Tucker WIRELINE SERVICES

MICRO LOG

File No. : TUL-55264
Company : BERXCO
Well : BAMBERGER #13
Field :
County : HODGEMAN
State : KANSAS
Country : USA

Location : API#: 15-083-21656
636' FSL& 844' FWL
SW SW
Sect : 20 Twp : 22S Rge : 22W

Recorded By : B.BAILEY
Witnessed By : G.KORALEGEDARA, J.OBRIST

Date : JUL 24 2010
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	KB	
Log Measured From:	KB	
Above Permanent Datum :	13.00	FT
Depth--Driller :	4635.0	FT
Depth--Logger :	4630.0	FT
Bottom Log Interval :	4590.0	FT
Top Log Interval :	3800.0	FT
Casing Depth--Driller:	278.0	FT
Casing Depth--Logger :	280.0	FT
Casing Diameter :	8.625	IN
Bit Size :	7.875	IN

Unit No. : 122
Location : TULSA

Elevations :
KB : 2327.00 FT
DF : 2326.00 FT
GL : 2314.00 FT

Additional Services

CNT
LDT
CST
PIT

Run Number 1

Depth To Fluid	0.0	FT		
Fluid Type In Hole :	WBM			
Density :	9.100	SG		
Viscosity :	48.000	SEC		
pH :	9.500			
Fluid Loss :	14.400			
Salinity :	0.000	KPPM		
			85	F
RM Source :	MEASURED			
RM :	0.220	OHMM at	85	F
RM at BHT :	0.143	OHMM at	134	F
RMF Source :	CALCULATED			
RMF :	0.187	OHMM at	85	F
RMF at BHT :	0.122	OHMM at	134	F
RMC Source :	CALCULATED			

RMC :	0.253	OHMM at	85	F
RMC at BHT :	0.165	OHMM at	134	F
Max Recorded Temp. :			134	F
Time Circulation Stopped :				
Operating Rig Time, Hrs. :			3.0	

- Source Serial Numbers -

Gamma	CSV-587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-BA-121
CNT	CNP-AA-111
LDTNG	LDP-DA-01
MSTNG	MST-DA-36
CST	CST-AD-38
PIT	PIT-AB-14

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
8.625	32.00	278.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, MLT, CST, PIT RAN IN COMBINATION
CALIPERS ORIENTED ON THE X-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING.
USTOMER REQUEST SPLIT RUNS WITH CNT LDT.

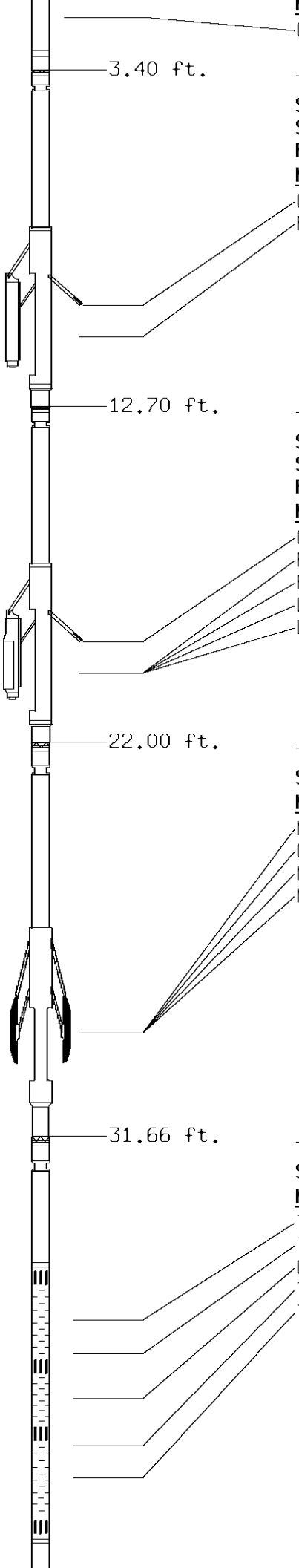
GRT: GRP.
CNT: PHIN, CLCNIN, PHINLS.
LDT: PORL, LCORN, PECLN, CLLDIN, LDENN, PORLLS, PECSN.
MLT: INV_R, NOR_R, MSCLPIN
CST: DDCDTF, ITT, PORS, TT1, TT3.
PIT: ILD, ILM, CIRD, SFLAEC, SPU
MINERAL VOLUME: VM31, VM32, VM33.

OPERATORS:
R.AUSTIN
M.BURKE
THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length - 66.75 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**

Tool: GRTB **Length:** 3.40 **ft. O.D.:** 3.60 **in.**
Sonde ID : GRT-BA-121
Measure Point **Stack Offset** **Tool Offset** **Bottom Offset**



Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	64.75

3.40 ft.

Tool: CNT **Length:** 9.30 **ft. O.D.:** 4.36 **in.**
Sonde ID : CNP-AA-111
Source ID : N-1044
Pad ID : CNP-AA-111

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	57.35
PHIN	10.24	6.84	56.51

12.70 ft.

Tool: LDTNG **Length:** 9.30 **ft. O.D.:** 4.80 **in.**
Sonde ID : LDP-DA-01
Source ID : CSV-587
Pad ID : LDP-DA-01

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	48.05
PEL	19.70	7.00	47.05
PES	20.10	7.40	46.65
LDEN	19.70	7.00	47.05
LCOR	19.70	7.00	47.05

22.00 ft.

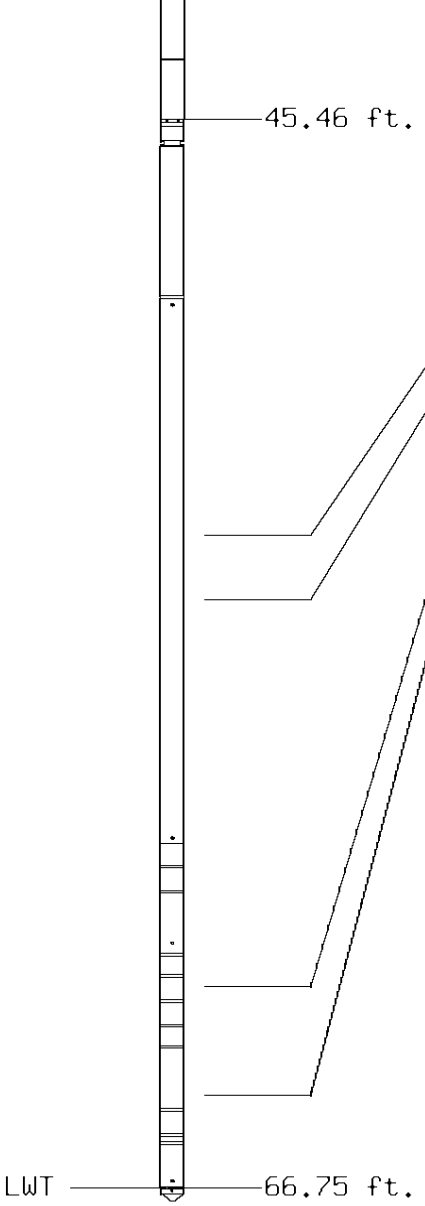
Tool: MST **Length:** 9.66 **ft. O.D.:** 6.00 **in.**
Sonde ID : MST-DA-36

Measure Point	Stack Offset	Tool Offset	Bottom Offset
MSFL	29.60	7.60	37.15
CLMR	29.60	7.60	37.15
MSFN	29.60	7.60	37.15
MSFI	29.60	7.60	37.15

31.66 ft.

Tool: CST **Length:** 13.80 **ft. O.D.:** 3.60 **in.**
Sonde ID : CST-AD-38

Measure Point	Stack Offset	Tool Offset	Bottom Offset
TT1	36.46	4.80	30.29
TT3	37.46	5.80	29.29
CDT	38.96	7.30	27.79
TT4	40.46	8.80	26.29
TT2	41.46	9.80	25.29



Tool: PIT **Length:** 21.29 **ft. O.D.:** 3.62 **in.**
Sonde ID : PIT-AB-14

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	54.38	8.92	12.37
ILM	55.56	10.10	11.20
SFLU	62.95	17.49	3.81
SP	66.06	20.60	0.69

TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
6 16

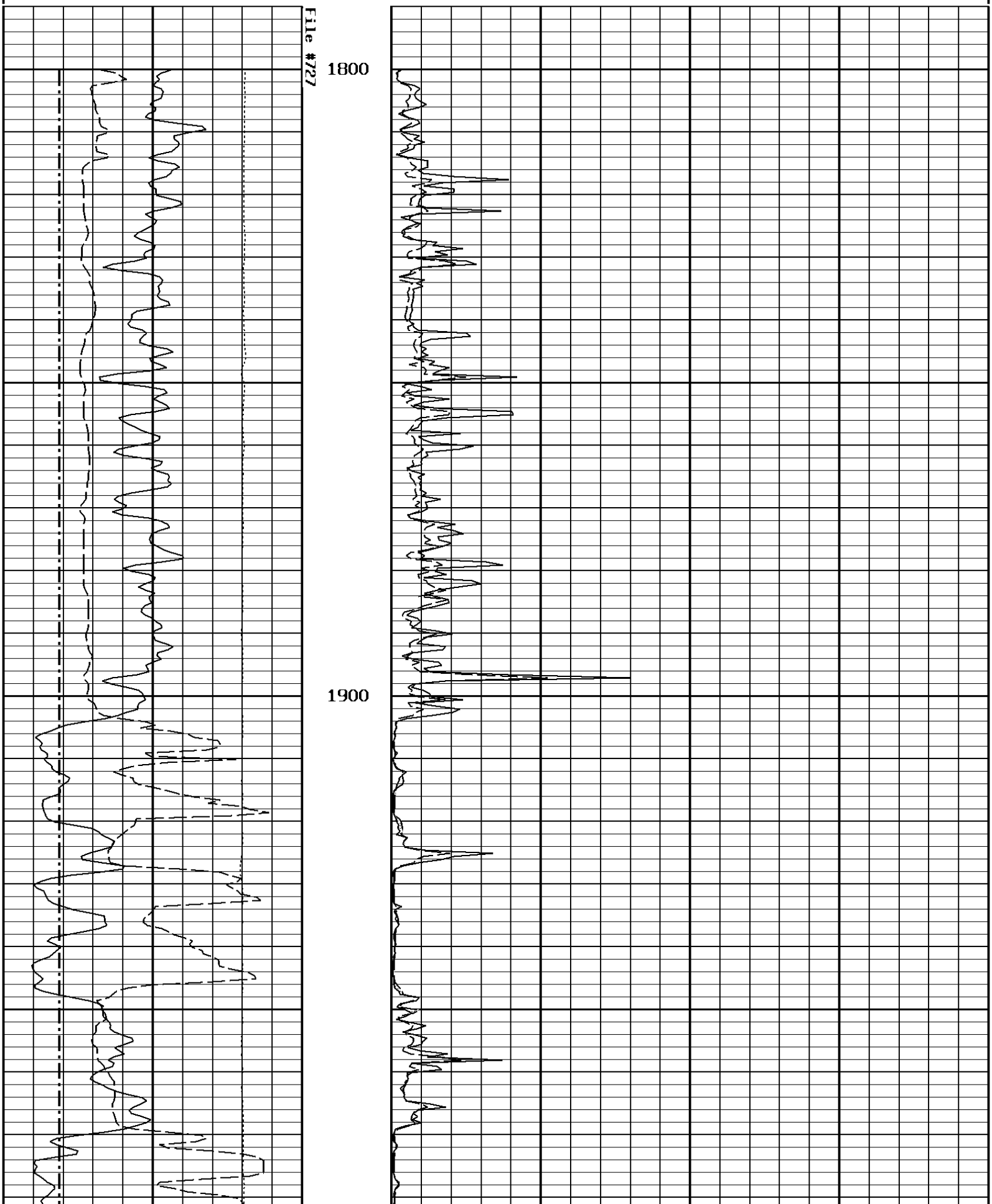
GAMMA RAY
API UNITS
150 300
0 150

CALIPER MICRO
INCHES (IN)
16 26
6 16

MICRO-INVERSE
OHMM
0 40

MICRO-NORMAL
OHMM
0 40

