



Tucker

ENERGY SERVICES

PHASED INDUCTION

SHALLOW FOCUS SP LOG

Company KELLEY EDGAR OIL & GAS OPERATIONS Well WEBER #A Field INTERCHANGE SOUTH County SUMNER State KANSAS Country USA API No. 15-191-22771-0000		File No : TUL-60394 Company : KELLEY EDGAR OIL & GAS OPERATIONS Well : WEBER #A Field : INTERCHANGE SOUTH County : SUMNER State : KANSAS Country : USA API No : 15-191-22771-0000	
Location : 1320' FSL & 330' FEL E/2 E/2 SE		LSD : Sect : 19 Twp : 32S Rge : 1E	
Permanent Datum: Drilling Measured From: GL Log Measured From: KB Above Permanent Datum: 10.00 Ft		Elevations: KB 1220.00 Ft DF 1219.00 Ft GL 1210.00 Ft	
Services: CNT LDT PIT MLT			
Date 04-24-2015			
Run Number 1			
Depth--Driller 4075.0 Ft			
Depth--Logger 4096.0 Ft			
First Reading 4096.0 Ft			
Last Reading 301.0 Ft			
Casing--Driller 301.0 Ft			
Casing--Logger 301.0 Ft			
Bit Size 7.875 In			
Casing Size 8.625 In			
Hole Fluid Type WBM			
Density 8.8 lb/gal			
Fluid Loss 11.2 ml/30min			
PH/Viscosity 9.5 45.0 Sec/qt			
Sample Source MEASURED			
RM@Measured Temp. 0.500 @ 70 F			
RMF@Measured Temp 0.400 @ 70 F			
RM@Measured Temp. 0.600 @ 70 F			
Source RMF/RMC CALCULATED/CALCULATED			
RM@BHT 0.310 @ 117 F			
Time Circulation Stopped 04-24-2015 10:00 am			
Max Recorded Temp. 117 F			
Equipment/Base 123 TULSA			
Recorded By SHELDON TYLER / AMOUR DUAHO			
Witnessed By KELLEY EDGAR			

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	4075.00	8.625	32.00	301.00	0.00

Run Number	1	
Date	04-24-2015	
Date/Time On Bottom	04-24-2015 3:00 pm	
Depth to Fluid	0.0 Ft	
Salinity	9000.000 ppm	
RMF@BHT	0.248 @ 117 F	
RMC@BHT	0.372 @ 117 F	

Run Number 1

Comments

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

CUSTOMER REQUESTED NO REPEAT
SONIC DID NOT WORK
DETAIL PULLED TO 1900'

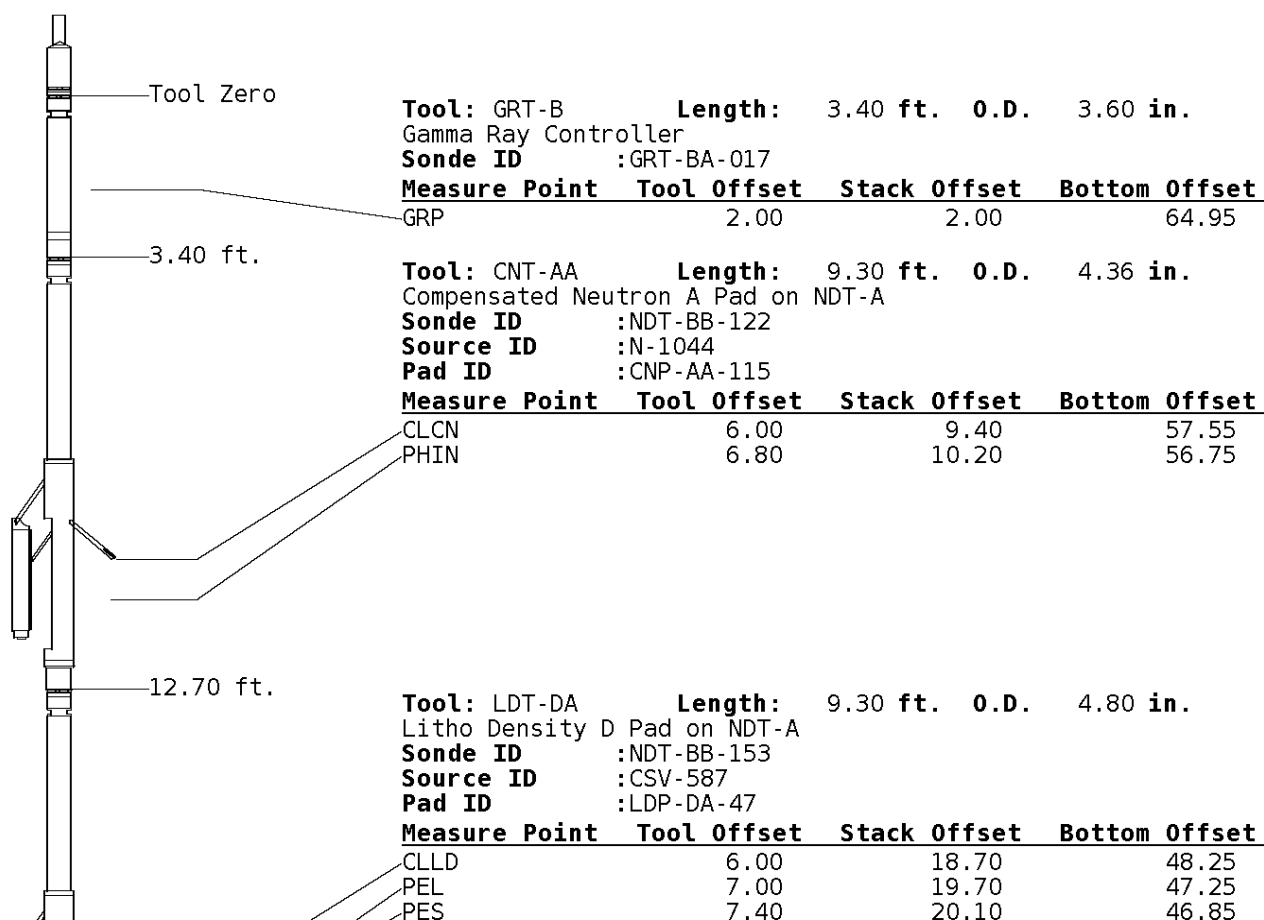
GRT: GRP, GRX

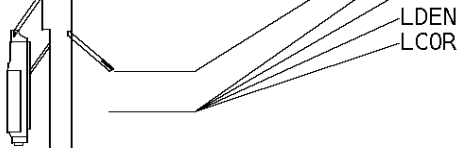
CNT: PHIN, CLCNIN, PHXN
LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
MLT: NOR_RF, INV_RF, MSCLPIN
PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:
B.BROWN

Tool String Schematic

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



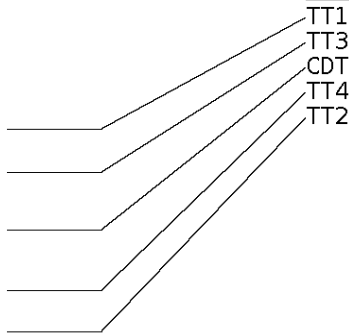


7.20	19.90	47.05
7.20	19.90	47.05

22.00 ft.

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

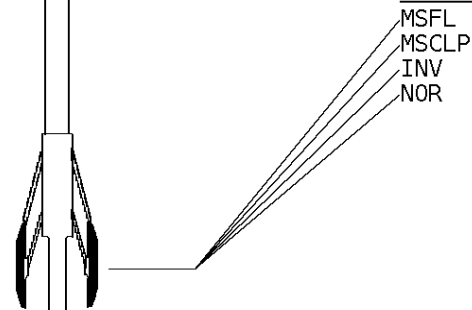
Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	26.80	40.15
TT3	5.80	27.80	39.15
CDT	7.30	29.30	37.65
TT4	8.80	30.80	36.15
TT2	9.80	31.80	35.15



35.80 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
Micro Spherically Focused (IC)
Sonde ID : MLT-DA-21

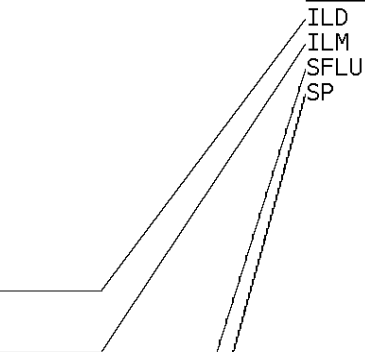
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	43.40	23.55
MSCLP	7.60	43.40	23.55
INV	7.60	43.40	23.55
NOR	7.60	43.40	23.55



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-075

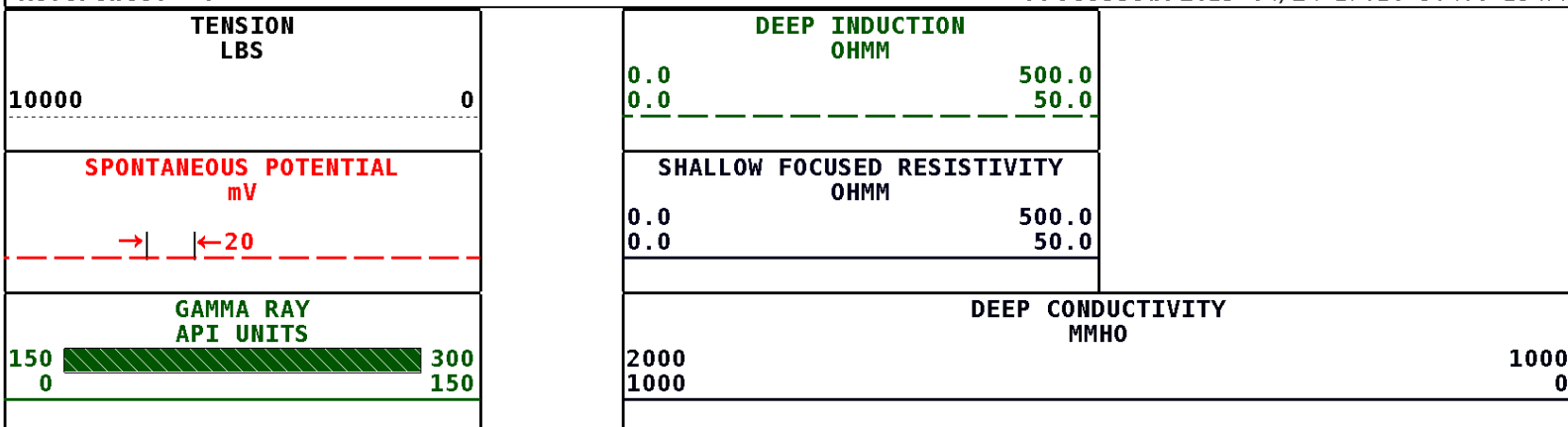
Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



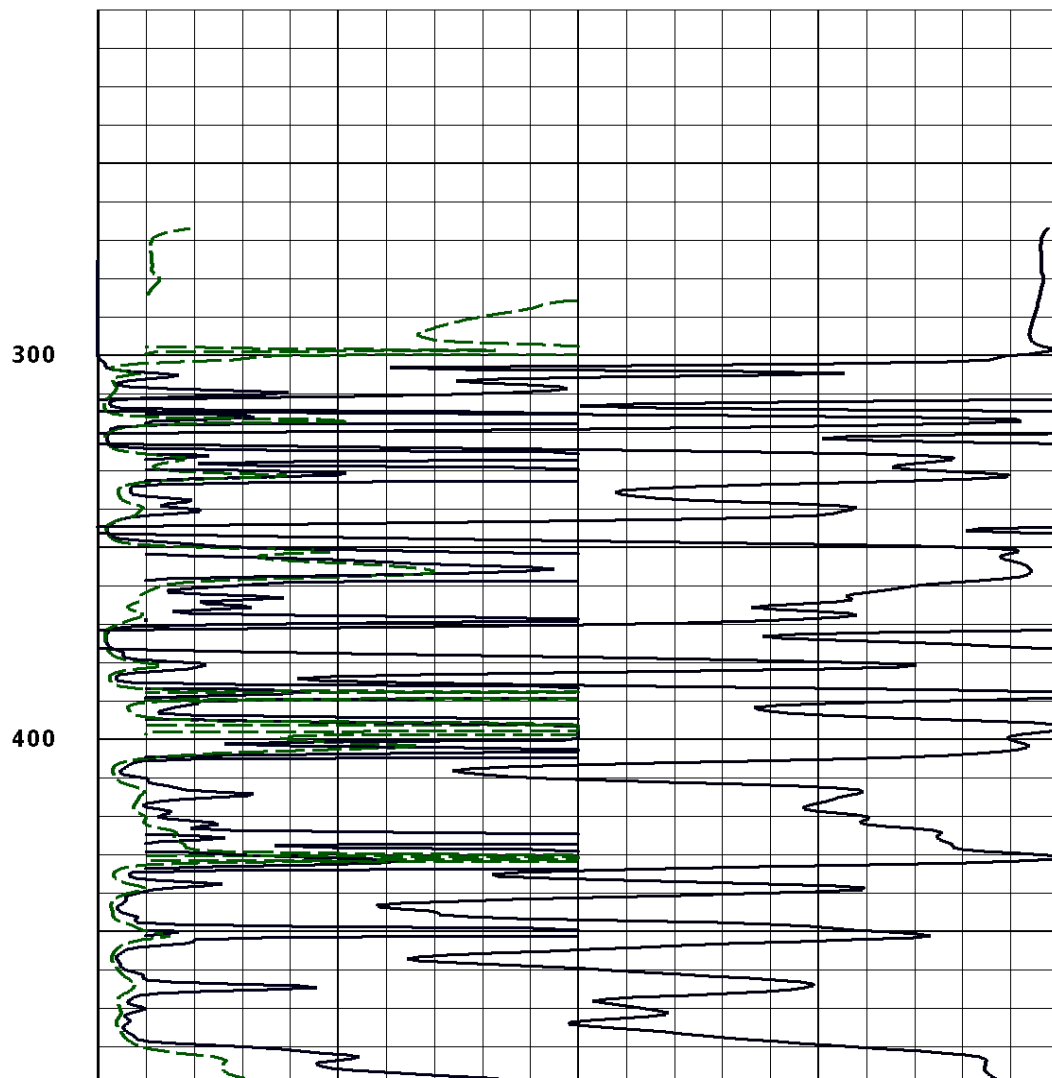
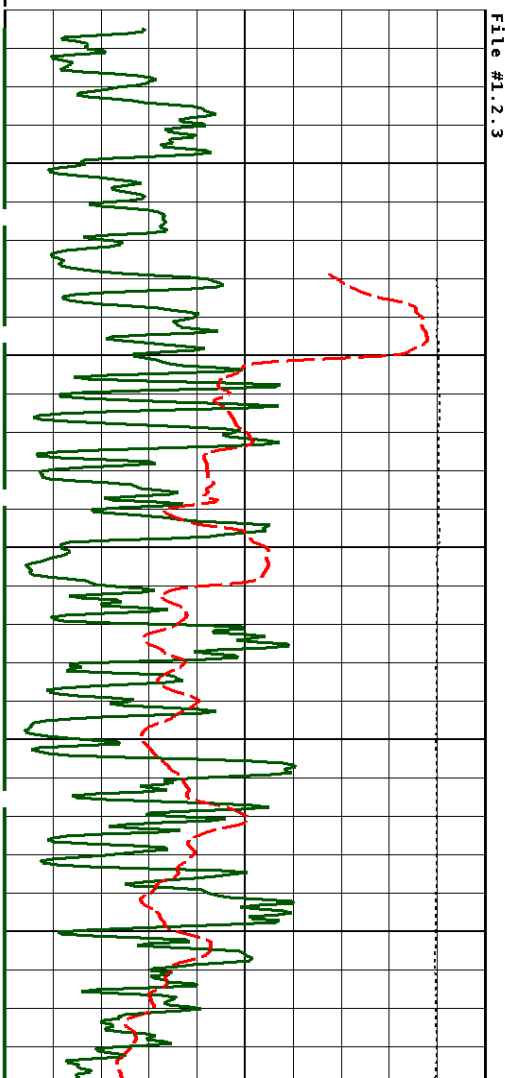
LWT 66.95 ft.

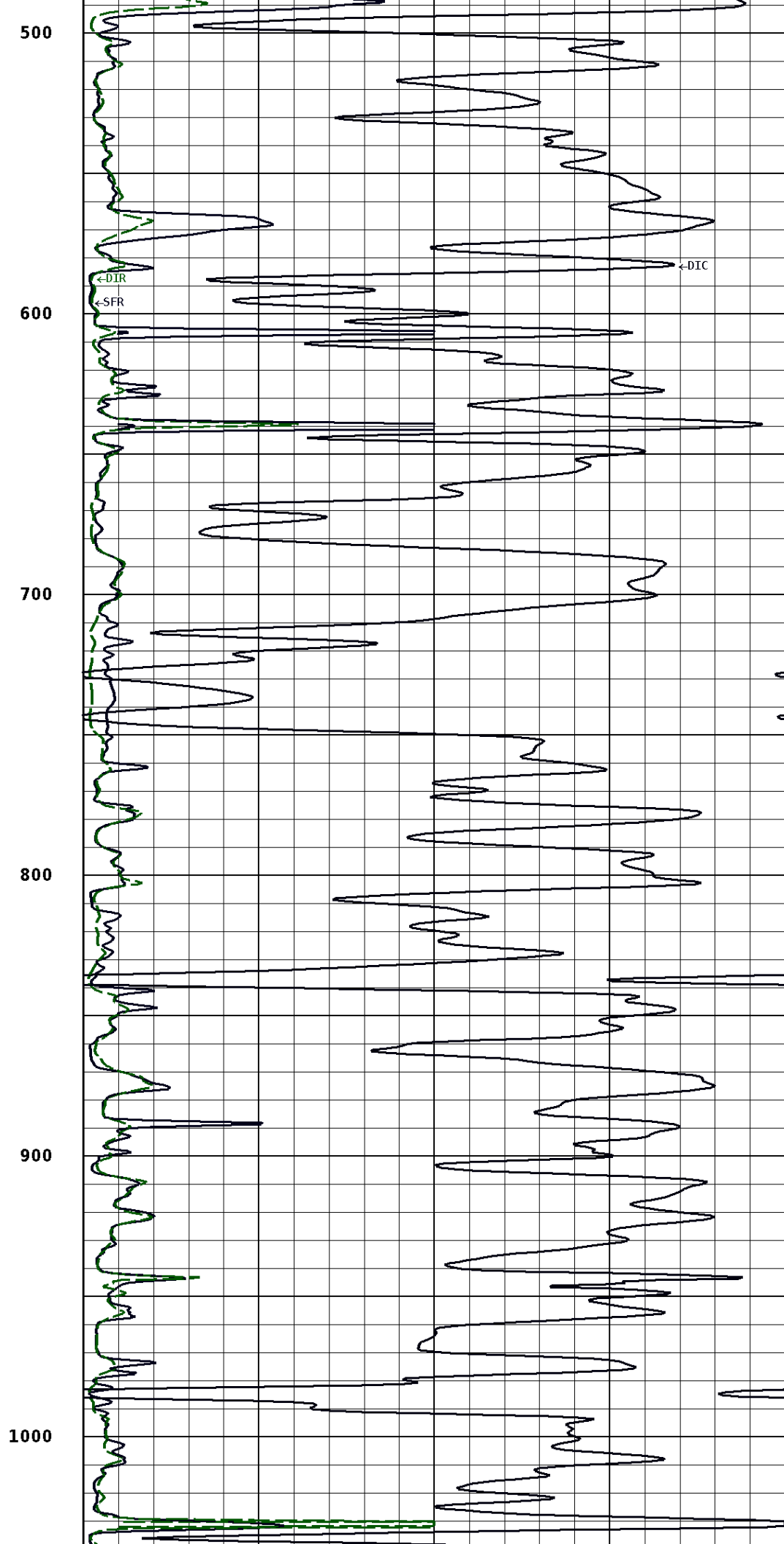
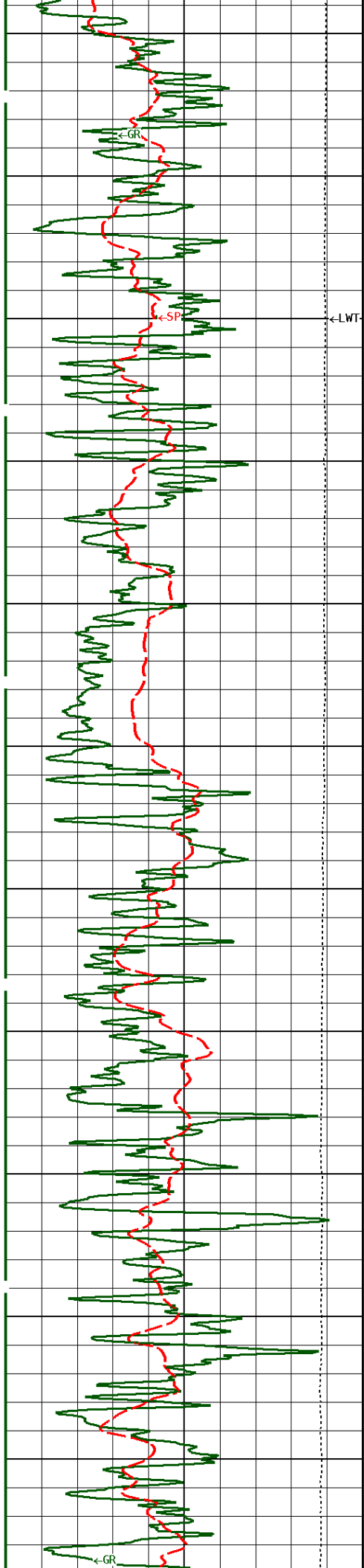
Well File: KELLEY WEBER_A_APR24_QUINT
 Segment: V1.D2.S3 Reprocess of MAIN
 Reference: 0

