

FIELD TICKET

Client MERIT ENERGY COMPANY
Well HMU 208W
Job Description Long String
Date November 27, 2017



Field Ticket # FT-01312-H5V8S90202-57453

MATERIALS

| Product Code | Description | UOM | Quantity | List Price | Gross Amount | Disc (%) | Net Amount |
|-----------------------------------|--|-----|------------|-------------|--------------------|----------|--------------------|
| L100022 | CEMENT, CLASS H | SK | 86.0000 | \$50.27 | \$4,323.22 | 76.00 | \$1,037.57 |
| L100495 | SALT, Sodium Chloride, Medium | LB | 1,795.0000 | \$0.57 | \$1,023.15 | 76.00 | \$245.56 |
| L100120 | EXTENDER, BENTONITE | LB | 495.0000 | \$2.08 | \$1,029.60 | 76.00 | \$247.10 |
| 20000018 | CFL-210 | LB | 124.0000 | \$22.72 | \$2,817.28 | 76.00 | \$676.15 |
| L100294 | LOST CIRCULATION, LCM-1 | LB | 1,405.0000 | \$4.00 | \$5,620.00 | 76.00 | \$1,348.80 |
| L100295 | IntegraSeal CELLO | LB | 71.0000 | \$5.76 | \$408.96 | 76.00 | \$98.15 |
| L100318 | CEMENT EXTENDER, GYPSUM, A-10 | LB | 1,339.0000 | \$0.72 | \$964.08 | 76.00 | \$231.38 |
| 20000002 | CD-100 | LB | 29.0000 | \$9.35 | \$271.15 | 76.00 | \$65.08 |
| L101196 | FP-25, Dry Foam Preventer (BJS Only) | LB | 50.0000 | \$14.52 | \$726.00 | 76.00 | \$174.24 |
| L100317 | CEMENT, FLY ASH (POZZOLAN) | SK | 86.0000 | \$25.68 | \$2,208.48 | 76.00 | \$530.04 |
| L398117 | IntegraGuard ULTRA II | BBL | 24.0000 | \$234.85 | \$5,636.40 | 76.00 | \$1,352.74 |
| L100019 | CEMENT, CLASS A | SK | 110.0000 | \$43.34 | \$4,767.40 | 76.00 | \$1,144.18 |
| L014007 | Float Shoe - circulating diff. type, 5-1/2 in. | EA | 1.0000 | \$545.00 | \$545.00 | 76.00 | \$130.80 |
| L017421 | Latch Down Plug & Assembly, 5-1/2 in. | EA | 1.0000 | \$660.00 | \$660.00 | 76.00 | \$158.40 |
| L017348 | STAGE TOOL,CEM,5-1/2"N80,8RD-L | EA | 1.0000 | \$11,495.00 | \$11,495.00 | 76.00 | \$2,758.80 |
| L017116 | Collars and Cement Baskets, 5-1/2 in. | EA | 1.0000 | \$395.00 | \$395.00 | 76.00 | \$94.80 |
| L499632 | RETARDER, SUGAR, GRANULAR | LB | 50.0000 | \$4.16 | \$208.00 | 76.00 | \$49.92 |
| Product Material Subtotal: | | | | | \$43,098.72 | | \$10,343.71 |

SERVICES

| Product Code | Description | UOM | Quantity | List Price | Gross Amount | Disc (%) | Net Amount |
|--------------|---|------|----------|-------------|--------------|----------|------------|
| S-100052 | Cement pump charge, 4,001-5,000 feet/1,201 -1,500 m | 6/HR | 1.00 | \$6,192.00 | \$6,192.000 | 91.00 | \$557.280 |
| S-100475 | Cement head | EA | 1.00 | \$2,656.00 | \$2,656.000 | 91.00 | \$239.040 |
| S-100002 | Mileage - vehicle light weight | MI | 50.00 | \$10.72 | \$536.000 | 91.00 | \$48.240 |
| S-100001 | Mileage - vehicle heavy weight | MI | 50.00 | \$18.96 | \$948.000 | 91.00 | \$85.320 |
| S-100004 | Cement Crew Mobilization-Demobilization Fee | EA | 1.00 | \$10,880.00 | \$10,880.000 | 91.00 | \$979.200 |

