



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company: Cambell Energy LLC
 Well: JPC #2
 Field: Turkey Creek East
 County: Barber
 State: Kansas

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 County: Barber
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Location: API #: 15-007-24485-00-00
 NE SW NE SW
 1760 FSL & 1850 FWL
 SEC 15 TWP 30S RGE 15W
 Permanent Datum: Ground Level
 Log Measured From: Kelly Bushing
 Drilling Measured From: Kelly Bushing
 Elevation: C/NL/CDL DIL
 Other Services: Elevation K.B. 1870 D.F. G.L. 1865

Date	12/09/2023
Run Number	One
Depth Driller	4741
Depth Logger	4738
Bottom Logged Interval	4737
Top Log Interval	250
Casing Driller	8:625 @ 259
Casing Logger	254
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	2800
Density / Viscosity	8.7 49
pH / Fluid Loss	9.5 9.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.85 @ 68
Rmt @ Meas. Temp	0.64 @ 8
Rmc @ Meas. Temp	1.15 @ 68
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.47 @ 123
Operating Rig Time	3 Hours
Max Rec. Temp. F	123
Equipment Number	P-108
Location	HAYS
Recorded By	Justin Trout
Witnessed By	Eli Felts

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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.

Croft, Ks South to 110th,
 1 East, South and East 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		This Log Record Was Witnessed By	
Engineer: Justin Trout	Operator:	Primary Witness: Eli Felts	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Core	Offset (ft)	Depth	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.23		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	37.13 36.38		CNT-M&W (210)	5.00	3.50	100.00
			MWLith-STEP LITHO Short (701-01)	8.40	5.00	250.00
LCAL	28.21					
LLW8N	28.21					
LLW7N	28.21					
LLW6N	28.21					
LLW5N	28.21					
LLW4N	28.21					
LLW3N	28.21					
LLW2N	28.21		ML-PSI STKBL ML (402)	7.58	4.00	65.00
LLW1N	28.21					
LSLOCK	27.96					
LLLOCK	27.96					
PELTMPR	27.96					
LSHVNG	27.96					
LLHVNG	27.96					
LSW8N	27.71					
LSW7N	27.71					
LSW6N	27.71					
LSW5N	27.71					
LSW4N	27.71					
LSW3N	27.71					
LSW2N	27.71					
LSW1N	27.71					
MCAL	19.58		DIL-M&W (504 HT)	18.25	3.50	220.00
MI	19.58					
MN	19.58					
RLL3F	15.50					
RLL3	15.50					
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: cambell energy_jpc #2.db: field/STKML/run1/pass4.1
 Total length: 42.23 ft
 Total weight: 685.00 lb
 O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\cambell energy_jpc #2.db
 Dataset field/STKML/run1/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	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	4	476	0	Off	4738

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



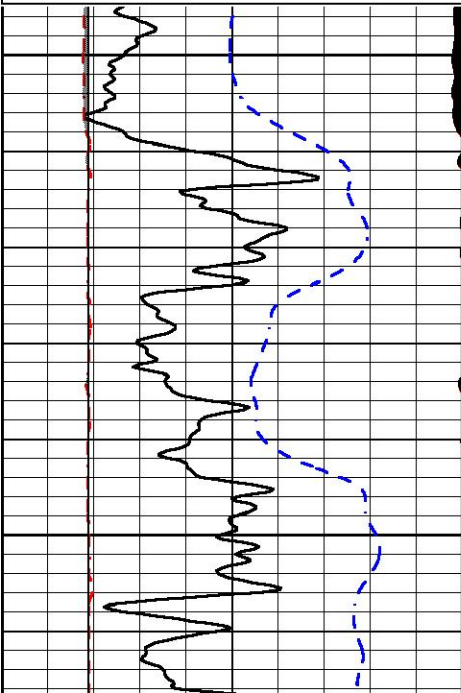
DETAIL SECTION

MAIN PASS

Database File cambell energy_jpc #2.db
 Dataset Pathname STKML/run1/pass4.1
 Presentation Format _micro
 Dataset Creation Sat Dec 09 20:48:02 2023
 Charted by Depth in Feet scaled 1:240

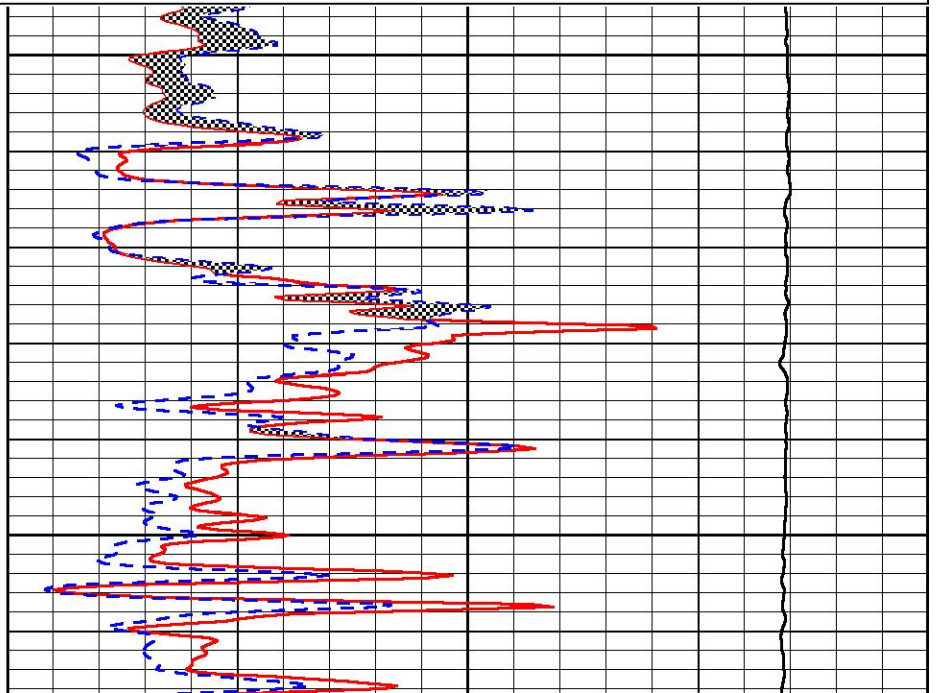
0	Gamma Ray (GAPI)	150
6	Micro Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

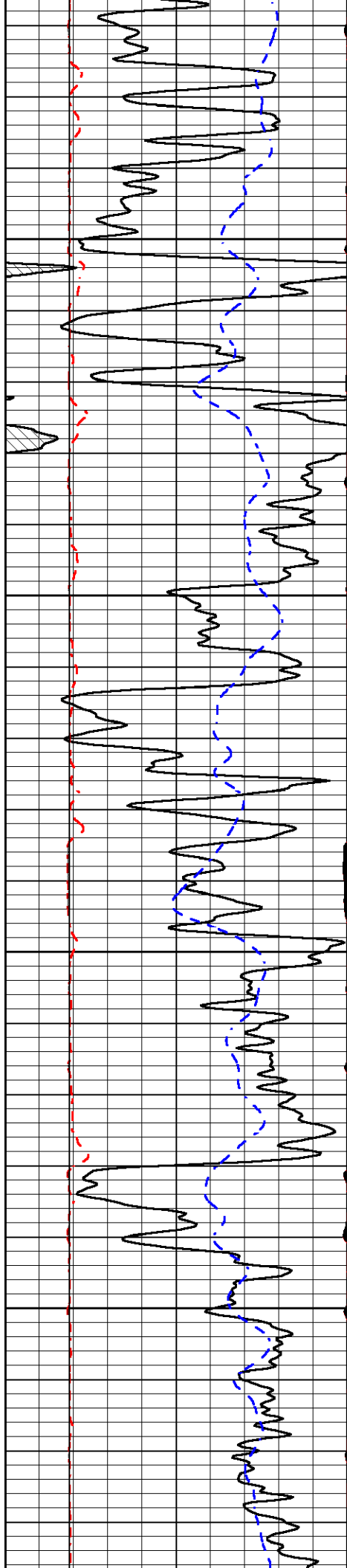
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2800

