



**ThruBit**  
A Schlumberger Company

**DUAL SPACED NEUTRON  
SPECTRAL DENSITY  
GAMMA RAY  
MEMORY LOG**

|                              |                           |                |                       |
|------------------------------|---------------------------|----------------|-----------------------|
| Company                      | SANDRIDGE ENERGY          | Company        | SANDRIDGE ENERGY      |
| Well                         | BRYANT 3508 1-10H         | Well           | BRYANT 3508 1-10H     |
| Field                        | WALDRON                   | Field          | WALDRON               |
| County                       | HARPER                    | County         | HARPER                |
| State                        | KANSAS                    | State          | KANSAS                |
| Location:                    | API #: 15-077-21899-01-00 | Other Services | THRUBIT<br>PORTAL BIT |
| Permanent Datum              | G.L.                      | Elevation      | 1285'                 |
| Log Measured From            | K.B. 18' ABOVE PERM DATUM | D.F.           | 1303'                 |
| Drilling Measured From       | K.B.                      | G.L.           | 1285'                 |
| Date                         | 25 JANUARY 2013           |                |                       |
| Run Number                   | ONE                       |                |                       |
| Depth Driller                | 12422'                    |                |                       |
| Depth Logger                 | 12396'                    |                |                       |
| Bottom Logged Interval       | 12380'                    |                |                       |
| Top Log Interval             | 5278'                     |                |                       |
| Casing Driller               | 7.0" @ 5280'              |                |                       |
| Casing Logger                | 5278'                     |                |                       |
| Bit Size                     | 6.125                     |                |                       |
| Type Fluid in Hole           | WBM                       |                |                       |
| Density / Viscosity          | 8.35 / 27                 |                |                       |
| pH / Fluid Loss              | 9.0 / 60                  |                |                       |
| Source of Sample             | MUD PIT                   |                |                       |
| Rim @ Meas. Temp             | 2.61 ohms @ 47 degf       |                |                       |
| Rinf @ Meas. Temp            | 1.91 ohms @ 47 degf       |                |                       |
| Rmc @ Meas. Temp             | 3.26 ohms @ 47 degf       |                |                       |
| Source of Rinf / Rmc         | CALCULATED                |                |                       |
| Rim @ BHT                    | 1.18 ohms @ 147 degf      |                |                       |
| Time Circulation Stopped     | 18:00                     |                |                       |
| Time Logger on Bottom        | 19:15                     |                |                       |
| Maximum Recorded Temperature | 147 degf                  |                |                       |
| Equipment Number             | T004                      |                |                       |
| Location                     | OKC, OK                   |                |                       |
| Recorded By                  | DENGLER                   |                |                       |
| Witnessed By                 | ANTONIO LEJAFR            |                |                       |

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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

SERVICE: HORIZONTAL PUMP DOWN MEMORY BIT DEPTH: 12336' LOGGED TO: 5278'  
ALL SCALES AND PRESENTATIONS PER CLIENT REQUEST  
LIMESTONE MATRIX, 2.71 g/cc. USED FOR POROSITY MEASUREMENTS  
TOOLSTRING RAN WITH SMALL DE-CENTRALIZER, SWIVEL, AND NO STANDOFFS  
TBHV REPRESENTS TOTAL BORHOLE VOLUME, ft3  
ABHV REPRESENTS ANNULAR HOLE VOLUME, CALCULATED FOR 4.5" CSG., ft3  
RIGMINDER USED TO ACQUIRE LOG DEPTH  
LOG CORRELATED TO MWD GR  
RIG: UNIT 310  
CREW: J. DENGLER, K. REED J. HIRST

|                                                                                            |      |         |                    |           |             |
|--------------------------------------------------------------------------------------------|------|---------|--------------------|-----------|-------------|
| Service Ticket No.                                                                         | 1708 | API No. | 15-077-21899-01-00 | PGM Ver   | WARRIOR 7.0 |
| The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client |      |         |                    |           |             |
| EQUIPMENT DATA                                                                             |      |         |                    |           |             |
| GAMMA RAY                                                                                  |      | NEUTRON |                    | INDUCTION |             |

|                         |           |            |           |            |                      |            |           |            |
|-------------------------|-----------|------------|-----------|------------|----------------------|------------|-----------|------------|
| Run No.                 | ONE       | Run No.    | ONE       | Run No.    | ONE                  | Run No.    | ONE       |            |
| Serial No.              | PS30T     | Serial No. | PS6N      | Serial No. | PS03D                | Serial No. | PS14R     |            |
| Model No.               | PS        | Model No.  | PS        | Model No.  | PS                   | Model No.  | PS        |            |
| Diameter                | 2.125"    | Diameter   | 2.125"    | Diameter   | 2.125"               | Diameter   | 2.125"    |            |
| LOGGING DATA            |           |            |           |            |                      |            |           |            |
| General Data            |           |            |           |            |                      |            |           |            |
| Pass                    | Depths    |            | Well Head | Speed      | Logging Run Comments |            |           |            |
| No.                     | From      | To         | Pressure  | Ft/Min     |                      |            |           |            |
| ONE                     | 12396'    | 5278'      |           | 30         |                      |            |           |            |
|                         |           |            |           |            |                      |            |           |            |
|                         | GAMMA RAY |            | NEUTRON   |            | DENSITY              |            | INDUCTION |            |
| Pass                    | Scale     |            | Scale     |            | Scale                |            | Scale     |            |
| No.                     | L         | R          | L         | R          | L                    | R          | L         | L          |
| ONE                     | 0 API     | 150 API    | 30%       | -10%       | 30%                  | -10%       | 0.2 OHM-M | 2000 OHM-M |
|                         |           |            |           |            |                      |            |           |            |
| DIRECTIONAL INFORMATION |           |            |           |            |                      |            |           |            |
| Maximum Deviation       |           | 93.2       | deg. @    | 10734'     | KOP                  | 3915'      |           |            |
|                         |           |            |           |            |                      |            |           |            |
|                         |           |            |           |            |                      |            |           |            |



# MAIN PASS

Database File: bryant\_mem.db  
 Dataset Pathname: proc1/pass1.5  
 Presentation Format: 6\_2n\_chk  
 Dataset Creation: Fri Jan 25 06:10:59 2013  
 Charted by: Depth in Feet scaled 1:600

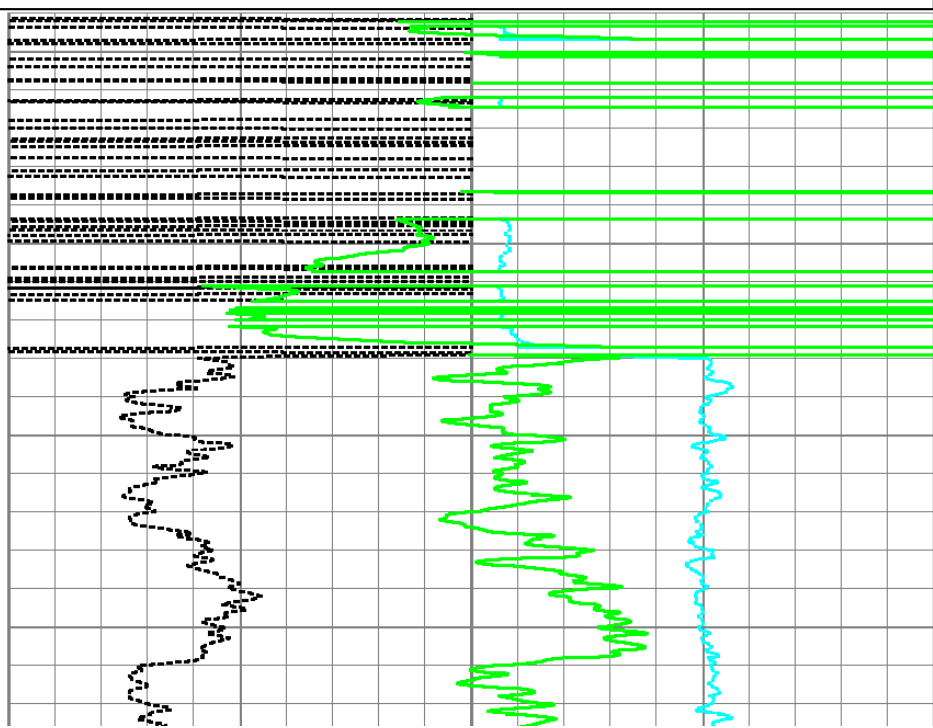
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|----|-------------|-----|
| 0  | GR (GAPI)   | 150 |
| 4  | DCAL (in)   | 14  |
| 4  | BOREID (in) | 14  |
| -5 | ACCY        | 5   |

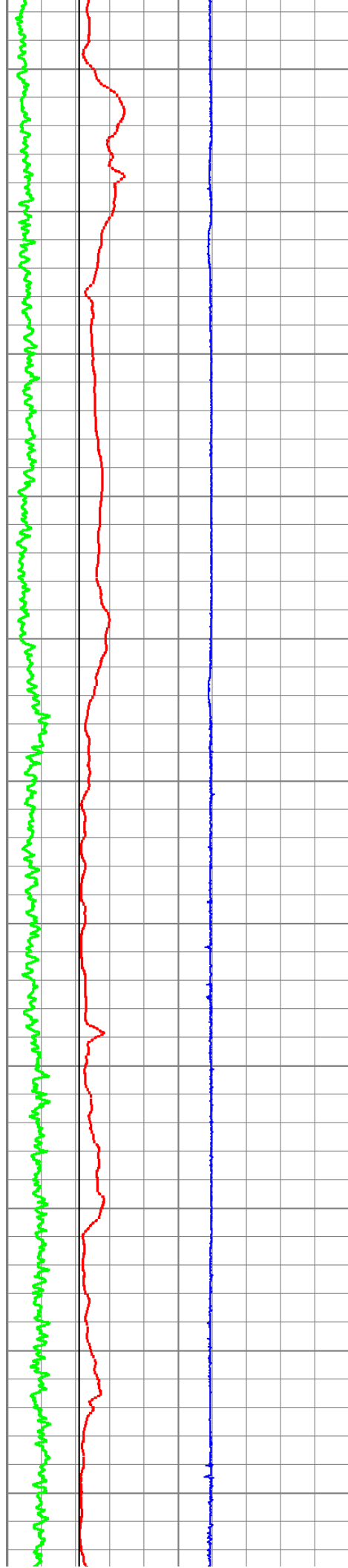
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|---|-------------|----|------|-------------|-----|
| 0 | PEF (barn)  | 10 | -0.5 | DRHO (g/cc) | 0.5 |
| 2 | RHOB (g/cc) |    |      |             | 3   |



