



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company **Ritchie Exploration, Inc.**

Well **Tubbs Unit #1**

Field **Wildcat**

County **Logan**

State **Kansas**

Company **Ritchie Exploration, Inc.**
Well **Tubbs Unit #1**
Field **Wildcat**
County **Logan**
State **Kansas**

Location: **API #: 15-109-21615-00-00**

SEC 19 TWP 11S RGE 35W

Permanent Datum **Ground Level** Elevation **3273'**

Log Measured From **Kelly Bushing**

Drilling Measured From **Kelly Bushing**

Other Services

**CNL/CDL
MEL/BHCS**

Elevation
K.B. **3278'**
D.F. **Na/**
G.L. **3273'**

Date	4/30/2021
Run Number	One
Depth Driller	4950'
Depth Logger	4950'
Bottom Logged Interval	4949'
Top Log Interval	3400'
Casing Driller	8.625" @ 208'
Casing Logger	214'
Bit Size	7.875"
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.4 58
pH / Fluid Loss	10.0 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.60 @ 71
Rmt @ Meas. Temp	.45 @ 71
Rmc @ Meas. Temp	.81 @ 71
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.34 @ 126
Operating Rig Time	4 Hours
Max Rec. Temp. F	126 Deg/F
Equipment Number	P-24
Location	HAYS
Recorded By	J. Henrickson
Witnessed By	Max Lovely

<<< 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.

**Winona Kansas
2 North, West Into**

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: **J. Henrickson**
Operator: **M. Hiss**
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: **Max Lovely**
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\ritchie_tubbs_unit_1.db
Dataset field/well/stackml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	126	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	285	61	Off	4950

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	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC	41.40		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	40.65					
LSD	32.35		CDL-M&W (817-947)	8.50	4.00	250.00
DCAL	32.33					
SSD	31.85					
MCAL	20.87		ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00
MI	20.87					
MN	20.87					
RLL3F	15.80					

RLL3 15.80

CILD 8.00

CILM 4.70

SP 0.20

DIL-PSI HIGH TEMP (952-828)

18.50

3.50

220.00

Dataset: ritchie_tubbs_unit_1.db: field/well/stackml/pass4.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

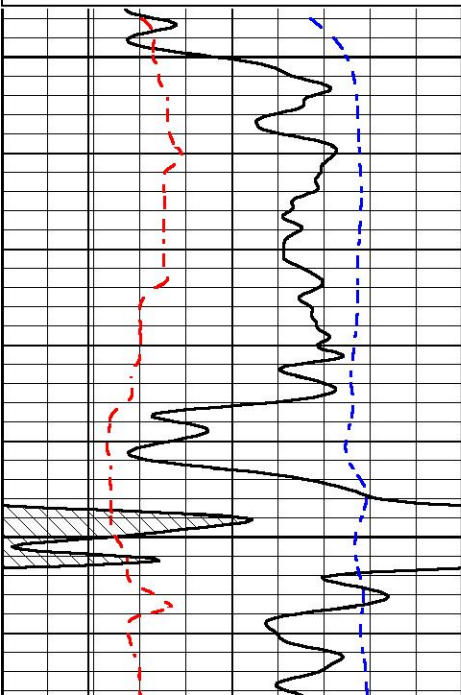


MAIN PASS

Database File ritchie_tubbs_unit_1.db
 Dataset Pathname stackml/pass4.1
 Presentation Format _micro
 Dataset Creation Sat May 01 00:48:56 2021
 Charted by Depth in Feet scaled 1:240

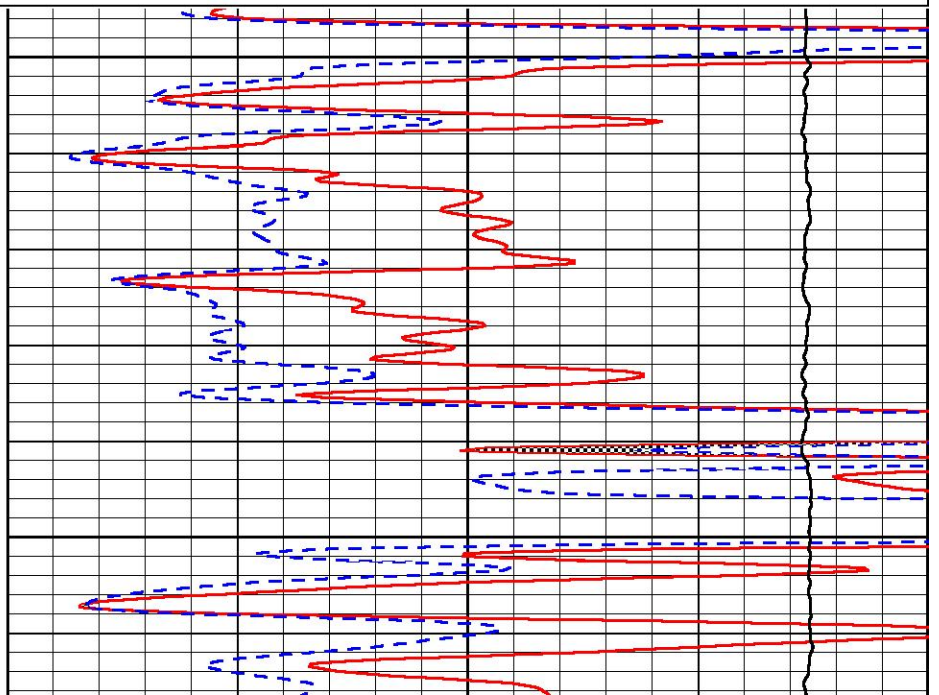
0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	sp (mV)	0

