

Tucker
ENERGY SERVICES

MICRO
LOG

File No : TUL-62046
 Company : VAL ENERGY, INC
 Well : BIRDZELL #1-23 OWWO
 Field :
 Country : COWLEY
 State : KANSAS
 Country : USA
 API No : 15-035-22441-0001

Company VAL ENERGY, INC
 Well BIRDZELL #1-23 OWWO
 Field :
 Country COWLEY
 State KANSAS
 Country USA
 API No. 15-035-22441-0001

Location :
 660' FSL & 3630' FEL

LSD : Sect : 23 Twp : 33S Rge : 4E

Permanent Datum: GL Elevations: KB 0.00 Ft
 Drilling Measured From: KB DF 0.00 Ft
 Log Measured From: KB DF 0.00 Ft
 Above Permanent Datum: 0.00 Ft GL 1117.00 Ft

Services: CNT PIT
 LDT
 MLT

Date	11-03-2018	Run Number	1
Depth--Driller	3480.0	Depth--Driller	Ft
Depth--Logger	3472.0	Depth--Logger	Ft
First Reading	3449.0	First Reading	Ft
Last Reading	234.0	Last Reading	Ft
Casing--Driller	234.0	Casing--Driller	Ft
Casing--Logger	234.0	Casing--Logger	Ft
Bit Size	7.875	Bit Size	In
Casing Size	8.625	Casing Size	In
Hole Fluid Type	WBM	Hole Fluid Type	
Density	9.0	Density	
Fluid Loss	16.0	Fluid Loss	
PH/Viscosity	9.0	PH/Viscosity	38.0
Sample Source	MEASURED	Sample Source	
RM@Measured Temp.	2.000 @ 70 F	RM@Measured Temp.	
RMF@Measured Temp	1.600 @ 70 F	RMF@Measured Temp	
RM@Measured Temp.	2.400 @ 70 F	RM@Measured Temp.	
Source RMF/RMC	CALCULATED/CALCULATED	Source RMF/RMC	
RM@BHT	0.000 @ 110 F	RM@BHT	
Time Circulation Stopped	11-03-2018 14:00	Time Circulation Stopped	
Max Recorded Temp.	110	Max Recorded Temp.	F
Equipment/Base	1022	Equipment/Base	TULSA, OK
Recorded By	SHELDON TYLER	Recorded By	
Witnessed By	JOE BAKER	Witnessed By	

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. 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 T. E. S. 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 T. E. S. 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	3480.00	8.625	32.00	234.00	0.00

Run Number	1
Date	11-03-2018
Date/Time On Bottom	11-03-2018 17:00
Depth to Fluid	0.0 Ft
Salinity	9000.000
RMF@BHT	0.000 @ 110 F
RMC@BHT	0.000 @ 110 F

Run Number 1

Comments

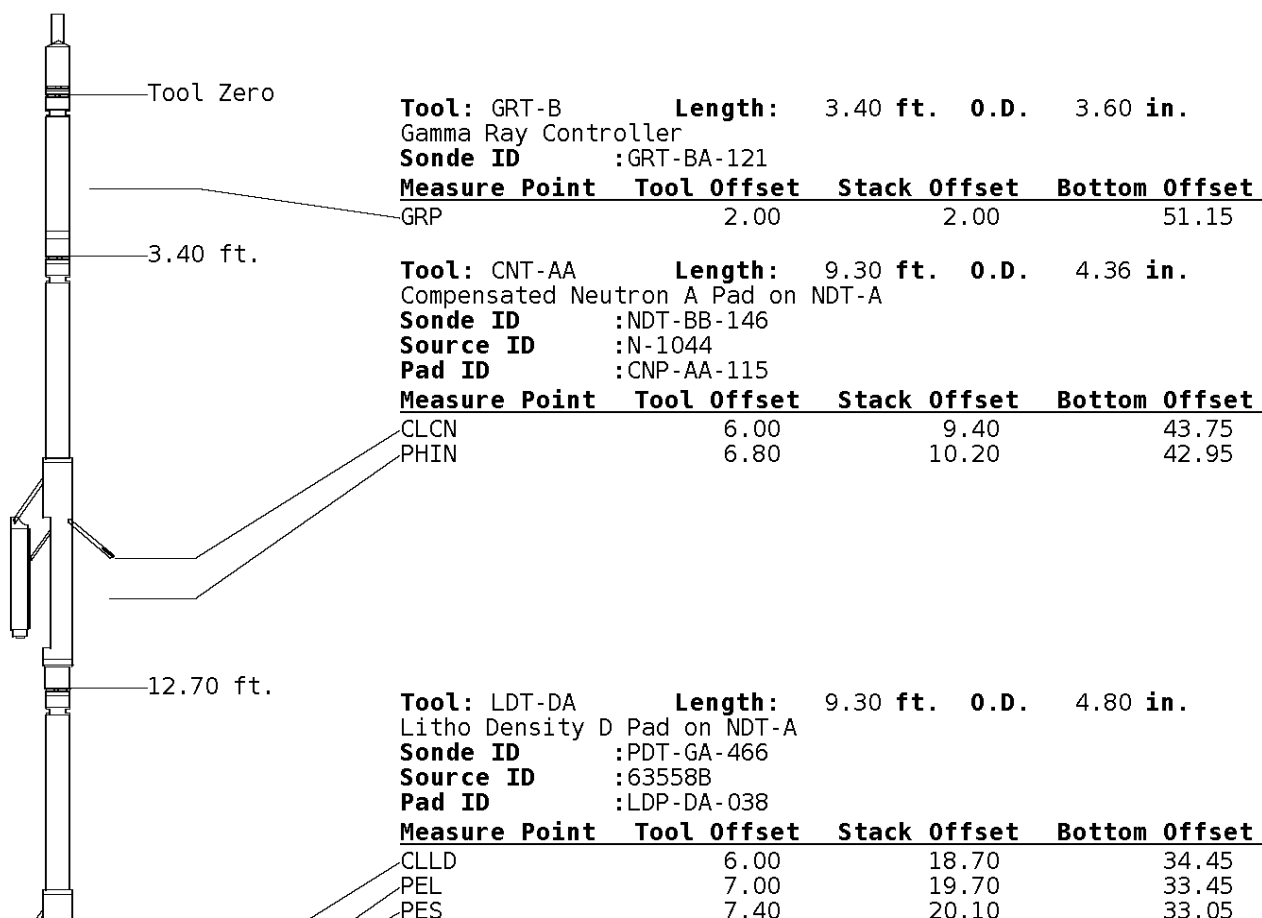
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

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.BAILEY
 K.WARREN

Tool String Schematic

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





7.20 19.90 33.25
 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-021

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

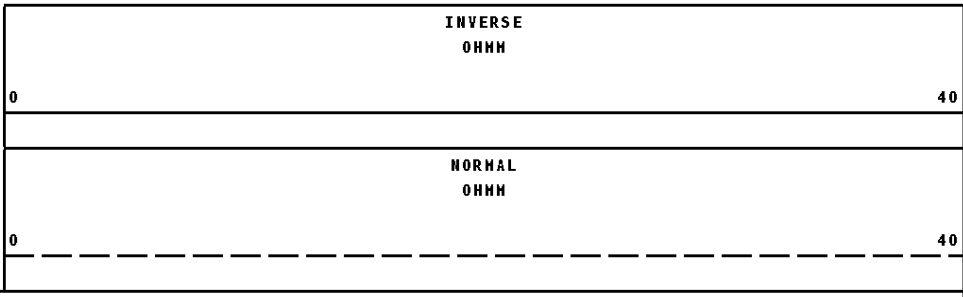
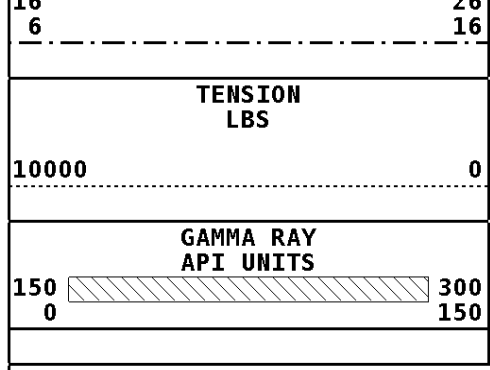
Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-069

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

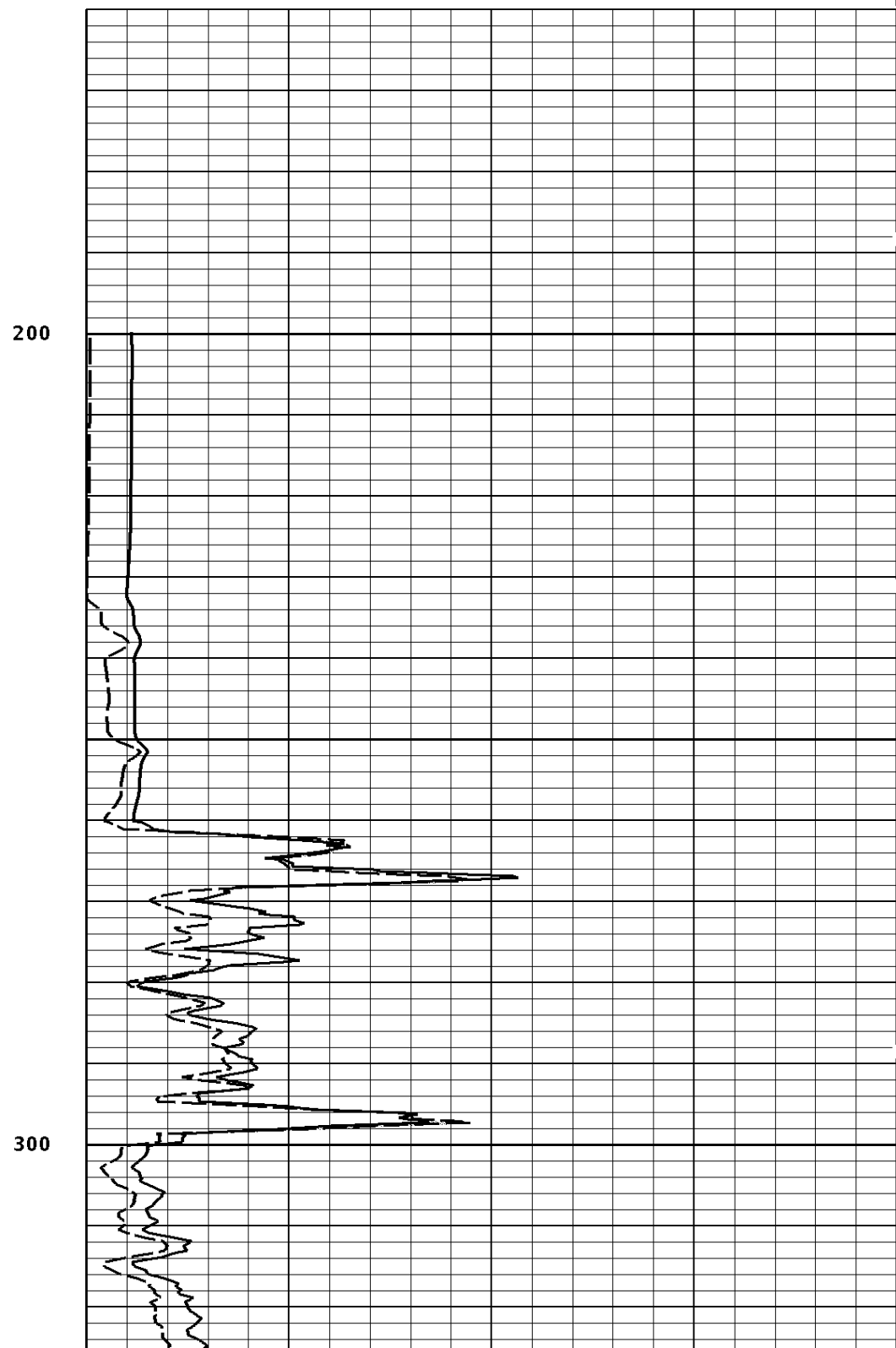
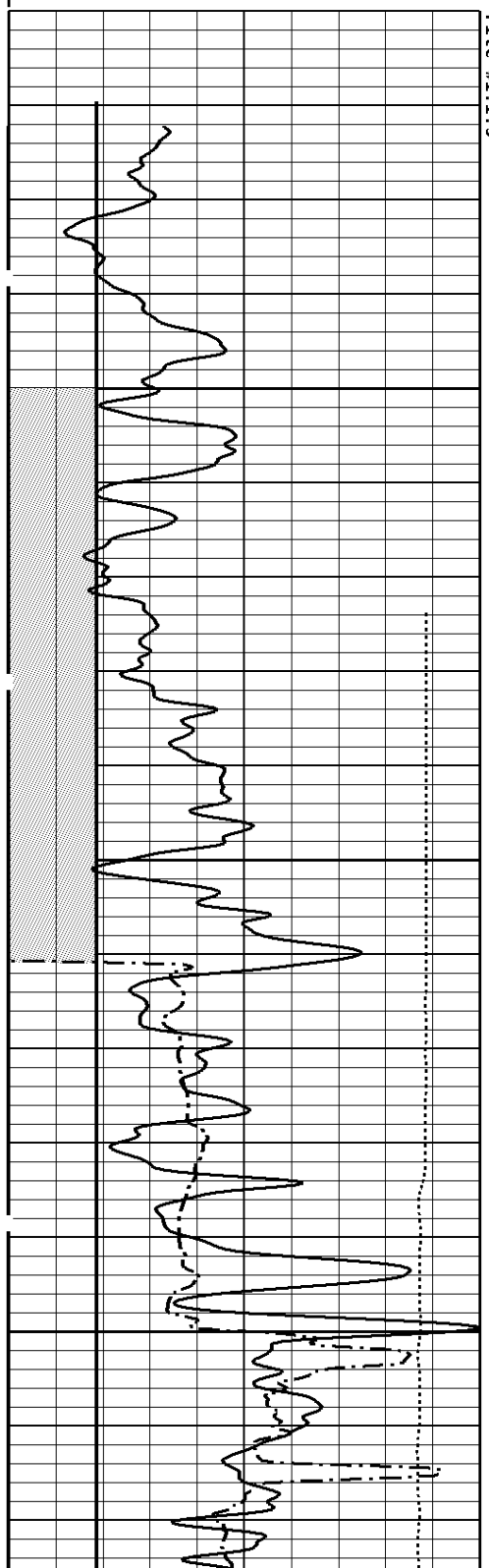
Well File: VAL ENERGY BIRDZELL OWWO 1-23 NOV3 MSTK **Scale:** 1:240 **Format:** MST-240
Segment: V1.D1.S5 FINAL MAIN **Acquired:** Not Available
Reference: 0 **Processed:** Not Available

