



# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FED RG 314-18-297 05-103-12574**  
**S:13 T:2S R:98W Rio Blanco CO**

CallSheet #: 91020  
Proposal #: 75567



**LONG STRING Post Job Report**

**Attention:** Mr. Dustin Childers | (936) 524-8828 | dchilders@terraep.com  
Terra Energy Partners, LLC  
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

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Dear Mr. Dustin Childers,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

**Krystal Schell**

Field Engineer I | (719) 992-1830 | krystal.schell@americacementing.com

**Field Office**      28730 US-6, Rifle, CO 81650  
Phone: (970) 657-1187

## Job Details & Summary

### Geometry

| Type      | Function | OD (in) | ID (in) | Weight (lb/ft) | Thread | Top (ft) | Bottom (ft) | Excess (%) |
|-----------|----------|---------|---------|----------------|--------|----------|-------------|------------|
| Casing    | Outer    | 9.625   | 8.921   | 36             | n/a    | 0        | 3087        | 0          |
| Open Hole | Outer    | n/a     | 8.75    | n/a            | n/a    | 3087     | 8106        | 45         |
| Open Hole | Outer    | n/a     | 8.75    | n/a            | n/a    | 8106     | 12086       | 45         |
| Casing    | Inner    | 4.5     | 4       | 11.6           | n/a    | 0        | 12086       | 0          |

### Equipment / People

| Unit Type            | Unit    | Power Unit | Employee #1    |
|----------------------|---------|------------|----------------|
| Field Storage Silo   | FSS-438 |            |                |
| Field Storage Silo   | FSS-470 |            |                |
| Cement Trailer Float | CTF-385 | TRC-202    | Daniel Balint  |
| Light Duty Vehicles  | LDV-128 |            | Gerron McClure |
| Light Duty Vehicles  | LDV-146 |            | Eric Brown     |
| Cement Pump Float    | CPF-012 | TRH-964    | Ryan Bonin     |

### Timing

| Event           | Date/Time        |
|-----------------|------------------|
| ERTS            | 04/13/2024 20:00 |
| Call Out        | 4/13/2024 13:30  |
| Depart Facility | 4/13/2024 15:30  |
| On Location     | 4/13/2024 17:30  |
| Rig Up Iron     | 4/13/2024 18:00  |
| Job Started     | 4/13/2024 21:23  |
| Job Completed   | 4/14/2024 00:22  |
| Rig Down Iron   | 4/14/2024 01:30  |
| Depart Location | 4/14/2024 02:00  |

### General Job Information

| Metrics                 | Value      |
|-------------------------|------------|
| Well Fluid Density      | 9.6 lb/gal |
| Well Fluid Type         | WBM        |
| Rig Circulation Vol     | 500 bbls   |
| Rig Circulation Time    | 1 hours    |
| Calculated Displacement | 184 bbls   |
| Actual Displacement     | 184 bbls   |
| Total Spacer to Surface | 0 bbls     |
| Total CMT to Surface    | 0 bbls     |
| Well Topped Out         | No         |
| Top Out Volume          | N/A bbls   |

### Job Details

| Metrics                        | Value      |
|--------------------------------|------------|
| Flare Prior to Job             | No         |
| Flare Prior to Job             | N/A units  |
| Flare During Job               | No         |
| Flare During Job               | N/A units  |
| Flare at End of Job            | No         |
| Flare at End of Job            | N/A units  |
| Well Full Prior to Job         | Yes        |
| Well Fluid Density Into Well   | 9.6 lb/gal |
| Well Fluid Density Out of Well | 9.6 lb/gal |

### Job Details (cont.)

| Metrics | Value  |
|---------|--------|
| BHCT    | 204 °F |
| BHST    | 269 °F |

