PIONEER
Pioneer Energy Services

# V.D.L. C.C.L. GAMMA RAY CEMENT BOND LOG

Company GREAT WESTERN OIL AND GAS LLC.
Well DETTERER FD 25-7D
Field WATTENBERG
County WELD
State COLORADO Country USA

| | |
|---|---|
| Company | GREAT WESTERN OIL AND GAS LLC. |
| Well | DETTERER FD 25-7D |
| Field | WATTENBERG |
| County | WELD |
| State | COLORADO |
| Country | USA |

Location: API # : 05123355550000

SHL: 136' FNL & 2408' FEL NWNE
BHL: 1316' FNL & 1446' FEL NWNE

SEC 25 TWP 6N RGE 67W

Other Services

| | | | |
|---|---|---|---|
| Permanent Datum | GL | Elevation | 4744' |
| Log Measured From | KB | | |
| Drilling Measured From | KB | | |

Elevation
K.B. 4758'
D.F. 4757'
G.L. 4744'

| | | | |
|---|---|---|---|
| Date | NOVEMBER 26, 2012 | | |
| Run Number | ONE | | |
| Depth Driller | 7500' | | |
| Depth Logger | 7434' | | |
| Bottom Logged Interval | 7422' | | |
| Top Log Interval | 30' | | |
| Open Hole Size | 7-7/8" | | |
| Type Fluid | WATER | | |
| Density / Viscosity | NA | | |
| Max. Recorded Temp. | NA | | |
| Estimated Cement Top | NA | | |
| Time Well Ready | NA | | |
| Time Logger on Bottom | NA | | |
| Equipment Number | 1 | | |
| Location | FORT MORGAN | | |
| Recorded By | RANDY AZEVEDO | | |
| Witnessed By | SHAWN ARMSTRONG | | |

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

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | | | | |
| Prot. String | 4.5" | 11.6 LB | SURFACE | 7500' |
| Production String | | | | |
| Liner | | | | |

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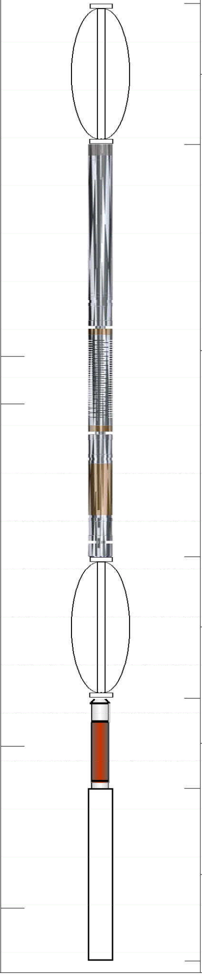
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