2850



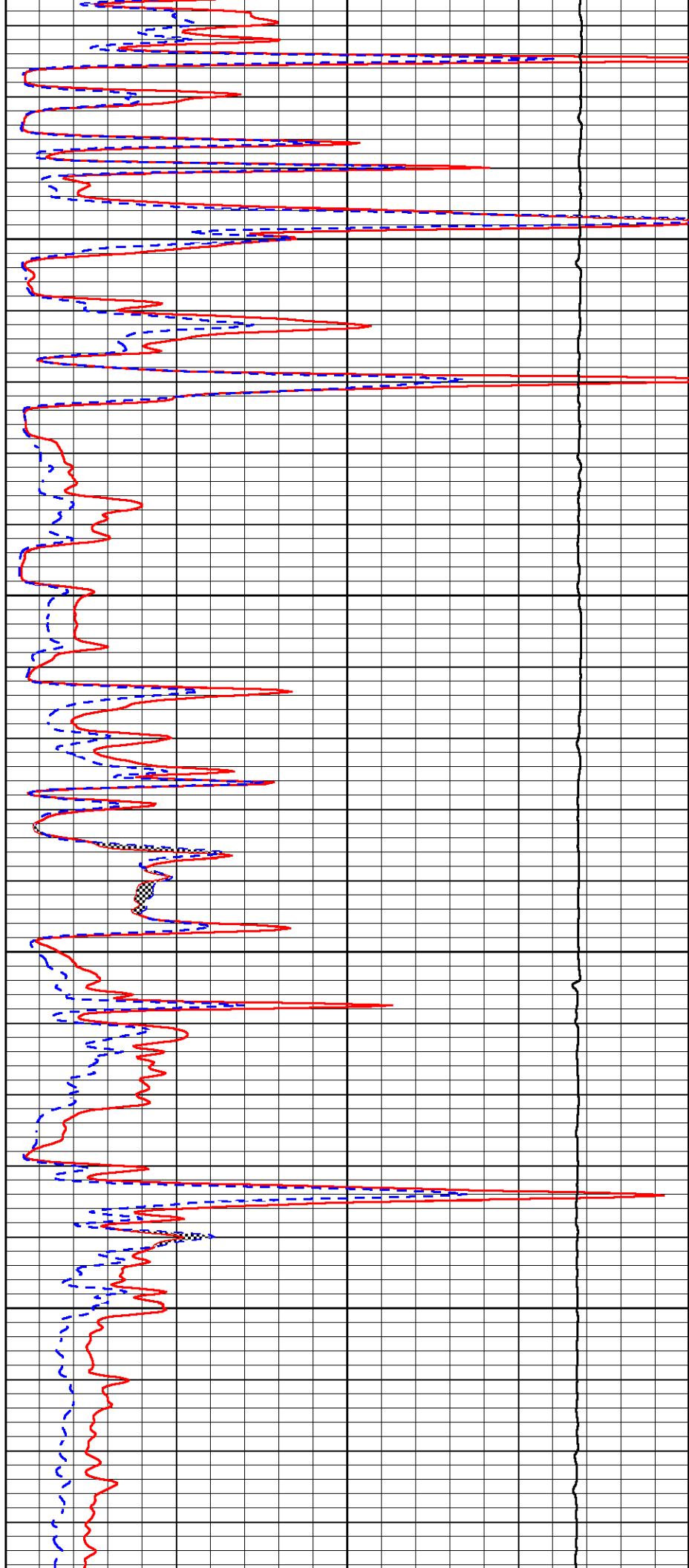


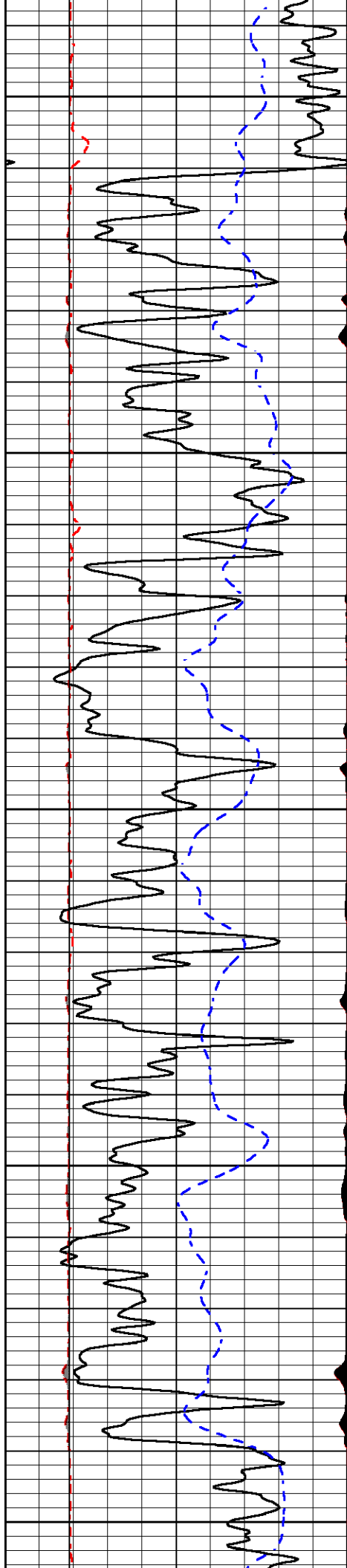
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2950

3000

3050





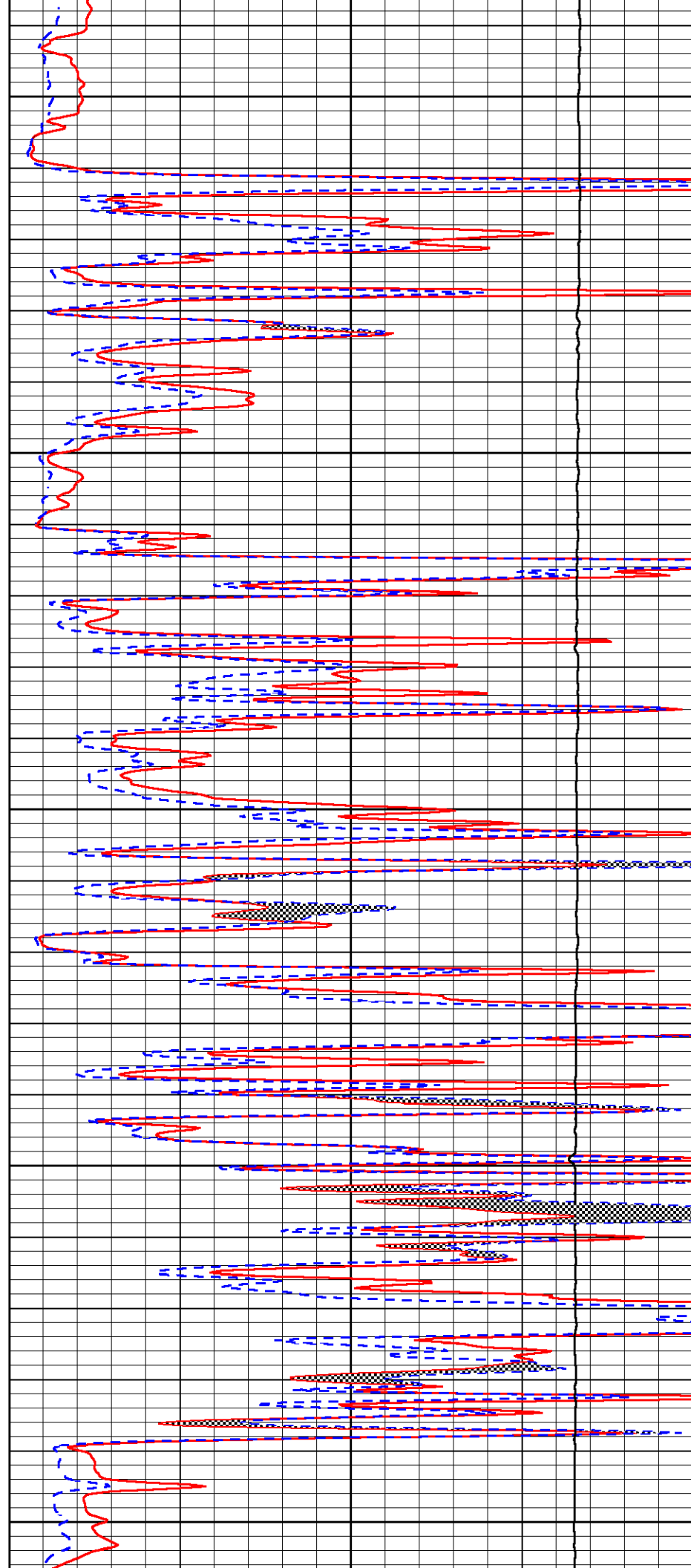
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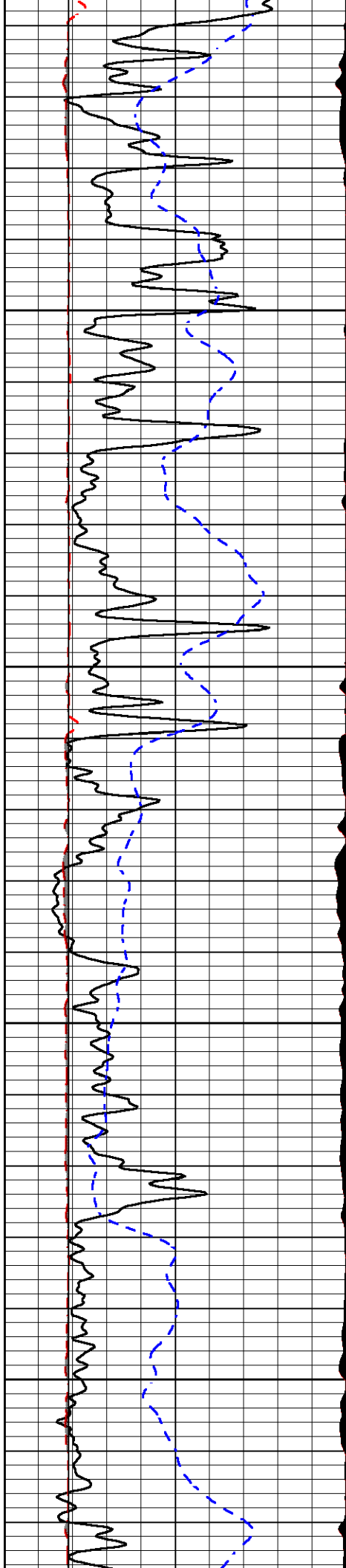
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3200

