# CEMENT JOB REPORT

BAKER HUGHES

| CUSTOMER | DATE | F.R. # | SERV. SUPV. |
|---|---|---|---|
| NOBLE ENERGY INC - XML | 20-AUG-13 | 10011008892 | AARON M MCWILLIAMS |

| LEASE & WELL NAME | LOCATION | COUNTY-PARISH-BLOCK |
|---|---|---|
| FRITZLER B #02-19 - API 05123332260000 | 2-5N-64W | Weld Colorado |
| **DISTRICT** | **DRILLING CONTRACTOR RIG #** | **TYPE OF JOB** |
| Brighton | W/O | Squeeze-Top |

| SIZE & TYPE OF PLUGS | LIST-CSG-HARDWARE | MECHANICAL BARRIERS | MD | TVD | HANGER TYPES | MD | TVD |
|---|---|---|---|---|---|---|---|
| None | No Shoe | None | 0 | 0 | None | 0 | 0 |
| None | | | | | | | |

| MATERIALS FURNISHED BY BJ | LAB REPORT NO. | SACKS OF CEMENT | SLURRY WGT PPG | SLURRY YLD FT3 | WATER GPS | PUMP TIME HR:MIN | Bbl SLURRY | Bbl MIX WATER |
|---|---|---|---|---|---|---|---|---|
| Fresh Water | 0 | 0 | 8.34 | 0 | 0 | 00:00 | 1 | |
| Fresh Water | 0 | 0 | 8.3 | 0 | 0 | 00:00 | 5 | |
| Cement Slurry | 0 | 100 | 15.8 | 1.15 | 5.00 | 03:30 | 20.45 | 11.90 |
| | | | | | | TOTAL | 26.45 | 11.90 |

Available Mix Water 100 Bbl. Available Displ. Fluid 80 Bbl.

| HOLE SIZE | % EXCESS | DEPTH | TBG-CSG-D.P. ID | OD | WGT. | TYPE | MD | TVD | GRADE | COLLAR DEPTHS SHOE | FLOAT | STAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 9 | 900 | 4 | 4.5 | 11.6 | CSG | 915 | 915 | N-80 | 0 | 0 | 0 |
| | | | 1.278 | 1.66 | 3.02 | TBG | 900 | 900 | N-80 | | | |

| LAST CASING ID | OD | WGT | TYPE | MD | TVD | PKR-CMT RET-BR PL-LINER BRAND & TYPE | DEPTH | PERF. DEPTH TOP | BTM | TOP CONN SIZE | THREAD | WELL FLUID TYPE | WGT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.1 | 8.63 | 24 | CSG | 650 | 650 | No packer | 0 | 0 | 0 | 1.66 | 8RD | WATER BASED | 8.4 |

| DISPL. VOLUME VOLUME | UOM | DISPL. FLUID TYPE | WGT. | CAL. PSI BUMP PLUG | CAL. MAX PSI TO REV. | OP. MAX SQ. PSI | MAX TBG PSI RATED | Operator | MAX CSG PSI RATED | Operator | MIX WATER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BBLS | Fresh Water | 8.34 | 0 | 0 | 0 | 9440 | 1800 | 6224 | 1800 | Transport |

## Circulation Prior to Job

Circulated Well: Rig [X] BJ [ ] | Circulation Time: 0 | Circulation Rate: 0 BPM

Mud Density In: 8.4 LBS/GAL Mud Density Out: 8.4 LBS/GAL | PV & YP Mud In: 0 | PV & YP Mud Out: 0

Gas Present: NO [ ] YES [X] Units: 0 | Solids Present at End of Circulation: NO [X] YES [ ]

## Displacement And Mud Removal

Displaced By: Rig [ ] BJ [X] | Amount Bled Back After Job: 0 BBLS

Returns During Job: [ ] NONE [ ] PARTIAL [X] FULL | Method Used to Verify Returns: Visually

Cement Returns at Surface: [ ] YES [X] NO | Were Returns Planned at Surface: [X] NO [ ] YES

