Tucker ENERGY SERVICES

POROSITY-MICRO

Company CROSS BAR ENERGY, LLC
Well BURKETT 'D' #40
Field BURKETT
County GREENWOOD
State KANSAS
Country USA
API No. 15-073-24225-00-00

File No : TUL-58487
Company : CROSS BAR ENERGY, LLC
Well : BURKETT 'D' #40
Field : BURKETT
County : GREENWOOD
State : KANSAS
Country : USA
API No : 15-073-24225-00-00

Location :
330' FSL & 530' FEL
W2 SE SE SE

LSD : **Sect :** 23S **Twp :** 23 **Rge :** 10E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	CST
Log Measured From:	GL	**DF**	0.00 Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	**GL**	1226.00 Ft	MST	

Date	11-12-2014			
Run Number	1			
Depth--Driller	2750.0 Ft			
Depth--Logger	2750.0 Ft			
First Reading	2725.0 Ft			
Last Reading	205.0 Ft			
Casing--Driller	210.0 Ft			
Casing--Logger	205.0 Ft			
Bit Size	7.875 In			
Casing Size	8.625 In			
Hole Fluid Type	WBM			
Density	9.2 ppg			
Fluid Loss	0.0			
PH/Viscosity	0.0	50.0		
Sample Source	MEASURED			
RM@Measured Temp.	2.000 @ 60 F			
RMF@Measured Temp	1.600 @ 60 F			
RMC@Measured Temp.	2.400 @ 60 F			
Source RMF/RMC	CALCULATED	CALCULATED		
RM@BHT	1.200 @ 100 F			
Time Circulation Stopped	11-12-2014 7:00 pm			
Max Recorded Temp.	100 F			
Equipment/Base	TRK-126	TULSA		
Recorded By	SEAN DAVIS / AMOUR DJAHO			
Witnessed By	ALBERT BRENSING			

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
8.625	32.00	205.00	0.00

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	2750.00

Run Number	1
Date	11-12-2014
Date/Time On Bottom	11-12-2014 9:00 pm
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	0.960 @ 100 F
RMC@BHT	1.440 @ 100 F

Run Number 1

Comments

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

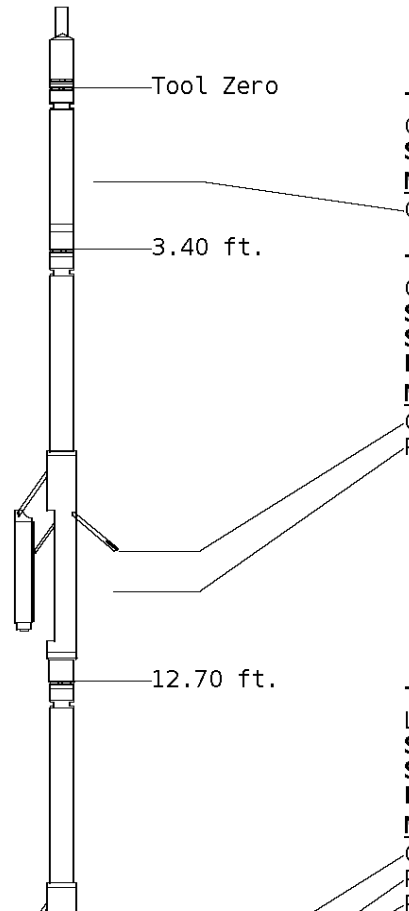
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

C. GONZALES
K. JOSH

Tool String Schematic

Total Tool Length - 66.95 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BB-107

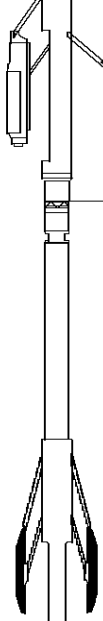
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	64.95

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-BB-103
Source ID :N-1045
Pad ID :CNP-AA-116-

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	57.55
PHIN	6.80	10.20	56.75

Tool: LDT-DA **Length:** 9.30 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-067

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	48.25
PEL	7.00	19.70	47.25
PES	7.40	20.10	46.85



LDEN	7.20	19.90	47.05
LCOR	7.20	19.90	47.05

22.00 ft.

Tool: MST-DA **Length:** 9.66 **ft.** **O.D.** 6.00 **in.**
Micro Spherically Focused (IC)
Sonde ID :MST-DA-057

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35

31.66 ft.

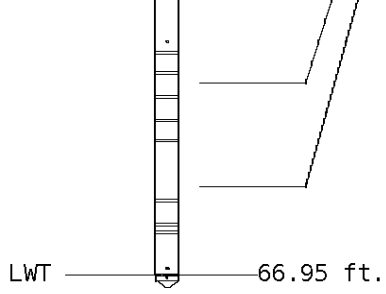
Tool: CST-AD **Length:** 13.80 **ft.** **O.D.** 3.60 **in.**
Open Hole Sonic
Sonde ID :CST-AB-25

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49

45.46 ft.

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



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Segment:	V1.D1.S5 MN	**Acquired:**	2014-11/12 22:48 3.4.0-13284
Reference:	0	**Processed:**	2014-11/13 00:18 3.4.0-13284

BIT SIZE
INCHES (IN)

6 — 16

Y CALIPER
INCHES (IN)

16 — 26
6 — 16

X CALIPER
INCHES (IN)

16 — 26
6 — 16

TENSION
LBS

10000 — 0

GAMMA RAY
API UNITS

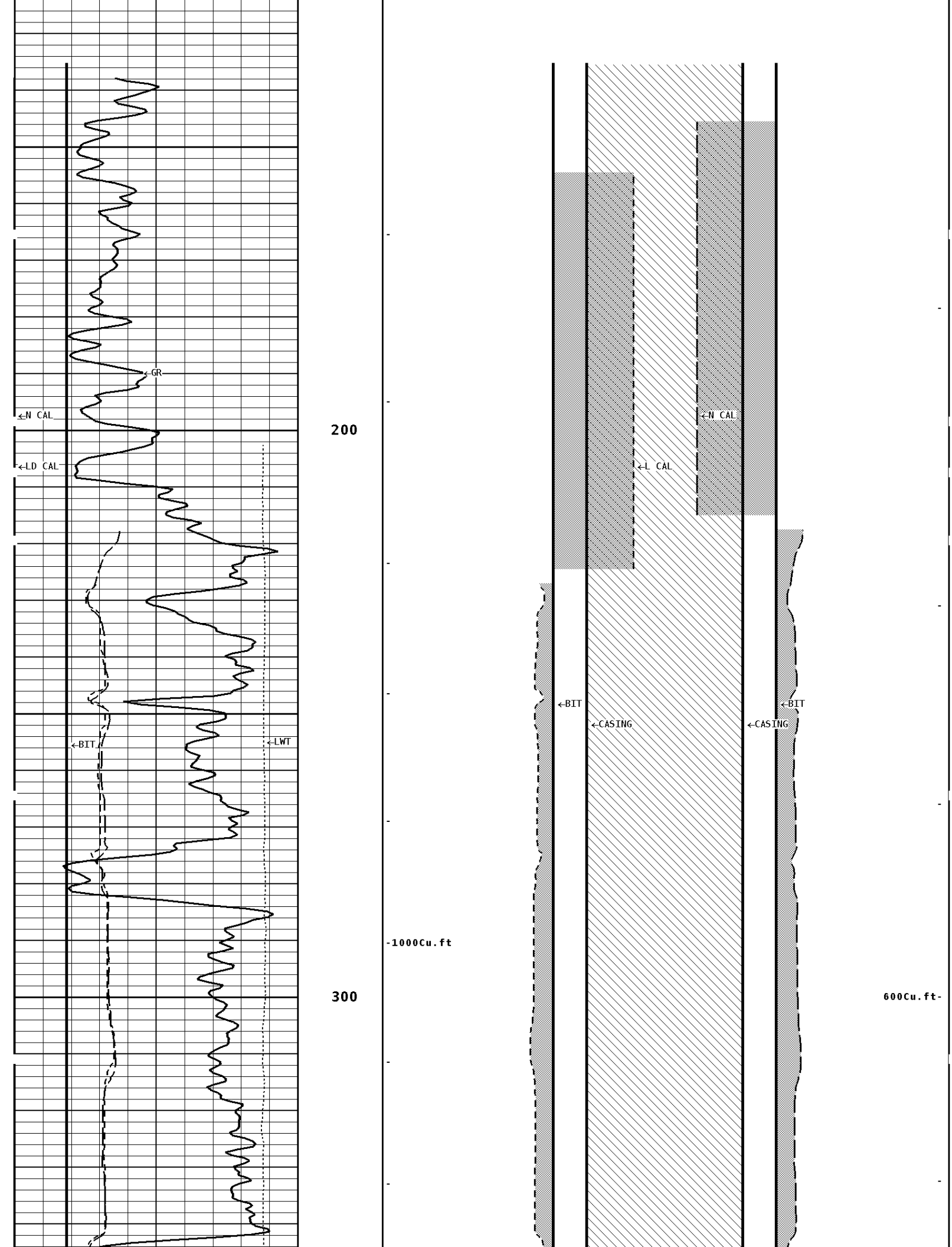
150 — 300
0 — 150

BOREHOLE VOLUME CU.FT	ANNULAR HOLE VOLUME CU.FT.

1:240 MAIN SECTION

File #1.1.5

100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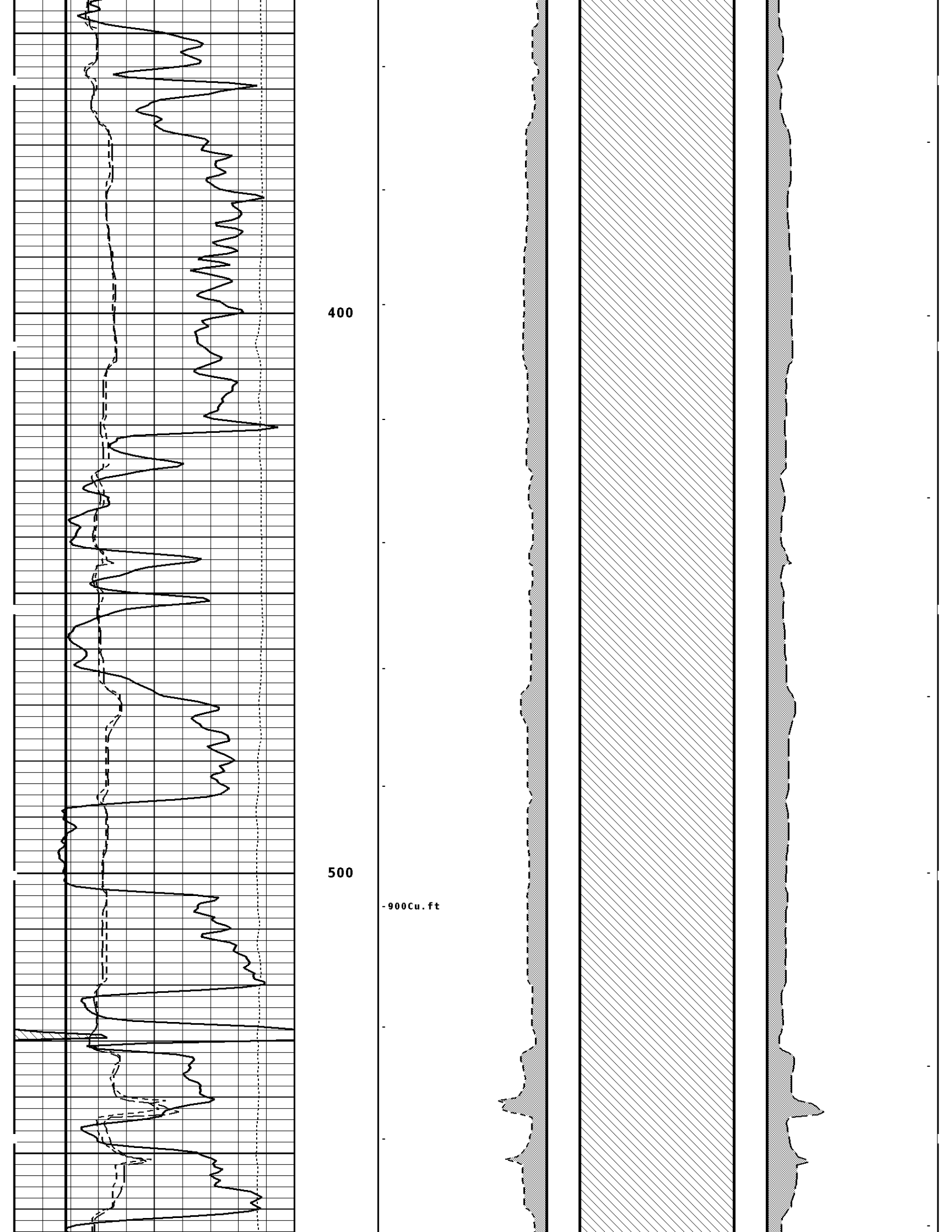
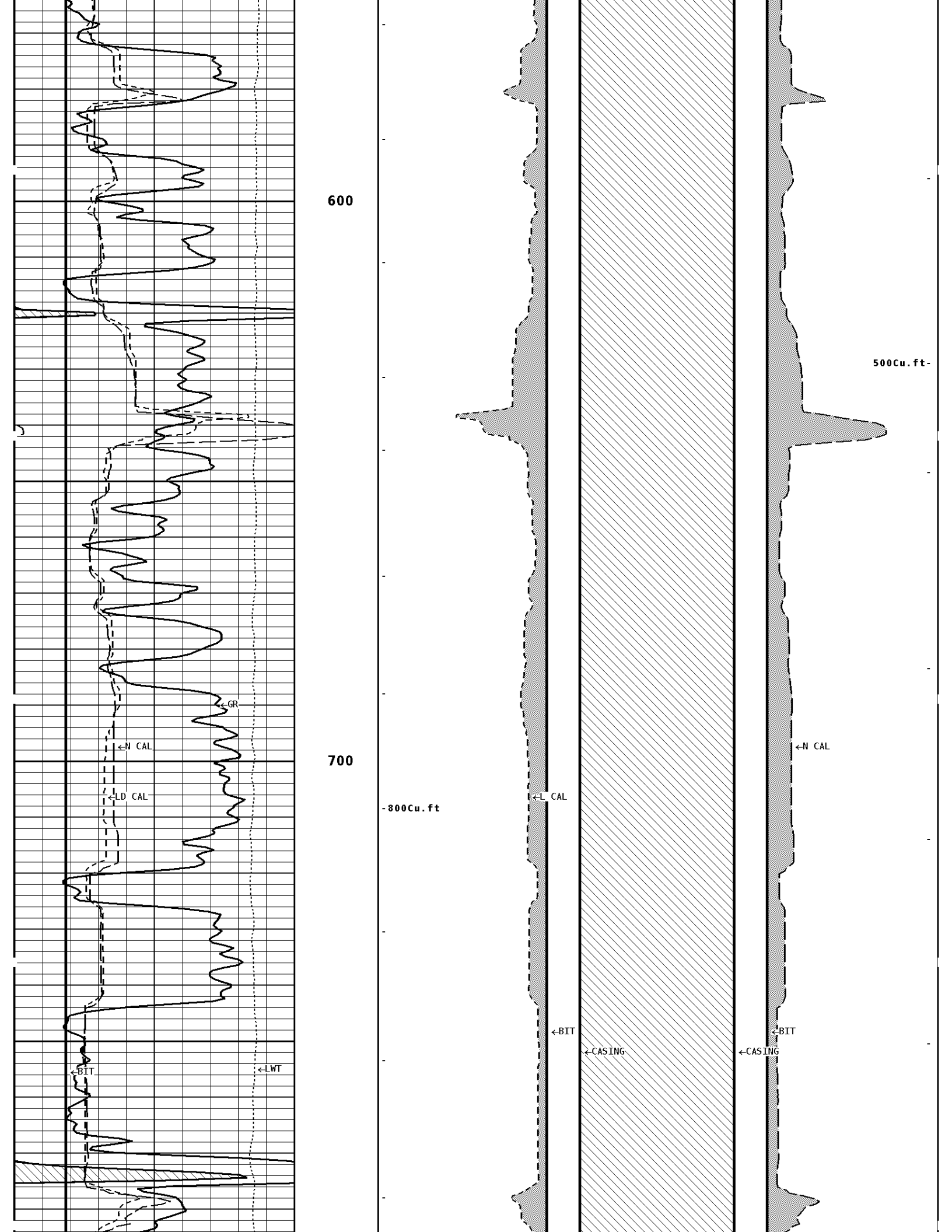
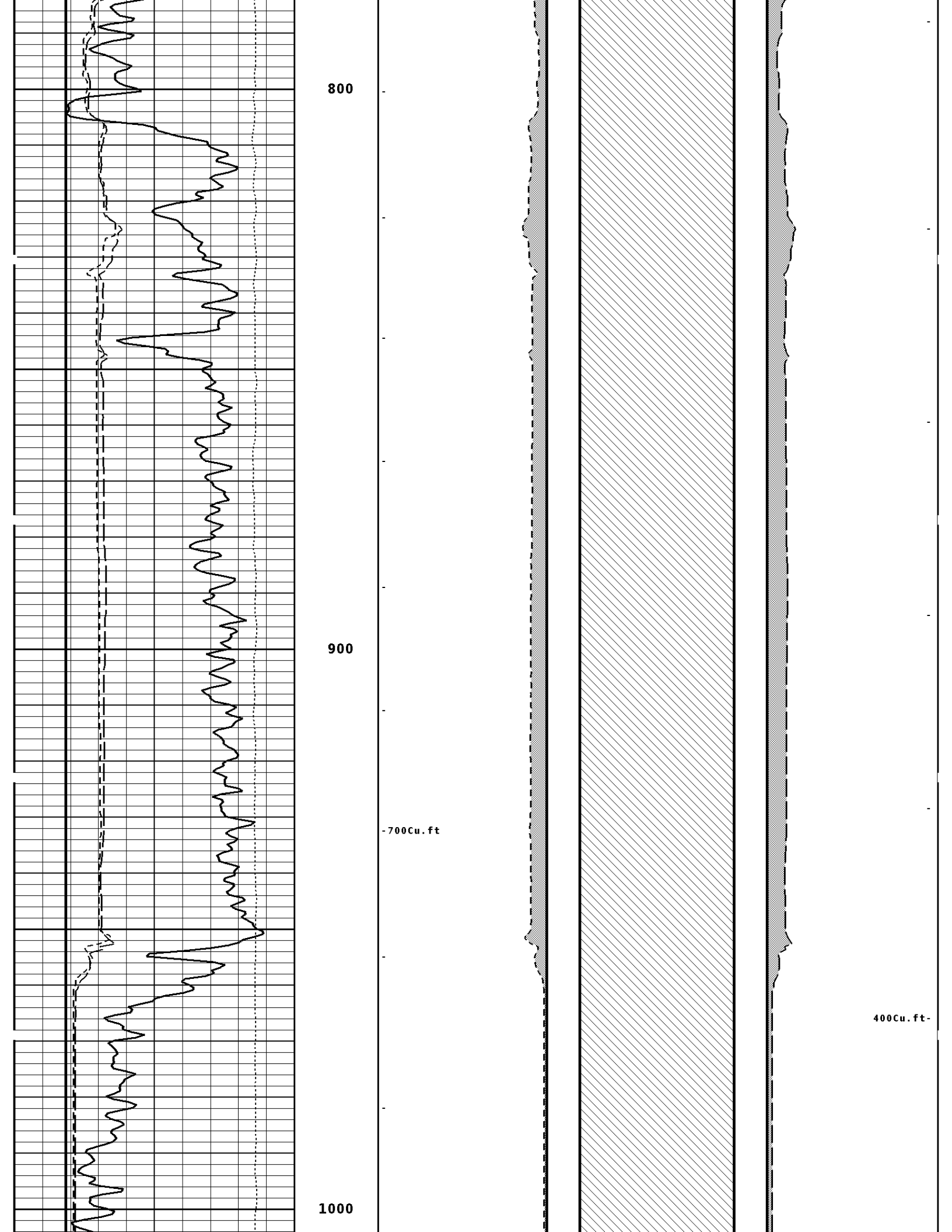
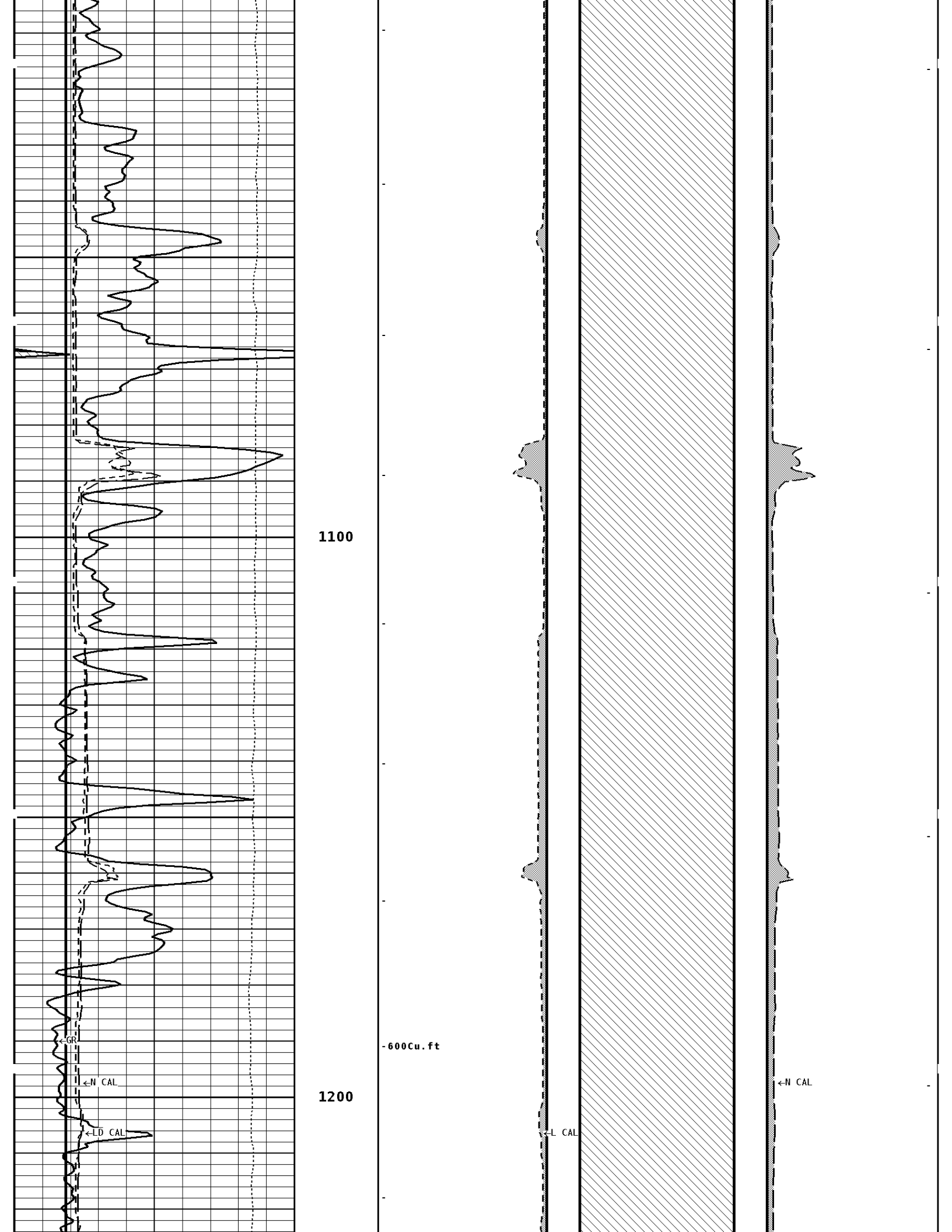
←N CAL
←LD CAL
←BIT
←LWT
200
300
-1000Cu.ft
←N CAL
←L CAL
←BIT
←CASING
←BIT
←CASING
600Cu.ft-


400
500
-900Cu.ft


600
700
GR
N CAL
LD CAL
BIT
LWT
-800Cu.ft
L CAL
BIT
CASING
500Cu.ft-
N CAL
BIT
CASING


800
900
1000
-700Cu.ft
400Cu.ft-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1200
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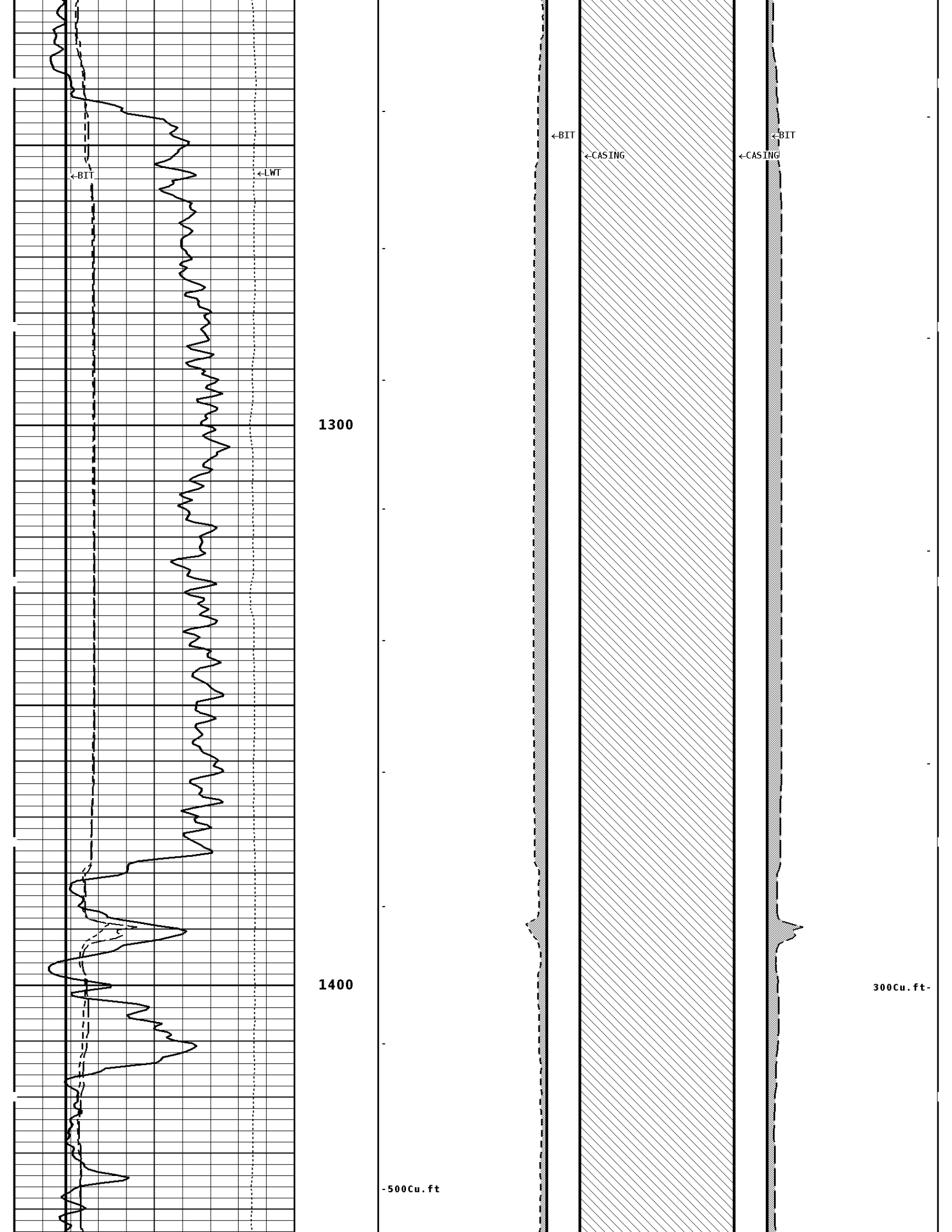
←N CAL
←LD CAL
-600Cu.ft
←L CAL
←N CAL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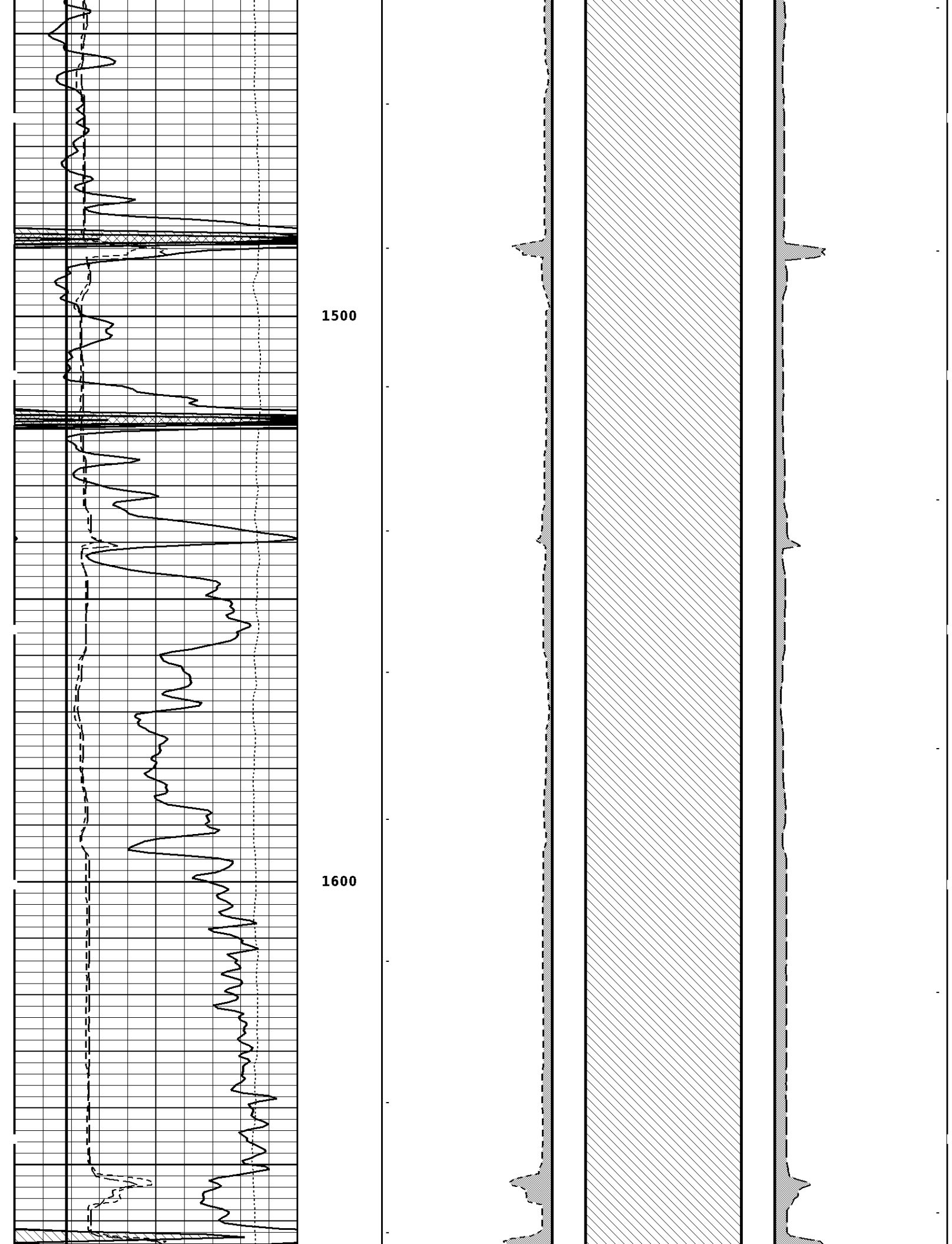
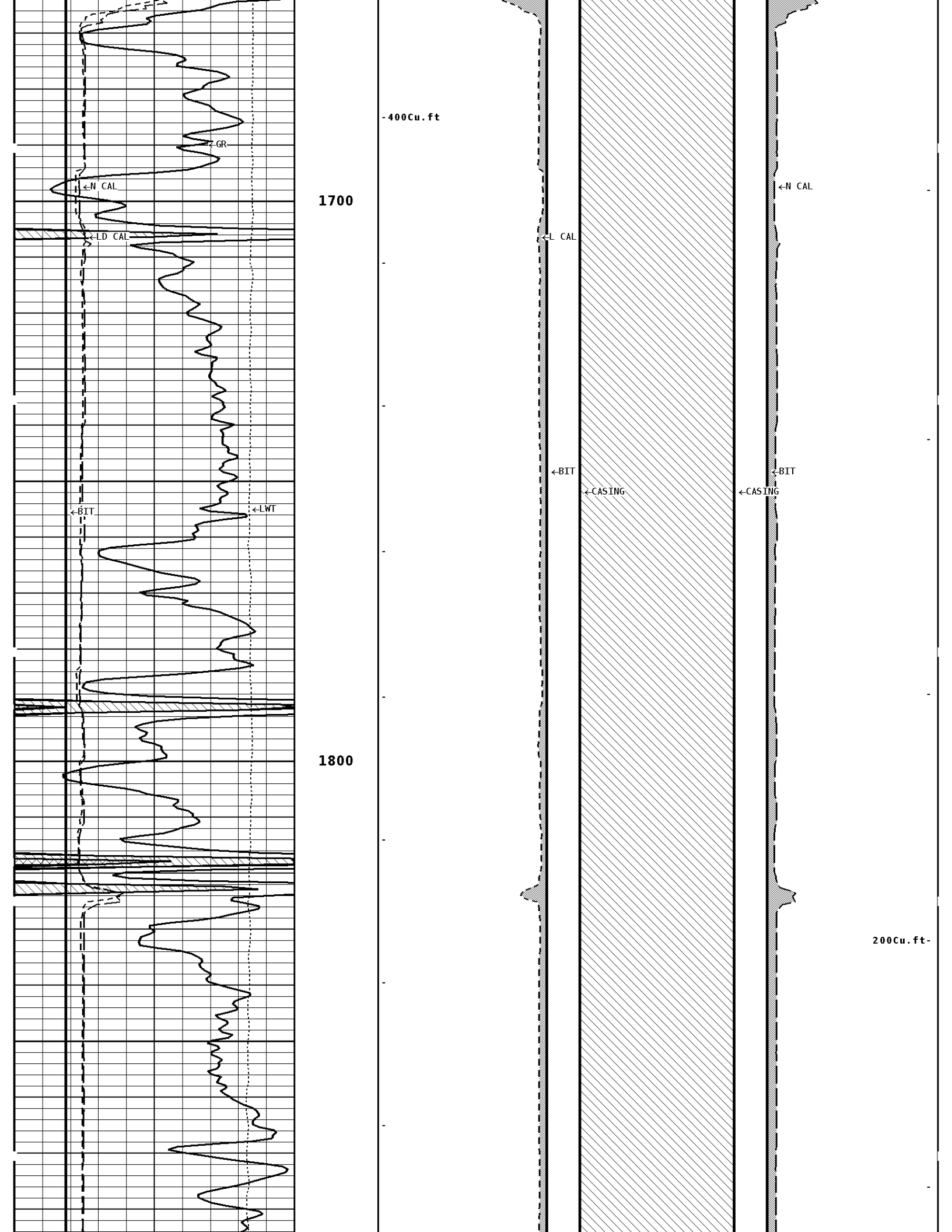
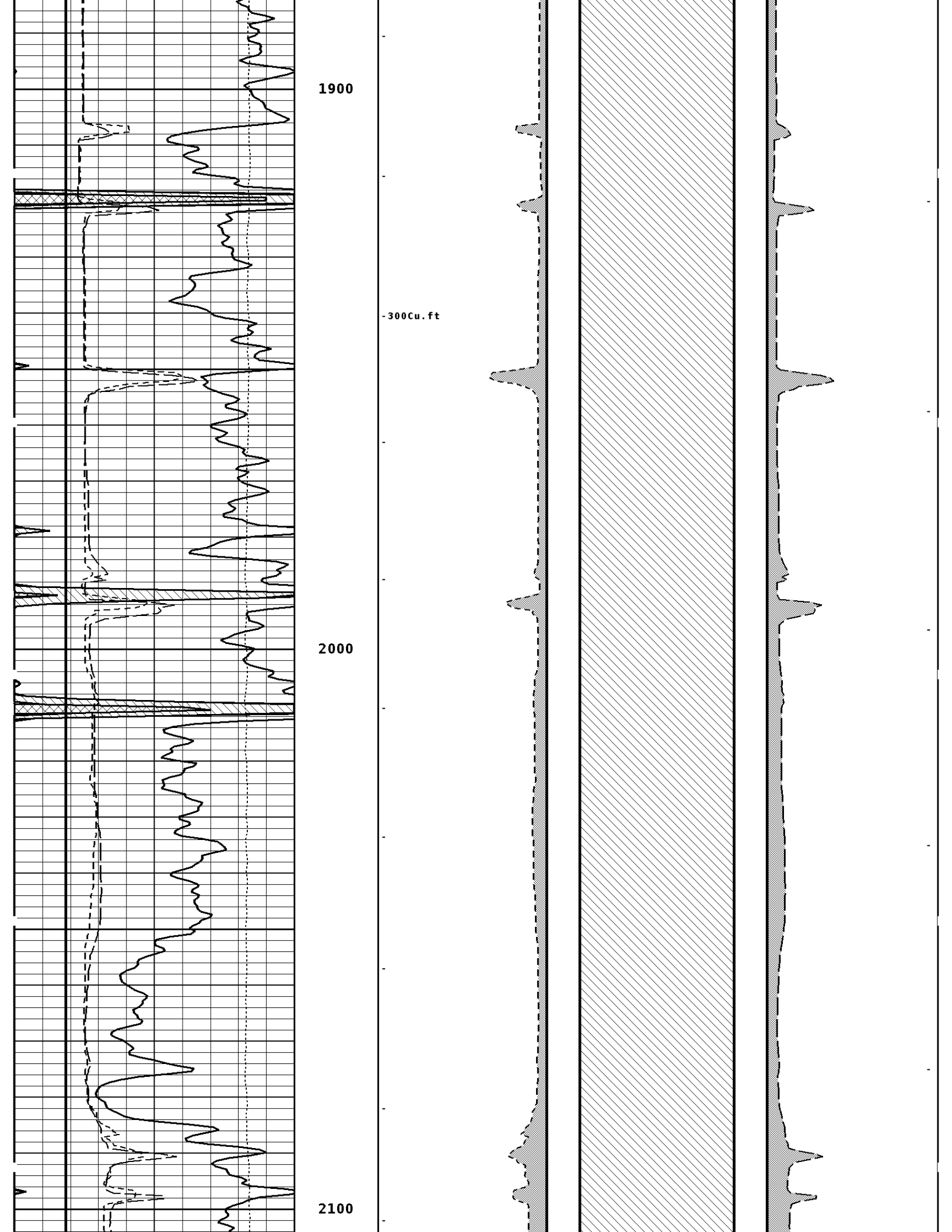
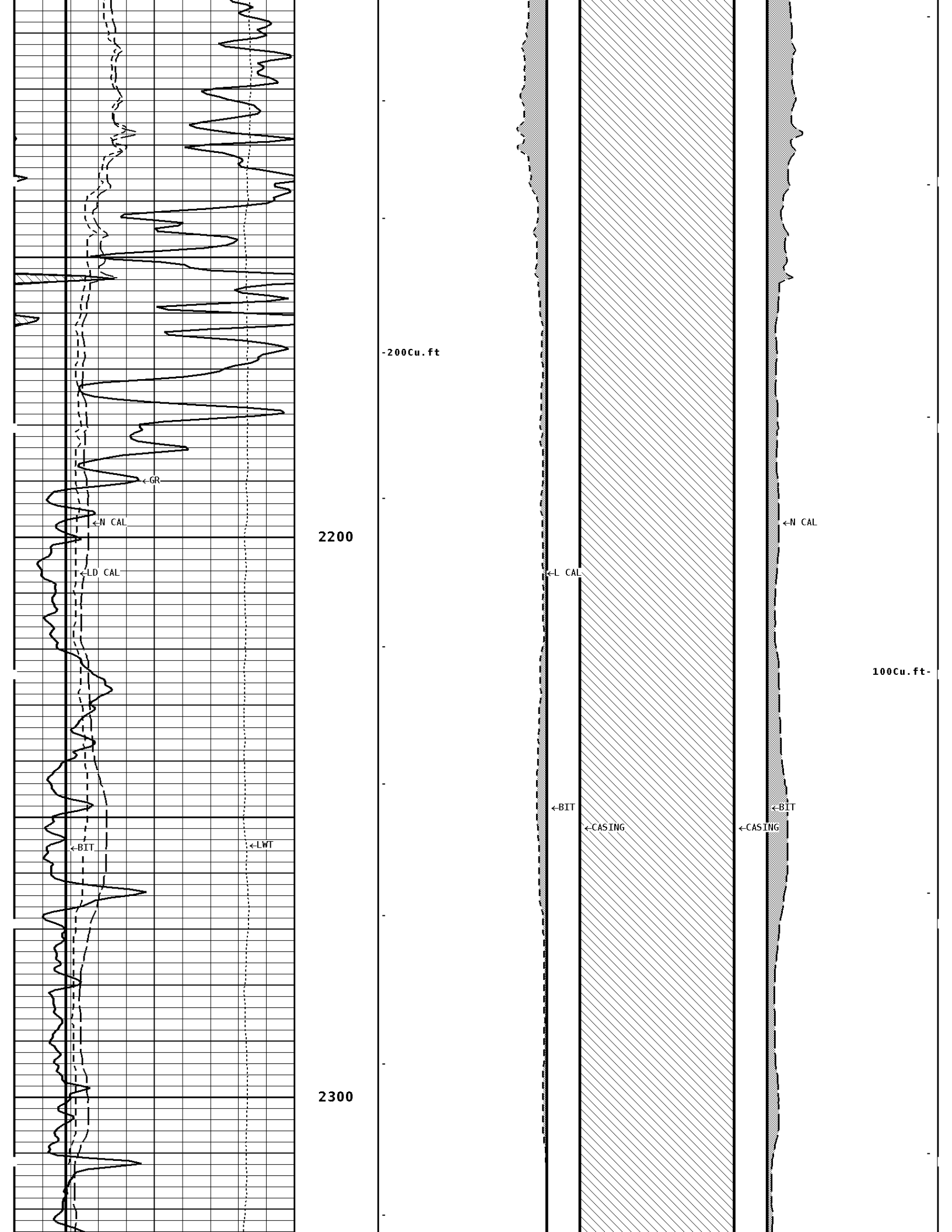
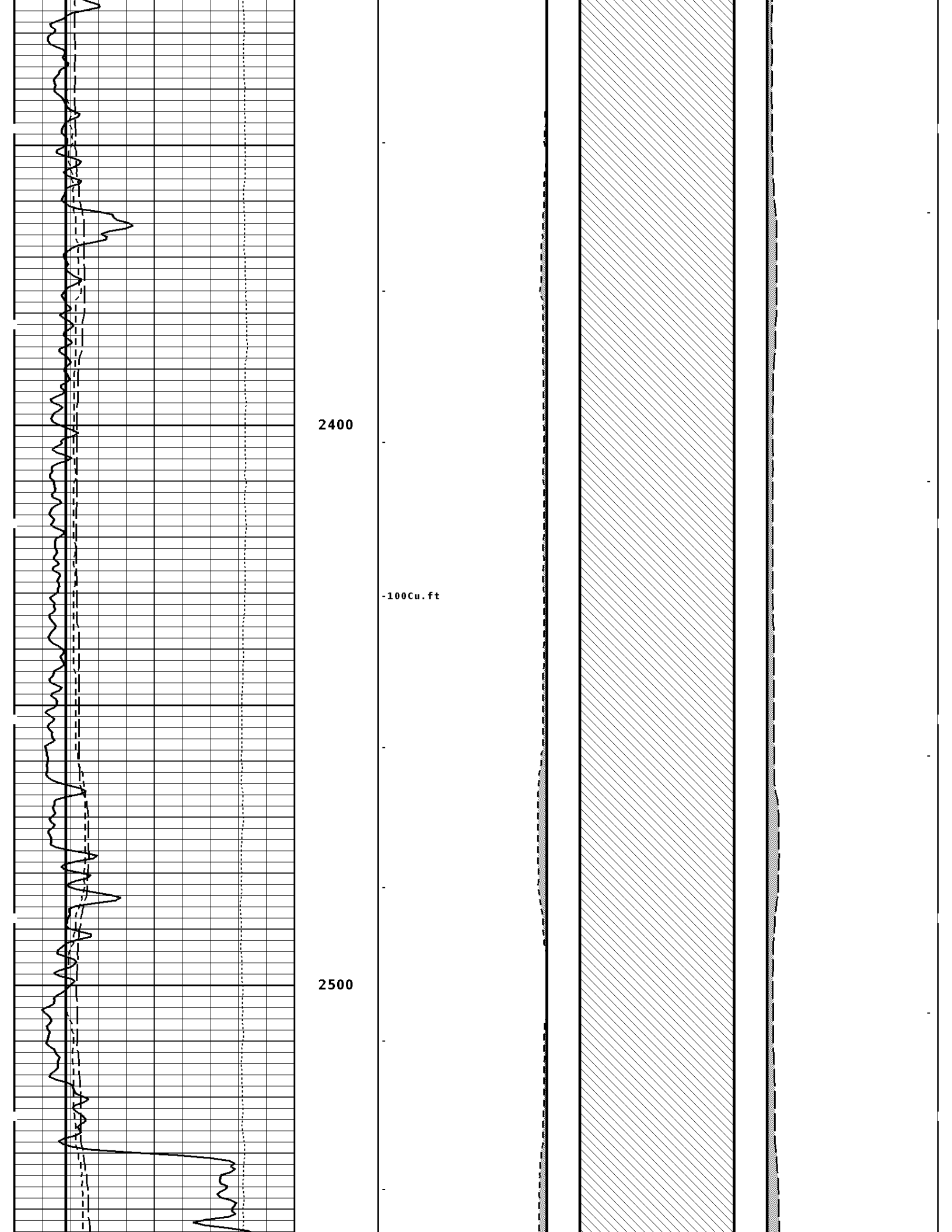
←LWT
1300
1400
-500Cu.ft
←BIT
←CASING
←BIT
←CASING
300Cu.ft-

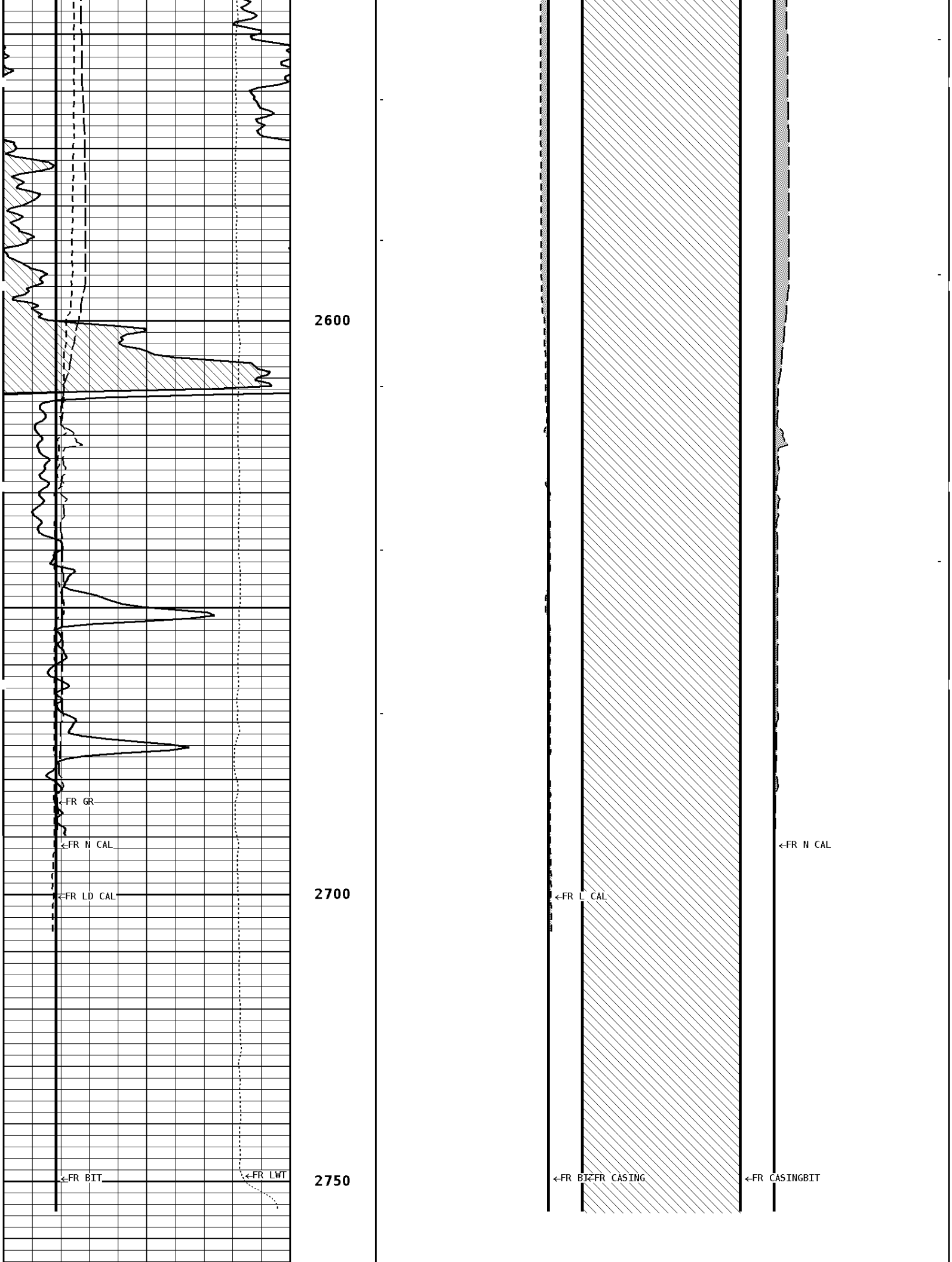

1500
1600

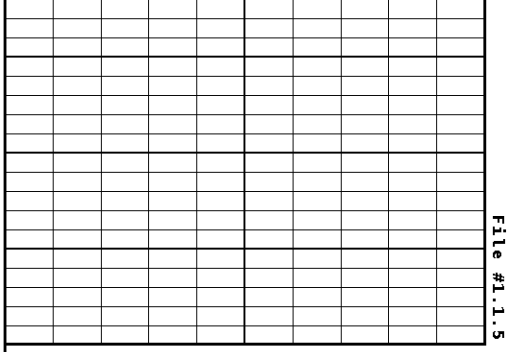

-400Cu.ft
GR
N CAL
1700
LD CAL
L CAL
N CAL
BIT
BIT
CASING
CASING
BIT
LWT
1800
200Cu.ft-


1900
2000
2100
-300Cu.ft


-200Cu.ft
GR
N CAL
LD CAL
BIT
LWT
2200
2300
L CAL
BIT
CASING
N CAL
BIT
CASING
100Cu.ft-


2400
-100Cu.ft
2500


2600
2700
2750
←FR GR
←FR N CAL
←FR LD CAL
←FR BIT
←FR LWT
←FR L CAL
←FR BIT
←FR CASING
←FR CASINGBIT
←FR N CAL



1:240 MAIN SECTION

GAMMA RAY API UNITS	BOREHOLE VOLUME CU.FT	ANNULAR HOLE VOLUME CU.FT.
150 — 300 0 — 150		

TENSION LBS	X CALIPER INCHES (IN)	Y CALIPER INCHES (IN)	BIT SIZE INCHES (IN)
10000 — 0	16 — 26 6 — 16	16 — 26 6 — 16	6 — 16

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	7.875	in
Casing Diameter	5.500	in

*** Calibration Summary ***

Shop Calibration
GRT-B

Performed : 23-OCT-2014 Time : 09:31
Sensor Suite : GR-GR5 ID : GRT-BB-107

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	75	381	CPS	175	GRAPI

Shop Calibration
CNT-AA

Performed : 05-NOV-2014 Time : 11:41
Sensor Suite : CALI-BCN ID : NDT-BB-103

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	9.1	14.0	6.0	12.0	IN.

