

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Ft. Lupton District, Colorado

United B S16-20-11N Production

Job Date: Tuesday, November 30, 2021

Sincerely,

Meghan Van Zyl

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 **United B S16-20-11N** cement **Production** 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.

Approximately 76 bbls of cement were returned 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

| | | | |
|--|-------------------------------|---|-----------------------------------|
| Sold To #: 369404 | Ship To #: 3909336 | Quote #: | Sales Order #: 0907519278 |
| Customer: EXTRACTION OIL & GAS-EBUS | | Customer Rep: Manny Parris | |
| Well Name: UNITED B | | Well #: S16-20-11N | API/UWI #: 05-014-20801-00 |
| Field: WATTENBERG | City (SAP): BROOMFIELD | County/Parish: BROOMFIELD | State: COLORADO |
| Legal Description: NE NE-9-1S-68W-542FNL-939FEL | | | |
| Contractor: ENSIGN DRLG | | Rig/Platform Name/Num: ENSIGN 769 | |
| Job BOM: 7523 7523 | | | |
| Well Type: HORIZONTAL OIL | | | |
| Sales Person: HALAMERICA\HX41066 | | Srvc Supervisor: Nicholas Peterson | |

Job

| | | | |
|-------------------------------|-------------|--------------------------|---------------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | BHST | | |
| Job depth MD | 18,365' | Job Depth TVD | 7,880' |
| 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 | | 9.625 | 8.921 | 36 | | | 0 | 1617 | 0 | 1617 |
| Casing | 0 | 5.5 | 4.892 | 17 | | | 0 | 18365 | 0 | 7880 |
| Open Hole Section | | | 8.5 | | | | 1617 | 18366 | 0 | 7880 |

Tools and Accessories

| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make |
|--------------|---------|-----|---------|----------|----------------|---------|-----|---------|
| Float Shoe | 5.5 | 1 | Innovex | 18,363 | Top Plug | 5.5 | 1 | Innovex |
| Float Collar | 5.5 | 1 | Innovex | 18,360 | Bottom Plug | 5.5 | 1 | Innovex |
| Frac Sleeve | 5.5 | 1 | Innovex | 18,313 | Plug Container | 5.5 | 1 | HES |
| Frac Sleeve | 5.5 | 1 | Innovex | 18,265 | Cement Basket | 5.5 | 3 | |
| Air Lock Sub | 5.5 | 1 | Innovex | 7,297 | Centralizers | 5.5 | 312 | |

