

HALLIBURTON

iCem[®] Service

CONOCO/PHILLIPS COMPANY EBUSINESS

Date: Wednesday, July 05, 2017

B&D LAND 4-64 4-5 #4BH Surface

Job Date: Thursday, June 29, 2017

Sincerely,

Julia Nichols

Legal Notice

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Table of Contents

| | | |
|-----|--|----|
| 1.0 | Cementing Job Summary | 4 |
| 1.1 | Executive Summary | 4 |
| 2.0 | Real-Time Job Summary | 7 |
| 2.1 | Job Event Log | 7 |
| 3.0 | Attachments..... | 9 |
| 3.1 | Custom Results – Job Chart with Events | 9 |
| 3.2 | Custom Results – Job Chart without Events..... | 10 |
| 3.3 | Casing Test..... | 11 |

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **B&D Land 4-64 4-5 4BH cement Surface** 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 77 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]

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Cementing Job Summary

The Road to Excellence Starts with Safety

| | | | | | | | | | | |
|--|----------------------------|---------------------|-------------|----------------------------------|------------------------|----------------------------|---------------|--------------|---------------------|---------------|
| Sold To #: 352431 | | Ship To #: 352431 | | Quote #: 0022317088 | | Sales Order #: 0904131196 | | | | |
| Customer: CONOCO/PHILLIPS COMPANY-EBUS | | | | Customer Rep: | | | | | | |
| Well Name: B&D LAND 4-64 4-5 | | | Well #: 4BH | | | API/UWI #: 05-005-07245-00 | | | | |
| Field: | | City (SAP): WATKINS | | County/Parish: ARAPAHOE | | State: COLORADO | | | | |
| Legal Description: | | | | | | | | | | |
| Contractor: H & P DRLG | | | | Rig/Platform Name/Num: H & P 448 | | | | | | |
| Job BOM: 7521 7521 | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | |
| Sales Person: HALAMERICA/HB41307 | | | | Srvc Supervisor: | | | | | | |
| Job | | | | | | | | | | |
| Formation Name | | | | | | | | | | |
| Formation Depth (MD) | | Top | | | Bottom | | | | | |
| Form Type | | | | | | | | | | |
| BHST | | | | | | | | | | |
| Job depth MD | | 1980ft | | | Job Depth TVD | | 1980ft | | | |
| 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 |
| Open Hole Section | | | 12.25 | | | | 0 | 1980 | | |
| Casing | | 9.625 | 8.921 | 36 | LTC | J-55 | 0 | 1970 | | 0 |
| Tools and Accessories | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | |
| Guide Shoe | | | | | | Top Plug | 9.625 | 1 | Weatherford | |
| Float Shoe | 9.625 | | | 1970 | | Bottom Plug | 9.625 | | Weatherford | |
| Float Collar | 9.625 | | | 1922 | | SSR plug set | | | | |
| Insert Float | | | | | | Plug Container | 9.625 | 1 | HES | |
| Stage Tool | | | | | | Centralizers | 9.625 | 16 | HES | |
| 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 | 10 lb/gal Tuned Spacer III | Tuned Spacer III | 50 | bbl | 10 | 8.82 | | 5 | | |
| 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 | Lead | SWIFTCEM | 310 | sack | 12 | 2.56 | | 7.7 | 15.11 | |
| 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 | |

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Cementing Job Summary

| 3 | SwiftCem | SWIFTCEM (TM) SYSTEM | 165 | sack | 14.2 | 1.59 | | 7.7 | 7.89 | |
|---|--------------|----------------------|-------|---------|---------------------------|--------------------------------|---------------------|---------------------|---------------------------|--|
| 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 | 148.7 | bbl | 8.33 | | | 7 | | |
| Cement Left In Pipe | | Amount | 48 ft | | Reason | | | Shoe Joint | | |
| Comment Got 77 bbls. of cement back to surface. Estimated top of tail is 1,153'. | | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

