



**MICRO
RESISTIVITY
LOG**

| | | | | | | | | | |
|----------------------------|--|----------------------|--|---------------------|--|-------------------------------|--|---|--|
| Company Palomino Petroleum | | Well Brownie #3 | | Field Brownie | | County Gove | | State Kansas | |
| Location: | | 2143' FNL & 445' FEL | | API #: 15 063 22279 | | Other Services DIL CDNL | | | |
| Permanent Datum | | Ground Level | | Elevation | | 2771' | | | |
| Log Measured From | | KB 8' AGL | | | | | | Elevation K.B. 2779' D.F. 2778' G.L. 2771' | |
| Drilling Measured From | | KB | | | | | | | |
| SEC 7 | | TWP 14S | | RGE 30W | | | | | |

| | |
|------------------------------|-----------------|
| Date | 12-3-15 |
| Run Number | Two |
| Depth Driller | 4597' |
| Depth Logger | 4595' |
| Bottom Logged Interval | 4593' |
| Top Log Interval | 3500' |
| Casing Driller | 8 5/8" @ 212' |
| Casing Logger | 212' |
| Bit Size | 7 7/8" |
| Type Fluid in Hole | Chemical |
| Density / Viscosity | 9.1/56 |
| PH / Fluid Loss | 10.5/7.8 |
| Source of Sample | Pit |
| Rm @ Meas. Temp | .8@60degf |
| Rmf @ Meas. Temp | .6@60degf |
| Rmc @ Meas. Temp | .96@60degf |
| Source of Rmf / Rmc | Calculated |
| Rm @ BHT | .41@115degf |
| Time Circulation Stopped | 2:15 a.m. |
| Time Logger on Bottom | 6:00 a.m. |
| Maximum Recorded Temperature | 115degf |
| Equipment Number | T127 |
| Location | Hays, KS |
| Recorded By | Gus Pfanenstiel |
| Witnessed By | Mr. Ryan Seib |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

South of Gove 10 miles, West 10 miles follow curve North 1 3/4 mile.
East into.

