

STEP

BOREHOLE COMPENSATED
SONIC LOG

energy services

Company Well Field County State Country API No.		CASILLAS PETROLEUM CORP HAMKER #20-3 LETTE HASKELL KANSAS USA 15-081-22204-00-00	
File No Company Well Field County State Country API No		HAYS-70387 CASILLAS PETROLEUM CORP HAMKER #20-3 LETTE HASKELL KANSAS USA 15-081-22204-00-00	
Location : 1420' FSL & 660' FWL S/2 S/2 NW SW			
LSD :		Sect : 20	Twp : 30S
		Rge : 31W	
Permanent Datum: Drilling Measured From: Log Measured From: Above Permanent Datum:	GL KB KB 0.00 Ft	Elevations: KB 2858.00 DF 2857.00 GL 2846.00	Services: CNT LDT PIT
Date	12-07-2019		
Run Number	1		
Depth--Driller	5721.0 Ft		
Depth--Logger	5716.0 Ft		
First Reading	5692.0 Ft		
Last Reading	1832.0 Ft		
Casing--Driller	1823.0 Ft		
Casing--Logger	1826.0 Ft		
Bit Size	7.875 In		
Casing Size	8.625 In		
Hole Fluid Type	WBM		
Density	9.3		
Fluid Loss	4.6		
PH/Viscosity	11.0	57.0	
Sample Source	MEASURED		
RM@Measured Temp.	2.000 @ 60 F		
RMF@Measured Temp.	0.850 @ 60 F		
RMC@Measured Temp.	1.150 @ 60 F		
Source RMF/RMC	CALCULATED	CALCULATED	
RM@BHT	1.000 @ 125 F		
Time Circulation Stopped	12-07-2019 03:00		
Max Recorded Temp.	125	F	
Equipment/Base	TRK-137	HAYS	
Recorded By	B.BAILEY		
Witnessed By	DAVID		

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by STEP Energy Services personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by STEP Energy Services for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
7.875	5721.00	8.625	32.00	1832.00	0.00

Run Number	1		
Date	12-07-2019		
Date/Time On Bottom	12-07-2019 09:45		
Depth to Fluid	0.0 Ft		
Salinity	0.000		
RMF@BHT	0.850 @ 125 F		
RMC@BHT	1.150 @ 125 F		

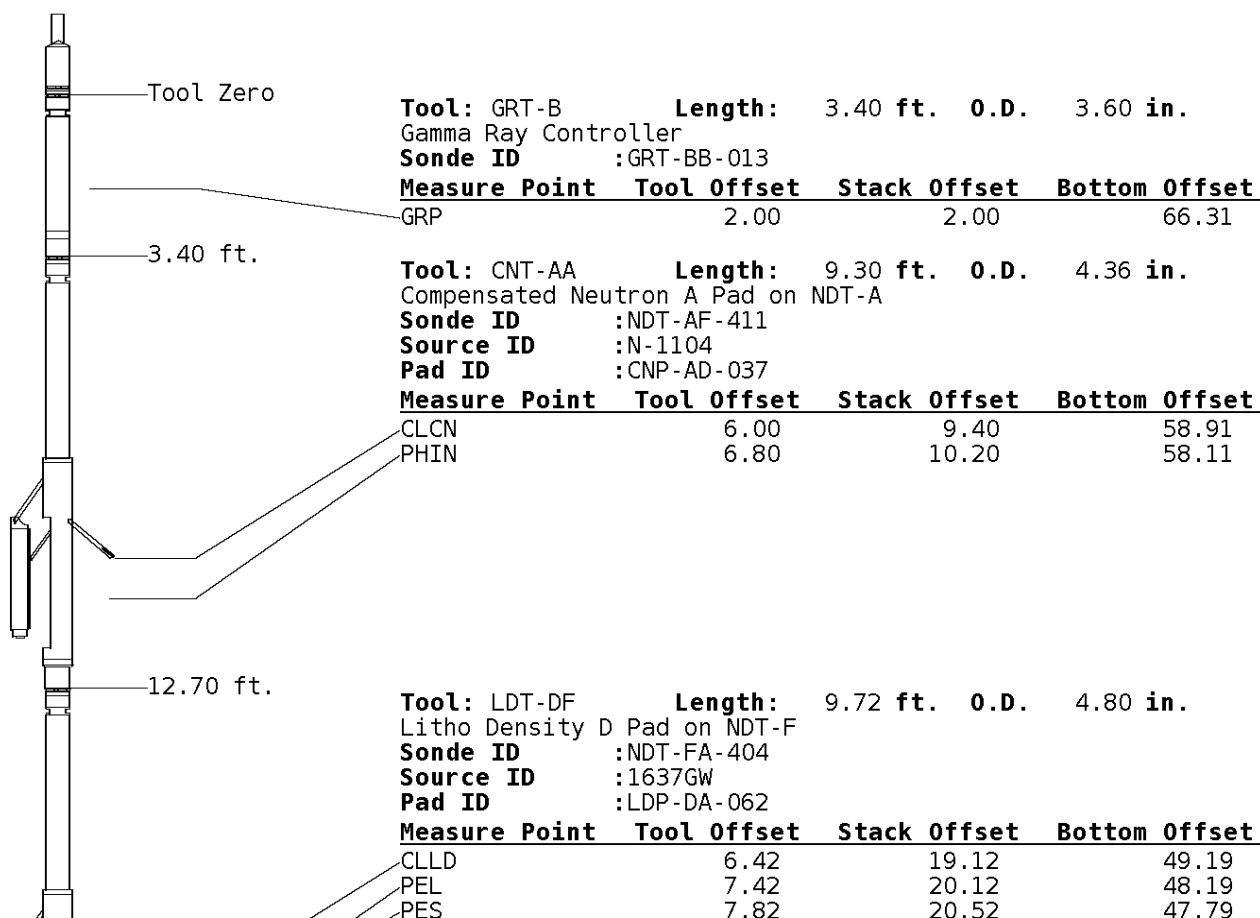
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT, CST, AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

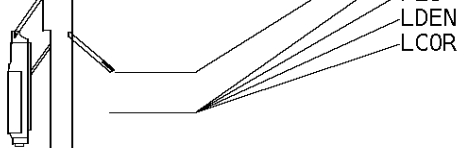
GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
 MLT: NOR_RF, INV_RF, MSCLPIN.
 CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
 PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

Tool String Schematic

Total Tool Length - 68.31 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 1171.00 lbs.



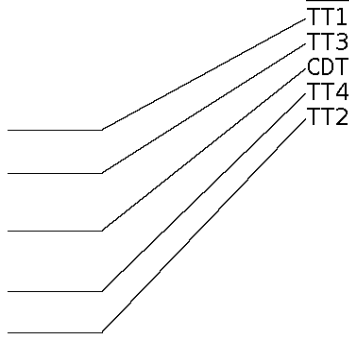


LDEN	7.62	20.32	47.99
LCOR	7.62	20.32	47.99

22.42 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
Open Hole Sonic
Sonde ID : CST-AB-24

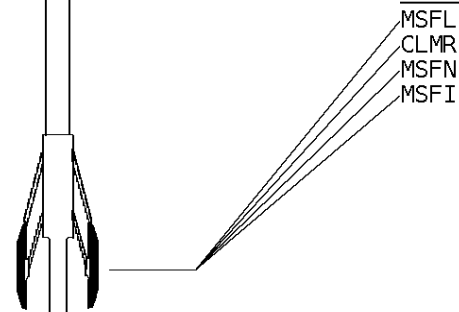
Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	27.22	41.09
TT3	5.80	28.22	40.09
CDT	7.30	29.72	38.59
TT4	8.80	31.22	37.09
TT2	9.80	32.22	36.09



36.22 ft.

Tool: MLT-AB **Length:** 10.60 ft. **O.D.** 6.00 in.
Micro Log Tool
Sonde ID : MLT-012

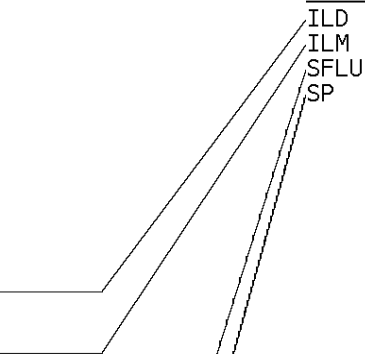
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	8.90	45.12	23.19
CLMR	7.60	43.82	24.49
MSFN	8.90	45.12	23.19
MSFI	8.90	45.12	23.19



46.82 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
Phased Dual Induction w/ RM & D
Sonde ID : PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	55.74	12.56
ILM	10.10	56.92	11.39
SFLU	17.49	64.31	4.00
SP	20.60	67.42	0.88



LWT 68.31 ft.

Well File: casillas hamker 20-3 dec-7-2019_qst

Scale: 1:240

Format: CST-240

Segment: V1.D1.S7 Reprocess MAIN

Acquired: 2019-12/07 11:10 3.4.1-13972

Reference: 0

Processed: 2019-12/07 13:13 3.4.1-13972

NEUTRON (Y) CALIPER
INCHES (IN)

16 26
6 16

DENSITY (X) CALIPER
INCHES (IN)

16 26
6 16

BIT SIZE
INCHES (IN)

6 16

TENSION
LBS

10000 0

GAMMA RAY
API UNITS

150 300
0 150

COMPENSATED SONIC TRAVEL TIME
uSEC/FT

240 140 140 40

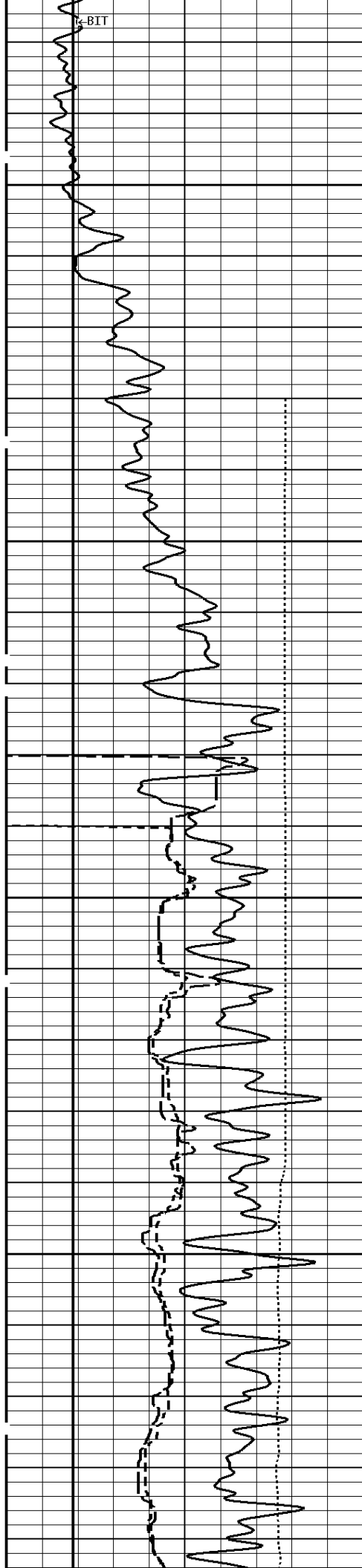
SONIC POROSITY
PERCENT

30 -10

1:240 MAIN SECTION

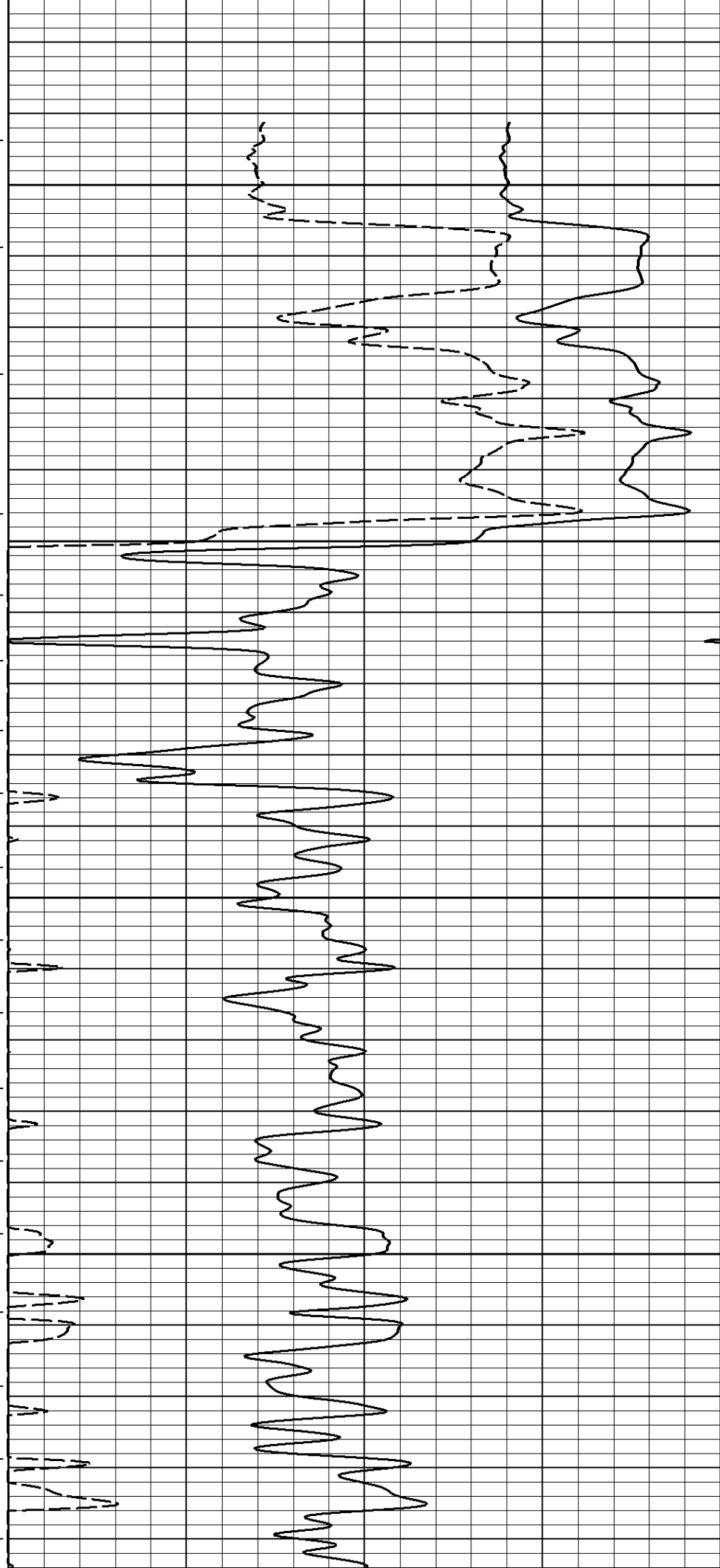
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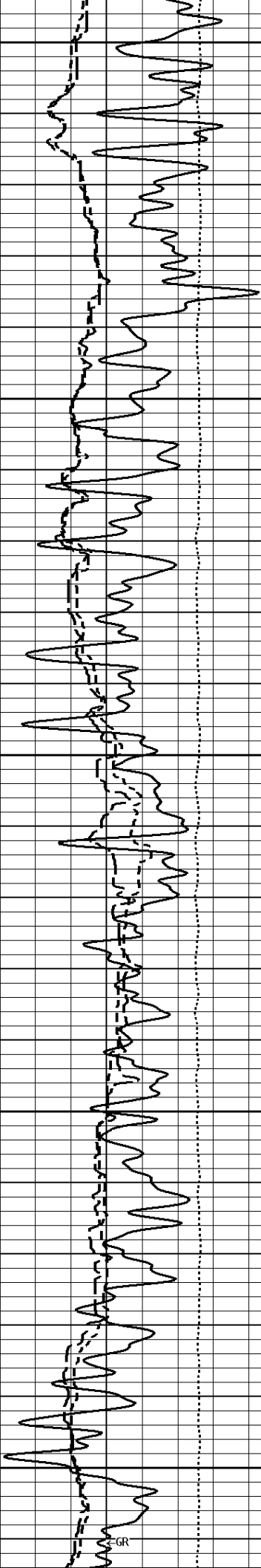
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1800