### Water Analysis

| Metrics          | Value            | Recommended |
|------------------|------------------|-------------|
| Water Source     | Upright Rig Tank |             |
| Temperature      | 60 °F            | 50-80 °F    |
| pH Level         | 6                | 5.5-8.5     |
| Chlorides        | 300 mg/L         | 0-3000 mg/L |
| Total Alkalinity | 100              | 0-1000      |
| Total Hardness   | 50 mg/L          | 0-500 mg/L  |
| Carbonates       | 10 mg/L          | 0-100 mg/L  |
| Sulfates         | 200 mg/L         | 0-1500 mg/L |
| Potassium        | 150 mg/L         | 0-3000 mg/L |
| Iron             | 10 mg/L          | 0-300 mg/L  |

### Circulation

| Lost Circulation Experienced |
|------------------------------|
| No                           |

### Job Execution Information

| Fluid | Product      | Function          | Density (lb/gal) | Yield (ft <sup>3</sup> /sk) | Water Rq. (gal/sk) | Water Rq. (gal/bbl) | Volume (sks) | Volume (bbl) | Designed Top (ft) |
|-------|--------------|-------------------|------------------|-----------------------------|--------------------|---------------------|--------------|--------------|-------------------|
| 1     | Water        | Flush             | 8.34             |                             |                    | 42.00               |              | 10.00        | 6423              |
| 2     | Lead         | Lead              | 12.70            | 2.13                        | 11.42              |                     | 750.00       | 284.29       | 6549              |
| 3     | Tail         | Tail              | 13.50            | 2.01                        | 9.72               |                     | 885.00       | 316.68       | 8106              |
| 4     | Displacement | DisplacementFinal | 8.34             |                             |                    | 42.00               |              | 184.00       | 0                 |

### Job Fluid Details

| Fluid | Type | Fluid | Product            | Function            | Conc.  | Uom   |
|-------|------|-------|--------------------|---------------------|--------|-------|
| 2     | Lead | Lead  | ASTM TYPE IL       | Cement              | 100.00 | %     |
| 2     | Lead | Lead  | A-2                | Accelerator         | 0.10   | %BWOB |
| 2     | Lead | Lead  | FL-66              | FluidLoss           | 0.20   | %BWOB |
| 2     | Lead | Lead  | GW-86              | Viscosifier         | 0.10   | %BWOB |
| 2     | Lead | Lead  | IntegraSeal PHENO  | LostCirculation     | 3.00   | lb/sk |
| 2     | Lead | Lead  | IntegraSeal POLI   | LostCirculation     | 0.25   | lb/sk |
| 2     | Lead | Lead  | R-3                | Retarder            | 0.60   | %BWOB |
| 2     | Lead | Lead  | STATIC FREE        | Other               | 0.01   | lb/sk |
| 2     | Lead | Lead  | XCem-1009          | Extender            | 10.00  | lb/sk |
| 2     | Lead | Lead  | XCem-308           | Defoamer            | 0.30   | %BWOB |
| 3     | Tail | Tail  | CLASS G            | Cement              | 70.00  | %     |
| 3     | Tail | Tail  | FLY ASH (POZZOLAN) | Extender            | 30.00  | %     |
| 3     | Tail | Tail  | BENTONITE          | Viscosifier         | 8.00   | %BWOB |
| 3     | Tail | Tail  | FL-24              | FluidLoss           | 0.40   | %BWOB |
| 3     | Tail | Tail  | IntegraSeal PHENO  | LostCirculation     | 3.00   | lb/sk |
| 3     | Tail | Tail  | S-8                | StrengthRetgression | 26.00  | %BWOB |
| 3     | Tail | Tail  | XCem-308           | Defoamer            | 0.30   | %BWOB |
| 3     | Tail | Tail  | XCem-916           | Retarder            | 0.30   | %BWOB |

