

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

**For: Abe Alexander & Lynn Cass**

Date: Thursday, November 24, 2016

**RU 413-7 Surface**

**API# 05-045-23257-00**

Sincerely,

**Grand Junction Cement Engineering**

## 2.0 Real-Time Job Summary

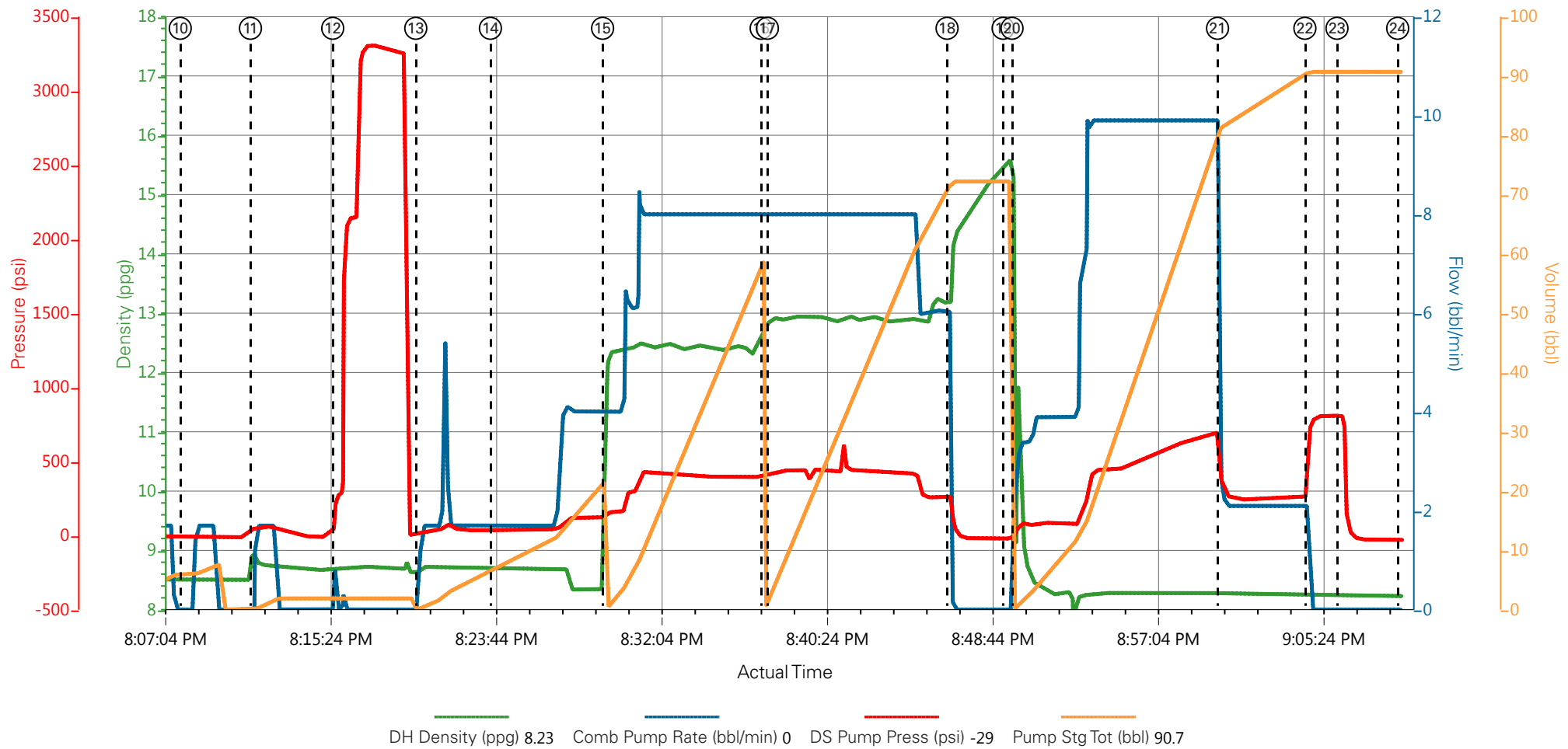
## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	11/24/2016	11:30:00	USER					ALL HES CREW CALLED
Event	2	Pre-Convoy Safety Meeting	11/24/2016	13:00:00	USER					JOURNEY CREATED, ALL HES INVOLVED IN CREW SAFETY MEETING
Event	3	Crew Leave Yard	11/24/2016	13:30:00	USER					1-F-550 PICKUP, 1-660 BULK TRUCK, ELITE PUMP TRUCK WAS LEFT ON LOCATION FROM PREVIOUS JOB
Event	4	Arrive At Loc	11/24/2016	16:30:00	USER					HES ARRIVED 30 MINS EARLY, RIG WAS JUST STARTING TO RUN CASING
Event	5	Assessment Of Location Safety Meeting	11/24/2016	16:45:00	USER					RIG WAS RUNNING CASING, HES SUPERVISOR MET WITH COMPANY REP PRIOR TO SPOTTING EQUIPMENT
Event	6	Pre-Rig Up Safety Meeting	11/24/2016	17:00:00	USER					JSA FILLED OUT AND REVIEWED BY ALL HES ON LOCATION
Event	7	Rig-Up Equipment	11/24/2016	17:30:00	USER					RIG UP IRON, WATER HOSES TO UPRIGHT, BULK EQUIPMENT TO PUMP TRUCK
Event	8	Rig-Up Completed	11/24/2016	18:30:00	USER					COMPLETED, HES DID NOT PRIME PUMP TRUCK UP UNTIL IT WAS TIME FOR THE JOB DUE TO THE TEMPERATURE
Event	9	Pre-Job Safety Meeting	11/24/2016	19:30:00	USER					ALL HES, RIG CREW AND COMPANY REP INVOLVED
Event	10	Start Job	11/24/2016	20:08:00	USER					TD: 1163FT TP: 1152FT SJ: 43.74FT OH: 13.5 CSG: 9.625 32.3# H-40 MUD WT: 9.0# WTR TEST: PH- 7 CHLORIDES- 0 TEMP- 50
Event	11	Fill Lines	11/24/2016	20:11:32	COM5	8.34	2	62	2	FILL LINES TO PRESSURE TEST, TOP PRESSURE WHILE FILLING LINES WAS 62 PSI
Event	12	Test Lines	11/24/2016	20:15:40	COM5	8.34		3324		PRESSURE TEST LINES TO 3324 PSI, PRESSURE TEST WAS GOOD
Event	13	Fresh Water Spacer	11/24/2016	20:19:51	COM5	8.34	4	120	20	20 BBL FRESH WATER SPACER
Event	14	Check weight	11/24/2016	20:23:37	COM5	12.3				WEIGHING UP FIRST TUB OF CEMENT, CEMENT VERIFIED VIA

