



# DUAL INDUCTION LOG

Company CARMEN SCHMITT, INC.  
 Well LIPP-HARVEY NO. 1-12  
 Field WILDCAT  
 County GOVE  
 State KANSAS

Company CARMEN SCHMITT, INC.  
 Well LIPP-HARVEY NO. 1-12  
 Field WILDCAT  
 County GOVE State KANSAS

Location: API #: 15-063-22,263-00-00  
 330' FSL & 2,450' FEL  
 SEC 12 TWP 14S RGE 26W  
 Permanent Datum GROUND LEVEL Elevation 2459'  
 Log Measured From KELLY BUSHING  
 Drilling Measured From KELLY BUSHING  
 Other Services CNL/CDL MEL  
 Elevation K.B. 2464'  
 D.F. N/A  
 G.L. 2459'

|                        |               |
|------------------------|---------------|
| Date                   | 8/19/2015     |
| Run Number             | ONE           |
| Depth Driller          | 4440'         |
| Depth Logger           | 4440'         |
| Bottom Logged Interval | 4439'         |
| Top Log Interval       | 200'          |
| Casing Driller         | 8.625" @ 216' |
| Casing Logger          | 213'          |
| Bit Size               | 7.875"        |
| Type Fluid in Hole     | CHEMICAL      |
| Salinity, ppm CL       | 2900          |
| Density / Viscosity    | 9.3 60        |
| pH / Fluid Loss        | 10.5 7.2      |
| Source of Sample       | Flowline      |
| Rm @ Meas. Temp        | .84 @ 78      |
| Rmt @ Meas. Temp       | .63 @ 78      |
| Rmc @ Meas. Temp       | 1.13 @ 78     |
| Source of Rmf / Rmc    | Charts        |
| Rm @ BHT               | .54 @ 120     |
| Operating Rig Time     | 3 1/2 HOURS   |
| Max Rec. Temp. F       | 120           |
| Equipment Number       | 108           |
| Location               | Hays          |
| Recorded By            | J. LONG       |
| Witnessed By           | PAT DEENIHAN  |

<<< Fold Here >>>

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

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.  
 COLLYER EXIT, 13 SOUTH TO U ROAD, 2 1/4 WEST, NORTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
[www.pioneerenergy.com](http://www.pioneerenergy.com) 785-625-3858

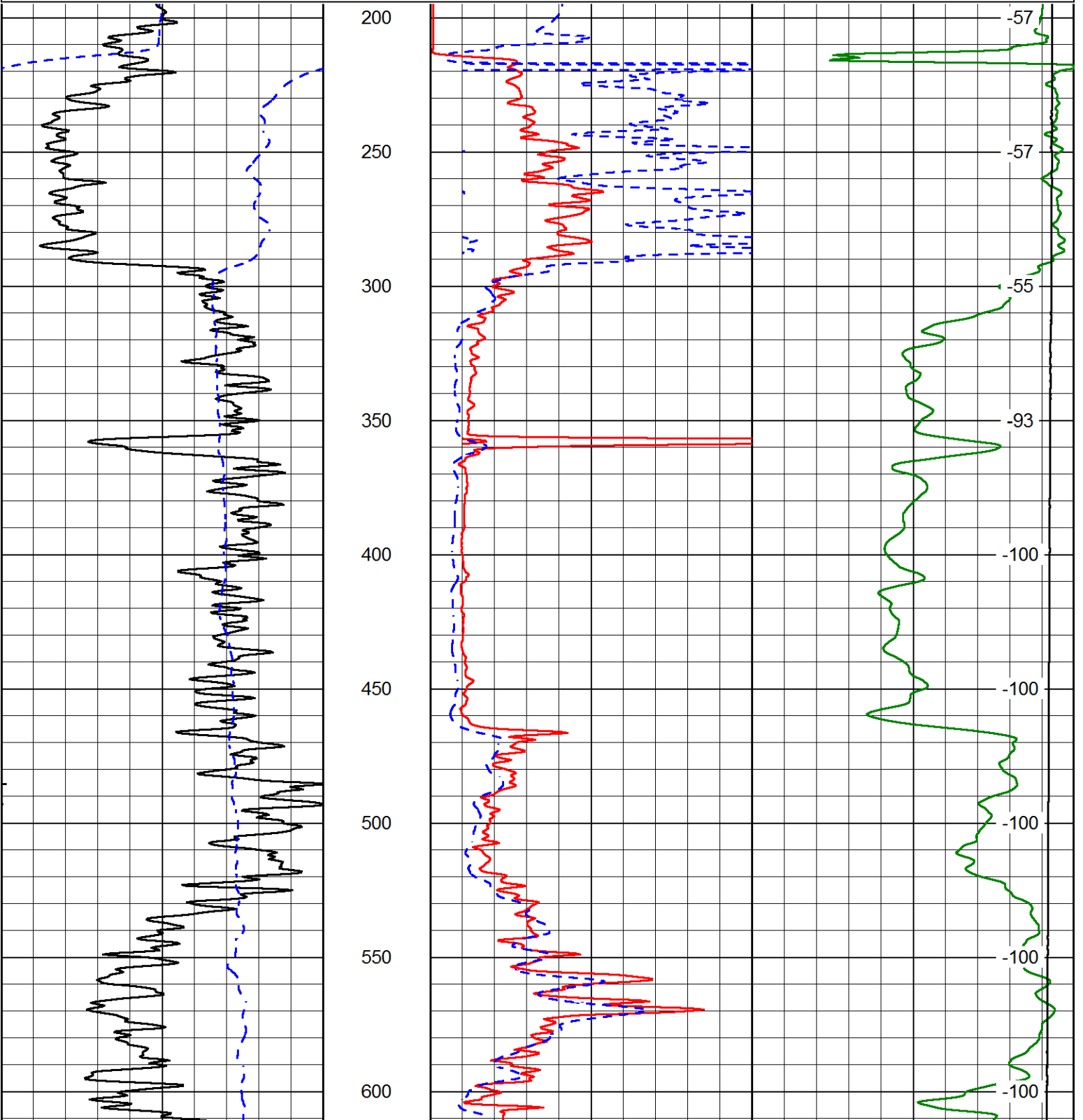
|                                   |                                  |
|-----------------------------------|----------------------------------|
| Your Pioneer Energy Services Crew | This Log Record Was Witnessed By |
| Engineer: J. LONG                 | Primary Witness: PAT DEENIHAN    |
| Operator:                         | Secondary Witness:               |
| Operator:                         | Secondary Witness:               |
| Operator:                         | Secondary Witness:               |

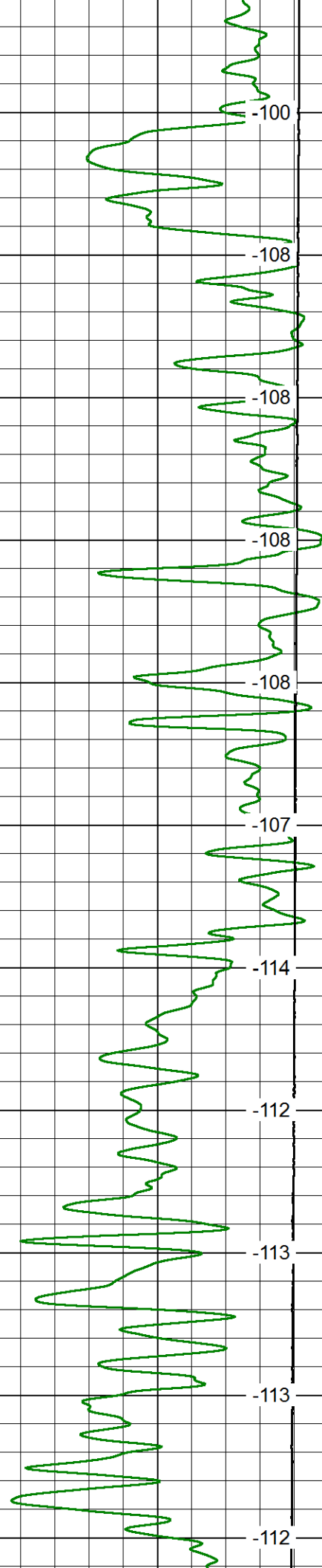
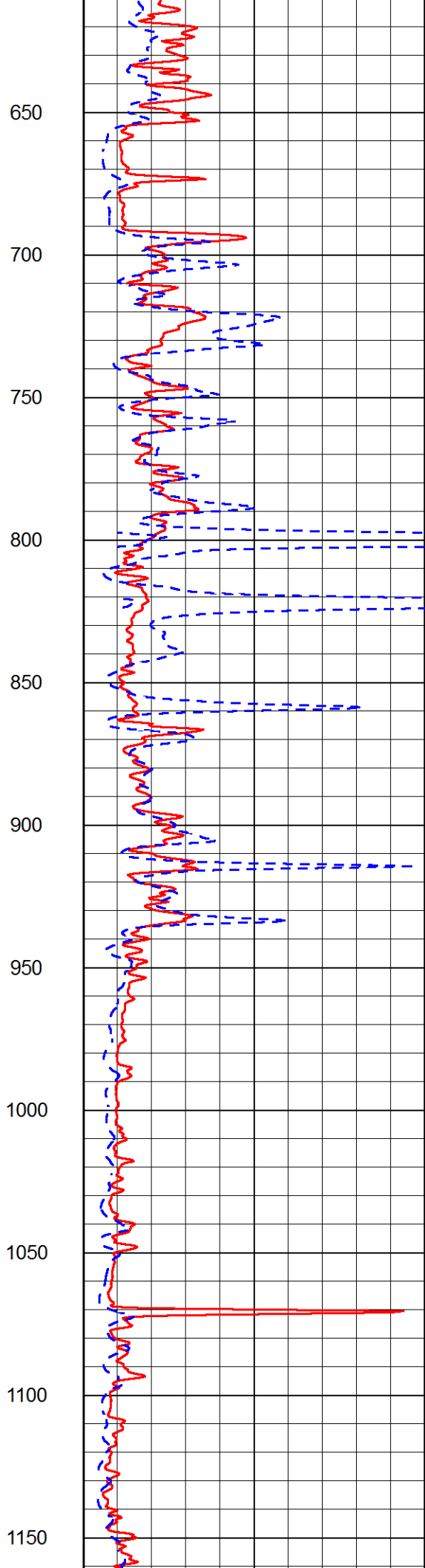
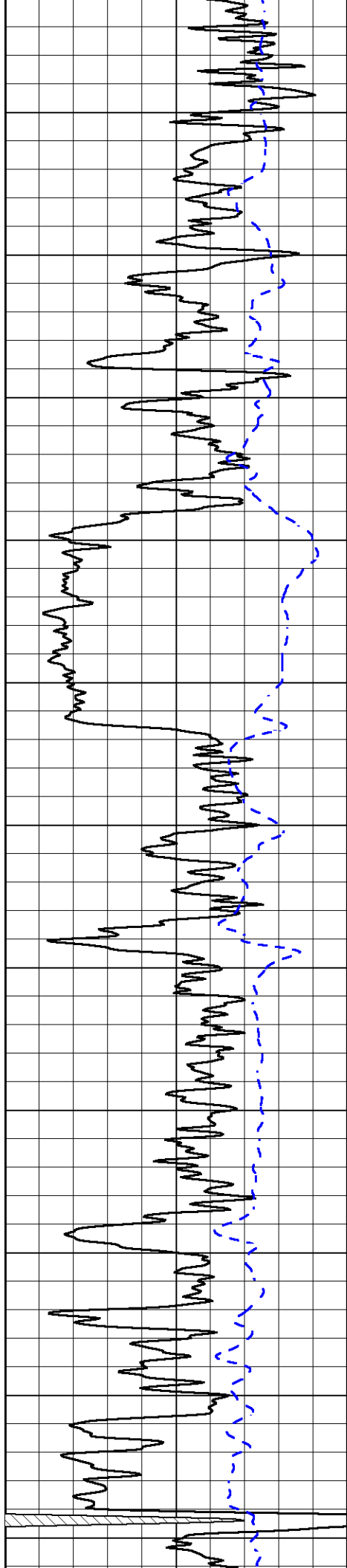
Database File carmenschmitt\_lipp-harvey\_1-12hd.db  
 Dataset Pathname DIL/carmstck  
 Presentation Format dil2in  
 Dataset Creation Wed Aug 19 04:13:17 2015  
 Charted by Depth in Feet scaled 1:600

