

HALLIBURTON

iCem[®] Service

ENSIGN UNITED STATES DRILLING

For: Sam Mikesell

Date: Wednesday, October 01, 2014

SRC KIEHN N-4NHZ

Intermediate

Sincerely,

Steven Markovich

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The Road to Excellence Starts with Safety

| Sold To #: 301256 | | Ship To #: 3542585 | | Quote #: | | Sales Order #: 0901702202 | | | | | |
|--|------------------|-----------------------|----------------|-----------------------------------|-----------------------------------|-----------------------------|---------------|--------------|---------------------|---------------|--|
| Customer: ENSIGN UNITED STATES DRILLING | | | | Customer Rep: Sam Mikesell | | | | | | | |
| Well Name: SRC KIEHN | | | Well #: N-4NHZ | | | API/UWI #: 05-123-397 16-00 | | | | | |
| Field: WATTENBERG | | City (SAP): JOHNSTOWN | | County/Parish: WELD | | State: COLORADO | | | | | |
| Legal Description: SW SE-4-4N-68W-201FSL-1851FEL | | | | | | | | | | | |
| Contractor: | | | | Rig/Platform Name/Num: Ensign 131 | | | | | | | |
| Job BOM: 7522 | | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | | |
| Sales Person: HALAMERICA/HX41066 | | | | | Srv. Supervisor: Steven Markovich | | | | | | |
| Job | | | | | | | | | | | |
| Formation Name | | | | | | | | | | | |
| Formation Depth (MD) | | Top | | | Bottom | | | | | | |
| Form Type | | | | | | | | | | | |
| BHST | | | | | | | | | | | |
| Job depth MD | | 7950ft | | | Job Depth TVD | | | | | | |
| 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 | | | 0 | 1289 | 0 | 1289 | |
| Casing | | 7 | 6.276 | 26 | BTC | | 0 | 7460 | 0 | 7102 | |
| Open Hole Section | | | 8.75 | | | | 1289 | 7460 | 1289 | 7460 | |
| Tools and Accessories | | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make | | | |
| Guide Shoe | 7 | 1 | | 7460 | Top Plug | 7 | 1 | HES | | | |
| Float Shoe | 7 | 1 | | | Bottom Plug | 7 | 1 | HES | | | |
| Float Collar | 7 | 1 | | | SSR plug set | 7 | 1 | HES | | | |
| Insert Float | 7 | 1 | | | Plug Container | 7 | 1 | HES | | | |
| Stage Tool | 7 | 1 | | | Centralizers | 7 | 1 | HES | | | |
| Miscellaneous Materials | | | | | | | | | | | |
| Gelling Agt. | | Conc | | Surfactant | | Conc | Acid Type | | Qty | Conc | |
| Treatment Fld | | Conc | | Inhibitor | | Conc | Sand Type | | Size | Qty | |
| 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 | CLEANSRACE R III | CLEANSRACER III | 40 | bbl | 10.5 | 3.86 | 35.1 | 4 | | | |
| 35.10 gal/bbl | | | FRESH WATER | | | | | | | | |

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Cementing Job Summary

| 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 |
|-------------------------------------|--------------|--|--------|---------|---------------------------|--------------------------------|------------------|---------------------|---------------------------|
| 2 | EconoCem B2 | ECONOCEM (TM) SYSTEM | 479 | sack | 12.5 | 1.89 | | 6 | 10.23 |
| 10.23 Gal | | FRESH WATER | | | | | | | |
| 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 | FracCem | FRACCEM (TM) SYSTEM | 172 | sack | 13.5 | 1.74 | | 6 | 8.27 |
| 8.27 Gal | | FRESH WATER | | | | | | | |
| 3 lbm | | SILICALITE - COMPACTED, 50 LB SK (100012223) | | | | | | | |
| 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 | Displacement | Displacement | 277 | bbl | 9 | | | | |
| Cement Left In Pipe | | | Amount | 46 ft | Reason | | Shoe Joint | | |
| Comment 2bbbls of Cement to surface | | | | | | | | | |

