

STEP

MICRO LOG

energy services

Company BEREXCO LLC Well PFEIFER "B" #4 Field YOUNGER County ELLIS State KANSAS Country USA API No. 15-051-26980-00-00		File No : HAYS-70626 Company : BEREXCO LLC Well : PFEIFER "B" #4 Field : YOUNGER County : ELLIS State : KANSAS Country : USA API No : 15-051-26980-00-00	
Location : 2310' FNL & 2310' FWL SE SE NW		LSD : Sect : 5 Twp : 14S Rge : 17W	
Permanent Datum:	GL	Elevations:	Services:
Drilling Measured From:	KB	KB 2029.00	CNT
Log Measured From:	KB	DF 2028.00	PIT
Above Permanent Datum:	7.00 Ft	GL 2022.00	MST
Date	02-27-2020		
Run Number	1		
Depth--Driller	3730.0	Ft	
Depth--Logger	3730.0	Ft	
First Reading	3708.0	Ft	
Last Reading	1214.0	Ft	
Casing--Driller	1214.0	Ft	
Casing--Logger	1212.0	Ft	
Bit Size	7.625	In	
Casing Size	8.625	In	
Hole Fluid Type	CHEMICAL		
Density	9.1		
Fluid Loss	50.0		
PH/Viscosity	10.0	55.0	
Sample Source	MEASURED		
RM@Measured Temp.	1.700	@ 69 F	
RMF@Measured Temp	1.450	@ 69 F	
RMG@Measured Temp.	1.690	@ 69 F	
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	1.150	@ 0 F	
Time Circulation Stopped	02-27-2020 09:00		
Max Recorded Temp.	0	F	
Equipment/Base	TRK137	HAYS	
Recorded By	B.BAILEY		
Witnessed By	JERRY SMITH		

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services 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 STEP Energy Services 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 STEP Energy Services 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)
7.625	3730.00	8.625	17.00	1214.00	0.00

Run Number	1	
Date	02-27-2020	
Date/Time On Bottom	02-27-2020 13:26	
Depth to Fluid	0.0 Ft	
Salinity	5000.000	
RMF@BHT	0.980 @ 0 F	
RMC@BHT	1.330 @ 0 F	

Run Number 1

Comments

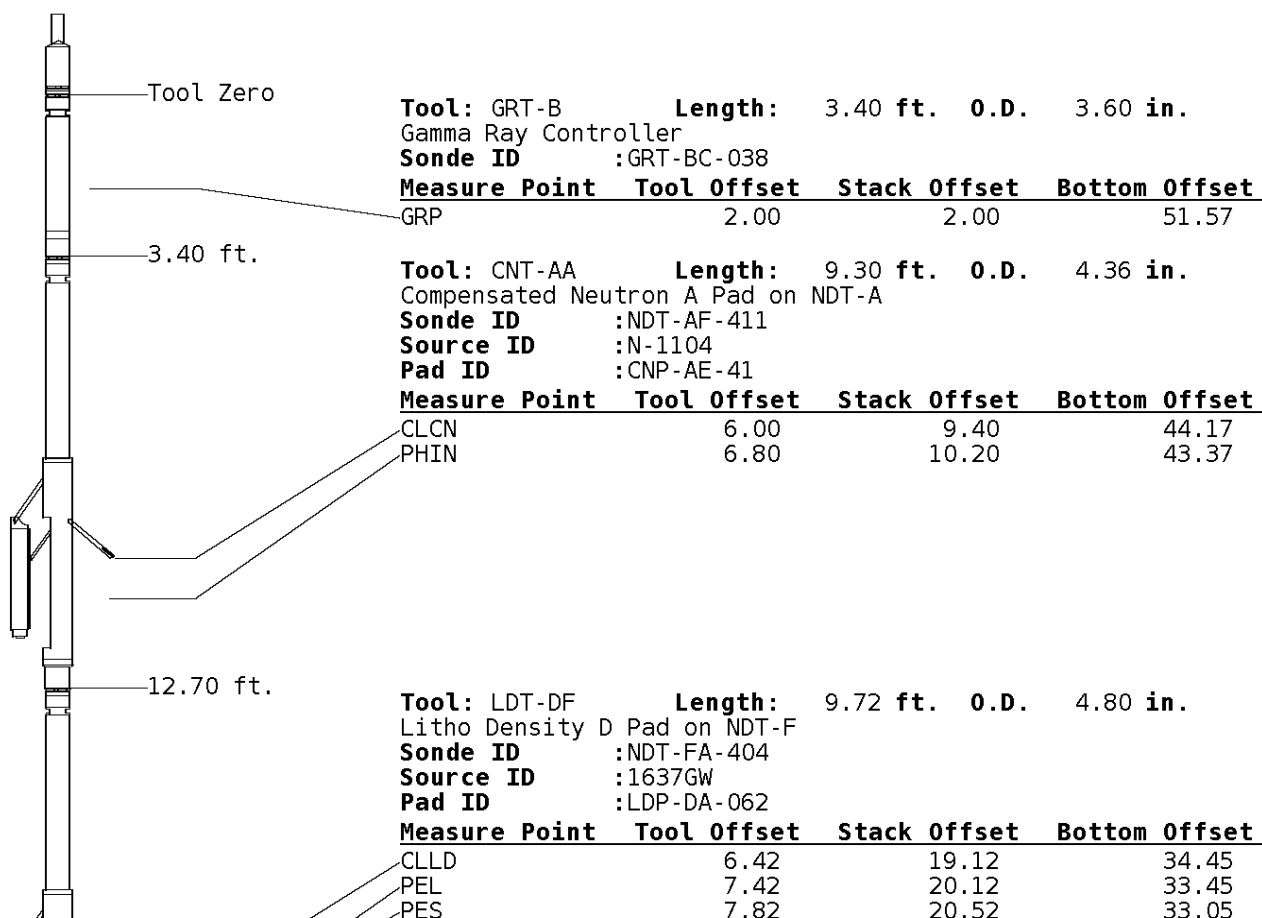
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, CST, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

GRT: GRP
 CNT: PHIN, CLCNIN,
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN
 MLT: NOR_RF, INV_RF, MSCLPIN
 PIT: ILD, ILM, SPU, SFLAEC, CIRD, RXO/RT

OPERATORS:
 D. RAGSDALE
 J. VAUGHN
 D.LEGLEITER
 Z.AL SUDANI

Tool String Schematic

Total Tool Length - 53.57 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.