5200

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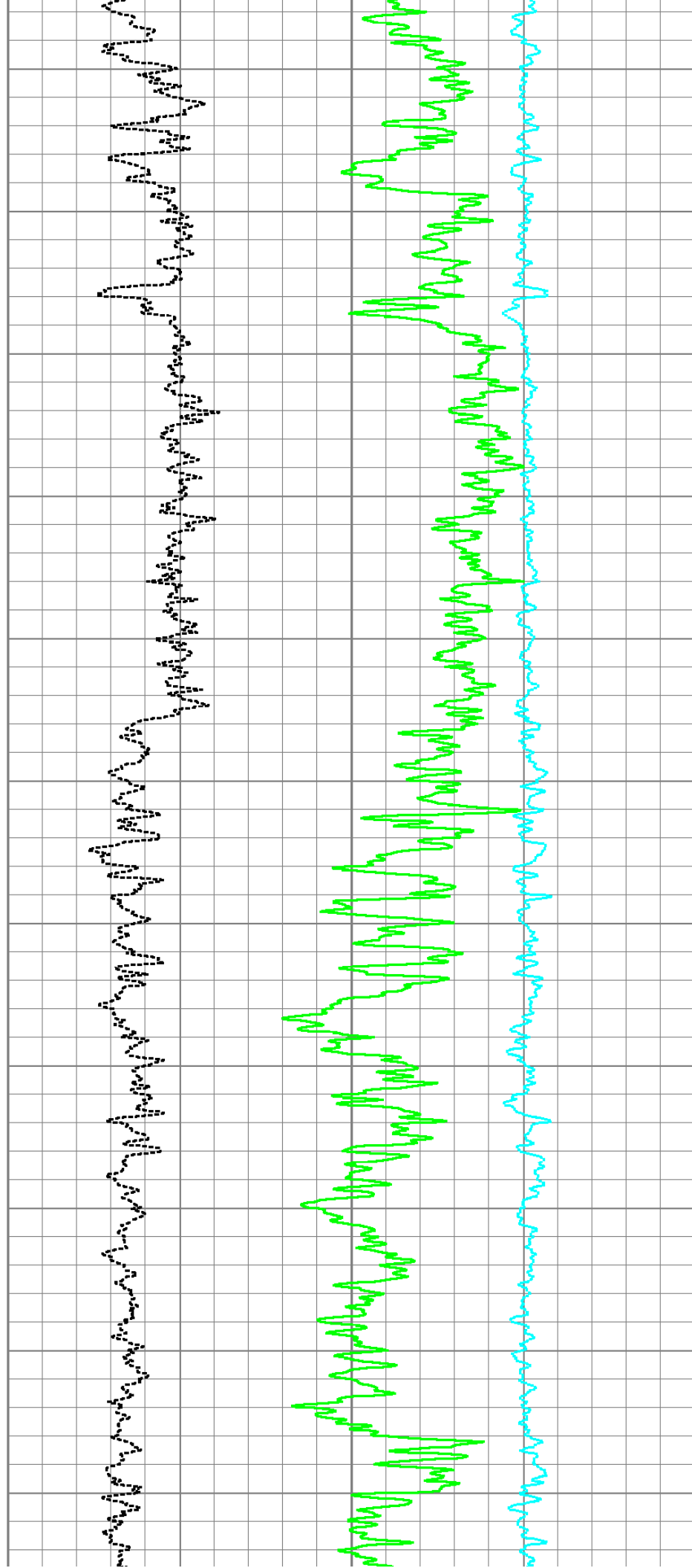
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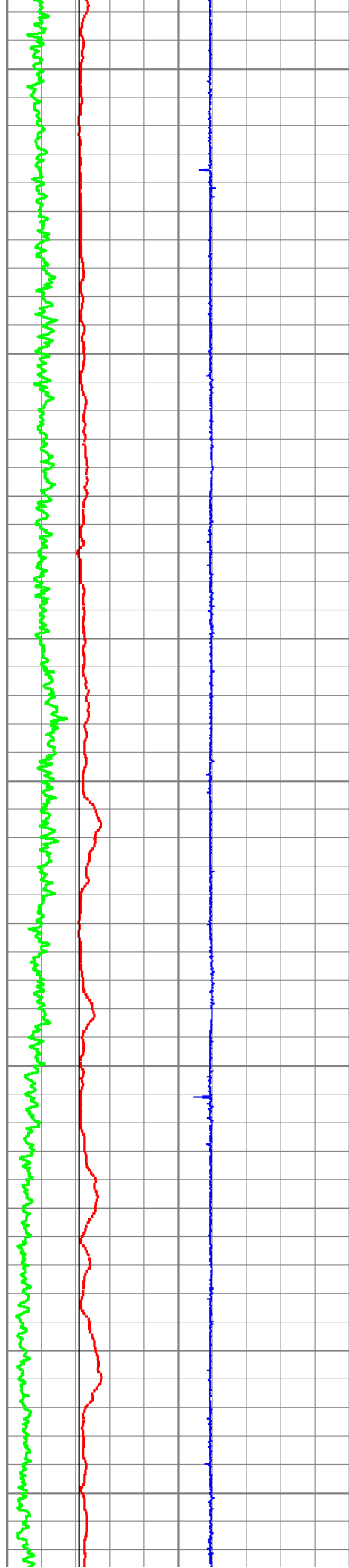
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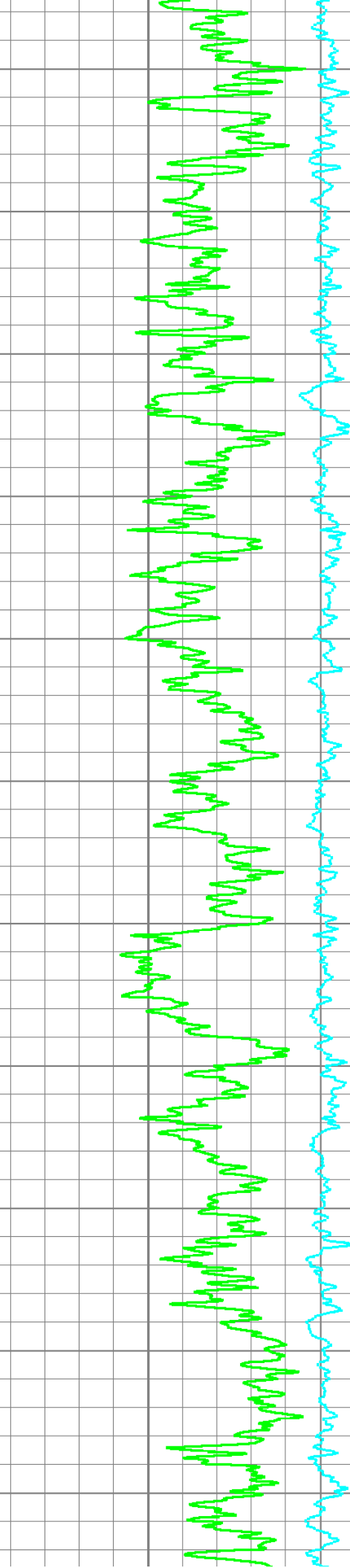
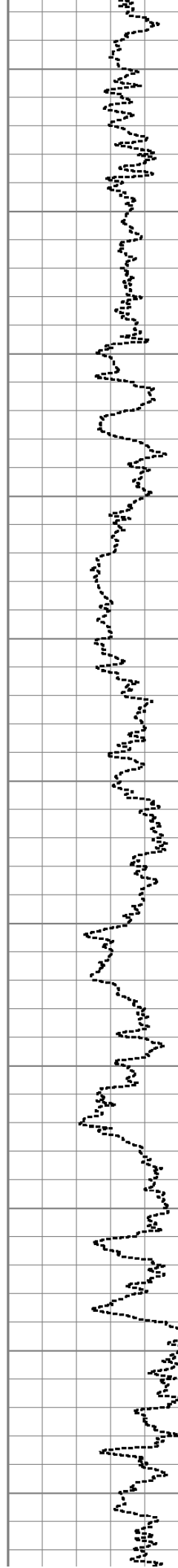
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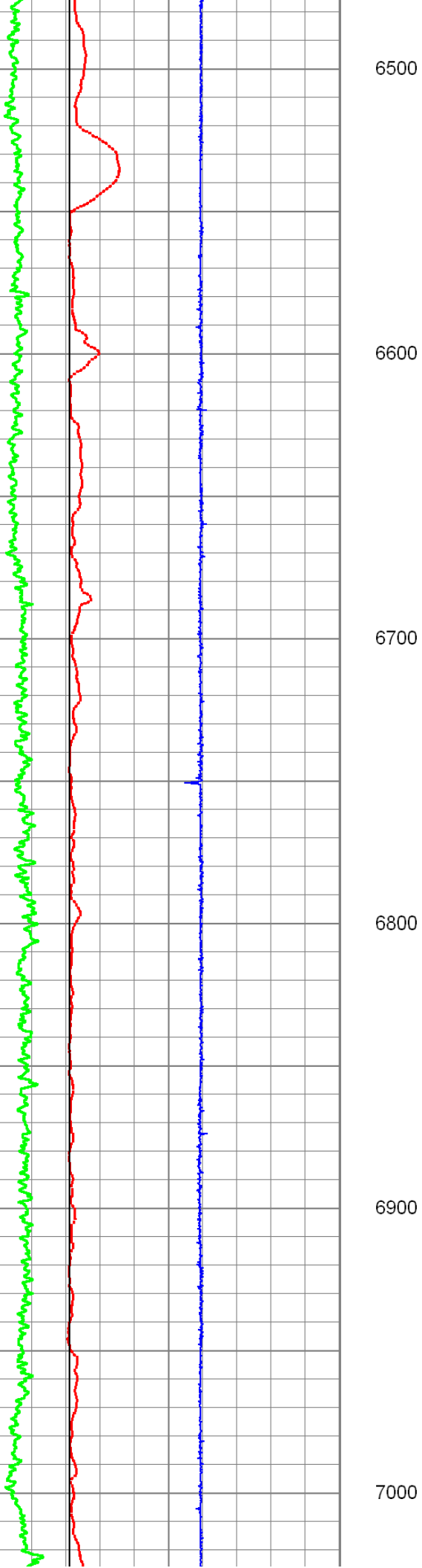
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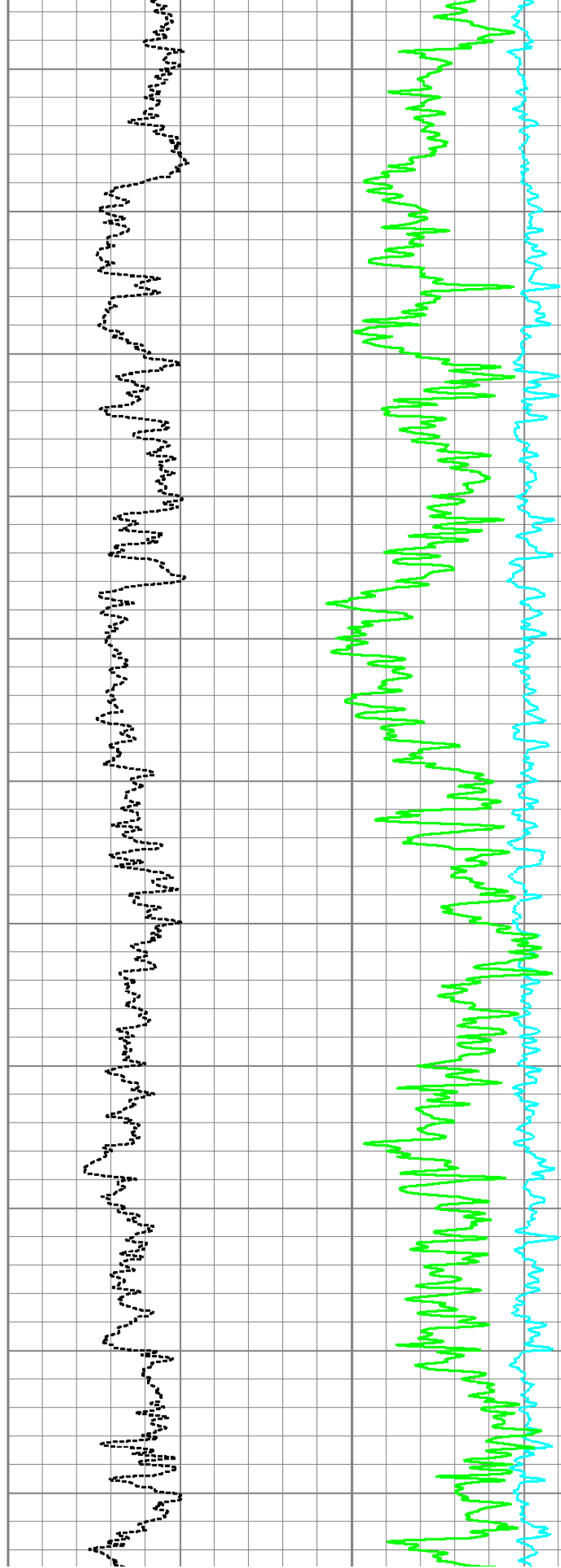
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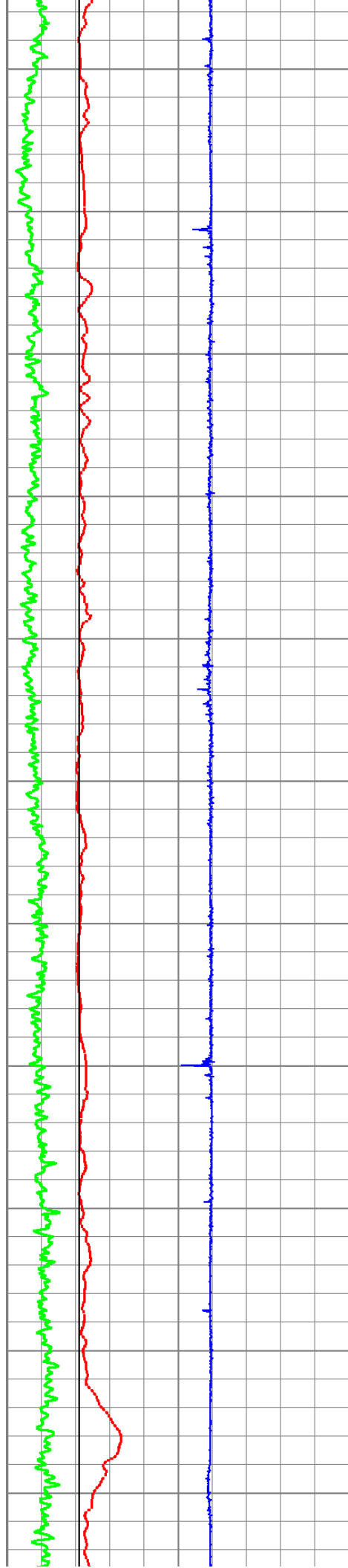
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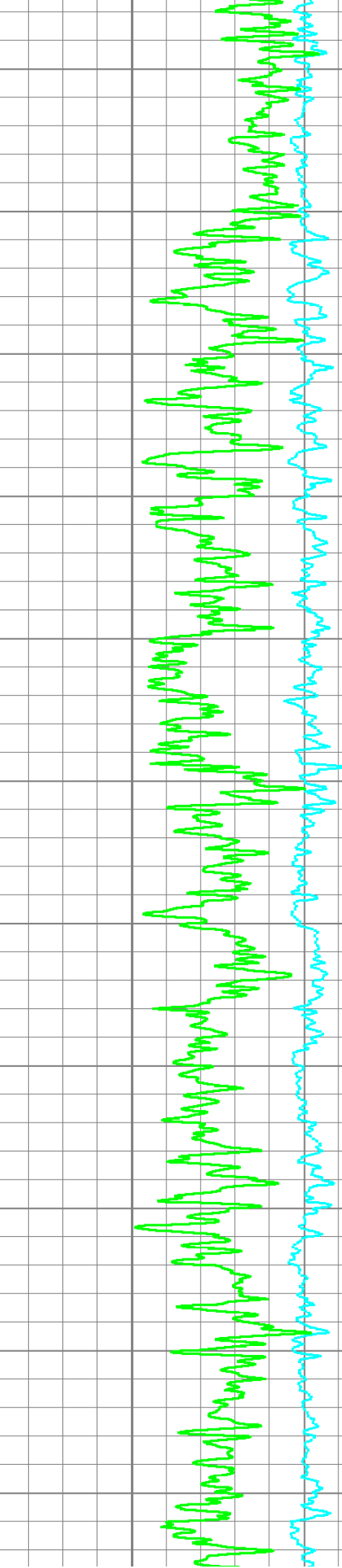
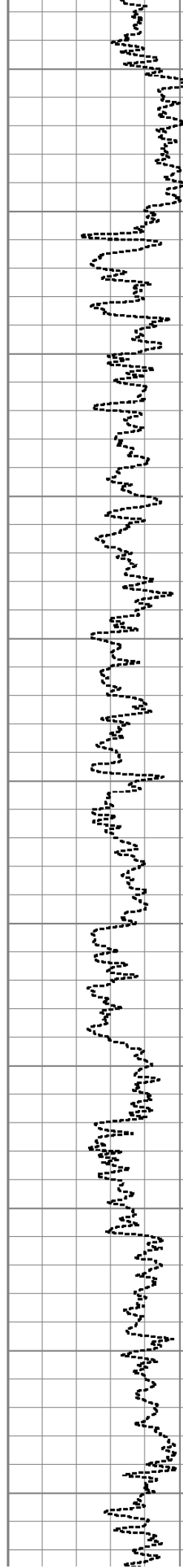
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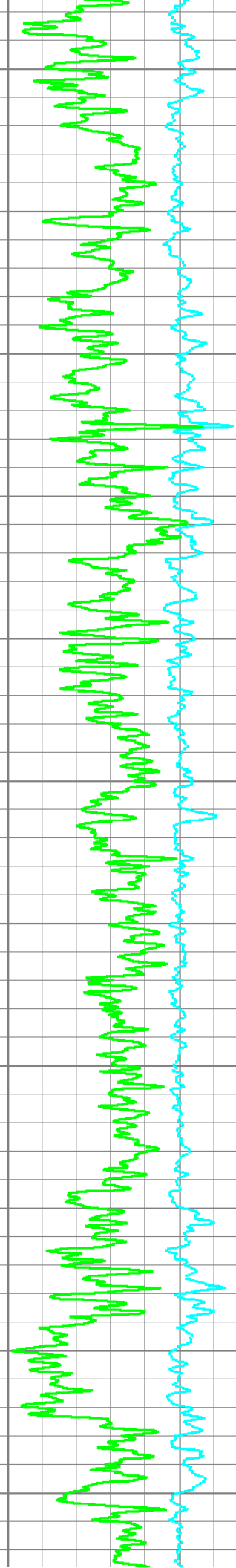
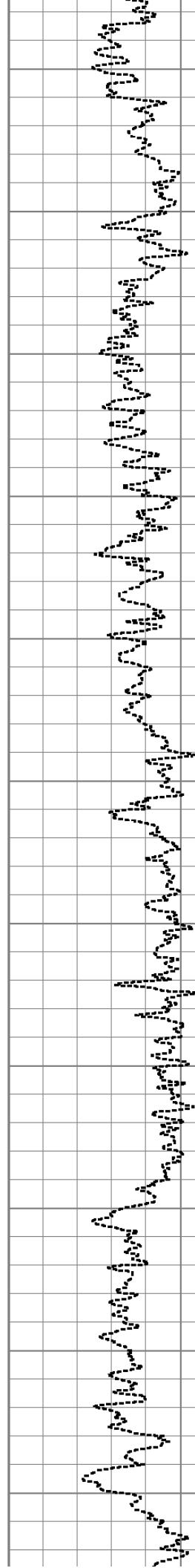
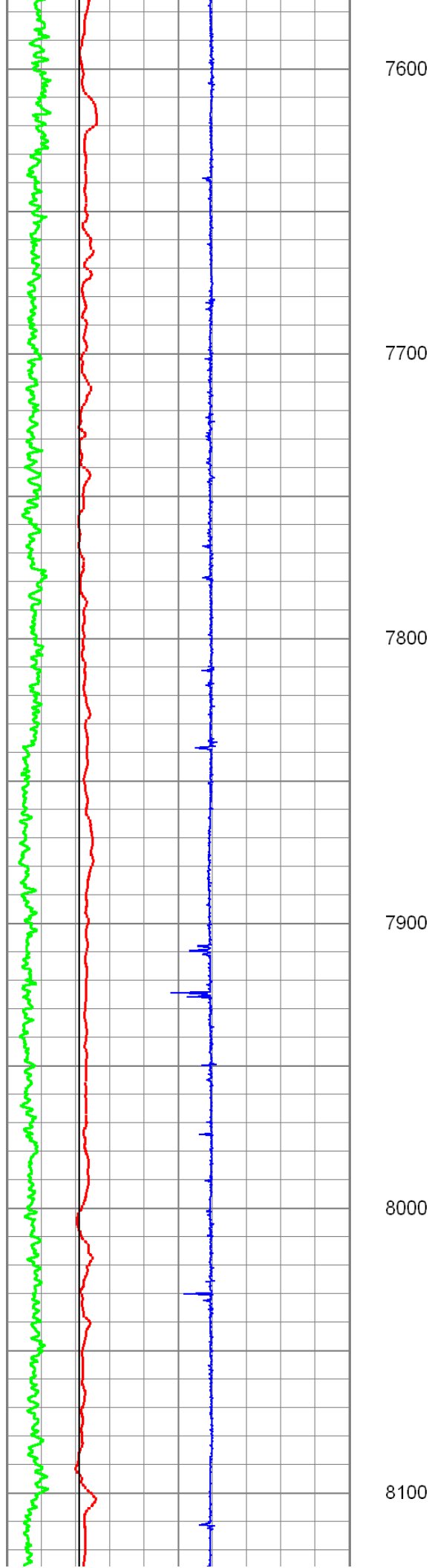
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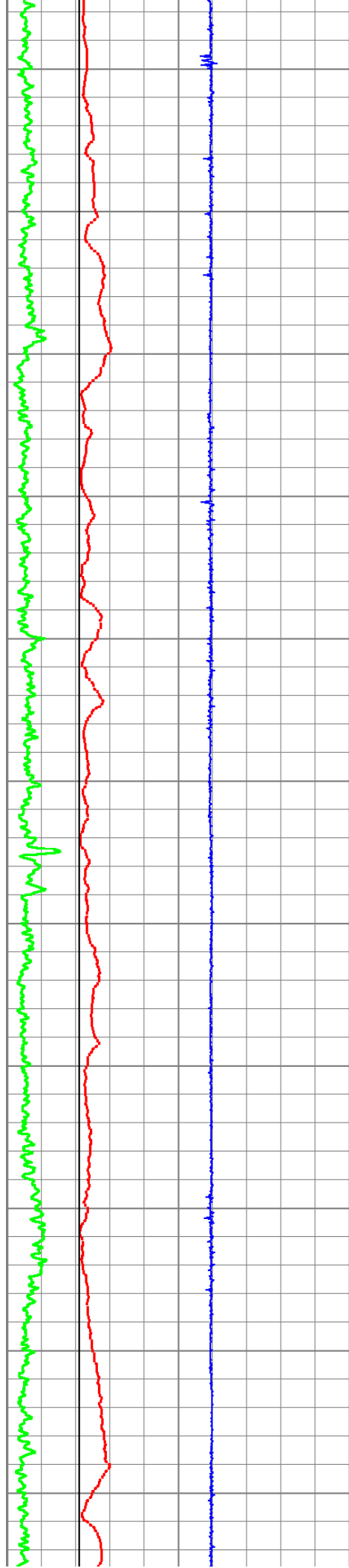
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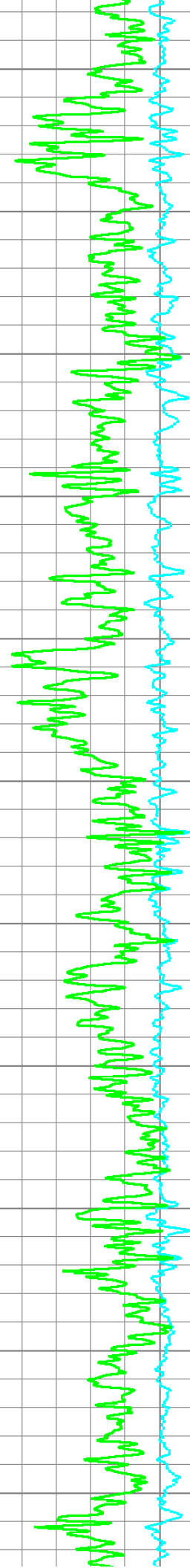
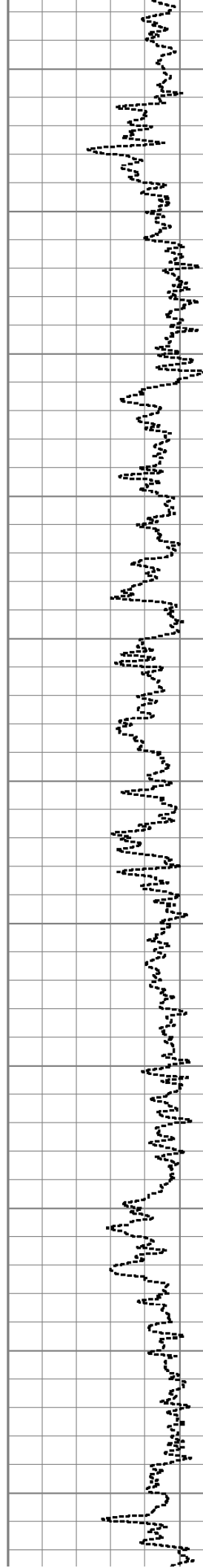
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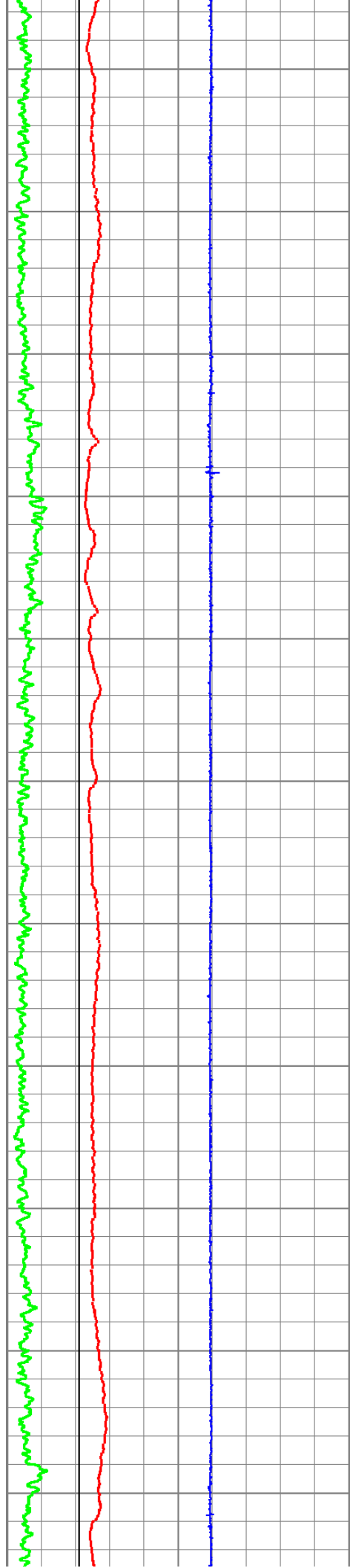
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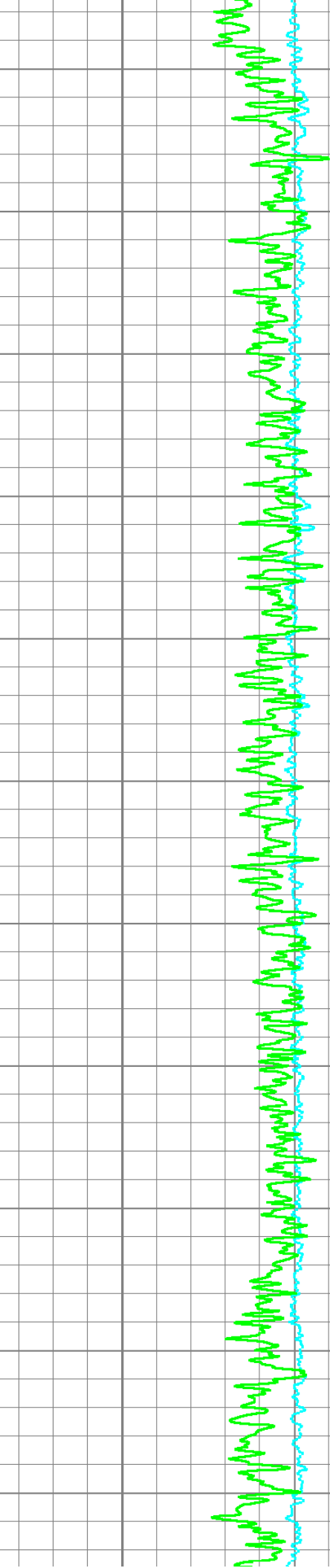
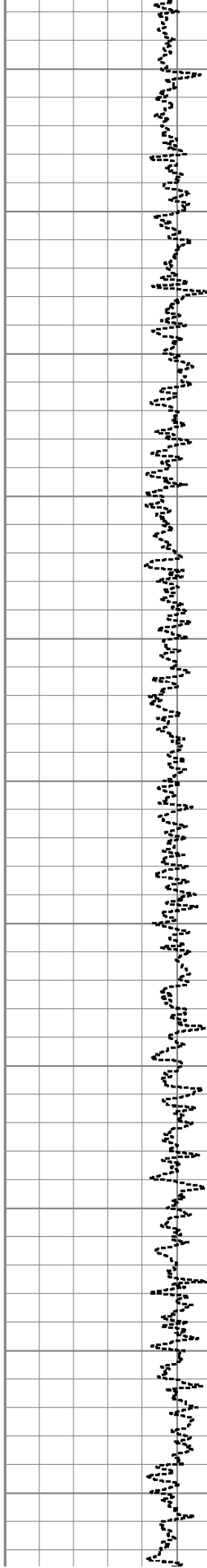
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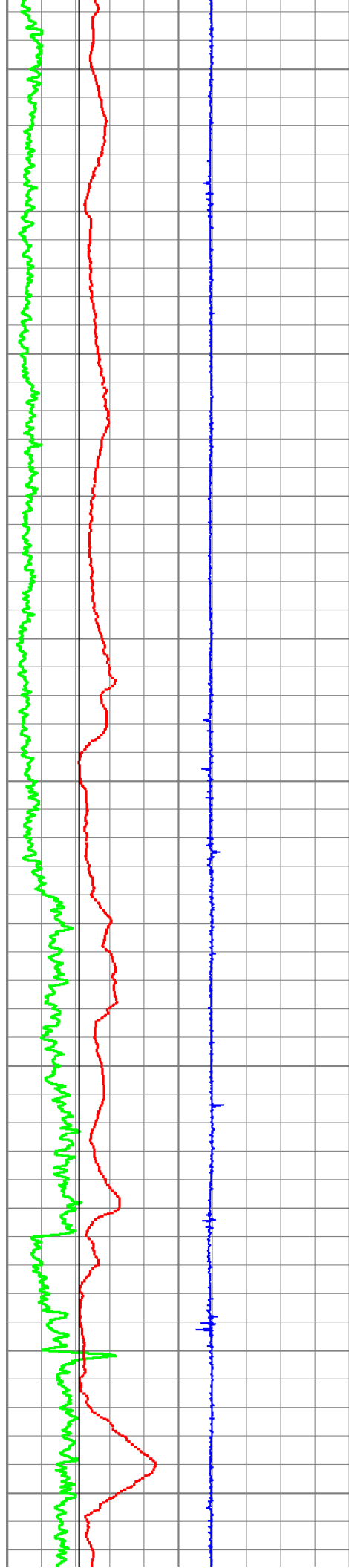
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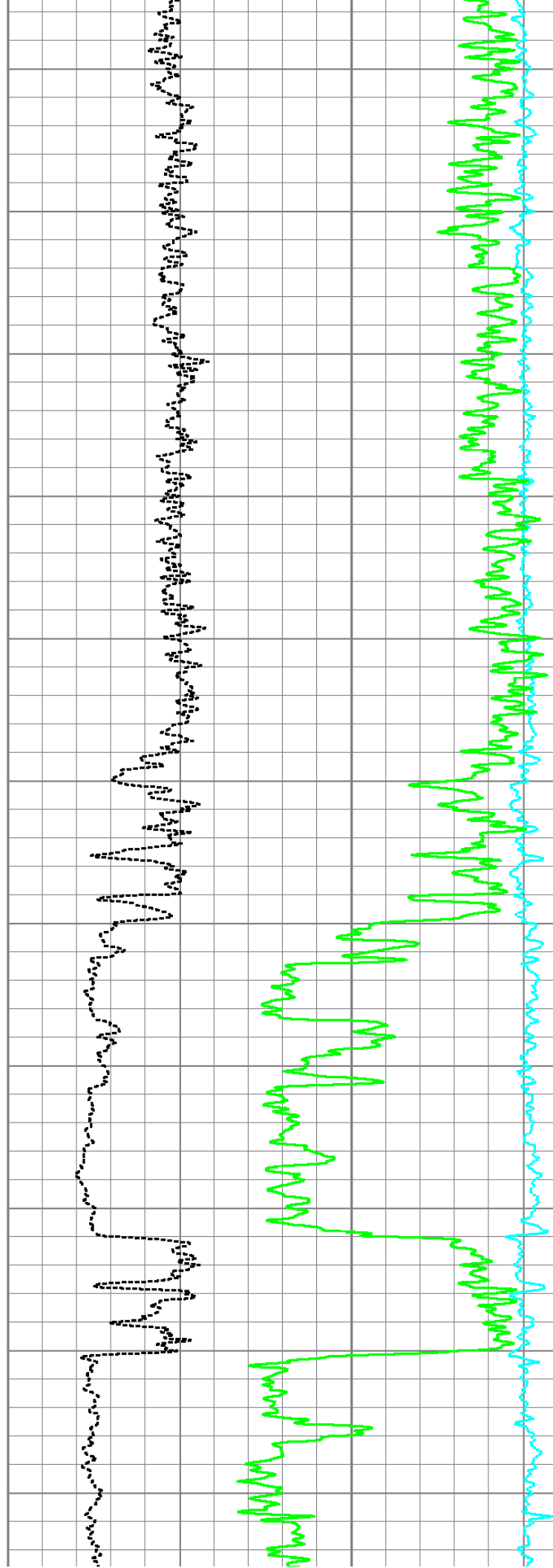
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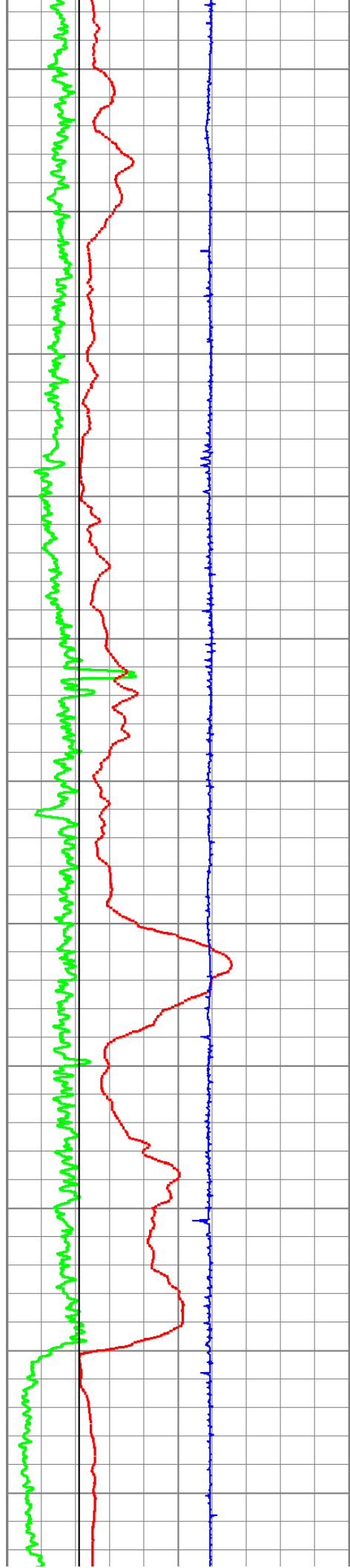
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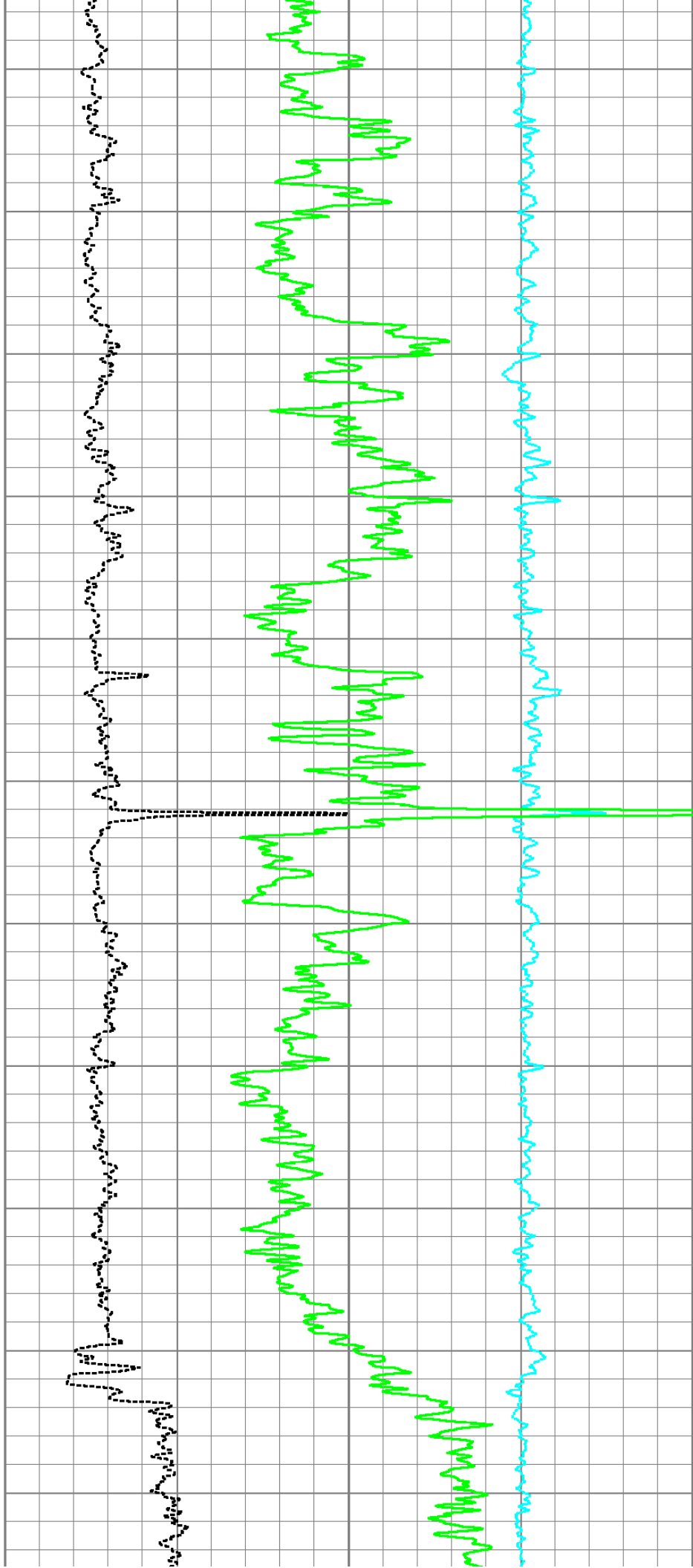
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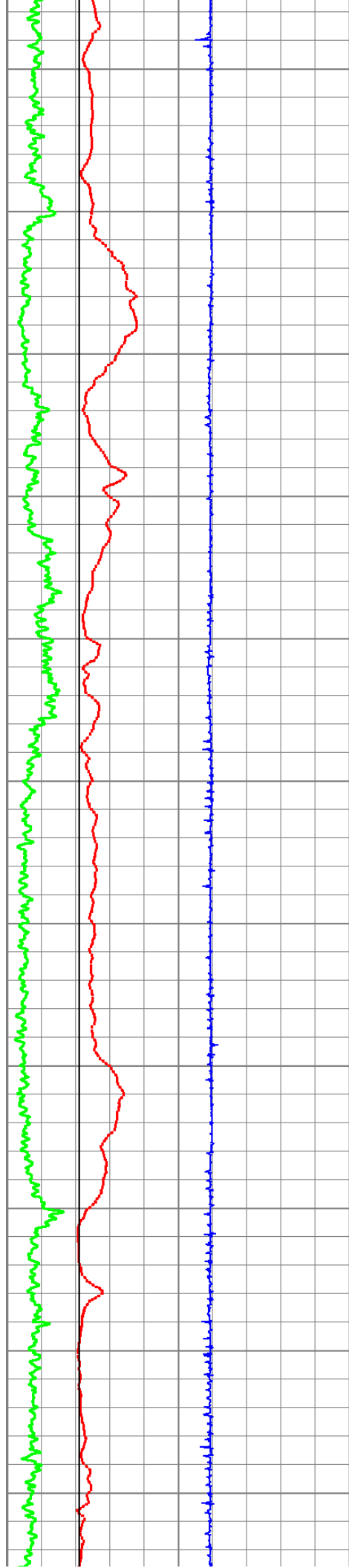
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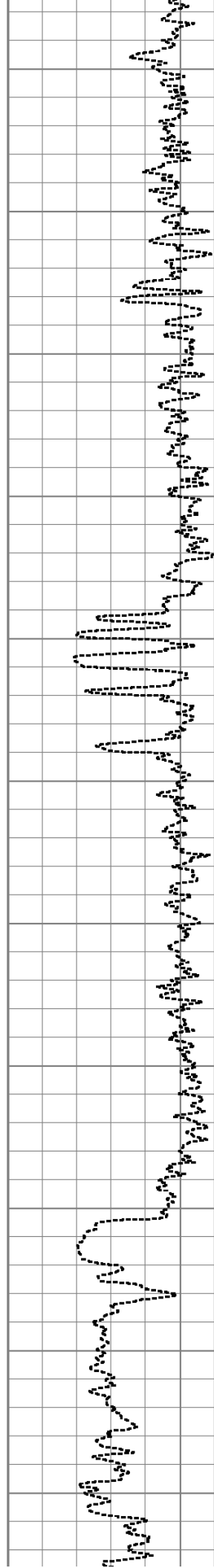
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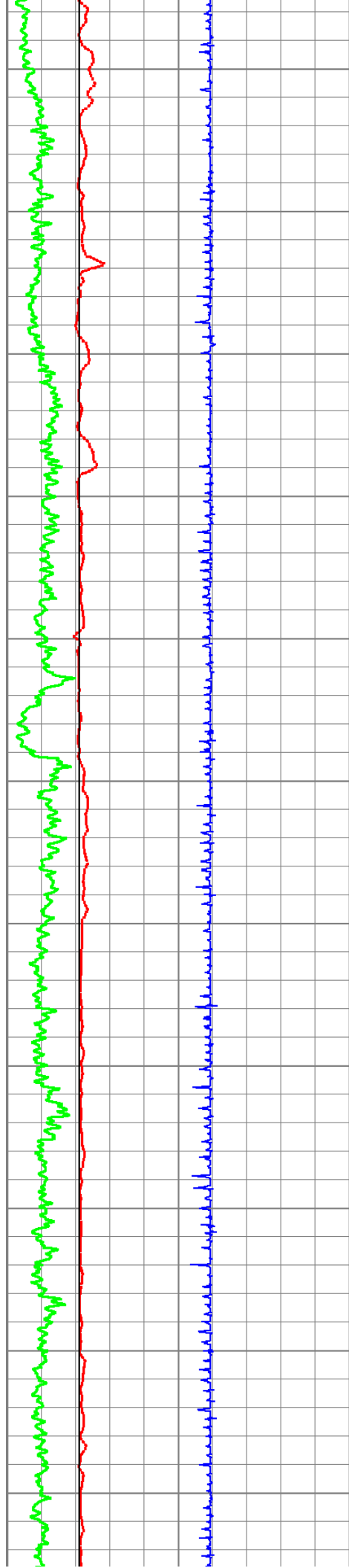
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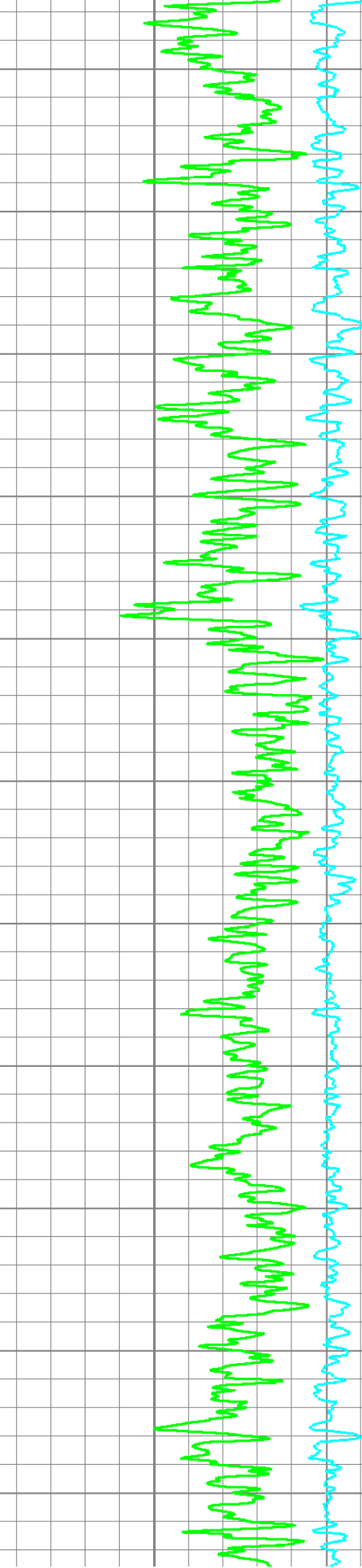
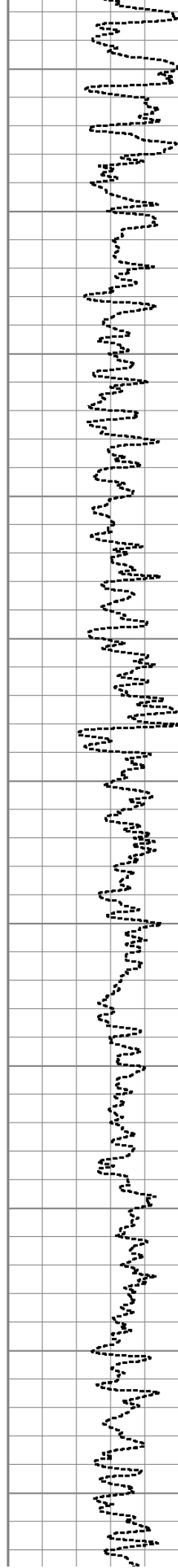
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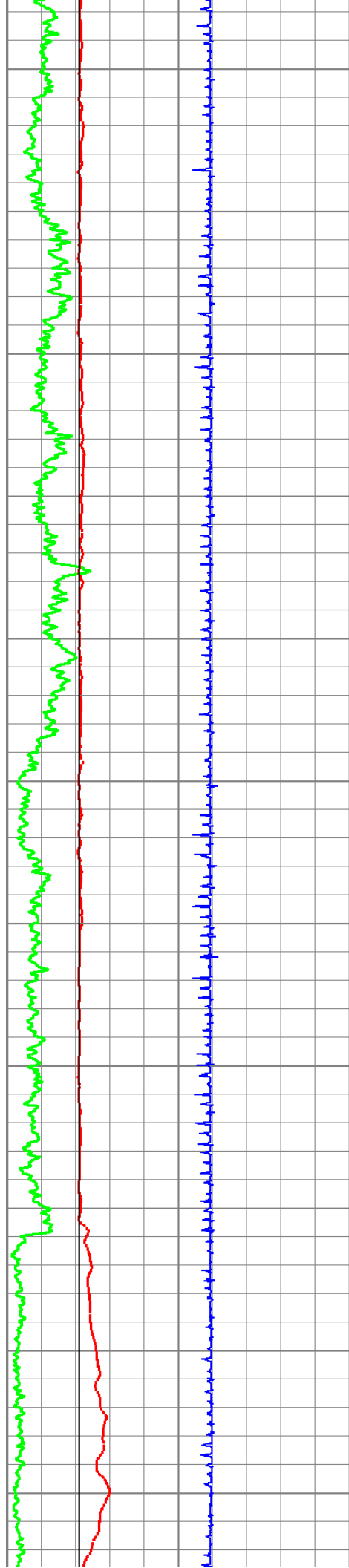
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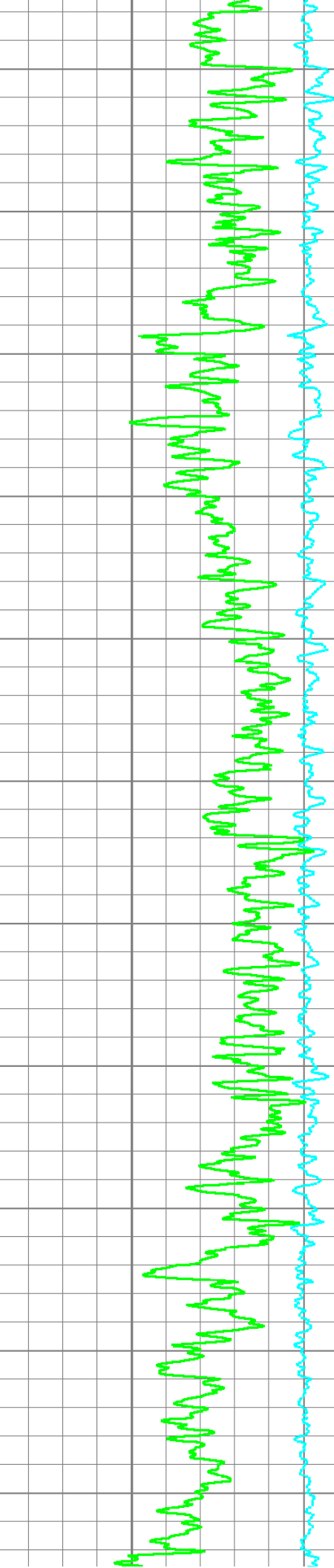
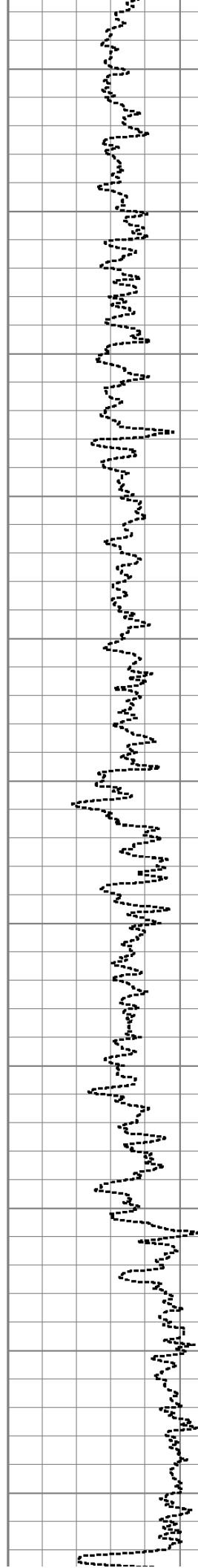
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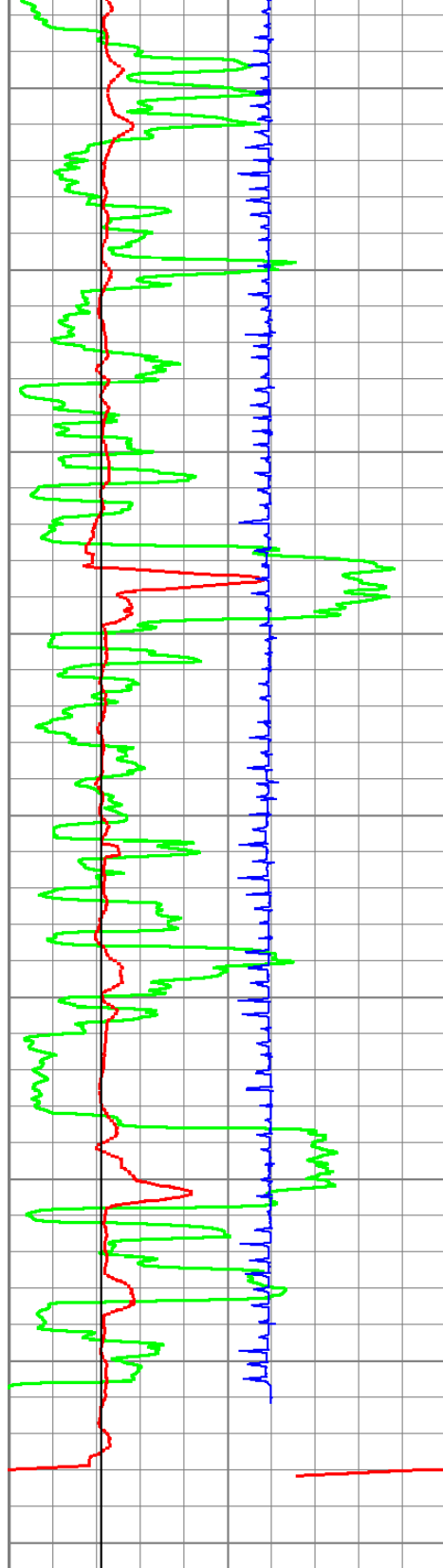
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|    |             |     |
|----|-------------|-----|
| 0  | GR (GAPI)   | 150 |
| 4  | DCAL (in)   | 14  |
| 4  | BOREID (in) | 14  |
| -5 | ACCY        | 5   |

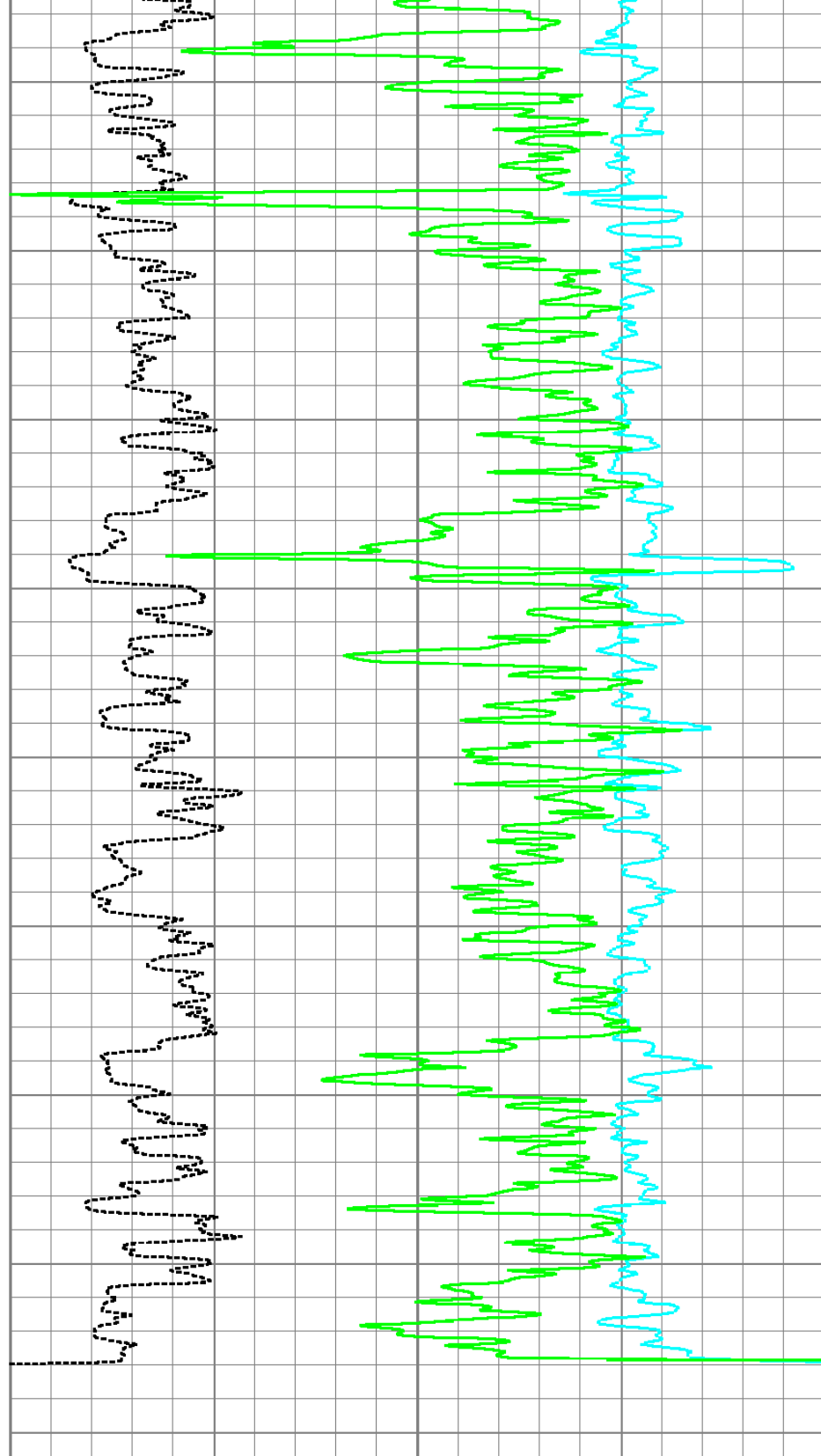
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|   |             |    |      |             |     |
|---|-------------|----|------|-------------|-----|
| 0 | PEF (barn)  | 10 | -0.5 | DRHO (g/cc) | 0.5 |
| 2 | RHOB (g/cc) |    |      |             | 3   |