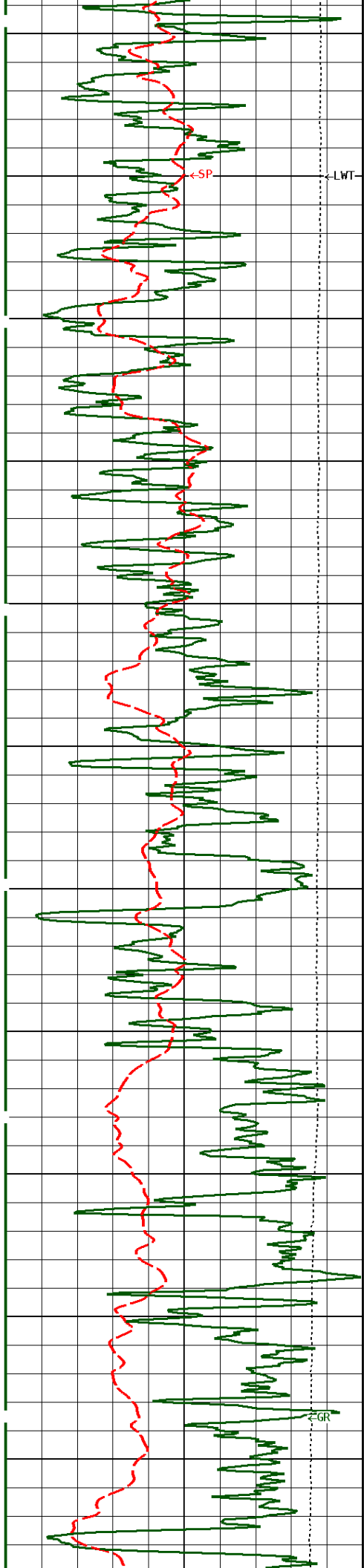
Scale: 1:600 Format: DIL-600
 Acquired: 2015-04/24 16:09 3.4.0-13477
 Processed: 2015-04/24 17:10 3.4.0-13477



1:600 MAIN SECTION







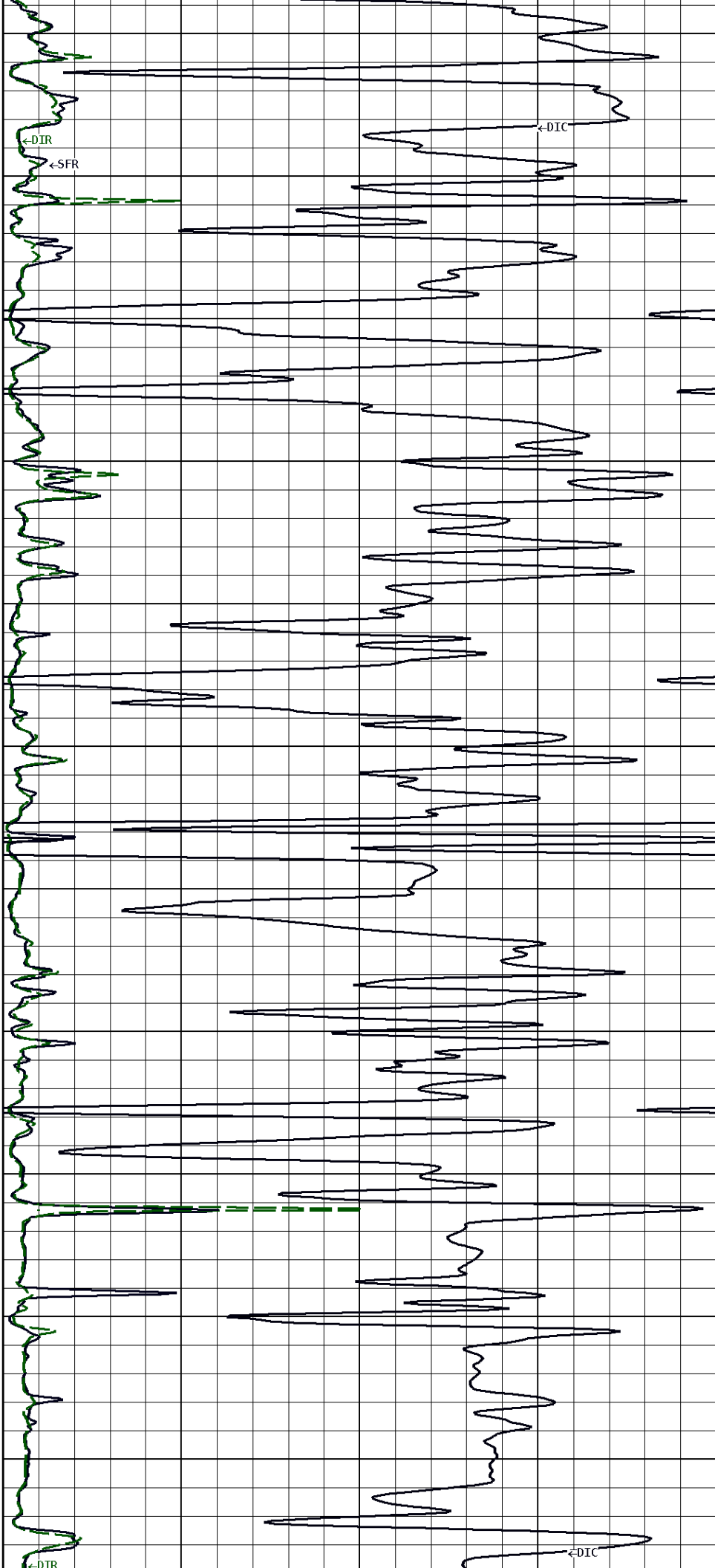
1100

1200

1300

1400

1500



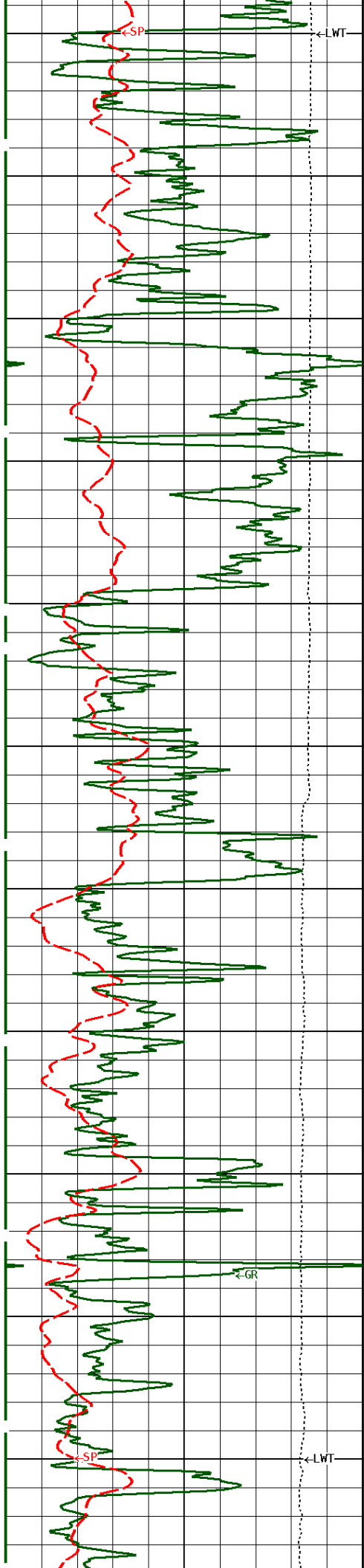
←DTR

←SFR

←DIC

←DTR

←DIC



1600

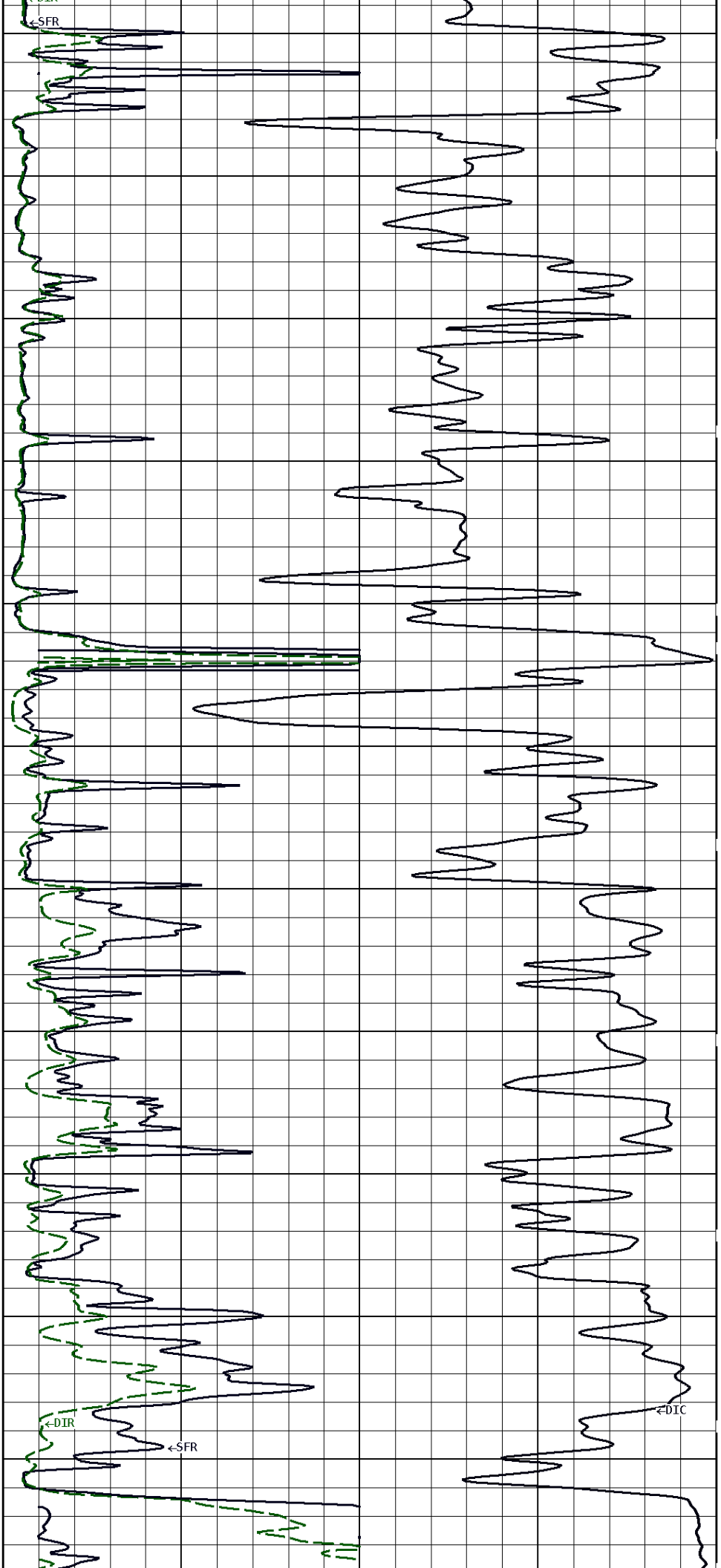
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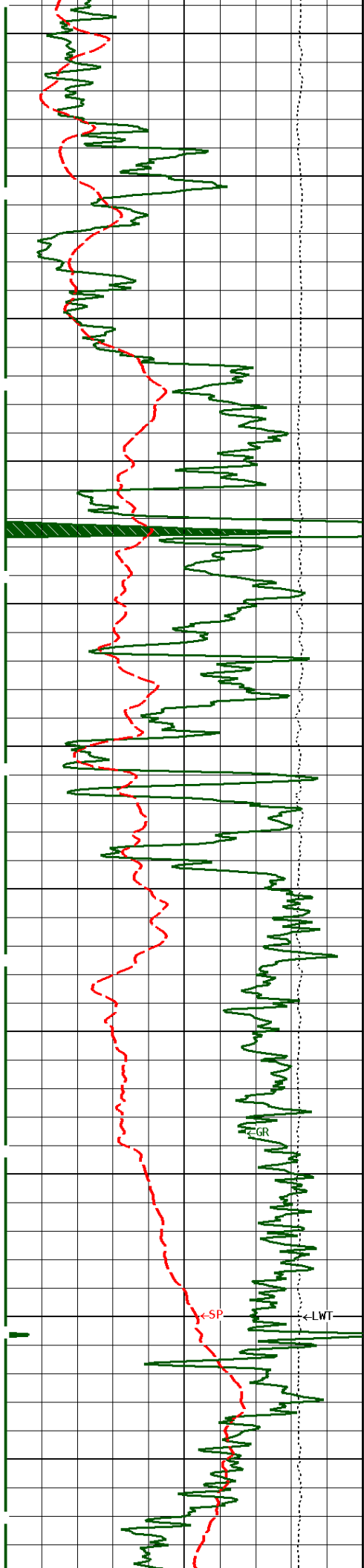
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1900

2000

2100





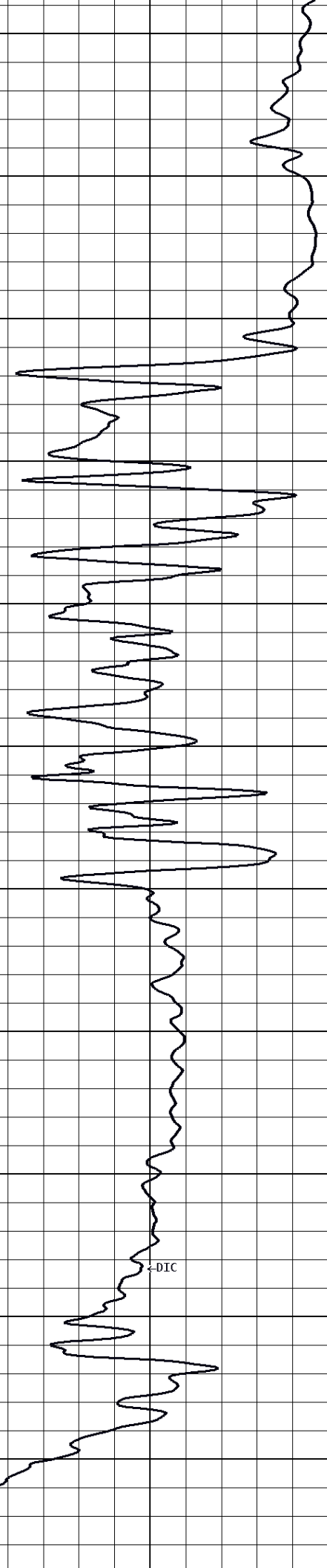
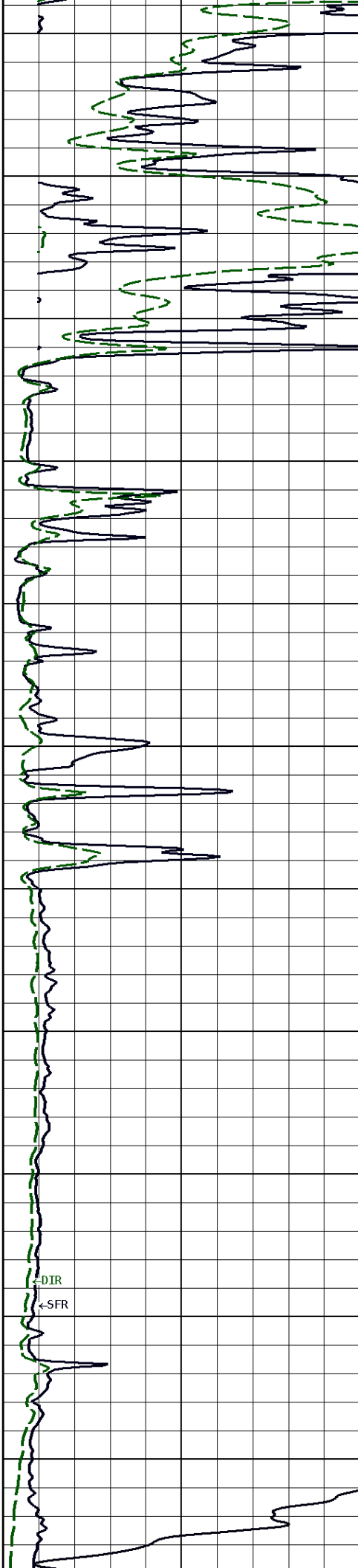
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2300

2400

2500

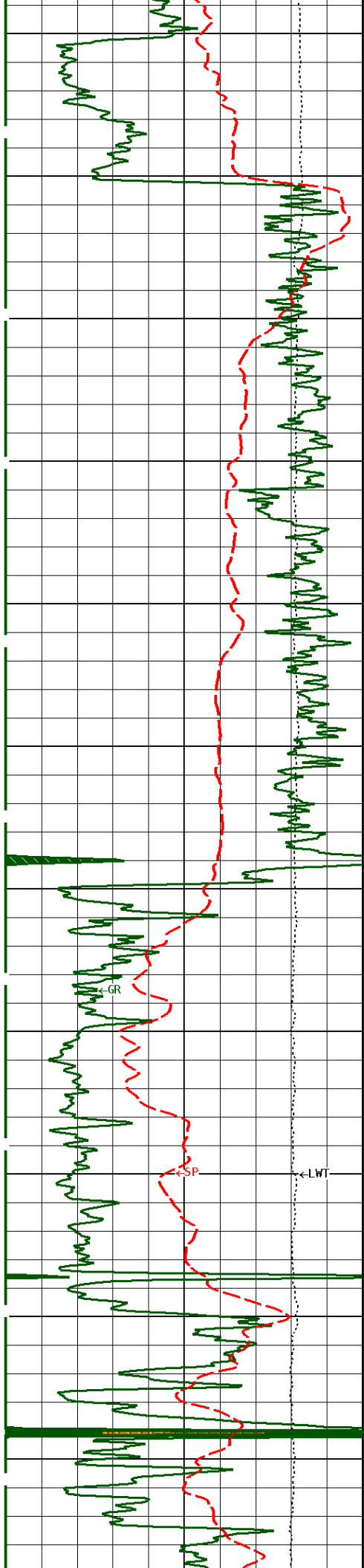
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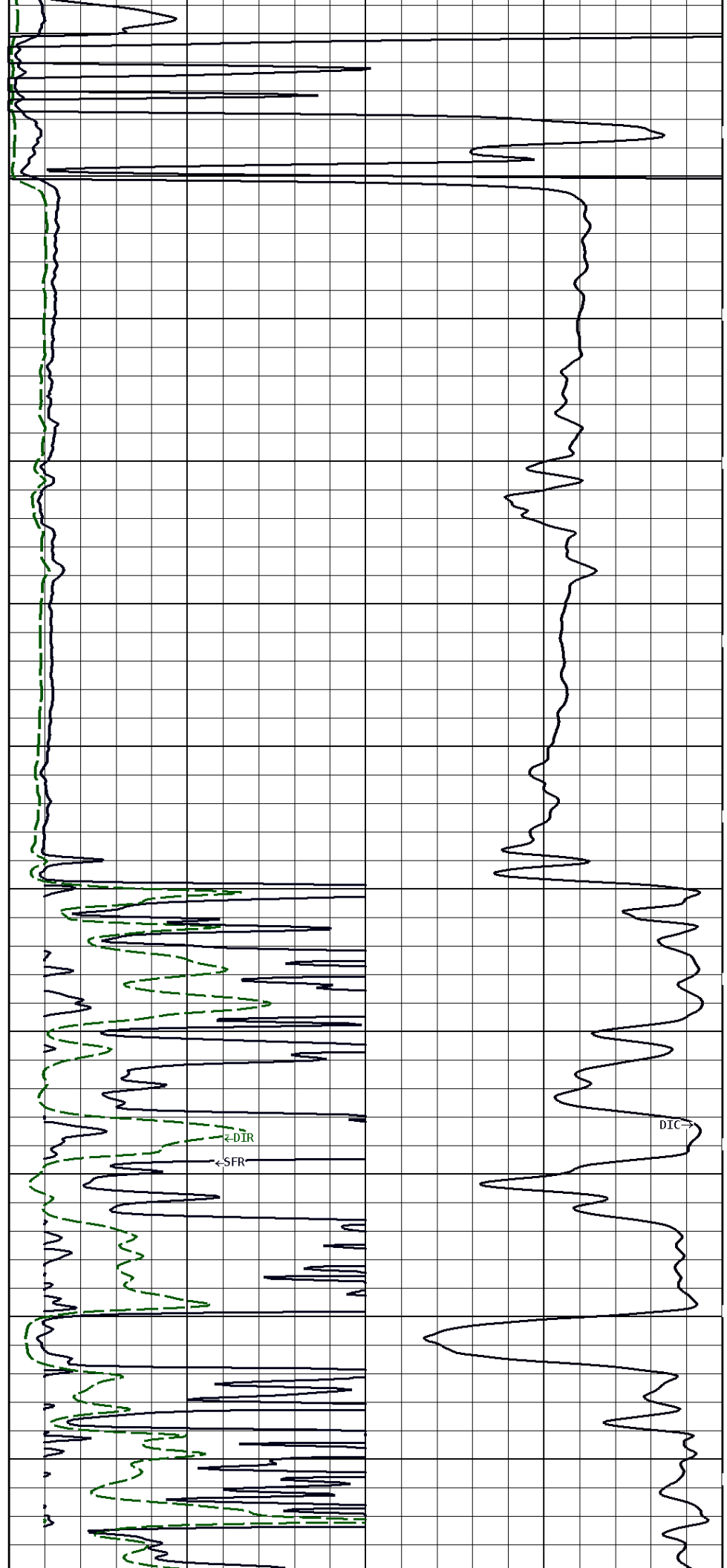
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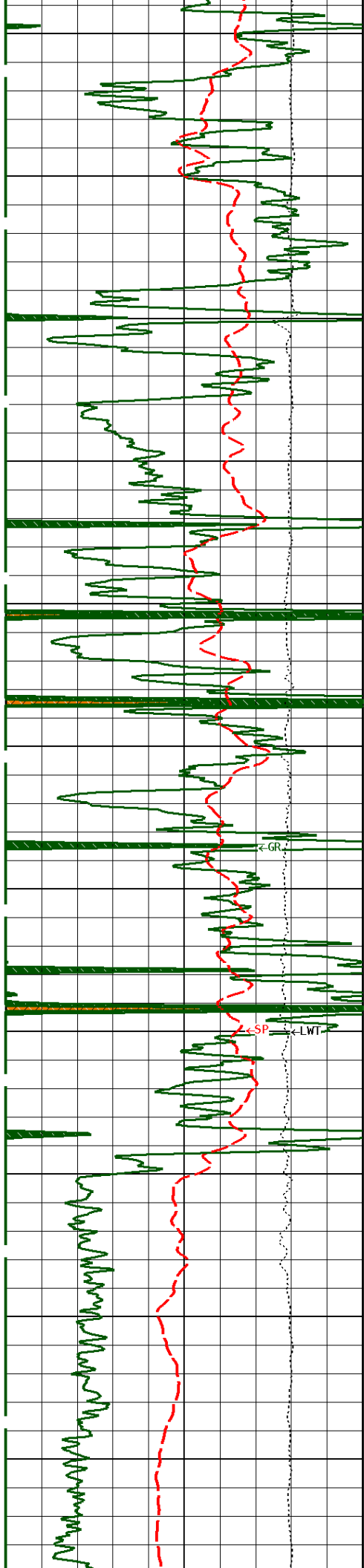
←DIR