Shop Calibration
LDT-DA

Performed : 05-NOV-2014 Time : 10:50

Performed : 03-NOV-2014 Time : 10:50
Sensor Suite : CALI-LTH ID : PDT-GA-464

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.0	11.5	6.0	12.0	IN.

Tucker ENERGY SERVICES

Company: CROSS BAR ENERGY, LLC

Well: BURKETT 'D' #40

Location: 330' FSL & 530' FEL

Logged: 11-12-2014

K.B. Elev: 0.0 Ft

Tucker ENERGY SERVICES

COMPOSITE LOG

Company CROSS BAR ENERGY, LLC
Well BURKETT 'D' #40
Field BURKETT
County GREENWOOD
State KANSAS
Country USA
API No. 15-073-24225-00-00

File No : TUL-58487
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County : GREENWOOD
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API No : 15-073-24225-00-00

Location :
330' FSL & 530' FEL
W2 SE SE SE

LSD : **Sect :** 23S **Twp :** 23 **Rge :** 10E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	CST
Log Measured From:	GL	**DF**	0.00 Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	**GL**	1226.00 Ft	MST	

Date	11-12-2014			
Run Number	1			
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Casing Size	8.625 In			
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Witnessed By	ALBERT BRENSING			

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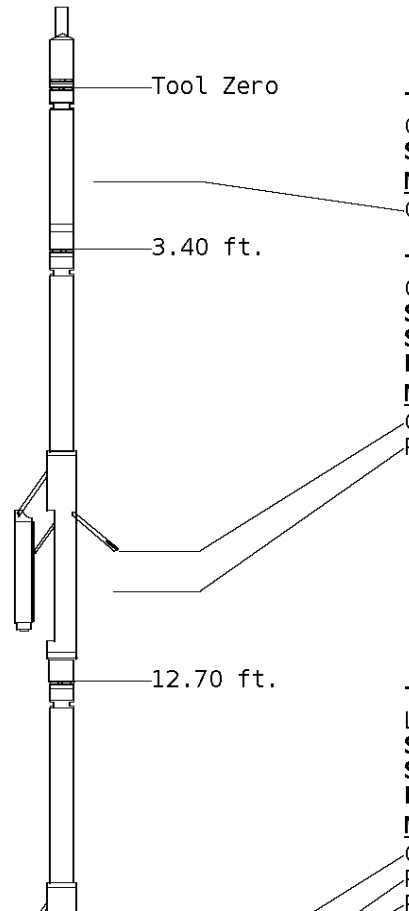
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

C. GONZALES
K. JOSH

Tool String Schematic

Total Tool Length - 66.95 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



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Sonde ID :NDT-BB-103
Source ID :N-1045
Pad ID :CNP-AA-116-

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Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-067

Measure Point	Tool Offset	Stack Offset	Bottom Offset
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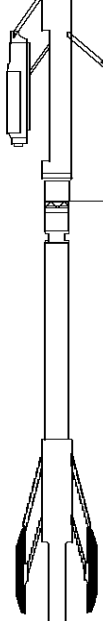

LDEN	7.20	19.90	47.05
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22.00 ft.

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Sonde ID :MST-DA-057

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MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35

31.66 ft.

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Sonde ID :CST-AB-25

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45.46 ft.

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
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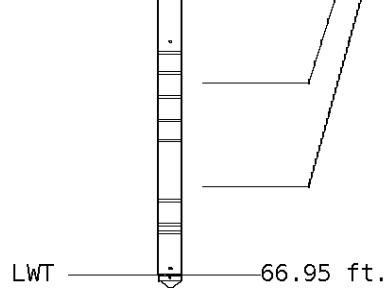
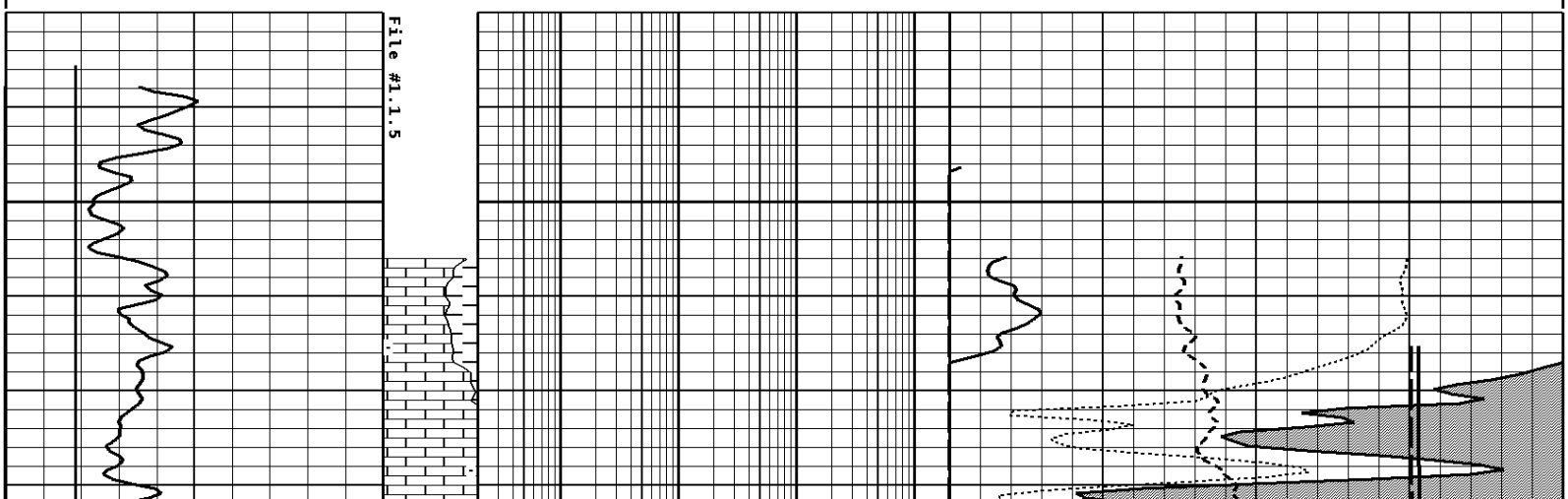
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88

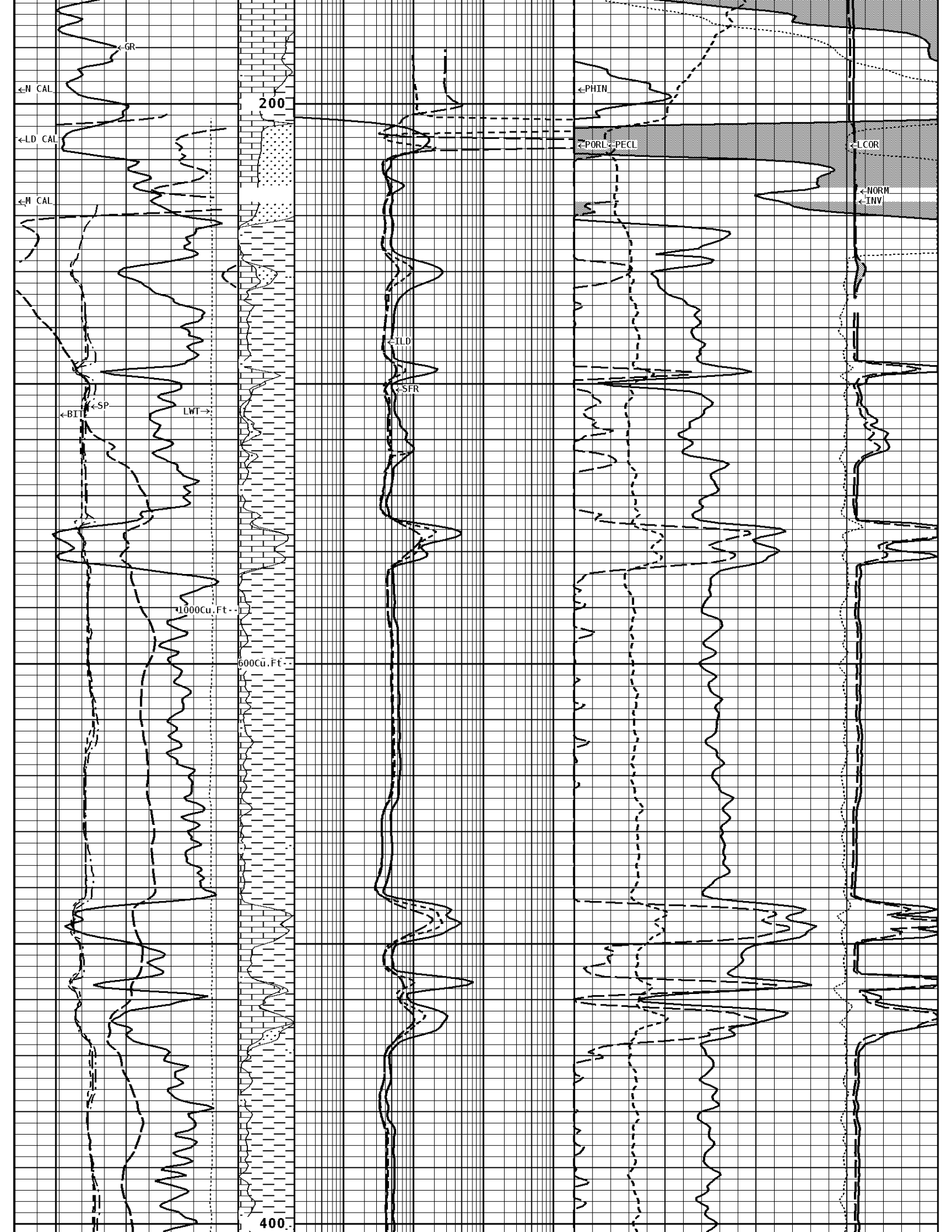


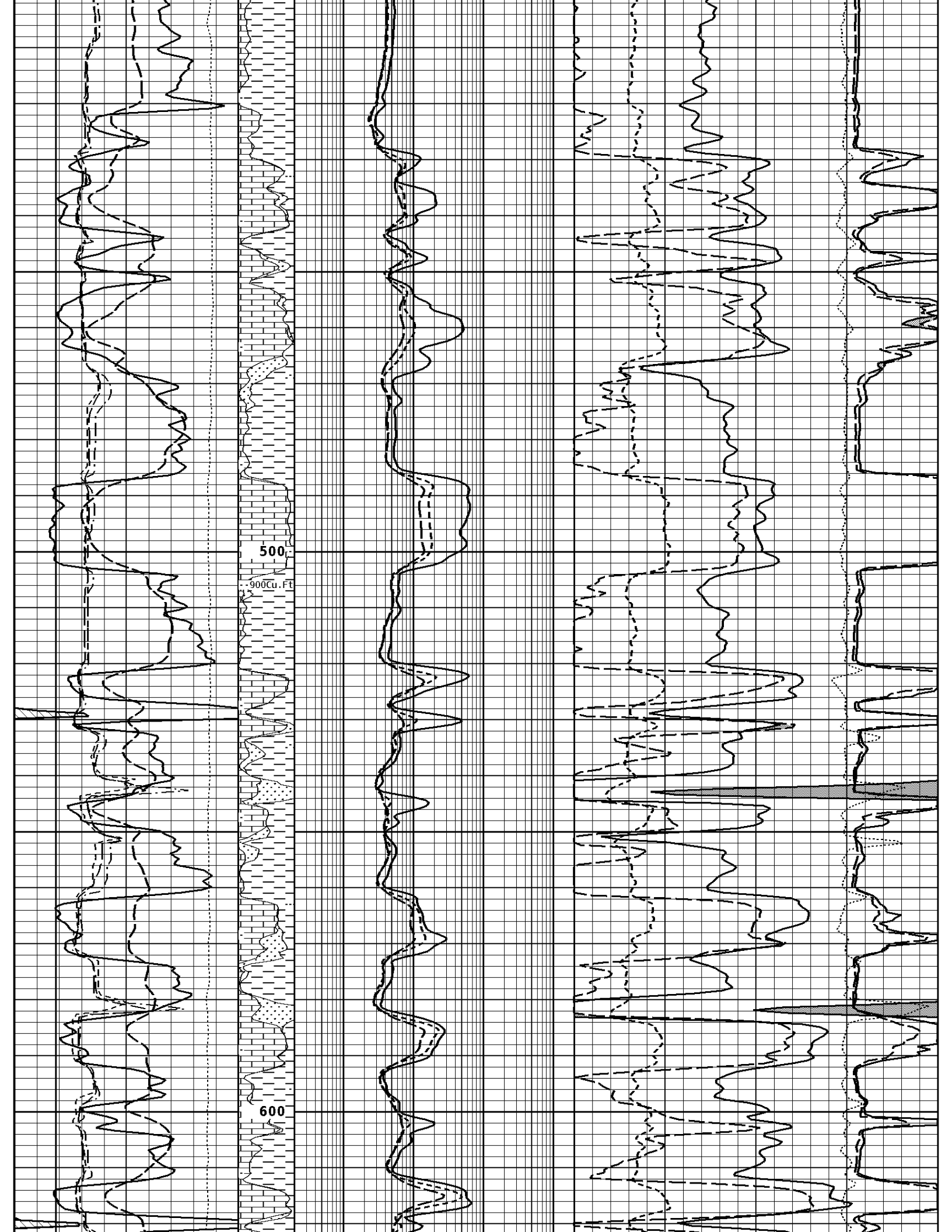
Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** COMSAT
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284

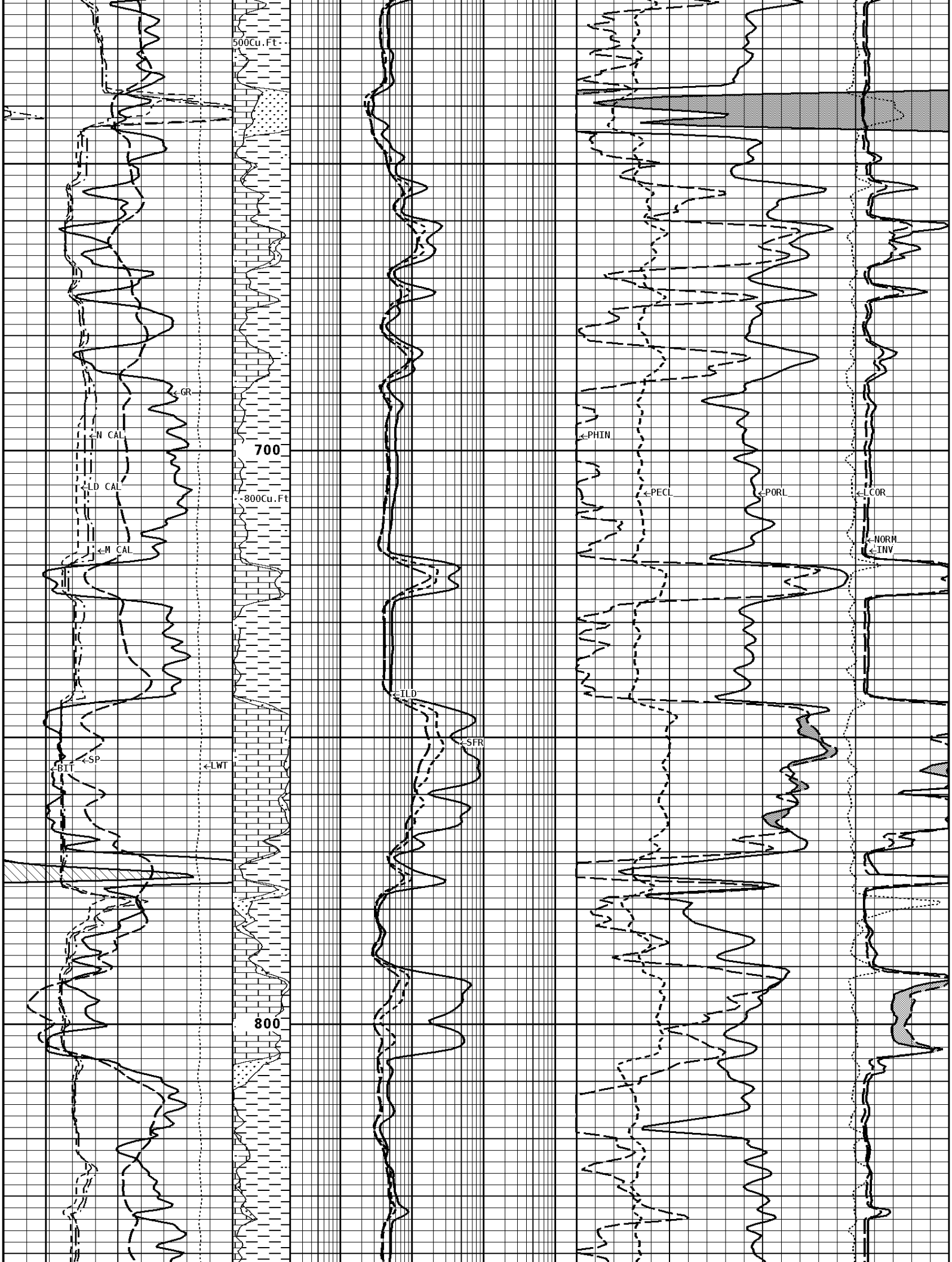
CALIPER MICRO INCHES (IN) 16 / 6 — 26 / 16			NORMAL OHMM 0 — 40
BIT SIZE INCHES (IN) 6 — 16			INVERSE OHMM 0 — 40
NEUTRON (Y) CALIPER INCHES (IN) 16 / 6 — 26 / 16			
DENSITY (X) CALIPER INCHES (IN) 16 / 6 — 26 / 16	Volume Quartz		DENSITY CORRECTION G/CC -0.75 — 0.25
TENSION LBS 10000 — 0	Volume Calcite	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 — 2000.0	PE CROSS-SECTION BARNS/ELECTRON 0 — 20
SPONTANEOUS POTENTIAL mV →| |←20	Volume Dolo/Shale	DEEP INDUCTION OHMM 0.2 — 2000.0	DENSITY POROSITY (2.71g/cc) PERCENT 70 / 30 / -10 — 30 / -10 / -50
GAMMA RAY API UNITS 150 / 0 — 300 / 150	BHV AHV- CU.FT	MEDIUM INDUCTION OHMM 0.2 — 2000.0	NEUTRON POROSITY (LIMESTONE) PERCENT 30 — -10

1:240 MAIN SECTION

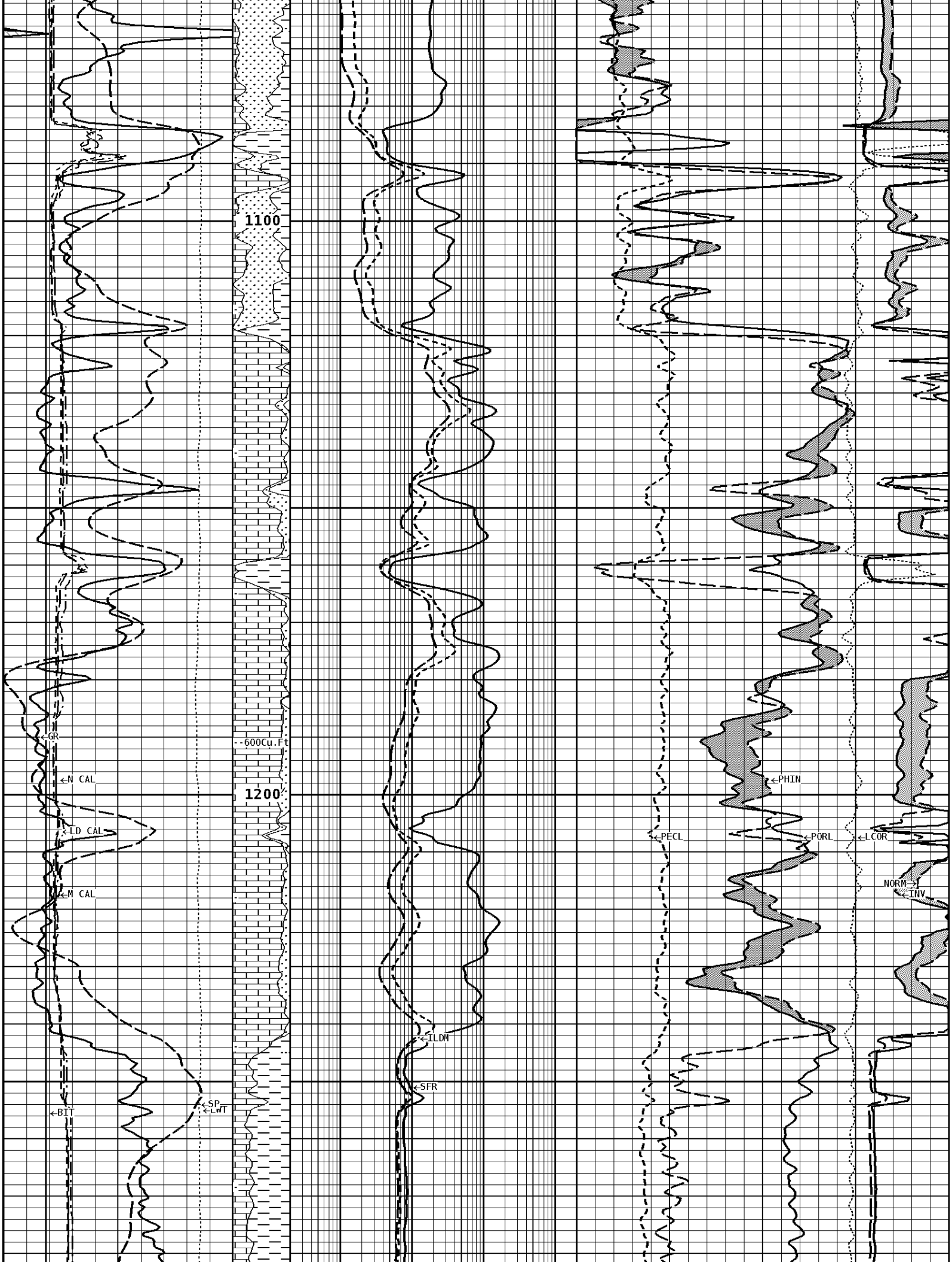


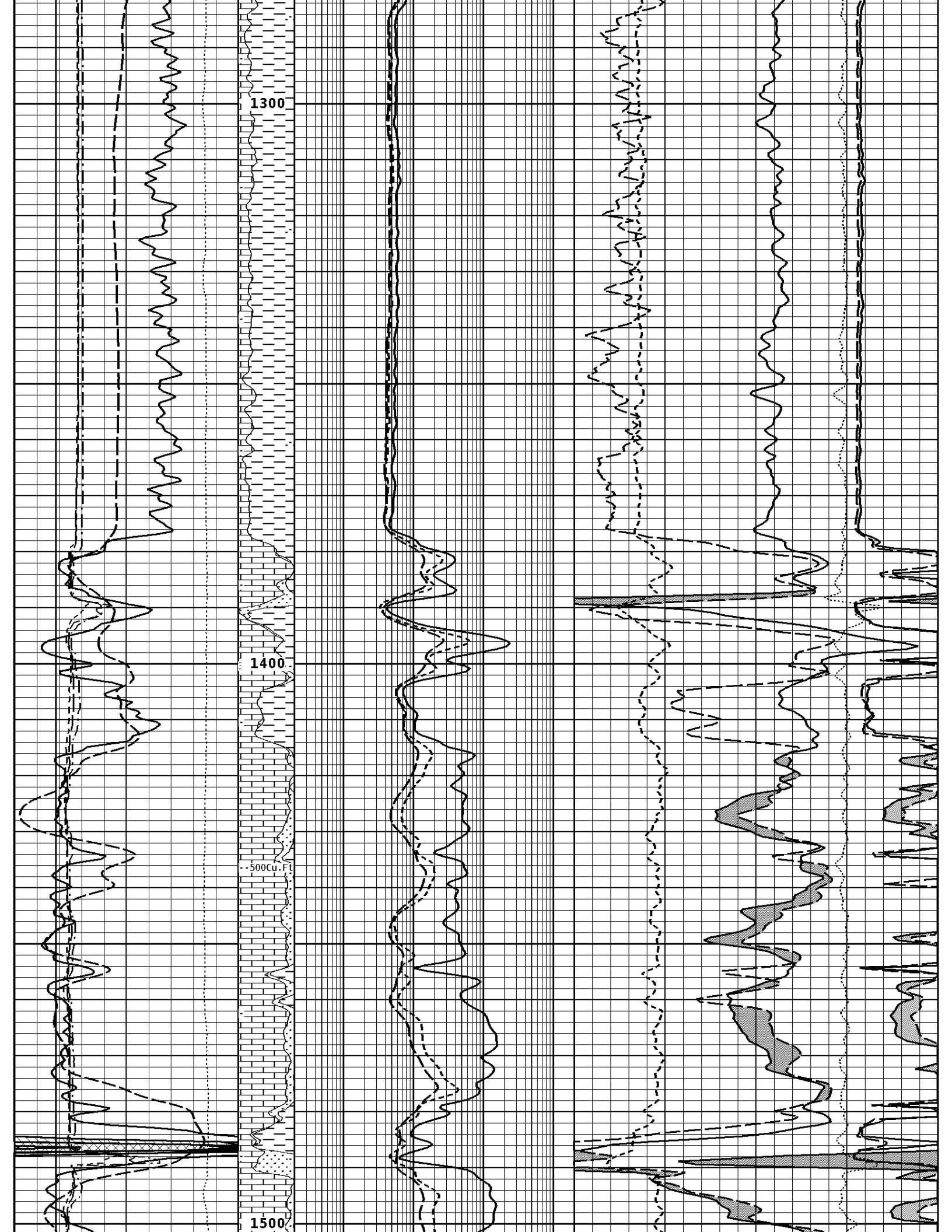

GR
N CAL
LD CAL
M CAL
200
PHIN
PORL
PECL
LCOR
NORM
INV
ILD
SFR
BIT
SP
LWT
1000Cu.Ft
600Cu.Ft
400

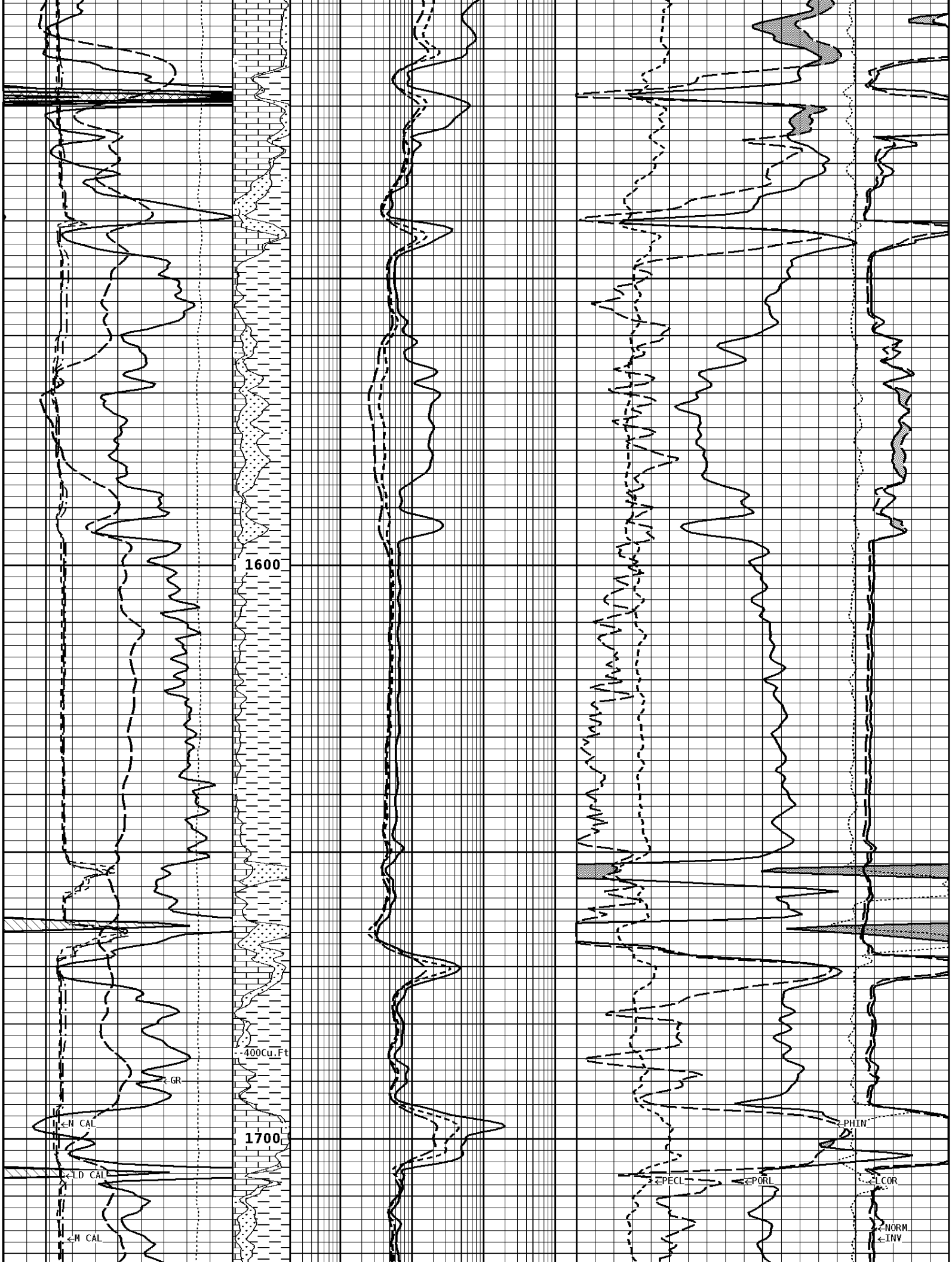

500
900Cu.Ft
600

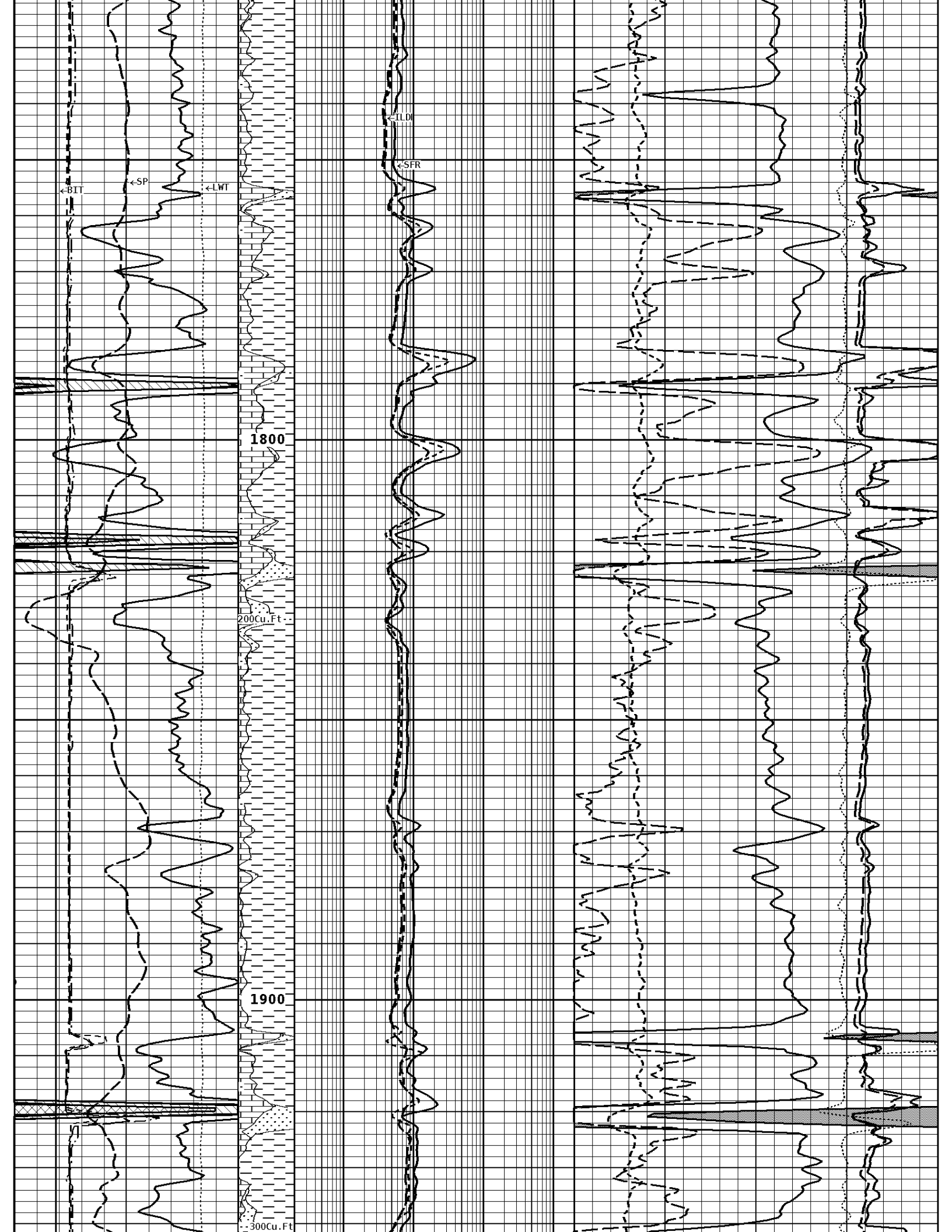

500Cu.Ft
GR
N CAL
700
LD CAL
800Cu.Ft
M CAL
BIT
SP
LWT
800
ILD
SFR
PHIN
PECL
PORL
LCOR
NORM
INV

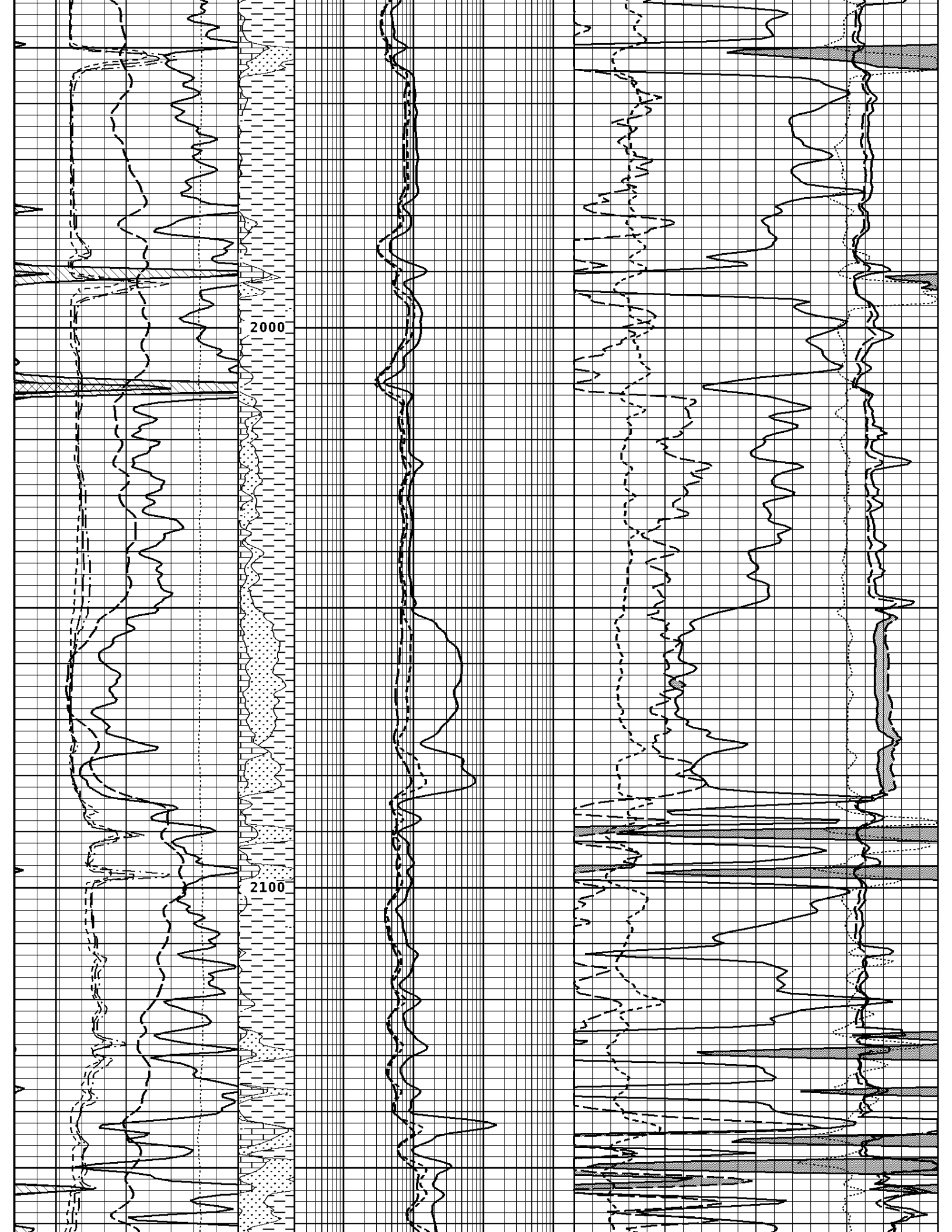

900
700Cu.Ft
400Cu.Ft
1000

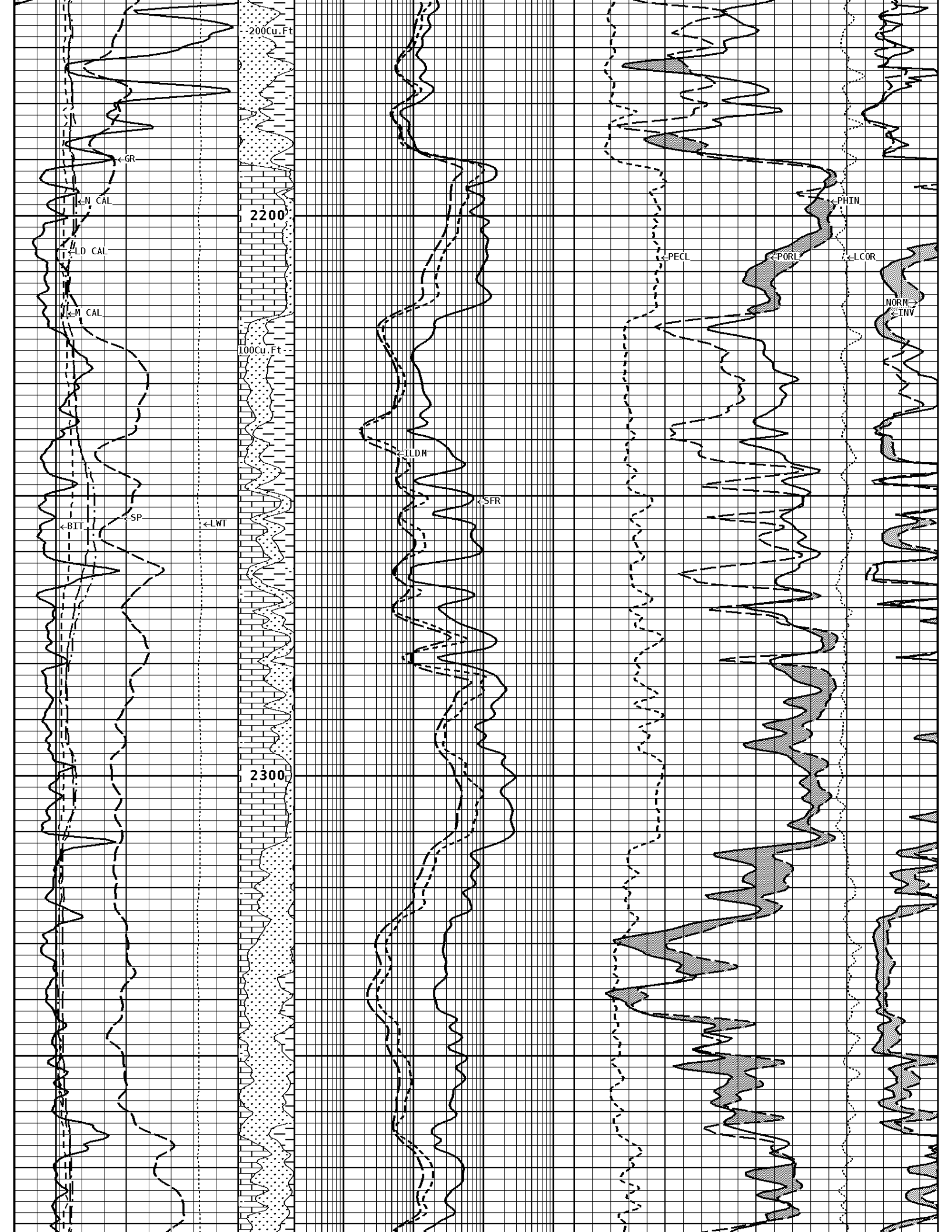

1100
1200
←GR
←N CAL
←LD CAL
←M CAL
←BIT
←SP
←LWT
-600Cu.Ft
←ILDM
←SFR
←PHIN
←PECL
←PORL
←LCOR
NORM→I
←INV

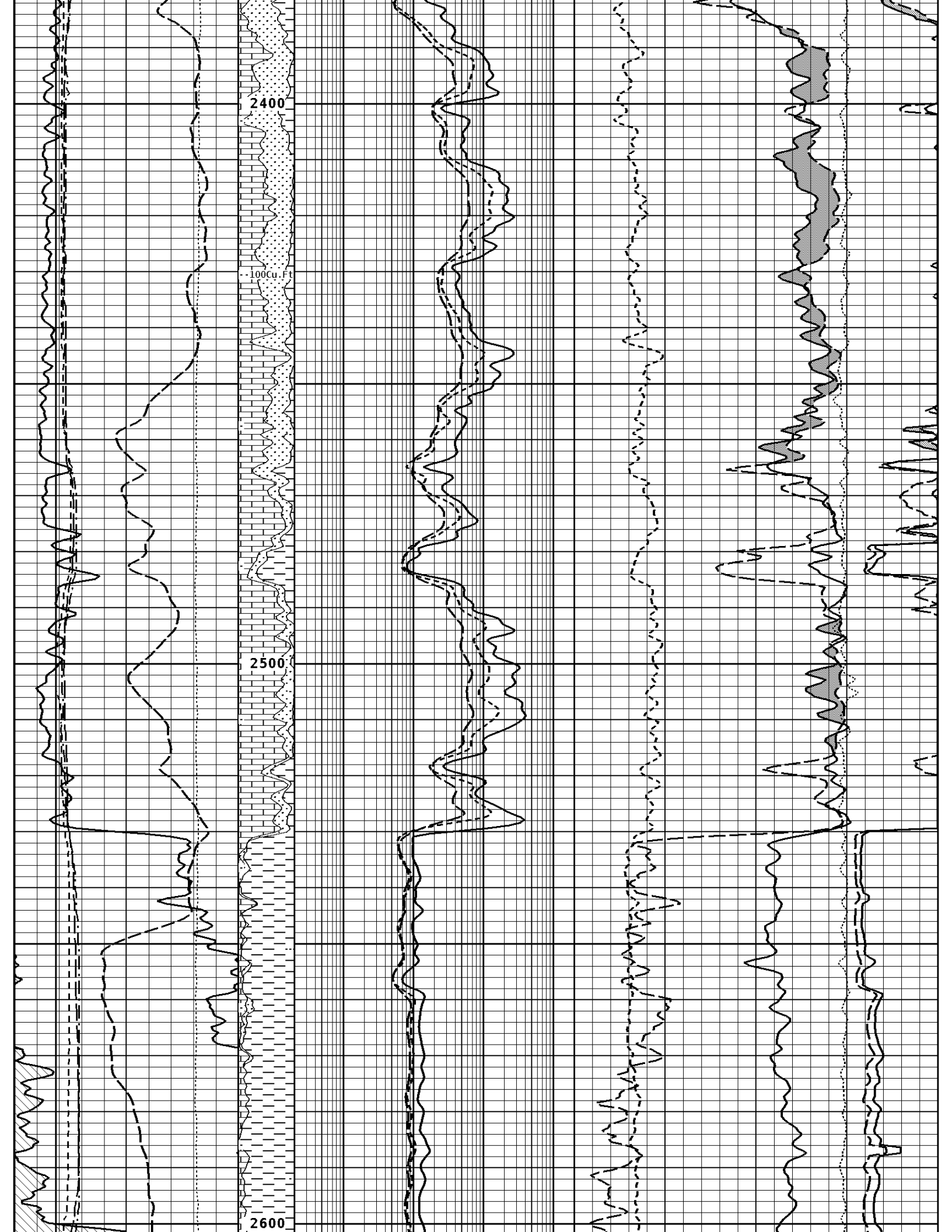

1300
1400
500Cu.Ft
1500

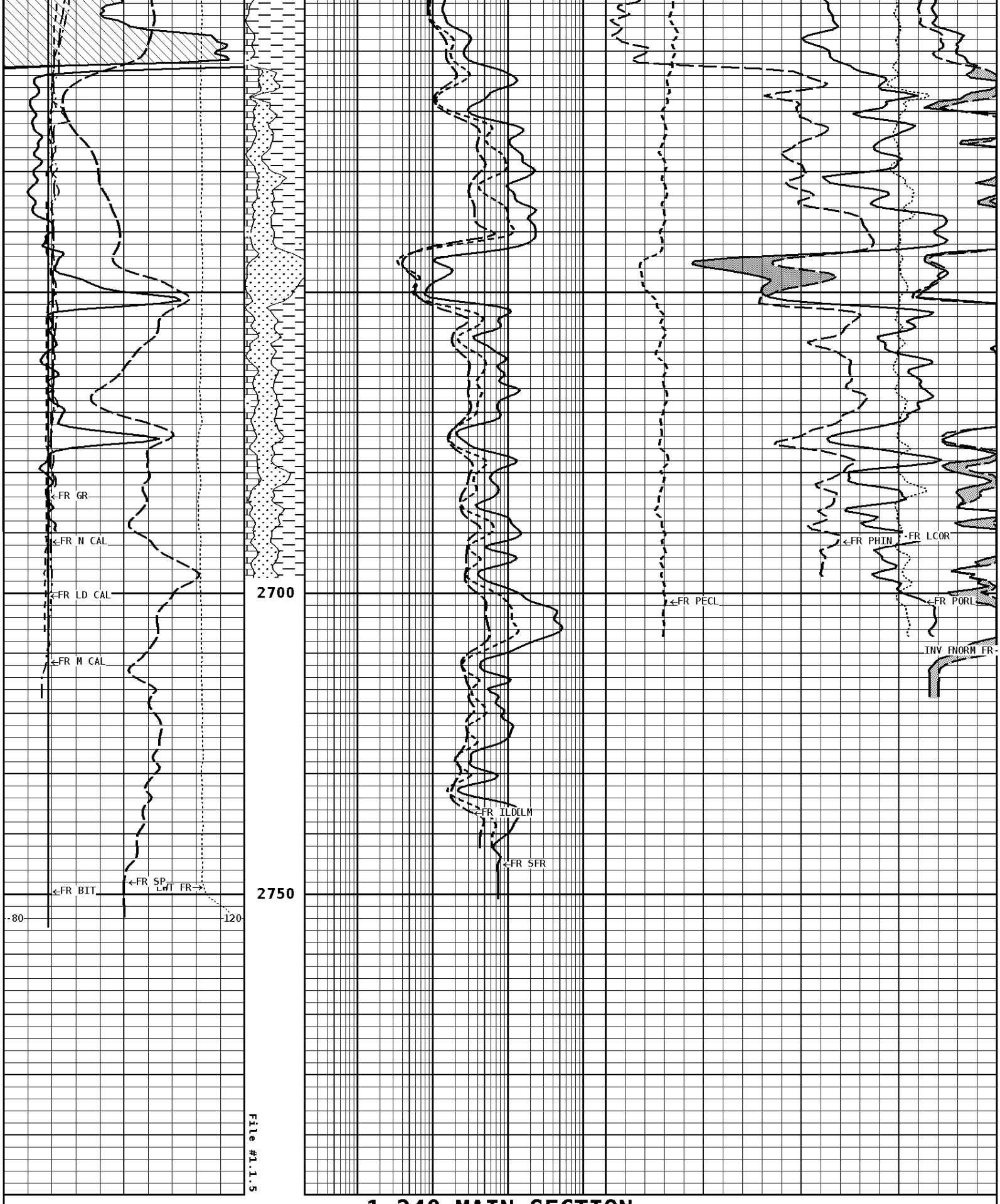

1600
400Cu.Ft
GR
N CAL
1700
LD CAL
M CAL
PHIN
PECL
PORL
LCOR
NORM
INV


←BIT
←SP
←LWT
←ILDI
←SFR
1800
200Cu.Ft
1900
300Cu.Ft


2000
2100

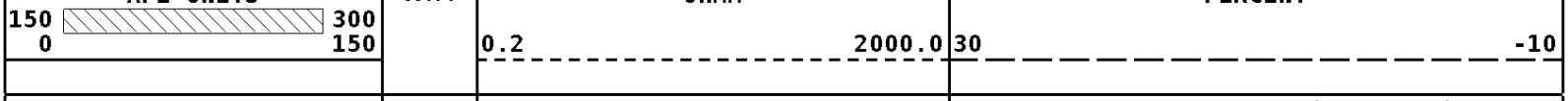

200Cu.Ft
GR
N CAL
2200
LD CAL
M CAL
100Cu.Ft
ILDM
SFR
BIT
SP
LWT
2300
PHIN
PECL
PORL
LCOR
NORM
INV


2400
100Cu.Ft
2500
2600



1:240 MAIN SECTION

GAMMA RAY	-BHV AHV-	MEDIUM INDUCTION	NEUTRON POROSITY (LIMESTONE)
API UNITS	CU.FT	OHMM	PERCENT



SPONTANEOUS POTENTIAL
mV
20

Volume
Dolo/Shale

DEEP INDUCTION
OHMM
0.2
2000.0

DENSITY POROSITY (2.71g/cc)
PERCENT
70
30
30
-10
-10
-50

TENSION
LBS
10000
0

Volume
Calcite

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2
2000.0

PE CROSS-SECTION
BARNS/ELECTRON
0
20

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

Volume
Quartz

DENSITY CORRECTION
G/CC
-0.75
0.25

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

INVERSE
OHMM
0
40

BIT SIZE
INCHES (IN)
6
16

NORMAL
OHMM
0
40

CALIPER MICRO
INCHES (IN)
16
26
6
16

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Matrix Transit Time	47.5	us/ft
Fluid Transit Time	189.0	us/ft
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	
Hole Substance	Fluid	
BHT Depth	2750.000	ft
Borehole Temperature	100.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	2.000	ohm/m
MSTNG Normal Correction	0.00	ohm/m
MSTNG Inverse Correction	1.00	ohm/m

Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** COMSAT
Segment: V1.D1.S4 RP **Acquired:** 2014-11/12 22:36 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:00 3.4.0-13284

CALIPER MICRO
INCHES (IN)
16
26
6
16

BIT SIZE
INCHES (IN)
6
16

NORMAL
OHMM
0
40

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

INVERSE
OHMM
0
40

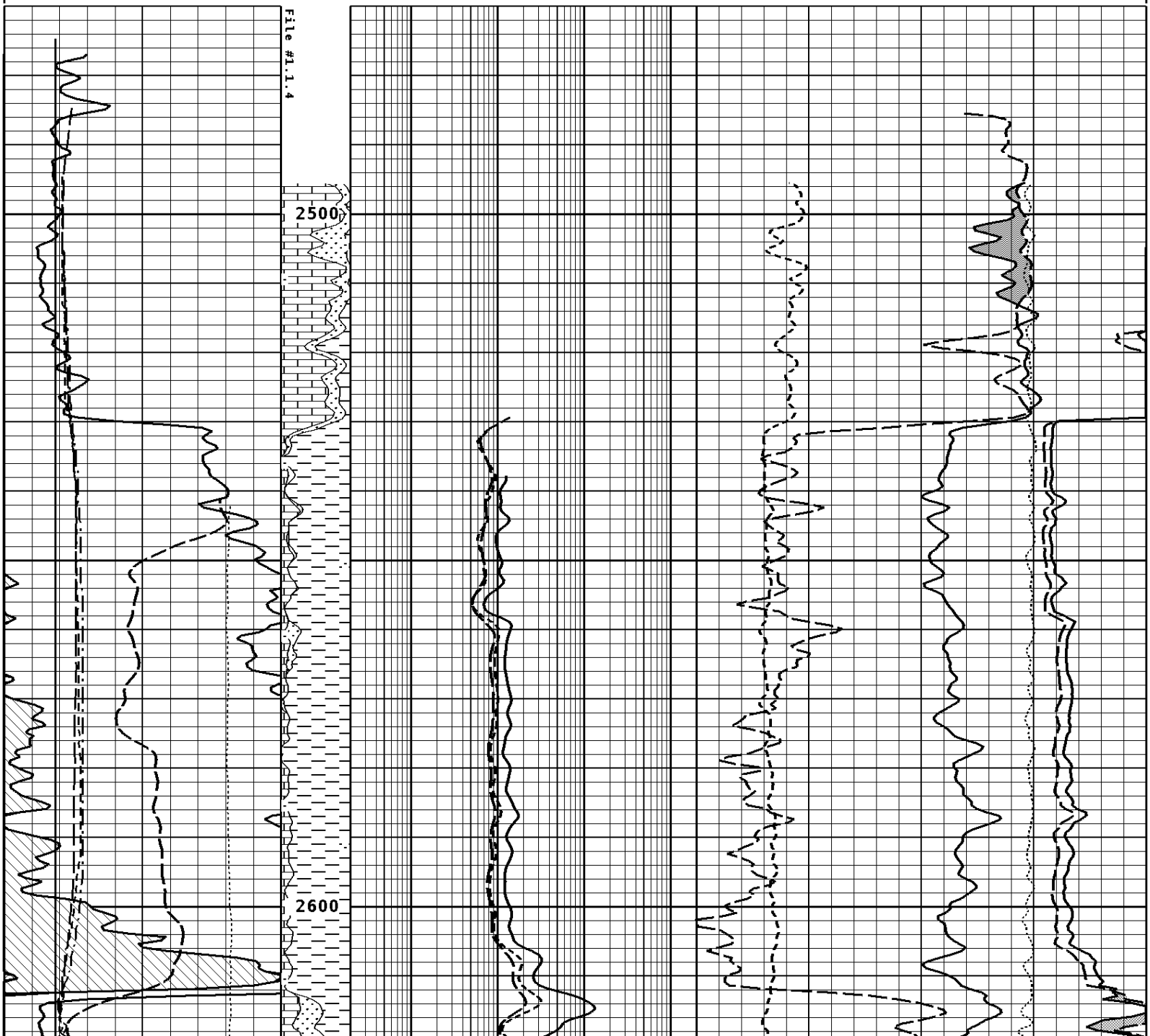
DENSITY (X) CALIPER
INCHES (IN)
16
26
6
16

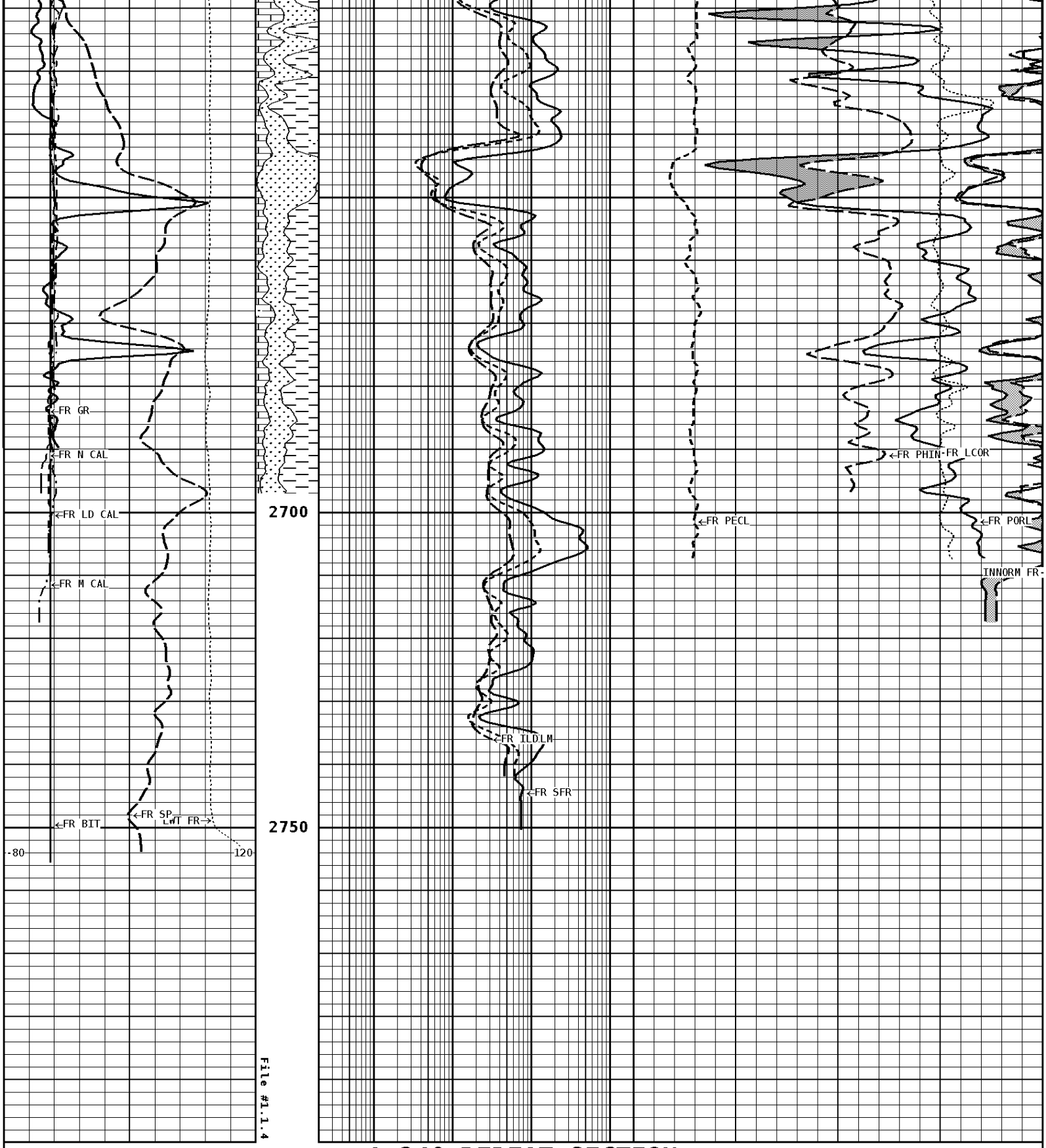
Volume
Quartz

DENSITY CORRECTION
G/CC

16 26 6 16			-0.75 0.25
TENSION LBS 10000 0	Volume Calcite	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	PE CROSS-SECTION BARNS/ELECTRON 0 20
SPONTANEOUS POTENTIAL mV →| |←20	Volume Dolo/Shale	DEEP INDUCTION OHMM 0.2 2000.0	DENSITY POROSITY (2.71g/cc) PERCENT 70 30 30 -10 -10 -50
GAMMA RAY API UNITS 150 300 0 150	-BHV AHV- CU.FT	MEDIUM INDUCTION OHMM 0.2 2000.0	NEUTRON POROSITY (LIMESTONE) PERCENT 30 -10

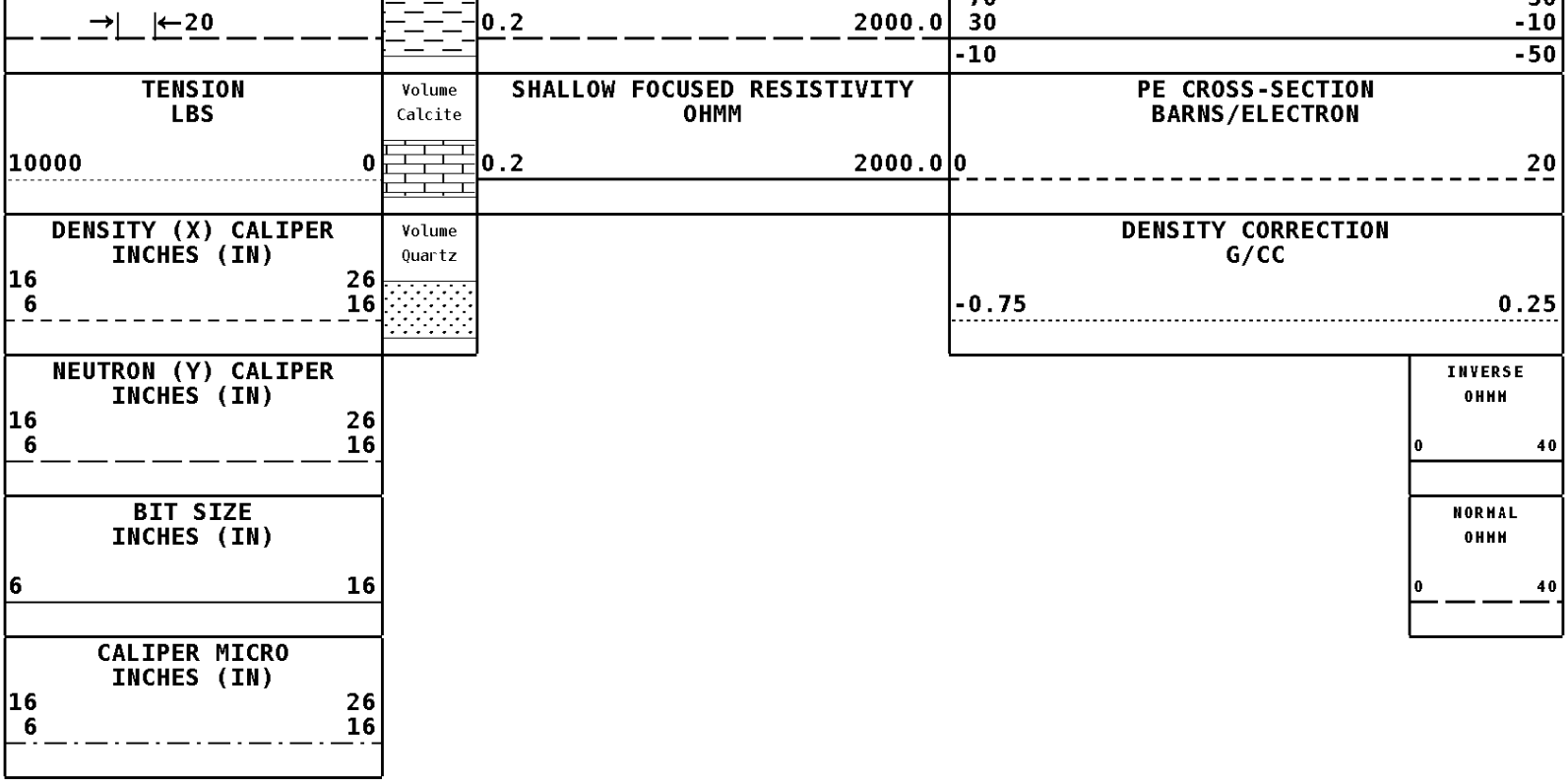
1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY API UNITS	BHV AHV CU.FT	MEDIUM INDUCTION OHMM	NEUTRON POROSITY (LIMESTONE) PERCENT
150 300 0 150		0.2 2000.0	30 -10
SPONTANEOUS POTENTIAL mV	Volume Dolo/Shale	**DEEP INDUCTION** OHMM	**DENSITY POROSITY (2.71g/cc)** PERCENT
			70 30



* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Matrix Transit Time	47.5	us/ft
Fluid Transit Time	189.0	us/ft
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	
Hole Substance	Fluid	
BHT Depth	2750.000	ft
Borehole Temperature	100.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	2.000	ohm/m
MSTNG Normal Correction	0.00	ohm/m
MSTNG Inverse Correction	1.00	ohm/m

* Calibration Summary *

Shop Calibration
GRT-B

Performed : 23-OCT-2014 Time : 09:31
Sensor Suite : GR-GR5 ID : GRT-BB-107

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	75	381	CPS	175	GRAPI

Shop Calibration
CNT-AA

Performed : 05-NOV-2014 Time : 11:41
Sensor Suite : CALI-BCN ID : NDT-BB-103

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	9.1	14.0	6.0	12.0	IN.

Performed : 05-Nov-2014 Time : 09:41
Sensor Suite : BHC NEUT ID : CNP-AA-116-
Source ID : N-1045

	Tank Measured	Tank Calibrated	Verification Jig	Units
N/F	3.8180	3.6893	3.6933	
Porosity	22.5	20.5	20.6	%

Shop Calibration
LDT-DA

Performed : 05-NOV-2014 Time : 10:50
Sensor Suite : CALI-LTH ID : PDT-GA-464

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.0	11.5	6.0	12.0	IN.

Performed : 05-Nov-2014 Time : 10:35
Sensor Suite : BHCPELNG ID : LDP-DA-067
Source ID : 2991GW

Short Space

	BKGD	Al	Mg	Al+Fe	Units
LSW1	61	1065	1728	697	CPS
LSW2	65	1220	1942	894	CPS
LSW3	240	2804	4527	2386	CPS
LSW4	296	2541	3712	2248	CPS
LSW5	39	66	73	64	CPS
LSW6	66	72	71	71	CPS
LSW7	48	51	52	51	CPS
LSW8	10	12	13	11	CPS
QS	0.152	0.166	0.158	0.168	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC

Long Space

	BKGD	Al	Mg	Al+Fe	Units
LLW1	89	1206	4966	736	CPS
LLW2	98	2065	8163	1523	CPS
LLW3	371	3784	14505	3275	CPS
LLW4	478	1798	5791	1636	CPS
LLW5	52	62	113	61	CPS
LLW6	158	155	147	154	CPS
LLW7	101	97	95	98	CPS
LLW8	3	5	16	5	CPS
QL	0.223	0.228	0.215	0.223	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC

Shop Calibration
MST-DA

Performed : 10-SEP-2014 Time : 09:51
Sensor Suite : CALI-MSN ID : MST-DA-057

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	7.3	11.5	6.0	12.0	IN.

Performed : 10-Sep-2014 Time : 09:43
Sensor Suite : MSTDA-NI ID : MST-DA-057

Internal

	Measured			Calibrated		
	Zero	Reference	Units	Zero	Reference	Units
INV-V	297.1	30434.1		0.00	1536.00	MV
NOR-V	171.1	30363.7		0.00	1636.00	MV
IN-C	169.1	30673.9		0.00	15.46	UA
INV-R					32.14	OHMM
NOR-R					58.31	OHMM

Shop Calibration
CST-AD

Performed : 20-MAY-2014 Time : 18:11
Sensor Suite : SON-ANA ID : CST-AB-25

Transit Time

T/R Pair	Measured	Calibrated	Units
T1R1	208.5	208.5	uS
T2R2	208.5	208.5	uS
T1R2	322.5	322.5	uS
T2R1	322.5	322.5	uS

Amplitude

T/R Pair	Measured	Calibrated	Units
T1R1	90.00	90.00	mV
T2R2	90.00	90.00	mV
T1R2	78.00	78.00	mV
T2R1	78.00	78.00	mV

Shop Calibration
PIT-CA

Performed : 10-Sep-2014 Time : 11:40

Sensor Suite : P-IND-T ID : PIT-CA-075

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131419	129931	1.4	0.2	MMHOS
Zero	131070	131067	-10.2	45.4	MMHOS
Reference	250682	249654	4989.8	5045.4	MMHOS
Loop	129961	216623	3595.7	3716.3	MMHOS
Sonde Error			0.5	-7.1	MMHOS
Cond			4989.8	5045.4	MMHOS

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	128119	131856	0.3	-1.2	MMHOS
Zero	131062	131059	52.1	-18.8	MMHOS
Reference	238518	237019	2052.1	1981.2	MMHOS
Loop	126986	223844	1715.5	1756.2	MMHOS
Sonde Error			-6.7	0.1	MMHOS
Cond			2052.1	1981.2	MMHOS

Temperature

	Measured Low	Measured High	Calibrated Low	Calibrated High	Units
	16980.0	56920.0	70.0	350.0	DEGF

Performed : 10-Sep-2014 Time : 11:51
Sensor Suite : SFL ID : PIT-CA-075

Internal

	Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
Im	32770.2	49049.9	0.0	7028.0	uA
Ib	32767.1	49093.1	0.0	1750.0	mA
MOM1	32794.6	56675.8	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

Performed : 10-SEP-2014 Time : 11:47
Sensor Suite : P-SP ID : PIT-CA-075

Internal

Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
32768.0	58944.2	0.0	1000.0	mV

Tucker ENERGY SERVICES

Company: CROSS BAR ENERGY, LLC

Well: BURKETT 'D' #40

Location: 330' FSL & 530' FEL

Logged: 11-12-2014

K.B. Elev: 0.0 Ft

Tucker ENERGY SERVICES

PHASED INDUCTION

SHALLOW FOCUS SP LOG

Company CROSS BAR ENERGY, LLC
Well BURKETT 'D' #40
Field BURKETT
County GREENWOOD
State KANSAS
Country USA
API No. 15-073-24225-00-00

File No : TUL-58487
Company : CROSS BAR ENERGY, LLC
Well : BURKETT 'D' #40
Field : BURKETT
County : GREENWOOD
State : KANSAS
Country : USA
API No : 15-073-24225-00-00

Location :
330' FSL & 530' FEL
W2 SE SE SE

LSD : **Sect :** 23S **Twp :** 23 **Rge :** 10E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	CST
Log Measured From:	GL	**DF**	0.00 Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	**GL**	1226.00 Ft	MST	

Date	11-12-2014			
Run Number	1			
Depth--Driller	2750.0 Ft			
Depth--Logger	2750.0 Ft			
First Reading	2750.0 Ft			
Last Reading	205.0 Ft			
Casing--Driller	210.0 Ft			
Casing--Logger	205.0 Ft			
Bit Size	7.875 In			
Casing Size	8.625 In			
Hole Fluid Type	WBM			
Density	9.2 ppg			
Fluid Loss	0.0			
PH/Viscosity	0.0	50.0		
Sample Source	MEASURED			
RM@Measured Temp.	2.000 @ 60 F			
RMF@Measured Temp	1.600 @ 60 F			
RMC@Measured Temp.	2.400 @ 60 F			
Source RMF/RMC	CALCULATED	CALCULATED		
RM@BHT	1.200 @ 100 F			
Time Circulation Stopped	11-12-2014 7:00 pm			
Max Recorded Temp.	100 F			
Equipment/Base	TRK-126	TULSA		
Recorded By	SEAN DAVIS / AMOUR DJAHO			
Witnessed By	ALBERT BRENSING			

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
8.625	32.00	205.00	0.00

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	2750.00

Run Number	1
Date	11-12-2014
Date/Time On Bottom	11-12-2014 9:00 pm
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	0.960 @ 100 F
RMC@BHT	1.440 @ 100 F

Run Number 1

Comments

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

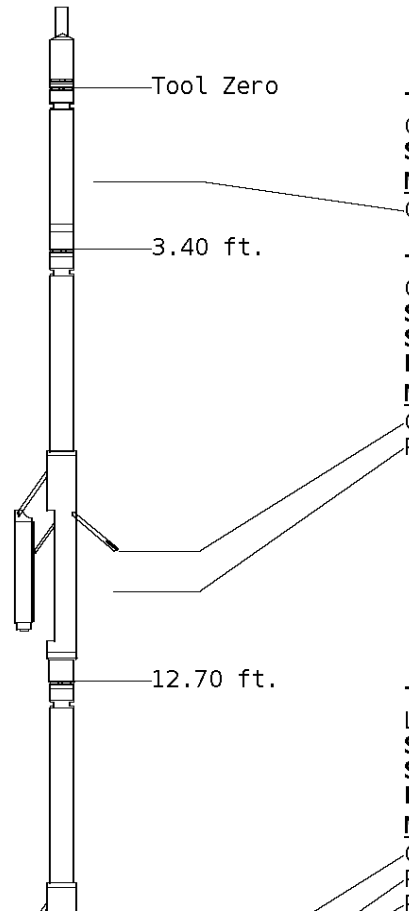
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

C. GONZALES
K. JOSH

Tool String Schematic

Total Tool Length - 66.95 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BB-107

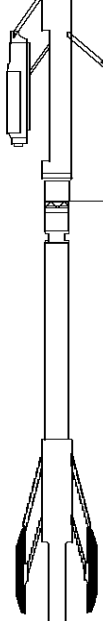
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	64.95

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-BB-103
Source ID :N-1045
Pad ID :CNP-AA-116-

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	57.55
PHIN	6.80	10.20	56.75

Tool: LDT-DA **Length:** 9.30 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-067

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	48.25
PEL	7.00	19.70	47.25
PES	7.40	20.10	46.85



LDEN	7.20	19.90	47.05
LCOR	7.20	19.90	47.05

22.00 ft.

Tool: MST-DA **Length:** 9.66 **ft.** **O.D.** 6.00 **in.**
Micro Spherically Focused (IC)
Sonde ID :MST-DA-057

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35

31.66 ft.

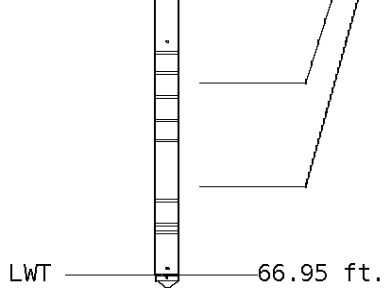
Tool: CST-AD **Length:** 13.80 **ft.** **O.D.** 3.60 **in.**
Open Hole Sonic
Sonde ID :CST-AB-25

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49

45.46 ft.

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



Well File:	CROSS_BAR-BURKETT-D-40-QUINT-NOV-12	**Scale:** 1:600	**Format:** DIL-600
Segment:	V1.D1.S5 MN	**Acquired:**	2014-11/12 22:48 3.4.0-13284
Reference:	0	**Processed:**	2014-11/13 00:18 3.4.0-13284

TENSION
LBS
10000 — 0

DEEP INDUCTION
OHMM
0.0 — 500.0
0.0 — 50.0

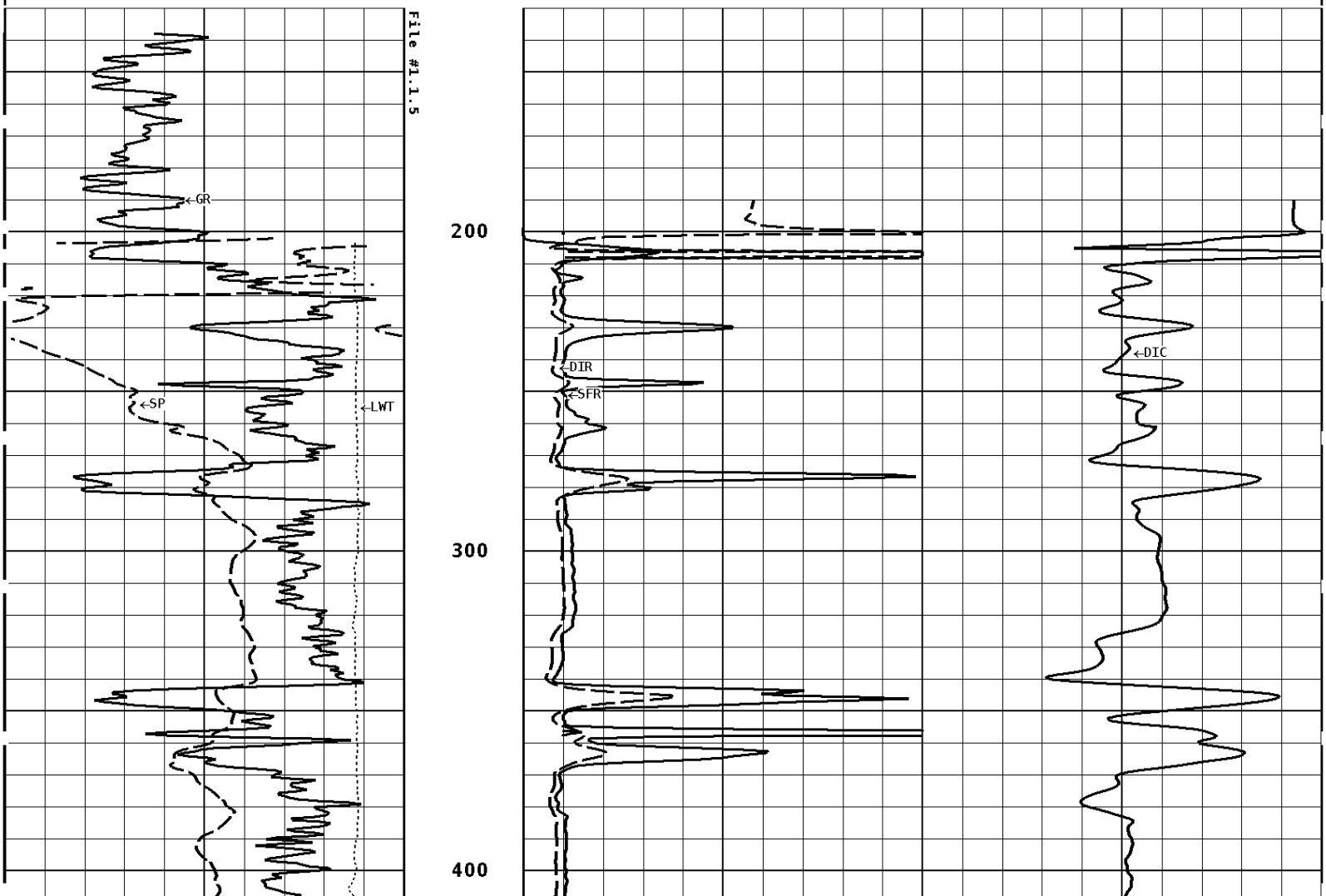
SPONTANEOUS POTENTIAL
mV
→| |←20

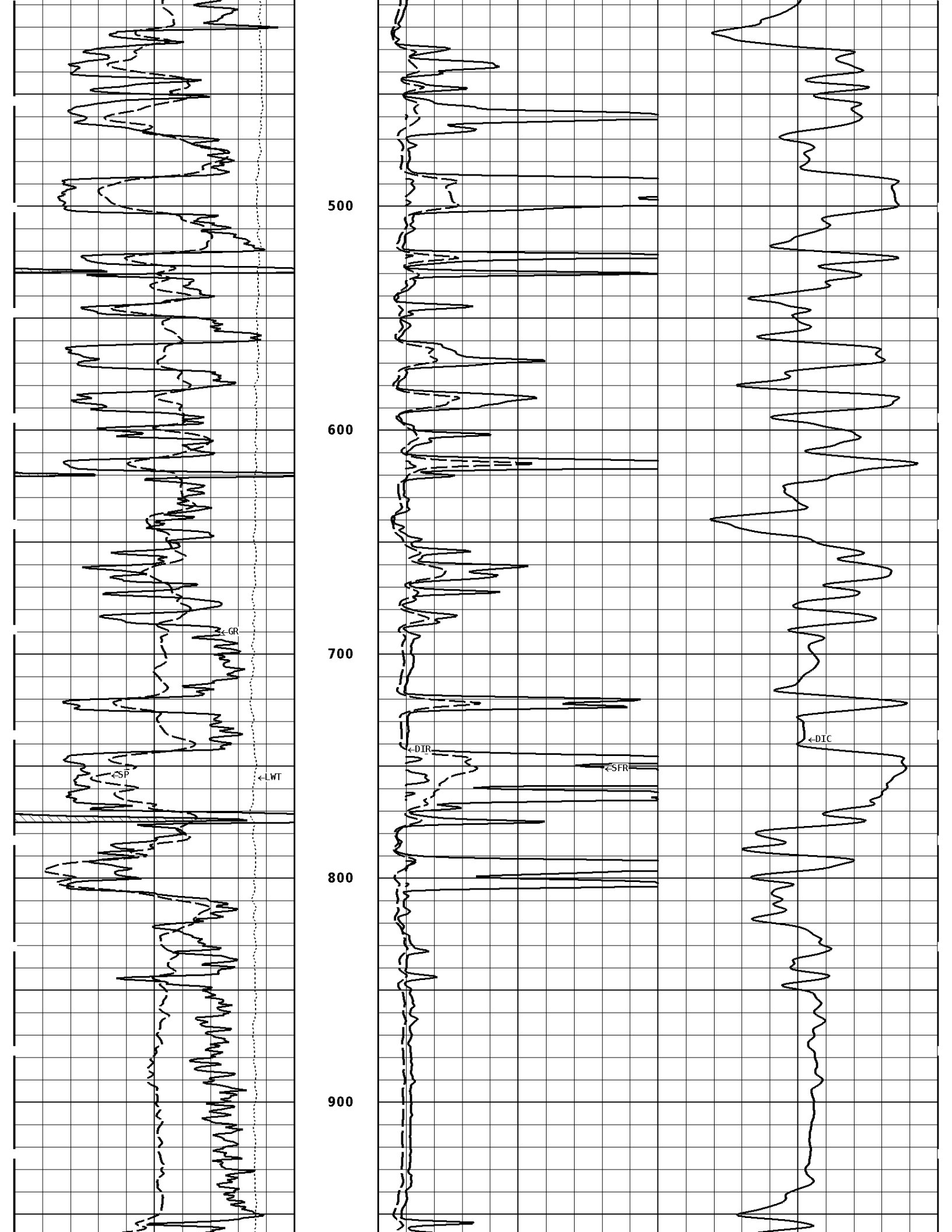
SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 — 500.0
0.0 — 50.0

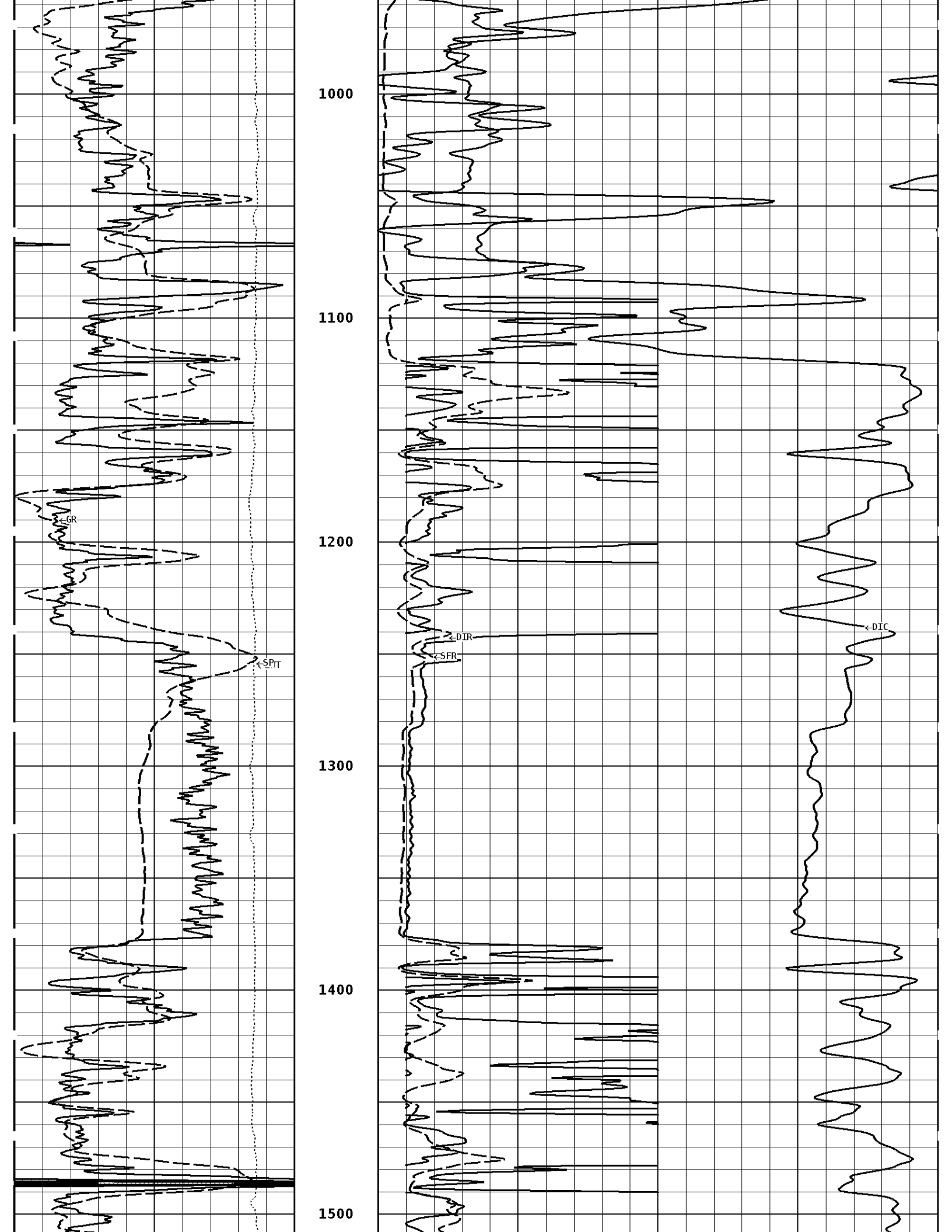
GAMMA RAY
API UNITS
150 — 300
0 — 150

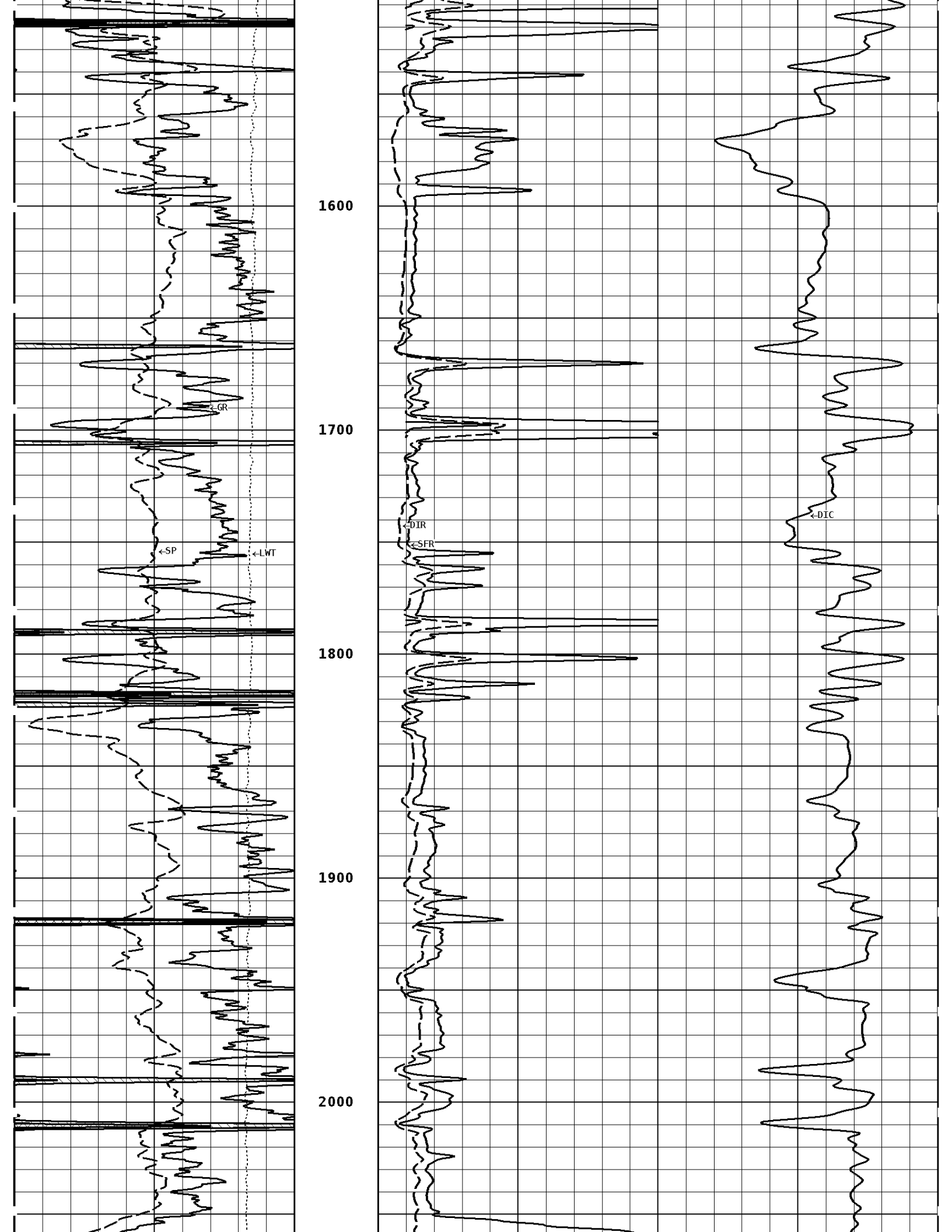
DEEP CONDUCTIVITY
MMHO
2000 — 1000
1000 — 0

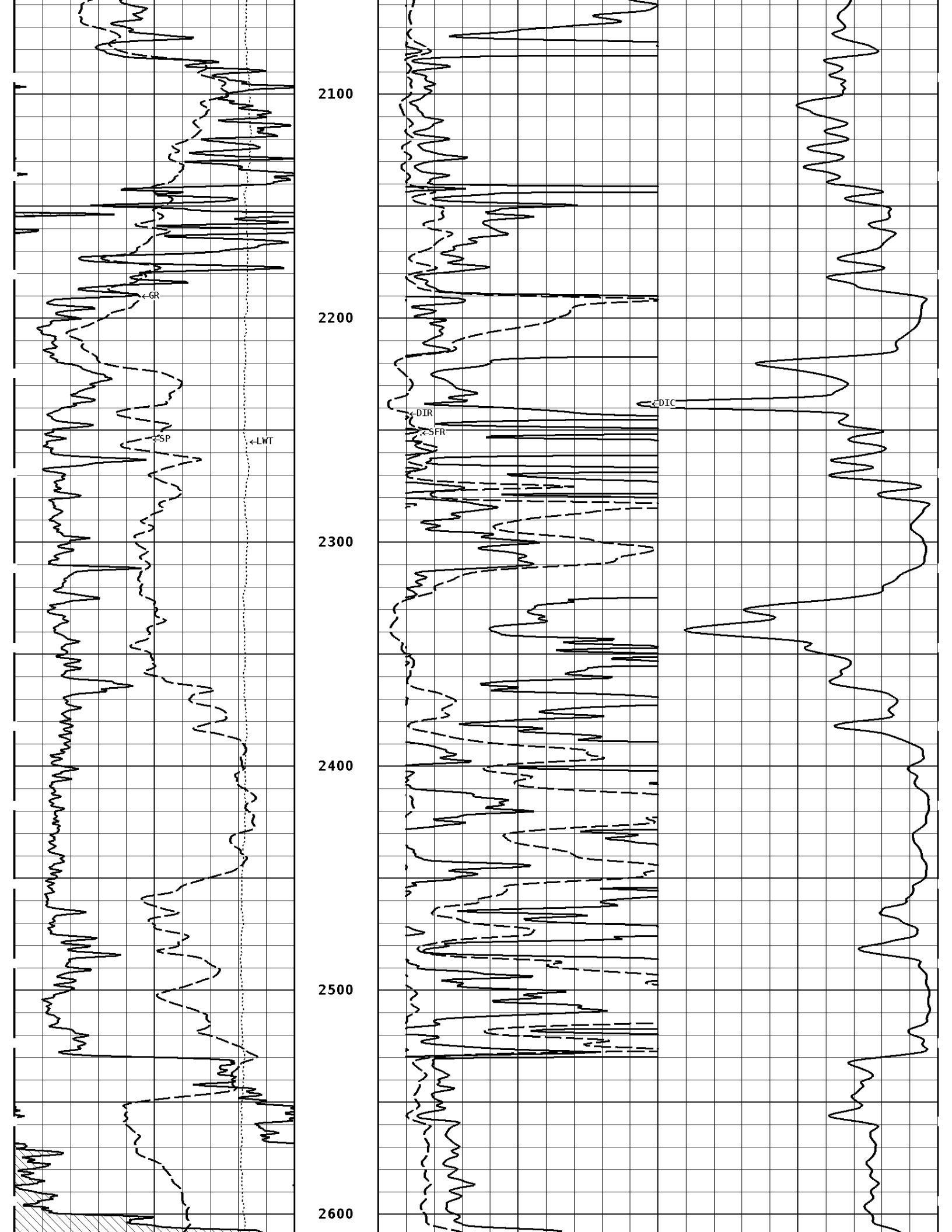
1:600 MAIN SECTION

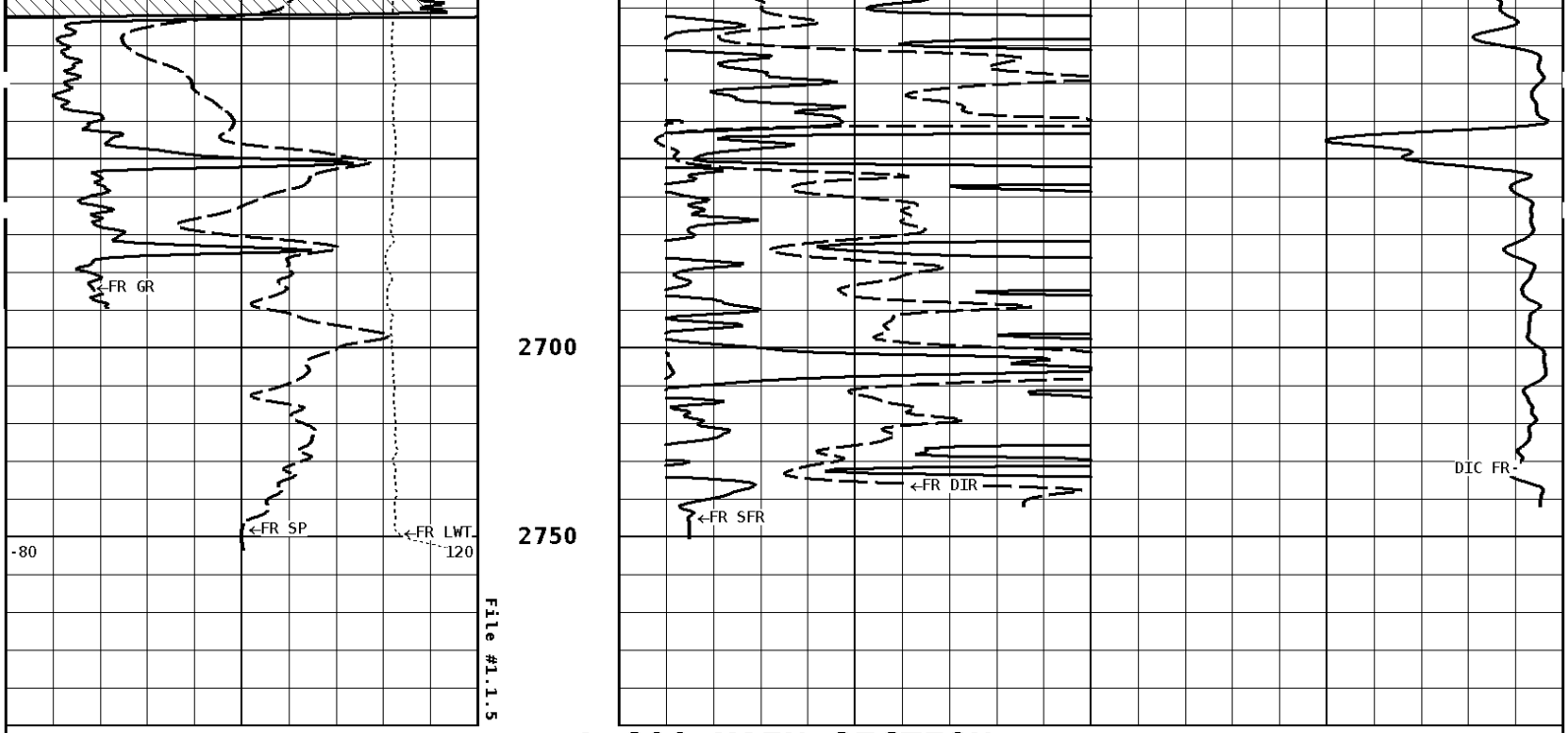



500
600
700
800
900
←GR
←SP
←LWT
←DIR
←SFR
←DIC


1000
1100
1200
1300
1400
1500
GR
SP
DIR
SFR
DIC


1600
1700
1800
1900
2000
←GR
←SP
←LWT
←DIR
←SFR
←DIC


2100
2200
2300
2400
2500
2600
GR
SP
LWT
DIR
SFR
DIC



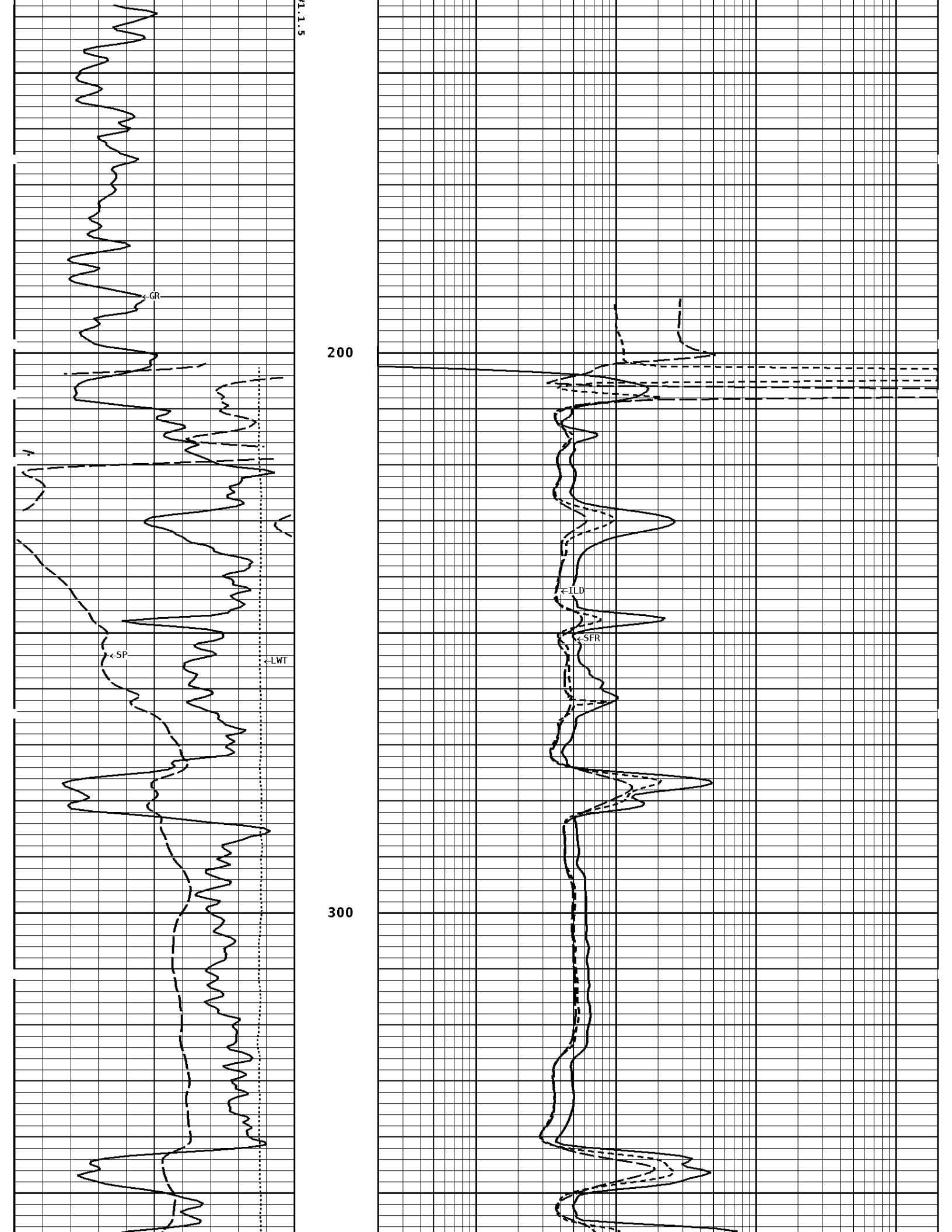
1:600 MAIN SECTION

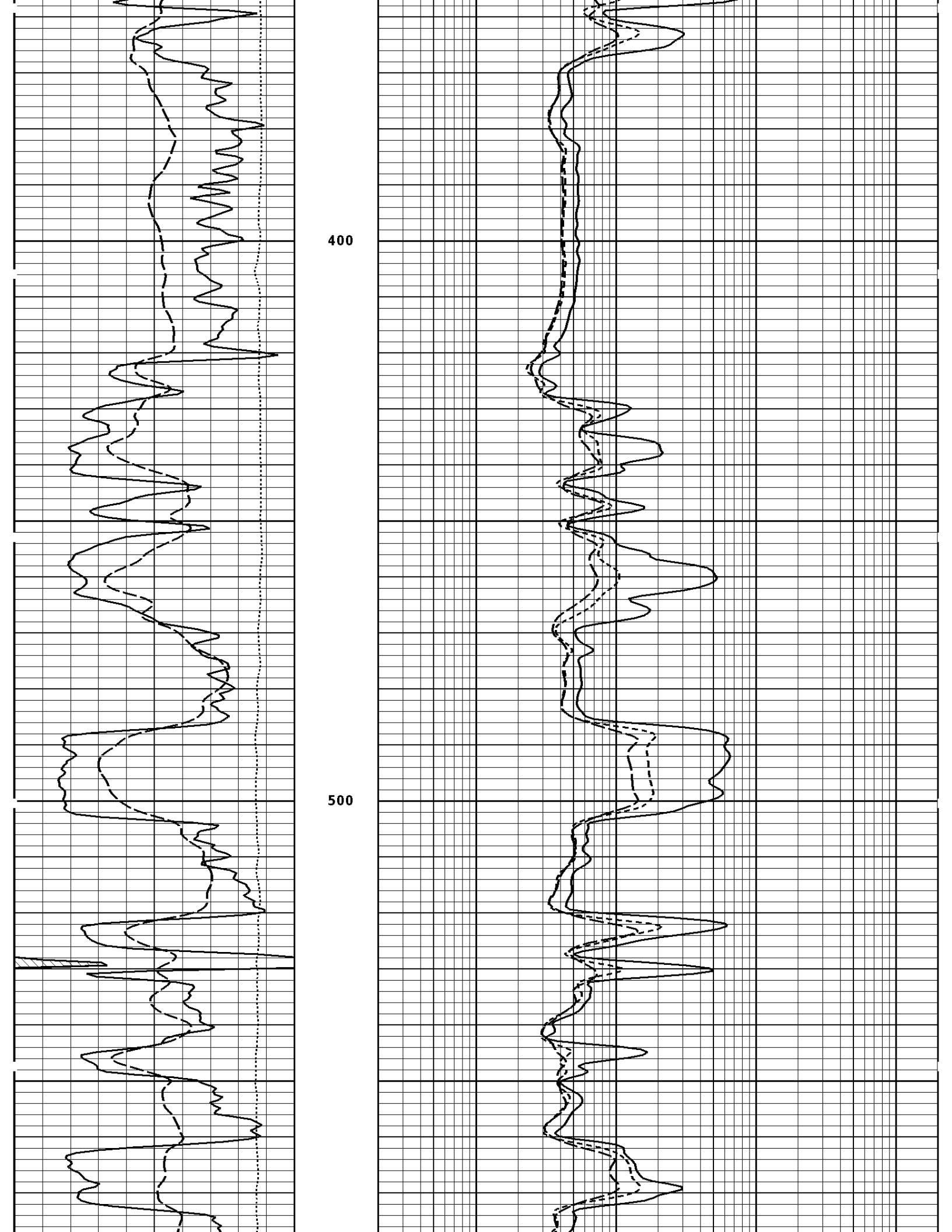
GAMMA RAY **API UNITS** 150 / 0 — 300 / 150	**DEEP CONDUCTIVITY** **MMHO** 2000 / 1000 — 1000 / 0
SPONTANEOUS POTENTIAL **mV** →| |←20	**SHALLOW FOCUSED RESISTIVITY** **OHMM** 0.0 / 0.0 — 500.0 / 50.0
TENSION **LBS** 10000 — 0	**DEEP INDUCTION** **OHMM** 0.0 / 0.0 — 500.0 / 50.0

