**SUPERIOR**
**WELL SERVICES**

SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

# CEMENT BOND LOG

CompanyXTO Energy Inc.
Well Apache Canyon 05-02
Field Purgatorie River
County Las Animas
State CO

Company XTO Energy Inc.
Well Apache Canyon 05-02
Field Purgatorie River
County Las Animas State CO

Location: API # : 05 071 09134 00

546' FNL & 1492' FEL

SEC 05 TWP 34S RGE 67W

Other Services
Pressure control

| | | | |
|---|---|---|---|
| Permanent Datum | Ground Level | Elevation | 7870' |
| Log Measured From | Ground Level | | |
| Drilling Measured From | Ground Level | | |

Elevation
K.B. -------
D.F. --------
G.L. 7870'

| | | | |
|---|---|---|---|
| Date | 6-27-07 | | |
| Run Number | Three | | |
| Depth Driller | 2475' | | |
| Depth Logger | 2181' | | |
| Bottom Logged Interval | 2178' | | |
| Top Log Interval | Surface | | |
| Open Hole Size | 7 7/8 | | |
| Type Fluid | Water | | |
| Density / Viscosity | /// | | |
| Max. Recorded Temp. | 108F | | |
| Estimated Cement Top | Surface | | |
| Time Well Ready | ROA | | |
| Time Logger on Bottom | 7:45AM | | |
| Equipment Number | T0698 | | |
| Location | Trinidad | | |
| Recorded By | J. Sisneros | | |
| Witnessed By | Mr. Mike Polley | | |

| 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" | | | 495' |
| Prot. String | | | | |
| Production String | 5.5" | | | |
| 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

Lower Bosque Entrance, first right to Cherry Canyon, stay left at Y, stay on main road for 4.5 miles turn right , second location.

SUPERIOR WELL SERVICES

SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

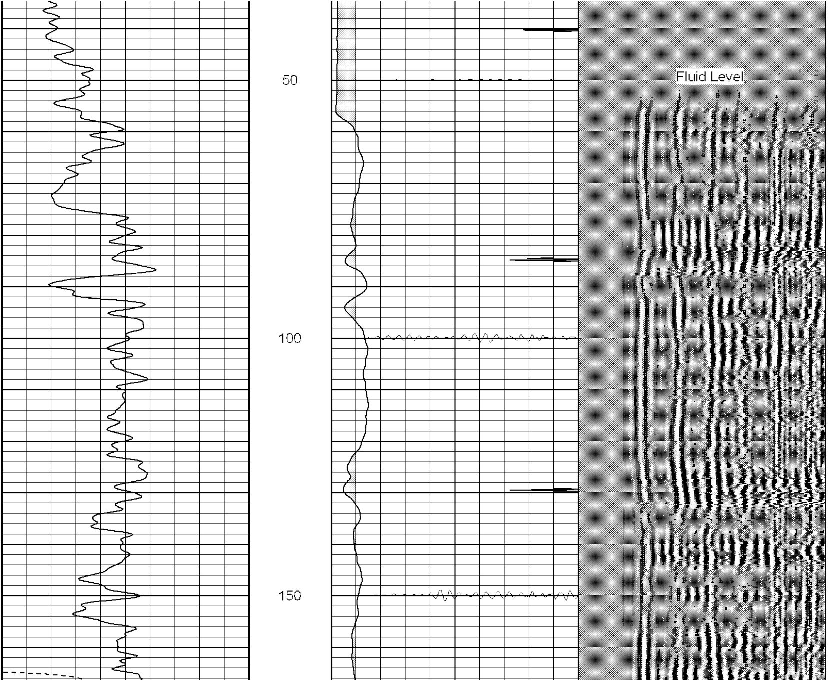
# Main Pass (1000PSI)

