



**ThruBit**  
A Schlumberger Company

**ARRAY INDUCTION  
DENSITY / NEUTRON  
GAMMA RAY  
MEMORY LOG**

|                              |                                                                                                              |                             |                              |
|------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|
| Company                      | SHELL EXP. & PROD. CO., INC.                                                                                 | Company                     | SHELL EXP. & PROD. CO., INC. |
| Well                         | HARRIS FARMS 3407 8-1H                                                                                       | Well                        | HARRIS FARMS 3407 8-1H       |
| Field                        | ARROWHEAD                                                                                                    | Field                       | ARROWHEAD                    |
| County                       | HARPER                                                                                                       | County                      | HARPER                       |
| State                        | KANSAS                                                                                                       | State                       | KANSAS                       |
| Location:                    | API #: 15-077-21846-01-00<br>SHL: 2180 FWL & 330' FNL<br>PBHL: 2990' FWL & 330' FSL<br>SEC 8 TWP 34S RGE 07W | Other Services<br>SONIC LOG |                              |
| Permanent Datum              | G.L.                                                                                                         | Elevation                   | 1348'                        |
| Log Measured From            | D.F.                                                                                                         | D.F.                        | 26.7' ABOVE PERM DATUM       |
| Drilling Measured From       | D.F.                                                                                                         | G.L.                        | 1348'                        |
| Date                         | 20 OCTOBER 2012                                                                                              |                             |                              |
| Run Number                   | ONE                                                                                                          |                             |                              |
| Depth Driller                | 9152'                                                                                                        |                             |                              |
| Depth Logger                 | 9056'                                                                                                        |                             |                              |
| Bottom Logged Interval       | 9046'                                                                                                        |                             |                              |
| Top Log Interval             | 5374'                                                                                                        |                             |                              |
| Casing Driller               | 7.0" @ 5363'                                                                                                 |                             |                              |
| Casing Logger                | 5374'                                                                                                        |                             |                              |
| Bit Size                     | 6.125                                                                                                        |                             |                              |
| Type Fluid in Hole           | WBM                                                                                                          |                             |                              |
| Density / Viscosity          | 8.55 / 31                                                                                                    |                             |                              |