Cementing Treatment



| | | | |
|---------------------------|----------------------|-----------------------|--------------|
| Start Date | 11/26/2017 | Well | HMU 208W |
| End Date | 12/30/2017 | County | Finney |
| Client | MERIT ENERGY COMPANY | State/Province | KS |
| Client Field Rep | Rodney Gonzalez | API | 15-055-22471 |
| Service Supervisor | | Formation | |
| Field Ticket No. | Production | Rig | |
| District | Liberal, KS | Type of Job | Long String |

WELL GEOMETRY

| Type | ID (in) | OD (in) | Wt. (lb/ft) | MD (ft) | TVD (ft) | Excess(%) | Grade | Thread |
|-----------------|---------|---------|-------------|----------|----------|-----------|-------|--------|
| Open Hole | 7.88 | | | 5,002.00 | 5,002.00 | 30.00 | | |
| Casing | 4.89 | 5.50 | 17.00 | 4,998.00 | 4,998.00 | | J-55 | LTC |
| Previous Casing | 8.10 | 8.63 | 24.00 | 1,847.00 | 1,847.00 | | J-55 | LTC |

Shoe Length (ft): 42

HARDWARE

| | | | |
|----------------------------------|-------|---|----------|
| Bottom Plug Used? | Yes | Tool Type | DV Tool |
| Bottom Plug Provided By | BJ | Tool Depth (ft) | 4,214.00 |
| Bottom Plug Size | 5.500 | Max Tubing Pressure - Rated (psi) | |
| Top Plug Used? | Yes | Max Tubing Pressure - Operated (psi) | |
| Top Plug Provided By | BJ | Max Casing Pressure - Rated (psi) | 5,320.00 |
| Top Plug Size | 5.500 | Max Casing Pressure - Operated (psi) | 4,256.00 |
| Centralizers Used | Yes | Pipe Movement | None |
| Centralizers Quantity | 15.00 | Job Pumped Through | Manifold |
| Centralizers Type | Bow | Top Connection Thread | 8rd |
| Landing Collar Depth (ft) | 4,998 | Top Connection Size | 5.5 |

CIRCULATION PRIOR TO JOB

Cementing Treatment



| | | | |
|---|--------|---|----|
| Well Circulated By | Rig | Solids Present at End of Circulation | No |
| Circulation Prior to Job | Yes | 10 sec SGS | |
| Circulation Time (min) | 1.00 | 10 min SGS | |
| Circulation Rate (bpm) | 5.00 | 30 min SGS | |
| Circulation Volume (bbls) | 300.00 | Flare Prior to/during the Cement Job | No |
| Lost Circulation Prior to Cement Job | No | Gas Present | No |
| Mud Density In (ppg) | 9.00 | Gas Units | |
| Mud Density Out (ppg) | | | |
| PV Mud In | | | |
| PV Mud Out | | | |
| YP Mud In | | | |
| YP Mud Out | | | |

TEMPERATURE

| | | |
|-----------------------------------|-------|---------------------------------------|
| Ambient Temperature (°F) | 44.00 | Slurry Cement Temperature (°F) |
| Mix Water Temperature (°F) | 55.00 | Flow Line Temperature (°F) |

BJ FLUID DETAILS

| Fluid Type | Fluid Name | Density (ppg) | Yield (Cu Ft/sk) | H2O Req. (gals/sk) | Vol (sk) | Vol (Cu Ft) | Vol (bbls) |
|----------------------------|--------------------------|---------------|------------------|--------------------|----------|-------------|------------|
| Spacer / Pre Flush / Flush | UltraFlush | 8.4000 | | | | | 12.0000 |
| Spacer / Pre Flush / Flush | UltraFlush | 8.4000 | | | | | 12.0000 |
| Tail Slurry | Second Stage Tail | 13.6000 | 1.8626 | 8.94 | 110 | 203.0000 | 36.1000 |
| Tail Slurry | First Stage Tail | 13.6000 | 1.5590 | 6.83 | 120 | 186.0000 | 33.1000 |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | 13.6000 | 1.5590 | 6.83 | 51 | 78.0000 | 13.9000 |
| Displacement | 1st Stage | 8.3300 | | | | 0.0000 | 115.3000 |