←SFR



2700
2800
2900
3000
3100
3200





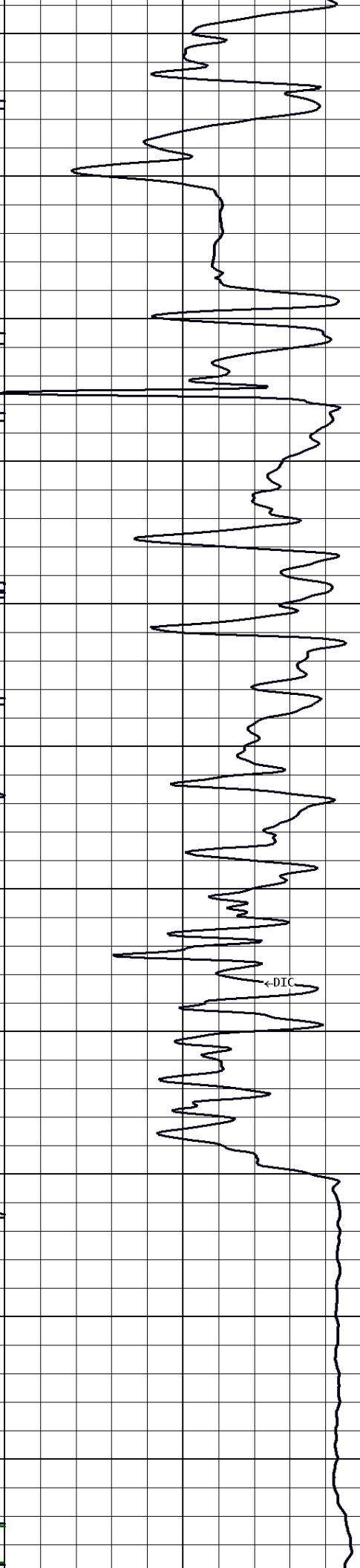
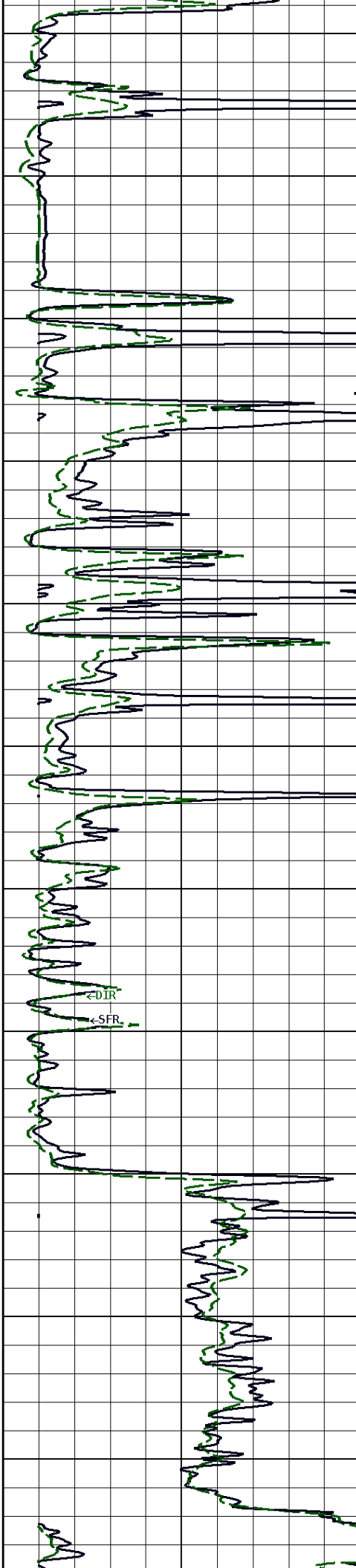
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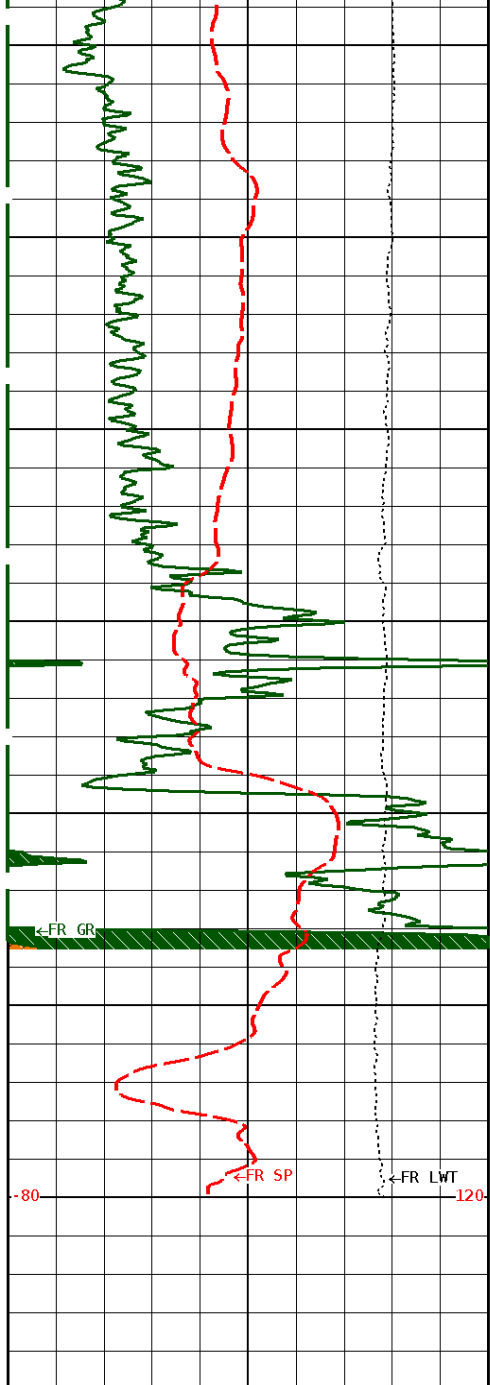
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3600

3700



DIC



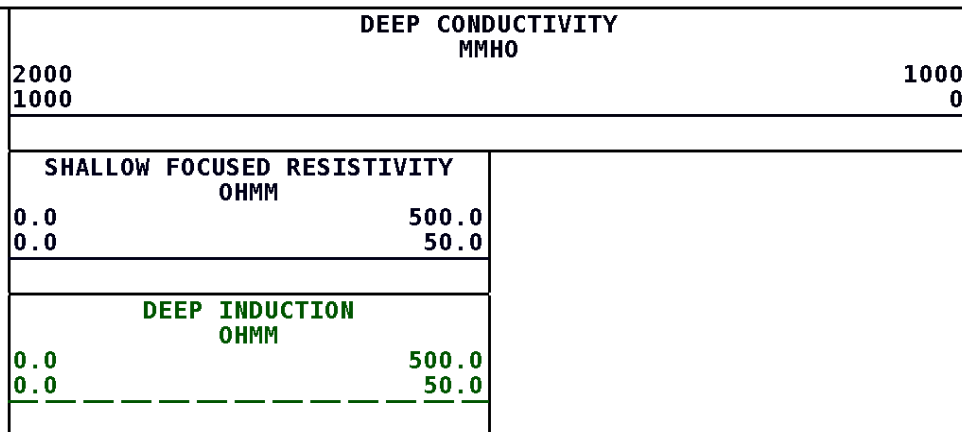
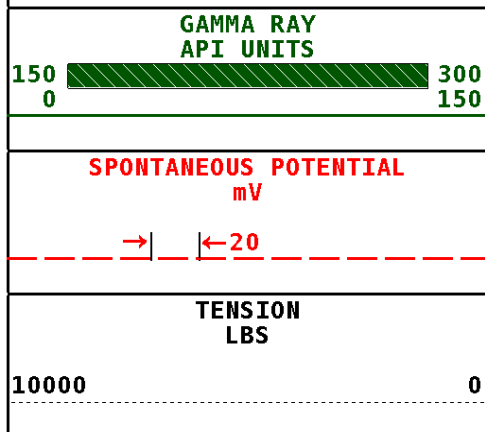
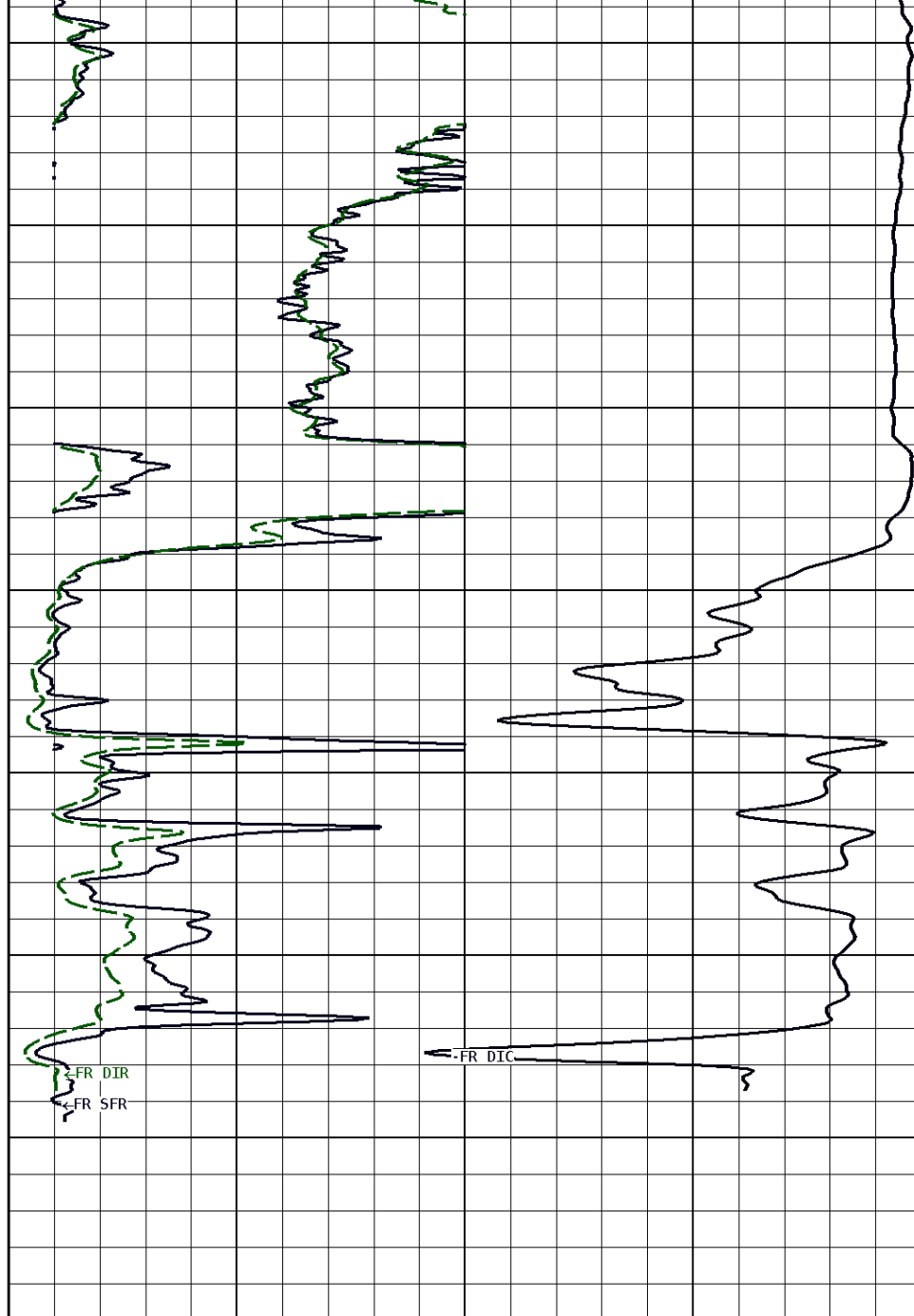
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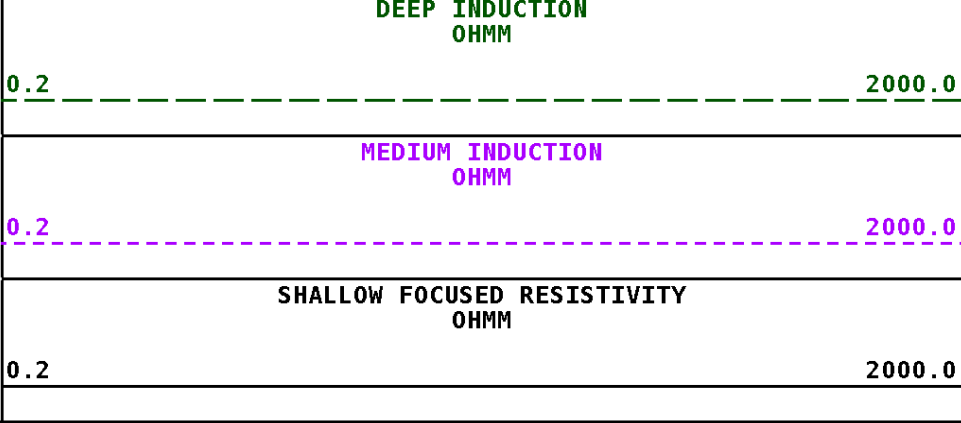
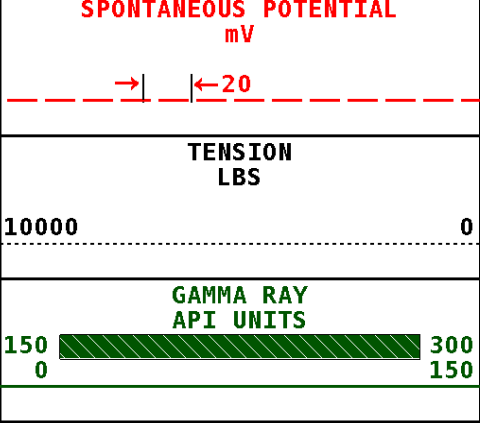
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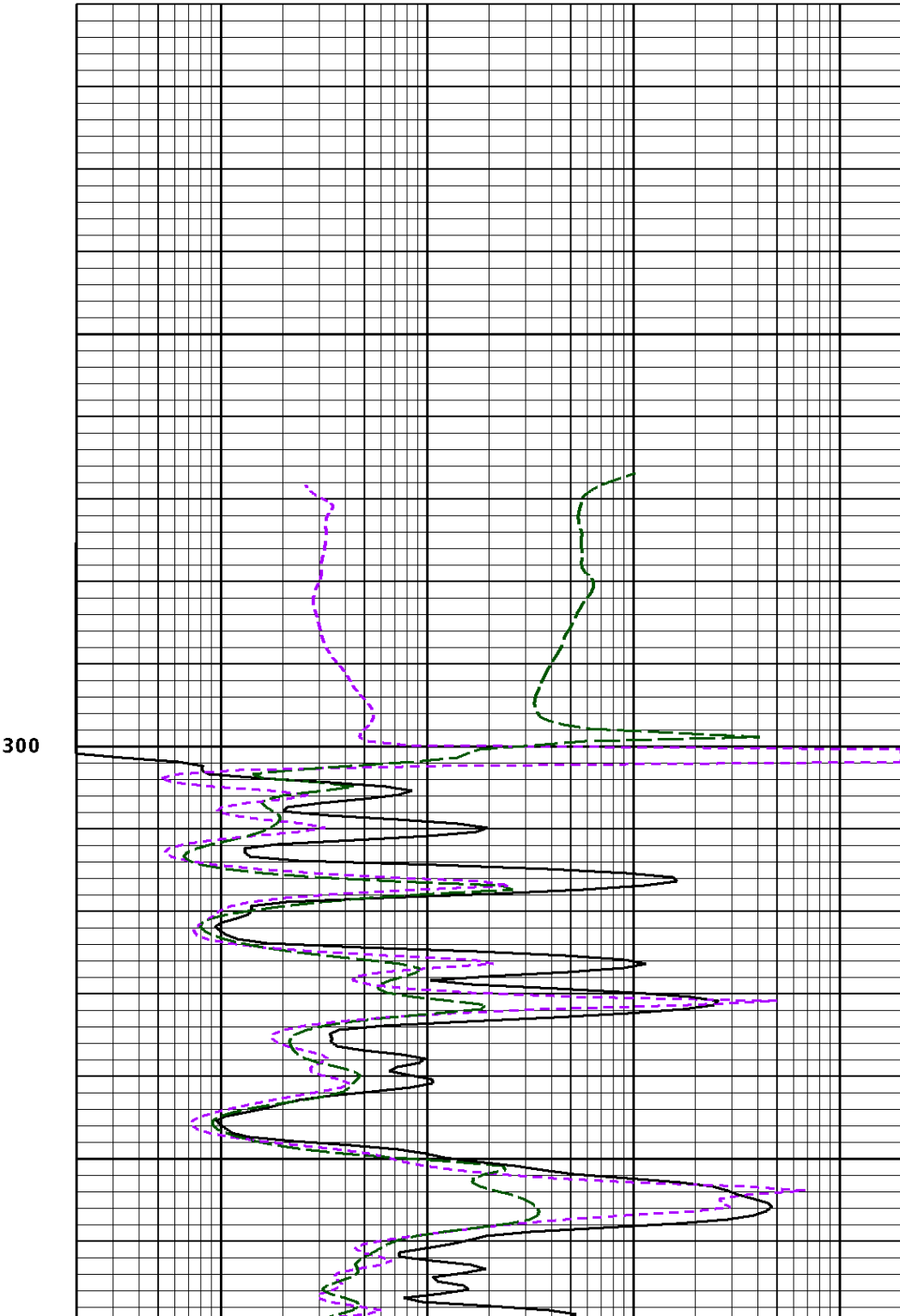
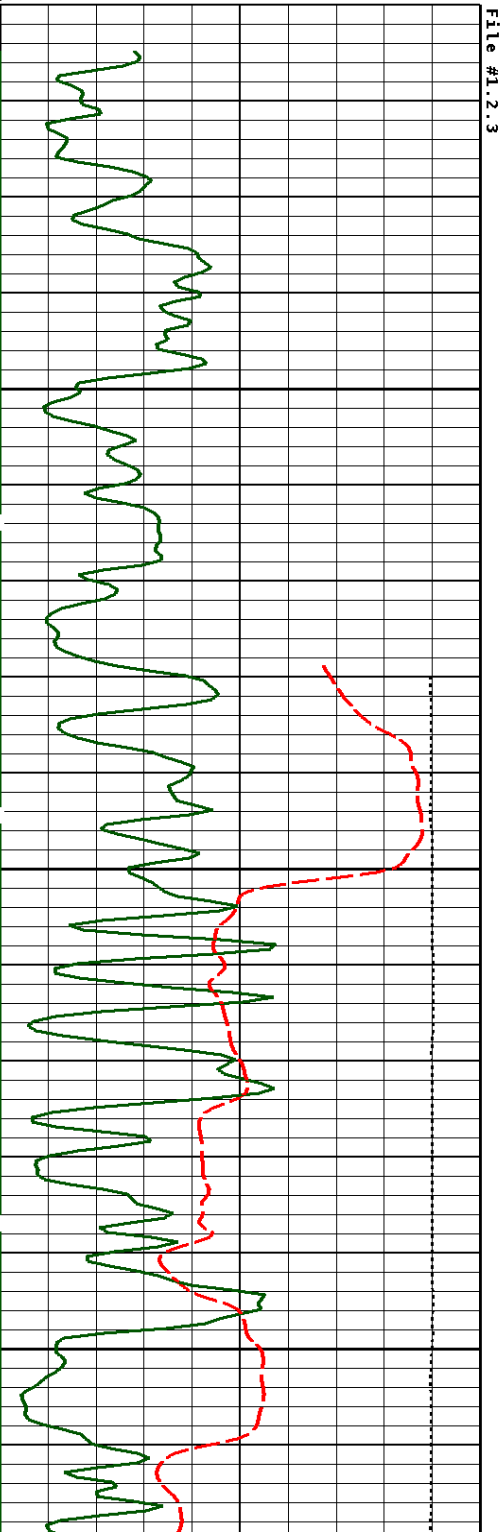
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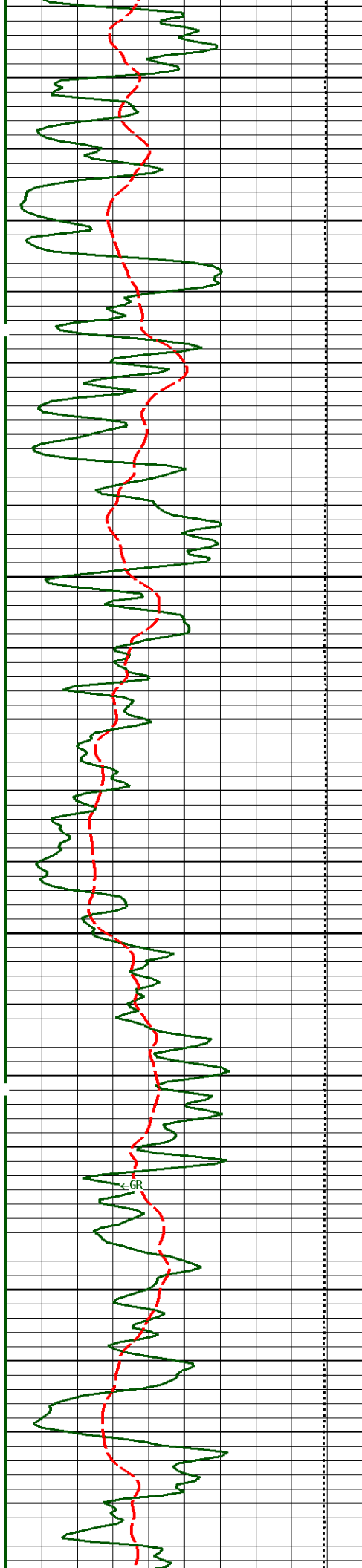
1:600 MAIN SECTION