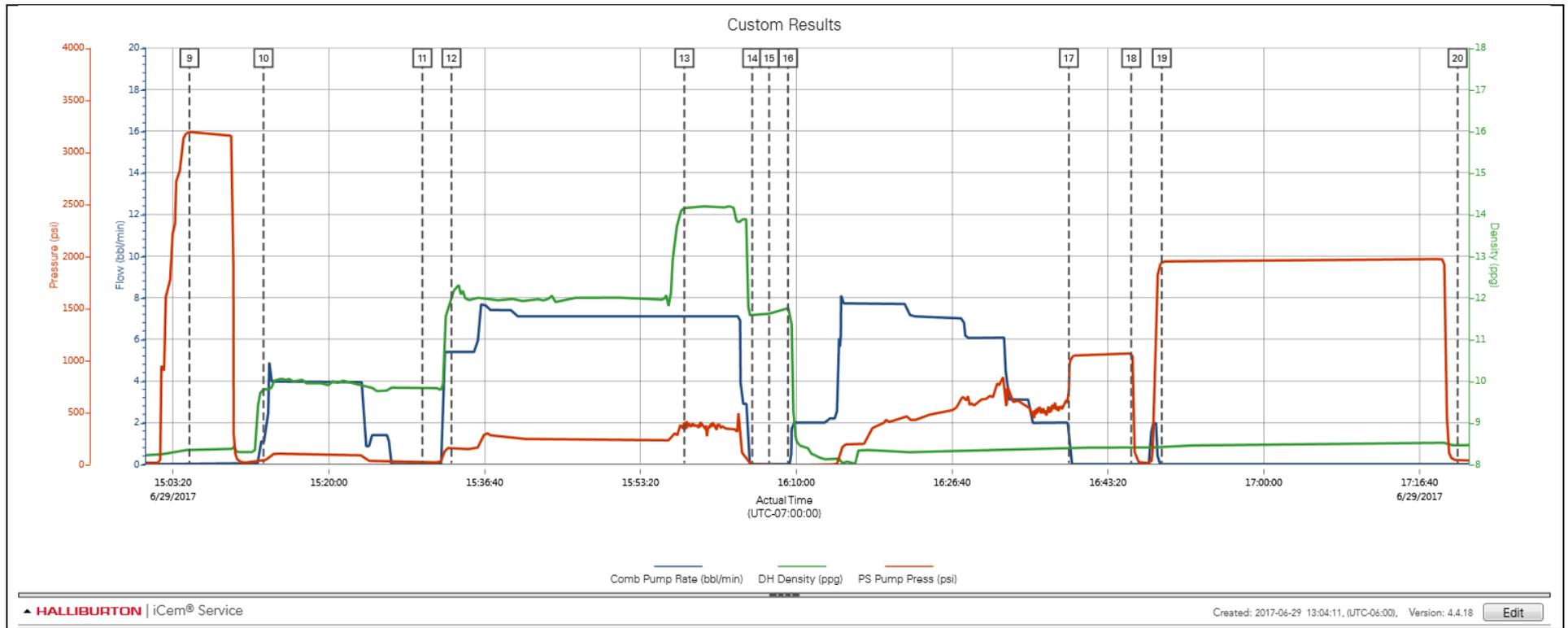
| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | Comb Pump Rate (bbl/min) | DH Density (ppg) | PS Pump Press (psi) | Comments |
|-------|----------|--|--|-----------|----------|--------|-----------------------------|---------------------|------------------------|--|
| Event | 1 | Call Out | Call Out | 6/29/2017 | 03:30:00 | USER | | | | Crew called out at 03:30 for a location time of 07:30. |
| Event | 2 | Safety Meeting - Departing Location | Safety Meeting - Departing Location | 6/29/2017 | 06:30:00 | USER | | | | Held pre journey safety meeting and JSA. |
| Event | 3 | Depart from Service Center or Other Site | Depart from Service Center or Other Site | 6/29/2017 | 06:40:00 | USER | | | | Started journey management with dispatch and the crew left the yard. |
| Event | 4 | Arrive at Location from Service Center | Arrive at Location from Service Center | 6/29/2017 | 07:30:00 | USER | | | | Checked in with the customer. Discussed numbers needed to calculate the job and rig up. Rig running casing. Casing: 9.625" 36# OH: 12.25" Mud#: 9.5 ppg. TD: 1,980'. TP:1,970'. FC:1,1,922'. Water test, Temp: 77F PH: 7.3 Chlorides: 0 ppm. |
| Event | 5 | Safety Meeting - Pre Rig-Up | Safety Meeting - Pre Rig-Up | 6/29/2017 | 08:30:00 | USER | | | | Performed a hazard hunt and site assessment. Held pre rig up safety meeting and JSA. |
