

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

| | | | | | | | | | | |
|--|--------------------|--|---------------------------|---------------|------------------------|-----------------------------|---------------|--------------|---------------------|---------------|
| Sold To #: 300486 | Ship To #: 3752113 | Quote #: 0022377315 | Sales Order #: 0904449252 | | | | | | | |
| Customer: ANADARKO PETROLEUM CORP-EBUS | | Customer Rep: LUKE RAINS | | | | | | | | |
| Well Name: WAGNER | Well #: 2C-10HZ | API/UWI #: 05-123-43473-00 | | | | | | | | |
| Field: WATTENBERG | City (SAP): IONE | County/Parish: WELD | State: COLORADO | | | | | | | |
| Legal Description: SW NE-22-1N-87W-1722FNL-1574FEL | | | | | | | | | | |
| Contractor: PRECISION DRLG | | Rig/Platform Name/Num: PRECISION 484 | | | | | | | | |
| Job BOM: 7522 7522 | | | | | | | | | | |
| Well Type: HORIZONTAL GAS | | | | | | | | | | |
| Sales Person: HALAMERICA\HX41086 | | Srv Supervisor: Vitali Neverdasov | | | | | | | | |
| Job | | | | | | | | | | |
| Formation Name | | | | | | | | | | |
| Formation Depth (MD) | Top | Bottom | | | | | | | | |
| Form Type | | BHST | | | | | | | | |
| Job depth MD | 5970ft | Job Depth TVD | 5770 | | | | | | | |
| 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 | 1868 | 0 | 1868 |
| Casing | | 7 | 6.276 | 26 | LTC | HCP110 | 0 | 5970 | 0 | 5770 |
| Open Hole Section | | | 8.5 | | | | 1868 | 5980 | 1868 | 5770 |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| Guide Shoe | 7 | | | | | Top Plug | 7 | 1 | NA | |
| Float Shoe | 7 | 1 | NA | 5970 | | Bottom Plug | 7 | 1 | NA | |
| Float Collar | 7 | 1 | NA | 5926 | | SSR plug set | 7 | | | |
| Insert Float | 7 | | | | | Plug Container | 7 | 1 | HES | |
| Stage Tool | 7 | | | | | Centralizers | 7 | 102 | HES | |
| 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 | Tuned Spacer III | Tuned Spacer III | 40 | bbl | 10.5 | 6.25 | | 2.0 | | |
| 0.70 gal/bbl | | MUSOL A, 330 GAL TOTE - (790828) | | | | | | | | |
| 88.91 lbm/bbl | | BARITE, BULK (100003681) | | | | | | | | |
| 37.58 gal/bbl | | FRESH WATER | | | | | | | | |
| 0.70 gal/bbl | | DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665) | | | | | | | | |

last updated on 11/30/2017 10:47:10 AM

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iCem® Service

(v. 4.2.393)

Created: Thursday, November 30, 2017

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| 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 | ElastiCem | ELASTICEM (TM) SYSTEM | 395 | sack | 13.2 | 1.57 | | 6 | 7.53 |
| 0.20 % | | HR-5, 50 LB SK (100005050) | | | | | | | |
| 7.54 Gal | | FRESH WATER | | | | | | | |
| 0.10 % | | SUPER CBL, 50 LB PAIL (100003668) | | | | | | | |
| | | | | | | | | | |
| 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 | Displacement Fluid | Displacement Fluid | 226 | bbl | 9.5 | | | 5 | |
| | | | | | | | | | |
| Cement Left In Pipe | | Amount | 44 ft | | Reason | | | Shoe Joint | |
| | | | | | | | | | |
| Comment :GOT 11 BBLs OF SPACER BACK TO SURFACE. DID NOT GET CEMENT BACK. ESTIMATED TOP OF SPACER @ 976 ' | | | | | | | | | |