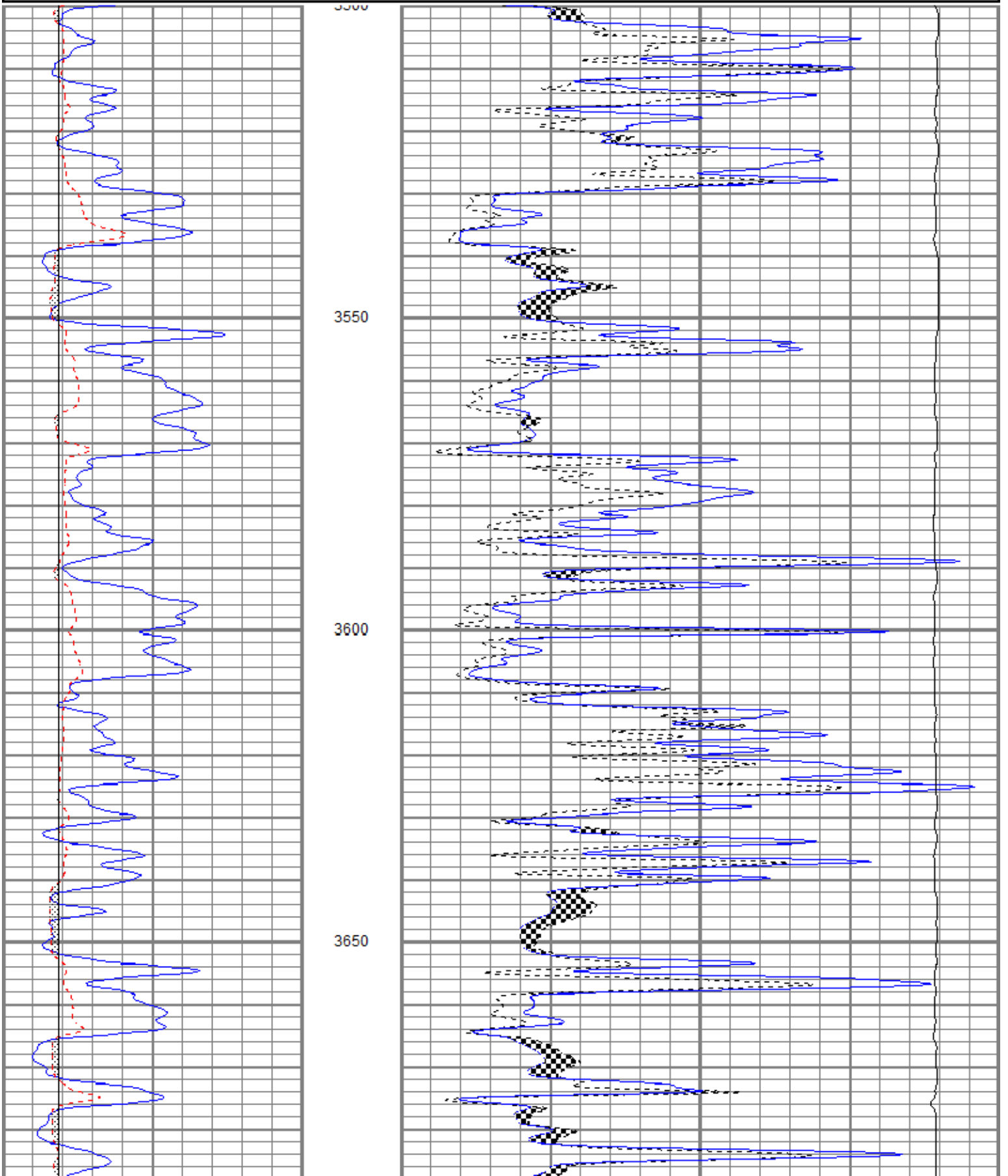


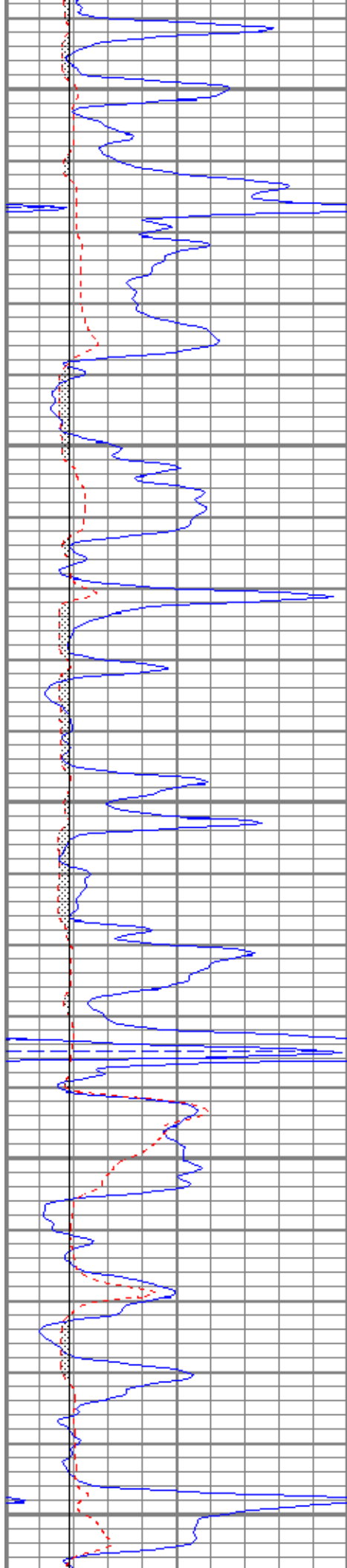
Main Pass

Database File ppbrownie#3oh.db
 Dataset Pathname pass5.1
 Presentation Format kml
 Dataset Creation Thu Dec 03 07:05:52 2015
 Charted by Depth in Feet scaled 1:240

| | | |
|---|-------------|-----|
| 0 | GR (GAPI) | 150 |
| 6 | MCAL (in) | 16 |
| 6 | BOREID (in) | 16 |

| | | |
|-------|---------------|----|
| 0 | MN 2" (Ohm-m) | 20 |
| 0 | MI 1" (Ohm-m) | 20 |
| 10000 | LTEN (lb) | 0 |





