Company	TREK AEC
Well	BLACKWELDER #1-30
Field	WILDCAT
County	PRATT
State	KANSAS

RECON

BOREHOLE
VOLUME
X-Y CALIPER

	SEC	TWP	RGE	
	30	29S	11W	

Location. 750' FNL & 1000' FEL — NW SW NE NE
SURF. SAME — API#. 15-151-22444-00-00

Permanent Datum . Ground Level Elev 1857
Log Measured From . Kelly Bushing
Drilling Measured From Kelly Bushing

OTHER SERVICES:
DIL LDT
CNL MEL SONIC

ELEVATIONS K.B. 1869
G.L. 1857
D.F. 1868

Date		02-DEC-2014					
Run No.		ONE					
TD Driller		4850	ft.			ft.	
TD RECON		4855	ft.			ft.	
Bot Logged Interval		4854	ft.			ft.	
Top Logged Interval		265	ft.			ft.	
Casing Depth Driller		8 5/8	in.	@ 268		in.	@
Casing Depth RECON		8 5/8	in.	@ 265		in.	@
Bit Size		7 7/8	in.			in.	
Drilling Fluid Type		Chemcial					
Density	Viscosity	8.9 ppg		60 sec/qt			
Fluid Loss	PH	12.4 ml/30min		10.0 strip			
Source Of Sample		Flowline					
RM @ Measured Temp		0.429	Ohmm	@ 75		Ohmm	@
RMF @ Measured Temp		0.322	Ohmm	@ 75		Ohmm	@
RMC @ Measured Temp		0.536	Ohmm	@ 75		Ohmm	@
RM @ MRT		0.249	Ohmm	@ 134		Ohmm	@
Max Recorded Temp		134	DegF			DegF	
Time Drilling Stopped		01-DEC-2014		20:00			
Time Circulation Stopped		01-DEC-2014		23:15			
Time Logger On Bottom		02-DEC-2014		08:14			
Unit Num	Location	S409		OKLAHOMA CITY, OK			
Recorded By		H. GARCIA					
Witnessed By		MR. D. GOULD					

RIG INFORMATION

Drill Contr/Rig# FOSSIL DRLG. #3

GENERAL REMARKS SECTION

FIRST RUN IN THE HOLE
CNL AND LDT LOGGED IN A LIMESTONE MATRIX
TOP MARK - 291, BOTTOM MARK - 4796.3
CNL/LDT LOGGED MATRIX: 2.71 g/cc.

CHLORIDES: 10,000 ppm
LCM: 4 lb/bbl

AHV CALCULATED ON 5.5" PROD. CASING

THANK YOU FOR USING RECON PETROTECHNOLOGIES LTD.

CREW: J. ROSE, B. THOMAS

CEMENT VOLUME CALCULATIONS SUMMARY

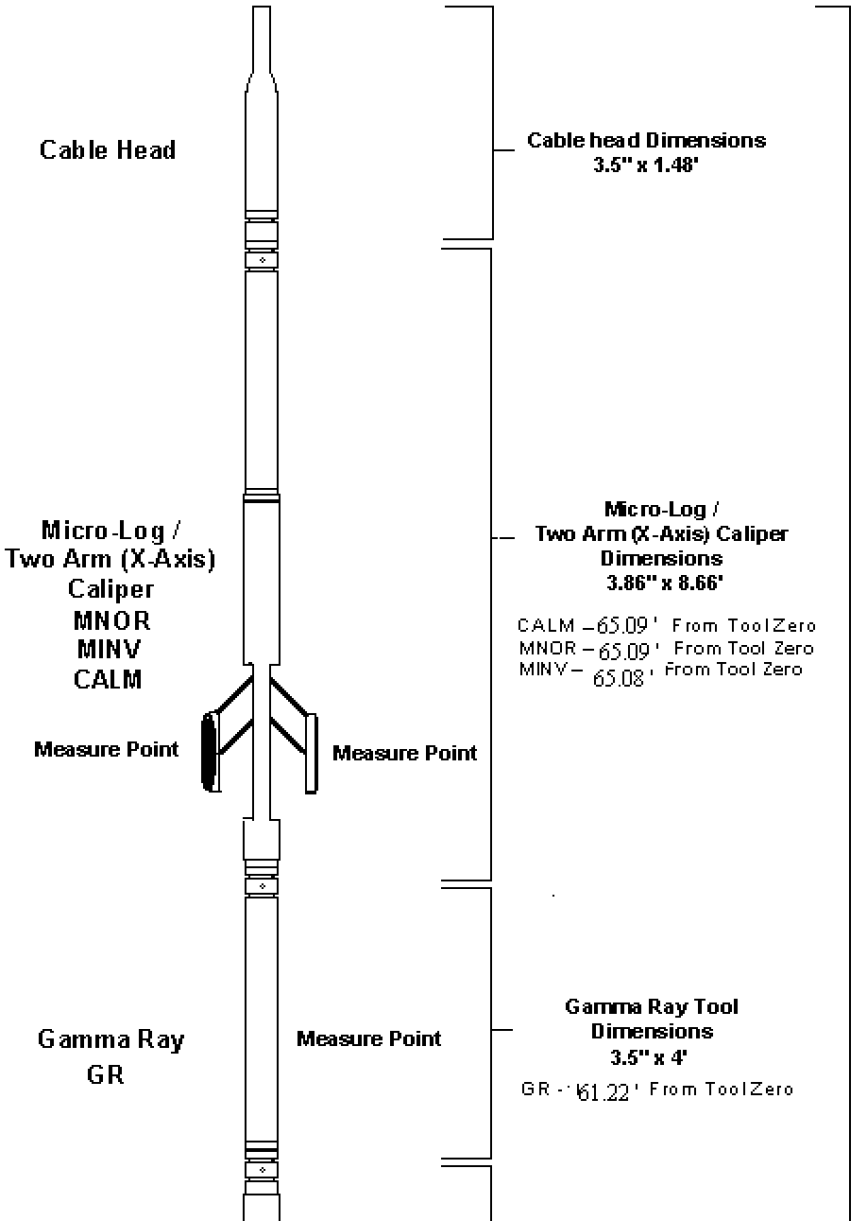
Tool Type	**LDT-CNT**		
Tool Serial #	**RN2002 / RL4106**	**Caliper Type**	**X-Y CALIPERS**

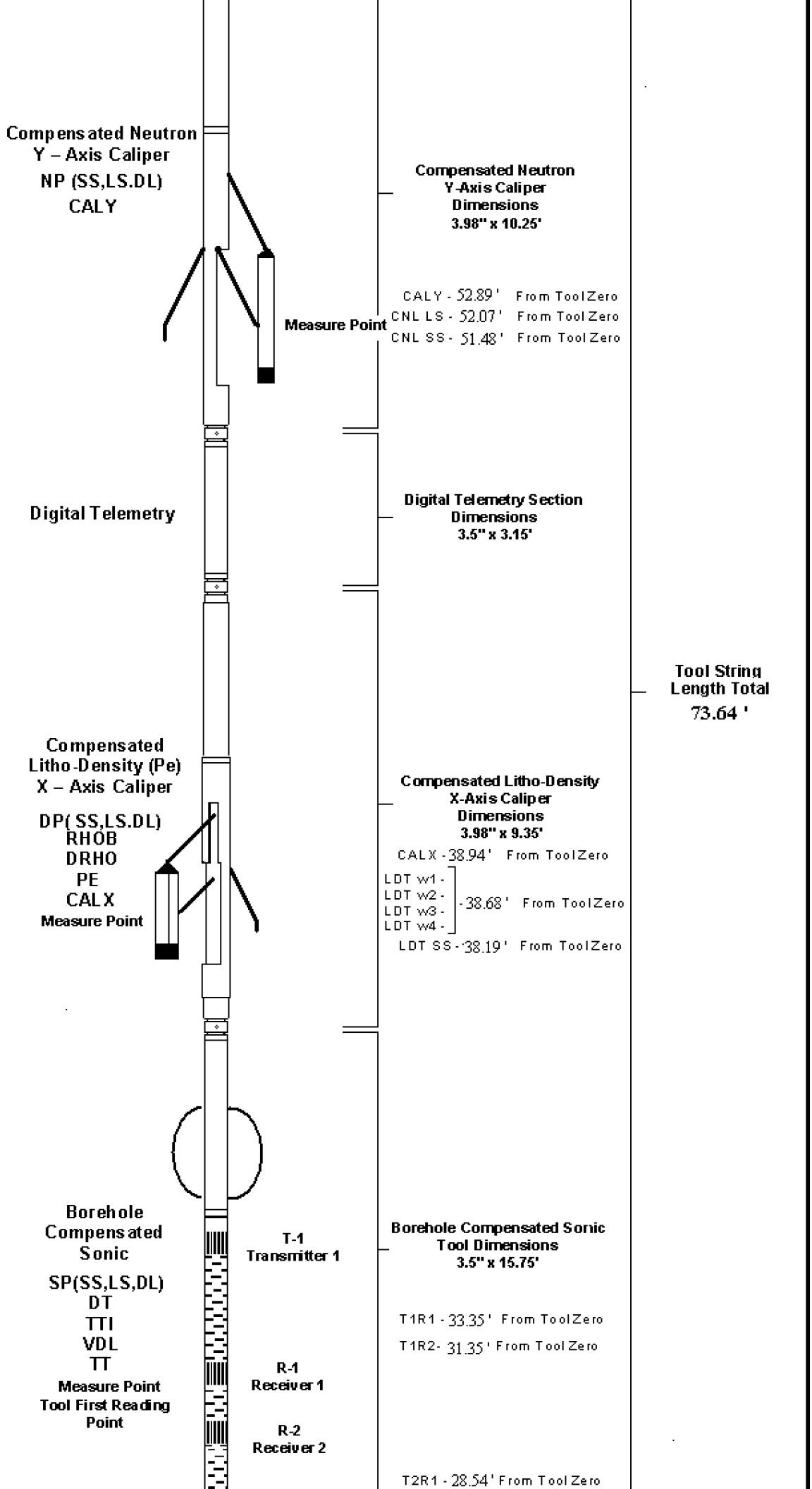
	Borehole Total	Annular Volume with Casing	From Depth (MKb)	To Depth (MKb)
VOLUMES	**2272.951 Cubic Feet**	**1510.904 Cubic Feet**	**SCG 265**	**TD 4855**

