



# MICRORESISTIVITY LOG

MIDWEST WIRELINE

|                                     |               |                              |      |
|-------------------------------------|---------------|------------------------------|------|
| Company Fossil Resources LLC        |               | Company Fossil Resources LLC |      |
| Well Cool Creek #1-13               |               | Well Cool Creek #1-13        |      |
| Field Massier East                  |               | Field Massier East           |      |
| County Trego                        |               | County Trego                 |      |
| State Kansas                        |               | State Kansas                 |      |
| Location: API #: 15-195-23134-00-00 |               | Other Services               |      |
| 2120 FSL & 1250 FEL                 |               | CNL/CDL<br>DIL               |      |
| SEC 13 TWP 14S RGE 22W              |               |                              |      |
| Permanent Datum                     | Ground Level  | Elevation                    | 2167 |
| Log Measured From                   | Kelly Bushing | K.B.                         | 2175 |
| Drilling Measured From              | Kelly Bushing | D.F.                         |      |
|                                     |               | G.L.                         | 2167 |
| Date                                | 3/31/2022     |                              |      |
| Run Number                          | One           |                              |      |
| Depth Driller                       | 4120          |                              |      |
| Depth Logger                        | 4124          |                              |      |
| Bottom Logged Interval              | 4123          |                              |      |
| Top Log Interval                    | 3250          |                              |      |
| Casing Driller                      | 8.625 @ 220   |                              |      |
| Casing Logger                       | 218           |                              |      |
| Bit Size                            | 7.875         |                              |      |
| Type Fluid in Hole                  | Chemical      |                              |      |
| Salinity, ppm CL                    | 4100          |                              |      |
| Density / Viscosity                 | 9.0 52        |                              |      |
| pH / Fluid Loss                     | 11.0 7.2      |                              |      |
| Source of Sample                    | FLOWLINE      |                              |      |
| Rm @ Meas. Temp                     | .55 @ 71      |                              |      |
| Rmt @ Meas. Temp                    | .41 @ 71      |                              |      |
| Rmc @ Meas. Temp                    | .74 @ 71      |                              |      |
| Source of Rmt / Rmc                 | CHARTS        |                              |      |
| Rm @ BHT                            | .33 @ 117     |                              |      |
| Operating Rig Time                  | 2 Hours       |                              |      |
| Max Rec. Temp. F                    | 117           |                              |      |
| Equipment Number                    | P-108         |                              |      |
| Location                            | HAYS          |                              |      |
| Recorded By                         | J. Henrickson |                              |      |
| Witnessed By                        | Lyle Herrman  |                              |      |

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

## Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Ogallah Kansas Exit I70  
South to Curve, 1 East, 3 South, East Into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
785-625-3858

## Your Midwest Wireline Crew

Engineer: J. Henrickson  
Operator:  
Operator:  
Operator:

## This Log Record Was Witnessed By

Primary Witness: Lyle Herrman  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:

Top - Bottom

|           |             |             |             |           |            |       |              |
|-----------|-------------|-------------|-------------|-----------|------------|-------|--------------|
| A         | BOREID      | BOTTEMP     | CASEOD      | CASETHCK  | FLUIDDEN   | M     | MATRXDEN     |
| 1         | in<br>7.875 | degF<br>117 | in<br>5.5   | in<br>0   | g/cc<br>1  | 2     | g/cc<br>2.71 |
| NPORSEL   | PERFS       | SNDERR      | SNDERRM     | SPSHIFT   | SRFTEMP    | SZCOR | TDEPTH       |
| Limestone | 0           | mmho/m<br>0 | mmho/m<br>0 | mV<br>465 | degF<br>55 | Off   | ft<br>4124   |

Variable Description

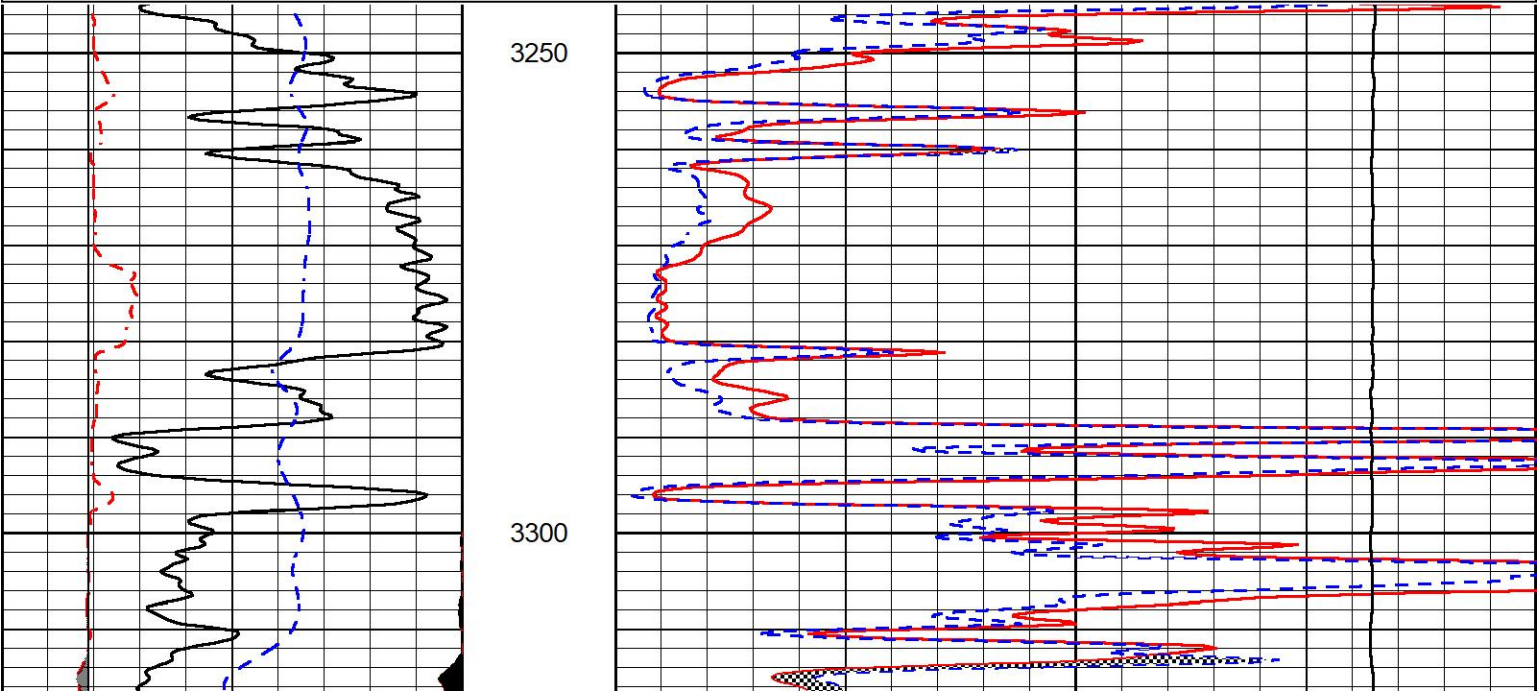
A : Cement Factor (a)  
BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
FLUIDDEN : Fluid Density  
M : Cement Exp (m)  
MATRXDEN : Matrix Density