1:240 MAIN SECTION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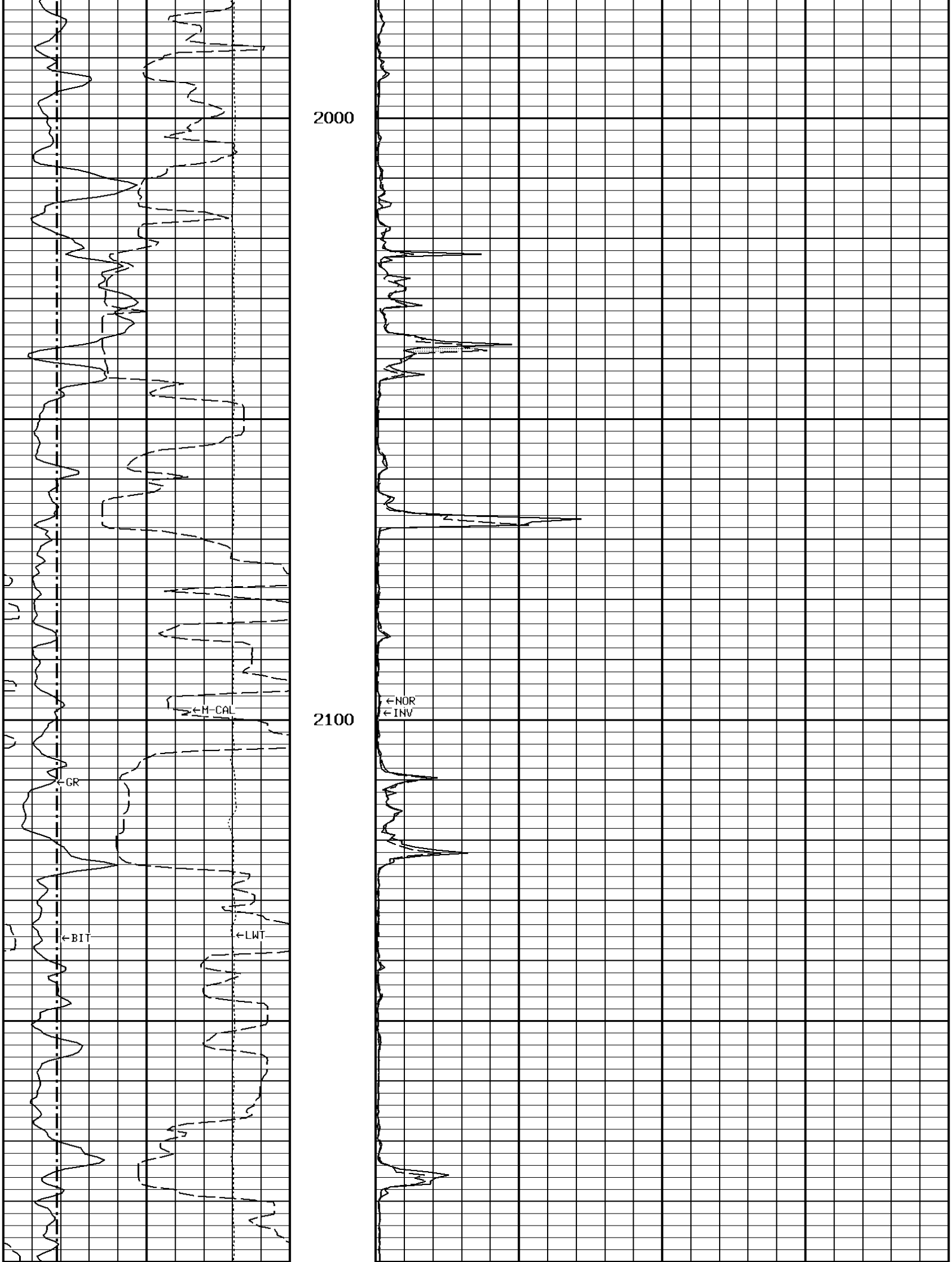
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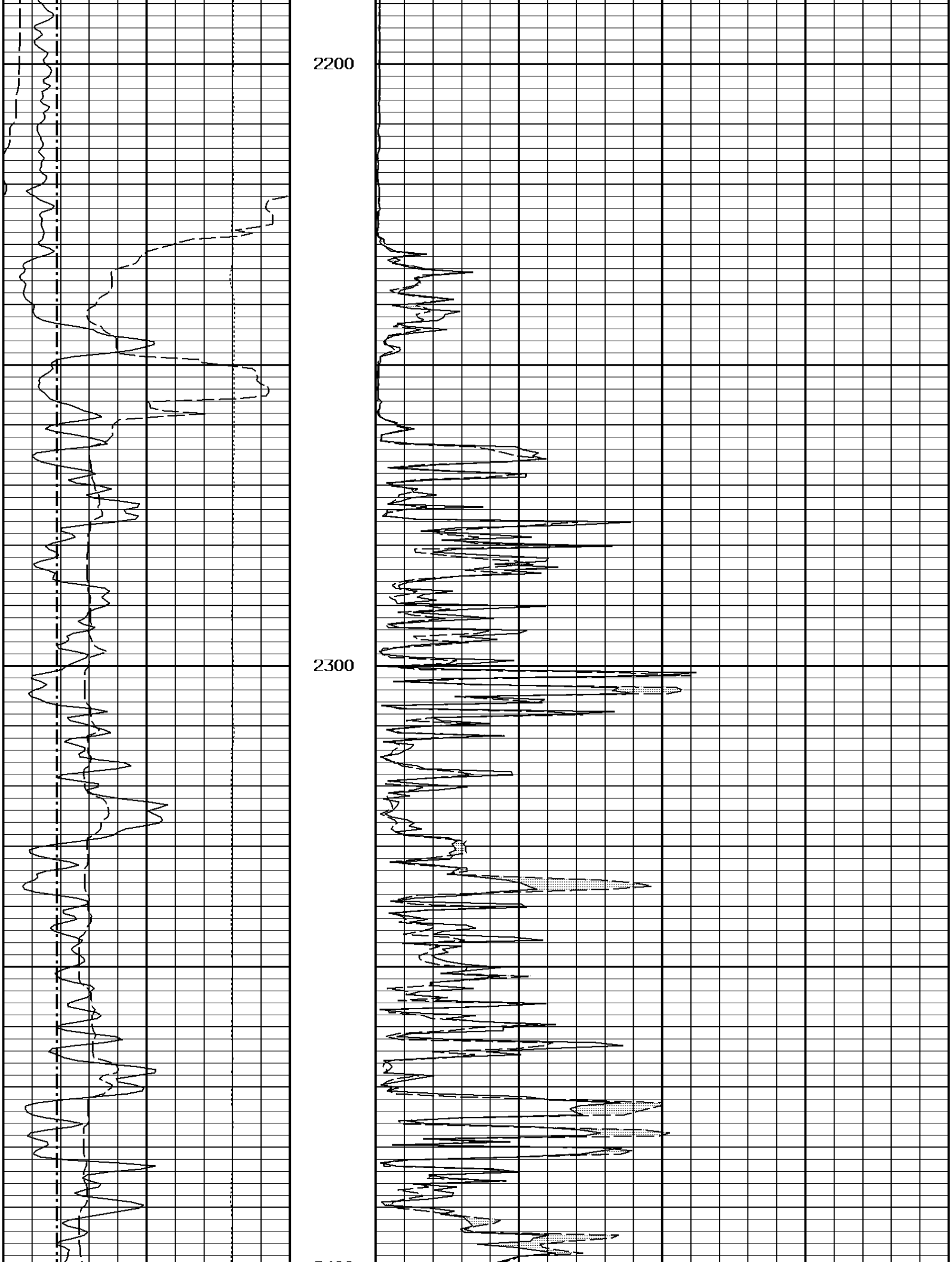
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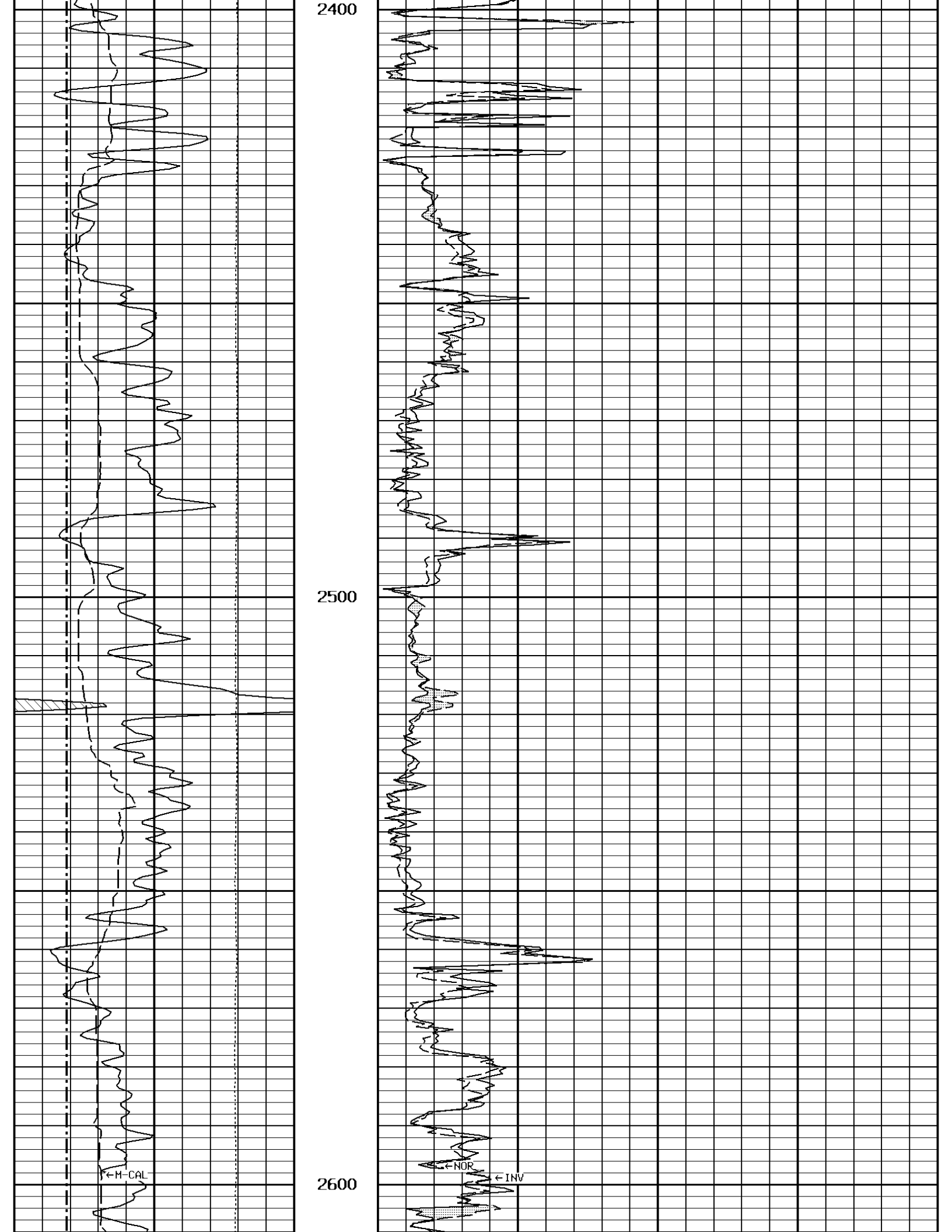
