



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Well Completion Print

09/16/2025

|                                                 |                                           |                             |                                     |
|-------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD  | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
| <b>SHL SESE Sec</b> 17 17S 29E                  | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL        | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                      | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

## Section 1 - General

**Accepted****Well Completion Report Id:** 95705**Submission Date:** 06-06-2025**BLM Office:** Carlsbad Field Office**User:** DAVID CAIN**Title:** Sr Engineering Technologist &**Federal/Indian:** FEDERAL**Lease Number:** NMNM14847**Lease Acres:****Agreement in place?:** NO**Federal or Indian Agreement:****Agreement Number:****Agreement Name:****Additional Information****Keep this Well Completion Report confidential?:** YES**APD Operator:** LONGFELLOW ENERGY  
LP

## Section 2 - Well

**Field/Pool or Exploratory:****Pool Name:** CANYON**Field Name:** SWD**Well Type:** INJECTION - DISPOSAL**Spud Date:** 08-22-2024**Date Total Measured Depth Reached:** 09-05-2024**Well Class:** VERTICAL

|                                                                            |                                           |                             |                                     |
|----------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD  | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
|                                                                            | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                   | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                                 | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

### Section 3 - Geologic

| Formation Name    | Lithology | Describe Lithology | Elevation | TVD  | MD   | Mineral Resources | Describe Mineral |
|-------------------|-----------|--------------------|-----------|------|------|-------------------|------------------|
| QUATERNARY        | OTHER     | Caliche            | 3603      | 0    | 0    | USEABLE WATER     |                  |
| RUSTLER ANHYDRITE | ANHYDRITE |                    | 3378      | 225  | 225  | NONE              |                  |
| TOP SALT          | SALT      |                    | 3198      | 405  | 405  | NONE              |                  |
| BOTTOM SALT       | DOLOMITE  |                    | 2742      | 850  | 850  | NONE              |                  |
| YATES             | DOLOMITE  |                    | 2742      | 874  | 874  | NATURAL GAS, OIL  |                  |
| SEVEN RIVERS      | GYPSUM    |                    | 2462      | 1154 | 1154 | NONE              |                  |
| QUEEN             | SANDSTONE |                    | 1880      | 1736 | 1736 | NATURAL GAS, OIL  |                  |
| GRAYBURG          | DOLOMITE  |                    | 1517      | 2095 | 2095 | NATURAL GAS, OIL  |                  |
| SAN ANDRES        | DOLOMITE  |                    | 1224      | 2392 | 2392 | NATURAL GAS, OIL  |                  |
| GLORIETA          | DOLOMITE  |                    | -214      | 3830 | 3830 | NATURAL GAS, OIL  |                  |
| YESO              | DOLOMITE  |                    | -268      | 3884 | 3884 | NATURAL GAS, OIL  |                  |
| BLINEBRY          | DOLOMITE  |                    | -708      | 4324 | 4324 | NATURAL GAS, OIL  |                  |
| TUBB              | SANDSTONE |                    | -1701     | 5317 | 5317 | NATURAL GAS, OIL  |                  |
| ABO               | SANDSTONE |                    | -2386     | 6002 | 6002 | NATURAL GAS, OIL  |                  |
| WOLFCAMP          | OTHER     | Carbonate          | -3471     | 7087 | 7087 | NATURAL GAS, OIL  |                  |
| CISCO             | LIMESTONE |                    | -4660     | 8276 | 8276 | NATURAL GAS, OIL  |                  |

|                                                                            |                                           |                             |                                     |
|----------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD  | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
|                                                                            | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                   | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                                 | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

### Section 3 - Geologic

| Formation Name | Lithology | Describe Lithology | Elevation | TVD  | MD   | Mineral Resources | Describe Mineral |
|----------------|-----------|--------------------|-----------|------|------|-------------------|------------------|
| CANYON         | DOLOMITE  |                    | -5233     | 8849 | 8849 | NONE              |                  |

### Completion and Completed

#### Completion Data

| Wellbore Code | Completion Code | Interval Number | Case Number | Lease Number | Well Completion Type | Describe Well Completion Type | Completion Status | Date Completed | Date First Produced | Formation | Interval Top (MD) | Interval Bottom (MD) | Interval Perforated? | Perforation Size | Number of Holes | Status of Interval |
|---------------|-----------------|-----------------|-------------|--------------|----------------------|-------------------------------|-------------------|----------------|---------------------|-----------|-------------------|----------------------|----------------------|------------------|-----------------|--------------------|
| 00            | S1              | 1               | NMNM14847   | NMNM14847    | NEW                  |                               | WDW               | 03-03-2025     |                     | CANYON    | 8864              | 9030                 | Y                    | .42              | 688             | ISOLATED           |

#### Treatment Data

| Wellbore Code | Completion Code | Interval Number | Interval Treated? | Treatment Type | Tottle Fluid (bbbs) | Total Proppant (lbs) | Treatment Remarks                        |
|---------------|-----------------|-----------------|-------------------|----------------|---------------------|----------------------|------------------------------------------|
| 00            | S1              | 1               | Y                 | ACIDIZE        | 333                 |                      | 14000 gal<br>20% HCL<br>(333.33 barrels) |

|                                                                         |                                          |                             |                                     |
|-------------------------------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
|                                                                         | <b>County</b> EDDY                       | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION - DISPOSAL                                   | <b>Well Status</b> Water Disposal Well   | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                              | <b>Well Pad Name</b> null                | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

Production Data

| Wellbore Code | Completion Code | Interval Number | API Oil Gravity | Gas Gravity | Production Method | Describe Production | Disposition of Gas | Describe Disposition |
|---------------|-----------------|-----------------|-----------------|-------------|-------------------|---------------------|--------------------|----------------------|
| 00            | s1              | 1               |                 |             |                   |                     |                    |                      |

Test Data

| Wellbore Code | Completion Code | Interval Number | Test Date | Hours Tested | 24-Hour Rate Oil (bbls) | 24-Hour Rate Gas (MCF) | 24-Hour Rate Water(BWPD) | Gas-Oil Ratio (SCF/Bbl) | Choke Size | Tubing Pressure | Tubing Pressure Shut-In (psi) | Casing Pressure (psi) |
|---------------|-----------------|-----------------|-----------|--------------|-------------------------|------------------------|--------------------------|-------------------------|------------|-----------------|-------------------------------|-----------------------|
| 00            | s1              | 1               |           |              |                         |                        |                          |                         |            |                 |                               |                       |

Well Location

**Survey Type:** RECTANGULAR

**Survey Number:** 12797

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Reference Datum:** GL

| Aliquots/Lot/Tract | Section | Range | Township | EW-Indicator | EW-Foot | NS-Indicator | NS-Foot | Plug Type | Plug MD (ft) | Plug TVD (ft) | Lease Number | Lease Type | TVD (ft) | MD (ft) | Elevation (MSL) | Longitude | Latitude | County | Meridian | State |
|--------------------|---------|-------|----------|--------------|---------|--------------|---------|-----------|--------------|---------------|--------------|------------|----------|---------|-----------------|-----------|----------|--------|----------|-------|
|--------------------|---------|-------|----------|--------------|---------|--------------|---------|-----------|--------------|---------------|--------------|------------|----------|---------|-----------------|-----------|----------|--------|----------|-------|

|                                                                            |                                           |                             |                                     |
|----------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD  | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
|                                                                            | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                   | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                                 | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

|                  | State      | Meridian             | County | Latitude   | Longitude   | Elevation (MSL) | MD (ft) | TVD (ft) | Lease Type | Lease Number | Plug TVD (ft) | Plug MD (ft) | Plug Type | NS-Foot | NS-Indicator | EW-Foot | EW-Indicator | Township | Range | Section | Aliquot/Lot/Tract |
|------------------|------------|----------------------|--------|------------|-------------|-----------------|---------|----------|------------|--------------|---------------|--------------|-----------|---------|--------------|---------|--------------|----------|-------|---------|-------------------|
| SHL              | NEW MEXICO | NEW MEXICO PRINCIPAL | EDDY   | 32.828972  | -104.090683 | 3603            | N/A     | N/A      | FEDERAL    | NMNM14847    |               |              |           | 610     | FSL          | 705     | FEL          | 17S      | 29E   | 17      | SESE              |
| BHL Well bore 00 | NEW MEXICO | NEW MEXICO PRINCIPAL | EDDY   | 32.8289765 | -104.090666 | -6047           | 9650    | 9650     | FEDERAL    | NMNM14847    |               |              |           | 612     | FSL          | 700     | FEL          | 17S      | 29E   | 17      | SESE              |

### Casing, Liner and Tubing

### Casing and Liner

| Wellbore Code | Casing String Type | Hole Size | Top Setting Depth (MD) | Bottom Setting Depth (MD) | Casing Size | Wt(lbs/ft) | Casing Grade | Describe Other Casing Grade | Joint | Other Joint | Amount Pulled (ft) |
|---------------|--------------------|-----------|------------------------|---------------------------|-------------|------------|--------------|-----------------------------|-------|-------------|--------------------|
| 00            | SURFACE            | 17.5      | 0                      | 385                       | 13.375      | 54.5       | J-55         |                             | BUTT  |             |                    |
| 00            | INTERMEDIATE       | 12.25     | 0                      | 2585                      | 9.625       | 40         | J-55         |                             | LT&C  |             |                    |

|                                                                            |                                           |                             |                                     |
|----------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD  | <b>Well Number 1</b>        | <b>US Well Number</b> 3001555341    |
|                                                                            | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                   | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                                 | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

### Casing and Liner

| Wellbore Code | Casing String Type | Hole Size | Top Setting Depth (MD) | Bottom Setting Depth (MD) | Casing Size | Wt(lbs/ft) | Casing Grade | Describe Other Casing Grade | Joint | Other Joint | Amount Pulled (ft) |
|---------------|--------------------|-----------|------------------------|---------------------------|-------------|------------|--------------|-----------------------------|-------|-------------|--------------------|
| 00            | PRODUCT ION        | 8.75      | 0                      | 9833                      | 7.0         | 29         | L-80         |                             | BUTT  |             |                    |

### Cementing

| Wellbore Code | Casing String Type | Stage Tool Depth | Cement Lead Type | Cement Lead Qty (sks) | Cement Lead Yield (cu.ft/sks) | Cement Lead Top (MD) | Cement Tail Type | Cement Tail Qty (sks) | Cement Tail Yield(cu.ft/sks) | Cement Tail Top (MD) | Total (Lead + Tail) Cement Slurry Volume |
|---------------|--------------------|------------------|------------------|-----------------------|-------------------------------|----------------------|------------------|-----------------------|------------------------------|----------------------|------------------------------------------|
| 00            | SURFACE            |                  | Class C          | 265                   | 1.68                          | 250                  | Class C          | 165                   | 1.33                         | 300                  | 303.9                                    |
| 00            | SURFACE            |                  | Class C 2% cacl  | 229                   | 1.33                          | 0                    |                  |                       |                              |                      | 303.9                                    |
| 00            | INTERME Diate      |                  | 50/50 Poz C      | 1325                  | 1.42                          | 0                    | Class C          | 345                   | 1.33                         | 0                    | 416.8                                    |
| 00            | PRODUCT ION        | 7006             | 35/65 Poz C      | 770                   | 1.83                          | 0                    | Class H          | 495                   | 1.19                         | 7006                 | 355.9                                    |

### Tubing

| Wellbore Code | Tubing Size | Describe Other | Tubing Setting Depth (MD/ft) | Packer Depth (MD/ft) | Tubing Weight | Tubing Grade | Describe Other | Tubing Coupling | Describe Other |
|---------------|-------------|----------------|------------------------------|----------------------|---------------|--------------|----------------|-----------------|----------------|
| 00            | 3.5         |                | 8845                         | 8845                 | 9             | L-80         |                | OTHER           | 8RND           |

|                                                                         |                                           |                             |                                     |
|-------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|
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|                                                                         | <b>County</b> EDDY                        | <b>State</b> NM             | <b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                | <b>Well Status</b> Water Disposal<br>Well | <b>Agreement Name</b>       | <b>Agreement Number(s)</b>          |
| <b>Allottee/Tribe Name</b>                                              | <b>Well Pad Name</b> null                 | <b>Well Pad Number</b> null | <b>APD ID</b> 10400097910           |

**Logs**

| Wellbore Code | Log Upload | Was Well Cored? | Was DST Run? | Directional Survey? | Geologic Report | Wellbore Diagram |
|---------------|------------|-----------------|--------------|---------------------|-----------------|------------------|
| 00            | YES        | NO              | NO           | YES                 | YES             | YES              |

**Operator**

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

**Name:** LONGFELLOW ENERGY LP**Signed By:** DAVID CAIN**Title:** Sr Engineering Technologist **Signed on:** 09/04/2025  
& Regulatory Specialist**Street Address:** 8115 PRESTON ROAD SUITE 800**City:** DALLAS**State:** TX**Zip:** 75225**Phone:** (972)590-9918**Email address:** DAVID.CAIN@LONGFELLOWENERGY.COM**Field****Representative Name:****Street Address:****City:****State:****Zip:****Phone:****Extension:****Email address:**

|                                                                            |                                                                    |                                                 |                                                                             |
|----------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Operator Name</b><br>LONGFELLOW ENERGY<br>LP<br>SHL SESE Sec 17 17S 29E | <b>Well Name</b> ANGUS<br>FEDERAL 17 SWD<br><br><b>County</b> EDDY | <b>Well Number 1</b><br><br><br><b>State</b> NM | <b>US Well Number</b> 3001555341<br><br><b>Lease Number(s)</b><br>NMNM14847 |
| <b>Well Type</b> INJECTION -<br>DISPOSAL                                   | <b>Well Status</b> Water<br>Disposal<br>Well                       | <b>Agreement Name</b>                           | <b>Agreement Number(s)</b>                                                  |
| <b>Allottee/Tribe Name</b>                                                 | <b>Well Pad Name</b> null                                          | <b>Well Pad Number</b> null                     | <b>APD ID</b> 10400097910                                                   |

### Attachments

Angus\_Federal\_17\_SWD\_1\_surface\_casing\_cement\_summary\_20250606092709.pdf

ANGUS\_FEDERAL\_17\_SWD\_FINAL\_SURVEY\_REPORT\_20250606092947.pdf

Angus\_Federal\_17\_SWD\_1\_MAINLOG\_20250606093011.pdf

Angus\_Federal\_17\_SWD\_1\_WBD\_5\_27\_25\_20250606093028.pdf

longfellow\_angusfed17swd\_pdf\_20250904090305.pdf

LONGFELLOW\_ANGUS\_FEDERAL\_17\_SWD\_1\_TRIPLE\_COMBO\_PDF\_20250904090320.pdf

ANGUS\_FEDERAL\_17\_SWD\_FINAL\_SURVEY\_REPORT\_20250904090340.pdf

Angus\_Federal\_17\_SWD\_1\_MAINLOG\_20250904090416.pdf

Angus\_Federal\_17\_SWD\_1\_WBD\_5\_27\_25\_20250904090712.pdf

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

|                                                                                                                                                                                                                                                  |  |                                   |                                                   |                                                                                                                                                                                                                                                                                       |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1a. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other                                                                                                 |  |                                   | 5. Lease Serial No.                               |                                                                                                                                                                                                                                                                                       |  |
| b. Type of Completion <input type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Zones <input type="checkbox"/> Hydraulic Fracturing |  |                                   | 6. If Indian, Allottee or Tribe Name              |                                                                                                                                                                                                                                                                                       |  |
| Other: _____                                                                                                                                                                                                                                     |  |                                   | 7. Unit or CA Agreement Name and No.              |                                                                                                                                                                                                                                                                                       |  |
| 2. Name of Operator                                                                                                                                                                                                                              |  |                                   | 8. Well Name and Well No.                         |                                                                                                                                                                                                                                                                                       |  |
| 3. Address                                                                                                                                                                                                                                       |  | 3a. Phone No. (Include area code) |                                                   | 9. API Well No.                                                                                                                                                                                                                                                                       |  |
| 4. Location of Well (Report location clearly and in accordance with Federal requirements)*                                                                                                                                                       |  |                                   | 10. Field and Pool or Exploratory                 |                                                                                                                                                                                                                                                                                       |  |
| At surface                                                                                                                                                                                                                                       |  |                                   | 11. Sec., T., R., M., on Block and Survey or Area |                                                                                                                                                                                                                                                                                       |  |
| At top prod. interval reported below                                                                                                                                                                                                             |  |                                   | 12. County or Parish                              |                                                                                                                                                                                                                                                                                       |  |
| At total depth                                                                                                                                                                                                                                   |  |                                   | 13. State                                         |                                                                                                                                                                                                                                                                                       |  |
| 14. Date Spudded                                                                                                                                                                                                                                 |  | 15. Date T.D. Reached             |                                                   | 16. Date Completed                                                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                  |  |                                   |                                                   | <input type="checkbox"/> D & A <input type="checkbox"/> Ready to Prod.                                                                                                                                                                                                                |  |
| 18. Total Depth: MD<br>TVD                                                                                                                                                                                                                       |  | 19. Plug Back T.D.: MD<br>TVD     |                                                   | 20. Depth Bridge Plug Set: MD<br>TVD                                                                                                                                                                                                                                                  |  |
| 21. Type Electric & Other Mechanical Logs Run (Submit copy of each)                                                                                                                                                                              |  |                                   |                                                   | 22. Was well cored? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis)<br>Was DST run? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit report)<br>Directional Survey? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy) |  |

| 23. Casing and Liner Record (Report all strings set in well) |            |            |          |             |                      |                              |                   |             |               |
|--------------------------------------------------------------|------------|------------|----------|-------------|----------------------|------------------------------|-------------------|-------------|---------------|
| Hole Size                                                    | Size/Grade | Wt. (#ft.) | Top (MD) | Bottom (MD) | Stage Cementer Depth | No. of Sks. & Type of Cement | Slurry Vol. (BBL) | Cement Top* | Amount Pulled |
|                                                              |            |            |          |             |                      |                              |                   | Surface     |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |
|                                                              |            |            |          |             |                      |                              |                   |             |               |

| 24. Tubing Record |               |                  |      |                |                   |      |                |                   |  |
|-------------------|---------------|------------------|------|----------------|-------------------|------|----------------|-------------------|--|
| Size              | Dept Set (MD) | Packer Dept (MD) | Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) |  |
|                   |               |                  |      |                |                   |      |                |                   |  |

| 25. Producing Intervals |     |        |  | 26. Perforation Record |      |           |              |
|-------------------------|-----|--------|--|------------------------|------|-----------|--------------|
| Formation               | Top | Bottom |  | Perforated Interval    | Size | No. Holes | Perf. Status |
| A)                      |     |        |  |                        |      |           |              |
| B)                      |     |        |  |                        |      |           |              |
| C)                      |     |        |  |                        |      |           |              |
| D)                      |     |        |  |                        |      |           |              |

| 27. Acid, Fracture, Treatment, Cement Squeeze, Post hydraulic fracturing chemical disclosures on FracFocus.org when required by state or federal regulation |                                                                                                |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|
| Depth Interval                                                                                                                                              | Amount, Type of Material and Date of Chemical Disclosure upload on FracFocus.org as applicable |  |  |  |  |  |  |  |  |
|                                                                                                                                                             |                                                                                                |  |  |  |  |  |  |  |  |
|                                                                                                                                                             |                                                                                                |  |  |  |  |  |  |  |  |
|                                                                                                                                                             |                                                                                                |  |  |  |  |  |  |  |  |
|                                                                                                                                                             |                                                                                                |  |  |  |  |  |  |  |  |

| 28. Production - Interval A |                      |              |                 |         |         |           |                       |             |                   |
|-----------------------------|----------------------|--------------|-----------------|---------|---------|-----------|-----------------------|-------------|-------------------|
| Date First Produced         | Test Date            | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|                             |                      |              | →               |         |         |           |                       |             |                   |
| Choke Size                  | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                   |
|                             |                      |              | →               |         |         |           |                       |             |                   |

| 28a. Production - Interval B |                      |              |                 |         |         |           |                       |             |                   |
|------------------------------|----------------------|--------------|-----------------|---------|---------|-----------|-----------------------|-------------|-------------------|
| Date First Produced          | Test Date            | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|                              |                      |              | →               |         |         |           |                       |             |                   |
| Choke Size                   | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                   |
|                              |                      |              | →               |         |         |           |                       |             |                   |

\*(See instructions and spaces for additional data on page 2)

## 28b. Production - Interval C

| Date First Produced | Test Date            | Hours Tested | Test Production<br>➡ | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API. | Gas Gravity | Production Method |
|---------------------|----------------------|--------------|----------------------|---------|---------|-----------|------------------------|-------------|-------------------|
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate<br>➡     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio          | Well Status |                   |

## 28c. Production - Interval D

| Date First Produced | Test Date            | Hours Tested | Test Production<br>➡ | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API. | Gas Gravity | Production Method |
|---------------------|----------------------|--------------|----------------------|---------|---------|-----------|------------------------|-------------|-------------------|
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate<br>➡     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio          | Well Status |                   |

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

| Formation | Top  | Bottom | Descriptions, Contents, etc. | Name | Top         |
|-----------|------|--------|------------------------------|------|-------------|
|           |      |        |                              |      | Meas. Depth |
|           | 0    | —      |                              |      |             |
|           | 225  | —      |                              |      |             |
|           | 405  | —      |                              |      |             |
|           | 850  | —      |                              |      |             |
|           | 874  | —      |                              |      |             |
|           | 1154 | —      |                              |      |             |

32. Additional remarks (include plugging procedure).

## 33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)      ☐ Geologic Report      ☐ DST Report      ☐ Directional Survey  
☐ Sundry Notice for plugging and cement verification      ☐ Core Analysis      ☐ Other:

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) \_\_\_\_\_ Title \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting a complete and correct well completion/recompletion report and log on all types of wells on Federal and Indian leases to a Federal agency, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal office. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, and all types electric), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal laws and regulations. All attachments should be listed on this form, see item 33.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal office for specific instructions.

**ITEM 17:** Indicate which reported elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**ITEM 23:** Show how reported top(s) of cement were determined, i.e. circulated (CIR), or calculated (CAL), or cement bond log (CBL), or temperature survey (TS).

## NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48 (d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. et seq.; 43 CFR 3160.

**PRINCIPAL PURPOSE:** The information is to be used to evaluate the actual operations performed in the drilling, completing and testing of a well on a Federal or Indian lease.

**ROUTINE USES:** (1) Evaluate the equipment and procedures used during the drilling and completing/recompleting of a well. (2) The review of geologic zones and formation encountered during drilling. (3) Analyze future applications to drill in light of data obtained and methods used. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this report and disclosure of the information is mandatory once a well drilled on a Federal or Indian lease is completed/recompleted.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling and completing/recompleting wells on Federal and Indian oil and gas leases.

This information will be used to analyze operations and to compare equipment and procedures actually used with those proposed and approved.

Response to this request is mandatory only if the operator elects to initiate drilling and completing/recompleting operations on an oil and gas lease.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Information

Location information: 00X1

SHL: SESE / 610 FSL / 705 FEL / TWSP: 17S / RNG: 29E / SEC: 17 / LAT: 32.828972 / LONG: -104.090683

BHL: SESE / 612 FSL / 700 FEL / TWSP: 17S / RNG: 29E / SEC: 17 / LAT: 32.8289765 / LONG: -104.090666

## Additional Cement Segments for Casings: 00X1

Hole Size: 17.5, Size/Grade: 13.375 / J-55, Wt. (#ft): 54.5, Top (MD): 0, Bottom (MD): 385

Cementing/Segment - Stage Cementer Depth: null, No of Sk: 265.0, Type of Cement: Class C, Slurry Vol BBL: 303.9, Cement Lead Top: 250.0, Amount Pulled: null ; Cement Tail Type: Class C, Cement Tail Qty (sks): 165.0, Cement Tail Yield (cu.ft/sks): 1.33, Cement Tail Top (MD): 300.0

Cementing/Segment - Stage Cementer Depth: null, No of Sk: 229.0, Type of Cement: Class C 2% cacl, Slurry Vol BBL: 303.9, Cement Lead Top: 0.0, Amount Pulled: null

Hole Size: 12.25, Size/Grade: 9.625 / J-55, Wt. (#ft): 40, Top (MD): 0, Bottom (MD): 2585

Cementing/Segment - Stage Cementer Depth: null, No of Sk: 1325.0, Type of Cement: 50/50 Poz C, Slurry Vol BBL: 416.8, Cement Lead Top: 0.0, Amount Pulled: null ; Cement Tail Type: Class C, Cement Tail Qty (sks): 345.0, Cement Tail Yield (cu.ft/sks): 1.33, Cement Tail Top (MD): 0.0

Hole Size: 8.75, Size/Grade: 7.0 / L-80, Wt. (#ft): 29, Top (MD): 0, Bottom (MD): 9833

Cementing/Segment - Stage Cementer Depth: 7006, No of Sk: 770.0, Type of Cement: 35/65 Poz C, Slurry Vol BBL: 355.9, Cement Lead Top: 0.0, Amount Pulled: null ; Cement Tail Type: Class H, Cement Tail Qty (sks): 495.0, Cement Tail Yield (cu.ft/sks): 1.19, Cement Tail Top (MD): 7006.0

## Summary of Porous Zones Information:

Formation: QUEEN, Descriptions, Contents, etc: , Bottom: 1736 \*Formation tops not bottom

Formation: GRAYBURG, Descriptions, Contents, etc: , Bottom: 2095

Formation: SAN ANDRES, Descriptions, Contents, etc: , Bottom: 2392

Formation: GLORIETA, Descriptions, Contents, etc: , Bottom: 3830

Formation: YESO, Descriptions, Contents, etc: , Bottom: 3884

Formation: BLINEBRY, Descriptions, Contents, etc: , Bottom: 4324

Formation: TUBB, Descriptions, Contents, etc: , Bottom: 5317

Formation: ABO, Descriptions, Contents, etc: , Bottom: 6002

Formation: WOLFCAMP, Descriptions, Contents, etc: , Bottom: 7087

Formation: CISCO, Descriptions, Contents, etc: , Bottom: 8276

Formation: CANYON, Descriptions, Contents, etc: , Bottom: 8849

Attachments: 00X1

Casing/Cementing Attachments:

1) Angus\_Federal\_17\_SWD\_1\_surface\_casing\_cement\_summary\_20250606092709.pdf

Log Attachments:

1) Angus\_Federal\_17\_SWD\_1\_WBD\_5\_27\_25\_20250606093028.pdf

2) Angus\_Federal\_17\_SWD\_1\_WBD\_5\_27\_25\_20250904090712.pdf

3) ANGUS\_FEDERAL\_17\_SWD\_1\_AS\_DRILLED\_signed\_20250930133750.pdf

4) Angus\_Federal\_17\_SWD\_1\_MAINLOG\_20250606093011.pdf

5) Angus\_Federal\_17\_SWD\_1\_MAINLOG\_20250904090416.pdf

6) longfellow\_angusfed17swd\_pdf\_20250904090305.pdf

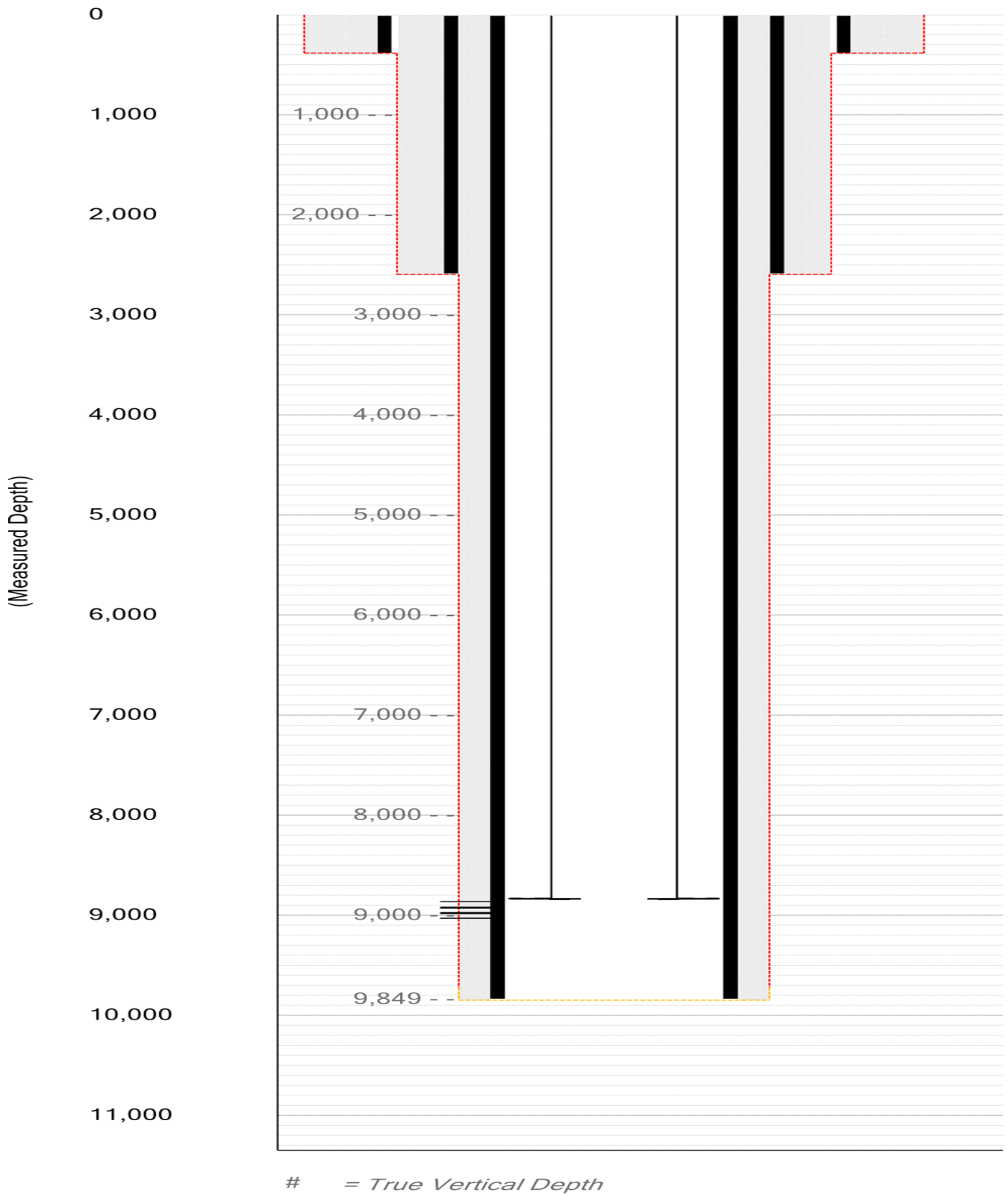
7)

LONGFELLOW\_ANGUS\_FEDERAL\_17\_SWD\_1\_TRIPLE\_COMBO\_PDF\_20250904090320.pdf

8) ANGUS\_FEDERAL\_17\_SWD\_FINAL\_SURVEY\_REPORT\_20250606092947.pdf

9) ANGUS\_FEDERAL\_17\_SWD\_FINAL\_SURVEY\_REPORT\_20250904090340.pdf

Angus Federal # 17 SWD-1, 5/27/2025



| Angus Federal # 17 SWD-1 API # 30-015-55341 |          |            |             |
|---------------------------------------------|----------|------------|-------------|
| 610 FSL & 705 FEL                           | GL Elev: | 3,603.00   | KOP:        |
| Section 17, Township 17S, Range 29E         |          |            | EOC:        |
| County, State: Eddy, NM                     |          |            | Fill Depth: |
| Aux ID:                                     | PBTD:    | 9,789.00   |             |
| 'KB' correction: 12; All Depths Corr To: KB | TD:      | 9,833.00   |             |
|                                             | BOP:     | 7 1/16 10M |             |

**Hole Size**

| Diameter | Top At   | Btm At   | Date Drilled |
|----------|----------|----------|--------------|
| 17.5000  | 0.00     | 385.00   | 8/23/2024    |
| 12.2500  | 385.00   | 2,595.00 | 8/28/2024    |
| 8.7500   | 2,595.00 | 9,850.00 | 9/9/2024     |

**Surface Casing**

Date Ran: 8/21/2024

| Description | # | Diameter | Weight | Grade | Length | Top At | Btm At |
|-------------|---|----------|--------|-------|--------|--------|--------|
| Casing      | 9 | 13.3750  | 54.50  | J55   | 369.00 | 12.00  | 381.00 |

**Intermediate Casing**

Date Ran: 8/26/2024

| Description | #  | Diameter | Weight | Grade | Length   | Top At | Btm At   |
|-------------|----|----------|--------|-------|----------|--------|----------|
| Casing      | 61 | 9.6250   | 40.00  | J55   | 2,573.00 | 12.00  | 2,585.00 |

**Production Casing**

Date Ran: 8/31/2024

| Description              | #  | Diameter | Weight | Grade | Length   | Top At   | Btm At   |
|--------------------------|----|----------|--------|-------|----------|----------|----------|
| Casing                   | 78 | 7.0000   | 29.00  | L80   | 3,164.63 | 12.00    | 3,176.63 |
| No centralizers          |    |          |        |       |          |          |          |
| Casing                   | 94 | 7.0000   | 29.00  | L80   | 3,826.63 | 3,176.63 | 7,003.26 |
| Centralizer every 5th jt |    |          |        |       |          |          |          |
| DV Tool                  | 1  | 7.0000   | 29.00  | L80   | 2.50     | 7,003.26 | 7,005.76 |
| Casing                   | 25 | 7.0000   | 29.00  | L80   | 1,017.55 | 7,005.76 | 8,023.31 |
| Centralizer every 3rd jt |    |          |        |       |          |          |          |
| Marker Jt                | 1  | 7.0000   | 29.00  | L80   | 19.96    | 8,023.31 | 8,043.27 |
| Casing                   | 43 | 7.0000   | 29.00  | L80   | 1,745.33 | 8,043.27 | 9,788.60 |
| Centralizer every 3rd jt |    |          |        |       |          |          |          |
| Float Collar             | 1  | 7.0000   | 29.00  | L80   | 1.54     | 9,788.60 | 9,790.14 |
| Casing                   | 1  | 7.0000   | 29.00  | L80   | 40.94    | 9,790.14 | 9,831.08 |
| Float Shoe               | 1  | 7.0000   | 29.00  | L80   | 1.92     | 9,831.08 | 9,833.00 |

**Cement**

| Top At                          | Btm At   | I D    | O D    | TOC Per | # - Type | # Sx | Class     | Wt.   |
|---------------------------------|----------|--------|--------|---------|----------|------|-----------|-------|
| 250.00                          | 385.00   | 13.375 | 17.500 | TS      | 1 - Lead | 265  | C         | 13.50 |
|                                 |          |        |        |         | 2 - Tail | 165  | C         | 14.80 |
| No returns on cement job        |          |        |        |         |          |      |           |       |
| 0.00                            | 250.00   | 13.375 | 17.500 | Circ    | 1 - Lead | 100  | C 2% CACL |       |
|                                 |          |        |        |         | 2 - Lead | 100  | C 2% CACL |       |
|                                 |          |        |        |         | 3 - Lead | 29   | C 2% CACL |       |
| 1" pump out job, 2 bbls to surf |          |        |        |         |          |      |           |       |
| 0.00                            | 2,595.00 | 9.625  | 12.250 | Circ    | 1 - Lead | 1325 | 50/50 Poz | 12.80 |
|                                 |          |        |        |         | 2 - Tail | 345  | C         | 14.80 |
| 197 sx to surf                  |          |        |        |         |          |      |           |       |
| 7,000.00                        | 9,850.00 | 7.000  | 8.750  | DV Tool | 1 - Lead | 495  | H         | 15.60 |
| Circ 112 sx                     |          |        |        |         |          |      |           |       |
| 0.00                            | 7,000.00 | 7.000  | 8.750  | Circ    | 1 - Lead | 770  | C 35/65   | 12.40 |
| Circ 40 sx                      |          |        |        |         |          |      |           |       |

**Zone and Perfs****Comments / Completion Summary**

Stage 1: 8864' - 9030'. 14,000 gal 20% HCL, 250 7/8" bioballs

**Perforations**

| Top      | Bottom   | Formation | Status | Opened    | Closed | # / Ft | Ttl # |
|----------|----------|-----------|--------|-----------|--------|--------|-------|
| 8,864.00 | 8,920.00 | CISCO     | A      | 2/27/2025 |        | 6      | 336   |
| 8,930.00 | 8,972.00 | CISCO     | A      | 2/26/2025 |        | 4      | 184   |
| 8,984.00 | 9,030.00 | CISCO     | A      | 2/26/2025 |        | 4      | 168   |

**Tubing****Date Ran:** 3/2/2025

| Description                                                                  | #   | Diameter | Weight | Grade | Length   | Top At   | Btm At   |
|------------------------------------------------------------------------------|-----|----------|--------|-------|----------|----------|----------|
| Plastic Lined Tbg                                                            | 1   | 3.5000   | 10.09  | L80   | 32.84    | 12.00    | 44.84    |
| 9.3# 3.5 L-80 MPC. (inside liner weights .79#/ft.)                           |     |          |        |       |          |          |          |
| Tubing Sub                                                                   | 1   | 3.5000   | 10.09  | L80   | 10.00    | 44.84    | 54.84    |
| 9.3# 3.5 L-80 MPC 10' sub for space out compression set 35k. neutral WT- 68k |     |          |        |       |          |          |          |
| Tubing Sub                                                                   | 1   | 3.5000   |        |       | 8.00     | 54.84    | 62.84    |
| 8' sub space out.                                                            |     |          |        |       |          |          |          |
| Tubing Sub                                                                   | 1   | 3.5000   |        |       | 2.00     | 62.84    | 64.84    |
| 2' sub space out.                                                            |     |          |        |       |          |          |          |
| Plastic Lined Tbg                                                            | 267 | 3.5000   | 10.09  | L80   | 8,766.77 | 64.84    | 8,831.61 |
| 9.3# 3.5 L-80 ET AND MPC. 30jnts above pkr are ET and MPC to surface.        |     |          |        |       |          |          |          |
| Crossover                                                                    |     | 4.5000   |        | SS    | 0.56     | 8,831.61 | 8,832.17 |
| SS crossover                                                                 |     |          |        |       |          |          |          |
| On-Off Tool                                                                  |     | 5.8750   |        |       | 1.61     | 8,832.17 | 8,833.78 |
| 7"x2-7/8", T-2 NICKLE PLATED ON/OFF TOOL.                                    |     |          |        |       |          |          |          |
| On-Off Tool                                                                  |     | 3.2500   |        |       | 1.30     | 8,833.78 | 8,835.08 |
| 2-7/8"x1.875" SS STINGER.                                                    |     |          |        |       |          |          |          |
| Packer                                                                       |     | 5.8750   |        |       | 7.80     | 8,835.08 | 8,842.88 |
| 7"X2-7/8", 26-32# nickle plated AS1-X CARBIDE 10K dual slip PACKER           |     |          |        |       |          |          |          |
| XN Nipple                                                                    |     | 2.8750   |        | SS    | 1.87     | 8,842.88 | 8,844.75 |
| XN nipple. Profile plug is 1.875". NOGO is 1.791"                            |     |          |        |       |          |          |          |
| Dual Ceramic Disk                                                            |     | 3.6500   |        |       | 1.05     | 8,844.75 | 8,845.80 |
| Dual ceramic disc. slick line broke discs.                                   |     |          |        |       |          |          |          |
| Reentry Guide                                                                |     | 3.6700   |        |       | 0.50     | 8,845.80 | 8,846.30 |
| 2-7/8" nickle plated WEG.                                                    |     |          |        |       |          |          |          |

|                                             |                                                                                                     |                                                |                                            |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------|
| Submit Electronically<br>Via OCD Permitting | State of New Mexico<br>Energy, Minerals & Natural Resources Department<br>OIL CONSERVATION DIVISION | Revised July 9, 2024                           |                                            |
|                                             |                                                                                                     | Submittal<br>Type:                             | <input type="checkbox"/> Initial Submittal |
|                                             |                                                                                                     |                                                | <input type="checkbox"/> Amended Report    |
|                                             |                                                                                                     | <input checked="" type="checkbox"/> As Drilled |                                            |

## WELL LOCATION INFORMATION

|                                                                                                                                                        |                                     |                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| API Number 30-015-55341                                                                                                                                | Pool Code 96184                     | Pool Name SWD; CANYON                                                                                                                                  |
| Property Code 336219                                                                                                                                   | Property Name ANGUS FEDERAL 17 SWD  | Well Number 1                                                                                                                                          |
| OGRID No. 372210                                                                                                                                       | Operator Name LONGFELLOW ENERGY, LP | Ground Level Elevation 3602.5                                                                                                                          |
| Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal |                                     | Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal |

## Surface Location

|         |               |                 |              |     |                           |                          |                          |                            |                |
|---------|---------------|-----------------|--------------|-----|---------------------------|--------------------------|--------------------------|----------------------------|----------------|
| UL<br>P | Section<br>17 | Township<br>17S | Range<br>29E | Lot | Ft. from N/S<br>610 SOUTH | Ft. from E/W<br>705 EAST | Latitude<br>32.8289720°N | Longitude<br>104.0906830°W | County<br>EDDY |
|---------|---------------|-----------------|--------------|-----|---------------------------|--------------------------|--------------------------|----------------------------|----------------|

## Bottom Hole Location

|         |               |                 |              |     |                           |                          |                          |                            |                |
|---------|---------------|-----------------|--------------|-----|---------------------------|--------------------------|--------------------------|----------------------------|----------------|
| UL<br>P | Section<br>17 | Township<br>17S | Range<br>29E | Lot | Ft. from N/S<br>612 SOUTH | Ft. from E/W<br>700 EAST | Latitude<br>32.8289765°N | Longitude<br>104.0906660°W | County<br>EDDY |
|---------|---------------|-----------------|--------------|-----|---------------------------|--------------------------|--------------------------|----------------------------|----------------|

|                 |                         |                   |                                                                                                    |                    |
|-----------------|-------------------------|-------------------|----------------------------------------------------------------------------------------------------|--------------------|
| Dedicated Acres | Infill or Defining Well | Defining Well API | Overlapping Spacing Unit (Y/N)                                                                     | Consolidation Code |
| Order Numbers.  |                         |                   | Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No |                    |

## Kick Off Point (KOP)

|    |         |          |       |     |              |              |          |           |        |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|
| UL | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude | Longitude | County |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|

## First Take Point (FTP)

|    |         |          |       |     |              |              |          |           |        |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|
| UL | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude | Longitude | County |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|

## Last Take Point (LTP)

|    |         |          |       |     |              |              |          |           |        |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|
| UL | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude | Longitude | County |
|----|---------|----------|-------|-----|--------------|--------------|----------|-----------|--------|

|                                           |                                                                                         |                         |
|-------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|
| Unitized Area or Area of Uniform Interest | Spacing Unit Type <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical | Ground Floor Elevation: |
|-------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------|

## OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest run leased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order here to fore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

 9-17-2025  
Signature Date

David Cain

Printed Name

david.cain@longfellowenergy.com

Email Address

## SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.



Signature and Seal of Professional Surveyor  
FILIMON F. JARAMILLO

Certificate Number

PLS 12797

Date of Survey

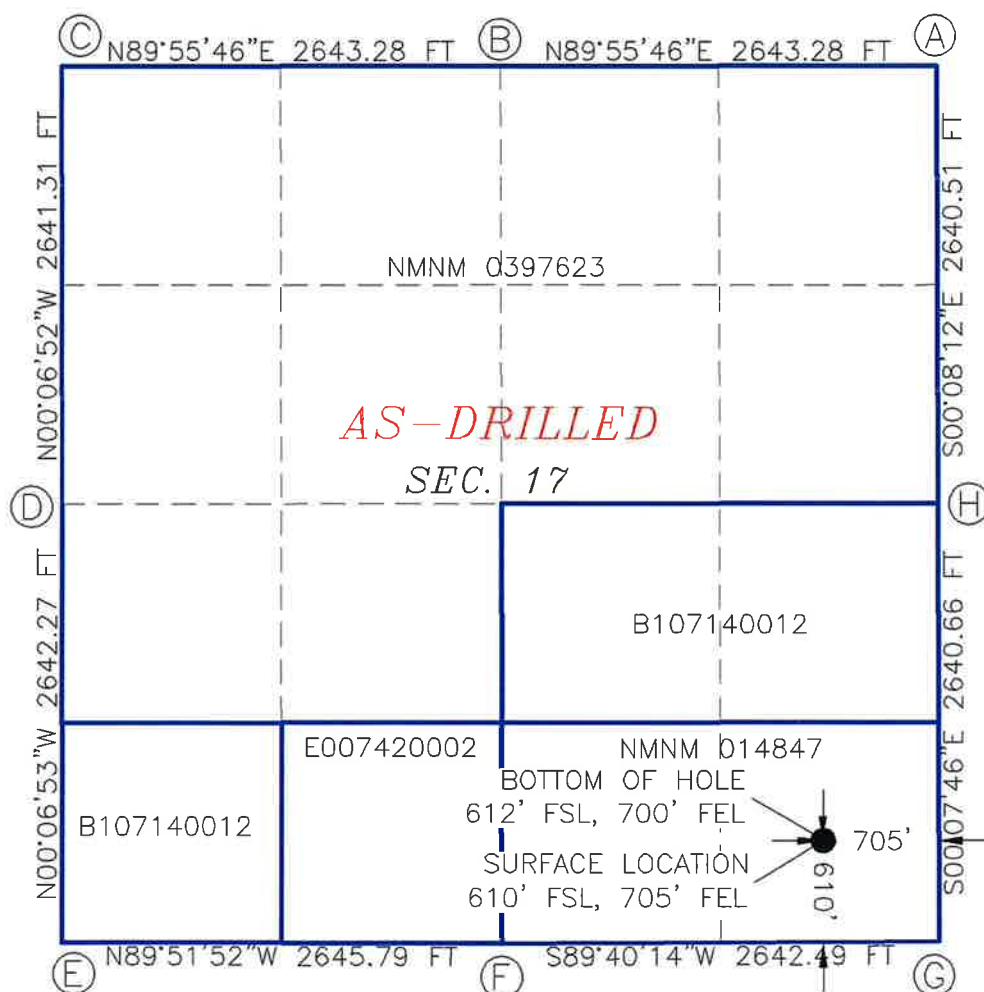
JUNE 4, 2025

SURVEY NO. 7754

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



ANGUS FEDERAL 17 SWD 1  
EL. = 3602.5

GEODETIC COORDINATES  
NAD 83 NMSP EAST  
SURFACE LOCATION  
610' FSL, 705' FEL  
N.=665398.46  
E.=615871.70  
LAT.=32.8289720°N  
LONG.=104.0906830°W

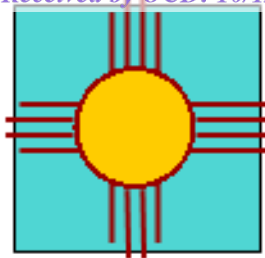
BOTTOM OF HOLE  
612' FSL, 700' FEL  
N.=665400.12  
E.=615876.90  
LAT.=32.8289765°N  
LONG.=104.0906660°W

#### CORNER COORDINATES TABLE NAD 83 NMSP EAST

|   |              |              |
|---|--------------|--------------|
| A | N.=670073.83 | E.=616565.67 |
| B | N.=670070.57 | E.=613922.40 |
| C | N.=670067.31 | E.=611279.13 |
| D | N.=667426.00 | E.=611284.41 |
| E | N.=664783.74 | E.=611289.69 |
| F | N.=664777.48 | E.=613935.48 |
| G | N.=664792.68 | E.=616577.93 |
| H | N.=667433.33 | E.=616571.97 |

#### LEGEND

— — — — — SECTION LINE  
- - - - - QUARTER LINE  
— — — — — LEASE LINE  
- - - - - WELL PATH



# Zia Geological

P.O. Box 554 Artesia, NM 88211  
(575) 937-1460 (575) 937-1567

**COMPANY:** Longfellow Energy LP

**WELL:** Angus Federal 17 SWD-1

**FIELD:** Loco Hills **COUNTY:** Eddy **STATE:** NM

**LOCATION:** 610' FSL & 705' FEL, Sec. 17, T17S, R29E (SHL/BHL)

**Interval Logged:** 385' To: 9850' **G.L.:** 3602.5' **K.B:** 3614.5'

**Date Logged:** 8/25/2024 To: 9/8/2024 **Spud Date:** 8/22/2024

**Filename:** angusfederal17swd1.mlw

**Api No.:** 30-015-55341

**Loggers:** James W. King, Jared M. King

**Geologist:** Jake DeHamer

**Engineer:** James Follis

**Unit No.:** 202

**Rig:** Strategy Lateral Drilling Co.

Created By MainLog

## Abbreviations

NB...New Bit DST...Drill Stem Test  
CO--Circ Out DS...Directional Survey  
NR...No Returns CG...Connection gas  
TG...Trip Gas LAT...Logged After Trip  
WOB...Wt on Bit PP...Pump Pressure  
RPM...Rev/Min SPM...Strokes/Min  
SG...Survey Gas DTG...Down Time Gas

## Mud Data

WT..Weight V..Viscosity  
PH..Acidity F..Filtrate  
CHL..Chlorides SC..Solids Content  
PV..Plastic Vis YP..Yield Point

## Lithology Symbols

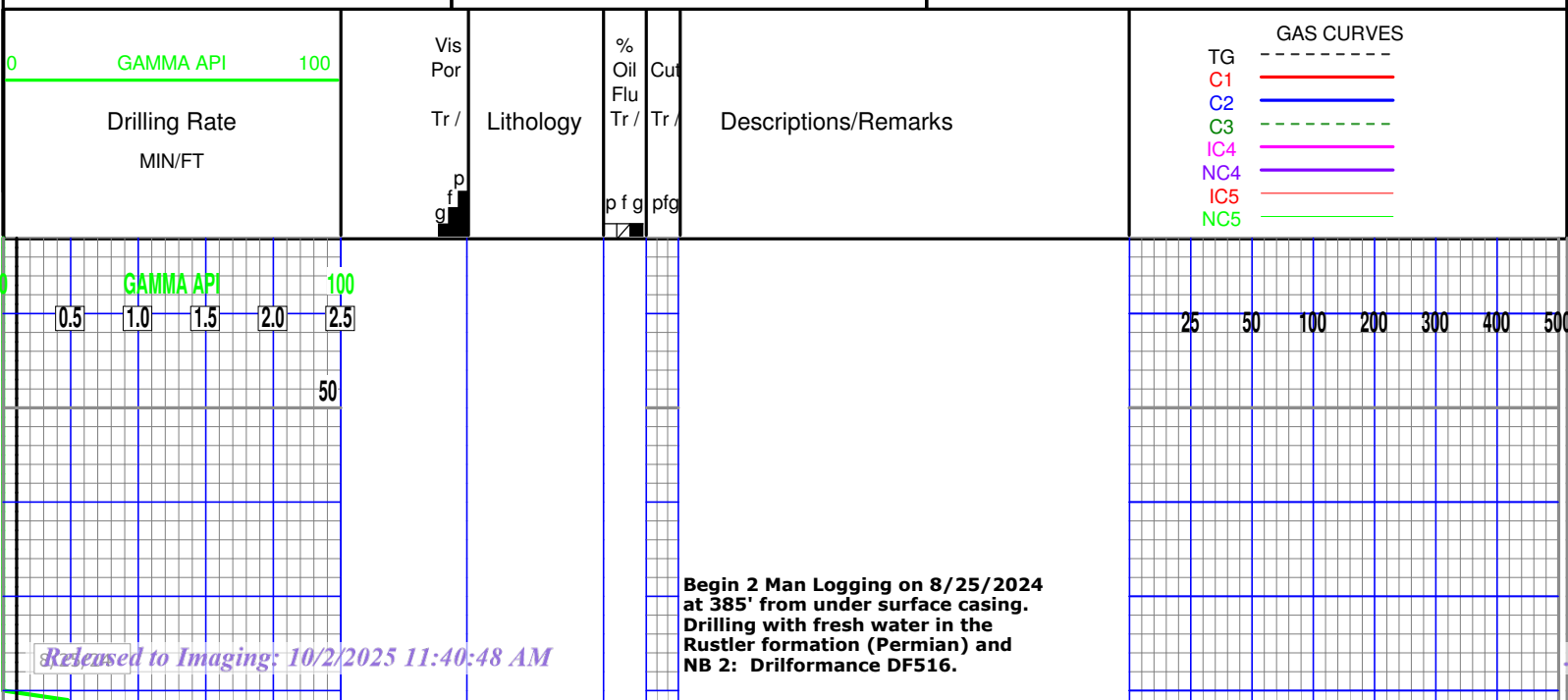
|  |              |  |             |
|--|--------------|--|-------------|
|  | Anhydrite    |  | Salt        |
|  | Sandstone    |  | Bentonite   |
|  | Carb Sh      |  | Shale       |
|  | Cement       |  | Siltstone   |
|  | Chalk        |  | Org Sh      |
|  | Chert        |  | Quartz Wash |
|  | Coal         |  | VOLC        |
|  | Congl        |  | clay sh     |
|  | Dolomite     |  | CL 2        |
|  | Granite      |  | CL 3        |
|  | Green Sh     |  | CL 4        |
|  | Granite Wash |  | CL 6        |
|  | Limestone    |  | CL 6        |
|  | Red Sh       |  |             |

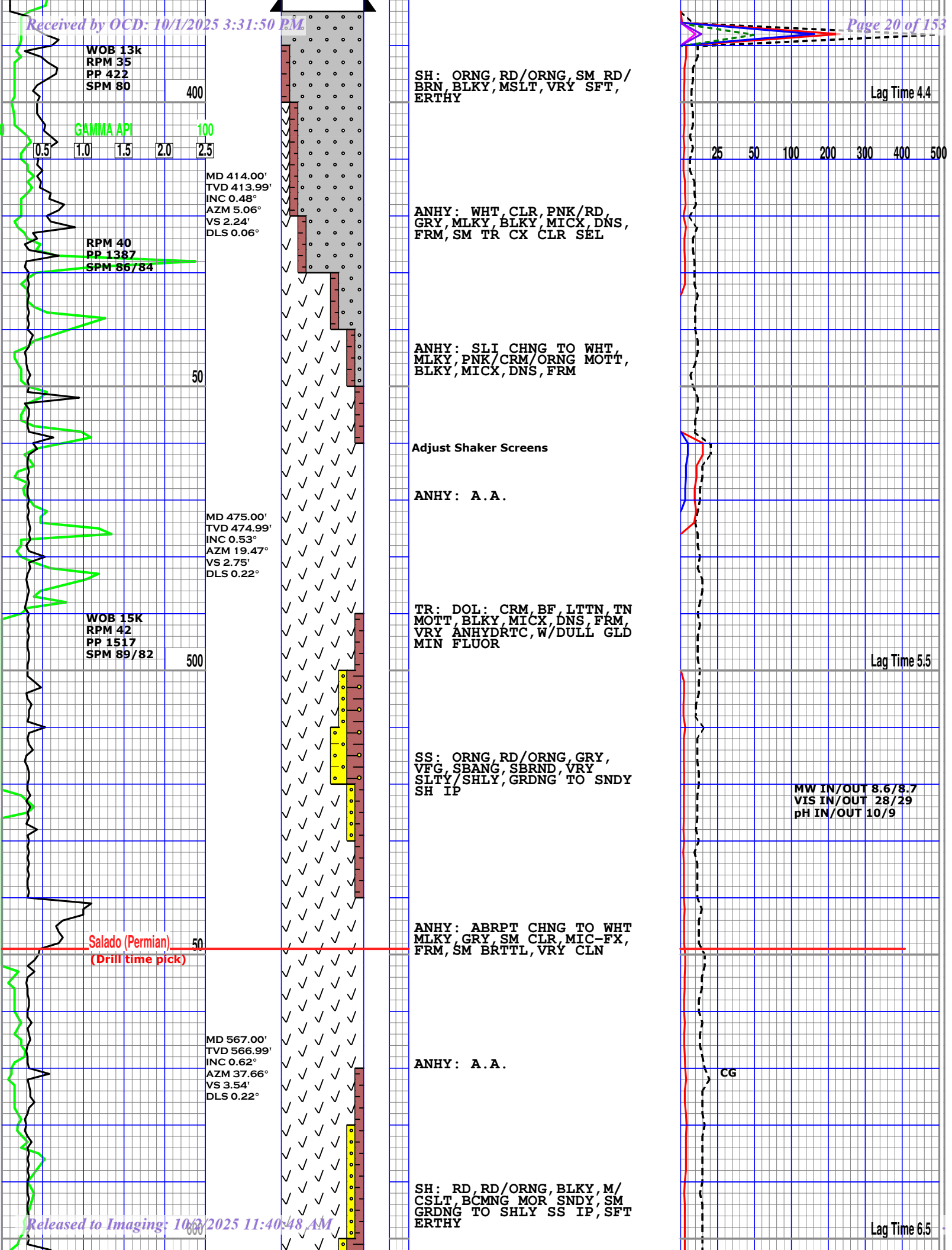
## Accessories

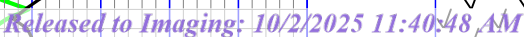
|  |           |  |             |  |             |  |            |
|--|-----------|--|-------------|--|-------------|--|------------|
|  | Ammonoid  |  | Bryzoans    |  | Coal        |  | Coral      |
|  | Crinoid   |  | Forams      |  | Fossils     |  | Fracture   |
|  | Gastropod |  | Glaucconite |  | LS-symbol   |  | Mollusk    |
|  | Nautaloid |  | Oolites     |  | Pyrite      |  | Radiolaria |
|  | SH symbol |  | Trilobite   |  | Worm Burrow |  | Cht        |
|  | Dacite    |  | Diorite     |  | Monzonite   |  | Rhyolite   |

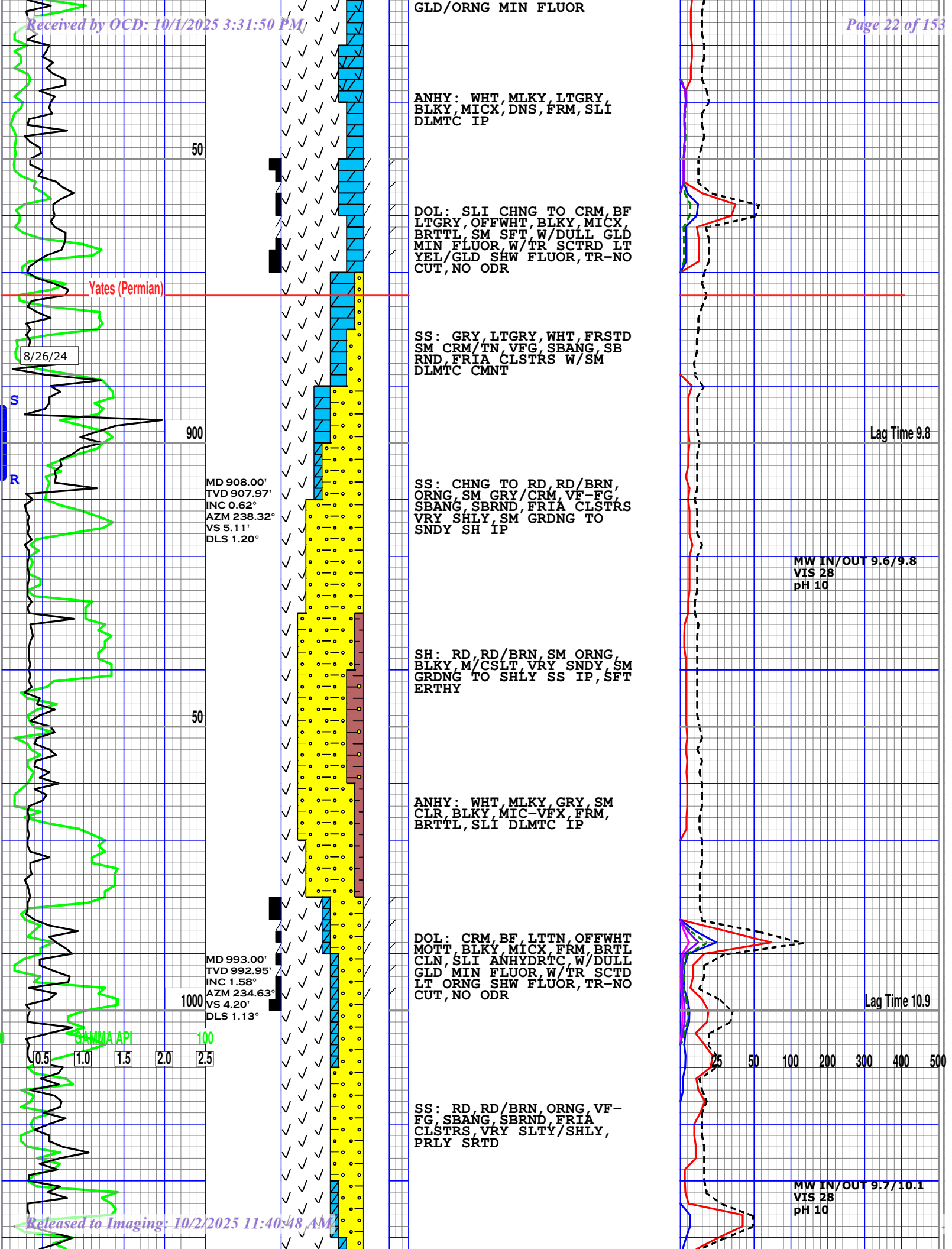
## Modifiers

|  |             |  |           |  |         |
|--|-------------|--|-----------|--|---------|
|  | Glaucconite |  | Pyrite    |  | Fossils |
|  | Oolites     |  | Fractures |  |         |

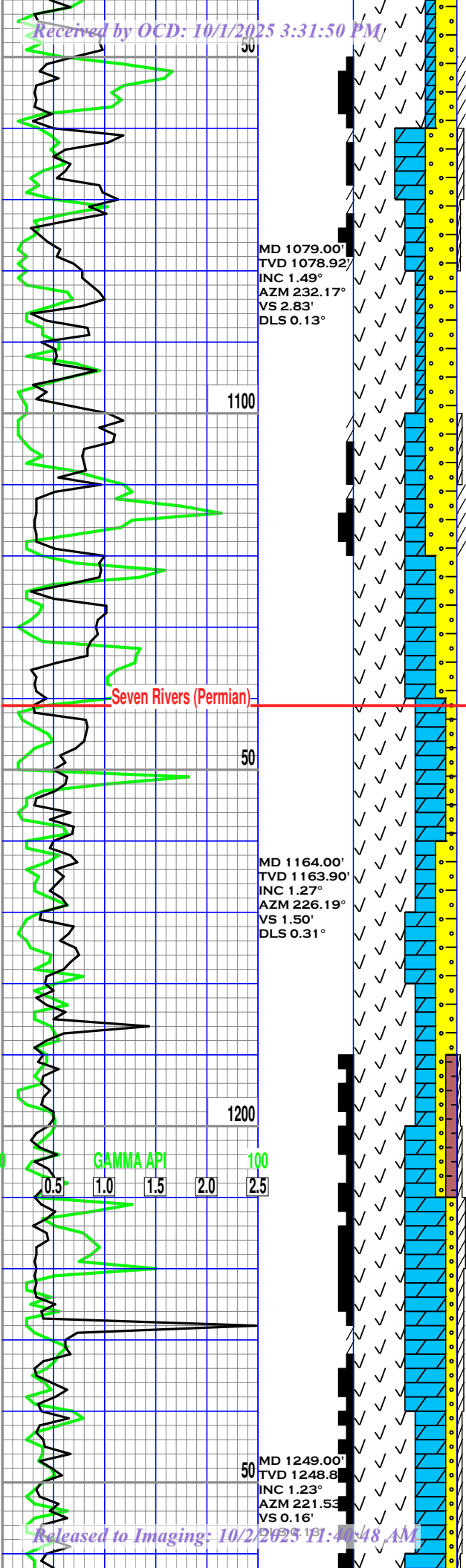








DOL: A.A. W/DULL GLD MN  
FLUOR, NO VIS SHW FLUOR/  
CUT, NO ODR



DOL: CRM, BF, OFFWHT, WHT,  
LTTN, MOTT, BLKY, MICX, FRM  
BRTTL, MSTLY CLN, W/DULL  
GLD MIN FLUOR, W/10-20%  
FR BRT YEL/GLD SHW FLUR  
PR-FR FST MLKY WET CUTS  
FAINT ODR

SS: A.A.

DOL: SLI CHNG TO TN, LT  
TN, CRM, BF, BLKY, MICX, DNS  
FRM, SLI ANHYDRIC IP, W/  
TR-15% FR BRT YEL/GLD  
FLUOR, TR-PR SLW WET CUT  
NO ODR

DOL: CRM, BF, TN, LTTN, GRY  
BLKY, MIC-VFX, FRM, SM  
BRTTL, MSTLY CLN, SLI  
ANHYDRIC, W/DULL GLD MIN  
FLUOR

ANHY: WHT, OFFWHT, MLKY,  
GRY, LTGRY, BLKY, MICX, DNS  
FRM, SLI DLMTC IP

DOL: CRM, BF, TN, LTTN, OFF  
WHT, MOTT, BLKY, SM FLKY,  
MICX, FRM, SM DNS W/10-  
15% FR LT YEL/ORNG SHW  
FLUOR, PR SLW WET CUTS  
SLI PETRO ODR NOTD IN  
SMPLS

DOL: SLI CHNG TO TN, LT  
TN, LTBRN, BRN, SM CRM/MOT  
BLKY, MICX, FRM, BRTTL, W/  
20-25% FR BRT YEL/ORNG  
SHW FLUOR, FR-GD FST  
STRMNG WET CUTS, SLI-MOD  
PETRO ODR

DOL: A.A. W/10-15% FR  
BRT YEL/ORNG SHW FLUOR,  
PR-FR SLW MLKY WET CUTS  
SLI PETRO ODR

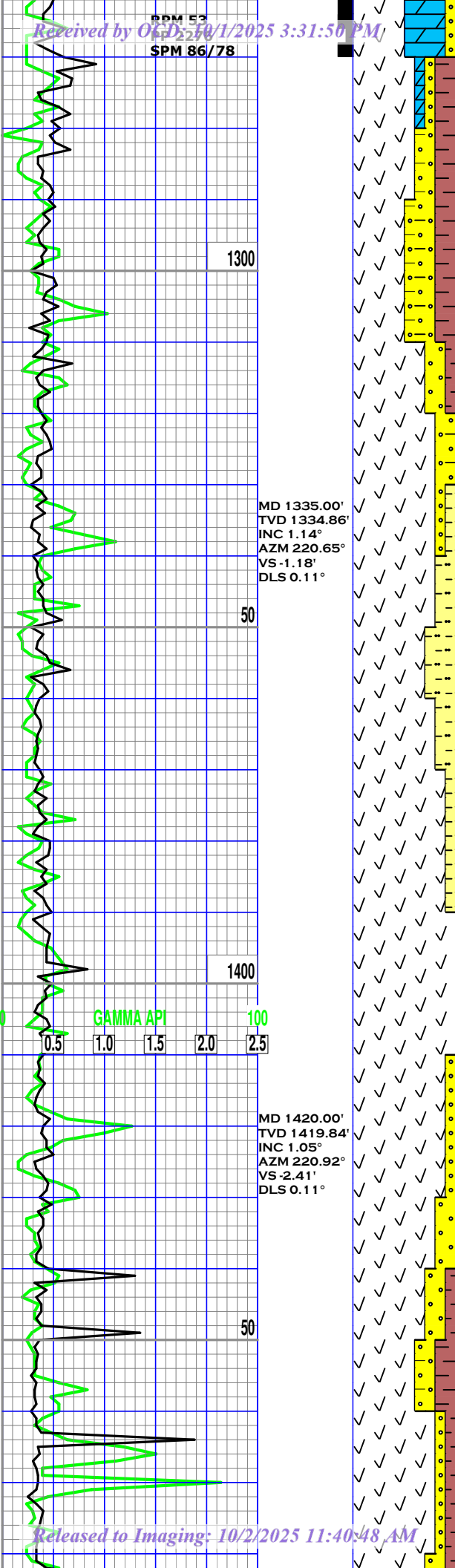
Lag Time 12.0

NOTE SCALE CHANGE

Lag Time 13.1

MW 10.2 in/10.4 out  
VIS 28  
pH 10

RPM 53  
SPM 86/78



MD 1335.00'  
TVD 1334.86'  
INC 1.14°  
AZM 220.65°  
VS -1.18'  
DLS 0.11°

MD 1420.00'  
TVD 1419.84'  
INC 1.05°  
AZM 220.92°  
VS -2.41'  
DLS 0.11°

SH: RD, RD-BRN, RD-ORNG,  
BLKY, FLKY, SDY IP, ERTHY  
SFT

SS: RD, RD-BRN, VFG, SBANG  
/SBRND, FRIA CLSTRS, ARG/  
VY ARG IP, MODSRTD

ANHY: WHT, MLKY, SM LTGRY  
BLKY, MICX, DNS, FRM

SS: A.A, W/SM GRY, MED  
GRY, BCMNG SLTY W/DEPTH

SLTST: GRY, MEDGRY, SM LT  
GRY, BLKY, M/CS SLT, FRM,  
SLI DOLMTC IP

ANHY: A.A.