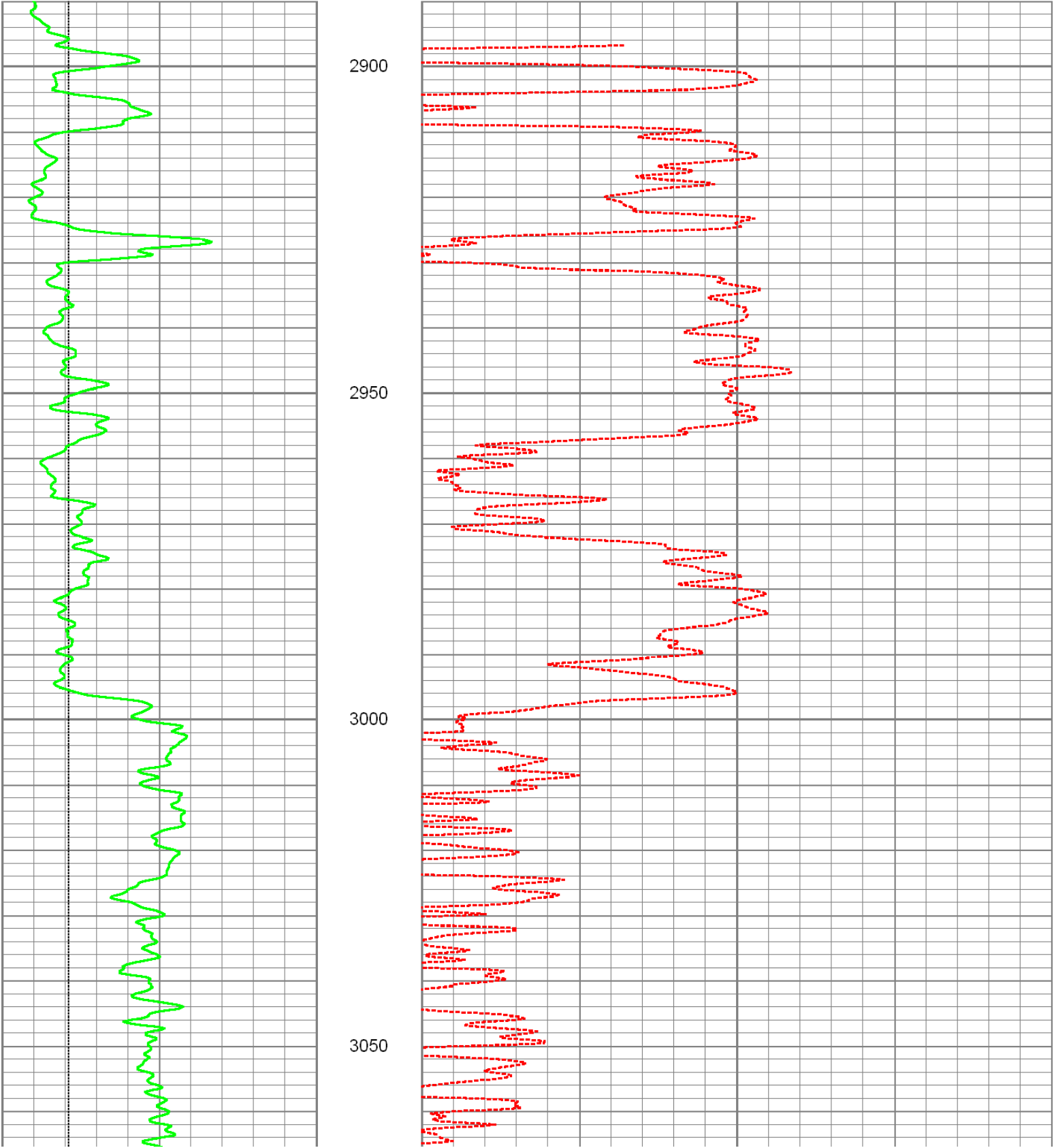


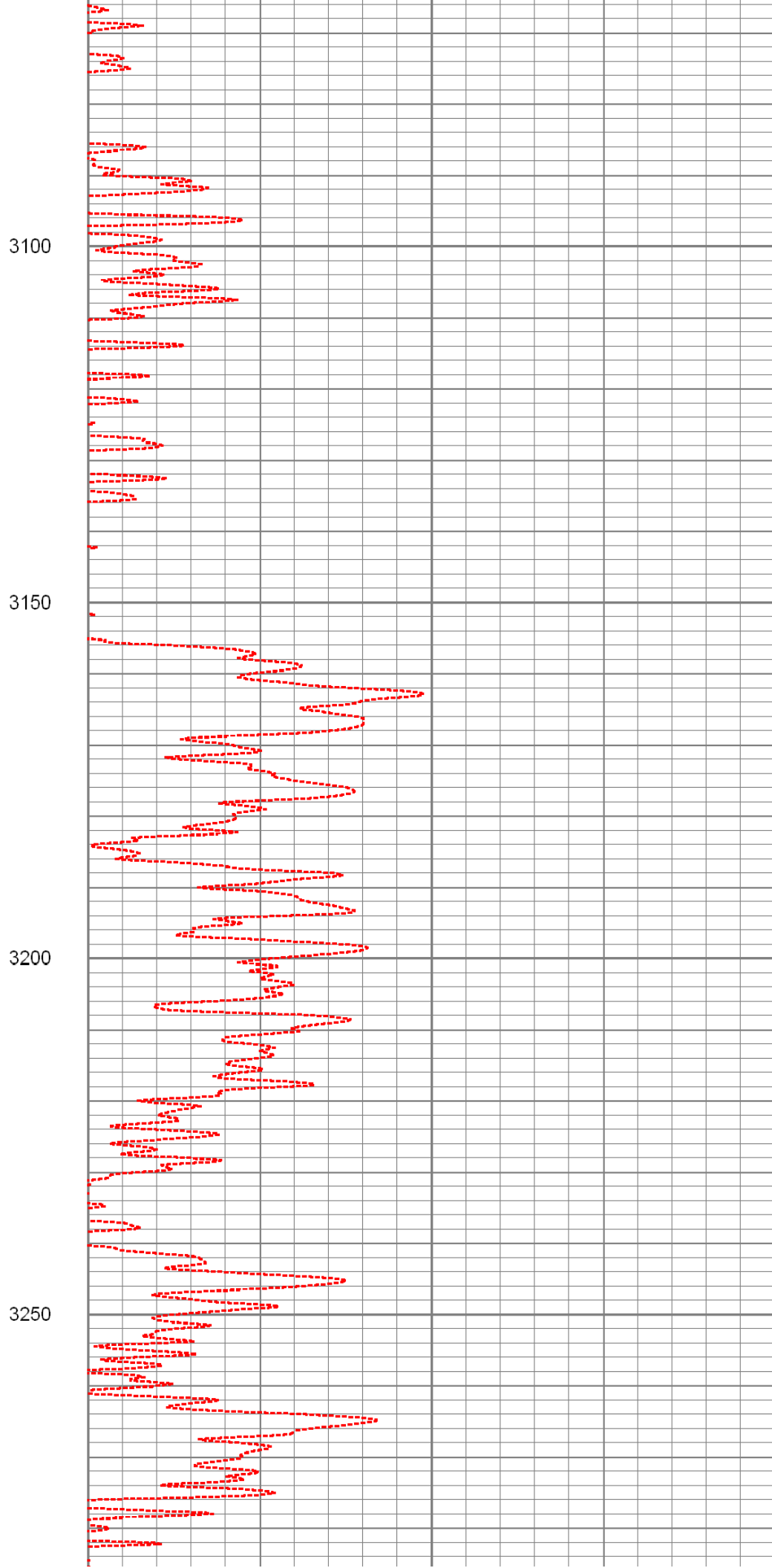
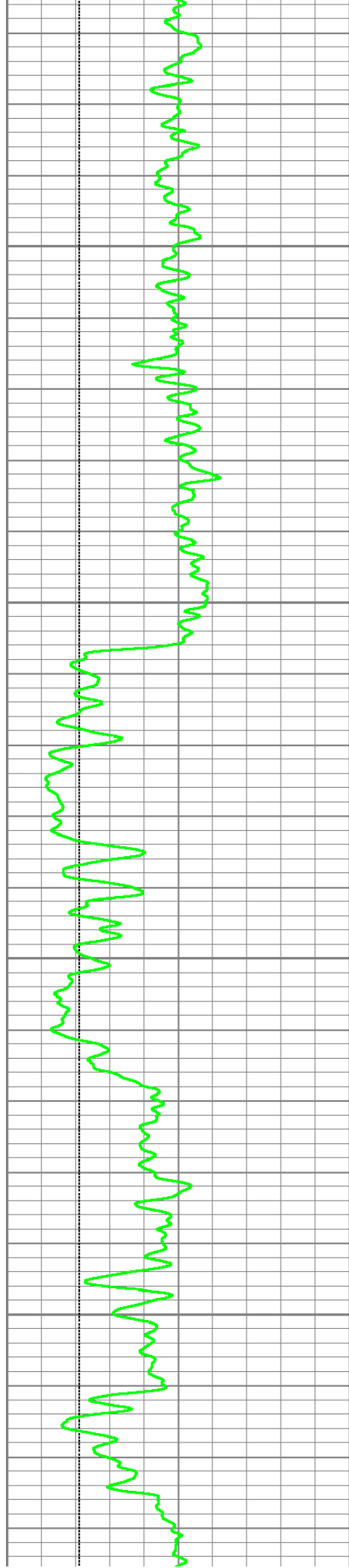
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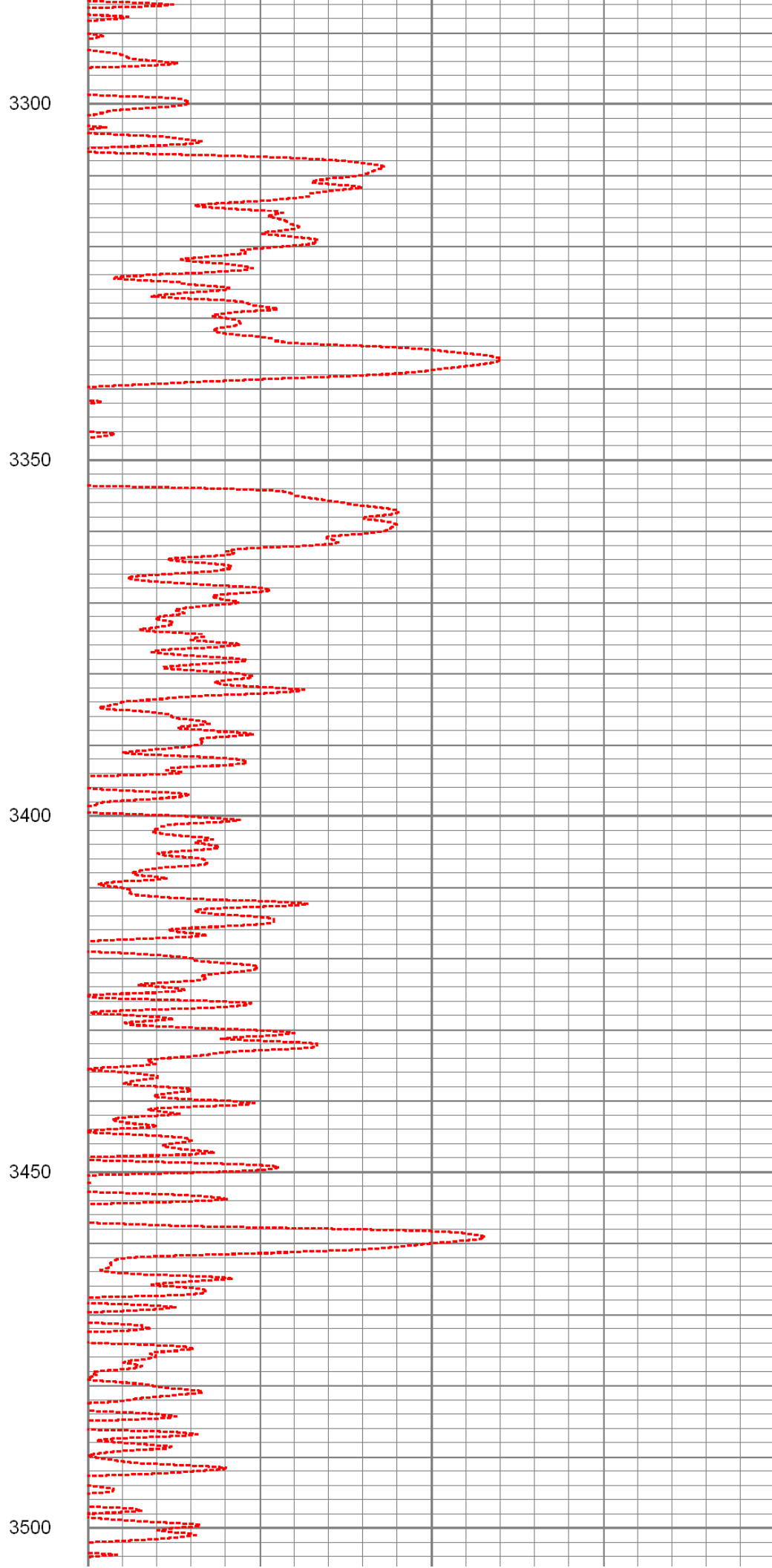
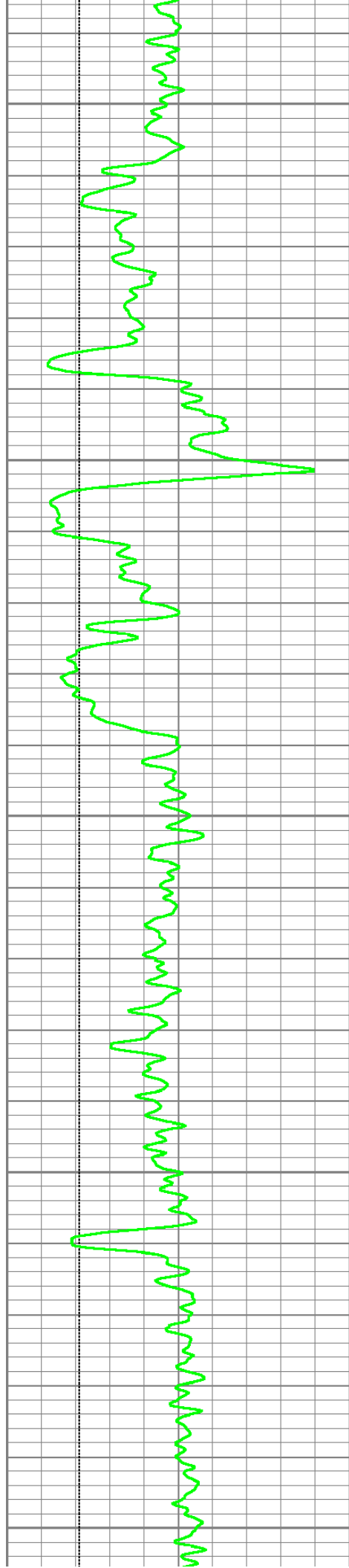
# MAIN PASS

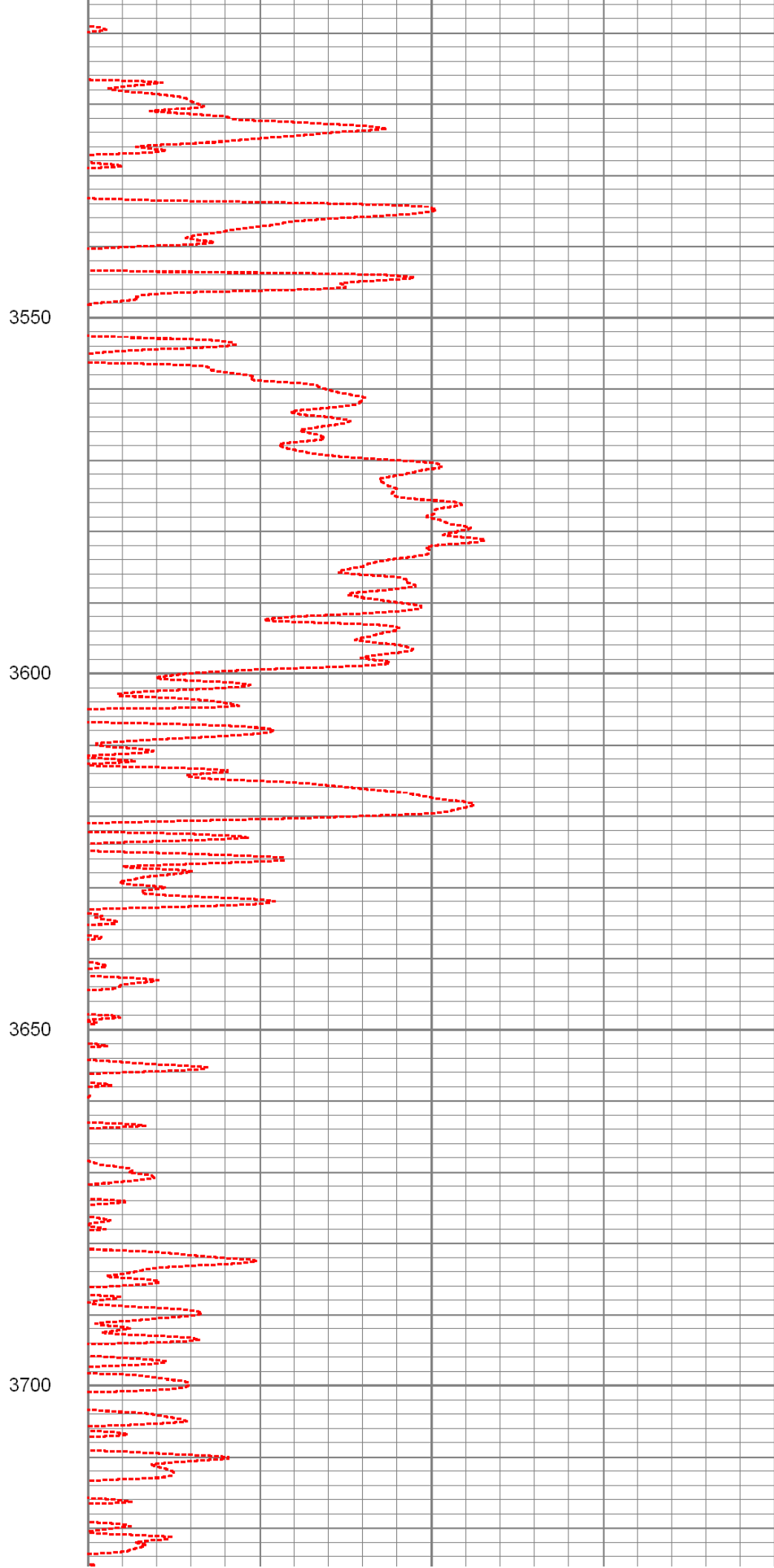
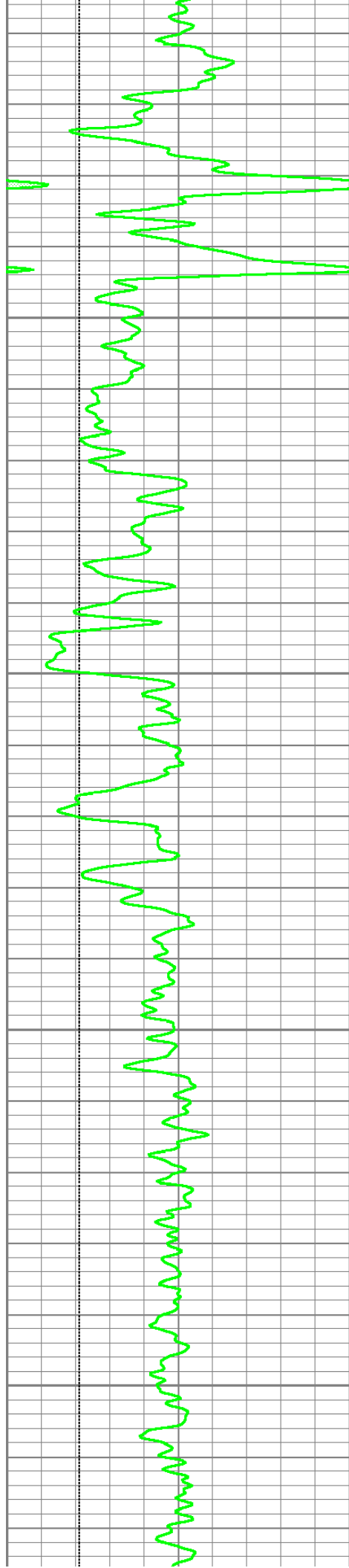
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Presentation Format: 6\_5n\_chk  
Dataset Creation: Fri Jan 25 06:10:59 2013  
Charted by: Depth in Feet scaled 1:240

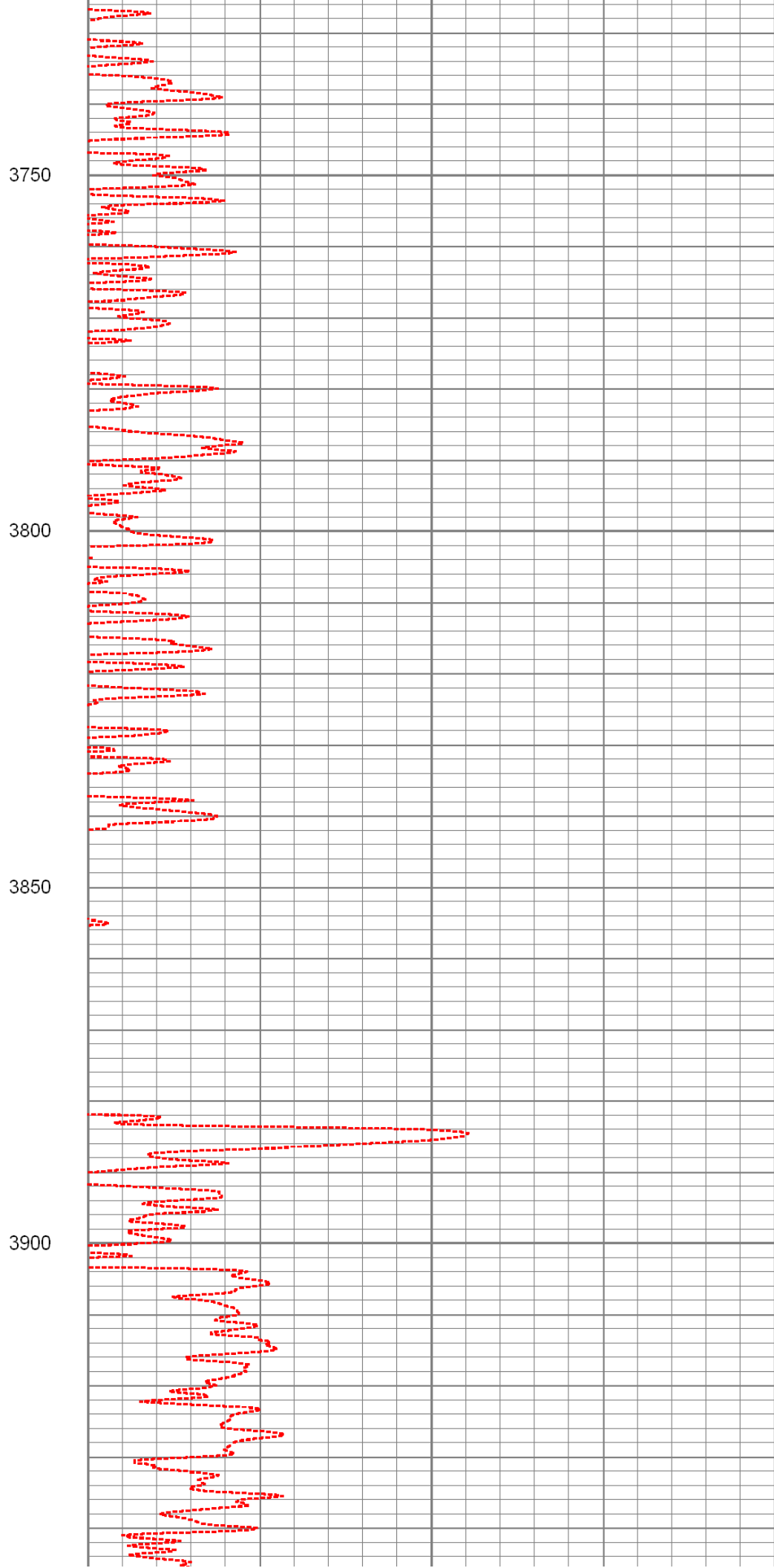
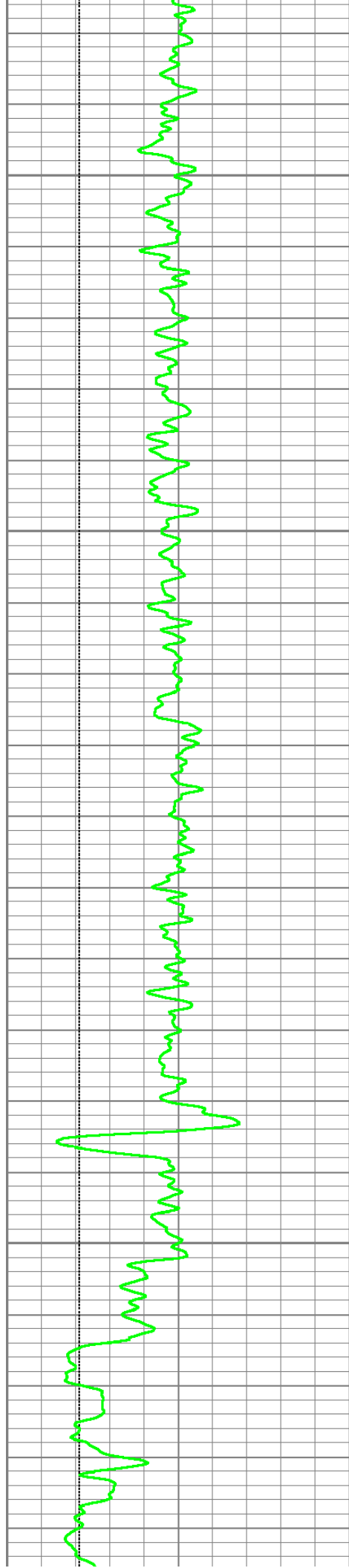
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|------------|-------------|-----|-------------|------------|----|------|-----|
| 4          | DCAL (in)   | 14  | 30          | CNPOR (pu) |    | -10  |     |
| 4          | BOREID (in) | 14  | 30          | DPHI (pu)  |    | -10  |     |
| 0          | GR (GAPI)   | 150 | 0           | PEF (barn) | 10 | -0.5 |     |
| -5         | ACCY        | 5   | DRHO (g/cc) |            |    |      | 0.5 |
| TBHV (ft3) |             |     | ABHV (ft3)  |            |    |      |     |

