



Pioneer Energy Services

## Dual Induction Log

|                        |                                                                                  |                                                  |  |
|------------------------|----------------------------------------------------------------------------------|--------------------------------------------------|--|
| API No.                | Company TDI, Inc.<br>Well Linus #1<br>Field Wildcat<br>County Ellis State Kansas |                                                  |  |
| 15-051-26314-00-00     | Location NW SW SE SE<br>595' FSL / 1040' FWL                                     | Other Services<br>CNL / CDL                      |  |
|                        | Sec: 14 Twp: 15S Rge: 19W                                                        | Elevation<br>K.B. 1997<br>D.F. 1987<br>G.L. 1987 |  |
| Permanent Datum        | Ground Level                                                                     | Elevation 1987                                   |  |
| Log Measured From      | Kelly Bushing                                                                    | 10 Ft. Above Perm. Datum                         |  |
| Drilling Measured From | From Kelly Bushing                                                               |                                                  |  |
| Date                   | 8/8/2012                                                                         |                                                  |  |
| Run Number             | One                                                                              |                                                  |  |
| Depth Driller          | 3700                                                                             |                                                  |  |
| Depth Logger           | 3696                                                                             |                                                  |  |
| Bottom Logged Interval | 3695                                                                             |                                                  |  |
| Top Log Interval       | 1150                                                                             |                                                  |  |
| Casing Driller         | 8.625 @ 1196                                                                     |                                                  |  |
| Casing Logger          | 1196                                                                             |                                                  |  |
| Bit Size               | 7.875                                                                            |                                                  |  |
| Type Fluid in Hole     | Chemical                                                                         |                                                  |  |
| Salinity, ppm CL       | 5500                                                                             |                                                  |  |
| Density / Viscosity    | 9.3 48                                                                           |                                                  |  |
| pH / Fluid Loss        | 10.5 8.8                                                                         |                                                  |  |
| Source of Sample       | Flowline                                                                         |                                                  |  |
| Rm @ Meas. Temp        | 0.40 @ 80                                                                        |                                                  |  |
| Rmf @ Meas. Temp       | 0.30 @ 80                                                                        |                                                  |  |
| Rmc @ Meas. Temp       | 0.54 @ 80                                                                        |                                                  |  |
| Source of Rmf / Rmc    | Charts                                                                           |                                                  |  |
| Rm @ BHT               | 0.28 @ 113                                                                       |                                                  |  |
| Operating Rig Time     | 3 Hours                                                                          |                                                  |  |
| Max Rec. Temp. F       | 113                                                                              |                                                  |  |
| Equipment Number       | 15                                                                               |                                                  |  |
| Location               | Hays                                                                             |                                                  |  |
| Recorded By            | R. Barnhart                                                                      |                                                  |  |
| Witnessed By           | Herb Deines                                                                      | Tom Denning                                      |  |

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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.

