



# Compensated Neutron Litho Density Log

|                              |                                |                                     |                       |                 |
|------------------------------|--------------------------------|-------------------------------------|-----------------------|-----------------|
| Company                      | Enduring Resources             | Location:                           | API # : SJ-4301 POD 3 | Other Services  |
| Well                         | West Lybrook unit 2309-24N WSW | Section 24, Township 23N, Range 09W |                       |                 |
| Field                        | West Lybrook                   |                                     |                       |                 |
| County                       | San Juan                       |                                     |                       |                 |
| State                        | New Mexico                     |                                     |                       |                 |
| Permanent Datum              | Ground Level                   | Elevation                           | 6878 ' ft.            | Elevation       |
| Log Measured From            | KB                             | , 17 ft. above perm. datum          |                       | K.B. 6895 ' ft. |
| Drilling Measured From       | Kelly Bushing                  |                                     |                       | D.F. 6894 ' ft. |
|                              |                                |                                     |                       | G.L. 6878 ' ft. |
| Date                         | 01/15/2019                     |                                     |                       |                 |
| Run Number                   | One                            |                                     |                       |                 |
| Depth Driller                | 7408                           |                                     |                       |                 |
| Depth Logger                 | 7403'                          |                                     |                       |                 |
| Bottom Logged Interval       | 7392'                          |                                     |                       |                 |
| Top Log Interval             | 406'                           |                                     |                       |                 |
| Casing Driller               | 13.375" @ 406'                 | @                                   |                       | @               |
| Casing Logger                | 402'                           |                                     |                       |                 |
| Bit Size                     | 8.750"                         | @                                   |                       | @               |
| Type Fluid in Hole           | Brine                          |                                     |                       |                 |
| Density / Viscosity          | 9.4 / 39                       |                                     |                       |                 |
| pl Fluid Loss                | 7 / 36                         |                                     |                       |                 |
| Service of Sample            | Mud Tank                       |                                     |                       |                 |
| R @ Meas. Temp               | .188 @ 75 ° F                  | @                                   |                       | @               |
| R @ Meas. Temp               | .141 @ 75 ° F                  | @                                   |                       | @               |
| R @ Meas. Temp               | .235 @ 75 ° F                  | @                                   |                       | @               |
| Service of Rm / Rmc          | Calculated                     |                                     |                       |                 |
| R @ BHT                      | .097 @ 152 ° F                 | @                                   |                       | @               |
| Time Circulation Stopped     | 01/15/2019 @ 02:00             |                                     |                       |                 |
| Time Logger on Bottom        | 01/15/2019 @ 10:00             |                                     |                       |                 |
| Minimum Recorded Temperature | 159 ° F                        |                                     |                       |                 |
| Equipment Number             | 11007                          |                                     |                       |                 |
| Location                     | Midland                        |                                     |                       |                 |
| Recorded By                  | J. Trasti / A. DelaGarza       |                                     |                       |                 |
| Witnessed By                 | A. Bridge                      |                                     |                       |                 |

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## Equipment and Log Data

Service Order:

| Gamma      |           | Density    |         | Neutron    |           | Sonic        |           | IAT/DLL    |           |
|------------|-----------|------------|---------|------------|-----------|--------------|-----------|------------|-----------|
| Run No.    | One       | Run No.    | One     | Run No.    | One       | Run No.      | One       | Run No.    | One       |
| Serial No. | 2700      | Serial No. | 0872    | Serial No. | 2541      | Serial No.   |           | Serial No. | 110       |
| O.D.       | 3.375 in. | Source No. | 70997B  | Source No. | 59796G    | Centralizers |           | Standoffs  | @         |
|            |           | O.D.       | 4.5 in. | O.D.       | 3.375 in. | O.D.         | 3.375 in. | O.D.       | 3.875 in. |

## Logging Pass Data

| General |        | Gamma  |       | Density |       | Neutron |      | Sonic  |        | IAT/DLL |       |
|---------|--------|--------|-------|---------|-------|---------|------|--------|--------|---------|-------|
|         |        | Scales |       | Scales  |       | Scales  |      | Scales |        | Scales  |       |
| Run     | Depths | Left   | Right | Left    | Right | Matrix  | Left | Right  | Matrix | Left    | Right |
| One     | 0 7408 | 0      | 150   | 0.3     | -0.1  | 2.71    | 0.3  | -0.1   | 2.71   |         |       |
|         |        |        |       |         |       |         |      |        |        |         |       |
|         |        |        |       |         |       |         |      |        |        |         |       |
|         |        |        |       |         |       |         |      |        |        |         |       |

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

Tools ran as per tool sketch  
 CNL ran eccentralized using bowspring  
 Annular Volume calculated using 7 in casing  
 Chlorides reported at 2900 PPM  
 10 in IAT curve affected by Chlorides

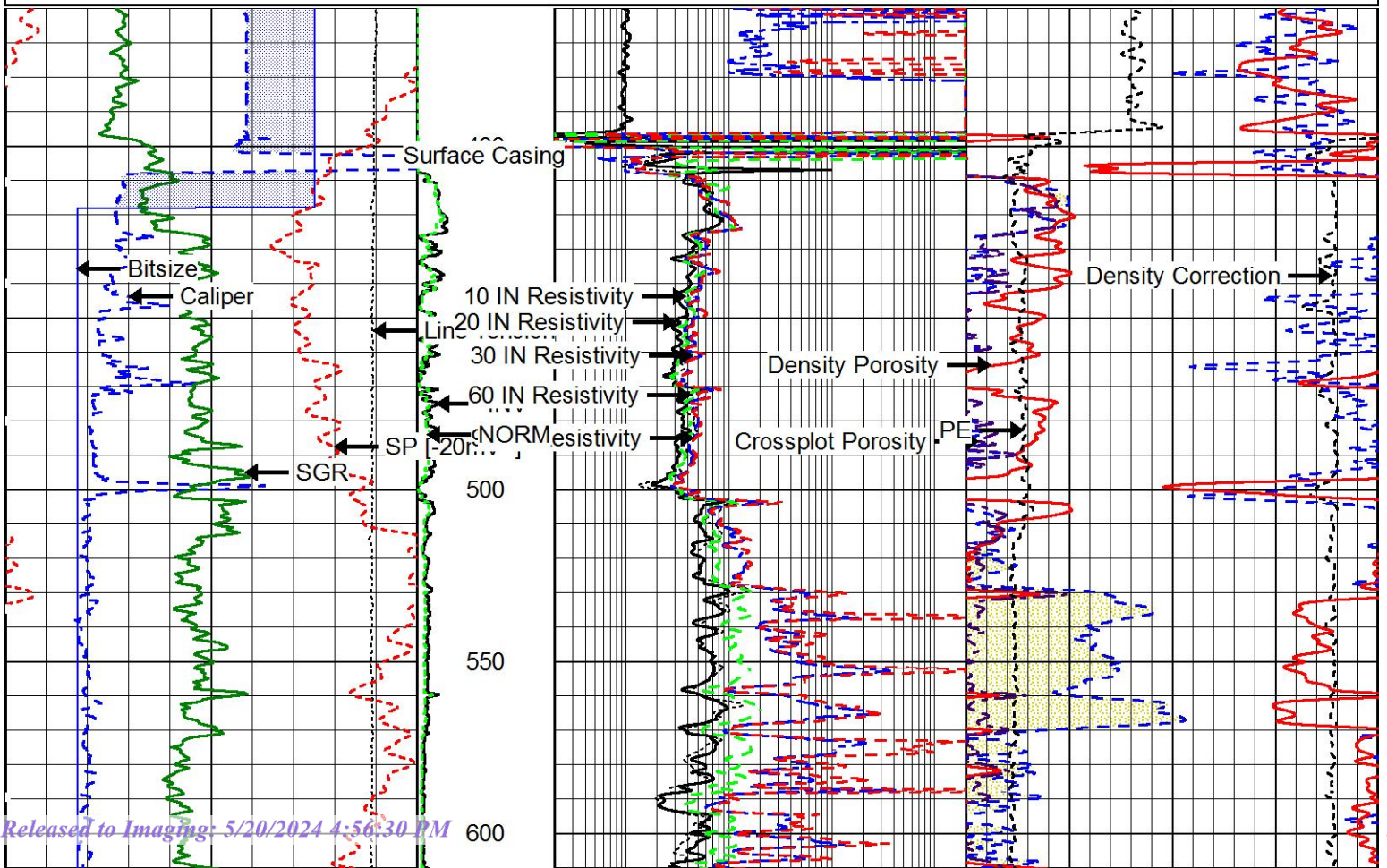
YOUR CREW TODAY: Jeremy Trasti, Alejandro de la Garza, Thomas Melson, Kindle Burket  
THANK YOU FOR CHOOSING ALLIED WIRELINE. Midland, TX. (432) 897-1528.

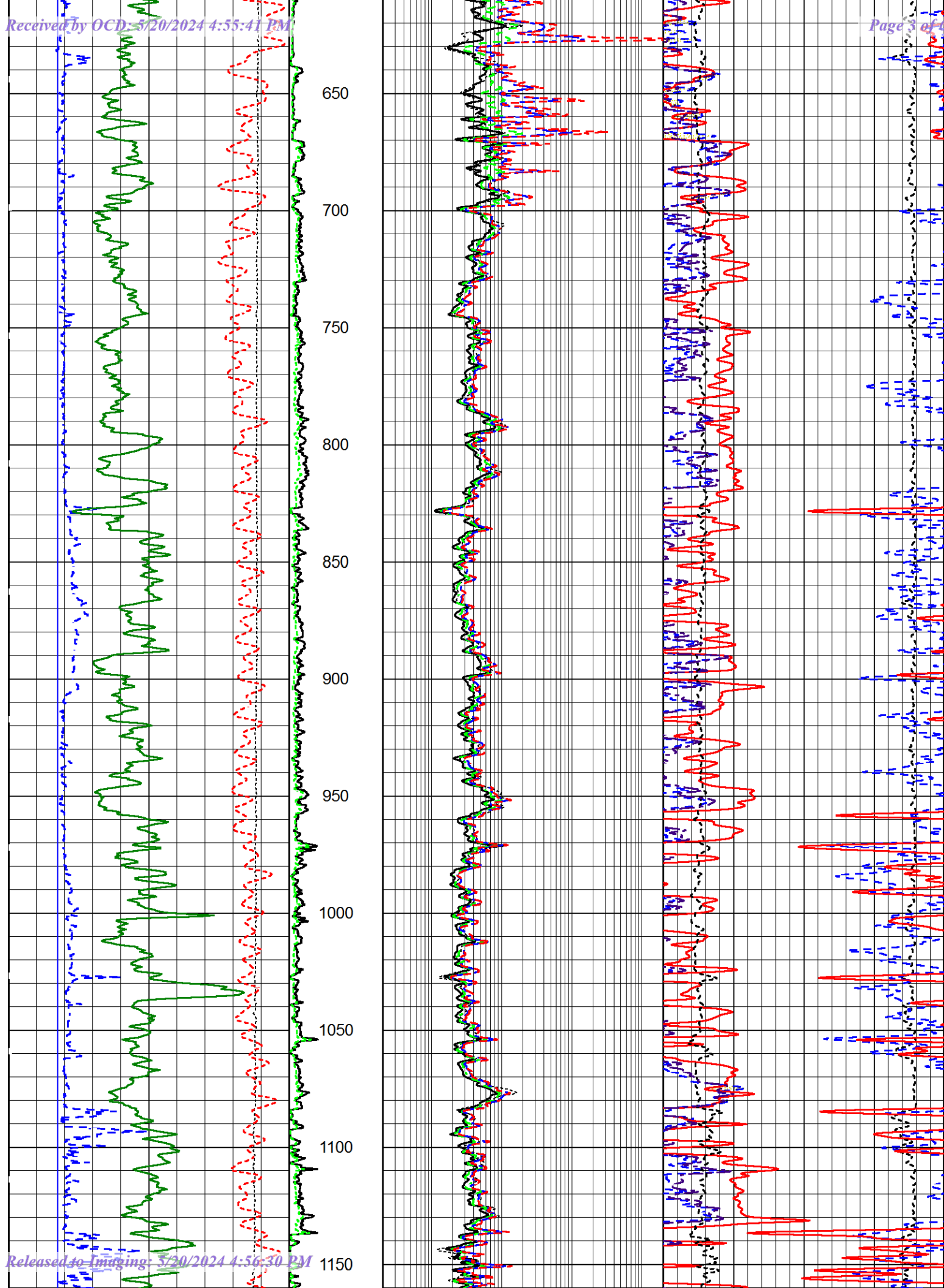


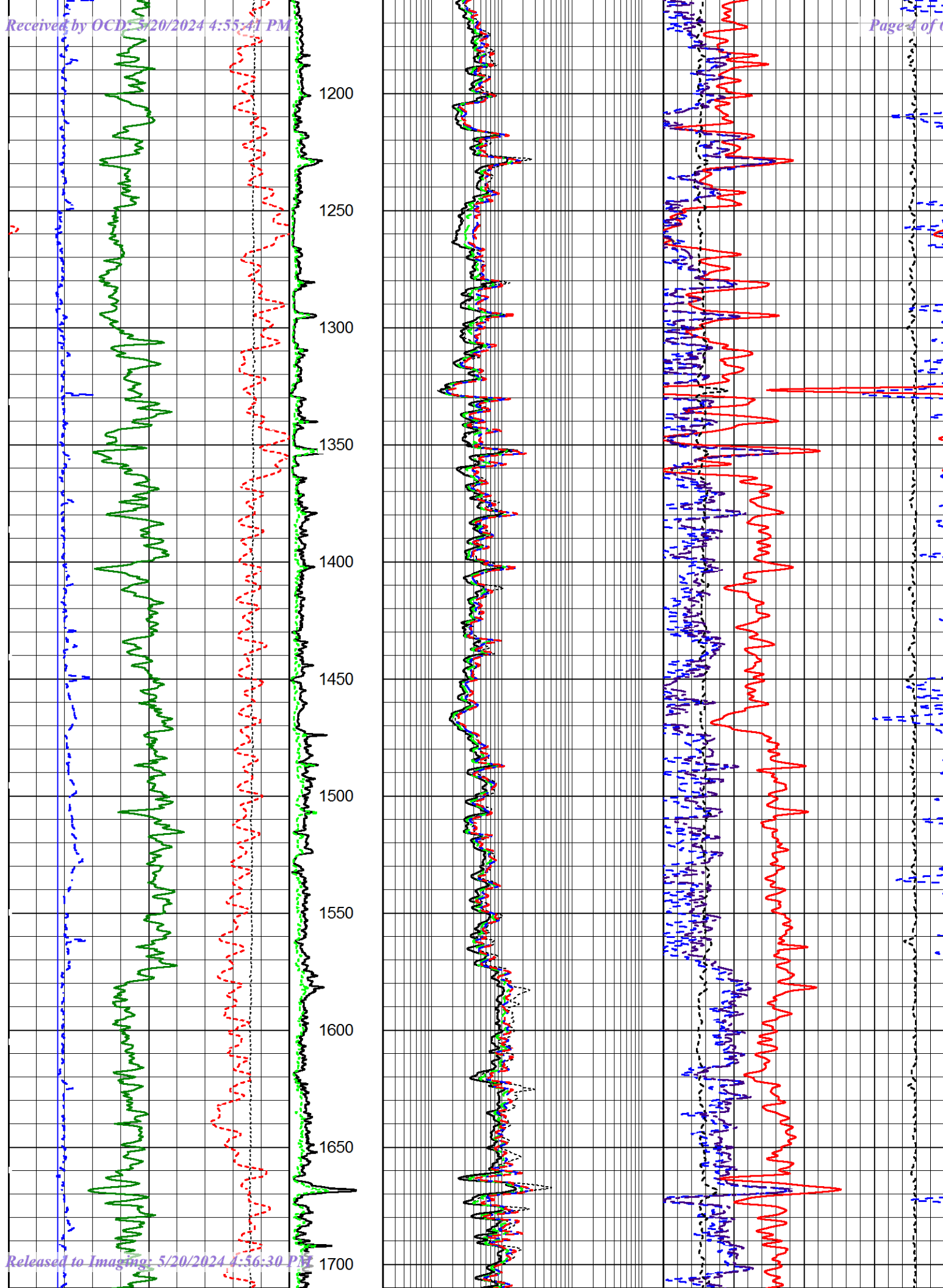
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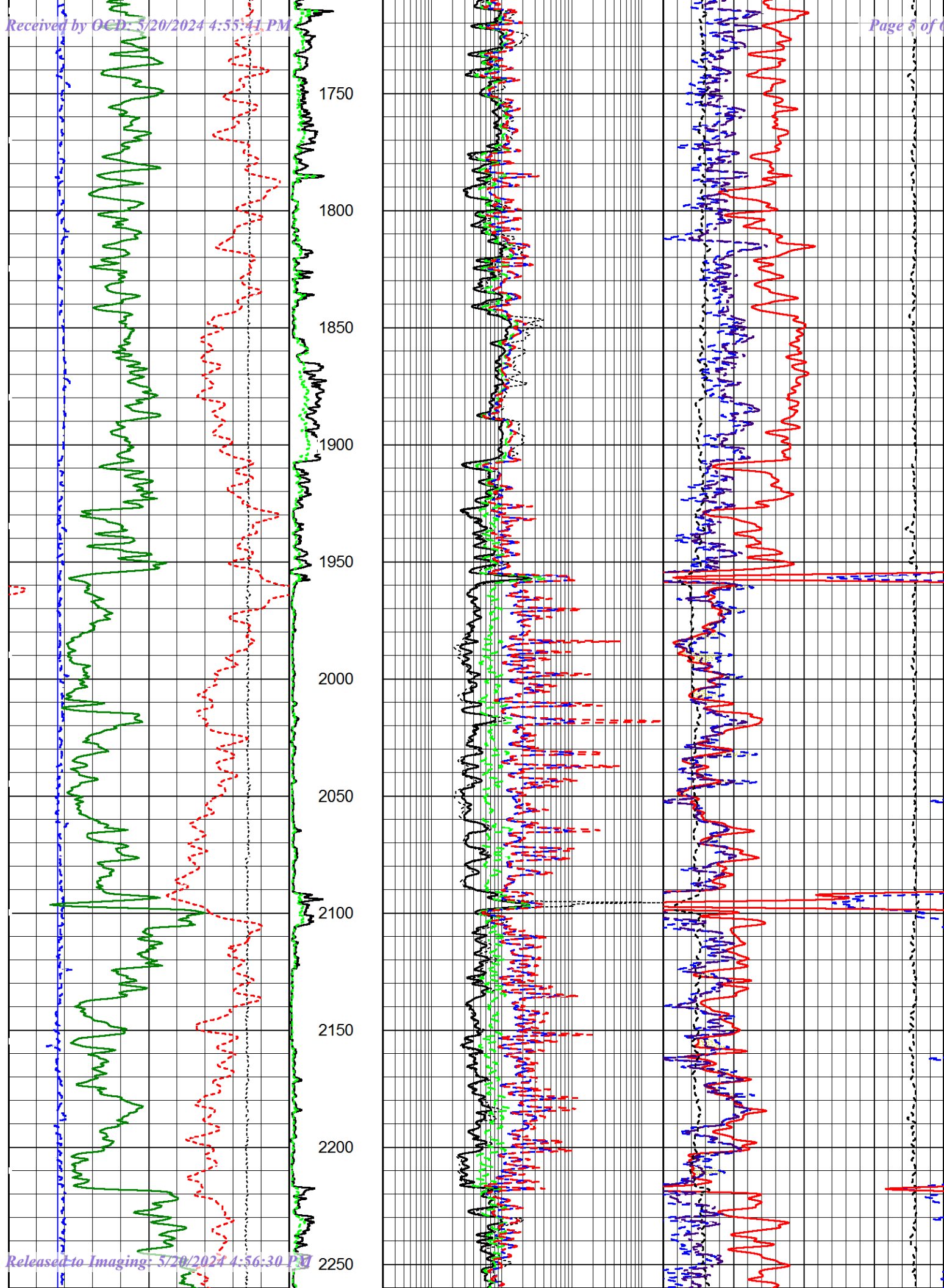
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Dataset Pathname West\_Lybrook/well/run1/main  
Presentation Format 3com\_iat  
Dataset Creation Tue Jan 15 15:23:37 2019  
Charted by Depth in Feet scaled 1:600

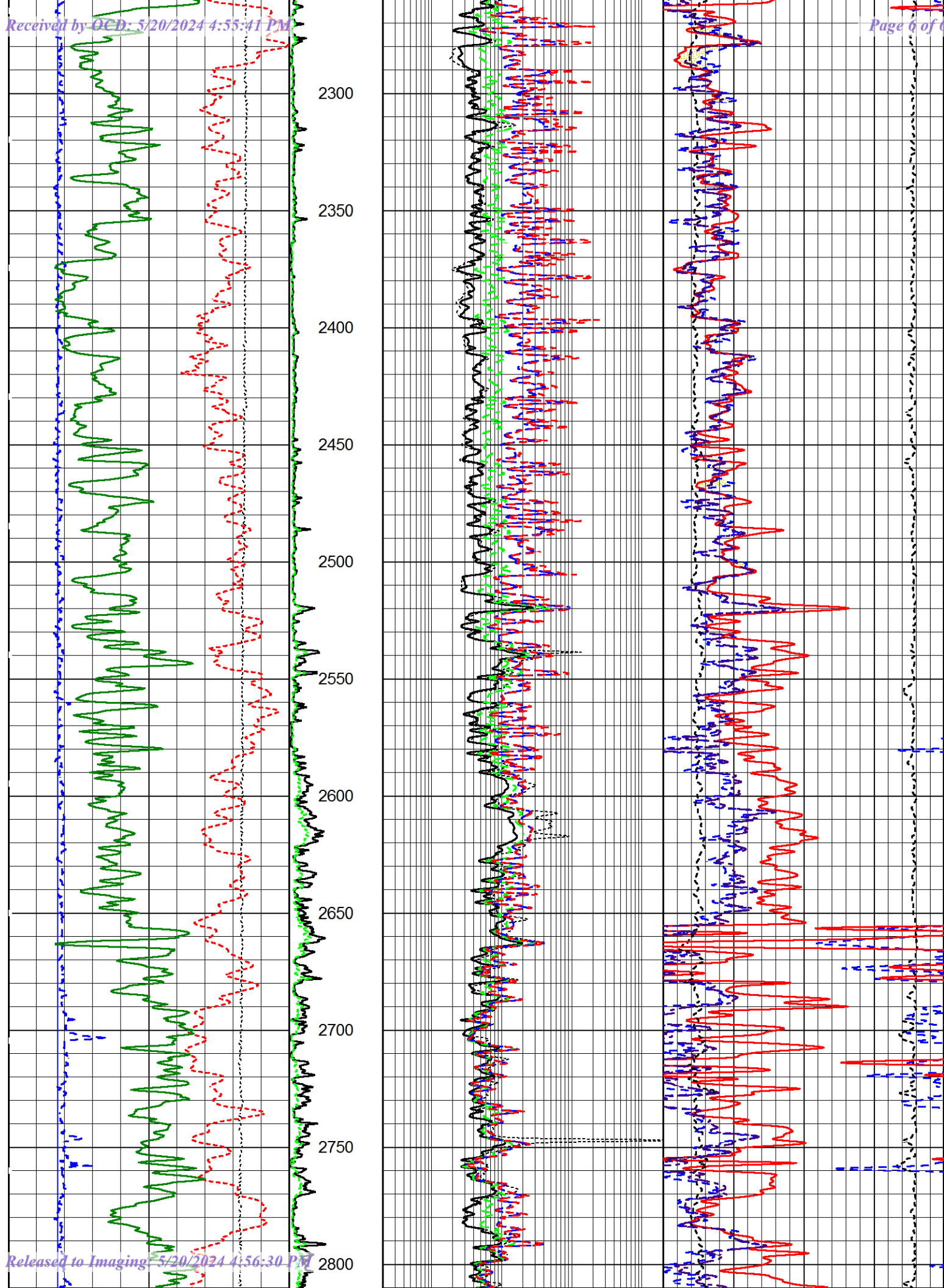
|   |              |     |         |     |                           |      |                                      |
|---|--------------|-----|---------|-----|---------------------------|------|--------------------------------------|
| 7 | Bitsize (in) | 17  | INV     | 0.2 | 10 IN Resistivity (Ohm-m) | 2000 | Neutron Porosity                     |
| 7 | Caliper (in) | 17  | (Ohm-m) | 0.2 | 20 IN Resistivity (Ohm-m) | 2000 | 0.3 (Porosity Decimal Fraction) -0.1 |
|   | SP [-20mV+]  | 0   | 20      | 0.2 | 30 IN Resistivity (Ohm-m) | 2000 | Density Porosity                     |
| 0 | SGR (GAPI)   | 200 | NORM    | 0.2 | 60 IN Resistivity (Ohm-m) | 2000 | 0.3 (Porosity Decimal Fraction) -0.1 |
|   | Line Tension |     | (Ohm-m) | 0.2 | 90 IN Resistivity (Ohm-m) | 2000 | Crossplot Porosity                   |
|   | 5000 (lb)    | 0   | 0       |     |                           |      | 0.3 (Porosity Decimal Fraction) -0.1 |
|   |              |     |         |     |                           |      | 0 PE 10 Density Correction           |
|   |              |     |         |     |                           |      | 0.8 (g/cc) -0.2                      |