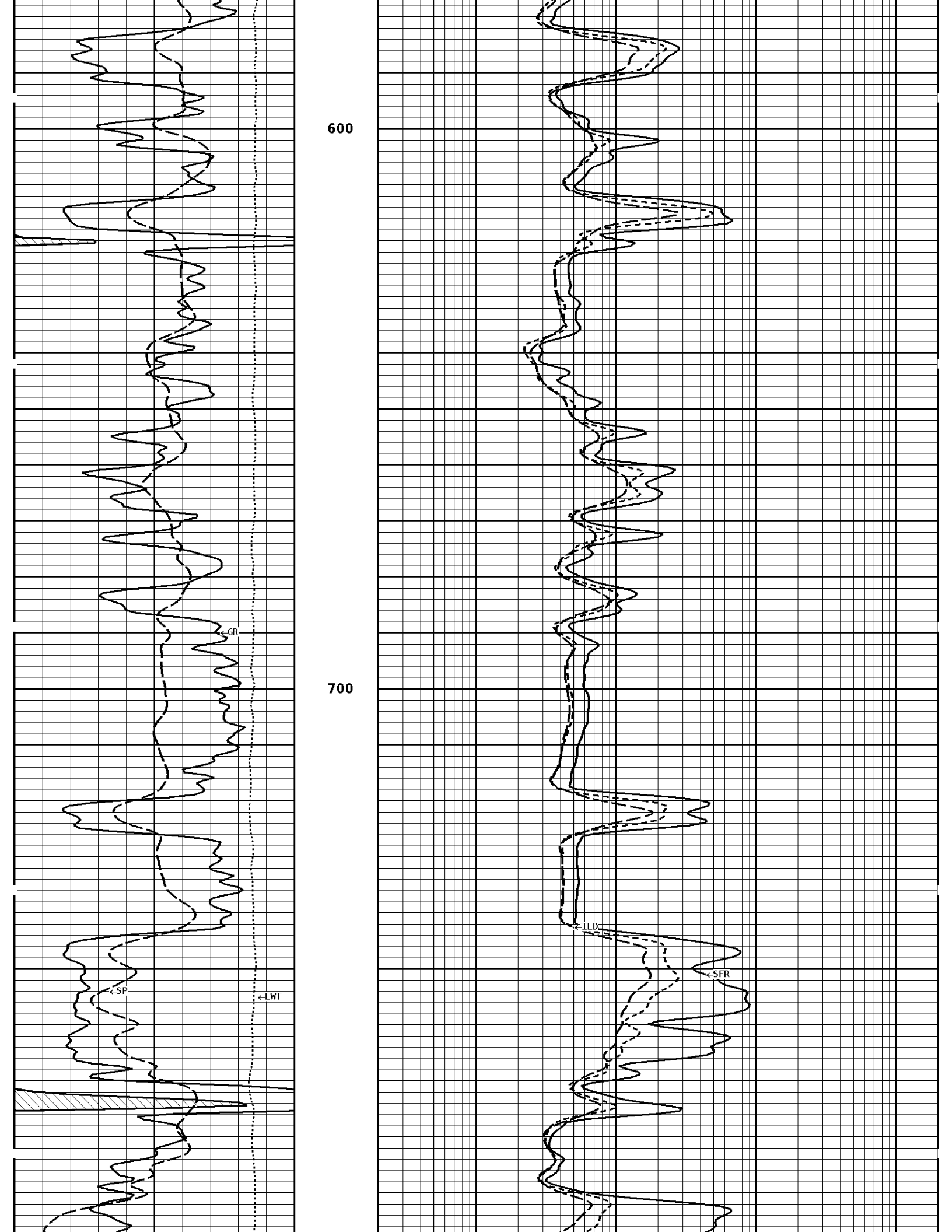
Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** DIL-240
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284

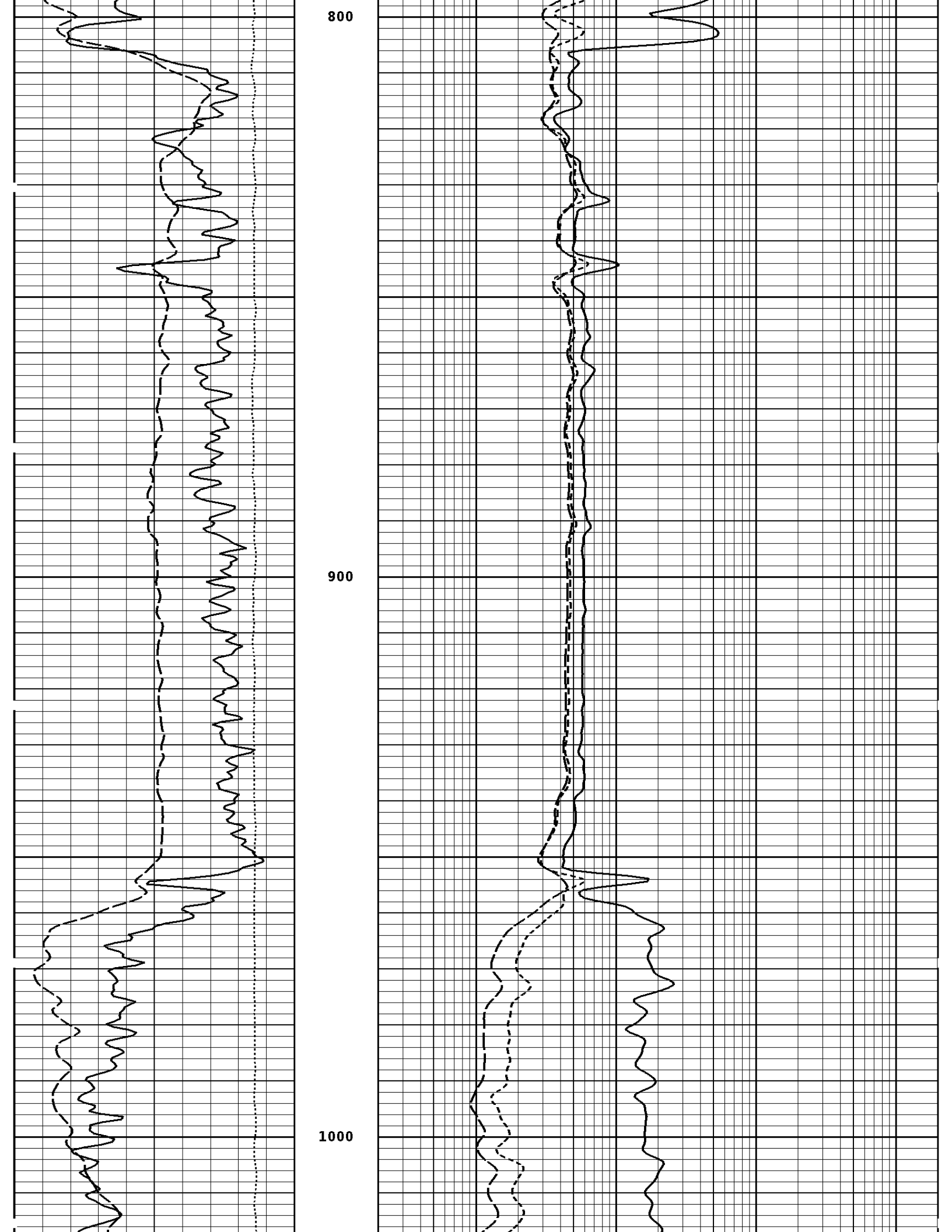
SPONTANEOUS POTENTIAL **mV** →| |←20	**DEEP INDUCTION** **OHMM** 0.2 — 2000.0
TENSION **LBS** 10000 — 0	**MEDIUM INDUCTION** **OHMM** 0.2 — 2000.0
GAMMA RAY **API UNITS** 150 / 0 — 300 / 150	**SHALLOW FOCUSED RESISTIVITY** **OHMM** 0.2 — 2000.0

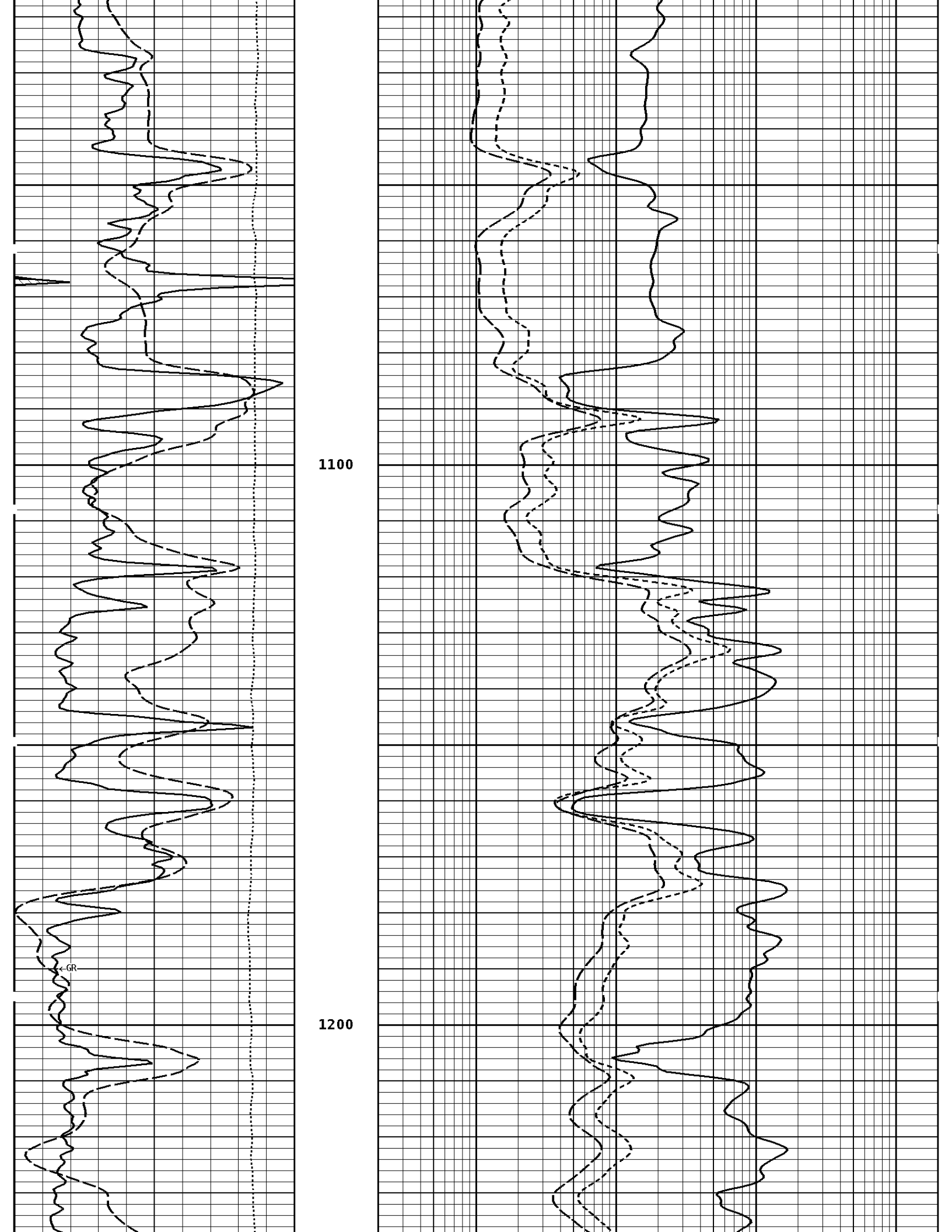
1:240 MAIN SECTION

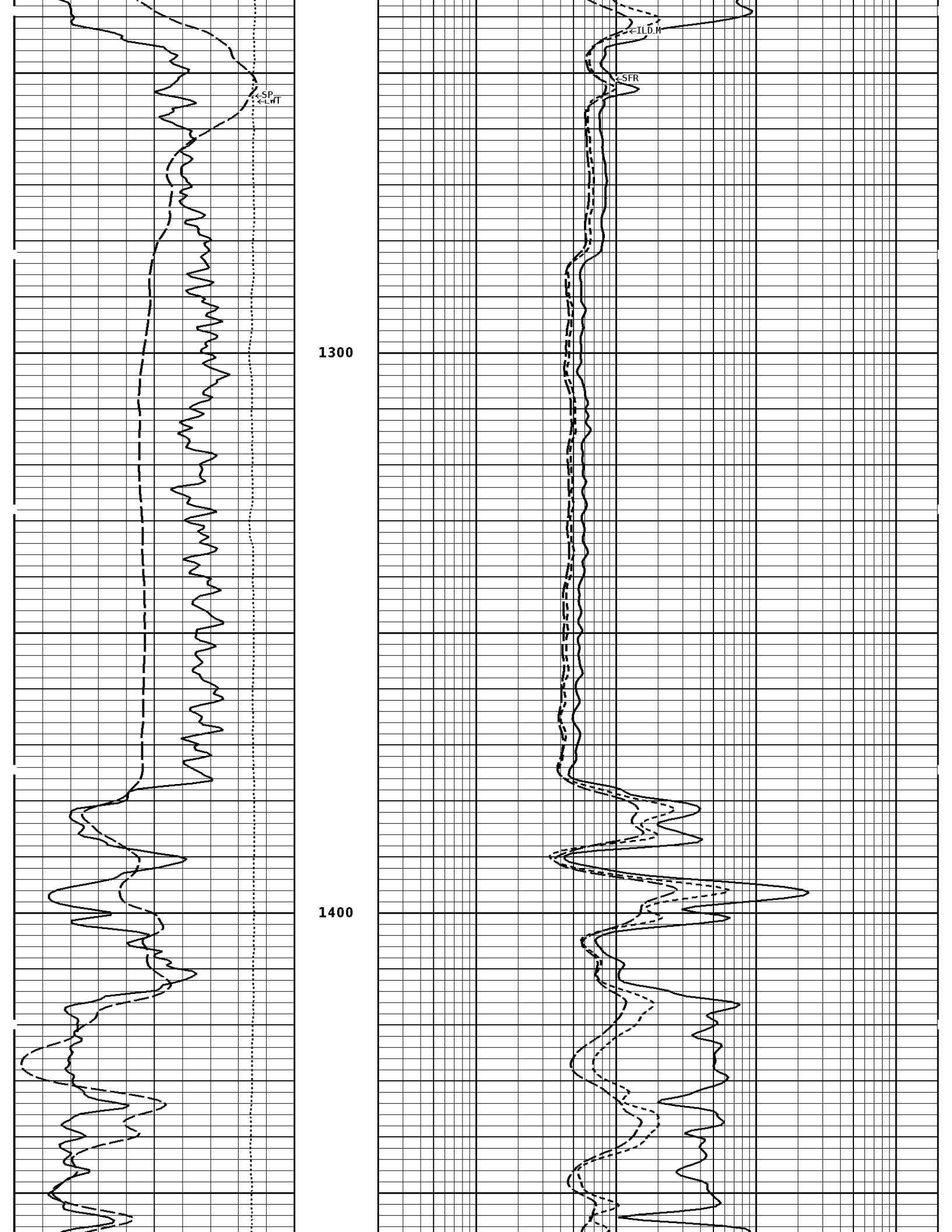

GR
200
SP
LWT
ILD
SFR
300

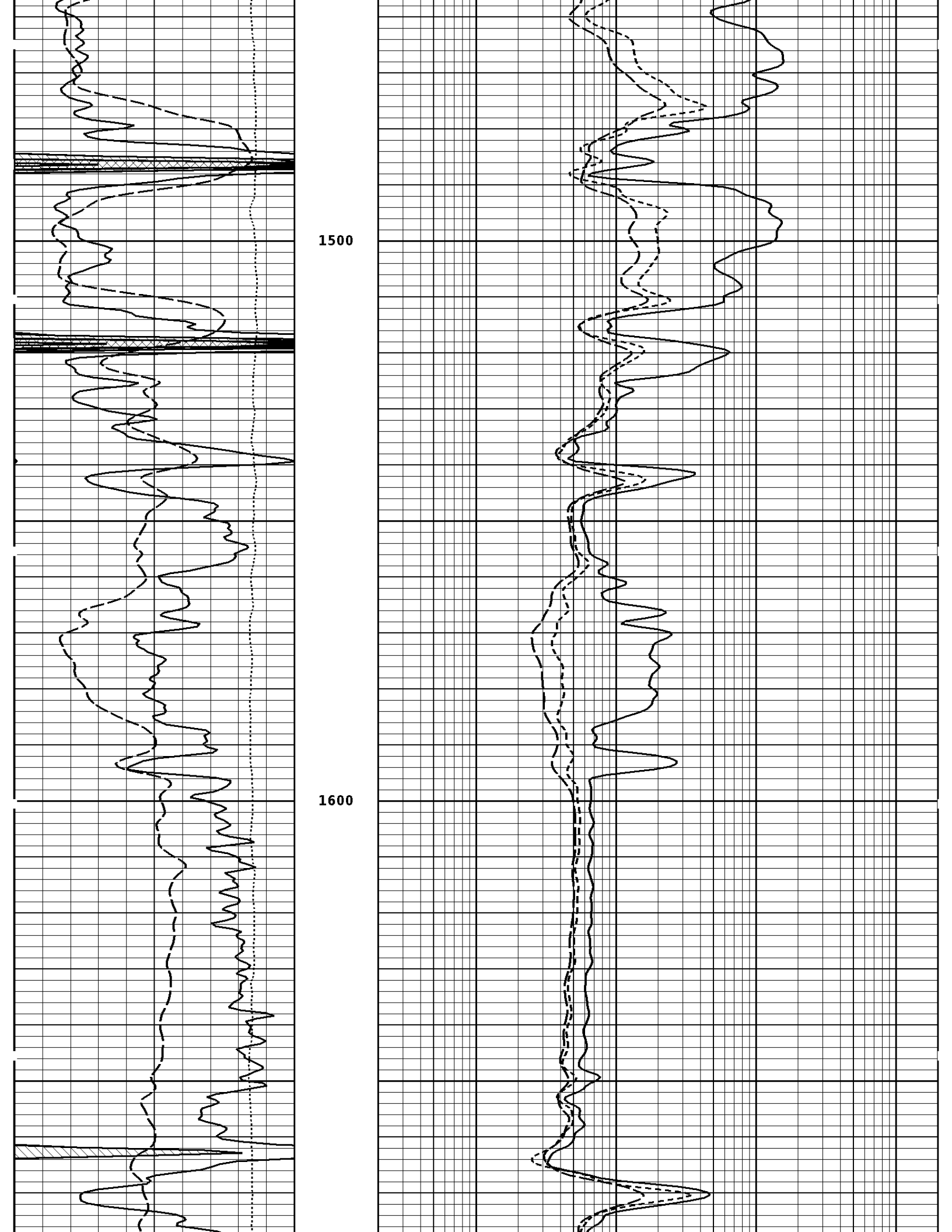

400
500

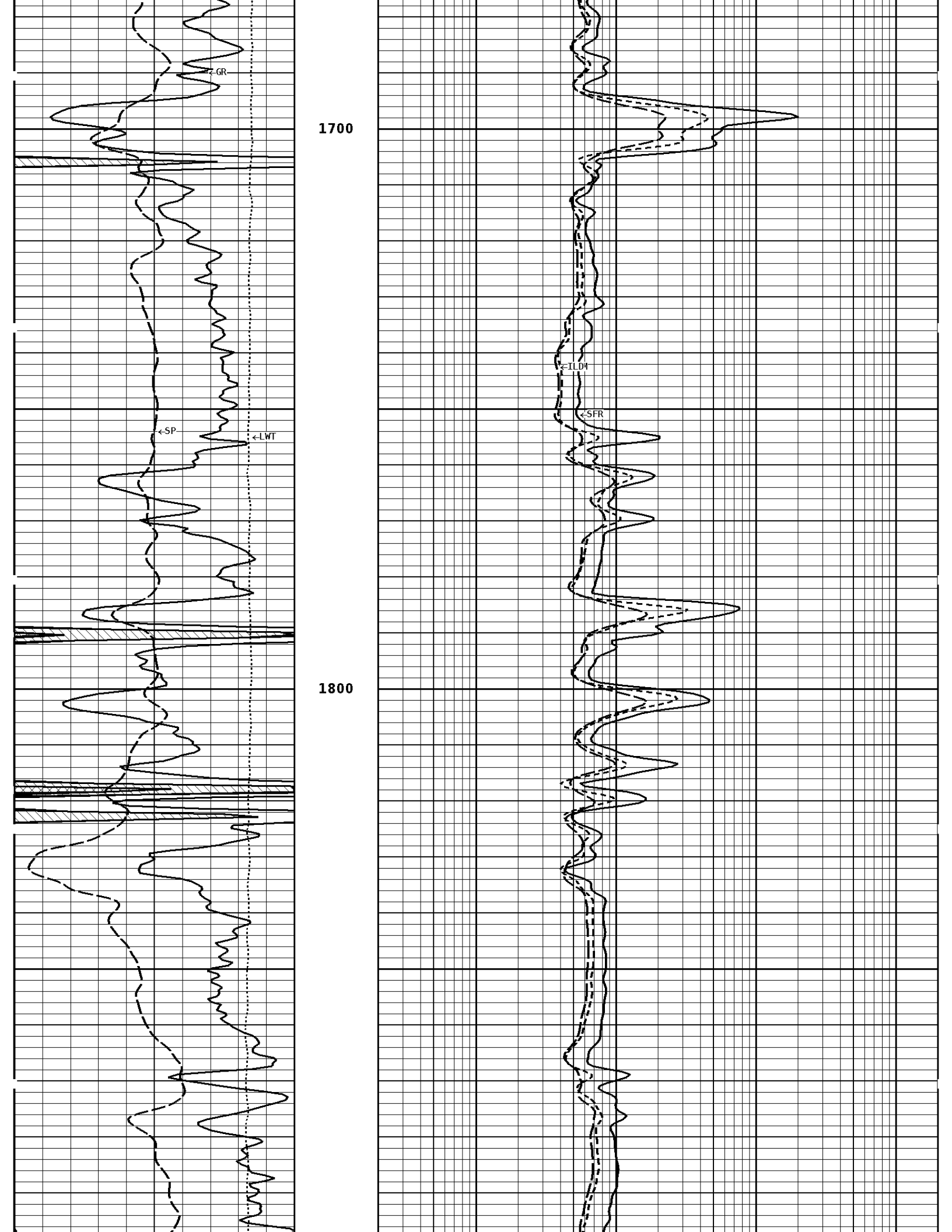

600
700
GR
SP
LWT
ILD
SFR

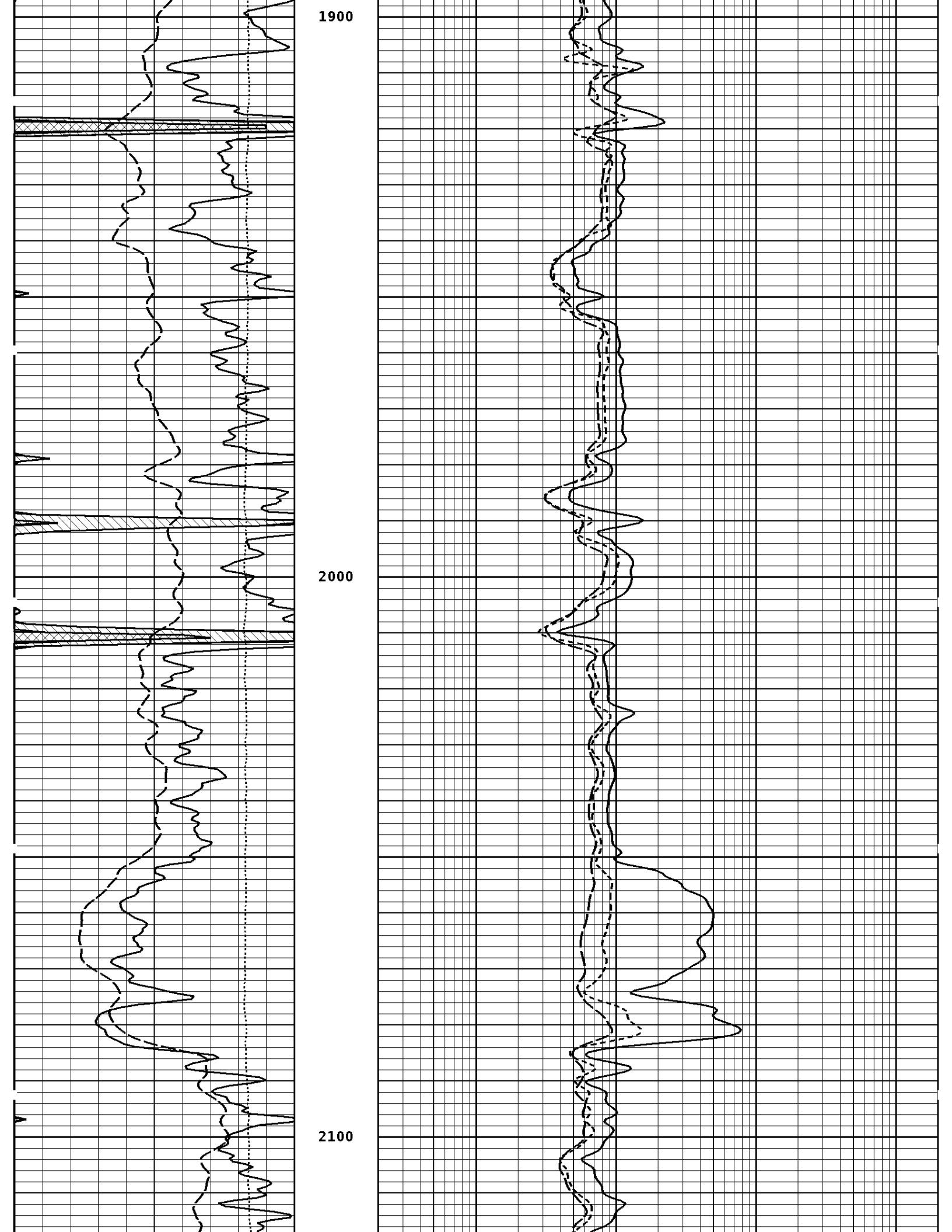

800
900
1000

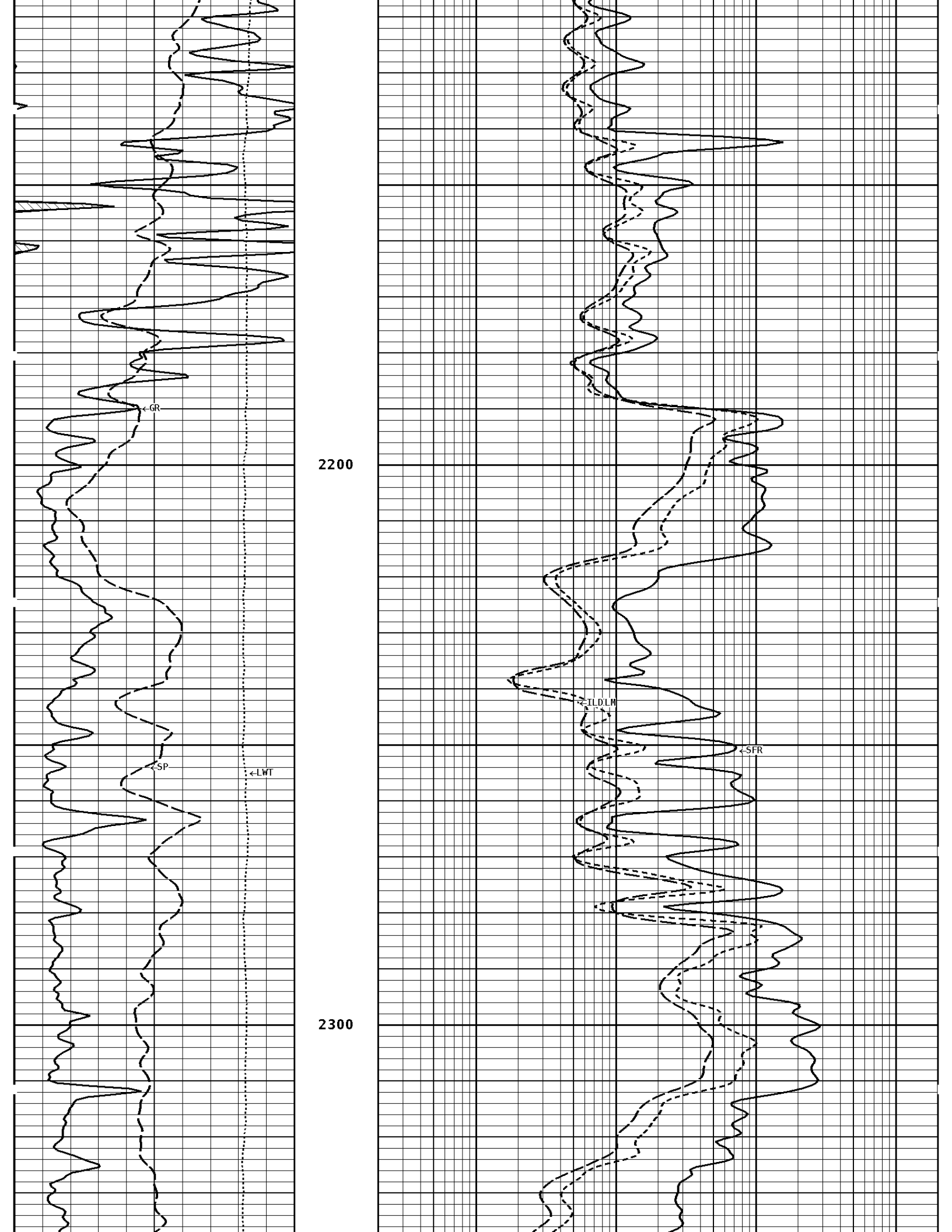

1100
GR
1200

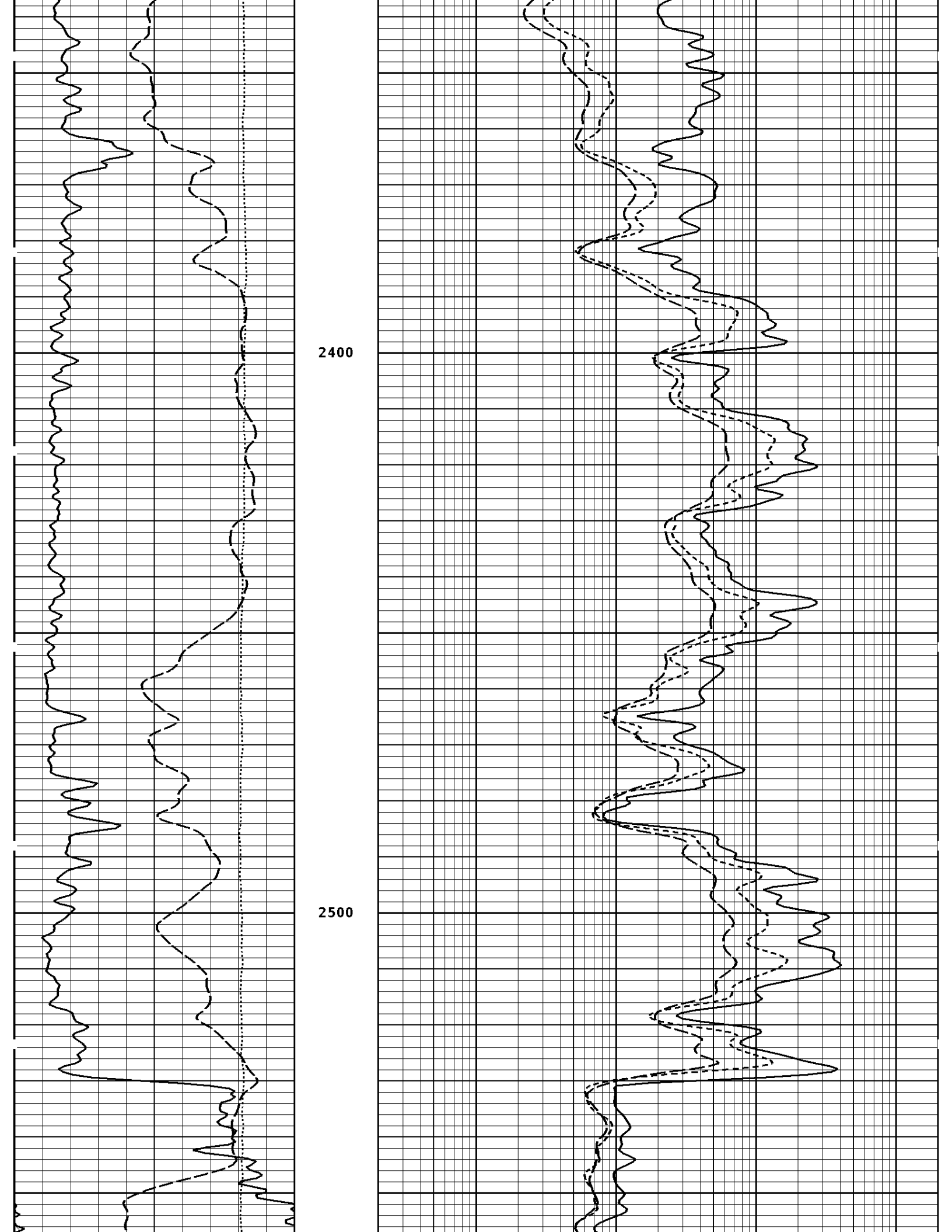

←ILD.M
←SFR
←SP
←LWT
1300
1400

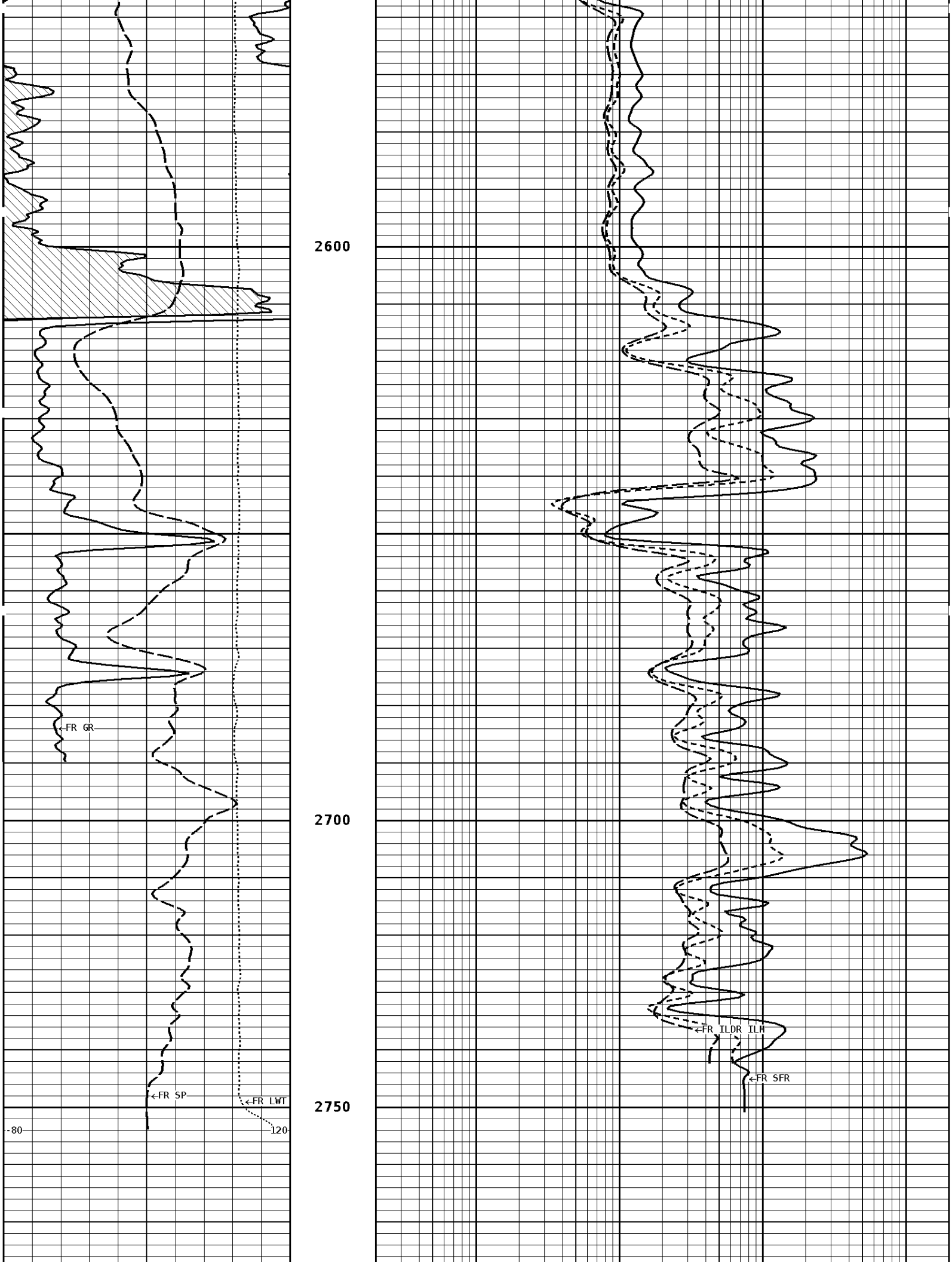

1500
1600


←GR
1700
←SP
←LWT
←ILDM
←SFR
1800


1900
2000
2100


GR
SP
LWT
ILD/LM
SFR
2200
2300


2400
2500


2600
2700
2750
←FR GR
←FR SP
←FR LWT
-80
120
←FR ILDR ILM
←FR SFR

File #1.1.5

1:240 MAIN SECTION

GAMMA RAY API UNITS	SHALLOW FOCUSED RESISTIVITY OHMM
150 300 0 150	0.2 2000.0
TENSION LBS	**MEDIUM INDUCTION OHMM**
10000 0	0.2 2000.0
SPONTANEOUS POTENTIAL mV	**DEEP INDUCTION OHMM**
→| |←20	0.2 2000.0

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

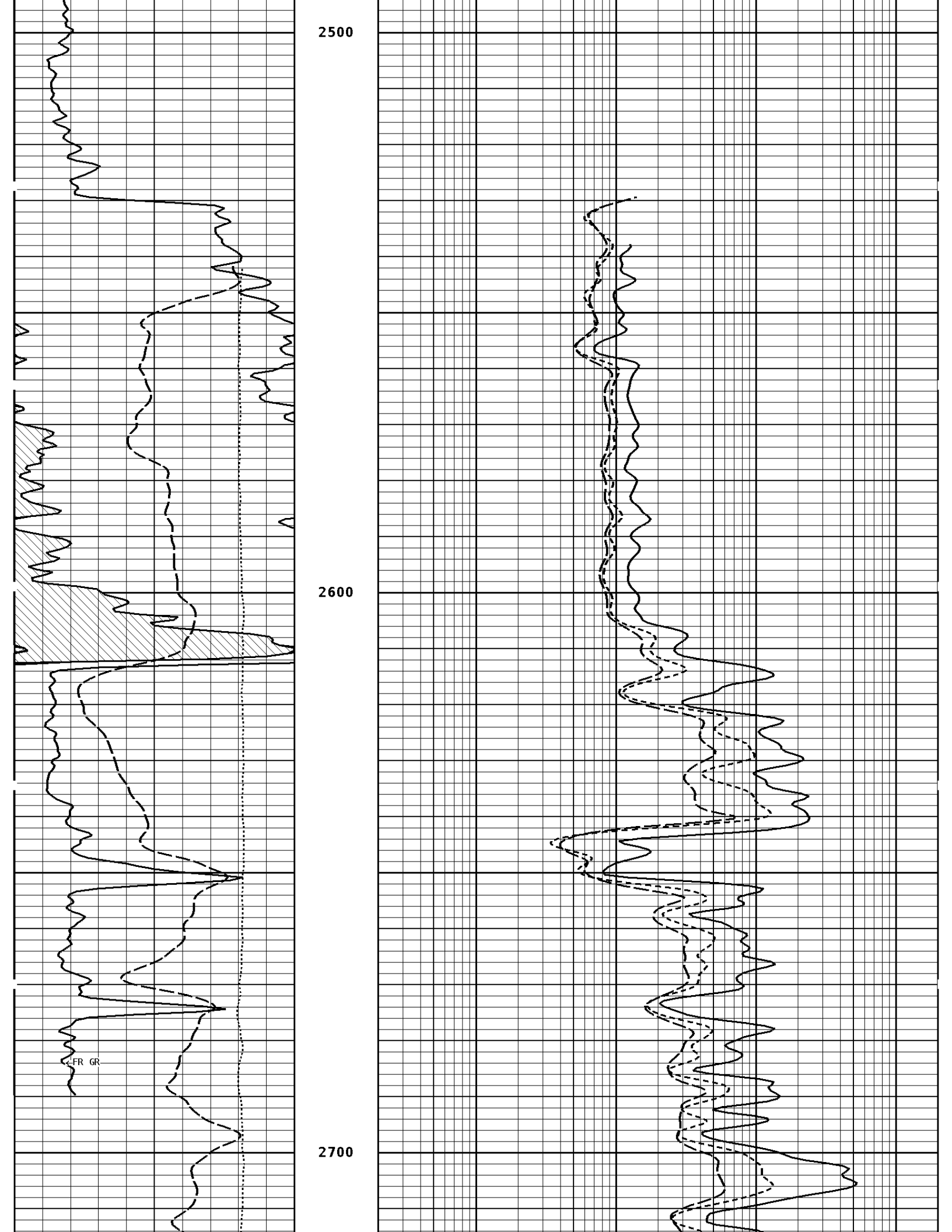
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
BHT Depth	2750.000	ft
Borehole Temperature	100.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	2.000	ohm/m
Standoff	1.5	
Resistivity Of Mud Temperature	60.00	degF