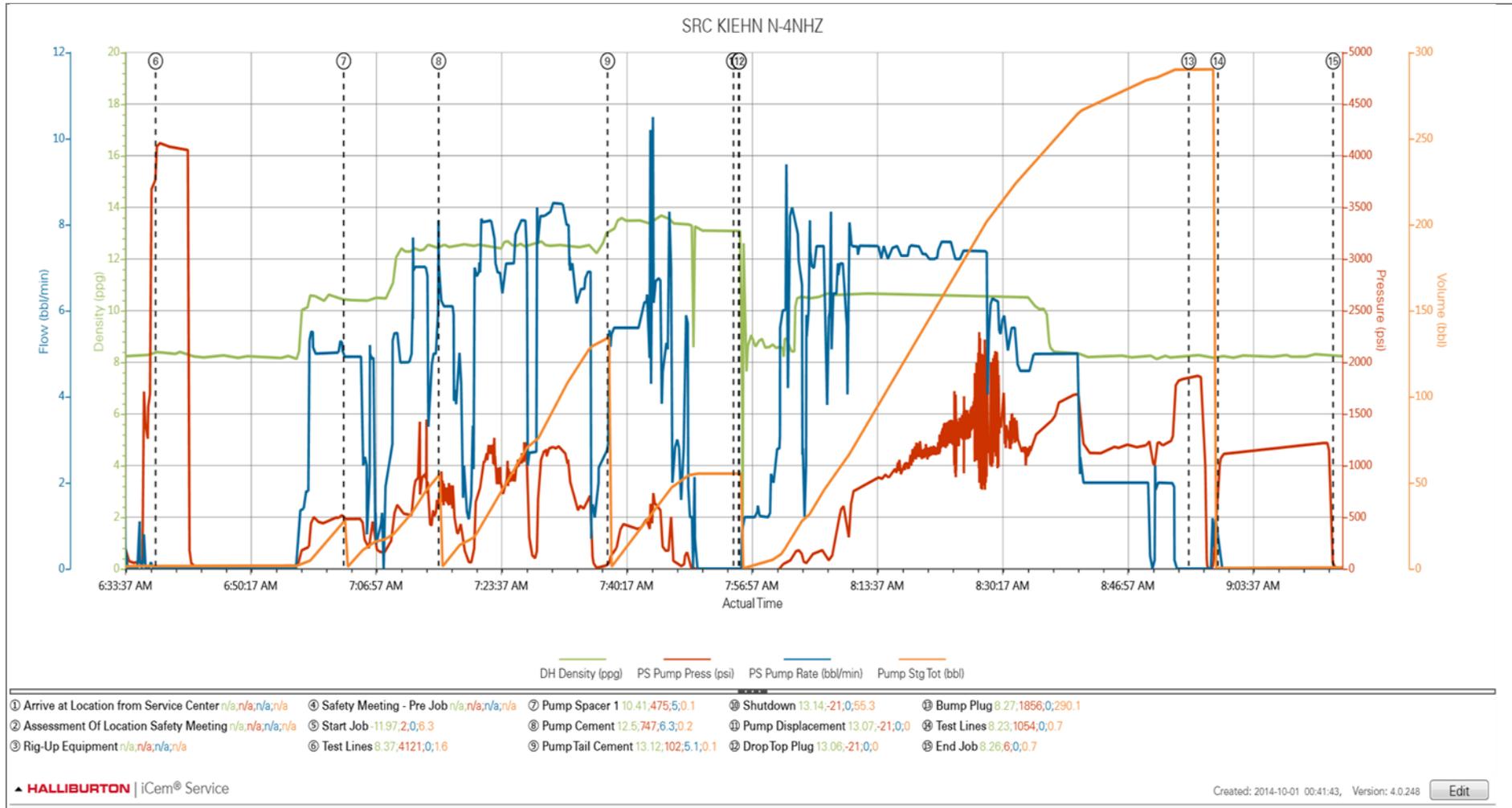
1.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density (ppg) | PS Pump Press (psi) | PS Pump Rate (bbl/min) | Pump Stg Tot (bbl) | Comments |
|-------|----------|--|--|-----------|----------|--------|------------------|---------------------|------------------------|--------------------|--|
| Event | 1 | Arrive at Location from Service Center | Arrive at Location from Service Center | 10/1/2014 | 00:15:00 | USER | | | | | Arrived on location rig still running casing approx 35 joints |
| Event | 2 | Assessment Of Location Safety Meeting | Assessment Of Location Safety Meeting | 10/1/2014 | 00:25:00 | USER | | | | | JSA and hazard hunt with HES crew |
| Event | 3 | Rig-Up Equipment | Rig-Up Equipment | 10/1/2014 | 00:45:00 | USER | | | | | Rigged up HES lines and equipment |
| Event | 4 | Safety Meeting - Pre Job | Safety Meeting - Pre Job | 10/1/2014 | 06:00:00 | USER | | | | | JSA with HES and Rig crew on job procedure |
| Event | 5 | Start Job | Start Job | 10/1/2014 | 06:31:34 | COM6 | -11.97 | 2.00 | 0.00 | 6.3 | |
| Event | 6 | Test Lines | Test Lines | 10/1/2014 | 06:37:54 | COM6 | 8.37 | 4119.00 | 0.00 | 1.6 | Test lines to 4000psi |
| Event | 7 | Pump Spacer 1 | Pump Spacer 1 | 10/1/2014 | 07:02:55 | COM6 | 10.41 | 471.00 | 4.90 | 0.0 | Pump 40bbls of 10.5ppg Spacer |
| Event | 8 | Pump Cement | Pump Cement | 10/1/2014 | 07:15:33 | COM6 | 12.49 | 842.00 | 6.50 | 0.1 | Pump 161 bbls of 12.5ppg Lead Cement |