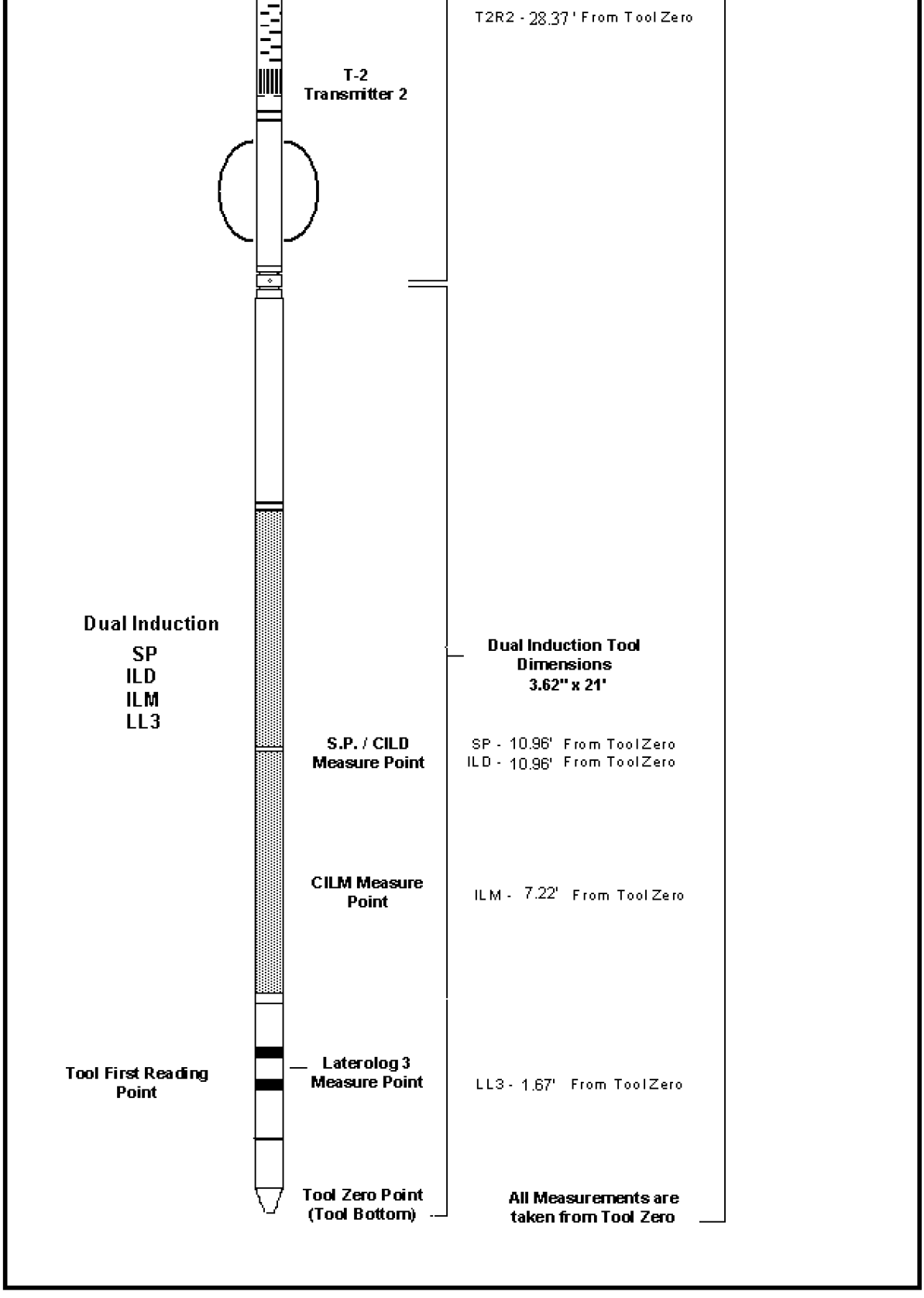
CASING INFORMATION

	SIZE (in)	GRADE	WEIGHT (lbs/ft)	ID (in)	TOP DEPTH	BOT DEPTH
SURFACE CASING	**8 5/8**	**J-55**	**24**	**8.097**	**Surface**	**265**
INTERMEDIATE CASING	**N/A**	**N/A**	**N/A**	**N/A**	**Surface**	**N/A**
PRODUCION CASING	**5 1/2**	**J-55**	**15.5**	**4.950**	**Surface**	**TD**

DUAL INDUCTION – SP / BHC SONIC /
GAMMA RAY / LITHO-DENSITY / X CALIPER
COMPENSATED NEUTRON / Y-CALIPER
MICRO - LOG / M-CALIPER




Compensated Neutron
Y – Axis Caliper
NP (SS,LS.DL)
CALY
Measure Point
Compensated Neutron
Y-Axis Caliper
Dimensions
3.98" x 10.25'
CALY - 52.89 ' From Tool Zero
CNL LS - 52.07 ' From Tool Zero
CNL SS - 51.48 ' From Tool Zero
Digital Telemetry
Digital Telemetry Section
Dimensions
3.5" x 3.15'
Tool String
Length Total
73.64 '
Compensated
Litho-Density (Pe)
X – Axis Caliper
DP(SS,LS.DL)
RHOB
DRHO
PE
CALX
Measure Point
Compensated Litho-Density
X-Axis Caliper
Dimensions
3.98" x 9.35'
CALX - 38.94 ' From Tool Zero
LDT w1 -
LDT w2 -
LDT w3 -
LDT w4 -
- 38.68 ' From Tool Zero
LDT SS - 38.19 ' From Tool Zero
Borehole
Compensated
Sonic
SP(SS,LS,DL)
DT
TTI
VDL
TT
Measure Point
Tool First Reading
Point
T-1
Transmitter 1
R-1
Receiver 1
R-2
Receiver 2
Borehole Compensated Sonic
Tool Dimensions
3.5" x 15.75'
T1R1 - 33.35 ' From Tool Zero
T1R2 - 31.35 ' From Tool Zero
T2R1 - 28.54 ' From Tool Zero

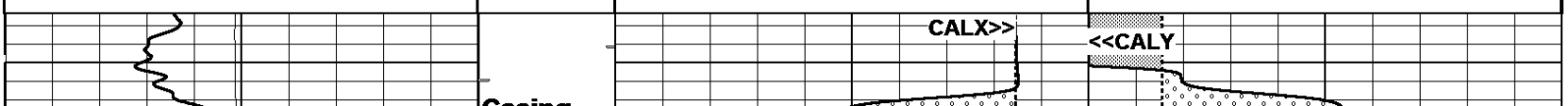


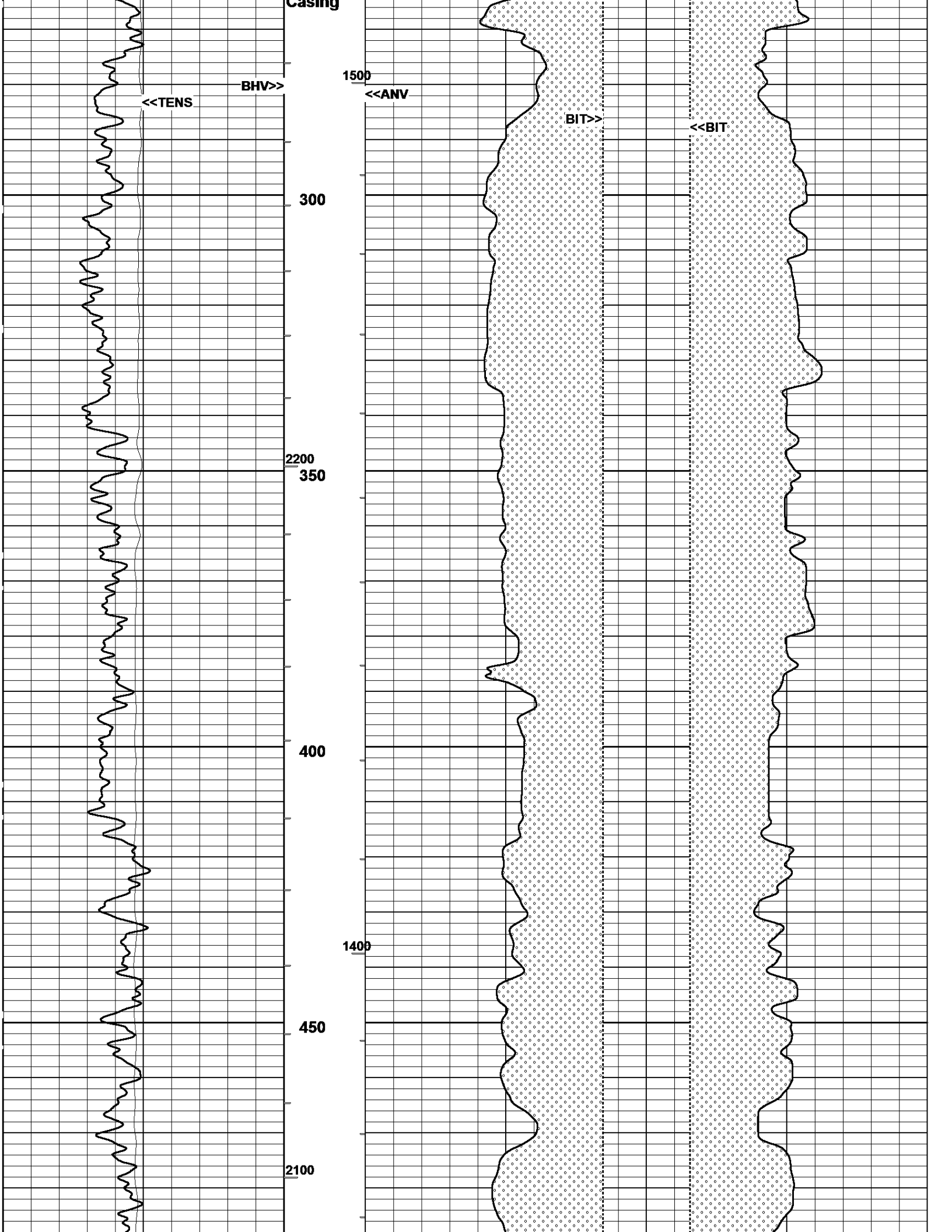
12/02/2014
22:43:20 => End Time

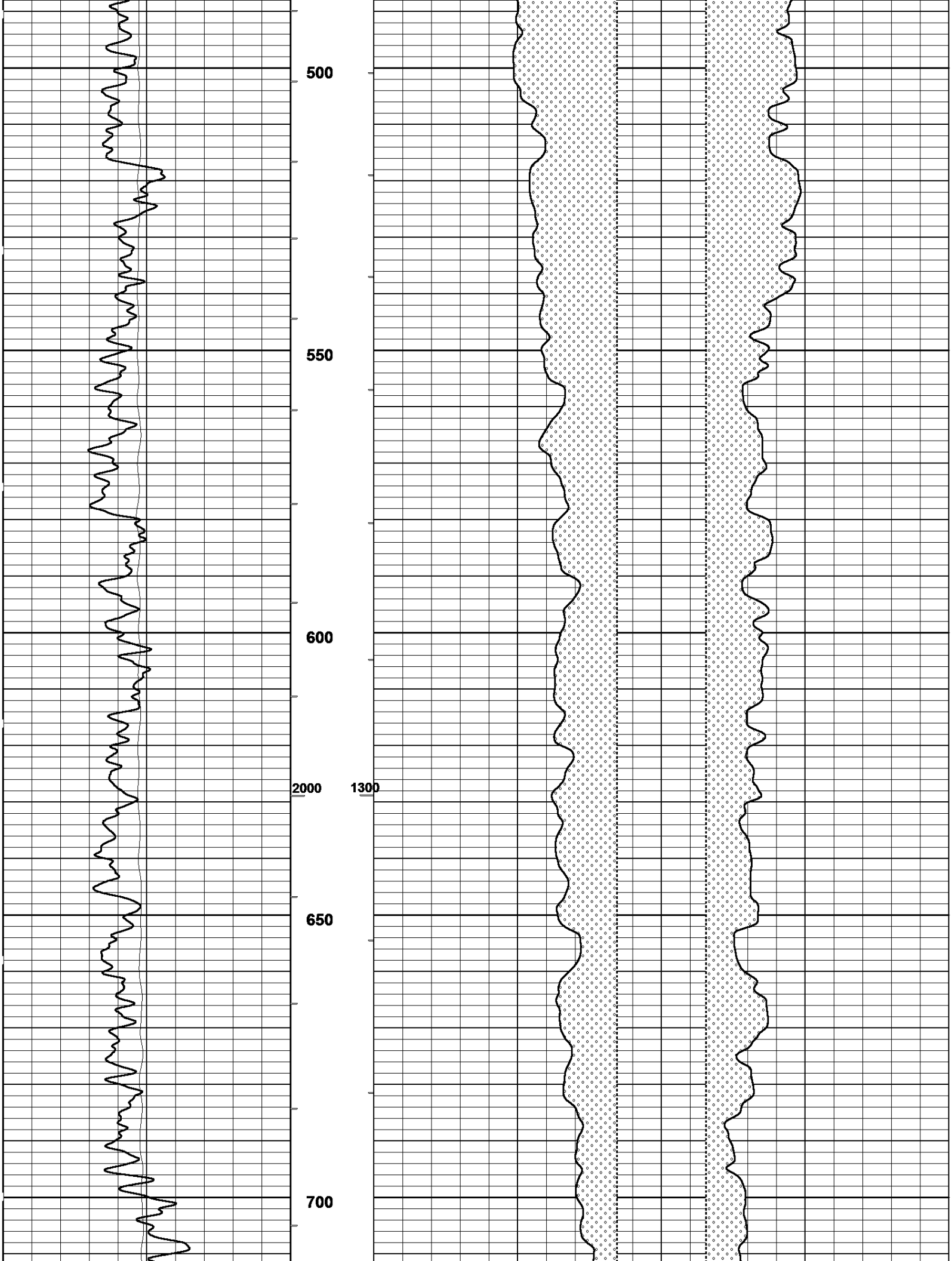
BOREHOLE VOLUME (5"/100Ft)