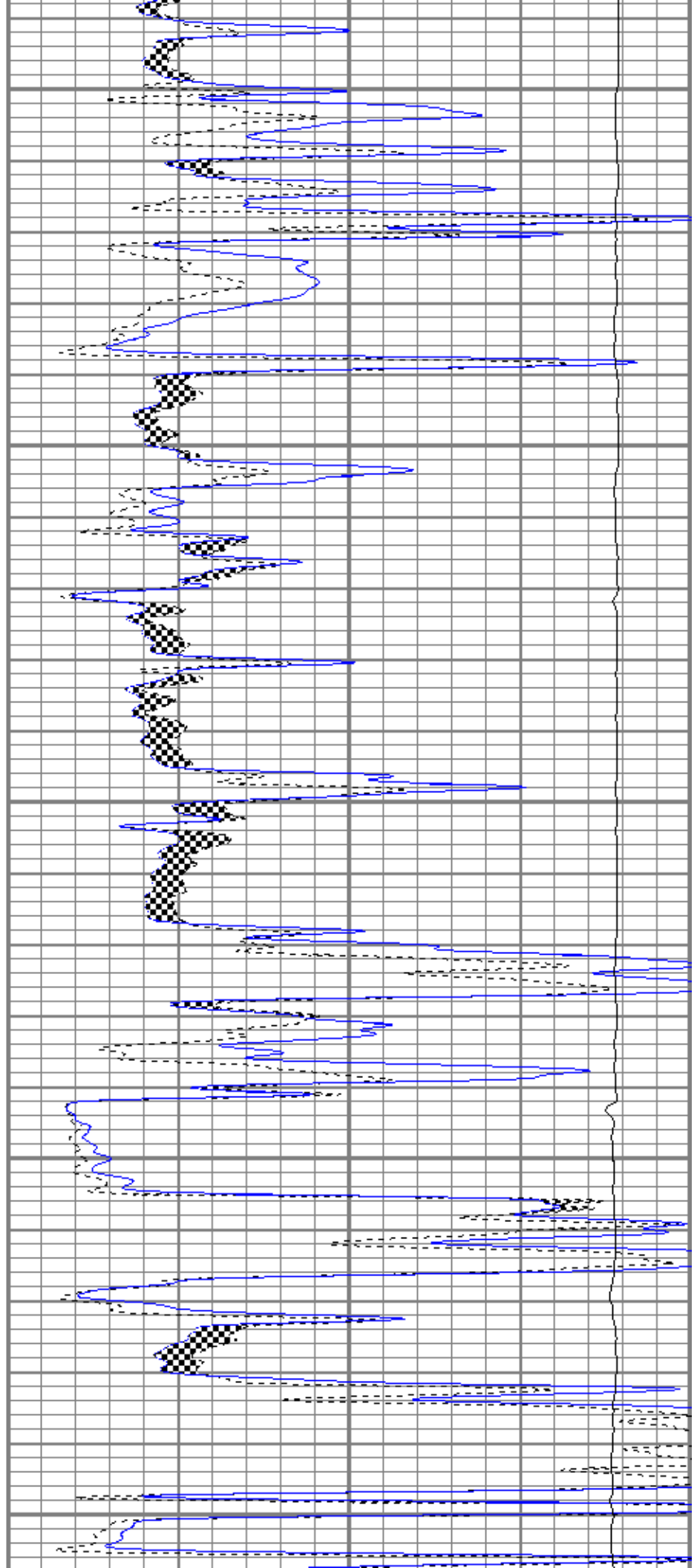
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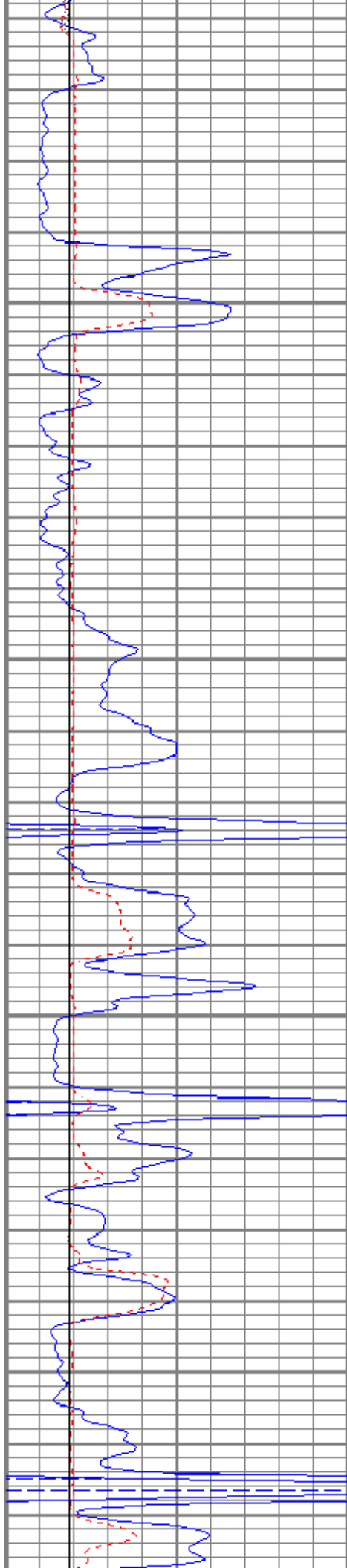
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3800