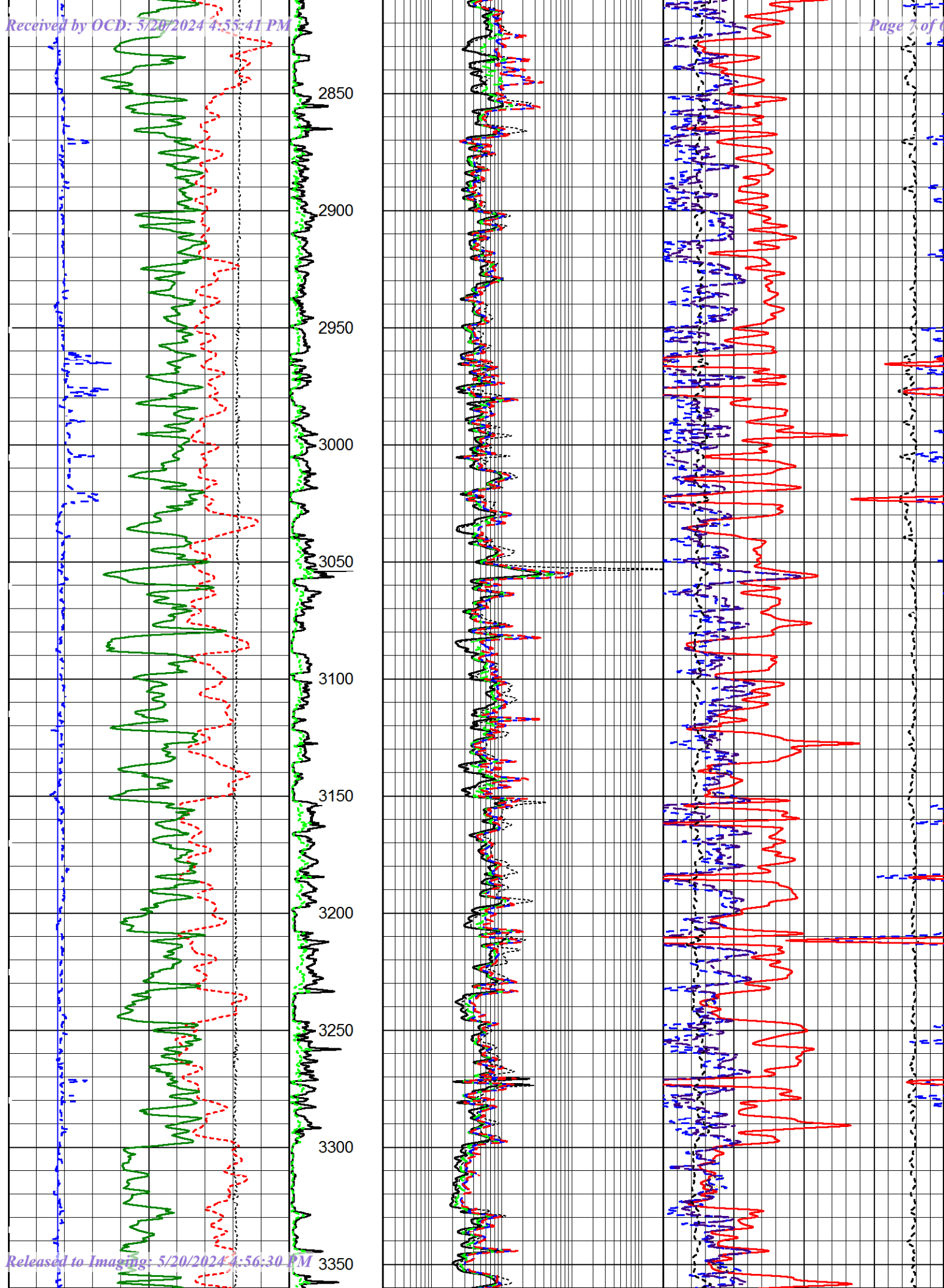


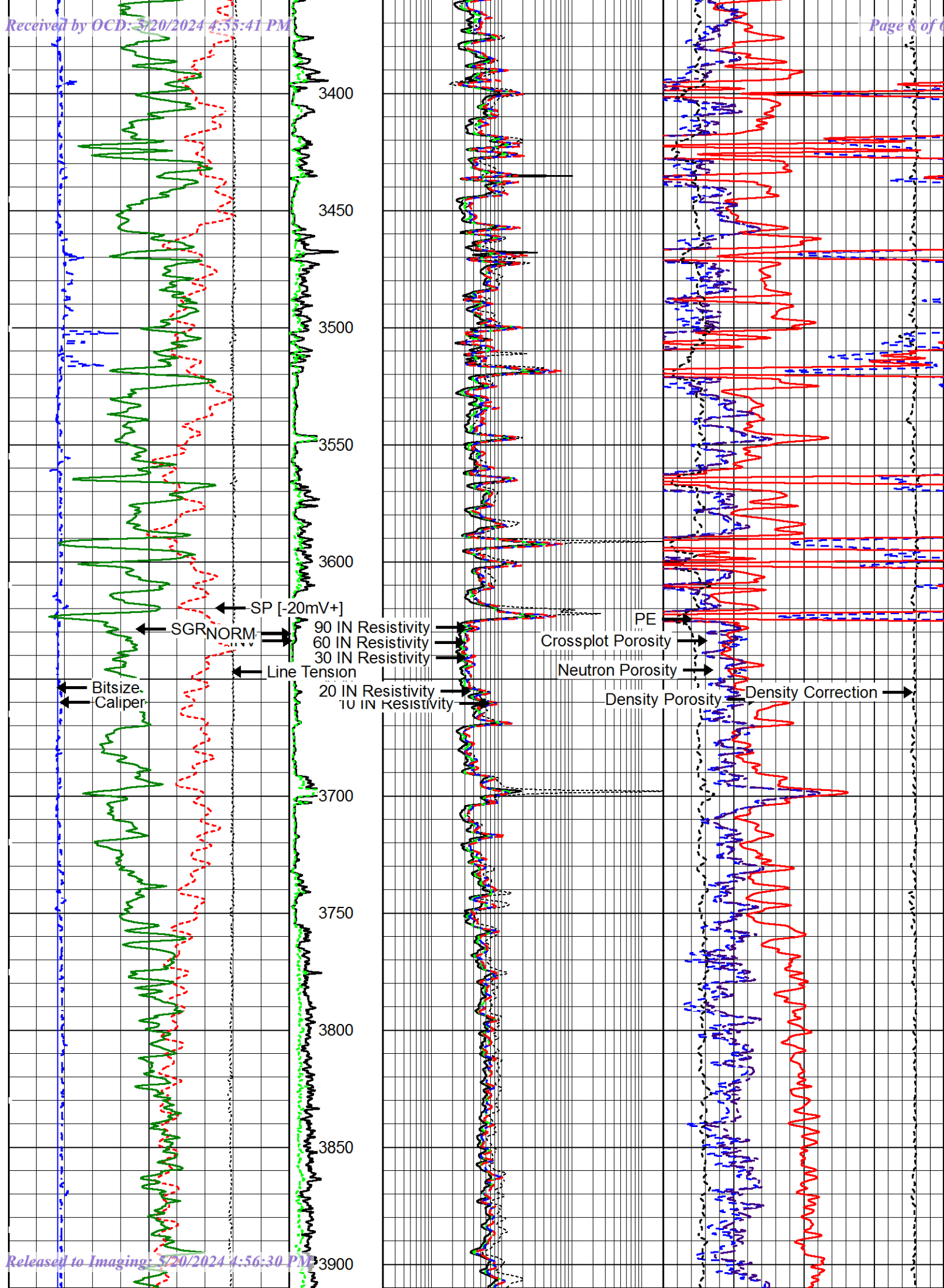


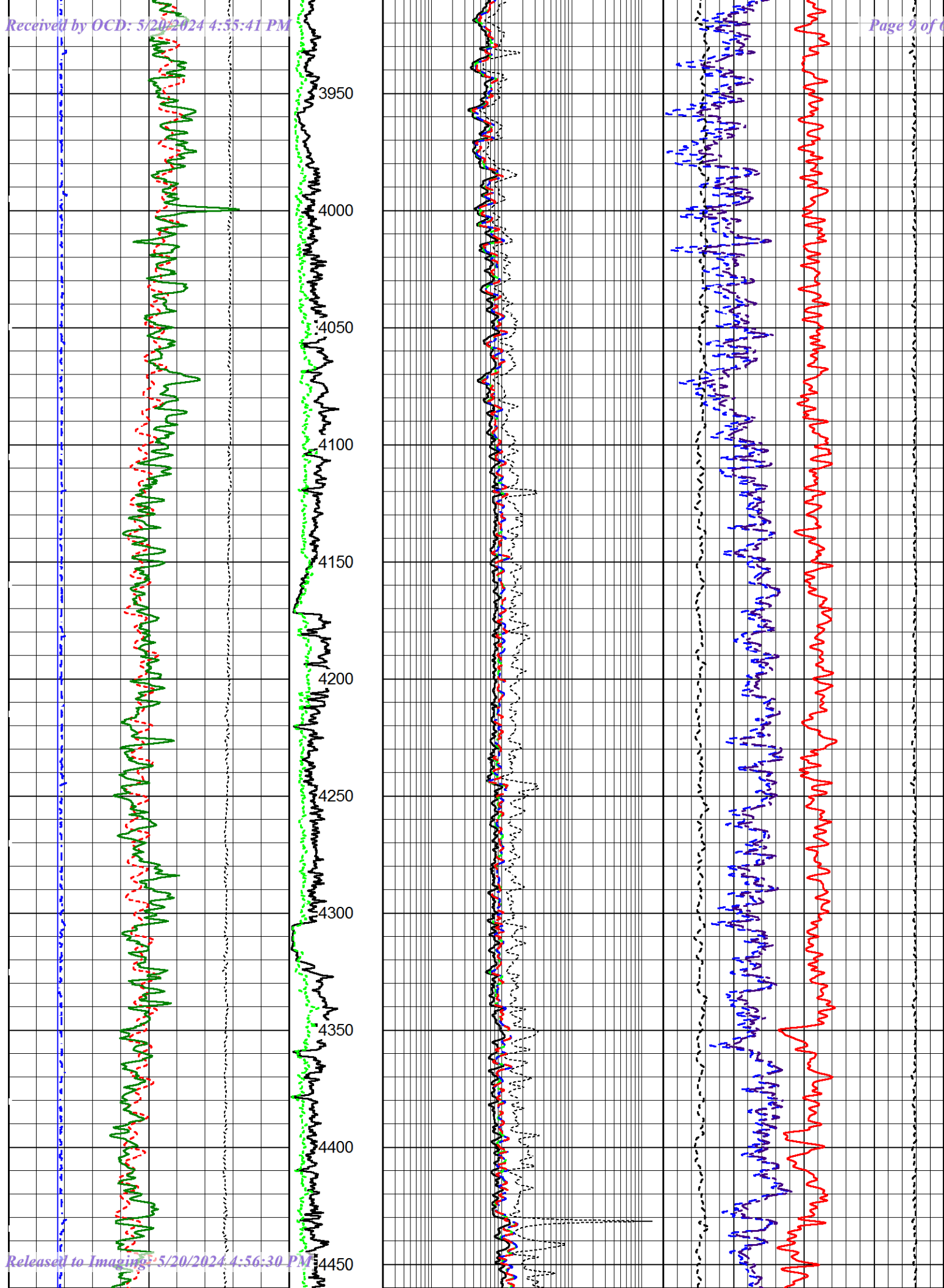


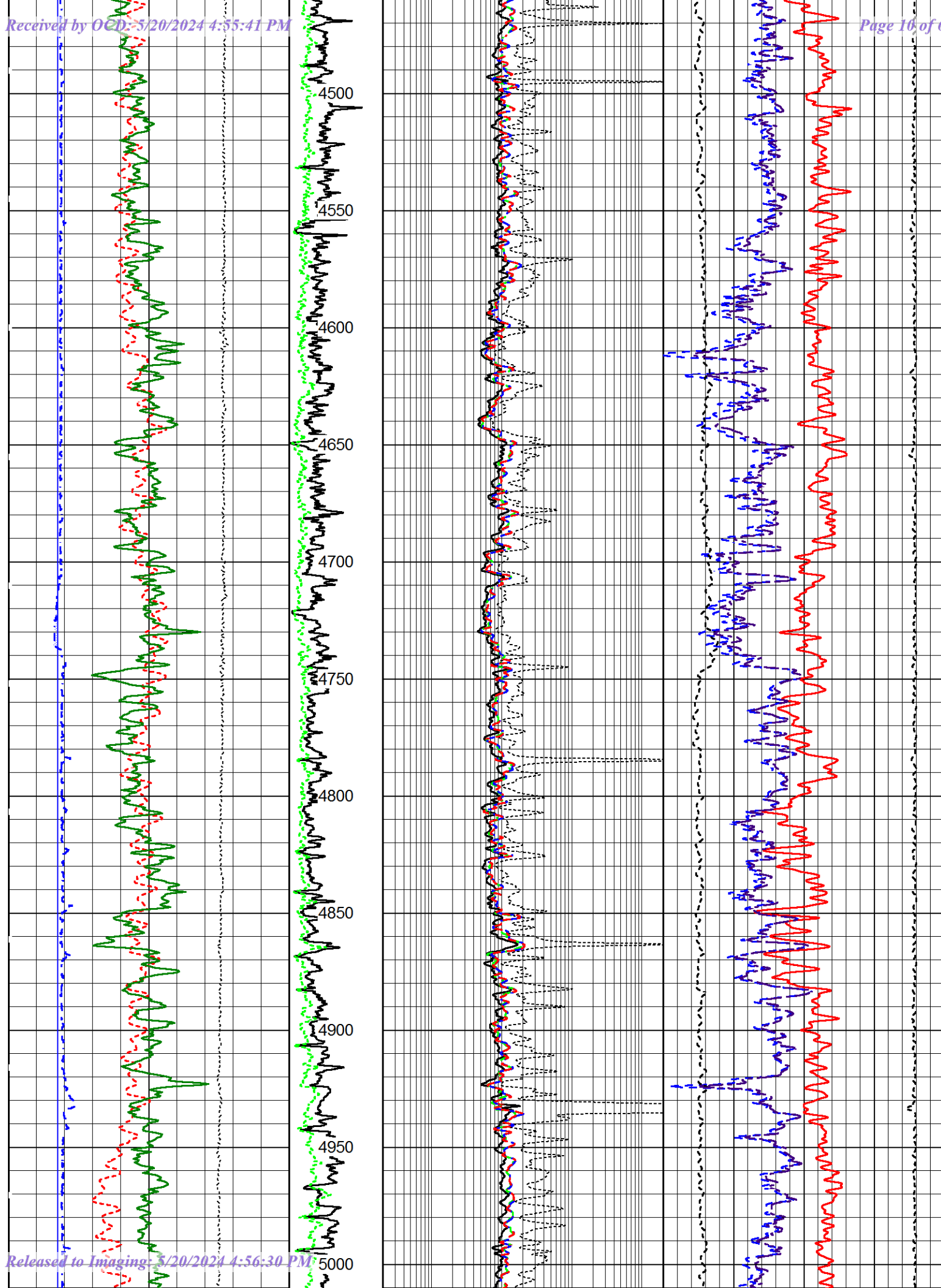


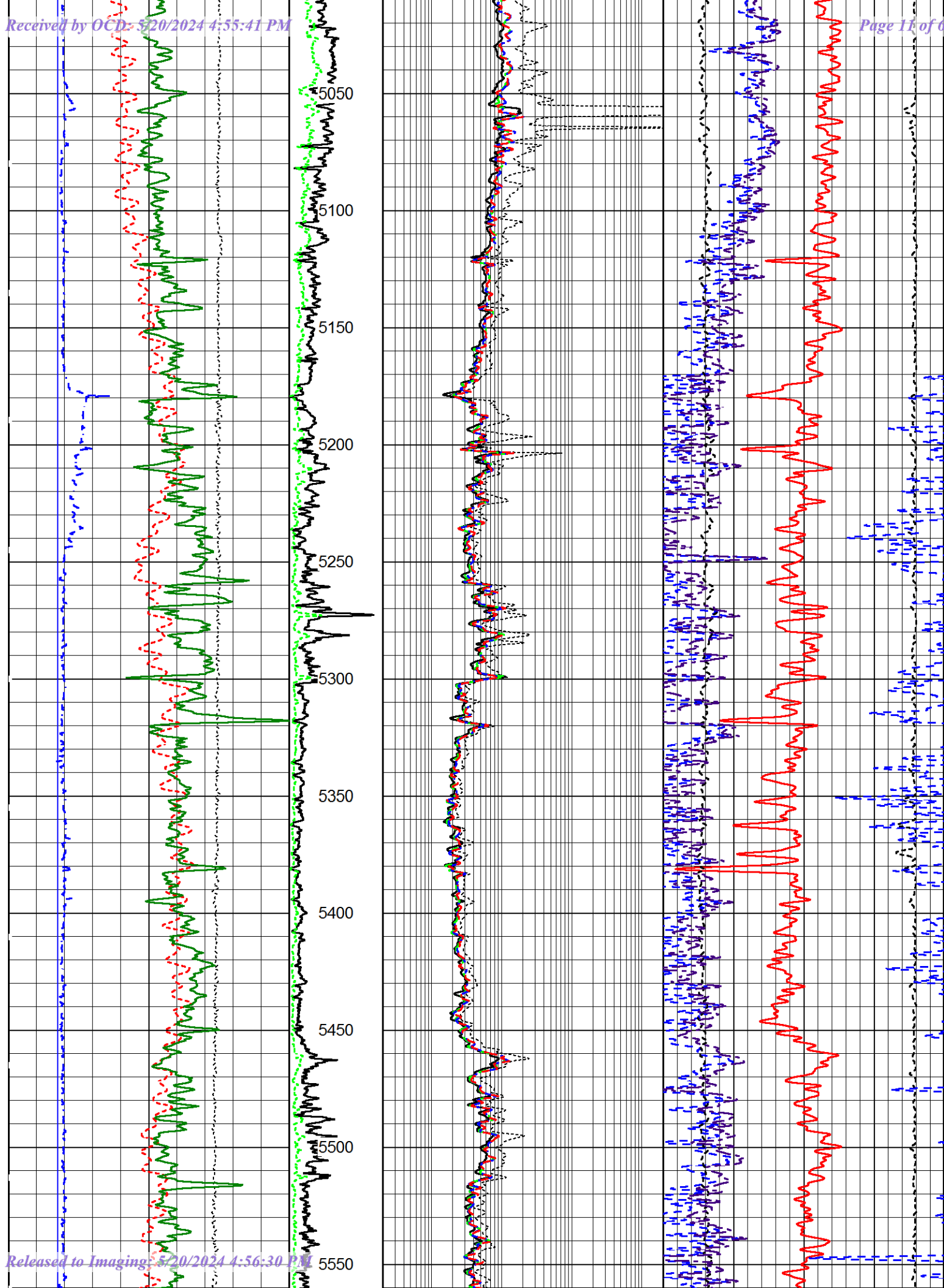


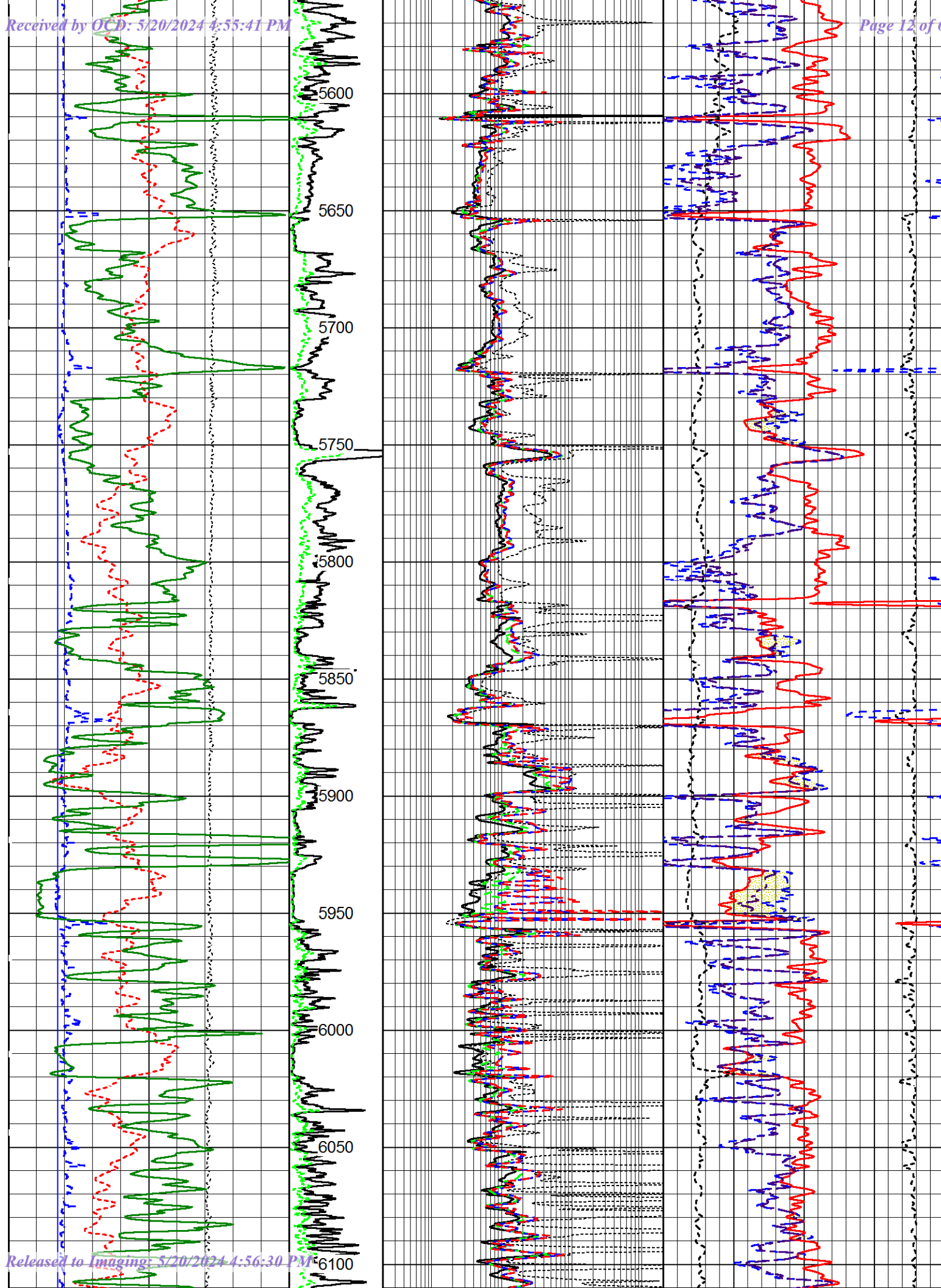


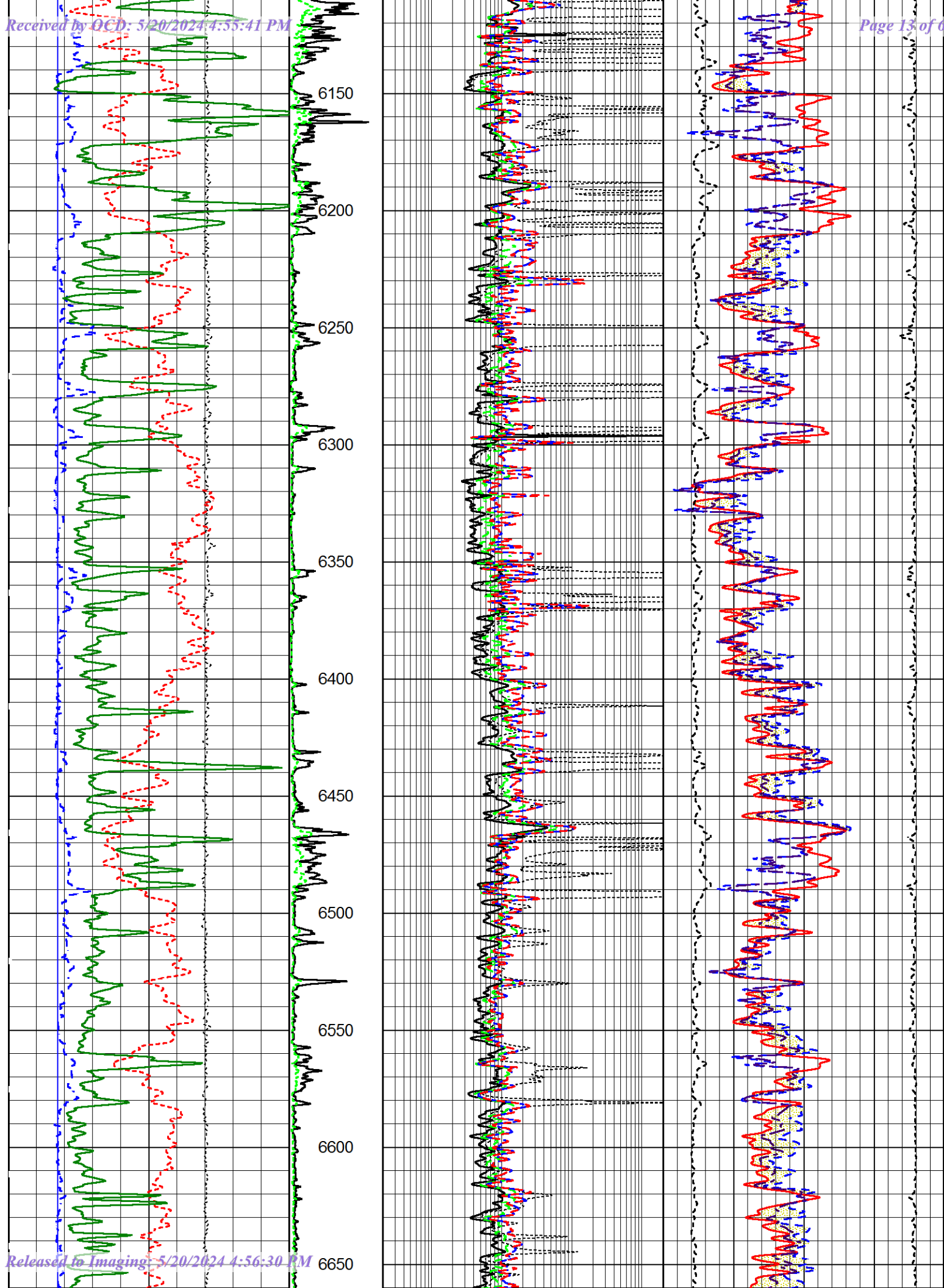


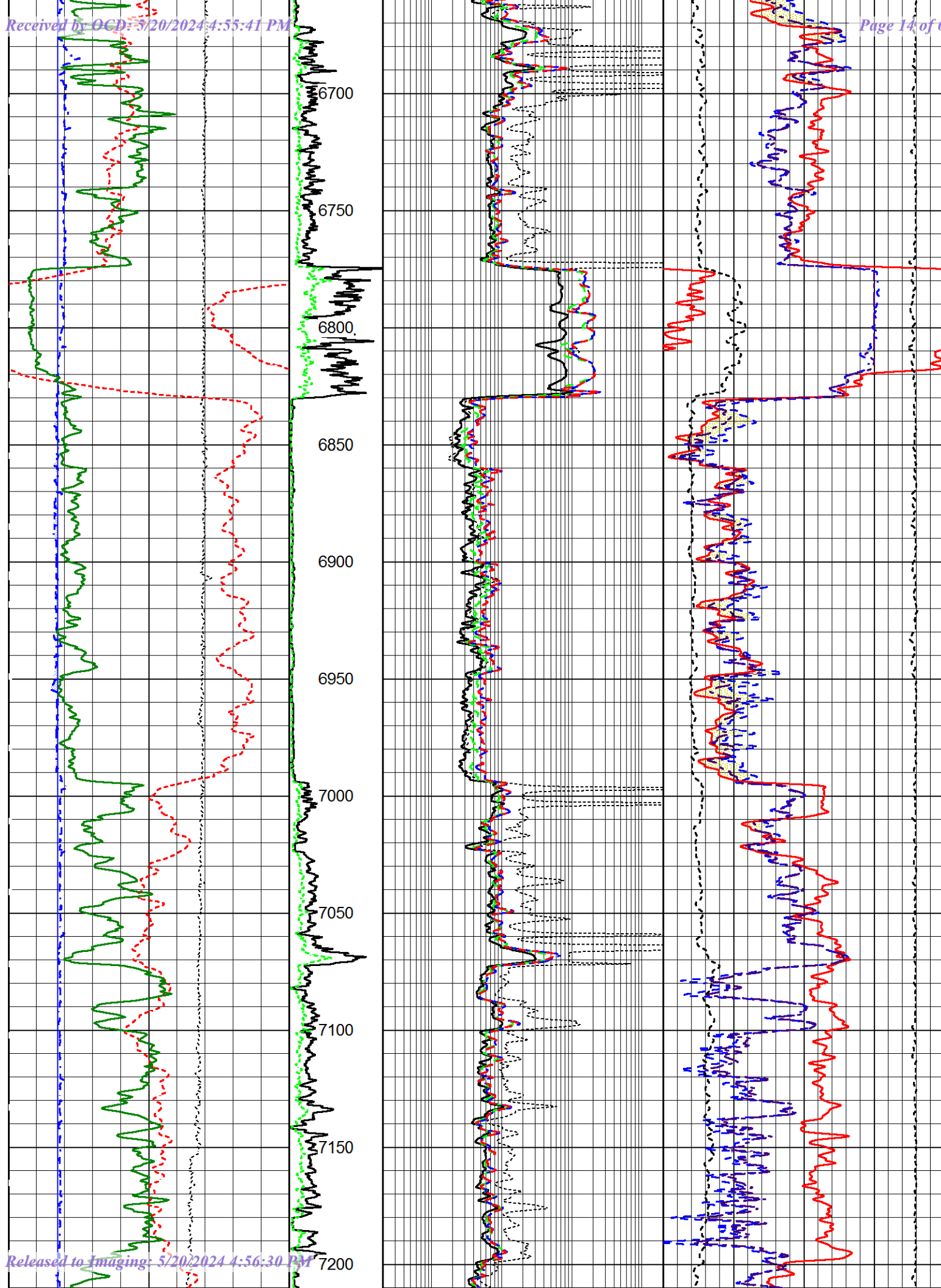


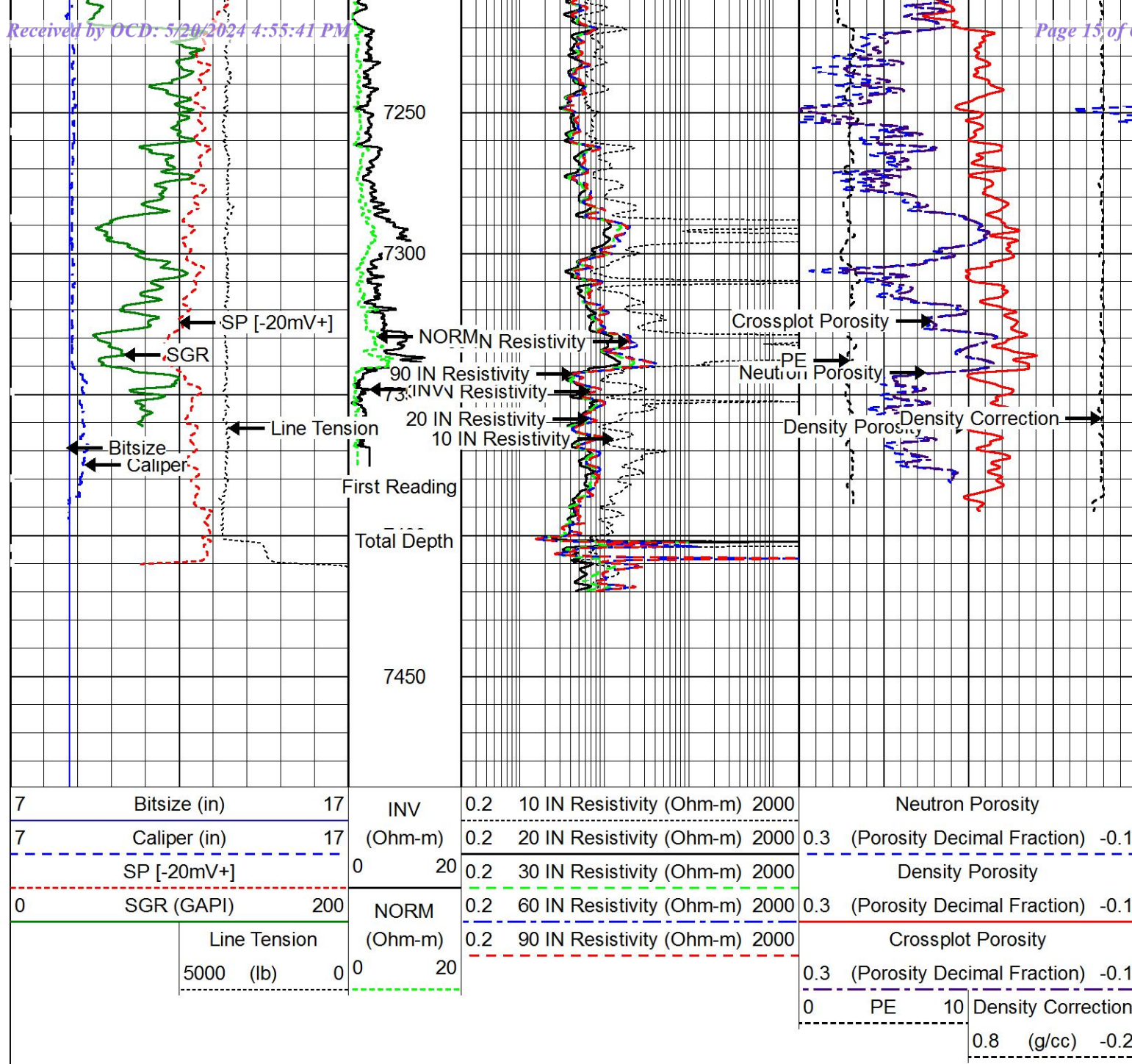












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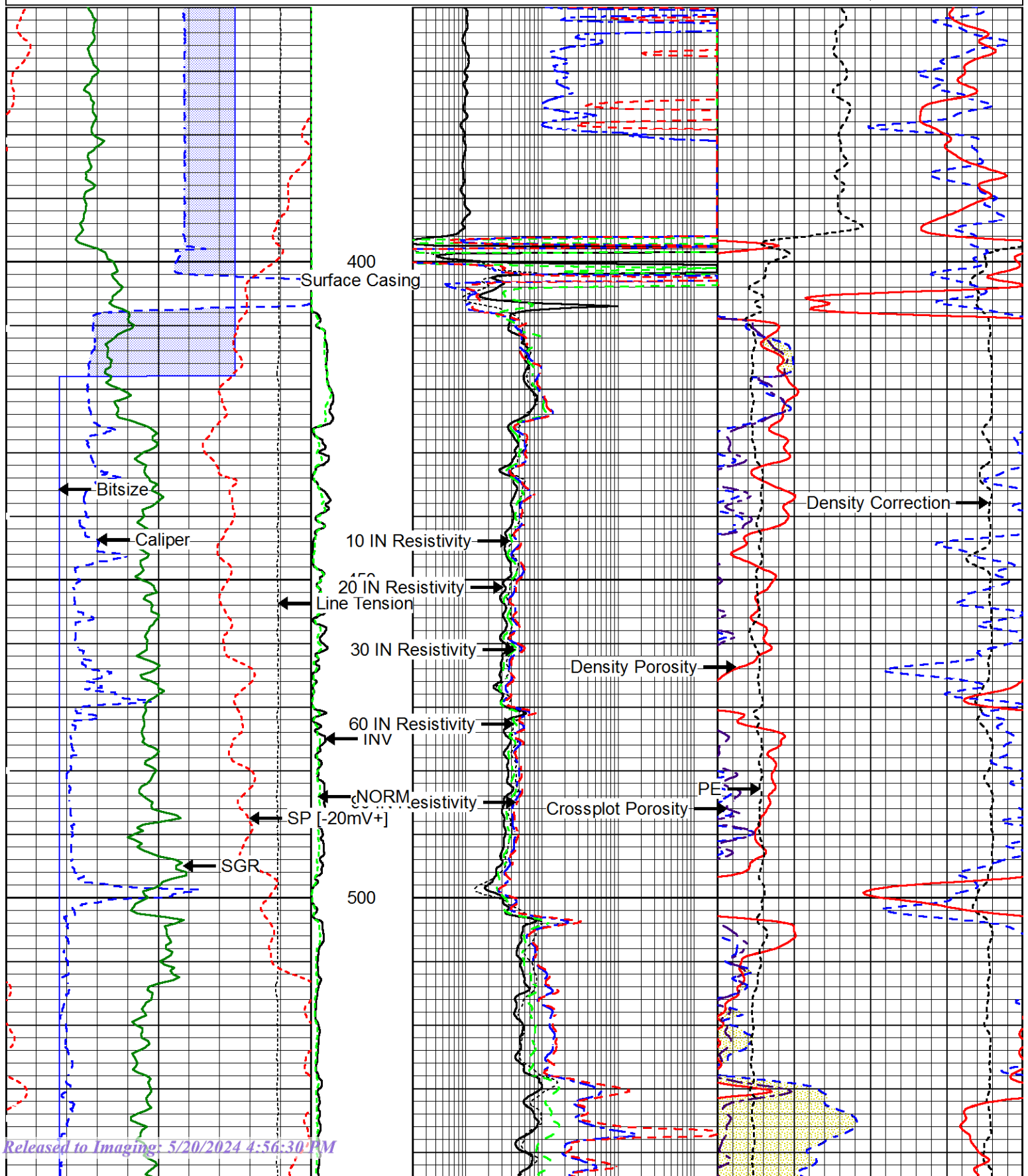