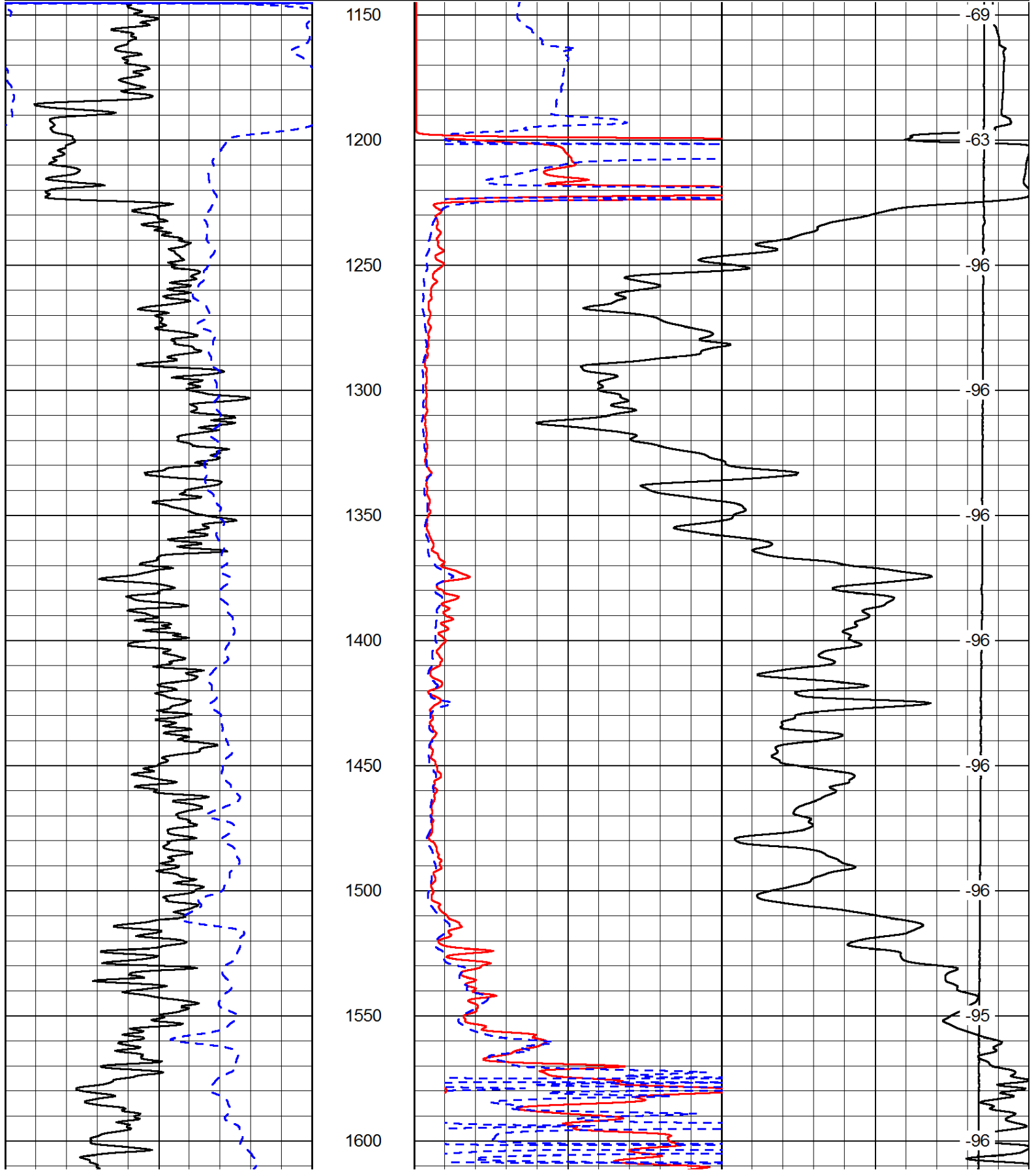
### Comments

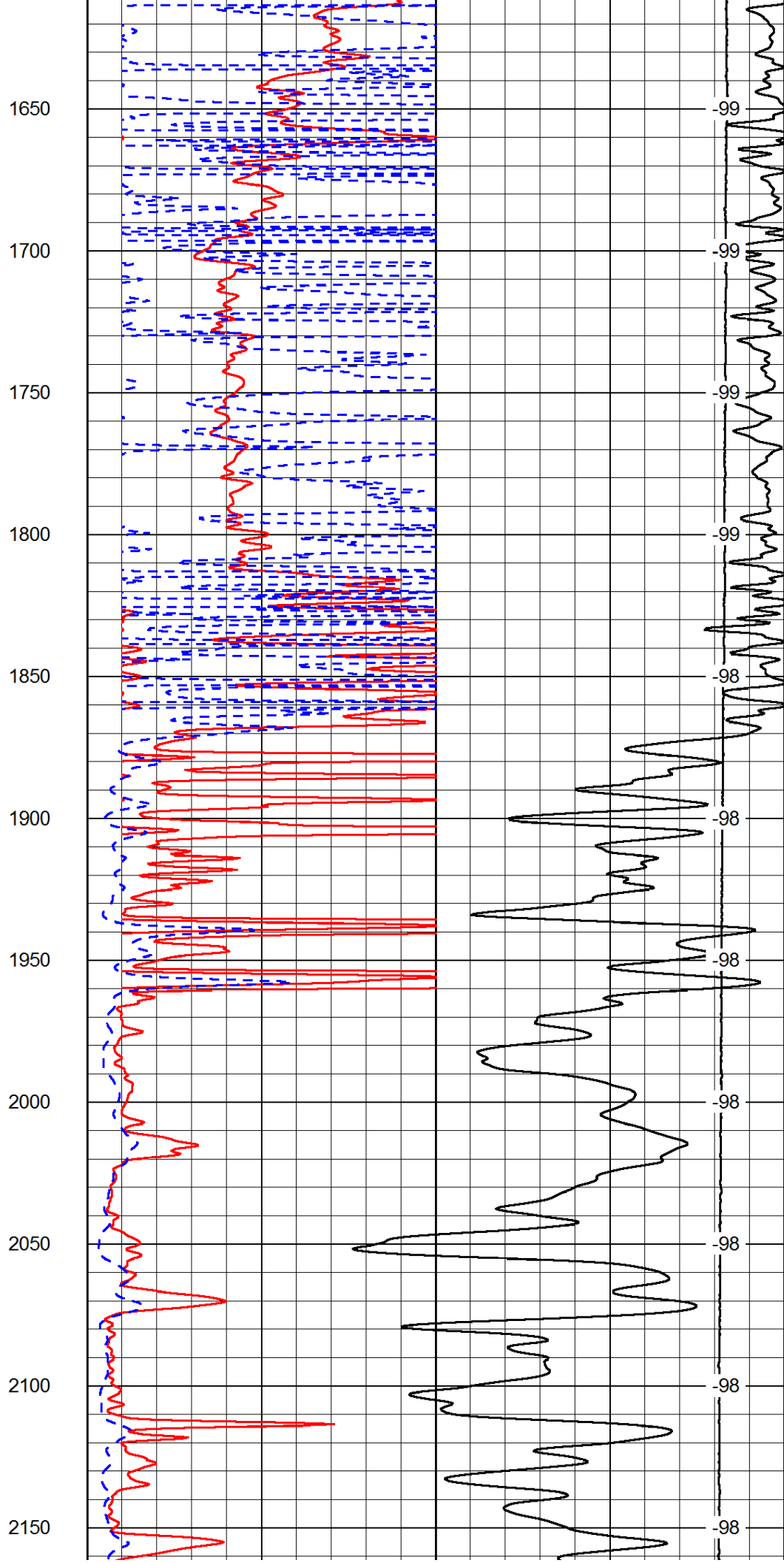
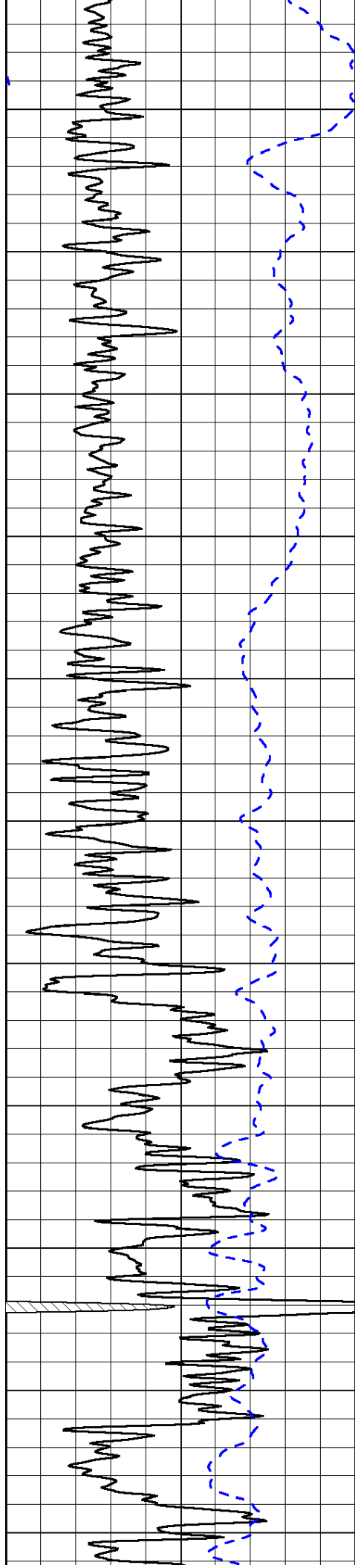
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www.pioneerres.com  
785 625 3858