3850

3900



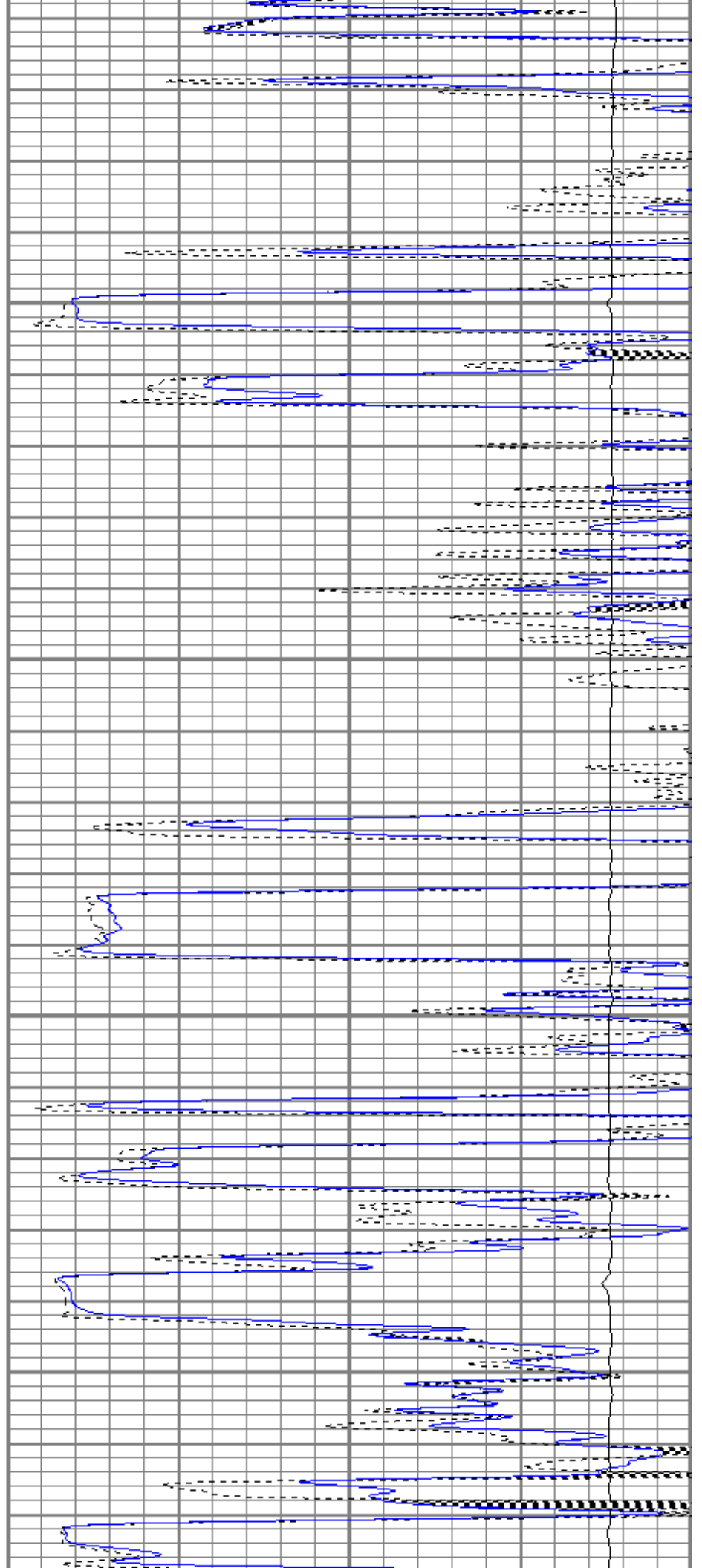


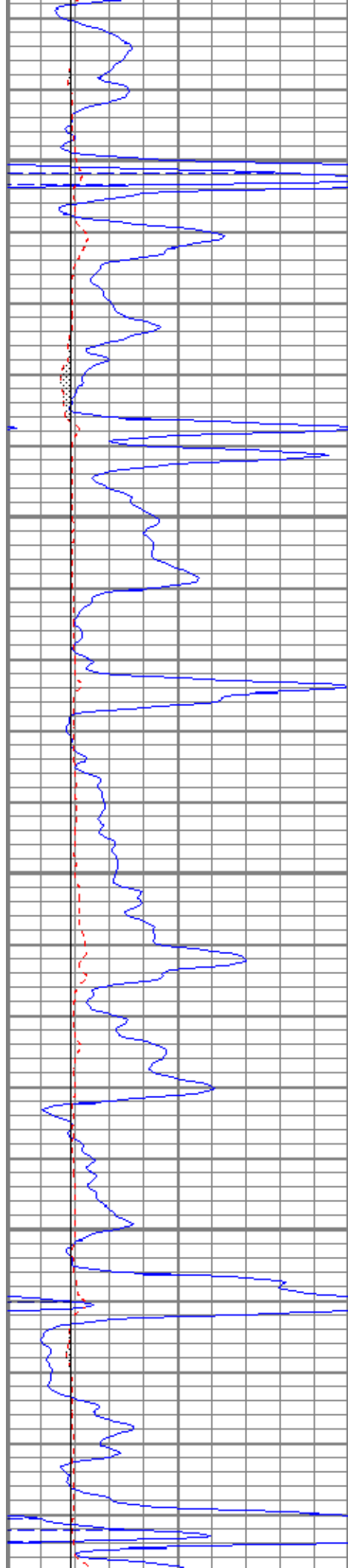
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4000