| pH / Fluid Loss              | 7.0 / 27                                                                                                     |                             |                              |
| Source of Sample             | MUD PIT                                                                                                      |                             |                              |
| Rim @ Meas. Temp             | 1.54 ohms @ 74 degf                                                                                          |                             |                              |
| Rinf @ Meas. Temp            | 1.16 ohms @ 64 degf                                                                                          |                             |                              |
| Rmc @ Meas. Temp             | 1.93 ohms @ 62 degf                                                                                          |                             |                              |
| Source of Rinf / Rmc         | MEASURED                                                                                                     |                             |                              |
| Rim @ BHT                    | 0.79 ohms @ 138 degf                                                                                         |                             |                              |
| Time Circulation Stopped     | 20:30                                                                                                        |                             |                              |
| Time Logger on Bottom        | 01:30                                                                                                        |                             |                              |
| Maximum Recorded Temperature | 138 degf                                                                                                     |                             |                              |
| Equipment Number             | T004                                                                                                         |                             |                              |
| Location                     | OKC, OK                                                                                                      |                             |                              |
| Recorded By                  | DENGLER                                                                                                      |                             |                              |
| Witnessed By                 | CHARLES STRICKLAND                                                                                           |                             |                              |

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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: LEVEL 4 HORIZONTAL PUMP DOWN MEMORY BIT DEPTH: 8957' LOGGED TO: 5374'  
ALL SCALES AND PRESENTATIONS PER CLIENT REQUEST  
LIMESTONE MATRIX, 2.71 g/cc. USED FOR POROSITY MEASUREMENTS  
TOOLSTING RAN WITH SMALL DE-CENTRALIZER, SWIVEL, KNUCKLES, S. CENTRALIZER AND NO S  
TBHV REPRESENTS TOTAL BORHOLE VOLUME, ft3  
ABHV REPRESENTS ANNULAR HOLE VOLUME, CALCULATED FOR 4.5" CSG., ft3  
RIGMINDER AND CANRIG USED TO ACQUIRE LOG DEPTH  
LOG CORRELATED TO MWD  
CL=3000 mg/l NaCl=4120 mg/l NO BARITE  
CASING SIZE 7.00" 23.0 LB FT ID 6.366" CALI DIA 6.38" NO CORRECTION MADE  
RIG: NABORS F01  
CREW: J. DENGLER, K. REED, J. DOTY

|                                                                                            |      |         |                    |           |             |
|--------------------------------------------------------------------------------------------|------|---------|--------------------|-----------|-------------|
| Service Ticket No.                                                                         | 1515 | API No. | 15-007-21846-01-00 | PGM Ver   | WARRIOR 7.0 |
| The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client |      |         |                    |           |             |
| EQUIPMENT DATA                                                                             |      |         |                    |           |             |