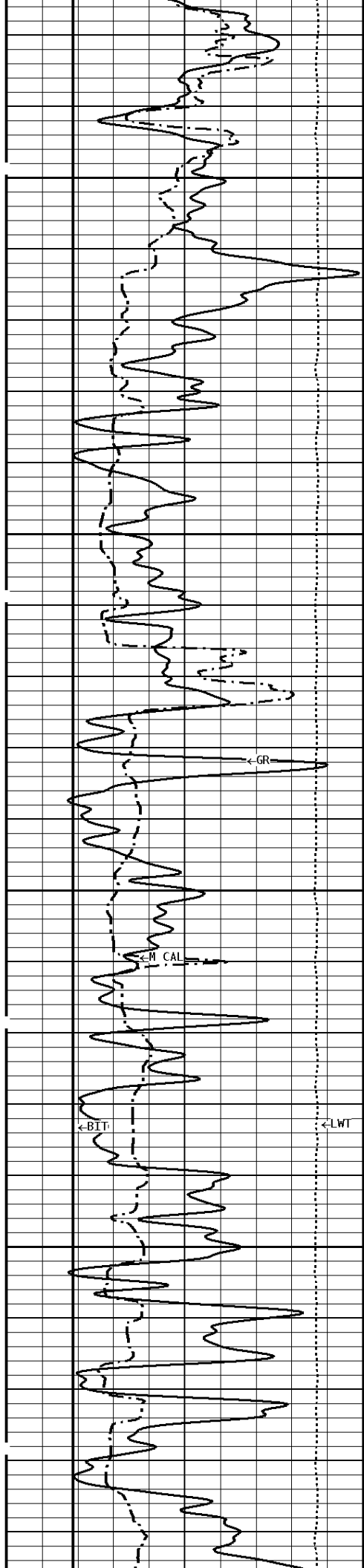
BIT SIZE INCHES (IN)	
6	16

CALIPER MICRO INCHES (IN)	
16	26



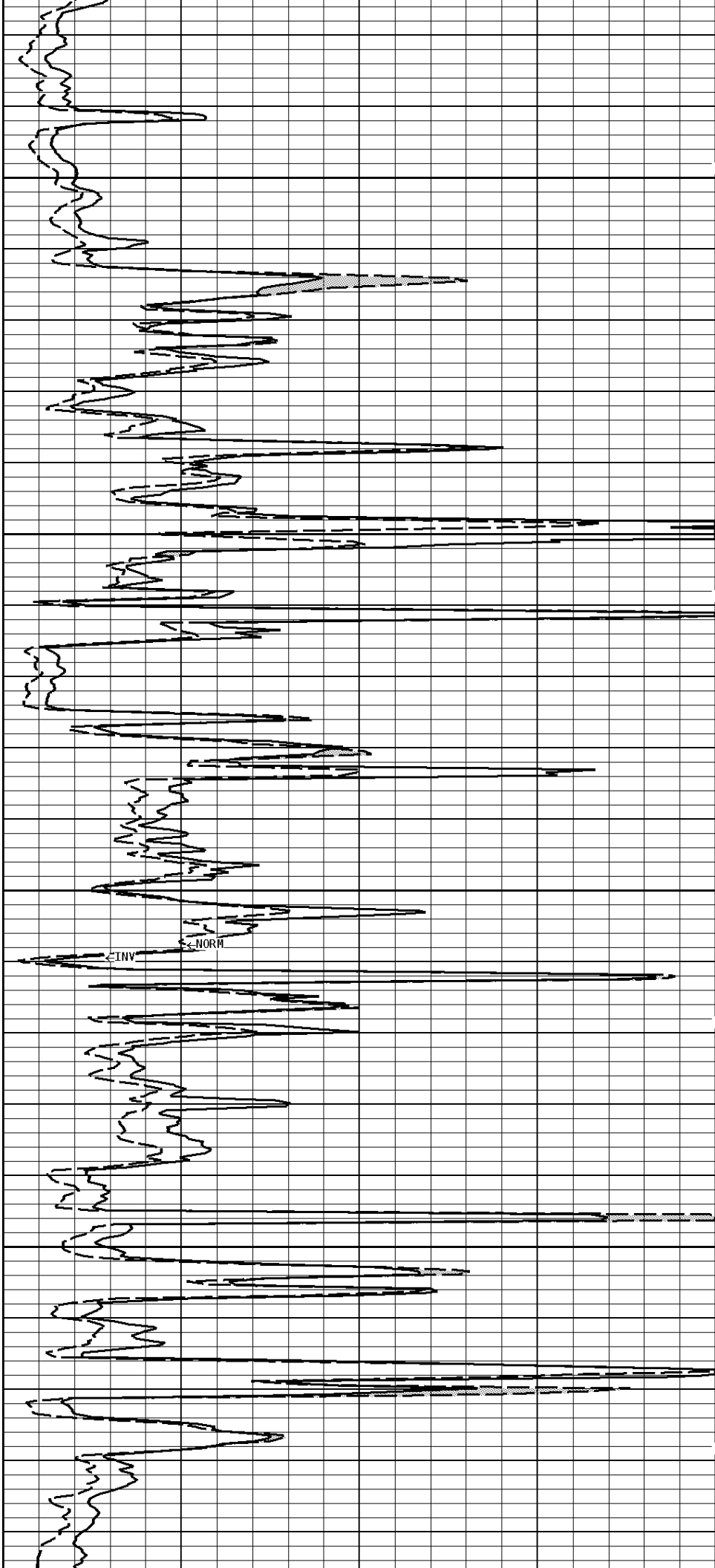
1:240 MAIN SECTION

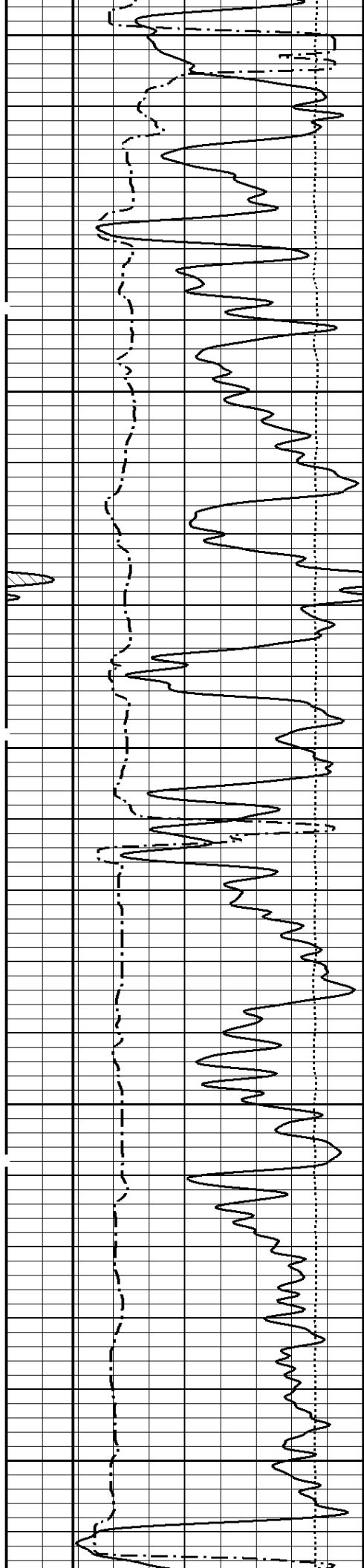




400

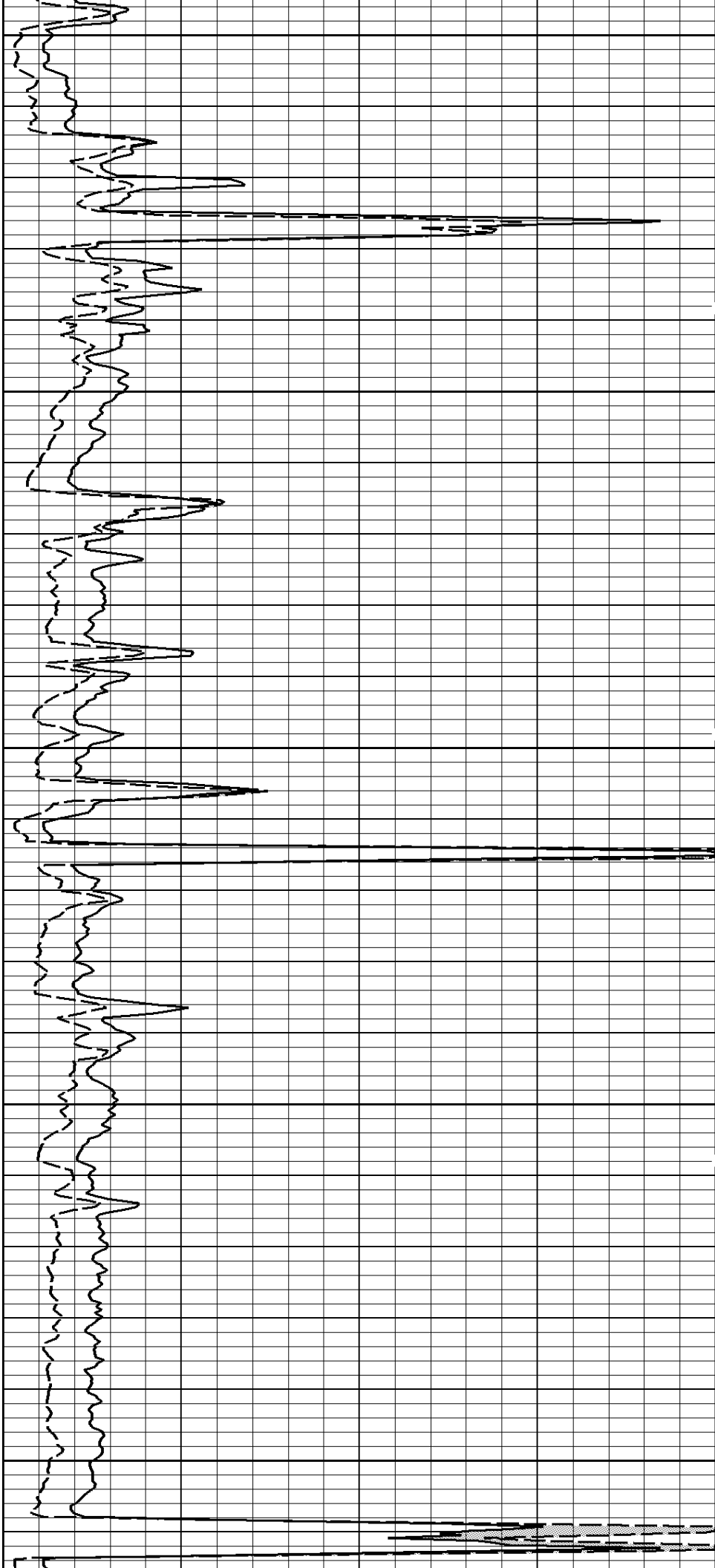
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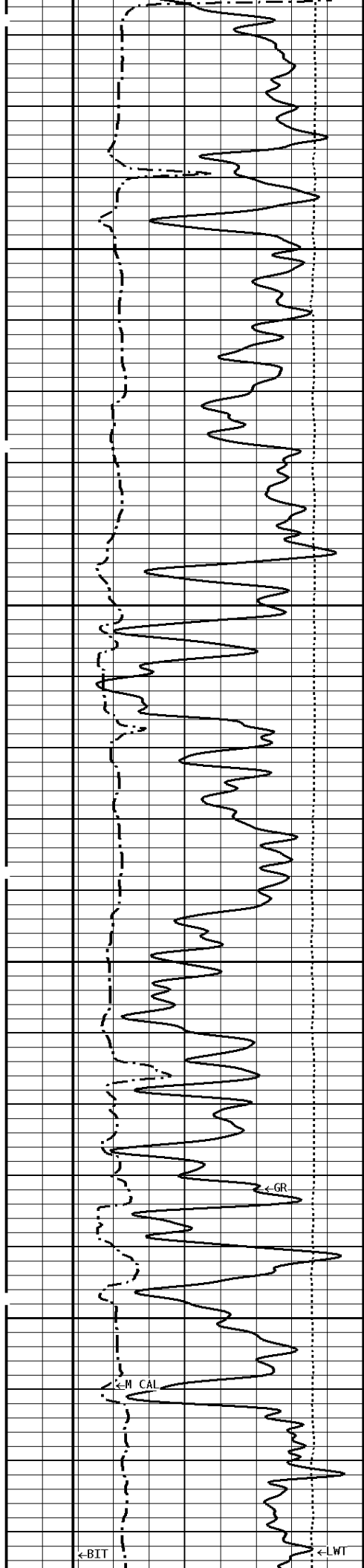