3250

3300



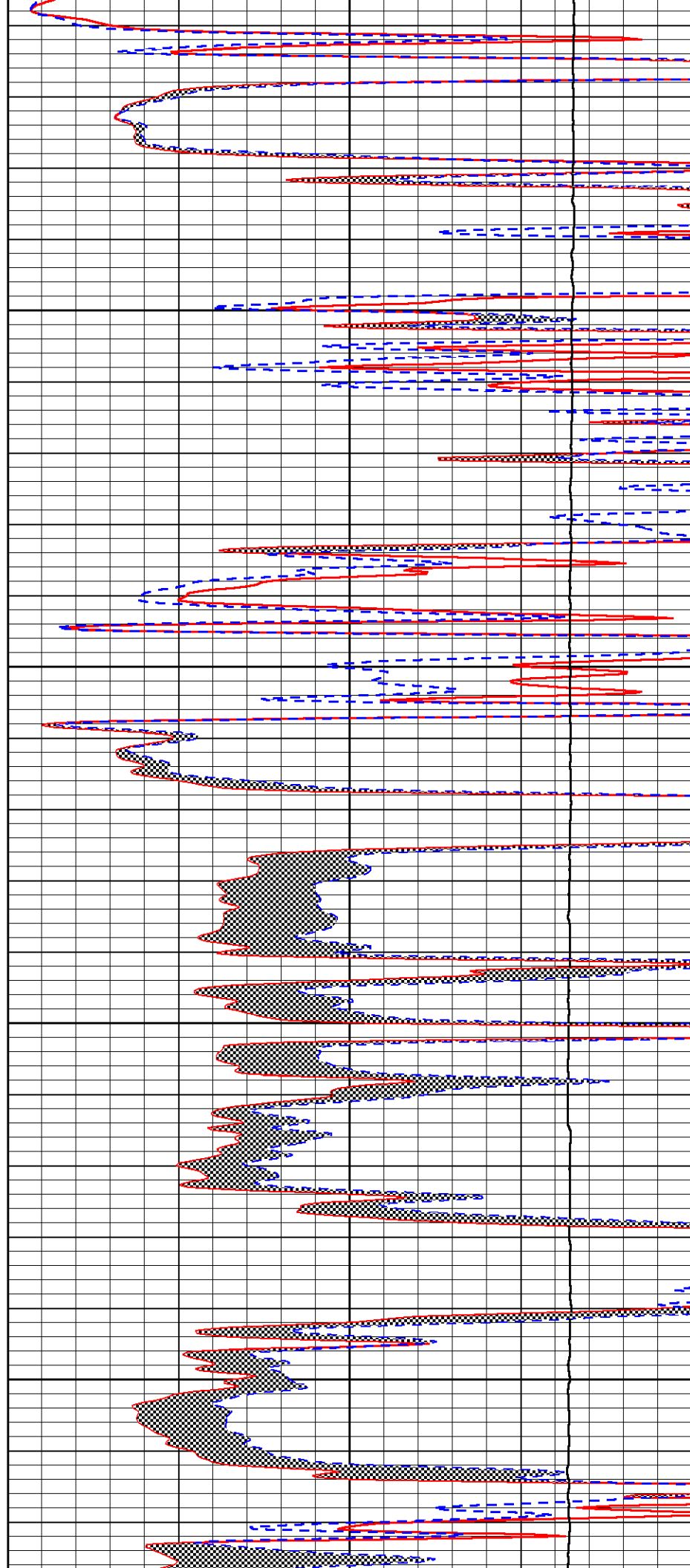


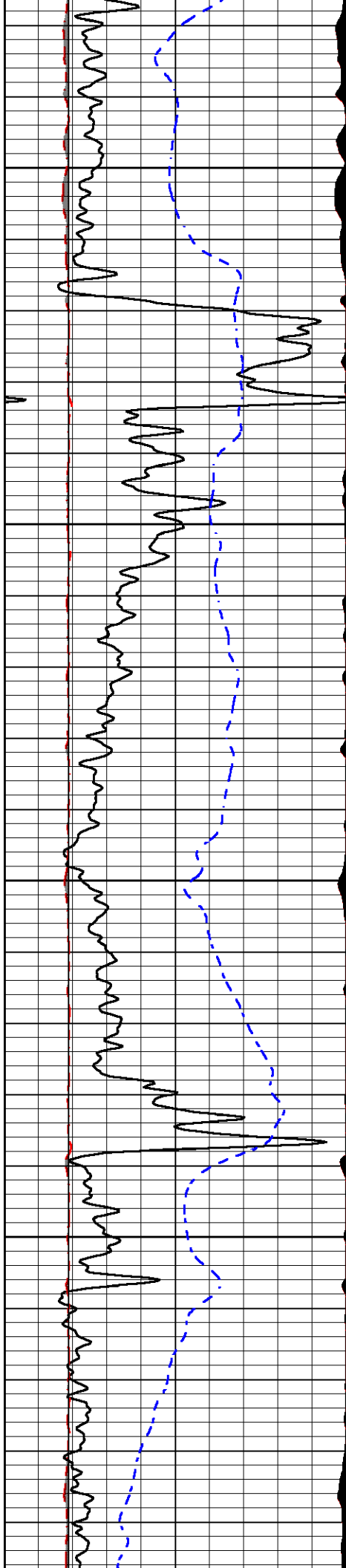
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3500



