

SHALLOW FOCUS SP LOG

Company	CASILLAS PETROLEUM CORP
Well	HAMKER #20-3
Field	LETTE
County	HASKELL
State	KANSAS
Country	USA
API No.	15-081-22204-00-00

File No	:	HAYS-/038/
Company	:	CASILLAS PETROLEUM CORP
Well	:	HAMKER #20-3
Field	:	LETTE
County	:	HASKELL
State	:	KANSAS
Country	:	USA
API No	:	15-081-22204-00-00

Location :	
1420' FSL & 660' FWL	
S/2 S/2 NW SW	

LSD :	Sect : 20	Twp : 30S	Rge : 31W
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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)
7.875	5721.00	8.625	32.00	1832.00	0.00

Run Number	1		
Date	12-07-2019		
Date/Time On Bottom	12-07-2019 09:45		
Depth to Fluid	0.0 Ft		
Salinity	0.000		
RMF@BHT	0.850 @ 125 F		
RMC@BHT	1.150 @ 125 F		

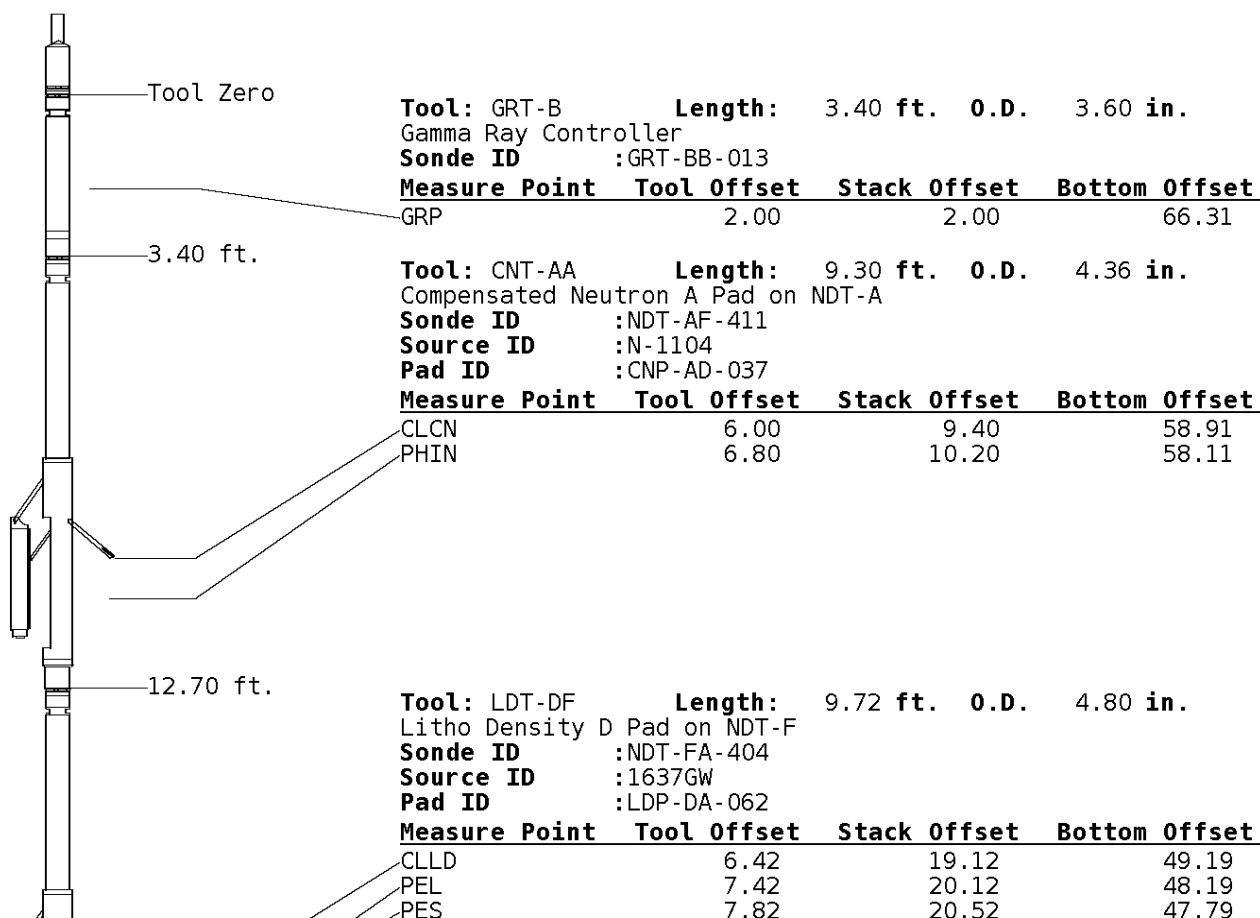
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT, CST, AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

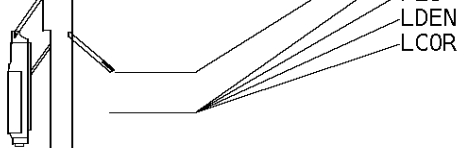
GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, CLLDIN.
 MLT: NOR_RF, INV_RF, MSCLPIN.
 CST: PORS, ITT, CDTF, TT1, TT2, TT3, TT4.
 PIT: ILD, ILM, SFLAEC, CIRD, SPU

OPERATORS:

Tool String Schematic

Total Tool Length - 68.31 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 1171.00 lbs.



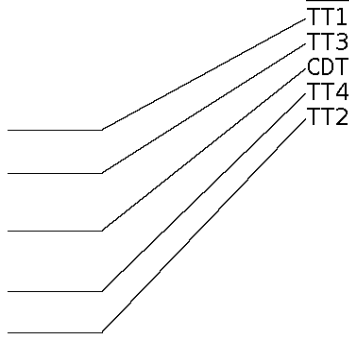


7.62	20.32	47.99
7.62	20.32	47.99

22.42 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
Open Hole Sonic
Sonde ID : CST-AB-24

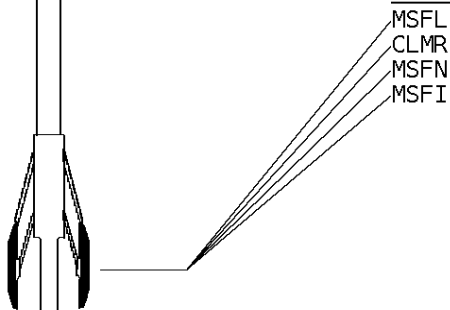
Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	27.22	41.09
TT3	5.80	28.22	40.09
CDT	7.30	29.72	38.59
TT4	8.80	31.22	37.09
TT2	9.80	32.22	36.09



36.22 ft.

Tool: MLT-AB **Length:** 10.60 ft. **O.D.** 6.00 in.
Micro Log Tool
Sonde ID : MLT-012

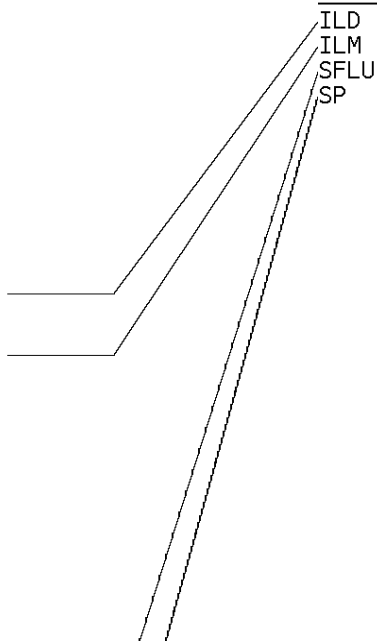
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	8.90	45.12	23.19
CLMR	7.60	43.82	24.49
MSFN	8.90	45.12	23.19
MSFI	8.90	45.12	23.19



46.82 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	55.74	12.56
ILM	10.10	56.92	11.39
SFLU	17.49	64.31	4.00
SP	20.60	67.42	0.88



LWT 68.31 ft.

Well File: casillas hamker 20-3 dec-7-2019_qst

Scale: 1:600

Format: DIL-600

Segment: V1.D1.S7 Reprocess MAIN

Acquired: 2019-12/07 11:10 3.4.1-13972

Reference: 0

Processed: 2019-12/07 13:13 3.4.1-13972

TENSION
LBS

10000

0

DEEP INDUCTION
OHMM

0.0

500.0

0.0

50.0

SPONTANEOUS POTENTIAL
mV

→

← 30

SHALLOW FOCUSED RESISTIVITY
OHMM

0.0

500.0

0.0

50.0

GAMMA RAY
API UNITS

150

0

300

150

DEEP CONDUCTIVITY
MMHO

2000

1000

1000

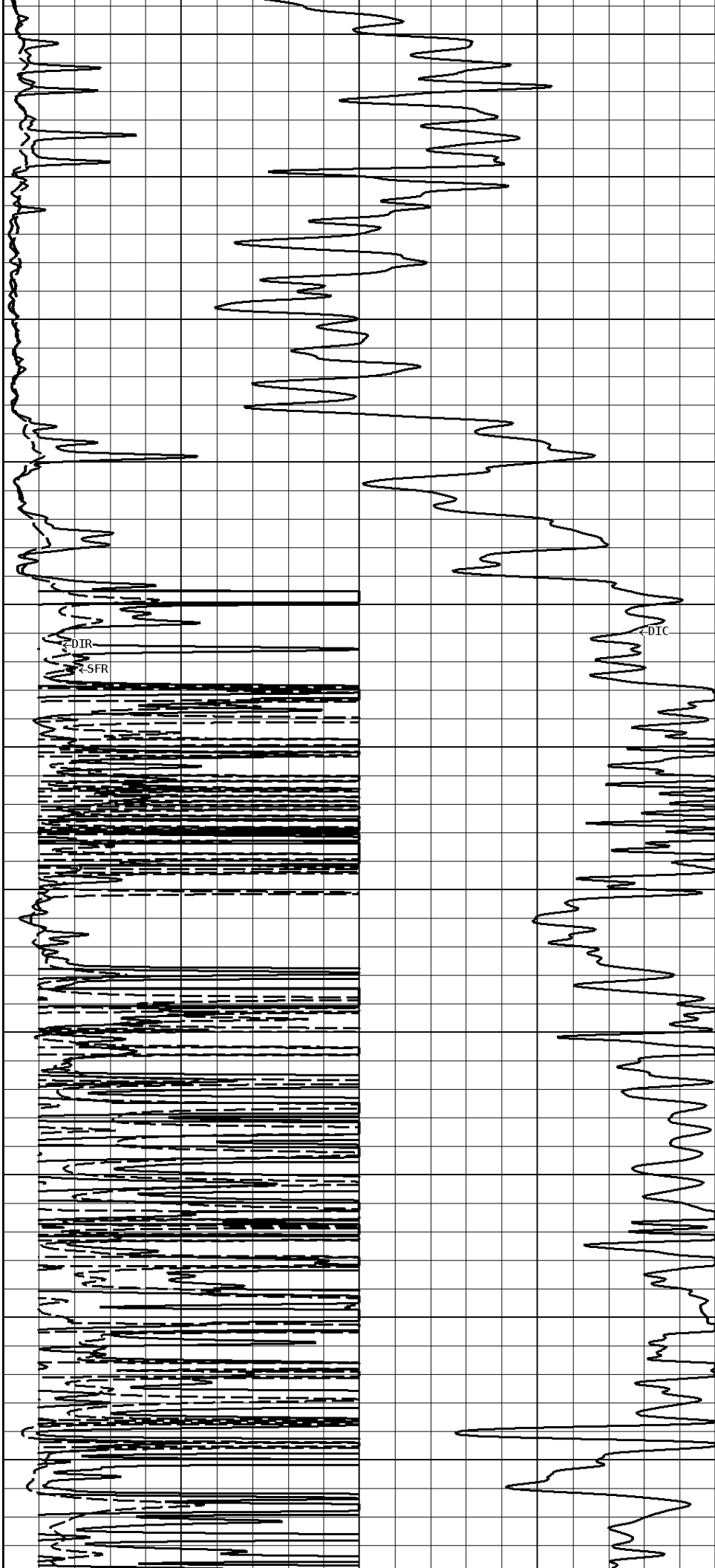
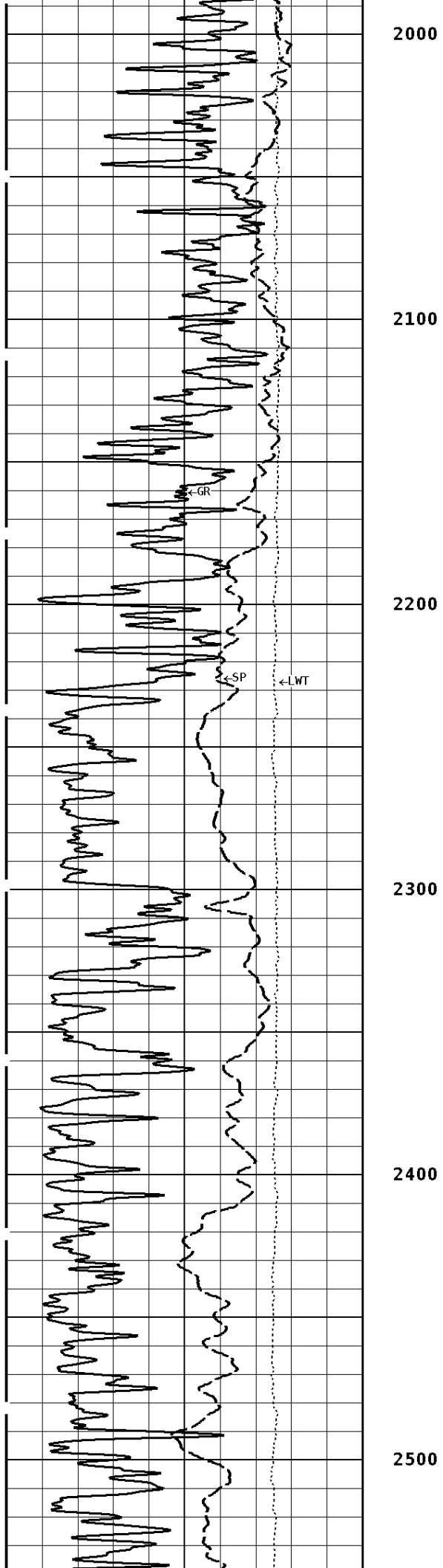
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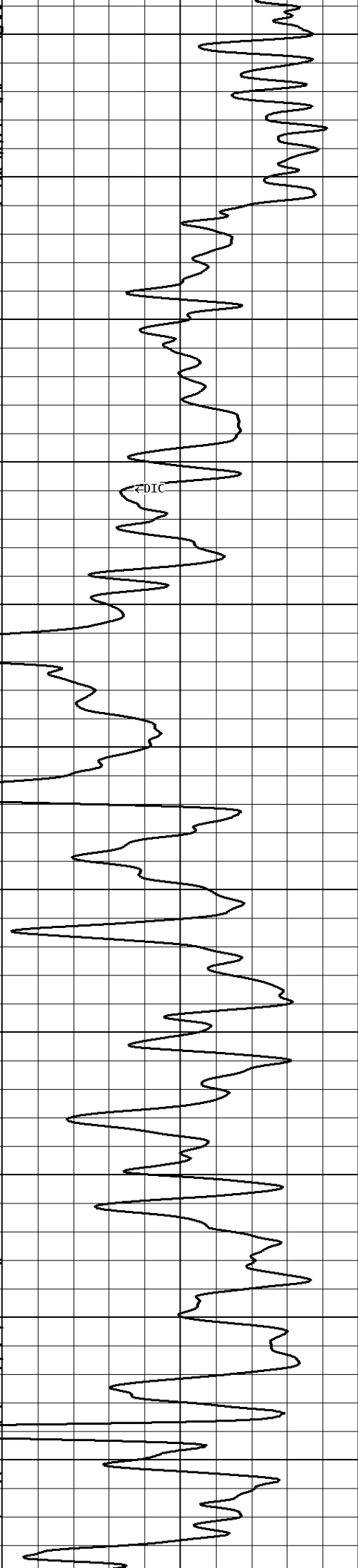
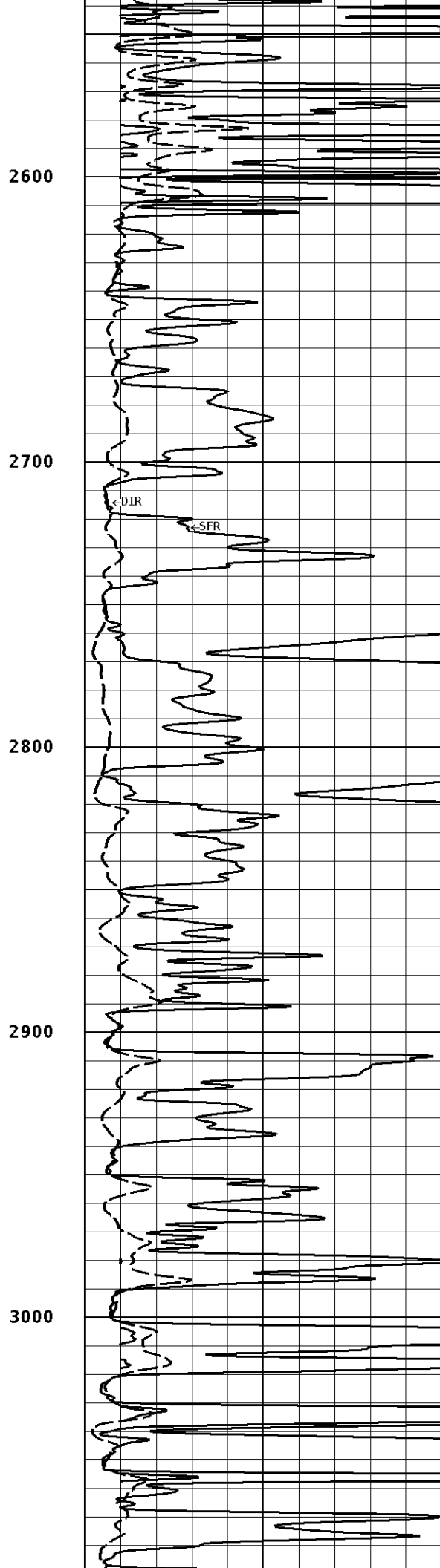
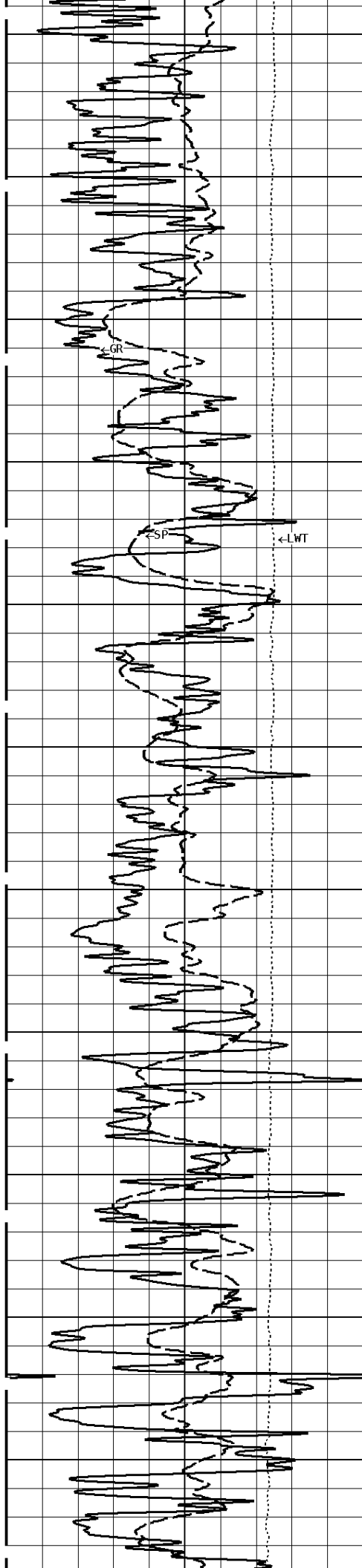
1:600 MAIN SECTION