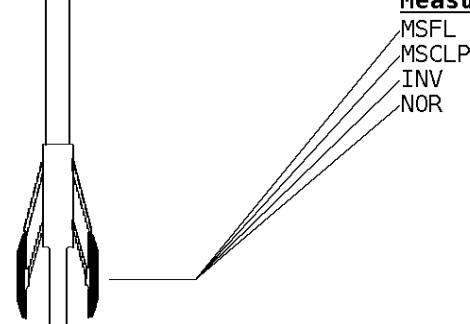


LDEN	7.62	20.32	33.25
LCOR	7.62	20.32	33.25

22.42 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MST-DA-36

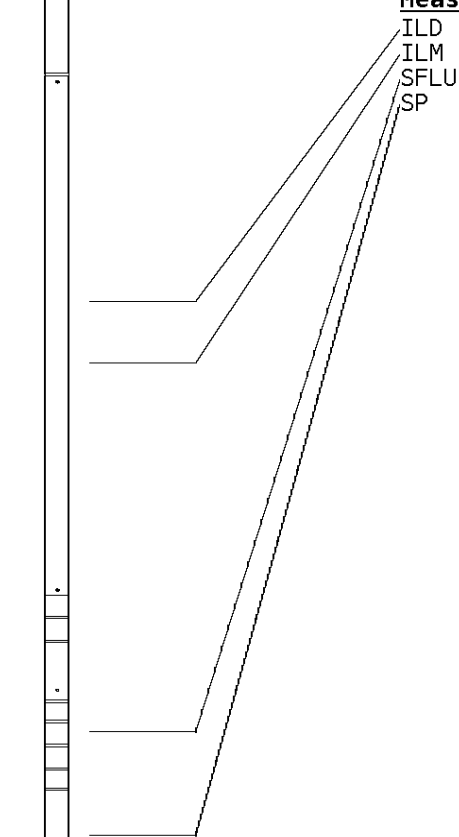
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	30.02	23.55
MSCLP	7.60	30.02	23.55
INV	7.60	30.02	23.55
NOR	7.60	30.02	23.55



32.08 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	41.00	12.56
ILM	10.10	42.18	11.39
SFLU	17.49	49.57	4.00
SP	20.60	52.68	0.88



LWT 53.57 ft.

Well File: BREXCO_PFEIFER_B_4_FEB-27_MST

Scale: 1:240 **Format:** MST-240

Segment: V1.D1.S6 Reprocess MAIN

Acquired: 2020-02/27 13:29 3.4.1-13972

Reference: 0

Processed: 2020-02/27 14:51 3.4.1-13972

**BIT SIZE
INCHES (IN)**

6 16

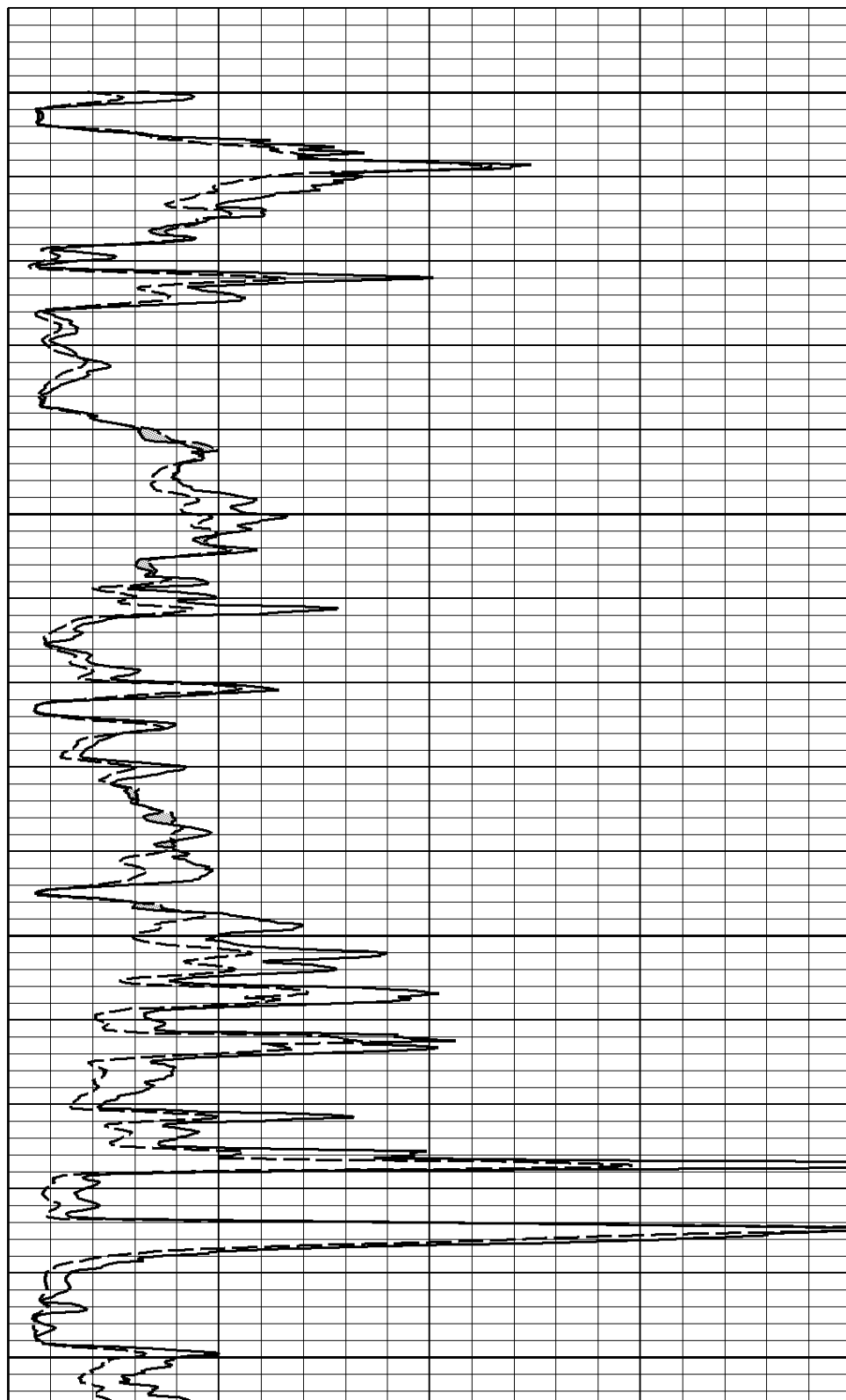
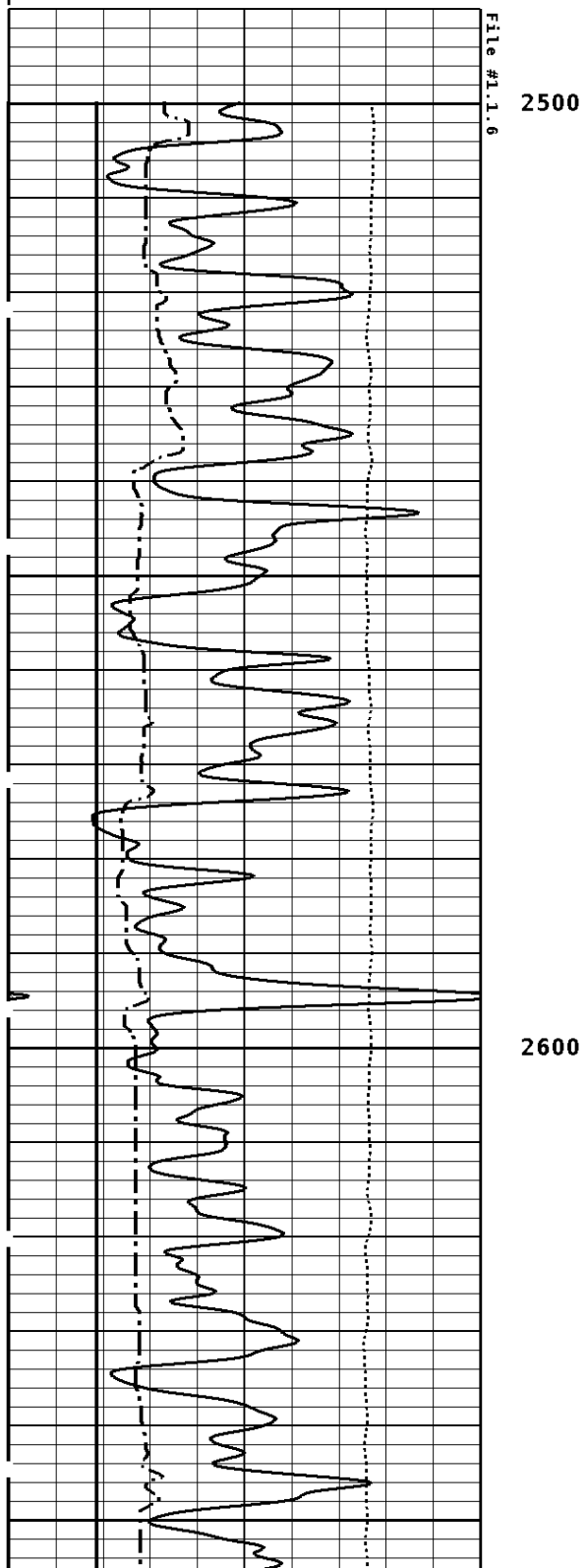
**CALIPER MICRO
INCHES (IN)**