## Job Logs

| Line | Event                 | Date (MM/DD/YY) | Time (HH:MM) | Density (lb/gal) | Pump Rate (bpm) | Pump Volume (bbls) | Pipe Pressure (psi) | Comment                                                                          |
|------|-----------------------|-----------------|--------------|------------------|-----------------|--------------------|---------------------|----------------------------------------------------------------------------------|
| 1    | Callout               | 4/13/2024       | 13:30        |                  |                 |                    |                     | CREW CALLED IN TO INSPECT AND GET EQUIPMENT READY TO GO TO A JOB                 |
| 2    | Safety Meeting        | 4/13/2024       | 15:00        |                  |                 |                    |                     | PRE-CONVOY SAFETY MEETING                                                        |
| 3    | Depart Location       | 4/13/2024       | 15:30        |                  |                 |                    |                     | LEFT RCO YARD TO CUSTOMER LOCATION                                               |
| 4    | Arrive On Location    | 4/13/2024       | 17:30        |                  |                 |                    |                     | ARRIVED ON LOCATION PER CUSTOMER REQUEST                                         |
| 5    | Safety Meeting        | 4/13/2024       | 17:45        |                  |                 |                    |                     | PRE-RIG UP SAFETY MEETING                                                        |
| 6    | Rig Up Iron           | 4/13/2024       | 18:00        |                  |                 |                    |                     | RIG UP IRON                                                                      |
| 7    | Safety Meeting        | 4/13/2024       | 20:36        |                  |                 |                    |                     | PRE JOB-SAFETY MEETING WITH RIG CREW AND COMPANY MAN                             |
| 8    | Start Job             | 4/13/2024       | 21:23        |                  |                 |                    |                     | START JOB                                                                        |
| 9    | Fill Lines            | 4/13/2024       | 21:24        | 8.34             | 2.5             | 5                  | 222                 | FILL LINES WITH 5 BBLS OF FRESH WATER                                            |
| 10   | Pressure Test Lines   | 4/13/2024       | 21:28        | 8.34             | 1               | 1                  | 5592                | PRESSURE TEST LINES TO 5592 PSI                                                  |
| 11   | Pump Spacer           | 4/13/2024       | 21:30        | 8.34             | 4               | 10                 | 381                 | PUMP 10 BBLS OF FRESH WATER SPACER                                               |
| 12   | Pump Lead Cement      | 4/13/2024       | 21:33        | 12.7             | 5               | 0                  | 422                 | START MIXING 285 BBLS OF LEAD CEMENT @12.7 PPG (2.13 YLD, 11.42 GPS)             |
| 13   | Pump Lead Cement      | 4/13/2024       | 21:42        | 12.7             | 5               | 50                 | 509                 | PUMP 50 BBLS OF LEAD CEMENT                                                      |