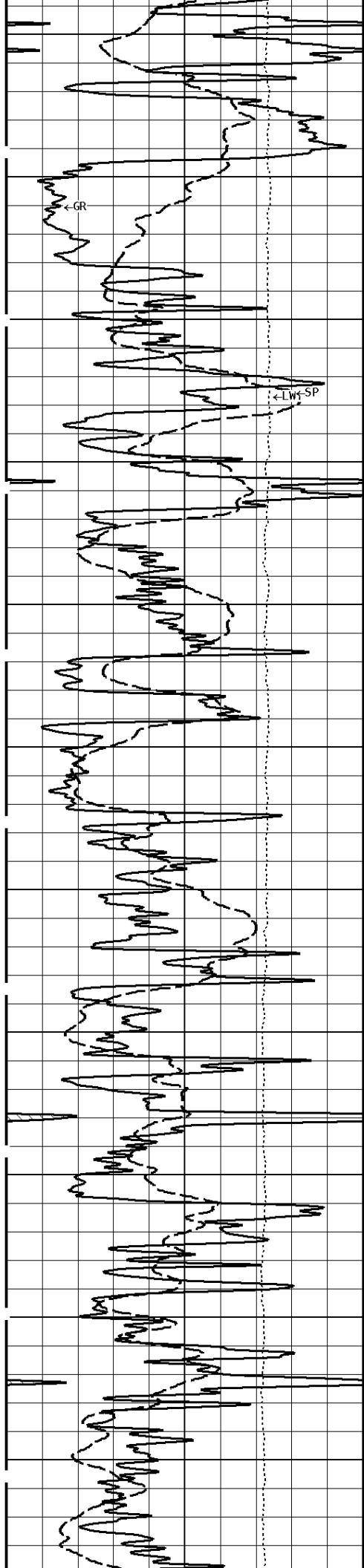
File #1.1.7

1800

1900







3100

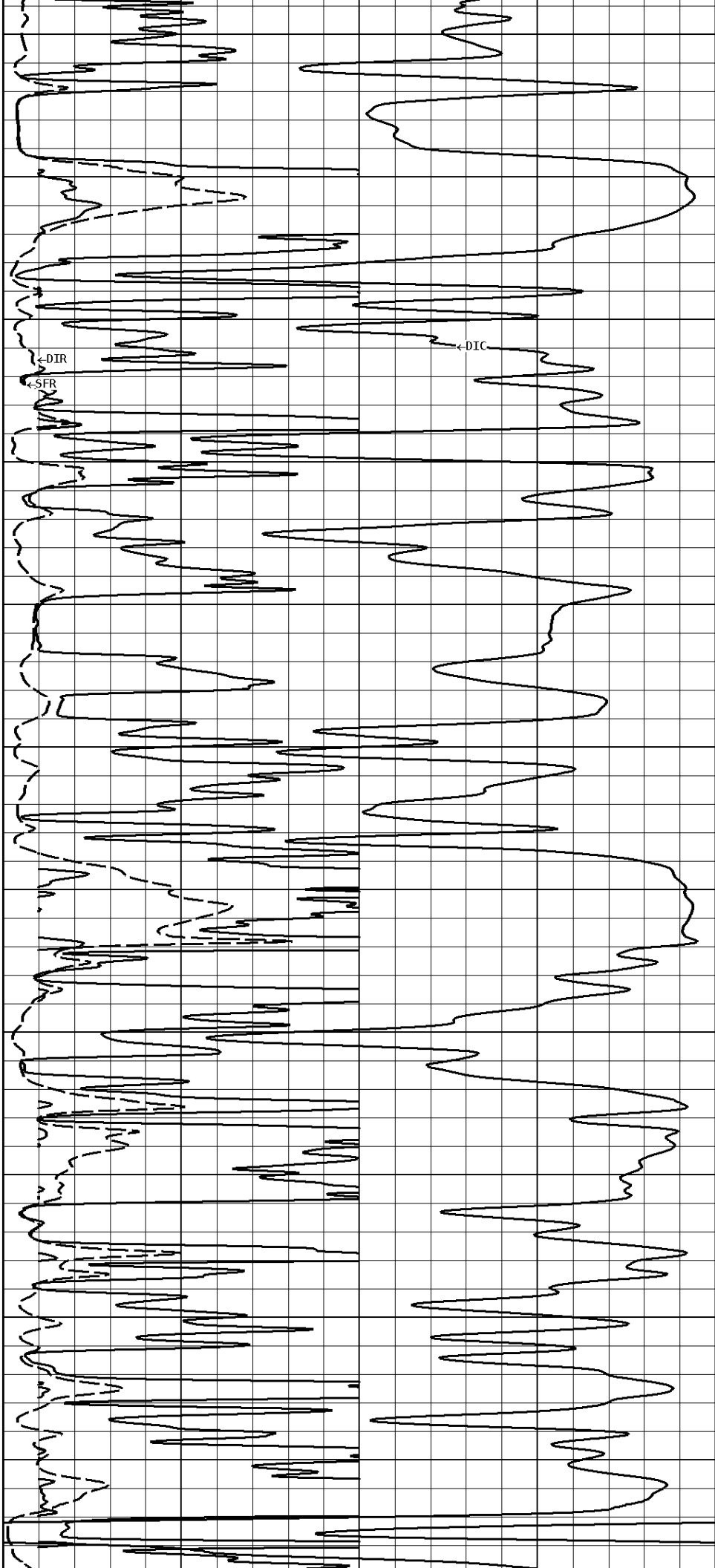
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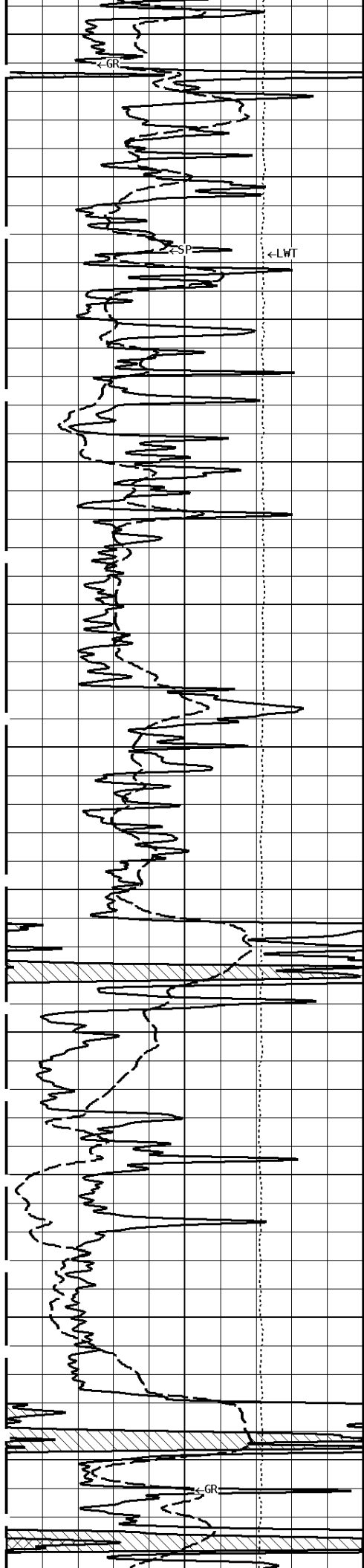
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3400

3500

3600





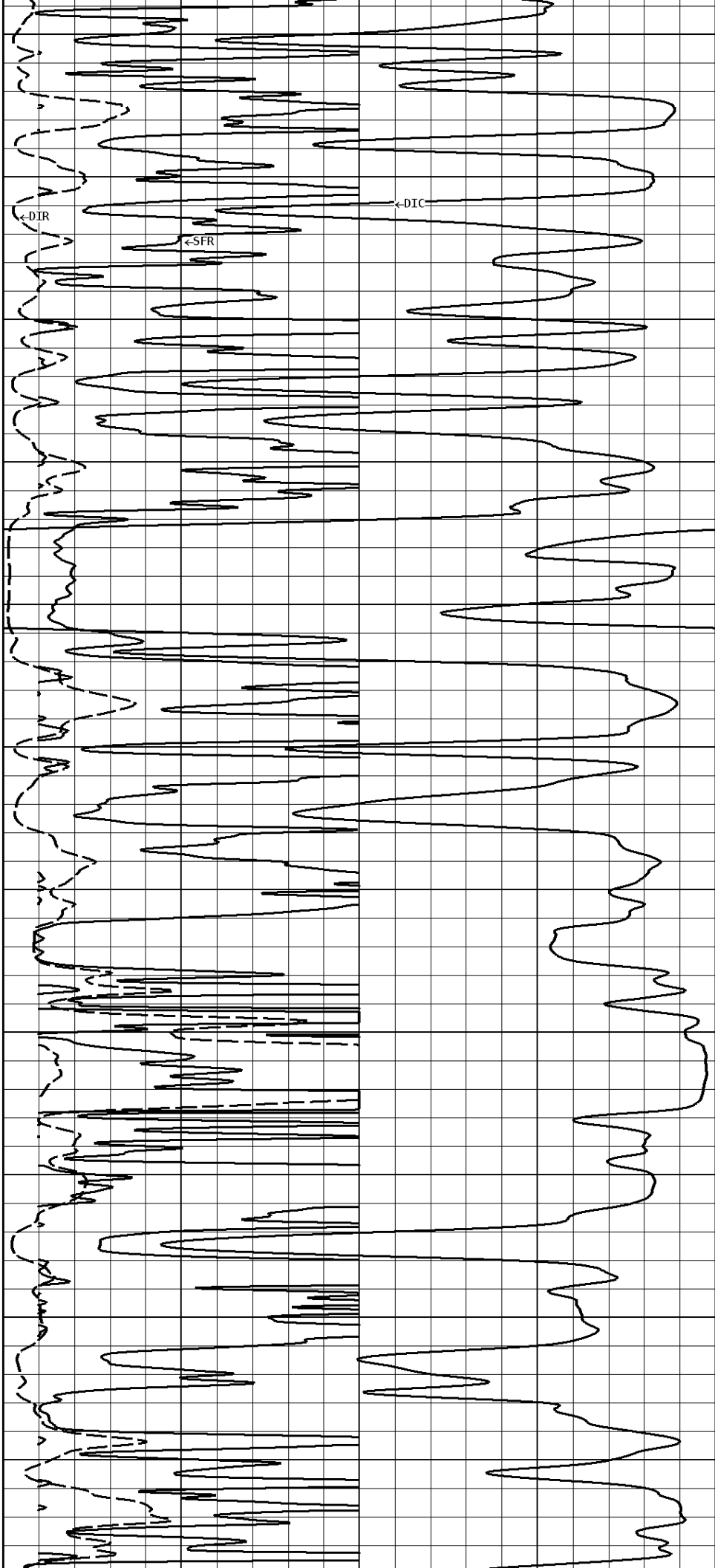
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3800