Pipe Movement: [ ] ROTATION [ ] RECIPROCATION [ ] NONE [ ] UNABLE DUE TO STUCK PIPE

Centralizers: [X] NO [ ] YES | Quantity: | Type: [ ] BOW [ ] RIGID

Job Pumped Through: [ ] CHOKE MANIFOLD [ ] SQUEEZE MANIFOLD [X] MANIFOLD [ ] NO MANIFOLD

## Plugs

Number of Attempts by BJ: 0 Competition: 0 | Wiper Balls Used: [X] NO [ ] YES Quantity:

Plug Catcher Used: [X] NO [ ] YES | Parabow Used: [X] NO [ ] YES

Was There a Bottom: [X] NO [ ] YES | Top of Plug: 0 FT Bottom of Plug: 0 FT

## Squeezes (Update Original Treatment Report for Primary Job)

BLOCK SQUEEZE [ ] SHOE SQUEEZE [ ] TOP OF LINER SQUEEZE [ ] PLANNED [ ] UNPLANNED [ ]

Liner Packer: [X] NO [ ] YES | Bond Log: [X] NO [ ] YES PSI Applied: 0 Fluid Weight: 0 LBS/GAL

## Casing Test (Update Original Treatment Report for Primary Job)

Casing Test Pressure: 0 PSI With 0 LBS/GAL Mud | Time Held: 00 Hours 00 Minutes

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: None

PRESSURE/RATE DETAIL | EXPLANATION

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## Shoe Test (Update Original Treatment Report for Primary Job)

Depth Drilled out of Shoe: 0 FT

Target EMW: 0 LBS/GAL Actual EMW: 0 LBS/GAL

Number of Times Tests Conducted: 0

Mud Weight When Test was Conducted: 0 LBS/GAL

Problems Before Job (I.E. Running Casing, Circulating Well, ETC)
None

Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)
None

Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)
None

| PRESSURE/RATE DETAIL | | | | | | EXPLANATION |
|---|---|---|---|---|---|---|
| TIME HR:MIN. | PRESSURE - PSI | | RATE BPM | Bbl. FLUID PUMPED | FLUID TYPE | SAFETY MEETING: BJ CREW [X] CO. REP. [X] |
| | PIPE | ANNULUS | | | | TEST LINES 3240 PSI |
| | | | | | | CIRCULATING WELL - RIG [X] BJ [ ] |
| 05:00 | 0 | 0 | 0 | 0 | N/A | Yard call |
| 07:00 | 0 | 0 | 0 | 0 | N/A | Leave yard |
| 08:00 | 0 | 0 | 0 | 0 | N/A | Arrive on location 43 miles |
| 08:20 | 0 | 0 | 0 | 0 | N/A | Spot trucks |
| 08:30 | 0 | 0 | 0 | 0 | N/A | Pre rig up safety meeting |
| 09:45 | 0 | 0 | 0 | 0 | N/A | Pre job safety meeting |
| 10:02 | 204 | 0 | 1 | 1 | H2O | Load pumps and lines |
| 10:05 | 3240 | 0 | 0 | 0 | H2O | Pressure test pumps and lines |
| 10:10 | 417 | 0 | 1.6 | 5 | H2O | Pre flush |
| 10:18 | 758 | 0 | 1.6 | 19 | CMT | Batch up and pump 100 sks of Class G 15.8 ppg 1.15 yield 5 gps |
| 10:37 | 343 | 0 | 1 | 1 | H2O | Displacement |
| 10:38 | 0 | 0 | 0 | 0 | N/A | Down / rig down safety meeting |

| BUMPED PLUG | PSI TO BUMP PLUG | TEST FLOAT EQUIP. | BBL.CMT RETURNS/ REVERSED | TOTAL BBL. PUMPED | PSI LEFT ON CSG | SPOT TOP OUT CEMENT | Service Supervisor Signature: |
|---|---|---|---|---|---|---|---|
| Y [N] | 0 | Y [N] | 0 | 25 | 0 | Y [N] | |