2.0 Real-Time Job Summary

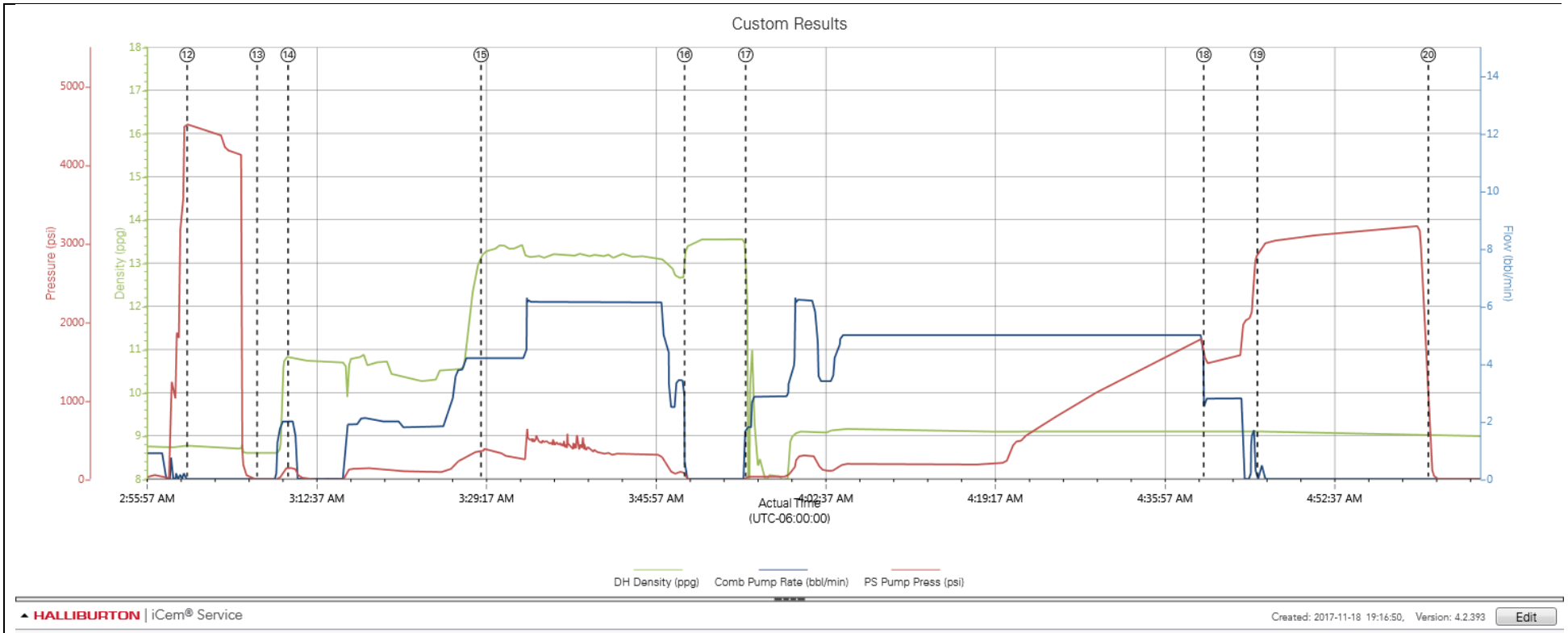
2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density (ppg) | Comb Pump Rate (bbl/min) | PS Pump Press (psi) | Comments |
|-------|----------|--|--|------------|----------|--------|---------------------|-----------------------------|------------------------|---|
| Event | 1 | Call Out | Lay Out Tool(s) | 11/18/2017 | 18:00:00 | USER | | | | CUSTOMER REQUESTED CREW @ 23:00 |
| Event | 2 | Depart Yard Safety Meeting | Depart Yard Safety Meeting | 11/18/2017 | 19:45:00 | USER | | | | HELD JSA PRIOR LEAVING TO LOCATION |
| Event | 3 | Depart Shop for Location | Depart Shop for Location | 11/18/2017 | 20:00:00 | USER | | | | LEAVE THE YARD |
| Event | 4 | Arrive at Location from Service Center | Arrive at Location from Service Center | 11/18/2017 | 22:30:00 | USER | | | | 6 MILES TO LOCATION. DISCUSS NUMBERS AND PROCEDURE WITH CUSTOMER. RIG IS RUNNING CASING |
| Event | 5 | Other | Other | 11/18/2017 | 22:40:00 | USER | | | | SPOT TRUCKS |
| Event | 6 | Safety Meeting - Pre Rig-Up | Safety Meeting - Pre Rig-Up | 11/18/2017 | 22:47:00 | USER | | | | HELD PRE RIG UP SAFETY MEETING |
| Event | 7 | Rig-up Lines | Rig-up Lines | 11/18/2017 | 23:03:00 | USER | | | | RIG UP ALL SURFACE LINES TO THE BUFFER ZONE |
| Event | 8 | Casing on Bottom | Casing on Bottom | 11/19/2017 | 00:55:00 | USER | 0.00 | 0.00 | -1.00 | CASING ON BUTTOM. CASING CREW IS RIGGING DOWN |
| Event | 9 | Other | Other | 11/19/2017 | 01:15:00 | USER | 0.00 | 0.00 | 0.00 | CEMENT CREW IS FINISHING RIG UP |
| Event | 10 | Safety Meeting - Pre Job | Safety Meeting - Pre Job | 11/19/2017 | 01:55:00 | USER | 0.00 | 0.00 | 1.00 | PRE JOB SAFETY MEETING |
| Event | 11 | Start Job | Start Job | 11/19/2017 | 02:53:03 | COM4 | | | | |
| Event | 12 | Pressure Test | Pressure Test | 11/19/2017 | 03:00:07 | USER | 8.77 | 0.00 | 4509.00 | LOAD LINE AND PRESSURE TEST TO 4500 PSI |
| Event | 13 | Drop Bottom Plug | Drop Bottom Plug | 11/19/2017 | 03:07:00 | USER | 8.60 | 0.00 | -5.00 | |
| Event | 14 | Pump Spacer | Pump Spacer | 11/19/2017 | 03:10:02 | USER | 10.82 | 2.00 | 140.00 | BATCH/WEIGH/PUMP 40 BBLS OF TUNED SPACER III WITH SURFACTANS @ 10.5 PPG |
| Event | 15 | Pump Cement | Pump Cement | 11/19/2017 | 03:29:00 | USER | 13.23 | 4.20 | 374.00 | BATCH/ WEIGH/ PUMP 395 SKS (110.4 BBLS) OF ELASTICEM @ 13.2 PPG |
| Event | 16 | Shutdown | Shutdown | 11/19/2017 | 03:49:00 | USER | 13.38 | 0.00 | 6.00 | SHUTDOWN/ DROP TOP PLUG |

