

The Road to Excellence Starts with Safety

| | | | |
|---|--------------------|--------------------------------------|---------------------------|
| Sold To #: 300466 | Ship To #: 3847982 | Quote #: 0022426306 | Sales Order #: 0904762911 |
| Customer: ANADARKO PETROLEUM CORP-EBUS | | Customer Rep: Luke Rains | |
| Well Name: AZUL | Well #: 13-30HZ | API/UWI #: 05-123-46114-00 | |
| Field: WATTENBERG | City (SAP): HUDSON | County/Parish: WELD | State: COLORADO |
| Legal Description: SE SW-13-1N-66W-775FSL-2446FWL | | | |
| Contractor: PRECISION DRLG | | Rig/Platform Name/Num: PRECISION 464 | |
| Job BOM: 7523 7523 | | | |
| Well Type: HORIZONTAL GAS | | | |
| Sales Person: HALAMERICA\HX41066 | | Srvc Supervisor: Ryan Stevens | |

Job

| | | | |
|------------------------|---------|-------------------|--------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | BHST | | |
| Job depth MD | 13396ft | Job Depth TVD | 7,460 |
| Water Depth | | Wk Ht Above Floor | |
| 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 | | J-55 | 0 | 1920 | 0 | 1920 |
| Casing | | 5.5 | 4.892 | 17 | LTC | HCP110 | 0 | 13496 | 0 | 7460 |
| Open Hole Section | | | 7.875 | | | | 1920 | 13406 | 0 | 0 |

| Tools and Accessories | | | | | | | | | |
|-----------------------|---------|-----|-------|----------|----------------|---------|-----|-------|--|
| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make | |
| Guide Shoe | | | | | Top Plug | 5.5 | 1 | weath | |
| Float Shoe | 5.5 | 1 | weath | 13496 | Bottom Plug | 5.5 | 1 | weath | |
| Float Collar | 5.5 | 1 | weath | 13494 | SSR plug set | 5.5 | | | |
| Insert Float | | | | | Plug Container | 5.5 | 1 | HES | |
| Stage Tool | | | | | Centralizers | | | | |

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 | Tuned Spacer III | Tuned Spacer III | 60 | bbl | 10.5 | 6.43 | | | 2,142 | |
| 37.58 gal/bbl | | FRESH WATER | | | | | | | | |
| 0.70 gal/bbl | | DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665) | | | | | | | | |
| 0.50 gal/bbl | | D-AIR 3000L, 5 GAL PAIL (101007444) | | | | | | | | |

| | | | | | | | | | |
|---|------------------------|---|-------------|----------------|-------------------------------|-----------------------|----------------------|---------------------|----------------------------|
| 0.70 gal/bbl | | MUSOL A, 330 GAL TOTE - (790828) | | | | | | | |
| 86.45 lbm/bbl | | BARITE, BULK (100003681) | | | | | | | |
| 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 | Gasstop B1 | GASSTOP (TM) SYSTEM | 400 | sack | 13.2 | 1.59 | 7.69 | 6 | 3,076 |
| 0.10 % | | FE-2 (100001615) | | | | | | | |
| 0.40 % | | SCR-100 (100003749) | | | | | | | |
| 5.09 Gal | | FRESH WATER | | | | | | | |
| 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 |
| 3 | EconoCem | ECONOCEM (TM) SYSTEM | 810 | sack | 13.5 | 1.68 | 7.99 | 8 | 6,471 |
| 0.20 % | | SA-1015, 50 LB SACK (102077046) | | | | | | | |
| 7.99 Gal | | FRESH WATER | | | | | | | |
| 0.35 % | | HR-5, 50 LB SK (100005050) | | | | | | | |
| 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 |
| 4 | Biocide Water and MMCR | Biocide Water and MMCR | 20 | bbl | 8.34 | | | | |
| 0.50 gal/bbl | | MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781) | | | | | | | |
| 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 |
| 5 | Displacement | Biocide Water | 291 | bbl | 8.34 | | | 10 | |
| Cement Left In Pipe | Amount | 0 ft | | | Reason | | | Wet shoe | |
| Mix Water: | pH 7 | Mix Water Chloride: | 0 ppm | | Mix Water Temperature: | | | 65 °F | |
| Cement Temperature: | | Plug Displaced by: | 8.34 LB/BBL | | Disp. Temperature: | | | | |
| Plug Bumped? | No | Bump Pressure: | | | Floats Held? | | | Yes | |
| Cement Returns: | 0 bbl | Returns Density: | | | Returns Temperature: | | | °F | |
| Comment DID NOT BUMP PLUG AT CALCULATED DISPLACEMENT. PUMPED 4 BBLS OVER CALCULATED DISPLACEMENT PER CUSTOMER REQUEST. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comments |
|-------|----------|---------------------------|---------------------------|----------|----------|--------|---|
| Event | 1 | Call Out | Call Out | 4/7/2018 | 11:00:00 | USER | CREW CALLED OUT AT 11:00, REQUESTED ON LOCATION 16:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660, AND PUMP 11360070. |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 4/7/2018 | 13:30:00 | USER | CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW. |
| Event | 3 | Crew Leave Yard | Crew Leave Yard | 4/7/2018 | 15:30:00 | USER | STARTED JOURNEY MANAGEMENT. |
| Event | 4 | Arrive At Loc | Arrive At Loc | 4/7/2018 | 15:45:00 | USER | MEET WITH COMPANY REP AND DISCUSS JOB PROCEDURES |
| Event | 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 4/7/2018 | 16:00:00 | USER | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER. |
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 4/7/2018 | 16:10:00 | USER | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB |
| Event | 7 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 4/7/2018 | 18:00:00 | USER | SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS. |
| Event | 8 | Start Job | Start Job | 4/7/2018 | 18:57:13 | COM4 | START RECORDING JOB DATA |
| Event | 9 | Test Lines | Test Lines | 4/7/2018 | 18:59:54 | COM4 | PRESSURE TEST LINES TO 6,969 EKO SET TO 500 KICKED OUT @ 2200. |
| Event | 10 | Pump Spacer 1 | Pump Spacer 1 | 4/7/2018 | 19:05:51 | COM4 | PUMP 60 BBLS OF TUNED SPACER @ 10.5 PPG DENSITY VERIFIED BY PRESSUREIZED MUD SCALES |
| Event | 11 | Drop Bottom Plug | Drop Bottom Plug | 4/7/2018 | 19:23:08 | USER | DROP BOTTOM PLUG VERIFIED BY COMPNY REP. |

