

Tucker
ENERGY SERVICES

PHASED INDUCTION
SHALLOW FOCUS SP LOG

Company : C3 OIL, LLC.
Well : WINTERSCHIED #45
Field : WINTERSCHIED
Country : WOODSON
State : KANSAS
Country : USA
API No. : 15-207-28687

File No : TUL-58418
Company : C3 OIL, LLC.
Well : WINTERSCHIED #45
Field : WINTERSCHIED
Country : WOODSON
State : KANSAS
Country : USA
API No : 15-207-28687

Location :
 2158' FSL & 3553' FEL
 NW NE SW

LSD : **Sect** : 6 **Twp** : 24S **Rge** : 14E

Permanent Datum:	GL	Elevations:	KB	0.00	Ft	Services:	CNT	PIT
Drilling Measured From:	GL	DF	0.00	Ft			LDT	
Log Measured From:	GL	GL	1197.00	Ft			MLT	
Above Permanent Datum:	0.00	Ft						
Date	10-20-2013							
Run Number	1							
Depth--Driller	2368.0	Ft						
Depth--Logger	2362.0	Ft						
First Reading	2362.0	Ft						
Last Reading	40.0	Ft						
Casing--Driller	40.0	Ft						
Casing--Logger	40.0	Ft						
Bit Size	6.750	In						
Casing Size	8.625	In						
Hole Fluid Type	WBM							
Density	9.0							
Fluid Loss	0.0							
PH/Viscosity	0.0		40.0					
Sample Source	MEASURED							
RM@Measured Temp.	2.000	@ 70	F					
RMF@Measured Temp	1.700	@ 70	F					
RMG@Measured Temp.	2.300	@ 70	F					
Source RMF/RMC	CALCULATED/CALCULATED							
RM@BHT	1.350	@ 107	F					
Time Circulation Stopped								
Max Recorded Temp.	107		F					
Equipment/Base	TRK-123		TULSA					
Recorded By	S. DAVIS							
Witnessed By	D.GRIFIN/C.HAAS							

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)
6.750	2362.00	8.625	20.00	40.00	0.00

Run Number	1
Date	10-20-2013
Date/Time On Bottom	10-20-2013 5:30 pm
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	1.150 @ 107 F
RMC@BHT	1.550 @ 107 F

Run Number 1

Comments

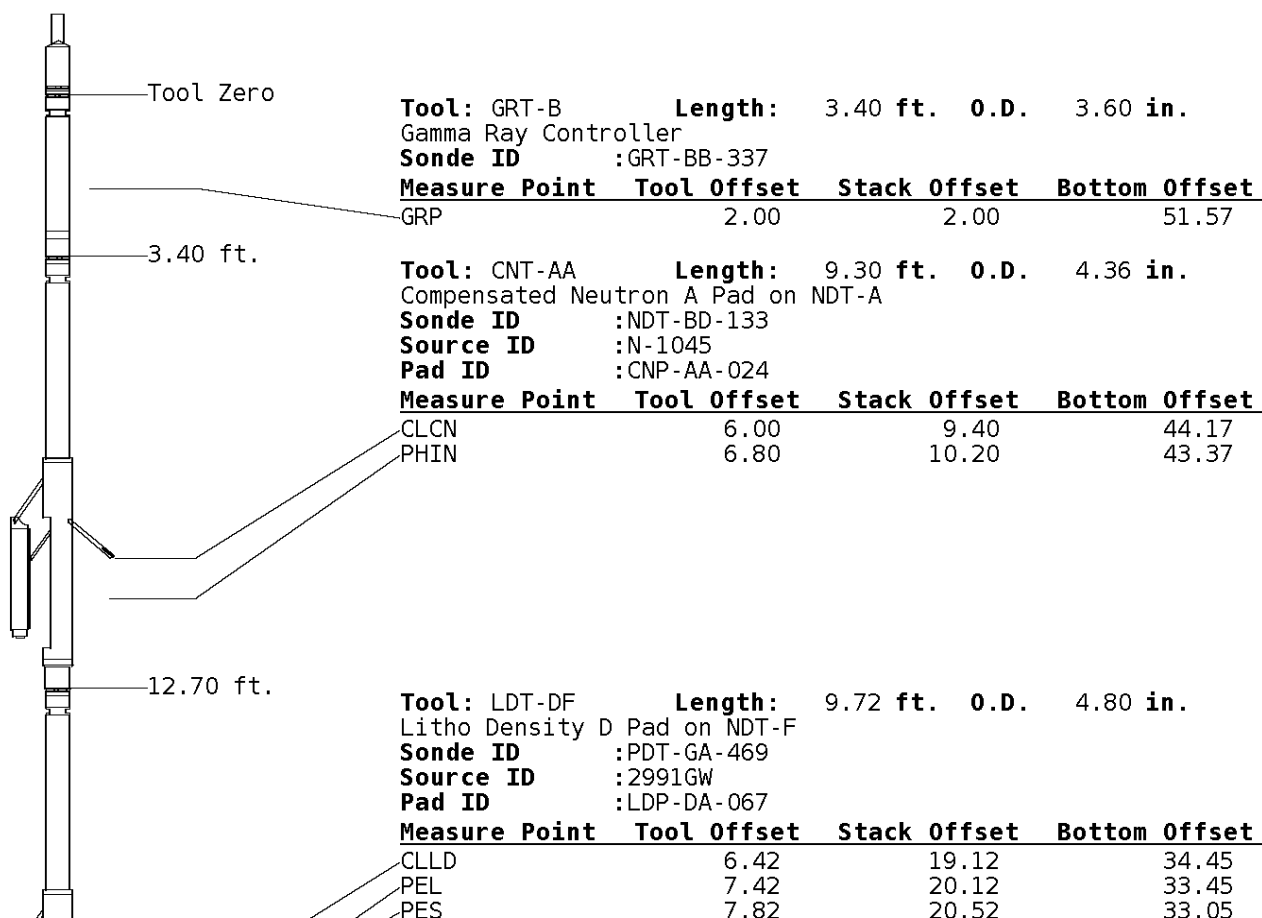
ALL PRESENTATION PER CUSTOMER REQUEST
 GRT,CNT,LDT,PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR & BOREHOLE VOLUME CALCULATED USING 4.5 PRODUCTION CASING
 PHIN IS CALIPER CORRECTED
 HIRES IS PRESENTED FROM TD TO 1500'
 DOLOMITE REPLAY FROM TD TO 1700'
 REPEAT TD TO 1500'

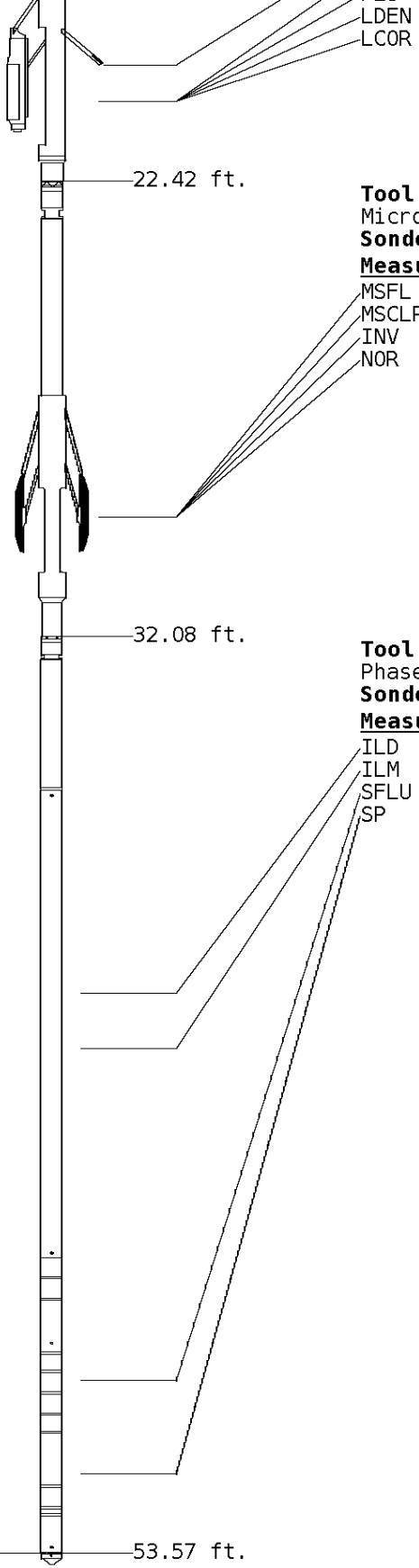
GRT; GRP, GRX
 CNT; PHIN, CLCNIN PHXN
 LDT; PORL, LCORN, PECLN, LDENN, CLLDIN PRXL, PECLX, LDENNX, LCORNX
 MLT; NOR.RF, INV.RF, MSCLPIN.
 PIT; ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS;
 J. KLINE
 C. GONZALES

Tool String Schematic

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





7.62 20.32 33.25
 7.62 20.32 33.25

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	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

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AB-005

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

Well File: C3-oil-win-45-mstk-oct-20 **Scale:** 1:600 **Format:** DIL-600
Segment: V1.D1.S5 MN **Acquired:** 2013-10/20 18:01 3.3.0-12261
Reference: 0 **Processed:** 2013-10/20 18:58 3.3.0-12261

TENSION LBS	0
10000	0

DEEP INDUCTION OHMM	500.0
0.0	50.0
0.0	50.0

SPONTANEOUS POTENTIAL mV	
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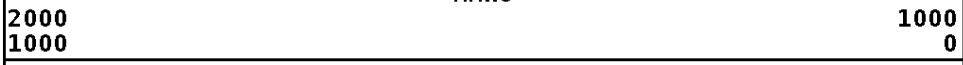
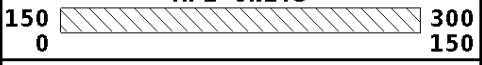
SHALLOW FOCUSED RESISTIVITY OHMM	500.0
0.0	500.0

→ ←20

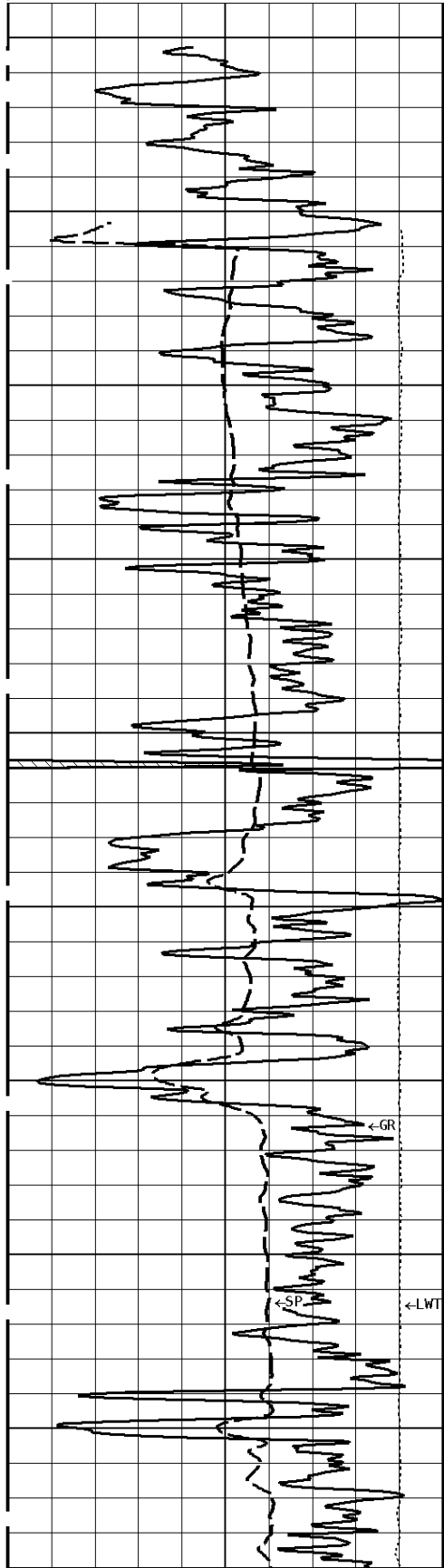
0.0 500.0
0.0 50.0

GAMMA RAY
API UNITS

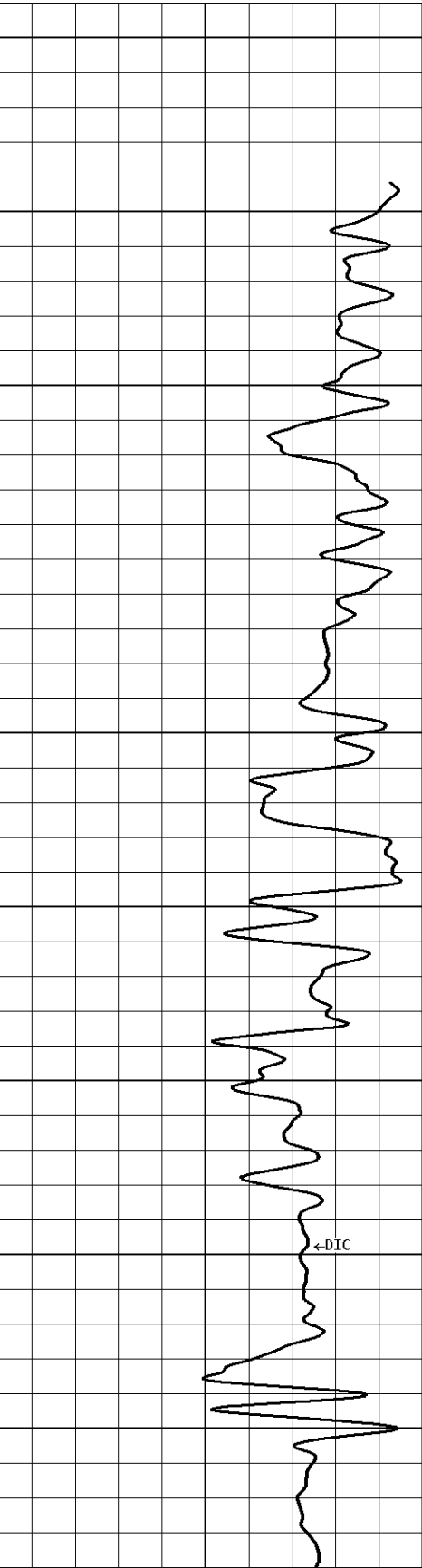
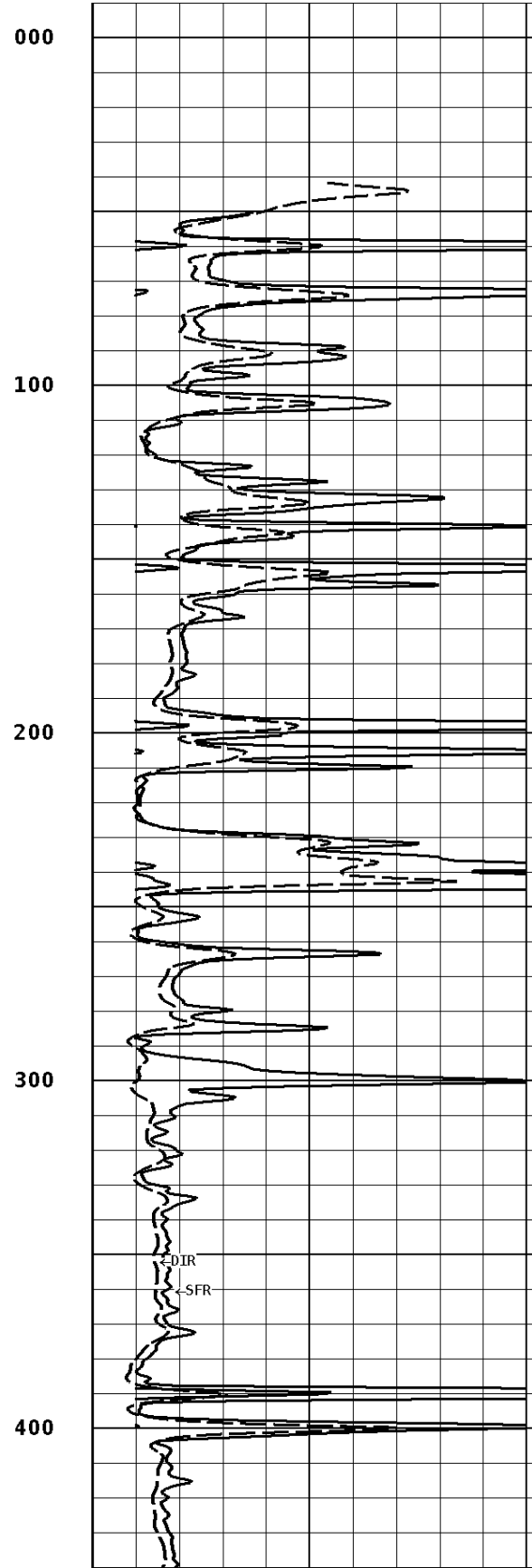
DEEP CONDUCTIVITY
MMHO

