

# STEP

## energy services

### MICRO LOG

**Company** VAL ENERGY, INC.  
**Well** GARISON #1-25  
**Field** NA  
**Country** COWLEY  
**State** KANSAS  
**Country** USA  
**API No.** 15-035-24705-0000

**File No** : TUL-70312  
**Company** : VAL ENERGY, INC.  
**Well** : GARISON #1-25  
**Field** : NA  
**Country** : COWLEY  
**State** : KANSAS  
**Country** : USA  
**API No** : 15-035-24705-0000

**Location** :  
 660' FNL & 660' FEL  
 NE NE

**LSD** :                      **Sect** : 25                      **Twp** : 33S                      **Rge** : 5E

<b>Permanent Datum:</b>	GL	<b>Elevations:</b>		<b>Services:</b>	
<b>Drilling Measured From:</b>	KB	KB 1322.00	Ft	CNT	PIT
<b>Log Measured From:</b>	KB	DF 1321.00	Ft	LDT	
<b>Above Permanent Datum:</b>	9.00 Ft	GL 1313.00	Ft	MLT	
<b>Date</b>	06-26-2019				
<b>Run Number</b>	1				
<b>Depth--Driller</b>	3535.0	Ft			
<b>Depth--Logger</b>	3535.0	Ft			
<b>First Reading</b>	3512.0	Ft			
<b>Last Reading</b>	222.0	Ft			
<b>Casing--Driller</b>	222.0	Ft			
<b>Casing--Logger</b>	222.0	Ft			
<b>Bit Size</b>	7.875	In			
<b>Casing Size</b>	8.625	In			
<b>Hole Fluid Type</b>	WBM				
<b>Density</b>	9.4				
<b>Fluid Loss</b>	10.8				
<b>PH/Viscosity</b>	9.5		44.0		
<b>Sample Source</b>	MEASURED				
<b>RM@Measured Temp.</b>	2.000	@ 70 F			
<b>RMF@Measured Temp</b>	1.600	@ 70 F			
<b>RMG@Measured Temp.</b>	2.400	@ 70 F			
<b>Source RMF/RMC</b>	CALCULATED/CALCULATED				
<b>RM@BHT</b>	1.320	@ 110 F			
<b>Time Circulation Stopped</b>	06-26-2019 06:15				
<b>Max Recorded Temp.</b>	110		F		
<b>Equipment/Base</b>	1022		TULSA, OK		
<b>Recorded By</b>	SHELDON TYLER				
<b>Witnessed By</b>	JOE BAKER				

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	3535.00	8.625	32.00	222.00	0.00

<b>Run Number</b>	1
<b>Date</b>	06-26-2019
<b>Date/Time On Bottom</b>	06-26-2019 09:15
<b>Depth to Fluid</b>	0.0 Ft
<b>Salinity</b>	1100.000
<b>RMF@BHT</b>	1.060 @ 110 F
<b>RMC@BHT</b>	1.580 @ 110 F

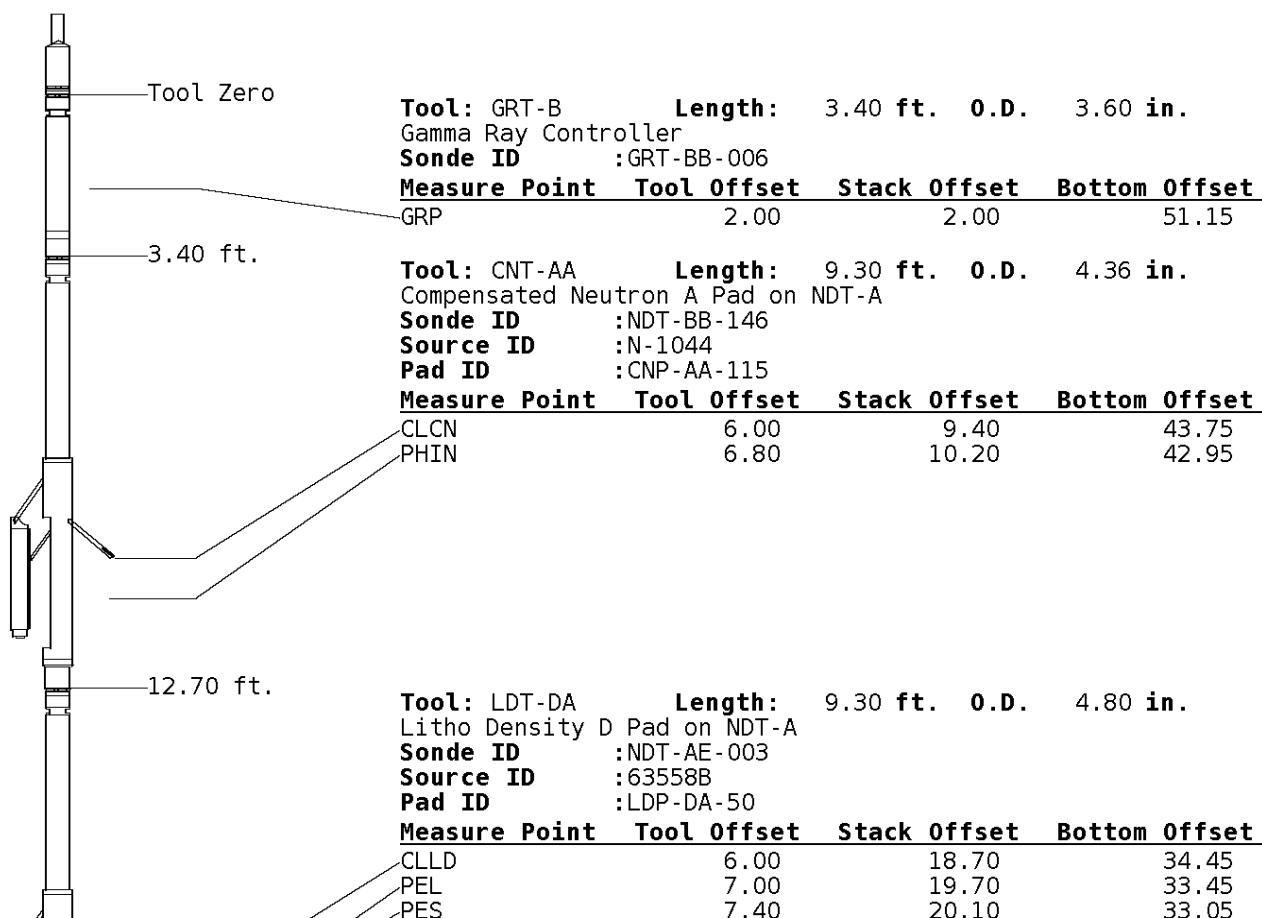
ALL PRESENTATIONS AS PER CUSTOMER REQUEST  
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION  
 CALIPERS ORIENTED ON X-Y AXIS  
 2.71 G/CC USED TO CALCULATE POROSITY  
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING  
 PHIN IS CALIPER CORRECTED

GRT: GRP, GRX  
 CNT: PHIN, CLCNIN, PHXN  
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX  
 MLT: NOR\_RF, INV\_RF, MSCLPIN  
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:  
 B.BROWN  
 K.WARREN

### Tool String Schematic

**Total Tool Length** - 53.15 ft.  
**Maximum Outside diameter** - 6.00 in.  
**Net Weight in Air** - 943.00 lbs.





LDEN 7.20 19.90 33.25  
 LCOR 7.20 19.90 33.25

**Tool:** MST-DA      **Length:** 9.66 ft.    **O.D.** 6.00 in.  
 Micro Spherically Focused (IC)  
**Sonde ID** :MST-DA-024

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

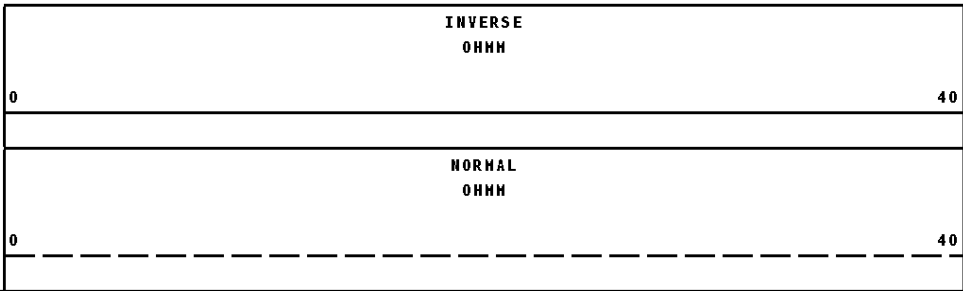
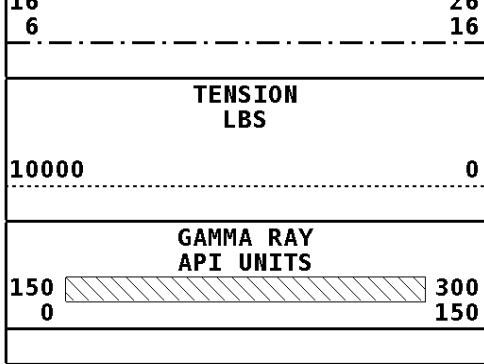
**Tool:** PIT-CA      **Length:** 21.49 ft.    **O.D.** 3.62 in.  
 Phased Dual Induction w/ RM & D  
**Sonde ID** :PIT-CA-069

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

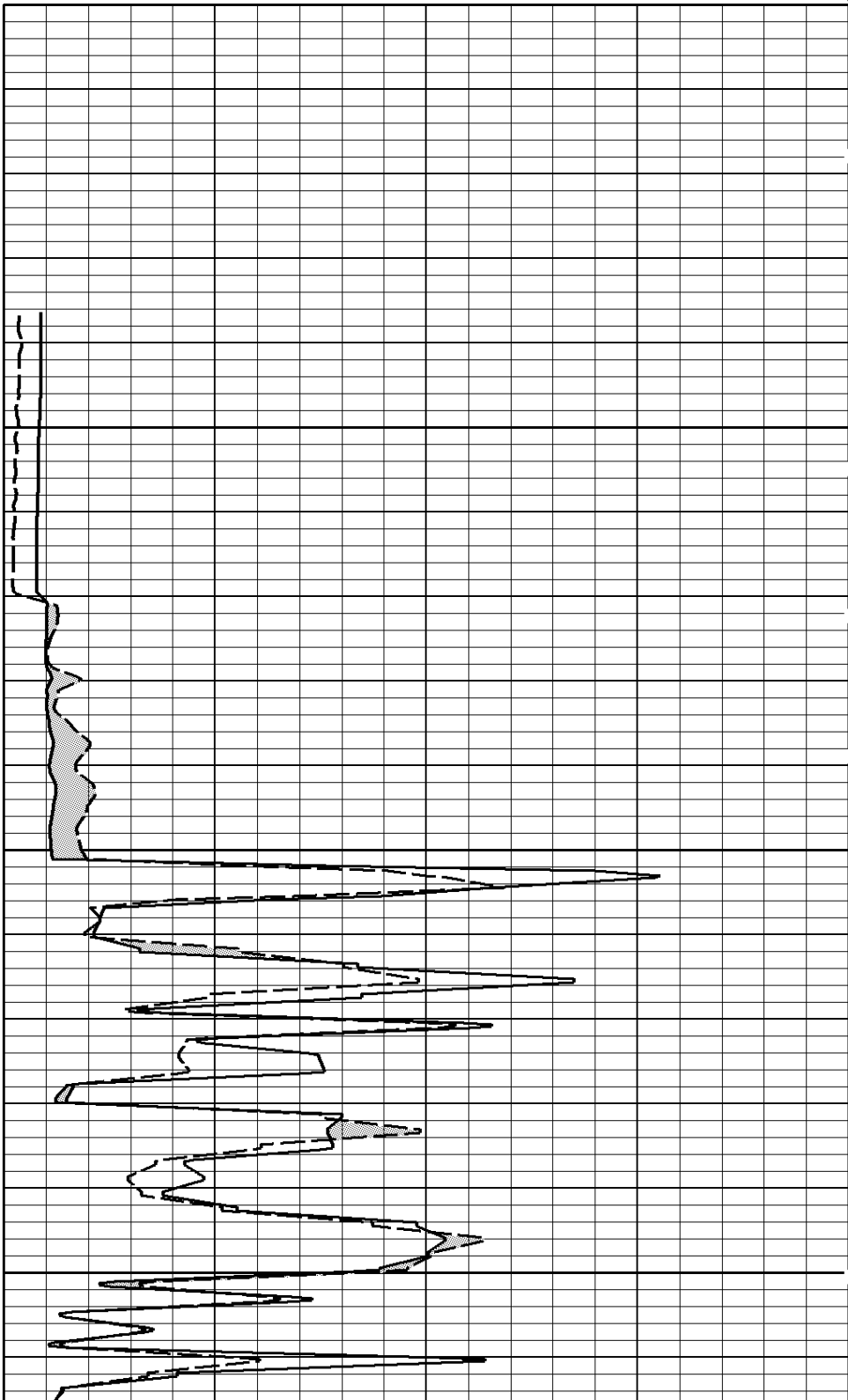
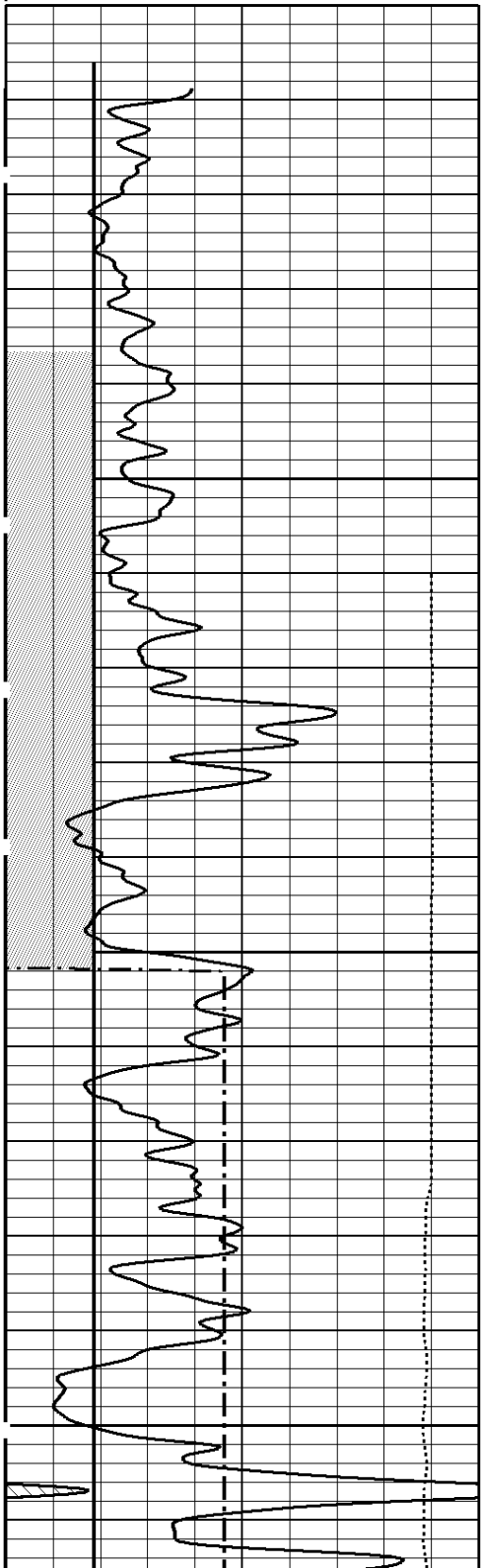
**Well File:** VAL ENERGY GARISON 1-25\_JUNE26\_MSTK      **Scale:** 1:240      **Format:** MST-240  
**Segment:** V1.D1.S6 Reprocess of MAIN      **Acquired:** 2019-06/26 09:23 3.4.1-13968  
**Reference:** 0      **Processed:** 2019-06/26 10:22 3.4.1-13968