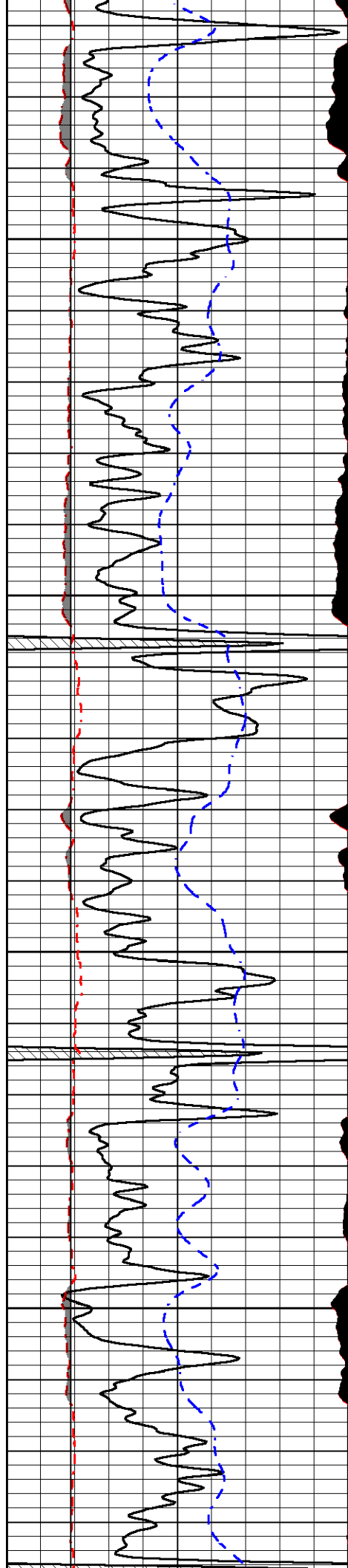
NPORSEL : Neutron Porosity Curve Select  
PERFS : Perforation Flag  
SNDERR : Deep Sonde Error Correction  
SNDERRM : Medium Sonde Error Correction  
SPSHIFT : S.P. Baseline Offset  
SRFTEMP : Surface Temperature  
SZCOR : CN Size Cor. ?  
TDEPTH : Total Depth

| Sensor                | Offset (ft) | Schematic | Description           | Length (ft) | O.D. (in) | Weight (lb) |
|-----------------------|-------------|-----------|-----------------------|-------------|-----------|-------------|
| GR                    | 40.33       |           | GR-M&W (103)          | 3.00        | 3.50      | 50.00       |
| CNLSC                 | 37.23       |           | CNT-M&W (210)         | 5.00        | 3.50      | 100.00      |
| CNSSC                 | 36.48       |           |                       |             |           |             |
| LSD                   | 28.18       |           | CDL-M&W (303-03)      | 8.50        | 4.00      | 250.00      |
|                       | 28.17       |           |                       |             |           |             |
|                       | 27.68       |           |                       |             |           |             |
| ML-PSI STKBL ML (402) | 7.58        |           | ML-PSI STKBL ML (402) | 7.58        | 4.00      | 65.00       |
|                       | 19.58       |           |                       |             |           |             |
|                       | 19.58       |           |                       |             |           |             |
| MCAL                  | 19.58       |           |                       |             |           |             |
| MI                    | 19.58       |           |                       |             |           |             |
| MN                    | 19.58       |           |                       |             |           |             |
| RLL3F                 | 15.50       |           | RLL3F                 | 15.50       |           |             |
| RLL3                  | 15.50       |           |                       |             |           |             |

|                                                                                                                                                |      |  |                  |       |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------|------|--|------------------|-------|------|--------|
| CILD                                                                                                                                           | 8.33 |  | DIL-M&W (504 HT) | 18.25 | 3.50 | 220.00 |
| CILM                                                                                                                                           | 4.50 |  |                  |       |      |        |
| SP                                                                                                                                             | 0.20 |  |                  |       |      |        |
| Dataset: fossil_resources_cool_creek_1_13.db: field/well/stackml/pass3.1<br>Total length: 42.33 ft<br>Total weight: 685.00 lb<br>O.D.: 4.00 in |      |  |                  |       |      |        |