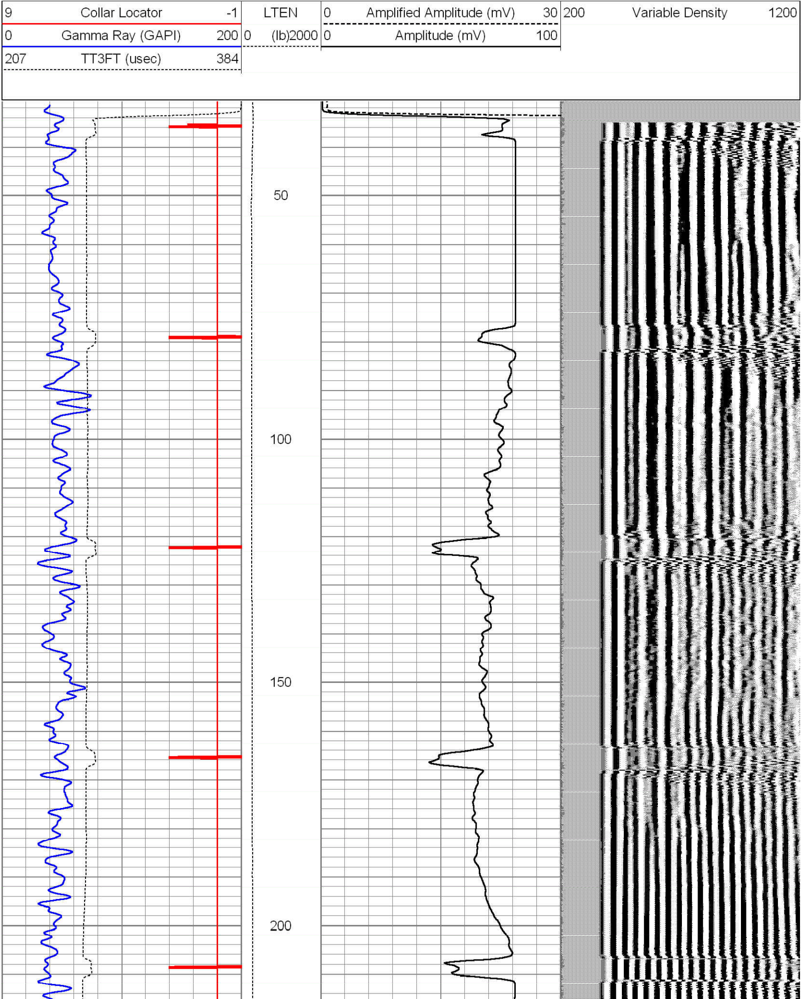
## Comments

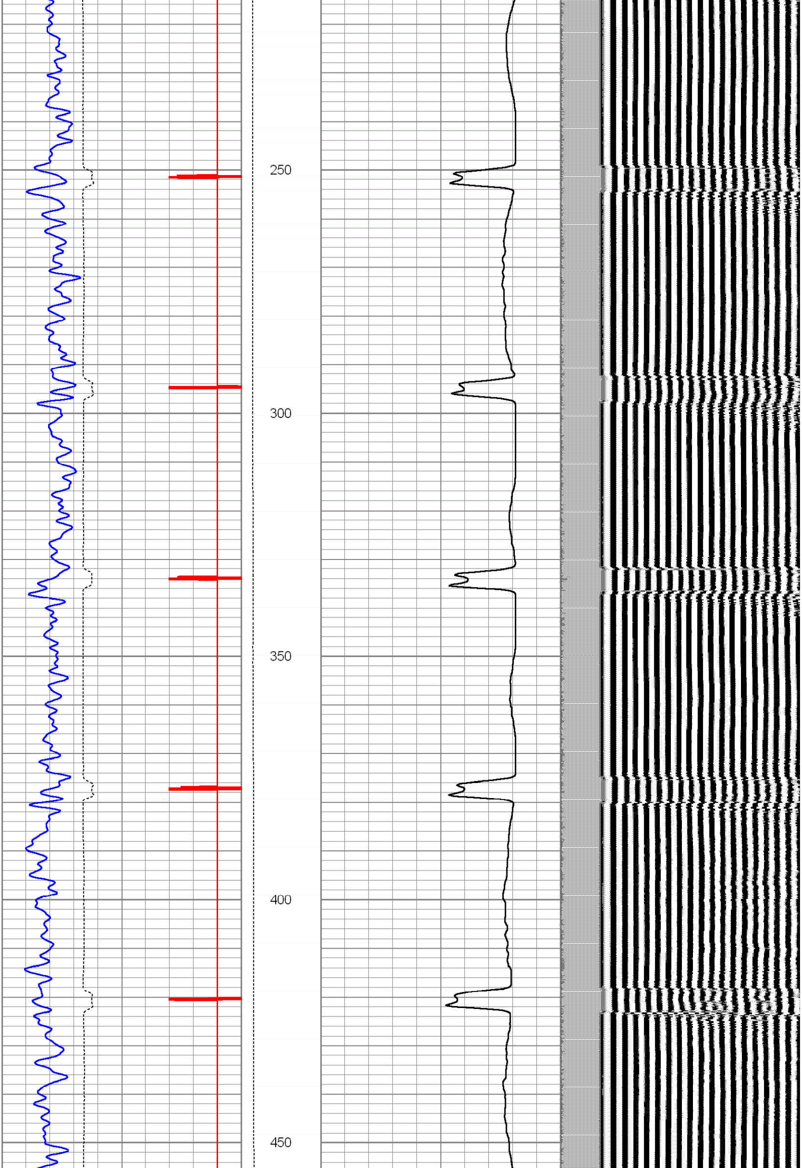
LOG CORRILATED TO PIONEER OPEN HOLE LOG DATED NOV, 21 2012
SO # 2-203337
N
W 0 0 0 X 0 E
S
THANK YOU FOR USING PIONEER ENERGY SERVICES.

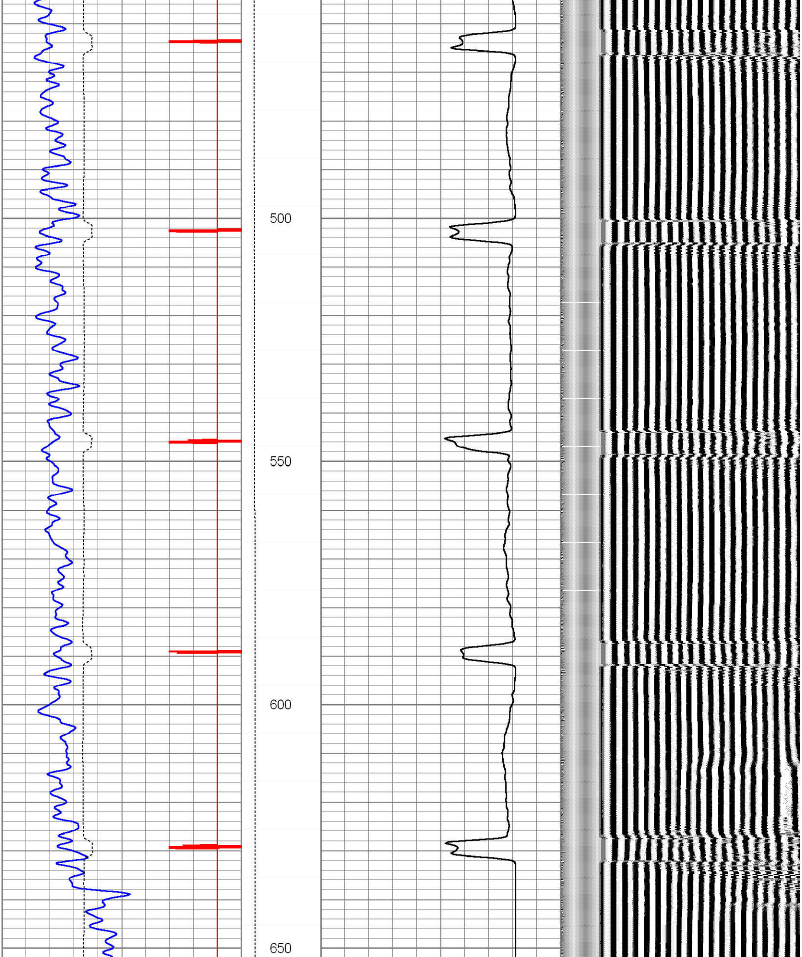
| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|---|---|---|---|---|---|---|
|  |  |  | SDSCENT<br>Centralizer for testing | 3.00 | 3.25 | 20.00 |
| WVF3 | 12.83 |  | CBL-Probe (050215)<br>2.75 digital probe | 8.75 | 2.75 | 106.50 |
| WVF5 | 11.83 |  |  |  |  |  |
|  |  |  | SDSCENT<br>Centralizer for testing | 3.00 | 3.25 | 20.00 |
| CCL | 4.56 |  | CCL-titan01 (01t) | 1.92 | 2.75 |  |
|  |  |  | GR-probe 2.75 (51013) | 3.67 | 2.75 | 100.00 |
| GR | 1.13 |  |  |  |  |  |