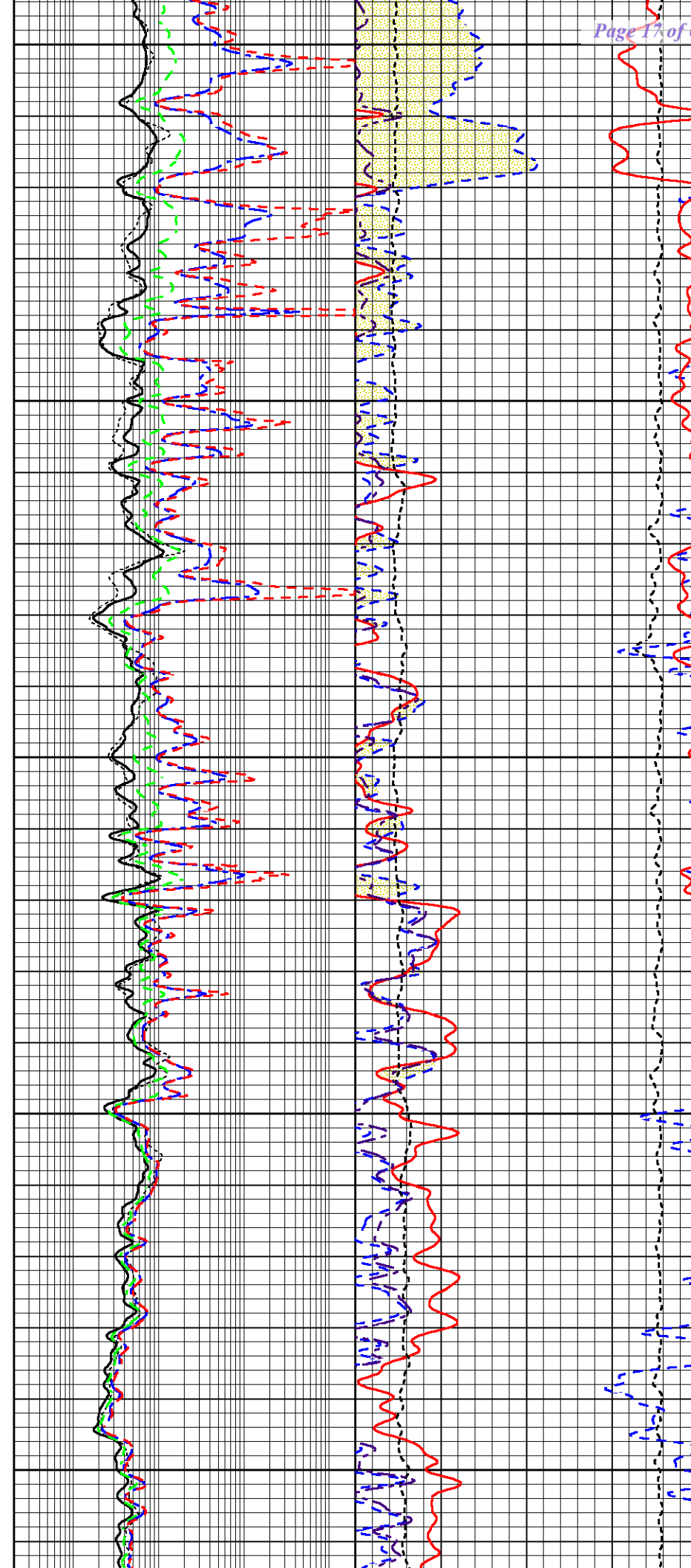
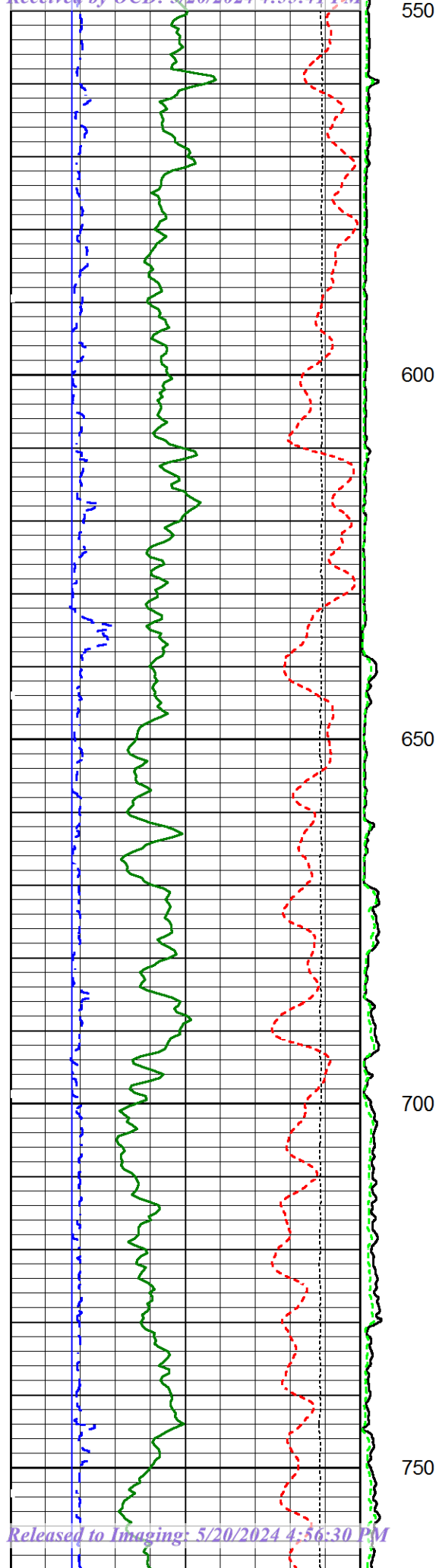
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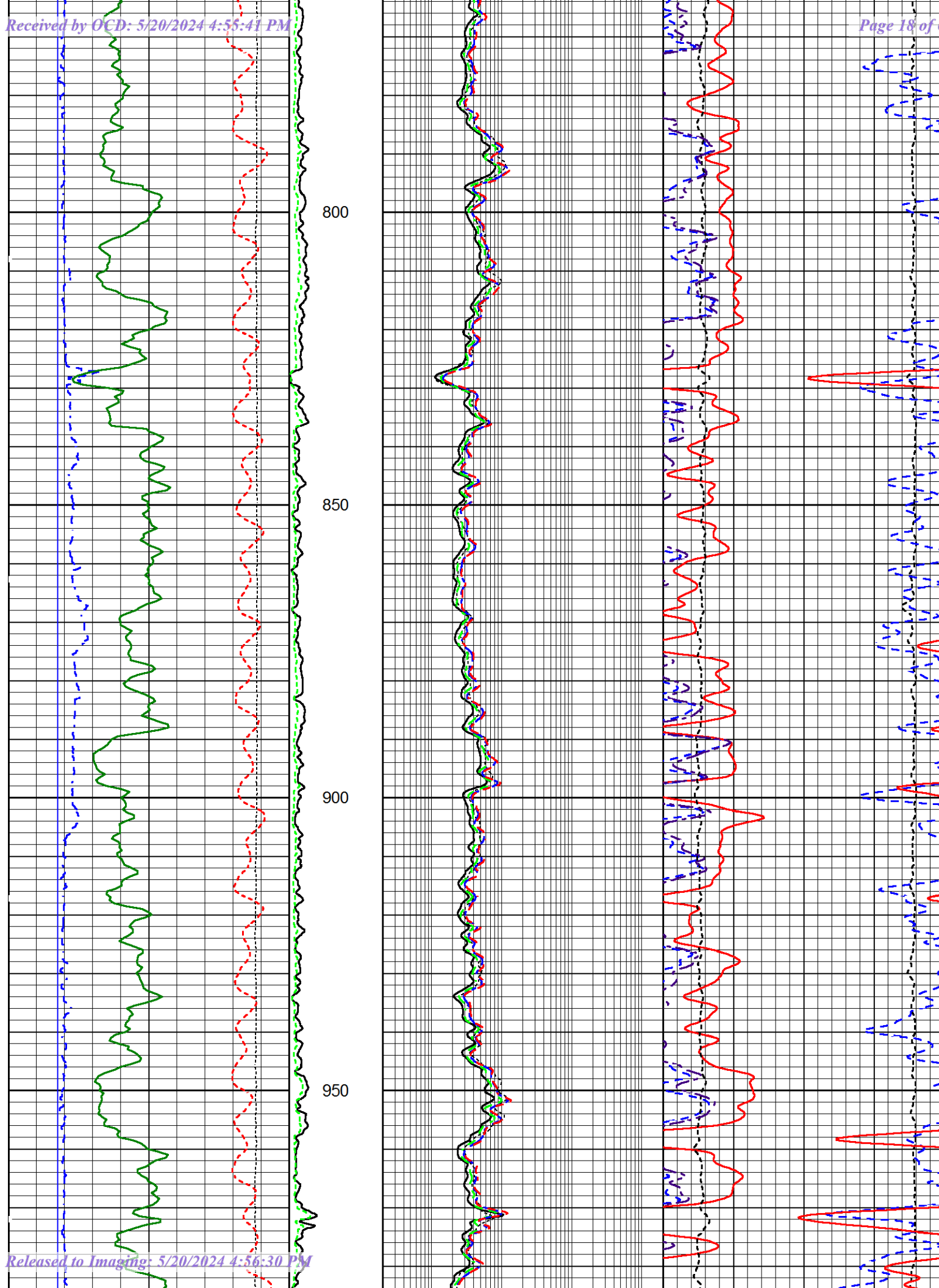
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 Charted by Depth in Feet scaled 1:240

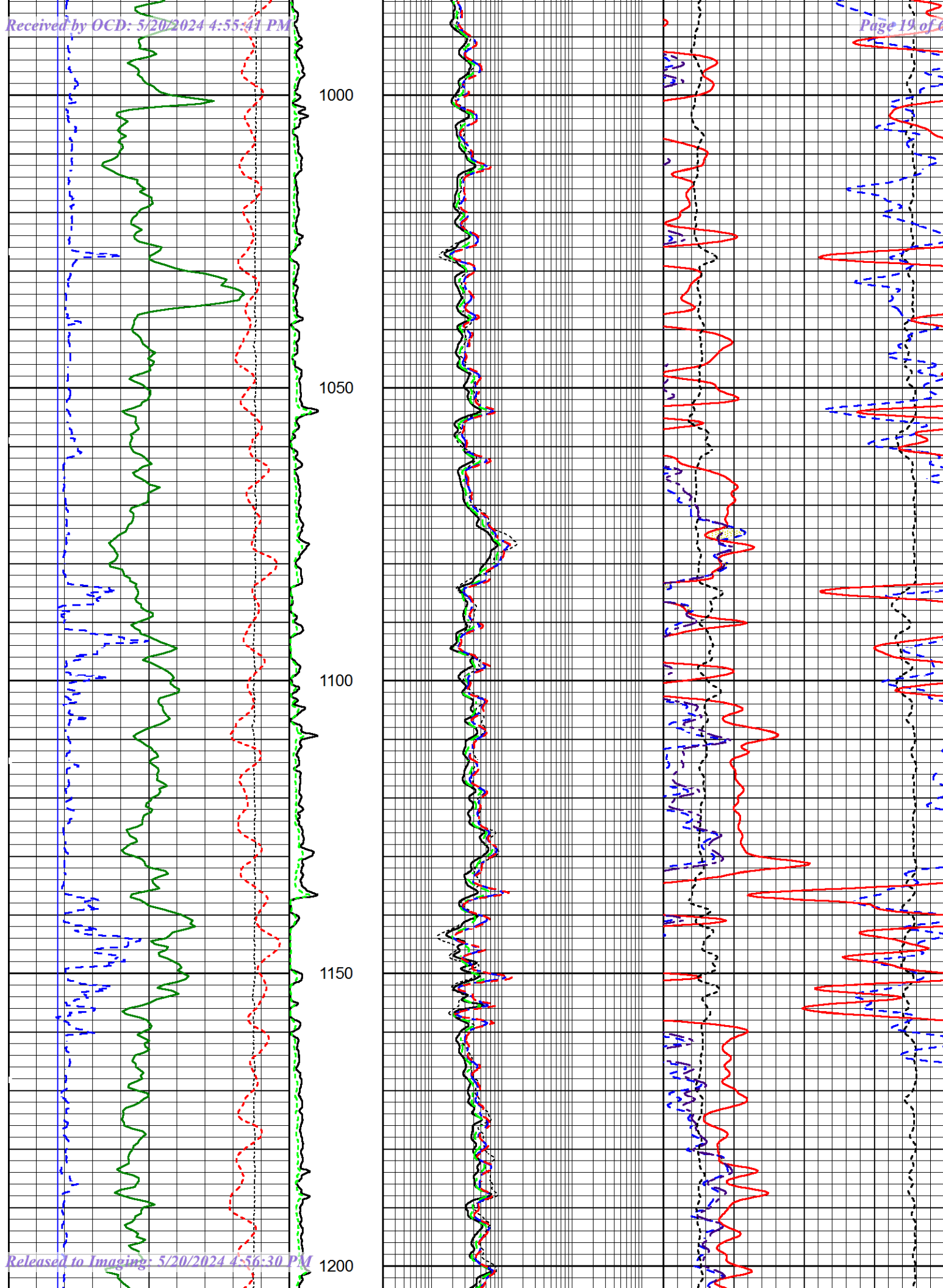


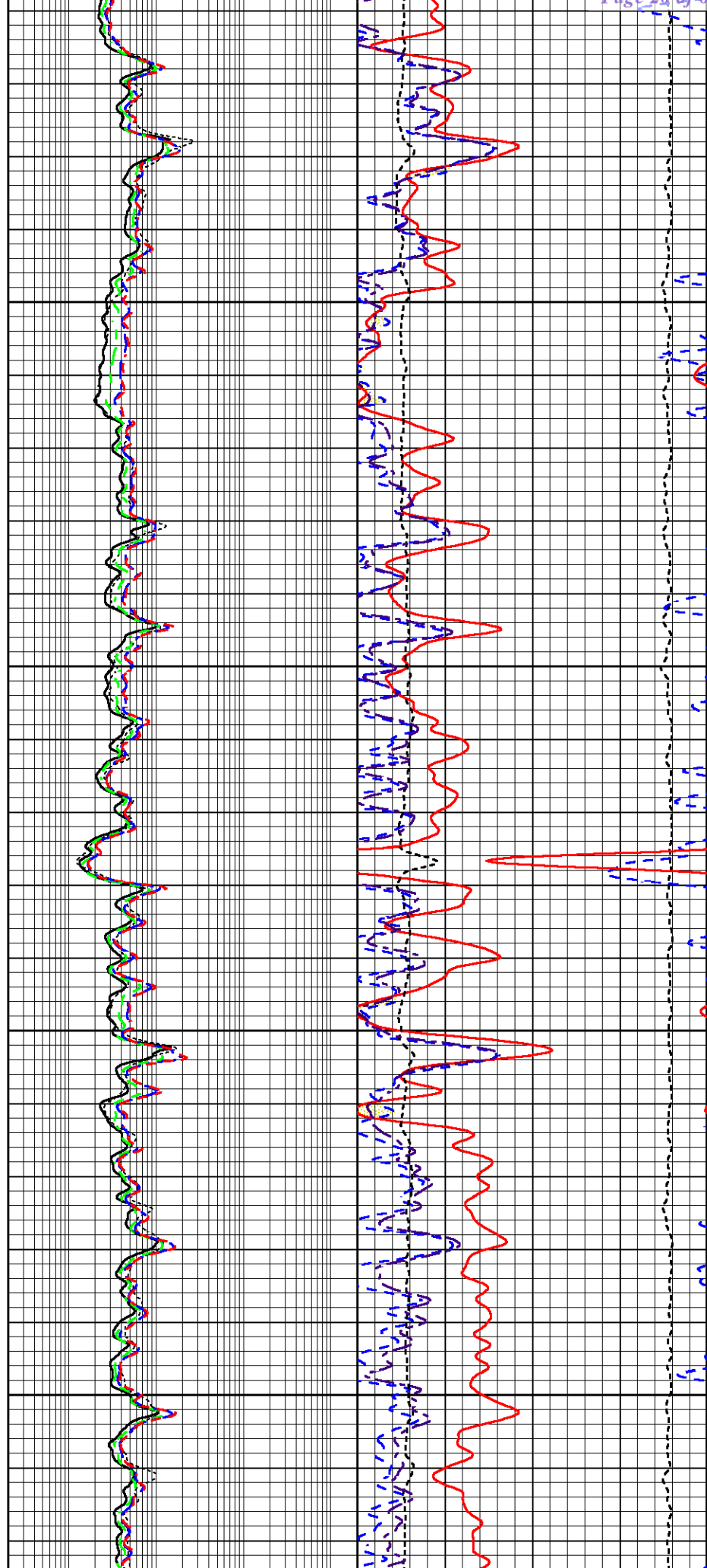
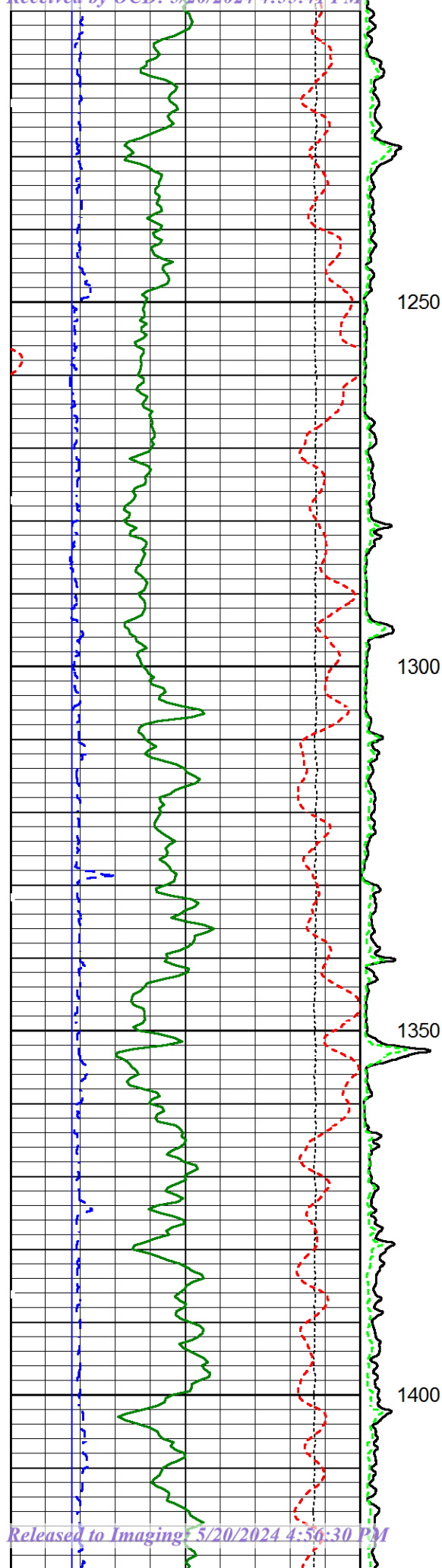
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|-------------|--|--------------|--|-----|--|---------|--|---------------------------|--|---------------------------|--|------|--|------------------|--|-----------------------------|--|--------|--|
| 7           |  | Caliper (in) |  | 17  |  | (Ohm-m) |  | 0.2                       |  | 20 IN Resistivity (Ohm-m) |  | 2000 |  | 0.3              |  | (Porosity Decimal Fraction) |  | 0.1    |  |
| SP [-20mV+] |  | 0            |  | 20  |  | 0.2     |  | 30 IN Resistivity (Ohm-m) |  | 2000                      |  |      |  | Density Porosity |  |                             |  |        |  |
| 0           |  | SGR (GAPI)   |  | 200 |  | NORM    |  | 0.2                       |  | 60 IN Resistivity (Ohm-m) |  | 2000 |  | 0.3              |  | (Porosity Decimal Fraction) |  | -0.1   |  |
|             |  | Line Tension |  |     |  | (Ohm-m) |  | 0.2                       |  | 90 IN Resistivity (Ohm-m) |  | 2000 |  |                  |  | Crossplot Porosity          |  |        |  |
| 5000        |  | (lb)         |  | 0   |  | 0       |  | 20                        |  |                           |  |      |  | 0.3              |  | (Porosity Decimal Fraction) |  | -0.1   |  |
|             |  |              |  |     |  |         |  |                           |  |                           |  |      |  | 0                |  | PE                          |  | 10     |  |
|             |  |              |  |     |  |         |  |                           |  |                           |  |      |  |                  |  |                             |  | 0.8    |  |
|             |  |              |  |     |  |         |  |                           |  |                           |  |      |  |                  |  |                             |  | (g/cc) |  |
|             |  |              |  |     |  |         |  |                           |  |                           |  |      |  |                  |  |                             |  | -0.2   |  |

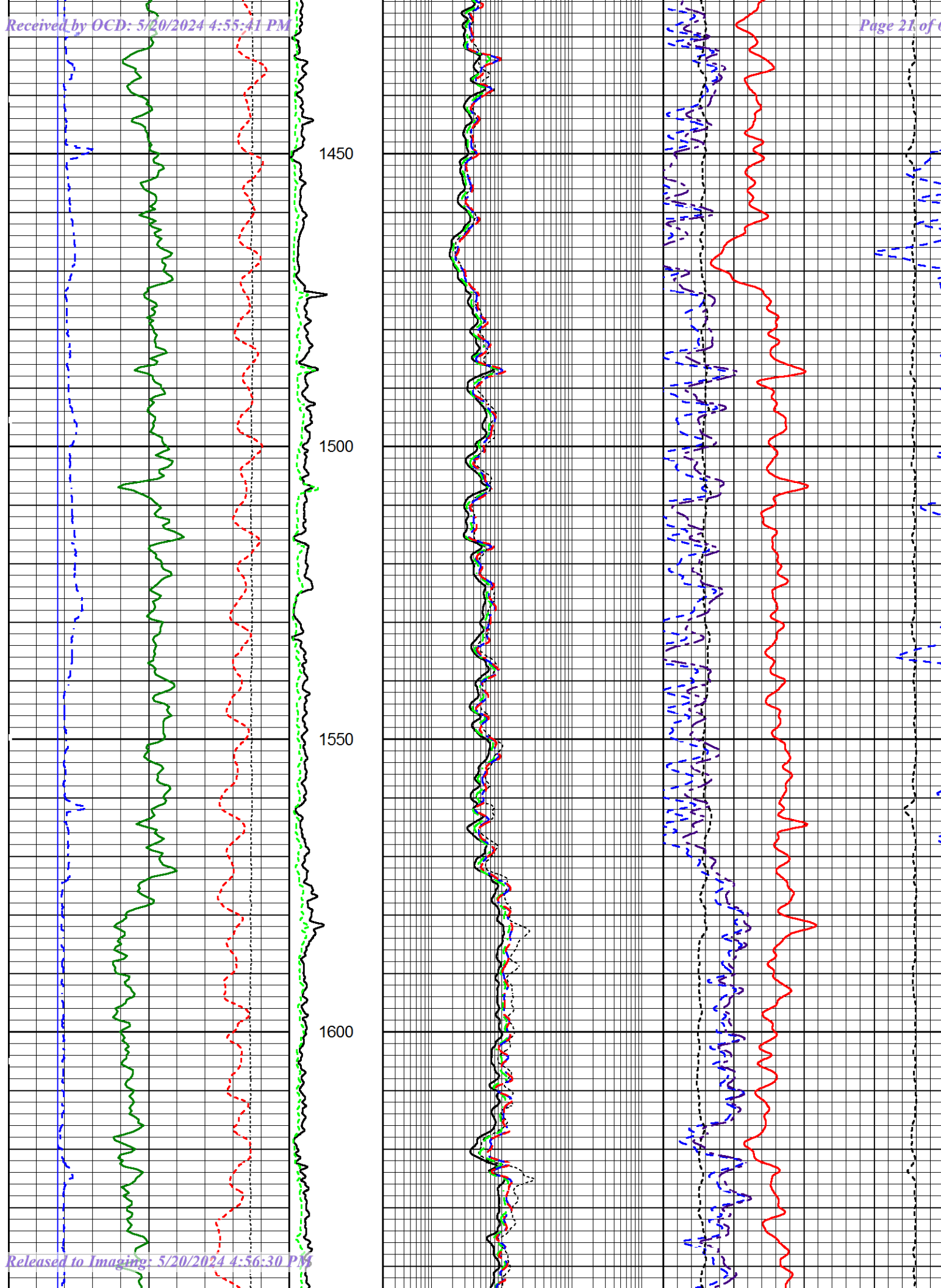


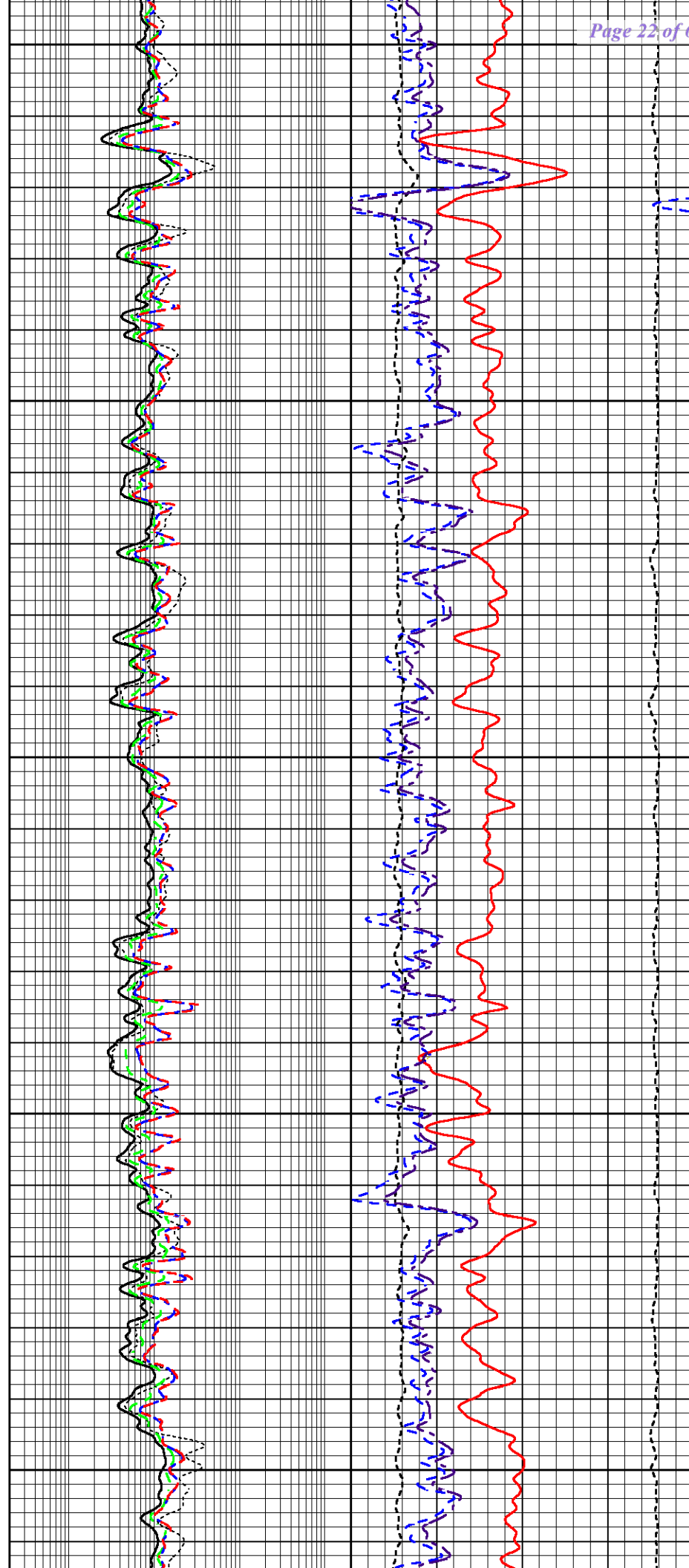
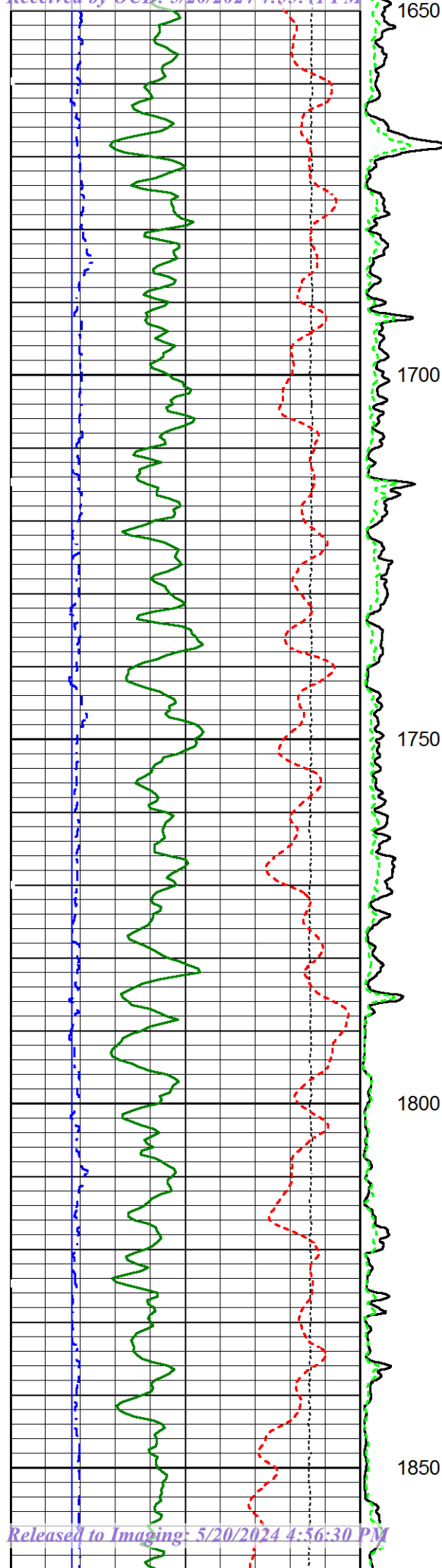


