

**ENSIGN UNITED STATES DRILLING EBUSI
PO BOX 17805 - DO NOT MAIL
DENVER, Colorado**

Phelps 11-32NHZ

Ensign 17

Post Job Summary **Cement Intermediate Casing**

Date Prepared: 11/29/2013
Version: 1

Service Supervisor: FANTASIA, JOSEPH

Submitted by: TRIER, DEREK

HALLIBURTON

HALLIBURTON

Wellbore Geometry

| Job Tubulars | | | | | MD | | TVD | | Shoe Joint Length ft |
|-------------------|-----------------------|------------|----------|--------------|----------|--------------|----------|--------------|-------------------------|
| Type | Description | Size in | ID in | Wt lbm/ft | Top ft | Bottom ft | Top ft | Bottom ft | |
| Casing | 9-5/8" Surface Casing | 9.63 | 8.921 | 36.00 | 0.00 | 1,193.00 | | | 0.00 |
| Casing | 7" Casing | 7.00 | 6.276 | 26.00 | 0.00 | 7,930.00 | 0.00 | 6,843.00 | 90.00 |
| Open Hole Section | 8-3/4" Hole | | 8.750 | | 1,193.00 | 7,930.00 | 1,193.00 | 6,843.00 | |

HALLIBURTON

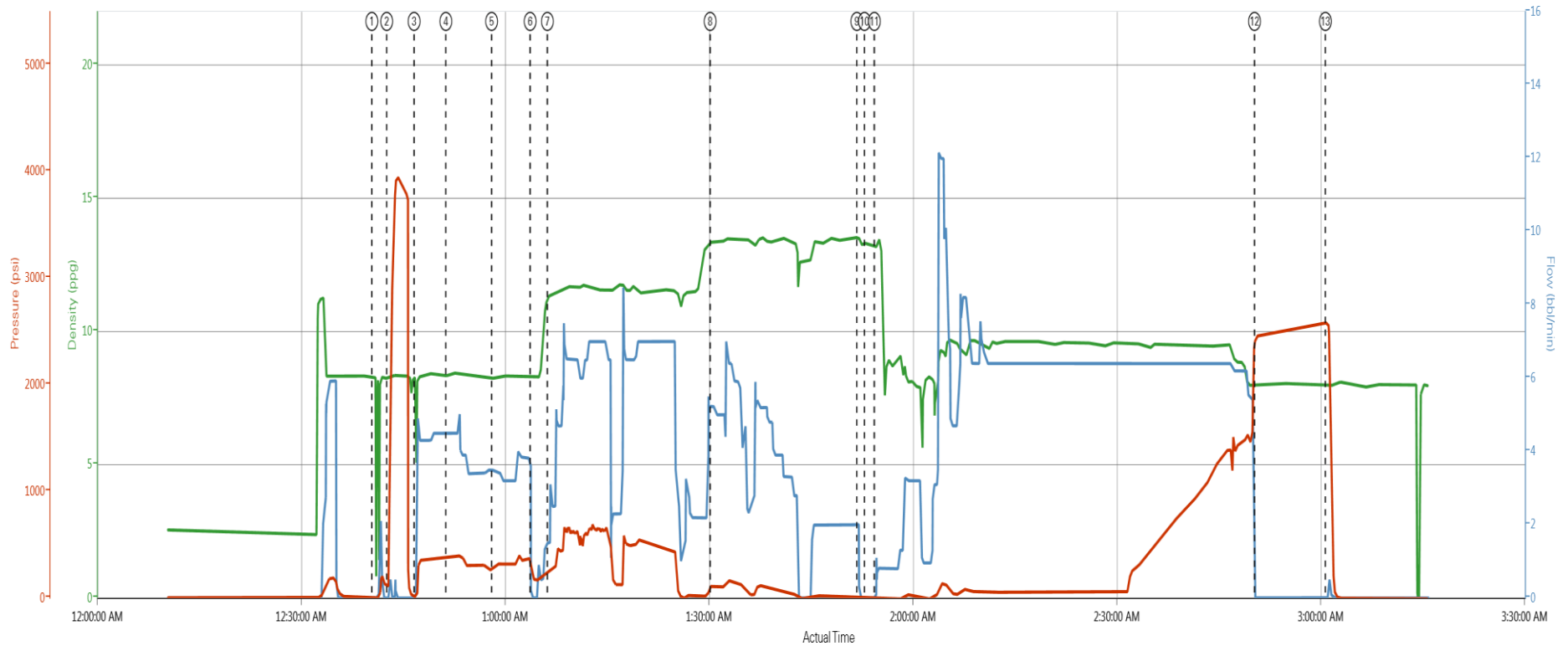
Pumping Schedule

| Stage /Plug # | Fluid # | Fluid Type | Fluid Name | Surface Density lbm/gal | Avg Rate bbl/min | Surface Volume | Downhole Volume |