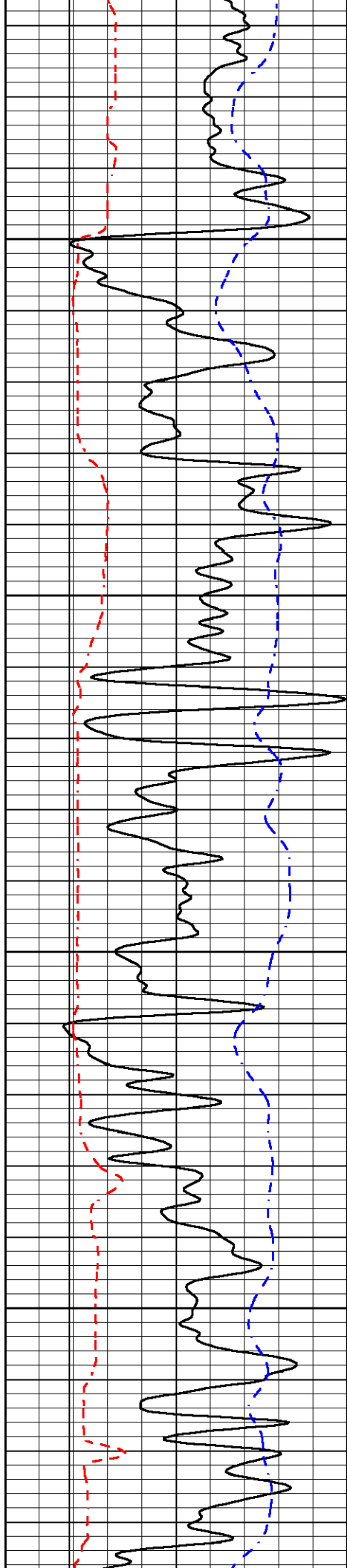
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0



3400

3450



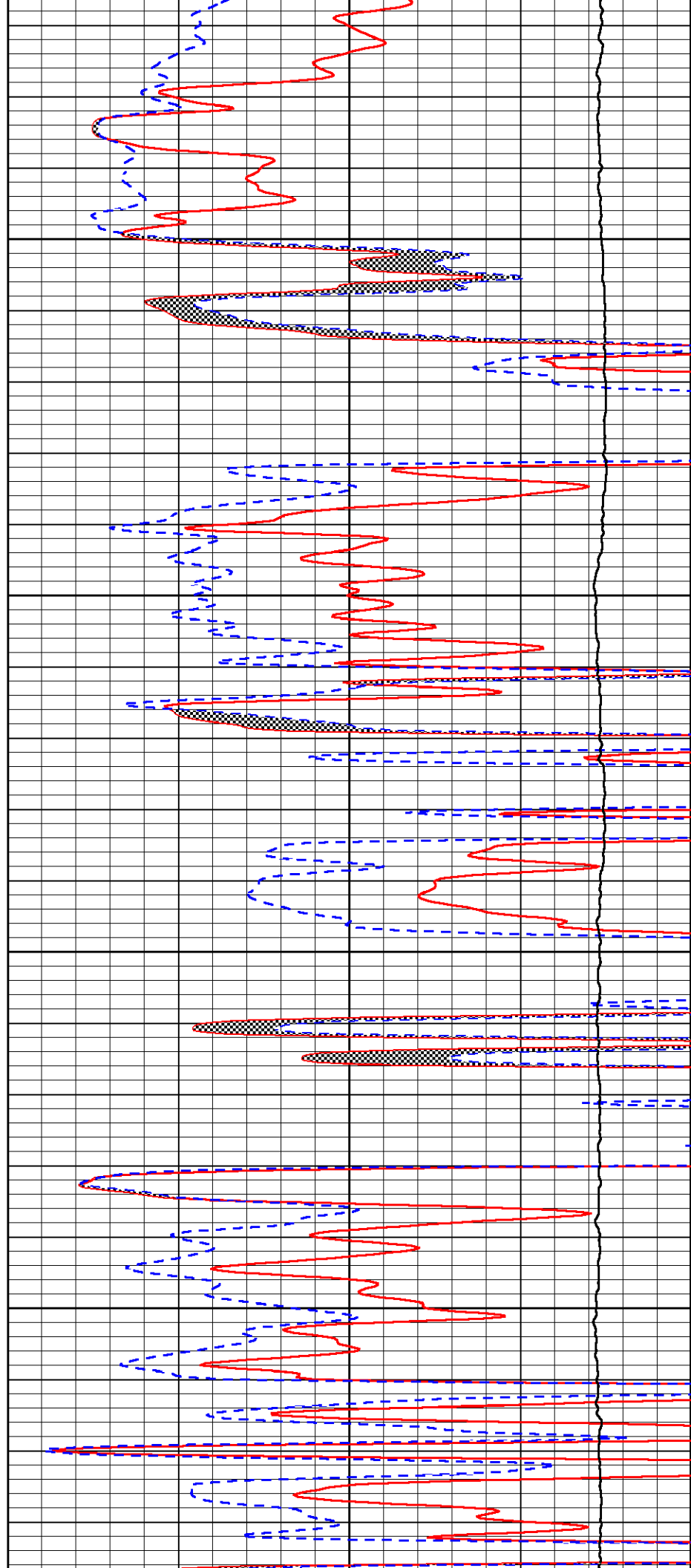


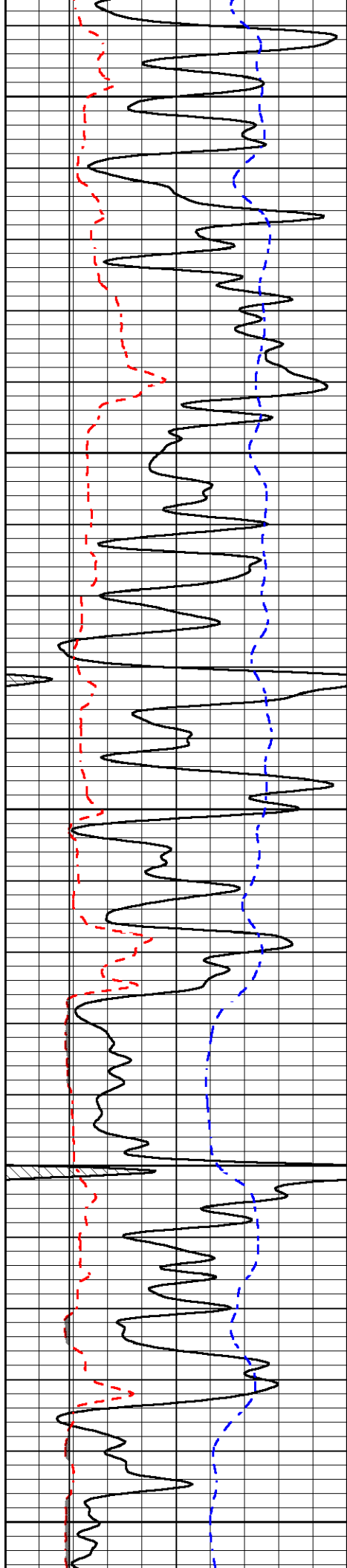
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3550