4050

4100



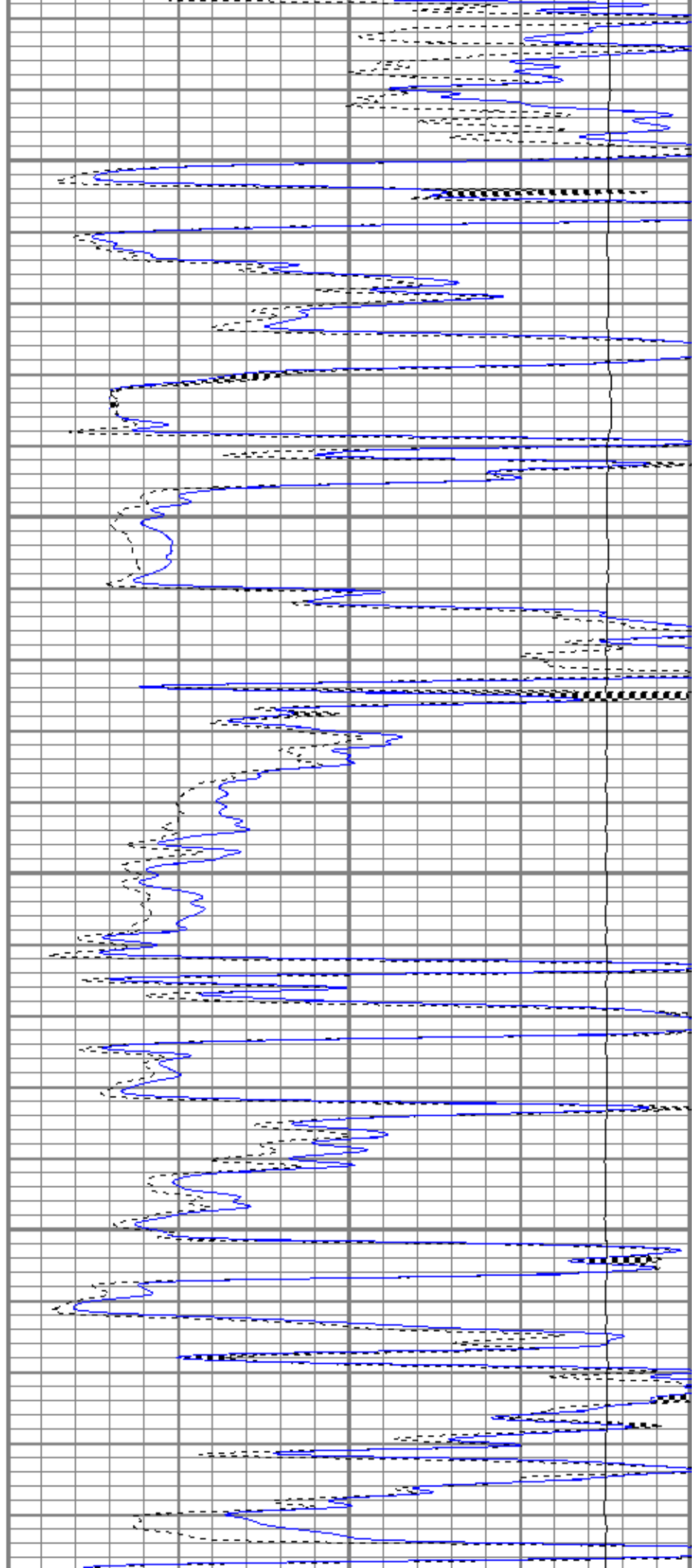


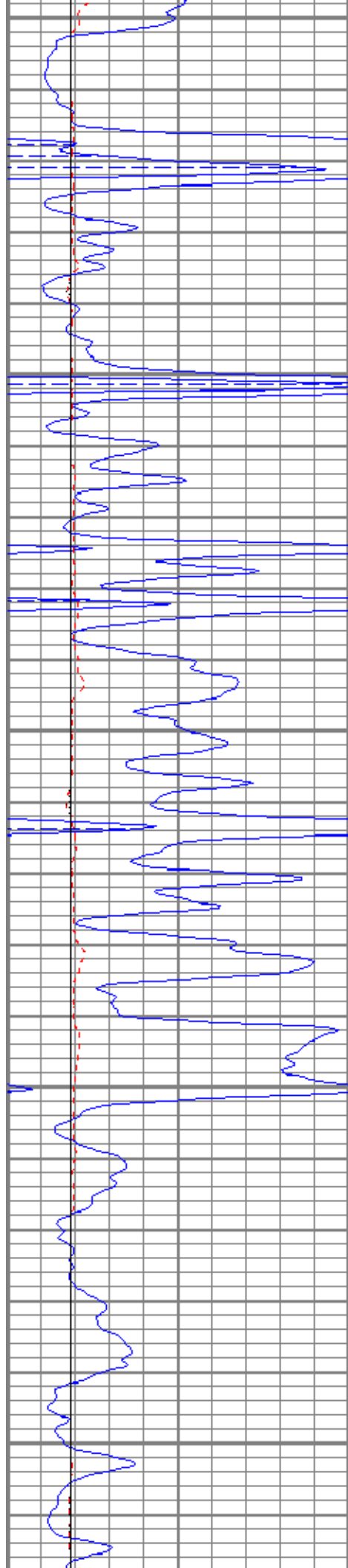
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4200