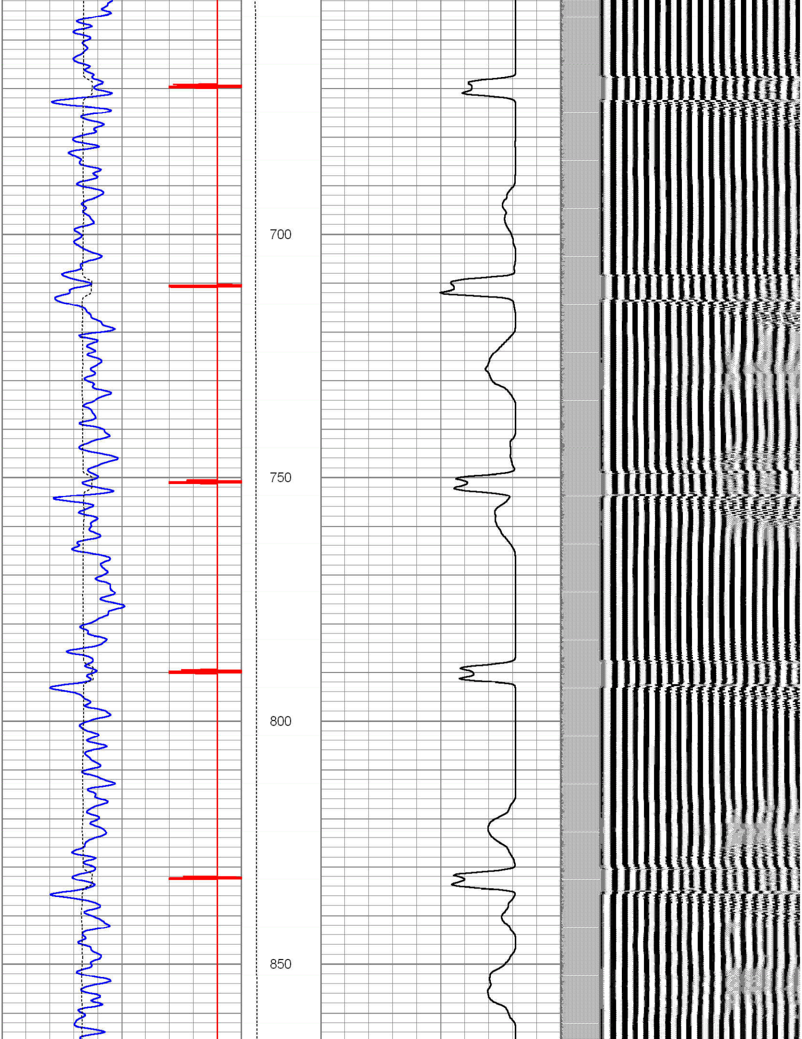
| | |
|---|---|
| Dataset: | detterer fd 25-7d cbl.db: field/well/run1/pass3 |
| Total Length: | 20.33 ft |
| Total Weight: | 246.50 lb |
| O.D. | 3.25 in |

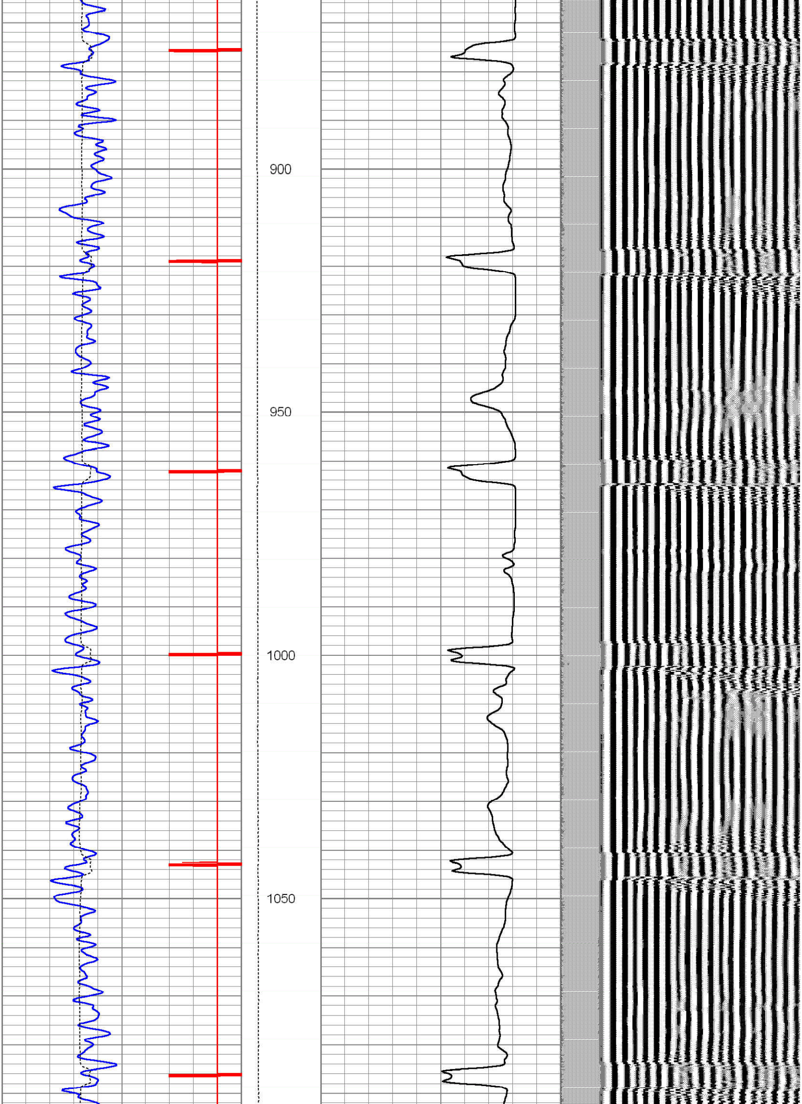
Database File: detterer fd 25-7d cbl.db
Dataset Pathname: pass3
Presentation Format: cbl_dr
Dataset Creation: Mon Nov 26 15:49:04 2012 by Log SCH 110722
Charted by: Depth in Feet scaled 1:240