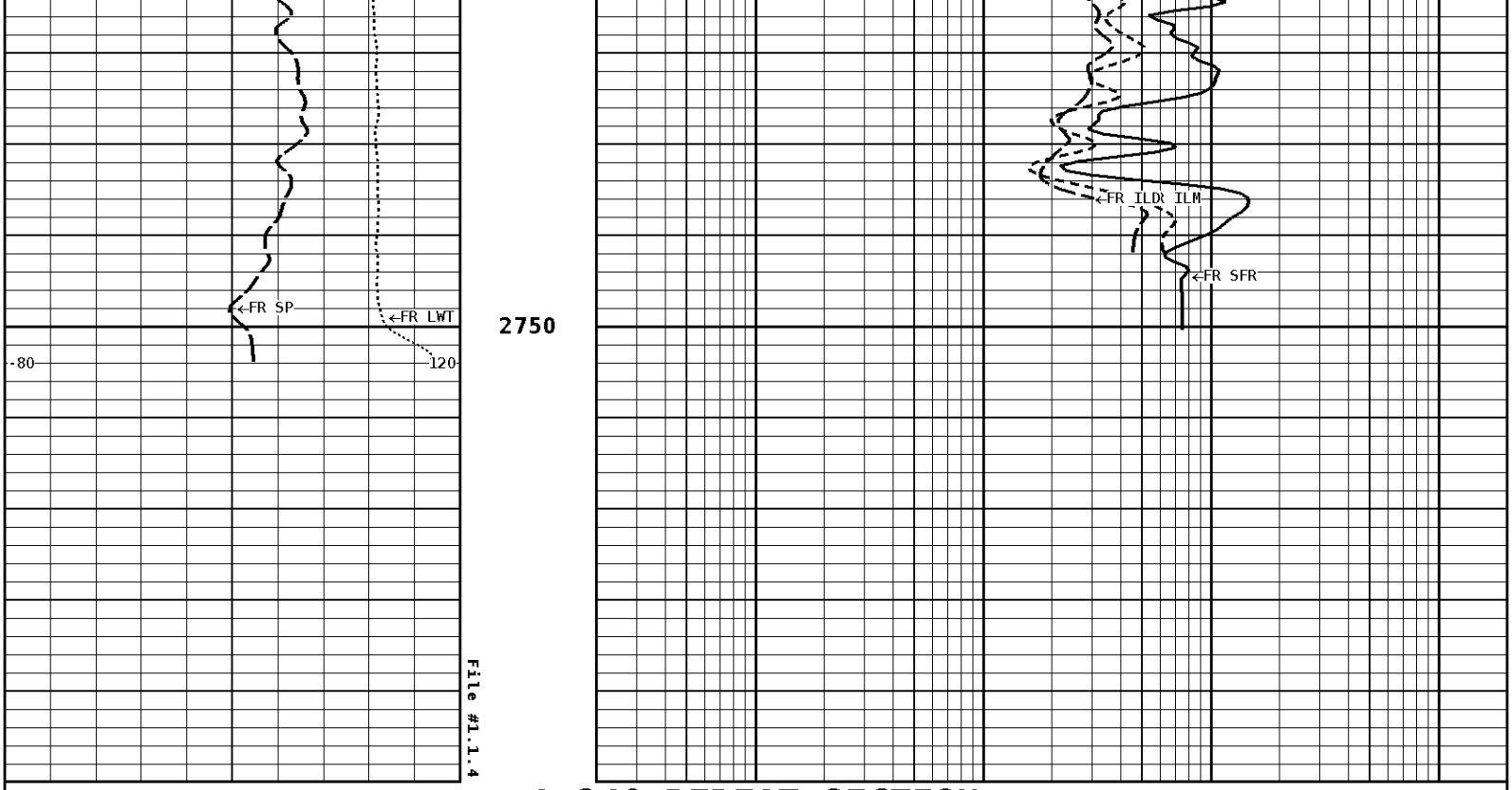
Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** DIL-240
Segment: V1.D1.S4 RP **Acquired:** 2014-11/12 22:36 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:00 3.4.0-13284

SPONTANEOUS POTENTIAL mV	DEEP INDUCTION OHMM
→| |←20	0.2 2000.0
TENSION LBS	**MEDIUM INDUCTION OHMM**
10000 0	0.2 2000.0
GAMMA RAY API UNITS	**SHALLOW FOCUSED RESISTIVITY OHMM**
150 300 0 150	0.2 2000.0

1:240 REPEAT SECTION

File #1.1.4


2500
2600
2700
FR GR



1:240 REPEAT SECTION

GAMMA RAY
API UNITS
150 300
0 150

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→ ←20

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	7.875	in
Casing Diameter	5.500	in
BHT Depth	2750.000	ft
Borehole Temperature	100.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	2.000	ohm/m
Standoff	1.5	
Resistivity Of Mud Temperature	60.00	degF

* Calibration Summary *

Shop Calibration
GRT-B

Performed : 23-OCT-2014 Time : 09:31
Sensor Suite : GR-GR5 ID : GRT-BB-107

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	75	381	CPS	175	GRAPI

Shop Calibration

Shop Calibration
PIT-CA

Performed : 10-Sep-2014 Time : 11:40
Sensor Suite : P-IND-T ID : PIT-CA-075

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131419	129931	1.4	0.2	MMHOS
Zero	131070	131067	-10.2	45.4	MMHOS
Reference	250682	249654	4989.8	5045.4	MMHOS
Loop	129961	216623	3595.7	3716.3	MMHOS
Sonde Error			0.5	-7.1	MMHOS
Cond			4989.8	5045.4	MMHOS

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	128119	131856	0.3	-1.2	MMHOS
Zero	131062	131059	52.1	-18.8	MMHOS
Reference	238518	237019	2052.1	1981.2	MMHOS
Loop	126986	223844	1715.5	1756.2	MMHOS
Sonde Error			-6.7	0.1	MMHOS
Cond			2052.1	1981.2	MMHOS

Temperature

Measured Low	Measured High	Calibrated Low	Calibrated High	Units
16980.0	56920.0	70.0	350.0	DEGF

Performed : 10-Sep-2014 Time : 11:51
Sensor Suite : SFL ID : PIT-CA-075

Internal

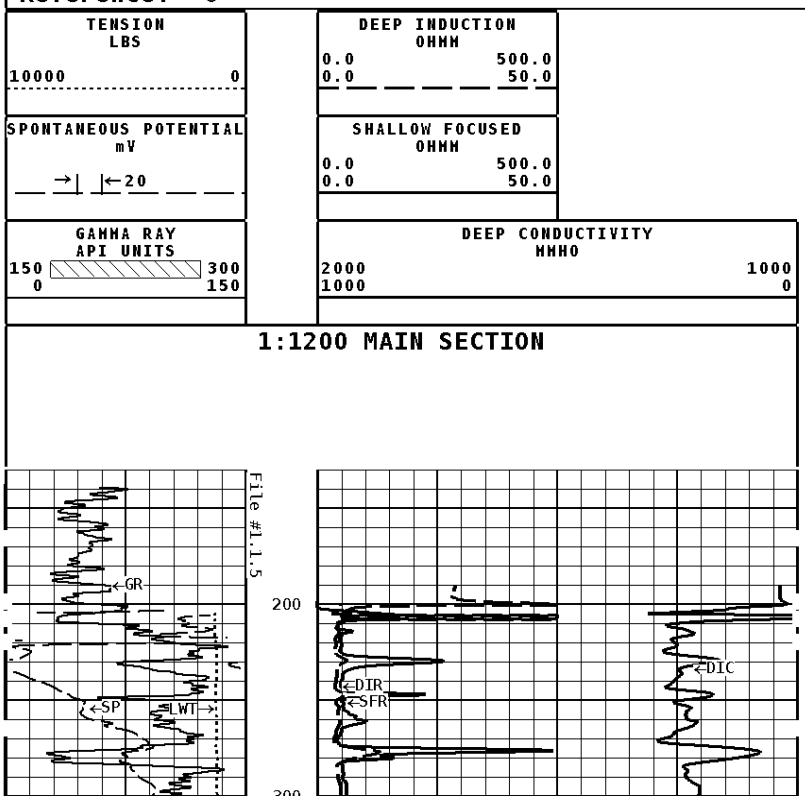
	Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
Im	32770.2	49049.9	0.0	7028.0	uA
Ib	32767.1	49093.1	0.0	1750.0	mA
MOM1	32794.6	56675.8	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

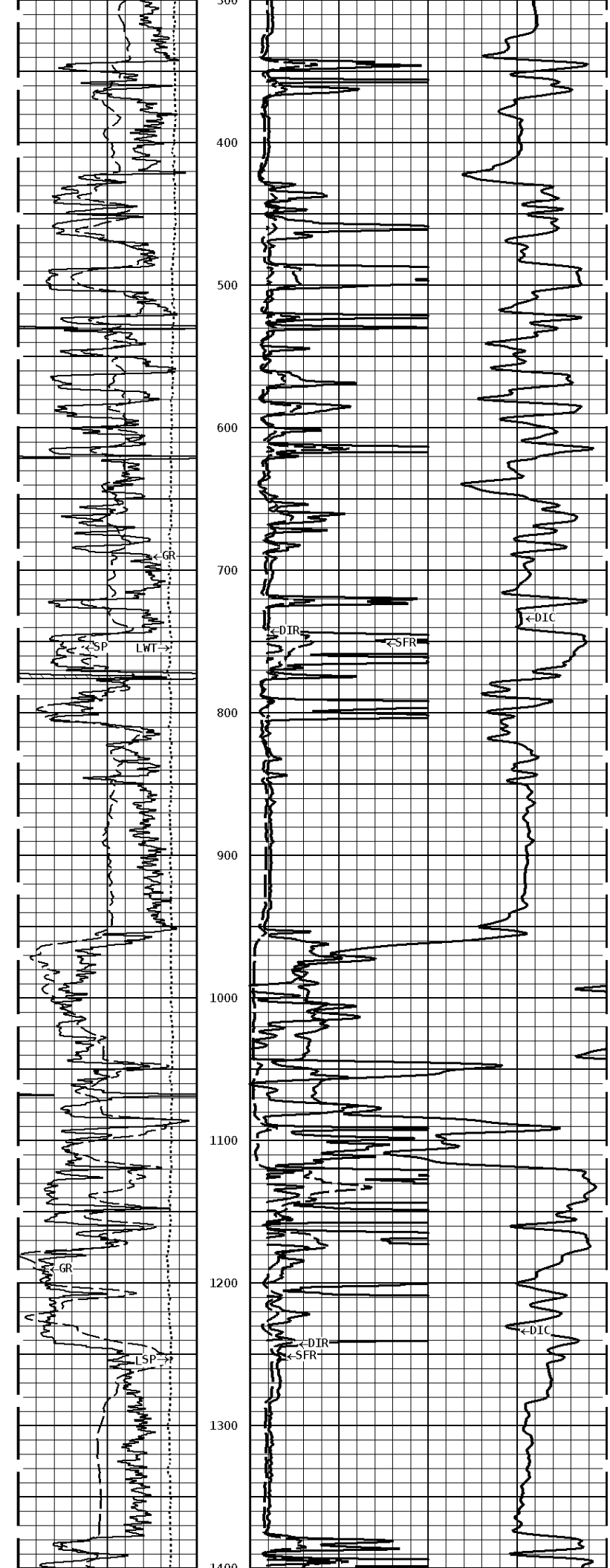
Performed : 10-SEP-2014 Time : 11:47
Sensor Suite : P-SP ID : PIT-CA-075

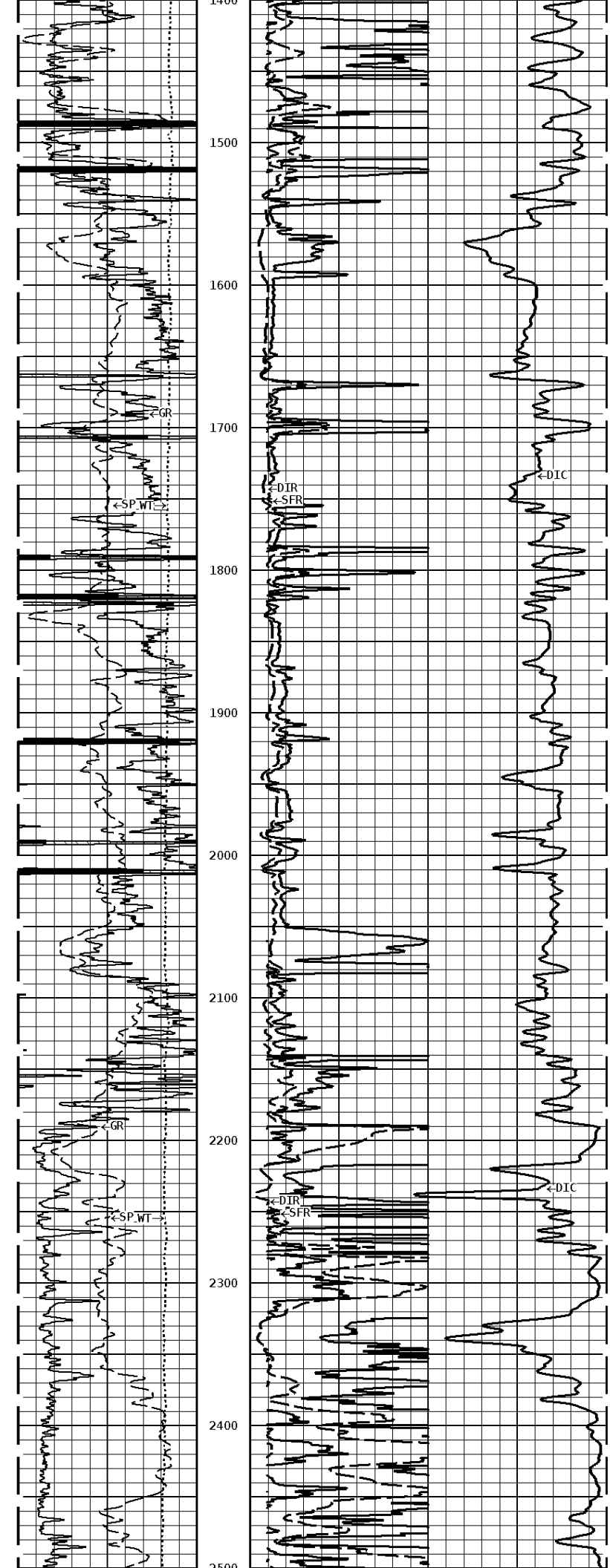
Internal

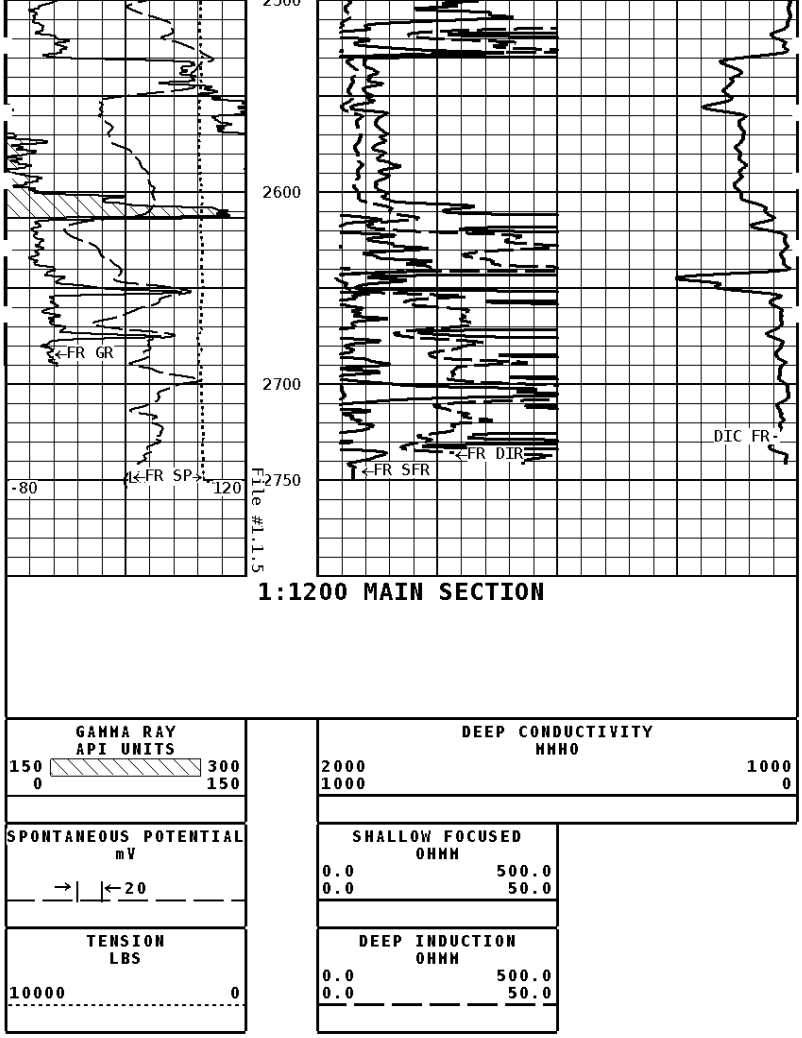
Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
32768.0	58944.2	0.0	1000.0	mV

Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:1200 **Format:** DIL1200
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284




300
400
500
600
700
800
900
1000
1100
1200
1300
1400
GR
SP
LWT
DIR
SFR
DIC
GR
LSP
DIR
SFR
DIC


1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
←GR
←SP WT→
←DIR
←SFR
←DIC
←GR
←SP WT→
←DIR
←SFR
←DIC



1:1200 MAIN SECTION

GAMMA RAY
API UNITS
150 300
0 150

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

SPONTANEOUS POTENTIAL
mV
→| |←20

SHALLOW FOCUSED
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

Tucker ENERGY SERVICES

Company:	CROSS BAR ENERGY, LLC
Well:	BURKETT 'D' #40
Location:	330' FSL & 530' FEL
Logged:	11-12-2014
K.B. Elev:	0.0 Ft

Tucker ENERGY SERVICES

COMPENSATED NEUTRON

PEL DENSITY MICRO LOG

Company	CROSS BAR ENERGY, LLC
Well	BURKETT 'D' #40
Field	BURKETT
County	GREENWOOD
State	KANSAS
Country	USA
API No.	15-073-24225-00-00

File No : TUL-58487
Company : CROSS BAR ENERGY, LLC
Well : BURKETT 'D' #40
Field : BURKETT
County : GREENWOOD
State : KANSAS
Country : USA
API No : 15-073-24225-00-00

Location :
330' FSL & 530' FEL
W2 SE SE SE

LSD : **Sect :** 23S **Twp :** 23 **Rge :** 10E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	CST
Log Measured From:	GL	**DF**	0.00 Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	**GL**	1226.00 Ft	MST	

Date	11-12-2014						
Run Number	1						
Depth--Driller	2750.0	Ft					
Depth--Logger	2750.0	Ft					
First Reading	2725.0	Ft					
Last Reading	205.0	Ft					
Casing--Driller	210.0	Ft					
Casing--Logger	205.0	Ft					
Bit Size	7.875	In					
Casing Size	8.625	In					
Hole Fluid Type	WBM						
Density	9.2	ppg					
Fluid Loss	0.0						
PH/Viscosity	0.0	50.0					
Sample Source	MEASURED						
RM@Measured Temp.	2.000	@ 60 F					
RMF@Measured Temp	1.600	@ 60 F					
RMC@Measured Temp.	2.400	@ 60 F					
Source RMF/RMC	CALCULATED	CALCULATED					
RM@BHT	1.200	@ 100 F					
Time Circulation Stopped	11-12-2014 7:00 pm						
Max Recorded Temp.	100	F					
Equipment/Base	TRK-126	TULSA					
Recorded By	SEAN DAVIS / AMOUR DJAHO						
Witnessed By	ALBERT BRENSING						

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	2750.00

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
8.625	32.00	205.00	0.00

Run Number	1
Date	11-12-2014
Date/Time On Bottom	11-12-2014 9:00 pm
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	0.960 @ 100 F
RMC@BHT	1.440 @ 100 F

Run Number 1

Comments

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

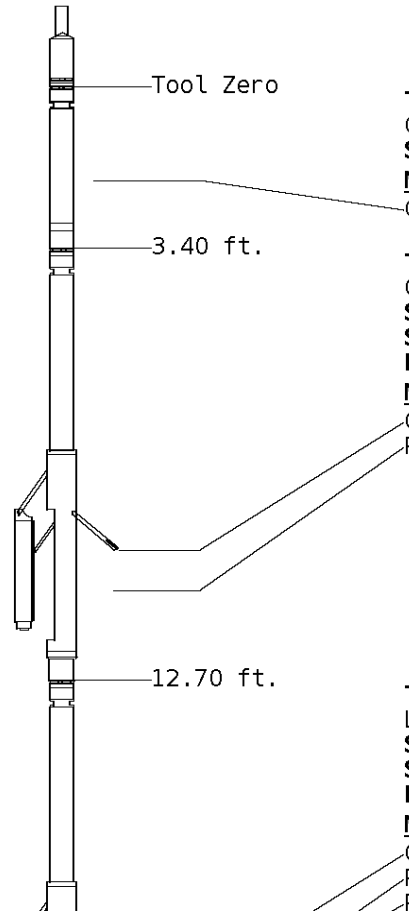
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

C. GONZALES
K. JOSH

Tool String Schematic

Total Tool Length - 66.95 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BB-107

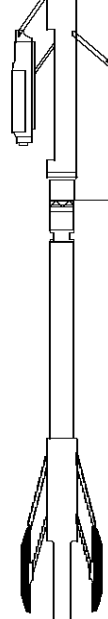
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	64.95

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-BB-103
Source ID :N-1045
Pad ID :CNP-AA-116-

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	57.55
PHIN	6.80	10.20	56.75

Tool: LDT-DA **Length:** 9.30 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-067

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	48.25
PEL	7.00	19.70	47.25
PES	7.40	20.10	46.85



LDEN	7.20	19.90	47.05
LCOR	7.20	19.90	47.05

22.00 ft.

Tool: MST-DA **Length:** 9.66 **ft.** **O.D.** 6.00 **in.**
Micro Spherically Focused (IC)
Sonde ID :MST-DA-057

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35

31.66 ft.

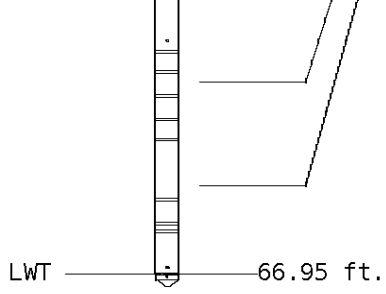
Tool: CST-AD **Length:** 13.80 **ft.** **O.D.** 3.60 **in.**
Open Hole Sonic
Sonde ID :CST-AB-25

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49

45.46 ft.

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** NLD-240
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284

CALIPER MICRO INCHES (IN)
16 — 26
6 — 16

BIT SIZE INCHES (IN)
6 — 16

NEUTRON (Y) CALIPER INCHES (IN)
16 — 26
6 — 16

NORMAL OHMM
0 — 40

INVERSE OHMM
0 — 40

DENSITY (X) CALIPER INCHES (IN)
16 — 26
6 — 16

Volume Quartz

PE CROSS-SECTION BARNS/ELECTRON
0 — 10

DENSITY CORRECTION G/CC
-0.25 — 0.25

TENSION LBS
10000 — 0

Volume Calcite

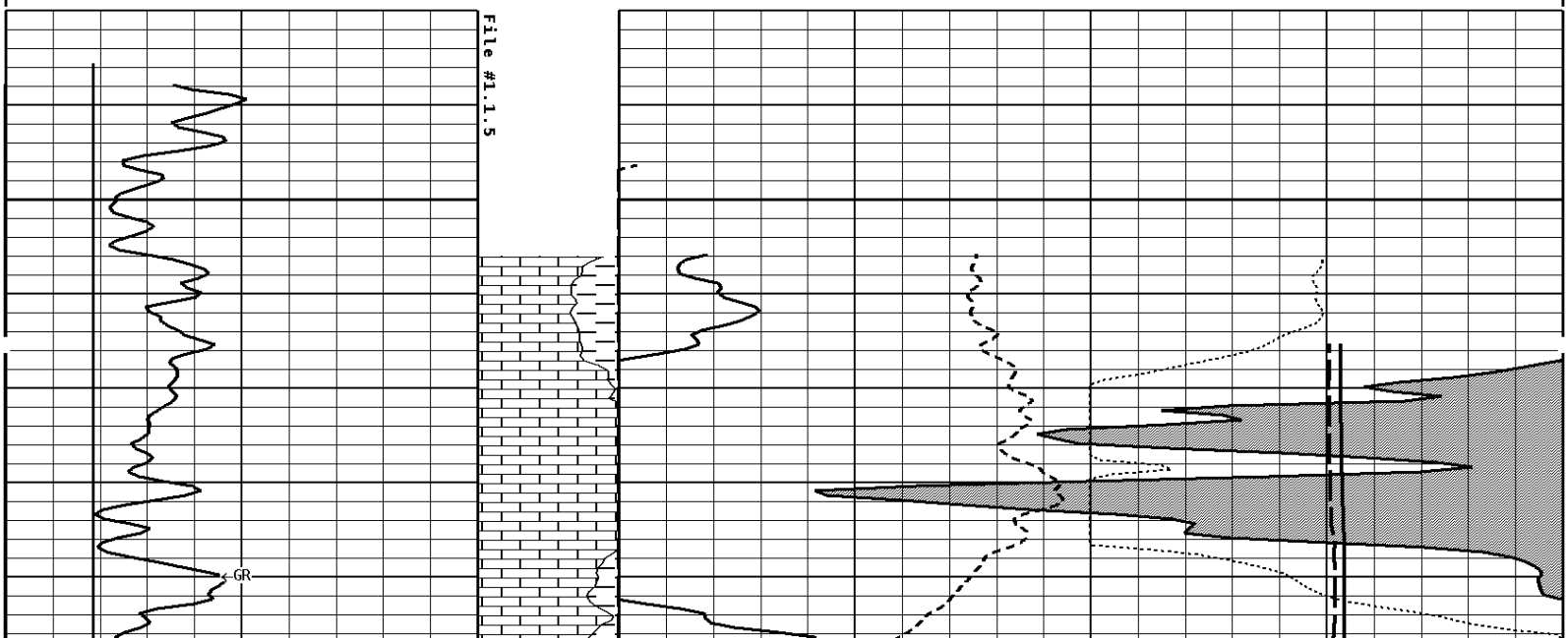
DENSITY POROSITY (2.71g/cc) PERCENT
70 — 30
30 — -10
-10 — -50

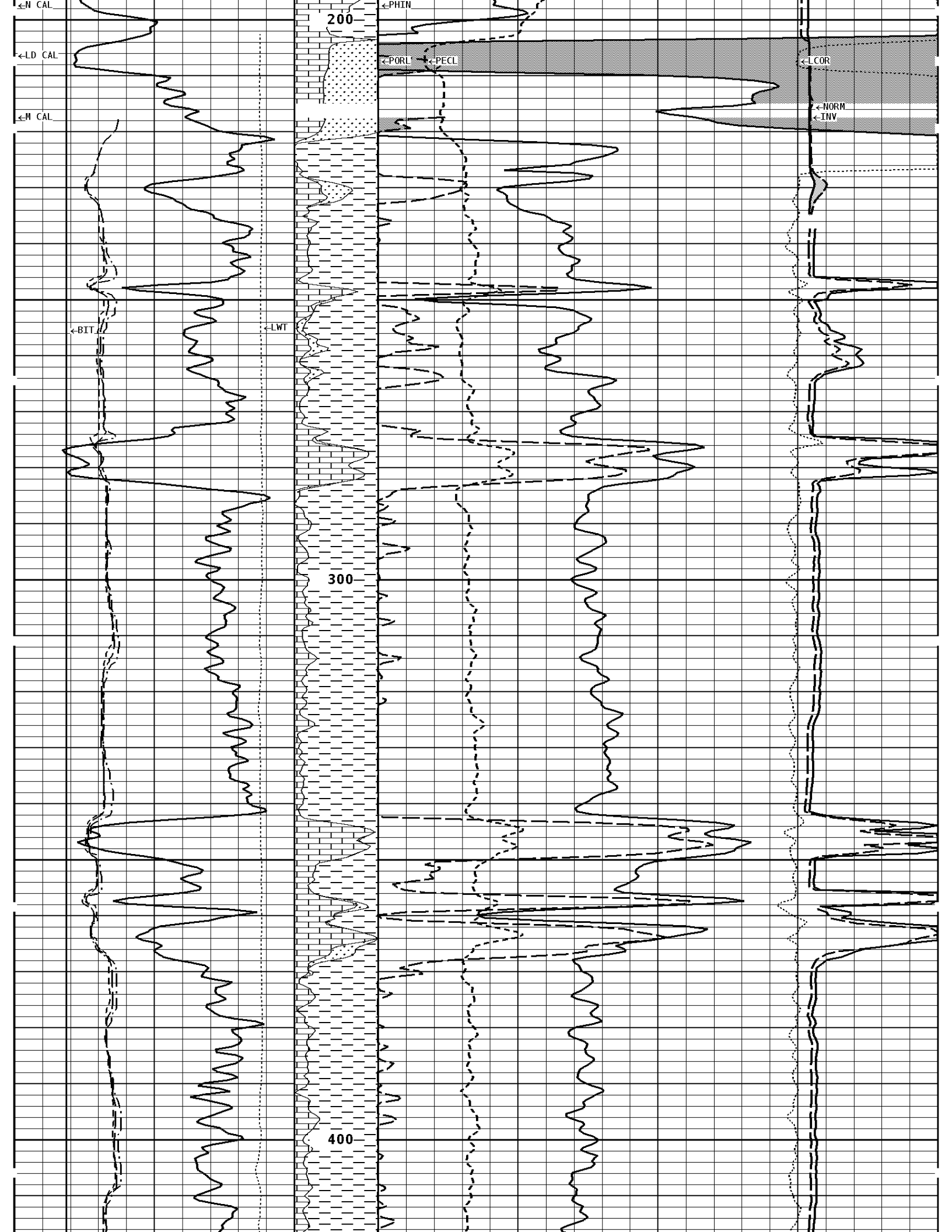
GAMMA RAY API UNITS
150 — 300
0 — 150

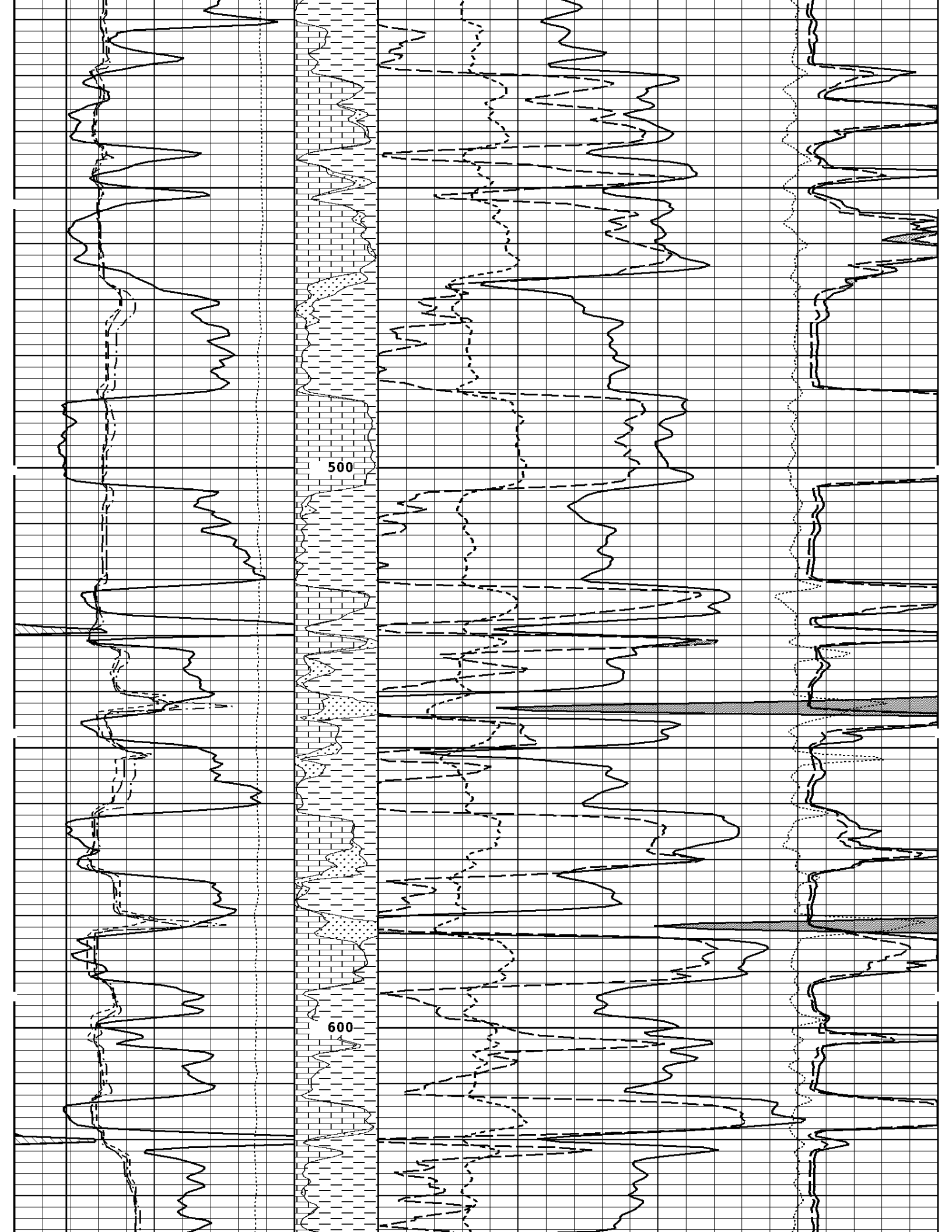
Volume Dolo/Shale

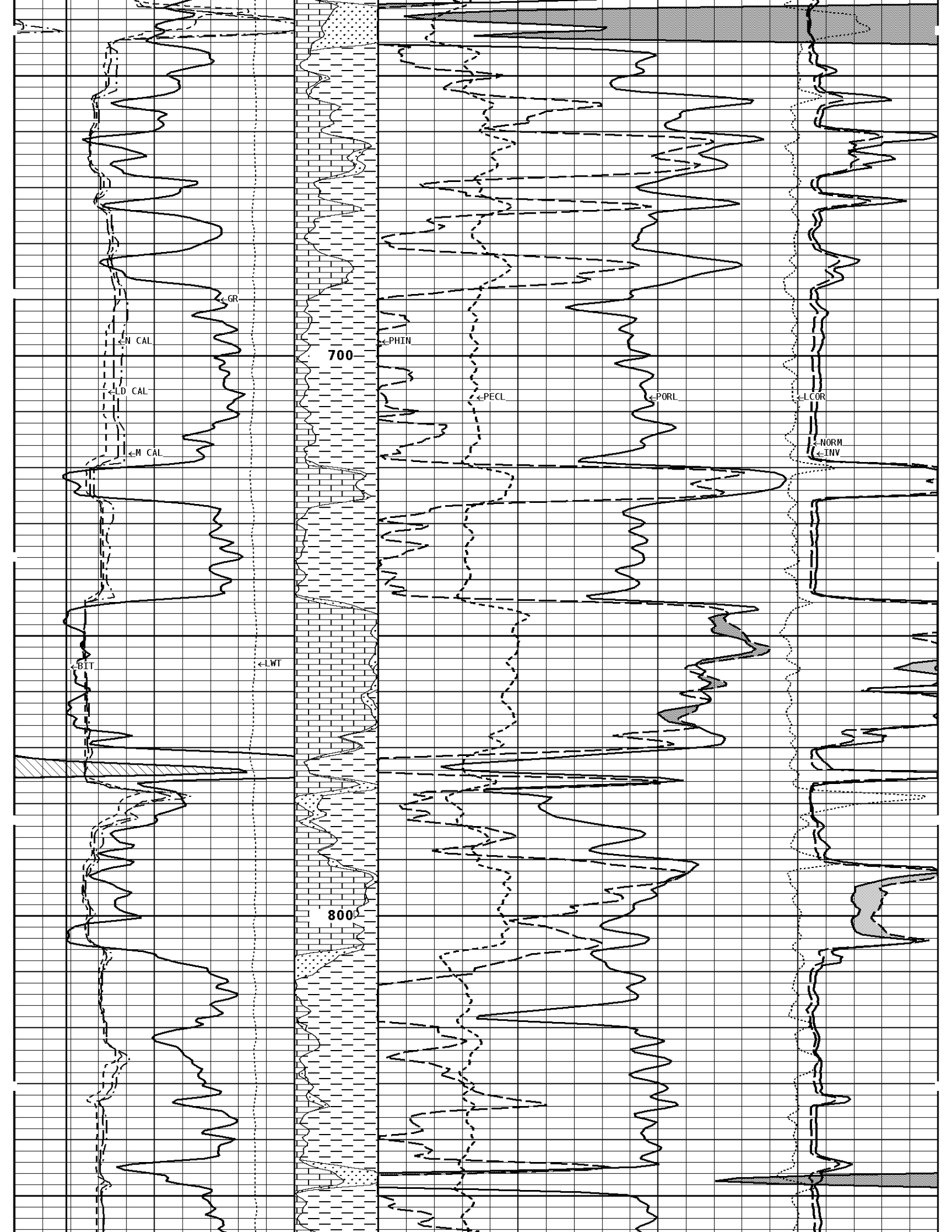
NEUTRON POROSITY (LIMESTONE) PERCENT
30 — -10