SLTST: A.A., SLI SDY IP

ANHY: A.A.

SS: LTGRY, CLR, SM FRSTD,  
VFG, CLN/SLI ARG, VF/FG,  
SBANG/SBRND, FRIA CLSTRS  
MOD/WLSRTD

ANHY: WHT, MLKY, SM LTGRY  
PNK, BLKY, MICX, DNS, FRM

SS: RD-BRN, RD, SM MEDGRY  
VF/FG, SBANG/SBRND, FRIA  
CLSTRS, MOD/WLSRTD, ARG  
W/CL CMT

SH: RD, RD-ORNG, BLKY, SM  
FLKY, M/FNSLT, SDY IP, SFT

ANHY: A.A.

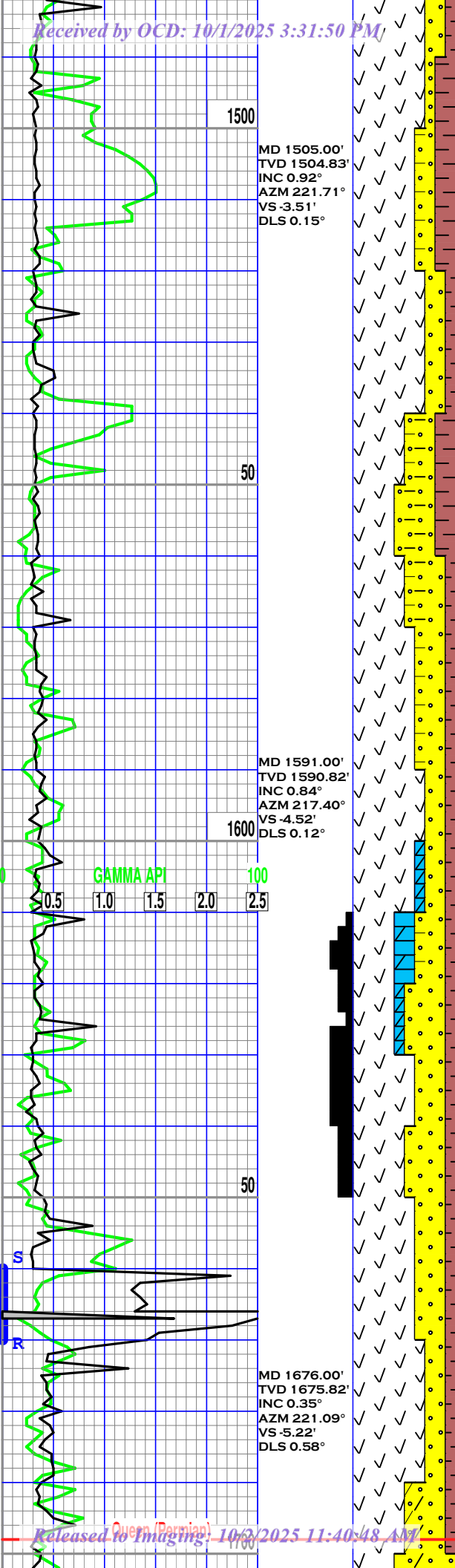
CG

Lag Time 14.2

CG

Lag Time 15.3

CG



SS: A.A.

SH: RD, RD-ORNG, BLKY, SM  
FLKY, M/FNSLT, SDY IP, SFT  
ERTHYANHY: WHT, MLKY, LTGRY,  
BLKY, MICX, DNS, FRMSS: RD, RD-BRN, RD-ORNG,  
VF/FG SBANG/SBRND, FRIA  
CLSTRS W/SM LSE, ARG W/  
CLY CMT, MOD/WELLSRTDTR DOL: BRN, TN, SM GRY,  
BLKY, MICX, DNS, FRM, SM  
DULL GLD MIN FLUOR

SH: A.A.

SS: A.A.

DOL: BRN, TN, GRY, BLKY,  
MICX, DNS, FRM, SM DULL  
GLD MIN FLUOR, NO SHOW  
IN SMPLSSS: CHNG TO LTGRY, GRY  
SM FRSTD, RD, VF/FG, MUCH  
CLNR, FRIA CLSTRS, SLI  
DOLMTIC IP, MOD/WLSRTD  
10-15%PR PL YEL FLUOR  
TR-PR SLW WET CUTS, SLI  
PETRO ODOR IN SMPLSSS: A.A. TR SLW WET CUT  
SLI PETRO ODOR IN SMPLSS: A.A. NO SHOW IN  
SMPLS, FNT PETRO ODOR

ANHY: A.A.

SH: A.A.

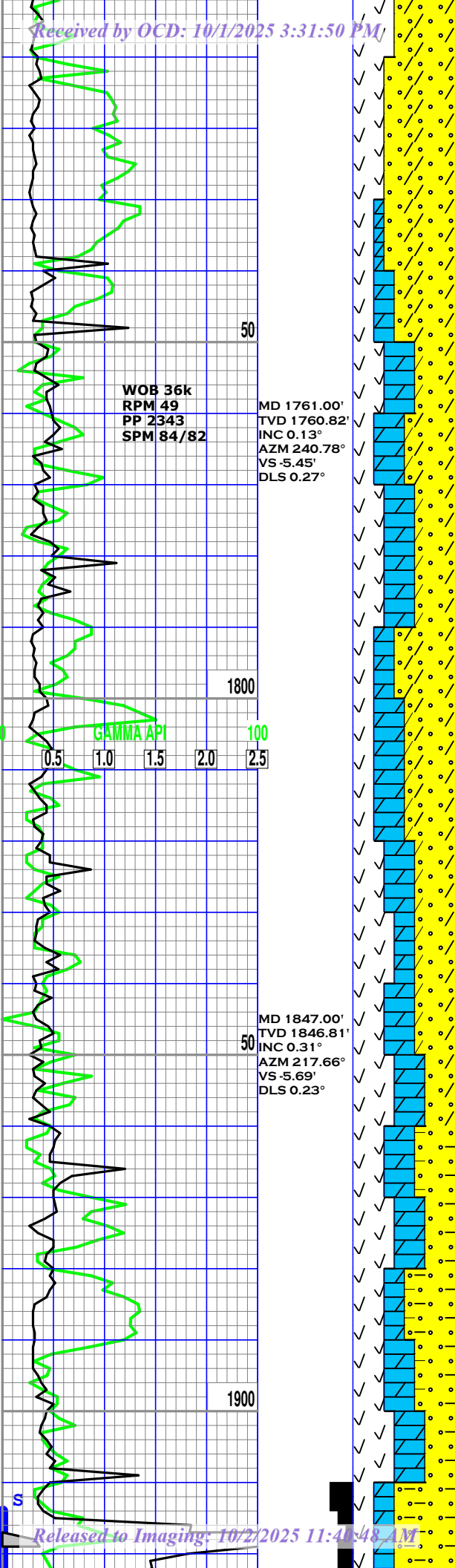
Adding Fresh Water to System to  
Decrease Mud Weight.SS: CHNG TO GRY, TN, SM  
MEDGRY, RD, VF/FG SBANG/  
SBRND, FRIA CLSTRS, DOLMT

Lag Time 16.3

Lag Time 17.4

MW 10.2 in/out  
VIS 28  
pH 10

Lag Time 18.5



ANHY: WHT, MLKY, LTGRY,  
BLKY, MICX, DNS, FRM

DOL: BRN, TN, SM, LTTN, LT  
GRY, BLKY, MICX, DNS, FRM  
DULL YEL-GLD MIN FLUOR

ANHY: A.A.

SS: A.A. W/SM MEDGRY,  
RD-BRN, ARG IP

DOL: A.A.

TR SH: RD, RD-ORNG, FLKY,  
SM BLKY, M/FNSLT, WXY IP,  
ERTHY IP, SFT

SS: LTGRY, GRY, SM, TN  
FRSTD, CLR, VF/FG, SBANG/  
SBRND, FRIA/CONSOL CLSTR  
SM TITE, DOLMTC CMT, SLI  
ARG IP, MODSRTD

DOL: BRN, GRY, LTGRY, SM  
TN, BLKY, MIC, DNS, FRM, SM  
DULL GLD MIN FLUOR

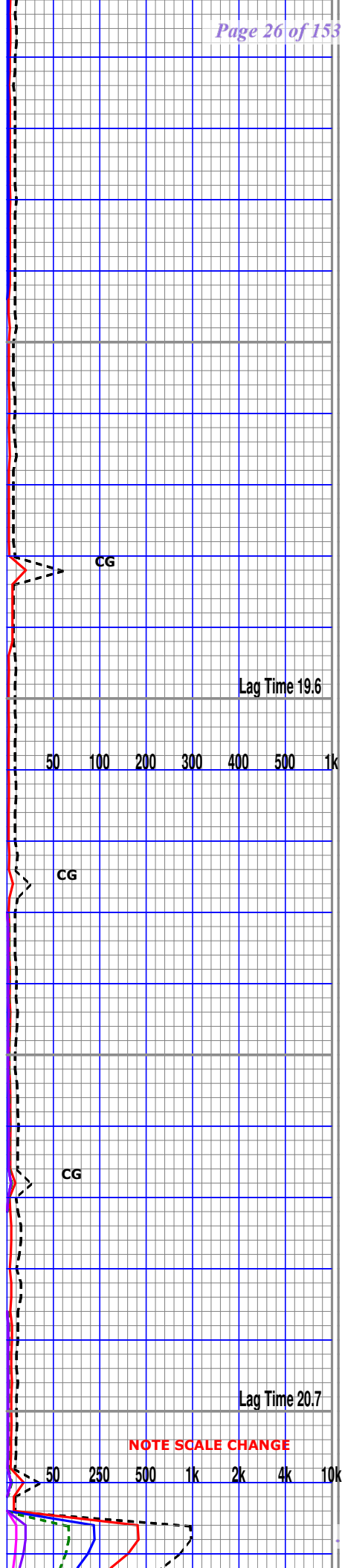
ANHY: MLKY, WHT, LTGRY, SM  
PNK, BLKY, MICX, DNS, FRM

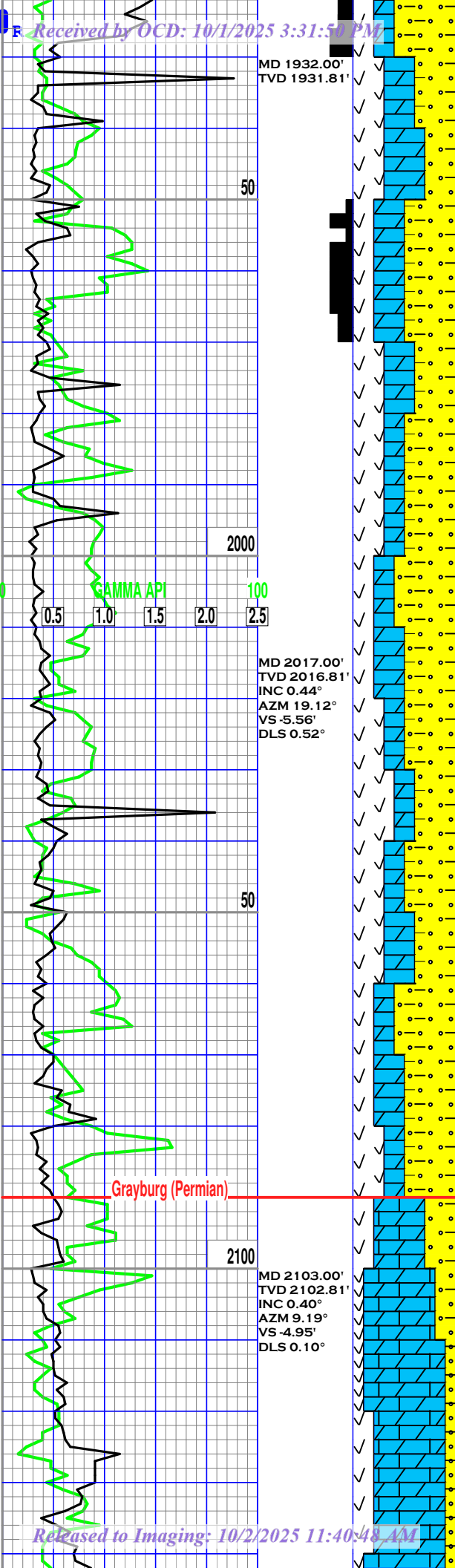
SS: INC RD, RD-BRN, MEDGRY  
VF/FG, SBANG/SBRND, FRIA/  
CONSOL CLSTRS, ARG, DOL  
CMT, MODSRTD

DOL: A.A.

ANHY: A.A.

SS: RD, RD-BRN, SM, GRY,  
VF/FG, SBANG/SBRND, FRIA  
CLSTRS, VY ARG, W/CL CMT,  
PRLY/MODSRTD, NO FLUOR,  
NO CUT, NO ODOR, NO SHOW  
IN SMPLS





DOL: BRN, TN, GRY, SM, LTGY,  
BF, BLKY, MICX, DNS, FRM, SL,  
ARG, IP, DULL, GLD, MIN, FLR

SS: A.A., NO SHOW IN  
SMPLS

ANHY: MLKY, WHT, SM, LTGRY,  
BLKY, MICX, DNS, FRM

DOL: A.A.

SS: RD, RD-BRN, SM, RD-ORG,  
VFG, SBANG/SBRND, FRIA,  
CLSTRS, ARG, W/DOLMTC/CL,  
CMT, PRLY/MODSRTD

Pump Sweep

ANHY: WHT, MLKY, LTGRY,  
BLKY, MICX, DNS, FRM

DOL: TN, LTBRN, SM, CRM, BF,  
GRY, BLKY, MICX, DNS, FRM,  
CLN, W/SM, DULL, WHT-GLD,  
MIN, FLUOR

SS: A.A.

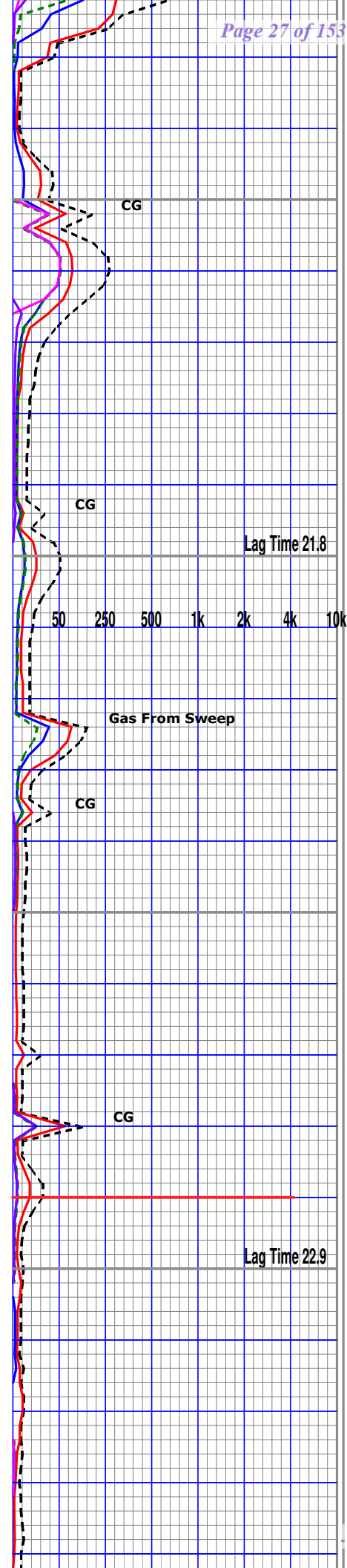
ANHY: A.A.

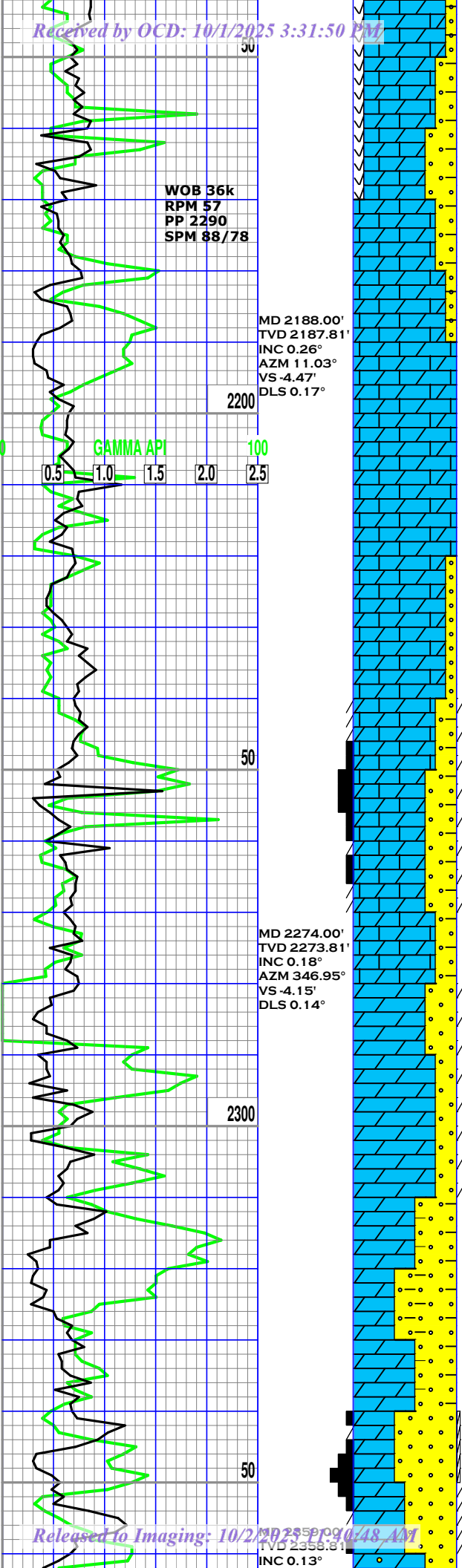
DOL: CHNG TO TN, CRM, BF,  
LTTN, SM, OFFWHT, BLKY, SM,  
FLKY, MICX, DNS, CLN, LIMY,  
FRM, DULL, GLD, MIN, FLUOR

SS: RD, RD-BRN, VF/FG, SB,  
ANG/SBRND, FRIA/CONSOL,  
CLSTRS, CL, CMT, MODSRTD

Pump Sweep

ANHY: WHT, MLKY, BLKY,  
MICX, DNS, FRM





DOL: A.A.

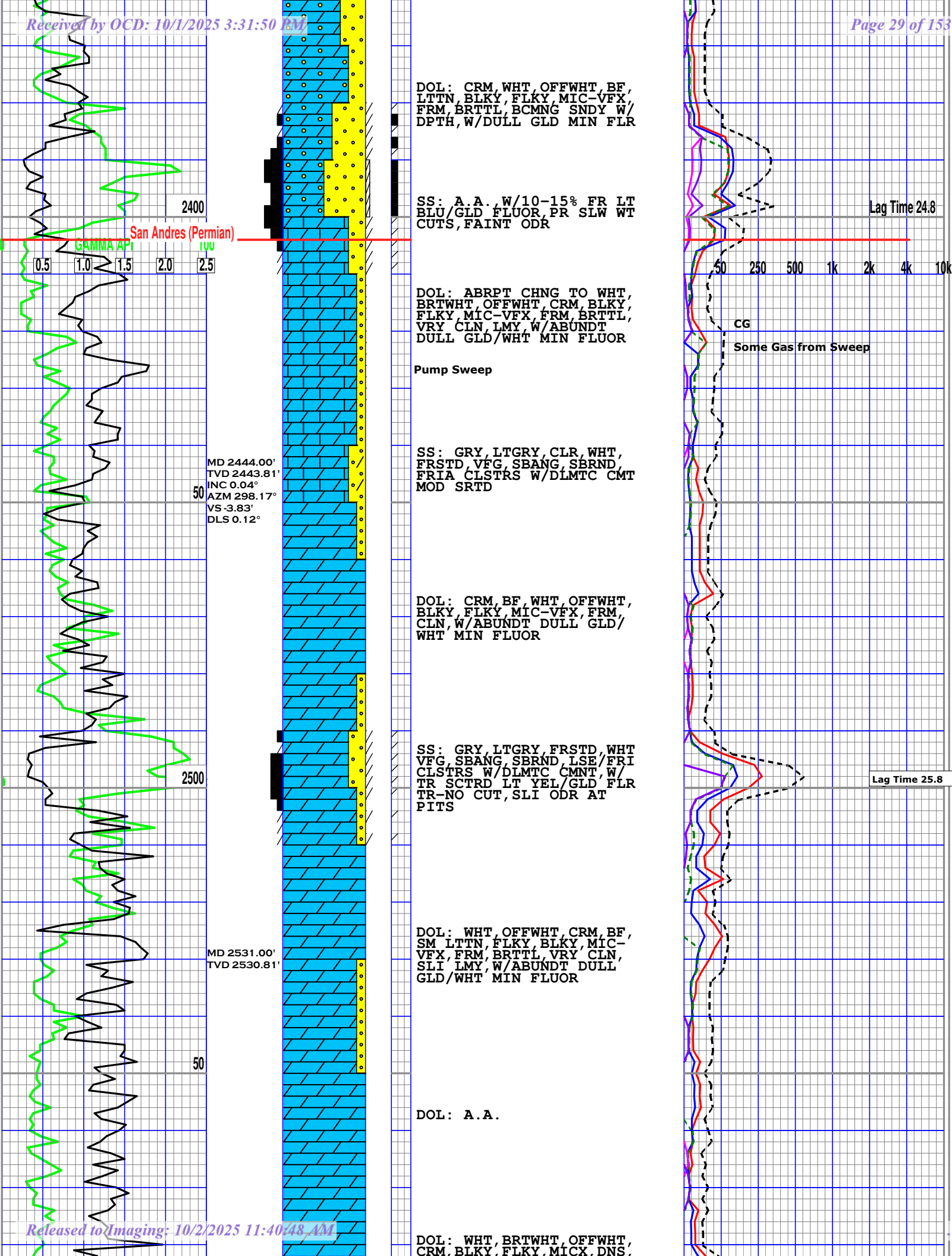
SS: A.A.

DOL: A.A. NO SHOW IN  
SMPLS, NO ODORDOL: TN, LTTN, CRM, BF, SM  
OFFWHT, BLKY, FLKY, MICX,  
DNS, CLN, LIMY, DULL GLD-  
WHT MIN FLUORSS: LTGRY, FRSTD, SM RD,  
RD-BRN, VF/FG, SBANG, SBRD  
FRIA CLSTRS, DOLMTC CMT,  
MODSRTDDOL: CRM, BF, OFFWHT, GRY,  
LTTN, MOTT, BLKY, MIC-VFX,  
FRM, SM DNS, W/DULL GLD  
MIN FLUOR, TR SCTRD PALE  
LTYEL/GLD SHW FLUOR, TR-  
NO CUT, NO ODRSS: GRY, CRM, FRSTD, RD,  
RD/BRN, VF-FG, SBANG, SBRD  
FRIA/CONSOL CLSTRS W/SM  
DLMTC CMNT, MODSRTDDOL: SLI CHNG TO CRM, BF  
TN, LTTN, OFFWHT, MOTT,  
BLKY, MIC-VFX, FRM, DNS,  
MSTLY CLN, LESS LIMY, W/  
DULL GLD MIN FLUOR, TR  
SCTRD LT YEL/GLD SHW  
FLUOR, NO CUT/NO ODRSS: RD, RD/BRN, ORNG, GRY,  
FRSTD, CRM/TN, VF-FG, SB  
ANG, SBRND, FRIA CLSTRS W  
SM DLMTC CMNT, MODSRTDSS: CHNG TO GRY, LTGRY,  
FRSTD, WHT, SM RD/BRN, VF-  
FG, SBANG, SBRND, FRIA  
CLSTRS W/SM DLMTC CMNT,  
W/10% FR BRT BLU/GLD  
FLUOR, PR SLW WET CUTS,  
SLI PETRO ODR

Lag Time 23.9

MW 10.0 in/10.2 out  
VIS 28  
pH 10

Lag Time 25.0



8/28-29/24

WOB 13k  
RPM 55  
PP 1055  
SPM 100

GAMMA API

2600

0.5 1.0 1.5 2.0 2.5

MD 2636.00'  
TVD 2635.81'  
INC 0.09°  
AZM 122.04°  
VS -3.86°  
DLS 0.09°

50

WOB 20k  
RPM 53  
PP 1775  
SPM 117

2700

MD 2721.00'  
TVD 2720.81'  
INC 0.18°  
AZM 130.21°  
VS -3.98°  
DLS 0.11°

50

MOR FRM, SLI LMY, VRY CLN  
W/ABUNDT DULL GRY/WHT  
MIN FLUOR

Condition Mud, Circulate and TOH @  
2595' for Intermediate Casing and  
Replace Bit 2: 1825' in 22 hrs. NB  
3: Baker Hughes D507VTWX.  
Drilling with cut brine.

DOL: CRM, BF, OFFWHT, WHT,  
LTTN, BLKY, MICX, DNS, FRM,  
SLI LMY, VRY CLN, W/DULL  
GLD/WHT, MIN FLUOR, TR  
SCTRD LT BLU/GLD SHW  
FLUOR, TR-NO CUT, NO ODR

DOL: A.A. W/10-15% FR  
BRT YEL/BLU FLUOR, TR-PR  
SLW WET CUTS, MOD PETRO  
ODR

DOL: CRM, BF, OFFWHT, WHT,  
LTTN, SM LTGRY, BLKY, FLKY,  
MICX, DNS, FRM, SLI LMY, VY  
CLN, W/ABUNDT DULL GLD  
MIN FLUOR, W/20-35% FR  
BRT YEL/GLD SHW FLUOR,  
FR FST MLKY WET CUTS,  
MOD PETRO ODR

DOL: A.A. W/TR SCTRD LT  
YEL/GLD FLUOR, TR-NO CUT  
FAINT ODR

DOL: CRM, BF, OFFWHT, LTTN  
BLKY, MIC-VFX, DNS, FRM,  
CLN, SLI LMY, W/DULL GLD/  
BRN MIN FLUOR, NO VIS  
SHW FLUOR/NO ODR

DOL: SLI CHNG TO CRM, BF  
TN, LTTN, BLKY, FLKY, MIC-  
VFX, DNS, FRM, SLI LMY, W/  
ABUNDT DULL GLD MIN FLR  
NO VIS SHW FLUOR, SLI-  
MOD SLFR ODR

DOL: A.A.

DOL: CRM, BF, TN, LTTN,

Gas From Sweeps

Lag Time 26.7

TG

Lag Time 12.5

CG

CG/FG

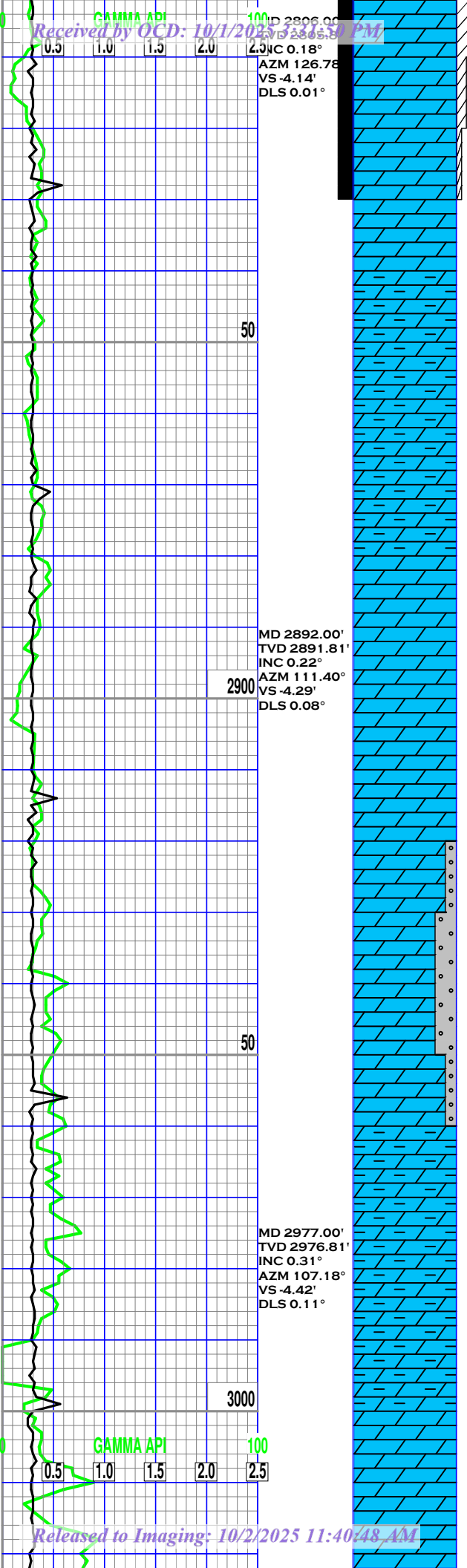
Lag Time 12.7

CG

Estimated Sulphur Water Contact

CG

Lag Time 13.2



BLKY, FLKY, MIC-VFX, DNS,  
FRM, SM BRITL, SLI LMY,  
CLN, W/20-40% FR LT YEL/  
GLD FLUOR, PR-FR SLW WT  
CUTS, SLI-MOD PETRO/SLFR  
ODR

DOL: SLI CHNG TO TN, MED  
BRN, BRN, SM CRM/BF, BLKY  
SM FLKY, MIC-VFX, DNS, FRM  
BCMNG SLI ARG W/DPTH, W/  
SCTRD DULL GLD/BRN MIN  
FLUOR, NO VIS SHW FLUOR,  
SLI SLFR ODR

DOL: A.A., SLI MOR ARG

DOL: TN, BRN, MEDBRN, CRM,  
BF, BLKY, MIC-VFX, FRM, SM  
DNS, SLI ARG IP, W/SCTRD  
DULL GLD/BRN MIN FLUOR  
NO VIS SHW FLUOR/CUT,  
SLI SLFR ODR

DOL: A.A.

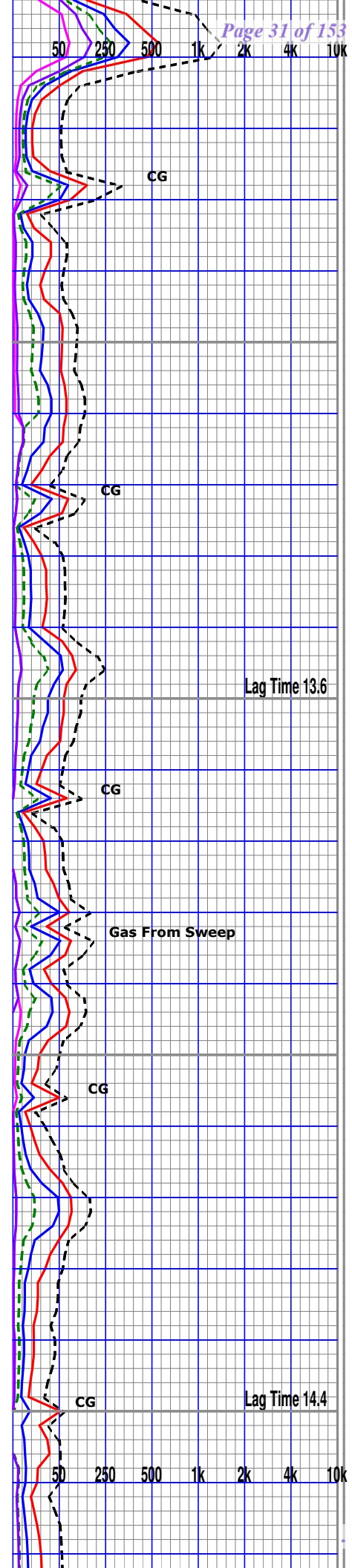
Cement in Cuttings after Sweep

DOL: TN, BRN, MEDBRN, CRM,  
BF, SM OFFWHT, BLKY, MIC-  
VFX, FRM, BRITL, SM DNS,  
W/SCTRD DULL GLD/BRN  
MIN FLUOR, FAINT SLFR  
ODR

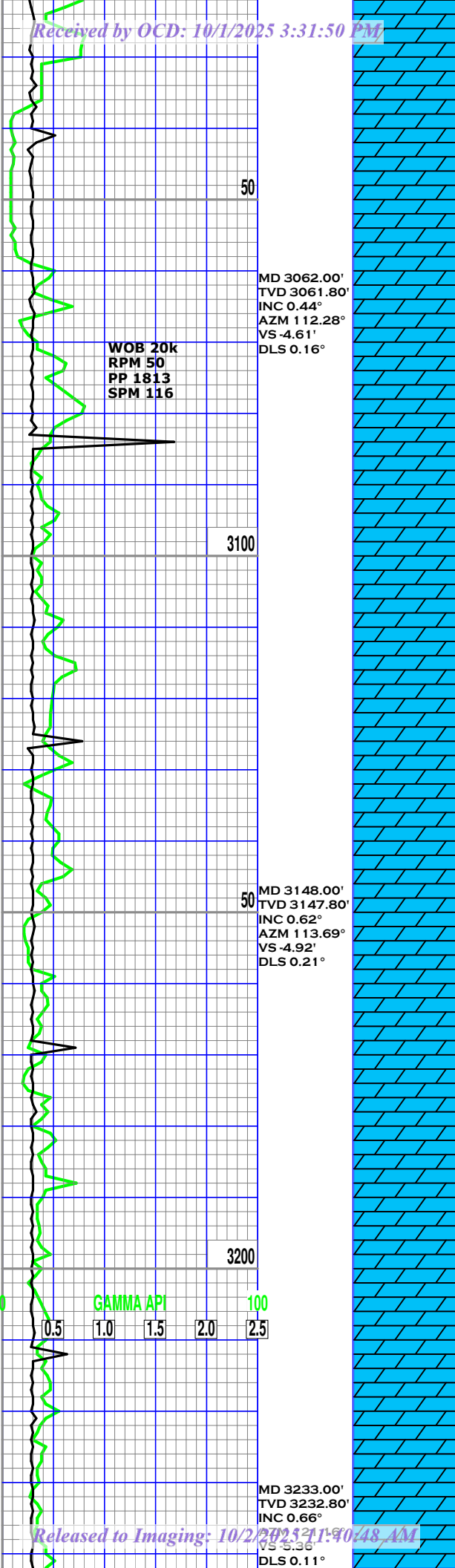
DOL: BRN, MEDBRN, TN, DRK  
TN, SM CRM/BF, BLKY, MIC-  
VFX, DNS, FRM, SLI MOR ARG  
W/DULL BRN MIN FLUOR,  
SLI SLFR ODR

DOL: A.A.

DOL: CHNG TO CRM, BF, TN,



LTTN, SM MEDBRN, BLKY,  
MICX, MOR DNS/FRM, CLNR,  
W/DULL GLD MIN FLUOR,  
SLI SLFR ODR



DOL: A.A.

DOL: TN, LTTN, LTBRN, CRM  
BF, SM GRY, MOTT, BLKY, MIC  
-VFX, DNS, FRM, SM HRD/  
SILIC, SLI LMY, W/SCTRD  
DULL GLD MIN FLUOR, SLI  
SLFR ODR

MW IN/OUT 9.0  
VIS 29  
pH 10

CG

DOL: A.A.

Lag Time 15.1

DOL: TN, MEDTN, BRN, CRM,  
BF, MOTT, BLKY, MIC-VFX,  
DNS, FRM, SM HRD/SILIC,  
SLI ARG IP, W/SCTRD DULL  
BRN MIN FLUOR

CG

DOL: A.A.

CG

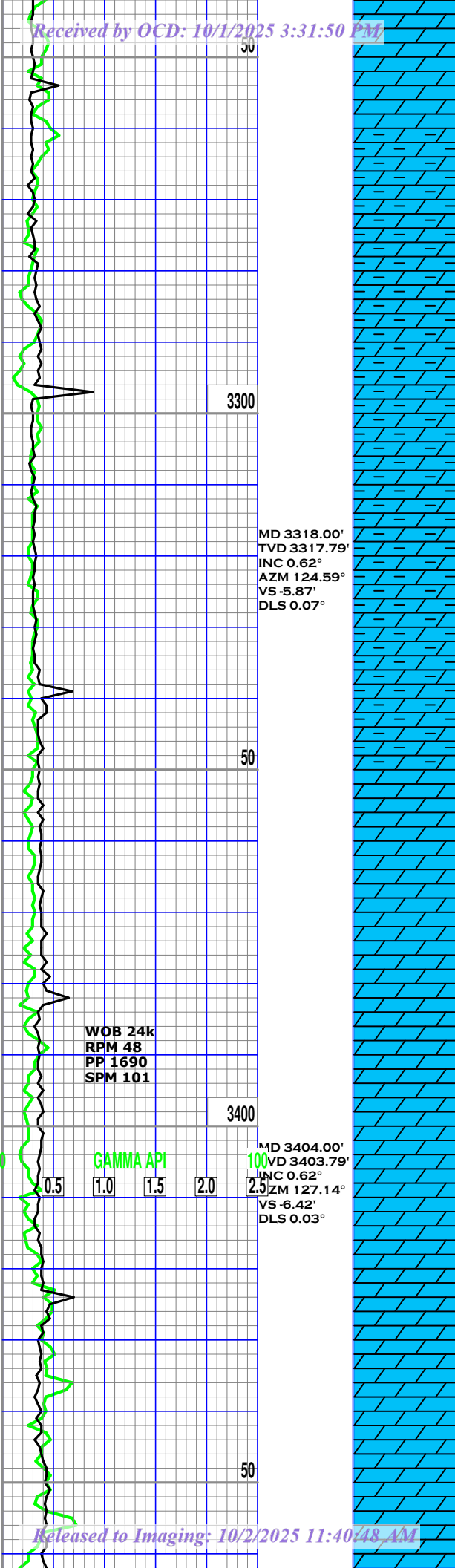
DOL: SLI CHNG TO BRN, LT  
BRN, LTGRY, MOTT, CRM, BF,  
BLKY, MIC/VFX, SM DNS,  
SLI SUCRO IP, SLI ARG IP  
FRM/BRTTL, DULL GLD MIN  
FLUOR, FNT PETRO/SLPHR  
ODOR MIX IN SMPLS

Lag Time 15.6

DOL: A.A., NO SHOW IB  
SMPLS, SLI PETRO/SLPHR  
ODOR MIX

CG

DOL: A.A.



DOL: A.A.

DOL: CHNG TO MOTT, MED/  
DRKGRY, SM TN, DKTN, CRM,  
BLKY, MIC/VFX, SM DNS,  
ARG/VY ARG IP, SILIC IP,  
FRM, HRD, DULL, GLD-BRN  
MIN FLUOR, SLI PET/SLPHR  
ODOR IN SMPLS

MW 8.6+ in/8.7 out  
VIS 29  
pH 10

DOL: A.A.

DOL: MOTT, MED/DKGRY, DRK  
TN, TN, SM CRM, BF, OFFWHT,  
BLKY, MICX, DNS, ARG/VY  
ARG, SILIC IP, PRM, DULL  
GLD-BRN MIN FLUOR, SLI/  
MOD PETRO/SLPHR ODOR IN  
SMPLS, NO SHOWS

DOL: A.A., BCMNG A LITTLE  
CLNR W/DEPTH, SLI ARG IP  
NO LNGR SILIC

DOL: MOTT, LT/MEDGRY, SM  
BRN, LTBRN, MIC/VFX, SUCRO  
IP, SLI, LIMY IP, ARG IP,  
DULL, GLD-BRN MIN FLUOR,  
SLI PETRO/SLPHR ODOR MX

DOL: A.A., W/SM INC CRM,  
OFFWHT, BF, MIC/VFX, SUCRO  
IP, BRTTL

DOL: MOTT, LTGRY, LTBRN,  
SM OFFWHT, CRM, BF, BLKY,  
FLKY, MIC/VFX, SUCRO IP,  
ARG IP, SLI, LIMY, FRM/  
BRTTL, SLI PETRO/SLPHR  
ODOR MIX IN SMPLS

DOL: A.A.

CG

CG

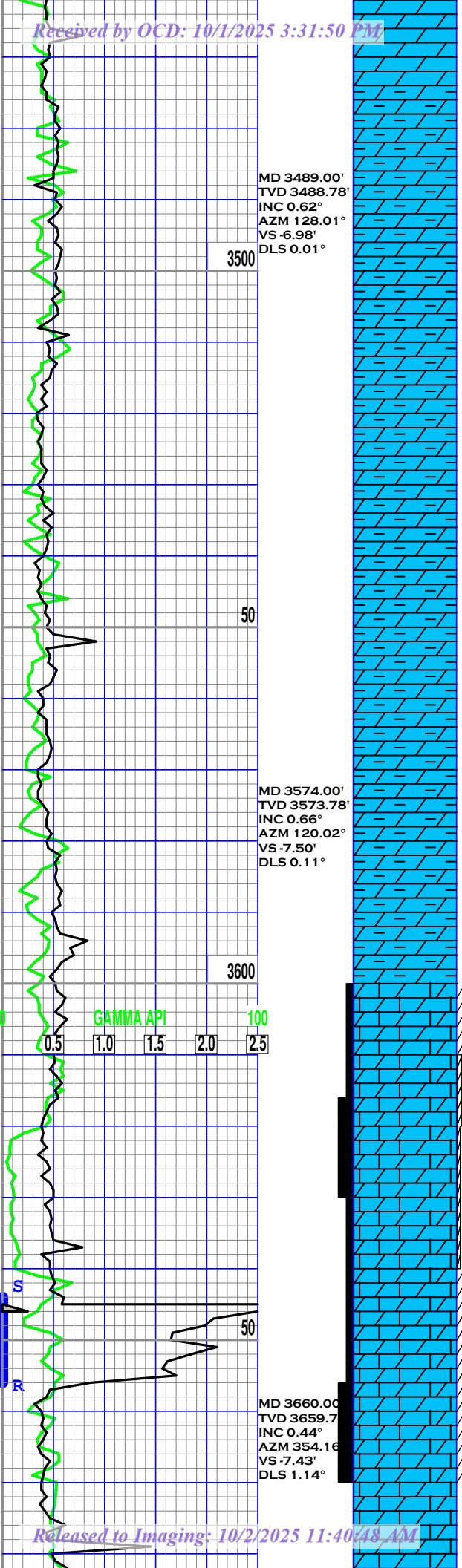
CG

CG

CG

Lag Time 16.1

Lag Time 16.5



DOL: CHNG TO MED/DKGRY,  
DKBRN, BRN, MOTT, BLKY,  
MICX, DNS, SILIC, FRM/HRD  
ARG/VY ARG IP, DULL GLD-  
BRN MIN FLUOR, SLI/MOD  
PETRO/SLPHR ODOR MIX IN  
SMPLS

TR CHRT: SPKLD, MEDGRY,  
BRN, ANG, TRNSL/OPAQ, HRD  
DOLMTC

DOL: BRN,DKBRN,MOTT MED  
GRY,BLKY,MICX,DNS,BLKY,  
ARG/VY ARG,FRM/HRD,SM  
SILIC,SLI PETRO/SLPHR  
ODOR MIX IN SMPLS

DOL: A.A., NO SHOW IN  
SMPLS, MOD' PETRO/SLPHR  
ODOR MIX

DOL: A.A.

DOL: A.A., W/SM CRM, BF,  
OFFWHT, A LITTLE CLNR

DOL: CHNG TO CRM,BF,WHT  
OFFWHT,LTIN,LTGRY,BLKY,  
FLKY,MIC/VFX,SUCRO IP,  
FRM,LIMY,MUCH CLNR,TR-  
15% FR BRI YEL/LTBLU  
FLUOR,TR-PR CUTS,SM  
GILSNITE NOTED,MOD PETR  
/SLPHR ODOR IN SMPLS

DOL: A.A., 10%FR FLUOR,  
TR-PR SLW WET CUTS

DOL: A.A., SCTTRD FLUOR,  
TR SLW WET CUTS, TR CUT

DOL: A.A., SCTTRD FLUOR,  
TR-PR SLW WET CUTS, SLI  
PETRO/SLPHR ODOR

DOL: A.A., SM SCTTRD LT

CG

**Lag Time 17.2**

CG

CG

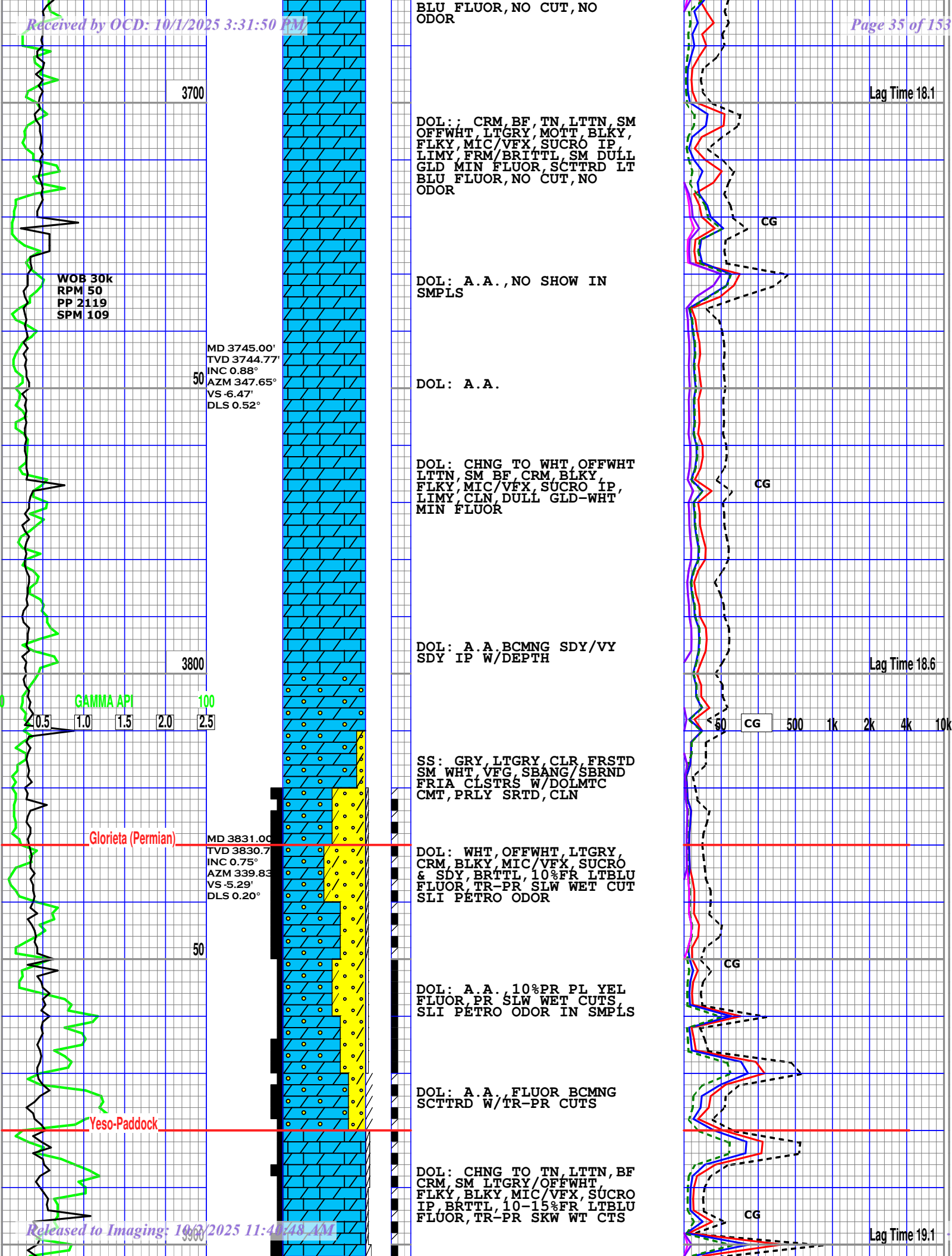
MW 8.7 in/out  
VIS 29  
pH 10

Lag Time 17.7

CG

CG

CG

BLU FLUOR, NO CUT, NO  
ODOR

MD 3916.0  
TVD 3915.7  
INC 0.88°  
AZM 339.04  
VS -4.15'  
DLS 0.15°

DOL: A.A., 20%FR FLUOR,  
PR SLW WET CUTS, SLI/  
MOD PETRO ODOR IN SMPLS

DOL: A.A., 10%FR FLUOR,  
TR-PR SLW WET CUTS, SLI  
PETRO ODOR IN SMPLS

DOL: CHNG TO CRM, TN, SM  
LTTN, BF, BLKY, SM, FLKY,  
VFX, SUCRO, CLN, 30-40%FR  
LTBLU FLUOR, FR-GD MLKY  
WET CUTS, MOD/STRNG  
PETRO ODOR, LIMY

DOL: A.A., 20-30%FR FLR,  
FR-GD CUTS, MOD/STRNG  
PETRO ODOR IN SMPLS

DOL: A.A., 30%FR LTBLU  
FLUOR, FR-GD MLKY WET  
CUTS, MOD/STRNG PETRO  
ODOR

DOL: A.A., 20%FR LTBLU  
FLUOR, FR-GD MLKY WET  
CUTS, MOD/STRNG PETRO  
ODOR

DOL: SLI CHNG TO TN, LT  
TN, LTBRN, SM, CRM, BF, LT  
GRY, MIC/VFX, SUCRO, IP,  
SLI, ARG, IP, FRM/BRTTL,  
18-20%FR LTBLU-GLD FLR  
FR MLKY CUTS, MOD/STRNG  
PETRO ODOR

DOL: A.A., 20%LTBLU-GLD  
FLUOR, FR FST MLKY WET  
CUTS, MOD PETRO ODOR

DOL: A.A., 15%FR LTBLU-  
GLD FLUOR, FR CUTS, MOD  
PETRO ODOR

DOL: A.A., 15-20%FR FLR,  
PR-PR CUTS, SLI/MOD PETR  
ODOR

DOL: TN, LTTN, LTBRN, CRM,  
BF, SM, MOTT, BLKY, FLKY,  
MIC/VFX, SUCRO, LIMY, SLI,  
ARG, IP, BRTTL, 10-15%FR  
LTBLU-GLD FLUOR, PR-PR  
CUTS, SLI/MOD PETRO ODOR

CG

CG/FG

Lag Time 19.6

CG/FG

MW 8.6  
VIS 28  
pH 10

Lag Time 20.1

CG/FG

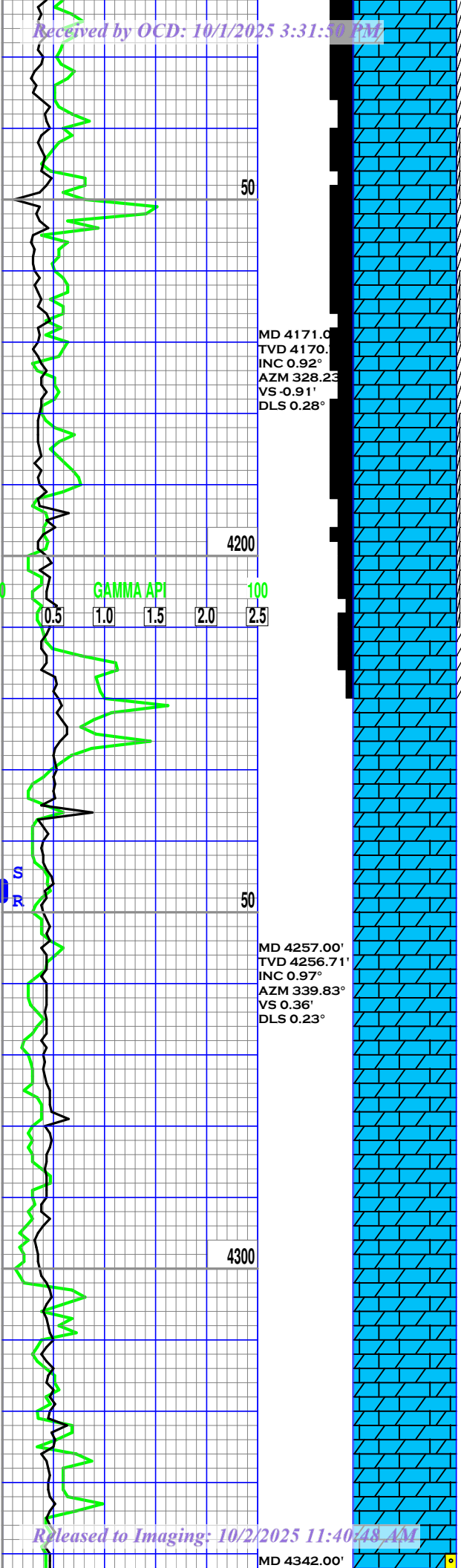
MD 4001.0  
TVD 4000.7  
INC 0.75°  
AZM 335.88  
VS -3.04'  
DLS 0.16°

GAMMA API

WOB 30k  
RPM 63  
PP 2034  
SPM 114

MD 4086.0  
TVD 4085.7

4100



DOL: A.A., 15%FR LTBLU-  
GLD FLUOR, PR-FR CUTS  
SLI/MOD PETRO ODOR

DOL: A.A., 10-15%FR FLR,  
PR SLW WET CUTS, SLI  
PETRO ODOR

DOL: A.A.

DOL: TN, LTTN, LTBRN, CRM  
BF, SM MOTT, BLKY, MIC-VFX  
FRM, SM BRTTL, SLI ARG IP  
LMY, W/DULL GLD MIN FLUR  
W/TR-10% FR LT YEL/BLU  
SHW FLUOR, TR-PR SLW WET  
CUTS, SLI PETRO ODR

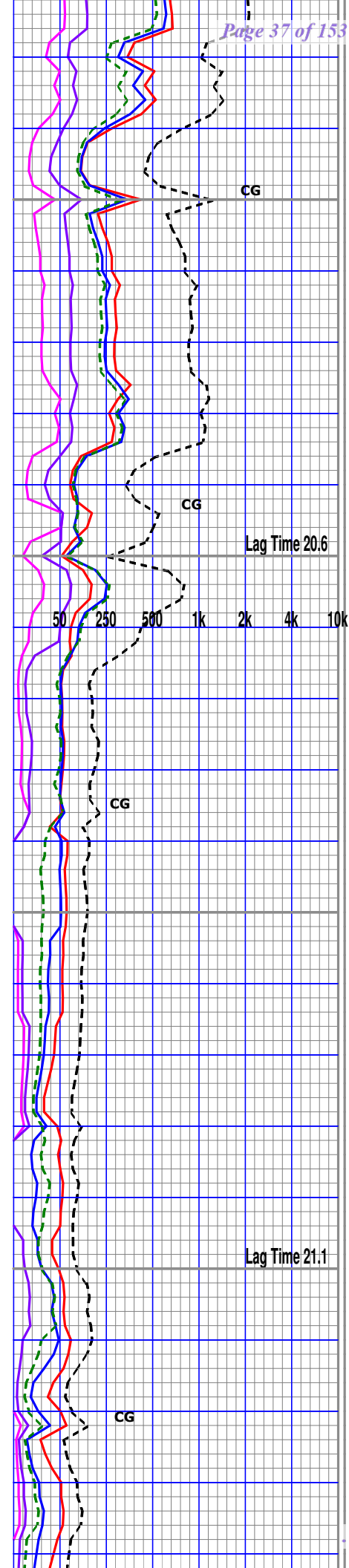
DOL: TN, LTTN, CRM, BF, SM  
LTBRN, BLKY, FLKY, VFX, FRM  
BRTTL, SLI MOR SUCRO, LMY  
CLNR, W/DULL GLD/BRN MIN  
FLUOR, NO VIS SHW FLUOR/  
CUT, NO ODR

DOL: A.A.

DOL: A.A.

DOL: TN, LTTN, CRM, BF, SM  
MOTT, BLKY, FLKY, VF-MICX,  
FRM, BRTTL, SUCRO IP, CLN  
LMY, W/DULL BRN MIN FLUR

DOL: A.A., BCMNG SLI ARG  
W/DPTH, MOR BRN, MEDBRN



SS: GRY, LTGRY, FRSTD, VFG  
SBANG, SBRND, FRIA, CLSTRS  
W/SM, DLMTC, CMNT, CLN, MOD  
WLLSRTD

DOL: CRM, BF, TN, LTTN, OFF  
WHT, SM, MOTT, FLKY, BLKY  
VFX, FRM, BRITL, SUCRO, CLN  
LMY, W/TR-10% FR, BRT, YEL  
GLD, FLUOR, TR-PR, SLW, WT  
CUTS, SLI, PETRO, ODR

DOL: TN, LTTN, CRM, BF, OFF  
WHT, SM, GRY, MOTT, BLKY, SM  
FLKY, VFX, FRM, BRITL, SUCR  
SNDY, SLI, LMY, W/SCTRD, LT  
YEL/GLD, FLUOR, TR, SLW, WT  
CUTS, NO, ODR

DOL: A.A., W/TR-10% PR  
PALE, LT, YEL/GLD, ORNG  
SHW, FLUOR, W/TR-PR, SLW  
MLKY, WET, CUTS, SLI, PETRO  
ODR

DOL: CRM, BF, TN, LTTN, SM  
LTGRY, MOTT, FLKY, BLKY,  
VFX, FRM, BRITL, SUCRO,  
SNDY, LMY, CLN, W/TR-10%  
PR, PALE, LT, YEL/GLD, FLUR  
TR-PR, SLW, WET, CUTS, NO  
ODR

DOL: A.A., W/TR, SCTRD, LT  
YEL/GLD, FLUOR, TR, SLW, WT  
CUTS, FAINT, ODR

DOL: TN, LTTN, CRM, BF, SM  
OFWHT, BLKY, MIC-VFX, FRM,  
LESS, SUCRO, LMY, W/DULL  
BRN, MIN, FLUOR, TR-10% PR  
PALE, LT, YEL/GLD, SHW, FLR  
TR-PR, SLW, WET, CUTS, SLI  
PETRO, ODR

DOL: A.A., W/TR, SCTRD, LT  
YEL/GLD, FLUOR, TR-NO, CUT  
NO, ODR

CG/FG

Lag Time 21.6

CG

CG/FG

CG/FG

Lag Time 22.1

MD 4427.00'  
TVD 4426.68  
INC 0.97°  
AZM 347.30°  
VS 3.37'  
DLS 0.20°

50

4500

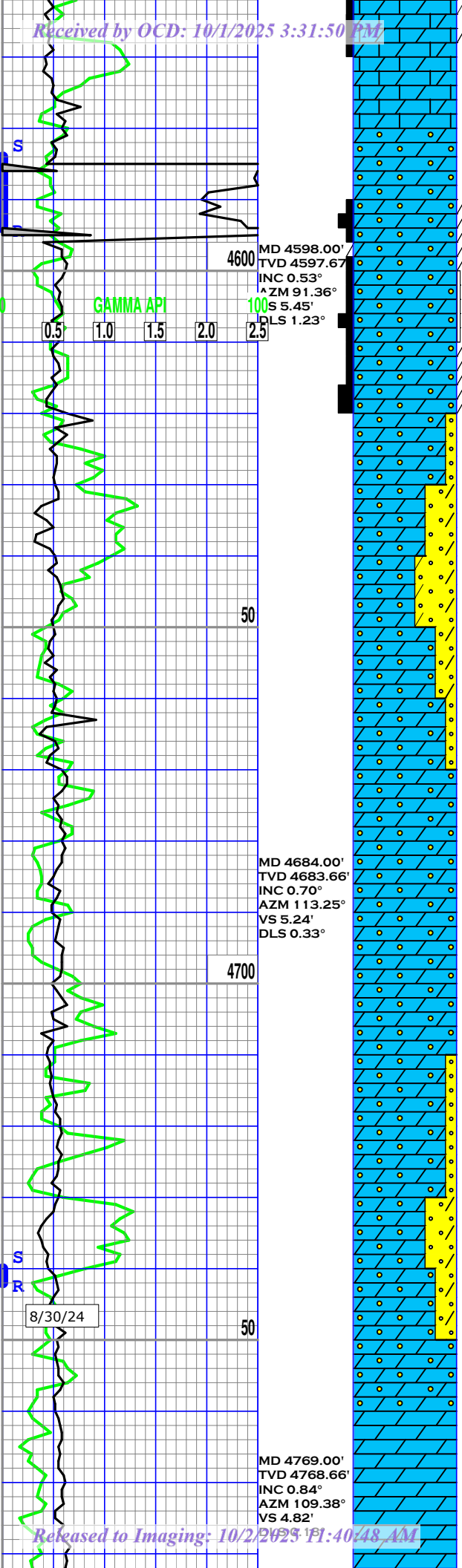
MD 4513.00'  
TVD 4512.67  
INC 0.92°  
AZM 359.96°  
VS 4.78'  
DLS 0.25°

50

GAMMA API

100

0.5 1.0 1.5 2.0 2.5



DOL: TN, LTTN, CRM, BF, OFF  
WHT, BLKY, MIC-VFX, FRM, SM  
BRITL, LMY, CLN, W/DULL  
BRN MIN FLUOR

DOL: CRM, BF, TN, LTTN, OFF  
WHT, SM, GRY, MOTT, BLKY, SM  
FLKY, VFX, FRM, BRITL, MOR  
SUCRO, SNDY, SLI, LMY, W/  
DULL, BRN MIN FLUOR, W/TR  
-10% PR PALE LT YEL/BLU  
SHW FLUOR, TR-PR CUTS,  
FAINT ODR

SS: GRY, LTGRY, CLR, FRSTD  
WHT, VFG, SBANG, SBRND, FRI  
CLSTRS W/DLMTC CMNT, TR  
FNPYR, MOD, SRTD, W/NO VIS  
SHW FLUOR/CUT, NO ODR

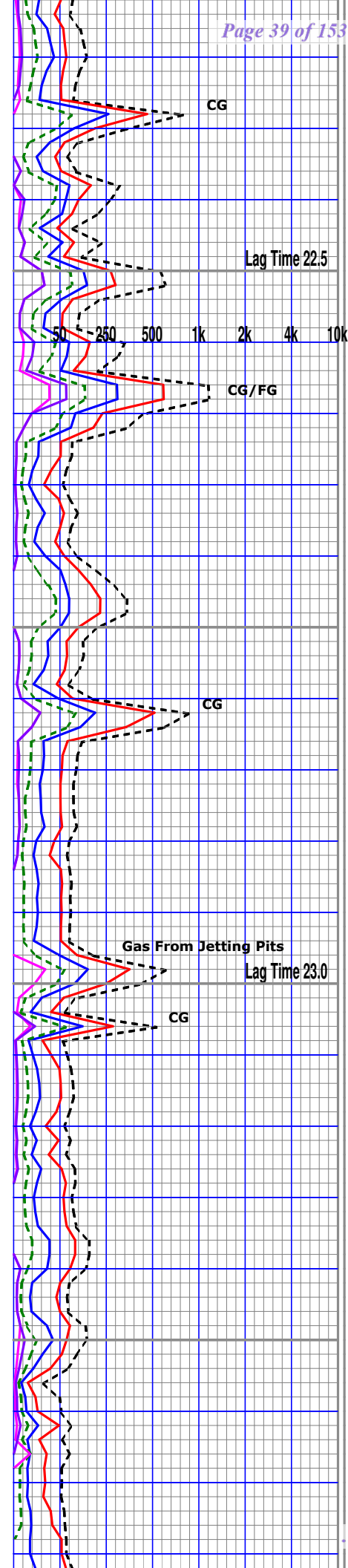
DOL: TN, LTTN, CRM, BF, OFF  
WHT, BLKY, FLKY, VFX, FRM,  
BRITL, SUCRO, SNDY, SLI  
LMY, W/DULL, GLD/BRN MIN  
FLUOR

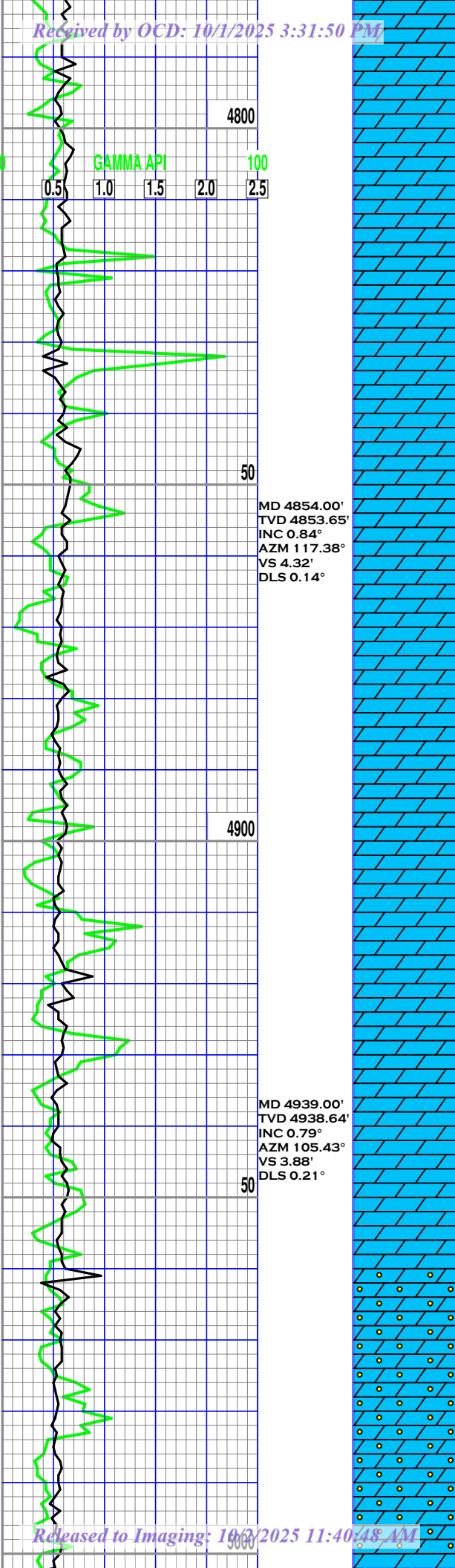
DOL: A.A.

SS: GRY, LTGRY, FRSTD, CLR  
VFG, SBANG, SBRND, FRIA  
CLSTRS W/SM DLMTC CMNT  
MOD WELLSRTD

DOL: TN, LTTN, CRM, BF, OFF  
WHT, BLKY, FLKY, VFX, BRITL  
SUCRO, SNDY, CLN, W/DULL  
GLD/BRN MIN FLUOR

DOL: TN, LTTN, CRM, BF, SM  
OFFWHT, BLKY, FLKY, VFX,  
FRM, BRITL, SUCRO, NO LNDR  
SNDY, SLI, LMY, W/DULL, GLD





MIN FLUOR

Pump Sweep

DOL: A.A.

DOL: TN, LTTN, CRM, BF, OFF  
WHT, SM, GRY, MOTT, BLKY, VF  
-MICX, FRM, BRTTL, SUCRO  
SLI, LMY, CLN, W/DULL, GLD  
BRN MIN FLUOR

DOL: A.A.

DOL: CRM, BF, TN, LTTN, OFF  
WHT, BLKY, FLKY, VF-MICX  
FRM, BRTTL, SUCRO, IP, CLNR  
SLI, LMY, W/DULL, GLD/BRN  
MIN FLUOR

DOL: A.A.