|                                                                                                                                                                                                           |                             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------|
|  <div> <div>DETAIL SECTION</div> <div>MAIN PASS</div> </div>                                                             |                             |       |
| Database File fossil_resources_cool_creek_1_13.db<br>Dataset Pathname stackml/pass4.1<br>Presentation Format _micro<br>Dataset Creation Thu Mar 31 08:39:16 2022<br>Charted by Depth in Feet scaled 1:240 |                             |       |
| 0                                                                                                                                                                                                         | Gamma Ray (GAPI)            | 150   |
| 6                                                                                                                                                                                                         | Caliper (in)                | 16    |
| 2.875                                                                                                                                                                                                     | mcal (in)                   | 7.875 |
| -200                                                                                                                                                                                                      | SP (mV)                     | 0     |
| 0                                                                                                                                                                                                         | Micro Inverse 1 X 1 (Ohm-m) | 40    |
| 0                                                                                                                                                                                                         | Micro Normal 2" (Ohm-m)     | 40    |
| 10000                                                                                                                                                                                                     | Line Weight (lb)            | 0     |



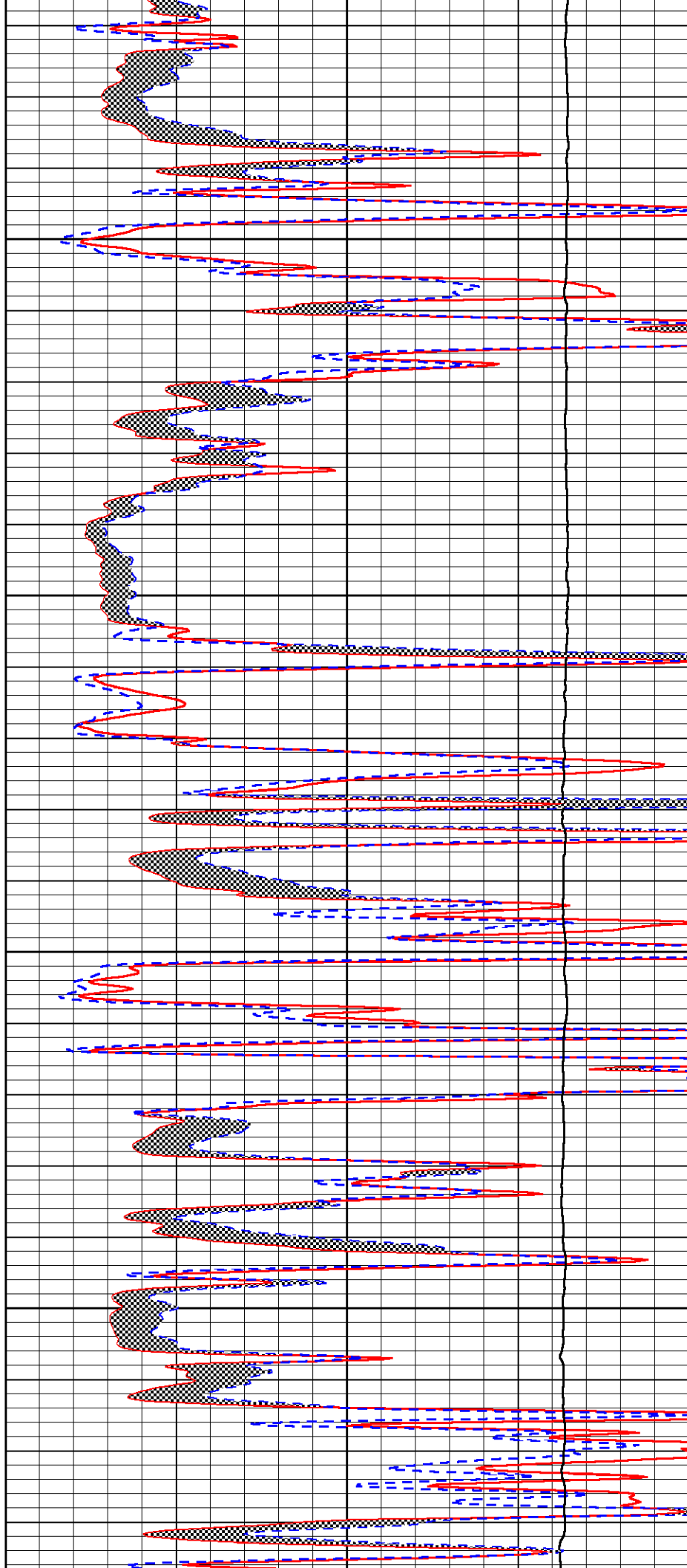


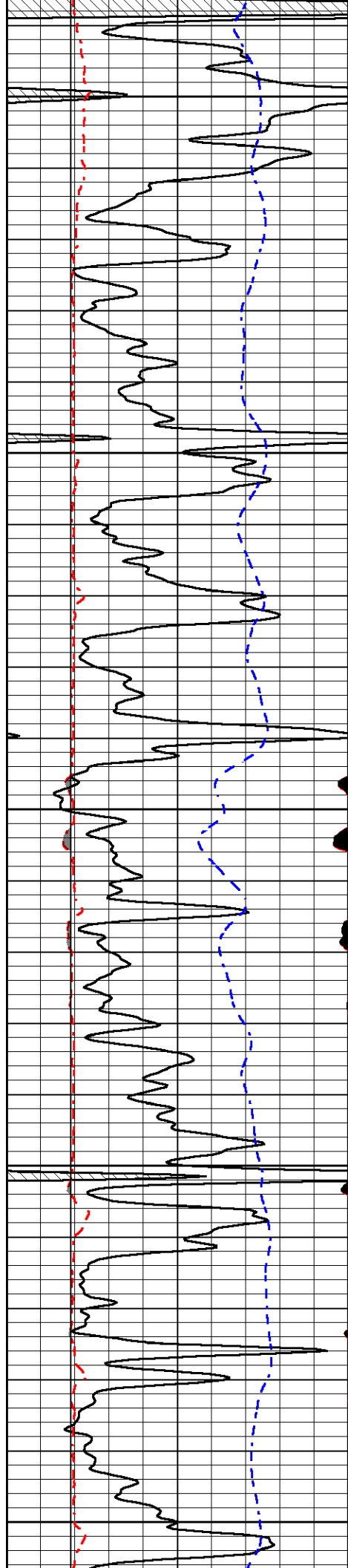
3350

3400

3450

3500





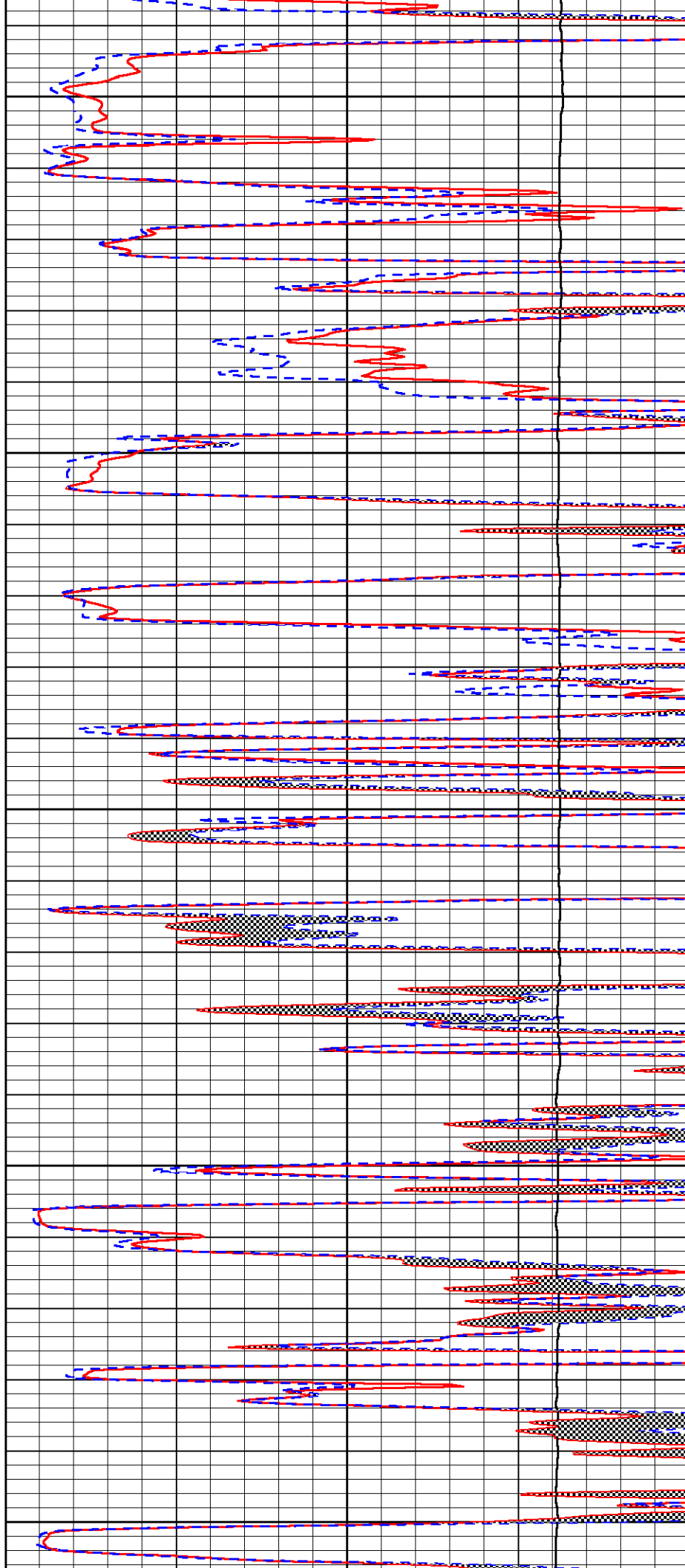
3550

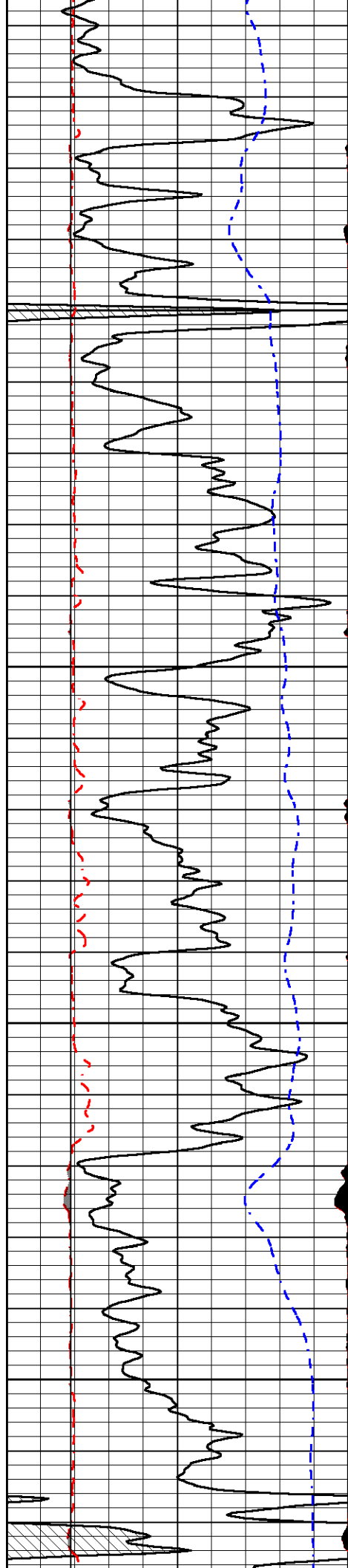
3600

3650

3700

3750



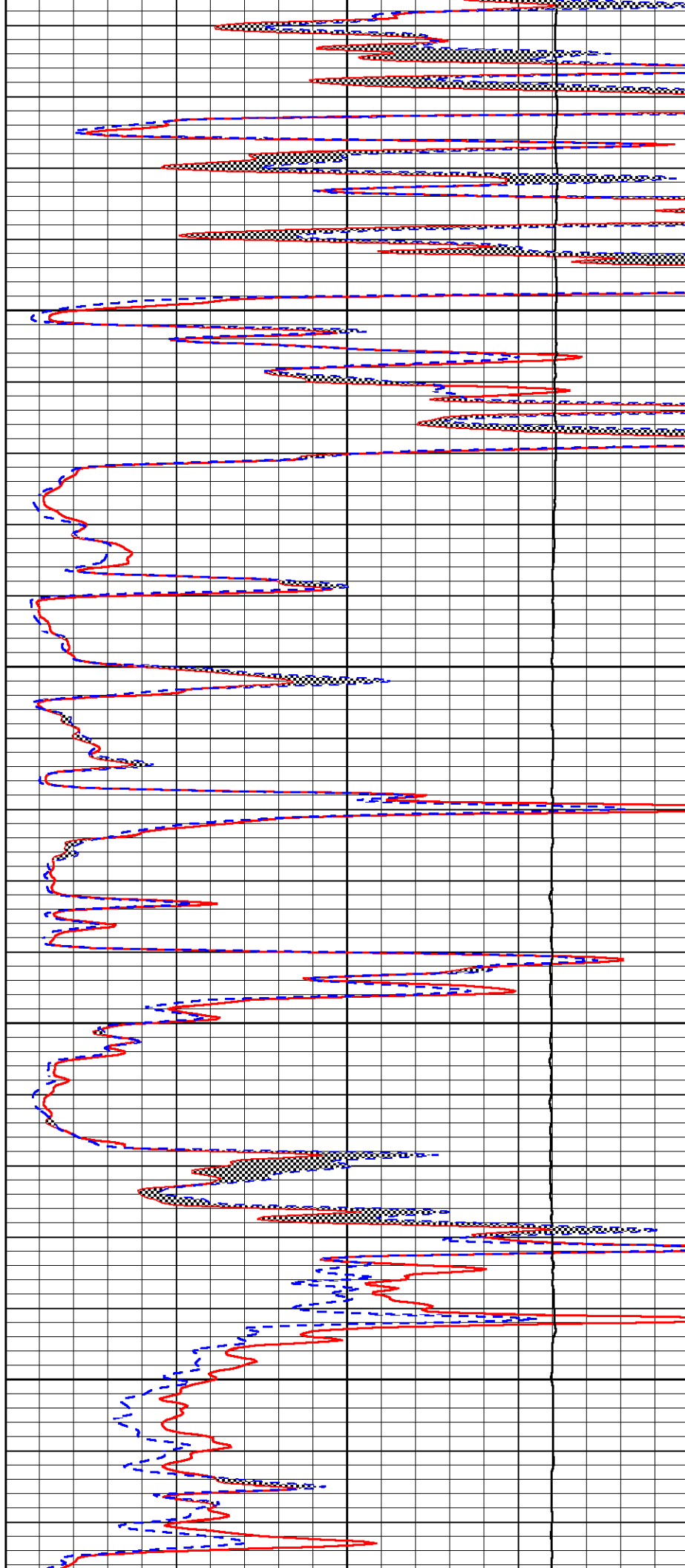


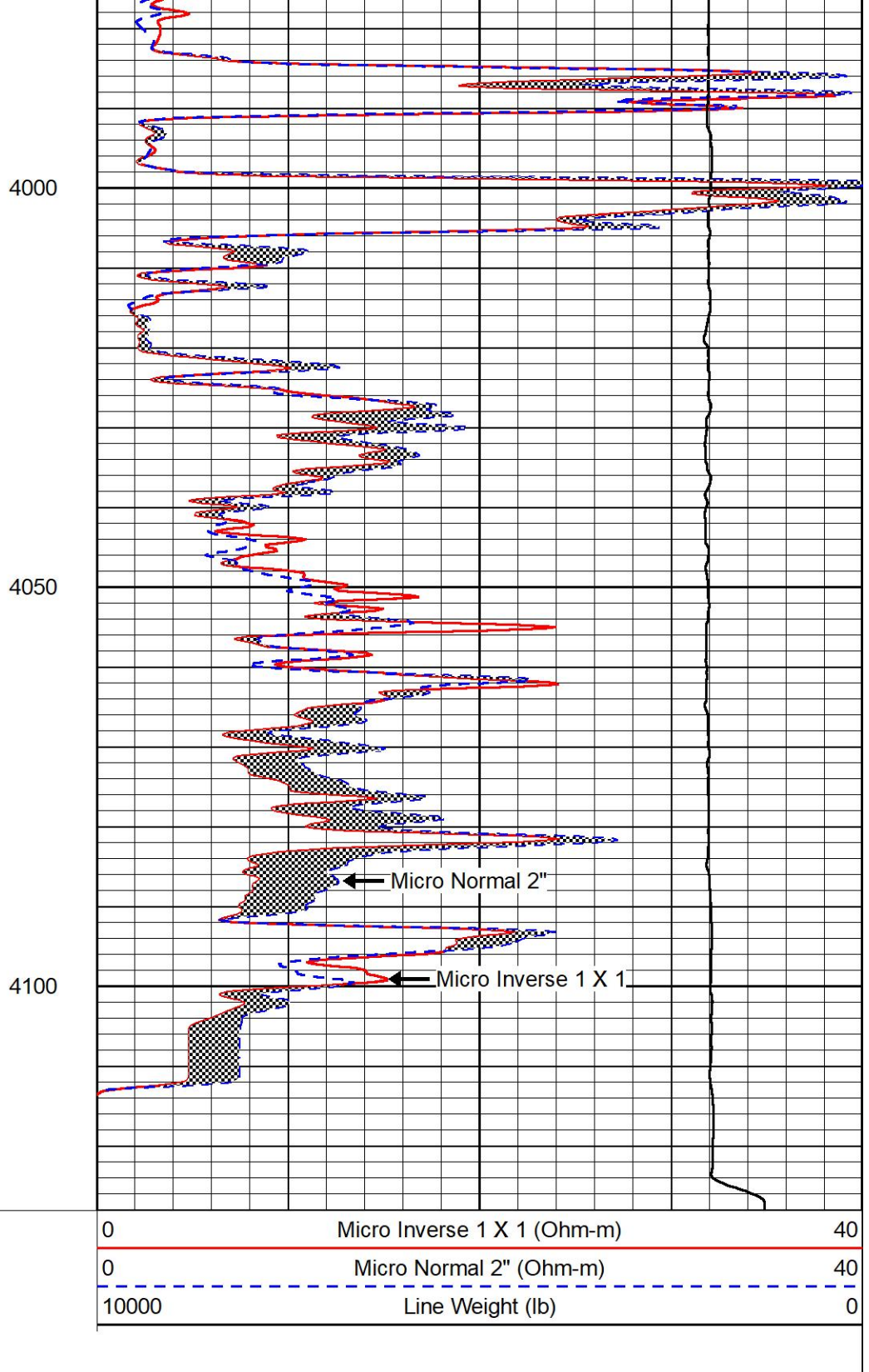
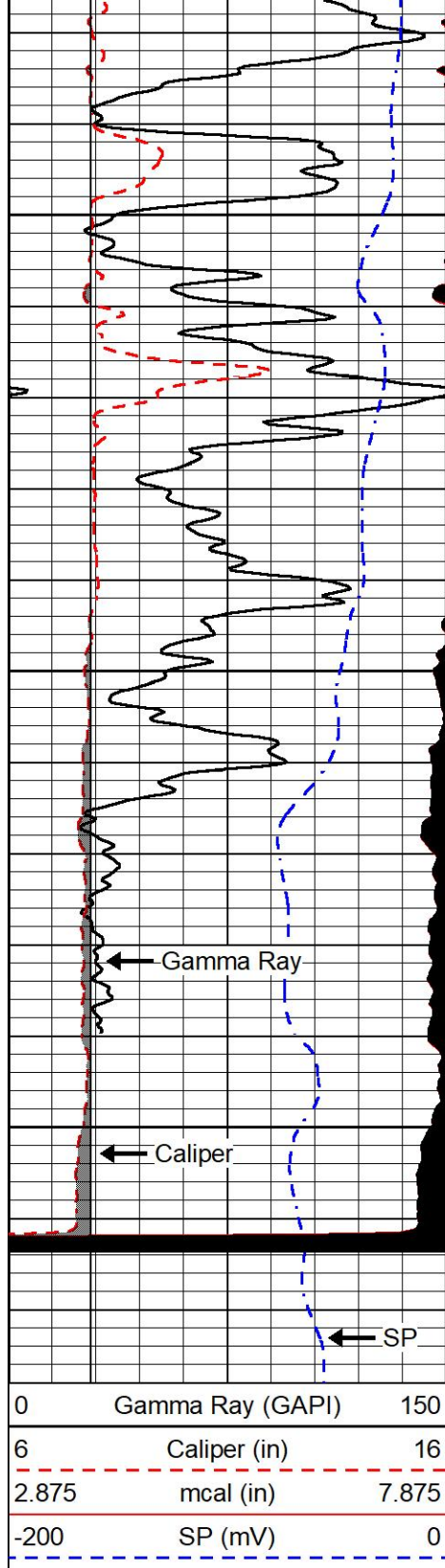
3800

3850

3900

3950





## REPEAT SECTION

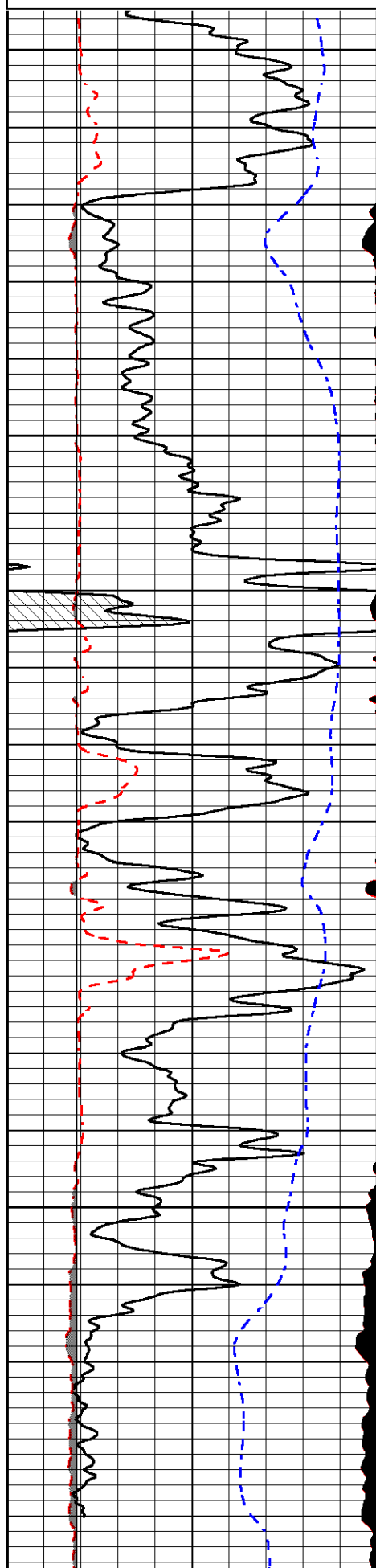
### REPEAT PASS

Database File fossil\_resources\_cool\_creek\_1\_13.db  
 Dataset Pathname stackml/pass2.1  
 Presentation Format \_micro  
 Dataset Creation Thu Mar 31 08:24:06 2022  
 Charted by Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 150