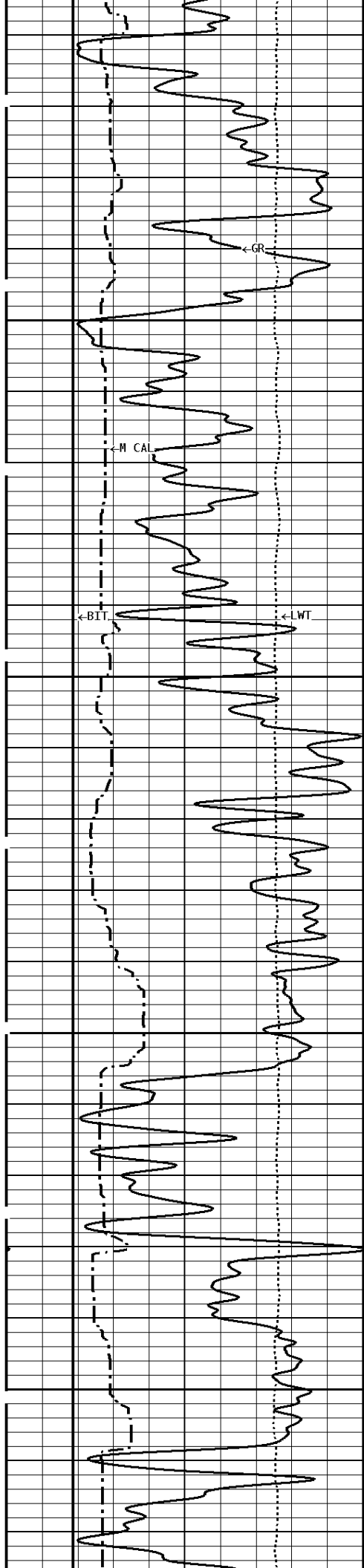
16 26

16	26
6	16
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150	300
0	150

INVERSE OHMM	
0	40
NORMAL OHMM	
0	40

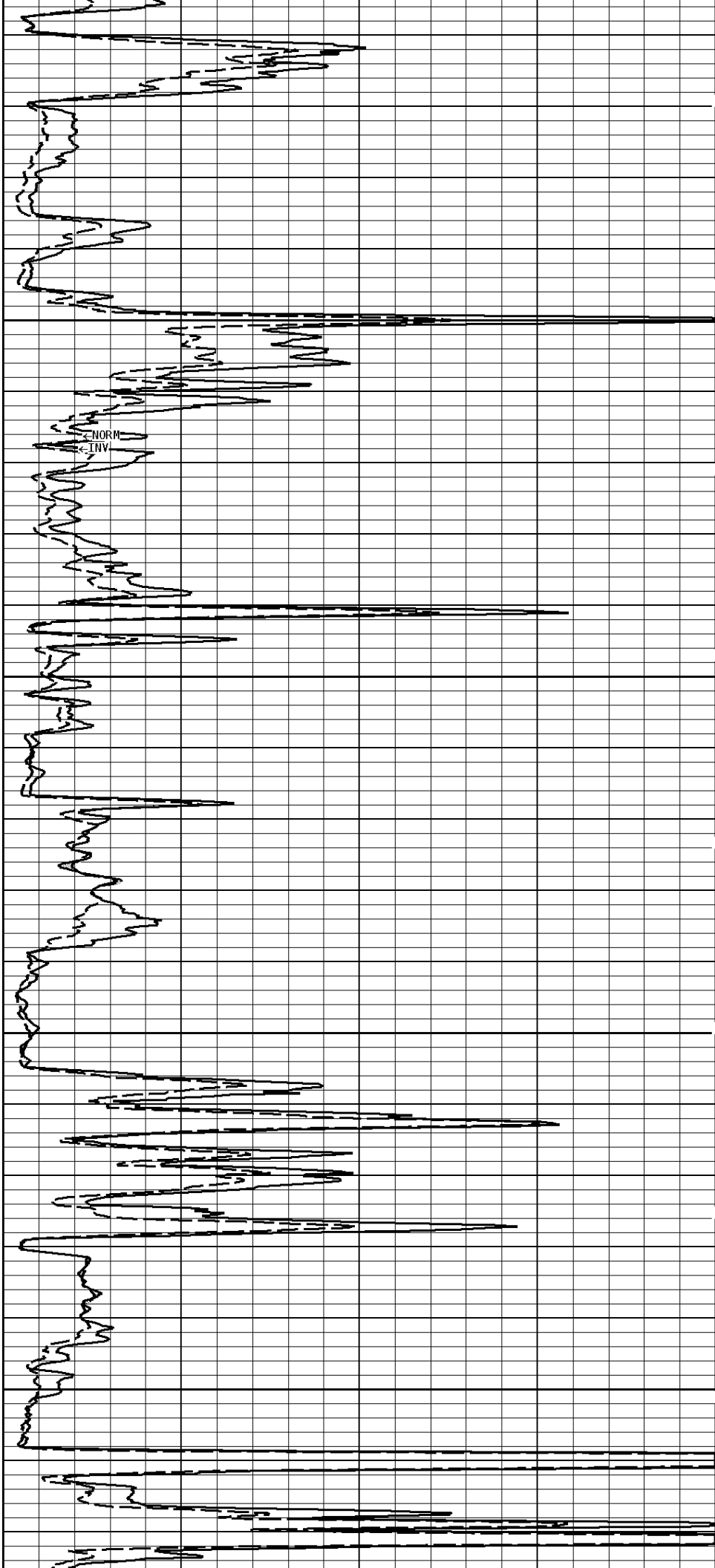
