

Tucker
ENERGY SERVICES

BOREHOLE VOLUME

CALIPER LOG

Company RUNNING FOXES PETROLEUM Well HERRMANN #9-4B-2 Field LIVINGOOD County BROWN State KANSAS Country USA API No. 15-013-20052-0000		File No : TUL-61201 Company : RUNNING FOXES PETROLEUM INC. Well : HERRMANN #9-4B-2 Field : LIVINGOOD County : BROWN State : KANSAS Country : USA API No : 15-013-20052-0000	
Location : 2315' FSL & 1292' FEL NW NW NE SE		LSD : Sect : 4 Twp : 1S Rge : 15E	
Permanent Datum:	GL	Elevations:	Services:
Drilling Measured From:	KB	KB 1146.00	CNT MLT
Log Measured From:	KB	DF 1145.00	LDT PIT
Above Permanent Datum:	6.00 Ft	GL 1140.00	Ft
Date	09-18-2016		
Run Number	1		
Depth--Driller	3435.0	Ft	
Depth--Logger	3436.0	Ft	
First Reading	3413.0	Ft	
Last Reading	215.0	Ft	
Casing--Driller	215.0	Ft	
Casing--Logger	215.0	Ft	
Bit Size	7.875	In	
Casing Size	8.625	In	
Hole Fluid Type	WBM		
Density	8.9		
Fluid Loss	7.6		
PH/Viscosity	9.0	56.0	
Sample Source	MEASURED		
RMF@Measured Temp.	2.000 @ 75 F		
RMF@Measured Temp	1.600 @ 75 F		
RMF@Measured Temp.	2.400 @ 75 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	1.400 @ 110 F		
Time Circulation Stopped	09-18-2016 12:00		
Max Recorded Temp.	110 F		
Equipment/Base	1022 TULSA, OK		
Recorded By	SHELDON TYLER		
Witnessed By	CHAD COUNTS		

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	3435.00	8.625	32.00	215.00	0.00

Run Number	1	
Date	09-18-2016	
Date/Time On Bottom	09-18-2016 15:00	
Depth to Fluid	0.0 Ft	
Salinity	800.000	
RMF@BHT	1.120 @ 110 F	
RMC@BHT	1.680 @ 110 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST
GRT, CNT, LDT, CST, 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

PERMIT #201512001

GRT: GRP, GRX
CST: PORS, CDTF, TTIPF, TT2PF, TT3PF, TT4PF, ITT
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

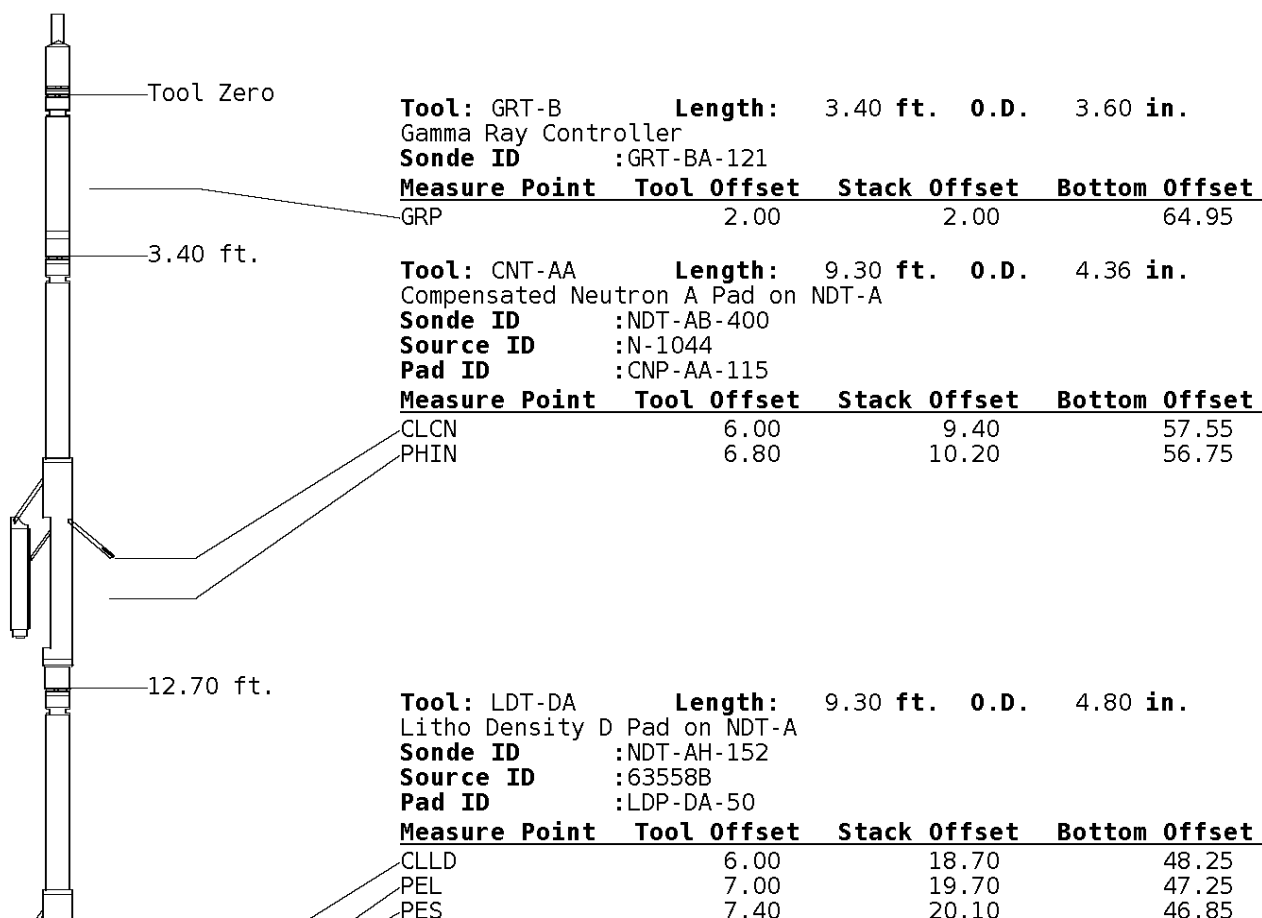
OPERATORS:

R.FRANKLIN

B.BAILEY

Tool String Schematic

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



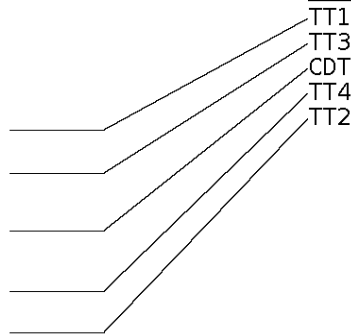


7.20	19.90	47.05
7.20	19.90	47.05

22.00 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
Open Hole Sonic
Sonde ID : CST-AD-078

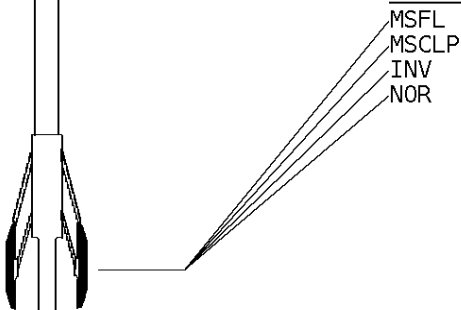
Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	26.80	40.15
TT3	5.80	27.80	39.15
CDT	7.30	29.30	37.65
TT4	8.80	30.80	36.15
TT2	9.80	31.80	35.15



35.80 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
Micro Spherically Focused (IC)
Sonde ID : MST-DA-021

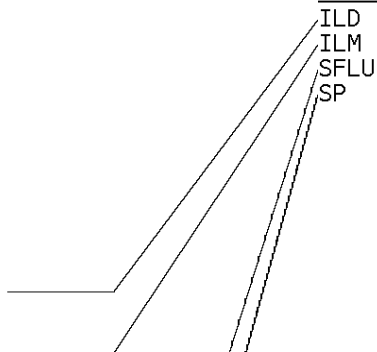
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	43.40	23.55
MSCLP	7.60	43.40	23.55
INV	7.60	43.40	23.55
NOR	7.60	43.40	23.55



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-069

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



LWT 66.95 ft.