| GAMMA RAY                                                                                  |      | NEUTRON |                    | DENSITY   |             |
|                                                                                            |      |         |                    | INDUCTION |             |

|                         |           |            |           |            |                      |            |           |
|-------------------------|-----------|------------|-----------|------------|----------------------|------------|-----------|
| Run No.                 | ONE       | Run No.    | ONE       | Run No.    | ONE                  | Run No.    | ONE       |
| Serial No.              | ENP2T     | Serial No. | PS5N      | Serial No. | PS01D                | Serial No. | PS28R     |
| Model No.               | ENP       | 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                     | 9056'     | 5374'      |           | 30         |                      |            |           |
|                         |           |            |           |            |                      |            |           |
|                         | GAMMA RAY |            | NEUTRON   |            | DENSITY              |            | INDUCTION |
| Pass                    | Scale     |            | Scale     |            | Scale                |            | Scale     |
| No.                     | L         | R          | L         | R          | L                    | R          | L         |
| ONE                     | 0 API     | 150 API    | 45%       | -15%       | 1.95 g/cc            | 2.95 g/cc  | 0.2 ohm-m |
|                         |           |            |           |            |                      |            |           |
| DIRECTIONAL INFORMATION |           |            |           |            |                      |            |           |
| Maximum Deviation       | 92.5      | deg. @     | 7769'     | KOP        | 4140'                |            |           |
|                         |           |            |           |            |                      |            |           |
|                         |           |            |           |            |                      |            |           |

```

Job Times
Job # : 1515
Operator : Shell Oil
Well name : Harris Farms 3407 8-1H
Job level : Level 4
TimelIne of Bit Times
DateStart TimeElapsed Time (HH:MM)Time CodeNotes
TimelIne of Crew / Logging Equipment Times
DateStart TimeElapsed Time (HH:MM)Time CodeNotes
19 Oct 201210:00L00 : Time stamp - activity start
19 Oct 201212:0002:00L03 : Job preparation
19 Oct 201215:3003:30L01 : Logging eqt travel time
19 Oct 201221:0005:30L20 : Logging eqt standby time
19 Oct 201221:3000:30L31 : Logging rig up / down time
20 Oct 201202:0004:30L30 : Logging operating time"run in hole, release tools a
20 Oct 201202:3000:30L31 : Logging rig up / down time
20 Oct 201206:3004:00L30 : Logging operating timepull pipe from 8974 to 4094 a
20 Oct 201207:0000:30L31 : Logging rig up / down time
20 Oct 201208:0001:00L30 : Logging operating time"run in hole, retrieve tools
20 Oct 201208:3000:30L31 : Logging rig up / down time"rig down tools and equipm
20 Oct 201212:0003:30L80 : Data processing timeprocessed logs and emailed data
20 Oct 201215:3003:30L01 : Logging eqt travel time"return to shop
20 Oct 201220:3005:00L90 : Job cleanup

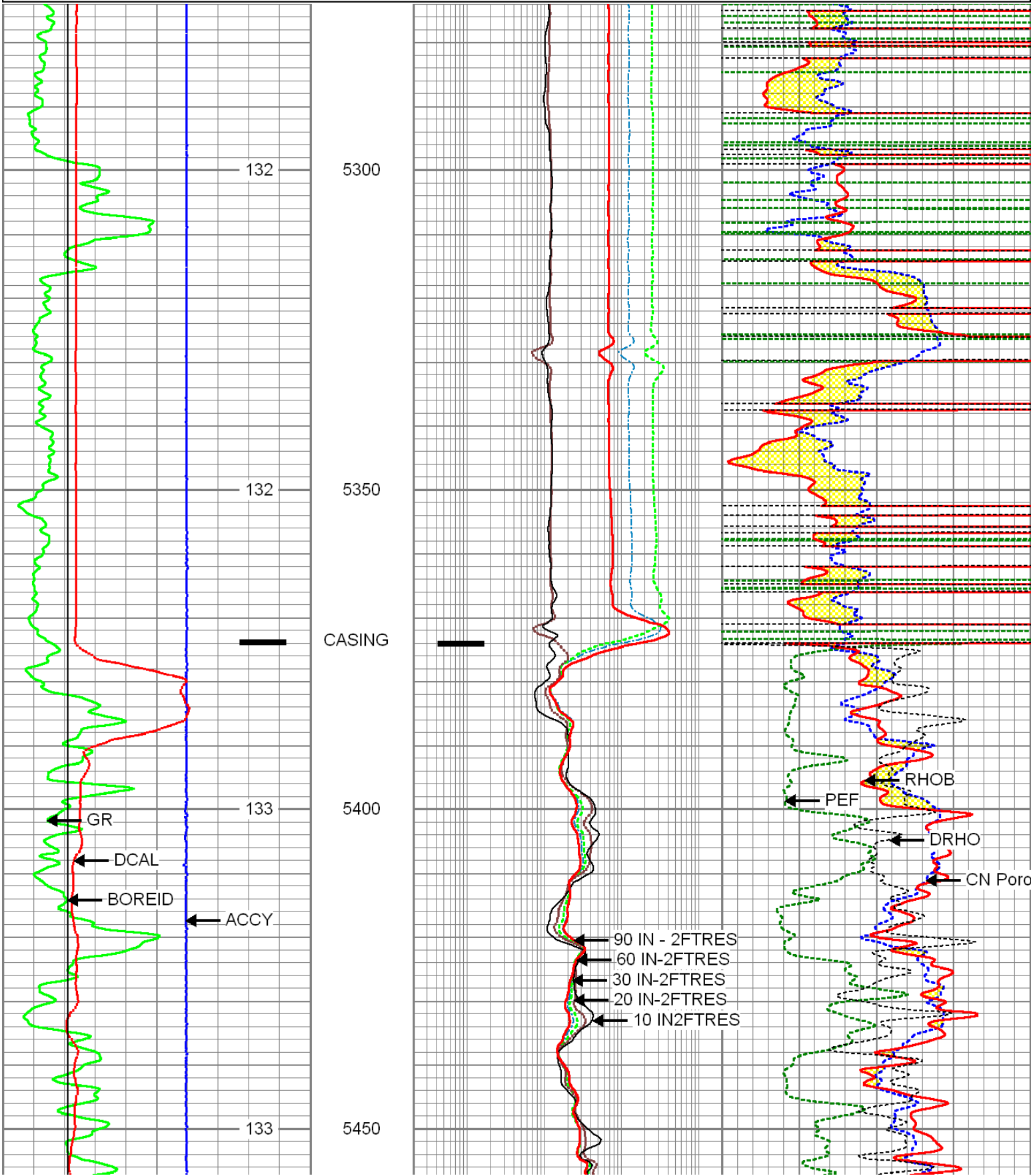
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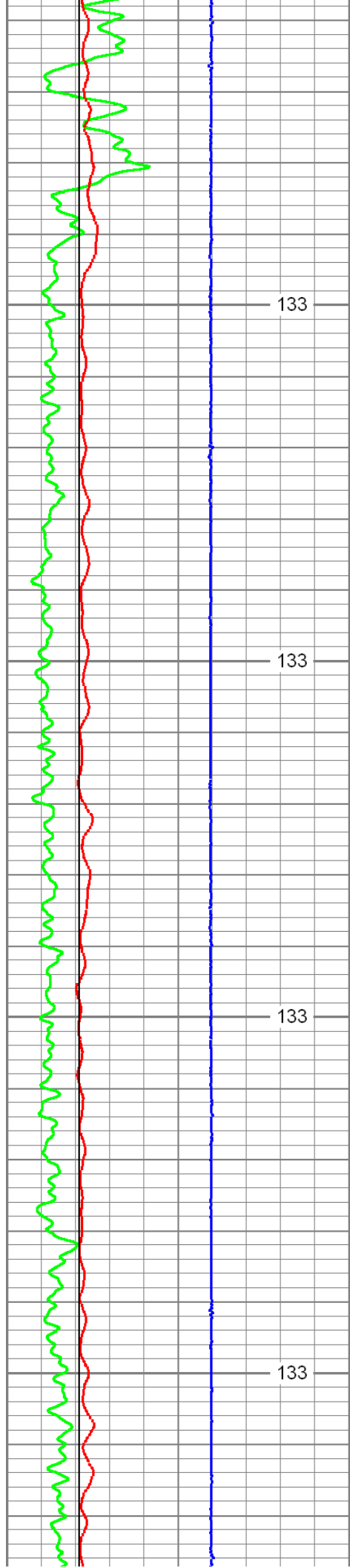


# MAIN PASS

Database File: harris\_farms\_8-1h\_mem1.db  
 Dataset Pathname: proc1/pass1.4  
 Presentation Format: 6\_SH\_T~1

|    |             |               |     |                        |      |       |                  |      |
|----|-------------|---------------|-----|------------------------|------|-------|------------------|------|
| 0  | GR (GAPI)   | 150           | 0.2 | 60 IN-2FTRES (Ohm-m)   | 2000 | 45    | CN Porosity (pu) | -15  |
| -5 | ACCY        | 5             | 0.2 | 30 IN-2FTRES (Ohm-m)   | 2000 | 0     | PEF (barn)       | 10   |
| 4  | DCAL (in)   | 14            | 0.2 | 20 IN-2FTRES (Ohm-m)   | 2000 | 1.95  | RHOB (g/cc)      | 2.95 |
| 4  | BOREID (in) | 14            | 0.2 | 10 IN2FTRES (Ohm-m)    | 2000 | -0.25 | DRHO (g/cc)      | 0.25 |