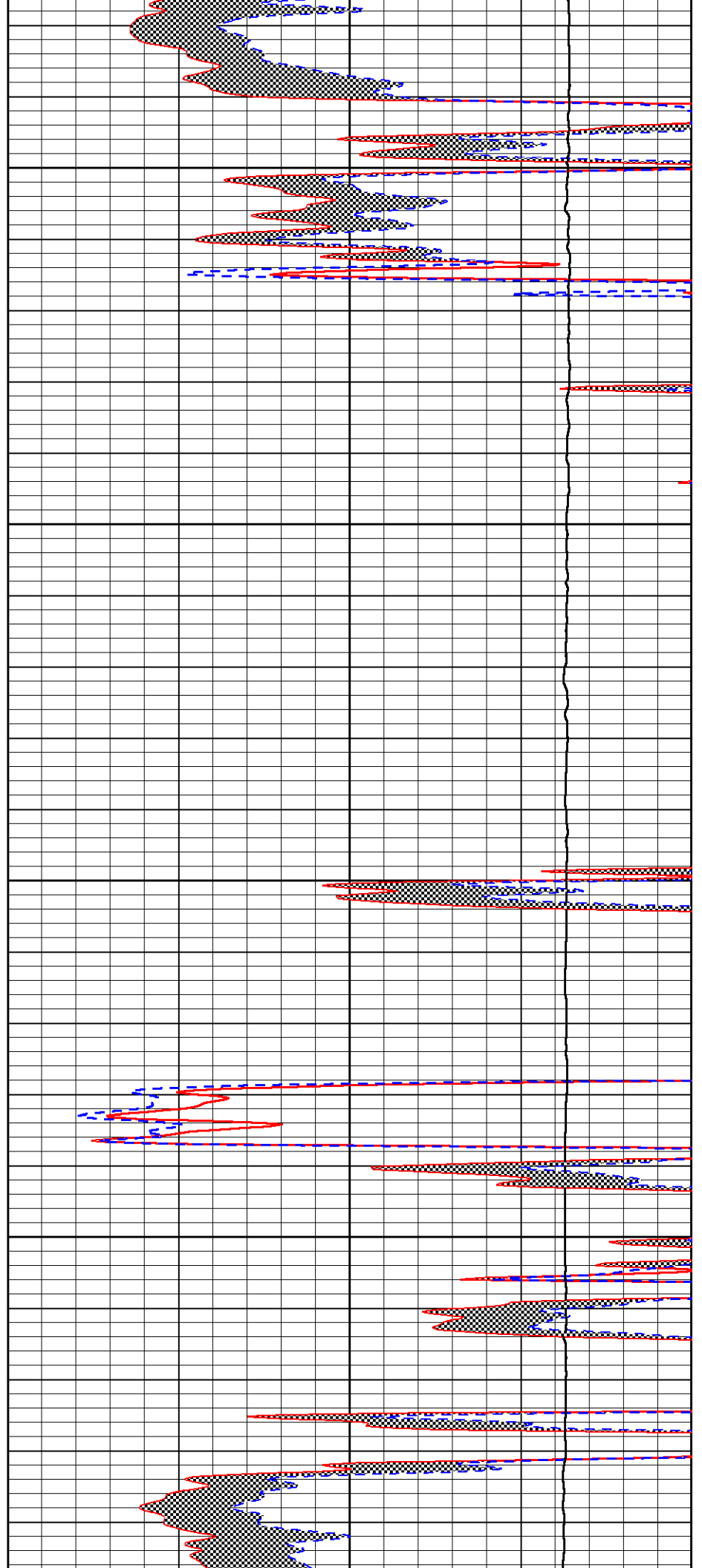


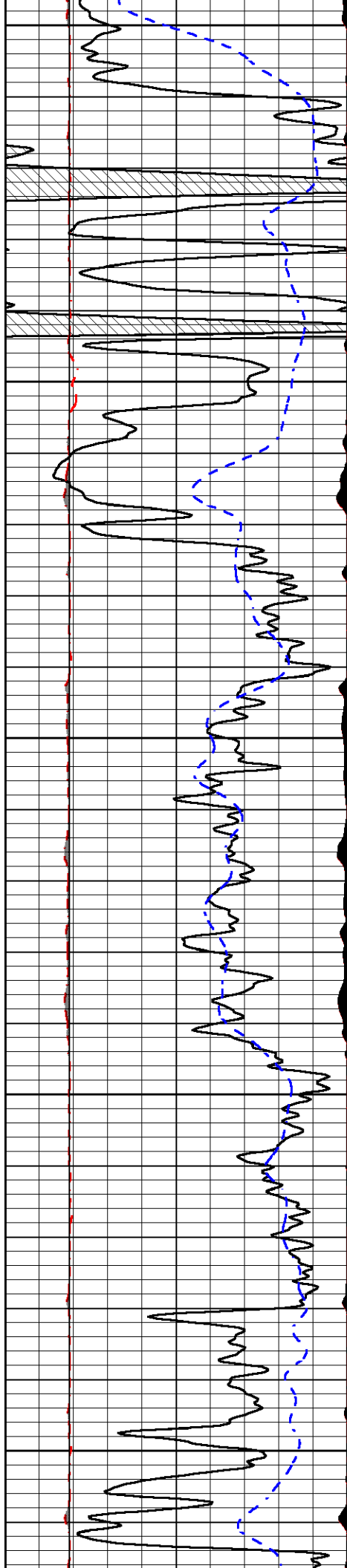
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3700





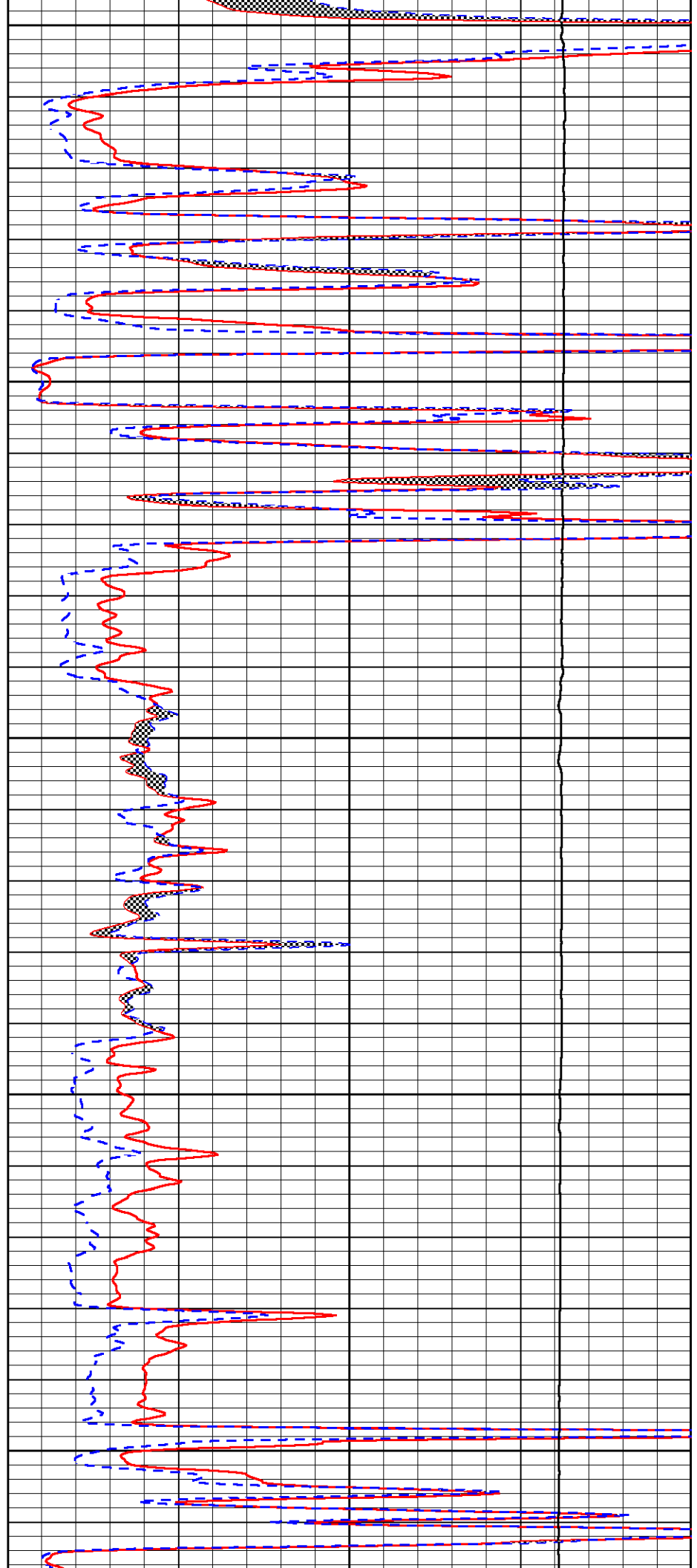
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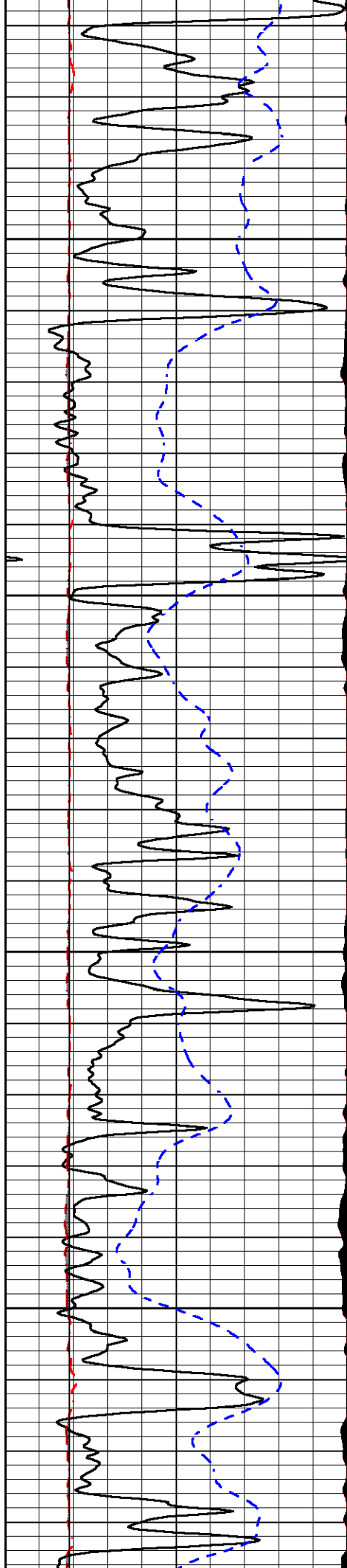
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3850