600

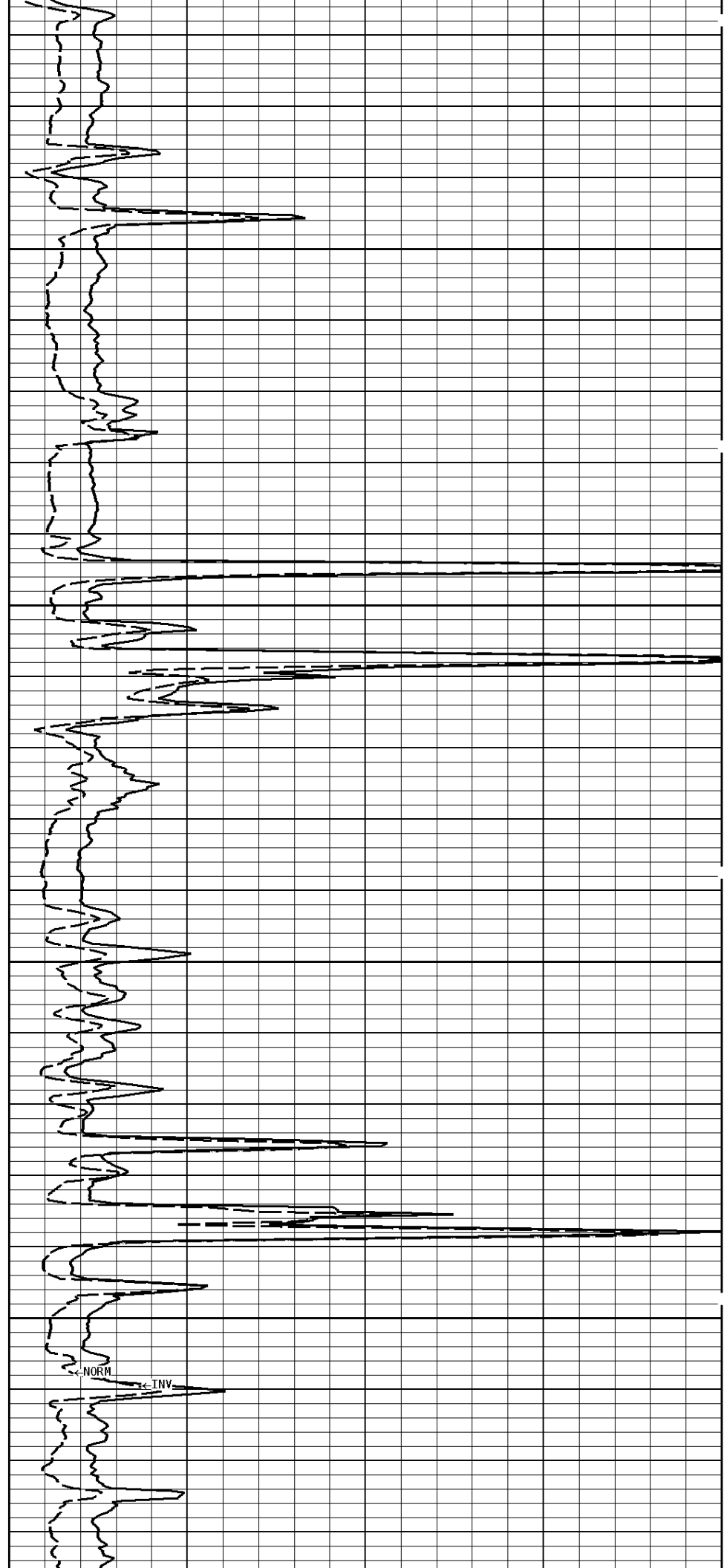
700

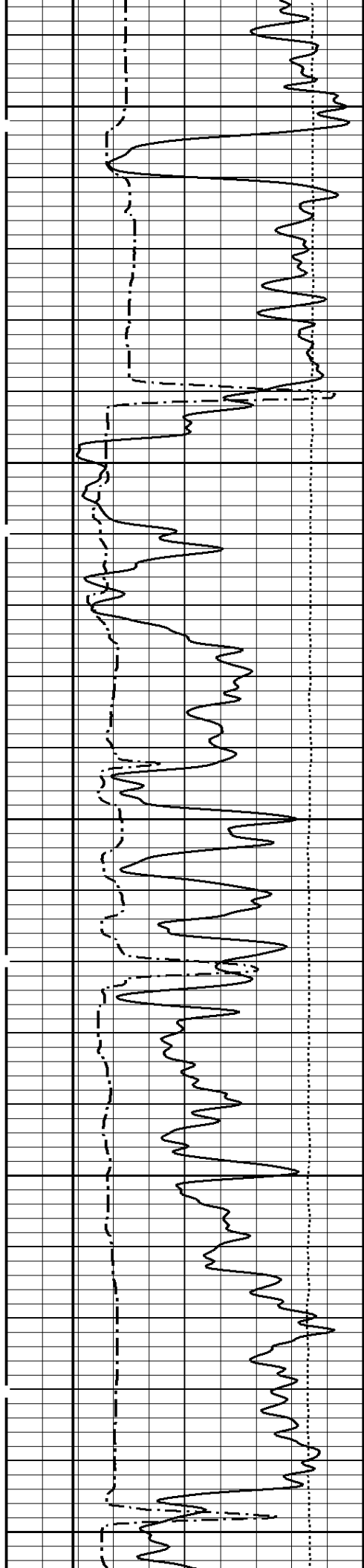




800

900

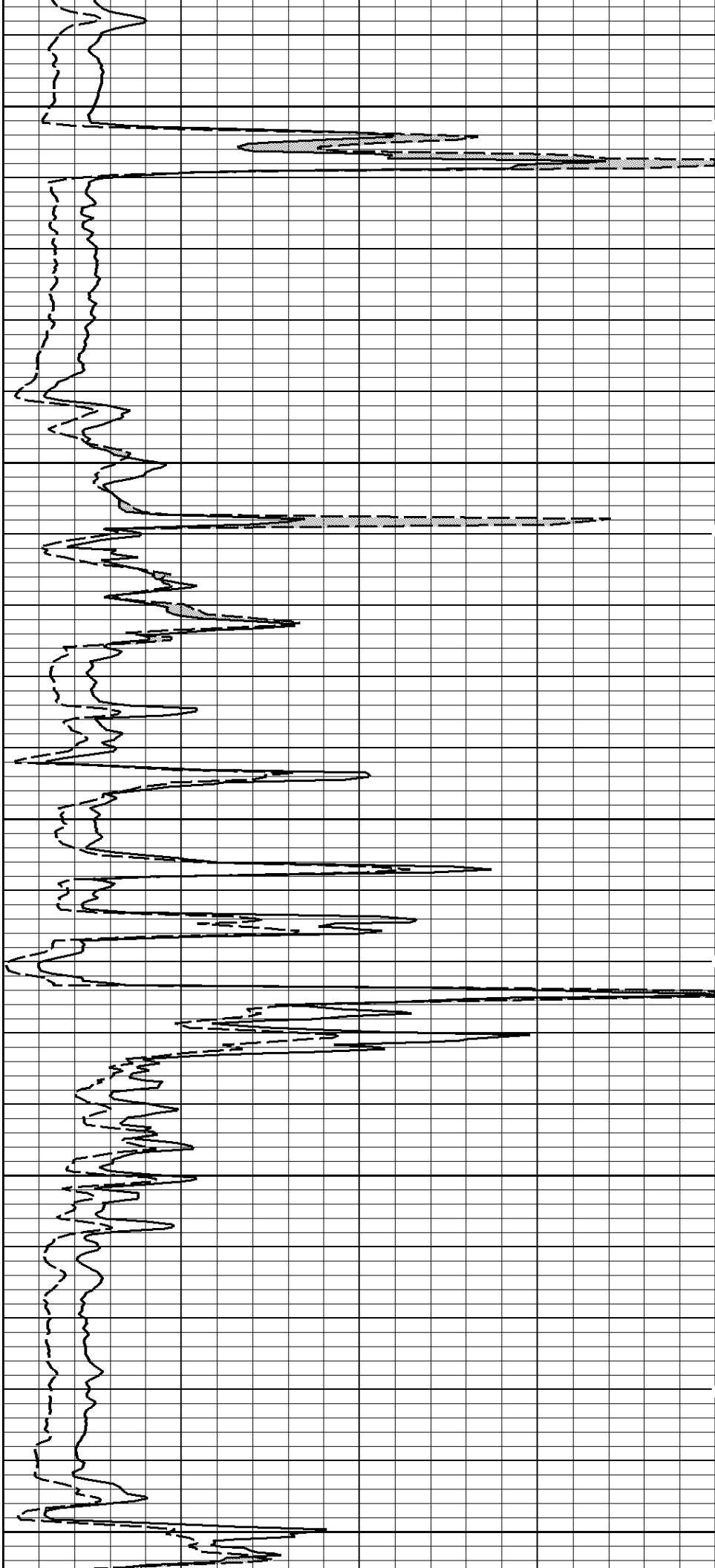


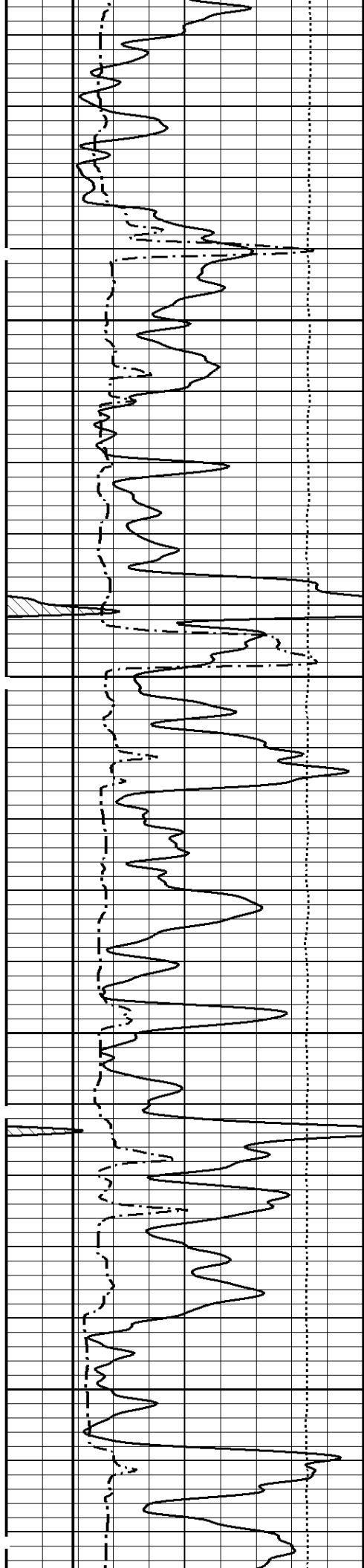


1000

1100

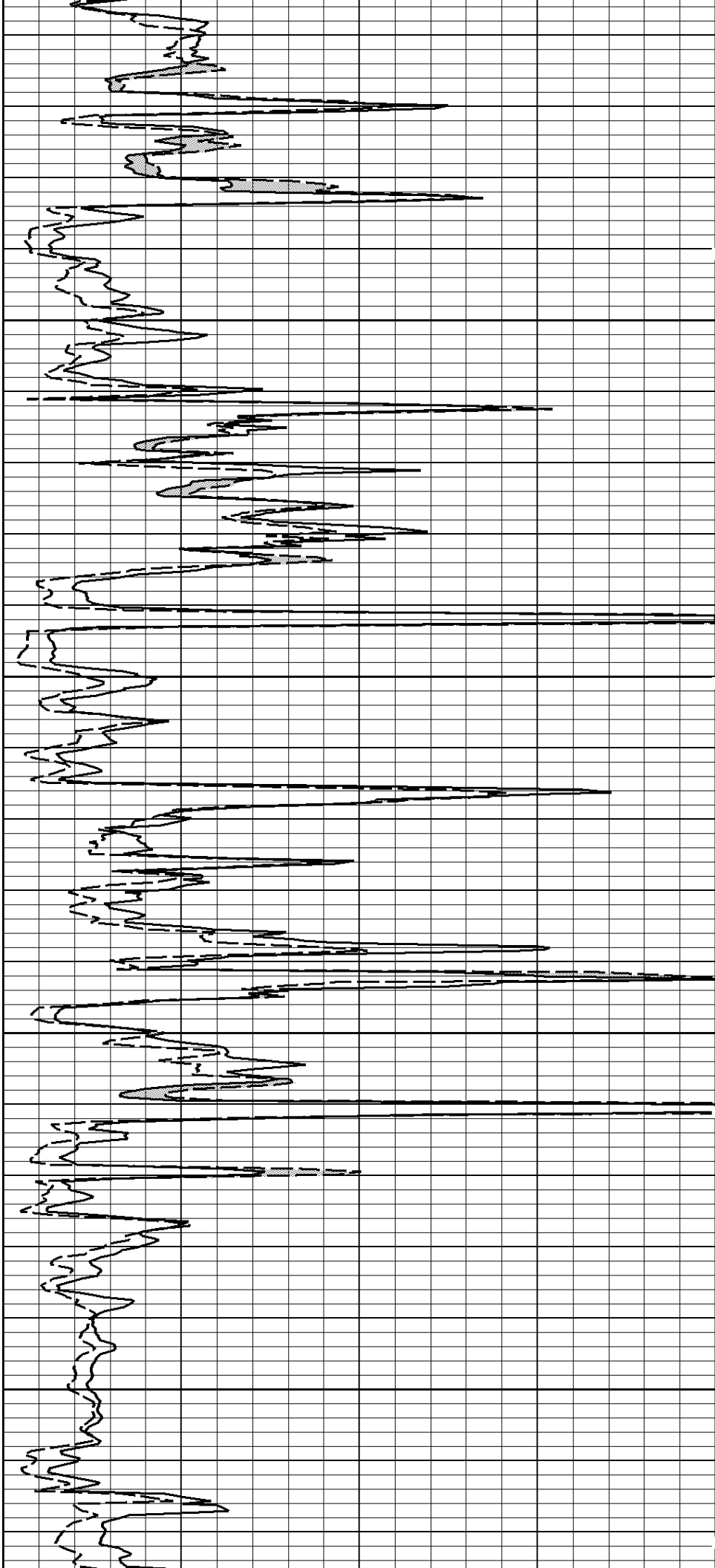
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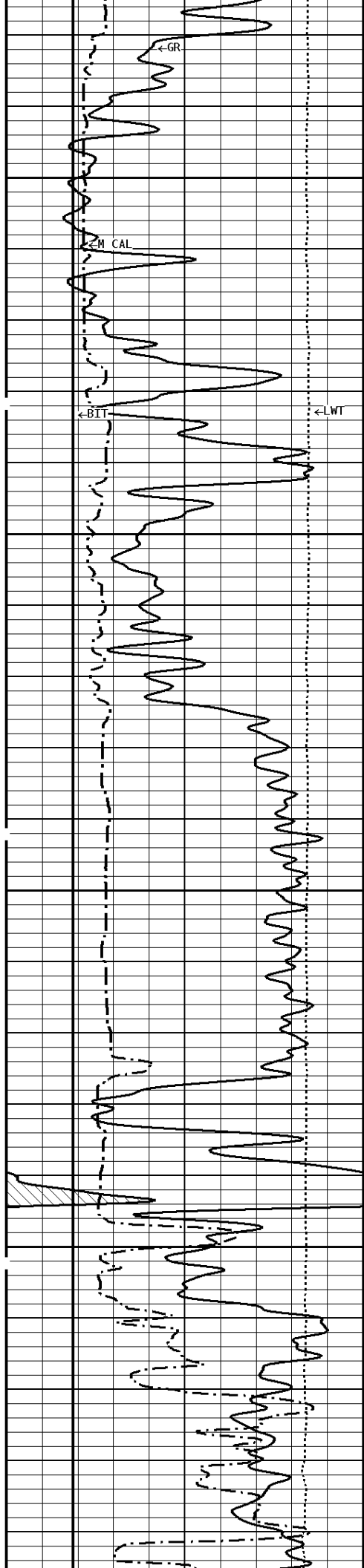




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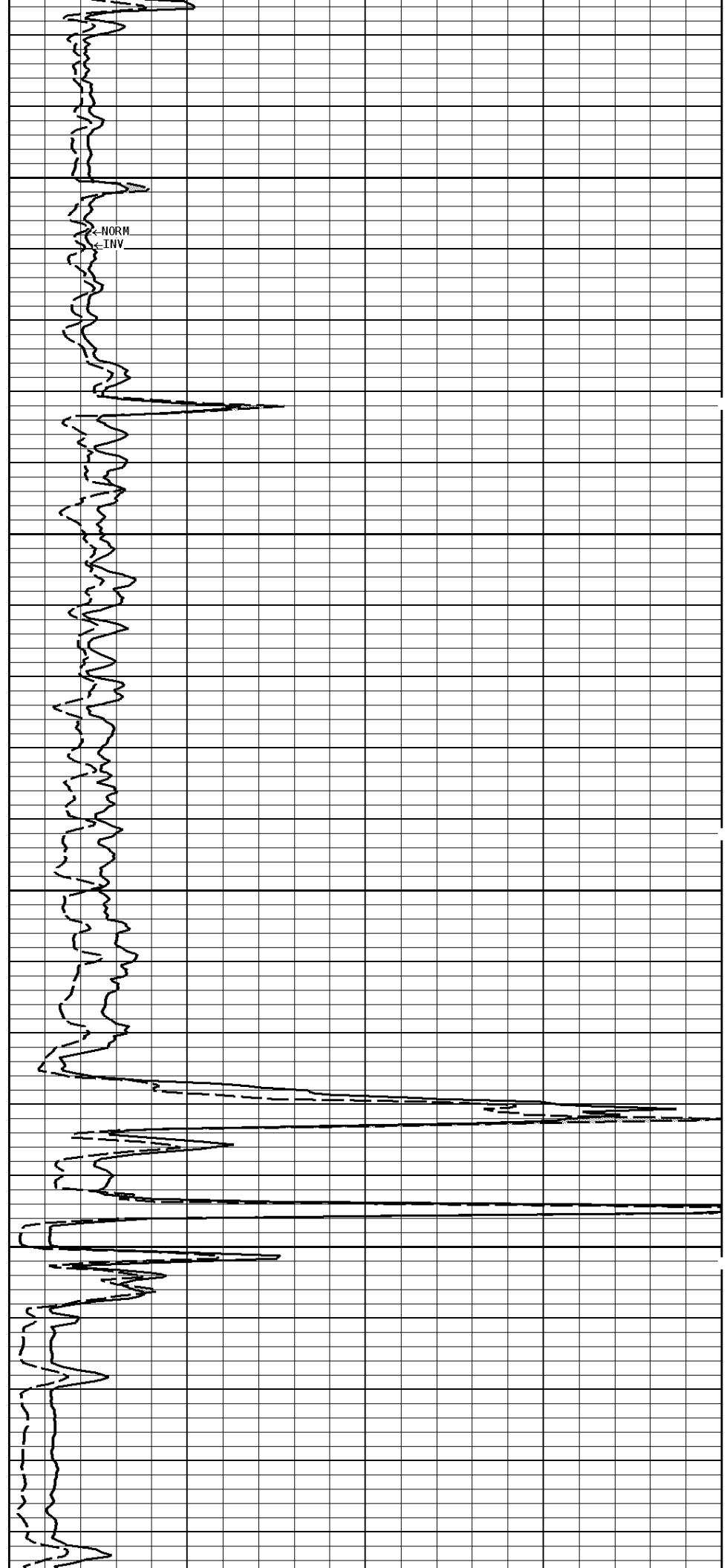
1400