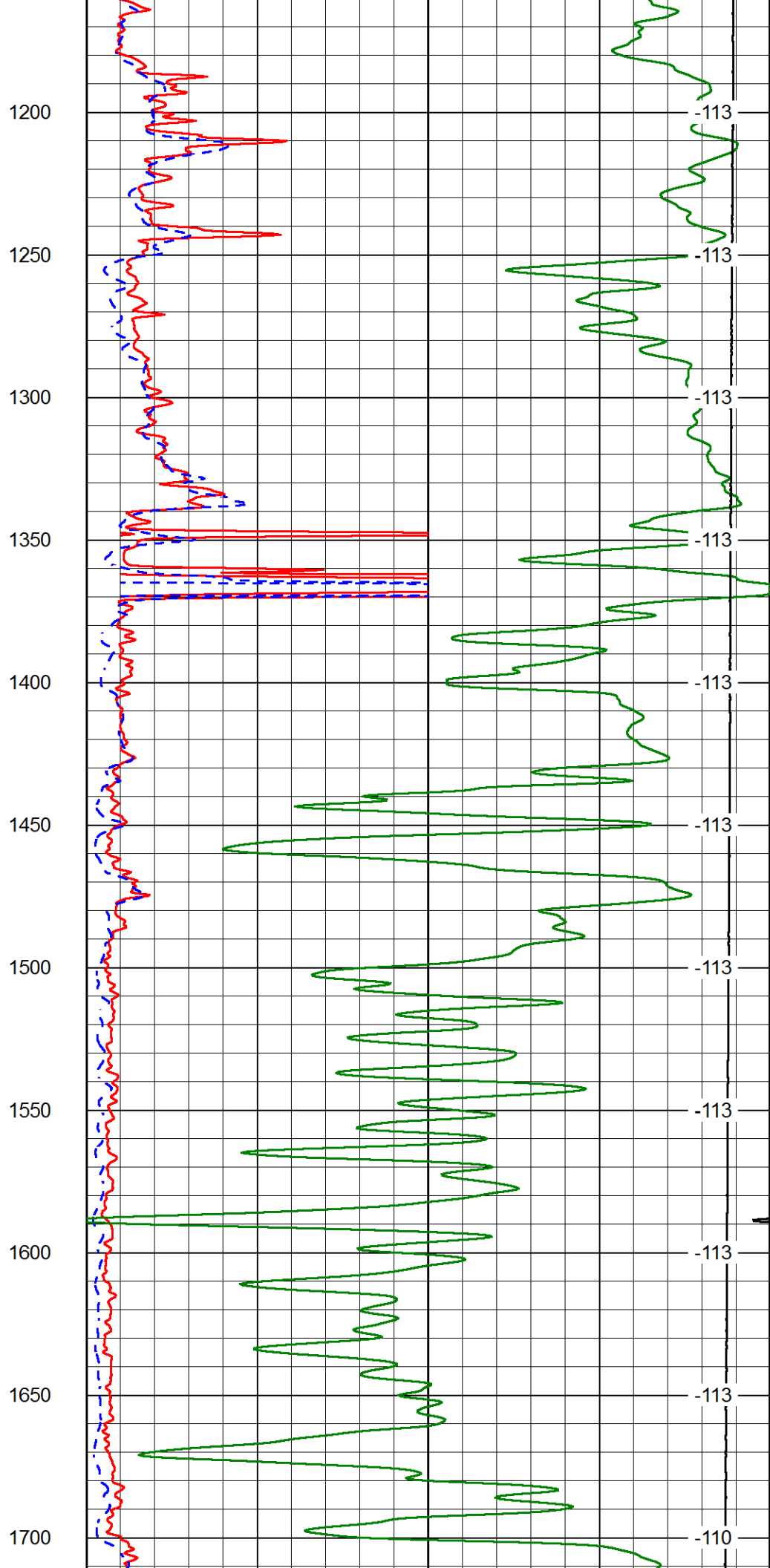
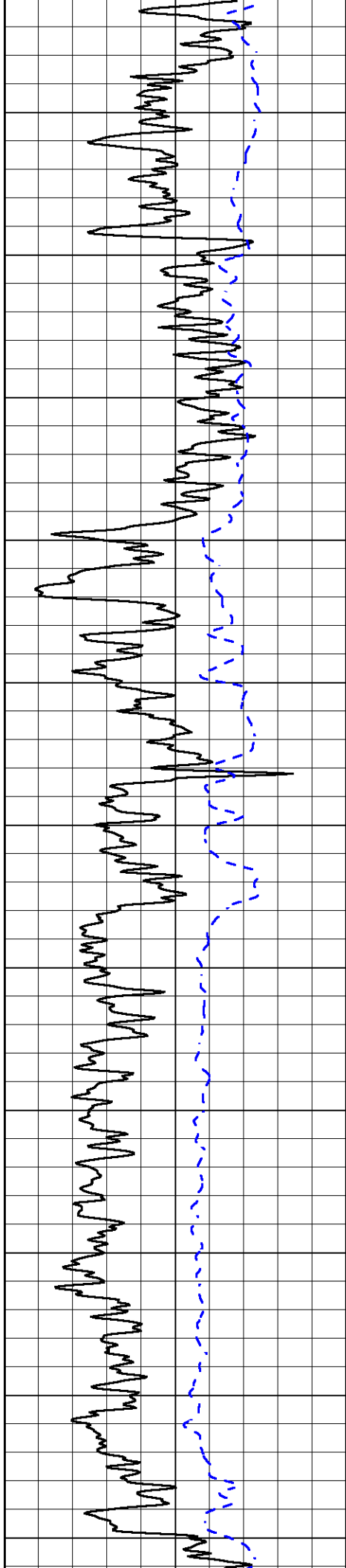
|      |                  |     |
|------|------------------|-----|
| 0    | Gamma Ray (GAPI) | 150 |
| -200 | SP (mV)          | 0   |