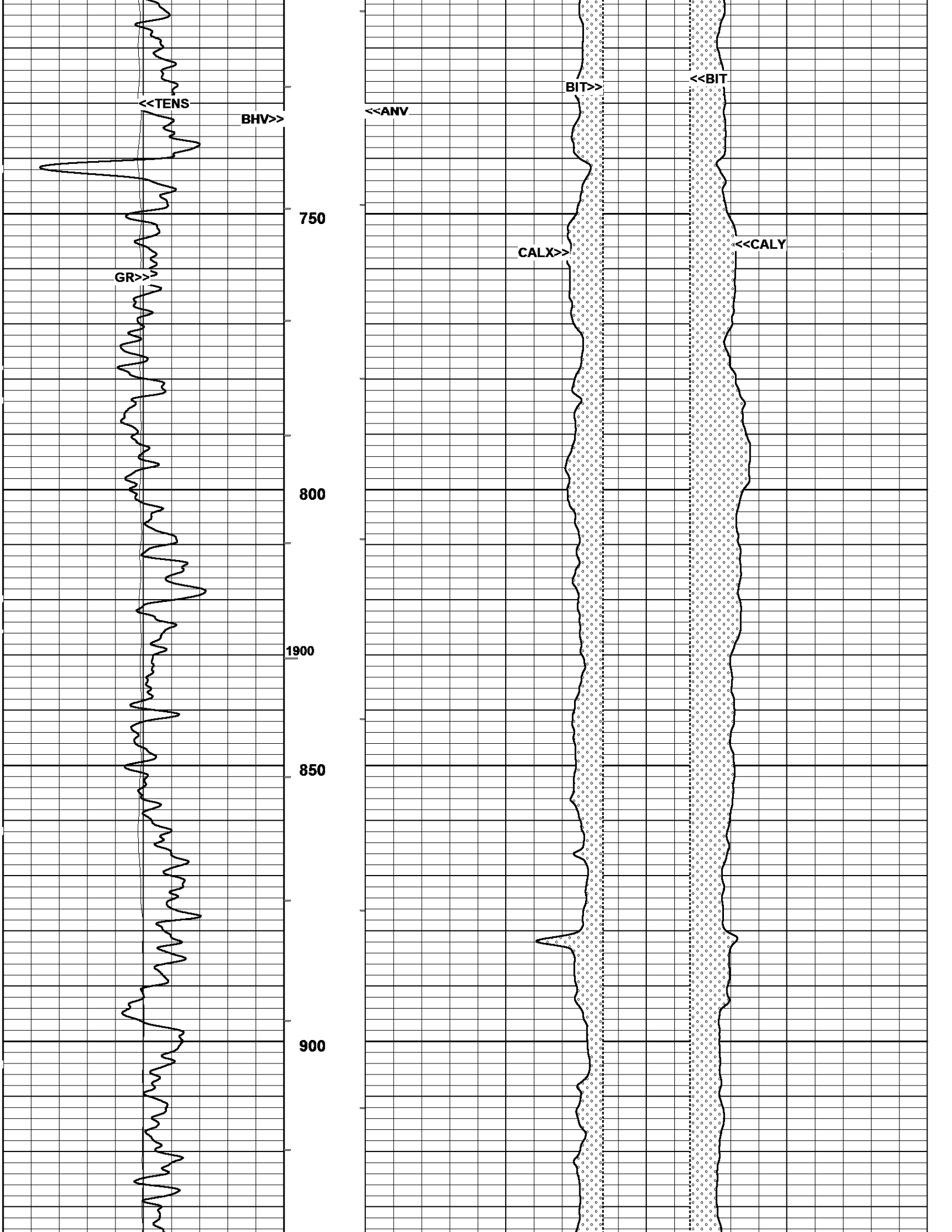
Log UP - (VER 11.19)
End Depth=> 254.90 Feet

Tension (TENS)			Bit Size X-CAL (BIT)			Bit Size Y-CAL (BIT)		
0.	Lbs	5000.	18.	Ref in	6.	6.	Ref in	18.
Gamma Ray (GR)			**X-Caliper (CALX)**			**Y-Caliper (CALY)**		
0.	API	150.	18.	in	6.	6.	in	18.




Casing
BHV>>
<<TENS
1500
<<ANV
BIT>>
<<BIT
300
2200
350
400
1400
450
2100


500
550
600
2000
1300
650
700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BHV>>
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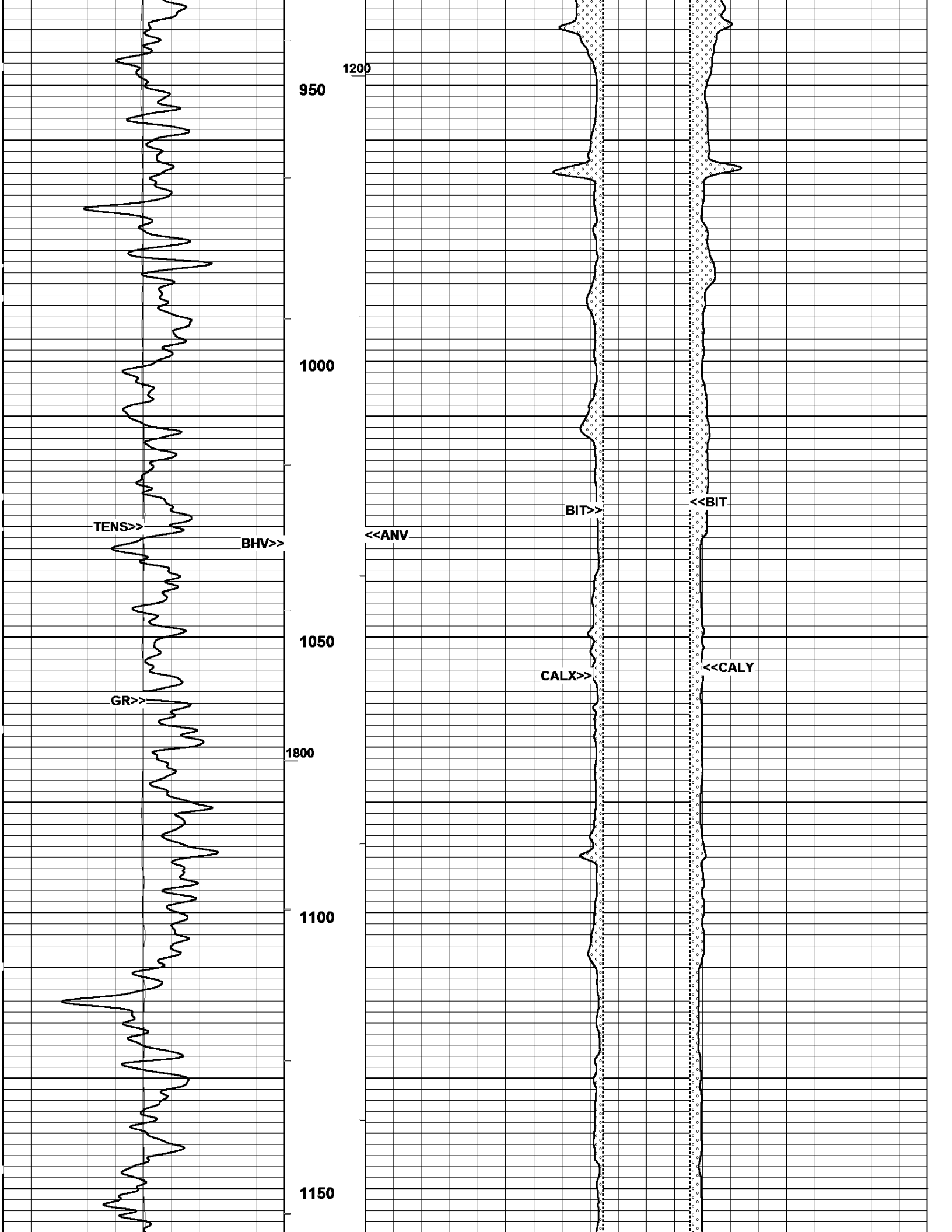
BIT>>
<<BIT
750
CALX>>
<<CALY
GR>>
800
1900
850
900


950
1000
1050
1100
1150
1200
1800
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BHV>>
GR>>
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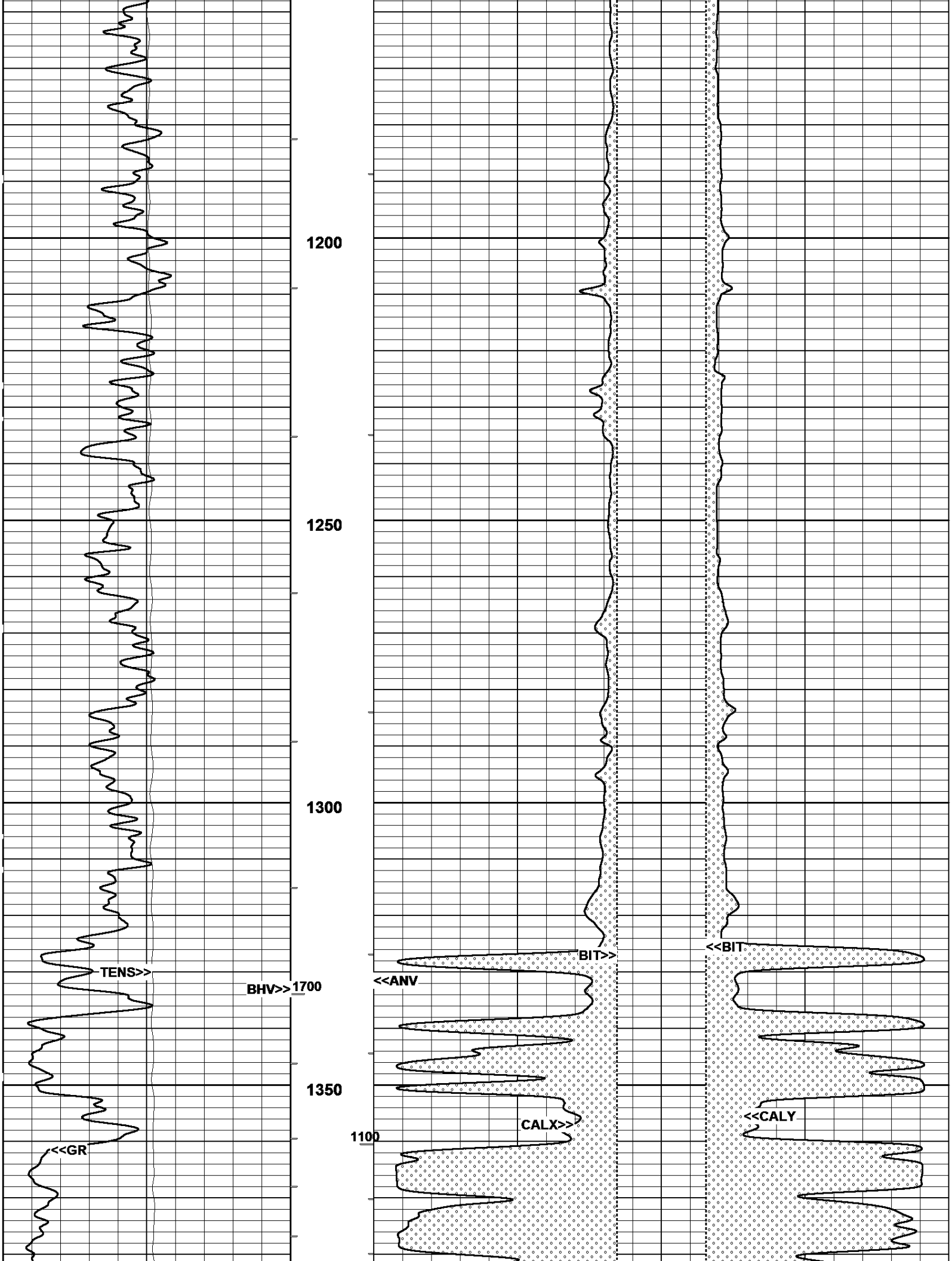
CALX>>
<<CALY