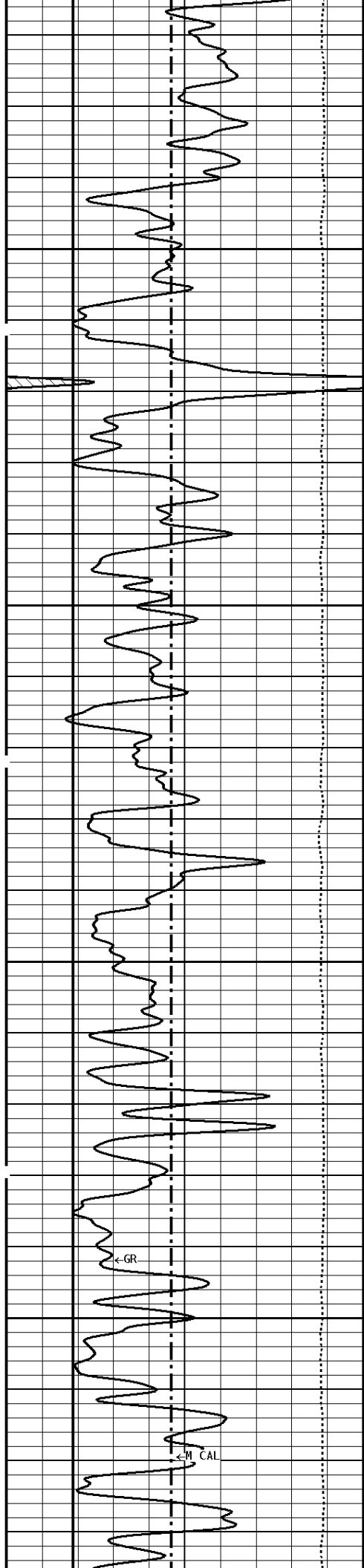
<b>BIT SIZE INCHES (IN)</b>	
6	16

<b>CALIPER MICRO INCHES (IN)</b>	
16	26



**1:240 MAIN SECTION**



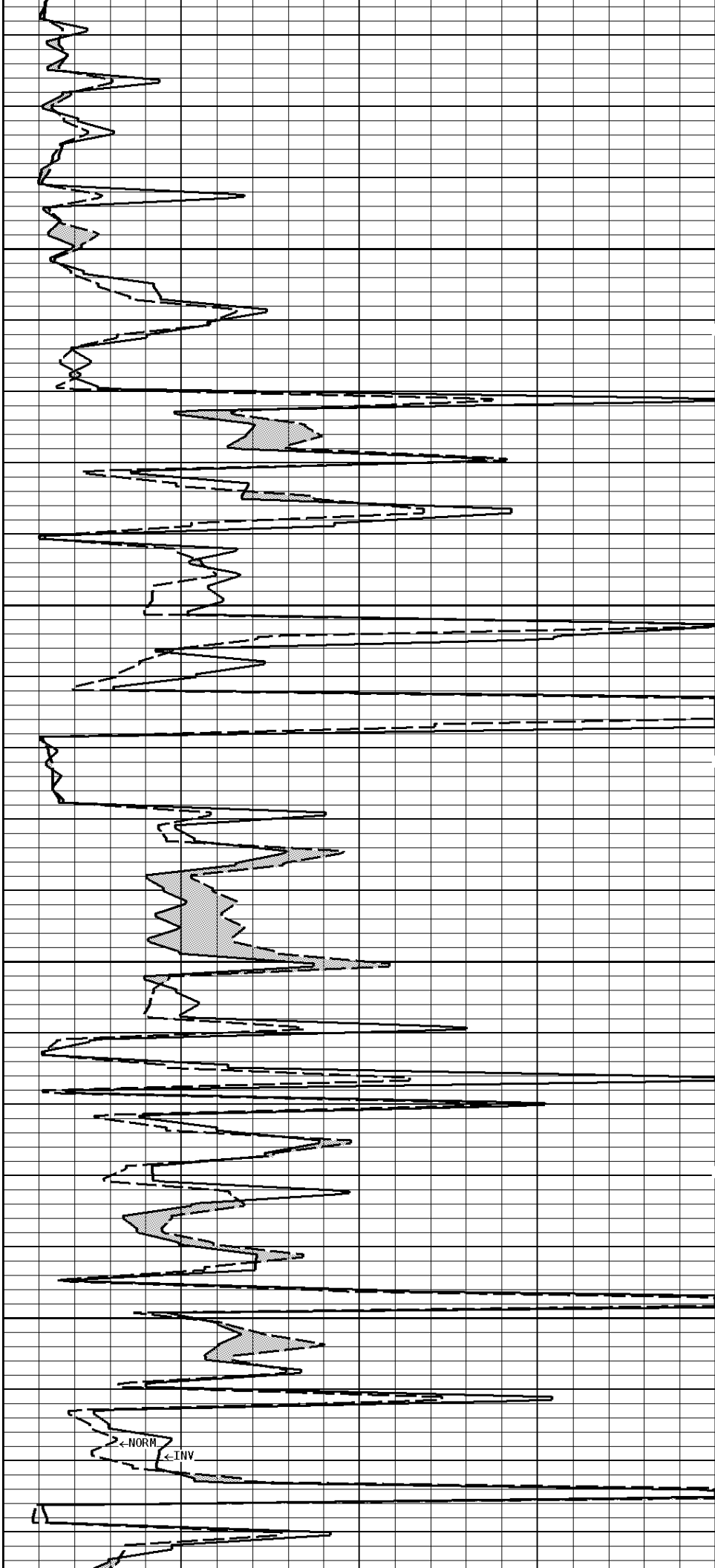


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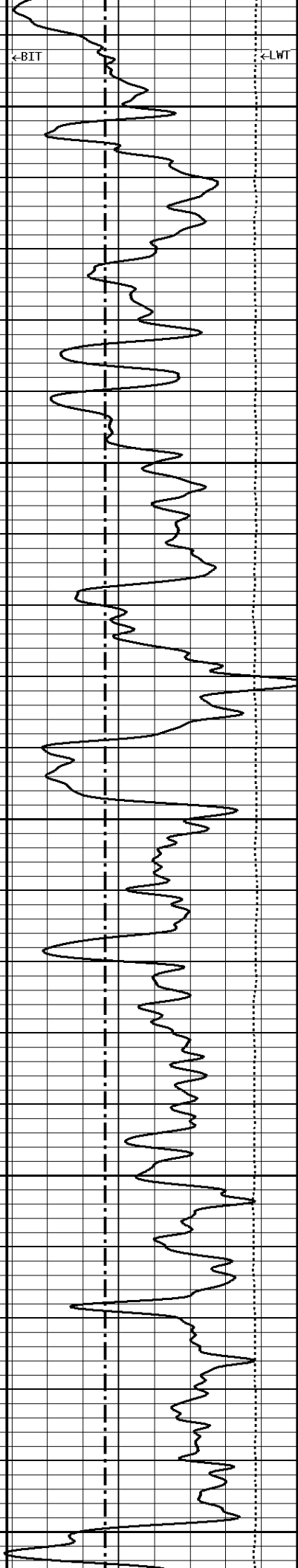
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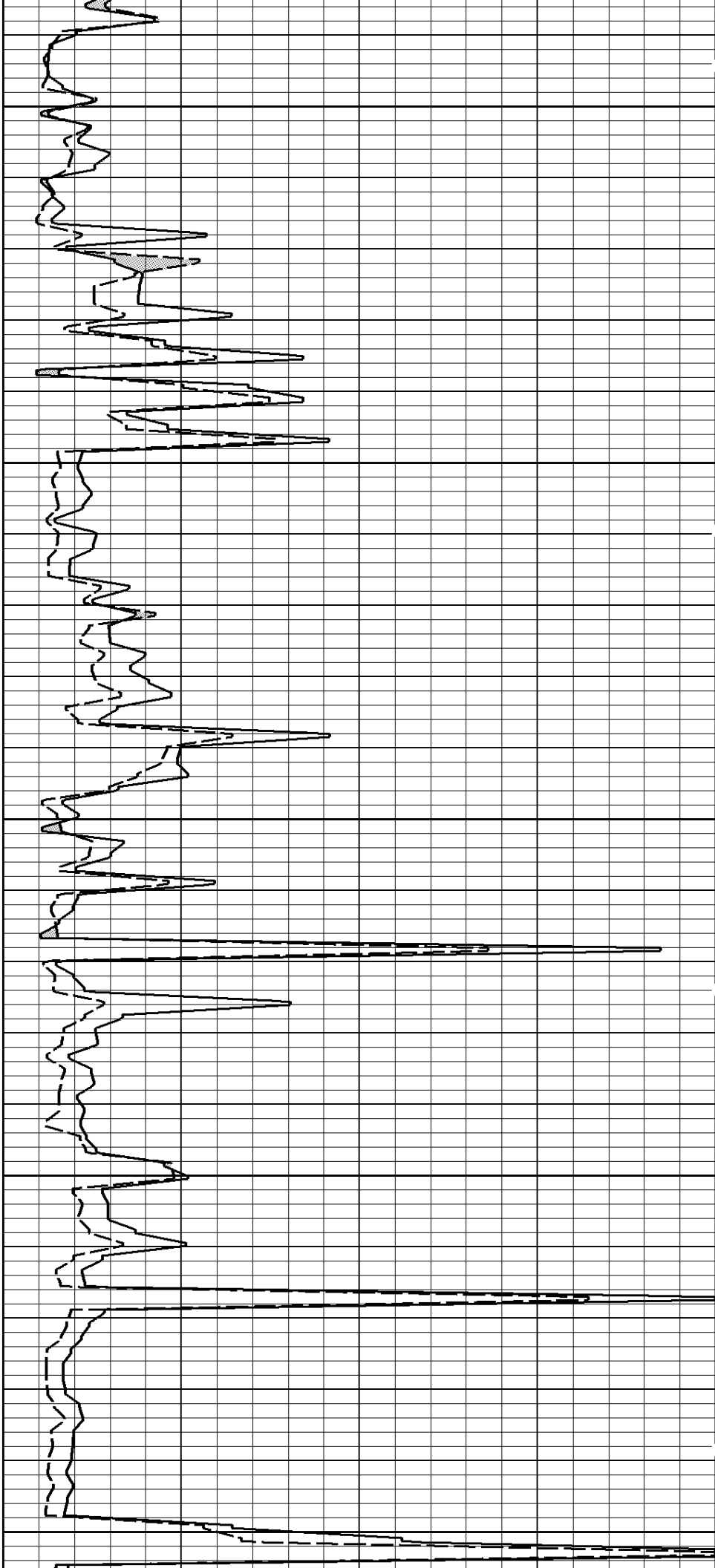