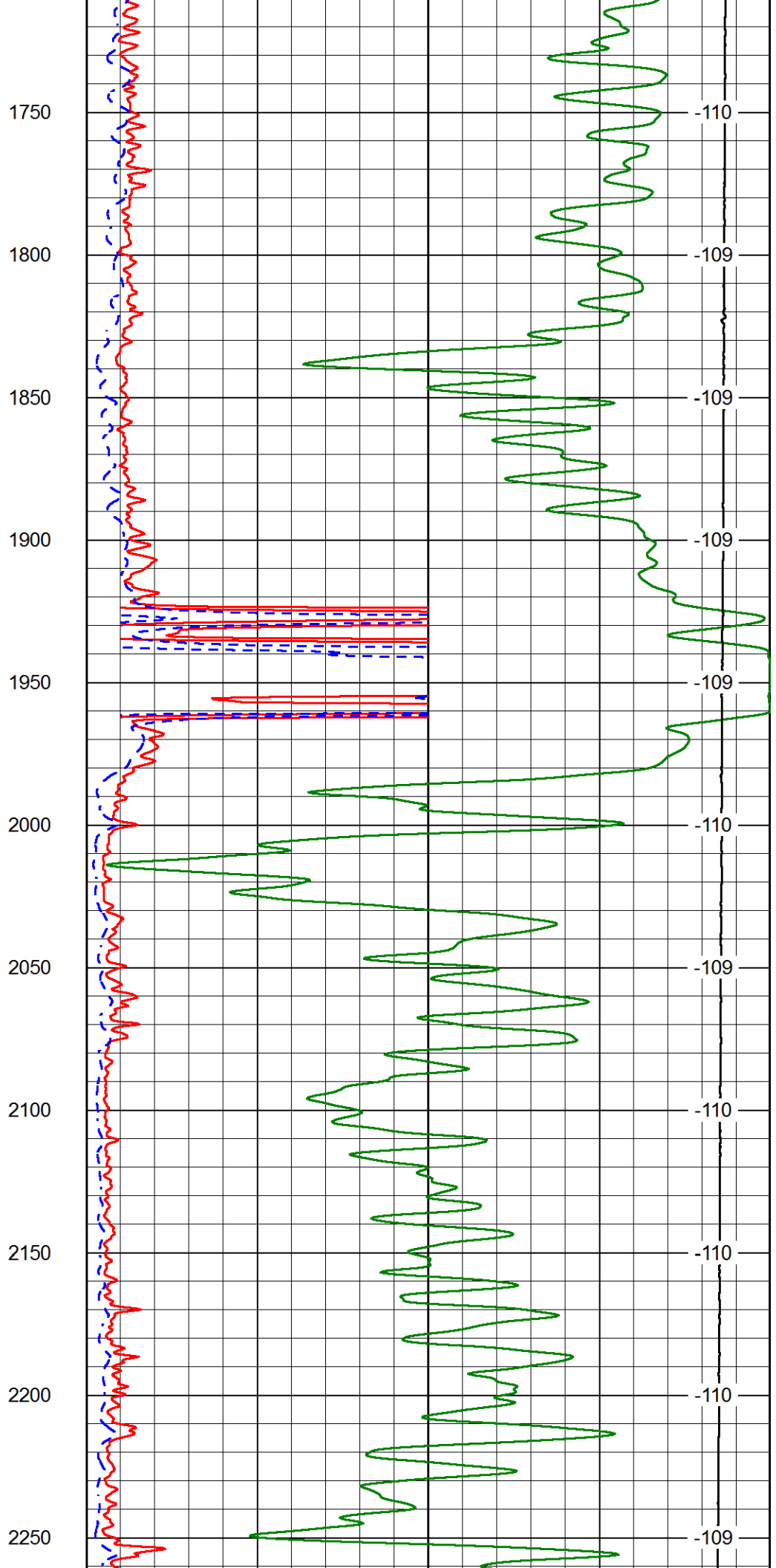
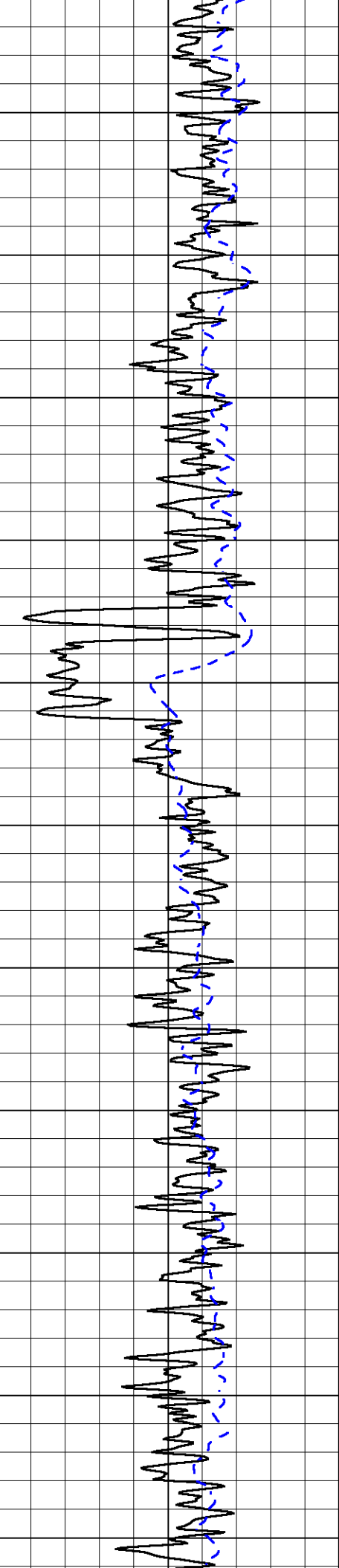
|       |                   |   |
|-------|-------------------|---|
| 1000  | Conductivity      | 0 |
| 15000 | Line Tension (lb) | 0 |

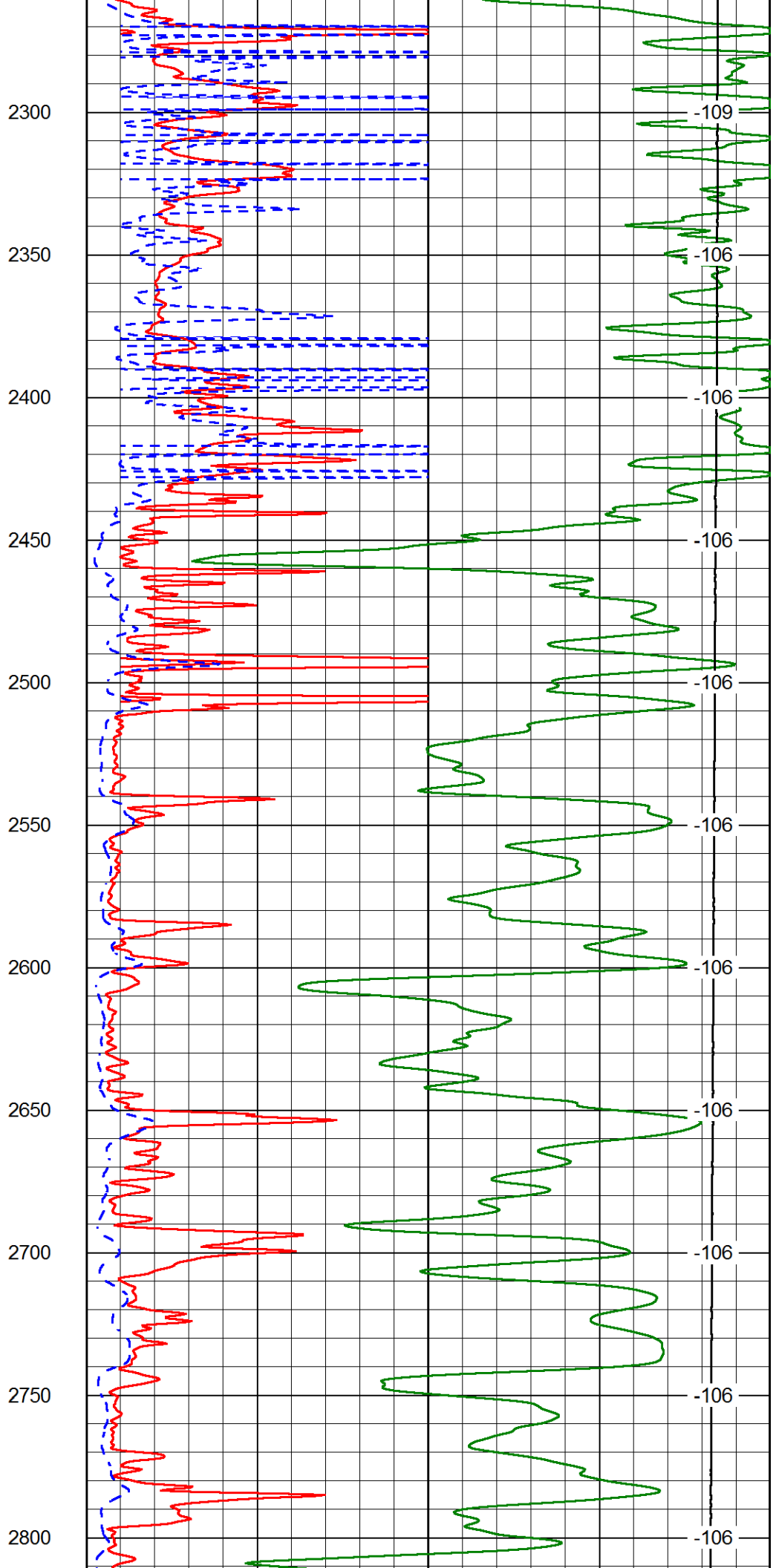
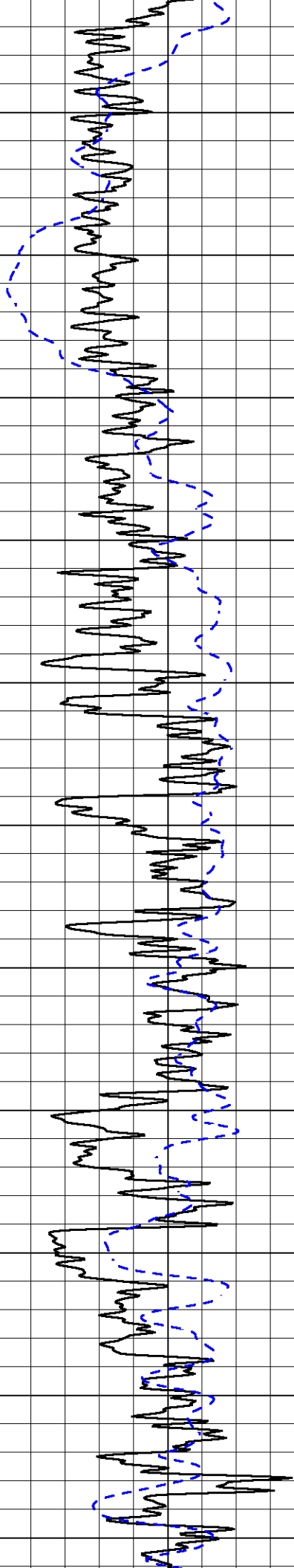
|                     |                             |     |                  |
|---------------------|-----------------------------|-----|------------------|
| 0                   | Shallow Resistivity (Ohm-m) | 50  | LSPD<br>(ft/min) |
| 0                   | Deep Resistivity (Ohm-m)    | 50  |                  |
| Shallow Resistivity |                             |     |                  |
| 50                  | (Ohm-m)                     | 500 |                  |
| 50                  | Deep Resistivity (Ohm-m)    | 500 |                  |