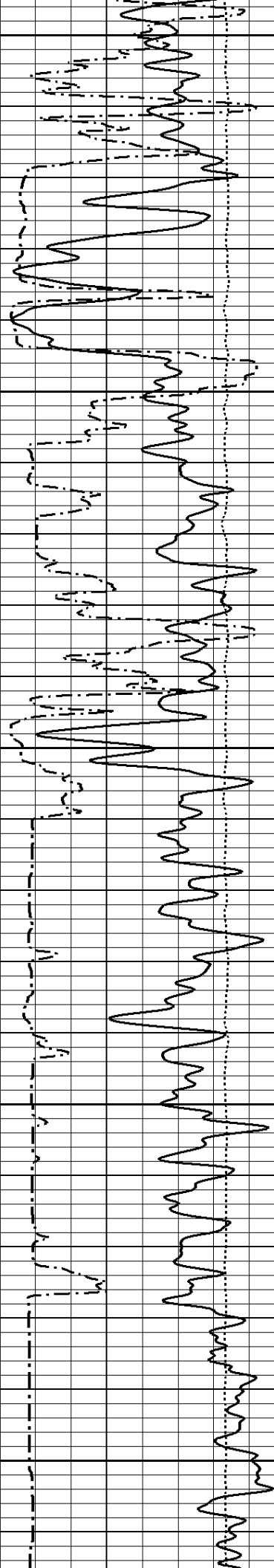




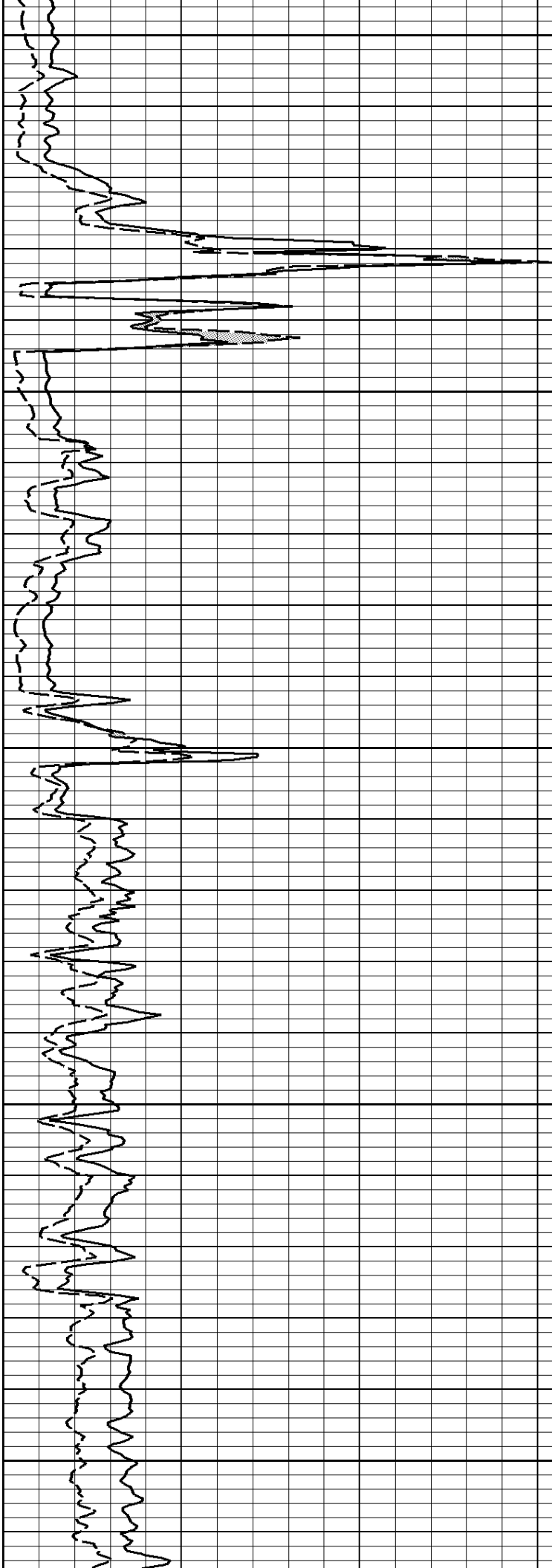
1500

1600

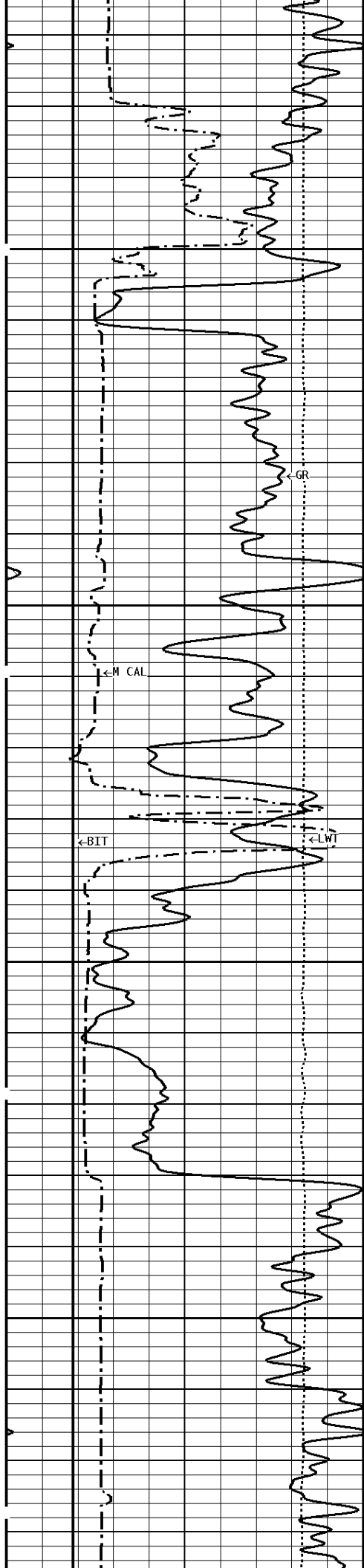




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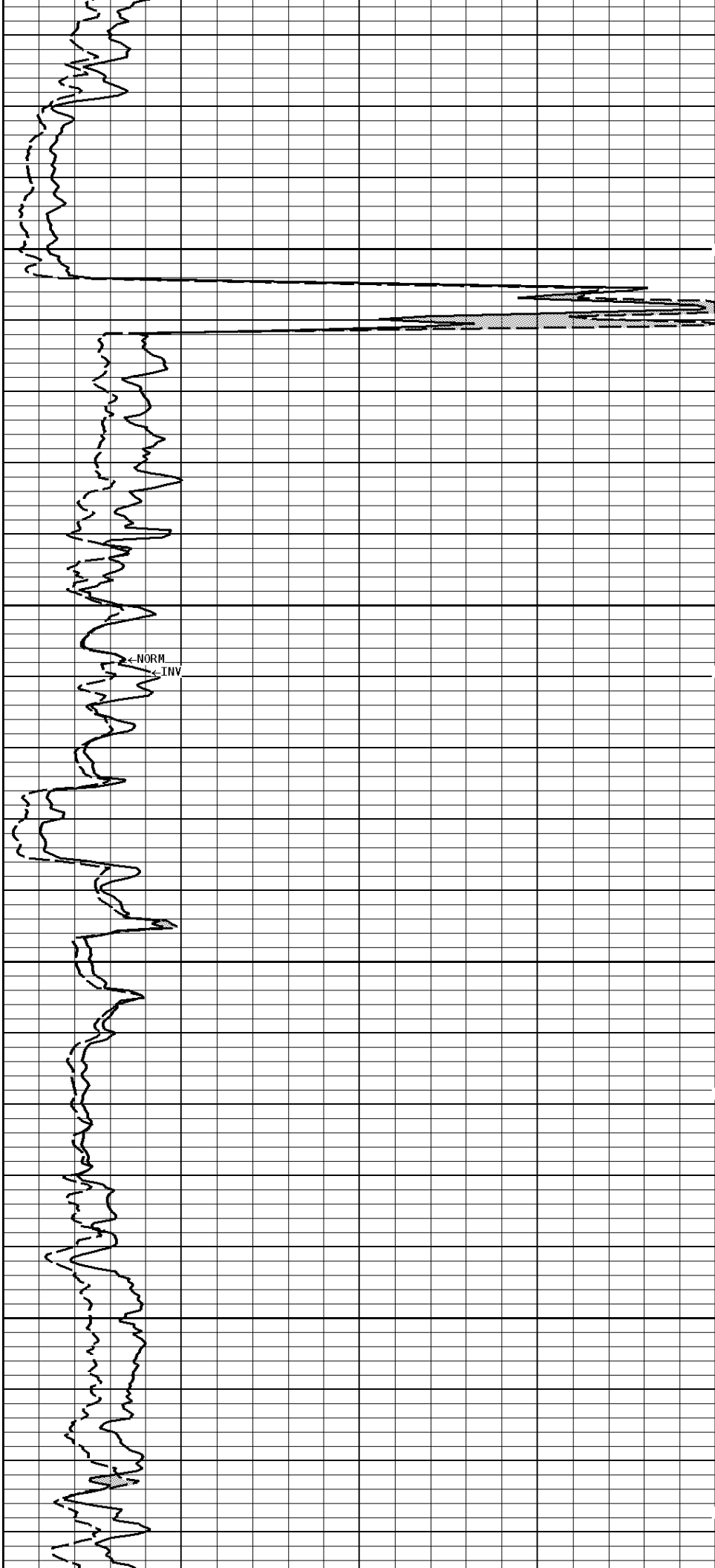