3600

3650





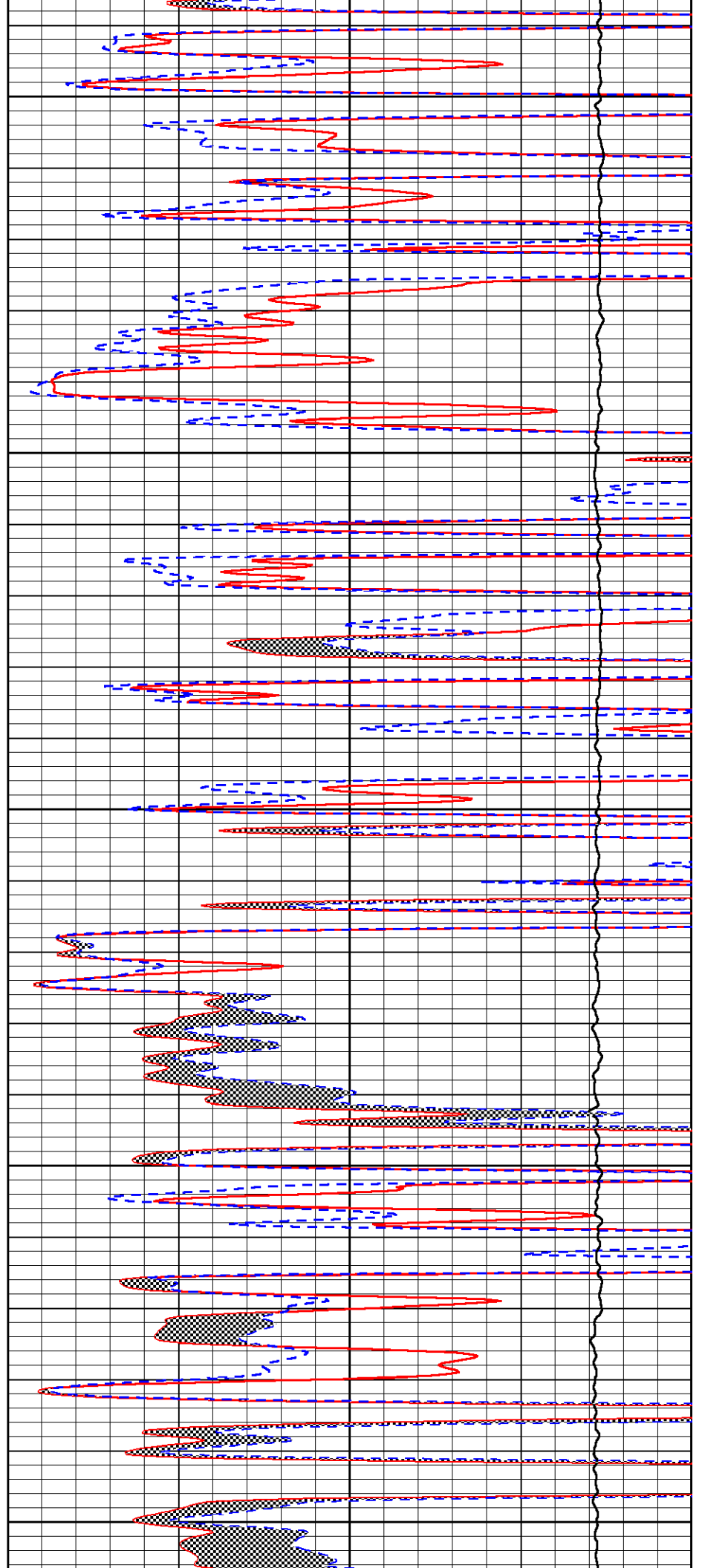
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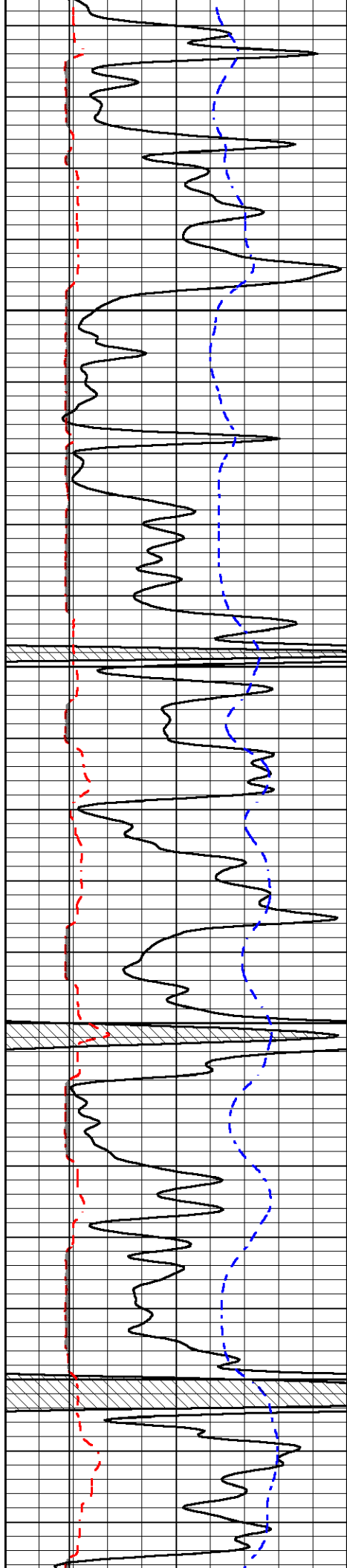
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3800