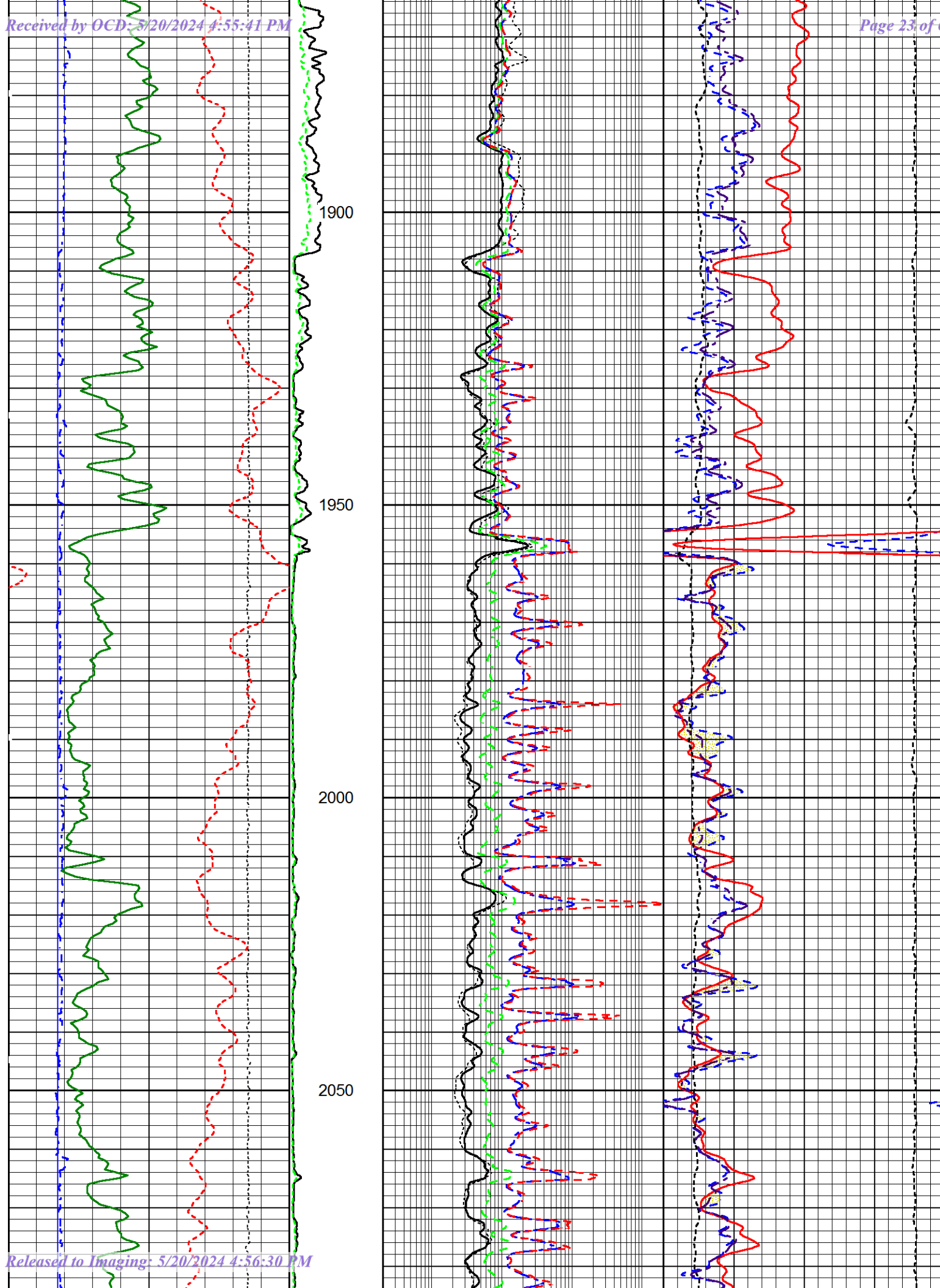


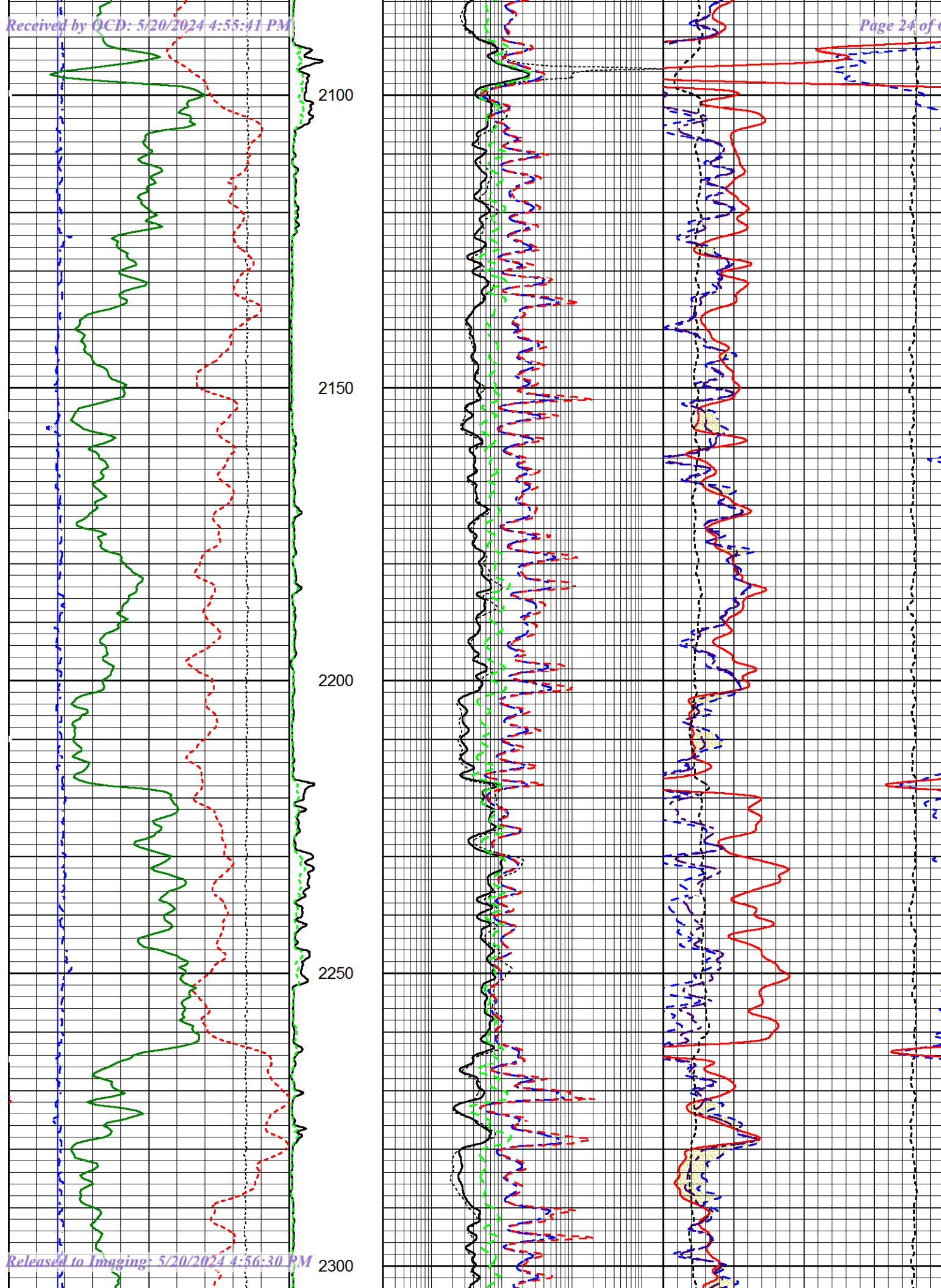


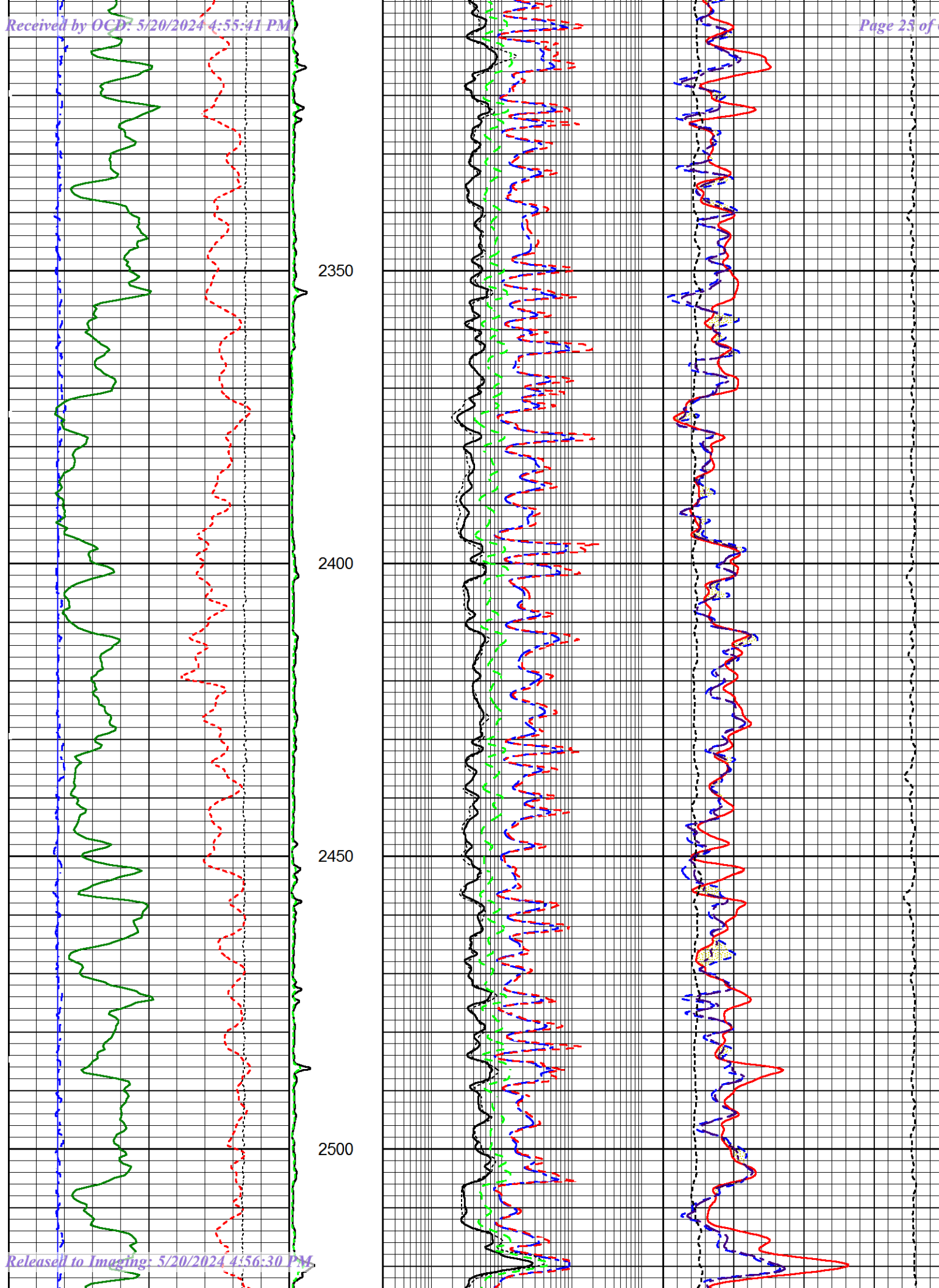


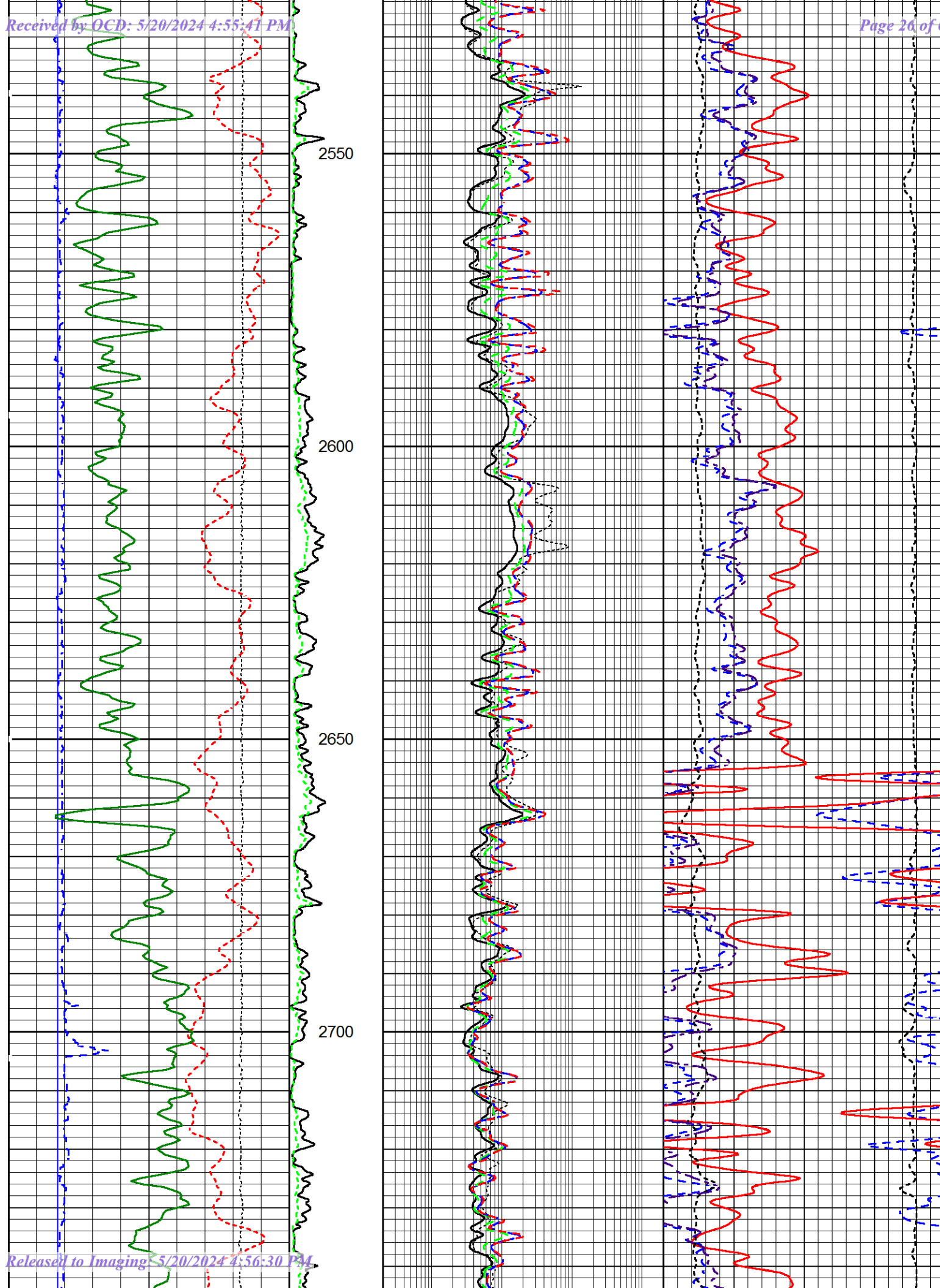


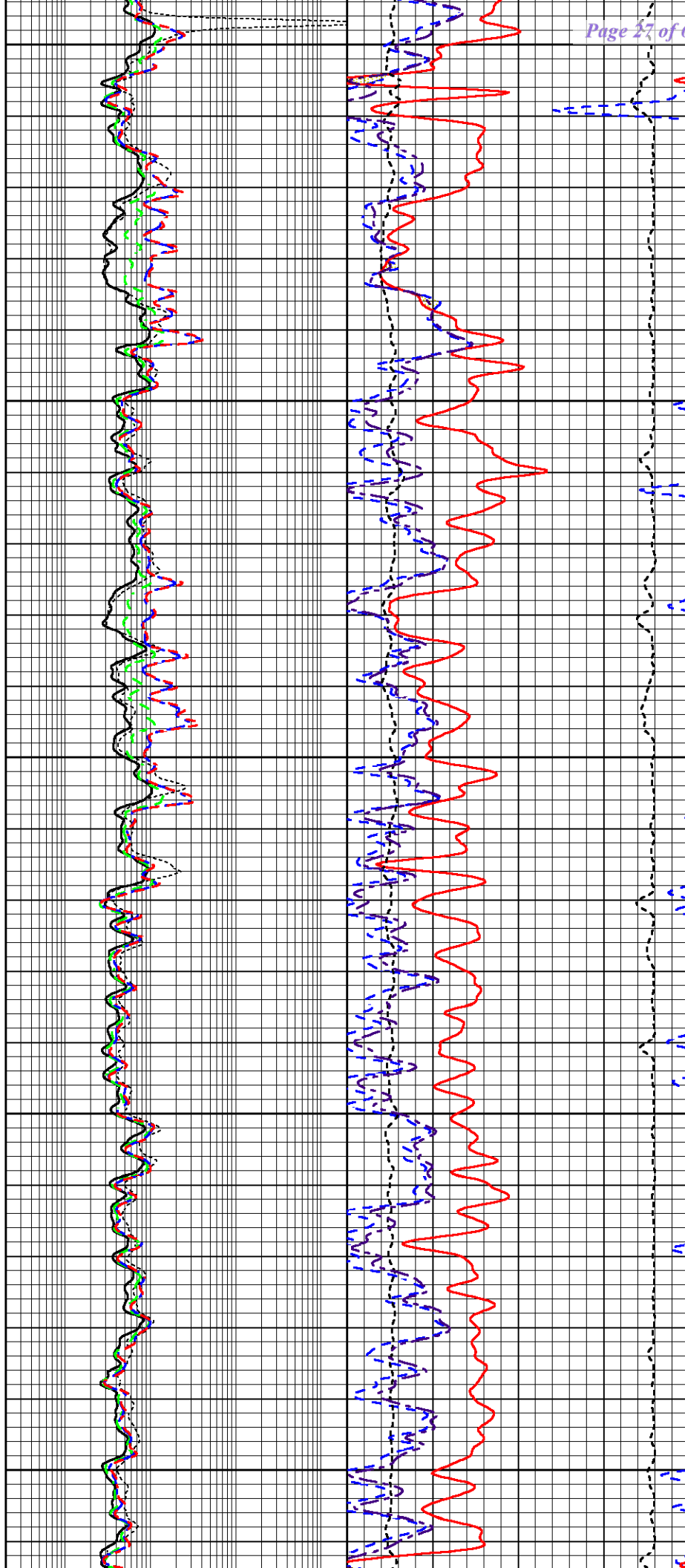
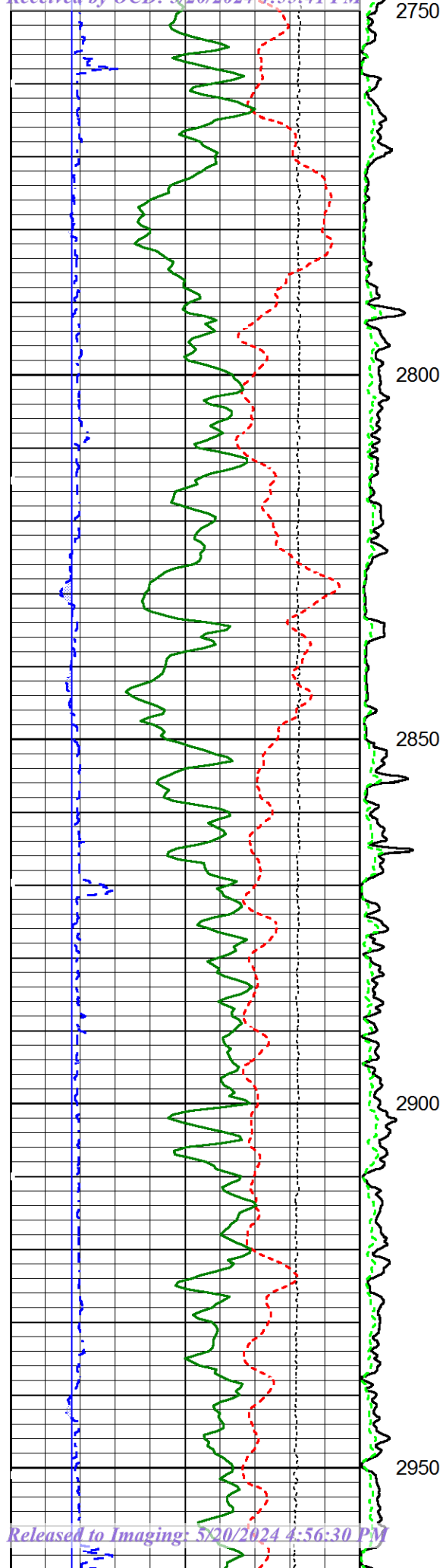


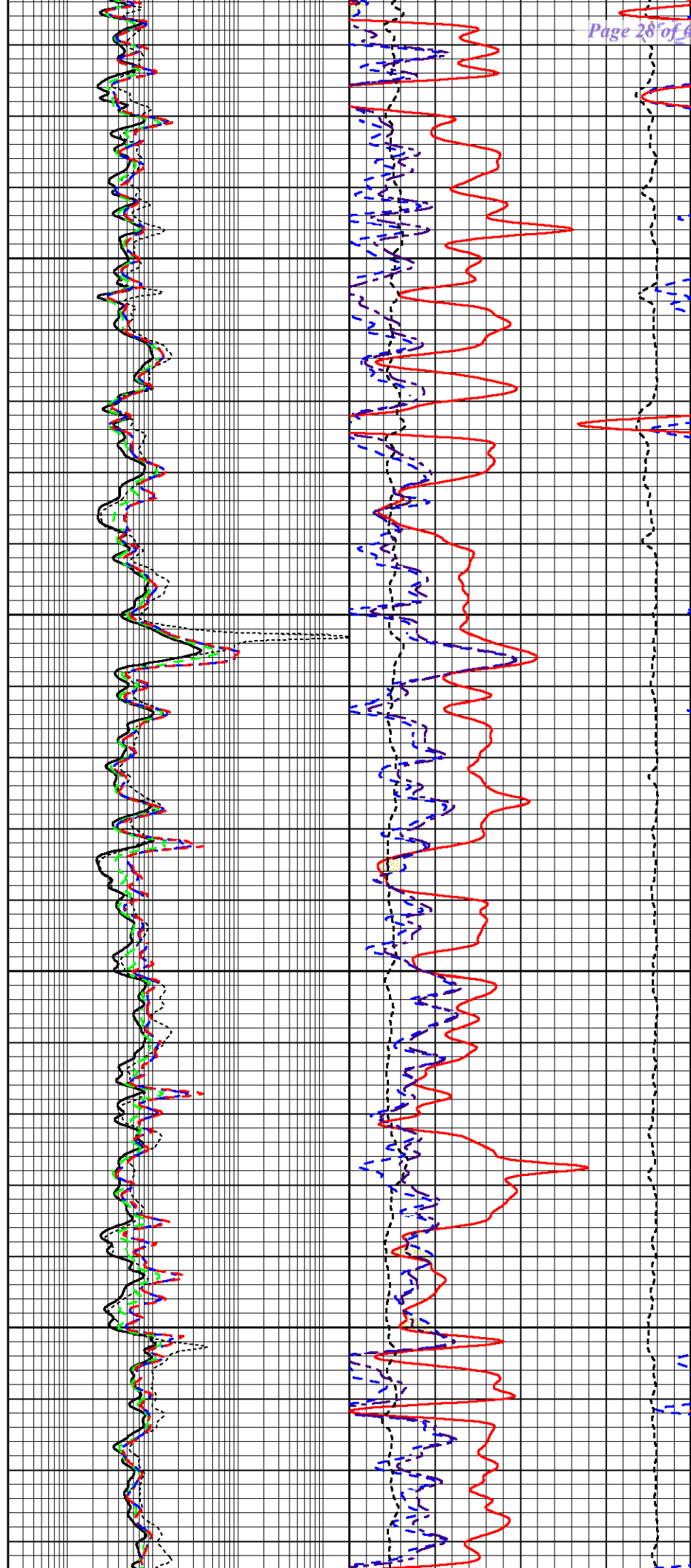
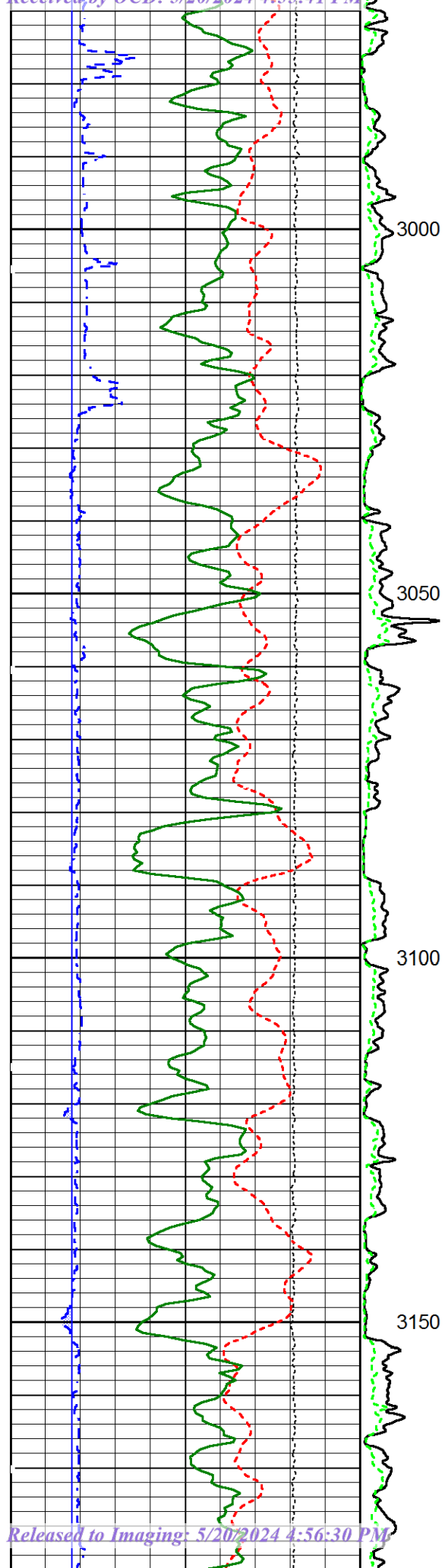


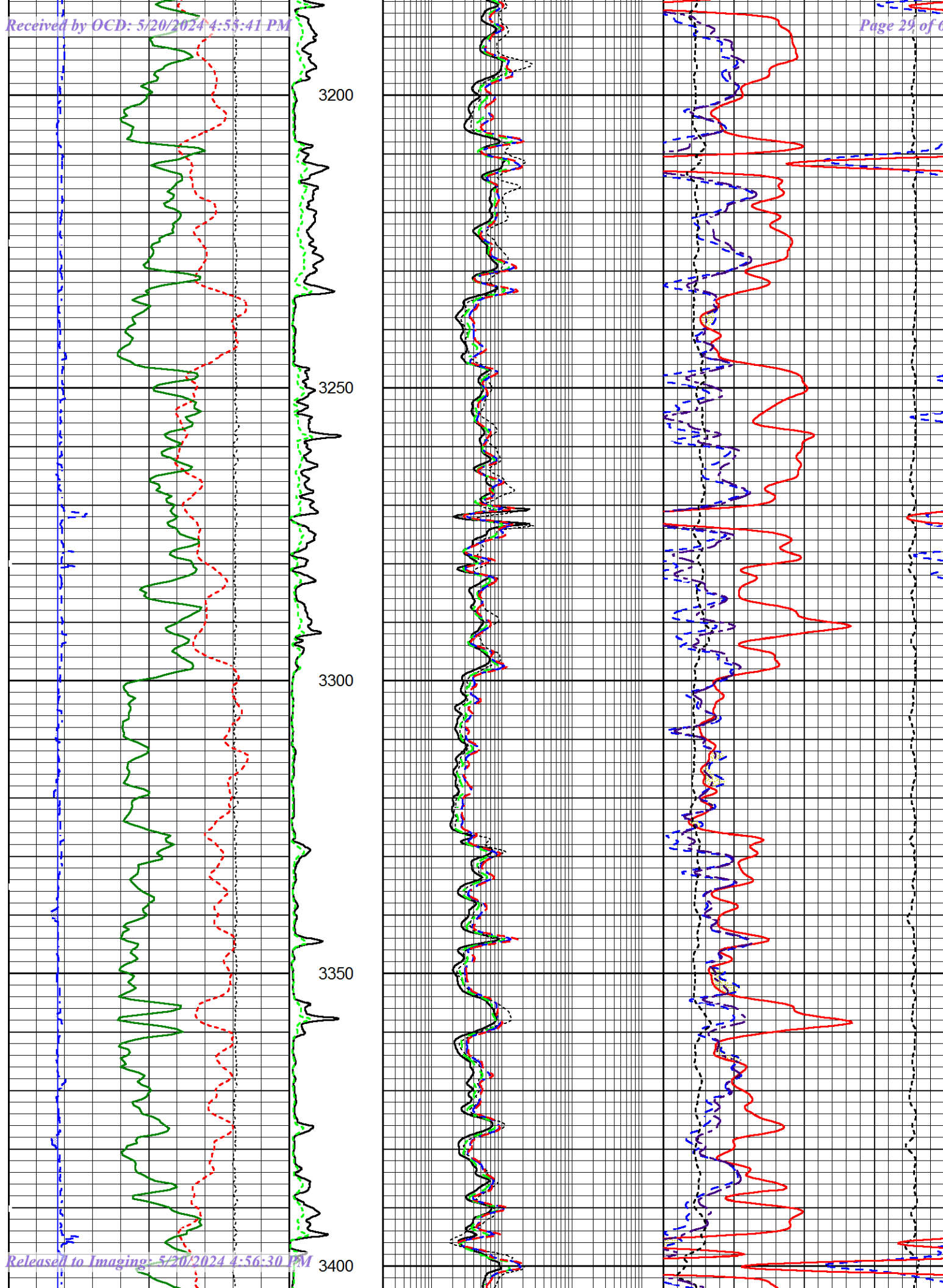


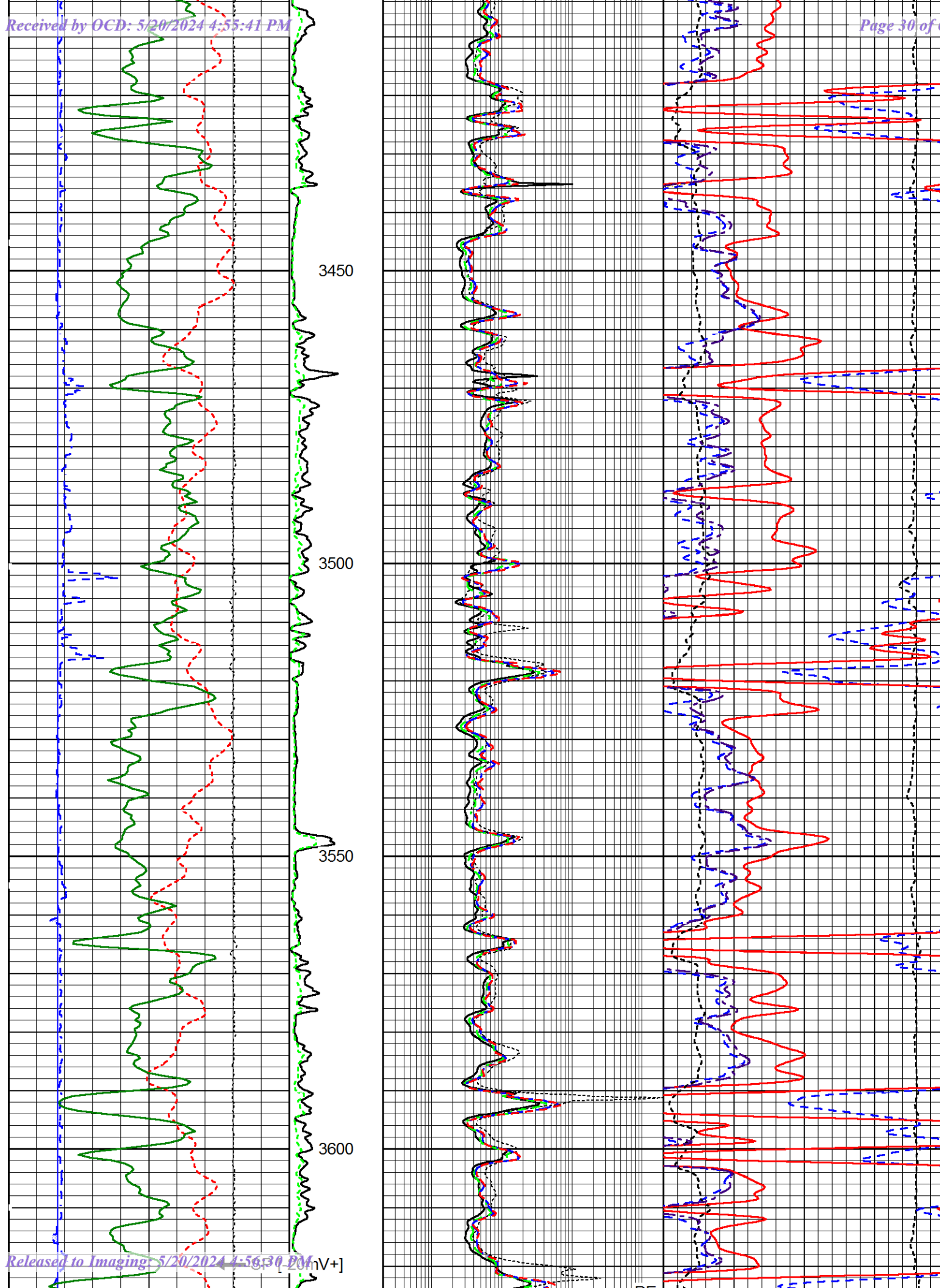


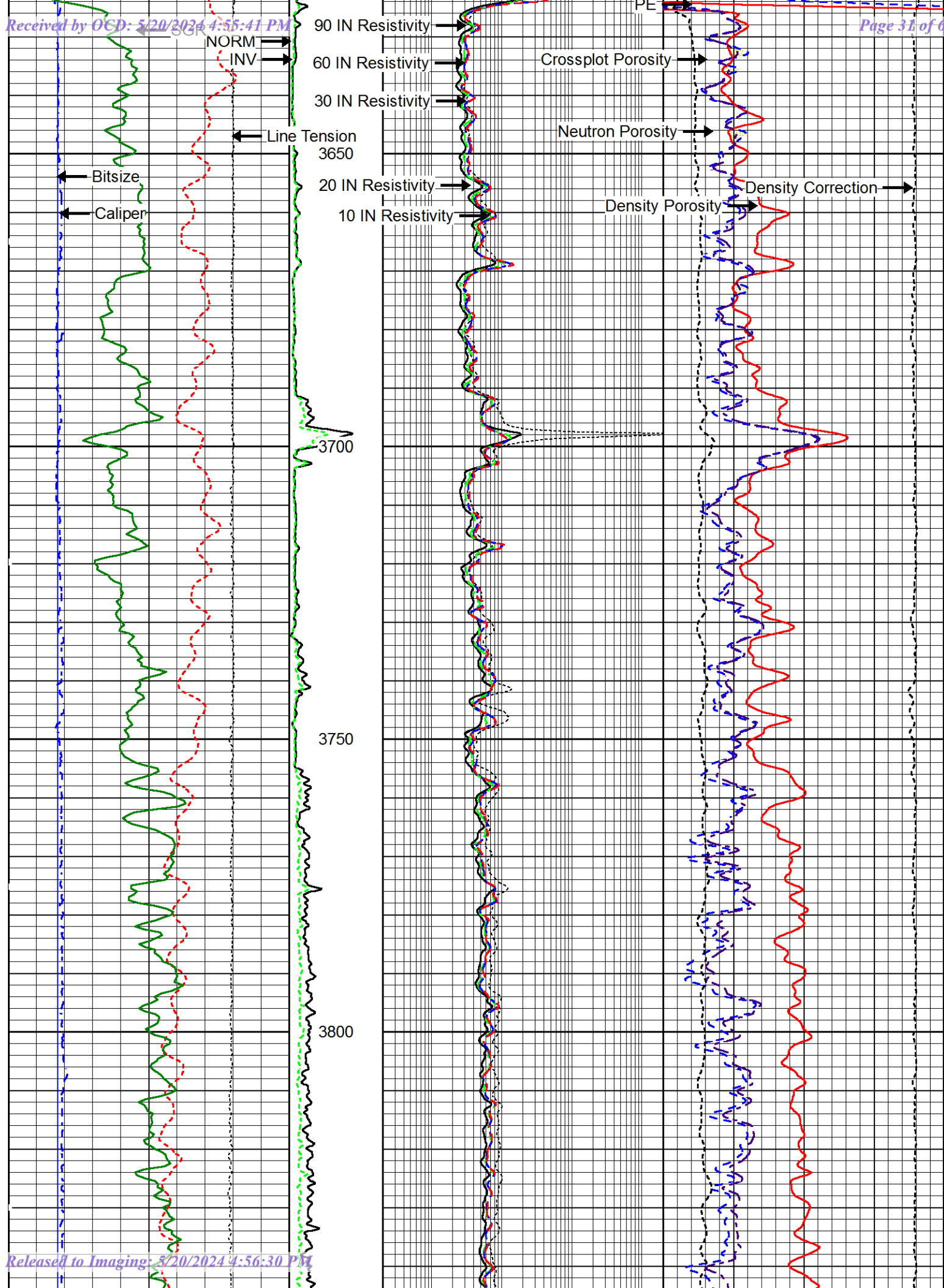


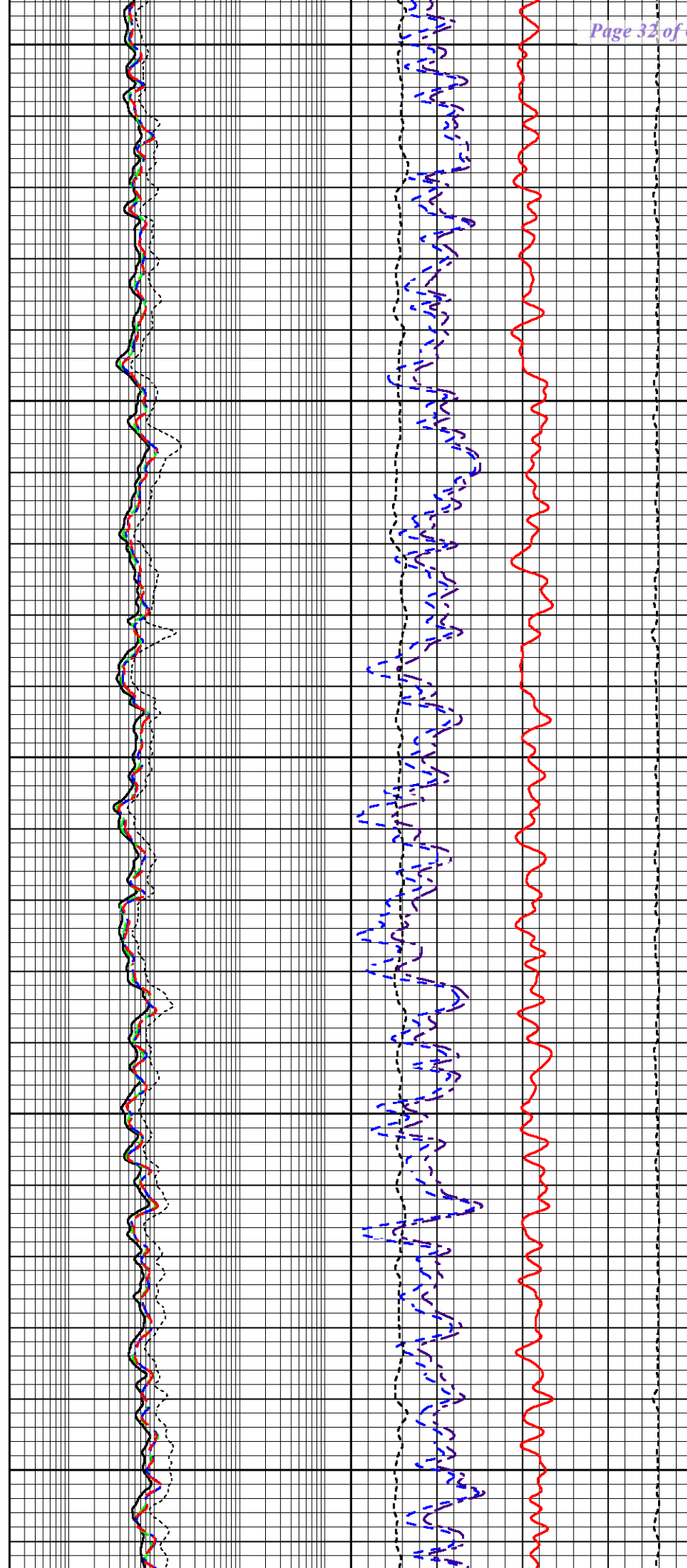
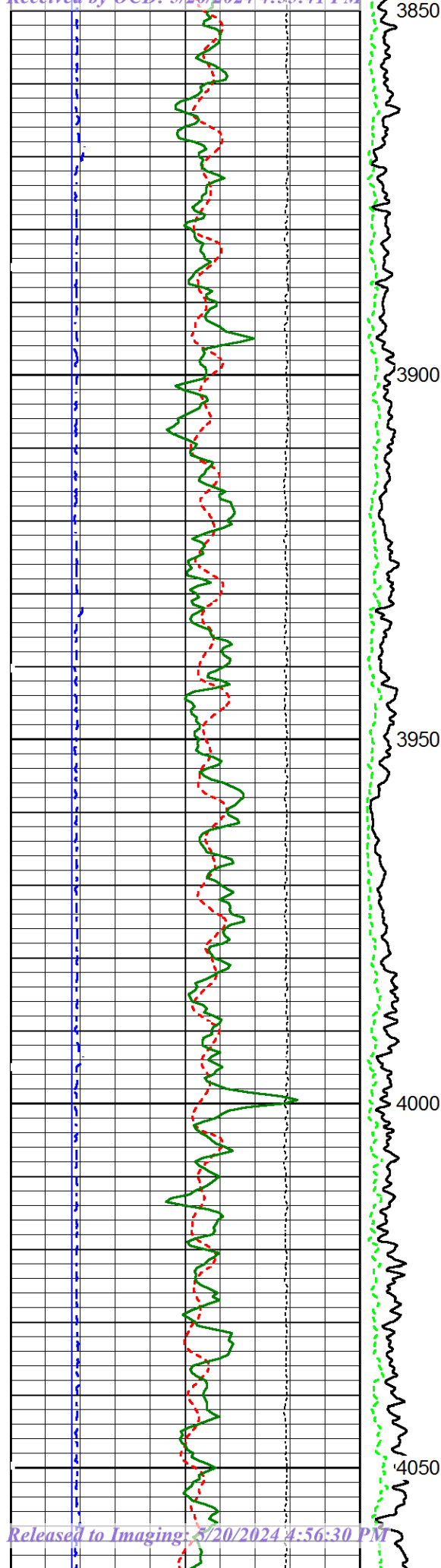