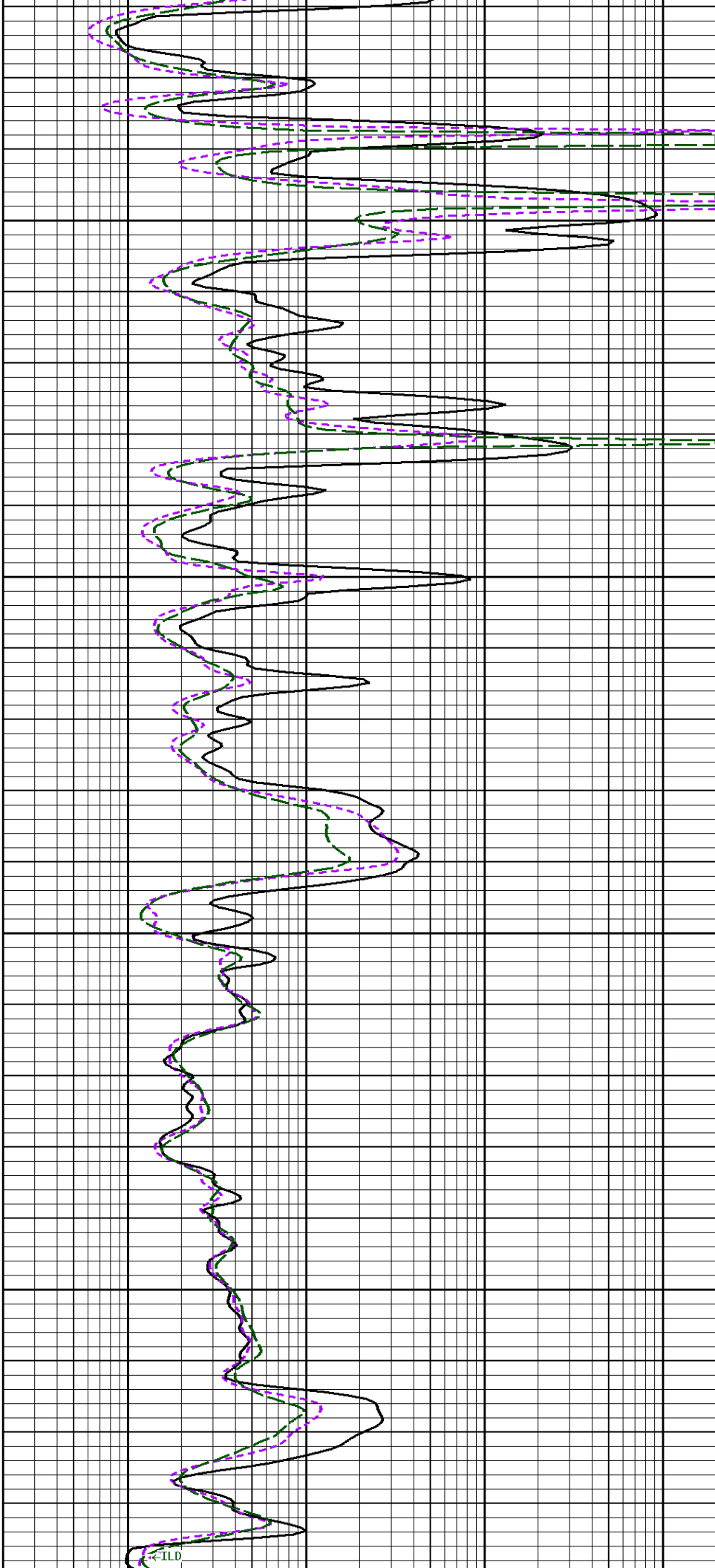
1:240 MAIN SECTION



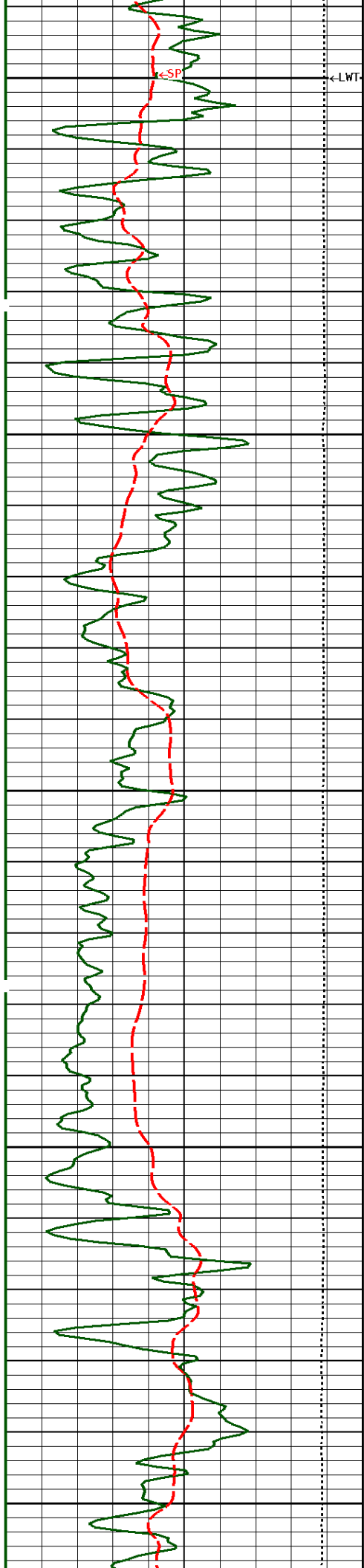


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500



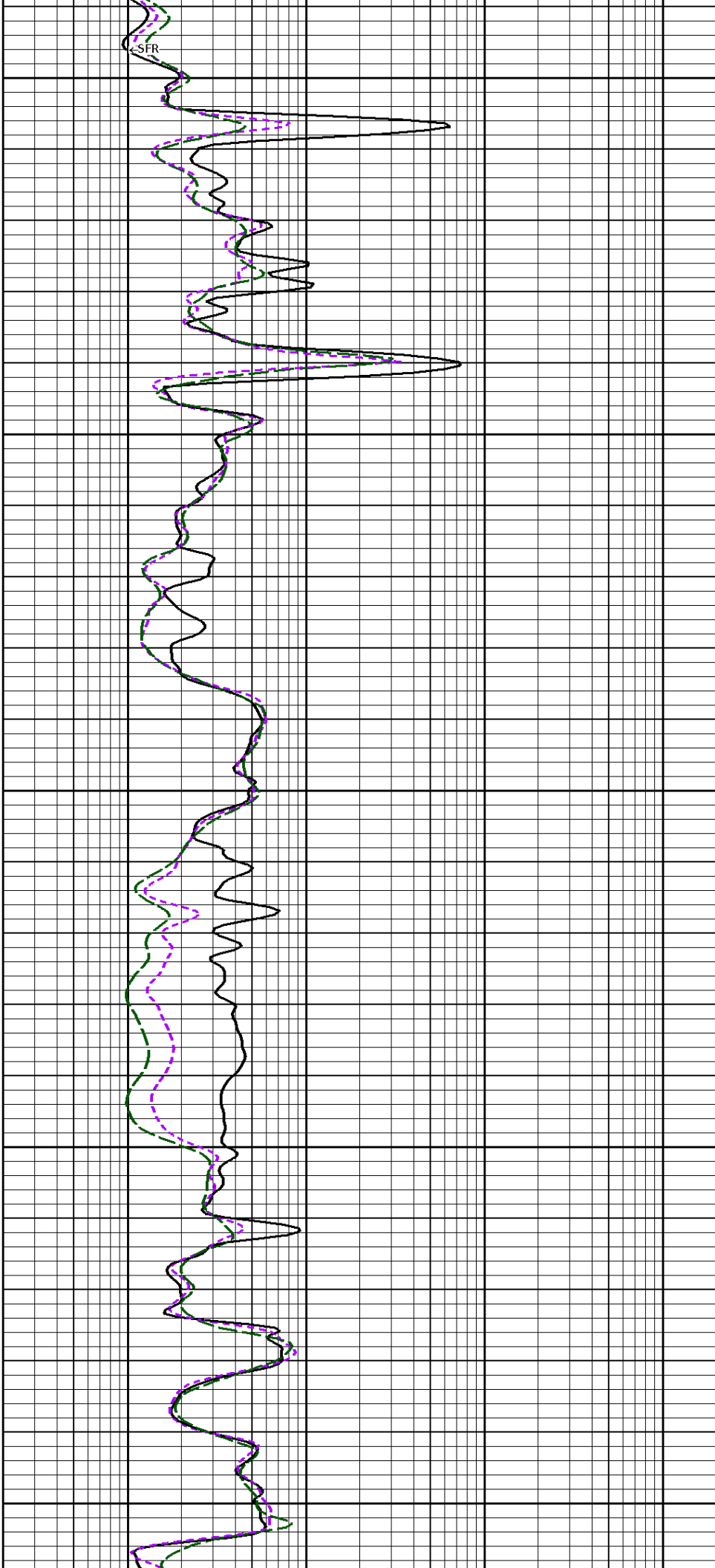
←ILD

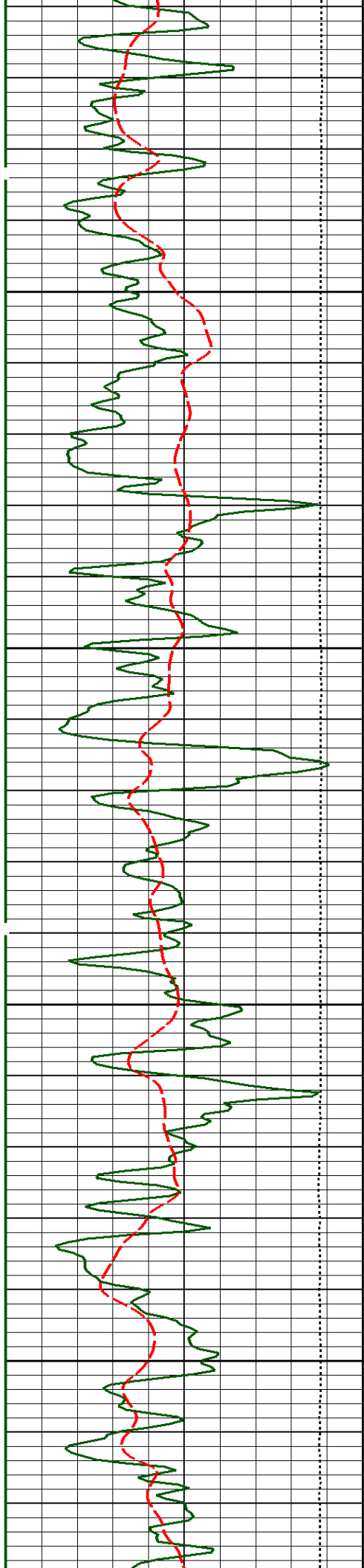


600

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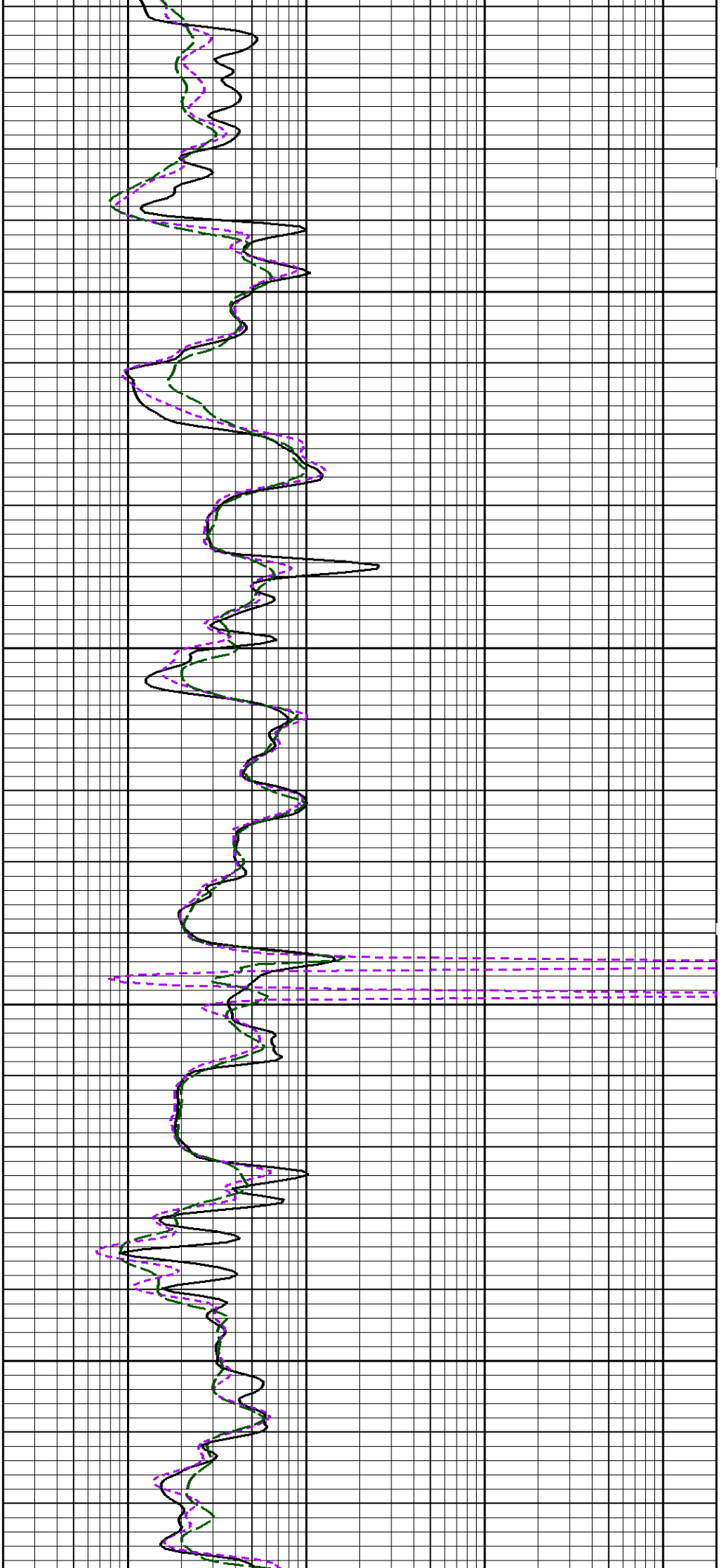
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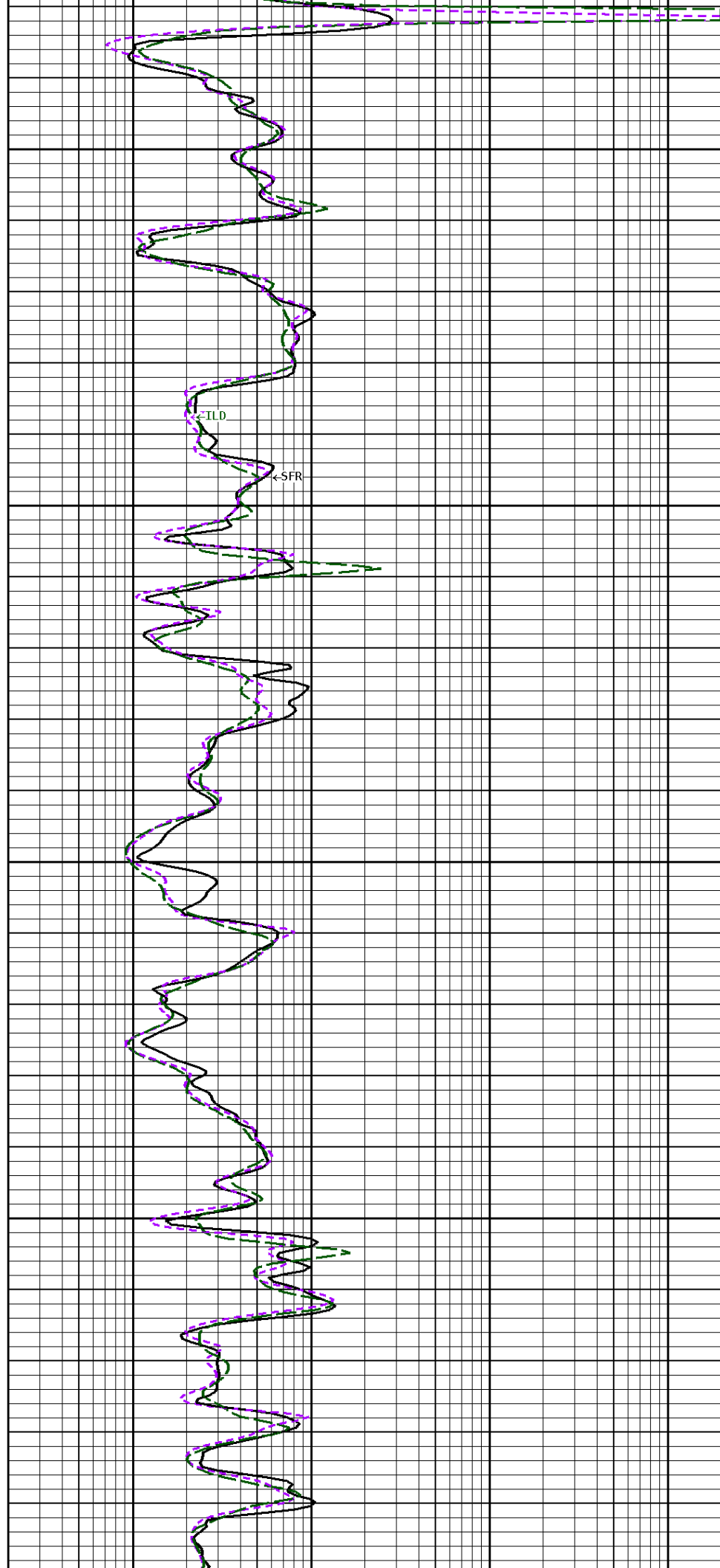
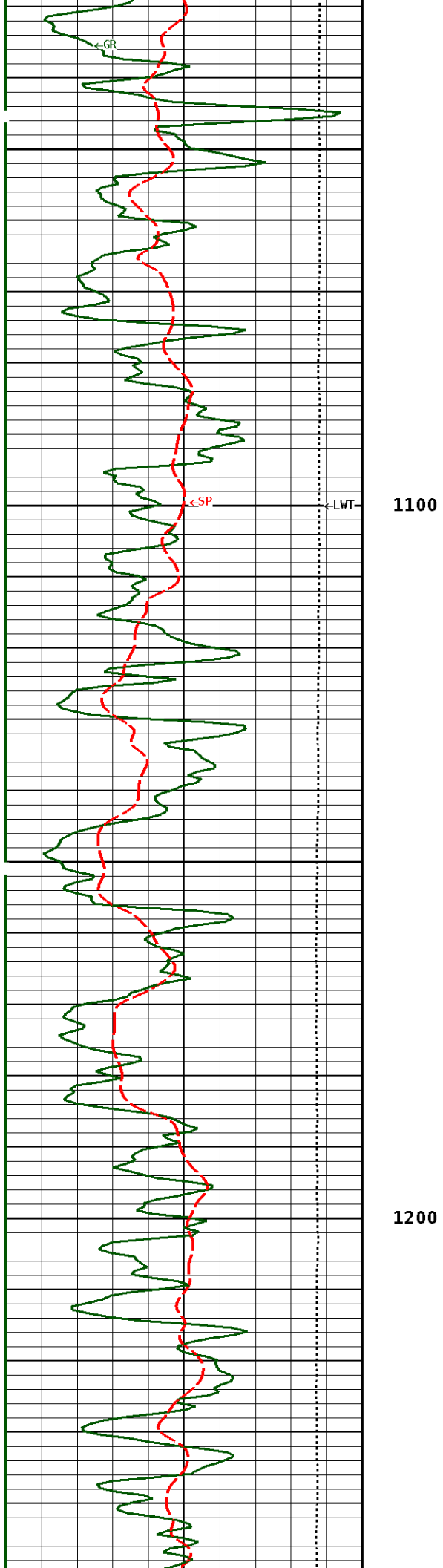


