

COGCC doc # 2597285



Caerus

SURFACE POST JOB REPORT

Puckett 35A-23-697 05-045-23356
S:26 T:6S R:97W Garfield CO

CallSheet #: 675
Proposal #: 13113



SURFACE Post Job Report

Attention: Mr. Steve Schmitz | (720) 880-6412 | sschmitz@caerusoilandgas.com
Caerus
1001 17th Street, Suite 1600 | Denver, CO 80202

Dear Mr. Schmitz,

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

Sincerely,

Oscar Medrano

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@bjservices.com

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1 Job Details & Summary

1.1 Geometry

| Type | Function | OD (in) | ID (in) | Weight (lb/ft) | Thread | Top (ft) | Bottom (ft) | Excess (%) |
|-----------|----------|---------|---------|----------------|--------|----------|-------------|------------|
| Casing | Inner | 9.625 | 8.835 | 40 | LTC | 0 | 2520 | 0 |
| Open Hole | Outer | n/a | 14.75 | n/a | n/a | 100 | 2000 | 25 |
| Open Hole | Outer | n/a | 14.75 | n/a | n/a | 2000 | 2530 | 0 |
| Casing | Outer | 20 | 19.5 | 53 | n/a | 0 | 100 | 0 |

1.2 Equipment / People

| Unit Type | Unit | Employee #1 | Mileage |
|--------------------|--------|------------------|---------|
| Cement Pump | 104 | Kresge, Adam | 670 |
| Light Duty Pickups | 5 | Johnson, Chad | 670 |
| Silo | 650 | | |
| Silo | 651 | | |
| Cement Chemical | 401 | Hamilton, Daniel | 670 |
| Plug Container | 150519 | | |
| Swage | 150540 | | |

1.3 Timing

| Event | Date/Time |
|-----------------|-----------------|
| Call Out | 3/27/2017 12:00 |
| Depart Facility | 3/27/2017 13:00 |
| On Location | 3/27/2017 14:00 |
| Rig Up Iron | 3/27/2017 14:30 |
| Job Started | 3/27/2017 18:30 |
| Job Completed | 3/28/2017 02:30 |
| Rig Down Iron | 3/28/2017 02:45 |
| Depart Location | 3/28/2017 04:30 |

1.4 General Job Information

| Metrics | Value |
|-------------------------|------------|
| Well Fluid Density | 9.4 lb/gal |
| Well Fluid Type | WBM |
| Rig Circulation Vol | 200 bbls |
| Rig Circulation Time | 1 hours |
| Calculated Displacement | 191 bbls |
| Actual Displacement | 191 bbls |
| Total Spacer to Surface | 0 bbls |
| Total CMT to Surface | 0 bbls |
| Well Topped Out | Yes |
| Top Out Volume | 16 bbls |

1.5 Well Fluid Details

| Metrics | Value |
|-------------------|-------|
| Plastic Viscosity | 20 |
| Yield Point | 14 |
| 10 sec. SGS | 11 |
| 10 min. SGS | 30 |
| 30 min. SGS | 58 |
| Filtrate | 12.8 |
| Flow Line Temp. | 78 |

1.6 Job Details

| Metrics | Value |
|--------------------------------|------------|
| Flare Prior to Job | No |
| Flare During Job | No |
| Flare at End of Job | No |
| Well Full Prior to Job | Yes |
| Well Fluid Density Into Well | 9.4 lb/gal |
| Well Fluid Density Out of Well | 9.4 lb/gal |

1.7 Job Details (cont.)

| Metrics | Value |
|---------|--------|
| BHCT | 94 °F |
| BHST | 128 °F |

1.8 Circulation

| Lost Circulation Experienced | Losses into Spacer |
|------------------------------|--------------------|
| Yes | 10 |

Circulation Details:

Had returns at start of job. Lost returns 10 bbls into spacer. Regained returns at 10 bbls in to tail cement. After dropping the plug, we had no returns for the remainder of displacement.