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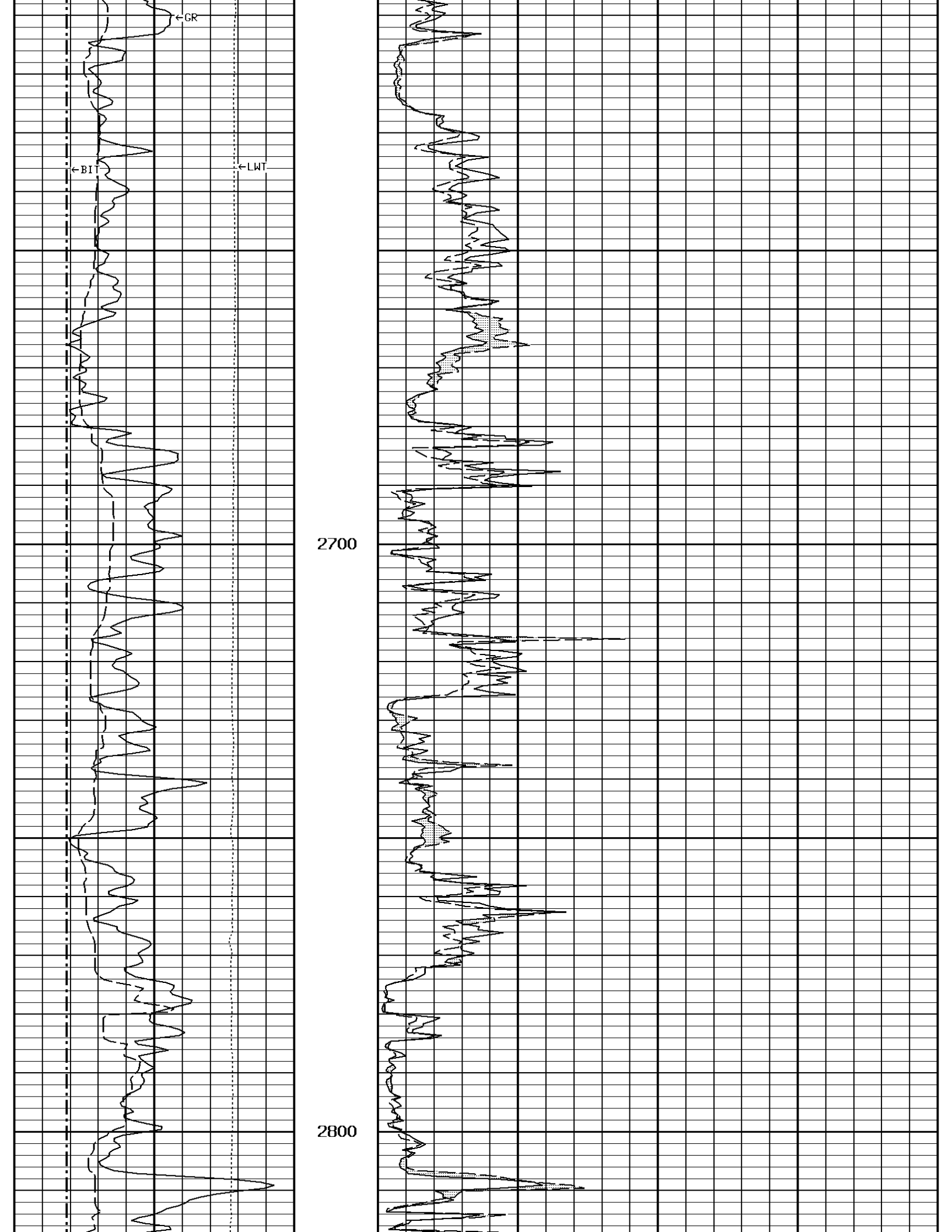
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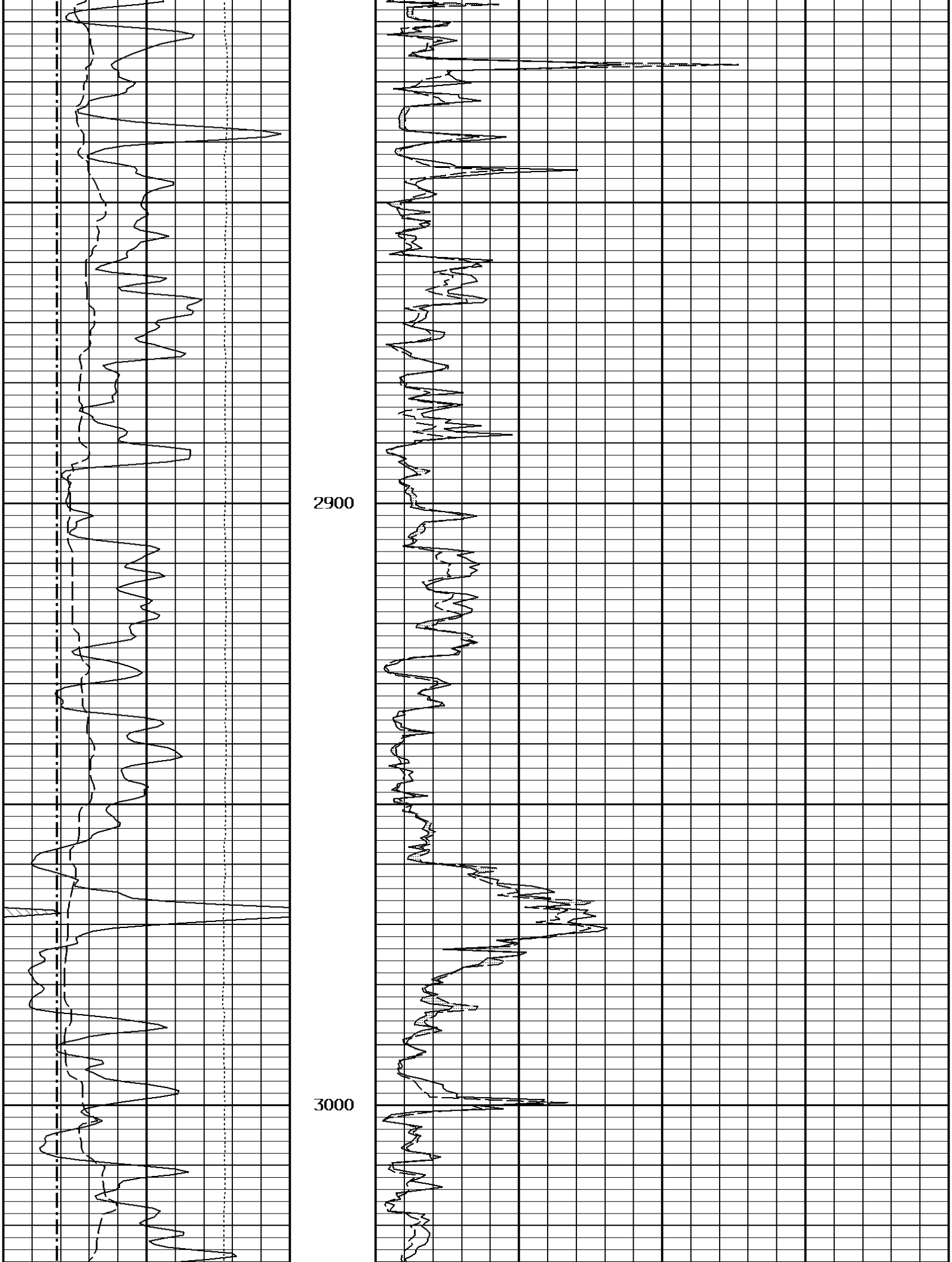
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