DOL: CRM, BF, TN, LTTN, OFF  
WHT, BLKY, FLKY, VF-MICX  
FRM, BRTTL, SUCRO, IP, SLI  
LMY, CLN, W/SCTRD, DULL  
GLD MIN FLUOR

DOL: A.A., SLI MOR SNDY

DOL: CRM, BF, TN, LTTN, OFF  
WHT, BLKY, VF, BRTTL, VRY  
SUCRO/SNDY, CLN, SLI, LMY,  
W/DULL BRN MIN FLUOR

Rig Service @ 5003'

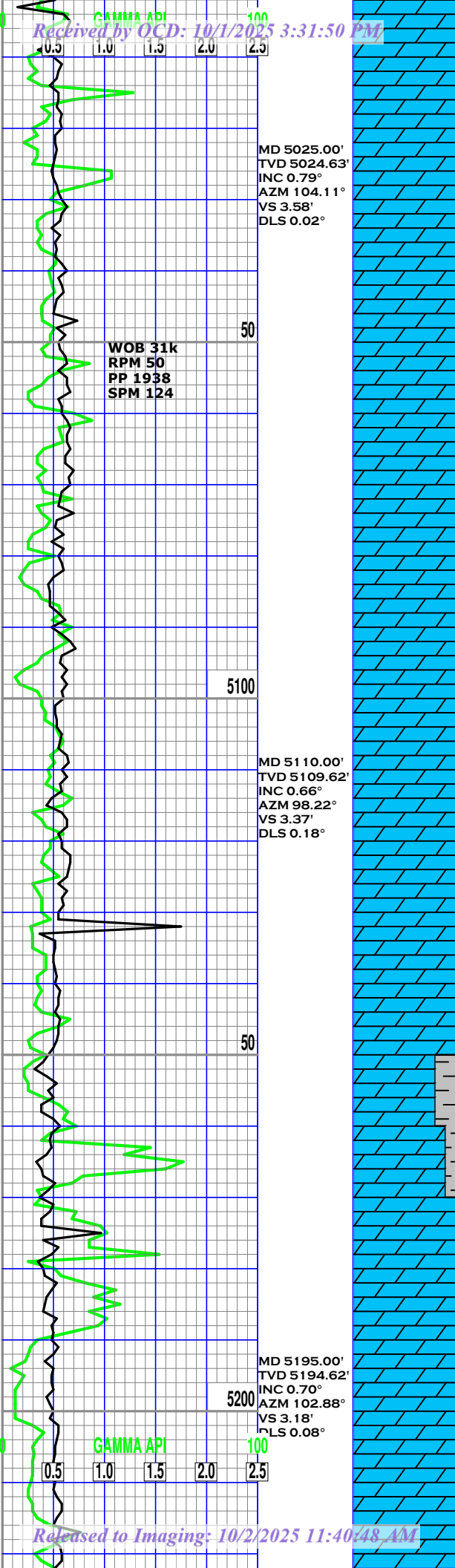
Lag Time 23.5

CG

Lag Time 24.0

CG

Lag Time 24.5



DOL: A.A., LESS SNDY

DOL: TN, LTTN, CRM, BF, SM, LTBRN, FLKY, BLKY, VFX, FRM, BRTTL, SUCRO, CLN, SLI, LMY, W/DULL, GLD/BRN MIN FLUR

DOL: A.A.

DOL: CRM, BF, OFFWHT, TN, LTTN, FLKY, BLKY, VFX, FRM, BRTTL, SUCRO, CLN, W/DULL, GLD BRN MIN FLUOR

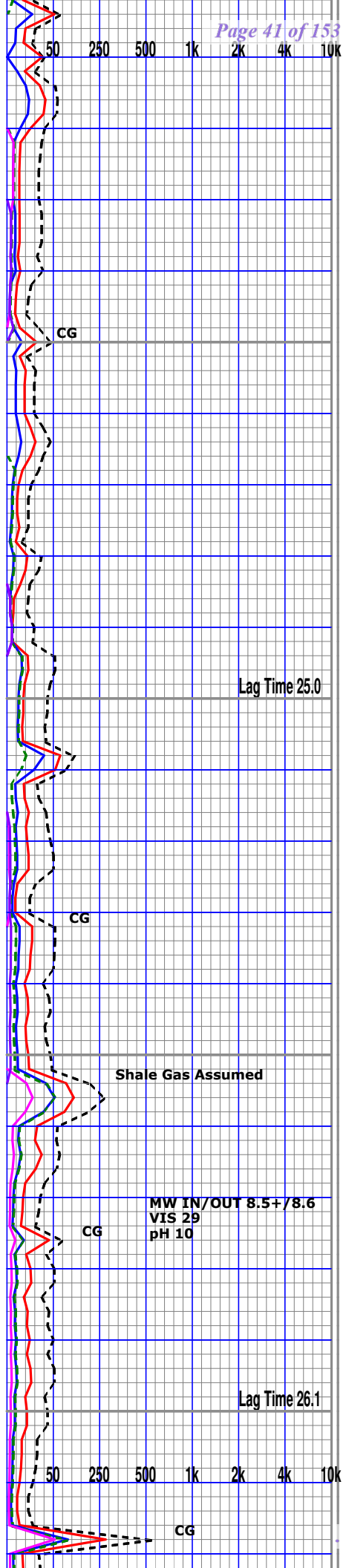
DOL: TN, LTTN, CRM, BF, OFFWHT, BLKY, SM, FLKY, VFX, BRTTL, SUCRO, CLN, W/DULL, BRN MIN FLUOR

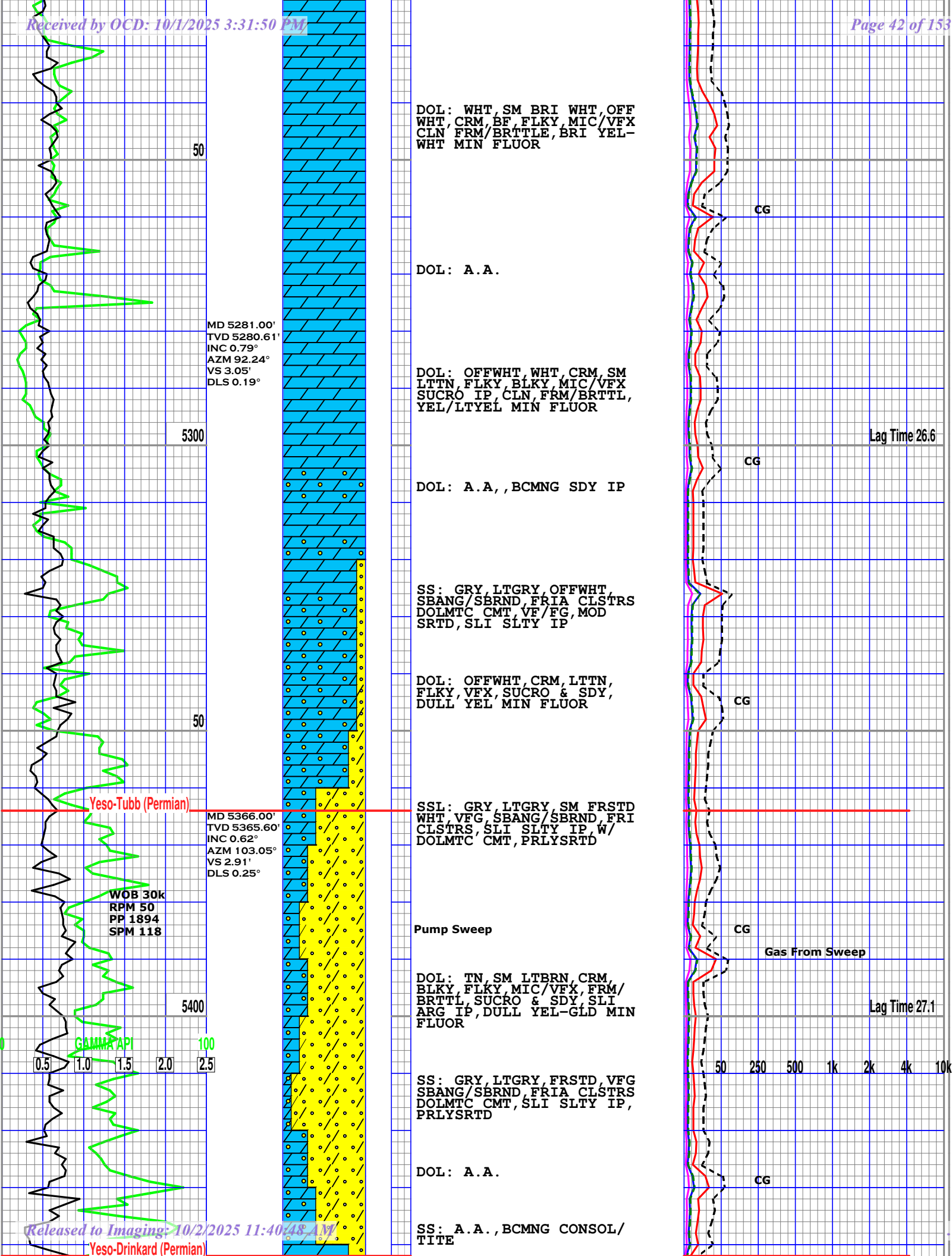
DOL: SLI CHNG TO TN, LT BRN, BRN, SM, GRY, CRM, BF, BLKY, MIC-VFX, SLI MOR, DNS/FRM, LESS SUCRO, W/DULL, BRN MIN FLUOR

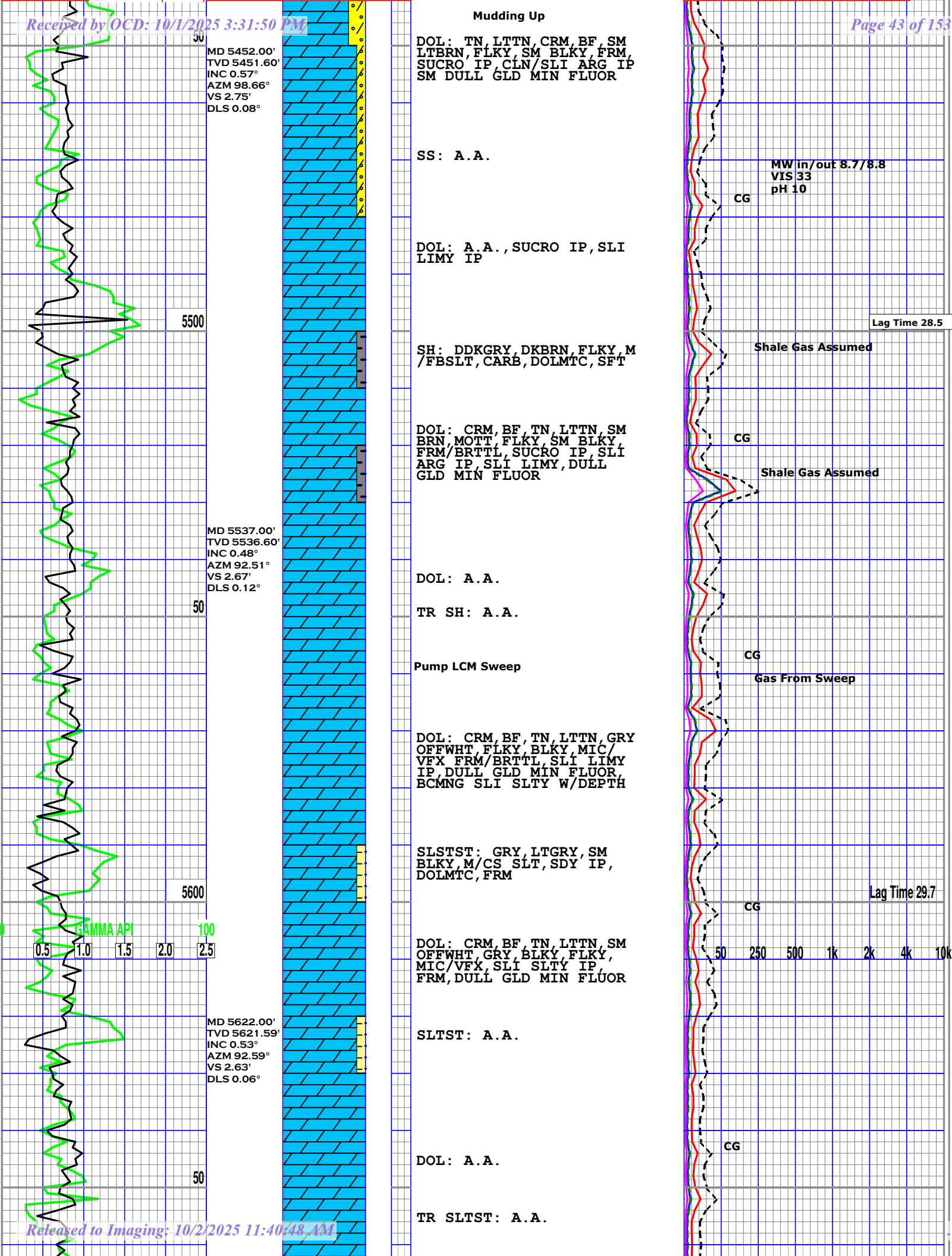
SH: GRY, BRN, SM, DRKGRY, DRKBRN, BLKY, M/CSLT, SLI, CARB IP, FRM

DOL: ABRPT CHNG TO BRI, WHT, WHT, OFFWHT, CRM, SM, BF, LTTN, FLKY, SM, BLKY, MIC/VFX, CLN, FRM/BRTTL, ABNDNT BRI, YEL-WHT MIN FLUOR

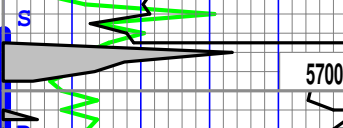
DOL: A.A.







WOB 30k  
RPM 49  
PP 1743  
SPM 118



MD 5707.00'  
TVD 5706.59'  
INC 0.40°  
AZM 227.16°  
VS 2.42'  
DLS 1.01°

DOL: CRM, BF, GRY, TN, LTTN  
SM OFFWHT, FLKY, MIC/VFX,  
FRM/BRTTL, SLI, LMY, IP,  
SLTY, IP, DULL, GLD, MIN  
FLUOR

MW in/out 8.7  
VIS in/out 38/33  
pH 10

CG

Lag Time 30.3

DOL: A.A.

TR SLTST: GRY, LTGRY  
BLKY, M/CS SLT, DOLMTC,  
FRM

C.O. During Rig Service at 5728'  
Adjust Brakes, Change Out Rotating  
Head and Adjust Bushings

CG

DOL: CHNG TO CRM, BF, WHT  
OFFWHT, SM GRY, TN, BLKY,  
MIC-VFX, FRMSM, BRTTL,  
CLNR, MOR, LMY, W/DULL, GLD  
BRN, MIN, FLUOR

DOL: A.A.

DOL: CRM, BF, TN, LTTN, LT  
BRN, GRY, SM, MEDGRY, BLKY,  
SM, FLKY, MIC-VFX, DNS, FRM,  
LESS, SUCRO, LMY, SLI, ARG,  
IP, W/SCTRD, DULL, GLD/BRN,  
MIN, FLUOR

Lag Time 30.8

DOL: A.A.

Pump Sweep

SLTST: GRY, MEDGRY, FLKY,  
BLKY, SM, FISS, MSLT, SLI,  
CARB, DLMTTC, FRM

CG

MW IN/OUT 8.5/8.7  
VIS IN/OUT 35/36  
pH 10

DOL: CHNG TO TN, DRKTN,  
BRN, GRY, SM, CRM/BF, MOTT,  
BLKY, MICX, DNS, FRM, SLI,  
SILIC, IP, LMY, W/DULL, GLD,  
BRN, MIN, FLUOR

WOB 35k

MD 5793.00'  
TVD 5782.59'  
INC 0.84°  
AZM 235.33°  
VS 1.85°  
DLS 0.52°

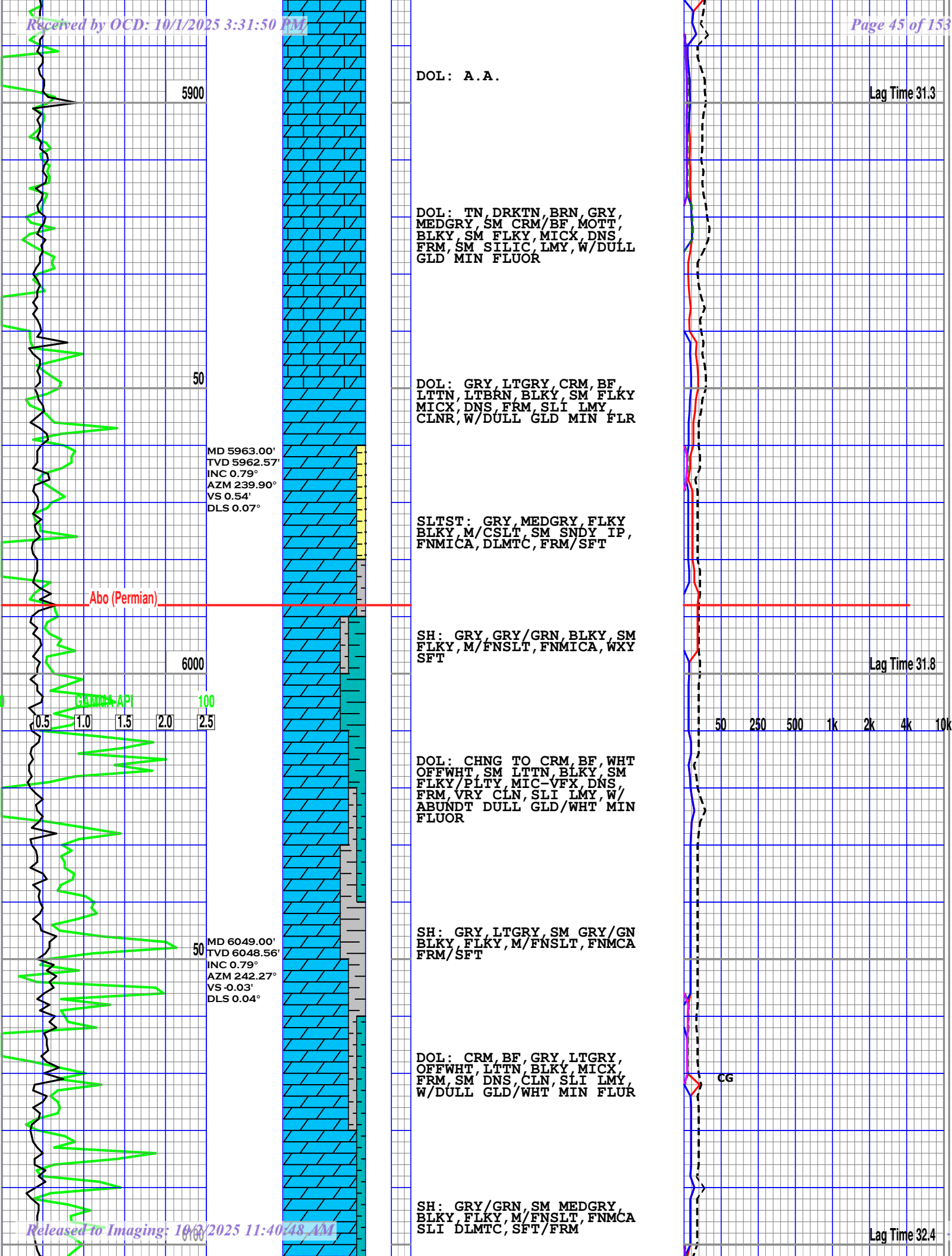
GAMMA API

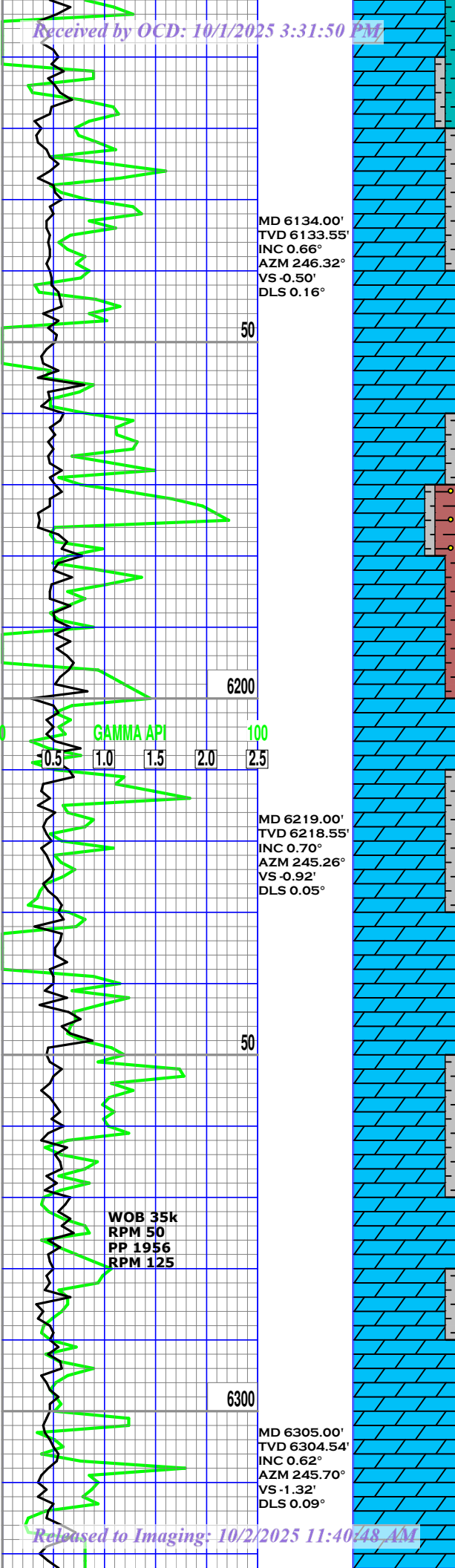
0.5 1.0 1.5 2.0 2.5

5800

50

TVD 5877.58  
INC 0.79°





## Pump VIS Sweep

DOL: WHT, OFFWHT, CRM, BF,  
GRY, LTGRY, SM, LTTN, BLKY,  
SM, FLKY, MICX, FRM, SM, DNS,  
CLN, SLI, LMY, W/ABUNDT  
DULL, GLD, MIN, FLUOR

DOL: A.A.

SH: CHNG TO RD, RD/BRN,  
SM, PRPL, GRY, MOTT, BLKY,  
M/CSLT, VRY, SNDY, SM, GRDG  
TO, SHLY, SS, IP, SFT/FRM,  
ERTHY

DOL: WHT, BRTWHT, OFFWHT,  
GRY, LTGRY, SM, LTTN, BLKY,  
FLKY, PLTY, MICX, DNS, FRM,  
VRY, CLN, SLI, LMY, W/ABUNDT  
DULL, GLD, MIN, FLUOR

SH: GRY, LTGRY, SM, RD/BRN,  
MOTT, FLKY, BLKY, MSLT, FRM,  
SM, SFT

DOL: CRM, BF, OFFWHT, LTTN,  
TN, GRY, BLKY, FLKY, MICX,  
DNS, FRM, SLI, LMY, CLN, W/  
SM, SCTR, DULL, GLD, WHT,  
MIN, FLUOR

DOL: CHNG TO WHT, BRTWHT,  
GRY, LTGRY, OFFWHT, SM, CRM,  
BLKY, FLKY, MICX, DNS, FRM,  
CLN, SLI, LMY, SM, TR, FNPYR,  
W/ABUNDT, DULL, GLD, WHT,  
MIN, FLUOR

DOL: A.A.

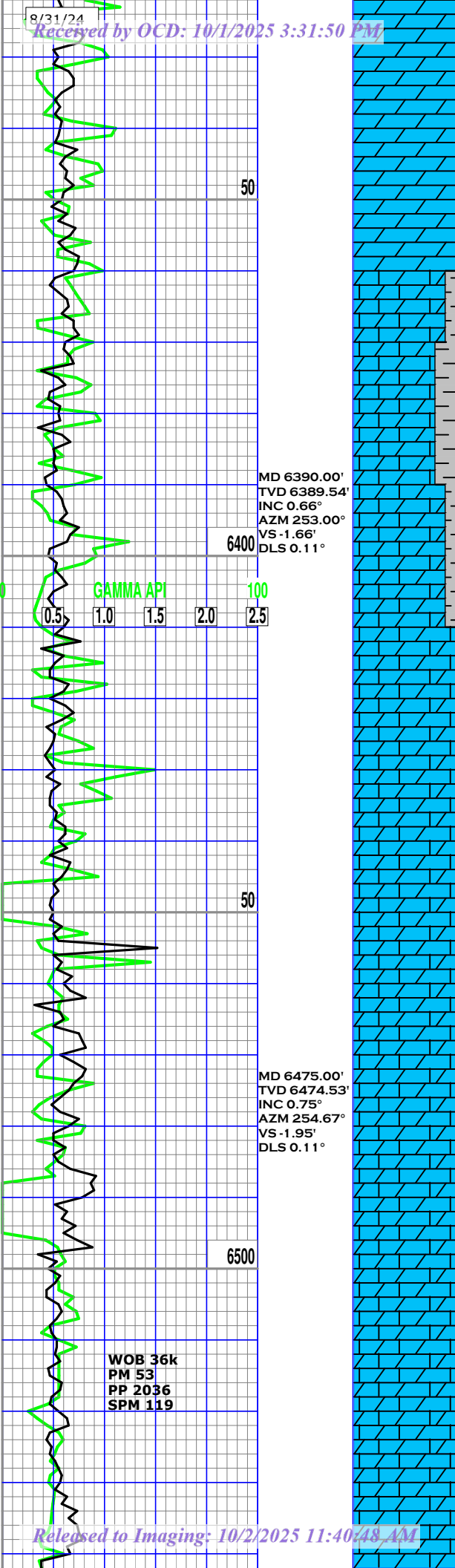
CG

Lag Time 32.9

50 250 500 1k 2k 4k 10k

MW IN/OUT 8.5/86  
VIS 37  
pH 10

Lag Time 33.4



DOL: CRM, BF, OFFWHT, WHT,  
GRY, LTGRY, LTTN, BLKY, SM,  
FLKY, MICK, DNS, FRM, CLN,  
SLI, LMY, W/ABUNDT DULL  
GLD/WHT MIN FLUOR

DOL: A.A.

SH: GRY, MEDGRY, SM GRY/  
GRN, SM DRK GRY, FLKY, SM  
BLKY, SM FISS, M/FNSLT, TR  
FNMICA, SLI CARB IP, SM  
DLMT, SFT

DOL: CRM, BF, OFFWHT, GRY,  
LTTN, BLKY, FLKY, MICK, FRM,  
SLI, LESS DNS, CLN, INCRSG  
LMY, W/DULL GLD/WHT MIN  
FLUOR

DOL: A.A.

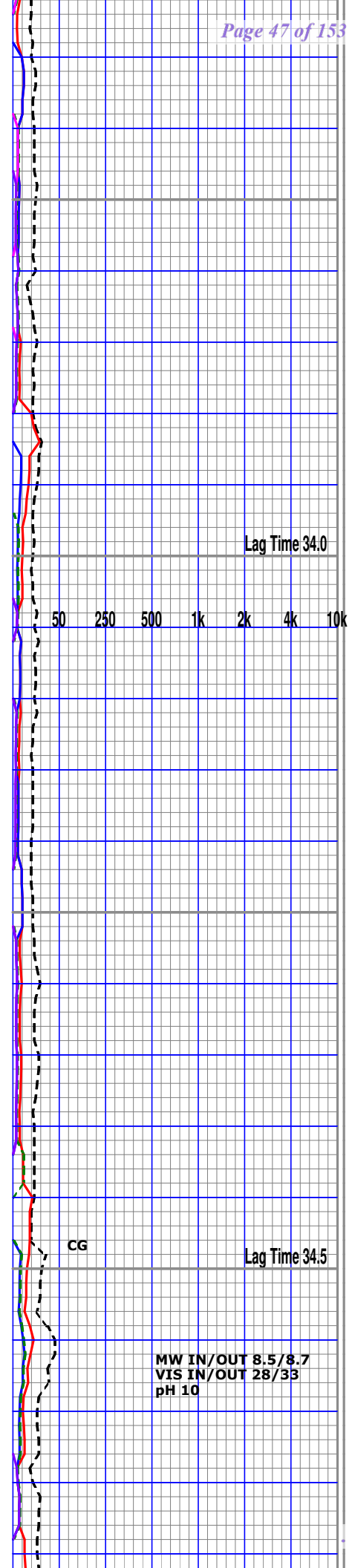
DOL: CRM, BF, OFFWHT, LTTN,  
TN, LTGRY, BLKY, FLKY, MICK,  
DNS, FRM, CLN, LMY, W/ABNDT  
DULL GLD/WHT MIN FLUOR

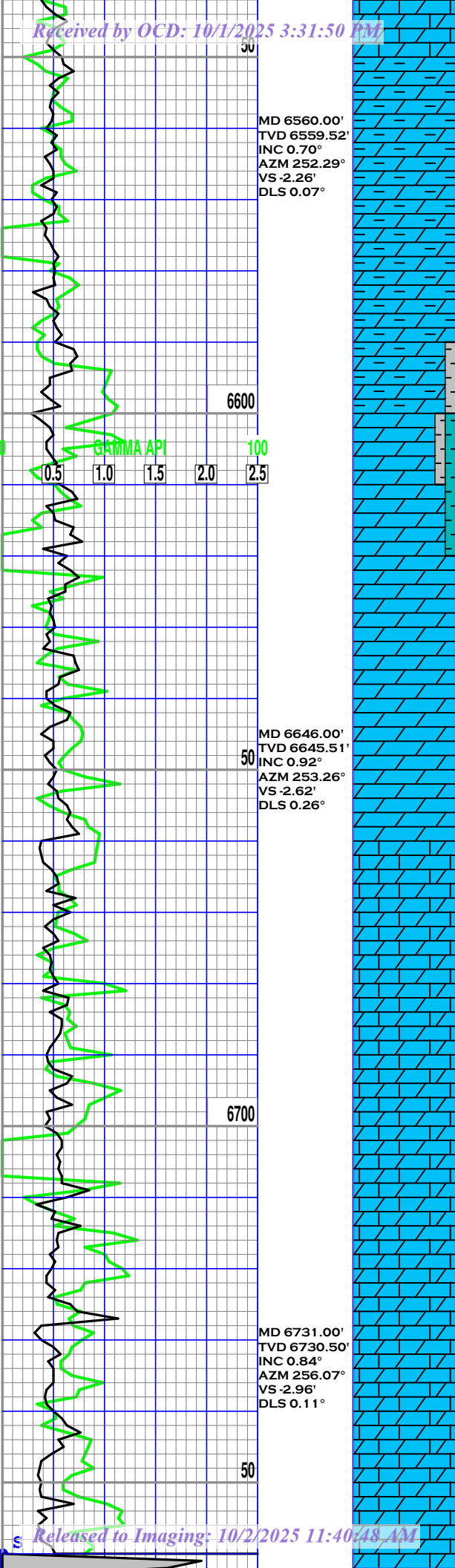
DOL: A.A.

Change Out Rotating Head

DOL: TN, LTTN, CRM, BF, LT  
GRY, SM MEDGRY/BRN, BLKY,  
FLKY, MICK, DNS, FRM, SLI  
ARG IP, LMY, W/DULL GLD/  
WHT MIN FLUOR

DOL: TN, LTTN, CRM/BF, OFF  
WHT, GRY, SM DRKGRY/BRN.



BLKY, MICX, DNS, FRM, SLI  
ARG IP, LMY, W/SCTRD DULL  
GLD MIN FLUORDOL: CHNG TO DRKTN, BRN  
GRY OFFWHT, SM CRM/BF, TN  
BLKY, MICX, DNS, FRM, BCMNG  
MOR ARG W/DEPTH, LESS LMY  
SILIC IP, W/SCTRD DULL  
GLD MIN FLUORSH: GRY, MED/DRKGRY, BLKY  
SM FLKY, M/FNSLT, FNMICA,  
CARB IP, DOLMTC, FRM/SFTDOL: CHNG TO CRM, BF, TN,  
LTTN, GRY, OFFWHT, WHT, SM,  
BRN, BLKY, FLKY, MICX, DNS,  
FRM, CLNR, W/DULL GLD/WHT  
MIN FLUOR

DOL: A.A.

DOL: GRY, LTGRY, CRM, BF,  
OFFWHT/WHT, SM LTTN, BLKY,  
FLKY, MICX, DNS, FRM, CLN,  
SLI MOR LMY, W/ABUNDT  
DULL GLD/WHT MIN FLUORTR SH: GRY, MED/DRK GRY,  
BLKY, SM FLKY, M/FNSLT, FN  
MICA, SLI CARB, FRM

Swap Pumps/Change Swabs

DOL: GRY, SM MEDGRY, CRM,  
BF, OFFWHT, TN, SM BRN,  
MOTT, BLKY, FLKY, MICX, DNS,  
FRM, LIMY/VY LIMY, DULL  
GLD MIN FLUOR

DOL: A.A.

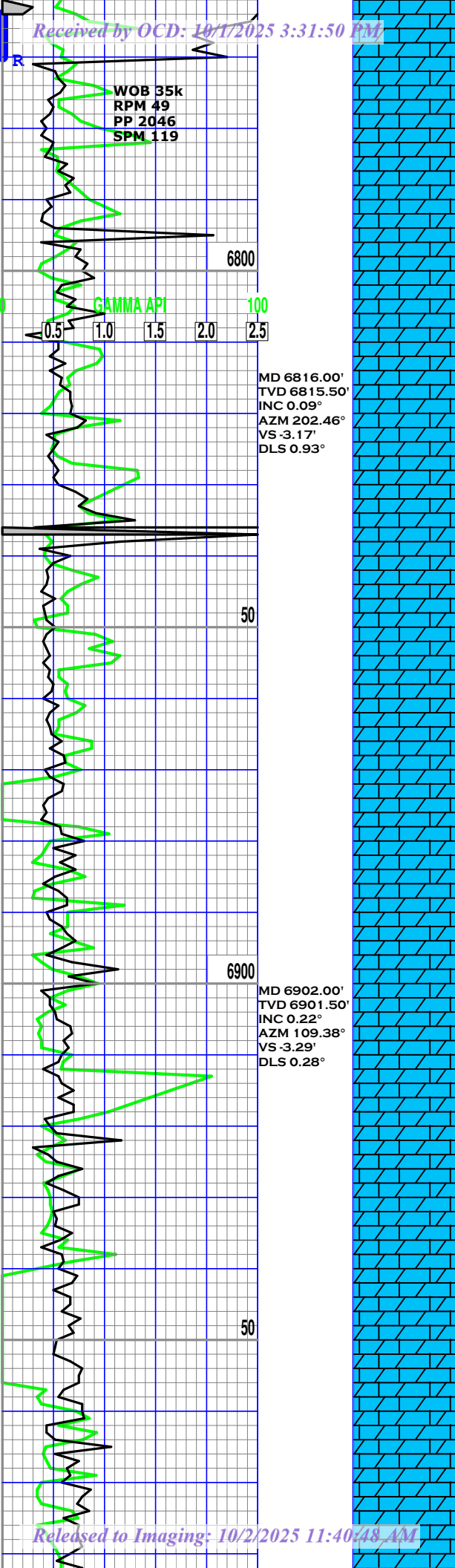
Lag Time 35.0

MW IN/OUT 8.7  
VIS 38  
pH 10

Lag Time 35.6

CG

CG



DOL: GRY, MEDGRY, TN, SM  
CRM, MOTT, BLKY, MICX, DNS,  
FRM, SLI ARG IP, LIMY,  
DULL GLD-GRY MIN FLUOR

MW in/out 8.7+/8.8  
VIS 37  
pH 10

DOL: A.A.

CG

Lag Time 36.1

DOL: GRY/MEDGRY, CRM, SM  
LTTN, BF, MOTT, BLKY, MICX,  
DNS, SLI ARG IP, LIMY, FRM,  
DULL GLD-GRY MIN FLUOR

DOL: A.A.

CG

DOL: A.A., SLI INC IN  
MOTT, MEDGRY, SLI ARG

DOL: MOTT, MEDGRY, GRY, SM  
TN, LTBRN, BF, BLKY, MICX,  
DNS, FRM, LIMY, SLI ARG,  
DULL GLD-GRY MIN FLUOR

CG

DOL: A.A.

Lag Time 36.6

DOL: CHNG TO TN, LTTN,  
CRM, SM OFFWHT, MOTT, BRN,  
BLKY, FLKY, MIC/VFX, SM  
DNS, SLI ARG IP, LIMY,  
FRM/BRTTL, DULL GLD MIN  
FLUOR

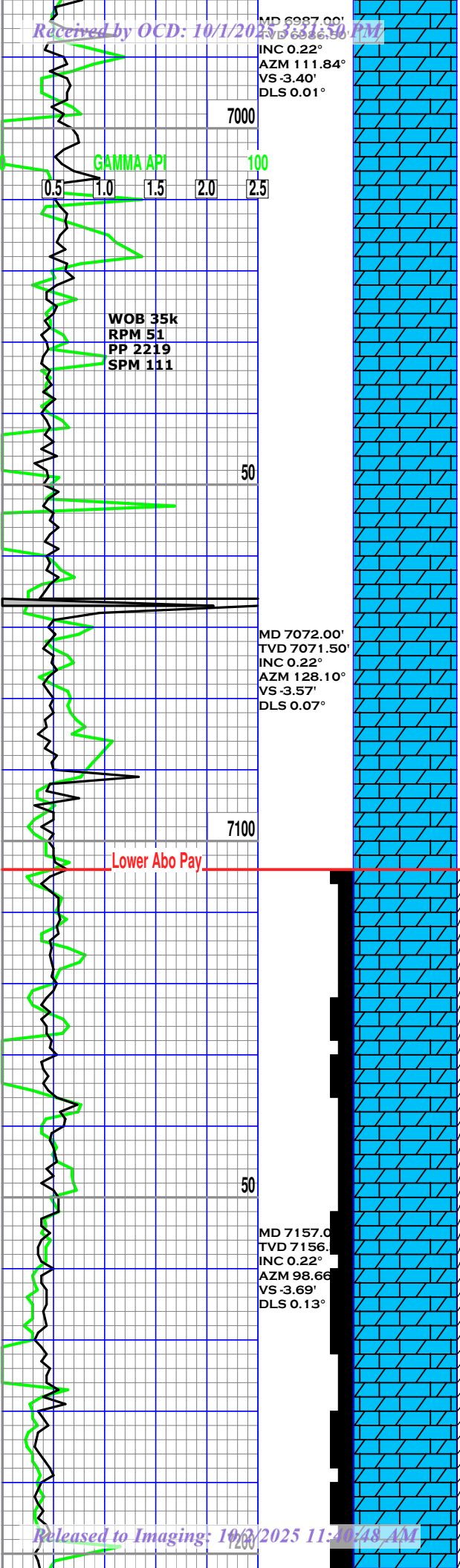
CG

TR SH: GRY, MEDGRY, FLKY,  
WXY, SFT, DOLMTC/LIMY

DOL: A.A.

CG

DOL: TN, CRM, OFFWHT, SM  
LTBRN, MOTT, BLKY, MICX,  
DNS, SLI ARG IP, LIMY,  
FRM, DULL GLD-BRN MIN  
FLUOR



TR SH: A.A.

DOL: TN, CRM, SM OFFWHT,  
MOTT, LTBRN, BLKY, MICX,  
DNS, SLI, ARG, IP, LIMY,  
FRM, DULL, GLD-BRN, MIN  
FLUOR

DOL: A.A.

Service Generator

DOL: SLI CHNG TO MOTT,  
BRN, CRM, TN, SM OFFWHT,  
BLKY, MICX, DNS, ARG, IP,  
LIMY, FRM/BRTTL, DULL, GLD  
-BRN, MIN FLUOR, NO CUT,  
SLI/MOD PETRO ODOR IN  
SMPLS

DOL: A.A. NO SHOW IN  
SMPLS, SLI/MOD PETRO ODR  
NOTED

DOL: ABRPT CHNG TO WHT,  
OFFWHT, SM BRI WHT, FLKY,  
BLKY, VFX, SM SUCRO, LIMY,  
BRTTL, 20-30%BRI YEL/LT  
BLU FLUOR, FR MLKY WET  
CUTS, MOD/STRNG PETRO  
ODOR IN SMPLS

DOL: A.A. MOD/STRNG  
PETRO ODOR IN SMPLS

DOL: A.A. 20%FR FLUOR,  
FR SLW WET CUTS, MOD/  
STRNG ODOR

DOL: A.A. 30-40%FR FLR,  
FR FST WET CUTS, STRNG  
PETRO ODOR

DOL: A.A.

Lag Time 37.2

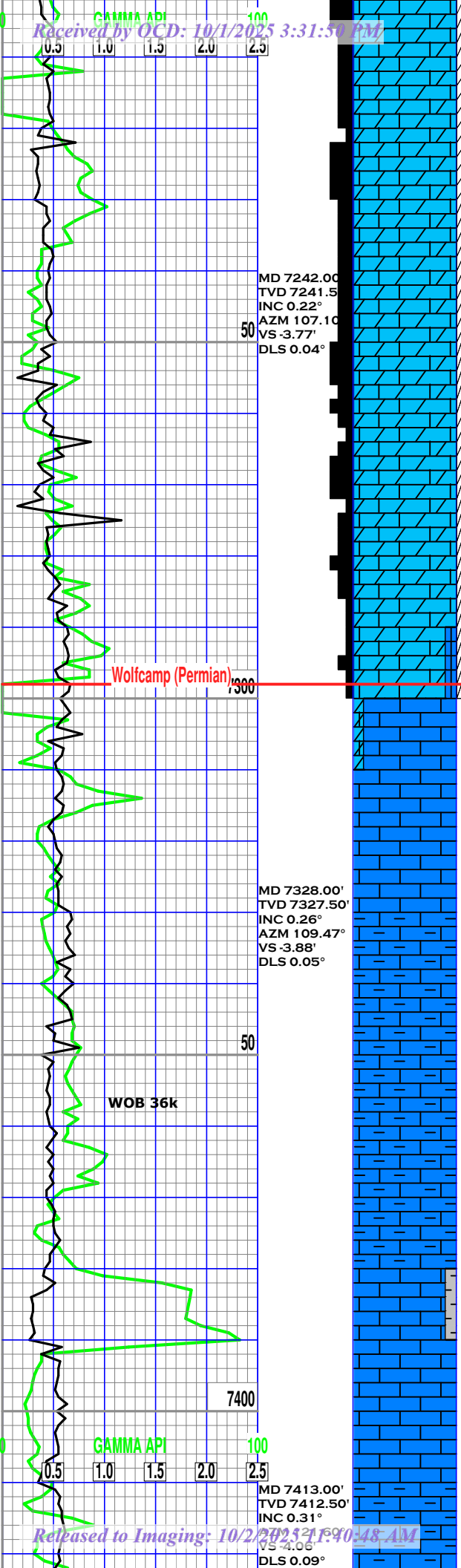
CG

CG

MW in/out 8.8/8.8+  
VIS in/out 37/36  
pH 10

Lag Time 37.7

Lag Time 38.2



MD 7242.00'  
TVD 7241.50'  
INC 0.22°  
AZM 107.10°  
VS -3.77°  
DLS 0.04°

MD 7328.00'  
TVD 7327.50'  
INC 0.26°  
AZM 109.47°  
VS -3.88°  
DLS 0.05°

MD 7413.00'  
TVD 7412.50'  
INC 0.31°  
VS -4.06°  
DLS 0.09°

DOL: WHT OFFWHT, SM CRM,  
MOTT BNLKY, FLKY, MIC/VFX  
SUCRO IP, SFT/BRITL, 20-  
30%FR YEL/LTBLU FLUOR,  
PR-FR CUTS, MOD/STRNG  
PETRO ODOR IN SMPLS

DOL: A.A.

DOL: A.A., 15-20%FR FLR,  
PR-FR CUTS, MOD PETRO  
ODOR

DOL: A.A., ODOR CHNGING  
AT BOTTOM TO MOD PETRO/  
SLPHR MIX, DOL VY CALC

DOL: A.A., VY CALC, PR  
SLW WET CUTS, SLI/MOD  
PETRO/SLPHR ODOR MIX

LS: WHT OFFWHT, BLKY,  
MICX, DNS, CHLKY IP, SFT/  
FRM, SCTTRD DULL GLD MIN  
FLUOR, SLI PETRO/SLPHR  
ODOR MIX

LS: A.A.

LS: CHNG TO MED/DRKGRY,  
SM DKBRN CRM, MOTT, TN,  
BLKY, MICX, DNS, ARG, SILIC  
IP FRM/HRD NO VIS MIN  
FLUOR

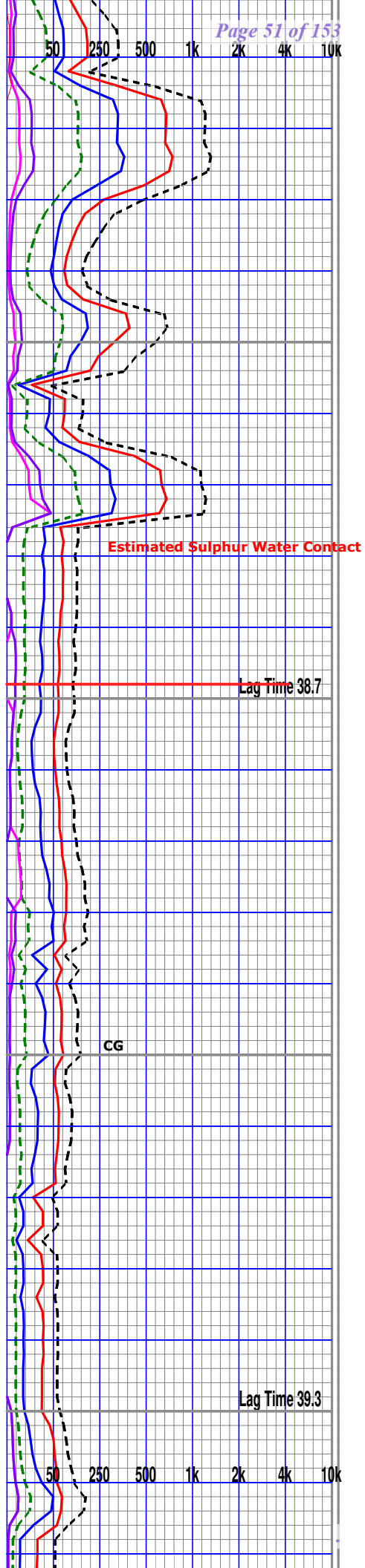
SM MED/LRG GRN SH CVNGS  
IN SMPLS

LS: A.A.

LS: CHNG TO WHT, BF, OFF  
WHT, GRY, SM MOTT BRN,  
BLKY, MICX, DNS, SFT/FRM,  
CHLKY IP, MUCH CLNR,  
DULL GLD-BRN MIN FLUOR

LS: A.A.

LS: CHNG TO MOTT, GRY,  
MEDGRY, SM OFFWHT, CRM,  
TN, BRN, BLKY, MICX, DNS,

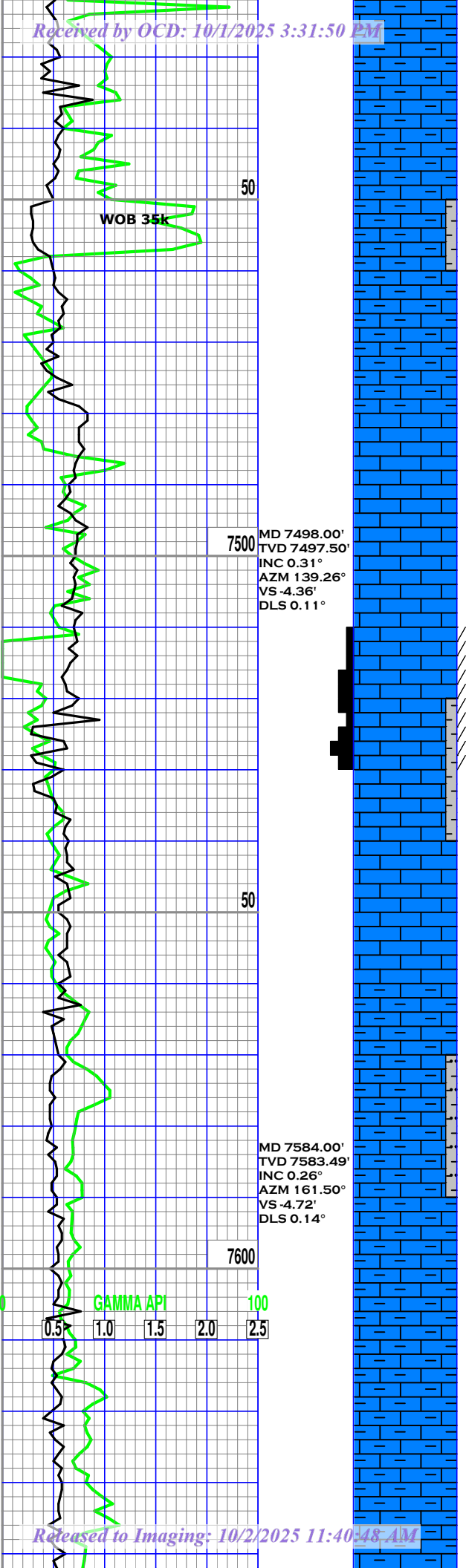


Estimated Sulphur Water Contact

Lag Time 38.7

CG

Lag Time 39.3

ARG, DULL GLD-BRN MIN  
FLUOR

LS: A.A.

SH: GRY, GRY/GRN, SM  
MEDGRY, FLKY, FNSLT, FN  
MICA, SFT/FRM

LS: A.A.

LS: CHNG TO OFFWHT, WHT,  
CRM, SM MOTT, TN, LTGRY,  
BLKY, MICX, DNS, FRM, CHLKY  
IP, CLN/SLI ARG, DULL BRN  
MIN FLUORLS: A.A., W/TR-10% GD  
BRT BLU/WHT FLUOR, TR-PR  
SLW WET CUTS, SLI PETRO  
ODRSH: DRKGRY, GRY, SM BLK,  
SLKY, FLKY, MSLT, CARB IP  
FRM/SFTLS: WHT, OFFWHT, GRY, LTGY  
CRM, BF, MOTT, BLKY, MIC-  
VFX, SFT, SLI, CHLKY, W/DUL  
GRY/BRN MIN FLUOR

Pump Sweep

SH: DRKGRY, DRKBRN, SM  
BLK, BLKY, FLKY, M/FNSLT  
FNMICA, CARB IP, VRY SLTY  
SM GRDNG TO SHLY SLTST  
IP, LMY, FRMLS: CHNG TO MED/DRKGRY,  
DRKBRN, OFFWHT, MOTT, BLKY  
FLKY, MIC-VFX, BCMNG LESS  
CHLKY, MOR DNS, FRM, ARG,  
W/SCTRD DULL GLD MIN  
FLUOR

LS: A.A.

CG

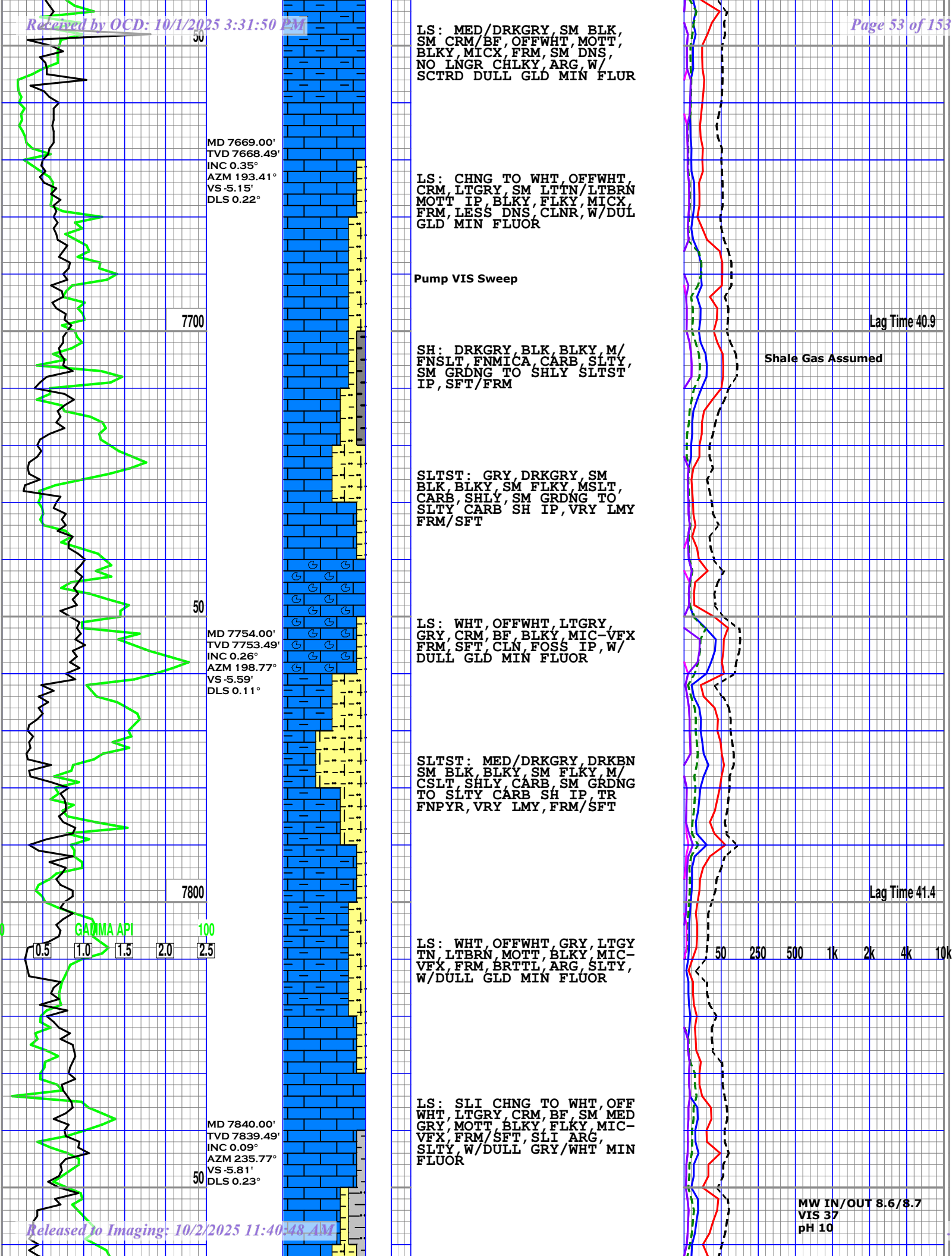
MW in/out 8.7  
VIS 36  
pH 10

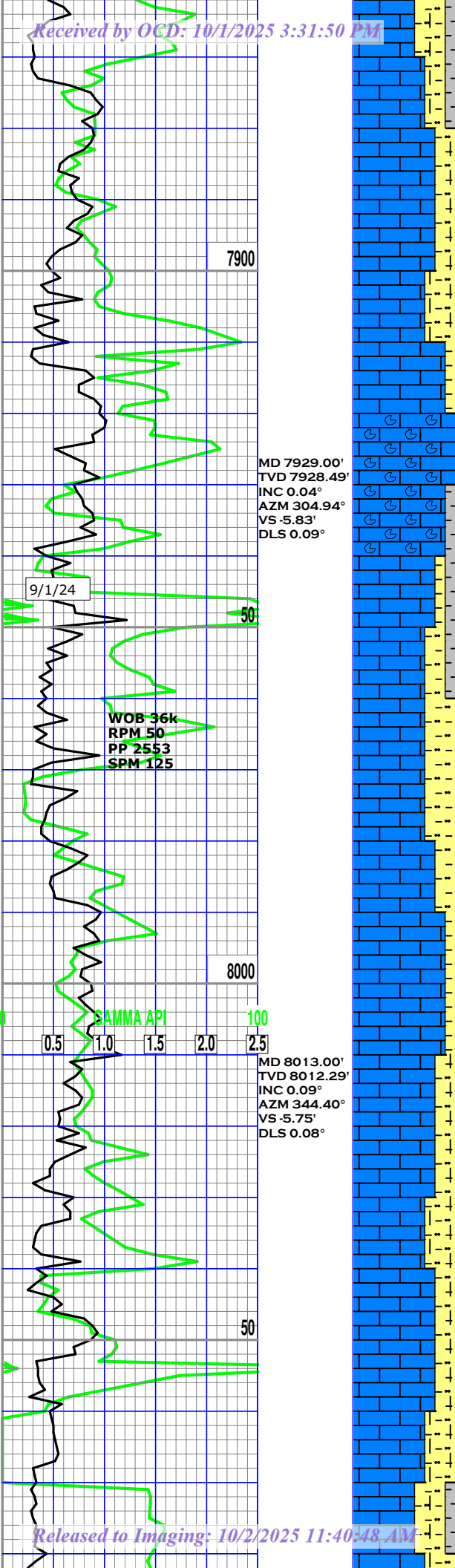
CG

Lag Time 39.8

CG/FG

Lag Time 40.3





SLTST: MED/DRKGRY, GRY,  
BLKY, SM FLKY, M/FNSLT, FN  
MICA, VRY SHLY, CARB IP,  
SM GRDNG TO SLTY CARB,  
SH, FRM/SFT, LMY

SLTST: SLI CHNG TO GRY,  
LTGRY, MED/GRY, BLKY, FLKY,  
SM FISS, MSLT, CLNR, LESS  
SHLY, LESS CARB, FRM, SM  
SFT

LS: CHNG TO WHT, BRTWHT,  
LTGRY, CRM, BF, SM BRN  
BLKY, MIC-VFX, SFT, CHLKY,  
VRY CLN, FOSS IP, W/DULL  
GRY MIN FLUOR

SH: MED/DRKGRY, BLK, FLKY,  
SM BLKY, MSLT, VRY SLTY  
GRDNG TO SHLY SLTST IP,  
CARB IP, SFT

SLTST: MEDGRY, GRY, SM DK  
GRY, BLKY, FLKY, MSLT, TR  
FNMICA, SHLY IP, FRM/SM  
SFT

LS: CHNG TO GRY, MEDGRY,  
CRM, OFFWHT, SM LTTN, BLKY,  
MIC-VFX, FRM, BRTTL, LESS  
CHLKY, SLI ARG IP, W/SCTD  
DULL GRY/WHT MIN FLUOR

SLTST: A.A.

LS: WHT, OFFWHT, CRM, GRY,  
MEDGRY, SM BRN, MOTT, BLKY,  
MIC-VFX, FRM/SFT, SLI ARG  
IP, W/SCTRD, DULL, GLD/WHT  
MIN FLUOR

CG/FG

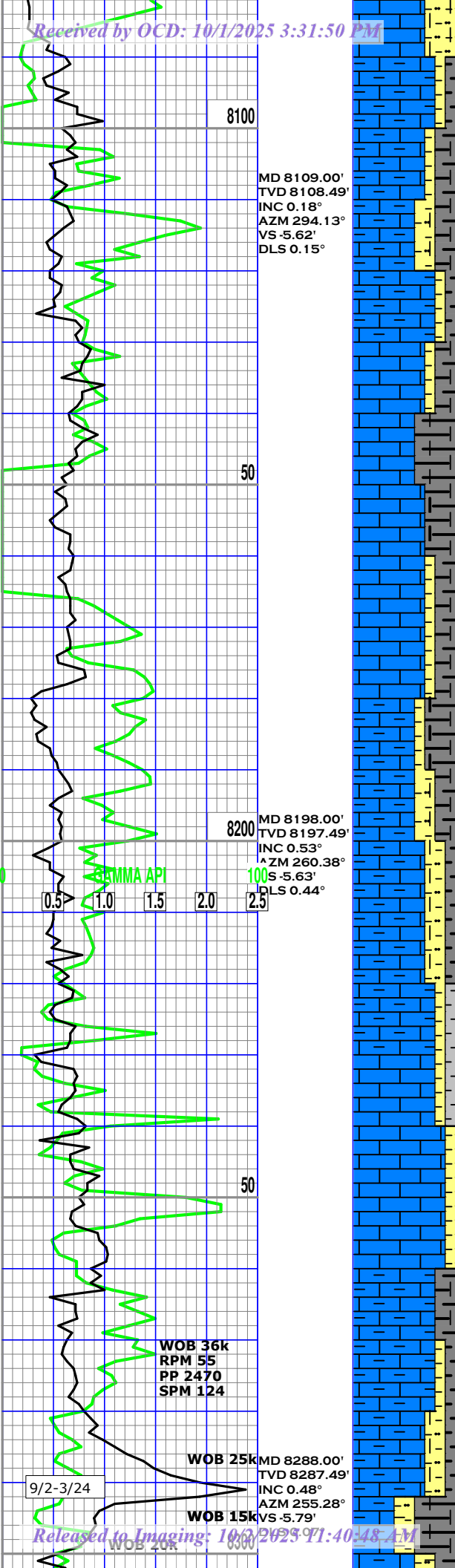
Lag Time 41.1

CG

CG

Lag Time 38.2

250 500 1k 2k 4k 10k



SLTST: MED/DRKGRY, GRY,  
BLKY, FLKY, M/FNSLT, SHLY,  
CARB IP, W/SM GRDNG TO  
SLTY SH, FRM

SH: DRKGRY, BLK, BLKY, SM  
FLKY, M/FNSLT, FNMICA, VRY  
CARB, CALC, SFT, SM FNPYR  
NOTD IN SLTST

LS: WHT, OFFWHT, CRM, BF,  
GRY, BRN, MOTT, BLKY, MIC-  
VFX, SFT/FRM, CLNR, W/SCTD  
DULL GRY/WHT MIN FLUOR,  
NO VIS SHW FLUOR, GAS  
FRM CARB SH

SH: A.A.

LS: GRY, MEDGRY, BRN, WHT,  
OFFWHT, CRM, BF, MOTT, BLKY,  
MIC-VFX, SFT/FRM, BRITL,  
BCMNG MOR ARG, W/SCTRD  
DULL GLD/GRY MIN FLUOR

SLTST: GRY, MED/DRKGRY,  
BLKY, SM FLKY/FISS, MSLT,  
CARB, SHLY, W/SM GRDNG TO  
SLTY CARB SH, TR FNPYR,  
FRM

LS: WHT, OFFWHT, GRY, LTGY,  
CRM, BF, SM BRN/MEDGRY,  
MOTT, BLKY, MIC-VFX, FRM,  
SFT, ARG IP, SM CHLKY IP,  
W/DULL GLD/WHT MIN FLUOR

LS: CHNG TO GRY, MED/DRK  
GRY, BRN, OFFWHT, WHT, CRM,  
MOTT, BLKY, MIC-VFX, FRM,  
SM DNS, ARG, W/SCTRD, DULL  
GLD/BRN MIN FLUOR

Circulate and Condition Mud for  
TOH @ 8292' to replace Bit 3:  
5697' in 71 hrs. NB 4: Baker  
Hughes D507VTWX. Jet Pits,  
Fill Pits with Brine.

Lag Time 39.4

Shale Gas Assumed

MW IN/OUT 8.7/8.8  
VIS 36  
pH 10

Lag Time 40.3

CG

TG

MW 9  
VIS 34  
pH 10

Lag Time 40.8

Cisco (Pennsylvanian)

WOB 31k

WOB 30k  
RPM 55  
PP 2325  
SPM 121

50

MD 8378.00'  
TVD 8377.48'  
INC 0.84°  
AZM 0.40°  
VS -5.23'  
DLS 1.19°

8400

GAMMA API

0.5 1.0 1.5 2.0 2.5

50

MD 8467.00'  
TVD 8466.47'  
INC 1.01°  
AZM 0.66°  
VS -3.80'  
DLS 0.19°

WOB 33k

8500

SH: DRKGRY, GRY, BLK, BLKY  
FLKY, M/FNSLT, FNMICA, SM  
FNPYR, CARB, CALC, SFT/FRM  
LRG POSS CVNGSLS: GRY, MEDGRY, OFFWHT,  
WHT, MOTT, BLKY, MIC-VFX,  
SLI, LESS, ARG, FRM/BRTTL,  
W/STRD DULL GLD/BRN  
MIN FLUORSLTST: GRY, MEDGRY, SM DK  
GRY, MSLT, FNMICA, SM FN  
PYR, SHLY, SM GRDNG TO  
SLTY CARB SH IP, FRM

SH: A.A.

LS: A.A.

SLTST: GRY, MEDGRY, SM DK  
GRY, BLKY, M/CS SLT, CARB  
IP, ARG, FRMSH: DKGRY/BLK, SM MEDGRY  
FLKY, BLKY, M/CS SLT, CARB  
CALC, FRMLS: GRY, MEDGRY, OFFWHT,  
MOTT, BLKY, MIC/VFX, SM  
DNS, ARG, FRM/BRTTL, SM  
DLL GLD-BRN MIN FLUOR

SLTST: A.A.

SH: A.A.

LS: A.A., W/SM CRM, TN, A  
LITTLE CLNR

SH: A.A.

LS: MOTT, OFFWHT, MED/DRK  
GRY, SM BRN, CRM, BLKY  
MICX, DNS, FRM/HRD, ARG,  
SILIC IP, NO VIS MIN

CG

CG

CG

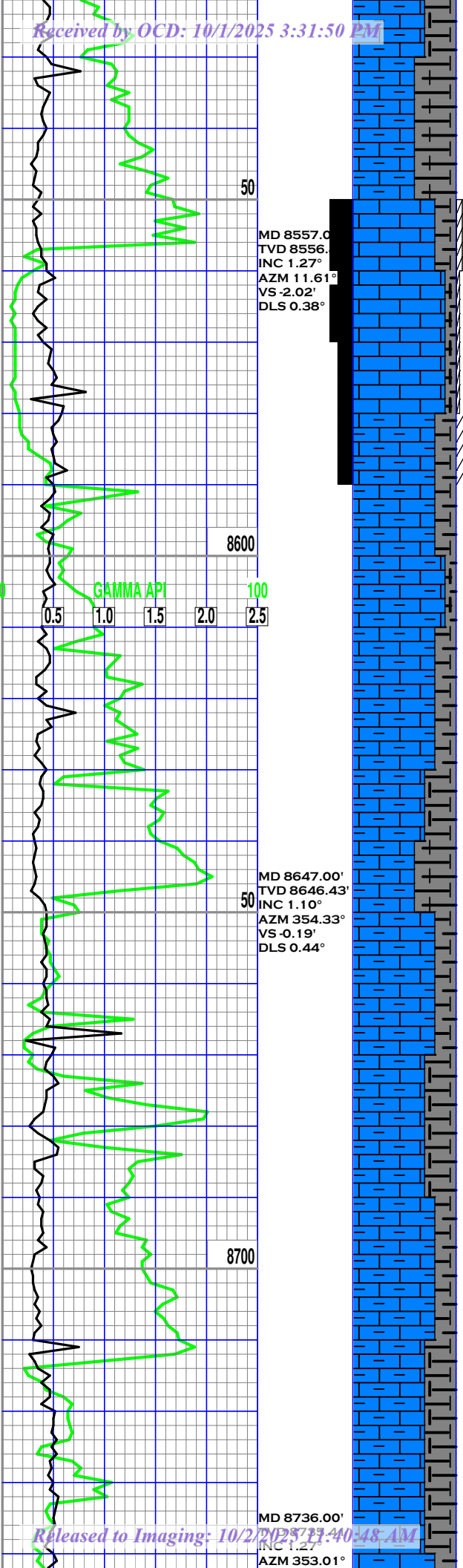
Lag Time 40.2

50 250 500 1k 2k 4k 10k

CG

CG

Lag Time 40.7



SH: DKGRY/BLK, SM MEDGRY  
DRKBRN, BLKY, FLKY, M/FN  
SLT, CARB, CALC, , SFT/FRM

LS: ABRPT INC IN WHT,  
SM OFFWHT,BLKY,MIC/VFX,  
CHLKY IP,BRTTL,10-15%  
FR LTBLU/YEL FLUOR,FR  
MLKY CUTS,MOD PETRO ODR  
IN SMPLS

LS: A.A., 10%FR FLUOR,  
FR MLKY WET CUTS, MOD  
PETRO ODOR

LS: A.A., FLUOR BCMNG  
SCTTRD W/TR SLW WET  
CUTS, SLI PETRO ODOR IN  
SMPLS

SH: A.A.

LS: MOTT, OFFWHT, GRY, SM  
MEDGRY, BLKY, MICX, DNS,  
ARG IP, SFT/BRTTL, DUL,  
GLD-BRN MIN FLUOR, NO  
SHOW IN SMPLS, FNT PETRO  
ODOR

SH: DKGRY/BLK, SM MEDGRY  
BLKY, FLKY, M/CS SLT, CARB  
CALC, SFT/FRM

LS: A.A.

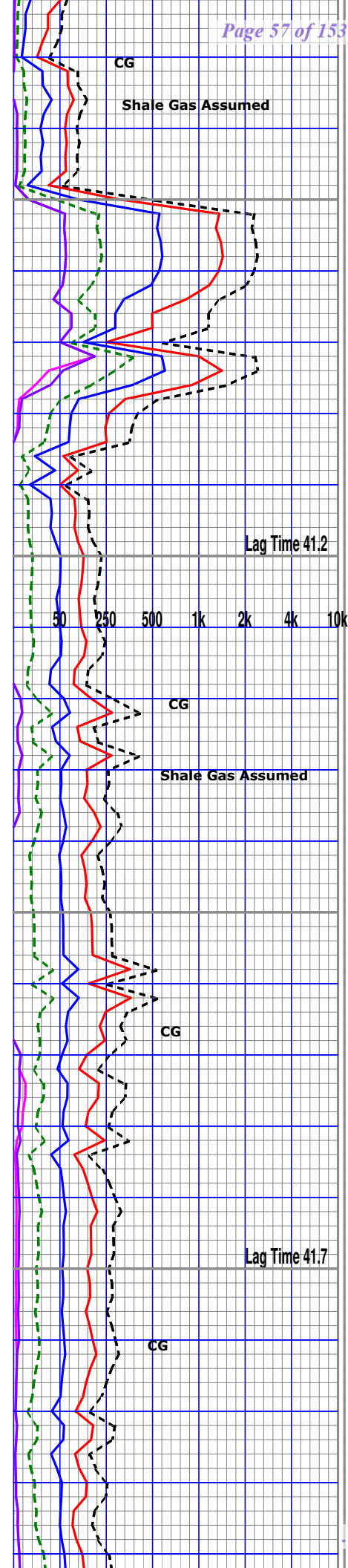
SH: A.A.