| 14   | Pump Lead Cement      | 4/13/2024       | 21:51        | 12.7             | 5               | 50                 | 508                 | PUMP 100 BBLS OF LEAD CEMENT                                                     |
| 15   | Pump Lead Cement      | 4/13/2024       | 22:00        | 12.7             | 5               | 50                 | 506                 | PUMP 150 BBLS OF LEAD CEMENT                                                     |
| 16   | Pump Lead Cement      | 4/13/2024       | 22:09        | 12.7             | 5               | 50                 | 507                 | PUMP 200 BBLS OF LEAD CEMENT                                                     |
| 17   | Pump Lead Cement      | 4/13/2024       | 22:19        | 12.7             | 5               | 50                 | 501                 | PUMP 250 BBLS OF LEAD CEMENT                                                     |
| 18   | Pump Lead Cement      | 4/13/2024       | 22:27        | 12.7             | 5               | 35                 | 504                 | PUMP 285 BBLS OF LEAD CEMENT                                                     |
| 19   | Pump Tail Cement      | 4/13/2024       | 22:28        | 13.5             | 5               | 0                  | 535                 | START MIXING 317 BBLS OF TAIL CEMENT @ 13.5 PPG (2.01 YLD, 9.72 GPS)             |
| 20   | Pump Tail Cement      | 4/13/2024       | 22:36        | 13.5             | 5               | 50                 | 608                 | PUMP 50 BBLS OF TAIL CEMENT                                                      |
| 21   | Pump Tail Cement      | 4/13/2024       | 22:46        | 13.5             | 5               | 50                 | 671                 | PUMP 100 BBLS OF TAIL CEMENT                                                     |
| 22   | Pump Tail Cement      | 4/13/2024       | 22:55        | 13.5             | 5               | 50                 | 650                 | PUMP 150 BBLS OF TAIL CEMENT                                                     |
| 23   | Pump Tail Cement      | 4/13/2024       | 23:04        | 13.5             | 5               | 50                 | 644                 | PUMP 200 BBLS OF TAIL CEMENT                                                     |
| 24   | Pump Tail Cement      | 4/13/2024       | 23:13        | 13.5             | 5               | 50                 | 656                 | PUMP 250 BBLS OF TAIL CEMENT                                                     |
| 25   | Pump Tail Cement      | 4/13/2024       | 23:30        | 13.5             | 5               | 67                 | 587                 | PUMP 317 BBLS OF TAIL CEMENT                                                     |
| 26   | Shutdown              | 4/13/2024       | 23:35        |                  |                 |                    |                     | SHUT DOWN                                                                        |
| 27   | Clean Pumps and Lines | 4/13/2024       | 23:40        |                  |                 |                    |                     | WASH PUMP AND LINES TO 3-SIDED TANK AND BLOW BACK IRON FROM HEAD TO 3-SIDED TANK |
| 28   | Drop Top Plug         | 4/13/2024       | 23:52        |                  |                 |                    |                     | DROP TOP PLUG, CONFIRMED BY COMPANY MAN, THAT PLUG LEFT THE CEMENT HEAD          |
| 29   | Pump Displacement     | 4/13/2024       | 23:52        | 8.34             | 4               | 0                  | 156                 | START 184 BBLS OF FRESH WATER DISPLACEMENT WITH KCL MIXED IN                     |