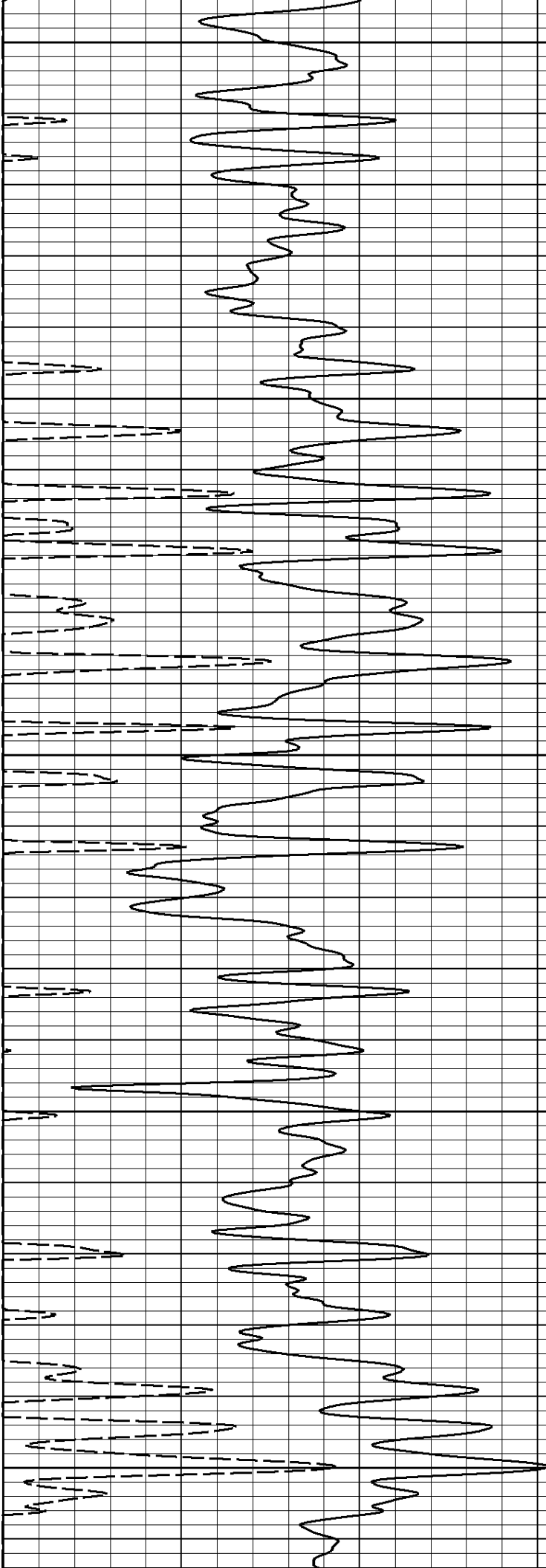
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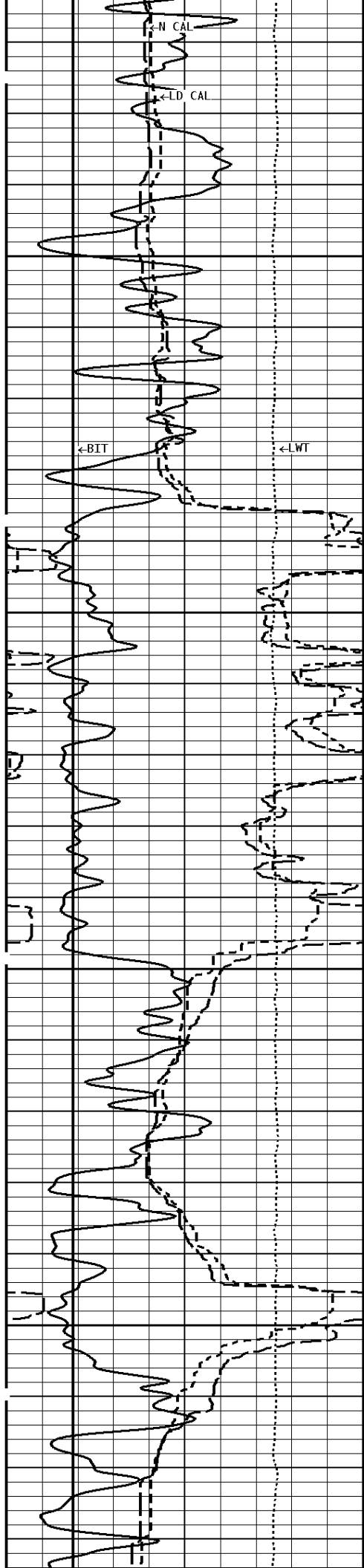




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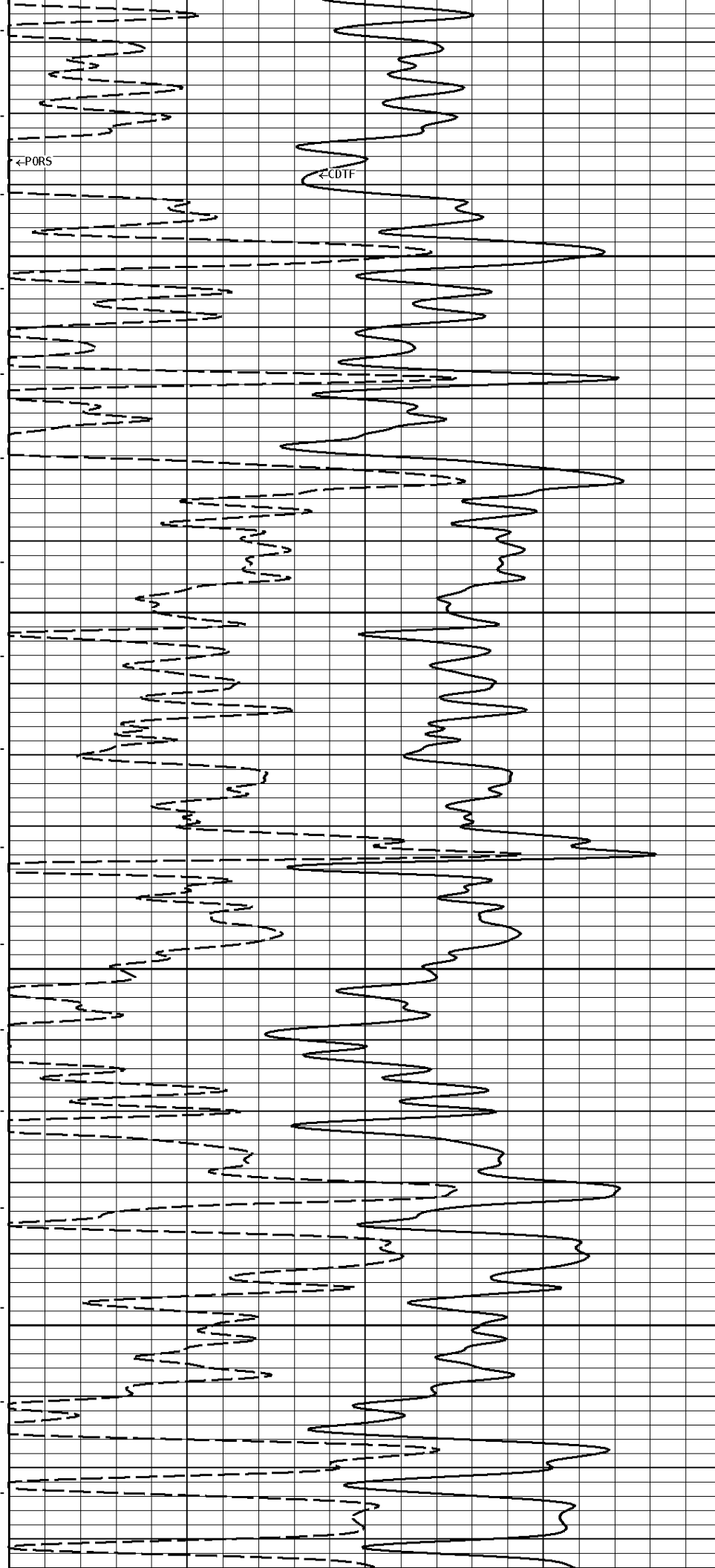
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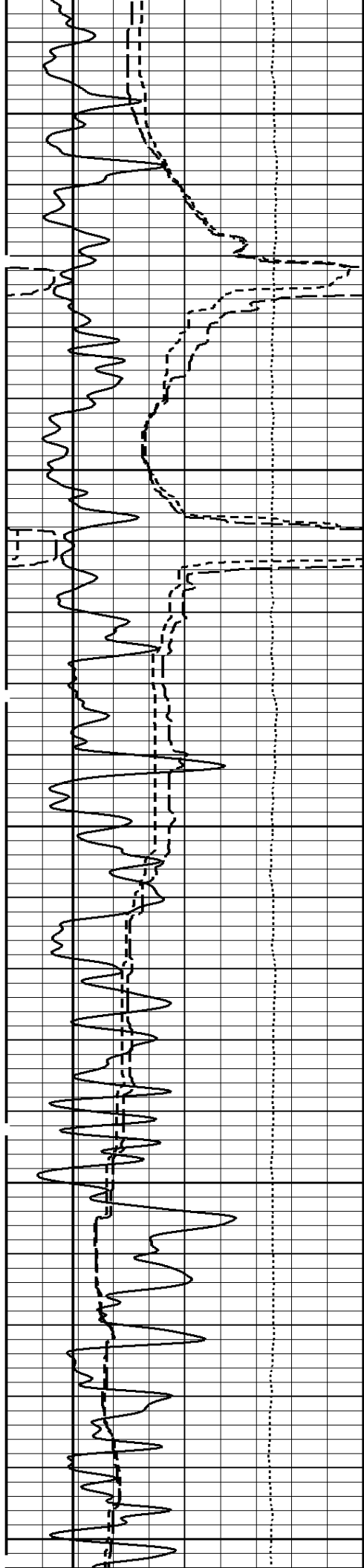