1200
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1350
TENS>>
BHV>>
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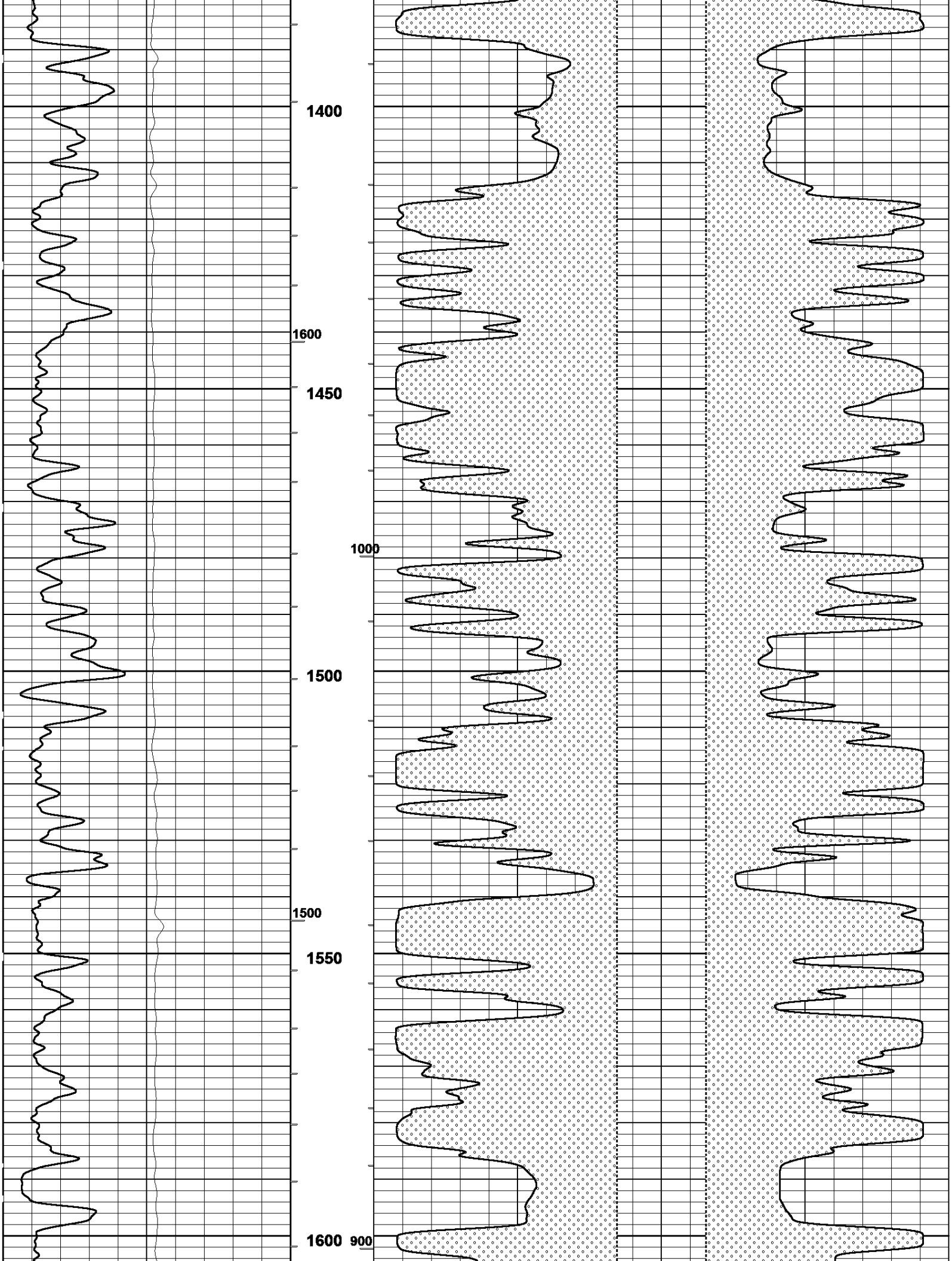
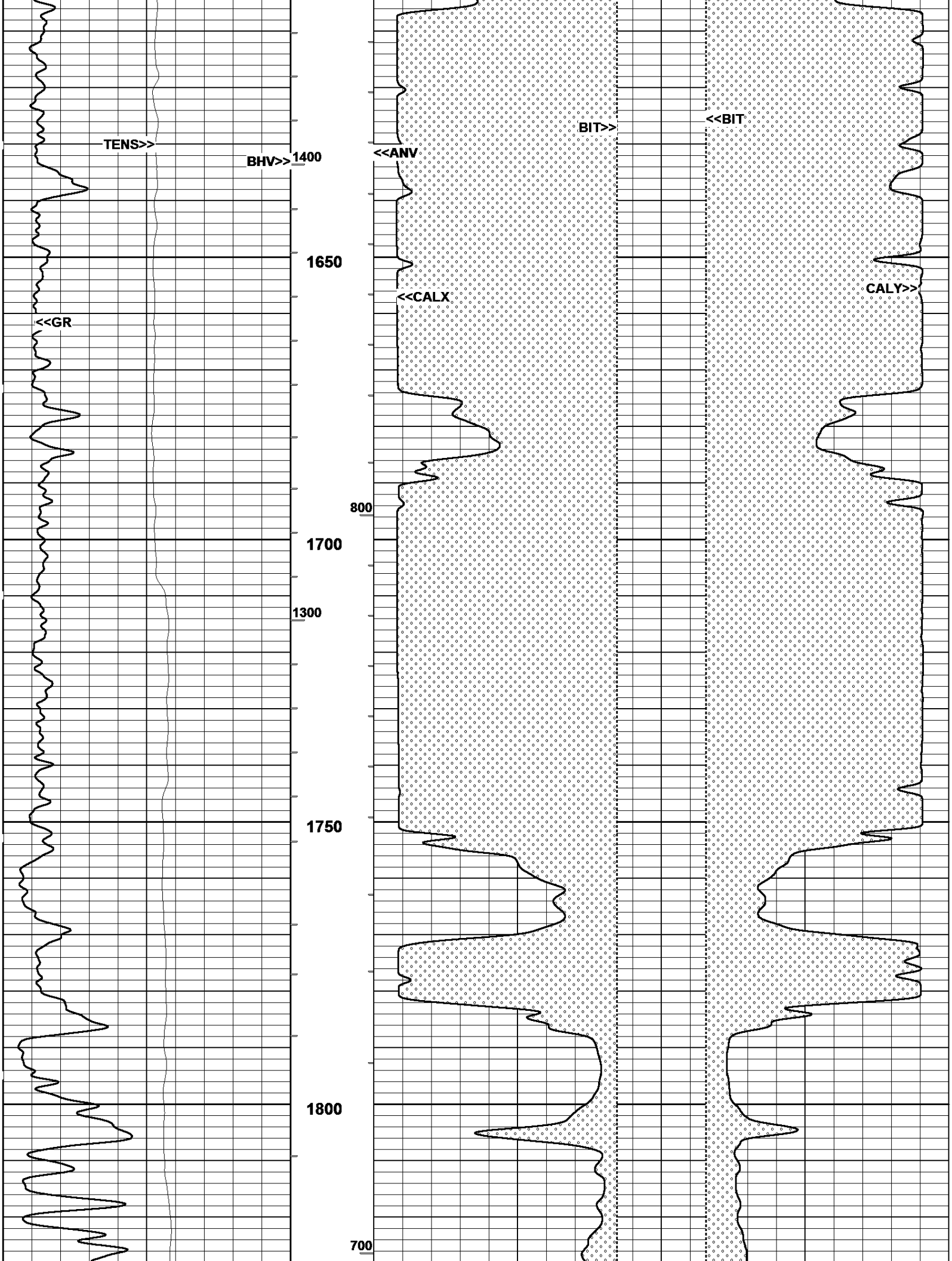
<<ANV
BIT>>
1100
CALX>>
<<BIT
<<CALY