|    |             | GRTEMP (degF) | 0.2 | 90 IN - 2FTRES (Ohm-m) | 2000 |       |                  |      |



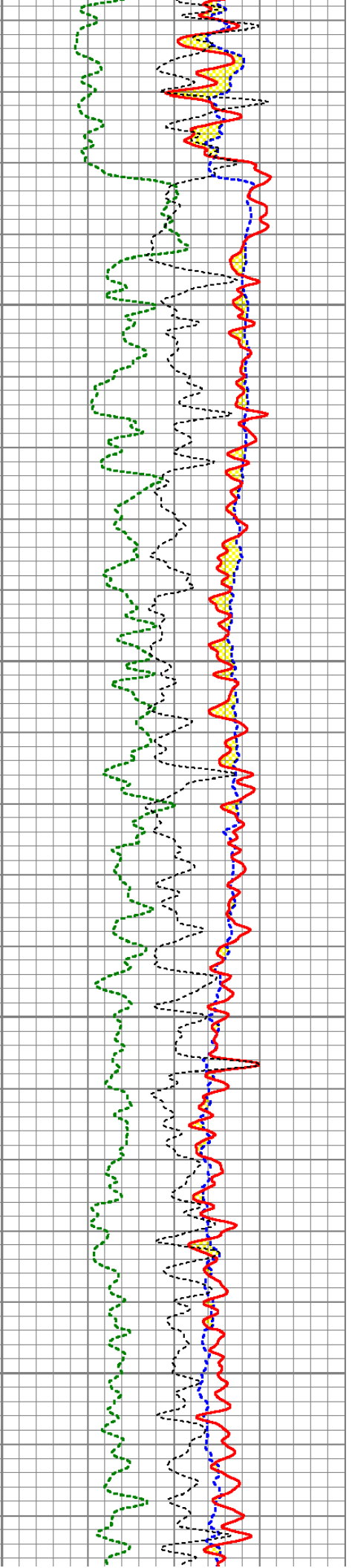
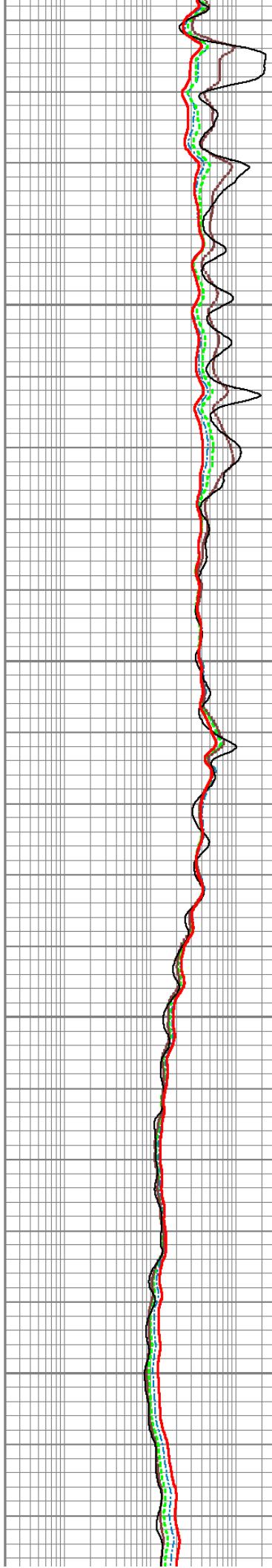


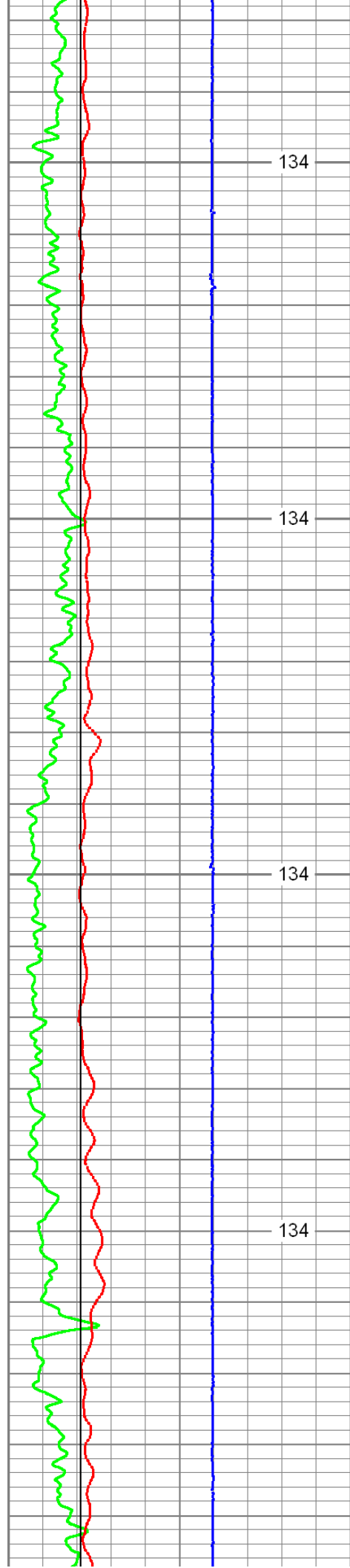
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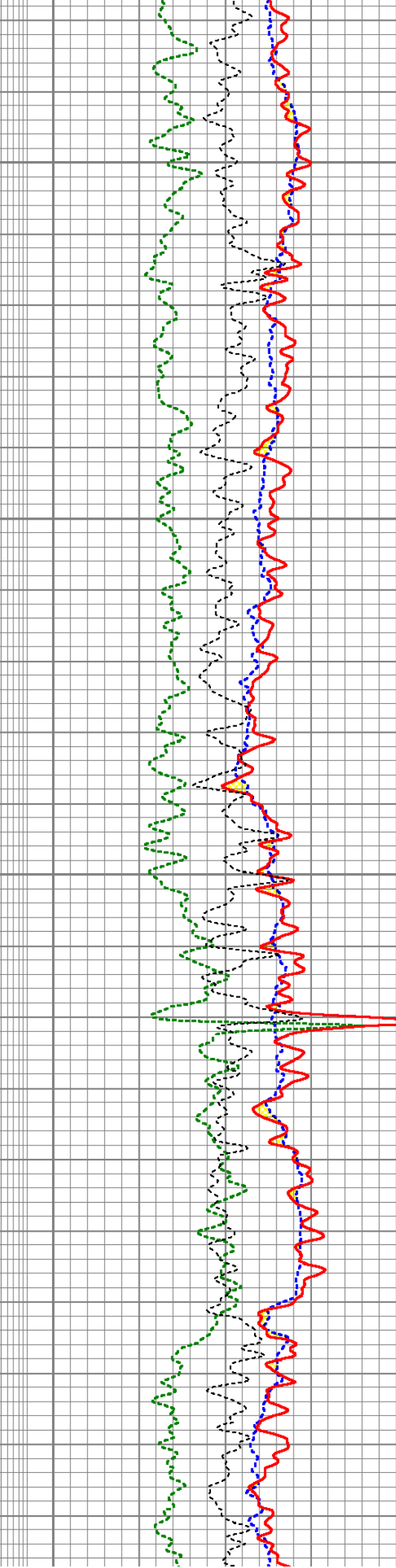
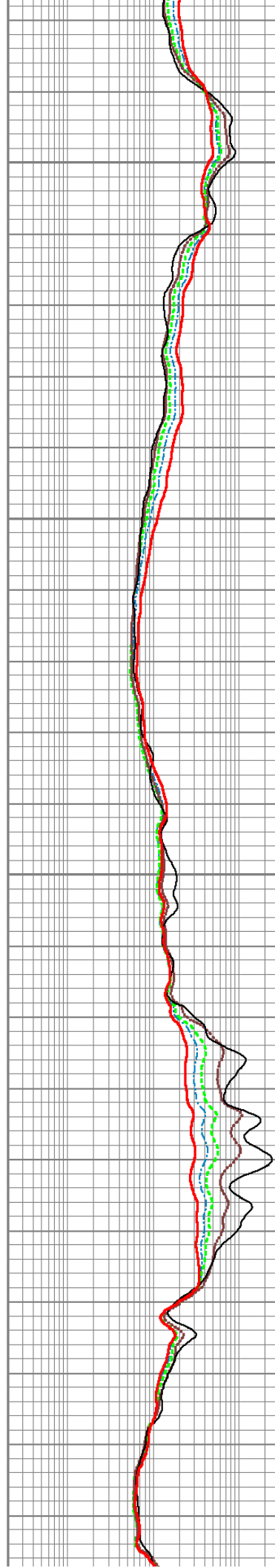


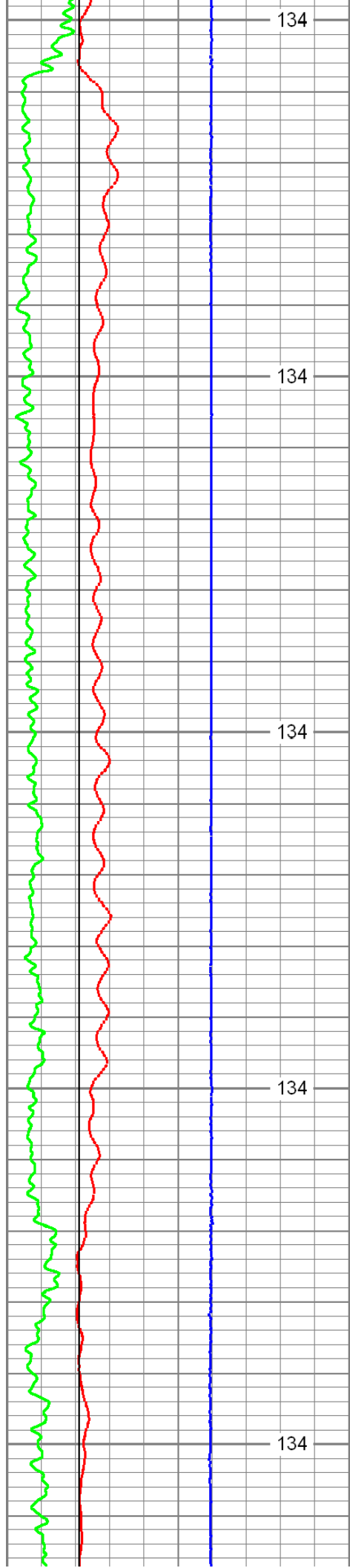
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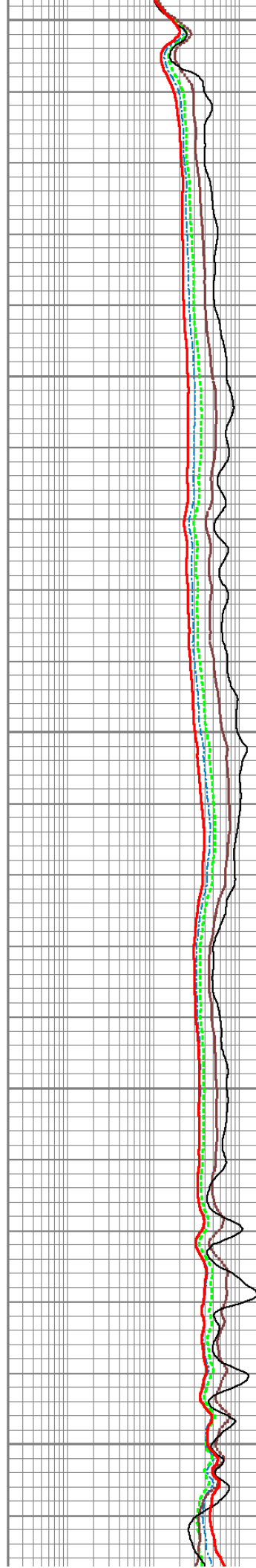
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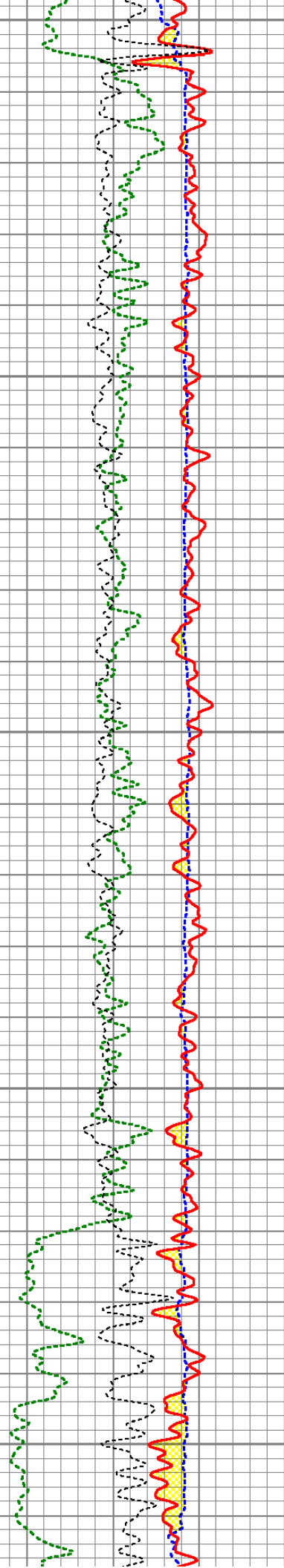
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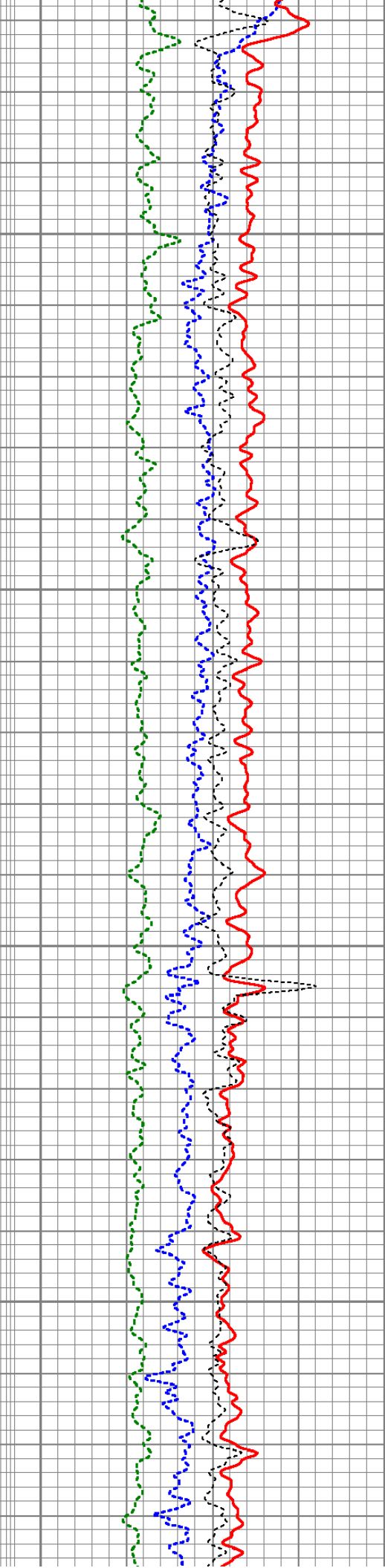
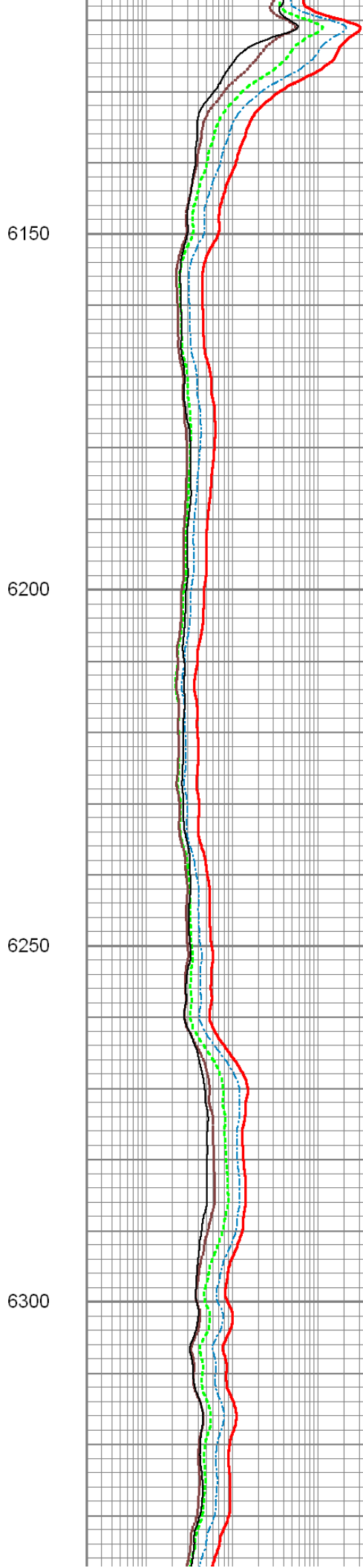
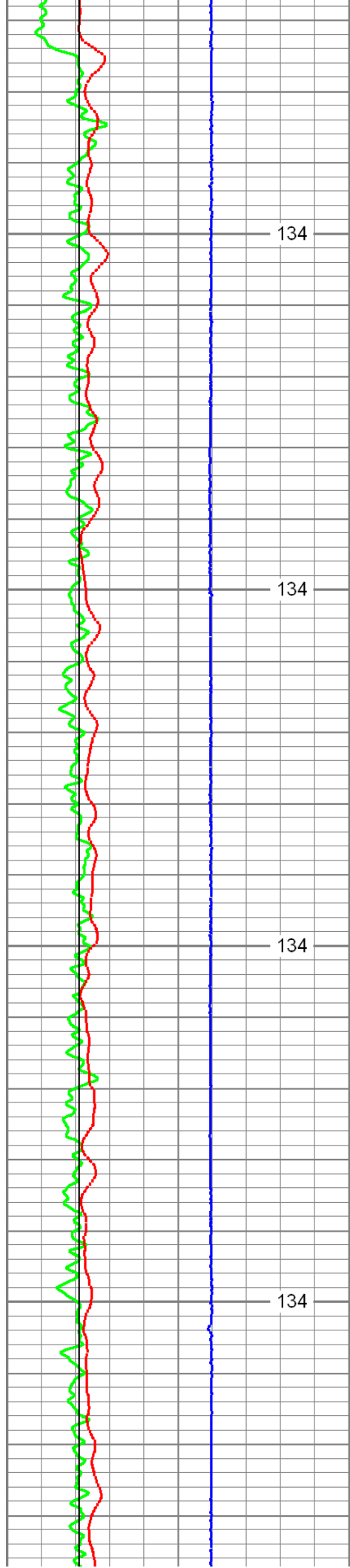
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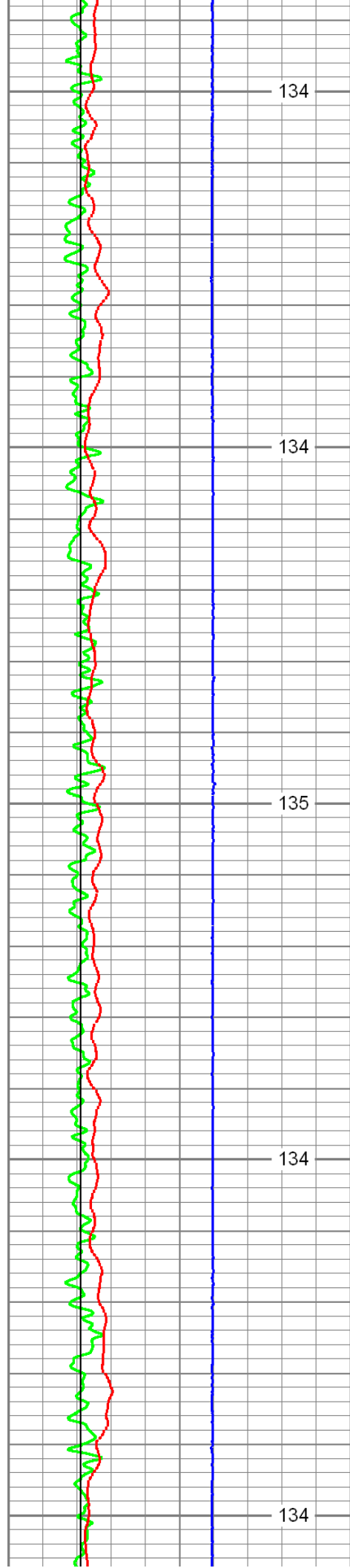
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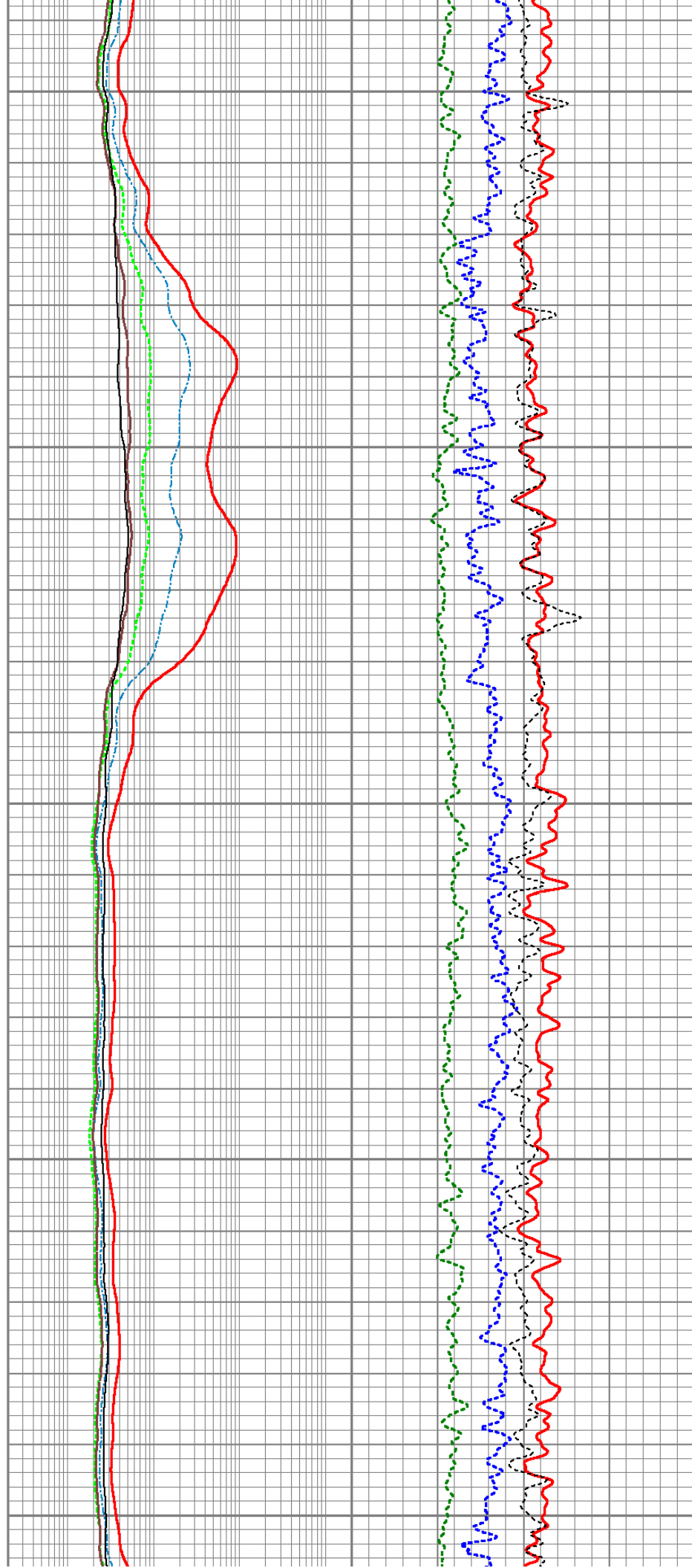
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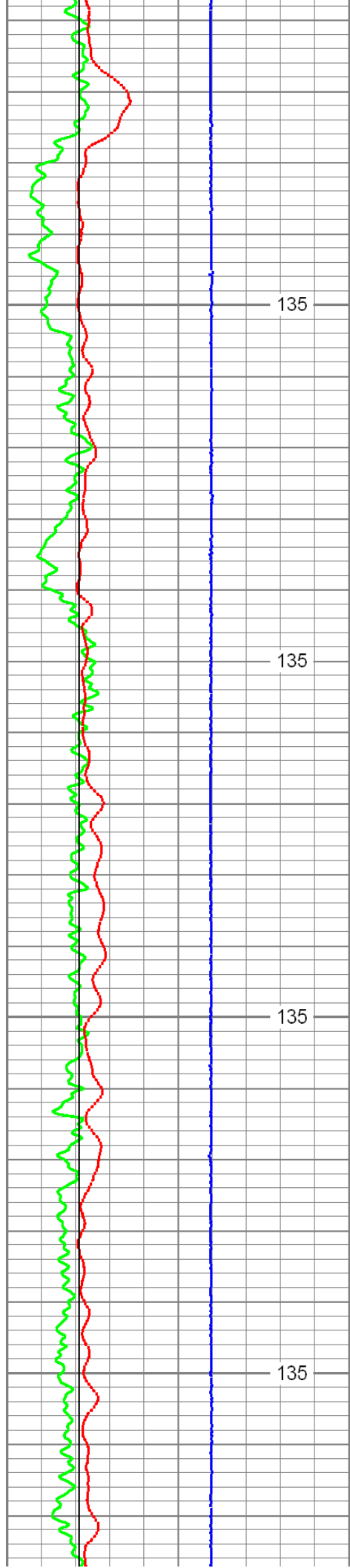
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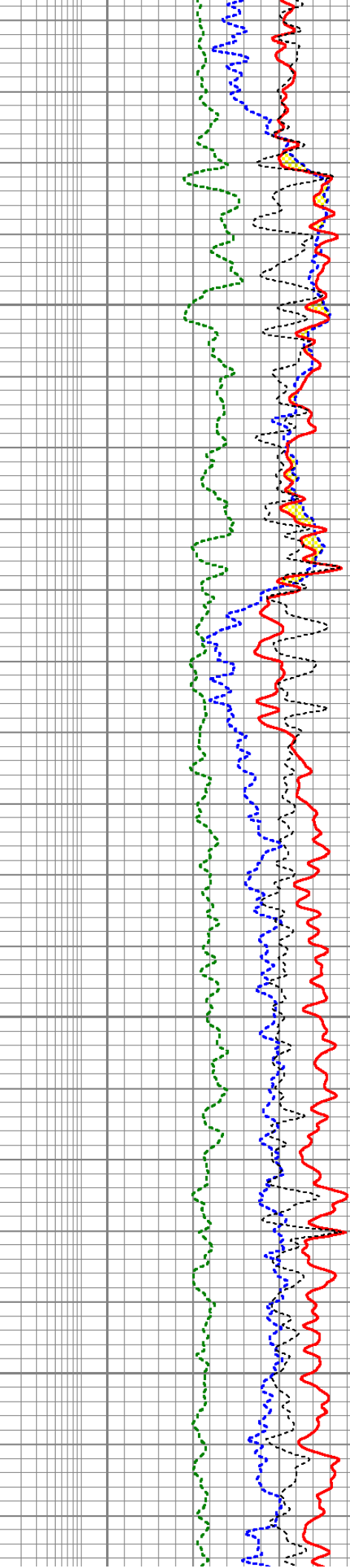
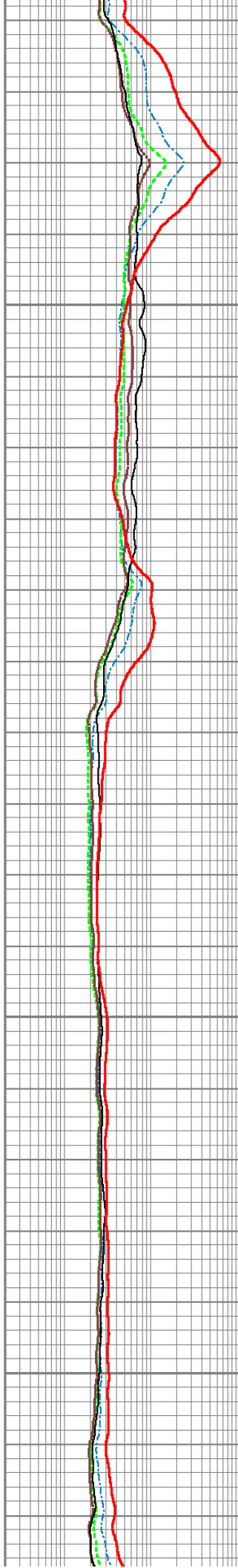
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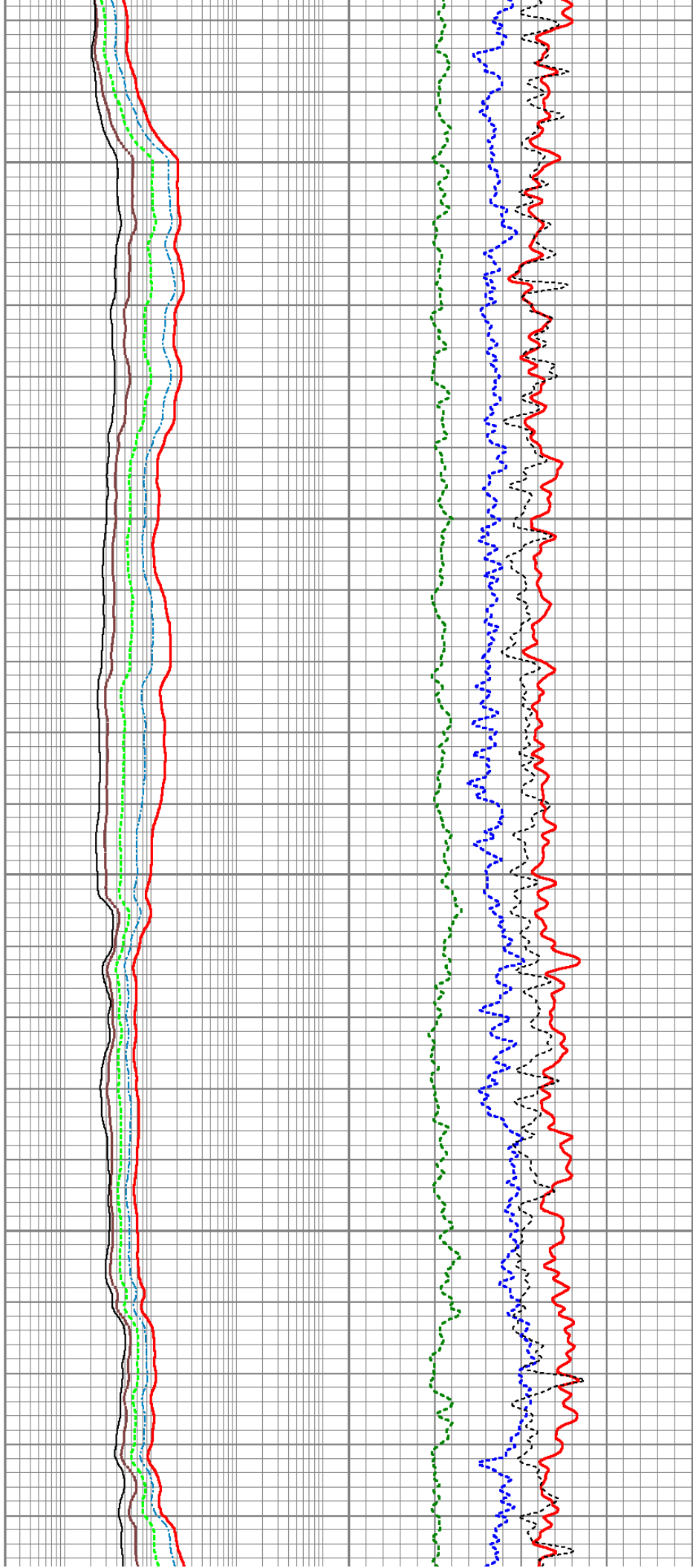
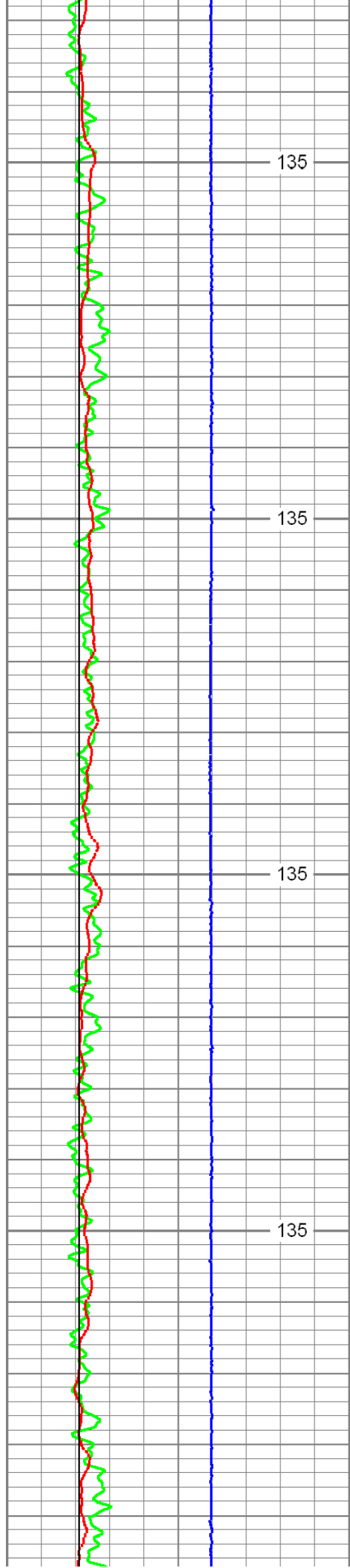
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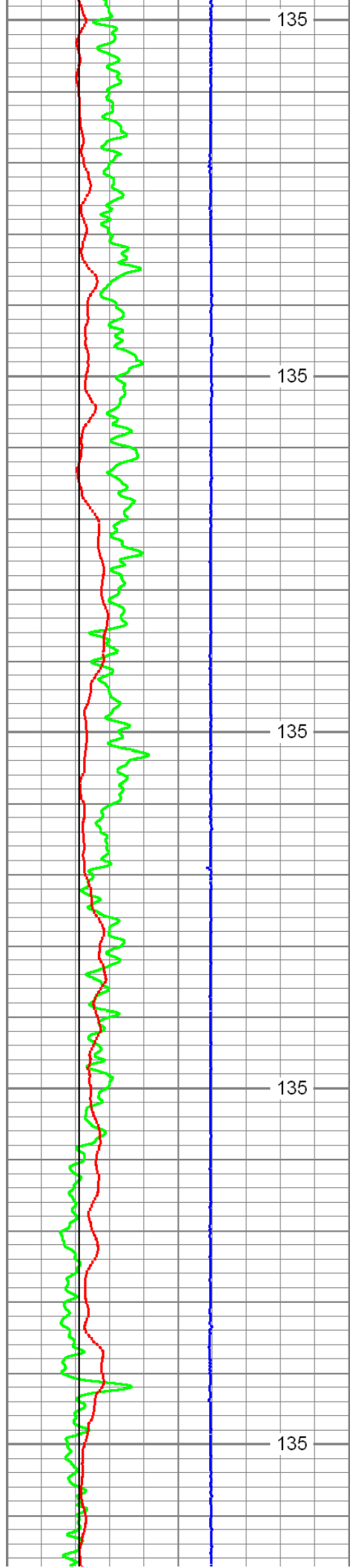
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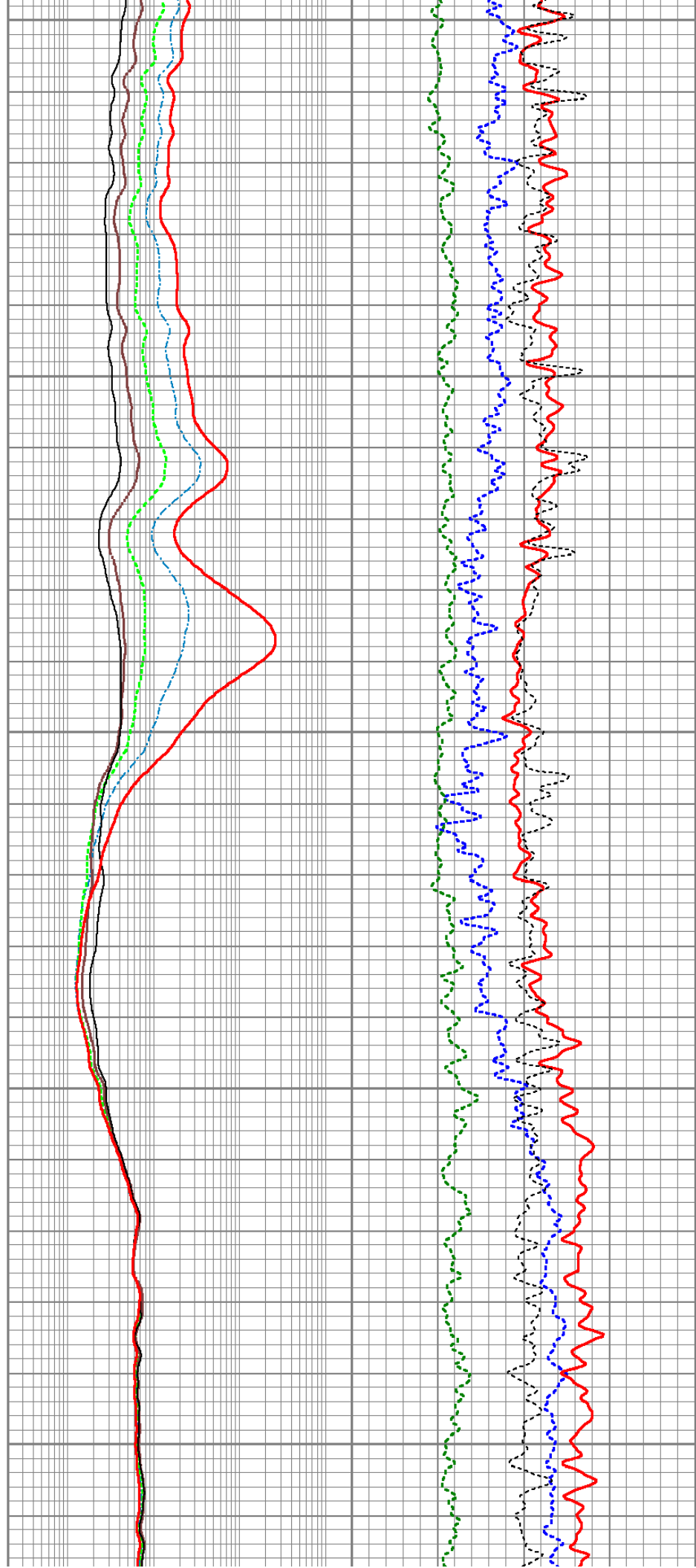
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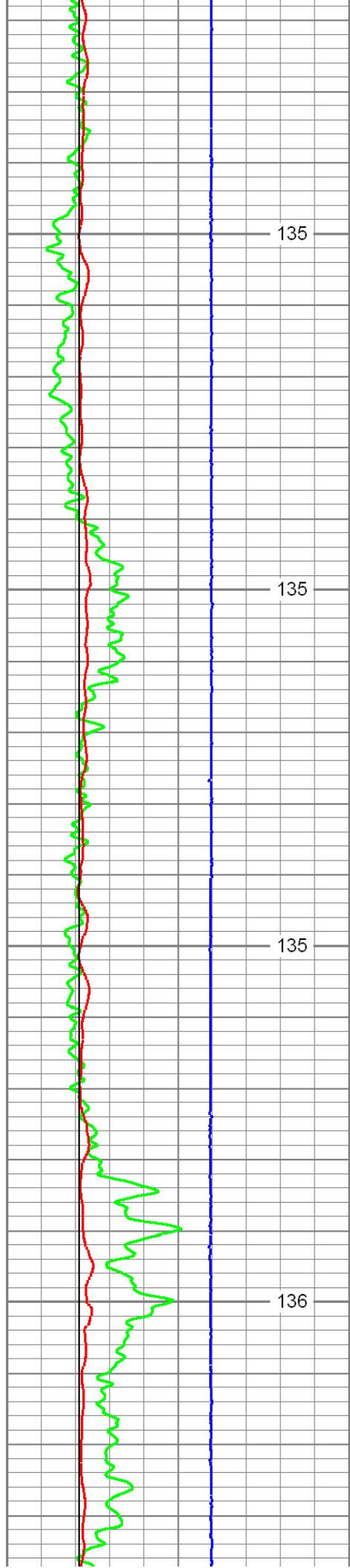






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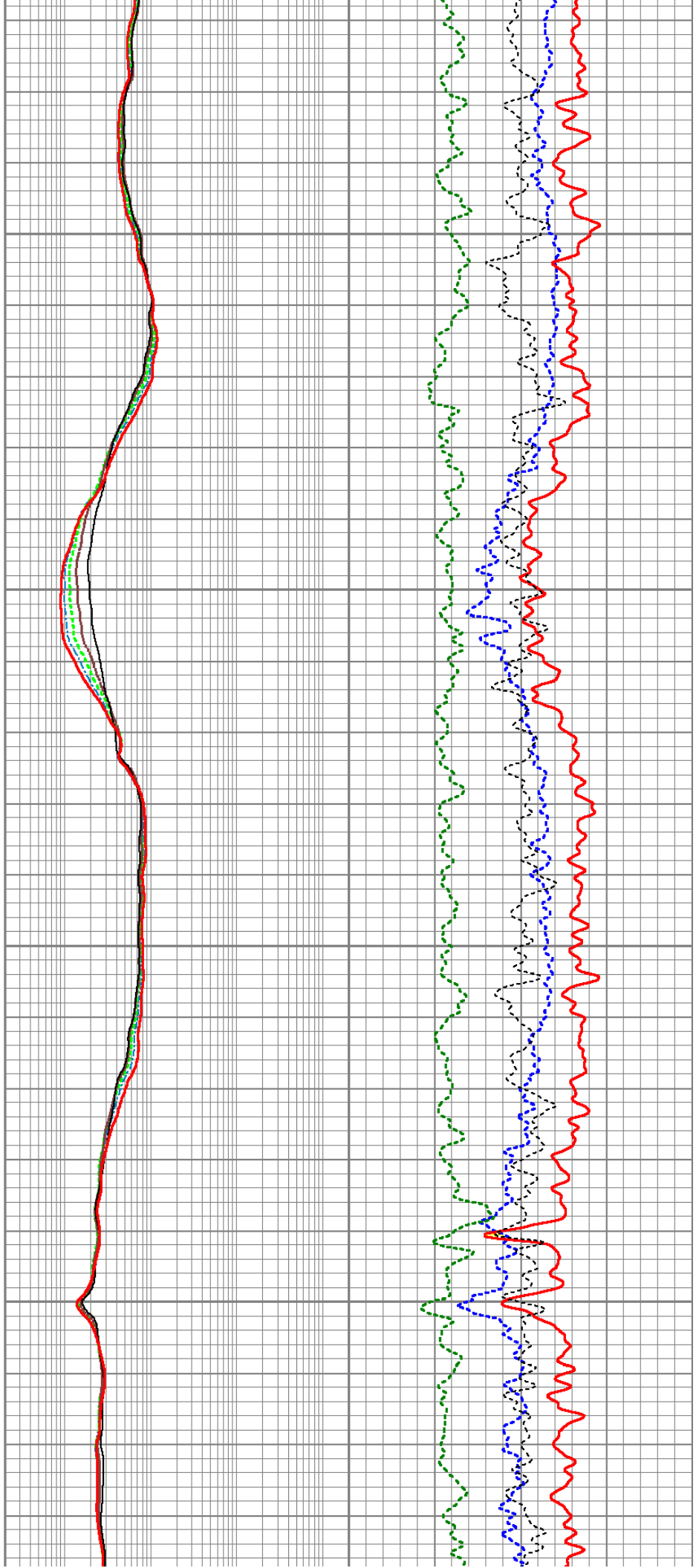


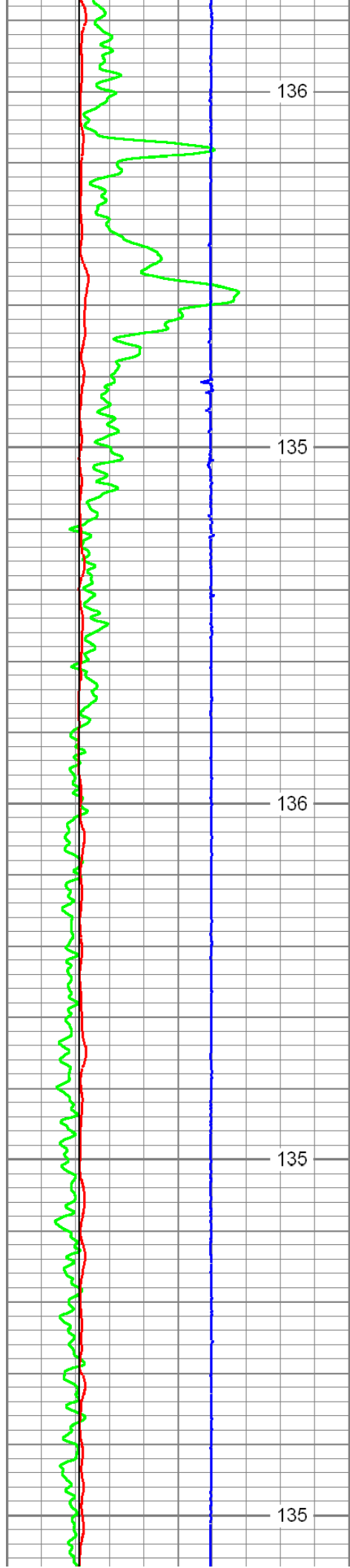
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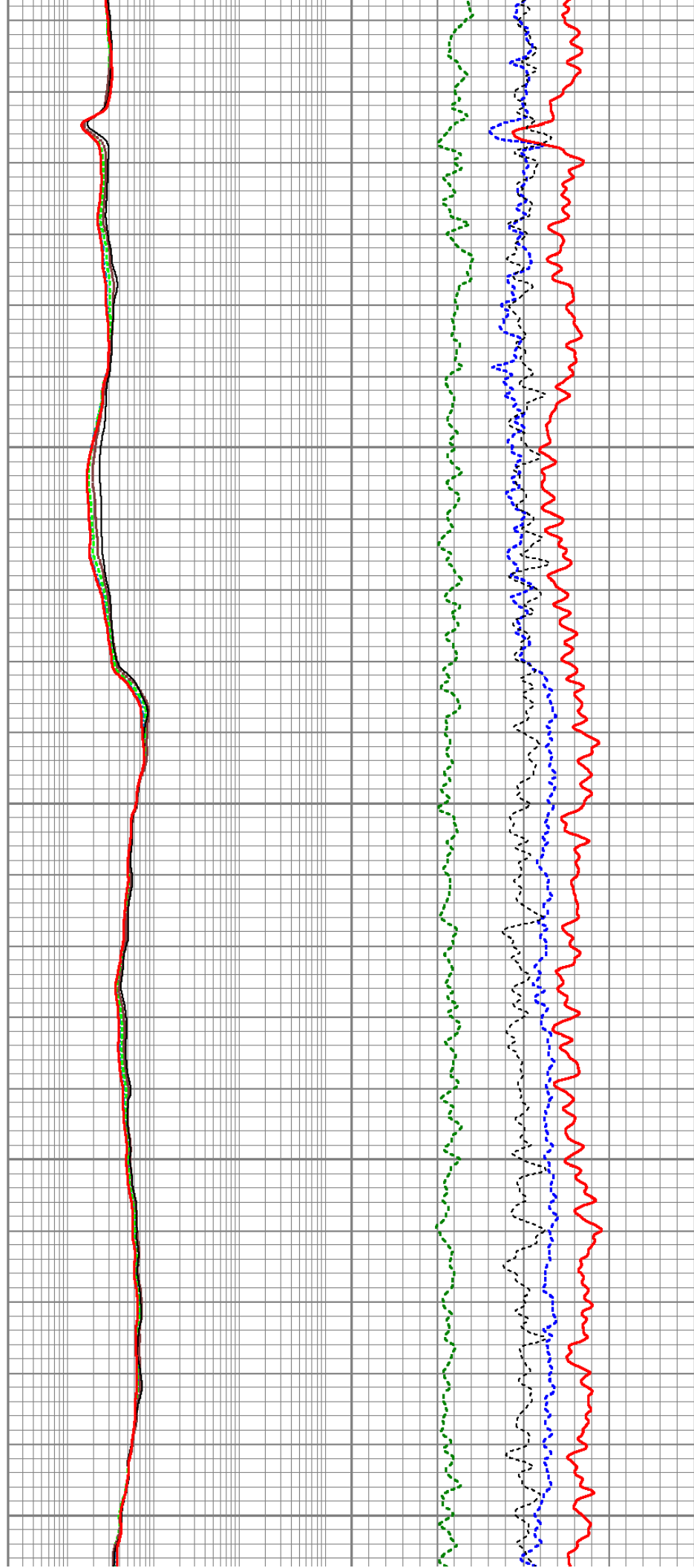
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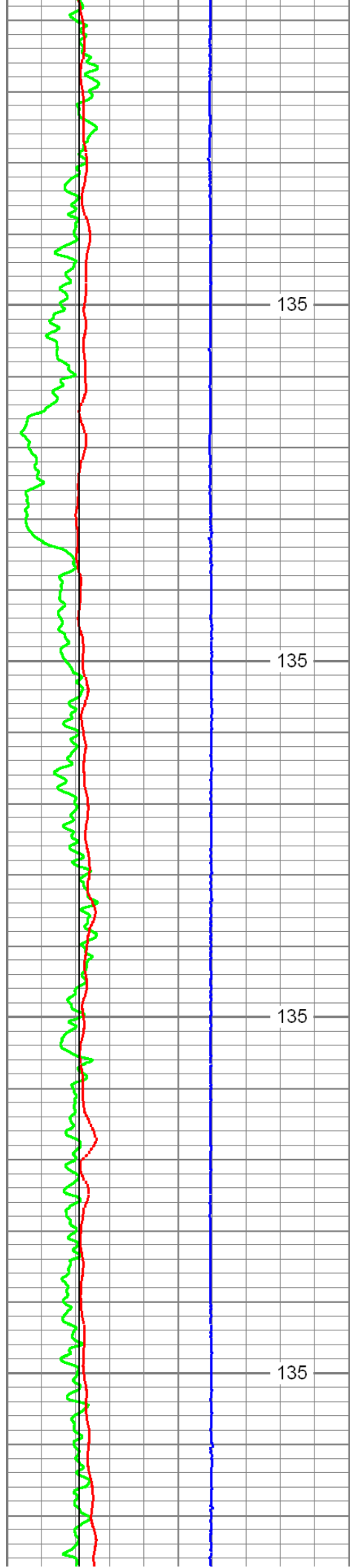
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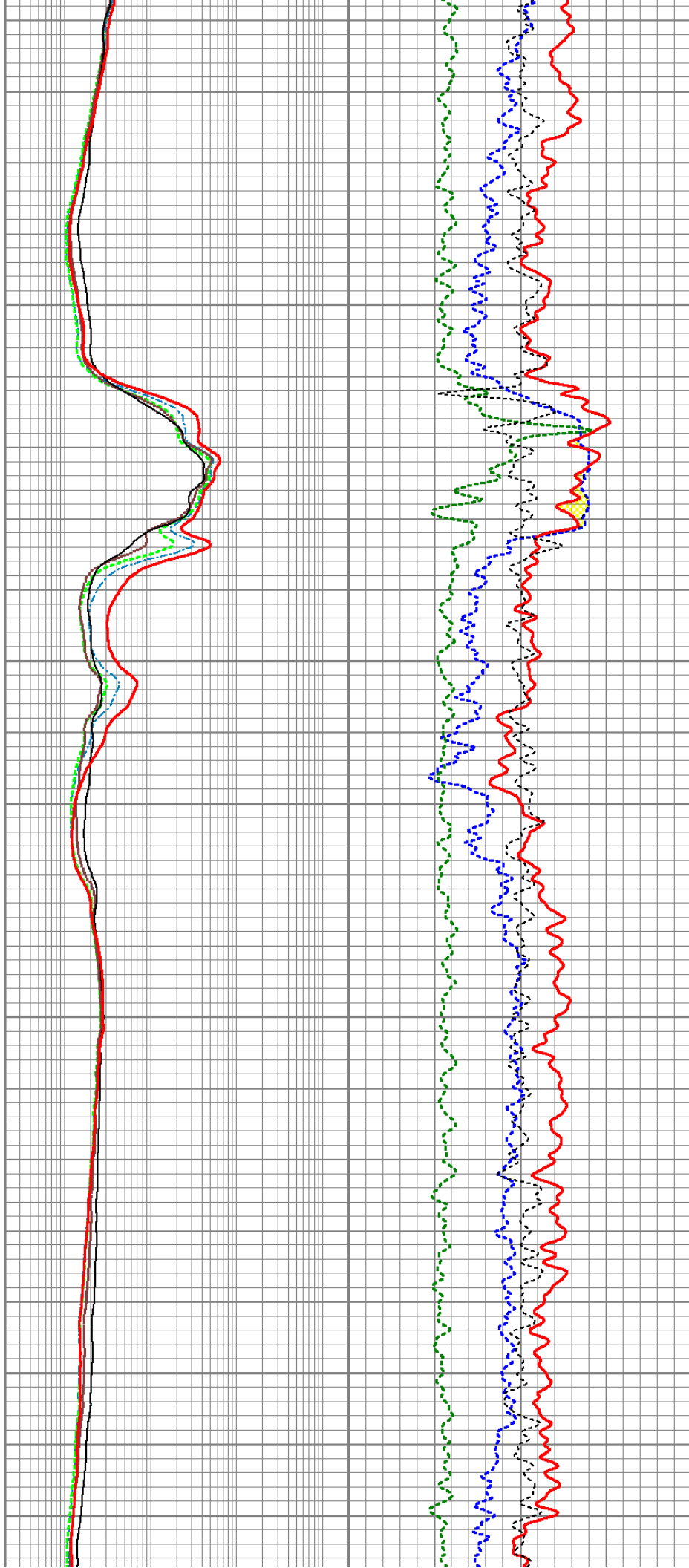
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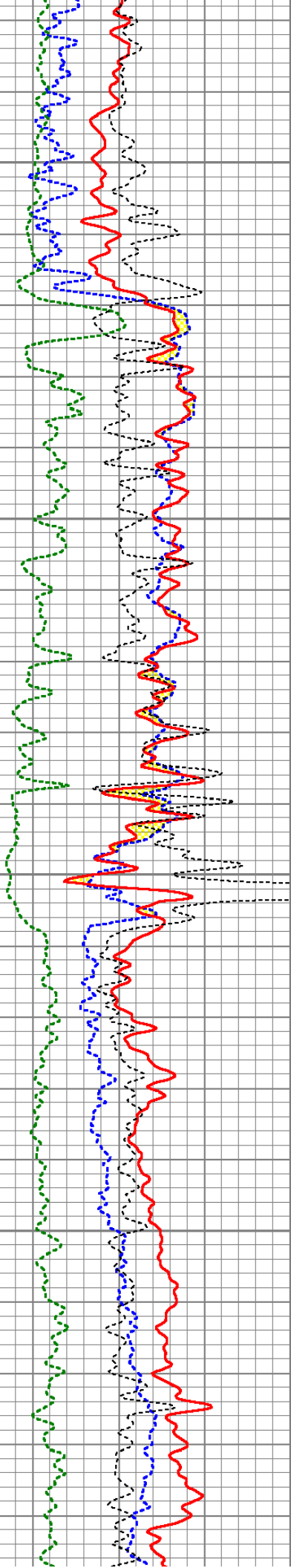
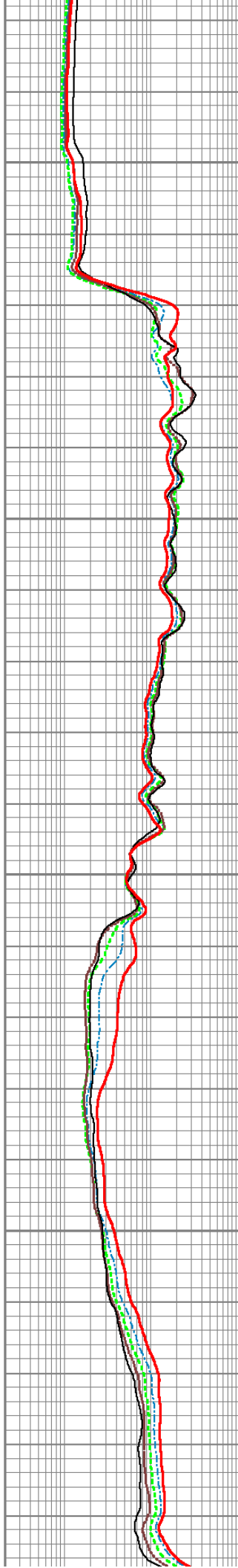
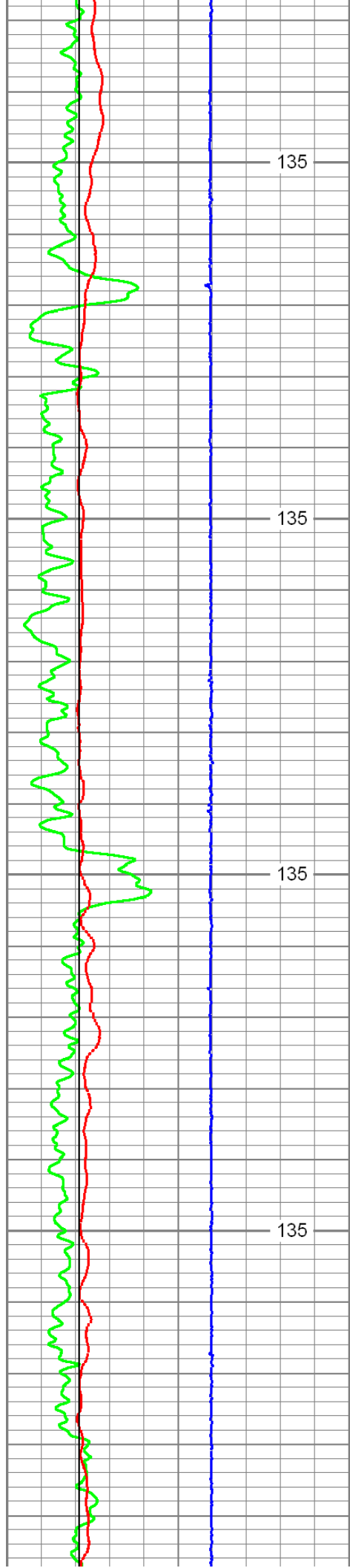
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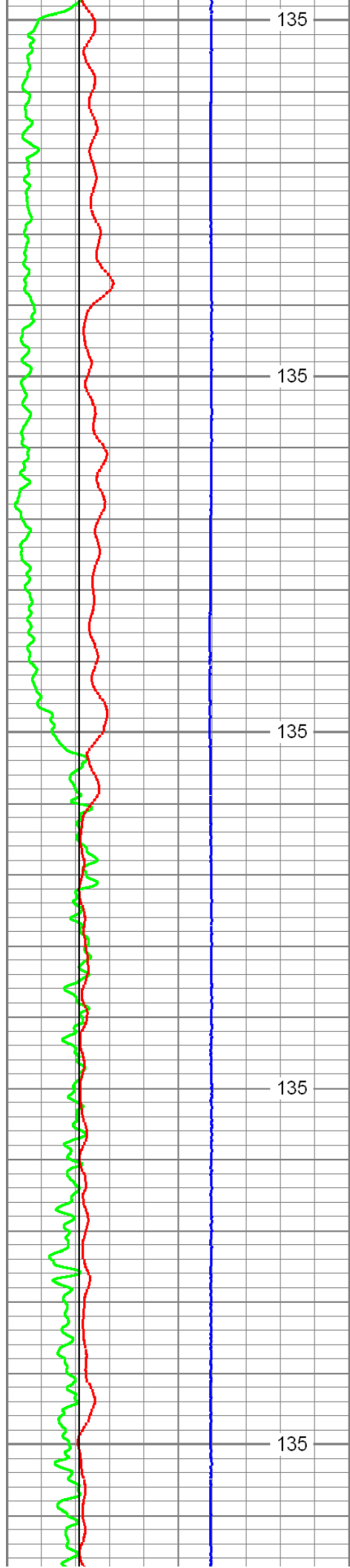
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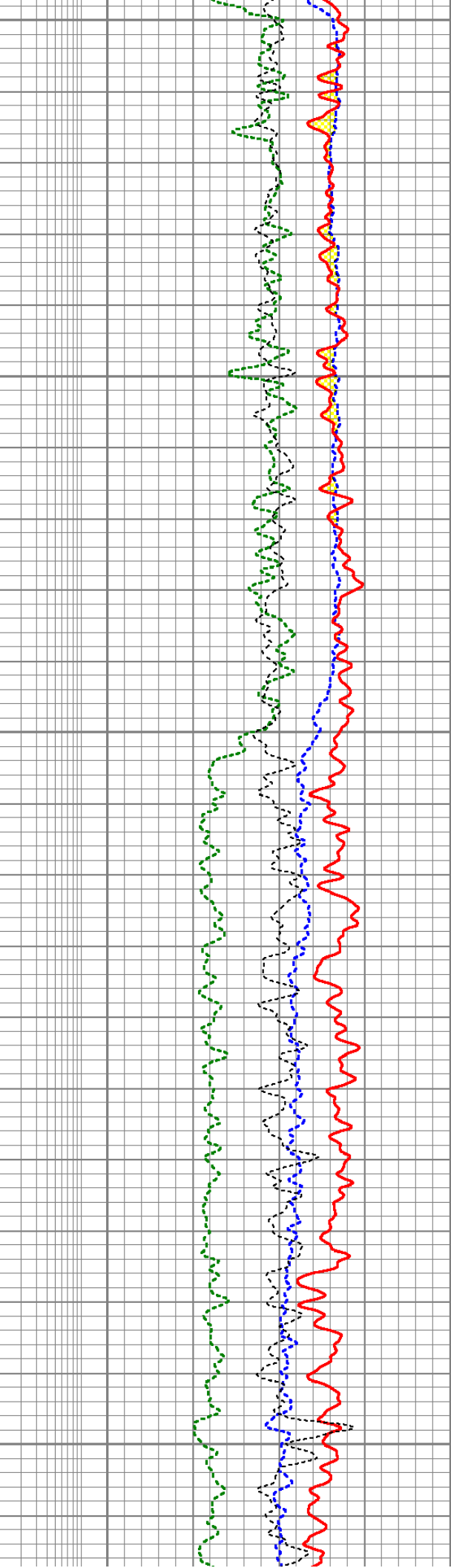
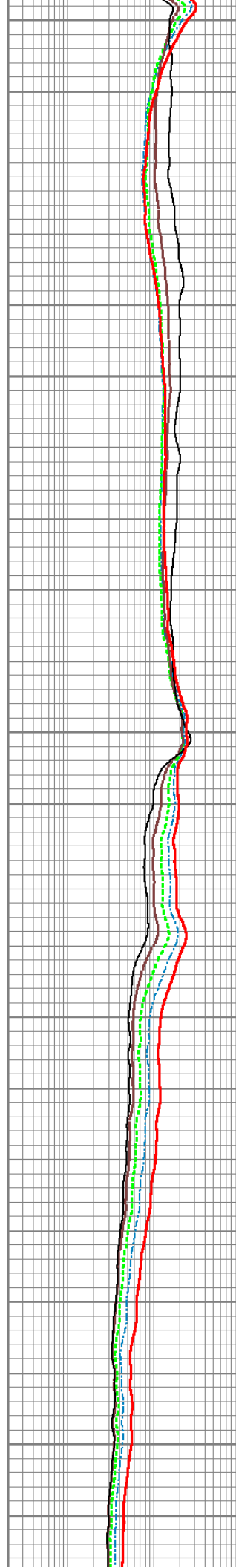
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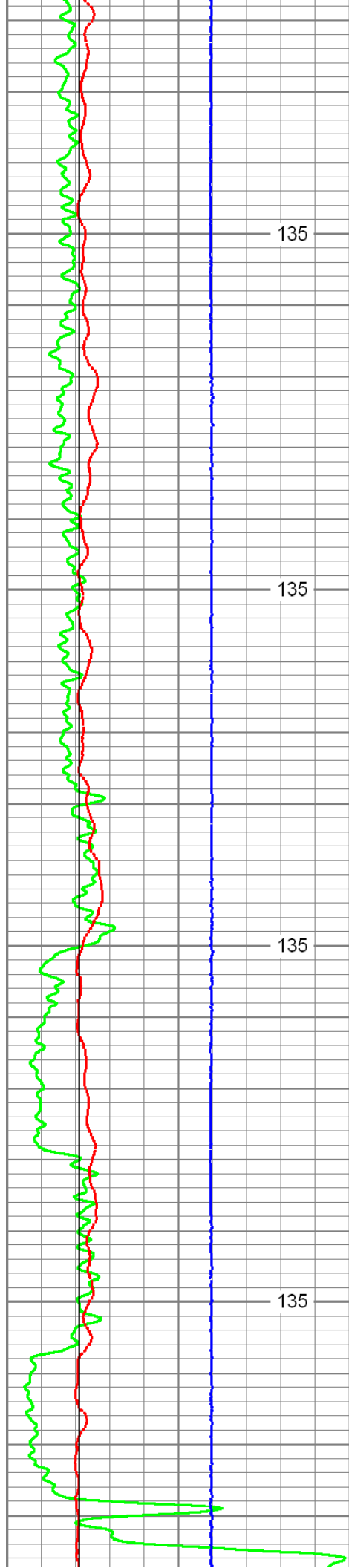
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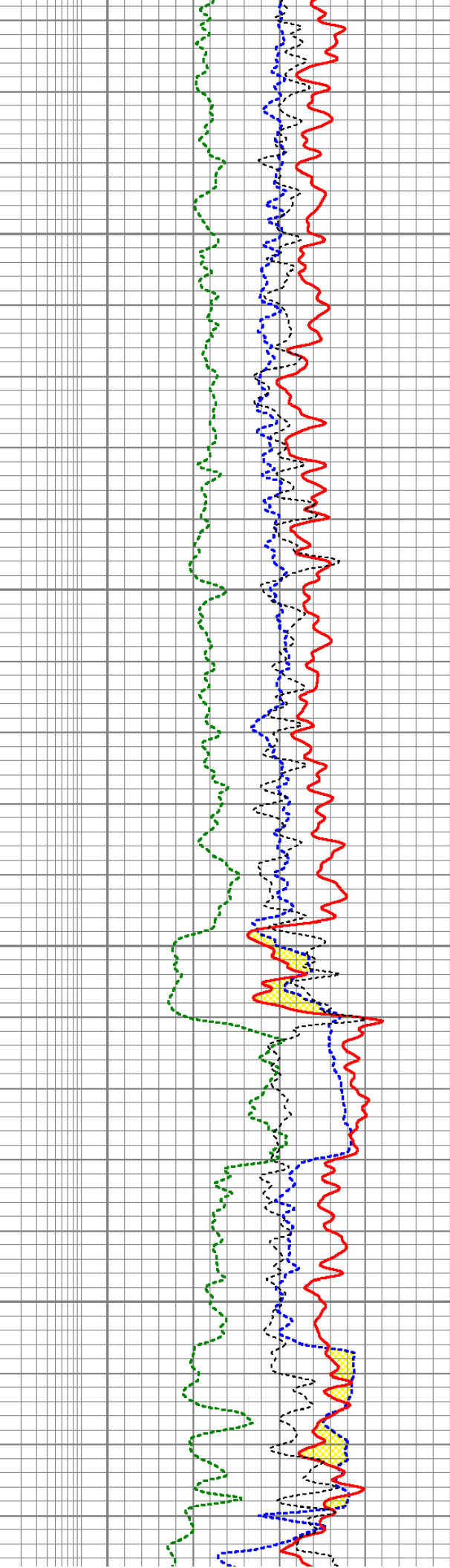
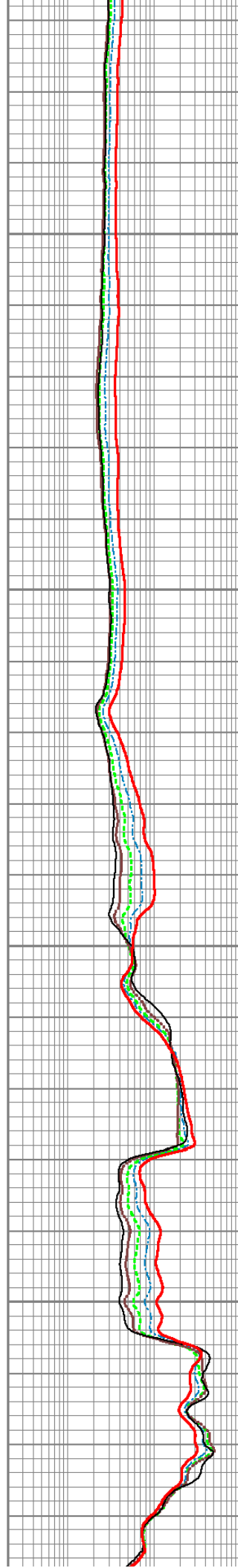
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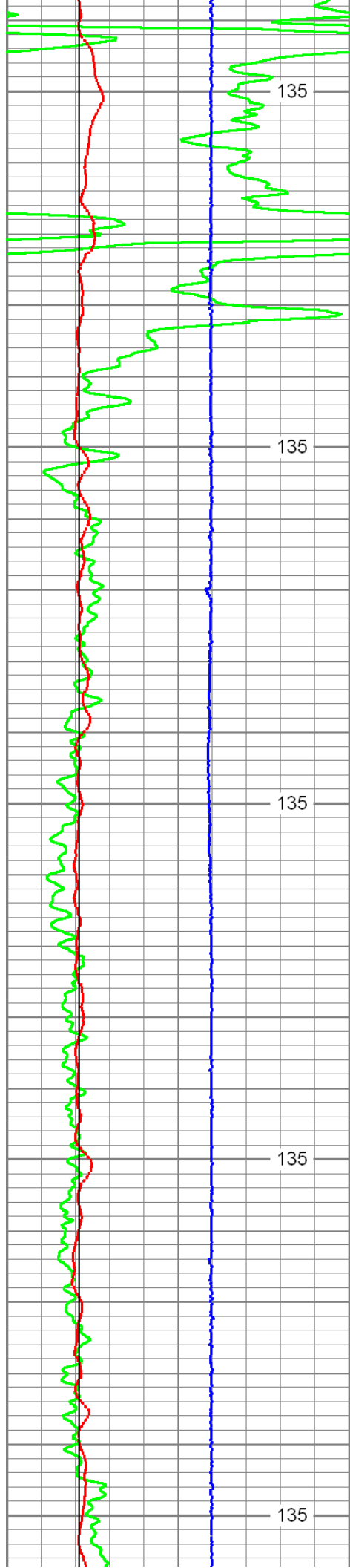
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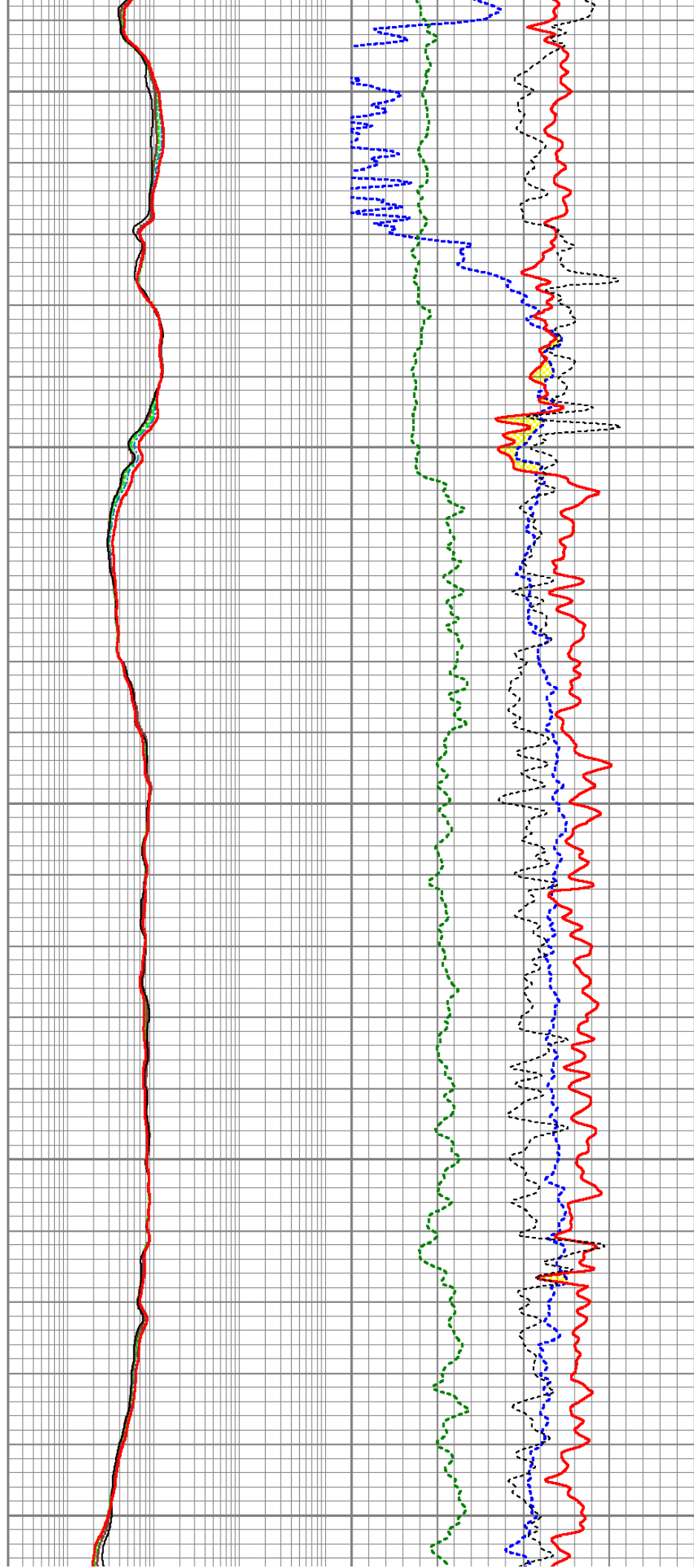
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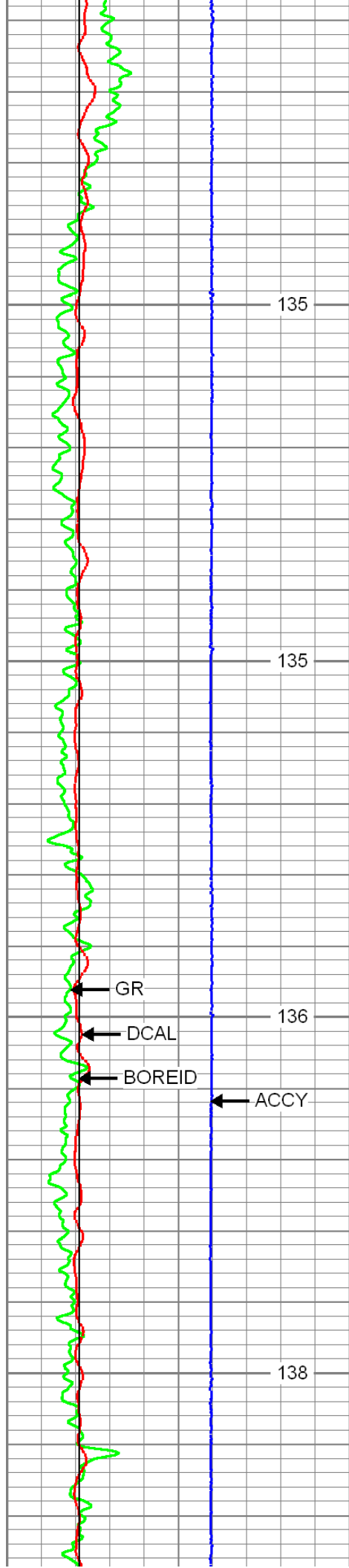
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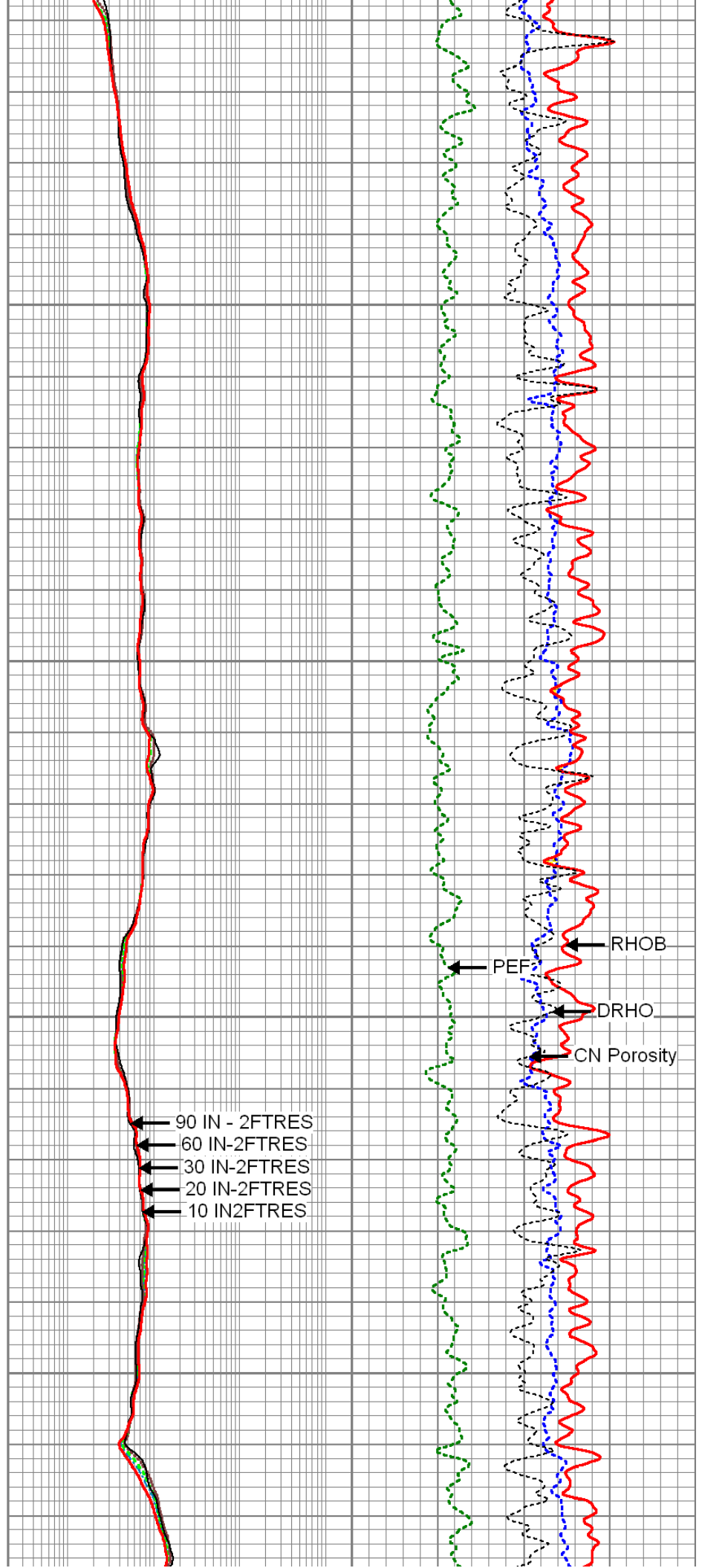
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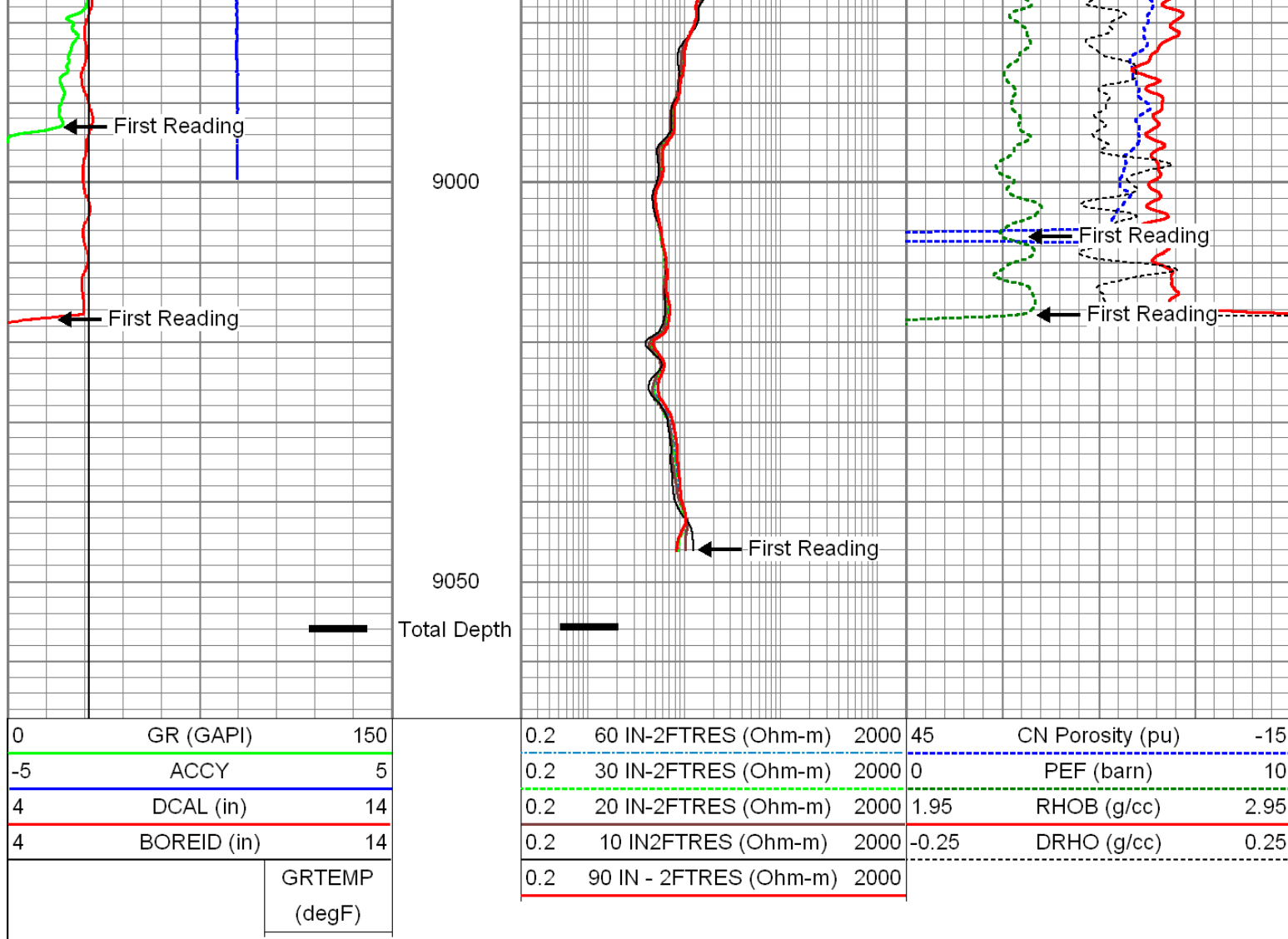
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## Log Variables

Database: C:\Warrior\Data\harris\_farms\_8-1h\_mem1.db

Dataset: field/well/proc1/pass1.4

### 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>138   | CASED?<br>No          | CASEOD<br>in<br>4.5   | CASETHCK<br>in<br>0    | CEMWATERSA<br>kppm<br>0 | CMNTTHCK<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>3 |
| MudWgt<br>lb/gal<br>8.55 | NPORSEL<br>Limestone  | PEBHC?<br>YES         | PERFS<br>0             | RESTMP SRC<br>INTERNAL  | SO<br>in<br>0.5          | SRFTEMP<br>degF<br>65 |
| SZCOR<br>On              | TDEPTH<br>ft<br>9152  | TMPCOR<br>On          | TOOLPOS<br>Ec-centered |                         |                          |                       |

### Calibration Report

Database File: harris\_farms\_8-1h\_mem1.db

ThruBit Induction Calibration Report

Tool Model-Serial Number: PS-PS28R  
Shop Calibration Performed: Tue Oct 16 13:50:45 2012

BASELINE

|        | R         | Expected           | X         | Expected          |
|--------|-----------|--------------------|-----------|-------------------|
| Freq 1 |           |                    |           |                   |
| A1     | -473.4210 | [-500.00, -400.00] | 221.1340  | [-500.00, 500.00] |