Well File: RFP_HERRMANN_9-4B-2_SEPT18_QUINT

Scale: 1:240

Format: CAL-240

Segment: V1.D1.S7_DS_FINAL_MAIN

Acquired: 2016-09/18 15:08 3.4.0-13711

Reference: 0

Processed: 2016-09/18 15:08 3.4.0-13711

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

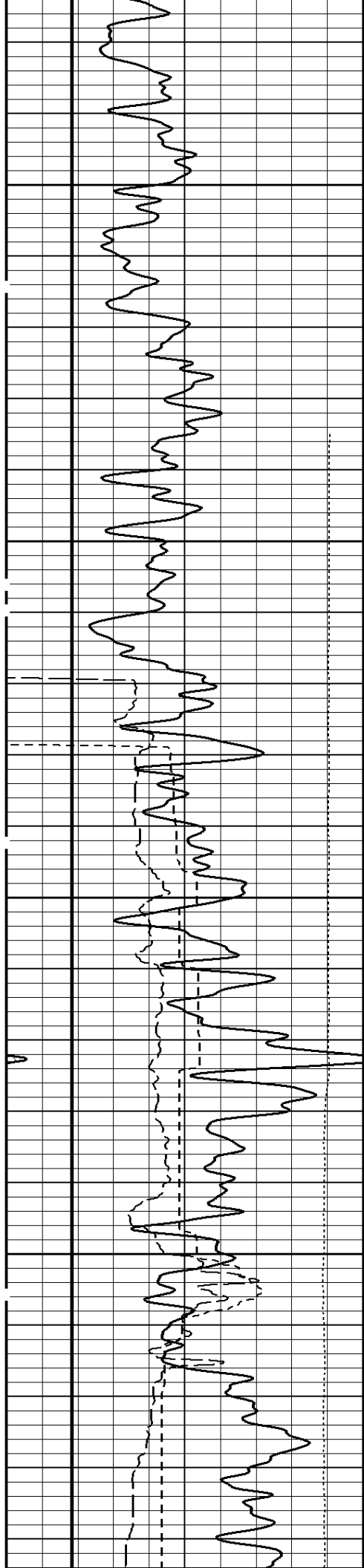
BOREHOLE VOLUME
CU.FT

ANNULAR HOLE VOLUME
CU.FT.