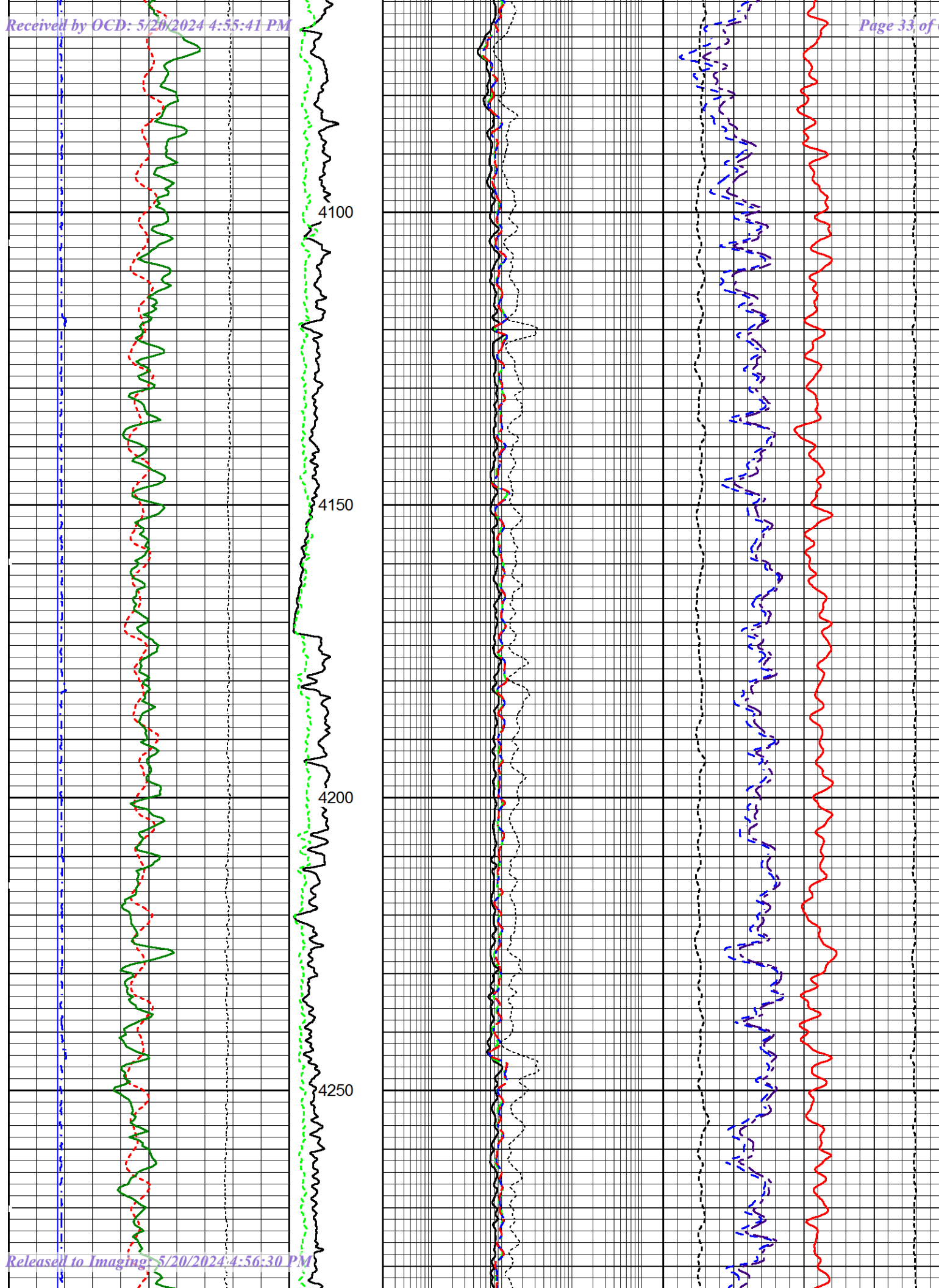


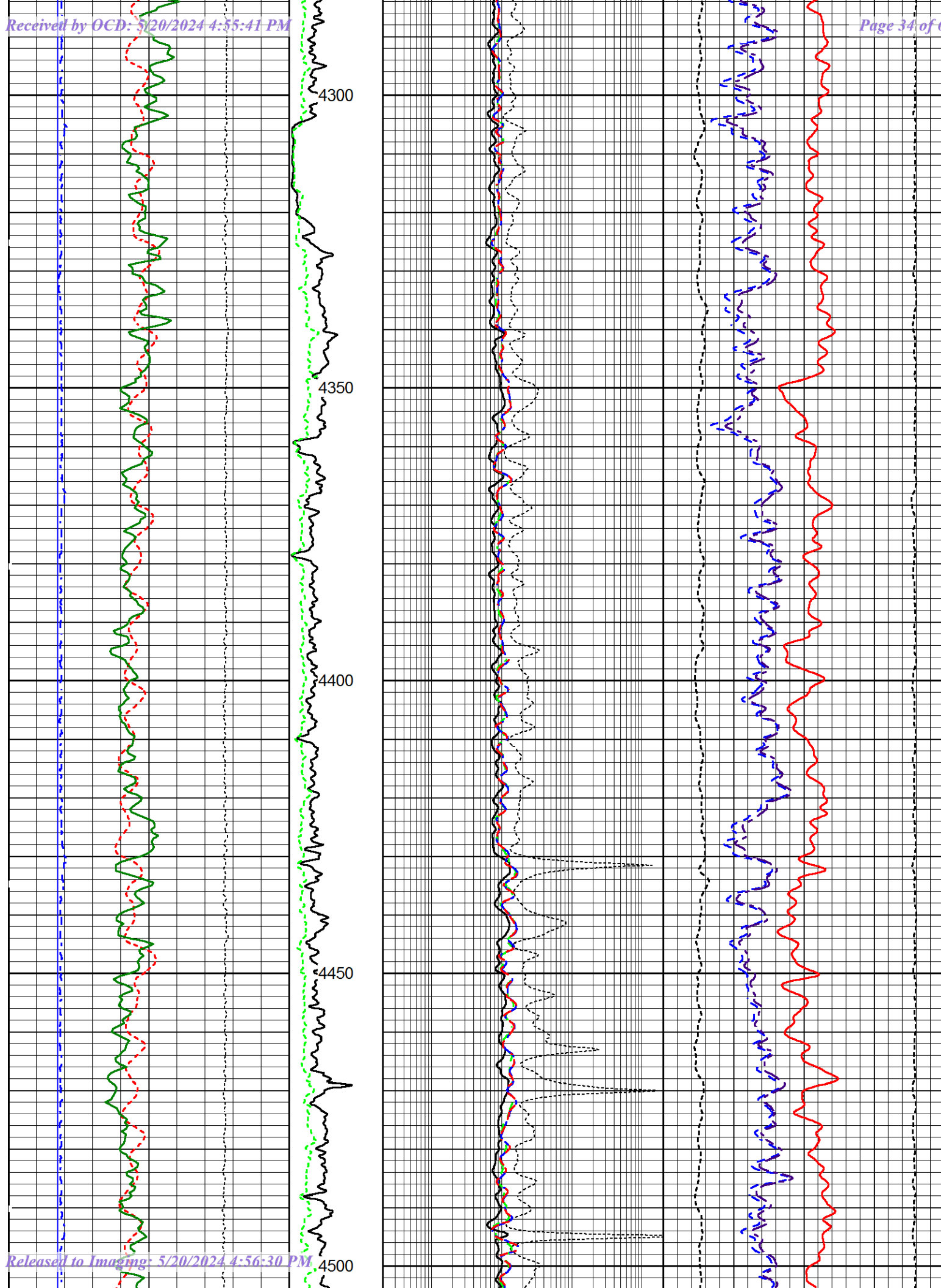


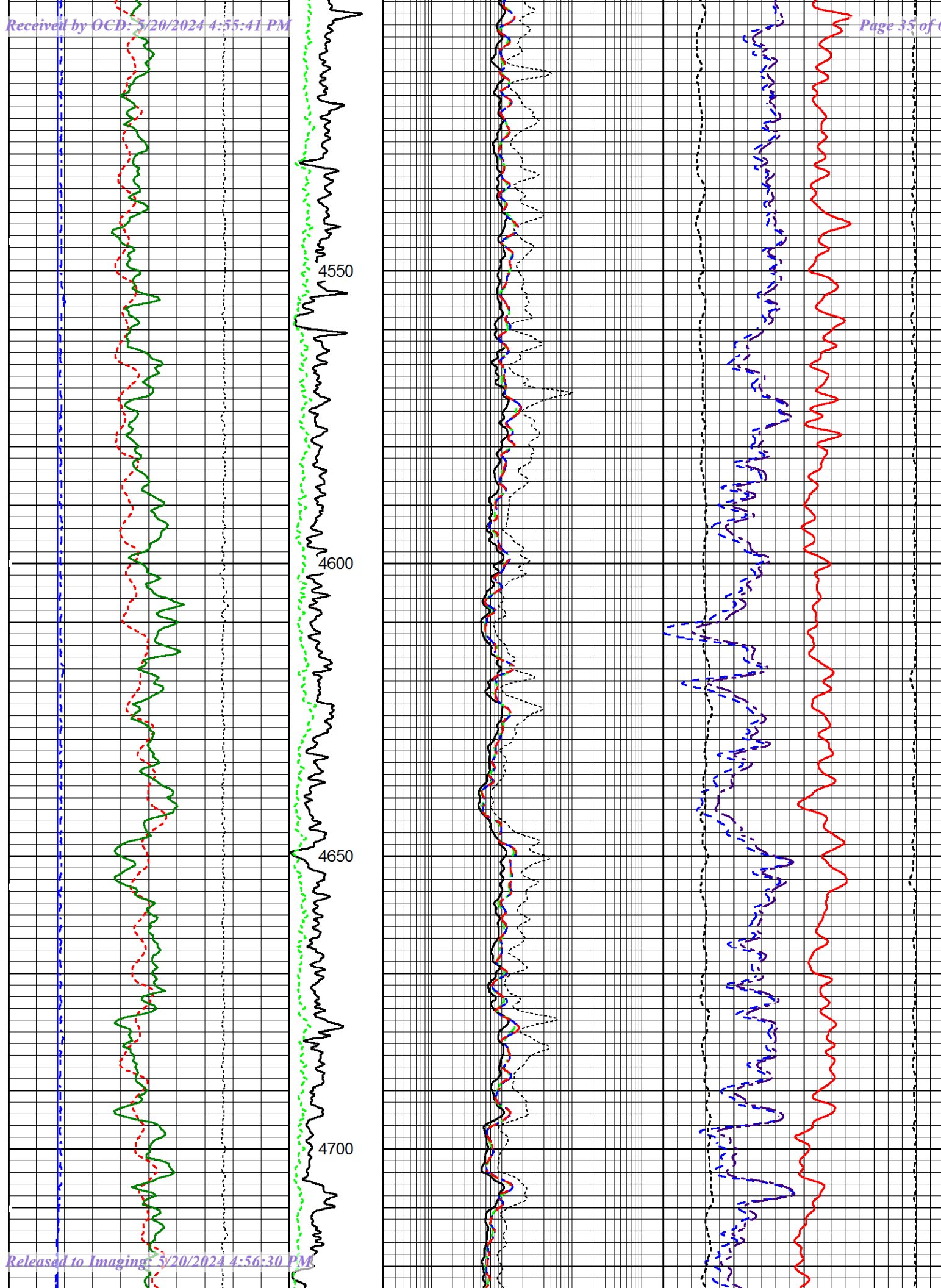


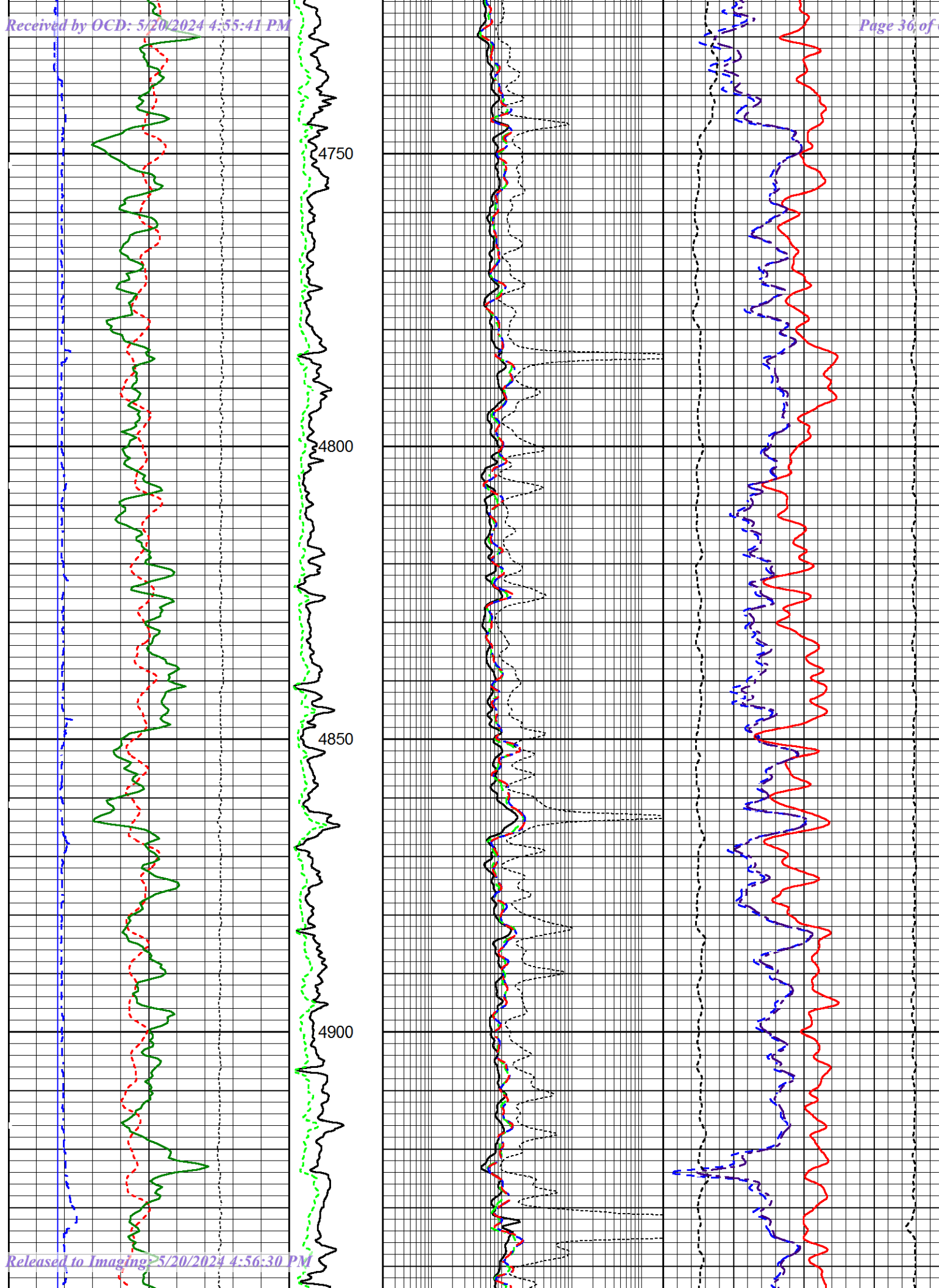


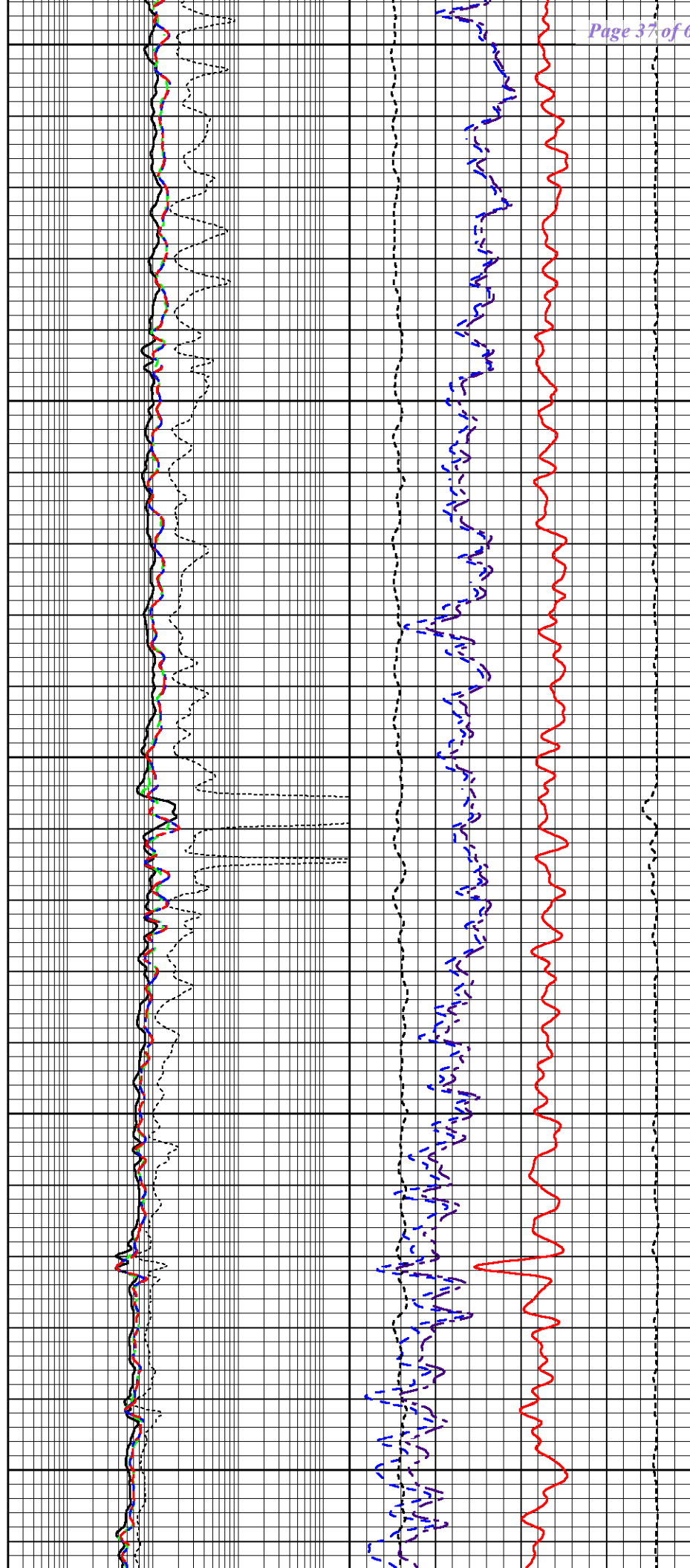
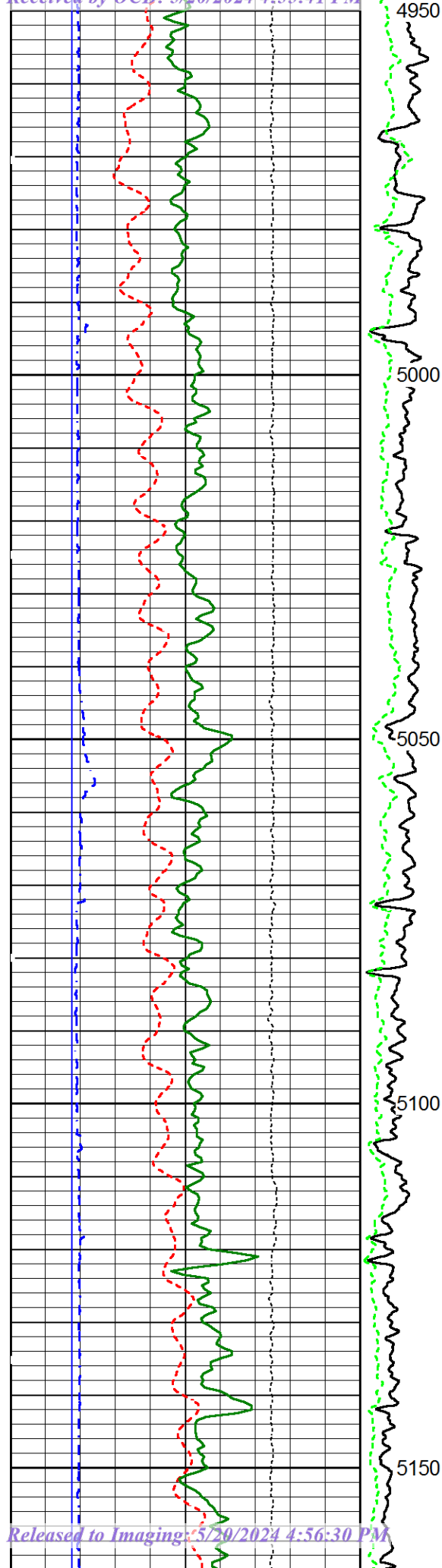


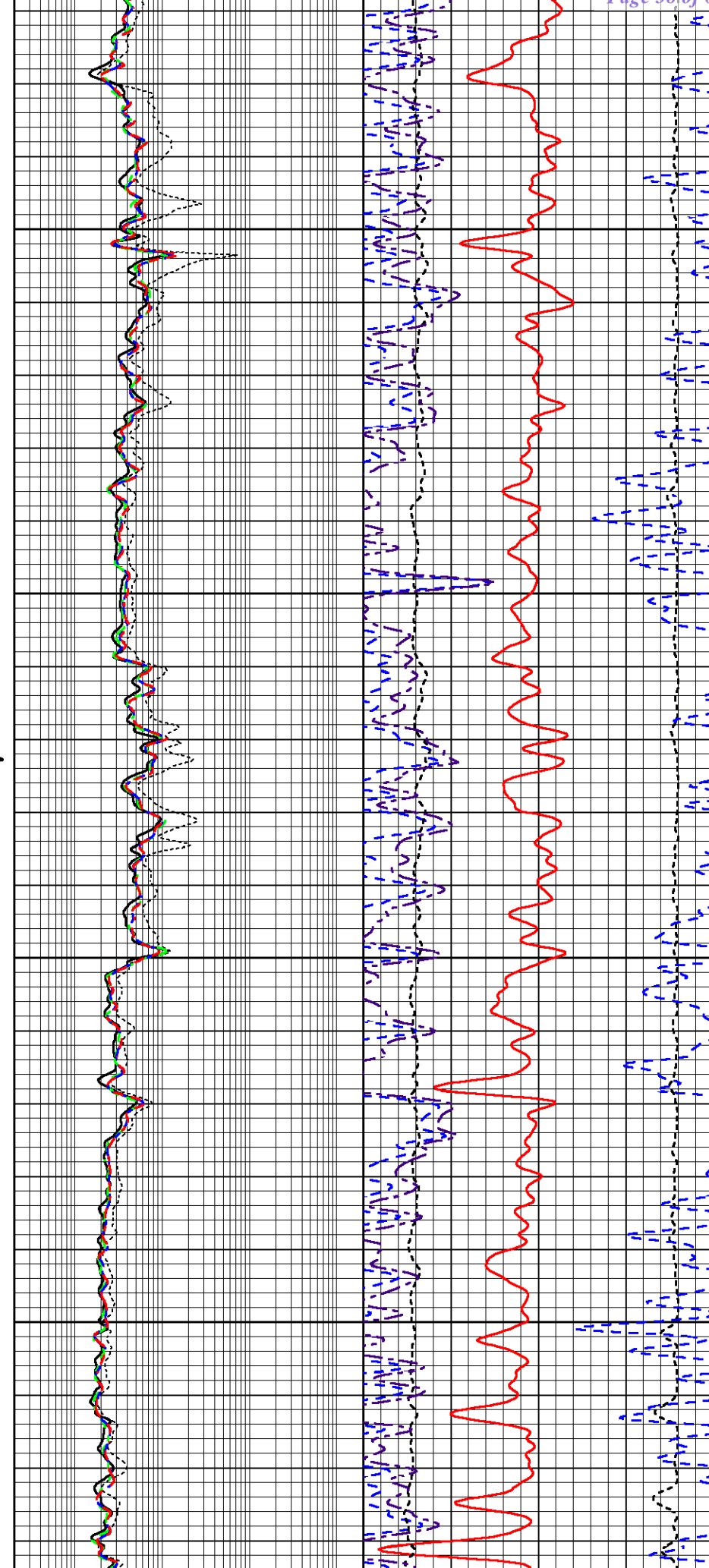
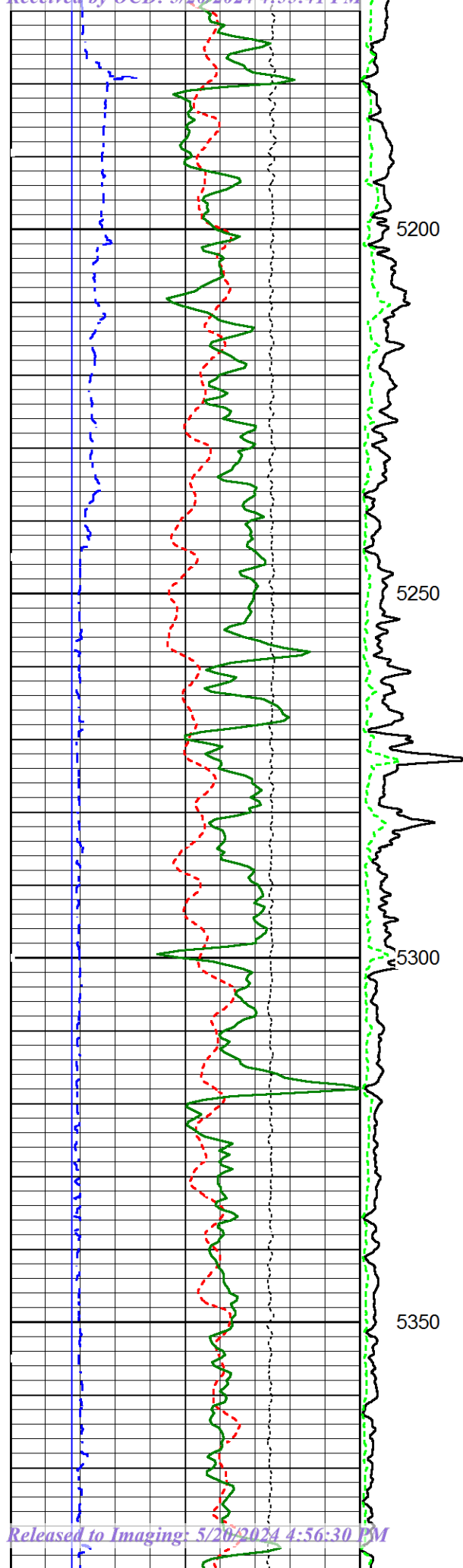