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2300

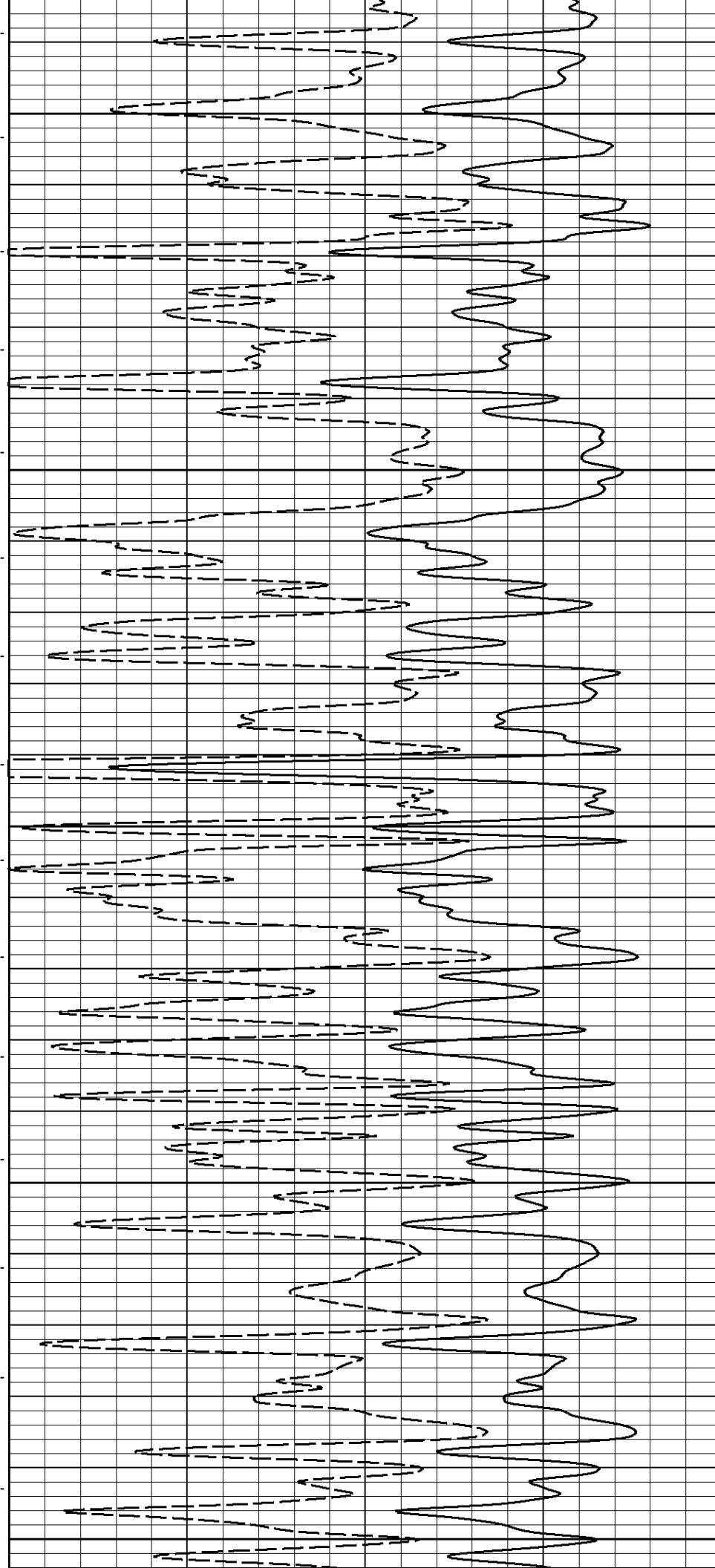


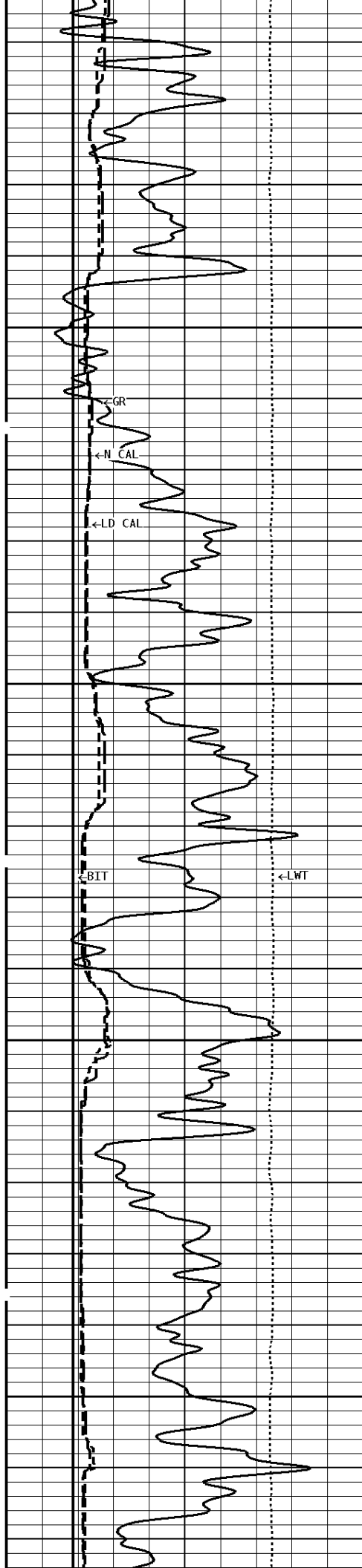


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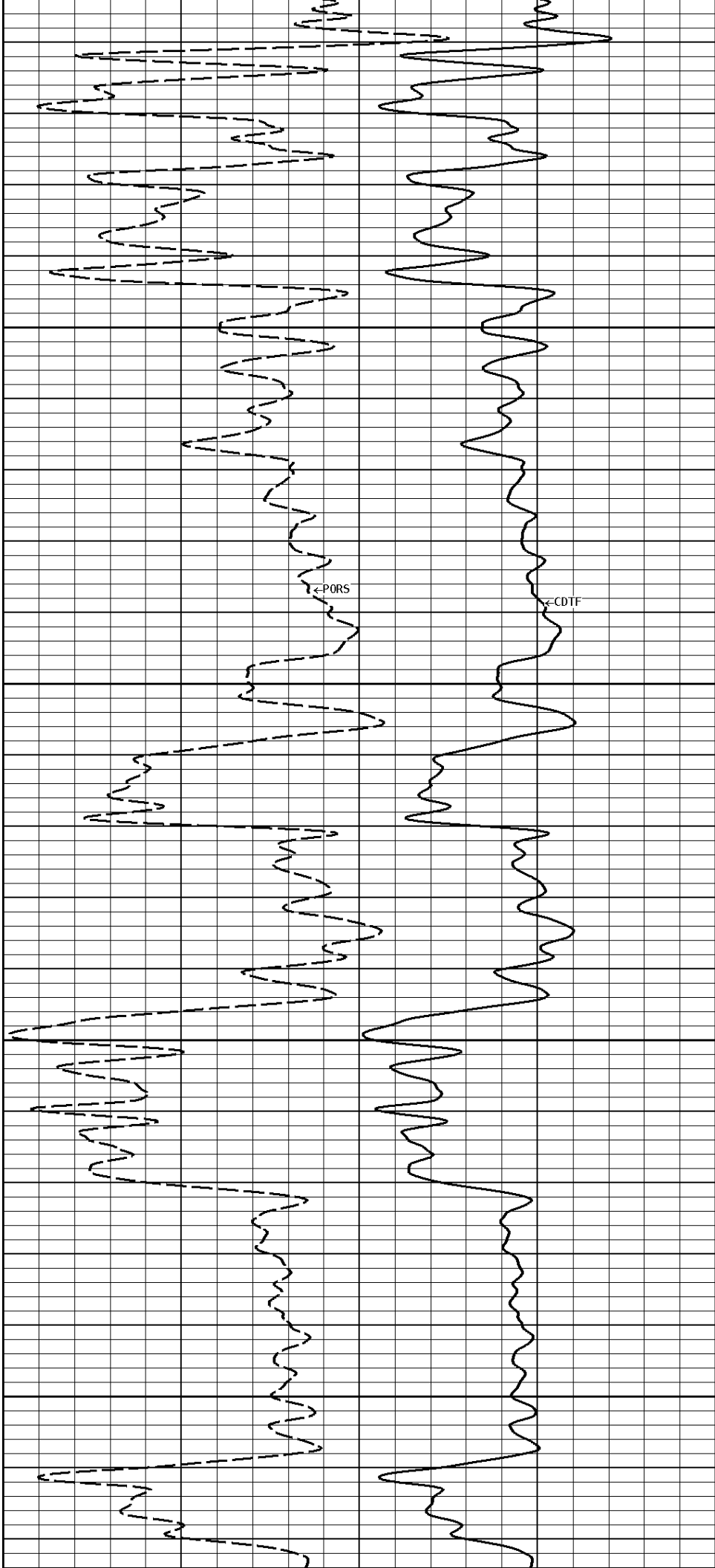
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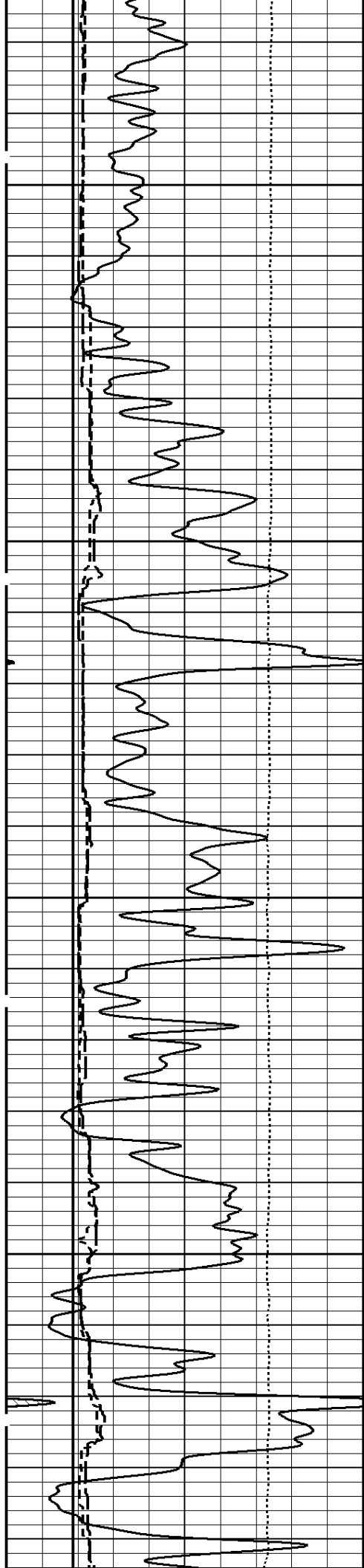




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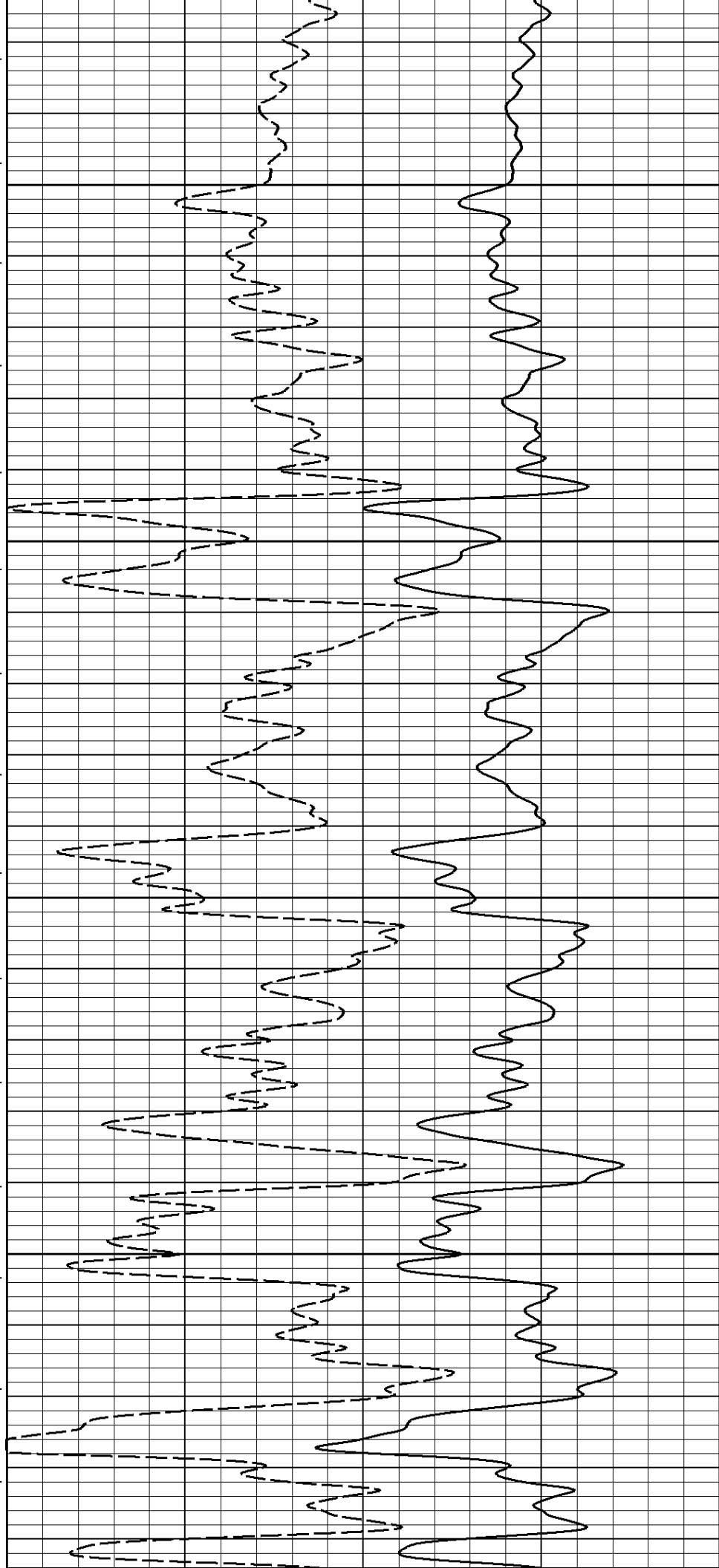
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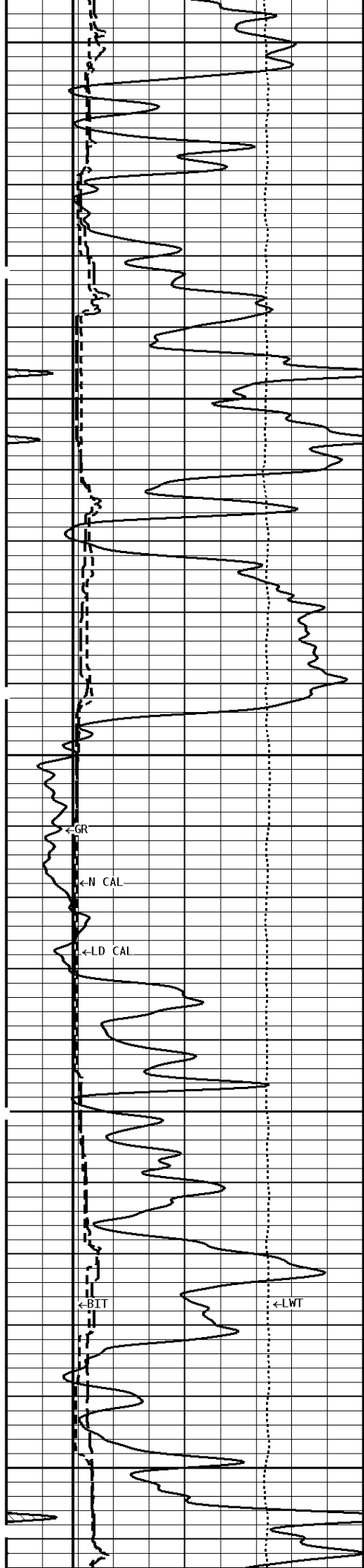




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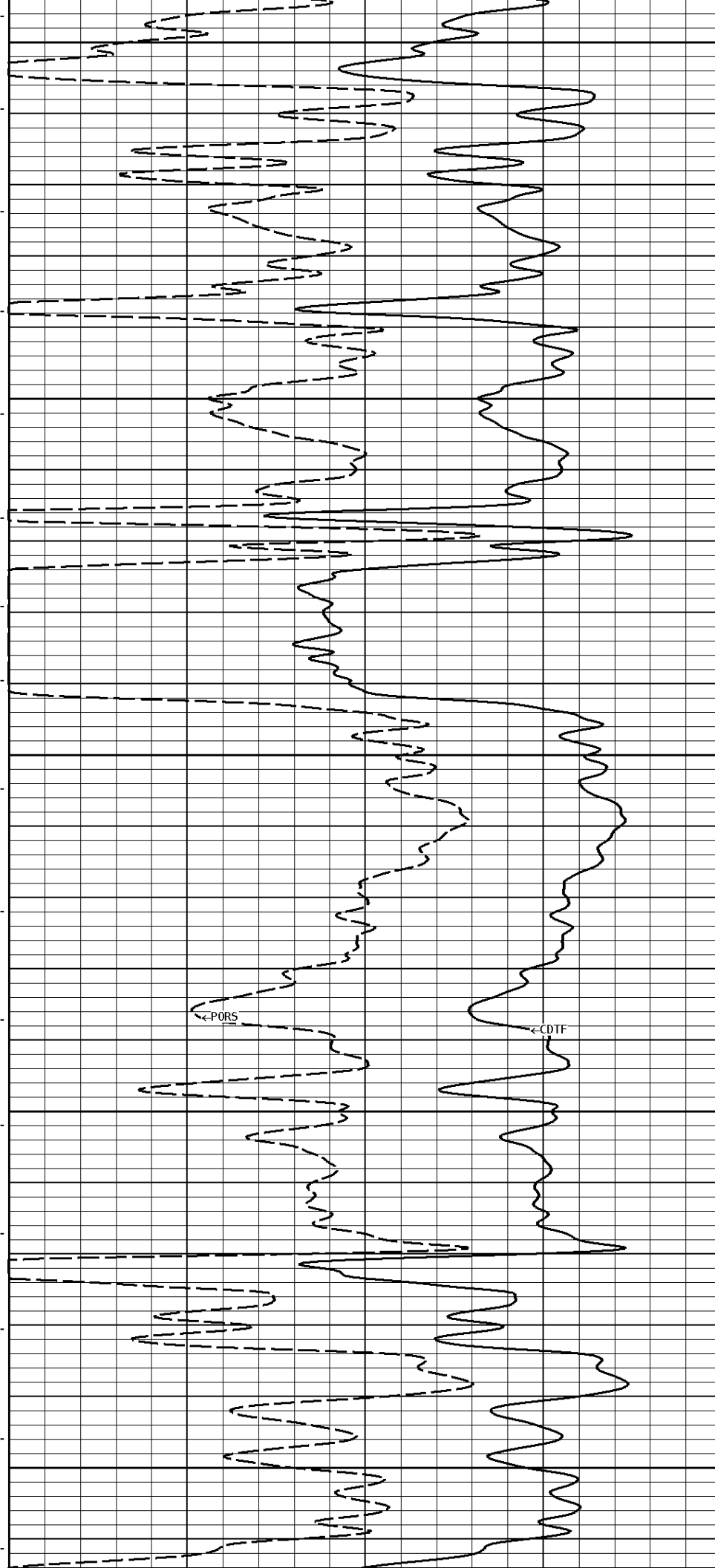
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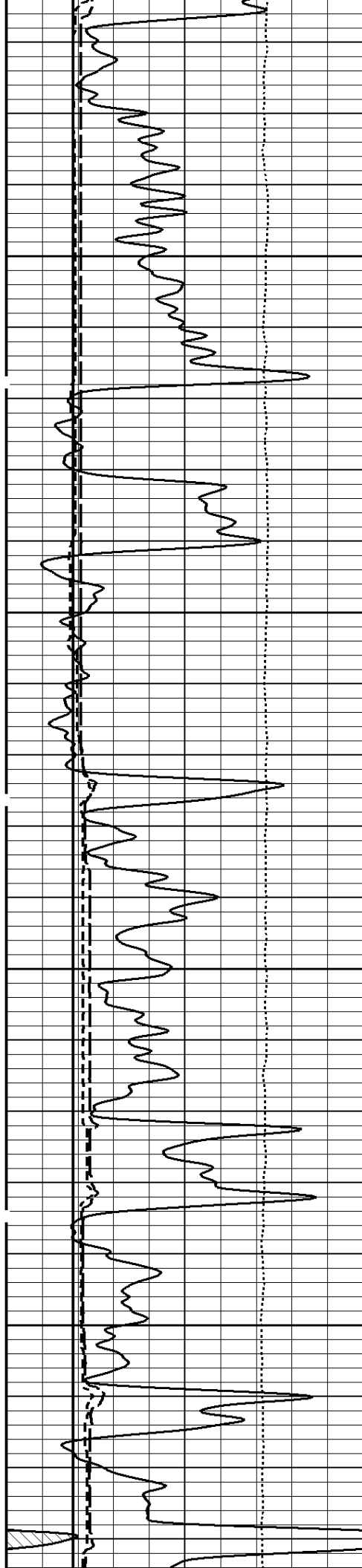