| A2     | -133.0640 | [-180.00, -100.00] | 291.9300  | [-500.00, 500.00] |
| A3     | -23.8718  | [-50.00, -10.00]   | 113.2870  | [-500.00, 500.00] |
| A4     | -14.0762  | [-30.00, -10.00]   | 249.2590  | [-500.00, 500.00] |
| A5     | -13.8572  | [-30.00, -10.00]   | 120.9920  | [-500.00, 500.00] |
| Freq 2 |           |                    |           |                   |
| A1     | -248.3670 | [-280.00, -180.00] | 115.3690  | [-500.00, 500.00] |
| A2     | -85.7732  | [-130.00, -50.00]  | 159.6910  | [-500.00, 500.00] |
| A3     | -18.0839  | [-50.00, -10.00]   | 22.6353   | [-500.00, 500.00] |
| A4     | -17.4304  | [-30.00, -10.00]   | 75.7074   | [-500.00, 500.00] |
| A5     | -18.4883  | [-30.00, -10.00]   | -18.9884  | [-500.00, 500.00] |
| Freq 3 |           |                    |           |                   |
| A1     | -156.4960 | [-180.00, -80.00]  | 10.1153   | [-500.00, 500.00] |
| A2     | -65.5881  | [-130.00, -30.00]  | 73.0404   | [-500.00, 500.00] |
| A3     | -14.1592  | [-50.00, -10.00]   | -39.9473  | [-500.00, 500.00] |
| A4     | -18.6539  | [-30.00, -10.00]   | -38.6724  | [-500.00, 500.00] |
| A5     | -19.6652  | [-30.00, -10.00]   | -121.3590 | [-500.00, 500.00] |
| Freq 4 |           |                    |           |                   |
| A1     | -84.8673  | [-120.00, -40.00]  | -151.9120 | [-500.00, 500.00] |
| A2     | -47.5404  | [-110.00, -10.00]  | -41.7424  | [-500.00, 500.00] |
| A3     | -12.1496  | [-50.00, -10.00]   | -132.8180 | [-500.00, 500.00] |
| A4     | -22.1207  | [-30.00, -10.00]   | -208.8670 | [-500.00, 500.00] |
| A5     | -25.1949  | [-30.00, -10.00]   | -294.3110 | [-500.00, 500.00] |

CALIBRATION COEFFICIENTS

|        | R      | Expected     | X       | Expected      |
|--------|--------|--------------|---------|---------------|
| Freq 1 |        |              |         |               |
| A1     | 0.9905 | [0.95, 1.05] | 0.0008  | [-0.05, 0.05] |
| A2     | 0.9919 | [0.95, 1.05] | 0.0029  | [-0.05, 0.05] |
| A3     | 0.9969 | [0.95, 1.05] | -0.0043 | [-0.05, 0.05] |
| A4     | 0.9913 | [0.95, 1.05] | 0.0053  | [-0.05, 0.05] |
| A5     | 1.0149 | [0.95, 1.05] | 0.0030  | [-0.05, 0.05] |
| Freq 2 |        |              |         |               |
| A1     | 0.9844 | [0.95, 1.05] | -0.0073 | [-0.05, 0.05] |
| A2     | 0.9856 | [0.95, 1.05] | -0.0056 | [-0.05, 0.05] |
| A3     | 0.9848 | [0.95, 1.05] | -0.0057 | [-0.05, 0.05] |
| A4     | 0.9865 | [0.95, 1.05] | -0.0039 | [-0.05, 0.05] |
| A5     | 1.0106 | [0.95, 1.05] | -0.0062 | [-0.05, 0.05] |
| Freq 3 |        |              |         |               |
| A1     | 1.0048 | [0.95, 1.05] | -0.0009 | [-0.05, 0.05] |
| A2     | 1.0063 | [0.95, 1.05] | 0.0005  | [-0.05, 0.05] |
| A3     | 1.0052 | [0.95, 1.05] | 0.0003  | [-0.05, 0.05] |
| A4     | 1.0066 | [0.95, 1.05] | 0.0017  | [-0.05, 0.05] |
| A5     | 1.0328 | [0.95, 1.05] | 0.0006  | [-0.05, 0.05] |
| Freq 4 |        |              |         |               |

|             |              |              |         |               |
|-------------|--------------|--------------|---------|---------------|
| A1          | 0.9953       | [0.95, 1.05] | -0.0012 | [-0.05, 0.05] |
| A2          | 0.9965       | [0.95, 1.05] | -0.0000 | [-0.05, 0.05] |
| A3          | 0.9972       | [0.95, 1.05] | -0.0023 | [-0.05, 0.05] |
| A4          | 0.9988       | [0.95, 1.05] | 0.0009  | [-0.05, 0.05] |
| A5          | 1.0302       | [0.95, 1.05] | -0.0020 | [-0.05, 0.05] |
| Temperature | 28.3966 degC |              |         |               |

|                                    |
|------------------------------------|
| ThruBit Density Calibration Report |
|------------------------------------|

|                             |                          |
|-----------------------------|--------------------------|
| Tool Model-Serial Number:   | PS-PS01D                 |
| Source Number:              |                          |
| Shop Calibration Performed: | Thu Oct 18 14:06:27 2012 |

|                |         |       |                    |
|----------------|---------|-------|--------------------|
| REFERENCE      |         |       |                    |
|                | Density | Units |                    |
| Aluminium      | 2.607   | g/cc  |                    |
| Magnesium      | 1.752   | g/cc  |                    |
| READINGS       |         |       |                    |