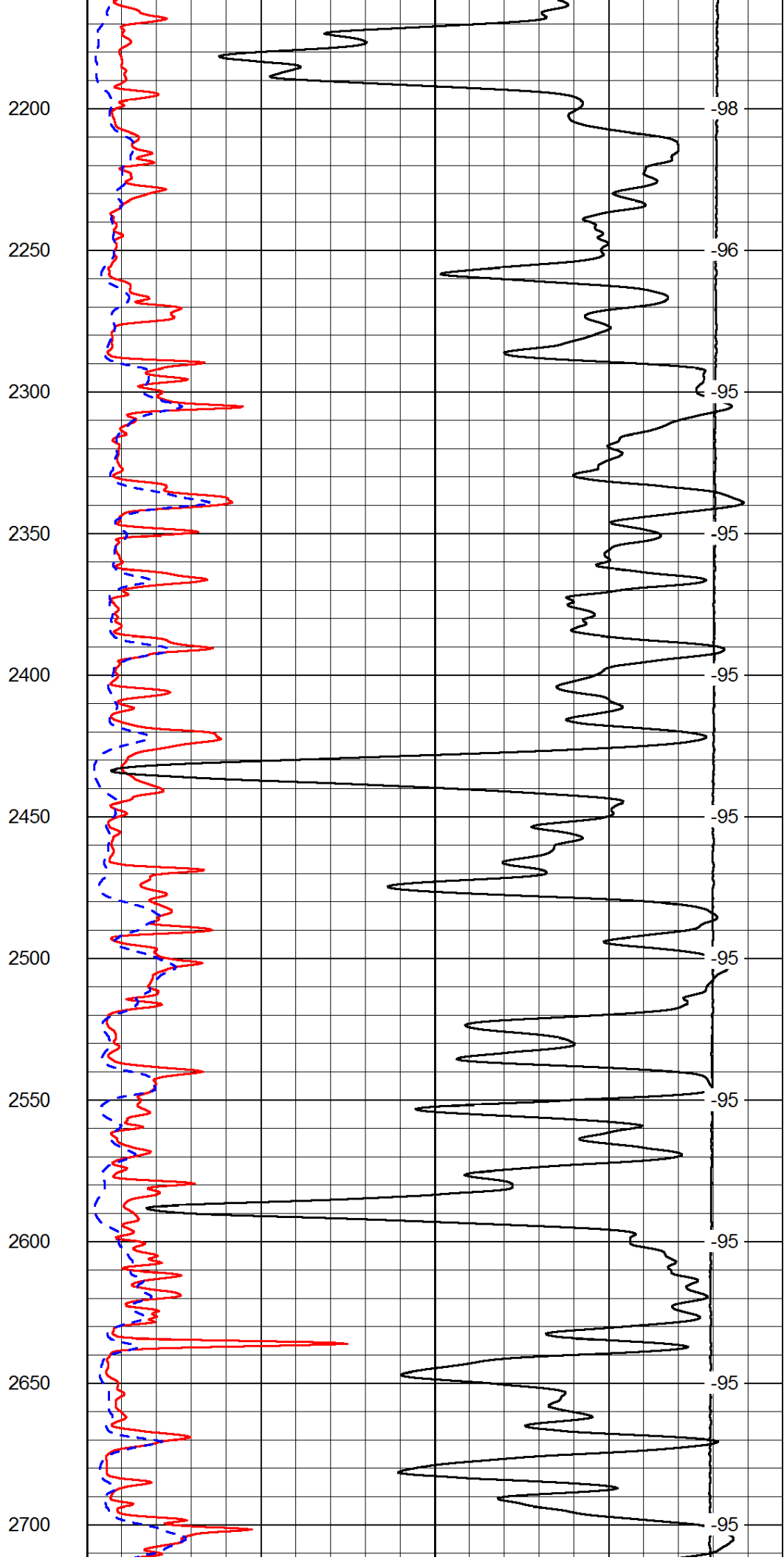
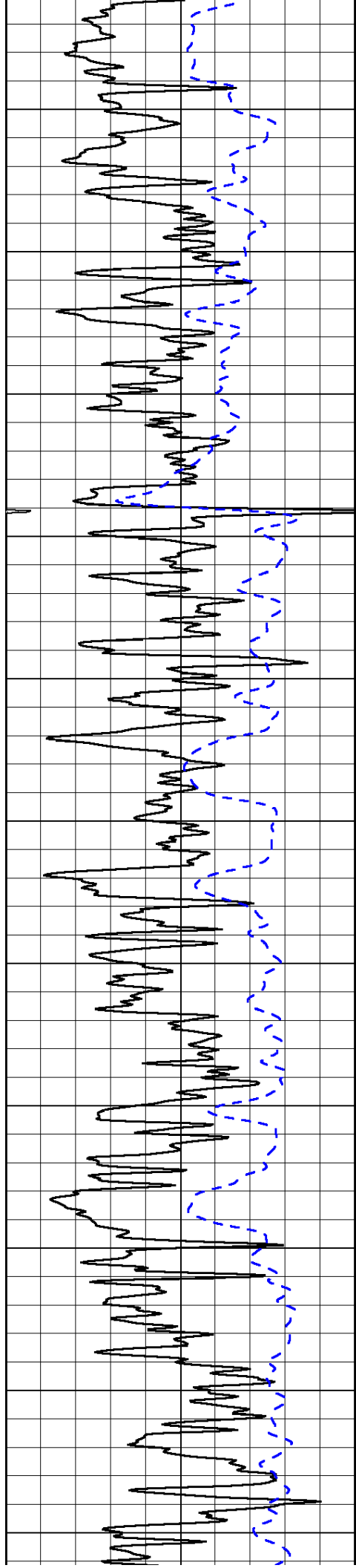
Antonino, KS:  
2 3/4S, W into

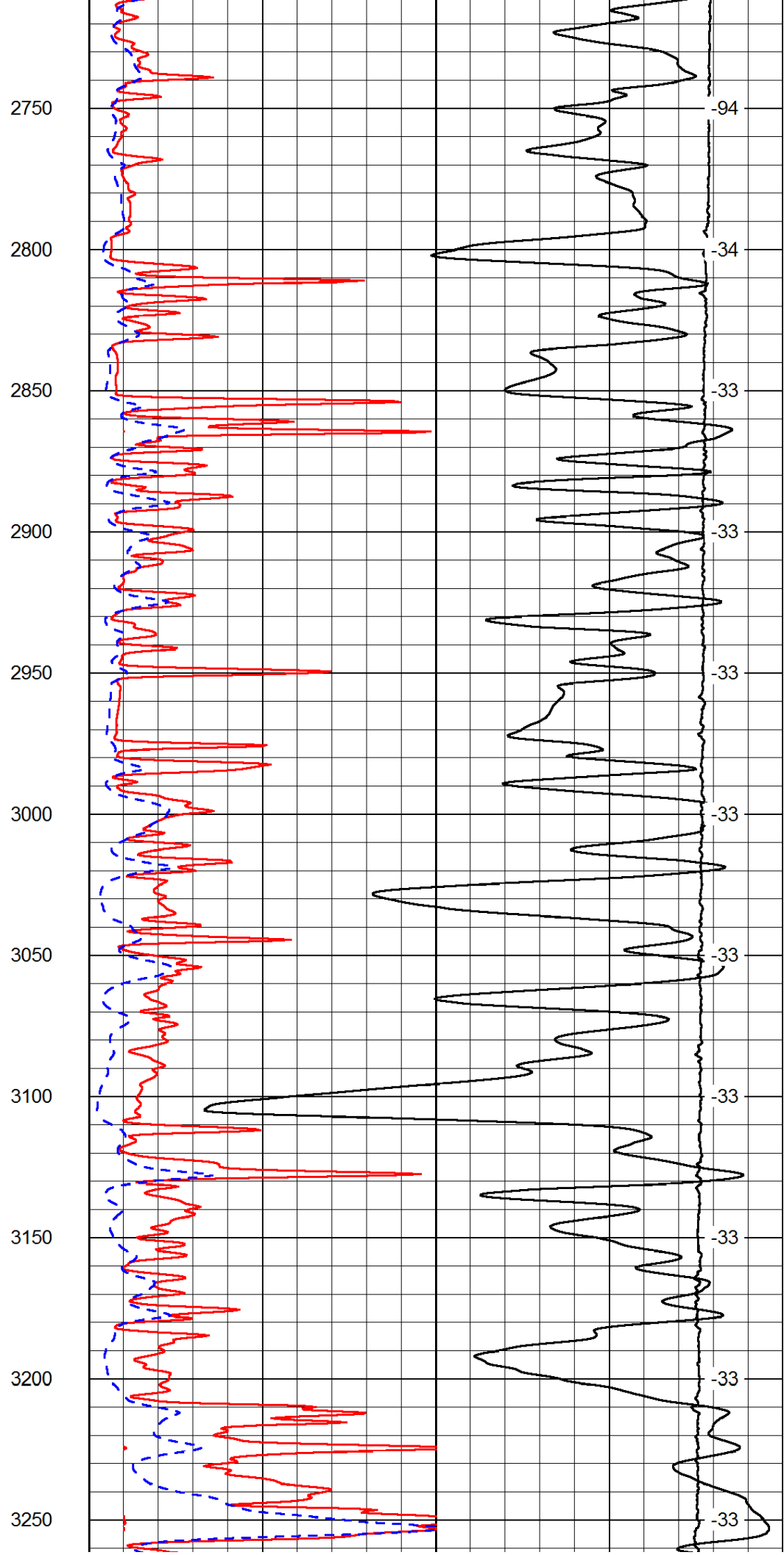
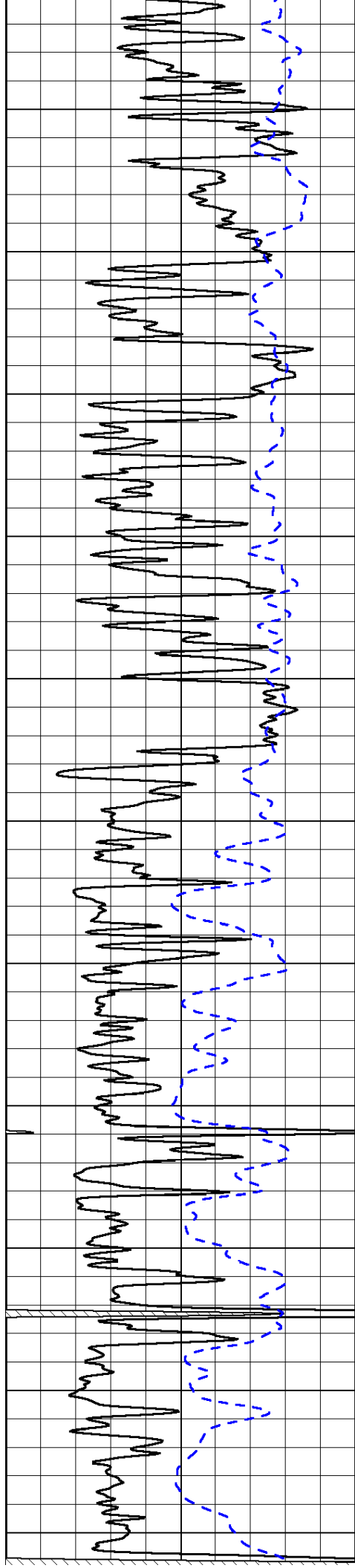
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Presentation Format: dil2in  
Dataset Creation: Wed Aug 08 15:28:34 2012  
Charted by: Depth in Feet scaled 1:600

