

BJ Cementing Treatment Report

| | | | |
|--------------------|---------------|------------------|---------|
| SERVICE SUPERVISOR | Gregory Black | RIG | True 38 |
| DISTRICT | Cheyenne, WY | COUNTY | WELD |
| SERVICE | Cementing | STATE / PROVINCE | CO |

WELL GEOMETRY

| TYPE | ID (in) | OD (in) | WEIGHT (lb/ft) | MD (ft) | TVD (ft) | EXCESS (%) |
|-----------|---------|---------|----------------|----------|----------|------------|
| Casing | 8.92 | 9.63 | 36.00 | 1,569.00 | 1,569.00 | |
| Open Hole | 13.50 | 0.00 | 0.00 | 1,573.00 | 1,573.00 | 25.00 |

HARDWARE

| | | | |
|---------------------------|--------------|--------------------------------------|----------|
| Bottom Plug Used? | No | Tool Depth (ft) | 1,570.70 |
| Top Plug Used? | Yes | Max Casing Pressure - Rated (psi) | 3012.00 |
| Top Plug Provided By | Non BJ | Max Casing Pressure - Operated (psi) | 2012.00 |
| Top Plug Size | 9.625 | Pipe Movement | None |
| Centralizers Used | No | Job Pumped Through | Manifold |
| Landing Collar Depth (ft) | 1,520 | Top Connection Thread | 9.625 |
| Tool Type | Float Collar | Top Connection Size | 9.625 |

CIRCULATION PRIOR TO JOB

| | | | |
|--------------------------------------|--------|--|------|
| Well Circulated By | Rig | Mud Density In (ppg) | 8.80 |
| Circulation Prior to Job | Yes | Mud Density Out (ppg) | 8.80 |
| Circulation Time (min) | 0.30 | Solids Present at End of Circulation | No |
| Circulation Rate (bpm) | 8.00 | Flare Prior to / during the Cement Job | No |
| Circulation Volume (bbls) | 240.00 | Gas Present | No |
| Lost Circulation Prior to Cement Job | No | | |

TEMPERATURE

| | | | |
|----------------------------|-------|--------------------------------|-------|
| Ambient Temperature (°F) | 50.00 | Slurry Cement Temperature (°F) | 60.00 |
| Mix Water Temperature (°F) | 55.00 | | |

FLUID DETAILS

| FLUID TYPE | FLUID NAME | DENSITY (ppg) | YIELD (Cu Ft/sk) | H ₂ O REQ (gals/sk) | PLN TOP FLD (ft) | LENGTH (ft) | VOL (sk) | VOL (Cu Ft) | VOL (bbls) |
|----------------------------|------------------|---------------|------------------|--------------------------------|------------------|-------------|----------|-------------|------------|
| Spacer / Pre Flush / Flush | Water | 8.3337 | | | 0.00 | | | | 20.0000 |
| Lead Slurry | BJCem S100.03.1C | 12.0000 | 2.5298 | 14.86 | 0.00 | 1,030.00 | 252 | 638.0000 | 113.5000 |
| Tail Slurry | BJCem S100.03.1C | 12.5000 | 2.2255 | 12.59 | 1,030.00 | 500.00 | 145 | 323.0000 | 57.5000 |
| Displacement Final | Water | 8.3337 | | | 0.00 | | | 0.0000 | 115.0000 |

| FLUID TYPE | FLUID NAME | COMPONENT | CONCENTRATION | UOM |
|----------------------------|------------------|---|---------------|--------|
| Spacer / Pre Flush / Flush | Water | Fresh Water | 100.0000 | PCT |
| Lead Slurry | BJCem S100.03.1C | IntegraSeal POLI | 0.1300 | LBS/SK |
| Lead Slurry | BJCem S100.03.1C | CEMENT, ASTM TYPE III | 100.0000 | PCT |
| Lead Slurry | BJCem S100.03.1C | Cement Additive, Sodium Metasilicate A-2 | 2.0000 | LBS/SK |
| Lead Slurry | BJCem S100.03.1C | FOAM PREVENTER, FP-25 | 0.3000 | BWOB |
| Lead Slurry | BJCem S100.03.1C | CEMENT EXTENDER, GYPSUM, A-10 | 5.0000 | BWOB |
| Lead Slurry | BJCem S100.03.1C | ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS | 2.0000 | LBS/SK |
| Tail Slurry | BJCem S100.03.1C | FOAM PREVENTER, FP-25 | 0.3000 | BWOB |
| Tail Slurry | BJCem S100.03.1C | ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS | 2.0000 | LBS/SK |
| Tail Slurry | BJCem S100.03.1C | Cement Additive, Sodium Metasilicate A-2 | 2.0000 | LBS/SK |
| Tail Slurry | BJCem S100.03.1C | CEMENT, ASTM TYPE III | 100.0000 | PCT |
| Tail Slurry | BJCem S100.03.1C | CEMENT EXTENDER, GYPSUM, A-10 | 5.0000 | BWOB |
| Tail Slurry | BJCem S100.03.1C | IntegraSeal POLI | 0.1300 | LBS/SK |
| Displacement Final | Water | Fresh Water | 100.0000 | PCT |