3900

4000

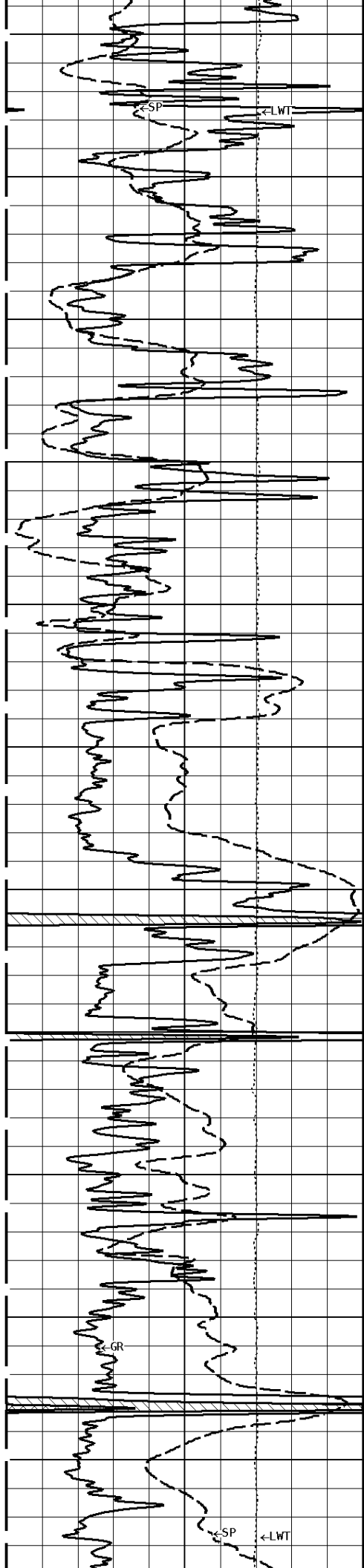
4100



←DIR

←SFR

←DIC



4200

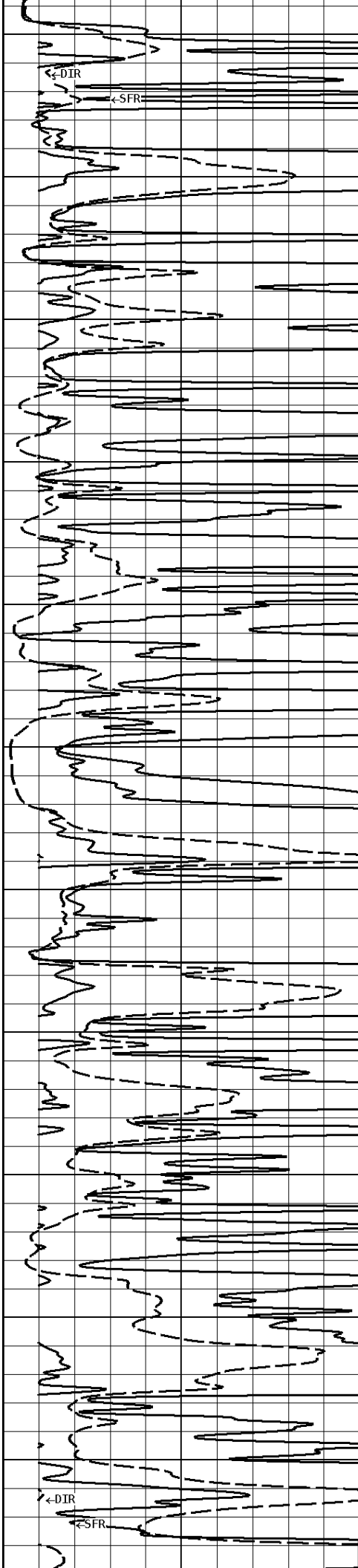
4300

4400

4500

4600

4700

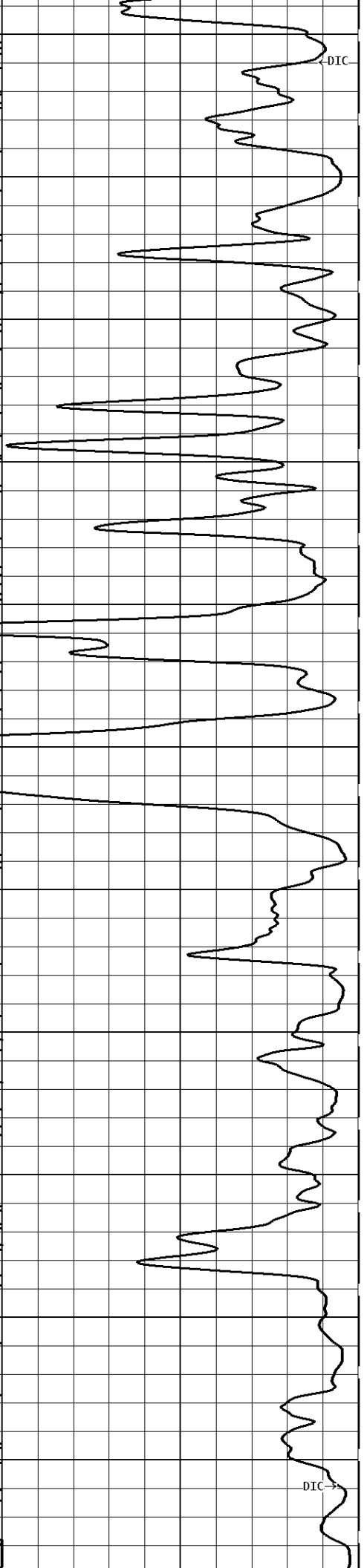


←DIR

←SFR

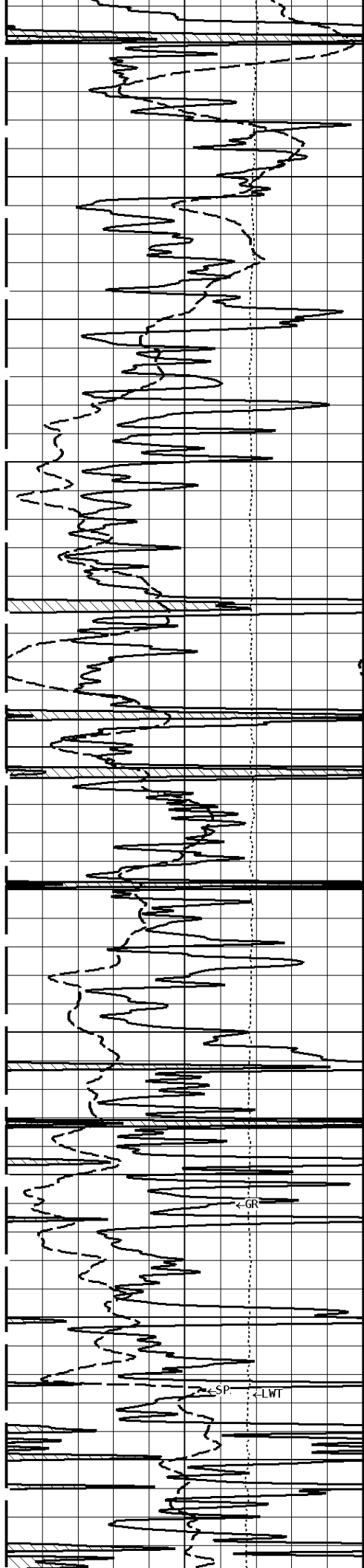
←DIR

←SFR



←DIC

DIC→



4800

4900

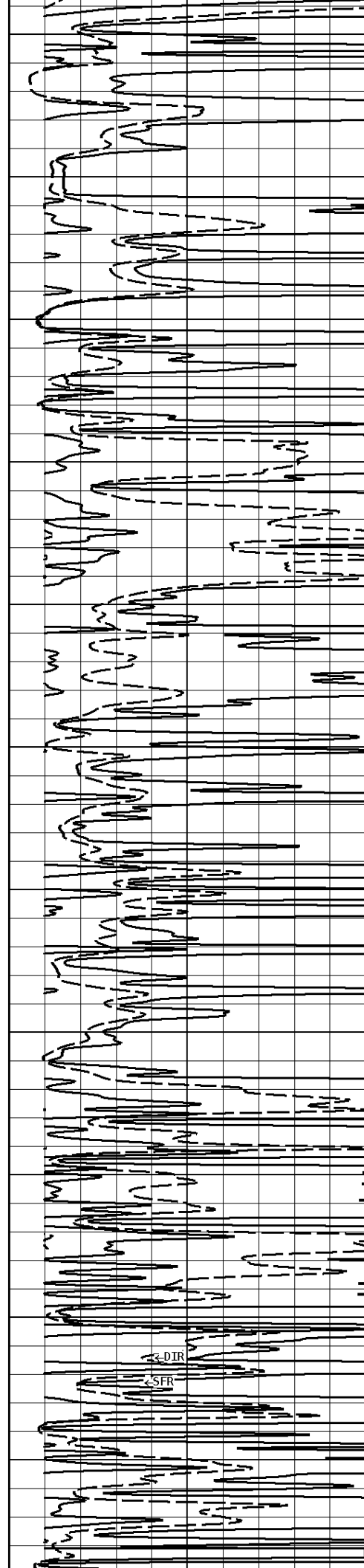
5000

5100

5200

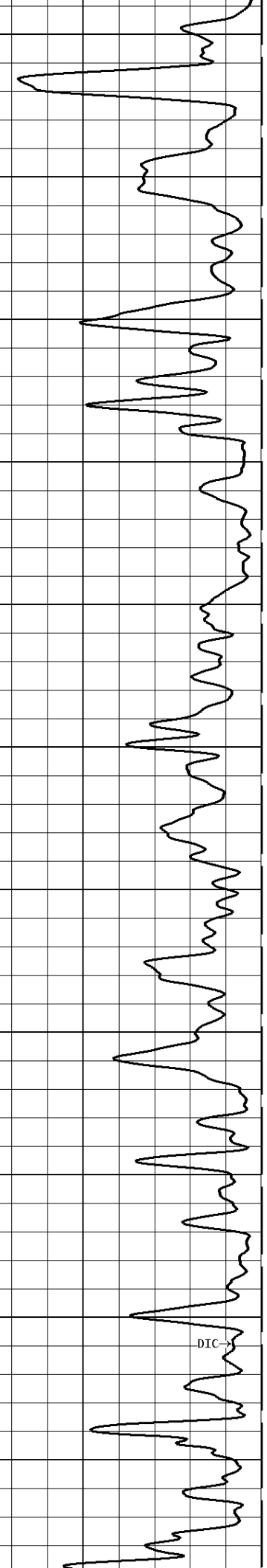
← GR

← SP ← LWT

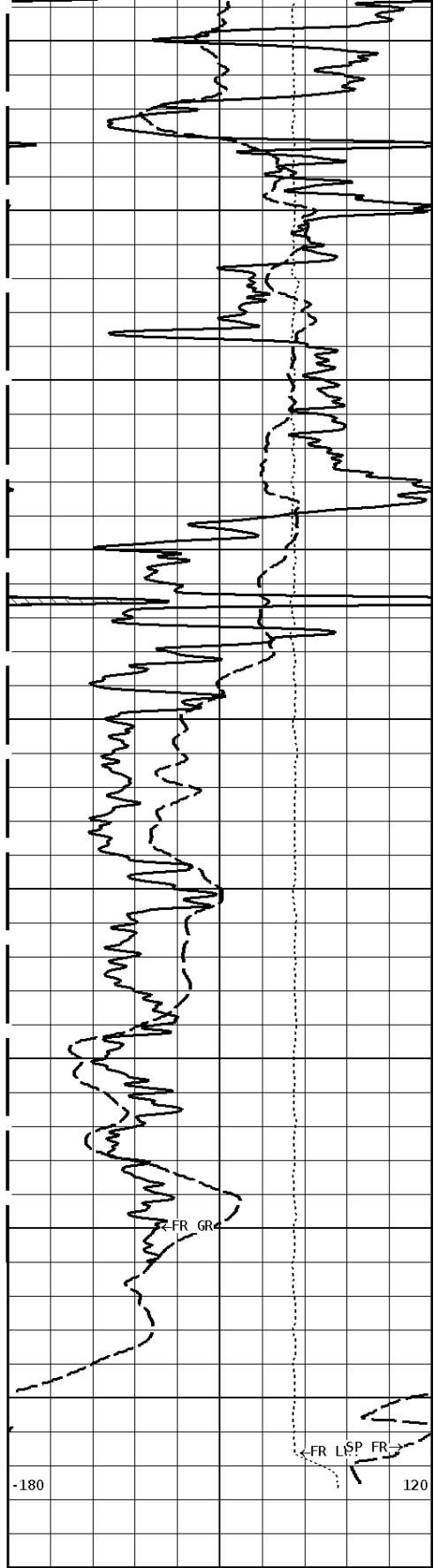


← DIR

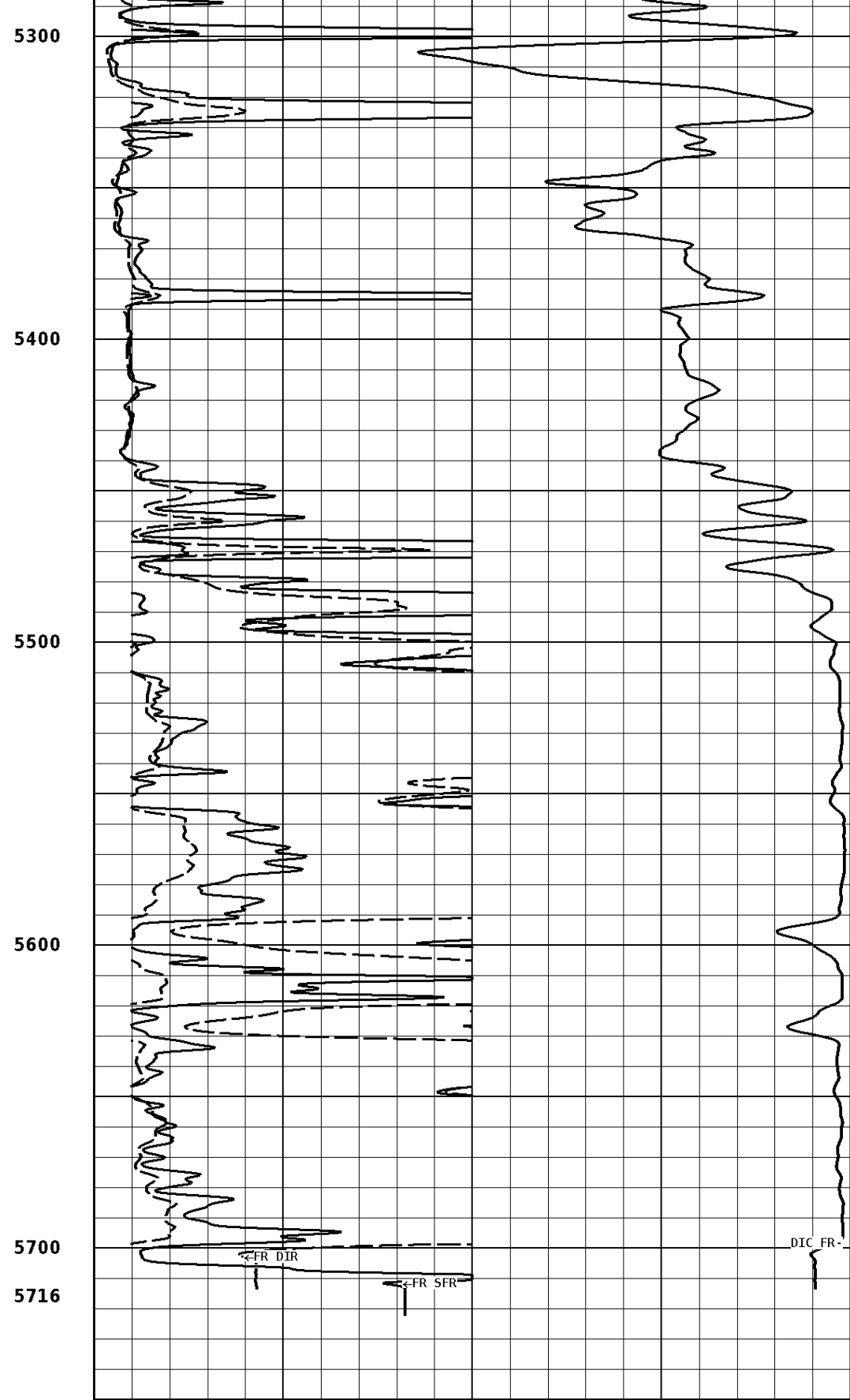
← SFR



DIC ←



File #1.1.7



1:600 MAIN SECTION

GAMMA RAY
API UNITS

150 0 300 150

DEEP CONDUCTIVITY
MMHO

2000
1000

1000
0

SPONTANEOUS POTENTIAL

SHALLOW FOCUSED RESISTIVITY

mV	
→	← 30
TENSION LBS	
10000	0

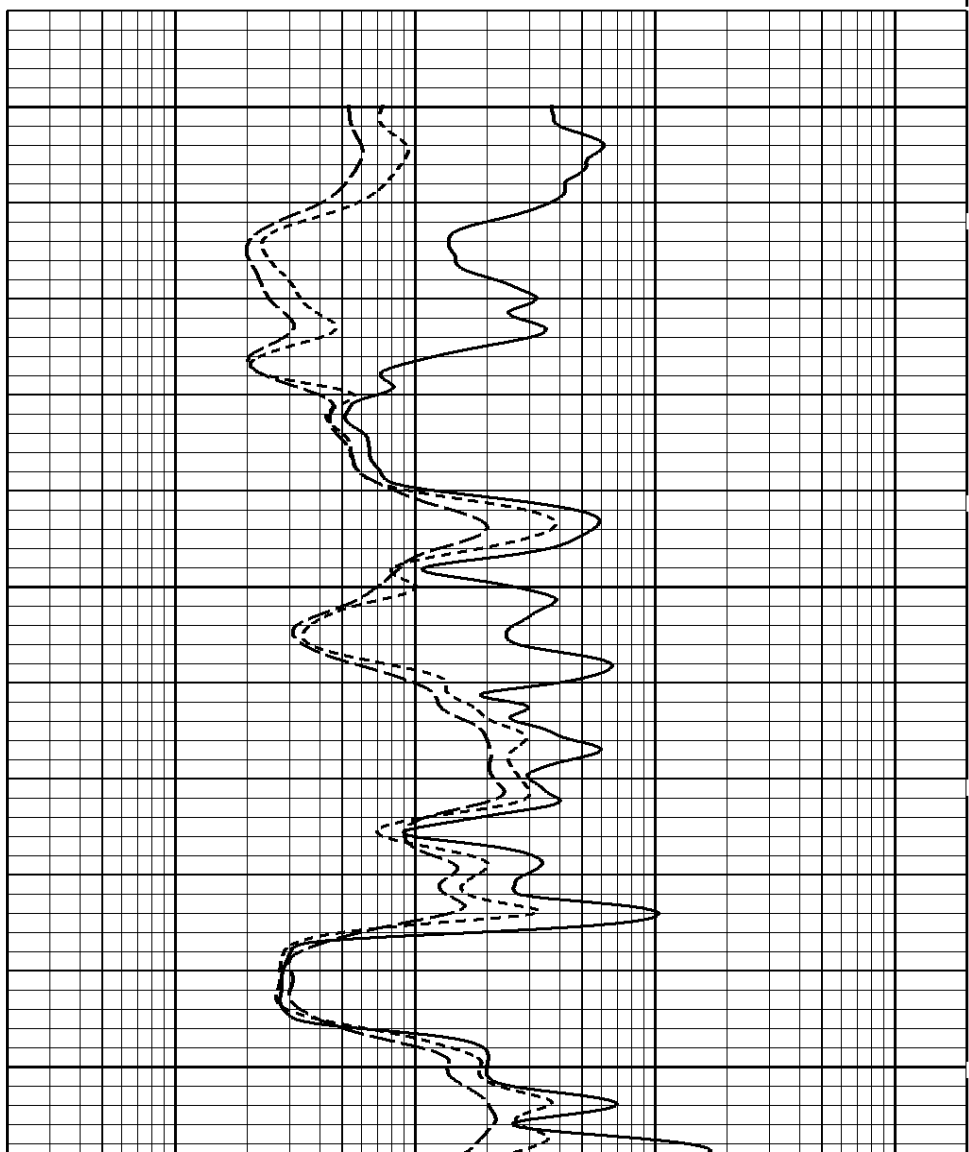
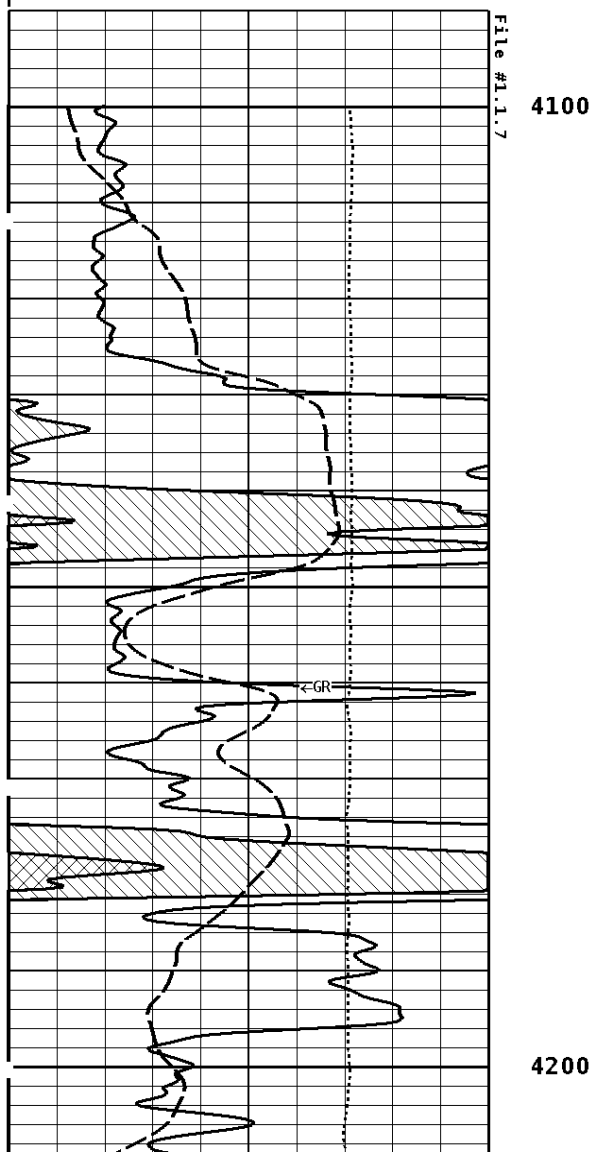
OHMM	
0.0	500.0