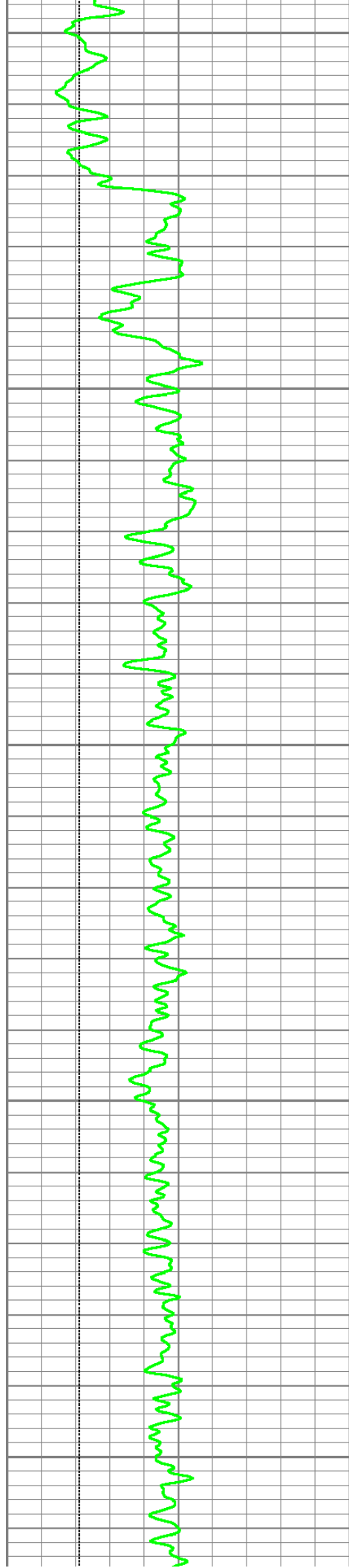












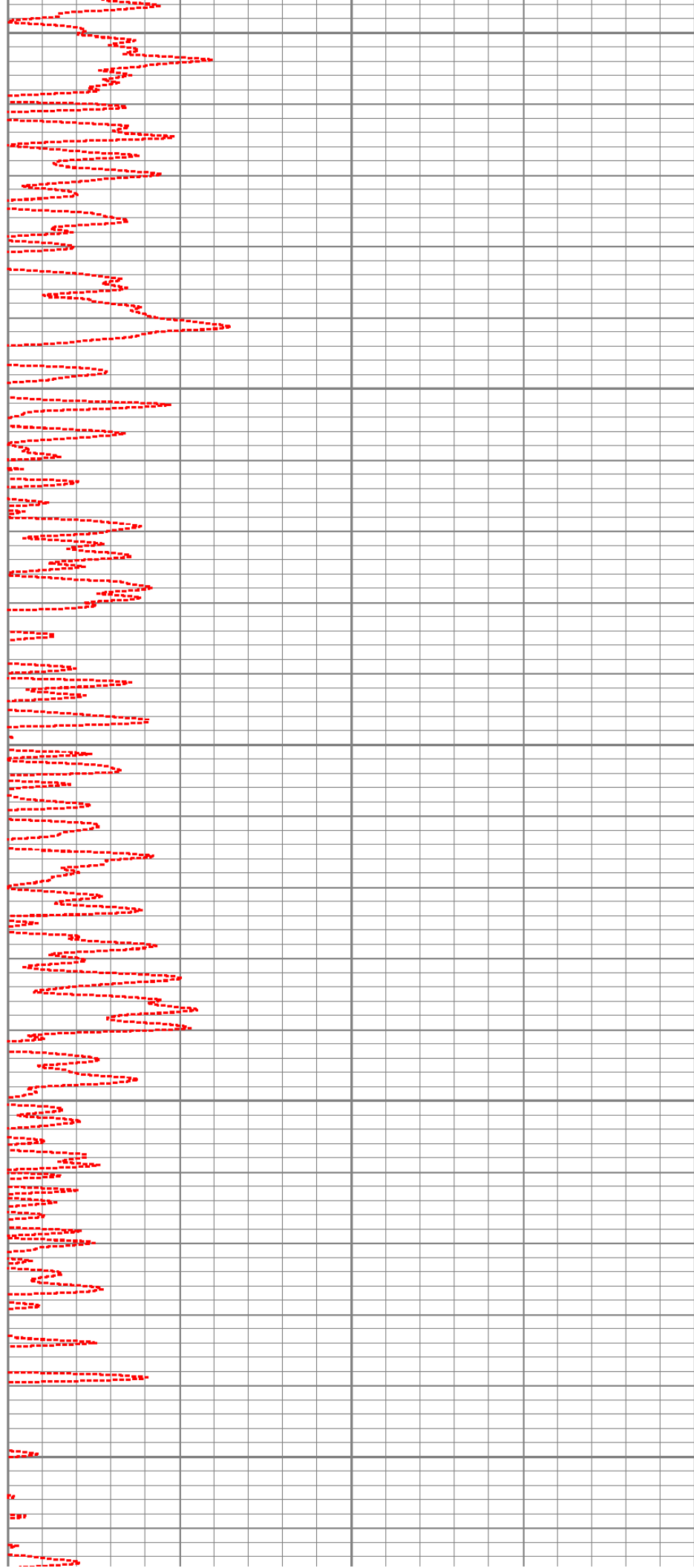
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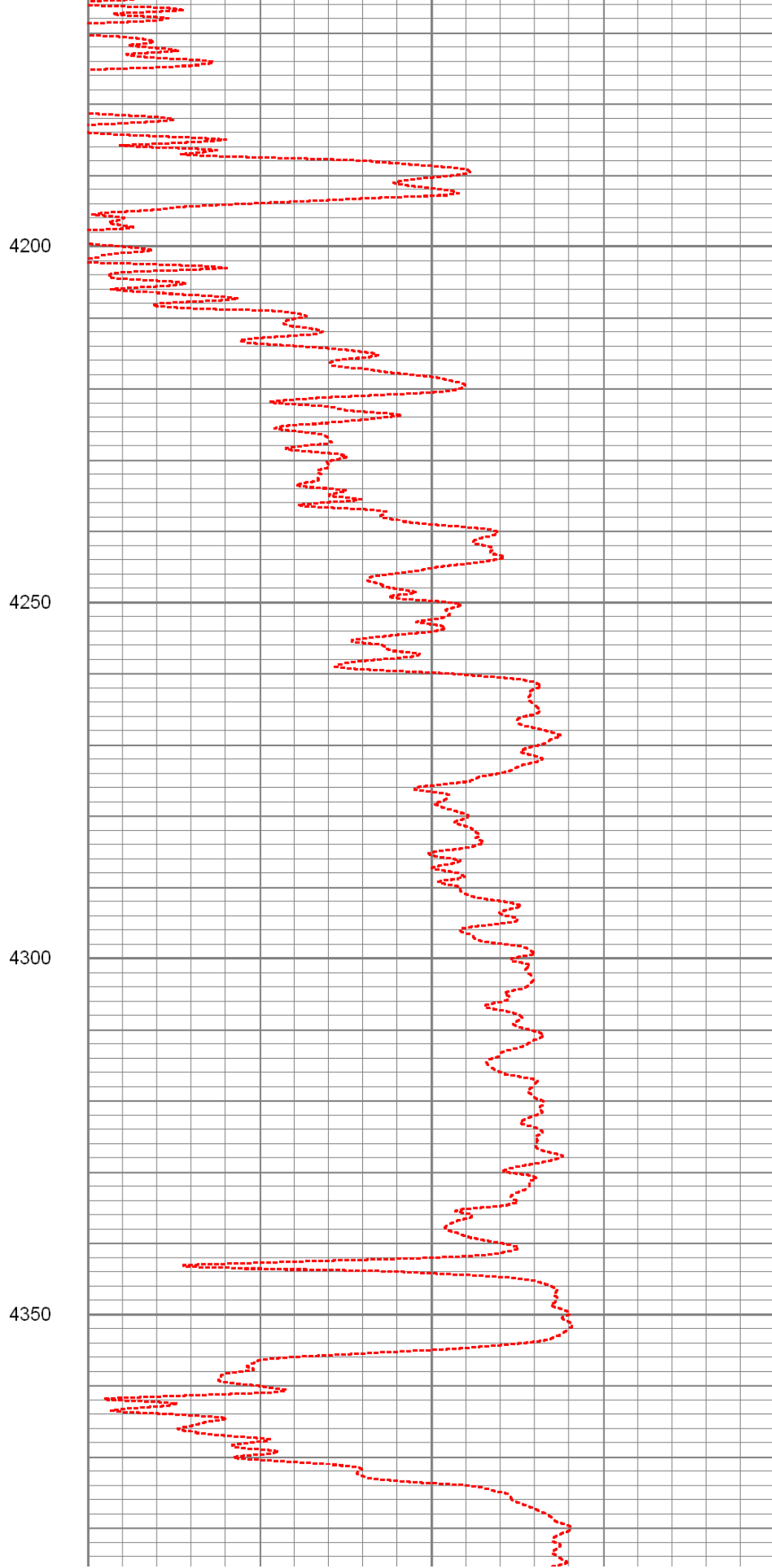
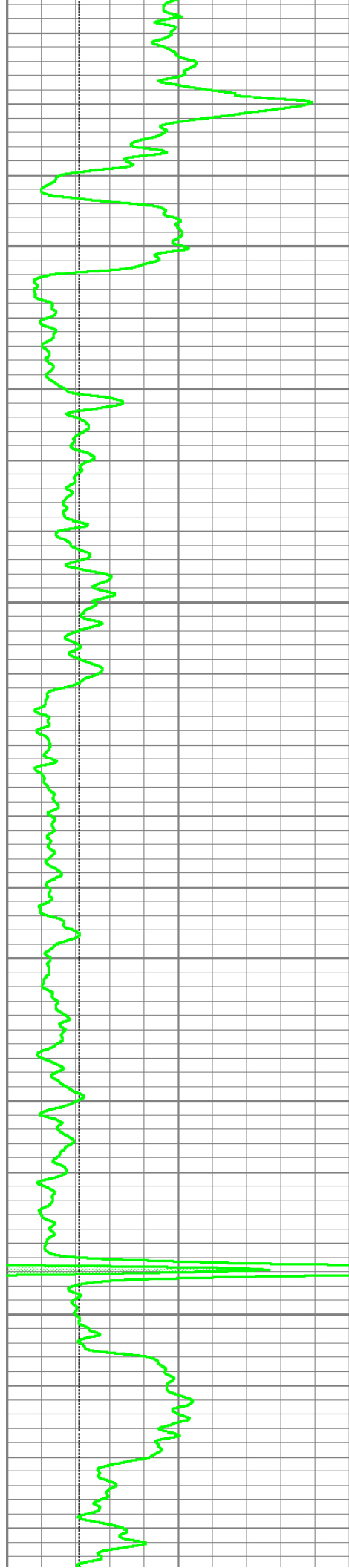
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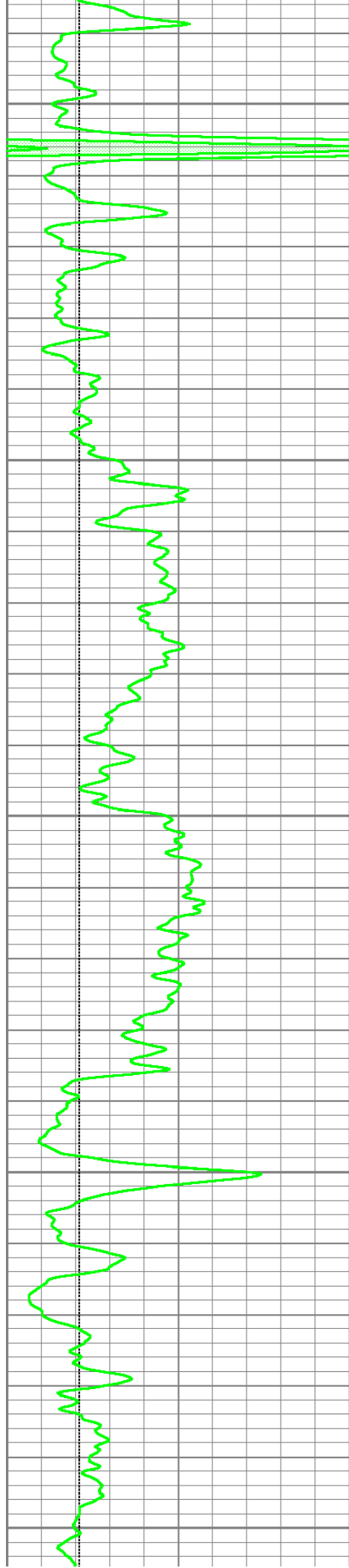
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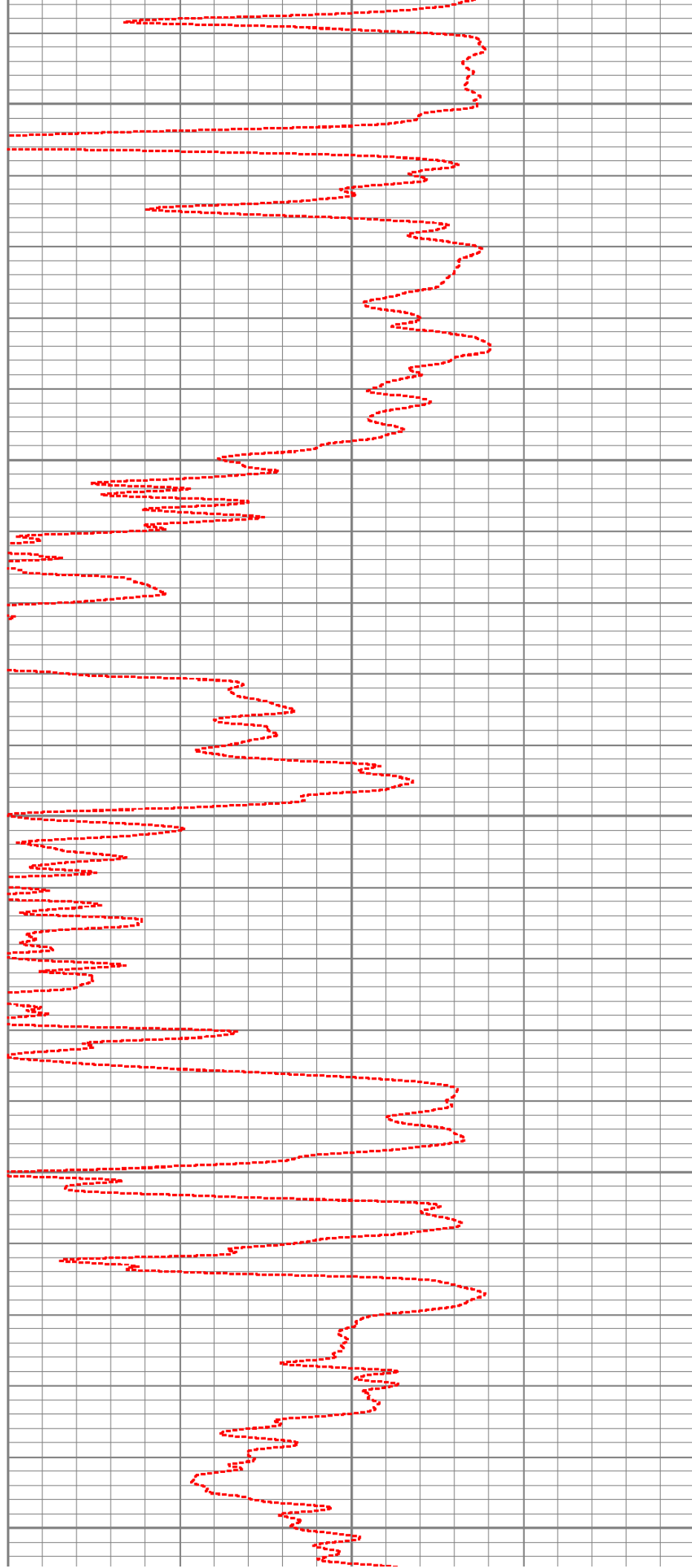
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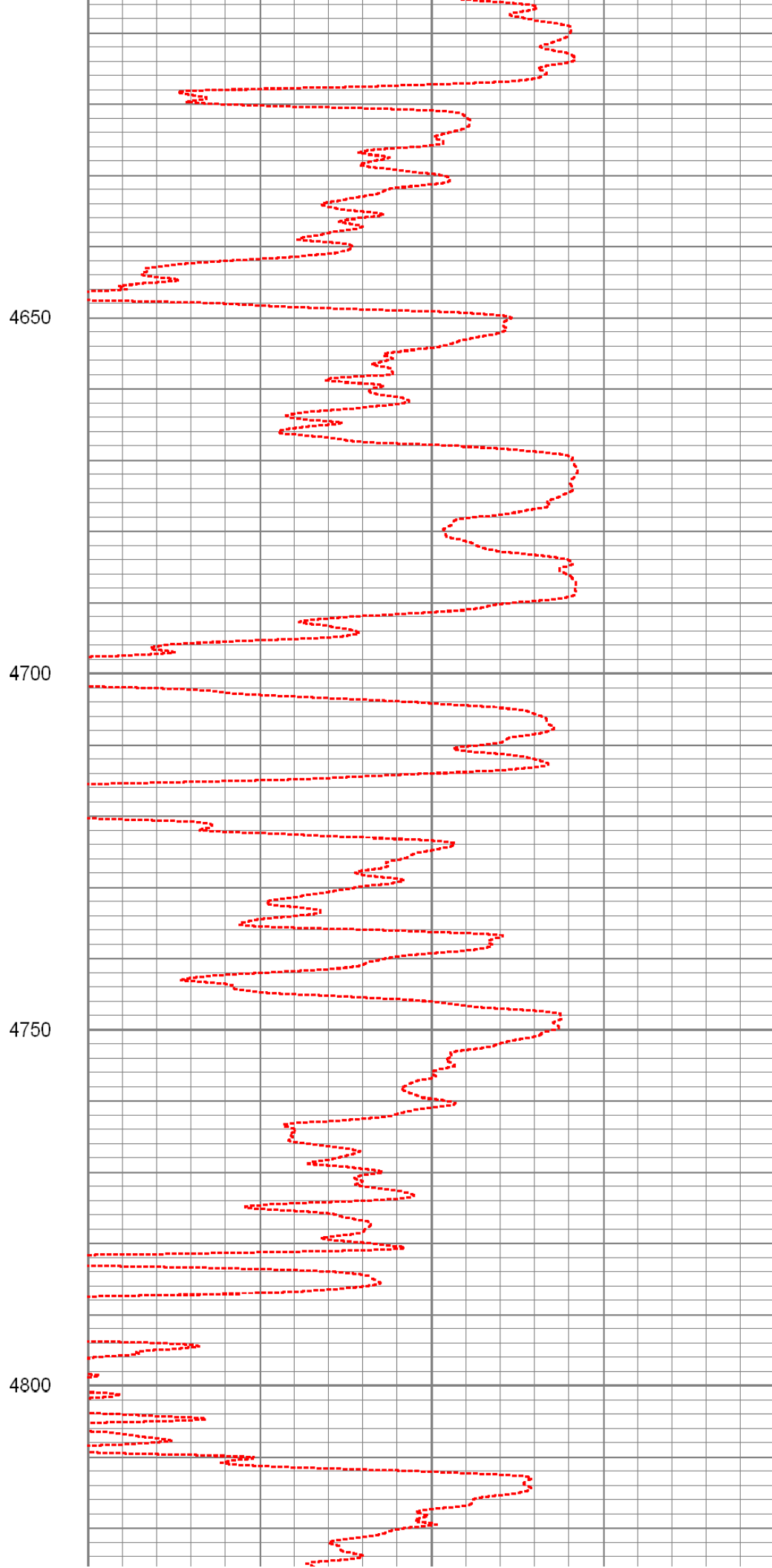
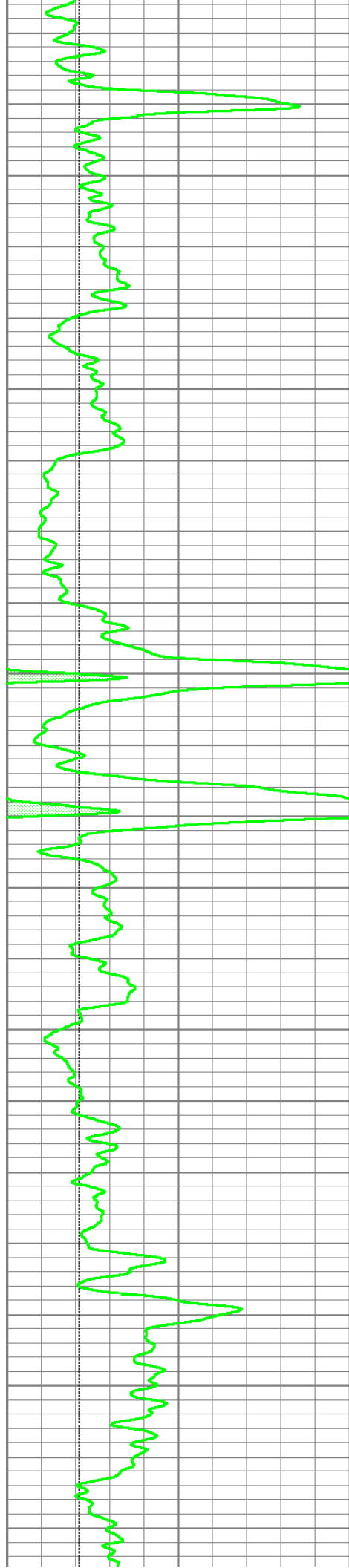
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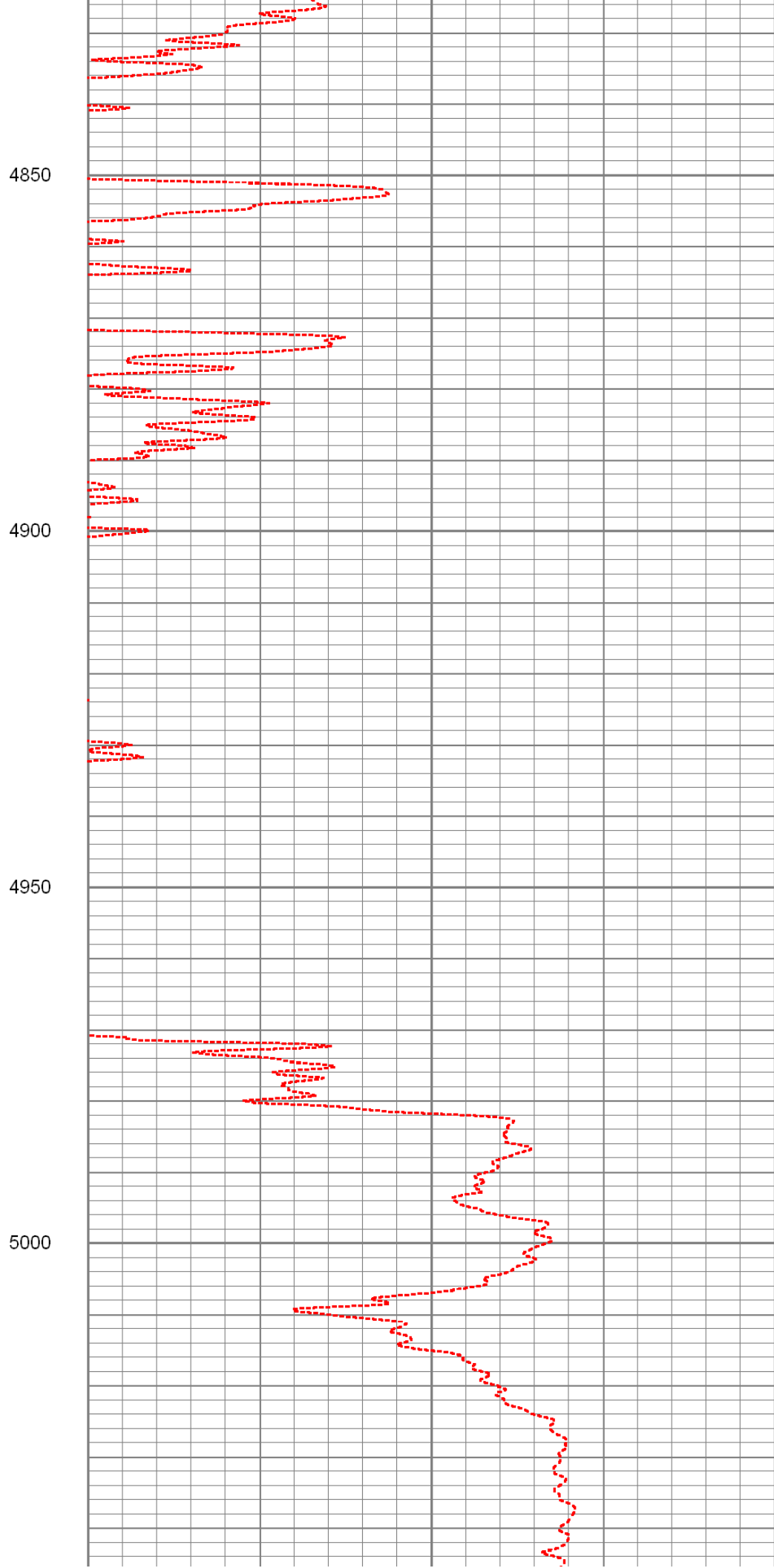
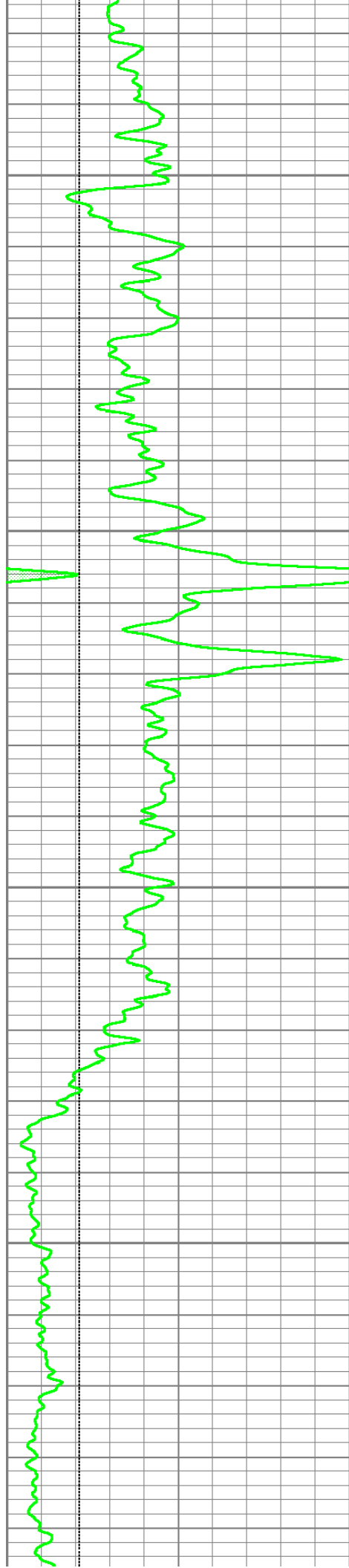
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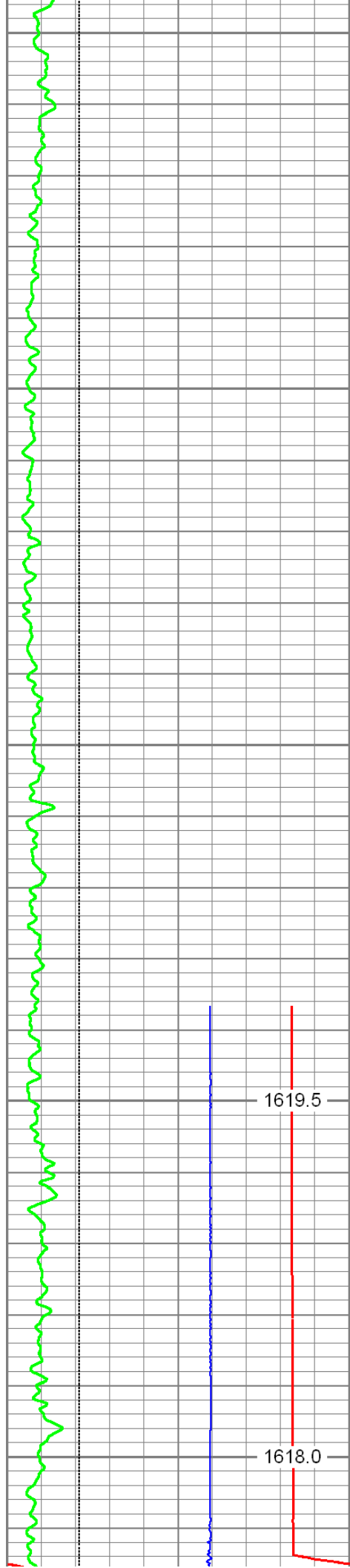
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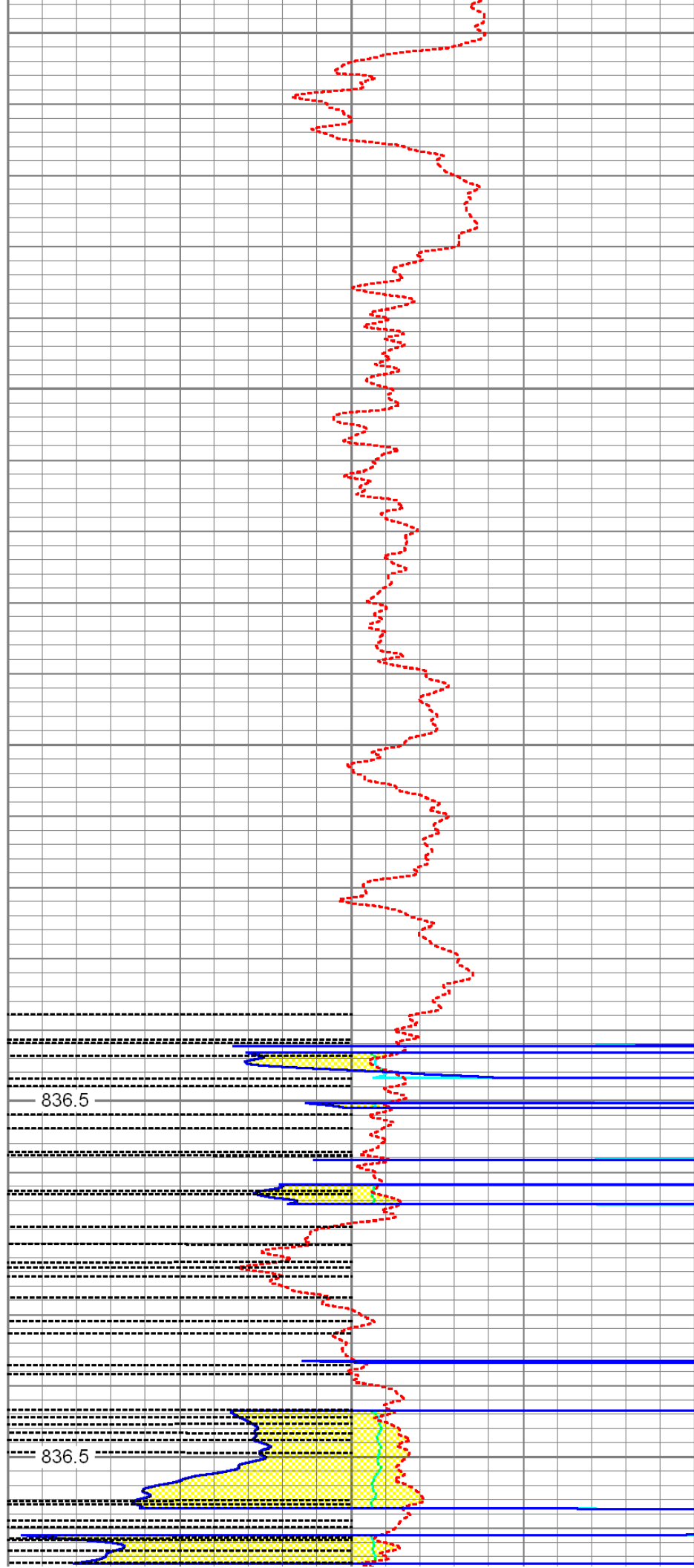
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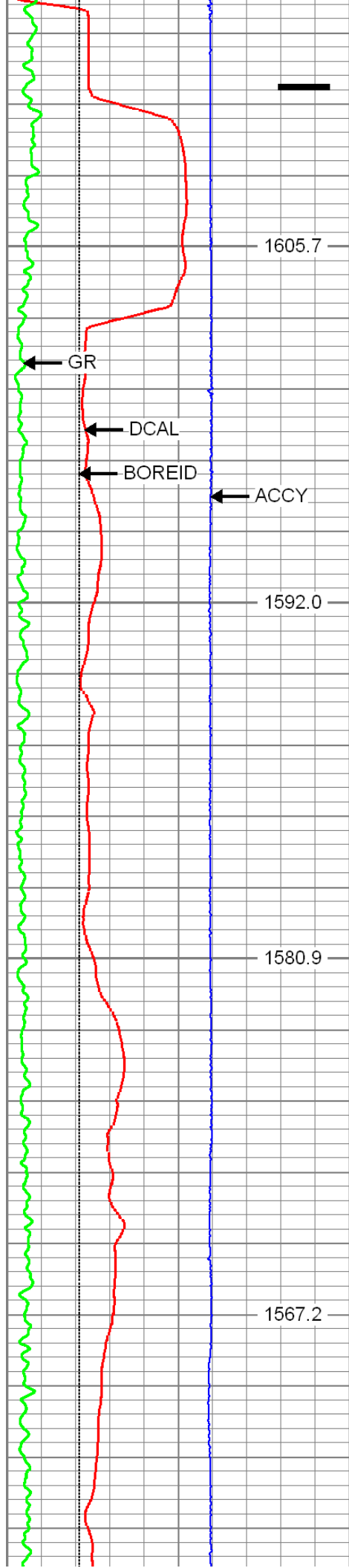
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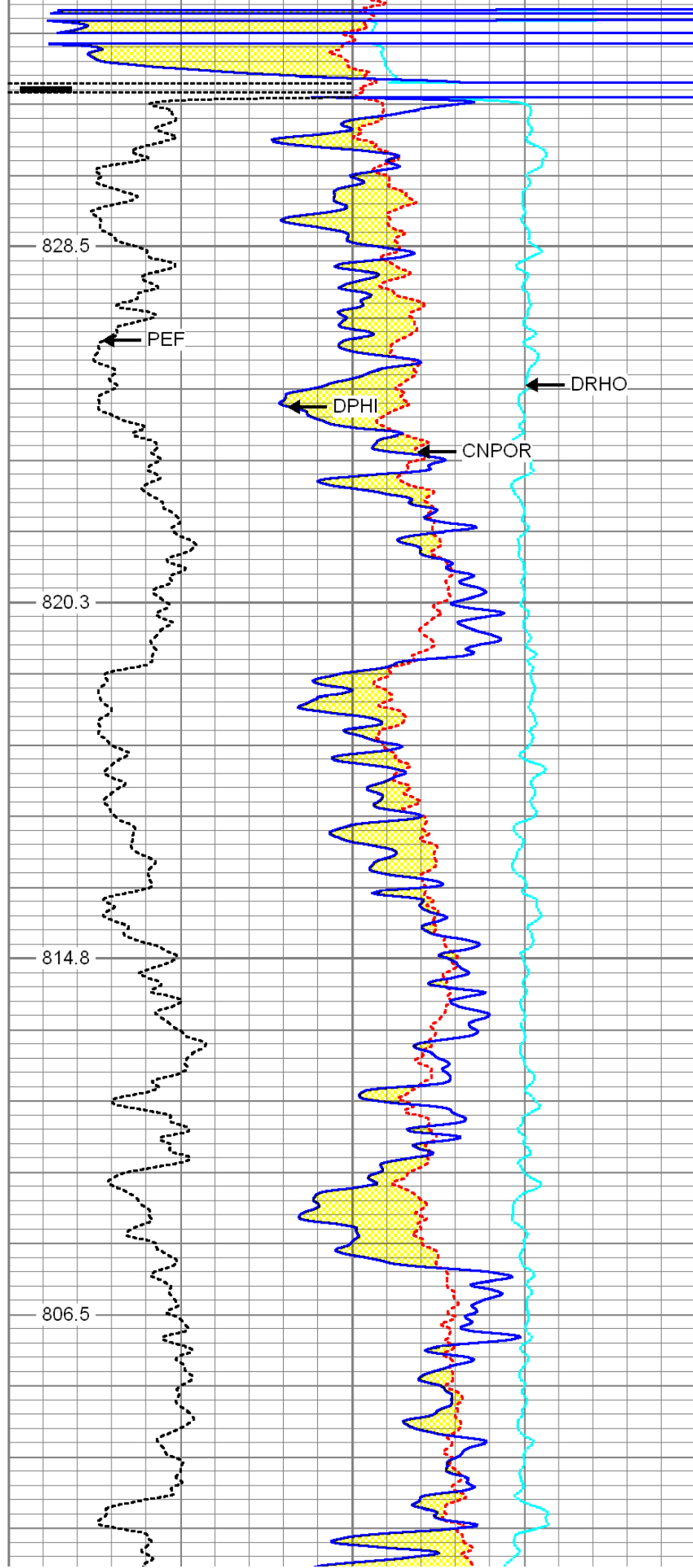
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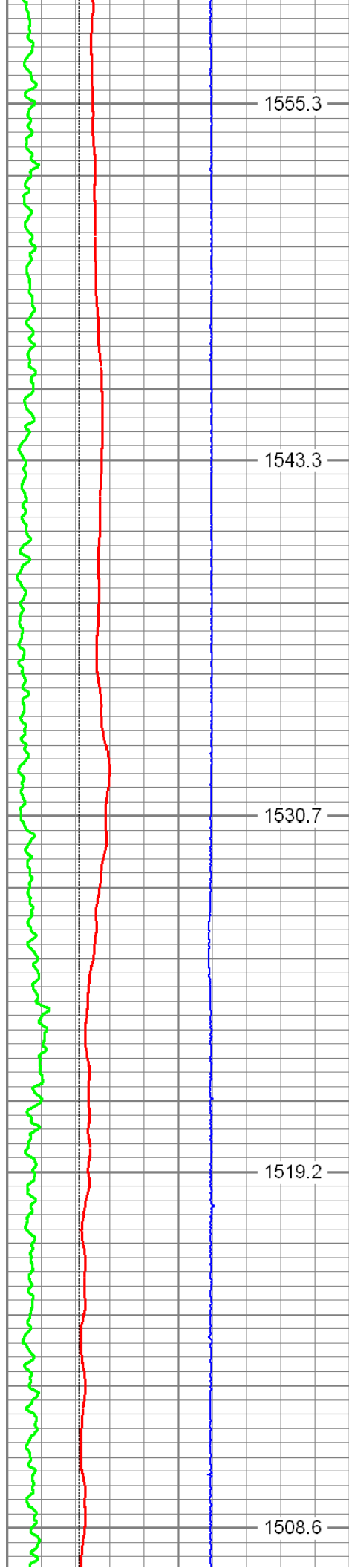
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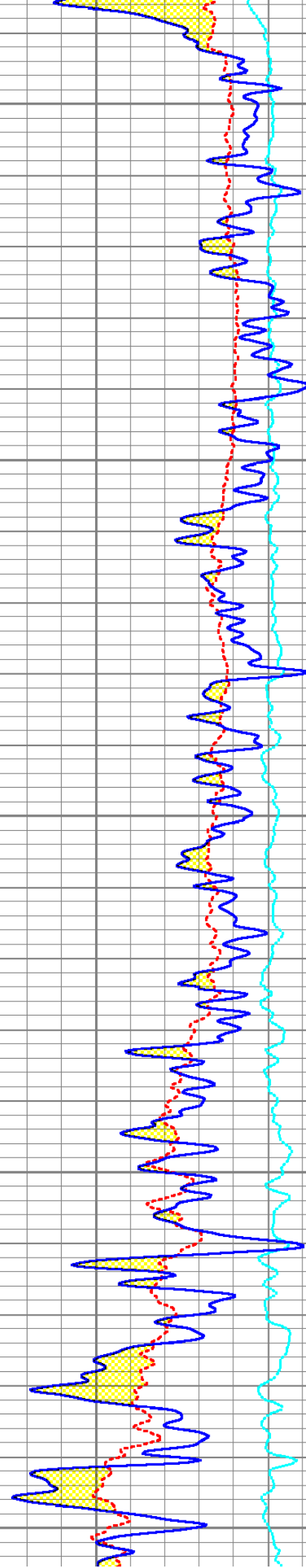
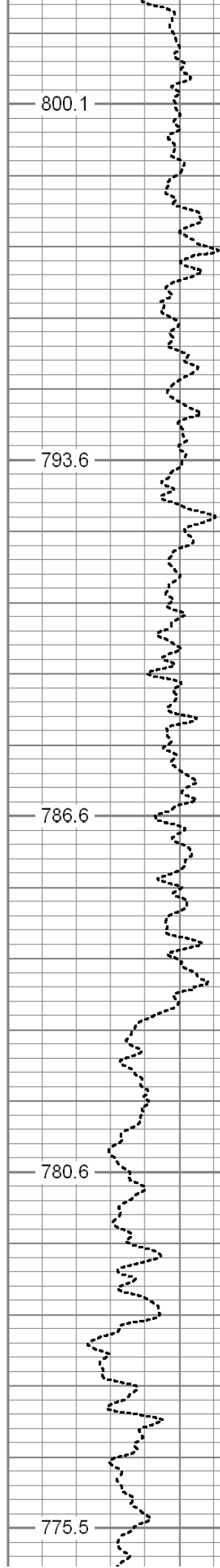
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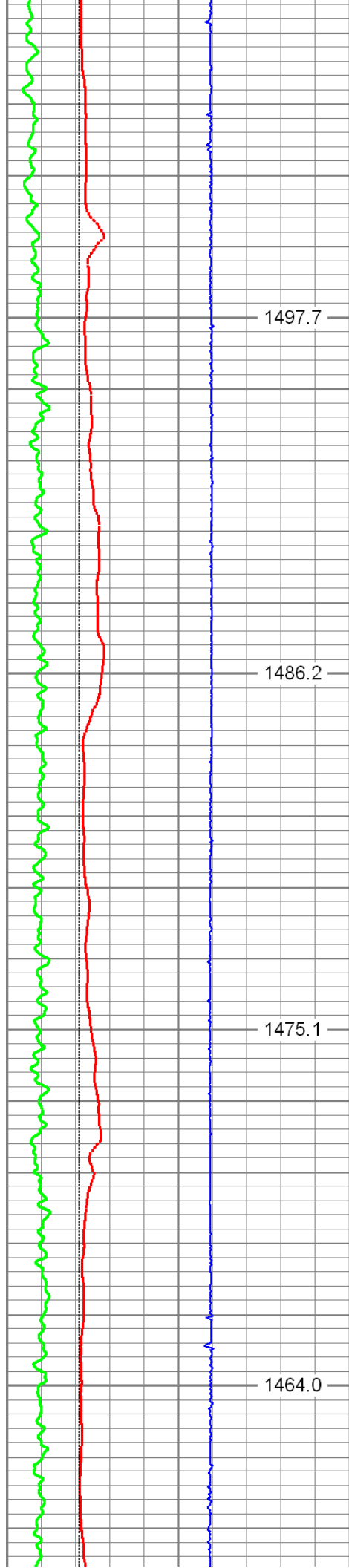
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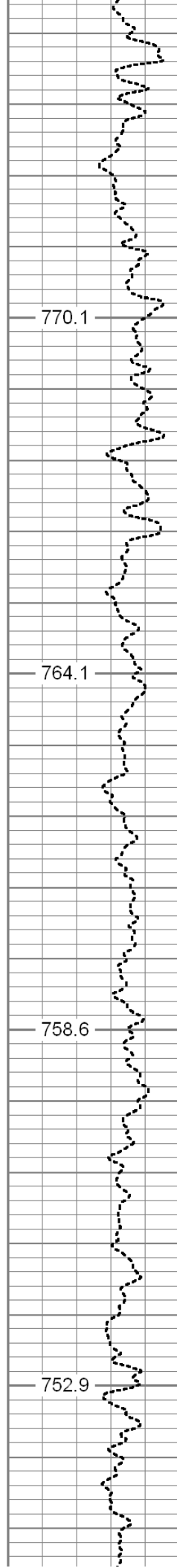


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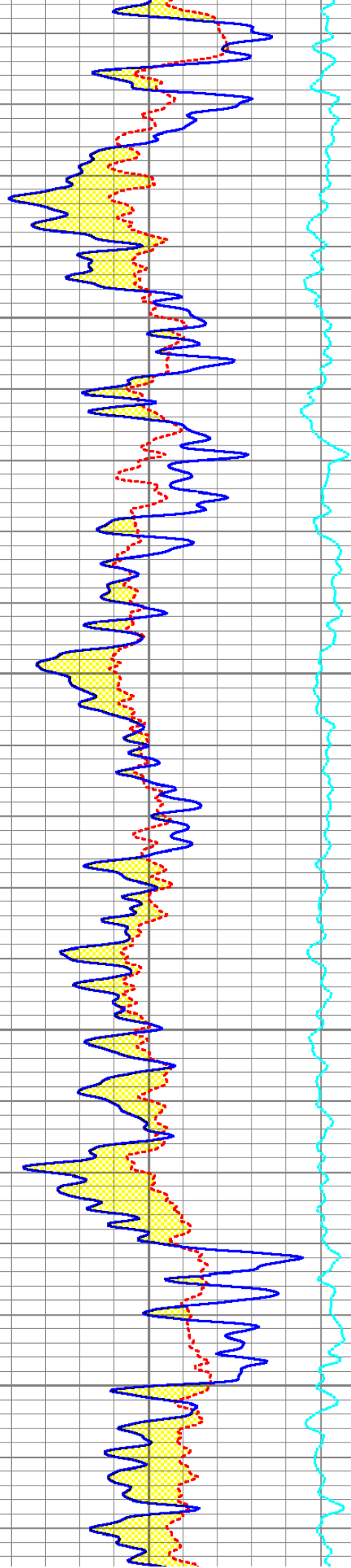


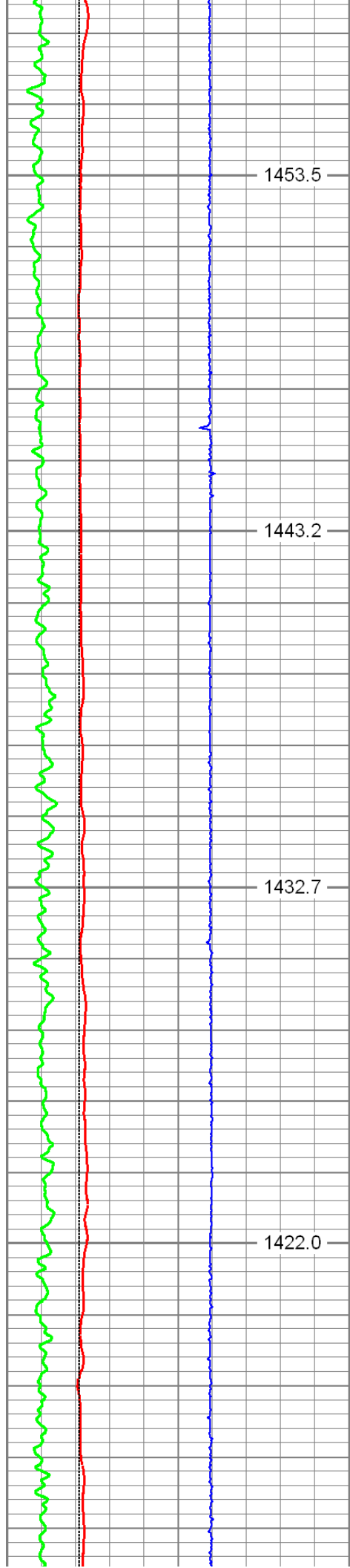
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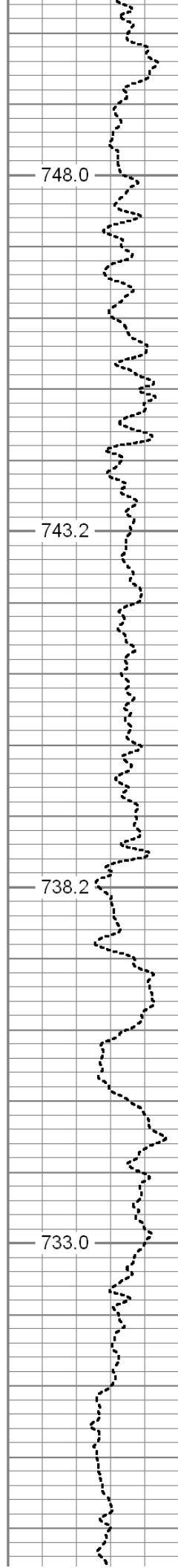