1:240 MAIN SECTION

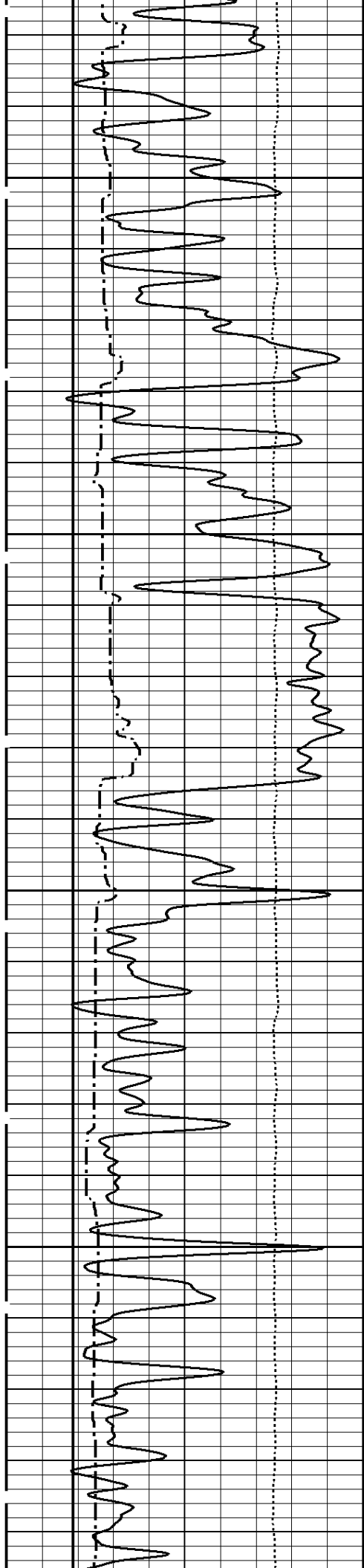




2700

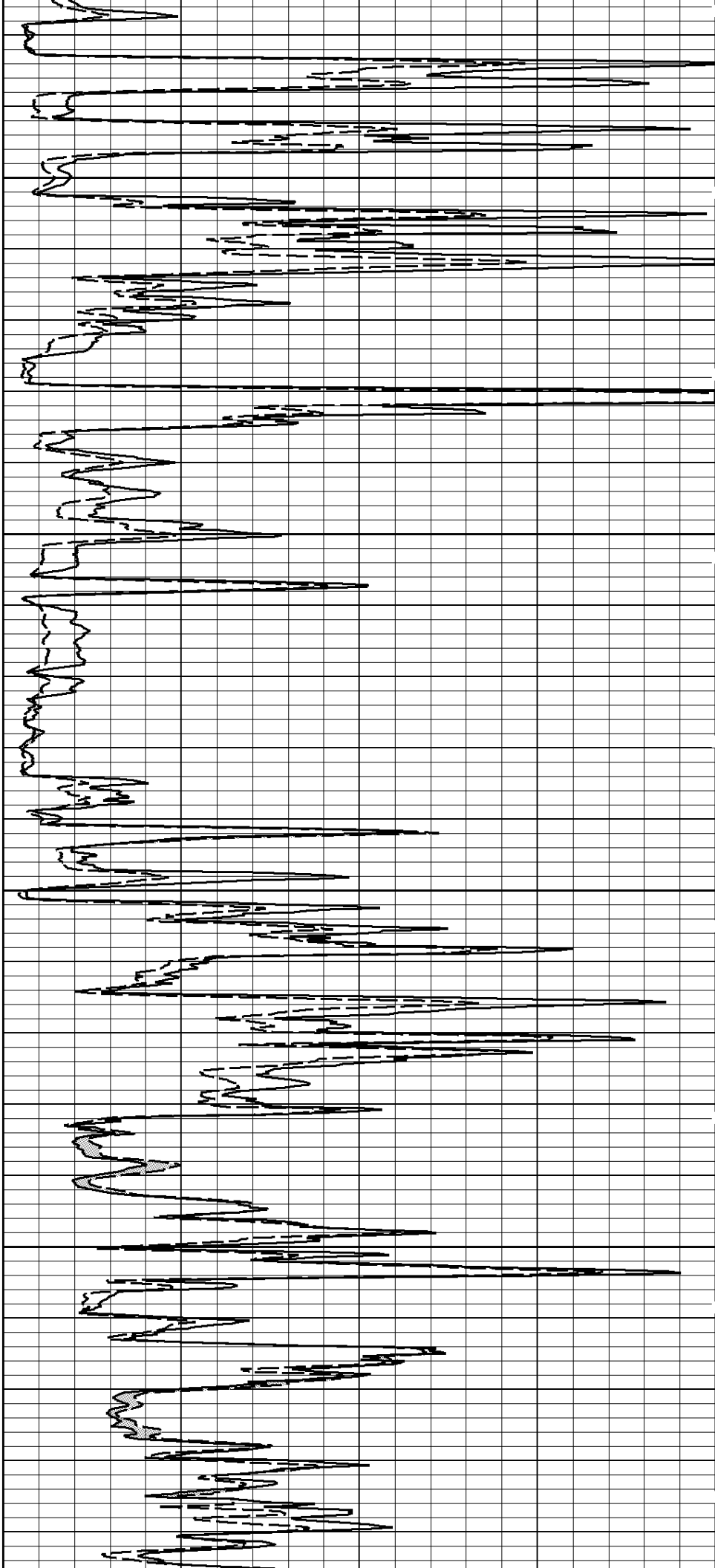
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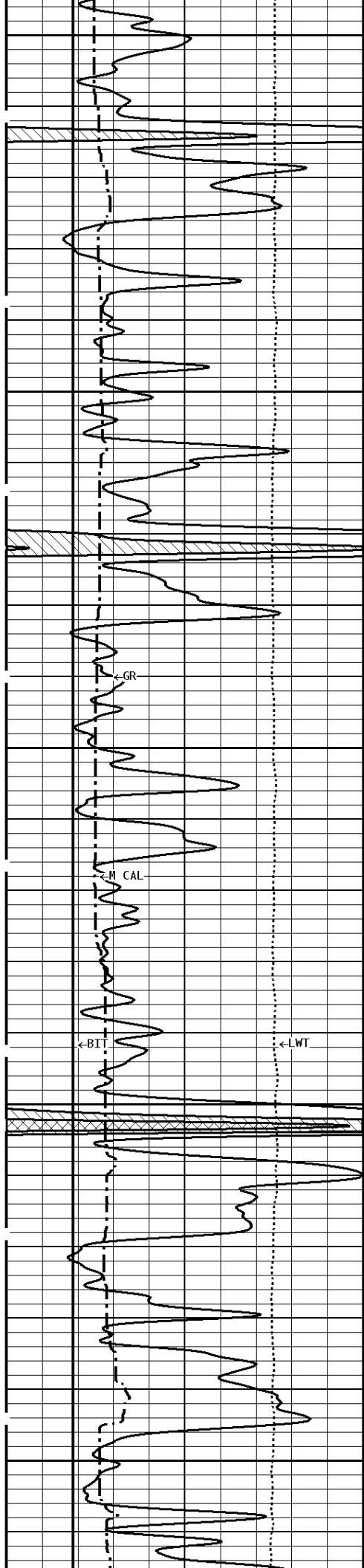