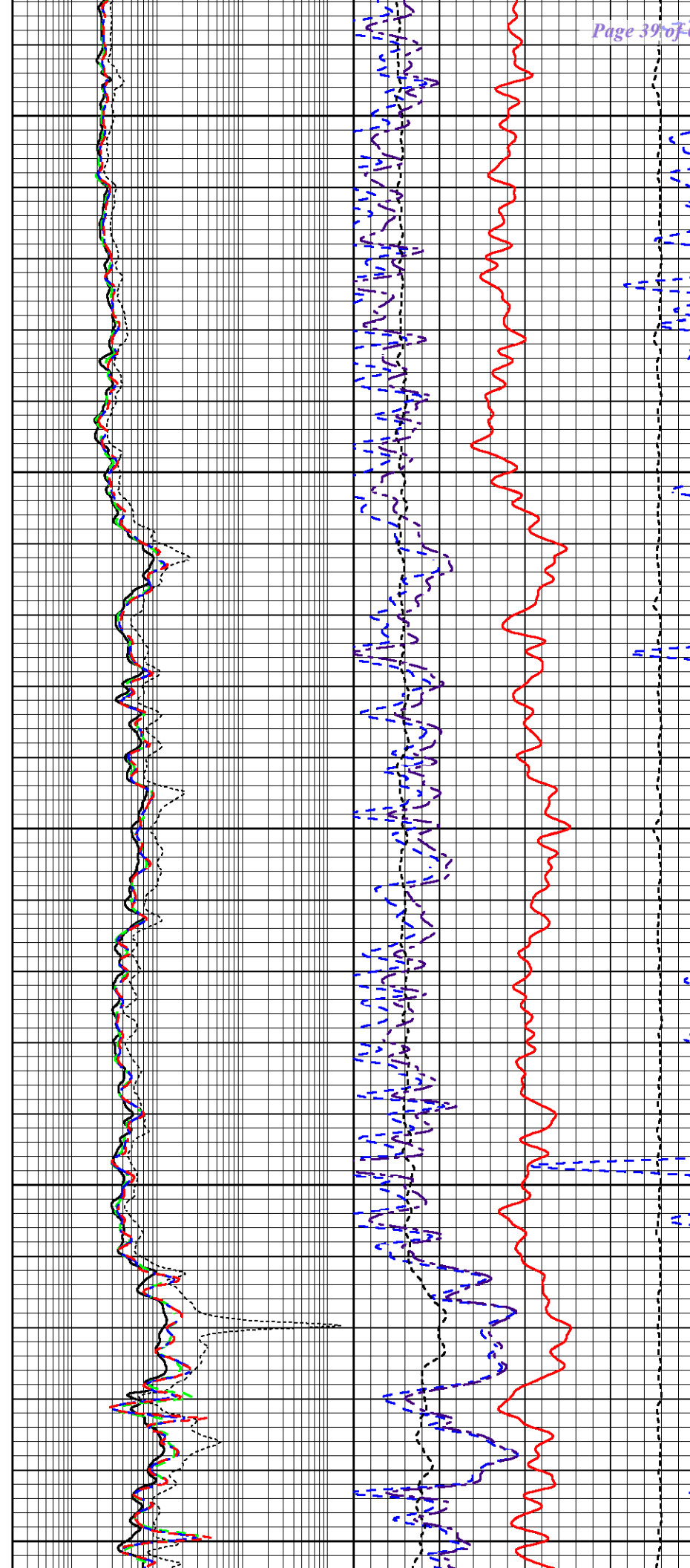
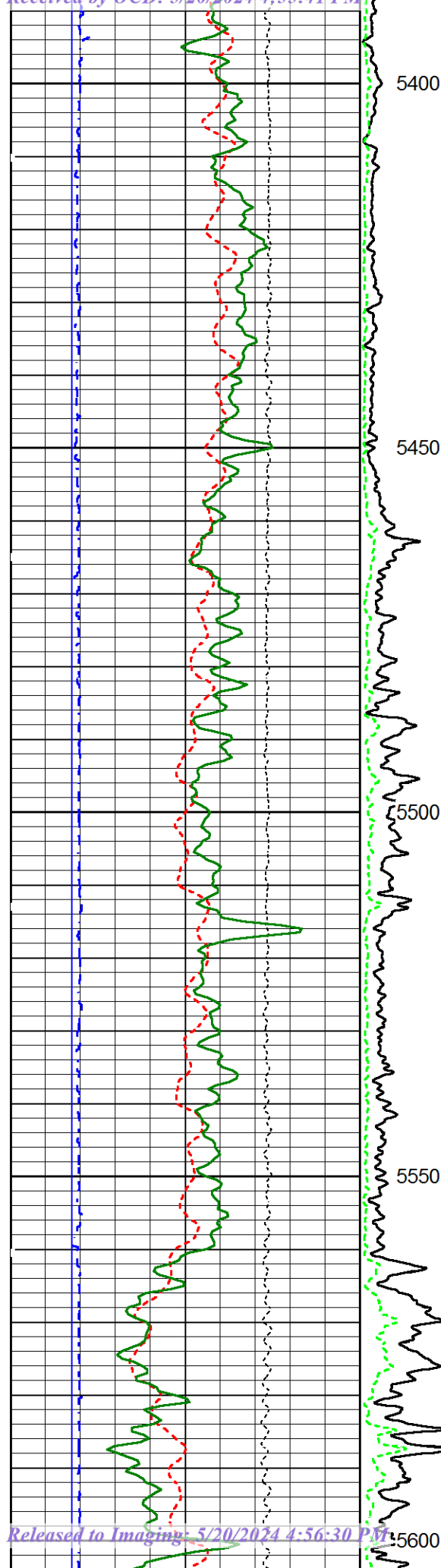


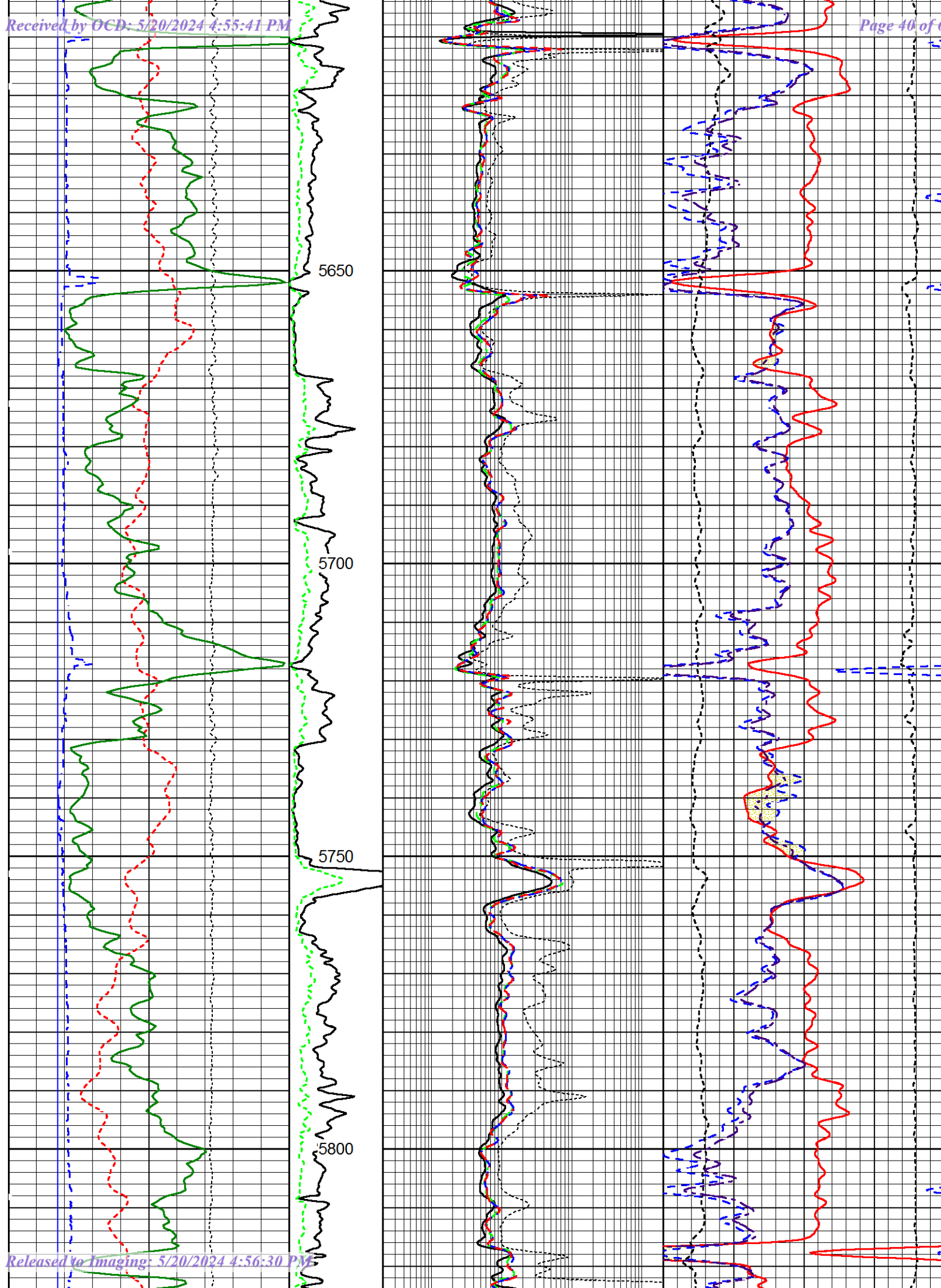


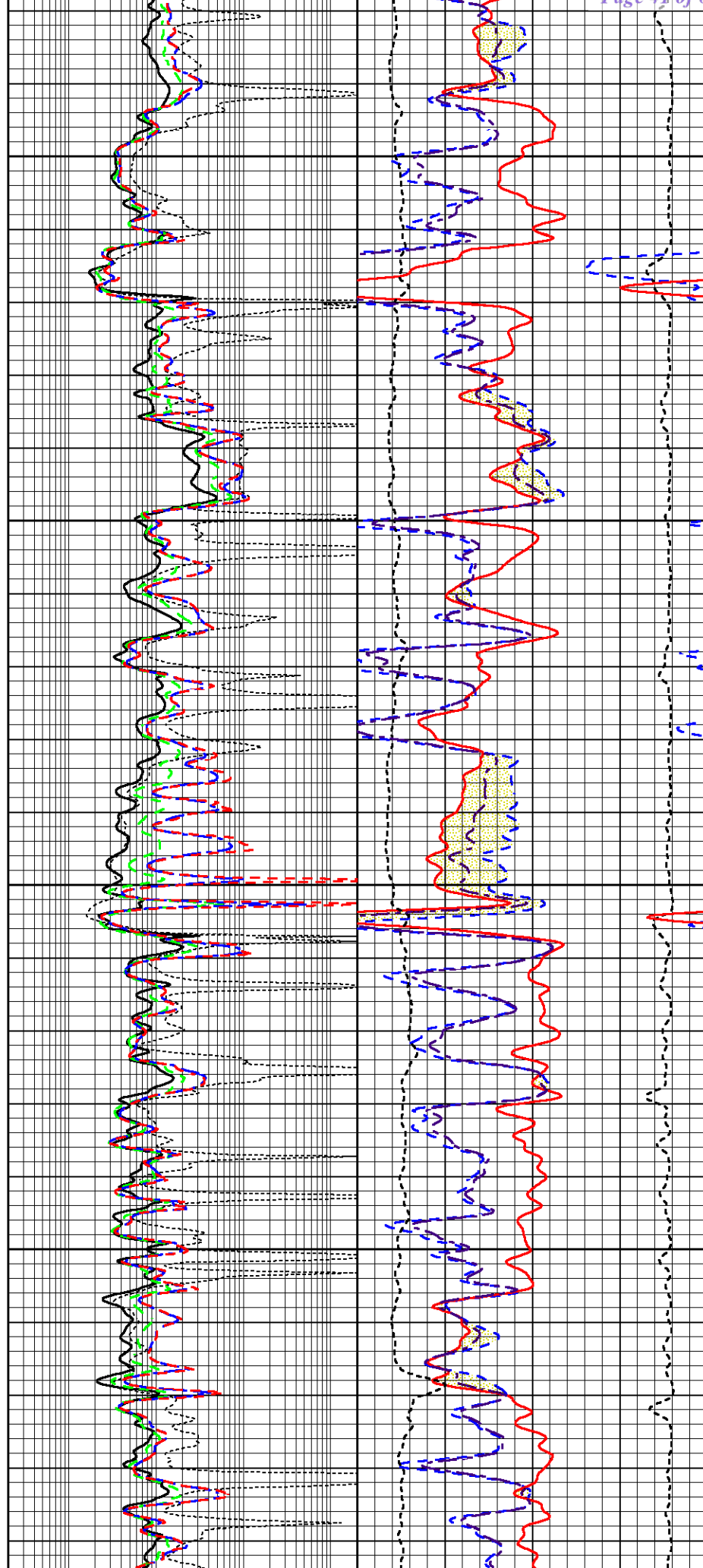
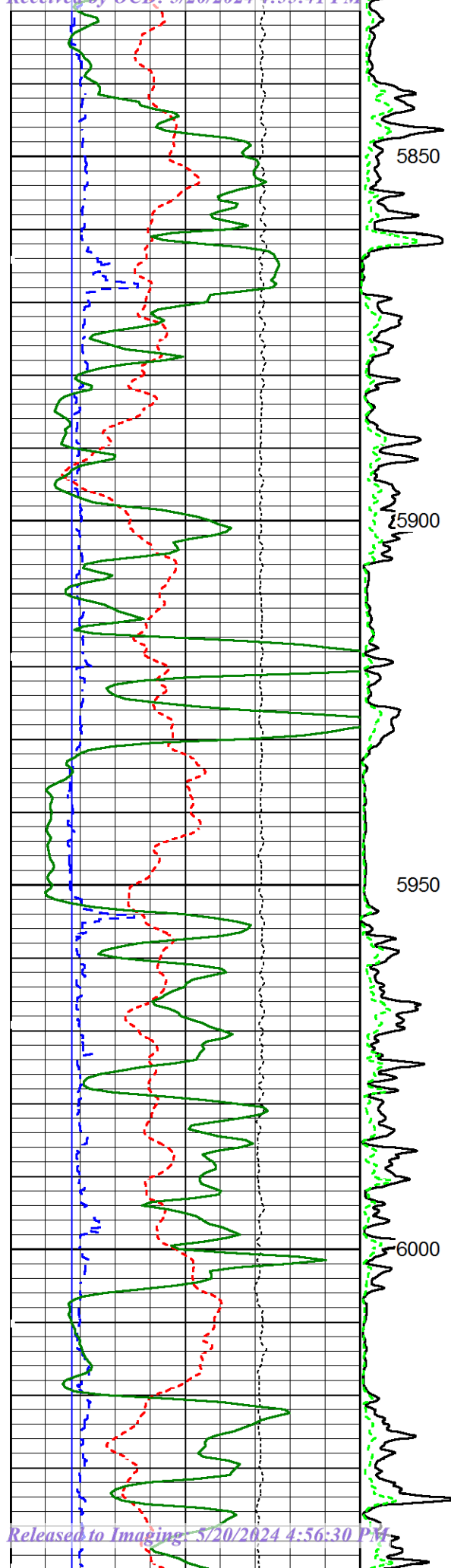


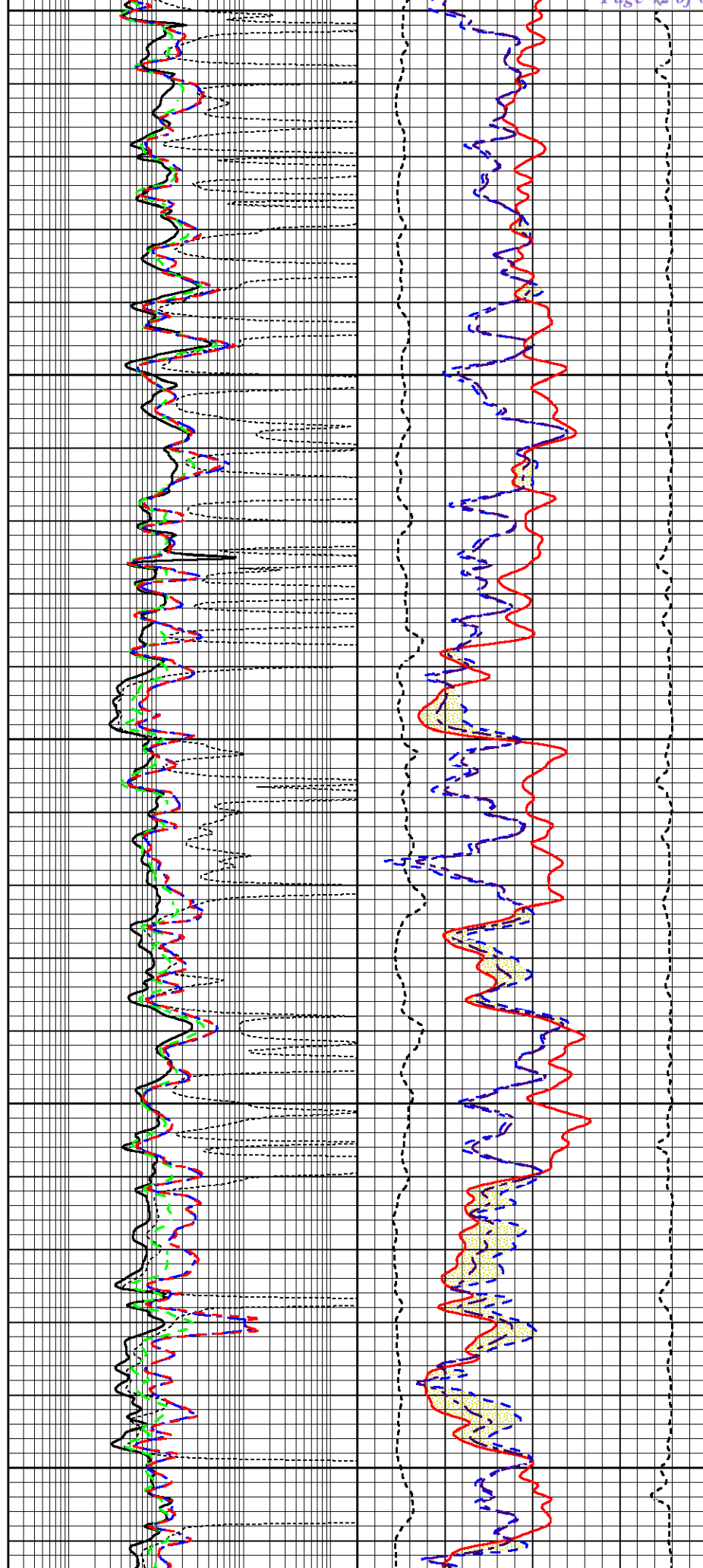
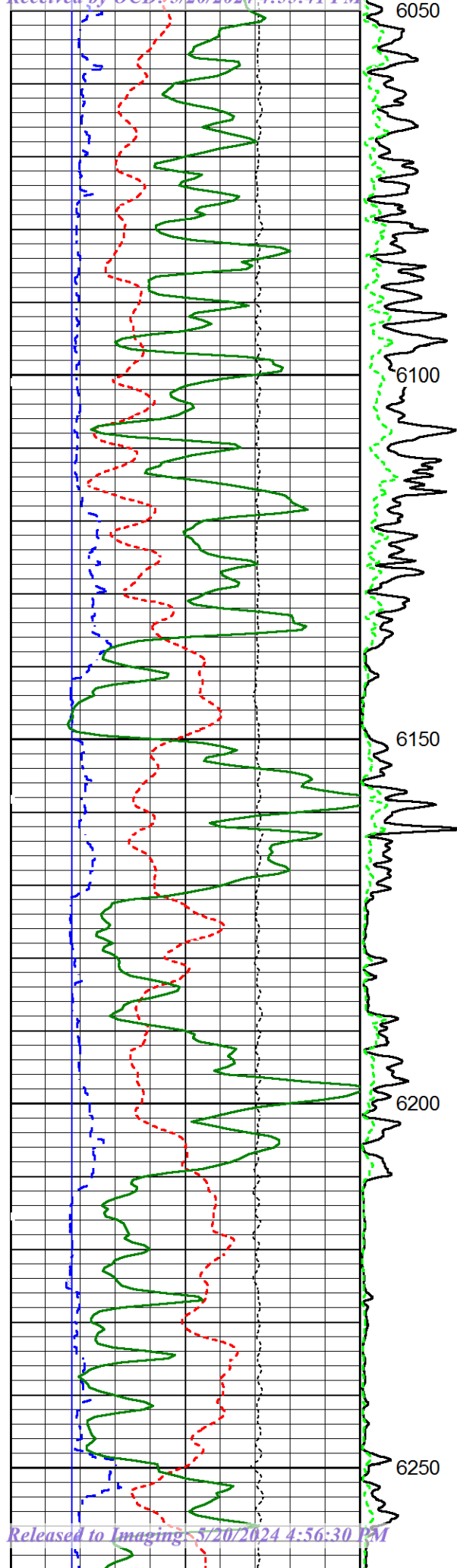


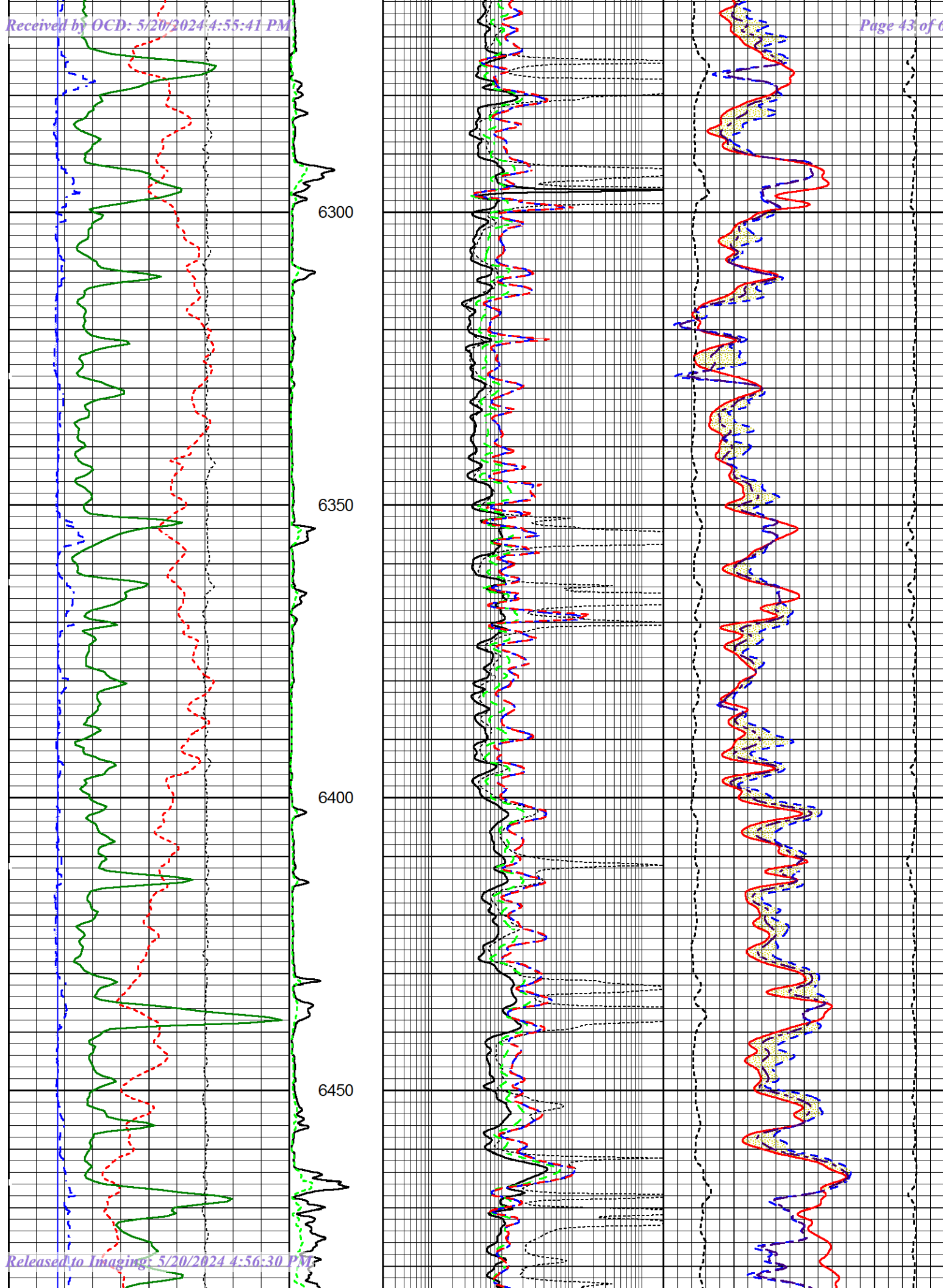


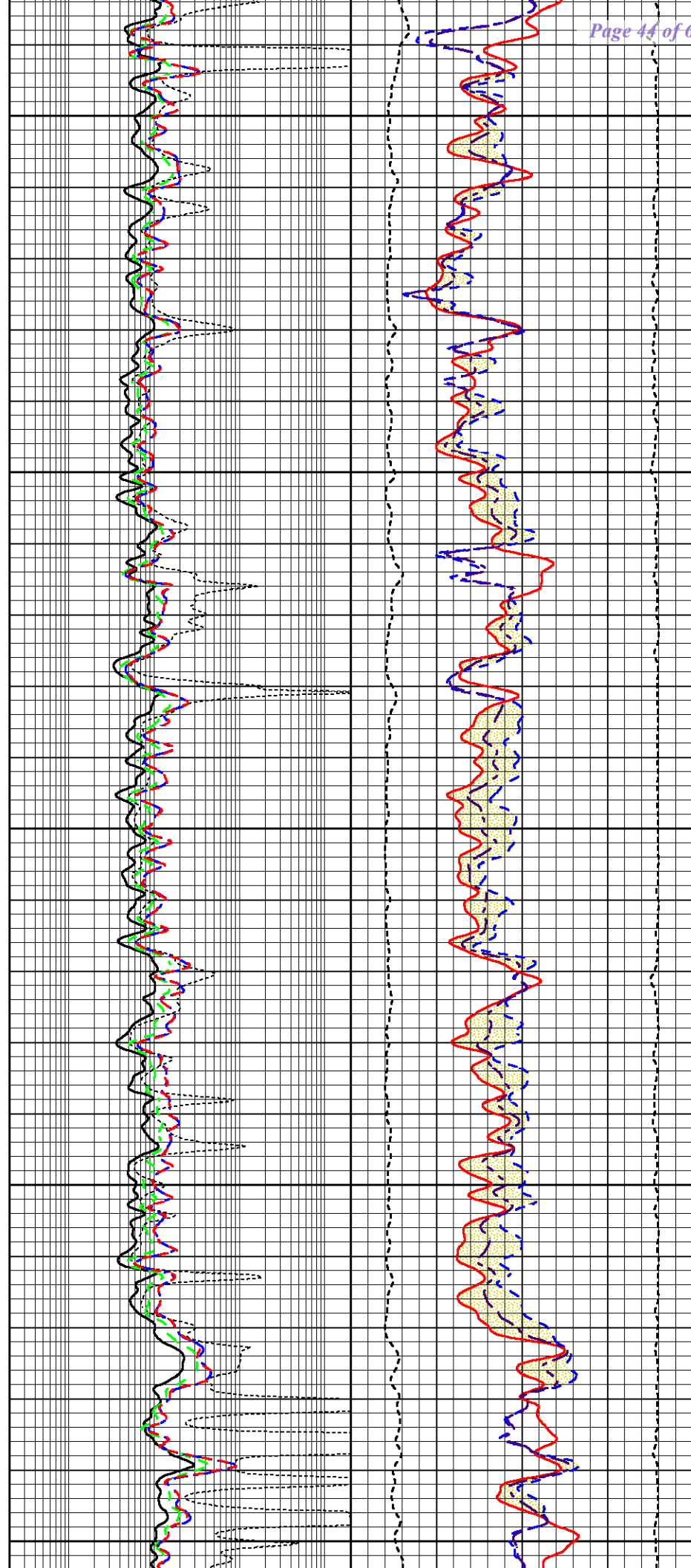
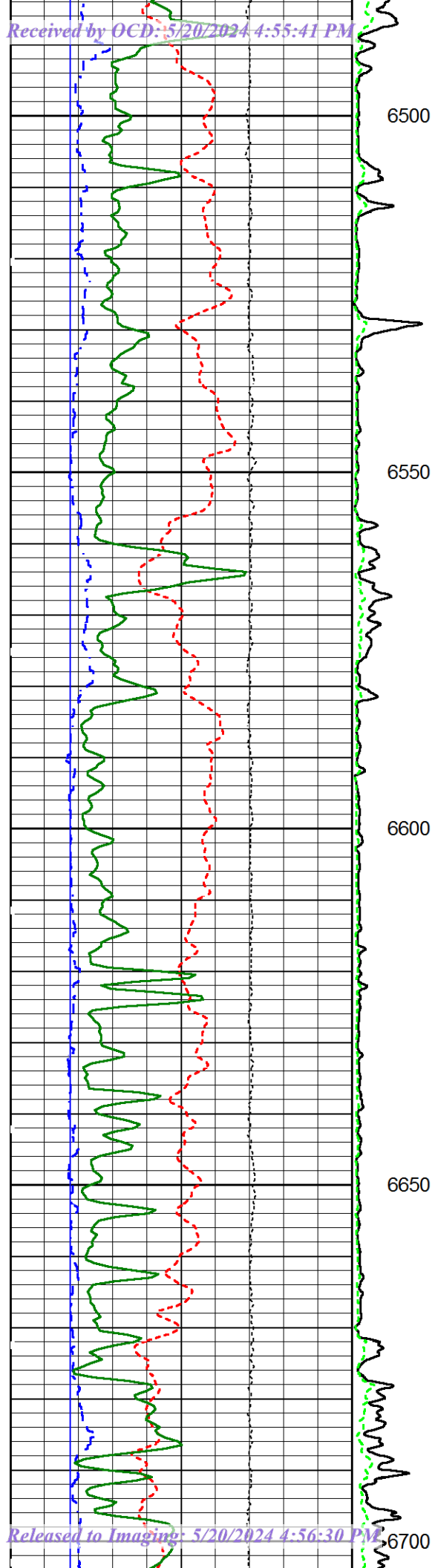