0 Micro Inverse 1 X 1 (Ohm-m) 40

|                  |              |       |
|------------------|--------------|-------|
| Gamma Ray (GAPI) |              |       |
| 6                | Caliper (in) | 16    |
| 2.875            | mccl (in)    | 7.875 |
| -200             | SP (mV)      | 0     |



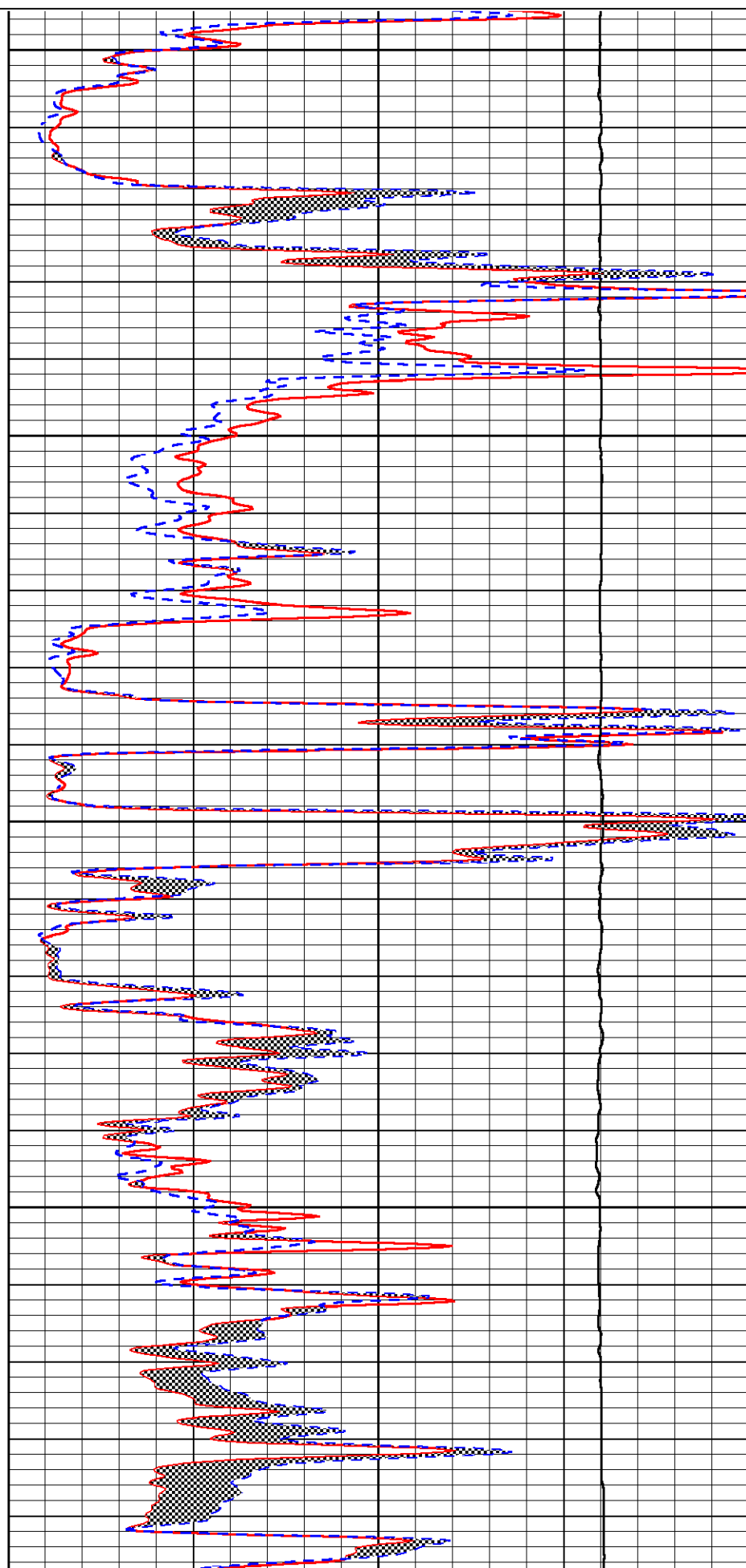
3900

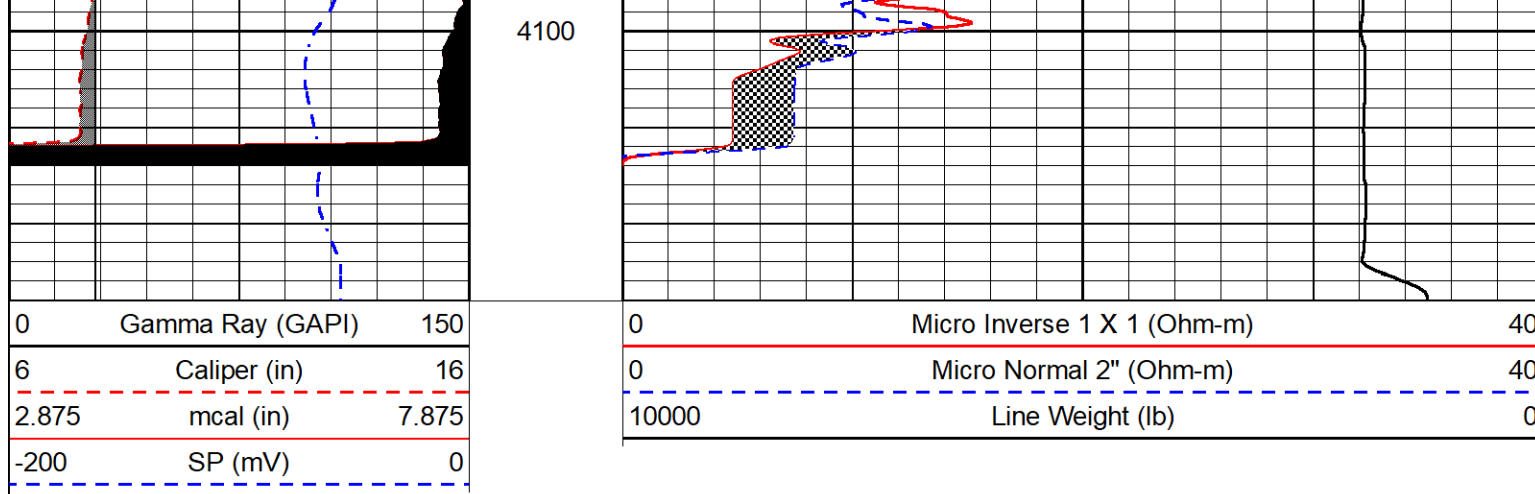
3950

4000

4050

|                  |                             |    |
|------------------|-----------------------------|----|
| 0                | Micro Inverse T X T (Ohm-m) | 40 |
| 10000            | Micro Normal 2" (Ohm-m)     | 0  |
| Line Weight (lb) |                             |    |





| Calibration Report |                                     |
|--------------------|-------------------------------------|
| Database File      | fossil_resources_cool_creek_1_13.db |
| Dataset Pathname   | stackml/pass6.1                     |
| Dataset Creation   | Thu Mar 31 09:16:12 2022            |

### Dual Induction Calibration Report

|                        |                          |
|------------------------|--------------------------|
| Serial-Model:          | 504 HT-M&W               |
| Surface Cal Performed: | Thu Dec 16 22:32:49 2021 |

| Readings |         |          | References |         |        | Results |         |
|----------|---------|----------|------------|---------|--------|---------|---------|
| Loop:    | Air     | Loop     | Air        | Loop    |        | m       | b       |
| Deep     | 178.615 | 710.235  | 0.000      | 255.800 | mmho/m | 0.650   | -19.000 |
| Medium   | 161.982 | 1441.110 | 0.000      | 255.800 | mmho/m | 0.450   | -45.500 |

### Microlog Calibration Report

|               |                          |
|---------------|--------------------------|
| Serial-Model: | 402-PSI STKBL ML         |
| Performed:    | Sat Mar 19 19:10:40 2022 |

|         | Readings |        | References |         |       | Results    |           |
|---------|----------|--------|------------|---------|-------|------------|-----------|
|         | Zero     | Cal    | Zero       | Cal     |       | m          | b         |
| Normal  | 0.0037   | 0.0043 | 0.0000     | 10.0000 | Ohm-m | 18000.0000 | -1.0000   |
| Inverse | 0.1208   | 0.0013 | 0.0000     | 10.0000 | Ohm-m | 15500.0000 | 0.0000    |
| Caliper | 1.0020   | 1.0834 | 5.5000     | 16.5000 | in    | 135.1520   | -131.2000 |

### Compensated Density Calibration Report

|                               |                          |
|-------------------------------|--------------------------|
| Serial-Model:                 | 303-03-M&W               |
| Source #:                     | 21170B                   |
| Master Calibration Performed: | Thu Dec 16 23:28:34 2021 |

| Master Calibration  |         |      |                             |               |     |
|---------------------|---------|------|-----------------------------|---------------|-----|
|                     | Density |      | Far Detector                | Near Detector |     |
| Magnesium           | 1.755   | g/cc | 3841.78                     | 5151.73       | cps |
| Aluminum            | 2.670   | g/cc | 700.98                      | 3068.49       | cps |
| Spine Angle = 73.06 |         |      | Density/Spine Ratio = 0.515 |               |     |