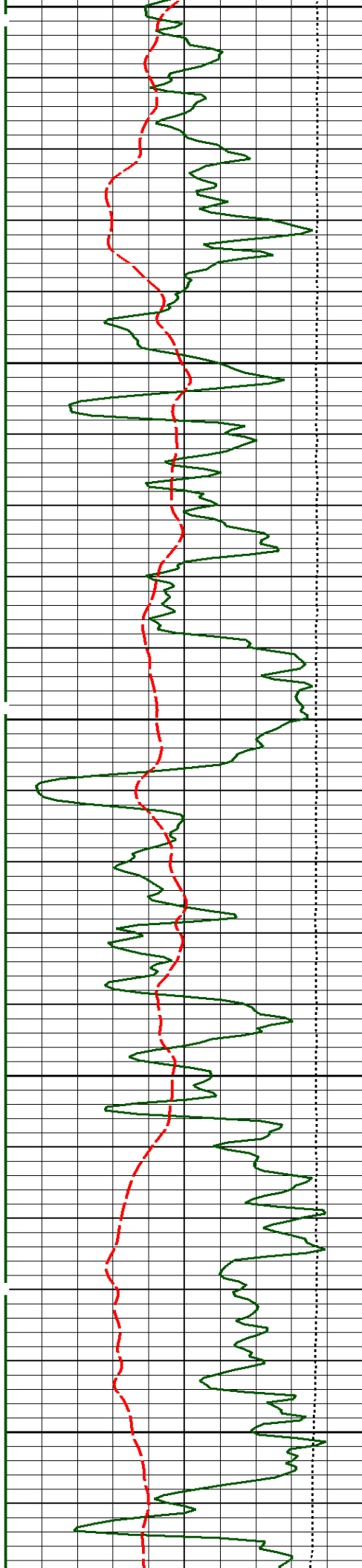


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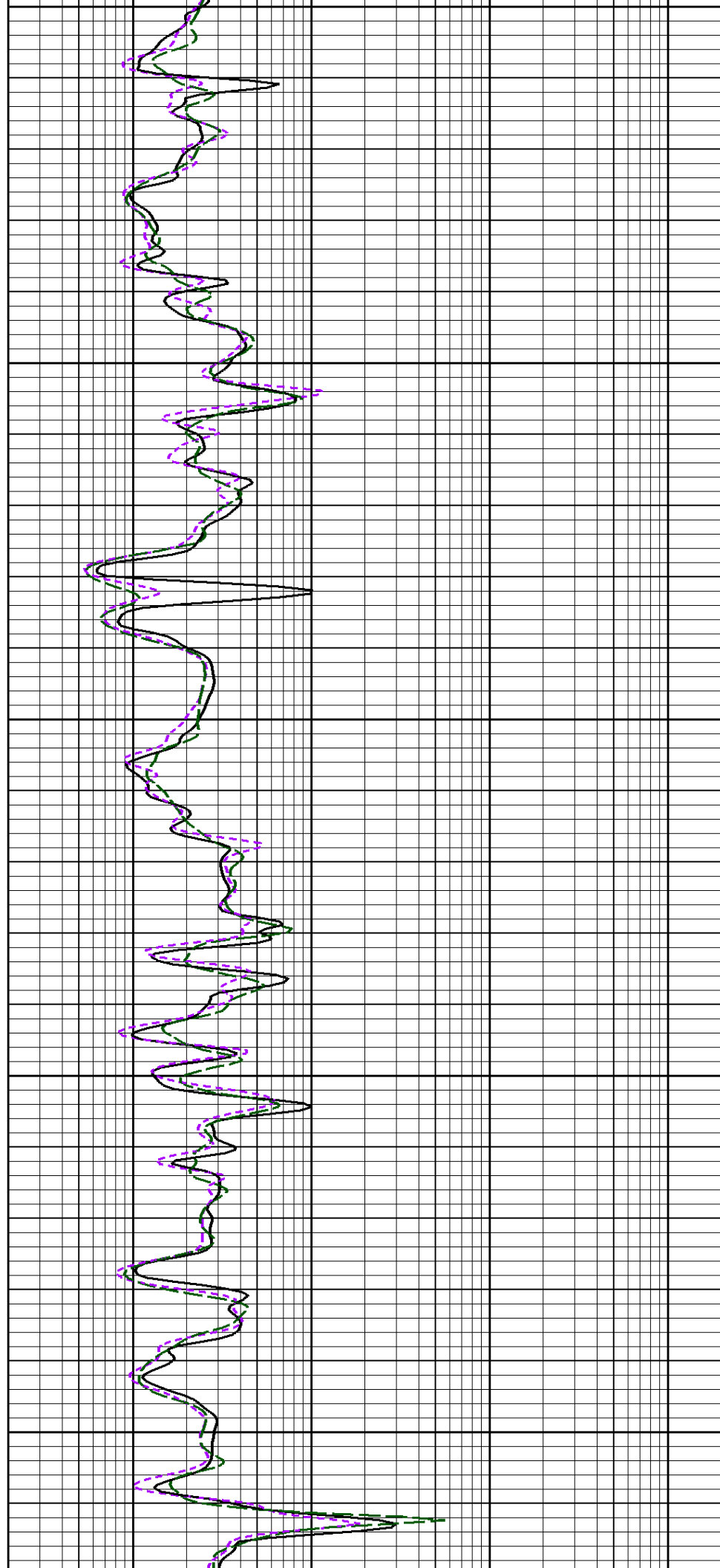


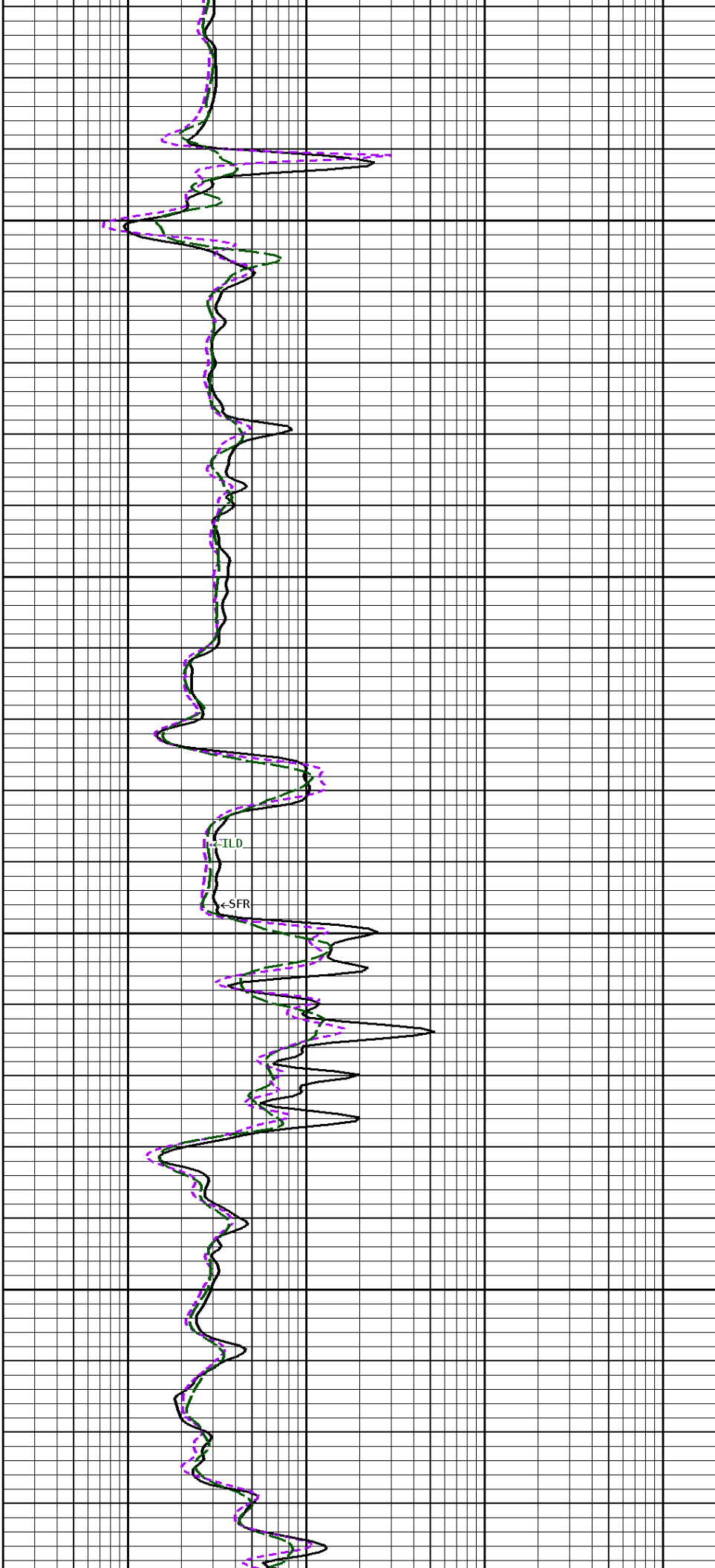
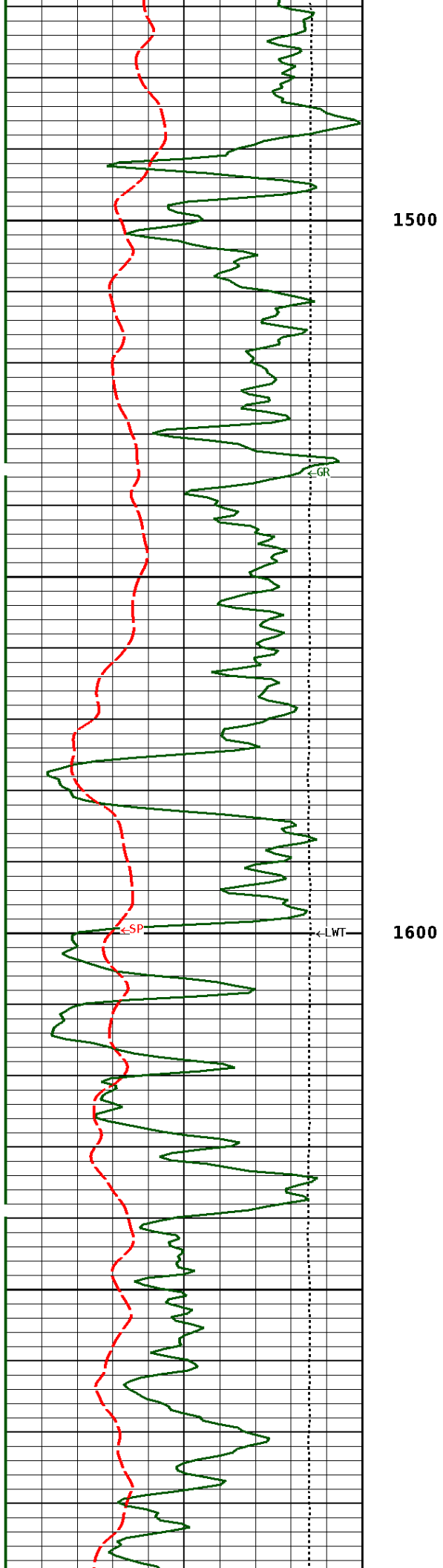


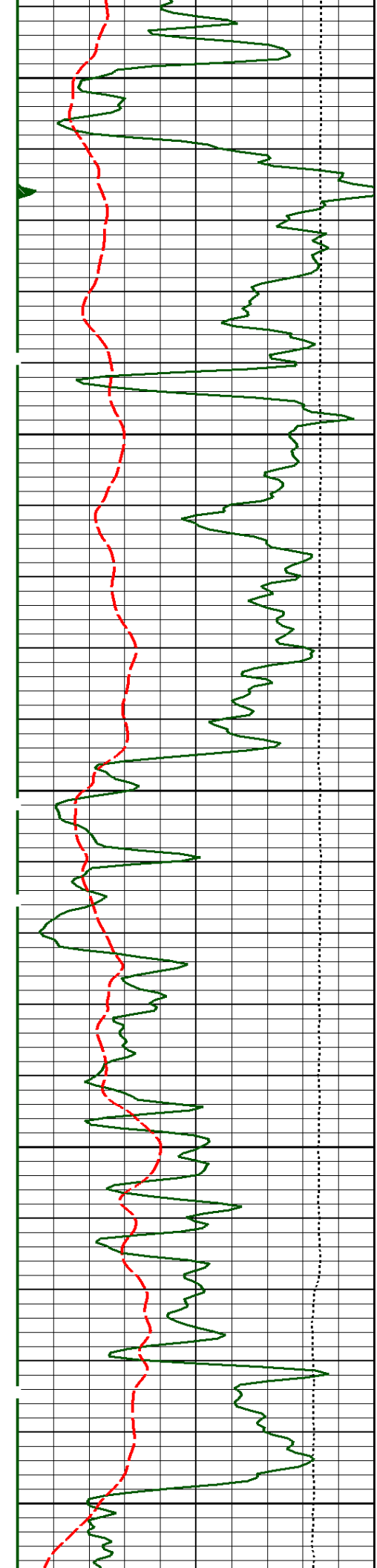


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1400



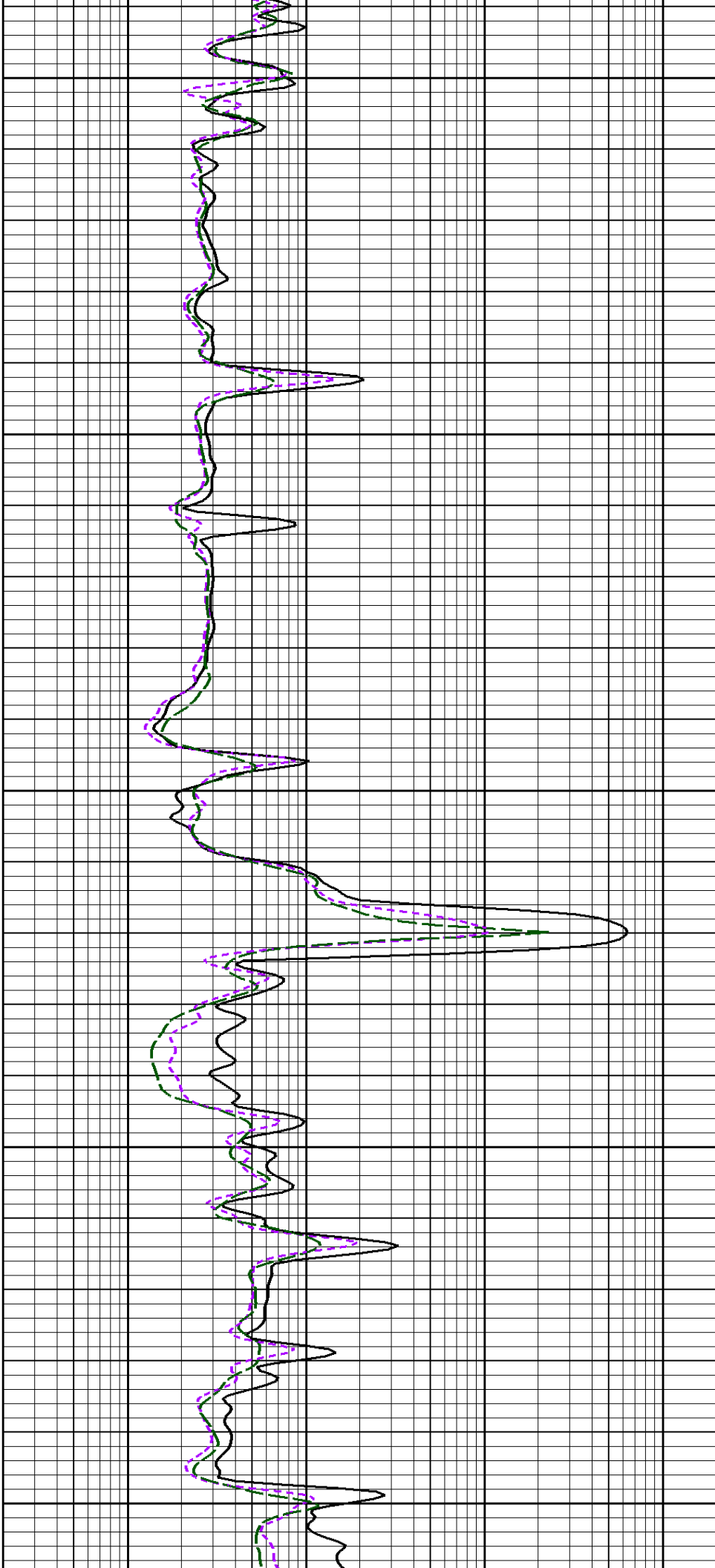


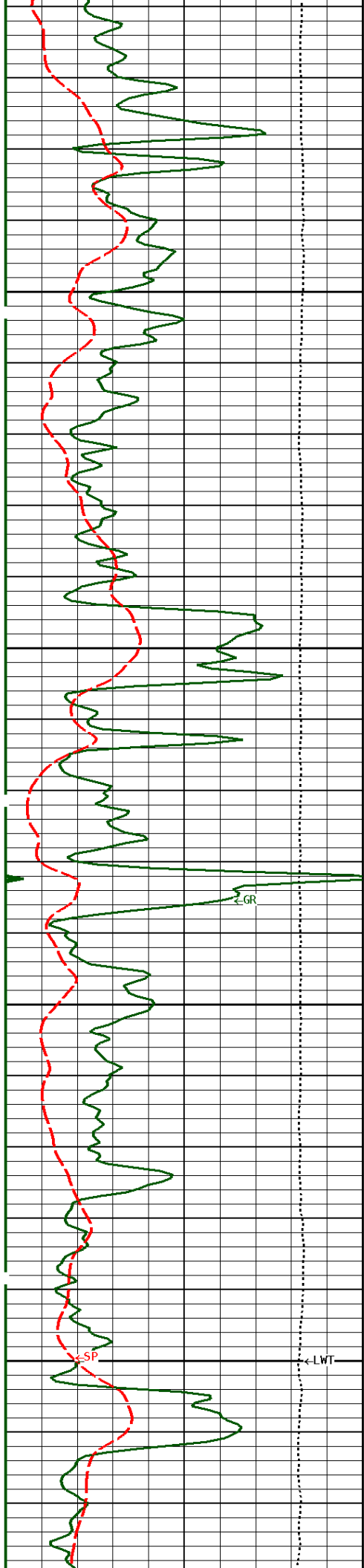


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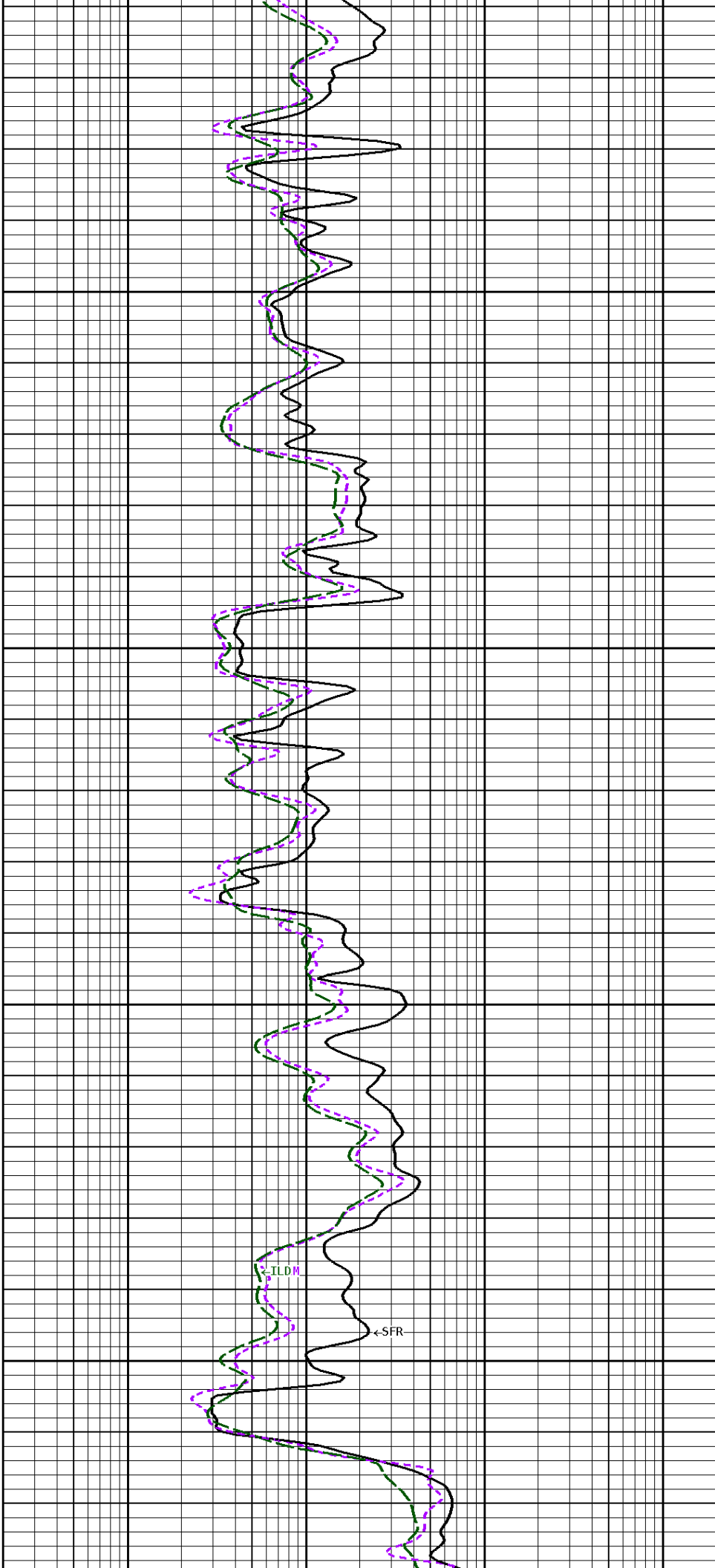
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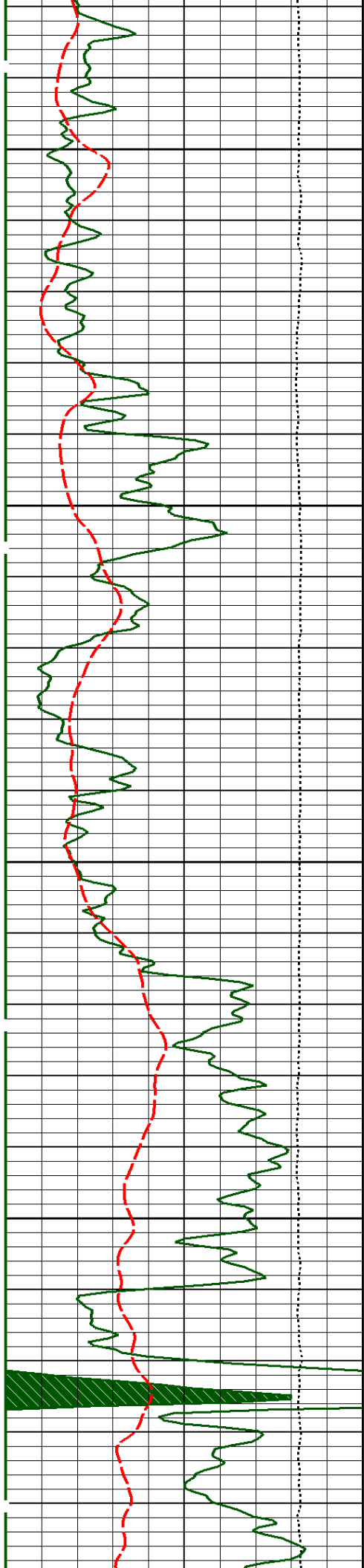




