

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Thursday, January 26, 2017

Matrix B-29HN Production

Job Date: Friday, January 13, 2017

Sincerely,

Julia Nichols

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 **Matrix B-29HN** 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 30 barrels 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 [Ft. Lupton]



Cementing Job Summary

The Road to Excellence Starts with Safety

| | | | |
|---|---------------------|----------------------------------|---------------------------|
| Sold To #: 369404 | Ship To #: 3627178 | Quote #: | Sales Order #: 0903775123 |
| Customer: EXTRACTION OIL & GAS | | Customer Rep: Shayne Hackford | |
| Well Name: MATRIX | Well #: B-29HN | API/UWI #: 05-123-40697-00 | |
| Field: GREELEY | City (SAP): GREELEY | County/Parish: WELD | State: COLORADO |
| Legal Description: SE SW-29-6N-65W-435FSL-2309FWL | | | |
| Contractor: H & P DRLG | | Rig/Platform Name/Num: H & P 321 | |
| Job BOM: 7523 | | | |
| Well Type: HORIZONTAL OIL | | | |
| Sales Person: HALAMERICA/HX38199 | | Srvc Supervisor: Nicholas Roles | |
| Job | | | |

| | | | |
|------------------------|---------|--|-------------------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | | | BHST |
| Job depth MD | 11794ft | | 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 | 1653 | 0 | 1653 |
| Casing | | 5.5 | 4.778 | 20 | | | 0 | 11794 | 0 | 8860 |
| Open Hole Section | | | 8.5 | | | | 1653 | 11800 | 1653 | 8860 |

| Tools and Accessories | | | | | | | | | |
|-----------------------|---------|-----|------|----------|----------------|---------|-----|------|--|
| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make | |
| Guide Shoe | 5.5 | | | | Top Plug | 5.5 | | HES | |
| Float Shoe | 5.5 | | | 11794 | Bottom Plug | 5.5 | | HES | |
| Float Collar | 5.5 | | | | SSR plug set | 5.5 | | HES | |
| Insert Float | 5.5 | | | | Plug Container | 5.5 | 1 | HES | |
| Stage Tool | 5.5 | | | | Centralizers | 5.5 | | 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 | 11.5 lb/gal Tuned Spacer III | Tuned Spacer III | 50 | bbl | 11.5 | 3.74 | | 6 | | |
| | 0.30 gal/bbl | MUSOL A, 330 GAL TOTE - (790828) | | | | | | | | |
| | 149.34 lbm/bbl | BARITE, BULK (100003681) | | | | | | | | |
| | 35.40 gal/bbl | FRESH WATER | | | | | | | | |
| | 0.30 gal/bbl | DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665) | | | | | | | | |
| | 0.25 gal/bbl | D-AIR 3000L, 5 GAL PAIL (101007444) | | | | | | | | |