1:240 MAIN SECTION

File #1.1.7

100

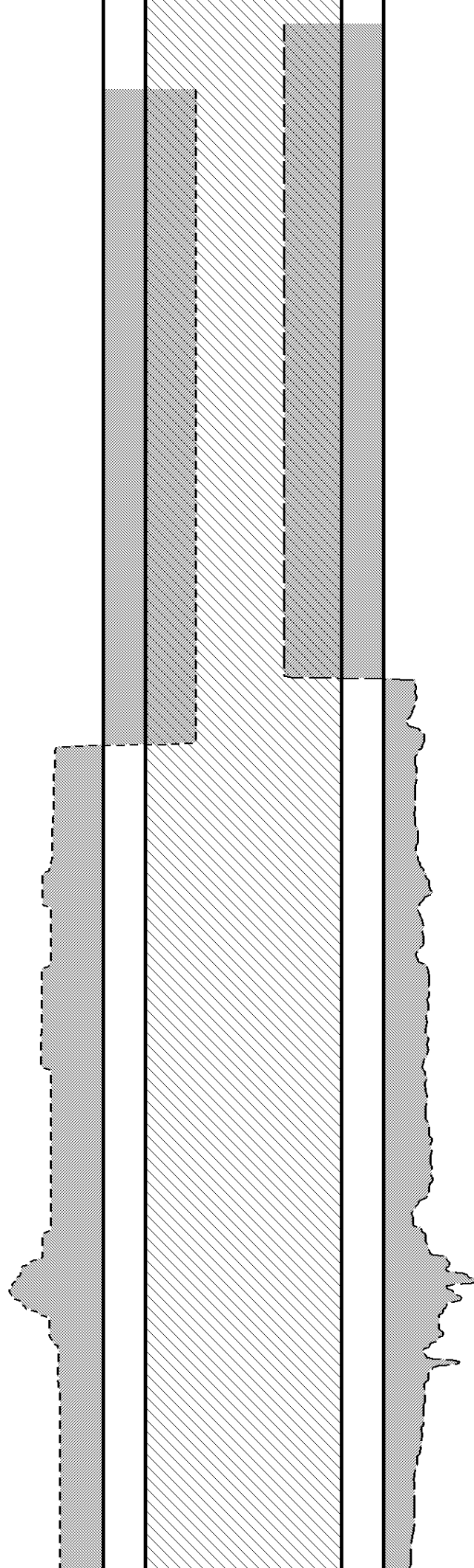


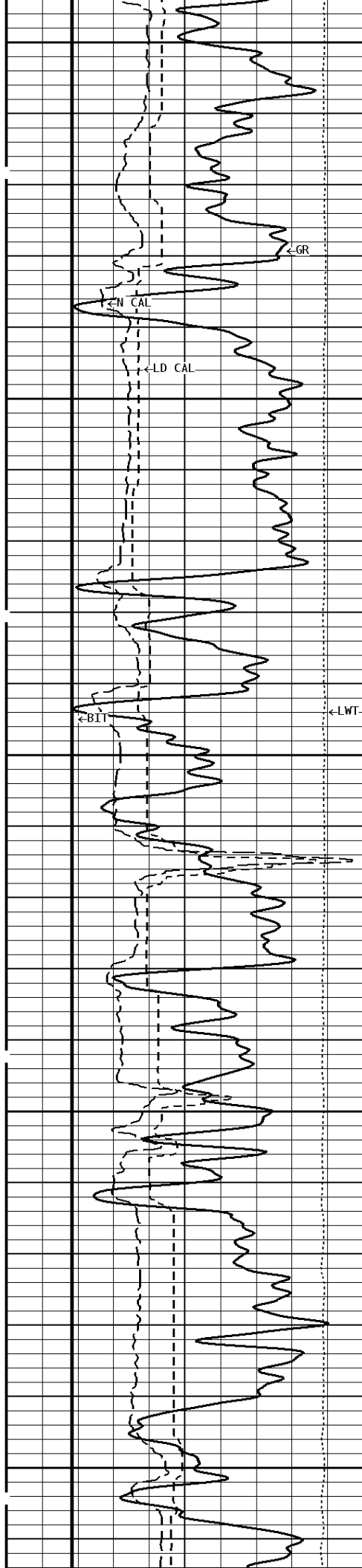
200

300

-1400Cu.ft

900Cu.ft-

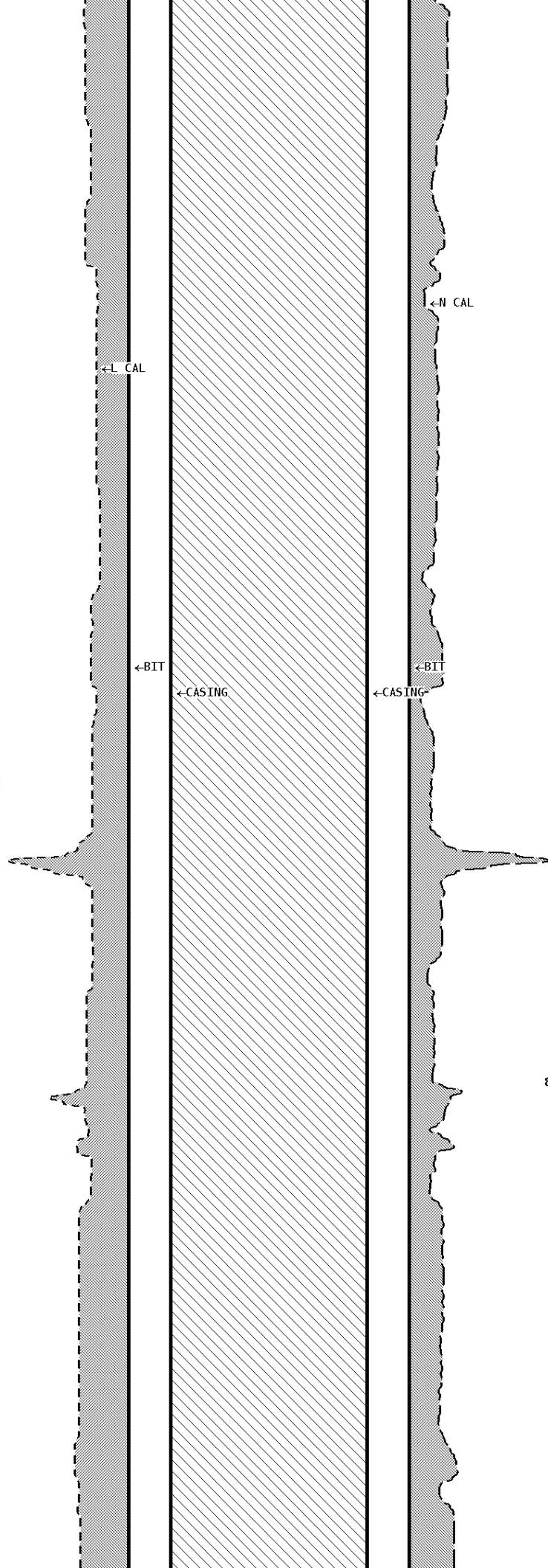




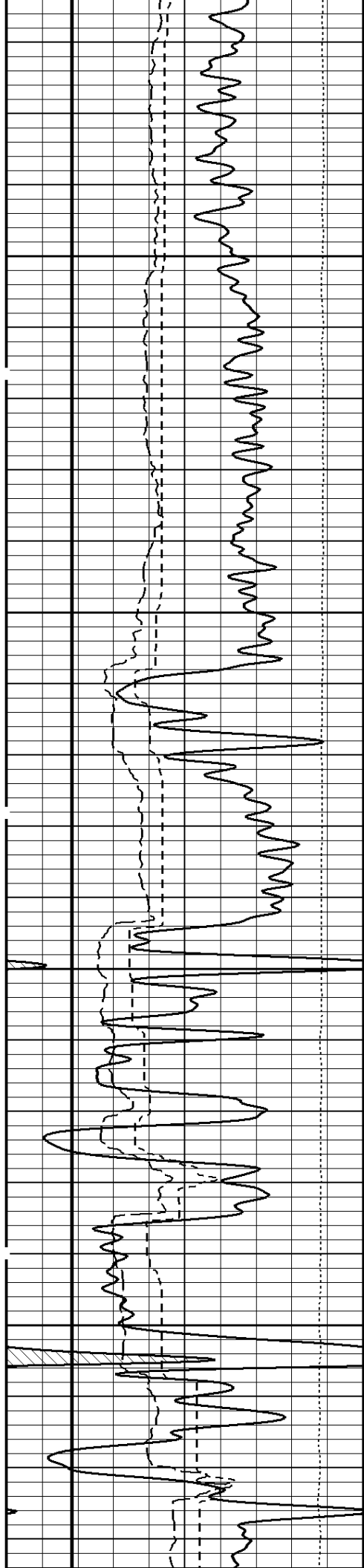
400

500

-1300Cu.ft