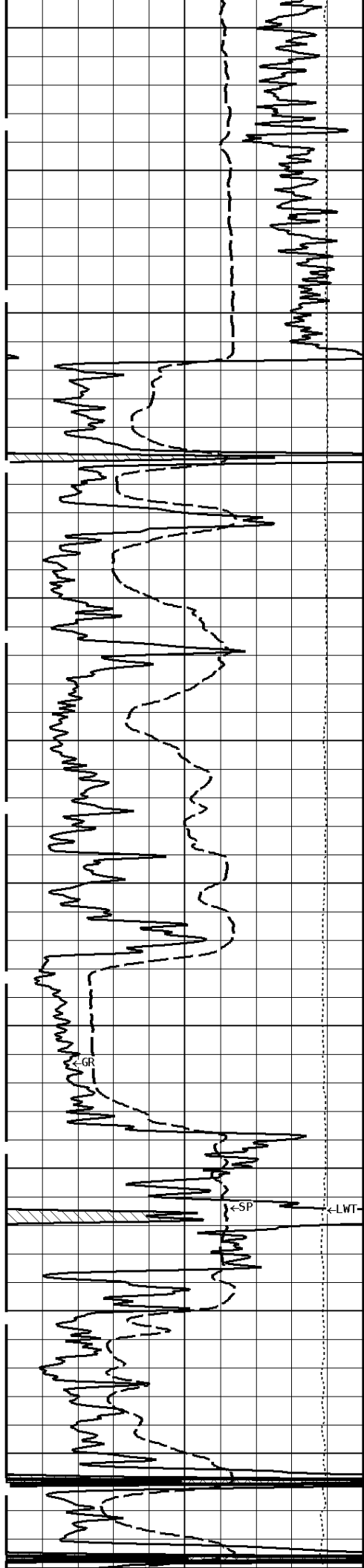


1:600 MAIN SECTION



File #1.1.5





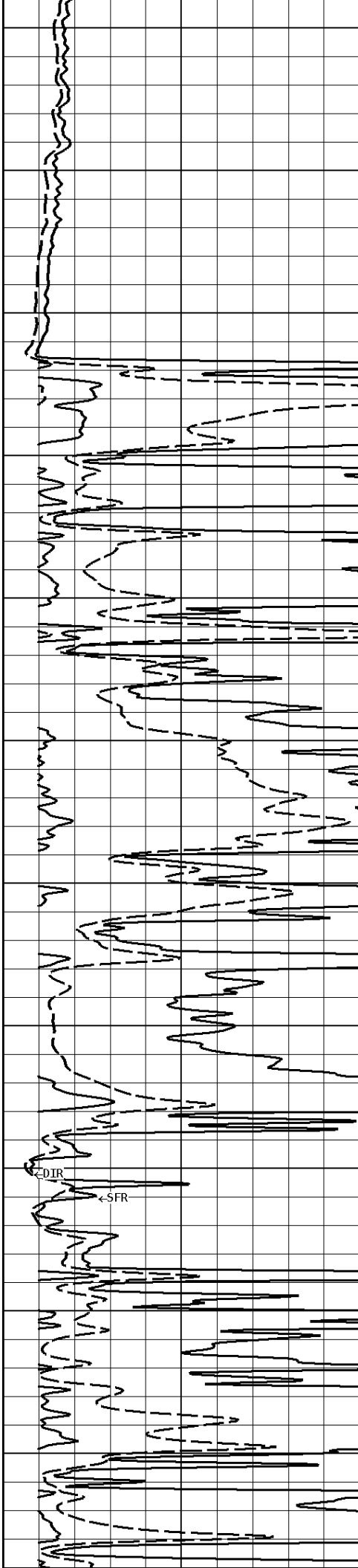
500

600

700

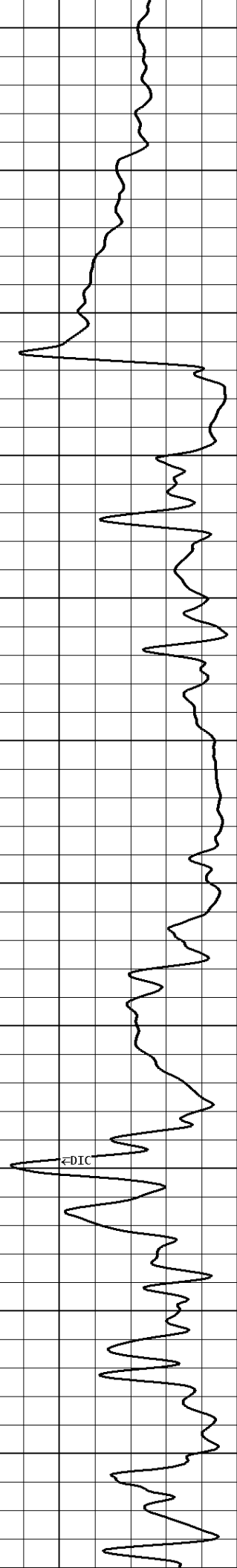
800

900

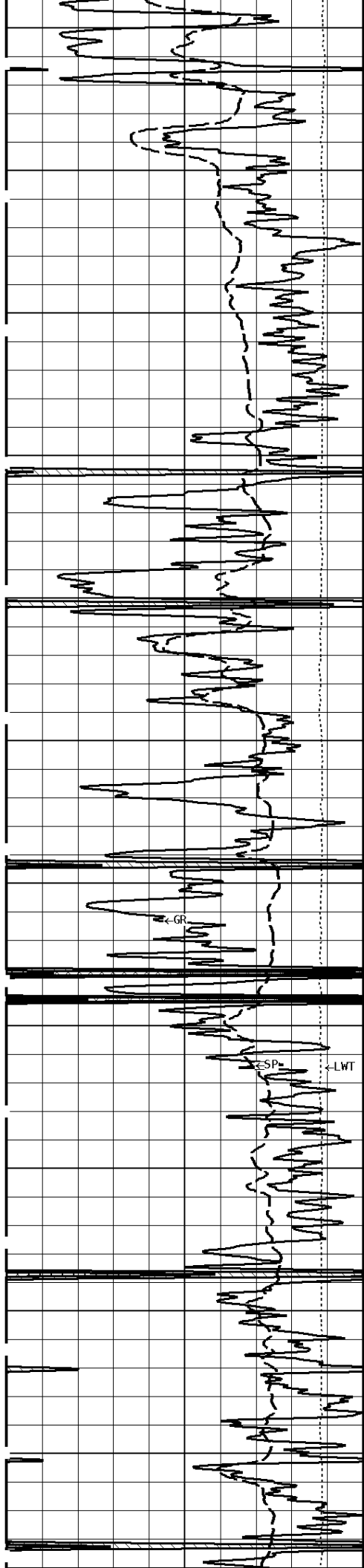


DIR

SFR



DIC



1000

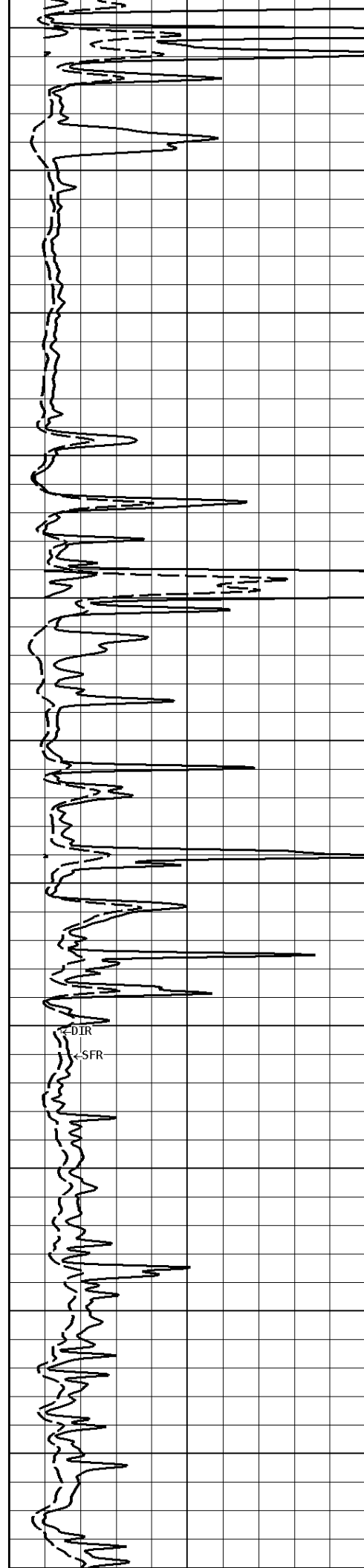
1100

1200

1300

1400

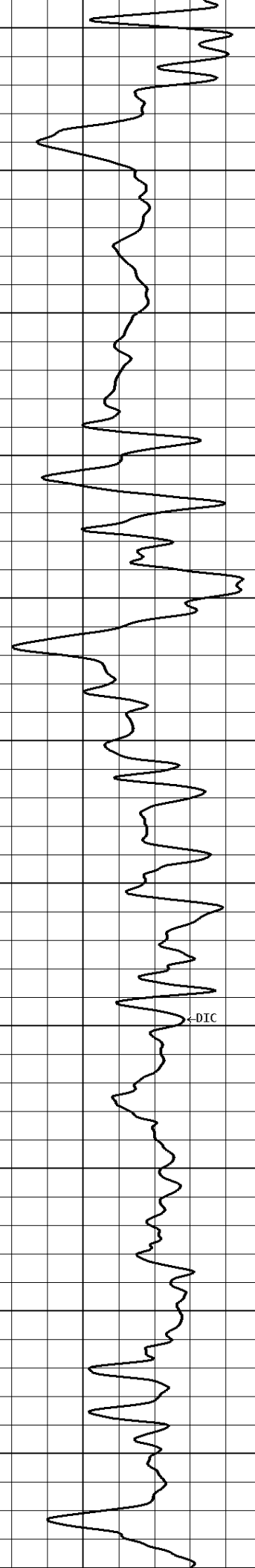
1500



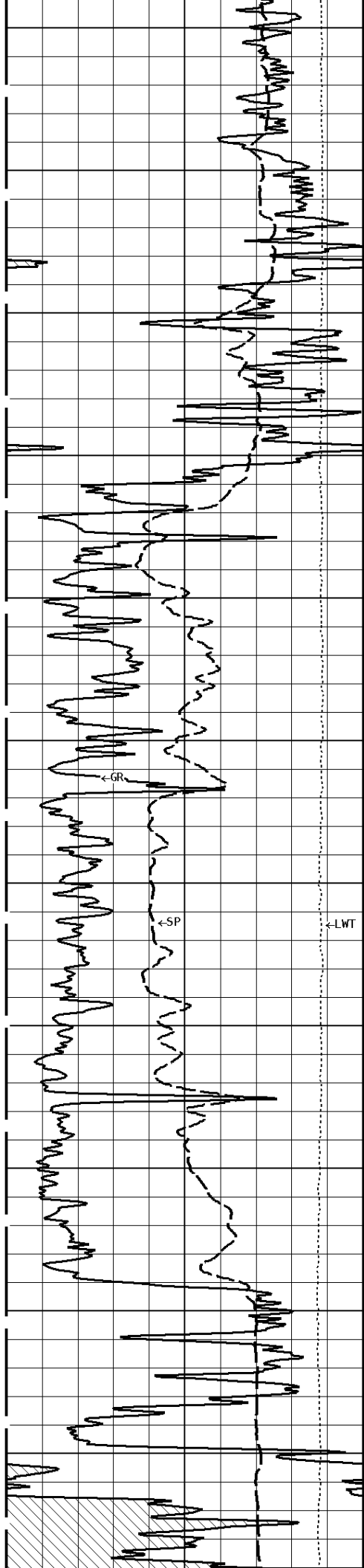
←DIR

←DIR

←SFR



←DIC



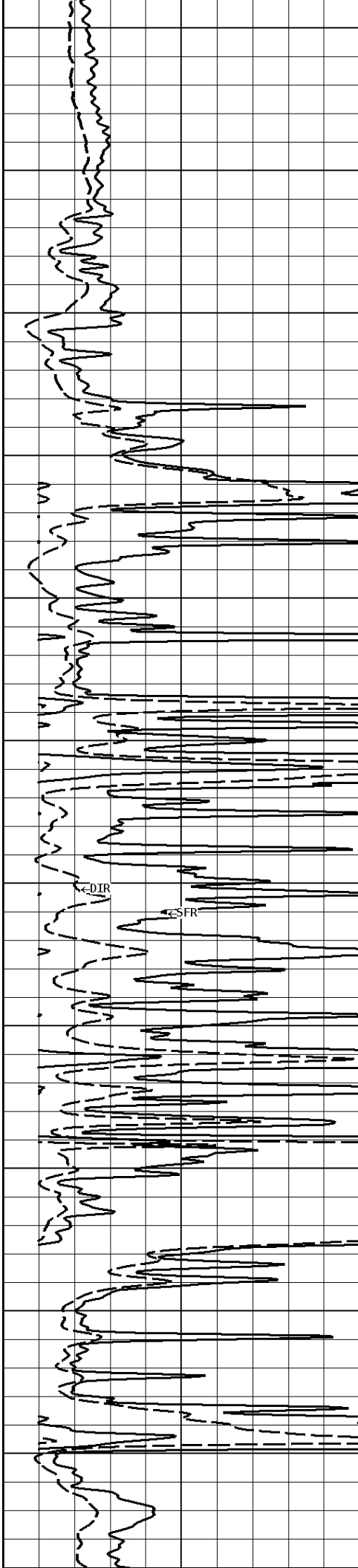
1600

1700

1800

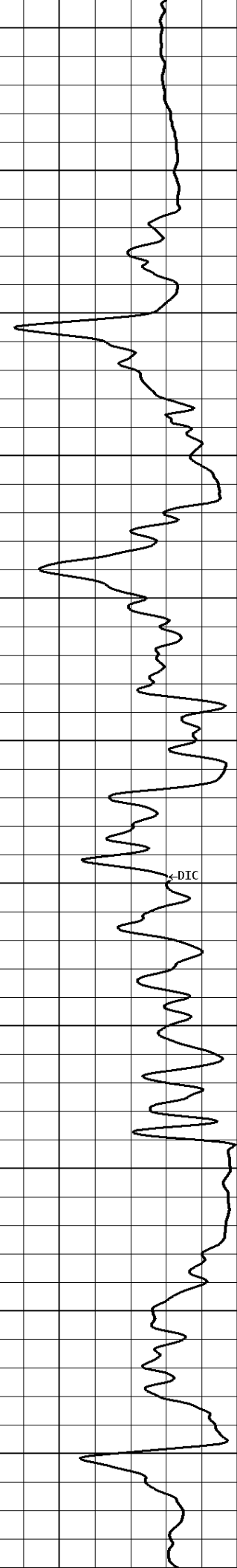
1900

2000

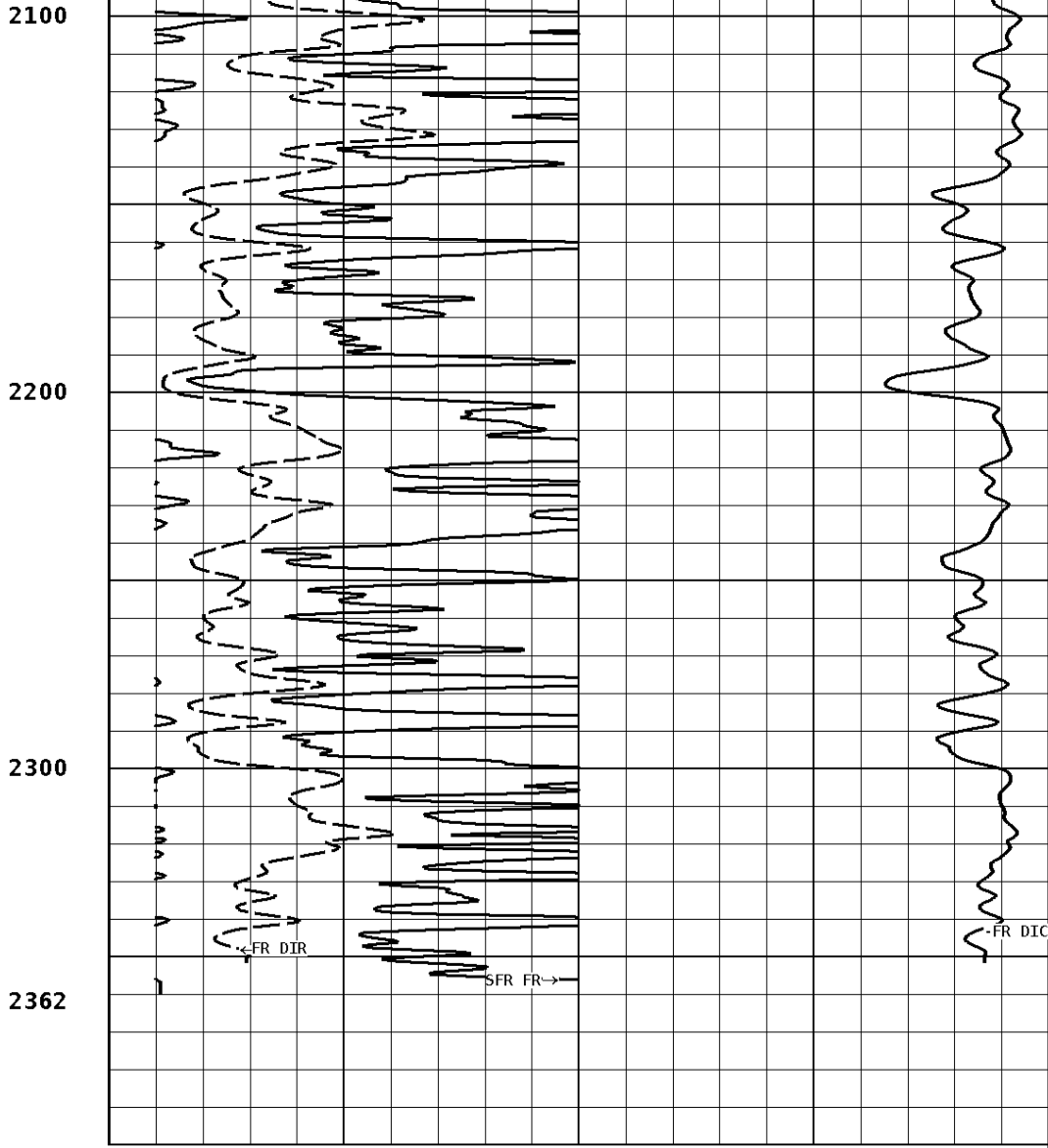
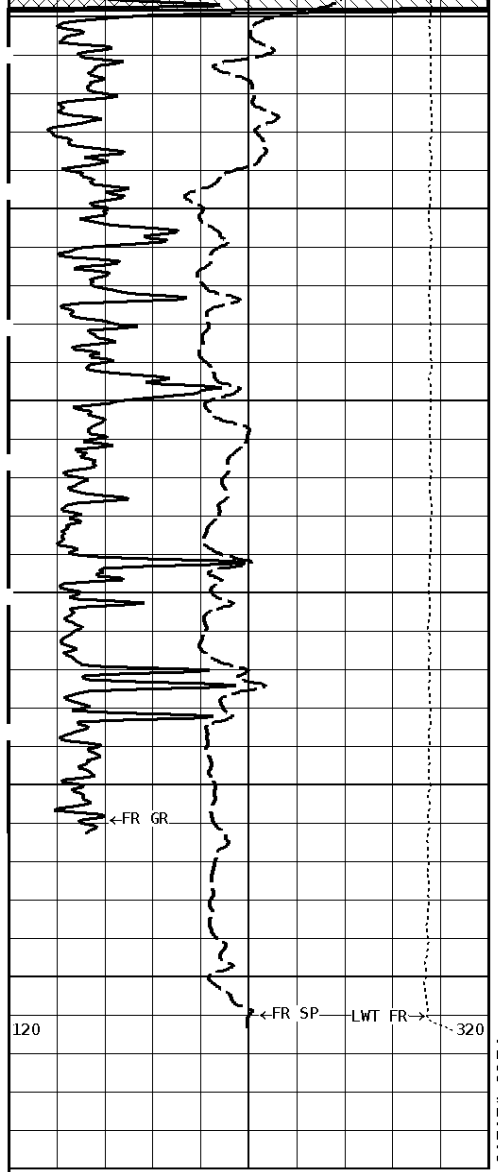