Fluid Data

Stage/Plug #: 1

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---------|------------|-------------------------------|-----|---------|------------------------|-----------------------------|---------------|--------------|---------------------|
| 1 | Spacer | TUNED PRIME CEMENT SPACER SYS | 50 | bbl | 11.5 | 3.69 | 23.33 | 6 | 1,775 |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---------|------------|-----------------------|-----|---------|------------------------|-----------------------------|---------------|--------------|---------------------|
| 2 | Cap | ELASTICEM (TM) SYSTEM | 544 | sack | 13 | 1.67 | 8.34 | 9 | 4,537 |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/mi n | Total Mix Fluid Gal | |
|---|--------------|---|---------------------|---------|---------------------------|--------------------------------|------------------------|---------------------|------------------------|-------|
| 3 | Lead | SBM CEM FDP-C1371 SYS | 780 | sack | 13 | 1.56 | 7.25 | 9 | 5,655 | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/mi n | Total Mix Fluid Gal | |
| 4 | Tail | ELASTICEM (TM) SYSTEM | 1514 | sack | 13.2 | 1.59 | 7.75 | 9 | 11,734 | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/mi n | Total Mix Fluid Gal | |
| 5 | Displacement | MMCR Water | 426 | bbl | 8.33 | | | 10 | | |
| 0.20 gal/bbl | | MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781) | | | | | | | | |
| | | | | | | | | | | |
| Cement Left In Pipe | | Amount | 5 ft | | Reason | | | Shoe Joint | | |
| Mix Water: | | pH 7.0 | Mix Water Chloride: | | 0 ppm | | Mix Water Temperature: | | | 55 °F |
| Cement Temperature: | | ## °F | Plug Displaced by: | | 8.33 lb/gal | | Disp. Temperature: | | | 55 °F |
| Plug Bumped? | | Yes | Bump Pressure: | | 2,994 psi | | Floats Held? | | | Yes |
| Cement Returns: | | 76 bbls | Returns Density: | | 13.0 lb/gal | | Returns Temperature: | | | ## °F |
| Comment: Pumped 50 bbs Spacer, 162 bbls Cap, 217 bbls Lead, 429 bbls Tail. Pumped 426 bbls Fresh Water Displacement with MMCR. Spacer to surface 300 bbls into displacement cement to surface 350 away total of 76 bbls cement to surface. | | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Seq No. | Activity | Graph Label | Date | Time | DH Density (ppg) | Comb Pump Rate (bbl/min) | DS Pump Press (psi) | Pump Stg Tot (bbl) | Comments |
|---------|--|--|------------|----------|---------------------|-----------------------------|------------------------|-----------------------|--|
| 1 | Call Out | Call Out | 11/29/2021 | 20:00:00 | | | | | CREW CALLED OUT NOVEMBER 29, 2021 @ 20:00, REQUESTED ON LOCATION @ 05:00. CREW PICKED UP CEMENT, CHEMICALS D-AIR 60-GALS, MMCR 80-GALS, SUGAR 100 LBS, 15-GALS MUSOL AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10866493, PUMP 11826999 AND P/U 12992454. |
| 2 | Depart Yard Safety Meeting | Depart Yard Safety Meeting | 11/30/2021 | 02:00:00 | | | | | CREW DISCUSSED ROUTES, HAZARDS AND COMMUNICATION WITH CREW. |
| 3 | Crew Leave Shop | Crew Leave Shop | 11/30/2021 | 02:30:00 | | | | | STARTED JOURNEY MANAGEMENT. |
| 4 | Arrive at Location from Service Center | Arrive at Location from Service Center | 11/30/2021 | 03:30:00 | | | | | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,617', 5.5" CASING: 17 LB/FT TOTAL 18,365', 8.5' OH, TD 18,366', 5' SHOE TRAC, TVD- 7,880'. TWO FRAC SLEEVES @ 18,313' AND 18,265', 312 CENTRALIZERS 3 CEMENT BASKETS, INNOVEX FLOAT EQUIPMENT AND AIR LOCK SUB @ 7,297'. WF- 10.5 LB/GAL, DISPLACING WITH MMCR TREATED FRESH WATER PRE-MIXED IN 400 BBLs UPRIGHT WITH 80 GALS. |
| 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 11/30/2021 | 04:45:00 | | | | | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER. |

| | | | | | | | | | |
|----|------------------------|------------------------|------------|----------|-------|------|--------|--------|--|
| 6 | Rig-Up Equipment | Rig-Up Equipment | 11/30/2021 | 05:00:00 | | | | | CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB. |
| 7 | Rig-Up Completed | Rig-Up Completed | 11/30/2021 | 06:30:00 | 8.02 | 0.00 | 1.00 | 16.60 | WAITED ON RIG TO FINISH CASING RUN AND CIRCULATION. |
| 8 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 11/30/2021 | 08:30:00 | 8.02 | 0.00 | 2.00 | 16.60 | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| 9 | Start Job | Start Job | 11/30/2021 | 09:59:45 | 8.01 | 2.60 | 20.00 | 3.40 | BEGIN RECORDING JOB DATA. |
| 10 | Test Lines | Test Lines | 11/30/2021 | 10:04:48 | 8.32 | 0.00 | 201.00 | 1.60 | PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 980 PSI, 5TH GEAR STALL OUT @ 1,950 PSI. |
| 11 | Drop Bottom Plug | Drop Bottom Plug | 11/30/2021 | 10:07:20 | 8.31 | 0.00 | 19.00 | 1.60 | PLUG LOADED BY MANNY. |
| 12 | Pump Spacer 1 | Pump Spacer 1 | 11/30/2021 | 10:07:59 | 8.30 | 0.00 | 16.00 | 0.00 | PUMP 50 BBLS OF TUNED PRIME SPACER @ 11.5 LB/GAL, 3.69 FT3/SK, 23.33 GAL/SK. INJECTED 15 GALLONS D-AIR ON THE FLY, DRY SURFACTANTS MIXED IN WITH BLEND. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBLS/MIN @ 490 PSI. |
| 13 | Pump Cap Cement | Pump Cap Cement | 11/30/2021 | 10:18:47 | 11.97 | 6.40 | 445.00 | 0.10 | PUMPED 544 SKS OF ELASTICEM CAP @ 13.0 LB/GAL, 1.67 FT3/SK, 8.34 GAL/SK. 161.80 BBLS, HOC CALCULATED @ 2,545', TOC CALCULATED @ SURFACE GETTING 46 BBLS BACK TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 9.5 BBLS/MIN 1,157 PSI. |
| 14 | Pump Lead Cement | Pump Lead Cement | 11/30/2021 | 10:37:15 | 12.94 | 9.20 | 716.00 | 165.00 | PUMPED 780 SKS OF SBM FDP C1371 LEAD @ 13.0 LB/GAL, 1.56 FT3/SK, 7.25 GAL/SK. 216.71 BBLS, INJECTED 45-GALS D-AIR ON THE FLY. HOL CALCULATED @ 5,312', TOL CALCULATED @ 2,545'. DENSITY VERIFIED |