3900

3950



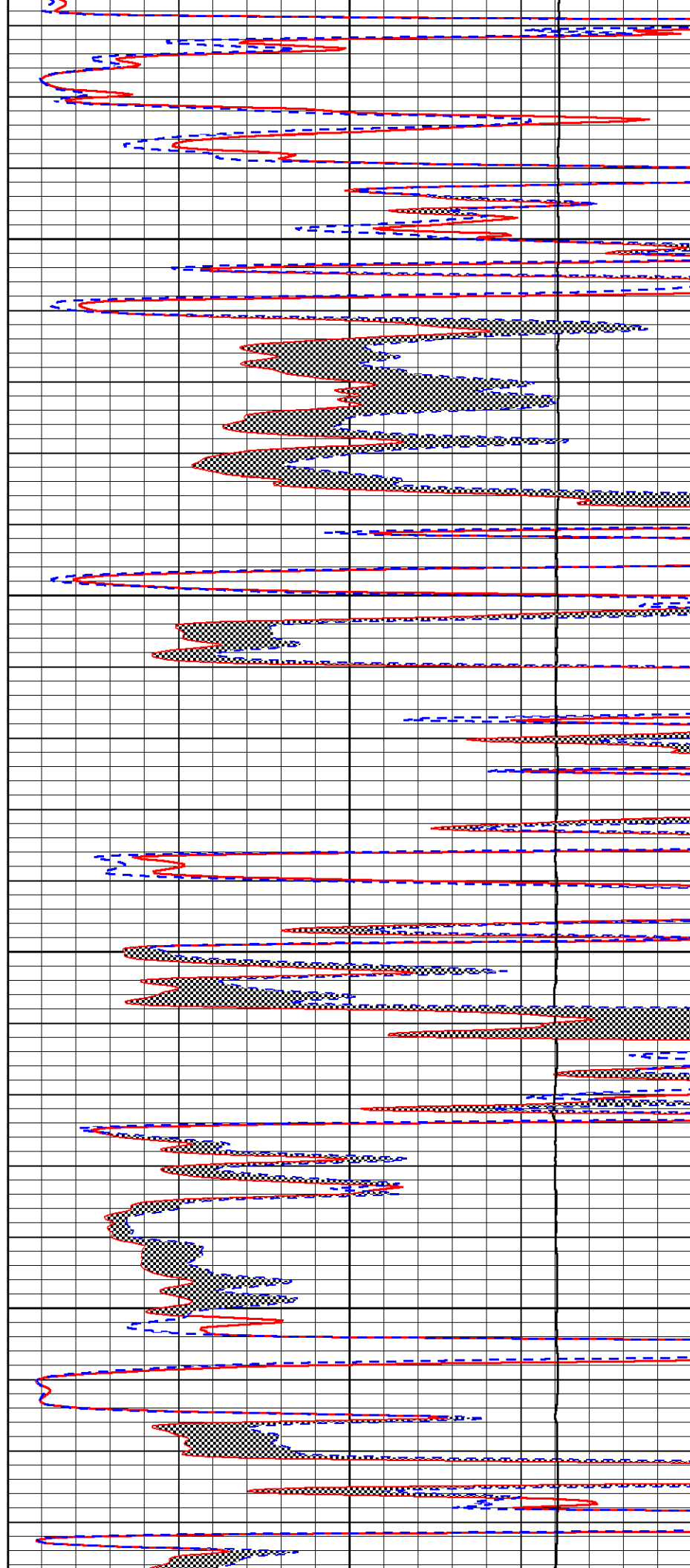


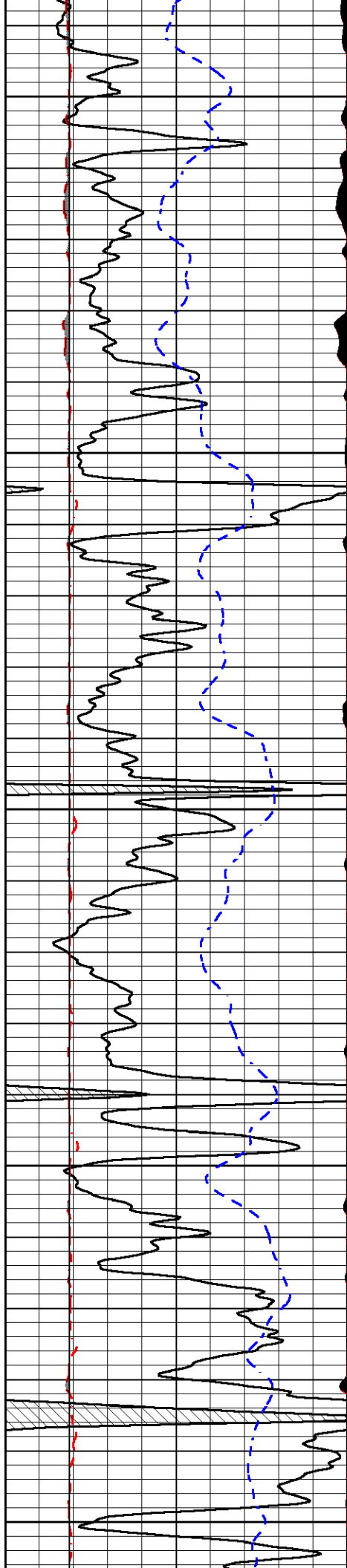
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4050