1400
1600
1450
1000
1500
1500
1550
1600
900


TENS>>
BHV>>
1400
1650
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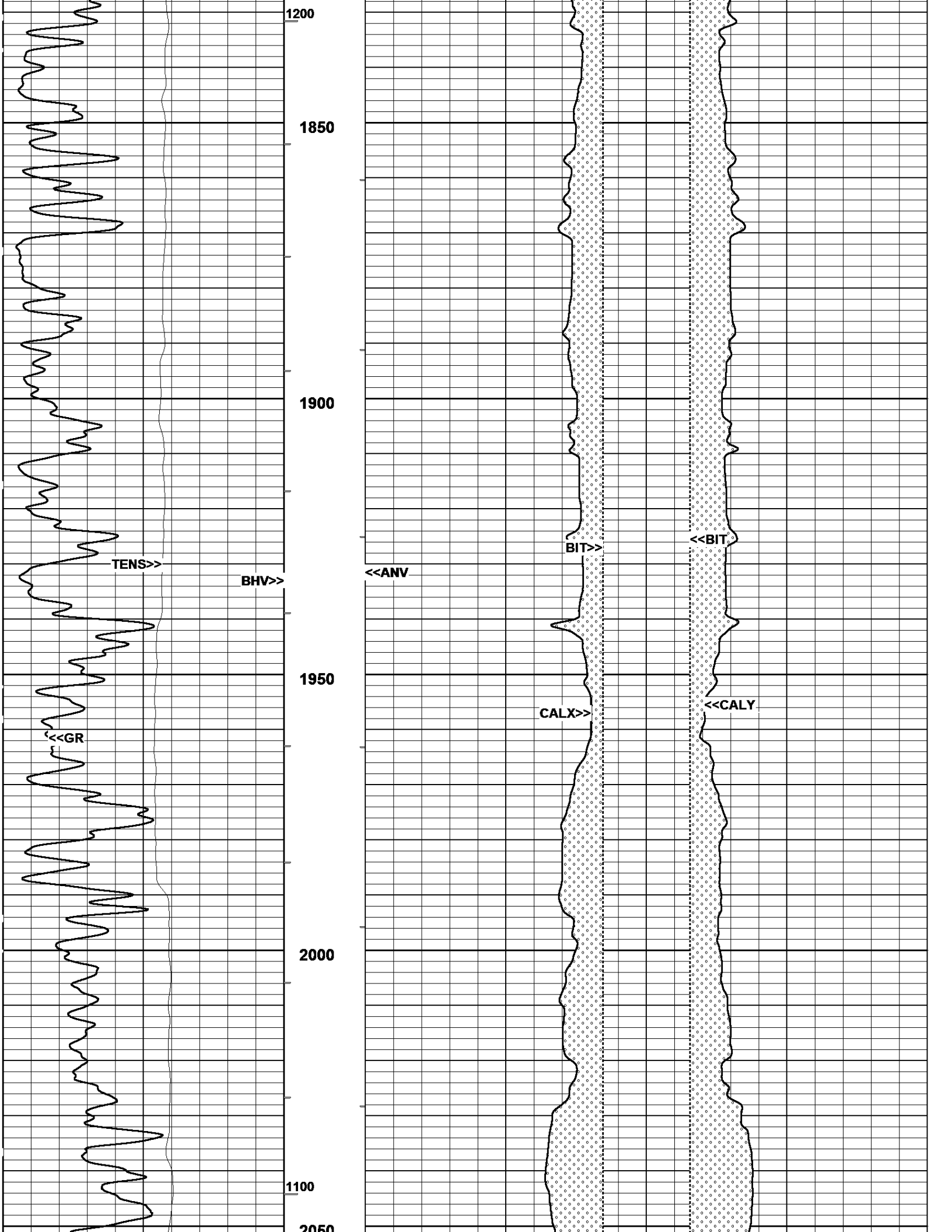
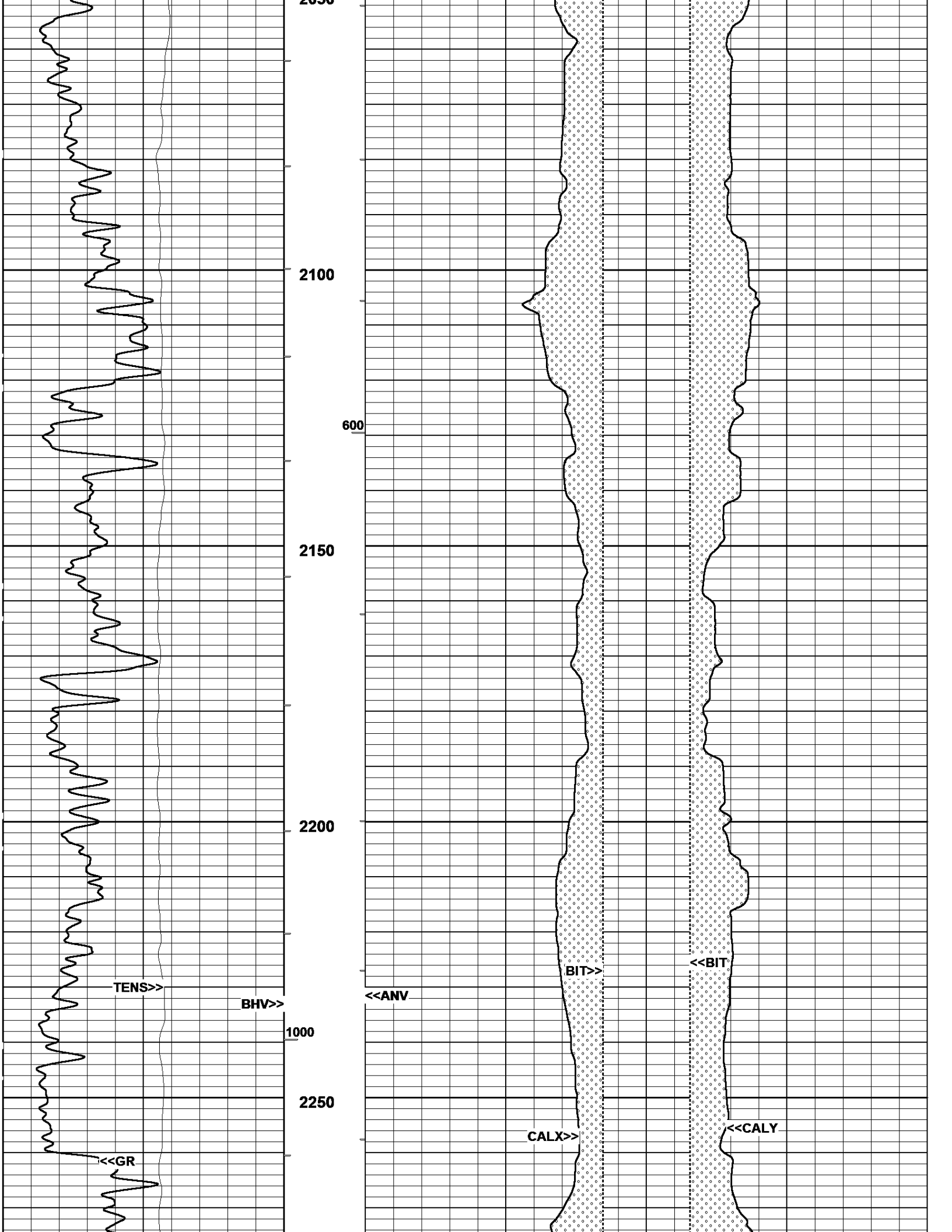
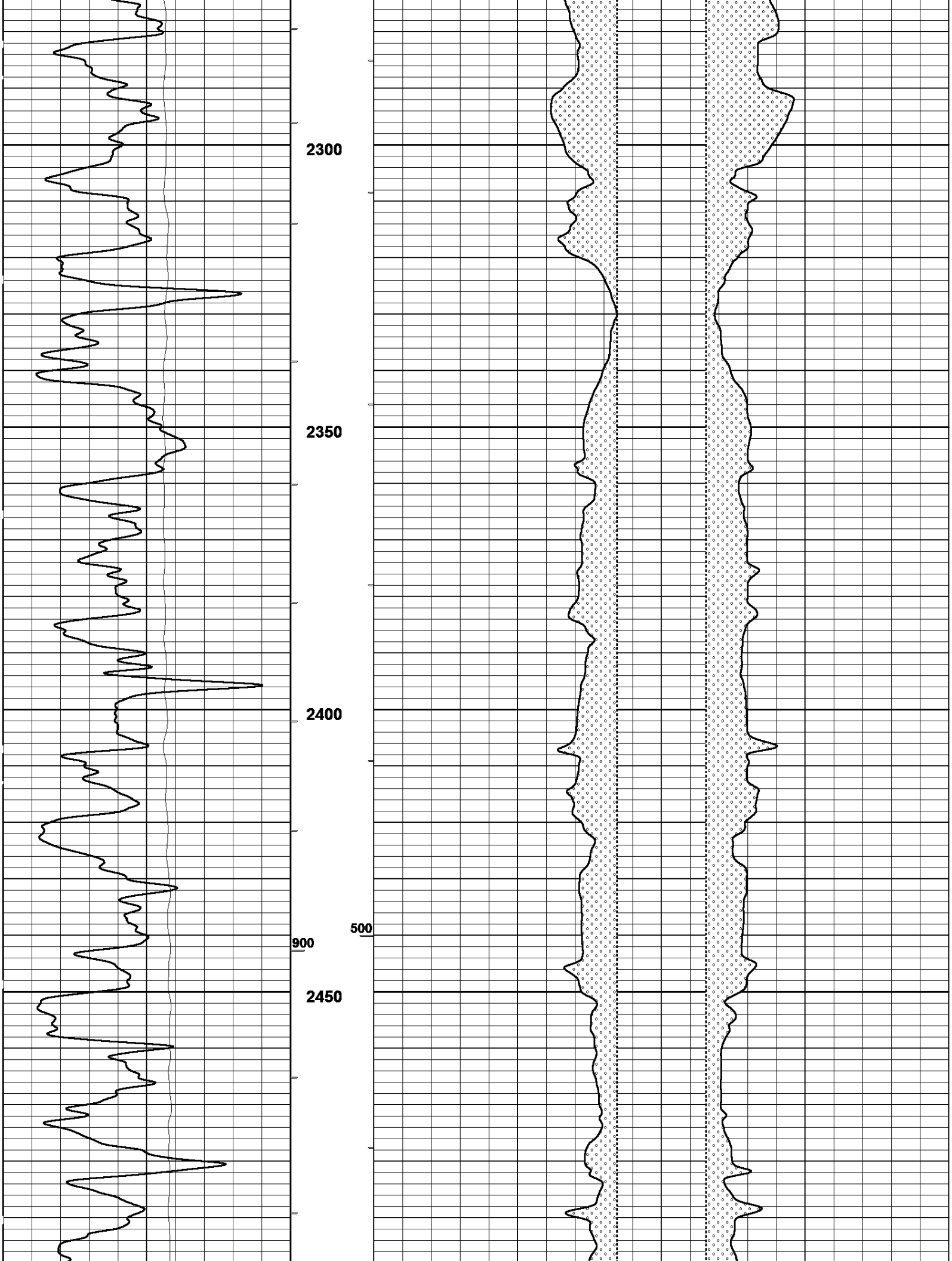
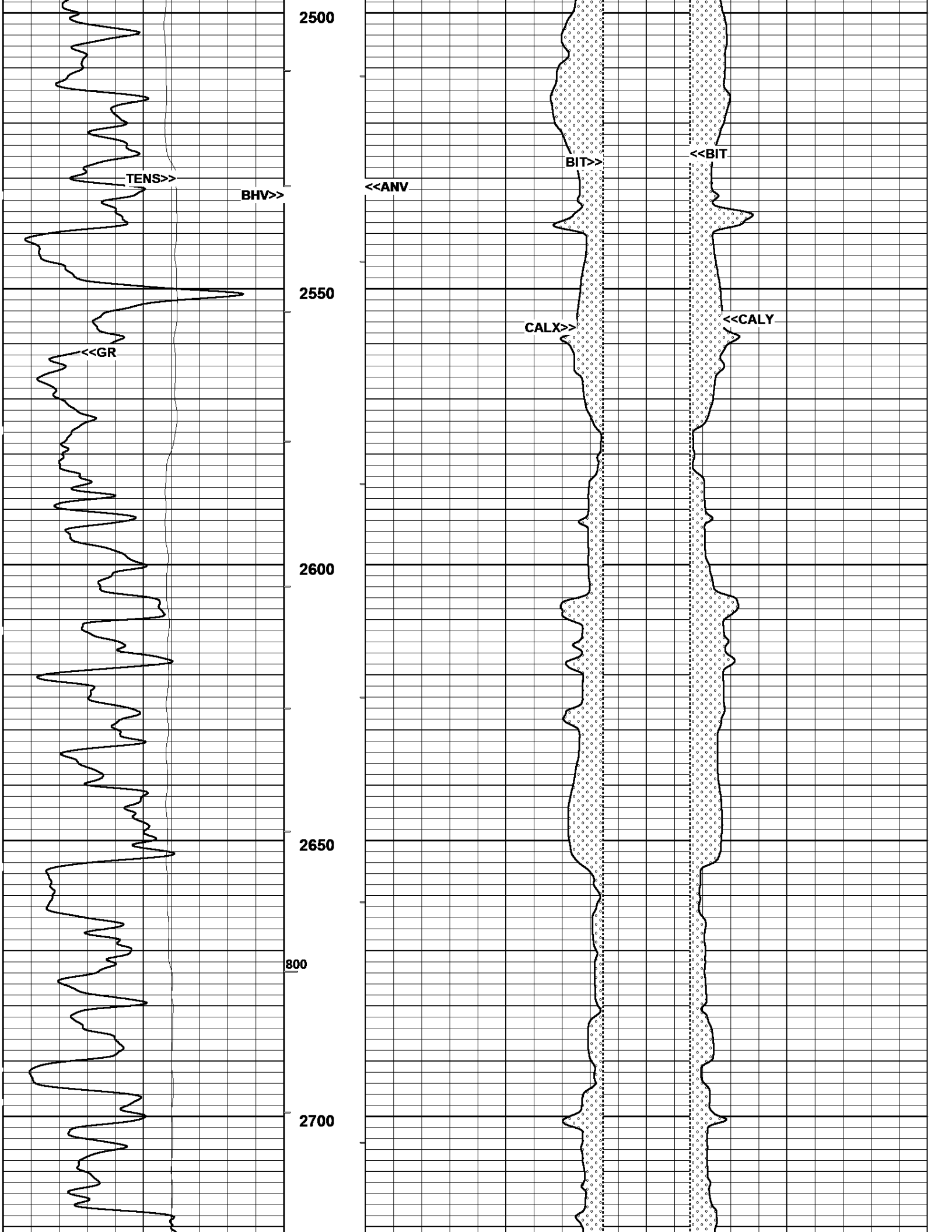
1700
1300
1750
1800
<<ANV
BIT>>
<<CALX
800
700
<<BIT
CALY>>