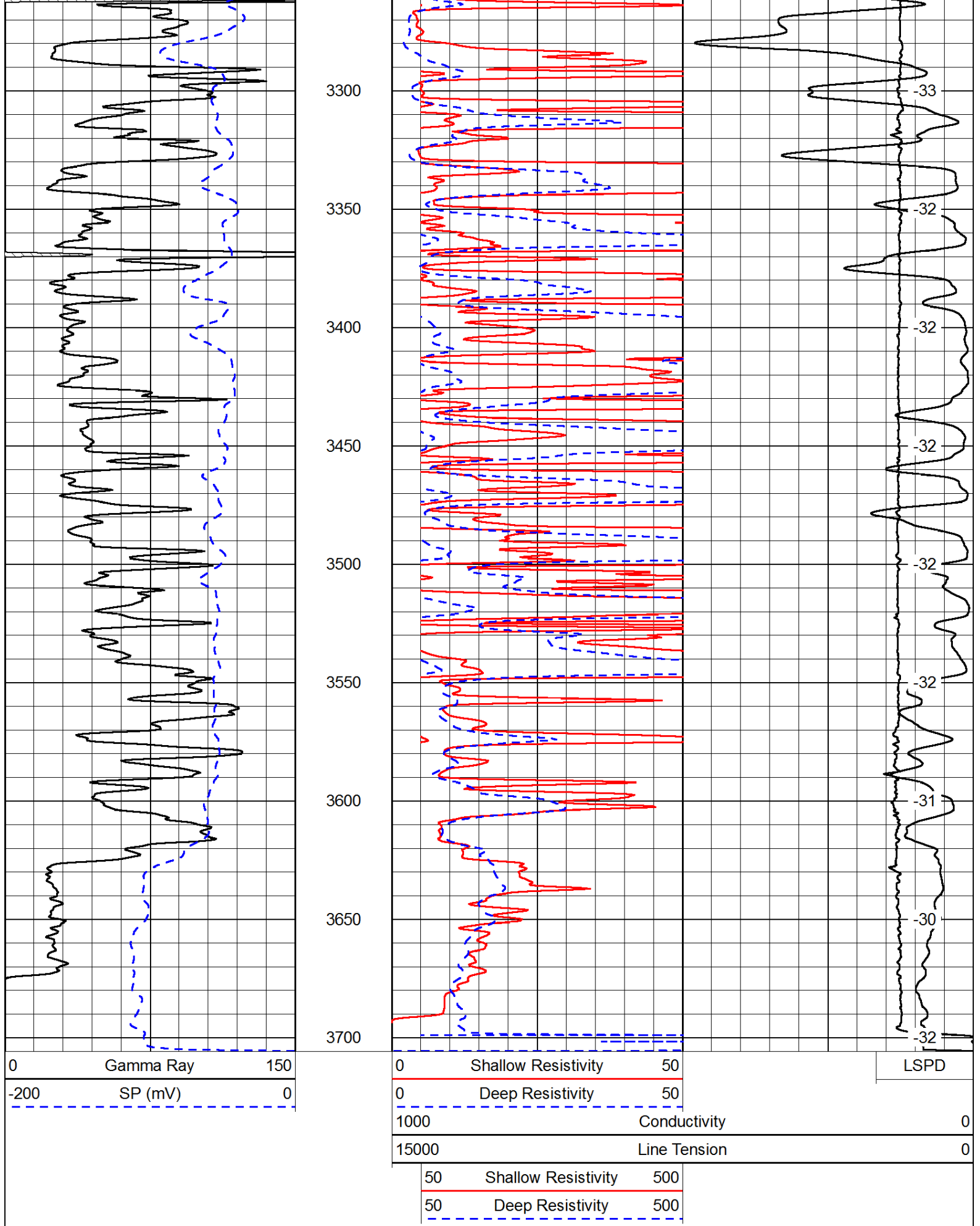
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|----------------------------------------------|-----------|-----|-------|---------------------|-----|------|--|--|
| Charted by: _____ Depth in Feet scaled 1:600 |           |     |       |                     |     |      |  |  |
| 0                                            | Gamma Ray | 150 | 0     | Shallow Resistivity | 50  | LSPD |  |  |
| -200                                         | SP (mV)   | 0   | 0     | Deep Resistivity    | 50  |      |  |  |
|                                              |           |     | 1000  | Conductivity        |     | 0    |  |  |
|                                              |           |     | 15000 | Line Tension        |     | 0    |  |  |
|                                              |           |     | 50    | Shallow Resistivity | 500 |      |  |  |
|                                              |           |     | 50    | Deep Resistivity    | 500 |      |  |  |