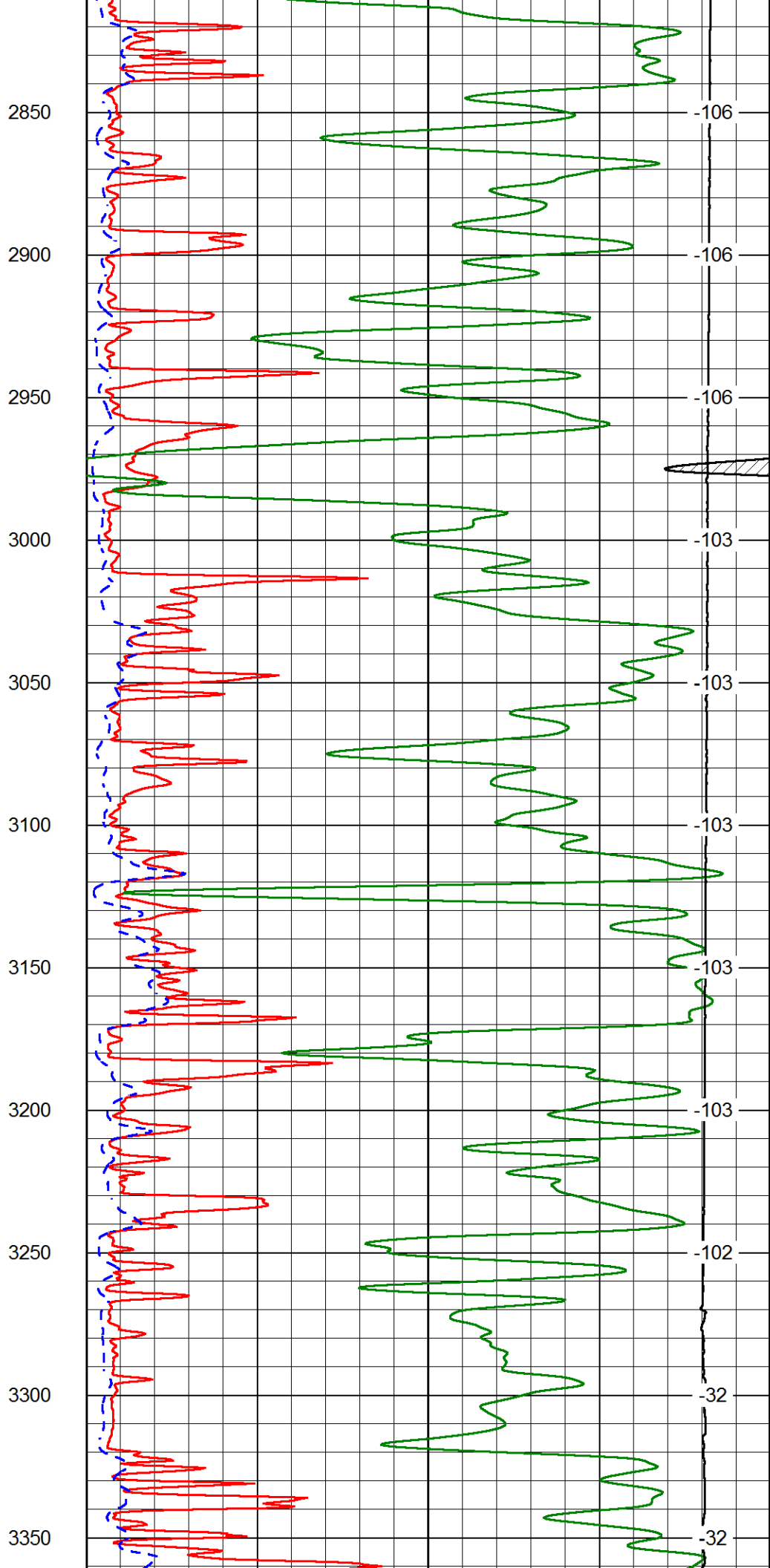
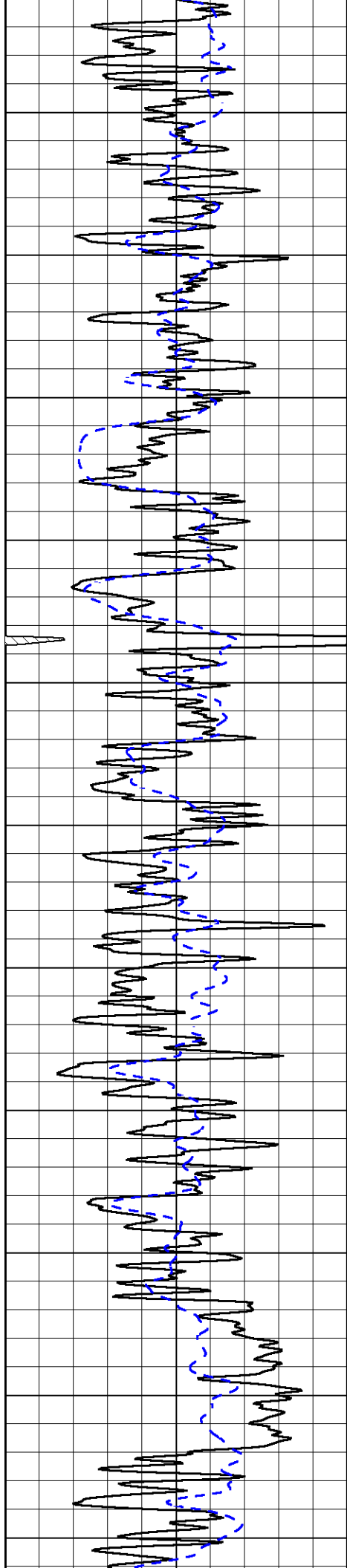