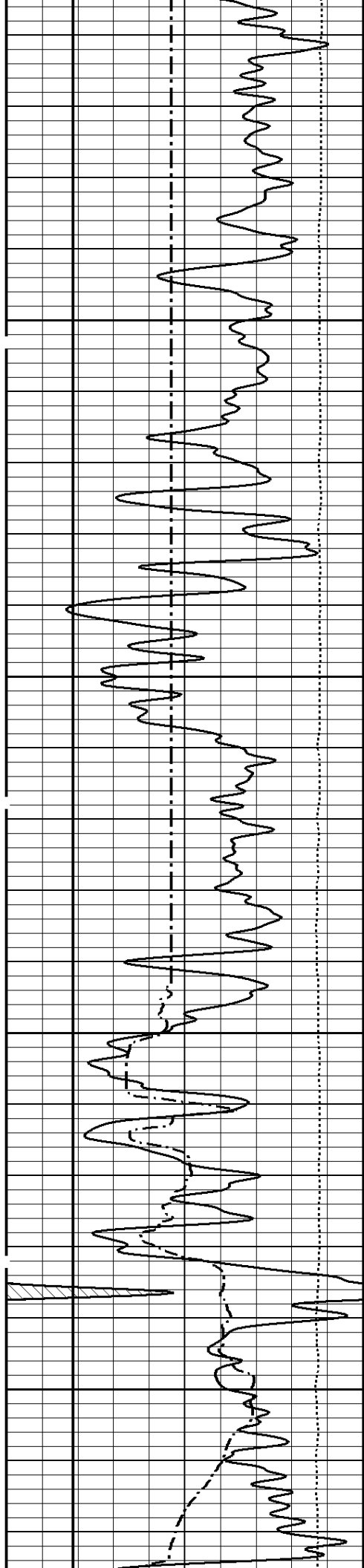
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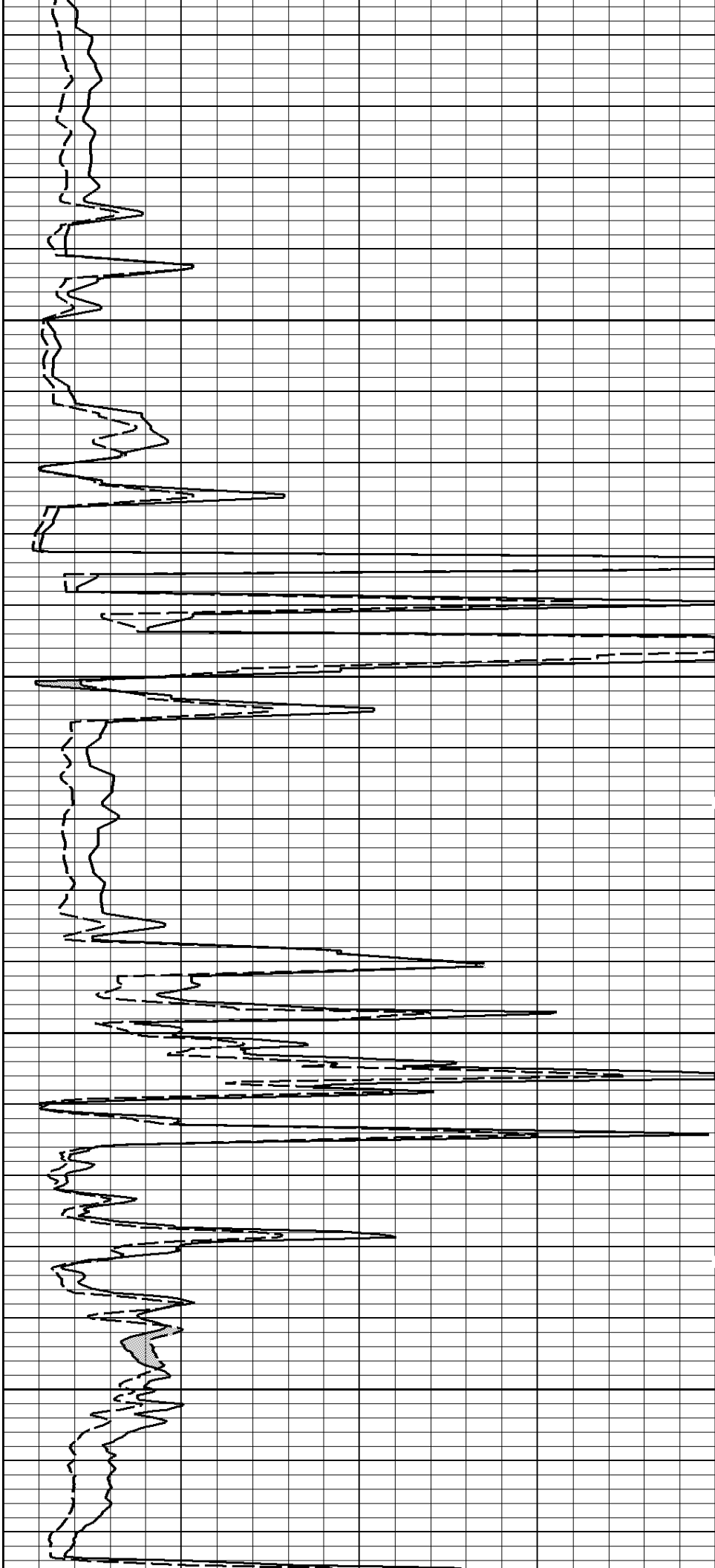
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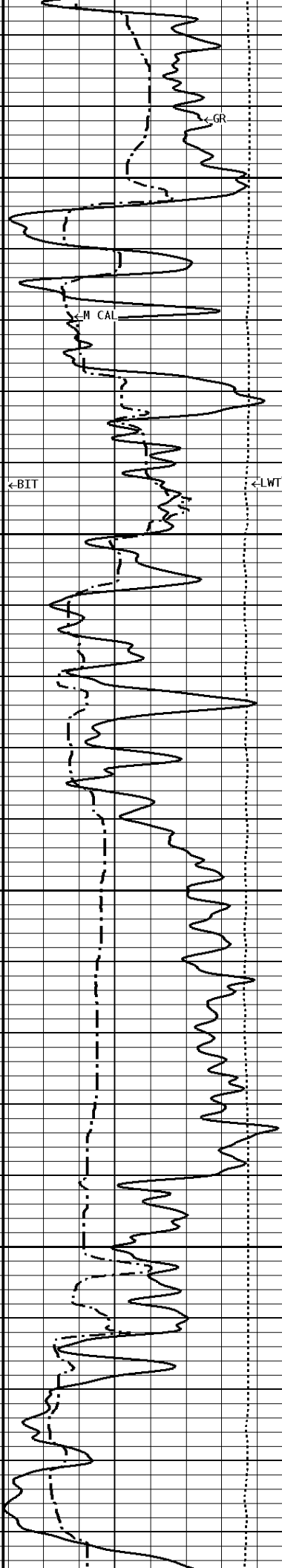




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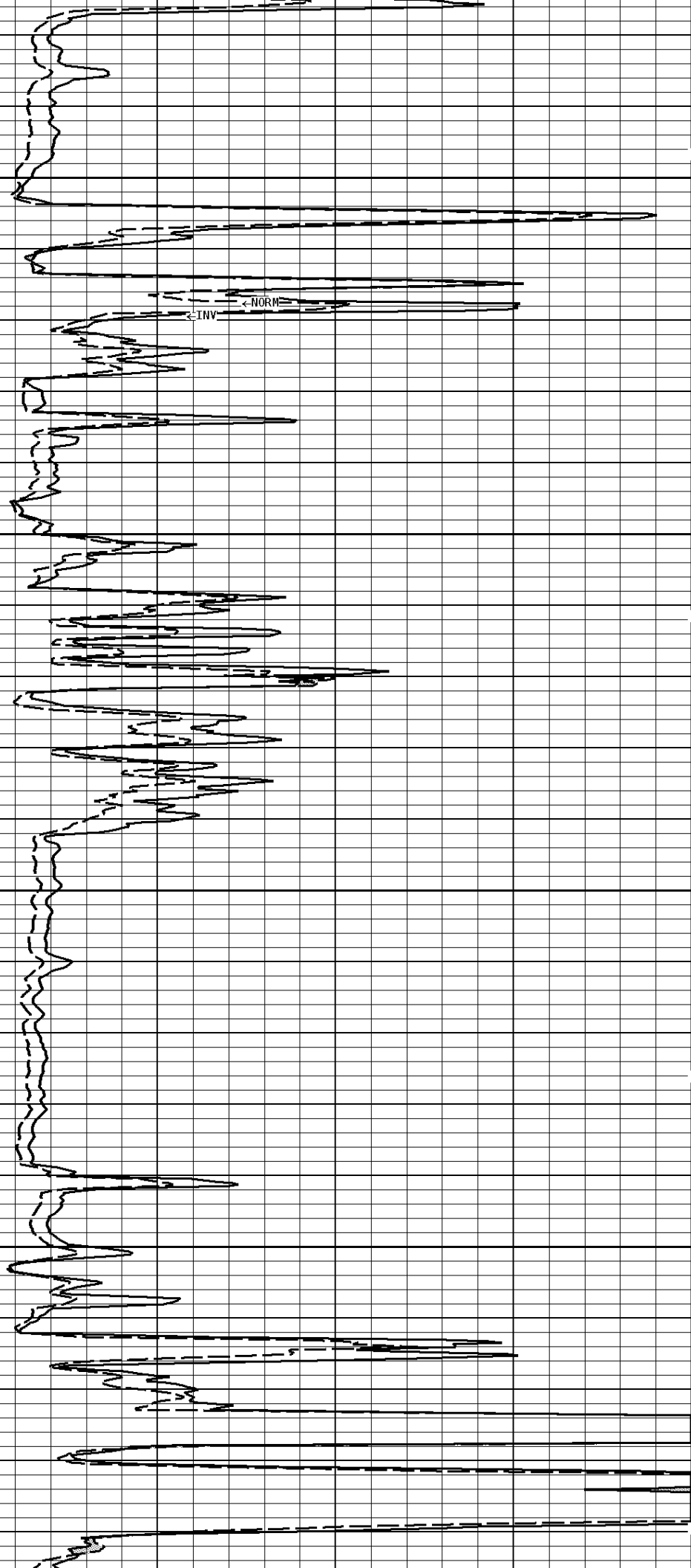
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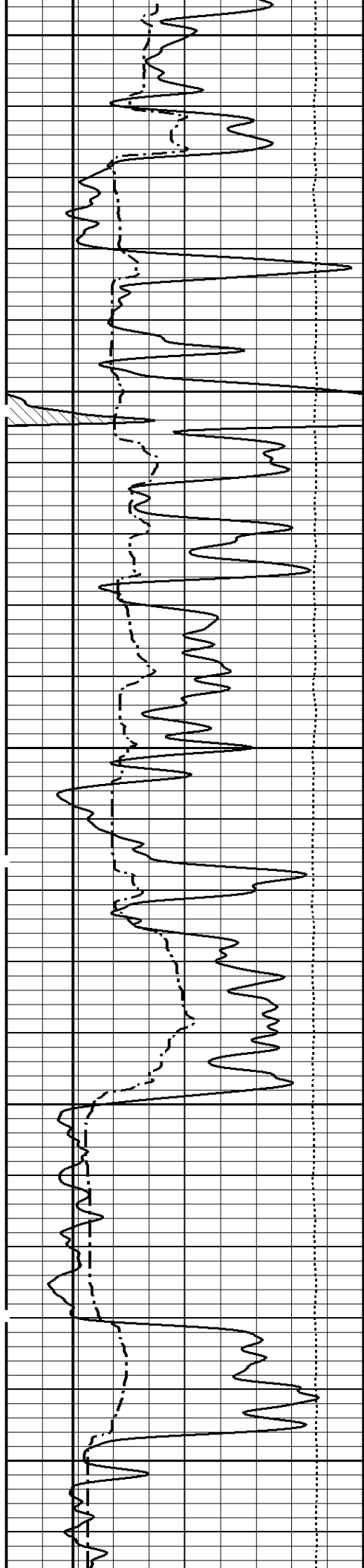