3850

3900



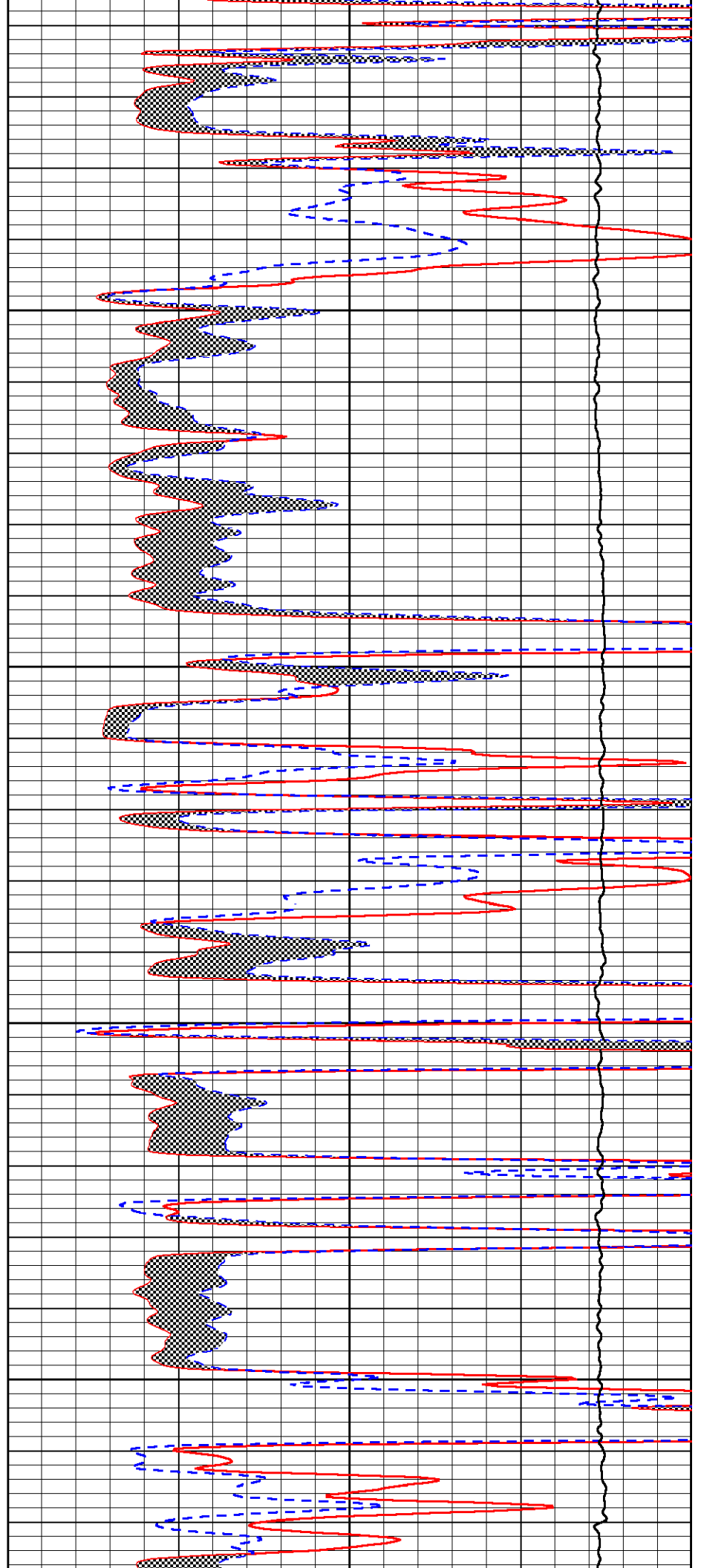


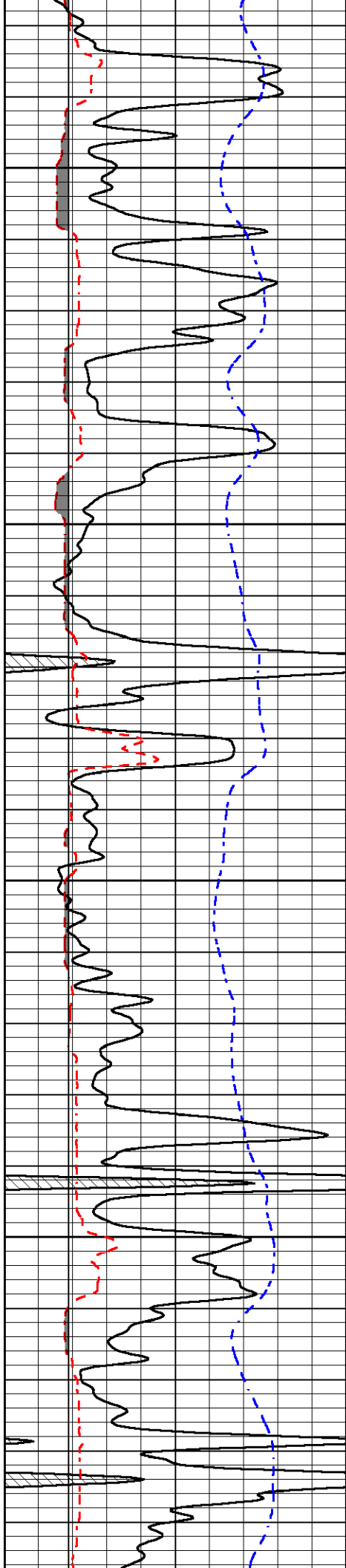
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4000