DISPLACEMENT AND END OF JOB SUMMARY

| | | | |
|---|--------|---|--------|
| Displaced By | BJ | Amt of Cement Returned / Reversed | 20.00 |
| Calculated Displacement Vol (bbls) | 117.50 | Method Used to Verify Returns | Visual |
| Actual Displacement Vol (bbls) | 117.50 | Amt of Spacer to Surface | 20.00 |
| Did Float Hold? | Yes | Pressure Left on Casing (psi) | 0.00 |
| Bump Plug | Yes | Amt Bled Back After Job | 0.50 |
| Bump Plug Pressure (psi) | 970.00 | Total Volume Pumped (bbls) | 310.00 |
| Were Returns Planned at Surface | Yes | Top Out Cement Spotted | Yes |
| Cement Returns During Job | Full | Lost Circulation During Cement Job | No |

BJ Cementing Event Log

Surface - Cheyenne, WY - Gregory Black

| SEQ | START DATE / TIME | EVENT | DENSITY (ppg) | PUMP RATE (bpm) | PUMP VOL (bbls) | PIPE PRESSURE (psi) | COMMENTS |
|-----|-------------------|------------------------|---------------|-----------------|-----------------|---------------------|--|
| 1 | 11/16/2019 10:15 | Callout | | | | | called out with an RTS of 16:00. |
| 2 | 11/16/2019 13:00 | Arrive on Location | | | | | Crew arrived on location. |
| 3 | 11/16/2019 13:00 | STEACS Briefing | | | | | Crew has a spotting procedure/rig up safety meeting. |
| 4 | 11/16/2019 13:05 | Rig Up | | | | | Crew rigs up. |
| 5 | 11/16/2019 13:45 | Rig | | | | | Crew waiting on rig to finish running casing and circulating. |
| 6 | 11/16/2019 18:09 | STEACS Briefing | | | | | Crew holds job procedure/safety meeting with rig crew and company man. |
| 7 | 11/16/2019 18:22 | Prime Up | 8.3400 | 2.80 | 2.00 | 50.00 | Crew primes treating iron. |
| 8 | 11/16/2019 18:23 | Pressure Test | | | | | Crew performs a pressure test. |
| 9 | 11/16/2019 18:26 | Pump Spacer | 8.3400 | 3.20 | 20.00 | 125.00 | Crew pumps dyed water spacer. |
| 10 | 11/16/2019 18:31 | Pump Lead Cement | 12.0000 | 7.00 | 113.50 | 350.00 | Crew pumps 252 SKS; Yield:2.52; GPS:14.86. |
| 11 | 11/16/2019 18:47 | Pump Tail Cement | 12.5000 | 7.00 | 575.00 | 320.00 | Crew pumps 145 SKS; Yield:2.22; GPS:12.59. |
| 12 | 11/16/2019 18:58 | Drop Top Plug | | | | | Crew drops top plug and preps pump to washup on plug and displace. |
| 13 | 11/16/2019 19:02 | Pump Displacement | 8.3400 | 6.20 | 20.00 | 200.00 | Crew washes pump while displacing (Good returns). |
| 14 | 11/16/2019 19:05 | Pump Displacement | 8.3400 | 7.70 | 77.50 | 370.00 | Crew pumps displacement (Good returns). |
| 15 | 11/16/2019 19:14 | Spacer Back-to-Surface | | | | | Spacer back to surface @77 bbls away, total of 20 bbls back. |
| 16 | 11/16/2019 19:14 | Cement Back-to-Surface | | | | | Cement back to surface @97 bbls away, total of 20 bbls back. |
| 17 | 11/16/2019 19:14 | Pump Displacement | 8.3400 | 2.80 | 20.00 | 350.00 | Slowed rate to bump plug. |
| 18 | 11/16/2019 19:24 | Land Plug | | | | | Plug landed, 117.5 bbls of displacement. Final circulation 350 psi. took to 970 psi. |
| 19 | 11/16/2019 19:27 | Check Floats | | | | | Floats held .5 bbls back |
| 20 | 11/16/2019 19:30 | STEACS Briefing | | | | | Crew holds a rig down safety meeting. |
| 21 | 11/16/2019 19:35 | Rig Down | | | | | Crew rigs down everything. |
| 22 | 11/16/2019 19:50 | STEACS Briefing | | | | | Crew holds a return journey safety meeting. |
| 23 | 11/16/2019 19:55 | Leave Location | | | | | Crew leaves location. |

Client: Bayswater Exploration & Production, LLC

Well Name / API: COT EAST #NA-30-29HN / Well 1573
05-123-50507 MD:



Quote #: QUO-38515-R4S5J9

Plan #: ORD-22521-Z9B4T7

Execution #: EXC-22521-Z9B4T702



JobMaster Program Version 4.02C1

Job Number:

Customer: Bayswater

Well Name: COT EAST NA-30-29HN