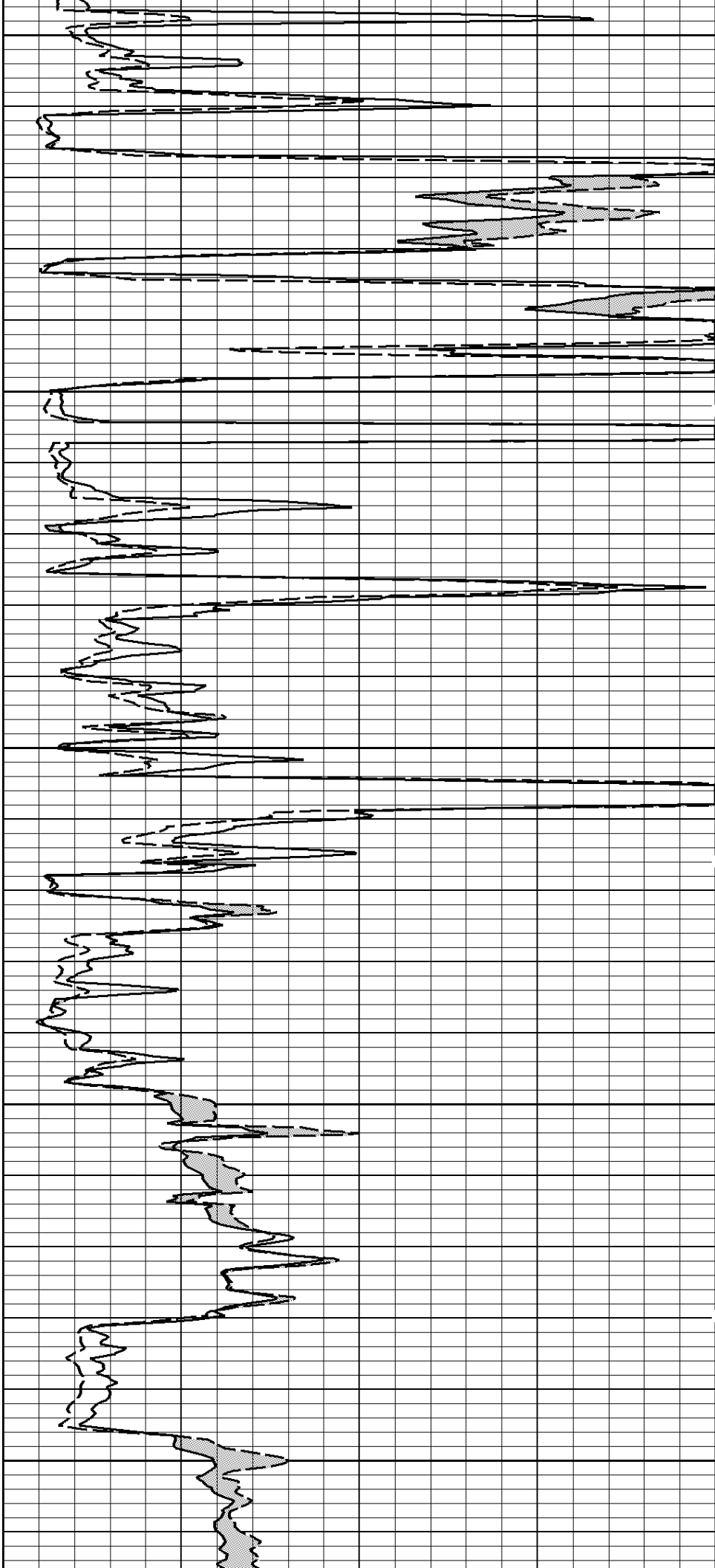
1000

1100



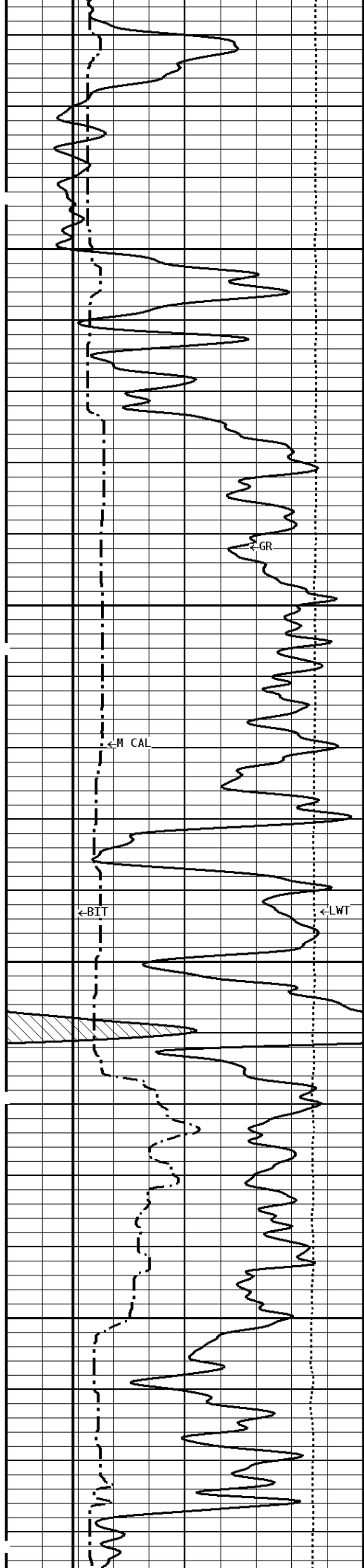


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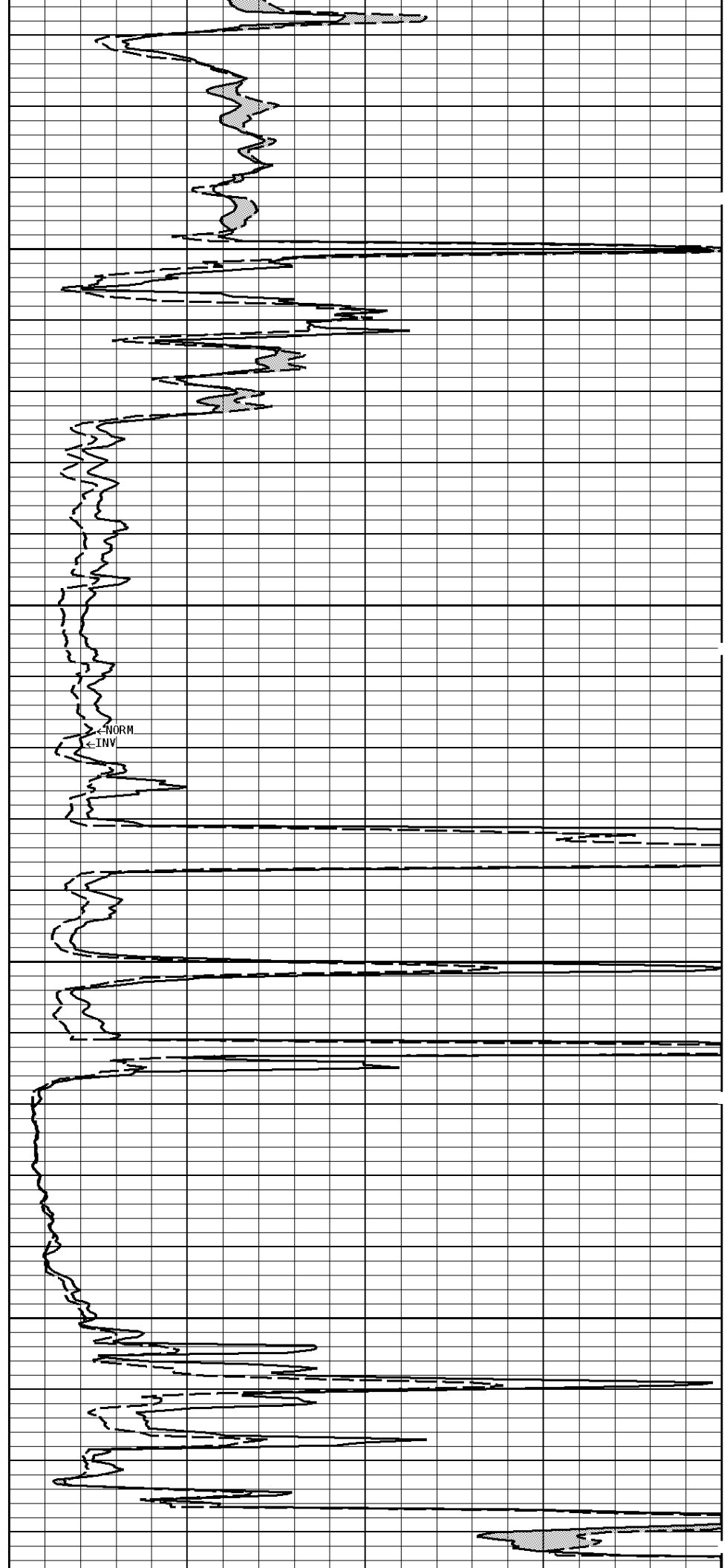
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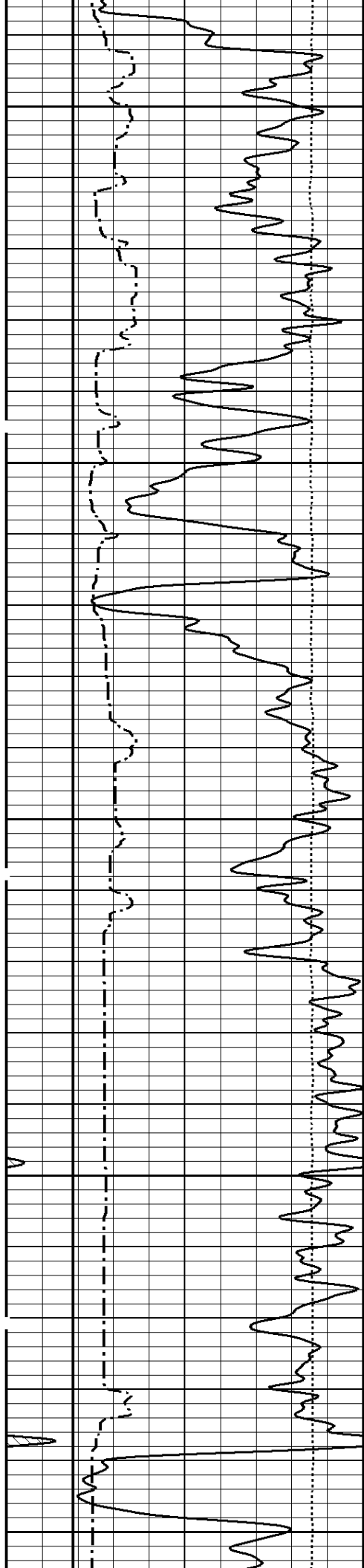
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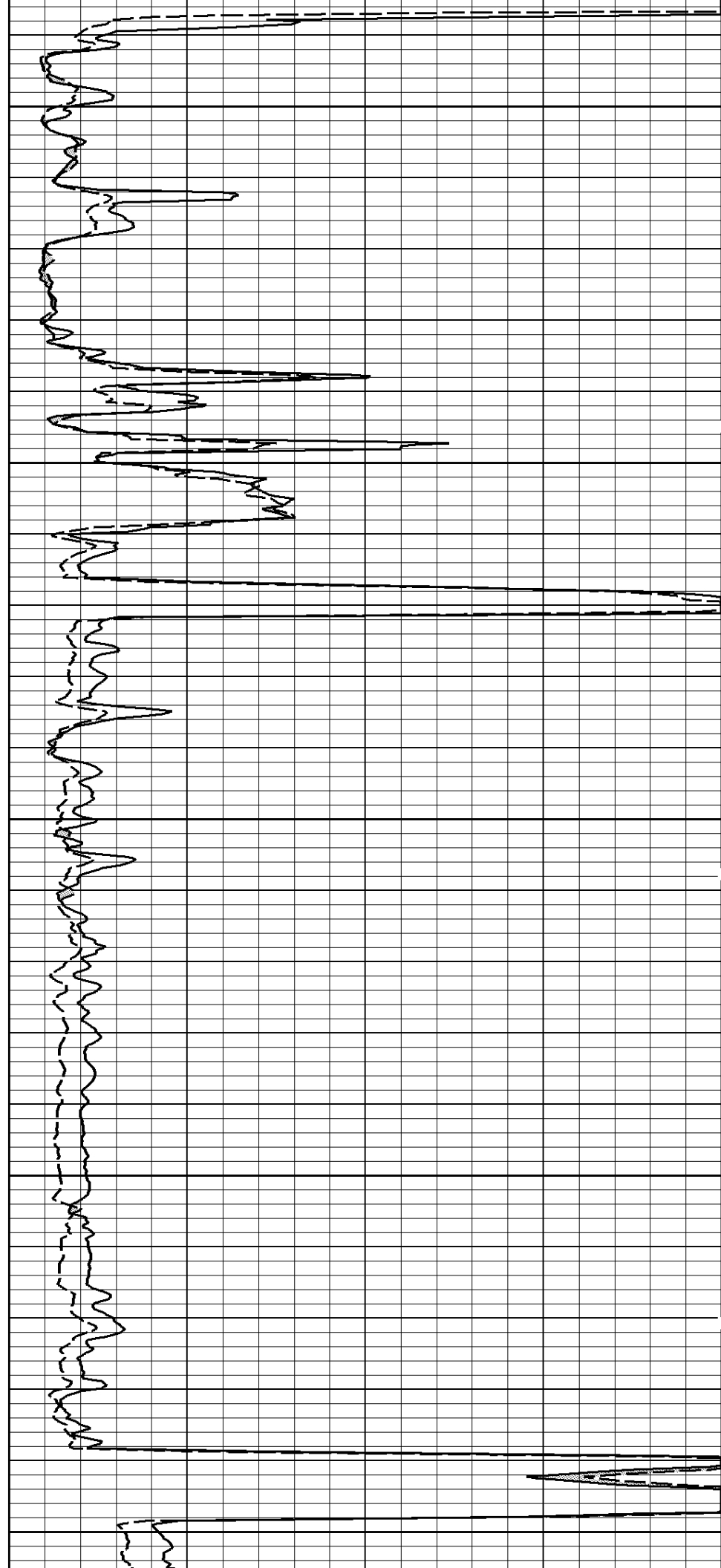
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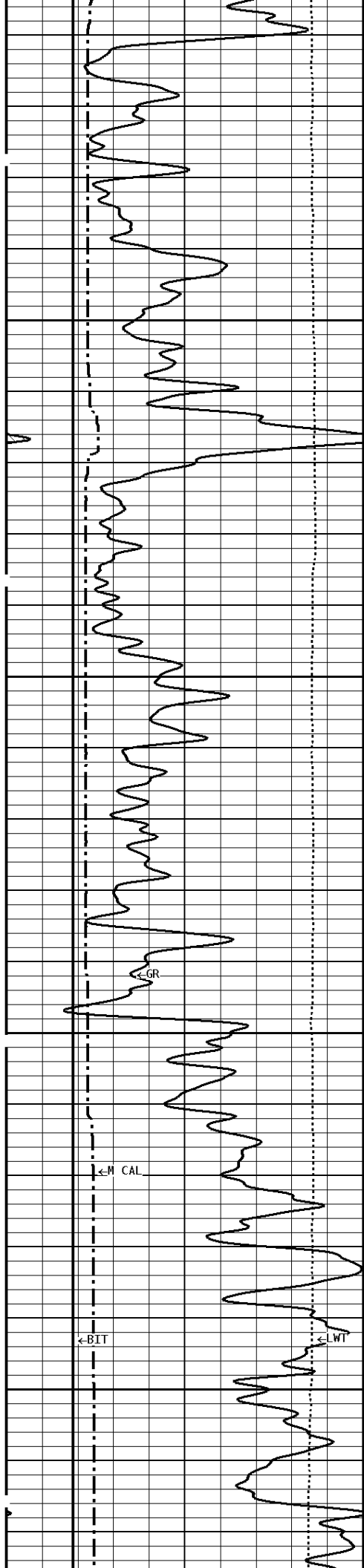