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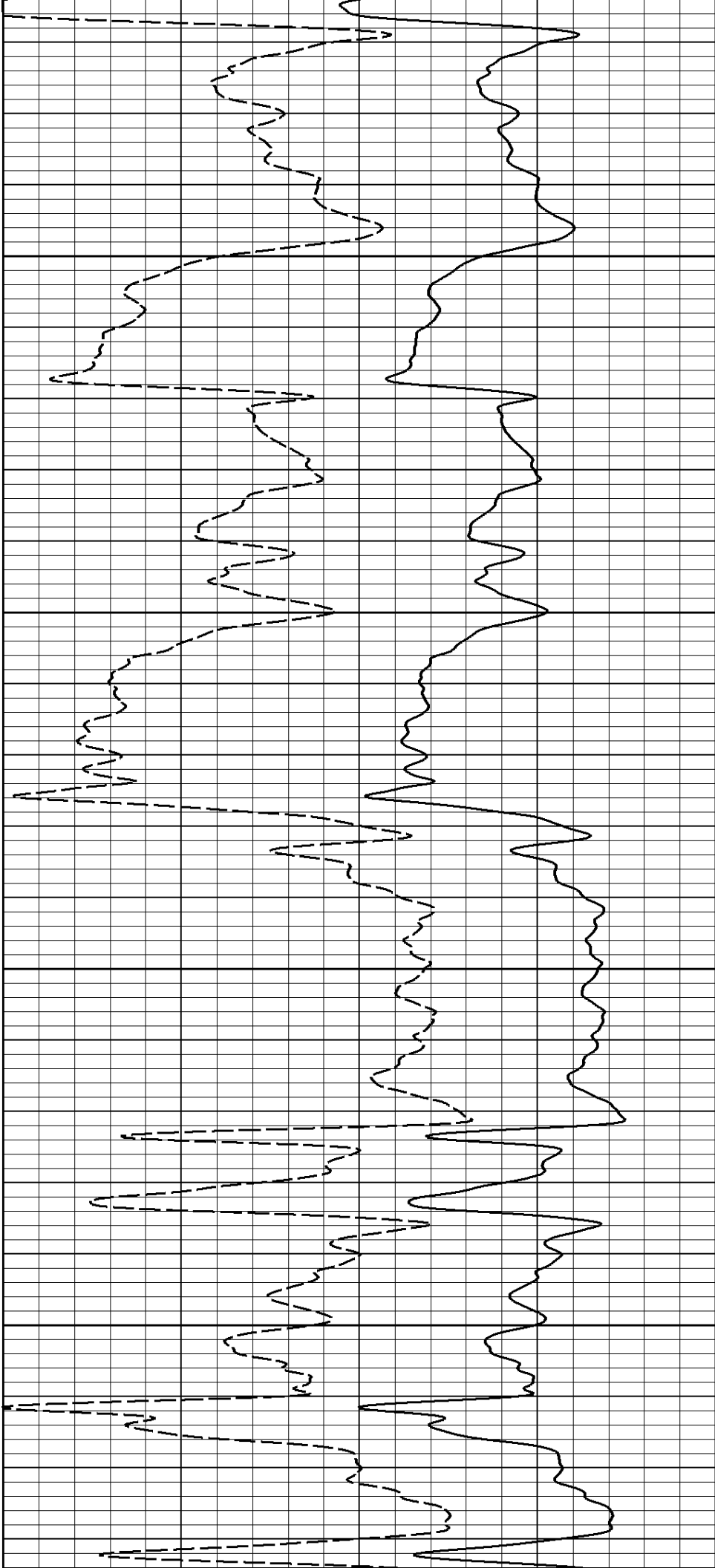
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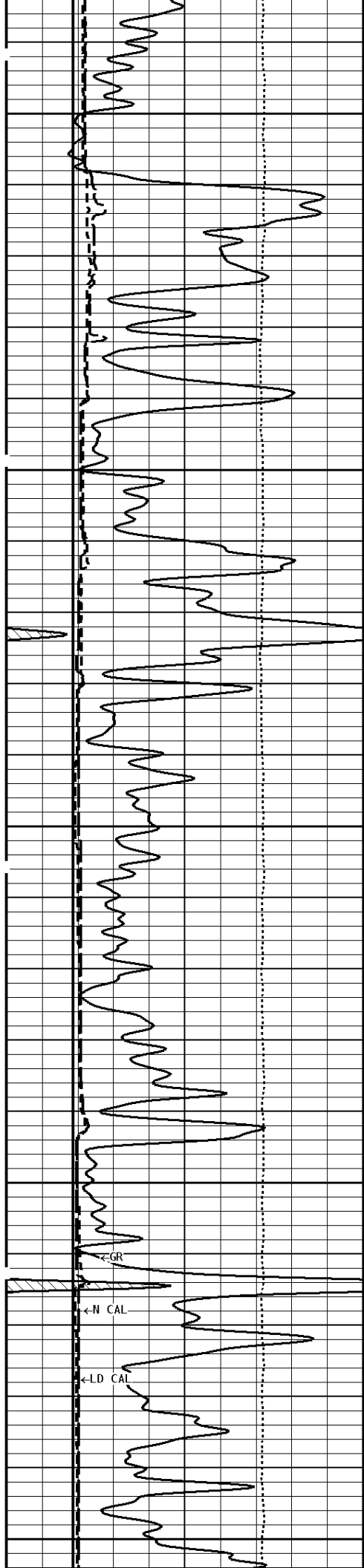




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3400

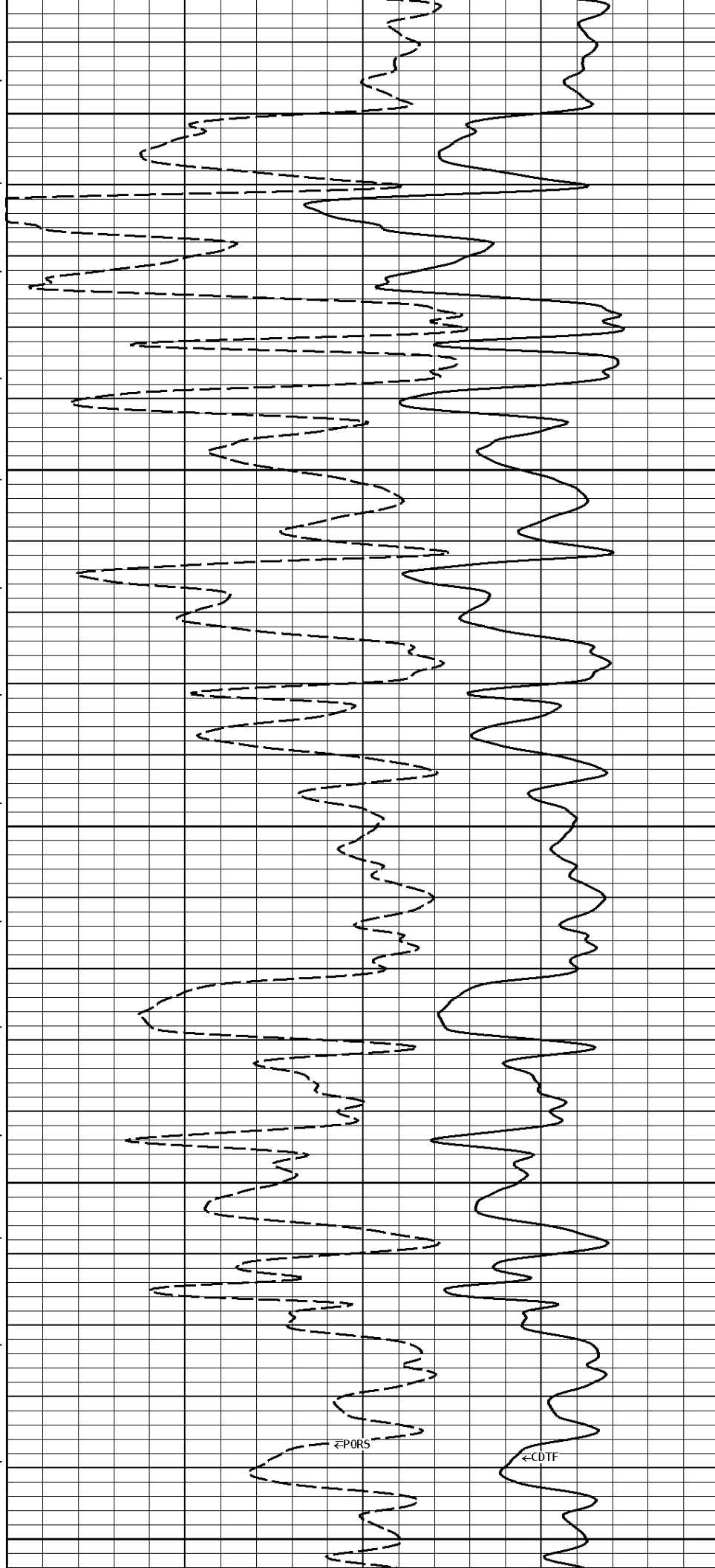


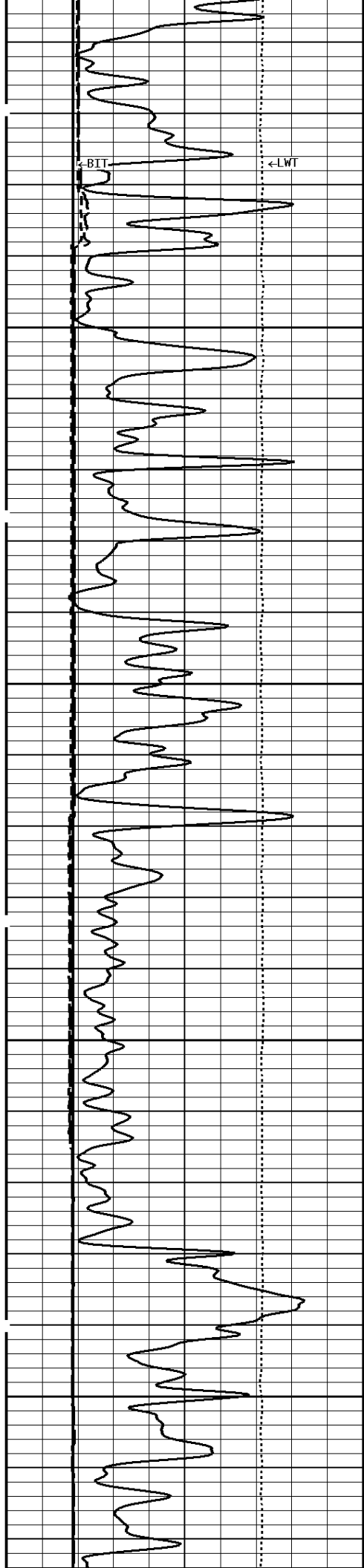


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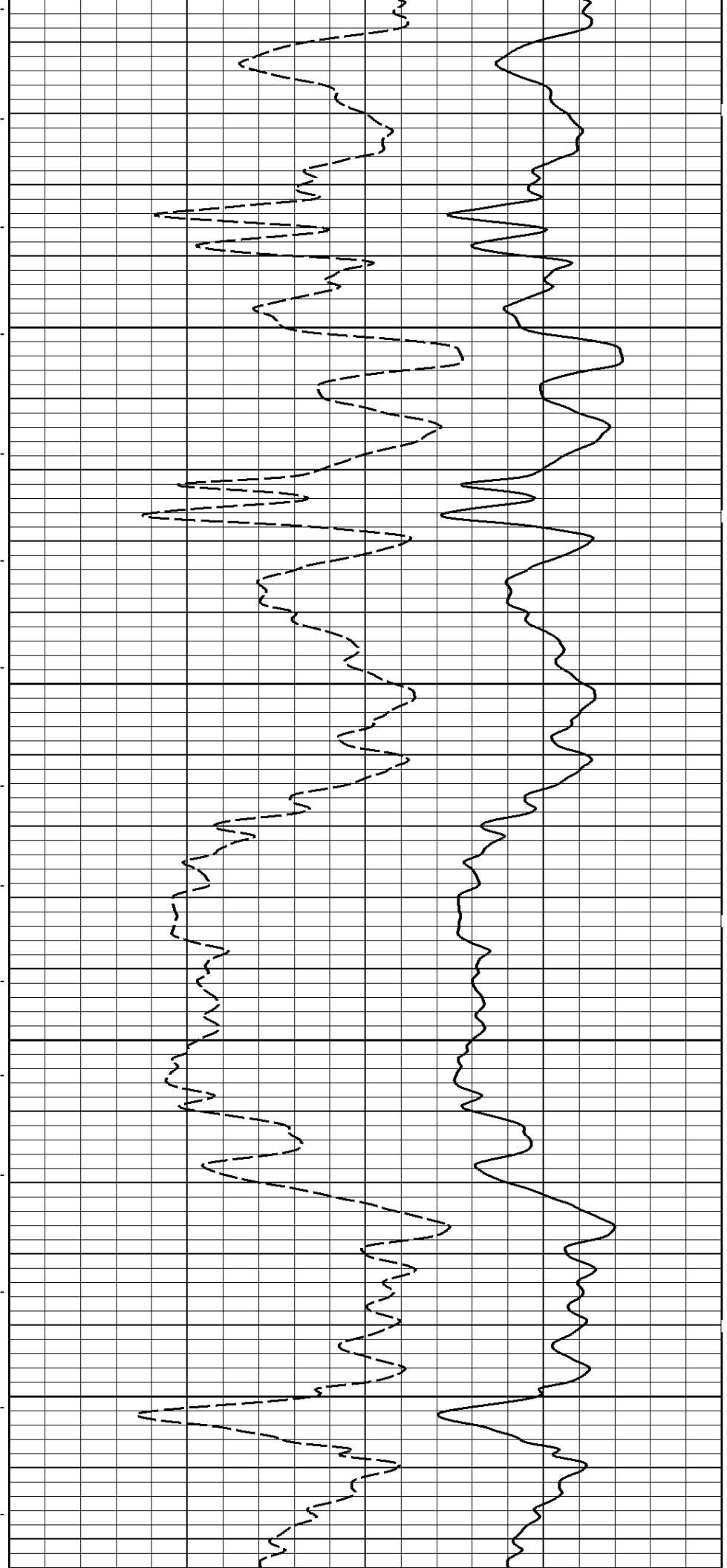
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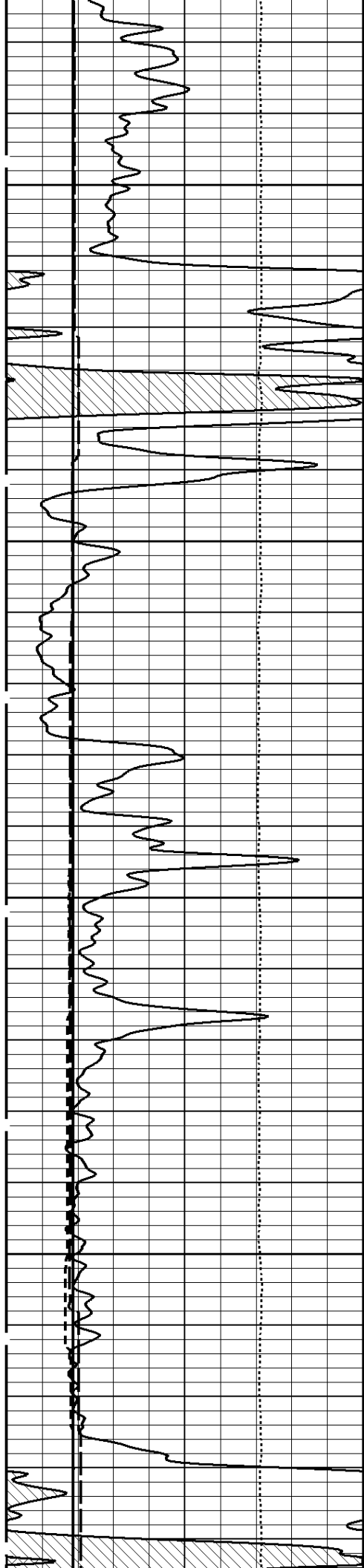