| Outputs        | Counts  | Units | Expected           |
| SS1 Background | 124.24  | cps   | [130.00, 170.00]   |
| LS1 Background | 131.57  | cps   | [130.00, 170.00]   |
| LS4 Background | 27.09   | cps   | [27.00, 35.00]     |
| SS1 Aluminium  | 4301.04 | cps   | [4500.00, 5500.00] |
| LS1 Aluminium  | 813.27  | cps   | [750.00, 950.00]   |
| LS4 Aluminium  | 907.66  | cps   | [843.00, 1068.00]  |
| SS1 Magnesium  | 7137.73 | cps   | [7000.00, 9000.00] |
| LS1 Magnesium  | 5309.22 | cps   | [5250.00, 6250.00] |
| LS1 Al + Fe    | 693.74  | cps   | [650.00, 800.00]   |
| LS4 Al + Fe    | 408.13  | cps   | [382.00, 471.00]   |
| RESULTS        |         |       |                    |
| SS Slope       | 1.65    |       | [1.52, 1.77]       |
| LS Slope       | 0.42    |       | [0.38, 0.45]       |
| PEF K Factor   | 4.915   |       | [3.510, 6.170]     |
| PEF B Factor   | -0.543  |       | [-0.700, -0.410]   |

|                                     |         |       |                          |
|-------------------------------------|---------|-------|--------------------------|
| Caliper Shop Calibration performed: |         |       | Thu Oct 18 14:06:27 2012 |
| RESULTS                             |         |       |                          |
| Reference                           | Reading | Units |                          |
| 12.00                               | 1859.22 | in    |                          |
| 9.00                                | 2026.75 | in    |                          |
| 6.00                                | 2187.57 | in    |                          |

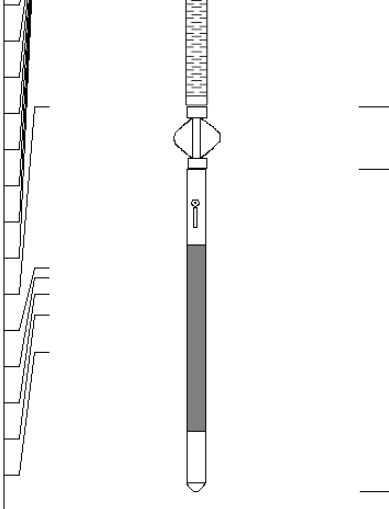
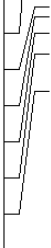
|                                     |        |                          |                  |
|-------------------------------------|--------|--------------------------|------------------|
| DENSITY PRE-SURVEY CHECK Performed: |        | Thu Oct 18 14:50:03 2012 |                  |
| Outputs                             | Counts | Units                    | Expected         |
| SS1 Background                      | 123.93 | cps                      | [120.52, 127.97] |
| LS1 Background                      | 130.23 | cps                      | [127.62, 135.52] |
| LS4 Background                      | 26.13  | cps                      | [25.46, 28.71]   |

|                                        |          |                          |                          |  |
|----------------------------------------|----------|--------------------------|--------------------------|--|
| CALIPER PRE-SURVEY CHECK Performed:    |          |                          | Thu Oct 18 14:46:04 2012 |  |
| Reference                              | Readings | Units                    | Expected                 |  |
| 6.00                                   | 6.07     | in                       | [5.80, 6.20]             |  |
|                                        |          |                          |                          |  |
|                                        |          |                          |                          |  |
| Compensated Neutron Calibration Report |          |                          |                          |  |
| Tool Model-Serial Number:              |          | PS-PS05N                 |                          |  |
| Source Number:                         |          |                          |                          |  |
| Calibration Tank Temperature:          |          | 71.4 degF                |                          |  |
| Shop Calibration Performed:            |          | Tue Oct 16 12:19:22 2012 |                          |  |
| BACKGROUND MEASUREMENT                 |          |                          |                          |  |
| Outputs                                | Measured | Units                    | Expected                 |  |
| SS Counts                              | 0.1      | cps                      | <10                      |  |
| LS Counts                              | 0.1      | cps                      | <4                       |  |
| WATER TANK REFERENCE                   |          |                          |                          |  |
| Outputs                                | Measured | Units                    | Expected                 |  |
| SS Counts                              | 806.7    | cps                      |                          |  |