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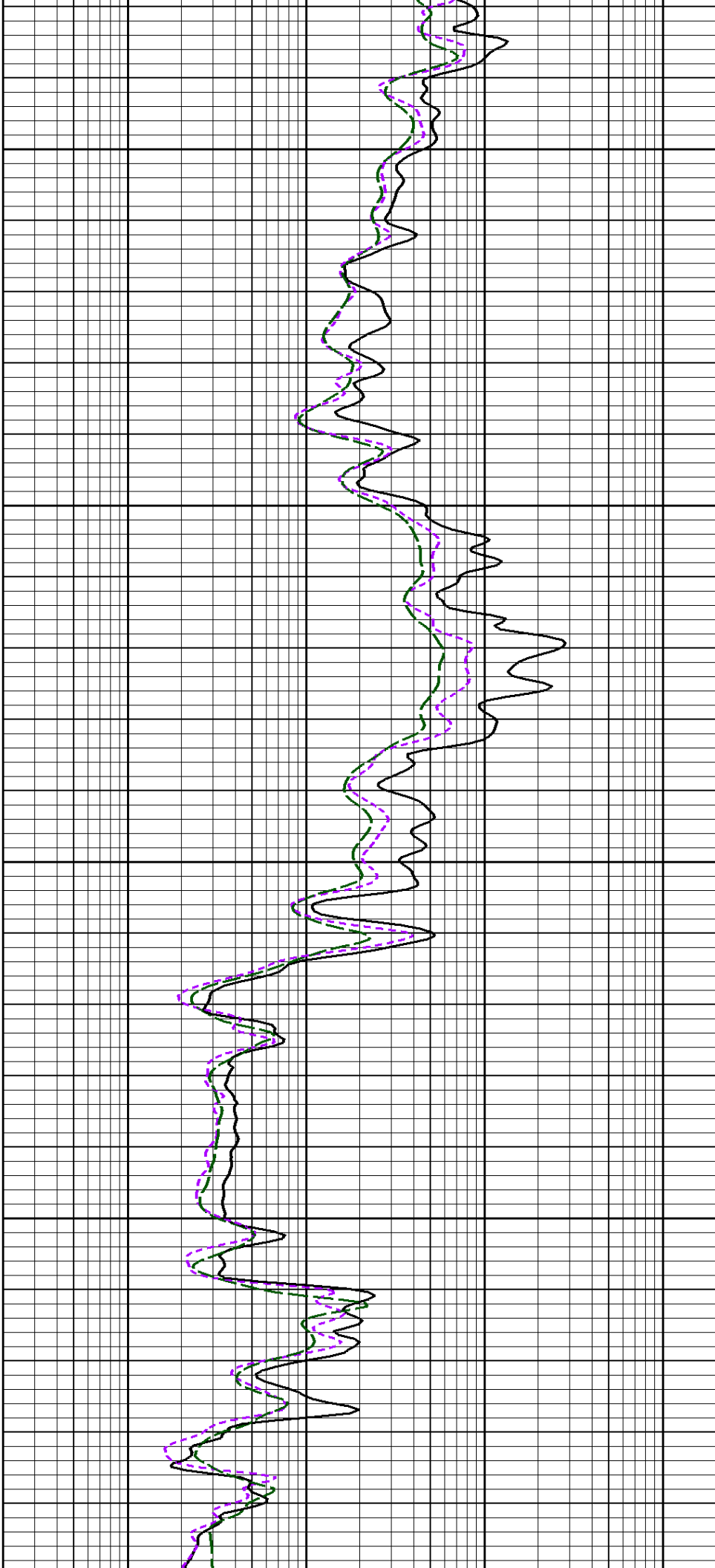
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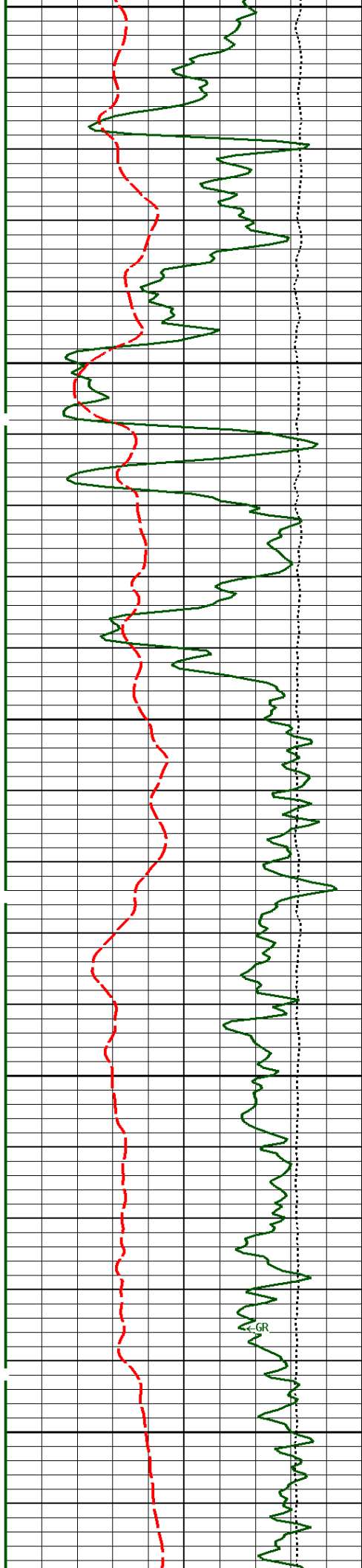




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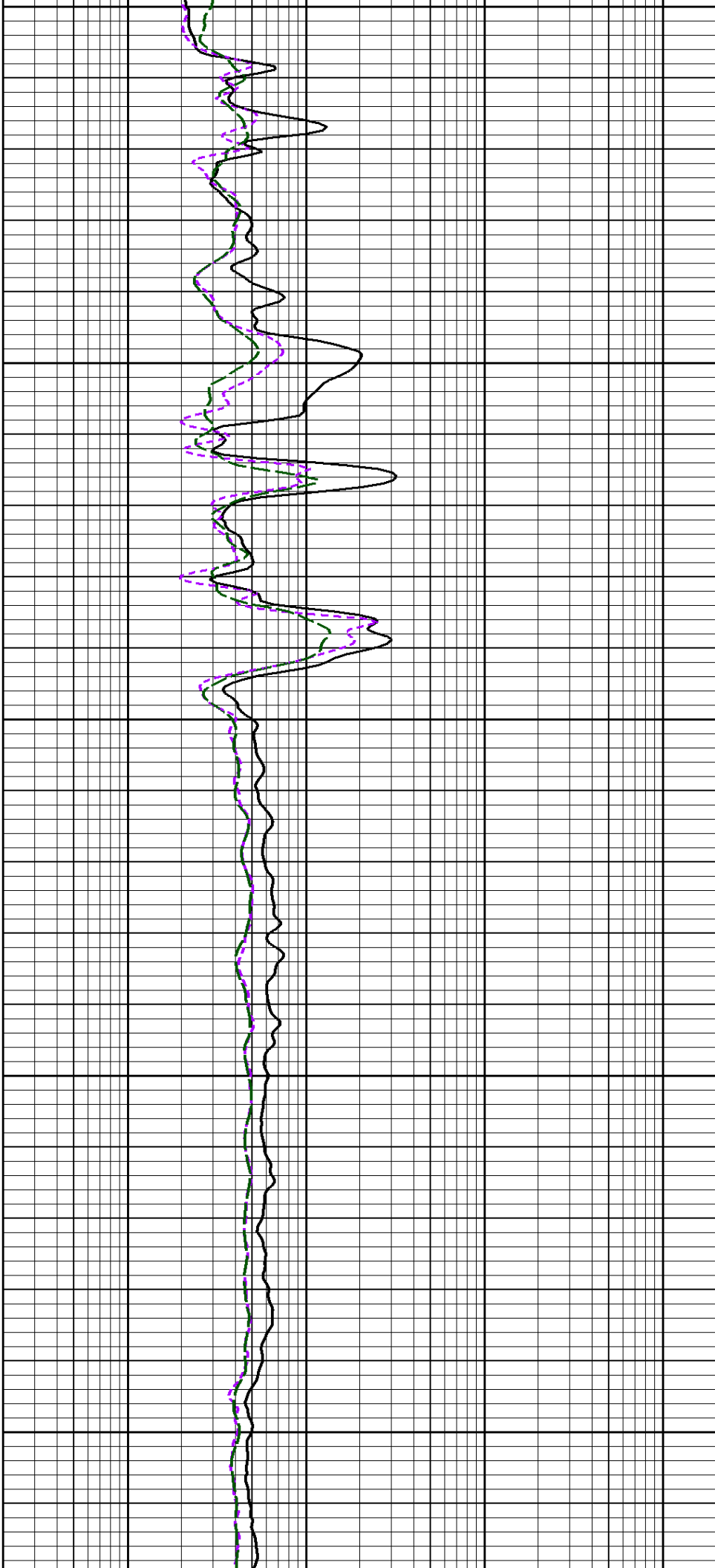
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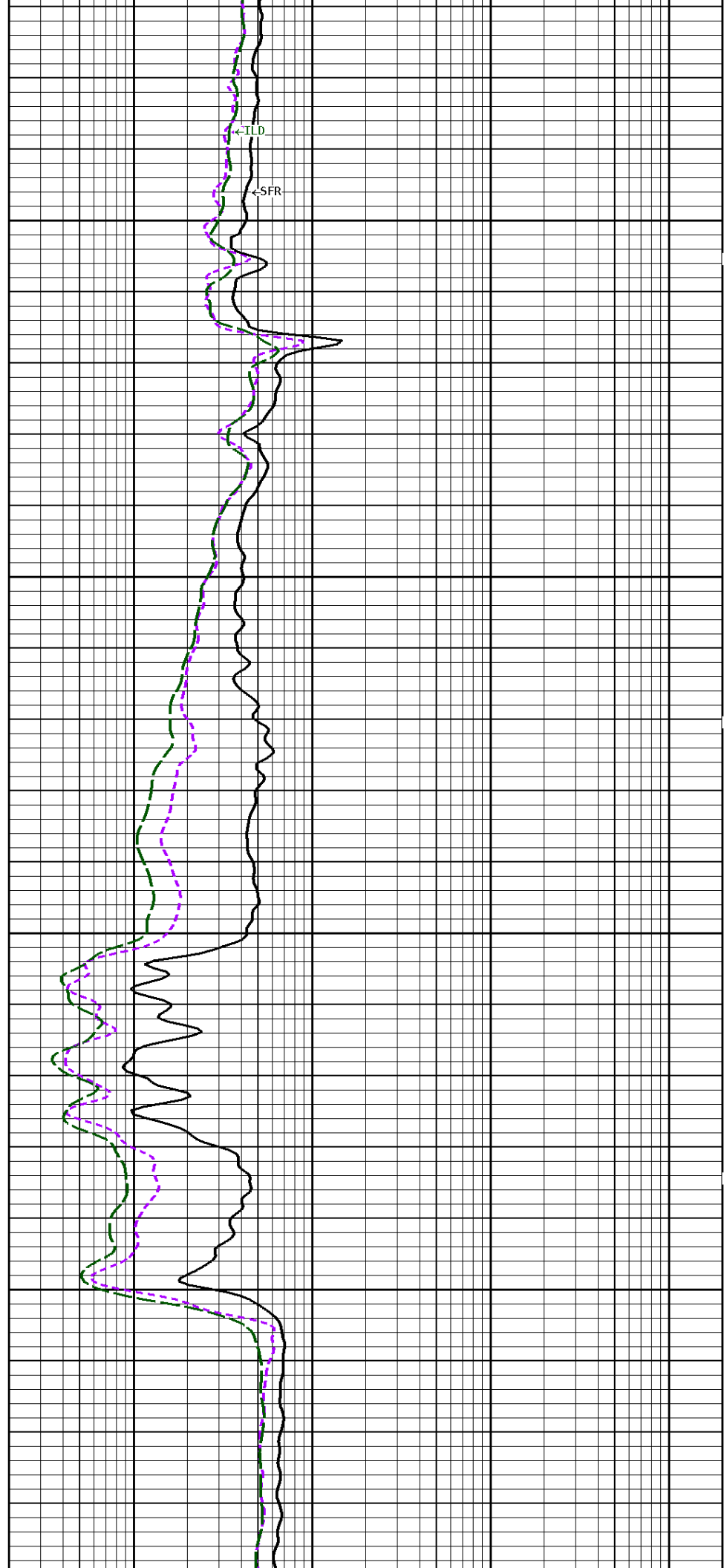
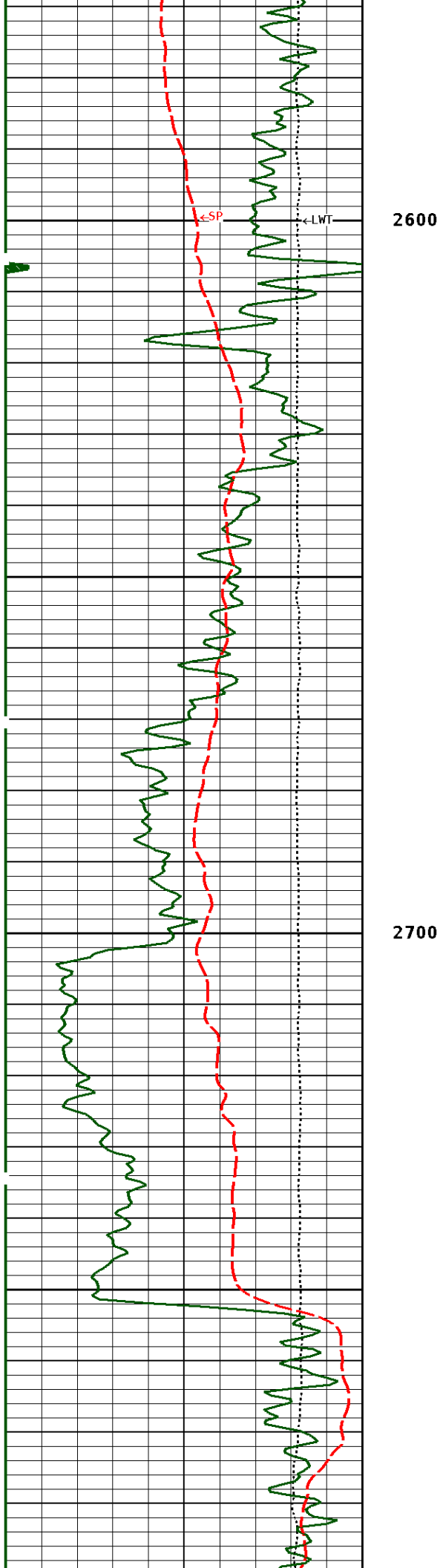


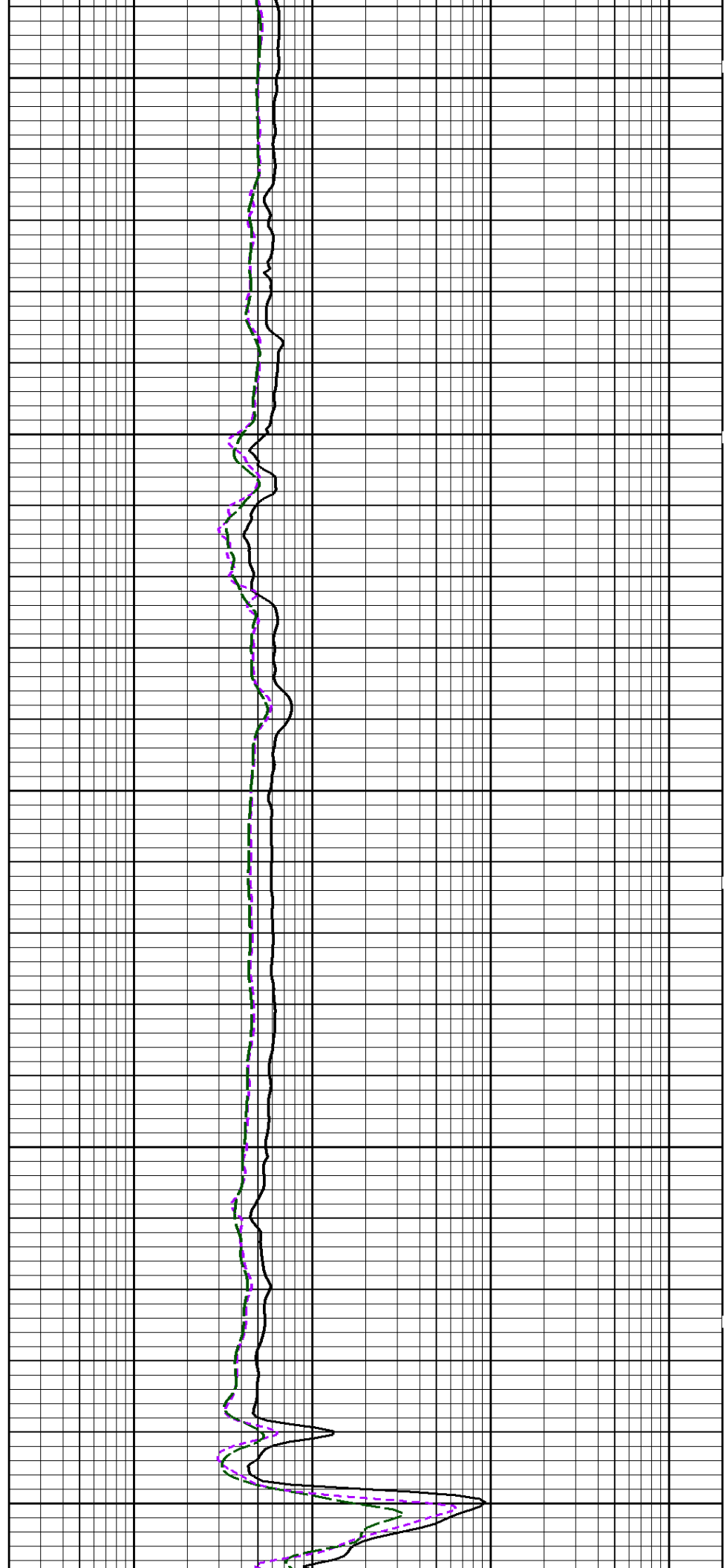
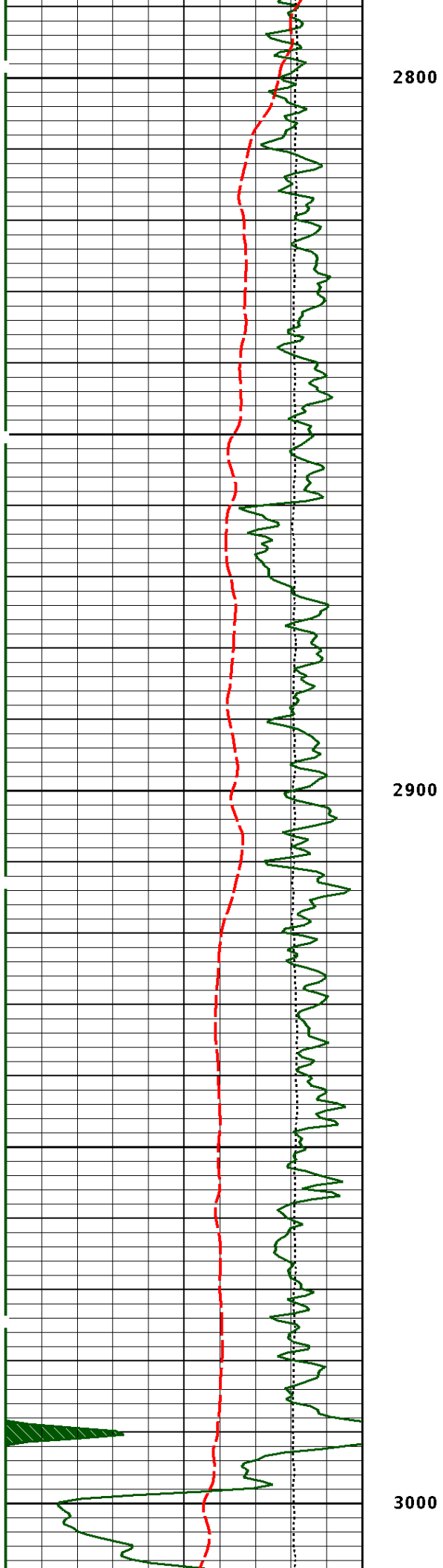