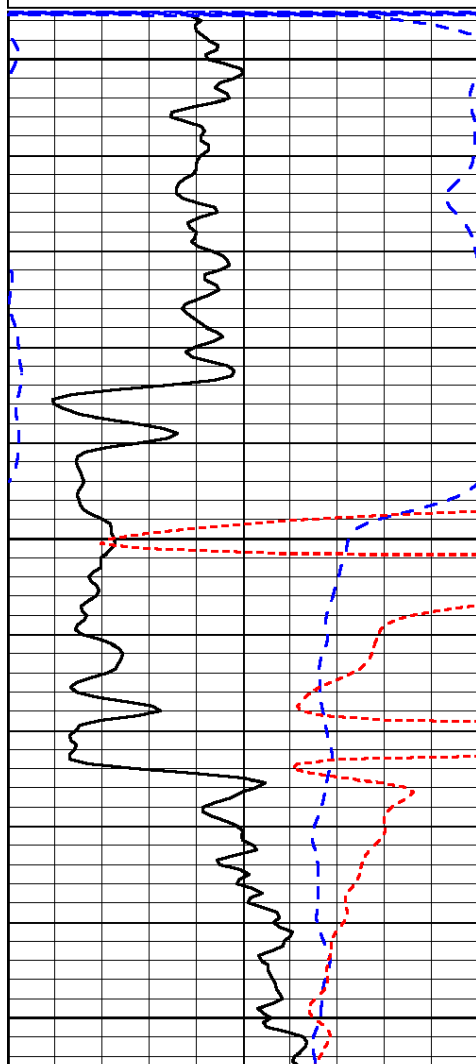


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Dataset Pathname: dil/tdimain  
Presentation Format: dil  
Dataset Creation: Wed Aug 08 15:28:34 2012  
Charted by: Depth in Feet scaled 1:240

|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (mV)   | 0   |
| -160 | RxoRt     | 40  |

|       |                     |      |
|-------|---------------------|------|
| 0.2   | Deep Resistivity    | 2000 |
| 0.2   | Medium Resistivity  | 2000 |
| 0.2   | Shallow Resistivity | 2000 |
| 15000 | Line Tension        | 0    |

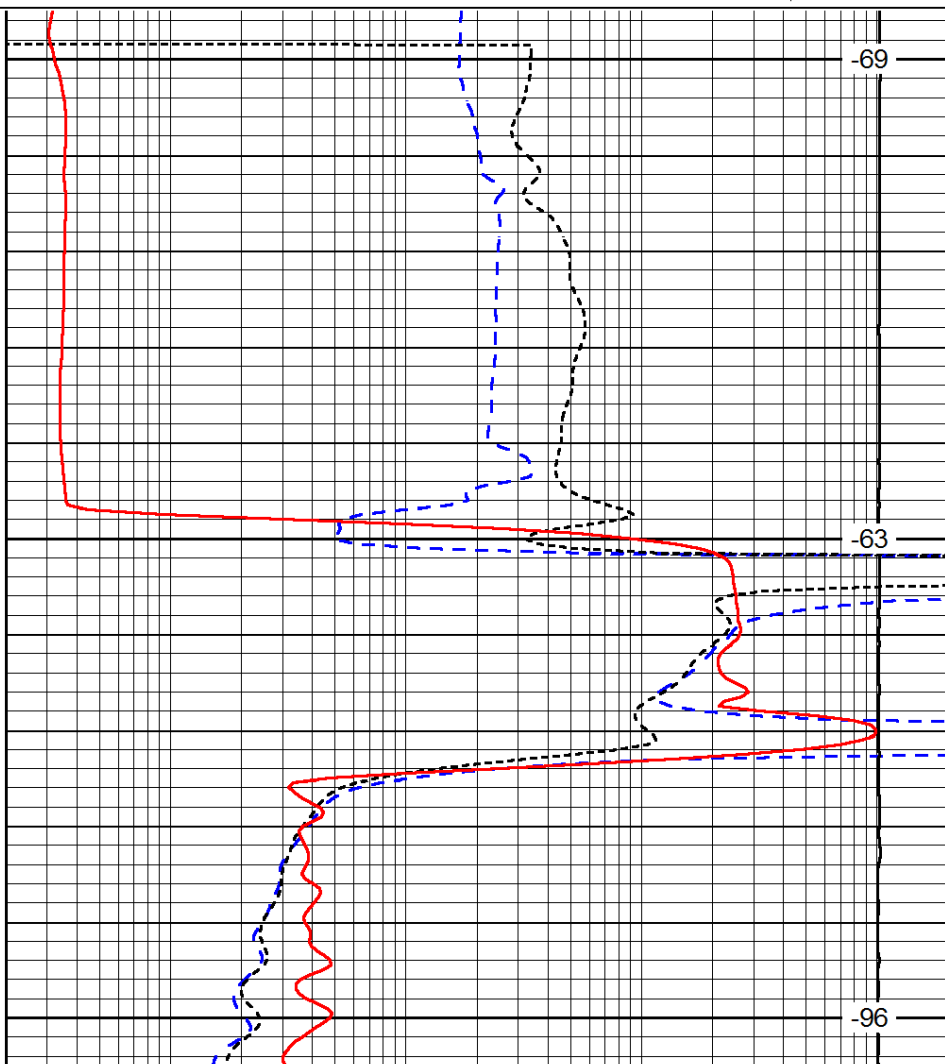
LSPD



1150

1200

1250



-69

-63

-96

|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (mV)   | 0   |
| -160 | RxoRt     | 40  |

|       |                     |      |
|-------|---------------------|------|
| 0.2   | Deep Resistivity    | 2000 |
| 0.2   | Medium Resistivity  | 2000 |
| 0.2   | Shallow Resistivity | 2000 |
| 15000 | Line Tension        | 0    |

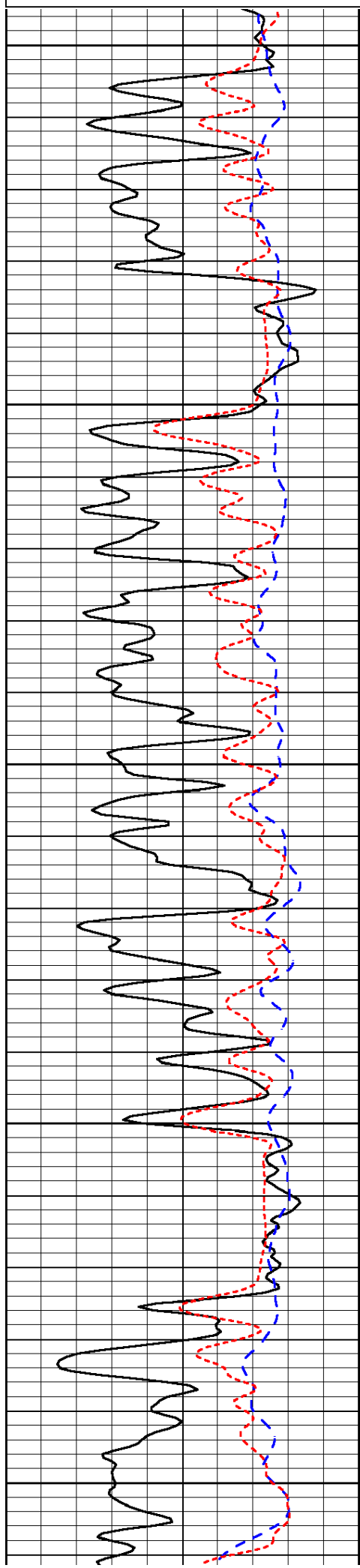
LSPD

Database File: c:\warrior\data\tdi\_linus #1\tdi\_hd.db  
Dataset Pathname: dil/tdimain  
Presentation Format: dil  
Dataset Creation: Wed Aug 08 15:28:34 2012  
Charted by: Depth in Feet scaled 1:240

|      |           |     |
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| 0.2   | Shallow Resistivity | 2000 |
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LSPD