MUD SCALES AT 12.3 PPG

Event	15	Pump Lead Cement	11/24/2016	20:29:16	COM5	12.3	8	428	55.1	130SKS OF VARICEM CEMENT (55.1BBLS) 12.3PPG 2.38YIELD 13.77GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT LEAD CEMENT
Event	16	Pump Tail Cement	11/24/2016	20:37:15	COM5	12.8	8	455	65.7	175SKS OF VARICEM CEMENT (65.7BBLS) 12.8PPG 2.11YIELD 11.77GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	17	Check weight	11/24/2016	20:37:34	COM5	12.8				VERIFIED WEIGHT OF TAIL CEMENT WITH PRESSURIZED MUD SCALES
Event	18	Shutdown	11/24/2016	20:46:36	USER	12.8	6	295	65.7	SHUTDOWN END OF CEMENT, HES WASHED UP ON TOP OF THE PLUG
Event	19	Drop Top Plug	11/24/2016	20:49:26	USER					PLUG AWAY NO PROBLEMS
Event	20	Pump Displacement	11/24/2016	20:49:53	COM5	8.45	10	680	77.2	FRESH WATER DISPLACEMENT AT 10BBLS/MIN
Event	21	Slow Rate	11/24/2016	21:00:14	USER	8.34	2	260	10	HES SLOWED RATE TO 2 BBLS/MIN LAST 10 BBLS OF DISPLACEMENT
Event	22	Bump Plug	11/24/2016	21:04:38	COM5	8.34	2	260	87.2	PLUG BUMPED AT 260 PSI TOOK TO 809 PSI
Event	23	Check Floats	11/24/2016	21:06:15	COM5	8.34		809		CHECK FLOATS, FLOATS HELD .5 BBL BACK TO TANKS, 17 BBLS OF CEMENT TO SURFACE RIG USED 40 POUNDS OF SUGAR
Event	24	End Job	11/24/2016	21:09:18	COM5					THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	11/24/2016	21:15:00	USER					ALL HES REVIEWED JSA, ALL HES INVOLVED
Event	26	Rig-Down Equipment	11/24/2016	21:30:00	USER					HES USED RIG BLOW DOWN LINE TO BLOW DOWN STAND PIPE AND ALL IRON THAT IS RIGGED UP TO STAY ON LOCATION, RIG DOWN ALL LINES AND EQUIPMENT WASH UP AND BLOW DOWN PUMP TRUCK
Event	27	Rig-Down Completed	11/24/2016	22:00:00	USER					COMPLETED
Event	28	Pre-Convoy Safety Meeting	11/24/2016	22:10:00	USER					JOURNEY CREATED ALL HES INVOLVED IN SAFETY MEETING
Event	29	Crew Leave Location	11/24/2016	22:30:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK

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|---|----------------------|---|
| ① Call Out                              | ⑪ Fill Lines         | 21 Slow Rate                              |
| ② Pre-Convoy Safety Meeting             | ⑫ Test Lines         | 22 Bump Plug                              |
| ③ Crew Leave Yard                       | ⑬ Fresh Water Spacer | 23 Check Floats                           |
| ④ Arrive At Loc                         | ⑭ Check weight       | 24 End Job                                |
| ⑤ Assessment Of Location Safety Meeting | ⑮ Pump Lead Cement   | 25 Post-Job Safety Meeting (Pre Rig-Down) |
| ⑥ Pre-Rig Up Safety Meeting             | ⑯ Pump Tail Cement   | 26 Rig-Down Equipment                     |
| ⑦ Rig-Up Equipment                      | ⑰ Check weight       | 27 Rig-Down Completed                     |
| ⑧ Rig-Up Completed                      | ⑱ Shutdown           | 28 Pre-Convoy Safety Meeting              |
| ⑨ Pre-Job Safety Meeting                | ⑲ Drop Top Plug      | 29 Crew Leave Location                    |
| ⑩ Start Job                             | ⑳ Pump Displacement  |   |

▼ **HALLIBURTON** | iCem® Service

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Edit

Customer: TEP ROCKY MOUNTAIN LLC - EBUS

Job Date: 11/24/2016 6:12:53 PM

Well: RU 413-7

Representative: Jarvis

Sales Order #: 903679819

Elite 8: Kevin Bennett/ Dane Porter/Carlton Kukus

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