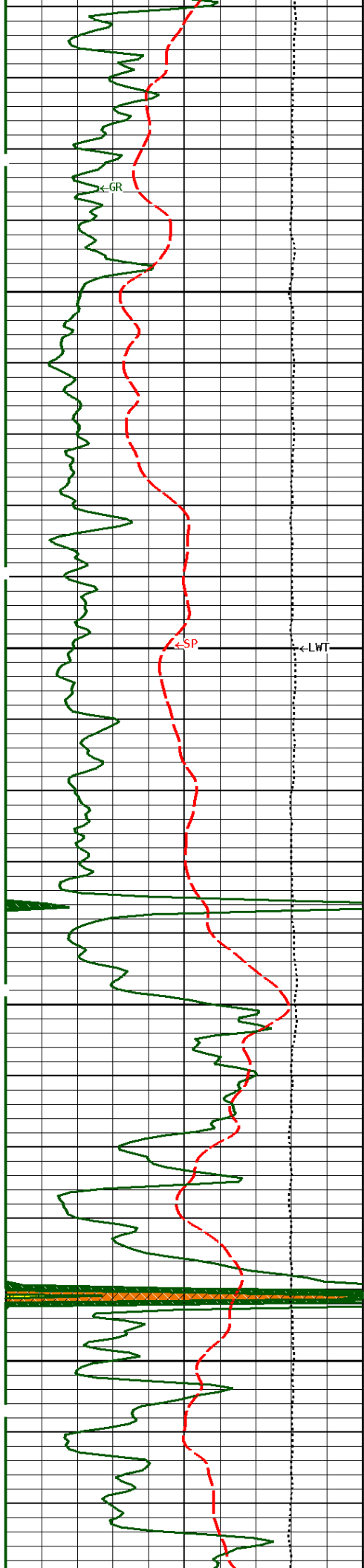
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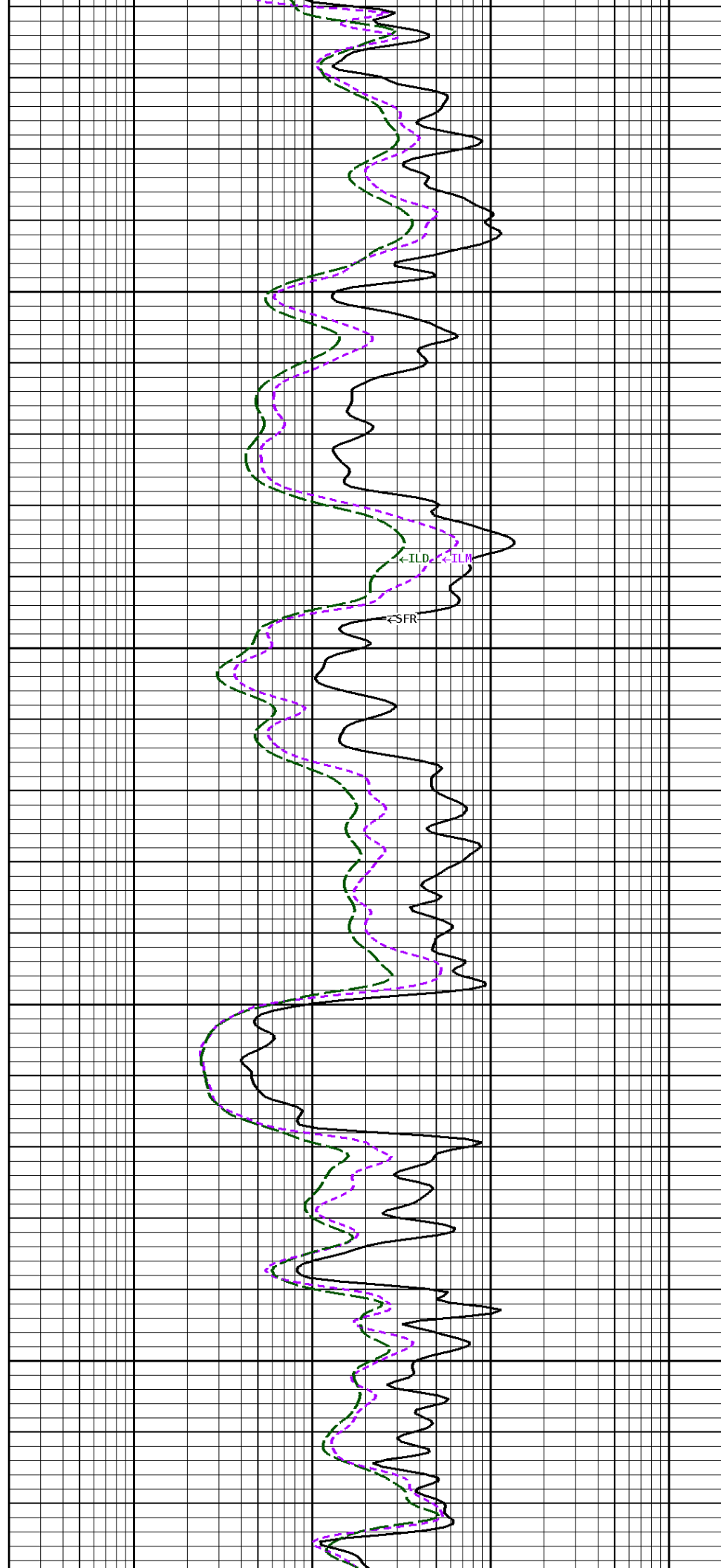


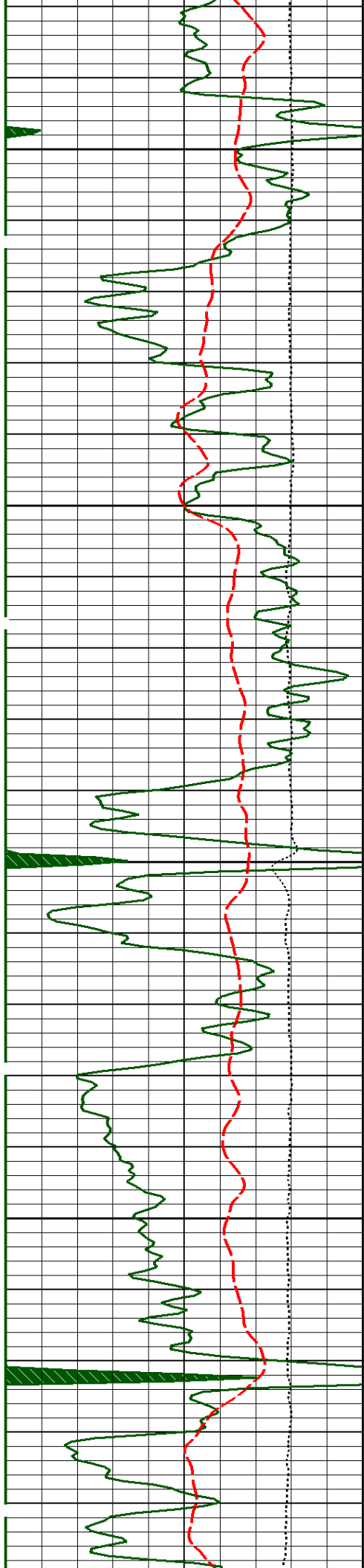




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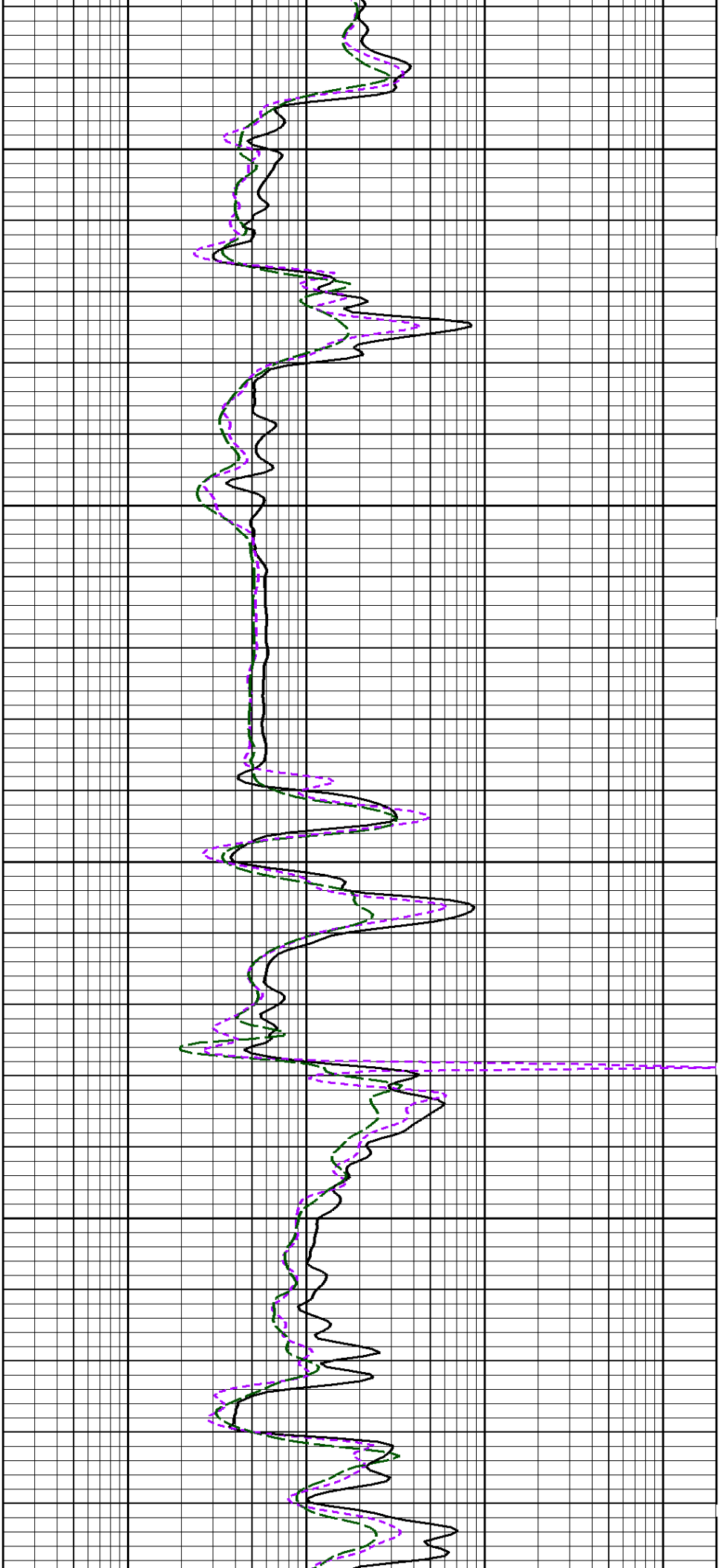
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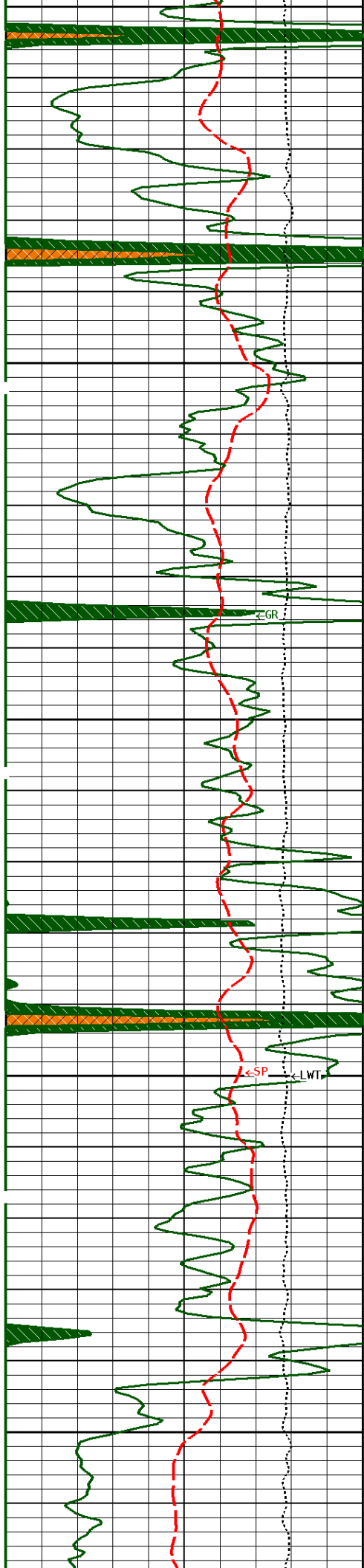




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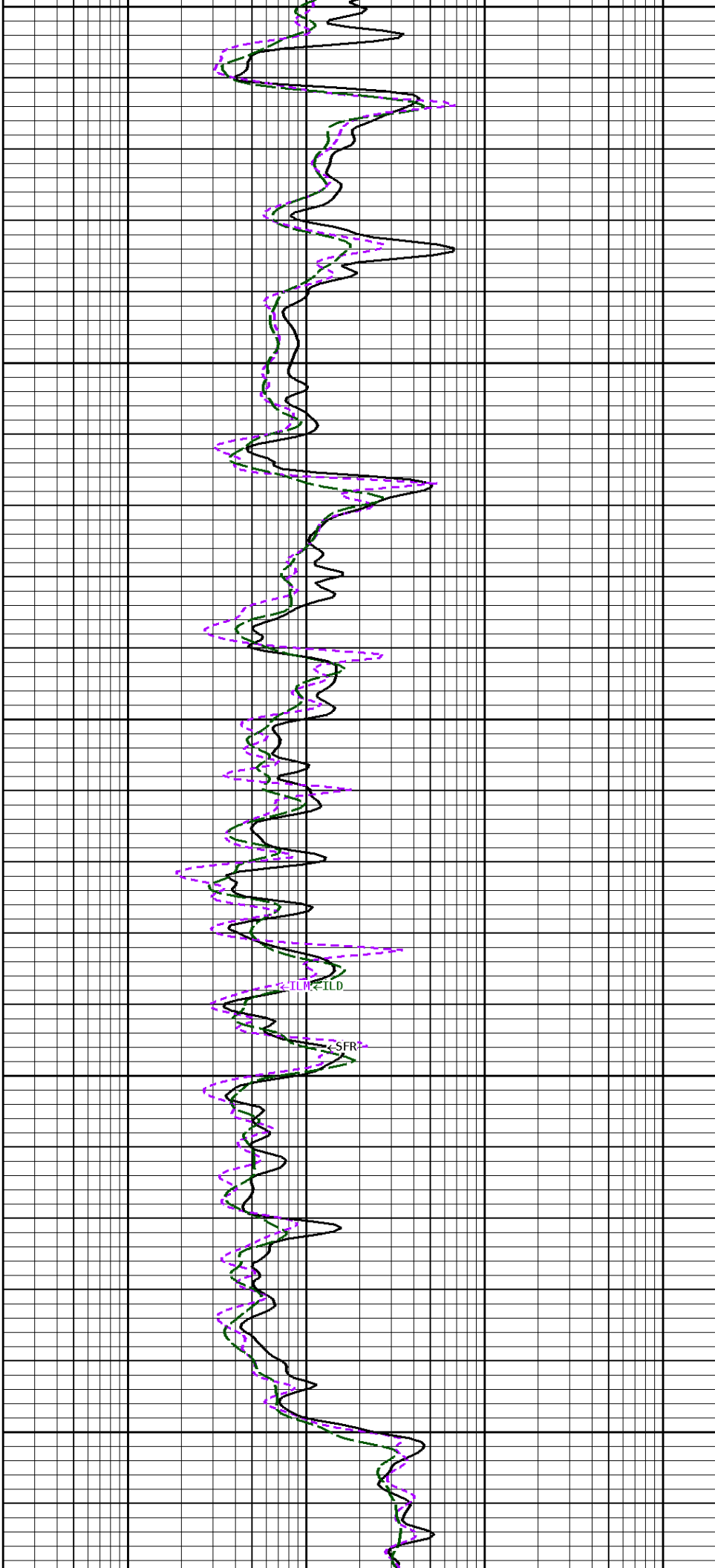
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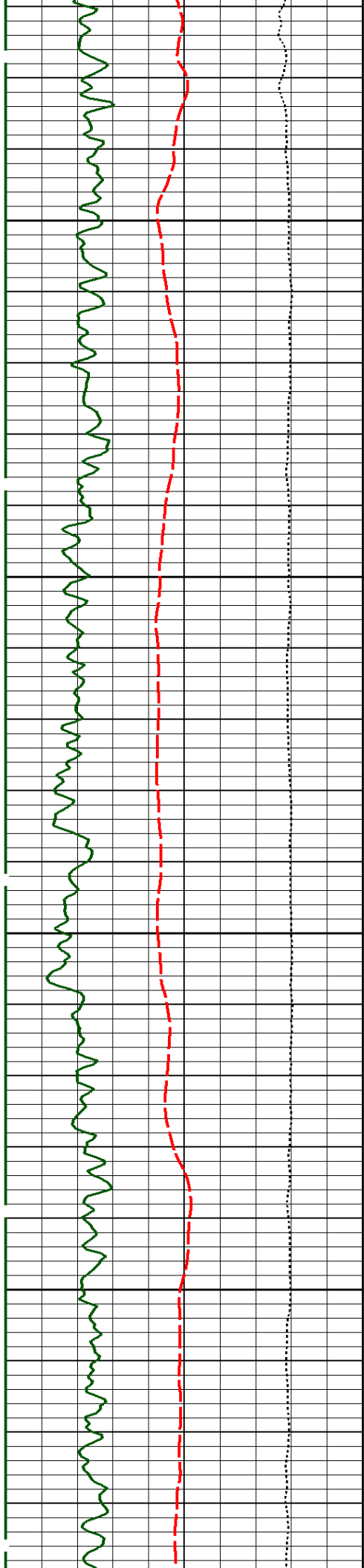




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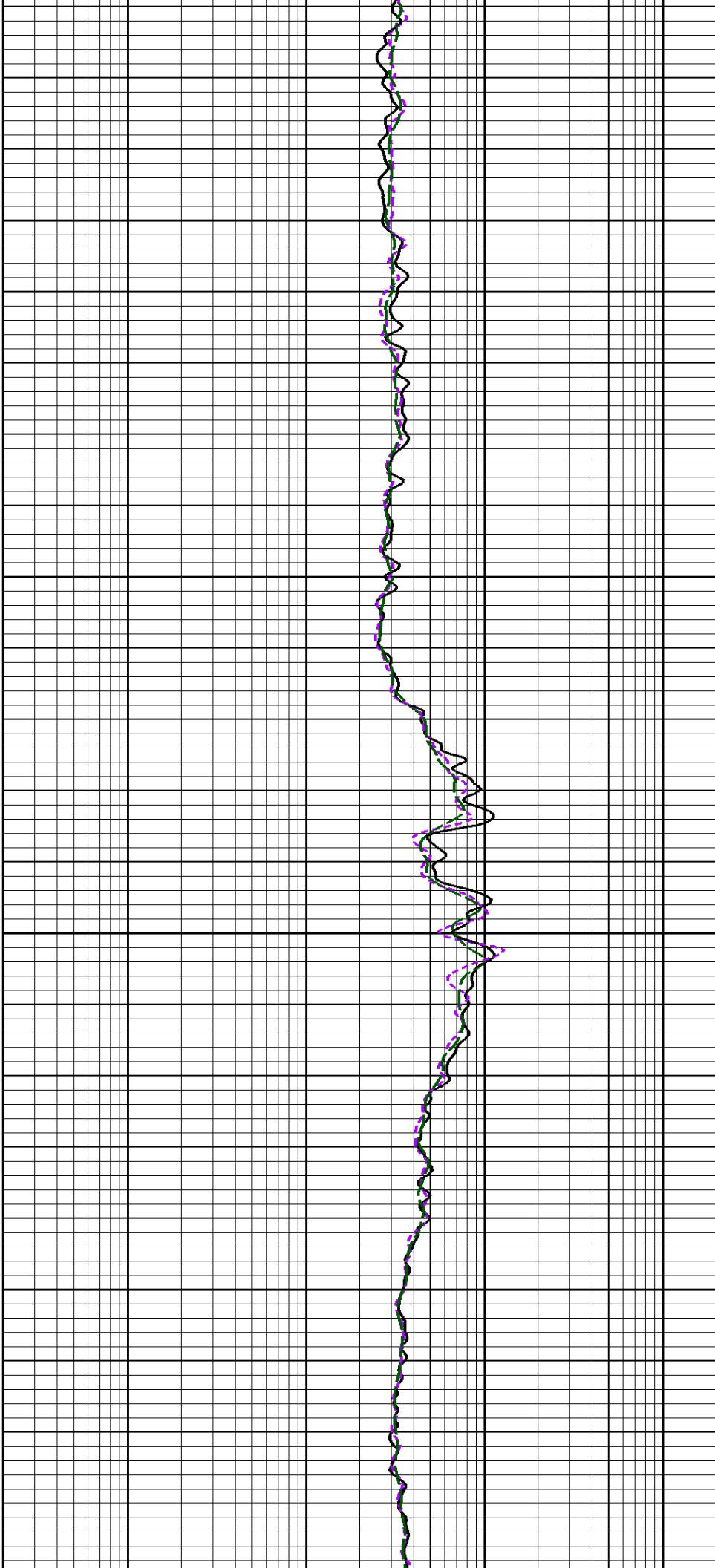
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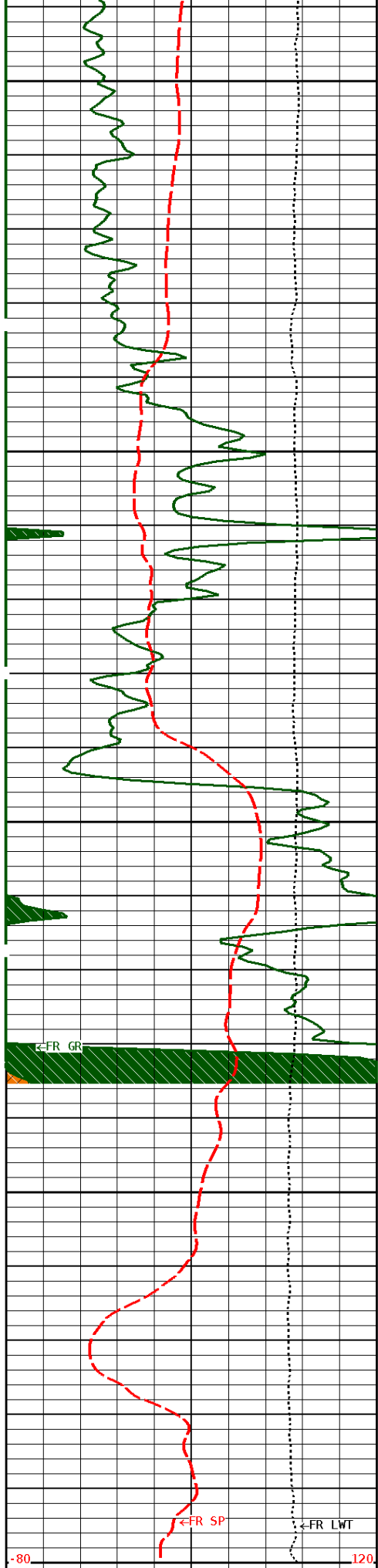