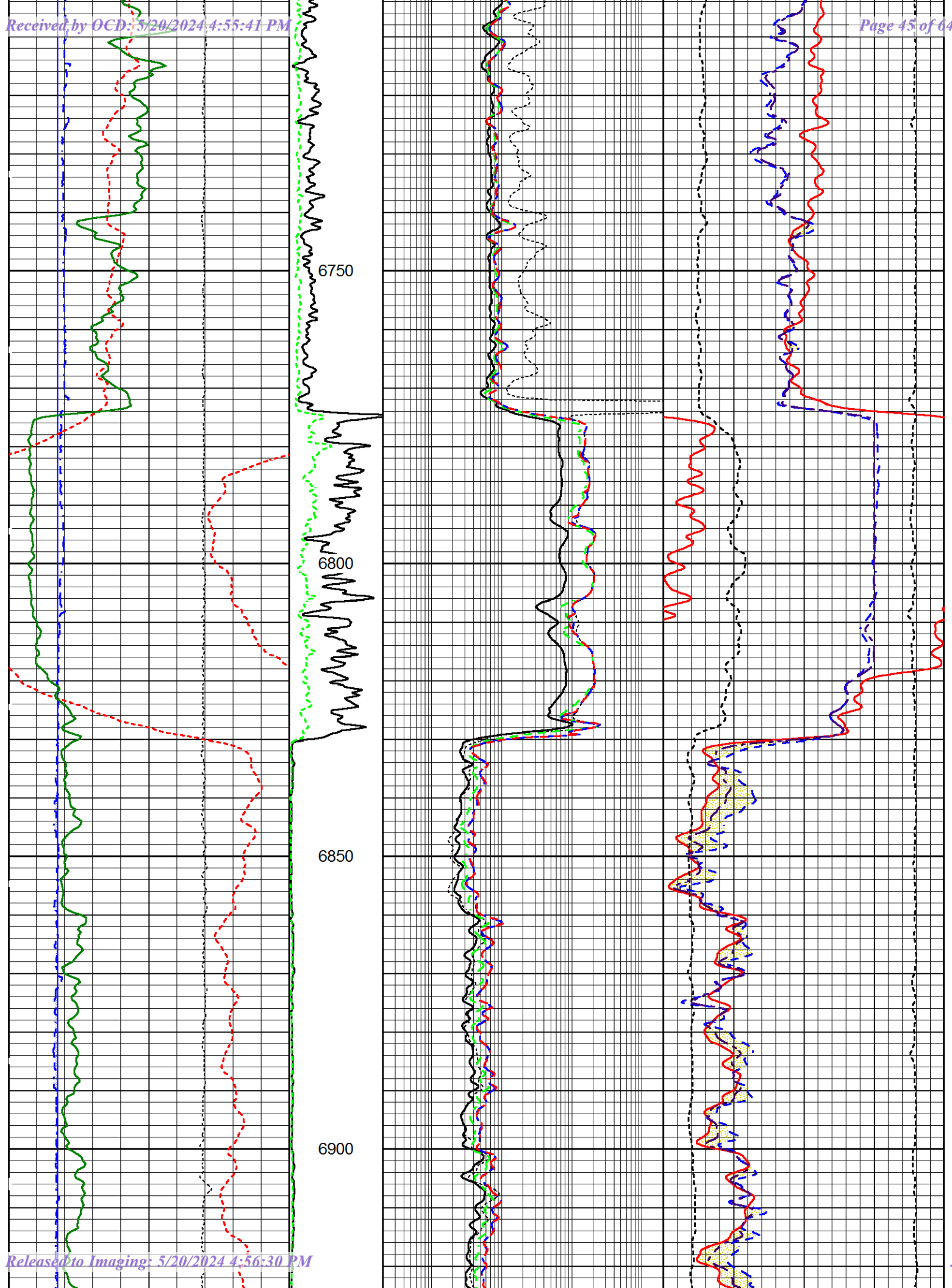


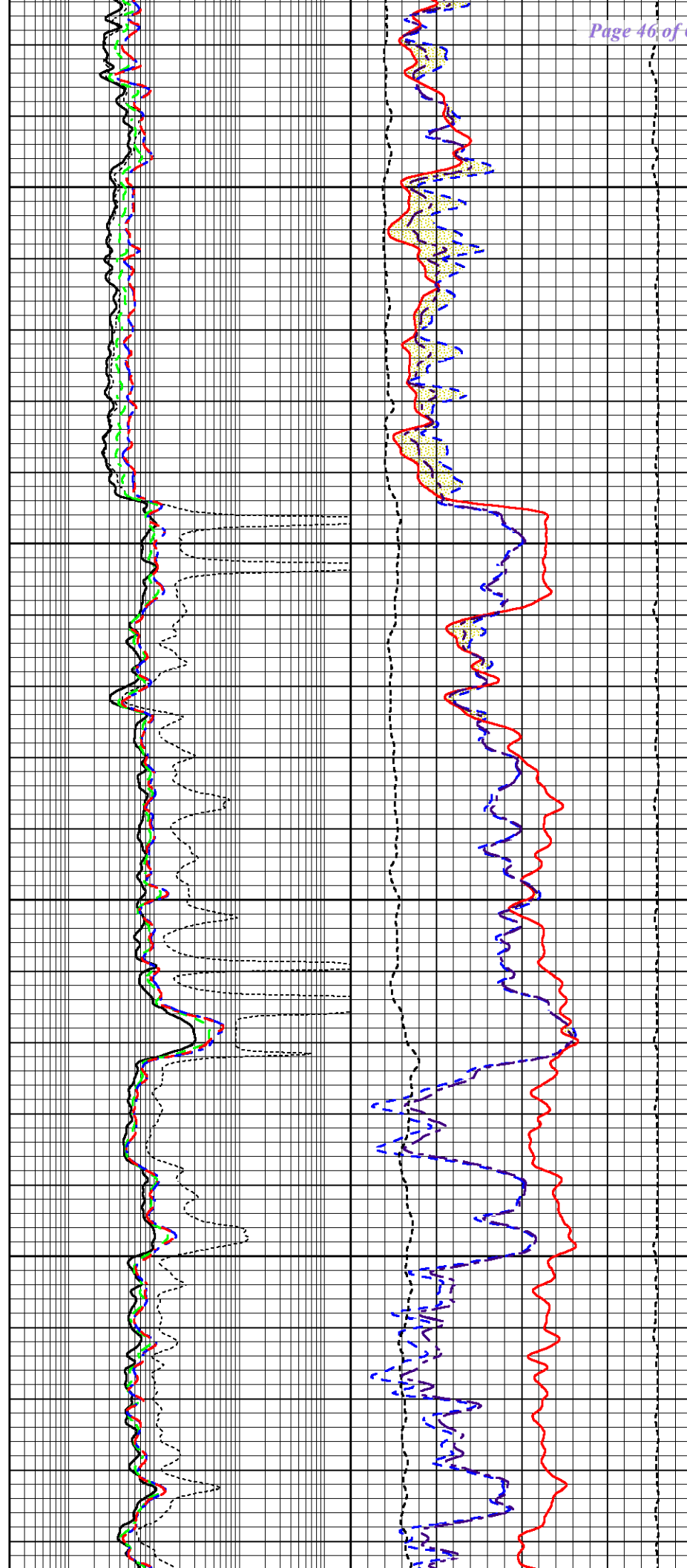
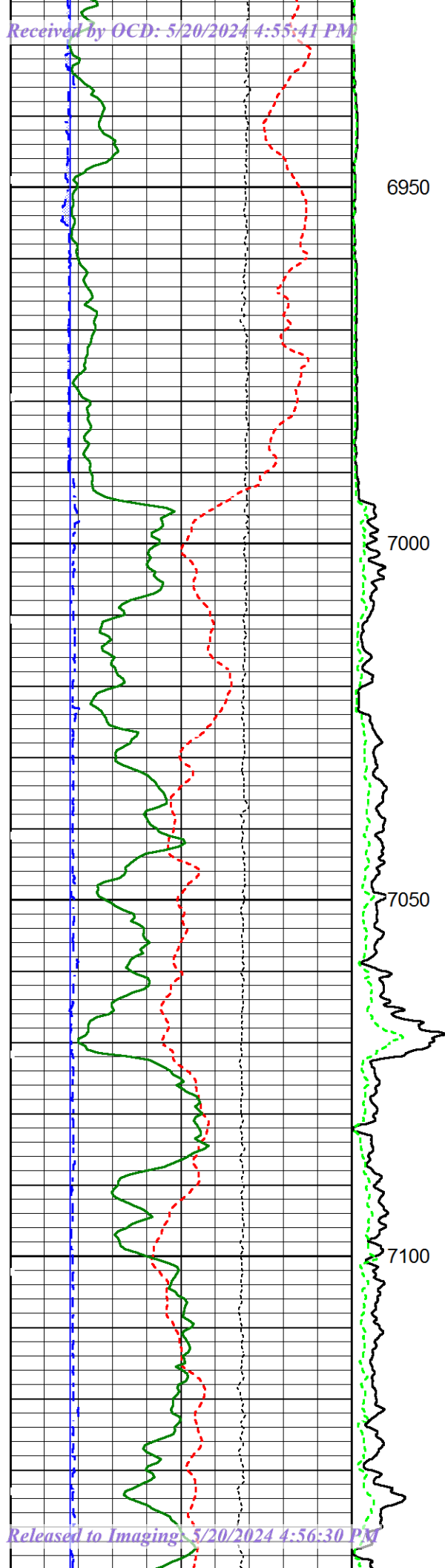


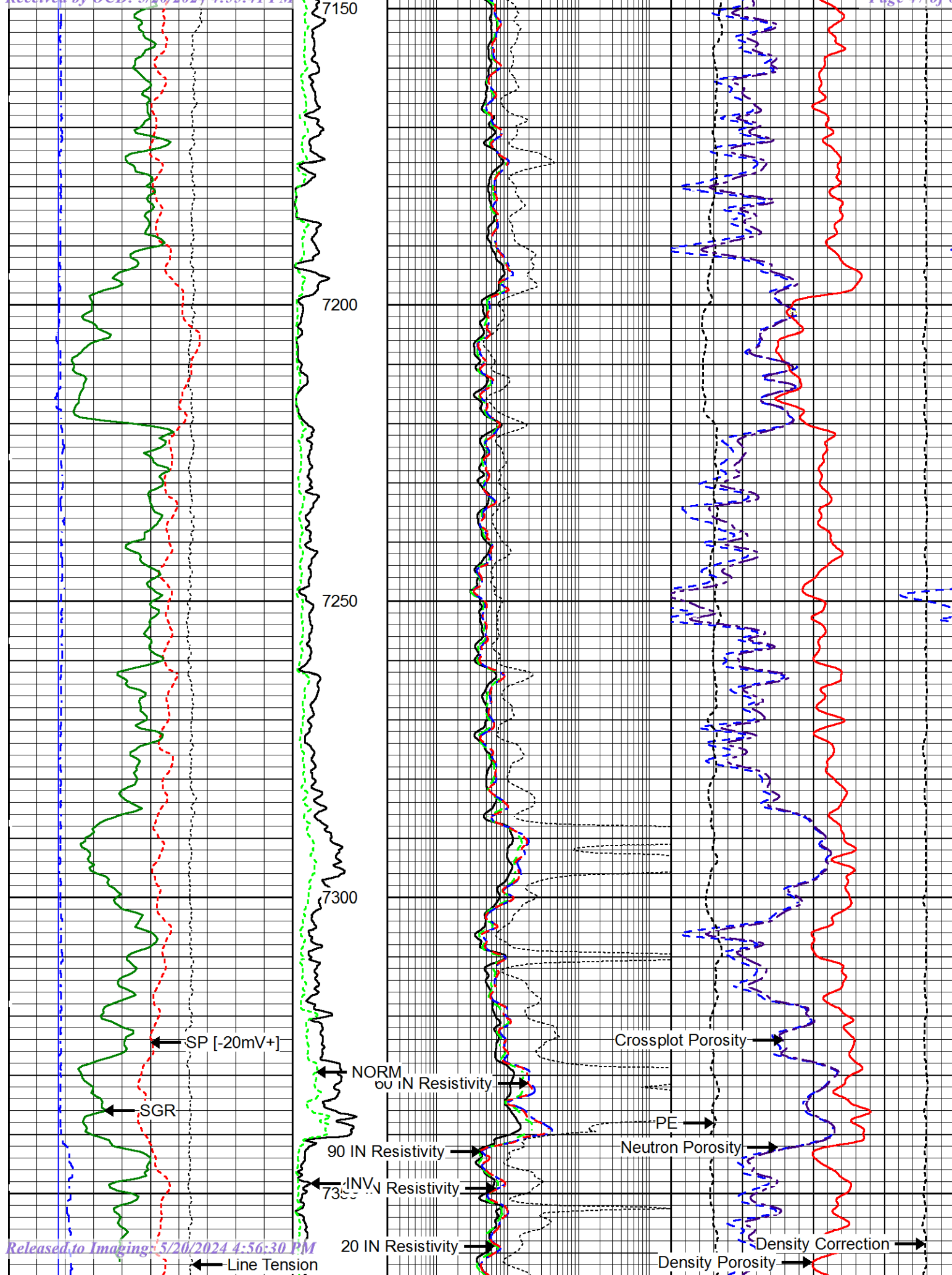


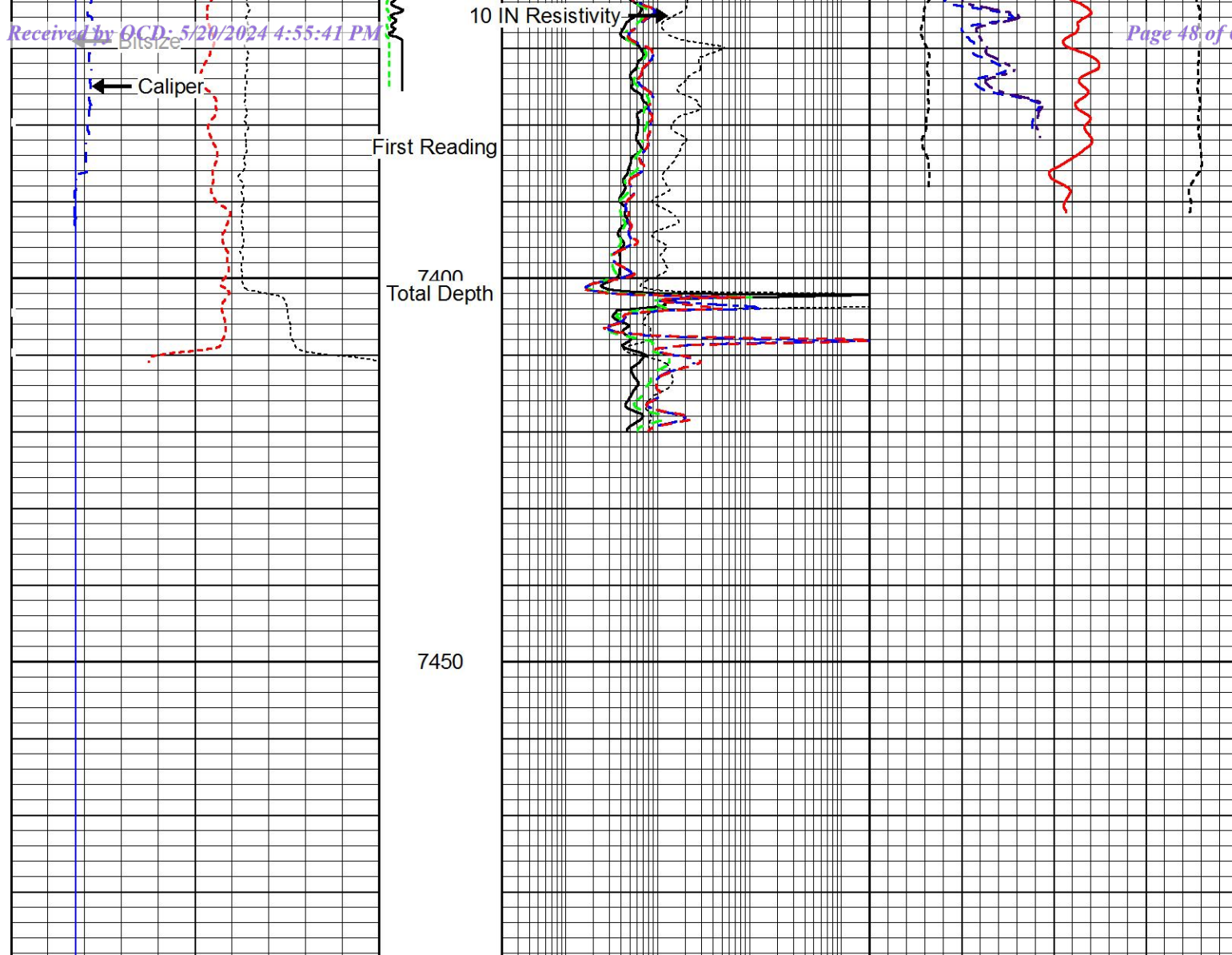












|              |              |     |         |     |                           |                           |                    |                                  |
|--------------|--------------|-----|---------|-----|---------------------------|---------------------------|--------------------|----------------------------------|
| 7            | Bitsize (in) | 17  | INV     | 0.2 | 10 IN Resistivity (Ohm-m) | 2000                      | Neutron Porosity   |                                  |
| 7            | Caliper (in) | 17  | (Ohm-m) | 0.2 | 20 IN Resistivity (Ohm-m) | 2000                      | 0.3                | (Porosity Decimal Fraction) -0.1 |
| SP [-20mV+]  |              |     | 0       | 20  | 0.2                       | 30 IN Resistivity (Ohm-m) | Density Porosity   |                                  |
| 0            | SGR (GAPI)   | 200 | NORM    | 0.2 | 60 IN Resistivity (Ohm-m) | 2000                      | 0.3                | (Porosity Decimal Fraction) -0.1 |
| Line Tension |              |     | (Ohm-m) | 0.2 | 90 IN Resistivity (Ohm-m) | 2000                      | Crossplot Porosity |                                  |
| 5000         | (lb)         | 0   | 0       | 20  |                           |                           | 0.3                | (Porosity Decimal Fraction) -0.1 |
|              |              |     |         |     | 0                         | PE                        | 10                 | Density Correction               |
|              |              |     |         |     |                           |                           | 0.8                | (g/cc) -0.2                      |

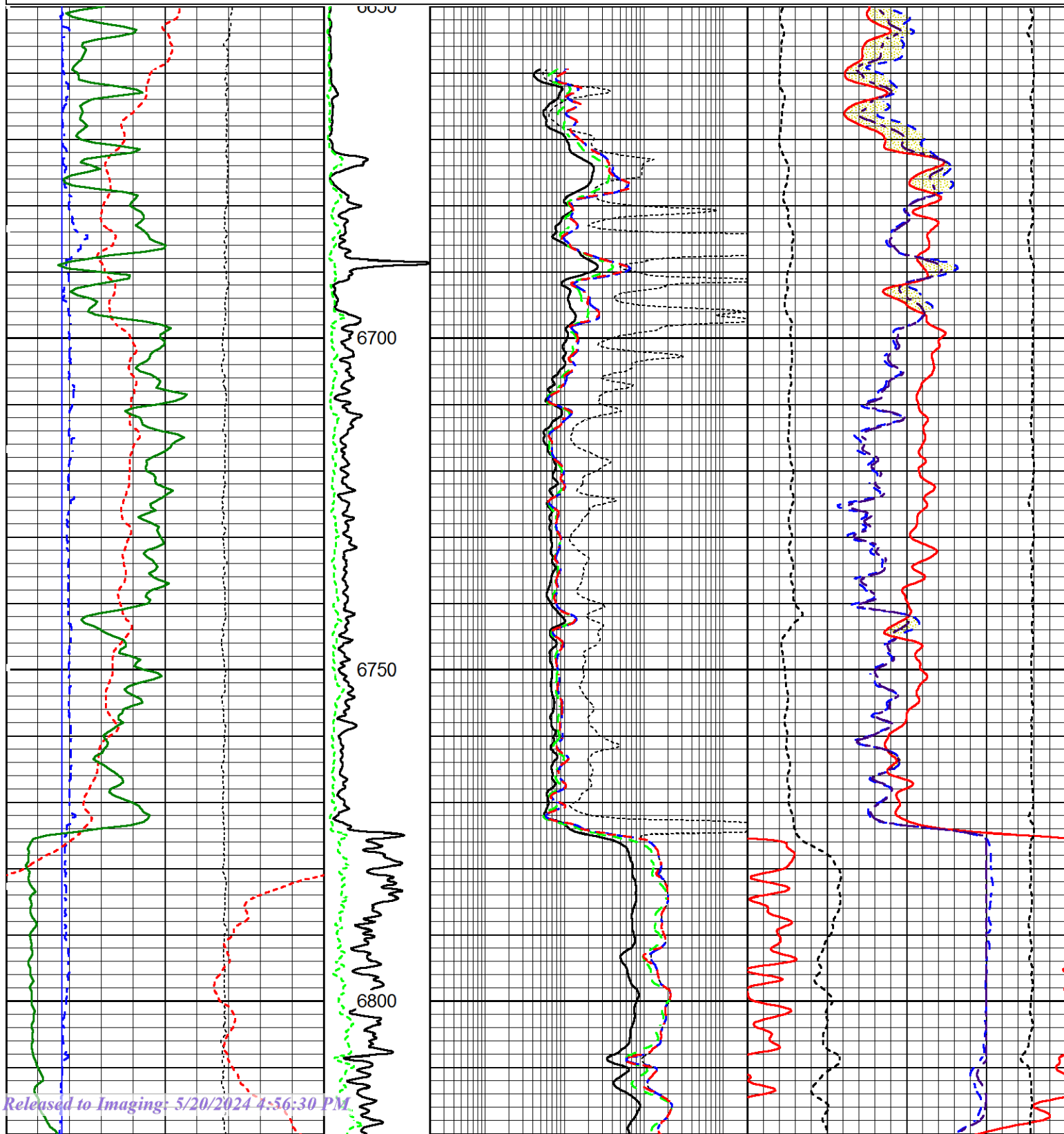


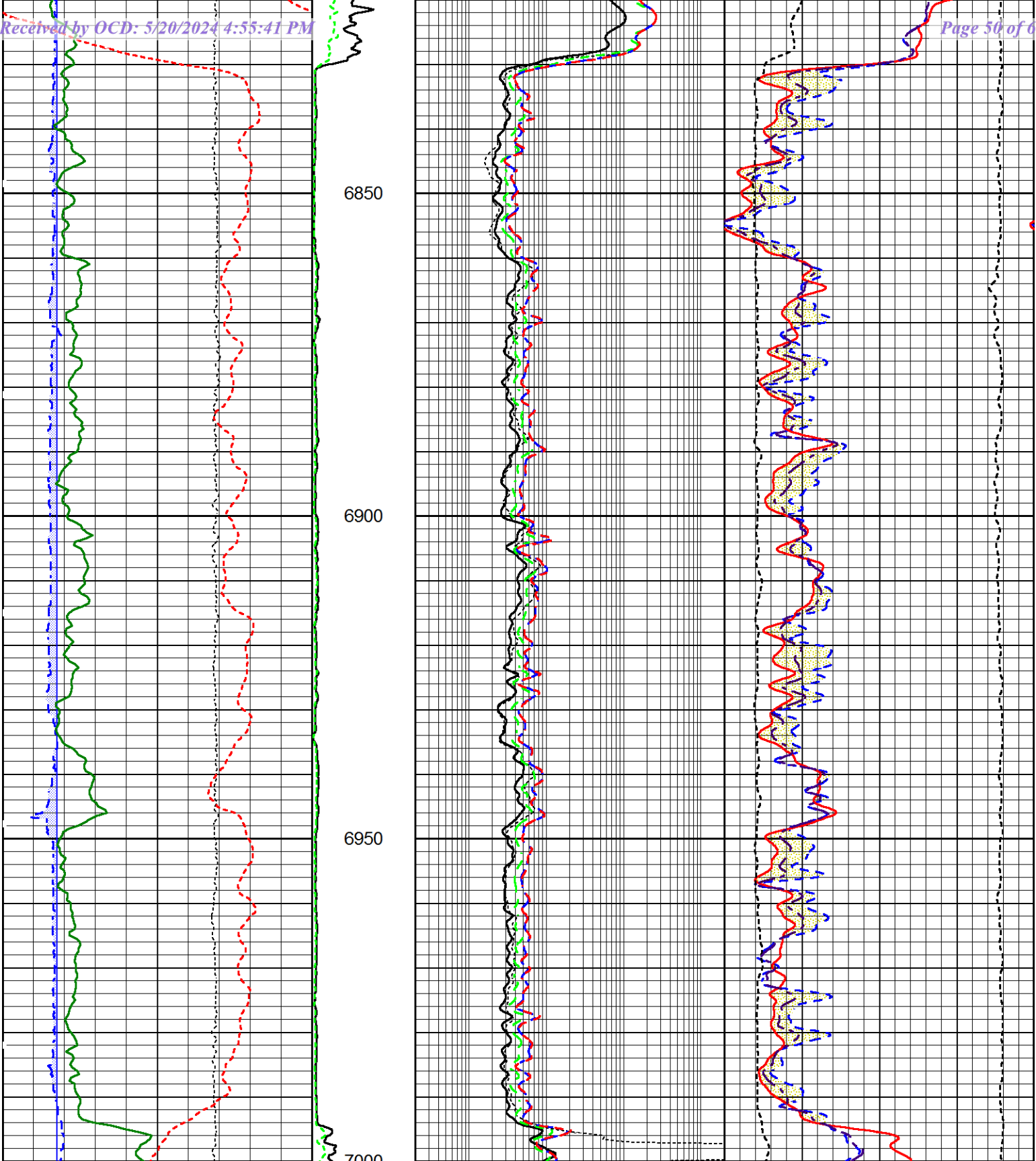
# Main Pass



# Repeat Pass

|              |              |           |     |                 |     |                           |                           |      |                                  |                                  |                    |
|--------------|--------------|-----------|-----|-----------------|-----|---------------------------|---------------------------|------|----------------------------------|----------------------------------|--------------------|
| 7            | Bitsize (in) |           | 17  | INV<br>(Ohm-m)  | 0.2 | 10 IN Resistivity (Ohm-m) |                           | 2000 | Neutron Porosity                 |                                  |                    |
| 7            | Caliper (in) |           | 17  |                 | 0.2 | 20 IN Resistivity (Ohm-m) |                           | 2000 | 0.3                              | (Porosity Decimal Fraction) -0.1 |                    |
| SP [-20mV+]  |              |           | 0   |                 | 20  | 0.2                       | 30 IN Resistivity (Ohm-m) |      | 2000                             | Density Porosity                 |                    |
| 0            | SGR (GAPI)   |           | 200 | NORM<br>(Ohm-m) | 0.2 | 60 IN Resistivity (Ohm-m) |                           | 2000 | 0.3                              | (Porosity Decimal Fraction) -0.1 |                    |
| Line Tension |              | 5000 (lb) | 0   |                 | 20  | 0.2                       | 90 IN Resistivity (Ohm-m) |      | 2000                             | Crossplot Porosity               |                    |
|              |              |           |     |                 |     |                           |                           | 0.3  | (Porosity Decimal Fraction) -0.1 |                                  |                    |
|              |              |           |     |                 |     |                           |                           | 0    | PE                               | 10                               | Density Correction |
|              |              |           |     |                 |     |                           |                           |      |                                  | 0.8                              | (g/cc) -0.2        |





|   |               |     |         |     |                           |      |                                  |
|---|---------------|-----|---------|-----|---------------------------|------|----------------------------------|
| 7 | Bit-size (in) | 17  | INV     | 0.2 | 10 IN Resistivity (Ohm-m) | 2000 | Neutron Porosity                 |
| 7 | Caliper (in)  | 17  | (Ohm-m) | 0.2 | 20 IN Resistivity (Ohm-m) | 2000 | (Porosity Decimal Fraction) -0.1 |
|   | SP [-20mV+]   | 0   | 20      | 0.2 | 30 IN Resistivity (Ohm-m) | 2000 | Density Porosity                 |
| 0 | SGR (GAPI)    | 200 | NORM    | 0.2 | 60 IN Resistivity (Ohm-m) | 2000 | (Porosity Decimal Fraction) -0.1 |
|   | Line Tension  |     | (Ohm-m) | 0.2 | 90 IN Resistivity (Ohm-m) | 2000 | Crossplot Porosity               |
|   | 5000 (lb)     | 0   | 0       |     |                           |      | (Porosity Decimal Fraction) -0.1 |
|   |               |     |         |     |                           |      | 0 PE 10 Density Correction       |
|   |               |     |         |     |                           |      | 0.8 (g/cc) -0.2                  |



# Repeat Pass

## Log Variables

DatabaseC:\Sondex\Sondex Warrior\Data\enduringreswlybrook.db  
Dataset West\_Lybrook/well/run1/main/\_vars\_

### Top - 417.97 ft

|             |                  |                  |                  |                  |                  |                   |         |
|-------------|------------------|------------------|------------------|------------------|------------------|-------------------|---------|
| AIR_HOLE?   | BOREID<br>in     | BOTTEMP<br>degF  | CASED?           | CASEOD<br>in     | CASETHCK<br>in   | CASEWGHT<br>lb/ft | DE-CENT |
| No          | 14.5             | 149              | Yes              | 13.375           | 0                | 40                | Yes     |
| DEVI<br>deg | FLUIDDEN<br>g/cc | FRMSALIN<br>kppm | MATRXDEN<br>g/cc | MUDSALIN<br>kppm | MudWgt<br>lb/gal | NPORSEL           | PERFS   |
| 0           | 1                | 0                | 2.71             | 0                | 9.4              | Limestone         | 0       |
| SO<br>in    | SPSHIFT<br>mV    | SRFTEMP<br>degF  | TDEPTH<br>ft     |                  |                  |                   |         |
| 0.5         | 0                | 68               | 7408             |                  |                  |                   |         |

### 417.97 ft - Bottom

|             |                     |                  |                  |                     |                  |                          |         |
|-------------|---------------------|------------------|------------------|---------------------|------------------|--------------------------|---------|
| AIR_HOLE?   | <b>BOREID</b><br>in | BOTTEMP<br>degF  | <b>CASED?</b>    | <b>CASEOD</b><br>in | CASETHCK<br>in   | <b>CASEWGHT</b><br>lb/ft | DE-CENT |
| No          | <b>8.75</b>         | 149              | <b>No</b>        | <b>7</b>            | 0                | <b>26</b>                | Yes     |
| DEVI<br>deg | FLUIDDEN<br>g/cc    | FRMSALIN<br>kppm | MATRXDEN<br>g/cc | MUDSALIN<br>kppm    | MudWgt<br>lb/gal | NPORSEL                  | PERFS   |
| 0           | 1                   | 0                | 2.71             | 0                   | 9.4              | Limestone                | 0       |
| SO<br>in    | SPSHIFT<br>mV       | SRFTEMP<br>degF  | TDEPTH<br>ft     |                     |                  |                          |         |
| 0.5         | 0                   | 68               | 7408             |                     |                  |                          |         |

### Calibration Report

Database File enduringreswlybrook.db  
Dataset Pathname West\_Lybrook/well/run1/pass5  
Dataset Creation Tue Jan 15 11:30:34 2019 by Log Sondex

### Induction Array Tool Calibration Report

Serial Number: B10110  
Tool Model: 002

Master Calibration Performed: Fri Oct 26 15:32:33 2018  
Temperature: 94.8 degF

#### Sonde Error:

|           |       |       |       |       |       |      |     |        |
|-----------|-------|-------|-------|-------|-------|------|-----|--------|
| Array     | 1     | 2     | 3     | 4     | 5     | 6    | 7   |        |
| Real      | 192.0 | -12.7 | -40.5 | -15.0 | -2.0  | 2.3  | 2.9 | mmho/m |
| Imaginary | -18.2 | 5.6   | -8.9  | -11.8 | -22.5 | -1.2 | 5.1 | mmho/m |

#### Loop Gain:

|                  |       |       |        |        |        |       |       |        |
|------------------|-------|-------|--------|--------|--------|-------|-------|--------|
| Array            | 1     | 2     | 3      | 4      | 5      | 6     | 7     |        |
| Loop (real)      | 537.7 | 678.5 | 1295.3 | 1394.1 | 1144.8 | 712.8 | 404.8 | mmho/m |
| Loop (imaginary) | 73.3  | 92.5  | 389.8  | 419.5  | 344.5  | 214.5 | 121.8 | mmho/m |
| Real             | 754.6 | 727.3 | 1235.4 | 1365.6 | 1152.8 | 736.4 | 421.2 | mmho/m |
| Imaginary        | 57.5  | 104.4 | 378.7  | 408.4  | 324.7  | 218.8 | 133.9 | mmho/m |
| Gain (mV)        | 0.050 | 0.017 | 1.015  | 1.010  | 0.004  | 0.071 | 0.000 |        |

|                                       |            |          |               |                          |       |       |       |
|---------------------------------------|------------|----------|---------------|--------------------------|-------|-------|-------|
| Before Survey Verification Performed: |            |          |               | Tue Jan 15 07:30:10 2019 |       |       |       |
| Sonde 1 Temperature:                  |            |          |               | 91.3 degF                |       |       |       |
| Sonde 2 Temperature:                  |            |          |               | 93.3 degF                |       |       |       |
| Array 1 Temperature:                  |            |          |               | 93.3 degF                |       |       |       |
| Array                                 | 1          | 2        | 3             | 4                        | 5     | 6     | 7     |
| TxIR                                  | 0.0        | 0.0      | -0.1          | -0.1                     | -0.1  | -0.1  | -0.1  |
| TxIX                                  | 0.0        | 0.0      | 0.2           | 0.2                      | 0.2   | 0.2   | 0.2   |
| Tx Magnitude                          | 0.0        | 0.0      | 0.2           | 0.2                      | 0.2   | 0.2   | 0.2   |
| Gain                                  | 112.1      | 152.3    | 146.9         | 151.0                    | 151.8 | 159.4 | 167.5 |
| RxCR                                  | -0.0       | -0.0     | -0.0          | -0.0                     | -0.0  | -0.0  | -0.0  |
| RxCX                                  | 0.1        | 0.1      | 0.1           | 0.1                      | 0.1   | 0.1   | 0.1   |
| RxC Magnitude                         | 0.1        | 0.1      | 0.1           | 0.1                      | 0.1   | 0.1   | 0.1   |
| Tool Module Parameters                |            |          |               |                          |       |       |       |
| Software Version:                     |            |          |               | 8.0.0.4                  |       |       |       |
| Borehole Size Source:                 |            |          |               | CALI                     |       |       |       |
| Mud Resistivity Source:               |            |          |               | MUDRES                   |       |       |       |
| Mud Resistivity At Surface:           |            |          |               | N/A                      |       |       |       |
| Mud Resistivity Surface Temperature:  |            |          |               | N/A                      |       |       |       |
| Borehole Corrections:                 |            |          |               | Automatic                |       |       |       |
| Minimum Standoff:                     |            |          |               | 0.4 in                   |       |       |       |
| Litho Density Tool Calibration Report |            |          |               |                          |       |       |       |
| Serial Number:                        |            |          |               | B0872S70997B             |       |       |       |
| Tool Model:                           |            |          |               | B10872                   |       |       |       |
| Caliper Calibration Performed:        |            |          |               | Mon Jan 07 16:48:54 2019 |       |       |       |
|                                       | Diameter   |          |               | Reading                  |       |       |       |
| Small Ring:                           | 9.000      | in       |               | 1709.800                 | cps   |       |       |
| Large Ring:                           | 13.000     | in       |               | 2058.300                 | cps   |       |       |
| Gain:                                 | 0.0115     |          |               |                          |       |       |       |
| Offset:                               | -10.6247   |          |               |                          |       |       |       |
| Master Calibration Performed:         |            |          |               | Mon Jan 07 16:27:47 2019 |       |       |       |
| Source Number:                        |            |          |               | 70997B                   |       |       |       |
| Medium:                               |            |          |               | Water                    |       |       |       |
| Al Block Density:                     |            |          |               | 2.6002 g/cc              |       |       |       |
|                                       | Background | Al Block | Al Block + Fe |                          |       |       |       |
| SS1                                   | 677.4      | 4467.7   | 3791.9        | cps                      |       |       |       |
| SS2                                   | 1927.0     | 30904.2  | 26367.3       | cps                      |       |       |       |
| SSTOTAL                               | 4505.5     | 49338.8  | 41684.1       | cps                      |       |       |       |
| LITH                                  | 96.2       | 509.0    | 303.4         | cps                      |       |       |       |
| LL                                    | 188.4      | 862.2    | 753.9         | cps                      |       |       |       |
| LU                                    | 542.8      | 1119.9   | 1033.7        | cps                      |       |       |       |
| LS                                    | 731.2      | 1982.1   | 1787.6        | cps                      |       |       |       |
| LSTOTAL                               | 1379.4     | 4808.5   | 3883.4        | cps                      |       |       |       |
| SSHV                                  | 1468.8     | 1474.0   | 1474.3        | V                        |       |       |       |
| LSHV                                  | 1414.7     | 1419.6   | 1421.4        | V                        |       |       |       |
| SSFF                                  | -0.011     | 0.005    | 0.006         |                          |       |       |       |
| LSFF                                  | 0.005      | 0.002    | -0.007        |                          |       |       |       |
| Before Survey Verification Performed: |            |          |               | Tue Jan 15 07:00:24 2019 |       |       |       |
| After Survey Verification Performed:  |            |          |               | Tue Jan 15 15:30:24 2019 |       |       |       |

|         |        |        |        |     |
|---------|--------|--------|--------|-----|
| SS1     | 677.4  | 692.2  | 690.2  | cps |
| SS2     | 1927.0 | 1946.8 | 1946.4 | cps |
| SSTOTAL | 4505.5 | 4577.9 | 4562.5 | cps |
| LITH    | 96.2   | 98.4   | 95.6   | cps |
| LL      | 188.4  | 188.2  | 186.7  | cps |
| LU      | 542.8  | 548.0  | 551.3  | cps |
| LS      | 731.2  | 736.1  | 738.0  | cps |
| LSTOTAL | 1379.4 | 1392.8 | 1389.2 | cps |
| SSHV    | 1468.8 | 1461.4 | 1461.7 | V   |
| LSHV    | 1414.7 | 1407.4 | 1407.9 | V   |
| SSFF    | -0.011 | 0.007  | -0.014 |     |
| LSFF    | 0.005  | 0.016  | 0.003  |     |

|                        |         |  |  |  |
|------------------------|---------|--|--|--|
| Tool Module Parameters |         |  |  |  |
| Software Version:      | 8.0.0.6 |  |  |  |
| Borehole Size Source:  | CALI    |  |  |  |
| Pad Type:              | 2       |  |  |  |

|                                             |
|---------------------------------------------|
| Compensated Neutron Tool Calibration Report |
|---------------------------------------------|

|                |              |
|----------------|--------------|
| Serial Number: | C2541S59796G |
| Tool Model:    | 009          |

|                               |                          |  |     |  |
|-------------------------------|--------------------------|--|-----|--|
| Master Calibration Performed: | Thu Jan 03 15:00:01 2019 |  |     |  |
| Source Number:                | 59796G                   |  |     |  |
| Short Spacing Counts:         | 4187.83                  |  | cps |  |
| Long Spacing Counts:          | 156.76                   |  | cps |  |
| High Voltage:                 | 1367.67                  |  | V   |  |
| Target Ratio:                 | 26.6600                  |  |     |  |
| Ratio:                        | 26.7144                  |  |     |  |
| K-Factor:                     | 0.9980                   |  |     |  |

|                                       |            |               |              |     |
|---------------------------------------|------------|---------------|--------------|-----|
| Before Survey Verification Performed: |            |               |              |     |
| After Survey Verification Performed:  |            |               |              |     |
| Verifier Number:                      | 6490NN     |               |              |     |
| Verifier Values                       | Master Cal | Before Survey | After Survey |     |
| Short Spacing Counts:                 | 247.78     |               |              | cps |
| Long Spacing Counts:                  | 253.81     |               |              | cps |
| High Voltage:                         | 1367.62    |               |              | V   |
| Ratio:                                | 0.9762     |               |              |     |

|                                      |         |        |          |          |
|--------------------------------------|---------|--------|----------|----------|
| Tool Module Parameters               |         |        |          |          |
| Software Version:                    | 8.0.0.5 |        |          |          |
| Borehole Size Source:                | CALI    |        |          |          |
| Clip Crossplot Porosity:             | YES     |        |          |          |
| Lithology Identification Parameters: | Calcite | Quartz | Dolomite |          |
| Uma:                                 | 13.77   | 4.79   | 9.03     | barns/cc |
| RHOMA:                               | 2.71    | 2.65   | 2.88     | g/cc     |

|                                       |
|---------------------------------------|
| Micro Electric Log Calibration Report |
|---------------------------------------|

|                |           |
|----------------|-----------|
| Serial Number: | 002220331 |
| Tool Model:    | 001       |

|                                |                          |
|--------------------------------|--------------------------|
| Caliper Calibration Performed: | Thu Jan 10 10:00:24 2019 |
|--------------------------------|--------------------------|

|            | Pad Arm |    |          | Backup Arm |    |          |
|------------|---------|----|----------|------------|----|----------|
|            | Radius  |    | Reading  | Radius     |    | Reading  |
| Small Jig: | 4.000   | in | 1353.200 | 4.000      | in | 1365.300 |
| Large Jig: | 6.000   | in | 1402.600 | 6.000      | in | 1410.500 |
| Gain:      |         |    | 0.0405   |            |    | 0.0442   |
| Offset:    |         |    | -50.7854 |            |    | -56.4115 |

