CHLORIDES- 0, TEMP- 60/50 F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Spot Equipment	12/30/2016	23:00:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	7	Pre-Rig Up Safety Meeting	12/30/2016	23:55:00	USER					ALL HES PRESENT
Event	8	Rig-Up Equipment	12/31/2016	00:00:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	9	Rig-Up Completed To Red Zone	12/31/2016	02:00:00	USER					HES WILL RESUME RIG-UP ONCE REDZONE IS CLEAR.
Event	10	Rig-Up Equipment	12/31/2016	03:00:00	USER					RED ZONE CLEAR HES FINISHED RIGGING UP
Event	11	Pre-Job Safety Meeting	12/31/2016	03:50:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 12 BPM FOR TWO BOTTOMS UP PRIOR TO JOB PRESSURE @ 876 PSI, GAS @ 230

TD 9971', TP 9961', SJ 31', CSG 9 5/8" 32.3# H-40 SET @ 1146' PRODUCTION CSG 4 1/2" 11.6# P-110, OH 8 3/4", MUD 10.1 PPG

Event	12	Start Job	12/31/2016	04:30:54	USER					
Event	13	Prime Lines	12/31/2016	04:32:04	USER	8.33	2.0	2	275	FRESH WATER
Event	14	Test Lines	12/31/2016	04:36:11	COM5				5105	PRESSURE HELD
Event	15	Pump H2O Spacer	12/31/2016	04:39:08	COM5	8.33	2.0	10	350	FRESH WATER
Event	16	Pump Mud Flush III	12/31/2016	04:44:02	COM5	8.4	4.0	20	580	80 LBS. TUNED SPACER III
Event	17	Check weight	12/31/2016	04:45:36	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	18	Pump Lead Cement	12/31/2016	04:50:53	COM5	12.5	8.0	271	655	785 SKS NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.623 GAL/SK. USED 60 LBS. OF TUF-FIBER THROUGHOUT LEAD CMT
Event	19	Slow Rate	12/31/2016	05:24:26	USER					SLOWED TO END SILO
Event	20	Pump Tail Cement	12/31/2016	05:32:56	COM5	13.3	8.0	81.6	680	265 SKS THERMACEM CMT 13.3 PPG, 1.73 FT3/SK, 7.799 GAL/SK
Event	21	Check weight	12/31/2016	05:34:52	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	22	Slow Rate	12/31/2016	05:43:05	USER					SLOWED TO END CEMENT
Event	23	Shutdown	12/31/2016	05:47:50	USER					END OF CEMENT
Event	24	Clean Pump And Lines	12/31/2016	05:49:08	COM5					WASHED UP INTO PIT, USED 14 BBLS
Event	25	Drop Top Plug	12/31/2016	05:52:55	USER					VERIFIED BY FLAG INDICATOR
Event	26	Pump Displacement	12/31/2016	05:54:04	COM5	8.4	10	144	2370	1 GAL MMCR IN FIRST 10 BBLS, 3 LBS BE-6 IN FIRST 30 BBLS, ONE 50 LB. BAG KCL THROUGHOUT DISPLACEMENT
Event	27	Slow Rate	12/31/2016	06:10:19	USER	8.4	4.0	10	1790	SLOWED TO BUMP PLUG
Event	28	Bump Plug	12/31/2016	06:12:17	COM5	8.4	4.0	154	1900	PLUG BUMPED
Event	29	Check Floats	12/31/2016	06:13:45	USER				2700	FLOATS HELD 2.5 BBL FLOW BACK
Event	30	End Job	12/31/2016	06:14:47	USER					RETURNS THROUGHOUT JOB