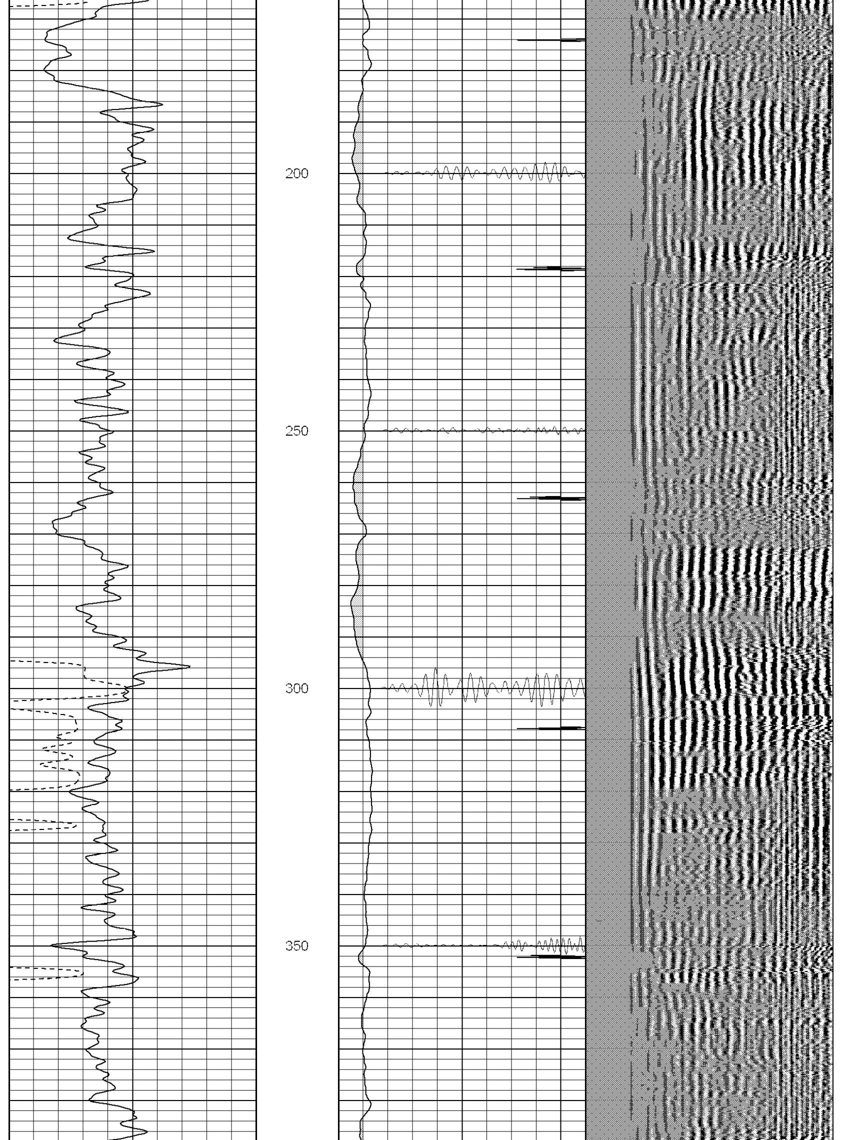
| | |
|---|---|
| Database File: | ac050262707b.db |
| Dataset Pathname: | pass2 |
| Presentation Format: | cblrt |
| Dataset Creation: | Wed Jun 27 09:36:46 2007 by Log Open-Cased 061129 |
| Charted by: | Depth in Feet scaled 1:240 |