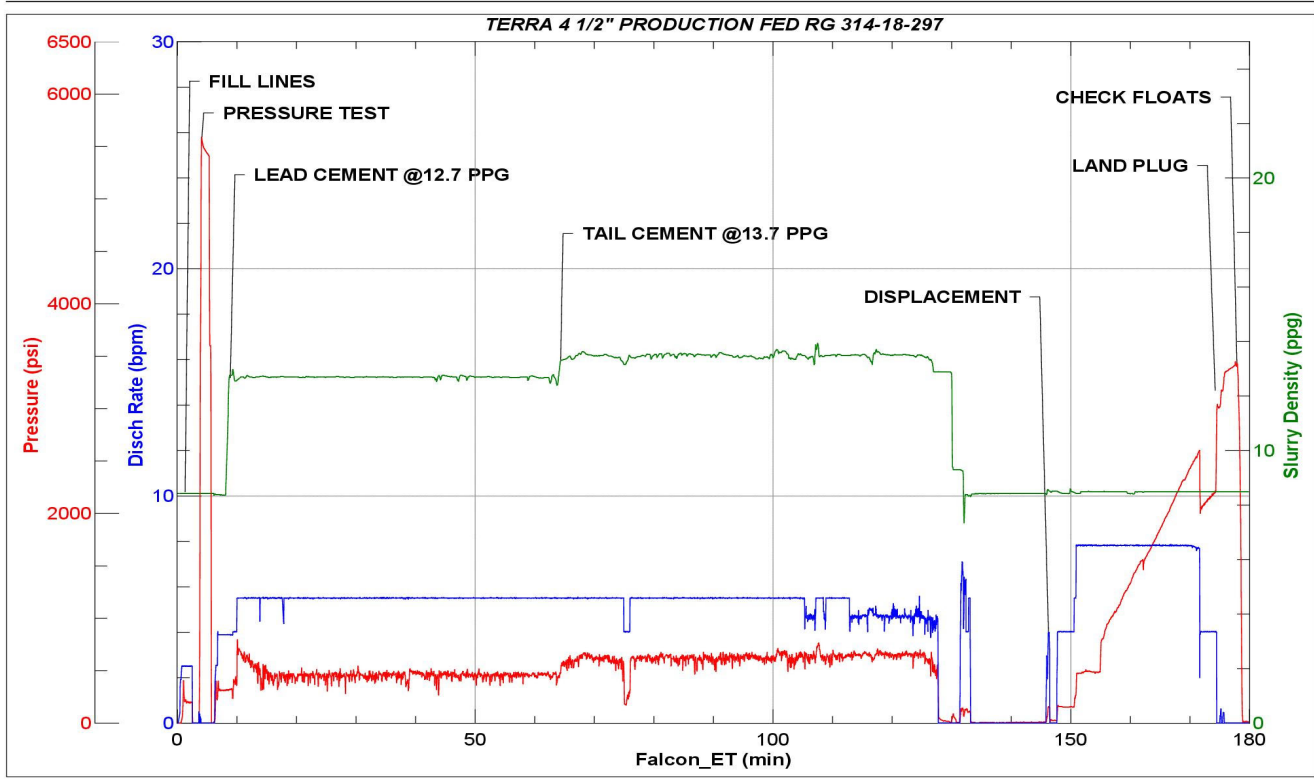


| Line | Event             | Date (MM/DD/YY) | Time (HH:MM) | Density (lb/gal) | Pump Rate (bpm) | Pump Volume (bbls) | Pipe Pressure (psi) | Comment                                                                                         |
|------|-------------------|-----------------|--------------|------------------|-----------------|--------------------|---------------------|-------------------------------------------------------------------------------------------------|
| 30   | Pump Displacement | 4/13/2024       | 23:58        | 8.34             | 8               | 50                 | 815                 | PUMP 50 BBLS OF FRESH WATER DISPLACEMENT                                                        |
| 31   | Pump Displacement | 4/14/2024       | 00:04        | 8.34             | 8               | 50                 | 1632                | PUMP 100 BBLS OF FRESH WATER DISPLACEMENT                                                       |
| 32   | Pump Displacement | 4/14/2024       | 00:11        | 8.34             | 8               | 50                 | 2262                | PUMP 150 BBLS OF FRESH WATER DISPLACEMENT                                                       |
| 33   | Slow Pump Rate    | 4/14/2024       | 00:14        | 8.34             | 8               | 25                 | 2560                | PUMP 175 BBLS OF FRESH WATER DISPLACEMENT AND SLOWING RATE TO LAND PLUG FCP @8 BPM WAS 2560 PSI |
| 34   | Land Plug         | 4/14/2024       | 00:19        | 8.34             | 4               | 10                 | 2231                | PLUG LANDED FCP 2231 PSI/ LAND PRESSURE WAS 3310 PSI                                            |
| 35   | Check Floats      | 4/14/2024       | 00:22        |                  |                 |                    | 3310                | FLOAT HELD/ 2 BBLS BACK UPON FLOAT CHECK                                                        |
| 36   | Safety Meeting    | 4/14/2024       | 00:45        |                  |                 |                    |                     | PRE-RIG DOWN SAFETY MEETING                                                                     |
| 37   | Rig Down Iron     | 4/14/2024       | 01:30        |                  |                 |                    |                     | RIG DOWN IRON                                                                                   |
| 38   | Safety Meeting    | 4/14/2024       | 01:45        |                  |                 |                    |                     | PRE-CONVOY SAFETY MEETING                                                                       |
| 39   | Depart Location   | 4/14/2024       | 02:00        |                  |                 |                    |                     | DEPART LOCATION                                                                                 |
| 40   | End Job           | 4/14/2024       | 02:00        |                  |                 |                    |                     | END JOB                                                                                         |

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 91020  
Customer: TERRA  
Well Name: FED RG 314-18-297



Job Start: Saturday, April 13, 2024