

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

MLD 4 Surface

Job Date: Thursday, August 10, 2017

Sincerely,
Fort Lupton

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **MLD 4** cement surface casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

26 bbls of cement to surface

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

The Road to Excellence Starts with Safety

| | | | | | | | | | |
|--|--|--------------------|-----------|-------------------------------------|----------------------------|---------------------------|-----------------|--|--|
| Sold To #: 369404 | | Ship To #: 3800442 | | Quote #: | | Sales Order #: 0904219917 | | | |
| Customer: EXTRACTION OIL & GAS - | | | | Customer Rep: Sean Macentire | | | | | |
| Well Name: MLD | | | Well #: 4 | | API/UWI #: 05-123-44815-00 | | | | |
| Field: WATTENBERG | | City (SAP): MEAD | | County/Parish: WELD | | | State: COLORADO | | |
| Legal Description: NW NW-22-4N-68W-805FNL-716FWL | | | | | | | | | |
| Contractor: UNKNOWN | | | | Rig/Platform Name/Num: WORKOVER RIG | | | | | |
| Job BOM: 7521 7521 | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | |
| Sales Person: HALAMERICA\HX38199 | | | | Srvc Supervisor: Nicholas Peterson | | | | | |
| Job | | | | | | | | | |
| | | | | | | | | | |
| Formation Name | | | | | | | | | |
| Formation Depth (MD) | | Top | | Bottom | | | | | |
| Form Type | | BHST | | | | | | | |
| Job depth MD | | 1579ft | | Job Depth TVD | | 1,580' | | | |
| Water Depth | | | | Wk Ht Above Floor | | 5' | | | |
| Perforation Depth (MD) | | From | | To | | | | | |
| Well Data | | | | | | | | | |
| | | | | | | | | | |
| Description | | | | | | | | | |
| New / Used | | | | | | | | | |
| Size in | | | | | | | | | |
| ID in | | | | | | | | | |
| Weight lbm/ft | | | | | | | | | |
| Thread | | | | | | | | | |
| Grade | | | | | | | | | |
| Top MD ft | | | | | | | | | |
| Bottom MD ft | | | | | | | | | |
| Top TVD ft | | | | | | | | | |
| Bottom TVD ft | | | | | | | | | |
| Casing | | | | | | | | | |
| Open Hole Section | | | | | | | | | |
| | | | | | | | | | |
| Tools and Accessories | | | | | | | | | |
| | | | | | | | | | |
| Type | | | | | | | | | |
| Size in | | | | | | | | | |
| Qty | | | | | | | | | |
| Make | | | | | | | | | |
| Depth ft | | | | | | | | | |
| Type | | | | | | | | | |
| Size in | | | | | | | | | |
| Qty | | | | | | | | | |
| Make | | | | | | | | | |
| Guide Shoe | | | | | | | | | |
| Float Shoe | | | | | | | | | |
| Float Collar | | | | | | | | | |
| Insert Float | | | | | | | | | |
| Stage Tool | | | | | | | | | |
| | | | | | | | | | |
| Fluid Data | | | | | | | | | |
| | | | | | | | | | |
| Stage/Plug #: 1 | | | | | | | | | |
| | | | | | | | | | |
| Fluid # | | | | | | | | | |
| Stage Type | | | | | | | | | |
| Fluid Name | | | | | | | | | |
| Qty | | | | | | | | | |
| Qty UoM | | | | | | | | | |
| Mixing Density lbm/gal | | | | | | | | | |
| Yield ft3/sack | | | | | | | | | |
| Mix Fluid Gal | | | | | | | | | |
| Rate bbl/min | | | | | | | | | |
| Total Mix Fluid Gal | | | | | | | | | |
| 1 | | | | | | | | | |
| Fresh Water Spacer | | | | | | | | | |
| Fresh Water | | | | | | | | | |
| 30 | | | | | | | | | |
| bbl | | | | | | | | | |
| 8.33 | | | | | | | | | |
| 42 | | | | | | | | | |
| 5 | | | | | | | | | |
| 1,260 | | | | | | | | | |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal | |
|---|----------------|----------------------|---------------------|---------|------------------------|----------------|------------------------|--------------|---------------------|--|
| 2 | Red Dye Spacer | Red Dye Spacer | 10 | bbl | 8.33 | | 42 | 5 | 420 | |
| 3 | Cement | SWIFTCEM (TM) SYSTEM | 550 | sack | 13.5 | 1.74 | 9,2 | 6 | 5,060 | |
| 9.20 Gal | | FRESH WATER | | | | | | | | |
| 4 | Displacement | Fresh Water | 118 | bbl | 8.33 | | 42 | 6 | 4,956 | |
| | | | | | | | | | | |
| Cement Left In Pipe | | Amount | 43 ft | | Reason | | | Shoe Joint | | |
| Mix Water: | | pH 7.0 | Mix Water Chloride: | | 0 ppm | | Mix Water Temperature: | | 68 °F | |
| Cement Temperature: | | ## °F | Plug Displaced by: | | 8.33 lb/gal | | Disp. Temperature: | | 68 °F | |
| Plug Bumped? | | Yes | Bump Pressure: | | 520 psi | | Floats Held? | | Yes/ | |
| Cement Returns: | | 26 bbl | Returns Density: | | 13.5 lb/gal | | Returns Temperature: | | ## °F | |
| Comment: Pumped 30 bbls fresh water 10 bbls with red dye, 170.44 bbls cement. Pumped calculated displacement of 118 bbls cement returns to surface @ 92 bbls away, 26 bbls cement to surface. Bumped plug to up to 1,500 psi for casing pressure test. Floats held got 1 bbl back. | | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density (ppg) | DS Pump Rate (bbl/min) | PS Pump Press (psi) | Comments |
|-------|----------|---------------------------|---------------------------|-----------|----------|--------|------------------|------------------------|---------------------|---|
| Event | 1 | Arrive At Loc | Arrive At Loc | 8/9/2017 | 22:00:00 | USER | | | | E |
| Event | 2 | Call Out | Call Out | 8/10/2017 | 02:00:00 | USER | | | | CREW CALLED OUT AT 02:00, REQUESTED ON LOCATION 06:00. CREW PICKED UP CEMENT, 100 LBS OF SUGAR, TOP PLUG, AND 2 LBS RED DYE FROM FT. LUPTON, CO. BULK 660, E-08, 10866493, AND PUMP 12645760. |
| Event | 3 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 8/10/2017 | 05:00:00 | USER | | | | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER. |
| Event | 4 | Rig-Up Equipment | Rig-Up Equipment | 8/10/2017 | 05:30:00 | USER | | | | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB. |
| Event | 5 | Rig-Up Completed | Rig-Up Completed | 8/10/2017 | 06:00:00 | USER | 8.38 | 0.00 | 22.00 | |
| Event | 6 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 8/10/2017 | 07:00:00 | USER | 8.39 | 0.00 | 22.00 | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| Event | 7 | Start Job | Start Job | 8/10/2017 | 07:27:49 | COM5 | 0.18 | 0.00 | 22.00 | START RECORDING JOB DATA. |
| Event | 8 | Test Lines | Test Lines | 8/10/2017 | 07:31:22 | COM5 | 8.39 | 0.00 | 27.00 | PRESSURE TESTED IRON TO 2500 PSI. KICKOUTS SET @ |