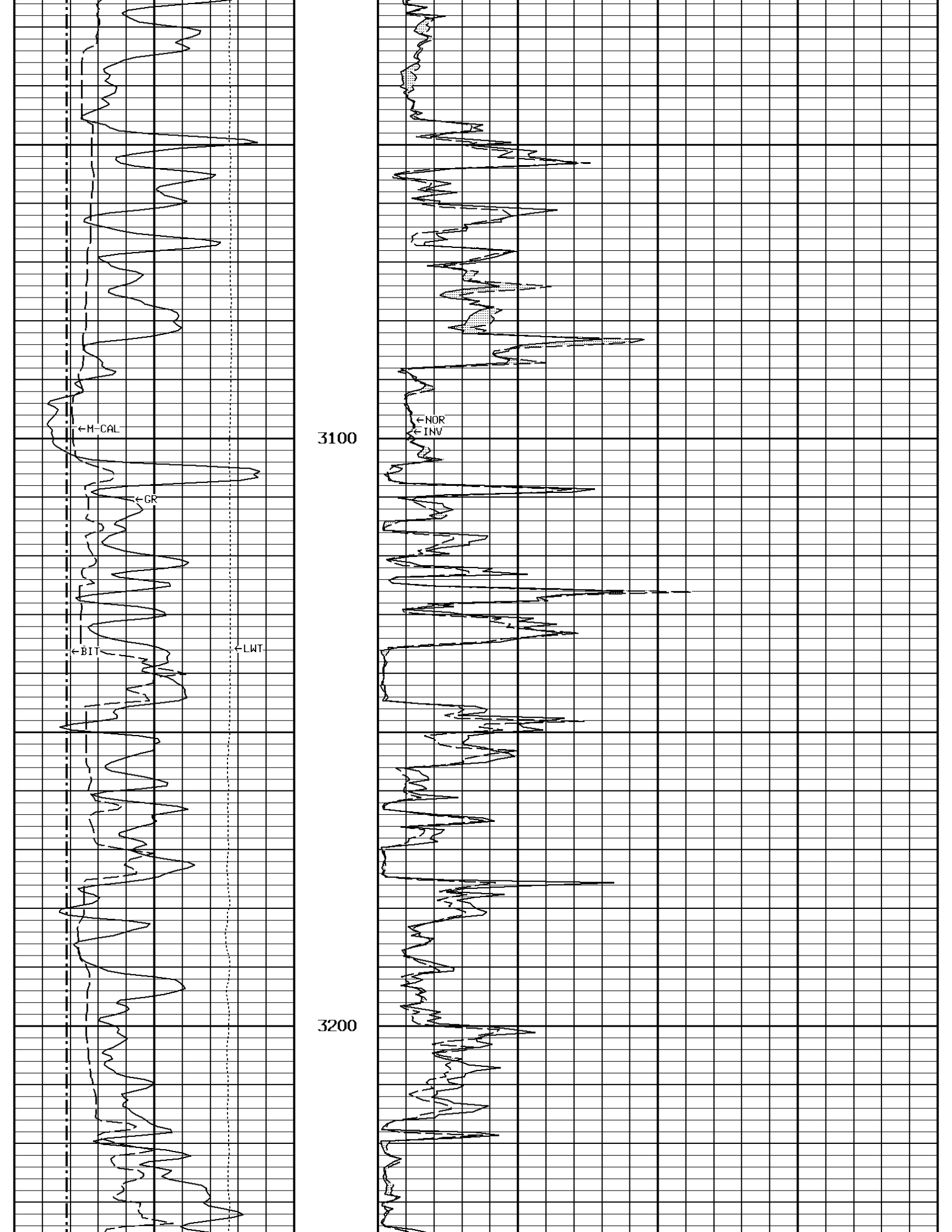
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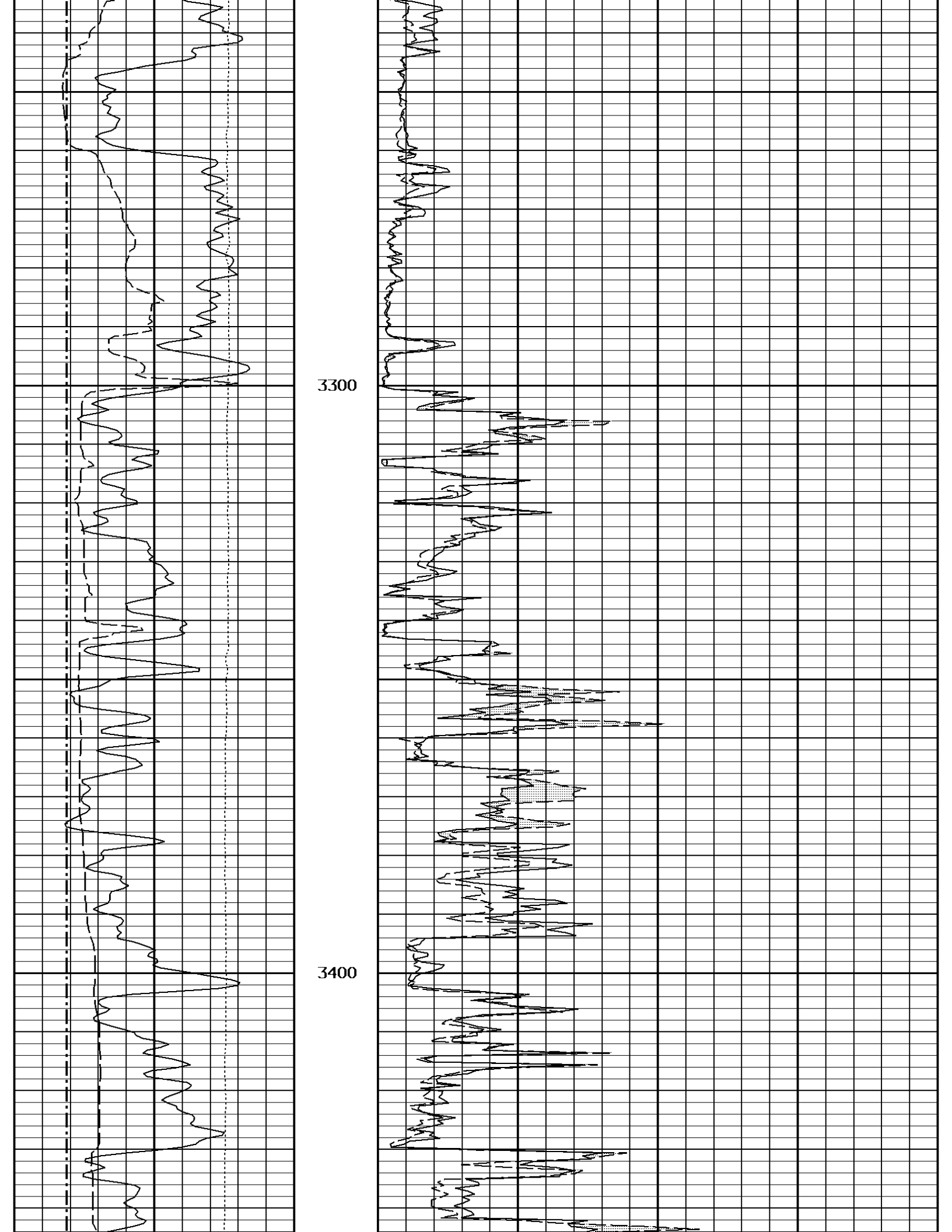
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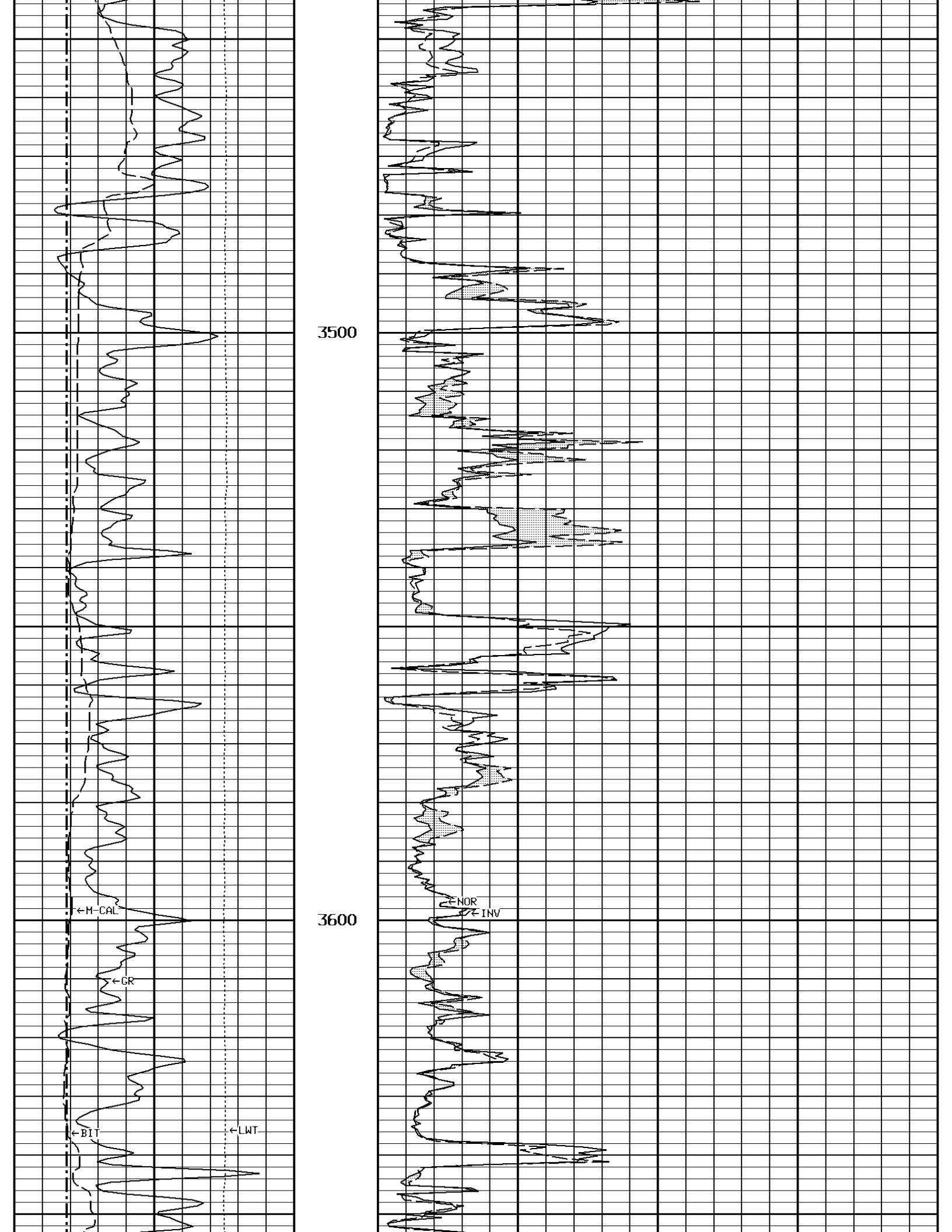