←DIR

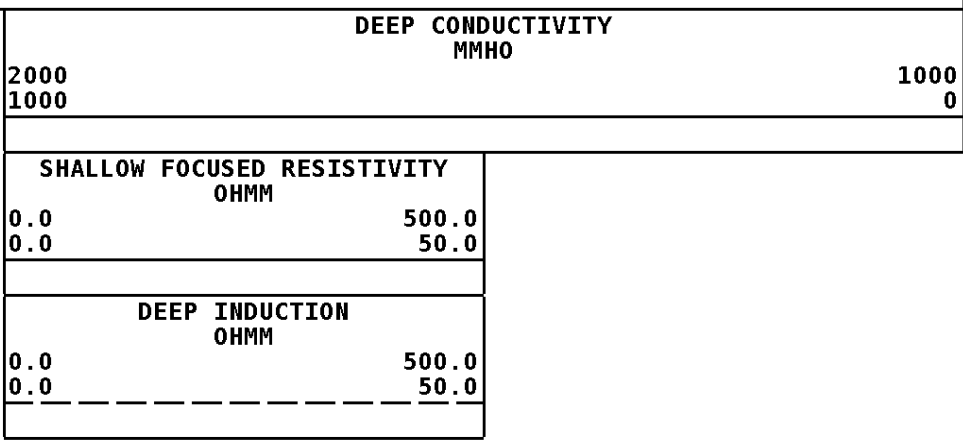
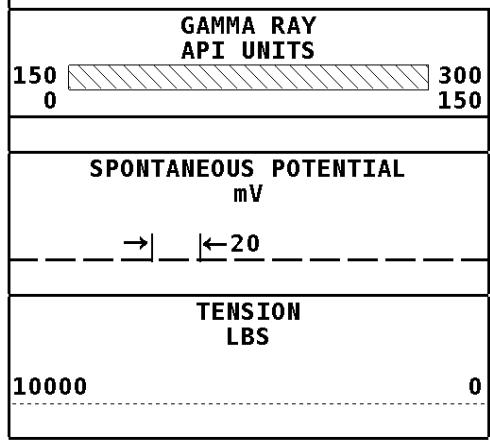
←SFR



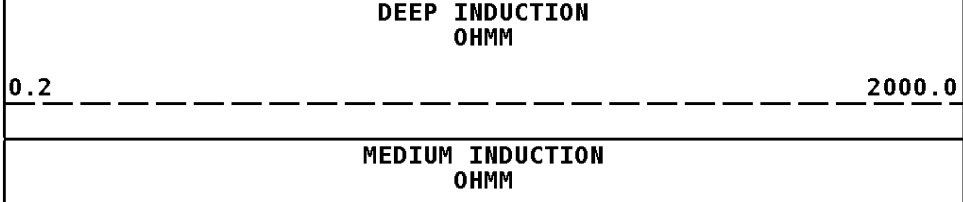
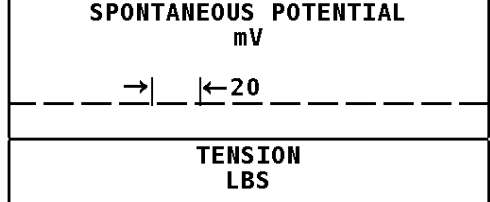
←DIC



1:600 MAIN SECTION



Well File: C3-oil-win-45-mstk-oct-20	Scale: 1:240	Format: DIL-240
Segment: V1.D1.S5 MN	Acquired: 2013-10/20 18:01 3.3.0-12261	
Reference: 0	Processed: 2013-10/20 18:58 3.3.0-12261	



10000 0

GAMMA RAY
API UNITS

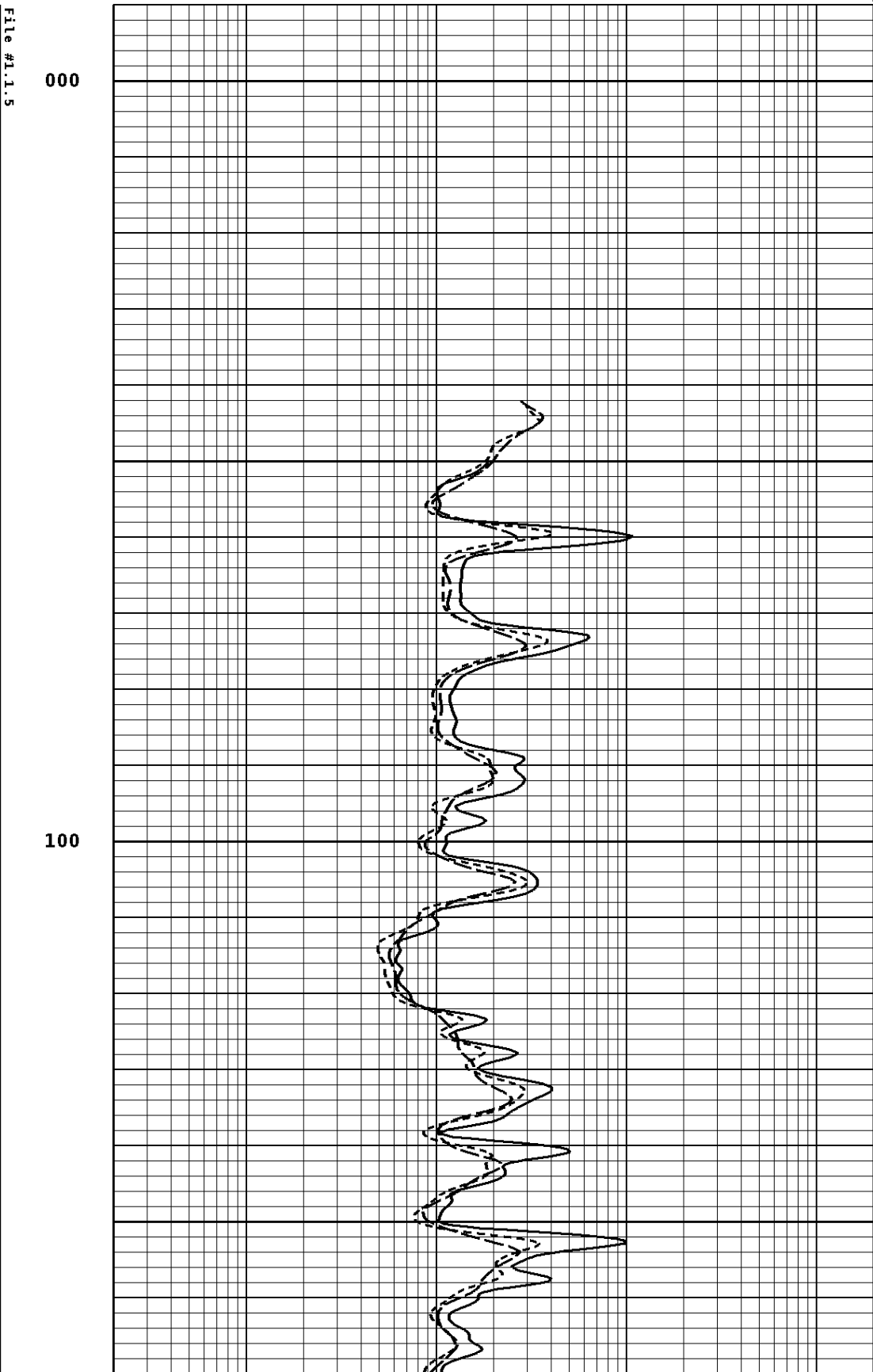
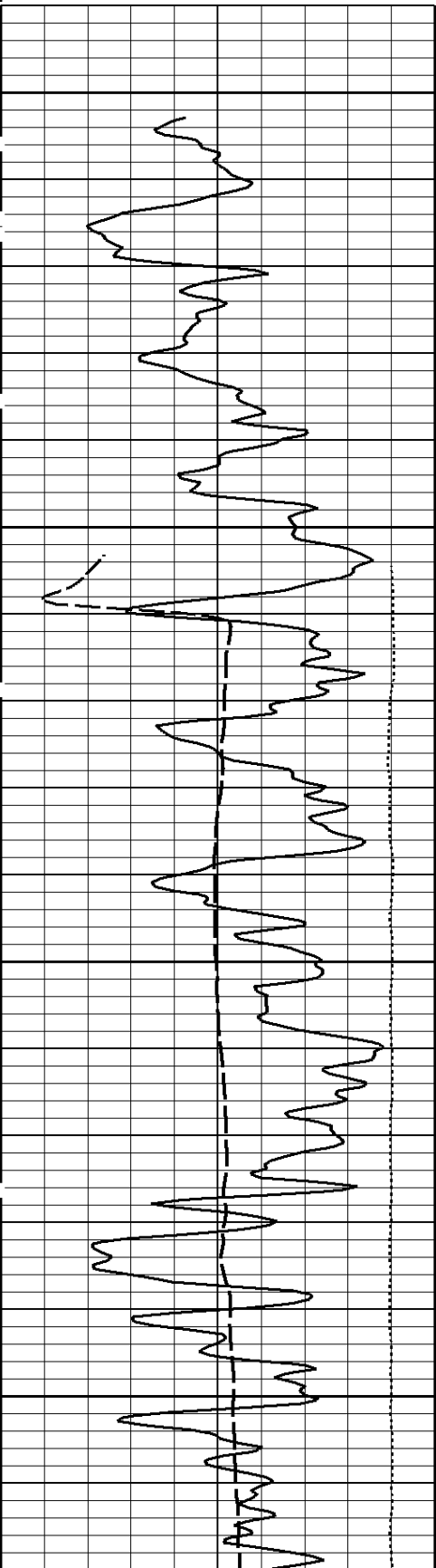
150 0 300 150

0.2 2000.0

SHALLOW FOCUSED RESISTIVITY
OHMM

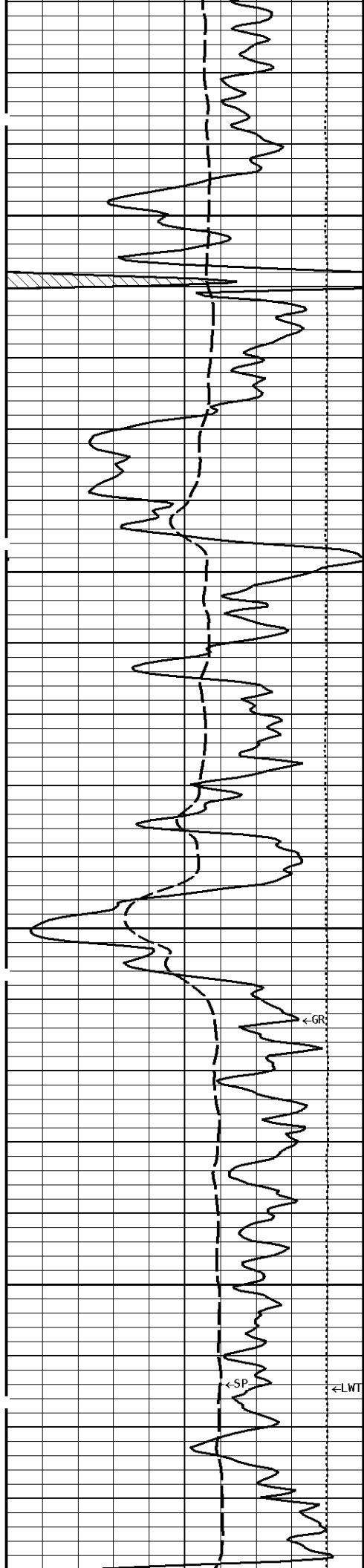
0.2 2000.0

1:240 MAIN SECTION



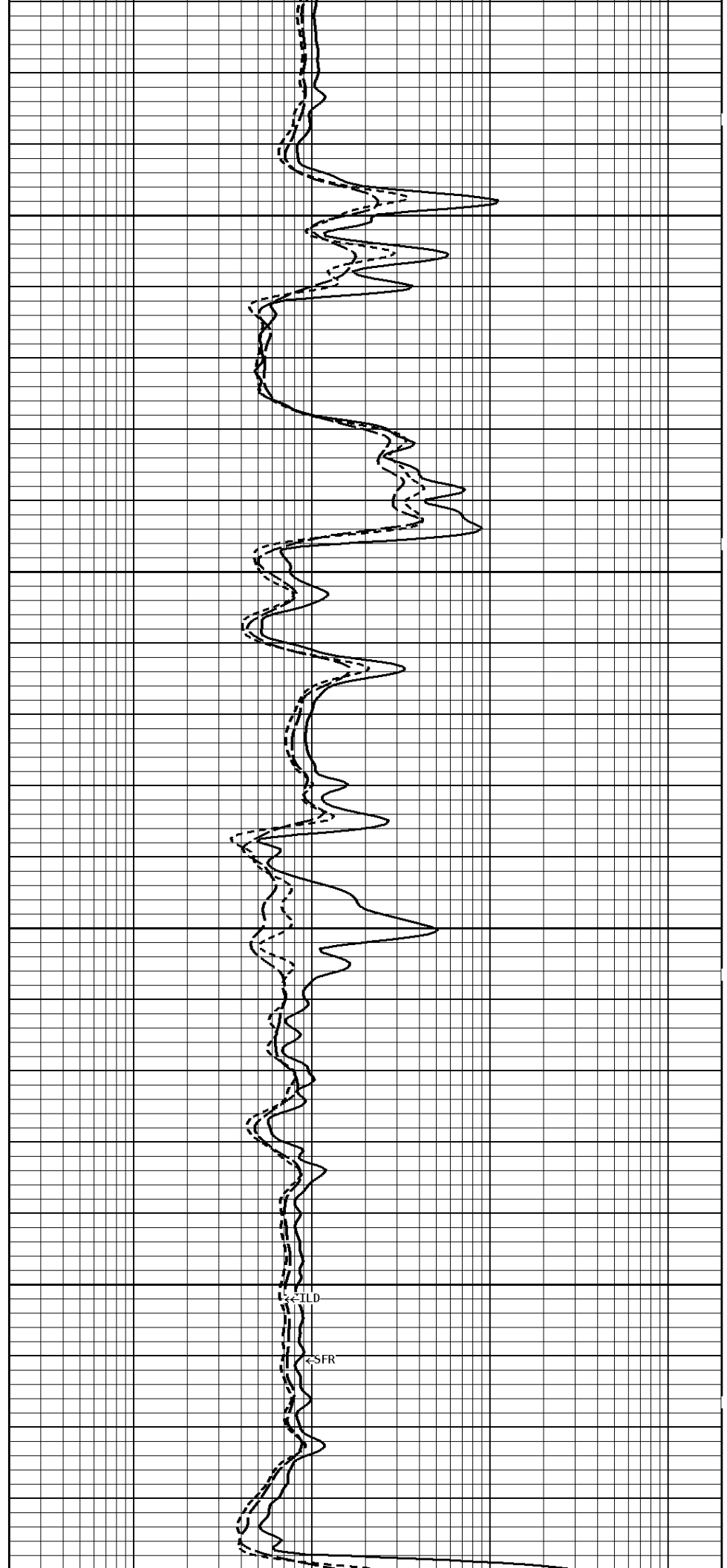
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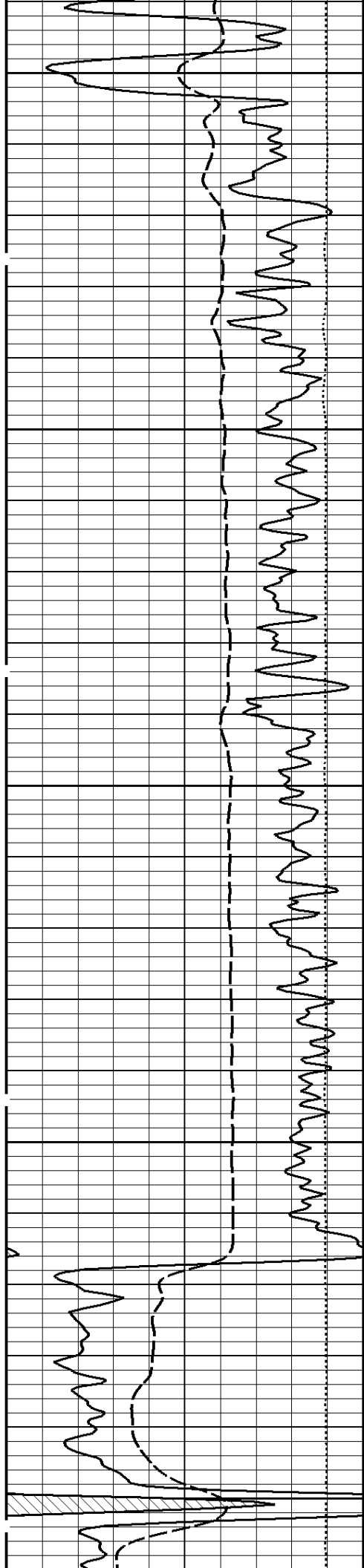
100