## Pad Calibration

|         | Inverse | Normal |
|---------|---------|--------|
| Gain:   | 1.0000  | 1.0000 |
| Offset: | 0.0000  | 0.0000 |

## Tool Module Parameters

Software Version: 8.0.0.4

## Borehole Fluid Resistivity Calibration Report

Serial Number: 000001  
Tool Model: 001

Master Calibration Performed: Thu Sep 16 10:07:52 2010

Resistivity Polynomial Equation:

$$0.2530x^2 + 0.5610x + 0.0310$$

Temperature Calibration:

| Reference |      | Reading |      |
|-----------|------|---------|------|
| 53.60     | degF | 846.40  | bits |
| 107.42    | degF | 919.20  | bits |

## Spectral Gamma Ray Calibration Report

Serial Number: 10012700  
Tool Model: 003

Performed: Thu Jan 10 12:00:24 2019

Source Number: #14  
Calibrator Value: 207.0 API

Background Reading: 151.7 cps  
Calibrator Reading: 1681.1 cps

Sensitivity: 0.135 API / cps

Performed: Fri Jan 11 11:30:32 2019

Verifier Number: 571

| Concentrations | K % | U ppm | T ppm |
|----------------|-----|-------|-------|
|                | 5.4 | 6.9   | 25.3  |

K Peak: Passed  
U Peak:  
T Peak:

Before Survey Verification Performed: Tue Jan 15 07:15:24 2019  
After Survey Verification Performed: Tue Jan 15 15:35:24 2019

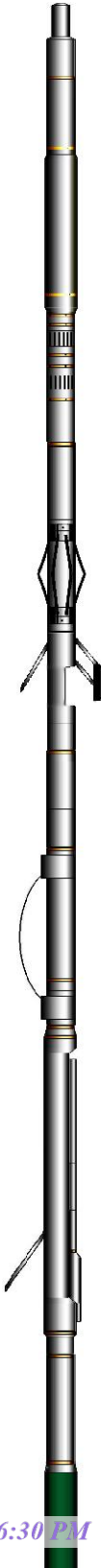
|                     | Before Survey | After Survey |     |
|---------------------|---------------|--------------|-----|
| Background Reading: | 154.5         | 152.8        | cps |
| Verifier Reading:   | 1207.5        | 1184.5       | cps |

Passed  
Passed  
Passed

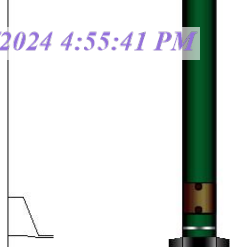
U Peak:  
T Peak:

Tool Module Parameters

Software Version: 8.0.0.5  
Borehole Correction: No  
Stand Off: N/A  
Mud Type: N/A  
Borehole Size Source: N/A

| Sensor   | Offset (ft) | Schematic                                                                          | Description                                                     | Length (ft) | O.D. (in) | Weight (lb) |
|----------|-------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|-----------|-------------|
| CHD      | 53.66       |  | CHD-001 (10012297)<br>Cable Head                                | 2.19        | 3.38      | 35.00       |
|          |             |                                                                                    | XTU-008 (C10001400)<br>Crossover Ultrawire Toolbus to Ultralink | 2.08        | 3.38      | 47.00       |
| SGR      | 46.32       |                                                                                    | SGR-003 (10012700)<br>Spectral Gamma Ray Tool                   | 4.94        | 3.88      | 120.00      |
| BFR      | 42.65       |                                                                                    | BFR-001 (000001)<br>Borehole Fluid Resitivity                   | 3.80        | 3.38      | 75.00       |
| Overbody | 38.20       |                                                                                    | Overbody-Over-cen<br>Overbody Centralizer                       | 3.00        | 3.38      | 10.00       |
|          |             |                                                                                    | MEL-001 (002220331)<br>Micro Electric Log                       | 9.17        | 3.38      | 190.00      |
| MEL      | 33.28       |                                                                                    |                                                                 |             |           |             |
| KJT      | 31.49       |                                                                                    | KJT-001 (10010515)<br>Knuckle Joint                             | 2.86        | 3.38      | 72.00       |
| CNLSC    | 25.59       |                                                                                    | CNL-009 (C2541S59796G)<br>Compensated Neutron Logging Tool      | 5.28        | 3.38      | 100.00      |
| CNSSC    | 25.09       |                                                                                    |                                                                 |             |           |             |
|          |             |                                                                                    | LDT-B10872 (B0872S70997B)<br>Litho Density Tool                 | 9.75        | 4.50      | 310.00      |
| LDT      | 15.44       |                                                                                    |                                                                 |             |           |             |
| IAT      | 8.44        |                                                                                    | IAT-002 (D101110)                                               | 10.00       | 3.38      | 100.00      |

SP 0.43  
BN 0.38



BN-SOFF (000001)  
Bottom Nose Standoff

0.38 6.88 6.00

Dataset: enduringreswlybrook.db: West\_Lybrook/well/run1/main  
Total length: 53.66 ft  
Total weight: 1161.00 lb  
O.D.: 6.88 in

Company: Enduring Resources

Well: West Lybrook Unit 2309-24 N WSW

Field: West Lybrook

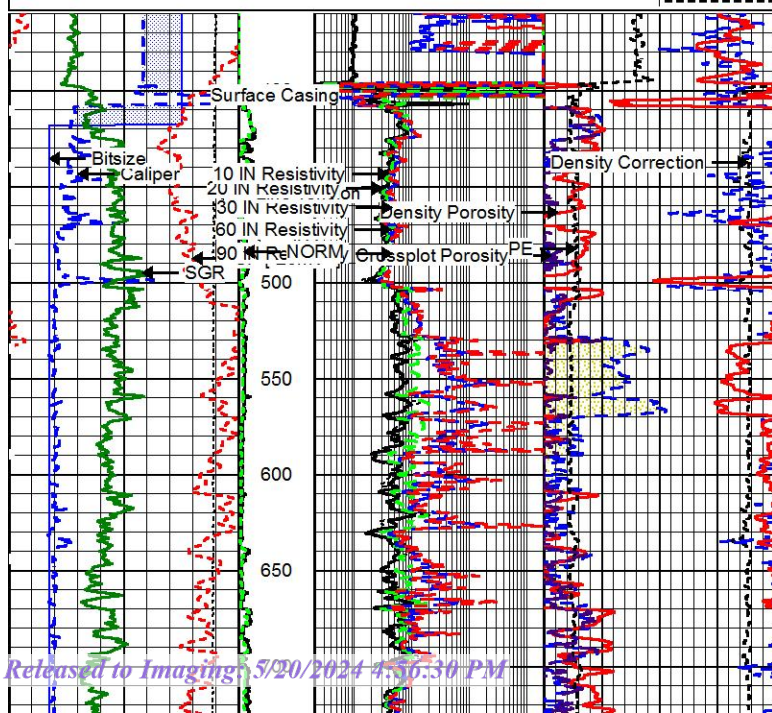
State: New Mexico

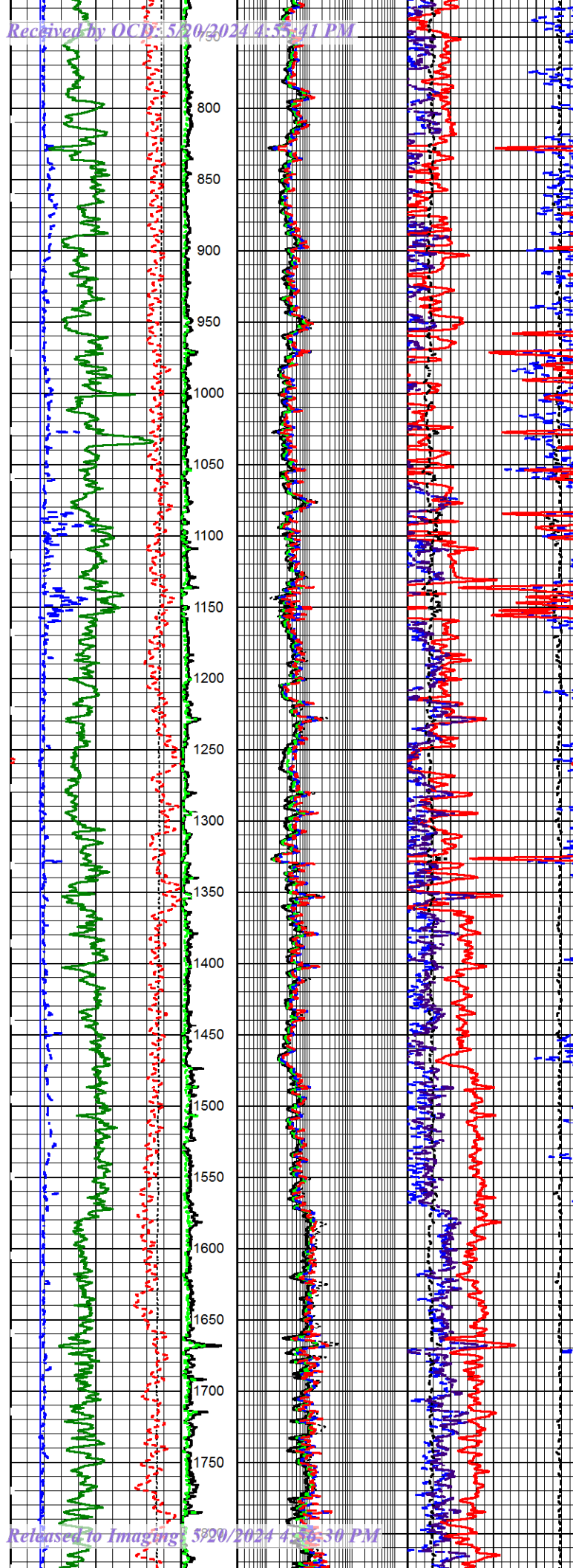


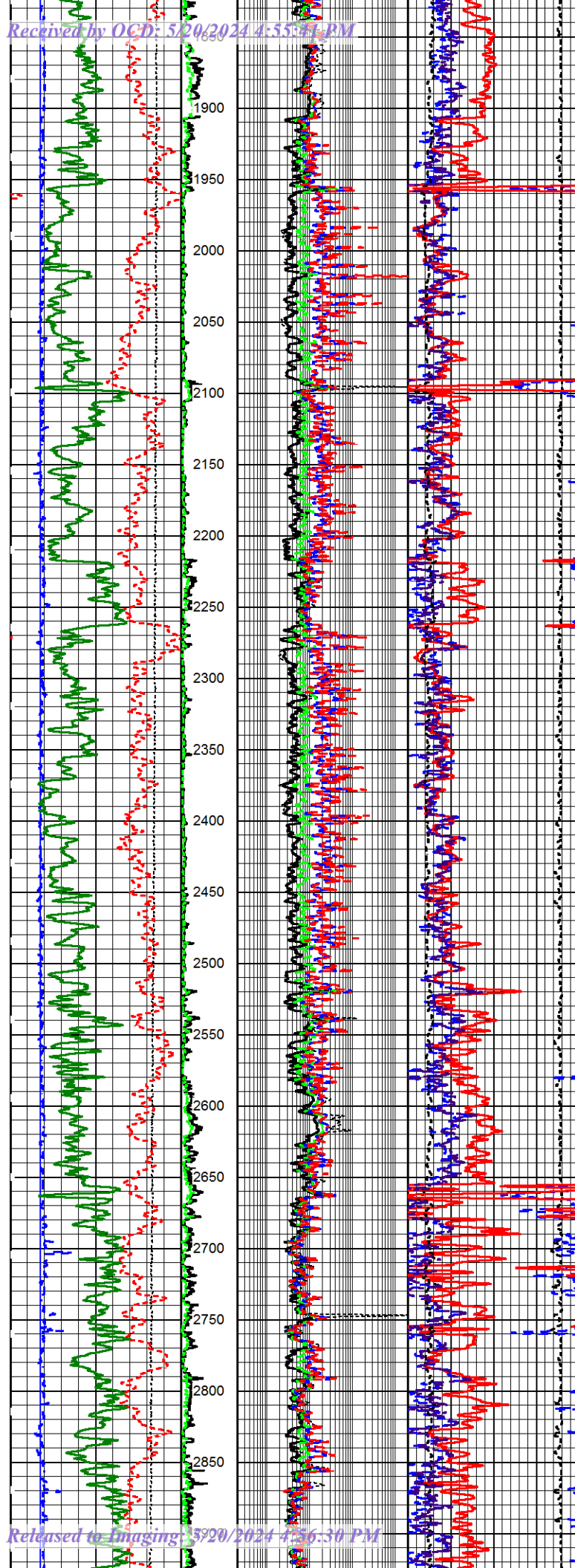
## Main Pass

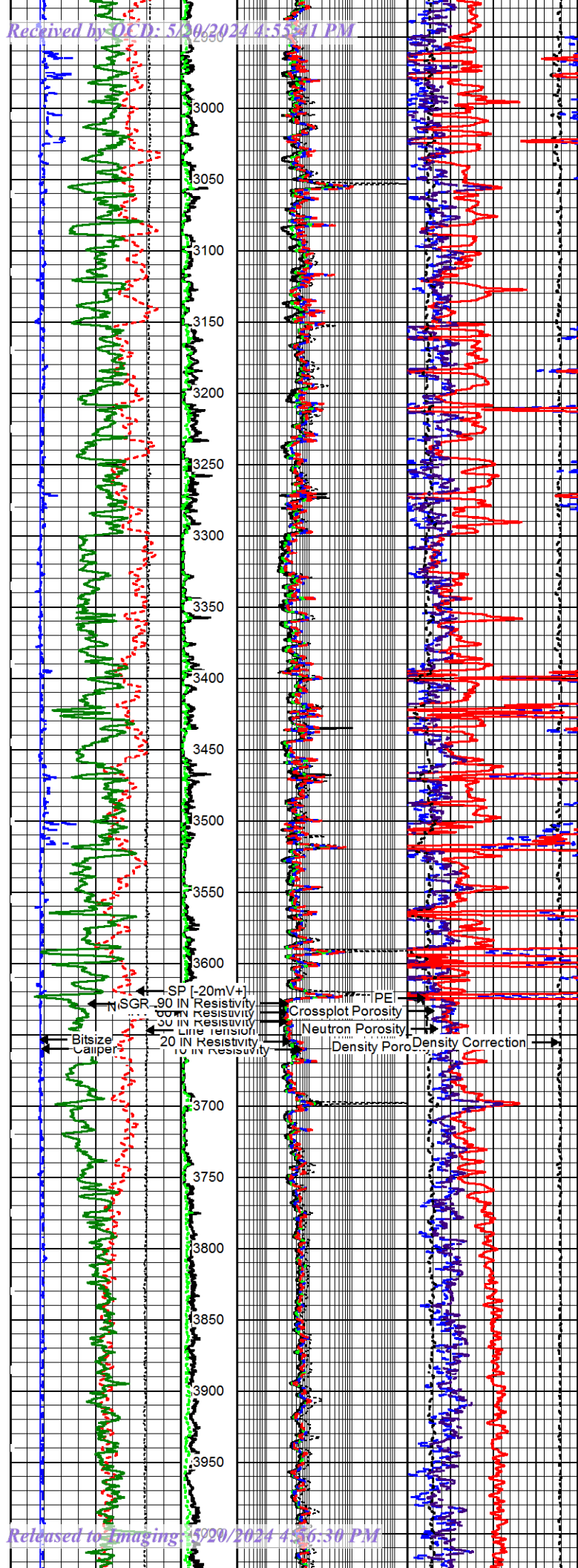
Database File enduringreswlybrook.db  
Dataset Pathname West\_Lybrook/well/run1/main  
Presentation Format 3com\_iat  
Dataset Creation Tue Jan 15 15:23:37 2019  
Charted by Depth in Feet scaled 1:1200

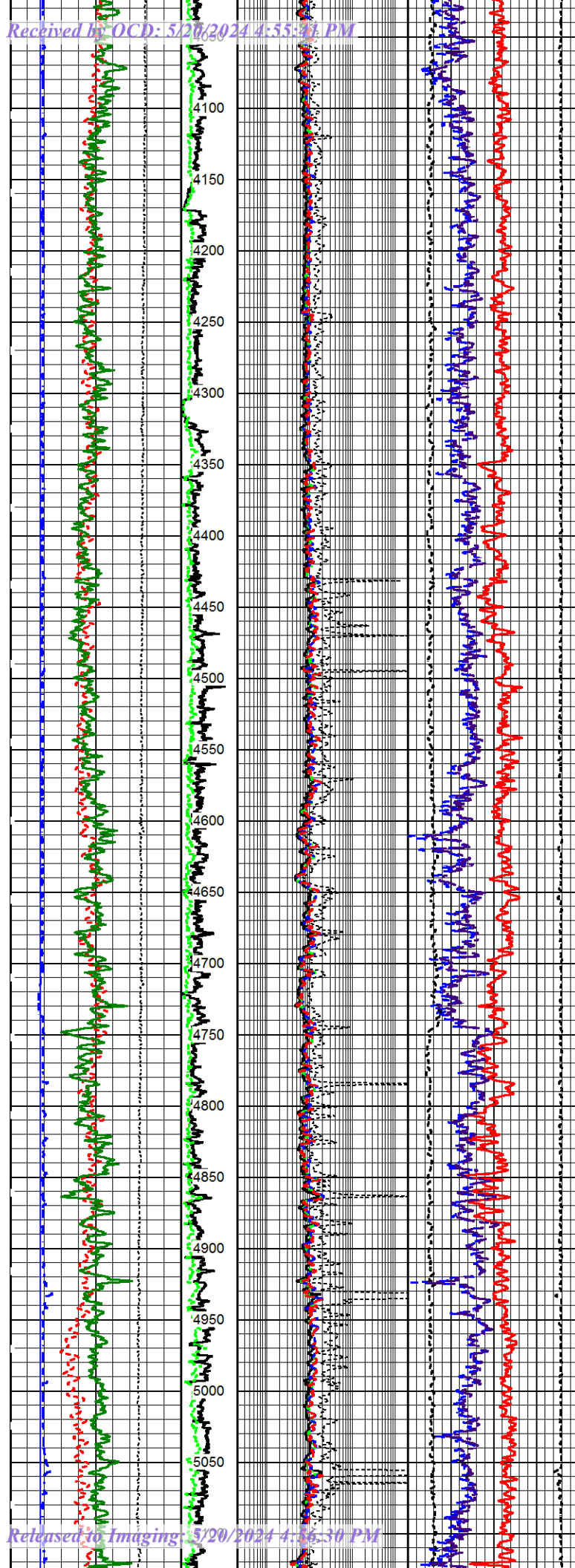
|   |              |       |       |                   |                           |
|---|--------------|-------|-------|-------------------|---------------------------|
| 7 | Bitsize (in) | 17    | INV   | 10 IN Resistivity | Neutron Porosity          |
| 7 | Caliper (in) | 17    | Ohm-m | 0.2 (Ohm-m) 2000  | Porosity Decimal Fraction |
|   | SP [-20mV+]  | 0 20  |       | 20 IN Resistivity | 0.3 -0.1                  |
| 0 | SGR (GAPI)   | 200   | NORM  | 0.2 (Ohm-m) 2000  | Density Porosity          |
|   | Line Tension | Ohm-m |       | 30 IN Resistivity | Porosity Decimal Fraction |
|   | 5000lb) 0    | 0 20  |       | 0.2 (Ohm-m) 2000  | 0.3 -0.1                  |
|   |              |       |       | 60 IN Resistivity | Crossplot Porosity        |
|   |              |       |       | 0.2 (Ohm-m) 2000  | Porosity Decimal Fraction |
|   |              |       |       | 90 IN Resistivity | 0.3 -0.1                  |
|   |              |       |       | 0.2 (Ohm-m) 2000  | 0 PE 10 Density Correcti  |
|   |              |       |       |                   | (g/cc)                    |
|   |              |       |       |                   | 0.8 -0.2                  |

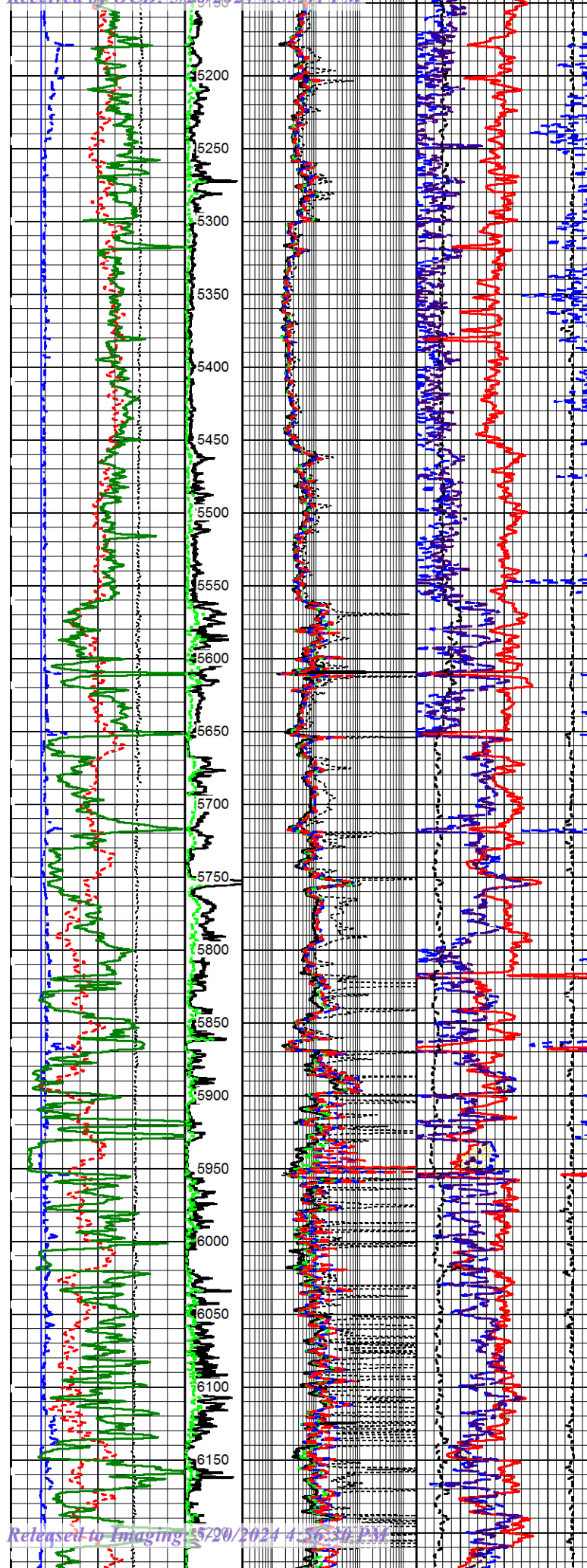


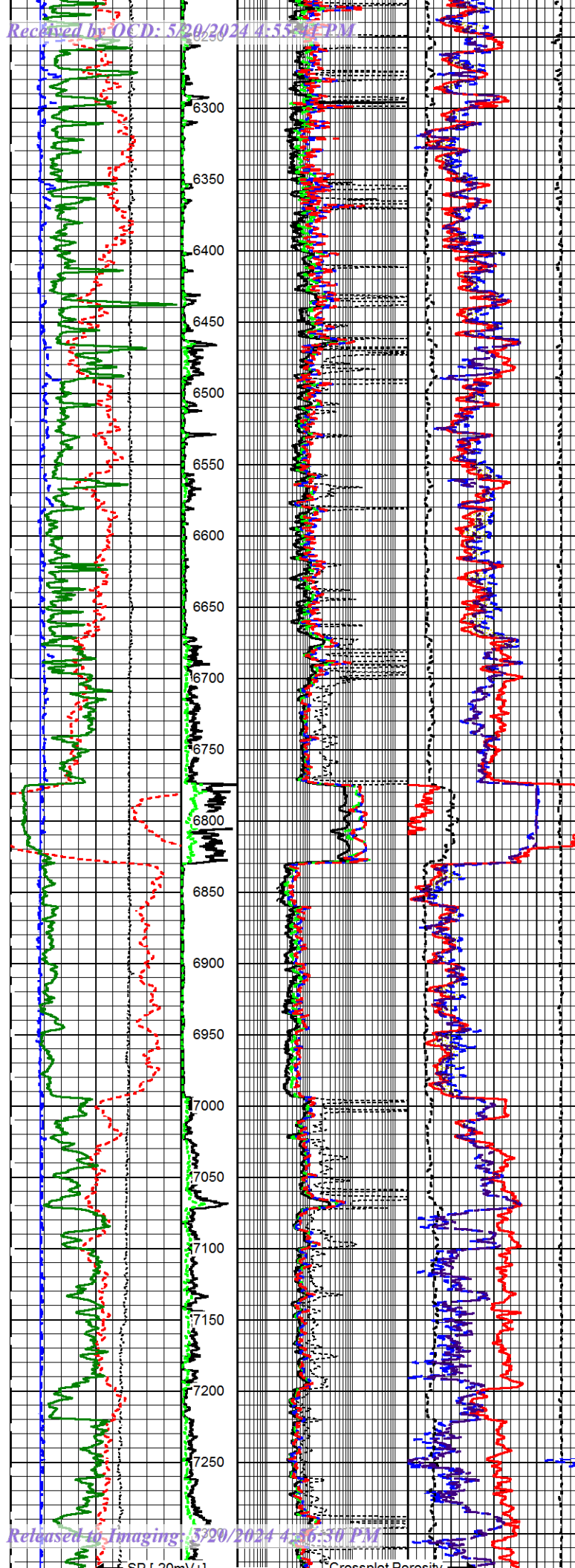


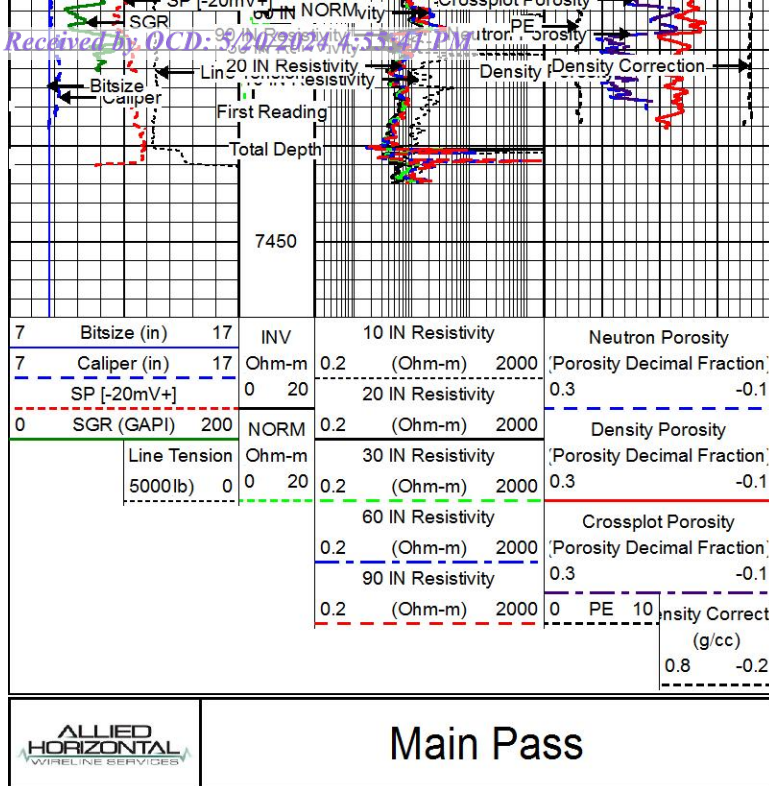












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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 346081

CONDITIONS

|                                                                                                           |                                                              |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Operator:<br>NEW MEXICO ENERGY MINERALS & NATURAL RESOURCE<br>1220 S St Francis Dr<br>Santa Fe , NM 87504 | OGRID:<br>264235                                             |
|                                                                                                           | Action Number:<br>346081                                     |
|                                                                                                           | Action Type:<br>[IM-SD] Well File Support Doc (ENG) (IM-AWF) |

CONDITIONS

|            |           |                |
|------------|-----------|----------------|
| Created By | Condition | Condition Date |
| pgoetze    | None      | 5/20/2024      |