800Cu.ft

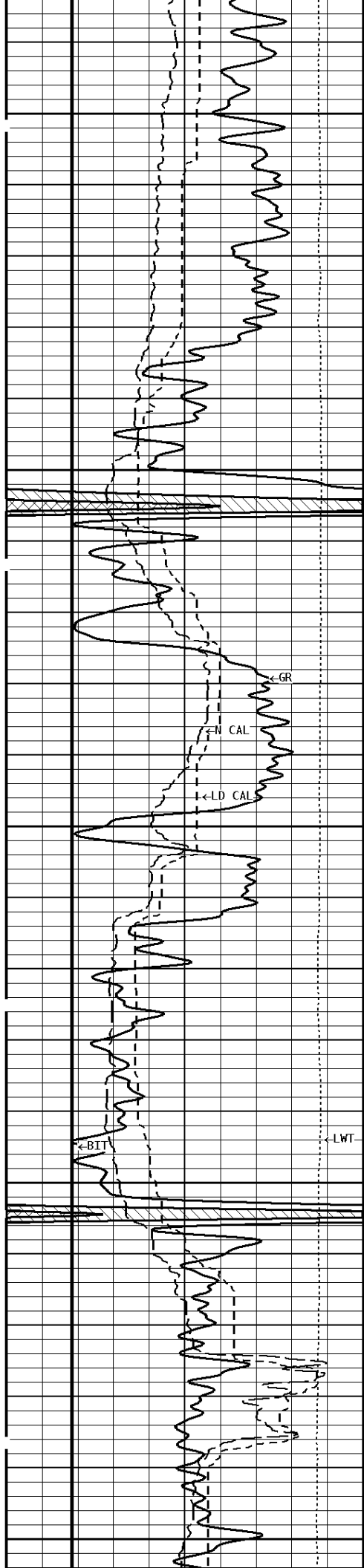


600

-1200Cu.ft

700

700Cu.ft-



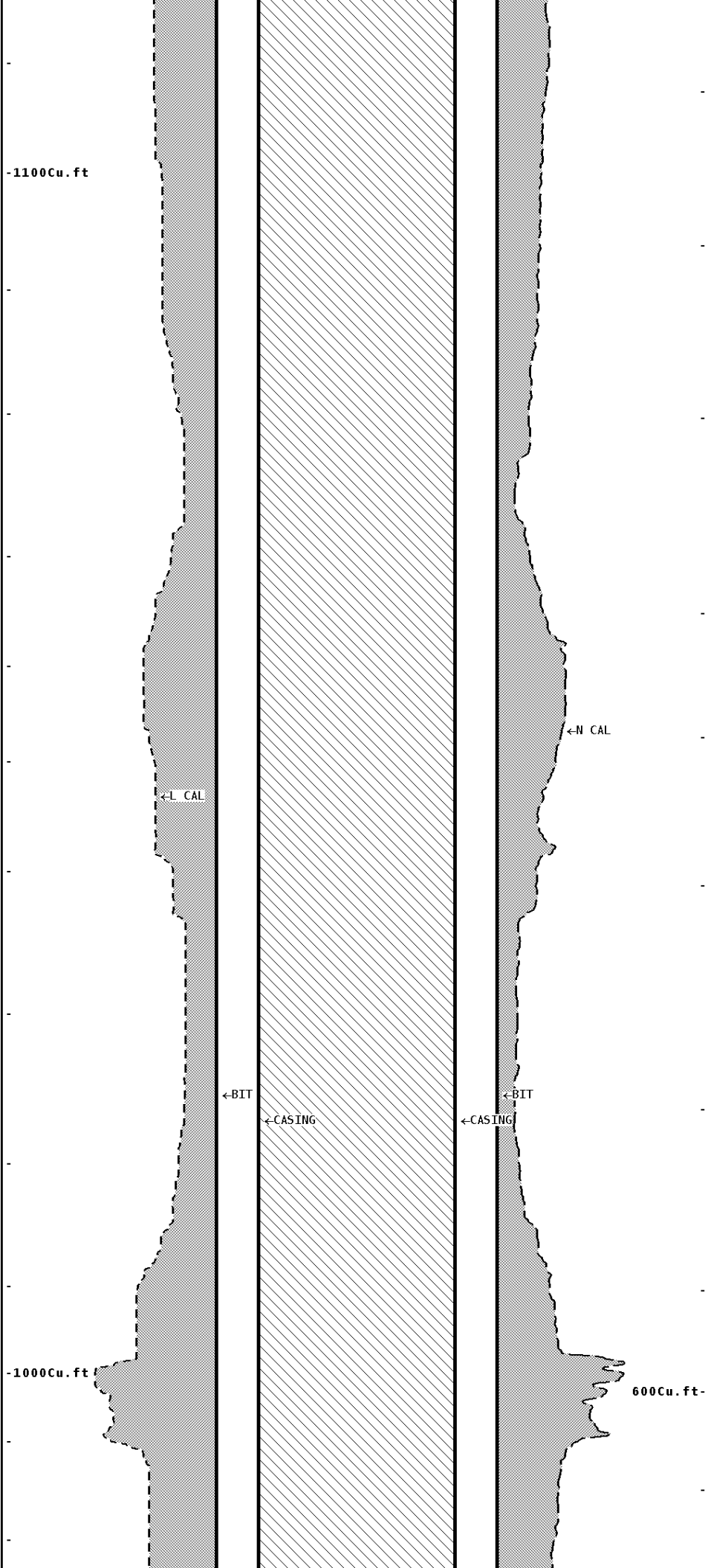
800

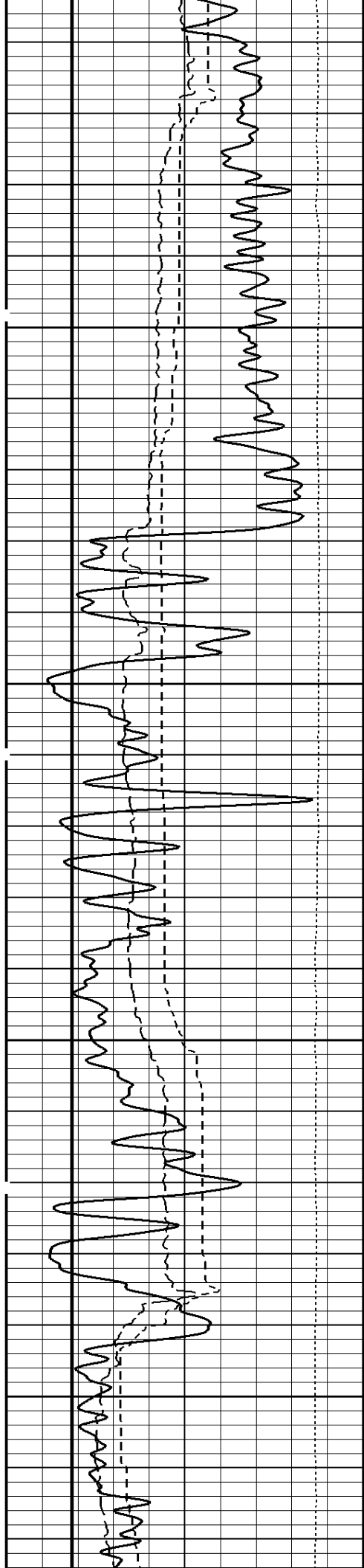
-1100Cu.ft

900

-1000Cu.ft

1000

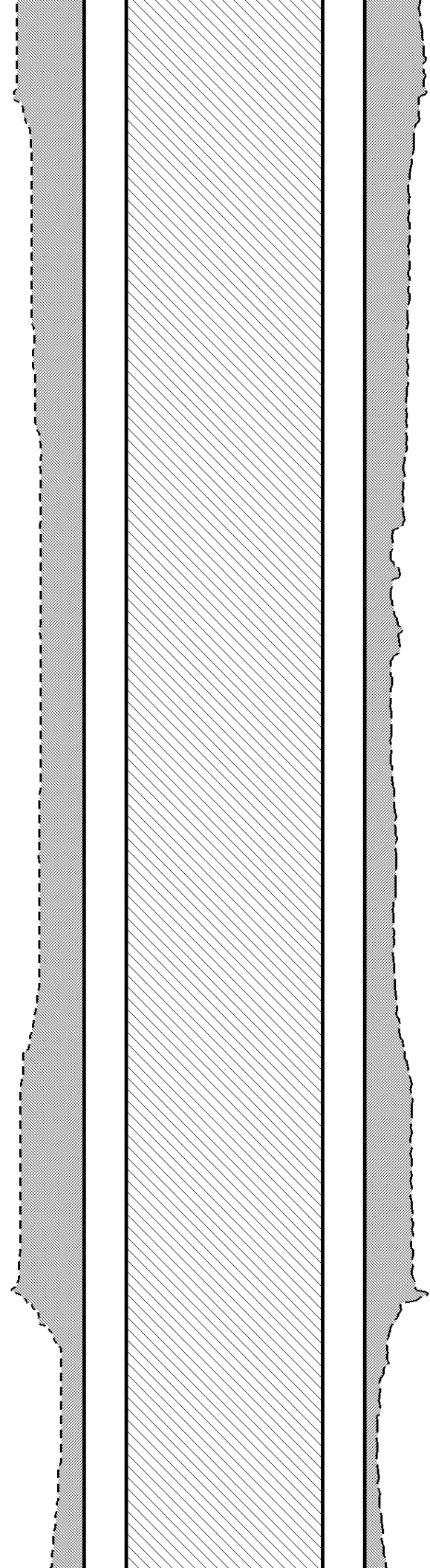