4050

4100



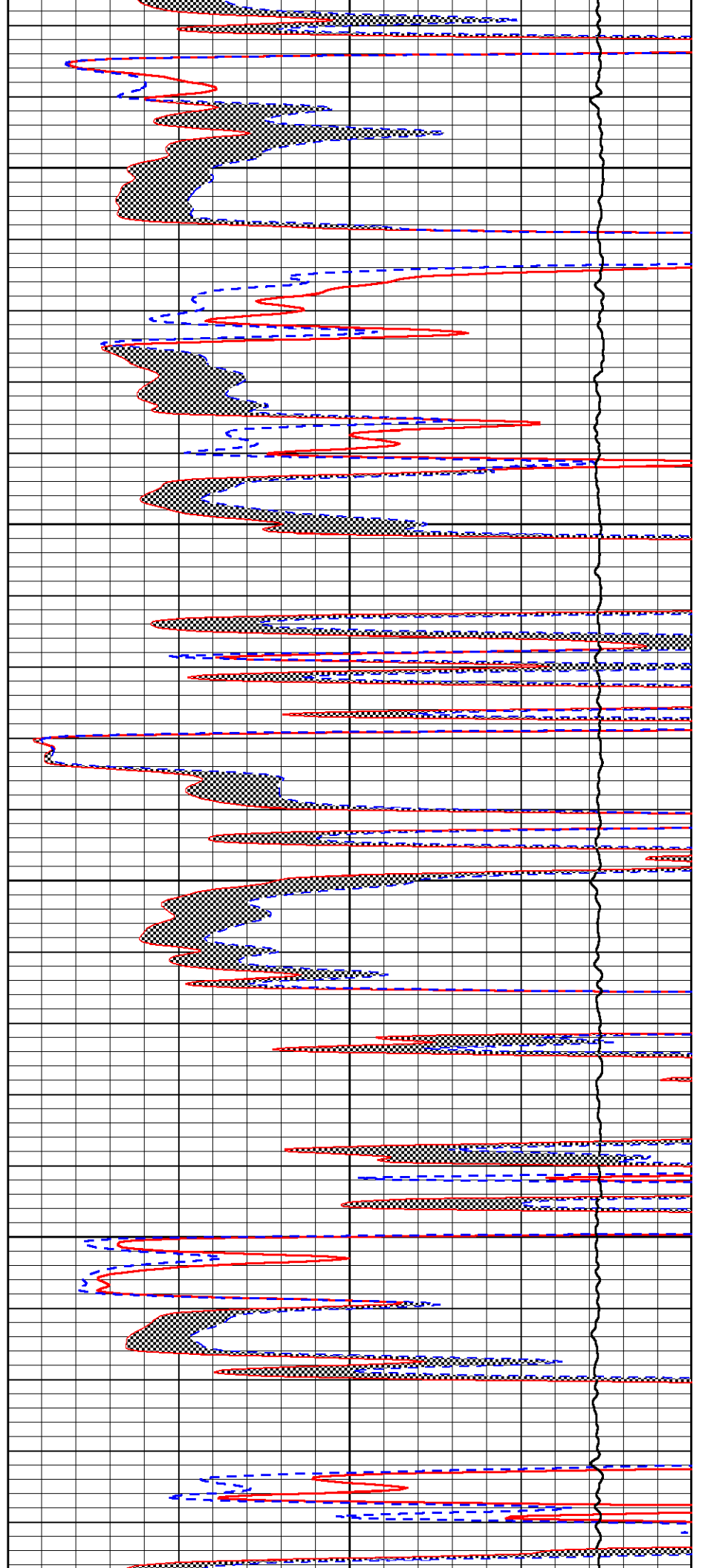


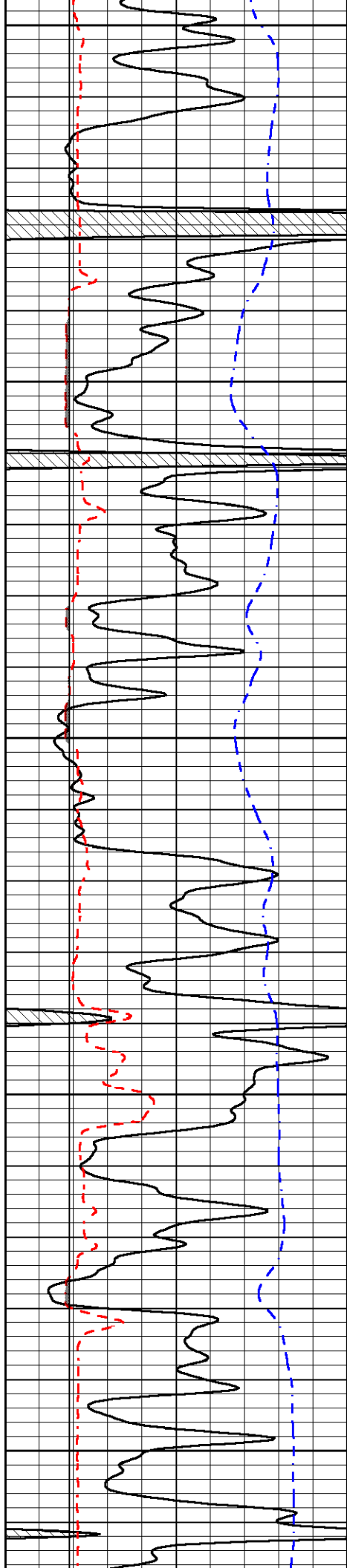
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4200