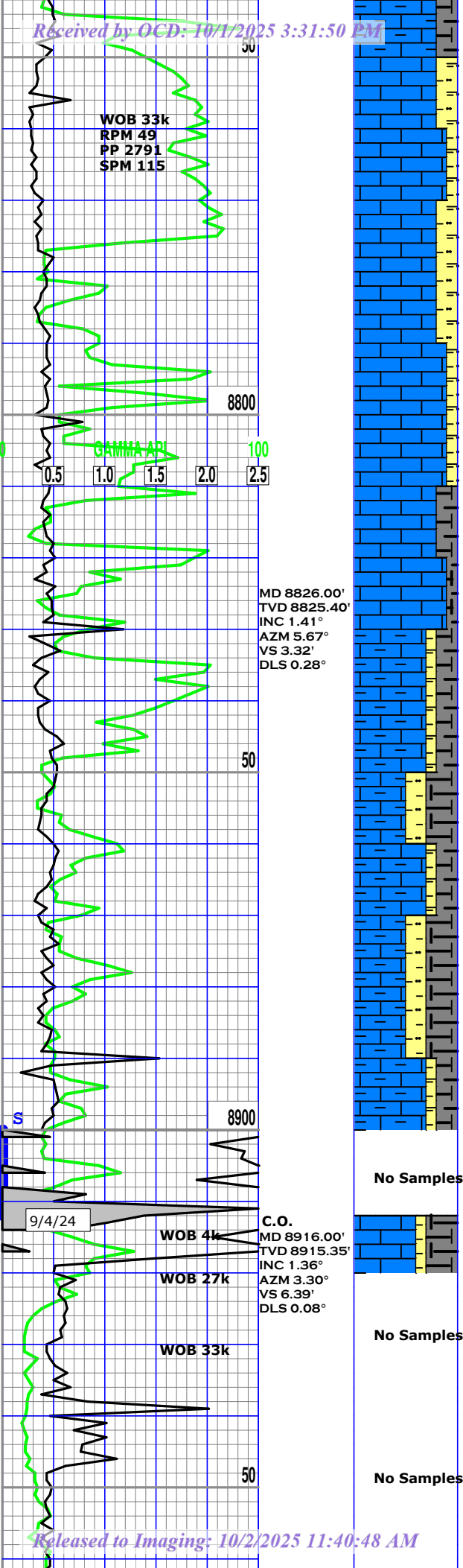
LS: MOTT, MED/DKGRY, SM  
OFFWHT, CRM, BF, BLKY,  
MIC/VFX, SM, DNS, ARG/  
/ARG IP, FRM, DULL GLD-  
BRN MIN, FLUOR

SH: MED/DKGRY, FLKY, SM  
BLKY, M/CS SLT, CARB, CALC  
SFT/FRM

LS: A.A.

SH: A.A. CHNGNG TO MED/  
DKGRY SLSTST W/DEPTH





LS: SLI CHNG TO GRY, MED  
GRY, CRM, BF, OFFWHT, MOTT,  
BLKY, MIC/VFX, FRM/BRTTL,  
CLNR/SLI ARG W/DULL GRY  
IP, GRDNG TO SILTY CARB  
SH IP, FRM

SLTST: GRY, MEDGRY, SM DK  
GRY, BLKY, M/CS SLT, CARB  
IP, GRDNG TO SILTY CARB  
SH IP, FRM

LS: A.A.

SLTST: A.A. GRDNG TO  
SLTY CARB SH W/DEPTH

LS: GRY, MEDGRY, OFFWHT,  
CRM, BF, MOTT, BLKY, MIC/  
VFX, SM, DNS, FRM/BRTTL,  
SLI ARG IP W/DULL GRY  
MIN FLUOR, BCMNG ARG/  
VY ARG W/DEPTH

SLTST: MED/DKGRY, BLKY,  
M/CSLT, CARB IP, CALC, FRM

SH: DKGRY/BLK, FLKY, SM  
BLKY, M/CS SLT, CARB, SM  
GMY, SFT/VY SFT

LS: MEDGRY, MOTT, SM DK  
GRY, OFFWHT, BF, TN, BLKKY,  
MIC/VFX, VY ARG, FRM, SM  
DULL GRY-BRN MIN FLUOR

SLTST: A.A. SAMPLES  
EXHIBITING MODERATE  
H2S ODOR

Drilling Halted at 8913' to Assess  
and Monitor H2S. Circulate Out  
with Half Pump Pressure and  
Strokes. Shut In Well, Monitor  
Casing Pressure. Pump In Kill Mud.  
Resume Drilling, Weak to Moderate  
H2S Odor Present After First  
Sample.

CG

CG/FG

Lag Time 42.1

Shale Gas Assum

CG/FG

Drierite Turning Black --  
H2S Indicated

Lag Time 42.6

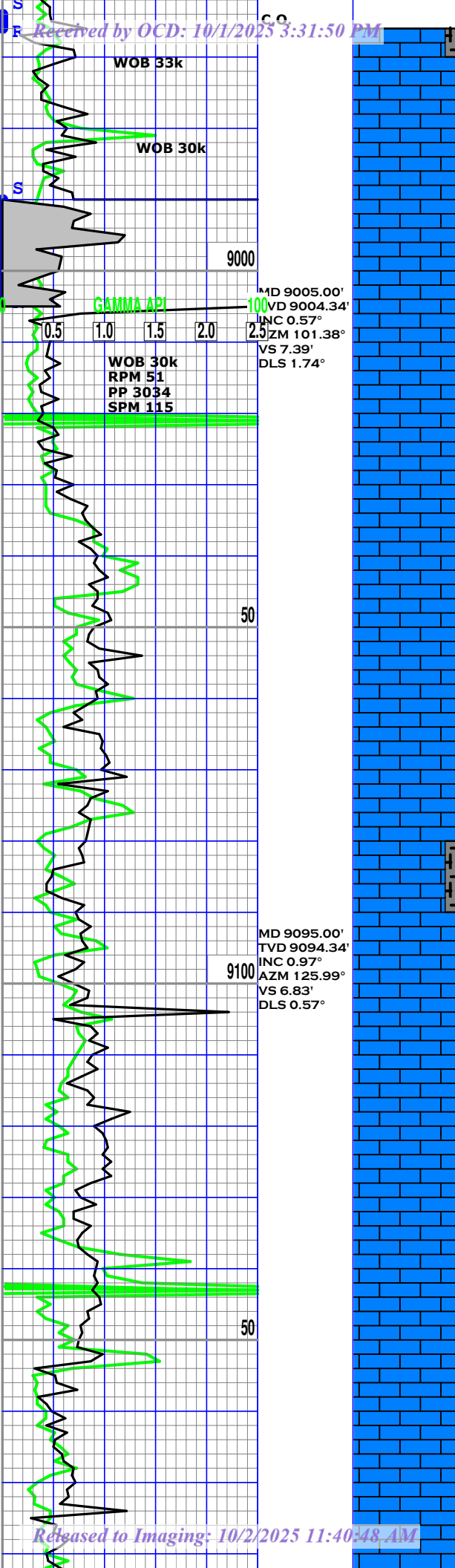
MW 9.2  
VIS 30  
pH 10

DTG

MW in/out 10.2/9.3  
VIS in/out 37/33  
pH 10  
Circulate at Half Pump Pressure  
and Strokes

CG

MW (Pit System) 10.7



Shut In Well at 8966' to Monitor Casing Pressure After 15 bbl Gain. Build Mud Weight to 10.2, Build System Kill Mud to 10.5, Pump In Kill Mud, Resume Drilling.

LS: WHT, OFFWHT, SM BRI  
WHT, BLKY, MICX, SM CHLKY,  
SFT/FRM, VY CLN, PL YEL-  
WHT MIN FLUOR

SM LRGE SH HEAVINGS IN  
SMPLS

LS: A.A., NO SHOW IN  
SMPLS

LS: WHT, OFFWHT, SM BRI  
WHT, MOTT, BLKY, MICX,  
CHLKY IP, SFT/FRM, PL YL-  
WHT MIN FLUOR

LS: SLI CHNG TO WHT, SM  
BRI, WHT, LTGRY, LTTN, CRM  
BLKY, MICX, DNS, NO LNCR  
CHLKY, FRM/BRTTL, PL YEL-  
WHT MIN FLUOR

LS: A.A.

SH: DKGRY/BLK, SM MEDGRY  
FLKY, MSLT, CARB, CALC, SFT

LS: A.A.

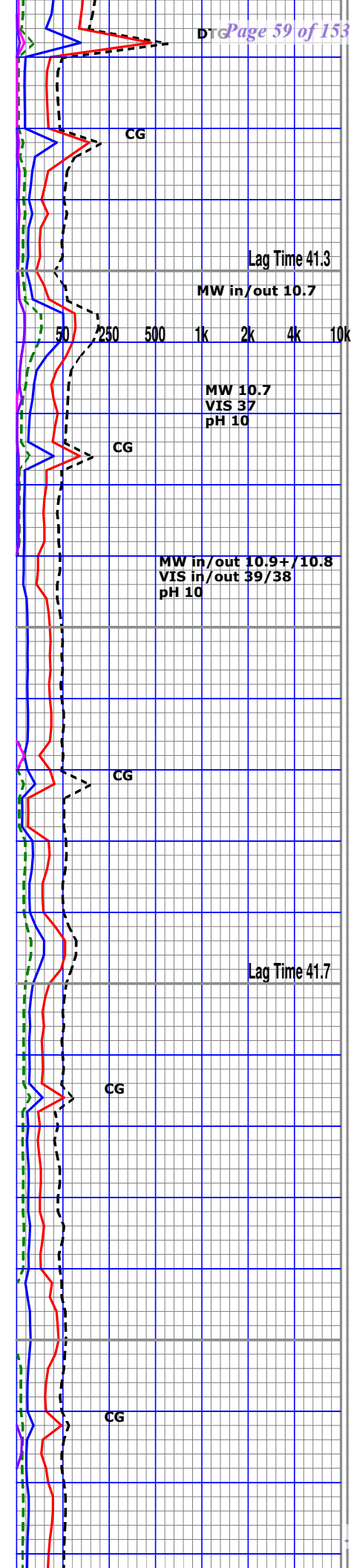
LS: WHT, SM BRI, WHT, OFF  
WHT, LTGRY, CRM, BF, BLKY,  
MICX, SM DNS, FRM/BRTTL,  
CLN, PL YEL-WHT MIN FLR

TR SH: DKGRY/BLK, SM MED  
GRY, FLKY, MSLT, CARB, CALC  
SFT

LS: A.A., NO CHNG IN  
SMPLS, MIN FLUOR CHNG  
TO DULL YEL-GLD

LS: WHT, OFFWHT, SM BRI

Page 59 of 153



MD 9185.00'  
TVD 9184.32'  
INC 0.31°  
AZM 127.84°  
VS 5.91'  
DLS 0.03°

WHT, LTGRY, CRM, LTTN, BLKY  
MICX, DNS, CHLKY, IP, SFT/  
FRM, DULL, YEL-GLD, MIN  
FLUOR

Lag Time 42.2

LS: A.A.

CG

LS: WHT, OFFWHT, SM, BRI  
WHT, LTGRY, CRM, BF, BLKY,  
MICX, SM, DNS, SFT/FRM,  
DULL, YEL-GLD, MIN, FLUOR

LS: A.A.

SLTST: MEDGRY, GRY, BLKY,  
M/CS, SLT, GRDNG TO, SLTY,  
CARB, SH, IP, FRM

CG

Shale Gas Assumed

SH: DKGRY/BLK, MEDGRY,  
FLKY, MSLT, CARB, CALC,  
SFT/FRM, SLTY, GRDNG TO  
ARG, SLTST, IP

LS: OFFWHT, MOTT, SM, WHT,  
LTGRY, CRM, LTTN, BLKY,  
MICX, SM, DNS, SLI, ARG, IP,  
FRM, DULL, YEL-GLD, MIN,  
FLUOR

LS: INC, WHT, OFFWHT, CLNR,  
MICX, DNS, SFT/FRM

Lag Time 42.7

LS: WHT, BRTWHT, OFFWHT,  
LTGRY, SM, CRM, BLKY, MIC,  
VFX, FRM, SFT, VRY, CLN, SM,  
CHLKY, IP, W/DULL, GLD/WHT,  
MIN, FLUOR

MW 10.7  
VIS in/out 43/38  
pH 10

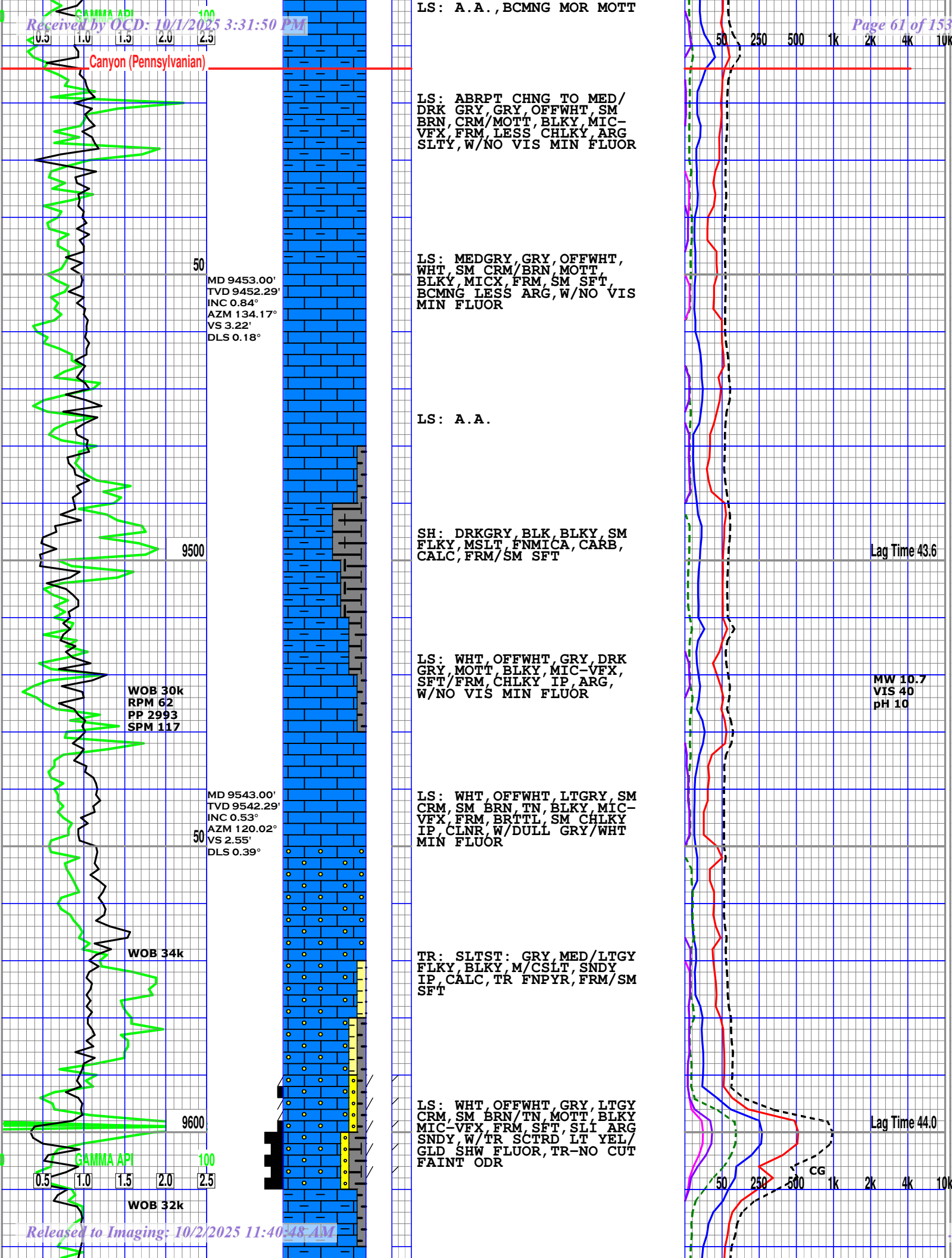
LS: A.A., MOR, SFT/CHLKY,  
W/15-20% FR, YEL/ORNG,  
SHW, FLUOR, PR-FR, MLKY, WT,  
CUT, SLI, ODR

SH: MED/DRK, GRY, DRKBRN,  
BLKY, SM, FLKY, M/CSLT, VRY,  
SLTY, SM, GRDNG TO, SLTST,  
IP, CALC, W/SM, FNPYR, CARB,  
IP, FRM/SFT

LS: WHT, OFFWHT, LTGRY,  
CRM, SM, LTBKN/TN, MOTT,  
BLKY, MIC-VFX, VRY, SFT,  
CHLKY, CLNR, W/DULL, GRY/  
WHT, MIN, FLUOR

Lag Time 43.1

LS: A.A., BCMNG MOR MOTT



LS: CHNG TO GRY, MED/DRK  
 GRY, OFFWHT, CRM, BRN, MOTT  
 BLKY, MIC-VFX, FRM, SM SFT  
 MOR ARG, W/NO VIS MIN  
 FLUOR

MD 9633.00'  
 TVD 9632.28'  
 INC 0.75°  
 AZM 108.94°  
 VS 2.15'  
 DLS 0.28°

SS: GRY, LTGRY, WHT, FRSTD  
 SM CLR, F-MG, TITE/CONSOL  
 CLSTRS, W/CALC CMNT, W/SM  
 FREE PYR NOTD, PRLY SRTD  
 W/20-30% PR PALE ORNG  
 SHW FLUOR, PR-FR MLKY WT  
 CUT, SM CUT FRM CARB SH

SS: CHNG TO GRY, MED/DRK  
 GRY, FRSTD, SM WHT, SM CLR  
 M-FG, TITE CONSOL CLSTRS  
 W/CALC CMNT, BCMNG VRY  
 ARG W/DPTH, W/35% PR  
 PALE ORNG SHW FLUOR, PR-  
 FR SLW MLKY WET CUTS,  
 SLI ODR, SM CUT FRM CARB  
 SH

SS: A.A., INCRSNGLY ARG,  
 W/15-20% PR PALE ORNG  
 SHW FLUOR, TR SLW WET CT

SH: MED/DRKGRY, GRY, BLKY  
 SM FLKY, MSLT, VRY SLTY  
 CARB, CALC W/SM GRDNG TO  
 CARB SLTST IP, FRM/SFT

LS: WHT, OFFWHT, GRY, LTGY  
 CRM, MOTT, BLKY, MIC-VFX,  
 FRM/SFT, SLI CHLKY IP  
 SLI ARG, W/DULL GRY/WHT  
 MIN FLUOR

SH: MED/DRKGRY, BLKY, SM  
 FLKY, M/CSLT, VRY SLT, SM  
 GRDNG TO SHLY SLTST IP,  
 CARB, CALC, SFT/FRM

LS: CHNG TO MED/DRKGRY,  
 GRY, SM WHT/OFFWHT, CRM,  
 VRY MOTT, BLKY, MIC-VFX,  
 SFT/FRM, VRY ARG/SHLY  
 SM GRNG TO LMY CARB SH  
 IP, W/NO VIS MIN FLUOR

LS: BCMNG LESS ARG

Lag Time 44.5

MW 10.7  
 VIS 40  
 pH 10

Lag Time 45.0

MW in/out 10.9/11.2  
 VIS in/out 42/43  
 pH 10

MD 9722.00'  
 TVD 9721.28'  
 INC 0.57°  
 AZM 116.06°  
 VS 1.77'  
 DLS 0.22°

WOB 33k

MD 9785.00'  
 TVD 9784.27'  
 INC 0.66°  
 AZM 88.11°  
 VS 1.64'  
 DLS 0.49°

GAMMA AP

9/6-8/24

0.5

1.0

1.5

2.0

JUMD 9850.00'

2.5 VD 9849.27'

PTB: INC 0.66°

AZM 88.11°

VS 1.67'

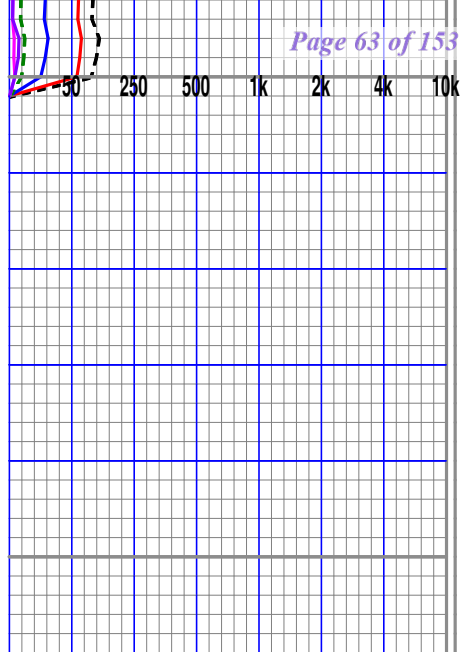
DLS 0.00°

9900

GAMMA API

100

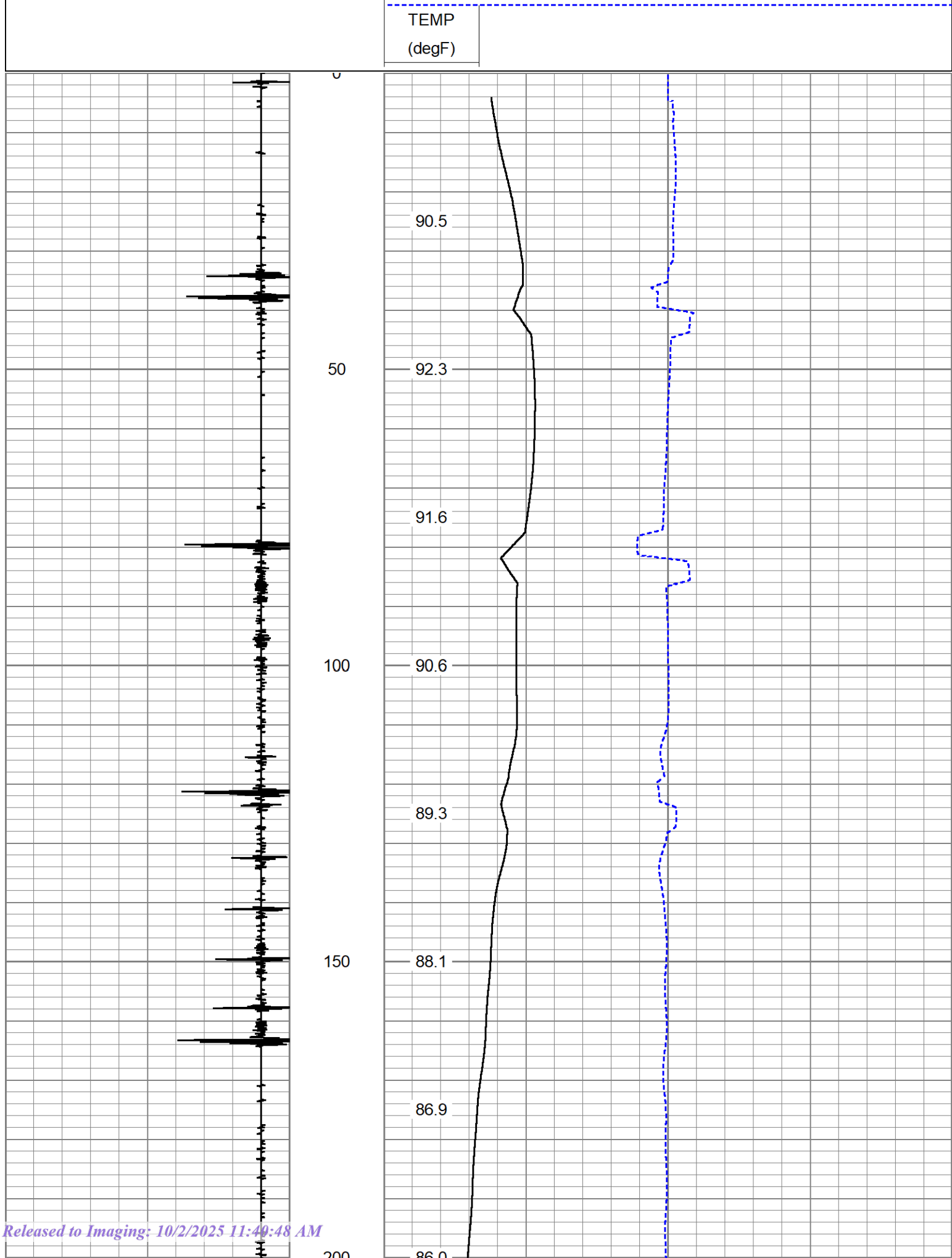
T.D. at 9850' on 9/5/2024.  
Circulate Sweeps, Continue to  
Monitor Gas Through Trips, ELogs,  
Rig Repair and Setting/Cementing  
of Casing.  
Released on 9/8/2024.  
Thank you for using Zia Geological.

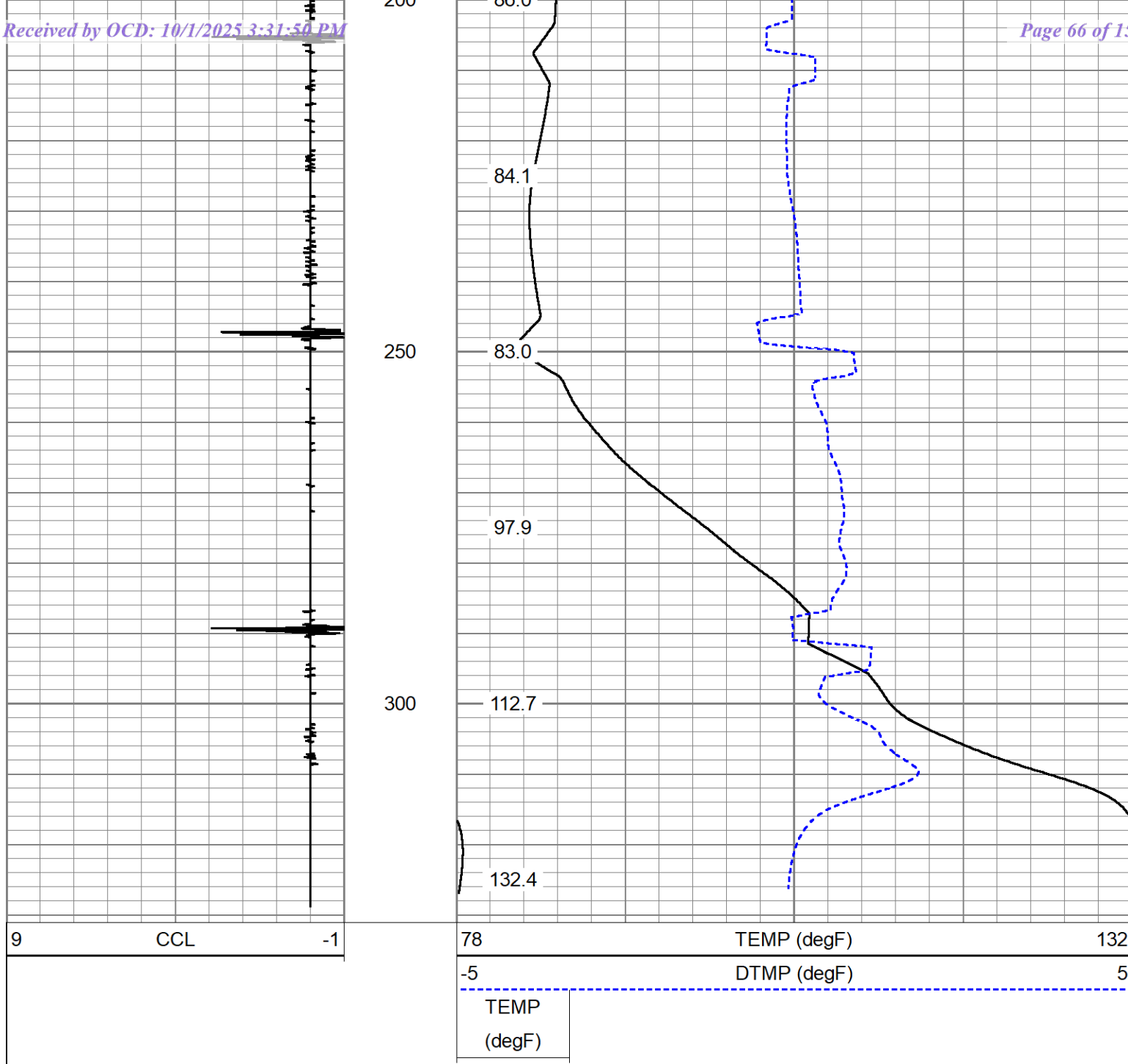


## SERVICES

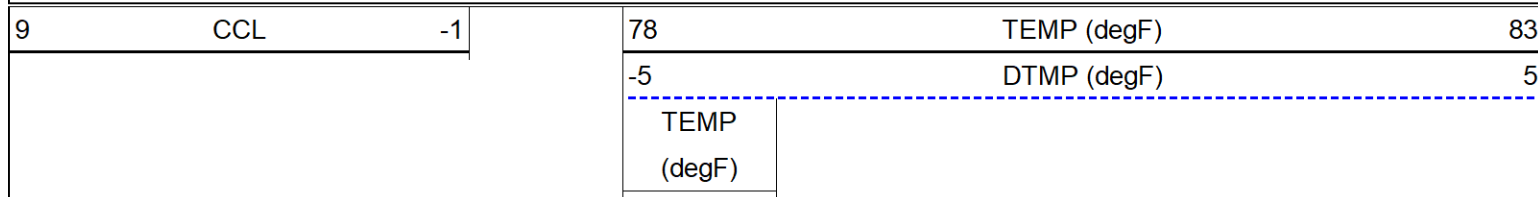
| Comments                               |  |
|----------------------------------------|--|
| No Correction made Wireline Depth Only |  |

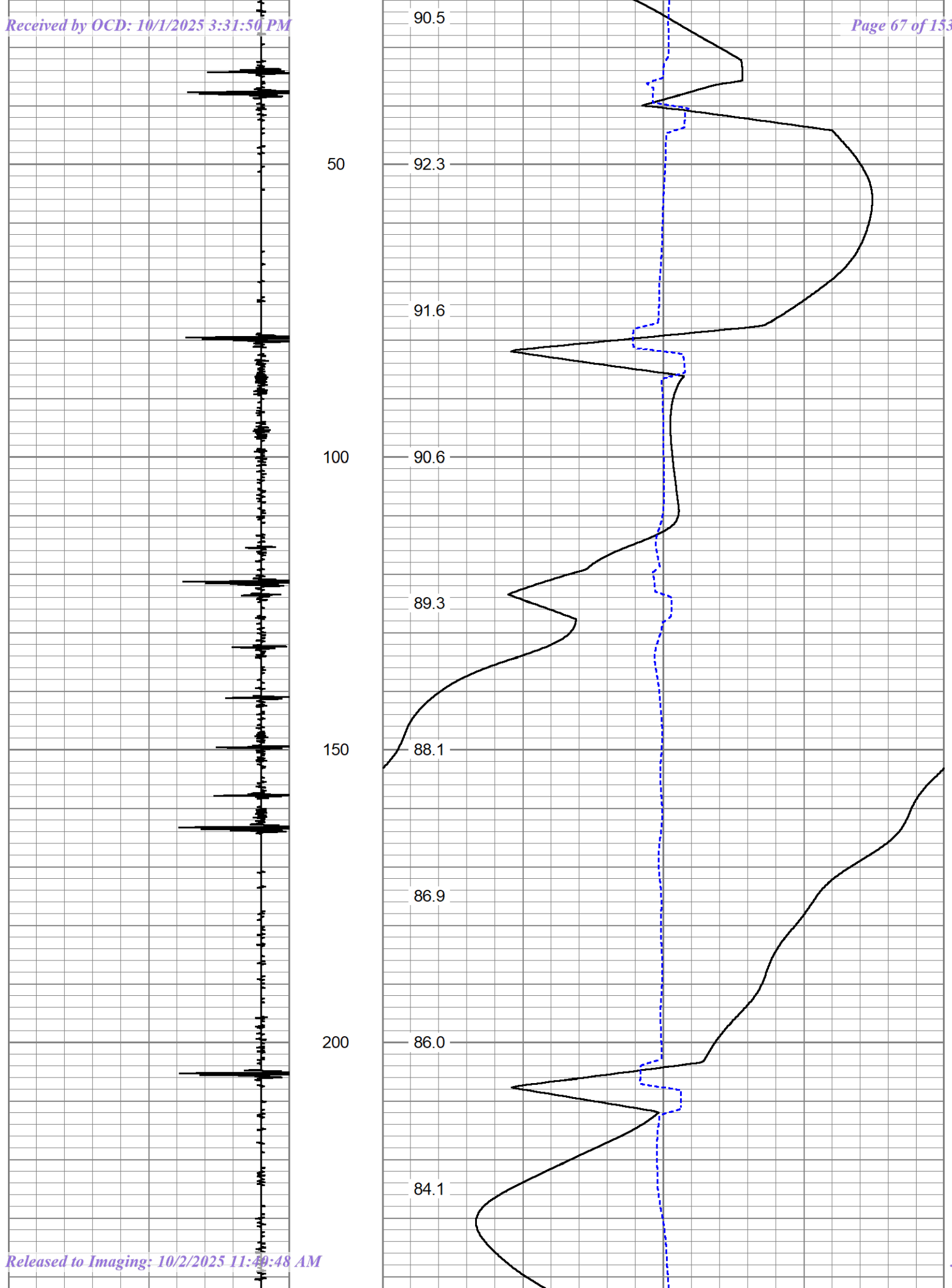
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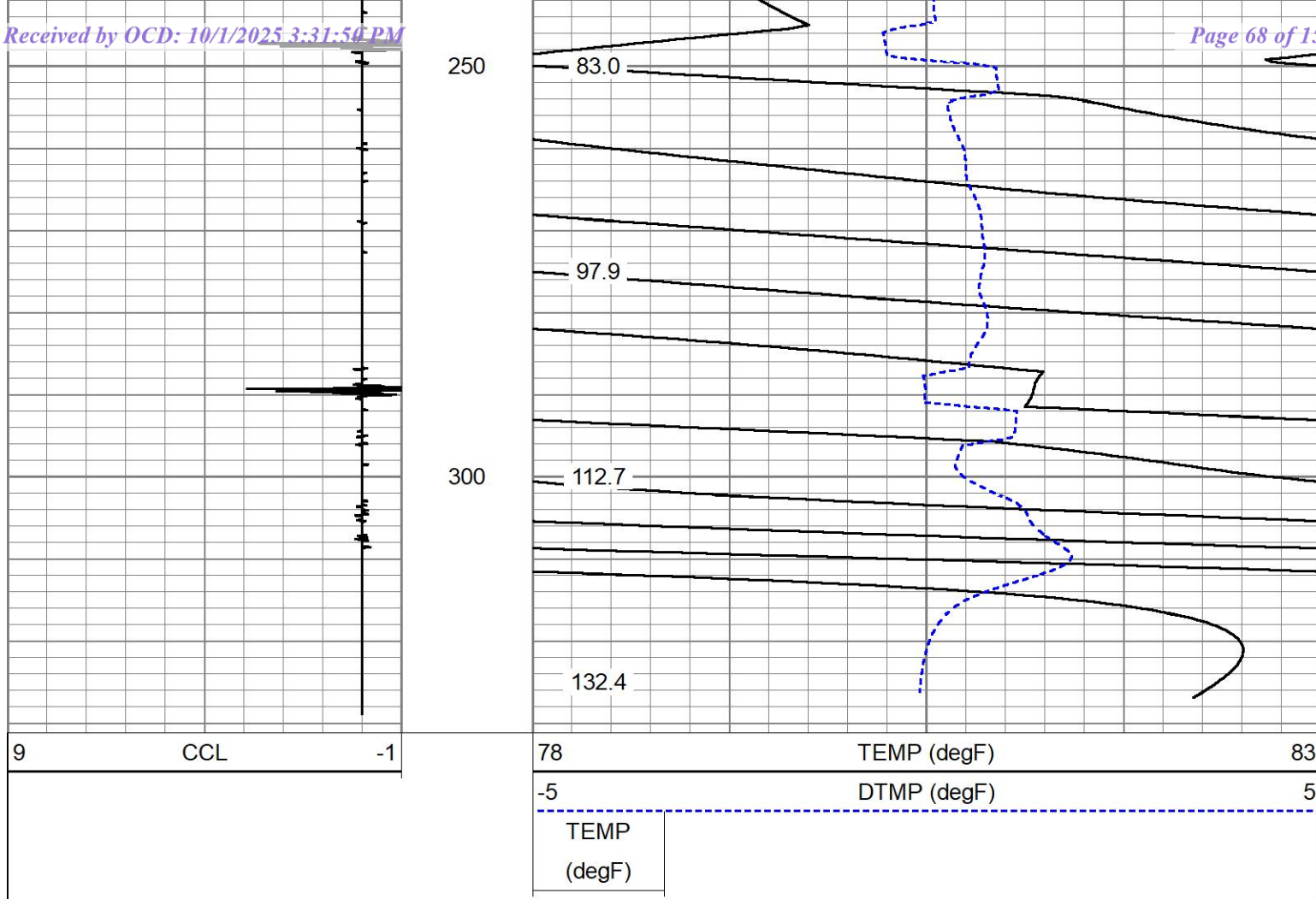




Database File longfellow\_angusfed17swd-1.db  
Dataset Pathname pass3  
Presentation Format temp  
Dataset Creation Fri Aug 23 07:30:18 2024  
Charted by Depth in Feet scaled 1:240







| Sensor | Offset (ft) | Schematic                                                                           | Description                                     | Length (ft) | O.D. (in) | Weight (lb) |
|--------|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------|-------------|-----------|-------------|
| CCL    | 2.10        |  | Cable_Head-1.375<br>Titan 1 3/8" Cable Head     | 1.02        | 1.38      | 3.31        |
|        |             |                                                                                     | CCL-Probe (Probe_1)<br>1 3/8" Probe Logging CCL | 1.90        | 1.38      | 5.00        |
|        |             |                                                                                     | TEMP-Probe (P01)<br>Probe 1 3/8" Temp           | 1.60        | 1.38      | 4.00        |
| TEMP   | 0.00        |  |                                                 |             |           |             |
| LOCTIM | 0.00        |                                                                                     |                                                 |             |           |             |
| UTCTIM | 0.00        |                                                                                     |                                                 |             |           |             |

|                                                                                  |         |                        |         |  |
|----------------------------------------------------------------------------------|---------|------------------------|---------|--|
|  | Company | LongFellow Energy      |         |  |
|                                                                                  | Well    | Angus Federal 17 SWD-1 |         |  |
|                                                                                  | Field   |                        |         |  |
|                                                                                  | County  | Eddy                   |         |  |
|                                                                                  | State   | New Mexixo             | Country |  |

HALLIBURTON

DUAL LATEROLOG  
SPECTRAL DENSITY  
DUAL SPACED NEUTRON  
TRIPLE COMBO LOG

|                          |  |                           |  |
|--------------------------|--|---------------------------|--|
| COMPANY                  |  | LONGFELLOW ENERGY, LP     |  |
| WELL                     |  | ANGUS FEDERAL 17 SWD #1   |  |
| FIELD/BLOCK              |  | LOCO HILLS                |  |
| COUNTY                   |  | EDDY                      |  |
| STATE                    |  | NEW MEXICO                |  |
| Permanent Datum          |  | GL                        |  |
| Log measured from        |  | KB                        |  |
| Drilling measured from   |  | KB                        |  |
| Date                     |  | 06-Sep-24                 |  |
| Run No.                  |  | 1                         |  |
| Depth - Driller          |  | 9850.0 ft                 |  |
| Depth - Logger           |  | 9853.0 ft                 |  |
| Bottom - Logged Interval |  | 9850                      |  |
| Top - Logged Interval    |  | 100                       |  |
| Casing - Driller         |  | 9.625 in @ 2600.0 ft      |  |
| Casing - Logger          |  | 2583.0 ft @               |  |
| Bit Size                 |  | 8.750 in @                |  |
| Type Fluid in Hole       |  | Water Based Mud @         |  |
| Density                  |  | 11.0 ppg                  |  |
| Viscosity                |  | 44.00 s/qt                |  |
| PH                       |  | 8.50 pH                   |  |
| Fluid Loss               |  | 12.1 qpm                  |  |
| Scale of Sample          |  | FLOWLINE                  |  |
| Rm @ Meas. Temperature   |  | 0.10 ohmm @ 88.00 degF @  |  |
| Rmf @ Meas. Temperature  |  | 0.07 ohmm @ 82.00 degF @  |  |
| Rmc @ Meas. Temperature  |  | 0.17 ohmm @ 82.00 degF @  |  |
| Scale Rmf                |  | MEAS                      |  |
| Scale Rmc                |  | MEAS                      |  |
| Rm @ BHT                 |  | 0.06 ohmm @ 153.0 degF @  |  |
| Time Since Circulation   |  | 14.00 hr                  |  |
| Time on Bottom           |  | 06-Sep-24 18:44           |  |
| Meas. Rec. Temperature   |  | 153.00 degF @ 9853.0 ft @ |  |
| Equipment Location       |  | 10945798 ODESSA, TX @     |  |
| Recorded By              |  | RICHARD WHITLOCK          |  |
| Witnessed By             |  | JAKE DEHAMER              |  |
|                          |  | JOE BASSHAM               |  |

|                      |                         |
|----------------------|-------------------------|
| COMPANY              | LONGFELLOW ENERGY, LP   |
| WELL                 | ANGUS FEDERAL 17 SWD #1 |
| FIELD/BLOCK          | LOCO HILLS              |
| COUNTY               | EDDY                    |
| STATE                | NEW MEXICO              |
| API No.              | 30-015-55341            |
| Location             | SURF: 610 FSL & 705 FEL |
| Other Services:      | DLT/TMSFL<br>SD/DSN     |
| Lat: 32.8289720 N    |                         |
| Long: 104.0906830 W  |                         |
| Sect. 17             | Twp. 17S                |
| Rge. 29E             |                         |
| Elev. 3602.5 ft      |                         |
| Elev. K.B. 3614.5 ft |                         |
| D.F. 3614.5 ft       |                         |
| G.L. 3602.5 ft       |                         |

Fold here

|                                             |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
|---------------------------------------------|------------|-------|----------|-----------------------|----------|----------------------------|-----------------|------------------------------------------|-----------------|-------------|-------|---|--------|
| Sales Order Number: 909532140               |            |       |          | API No.: 30-015-55341 |          |                            |                 | PGM Version: WL INSITE R6.8.20 (Build 3) |                 |             |       |   |        |
| CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE     |            |       |          |                       |          | RESISTIVITY SCALE CHANGES  |                 |                                          |                 |             |       |   |        |
| Date                                        | Sample No. |       |          |                       |          | Type Log                   | Depth           | Scale Up Hole                            | Scale Down Hole |             |       |   |        |
| Depth-Driller                               |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| Type Fluid in Hole                          |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| Density                                     | Viscosity  |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| Ph                                          | Fluid Loss |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| Source of Sample                            |            |       |          |                       |          | RESISTIVITY EQUIPMENT DATA |                 |                                          |                 |             |       |   |        |
| Rm @ Meas. Temp                             |            | @     |          | @                     |          | Run No.                    | Tool Type & No. | Pad Type                                 | Tool Pos.       | Other       |       |   |        |
| Rmf @ Meas. Temp.                           |            | @     |          | @                     |          |                            |                 |                                          |                 |             |       |   |        |
| Rmc @ Meas. Temp.                           |            | @     |          | @                     |          |                            |                 |                                          |                 |             |       |   |        |
| Source Rmf                                  | Rmc        |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| Rm @ BHT                                    |            | @     |          | @                     |          |                            |                 |                                          |                 |             |       |   |        |
| Rmf @ BHT                                   |            | @     |          | @                     |          |                            |                 |                                          |                 |             |       |   |        |
| Rmc @ BHT                                   |            | @     |          | @                     |          |                            |                 |                                          |                 |             |       |   |        |
| EQUIPMENT DATA                              |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| GAMMA                                       |            |       | ACOUSTIC |                       |          | DENSITY                    |                 |                                          | NEUTRON         |             |       |   |        |
| Run No.                                     |            |       |          | Run No.               |          |                            |                 | Run No.                                  |                 |             |       |   |        |
| Serial No.                                  |            |       |          | Serial No.            |          |                            |                 | Serial No.                               |                 |             |       |   |        |
| Model No.                                   |            |       |          | Model No.             |          |                            |                 | Model No.                                |                 |             |       |   |        |
| Diameter                                    |            |       |          | No. of Cent.          |          |                            |                 | Diameter                                 |                 |             |       |   |        |
| Detector Model No.                          |            |       |          | Spacing               |          |                            |                 | Log Type                                 |                 |             |       |   |        |
| Type                                        |            |       |          |                       |          | Source Type                |                 |                                          |                 | Source Type |       |   |        |
| Length                                      |            |       |          | LSA [Y/N]             |          |                            |                 | Serial No.                               |                 |             |       |   |        |
| Distance to Source                          |            |       |          | FWDA [Y/N ]           |          |                            |                 | Strength                                 |                 |             |       |   |        |
| LOGGING DATA                                |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |
| GENERAL                                     |            |       | GAMMA    |                       | ACOUSTIC |                            |                 | DENSITY                                  |                 | NEUTRON     |       |   |        |
| Run                                         | Depth      | Speed | Scale    |                       | Scale    |                            | Matrix          | Scale                                    |                 | Matrix      | Scale |   | Matrix |
|                                             |            |       |          | R                     | L        | R                          |                 | L                                        | R               |             | L     | R |        |
| Released for Imaging: 10/2/2025 11:40:48 AM |            |       |          |                       |          |                            |                 |                                          |                 |             |       |   |        |

DIRECTIONAL INFORMATION

|                                                 |   |     |   |
|-------------------------------------------------|---|-----|---|
| Maximum Deviation                               | @ | KOP | @ |
| Remarks: RUN 1: GTET-DSN-SDL-DLLT-MSFL          |   |     |   |
| LIMESTONE MATRIX USED FOR POROSITY CALCULATIONS |   |     |   |
| CHLORIDES REPORTED AT 22000 PPM                 |   |     |   |
| ANNULAR HOLE VOLUME COMPUTED WITH 7" CASING     |   |     |   |
| HEAVY MUD AFFECTING PE IN SOME AREAS            |   |     |   |
| RIG: STRATEGY LATERAL 202                       |   |     |   |
| CREW: WHITLOCK, NEWBERRY, BADU, GALBAN          |   |     |   |

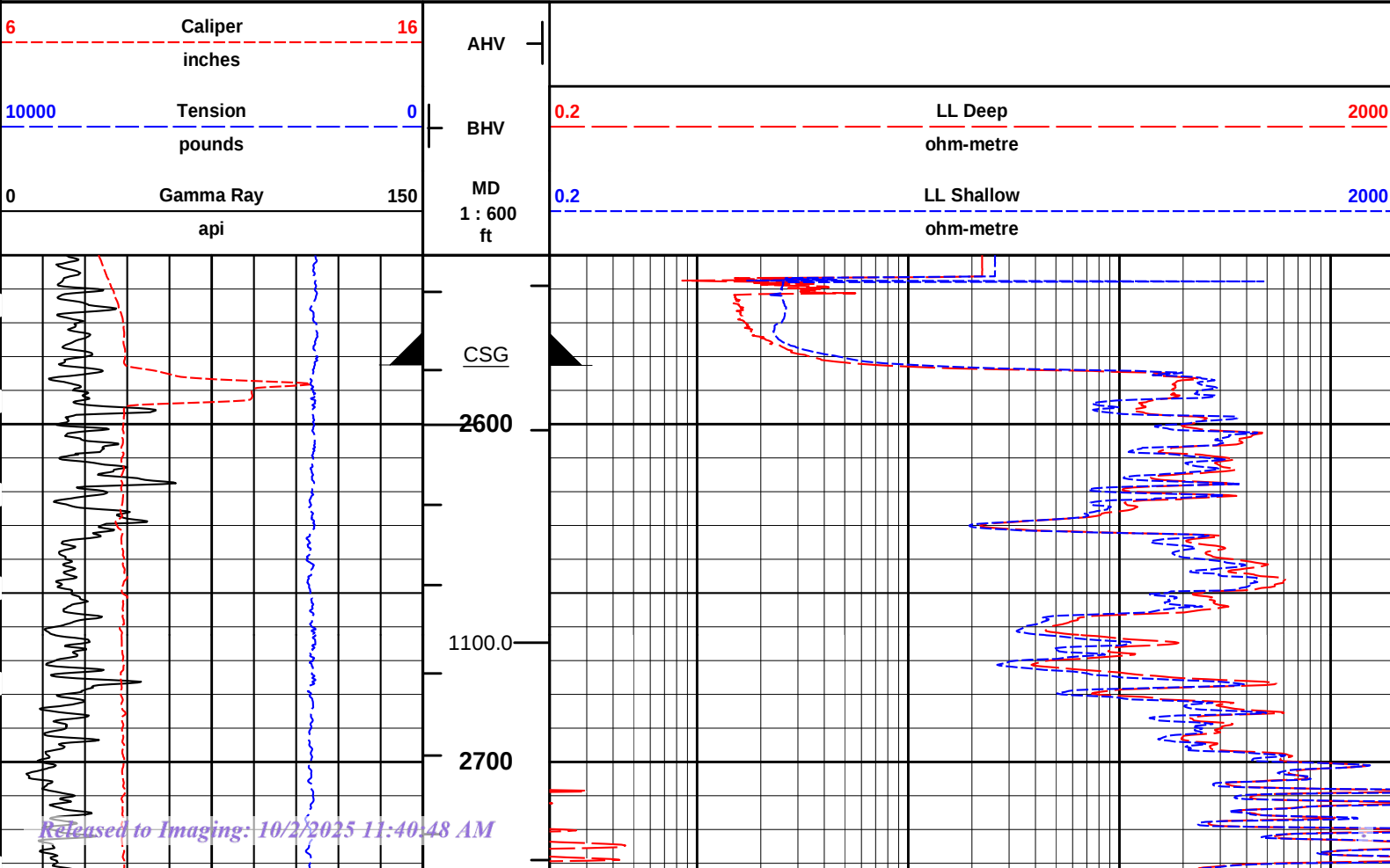
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

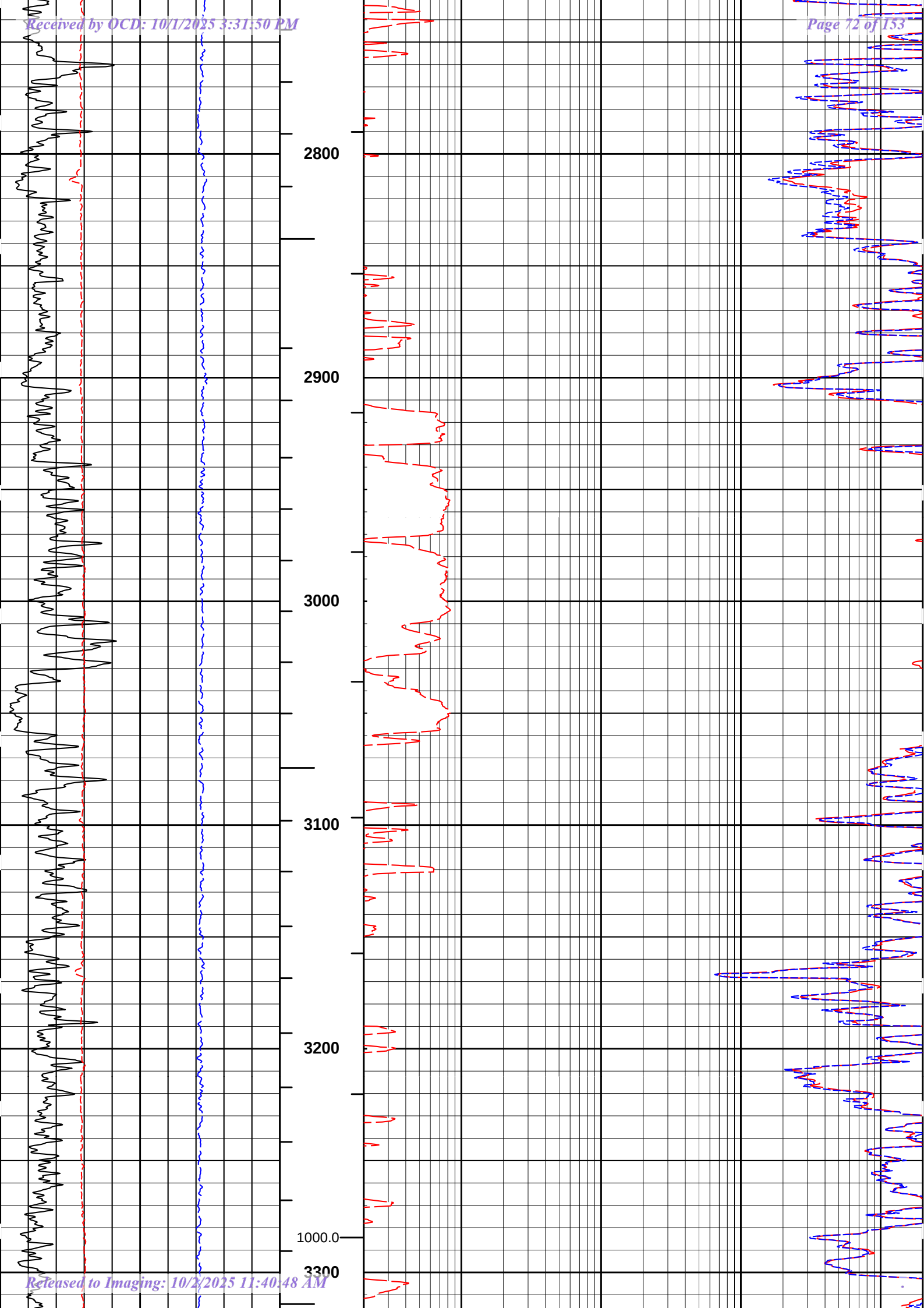
HALLIBURTON

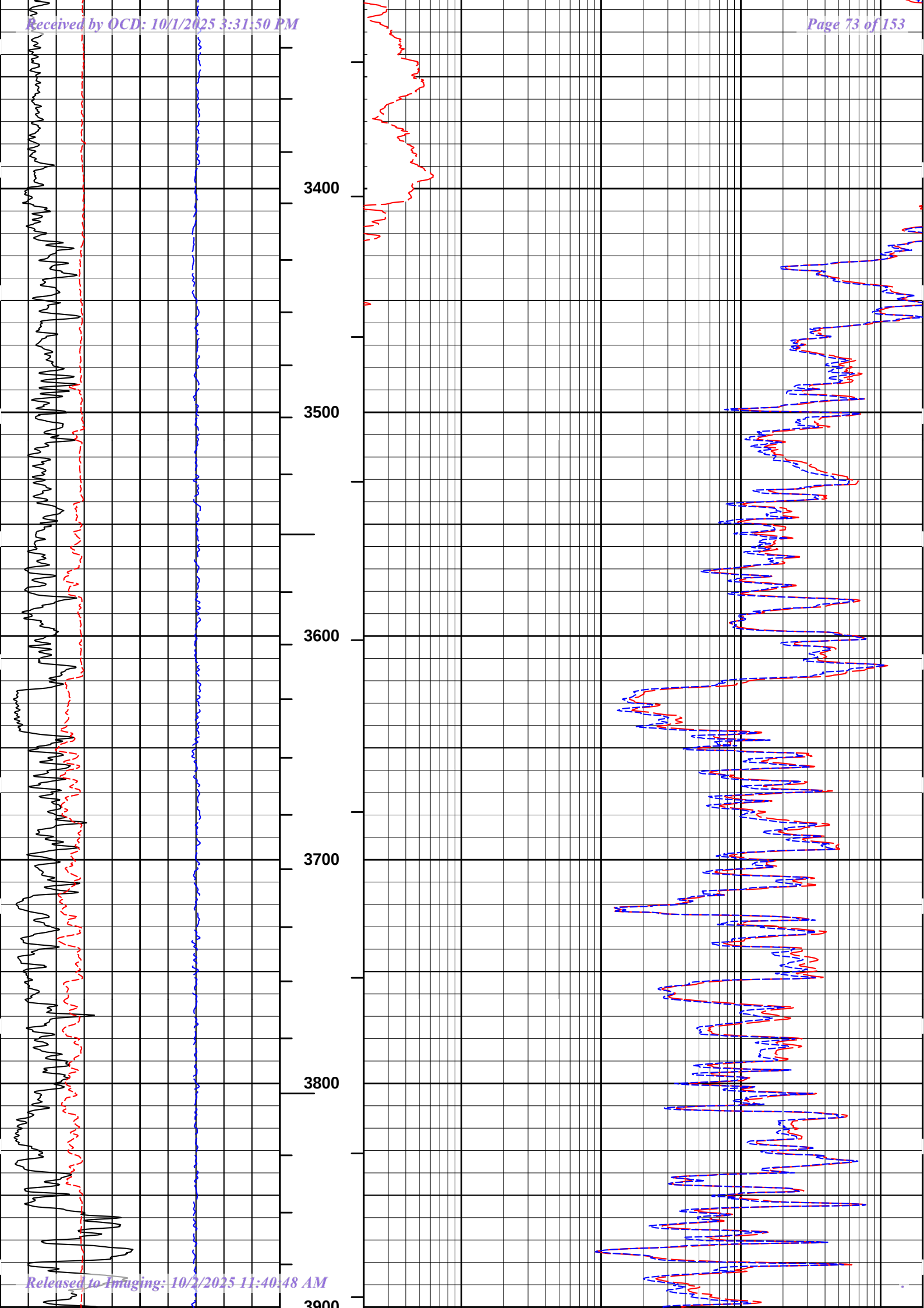


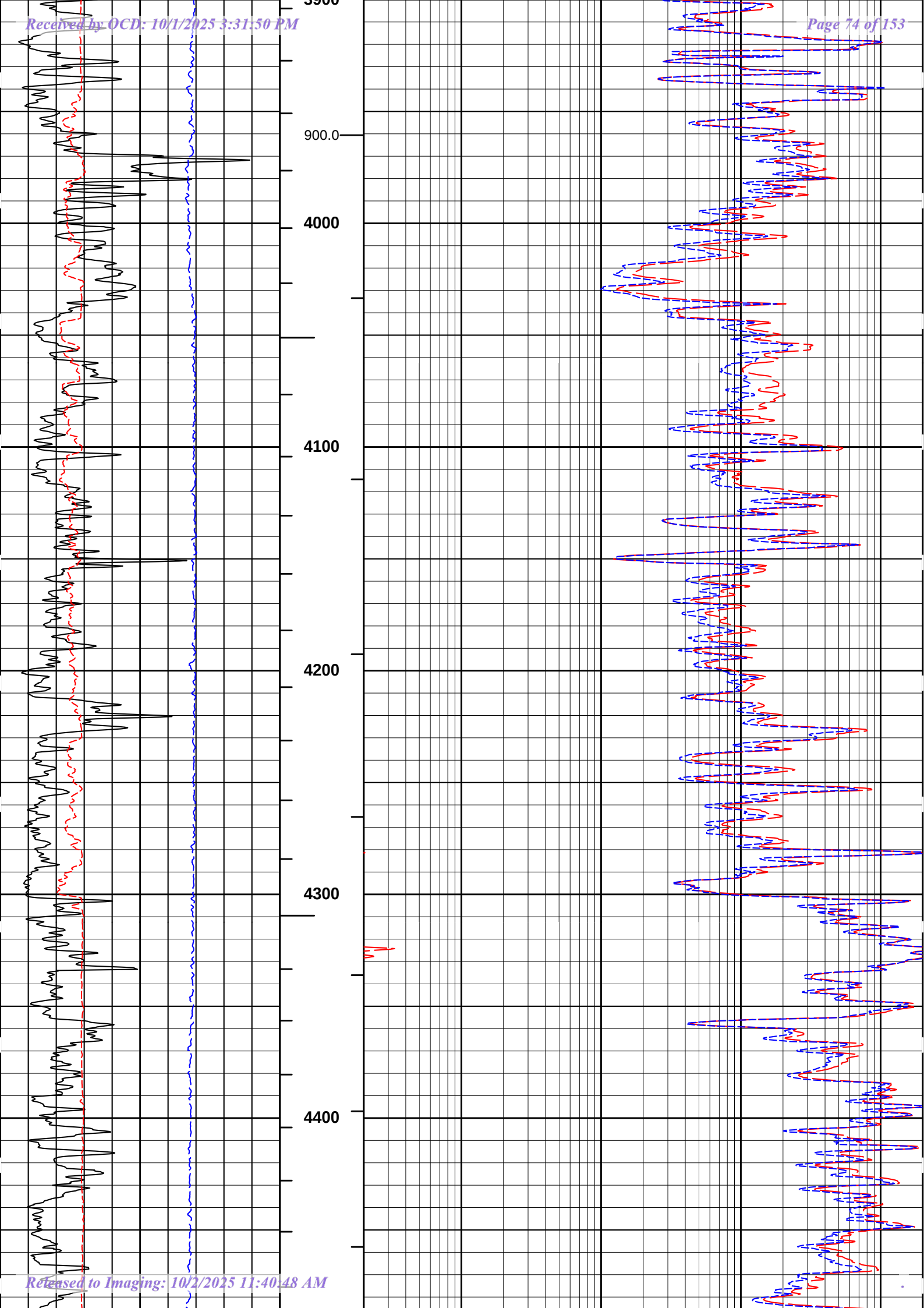
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Plot Range: 2550 ft to 9863.75 ft  
Data: LONG\_ANGUS\_SWD1\Well Based\\*  
Plot File: \\TCOMBO\IQ-DLL 2in