200

300

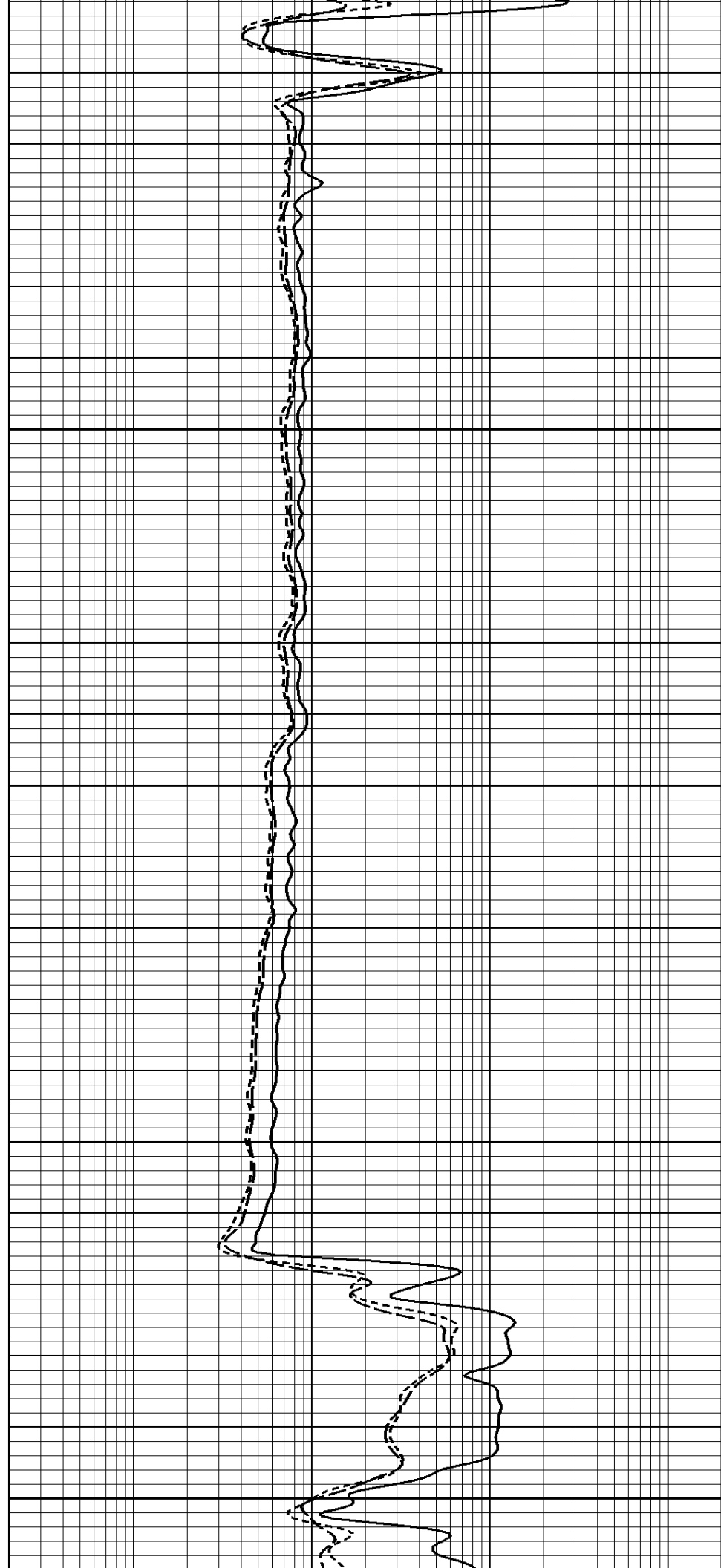


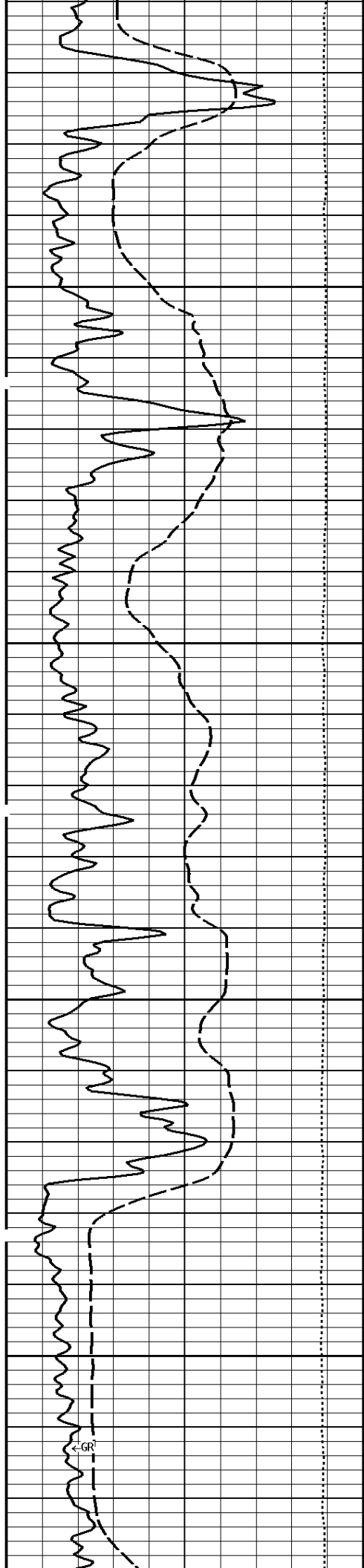


400

500

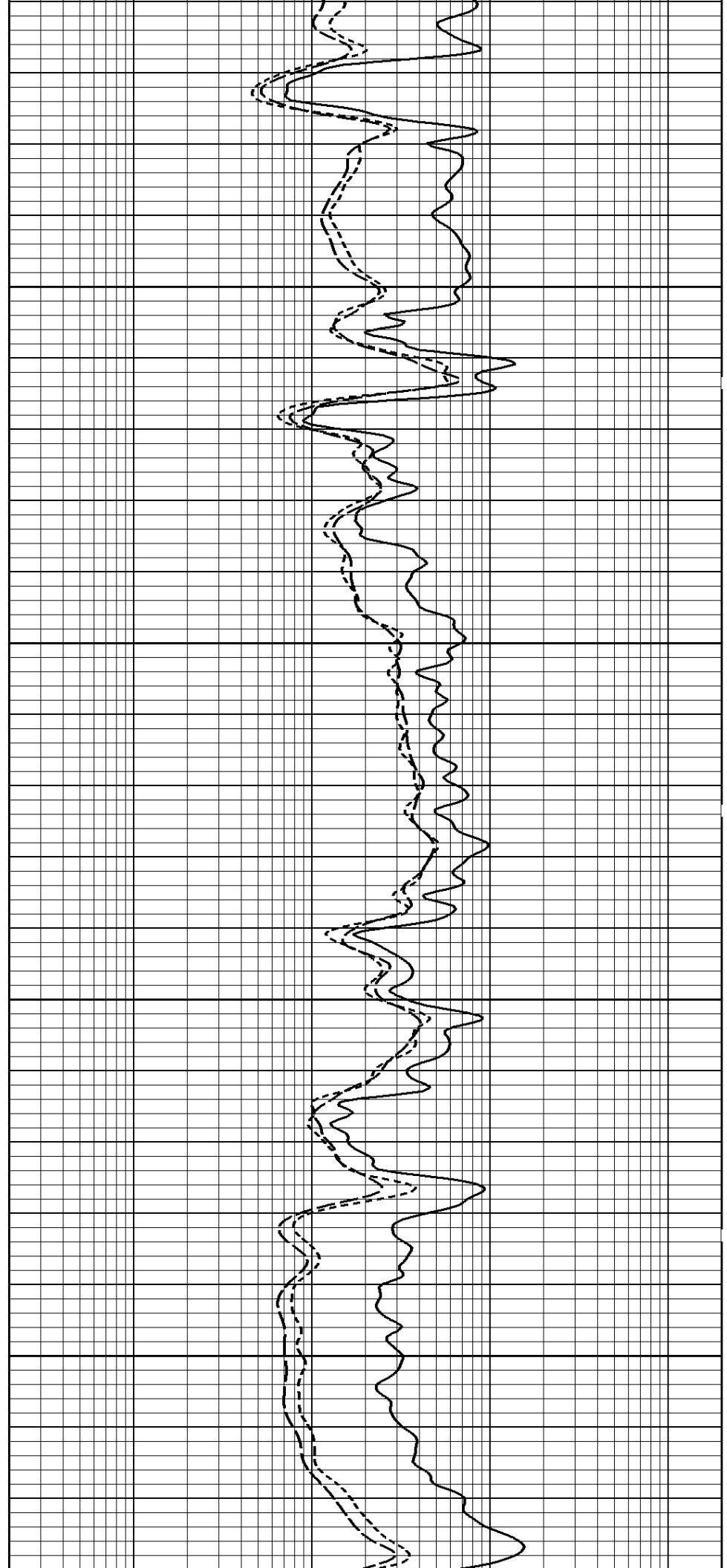
600

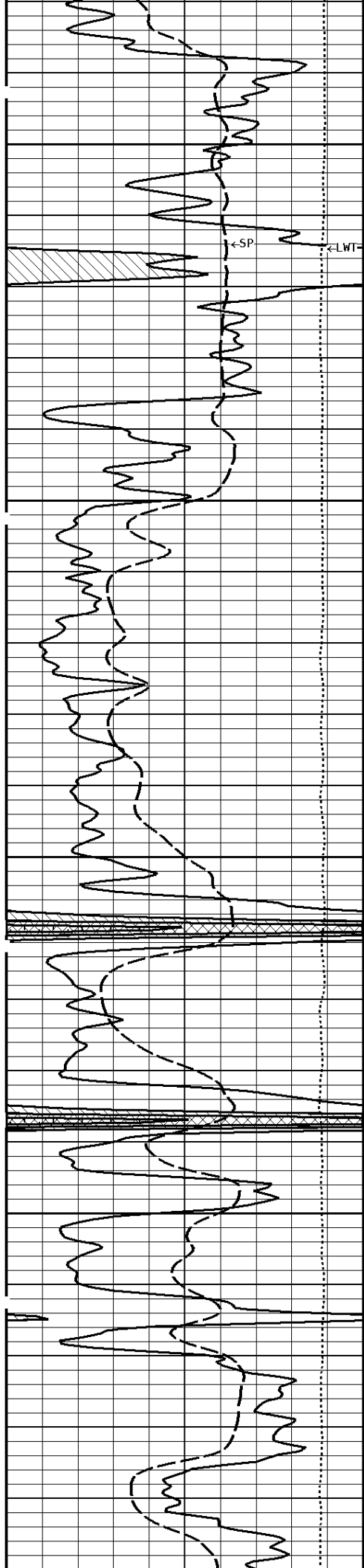




700

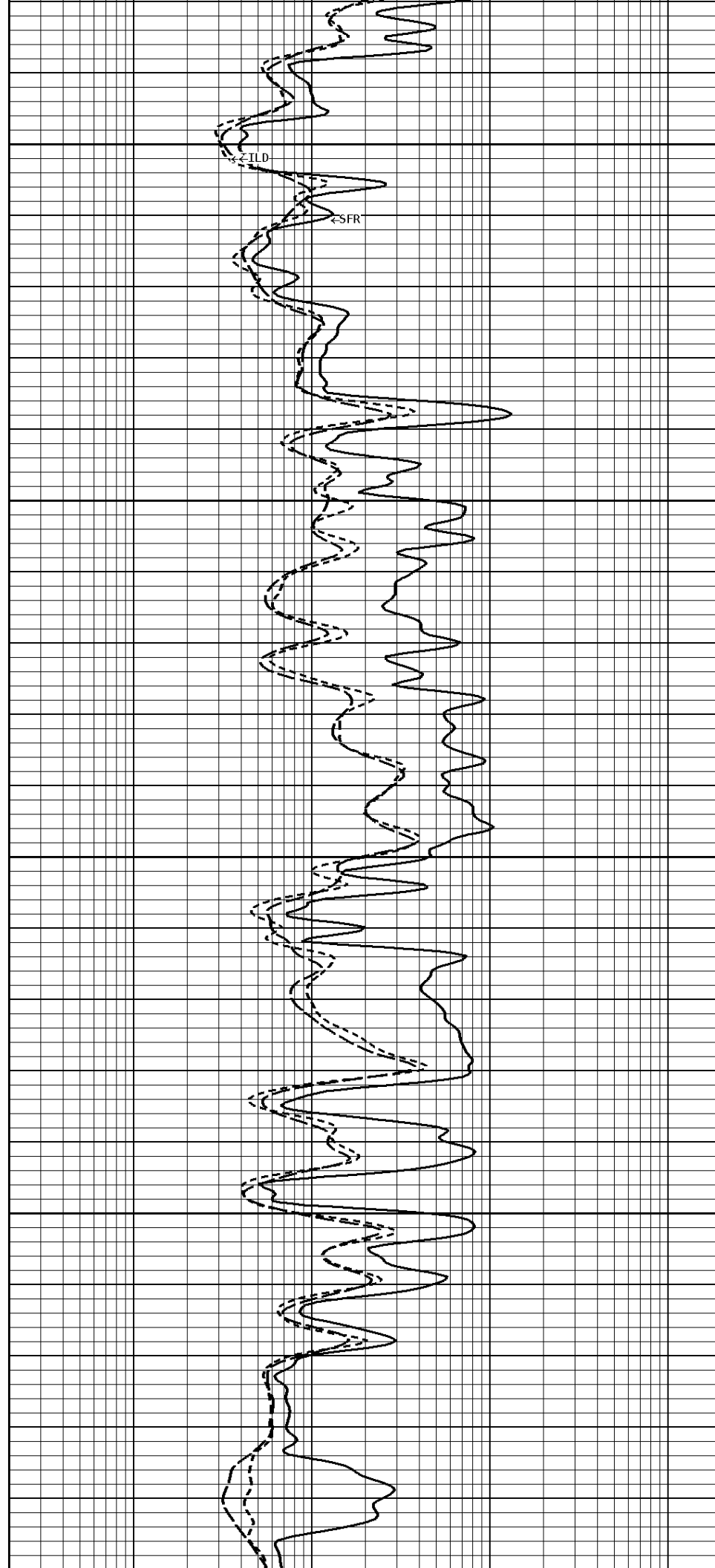
800

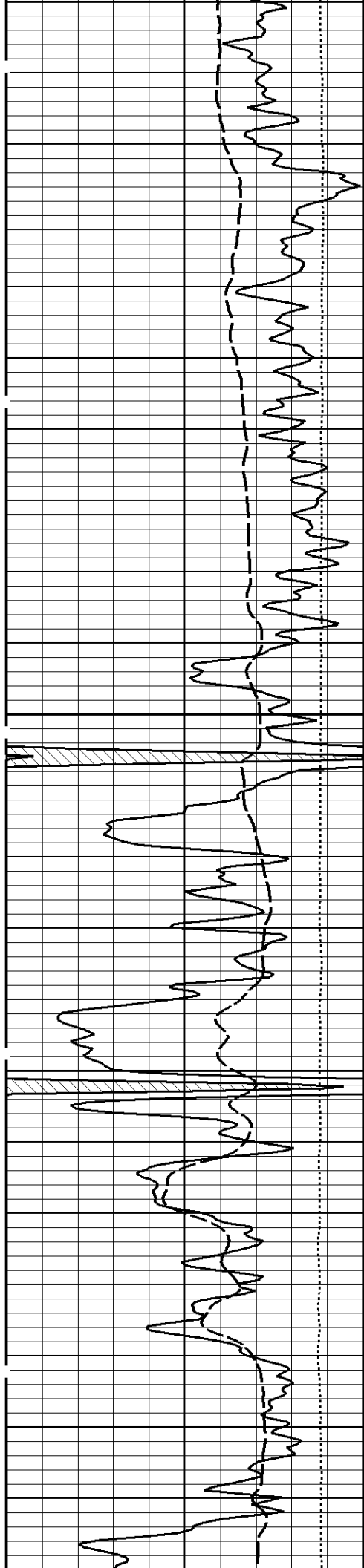




900

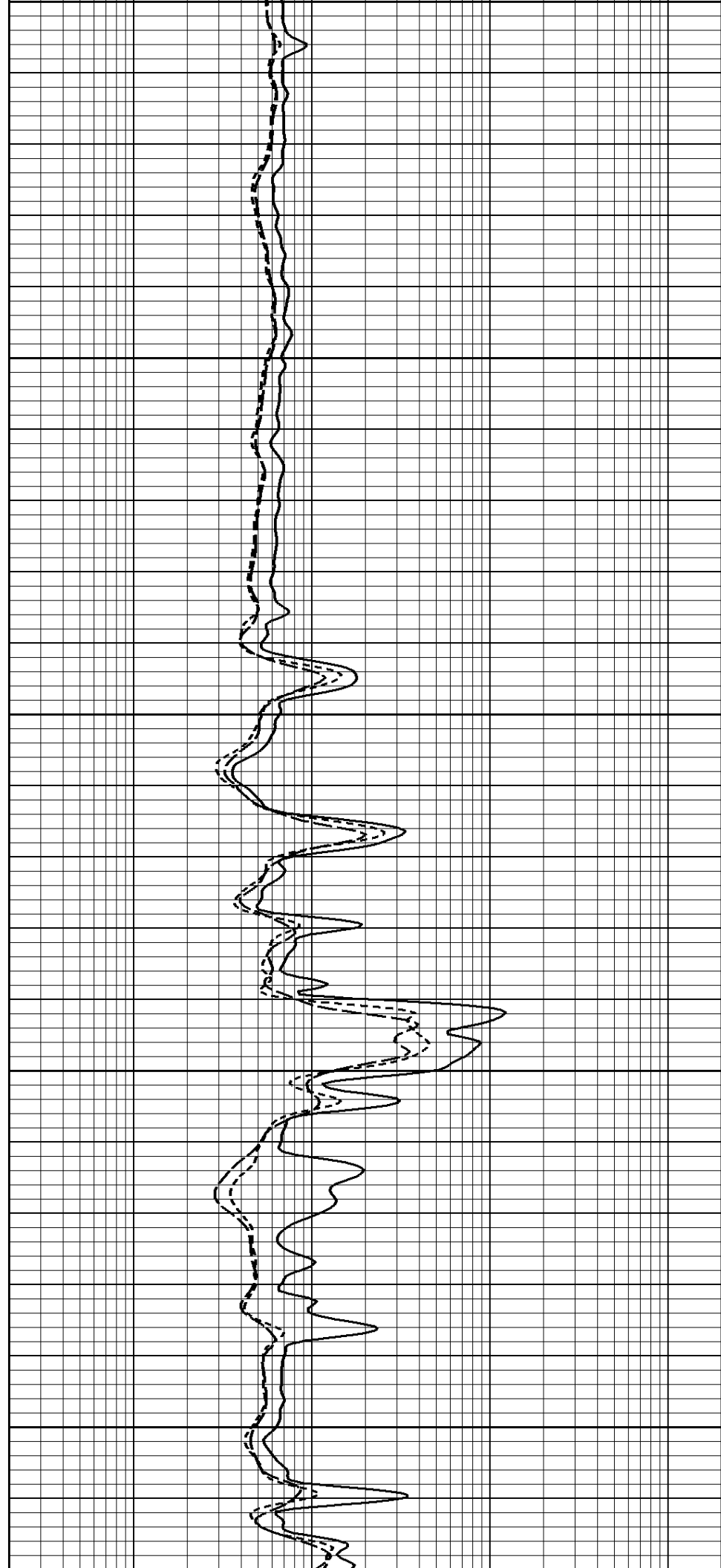
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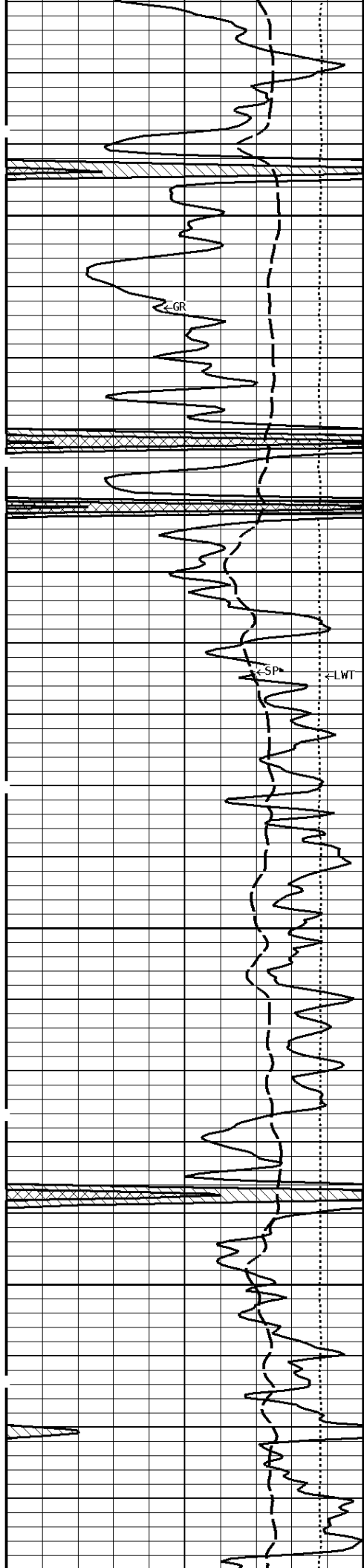




