

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

**For: Terra**

Date: Monday, August 28, 2017

**GM 313-4 Surface PJR**

API/UWI #: 05-045-23504-00

Sincerely,

**Grand Junction Cement Engineering**

## 1.0 Real-Time Job Summary

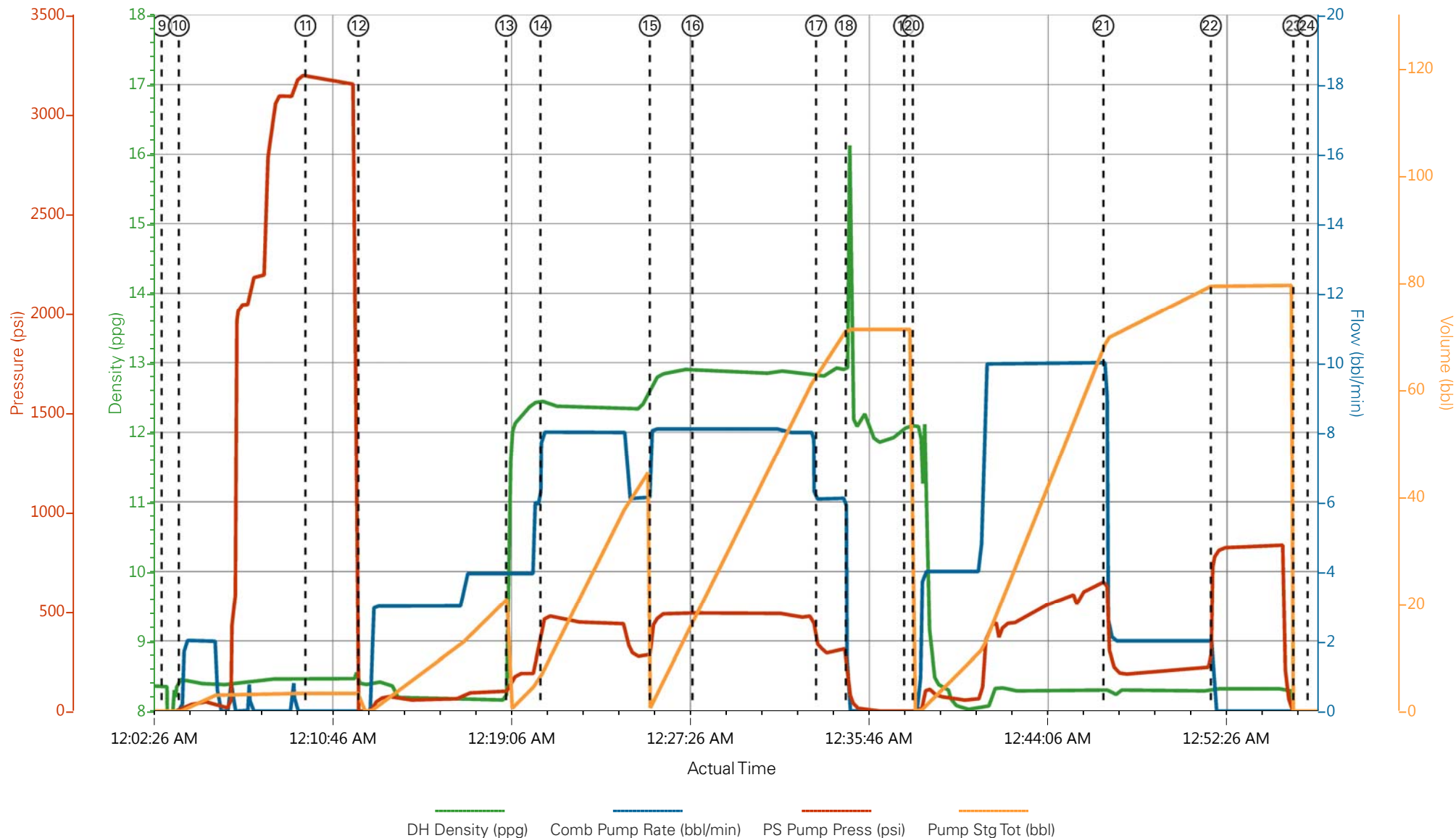
## 1.1 Job Event Log

| Type  | Seq. No. | Graph Label                           | Date      | Time     | Source | DH Density<br>(ppg) | Comb Pump Rate<br>(bbl/min) | PS Pump Press<br>(psi) | Pump Stg Tot<br>(bbl) | Comments  |
|-------|----------|---------------------------------------|-----------|----------|--------|---------------------|-----------------------------|------------------------|-----------------------|---|
| Event | 1        | Call Out                              | 8/27/2017 | 11:00:00 | USER   |                     |                             |                        |                       | REQUESTED ON LOC AT 18:00   |
| Event | 2        | Pre-Convoy Safety Meeting             | 8/27/2017 | 13:45:00 | USER   |                     |                             |                        |                       | ALL HES PRESENT   |
| Event | 3        | Crew Leave Yard                       | 8/27/2017 | 14:00:00 | USER   |                     |                             |                        |                       | 1 HT 400 PUMP TRUCK, 1 660 BULK TRUCK, 1 F450 SERVICE PICKUP  |
| Event | 4        | Arrive At Loc                         | 8/27/2017 | 15:00:00 | USER   |                     |                             |                        |                       | RIG WAS DRILLING WHEN HES ARRIVED ON LOCATION   |
| Event | 5        | Assessment Of Location Safety Meeting | 8/27/2017 | 15:15:00 | 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- 70F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES. |
| Event | 6        | Pre-Rig Up Safety Meeting             | 8/27/2017 | 17:00:00 | USER   |                     |                             |                        |                       | ALL HES PRESENT   |
| Event | 7        | Rig-up Lines                          | 8/27/2017 | 17:15:00 | USER   |                     |                             |                        |                       | RIGGED UP LINES WITH OUT ENTERING THE RED ZONE  |
| Event | 8        | Pre-Job Safety Meeting                | 8/27/2017 | 23:09:21 | USER   |                     |                             |                        |                       | ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 100 STROKES PRIOR TO JOB WITH RETURNS, PRESSURE 100 PSI.   |