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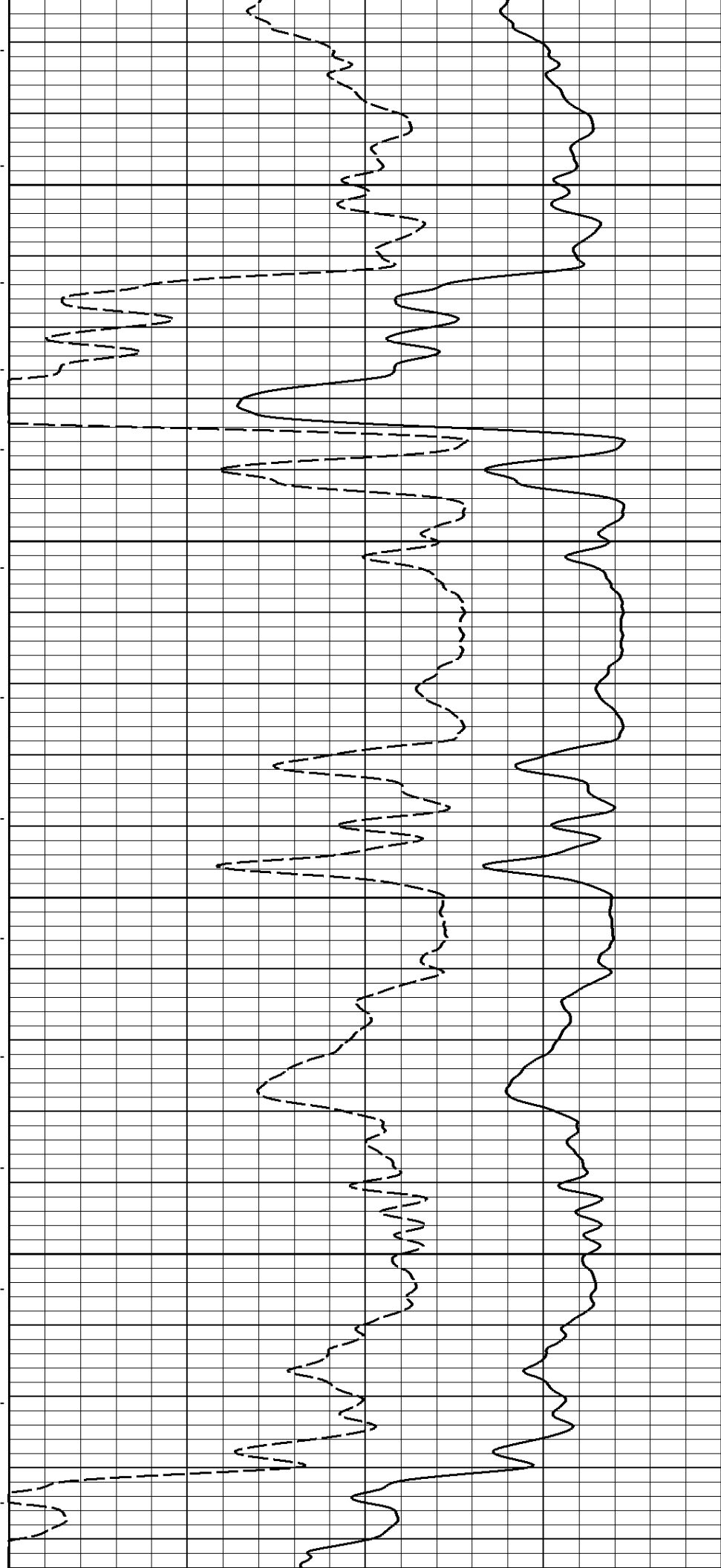
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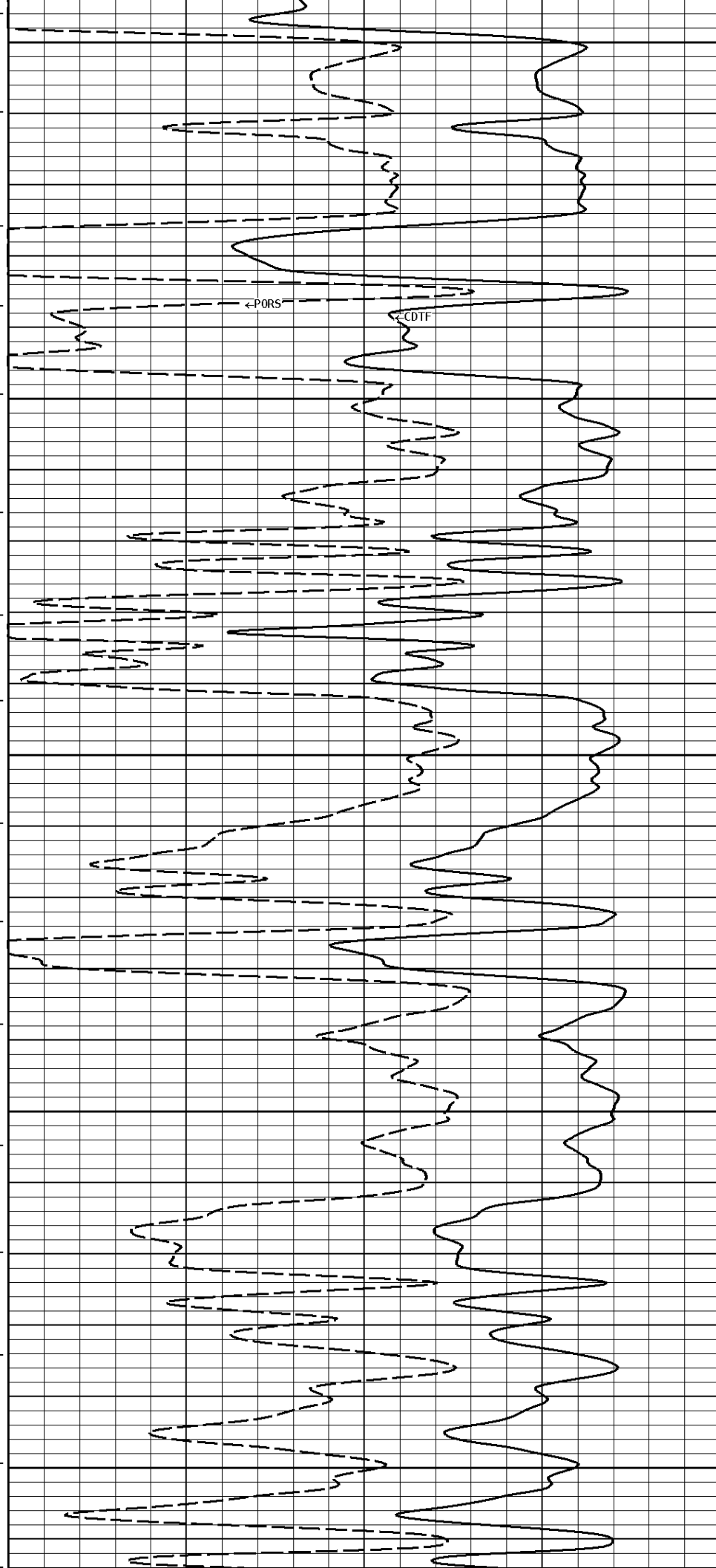
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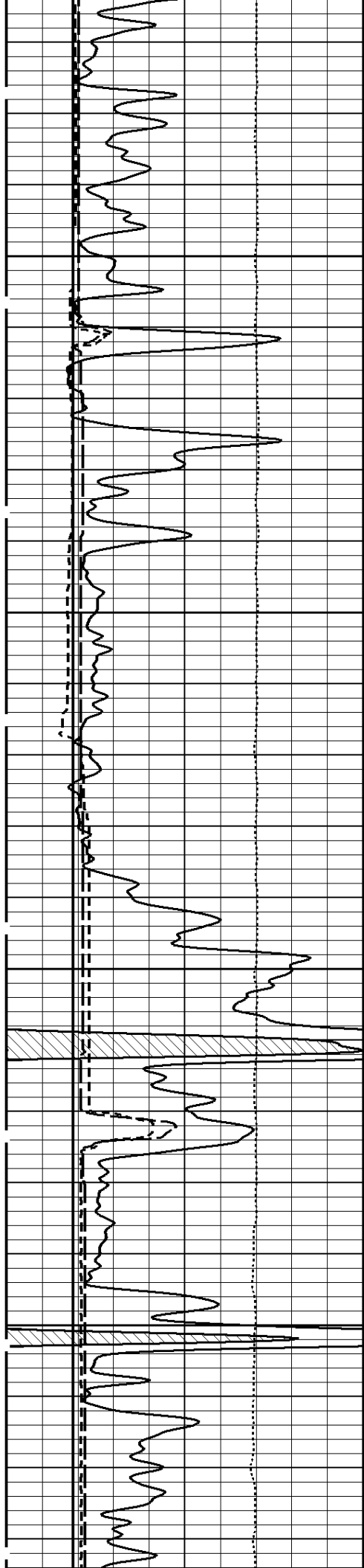




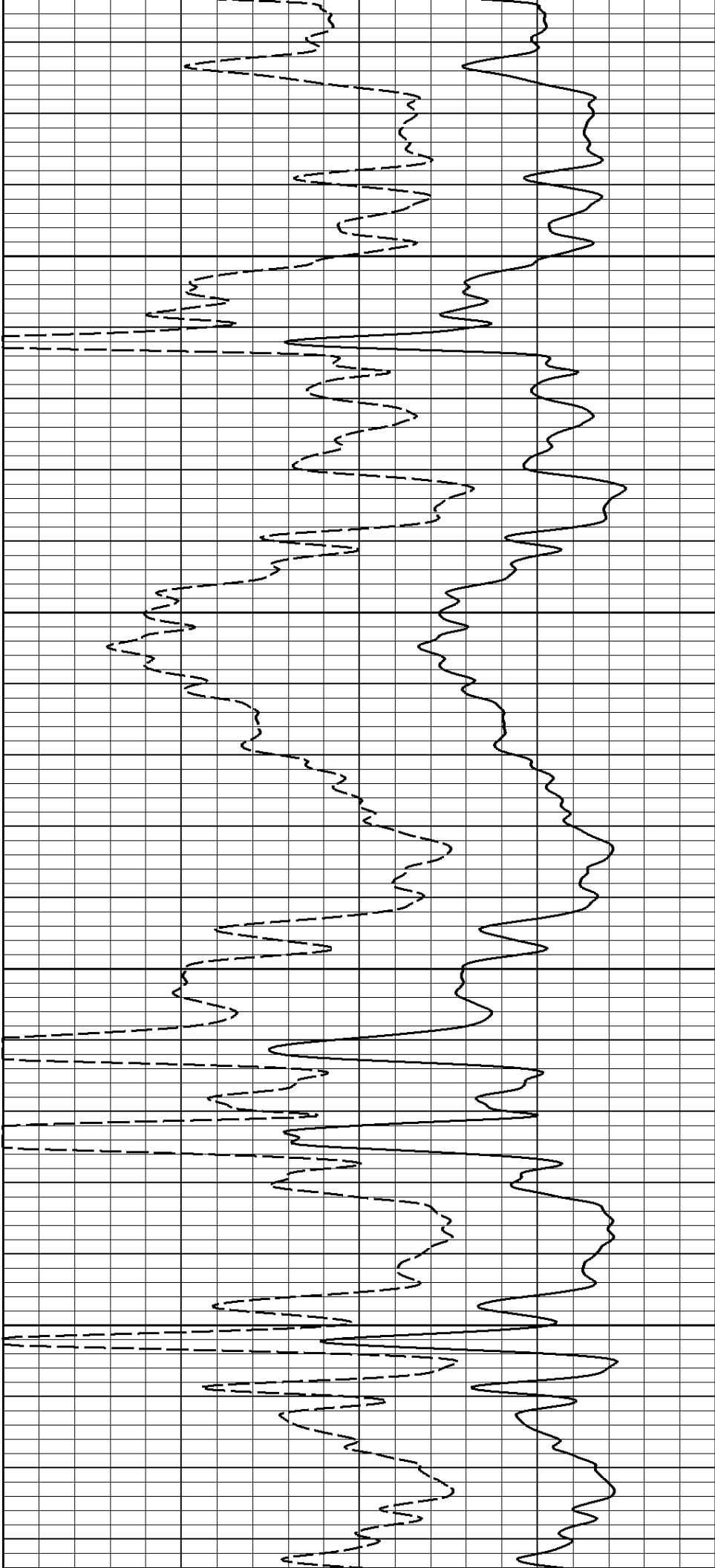
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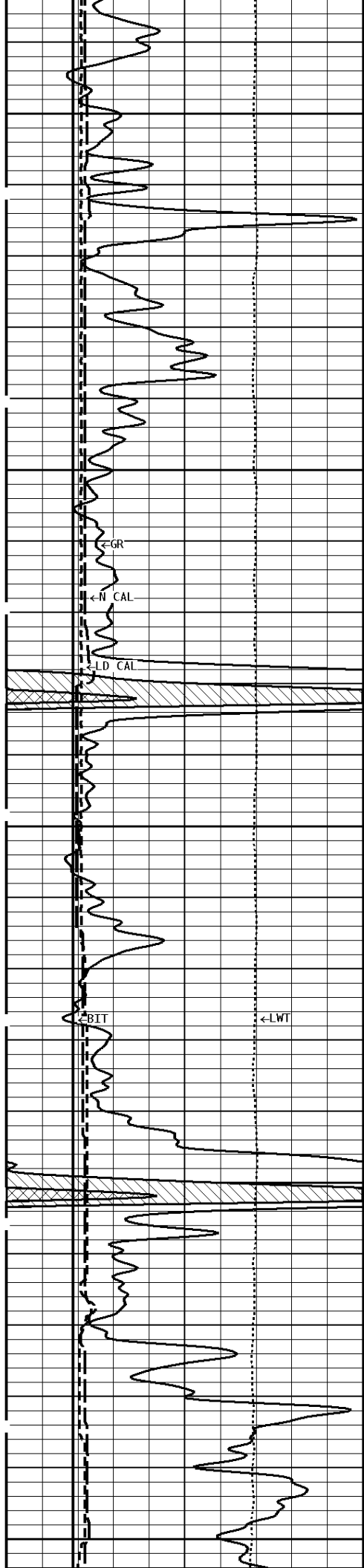




