

Cement Post Job Report

GRMR Oil & Gas, LLC
370 Interlocken Blvd, Suite 550
Broomfield, CO 80021

Hamill #19-16HA
05-081-07822
S:19 T:5N R:90W
Moffat, CO

Prepared For:

Mr. Mike Griffis
mike.griffis@grmroilandgas.com
(303) 515-5921

Job Completion Data:

10/31/2015
CallSheet #: 53
Proposal #: 10118

Submitted by:

Herron Kennedy
(720) 417-3459
herronkennedy@altcem.com





Dear Mr. Mike Griffis,

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

Sincerely,

Herron Kennedy

Field Office

1808 East Allison Rd., Cheyenne Wy., 82007

Phone: (307) 638-5585

Sales Office

475 17th St. Suite 460 Denver Co., 80202

Phone: (303) 296-1158



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Job Details & Summary

Geometry

| Type | Function | OD (in) | ID (in) | Weight (lb/ft) | Thread | Top (ft) | Bottom (ft) | Excess (%) | New | Burst | Collapse |
|-----------|----------|---------|---------|----------------|--------|----------|-------------|------------|-----|-------|----------|
| Open Hole | Outer | n/a | 17.5 | n/a | n/a | 0 | 844.34 | 100 | | | |
| Casing | Inner | 13.375 | 12.615 | 54.5 | n/a | 0 | 840.34 | 0 | | 2730 | 1130 |

Equipment / People

| Unit Type | Unit | Power Unit | Employee #1 | Employee #2 |
|--------------------|------|------------|------------------|-------------|
| Cement Pump | 103 | 203 | Hyde, Andrew | |
| Bulk Trailer | 502 | 202 | Montoya, Hector | |
| Bulk Trailer | 503 | 303 | Henderson, Ethan | |
| Light Duty Pickups | 5 | | Andrews, Anthony | |

Timing

| Event | Date/Time |
|-----------------|------------------|
| Call Out | 10/31/2015 02:30 |
| Depart Facility | 10/31/2015 06:00 |
| On Location | 10/31/2015 07:00 |
| Rig Up Iron | 10/31/2015 11:00 |
| Job Started | 10/31/2015 13:07 |
| Job Completed | 10/31/2015 14:39 |
| Rig Down Iron | 10/31/2015 14:50 |
| Depart Location | 10/31/2015 17:00 |

General Job Information

| Metrics | Value |
|-------------------------|------------|
| Well Fluid Density | 8.4 lb/gal |
| Well Fluid Type | WBM |
| Rig Circulation Vol | bbls |
| Rig Circulation Time | 1 hours |
| Calculated Displacement | 123 bbls |
| Actual Displacement | 123 bbls |
| Total Spacer to Surface | 20 bbls |
| Total CMT to Surface | 80 bbls |
| Well Topped Out | No |
| Top Out Volume | bbls |

Well Fluid Details

| Metrics | Value |
|-------------------|-------|
| Plastic Viscosity | 6 |
| Yield Point | 6 |

Job Details

| Metrics | Value |
|--------------------------------|------------|
| Flare Prior to Job | No |
| Flare Prior to Job | units |
| Flare During Job | No |
| Flare During Job | units |
| Flare at End of Job | No |
| Flare at End of Job | units |
| Well Full Prior to Job | Yes |
| Well Fluid Density Into Well | 8.4 lb/gal |
| Well Fluid Density Out of Well | 8.4 lb/gal |

Job Details (cont.)

| Metrics | Value |
|---------|-------|
| BHCT | 80 °F |
| BHST | 89 °F |



Circulation

| Lost Circulation Experienced | Losses into Spacer | Losses into Cement | Losses into Displacement |
|------------------------------|--------------------|--------------------|--------------------------|
| No | | | |

Job Fluid Details

| Job | Fluid | Type | Fluid | Product | Function | Conc. | Uom | Start (gal) | End (gal) | Used (gal) |
|-----|-------|--------|----------------|---------|-----------------|--------|-------|-------------|-----------|------------|
| 1 | 2 | Lead | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % | | | |
| 1 | 2 | Lead | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk | | | |
| 1 | 2 | Lead | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB | | | |
| 1 | 2 | Lead | ALTCem S100-12 | ADF-10 | Defoamer | 0.50 | %BWOB | | | |
| 1 | 2 | Lead | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk | | | |
| 1 | 2 | Lead | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk | | | |
| 1 | 3 | Tail | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % | | | |
| 1 | 3 | Tail | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk | | | |
| 1 | 3 | Tail | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB | | | |
| 1 | 3 | Tail | ALTCem S100-12 | ADF-10 | Defoamer | 0.50 | %BWOB | | | |
| 1 | 3 | Tail | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk | | | |
| 1 | 3 | Tail | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk | | | |
| 1 | 5 | Topout | ALTCem S100-12 | AC3-10 | Cement | 100.00 | % | | | |
| 1 | 5 | Topout | ALTCem S100-12 | ACL-10 | Accelerator | 2.00 | lb/sk | | | |
| 1 | 5 | Topout | ALTCem S100-12 | ACL-20 | Accelerator | 5.00 | %BWOB | | | |
| 1 | 5 | Topout | ALTCem S100-12 | ADF-10 | Defoamer | 0.50 | %BWOB | | | |
| 1 | 5 | Topout | ALTCem S100-12 | ALC-10 | LostCirculation | 0.13 | lb/sk | | | |
| 1 | 5 | Topout | ALTCem S100-12 | AXE-30 | Extender | 2.00 | lb/sk | | | |