1.9 Job Execution Information

| Job | Fluid | Product | Function | Density (lb/gal) | Yield (ft ³ /sk) | Water Rq. (gal/sk) | Water Rq. (gal/bbl) | Volume (sks) | Volume (bbl) | Top (ft) |
|-----|-------|-----------------|-------------------|------------------|-----------------------------|--------------------|---------------------|--------------|--------------|----------|
| 1 | 1 | Water | Flush | 8.33 | | | 42.00 | | 20.00 | 0 |
| 1 | 2 | Sodium Silicate | Flush | 10.00 | | | 21.00 | | 20.00 | 0 |
| 1 | 3 | Water | Flush | 8.33 | | | 42.00 | | 20.00 | 0 |
| 1 | 4 | ALTCem S100-12 | Lead | 12.00 | 2.53 | 14.85 | | 703.00 | 316.33 | 0 |
| 1 | 5 | ALTCem S100-12 | Tail | 12.50 | 2.22 | 12.58 | | 161.00 | 63.76 | 2000 |
| 1 | 6 | Water | Displacement | 8.33 | | | 42.00 | | 10.00 | 2328 |
| 1 | 7 | Mud | Displacement | 8.33 | | | 42.00 | | 160.00 | 218 |
| 1 | 8 | Water | DisplacementFinal | 8.33 | | | 42.00 | | 17.00 | 0 |
| 1 | 9 | ALTCem S100-12 | Topout | 12.50 | 2.22 | 12.58 | | 40.00 | 16.00 | 0 |



1.10 Job Fluid Details

| Job | Fluid | Type | Fluid | Product | Function | Conc. | Uom |
|-----|-------|--------|-----------------|---------|-----------------|--------|---------|
| 1 | 2 | Flush | Sodium Silicate | ASF-10 | Extender | 21.00 | gal/bbl |
| 1 | 4 | Lead | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % |
| 1 | 4 | Lead | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk |
| 1 | 4 | Lead | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB |
| 1 | 4 | Lead | ALTCem S100-12 | ADF-11 | Defoamer | 0.30 | %BWOB |
| 1 | 4 | Lead | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk |
| 1 | 4 | Lead | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk |
| 1 | 5 | Tail | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % |
| 1 | 5 | Tail | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk |
| 1 | 5 | Tail | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB |
| 1 | 5 | Tail | ALTCem S100-12 | ADF-11 | Defoamer | 0.30 | %BWOB |
| 1 | 5 | Tail | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk |
| 1 | 5 | Tail | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk |
| 1 | 9 | Topout | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % |
| 1 | 9 | Topout | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk |
| 1 | 9 | Topout | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB |
| 1 | 9 | Topout | ALTCem S100-12 | ADF-11 | Defoamer | 0.30 | %BWOB |
| 1 | 9 | Topout | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk |
| 1 | 9 | Topout | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk |