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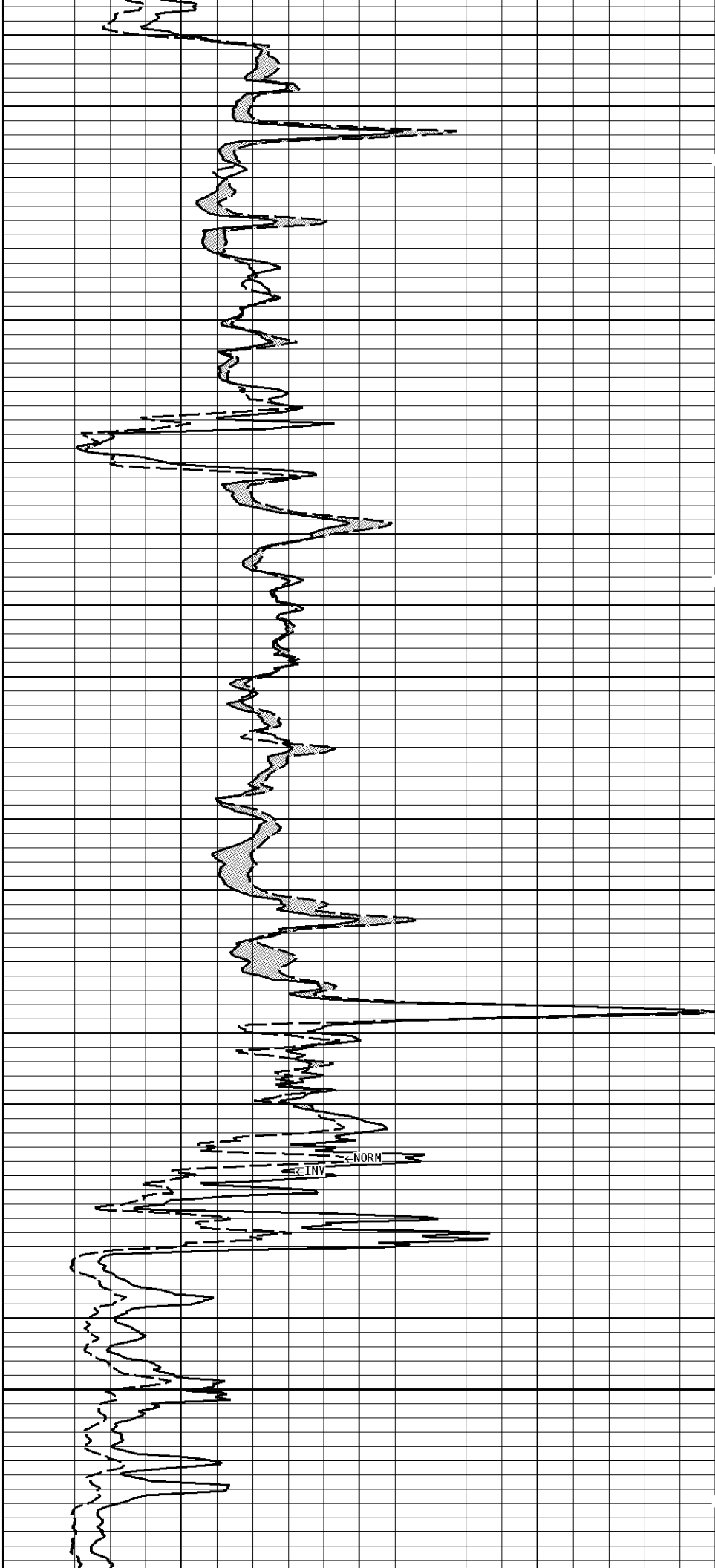
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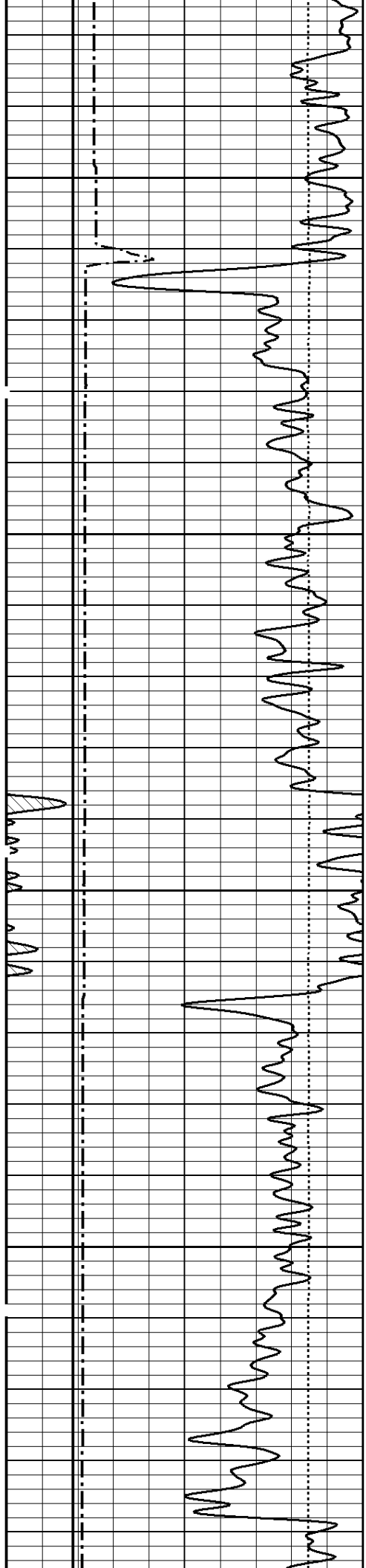




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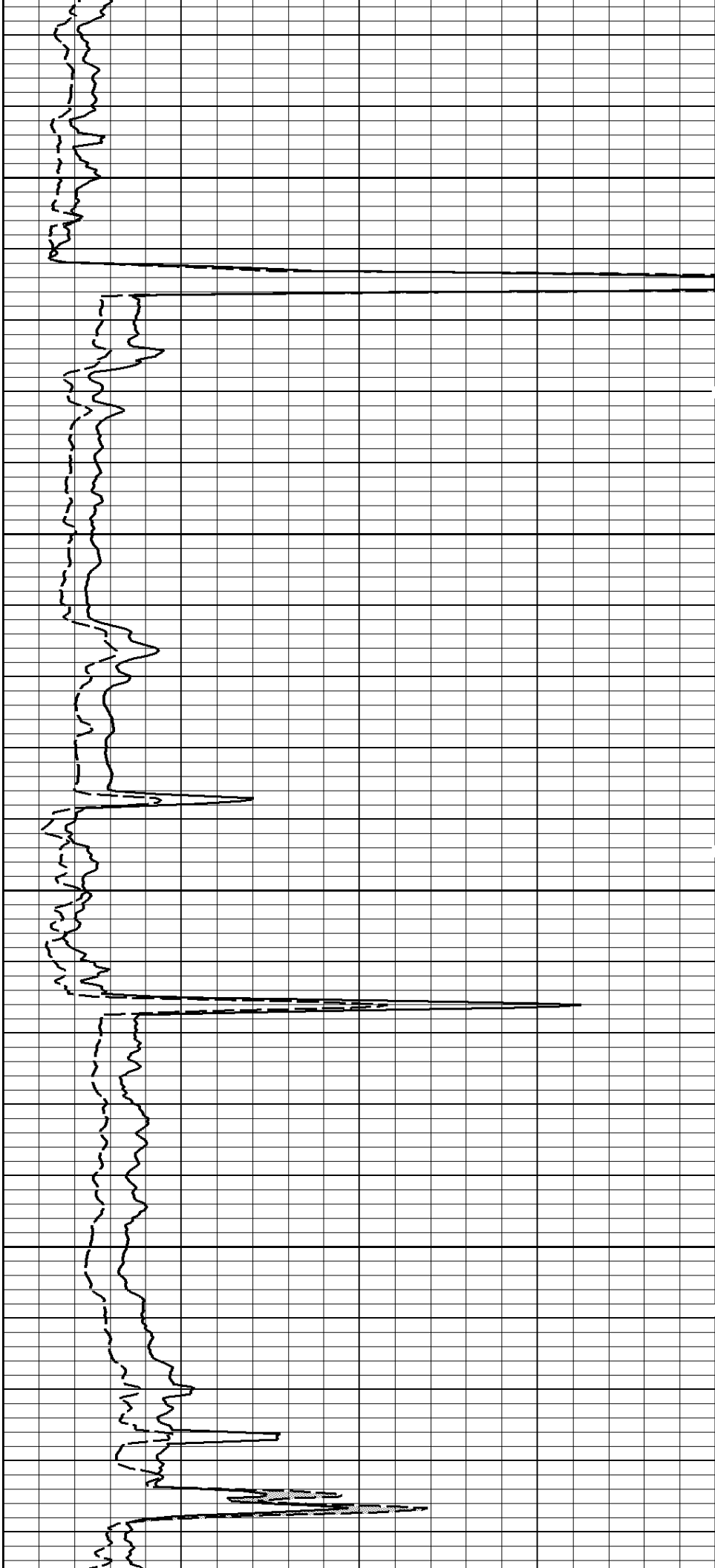
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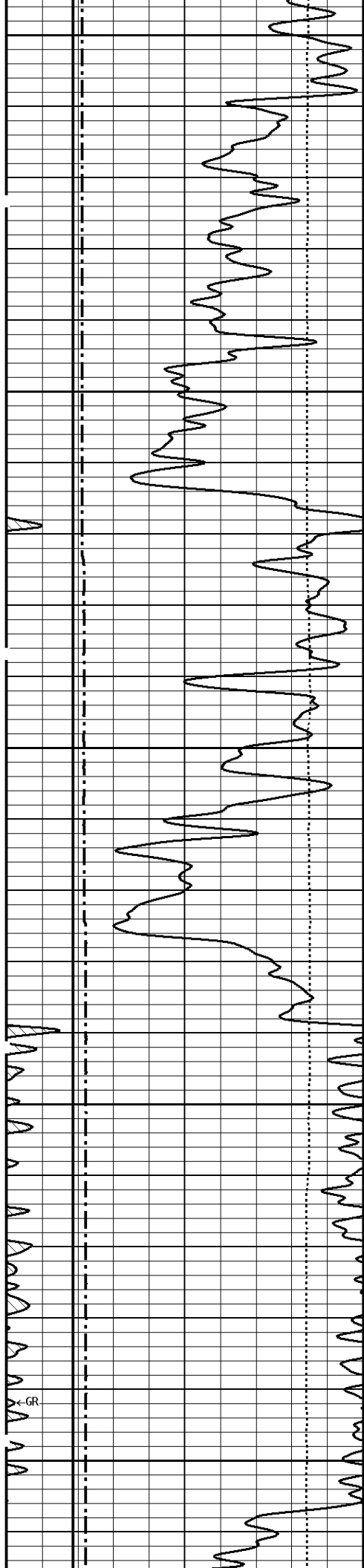




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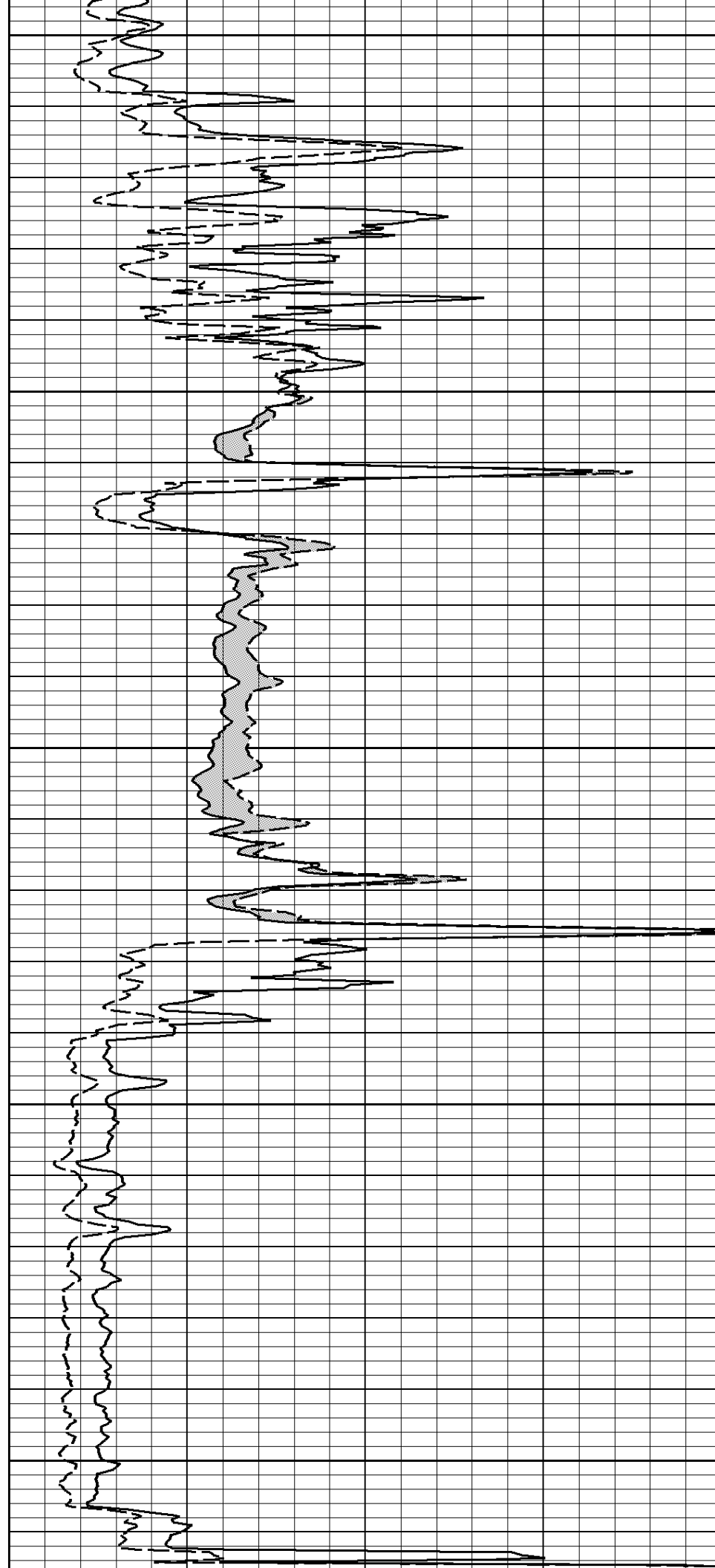