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 6/29/2017 | 09:00:00 | USER | | | | Spotted trucks in and rigged up all iron and hoses for the job. |
| Event | 7 | Safety Meeting | Safety Meeting | 6/29/2017 | 14:00:00 | USER | | | | Held pre job safety meeting with all personnel on location. |
| Event | 8 | Start Job | Start Job | 6/29/2017 | 14:53:41 | COM4 | | | | Pumped 6 bbls of fresh water to fill lines. |
| Event | 9 | Test Lines | Test Lines | 6/29/2017 | 15:05:05 | COM4 | 0.00 | 8.34 | 3190.00 | Pressure tested lines to 3,000 psi. with a 500 psi. electronic kick out test. |
| Event | 10 | Pump Spacer 1 | Pump Spacer 1 | 6/29/2017 | 15:13:00 | COM4 | 1.10 | 9.80 | 37.00 | Pumped 50 bbls. of Tuned Spacer III mixed at 10 ppg. |
| Event | 11 | Drop Bottom Plug | Drop Bottom Plug | 6/29/2017 | 15:30:00 | USER | 0.00 | 9.82 | 18.00 | Shutdown and dropped the bottom plug with one bbl. of spacer on top. Witnessed and verified by the customer. |
| Event | 12 | Pump Lead Cement | Pump Lead Cement | 6/29/2017 | 15:33:06 | COM4 | 5.40 | 12.03 | 157.00 | Pumped 141.3402 bbls. (310 sks.) of ElastiCem mixed at 12 ppg. Density was verified by pressurized scales. |
| Event | 13 | Pump Tail Cement | Pump Tail Cement | 6/29/2017 | 15:58:01 | COM4 | 7.10 | 14.15 | 324.00 | Pumped 46.7245 bbls. (165 sks.) of ElastiCem mixed at |