0.0	50.0
DEEP INDUCTION OHMM	
0.0	500.0
0.0	50.0

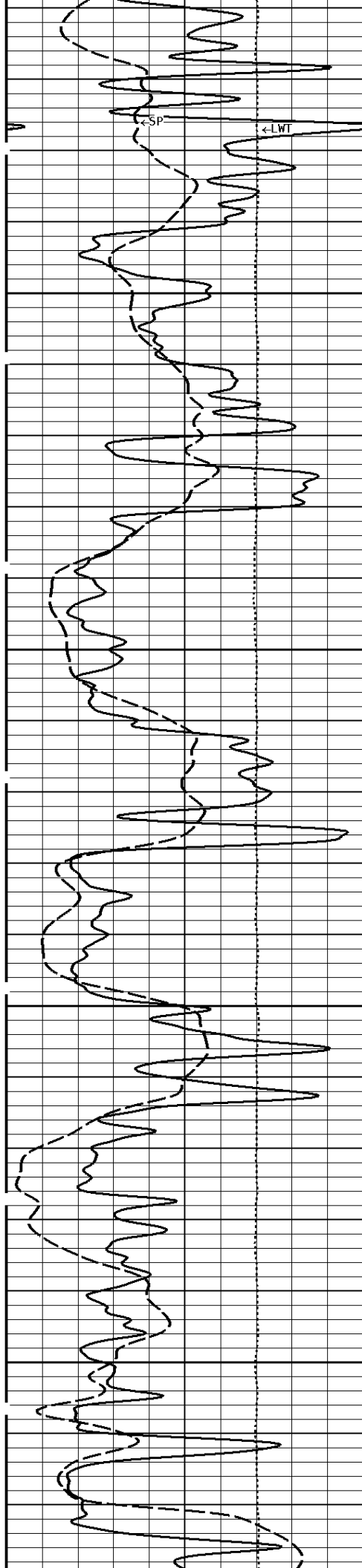
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 Segment: V1.D1.S7 Reprocess MAIN Acquired: 2019-12/07 11:10 3.4.1-13972
 Reference: 0 Processed: 2019-12/07 13:13 3.4.1-13972

SPONTANEOUS POTENTIAL mV	
→	← 30
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150	300
0	150

DEEP INDUCTION OHMM	
0.2	2000.0
MEDIUM INDUCTION OHMM	
0.2	2000.0
SHALLOW FOCUSED RESISTIVITY OHMM	
0.2	2000.0

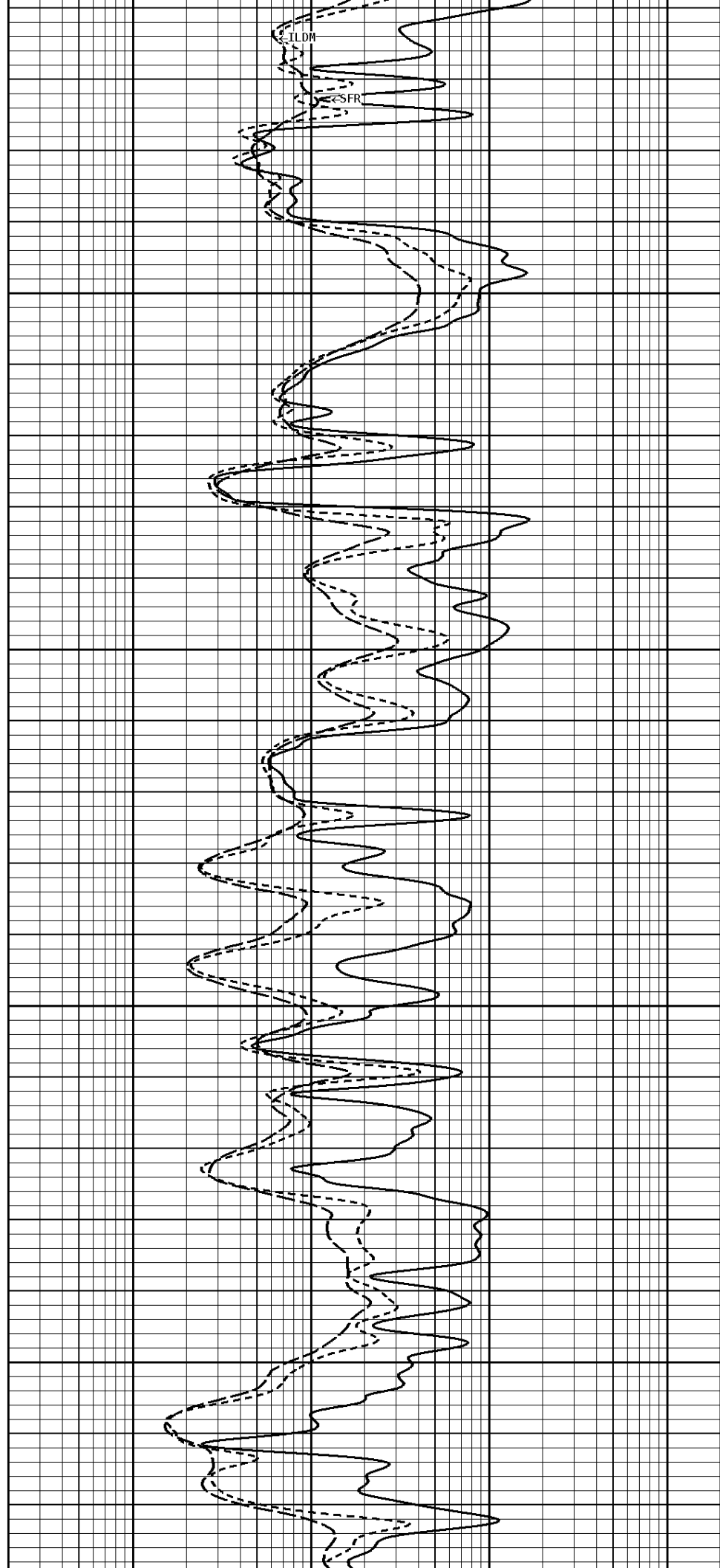
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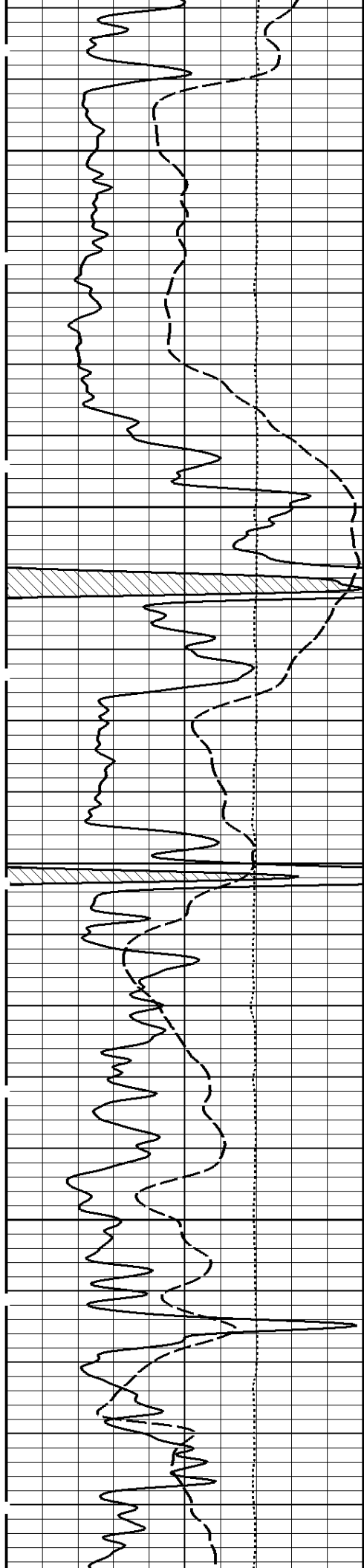




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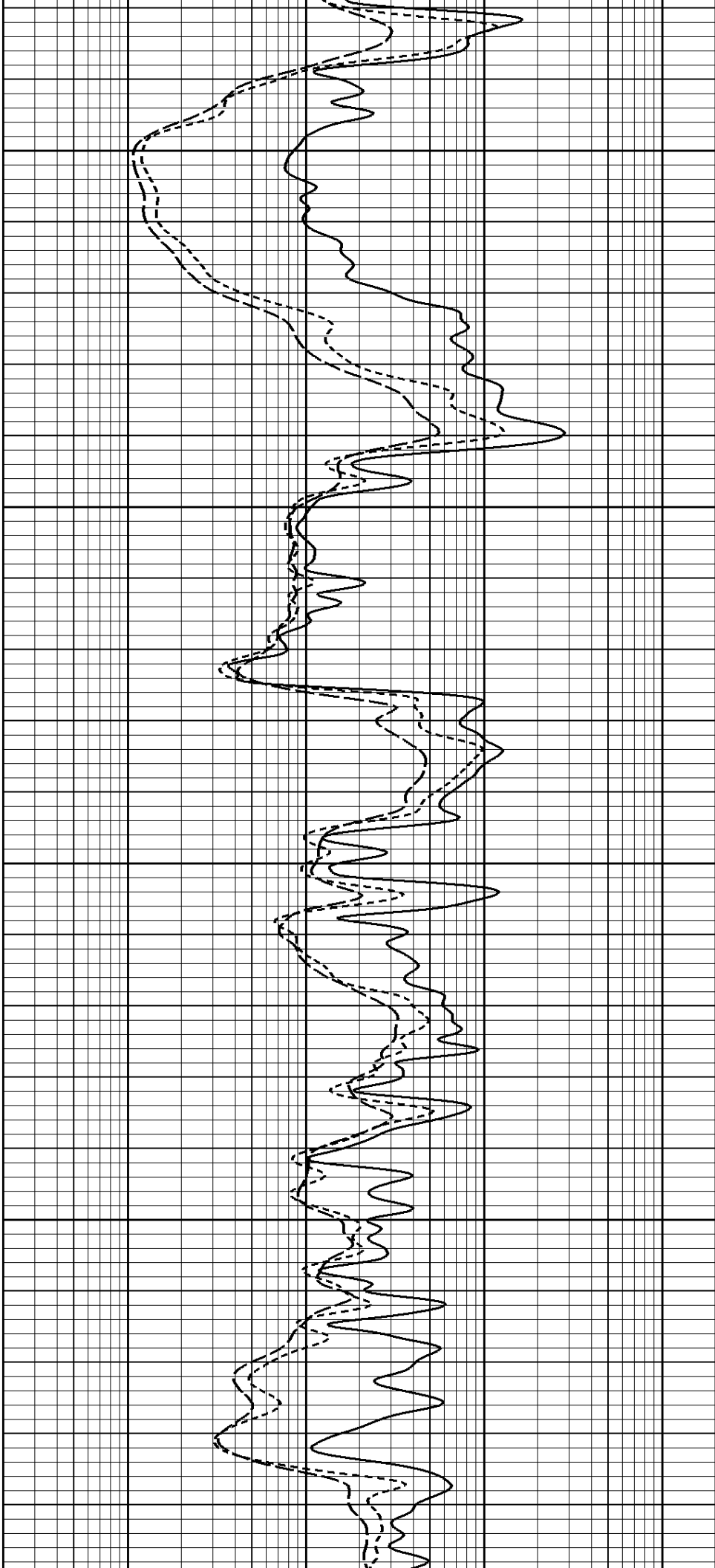
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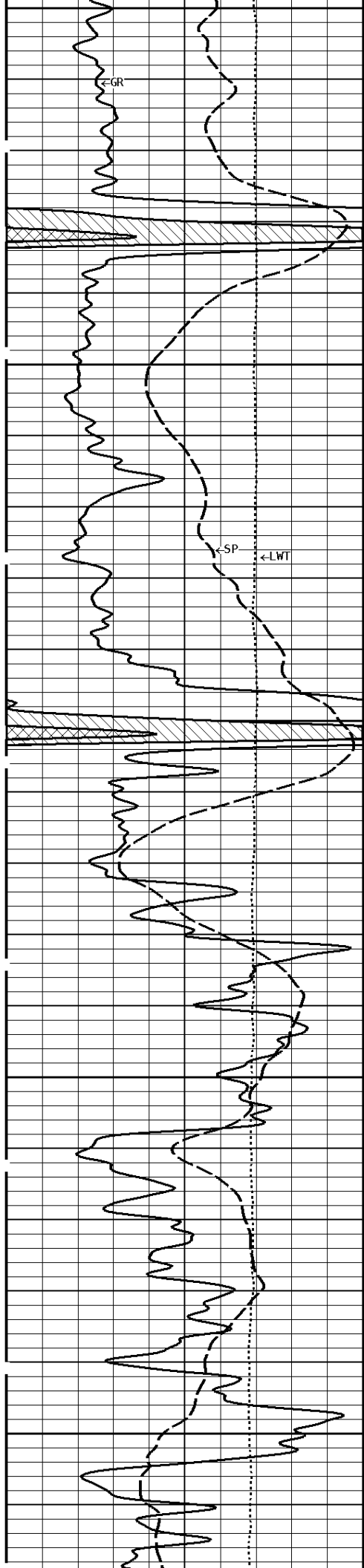