|----------------------|----------------|-------------------|-------------------|--------------------------------|-------------------------|-----------------------|------------------------|
| 1 | 1 | Spacer | Water Spacer | 8.33 | 4.00 | 20.0 bbl | 20.0 bbl |
| 1 | 2 | Spacer | Mud Flush III | 8.40 | 4.00 | 24.0 bbl | 24.0 bbl |
| 1 | 3 | Spacer | Water Spacer | 8.33 | 4.00 | 20.0 bbl | 20.0 bbl |
| 1 | 4 | Cement Slurry | ExtendaCem B1 | 11.50 | 7.00 | 305.0 sacks | 305.0 sacks |
| 1 | 5 | Cement Slurry | FracCem B2 | 13.50 | 5.00 | 255.0 sacks | 255.0 sacks |

HALLIBURTON

Data Acquisition

ENSIGN PHELPS 11-32NHZ



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi)

① Start Job 8.32;0,0 ② Pump Spacer 2 8.38;4,5,381 ③ Pump Lead Cement 11.36;1,5,244 ④ Drop Top Plug 13.26;0,-7 ⑤ Check Floats 7.96;0,2583
 ⑥ Test Lines 8.31;0,111 ⑦ Pump Spacer 1 8.22;3,5,262 ⑧ Pump Tail Cement 13.32;5,3,118 ⑨ Pump Displacement 13.15;1,1,-6
 ⑩ Pump Spacer 1 5.79;1,1,6 ⑪ Drop Bottom Plug 8.28;0,221 ⑫ Shutdown 13.54;1,3,12 ⑬ Bump Plug 8.03;0,2453