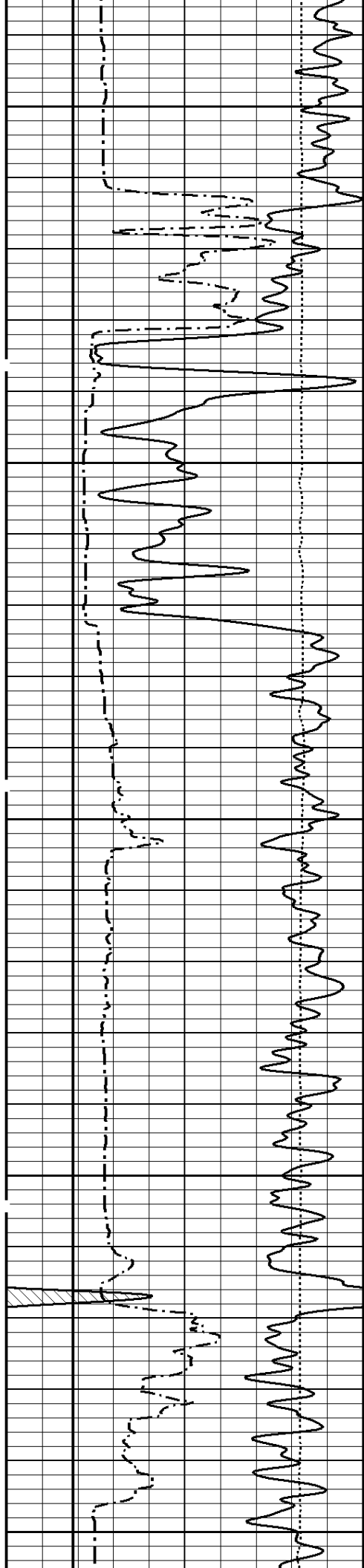
1800



1900

2000

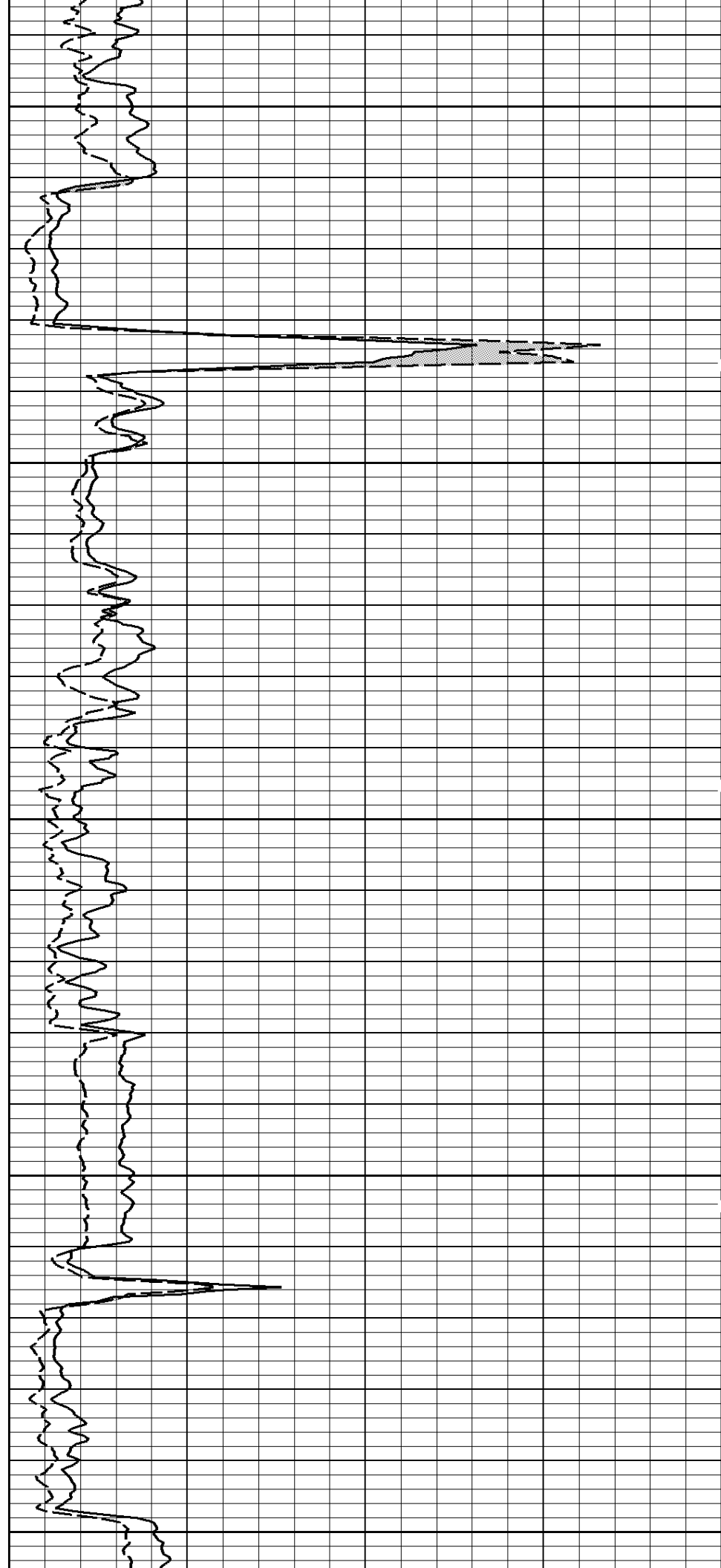


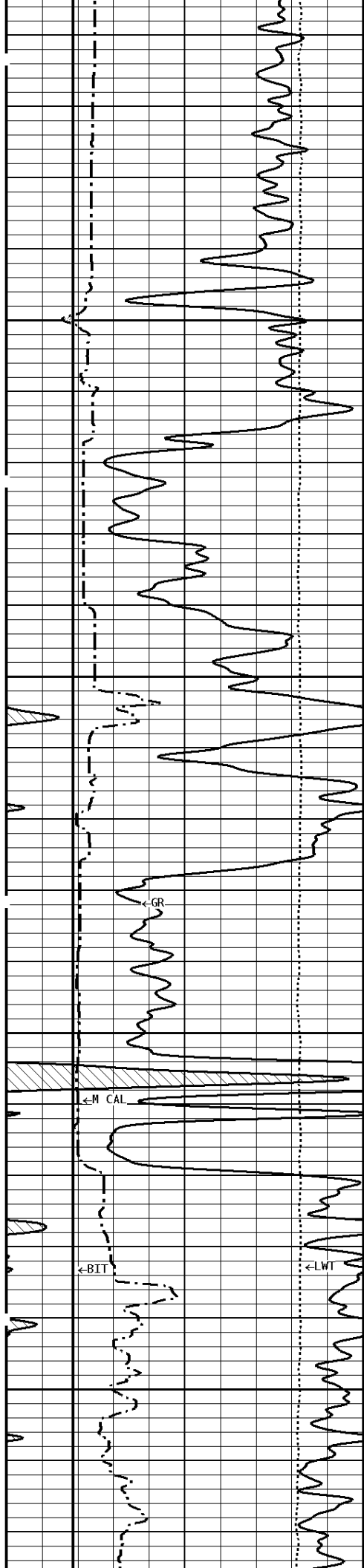


2100

2200

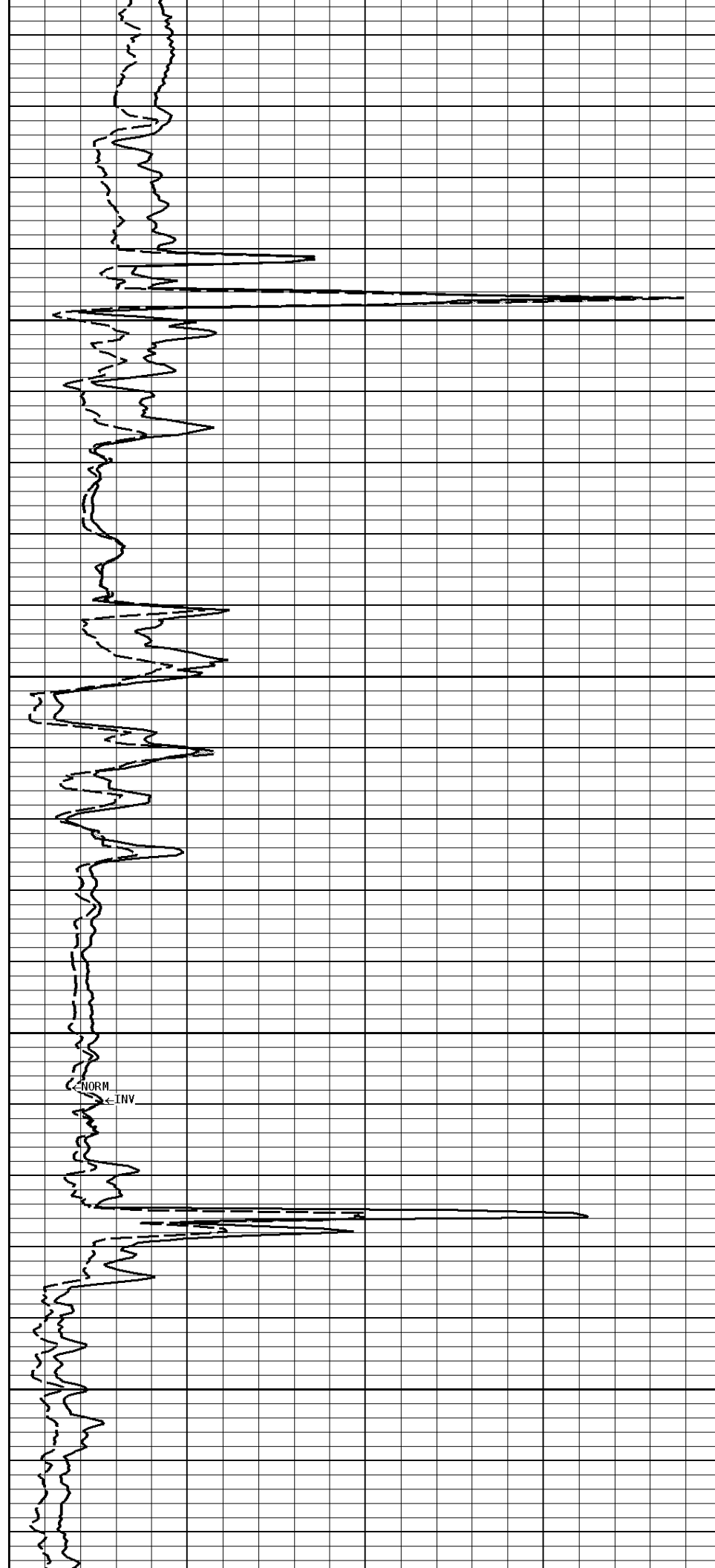
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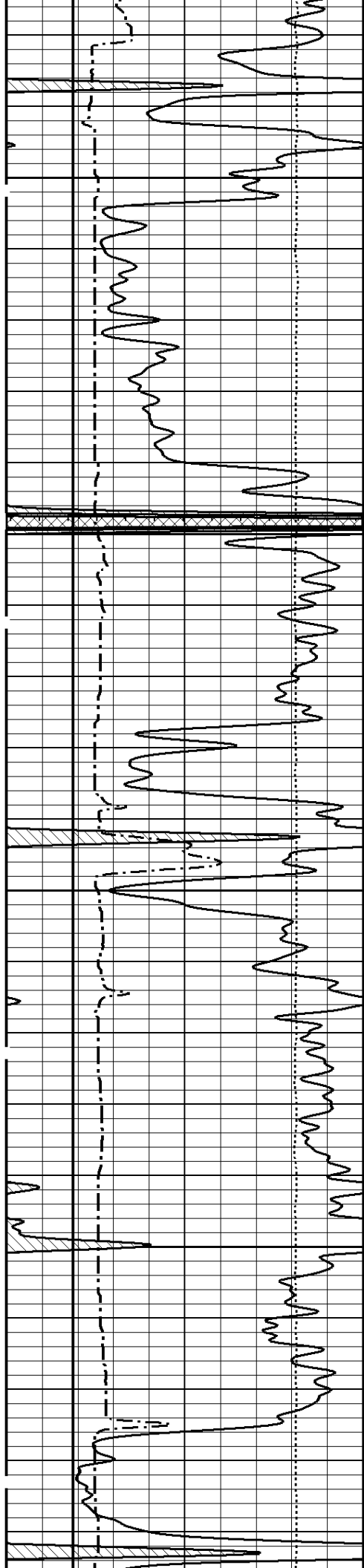