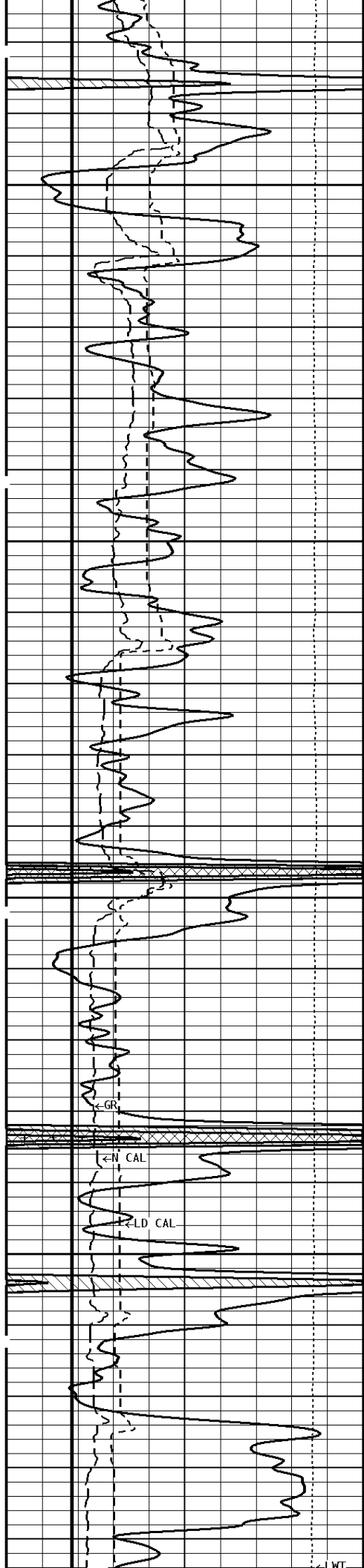
1100

-900Cu.ft

1200



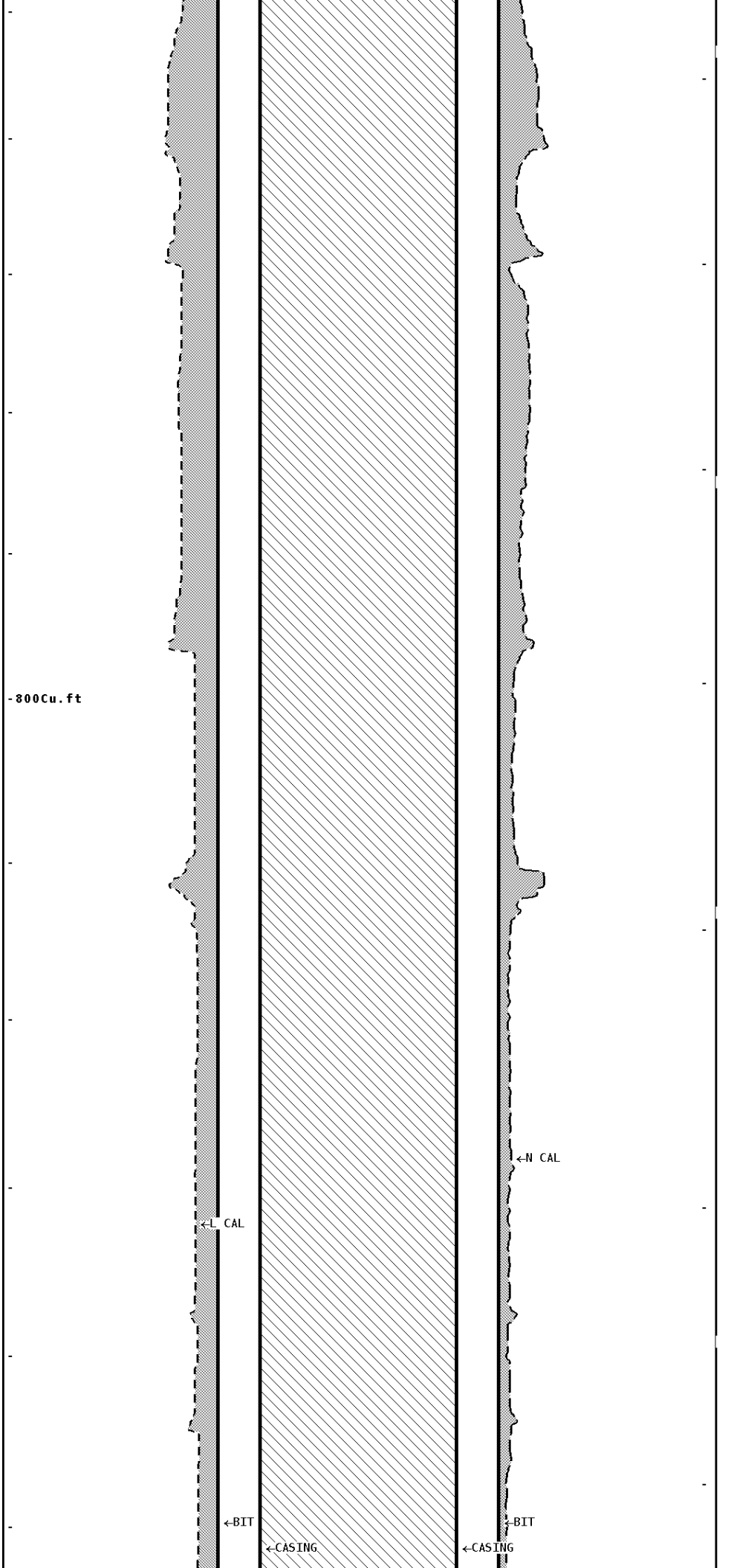
500Cu.ft-

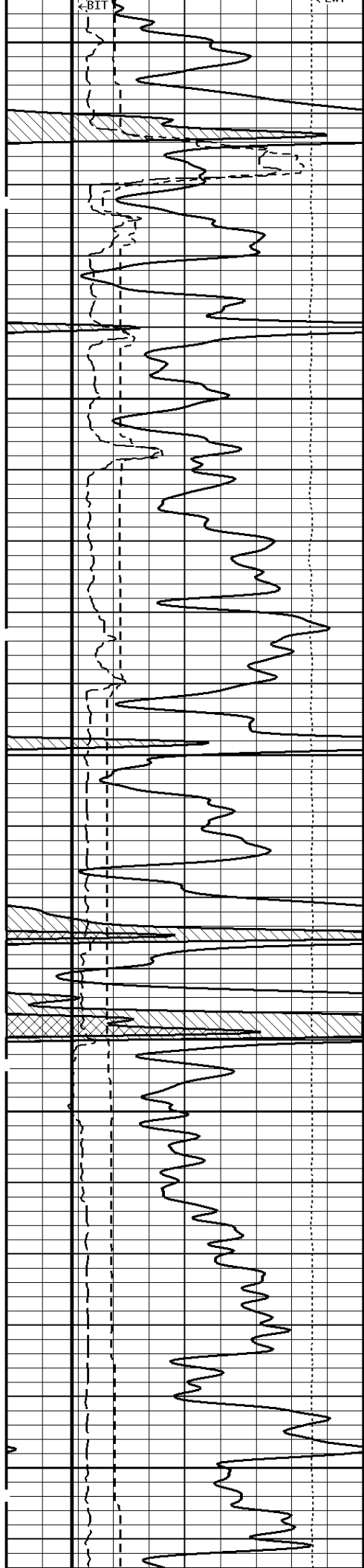


1300

-800Cu.ft

1400

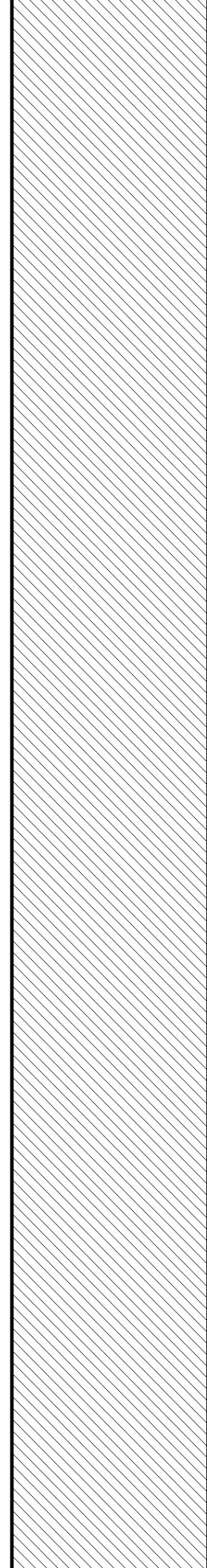
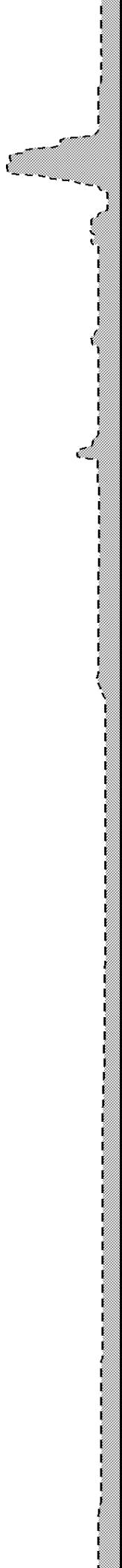