4250

4300





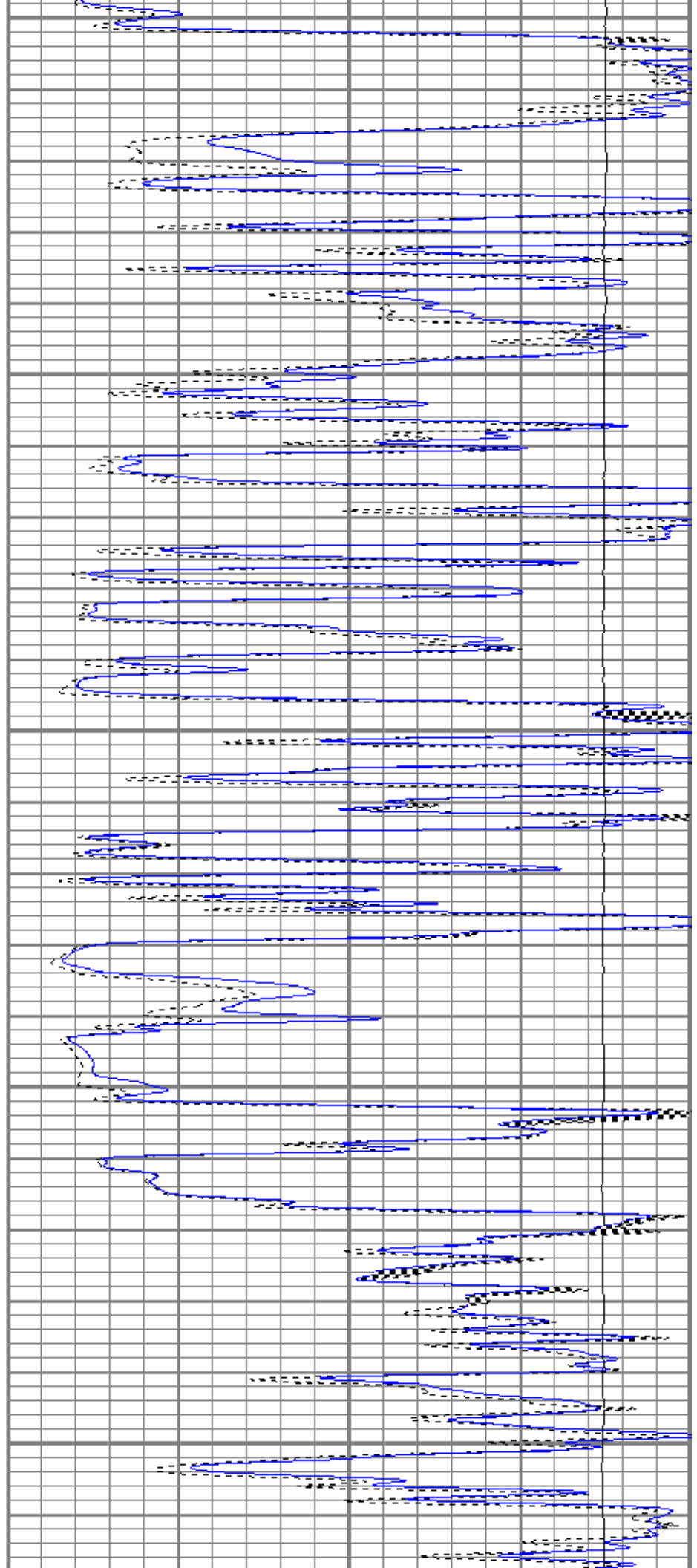
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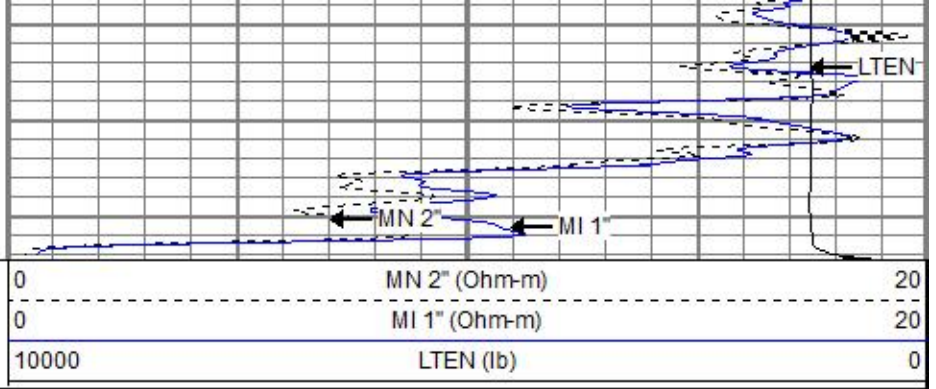
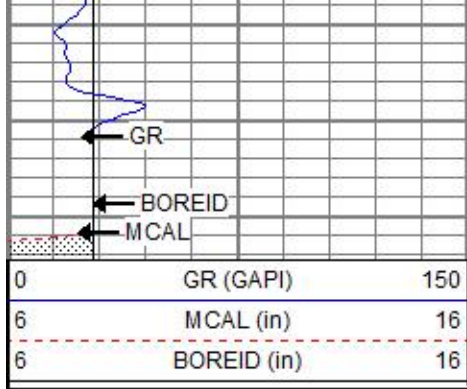
4400