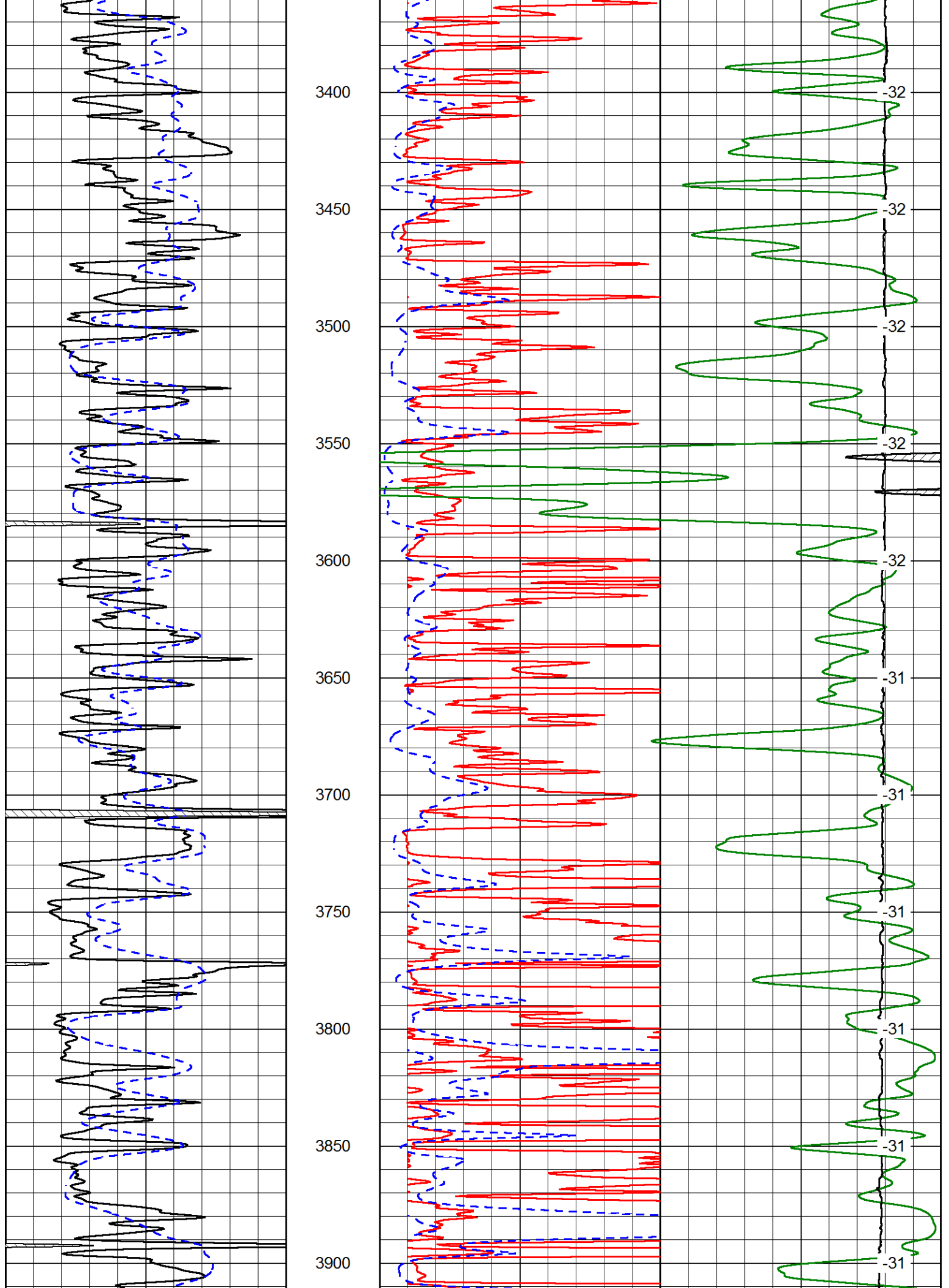


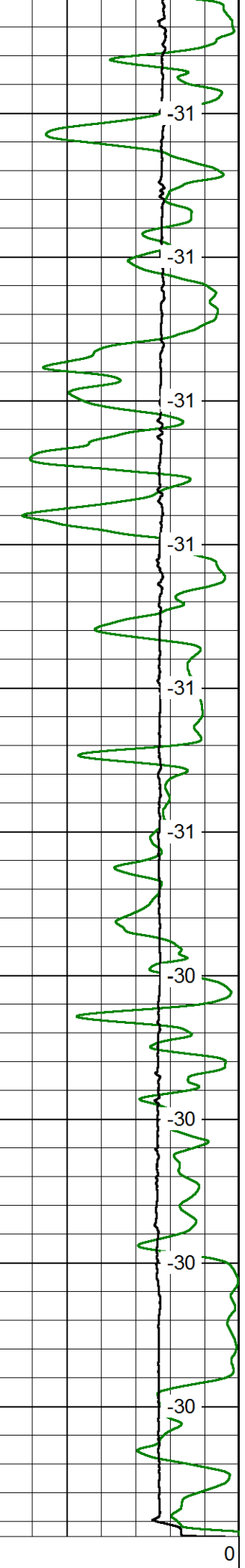
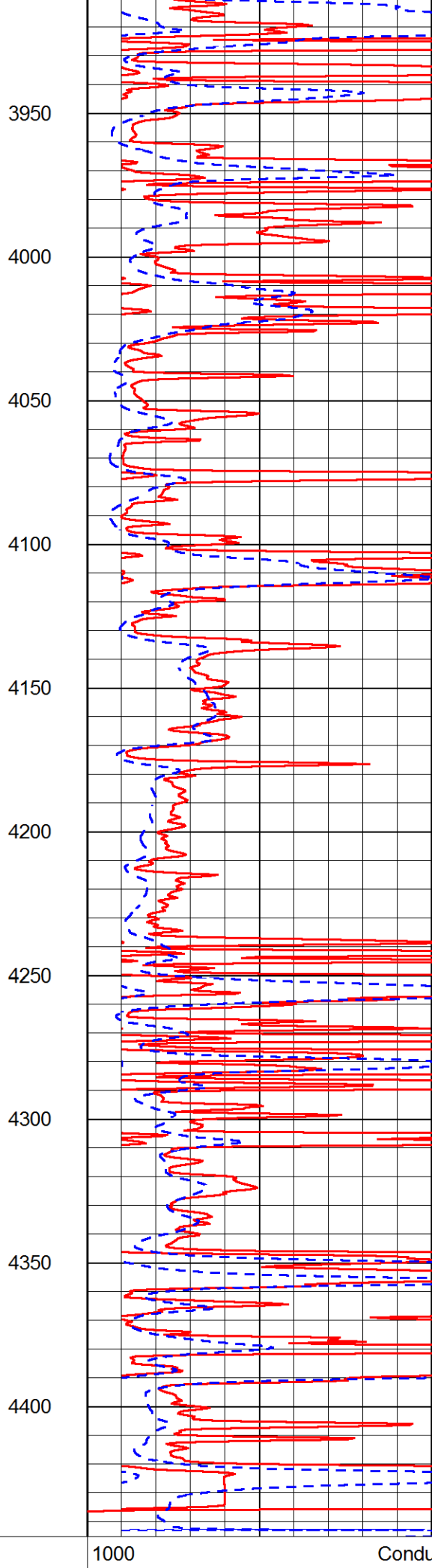
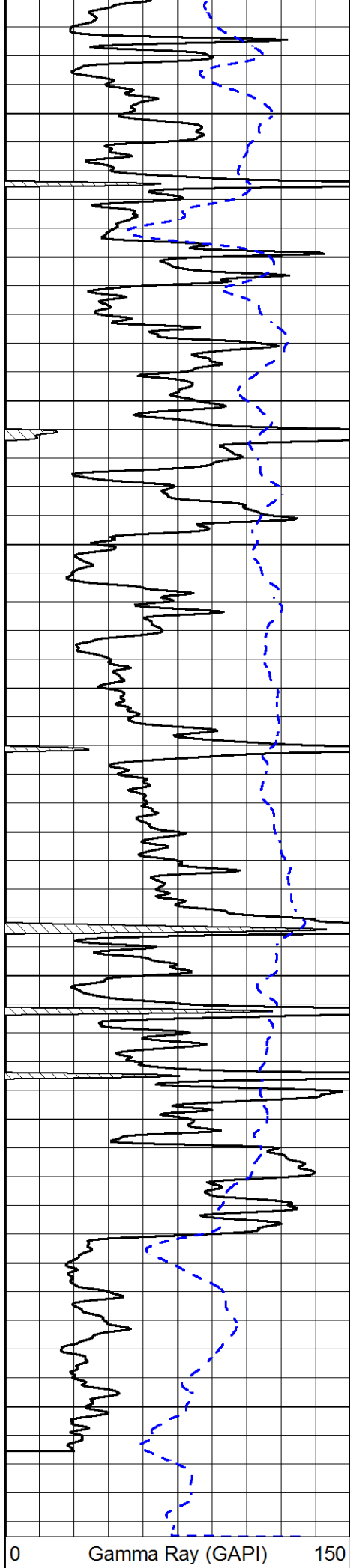












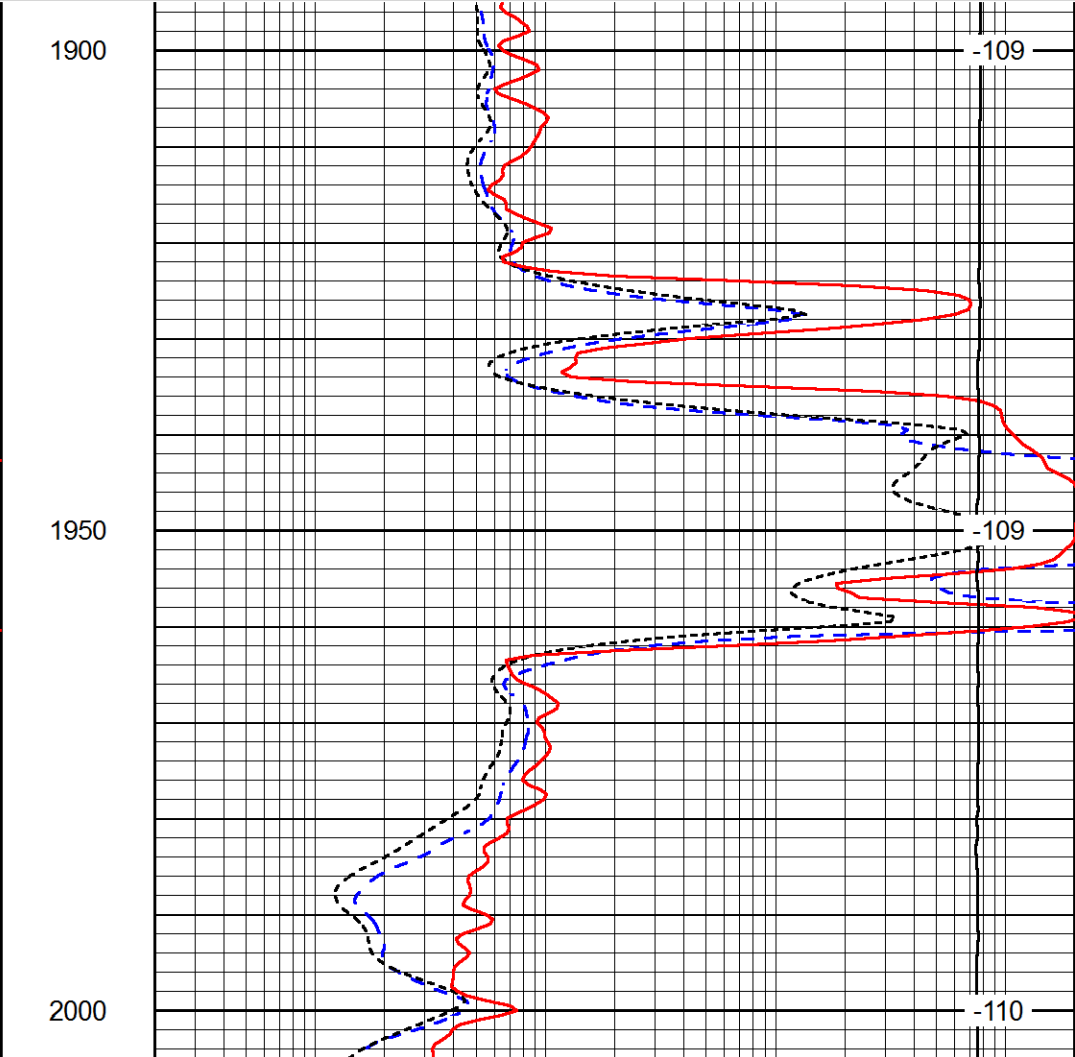
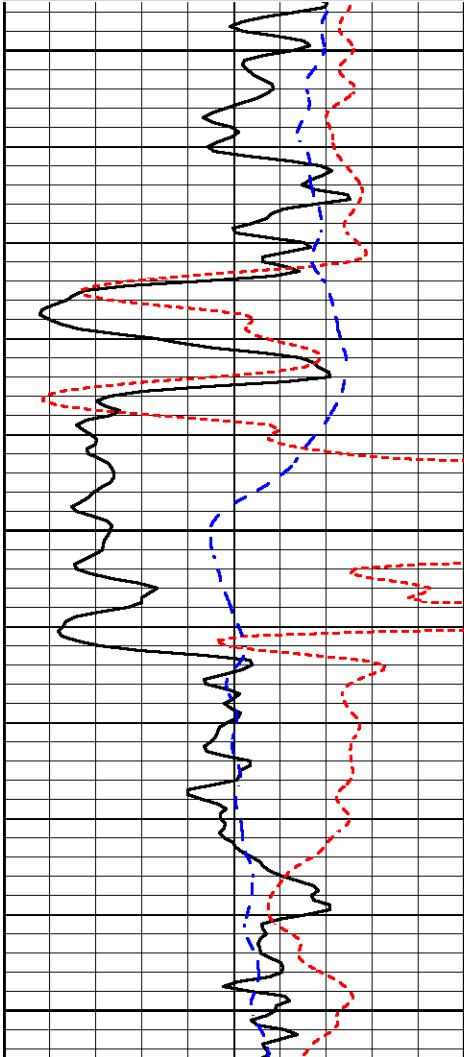
|      |         |   |
|------|---------|---|
| -200 | SP (mV) | 0 |
|------|---------|---|