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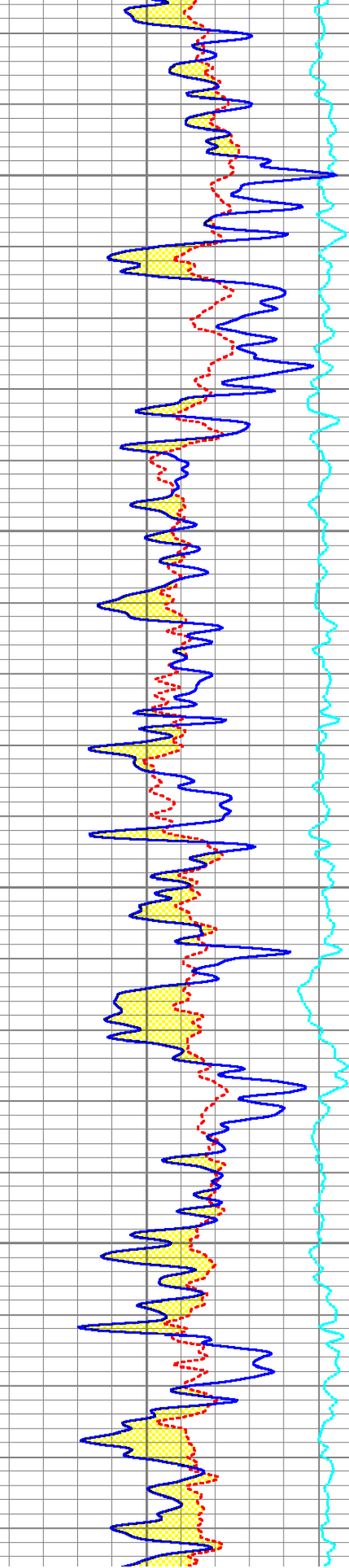


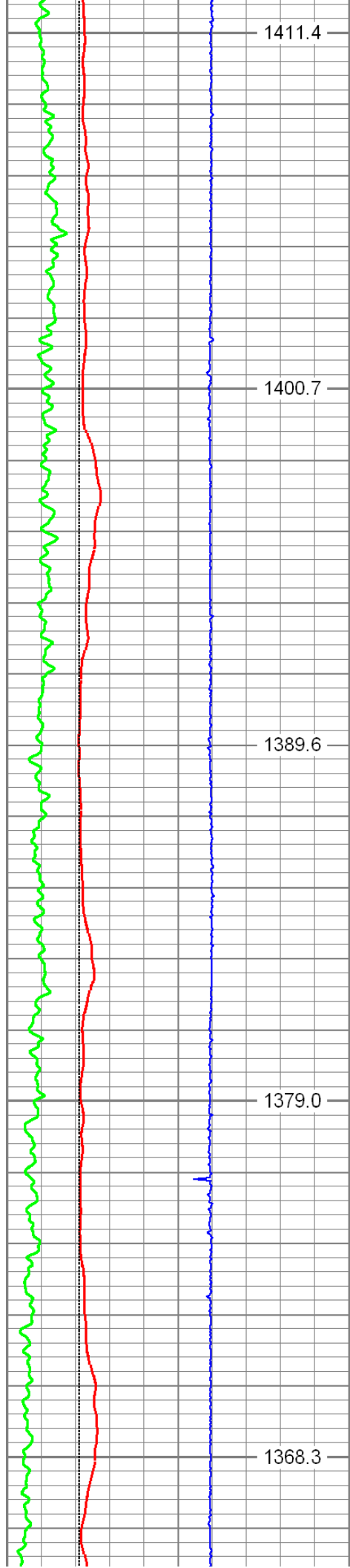
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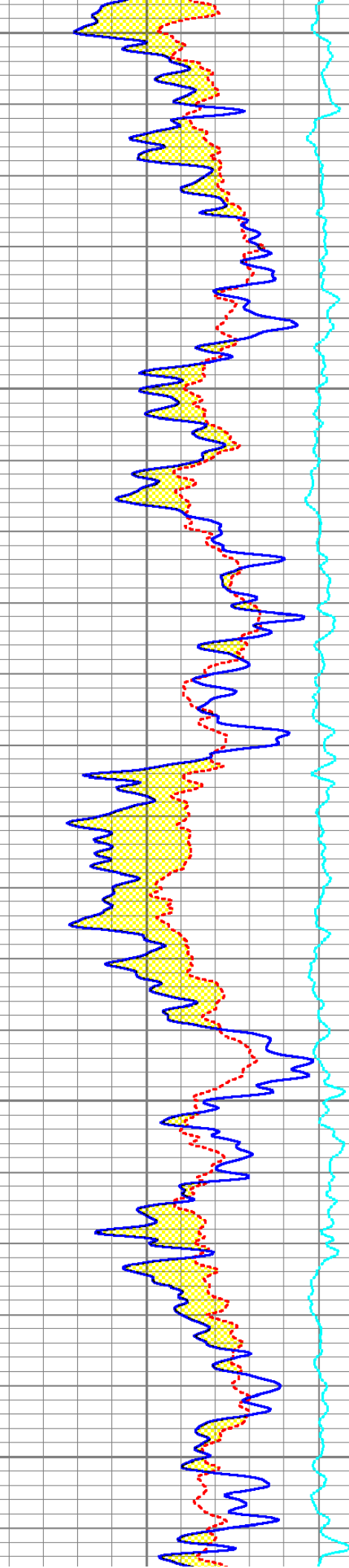
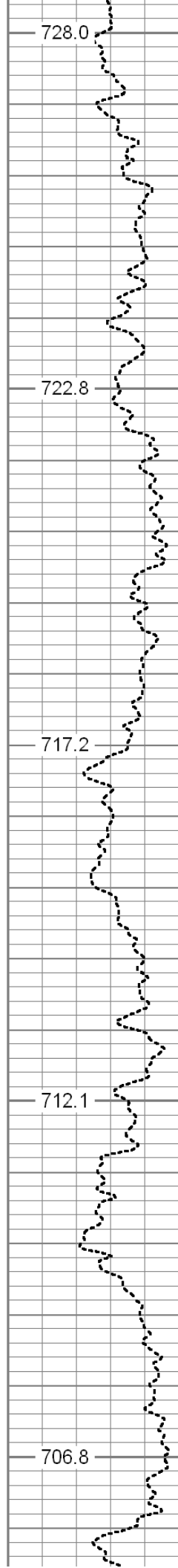
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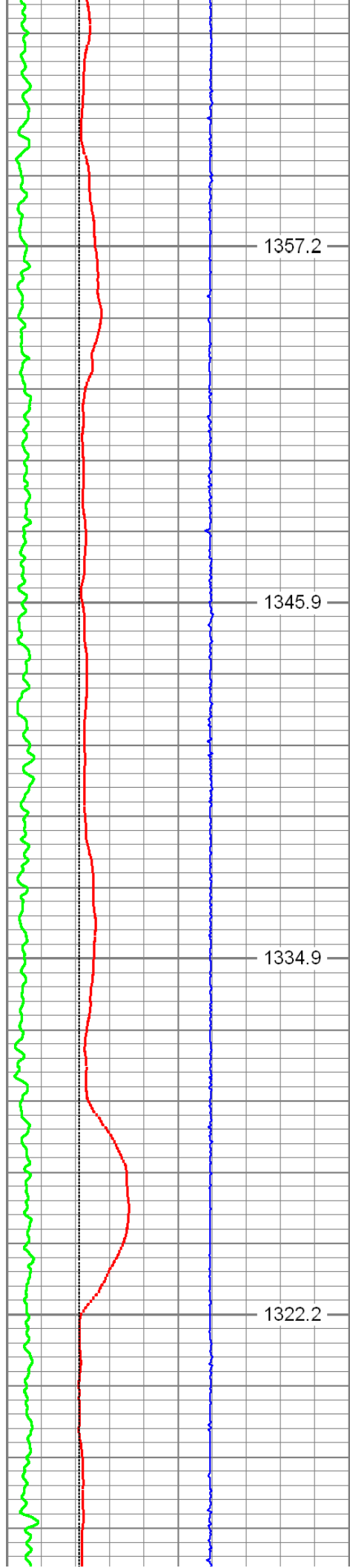
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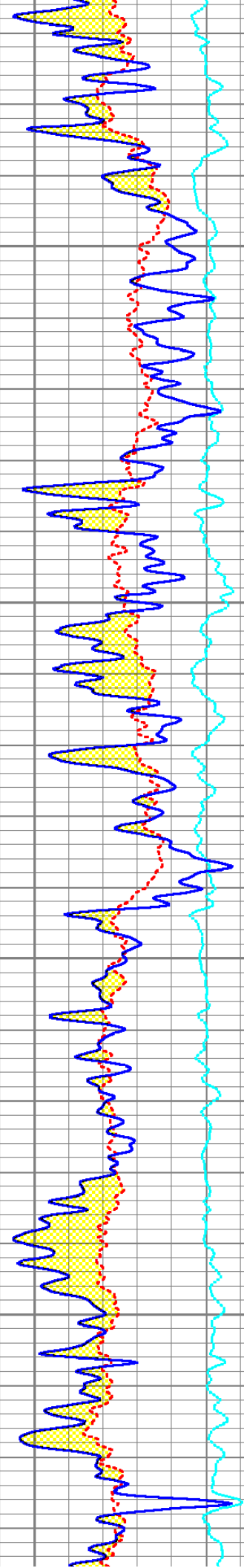
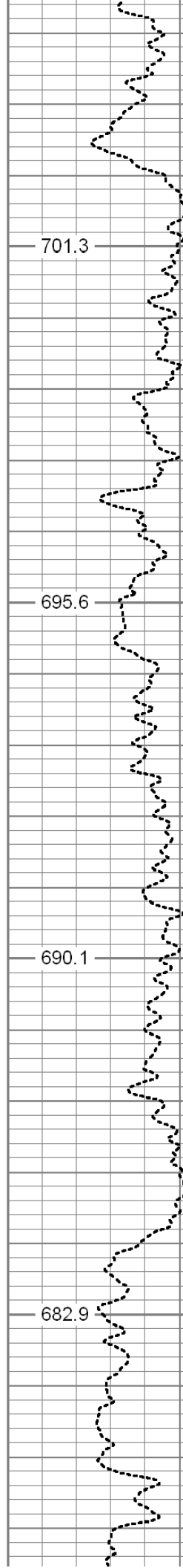


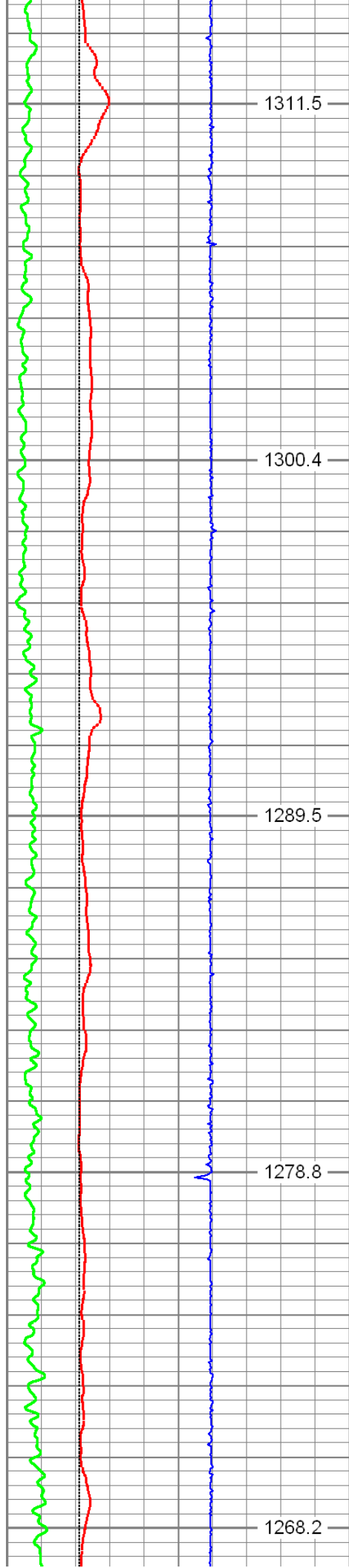
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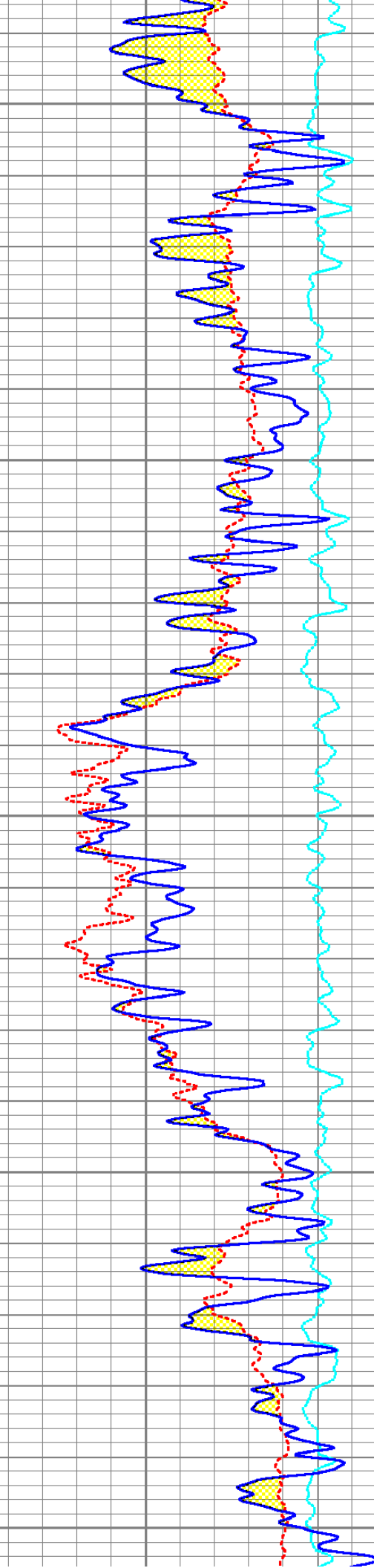
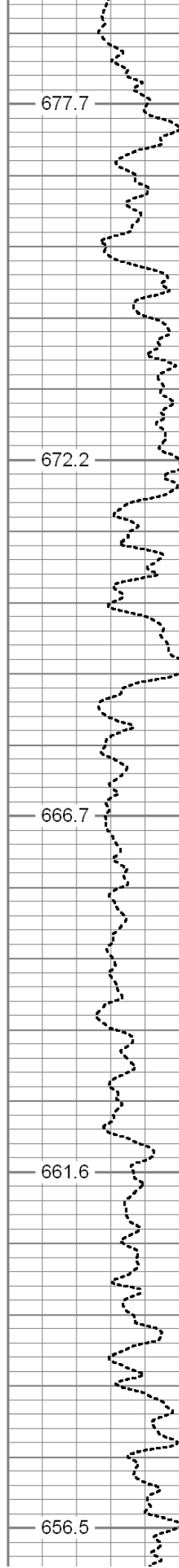
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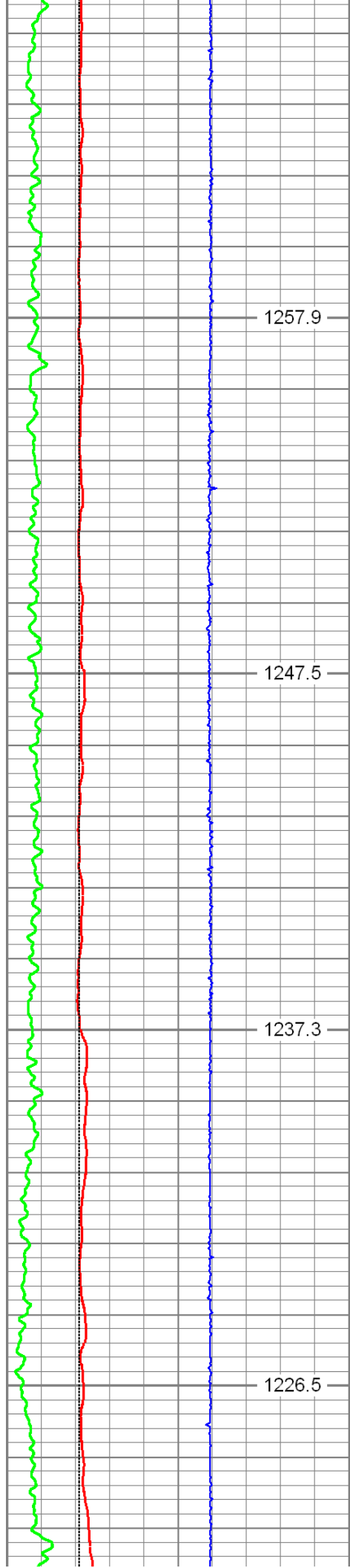
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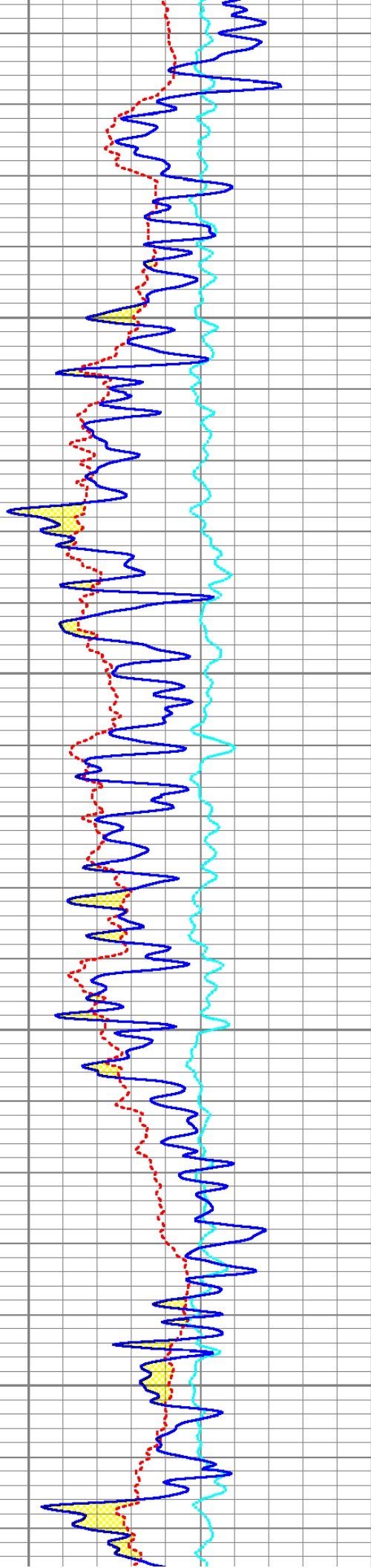
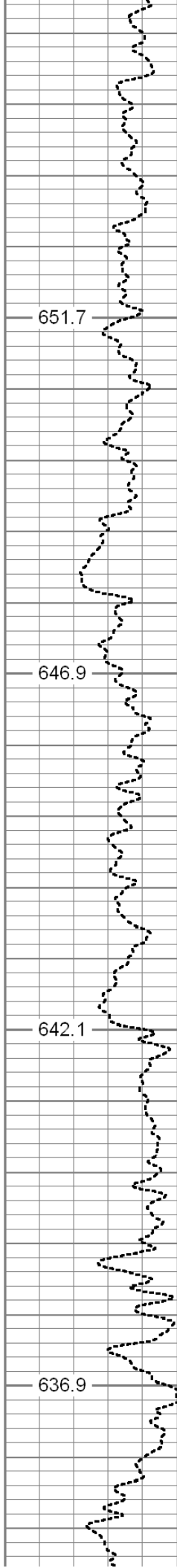


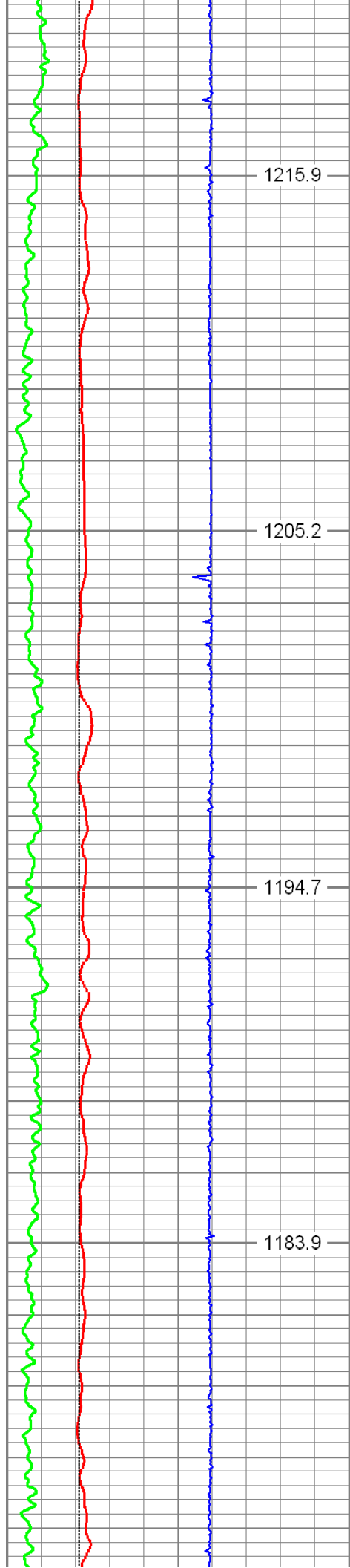
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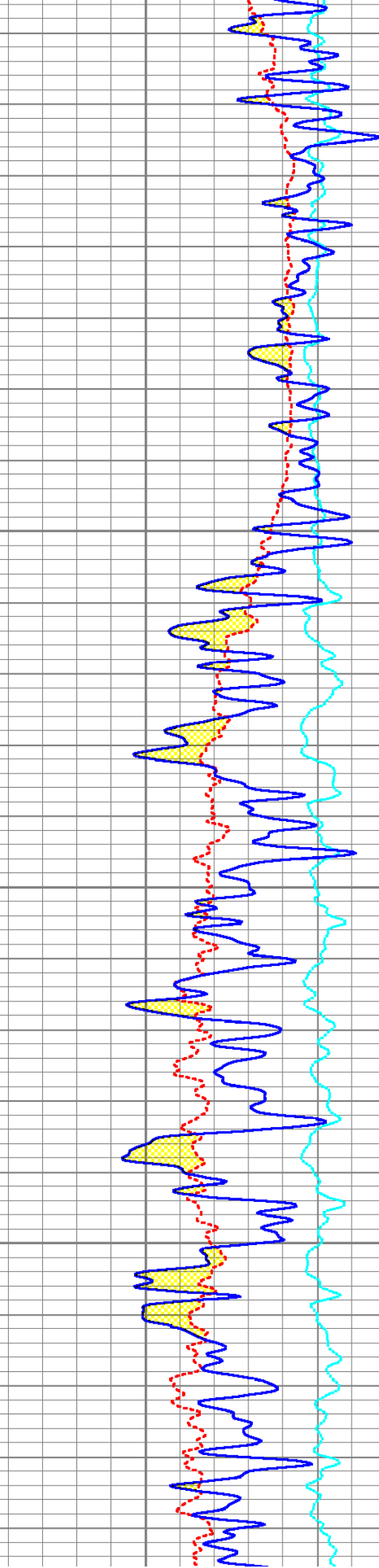
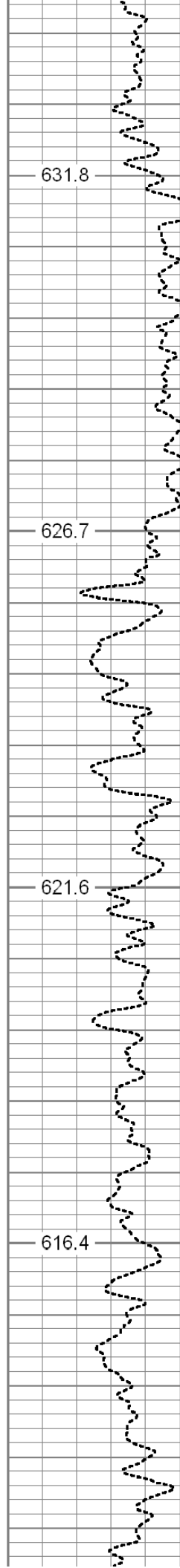


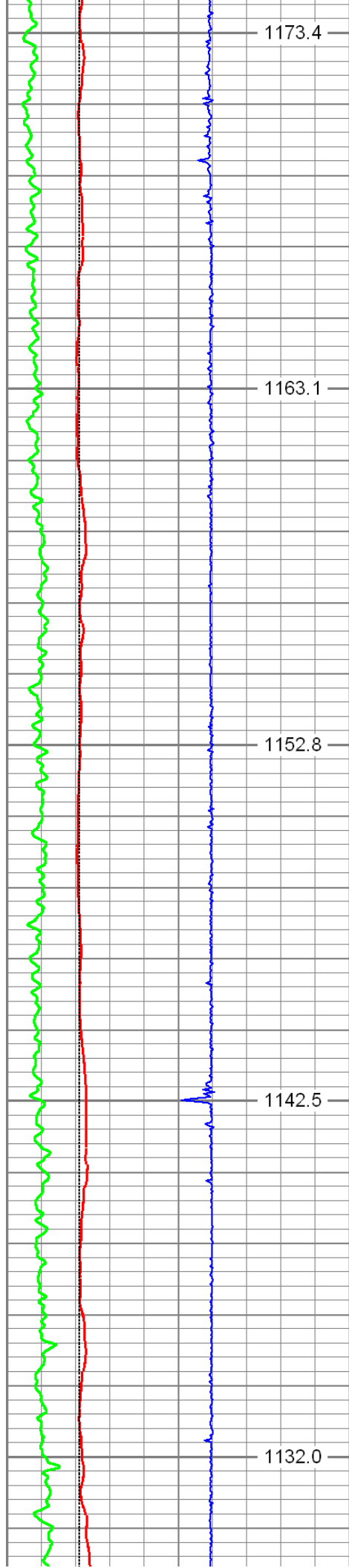
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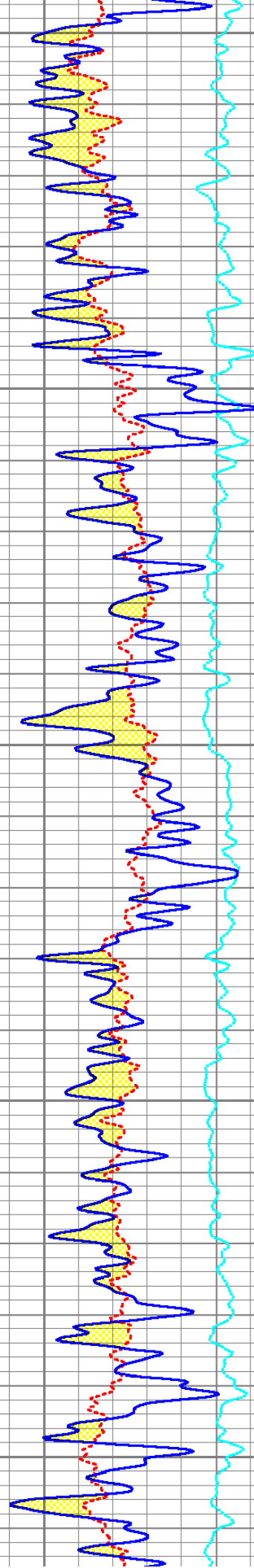
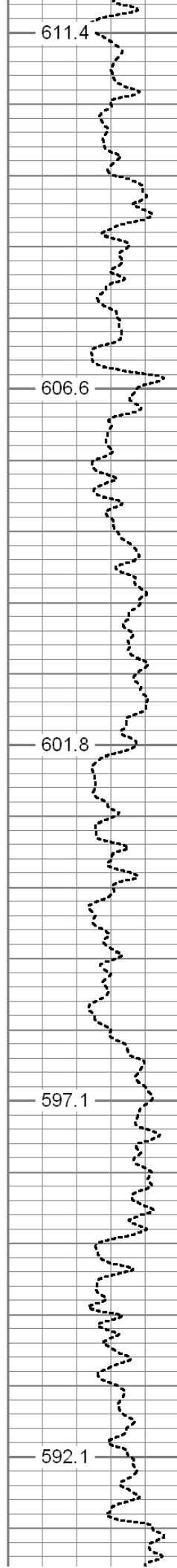
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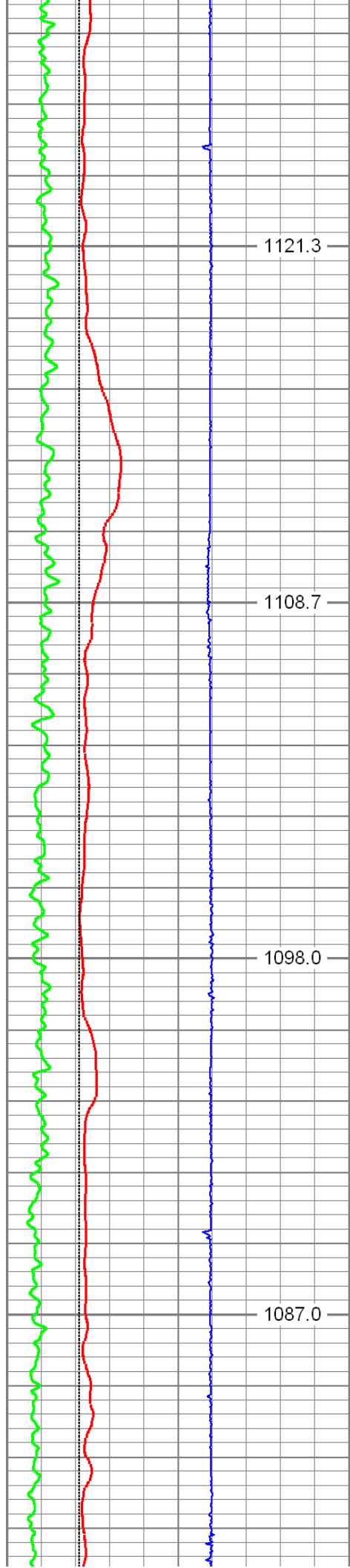
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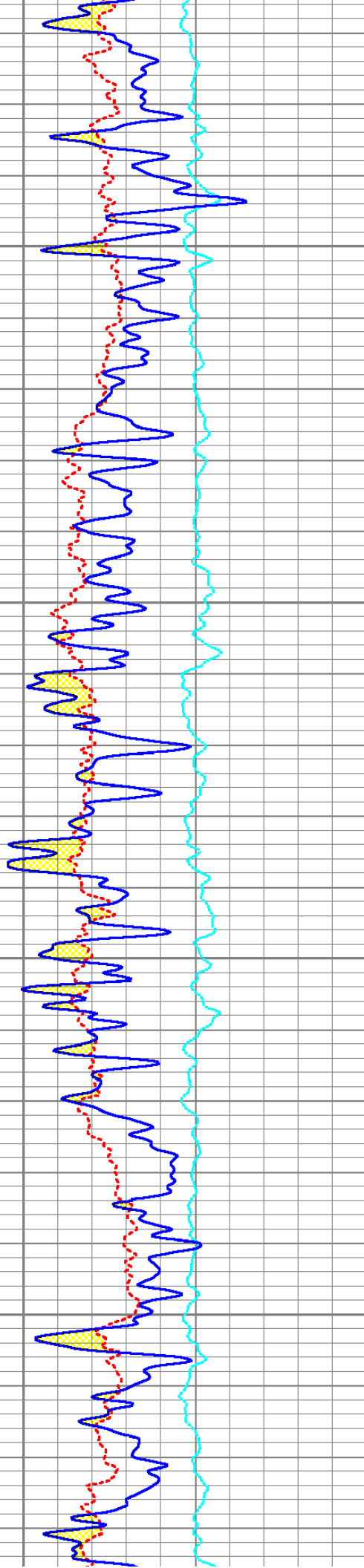
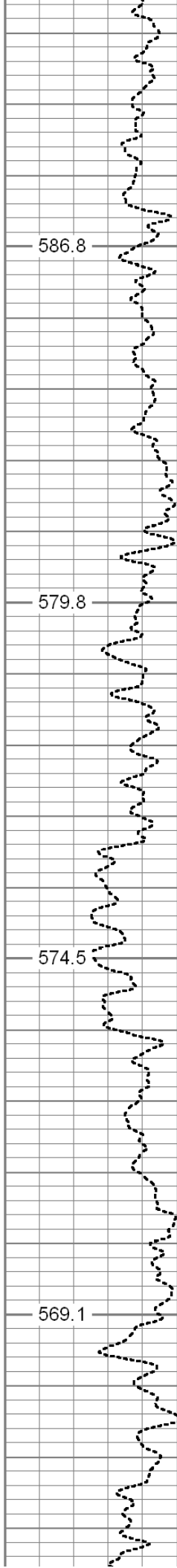