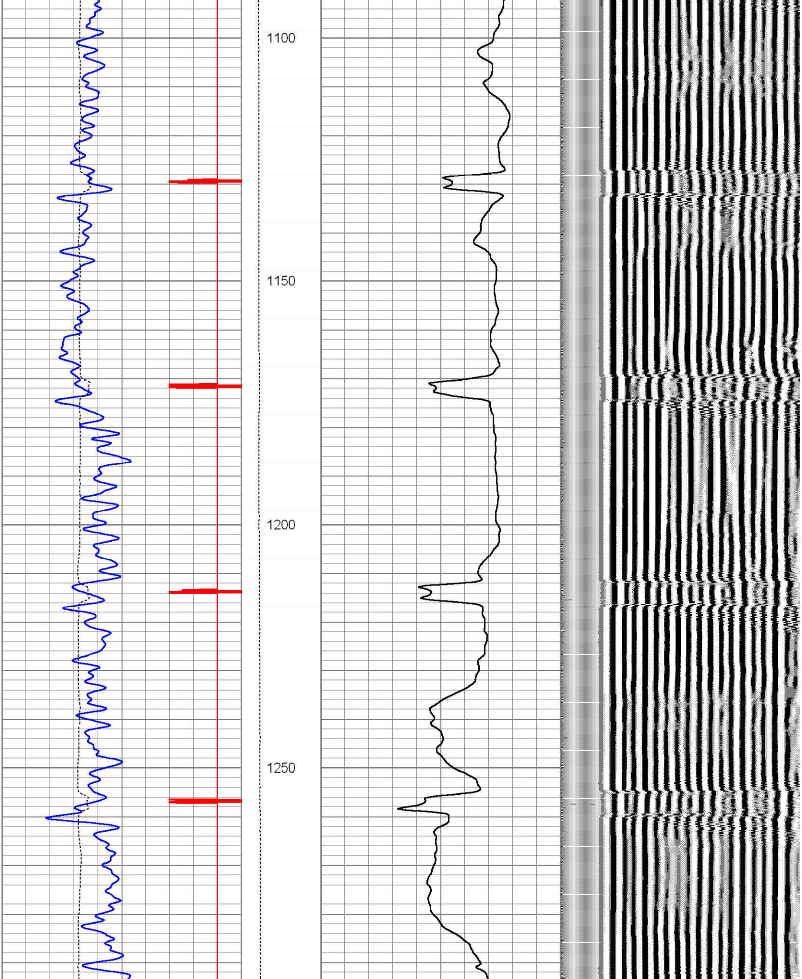


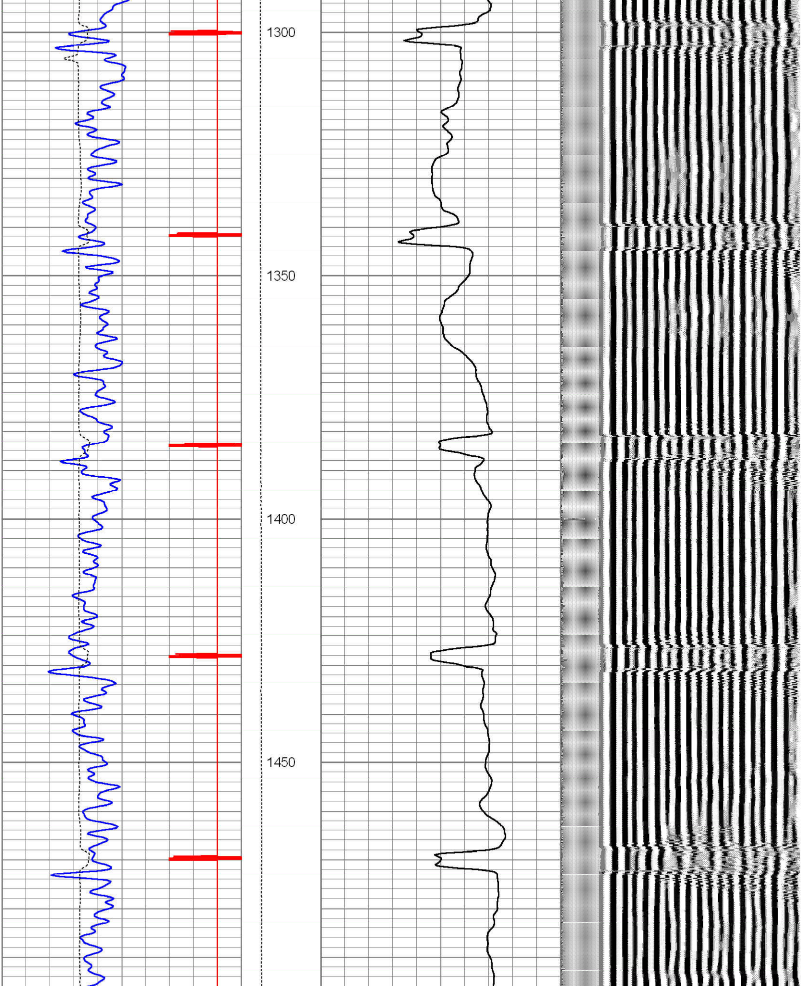


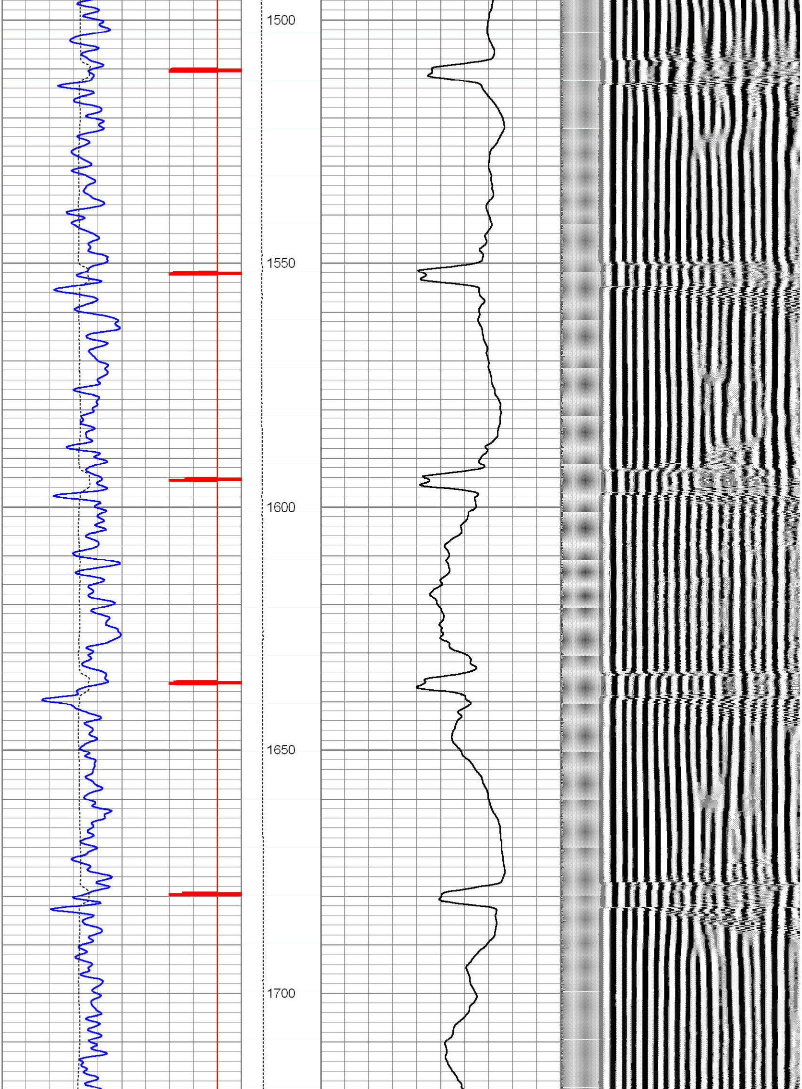


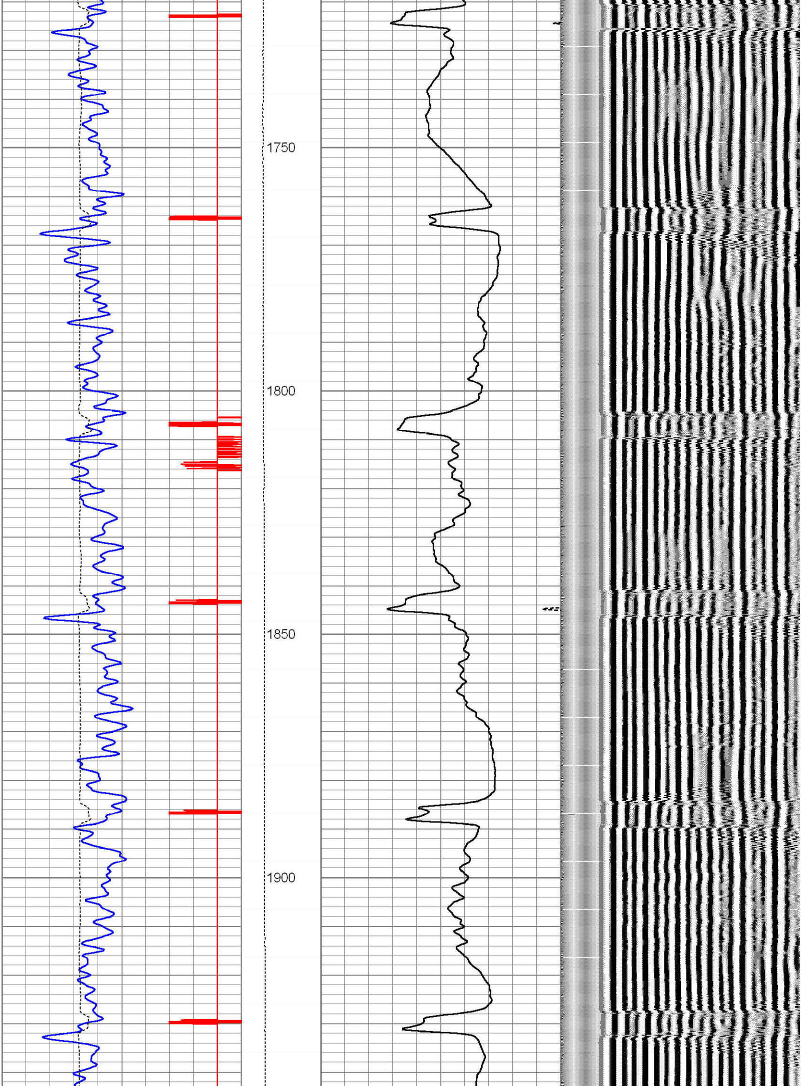