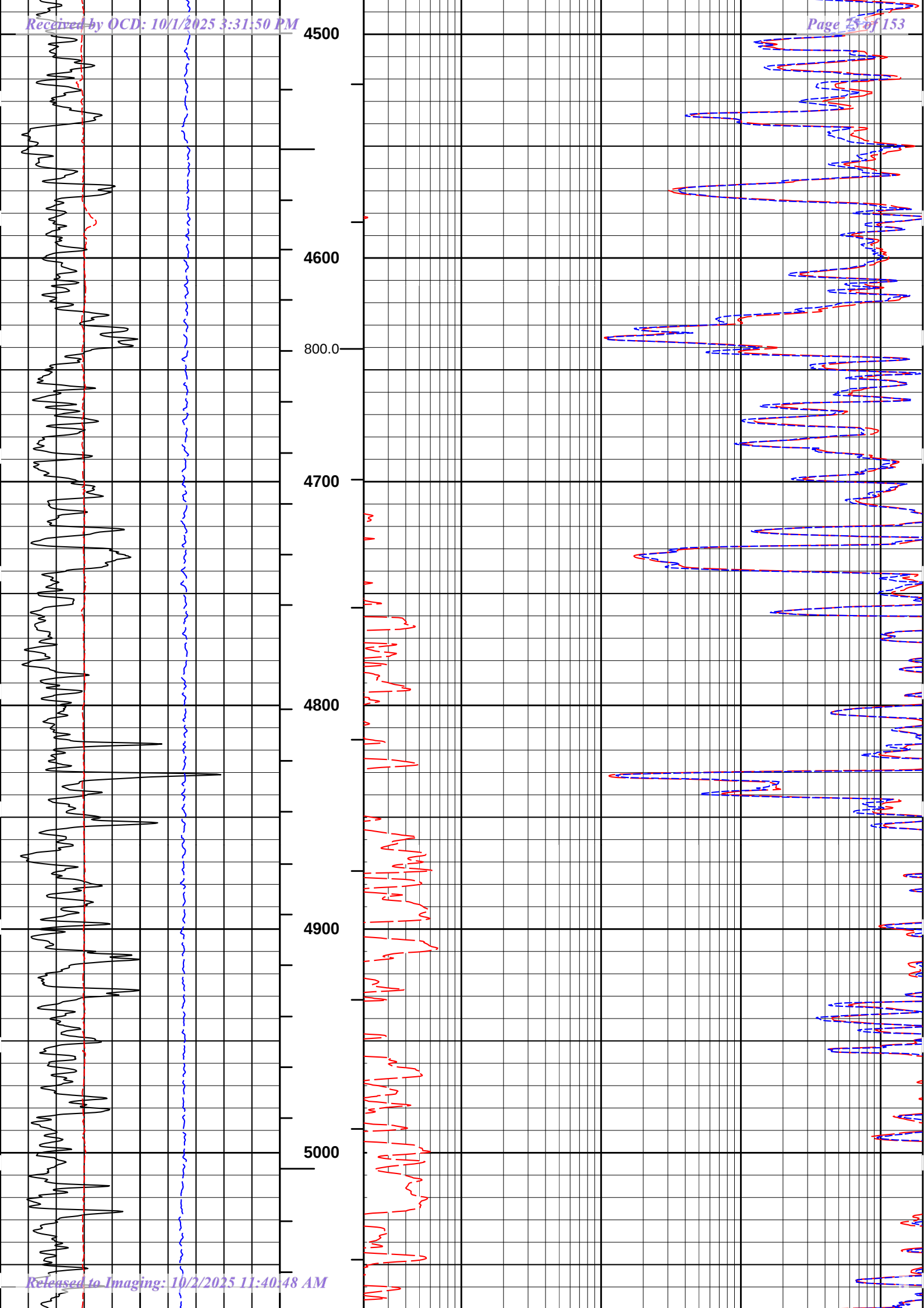
2" = 100' MAIN PASS

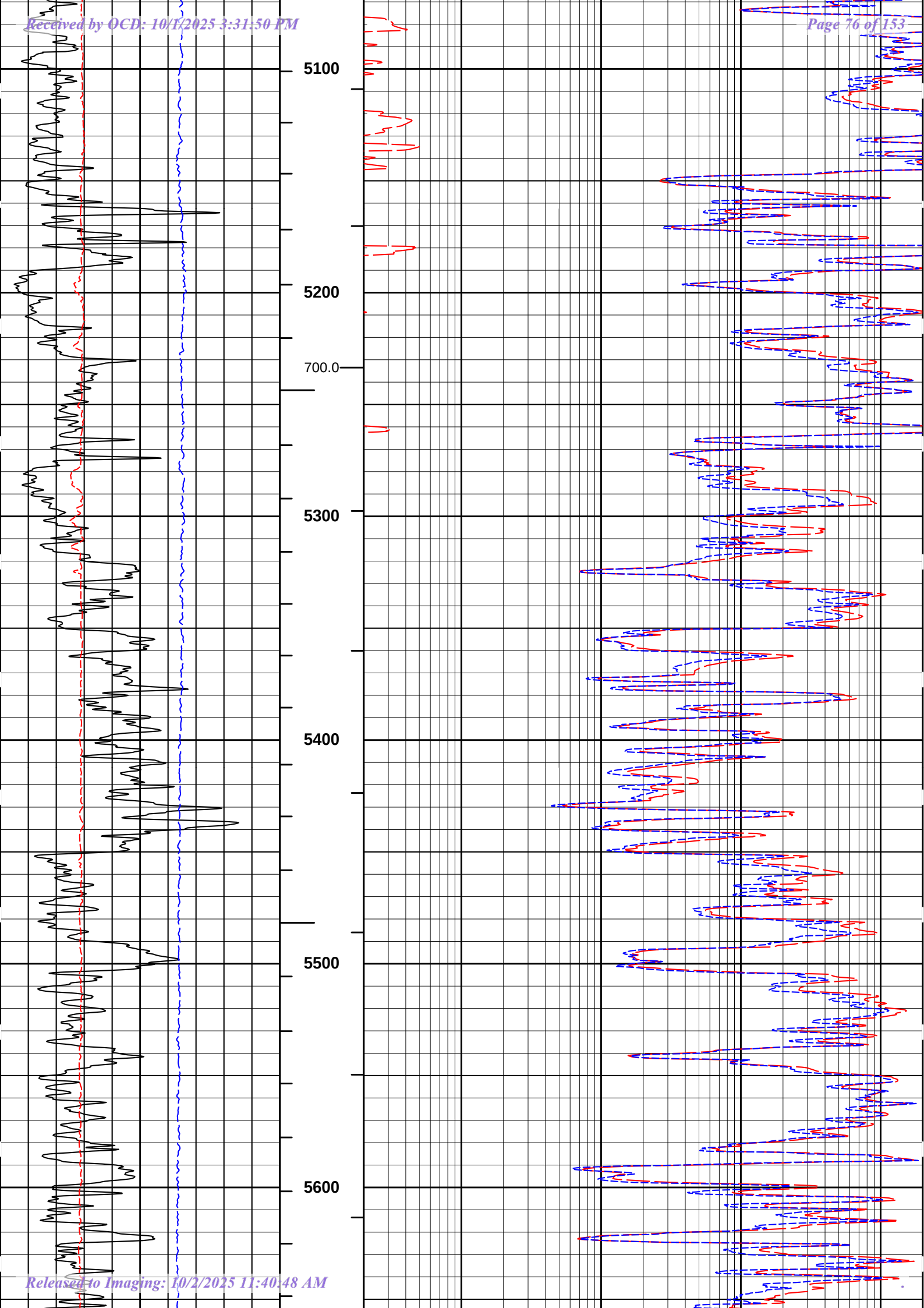


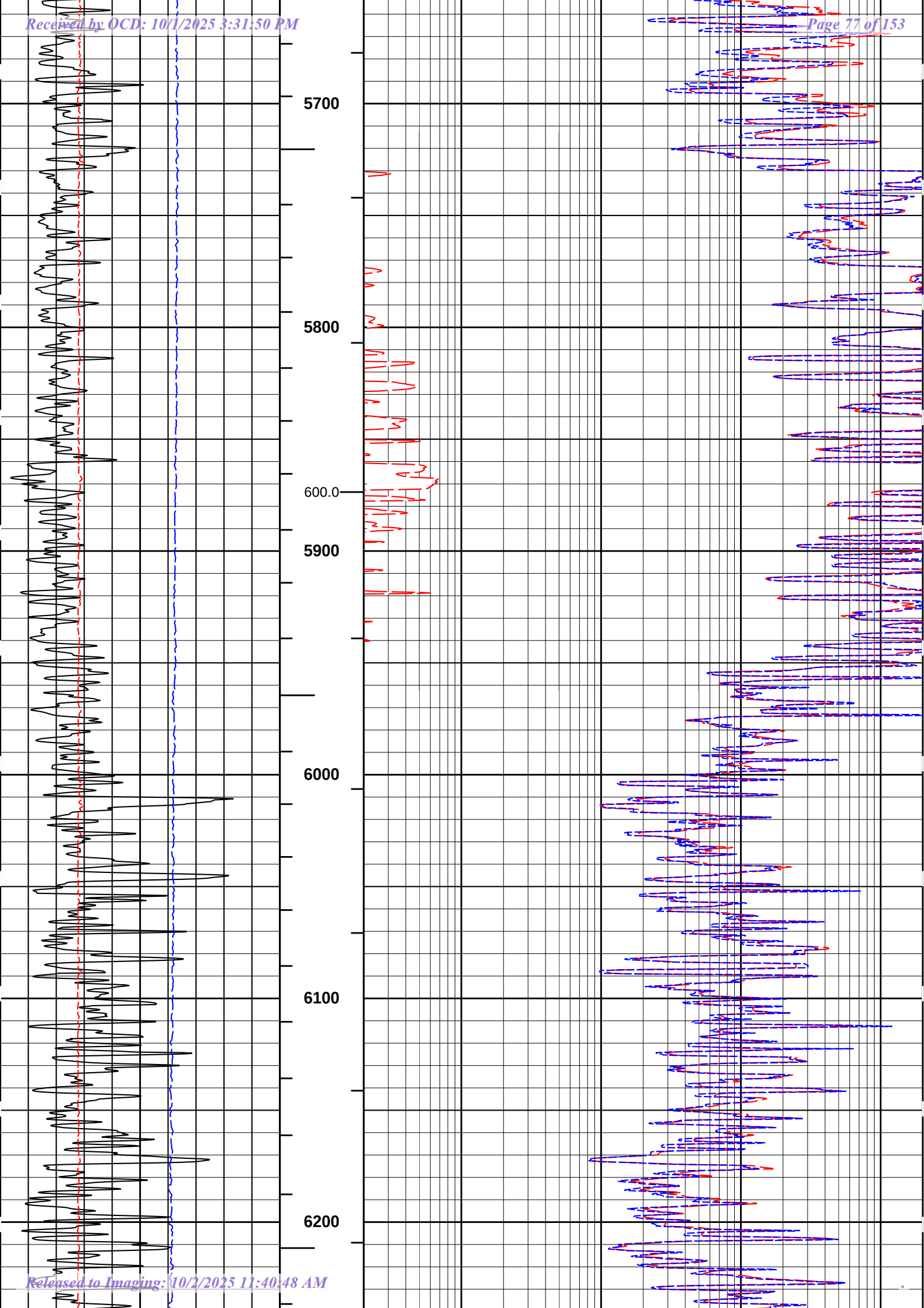


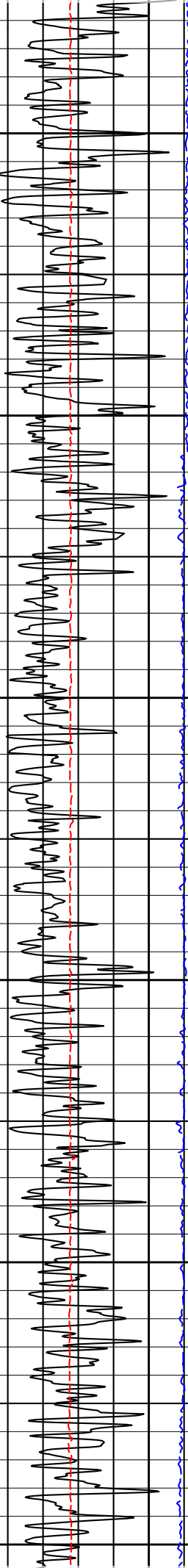












6300

6400

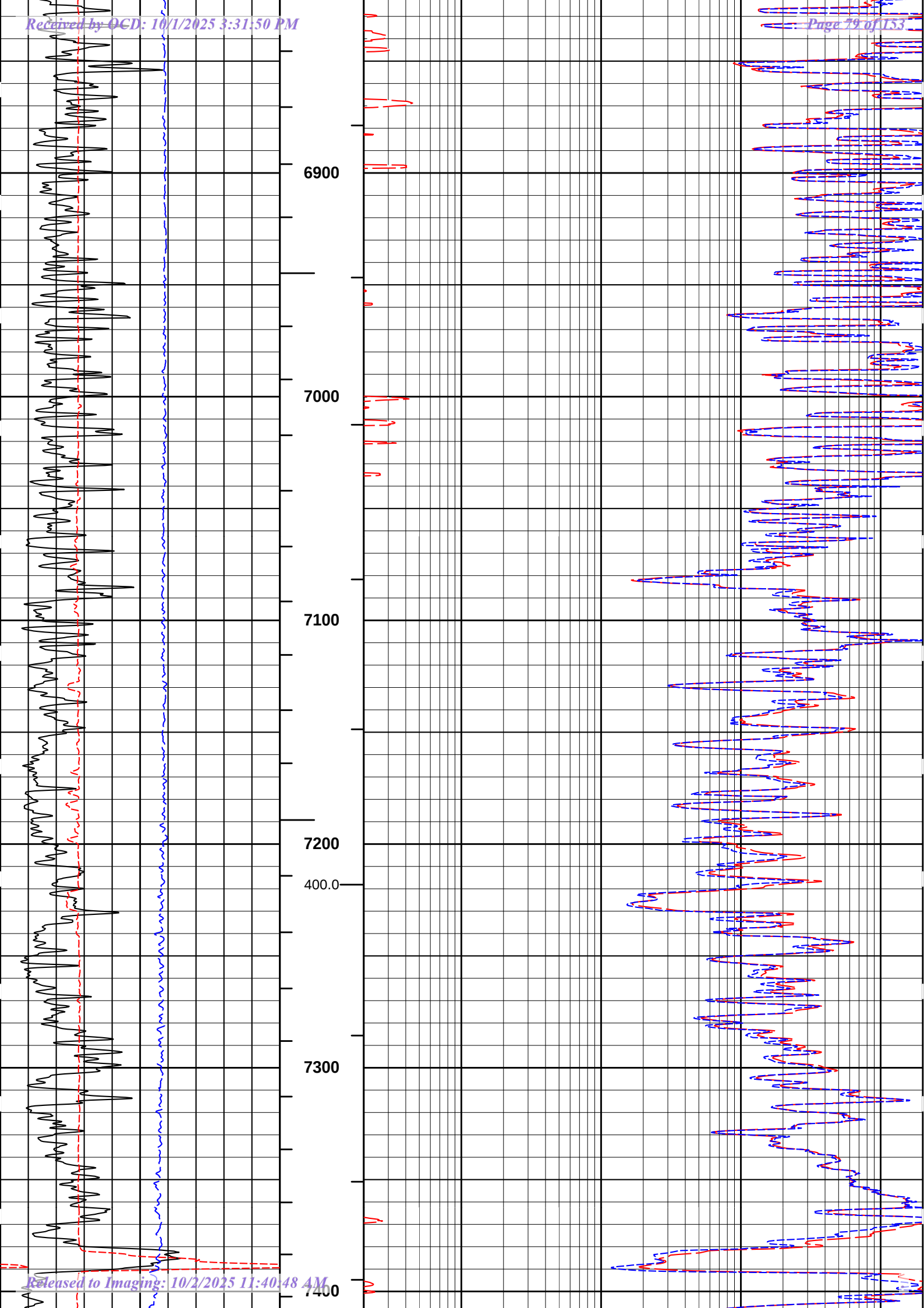
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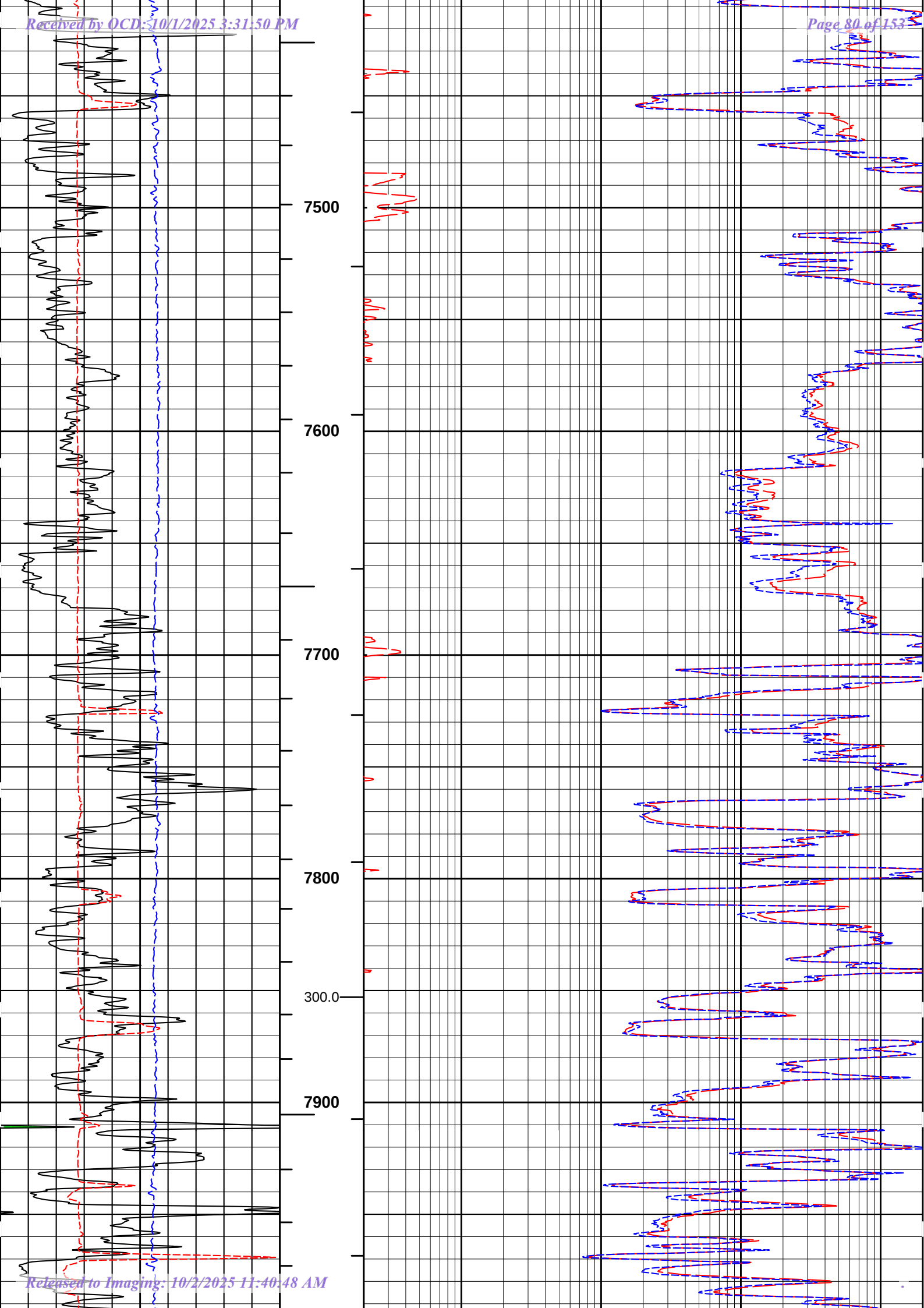
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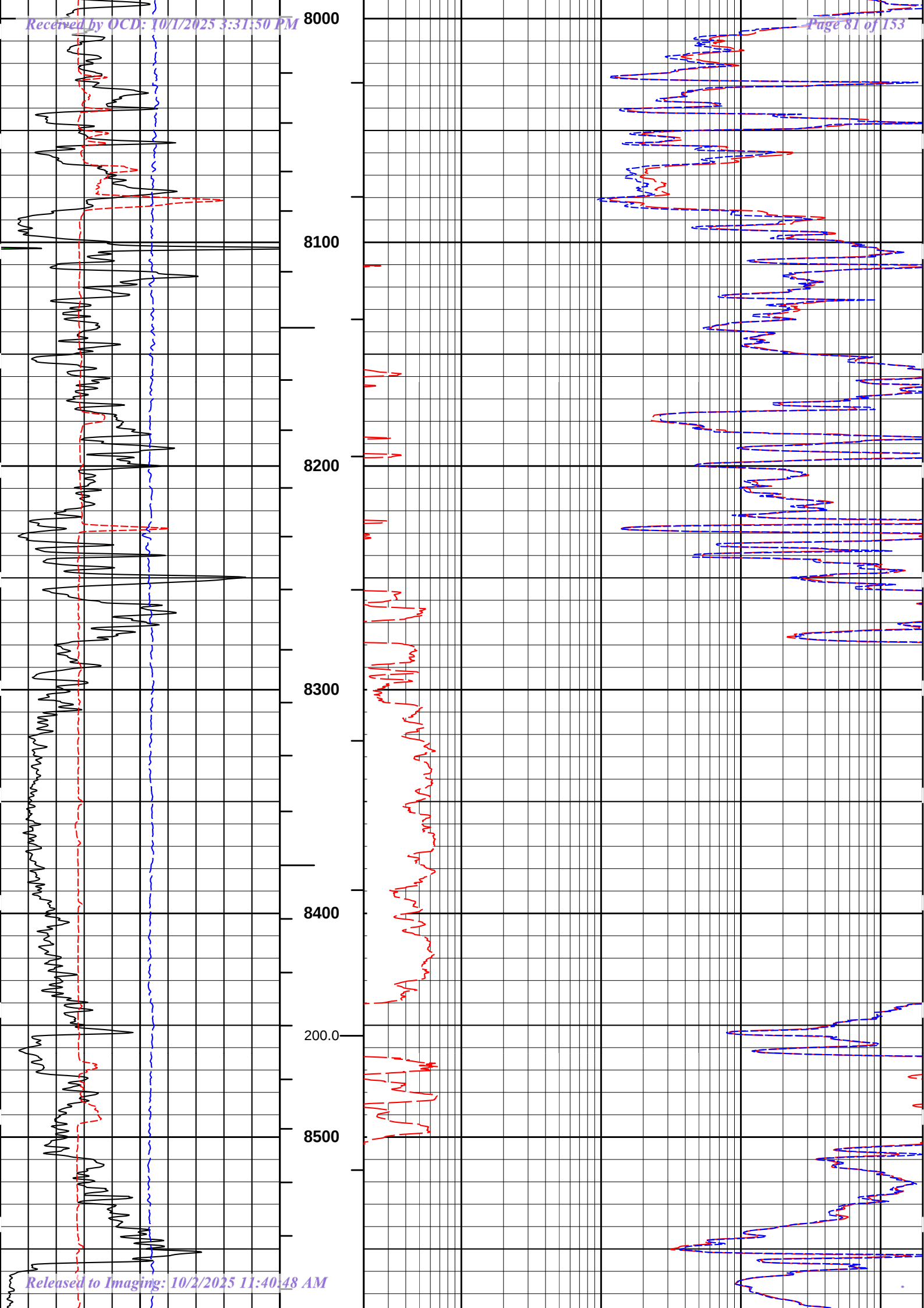
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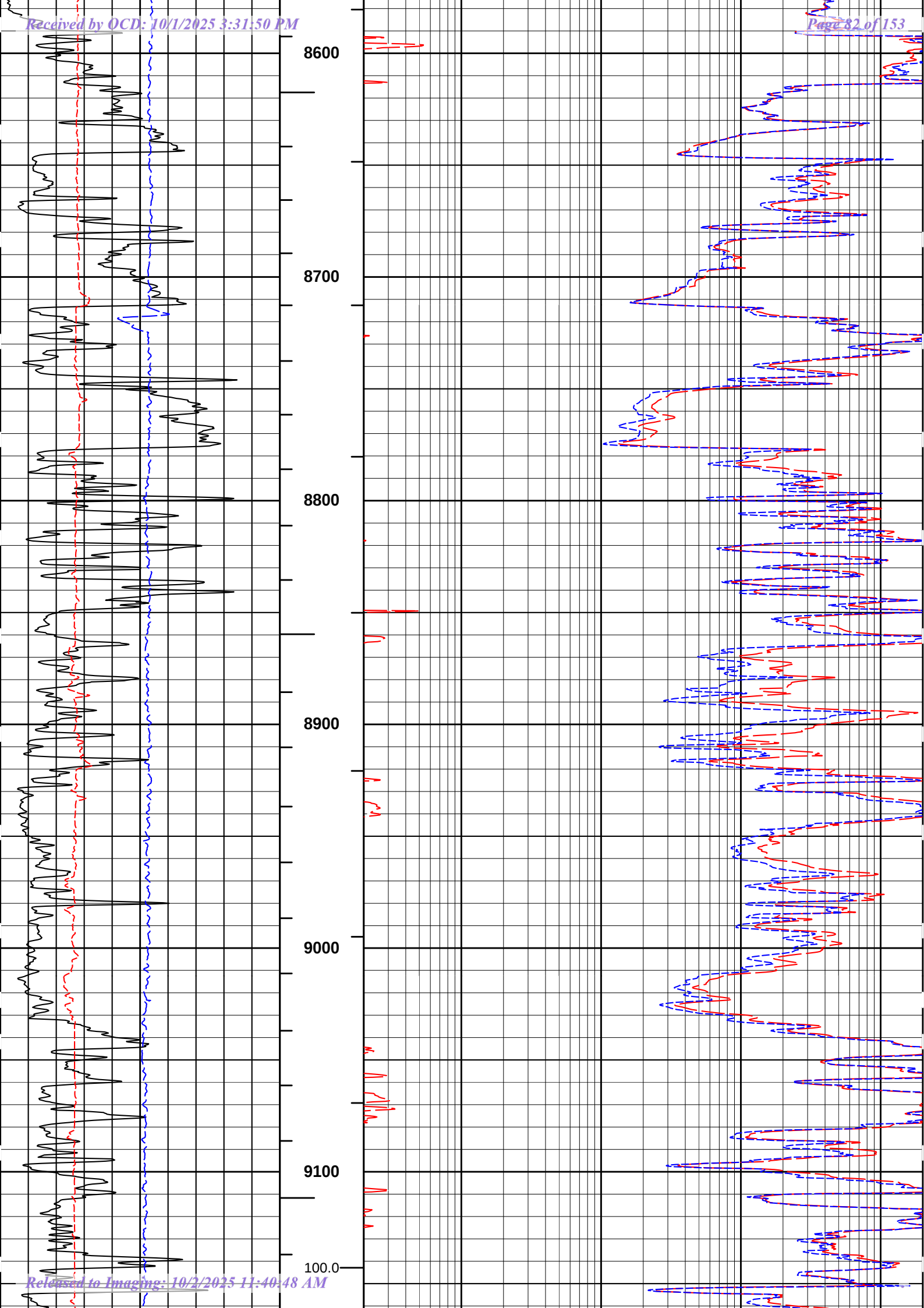
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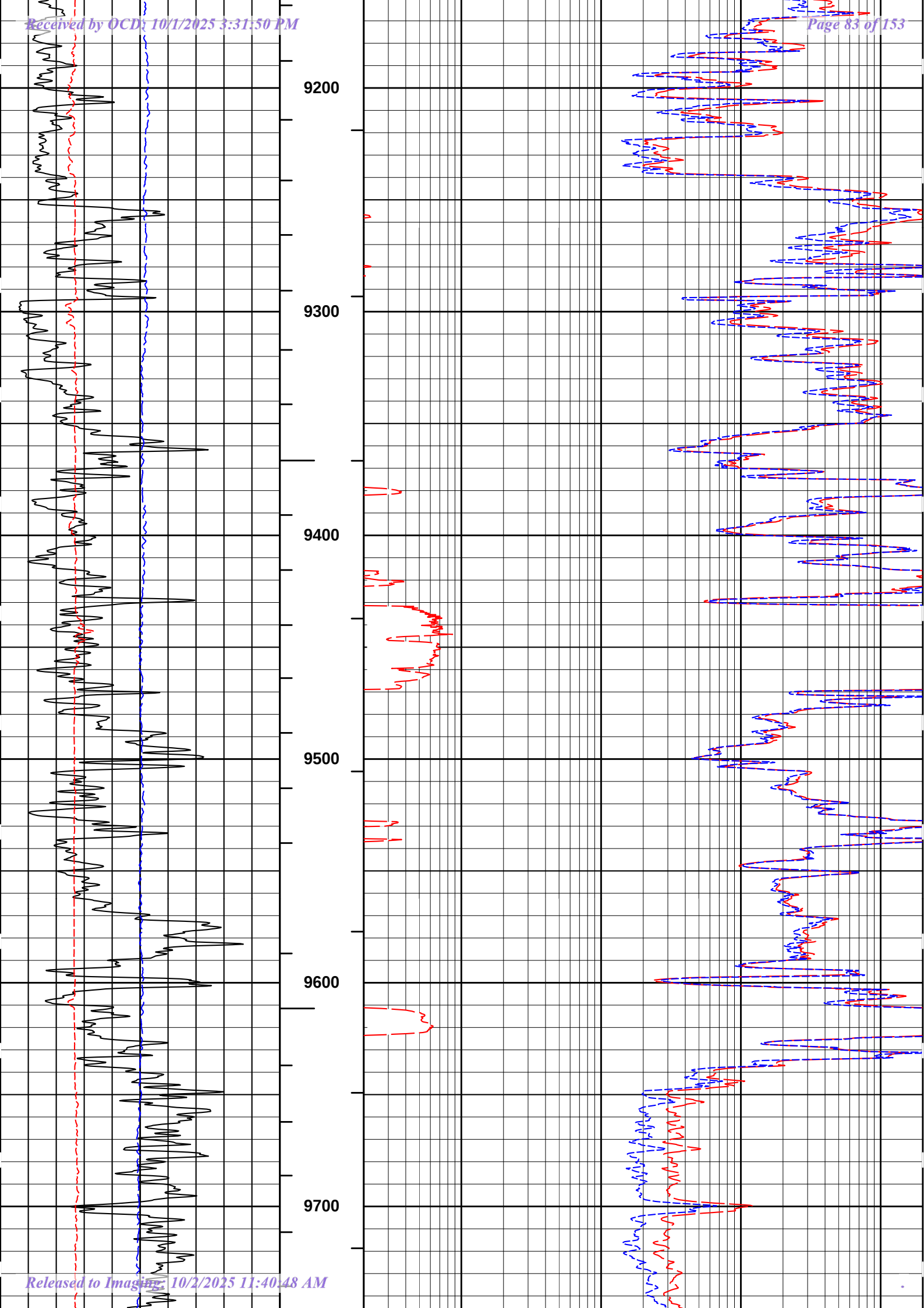
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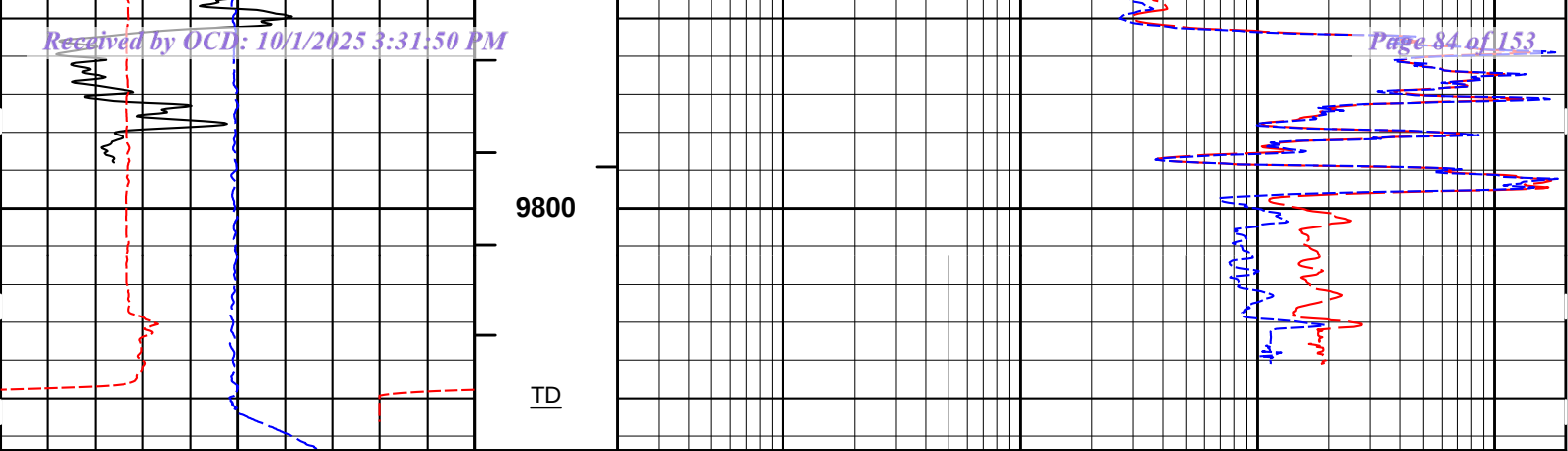












|       |           |     |         |     |            |      |
|-------|-----------|-----|---------|-----|------------|------|
| 0     | Gamma Ray | 150 | MD      | 0.2 | LL Shallow | 2000 |
|       | api       |     | 1 : 600 |     | ohm-metre  |      |
| 10000 | Tension   | 0   | BHV     | 0.2 | LL Deep    | 2000 |
|       | pounds    |     |         |     | ohm-metre  |      |
| 6     | Caliper   | 16  | AHV     |     |            |      |
|       | inches    |     |         |     |            |      |

HALLIBURTON

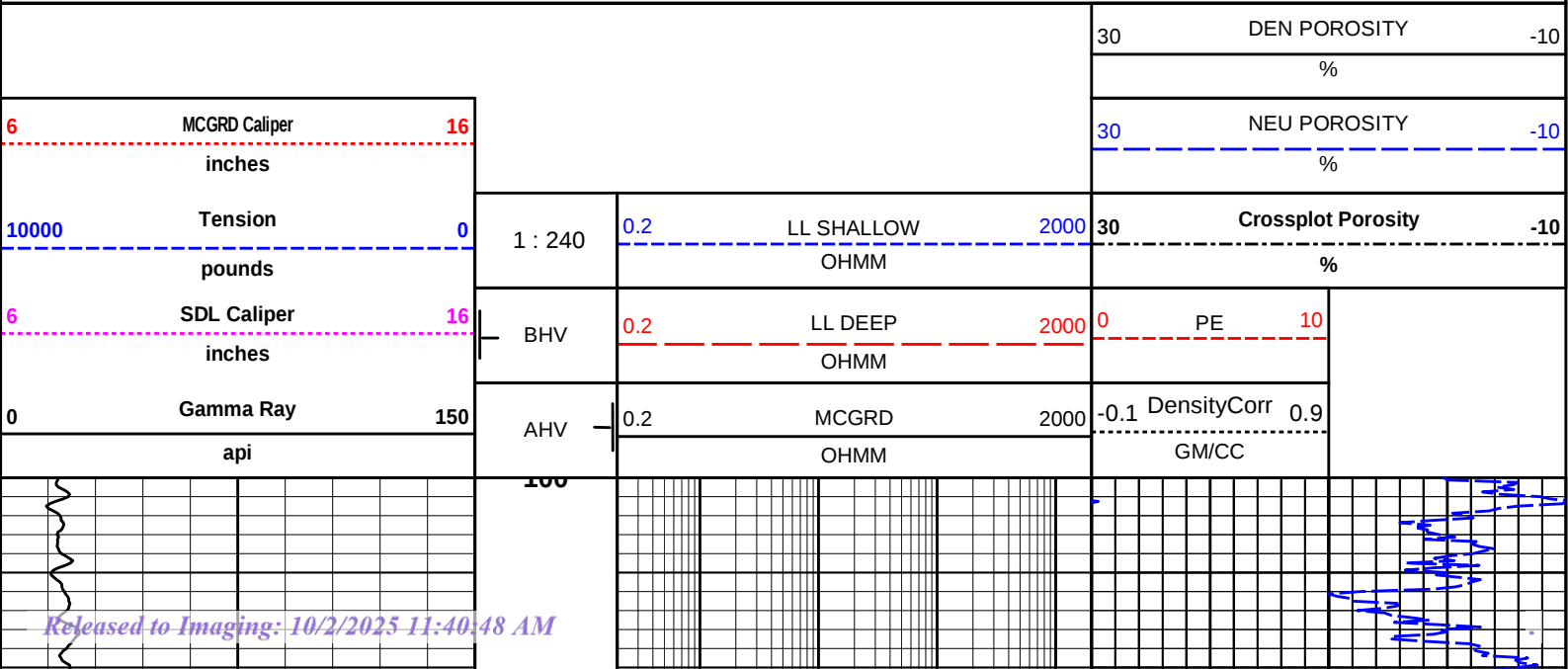
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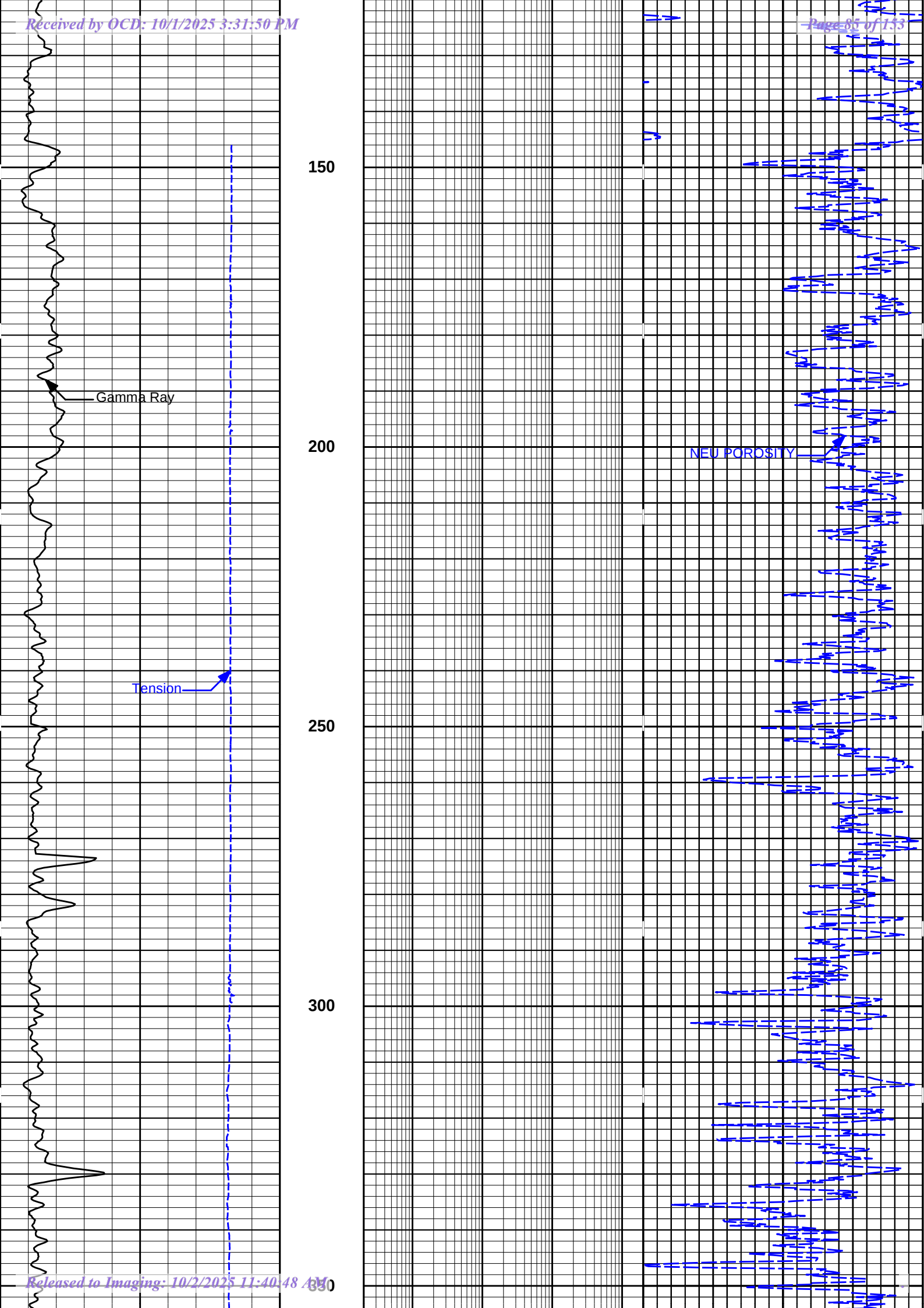
2" = 100' MAIN PASS

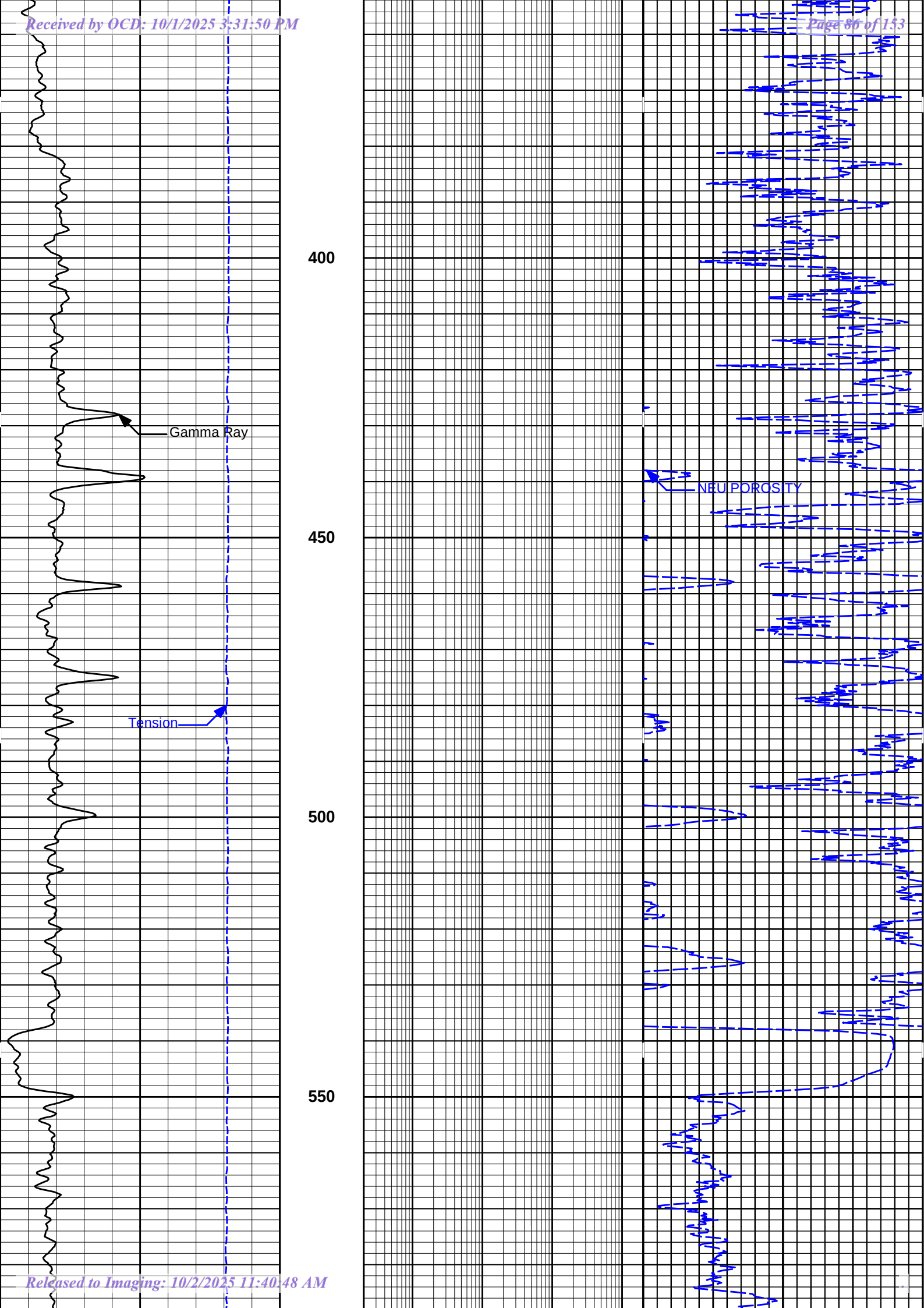
HALLIBURTON

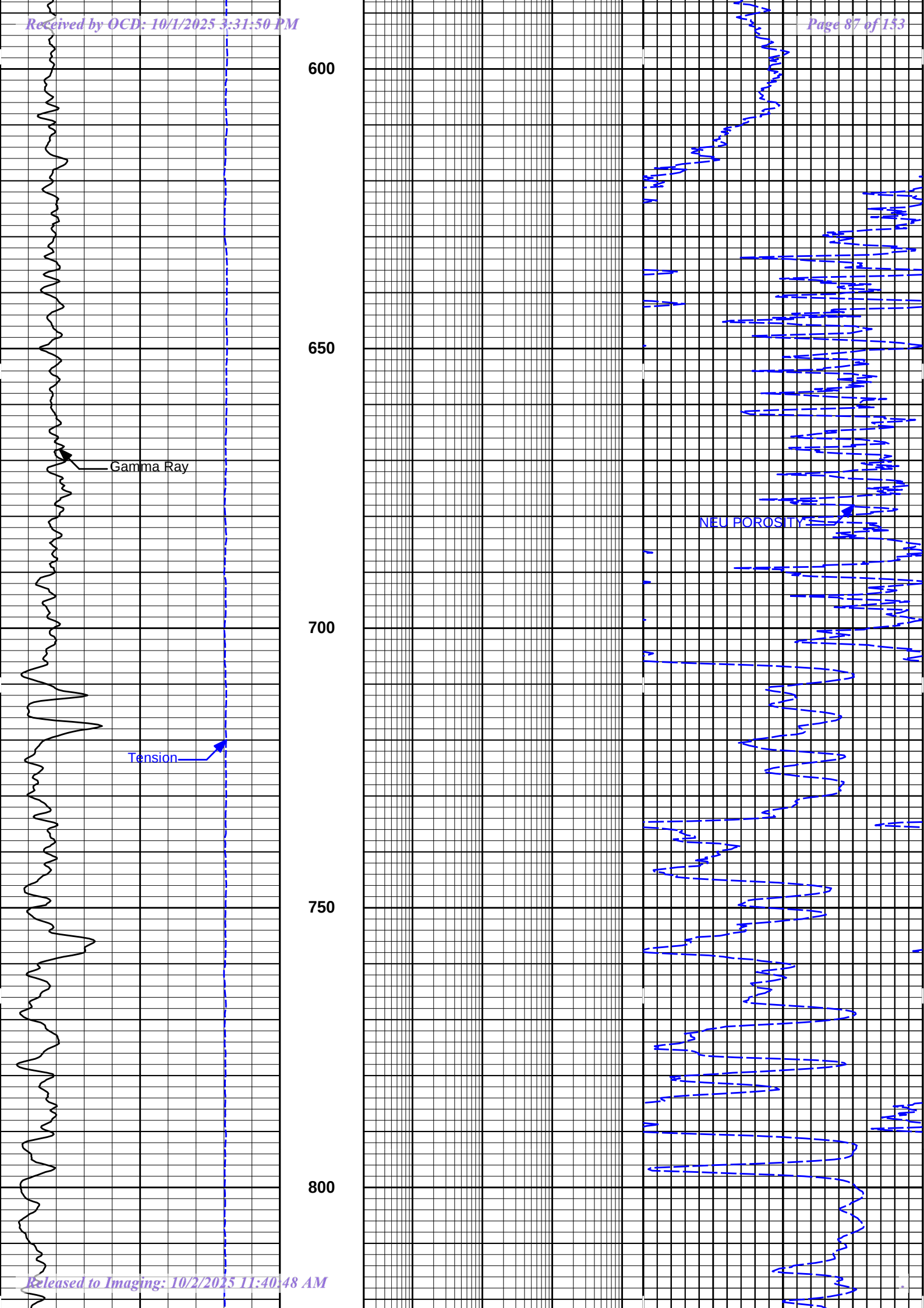
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Plot File: \\TCOMBO\Q-TRIPLE\_PRES\_DLL\_COMPO\_AB

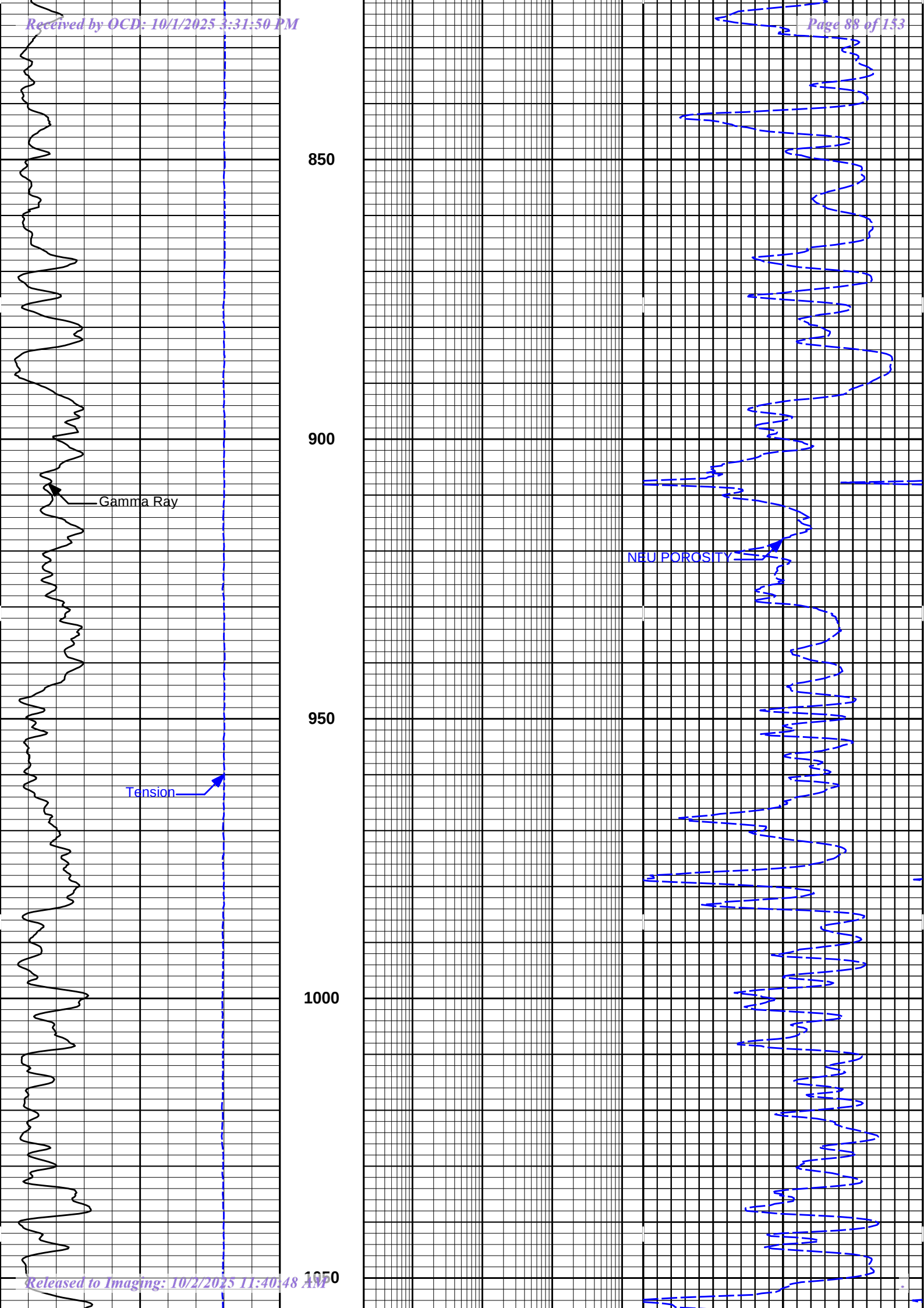
5"=100' MAIN PASS

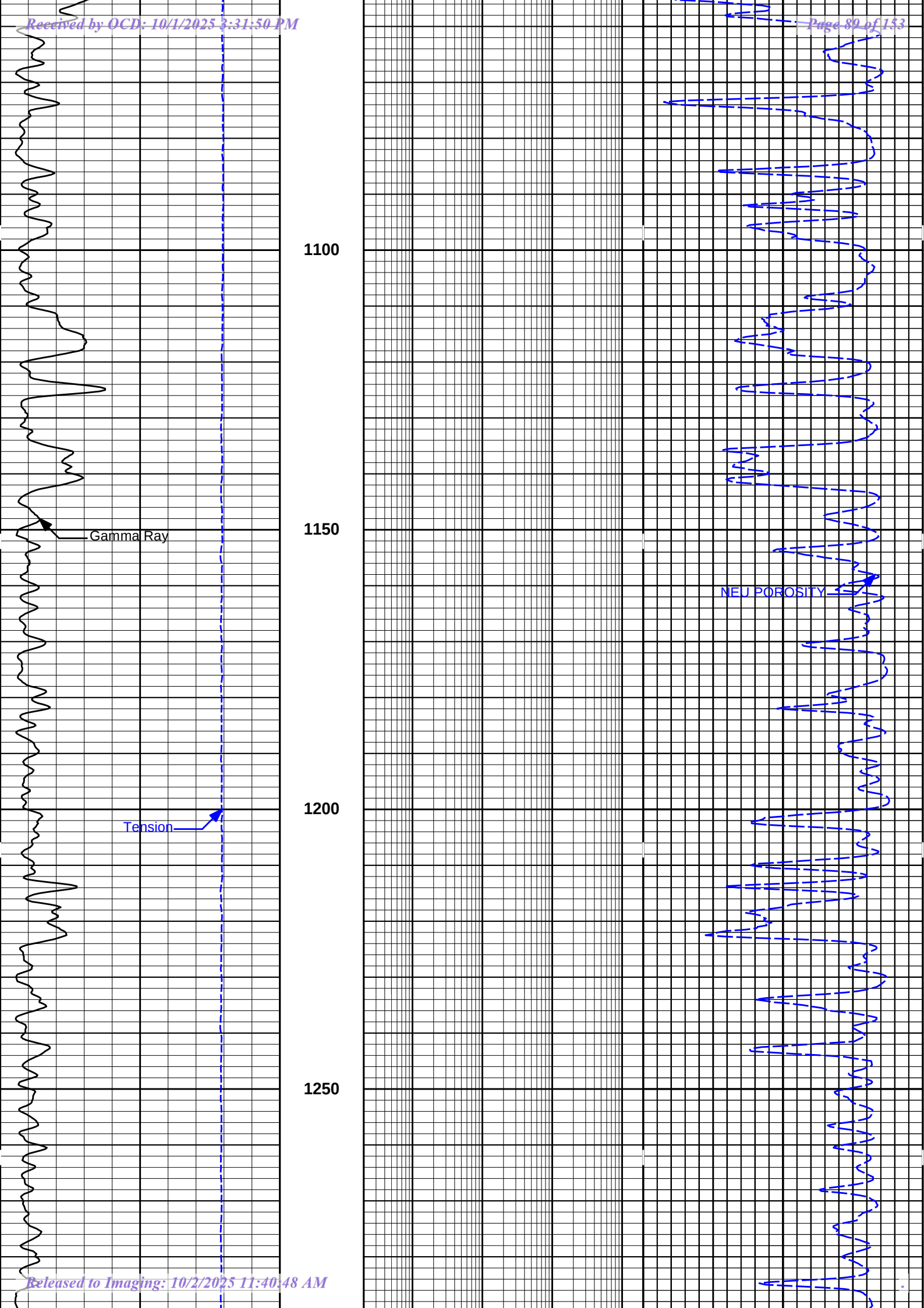


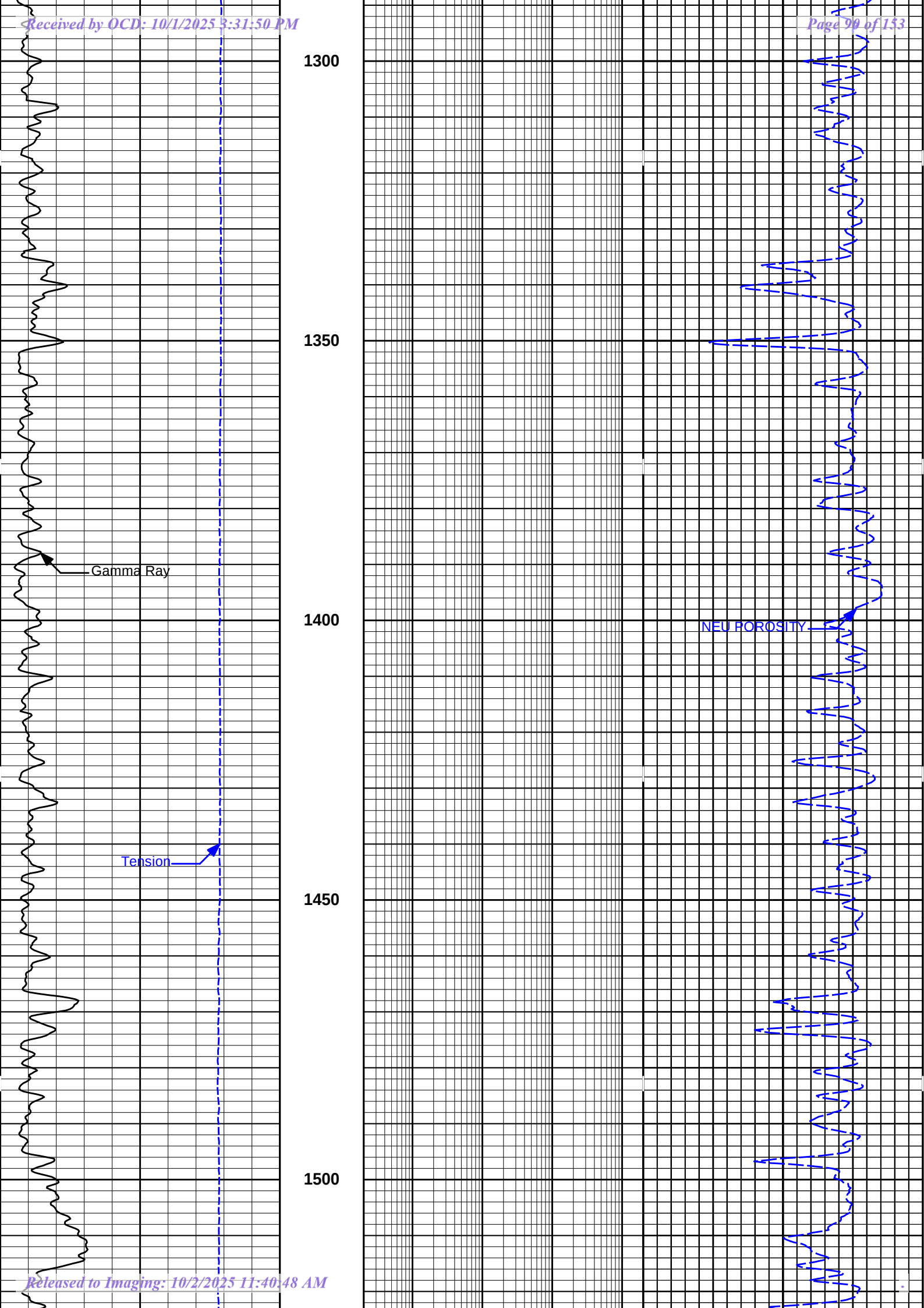


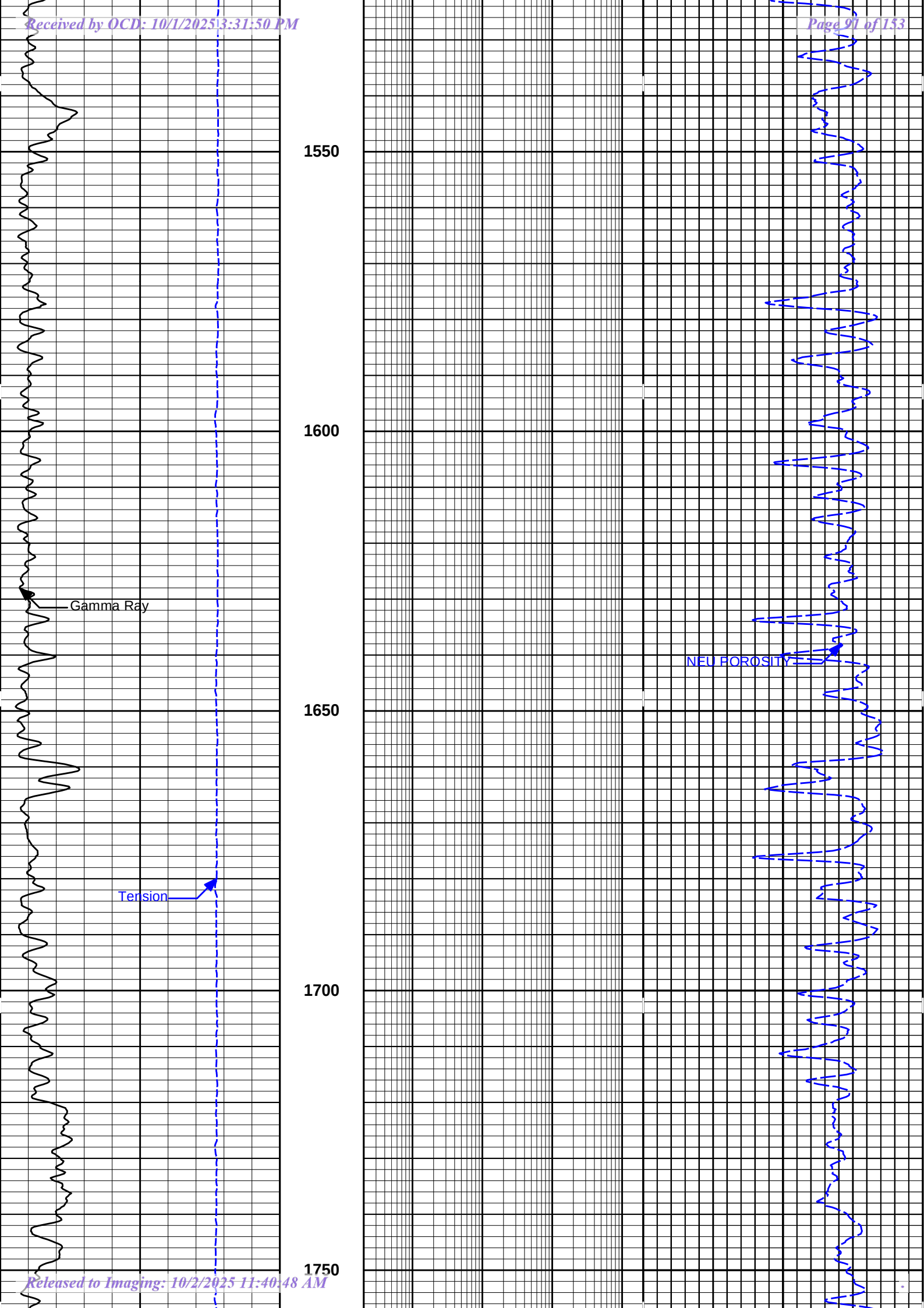


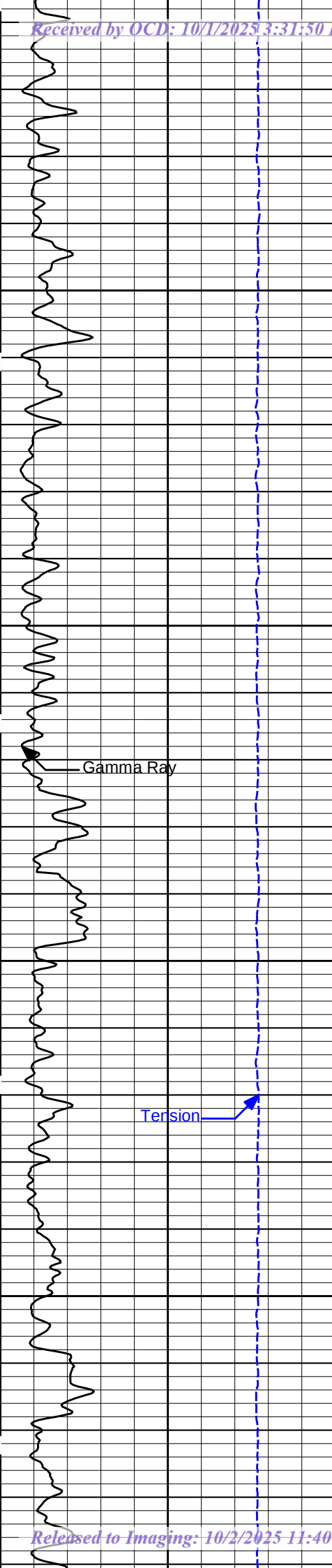












1800

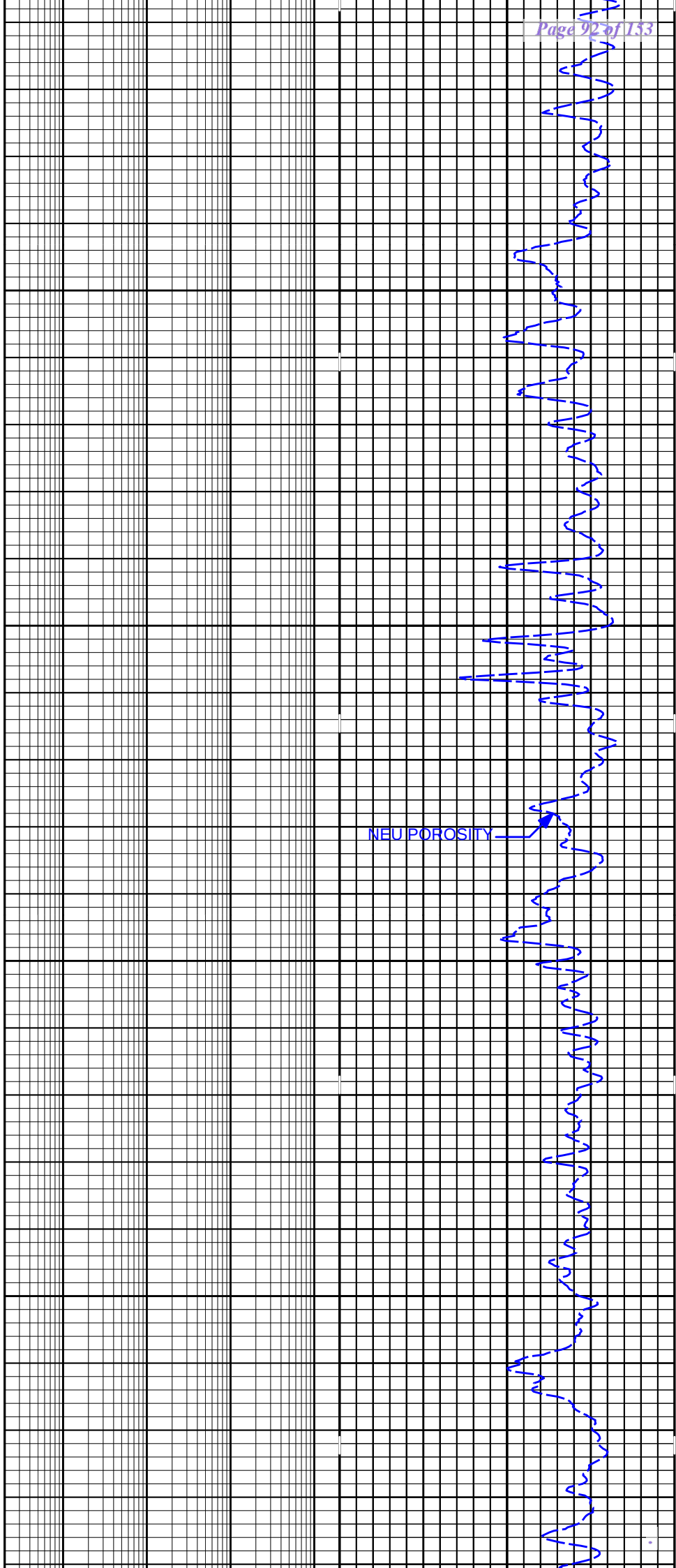
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1900