4100

4150





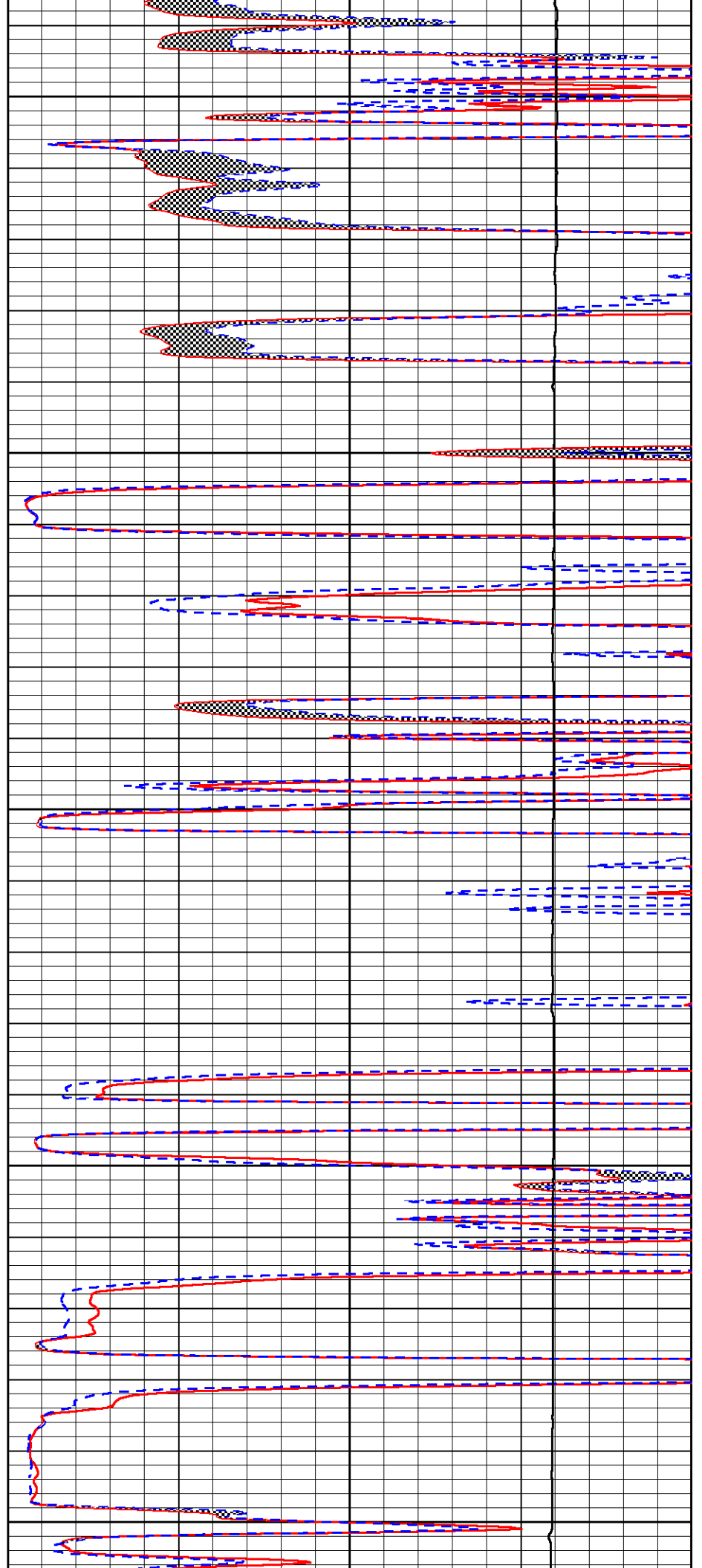
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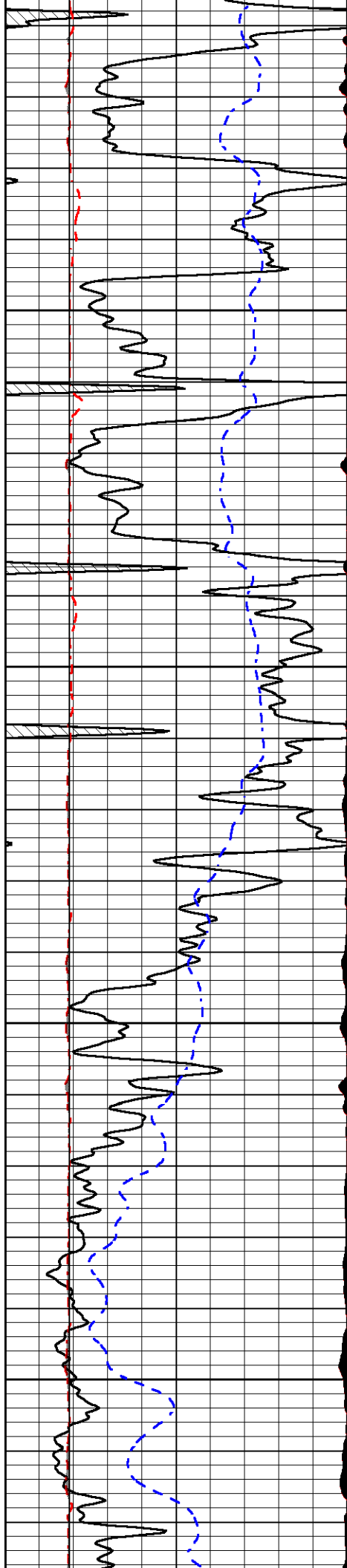
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4300