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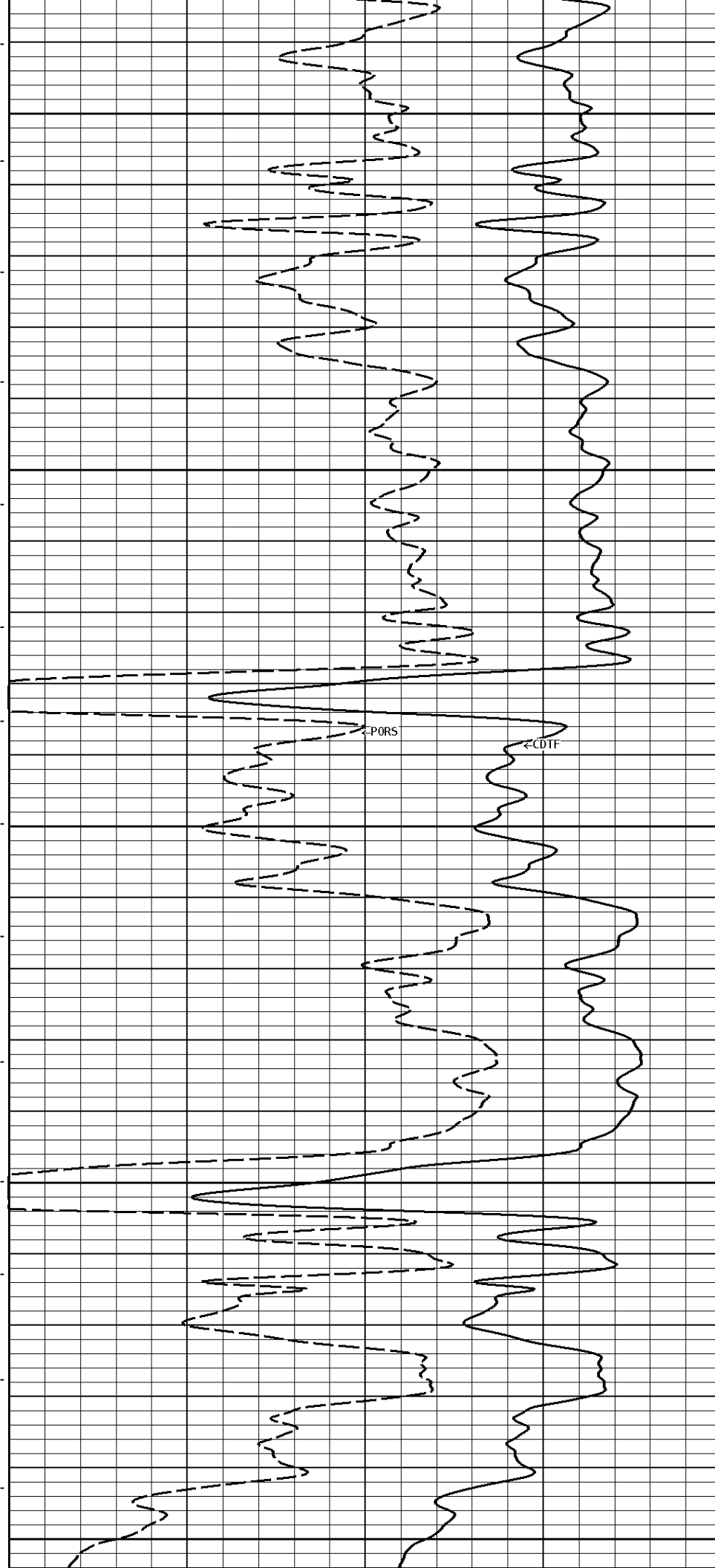
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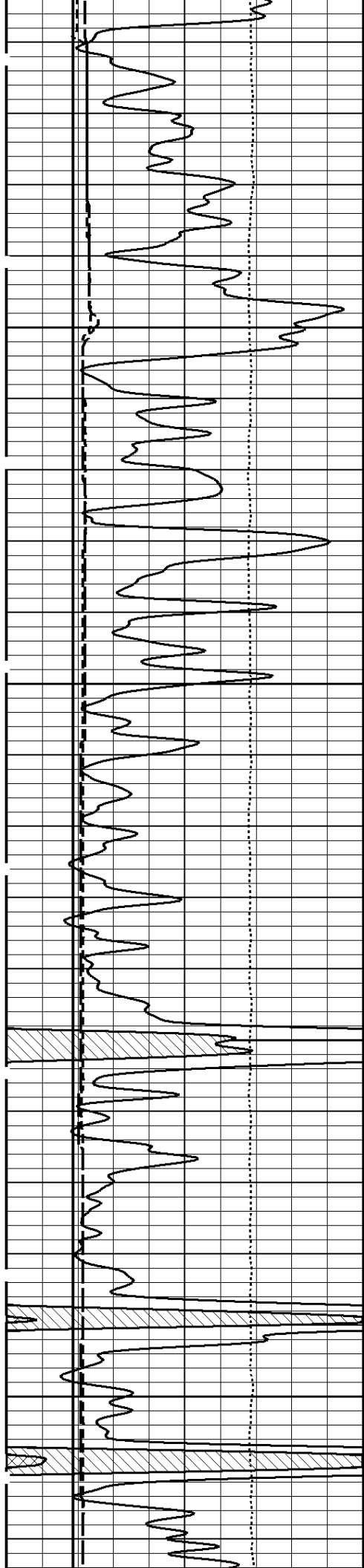


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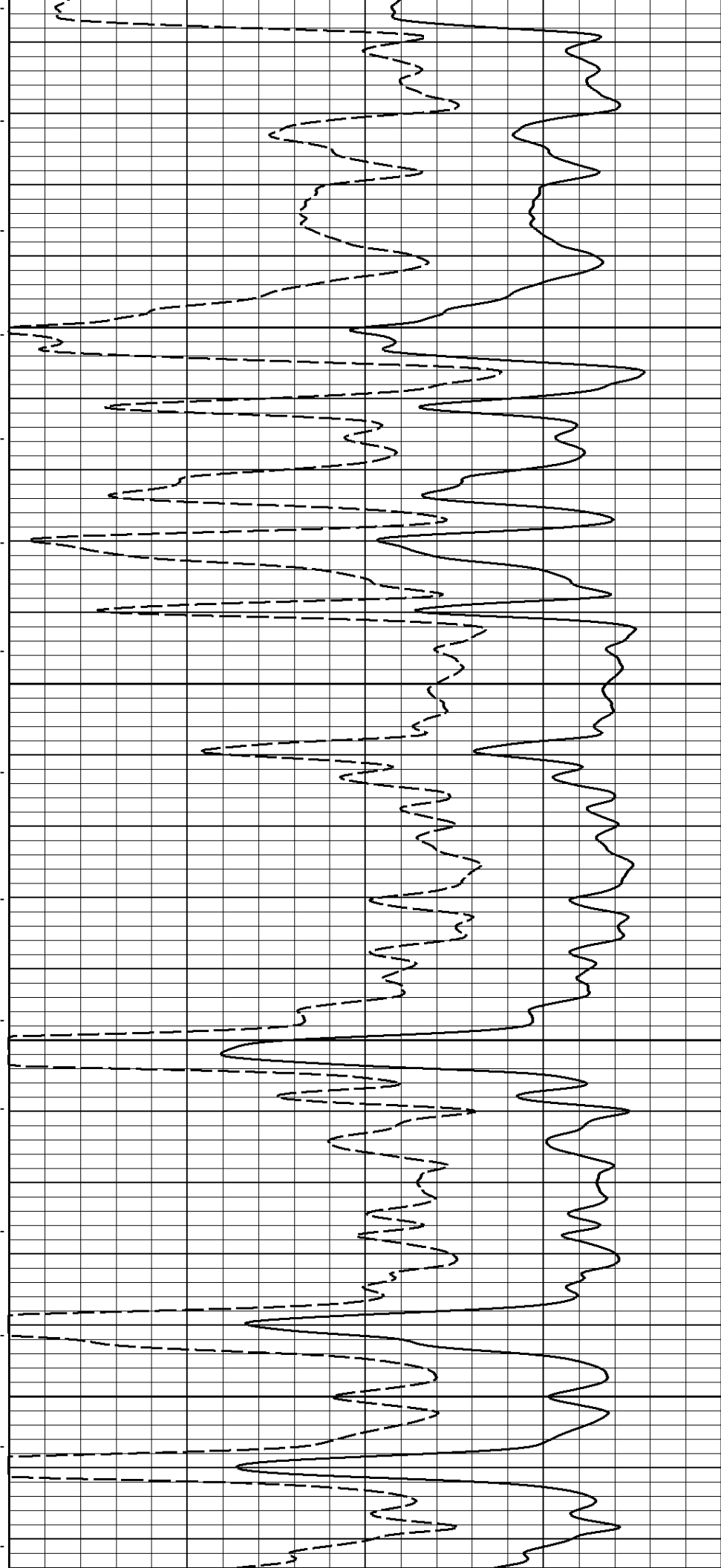
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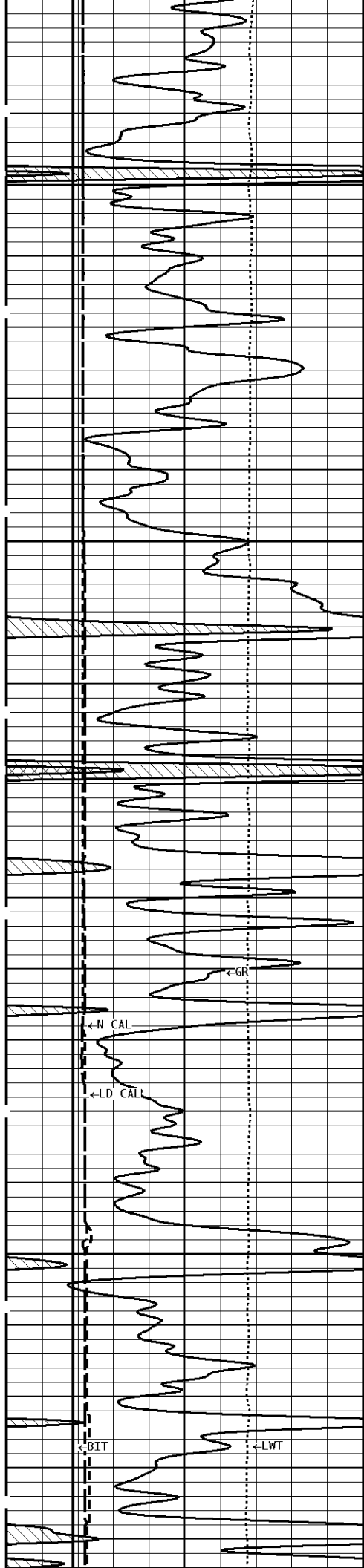




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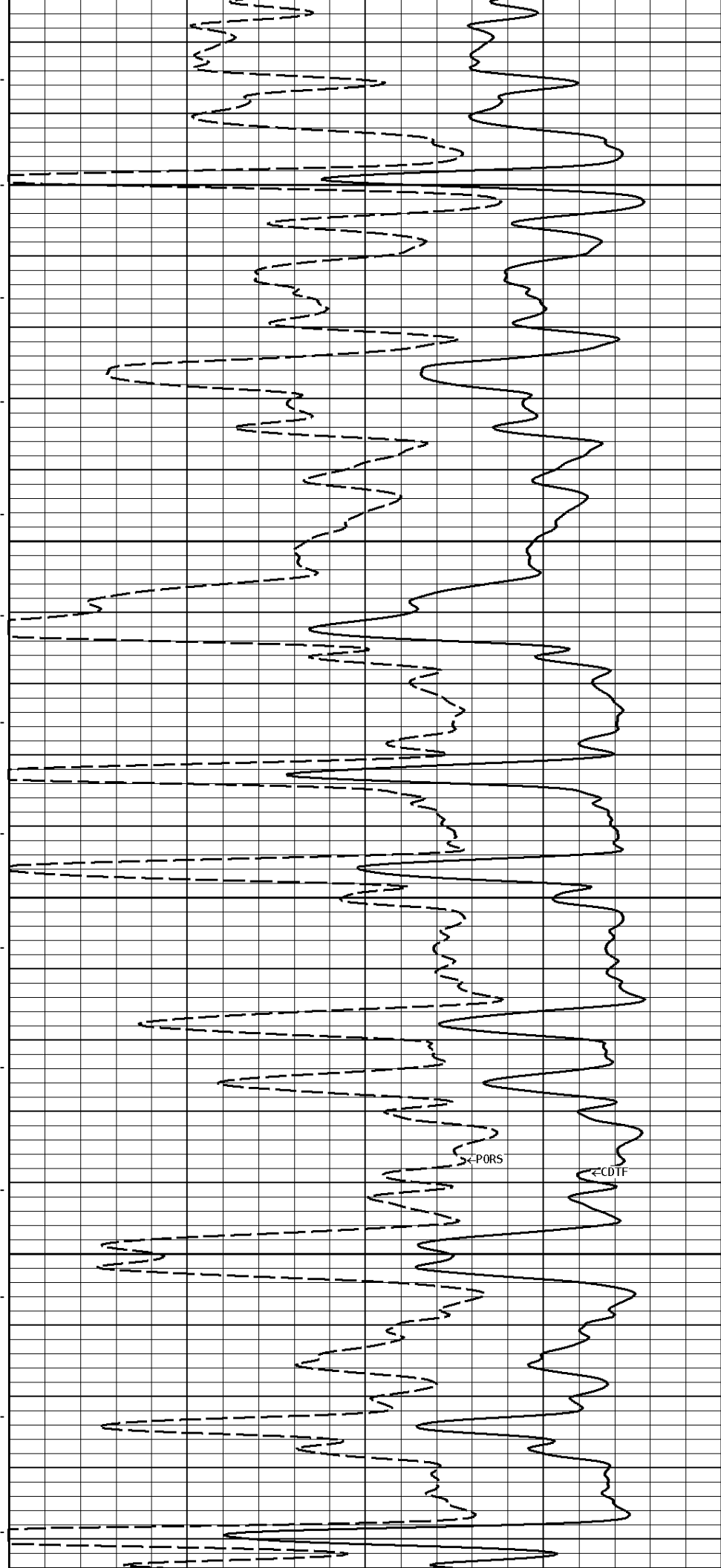
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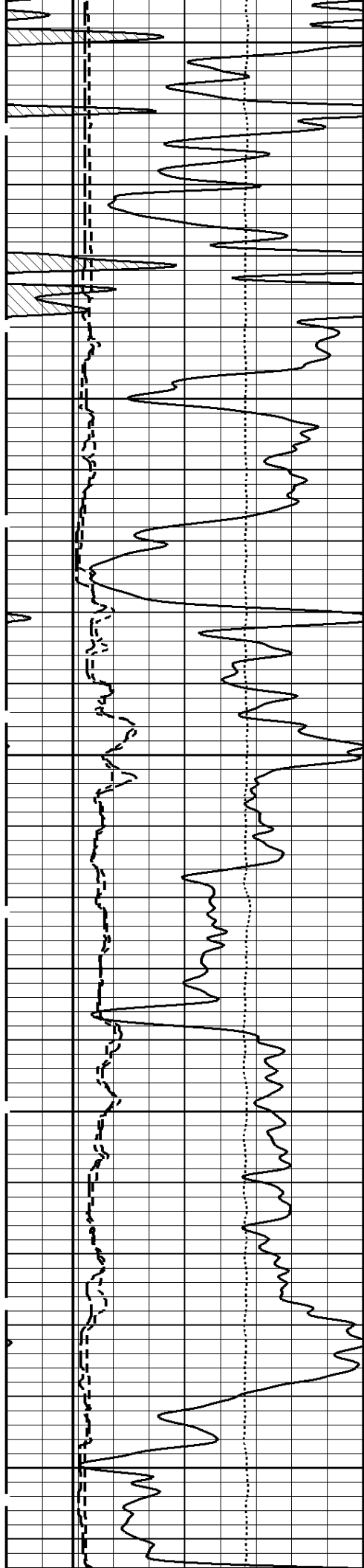