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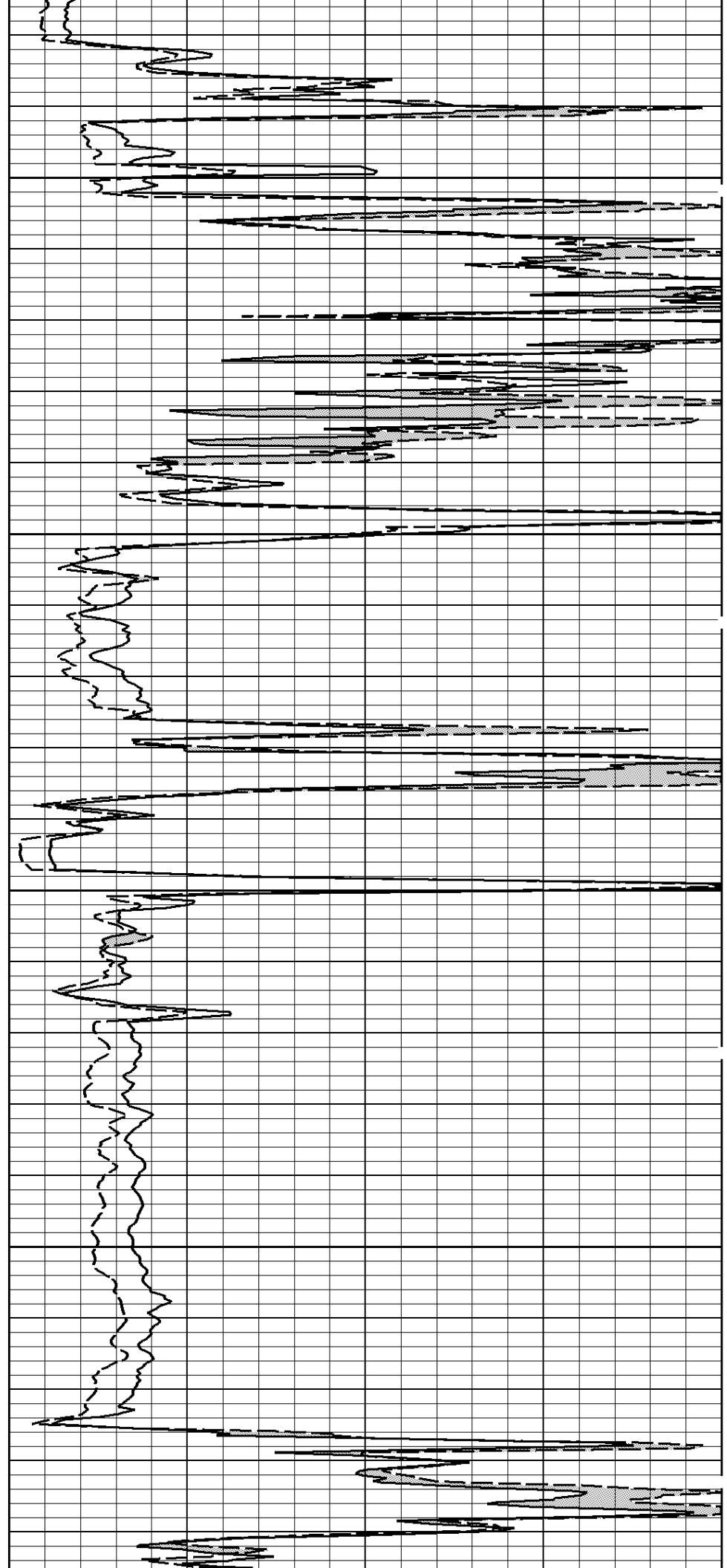
2500