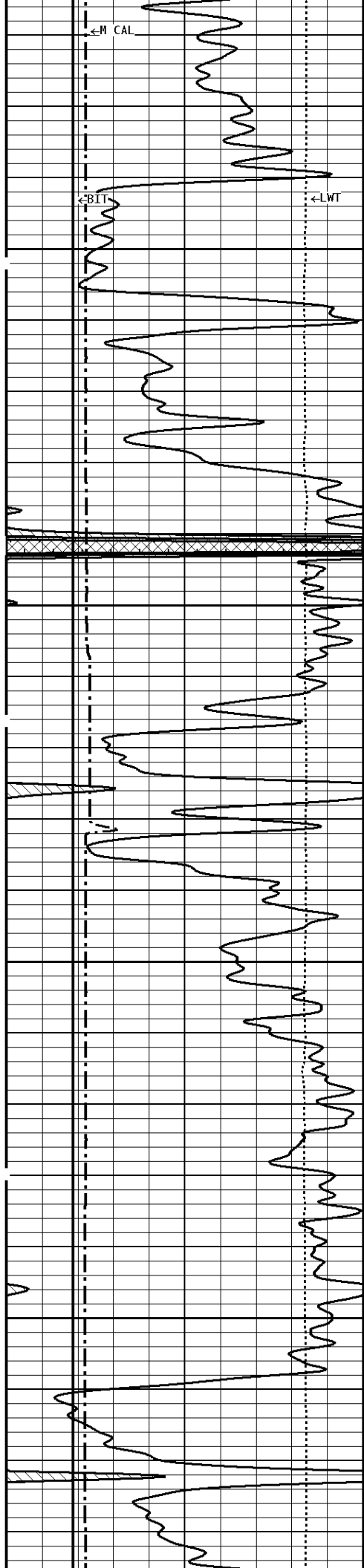


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2400

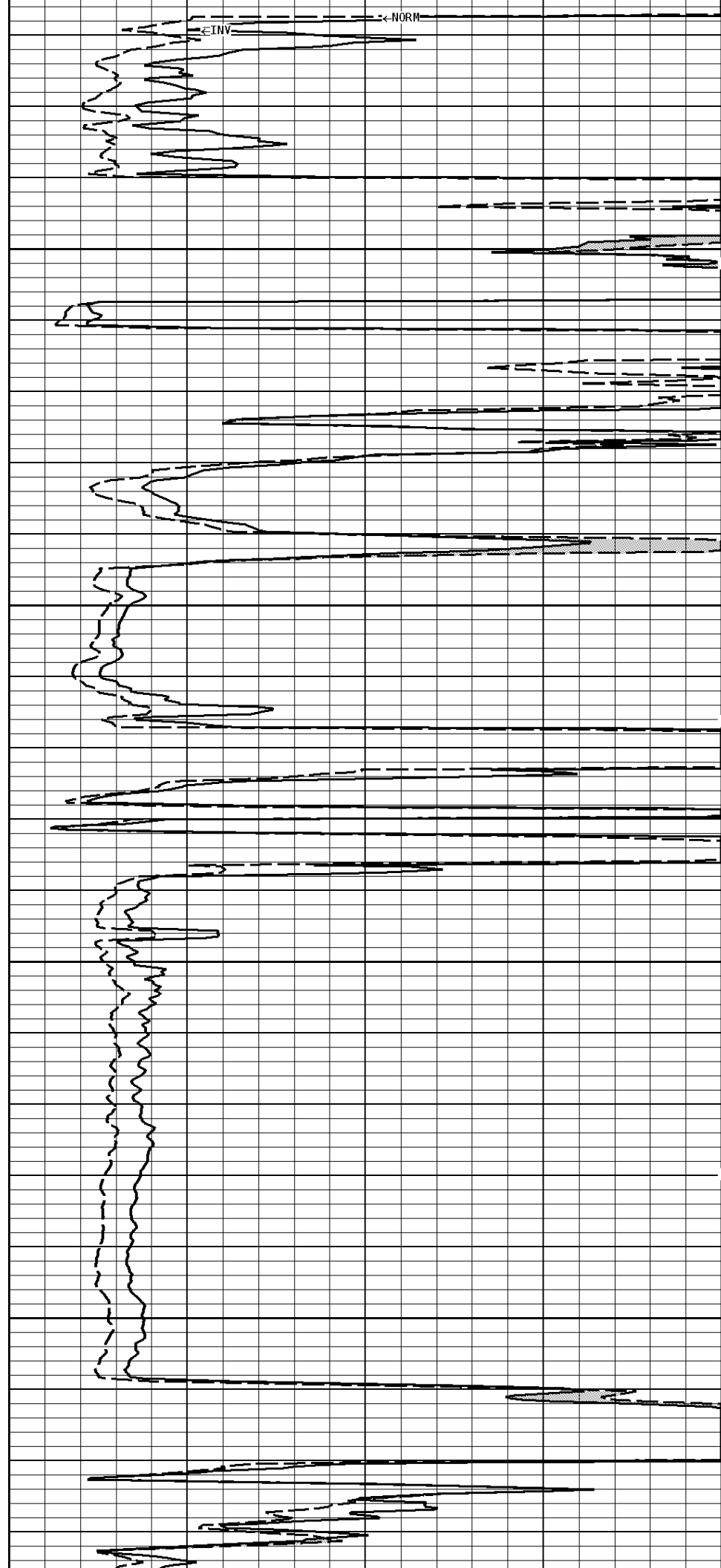
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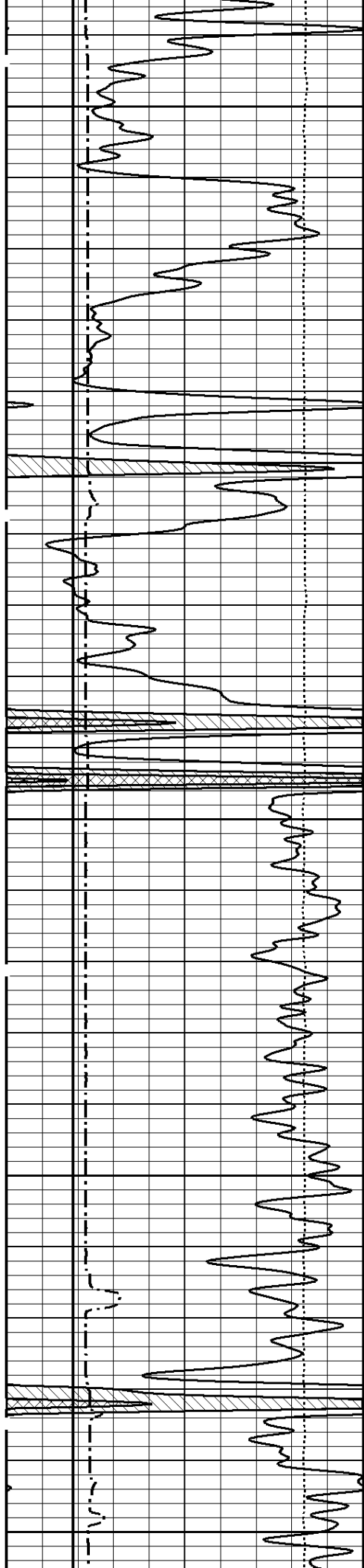




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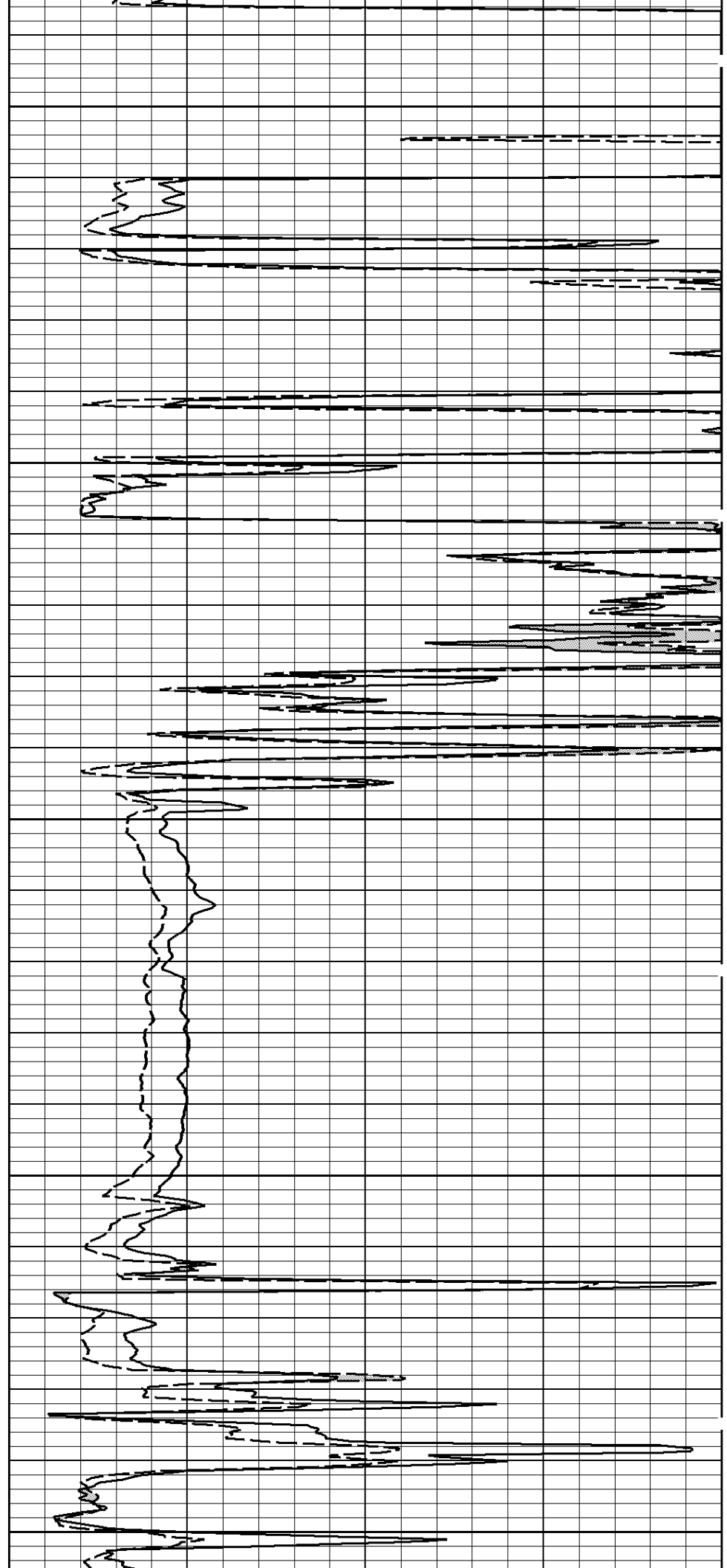
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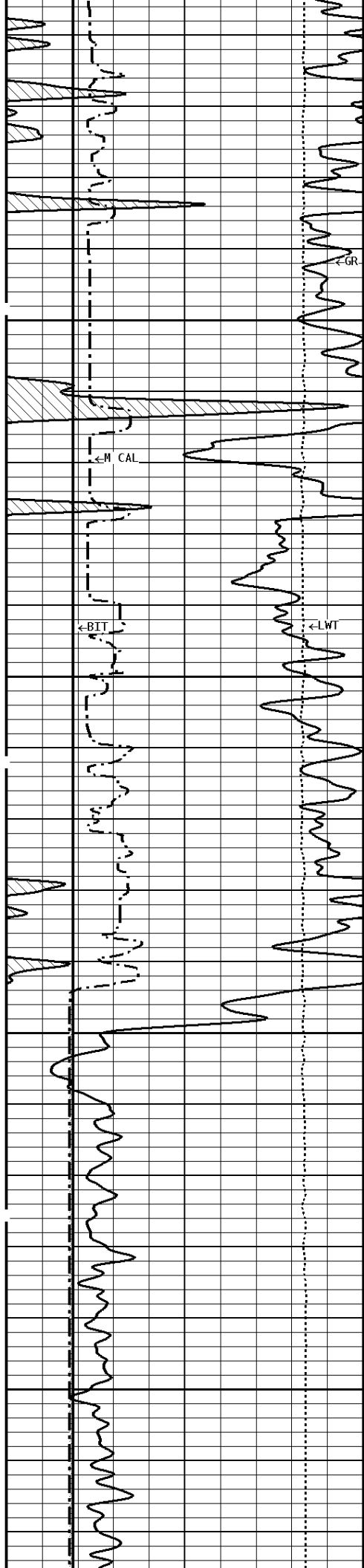