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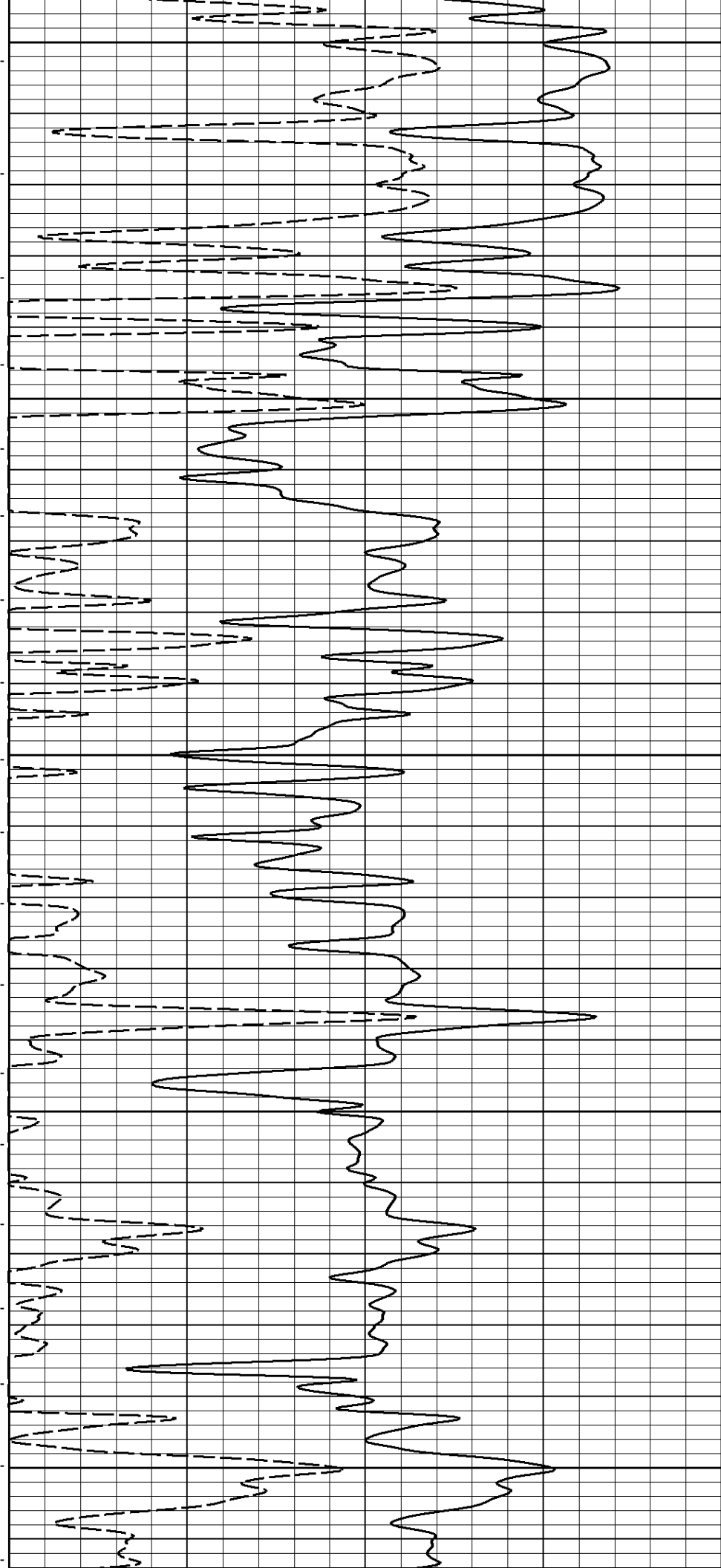
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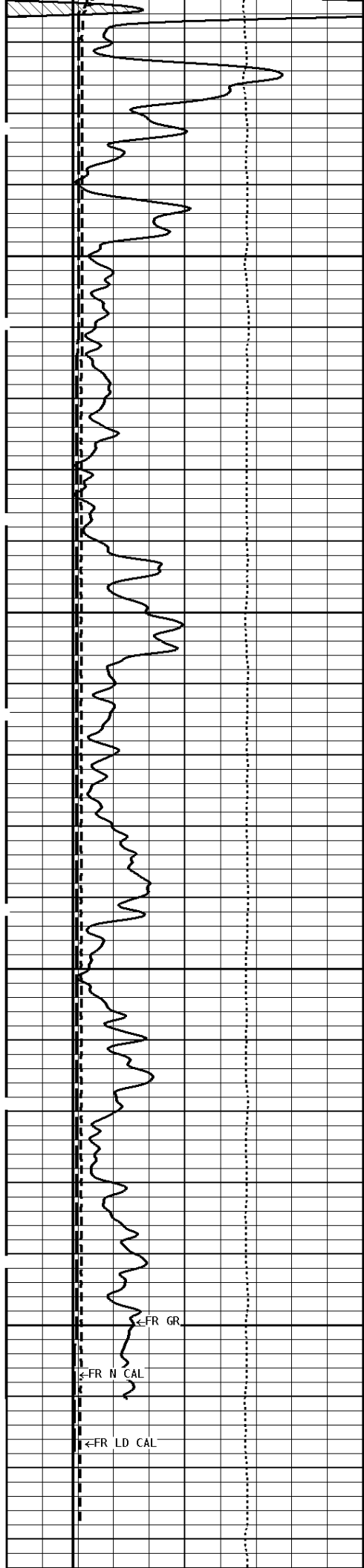




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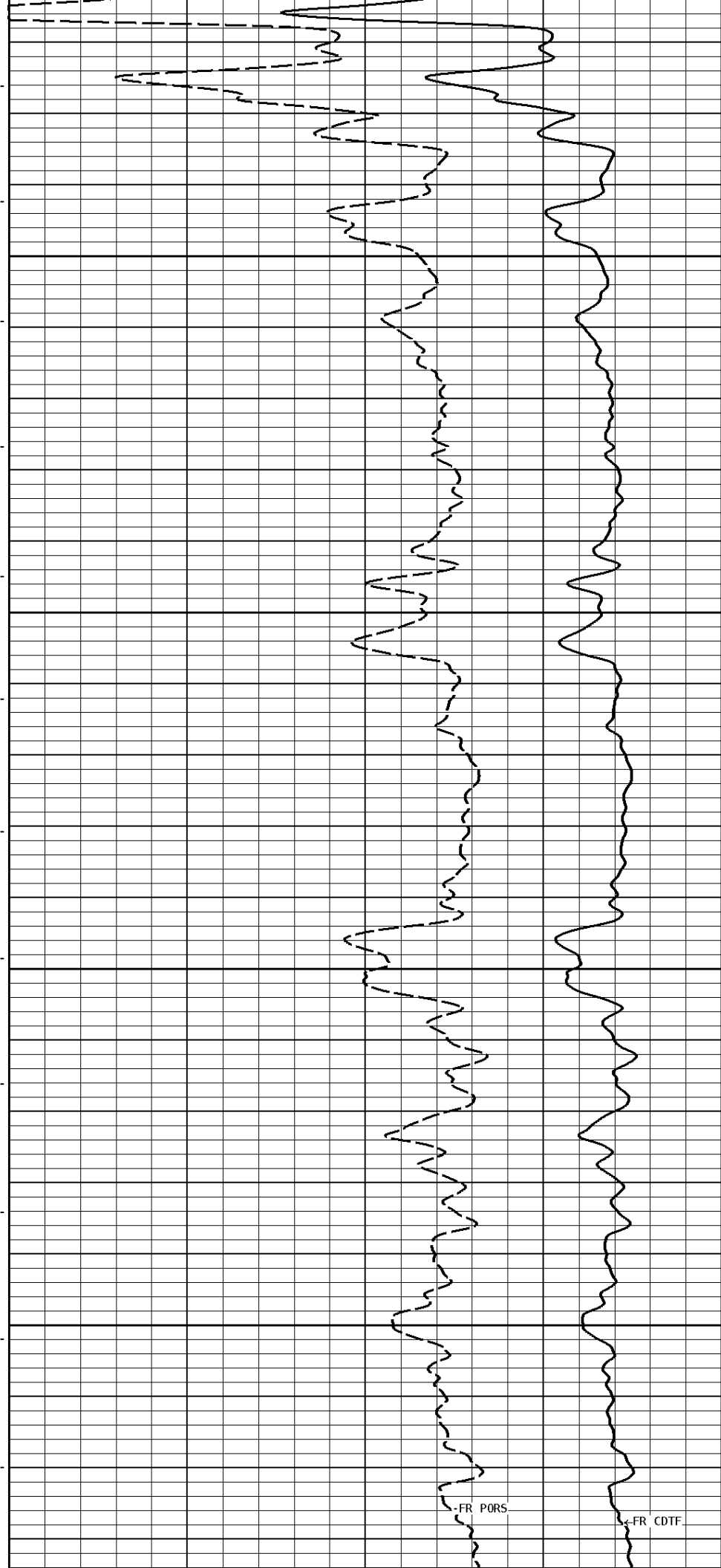
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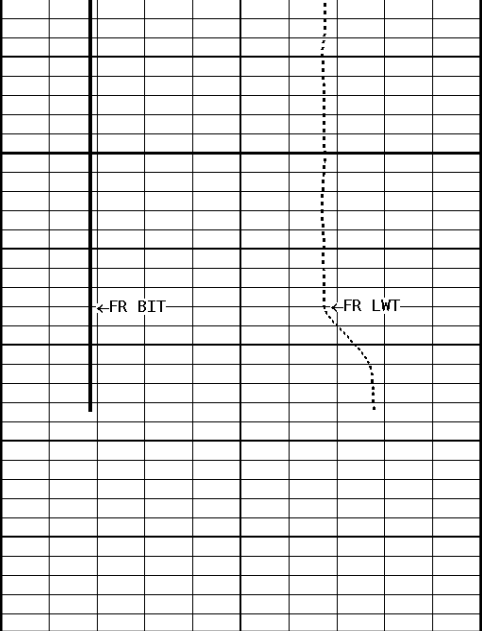
5500

5600



FR PORS

FR CDTF



5700

5716

File #1.1.7

1:240 MAIN SECTION

GAMMA RAY API UNITS	
150	300
0	150
TENSION LBS	
10000	0
BIT SIZE INCHES (IN)	
6	16
DENSITY (X) CALIPER INCHES (IN)	
16	26
6	16
NEUTRON (Y) CALIPER INCHES (IN)	
16	26
6	16

SONIC POROSITY PERCENT	
30	-10
COMPENSATED SONIC TRAVEL TIME uSEC/FT	
240	140
140	40

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet			
Matrix Transit Time		47.5	us/ft
Fluid Transit Time		189.0	us/ft

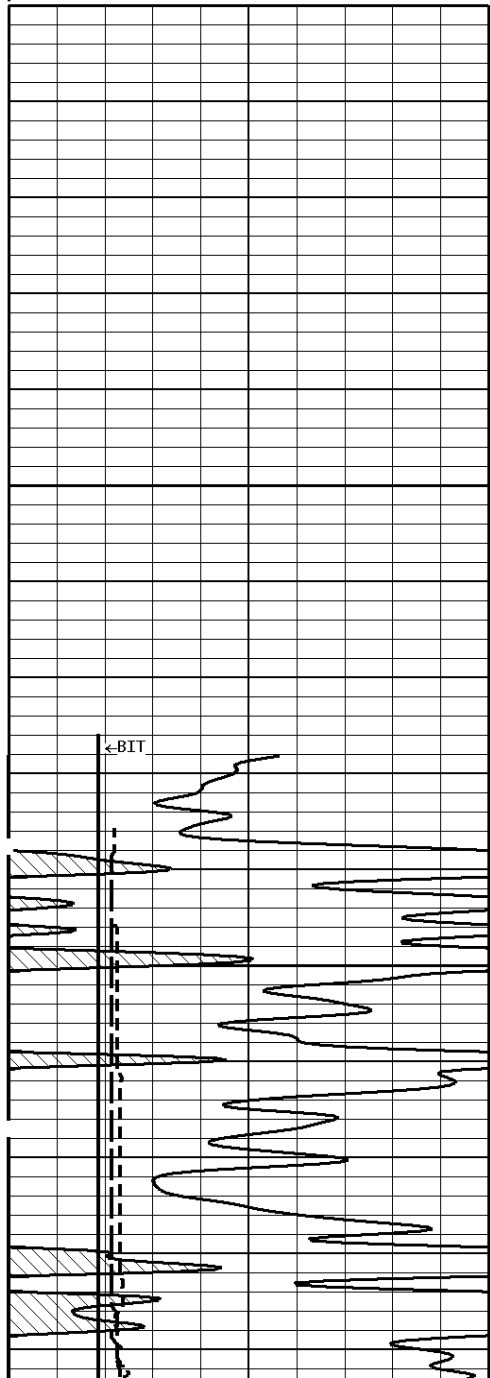
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 Segment: V1.D1.S5 Reprocess REPEAT Acquired: 2019-12/07 10:48 3.4.1-13972
 Reference: 0 Processed: 2019-12/07 13:08 3.4.1-13972