▲ HALLIBURTON | iCem® Service

Created: 2013-11-18 21:12:03, Version: 2.0.606

Edit

HALLIBURTON

Service Supervisor Reports

Job Log

| Date/Time | Chart # | Activity Code | Pump Rate | Cum Vol | Pump | | Pressure (psig) | | Comments |
|------------------|---------|--|-----------|---------|------|--|-----------------|--|--|
| 11/18/2013 22:30 | | Arrive at Location from Service Center | | | | | | | ARRIVE AT LOCATION AND PERFORM HAZARD HUNT AND SITE ASSESSMENT WITH CREW. RIG RUNNING CASING |
| 11/18/2013 22:45 | | Assessment Of Location Safety Meeting | | | | | | | |
| 11/19/2013 00:40 | | Start Job | | | | | | | PERFORM PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONELL. |
| 11/19/2013 00:42 | | Test Lines | | | | | 3990.0 | | PRESSURE TEST LINES TO 4000 PSI. |
| 11/19/2013 00:46 | | Pump Spacer 1 | 4 | 20 | | | 6.0 | | PUMP 20 BBLS WATER |
| 11/19/2013 00:51 | | Pump Spacer 2 | 4 | 24 | | | 381.0 | | PUMP 24 BBLS MUDFLUSH |
| 11/19/2013 00:58 | | Pump Spacer 1 | 4 | 20 | | | 262.0 | | PUMP 20 BBLS WATER |
| 11/19/2013 01:03 | | Drop Bottom Plug | | | | | 221.0 | | BOTTOM PLUG PRELOADED |
| 11/19/2013 01:06 | | Pump Lead Cement | 7 | 125 | | | 244.0 | | 305 SACKS EXTENDACEM MIXED AT 11.5 PPG USING RIG WATER |
| 11/19/2013 01:30 | | Pump Tail Cement | 5 | 79 | | | 118.0 | | 255 SACKS FRACCCEM MIXED AT 13.5 PPG USING RIG WATER |
| 11/19/2013 01:52 | | Shutdown | | | | | 12.0 | | |
| 11/19/2013 01:53 | | Drop Top Plug | | | | | .0 | | TOP PLUG PRELOADED |
| 11/19/2013 01:54 | | Pump Displacement | 8 | 301 | | | 56.0 | | GOOD RETURNS THROUGHOUT. 10 BBLS WATER BACK TO SURFACE |
| 11/19/2013 02:50 | | Bump Plug | 5 | | | | 1500.0 | | PLUG LANDED AT 1500 PSI PRESSURED UP TO 2400 PSI HELD FOR 10 MINUTES |
| 11/19/2013 03:00 | | Check Floats | | | | | .0 | | FLOATS HELD |
| 11/19/2013 03:30 | | End Job | | | | | | | |
| 11/19/2013 04:00 | | Post-Job Safety Meeting (Pre Rig-Down) | | | | | | | PERFORM PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN. |

The Road to Excellence Starts with Safety

| | | | |
|---|----------------------|--------------------------------------|--------------------------|
| Sold To #: 301256 | Ship To #: 3117319 | Quote #: | Sales Order #: 900909119 |
| Customer: ENSIGN UNITED STATES DRILLING EBUSI | | Customer Rep: MONTOYA, CHRIS | |
| Well Name: Phelps | | Well #: 11-32NHZ | API/UWI #: |
| Field: WATTENBURG | City (SAP): LOCHBUIE | County/Parish: Weld | State: Colorado |
| Contractor: Ensign | | Rig/Platform Name/Num: Ensign 17 | |
| Job Purpose: Cement Intermediate Casing | | | |
| Well Type: Development Well | | Job Type: Cement Intermediate Casing | |
| Sales Person: PLIENESS, RYAN | | Srvc Supervisor: FANTASIA, JOSEPH | MBU ID Emp #: 485445 |

Job Personnel

| HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # |
|-------------------------|---------|--------|--------------|---------|--------|-----------------------------|---------|--------|
| CHISLUM, DENNIS | 6.0 | 512130 | DEY, JERRY A | 6.0 | 505015 | FANTASIA, JOSEPH Brandon | 6.0 | 485445 |
| HINKLE, BRADLEY Dean | 6.0 | 512123 | | | | | | |

Equipment

| HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way |
|------------|----------------|------------|----------------|------------|----------------|------------|----------------|
| 10679720C | 20 mile | 11338223 | 20 mile | 11398319 | 20 mile | 11410470C | 20 mile |
| 11562546C | 20 mile | | | | | | |

Job

Job Times

| | | | | | | | | | |
|------------------------|----------|--|--|-------------------|----------|---------------|-----------------|-------|-----------|
| Formation Name | | | | | | | Date | Time | Time Zone |
| Formation Depth (MD) | Top | | | Bottom | | Called Out | 18 - Nov - 2013 | 19:00 | MST |
| Form Type | | | | BHST | | On Location | 18 - Nov - 2013 | 22:30 | MST |
| Job depth MD | 7920. ft | | | Job Depth TVD | 6843. ft | Job Started | 19 - Nov - 2013 | 00:40 | MST |
| Water Depth | | | | Wk Ht Above Floor | | Job Completed | 19 - Nov - 2013 | 04:00 | MST |
| Perforation Depth (MD) | From | | | To | | Departed Loc | 19 - Nov - 2013 | 04:30 | MST |