4250

4300





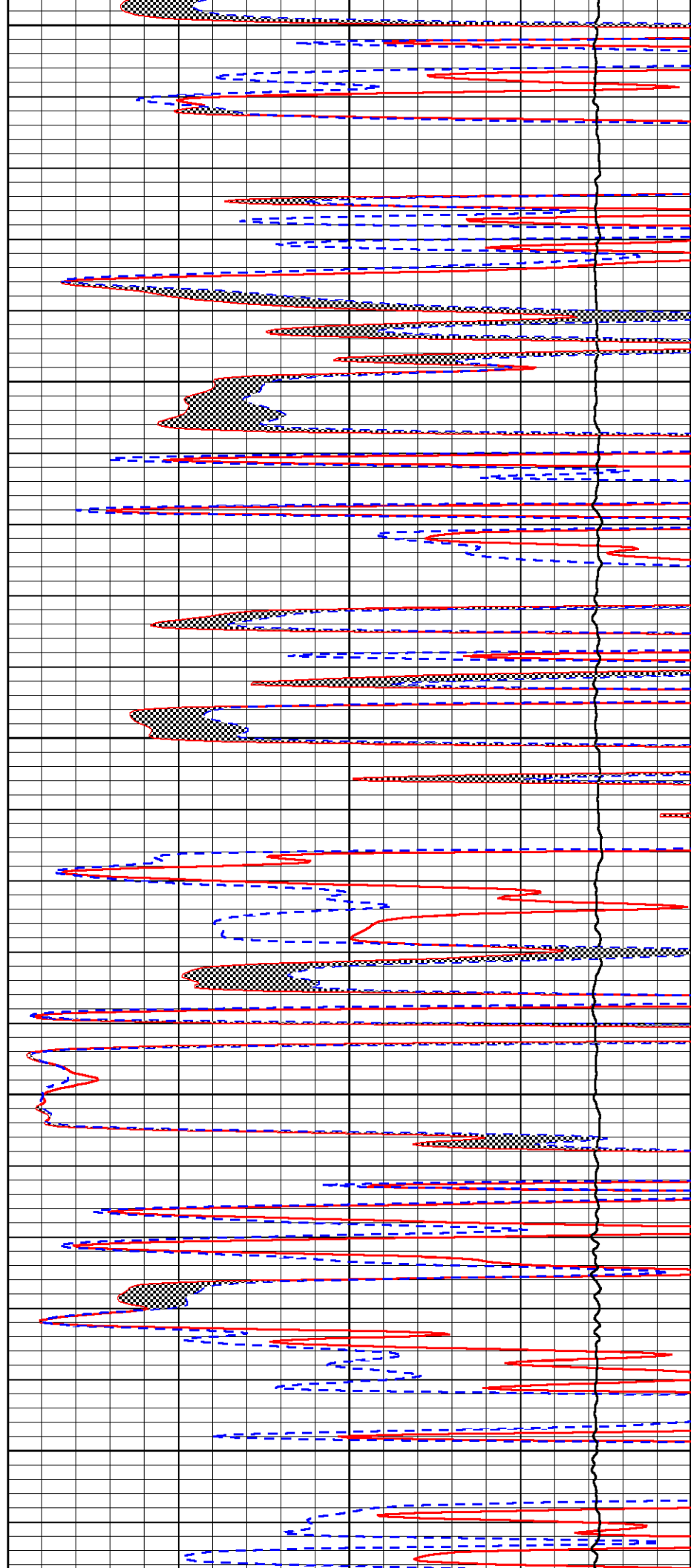
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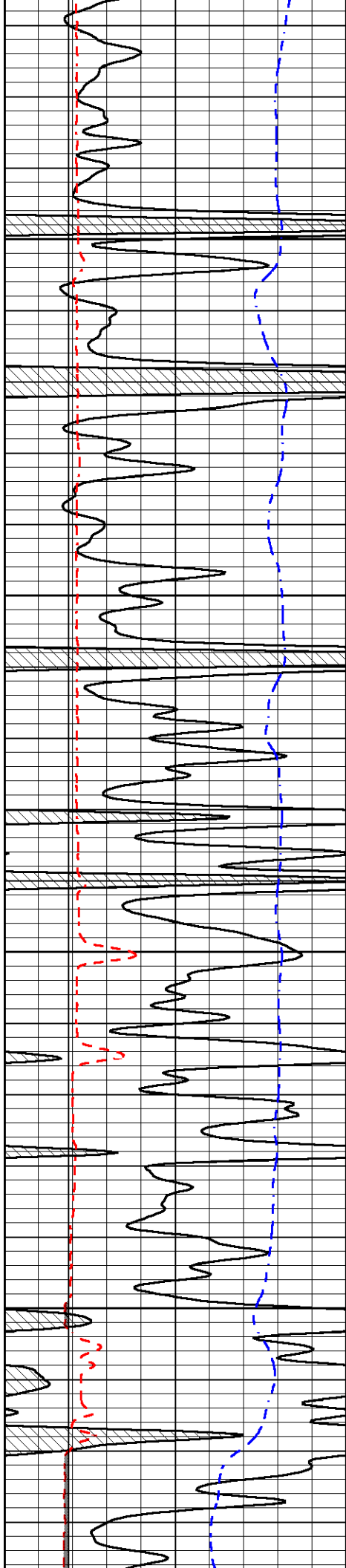
4400