4350

4400



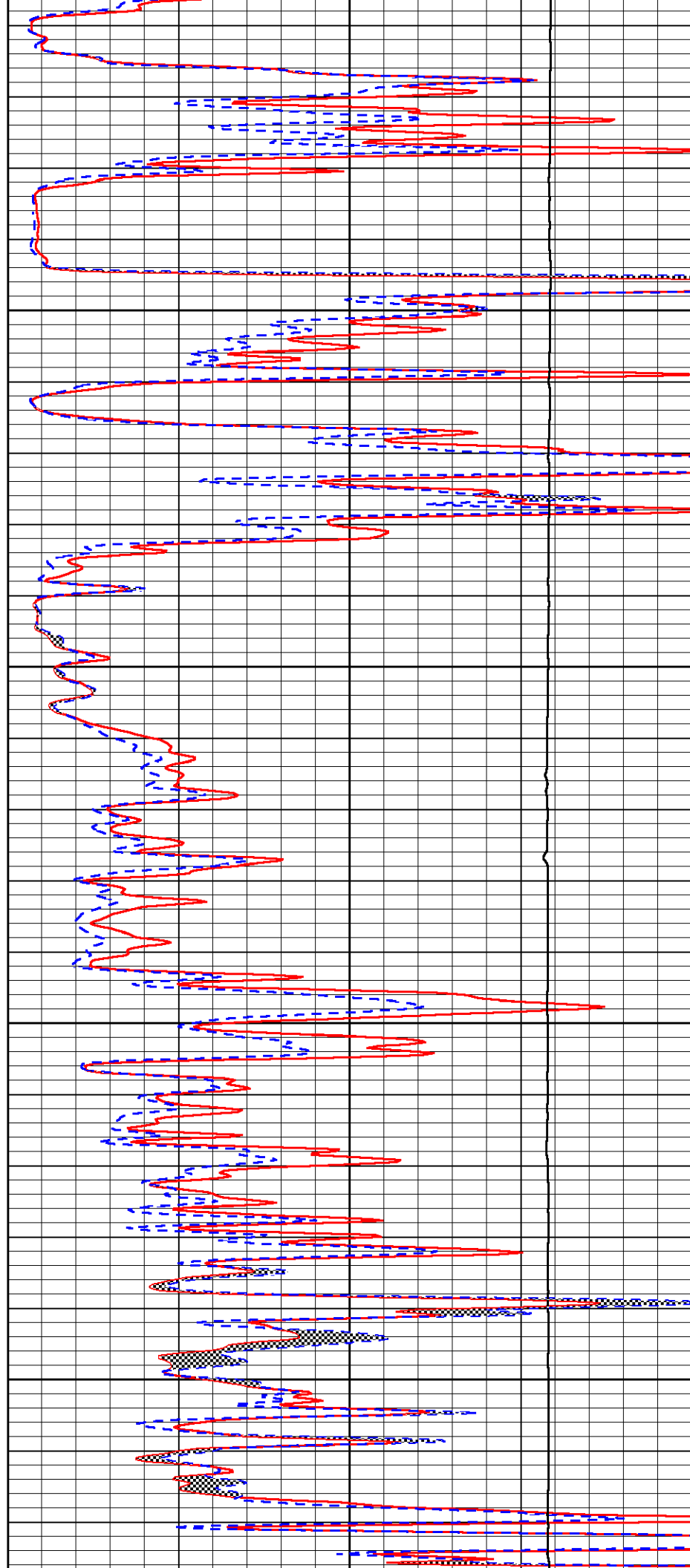


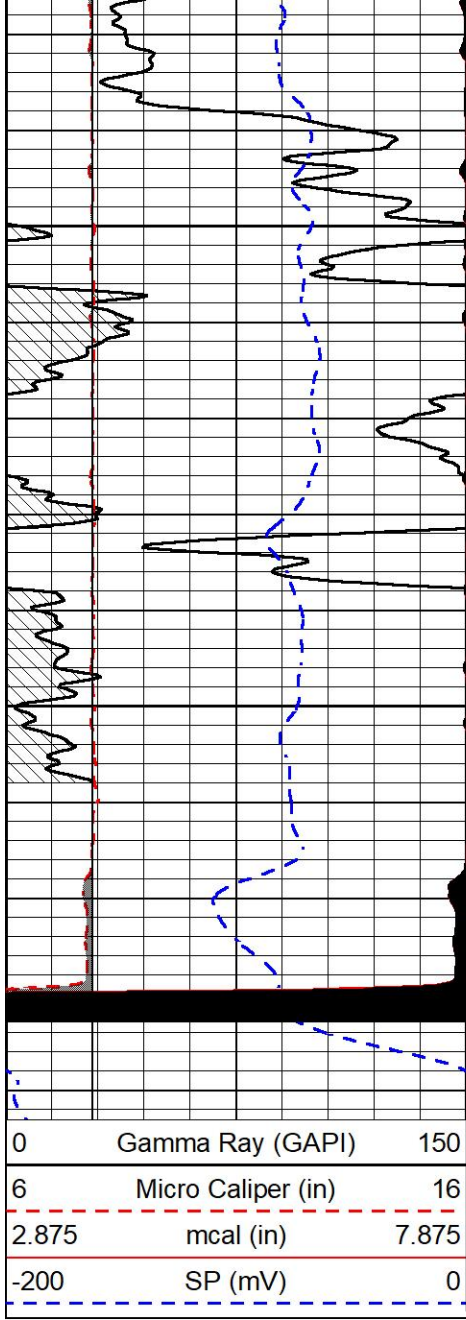
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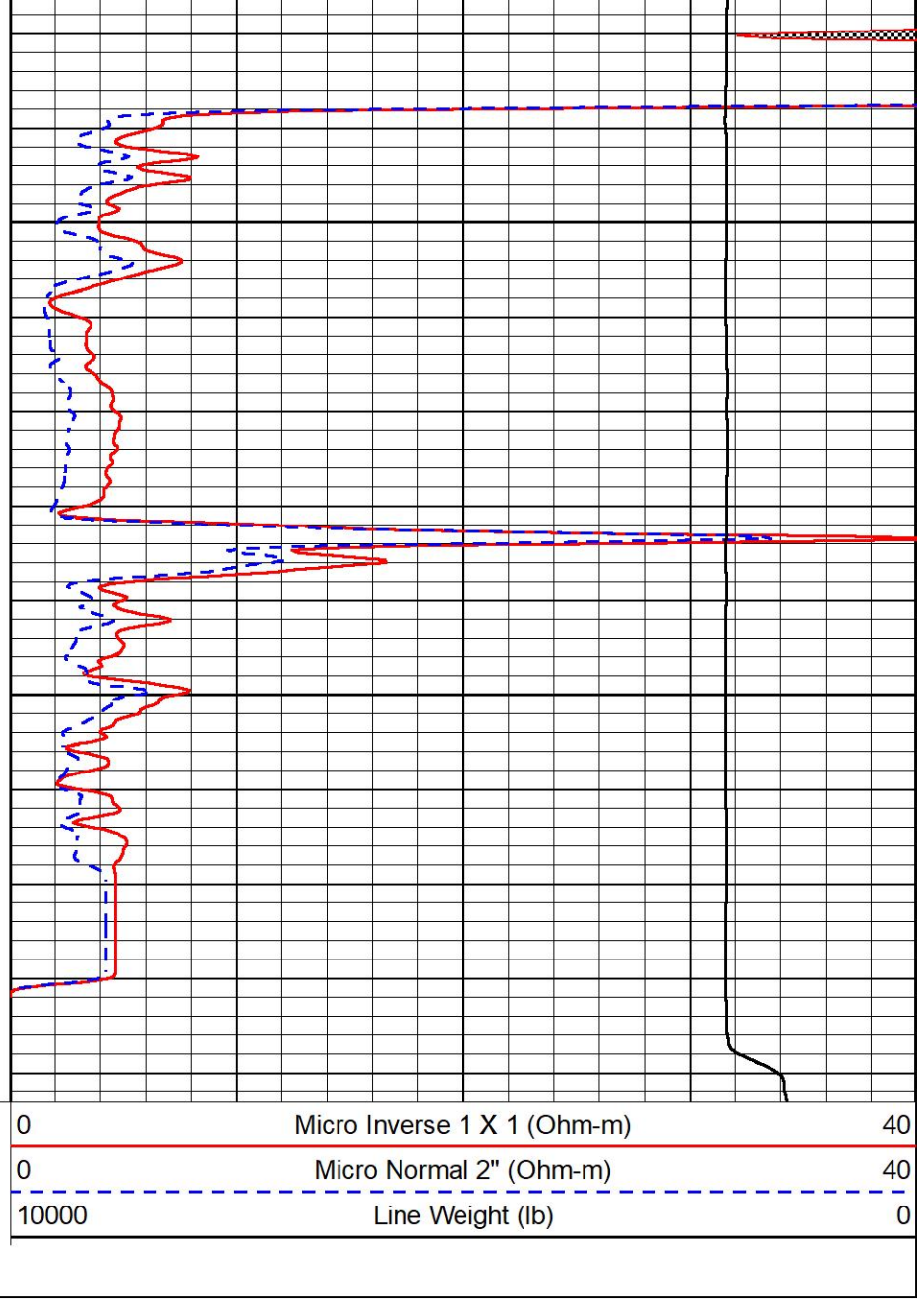
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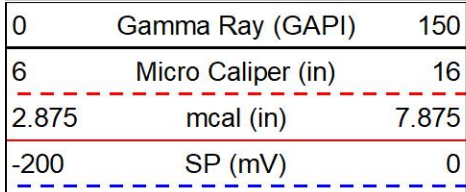
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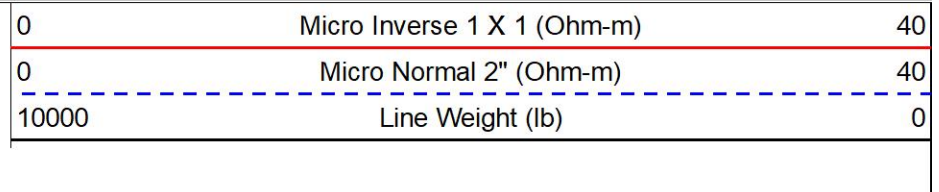
REPEAT SECTION

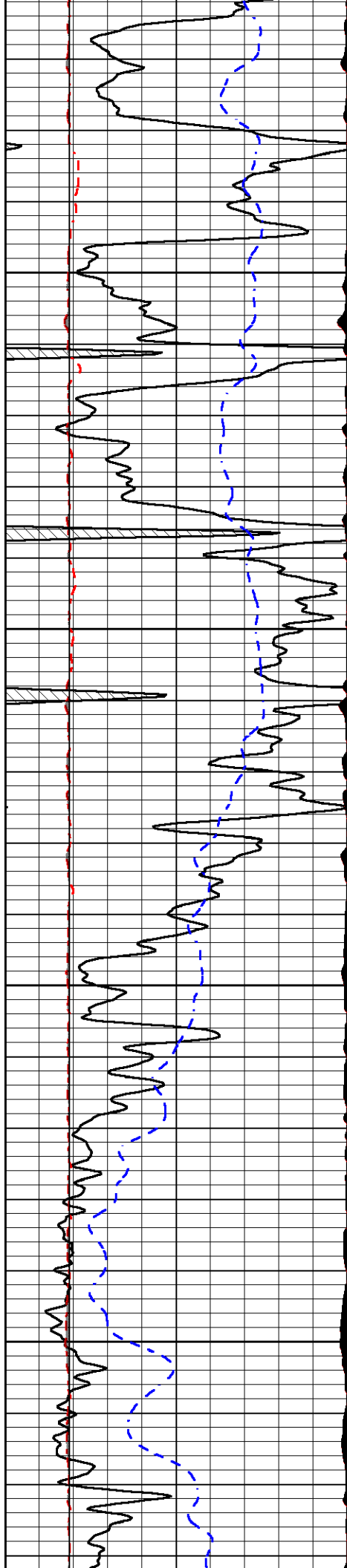
REPEAT PASS

Database File cambell energy_jpc #2.db
 Dataset Pathname STKML/run1/pass2.1
 Presentation Format _micro
 Dataset Creation Sat Dec 09 20:18:35 2023
 Charted by Depth in Feet scaled 1:240