Cementing Treatment



| | | | | |
|--------------------|------------------------|--------|--------|---------|
| Final Displacement | 2nd Stage Displacement | 8.3400 | 0.0000 | 97.6000 |
|--------------------|------------------------|--------|--------|---------|

| Fluid Type | Fluid Name | Component | Concentration | UOM |
|----------------------------|--------------------------|--------------------------------------|---------------|--------|
| Spacer / Pre Flush / Flush | UltraFlush | IntegraGuard ULTRA II | 100.00 | PCT |
| Spacer / Pre Flush / Flush | UltraFlush | IntegraGuard ULTRA II | 100.00 | PCT |
| Tail Slurry | Second Stage Tail | CFL-210 | 0.50 | BWOB |
| Tail Slurry | Second Stage Tail | SALT, Sodium Chloride, Medium | 10.00 | BWOW |
| Tail Slurry | Second Stage Tail | LOST CIRCULATION, LCM-1 | 5.00 | LBS/SK |
| Tail Slurry | Second Stage Tail | EXTENDER, BENTONITE | 2.00 | BWOB |
| Tail Slurry | Second Stage Tail | CEMENT EXTENDER, GYPSUM, A-10 | 6.00 | BWOB |
| Tail Slurry | Second Stage Tail | FP-25, Dry Foam Preventer (BJS Only) | 0.20 | BWOB |
| Tail Slurry | First Stage Tail | CEMENT, CLASS H | 50.00 | PCT |
| Tail Slurry | First Stage Tail | IntegraSeal CELLO | 0.25 | LBS/SK |
| Tail Slurry | First Stage Tail | LOST CIRCULATION, LCM-1 | 5.00 | LBS/SK |
| Tail Slurry | First Stage Tail | EXTENDER, BENTONITE | 2.00 | BWOB |
| Tail Slurry | First Stage Tail | SALT, Sodium Chloride, Medium | 10.00 | BWOW |
| Tail Slurry | First Stage Tail | CD-100 | 0.20 | BWOB |
| Tail Slurry | First Stage Tail | CEMENT, FLY ASH (POZZOLAN) | 50.00 | PCT |
| Tail Slurry | Second Stage Tail | IntegraSeal CELLO | 0.25 | LBS/SK |
| Tail Slurry | Second Stage Tail | CEMENT, CLASS A | 100.00 | PCT |
| Tail Slurry | First Stage Tail | CEMENT EXTENDER, GYPSUM, A-10 | 5.00 | BWOB |
| Tail Slurry | First Stage Tail | CFL-210 | 0.50 | BWOB |
| Tail Slurry | First Stage Tail | FP-25, Dry Foam Preventer (BJS Only) | 0.20 | BWOB |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | CEMENT, CLASS H | 50.00 | PCT |
| Top-Out / Scavenger | Mouse hole/Rat hole | EXTENDER, BENTONITE | 2.00 | BWOB |

Cementing Treatment



| Slurry | Plug | | |
|----------------------------|--------------------------|--------------------------------------|-------------|
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | LOST CIRCULATION, LCM-1 | 5.00 LBS/SK |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | IntegraSeal CELLO | 0.25 LBS/SK |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | CD-100 | 0.20 BWOB |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | FP-25, Dry Foam Preventer (BJS Only) | 0.20 BWOB |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | SALT, Sodium Chloride, Medium | 10.00 BWOW |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | CFL-210 | 0.50 BWOB |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | CEMENT EXTENDER, GYPSUM, A-10 | 5.00 BWOB |
| Top-Out / Scavenger Slurry | Mouse hole/Rat hole Plug | CEMENT, FLY ASH (POZZOLAN) | 50.00 PCT |