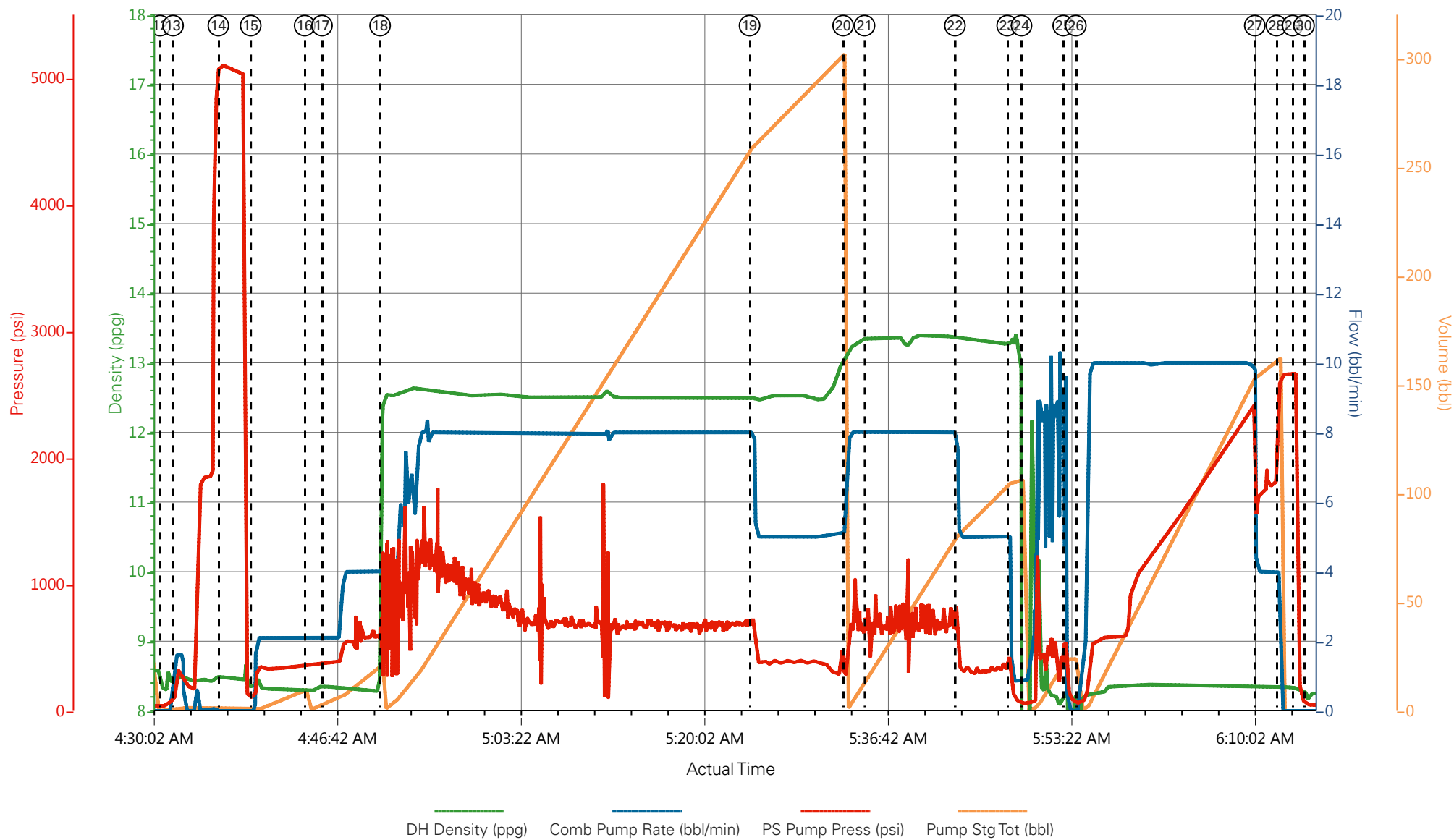
Event	31	Post-Job Safety Meeting (Pre Rig-Down)	12/31/2016	22:39:17	USER	ALL HES PRESENT
Event	32	Rig-Down Completed	12/31/2016	22:39:30	USER	NO INJURIES OR ISSUES TO REPORT
Event	33	Pre-Convoy Safety Meeting	12/31/2016	22:39:34	USER	ALL HES PRESENT
Event	34	Crew Leave Location	12/31/2016	22:39:40	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT, DUSTIN HYDE AND CREW

TERRA, RU 424-7, 4 1/2" PRODUCTION



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|---|--------------------------------|--------------------------|----------------------|-------------------------|----------------------|----------------------------|
| ① Call Out | ⑥ Spot Equipment | ⑪ Pre-Job Safety Meeting | ⑮ Pump Mud Flush III | 21 Check weight | 26 Pump Displacement | 31 Post-Job Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑦ Pre-Rig Up Safety Meeting | ⑫ Start Job | ⑯ Check weight | 22 Slow Rate | 27 Slow Rate | 32 Rig-Down Convoy |
| ③ Crew Leave Yard | ⑧ Rig-Up Equipment | ⑬ Prime Lines | ⑰ Pump Lead Cement | 23 Shutdown | 28 Bump Plug | 33 Pre-Convoy |
| ④ Arrive At Loc | ⑨ Rig-Up Completed To Red Zone | ⑭ Test Lines | ⑱ Slow Rate | 24 Clean Pump And Lines | 29 Check Floats | 34 Crew Leave |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Rig-Up Equipment | ⑮ Pump H2O Spacer | 20 Pump Tail Cement | 25 Drop Top Plug | 30 End Job | |

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