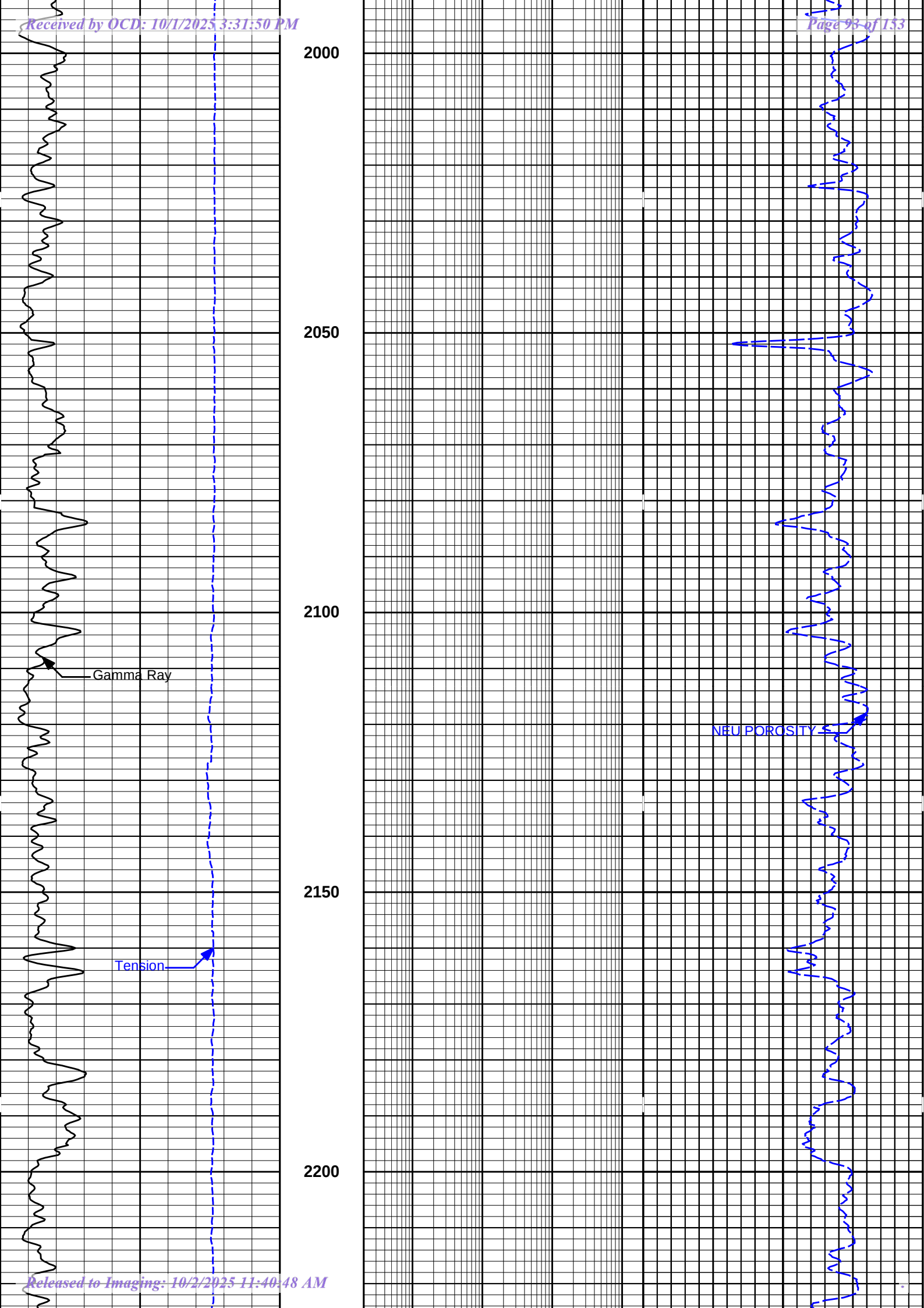
1950

Gamma Ray

Tension



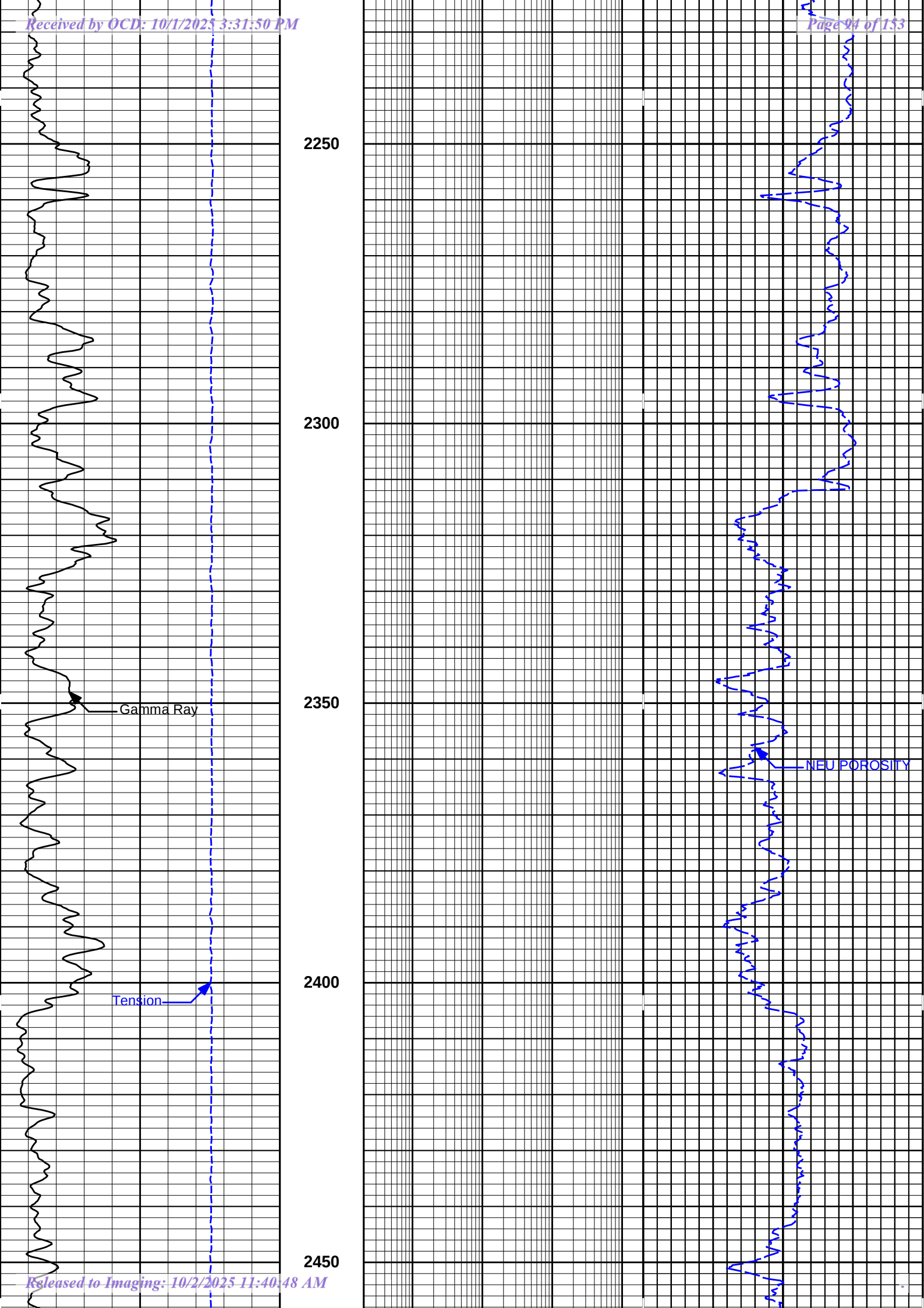
NEU POROSITY

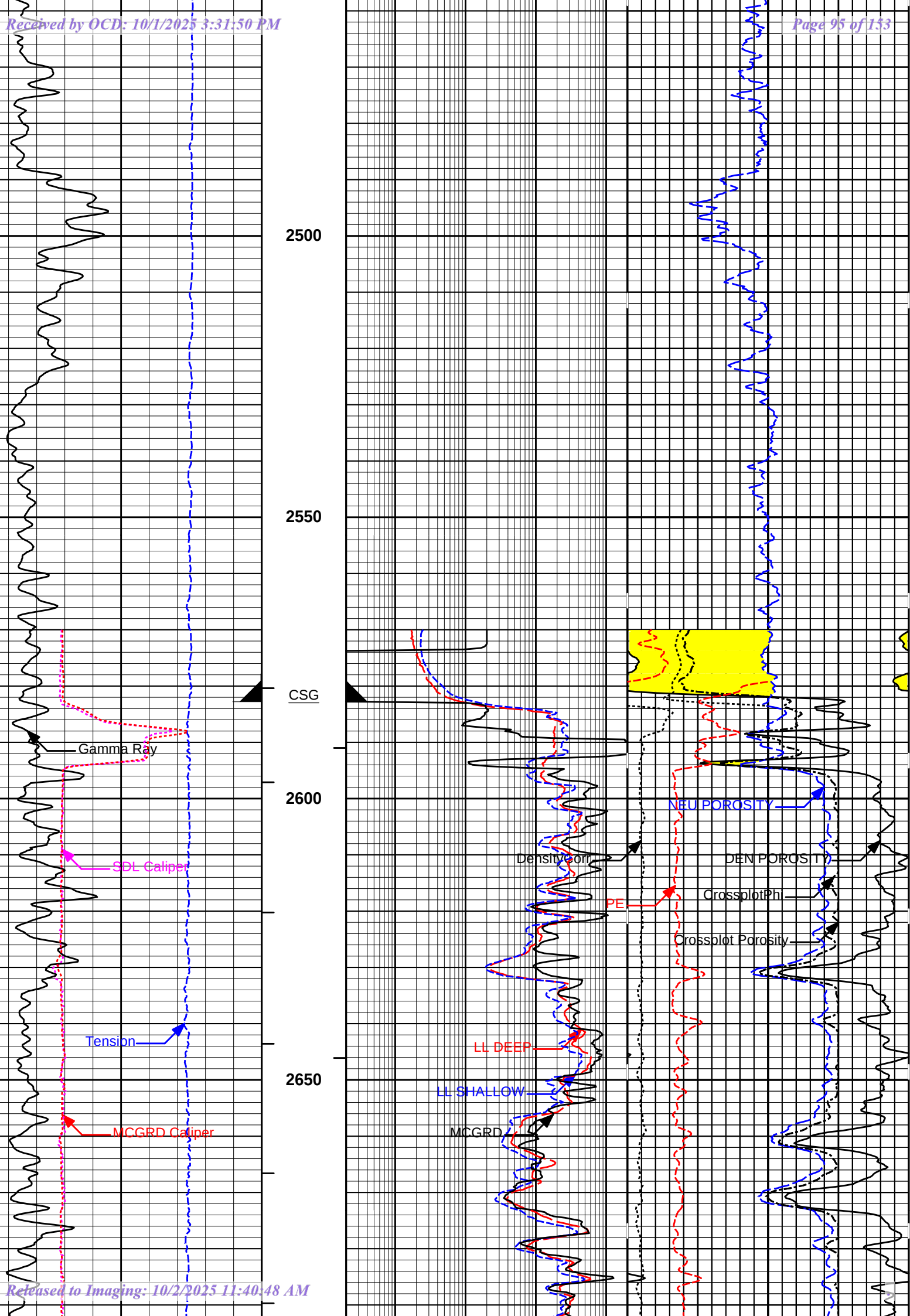


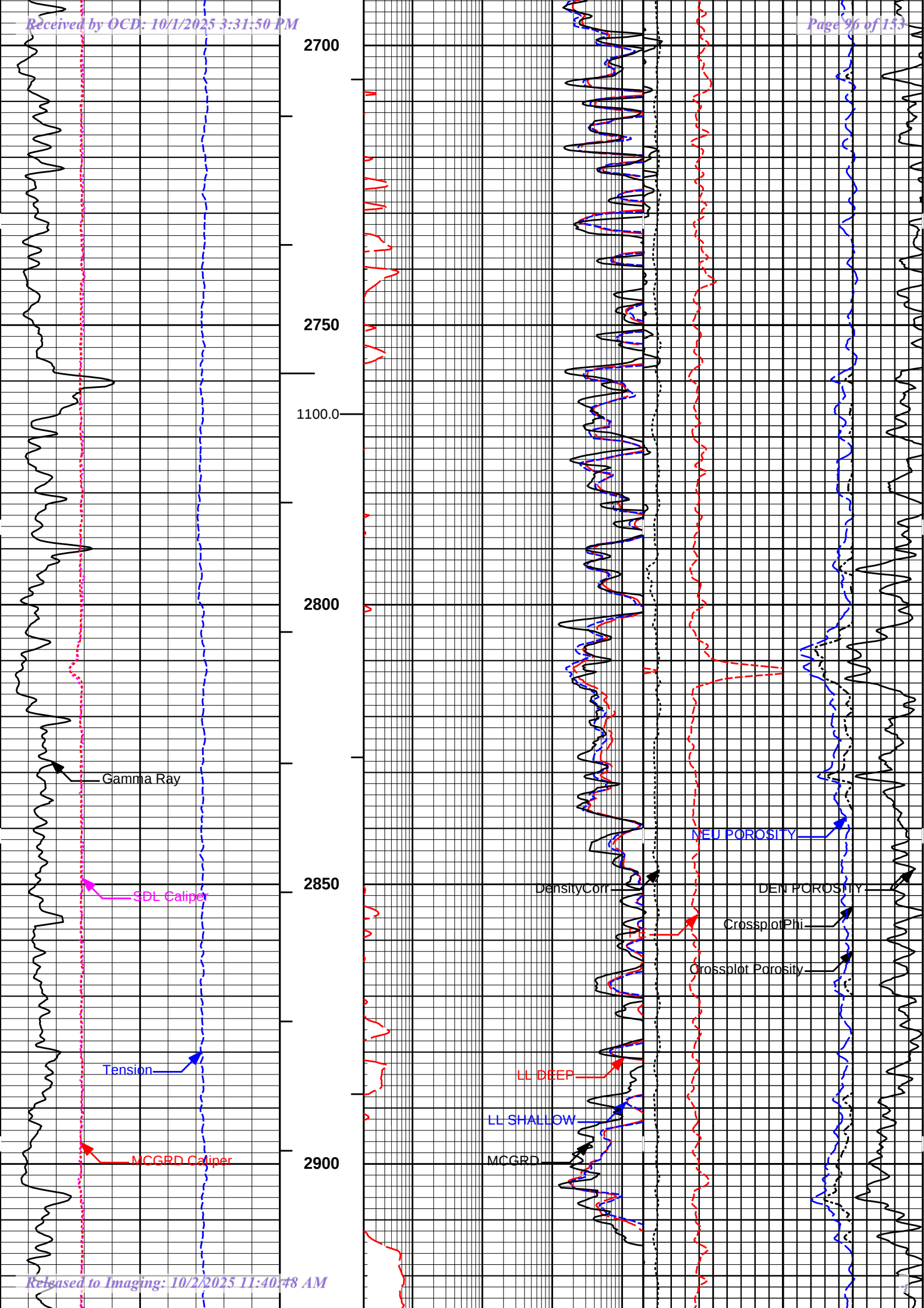
Gamma Ray

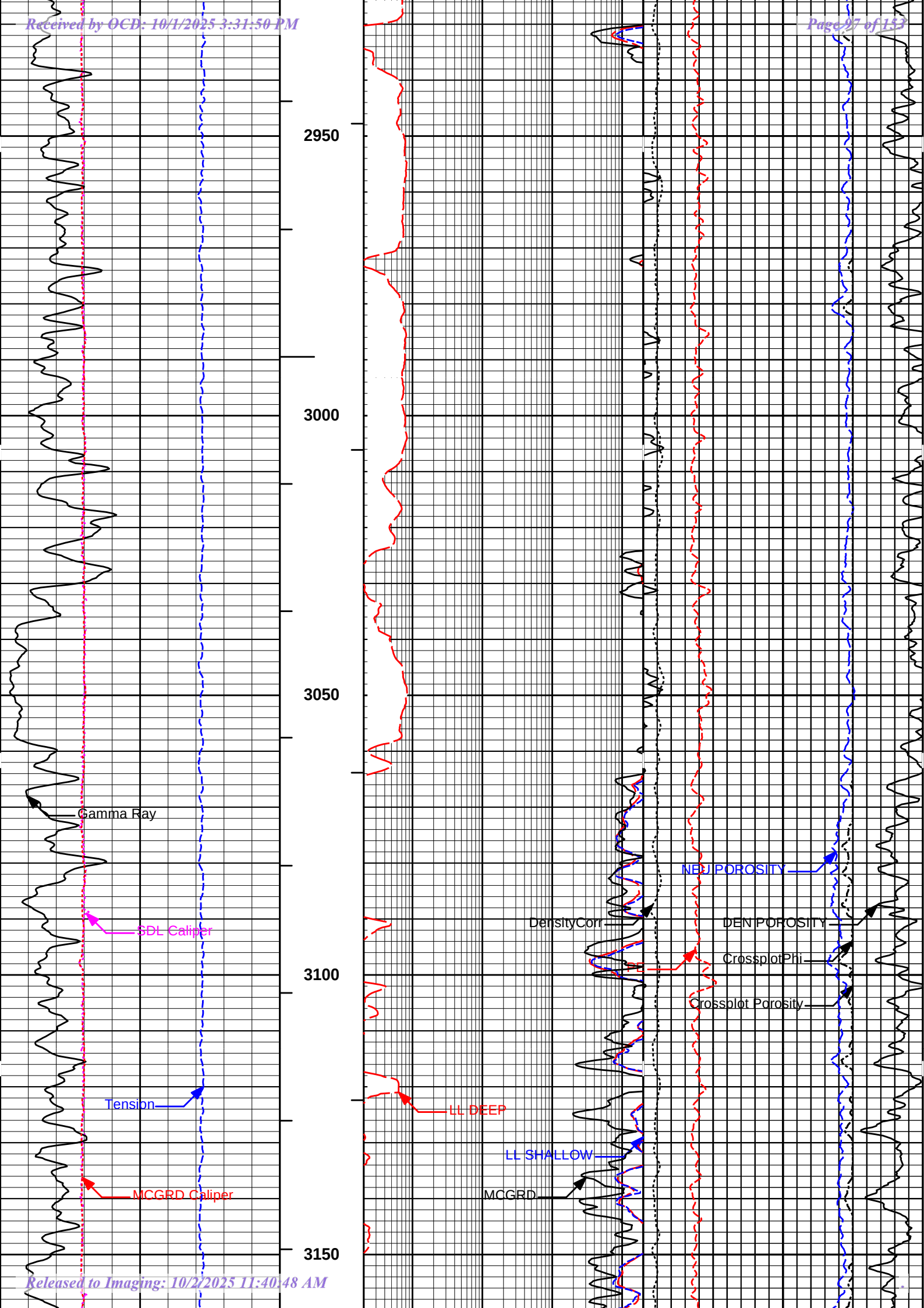
Tension

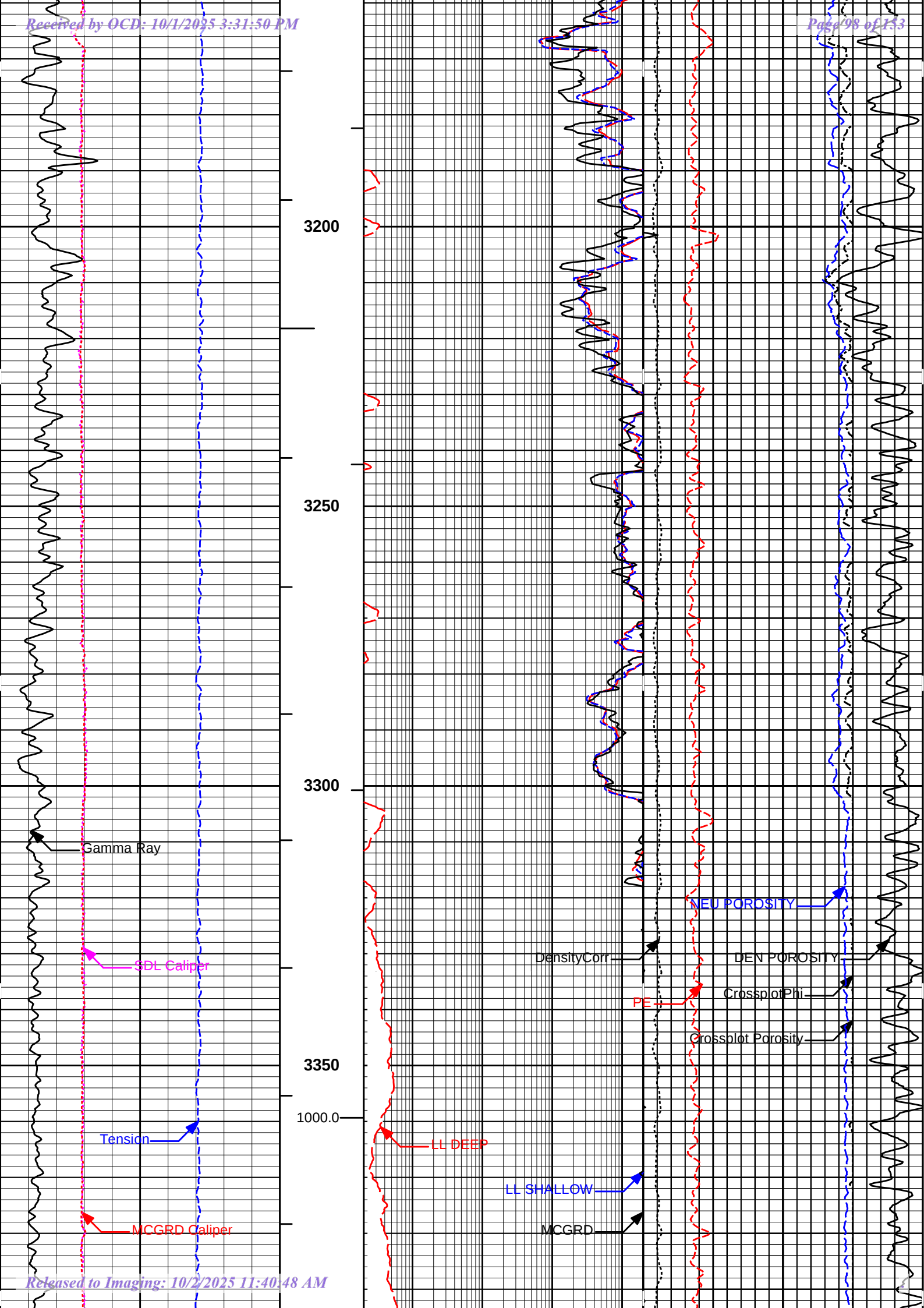
NEUTRON POROSITY

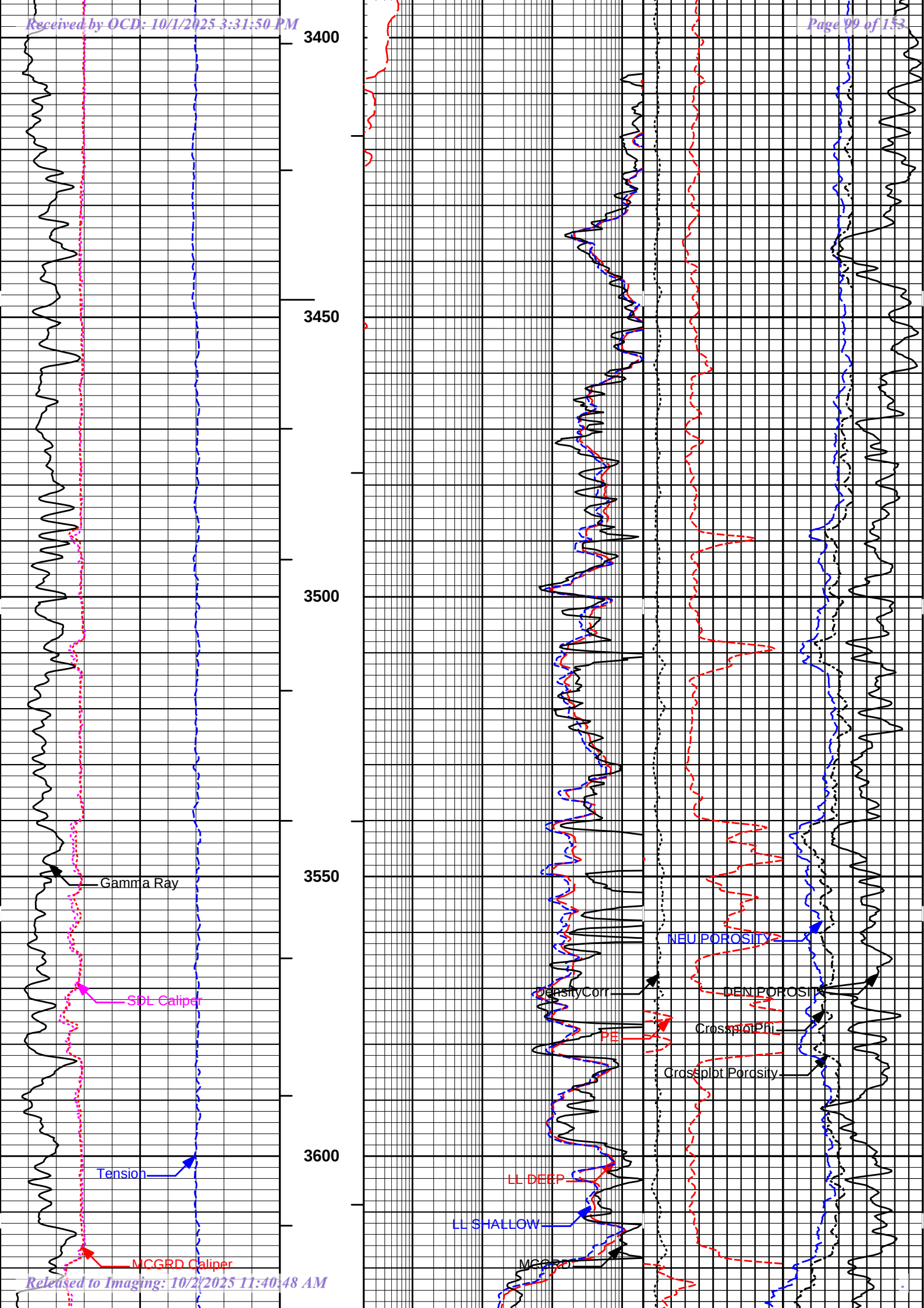


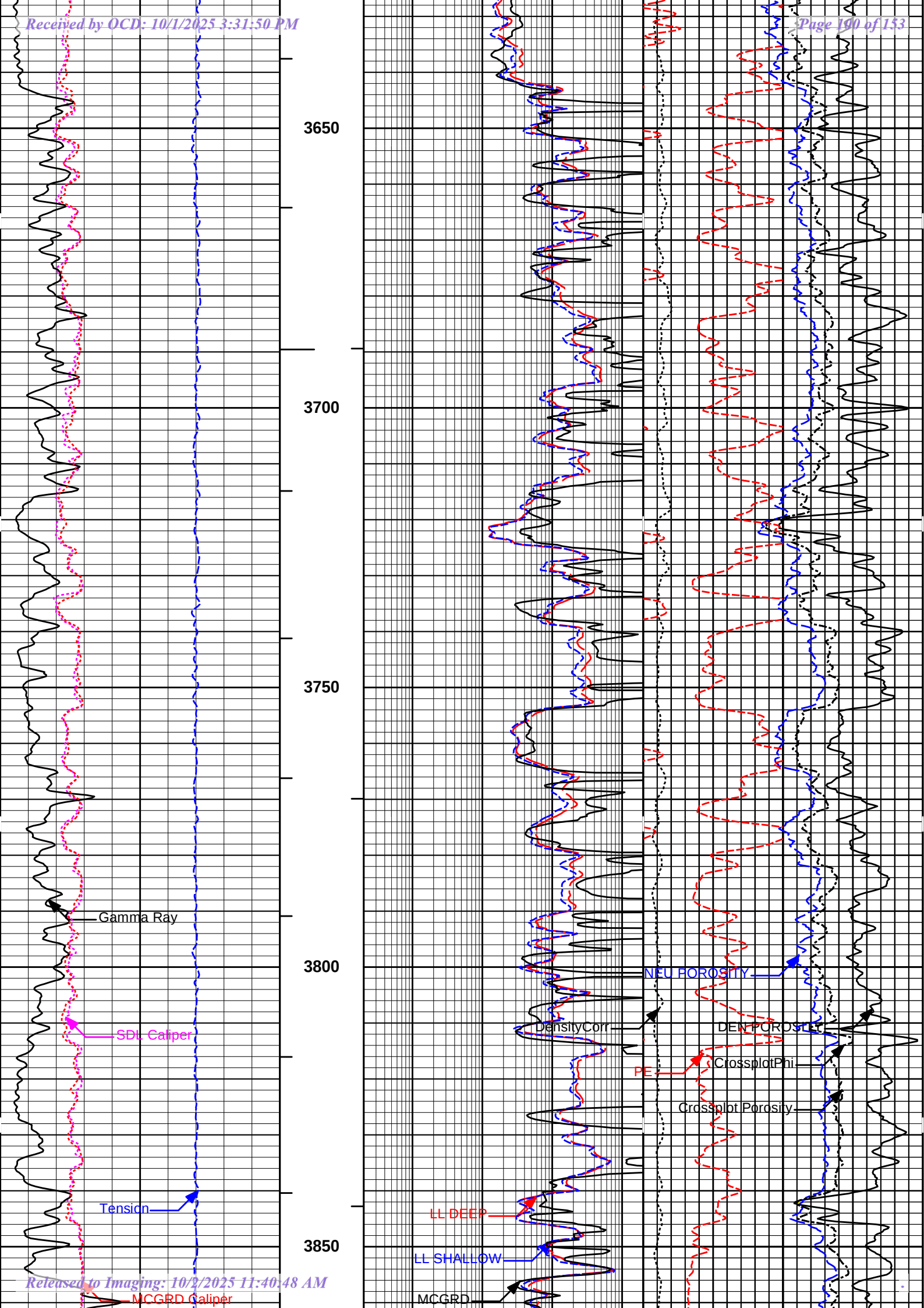


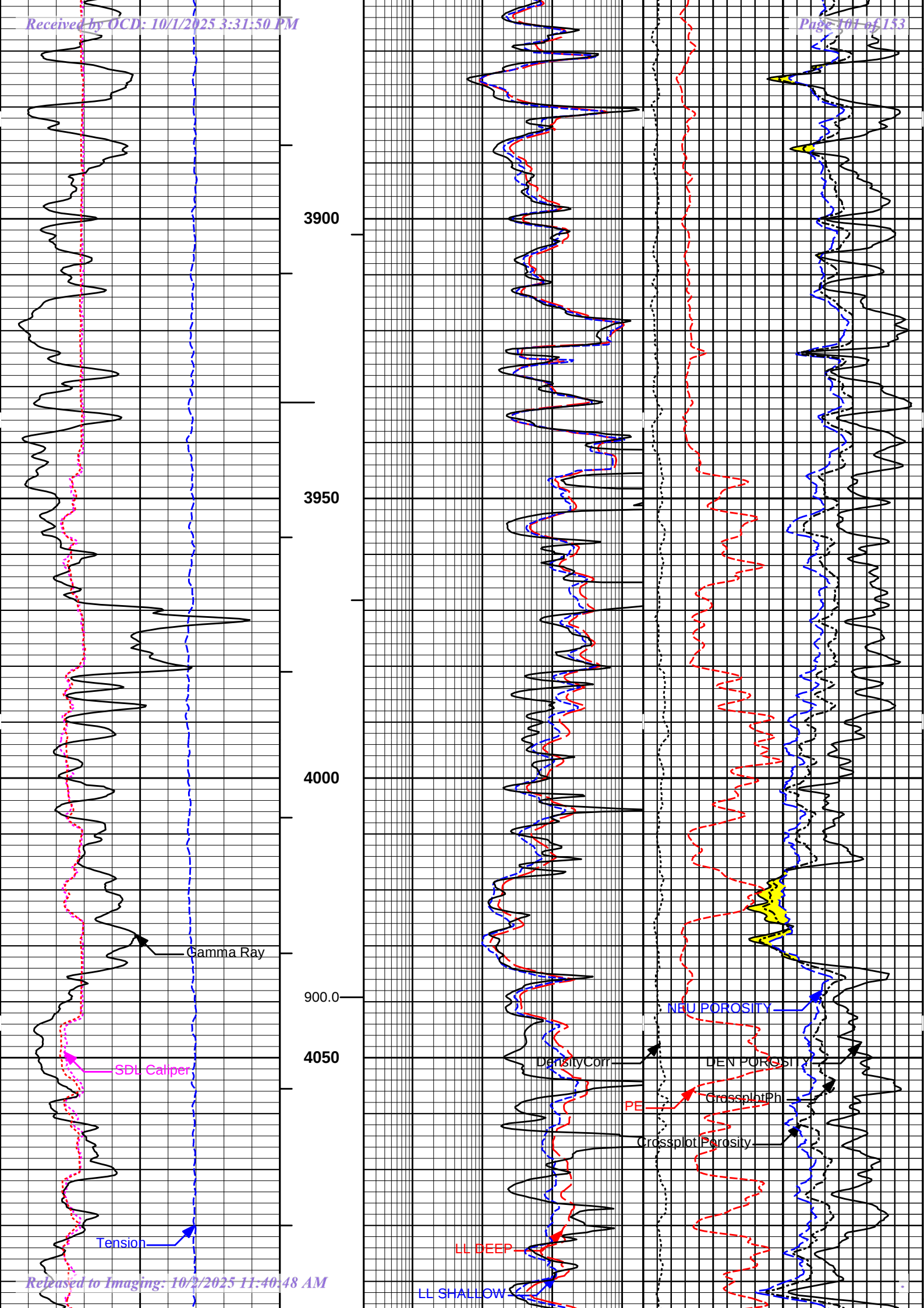


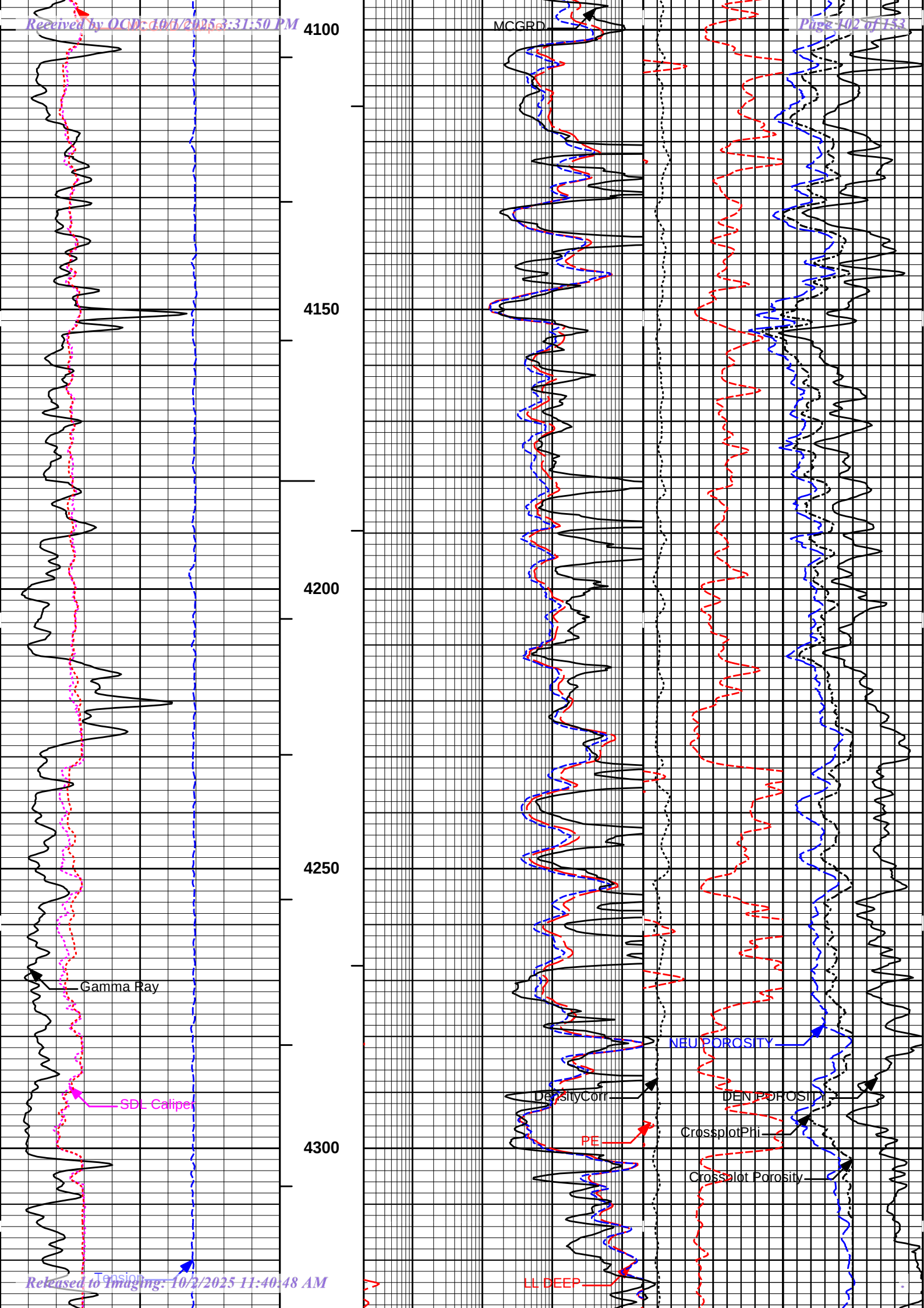


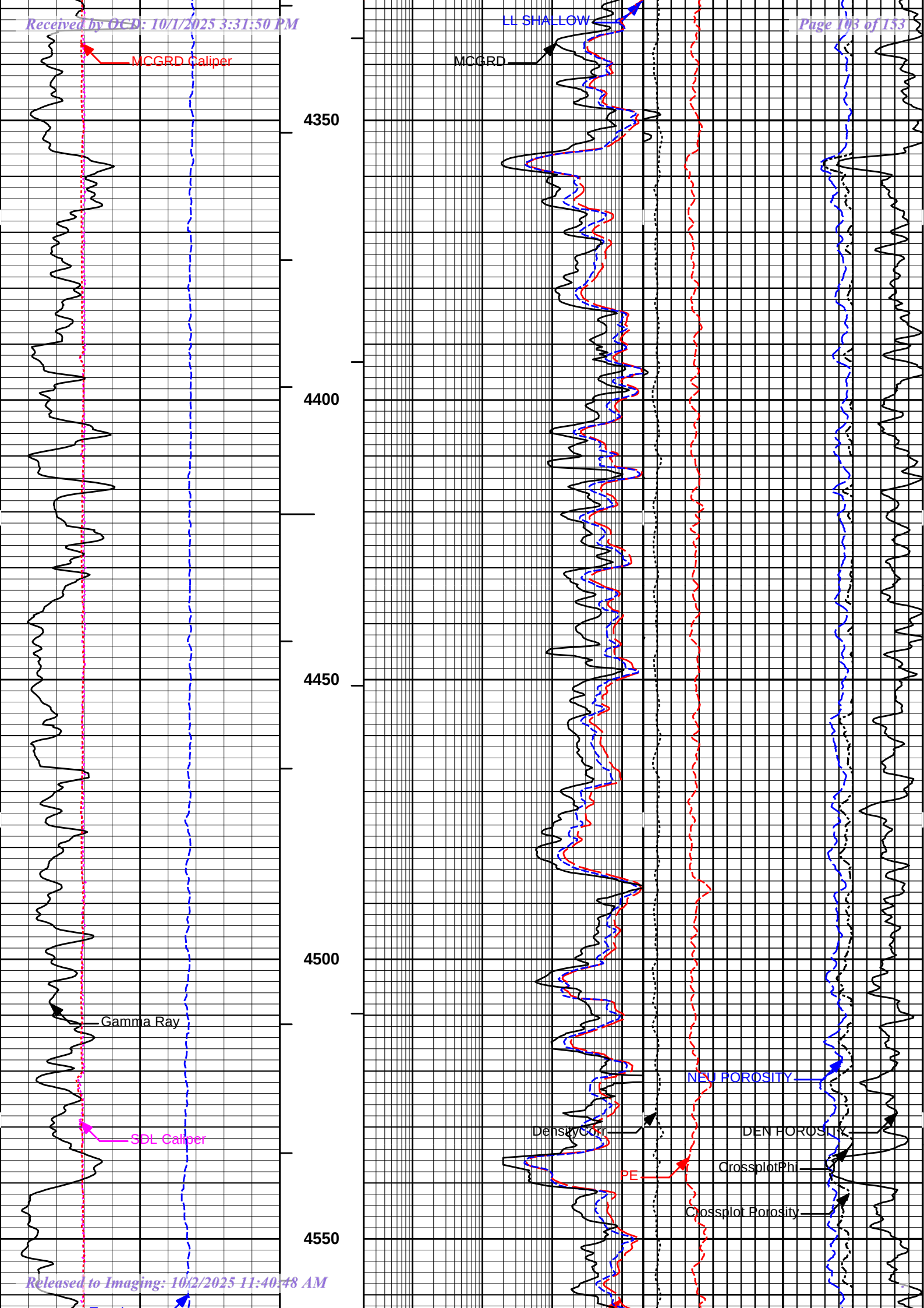












Gamma Ray

SDL Caliper

MCGRD Caliper

LL SHALLOW

MCGRD

Density Corr

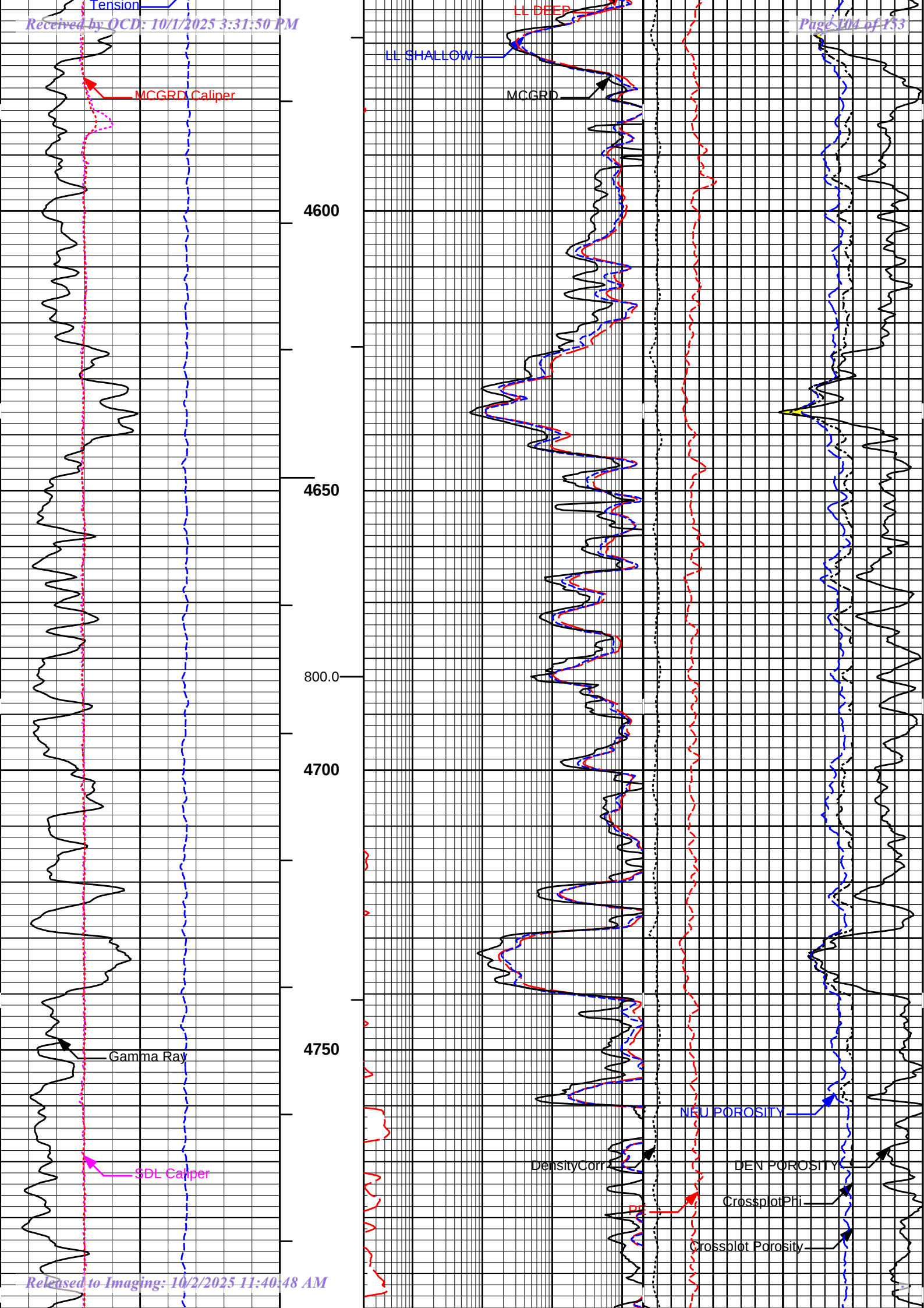
NEW POROSITY

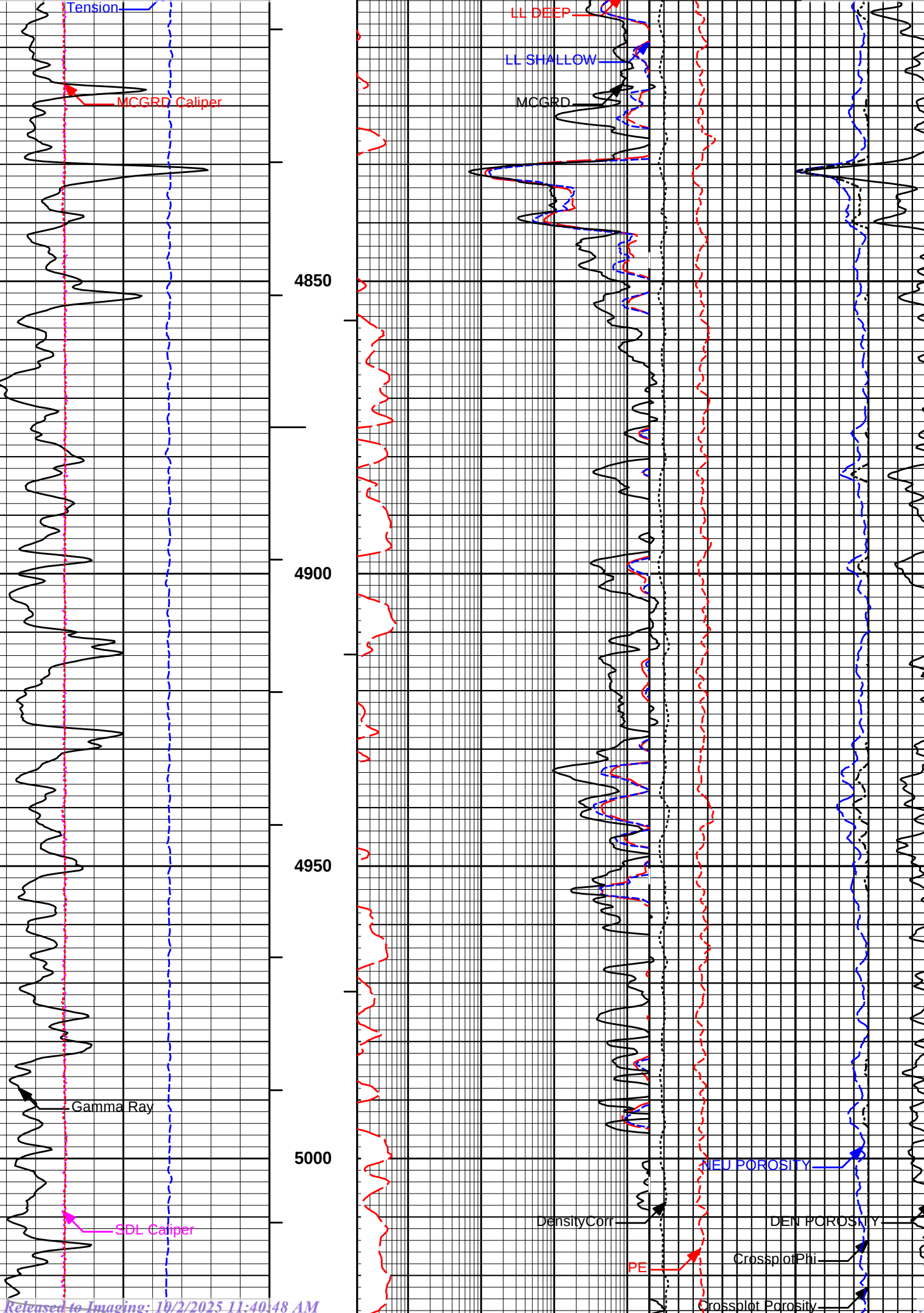
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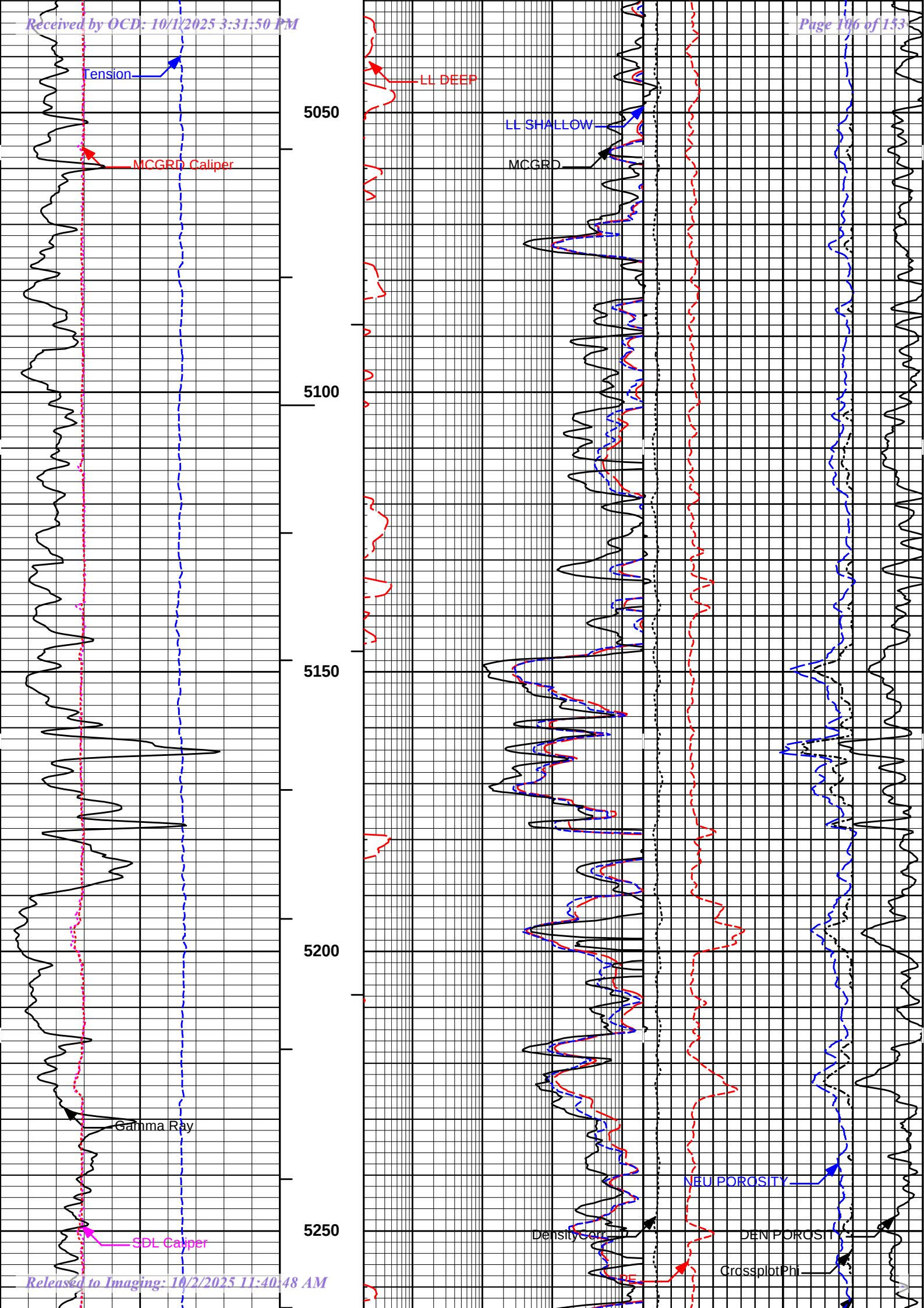
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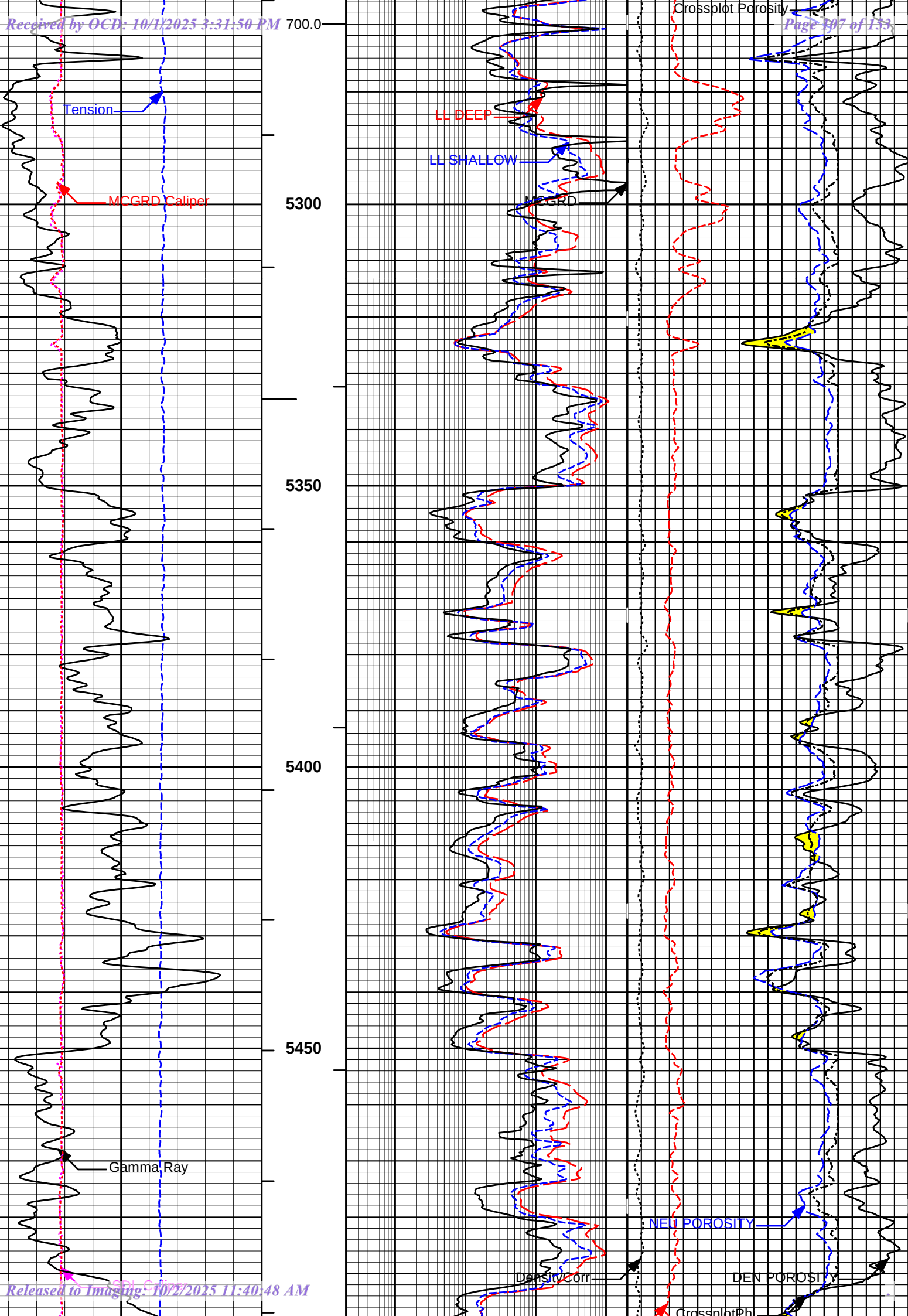
Crossplot Porosity

PE









ension  
MCGRD Caliper

Gamma Ray

5500

5550

5600

5650

5700

LL SHALLOW

LL DEEP

MCCBP

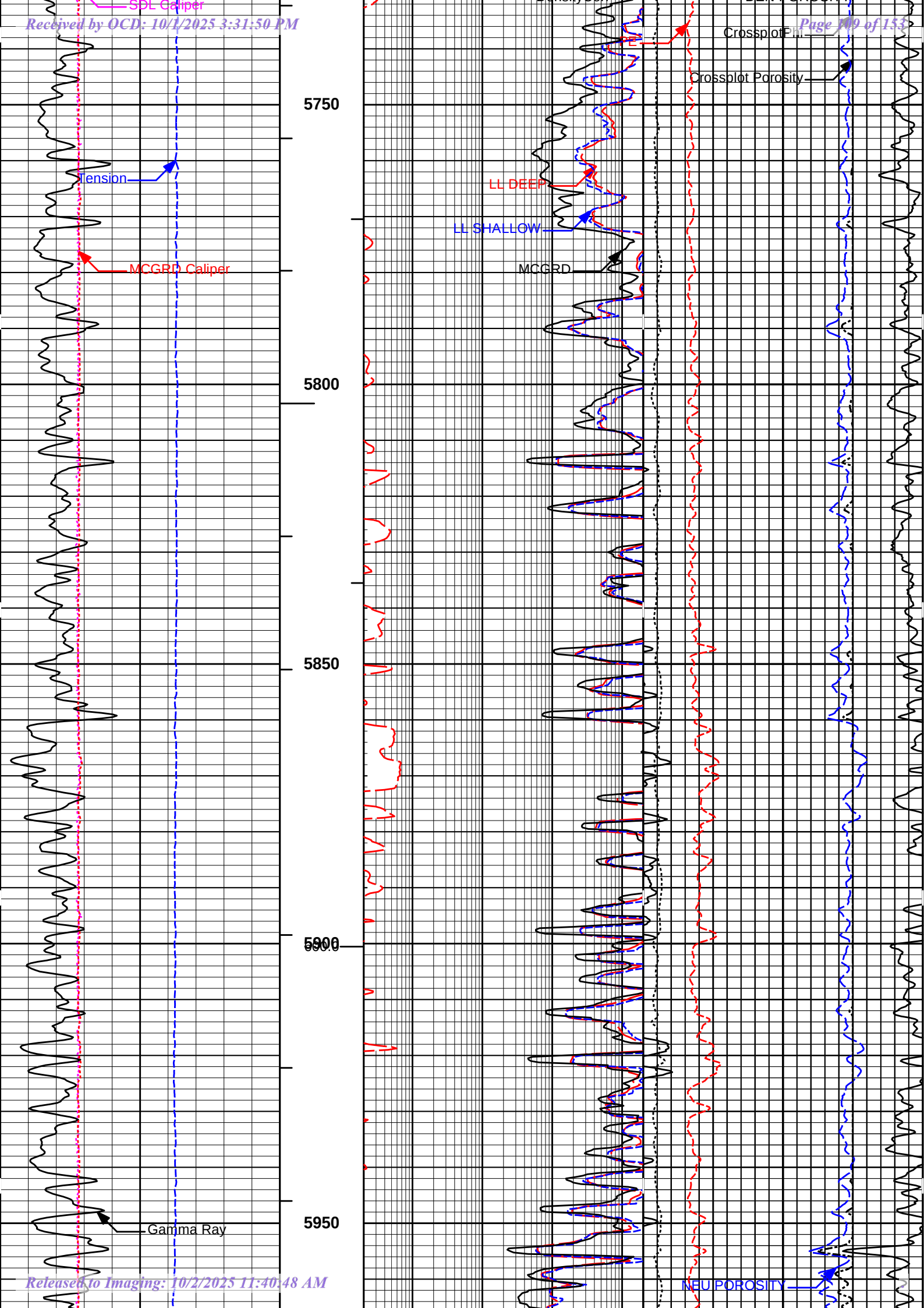
PE

Crossplot Porosity

NEU POROSITY

DENSITV COR

DEN POROSITY



SDL Caliper

PE/GRD

MCGRD Caliper

6000

6050

6100

6150

Gamma Ray

Density Corr

DEN POROS

PE

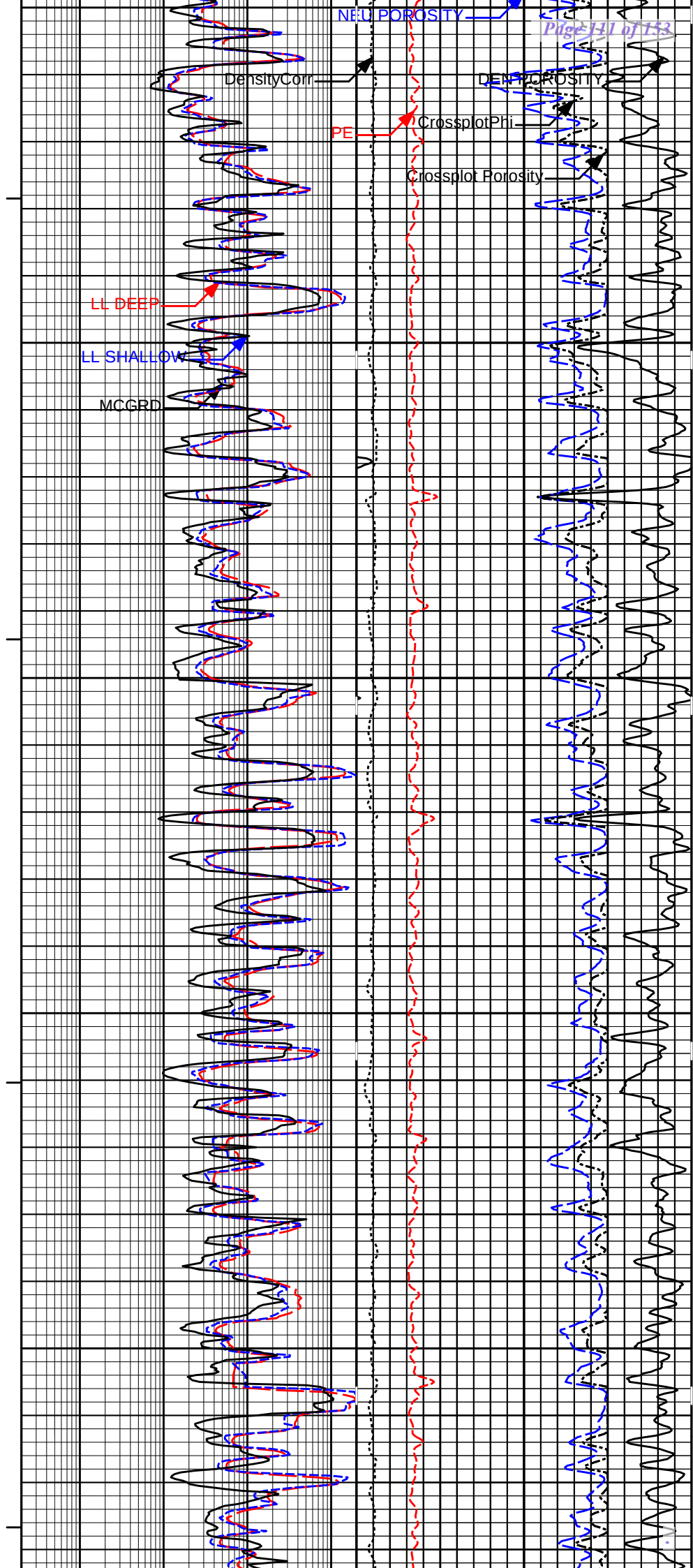
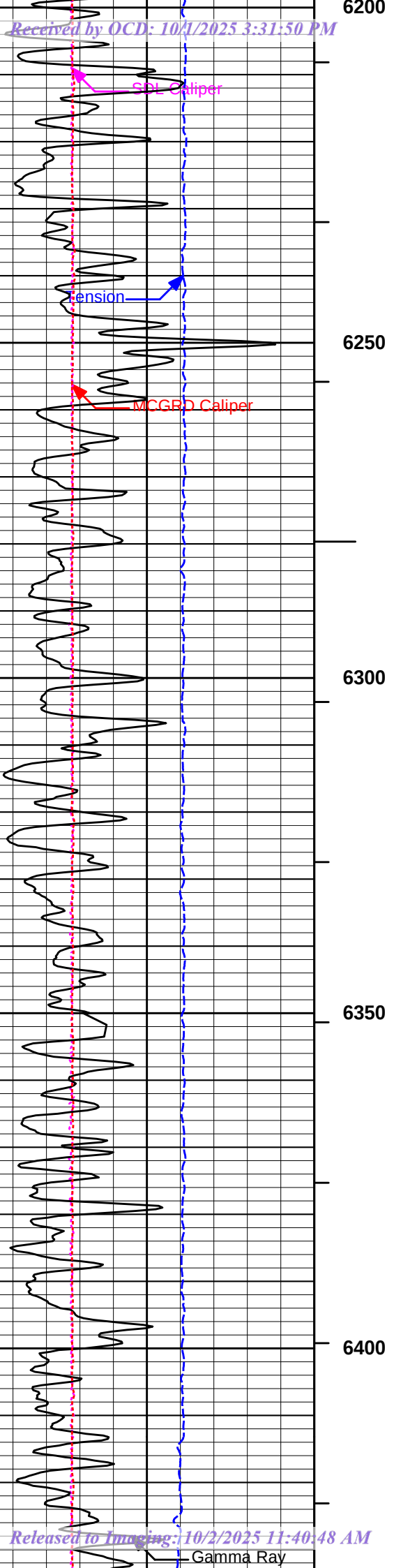
Crossplot Phi