| Size                |         |      | Reading                     |               |     |

|                                        |                         |          |               |
|----------------------------------------|-------------------------|----------|---------------|
| Small Ring                             | 4.00                    | in       | 1.17          |
| Large Ring                             | 14.00                   | in       | 1.04          |
|                                        |                         |          |               |
| Compensated Neutron Calibration Report |                         |          |               |
| Serial-Model:                          | 210-M&W                 |          |               |
| Source #:                              | N-1238                  |          |               |
| Master Calibration Performed:          | Fri Dec 3 09:16:24 2021 |          |               |
| Master Calibration                     |                         |          |               |
| Detector                               | Readings                |          | Target        |
|                                        |                         |          | Normalization |
| Short Space                            | 6240.00                 | cps      | 1000.00 cps   |
| Long Space                             | 460.00                  | cps      | 1000.00 cps   |
|                                        |                         |          | 1.6025        |
|                                        |                         |          | 1.9500        |
|                                        |                         |          |               |
| Gamma Ray Calibration Report           |                         |          |               |
| Serial Number:                         | 103                     |          |               |
| Tool Model:                            | M&W                     |          |               |
| Performed:                             | Fri Dec 3 12:13:24 2021 |          |               |
| Calibrator Value:                      | 500.0                   | GAPI     |               |
| Background Reading:                    | 28.0                    | cps      |               |
| Calibrator Reading:                    | 986.0                   | cps      |               |
| Sensitivity:                           | 0.5700                  | GAPI/cps |               |

|                                                                                     |         |                      |
|-------------------------------------------------------------------------------------|---------|----------------------|
|  | Company | Fossil Resources LLC |
|                                                                                     | Well    | Cool Creek #1-13     |
|                                                                                     | Field   | Massier East         |
|                                                                                     | County  | Trego                |
|                                                                                     | State   | Kansas               |