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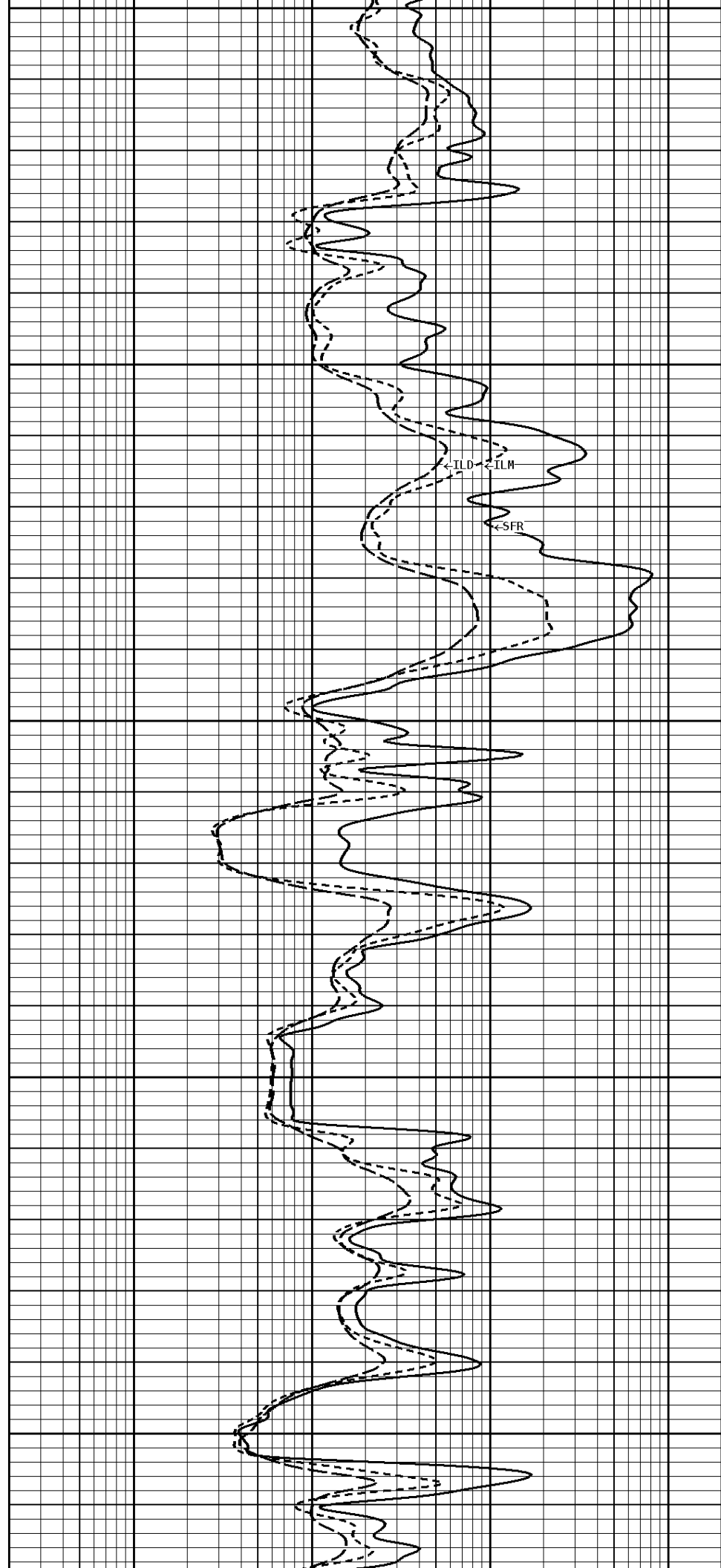
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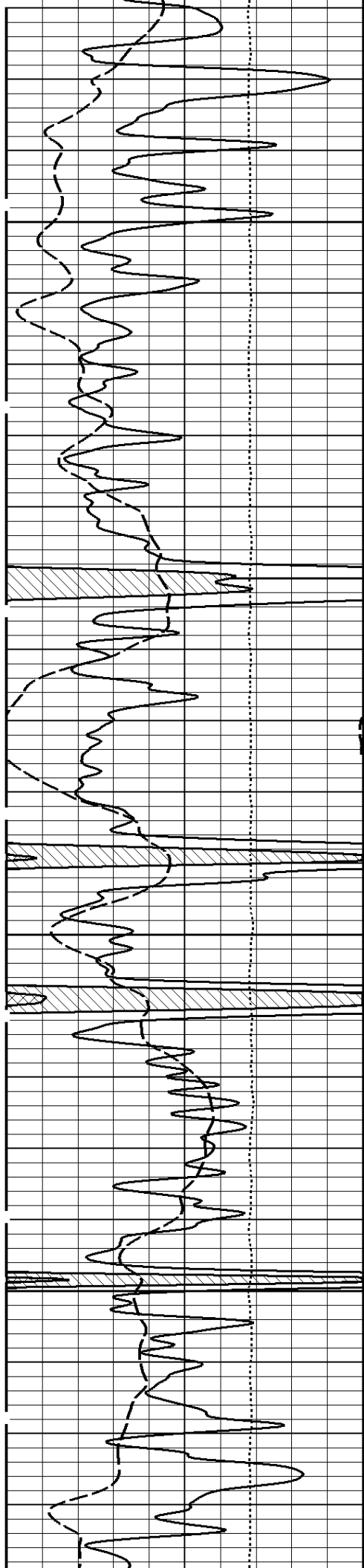




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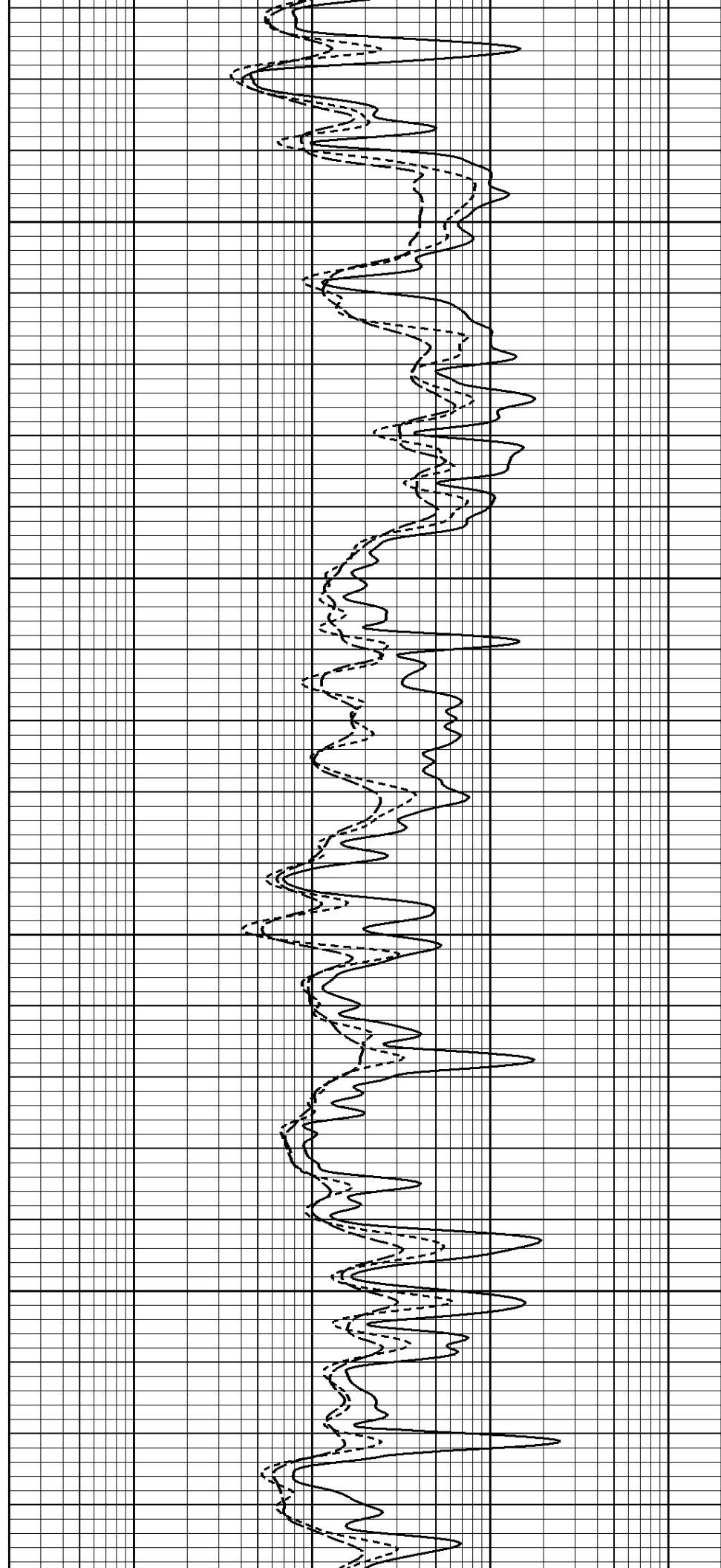
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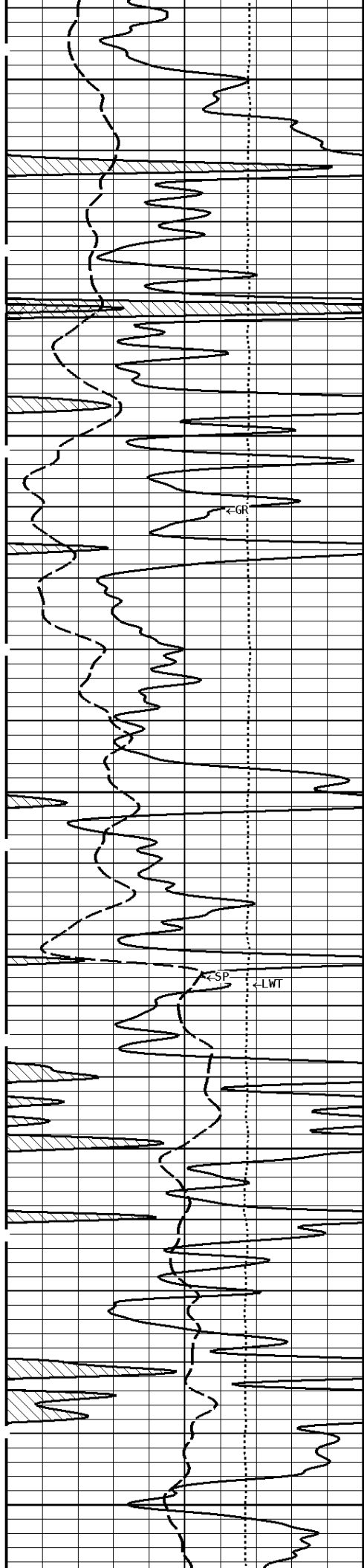