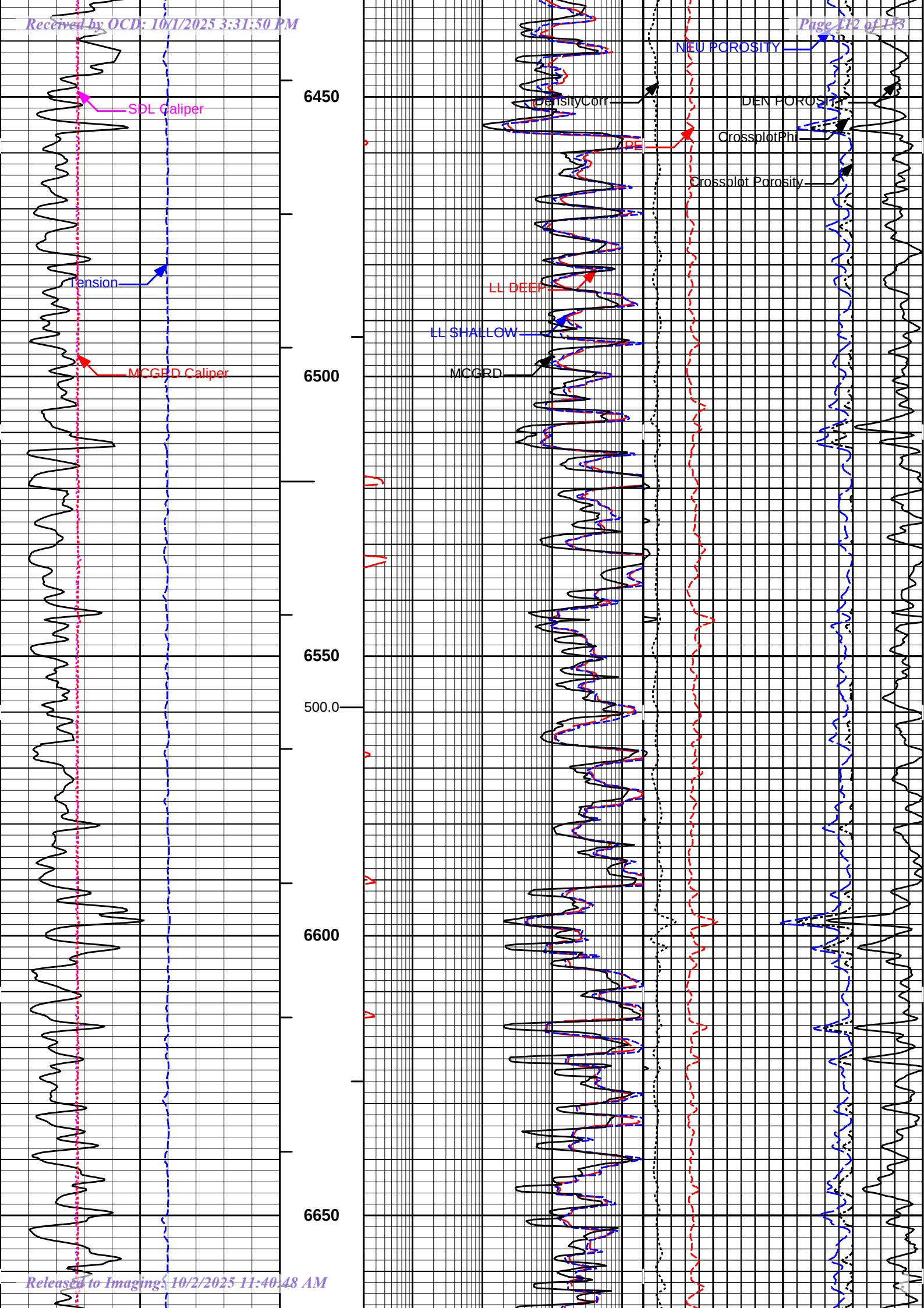
Crossplot Porosity

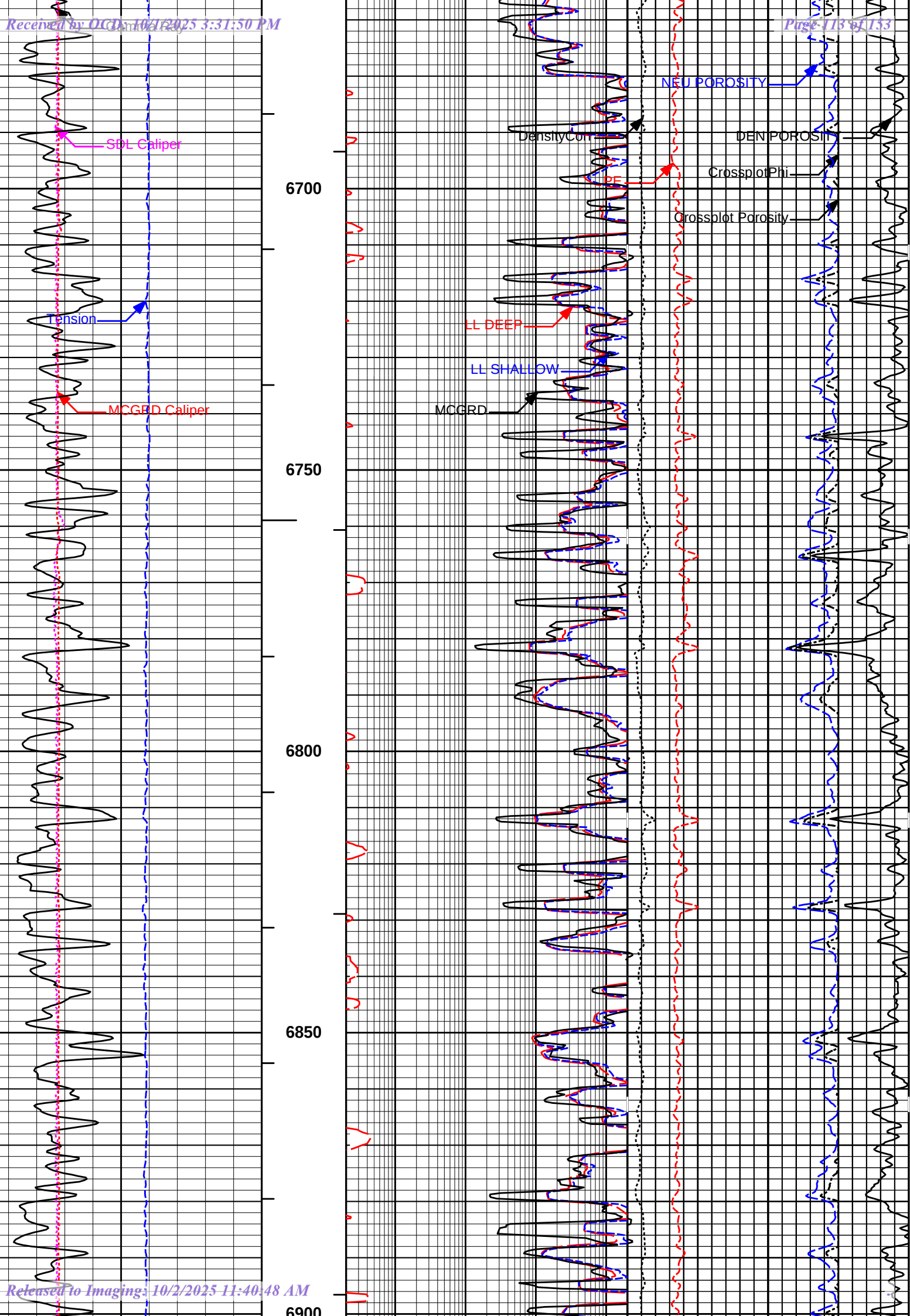
LL DLEDP

LL SHALE SW

GRD







Gamma Ray

SDL Caliper

Tension

MCGRD Caliper

6950

7000

7050

7100

Density Corr

PE

LL DEEP

LL SHALLOW

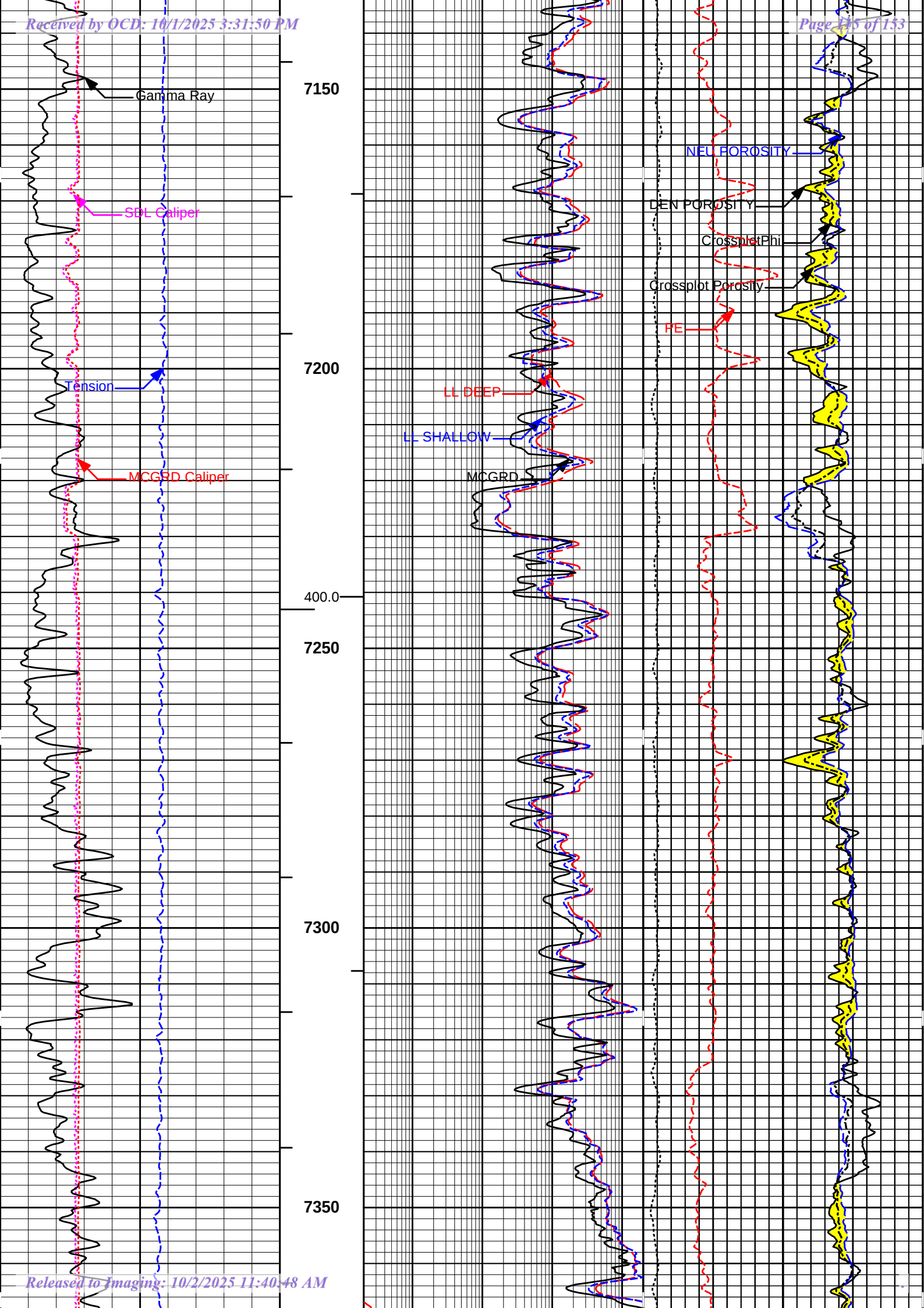
MCGRD

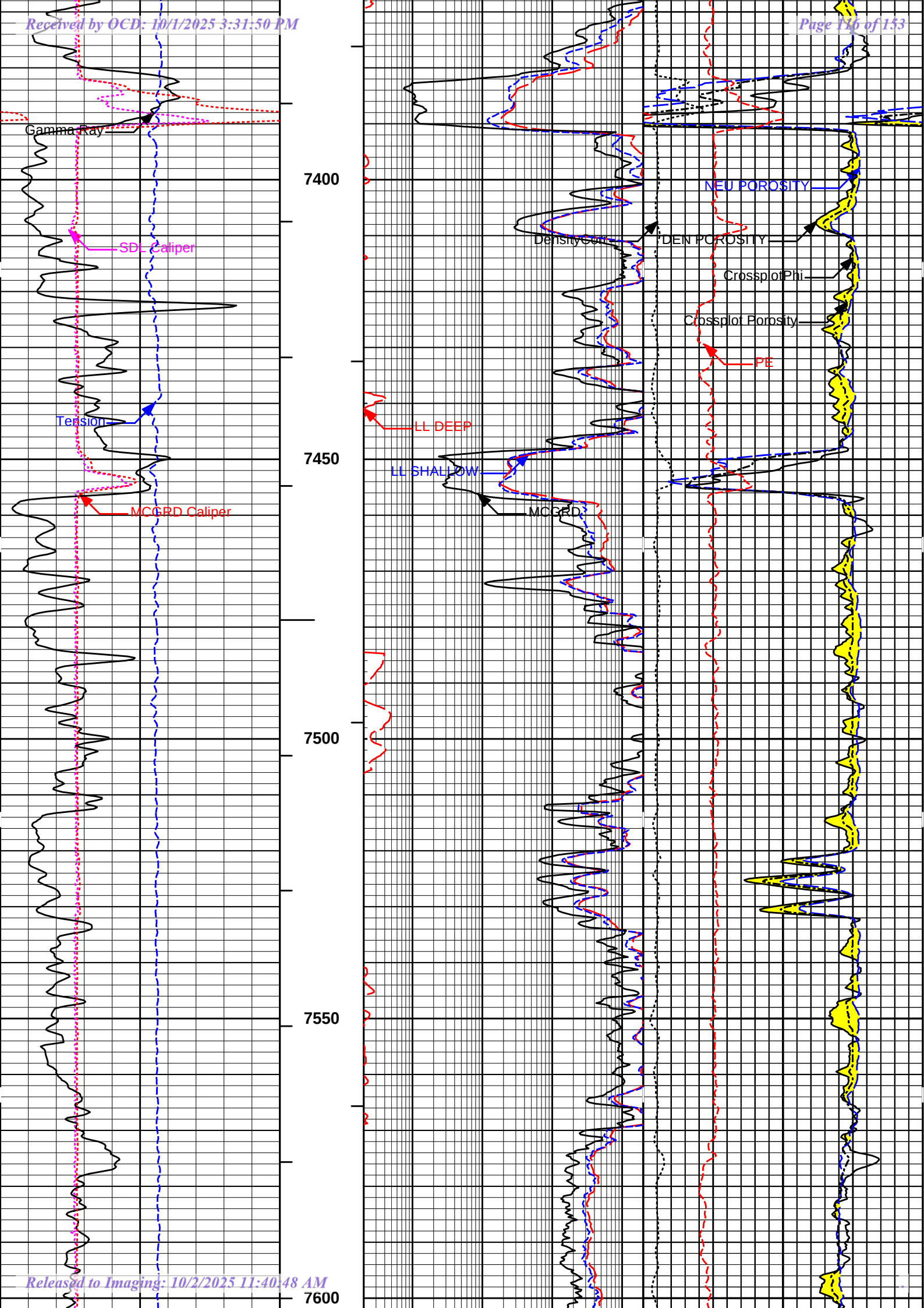
NEU POROSITY

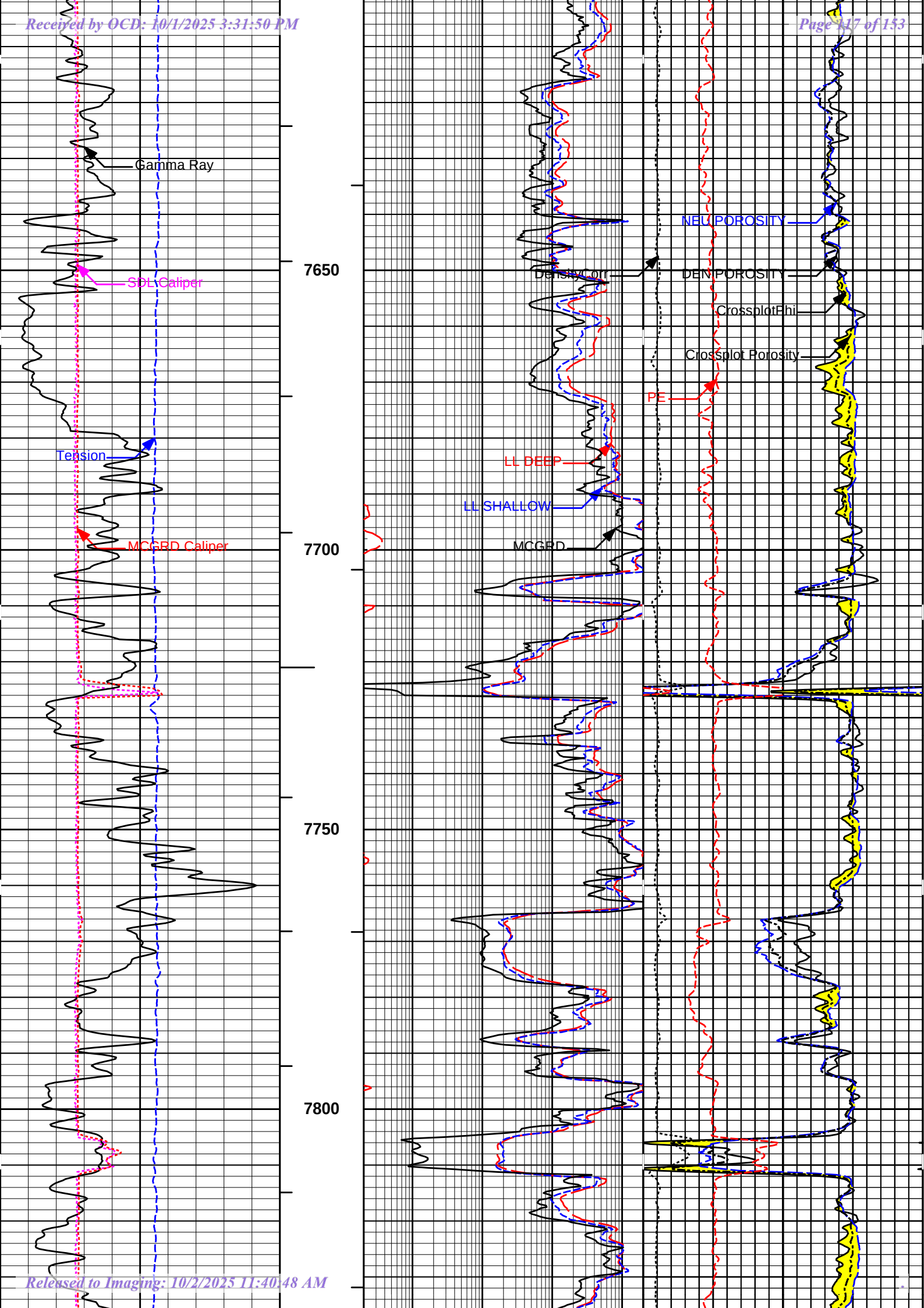
DEN POROSITY

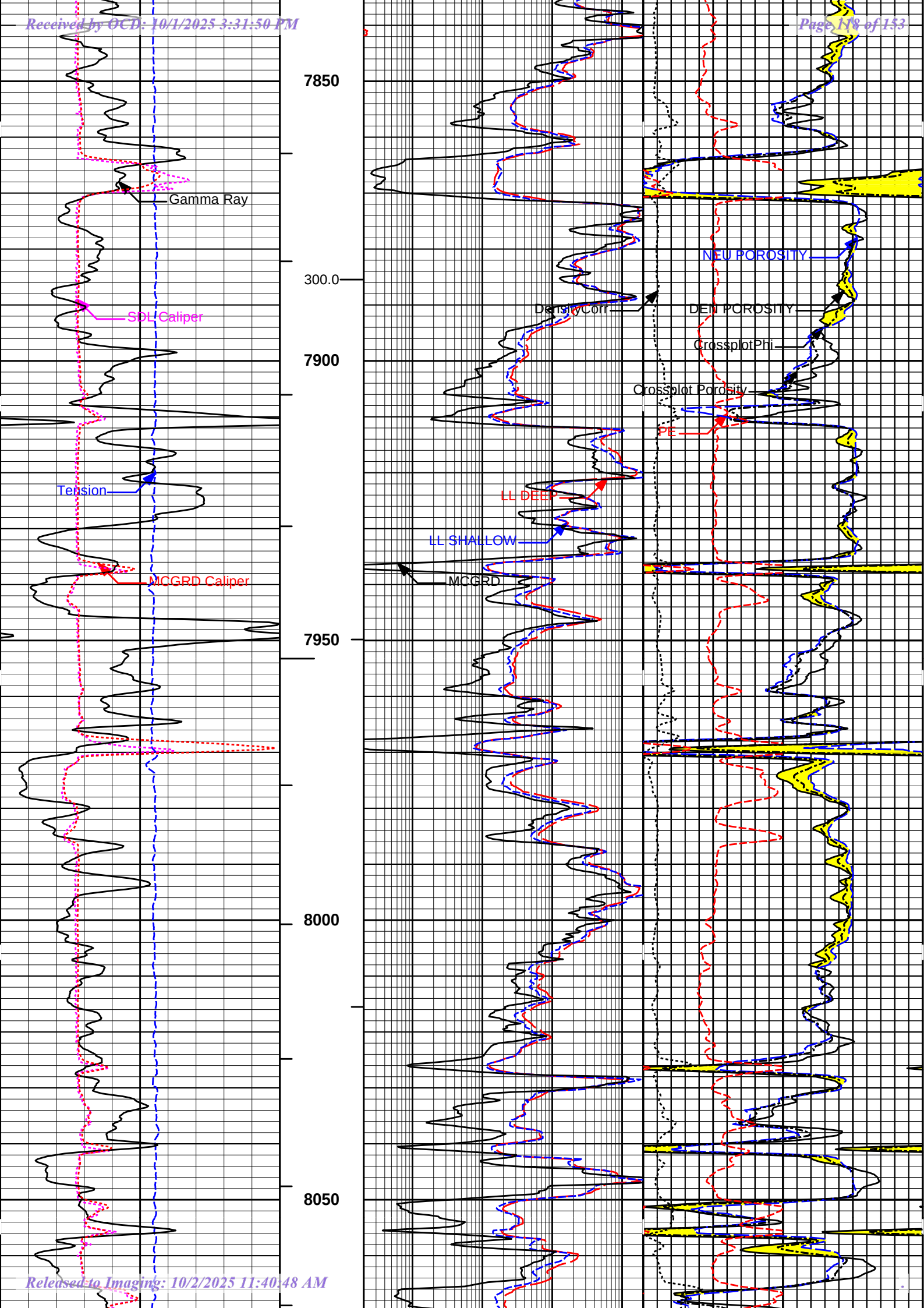
Crossplot Phi

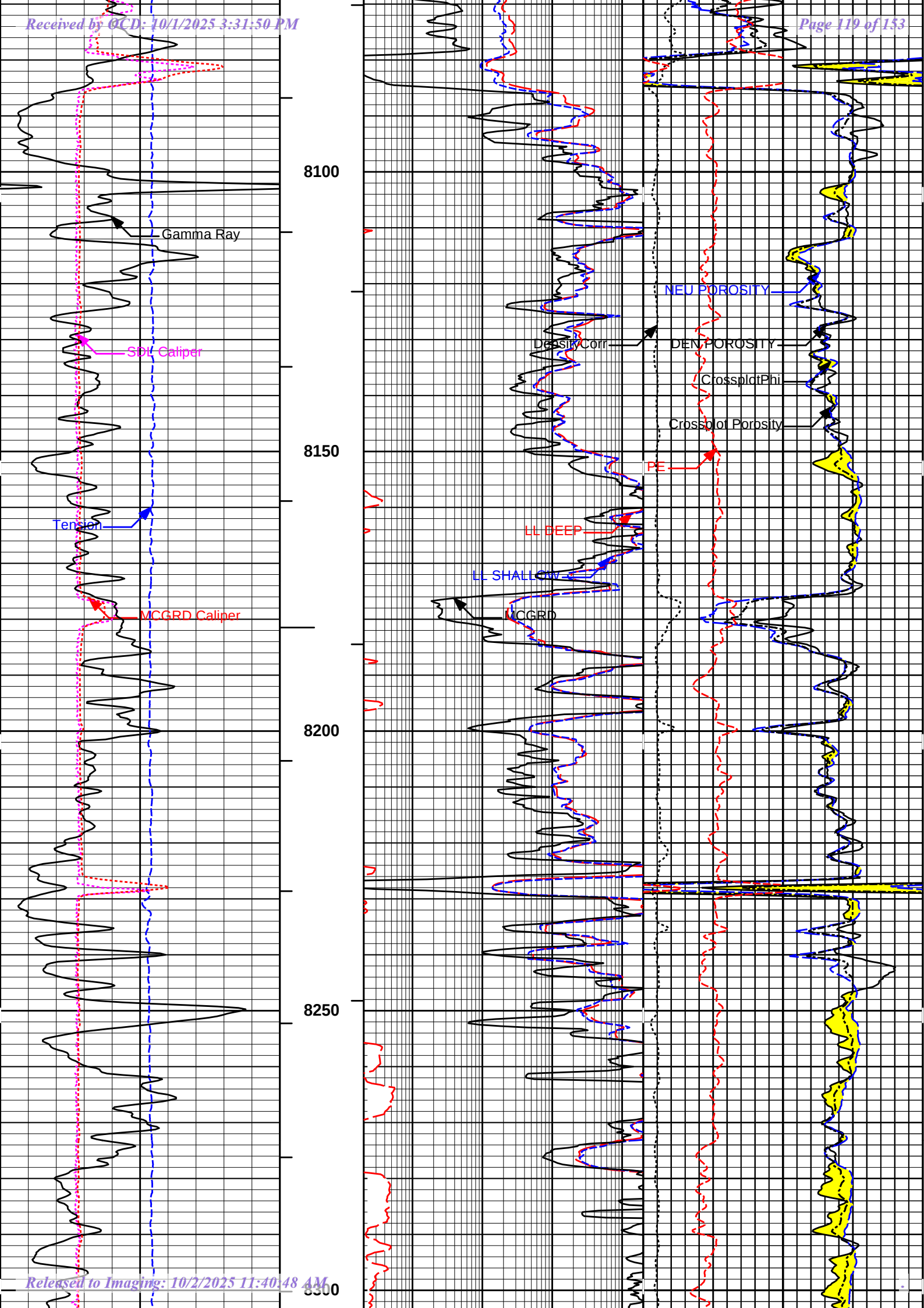
Crossplot Porosity

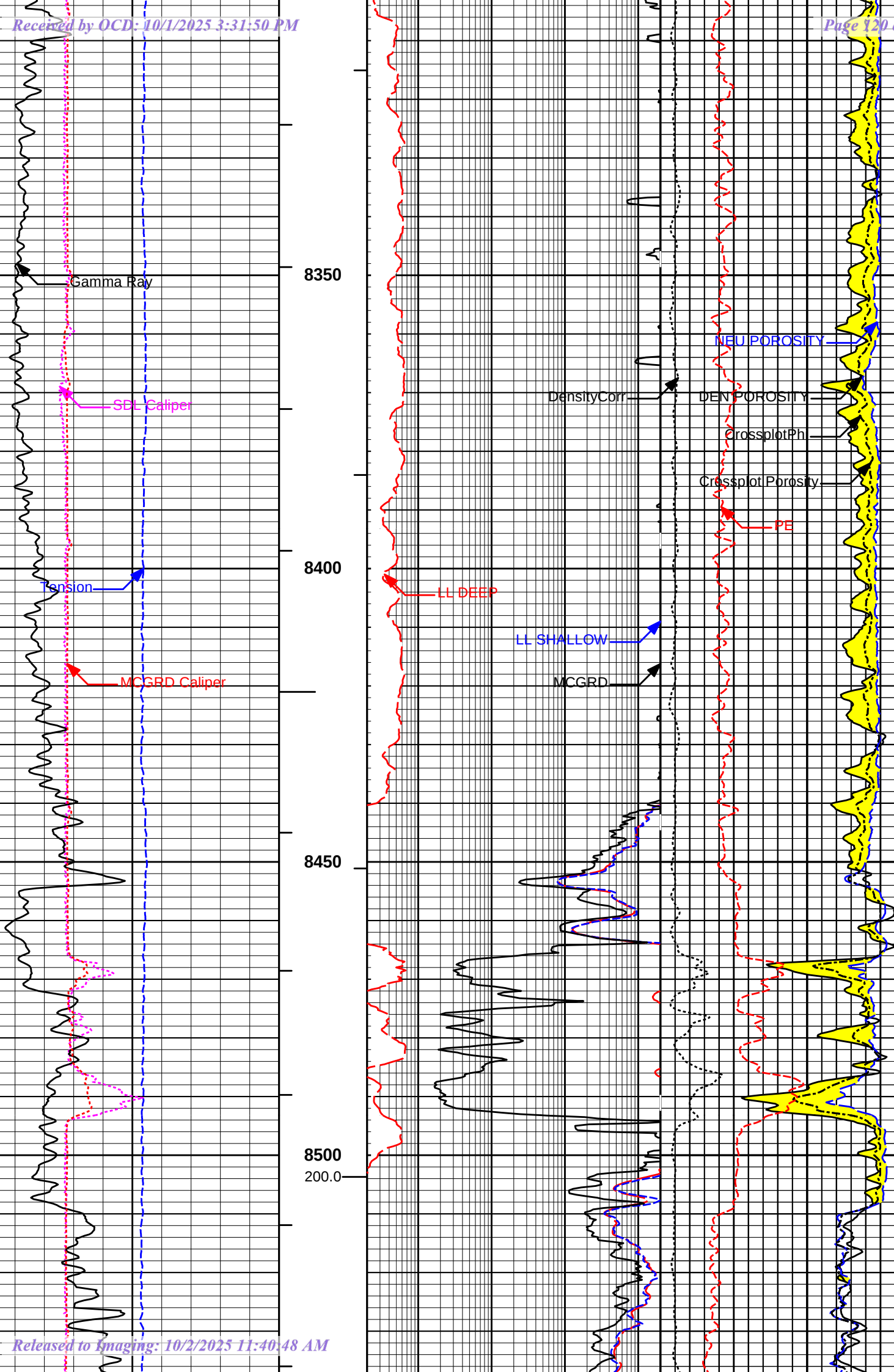


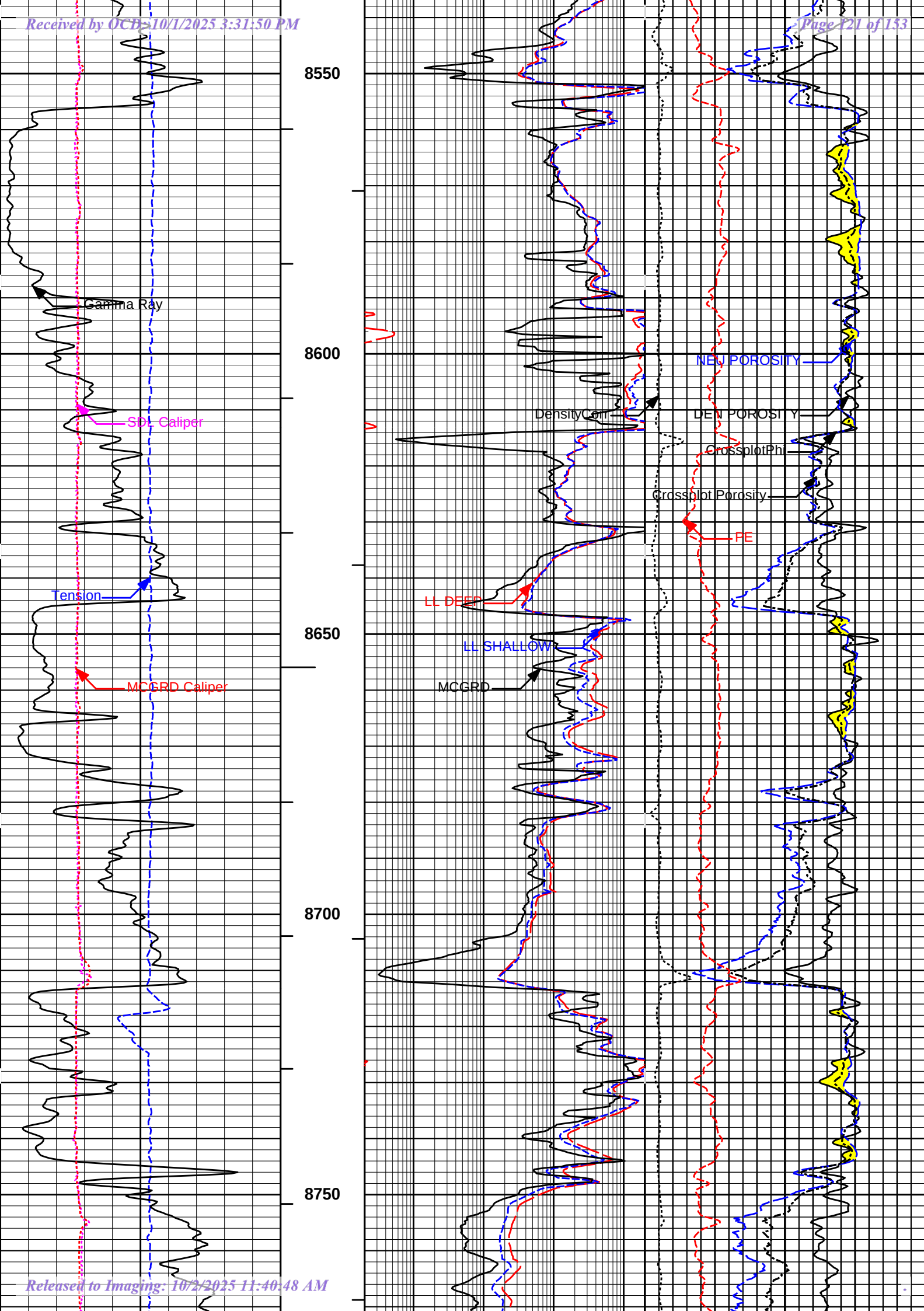


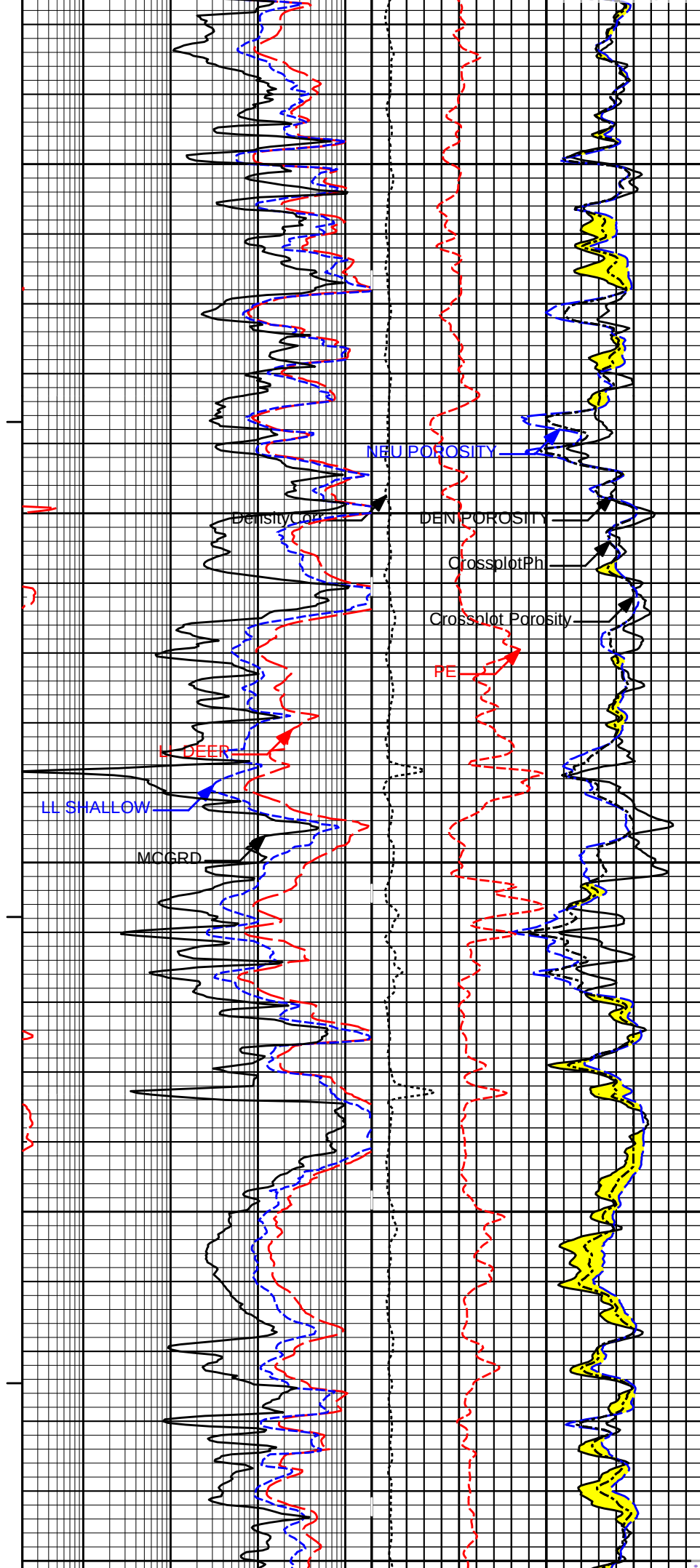
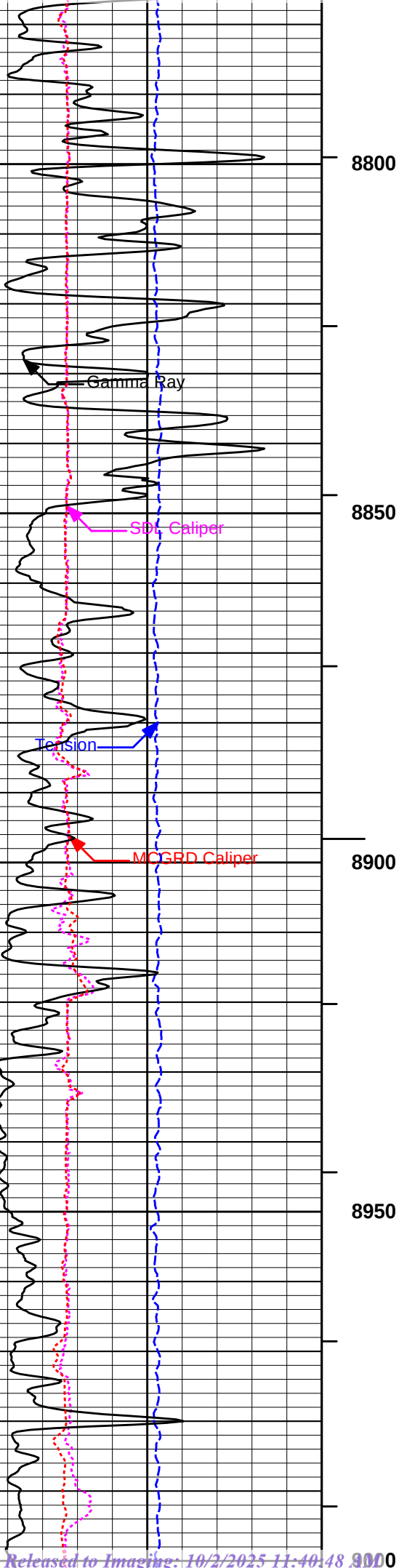


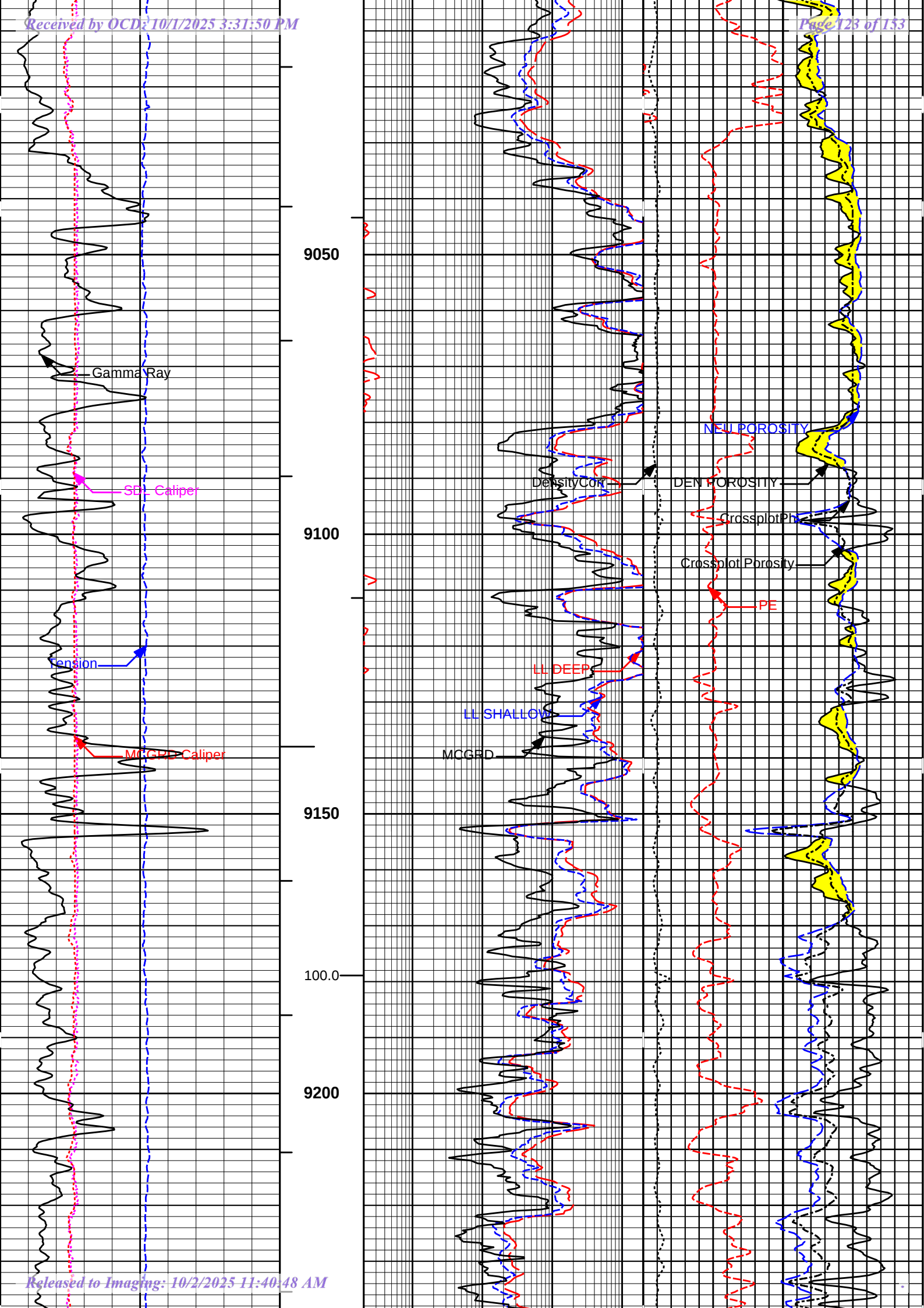


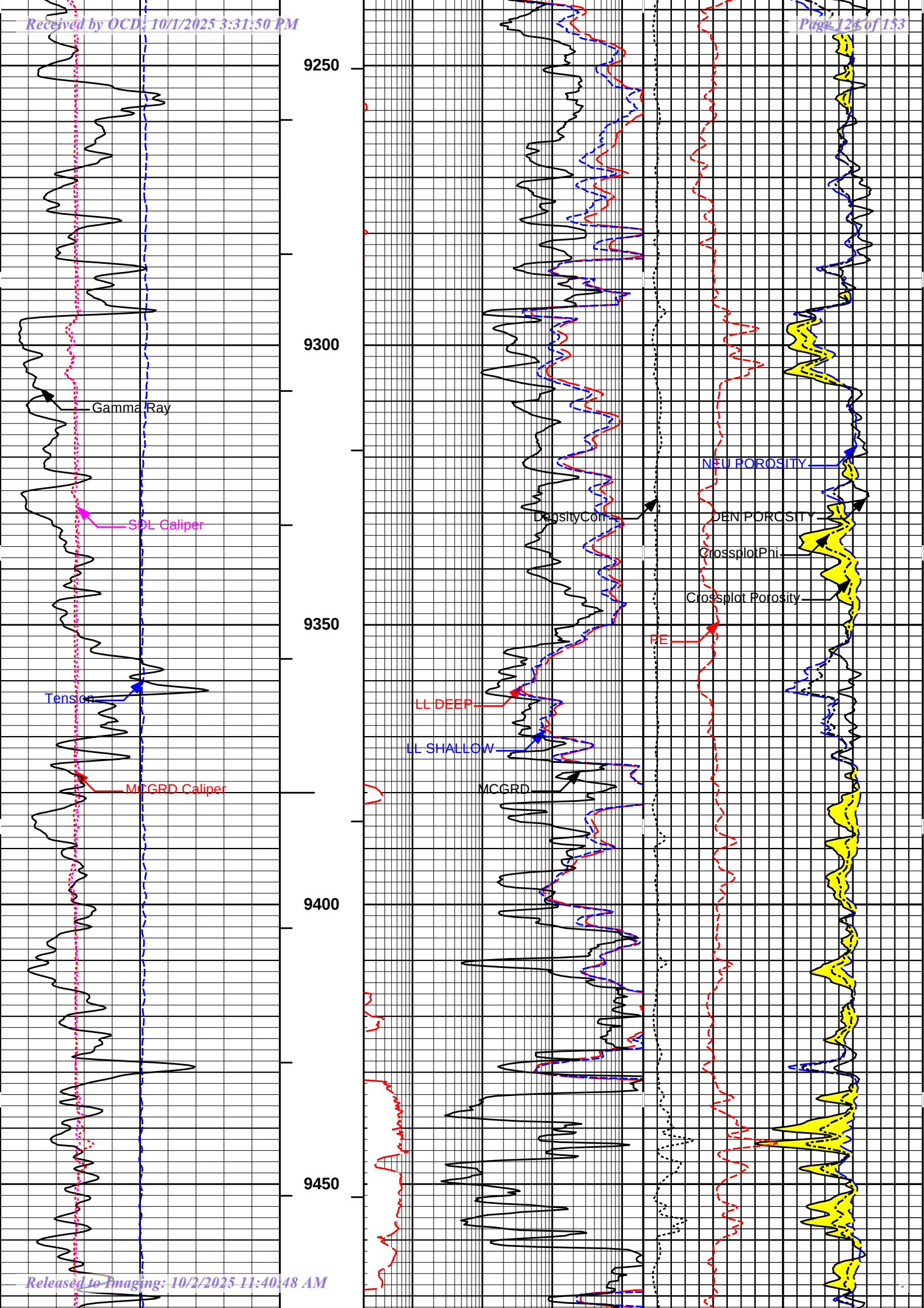


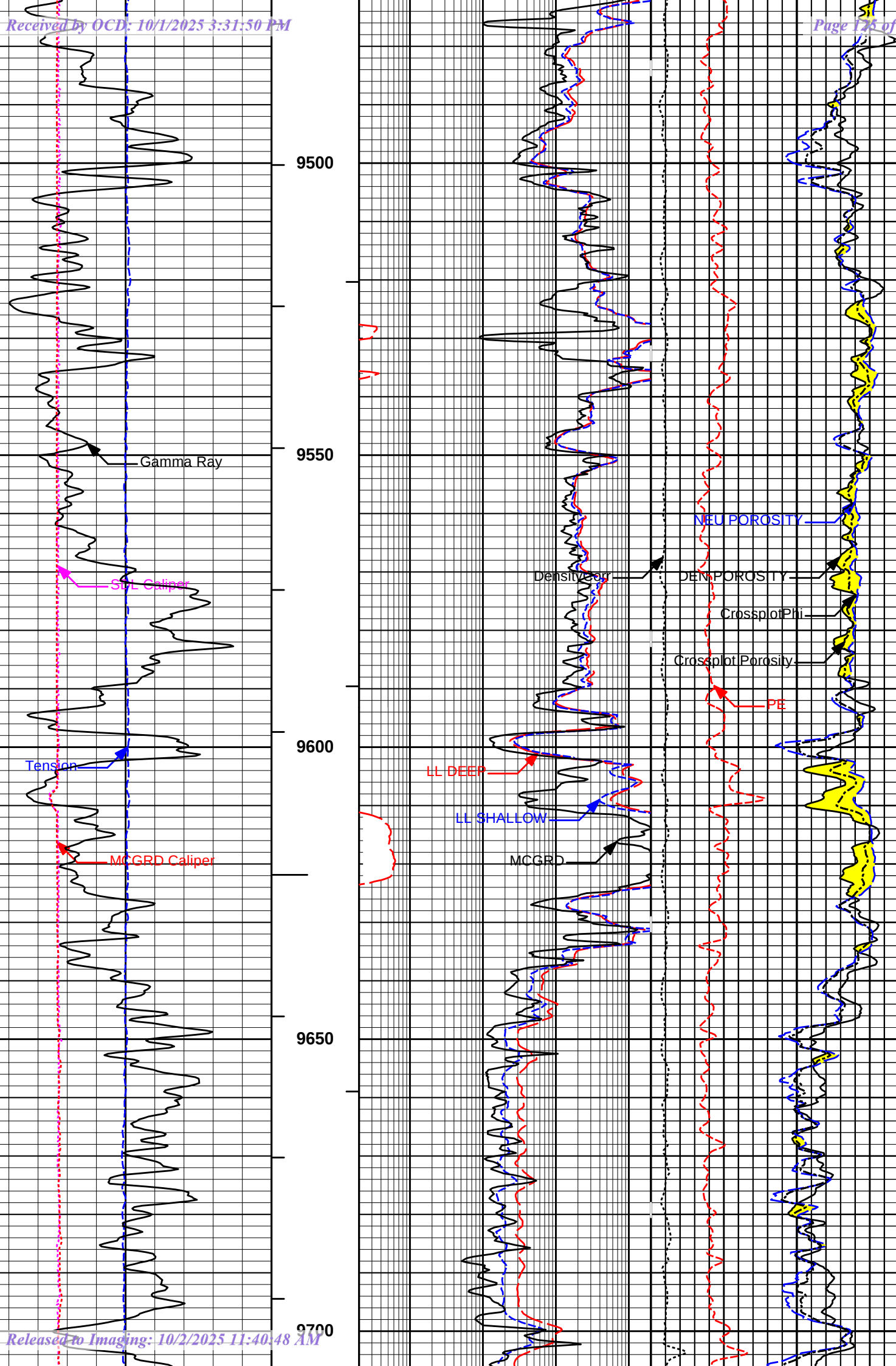


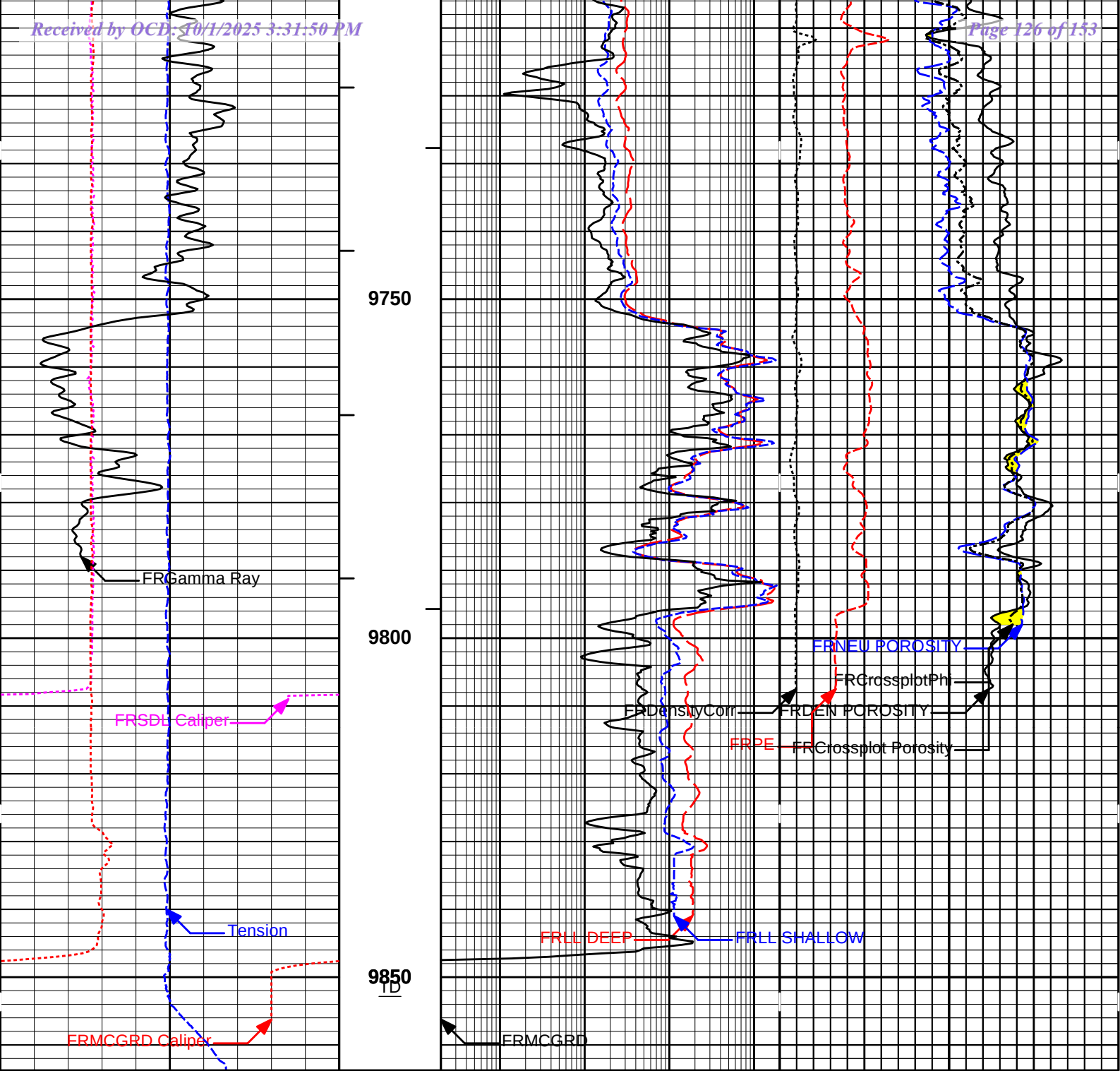












|       |               |     |         |     |            |      |      |                    |     |
|-------|---------------|-----|---------|-----|------------|------|------|--------------------|-----|
| 0     | Gamma Ray     | 150 | AHV     | 0.2 | MCGRD      | 2000 | -0.1 | DensityCorr        | 0.9 |
|       | api           |     |         |     | OHMM       |      |      | GM/CC              |     |
| 6     | SDL Caliper   | 16  | BHV     | 0.2 | LL DEEP    | 2000 | 0    | PE                 | 10  |
|       | inches        |     |         |     | OHMM       |      |      |                    |     |
| 10000 | Tension       | 0   | 1 : 240 | 0.2 | LL SHALLOW | 2000 | 30   | Crossplot Porosity | -10 |
|       | pounds        |     |         |     | OHMM       |      |      | %                  |     |
| 6     | MCGRD Caliper | 16  |         |     |            |      | 30   | NEU POROSITY       | -10 |
|       | inches        |     |         |     |            |      |      | %                  |     |
|       |               |     |         |     |            |      | 30   | DEN POROSITY       | -10 |
|       |               |     |         |     |            |      |      | %                  |     |

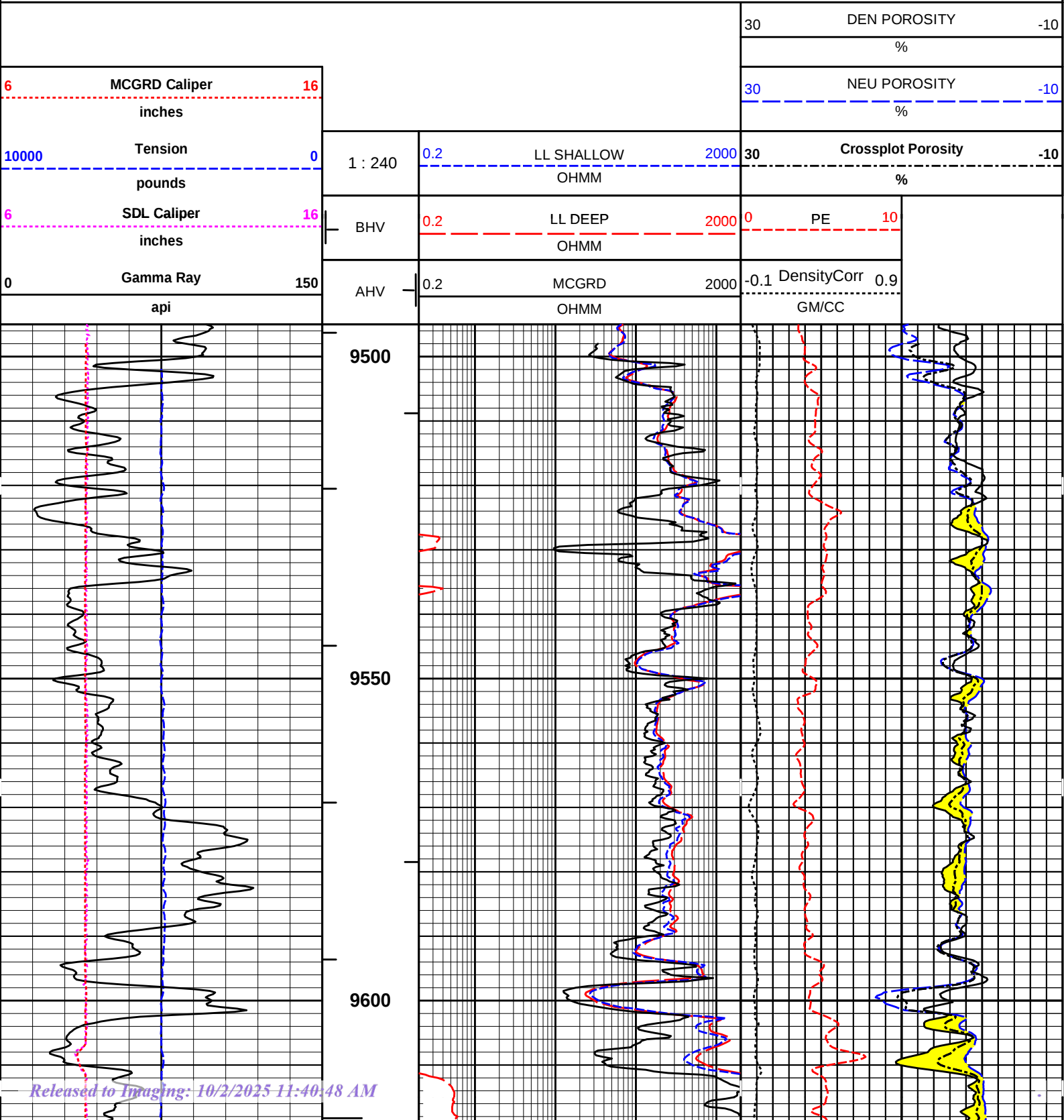
HALLIBURTON

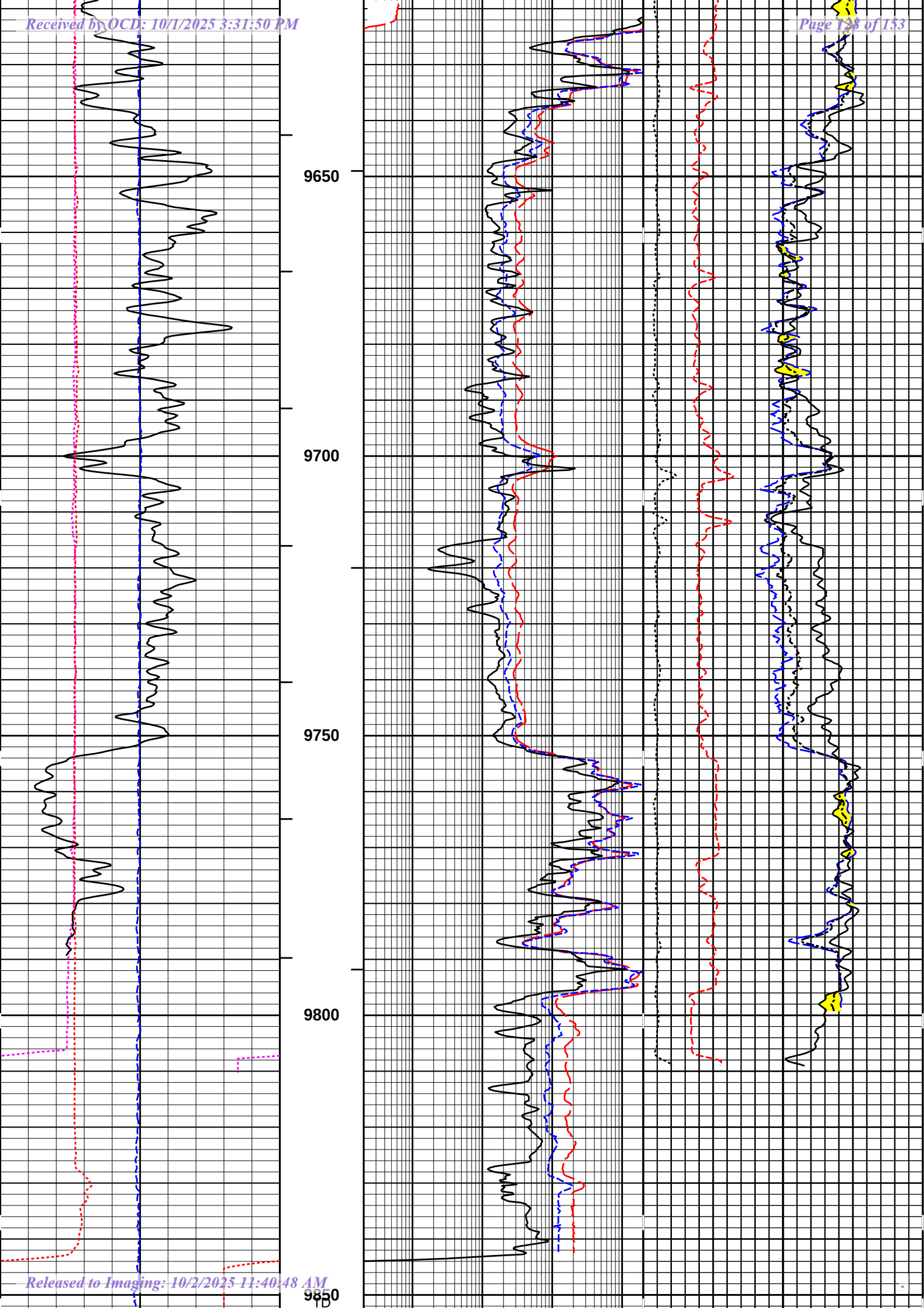
Plot Time: 07-Sep-24 00:58:50  
Plot Range: 100 ft to 9863.75 ft  
Data: LONG\_ANGUS\_SWD1\Well Based\\*1  
Plot File: \\ITCOMB01\Q-TRIPLE\_PRES\_DLL\_COMPO\_AB

HALLIBURTON

Plot Time: 07-Sep-24 00:58:50  
Plot Range: 9495 ft to 9865.08 ft  
Data: LONG\_ANGUS\_SWD1\Well Based\DAQ-0001-004\  
Plot File: \\ITCOMB01\Q-TRIPLE\_PRES\_DLL\_COMPO\_AB\_RP

5"=100' REPEAT SECTION







| Measurement             | Measured | Calibrated | Units |
|-------------------------|----------|------------|-------|
| Background              | 23.2     | 22.7       | api   |
| Background + Calibrator | 263.2    | 257.8      | api   |
| Calibrator              | 240.0    | 235.0      | api   |

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

|                   |                             |                             |                    |
|-------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:        | GTET - 11405267             | Reference Calibration Date: | 19-Aug-24 14:38:02 |
| Engineer:         | CARLOS ORTIZ                | Calibration Date:           | 03-Sep-24 13:50:04 |
| Software Version: | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

Calibrator Source Sleeve Type: Thorium  
Calibrator Source S/N: TB-71  
Calibrator API Reference: 231.00 api  
Equivalent Calibrator API Reference: 235.0 api

| Field Verification      | Shop  | Field | Units |
|-------------------------|-------|-------|-------|
| Background              | 22.7  | 24.4  | api   |
| Background + Calibrator | 257.8 | 261.3 | api   |
| Calibrator              | 235.0 | 236.8 | api   |

| Shop  | Field | Difference | Tolerance |
|-------|-------|------------|-----------|
| 235.0 | 236.8 | -1.8       | +/- 9.00  |

ACCELEROMETER SHOP CALIBRATION

|                   |                             |                             |                    |
|-------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:        | GTET - 11405267             | Reference Calibration Date: | 19-Mar-23 14:23:50 |
| Engineer:         | CHARLES SEARS               | Calibration Date:           | 17-May-24 16:15:44 |
| Software Version: | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

| Horizontal-1 Telemetry | Horizontal-2 Telemetry | Vertical Telemetry | Units |
|------------------------|------------------------|--------------------|-------|
| -192.64                | -68.64                 | -16374.64          | cnts  |

| Coefficient | Coefficient Value | Tolerance       |
|-------------|-------------------|-----------------|
| Gain        | -0.000062         | -----           |
| Offset      | -0.008            | -----           |
| Noise       | 0.0016            | 0.0000 - 0.0030 |

| Orientation | Measured | Tolerance    | Calibrated | Tolerance    |
|-------------|----------|--------------|------------|--------------|
| Horizontal  | 0.02     | -0.10 - 0.10 | 0.00       | -0.10 - 0.10 |
| Vertical    | 1.00     | 0.90 - 1.10  | 1.00       | 0.90 - 1.10  |

DUAL SPACED NEUTRON SHOP CALIBRATION

|                   |                             |                             |                    |
|-------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:        | DSNT - 11277438             | Reference Calibration Date: | 17-Aug-24 18:28:29 |
| Engineer:         | CARLOS ORTIZ                | Calibration Date:           | 17-Aug-24 18:40:43 |
| Software Version: | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

Logging Source S/N: DSN-426  
Tank Serial Number: 10751193  
Reference value assigned to Tank: 49.230  
Snow Block S/N: 1  
Calibration Tank Water Temperature: 90 degF  
Min. Tool Housing Outside Diameter: 3.625 in

| CALIBRATION CONSTANTS |             |           |                            |
|-----------------------|-------------|-----------|----------------------------|
| Measurement           | Prev. Value | New Value | Control Limit On New Value |
| Gain:                 | 0.93005     | 0.93249   | 0.900 - 1.100              |

|                   |        |        |        |            |
|-------------------|--------|--------|--------|------------|
| Porosity (decp):  | 0.1967 | 0.1974 | 0.0007 | +/- 0.0020 |
| Calibrated Ratio: | 9.2425 | 9.2668 | 0.024  | +/- 0.050  |

| VERIFIER                    |        |                   |
|-----------------------------|--------|-------------------|
| Measurement                 | Value  | Control Limit     |
| Snow-Block Porosity (decp): | 0.0776 | 0.02000 - 0.09000 |

| PASS/FAIL SUMMARY |        |
|-------------------|--------|
| Background Check: | Passed |
| Gain-Range Check: | Passed |
| Snow-Block Check: | Passed |

DUAL SPACED NEUTRON FIELD CALIBRATION

|                   |                             |                             |                    |
|-------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:        | DSNT - 11277438             | Reference Calibration Date: | 17-Aug-24 18:40:43 |
| Engineer:         | CARLOS ORTIZ                | Calibration Date:           | 03-Sep-24 14:50:10 |
| Software Version: | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

Logging Source S/N: DSN-426  
Snow Block S/N: 1

| NEUTRON FIELD-CHECK SUMMARY |        |        |            |                            |
|-----------------------------|--------|--------|------------|----------------------------|
|                             | Shop   | Field  | Difference | Control Limit<br>On Change |
| Snow-Block Porosity (decp): | 0.0776 | 0.0679 | -0.0097    | +/- 0.0150                 |

| PASS/FAIL SUMMARY      |        |
|------------------------|--------|
| Block Change Check:    | Passed |
| Snow Block Stat Check: | Passed |
| Temperature Check:     | Passed |

DENSITY CALIPER SHOP CALIBRATION

|                   |                             |                             |                    |
|-------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:        | SDLT - 11455759             | Reference Calibration Date: | 18-Aug-24 11:47:47 |
| Engineer:         | CARLOS ORTIZ                | Calibration Date:           | 18-Aug-24 11:52:25 |
| Software Version: | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |
| Host Tool Name:   | DSNT - 11277438             |                             |                    |

| CALIBRATION COEFFICIENTS |                |              |                               |
|--------------------------|----------------|--------------|-------------------------------|
| Measurement              | Previous Value | New Value    | Control Limit On<br>New Value |
| Pad Offset               | -4036.85       | -4066.79     | -7000.00 - -1000.00           |
| Pad Gain                 | 0.0003778      | 0.0003792    | 0.0002000 - 0.0006000         |
| Arm Offset               | -2945.58       | -2967.33     | -5000.00 - 3000.00            |
| Arm Gain                 | 0.0005271      | 0.0005252    | 0.000300 - 0.000700           |
| Arm Power                | -0.000005563   | -0.000005435 | -0.000010000 - 0.000010000    |

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER  
Tool Diameter: 4.50 in

| CALIBRATION RINGS |                                      |                            |        |                               |
|-------------------|--------------------------------------|----------------------------|--------|-------------------------------|
| Measurement       | Current Reading<br>(Previous Coeff.) | Calibrated<br>(New Coeff.) | Change | Control Limit On<br>New Value |
| PAD EXTENSION:    |                                      |                            |        |                               |
| Small Ring (in)   | 2.00                                 | 2.00                       | 0.00   | +/- 0.20                      |
| Medium Ring (in)  | 3.75                                 | 3.75                       | 0.00   | +/- 0.20                      |
| RING DIAMETER:    |                                      |                            |        |                               |
| Small Ring (in)   | 6.53                                 | 6.50                       | -0.03  | +/- 0.20                      |
| Medium Ring (in)  | 8.28                                 | 8.25                       | -0.03  | +/- 0.20                      |
| Large Ring (in)   | 15.02                                | 15.00                      | -0.02  | +/- 0.20                      |

Calibration-Coefficients Range Check: Passed  
Ring-Measurement Check: Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check: Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 11455759      Reference Calibration Date: 18-Aug-24 11:52:25  
Engineer: CARLOS ORTIZ      Calibration Date: 03-Sep-24 14:58:01  
Software Version: WL INSITE R6.8.20 (Build 3)      Calibration Version: 1

| MEASURED CALIPER VALUES |      |       |        |                            |
|-------------------------|------|-------|--------|----------------------------|
| Measurement             | Shop | Field | Change | Control Limit On New Value |
| Pad Extension           | 3.75 | 3.72  | -0.03  | +/- 0.10                   |
| Ring Diameter           | 8.25 | 8.18  | -0.07  | +/- 0.15                   |

PASS/FAIL SUMMARY

Pad Extension Check: Passed  
Diameter Check: Passed

DUAL LATEROLOG SHOP CALIBRATION

Tool Name: DLLT-I Sonde - 11976583      Reference Calibration Date: 08-Apr-24 20:38:58  
Engineer: CHARLES SEARS      Calibration Date: 06-Jul-24 10:01:07  
Software Version: WL INSITE R6.8.20 (Build 3)      Calibration Version: 1  
Host Tool Name: DLLT-I Measurement - 11563864      Extra Host Tool Name1: DLLT-I Power and Telemetry - 11986015

| Measurement           | Deep Measured | Deep Calibrated | Shallow Measured | Shallow Calibrated | Units |
|-----------------------|---------------|-----------------|------------------|--------------------|-------|
| External Cal Point #1 | 1.05          | 1.04            | 0.98             | 1.00               | ohmm  |
| External Cal Point #2 | 110.40        | 119.47          | 98.50            | 99.63              | ohmm  |
| External Cal Point #3 | 1541.23       | 1541.79         | 1015.97          | 1019.96            | ohmm  |
| External Check Point  | 110.40        | 119.47          | 98.48            | 99.61              | ohmm  |
| Internal Reference    | 20.67         | 22.47           | 19.06            | 19.29              | ohmm  |

DUAL LATEROLOG FIELD CALIBRATION

Tool Name: DLLT-I Sonde - 11976583      Reference Calibration Date: 06-Jul-24 10:01:07  
Engineer: RICHARD WHITLOCK      Calibration Date: 06-Sep-24 19:34:15  
Software Version: WL INSITE R6.8.20 (Build 3)      Calibration Version: 1

| Measurement        | Deep Shop | Deep Field | Shallow Shop | Shallow Field | Units |
|--------------------|-----------|------------|--------------|---------------|-------|
| Internal Reference | 22.47     | 22.46      | 19.29        | 19.29         | ohmm  |

PASS/FAIL SUMMARY

| Measurement      | Difference | Tolerance | Pass/Fail |
|------------------|------------|-----------|-----------|
| Internal Deep    | 0.00       | +/- 0.8   | Passed    |
| Internal Shallow | 0.00       | +/- 0.8   | Passed    |

MICRO SPHERICALLY FOCUSED LOG SHOP CALIBRATION

Tool Name: MSFL - 65836389      Reference Calibration Date: 20-Apr-24 11:21:22  
Engineer: CHARLES SEARS      Calibration Date: 06-Jul-24 10:40:45  
Software Version: WL INSITE R6.8.20 (Build 3)      Calibration Version: 1

| Measurement           | Measured | Calibrated | Units |
|-----------------------|----------|------------|-------|
| External Cal Point #1 | 0.51     | 0.50       | ohmm  |
| External Cal Point #2 | 20.04    | 20.00      | ohmm  |
| External Cal Point #3 | 1931.57  | 2000.00    | ohmm  |

## MICRO SPHERICALLY FOCUSED LOG FIELD CALIBRATION

Tool Name: MSFL - 65836389

Reference Calibration Date: 06-Jul-24 10:40:45

Engineer: RICHARD WHITLOCK

Calibration Date: 06-Sep-24 19:33:21

Software Version: WL INSITE R6.8.20 (Build 3)

Calibration Version: 1

| Measurement        | Shop  | Field | Change | Control Limit On | Units |
|--------------------|-------|-------|--------|------------------|-------|
| Internal Reference | 19.98 | 19.94 | -0.042 | 0.800            | ohmm  |

## PASS/FAIL SUMMARY

Internal Reference:

Passed

## CALIPER SHOP CALIBRATION

Tool Name: MSFL - 65836389

Reference Calibration Date: 20-Apr-24 11:32:25

Engineer: CHARLES SEARS

Calibration Date: 06-Jul-24 10:26:40

Software Version: WL INSITE R6.8.20 (Build 3)

Calibration Version: 1

## CALIBRATION RINGS AND INTERNAL

| Measurement      | Current Reading<br>(Previous Coeff.) | Calibrated<br>(New Coeff.) | Change  |
|------------------|--------------------------------------|----------------------------|---------|
| RING DIAMETER:   |                                      |                            |         |
| Ring #1 (in)     | 6.39                                 | 6.50                       | -0.1100 |
| Ring #2 (in)     | 14.98                                | 15.00                      | -0.0200 |
| Hi/Lo Internal:  |                                      |                            |         |
| Lo Internal (in) | -0.78                                | -0.58                      | -0.2000 |
| Hi Internal (in) | 15.32                                | 15.33                      | -0.0100 |

## CALIPER FIELD CALIBRATION

Tool Name: MSFL - 65836389

Reference Calibration Date: 06-Jul-24 10:26:40

Engineer: RICHARD WHITLOCK

Calibration Date: 06-Sep-24 19:32:53

Software Version: WL INSITE R6.8.20 (Build 3)

Calibration Version: 1

## MEASURED CALIPER VALUES

| Measurement      | Shop  | Field | Change | Control Limit On<br>New Value |
|------------------|-------|-------|--------|-------------------------------|
| Lo Internal (in) | -0.58 | -0.60 | 0.017  | +/- 0.500                     |
| Hi Internal (in) | 15.33 | 15.30 | 0.029  | +/- 0.500                     |

## PASS/FAIL SUMMARY

Lo Internal Check:

Passed

Hi Internal Check:

Passed

## MICRO LOG SHOP CALIBRATION

Tool Name: Microlog Pad - 11455759

Reference Calibration Date: 06-Jun-24 11:45:22

Engineer: CARLOS ORTIZ

Calibration Date: 18-Aug-24 12:01:22

Software Version: WL INSITE R6.8.20 (Build 3)