1100

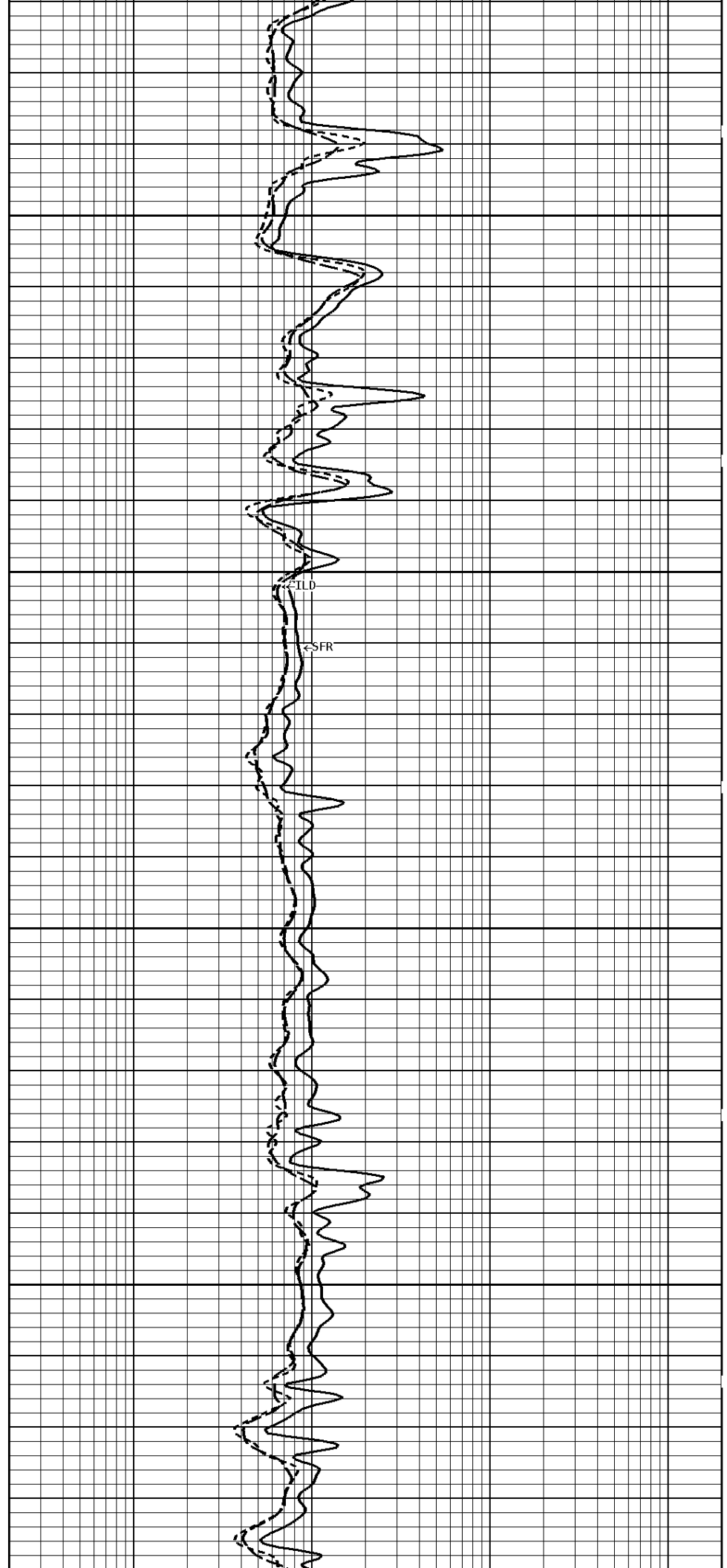
1200

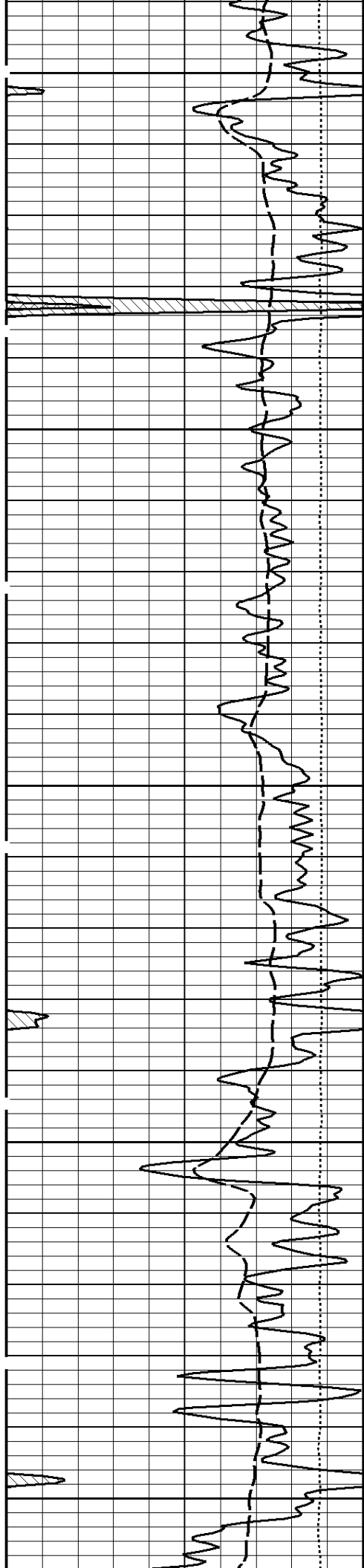




1300

1400

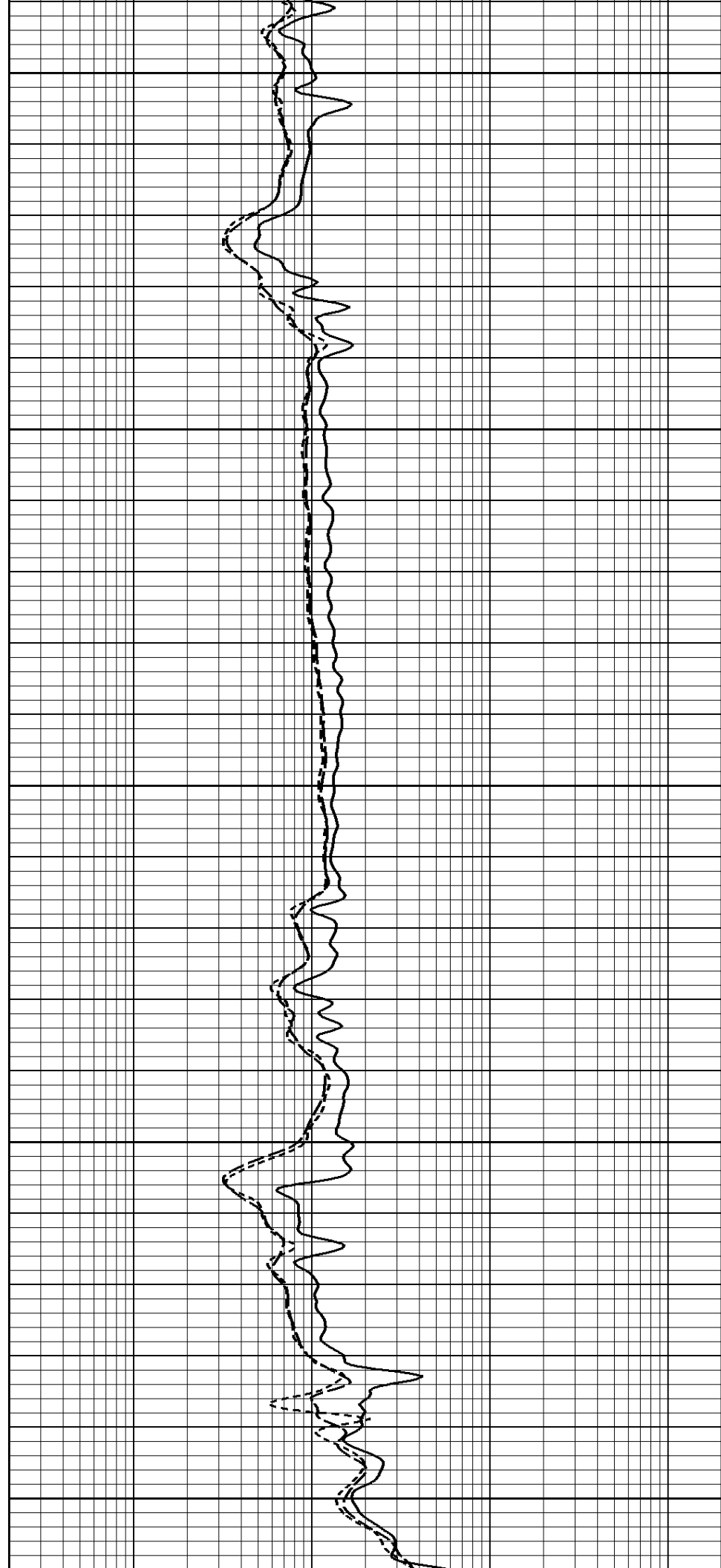


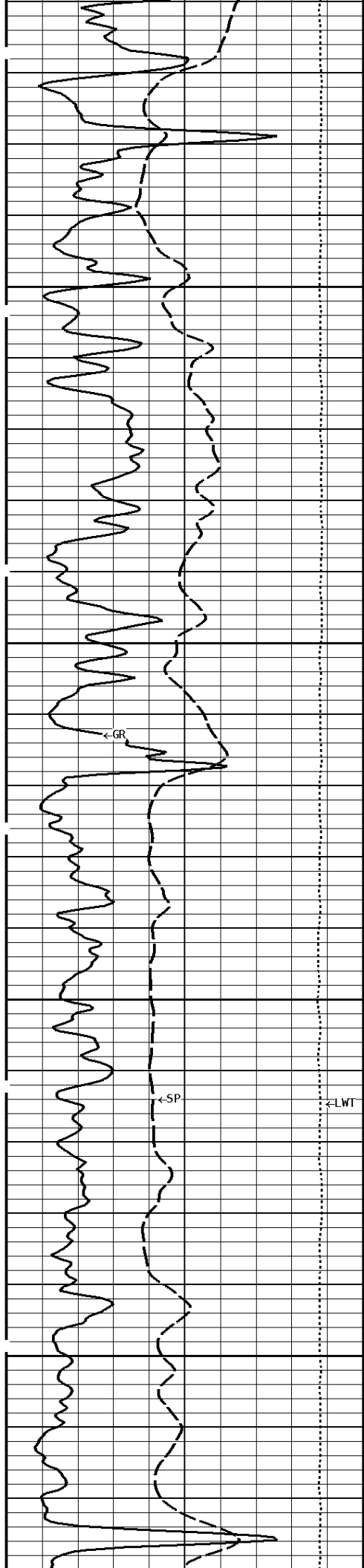


1500

1600

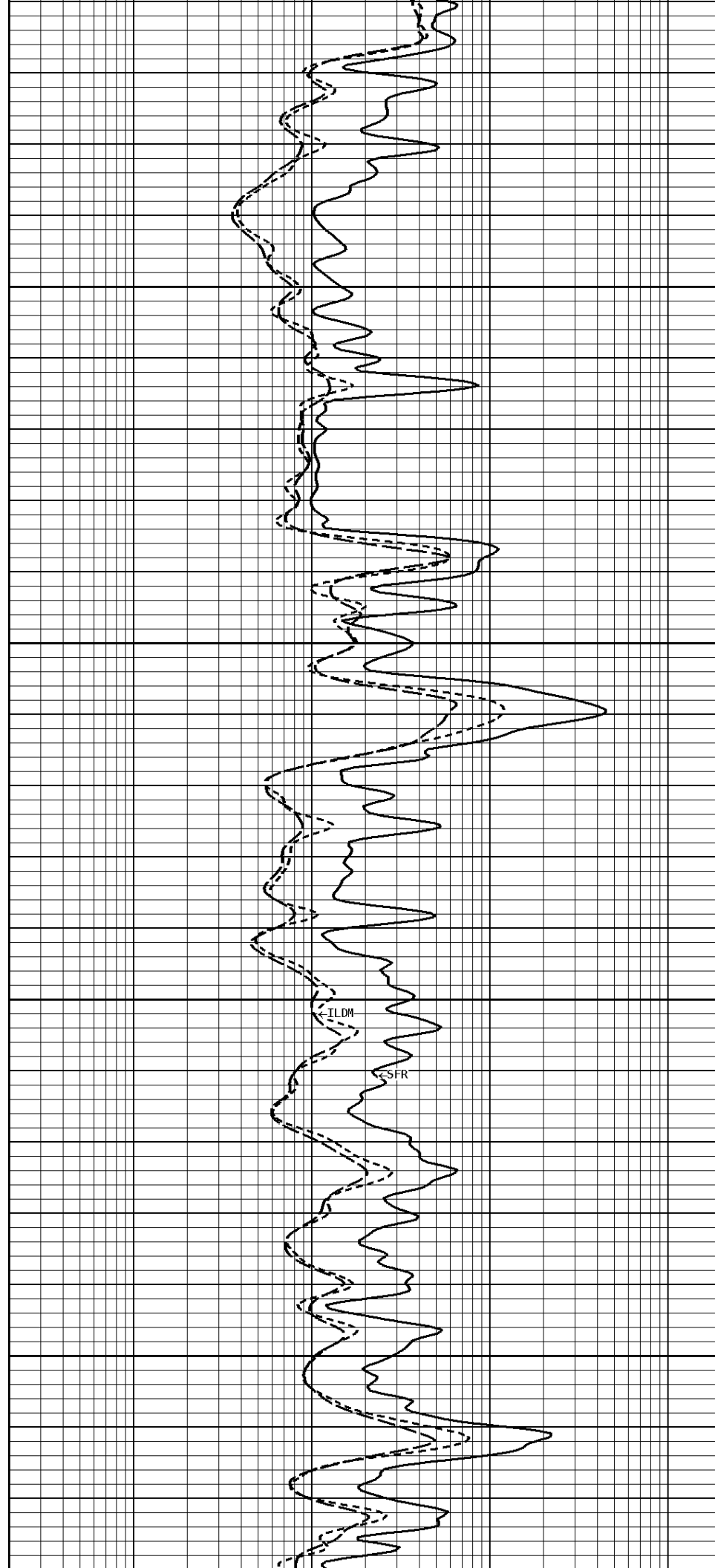
1700

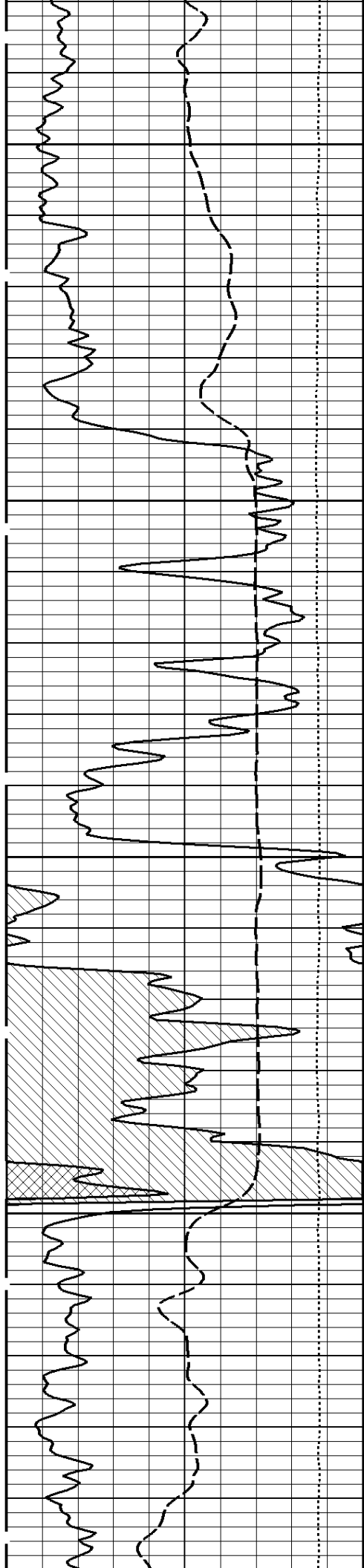




1800

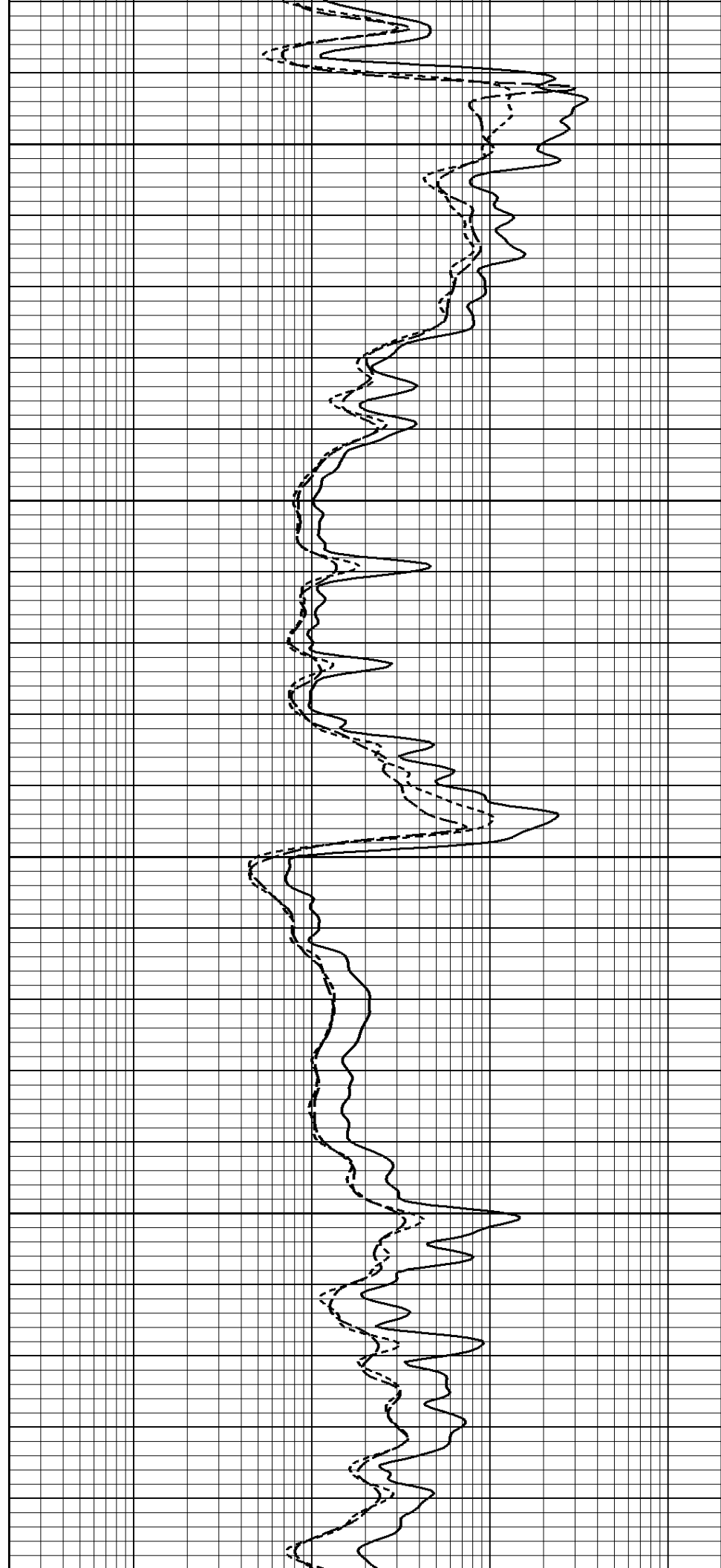
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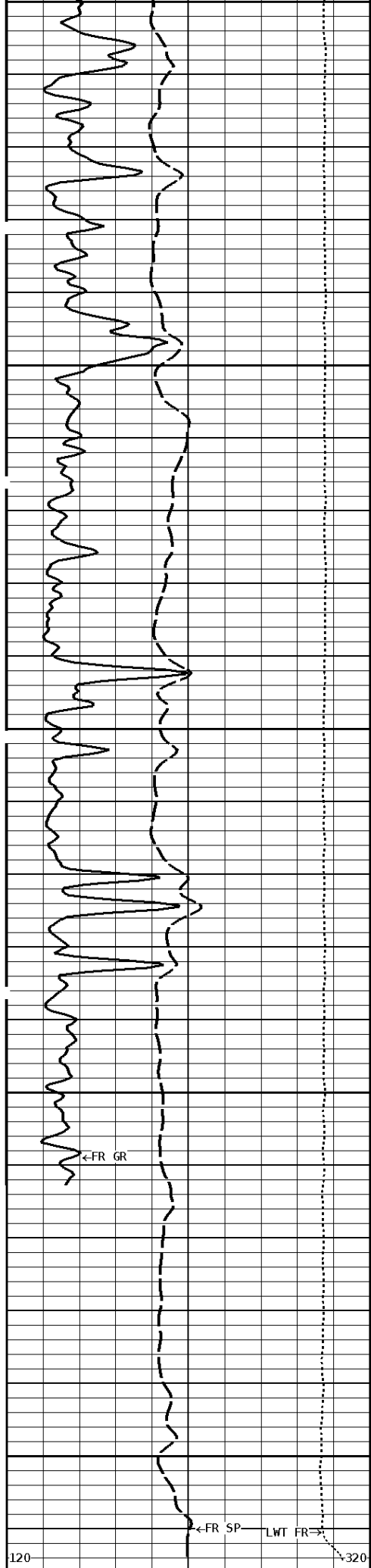




2000

2100

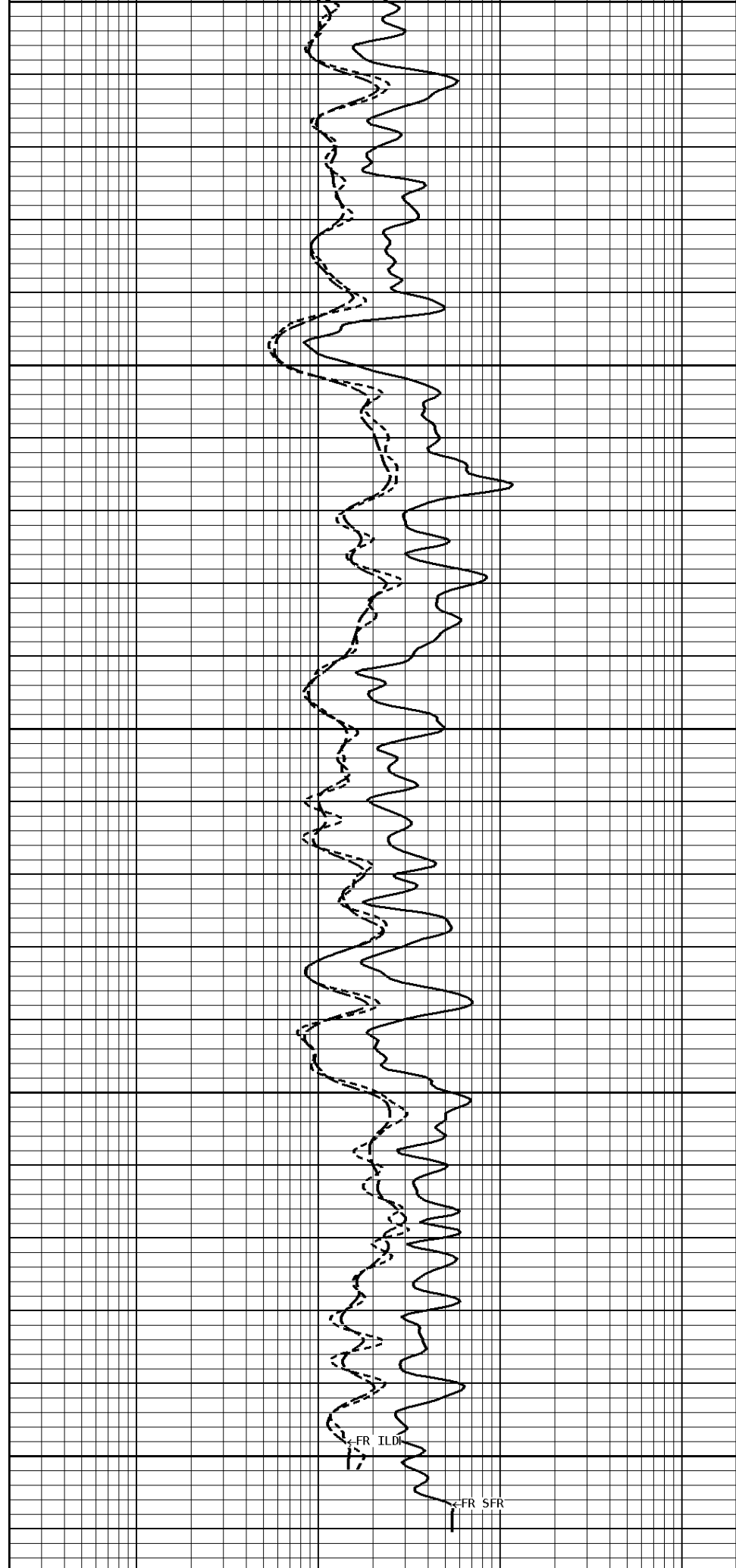




2200

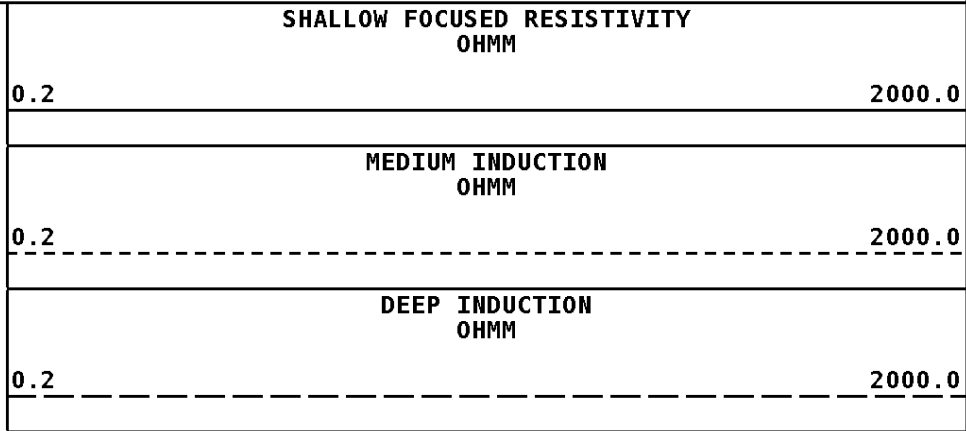
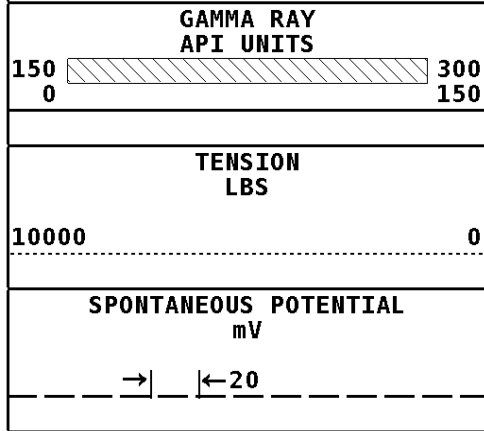
2300