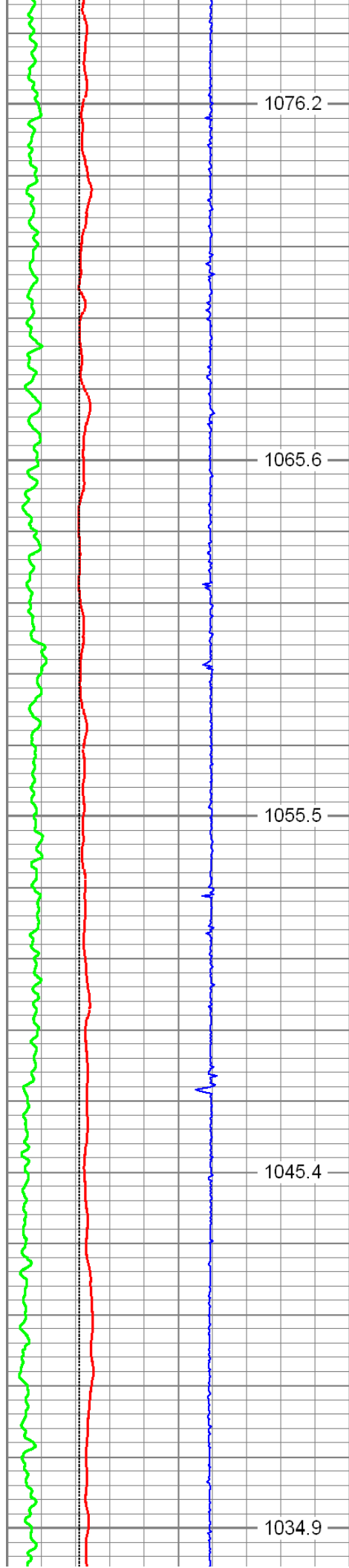
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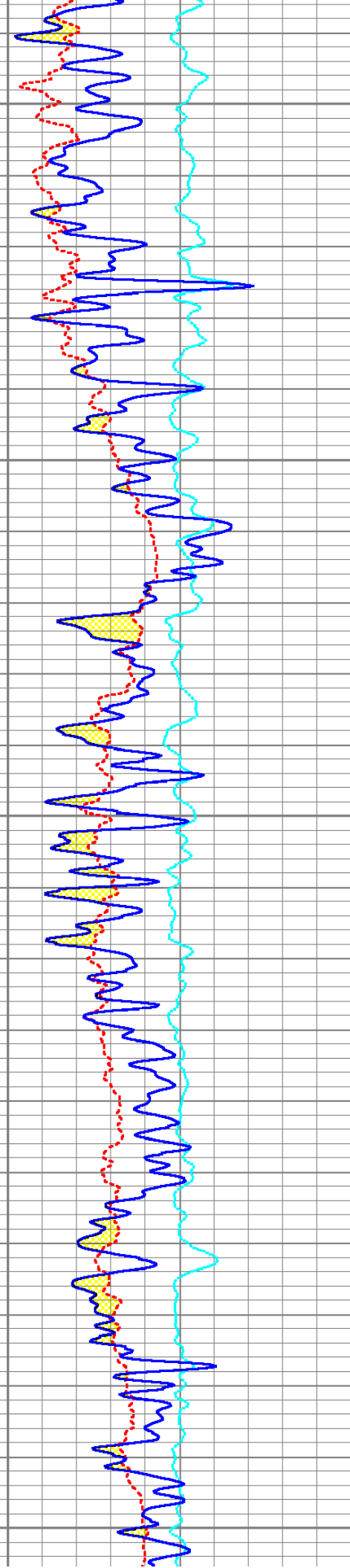
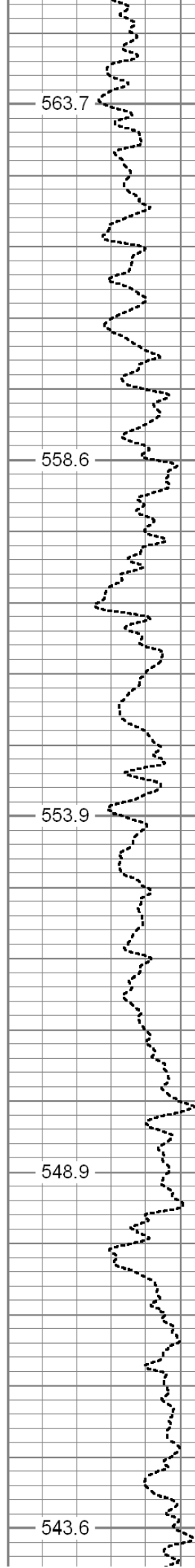
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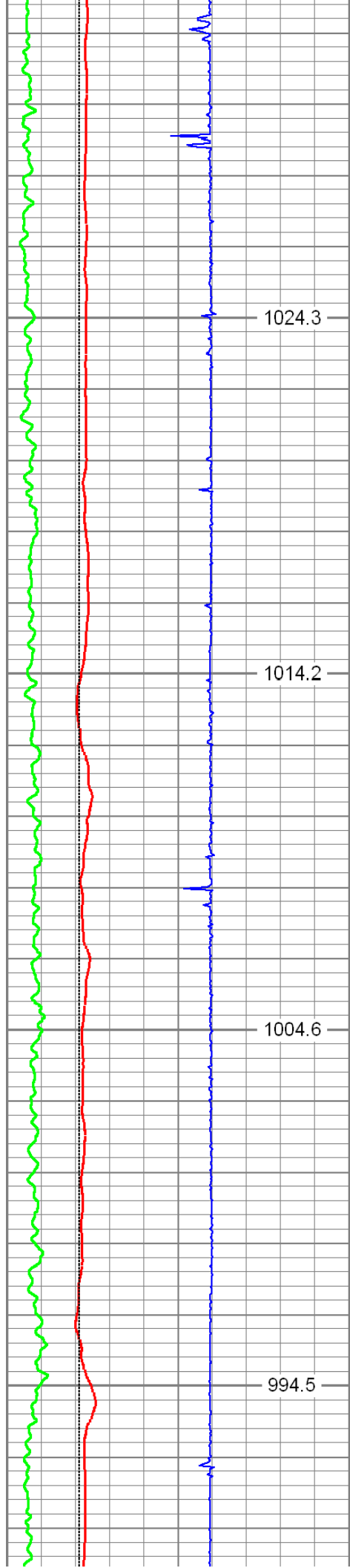
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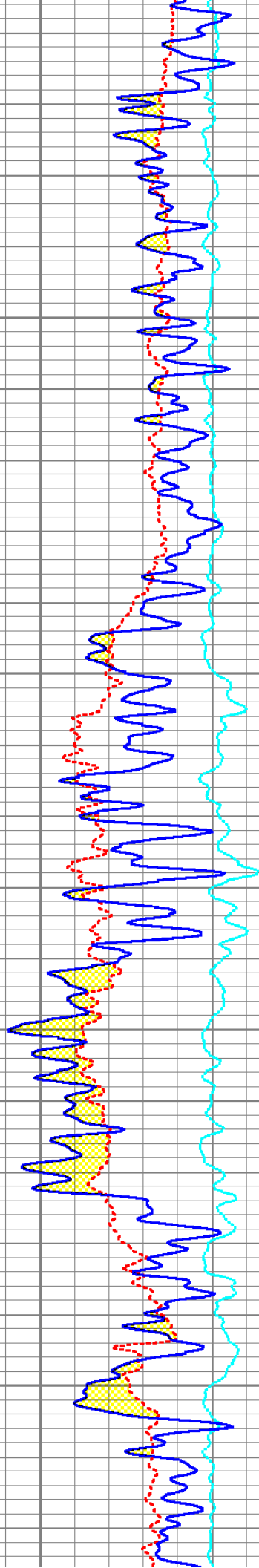
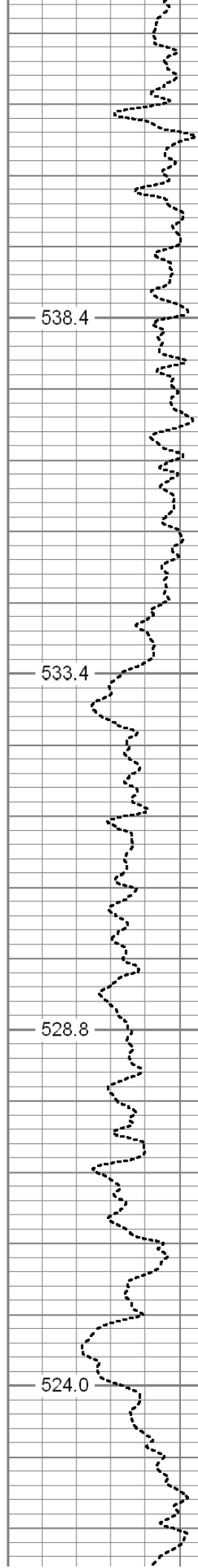


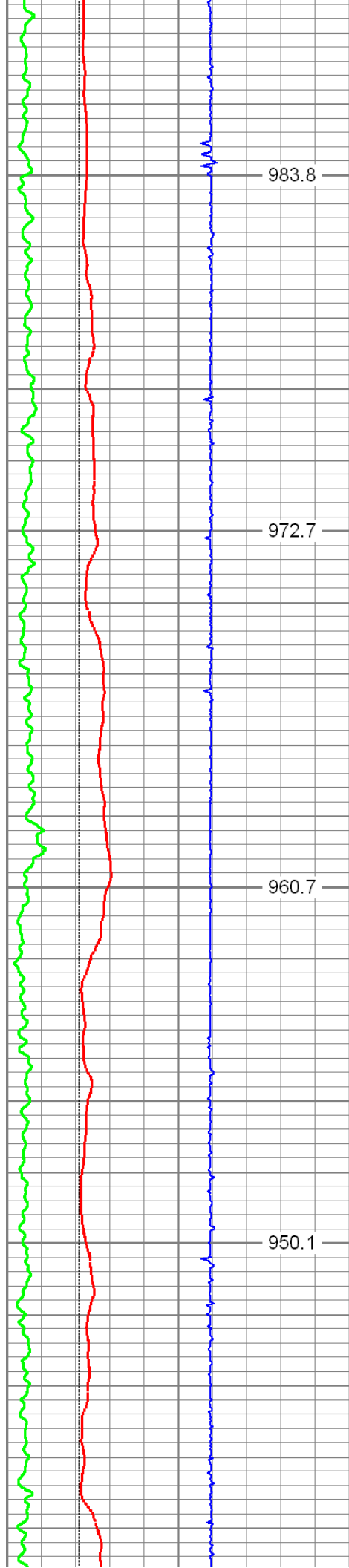
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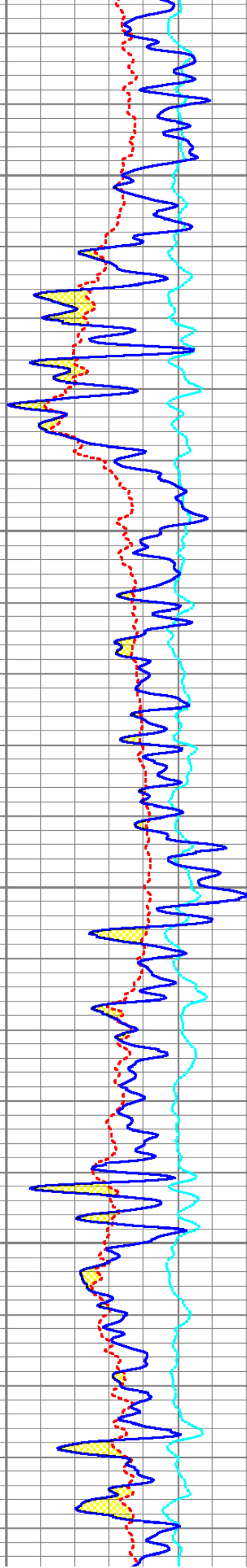
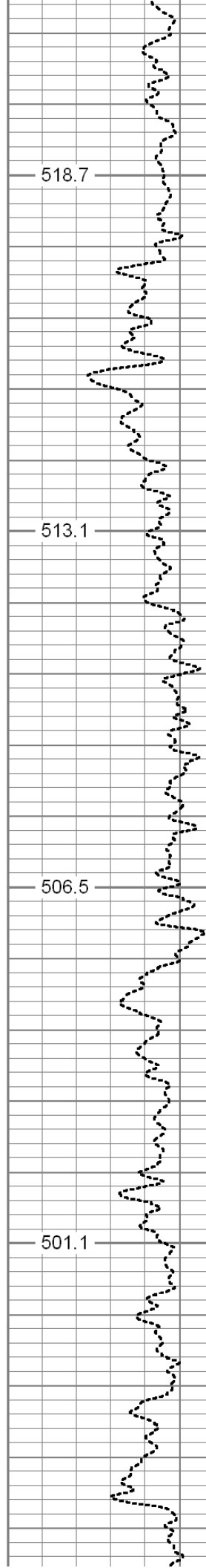


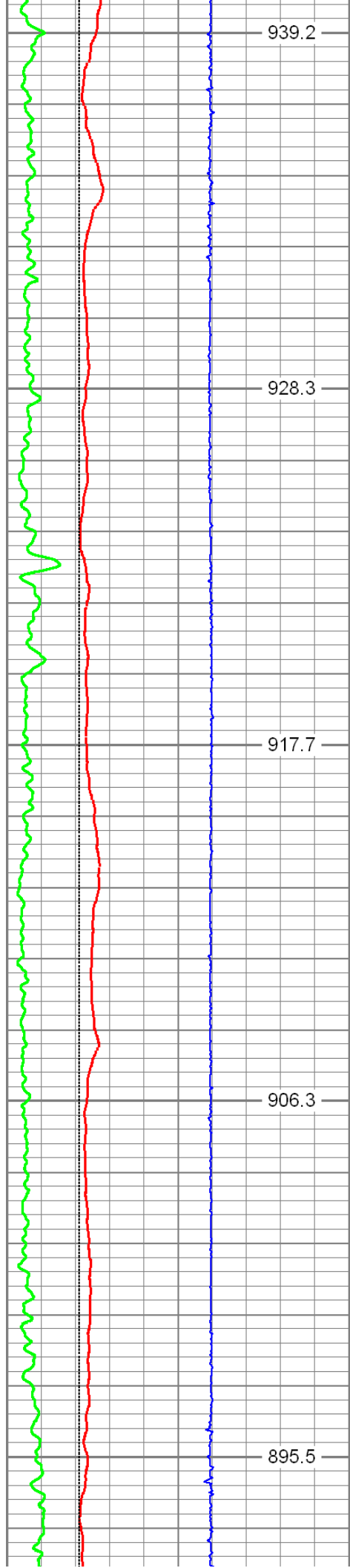
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906.3

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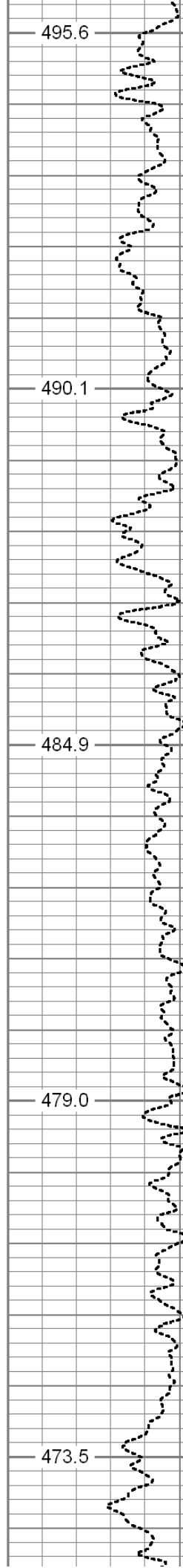
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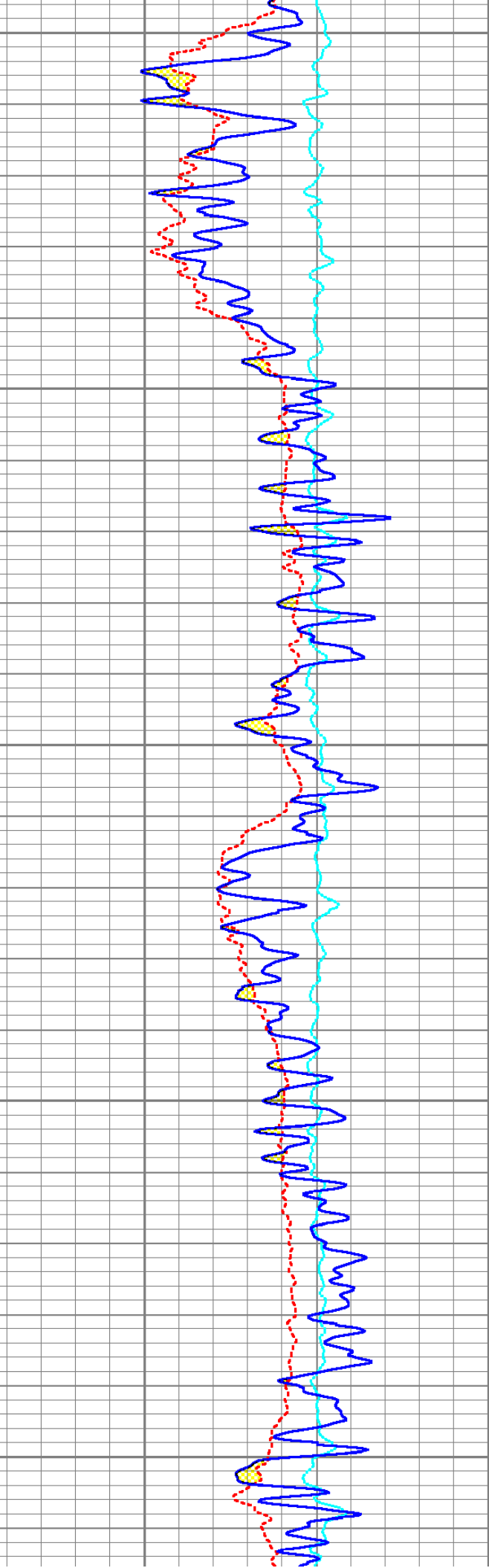
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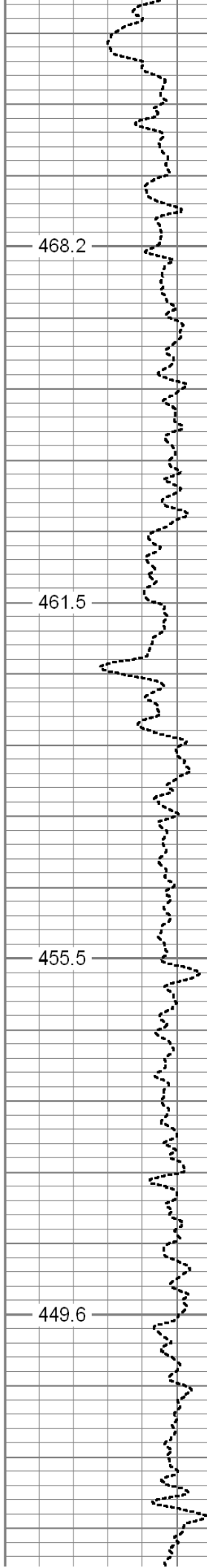
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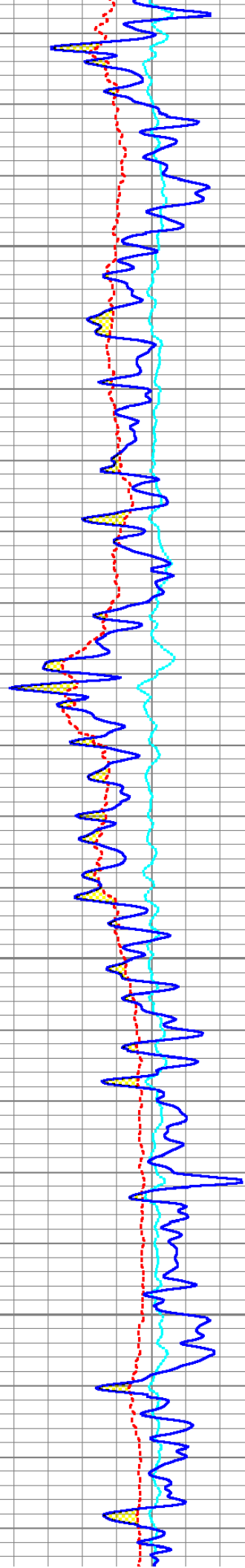


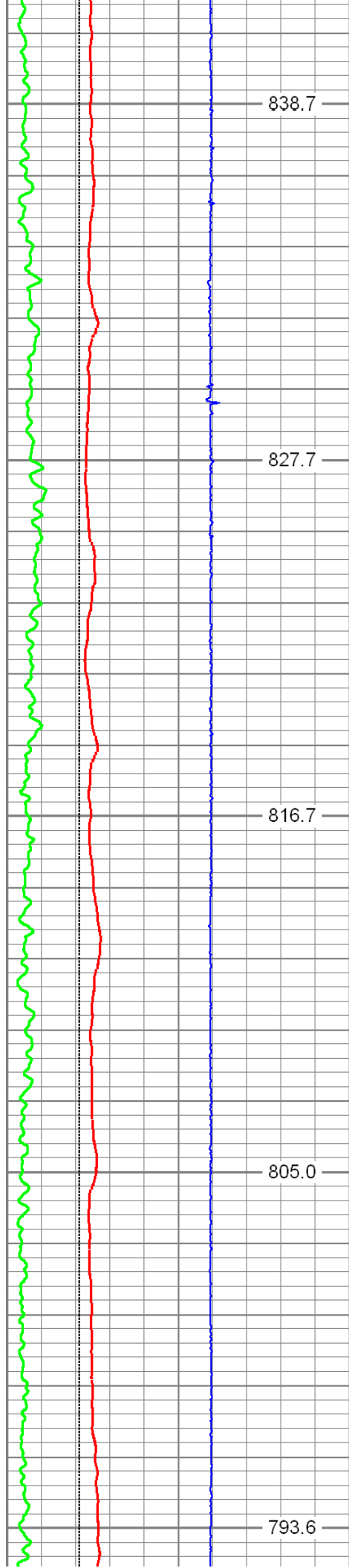
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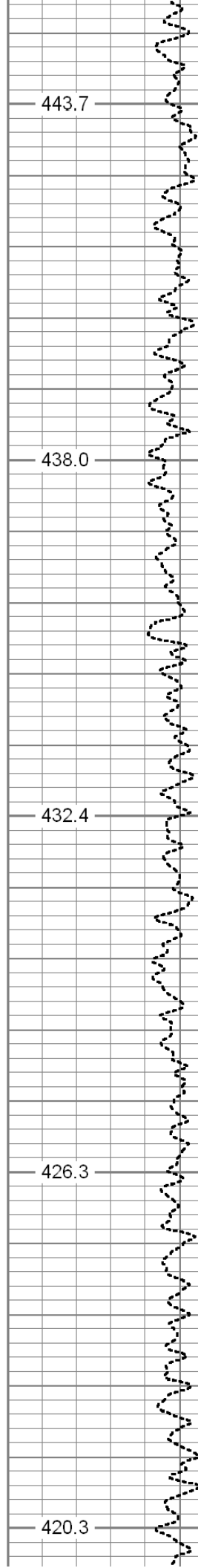
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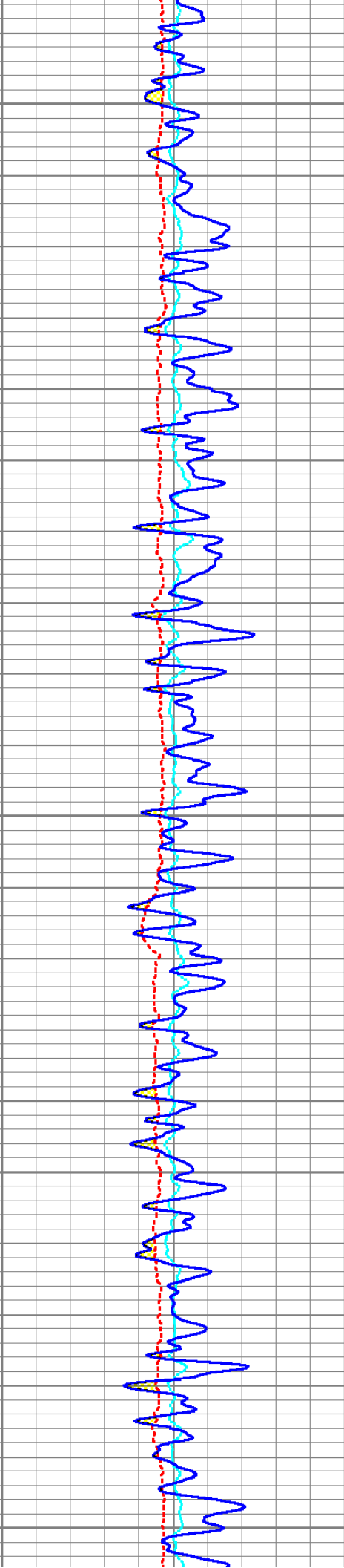
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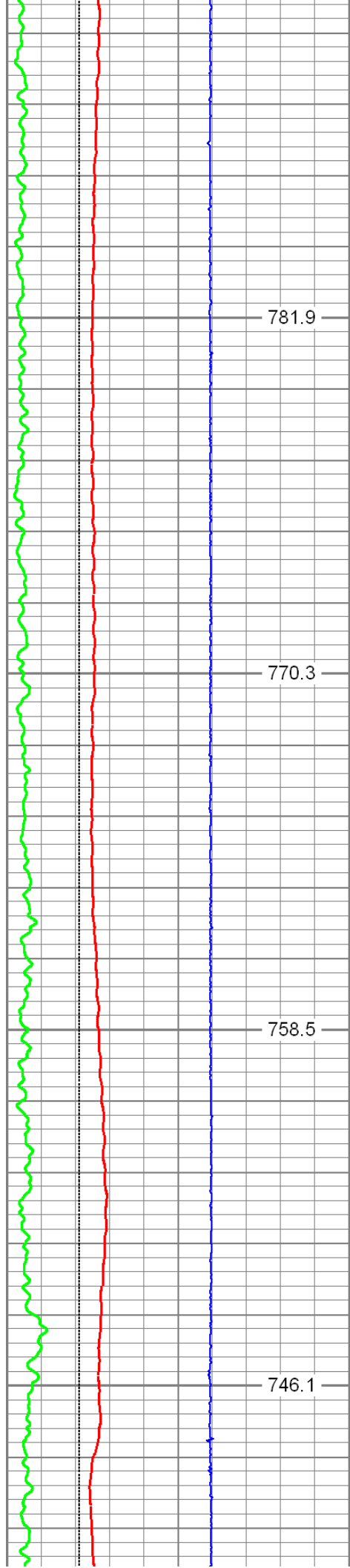
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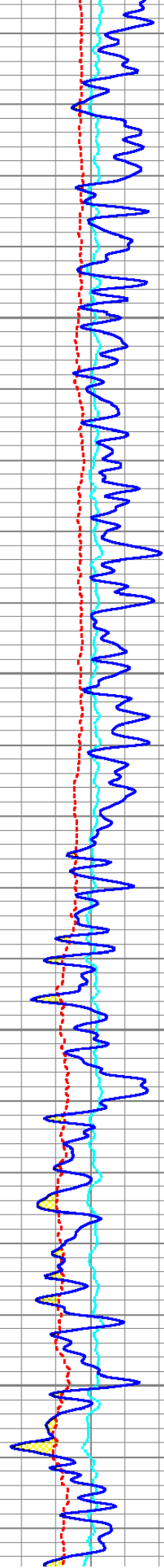
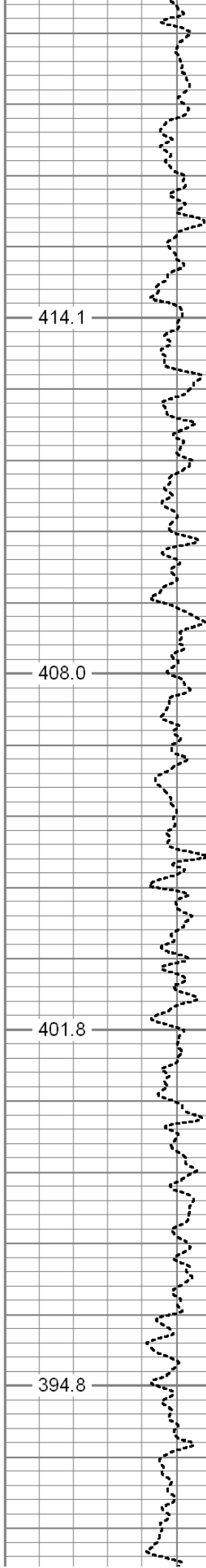


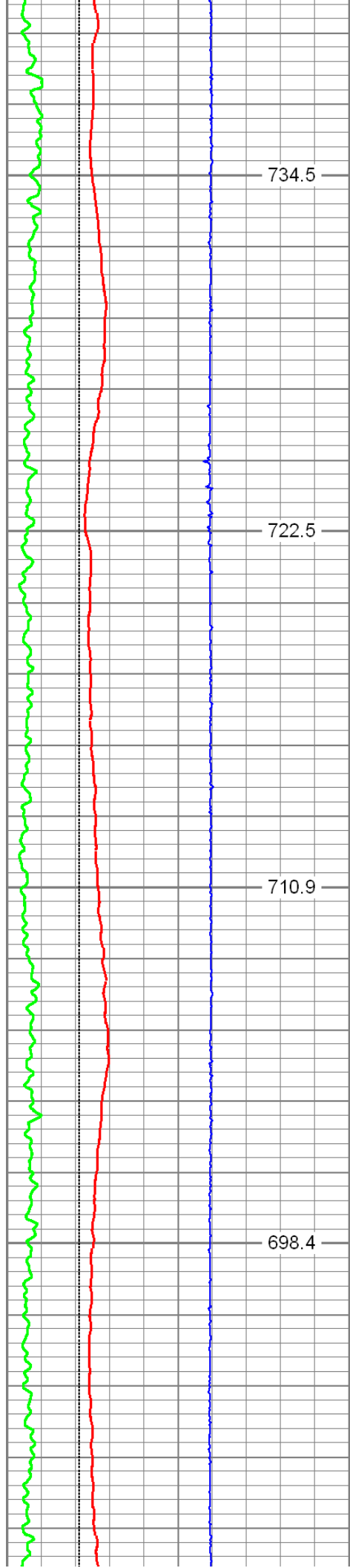
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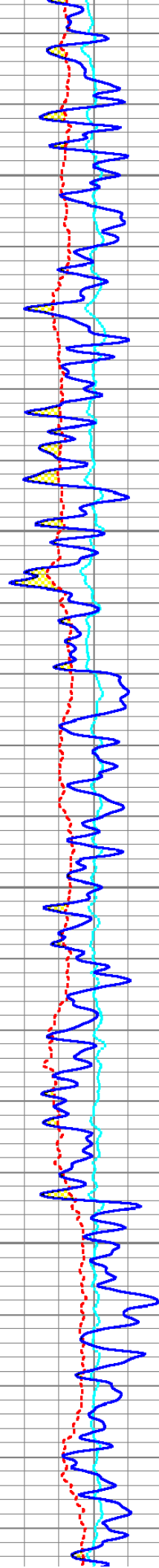
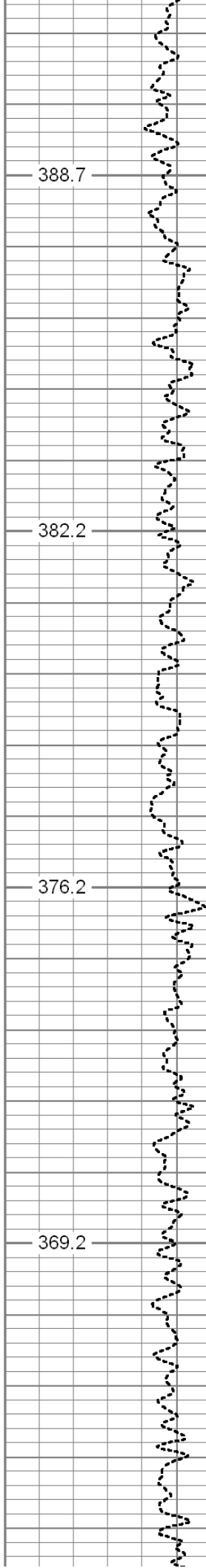


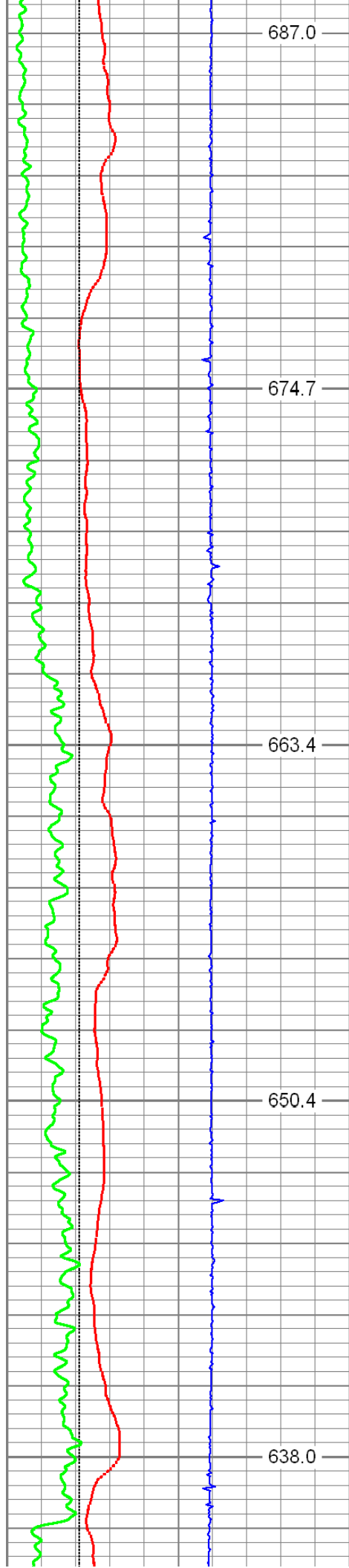
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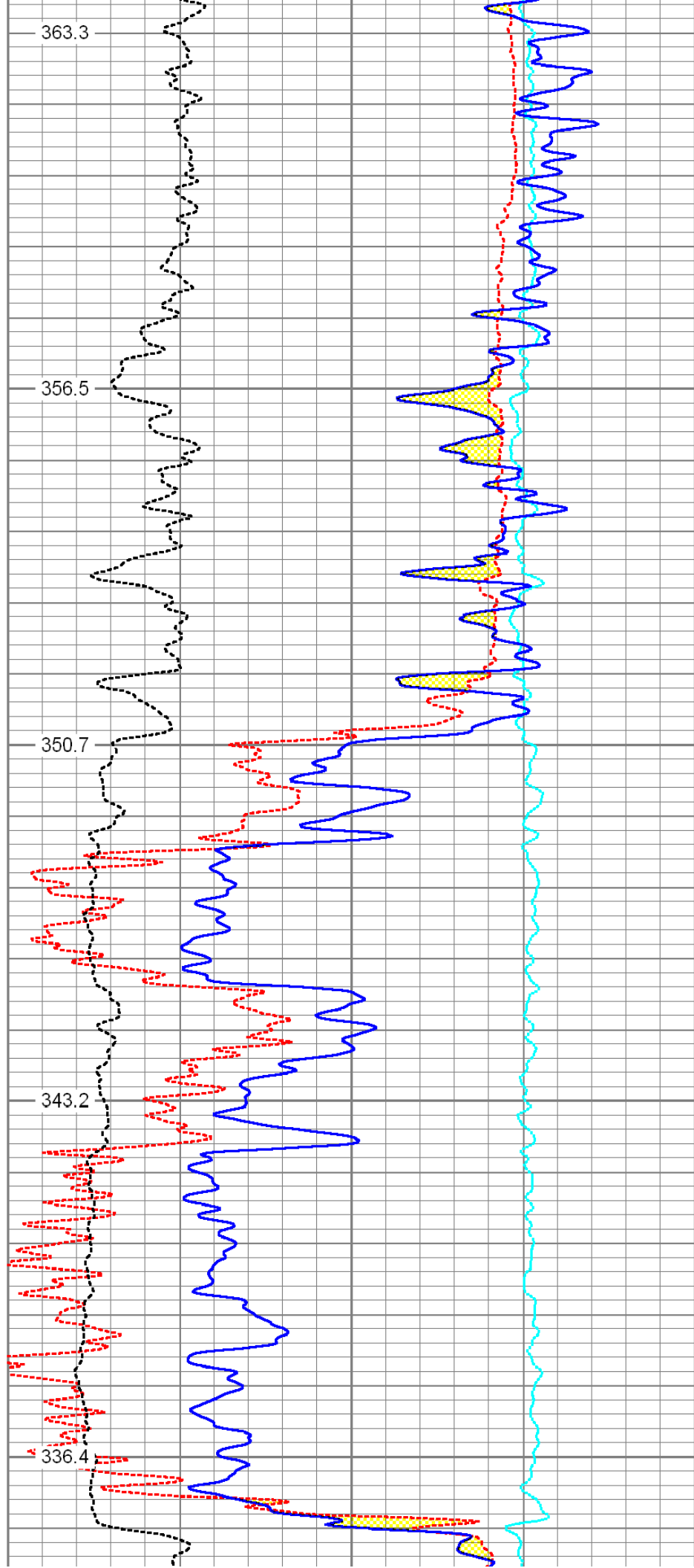
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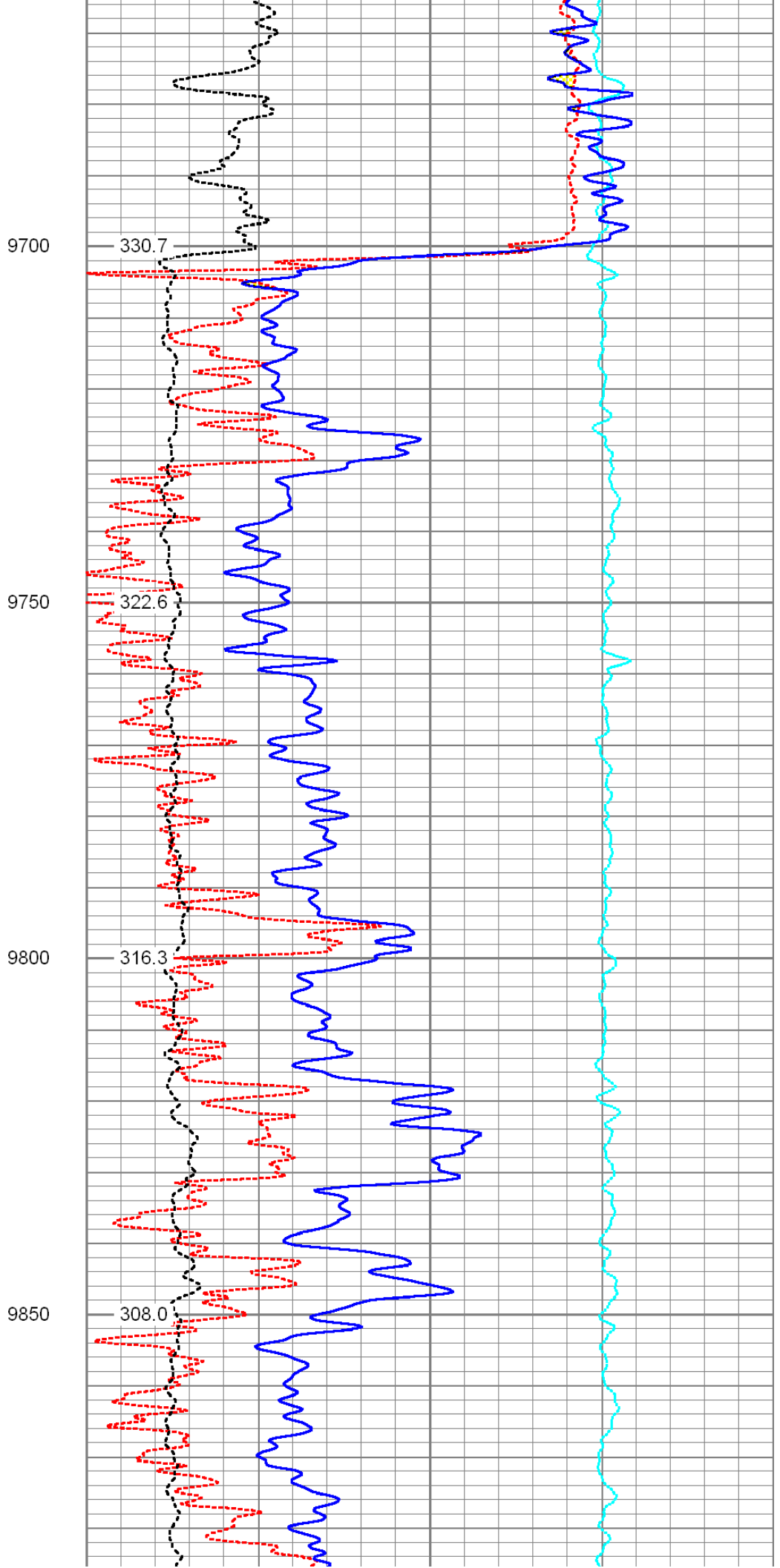
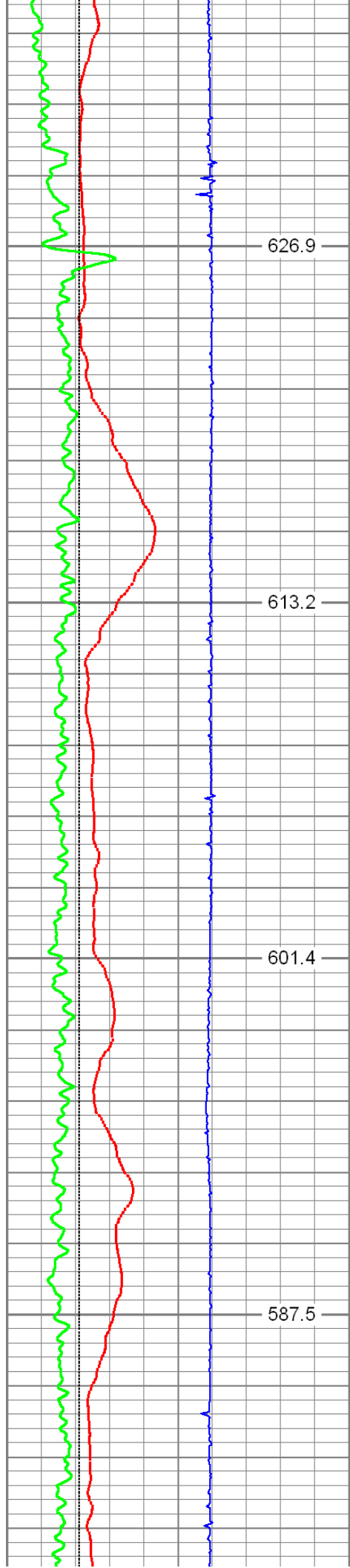
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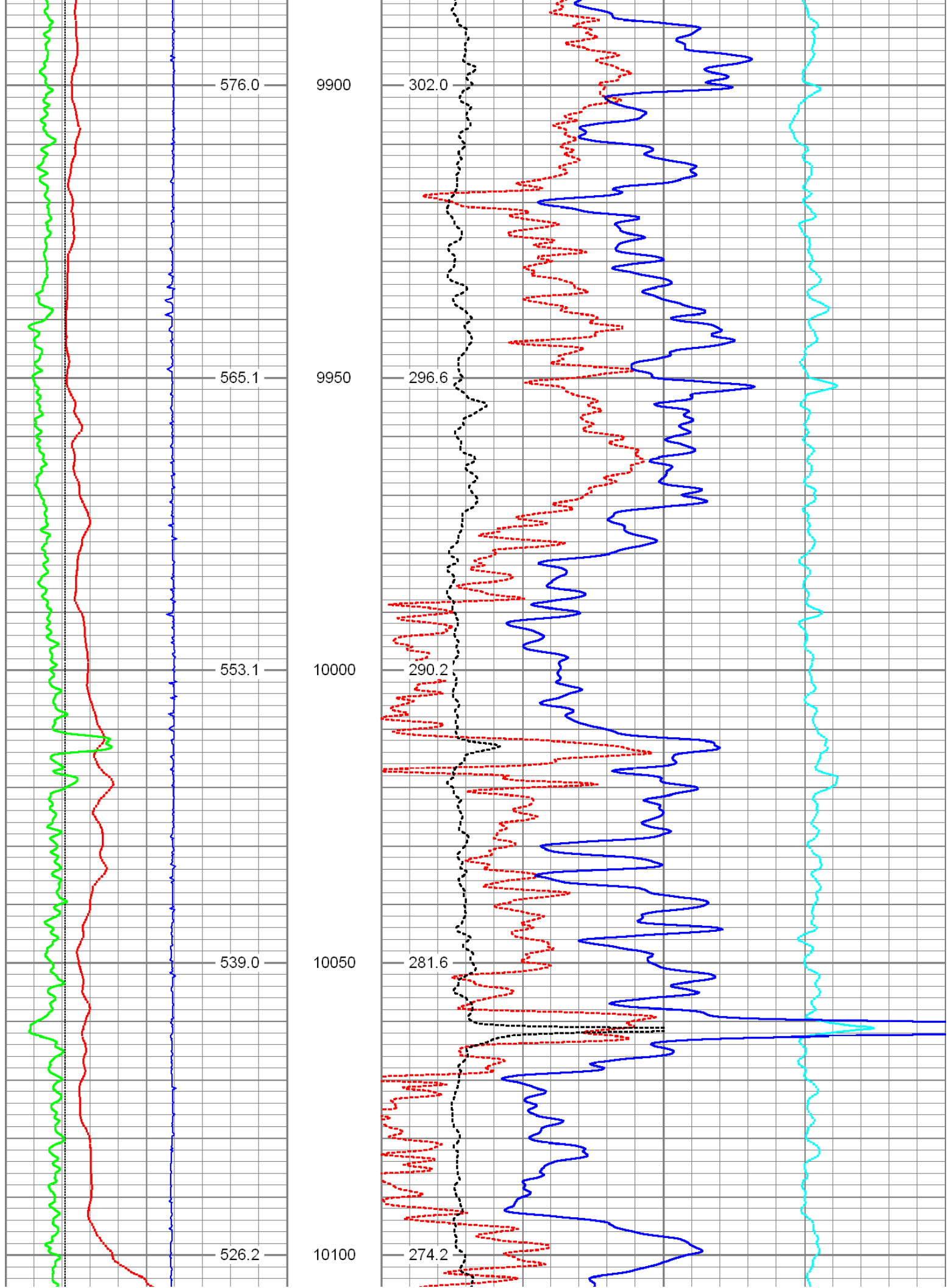