2900

3000

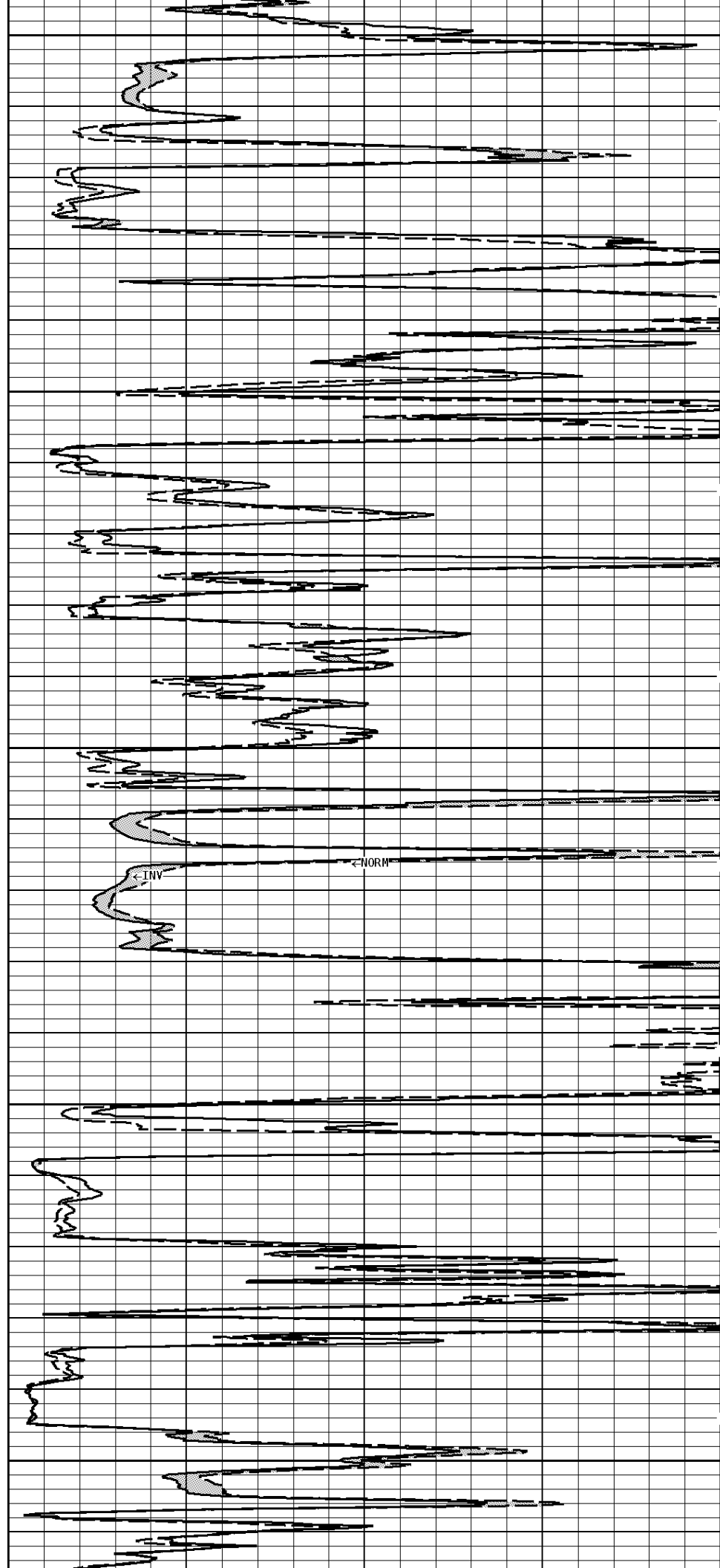


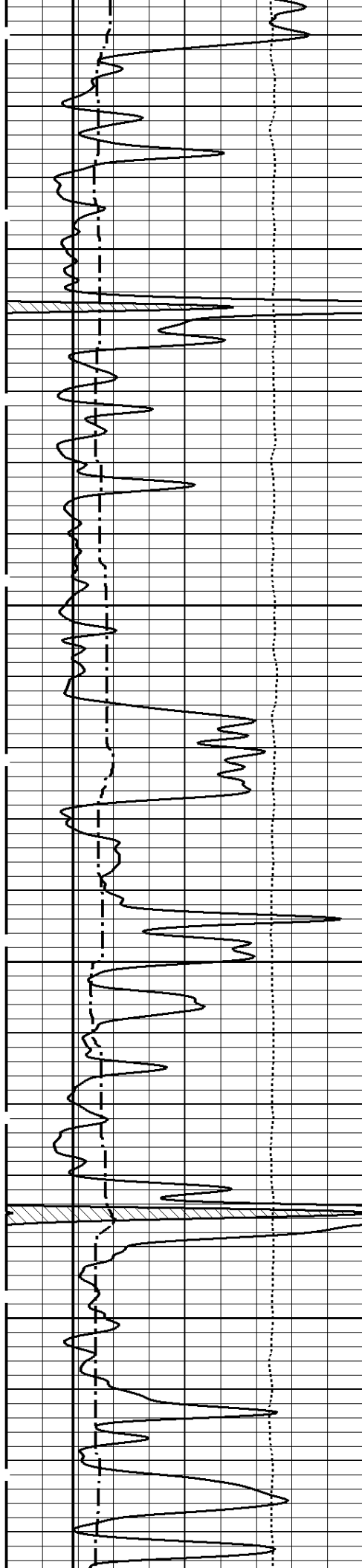


3100

3200