Calibration Version: 1

Host Tool Name: DSNT - 11277438

## CALIBRATION COEFFICIENT SUMMARY

| Measurement          | Micro Log Normal |            | Micro Log Lateral |            | Units |
|----------------------|------------------|------------|-------------------|------------|-------|
|                      | Measured         | Calibrated | Measured          | Calibrated |       |
| Tool Zero            | -0.11            | -0.07      | -0.00             | -0.05      | ohmm  |
| Calibration Point #1 | -0.04            | 0.00       | 0.04              | 0.00       | ohmm  |
| Calibration Point #2 | 19.99            | 20.00      | 20.06             | 20.00      | ohmm  |
| Internal Reference   | 19.90            | 19.92      | 20.00             | 19.94      | ohmm  |

|                      |         |         |   |
|----------------------|---------|---------|---|
| Tool Zero            | -0.42   | 0.41    | V |
| Calibration Point #1 | 17.67   | 16.19   | V |
| Calibration Point #2 | 5339.17 | 6923.30 | V |
| Internal Reference   | 5317.29 | 6900.86 | V |

| MICRO LOG FIELD CHECK |                             |                             |                    |
|-----------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:            | Microlog Pad - 11455759     | Reference Calibration Date: | 18-Aug-24 12:01:22 |
| Engineer:             | CARLOS ORTIZ                | Calibration Date:           | 03-Sep-24 14:59:20 |
| Software Version:     | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

| Measurement        | Micro Log Normal |       | Micro Log Lateral |       | Units     |
|--------------------|------------------|-------|-------------------|-------|-----------|
|                    | Shop             | Field | Shop              | Field |           |
| Tool Zero          | -0.07            | -0.07 | -0.05             | -0.05 | ohmm      |
| Internal Reference | 19.92            | 19.86 | 19.94             | 19.87 | ohmm      |
| Summary            |                  |       |                   |       |           |
| Signal             | Shop             | Field | Difference        |       | Tolerance |
| Microlog Normal    | 19.92            | 19.86 | 0.06              |       | +/- 0.80  |
| Microlog Lateral   | 19.94            | 19.87 | 0.07              |       | +/- 0.80  |

| SPECTRAL DENSITY SHOP CALIBRATION |                             |                             |                    |
|-----------------------------------|-----------------------------|-----------------------------|--------------------|
| Tool Name:                        | SDLT Pad - 10816164         | Reference Calibration Date: | 16-Jul-24 11:15:28 |
| Engineer:                         | CARLOS ORTIZ                | Calibration Date:           | 17-Aug-24 15:30:21 |
| Software Version:                 | WL INSITE R6.8.20 (Build 3) | Calibration Version:        | 1                  |

|                               |                    |           |
|-------------------------------|--------------------|-----------|
| Logging Source S/N: 5318GW    |                    |           |
| Aluminum Block S/N: 10838329  | Density: 2.604g/cc | Pe: 3.170 |
| Magnesium Block S/N: 10838330 | Density: 1.685g/cc | Pe: 2.560 |

| DENSITY CALIBRATION SUMMARY |                |           |               |
|-----------------------------|----------------|-----------|---------------|
| Measurement                 | Previous Value | New Value | Control Limit |
| Near Bar Gain               | 1.0337         | 1.0525    | 0.90 - 1.10   |
| Near Dens Gain              | 1.0331         | 1.0309    | 0.90 - 1.10   |
| Near Peak Gain              | 1.0247         | 1.0467    | 0.90 - 1.10   |
| Near Lith Gain              | 1.0049         | 1.0111    | 0.90 - 1.10   |
| Far Bar Gain                | 1.0187         | 1.0222    | 0.90 - 1.10   |
| Far Dens Gain               | 1.0045         | 1.0074    | 0.90 - 1.10   |
| Far Peak Gain               | 0.9974         | 0.9977    | 0.90 - 1.10   |
| Far Lith Gain               | 0.9687         | 0.9729    | 0.90 - 1.10   |
|                             |                |           |               |
| Near Bar Offset             | -0.0891        | -0.2563   | NONE          |
| Near Dens Offset            | -0.0988        | -0.0764   | NONE          |
| Near Peak Offset            | -0.0293        | -0.2110   | NONE          |
| Near Lith Offset            | 0.1375         | 0.0849    | NONE          |
| Far Bar Offset              | -0.0045        | -0.0320   | NONE          |
| Far Dens Offset             | 0.1114         | 0.0881    | NONE          |
| Far Peak Offset             | 0.1613         | 0.1576    | NONE          |
| Far Lith Offset             | 0.3602         | 0.3289    | NONE          |
|                             |                |           |               |
| Near Bar Background         | 852.92         | 853.17    | 700 - 1450    |
| Near Dens Background        | 277.09         | 276.36    | 230 - 480     |
| Near Peak Background        | 120.09         | 120.08    | 100 - 210     |
| Near Lith Background        | 147.51         | 146.80    | 125 - 260     |
| Far Bar Background          | 567.75         | 566.65    | 450 - 900     |
| Far Dens Background         | 225.24         | 224.90    | 175 - 345     |
| Far Peak Background         | 89.97          | 89.65     | 70 - 140      |
| Far Lith Background         | 93.16          | 92.54     | 75 - 145      |

| Measurement    | Current Reading<br>(Previous Coef) | Calibrated<br>(New Coef) | Change | Control Limit<br>On Change |
|----------------|------------------------------------|--------------------------|--------|----------------------------|
| MAGNESIUM      |                                    |                          |        |                            |
| Density (g/cc) | 1.682                              | 1.684                    | 0.002  | +/- 0.015                  |
| Pe             | 2.506                              | 2.534                    | 0.028  | +/- 0.150                  |
| ALUMINUM       |                                    |                          |        |                            |
| Density (g/cc) | 2.601                              | 2.604                    | 0.003  | +/- 0.01500                |
| Pe             | 3.115                              | 3.138                    | 0.023  | +/- 0.150                  |

| TOOL SUMMARY               |               |                |              |                |
|----------------------------|---------------|----------------|--------------|----------------|
| Measurement                | Near Detector |                | Far Detector |                |
|                            | Value         | Control Limits | Value        | Control Limits |
| QUALITY                    |               |                |              |                |
| Background                 | -0.0003       | +/- 0.0110     | -0.0000      | +/- 0.0140     |
| Magnesium Block            | -0.0002       | +/- 0.0110     | -0.0008      | +/- 0.0140     |
| Aluminum Block             | -0.0010       | +/- 0.0110     | -0.0002      | +/- 0.0140     |
| Resolution                 | 9.17          | 6.00 - 11.50   | 8.87         | 6.00 - 11.50   |
| Internal Verifier(B+D+P+L) | 1396          | 1200 - 2700    | 974          | 800 - 1700     |

| PASS/FAIL SUMMARY              |        |
|--------------------------------|--------|
| Background Quality Check:      | Passed |
| Background Range Check:        | Passed |
| Background Resolution Check:   | Passed |
| Background Verification Check: | Passed |
| Magnesium Quality Check:       | Passed |
| Aluminum Quality Check:        | Passed |
| Gains Check:                   | Passed |
| Changes in Calibration Blocks: | Passed |

SPECTRAL DENSITY FIELD CHECK

Tool Name: SDLT Pad - 10816164

Reference Calibration Date: 17-Aug-24 15:30:21

Engineer: CARLOS ORTIZ

Calibration Date: 03-Sep-24 15:03:30

Software Version: WL INSITE R6.8.20 (Build 3)

Calibration Version: 1

Pad Temperature: 75.2 degF

| DENSITY FIELD CALIBRATION SUMMARY |          |          |        |                   |
|-----------------------------------|----------|----------|--------|-------------------|
| Measurement                       | Shop     | Field    | Change | Control Limit +/- |
| Near (B+D+P+L) cps                | 1396.409 | 1397.558 | 1.149  | 15.093            |
| Far (B+D+P+L) cps                 | 973.744  | 970.889  | -2.855 | 16.768            |
| Near Resolution                   | 9.17     | 9.16     | -0.010 | 0.50              |
| Far Resolution                    | 8.87     | 9.00     | 0.130  | 1.00              |

| PASS/FAIL SUMMARY       |        |
|-------------------------|--------|
| Bkg Quality Check:      | Passed |
| Bkg Resolution Check:   | Passed |
| Bkg Verification Check: | Passed |

CALIBRATION SUMMARY

| Sensor               | Shop    | Field | Post  | Difference | Tolerance | Units |
|----------------------|---------|-------|-------|------------|-----------|-------|
| Depth Panel-12345678 |         |       |       |            |           |       |
| Tension Zero         | 0.00    | ----- | ----- | 0.00       | -----     | lbs   |
| Tension Cal          | 7000.00 | ----- | ----- | 0.00       | -----     | lbs   |
| RWCH-11830866        |         |       |       |            |           |       |
| DH Tension Zero      | 0.00    | ----- | ----- | 0.00       | -----     | lbs   |
| DH Tension Cal       | 1650.00 | ----- | ----- | 0.00       | -----     | lbs   |

|                                                                |          |               |       |        |            |                          |
|----------------------------------------------------------------|----------|---------------|-------|--------|------------|--------------------------|
| Received by OCD: 10/1/2025 3:31:50 PM                          |          | GTET-11405267 |       |        |            | Page 136 of 153          |
| Gamma Ray Calibrator                                           | 235.0    | 236.8         | ----- | -1.8   | +/- 9.00   | api                      |
| DSNT-11277438                                                  |          |               |       |        |            |                          |
| Snow-Block Porosity                                            | 0.0776   | 0.0679        | ----- | 0.0097 | +/- 0.0150 | decp                     |
| SDLT-11455759                                                  |          |               |       |        |            |                          |
| Pad Extension                                                  | 3.75     | 3.72          | ----- | 0.03   | +/-0.10    | in                       |
| Ring Diameter                                                  | 8.25     | 8.18          | ----- | 0.07   | +/-0.15    | in                       |
| DLLT-I Sonde-11976583                                          |          |               |       |        |            |                          |
| Deep Internal Ref.                                             | 22.47    | 22.46         | ----- | 0.01   | +/- 0.8    | ohmm                     |
| Shallow Internal Ref.                                          | 19.29    | 19.29         | ----- | 0.00   | +/- 0.8    | ohmm                     |
| MSFL-65836389                                                  |          |               |       |        |            |                          |
| MSFL Internal Ref.                                             | 19.98    | 19.94         | ----- | 0.04   | +/- 0.800  | ohmm                     |
| Caliper Lo. Internal                                           | -0.58    | -0.60         | ----- | 0.02   | +/- 0.500  | in                       |
| Caliper Hi. Internal                                           | 15.33    | 15.30         | ----- | 0.03   | +/- 0.500  | in                       |
| Microlog Pad-11455759                                          |          |               |       |        |            |                          |
| MicroLog Normal                                                | 19.92    | 19.86         | ----- | 0.06   | +/-0.80    | ohmm                     |
| MicroLog Lateral                                               | 19.94    | 19.87         | ----- | 0.07   | +/-0.80    | ohmm                     |
| SDLT Pad-10816164                                              |          |               |       |        |            |                          |
| Near(B+D+P+L)                                                  | 1396.409 | 1397.558      | ----- | -1.149 | +/-15.093  | cps                      |
| Far(B+D+P+L)                                                   | 973.744  | 970.889       | ----- | 2.855  | +/-16.768  | cps                      |
| Data: LONG_ANGUS_SWD1\0001 RWCH-GTET-DSNT-SDLT-DLLT-MCGRD\IDLE |          |               |       |        |            | Date: 06-Sep-24 19:39:28 |

HALLIBURTON

PARAMETERS REPORT

| Depth (ft)                                 | Tool Name       | Mnemonic | Description                                           | Value     | Units |
|--------------------------------------------|-----------------|----------|-------------------------------------------------------|-----------|-------|
| TOP_____                                   |                 |          |                                                       |           |       |
|                                            | SHARED          | BS       | Bit Size                                              | 8.750     | in    |
|                                            | SHARED          | UBS      | Use Bit Size instead of Caliper for all applications. | No        |       |
|                                            | SHARED          | MDBS     | Mud Base                                              | Water     |       |
|                                            | SHARED          | MDWT     | Borehole Fluid Weight                                 | 10.800    | ppg   |
|                                            | SHARED          | WAGT     | Weighting Agent                                       | Natural   |       |
|                                            | SHARED          | BSAL     | Borehole salinity                                     | 12000.00  | ppm   |
|                                            | SHARED          | FSAL     | Formation Salinity NaCl                               | 0.00      | ppm   |
|                                            | SHARED          | KPCT     | Percent K in Mud by Weight?                           | 0.00      | %     |
|                                            | SHARED          | RMUD     | Mud Resistivity                                       | 0.100     | ohmm  |
|                                            | SHARED          | TRM      | Temperature of Mud                                    | 88.0      | degF  |
|                                            | SHARED          | CSD      | Logging Interval is Cased?                            | No        |       |
|                                            | SHARED          | ICOD     | AHV Casing OD                                         | 7.000     | in    |
|                                            | SHARED          | CSTR     | Compressive Strength                                  | 1000.00   | psia  |
|                                            | SHARED          | ST       | Surface Temperature                                   | 75.0      | degF  |
|                                            | SHARED          | TD       | Total Well Depth                                      | 9850.00   | ft    |
|                                            | SHARED          | BHT      | Bottom Hole Temperature                               | 165.0     | degF  |
|                                            | SHARED          | SVTM     | Navigation and Survey Master Tool                     | NONE      |       |
|                                            | SHARED          | AZTM     | High Res Z Accelerometer Master Tool                  | GTET      |       |
|                                            | SHARED          | TEMM     | CBM Temperature Master Tool                           | GTET      |       |
|                                            | SHARED          | MSAL     | Water-base mud filtrate salinity                      | 0.00      | ppm   |
|                                            | Rwa / CrossPlot | XPOK     | Process Crossplot?                                    | Yes       |       |
|                                            | Rwa / CrossPlot | FCHO     | Select Source of F                                    | Automatic |       |
|                                            | Rwa / CrossPlot | AFAC     | Archie A factor                                       | 0.6200    |       |
|                                            | Rwa / CrossPlot | MFAC     | Archie M factor                                       | 2.1500    |       |
|                                            | Rwa / CrossPlot | KMFR     | Kmf Reference                                         | 0.10      | ohmm  |
| Released to Imaging: 10/2/2025 11:40:48 AM |                 |          |                                                       |           |       |

|                                                                |      |                                              |            |                          |
|----------------------------------------------------------------|------|----------------------------------------------|------------|--------------------------|
| Rwa / CrossPlot                                                | TMFR | Rmf Ref Temp                                 | 75.00      | degF                     |
| Received by O&D: 10/1/2025 3:31:50 PM                          |      |                                              |            |                          |
| Rwa / CrossPlot                                                | RWA  | Resistivity of Formation Water               | 0.05       | ohmm                     |
| Rwa / CrossPlot                                                | ADP  | Use Air Porosity to calculate CrossplotPhi   | No         |                          |
| Rwa / CrossPlot                                                | BHSM | Borehole Size Source Tool                    | SDLT       |                          |
| Rwa / CrossPlot                                                | ROIN | Input for RO Calculation                     | Rwa        |                          |
| GTET                                                           | ACOK | Do ACCZ Calculations?                        | Yes        |                          |
| GTET                                                           | GROK | Process Gamma Ray?                           | Yes        |                          |
| GTET                                                           | GEOK | Process Gamma Ray EVR?                       | No         |                          |
| GTET                                                           | TPOS | Tool Position for Gamma Ray Tools.           | Eccentered |                          |
| GTET                                                           | BHSM | Borehole Size Source Tool                    | SDLT       |                          |
| DSNT                                                           | DNOK | Process DSN?                                 | Yes        |                          |
| DSNT                                                           | DEOK | Process DSN EVR?                             | No         |                          |
| DSNT                                                           | NLIT | Neutron Lithology                            | Limestone  |                          |
| DSNT                                                           | DNSO | DSN Standoff - 0.25 in (6.35 mm) Recommended | 0.250      | in                       |
| DSNT                                                           | DNTT | Temperature Correction Type                  | None       |                          |
| DSNT                                                           | DPRS | DSN Pressure Correction Type                 | None       |                          |
| DSNT                                                           | SHCO | View More Correction Options                 | No         |                          |
| DSNT                                                           | UTVD | Use TVD for Gradient Corrections?            | No         |                          |
| DSNT                                                           | LHWT | Logging Horizontal Water Tank?               | No         |                          |
| DSNT                                                           | UCLA | Classic Neutron Parameter utilized?          | No         |                          |
| DSNT                                                           | BHSM | Borehole Size Source Tool                    | SDLT       |                          |
| SDLT                                                           | CLOK | Process Caliper Outputs?                     | Yes        |                          |
| Microlog Pad                                                   | MLOK | Process MicroLog Outputs?                    | Yes        |                          |
| SDLT Pad                                                       | DNOK | Process Density?                             | Yes        |                          |
| SDLT Pad                                                       | DNOK | Process Density EVR?                         | No         |                          |
| SDLT Pad                                                       | CB   | Logging Calibration Blocks?                  | No         |                          |
| SDLT Pad                                                       | SPVT | SDLT Pad Temperature Valid?                  | Yes        |                          |
| SDLT Pad                                                       | DTWN | Disable temperature warning                  | No         |                          |
| SDLT Pad                                                       | DMA  | Formation Density Matrix                     | 2.710      | g/cc                     |
| SDLT Pad                                                       | DFL  | Formation Density Fluid                      | 1.000      | g/cc                     |
| SDLT Pad                                                       | BHSM | Borehole Size Source Tool                    | SDLT       |                          |
| DLLT-I Sonde                                                   | DLOK | Process Dual Laterolog?                      | Yes        |                          |
| DLLT-I Sonde                                                   | DBOK | Process Dual Laterolog Borehole Corrections? | Yes        |                          |
| DLLT-I Sonde                                                   | SBHD | Select Borehole Diam Source                  | Caliper    |                          |
| DLLT-I Sonde                                                   | TPOS | Tool Position                                | Centered   |                          |
| DLLT-I Sonde                                                   | TMPC | Temperature Correction Type                  | Tool Value |                          |
| DLLT-I Sonde                                                   | RTRX | Calculate Dual Laterolog DI?                 | Yes        |                          |
| DLLT-I Sonde                                                   | BHSM | Borehole Size Source Tool                    | SDLT       |                          |
| MSFL                                                           | DLOK | Process MSFL?                                | Yes        |                          |
| MSFL                                                           | SLPD | Use MSFL Slim Hole Pad?                      | No         |                          |
| MSFL                                                           | CLOK | Process Caliper Outputs?                     | Yes        |                          |
| BOTTOM_____                                                    |      |                                              |            |                          |
| Data: LONG_ANGUS_SWD1\0001 RWCH-GTET-DSNT-SDLT-DLLT-MCGRD\IDLE |      |                                              |            | Date: 06-Sep-24 18:09:50 |

# TOOL STRING DIAGRAM REPORT

| Description | Overbody Description | O.D. | Diagram | Sensors @ Delays | Length | Accumulated Length |
|-------------|----------------------|------|---------|------------------|--------|--------------------|
|             |                      |      |         |                  |        | 93.17 ft           |

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RWCH-11830866

135.00 lbs

Received by OCD: 10/1/2025 3:31:50 PM

Weak Point Solid-  
66556565  
0.01 lbs

ISOL-10995822  
30.00 lbs

Return Electrode-  
11899293  
57.00 lbs

ISOL-88888888  
30.00 lbs

Barrier Sub-  
12128747  
38.00 lbs

GTET-11405267  
165.00 lbs

DSN Decentralizer-  
11277438  
6.60 lbs  
DSNT-11277438  
174.00 lbs

SDLT-11455759  
360.00 lbs  
SDLT Pad-10816164  
65.00 lbs  
Microlog Pad-11455759  
8.00 lbs  
RAM-Cs137-11378298  
1.00 lbs

Flex Joint -  
Pressure Comp-  
11238767  
140.00 lbs

DLLT-I Power and  
Telemetry-  
11986015  
100.00 lbs  
Centralizer 25-00000001  
8.00 lbs

DLLT-I Isolator-  
20000000  
40.00 lbs

Ø 3.625 in →

Ø 0.010 in\* →

Ø 3.625 in →

Ø 3.625 in →

Ø 3.625 in →

Ø 3.625 in →

Ø 3.625 in →

Ø 5.000 in\* →

Ø 3.625 in →

Ø 4.500 in →

Ø 4.500 in\* →

Ø 4.750 in\* →

Ø 0.800 in\* →

Ø 3.625 in →

Ø 3.625 in →

Ø 4.000 in\* →

Ø 3.625 in →

Load Cell @ 89.49 ft  
BH Temperature @ 88.92 ft

Z-Accelerometer @ 80.33 ft

GammaRay @ 74.72 ft

DSN Far @ 65.33 ft  
DSN Near @ 64.58 ft

Microlog @ 54.76 ft  
SDL Caliper @ 54.58 ft  
SDL @ 54.57 ft

6.25 ft

86.92 ft

1.32 ft

85.60 ft

2.50 ft

83.10 ft

1.32 ft

81.78 ft

1.00 ft

80.78 ft

8.52 ft

72.26 ft

9.69 ft

62.58 ft

10.81 ft

51.76 ft

5.97 ft

45.79 ft

6.40 ft

39.39 ft

1.35 ft

38.05 ft

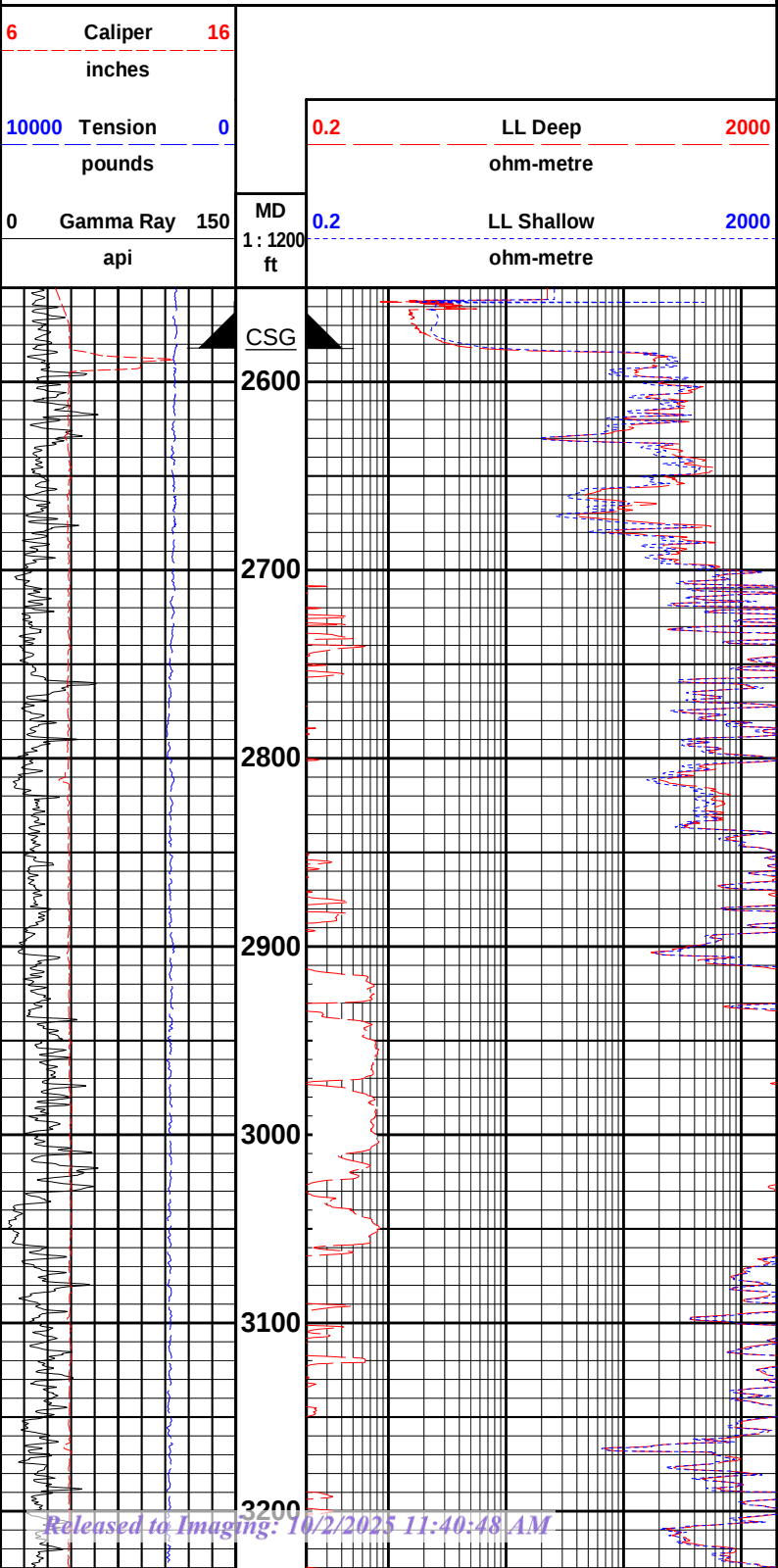
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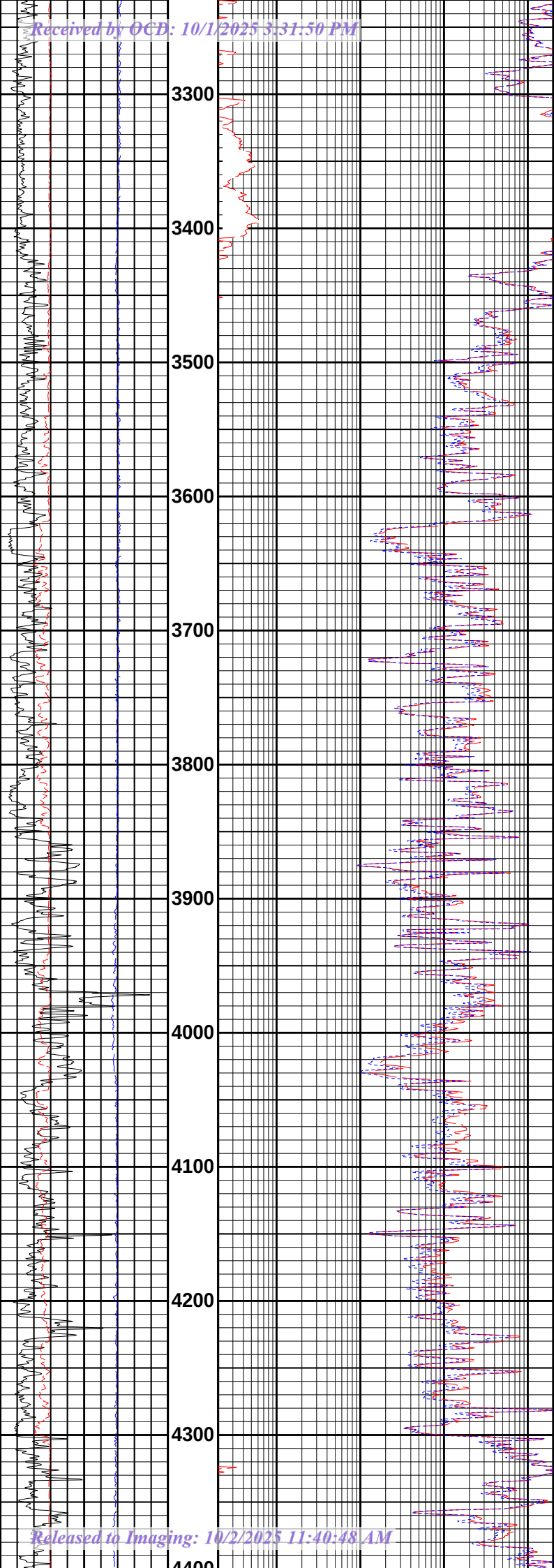
| Mnemonic |                                            | Tool Name | Serial Number | Weight (lbs) | Length (ft) | Accumulated Length (ft) | Max.Log. Speed (fpm) |
|----------|--------------------------------------------|-----------|---------------|--------------|-------------|-------------------------|----------------------|
| RWCH     | Releasable Wireline Cable Head             | 11830866  | 135.00        | 6.25         | 86.92       | 300.00                  |                      |
| WPSS     | Weak Point Solid                           | 66556565  | 0.01          | 0.01         | *           | 86.92                   | 300.00               |
| ISOL     | Dits Isolator Sub                          | 10995822  | 30.00         | 1.32         | 85.60       | 300.00                  |                      |
| RE       | Return Electrode - Rigid Bridle            | 11899293  | 57.00         | 2.50         | 83.10       | 300.00                  |                      |
| ISOL     | Dits Isolator Sub                          | 88888888  | 30.00         | 1.32         | 81.78       | 300.00                  |                      |
| BS       | Barrier Sub - Rigid Bridle                 | 12128747  | 38.00         | 1.00         | 80.78       | 300.00                  |                      |
| GTET     | Gamma Telemetry Tool                       | 11405267  | 165.00        | 8.52         | 72.26       | 60.00                   |                      |
| DSNT     | Dual Spaced Neutron                        | 11277438  | 174.00        | 9.69         | 62.58       | 60.00                   |                      |
| MDA      | Mechanical Decentralizer Assembly - 3-5/8" | 11277438  | 6.60          | 5.13         | *           | 65.91                   | 300.00               |
| SDLT     | Spectral Density Tool                      | 11455759  | 360.00        | 10.81        | 51.76       | 60.00                   |                      |
| SDLP     | Density Insite Pad                         | 10816164  | 65.00         | 2.55         | *           | 53.97                   | 60.00                |
| Cs137    | Logging Source, SDLT-I, 1.78 Ci - Cs137    | 11378298  | 1.00          | 0.80         | *           | 54.20                   | 300.00               |
| MICP     | Microlog Pad                               | 11455759  | 8.00          | 1.00         | *           | 54.26                   | 60.00                |
| FLEX     | Flex Joint - Pressure Compensated          | 11238767  | 140.00        | 5.97         | 45.79       | 300.00                  |                      |
| DLLT     | Dual Laterolog Power and Telemetry         | 11986015  | 100.00        | 6.40         | 39.39       | 100.00                  |                      |
| OBCEN    | Centralizer - 25 in. Overbody              | 00000001  | 8.00          | 2.08         | *           | 40.71                   | 300.00               |
| DLLT     | Dual Laterolog Isolator                    | 20000000  | 40.00         | 1.35         | 38.05       | 100.00                  |                      |
| DLLT     | Dual Laterolog Measurement                 | 11563864  | 160.00        | 8.99         | 29.06       | 100.00                  |                      |
| DLLT     | Dual Laterolog Sonde                       | 11976583  | 241.00        | 15.42        | 13.64       | 100.00                  |                      |
| MSFL     | Micro Spherically Focused Log              | 65836389  | 214.00        | 10.33        | 3.31        | 60.00                   |                      |
| J Latch  | J Latch 3.65 O.D.                          | 52555552  | 22.50         | 0.31         | 3.00        | 300.00                  |                      |
| CEB      | Button Cell Size                           | 00000008  | 35.00         | 3.00         | 0.00        | 300.00                  |                      |

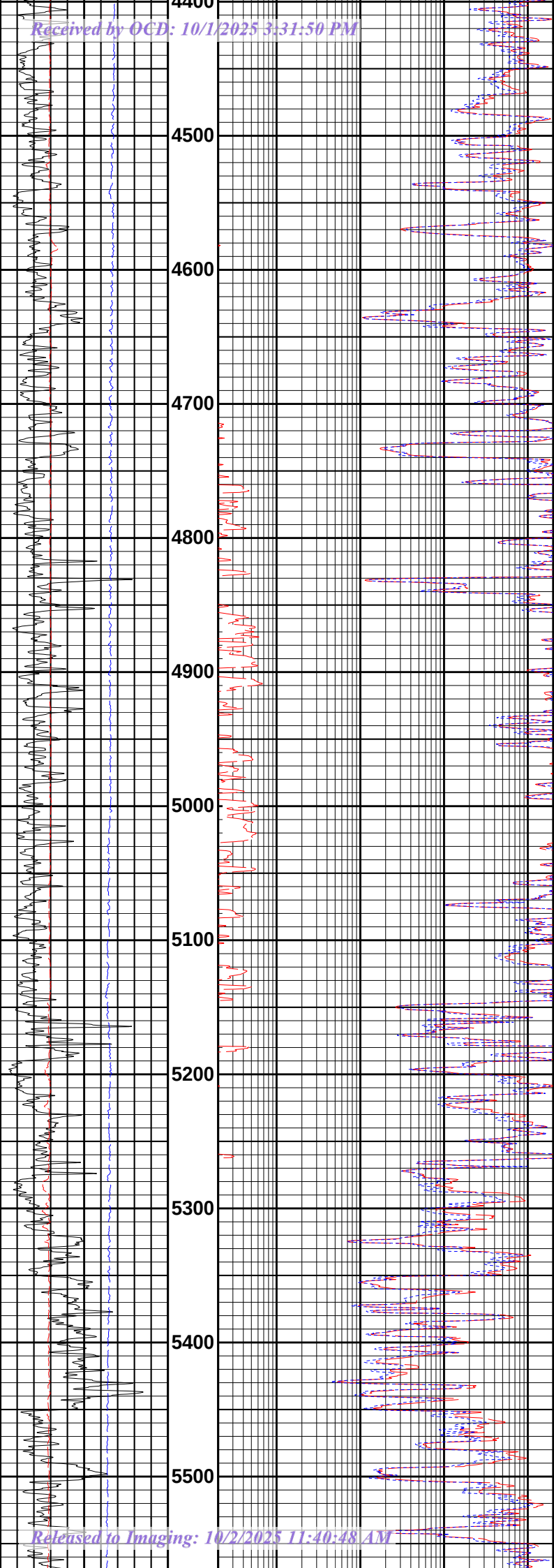
HALLIBURTON

Plot Time: 07-Sep-24 00:59:13  
Plot Range: 2550 ft to 9863.75 ft  
...LONG\_ANGUS\_SWD1\Well Based\\*\  
Plot File: \\TCOMBO\IQ-DLL 1in

1" = 100' MAIN PASS







5600  
5700  
5800  
5900  
6000  
6100  
6200  
6300  
6400  
6500  
6600  
6700

6800

6900

7000

7100

7200

7300

7400

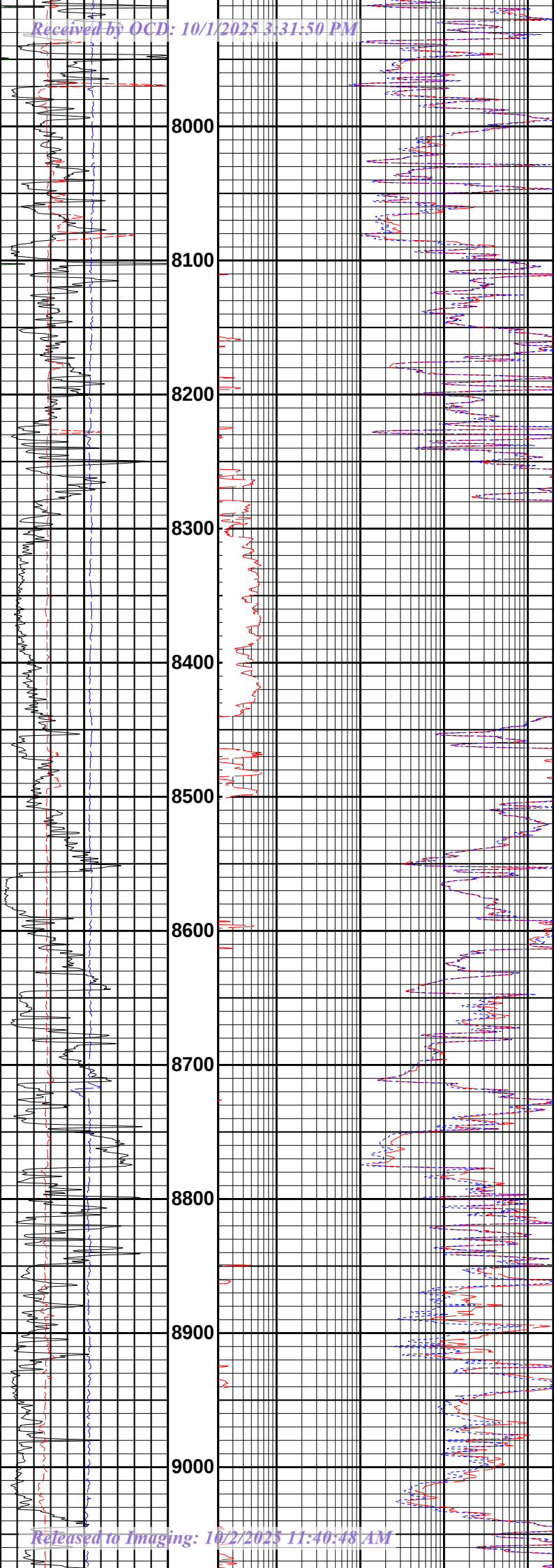
7500

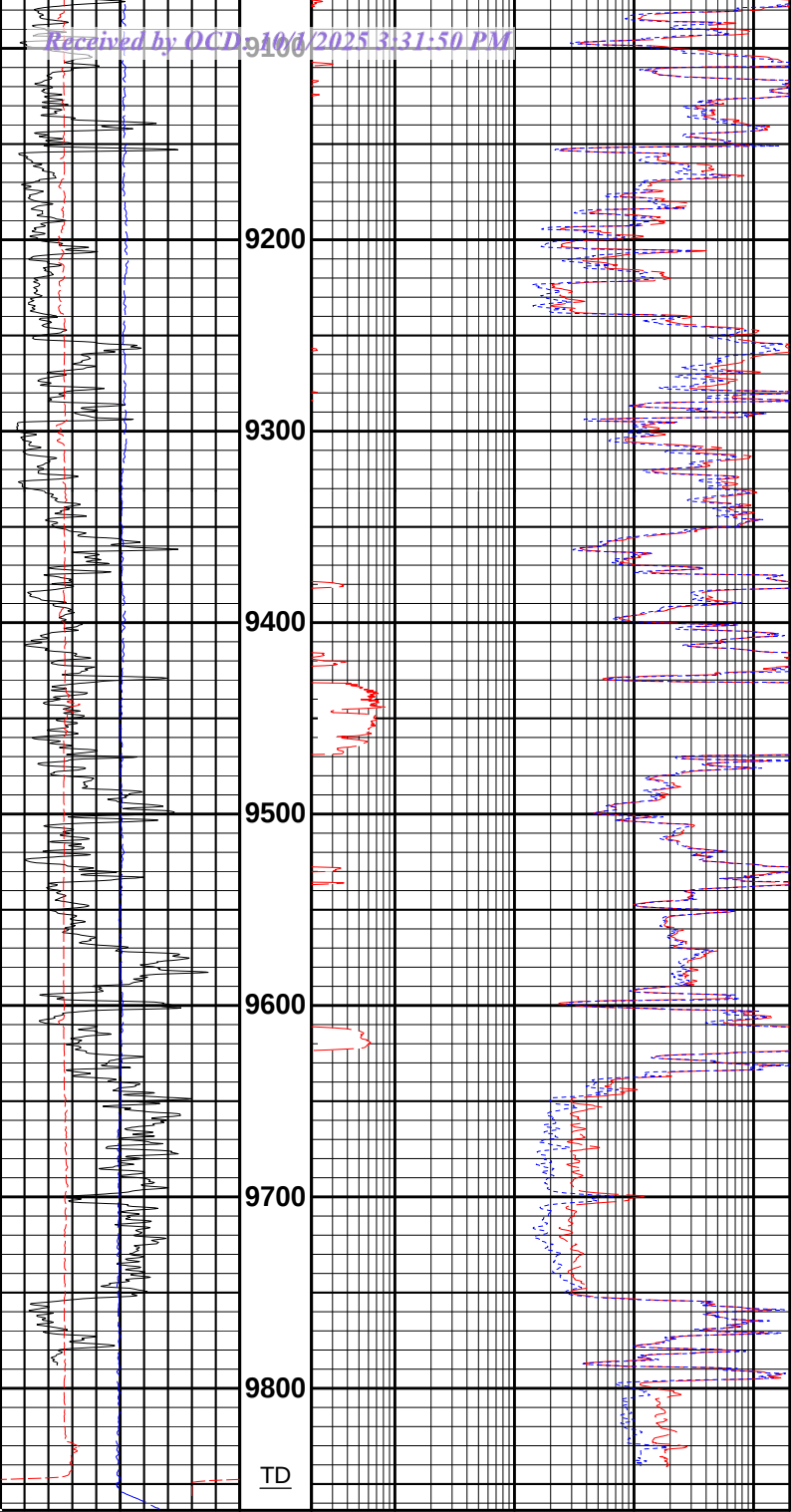
7600

7700

7800

7900





|       |           |     |         |     |            |      |
|-------|-----------|-----|---------|-----|------------|------|
| 0     | Gamma Ray | 150 | MD      | 0.2 | LL Shallow | 2000 |
|       | api       |     | 1: 1200 |     | ohm-metre  |      |
|       |           |     | ft      |     |            |      |
| 10000 | Tension   | 0   |         | 0.2 | LL Deep    | 2000 |
|       | pounds    |     |         |     | ohm-metre  |      |
| 6     | Caliper   | 16  |         |     |            |      |
|       | inches    |     |         |     |            |      |

**HALLIBURTON**

Plot Time: 07-Sep-24 00:59:15  
Plot Range: 2550 ft to 9863.75 ft  
...LONG\_ANGUS\_SWD1\Well Based\\*\  
Plot File: \\TCOMBO\IQ-DLL 1in

1" = 100' MAIN PASS



# Longfellow Energy

Eddy Co., NM (Nad-83)  
ANGUS FEDERAL 17 SWD  
#1

OH

Survey: Survey #1

## Standard Survey Report

05 September, 2024





## Survey Report



|                  |                       |                                     |                                           |
|------------------|-----------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Longfellow Energy     | <b>Local Co-ordinate Reference:</b> | Well #1                                   |
| <b>Project:</b>  | Eddy Co., NM (Nad-83) | <b>TVD Reference:</b>               | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Site:</b>     | ANGUS FEDERAL 17 SWD  | <b>MD Reference:</b>                | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Well:</b>     | #1                    | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | OH                    | <b>Database:</b>                    | WBDS_SQL_3                                |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy Co., NM (Nad-83)     |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone   |                      |                |

|                              |                      |                     |                 |
|------------------------------|----------------------|---------------------|-----------------|
| <b>Site</b>                  | ANGUS FEDERAL 17 SWD |                     |                 |
| <b>Site Position:</b>        |                      | <b>Northing:</b>    | 665,398.46 usft |
| <b>From:</b>                 | Map                  | <b>Easting:</b>     | 615,871.70 usft |
| <b>Position Uncertainty:</b> | 0.00 usft            | <b>Slot Radius:</b> | 13.200 in       |
|                              |                      | <b>Latitude:</b>    | 32.828972       |
|                              |                      | <b>Longitude:</b>   | -104.090683     |

|                             |              |                            |                                  |
|-----------------------------|--------------|----------------------------|----------------------------------|
| <b>Well</b>                 | #1           |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b> | 0.00 usft                  | <b>Northing:</b> 665,398.46 usft |
|                             | <b>+E/-W</b> | 0.00 usft                  | <b>Easting:</b> 615,871.70 usft  |
| <b>Position Uncertainty</b> | 0.00 usft    | <b>Wellhead Elevation:</b> | usft                             |
| <b>Grid Convergence:</b>    | 0.132 °      | <b>Ground Level:</b>       | 3,602.50 usft                    |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2020          | 8/22/2024          | 6.462                  | 60.266               | 47,464.74559797            |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | OH                             |                     |                     |                      |      |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |      |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                           | 0.00                | 0.00                | 0.00                 |      |

|                       |                  |                          |                  |                        |  |
|-----------------------|------------------|--------------------------|------------------|------------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 9/5/2024                 |                  |                        |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>     |  |
| 144.00                | 9,850.00         | Survey #1 (OH)           | MWD+IGRF         | OWSG MWD + IGRF or WMM |  |

|                              |                        |                    |                              |                     |                     |                                |                              |                             |                            |  |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|------------------------------|-----------------------------|----------------------------|--|
| <b>Survey</b>                |                        |                    |                              |                     |                     |                                |                              |                             |                            |  |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100ft)</b> | <b>Build Rate (°/100ft)</b> | <b>Turn Rate (°/100ft)</b> |  |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                         | 0.00                        | 0.00                       |  |
| <b>17-1 SWD: SHL</b>         |                        |                    |                              |                     |                     |                                |                              |                             |                            |  |
| 144.00                       | 0.44                   | 33.44              | 144.00                       | 0.46                | 0.30                | 0.46                           | 0.31                         | 0.31                        | 0.00                       |  |
| 206.00                       | 0.26                   | 12.17              | 206.00                       | 0.80                | 0.47                | 0.80                           | 0.35                         | -0.29                       | -34.31                     |  |
| 319.00                       | 0.44                   | 9.89               | 319.00                       | 1.48                | 0.59                | 1.48                           | 0.16                         | 0.16                        | -2.02                      |  |
| 414.00                       | 0.48                   | 5.06               | 413.99                       | 2.23                | 0.69                | 2.23                           | 0.06                         | 0.04                        | -5.08                      |  |
| 475.00                       | 0.53                   | 19.47              | 474.99                       | 2.75                | 0.81                | 2.75                           | 0.22                         | 0.08                        | 23.62                      |  |
| 567.00                       | 0.62                   | 37.66              | 566.99                       | 3.55                | 1.25                | 3.55                           | 0.22                         | 0.10                        | 19.77                      |  |
| 652.00                       | 0.62                   | 49.62              | 651.98                       | 4.21                | 1.89                | 4.21                           | 0.15                         | 0.00                        | 14.07                      |  |
| 738.00                       | 0.66                   | 59.28              | 737.98                       | 4.76                | 2.67                | 4.76                           | 0.13                         | 0.05                        | 11.23                      |  |



## Survey Report



|                  |                       |                                     |                                           |
|------------------|-----------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Longfellow Energy     | <b>Local Co-ordinate Reference:</b> | Well #1                                   |
| <b>Project:</b>  | Eddy Co., NM (Nad-83) | <b>TVD Reference:</b>               | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Site:</b>     | ANGUS FEDERAL 17 SWD  | <b>MD Reference:</b>                | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Well:</b>     | #1                    | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | OH                    | <b>Database:</b>                    | WBDS_SQL_3                                |

| Survey                |                 |             |                       |              |              |                         |                       |                      |                     |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 823.00                | 0.40            | 54.45       | 822.97                | 5.19         | 3.33         | 5.19                    | 0.31                  | -0.31                | -5.68               |  |
| 908.00                | 0.62            | 238.32      | 907.97                | 5.12         | 3.18         | 5.12                    | 1.20                  | 0.26                 | -207.21             |  |
| 993.00                | 1.58            | 234.63      | 992.95                | 4.20         | 1.83         | 4.20                    | 1.13                  | 1.13                 | -4.34               |  |
| 1,079.00              | 1.49            | 232.17      | 1,078.92              | 2.83         | -0.02        | 2.83                    | 0.13                  | -0.10                | -2.86               |  |
| 1,164.00              | 1.27            | 226.19      | 1,163.90              | 1.50         | -1.57        | 1.50                    | 0.31                  | -0.26                | -7.04               |  |
| 1,249.00              | 1.23            | 221.53      | 1,248.88              | 0.16         | -2.86        | 0.16                    | 0.13                  | -0.05                | -5.48               |  |
| 1,335.00              | 1.14            | 220.65      | 1,334.86              | -1.18        | -4.03        | -1.18                   | 0.11                  | -0.10                | -1.02               |  |
| 1,420.00              | 1.05            | 220.92      | 1,419.84              | -2.41        | -5.09        | -2.41                   | 0.11                  | -0.11                | 0.32                |  |
| 1,505.00              | 0.92            | 221.71      | 1,504.83              | -3.51        | -6.05        | -3.51                   | 0.15                  | -0.15                | 0.93                |  |
| 1,591.00              | 0.84            | 217.40      | 1,590.82              | -4.52        | -6.89        | -4.52                   | 0.12                  | -0.09                | -5.01               |  |
| 1,676.00              | 0.35            | 221.09      | 1,675.82              | -5.21        | -7.44        | -5.21                   | 0.58                  | -0.58                | 4.34                |  |
| 1,761.00              | 0.13            | 240.78      | 1,760.82              | -5.46        | -7.70        | -5.46                   | 0.27                  | -0.26                | 23.16               |  |
| 1,847.00              | 0.31            | 217.66      | 1,846.81              | -5.69        | -7.92        | -5.69                   | 0.23                  | 0.21                 | -26.88              |  |
| 1,932.00              | 0.00            | 320.93      | 1,931.81              | -5.87        | -8.06        | -5.87                   | 0.36                  | -0.36                | 0.00                |  |
| 2,017.00              | 0.44            | 19.12       | 2,016.81              | -5.56        | -7.96        | -5.56                   | 0.52                  | 0.52                 | 0.00                |  |
| 2,103.00              | 0.40            | 9.19        | 2,102.81              | -4.95        | -7.80        | -4.95                   | 0.10                  | -0.05                | -11.55              |  |
| 2,188.00              | 0.26            | 11.03       | 2,187.81              | -4.47        | -7.72        | -4.47                   | 0.17                  | -0.16                | 2.16                |  |
| 2,274.00              | 0.18            | 346.95      | 2,273.81              | -4.15        | -7.71        | -4.15                   | 0.14                  | -0.09                | -28.00              |  |
| 2,359.00              | 0.13            | 335.88      | 2,358.81              | -3.93        | -7.78        | -3.93                   | 0.07                  | -0.06                | -13.02              |  |
| 2,444.00              | 0.04            | 298.17      | 2,443.81              | -3.83        | -7.85        | -3.83                   | 0.12                  | -0.11                | -44.36              |  |
| 2,531.00              | 0.00            | 317.51      | 2,530.81              | -3.81        | -7.87        | -3.81                   | 0.05                  | -0.05                | 0.00                |  |
| 2,636.00              | 0.09            | 122.04      | 2,635.81              | -3.86        | -7.80        | -3.86                   | 0.09                  | 0.09                 | 0.00                |  |
| 2,721.00              | 0.18            | 130.21      | 2,720.81              | -3.98        | -7.64        | -3.98                   | 0.11                  | 0.11                 | 9.61                |  |
| 2,806.00              | 0.18            | 126.78      | 2,805.81              | -4.15        | -7.43        | -4.15                   | 0.01                  | 0.00                 | -4.04               |  |
| 2,892.00              | 0.22            | 111.40      | 2,891.81              | -4.29        | -7.17        | -4.29                   | 0.08                  | 0.05                 | -17.88              |  |
| 2,977.00              | 0.31            | 107.18      | 2,976.81              | -4.41        | -6.80        | -4.41                   | 0.11                  | 0.11                 | -4.96               |  |
| 3,062.00              | 0.44            | 112.28      | 3,061.80              | -4.61        | -6.28        | -4.61                   | 0.16                  | 0.15                 | 6.00                |  |
| 3,148.00              | 0.62            | 113.69      | 3,147.80              | -4.92        | -5.55        | -4.92                   | 0.21                  | 0.21                 | 1.64                |  |
| 3,233.00              | 0.66            | 121.16      | 3,232.80              | -5.36        | -4.71        | -5.36                   | 0.11                  | 0.05                 | 8.79                |  |
| 3,318.00              | 0.62            | 124.59      | 3,317.79              | -5.87        | -3.91        | -5.87                   | 0.07                  | -0.05                | 4.04                |  |
| 3,404.00              | 0.62            | 127.14      | 3,403.79              | -6.42        | -3.16        | -6.42                   | 0.03                  | 0.00                 | 2.97                |  |
| 3,489.00              | 0.62            | 128.01      | 3,488.78              | -6.98        | -2.43        | -6.98                   | 0.01                  | 0.00                 | 1.02                |  |
| 3,574.00              | 0.66            | 120.02      | 3,573.78              | -7.51        | -1.64        | -7.51                   | 0.11                  | 0.05                 | -9.40               |  |
| 3,660.00              | 0.44            | 354.16      | 3,659.77              | -7.42        | -1.25        | -7.42                   | 1.14                  | -0.26                | -146.35             |  |
| 3,745.00              | 0.88            | 347.65      | 3,744.77              | -6.46        | -1.42        | -6.46                   | 0.52                  | 0.52                 | -7.66               |  |
| 3,831.00              | 0.75            | 339.83      | 3,830.76              | -5.29        | -1.75        | -5.29                   | 0.20                  | -0.15                | -9.09               |  |
| 3,916.00              | 0.88            | 339.04      | 3,915.75              | -4.16        | -2.18        | -4.16                   | 0.15                  | 0.15                 | -0.93               |  |
| 4,001.00              | 0.75            | 335.88      | 4,000.74              | -3.04        | -2.64        | -3.04                   | 0.16                  | -0.15                | -3.72               |  |
| 4,086.00              | 0.75            | 339.66      | 4,085.73              | -2.01        | -3.06        | -2.01                   | 0.06                  | 0.00                 | 4.45                |  |
| 4,171.00              | 0.92            | 328.23      | 4,170.73              | -0.91        | -3.61        | -0.91                   | 0.28                  | 0.20                 | -13.45              |  |
| 4,257.00              | 0.97            | 339.83      | 4,256.71              | 0.36         | -4.23        | 0.36                    | 0.23                  | 0.06                 | 13.49               |  |
| 4,342.00              | 1.14            | 345.37      | 4,341.70              | 1.86         | -4.69        | 1.86                    | 0.23                  | 0.20                 | 6.52                |  |
| 4,427.00              | 0.97            | 347.30      | 4,426.68              | 3.38         | -5.06        | 3.38                    | 0.20                  | -0.20                | 2.27                |  |



## Survey Report



|                  |                       |                                     |                                           |
|------------------|-----------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Longfellow Energy     | <b>Local Co-ordinate Reference:</b> | Well #1                                   |
| <b>Project:</b>  | Eddy Co., NM (Nad-83) | <b>TVD Reference:</b>               | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Site:</b>     | ANGUS FEDERAL 17 SWD  | <b>MD Reference:</b>                | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Well:</b>     | #1                    | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | OH                    | <b>Database:</b>                    | WBDS_SQL_3                                |

| Survey                |                 |             |                       |              |              |                         |                       |                      |                     |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,513.00              | 0.92            | 359.96      | 4,512.67              | 4.78         | -5.22        | 4.78                    | 0.25                  | -0.06                | 14.72               |
| 4,598.00              | 0.53            | 91.36       | 4,597.67              | 5.45         | -4.83        | 5.45                    | 1.26                  | -0.46                | 107.53              |
| 4,684.00              | 0.70            | 113.25      | 4,683.66              | 5.23         | -3.95        | 5.23                    | 0.33                  | 0.20                 | 25.45               |
| 4,769.00              | 0.84            | 109.38      | 4,768.66              | 4.82         | -2.88        | 4.82                    | 0.18                  | 0.16                 | -4.55               |
| 4,854.00              | 0.84            | 117.38      | 4,853.65              | 4.33         | -1.74        | 4.33                    | 0.14                  | 0.00                 | 9.41                |
| 4,939.00              | 0.79            | 105.43      | 4,938.64              | 3.88         | -0.62        | 3.88                    | 0.21                  | -0.06                | -14.06              |
| 5,025.00              | 0.79            | 104.11      | 5,024.63              | 3.58         | 0.52         | 3.58                    | 0.02                  | 0.00                 | -1.53               |
| 5,110.00              | 0.66            | 98.22       | 5,109.62              | 3.37         | 1.57         | 3.37                    | 0.18                  | -0.15                | -6.93               |
| 5,195.00              | 0.70            | 102.88      | 5,194.62              | 3.18         | 2.57         | 3.18                    | 0.08                  | 0.05                 | 5.48                |
| 5,281.00              | 0.79            | 92.24       | 5,280.61              | 3.04         | 3.67         | 3.04                    | 0.19                  | 0.10                 | -12.37              |
| 5,366.00              | 0.62            | 103.05      | 5,365.60              | 2.92         | 4.70         | 2.92                    | 0.25                  | -0.20                | 12.72               |
| 5,452.00              | 0.57            | 98.66       | 5,451.60              | 2.75         | 5.58         | 2.75                    | 0.08                  | -0.06                | -5.10               |
| 5,537.00              | 0.48            | 92.51       | 5,536.60              | 2.67         | 6.35         | 2.67                    | 0.12                  | -0.11                | -7.24               |
| 5,622.00              | 0.53            | 92.59       | 5,621.59              | 2.63         | 7.10         | 2.63                    | 0.06                  | 0.06                 | 0.09                |
| 5,707.00              | 0.40            | 227.16      | 5,706.59              | 2.42         | 7.28         | 2.42                    | 1.01                  | -0.15                | 158.32              |
| 5,793.00              | 0.84            | 235.33      | 5,792.59              | 1.85         | 6.54         | 1.85                    | 0.52                  | 0.51                 | 9.50                |
| 5,878.00              | 0.79            | 235.50      | 5,877.58              | 1.17         | 5.54         | 1.17                    | 0.06                  | -0.06                | 0.20                |
| 5,963.00              | 0.79            | 239.90      | 5,962.57              | 0.54         | 4.55         | 0.54                    | 0.07                  | 0.00                 | 5.18                |
| 6,049.00              | 0.79            | 242.27      | 6,048.56              | -0.03        | 3.52         | -0.03                   | 0.04                  | 0.00                 | 2.76                |
| 6,134.00              | 0.66            | 246.32      | 6,133.55              | -0.50        | 2.55         | -0.50                   | 0.16                  | -0.15                | 4.76                |
| 6,219.00              | 0.70            | 245.26      | 6,218.55              | -0.92        | 1.63         | -0.92                   | 0.05                  | 0.05                 | -1.25               |
| 6,305.00              | 0.62            | 245.70      | 6,304.54              | -1.33        | 0.73         | -1.33                   | 0.09                  | -0.09                | 0.51                |
| 6,390.00              | 0.66            | 253.00      | 6,389.54              | -1.66        | -0.16        | -1.66                   | 0.11                  | 0.05                 | 8.59                |
| 6,475.00              | 0.75            | 254.67      | 6,474.53              | -1.95        | -1.17        | -1.95                   | 0.11                  | 0.11                 | 1.96                |
| 6,560.00              | 0.70            | 252.29      | 6,559.52              | -2.25        | -2.20        | -2.25                   | 0.07                  | -0.06                | -2.80               |
| 6,646.00              | 0.92            | 253.26      | 6,645.51              | -2.61        | -3.36        | -2.61                   | 0.26                  | 0.26                 | 1.13                |
| 6,731.00              | 0.84            | 256.07      | 6,730.50              | -2.96        | -4.62        | -2.96                   | 0.11                  | -0.09                | 3.31                |
| 6,816.00              | 0.09            | 202.46      | 6,815.50              | -3.17        | -5.25        | -3.17                   | 0.93                  | -0.88                | -63.07              |
| 6,902.00              | 0.22            | 109.38      | 6,901.50              | -3.29        | -5.12        | -3.29                   | 0.28                  | 0.15                 | -108.23             |
| 6,987.00              | 0.22            | 111.84      | 6,986.50              | -3.40        | -4.81        | -3.40                   | 0.01                  | 0.00                 | 2.89                |
| 7,072.00              | 0.22            | 128.10      | 7,071.50              | -3.57        | -4.53        | -3.57                   | 0.07                  | 0.00                 | 19.13               |
| 7,157.00              | 0.22            | 98.66       | 7,156.50              | -3.69        | -4.24        | -3.69                   | 0.13                  | 0.00                 | -34.64              |
| 7,242.00              | 0.22            | 107.10      | 7,241.50              | -3.76        | -3.92        | -3.76                   | 0.04                  | 0.00                 | 9.93                |
| 7,328.00              | 0.26            | 109.47      | 7,327.50              | -3.88        | -3.58        | -3.88                   | 0.05                  | 0.05                 | 2.76                |
| 7,413.00              | 0.31            | 121.60      | 7,412.50              | -4.06        | -3.20        | -4.06                   | 0.09                  | 0.06                 | 14.27               |
| 7,498.00              | 0.31            | 139.26      | 7,497.50              | -4.36        | -2.86        | -4.36                   | 0.11                  | 0.00                 | 20.78               |
| 7,584.00              | 0.26            | 161.50      | 7,583.49              | -4.72        | -2.64        | -4.72                   | 0.14                  | -0.06                | 25.86               |
| 7,669.00              | 0.35            | 193.41      | 7,668.49              | -5.15        | -2.64        | -5.15                   | 0.22                  | 0.11                 | 37.54               |
| 7,754.00              | 0.26            | 198.77      | 7,753.49              | -5.59        | -2.77        | -5.59                   | 0.11                  | -0.11                | 6.31                |
| 7,840.00              | 0.09            | 235.77      | 7,839.49              | -5.81        | -2.88        | -5.81                   | 0.23                  | -0.20                | 43.02               |
| 7,929.00              | 0.04            | 304.94      | 7,928.49              | -5.83        | -2.97        | -5.83                   | 0.09                  | -0.06                | 77.72               |
| 8,019.00              | 0.09            | 344.40      | 8,018.49              | -5.75        | -3.01        | -5.75                   | 0.07                  | 0.06                 | 43.84               |
| 8,109.00              | 0.18            | 294.13      | 8,108.49              | -5.62        | -3.16        | -5.62                   | 0.16                  | 0.10                 | -55.86              |



## Survey Report



|                  |                       |                                     |                                           |
|------------------|-----------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Longfellow Energy     | <b>Local Co-ordinate Reference:</b> | Well #1                                   |
| <b>Project:</b>  | Eddy Co., NM (Nad-83) | <b>TVD Reference:</b>               | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Site:</b>     | ANGUS FEDERAL 17 SWD  | <b>MD Reference:</b>                | RKB = 12' @ 3614.50usft (LATERAL RIG 202) |
| <b>Well:</b>     | #1                    | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | OH                    | <b>Database:</b>                    | WBDS_SQL_3                                |

| Survey                                                                                                               |                 |             |                       |              |              |                         |                       |                      |                     |  |
|----------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft)                                                                                                | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 8,198.00                                                                                                             | 0.53            | 260.38      | 8,197.49              | -5.63        | -3.69        | -5.63                   | 0.44                  | 0.39                 | -37.92              |  |
| 8,288.00                                                                                                             | 0.48            | 255.28      | 8,287.49              | -5.80        | -4.47        | -5.80                   | 0.07                  | -0.06                | -5.67               |  |
| 8,378.00                                                                                                             | 0.84            | 0.40        | 8,377.48              | -5.23        | -4.83        | -5.23                   | 1.19                  | 0.40                 | 116.80              |  |
| 8,467.00                                                                                                             | 1.01            | 0.66        | 8,466.47              | -3.80        | -4.82        | -3.80                   | 0.19                  | 0.19                 | 0.29                |  |
| 8,557.00                                                                                                             | 1.27            | 11.91       | 8,556.45              | -2.03        | -4.60        | -2.03                   | 0.38                  | 0.29                 | 12.50               |  |
| 8,647.00                                                                                                             | 1.10            | 354.33      | 8,646.43              | -0.19        | -4.48        | -0.19                   | 0.44                  | -0.19                | -19.53              |  |
| 8,736.00                                                                                                             | 1.58            | 356.97      | 8,735.41              | 1.88         | -4.63        | 1.88                    | 0.54                  | 0.54                 | 2.97                |  |
| 8,826.00                                                                                                             | 1.41            | 5.67        | 8,825.38              | 4.22         | -4.59        | 4.22                    | 0.31                  | -0.19                | 9.67                |  |
| 8,916.00                                                                                                             | 1.36            | 3.30        | 8,915.35              | 6.39         | -4.41        | 6.39                    | 0.08                  | -0.06                | -2.63               |  |
| 9,005.00                                                                                                             | 0.57            | 101.38      | 9,004.34              | 7.36         | -3.92        | 7.36                    | 1.74                  | -0.89                | 110.20              |  |
| 9,095.00                                                                                                             | 0.97            | 125.99      | 9,094.34              | 6.82         | -2.86        | 6.82                    | 0.57                  | 0.44                 | 27.34               |  |
| 9,185.00                                                                                                             | 0.97            | 127.84      | 9,184.32              | 5.91         | -1.65        | 5.91                    | 0.03                  | 0.00                 | 2.06                |  |
| 9,275.00                                                                                                             | 0.88            | 143.13      | 9,274.31              | 4.89         | -0.63        | 4.89                    | 0.29                  | -0.10                | 16.99               |  |
| 9,363.00                                                                                                             | 0.70            | 128.19      | 9,362.30              | 4.02         | 0.20         | 4.02                    | 0.31                  | -0.20                | -16.98              |  |
| 9,453.00                                                                                                             | 0.84            | 134.17      | 9,452.29              | 3.22         | 1.10         | 3.22                    | 0.18                  | 0.16                 | 6.64                |  |
| 9,543.00                                                                                                             | 0.53            | 120.02      | 9,542.29              | 2.55         | 1.94         | 2.55                    | 0.39                  | -0.34                | -15.72              |  |
| 9,633.00                                                                                                             | 0.75            | 108.94      | 9,632.28              | 2.15         | 2.85         | 2.15                    | 0.28                  | 0.24                 | -12.31              |  |
| 9,651.70                                                                                                             | 0.71            | 110.14      | 9,650.98              | 2.07         | 3.08         | 2.07                    | 0.22                  | -0.21                | 6.39                |  |
| 17-1 SWD: TD/ BHL                                                                                                    |                 |             |                       |              |              |                         |                       |                      |                     |  |
| 9,722.00                                                                                                             | 0.57            | 116.06      | 9,721.28              | 1.76         | 3.80         | 1.76                    | 0.22                  | -0.20                | 8.43                |  |
| 9,785.00                                                                                                             | 0.66            | 88.11       | 9,784.27              | 1.64         | 4.45         | 1.64                    | 0.49                  | 0.14                 | -44.36              |  |
| 9,850.00                                                                                                             | 0.66            | 88.11       | 9,849.27              | 1.66         | 5.20         | 1.66                    | 0.00                  | 0.00                 | 0.00                |  |
| TD: Y= 665400.12 / X= 615876.90 - Final Station Closure Distance= 5.46 /Direction= 72.24 - PROJECTION TO BIT: 9850.0 |                 |             |                       |              |              |                         |                       |                      |                     |  |

| Design Targets              |               |              |            |              |              |                 |                |           |             |  |
|-----------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------|-------------|--|
| Target Name                 | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude  | Longitude   |  |
| PROJECTION TO BIT           | 0.00          | 0.00         | 9,849.27   | 1.66         | 5.20         | 665,400.13      | 615,876.90     | 32.828977 | -104.090666 |  |
| - hit/miss target           |               |              |            |              |              |                 |                |           |             |  |
| - Shape                     |               |              |            |              |              |                 |                |           |             |  |
| - survey hits target center |               |              |            |              |              |                 |                |           |             |  |
| - Point                     |               |              |            |              |              |                 |                |           |             |  |

| Survey Annotations    |                       |              |              |                                                        |  |
|-----------------------|-----------------------|--------------|--------------|--------------------------------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Comment                                                |  |
| 9,850.00              | 9,849.27              | 1.66         | 5.20         | TD: Y= 665400.12 / X= 615876.90                        |  |
| 9,850.00              | 9,849.27              | 1.66         | 5.20         | Final Station Closure Distance= 5.46 /Direction= 72.24 |  |
| 9,850.00              | 9,849.27              | 1.66         | 5.20         | PROJECTION TO BIT: 9850.00' MD/ 9849.27' TVD           |  |
| 9,850.00              | 9,849.27              | 1.66         | 5.20         | TD: Latitude= 32.828977 / Longitude= -104.090666       |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 511301

ACKNOWLEDGMENTS

|                                                                             |                                                     |
|-----------------------------------------------------------------------------|-----------------------------------------------------|
| Operator:<br>LONGFELLOW ENERGY, LP<br>8115 Preston Road<br>Dallas, TX 75225 | OGRID:<br>372210                                    |
|                                                                             | Action Number:<br>511301                            |
|                                                                             | Action Type:<br>[C-105] Well (Re)Completion (C-105) |

ACKNOWLEDGMENTS

|                                     |                                                                                                                                                                                            |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.                                                                             |
| <input checked="" type="checkbox"/> | I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.                                                                         |
| <input checked="" type="checkbox"/> | I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. |
| <input checked="" type="checkbox"/> | I hereby certify that no additives containing PFAS chemicals were added to the fluid used in the completion or recompletion of this well.                                                  |

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Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS

Action 511301

CONDITIONS

|                                                                             |                                                     |
|-----------------------------------------------------------------------------|-----------------------------------------------------|
| Operator:<br>LONGFELLOW ENERGY, LP<br>8115 Preston Road<br>Dallas, TX 75225 | OGRID:<br>372210                                    |
|                                                                             | Action Number:<br>511301                            |
|                                                                             | Action Type:<br>[C-105] Well (Re)Completion (C-105) |

CONDITIONS

| Created By     | Condition | Condition Date |
|----------------|-----------|----------------|
| anthony.harris | None      | 10/2/2025      |