Well Data

| Description | New / Used | Max pressure psig | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|-----------------------|------------|-------------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| 8-3/4" Hole | | | | 8.75 | | | | 1193. | 7930. | 1193. | 6843. |
| 7" Casing | Mixed | | 7. | 6.276 | 26. | | | . | 7930. | . | 6843. |
| 9-5/8" Surface Casing | Unknown | | 9.625 | 8.921 | 36. | | | . | 1193. | | |

Sales/Rental/3rd Party (HES)

| Description | Qty | Qty uom | Depth | Supplier |
|--|-----|---------|-------|----------|
| SHOE,FLT,7 8RD,2-3/4 SS II VLV | 1 | EA | | |
| CLR,FLT,7 8RD 17-26PPF,2-3/4SSII | 1 | EA | | |
| CTRZR ASSY,API,7 CSG X 8 3/4HOLE,HNGD | 40 | EA | | |
| CENTRALISER SLIDER II,#0700-0834S | 30 | EA | | |
| Description | Qty | Qty uom | Depth | Supplier |
| CLAMP - LIMIT - 7 - HINGED - | 1 | EA | | |
| KIT,HALL WELD-A | 1 | EA | | |
| PLUG,CMTG,TOP,7,HWE,5.66 MIN/6.54 MAX CS | 1 | EA | | |
| PLUG,CMTG,BOT,7,HWE,5.66 MIN/6.54 MAX CS | 1 | EA | | |

Fluid Data

Summit
Version:

Friday, November 29, 2013 16:17:00

| Stage/Plug #: 1 | | | | | | | | | |
|--|---------------|---------------------------------|-------------|-----------------------------------|------------------------|---------------------------|------------------|--------------|------------------------|
| Fluid # | Stage Type | Fluid Name | Qty | Qty uom | Mixing Density lbm/gal | Yield ft ³ /sk | Mix Fluid Gal/sk | Rate bbl/min | Total Mix Fluid Gal/sk |
| 1 | Water Spacer | | 20.00 | bbl | 8.33 | | | 4.0 | |
| 2 | Mud Flush III | MUD FLUSH III - SBM (528788) | 24.00 | bbl | 8.4 | | | 4.0 | |
| 3 | Water Spacer | | 20.00 | bbl | 8.33 | | | 4.0 | |
| 4 | ExtendaCem B1 | EXTENDACEM (TM) SYSTEM (452981) | 305.0 | sacks | 11.5 | 2.3 | 12.97 | 7.0 | 12.97 |
| | | 12.97 Gal | FRESH WATER | | | | | | |
| 5 | FracCem B2 | FRACCEM (TM) SYSTEM (452963) | 255.0 | sacks | 13.5 | 1.74 | 8.3 | 5.0 | 8.3 |
| | | 8.3 Gal | FRESH WATER | | | | | | |
| Calculated Values | | Pressures | | Volumes | | | | | |
| Displacement | 301 | Shut In: Instant | | Lost Returns | 0 | Cement Slurry | | Pad | |
| Top Of Cement | | 5 Min | | Cement Returns | 0 | Actual Displacement | 301 | Treatment | |
| Frac Gradient | | 15 Min | | Spacers | 10 | Load and Breakdown | | Total Job | |
| Rates | | | | | | | | | |
| Circulating | | Mixing | | Displacement | | Avg. Job | | | |
| Cement Left In Pipe | Amount | 90 ft | Reason | Shoe Joint | | | | | |
| Frac Ring # 1 @ | ID | Frac ring # 2 @ | ID | Frac Ring # 3 @ | ID | Frac Ring # 4 @ | ID | | |
| The Information Stated Herein Is Correct | | | | Customer Representative Signature | | | | | |