4450

4500

4550



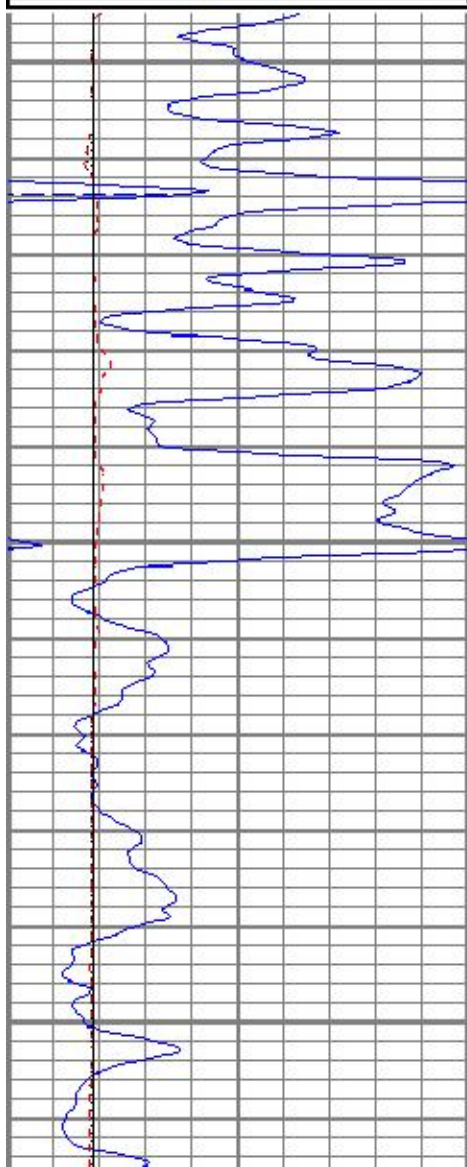


Repeat Pass

Database File ppbrownie#3oh.db
 Dataset Pathname pass4.2
 Presentation Format kml
 Dataset Creation Thu Dec 03 07:08:32 2015
 Charted by Depth in Feet scaled 1:240

| | | |
|---|-------------|-----|
| 0 | GR (GAPI) | 150 |
| 6 | MCAL (in) | 16 |
| 6 | BOREID (in) | 16 |

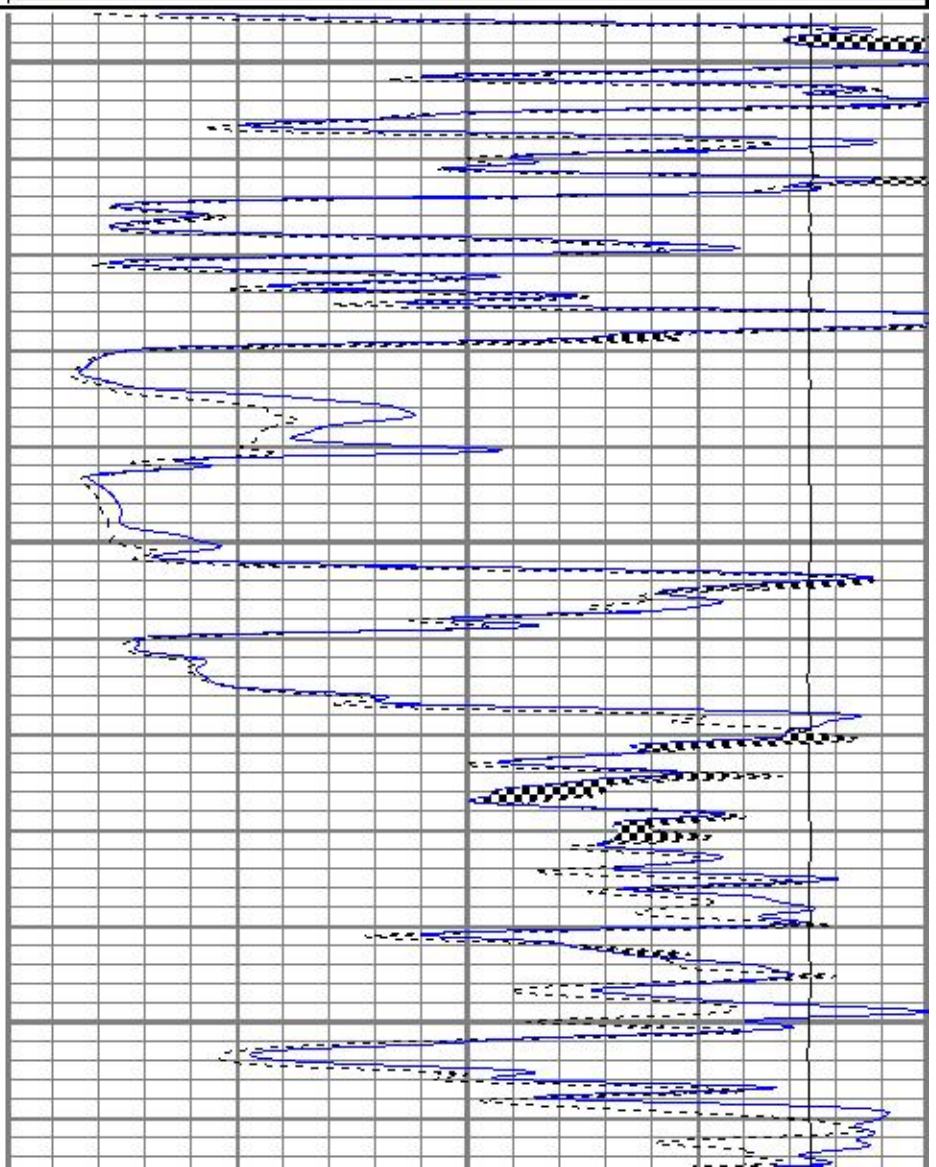
| | | |
|-------|---------------|----|
| 0 | MN 2" (Ohm-m) | 20 |
| 0 | MI 1" (Ohm-m) | 20 |
| 10000 | LTEN (lb) | 0 |