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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/min | Total Mix Fluid Gal | |
|---|-------------------|----------------------------|-----------|---------|------------------------|-----------------------------|---------------|-----------------|---------------------|--|
| 2 | ElastiCem W/O CBL | ELASTICEM (TM) SYSTEM | 150 | sack | 13.2 | 1.57 | | 8 | 7.48 | |
| 7.48 Gal | | FRESH WATER | | | | | | | | |
| 0.90 % | | HR-5, 50 LB SK (100005050) | | | | | | | | |
| 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 | |
| 3 | ElastiCem Tail | ELASTICEM (TM) SYSTEM | 1400 | sack | 13.2 | 1.57 | | 8 | 7.49 | |
| 7.49 Gal | | FRESH WATER | | | | | | | | |
| 0.80 % | | HR-5, 50 LB SK (100005050) | | | | | | | | |
| 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 | |
| 4 | Displacement | Displacement | 260.5 | bbl | 8.33 | | | 12 | | |
| Cement Left In Pipe | | Amount | ft | | Reason | | | Wet Shoe | | |
| Comment Got 30bbbls cement to surface. | | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comb Pump Rate <i>(bbl/min)</i> | DH Density <i>(ppg)</i> | DS Pump Press <i>(psi)</i> | Comments |
|-------|----------|--|--|-----------|----------|--------|------------------------------------|----------------------------|-------------------------------|--|
| Event | 1 | Call Out | Call Out | 1/12/2017 | 12:00:00 | USER | | | | Crew call out for o/I at 1600 |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 1/12/2017 | 14:45:00 | USER | | | | all crew aware of hazards and directions. all fit to drive. |
| Event | 3 | Arrive at Location from Service Center | Arrive at Location from Service Center | 1/12/2017 | 15:30:00 | USER | | | | Met with company man to discuss job details and procedure. Performed hazard hunt and site assessment. Rig had 1500' casing left to run. |
| Event | 4 | Other | Other | 1/12/2017 | 15:45:00 | USER | | | | Water Test- PH-6 Chlo-0 Temp-60 Cement- |
| Event | 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 1/12/2017 | 15:50:00 | USER | | | | All hse present. Discussed bulk and iron placement and all red zone areas. Caution taped high pressure zones. |
| Event | 6 | Standby - Other - see comments | Standby - Other - see comments | 1/13/2017 | 17:00:00 | USER | | | | Before rig had finished running casing I made the decision to have the operator prime up and be ready. Upon arriving to location operator had turned the deck motors on and have everything oscillate. Before he could prime up noticed Driver side deck engine would not start, no power, and could not connect to flecs from computer. Talked with on call coordinator and company man and decided to have another pump brought out. |
| Event | 7 | Start Job | Start Job | 1/13/2017 | 19:37:54 | COM1 | 0.00 | 6.25 | -4.00 | TD-11800', TP-11794' 5.5" 20#, FC-11788', TVD-6860', SURF-1653' 9.625" 36#, OH-7.875", MUD-9.5#. |
| Event | 8 | Test Lines | Test Lines | 1/13/2017 | 19:41:33 | COM1 | 0.00 | 8.30 | 5020.00 | Pumped 3bbls fresh water to fill lines, closed manifold and performed 500psi k/o function test, proceeded to bring pressure up to 5000psi. Held well and no leaks. |
| Event | 9 | Check Weight | Check Weight | 1/13/2017 | 19:46:03 | COM1 | 0.00 | 8.06 | -2.00 | Weight verified by pressurized mud scales. |
| Event | 10 | Pump Spacer 1 | Pump Spacer 1 | 1/13/2017 | 19:49:22 | COM1 | 3.90 | 11.24 | 285.00 | Pumped 50bbls 11.5# 3.74y 23.7g/s Tuned Spacer III with 15g Musol A, 15g Dual Spacer B, and 5g D-Air at 6bpm 400psi. |
| Event | 11 | Pump Lead Cement | Pump Lead Cement | 1/13/2017 | 19:58:08 | USER | 5.90 | 13.20 | 291.00 | Pumped 150sks or 42bbls of 13.2# 1.57y 7.49g/s Elasticem |

W/O CBL at 8bpm 498psi.

| | | | | | | | | | | |
|-------|----|--|--|-----------|----------|------|------|-------|---------|---|
| Event | 12 | Pump Tail Cement | Pump Tail Cement | 1/13/2017 | 20:05:33 | USER | 5.40 | 13.39 | 216.00 | Pumped 1400skts or 391.4bbbls of 13.2# 1.57y 7.49g/s Elastic W/CBL at 8bpm 609psi. |
| Event | 13 | Check Weight | Check Weight | 1/13/2017 | 20:06:14 | USER | 6.00 | 13.69 | 349.00 | Weight verified by pressurized mud scales. |
| Event | 14 | Check Weight | Check Weight | 1/13/2017 | 20:12:12 | COM1 | 8.00 | 13.25 | 499.00 | Weight verified by pressurized mud scales. |
| Event | 15 | Check Weight | Check Weight | 1/13/2017 | 20:31:08 | COM1 | 8.00 | 13.14 | 422.00 | Weight verified by pressurized mud scales. |
| Event | 16 | Shutdown | Shutdown | 1/13/2017 | 21:01:15 | USER | 8.00 | 13.20 | 437.00 | Shutdown pumps and blew back cement from rig air line to pits, closed line to floor and pumped 5bbbls fresh water to pits to clean lines. |
| Event | 17 | Pump Displacement | Pump Displacement | 1/13/2017 | 21:13:45 | USER | 0.00 | 8.37 | -21.00 | Pumped 260.5 bbbls fresh water at 12bpm 2390psi. |
| Event | 18 | Bump Plug | Bump Plug | 1/13/2017 | 21:43:13 | USER | 5.20 | 8.45 | 2806.00 | Final circulating 2600psi, Bumped at 3000psi, held for a min. and brought up pressure. |
| Event | 19 | Pressure Up Well | Pressure Up Well | 1/13/2017 | 21:44:43 | USER | 1.80 | 8.47 | 3281.00 | Brought up pressure to burst disc, burst at 3700psi. Once burst followed with 5bbl wet shoe at 5bpm 2048psi. |
| Event | 20 | Check Floats | Check Floats | 1/13/2017 | 21:49:53 | USER | 5.00 | 8.39 | 883.00 | Released pressure and floats did not hold. Got 1.5bbbls then trickled in. Shut in release line and pressure was building. Tried bumping it again and surging the line to get it to hold but did not want to hold. |
| Event | 21 | Check Floats | Check Floats | 1/13/2017 | 22:01:04 | USER | | | | Released pressure and floats did not hold. Got 1.5bbbls then trickled in. Shut in release line and pressure was building. Tried bumping it again and surging the line to get it to hold but did not want to hold. |
| Event | 22 | Shut In Well | Shut In Well | 1/13/2017 | 22:26:54 | USER | 0.00 | 8.46 | 19.00 | Floats did not hold so shut in well at cement head/manifold with 1539psi. |
| Event | 23 | End Job | End Job | 1/13/2017 | 22:29:02 | USER | 0.00 | 8.33 | 38.00 | Got 30bbbls cement to surface. |
| Event | 24 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 1/13/2017 | 00:30:00 | USER | | | | All HSE present and fit to drive. Aware of directions and hazards. |
| Event | 25 | Depart Location for Service Center or Other Site | Depart Location for Service Center or Other Site | 1/13/2017 | 00:45:00 | USER | | | | Pre journey management prior to departure. |
| Event | 26 | Safety Meeting - Pre | Safety Meeting - Pre Rig- | 1/14/2017 | 22:45:00 | USER | | | | All HSE present. Discussed red zone areas and trapped |