| | | | | | | | | | | |
|-------|----|-----------------------------|-----------------------------|-----------|----------|------|-------|------|---------|---|
| | | | | | | | | | | 500 PSI, KICKED OUT @ 1180 PSI, 5TH GEAR STALL OUT @ 1350 PSI. |
| Event | 9 | Pump Spacer 1 | Pump Spacer 1 | 8/10/2017 | 07:38:06 | COM5 | 8.40 | 5.10 | 167.00 | PUMPED 30 BBLS FRESH WATER. FOLLOWED BY 10 BBLS RED DYE. PUMP RATE 5 BBL/MIN @ 175 PSI. |
| Event | 10 | Pump Cement | Pump Cement | 8/10/2017 | 07:47:53 | COM5 | 13.77 | 6.20 | 303.00 | PUMP 550 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 FT3/SK, 9.2 GAL/SK 170440 BBLS. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBL/MIN @ 289 PSI. |
| Event | 11 | Drop Top Plug | Drop Top Plug | 8/10/2017 | 08:17:56 | COM5 | 19.65 | 0.00 | 25.00 | PLUG LEFT CONTAINER, VERIFIED BY COMPANY REP. |
| Event | 12 | Pump Displacement | Pump Displacement | 8/10/2017 | 08:19:18 | COM5 | 9.12 | 3.00 | 70.00 | BEGIN CALCULATED DISPLACEMENT OF 118 BBLS WITH FRESH WATER. CEMENT TO SURFACE @ 92 BBLS INTO DISPLACEMENT, 26 BBLS OF CEMENT TO SURFACE. |
| Event | 13 | Bump Plug | Bump Plug | 8/10/2017 | 08:45:59 | COM5 | 8.31 | 0.00 | 1039.00 | PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED UP TO 1500 PSI FOR 5 MIN CASING PRESSURE TEST. |
| Event | 14 | Check Floats | Check Floats | 8/10/2017 | 08:51:10 | USER | 8.31 | 0.00 | 1411.00 | FLOATS HELD 1 BBL BACK. |
| Event | 15 | End Job | End Job | 8/10/2017 | 08:53:06 | COM5 | 8.28 | 0.00 | 26.00 | STOP RECORDING JOB DATA. |
| Event | 16 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 8/10/2017 | 09:00:00 | USER | | | | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES. |

| | | | | | | | |
|-------|----|---------------------------|---------------------------|-----------|----------|------|---|
| Event | 17 | Rig-Down Equipment | Rig-Down Equipment | 8/10/2017 | 09:15:00 | USER | RIG DOWN BULK AND MIXING EQUIPMENT. |
| Event | 18 | Rig-Up Completed | Rig-Down Completed | 8/10/2017 | 10:30:00 | USER | ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN. |
| Event | 19 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 8/10/2017 | 10:45:00 | USER | DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. |
| Event | 20 | Crew Leave Location | Crew Leave Location | 8/10/2017 | 11:00:00 | USER | THANK YOU FOR USING HALLIBURTON- NICK PETERSON AND CREW. |

3.0 Job Chart

3.1 Job Chart