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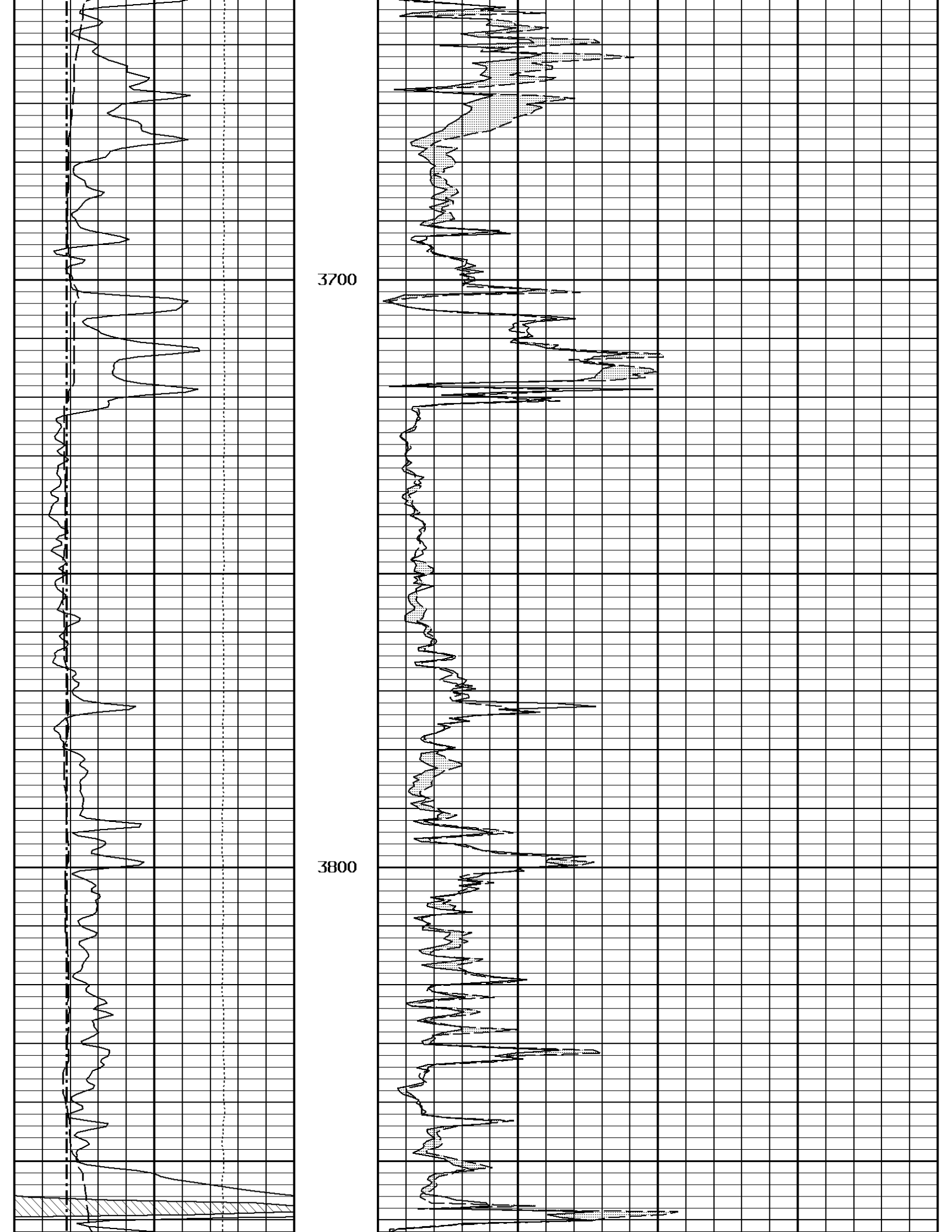
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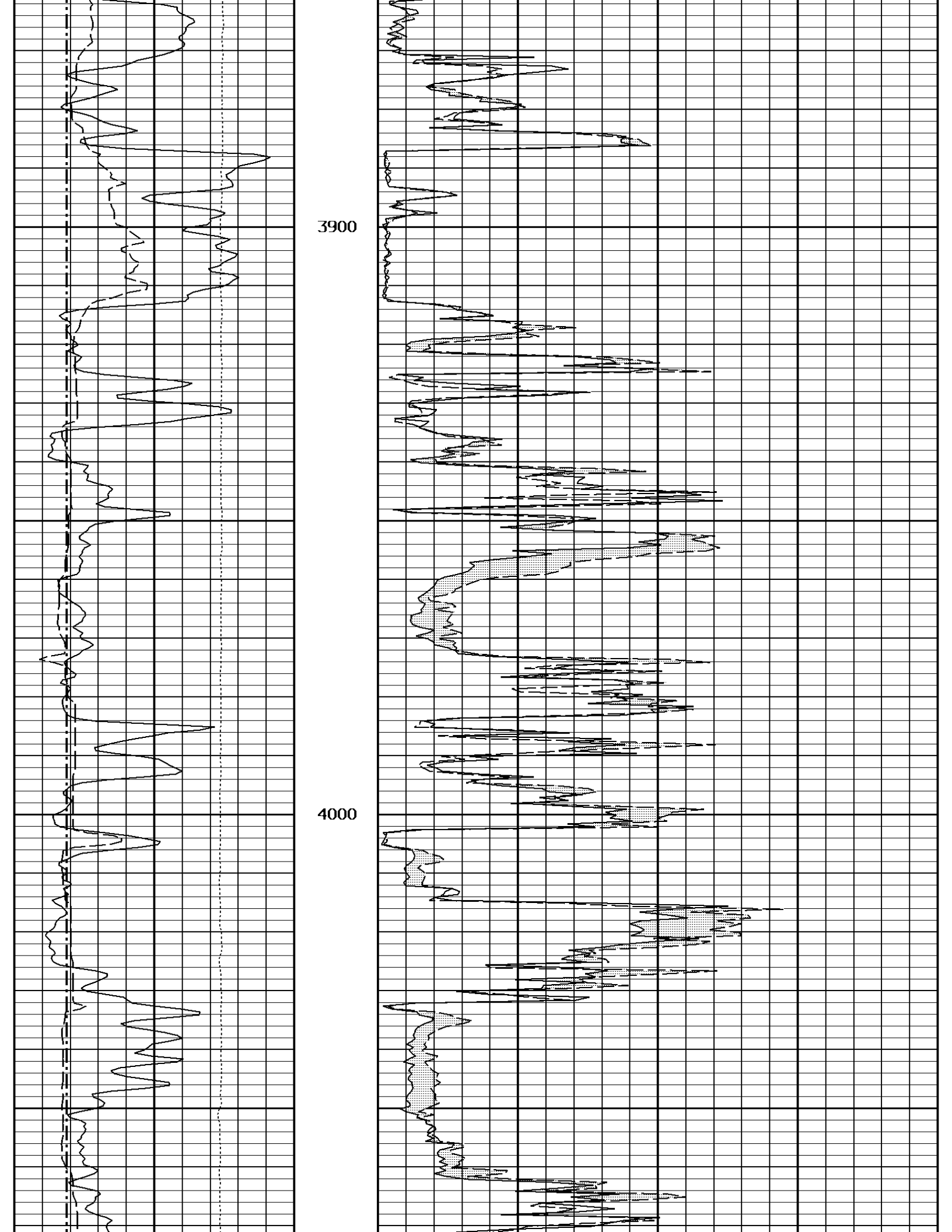
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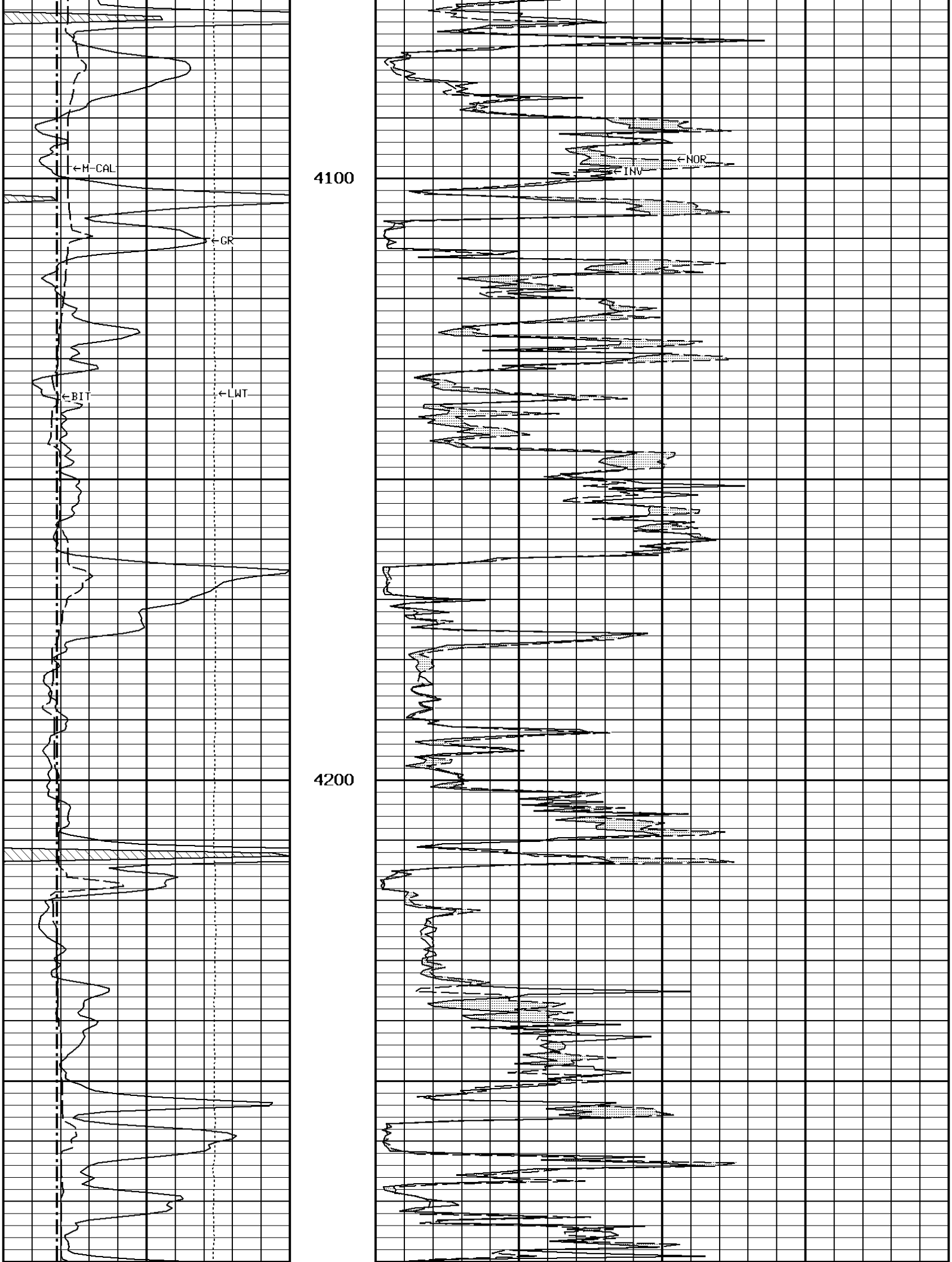