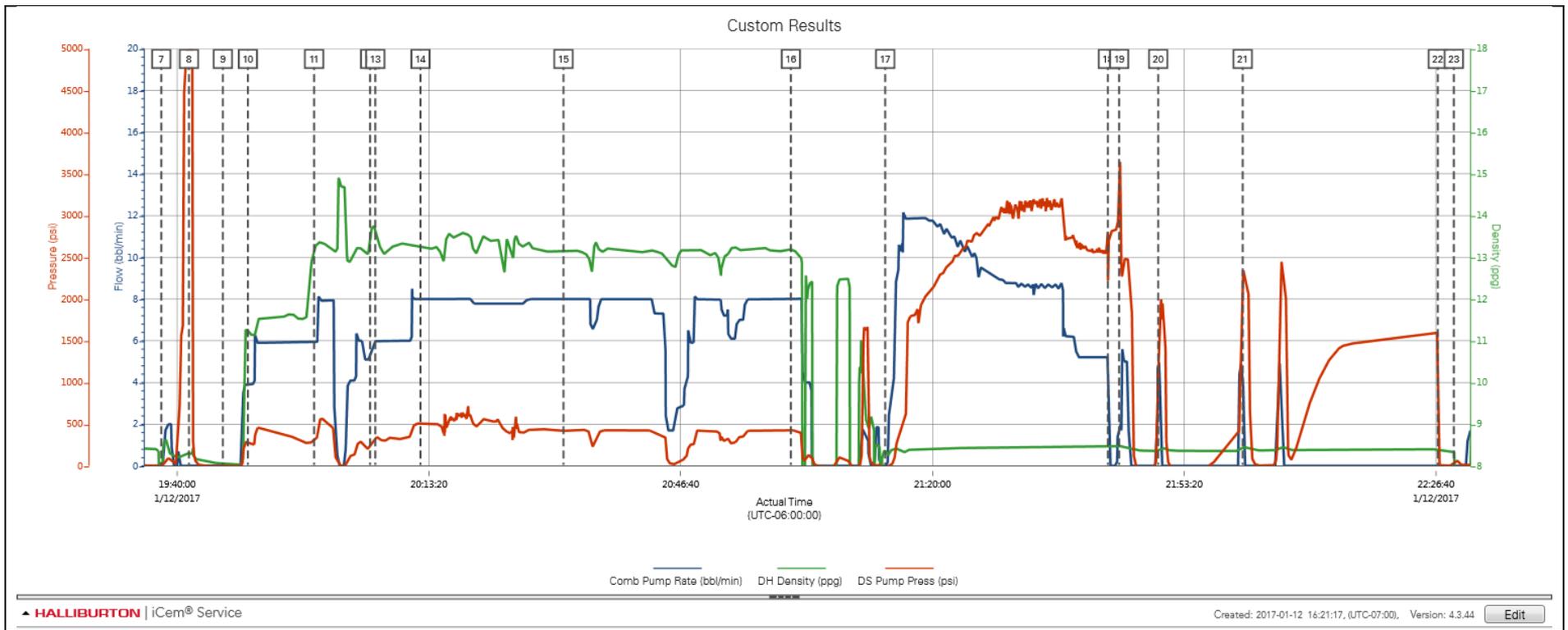
Rig-Down

Down

pressure hazards. Watch for suspended loads and rig down procedures, including hand placement, lifting techniques, and swing radius.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

