SUPERIOR WELL SERVICES

# GAMMA RAY CCL CEMENT BOND VDL

| | |
|---|---|
| Company | NOBLE ENERGY INC. |
| Well | GULLEY 17-15 |
| Field | WATTENBERG |
| County | WELD |
| State | COLORADO |

Company NOBLE ENERGY INC.
Well GULLEY 17-15
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512329438
928' FNL & 1730' FEL
NWNE
SEC 17 TWP 6N RGE 64W

Other Services

| | | | | Elevation |
|---|---|---|---|---|
| Permanent Datum | GL | Elevation | 4773 | K.B. 4786 |
| Log Measured From | KB | | | D.F. 4785 |
| Drilling Measured From | KB | | | G.L. 4773 |

| | |
|---|---|
| Date | DECEMBER 17, 2010 |
| Run Number | ONE |
| Depth Driller | 7181 |
| Depth Logger | 7077 |
| Bottom Logged Interval | 7076 |
| Top Log Interval | 2140 |
| Open Hole Size | 7-7/8 |
| Type Fluid | WATER |
| Density / Viscosity | N/A |
| Max. Recorded Temp. | 231 DEG. F |
| Estimated Cement Top | 2343 |
| Time Well Ready | PORTABLE MAST |
| Time Logger on Bottom | 1-11/16 GO TOOL |
| Equipment Number | 3342 |
| Location | 45 |
| Recorded By | GREG NOLAN |
| Witnessed By | MITCH TRIMBLE |

| Borehole Record | | | | Tubing Record | | |
|---|---|---|---|---|---|---|
| Run Number | Bit | From | To | Size | Weight | From | To |
| | | | | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8-5/8 | 24 | 13 | 786 |
| Prot. String | | | | |
| Production String | 4-1/2 | 11.6 | 13.2 | 7163 |
| Liner | | | | |

<<< Fold Here >>>

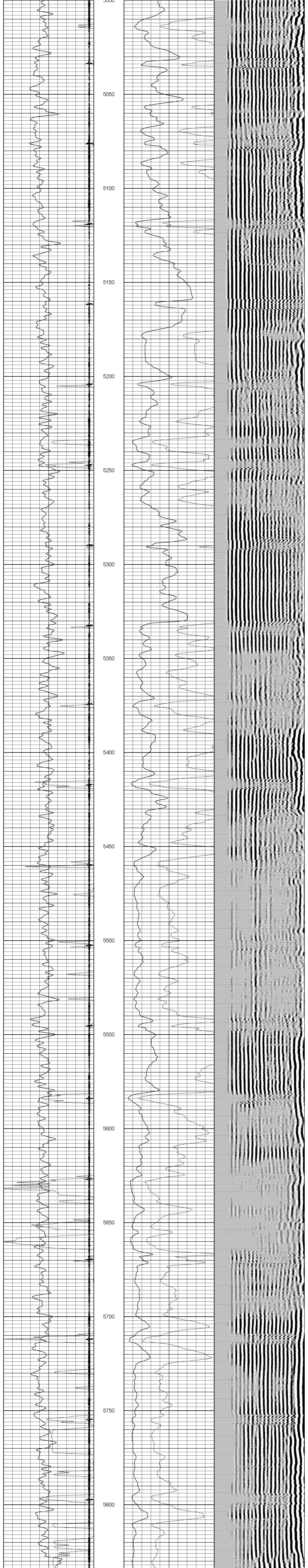
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR CHOOSING SUPERIOR WELL SERVICES!!!!
LOG CORRELATED TO PSI OPEN HOLE LOG DATED DECEMBER 6, 2010
WCR 70 & WCR 53, W.3, S.25, E.2 INTO

| | |
|---|---|
| Database File: | cblgulley17-15.db |
| Dataset Pathname: | pass4 |
| Presentation Format: | nuexbond |
| Dataset Creation: | Fri Dec 17 10:49:43 2010 by Log Std Casedhole 10081 |
| Charted by: | Depth in Feet scaled 1:240 |

| | |
|---|---|
| Database File: | cblgulley17-15.db |
| Dataset Pathname: | pass3 |
| Presentation Format: | nuexbond |
| Dataset Creation: | Fri Dec 17 10:31:52 2010 by Log Std Casedhole 10081 |
| Charted by: | Depth in Feet scaled 1:240 |



## Calibration Report

Database File: cblgulley17-15.db
Dataset Pathname: pass3
Dataset Creation: Fri Dec 17 10:31:52 2010 by Log Std Casedhole 10081

### Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | tit/temp | |
| Tool Model: | temp/tit | |
| Performed: | Tue Sep 21 09:37:35 2010 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |
| Sensitivity: | 1.0000 | GAPI/cps |

### CBL Calibration Report

| | | |
|---|---|---|
| Serial Number: | 111 | |
| Tool Model: | TekCo_GOI | |
| Performed: | Fri Dec 17 10:18:02 2010 | |
| Depth: | 976.925 | ft |
| Casing Diameter: | 4.500 | in |

| | 3' Spacing | 5' Spacing | |
|---|---|---|---|
| Signal Zero: | 0.800 | 0.800 | mV |
| Calibrated Amplitude: | 81.196 | 81.196 | mV |
| Reading at Signal Zero: | 0.008 | 0.008 | V |
| Reading in Free Pipe: | 2.416 | 2.461 | V |
| Gain: | 33.394 | 32.773 | |
| Offset: | 0.531 | 0.537 | |