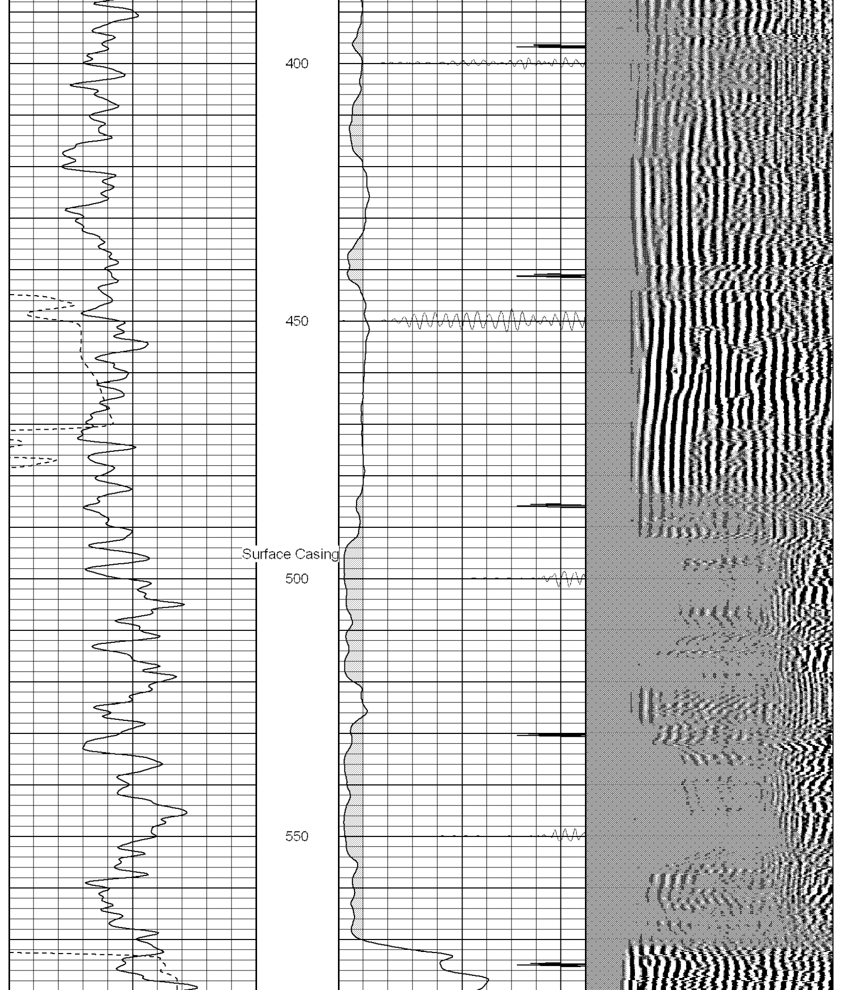
0 GR (GAPI) 200
400 TT3 (usec) 200

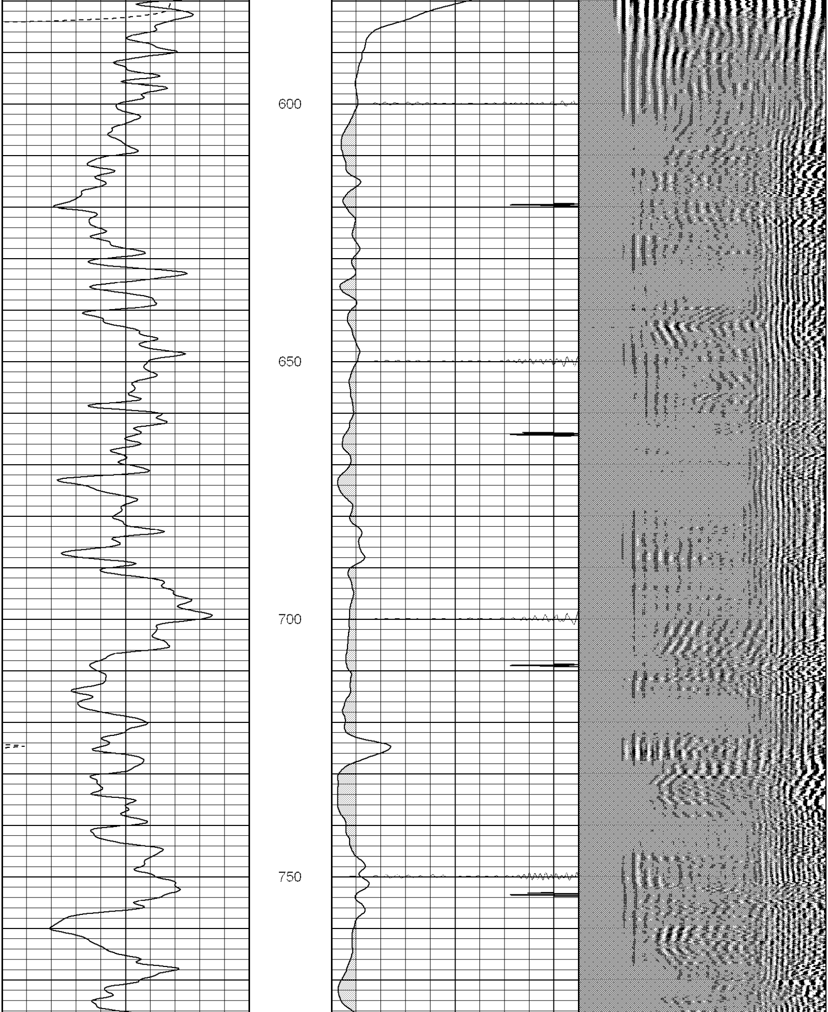
0 AMP3 (mV) 100
18 CCL -2
200 CBL5 1200

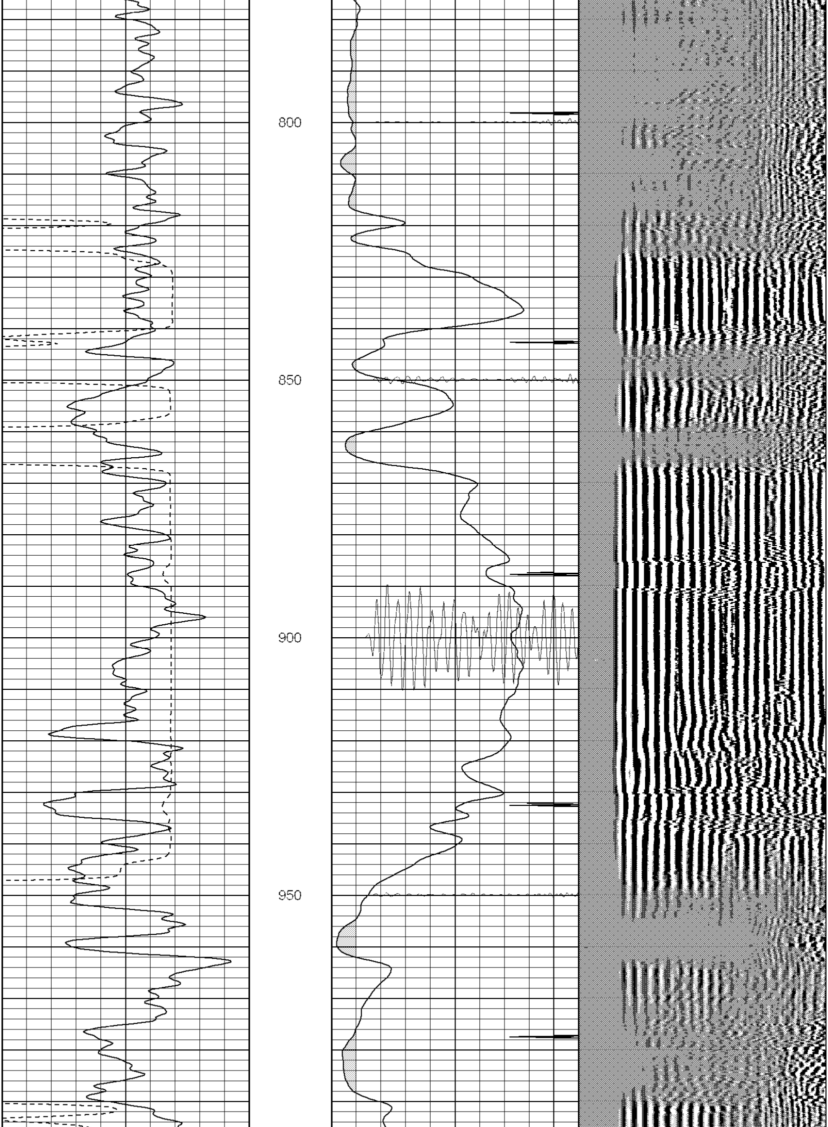
200 Variable Density 1200

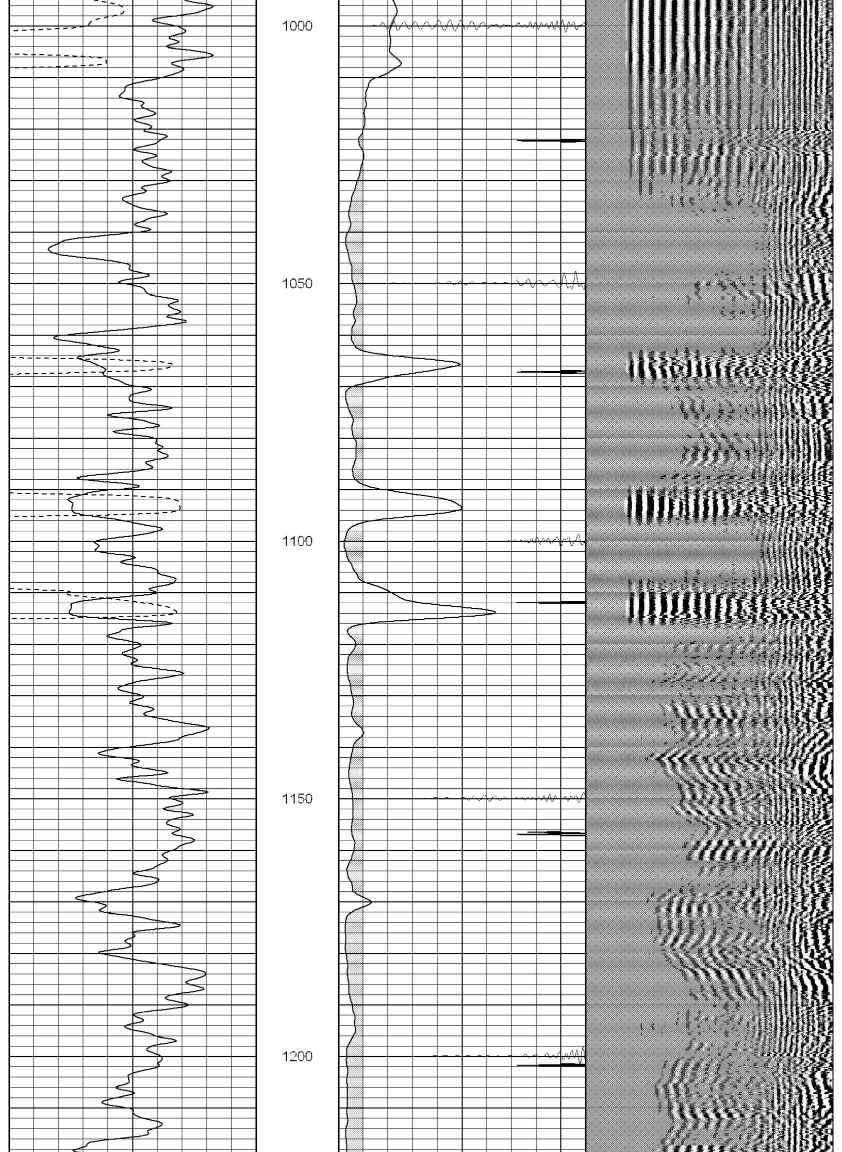


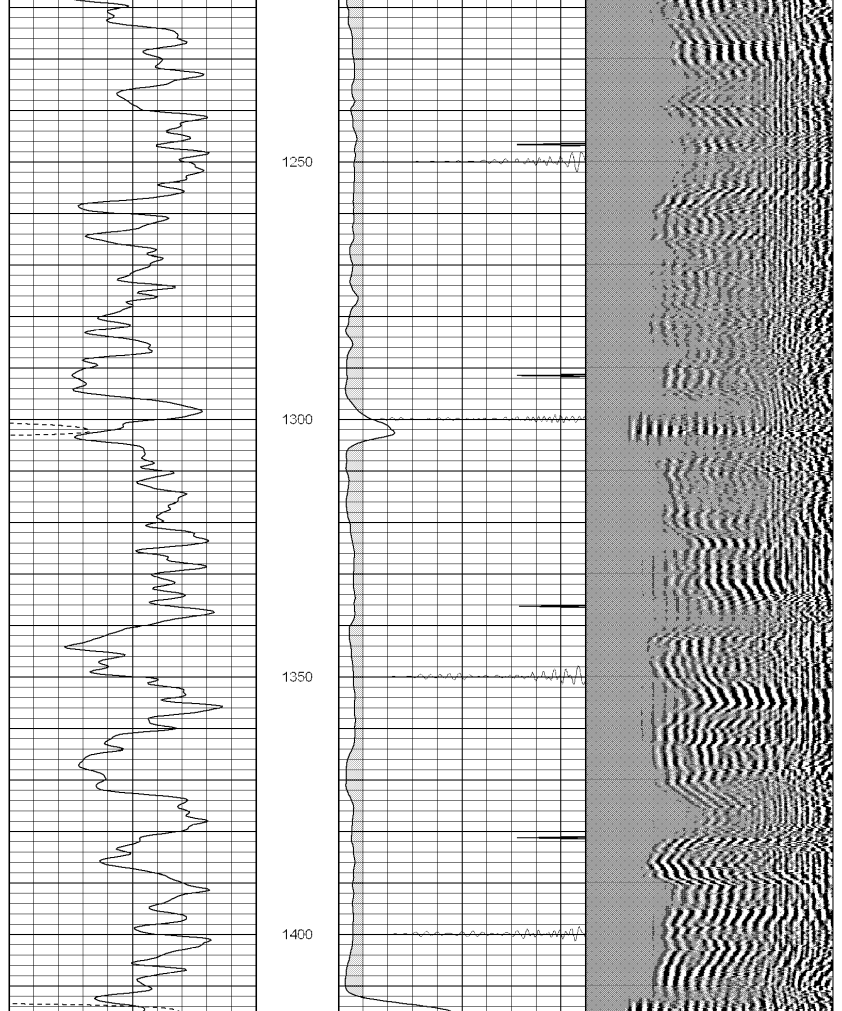


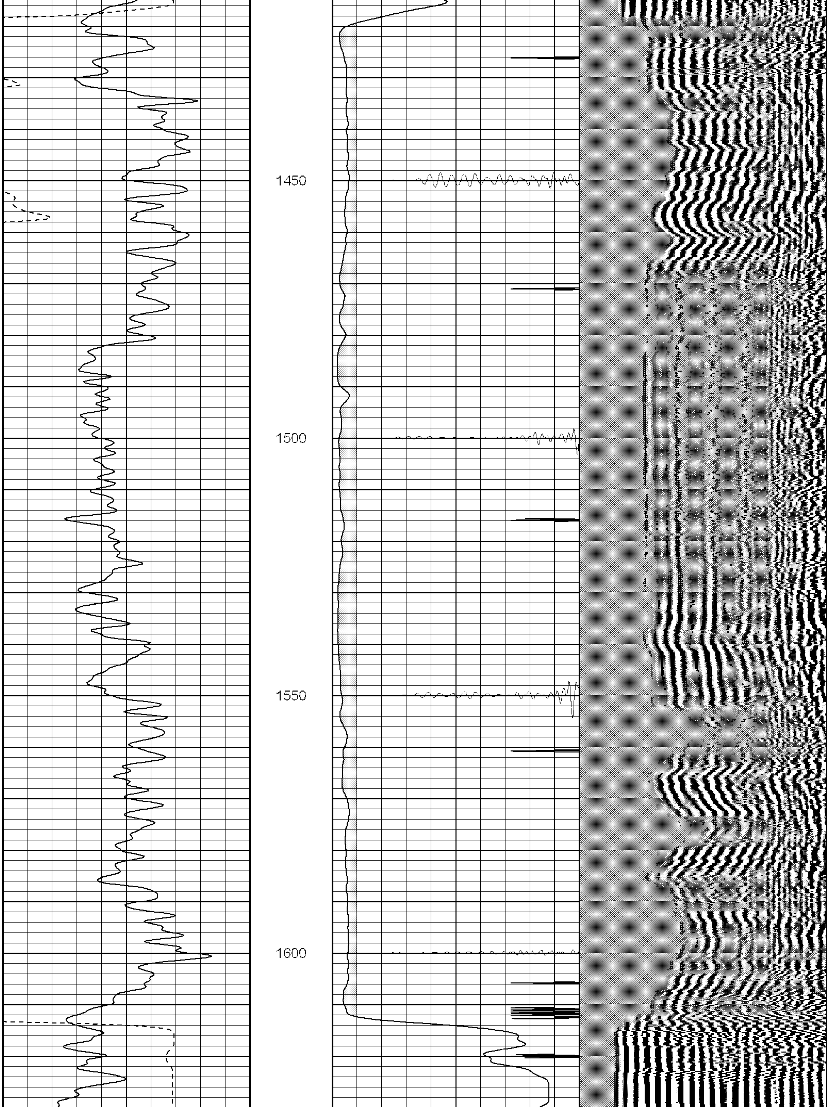


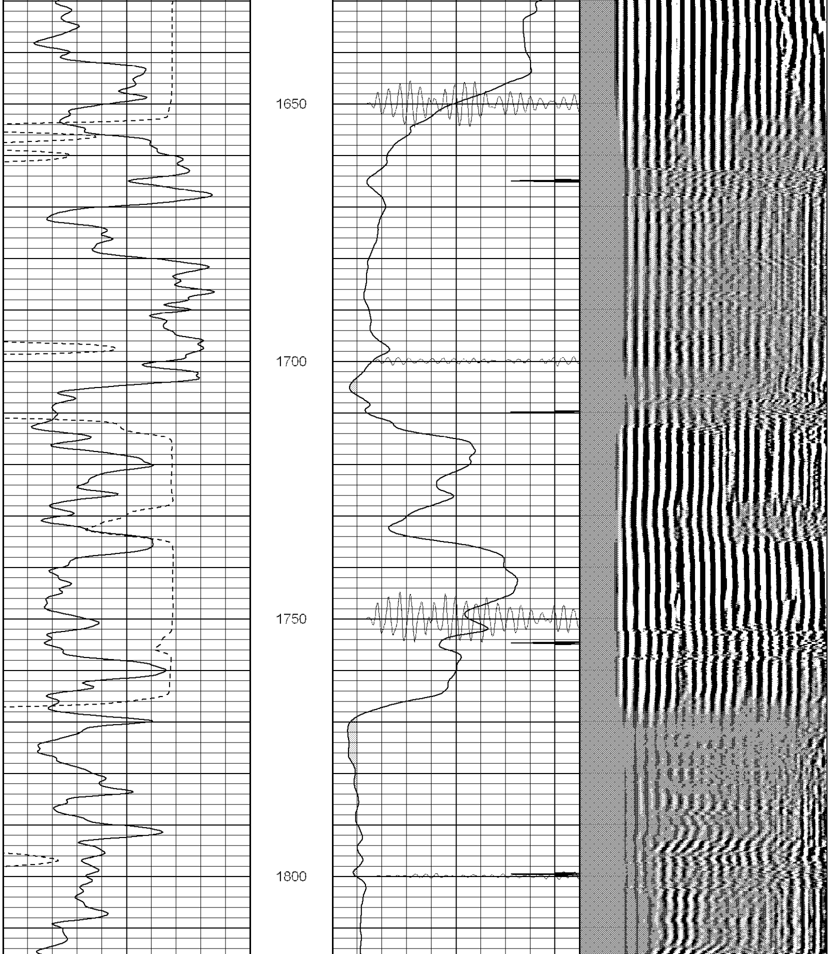


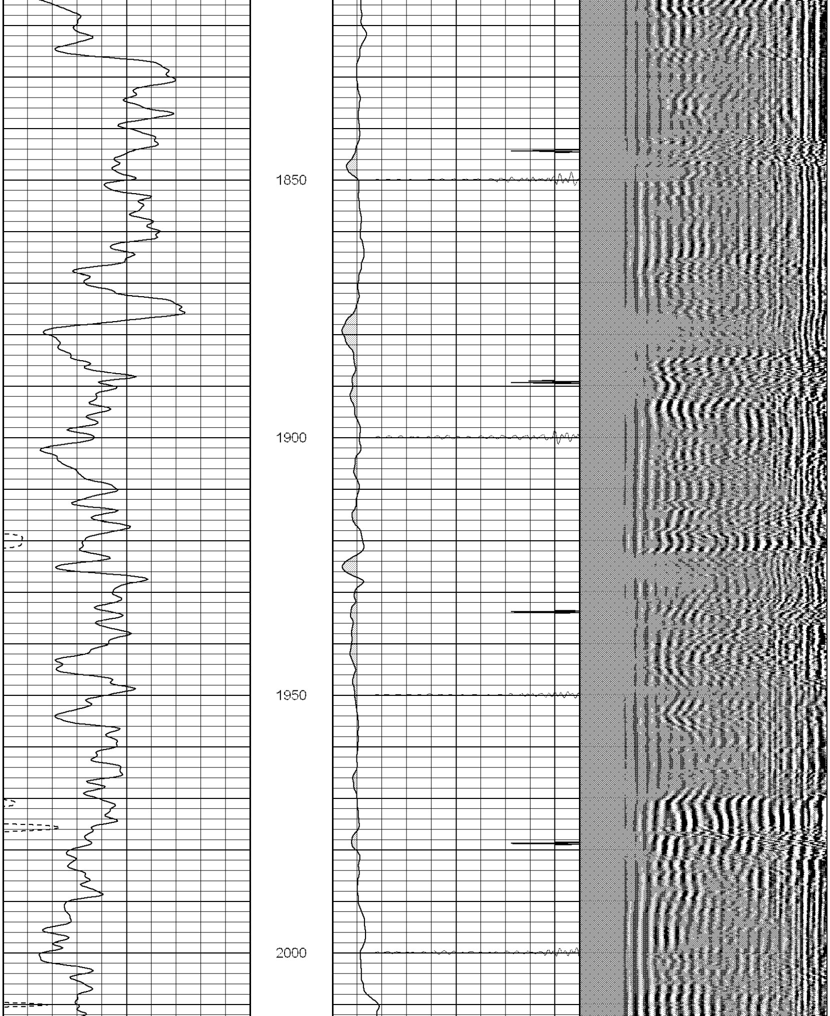


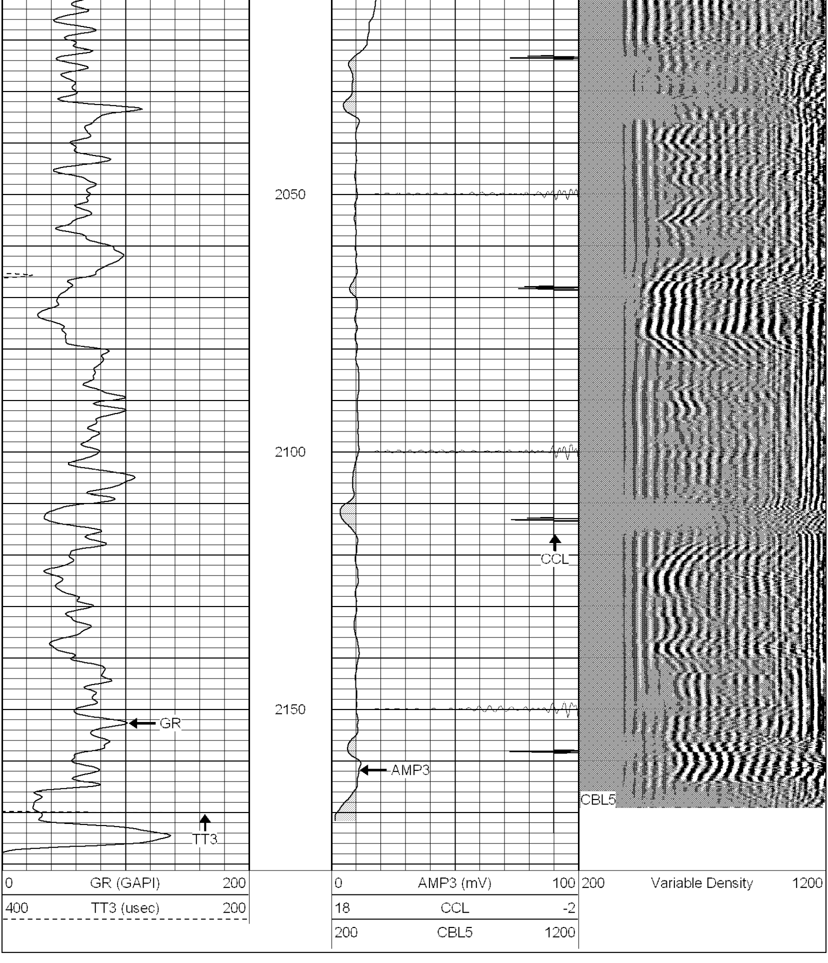