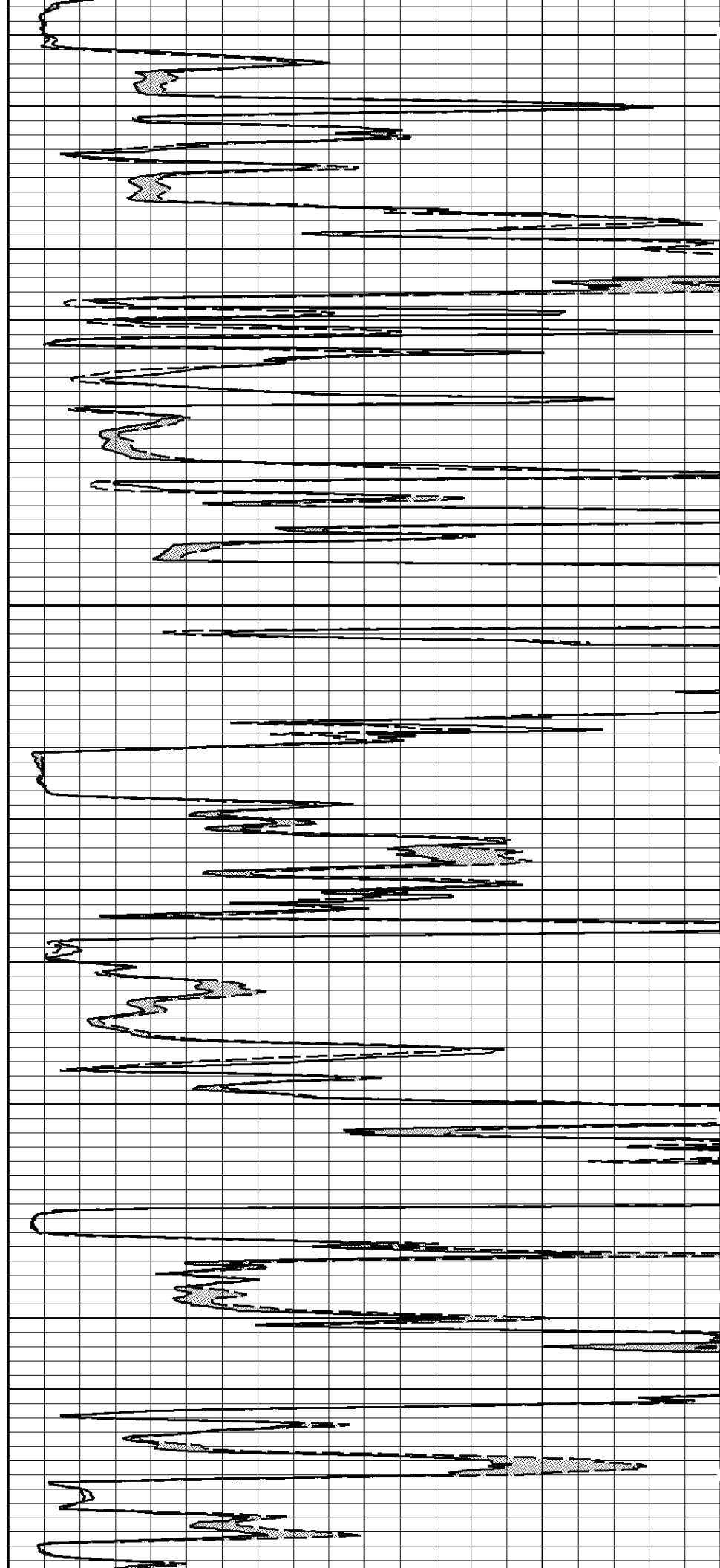
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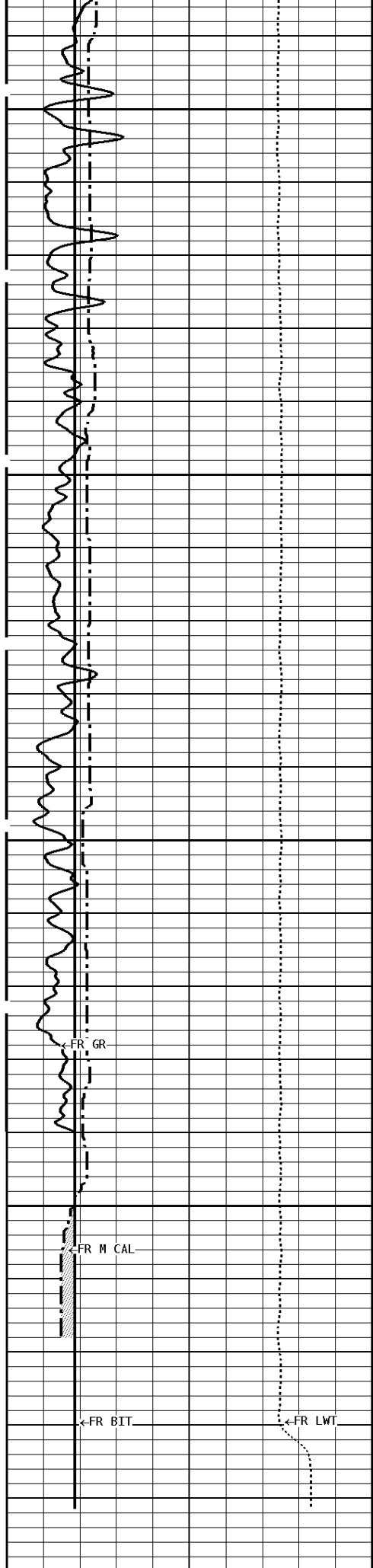