| | | | | | | | |
|-------|----|-----------------------------|----------------------------|----------|----------|------|---|
| Event | 12 | Pump Cement | Pump Cement | 4/7/2018 | 19:34:07 | COM4 | PUMP 400 SXS OF GASSTOP CEMENT @13.2 PPG YIELD 1.59 MIX WATER 7.69CALCULATED TOP OF LEAD @ 1100. |
| Event | 13 | Pump Tail Cement | Pump Tail Cement | 4/7/2018 | 19:52:30 | COM4 | PUMP 810 SXS OF ECONOCEM @ 13.5 PPG. YIELD 1.68 MIX WATER 7.99. CALCULATED TOP OF TAIL @ 5554. |
| Event | 14 | Shutdown | Shutdown | 4/7/2018 | 20:36:04 | USER | SHUTDOWN TO WASH UP |
| Event | 15 | Drop Top Plug | Drop Top Plug | 4/7/2018 | 20:42:27 | COM4 | VERIFIED BY COMPANY REP |
| Event | 16 | Pump Displacement | Pump Displacement | 4/7/2018 | 20:48:41 | COM4 | START CALCULATED DISPLACEMNT OF 311 BBLS. FIRST 20 BBLS OF MMCR AND BIOCIDIE THROUGH OUT THE REST |
| Event | 17 | Shutdown | Shutdown | 4/7/2018 | 21:48:04 | USER | SHUTDOWN DID NOT BUMP PLUG, PUMP 4 BBLS OVER CALCULATED DISPLACEMENT OF 311 BBLS FOR A TOTAL OF 314 BBLS. |
| Event | 18 | Check Floats | Check Floats | 4/7/2018 | 21:49:07 | USER | CHECK FLAOTS 2 BBLS BACK |
| Event | 19 | End Job | End Job | 4/7/2018 | 21:53:09 | COM4 | STOP RECORDING JOB DATA |
| Event | 20 | Pre-Rig Down Safety Meeting | Pre Rig Down Safet Meeting | 4/7/2018 | 23:00:00 | USER | CREW DISCUSSED HAZARDS ASSOCIATED WITH RIG DOWN. |
| Event | 21 | Rig-Down Completed | Rig-Down Completed | 4/7/2018 | 23:18:06 | USER | ALL HALLIBURTON EQUIPMENT WAS STOED AND READY FOR TRAVEL |
| Event | 22 | Crew Leave Location | Crew Leave Location | 4/7/2018 | 23:19:35 | USER | THANKS RYAN STEVENS AND CREW |

3.0 Attachments

3.1 Job Chart