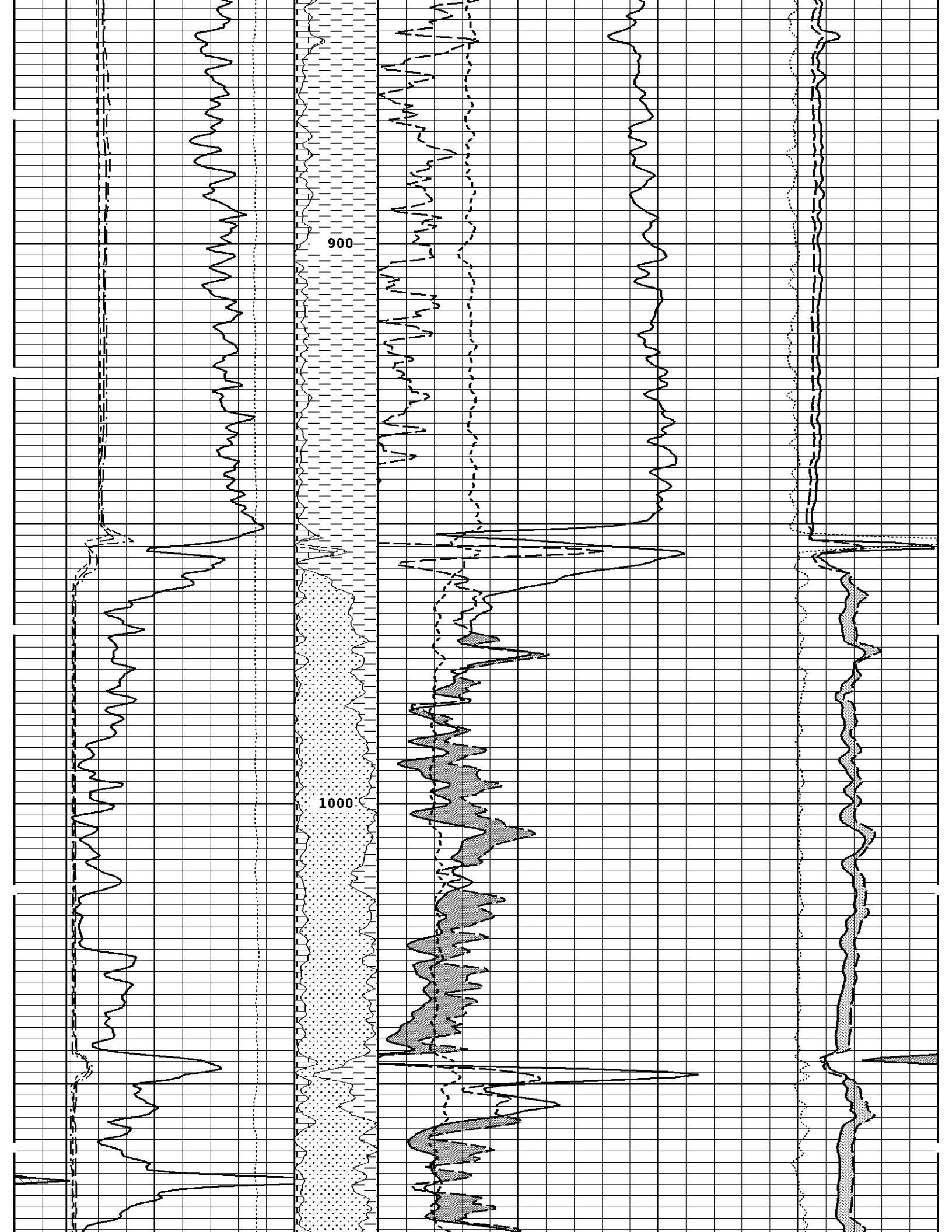
1:240 MAIN SECTION

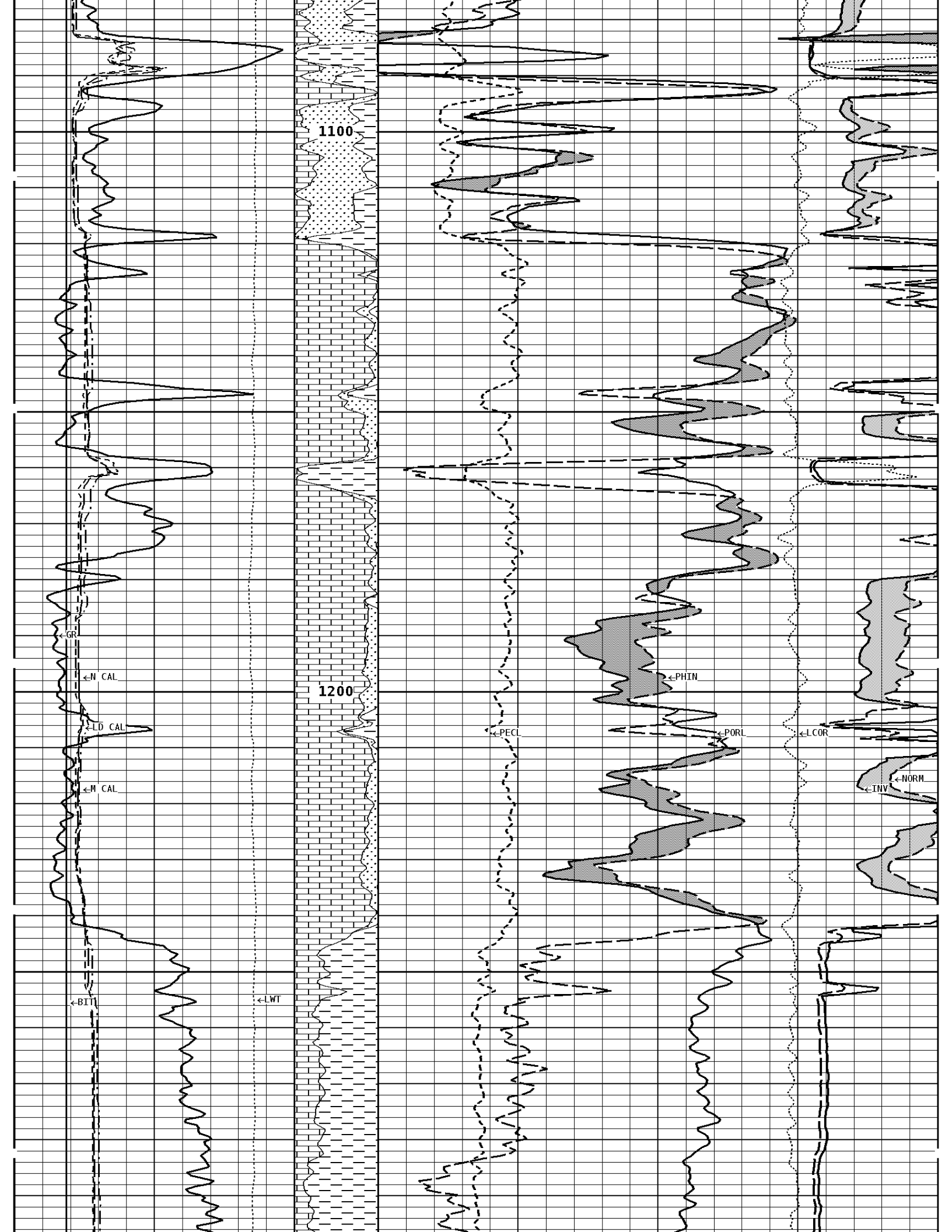


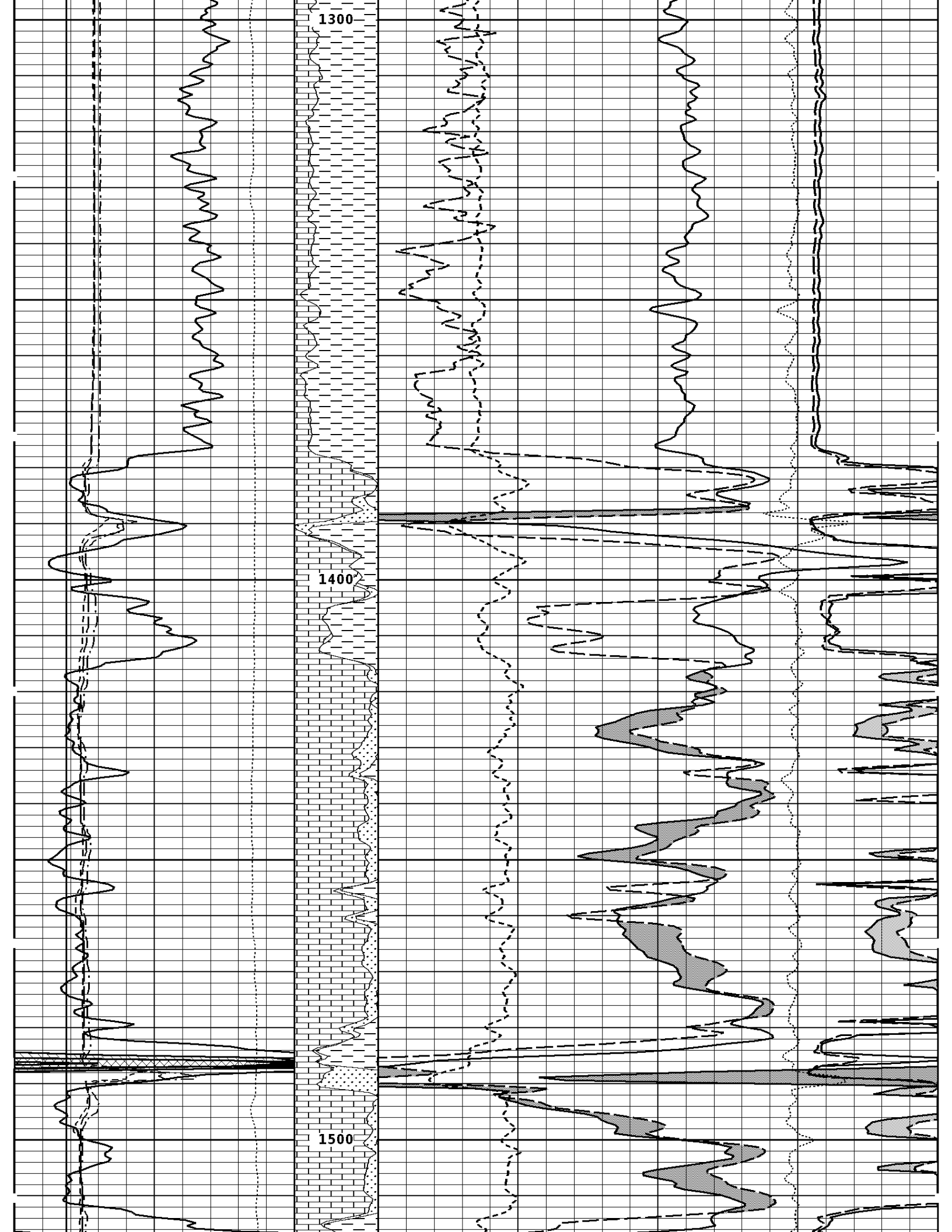

←N CAL
←LD CAL
←M CAL
←BIT
←LWT
←PHIN
←PORL
←PECL
←LCOR
←NORM
←INV
200
300
400

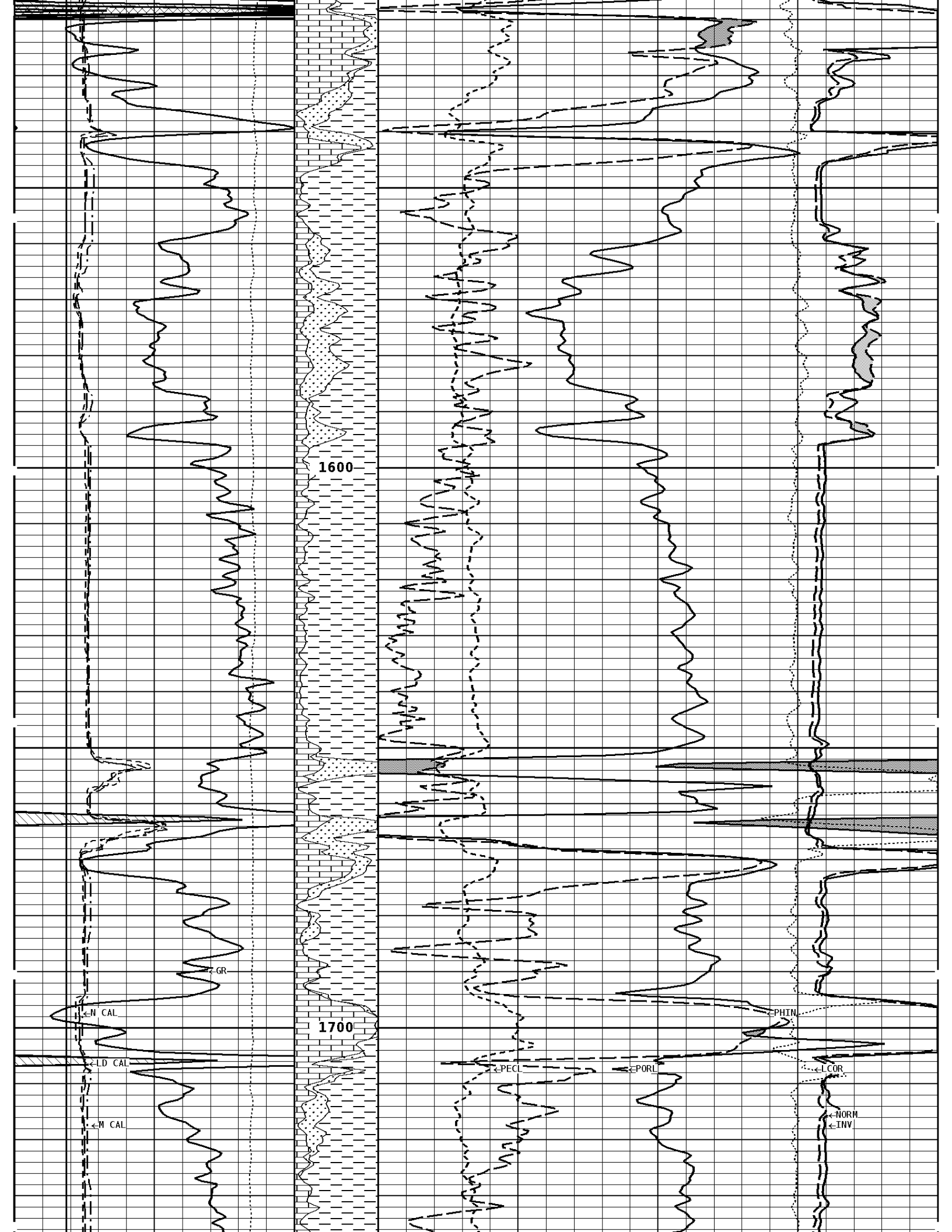

500
600

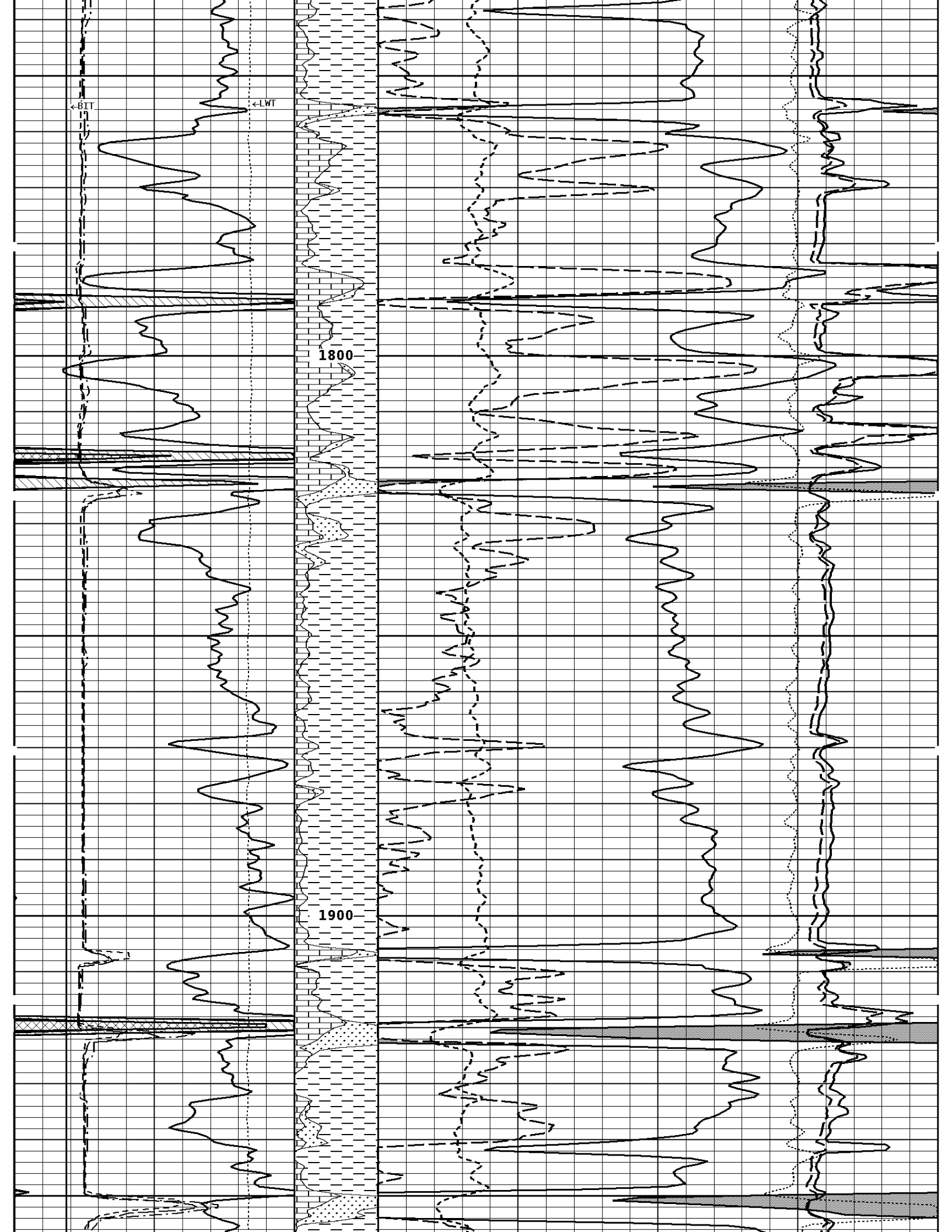

GR
N CAL
LD CAL
M CAL
BIT
LWT
700
800
PHIN
PECL
PORL
LCOR
NORM
INV

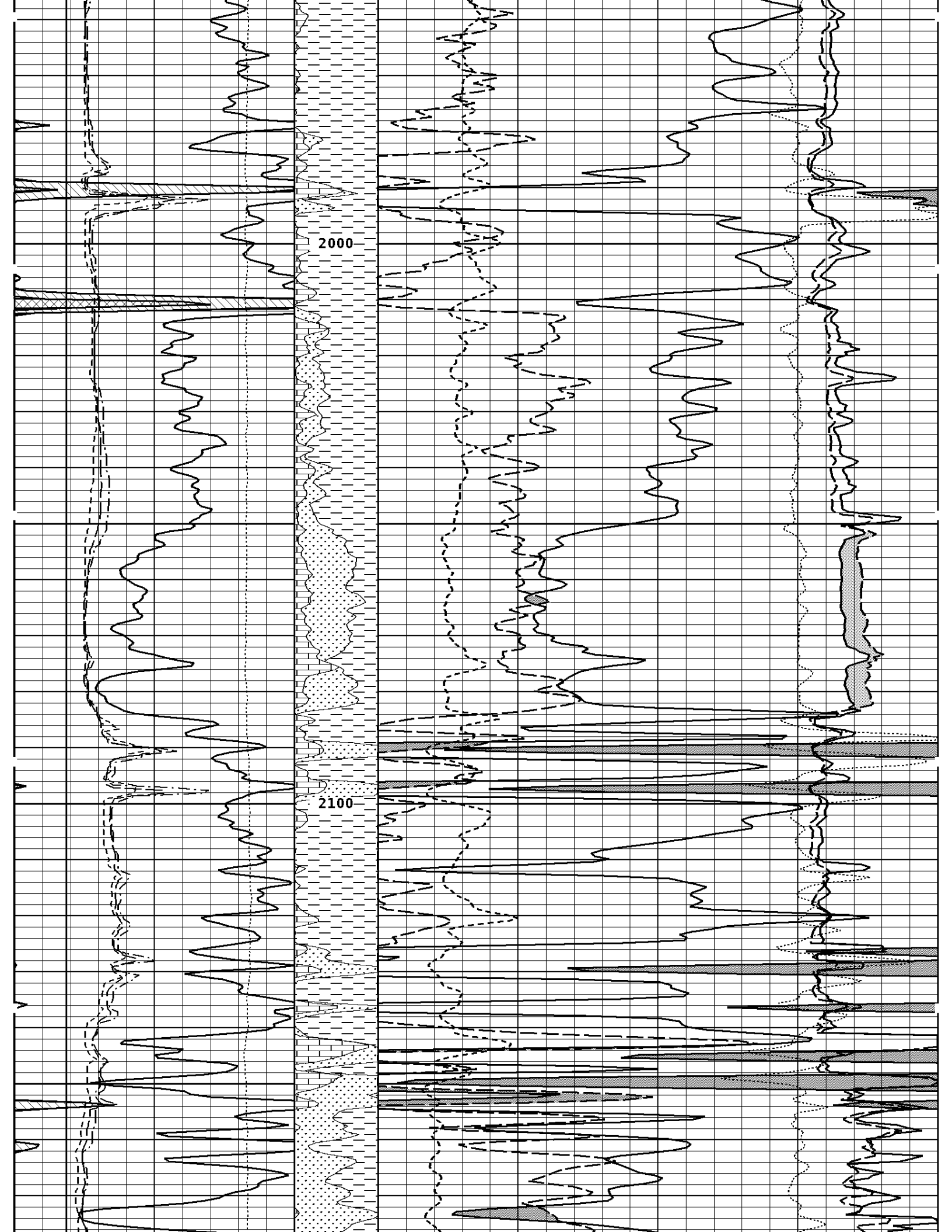

900
1000

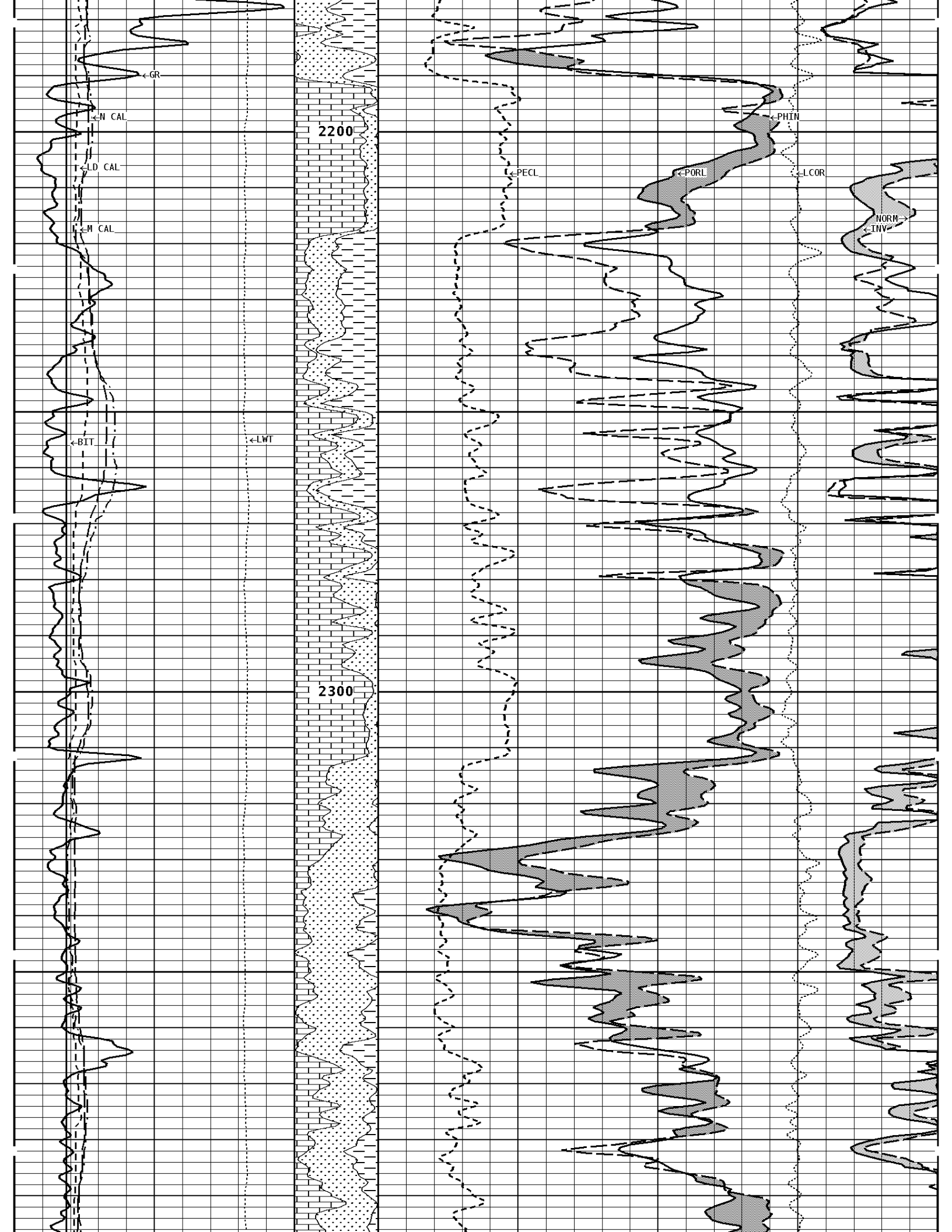

1100
1200
←GR
←N CAL
←LD CAL
←M CAL
←BIT
←LWT
←PHIN
←PECL
←PORL
←LCOR
←NORM
←INV

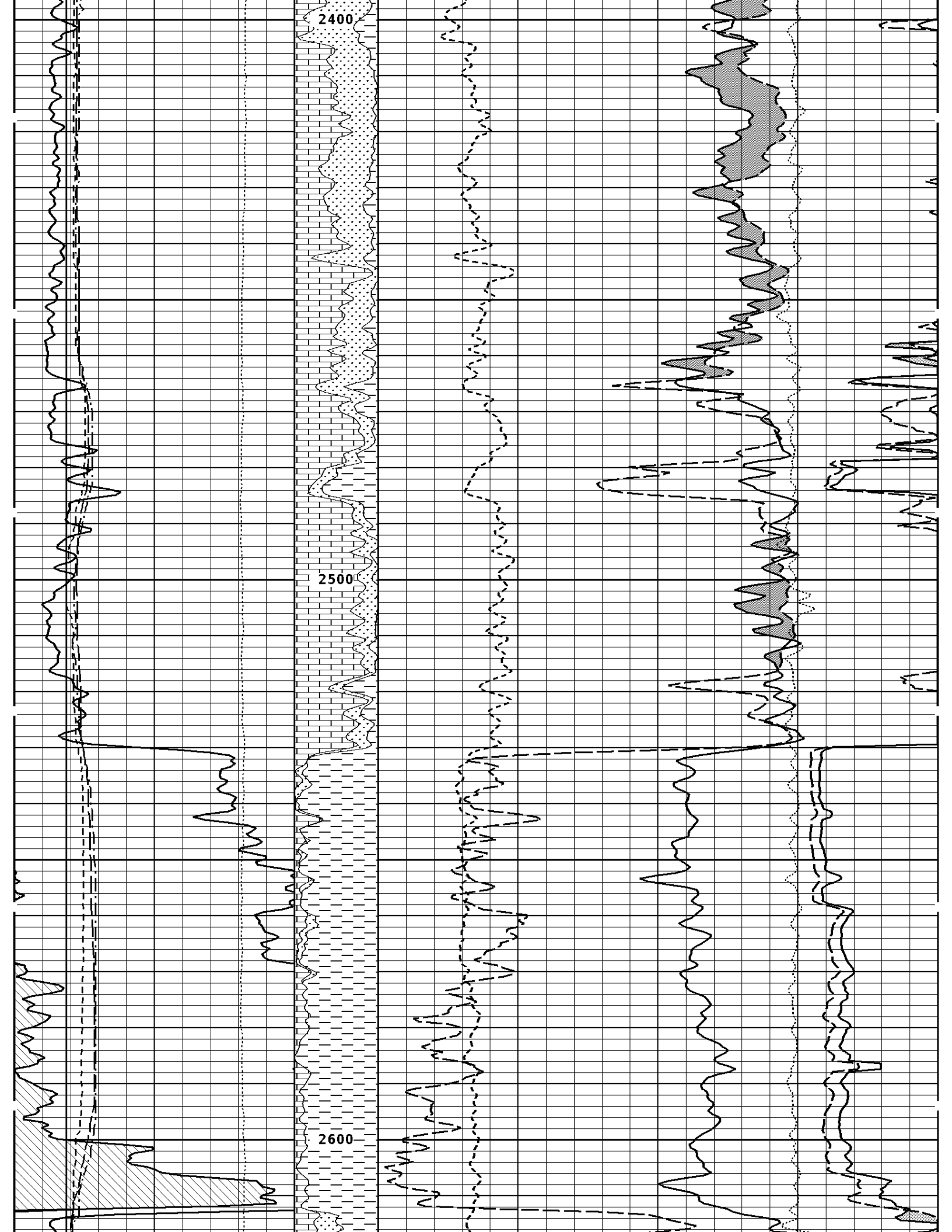

1300
1400
1500

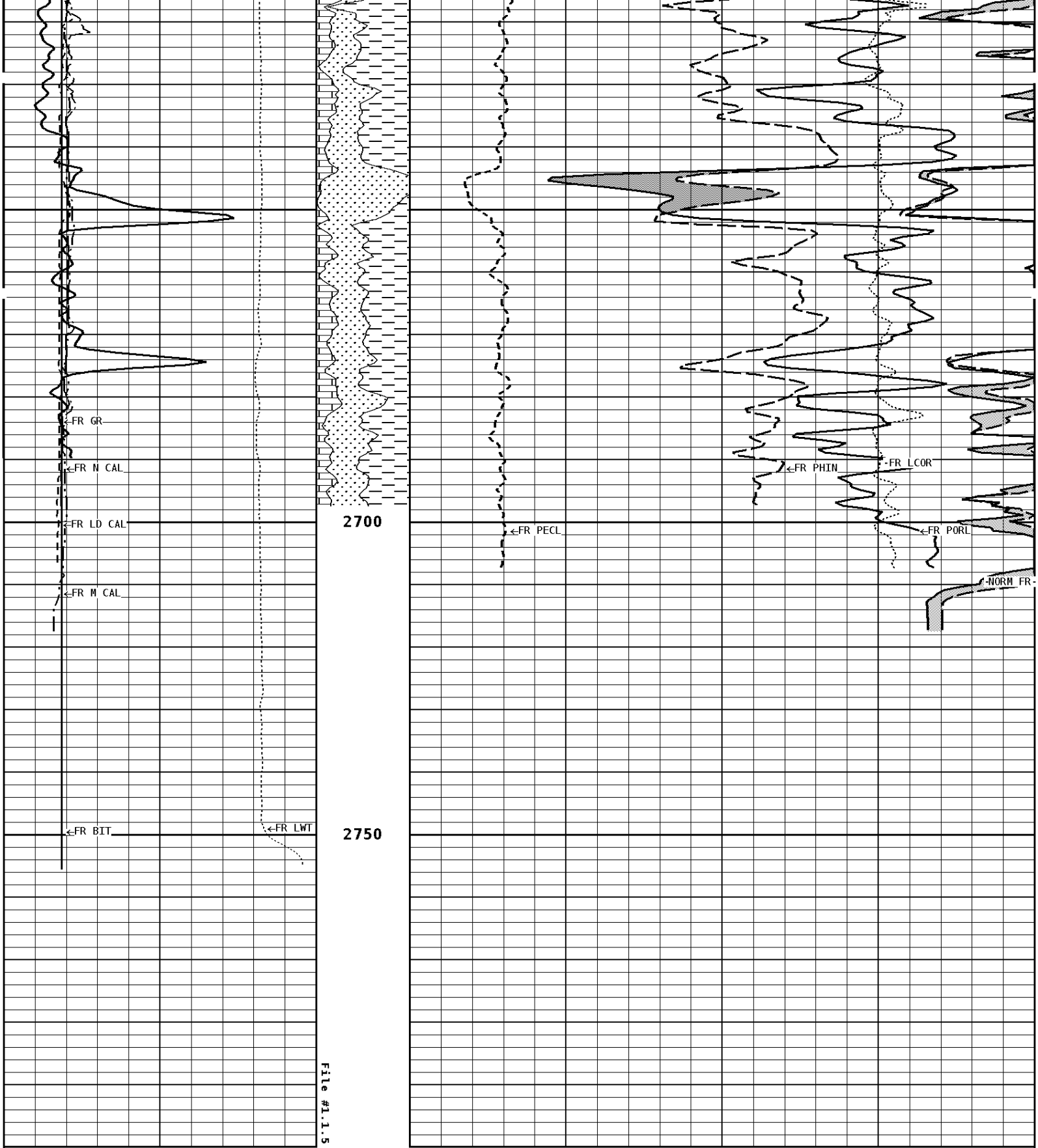

1600
1700
GR
N CAL
LD CAL
M CAL
PHIN
PECL
PORL
LCOR
NORM
INV


←BIT
←LWT
1800
1900


2000
2100


GR
N CAL
LD CAL
M CAL
BIT
LWT
2200
2300
PECL
PORL
PHIN
LCOR
NORM
INV


2400
2500
2600



1:240 MAIN SECTION

GAMMA RAY API UNITS	Volume Dolo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT
150 300 0 150		30 -10
TENSION LBS	Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT

TENSION LBS: 10000 / 0	Volume Quartz	DENSITY POROSITY (2.71g/cc) PERCENT: 70 / 30 / -10 ; 30 / -10 / -50
DENSITY (X) CALIPER INCHES (IN): 16 / 6 ; 26 / 16		PE CROSS-SECTION BARNS/ELECTRON: 0 / 10
		DENSITY CORRECTION G/CC: -0.25 / 0.25
NEUTRON (Y) CALIPER INCHES (IN): 16 / 6 ; 26 / 16		INVERSE OHMM: 0 / 40
BIT SIZE INCHES (IN): 6 / 16		NORMAL OHMM: 0 / 40
CALIPER MICRO INCHES (IN): 16 / 6 ; 26 / 16		

*** Borehole Zone Factors ***

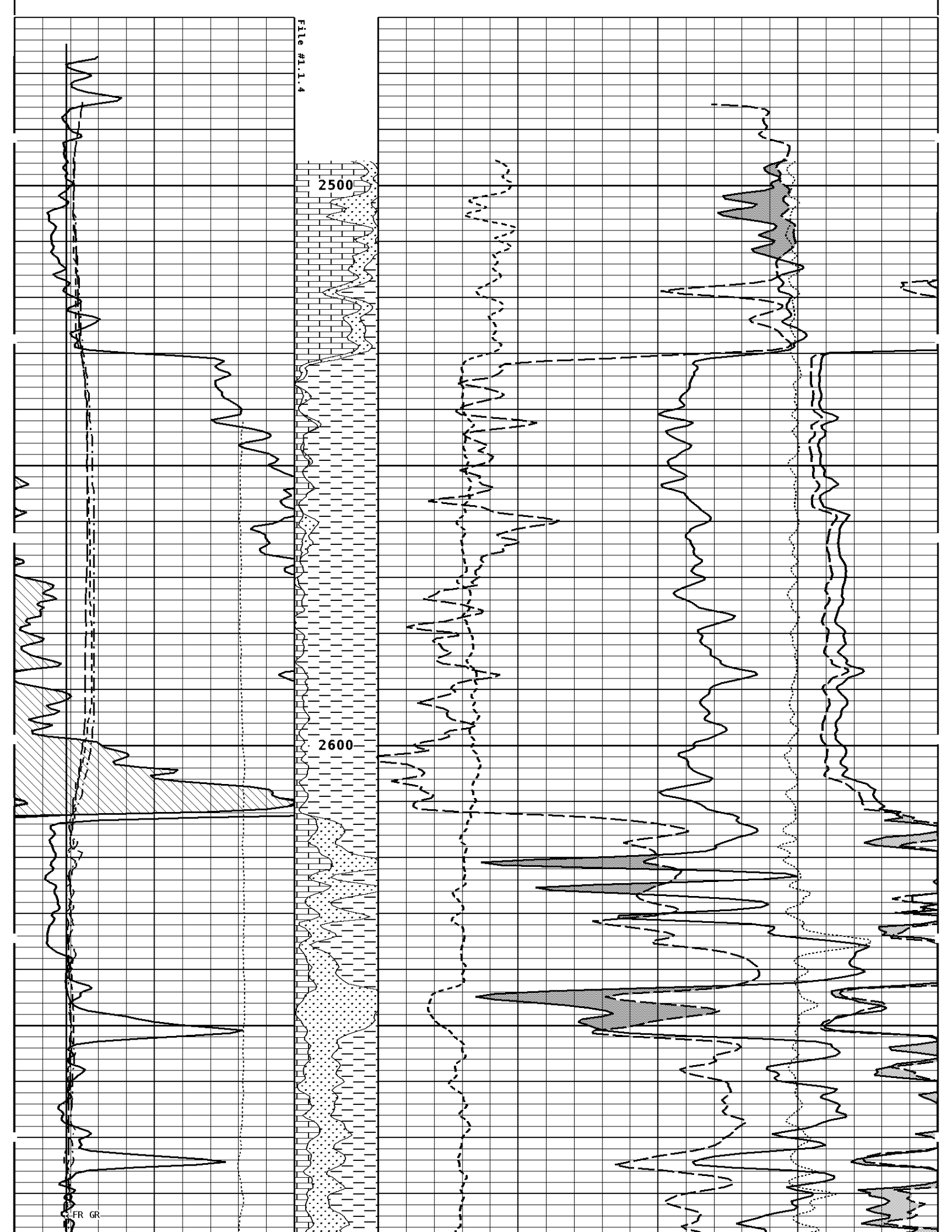
Zone 1 99999.0 to 0.0 Feet

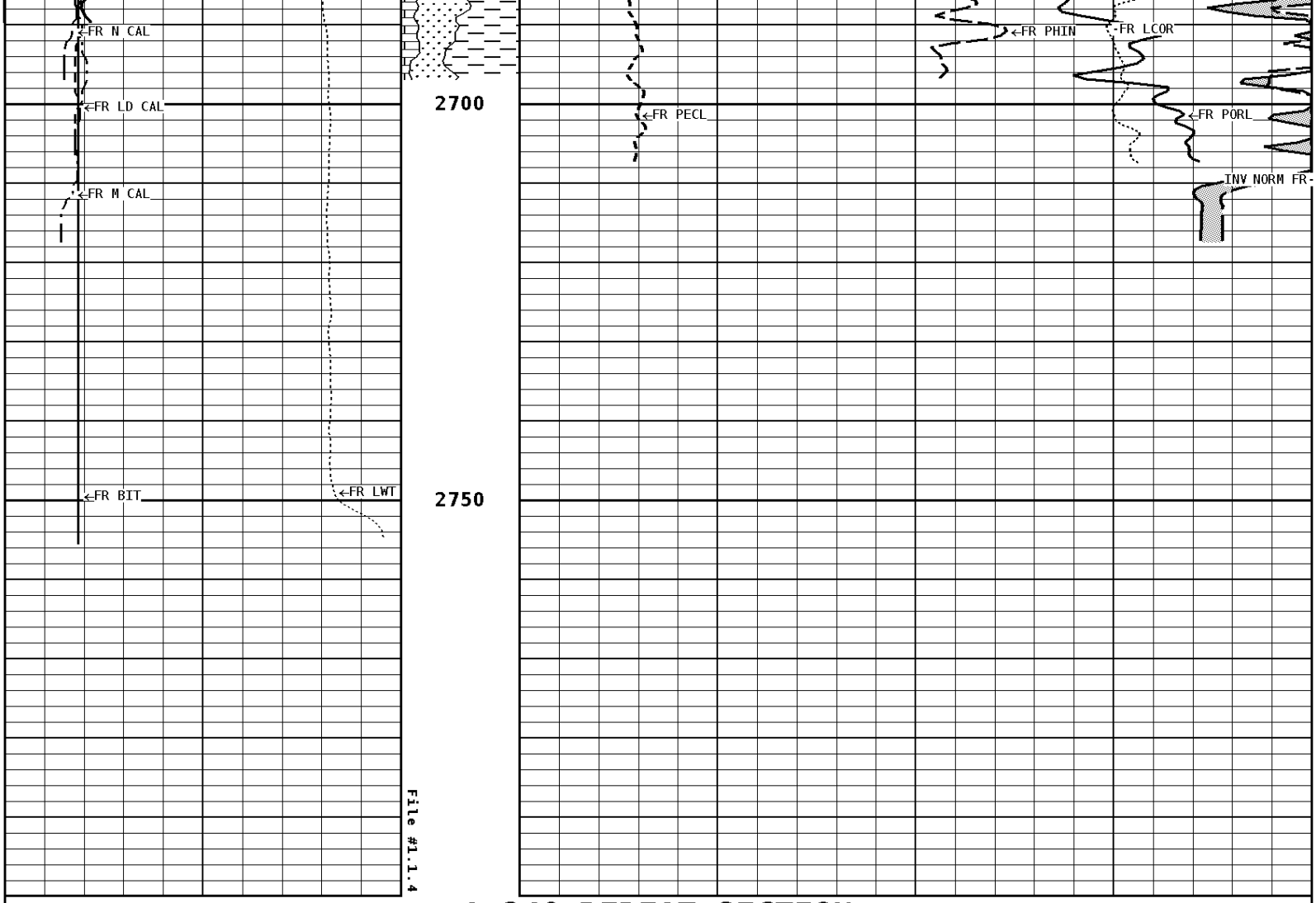
Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	

Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** NLD-240
Segment: V1.D1.S4 RP **Acquired:** 2014-11/12 22:36 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:00 3.4.0-13284

CALIPER MICRO INCHES (IN): 16 / 6 ; 26 / 16		
BIT SIZE INCHES (IN): 6 / 16		NORMAL OHMM: 0 / 40
NEUTRON (Y) CALIPER INCHES (IN): 16 / 6 ; 26 / 16		INVERSE OHMM: 0 / 40
DENSITY (X) CALIPER INCHES (IN): 16 / 6 ; 26 / 16	Volume Quartz	PE CROSS-SECTION BARNS/ELECTRON: 0 / 10
		DENSITY CORRECTION G/CC: -0.25 / 0.25
TENSION LBS: 10000 / 0	Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT: 70 / 30 / -10 ; 30 / -10 / -50
GAMMA RAY API UNITS: 150 / 0 ; 300 / 150	Volume Dolo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT: 30 / -10

1:240 REPEAT SECTION


File #1.1.4
2500
2600
FR GR



1:240 REPEAT SECTION

GAMMA RAY **API UNITS** 150 / 0 300 / 150	Volume Dolo/Shale	**NEUTRON POROSITY (LIMESTONE)** **PERCENT** 30 / -10
TENSION **LBS** 10000 / 0	Volume Calcite	**DENSITY POROSITY (2.71g/cc)** **PERCENT** 70 / 30 30 / -10 -10 / -50
DENSITY (X) CALIPER **INCHES (IN)** 16 / 6 26 / 16	Volume Quartz	**PE CROSS-SECTION** **BARNS/ELECTRON** 0 / 10
		DENSITY CORRECTION **G/CC** -0.25 / 0.25
NEUTRON (Y) CALIPER **INCHES (IN)** 16 / 6 26 / 16		**INVERSE** **OHMM** 0 / 40
BIT SIZE **INCHES (IN)** 6 / 16		**NORMAL** **OHMM** 0 / 40
CALIPER MICRO **INCHES (IN)** 16 / 6 26 / 16		

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	

Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** LDT-240
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284

BIT SIZE
INCHES (IN)
6 — 16

NEUTRON (Y) CALIPER
INCHES (IN)
16 — 26
6 — 16

DENSITY (X) CALIPER
INCHES (IN)
16 — 26
6 — 16

PE CROSS-SECTION
BARNS/ELECTRON
0 — 10

DENSITY CORRECTION
G/CC
-0.25 — 0.25

TENSION
LBS
10000 — 0

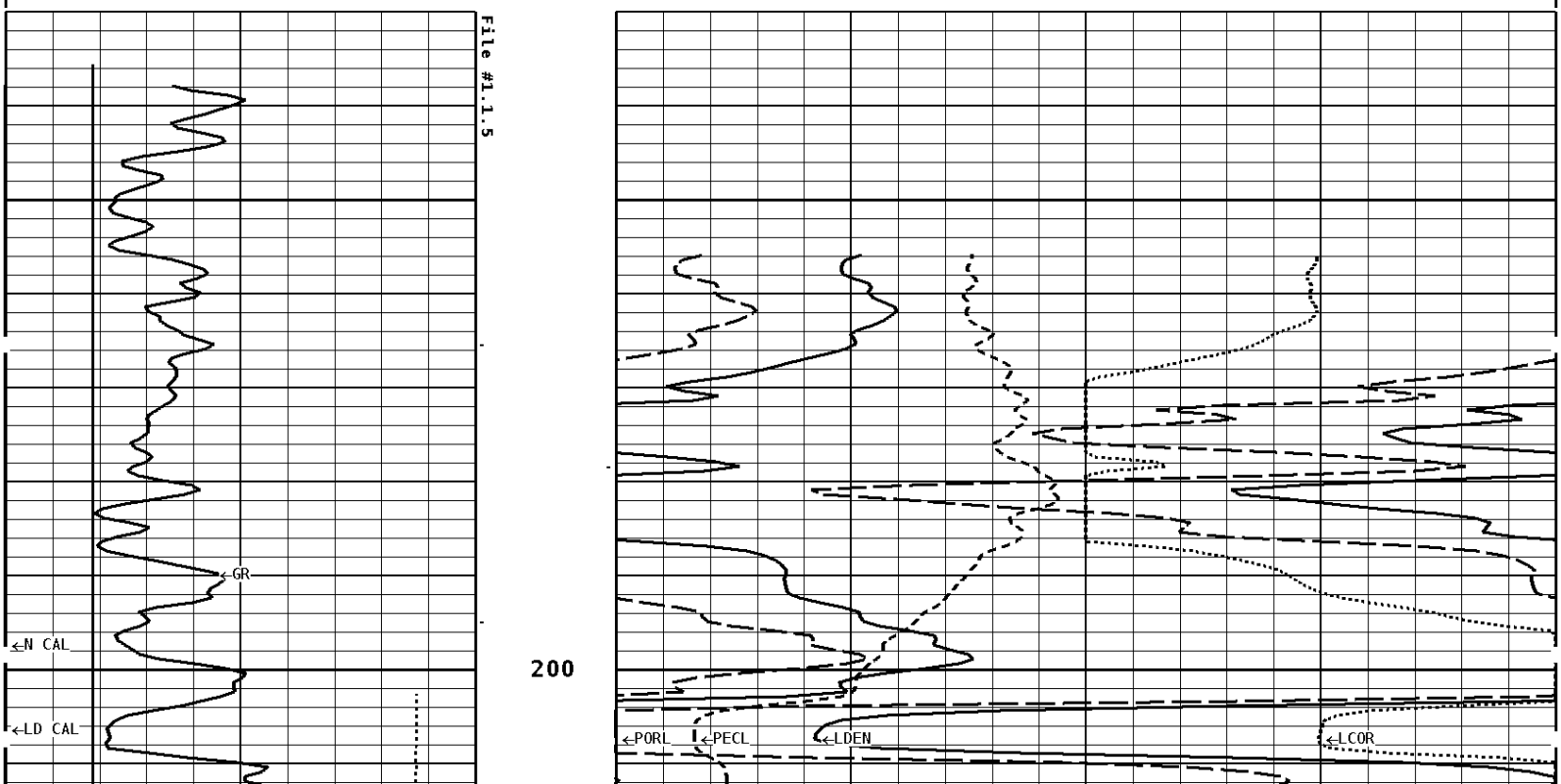
COMPENSATED BULK DENSITY
G/CC
3.0 — 4.0
2.0 — 3.0
1.0 — 2.0

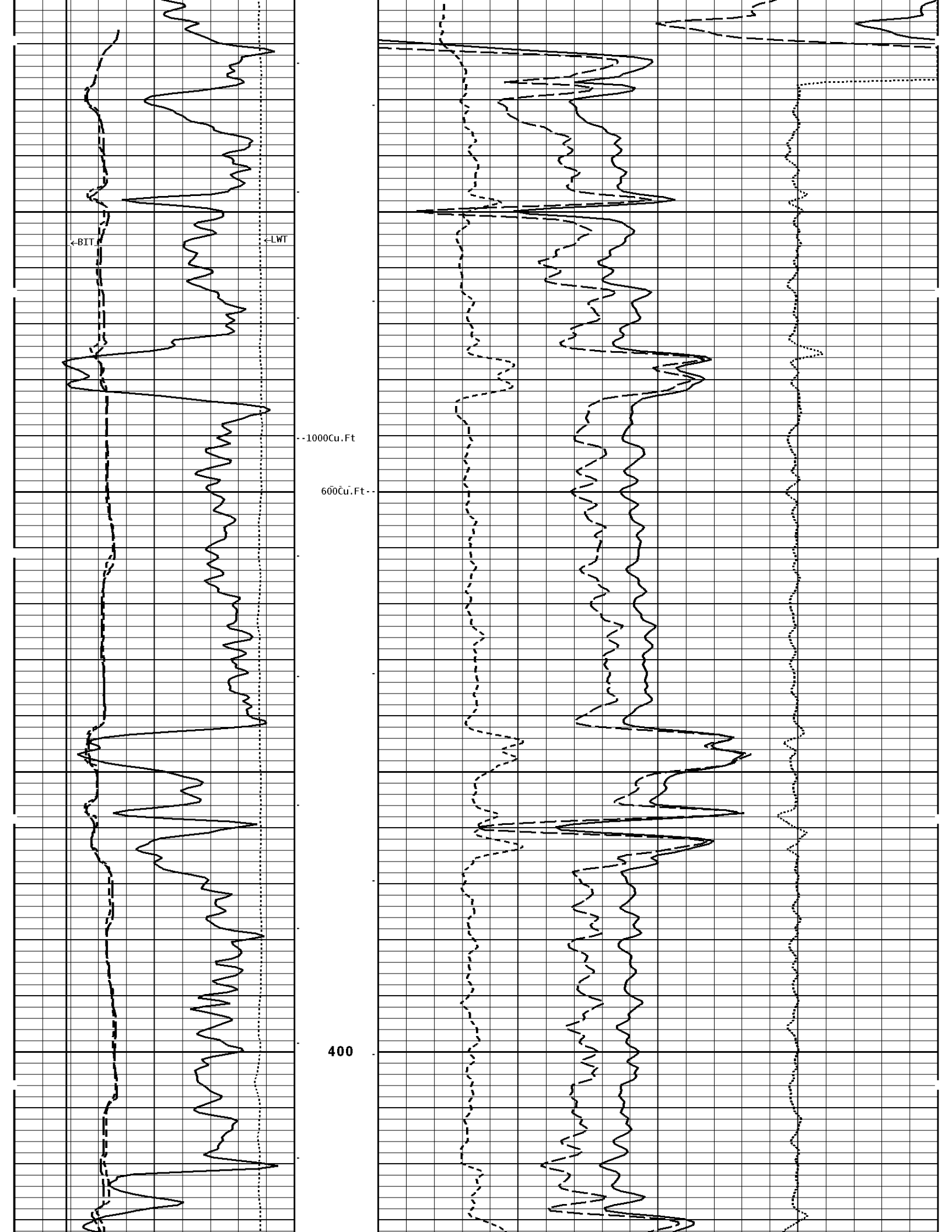
GAMMA RAY
API UNITS
150 — 300
0 — 150

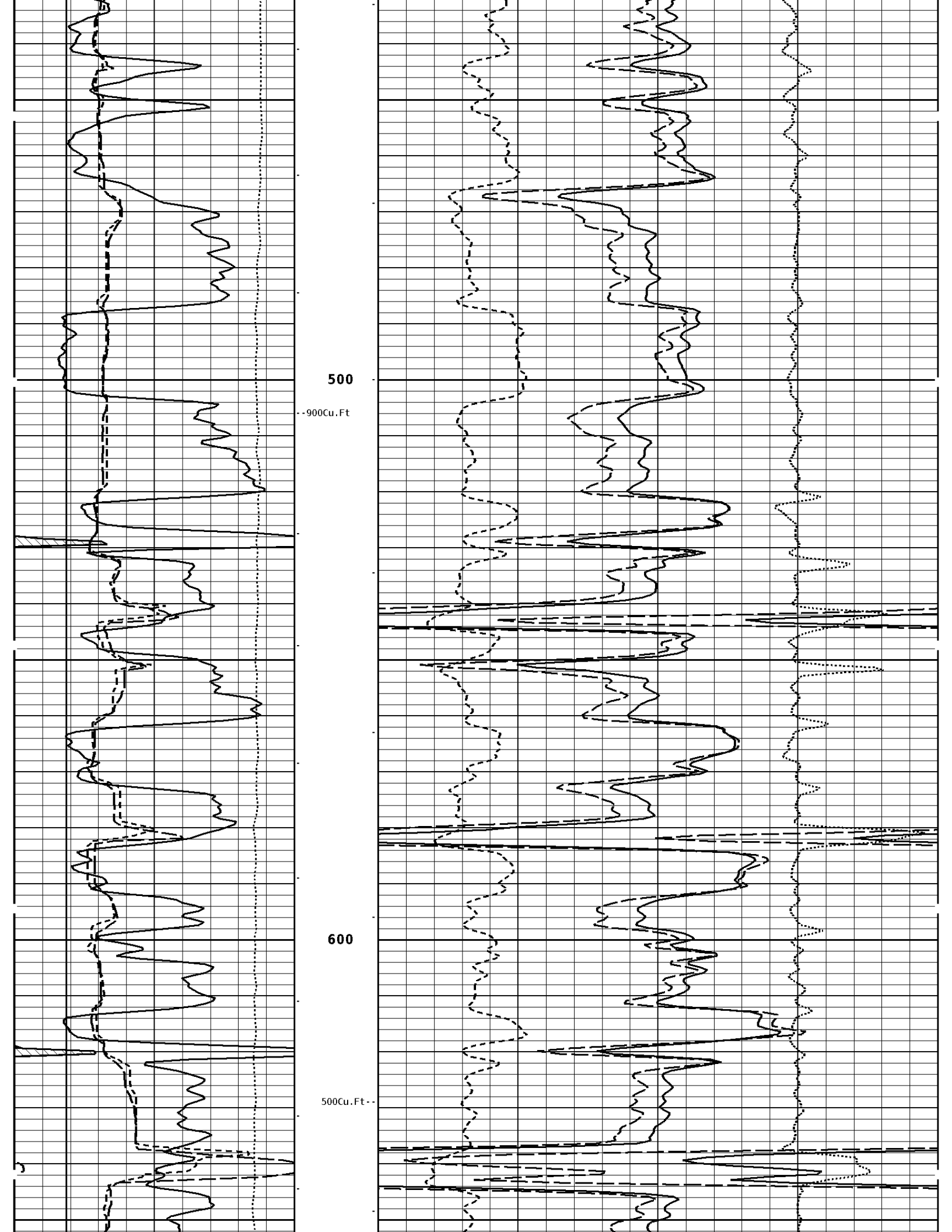
-BHV AHV-
CU.FT

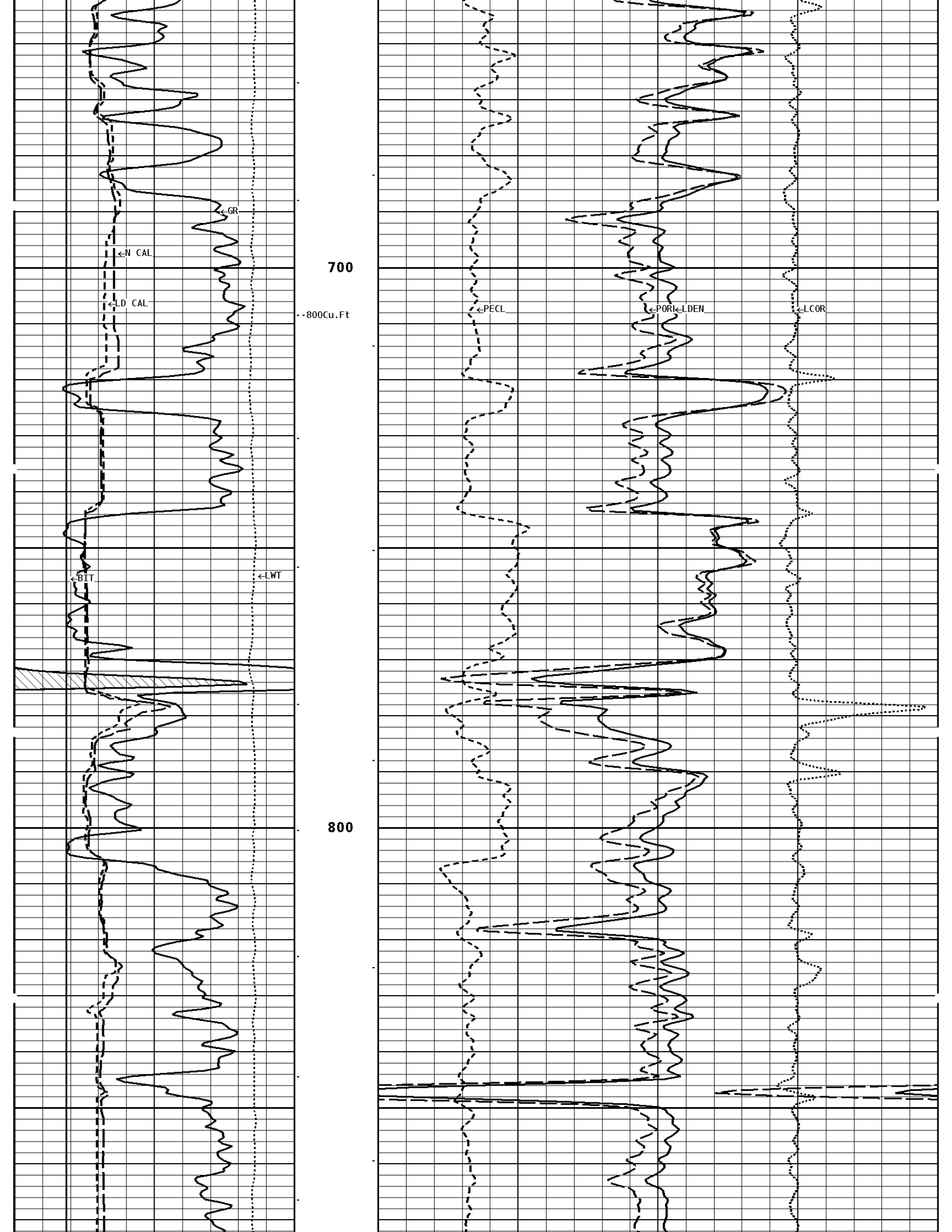
DENSITY POROSITY (2.71g/cc)
PERCENT
70 — 30
30 — -10
-10 — -50