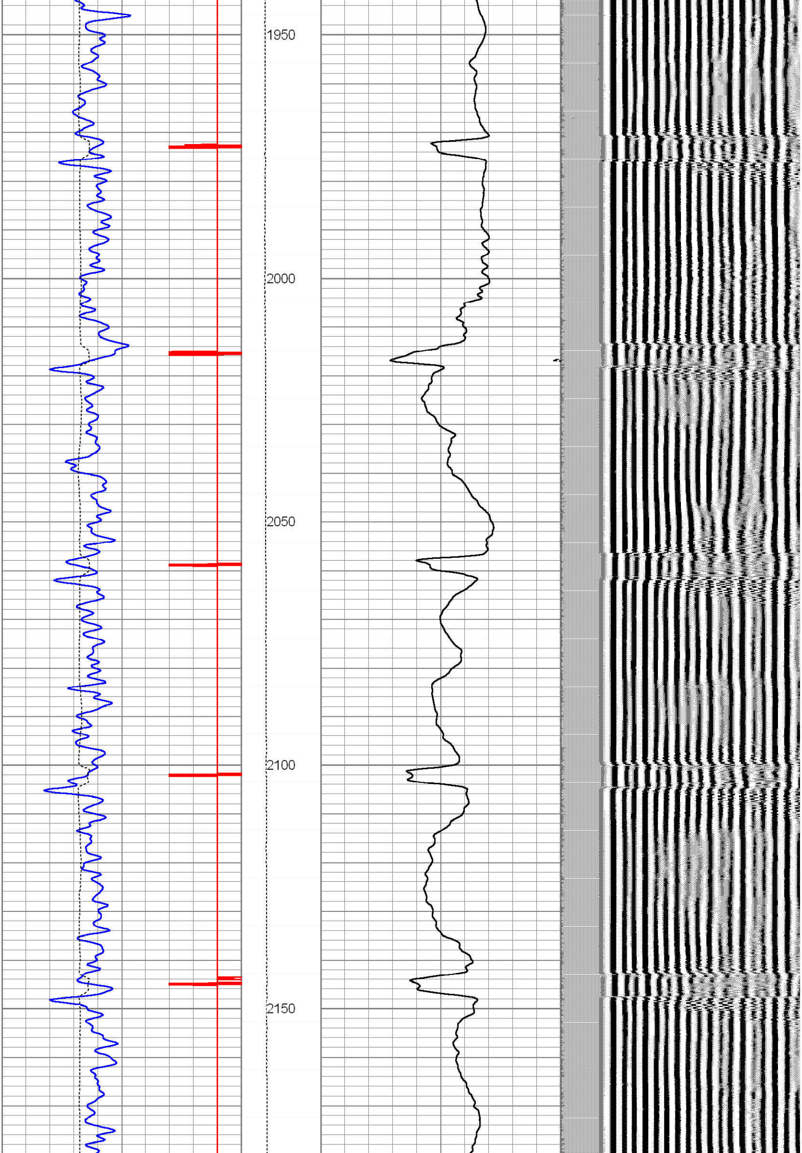


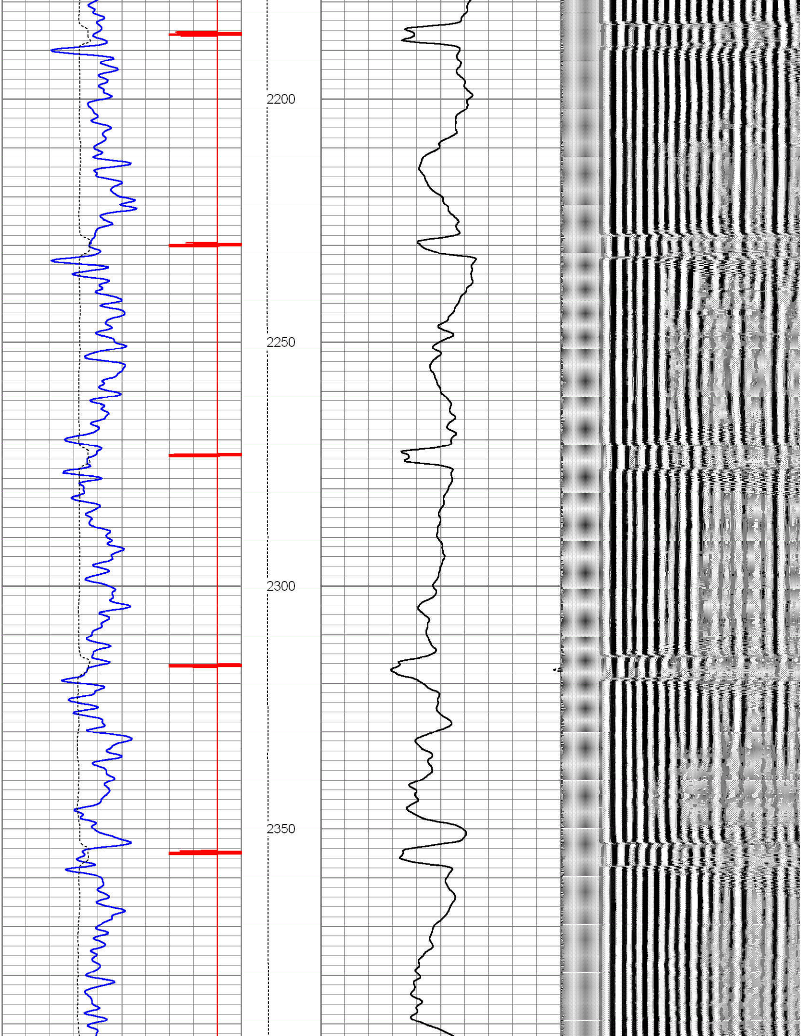


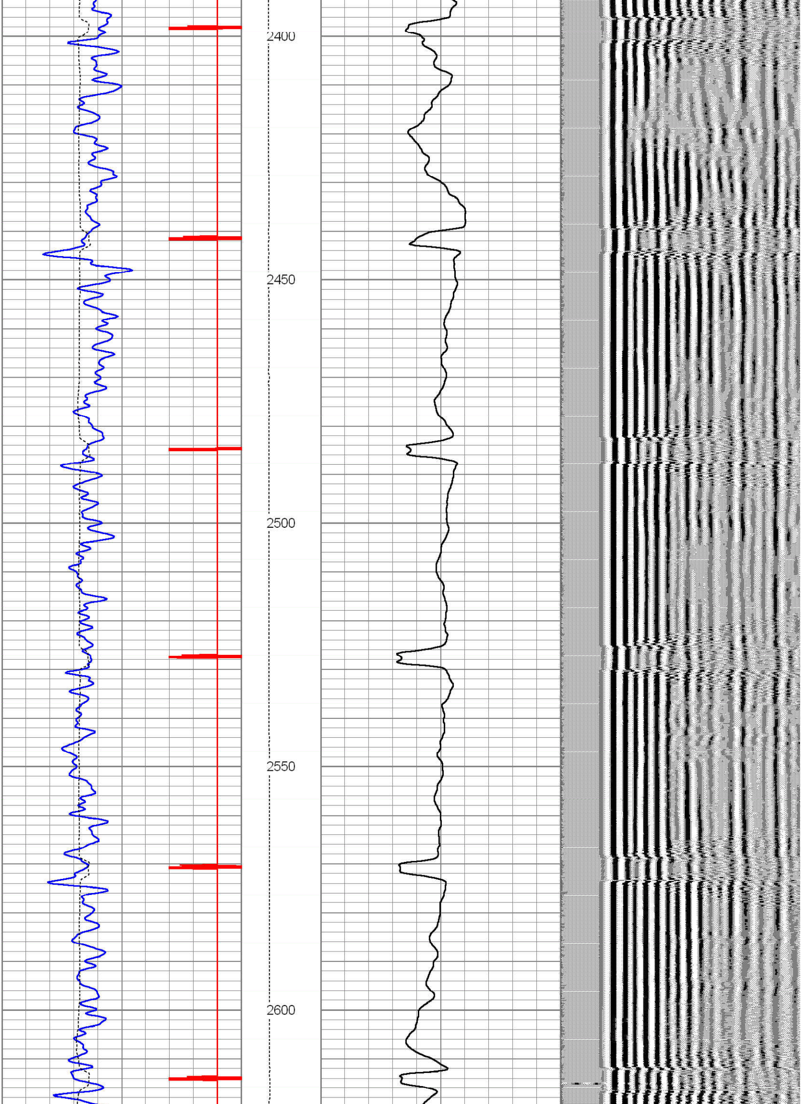


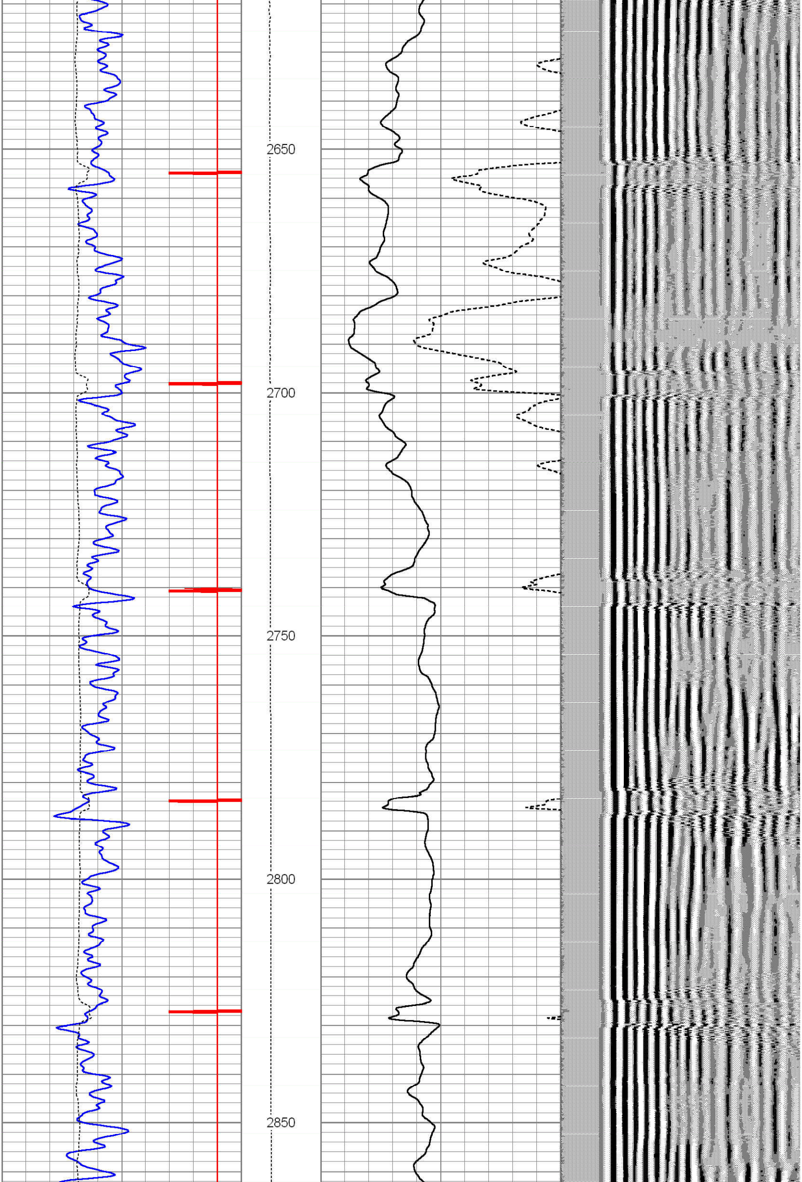