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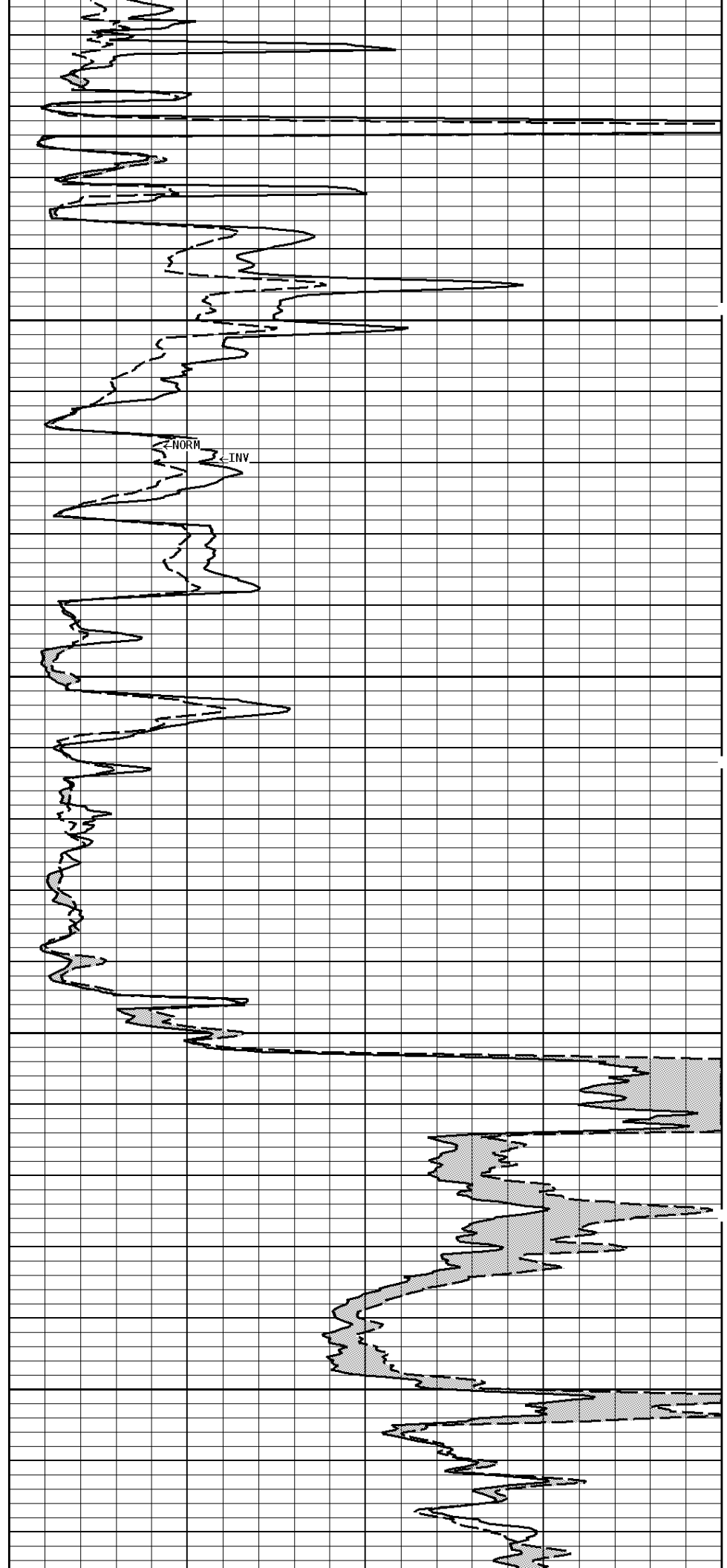
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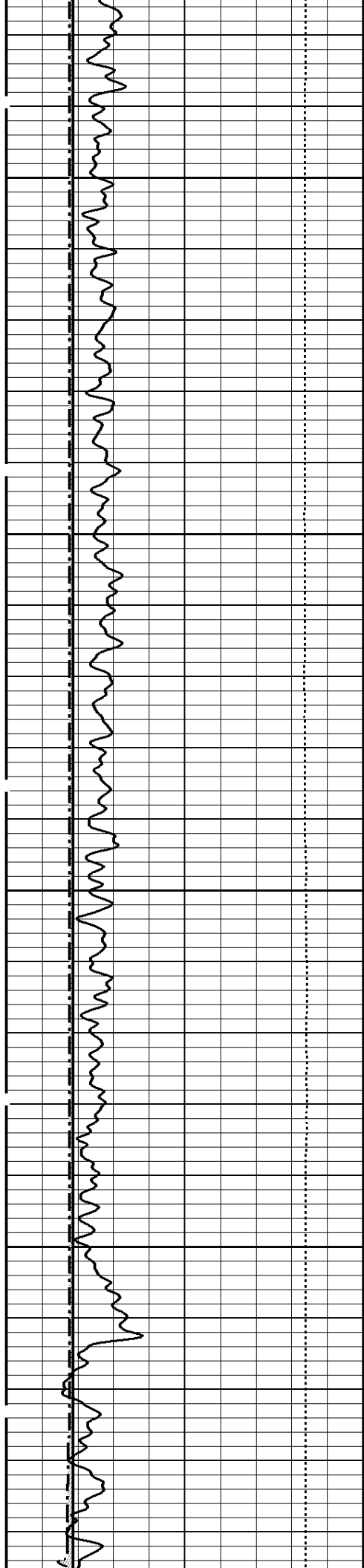




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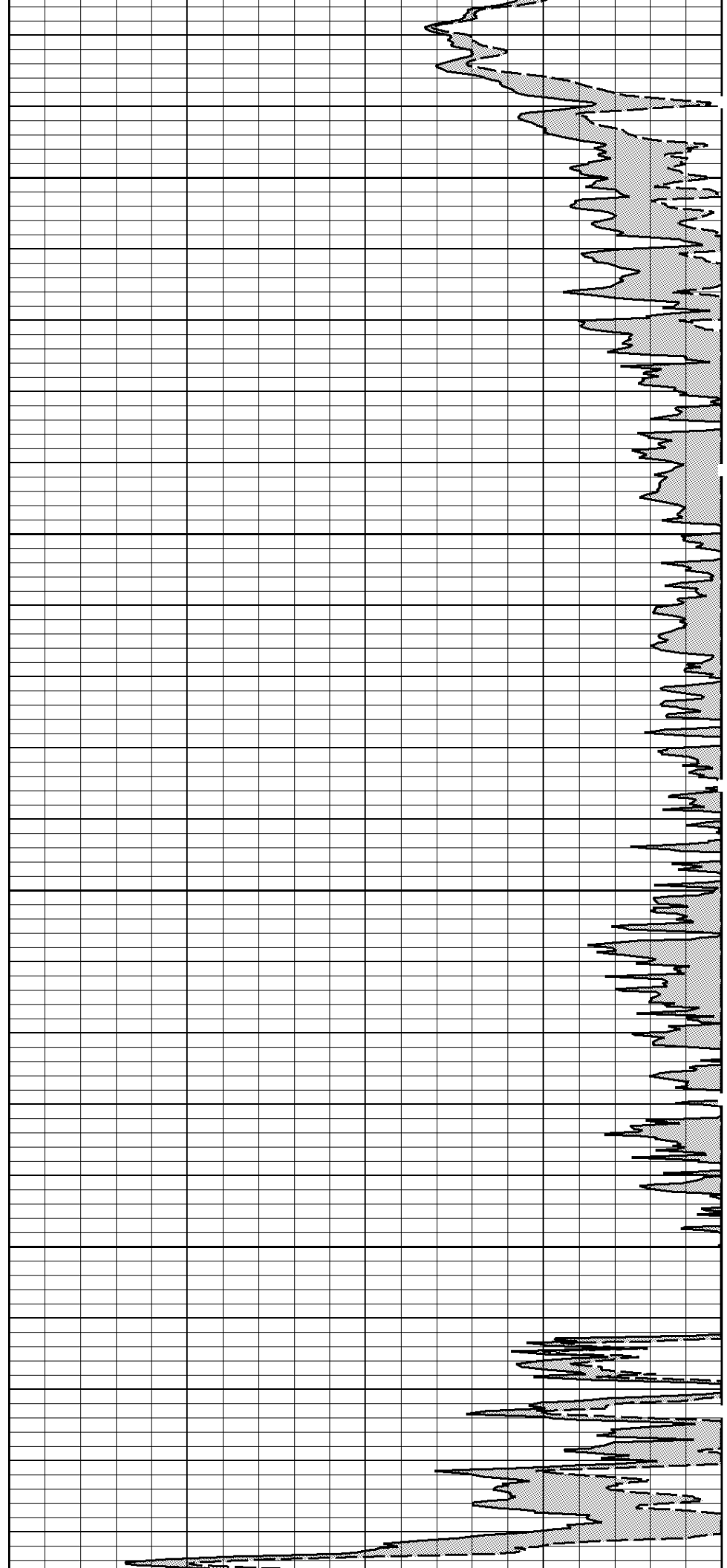
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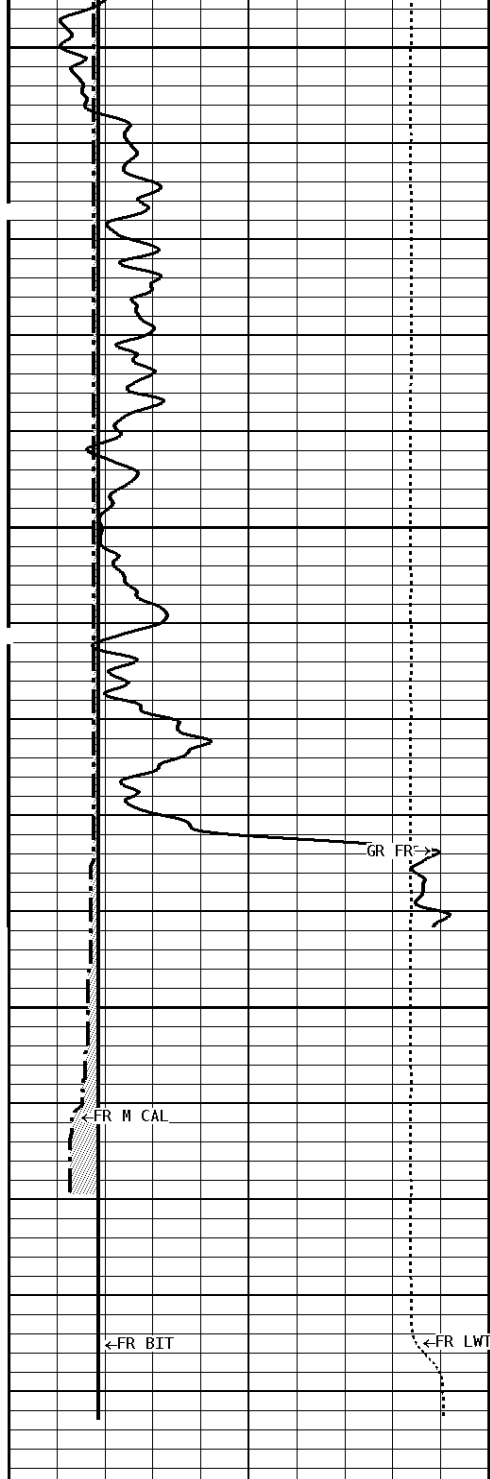




3200

3300



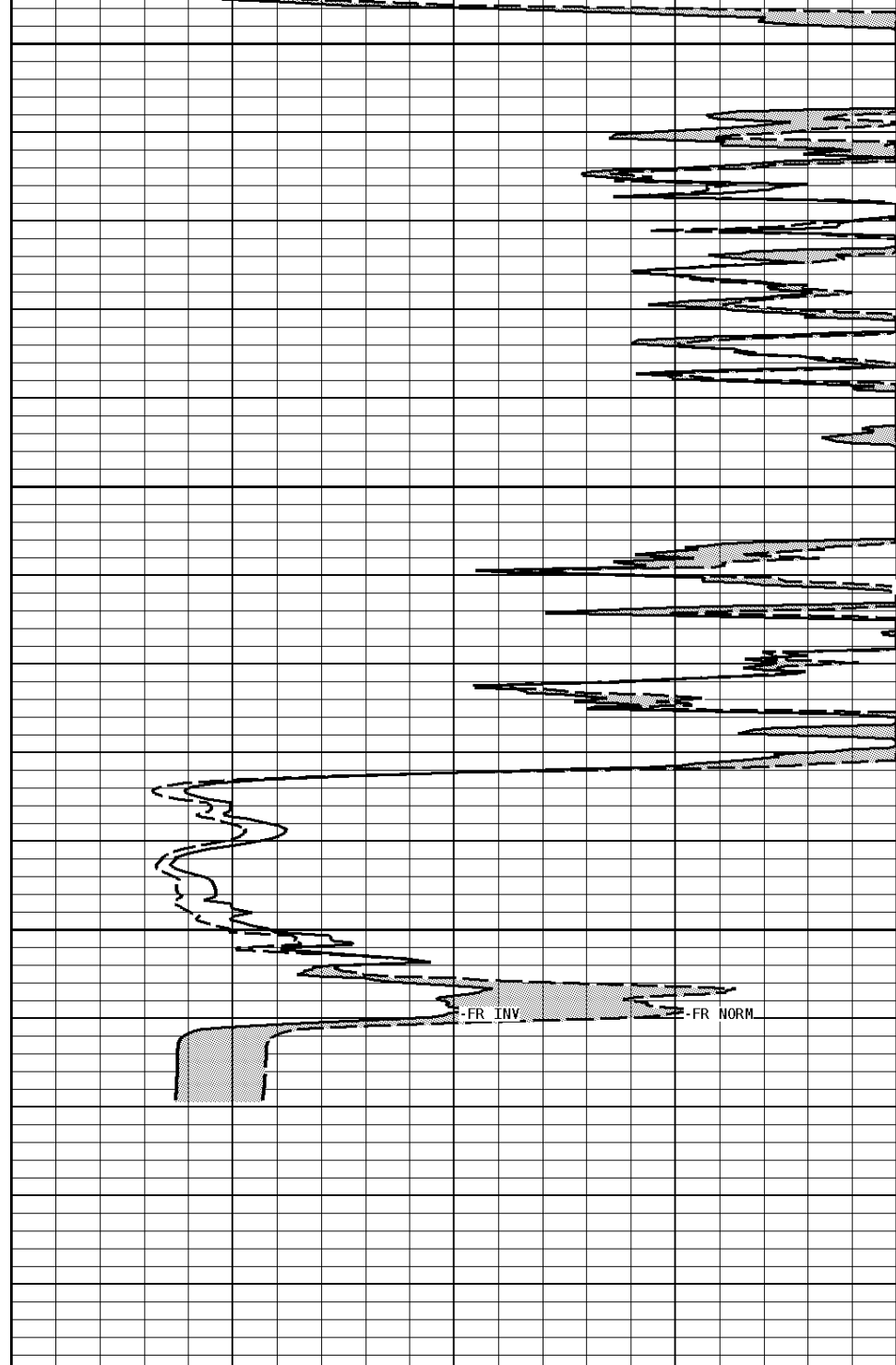


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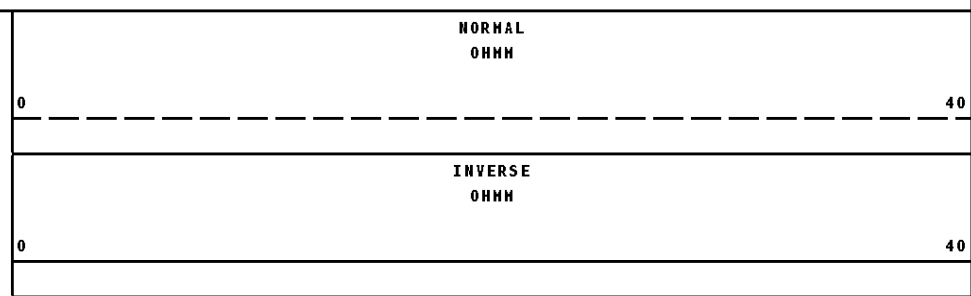
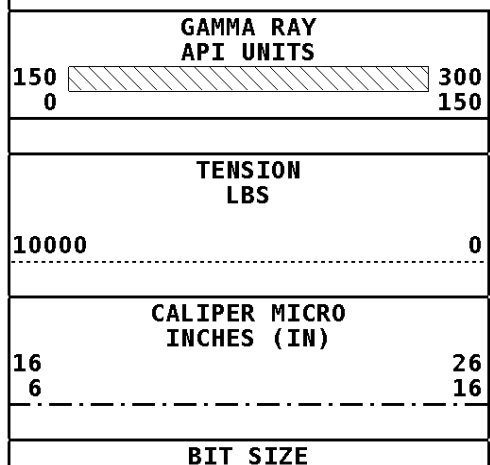
3500