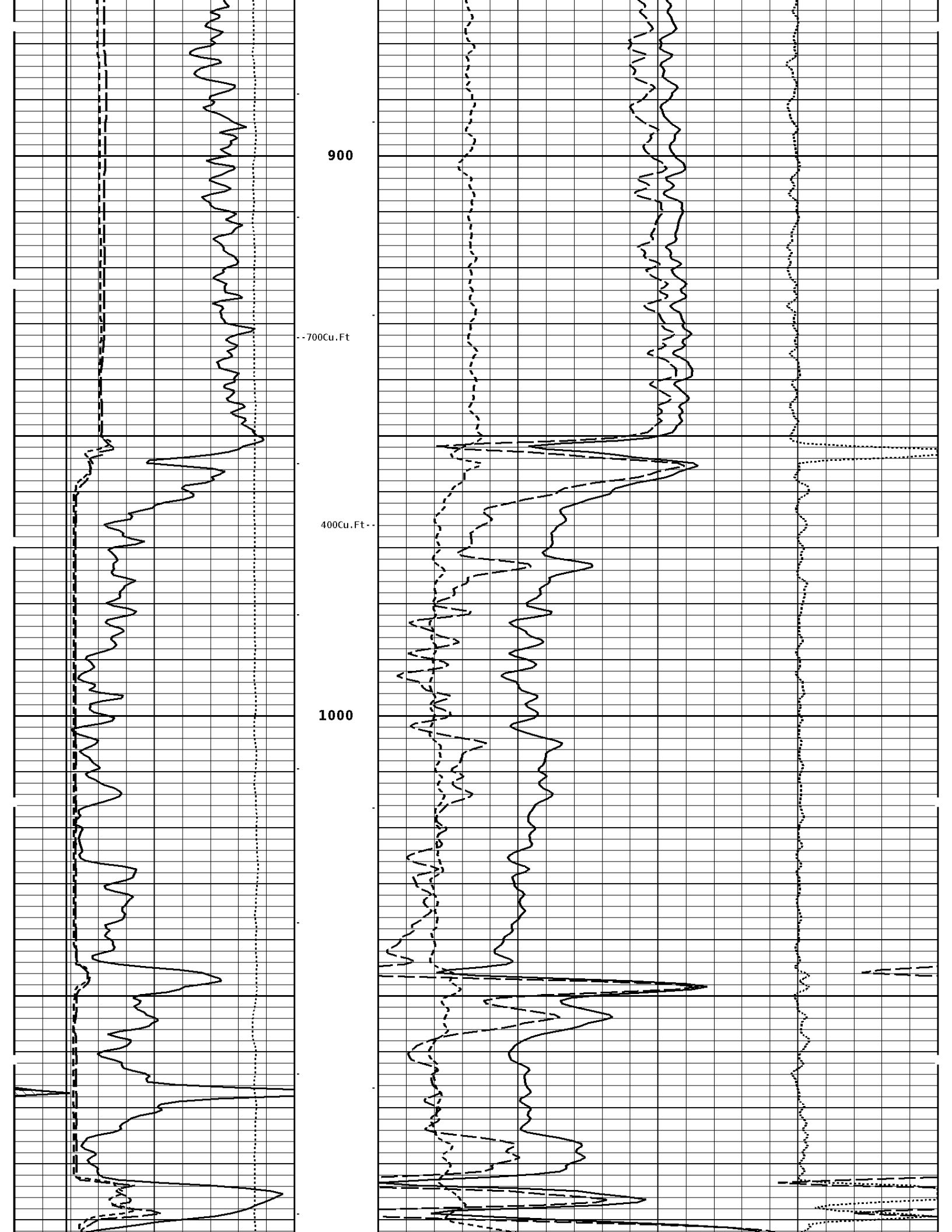
1:240 MAIN SECTION
BULK DENSITY

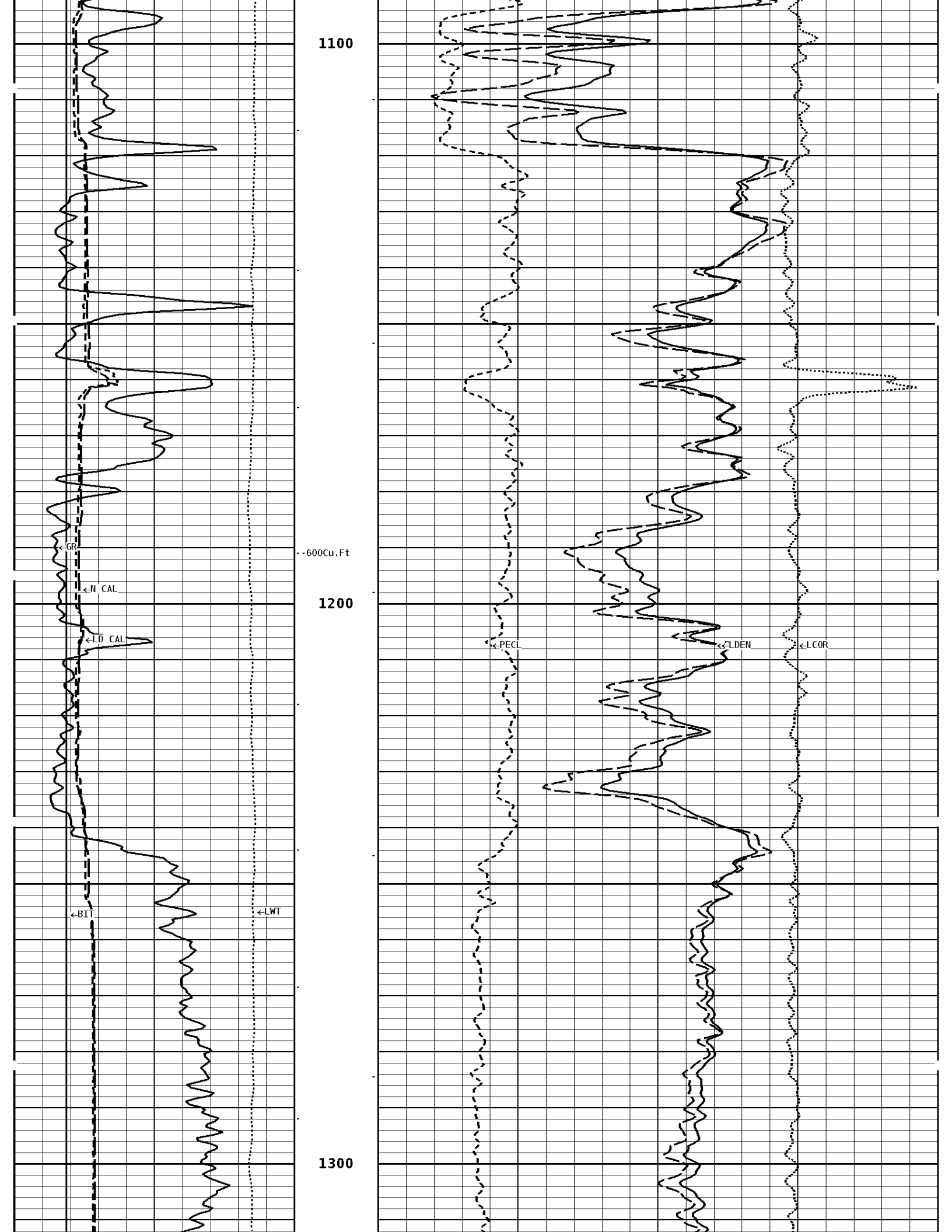


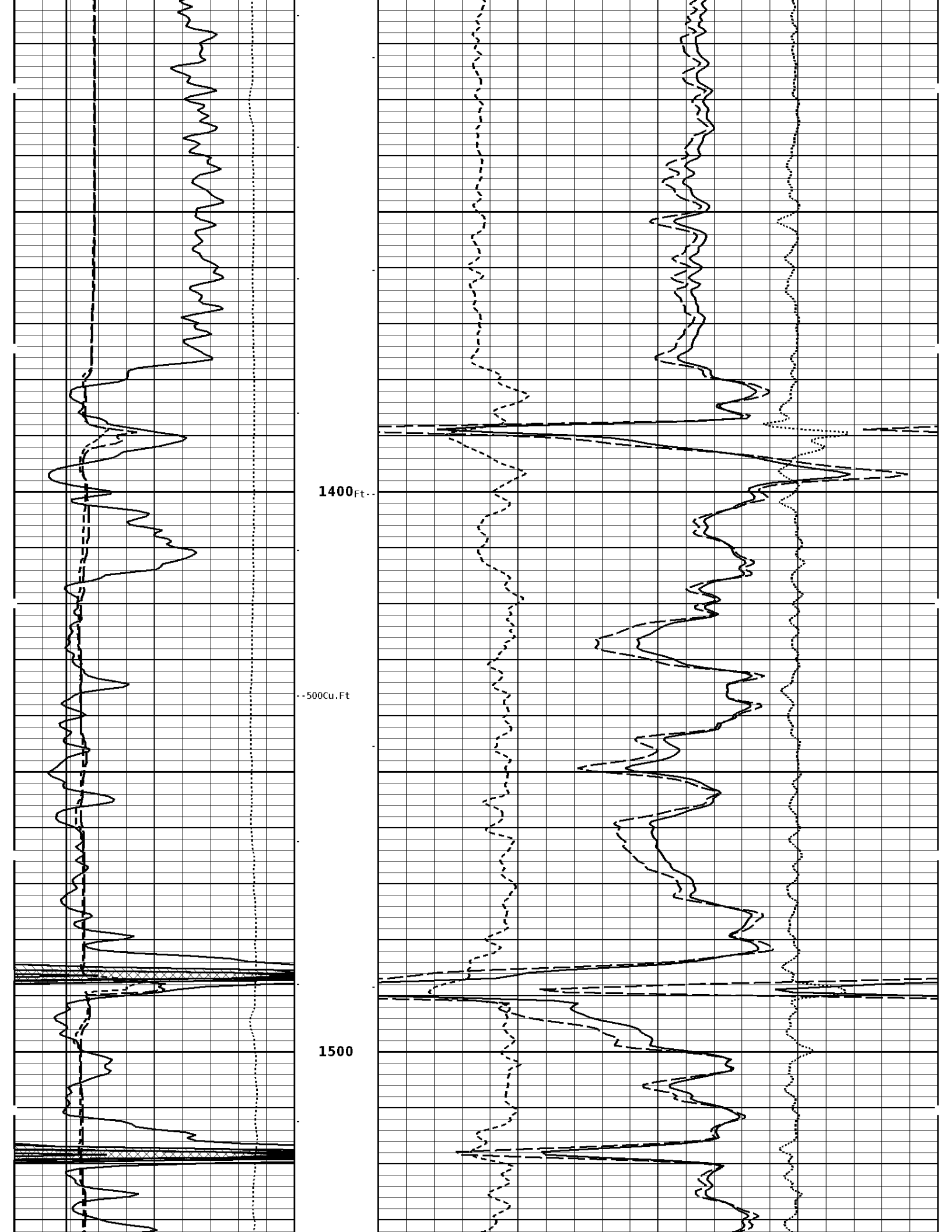

←BIT
←LWT
1000Cu.Ft
600Cu.Ft
400

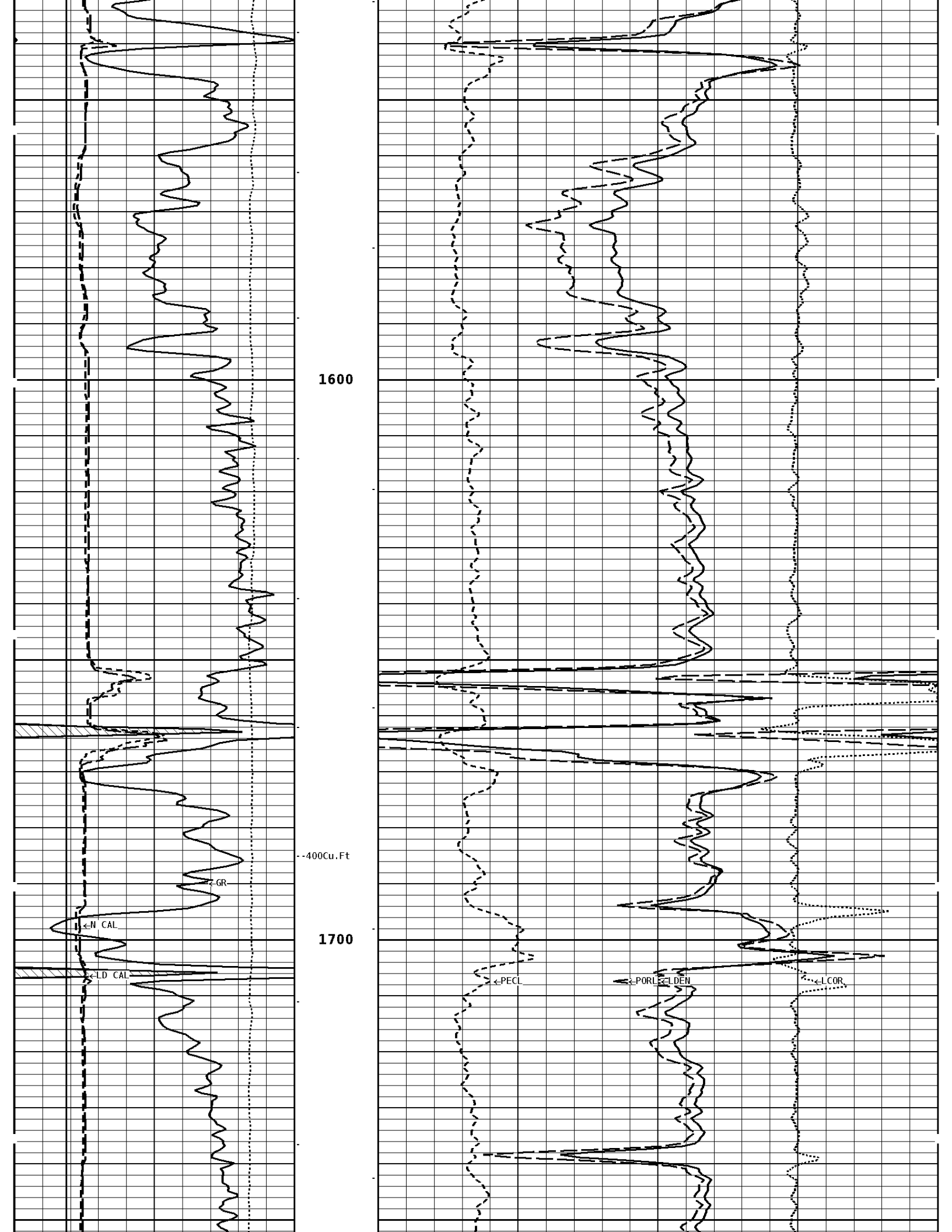

500
--900Cu.Ft
600
500Cu.Ft--

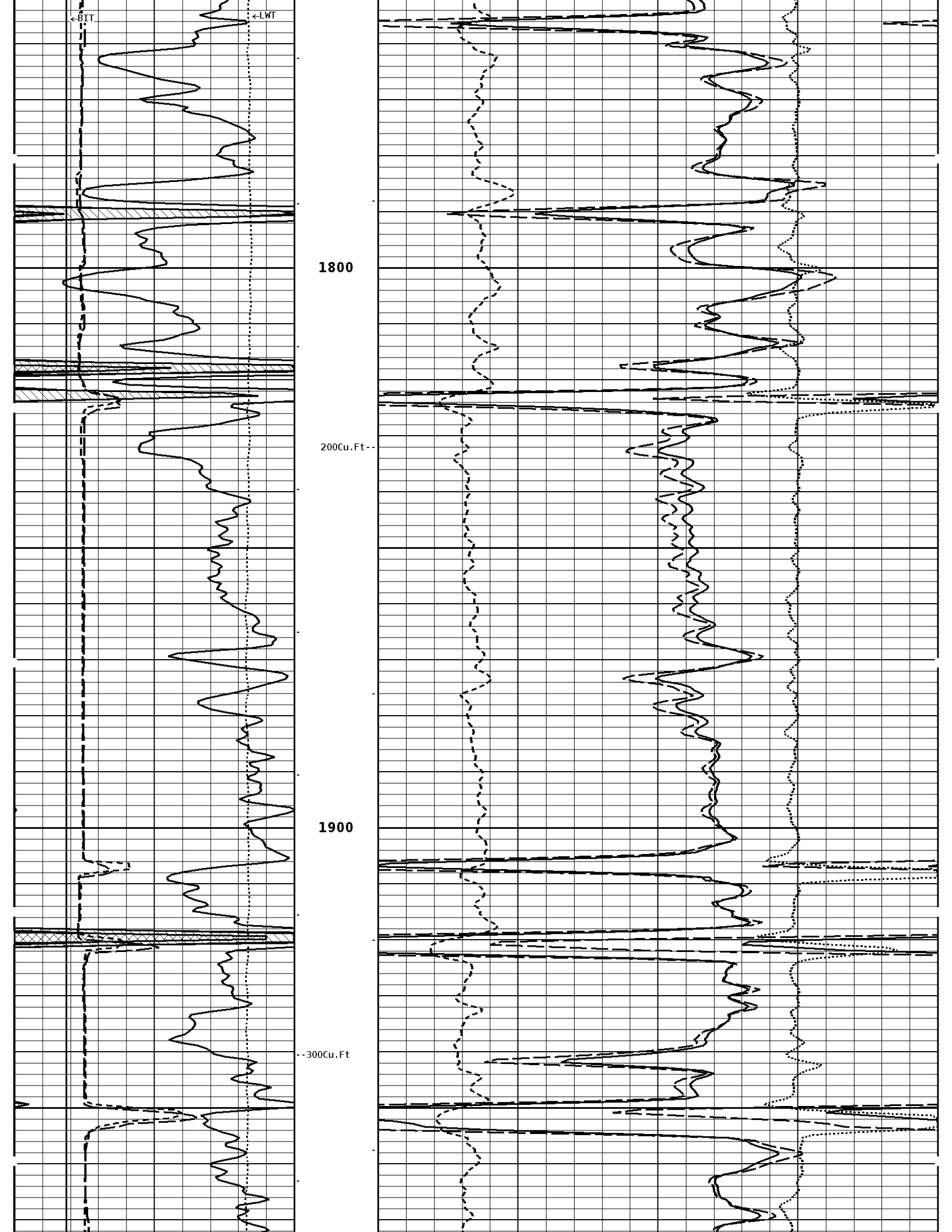

GR
N CAL
LD CAL
700
--800Cu.Ft
PECL
PORI
LDEN
LCOR
BIT
LWT
800

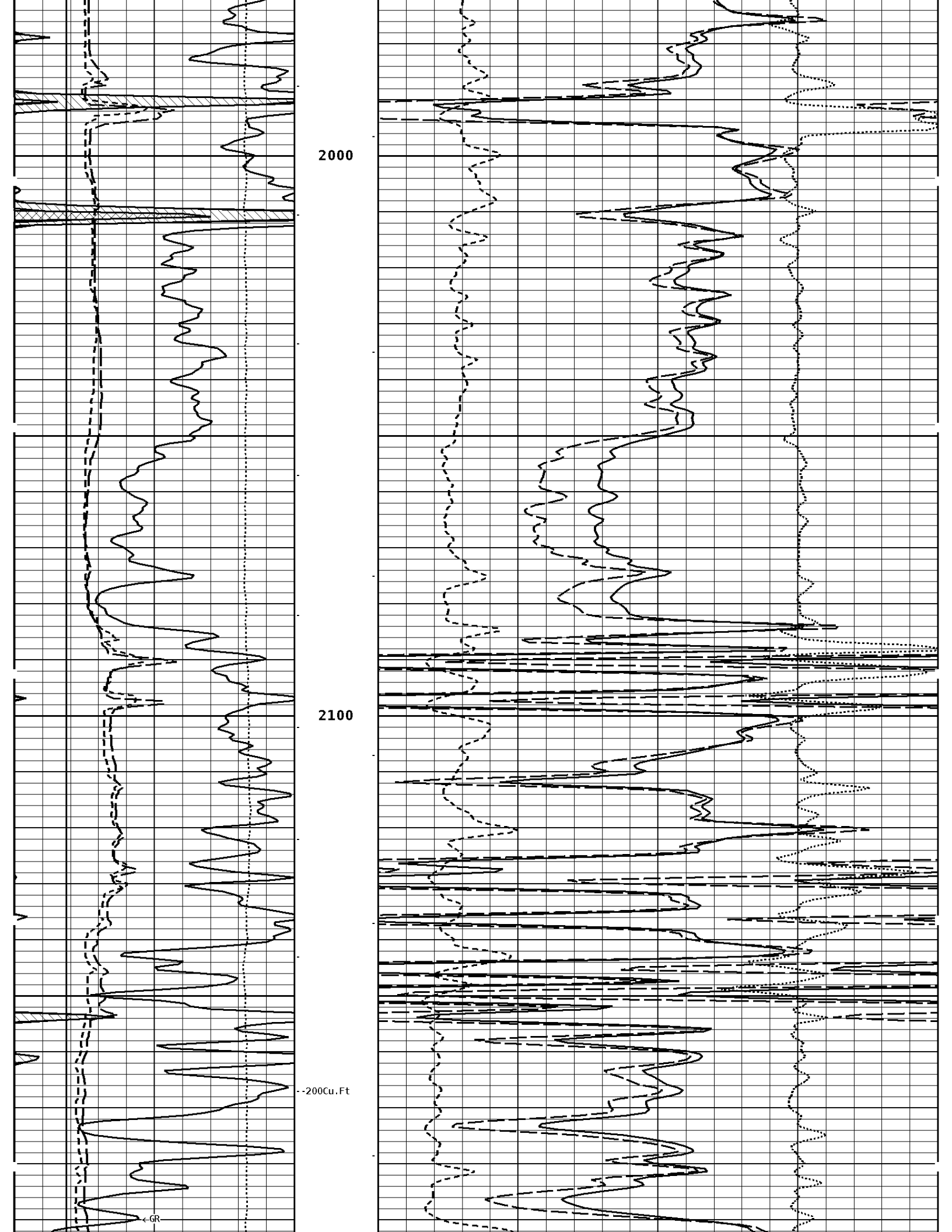

900
--700Cu.Ft
400Cu.Ft--
1000

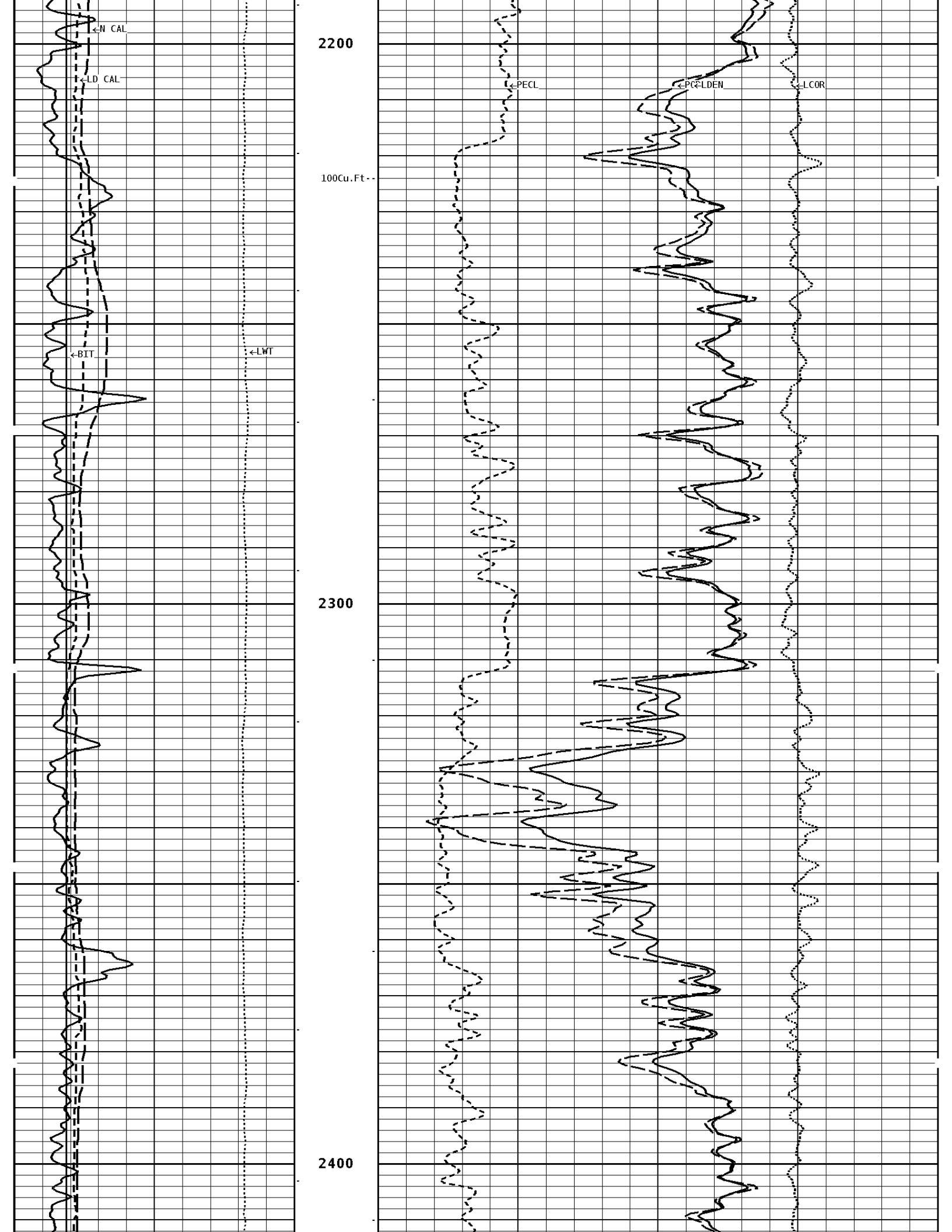

1100
←GR
←N CAL
←LD CAL
←BIT
←LWT
--600Cu.Ft
1200
←PECL
←LDEN
←LCOR
1300

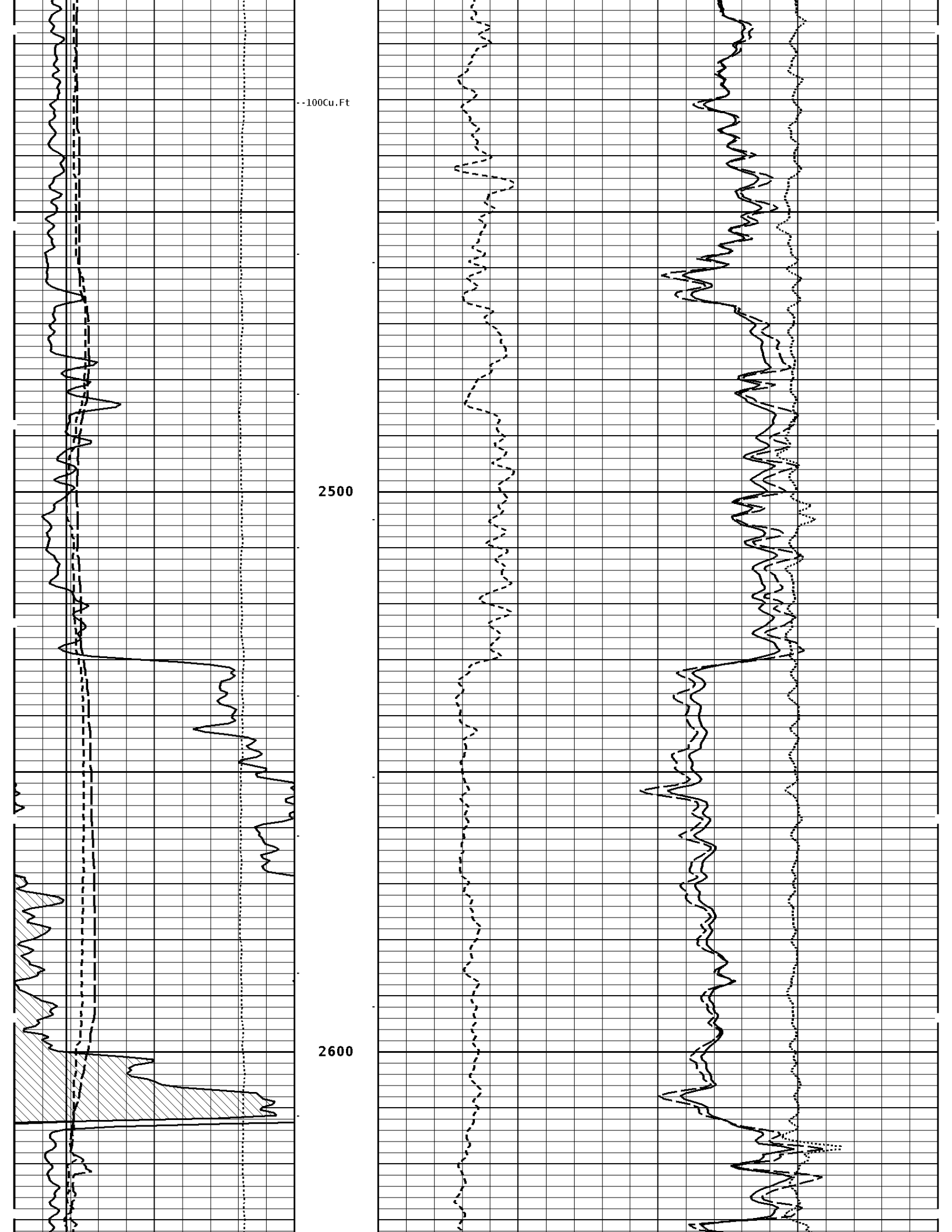

1400Ft
--500Cu.Ft
1500

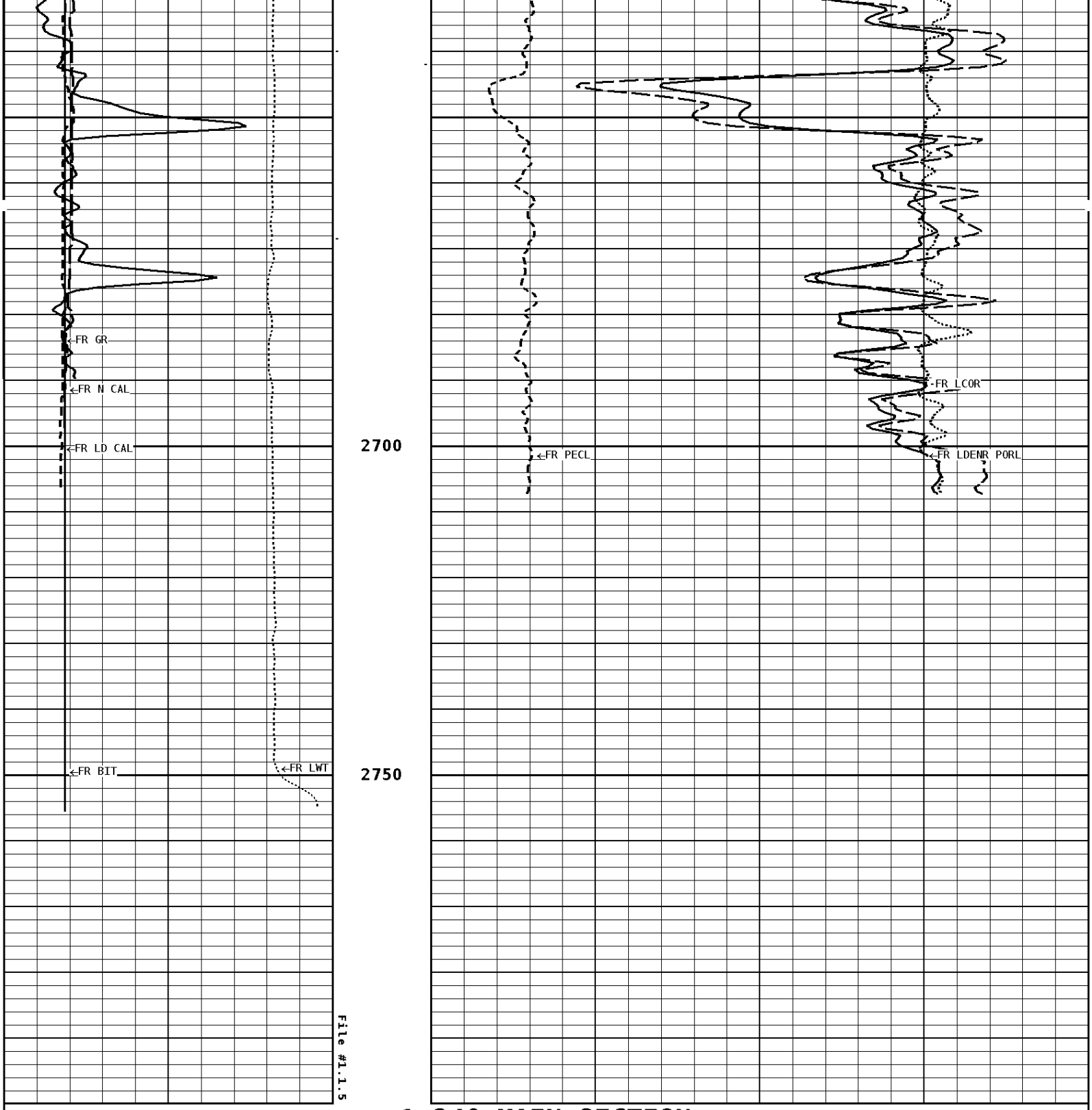

1600
--400Cu.Ft
←GR
←N CAL
1700
←LD CAL
←PECL
←PORL
←LDEN
←LCOR


←BIT
←LWT
1800
200Cu.Ft--
1900
--300Cu.Ft


2000
2100
--200Cu.Ft
←GR


←N CAL
←LD CAL
←BIT
←LWT
2200
100Cu.Ft--
←PECL
←PCALDEN
←LCOR
2300
2400


--100Cu.Ft
2500
2600



1:240 MAIN SECTION

BULK DENSITY

GAMMA RAY API UNITS	-BHV AHV- CU.FT	DENSITY POROSITY (2.71g/cc) PERCENT
150 300 0 150		70 30 30 -10 -10 -50
TENSION LBS		COMPENSATED BULK DENSITY G/CC
10000 0		3.0 4.0 2.0 3.0 1.0 2.0
DENSITY (X) CALIPER INCHES (IN)		PE CROSS-SECTION BARNS/ELECTRON / DENSITY CORRECTION G/CC

16	26
6	16

0	10

-0.25	0.25

NEUTRON (Y) CALIPER INCHES (IN)

16	26
6	16

BIT SIZE INCHES (IN)

6	16

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Correction (PHI N)	Disable	

* Calibration Summary *

Shop Calibration
GRT-B

Performed : 23-OCT-2014 Time : 09:31
Sensor Suite : GR-GR5 ID : GRT-BB-107

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	75	381	CPS	175	GRAPI

Shop Calibration
CNT-AA

Performed : 05-NOV-2014 Time : 11:41
Sensor Suite : CALI-BCN ID : NDT-BB-103

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	9.1	14.0	6.0	12.0	IN.

Performed : 05-Nov-2014 Time : 09:41
Sensor Suite : BHC NEUT ID : CNP-AA-116-
Source ID : N-1045

	Tank Measured	Tank Calibrated	Verification Jig	Units
N/F	3.8180	3.6893	3.6933	
Porosity	22.5	20.5	20.6	%

Shop Calibration
LDT-DA

Performed : 05-NOV-2014 Time : 10:50
Sensor Suite : CALI-LTH ID : PDT-GA-464

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	8.0	11.5	6.0	12.0	IN.

Performed : 05-Nov-2014 Time : 10:35
Sensor Suite : BHCPELNG ID : LDP-DA-067
Source ID : 2991GW

	Short Space BKGD	Short Space Al	Short Space Mg	Short Space Al+Fe	Units
LSW1	61	1065	1728	697	CPS
LSW2	65	1220	1942	894	CPS
LSW3	240	2804	4527	2386	CPS
LSW4	296	2541	3712	2248	CPS
LSW5	39	66	73	64	CPS
LSW6	66	72	71	71	CPS
LSW7	48	51	52	51	CPS
LSW8	10	12	13	11	CPS
QS	0.152	0.166	0.158	0.168	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC

Long Space

	BKGD	Al	Mg	Al+Fe	Units
LLW1	89	1206	4966	736	CPS
LLW2	98	2065	8163	1523	CPS
LLW3	371	3784	14505	3275	CPS
LLW4	478	1798	5791	1636	CPS
LLW5	52	62	113	61	CPS
LLW6	158	155	147	154	CPS
LLW7	101	97	95	98	CPS
LLW8	3	5	16	5	CPS
QL	0.223	0.228	0.215	0.223	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC

Shop Calibration
MST-DA

Performed : 10-SEP-2014 Time : 09:51
Sensor Suite : CALI-MSN ID : MST-DA-057

	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	7.3	11.5	6.0	12.0	IN.

Performed : 10-Sep-2014 Time : 09:43
Sensor Suite : MSTDA-NI ID : MST-DA-057

Internal

	Measured			Calibrated		
	Zero	Reference	Units	Zero	Reference	Units
INV-V	297.1	30434.1		0.00	1536.00	MV
NOR-V	171.1	30363.7		0.00	1636.00	MV
IN-C	169.1	30673.9		0.00	15.46	UA
INV-R					32.14	OHMM
NOR-R					58.31	OHMM

Performed : 10-Sep-2014 Time : 09:45
Sensor Suite : MSTDAMSF ID : MST-DA-057

Internal

	Measured			Calibrated		
	Zero	Reference	Units	Zero	Reference	Units
MSFC	19.0	42587.4		0.00	1522.00	UA
MSFB	32762.8	52821.0		0.00	1522.00	MA
MOM1	0.0	42307.4		0.00	1522.00	MV
MSFRA					43.30	OHMM

Tucker ENERGY SERVICES

Company: CROSS BAR ENERGY, LLC

Well: BURKETT 'D' #40

Location: 330' FSL & 530' FEL

Logged: 11-12-2014

K.B. Elev: 0.0 Ft

Tucker ENERGY SERVICES

BOREHOLE COMPENSATED SONIC LOG

Company CROSS BAR ENERGY, LLC
Well BURKETT 'D' #40
Field BURKETT
County GREENWOOD
State KANSAS
Country USA
API No. 15-073-24225-00-00

File No : TUL-58487
Company : CROSS BAR ENERGY, LLC
Well : BURKETT 'D' #40
Field : BURKETT
County : GREENWOOD
State : KANSAS
Country : USA
API No : 15-073-24225-00-00

Location :
330' FSL & 530' FEL
W2 SE SE SE

LSD : **Sect :** 23S **Twp :** 23 **Rge :** 10E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	CST
Log Measured From:	GL	**DF**	0.00 Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	**GL**	1226.00 Ft	MST	

Date	11-12-2014			
Run Number	1			
Depth--Driller	2750.0 Ft			
Depth--Logger	2750.0 Ft			
First Reading	2737.0 Ft			
Last Reading	205.0 Ft			
Casing--Driller	210.0 Ft			
Casing--Logger	205.0 Ft			
Bit Size	7.875 In			
Casing Size	8.625 In			
Hole Fluid Type	WBM			
Density	9.2 ppg			
Fluid Loss	0.0			
PH/Viscosity	0.0	50.0		
Sample Source	MEASURED			
RM@Measured Temp.	2.000 @ 60 F			
RMF@Measured Temp	1.600 @ 60 F			
RMC@Measured Temp.	2.400 @ 60 F			
Source RMF/RMC	CALCULATED	CALCULATED		
RM@BHT	1.200 @ 100 F			
Time Circulation Stopped	11-12-2014 7:00 pm			
Max Recorded Temp.	100 F			
Equipment/Base	TRK-126	TULSA		
Recorded By	SEAN DAVIS / AMOUR DJAHO			
Witnessed By	ALBERT BRENSING			

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	2750.00

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
8.625	32.00	205.00	0.00

Run Number	1
Date	11-12-2014
Date/Time On Bottom	11-12-2014 9:00 pm
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	0.960 @ 100 F
RMC@BHT	1.440 @ 100 F

Run Number 1

Comments

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

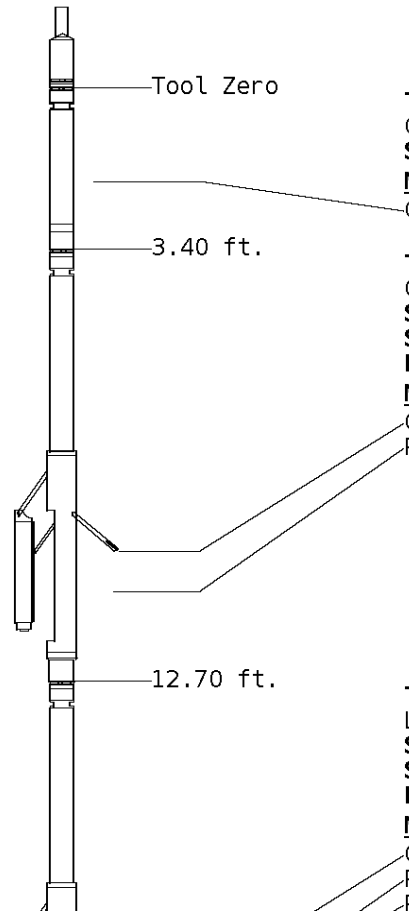
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

C. GONZALES
K. JOSH

Tool String Schematic

Total Tool Length - 66.95 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 1171.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BB-107

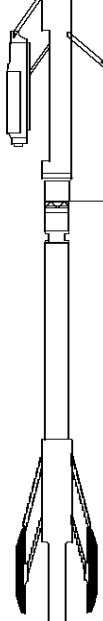
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	64.95

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-BB-103
Source ID :N-1045
Pad ID :CNP-AA-116-

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	57.55
PHIN	6.80	10.20	56.75

Tool: LDT-DA **Length:** 9.30 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-067

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	48.25
PEL	7.00	19.70	47.25
PES	7.40	20.10	46.85



LDEN	7.20	19.90	47.05
LCOR	7.20	19.90	47.05

22.00 ft.

Tool: MST-DA **Length:** 9.66 **ft.** **O.D.** 6.00 **in.**
Micro Spherically Focused (IC)
Sonde ID :MST-DA-057

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35

31.66 ft.

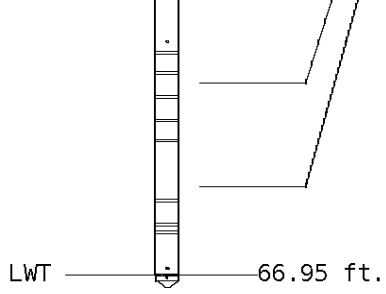
Tool: CST-AD **Length:** 13.80 **ft.** **O.D.** 3.60 **in.**
Open Hole Sonic
Sonde ID :CST-AB-25

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49

45.46 ft.

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** CST-240
Segment: V1.D1.S5 MN **Acquired:** 2014-11/12 22:48 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:18 3.4.0-13284