2362



File #1.1.5

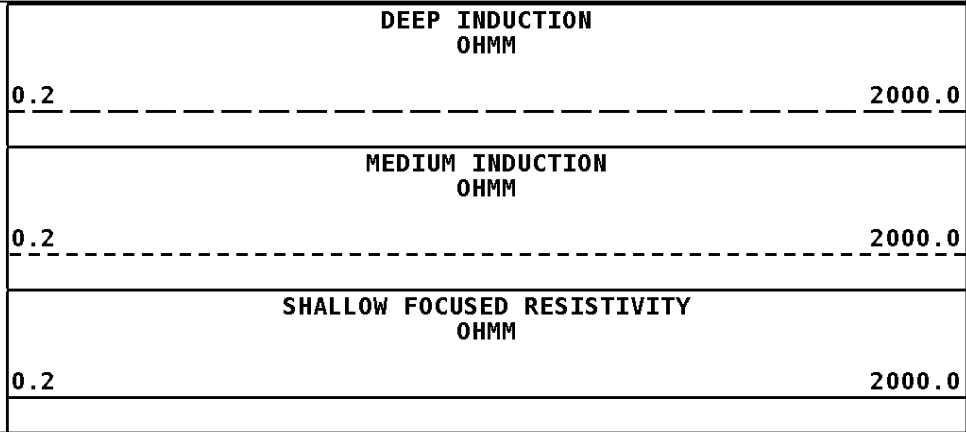
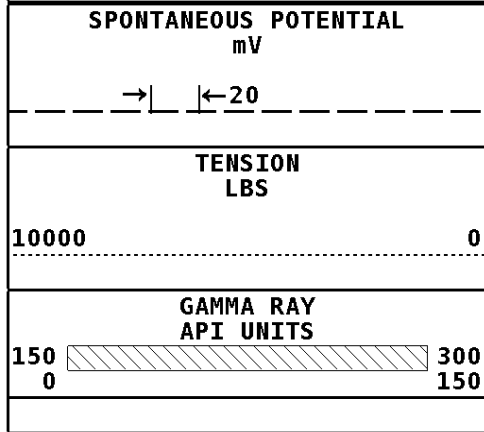
1:240 MAIN SECTION



* Borehole Zone Factors *

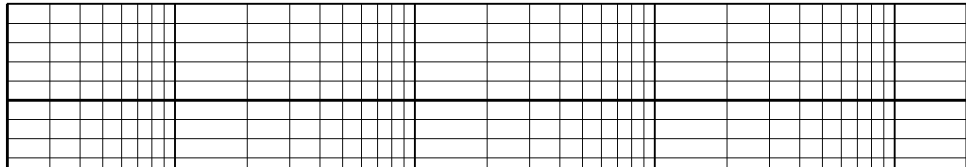
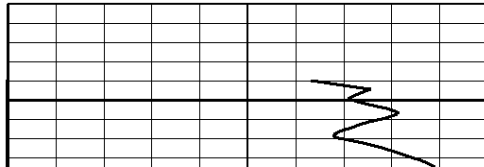
Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size	6.750 in
Casing Diameter	4.500 in
BHT Depth	2362.000 ft
Borehole Temperature	107.0 degF
Temperature Gradient	1.00 DFHF
Resistivity Of Mud	2.000 ohm/m
Standoff	0.0
Resistivity Of Mud Temperature	70.00 degF

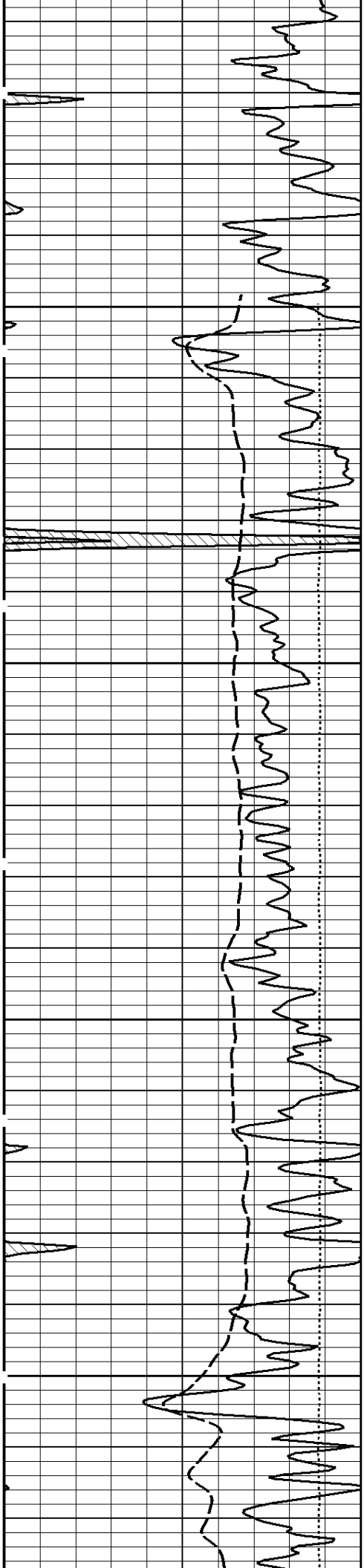
Well File: C3-oil-win-45-mstk-oct-20 Scale: 1:240 Format: DIL-240
 Segment: V1.D1.S4 RP Acquired: 2013-10/20 17:24 3.3.0-12261
 Reference: 0 Processed: 2013-10/20 18:58 3.3.0-12261