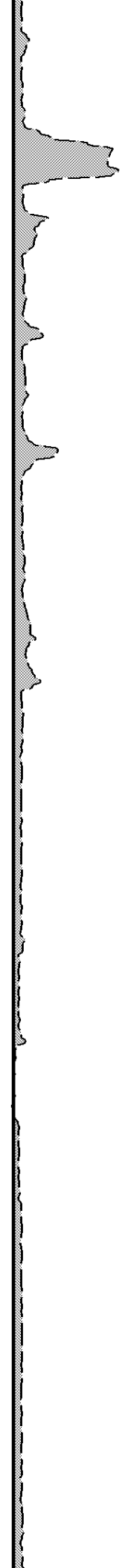
1500

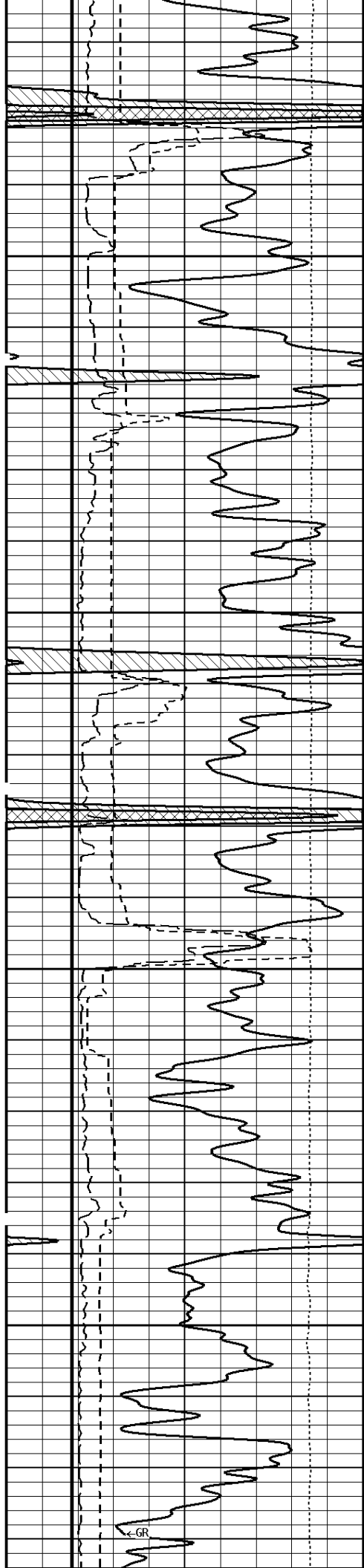
-700Cu.ft

1600



400Cu.ft-

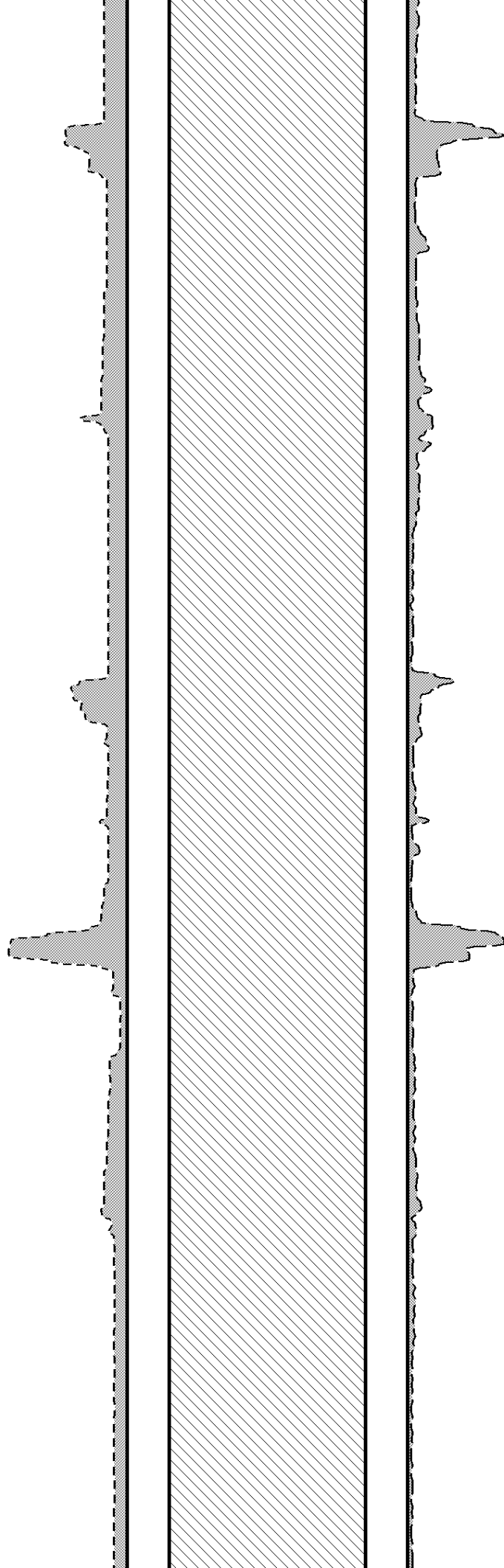


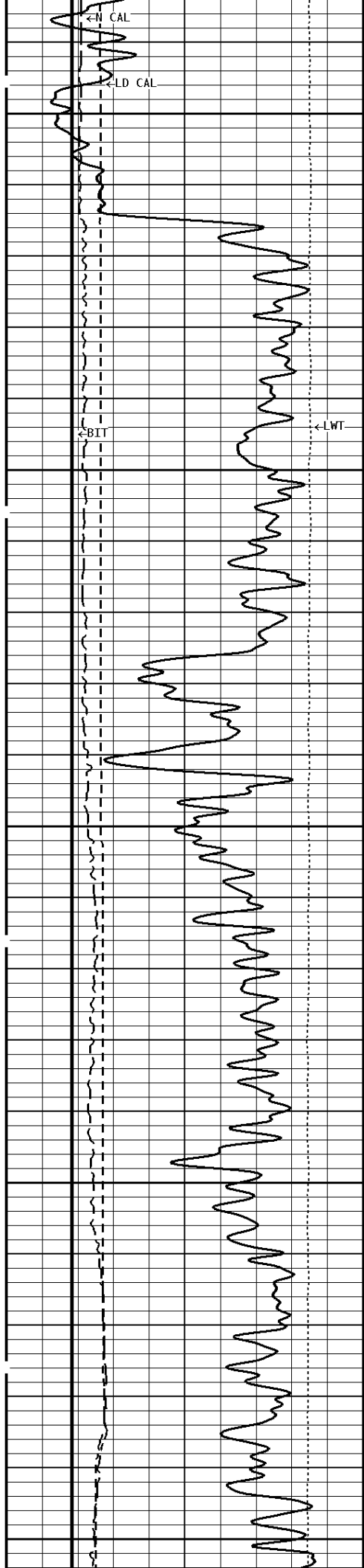


1700

1800

-600Cu.ft



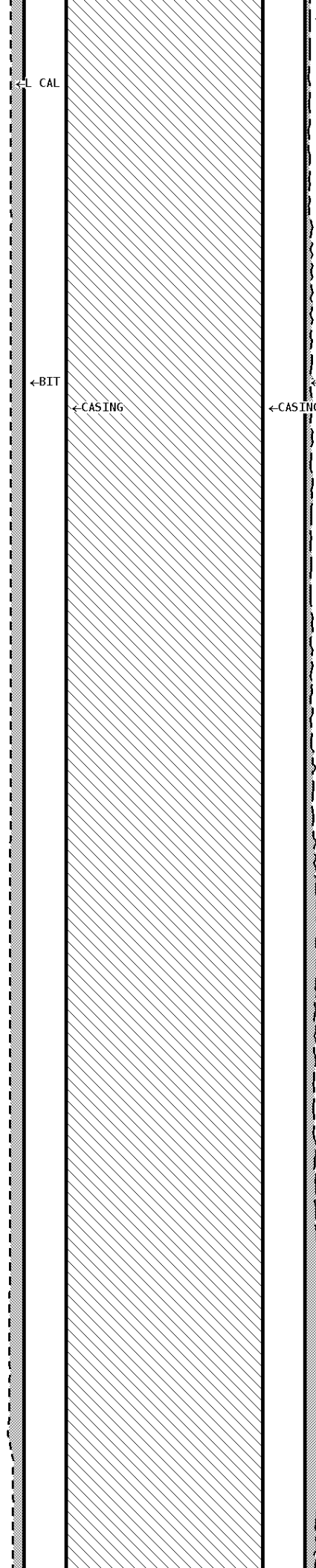


1900

2000

2100

-500Cu.ft