TT4 uSEC
950 — 50

NEUTRON (Y) CALIPER INCHES (IN)
16 — 26
6 — 16

TT3 uSEC
950 — 50

DENSITY (X) CALIPER INCHES (IN)
16 — 26
6 — 16

TT2 uSEC
950 — 50

BIT SIZE INCHES (IN)
6 — 16

TT1 uSEC
950 — 50

TENSION LBS
10000 — 0

COMPENSATED SONIC TRAVEL TIME uSEC/FT
240 — 140
140 — 40

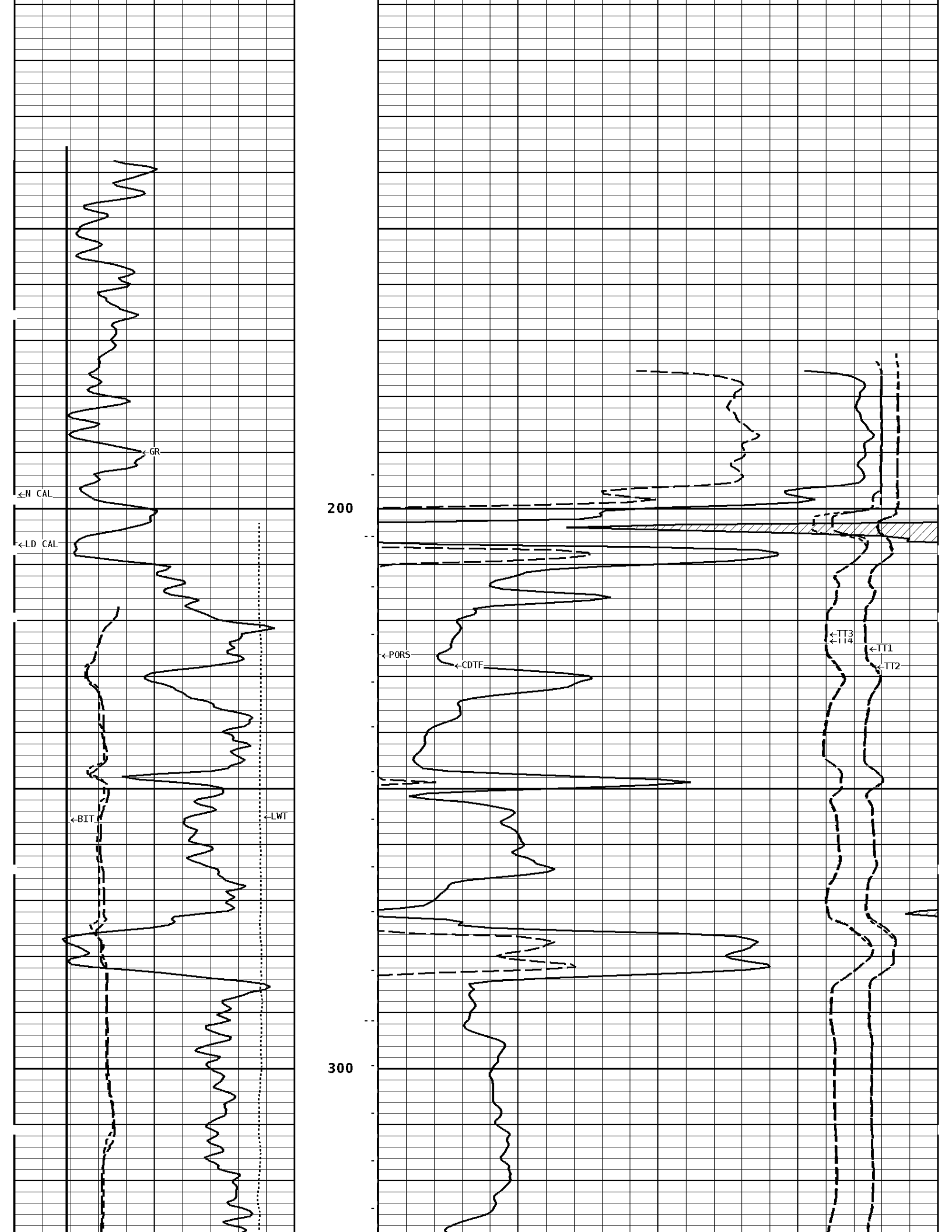
GAMMA RAY API UNITS
150 — 300
0 — 150

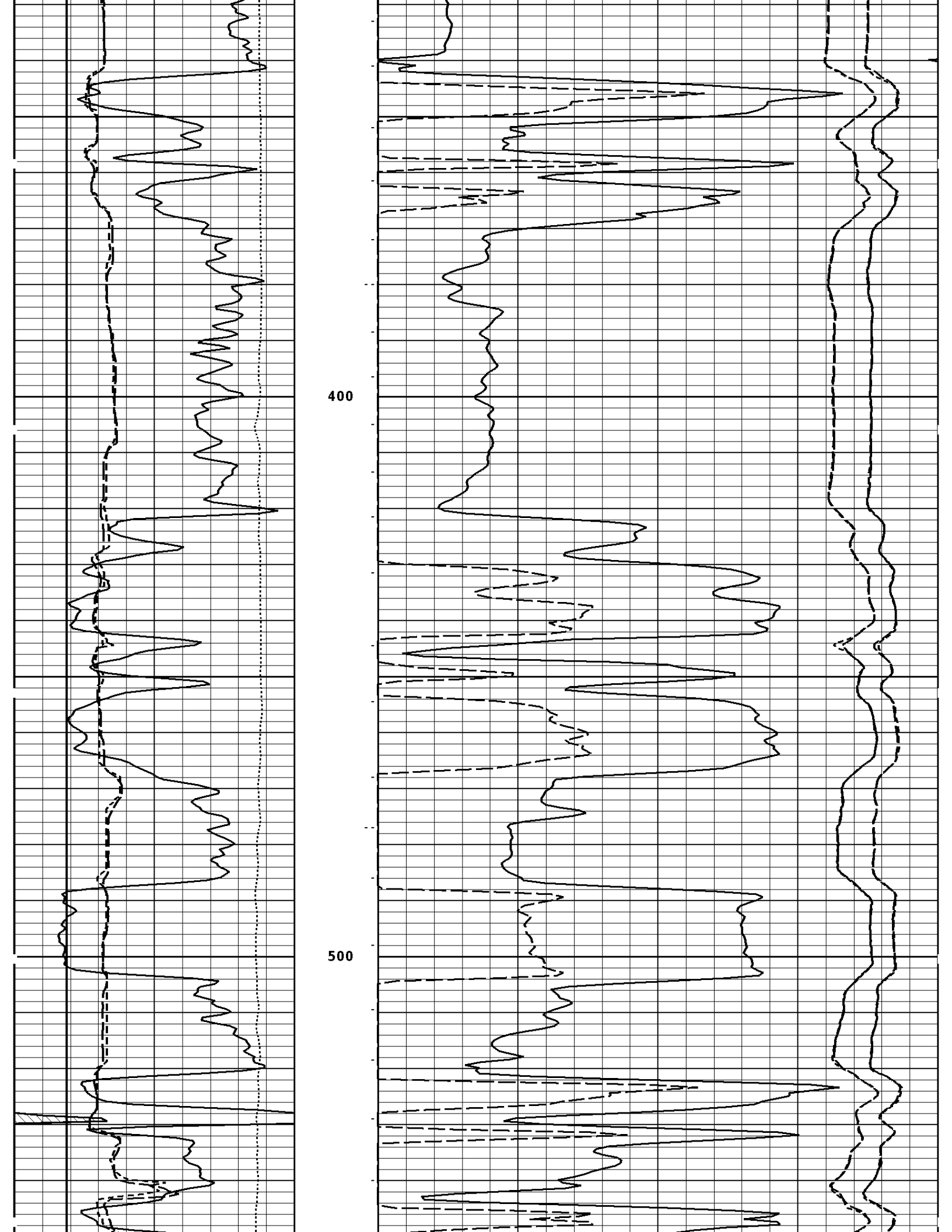
SONIC POROSITY PERCENT
30 — -10

1:240 MAIN SECTION

File #1.1.5

100


GR
N CAL
LD CAL
BIT
LWT
200
300
PORS
CDTF
TT3
TT4
TT1
TT2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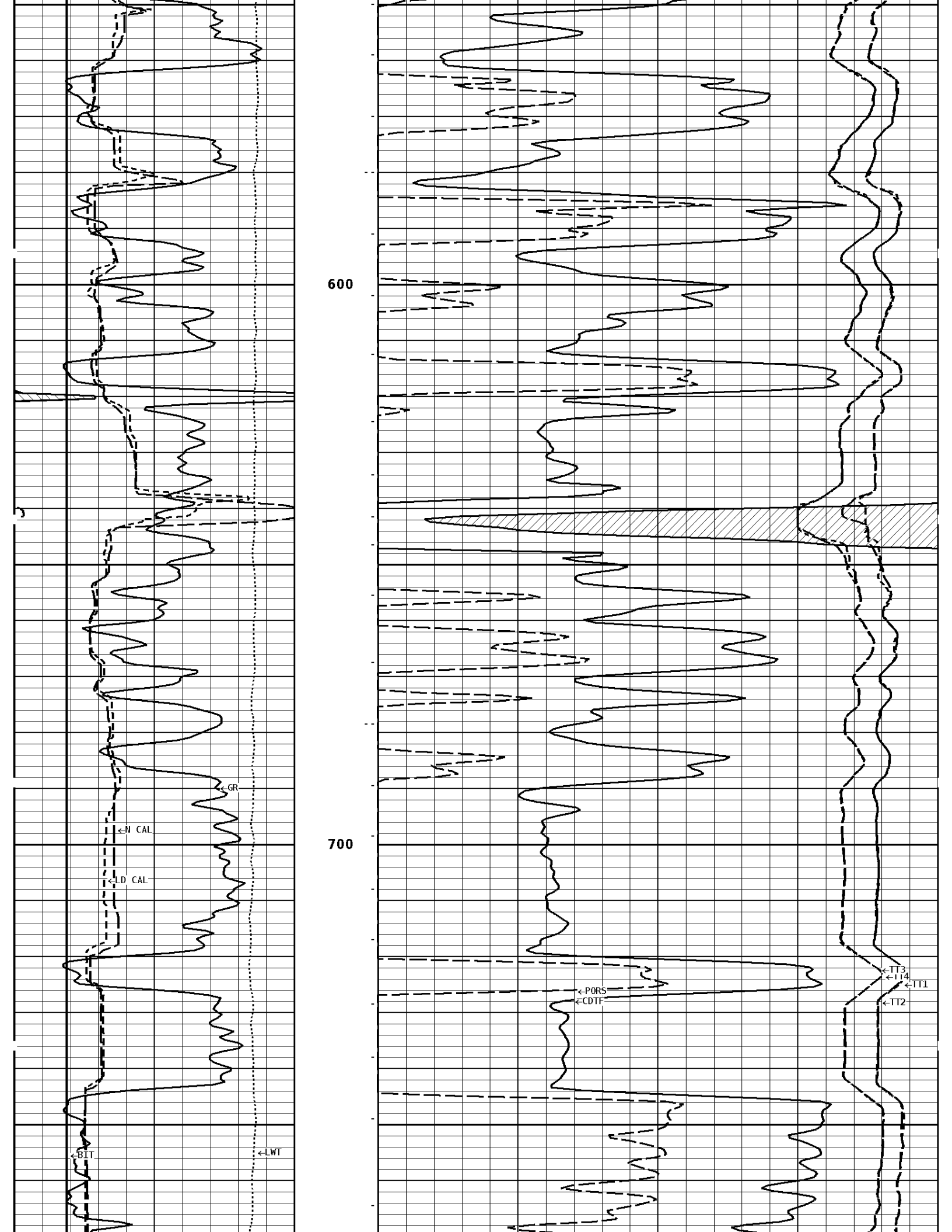
500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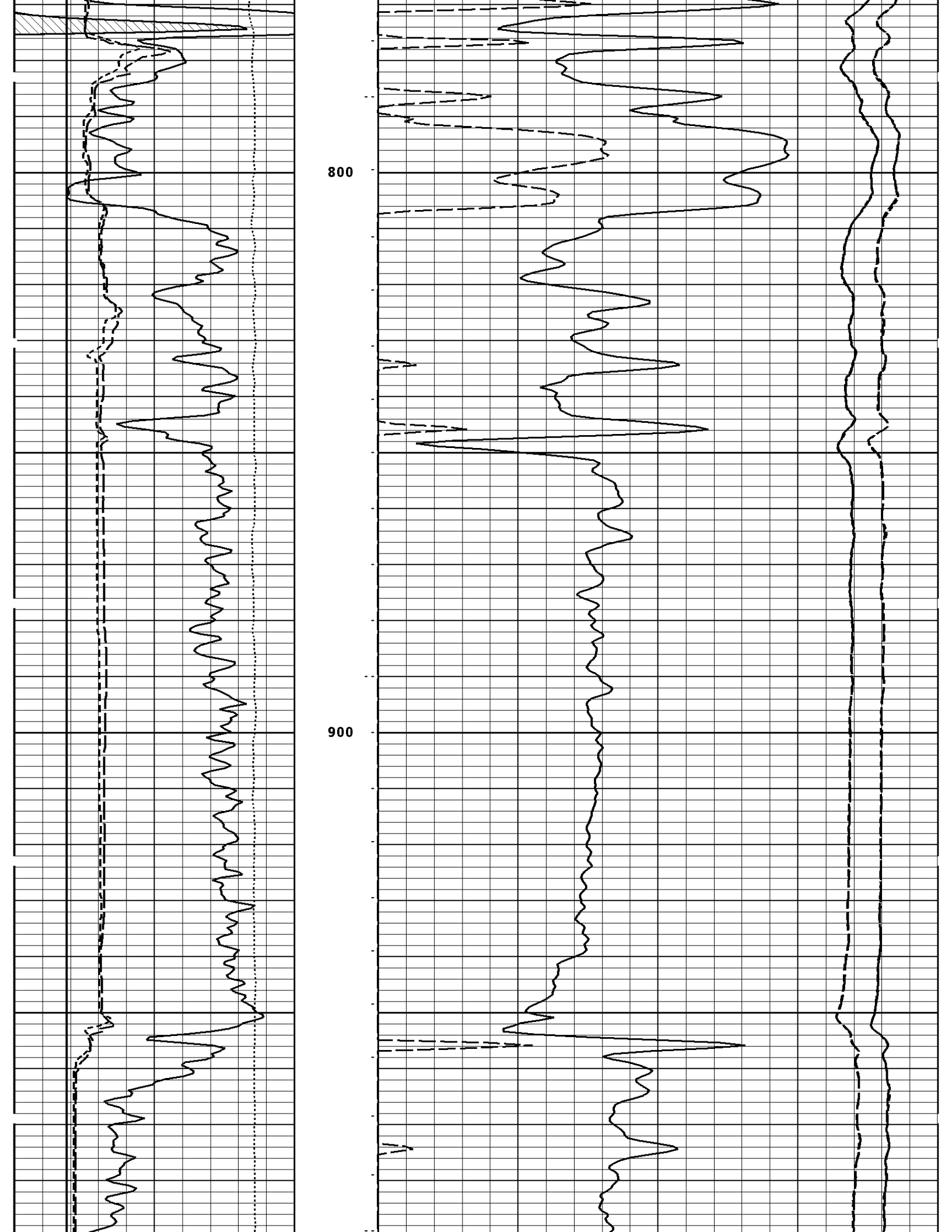
700
GR
N CAL
LD CAL
BIT
LWT
PORS
CDTF
TT3
TT4
TT1
TT2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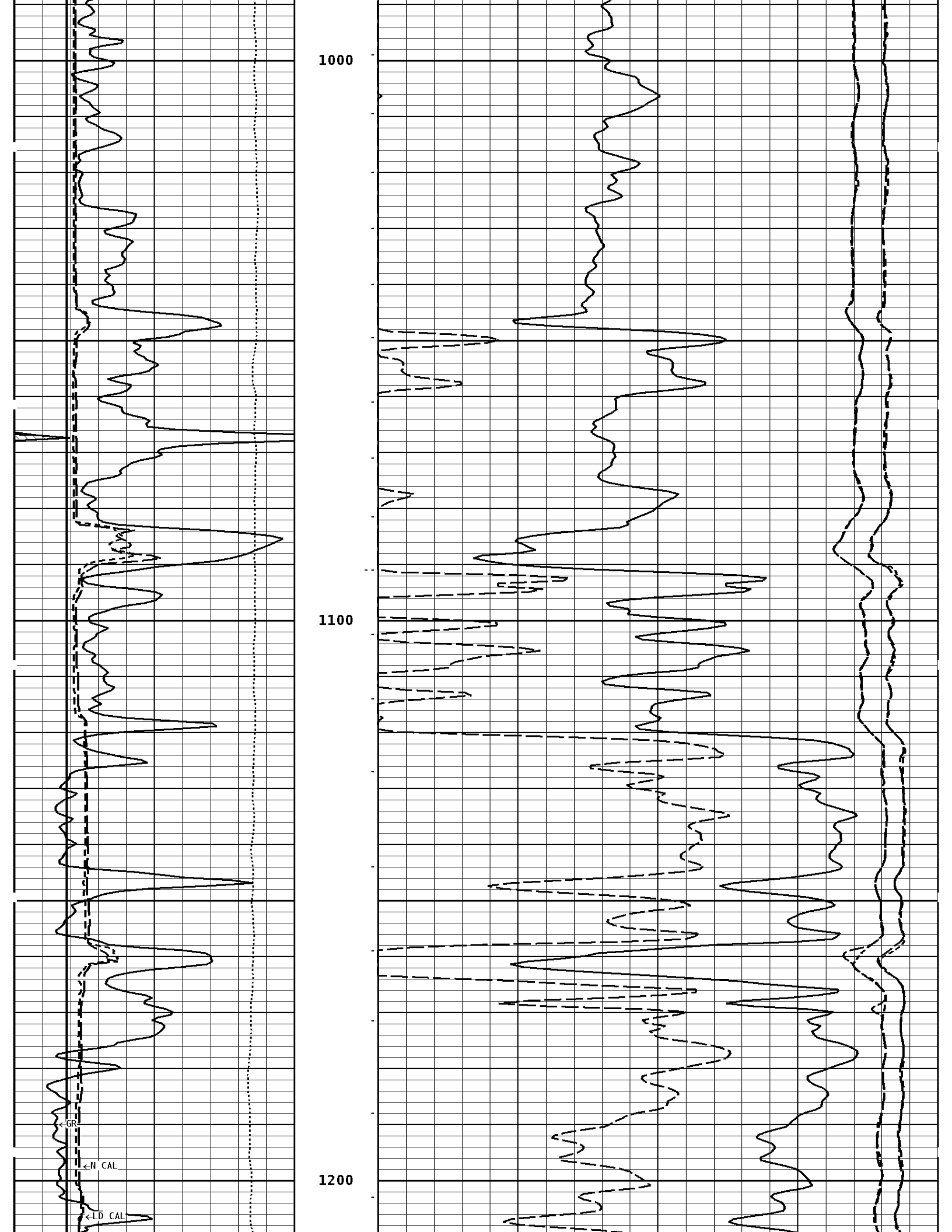
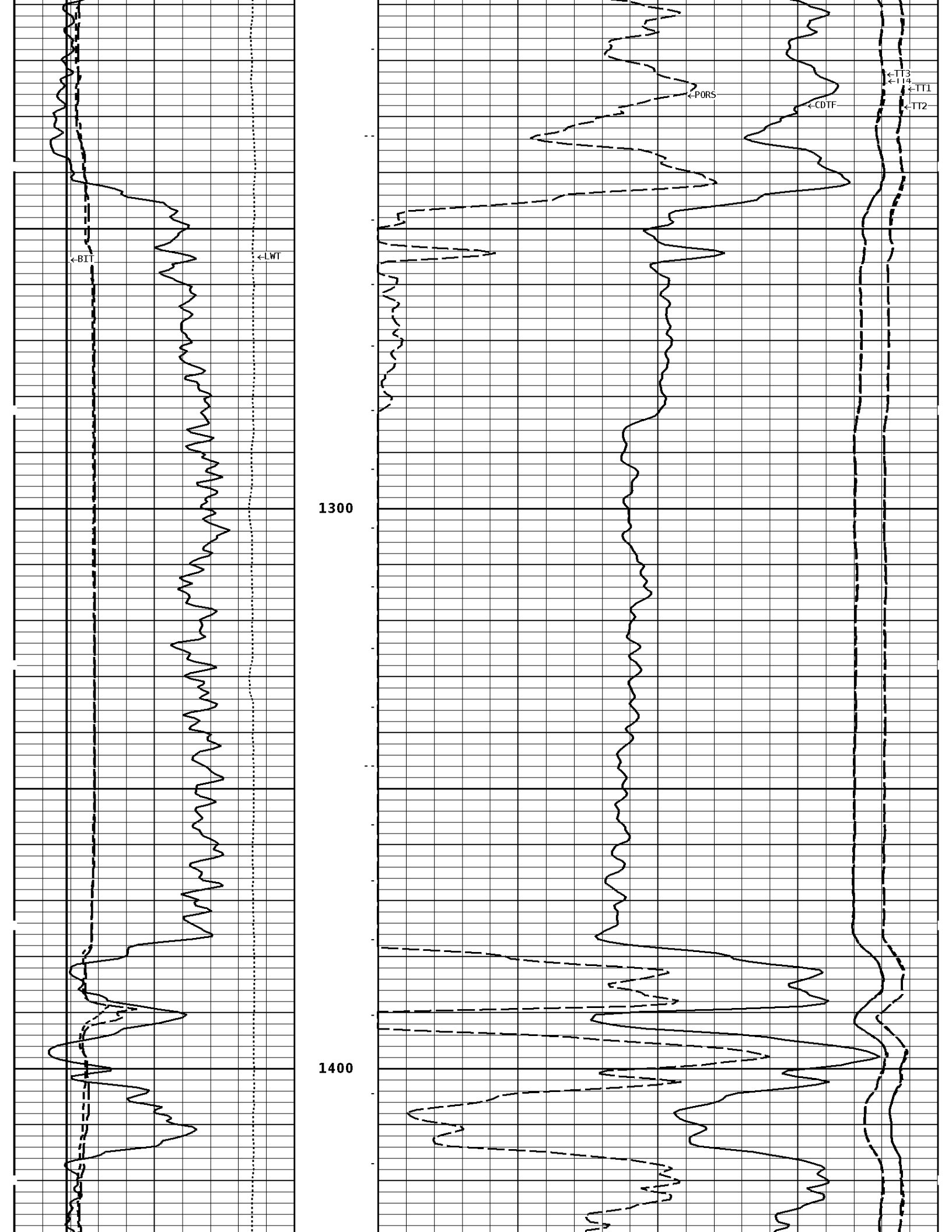
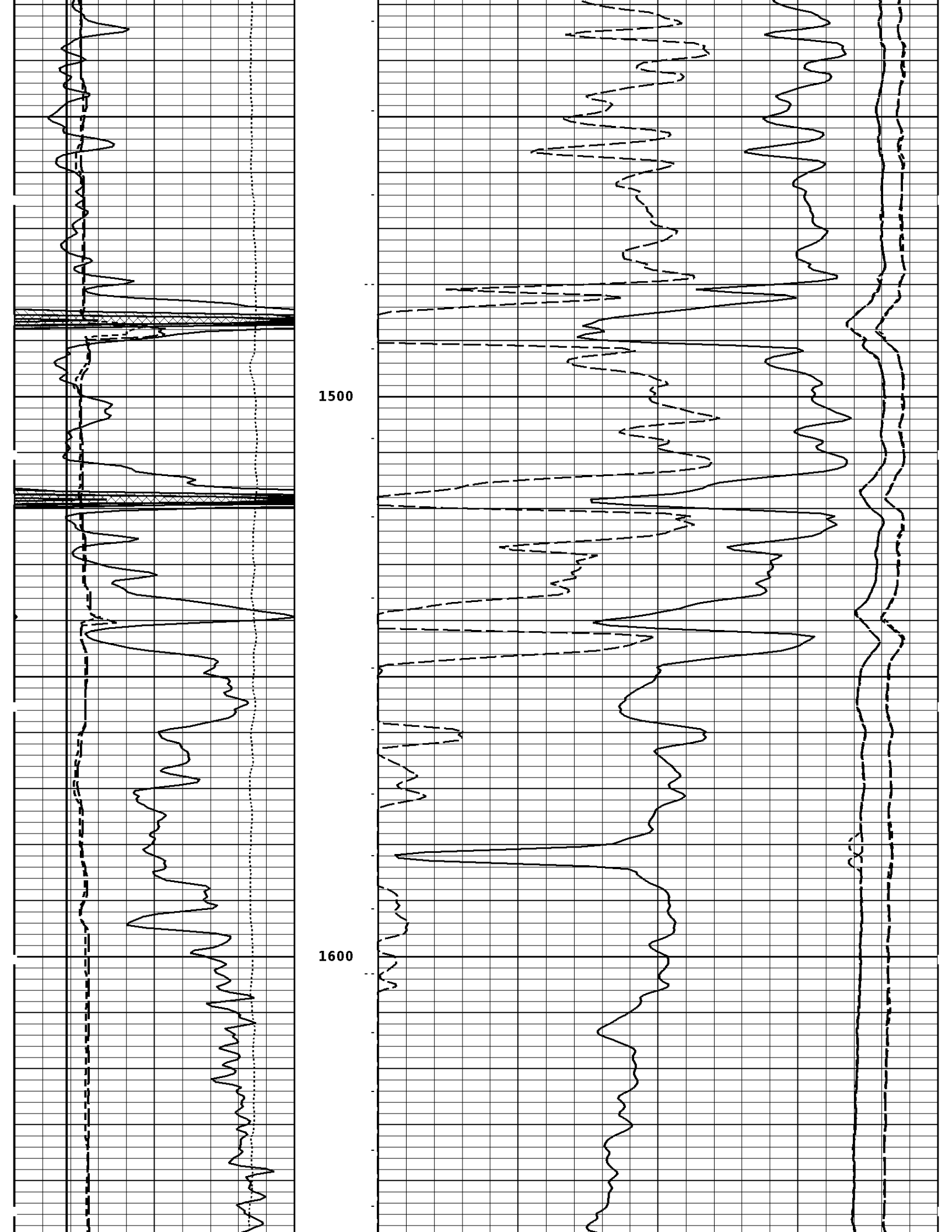

1000
1100
1200
←GR
←N CAL
←LD CAL


←BIT
←LWT
←PORS
←CDTF
←TT3
←TT4
←TT1
←TT2
1300
1400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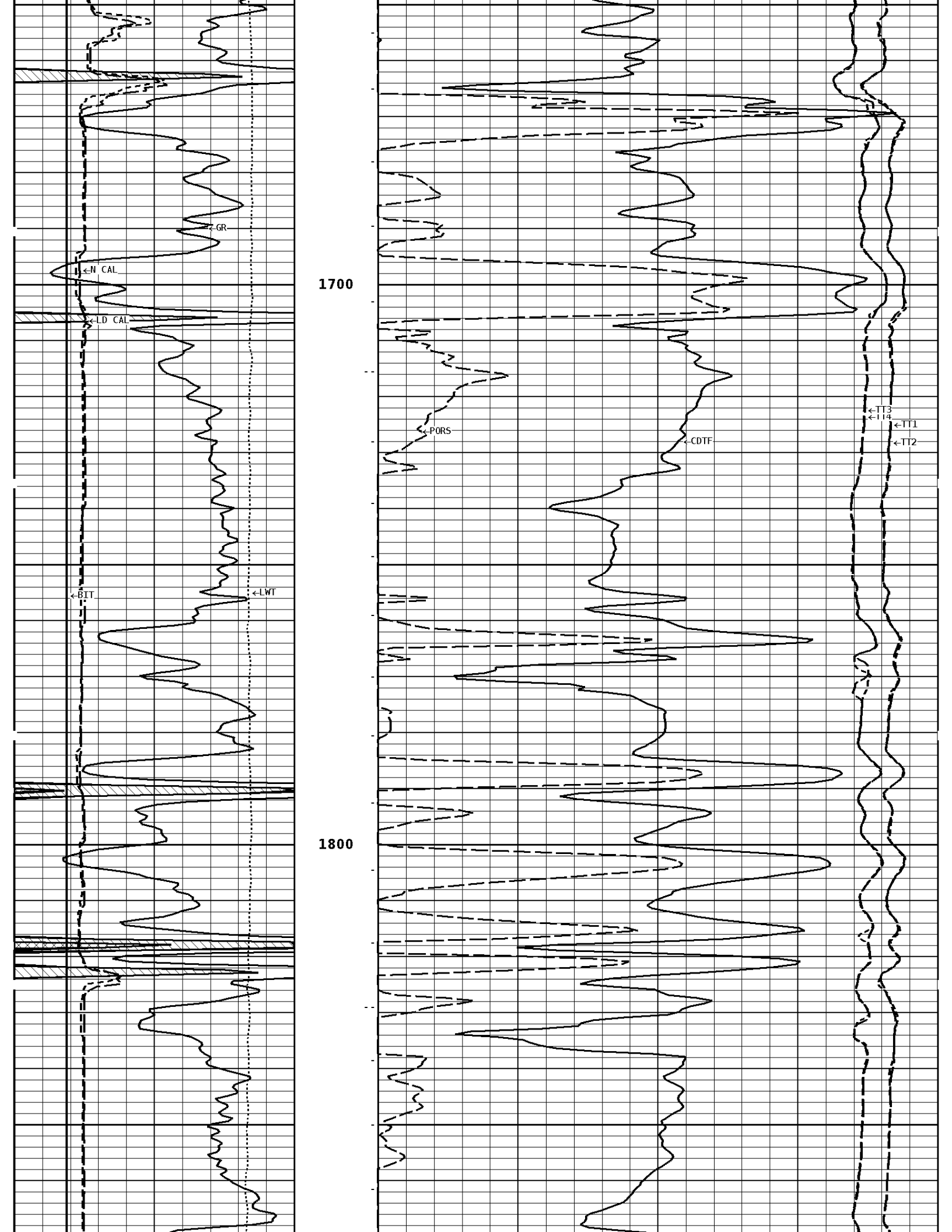
1600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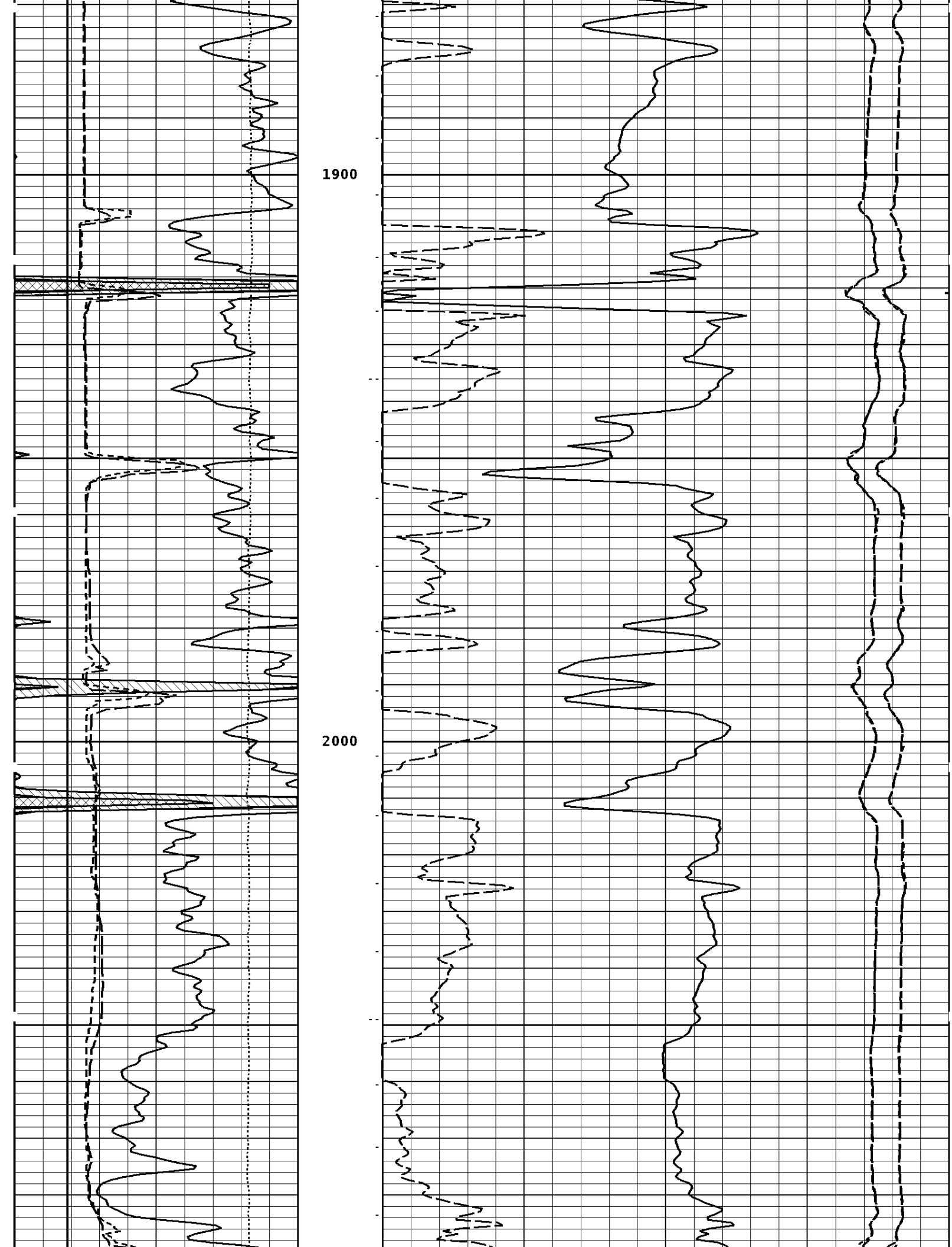
N CAL
LD CAL
1700
PORS
CDTF
TT3
TT4
TT1
TT2
BIT
LWT
1800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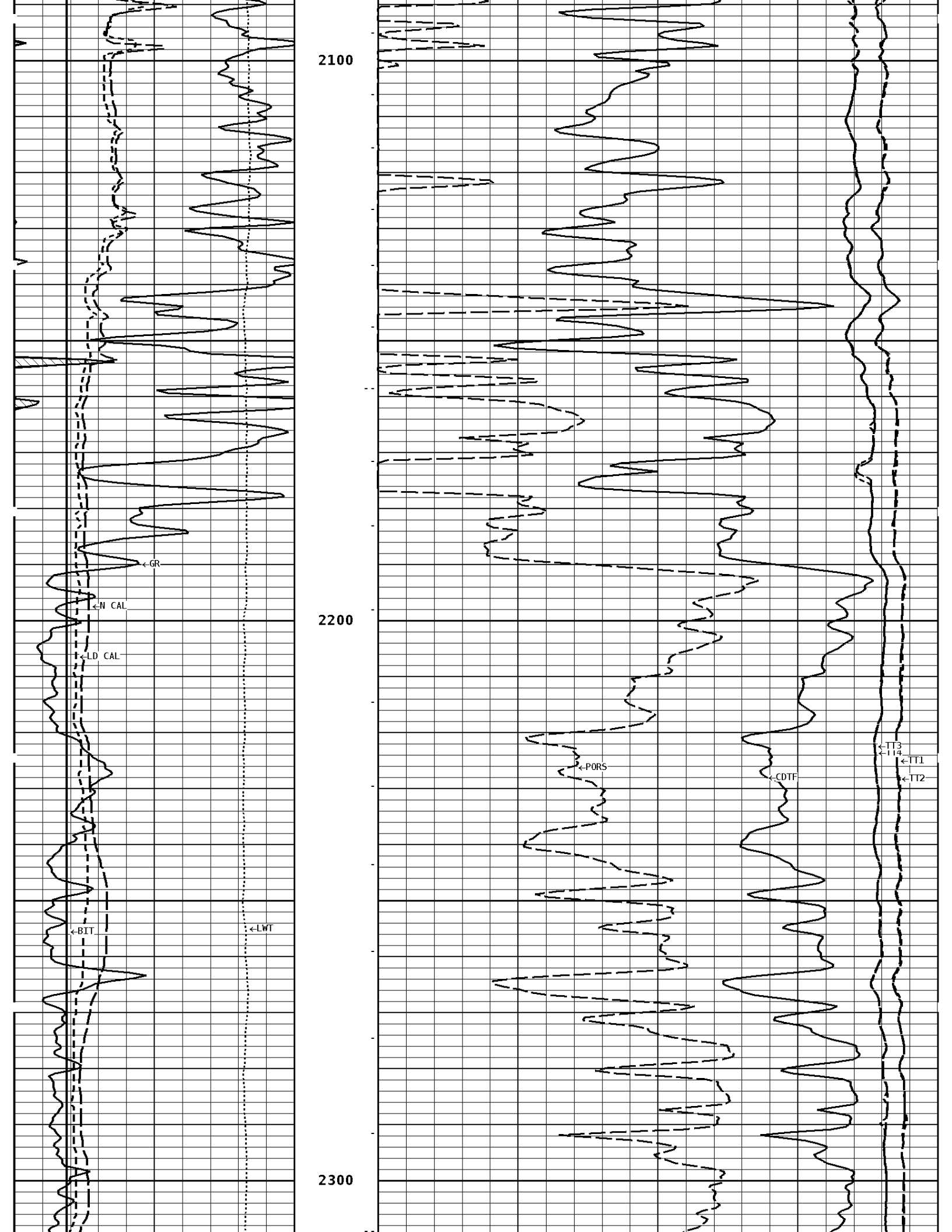
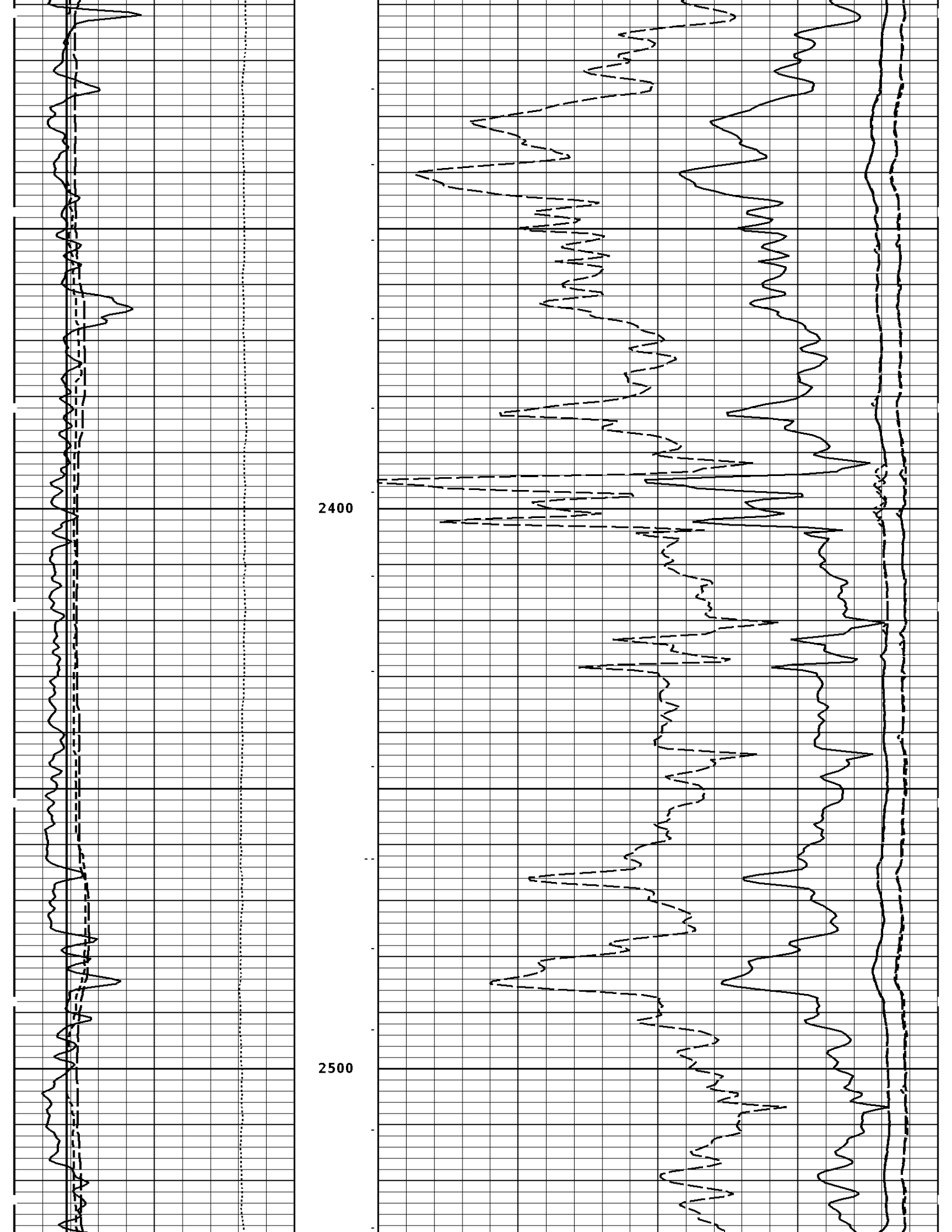
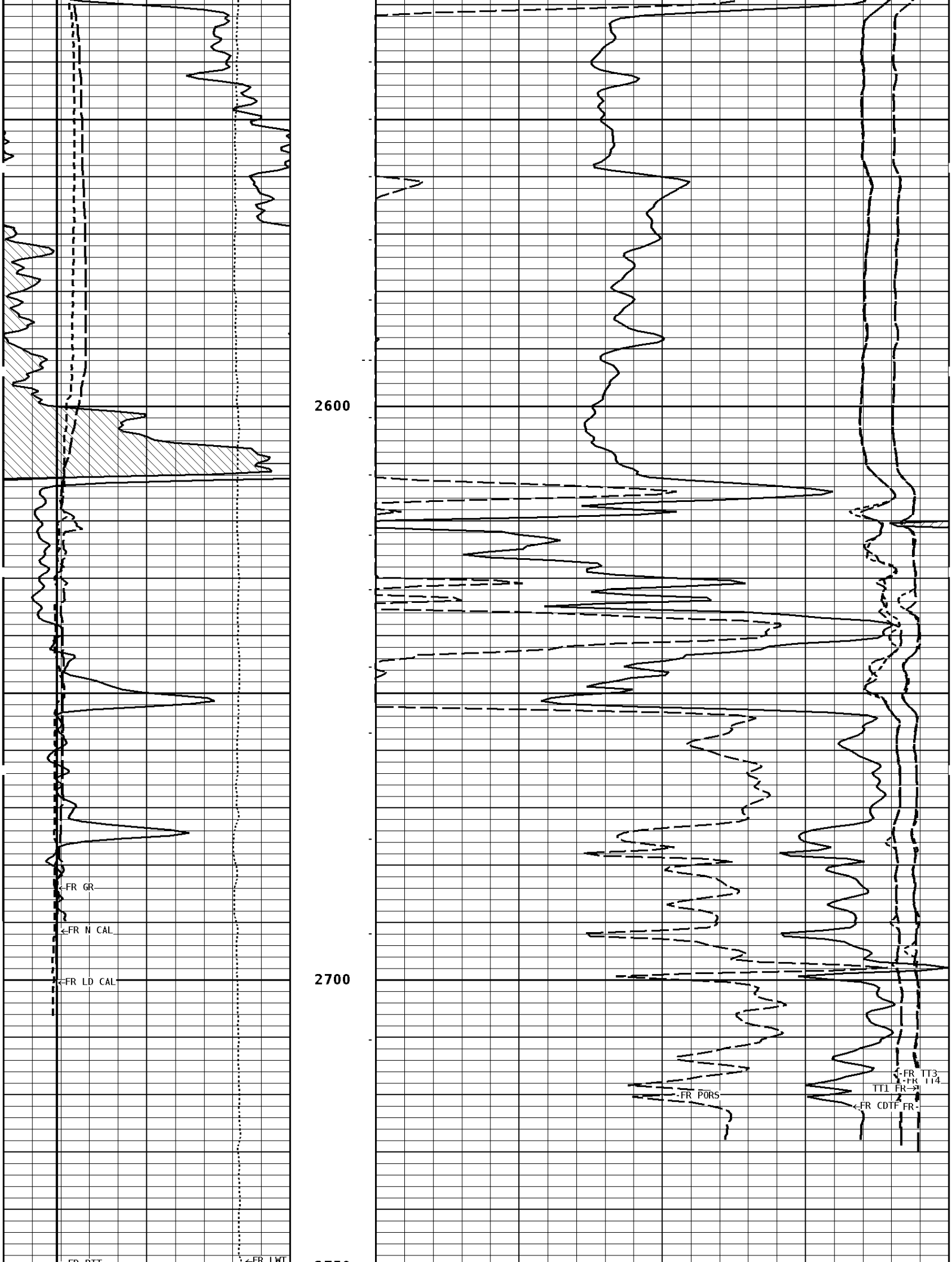
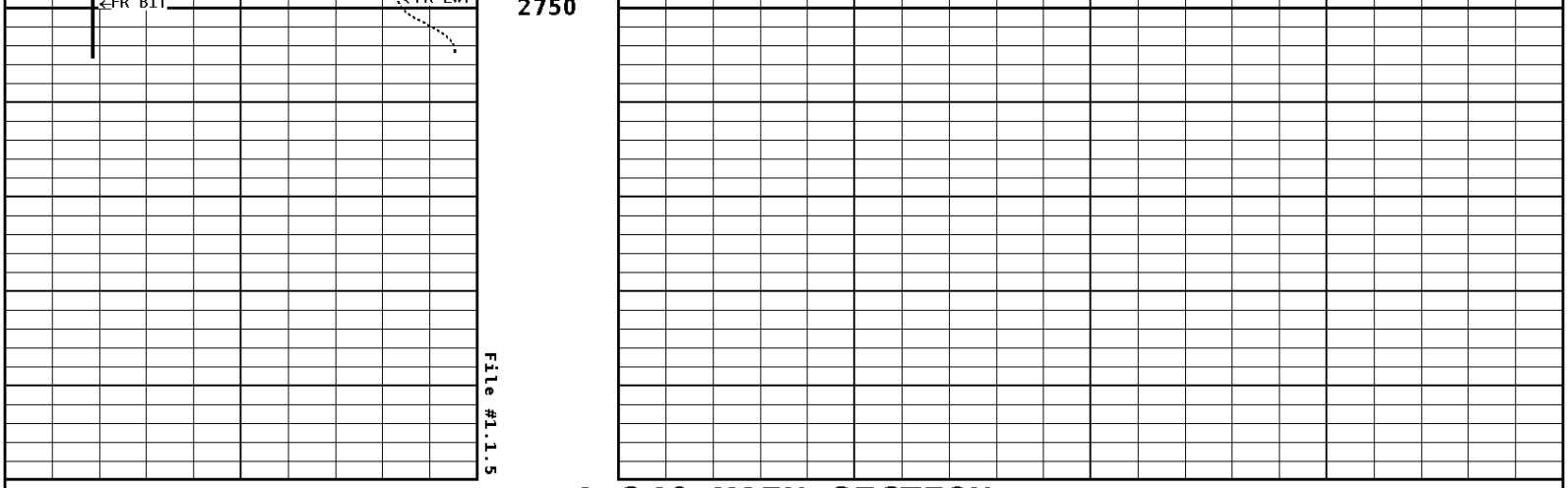

2100
2200
2300
←GR
←N CAL
←LD CAL
←BIT
←LWT
←PORS
←CDTF
←TT3
←TT4
←TT1
←TT2


2400
2500


2600
2700
←FR GR
←FR N CAL
←FR LD CAL
←FR PORS
←FR TT3
←FR TT4
TT1 FR→
←FR CDTF FR→
←FR LWT



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

TT1
uSEC
950 — 50

TT2
uSEC
950 — 50

TT3
uSEC
950 — 50

TT4
uSEC
950 — 50

*** 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

Well File: CROSS_BAR-BURKETT-D-40-QUINT-NOV-12 **Scale:** 1:240 **Format:** CST-240
Segment: V1.D1.S4 RP **Acquired:** 2014-11/12 22:36 3.4.0-13284
Reference: 0 **Processed:** 2014-11/13 00:00 3.4.0-13284

TT4
uSEC
950 — 50

NEUTRON (Y) CALIPER
INCHES (IN)
16 — 26

TT3
uSEC

16 26
6 16

950 50

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

TT2
uSEC
950 50

BIT SIZE
INCHES (IN)
6 16

TT1
uSEC
950 50

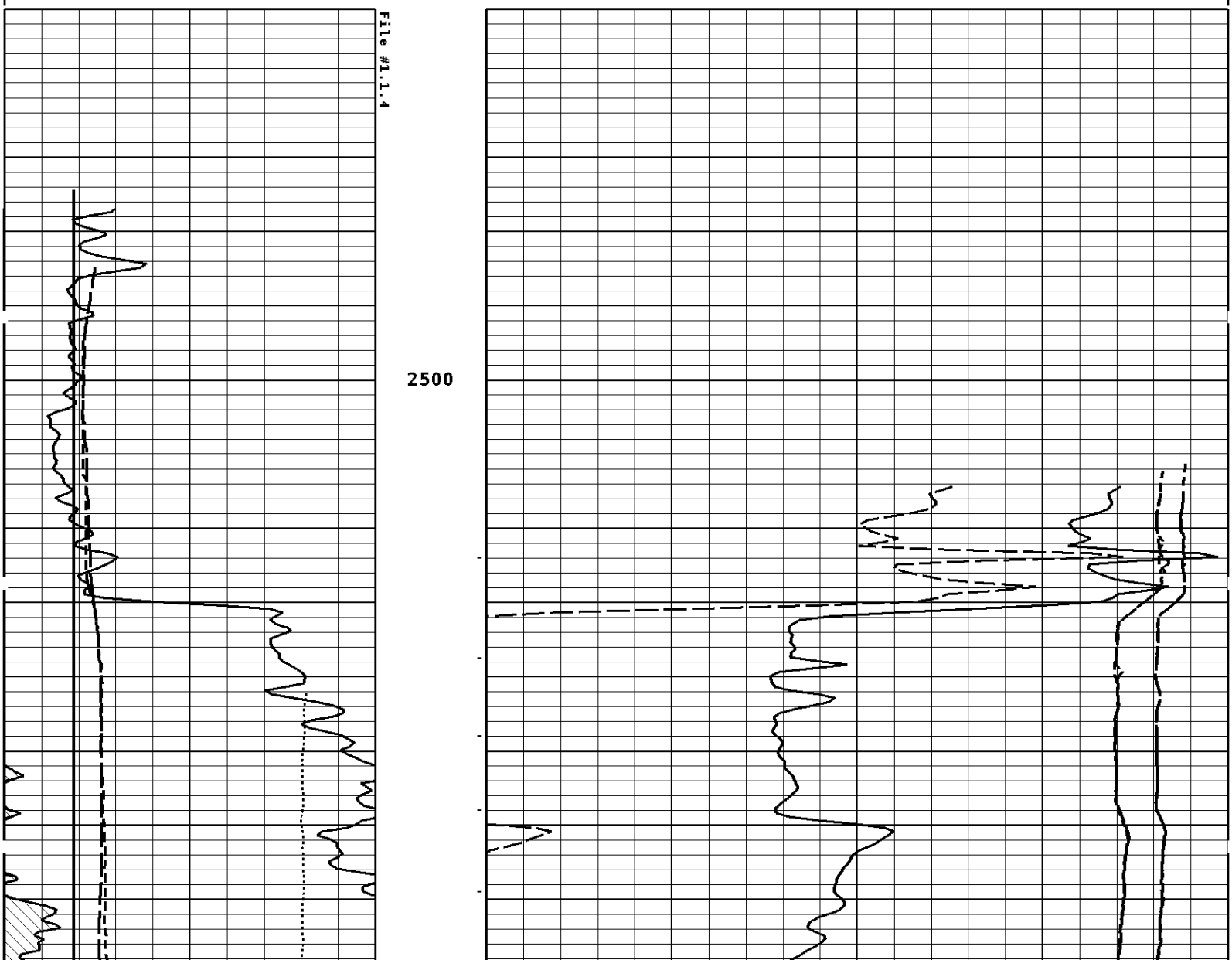
TENSION
LBS
10000 0

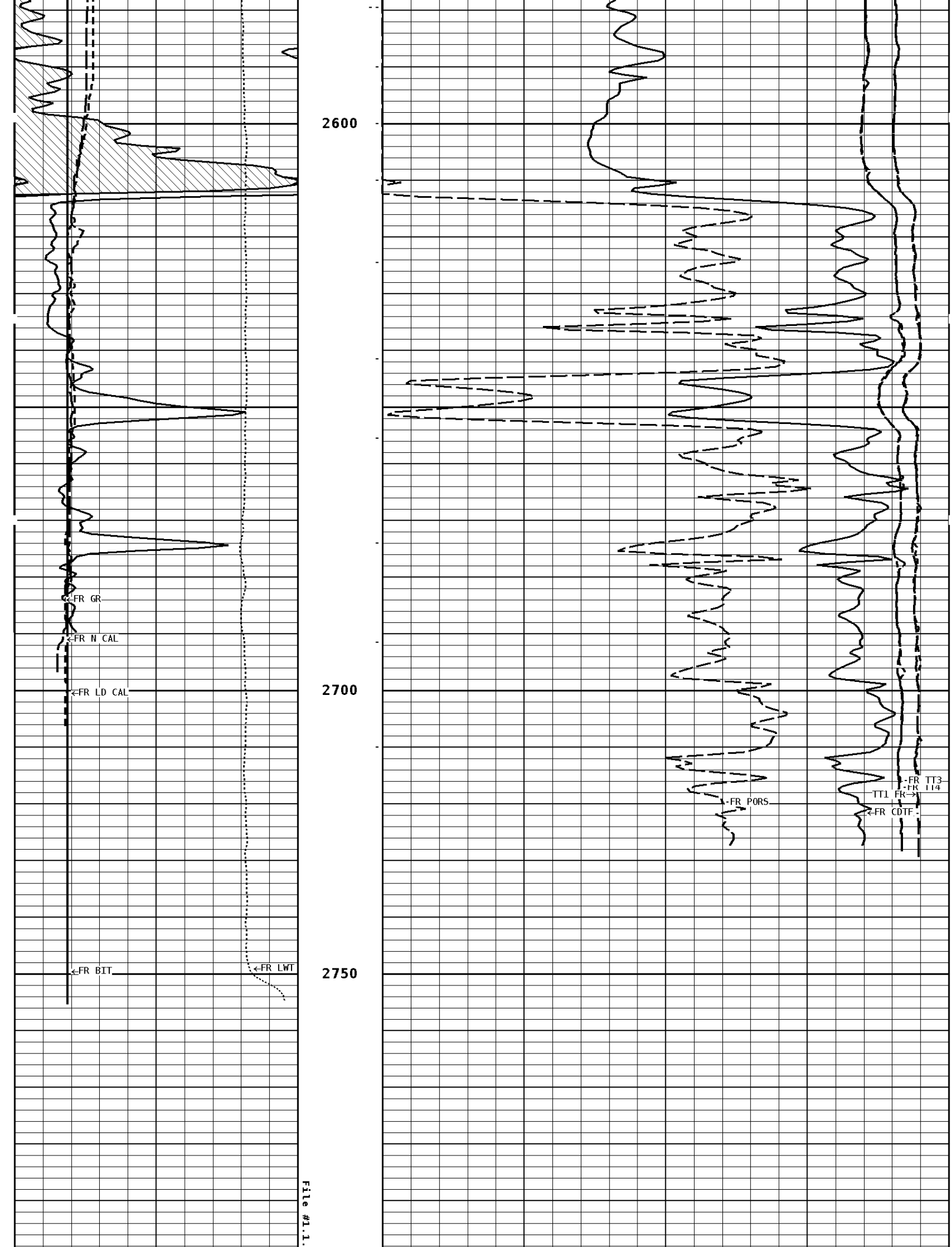
COMPENSATED SONIC TRAVEL TIME
uSEC/FT
240 140
140 40

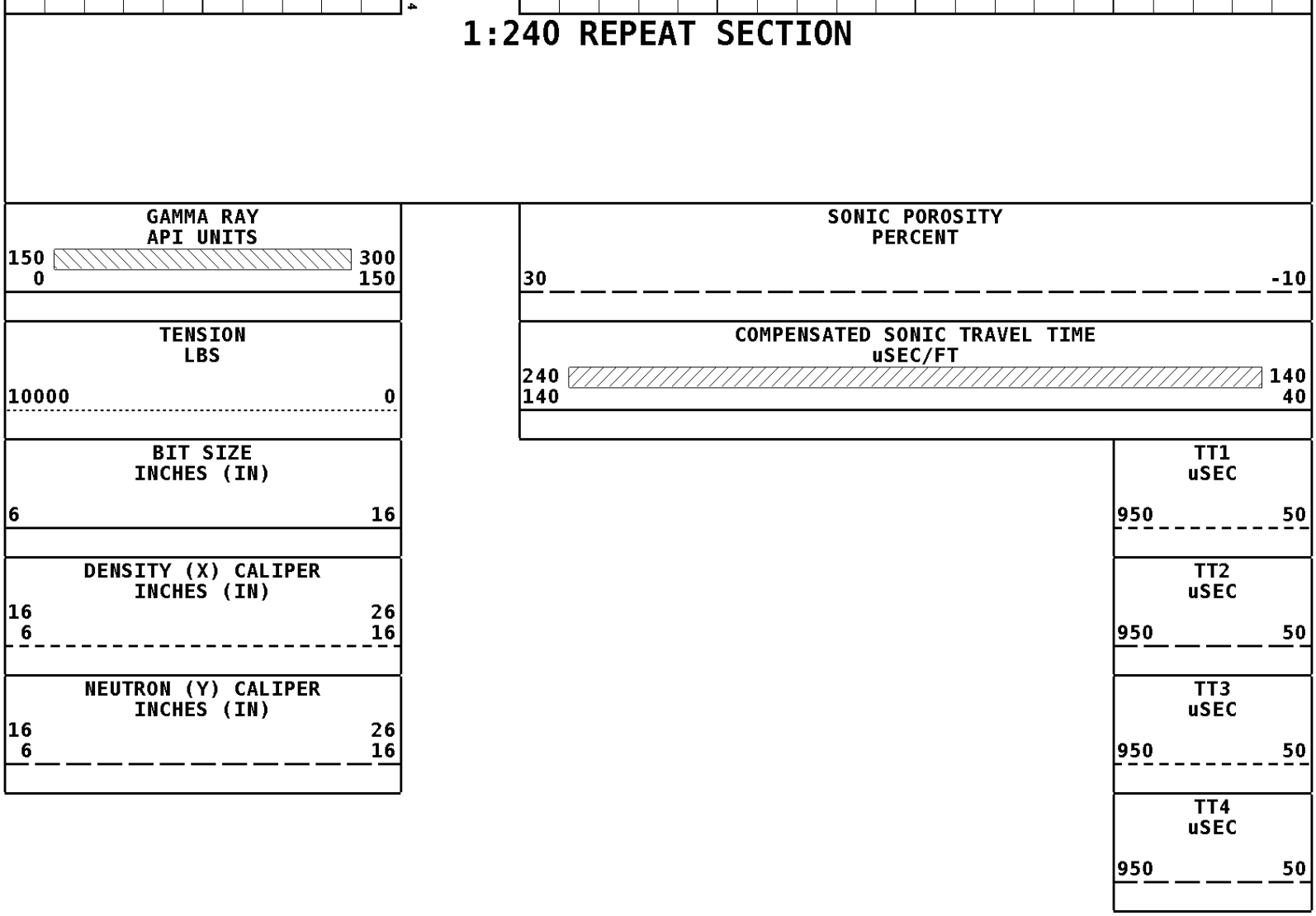
GAMMA RAY
API UNITS
150 300
0 150

SONIC POROSITY
PERCENT
30 -10

1:240 REPEAT SECTION




2600
2700
2750
FR GR
FR N CAL
FR LD CAL
FR BIT
FR LWT
FR PORS
FR TT3
FR TT4
TT1 FR
FR CDTF



*** 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

*** Calibration Summary ***

Shop Calibration
GRT-B

Performed : 23-OCT-2014 Time : 09:31
Sensor Suite : GR-GR5 ID : GRT-BB-107

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	75	381	CPS	175	GRAPI

Shop Calibration
CST-AD

Performed : 20-MAY-2014 Time : 18:11
Sensor Suite : SON-ANA ID : CST-AB-25

Transit Time

T/R Pair	Measured	Calibrated	Units
T1R1	208.5	208.5	uS
T2R2	208.5	208.5	uS
T1R2	322.5	322.5	uS
T2R1	322.5	322.5	uS

Amplitude

T/R Pair	Measured	Calibrated	Units
T1R1	90.00	90.00	mV
T2R2	90.00	90.00	mV
T1R2	78.00	78.00	mV
T2R1	78.00	78.00	mV