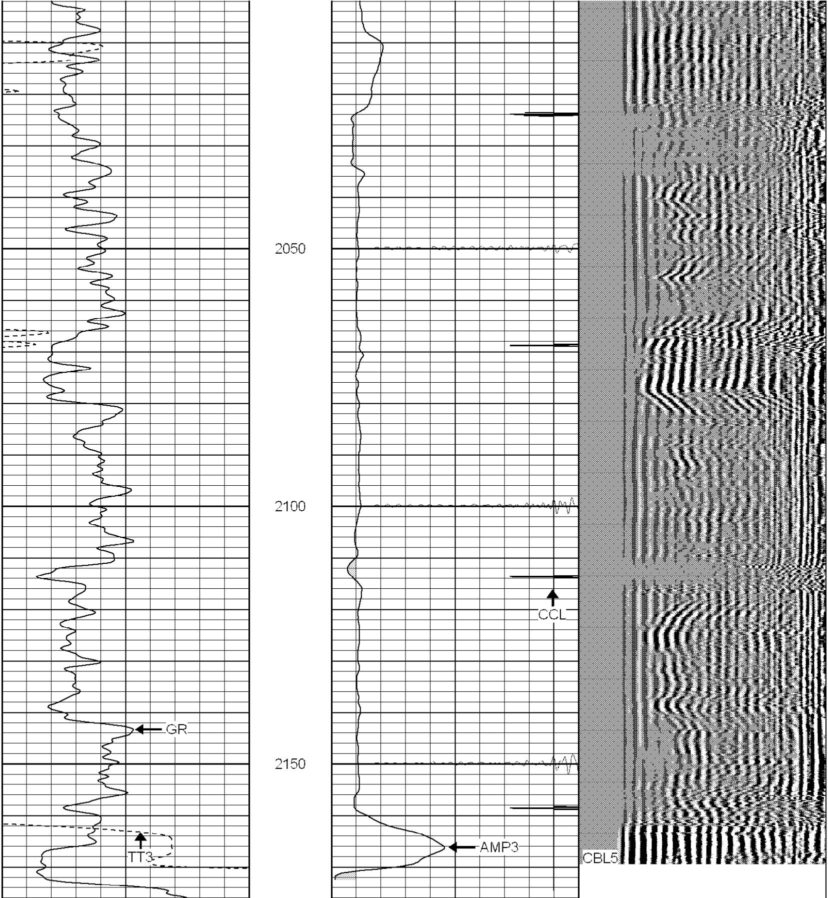
SUPERIOR WELL SERVICES

SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

# Repeat Section (0PSI)

| | |
|---|---|
| Database File: | ac050262707b.db |
| Dataset Pathname: | pass1 |
| Presentation Format: | cblrt |
| Dataset Creation: | Wed Jun 27 08:49:57 2007 by Log Open-Cased 061129 |
| Charted by: | Depth in Feet scaled 1:240 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | | 0 | AMP3 (mV) | 100 | 200 | Variable Density | 1200 |