NEUTRON (Y) CALIPER INCHES (IN)	
16	26
6	16
DENSITY (X) CALIPER INCHES (IN)	
16	26

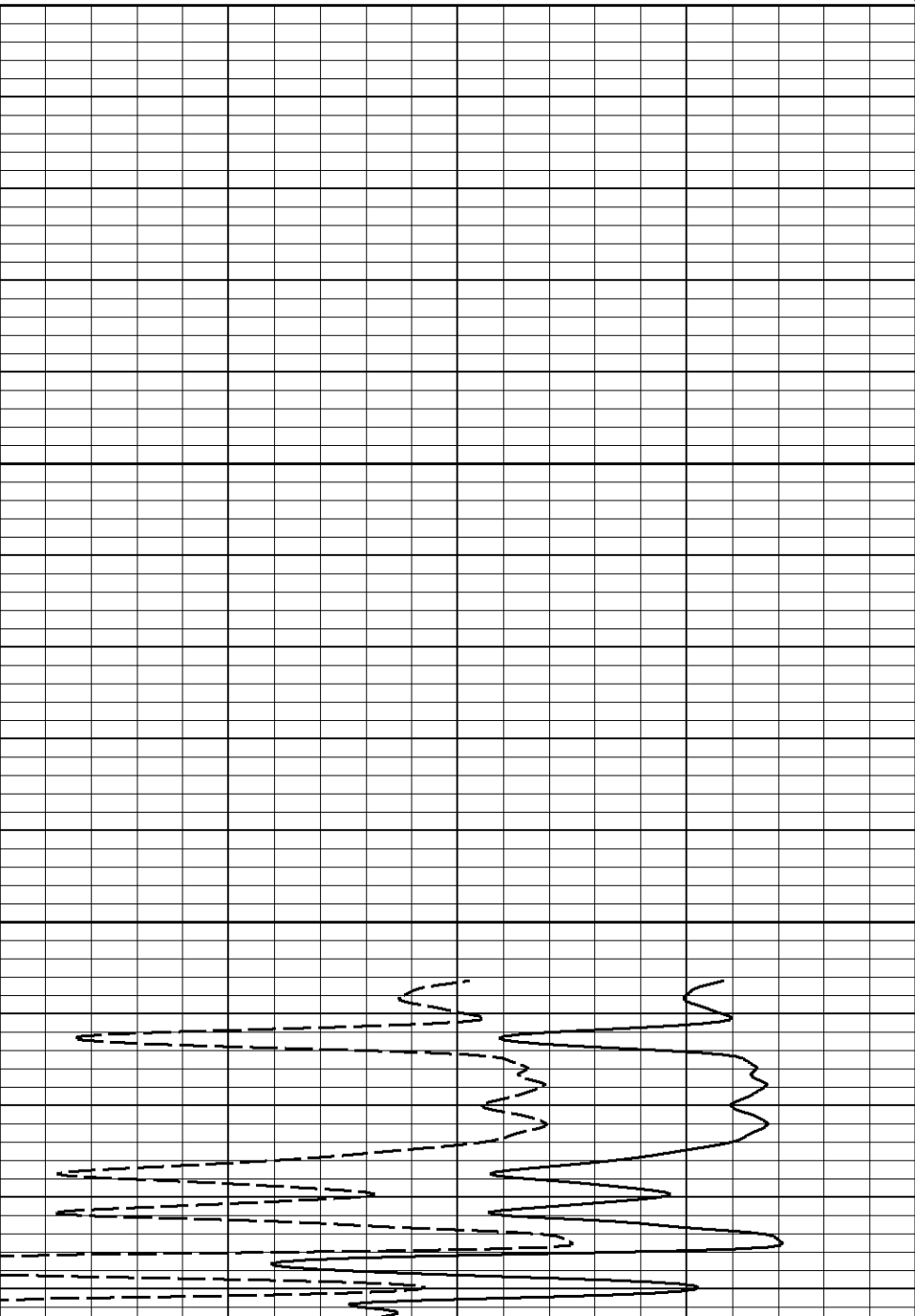
16	26
6	16
BIT SIZE INCHES (IN)	
6	16
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150	300
0	150

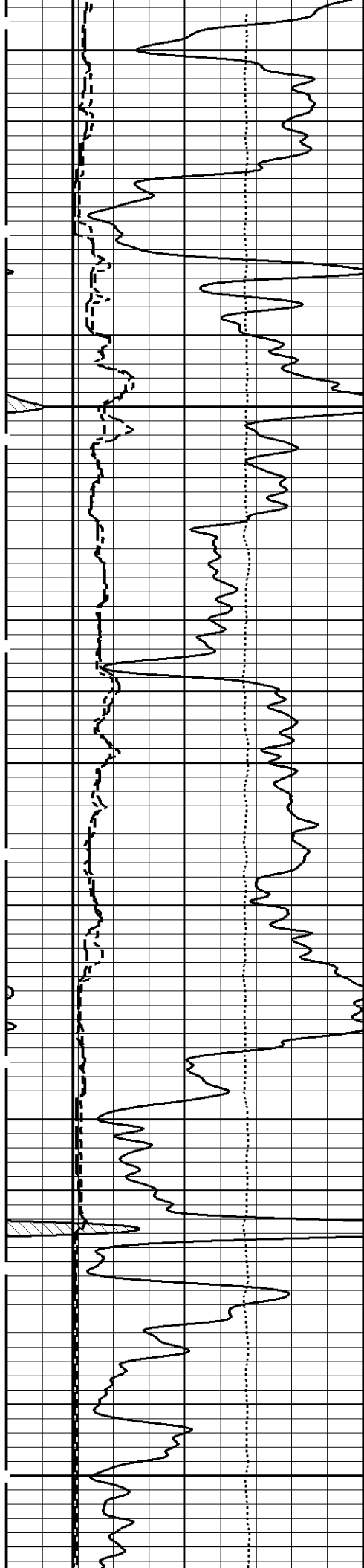
COMPENSATED SONIC TRAVEL TIME uSEC/FT	
240	140
140	40
SONIC POROSITY PERCENT	
30	-10

1:240 REPEAT SECTION



5200

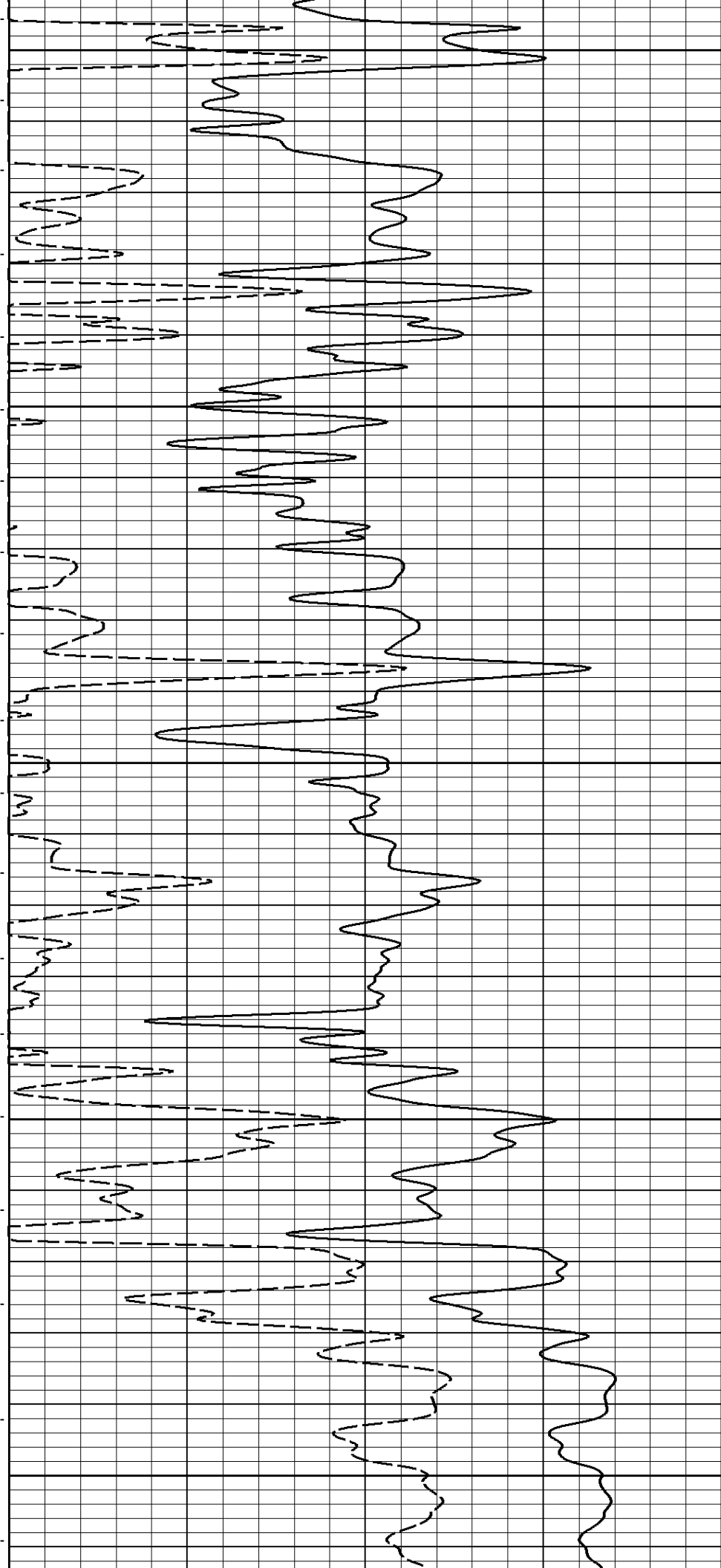


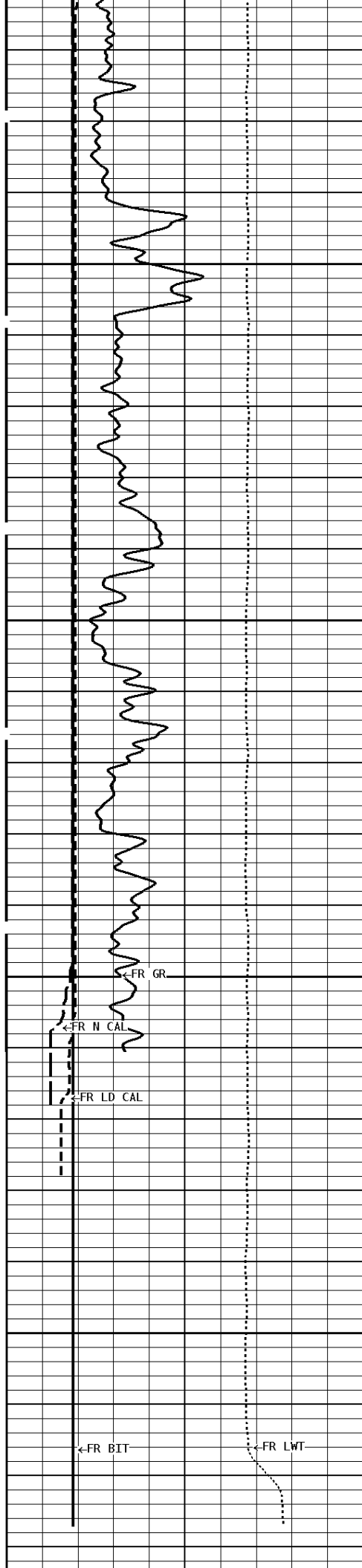


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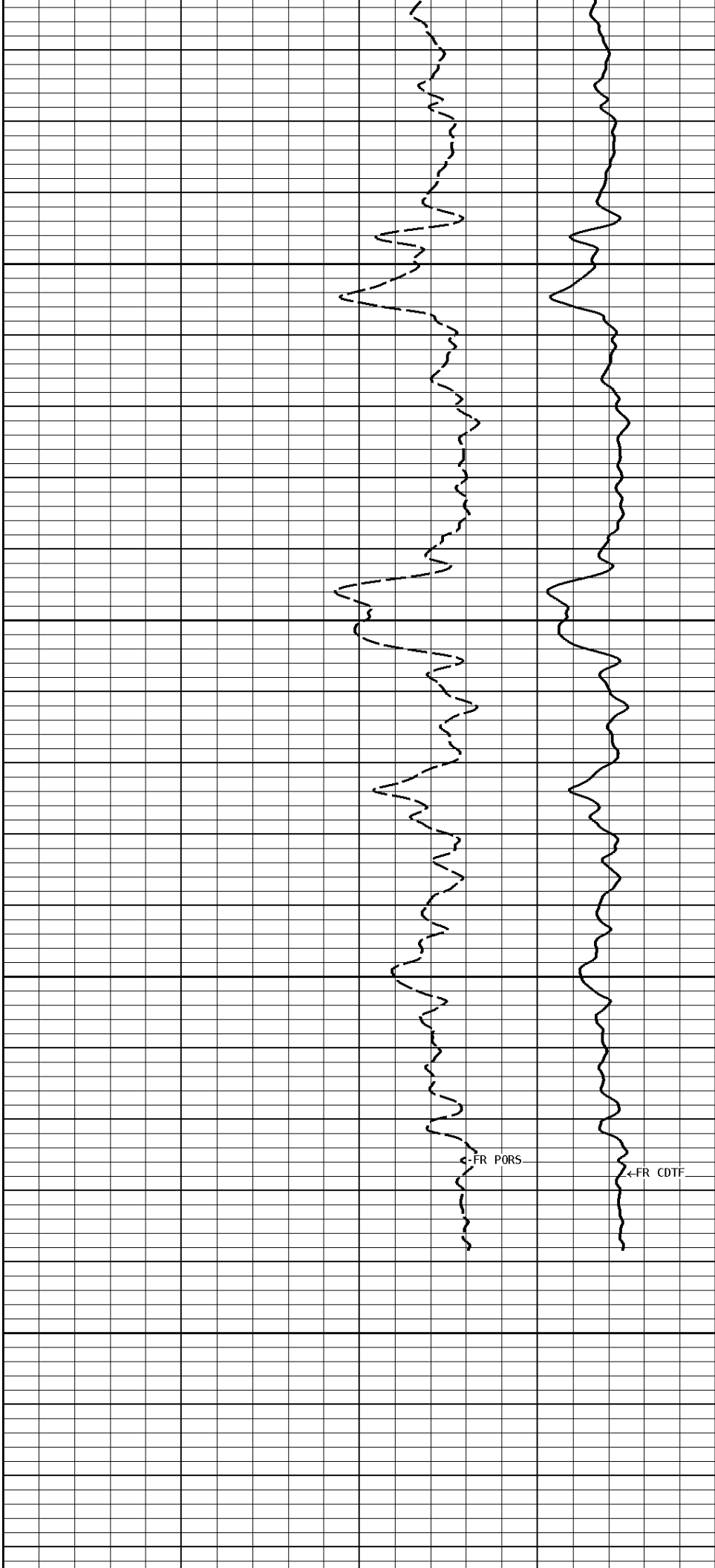




5600

5700

5716



←FR PORS

←FR CDTF