2 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 | 3/27/2017 | 12:00 | | | | | Crew called out for job request on location for 16:00 |
| 2 | Depart For Location | 3/27/2017 | 13:00 | | | | | crew departed for location |
| 3 | Arrive On Location | 3/27/2017 | 14:00 | | | | | Arrived on location |
| 4 | Safety Meeting | 3/27/2017 | 14:15 | | | | | Pre rig up safety meeting |
| 5 | Rig Up Iron | 3/27/2017 | 14:30 | | | | | Crew spotted and rigged up all iron and equipment |
| 6 | Waiting | 3/27/2017 | 15:30 | | | | | Crew waiting on rig to finish running casing and to circulate |
| 7 | Safety Meeting | 3/27/2017 | 18:00 | | | | | Pre job safety meeting |
| 8 | Fill Lines | 3/27/2017 | 18:33 | 8.3 | 2 | 3 | 100 | Filled lines with 3 bbls fresh water |
| 9 | Pressure Test Lines | 3/27/2017 | 18:37 | | | | | Pressure test lines to 3000 psi |
| 10 | Pump Spacer | 3/27/2017 | 18:41 | 8.3 | 2 | 20 | 100 | Pump 20 bbls water spacer |
| 11 | Pump Spacer | 3/27/2017 | 18:47 | 10 | 2 | 20 | 100 | Pump 20 bbls SMS spacer |
| 12 | Pump Spacer | 3/27/2017 | 18:53 | 8.3 | 5 | 20 | 100 | Pump 20 bbls water spacer |
| 13 | Pump Lead Cement | 3/27/2017 | 18:59 | 12 | 5 | 317 | 100 | Pump 317 bbls lead cement @ 12 ppg (703sks, 2.53 Y, 14.83 gal/sk) |
| 14 | Pump Tail Cement | 3/27/2017 | 20:26 | 12.5 | 5 | 64 | 100 | Pump 64 bbls tail cement @ 12.5 ppg (161sks, 2.22 Y, 12.58 gal/sk) |
| 15 | Shutdown | 3/27/2017 | 20:48 | | | | | Shutdown |
| 16 | Drop Top Plug | 3/27/2017 | 20:51 | 8.3 | 5 | 50 | 100 | Drop top plug, Pump 50 bbls water displacement |
| 17 | Pump Displacement | 3/27/2017 | 21:09 | 8.3 | 5 | 100 | 200 | Pump 50 bbls water displacement |
| 18 | Pump Displacement | 3/27/2017 | 21:22 | 8.3 | 5 | 150 | 400 | Pump 50 bbls water displacement |
| 19 | Slow Pump Rate | 3/27/2017 | 21:30 | 8.3 | 2 | 180 | 500 | Slow pump rate at 180 bbls away |
| 20 | Land Plug | 3/27/2017 | 21:36 | 8.3 | 2 | 191 | 500 | Land plug at 500 psi took to 1500 psi |
| 21 | Casing test | 3/27/2017 | 21:37 | | | | 1500 | Hold 1500 psi for 15 mins |
| 22 | Release Pressure | 3/27/2017 | 21:52 | | | | | Release casing pressure |
| 23 | Other | 3/27/2017 | 22:00 | | | | | Pump 10 bbls sugar water down parasite line |
| 24 | Waiting | 3/27/2017 | 22:15 | | | | | Wait for rig to nipple up |
| 25 | Safety Meeting | 3/28/2017 | 01:00 | | | | | Safety meeting |
| 26 | Pump Cement | 3/28/2017 | 01:31 | 12.5 | 1 | 16 | 50 | Pump 16 bbls of top out cement @ 12.5 ppg (40 sks, 2.22 Y, 12.58 gal/sk) |