| 400 | TT3 (usec) | 200 | | 18 | CCL | -2 | | | |
| | | | | 200 | CBL5 | 1200 | | | |



| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | 0 | AMP3 (mV) | 100 | 200 | Variable Density | 1200 |
| 400 | TT3 (usec) | 200 | 18 | CCL | -2 | | | |
| | | | 200 | CBL5 | 1200 | | | |

## Calibration Report

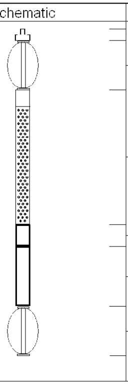
| | |
|---|---|
| Database File: | ac050262707b.db |
| Dataset Pathname: | pass1 |
| Dataset Creation: | Wed Jun 27 08:49:57 2007 by Log Open-Cased 061129 |

### Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | Titan1 | |
| Tool Model: | T1 | |
| Performed: | Wed Jun 20 16:43:46 2007 | |
| Calibrator Value: | 200.0 | GAPI |
| Background Reading: | 54.0 | cps |
| Calibrator Reading: | 219.0 | cps |
| Sensitivity: | 1.5000 | GAPI/cps |

### Cement Bond Log Calibration Report

| | | | |
|---|---|---|---|
| Serial Number: | Titan4 | | |
| Tool Model: | T4 | | |