1200
1850
1900
1950
2000
1100
2050
TENS>>
BHV>>
<<GR
<<ANV
BIT>>
<<BIT
CALX>>
<<CALY


2050
2100
2150
2200
2250
600
TENS>>
BHV>>
1000
<<GR
<<ANV
BIT>>
<<BIT
CALX>>
<<CALY


2300
2350
2400
900
500
2450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BIT>>
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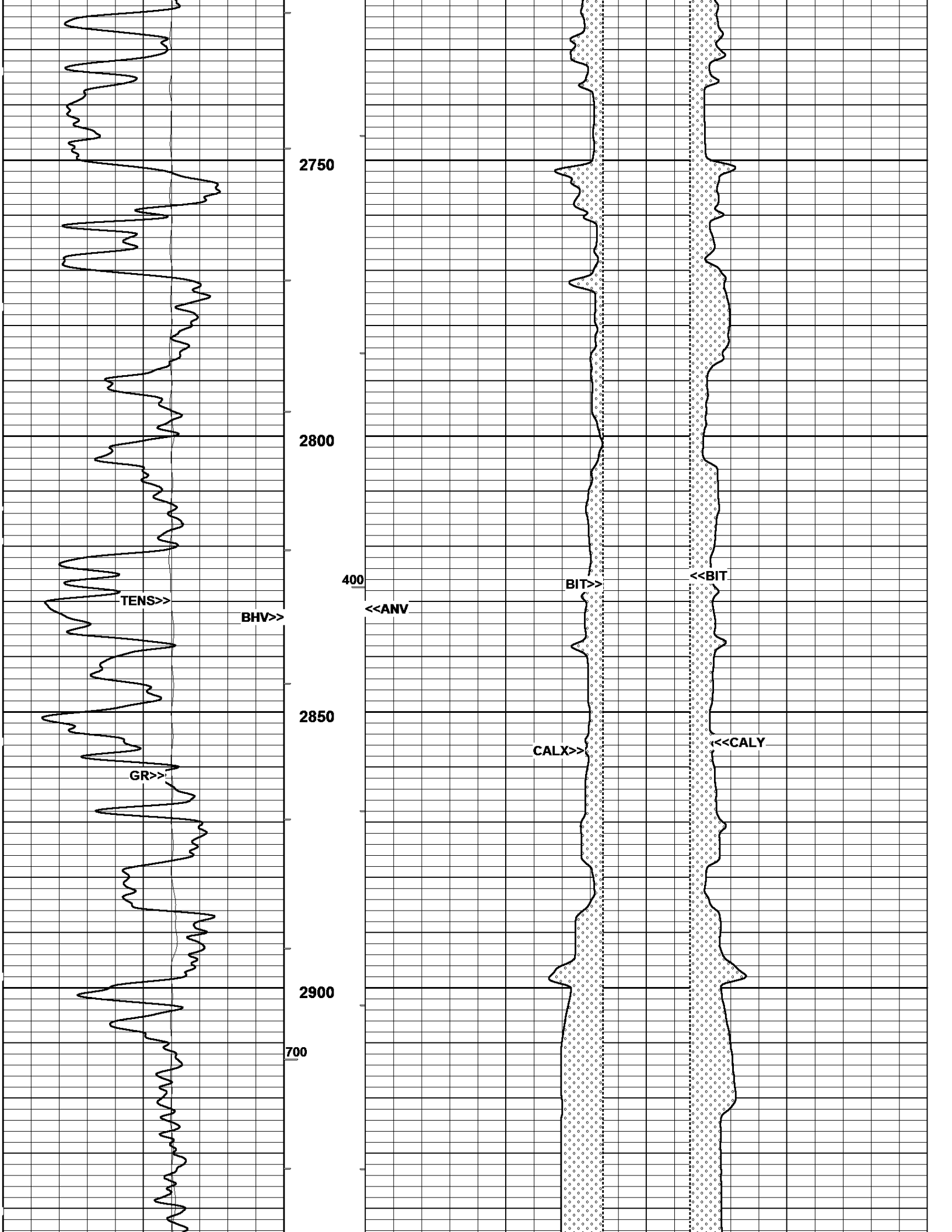
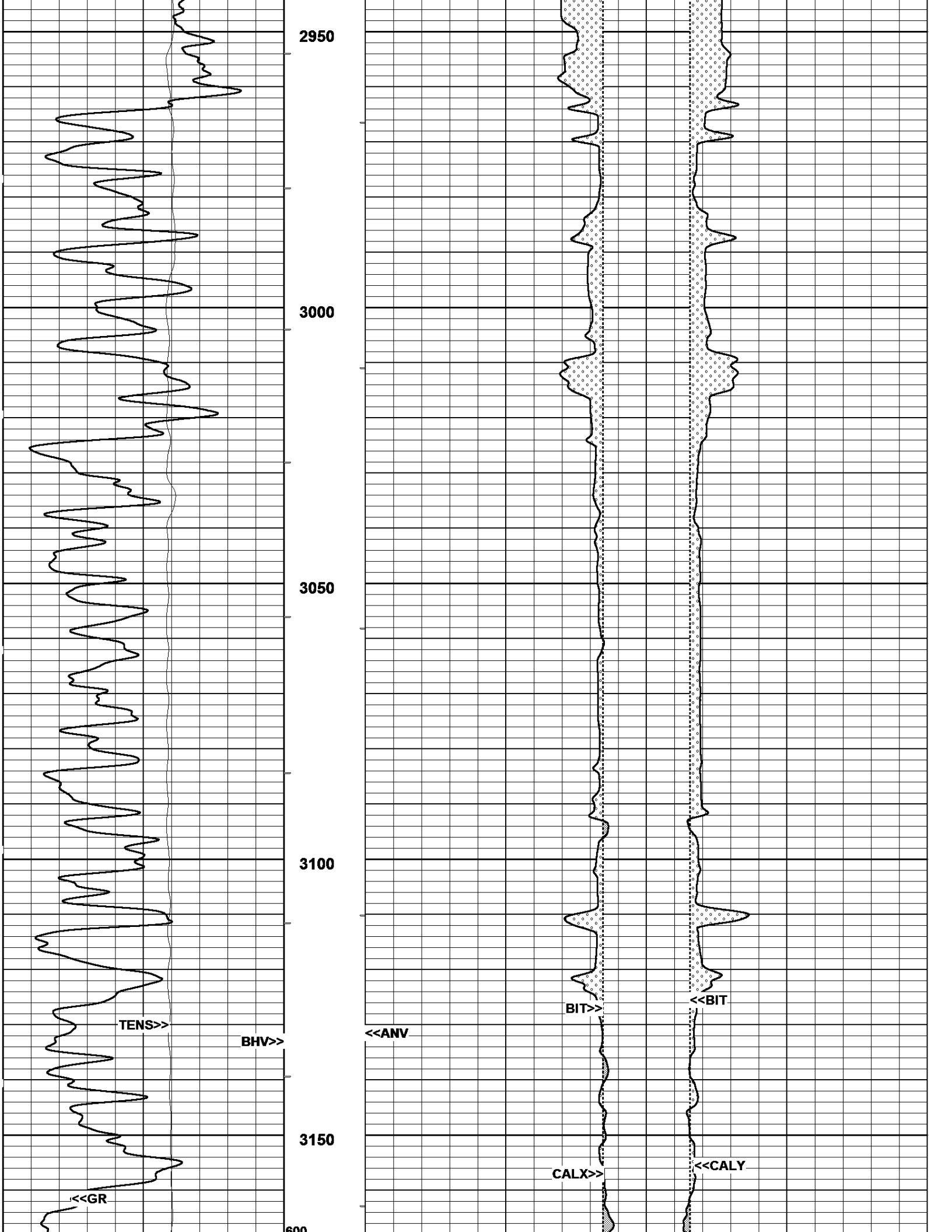
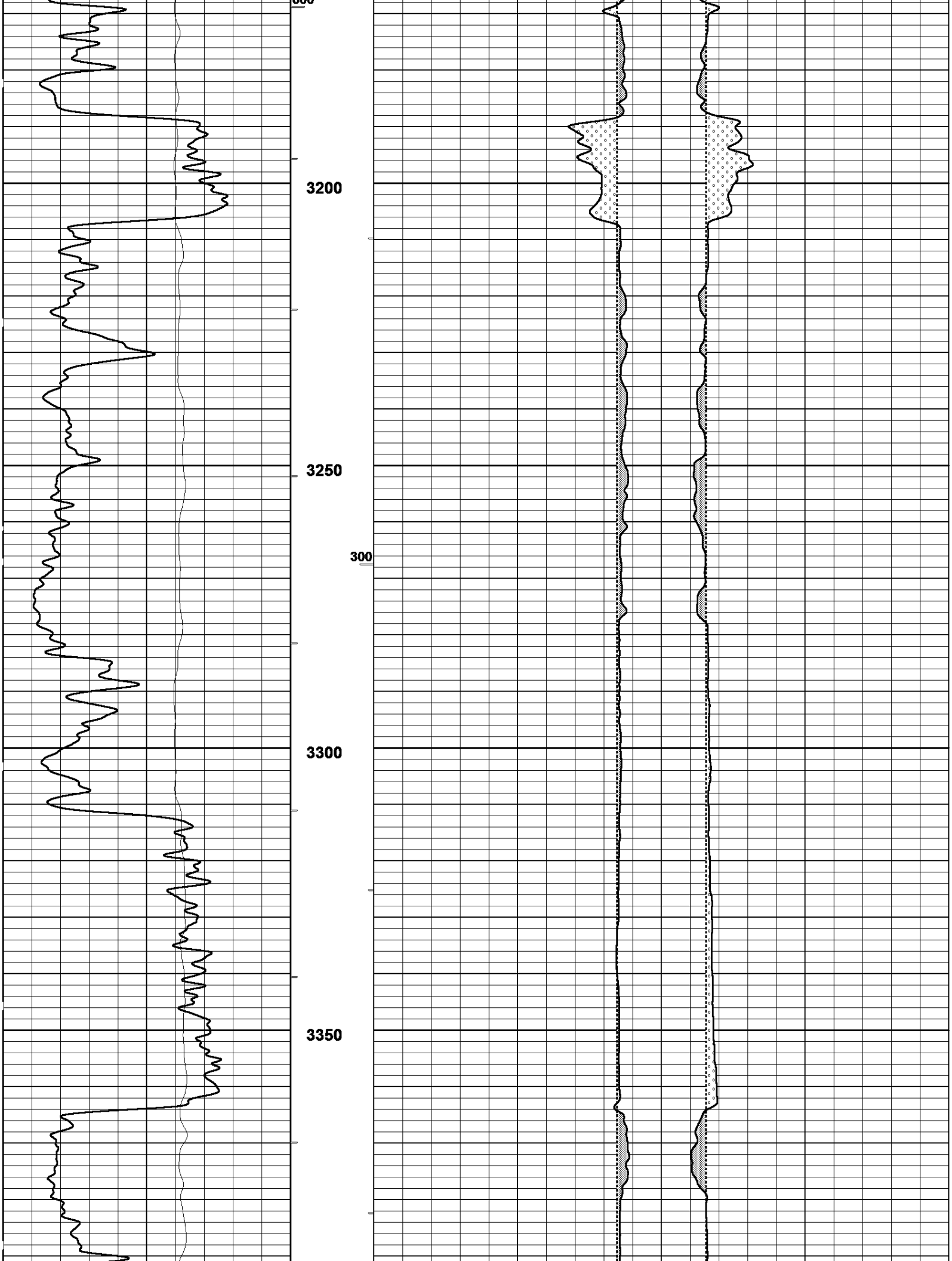
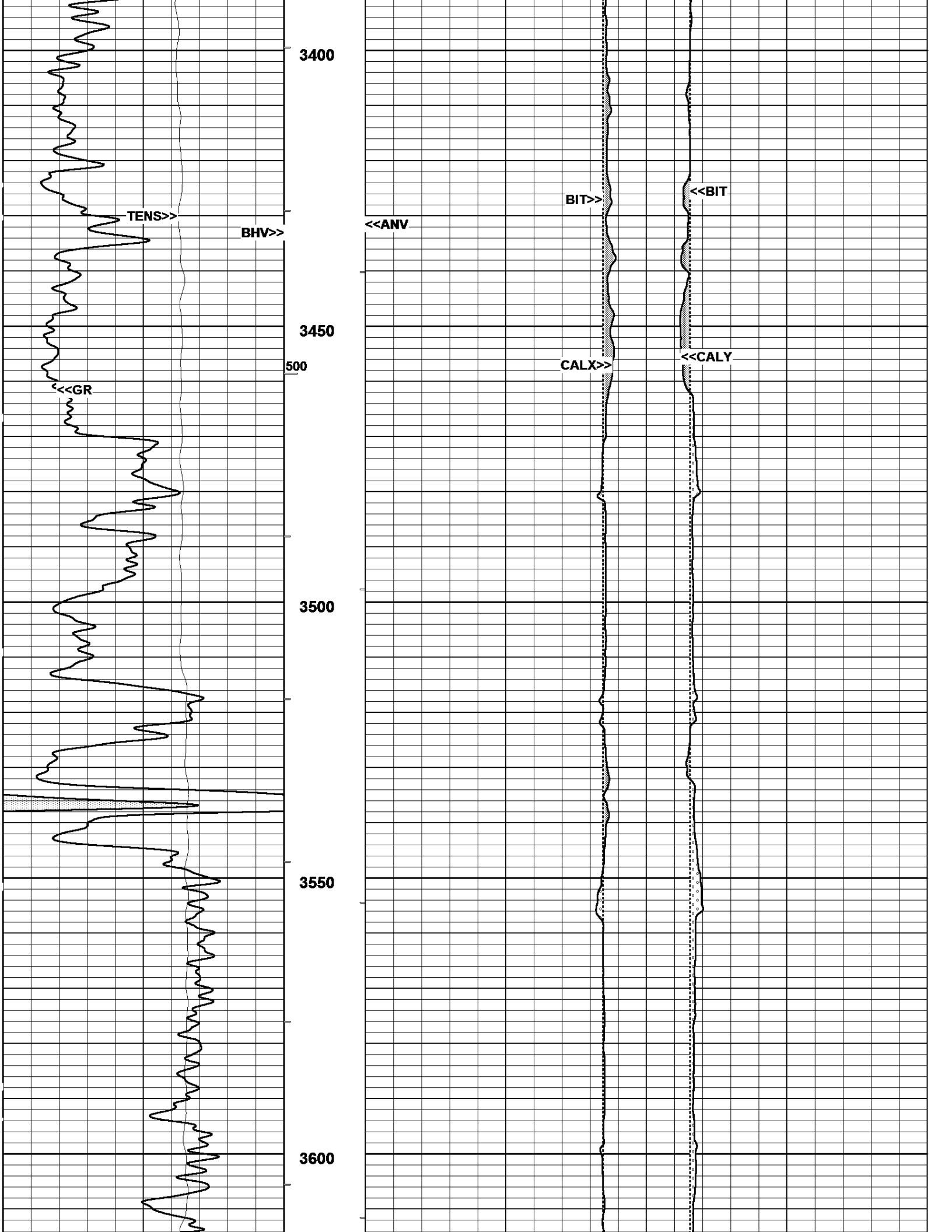
CALX>>
<<CALY
<<GR
2600
2650
800
2700