|                     |                             |     |
|---------------------|-----------------------------|-----|
| 15000               | Line Tension (lb)           | 0   |
| 0                   | Shallow Resistivity (Ohm-m) | 50  |
| 0                   | Deep Resistivity (Ohm-m)    | 50  |
| Shallow Resistivity |                             |     |
| 50                  | (Ohm-m)                     | 500 |
| 50                  | Deep Resistivity (Ohm-m)    | 500 |

Database File: carmenschmitt\_lipp-harvey\_1-12hd.db  
 Dataset Pathname: DIL/carmstck  
 Presentation Format: dil  
 Dataset Creation: Wed Aug 19 04:13:17 2015  
 Charted by: Depth in Feet scaled 1:240

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

|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 10000 | Line Tension (lb)           | 0    |



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

|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 10000 | Line Tension (lb)           | 0    |

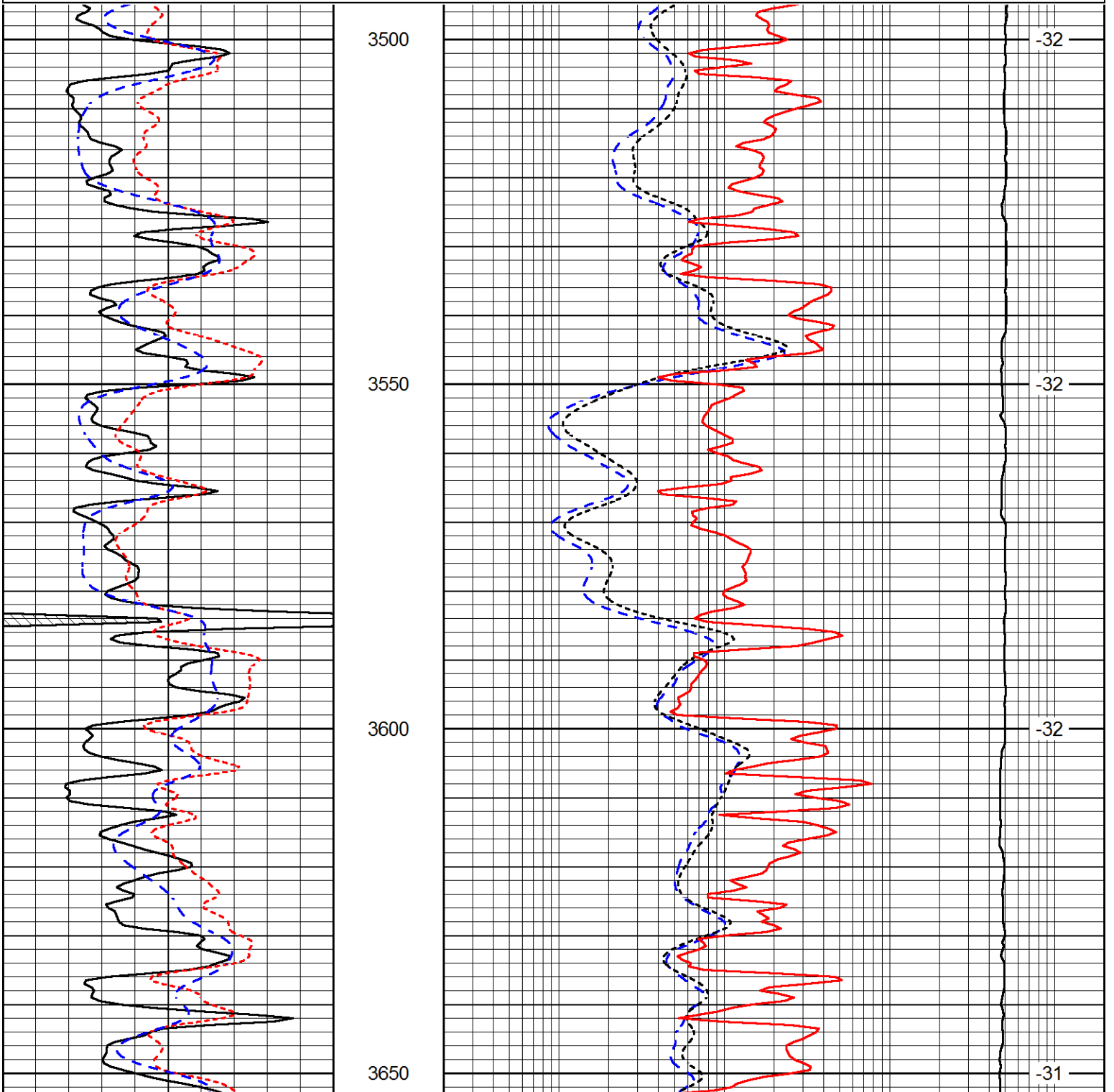
LSPD (ft/min)

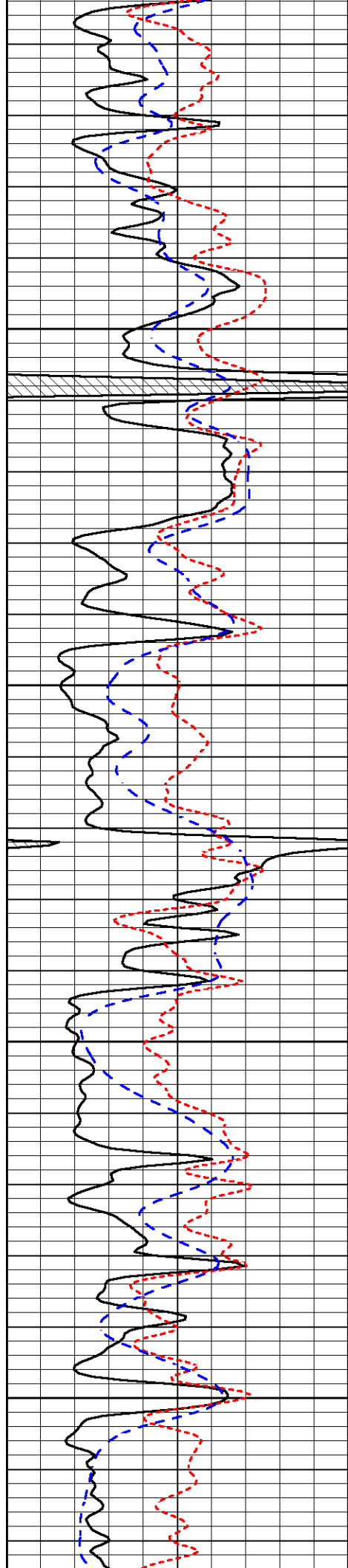
Database File carmenschmitt\_lipp-harvey\_1-12hd.db  
Dataset Pathname DIL/carmstck  
Presentation Format dil  
Dataset Creation Wed Aug 19 04:13:17 2015  
Charted by Depth in Feet scaled 1:240

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

|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 10000 | Line Tension (lb)           | 0    |

LSPD  
(ft/min)