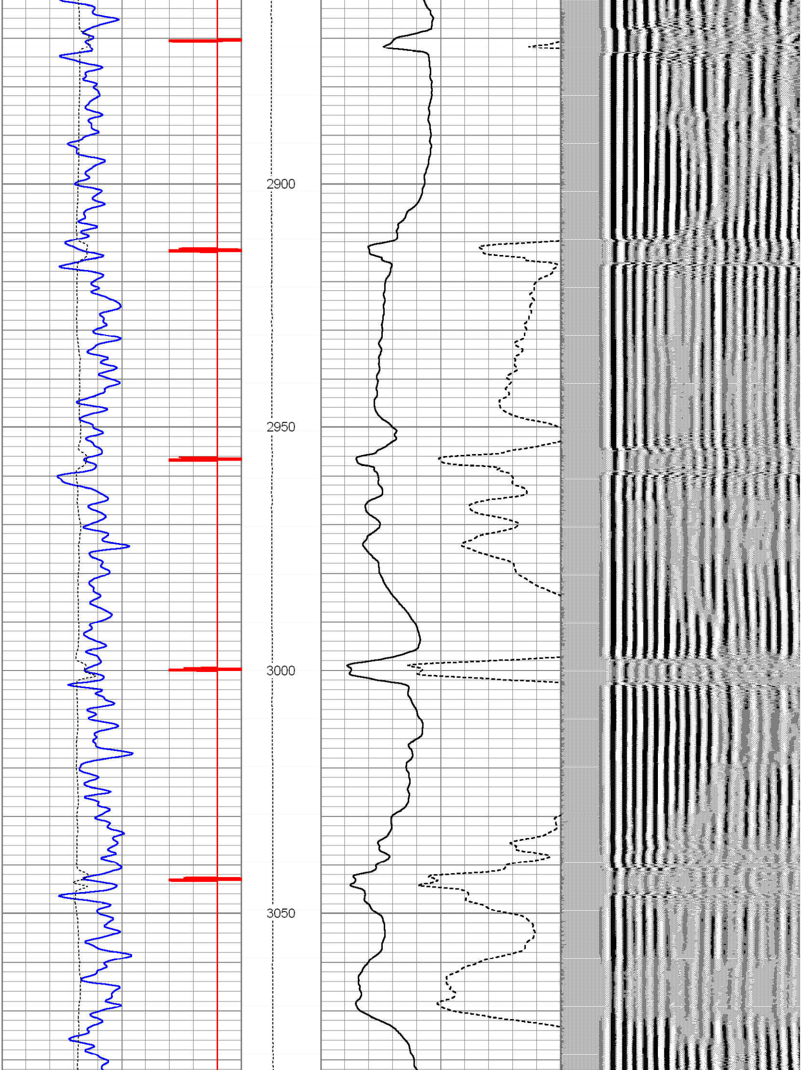


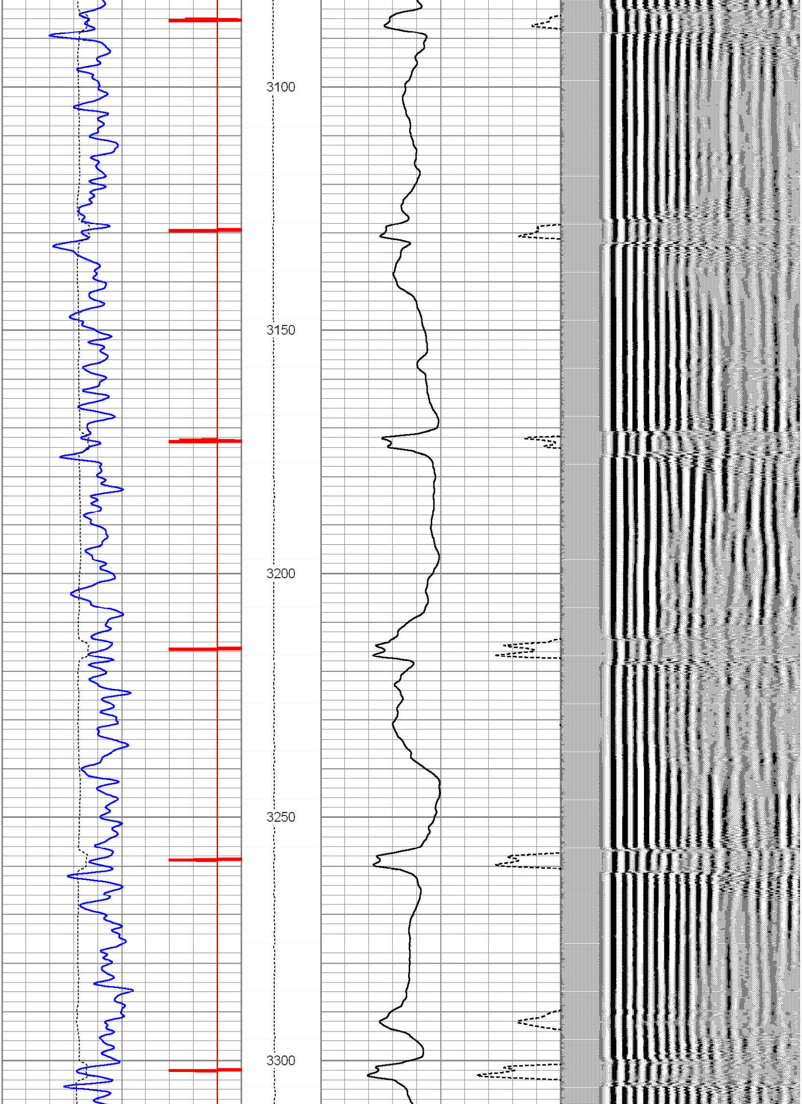


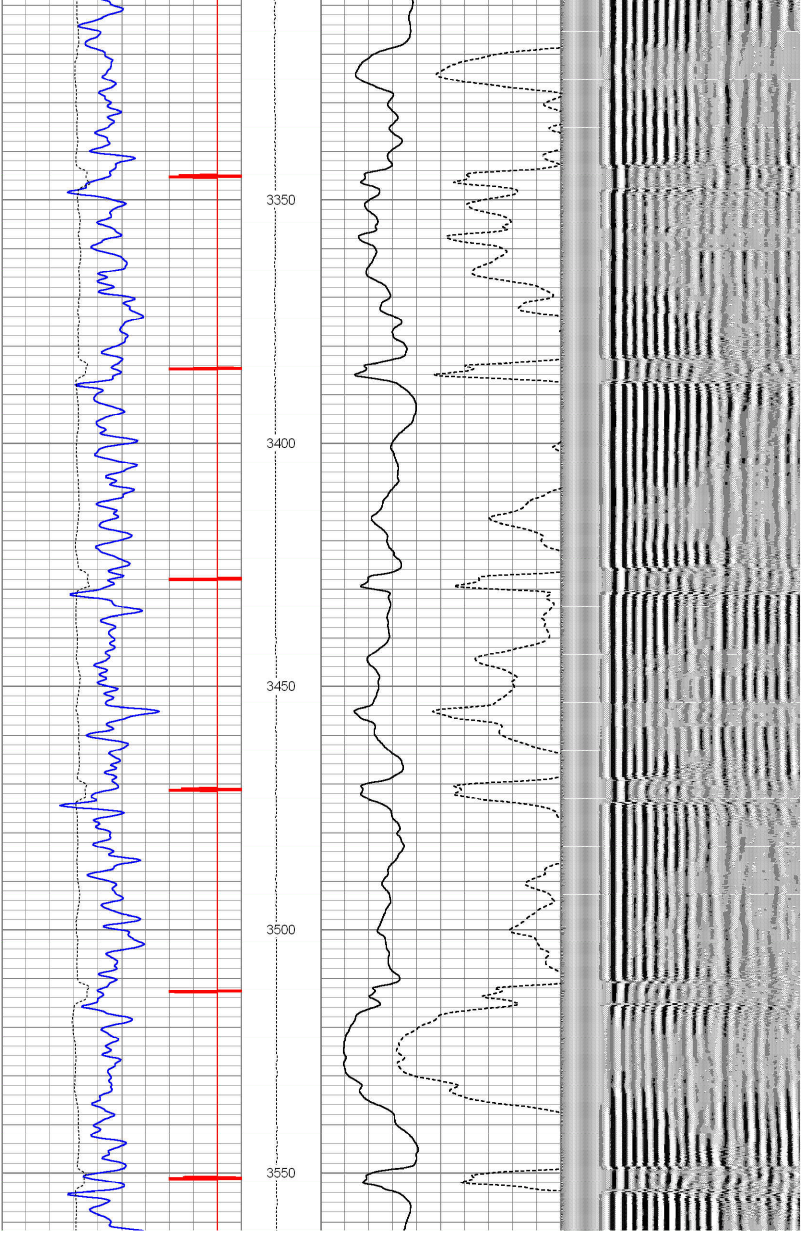




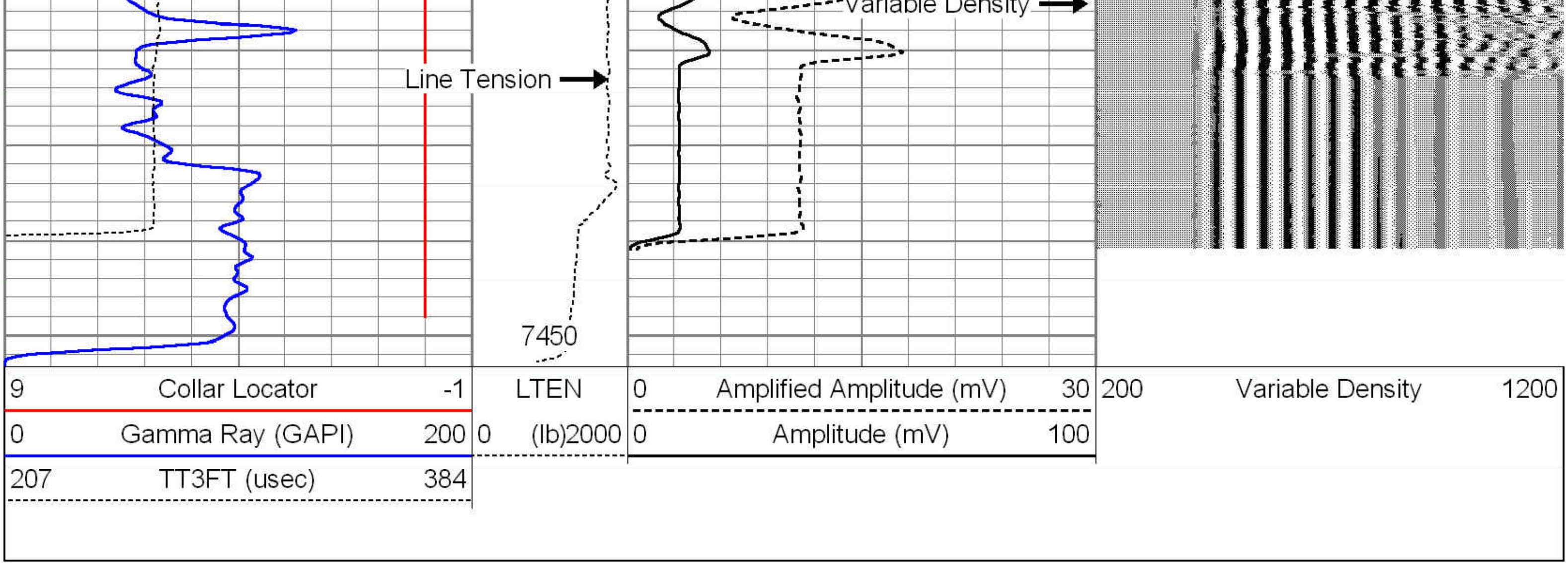








Database File: detterer fd 25-7d cbl.db
Dataset Pathname: pass2
Presentation Format: cbl_dr
Dataset Creation: Mon Nov 26 15:15:02 2012 by Log SCH 110722
Charted by: Depth in Feet scaled 1:240


Variable Density
Line Tension
7450
9
Collar Locator
-1
LTEN
0
Amplified Amplitude (mV)
30
200
Variable Density
1200
0
Gamma Ray (GAPI)
200
0
(lb)2000
0
Amplitude (mV)
100
207
TT3FT (usec)
384