3400

3500



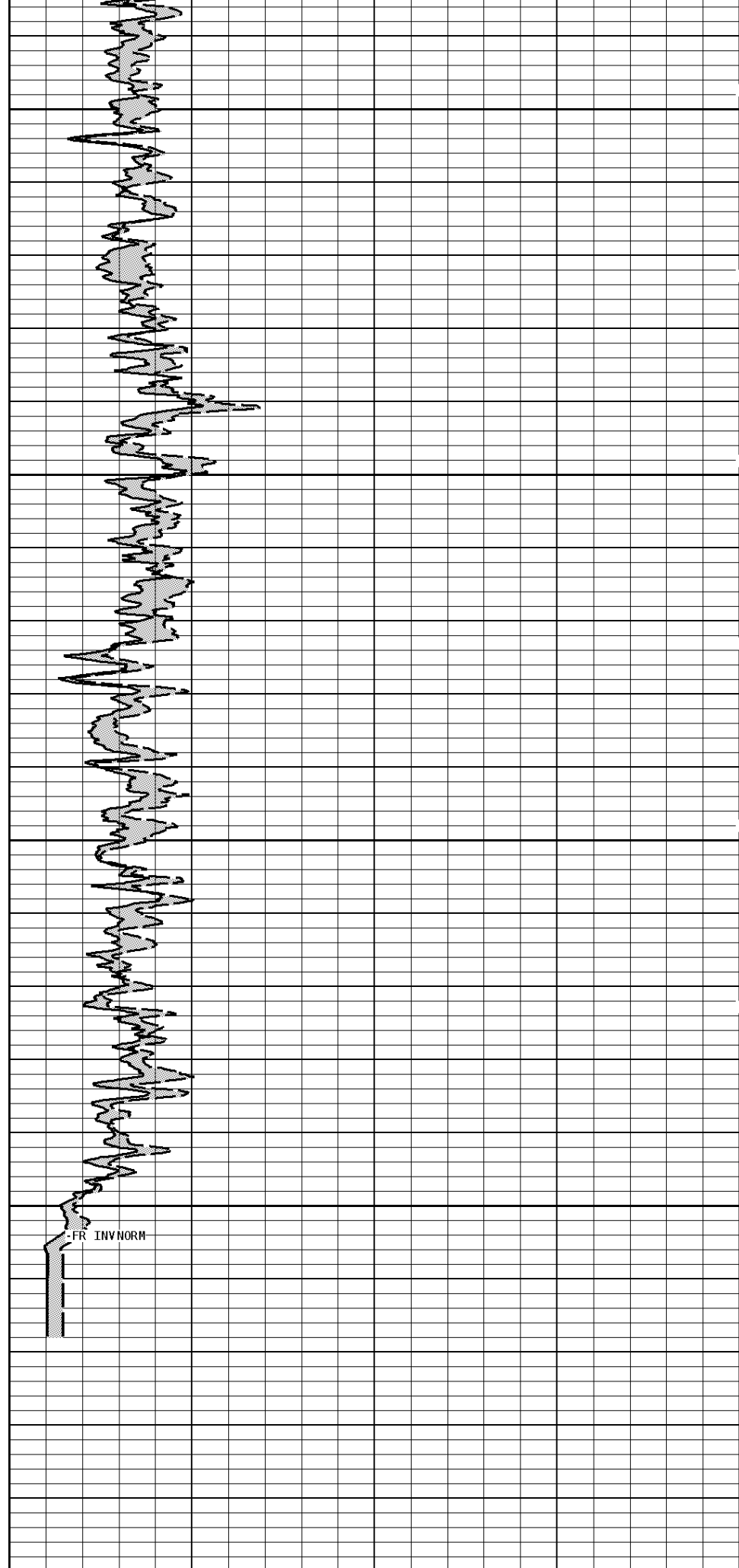


3600

3700

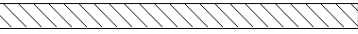
3730

File #1.1.6



FR INV NORM

1:240 MAIN SECTION

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

NORMAL OHMM	
0	40
INVERSE OHMM	
0	40

*** Borehole Zone Factors ***

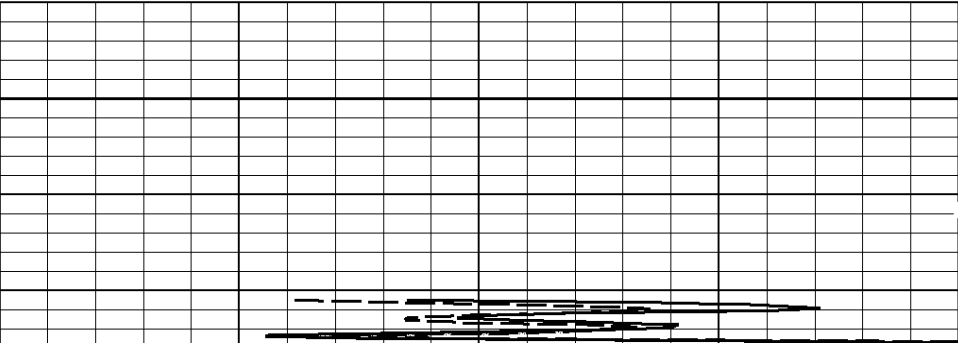
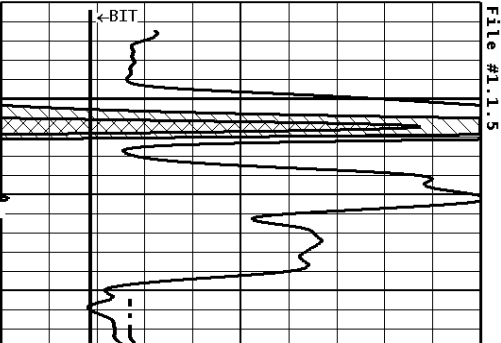
Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size_____	7.875 in
MSTNG Normal Correction_____	0.00 ohmm
MSTNG Inverse Correction_____	0.00 ohmm

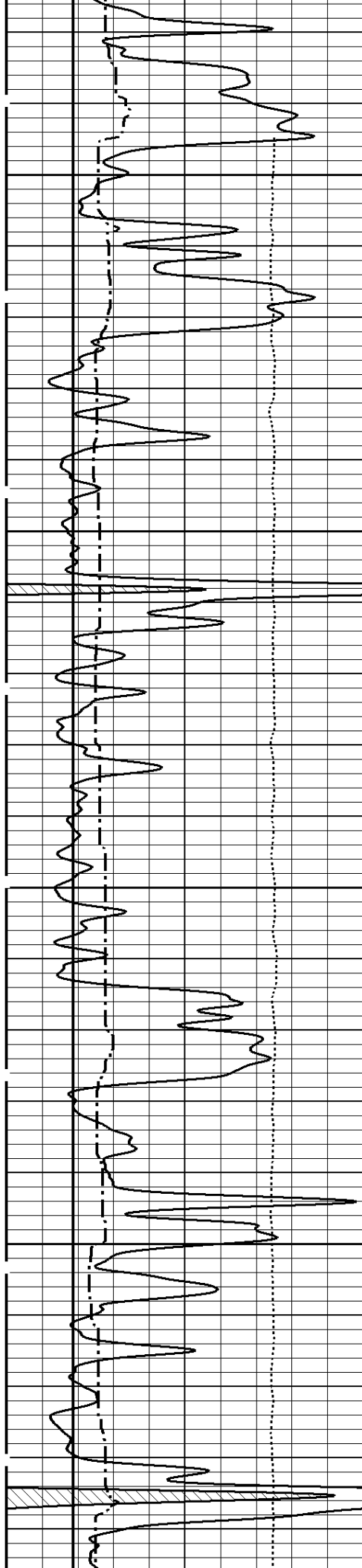
Well File: BREXCO PFEIFER B 4 FEB-27_MST	Scale: 1:240	Format: MST-240
Segment: V1.D1.S5 Reprocess REPEAT	Acquired: 2020-02/27 13:03 3.4.1-13972	
Reference: 0	Processed: 2020-02/27 14:51 3.4.1-13972	