4900

5000

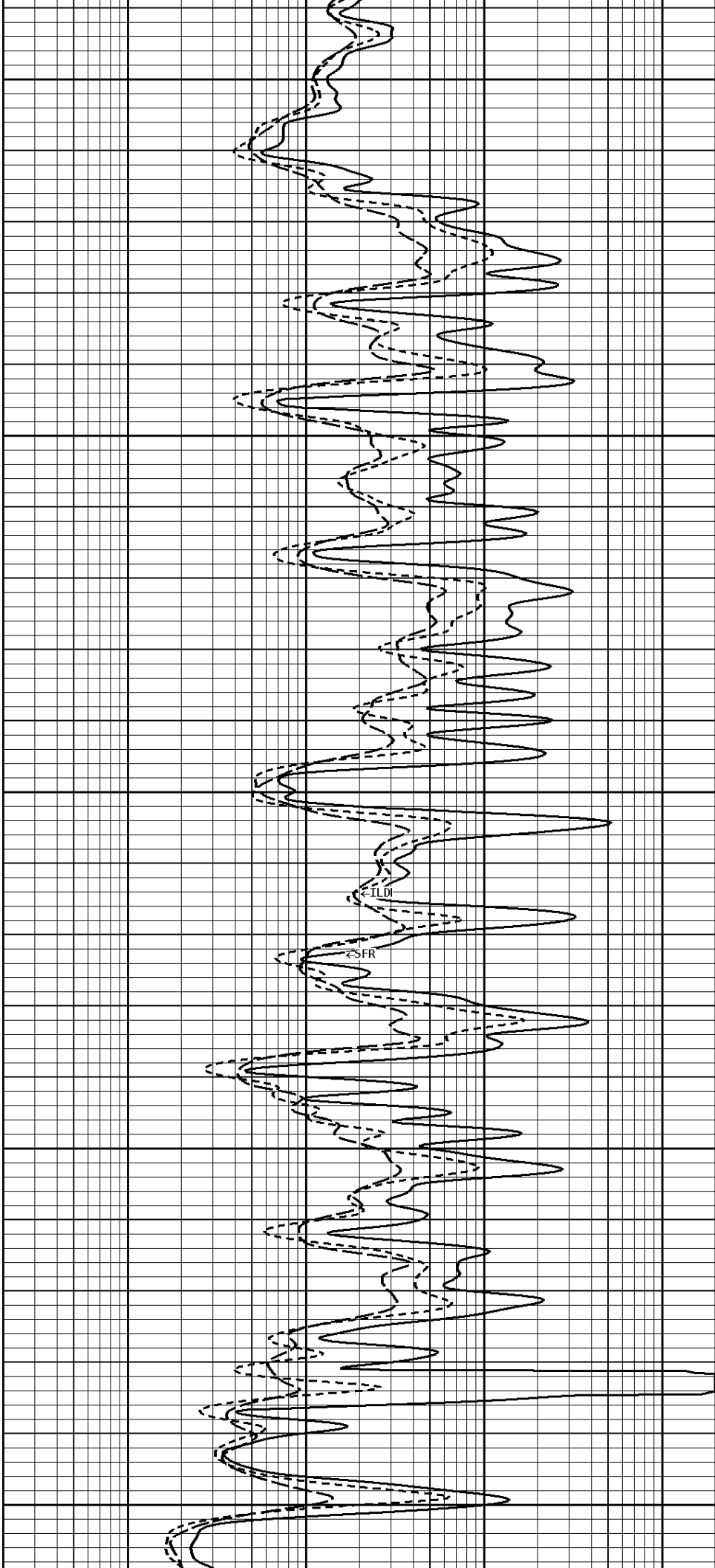


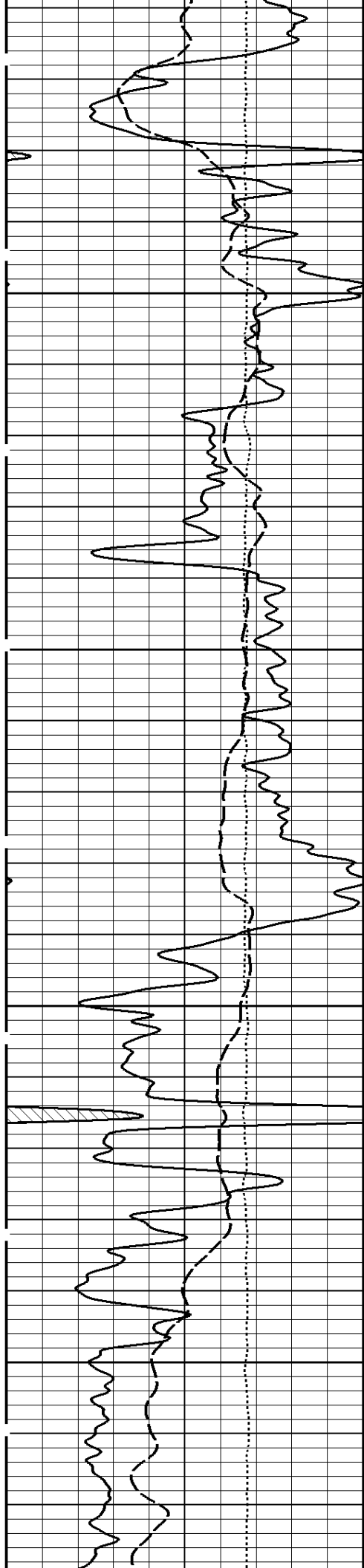


5100

5200

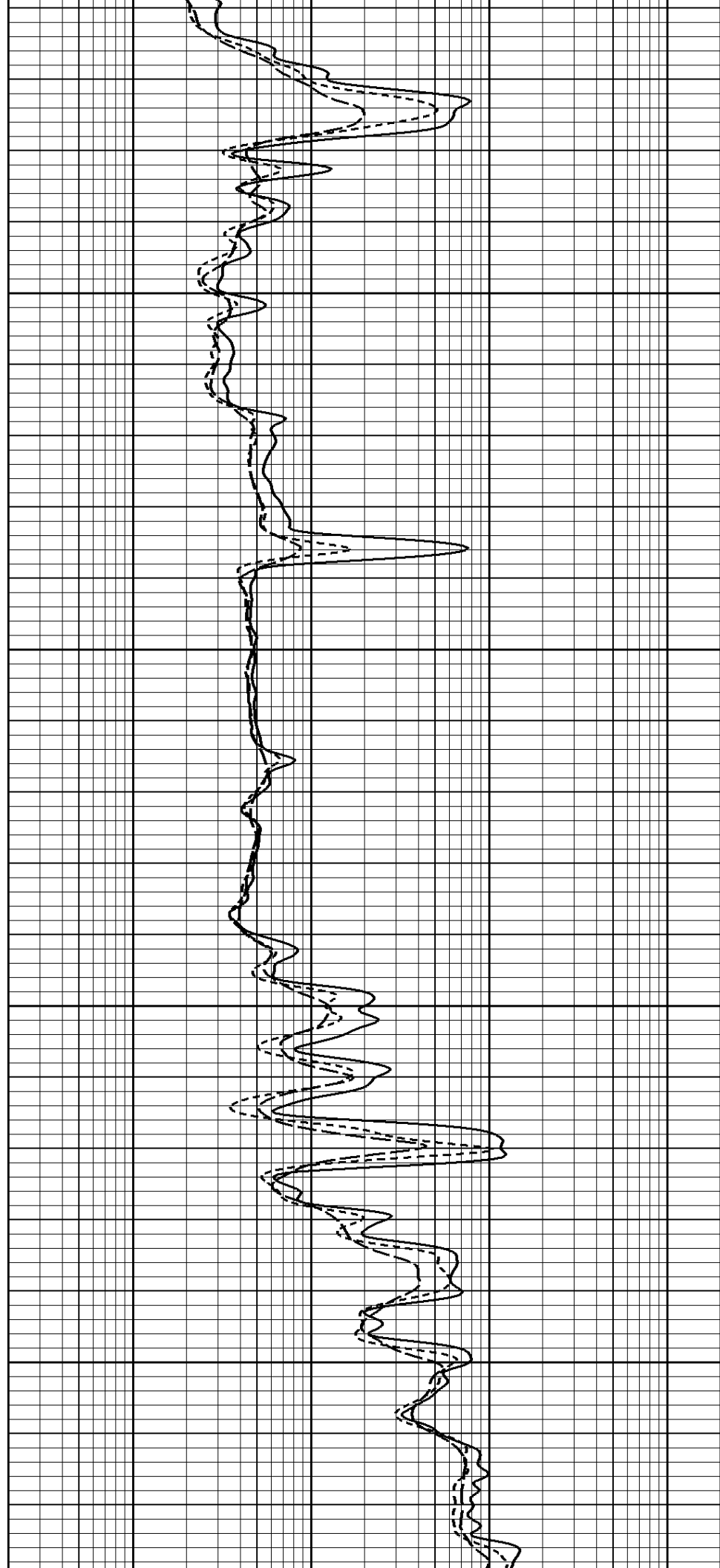
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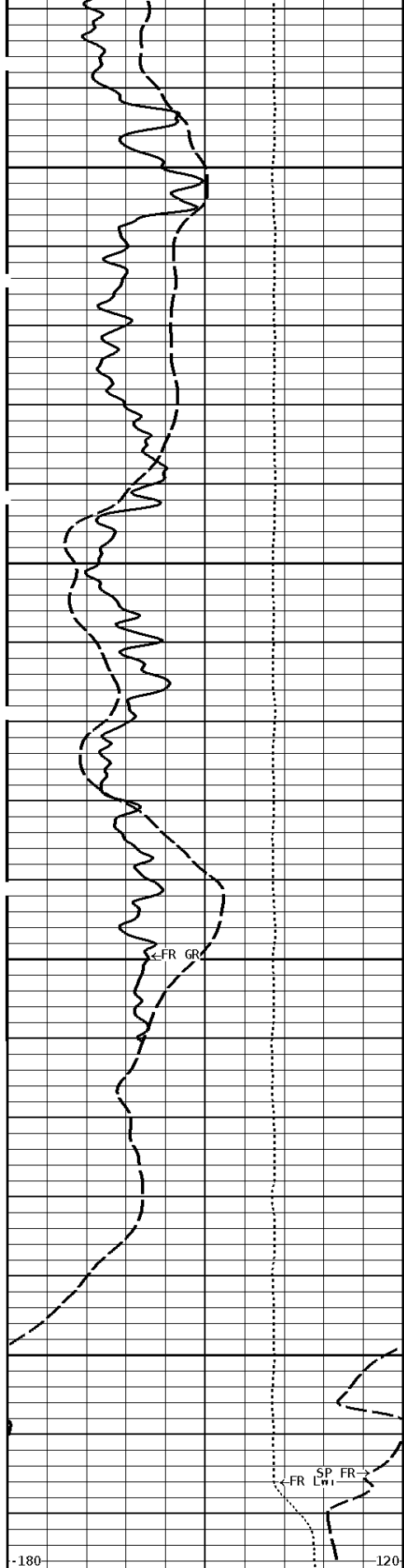




5400

5500





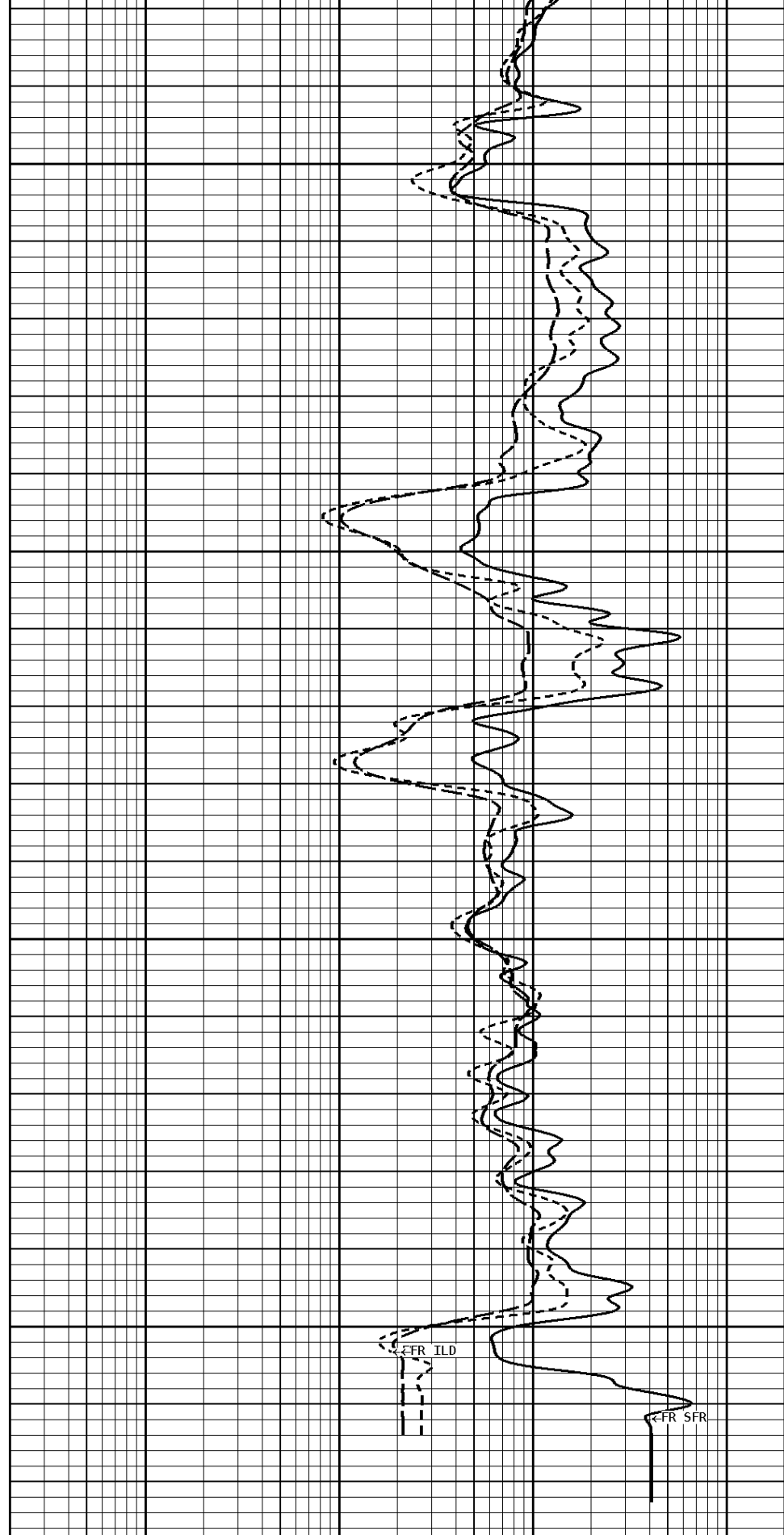
5600

5700

5716

←FR L_{W1} SP FR →

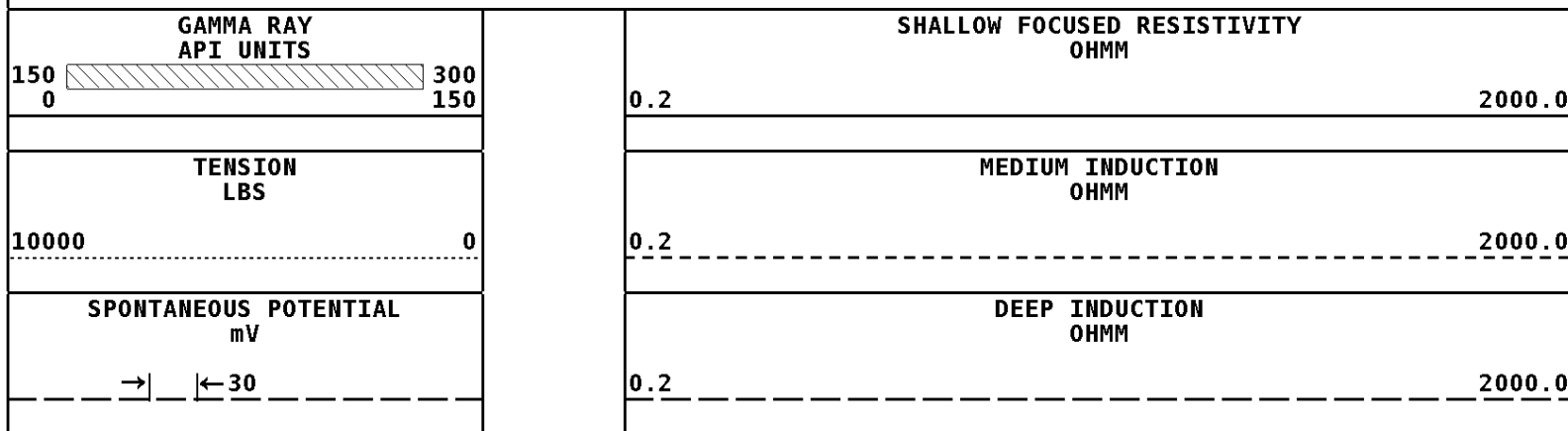
File #1.1.1



←FR ILD

←FR SFR

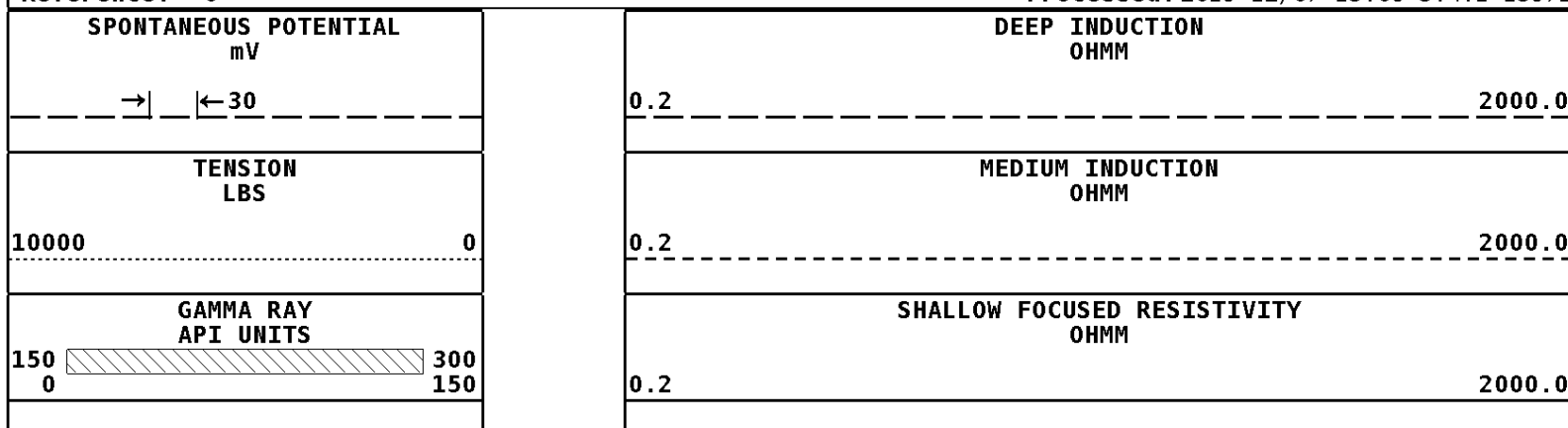
1:240 MAIN SECTION



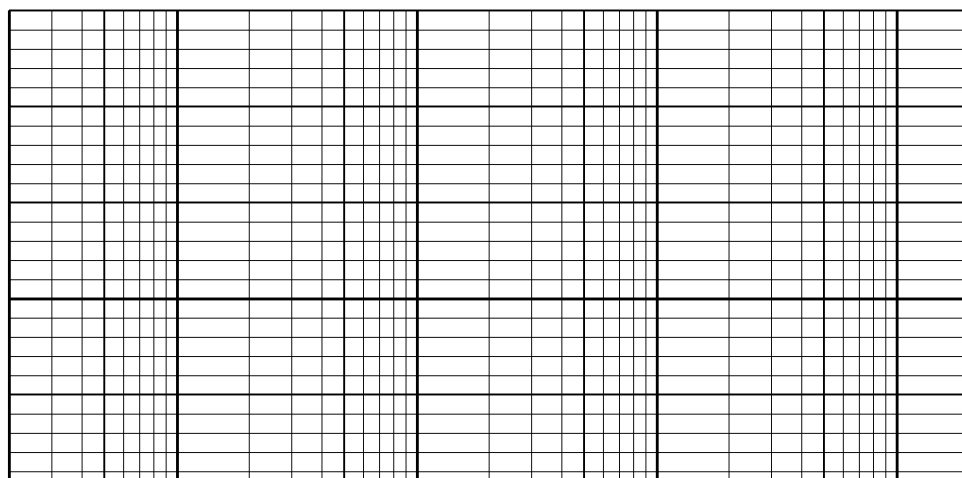
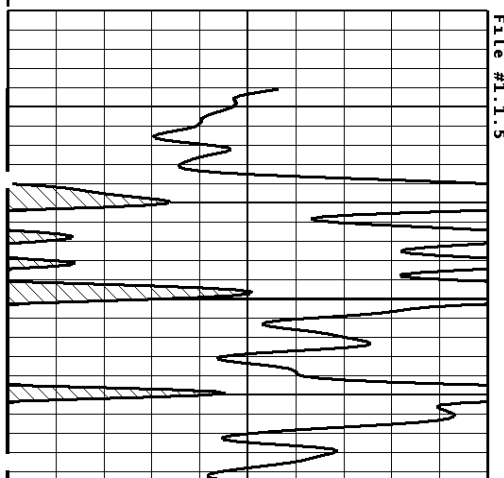
* Borehole Zone Factors *