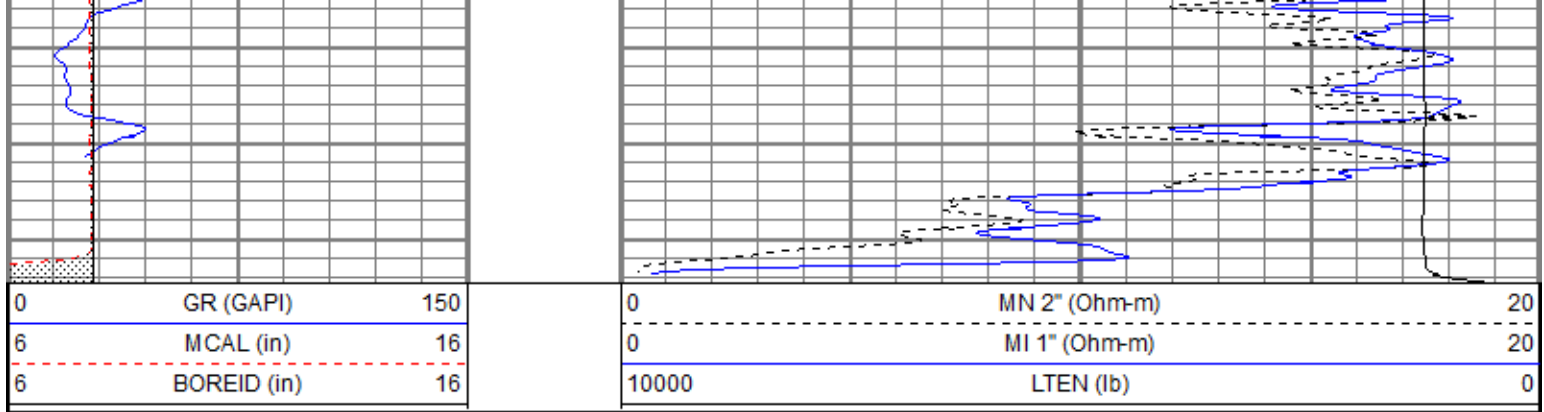


4450

4500

4550





Calibration Report

Database File ppbrownie#3oh.db
 Dataset Pathname pass4.2
 Dataset Creation Thu Dec 03 07:08:32 2015

Microlog Calibration Report

Serial-Model: 9151-Gerhart
 Performed: Fri Aug 21 07:39:44 2015

| | Readings | | | References | | | Results | |
|---------|----------|--------|---|------------|---------|-------|---------|--------|
| | Zero | Cal | | Zero | Cal | | m | b |
| Normal | -0.0200 | 0.5095 | V | 0.0000 | 9.8500 | Ohm-m | 18.6009 | 0.3720 |
| Inverse | -0.0530 | 0.6968 | V | 0.0000 | 9.1500 | Ohm-m | 12.2041 | 0.6466 |
| Caliper | 0.8560 | 1.8245 | V | 7.8500 | 13.0000 | in | 5.3171 | 3.2987 |

Gamma Ray Calibration Report

Serial Number: 2000
 Tool Model: P2000
 Performed: Mon Oct 12 09:43:16 2015

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2200 GAPI/cps

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|--------|-------------|-----------|------------------------------------|-------------|-----------|-------------|
| GR | 10.88 | | GR-P2000 (2000) | 3.67 | 3.25 | 40.00 |
| MCAL | 1.83 | | ML-Gerhart (9151) Gerhart Micro | 9.46 | 4.00 | 125.00 |
| MI | 1.83 | | | | | |
| MN | 1.83 | | | | | |

Dataset: ppbrownie#3oh.db: field/well/run1/pass4.2
 Total length: 13.13 ft
 Total weight: 165.00 lb
 O.D.: 4.00 in