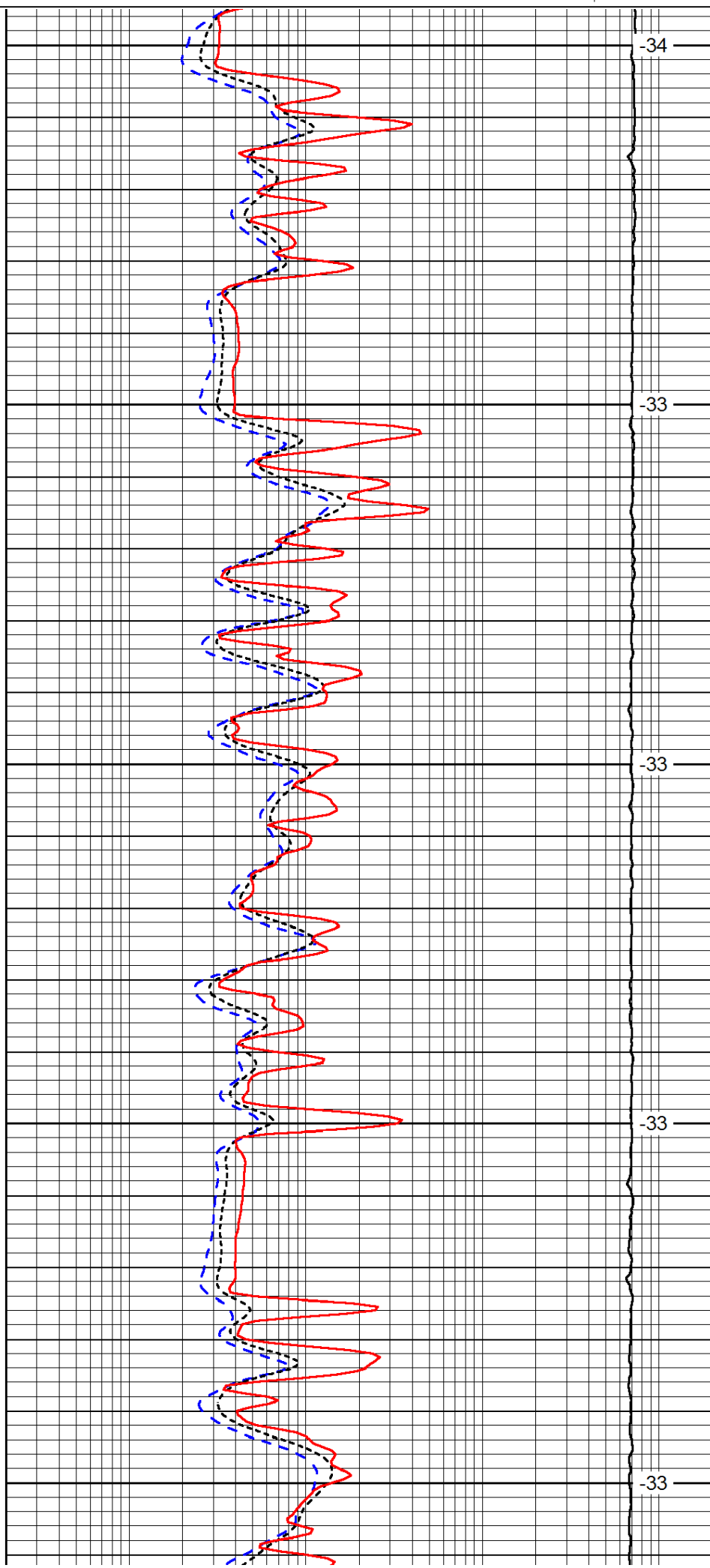
2800

2850

2900

2950

3000



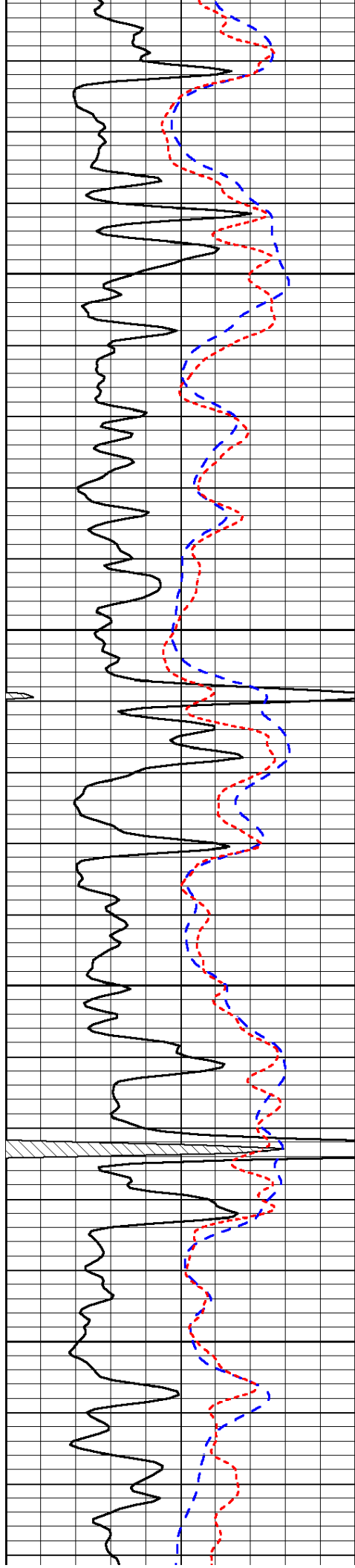
-34

-33

-33

-33

-33

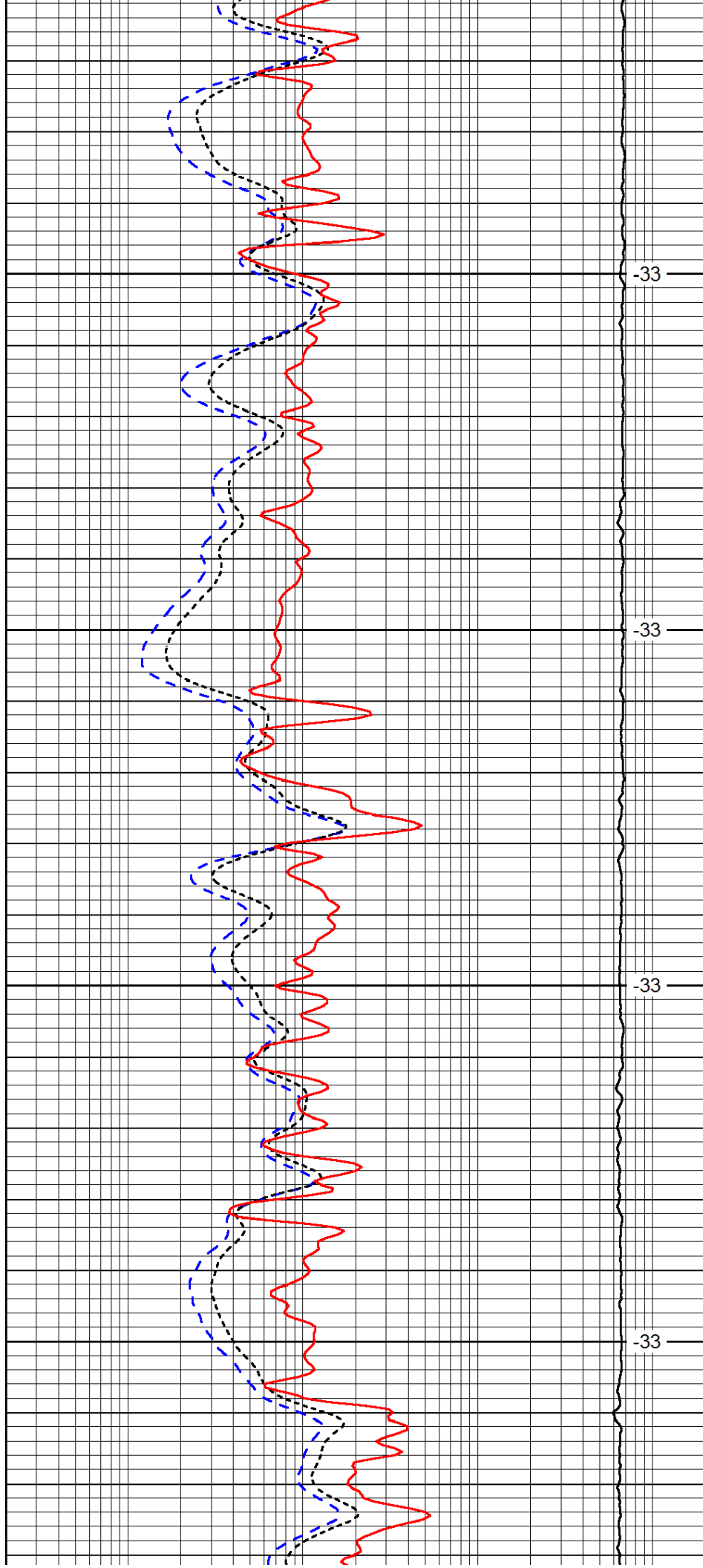


3050

3100

3150

3200

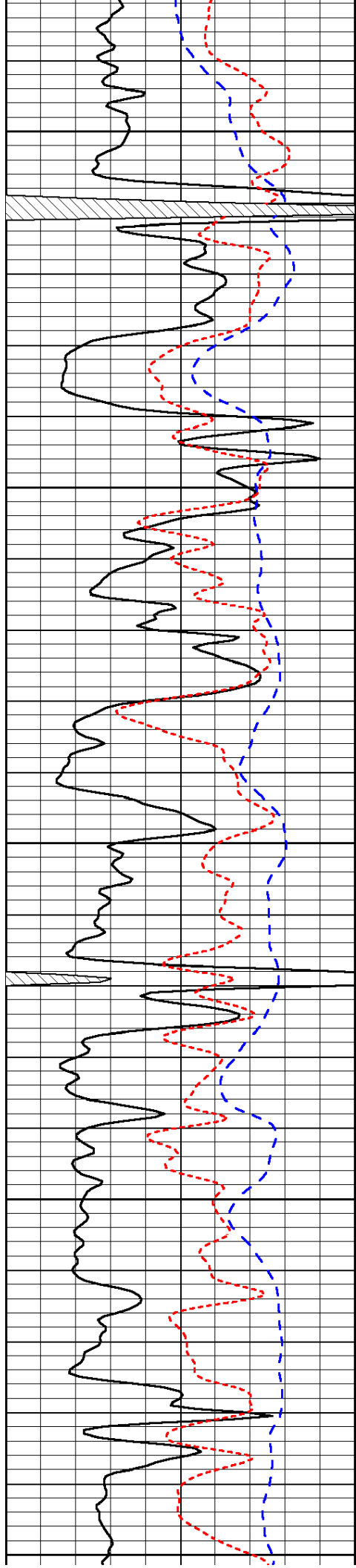


-33

-33

-33

-33