1:240 REPEAT SECTION

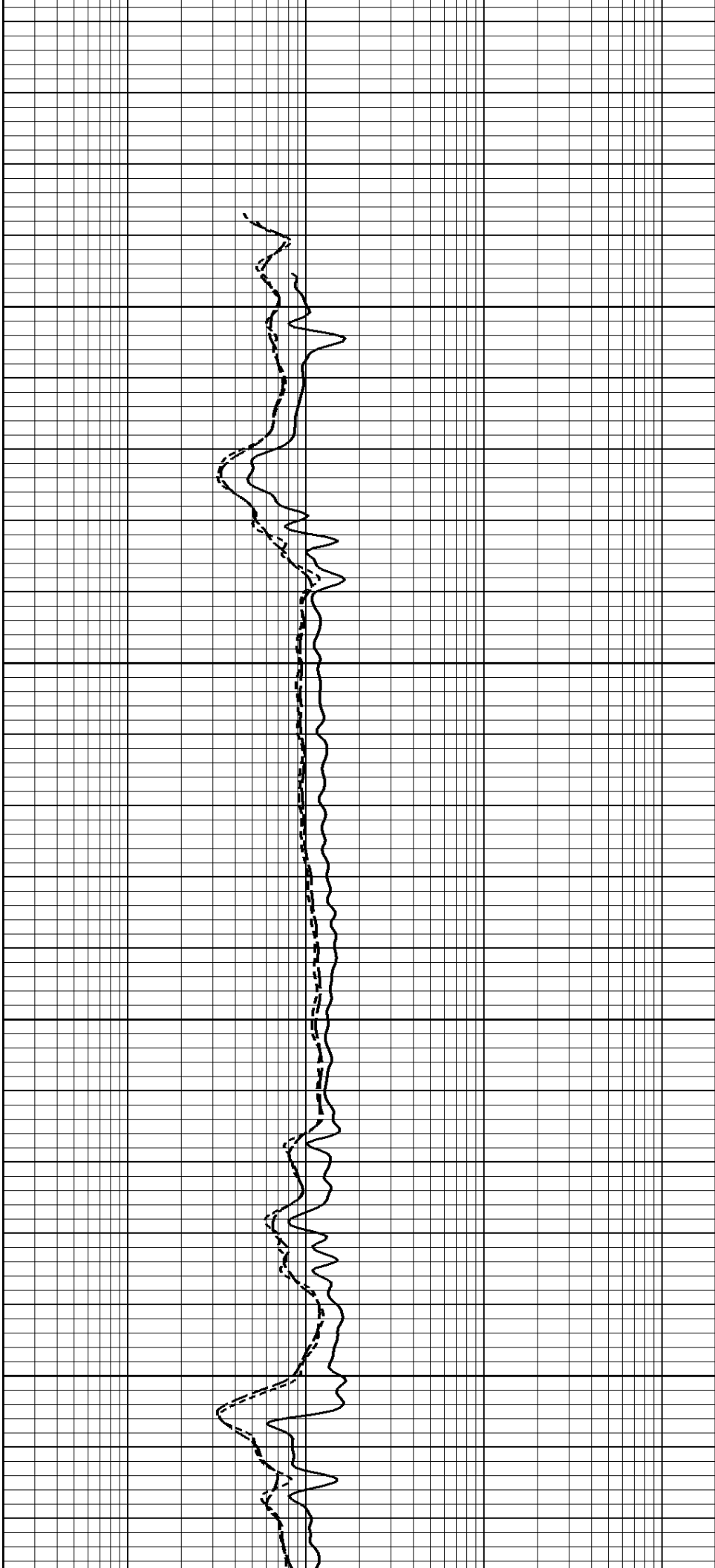
File #1.1.4

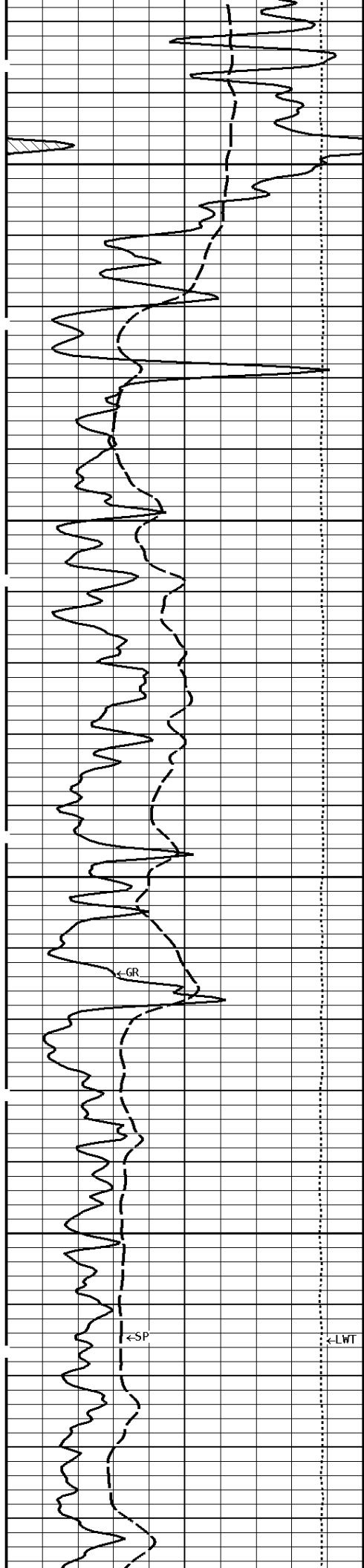




1500

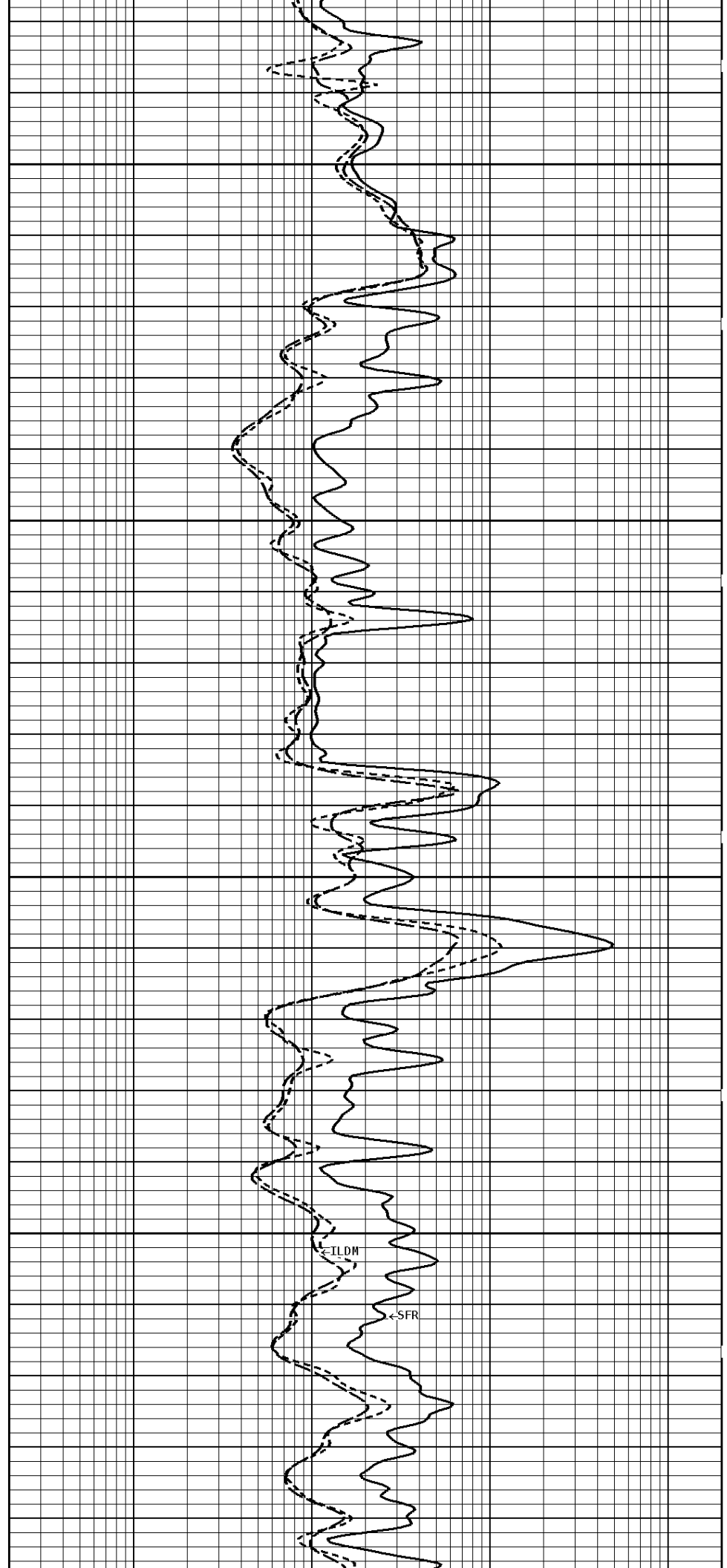
1600

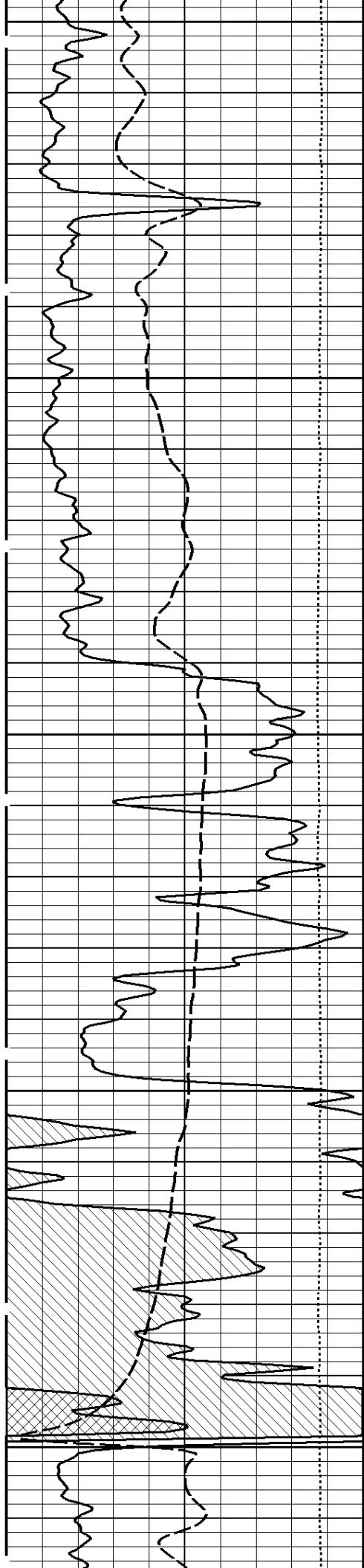




1700

1800

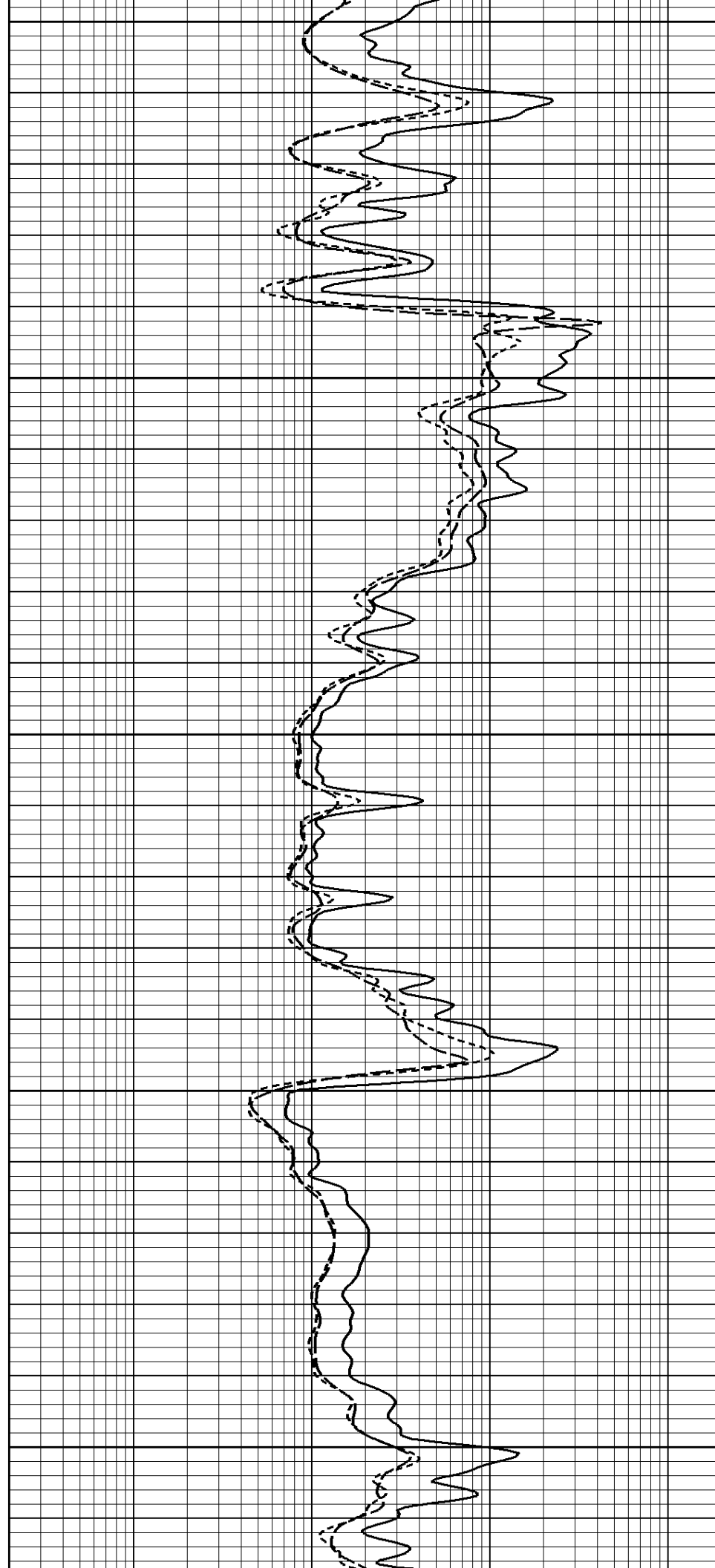


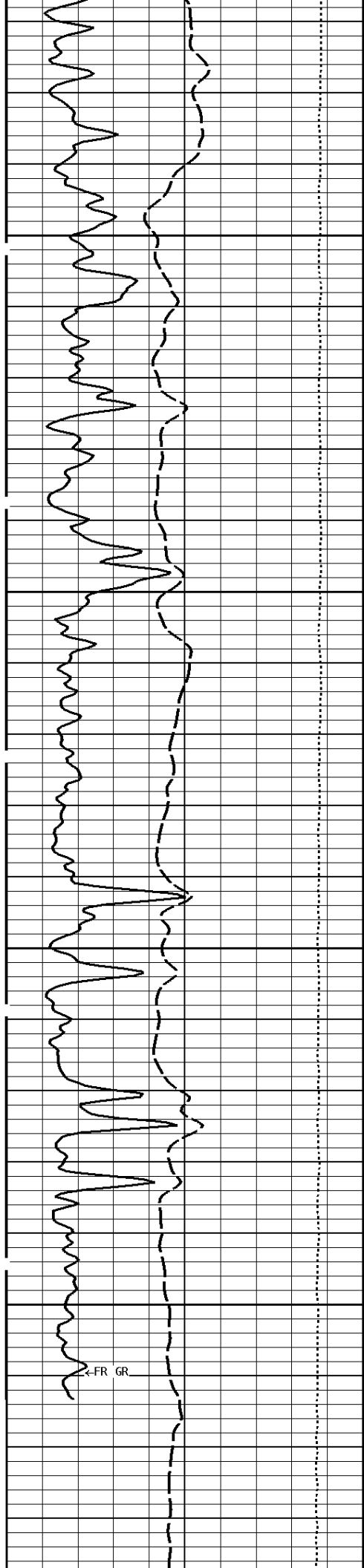


1900

2000

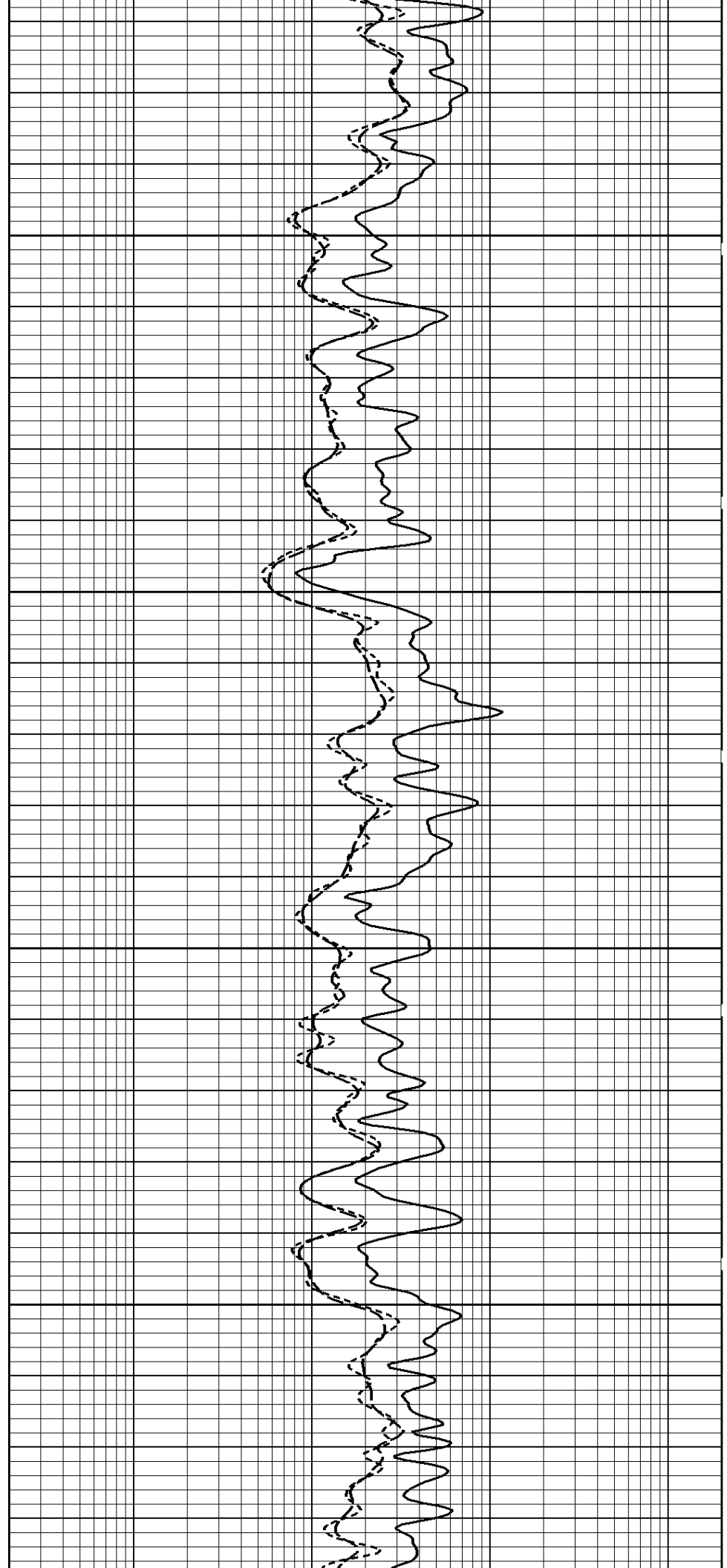
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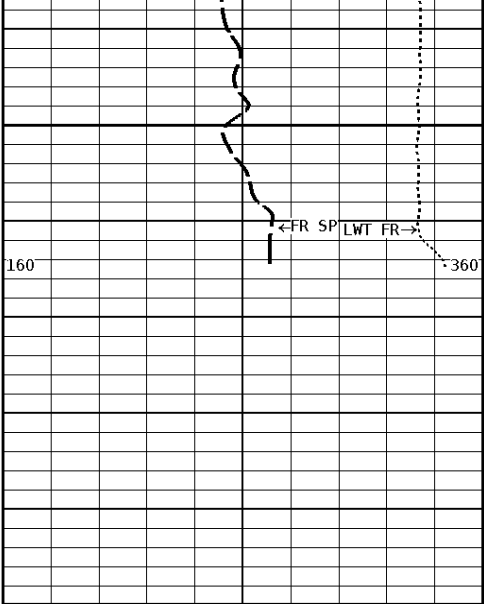




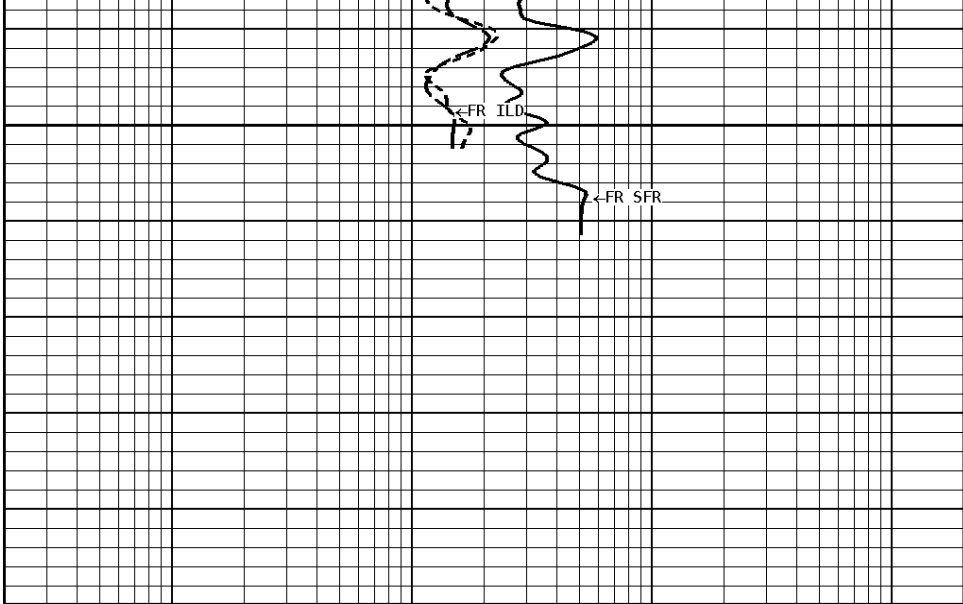
2200

2300





2362



File #1.1.4

1:240 REPEAT SECTION

GAMMA RAY API UNITS	
150 0	300 150
TENSION LBS	
10000	0
SPONTANEOUS POTENTIAL mV	
→	← 20

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

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet		
Drill Bit Size	_____	6.750 in
Casing Diameter	_____	4.500 in
BHT Depth	_____	2362.000 ft
Borehole Temperature	_____	107.0 degF
Temperature Gradient	_____	1.00 DFHF
Resistivity Of Mud	_____	2.000 ohm/m
Standoff	_____	0.0
Resistivity Of Mud Temperature	_____	70.00 degF

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 22-Mar-2013			Time : 11:59		
Sensor Suite : GR-GR5			ID : GRT-BB-337		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	48	367	175	GRAPI	
Shop Calibration PIT-CA					