4400



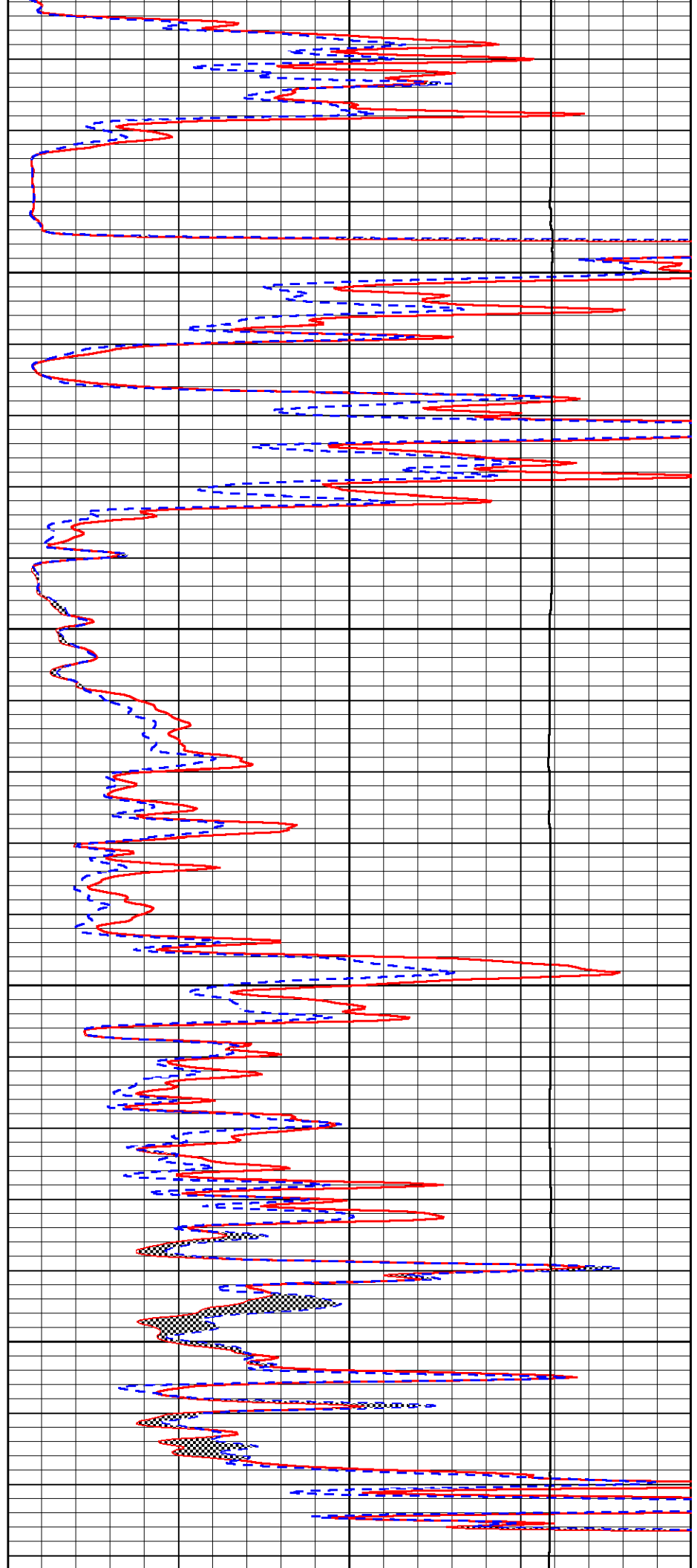


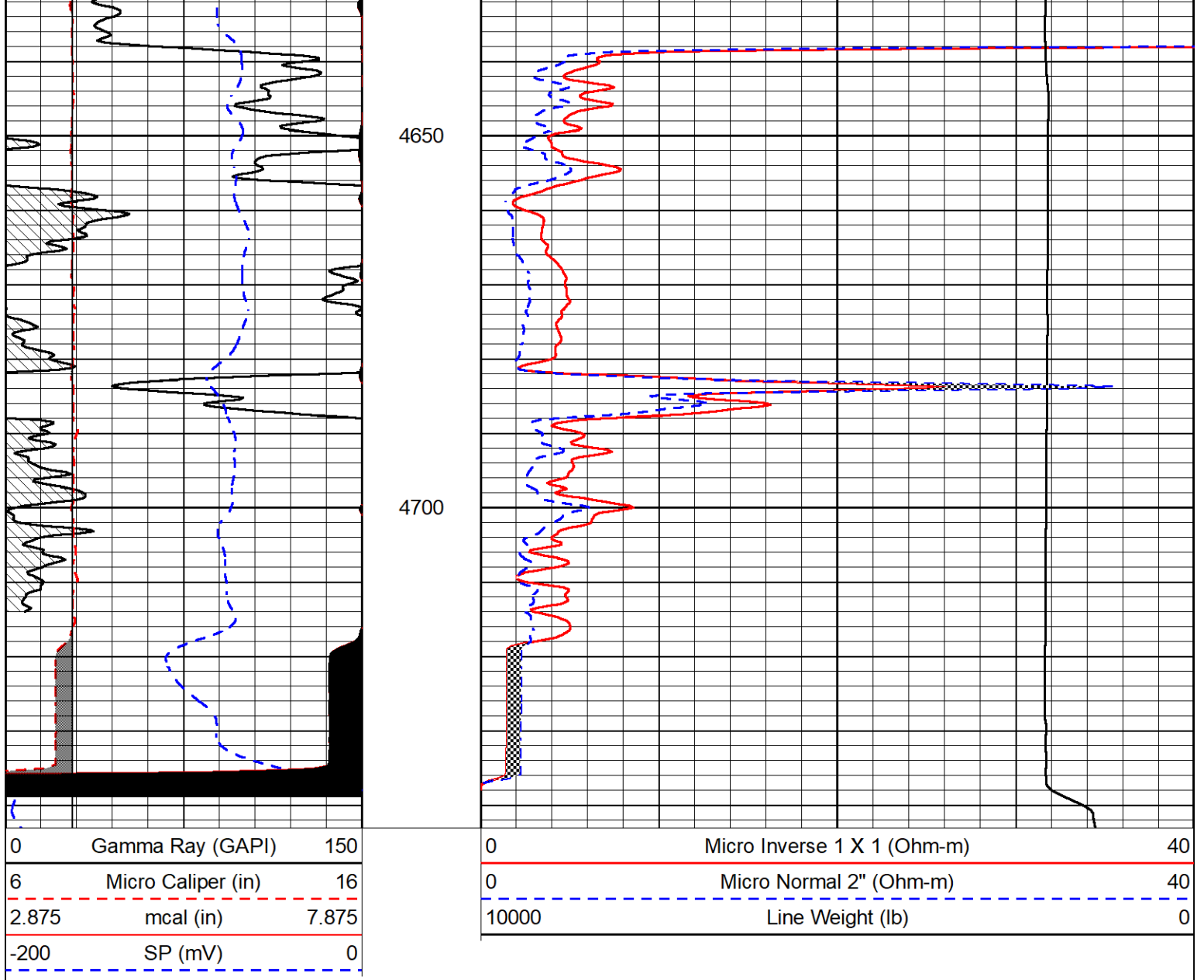
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4500

4550

4600





Calibration Report

Database File: cambell energy_jpc #2.db
 Dataset Pathname: STKML/run1/pass4.1
 Dataset Creation: Sat Dec 09 20:48:02 2023

Dual Induction Calibration Report

Serial-Model: 504 HT-M&W
 Surface Cal Performed: Wed Jun 7 06:28:44 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	1.100	-4.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.750	-35.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Sat Dec 2 02:32:23 2023

Readings	References	Results
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	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	16000.0000	-0.2000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	17000.0000	0.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5250

LITHODENSITY Calibration Report

Serial Number: 701-01
Tool Model: STEP LITHO Short
Performed: Wed Nov 8 15:09:59 2023

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	52	54	204	252	23	67	44	1	cps
LS:	78	87	326	426	46	135	86	3	cps

Aluminum:									
SS:	790	958	2239	2075	45	71	45	2	cps
LS:	877	1656	3109	1518	56	132	85	4	cps

Magnesium:									
SS:	1295	1558	3653	2988	50	71	47	3	cps
LS:	3705	6851	12249	4886	93	127	85	12	cps

Aluminum+Iron:									
SS:	500	668	1858	1761	40	72	47	2	cps
LS:	514	1150	2612	1334	53	134	84	4	cps

	Density Actual	Calibrated	PE Actual	Calibrated	Quality	
Background:						
SS:					0.209	
LS:					0.223	
Aluminum:						
SS:	2.6000	2.6000	g/cc		0.229	
LS:	2.6000	2.6000	g/cc		0.218	
Magnesium:						
SS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.203
LS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.195
Aluminum+Iron:						
SS:				6.1800	0.207	
LS:				6.1800	0.229	

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	100.0
Large Ring:	16.0 in	400.0
Gain:	14.000	
Offset:	2.060	

Compensated Neutron Calibration Report

Serial Number: 210
Tool Model: M&W

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 105
Tool Model: M&W
Performed: Sat Oct 21 23:48:19 2023

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.6000 GAPI/cps



Company Cambell Energy LLC
Well JPC #2
Field Turkey Creek East
County Barber
State Kansas