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←NOR
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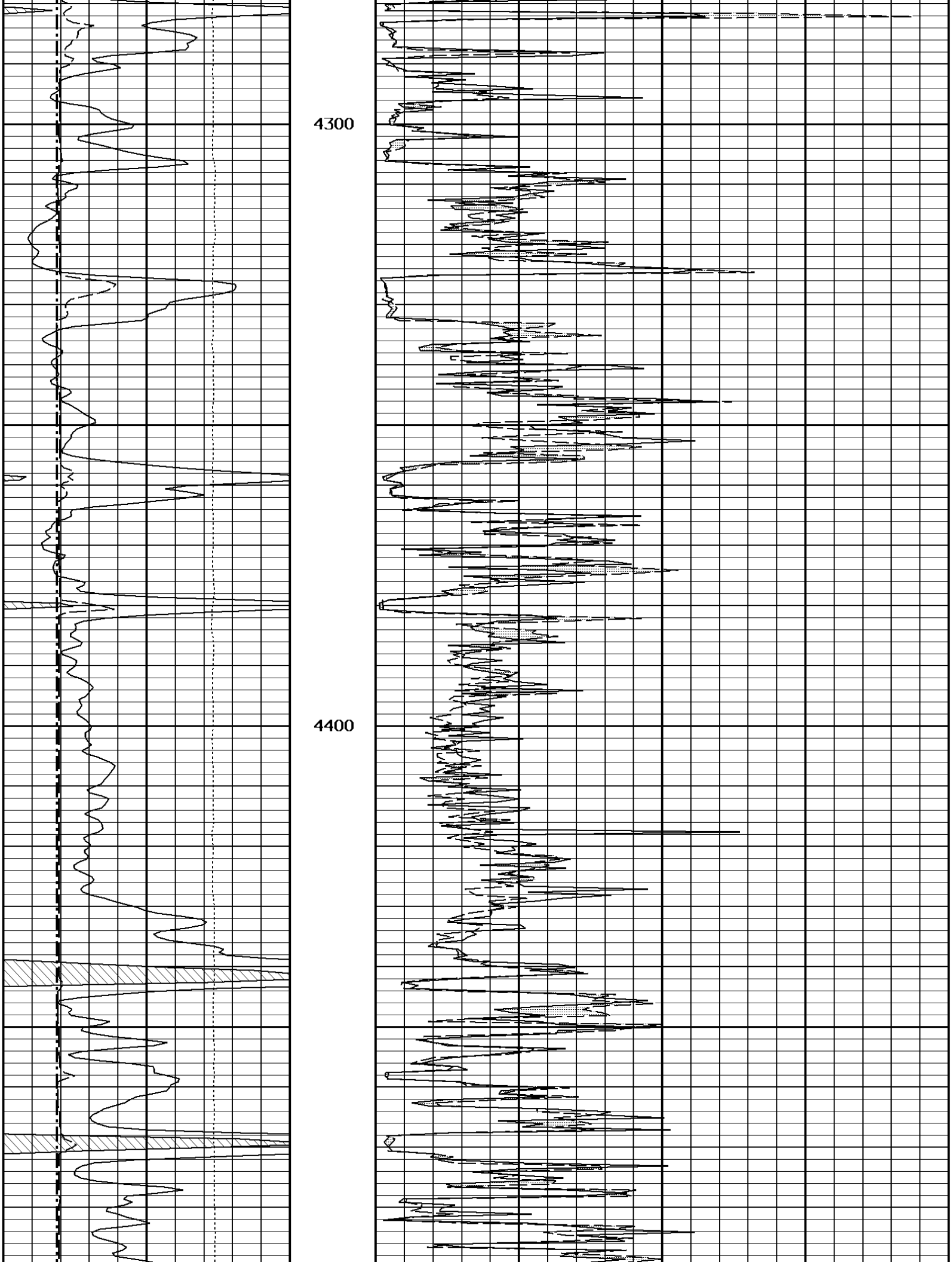
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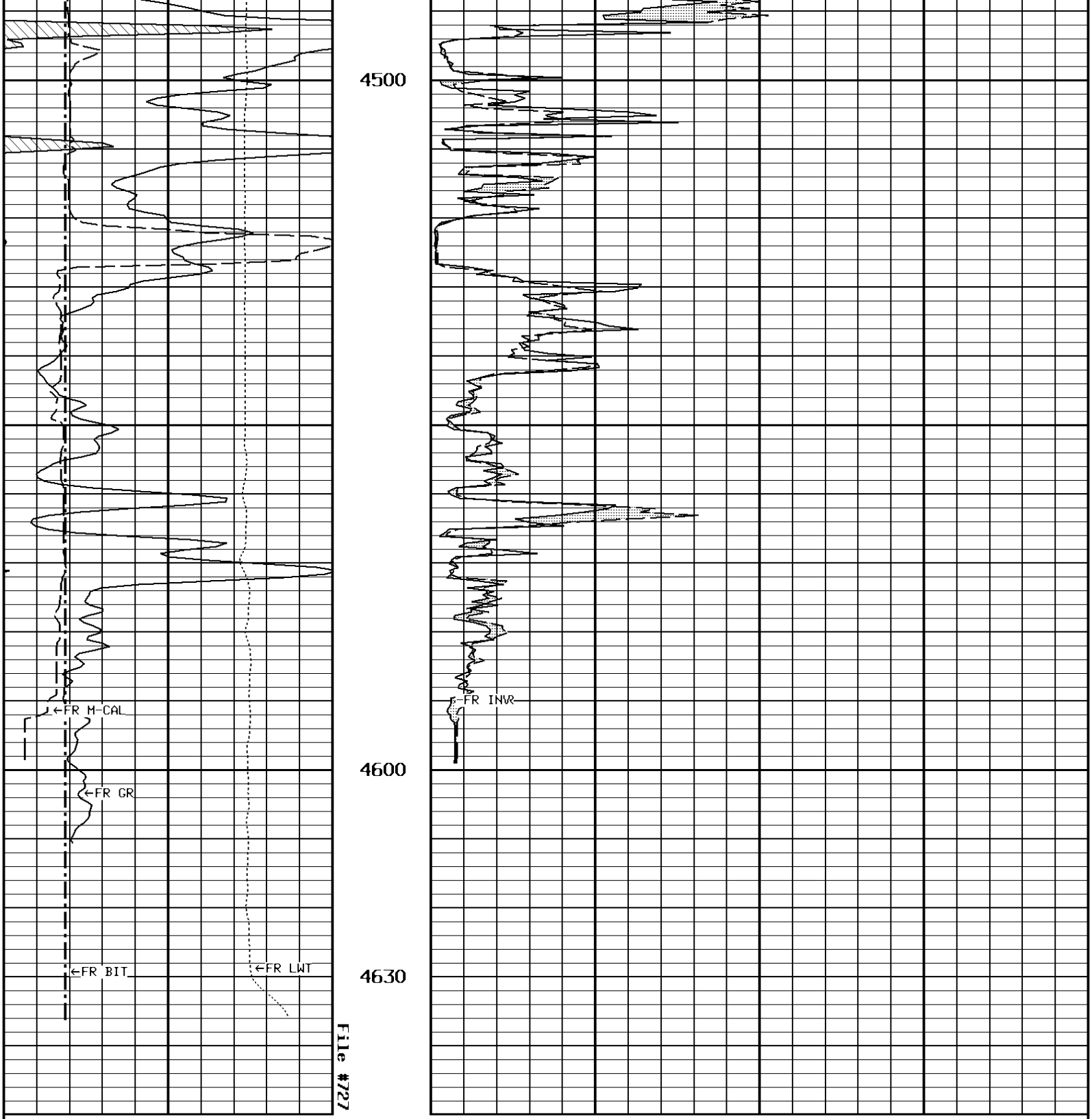