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3800



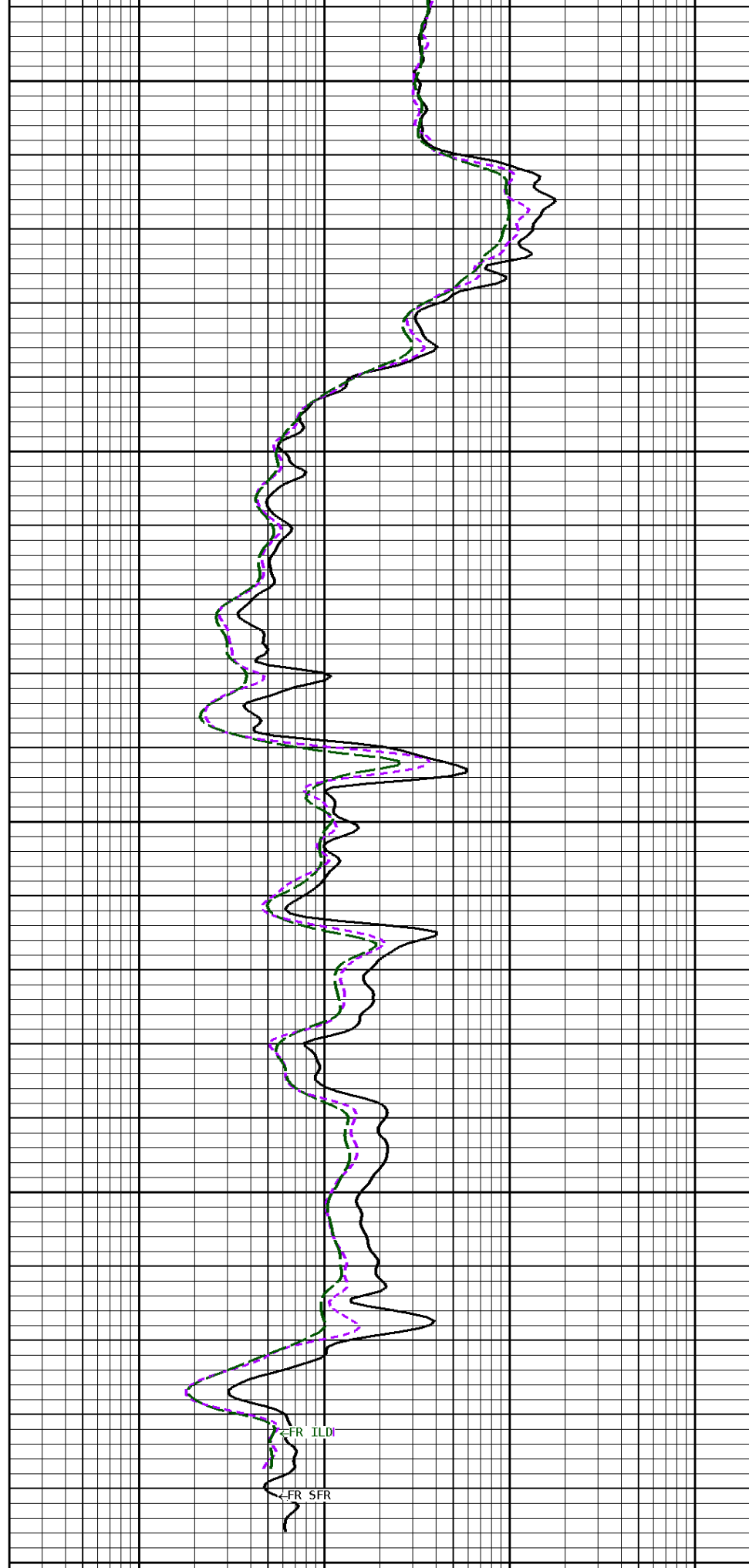


3900

4000

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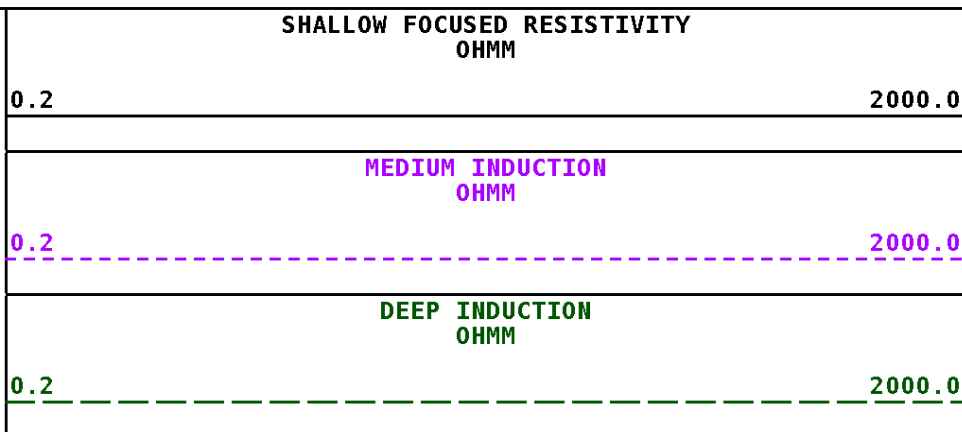
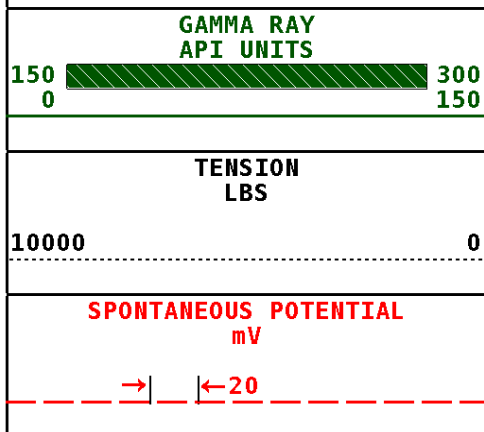
-80 120



FR ILD

FR SFR

File #1.2.3

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		4075.000	ft
Borehole Temperature		117.0	degF
Temperature Gradient		1.00	DFHF
Resistivity Of Mud		0.500	ohm/m
Resistivity Of Mud Temperature		70.00	degF

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 02-Jan-2015			Time : 13:01		
Sensor Suite : GR-GR5			ID : GRT-BA-017		
	Measured		Units	Calibrated	Units
	Background	Jig		Jig	
GR	61	378	CPS	175	GRAPI

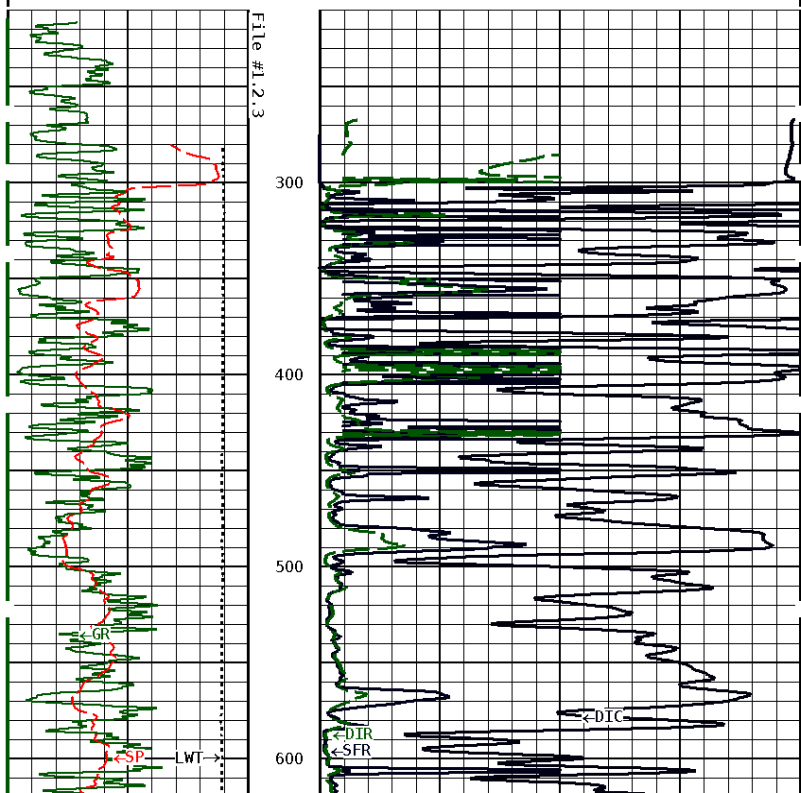
Shop Calibration					
PIT-CA					
Performed : 24-Mar-2015			Time : 15:07		
Sensor Suite : P-IND-T			ID : PIT-CA-075		
Medium					
	Measured		Calibrated		Units
	R	X	R	X	
Air	131411	129941	0.7	0.1	MMHOS
Zero	131070	131065	-10.5	45.2	MMHOS
Reference	250996	249179	4989.5	5045.2	MMHOS
Loop	130557	216346	3622.8	3693.4	MMHOS
Sonde Error			0.6	-6.3	MMHOS
Cond			4989.5	5045.2	MMHOS
Deep					
	Measured		Calibrated		Units
	R	X	R	X	
Air	128160	131891	0.1	-0.6	MMHOS

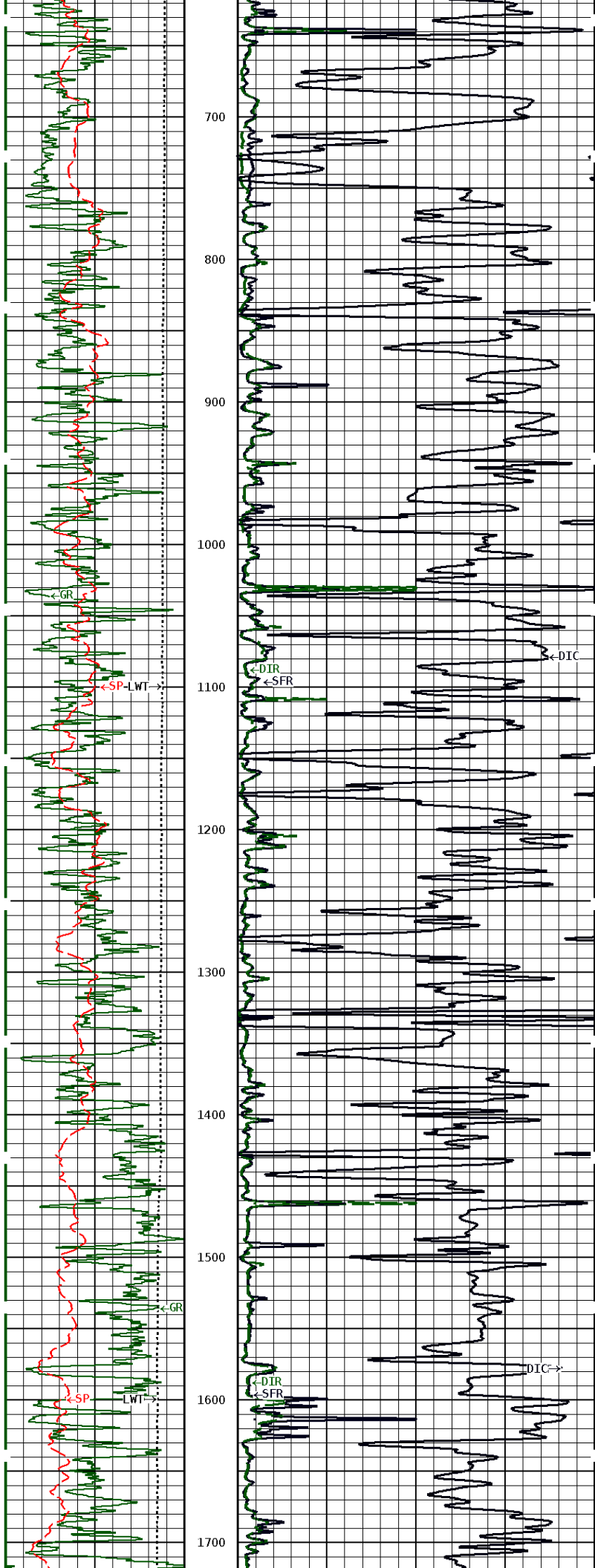
Zero	131065	131057	51.6	-18.6	MMHOS
Reference	238795	236664	2051.6	1981.4	MMHOS
Loop	127663	223540	1726.6	1744.3	MMHOS
Sonde Error			-5.4	0.1	MMHOS
Cond			2051.6	1981.4	MMHOS
Temperature					
	Measured		Calibrated		
	Low	High	Low	High	Units
	16980.0	56920.0	70.0	350.0	DEGF
Performed : 24-Mar-2015			Time : 14:55		
Sensor Suite : SFL			ID : PIT-CA-075		
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
Im	32734.8	46427.9	0.0	7028.0	uA
Ib	32765.9	49037.6	0.0	1750.0	mA
MOM1	32796.9	56595.9	0.0	175.0	mV
Equivalent SFL				43.97	OHMM
Performed : 24-Mar-2015			Time : 14:52		
Sensor Suite : P-SP			ID : PIT-CA-075		
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
	32767.2	58946.4	0.0	1000.0	mV

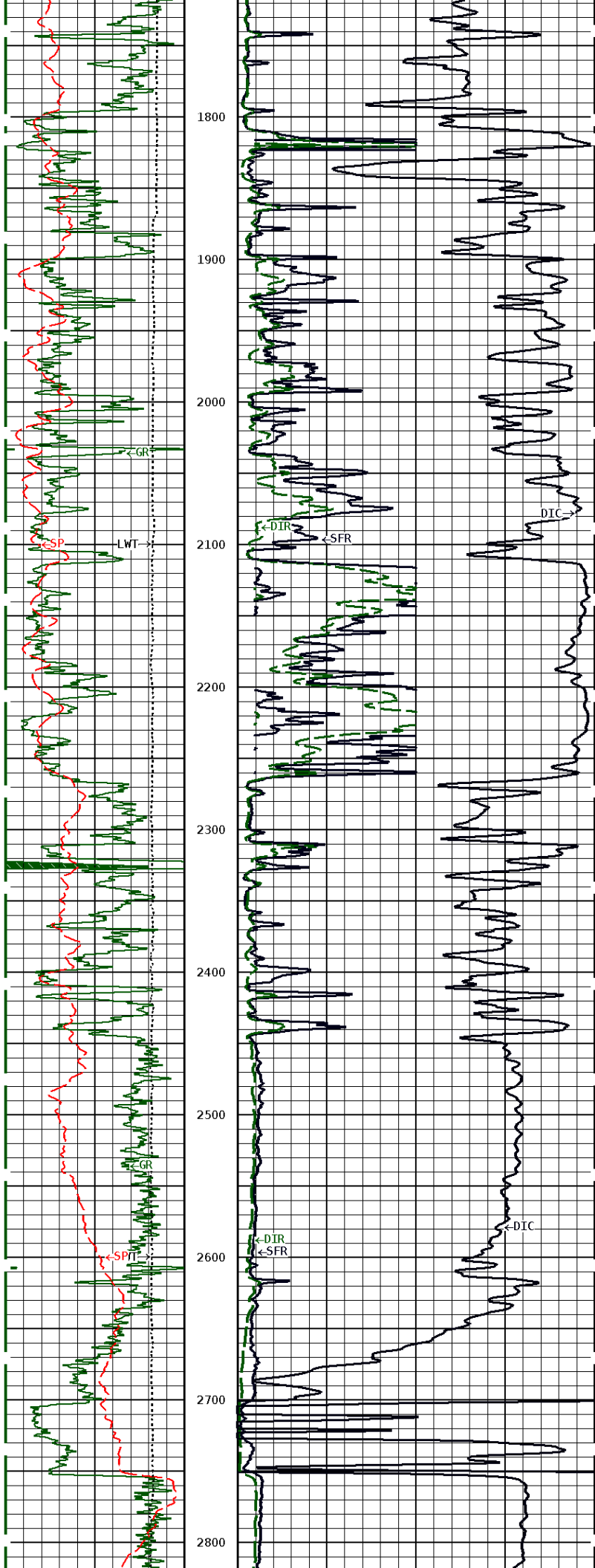
Well File: KELLEY WEBER_A APR24 QUINT Scale: 1:1200 Format: DIL1200
Segment: V1.D2.S3 Reprocess of MAIN Acquired: 2015-04/24 16:09 3.4.0-13477
Reference: 0 Processed: 2015-04/24 17:10 3.4.0-13477

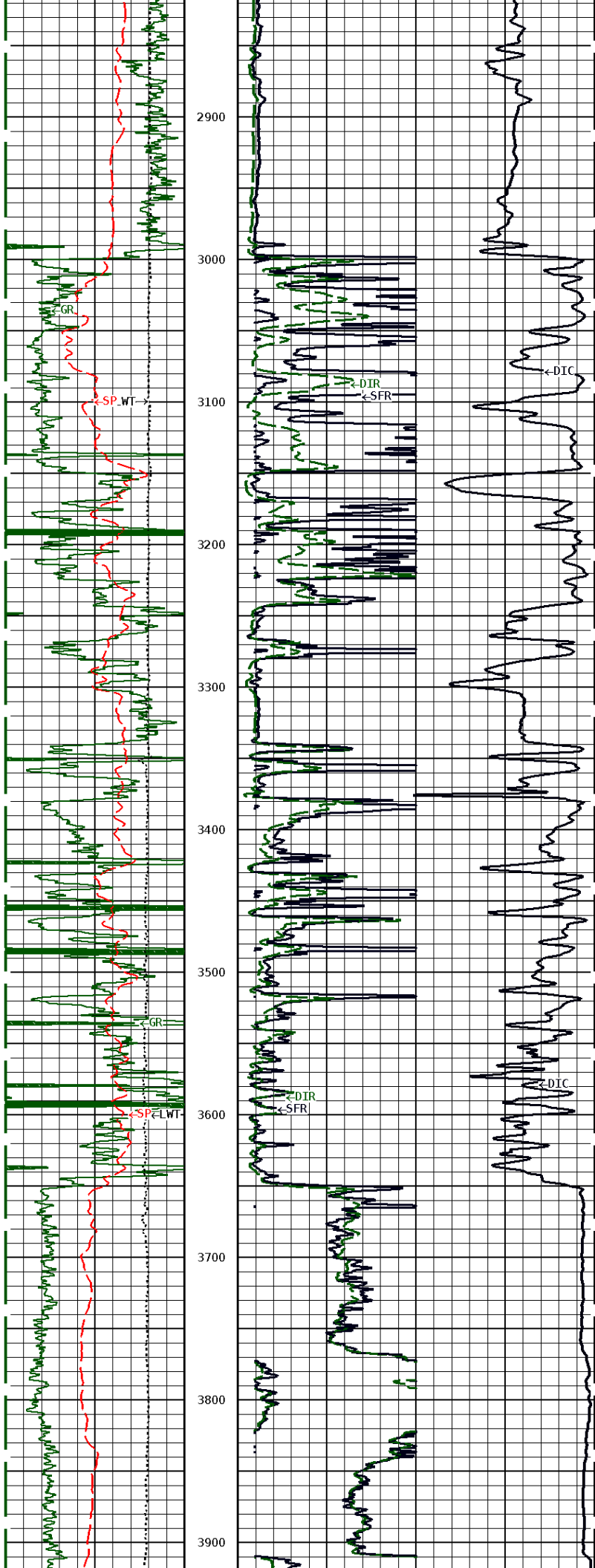
TENSION LBS 10000 0	DEEP INDUCTION OHMM	
	0.0 500.0	0.0 50.0
SPONTANEOUS POTENTIAL mV → ← 20	SHALLOW FOCUSED OHMM	
	0.0 500.0	0.0 50.0
GAMMA RAY API UNITS 150 300 0 150	DEEP CONDUCTIVITY MHMO	
	2000 1000	1000 0

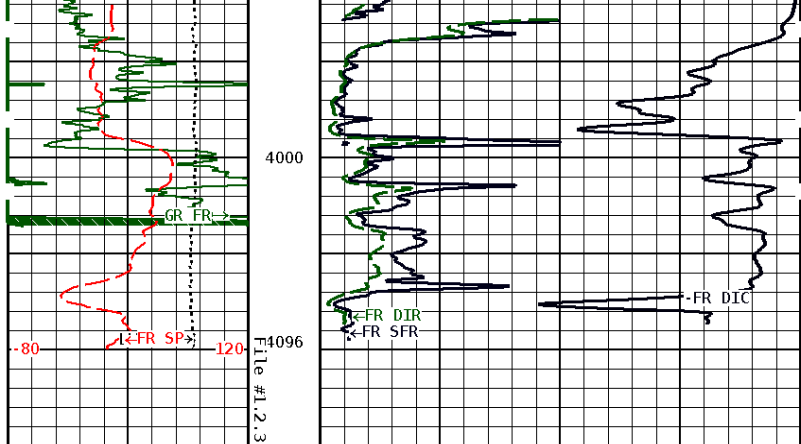
1:1200 MAIN SECTION



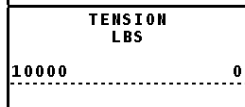
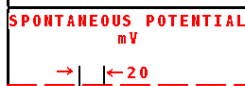








1:1200 MAIN SECTION



Company: KELLEY EDGAR OIL & GAS OPERATIONS

Well: WEBER #A

Location: 1320' FSL & 330' FEL

Logged: 04-24-2015

K.B. Elev: 1220.0 Ft