BAKER HUGHES

FIELD RECEIPT NO. **10011008892**

| CUSTOMER | CREDIT APPROVAL NO. | PURCHASE ORDER NO. | CUSTOMER NUMBER | INVOICE NUMBER |
|---|---|---|---|---|
| NOBLE ENERGY INC - XML | | | 20077336 - 00212896 | |

| MAIL INVOICE TO | STREET OR BOX NUMBER | CITY | STATE | ZIP CODE |
|---|---|---|---|---|
| | 100 GLENBOROUGH DR, STE 100 | Houston | Texas | 77067 |

| DATE WORK COMPLETED | MO. | DAY | YEAR | BHI REPRESENTATIVE | WELL API NO: | WELL TYPE : |
|---|---|---|---|---|---|---|
| | 08 | 20 | 2013 | AARON M MCWILLIAMS | 05123332260000 | Old Well |

| DISTRICT | JOB DEPTH(ft) | WELL CLASS : |
|---|---|---|
| BJS, BRIGHTON | 900 | Gas |

| WELL NAME AND NUMBER | TD WELL DEPTH(ft) | GAS USED ON JOB : |
|---|---|---|
| FRITZLER B #02-19 | 6,879 | No Gas |

| WELL LOCATION : | LEGAL DESCRIPTION | COUNTY/PARISH | STATE | JOB TYPE CODE : |
|---|---|---|---|---|
| | 2-5N-64W | Weld | Colorado | Squeeze-Top |

| PRODUCT CODE | DESCRIPTION | UNIT OF MEASURE | QUANTITY | LIST PRICE UNIT | GROSS AMOUNT | % DISC. | NET AMOUNT |
|---|---|---|---|---|---|---|---|
| 100021 | Class G Cement | sacks | 100 | [redacted] | | | |
| 488019 | FP-6L | gals | 1 | | | | |
| 499632 | Granulated Sugar | lbs | 100 | | | | |
| | SUB-TOTAL FOR Product Material | | | | | | |
| A152 | Personnel Per Diem Chrg - Cement Svc | ea | 1 | | | | |
| M100 | Bulk Materials Blending Charge | cu ft | 102 | | | | |
| | SUB-TOTAL FOR Service Charges | | | | | | |
| F053A | Cement Pumping, 0 - 1000 ft | 4hrs | 1 | | | | |
| F090 | Fuel per pump charge - cement | pump/hr | 2 | | | | |
| J225 | Data Acquisition, Cement, Standard | job | 1 | | | | |
| J390 | Mileage, Heavy Vehicle | miles | 86 | | | | |
| J391 | Mileage, Auto, Pick-Up or Treating Van | miles | 86 | | | | |
| | SUB-TOTAL FOR Equipment | | | | | | |

| ARRIVE LOCATION : | MO. | DAY | YEAR | TIME |
|---|---|---|---|---|
| | 08 | 20 | 2013 | 08:00 |

CUSTOMER REP.
Ryan Beam

**SEE LAST PAGE FOR GENERAL TERMS AND CONDITIONS**

**SERVICE ORDER: I AUTHORIZE WORK TO BEGIN PER SERVICE INSTRUCTIONS IN ACCORDANCE WITH THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS FORM AND REPRESENT THAT I HAVE AUTHORITY TO ACCEPT AND SIGN THIS ORDER.**