BY PRESSURIZED MUD SCALES. PUMP RATE 9.5 BBL/MIN
 940 PSI.

| | | | | | | | | | |
|----|-------------------------------|-------------------------------|------------|----------|-------|------|---------|--------|---|
| 15 | Pump Tail Cement | Pump Tail Cement | 11/30/2021 | 11:01:30 | 12.95 | 9.20 | 842.00 | 224.10 | PUMP 1514 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.59 FT3/SK, 7.75 GAL/SK, 428.73 BBL. HOT CALCULATED @ 10,508', TOT CALCULATED @ 7,857'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 9.5 BBL/MIN @ 790 PSI. |
| 16 | Shutdown | Shutdown | 11/30/2021 | 11:52:01 | 0.49 | 0.00 | 36.00 | 449.80 | SHUTDOWN TO WASH LINES. |
| 17 | Clean Lines | Clean Lines | 11/30/2021 | 11:55:13 | 1.86 | 0.00 | 39.00 | 449.80 | CLEAN PUMPS AND LINES WITH 10 BBL FRESH WATER. |
| 18 | Drop Top Plug | Drop Top Plug | 11/30/2021 | 12:00:09 | 8.29 | 0.00 | 19.00 | 463.30 | PLUG LOADED BY MANNY. |
| 19 | Pump Displacement | Pump Displacement | 11/30/2021 | 12:01:40 | 8.32 | 0.00 | 2.00 | 0.00 | BEGIN CALCULATED DISPLACEMENT OF 426 BBL FRESH WATER WITH 80-GALS MMCR. SPACER TO SURFACE @ 300 BBL INTO DISPLACEMENT. CEMENT TO SURFACE @ 350 BBL AWAY WITH TOTAL OF 76 BBL CEMENT TO SURFACE. PUMP RATE 4 BBL/MIN @ 2800 PSI. |
| 20 | Bump Plug | Bump Plug | 11/30/2021 | 13:17:30 | 8.39 | 4.10 | 2863.00 | 432.20 | PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,994 PSI PRESSURED 500 PSI OVER BUMP. |
| 21 | Check Floats | Check Floats | 11/30/2021 | 13:19:51 | 8.39 | 0.00 | 3040.00 | 0.00 | RELEASED PRESSURE, FLOATS HELD, 5 BBL BACK. |
| 22 | End Job | End Job | 11/30/2021 | 13:20:52 | 8.35 | 0.00 | 44.00 | 0.00 | STOP RECORDING JOB DATA. |
| 23 | Safety Meeting - Pre Rig-Down | Safety Meeting - Pre Rig-Down | 11/30/2021 | 13:30:00 | | | | | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION SPECIFIC HAZARDS, PINCH POINTS RIGGING DOWN/RACKING UP IRON AND HOSES. |
| 24 | Rig-Down Equipment | Rig-Down Equipment | 11/30/2021 | 13:35:00 | | | | | RIG DOWN BULK AND MIXING EQUIPMENT. |
| 25 | Rig-Down Completed | Rig-Down Completed | 11/30/2021 | 14:00:00 | | | | | ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL AND LOCATION WAS CLEAN. |

| | | | | | |
|----|-----------------------------------|-----------------------------------|------------|----------|---|
| 26 | Depart Location Safety Meeting | Depart Location Safety Meeting | 11/30/2021 | 14:15:00 | CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. |
| 27 | Crew Leave Location | Crew Leave Location | 11/30/2021 | 14:30:00 | THANK YOU FOR USING HALLIBURTON – NICK PETERSON AND CREW. |

3.0 Attachments

3.1 Real Time iCem Job Chart