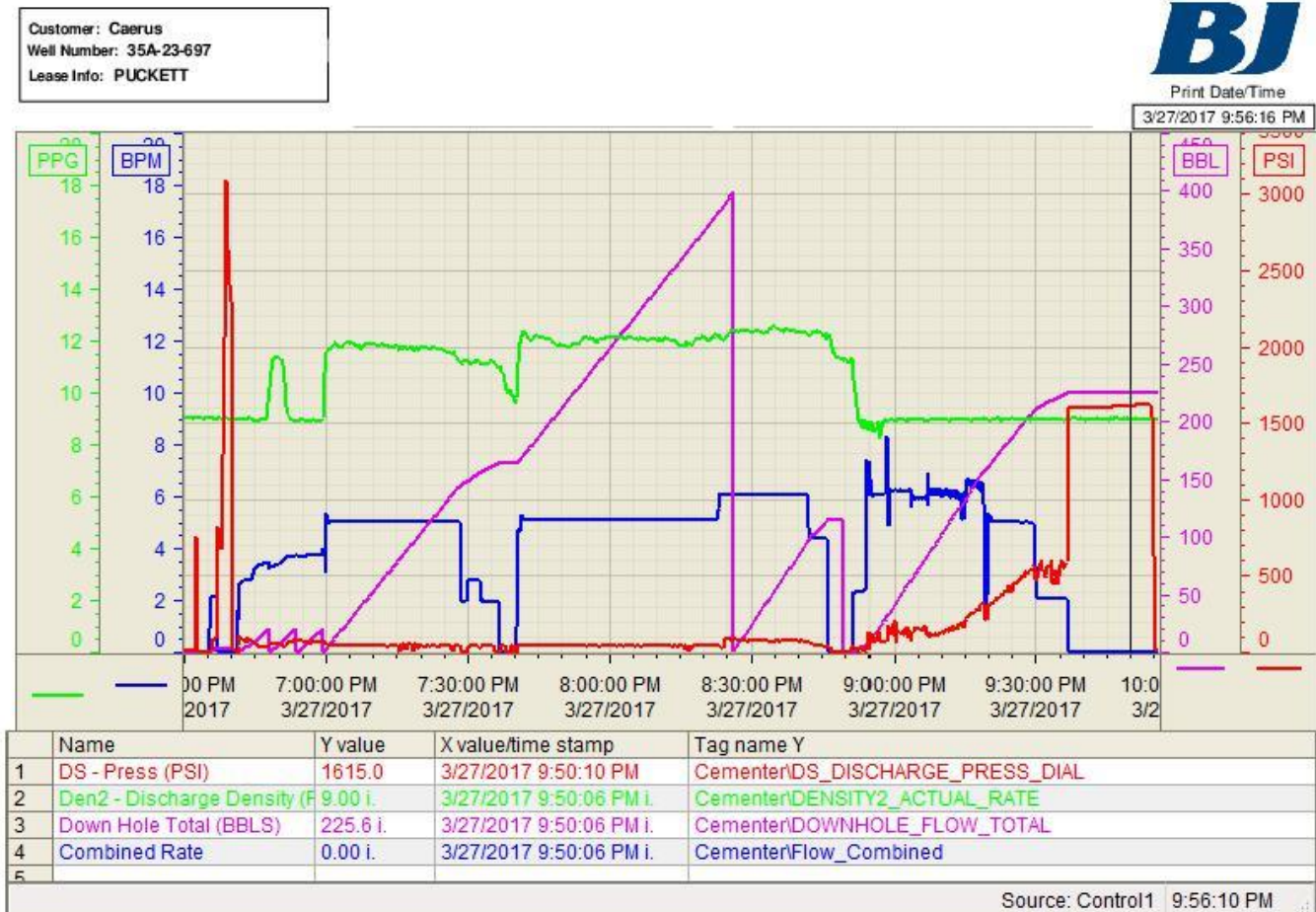
| | | | | | | | | |
|----|-----------------|-----------|-------|--|--|--|--|--|
| 27 | Shutdown | 3/28/2017 | 02:20 | | | | | Shutdown watch cement, cement did not fall |
| 28 | Safety Meeting | 3/28/2017 | 02:30 | | | | | Pre rig down safety meeting |
| 29 | Rig Down Iron | 3/28/2017 | 02:45 | | | | | Crew rigged down all equipment and iron |
| 30 | Depart Location | 3/28/2017 | 04:30 | | | | | Crew departed location |

3 Water Analysis

| Metrics | Value | Recommended |
|------------------|------------------|-------------|
| Water Source | Upright Rig Tank | |
| Temperature | 75 °F | 50-80 °F |
| pH Level | 6 | 5.5-8.5 |
| Chlorides | 0 mg/L | 0-3000 mg/L |
| Total Alkalinity | 0 | 0-1000 |
| Total Hardness | 250 mg/L | 0-500 mg/L |
| Carbonates | 50 mg/L | 0-100 mg/L |
| Sulfates | <200 mg/L | 0-1500 mg/L |
| Potassium | 0 mg/L | 0-3000 mg/L |
| Iron | 0 mg/L | 0-300 mg/L |

4 Pump Diagrams

Job Chart





Top-Out Chart