TREATMENT SUMMARY

| Time | Fluid | Rate (bpm) | Fluid Vol. (bbls) | Pipe Pressure (psi) | Annulus Pressure (psi) | Comments |
|---------------------|------------------------|------------|-------------------|---------------------|------------------------|----------|
| 11/27/2017 3:55 AM | UltraFlush | 5.00 | 12.00 | 350.00 | | |
| 11/27/2017 4:09 AM | First Stage Tail | 5.20 | 33.10 | 290.00 | | |
| 11/27/2017 4:59 AM | 1st Stage Displacement | 5.50 | 115.30 | 570.00 | | |
| 11/27/2017 9:43 AM | UltraFlush | 5.00 | 12.00 | 270.00 | | |
| 11/27/2017 9:56 AM | Second Stage Tail | 5.20 | 36.10 | 280.00 | | |
| 11/27/2017 10:23 AM | 2nd Stage Displacement | 5.50 | 97.60 | 400.00 | | |

| | Min | Max | Avg |
|----------------|-------|--------|--------|
| Pressure (psi) | 60.00 | 570.00 | 200.00 |
| Rate (bpm) | 3.00 | 6.00 | 5.00 |

DISPLACEMENT AND END OF JOB SUMMARY

Cementing Treatment



| | | | |
|--|----------|---|--------|
| Displaced By | BJ | Amount of Cement Returned/Reversed | |
| Calculated Displacement Volume (bbls) | 115.00 | Method Used to Verify Returns | Visual |
| Actual Displacement Volume (bbls) | 115.00 | Amount of Spacer to Surface | |
| Did Float Hold? | Yes | Pressure Left on Casing (psi) | 0.00 |
| Bump Plug | Yes | Amount Bled Back After Job | 1.00 |
| Bump Plug Pressure (psi) | 1,500.00 | Total Volume Pumped (bbls) | 307.00 |
| Were Returns Planned at Surface | No | Top Out Cement Spotted | No |
| Cement returns During Job | | Lost Circulation During Cement Job | No |

CEMENT PLUG

| | | | |
|-------------------------------|-----|--------------------------|----|
| Bottom of Cement Plug? | Yes | Wiper Balls Used? | No |
| Wiper Ball Quantity | | Plug Catcher | No |
| Number of Plugs | | | |

SQUEEZE

| | | | |
|--|--|----------------------------|--|
| Injection Rate (bpm) | | Fluid Density (ppg) | |
| Injection Pressure (psi) | | ISIP (psi) | |
| Type of Squeeze | | FSIP (psi) | |
| Operators Max SQ Pressure (psi) | | | |

COMMENTS

Treatment Report

Job Summary

Cementing Treatment



Stage 1

Prime Lines 2 bbls Fresh Water
Rat and Mouse TCmt 50 sks @ 13.6 / 14 bbls
Pressure Test Lines 3500 psi
Spacer UltraFlush @ 8.4 ppg / 12 bbls
TCmt 120 sks @ 13.6 ppg / 33 bbls
Shutdown / Drop Btm Plug / Wash Equipment
Displacement : 20 bbls H₂O - 95 bbls MUD @ 9.0 ppg
Slow Rate : 105 bbls
Bump Plug 1000 over PLP
Drop Opening Tool / Wait for 20 min
Pressure up and open DVT @ 700-1000 psi
Establish Circulation / Release back to Rig

Stage 2

Prime Lines 2 bbls Fresh Water
Pressure Test line 3500 psi
Spacer UltraFlush @ 8.4 ppg / 12 bbls
TCmt 110 sks @ 13.6 ppg / 36 bbls
Shutdown / Drop Top Plug / Wash Equipment
Displacement : 99 bbls Fresh Water
Slow Rate : 89 bbls
Bump Plug 1500 psi to close DVT
Release Pressure / Check Floats