| LS Counts                              | 26.7     | cps                      |                          |  |
| Tank Ratio Ref                         | 30.9580  | SS/LS                    |                          |  |
| Tank Ratio                             | 30.2449  | SS/LS                    |                          |  |
| Tank Ratio Gain                        | 1.0236   |                          | [0.85, 1.15]             |  |
| ALUMINUM SLEEVE REFERENCE              |          |                          |                          |  |
| Outputs                                | Measured | Units                    | Expected                 |  |
| SS Counts                              | 8929.8   | cps                      |                          |  |
| LS Counts                              | 854.8    | cps                      |                          |  |
| Al Ratio Ref                           | 10.797   | SS/LS                    |                          |  |
| Al Ratio                               | 10.693   | SS/LS                    |                          |  |
| Al Ratio Gain                          | 1.01     |                          | [0.90, 1.10]             |  |
| Sleeve Porosity                        | 14.46    | pu                       |                          |  |
|                                        |          |                          |                          |  |
| PRE-SURVEY BACKGROUND CHECK Performed: |          |                          | Thu Oct 18 15:15:40 2012 |  |
| Outputs                                | Measured | Units                    | Expected                 |  |
| SS Counts                              | 0.0      | cps                      | <10                      |  |
| LS Counts                              | 0.1      | cps                      | <4                       |  |
|                                        |          |                          |                          |  |
| Gamma Ray Calibration Report           |          |                          |                          |  |
| Tool Model-Serial Number:              |          | ENP-ENP2T                |                          |  |
| Performed:                             |          | Tue Oct 16 12:25:48 2012 |                          |  |

|                     |        |          |
|---------------------|--------|----------|
| Calibrator Value:   | 170.6  | GAPI     |
| Background Reading: | 72.9   | cps      |
| Calibrator Reading: | 480.6  | cps      |
| Sensitivity:        | 0.3850 | 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 | 89.84       |           | Cablehead-S                                       | 2.31     | 2.13    | 5.00    |
| Thrubit | 87.53       |           | Solid Weakpoint                                   |          |         |         |
|         |             |           | PSBDOT                                            | 3.87     | 2.25    | 35.00   |
| Thrubit | 83.66       |           | HangOff_Tool                                      | 5.00     | 2.38    | 60.00   |
| Thrubit | 78.66       |           | Swivel                                            | 2.25     | 2.06    | 25.00   |
| Thrubit | 76.41       |           | 10-1                                              | 0.75     | 2.13    | 3.95    |
| TBBAT   | 75.66       |           | TBBAT-A (PS07B)<br>Thrubit Battery                | 6.13     | 2.13    | 38.20   |
| TBBAT2  | 69.54       |           | TBBAT2-A (PS13B)<br>Thrubit Battery               | 6.13     | 2.13    | 40.00   |
| TMG     | 63.41       |           | TMG-ENP (ENP2T)<br>ThruBit Telemetry Gamma Ray    | 6.13     | 2.13    | 45.00   |
| GR      | 63.29       |           |                                                   |          |         |         |
| GRTEMP  | 62.45       |           |                                                   |          |         |         |
| Thrubit | 57.29       |           | Decentralizer<br>Decentralizer (Small)            | 4.50     | 2.13    | 70.00   |
| CNLSC   | 50.85       |           | TBN-PS (PS05N)<br>ThruBit Neutron                 | 4.77     | 2.13    | 63.00   |
|         |             |           | TBD-PS (PS01D)<br>Thrubit Density                 | 10.48    | 2.13    | 91.00   |