14.2 ppg. Density was verified by pressurized scales.

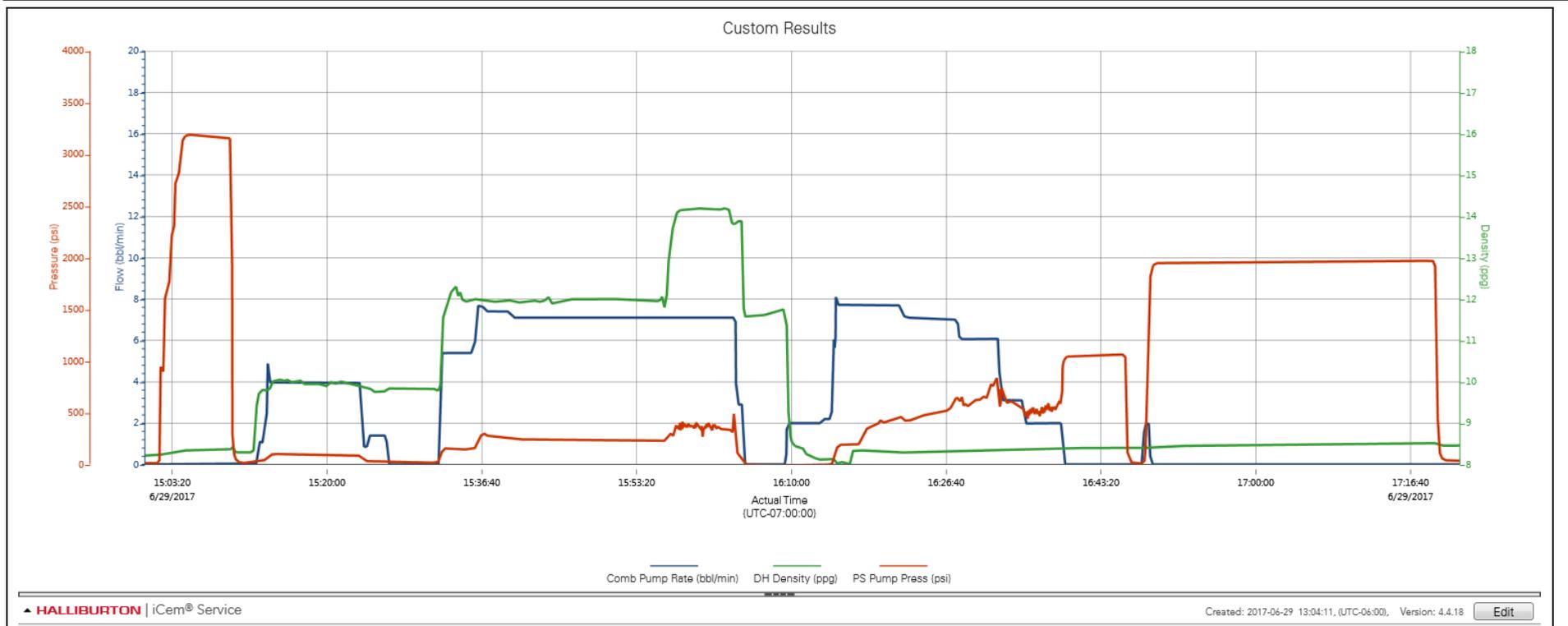
| | | | | | | | | | | |
|-------|----|--|--|-----------|----------|------|------|-------|---------|--|
| Event | 14 | Shutdown | Shutdown | 6/29/2017 | 16:05:17 | COM4 | 0.00 | 11.57 | -6.00 | Shut down to wash up on top of the plug. |
| Event | 15 | Drop Top Plug | Drop Top Plug | 6/29/2017 | 16:07:05 | COM4 | 0.00 | 11.62 | -10.00 | Dropped the top plug. Top plug being dropped was witnessed and verified by the customer. |
| Event | 16 | Pump Displacement | Pump Displacement | 6/29/2017 | 16:09:06 | COM4 | | | | Pumped 148.7 bbls. of fresh water for displacement. |
| Event | 17 | Bump Plug | Bump Plug | 6/29/2017 | 16:39:09 | COM4 | 2.00 | 8.38 | 706.00 | Bumped the plug 500 psi. over 550 psi. at 2 bpm. |
| Event | 18 | Other | Other | 6/29/2017 | 16:45:49 | COM4 | 0.00 | 8.41 | 1064.00 | Bled off pressure to check floats. Floats held. |
| Event | 19 | Other | Other | 6/29/2017 | 16:49:05 | COM4 | 0.00 | 8.43 | 1943.00 | Pressured up on the well to perform a 30 minute casing test at 1,800 psi. Held pressure for 30 minutes. Pressure leveled off at 1,949 psi. and gained 22 psi. During 30 minutes. Finale pressure was 1,971 psi. Bled off pressure and recheck floats. Floats held and got 1 bbl. of fluid back to the truck. |
| Event | 20 | End Job | End Job | 6/29/2017 | 17:20:44 | COM4 | | | | Washed pumps and lines until clean. |
| Event | 21 | Safety Meeting - Pre Rig-Down | Safety Meeting - Pre Rig-Down | 6/29/2017 | 20:00:00 | USER | | | | Held JSA and rig down safety meeting. |
| Event | 22 | Rig Down Lines | Rig Down Lines | 6/29/2017 | 20:30:00 | USER | | | | Rigged down all lines and hoses. |
| Event | 23 | Safety Meeting - Departing Location | Safety Meeting - Departing Location | 6/29/2017 | 21:00:00 | USER | | | | Held pre journey safety meeting and JSA. |
| Event | 24 | Depart from Service Center or Other Site | Depart from Service Center or Other Site | 6/29/2017 | 21:30:00 | USER | | | | Crew left location and started journey management with dispatch. |

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events



3.3 Casing Test