|       |    |                   |           |          |      |      |    |      |      |  |
|-------|----|-------------------|-----------|----------|------|------|----|------|------|--|
| Event | 9  | Start Job         | 8/28/2017 | 00:02:58 | USER |      |    |      |      | TD 1024', TP 1019, SJ 46.3',<br>FC 972.7' OH 13.5", Csg<br>9.625" 32.3 lb/ft H-40, Mud<br>8.8 ppg. |
| Event | 10 | Prime Lines       | 8/28/2017 | 00:03:46 | USER | 8.33 | 2  | 48   | 2    | Fresh water  |
| Event | 11 | Test Lines        | 8/28/2017 | 00:09:40 | USER |      |    | 3196 |      | Held pressure 2 minutes no<br>leaks  |
| Event | 12 | H2O Spacer        | 8/28/2017 | 00:12:08 | COM6 | 8.33 | 4  | 100  | 20   | Fresh water  |
| Event | 13 | Pump Lead Cement  | 8/28/2017 | 00:19:01 | COM6 | 12.3 | 8  | 480  | 42.3 | 100 Sks 12.3 ppg 2.38 yield<br>13.77 gal/sk  |
| Event | 14 | Check weight      | 8/28/2017 | 00:20:37 | COM6 |      |    |      |      | Density Verified via Mud<br>Scales   |
| Event | 15 | Pump Tail Cement  | 8/28/2017 | 00:25:43 | COM6 | 12.8 | 8  | 490  | 65.8 | 175 Sks 12.8 ppg 2.11 yield<br>11.78 gal/sk  |
| Event | 16 | Check weight      | 8/28/2017 | 00:27:42 | COM6 |      |    |      |      | Density Verified via Mud<br>Scales   |
| Event | 17 | Slow Rate         | 8/28/2017 | 00:33:28 | USER |      |    |      |      | SLOW RATE TO END<br>CEMENT   |
| Event | 18 | Wash Up           | 8/28/2017 | 00:34:51 | USER |      |    |      |      | WASH UP ON TOP OF THE<br>PLUG  |
| Event | 19 | Drop Top Plug     | 8/28/2017 | 00:37:34 | COM6 |      |    |      |      | Verified via flag indicator  |
| Event | 20 | Pump Displacement | 8/28/2017 | 00:37:58 | COM6 | 8.33 | 10 | 650  | 66.6 | Fresh Water  |
| Event | 21 | Slow Rate         | 8/28/2017 | 00:46:51 | USER | 8.33 | 2  | 195  | 10   | SLOWED RATE TO BUMP<br>PLUG  |
| Event | 22 | Bump Plug         | 8/28/2017 | 00:51:51 | COM6 | 8.33 | 2  | 220  | 76.6 | Plug Bumped at 220 psi,<br>Brought up to 820 psi   |
| Event | 23 | Check Floats      | 8/28/2017 | 00:55:42 | USER |      |    |      |      | Floats held – ½ bbl back to<br>the truck   |

|       |    |  |           |          |      |   |
|-------|----|--|-----------|----------|------|---|
| Event | 24 | End Job                                | 8/28/2017 | 00:56:22 | COM6 | Good returns throughout job, 3 bbls of cement to surface. |
| Event | 25 | Post-Job Safety Meeting (Pre Rig-Down) | 8/28/2017 | 01:10:00 | USER | 60 lbs sugar, No add hours                                |
| Event | 26 | Rig Down Lines                         | 8/28/2017 | 01:15:00 | USER | ALL HES PRESENT   |
| Event | 27 | Pre-Convoy Safety Meeting              | 8/28/2017 | 02:00:00 | USER | ALL HES PRESENT   |
| Event | 28 | Crew Leave Location                    | 8/28/2017 | 02:20:00 | USER | Thank you for using Halliburton – SHAWN BLOSSOM and crew. |

# TEP - GM 313-4 - 9 5/8" SURFACE



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|---|--------------------------|--------------------|----------------------|---|
| ① Call Out                              | ⑦ Rig-up Lines           | ⑬ Pump Lead Cement | ⑰ Drop Top Plug      | 25 Post-Job Safety Meeting (Pre Rig-Down) |
| ② Pre-Convoy Safety Meeting             | ⑧ Pre-Job Safety Meeting | ⑭ Check weight     | 20 Pump Displacement | 26 Rig Down Lines                         |
| ③ Crew Leave Yard                       | ⑨ Start Job              | ⑮ Pump Tail Cement | 21 Slow Rate         | 27 Pre-Convoy Safety Meeting              |
| ④ Arrive At Loc                         | ⑩ Prime Lines            | ⑯ Check weight     | 22 Bump Plug         | 28 Crew Leave Location                    |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Test Lines             | ⑰ Slow Rate        | 23 Check Floats      |   |
| ⑥ Pre-Rig Up Safety Meeting             | ⑫ H2O Spacer             | ⑱ Wash Up          | 24 End Job           |   |

▼ **HALLIBURTON** | iCem® Service

Created: 2017-08-27 22:31:25, Version: 4.2.393

Edit

Customer: TERRA ENERGY CORP  
Representative: MATT HUTSON

Job Date: 8/27/2017  
Sales Order #: 904262857

Well: GM 313-4  
ELITE 4: R.MARTIN/S.BLOSSOM

# TEP - GM 313-4 - 9 5/8" SURFACE