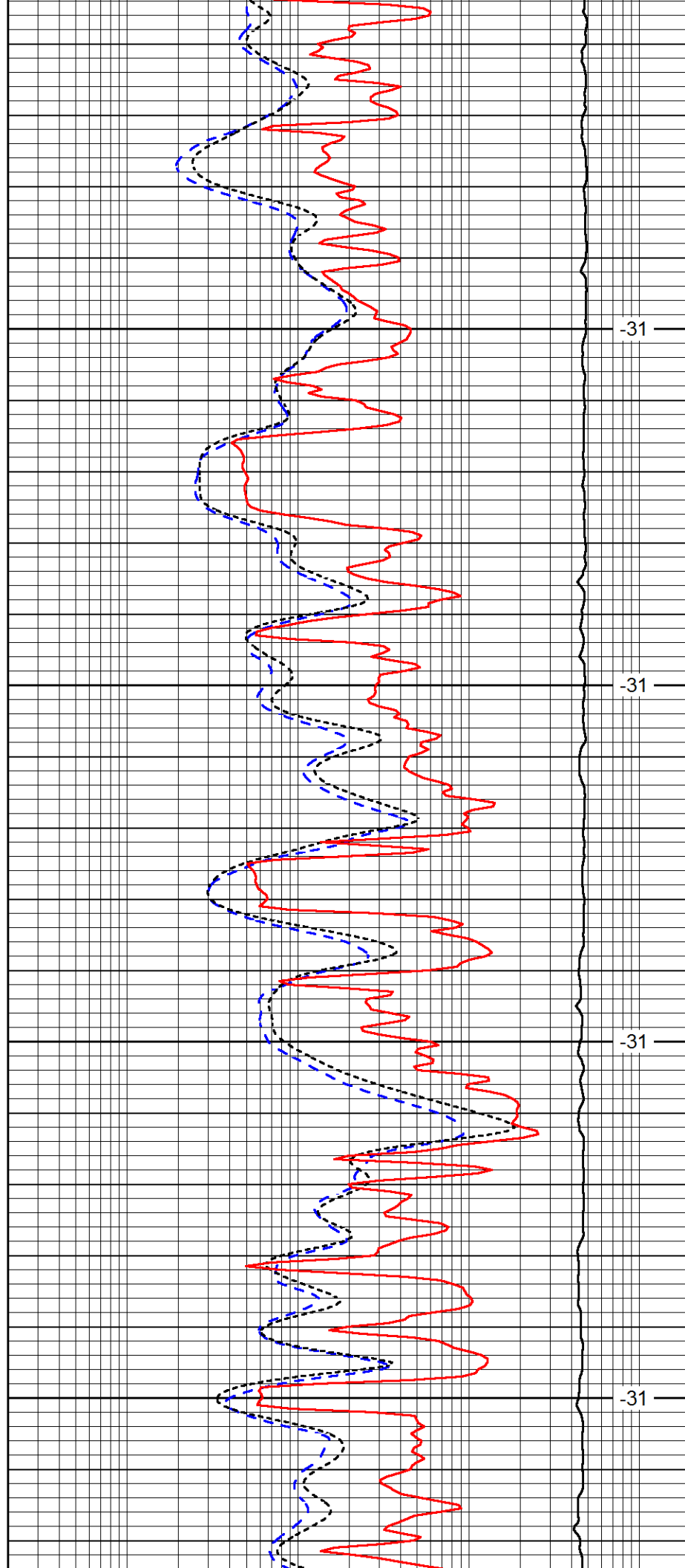


3700

3750

3800

3850

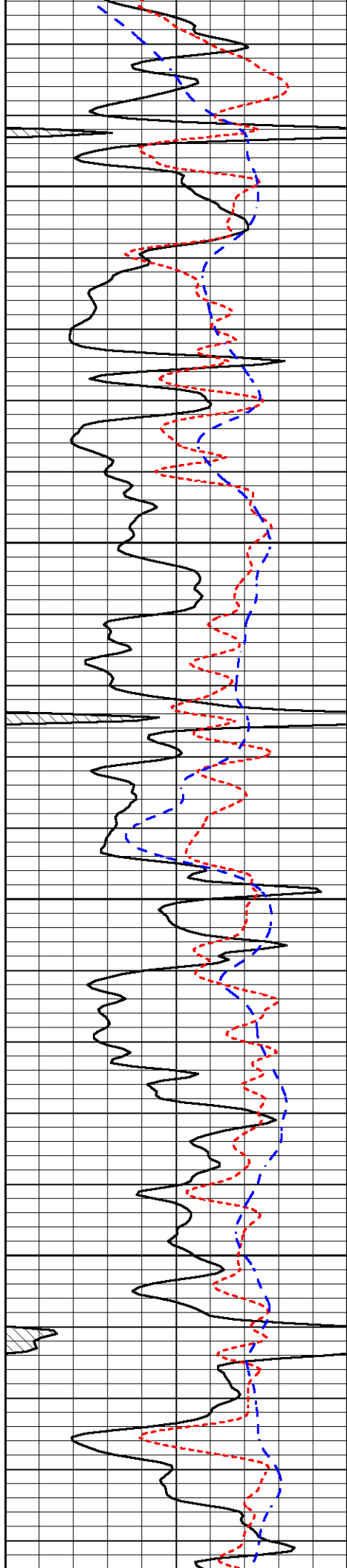


-31

-31

-31

-31

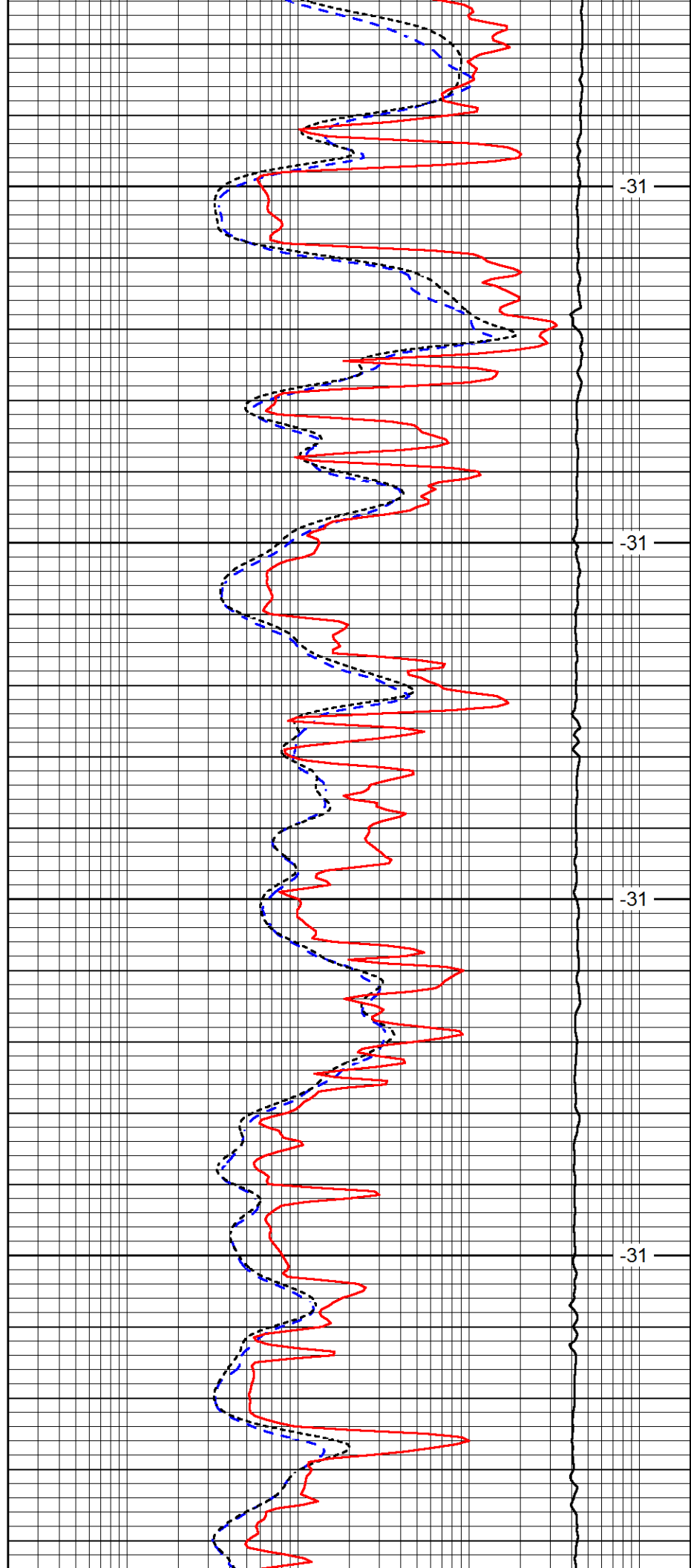


3900

3950

4000

4050

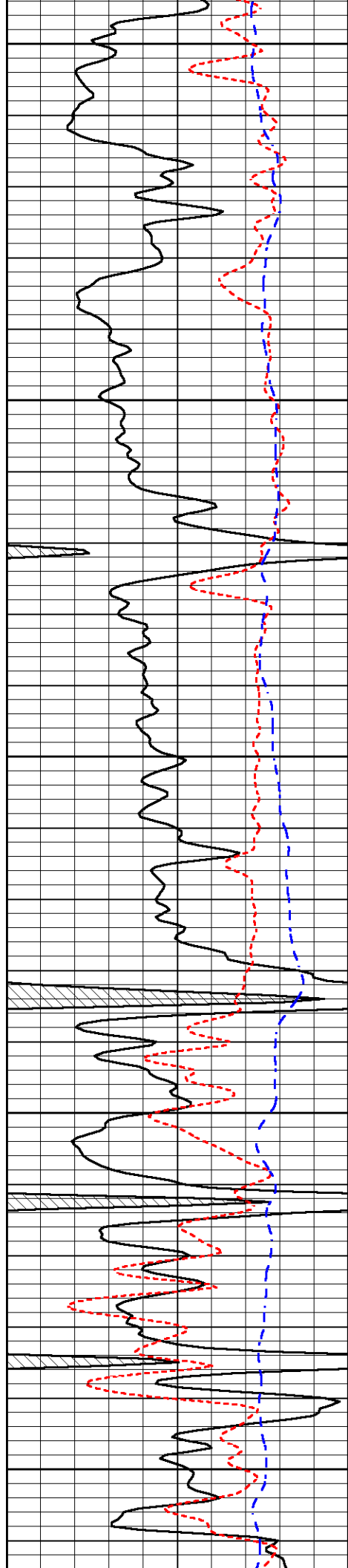


-31

-31

-31

-31



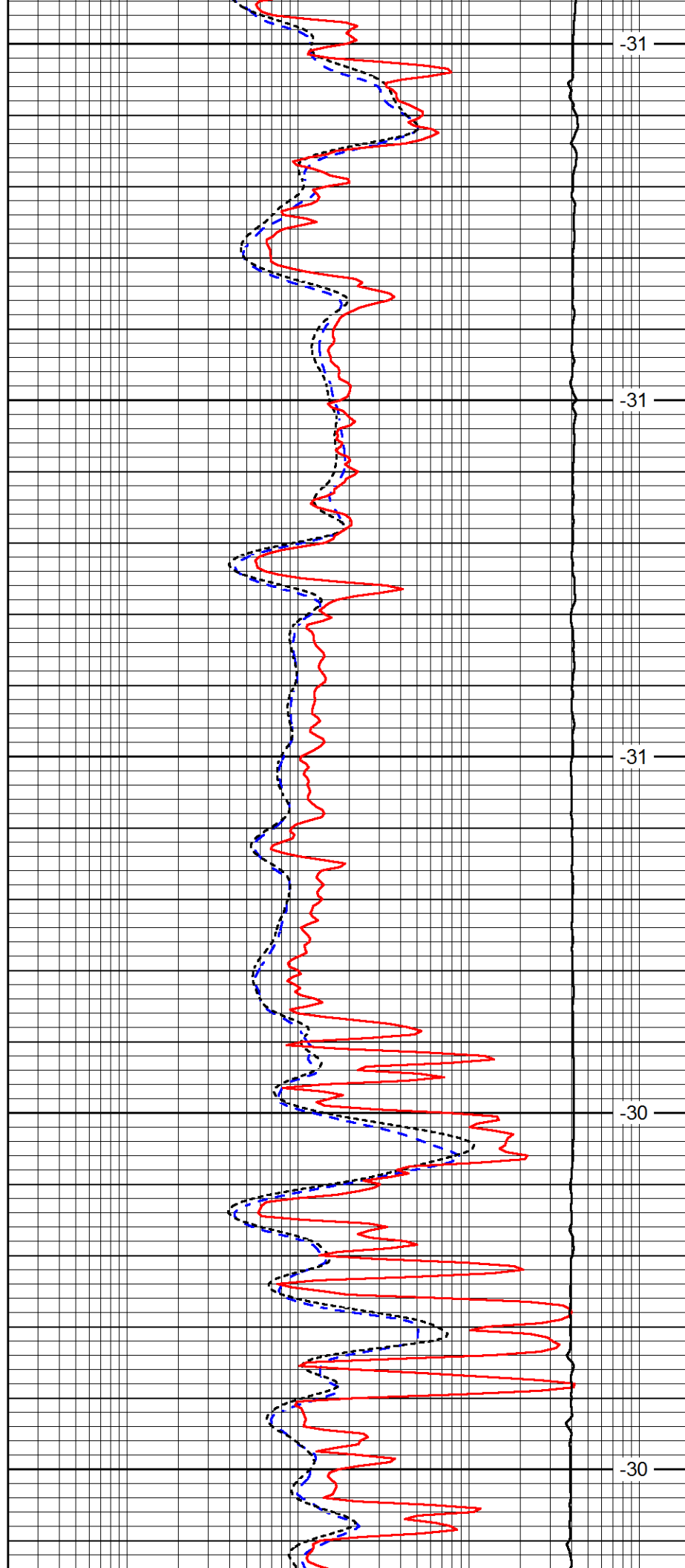
4100

4150