2750
2800
2850
2900
TENS>>
BHV>>
GR>>
400
<<ANV
BIT>>
<<BIT
CALX>>
<<CALY
700


2950
3000
3050
3100
3150
TENS>>
BHV>>
<<ANV
BIT>>
<<BIT
CALX>>
<<CALY
<<GR
600


3200
3250
300
3300
3350


3400
TENS>>
BHV>>
<<ANV
BIT>>
<<BIT
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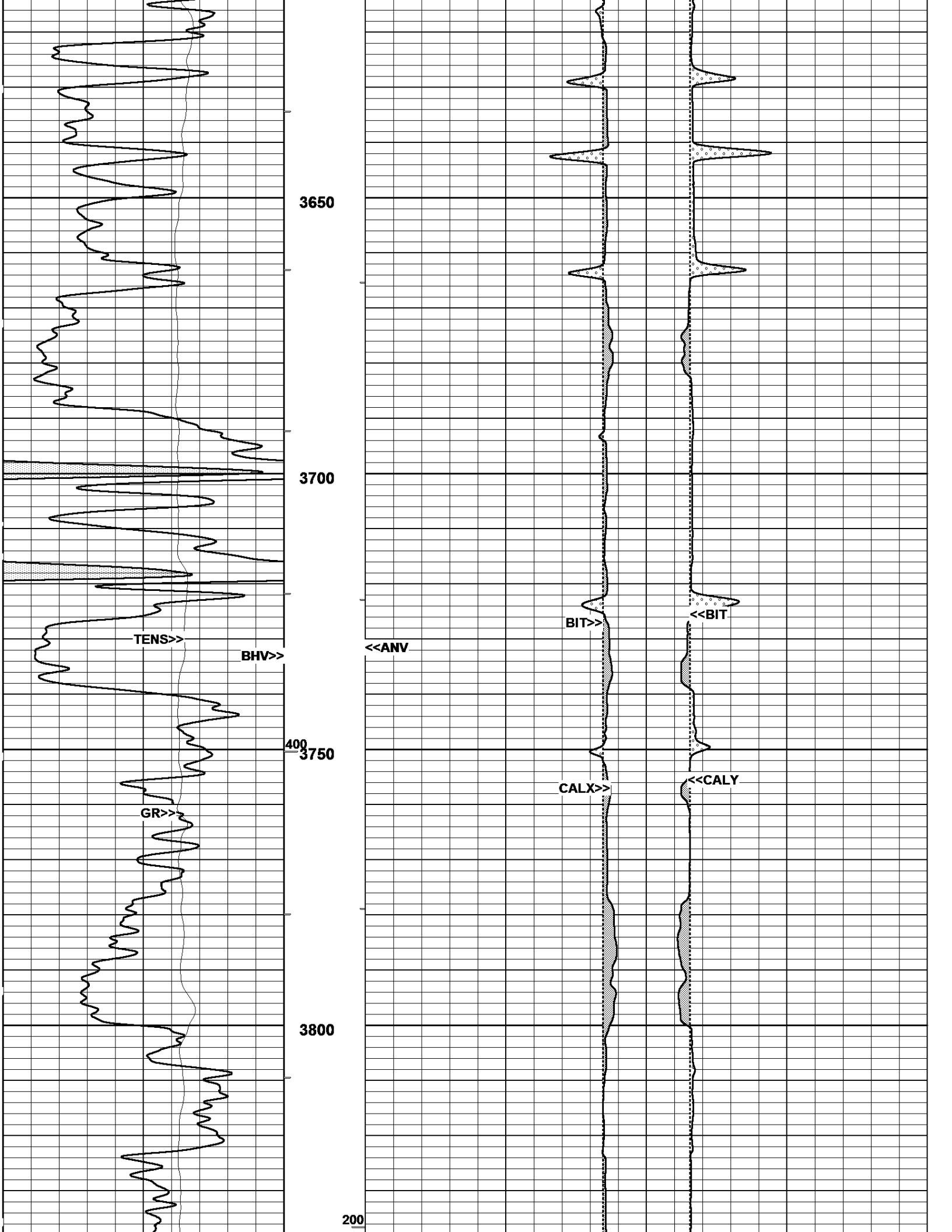
<<GR
CALX>>
<<CALY
3500
3550
3600


3650
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3800
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200
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BHV>>
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BIT>>
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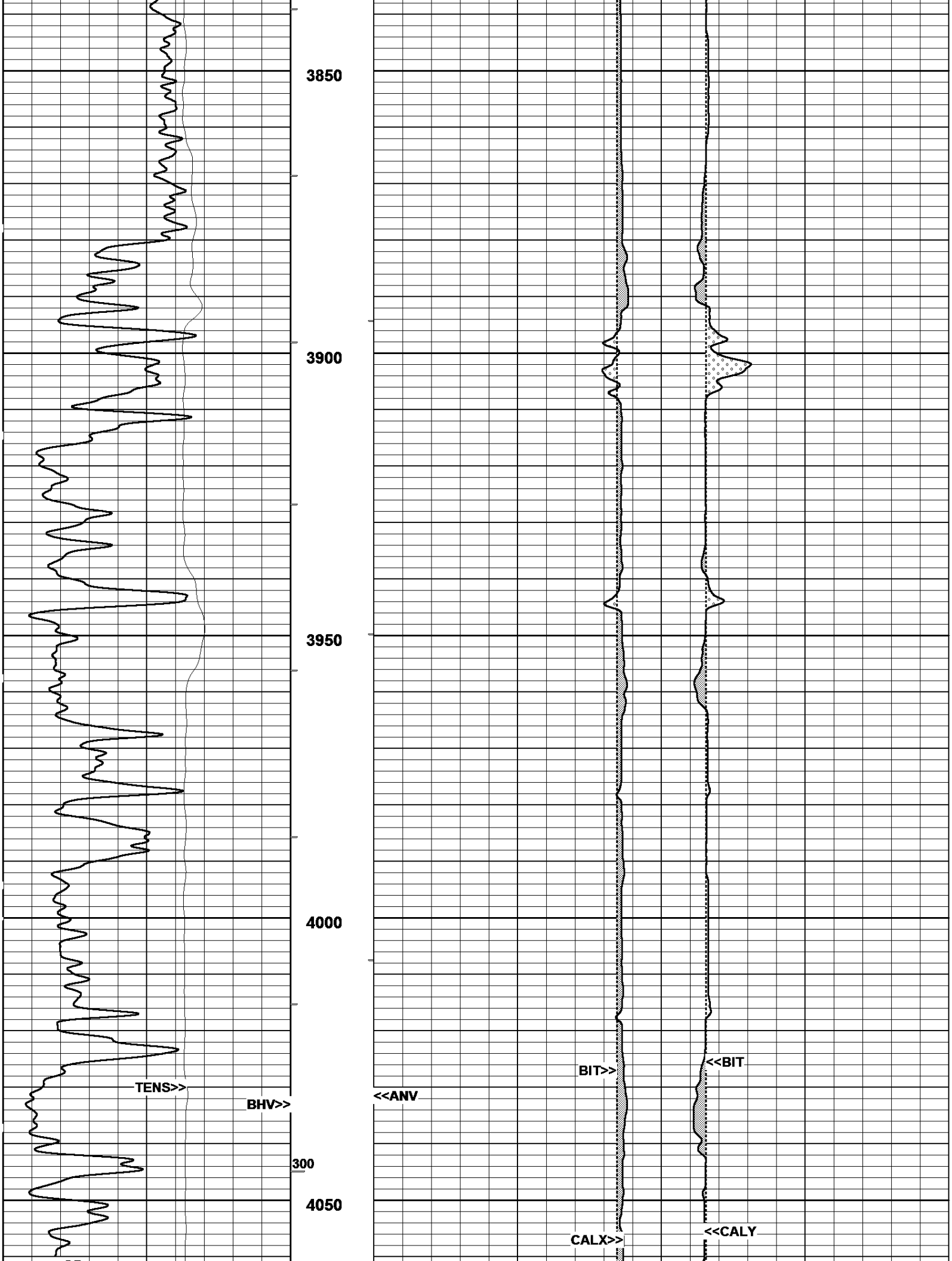
CALX>>
<<CALY
GR>>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4050
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BHV>>
300
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BIT>>
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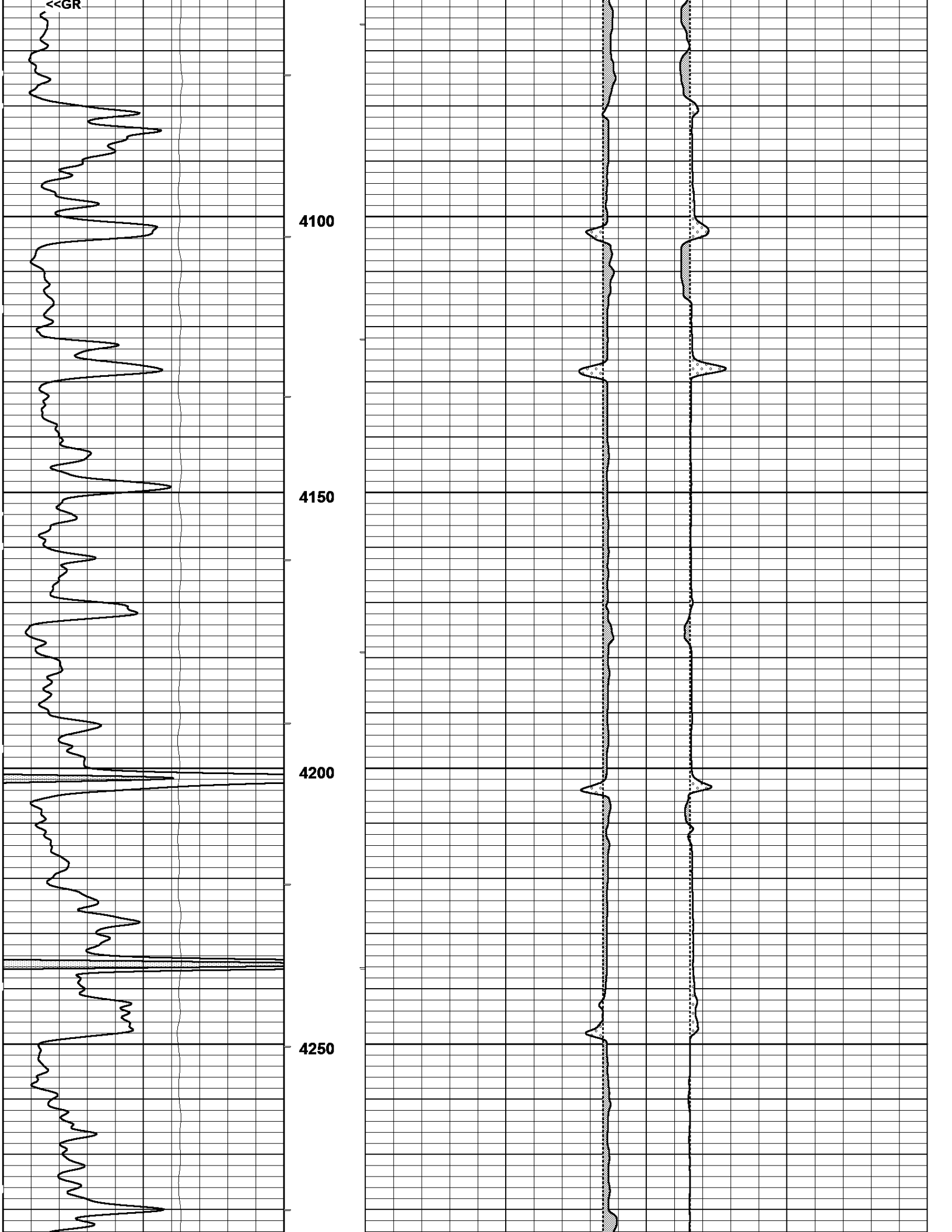
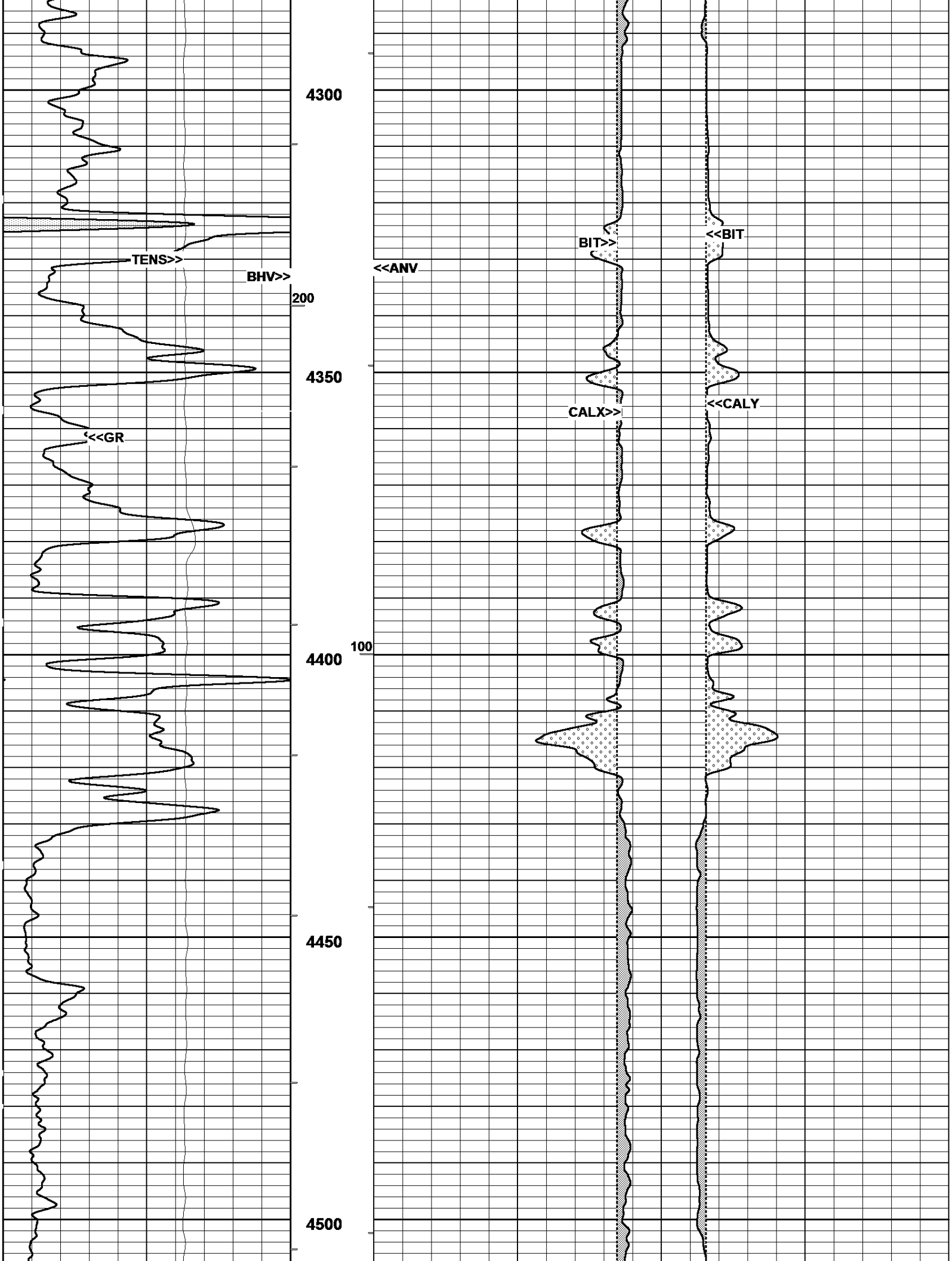
CALX>>
<<CALY