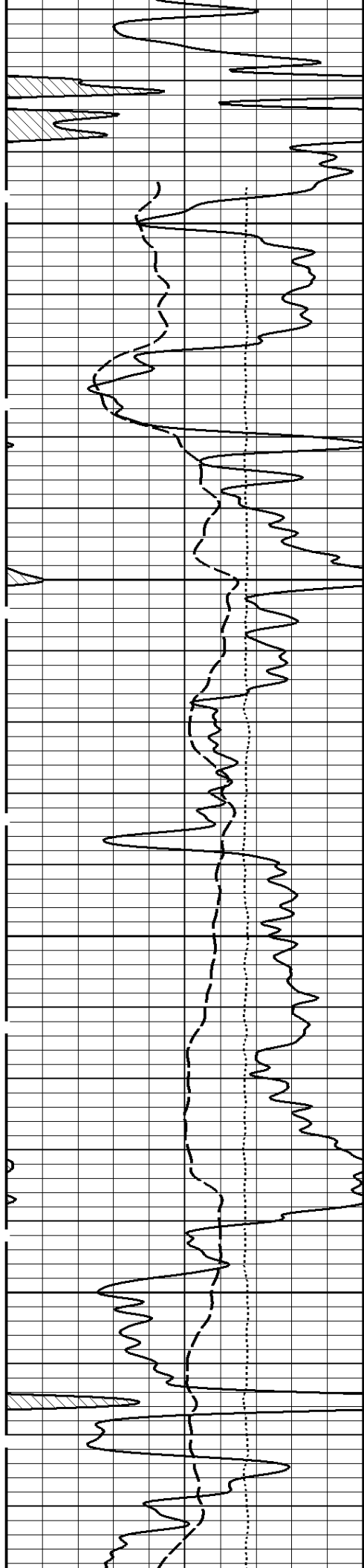
Zone 1 99999.0 to 0.0 Feet			
Drill Bit Size		7.875	in
Casing Diameter		5.500	in
BHT Depth		5721.000	ft
Borehole Temperature		125.0	degF
Temperature Gradient		1.00	DFHF
Resistivity Of Mud		2.000	ohmm
Resistivity Of Mud Temperature		127.00	degF

Well File: casillas hamker 20-3 dec-7-2019 _qst	Scale: 1:240	Format: DIL-240
Segment: V1.D1.S5 Reprocess REPEAT	Acquired: 2019-12/07 10:48 3.4.1-13972	
Reference: 0	Processed: 2019-12/07 13:08 3.4.1-13972	



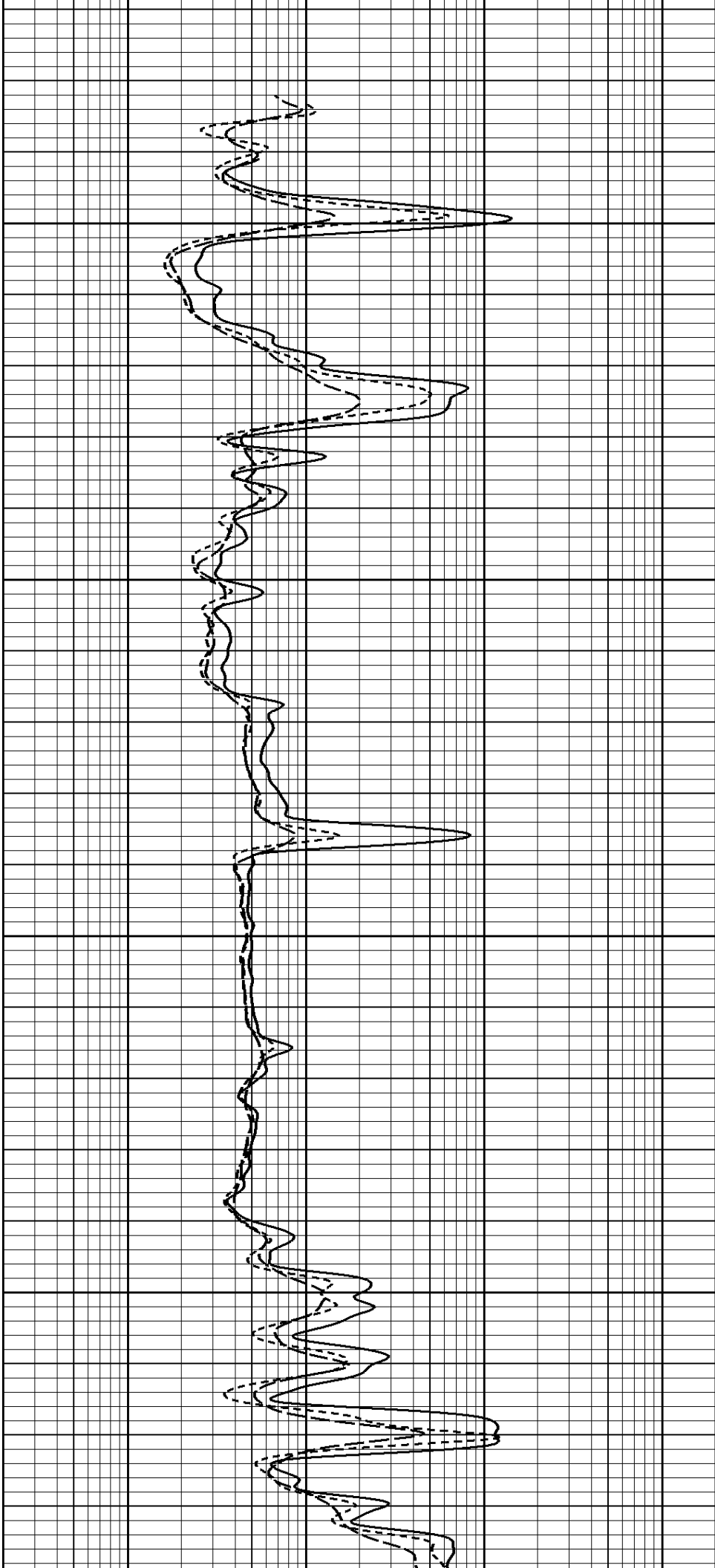
1:240 REPEAT SECTION

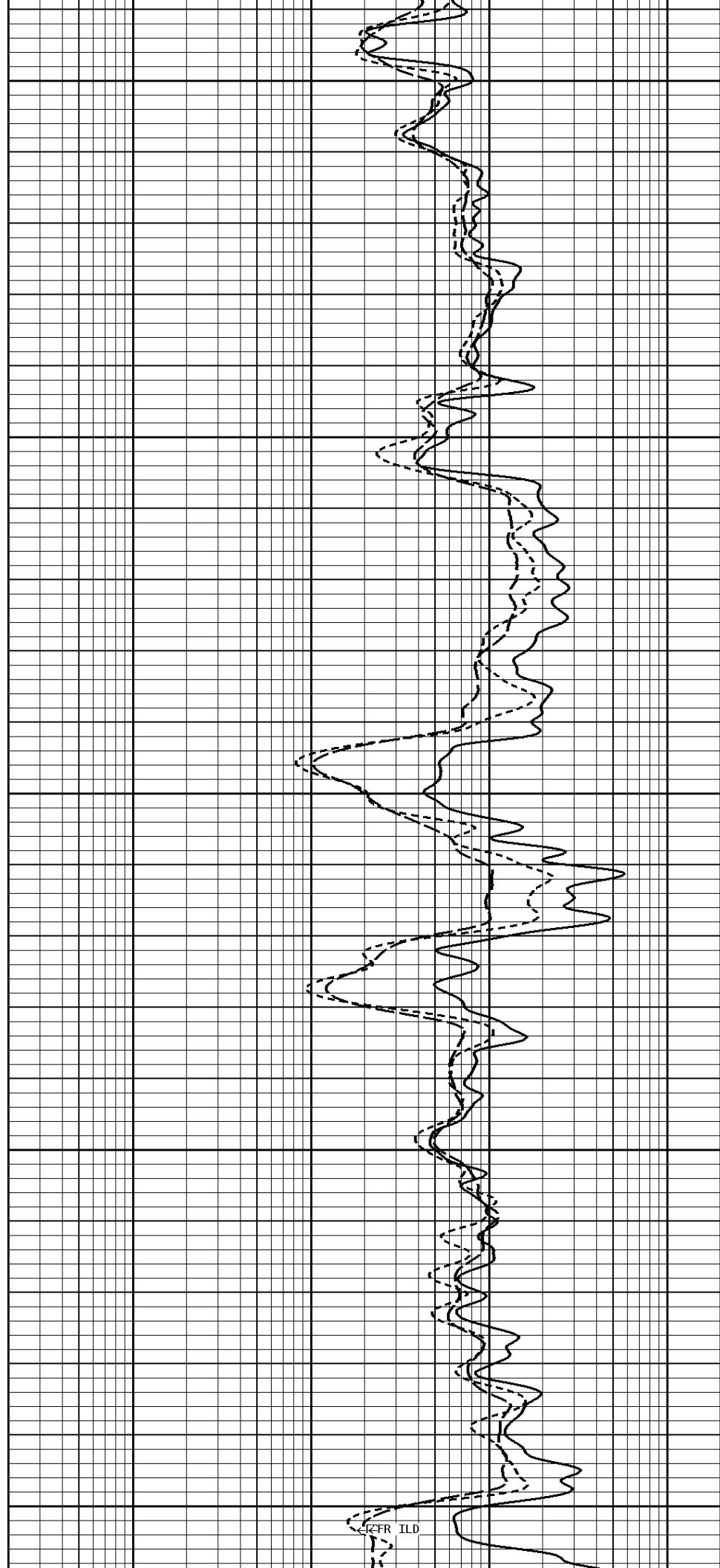
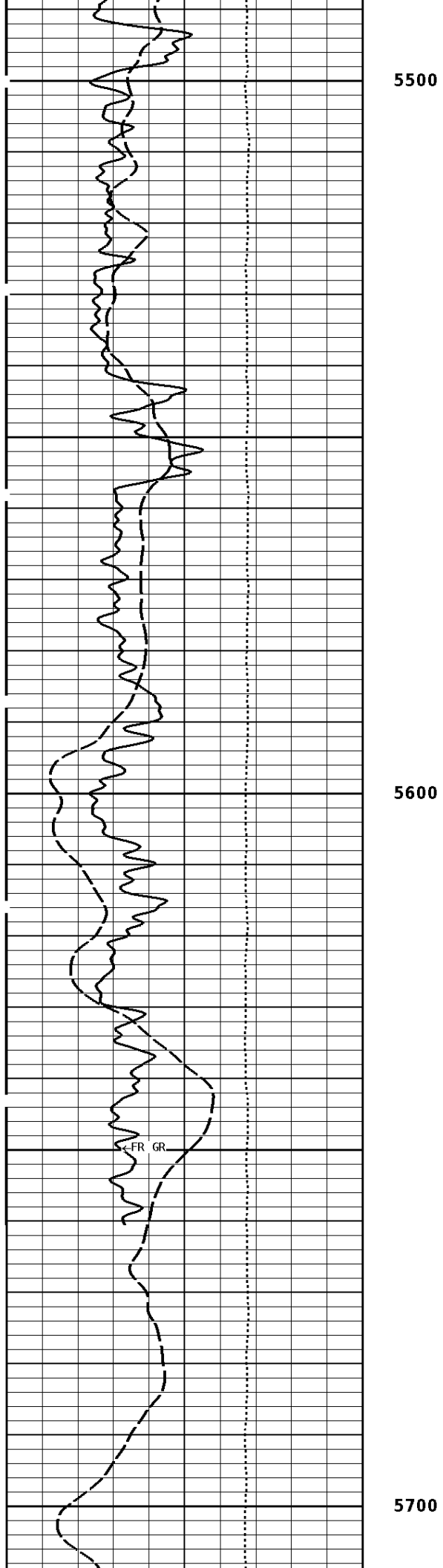


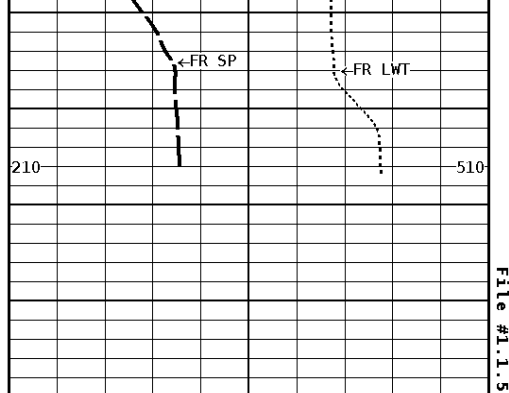


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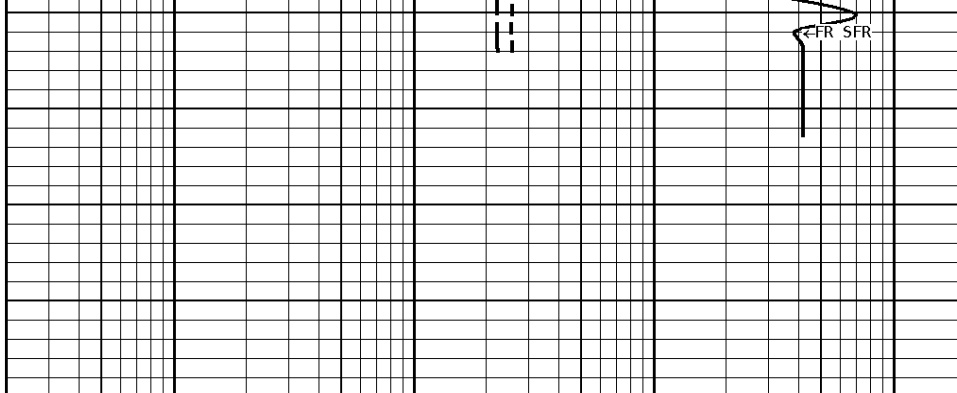
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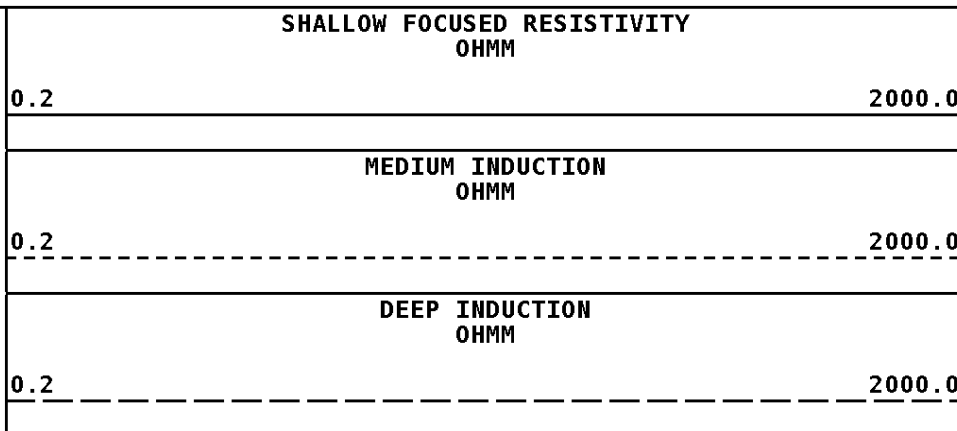
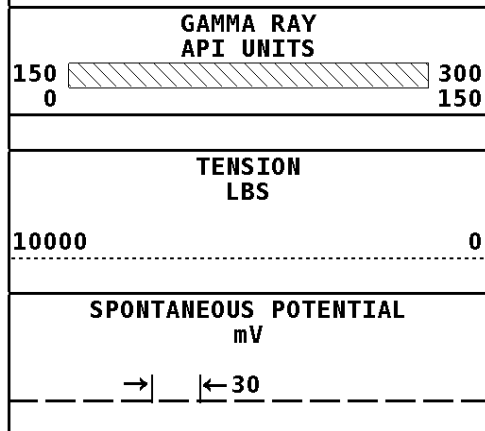