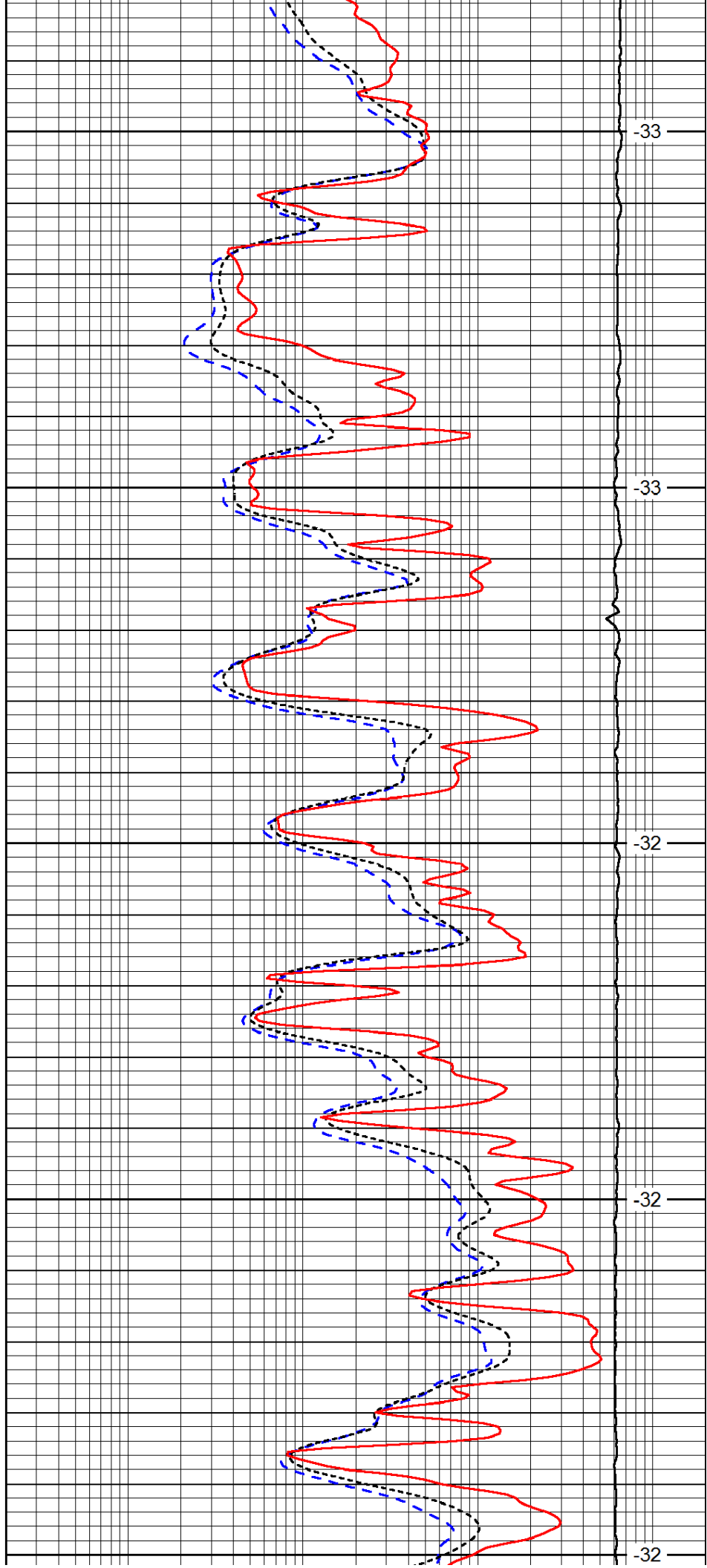
3250

3300

3350

3400

3450



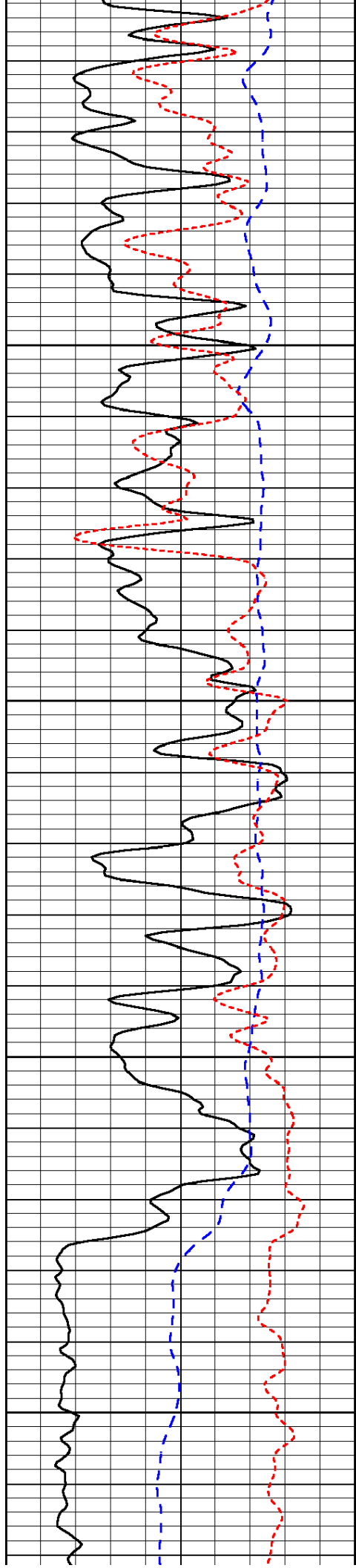
-33

-33

-32

-32

-32

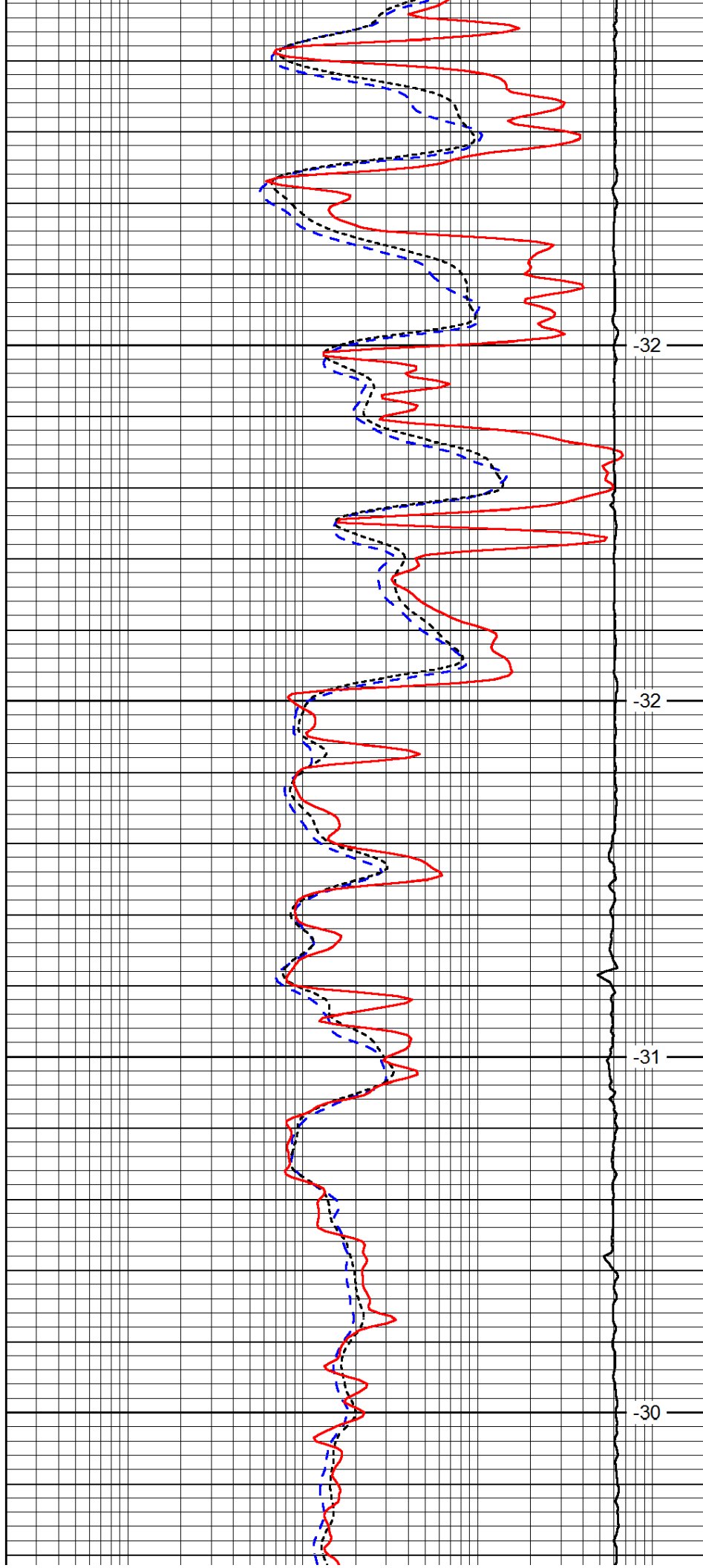


3500

3550

3600

3650

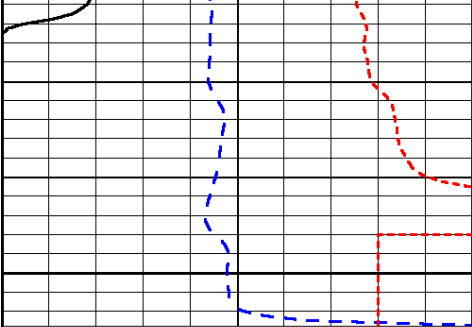


-32

-32

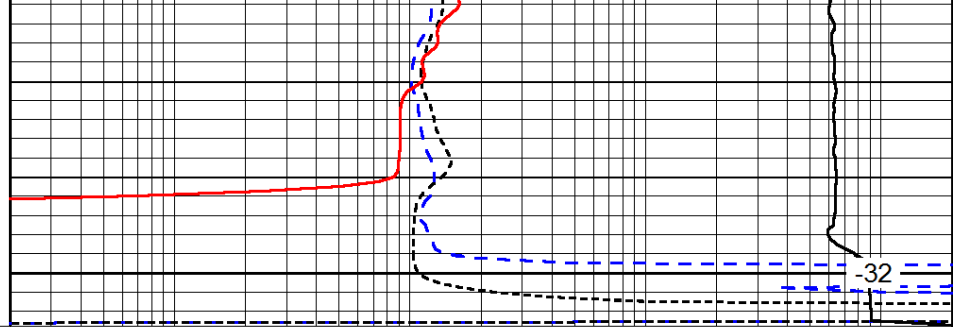
-31

-30



|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
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| -160 | RxoRt     | 40  |

3700



|       |                     |      |
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LSPD