| Performed: | Tue Jun 26 11:32:40 2007 | | |
| Depth: | 74.8132 | ft | |
| Casing Diameter: | 5.5 | in | |
| | 3' Spacing | 5' Spacing | |
| Signal Zero: | 0 | 0 | mV |
| Calibrated Amplitude: | 85 | 71.921 | mV |
| Reading at Signal Zero: | 0.0239014 | 0.020166 | V |
| Reading in Free Pipe: | 1.71 | 1.63755 | V |
| Gain: | 50.4122 | 44.4675 | |
| Offset: | 1.5 | -0.896733 | |

| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|---|---|---|---|---|---|---|
| | |  | CHD-None (0) | 0.75 | 1.50 | 5.00 |
| | | | CENT-X (2) | 3.00 | 1.69 | 25.00 |
| WVF5<br>WVF3 | 12.30<br>11.30 | | CBL-T4 (Titan4) | 8.15 | 2.25 | 110.00 |
| CCL | 7.10 | | CCL-T1 (Titan1) | 1.33 | 3.13 | 15.00 |
| GR | 4.30 | | GR-T1 (Titan1) | 3.63 | 3.13 | 25.00 |
| | | | CENT-X (1) | 3.00 | 1.69 | 25.00 |

| | |
|---|---|
| Dataset: | ac050262707b.db: field/well/run1/pass1 |
| Total Length: | 19.86 ft |
| Total Weight: | 205.00 lb |
| O.D. | 3.13 in |