CUSTOMER AUTHORIZED AGENT

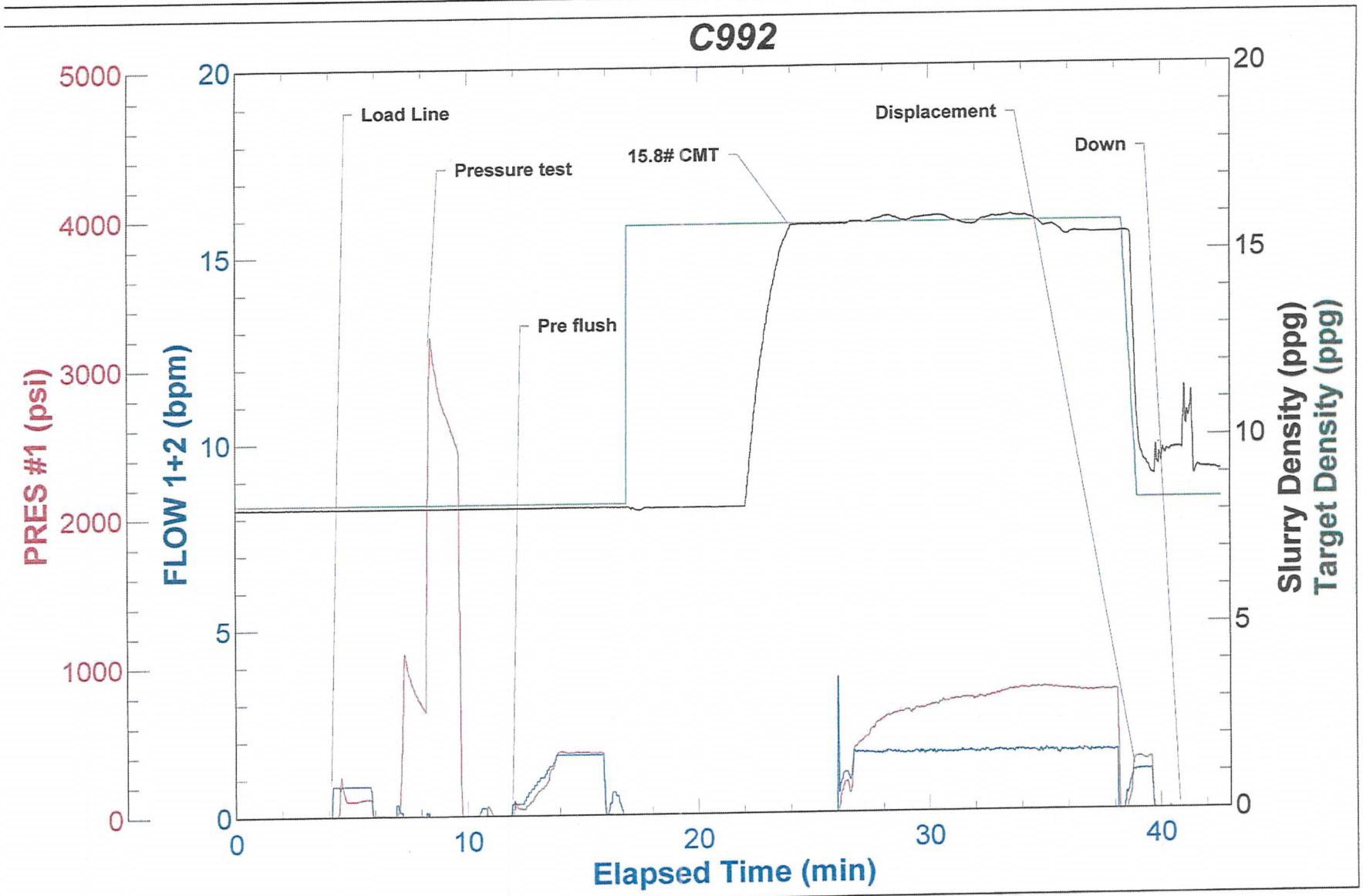
**SERVICE RECEIPT: I CERTIFY THAT THE MATERIALS AND SERVICES LISTED WERE RECEIVED AND ALL SERVICES PERFORMED IN A WORKMANLIKE MANNER.**

CUSTOMER AUTHORIZED AGENT
X

BHI APPROVED
X

**Baker Hughes JobMaster Program Version 3.60**

*Job Number: 10011008892*
*Customer: Noble*
*Well Name: Fritzler B #02-19*






Job Start: Tuesday, August 20, 2013