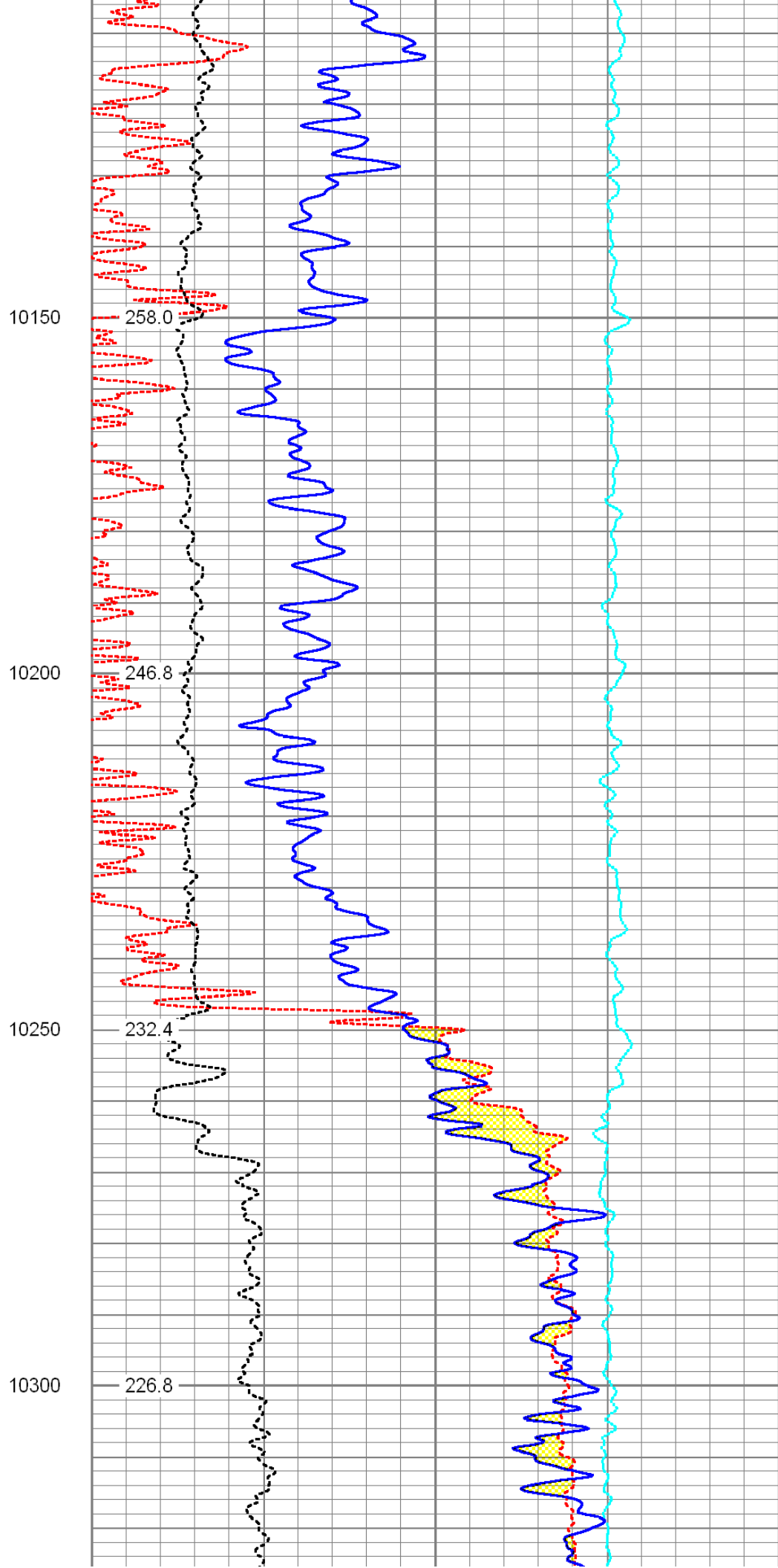
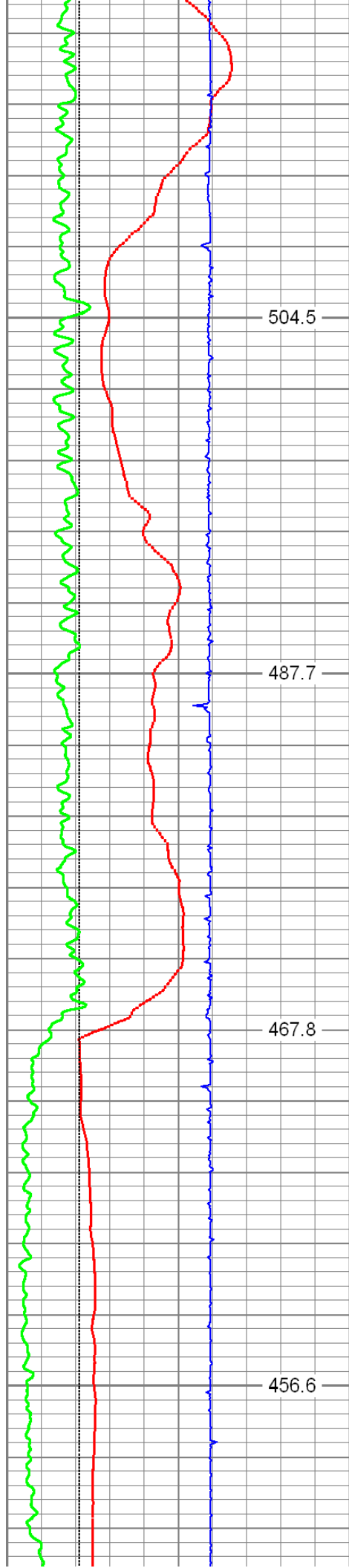


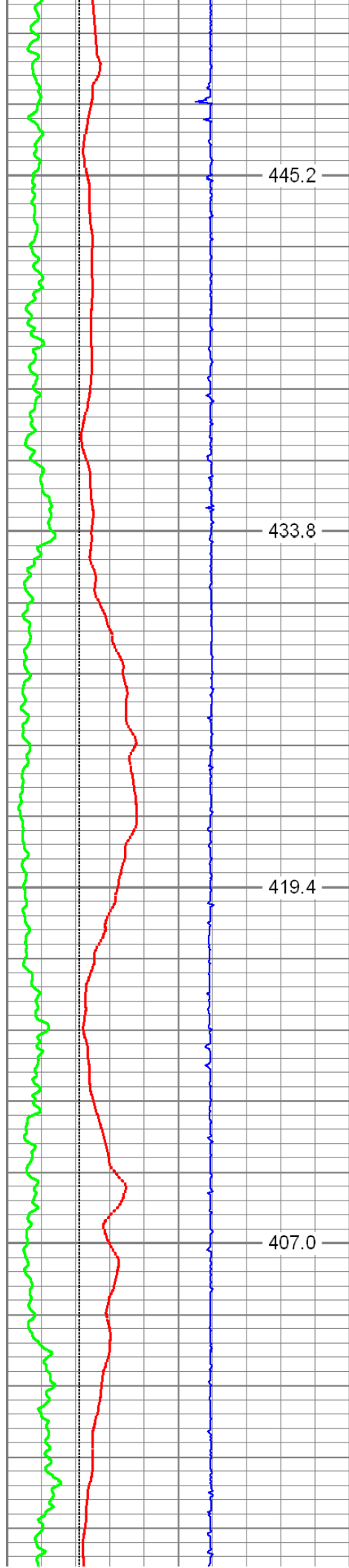
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9650









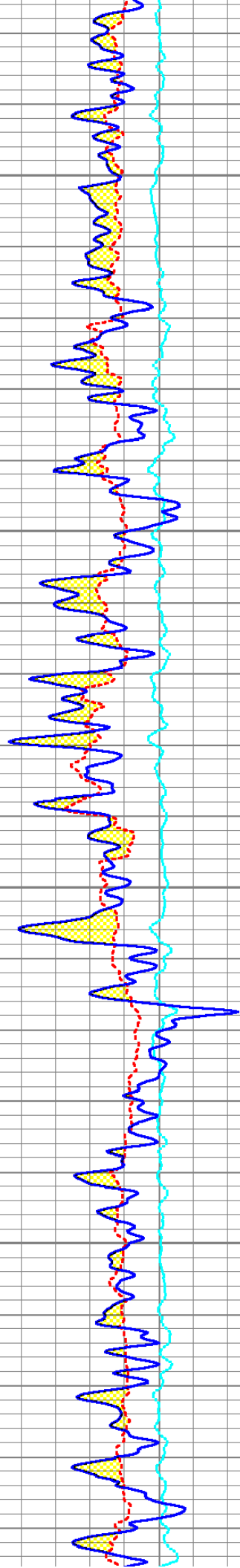
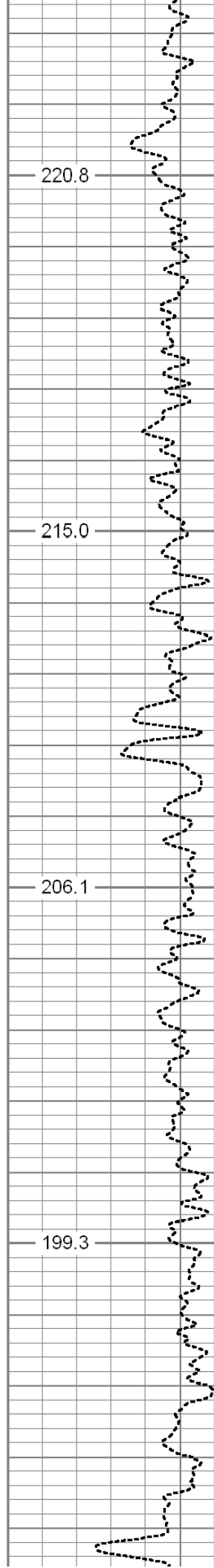


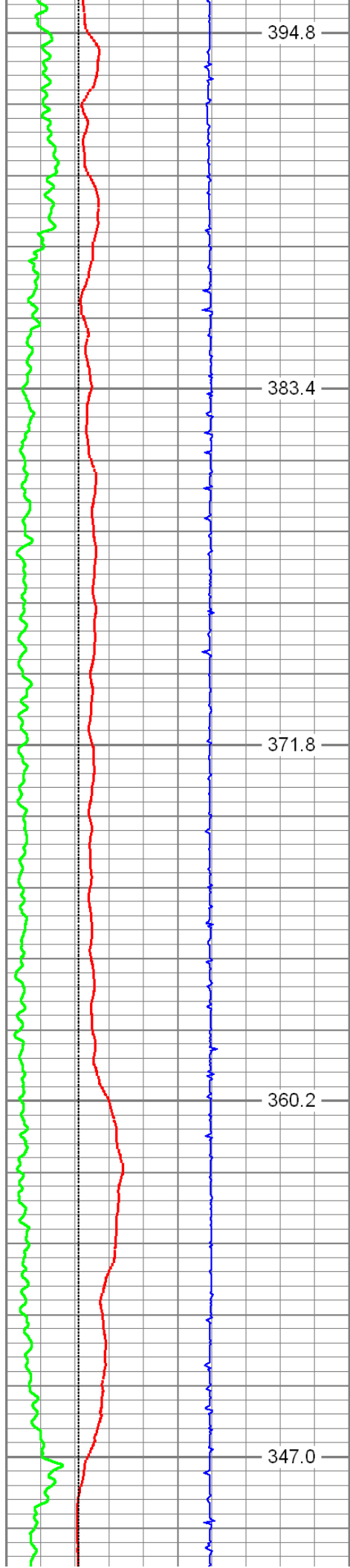
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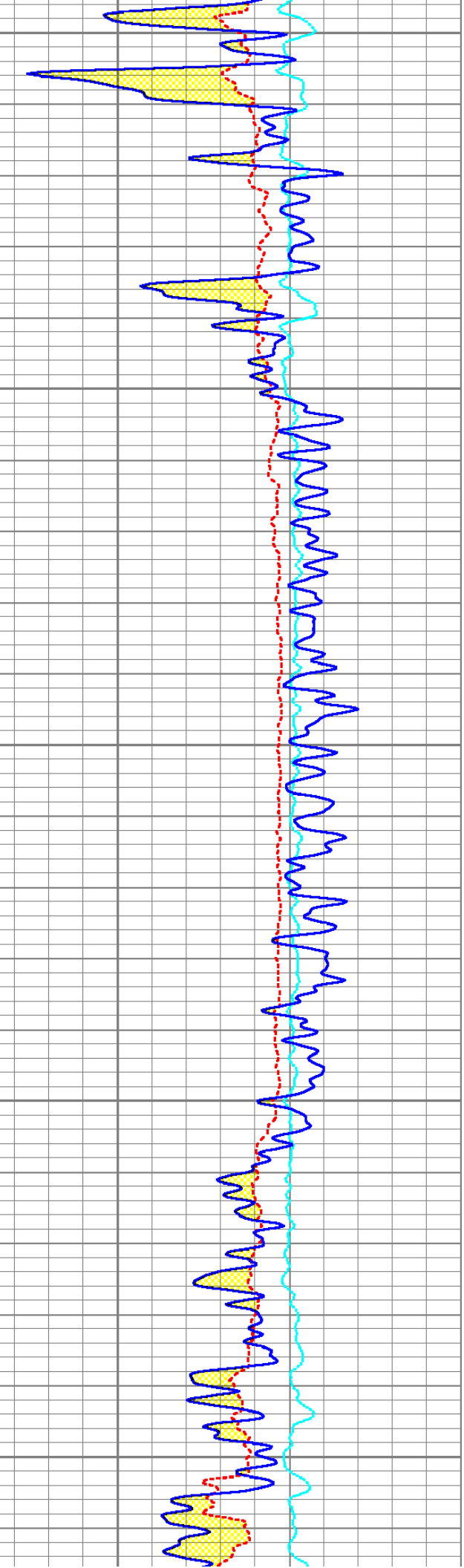
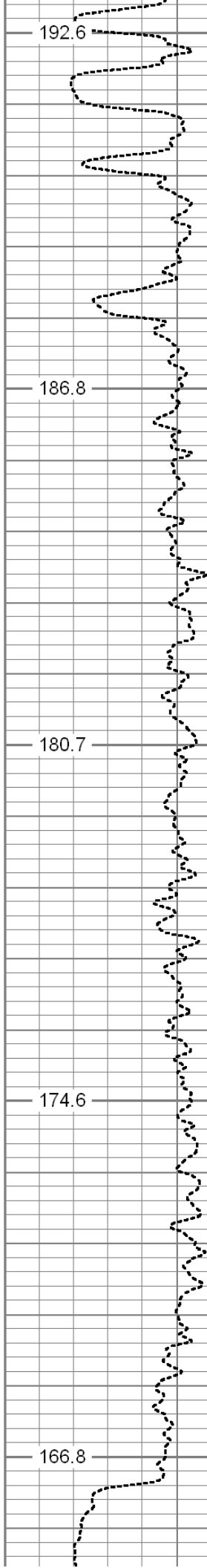
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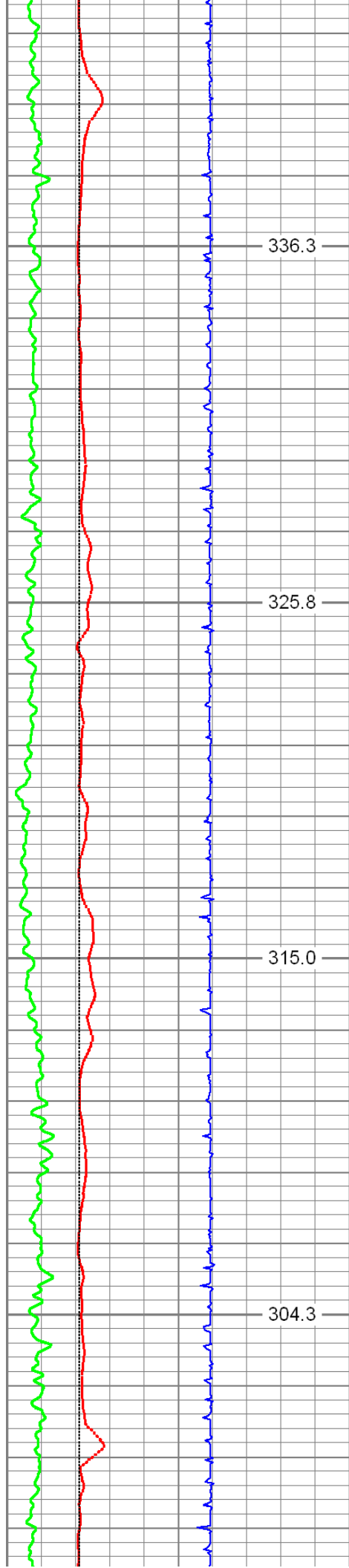
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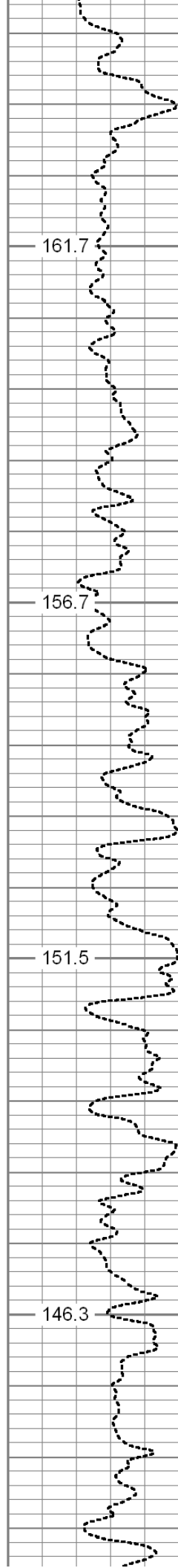
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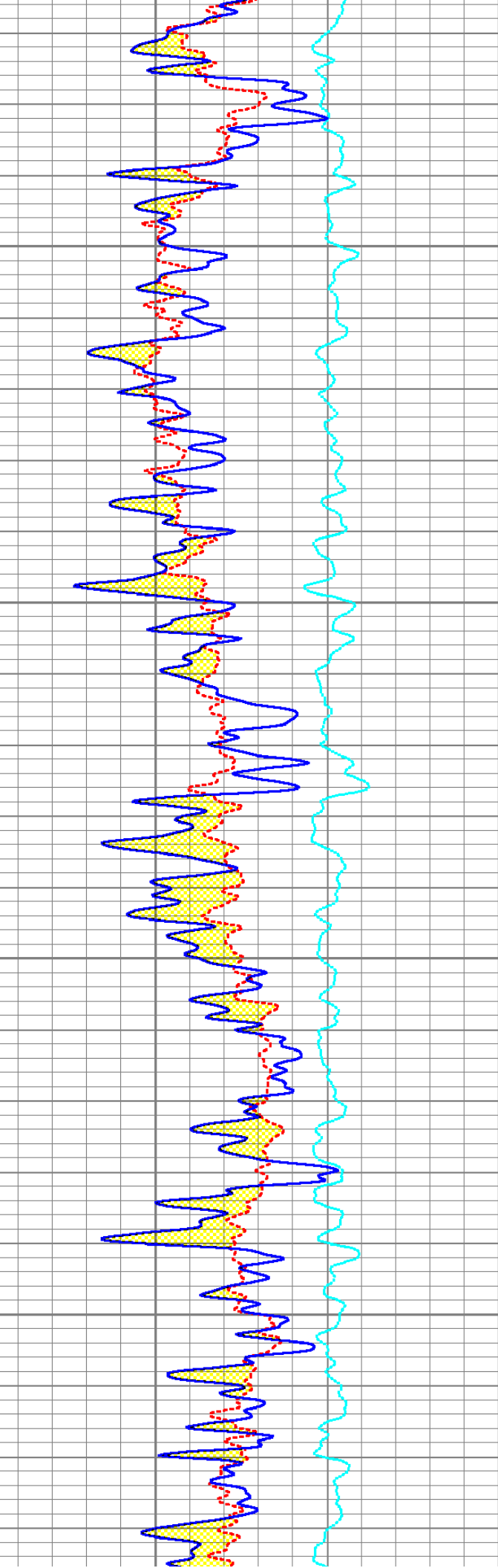


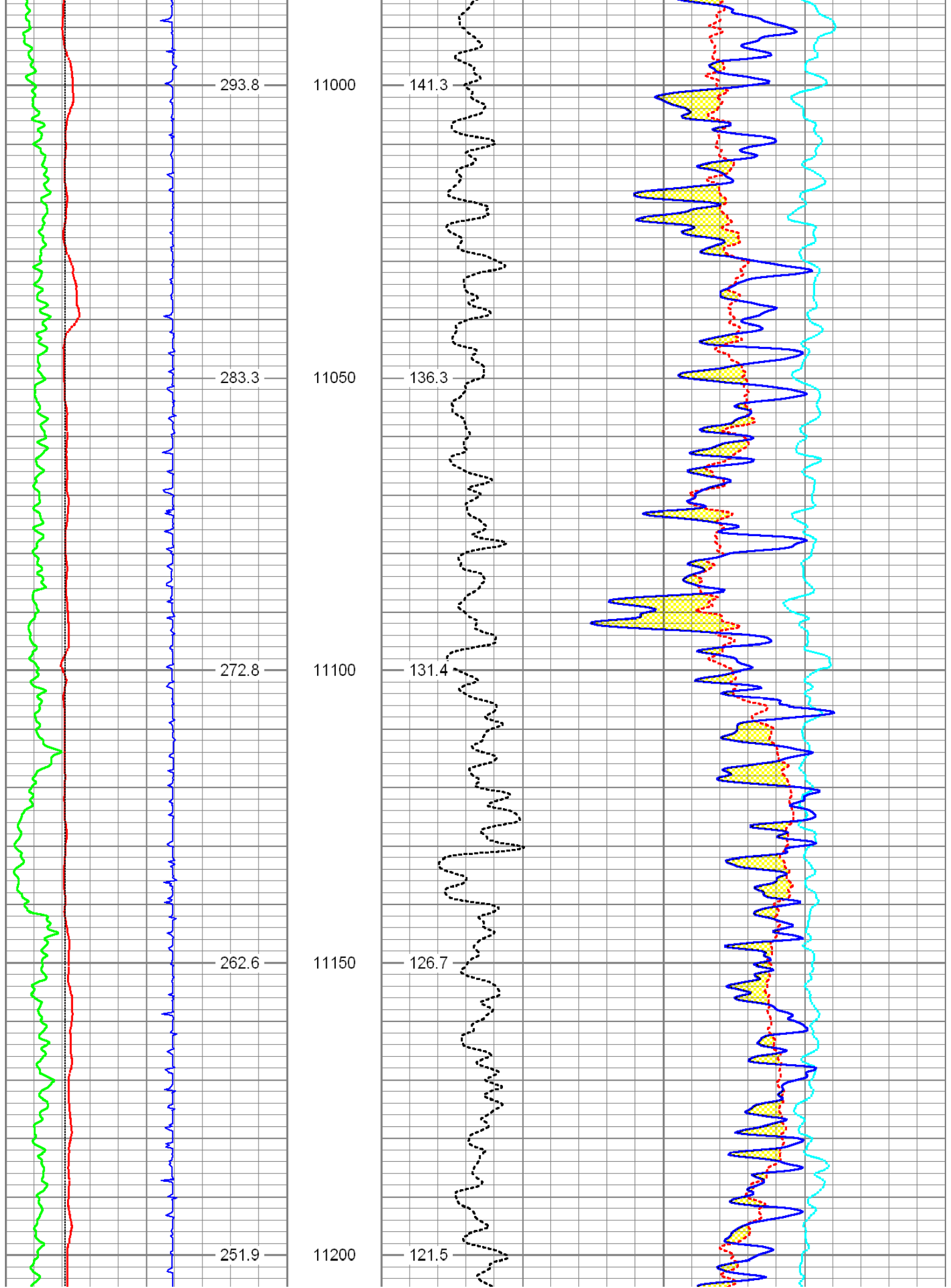
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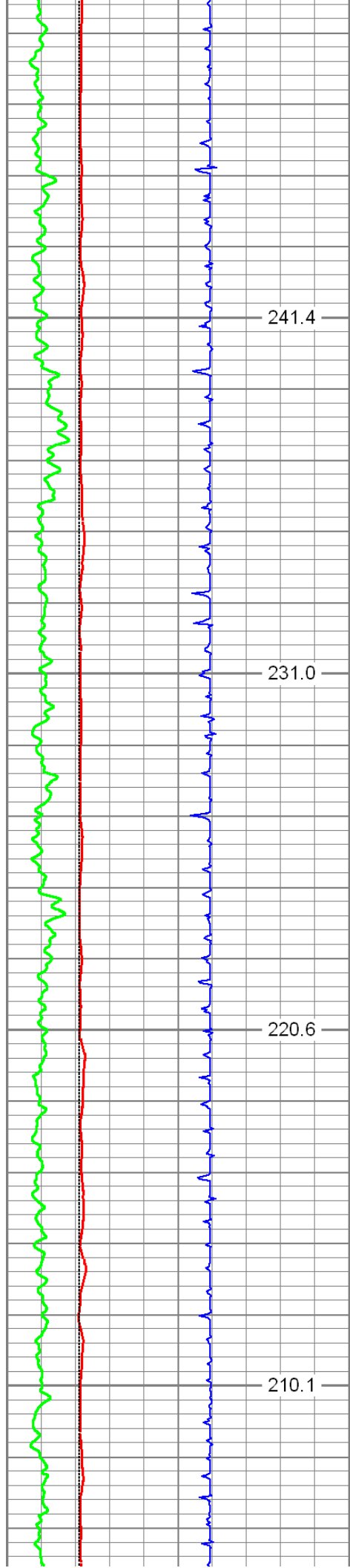
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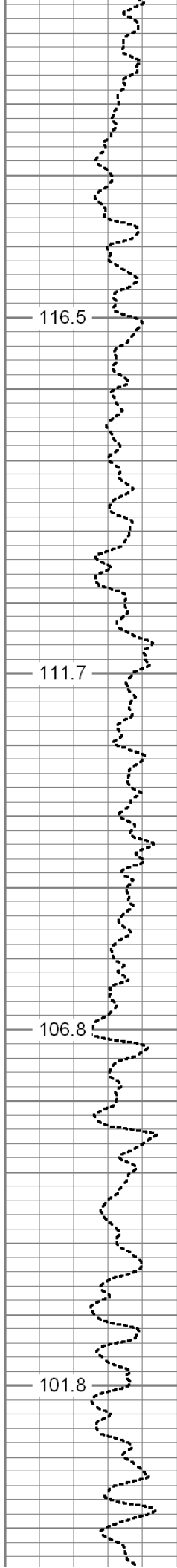
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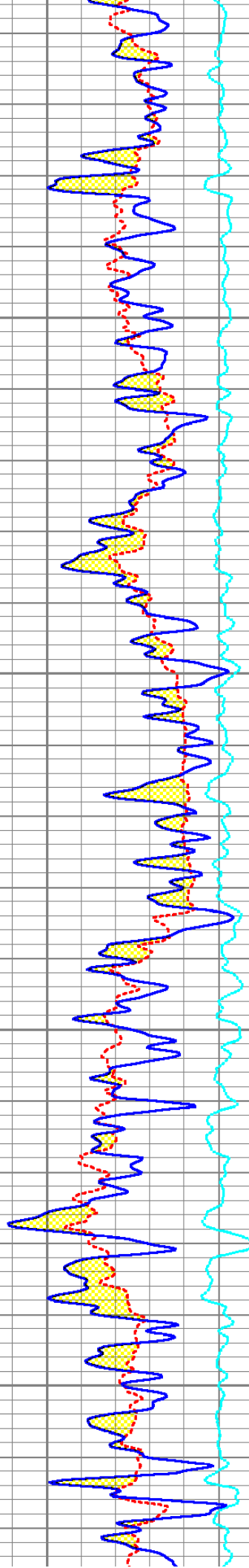