| Event | 9 | Pump Tail Cement | Pump Tail Cement | 10/1/2014 | 07:38:01 | COM6 | 13.13 | 97.00 | 5.10 | 0.0 | Pump 53 bbls of 13.5ppg Tail Cement |
| Event | 10 | Shutdown | Shutdown | 10/1/2014 | 07:54:46 | COM6 | 13.14 | -21.00 | 0.00 | 55.3 | |
| Event | 11 | Pump Displacement | Pump Displacement | 10/1/2014 | 07:55:27 | COM6 | 13.09 | -21.00 | 0.00 | 0.0 | Pump 277bbls. Spacer to surface at 234 away and cement to surface at 275 away giving us 2bbls of Cement to surface |
| Event | 12 | Drop Top Plug | Drop Top Plug | 10/1/2014 | 07:55:32 | COM6 | 13.05 | -21.00 | 0.00 | 0.0 | Plug pre loaded in HES head |
| Event | 13 | Bump Plug | Bump Plug | 10/1/2014 | 08:55:19 | COM6 | 8.26 | 1855.00 | 0.00 | 290.1 | Final lift pressure was 1216 took 500 over and held for 3 mins checked floats, floats good |
| Event | 14 | Test Lines | Test Lines | 10/1/2014 | 08:59:12 | COM6 | 8.23 | 1054.00 | 0.00 | 0.7 | Casing test 1000psi for 15 mins |
| Event | 15 | End Job | End Job | 10/1/2014 | 09:14:31 | COM6 | 8.26 | 6.00 | 0.00 | 0.7 | Thank you Markovich and |

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density <i>(ppg)</i> | PS Pump Press <i>(psi)</i> | PS Pump Rate <i>(bbl/min)</i> | Pump Stg Tot <i>(bbl)</i> | Comments |
|------|----------|----------|-------------|------|------|--------|----------------------------|-------------------------------|----------------------------------|------------------------------|----------|
| | | | | | | | | | | | crew |

2.0 Attachments

2.1 SRC KIEHN N-4NHZ-Custom Results.png



2.2 One-Minutes Real-Time Data Listing