4450

4500

4550



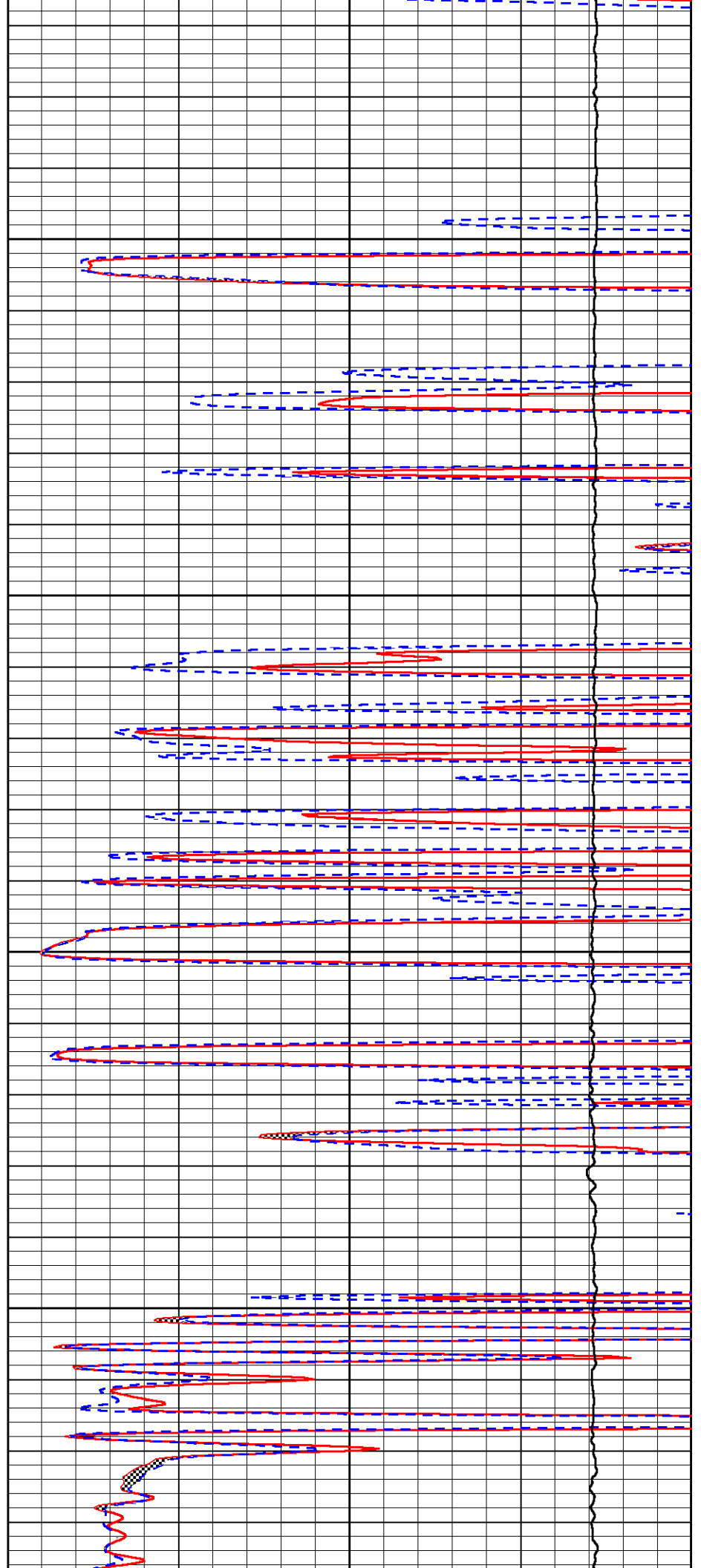


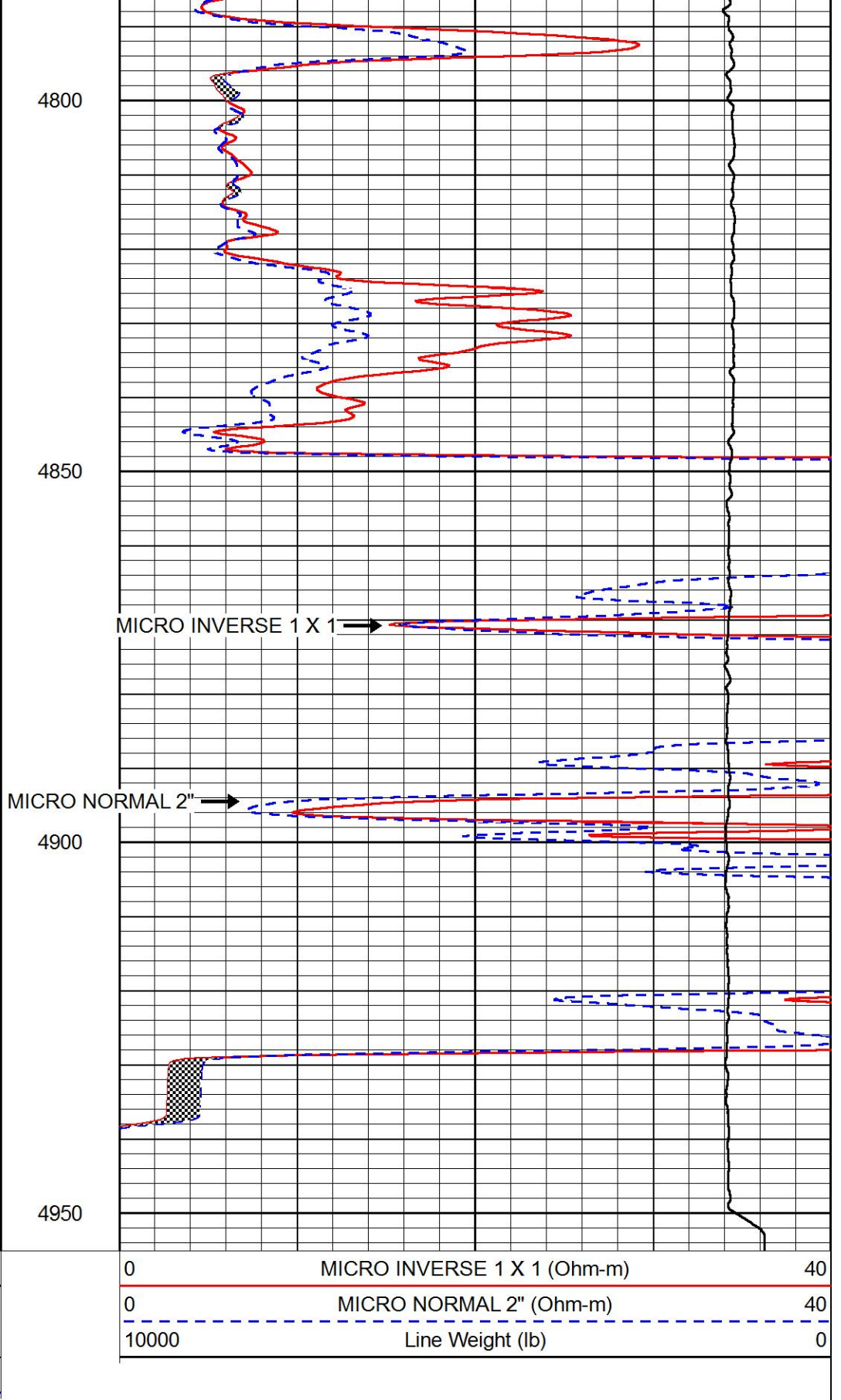
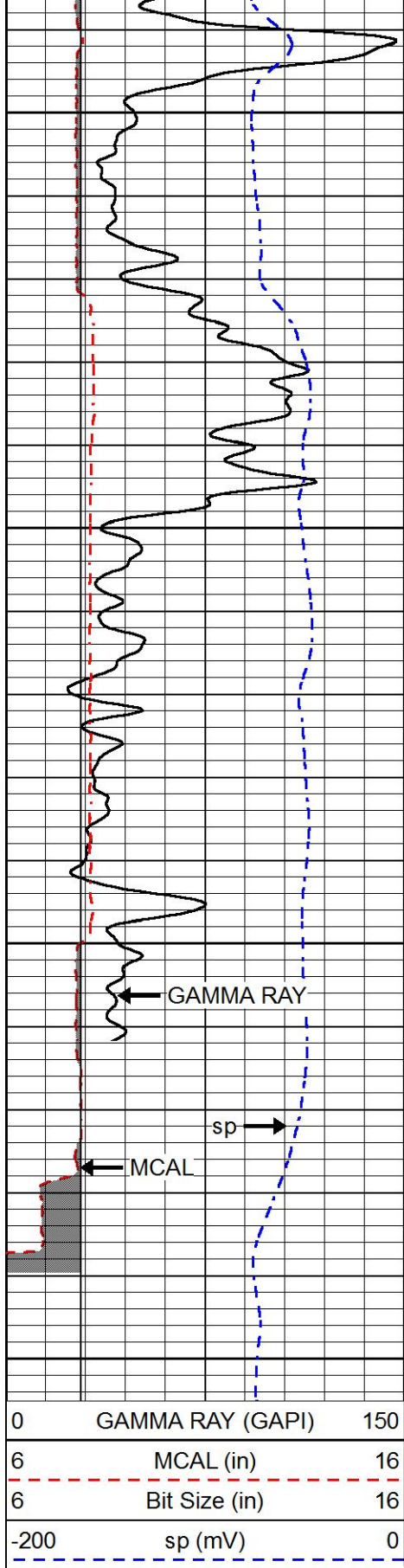
4600