Job Logs

| Line | # | Event | Date (MM/DD/YY) | Time (HH:MM) | Density (lb/gal) | Pump Rate (bpm) | Pump Volume (bbls) | Pipe Pressure (psi) | Annular Pressure (psi) | Comment |
|------|---|-----------------------------------|--------------------|-----------------|---------------------|-----------------------|--------------------------|---------------------------|------------------------------|--|
| 1 | | Call Out | 10/31/2015 | 02:30 | | | | | | |
| 2 | | Pre-Convoy Safety Meeting | 10/31/2015 | 06:15 | | | | | | |
| 3 | | Crew Leave Yard | 10/31/2015 | 06:30 | | | | | | Crew was in Craig, CO awaiting for callout. |
| 4 | | Arrive At Loc | 10/31/2015 | 07:00 | | | | | | |
| 5 | | Location Assessment Meeting | 10/31/2015 | 10:45 | | | | | | |
| 6 | | Spot Equipment | 10/31/2015 | 11:00 | | | | | | |
| 7 | | Pre Rig-Up Safety Meeting | 10/31/2015 | 11:05 | | | | | | |
| 8 | | Rig Up Equipment | 10/31/2015 | 11:10 | | | | | | |
| 9 | | Pre Job Safety Meeting | 10/31/2015 | 12:45 | | | | | | |
| 10 | | Start Job | 10/31/2015 | 13:07 | | | | | | TD: 844.34' TP: 840.34' SJ: 44.6' MW: 8.4 PPG 13 3/8" 54.5#/ft CSG in 17 1/2" OH |
| 11 | | Test Lines | 10/31/2015 | 13:08 | | | | | | 2500 PSI Test |
| 12 | | Pump Spacer | 10/31/2015 | 13:15 | 8.33 | 5 | 20 | 100 | | Fresh Water Spacer |
| 13 | | Pump Lead Cement | 10/31/2015 | 13:24 | 12 | 5 | 123.9 | 180 | | 275 sks @ 12.0 PPG 2.53YLD 14.82 Gal/Sk H2O |
| 14 | | Pump Tail Cement | 10/31/2015 | 13:54 | 13 | 5 | 80.8 | 165 | | 229 sks @ 13.0 PPG 1.98 YLD 10.77 Gal/sk H2O |
| 15 | | Drop Plug | 10/31/2015 | 14:15 | | | | | | Dropped plug on the fly, slowed rate to .5 bpm when finishing Tail Cmt. |
| 16 | | Pump Displacement | 10/31/2015 | 14:15 | 8.33 | 8 | 123 | 380 | | |
| 17 | | Slow Rate | 10/31/2015 | 14:32 | 8.33 | 4 | 106 | 200 | | Fresh Water Displacement |
| 18 | | Bump Plug | 10/31/2015 | 14:35 | 8.33 | 4 | 123 | 860 | | Plug bumped at calculated displacement |
| 19 | | Check Floats | 10/31/2015 | 14:39 | | | | | | Floats held. |
| 20 | | End Job | 10/31/2015 | 14:40 | | | | | | |
| 21 | | Post Job Safety Meeting | 10/31/2015 | 00:00 | | | | | | Maintained good circulation throughout job. Pipe was left static throughout job. Circulated 80 bbl cmt to surface. Used customer supplied top plug. No add hours charged. |
| 22 | | Rig Down Equipment | 10/31/2015 | 00:00 | | | | | | |
| 23 | | Pre-Convoy Safety Meeting | 10/31/2015 | 00:00 | | | | | | |
| 24 | | Crew Leave Loc | 10/31/2015 | 00:00 | | | | | | Thank You For Choosing ALTcem of Cheyenne, WY -Anthony Andrews And Crew |



Water Analysis

| Metrics | Value | Recommended |
|------------------|------------------|-------------|
| Water Source | Upright Rig Tank | |
| Temperature | 58 °F | 50-80 °F |
| pH Level | 6.5 | 5.5-8.5 |
| Chlorides | 0 mg/L | 0-3000 mg/L |
| Total Alkalinity | 120 | 0-1000 |
| Total Hardness | 8 mg/L | 0-500 mg/L |
| Carbonates | 0 mg/L | 0-100 mg/L |
| Sulfates | <200 mg/L | 0-1500 mg/L |
| Potassium | 450 mg/L | 0-3000 mg/L |
| Iron | 0.15 mg/L | 0-300 mg/L |

Pump Diagrams