| LSW1    | 40.29       |           | Knuckle                                           | 1.42     | 2.13    | 11.50   |
| DCAL    | 39.38       |           | Knuckle                                           | 1.42     | 2.13    | 11.50   |
| Thrubit | 37.54       |           |                                                   |          |         |         |
| Thrubit | 36.13       |           |                                                   |          |         |         |
| DT      | 26.54       |           | TBS-A (TBS08)<br>Thrubit Sonic -- Initial Support | 16.46    | 2.13    | 75.00   |
| TT      | 26.54       |           |                                                   |          |         |         |
| DT      | 26.54       |           |                                                   |          |         |         |

|               |       |                                                                                   |                                     |       |      |       |  |  |  |  |
|---------------|-------|-----------------------------------------------------------------------------------|-------------------------------------|-------|------|-------|--|--|--|--|
| RmbPk         | 26.54 |    | Sonic Centralizer                   | 2.96  | 2.13 | 22.60 |  |  |  |  |
| WVF1          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF2          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF3          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF4          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF5          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF6          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| WVF7          | 26.54 |                                                                                   |                                     |       |      |       |  |  |  |  |
| ThruBit       | 18.25 |  | TBI-PS (PS28R)<br>ThruBit Induction | 15.29 | 2.13 | 94.00 |  |  |  |  |
| A1_P          | 10.60 |                                                                                   |                                     |       |      |       |  |  |  |  |
| A2_P          | 10.10 |                                                                                   |                                     |       |      |       |  |  |  |  |
| A3_P          | 9.35  |                                                                                   |                                     |       |      |       |  |  |  |  |
| A4_P          | 8.35  |                                                                                   |                                     |       |      |       |  |  |  |  |
| A5_P          | 6.60  |                                                                                   |                                     |       |      |       |  |  |  |  |
| Dataset:      |       | harris_farms_8-1h_mem1.db: field/well/proc1/pass1.4                               |                                     |       |      |       |  |  |  |  |
| Total Length: |       | 89.84 ft                                                                          |                                     |       |      |       |  |  |  |  |
| Total Weight: |       | 690.75 lb                                                                         |                                     |       |      |       |  |  |  |  |
| O.D.          |       | 2.38 in                                                                           |                                     |       |      |       |  |  |  |  |

|                                                                                  |         |                              |
|----------------------------------------------------------------------------------|---------|------------------------------|
|  | Company | SHELL EXP. & PROD. CO., INC. |
|                                                                                  | Well    | HARRIS FARMS 3407 8-1H       |
|                                                                                  | Field   | ARROWHEAD                    |
|                                                                                  | County  | HARPER                       |
|                                                                                  | State   | KANSAS                       |