| | | | | | | | | | | |
|-------|----|--|--|------------|----------|------|------|------|---------|---|
| Event | 17 | Pump Displacement | Pump Displacement | 11/19/2017 | 03:55:00 | USER | 7.05 | 1.80 | 29.00 | PUMP MUD DISPLACEMENT |
| Event | 18 | Other | Other | 11/19/2017 | 04:40:00 | USER | 9.08 | 2.80 | 1478.00 | SLOW RATE |
| Event | 19 | Bump Plug | Bump Plug | 11/19/2017 | 04:45:15 | USER | 9.10 | 0.00 | 2888.00 | BUMP PLUG 500 OVER FINAL CIRCULATING PRESSURE OF 1597. PER CUSTOMER REQUEST PRESSURE UP TO 3000 PSI FOR CASING TEST FOR 15 MIN. |
| Event | 20 | Check Floats | Check Floats | 11/19/2017 | 05:02:03 | USER | 9.05 | 0.00 | 417.00 | FLOATS HELD |
| Event | 21 | Safety Meeting - Pre Rig-Down | Safety Meeting - Pre Rig-Down | 11/19/2017 | 05:10:00 | USER | 8.99 | 0.00 | -1.00 | |
| Event | 22 | End Job | End Job | 11/19/2017 | 05:33:23 | COM4 | | | | |
| Event | 23 | Depart Location Safety Meeting | Depart Location Safety Meeting | 11/19/2017 | 06:40:00 | USER | | | | |
| Event | 24 | Depart Location for Service Center or Other Site | Depart Location for Service Center or Other Site | 11/19/2017 | 06:55:00 | USER | | | | |

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