1:240 MAIN SECTION

CALIPER MICRO INCHES (IN)		MICRO-NORMAL OHMM
16 26 6 16		0 40
GAMMA RAY		MICRO-INVERSE

API UNITS
150 300
0 150

BIT SIZE
INCHES (IN)
6 16

TENSION
LBS
10000 0

OHMM
0 40

TENSION
LBS
10000 0

BIT SIZE
INCHES (IN)
6 16

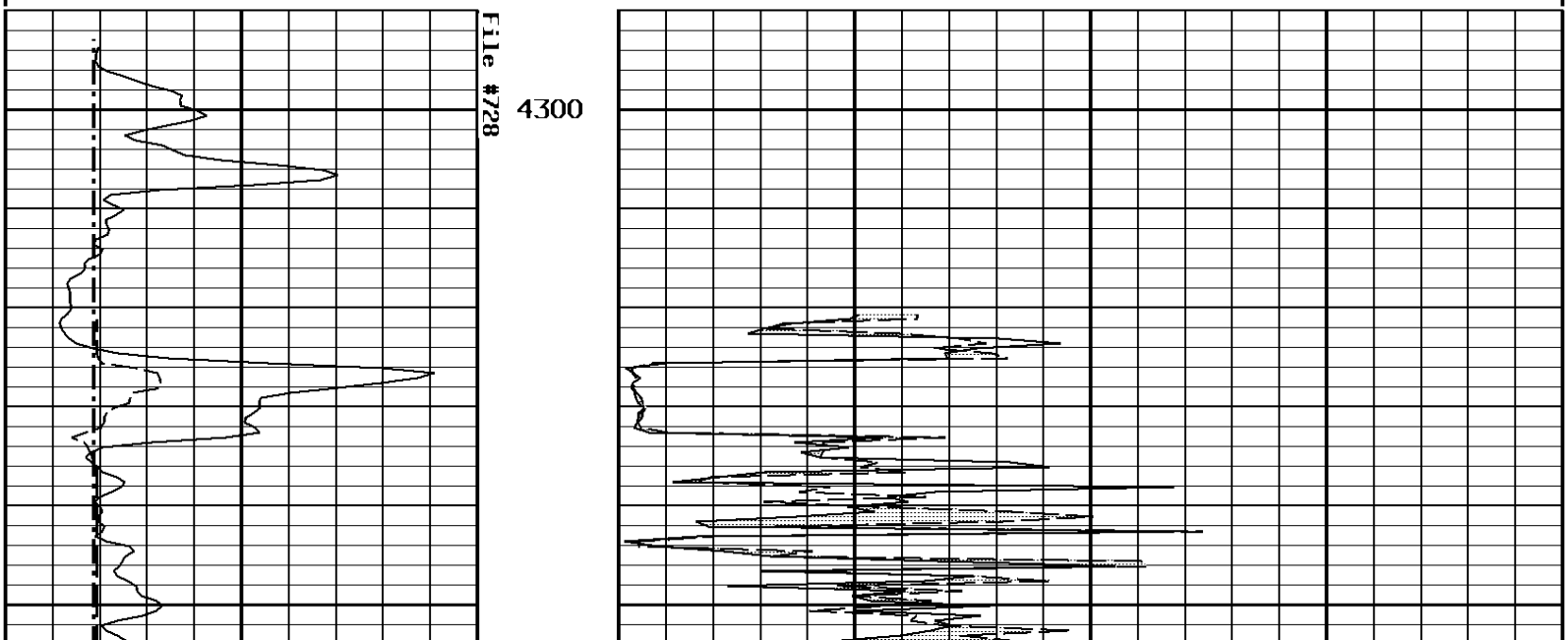
GAMMA RAY
API UNITS
150 300
0 150

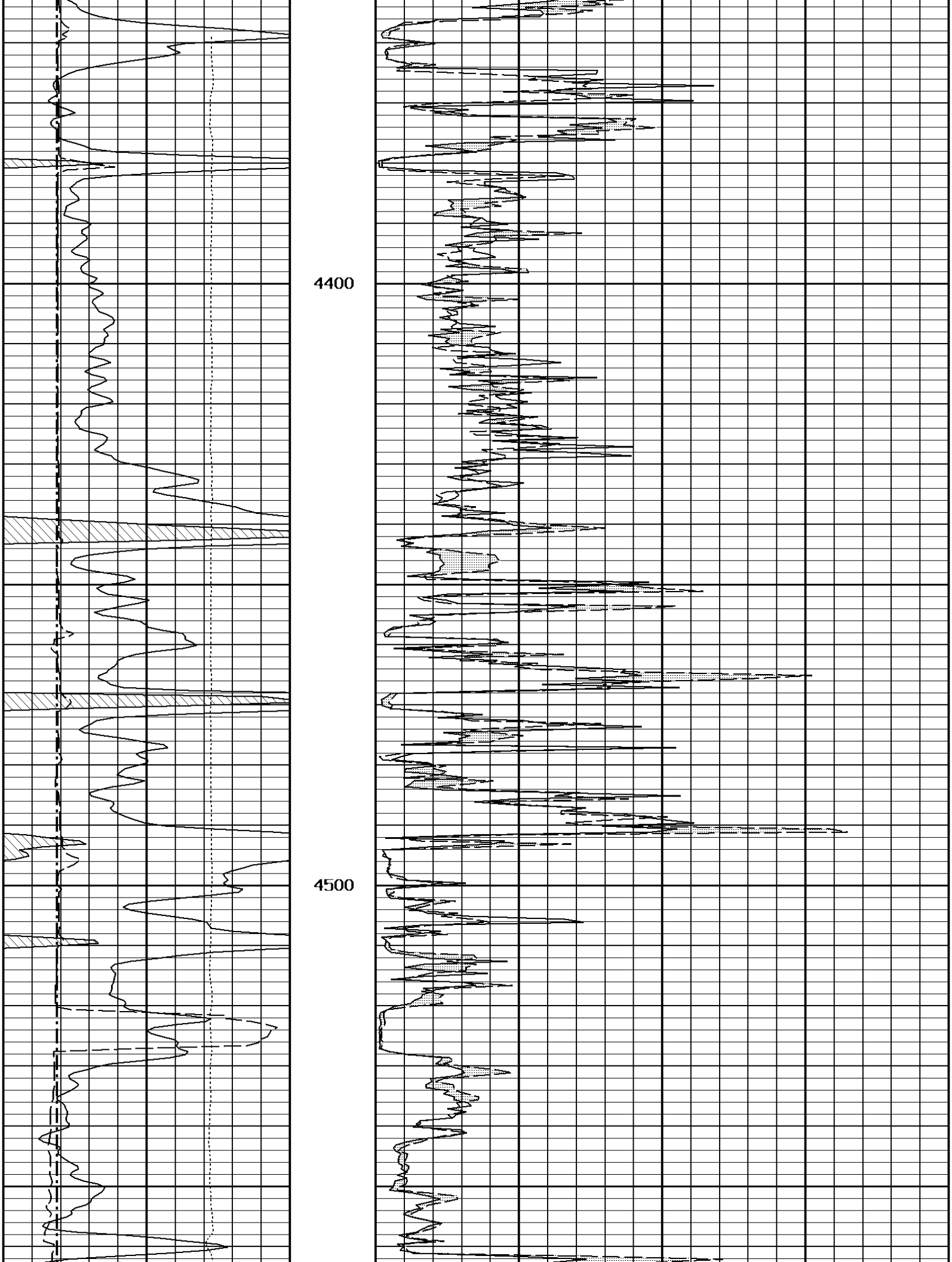
MICRO-INVERSE
OHMM
0 40

CALIPER MICRO
INCHES (IN)
16 26
6 16

MICRO-NORMAL
OHMM
0 40

1:240 REPEAT SECTION

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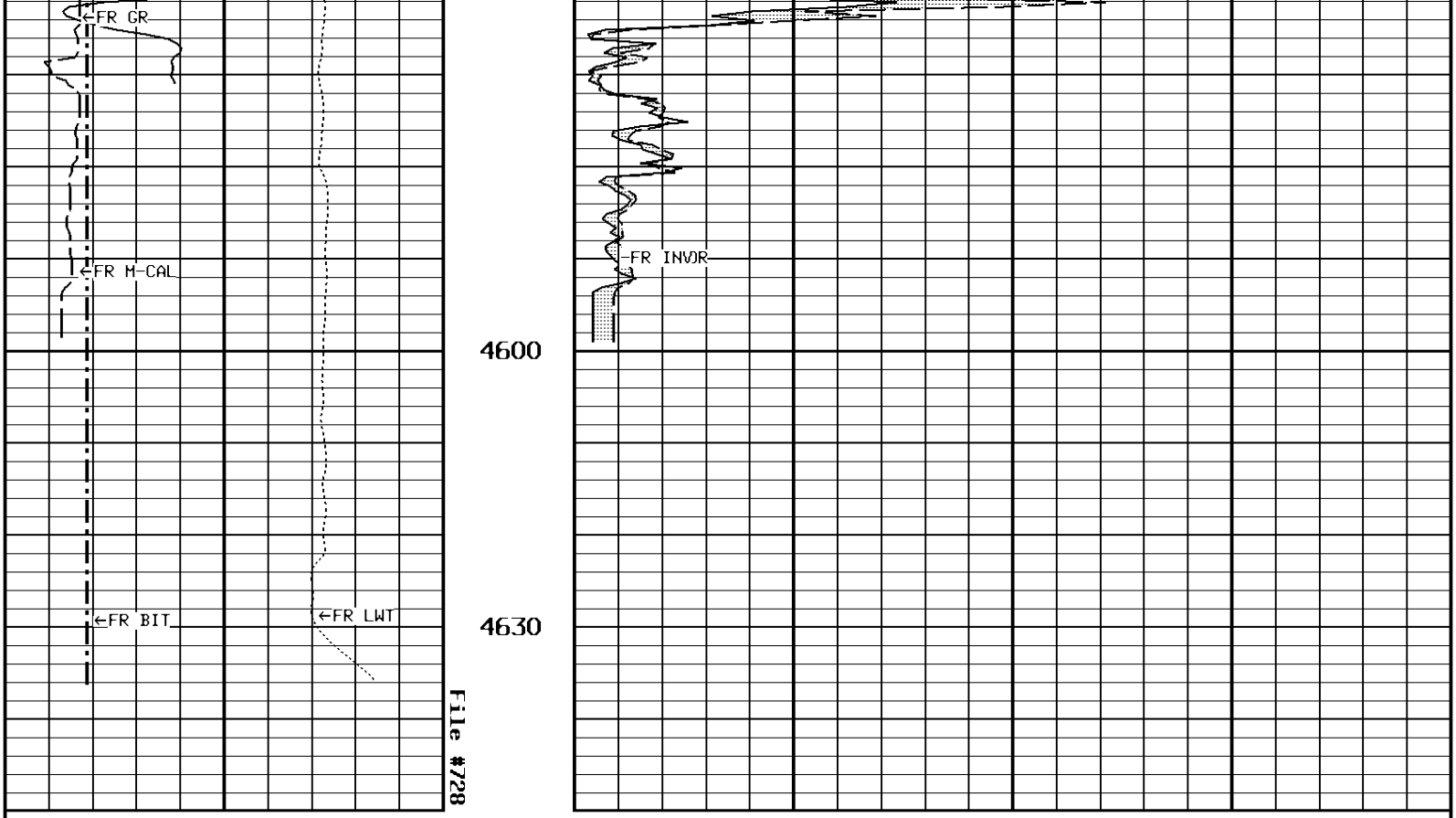

1:240 REPEAT SECTION

CALIPER MICRO
INCHES (IN)
16 26
6 16

GAMMA RAY
API UNITS
150 300
0 150

BIT SIZE
INCHES (IN)
6 16

TENSION
LBS
10000 0

MICRO-NORMAL
OHMM
0 40

MICRO-INVERSE
OHMM
0 40

* Calibration Summary *

Shop Calibration
GRTB

Performed : 21-Aug-2009 Time : 15:13
Sensor Suite : GR-GR5 ID : GRT-BA-121

	Measured		Units	Calibrated	Units
	Background	Jig		Jig	
GR	50	360	CPS	175	GRAPI

Shop Calibration
MSTNG

Performed : 19-SEP-2007 Time : 17:47
Sensor Suite : MSNG-NI ID : MST-DA-36

Internal

	Measured			Calibrated		
	Zero	Reference	Units	Zero	Reference	Units
INV-V	220.8	20617.0		0.00	1946.00	MV
NOR-V	161.0	20472.8		0.00	1546.00	MV
IN-C	160.2	20698.7		0.00	15.46	UA
INV-R					32.34	OHMM
NOR-R					55.11	OHMM

Performed : 19-SEP-2007 Time : 18:02
Sensor Suite : CALI-MSN ID : MST-DA-36

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	5.3	11.3	6.0	12.0	IN.