L CAL

BIT

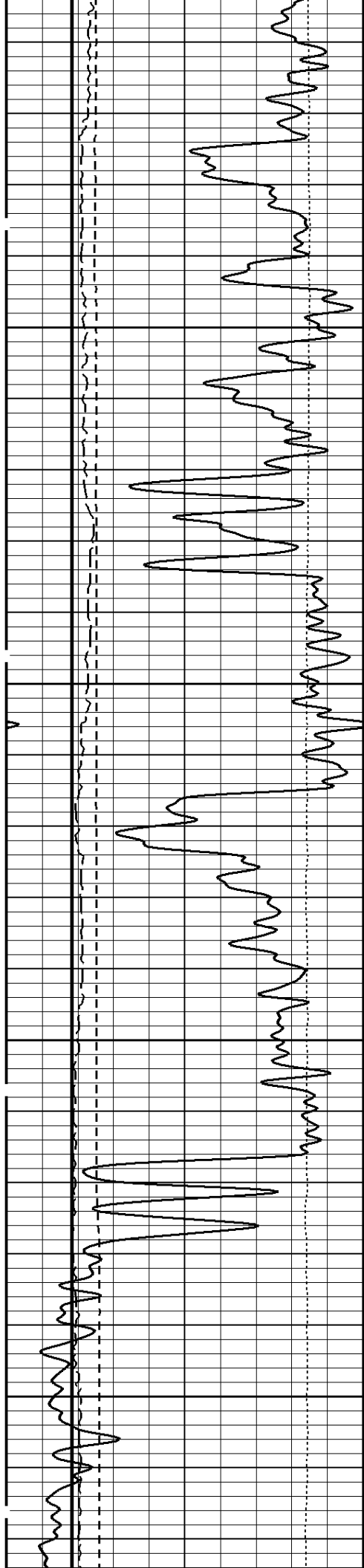
CASING

N CAL

BIT

CASING

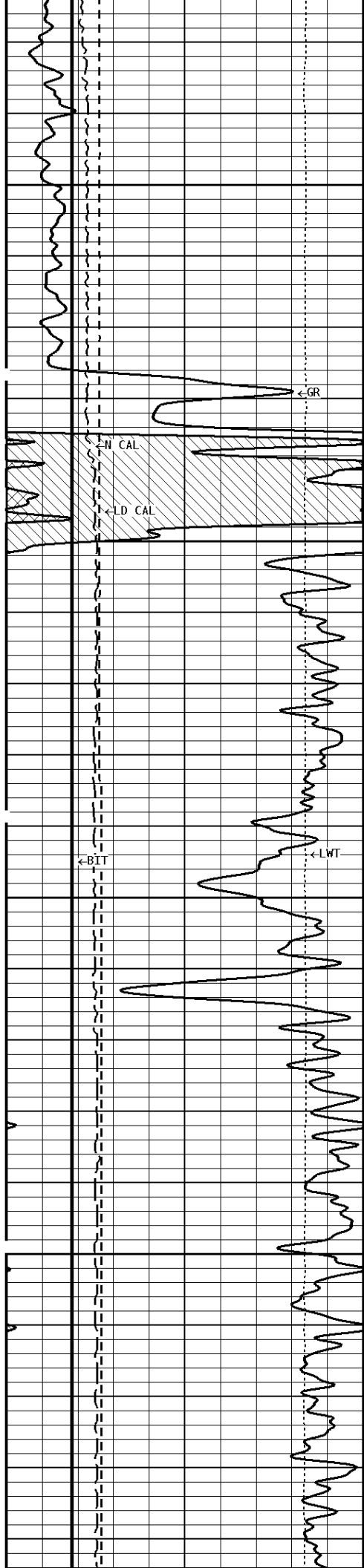
300Cu.ft



2200

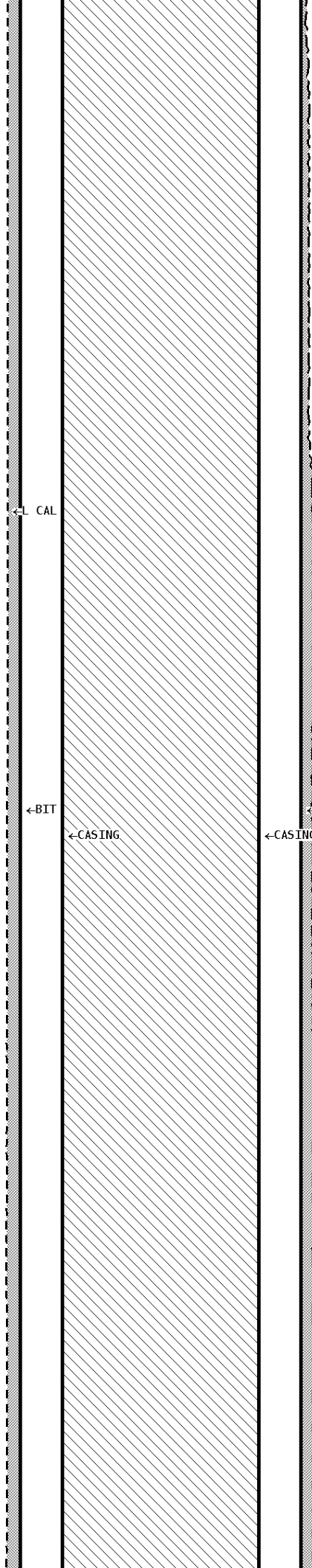
2300

-400Cu.ft



2400

2500



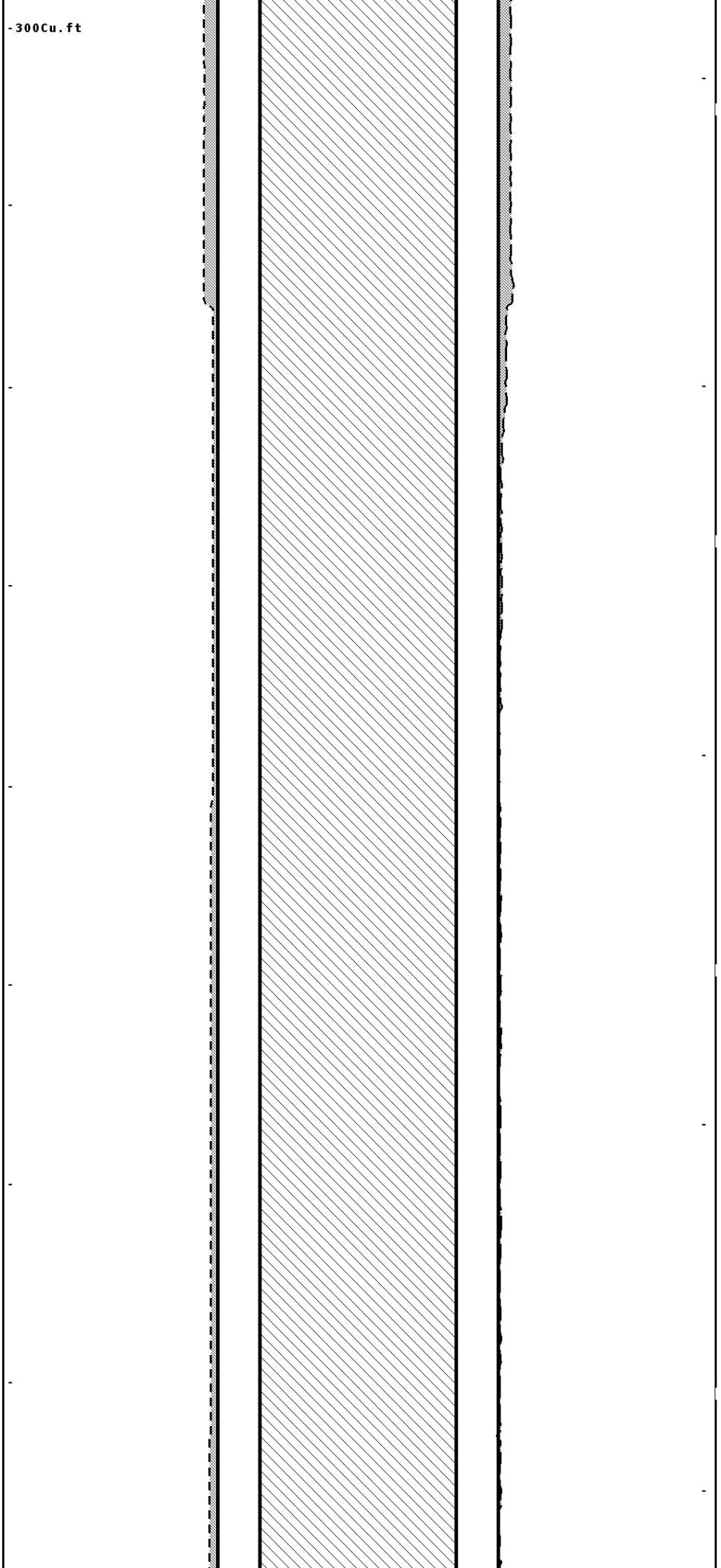
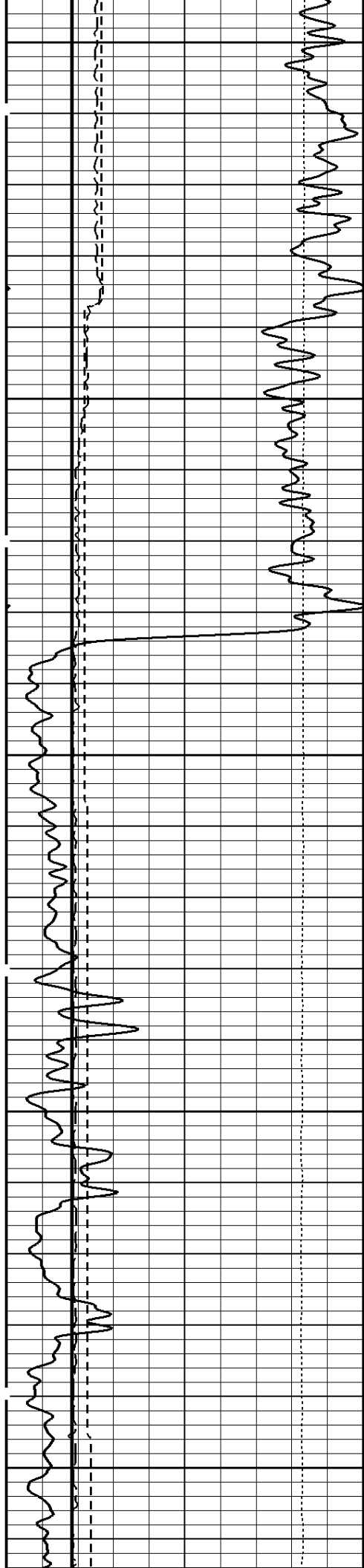
←N CAL