4200

4250

4300



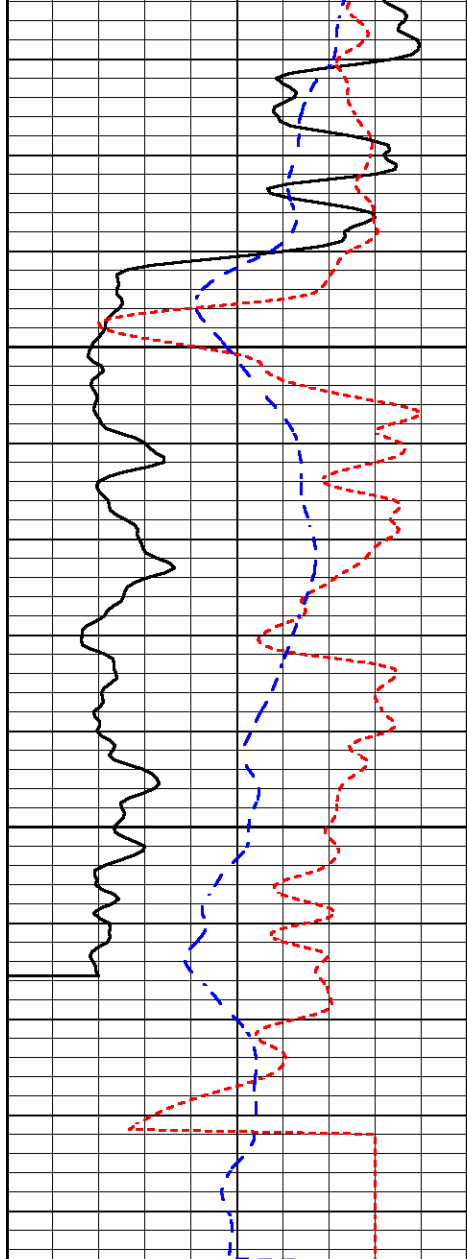
-31

-31

-31

-30

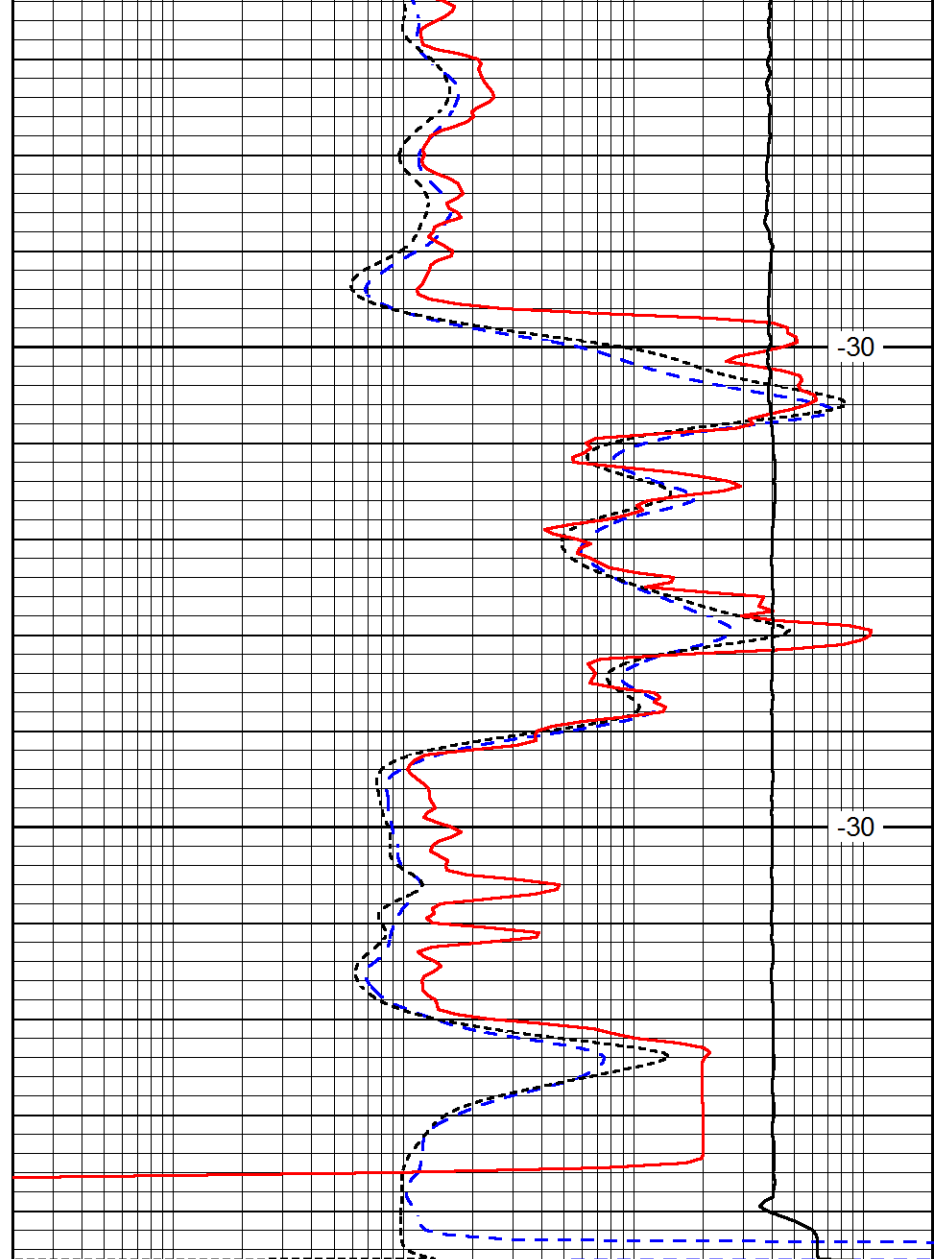
-30



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

4350

4400



|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 10000 | Line Tension (lb)           | 0    |

LSPD  
(ft/min)