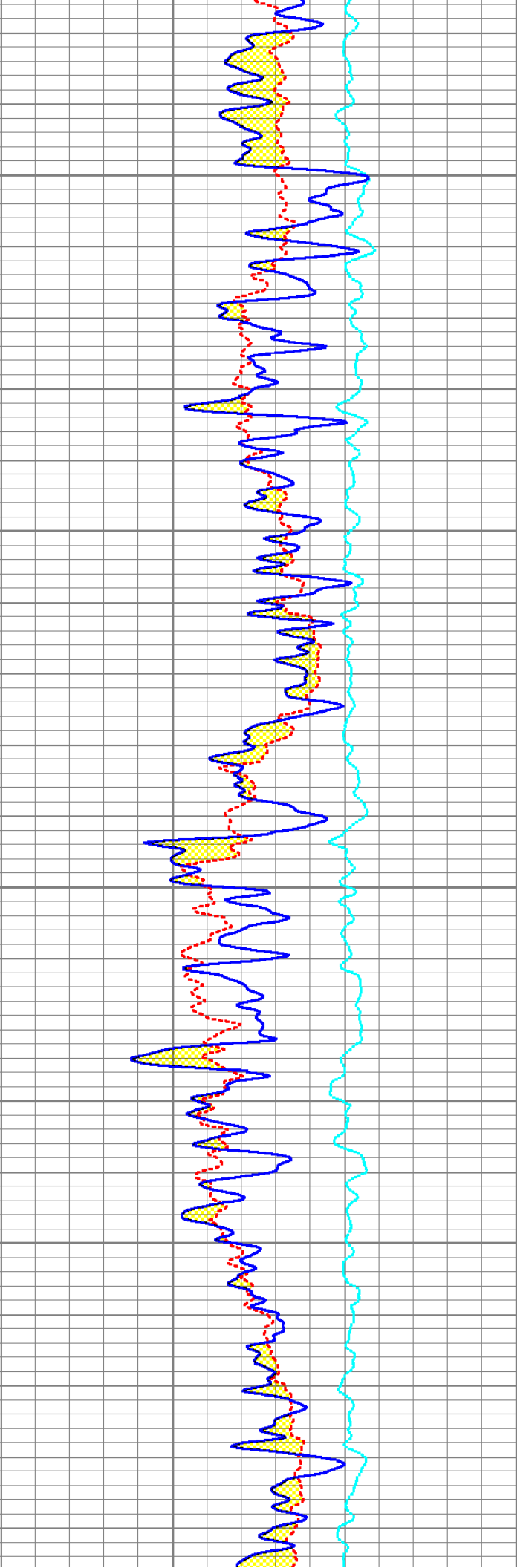
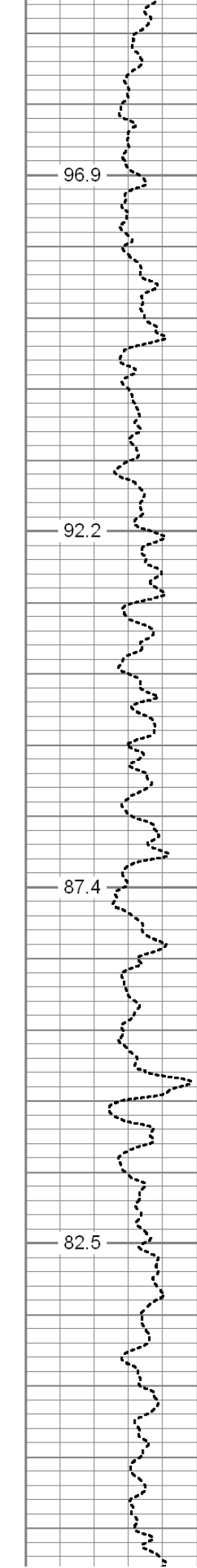
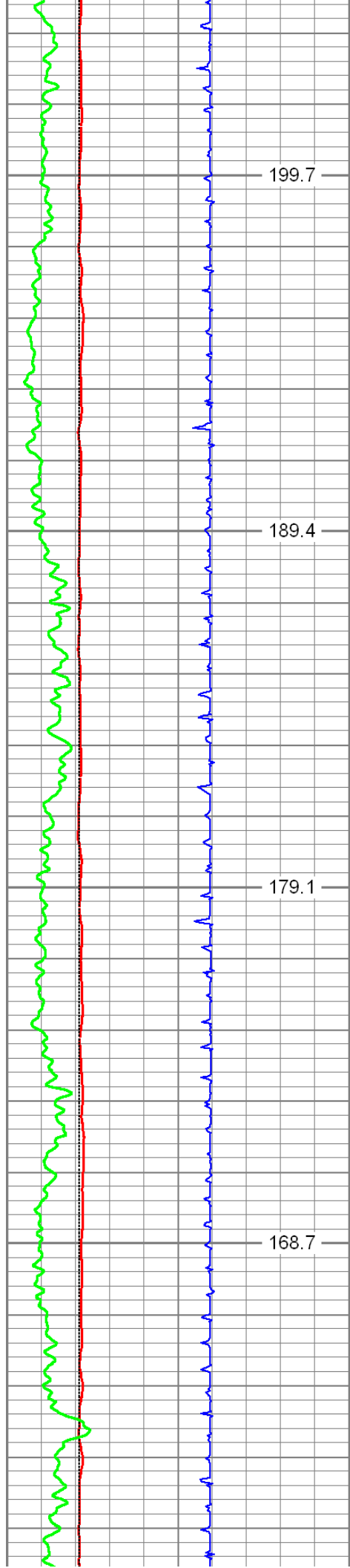
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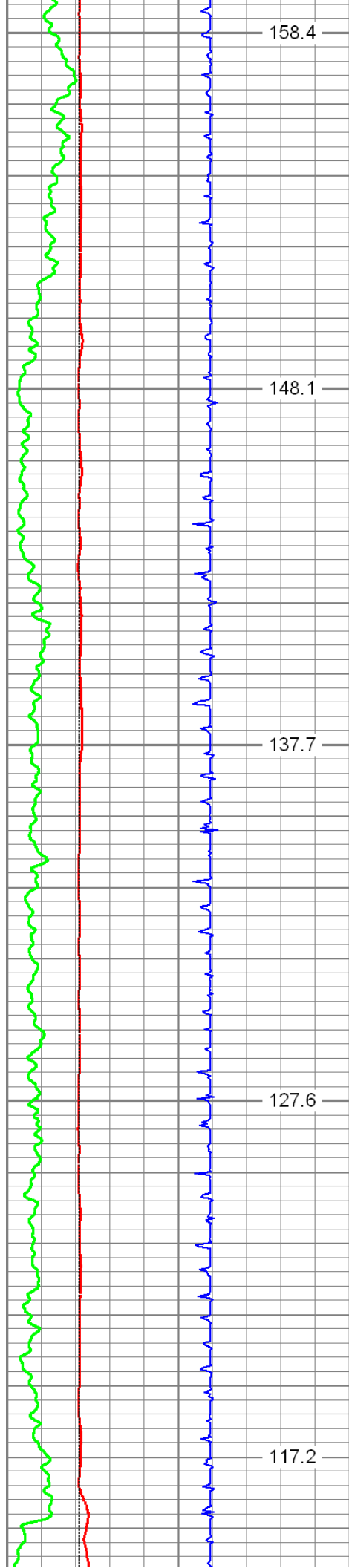
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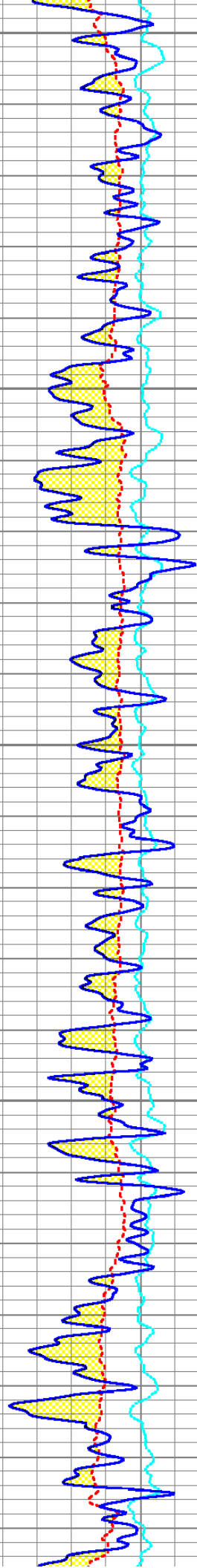
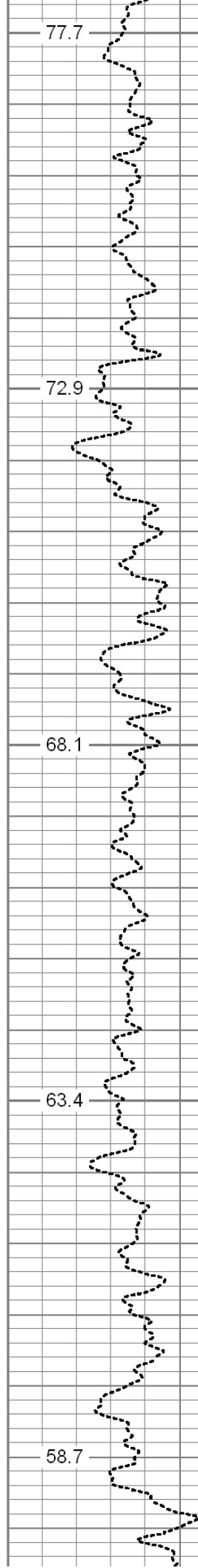
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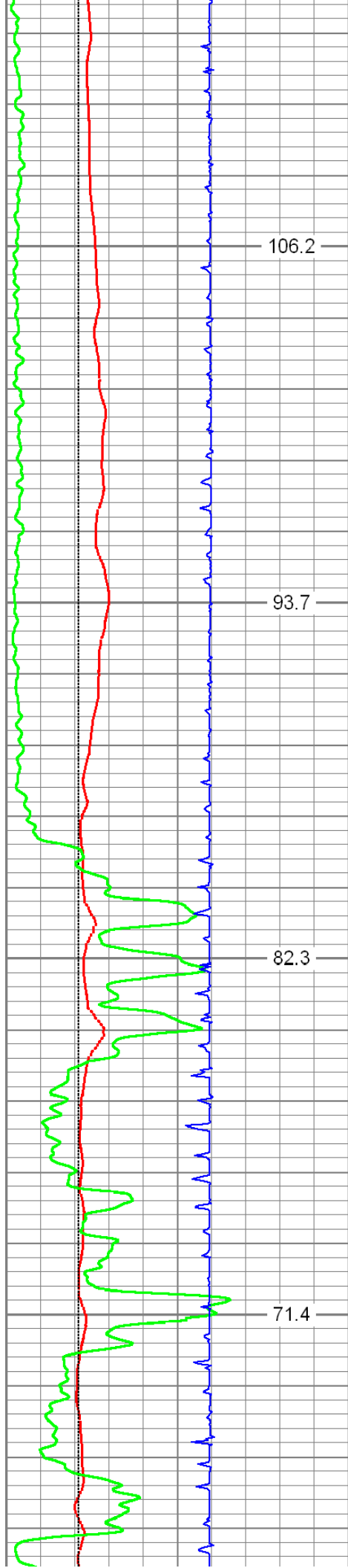






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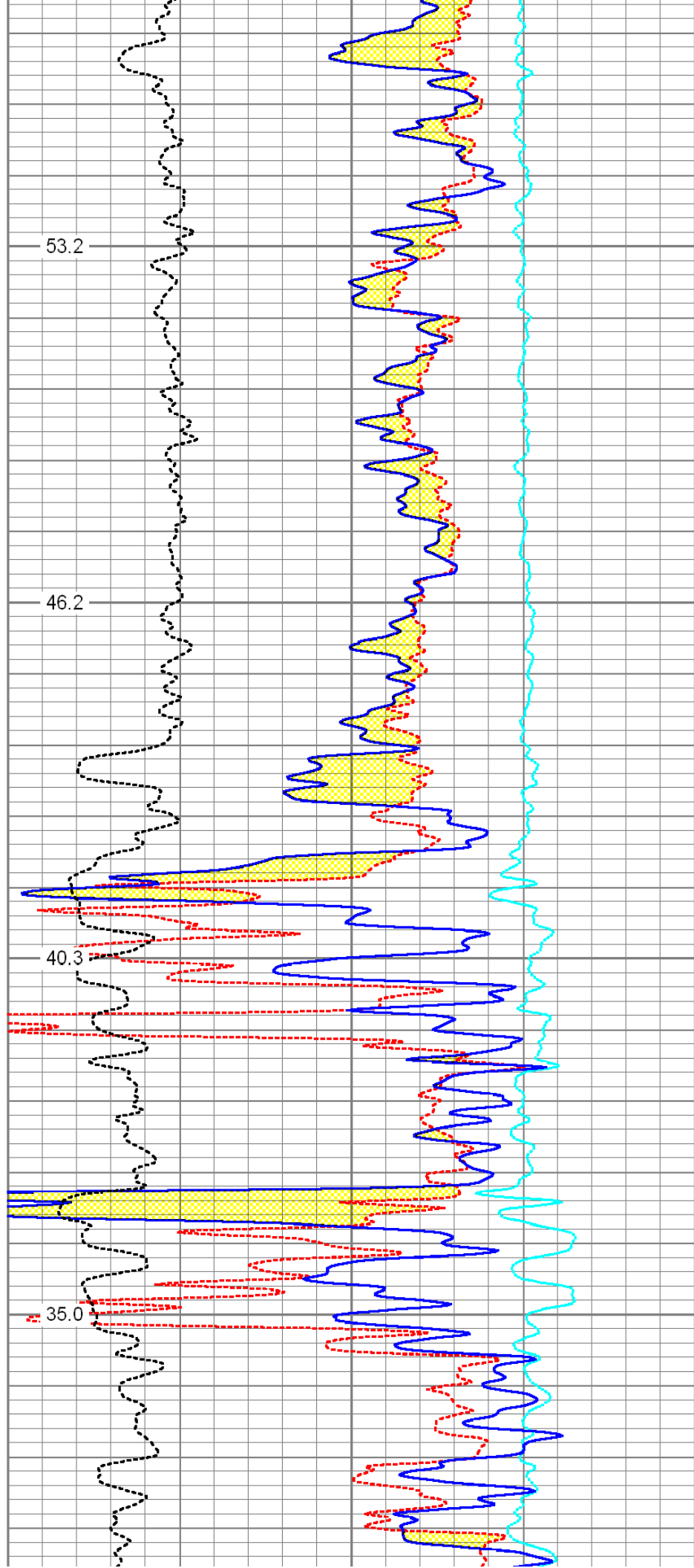


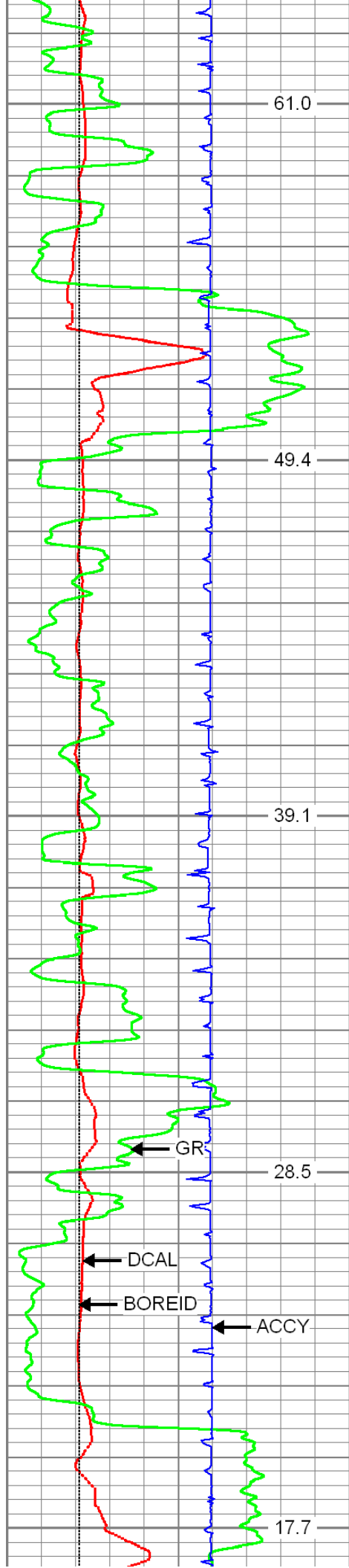
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24.0

19.2

14.1

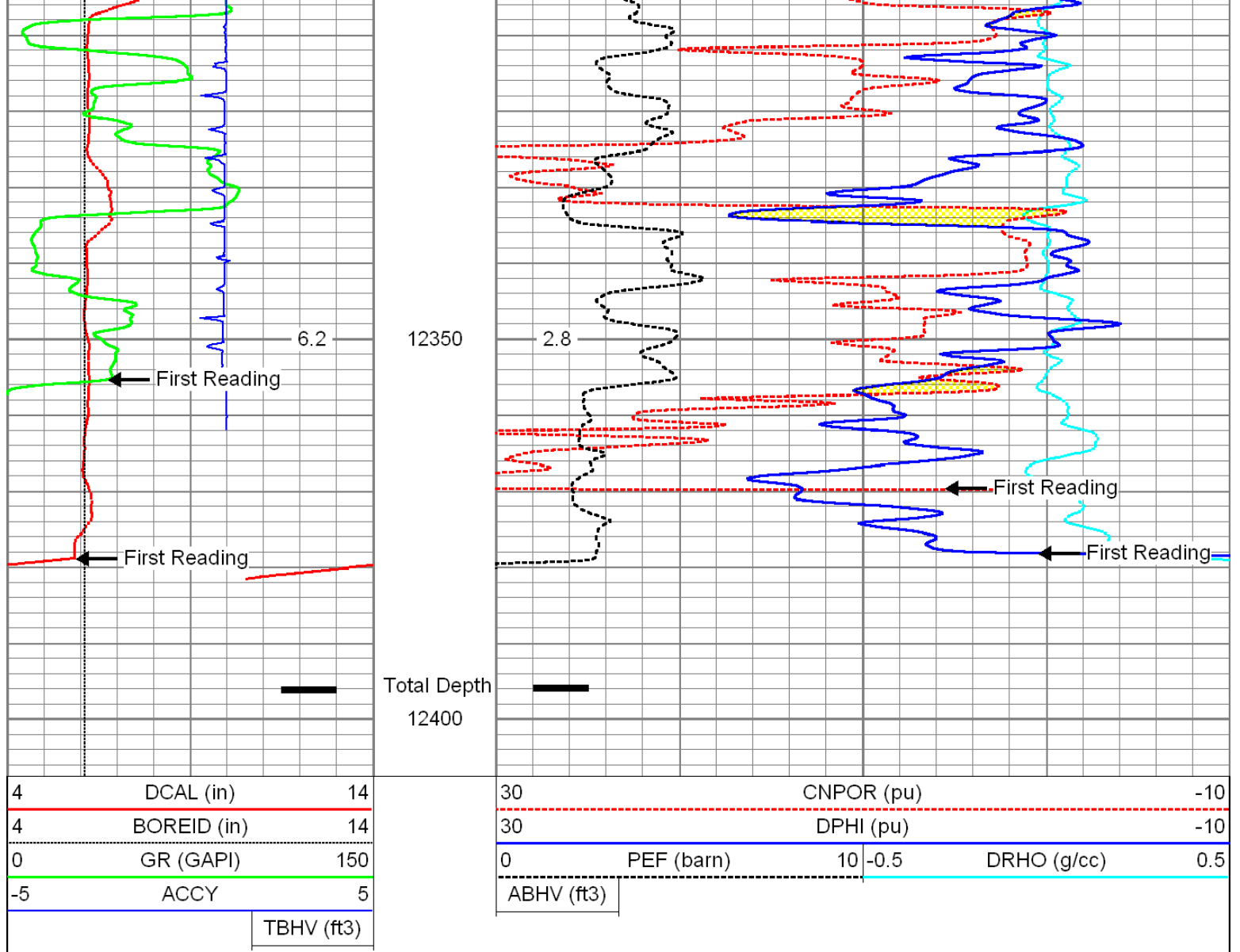
8.8

PEF

DPHI

DRHO

CNPOR



## Log Variables

Database: C:\Warrior\Data\bryant\_mem.db  
Dataset: field/well/proc1/pass1.5

### Top - Bottom

|                          |                       |                       |                        |                         |                          |                       |
|--------------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------------------|-----------------------|
| A                        | BHCOR                 | BHFL_TYPE             | BHFLRES<br>Ohm-m       | BHFLRESSRC              | BHIDSRC                  | BOREID<br>in          |
| 1                        | On                    | WBM                   | 1                      | MUDCELL                 | CURVE                    | 6.125                 |
| BOTTEMP<br>degF<br>147   | CASED?<br>No          | CASEOD<br>in<br>4.5   | CASETHCK<br>in<br>0    | CEMWATERSA<br>kppm<br>0 | CMNTHCK<br>in<br>0       | DNBHC?<br>NO          |
| DPORSEL<br>RHOB          | FLUIDDEN<br>g/cc<br>1 | FRMSALIN<br>kppm<br>0 | LATNOR<br>Off          | M<br>2                  | MATRXDEN<br>g/cc<br>2.71 | MUDSALIN<br>kppm<br>1 |
| MudWgt<br>lb/gal<br>8.35 | NPORSEL<br>Limestone  | PEBHC?<br>YES         | PERFS<br>0             | RESTMPSRC<br>INTERNAL   | SO<br>in<br>0.5          | SRFTEMP<br>degF<br>65 |
| SZCOR<br>On              | TDEPTH<br>ft<br>12422 | TMPCOR<br>On          | TOOLPOS<br>Ec-centered |                         |                          |                       |

## Calibration Report

Database File: bryant\_mem.db  
 Dataset Pathname: proc1/pass1.5  
 Dataset Creation: Fri Jan 25 06:10:59 2013

## ThruBit Induction Calibration Report

Tool Model-Serial Number: PS-PS14R  
 Shop Calibration Performed: Fri Nov 16 14:39:12 2012

## BASELINE

|        | R         | Expected           | X         | Expected          |
|--------|-----------|--------------------|-----------|-------------------|
| Freq 1 |           |                    |           |                   |
| A1     | -459.8550 | [-500.00, -400.00] | 367.6960  | [-500.00, 500.00] |
| A2     | -128.3640 | [-180.00, -100.00] | 305.5630  | [-500.00, 500.00] |
| A3     | -26.6324  | [-50.00, -10.00]   | 47.7922   | [-500.00, 500.00] |
| A4     | -14.9123  | [-30.00, -10.00]   | 289.7490  | [-500.00, 500.00] |
| A5     | -12.9784  | [-30.00, -10.00]   | 135.8520  | [-500.00, 500.00] |
| Freq 2 |           |                    |           |                   |
| A1     | -240.2750 | [-280.00, -180.00] | 215.1030  | [-500.00, 500.00] |
| A2     | -81.4154  | [-130.00, -50.00]  | 171.0110  | [-500.00, 500.00] |
| A3     | -19.3251  | [-50.00, -10.00]   | -17.8513  | [-500.00, 500.00] |
| A4     | -18.2759  | [-30.00, -10.00]   | 105.7740  | [-500.00, 500.00] |
| A5     | -18.0689  | [-30.00, -10.00]   | -4.9172   | [-500.00, 500.00] |
| Freq 3 |           |                    |           |                   |
| A1     | -152.2130 | [-180.00, -80.00]  | 91.7866   | [-500.00, 500.00] |
| A2     | -61.6072  | [-130.00, -30.00]  | 84.2543   | [-500.00, 500.00] |
| A3     | -16.1670  | [-50.00, -10.00]   | -68.0229  | [-500.00, 500.00] |
| A4     | -20.1243  | [-30.00, -10.00]   | -13.6601  | [-500.00, 500.00] |
| A5     | -20.8250  | [-30.00, -10.00]   | -106.5840 | [-500.00, 500.00] |
| Freq 4 |           |                    |           |                   |
| A1     | -82.8229  | [-120.00, -40.00]  | -92.7045  | [-500.00, 500.00] |
| A2     | -44.4800  | [-110.00, -10.00]  | -30.7442  | [-500.00, 500.00] |
| A3     | -12.7910  | [-50.00, -10.00]   | -147.5000 | [-500.00, 500.00] |
| A4     | -22.3623  | [-30.00, -10.00]   | -186.1690 | [-500.00, 500.00] |
| A5     | -25.4747  | [-30.00, -10.00]   | -276.0180 | [-500.00, 500.00] |

## CALIBRATION COEFFICIENTS

|        | R      | Expected     | X       | Expected      |
|--------|--------|--------------|---------|---------------|
| Freq 1 |        |              |         |               |
| A1     | 1.0008 | [0.95, 1.05] | 0.0025  | [-0.05, 0.05] |
| A2     | 1.0033 | [0.95, 1.05] | 0.0030  | [-0.05, 0.05] |
| A3     | 1.0054 | [0.95, 1.05] | -0.0052 | [-0.05, 0.05] |
| A4     | 0.9956 | [0.95, 1.05] | 0.0044  | [-0.05, 0.05] |
| A5     | 1.0018 | [0.95, 1.05] | 0.0011  | [-0.05, 0.05] |
| Freq 2 |        |              |         |               |
| A1     | 0.9948 | [0.95, 1.05] | -0.0062 | [-0.05, 0.05] |
| A2     | 0.9973 | [0.95, 1.05] | -0.0056 | [-0.05, 0.05] |
| A3     | 0.9928 | [0.95, 1.05] | -0.0067 | [-0.05, 0.05] |
| A4     | 0.9903 | [0.95, 1.05] | -0.0033 | [-0.05, 0.05] |
| A5     | 0.9974 | [0.95, 1.05] | -0.0089 | [-0.05, 0.05] |
| Freq 3 |        |              |         |               |
| A1     | 1.0038 | [0.95, 1.05] | -0.0018 | [-0.05, 0.05] |
| A2     | 1.0066 | [0.95, 1.05] | -0.0011 | [-0.05, 0.05] |
| A3     | 1.0018 | [0.95, 1.05] | -0.0031 | [-0.05, 0.05] |
| A4     | 0.9988 | [0.95, 1.05] | 0.0008  | [-0.05, 0.05] |
| A5     | 1.0000 | [0.95, 1.05] | -0.0000 | [-0.05, 0.05] |

|             |              |              |         |               |
|-------------|--------------|--------------|---------|---------------|
| A5          | 1.0069       | [0.95, 1.05] | -0.0035 | [-0.05, 0.05] |
| Freq 4      |              |              |         |               |
| A1          | 1.0021       | [0.95, 1.05] | -0.0111 | [-0.05, 0.05] |
| A2          | 1.0046       | [0.95, 1.05] | -0.0108 | [-0.05, 0.05] |
| A3          | 0.9996       | [0.95, 1.05] | -0.0164 | [-0.05, 0.05] |
| A4          | 0.9983       | [0.95, 1.05] | -0.0079 | [-0.05, 0.05] |
| A5          | 1.0156       | [0.95, 1.05] | -0.0166 | [-0.05, 0.05] |
| Temperature | 29.0049 degC |              |         |               |

|                                    |  |                          |  |  |
|------------------------------------|--|--------------------------|--|--|
| ThruBit Density Calibration Report |  |                          |  |  |
| Tool Model-Serial Number:          |  | PS-PS03D                 |  |  |
| Source Number:                     |  |                          |  |  |
| Shop Calibration Performed:        |  | Mon Jan 14 09:49:12 2013 |  |  |

| REFERENCE      |         |       |                    |
|----------------|---------|-------|--------------------|
|                | Density | Units |                    |
| Aluminium      | 2.607   | g/cc  |                    |
| Magnesium      | 1.752   | g/cc  |                    |
| READINGS       |         |       |                    |
| Outputs        | Counts  | Units | Expected           |
| SS1 Background | 142.99  | cps   | [130.00, 170.00]   |
| LS1 Background | 153.85  | cps   | [130.00, 170.00]   |
| LS4 Background | 32.28   | cps   | [27.00, 35.00]     |
| SS1 Aluminium  | 4670.05 | cps   | [4500.00, 5500.00] |
| LS1 Aluminium  | 859.14  | cps   | [750.00, 950.00]   |
| LS4 Aluminium  | 926.13  | cps   | [843.00, 1068.00]  |
| SS1 Magnesium  | 7766.33 | cps   | [7000.00, 9000.00] |
| LS1 Magnesium  | 5470.05 | cps   | [5250.00, 6250.00] |
| LS1 Al + Fe    | 736.57  | cps   | [650.00, 800.00]   |
| LS4 Al + Fe    | 413.57  | cps   | [382.00, 471.00]   |
| RESULTS        |         |       |                    |
| SS Slope       | 1.64    |       | [1.52, 1.77]       |
| LS Slope       | 0.42    |       | [0.38, 0.45]       |
| PEF K Factor   | 4.920   |       | [3.510, 6.170]     |
| PEF B Factor   | -0.503  |       | [-0.700, -0.410]   |

|                                     |         |       |                          |
|-------------------------------------|---------|-------|--------------------------|
| Caliper Shop Calibration performed: |         |       | Mon Jan 14 09:49:12 2013 |
| RESULTS                             |         |       |                          |
| Reference                           | Reading | Units |                          |
| 12.00                               | 1962.83 | in    |                          |
| 9.00                                | 2127.84 | in    |                          |
| 6.00                                | 2292.80 | in    |                          |

|                                     |        |                          |                  |  |
|-------------------------------------|--------|--------------------------|------------------|--|
| DENSITY PRE-SURVEY CHECK Performed: |        | Tue Jan 22 00:05:14 2013 |                  |  |
| Outputs                             | Counts | Units                    | Expected         |  |
| SS1 Background                      | 144.18 | cps                      | [138.70, 147.28] |  |
| LS1 Background                      | 155.08 | cps                      | [149.24, 158.47] |  |
| LS4 Background                      | 32.54  | cps                      | [27.00, 35.00]   |  |

|                                        |  |          |  |                          |     |                          |
|----------------------------------------|--|----------|--|--------------------------|-----|--------------------------|
| LS4 Background                         |  |          |  | 32.54                    | cps | [30.35, 34.22]           |
| CALIPER PRE-SURVEY CHECK Performed:    |  |          |  |                          |     | Tue Jan 22 00:06:05 2013 |
| Reference                              |  | Readings |  | Units                    |     | Expected                 |
| 6.00                                   |  | 6.05     |  | in                       |     | [5.80, 6.20]             |
|                                        |  |          |  |                          |     |                          |
|                                        |  |          |  |                          |     |                          |
| Compensated Neutron Calibration Report |  |          |  |                          |     |                          |
| Tool Model-Serial Number:              |  |          |  | PS-PS06N                 |     |                          |
| Source Number:                         |  |          |  |                          |     |                          |
| Calibration Tank Temperature:          |  |          |  | 61.8 degF                |     |                          |
| Shop Calibration Performed:            |  |          |  | Fri Jan 11 09:31:55 2013 |     |                          |
| BACKGROUND MEASUREMENT                 |  |          |  |                          |     |                          |
| Outputs                                |  | Measured |  | Units                    |     | Expected                 |
| SS Counts                              |  | 0.0      |  | cps                      |     | <10                      |
| LS Counts                              |  | 0.0      |  | cps                      |     | <4                       |
| WATER TANK REFERENCE                   |  |          |  |                          |     |                          |
| Outputs                                |  | Measured |  | Units                    |     | Expected                 |
| SS Counts                              |  | 788.2    |  | cps                      |     |                          |
| LS Counts                              |  | 26.9     |  | cps                      |     |                          |
| Tank Ratio Ref                         |  | 30.9580  |  | SS/LS                    |     |                          |
| Tank Ratio                             |  | 29.2485  |  | SS/LS                    |     |                          |
| Tank Ratio Gain                        |  | 1.0584   |  |                          |     | [0.85, 1.15]             |
| ALUMINUM SLEEVE REFERENCE              |  |          |  |                          |     |                          |
| Outputs                                |  | Measured |  | Units                    |     | Expected                 |
| SS Counts                              |  | 8731.7   |  | cps                      |     |                          |
| LS Counts                              |  | 852.7    |  | cps                      |     |                          |
| Al Ratio Ref                           |  | 10.797   |  | SS/LS                    |     |                          |
| Al Ratio                               |  | 10.839   |  | SS/LS                    |     |                          |
| Al Ratio Gain                          |  | 1.00     |  |                          |     | [0.90, 1.10]             |
| Sleeve Porosity                        |  | 14.46    |  | pu                       |     |                          |
|                                        |  |          |  |                          |     |                          |
| PRE-SURVEY BACKGROUND CHECK Performed: |  |          |  |                          |     | Tue Jan 22 00:10:46 2013 |
| Outputs                                |  | Measured |  | Units                    |     | Expected                 |
| SS Counts                              |  | 0.0      |  | cps                      |     | <10                      |
| LS Counts                              |  | 0.1      |  | cps                      |     | <4                       |
|                                        |  |          |  |                          |     |                          |
| Gamma Ray Calibration Report           |  |          |  |                          |     |                          |
| Tool Model-Serial Number:              |  |          |  | PS-PS06N                 |     |                          |

Tool Model-Serial Number.

PS-PS30T

Performed:

Mon Jan 21 04:15:49 2013

Calibrator Value:

170.8

GAPI

Background Reading:

69.1

cps

Calibrator Reading:

470.0

cps

Sensitivity:

0.3750

GAPI/cps

## Inclinometer Calibration Report

Performed:

Sun Jun 13 14:33:21 1993

Low Read.

High Read.

Low Ref.

High Ref.

X Accelerometer

0.00

1.00

0.00

1.00

gee

Y Accelerometer

0.00

1.00

0.00

1.00

gee

Z Accelerometer

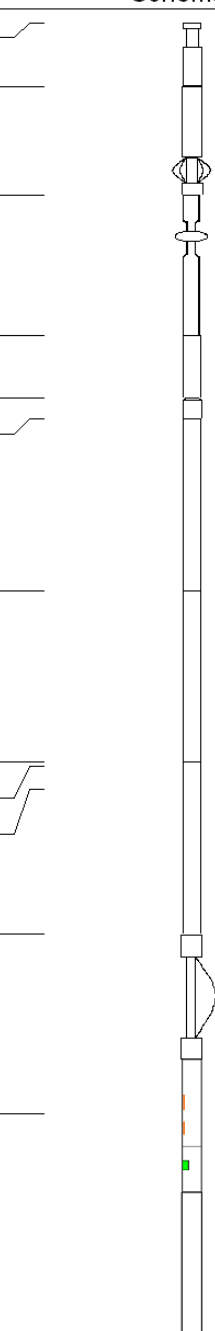
0.00

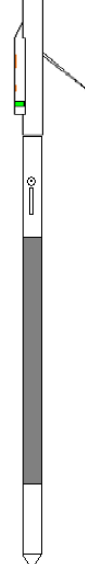
1.00

0.00

1.00

gee

| Sensor              | Offset (ft)             | Schematic                                                                          | Description                                   | Len (ft) | OD (in) | Wt (lb) |
|---------------------|-------------------------|------------------------------------------------------------------------------------|-----------------------------------------------|----------|---------|---------|
| ThruBit             | 67.59                   |  | Cablehead-S<br>Solid Weakpoint                | 2.31     | 2.13    | 5.00    |
| ThruBit             | 65.28                   |                                                                                    | PSBDOT                                        | 3.87     | 2.25    | 35.00   |
| ThruBit             | 61.41                   |                                                                                    | HangOff_Tool                                  | 5.00     | 2.38    | 60.00   |
| ThruBit             | 56.41                   |                                                                                    | Swivel                                        | 2.25     | 2.06    | 25.00   |
| ThruBit             | 54.16                   |                                                                                    | 10-1                                          | 0.75     | 2.13    | 3.95    |
| TBBAT               | 53.41                   |                                                                                    | TBBAT-A (PS07B)<br>ThruBit Battery            | 6.13     | 2.13    | 38.20   |
| TBBAT2              | 47.29                   |                                                                                    | TBBAT2-A (PS40B)<br>ThruBit Battery           | 6.13     | 2.13    | 40.00   |
| TMG<br>GR<br>GRTEMP | 41.16<br>41.04<br>40.20 |                                                                                    | TMG-PS (PS30T)<br>ThruBit Telemetry Gamma Ray | 6.13     | 2.13    | 45.00   |
| ThruBit             | 35.04                   |                                                                                    | Decentralizer<br>Decentralizer (Small)        | 4.50     | 2.13    | 70.00   |
| CNLSC               | 28.60                   |                                                                                    | TBN-PS (PS06N)<br>ThruBit Neutron             | 4.77     | 2.13    | 63.00   |
|                     |                         |                                                                                    | TBD-PS (PS03D)                                | 10.48    | 2.13    | 91.00   |

|               |       |                                                                                 |                                         |       |      |       |
|---------------|-------|---------------------------------------------------------------------------------|-----------------------------------------|-------|------|-------|
| LSW1          | 18.04 |  | ThruBit Density                         |       |      |       |
| DCAL          | 17.13 |                                                                                 |                                         |       |      |       |
| A1_P          | 10.60 |                                                                                 |                                         |       |      |       |
| A2_P          | 10.10 |                                                                                 |                                         |       |      |       |
| A3_P          | 9.35  |                                                                                 |                                         |       |      |       |
| A4_P          | 8.35  |                                                                                 |                                         |       |      |       |
| A5_P          | 6.60  |                                                                                 |                                         |       |      |       |
|               |       |                                                                                 | TBI-PS (PS14R)<br>ThruBit Induction     | 15.29 | 2.13 | 94.00 |
| Dataset:      |       |                                                                                 | bryant_mem.db: field/well/proc1/pass1.5 |       |      |       |
| Total Length: |       |                                                                                 | 67.59 ft                                |       |      |       |
| Total Weight: |       |                                                                                 | 570.15 lb                               |       |      |       |
| O.D.          |       |                                                                                 | 2.38 in                                 |       |      |       |

|                                                                                   |         |                   |
|-----------------------------------------------------------------------------------|---------|-------------------|
|  | Company | SANDRIDGE ENERGY  |
|                                                                                   | Well    | BRYANT 3508 1-10H |
|                                                                                   | Field   | WALDRON           |
|                                                                                   | County  | HARPER            |
|                                                                                   | State   | KANSAS            |