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

INVERSE OHMM	
0	40
NORMAL OHMM	
0	40

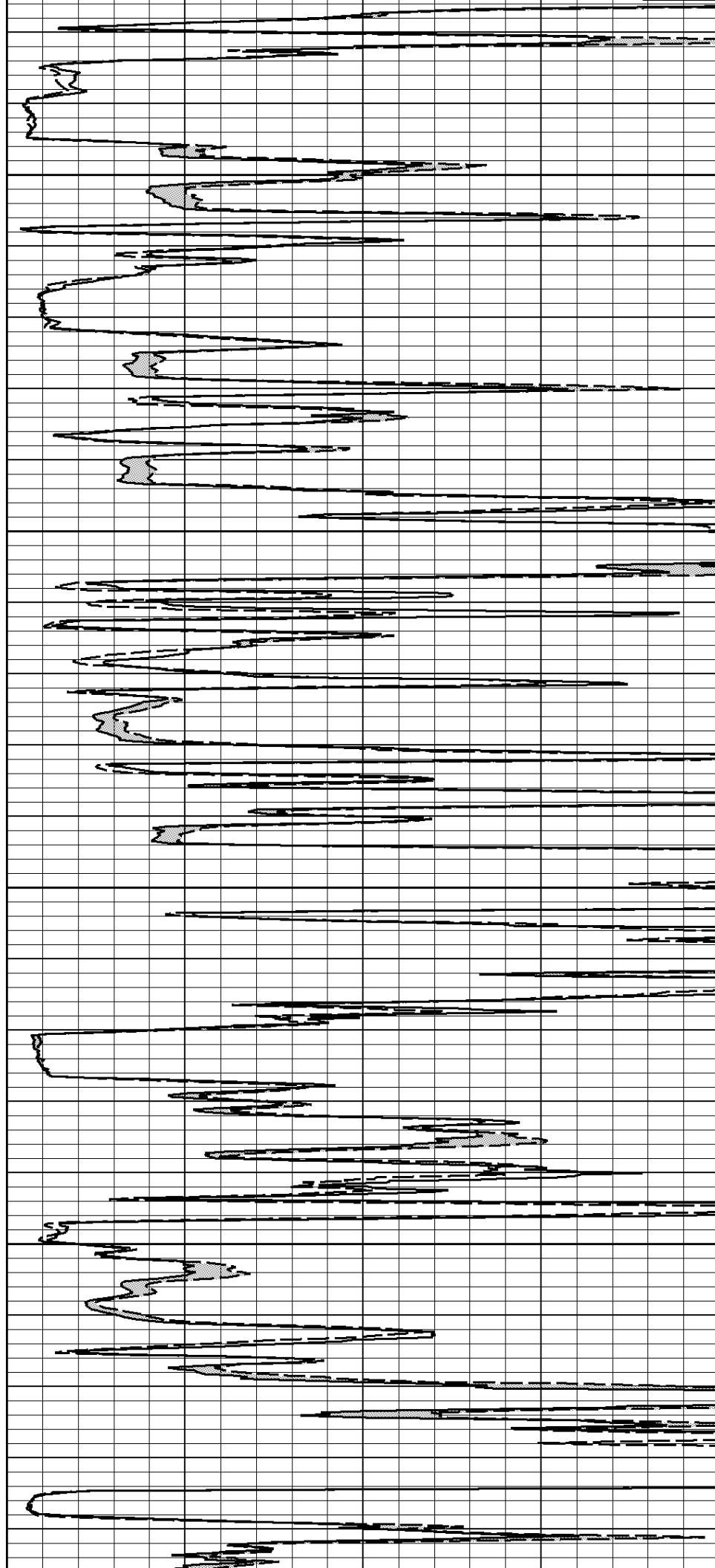
1:240 REPEAT SECTION





3300

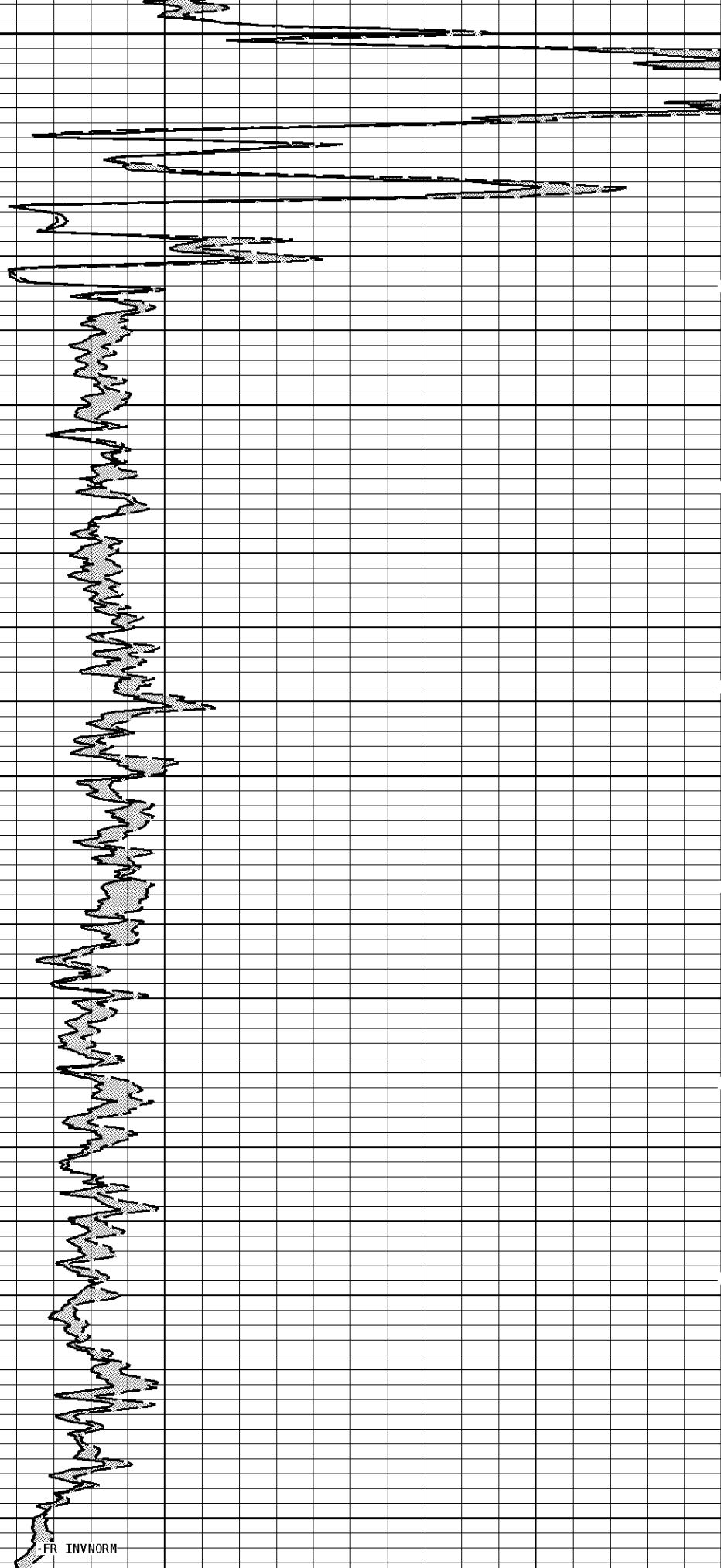
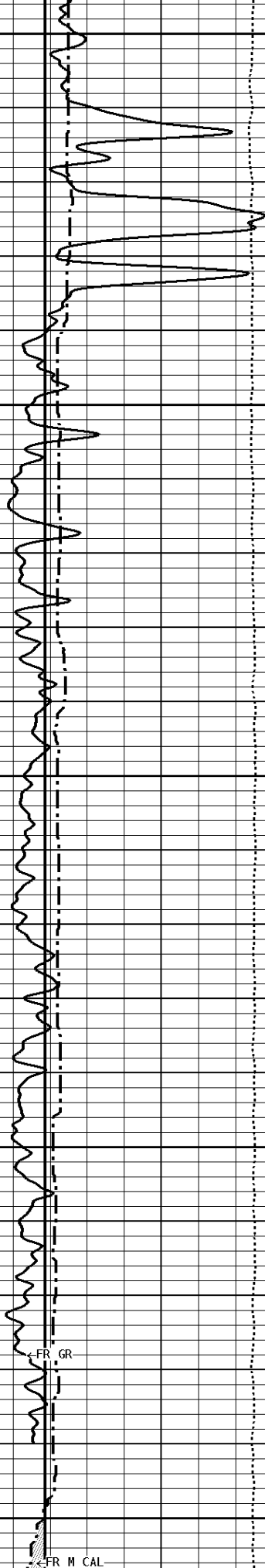
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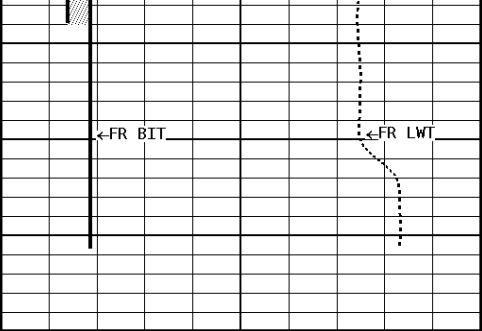


3500

3600

3700





3730

1:240 REPEAT SECTION

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

NORMAL OHMM	
0	40
INVERSE OHMM	
0	40

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet			
Drill Bit Size	_____	7.875	in
MSTNG Normal Correction	_____	0.00	ohmm
MSTNG Inverse Correction	_____	0.00	ohmm

* Calibration Summary *

Shop Calibration GRT-B						
Performed : 24-JUN-2019			Time : 12:20			
Sensor Suite : GR-GR5			ID : GRT-BC-038			
GR	Measured		Units	Calibrated		Units
	Background	Jig		Jig		
	36	266	CPS	160		GRAPI

Shop Calibration MST-DA						
Performed : 30-MAY-2013			Time : 14:43			
Sensor Suite : CALI-MSN			ID : MST-DA-36			
CL # 1	Jig - Measured		Jig - Calibrated		Units	
	Ring#1	Ring#2	Ring#1	Ring#2		
	6.1	12.1	6.0	12.0	IN.	

Performed : 30-MAY-2013			Time : 14:44			
Sensor Suite : MSTDA-NI			ID : MST-DA-36			
Internal						
INV-V	Measured		Units	Calibrated		Units
	Zero	Reference		Zero	Reference	
	221.0	21282.7	0.00	1946.00	MV	
NOR-V	164.0	21140.6	0.00	1546.00	MV	
IN-C	157.3	21367.2	0.00	15.46	UA	
INV-D					OHMM	

INV-R
NOR-R

40.71 OHMM
55.11 OHMM



Company: BEREXCO LLC
Well: PFEIFER "B" #4
Location: 2310' FNL & 2310' FWL
Logged: 02-27-2020
K.B. Elev: 2029.0 Ft