3535

File #1.1.6



**1:240 MAIN SECTION**



INCHES (IN)

6 16

\* Borehole Zone Factors \*

Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size _____	7.875 in
MSTNG Normal Correction _____	0.00 ohmm
MSTNG Inverse Correction _____	0.00 ohmm

Well File: VAL ENERGY GARISON 1-25 JUNE26\_MSTK      Scale: 1:240      Format: MST-240  
 Segment: V1.D1.S3 Reprocess of REPEAT      Acquired: 2019-06/26 09:13 3.4.1-13968  
 Reference: 0      Processed: 2019-06/26 10:23 3.4.1-13968

BIT SIZE INCHES (IN)	
6	16

CALIPER MICRO INCHES (IN)	
16	26
6	16

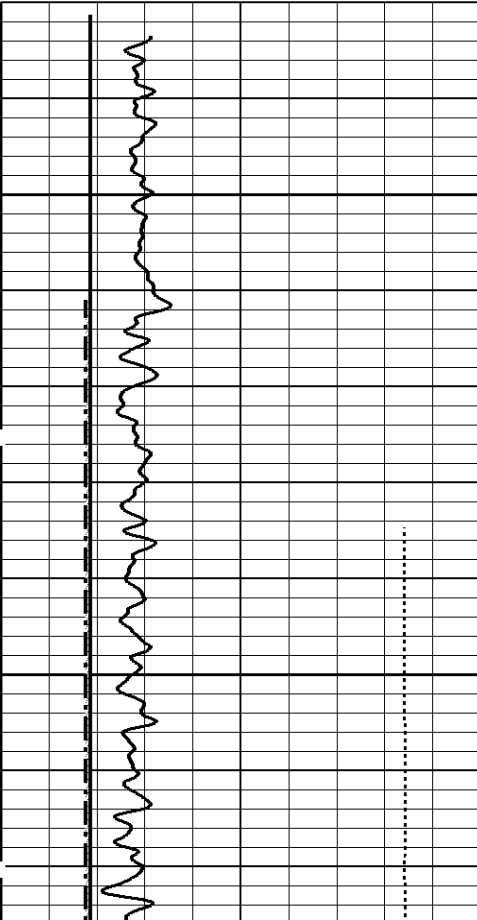
TENSION LBS	
10000	0

GAMMA RAY API UNITS	
150	300
0	150

INVERSE OHMM	
0	40

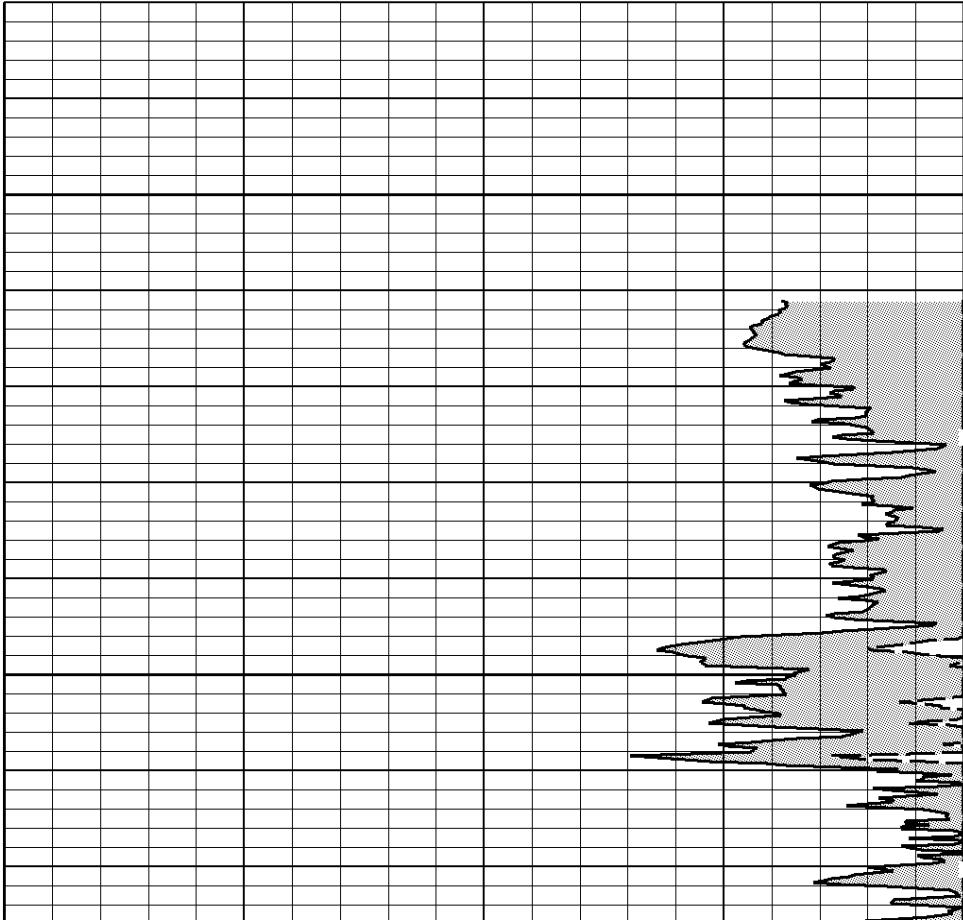
NORMAL OHMM	
0	40

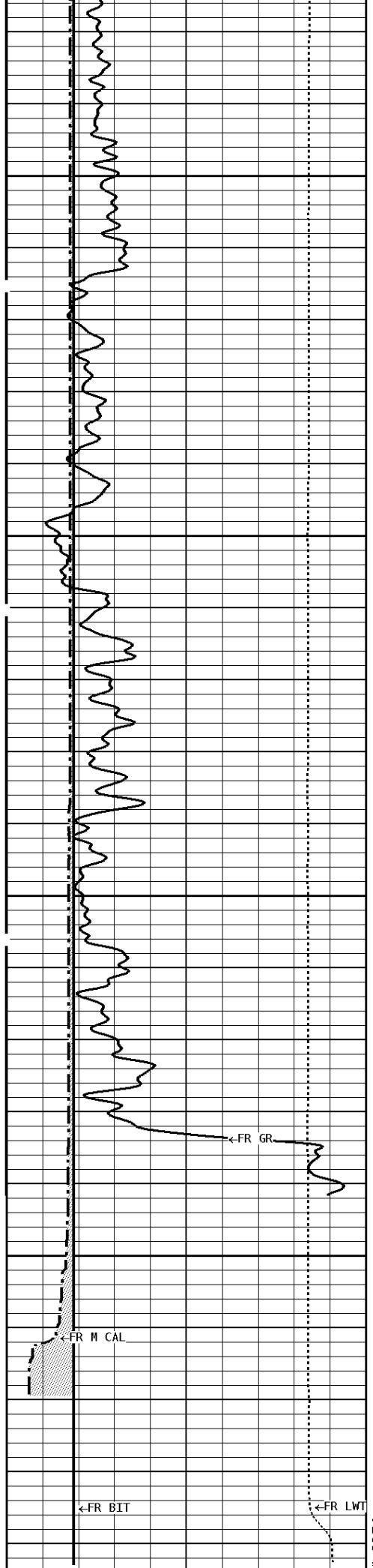
1:240 REPEAT SECTION



File #1.1.3

3300

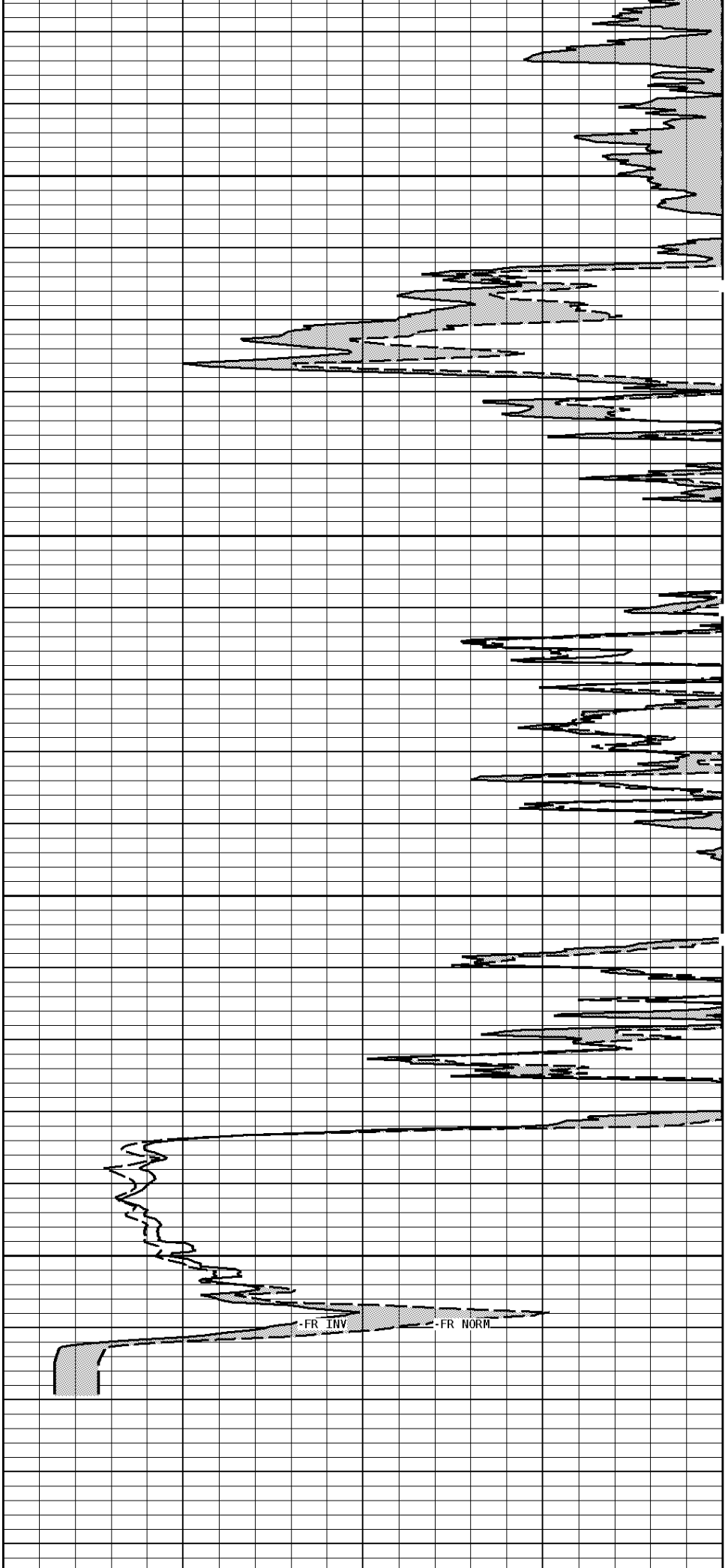




3400

3500





3535

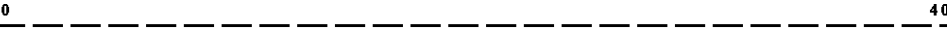
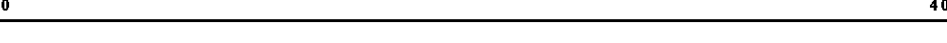


INV

NORM

# 1:240 REPEAT SECTION

<b>GAMMA RAY API UNITS</b>	
<b>TENSION LBS</b>	
<b>CALIPER MICRO INCHES (IN)</b>	
<b>BIT SIZE INCHES (IN)</b>	

<b>NORMAL OHMM</b>	
<b>INVERSE OHMM</b>	

**\* Borehole Zone Factors \***

<b>Zone 1 99999.0 to 0.0 Feet</b>
Drill Bit Size _____ 7.875 in
MSTNG Normal Correction _____ 0.00 ohmm
MSTNG Inverse Correction _____ 0.00 ohmm

**\* Calibration Summary \***

<b>Shop Calibration GRT-B</b>					
Performed : 16-May-2019			Time : 10:48		
Sensor Suite : GR-GR5			ID : GRT-BB-006		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	68	335 CPS	160	GRAPI	
<b>Shop Calibration MST-DA</b>					
Performed : 15-MAY-2019			Time : 10:36		
Sensor Suite : CALI-MSN			ID : MST-DA-024		
	Jig - Measured		Jig - Calibrated	Units	
CL # 1	Ring#1 Ring#2		Ring#1 Ring#2		
	6.7 11.0		6.0 12.0	IN.	
Performed : 15-MAY-2019			Time : 10:37		
Sensor Suite : MSTDA-NI			ID : MST-DA-024		
<b>Internal</b>					
	Measured	Units	Calibrated	Units	
	Zero Reference		Zero Reference		
INV-V	0.0 29853.4		0.00 1546.00	MV	
NOR-V	0.0 29711.1		0.00 1646.00	MV	
IN-C	0.0 58914.6		0.00 15.46	UA	
INV-R			32.34	OHMM	
NOR-R			58.67	OHMM	

# STEP

Company: VAL ENERGY, INC.  
 Well: GARISON #1-25  
 Location: 660' FNL & 660' FEL  
 Logged: 06-26-2019  
 K B Elev: 1322.0 Ft