5716



1:240 REPEAT SECTION



* Borehole Zone Factors *

Zone 1	99999.0	to	0.0	Feet
Drill Bit Size			7.875	in
Casing Diameter			5.500	in
BHT Depth			5721.000	ft
Borehole Temperature			125.0	degF
Temperature Gradient			1.00	DFHF
Resistivity Of Mud			2.000	ohmm
Resistivity Of Mud Temperature			127.00	degF

* Calibration Summary *

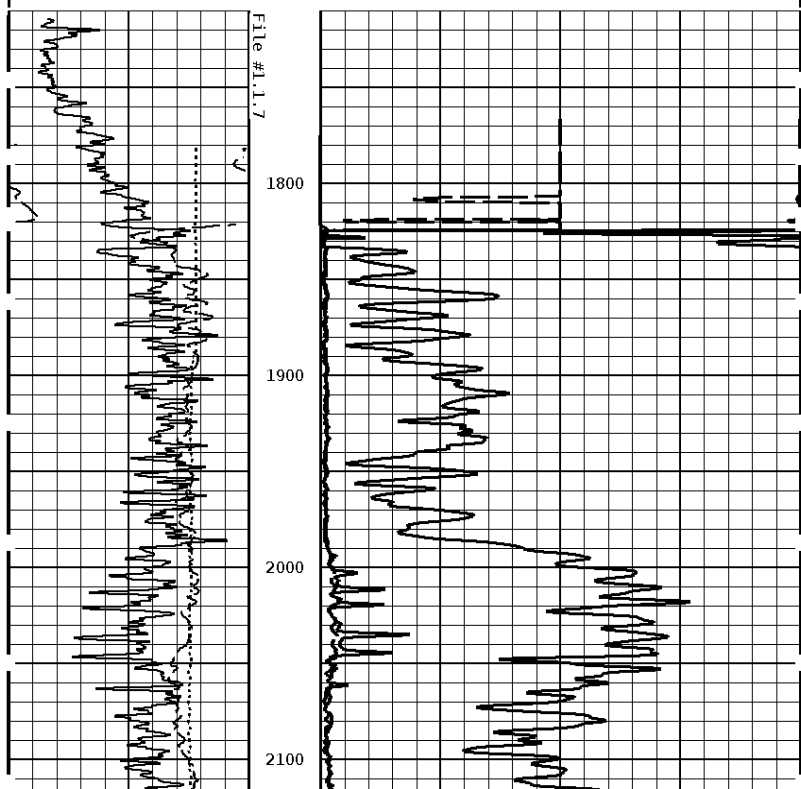
Shop Calibration GRT-B						
Performed : 04-Jun-2019			Time : 09:53			
Sensor Suite : GR-GR5			ID : GRT-BB-013			
	Measured	Units	Calibrated	Units		
GR	Background	Jig	Jig			
	44	314	160	GRAPI		
Shop Calibration PIT-CA						
Performed : 10-MAY-2019			Time : 11:27			
Sensor Suite : P-IND-T			ID : PIT-AC-043			
	Measured	Units	Calibrated	Units		
	Medium					
	Measured		Calibrated			
	R	X	R	X	Units	
Air	131492	129685	0.0	0.0	MMHOS	
Zero	131066	131062	-18.1	59.6	MMHOS	
Reference	244915	244454	4981.9	5059.6	MMHOS	
Loop	130404	210498	3515.7	3611.2	MMHOS	
Sonde Error			-0.5	-1.7	MMHOS	
Cond			4981.9	5059.6	MMHOS	
	Measured	Units	Calibrated	Units		
	Deep					
	Measured		Calibrated			
	R	X	R	X	Units	
Air	131039	129230	0.0	-0.0	MMHOS	

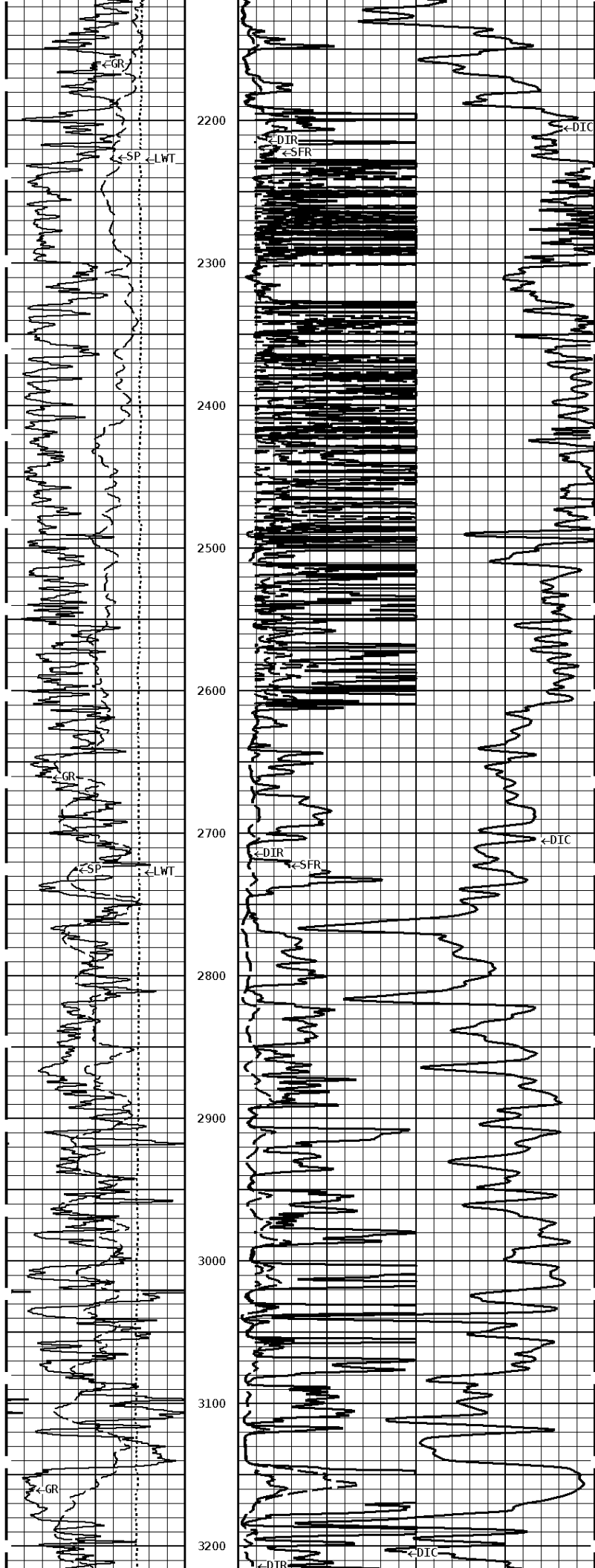
API	131079	131067	-15.6	35.3	MMHOS
Zero	131079	131067	-15.6	35.3	MMHOS
Reference	220620	224092	1984.4	2035.3	MMHOS
Loop	129308	206166	1595.4	1712.8	MMHOS
Sonde Error			-0.6	-7.8	MMHOS
Cond			1984.4	2035.3	MMHOS
Temperature					
	Measured		Calibrated		
	Low	High	Low	High	Units
	16980.0	56920.0	70.0	350.0	DEGF
Performed : 10-May-2019			Time : 14:03		
Sensor Suite : SFL			ID : PIT-AC-043		
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
Im	32732.6	48929.1	0.0	7028.0	uA
Ib	32768.6	49680.1	0.0	1750.0	mA
MOM1	32722.0	56290.6	0.0	175.0	mV
Equivalent SFL				43.97	OHMM
Performed : 10-MAY-2019			Time : 11:16		
Sensor Suite : P-SP			ID : PIT-AC-043		
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
	32774.5	58935.9	0.0	1000.0	mV

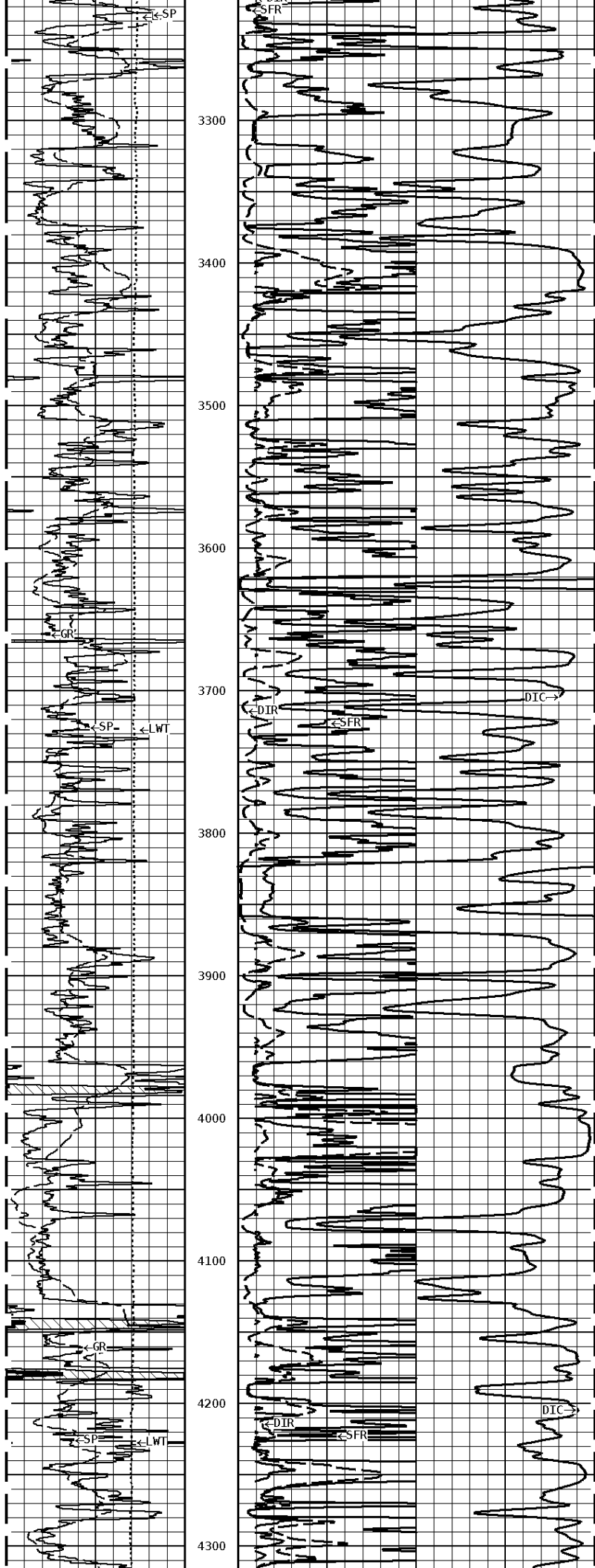
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Segment: V1.D1.S7 Reprocess MAIN Acquired: 2019-12/07 11:10 3.4.1-13972
Reference: 0 Processed: 2019-12/07 13:13 3.4.1-13972

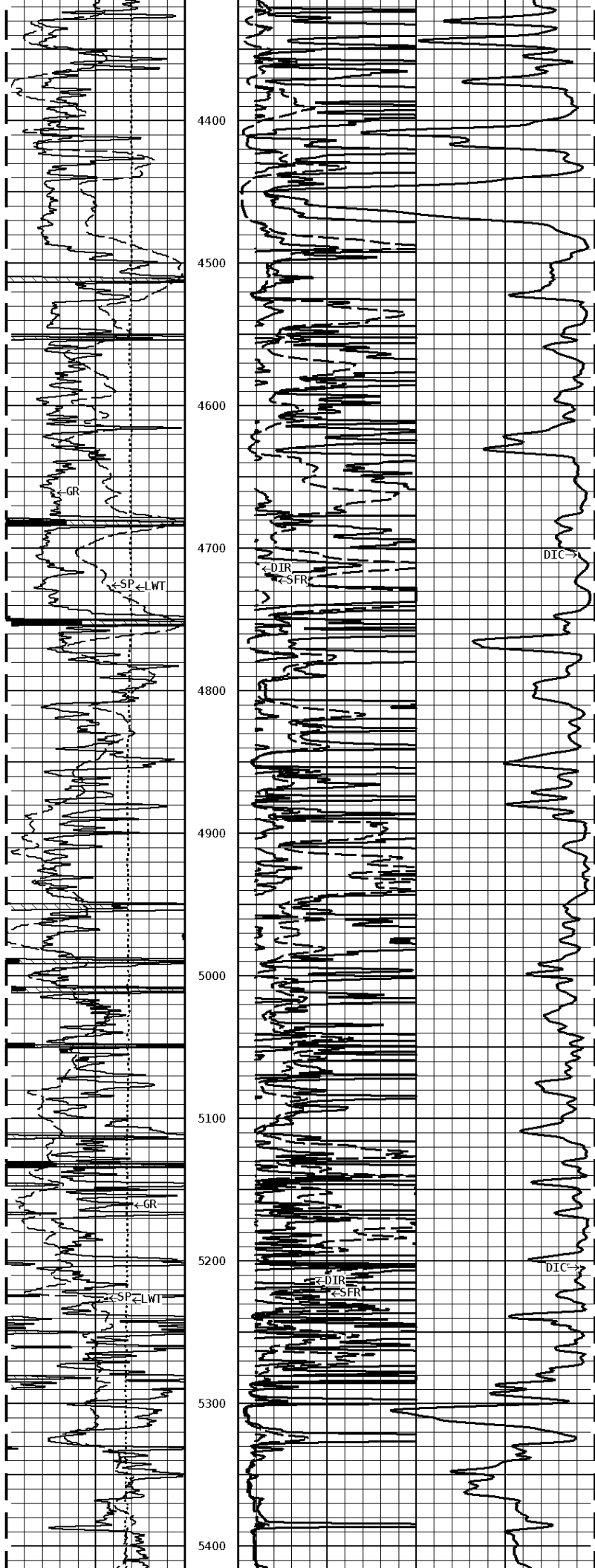
TENSION LBS		DEEP INDUCTION OHMM	
10000	0	0.0 500.0	0.0 50.0
SPONTANEOUS POTENTIAL mV		SHALLOW FOCUSED OHMM	
→ ← 30		0.0 500.0	0.0 50.0
GAMMA RAY API UNITS		DEEP CONDUCTIVITY MHMO	
150 300	0 150	2000 1000	1000 0

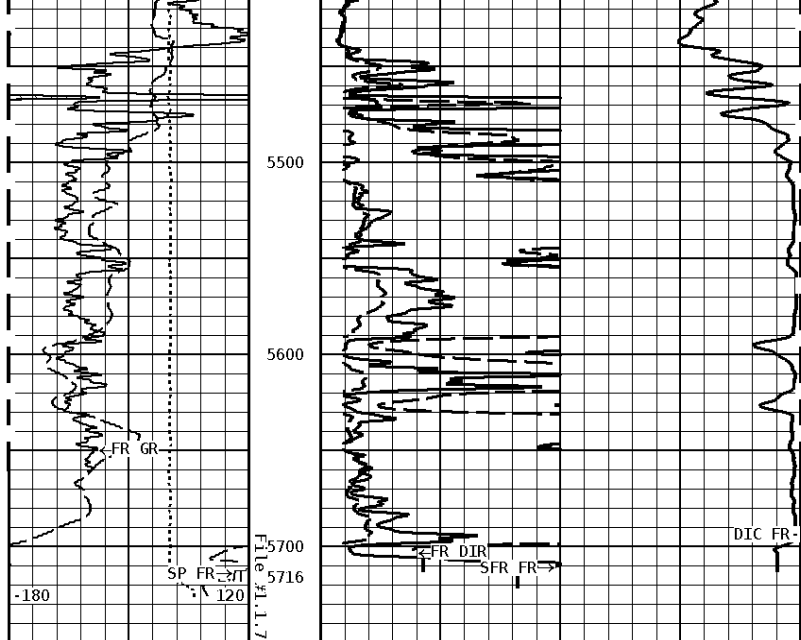
1:1200 MAIN SECTION











1:1200 MAIN SECTION

GAMMA RAY API UNITS 150 0 300 150	DEEP CONDUCTIVITY MMHO 2000 1000 1000 0
SPONTANEOUS POTENTIAL mV → ← 30	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

STEP
energy services

Company: CASILLAS PETROLEUM CORP
 Well: HAMKER #20-3
 Location: 1420' FSL & 660' FWL
 Logged: 12-07-2019
 K.B. Elev: 2858.0 Ft