4650

4700

4750



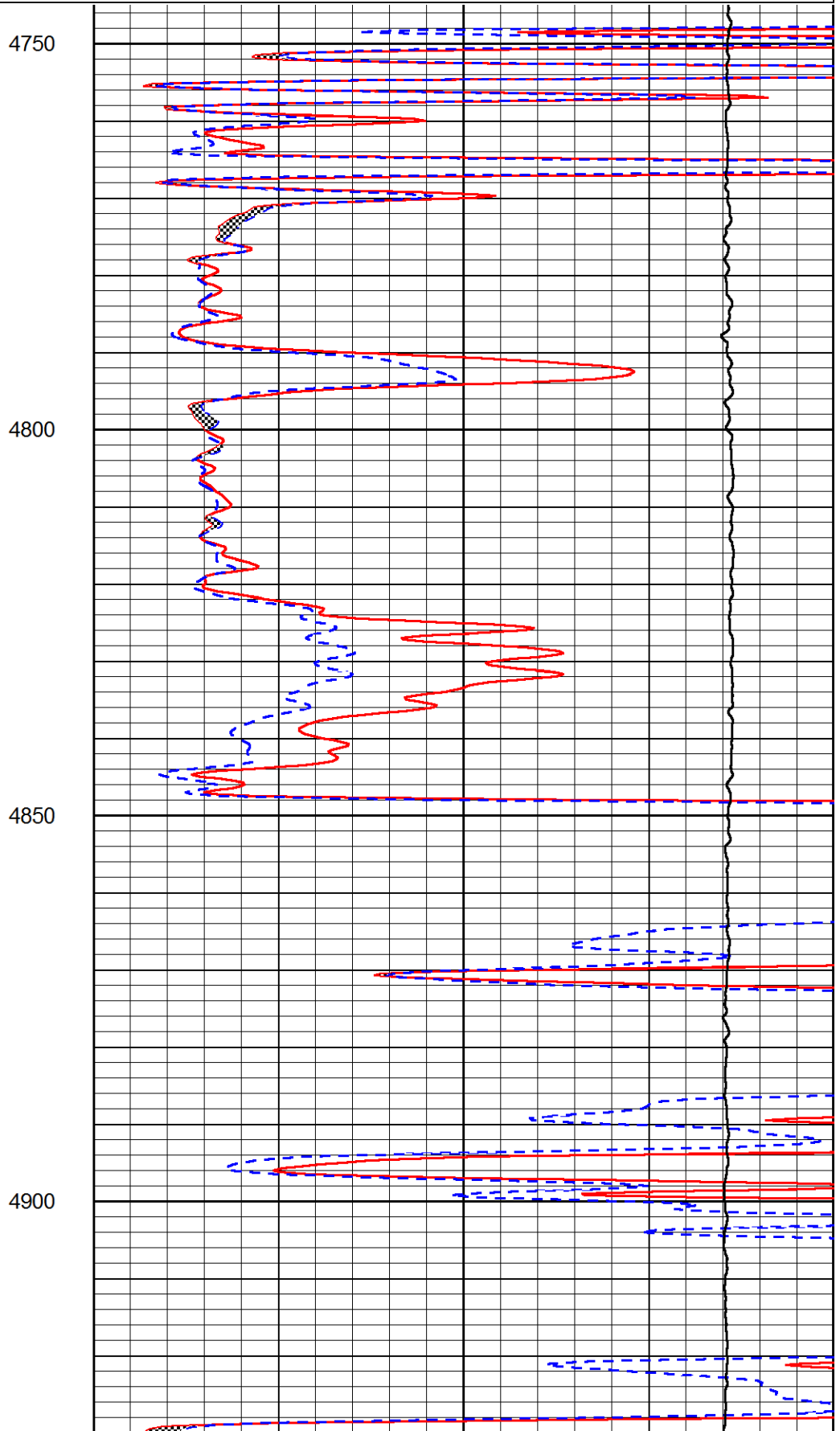
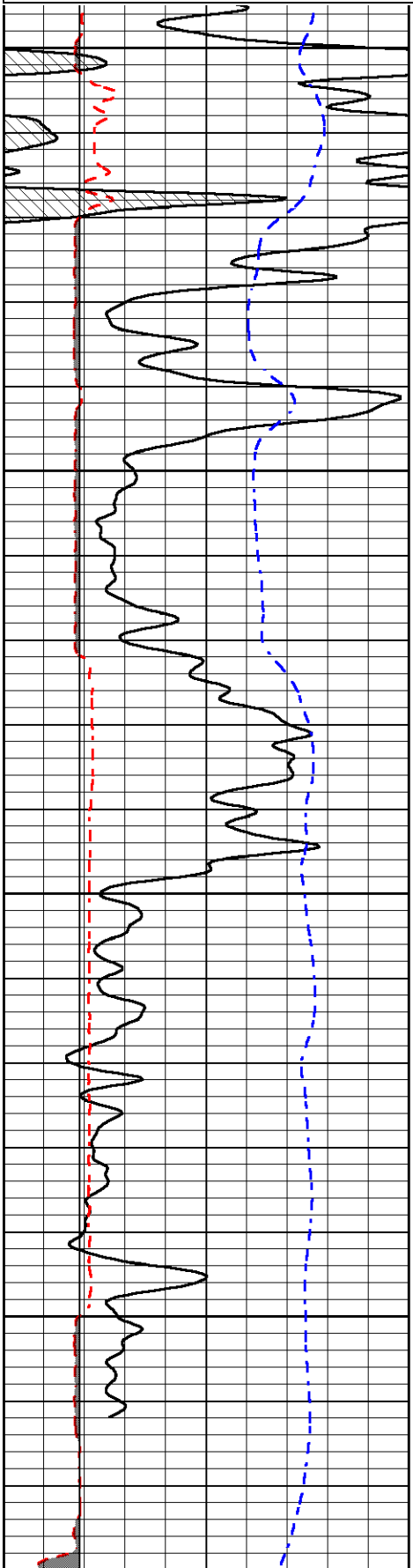


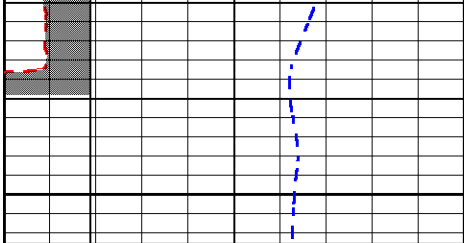
REPEAT SECTION

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 Charted by Depth in Feet scaled 1:240

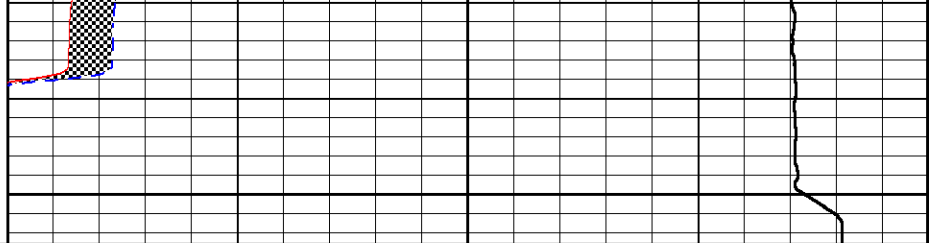
0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	sp (mV)	0

0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0





4950



0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-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