<<GR
4100
4150
4200
4250


4300
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BHV>>
200
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100
BIT>>
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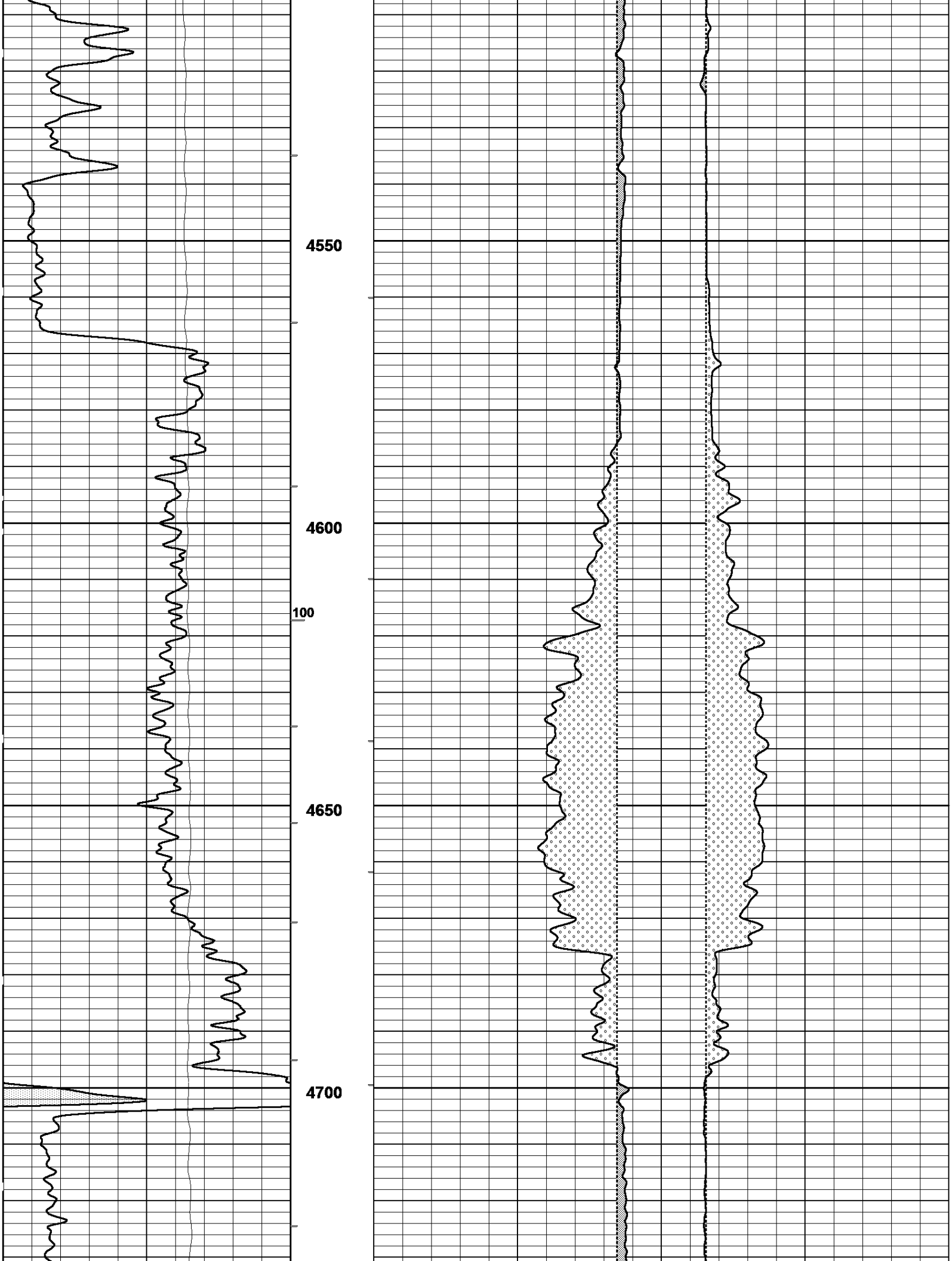
CALX>>
<<CALY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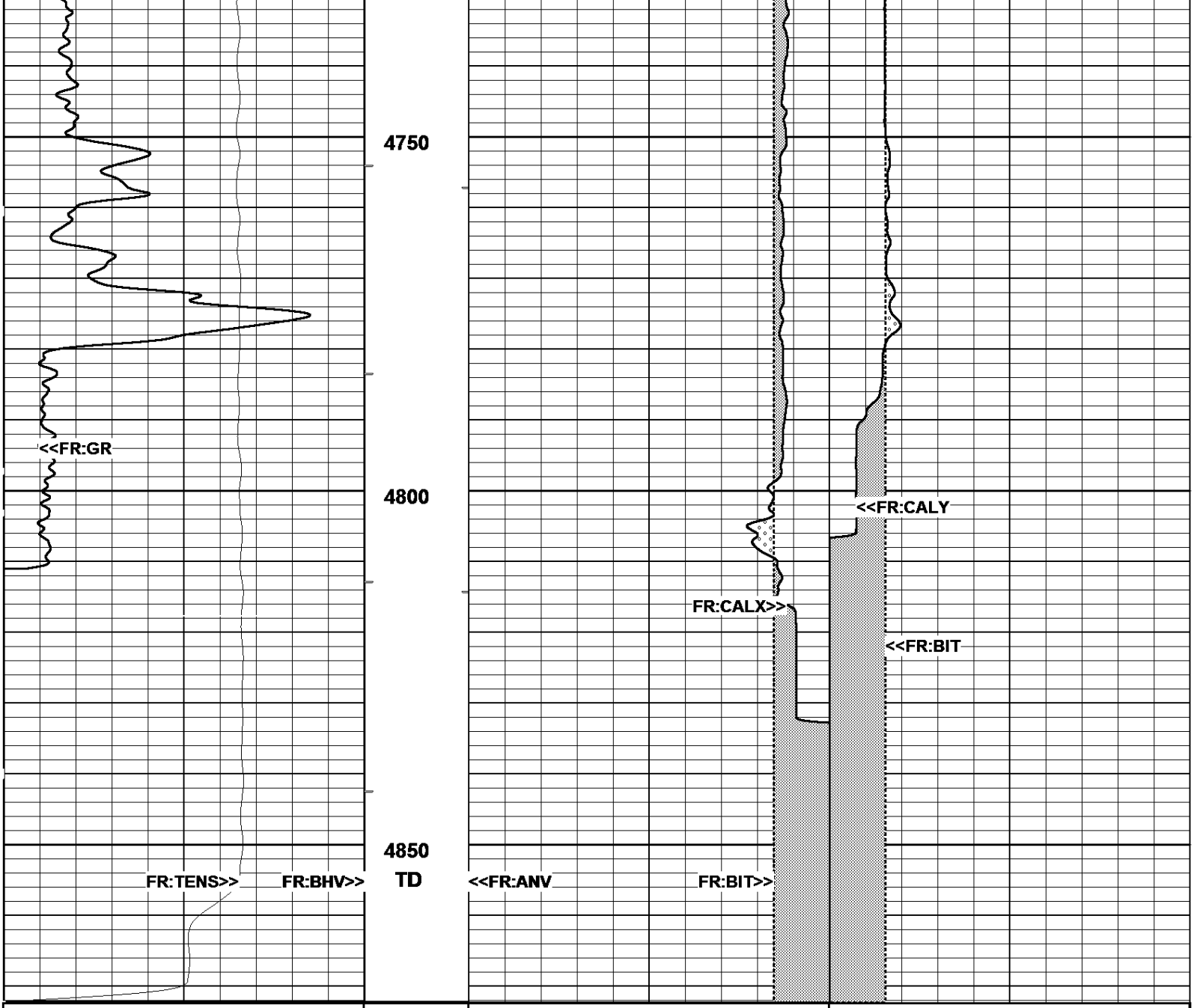
4600
100
4650
4700



Gamma Ray (GR)			X-Caliper (CALX)			Y-Caliper (CALY)		
0.	API	150.	18.	in	6.	6.	in	18.
Tension (TENS)			**Bit Size X-CAL (BIT)**			**Bit Size Y-CAL (BIT)**		
0.	Lbs	5000.	18.	Ref in	6.	6.	Ref in	18.

12/02/2014
20:48:32 => Start Time

BOREHOLE VOLUME (5"/100Ft)

Log UP - (VER 11.19)
Start Depth=> 4872.20 Feet

GAMMA RAY CALIBRATION

SERIAL NUM	RG3005
BLANKET NUM	1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 159.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	61.816 - raw	466.230 - raw	0.393 - gain 0.000 - off	M/D/Y> 10/14/2014	H:M:S> 11:20:56

X CALIPER

SERIAL NUM	RL4106

MASTER CALIBRATIONS

	ZeroVal: 6.000 in	CalVal: 10.000 in	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	3091.229 - raw	4990.326 - raw	0.002 - gain -0.511 - off	M/D/Y> 10/13/2014	H:M:S> 13:3:41

Y CALIPER CALIBRATIONS

SERIAL NUM	RN2002

MASTER CALIBRATIONS

	ZeroVal: 6.000 in	CalVal: 10.000 in	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	1201.700 - raw	1932.862 - raw	0.005 - gain -0.574 - off	M/D/Y> 10/14/2014	H:M:S> 11:55:48

Company	TREK AEC
Well	BLACKWELDER #1-30
Field	WILDCAT
County	PRATT
State	KANSAS

RECON

BOREHOLE
VOLUME
X-Y CALIPER