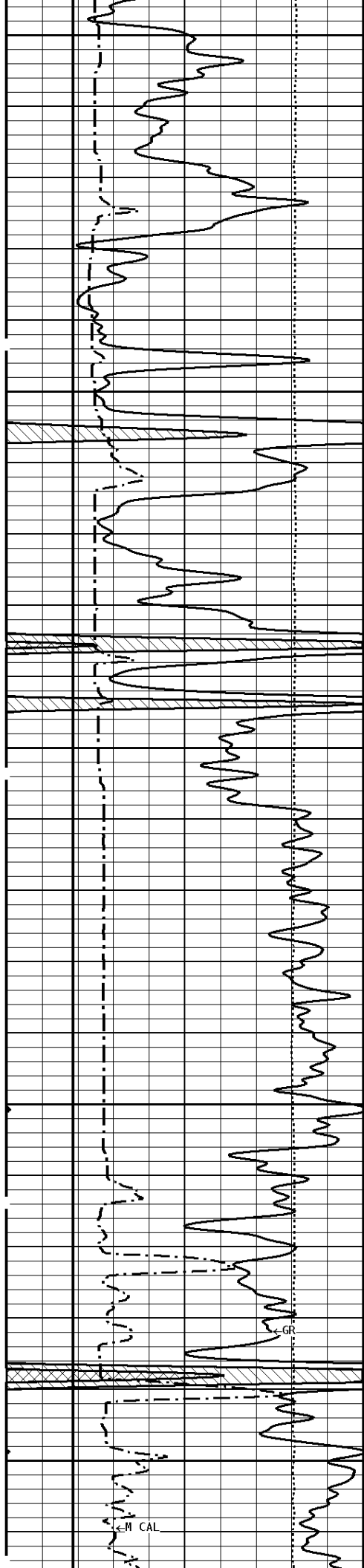




2600

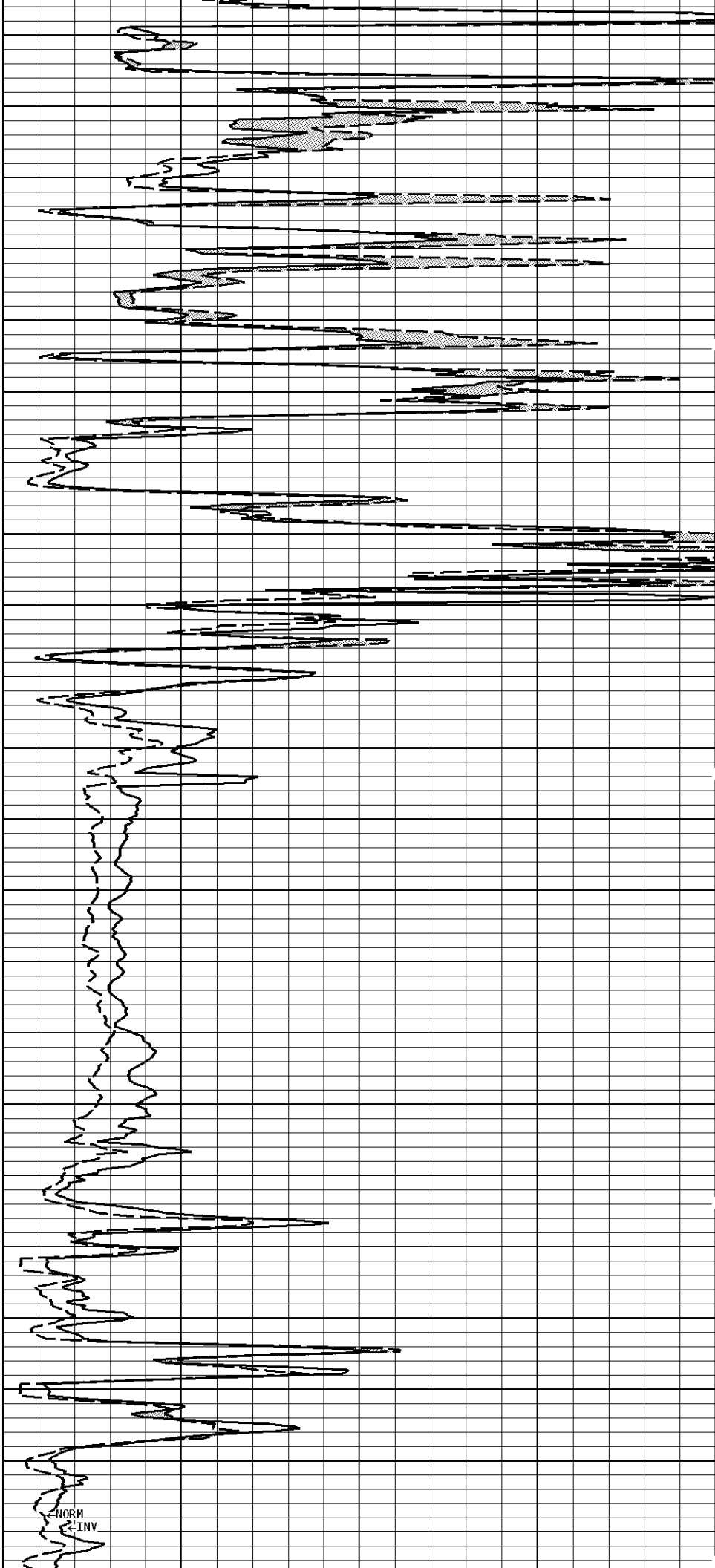
2700





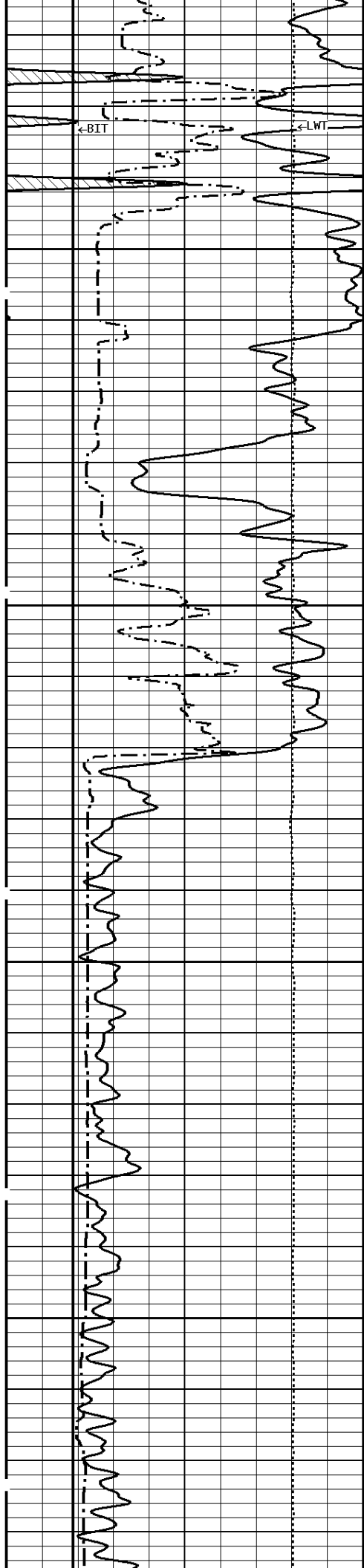
2800

2900



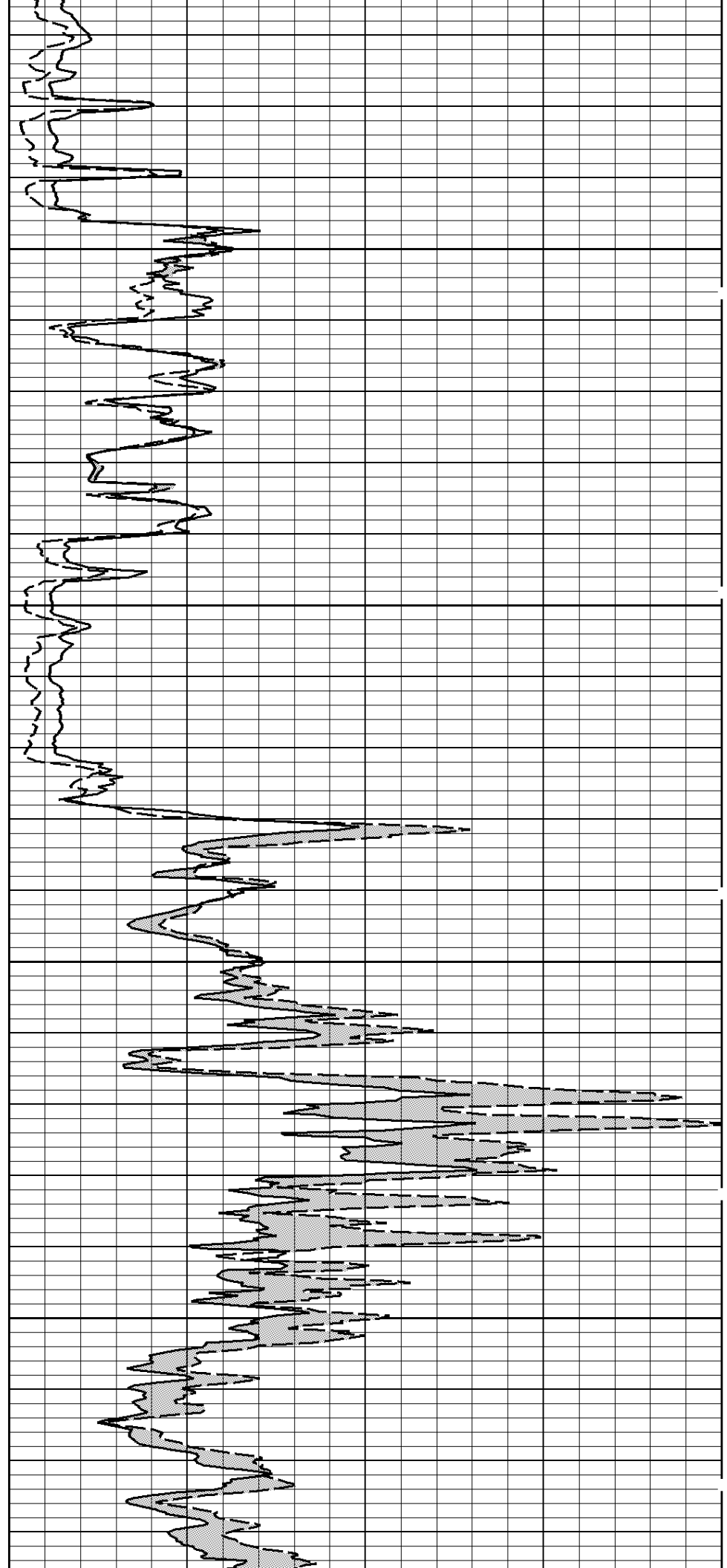
M CAL

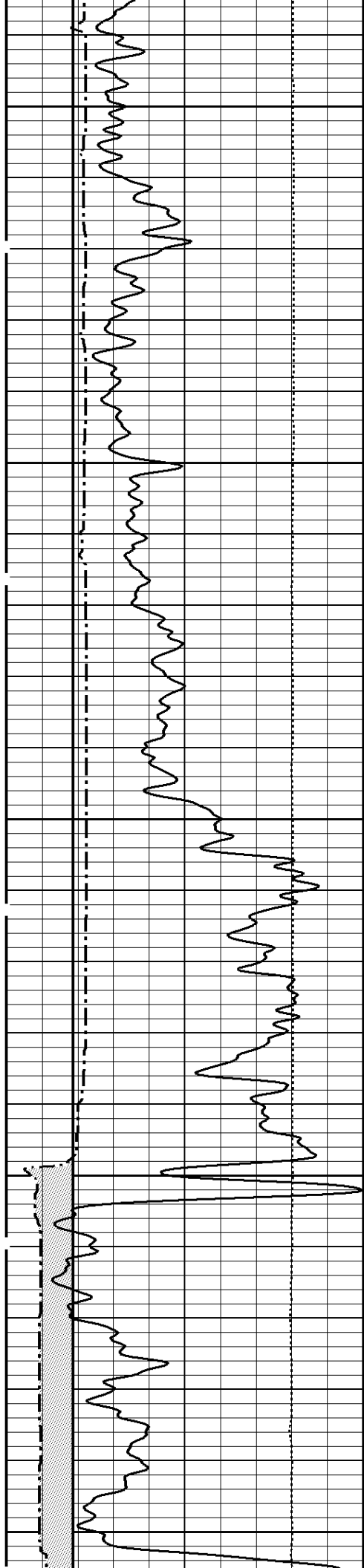
NORM
INV



3000

3100

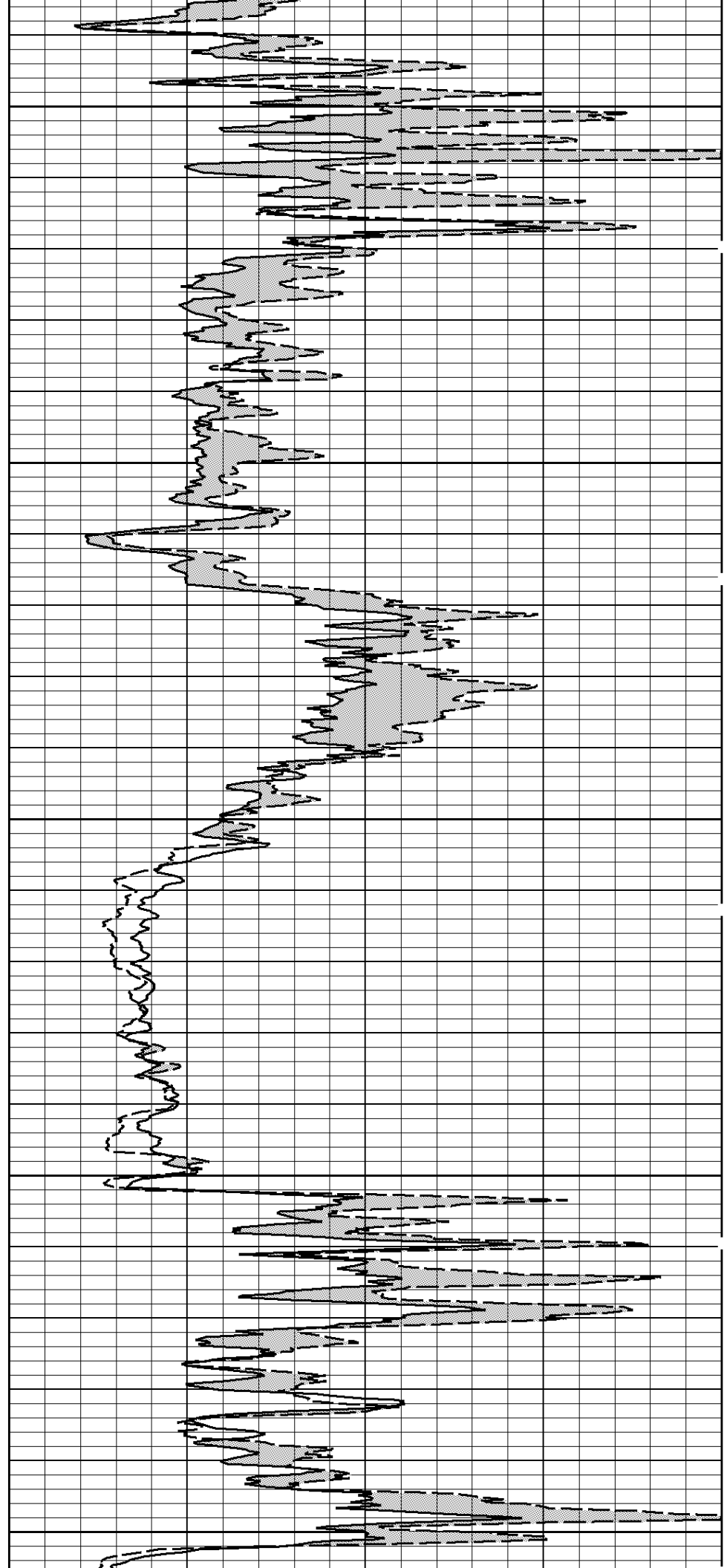


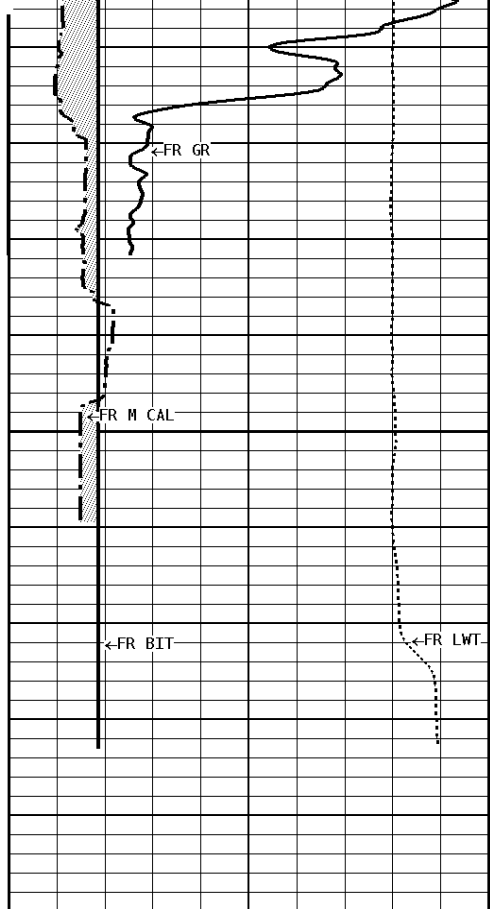


3200

3300

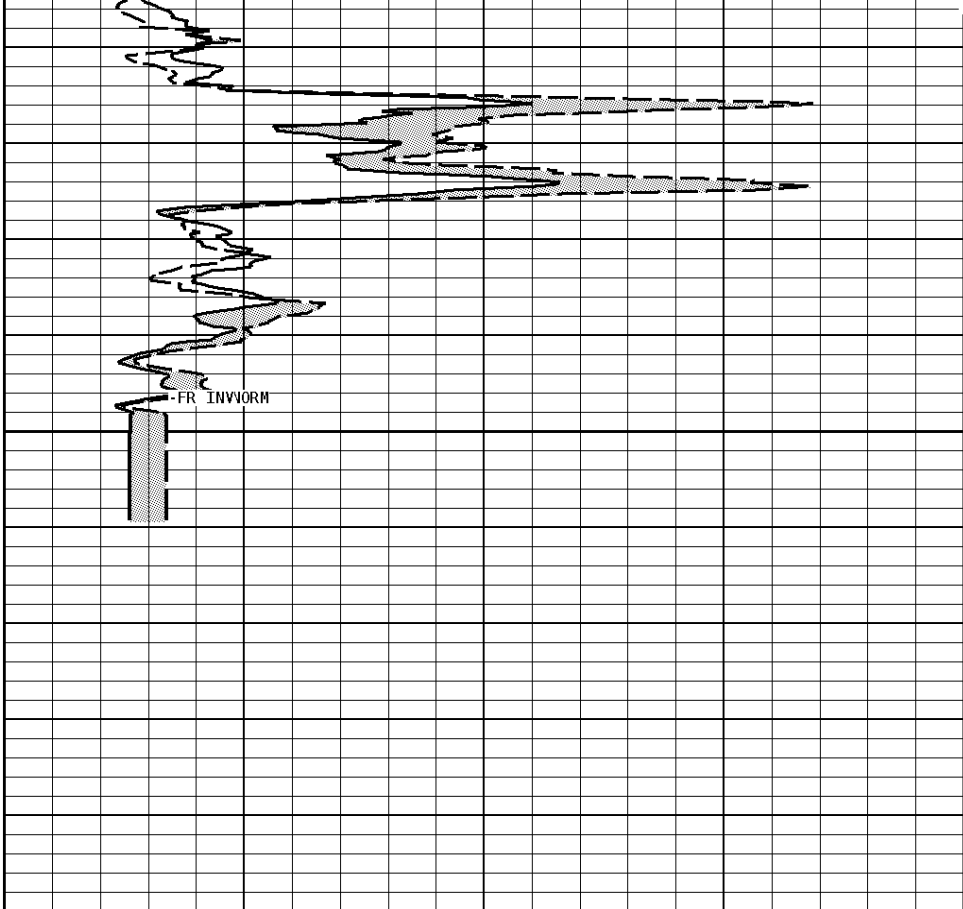
3400





3472

File #1.1.5



1:240 MAIN SECTION

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

NORMAL OHMM	
0	40
INVERSE OHMM	
0	40

*** Calibration Summary ***

Shop Calibration GRT-B				
Performed : 18-SEP-2018		Time : 09:08		
Sensor Suite : GR-GR5		ID : GRT-BA-121		
	Measured	Units	Calibrated	Units
GR	Background 44	Jig 309	CPS 160	GR-API

Shop Calibration MST-DA				
Performed : 09-FEB-2018		Time : 11:28		
Sensor Suite : CALI-MSN		ID : MST-DA-021		

CL # 1	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
	8.2	12.5	6.0	12.0	IN.
Performed : 09-FEB-2018			Time : 11:11		
Sensor Suite : MSTDA-NI			ID : MST-DA-021		
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
INV-V	0.0	30239.2	0.00	1546.00	MV
NOR-V	3.9	30805.8	0.00	1646.00	MV
IN-C	0.0	29403.5	0.00	15.46	UA
INV-R				32.34	OHMM
NOR-R				58.67	OHMM



Tucker
ENERGY SERVICES

Company: VAL ENERGY, INC
 Well: BIRDZELL #1-23 0WW0
 Location: 660' FSL & 3630' FEL
 Logged: 11-03-2018
 K.B. Elev: 0.0 Ft