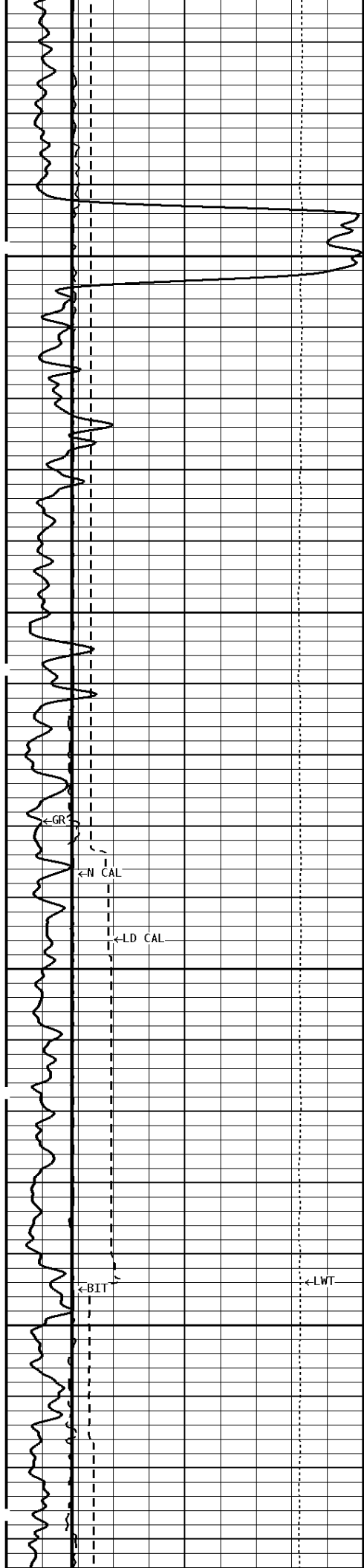
200Cu.ft-

-300Cu.ft

2600

2700





2800

-200Cu.ft

2900

100Cu.ft-

←GR

←N CAL

←LD CAL

←BIT

←LWT

←L CAL

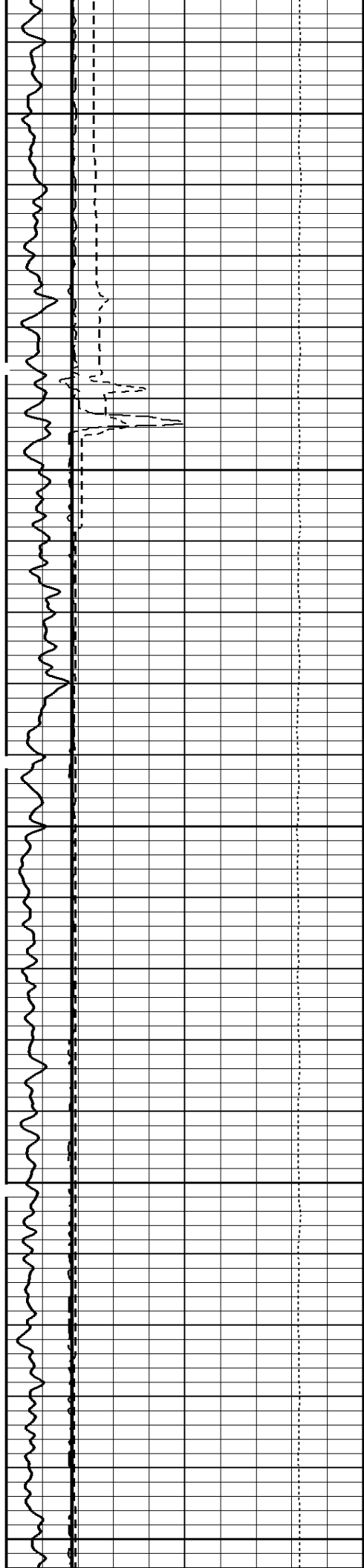
←BIT

←CASING

←N CAL

←BIT

←CASING

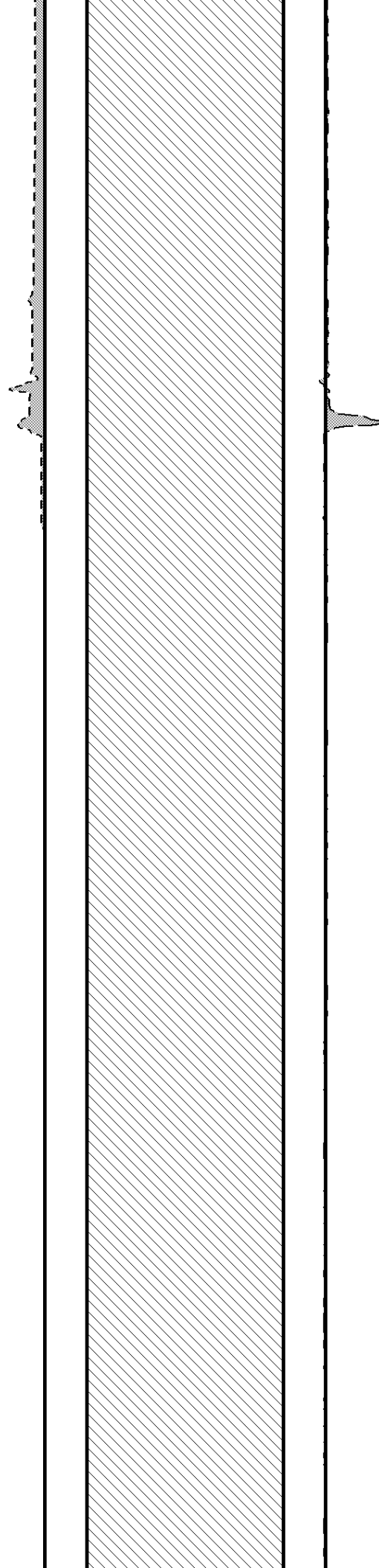


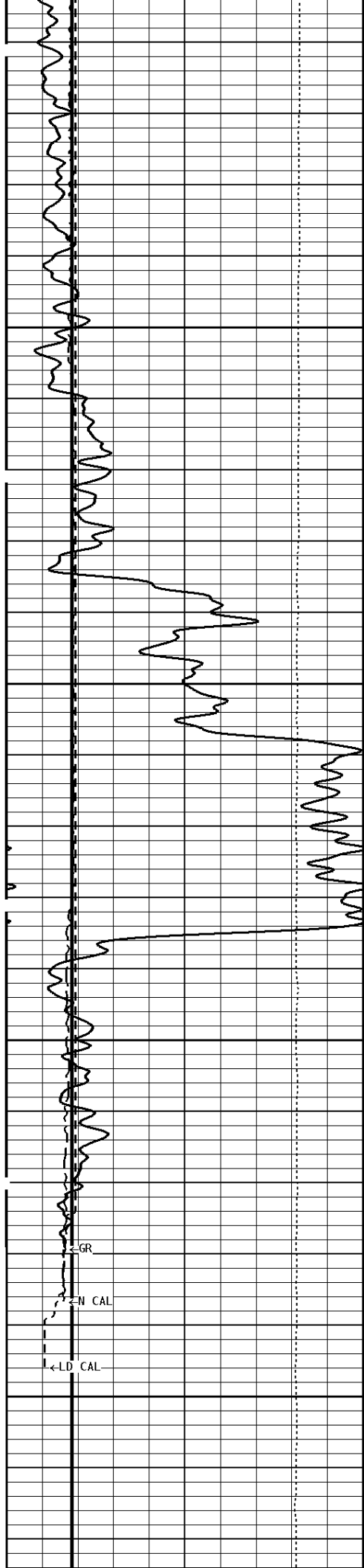
3000

3100

3200

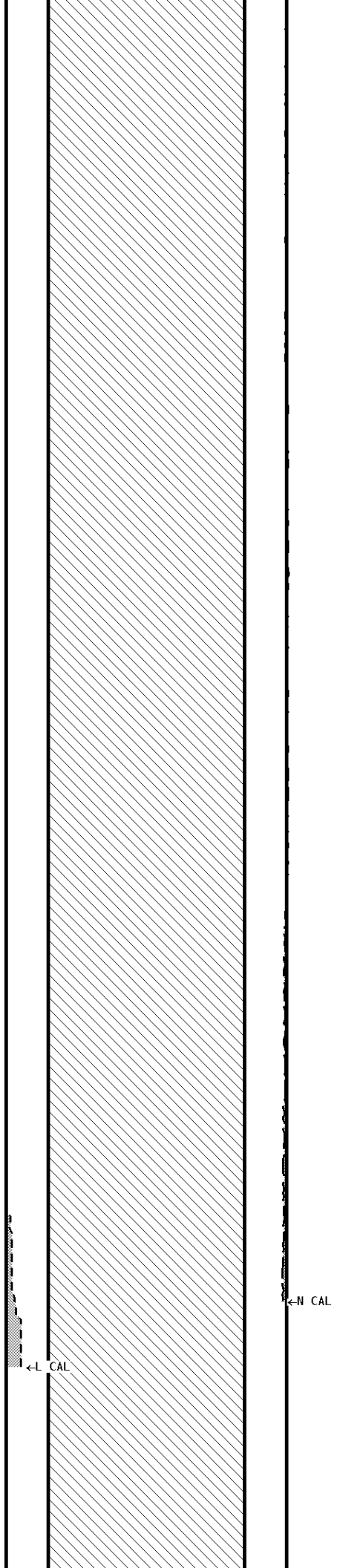
-100Cu.ft

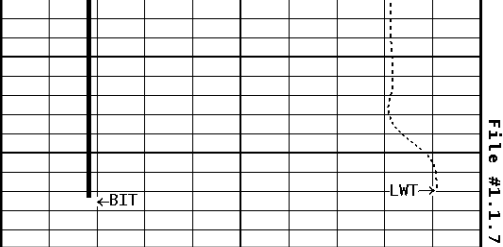




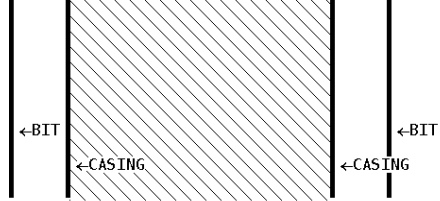
3300

3400





3445



1:240 MAIN SECTION

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

BOREHOLE VOLUME CU.FT	ANNULAR HOLE VOLUME CU.FT.
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* 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 : 08-AUG-2016			Time : 10:25		
Sensor Suite : GR-GR5			ID : GRT-BA-121		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	47	341	175	GRAPI	
Shop Calibration CNT-AA					
Performed : 08-SEP-2016			Time : 10:32		
Sensor Suite : CALI-BCN			ID : NDT-AB-400		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.6	13.0	6.0	12.0	IN.
Shop Calibration LDT-DA					
Performed : 28-SEP-2016			Time : 11:42		
Sensor Suite : CALI-LTH			ID : NDT-AH-152		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1	Ring#2	Ring#1	Ring#2	

	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.5	11.9	6.0	12.0	IN.



Tucker
ENERGY SERVICES

Company: RUNNING FOXES PETROLEUM INC.

Well: HERRMANN #9-4B-2

Location: 2315' FSL & 1292' FEL

Logged: 09-18-2016

K.B. Elev: 1146.0 Ft