Performed : 10-MAY-2013			Time : 14:36		
Sensor Suite : P-IND-T			ID : PIT-AB-005		
	Measured	Medium	Calibrated	Units	
	R X		R X		
Air	130351 131011		-0.2 -0.2	MMHOS	

Zero	131064	131068	26.7	1.9	MMHOS
Reference	250174	250556	5026.7	5001.9	MMHOS
Loop	128308	218141	3560.1	3731.6	MMHOS
Sonde Error			-3.6	3.0	MMHOS
Cond			5026.7	5001.9	MMHOS
Deep					
	Measured		Calibrated		
	R	X	R	X	Units
Air	128932	131135	-0.1	-0.0	MMHOS
Zero	131084	131072	43.9	-7.2	MMHOS
Reference	233274	233952	2043.9	1992.8	MMHOS
Loop	126596	219999	1681.7	1773.2	MMHOS
Sonde Error			-4.1	-7.7	MMHOS
Cond			2043.9	1992.8	MMHOS
Temperature					
	Measured		Calibrated		
	Low	High	Low	High	Units
	16980.0	56920.0	70.0	350.0	DEGF

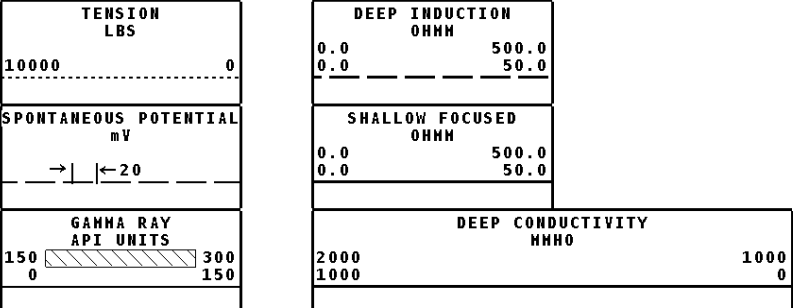
Performed : 10-MAY-2013 Time : 14:39
 Sensor Suite : SFL ID : PIT-AB-005

Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
Im	32765.9	49467.5	0.0	7028.0	uA
Ib	32769.2	48720.1	0.0	1750.0	mA
MOM1	32713.4	56534.1	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

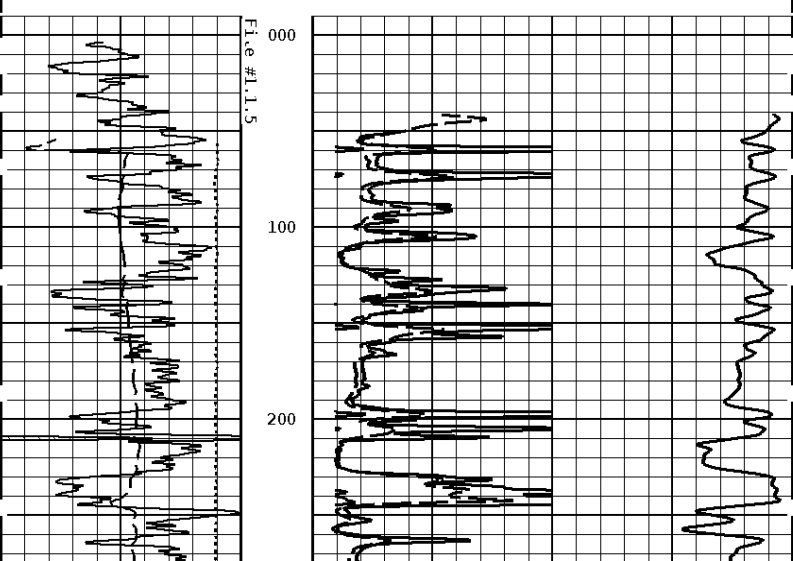
Performed : 10-MAY-2013 Time : 14:40
 Sensor Suite : P-SP ID : PIT-AB-005

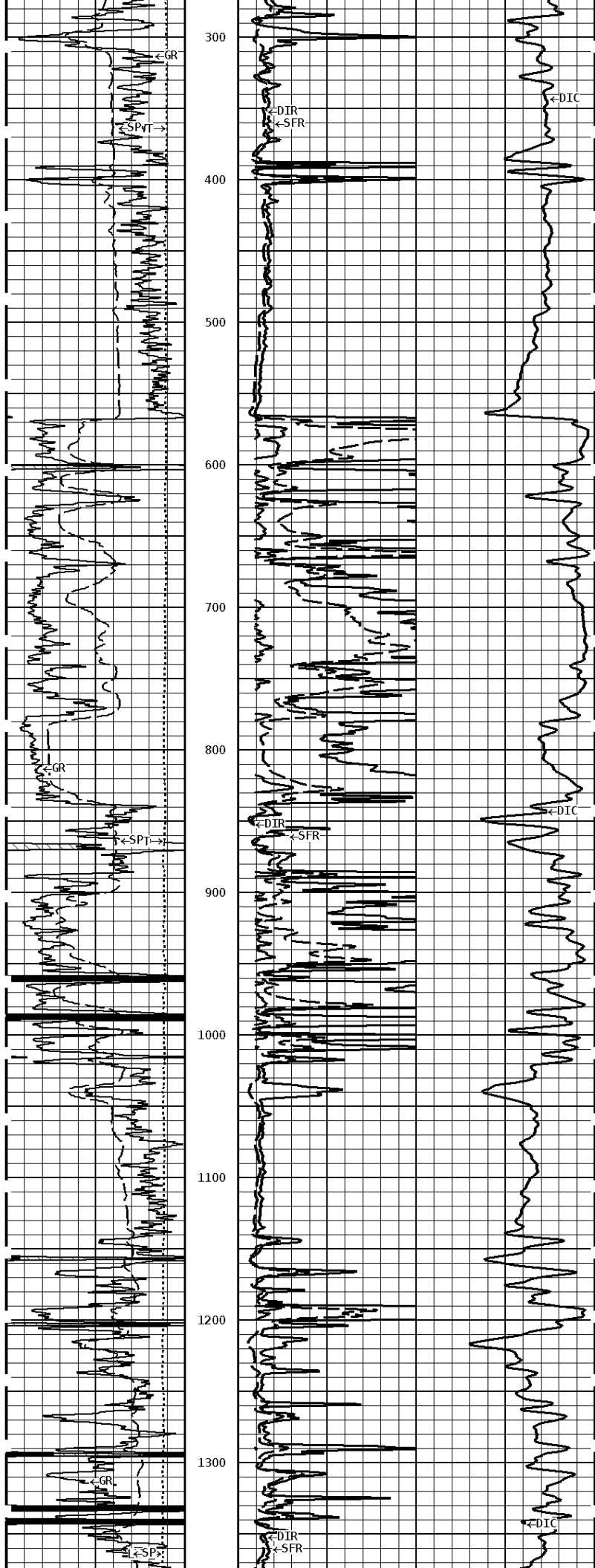
Internal					
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	Units
	32768.6	58921.2	0.0	1000.0	mV

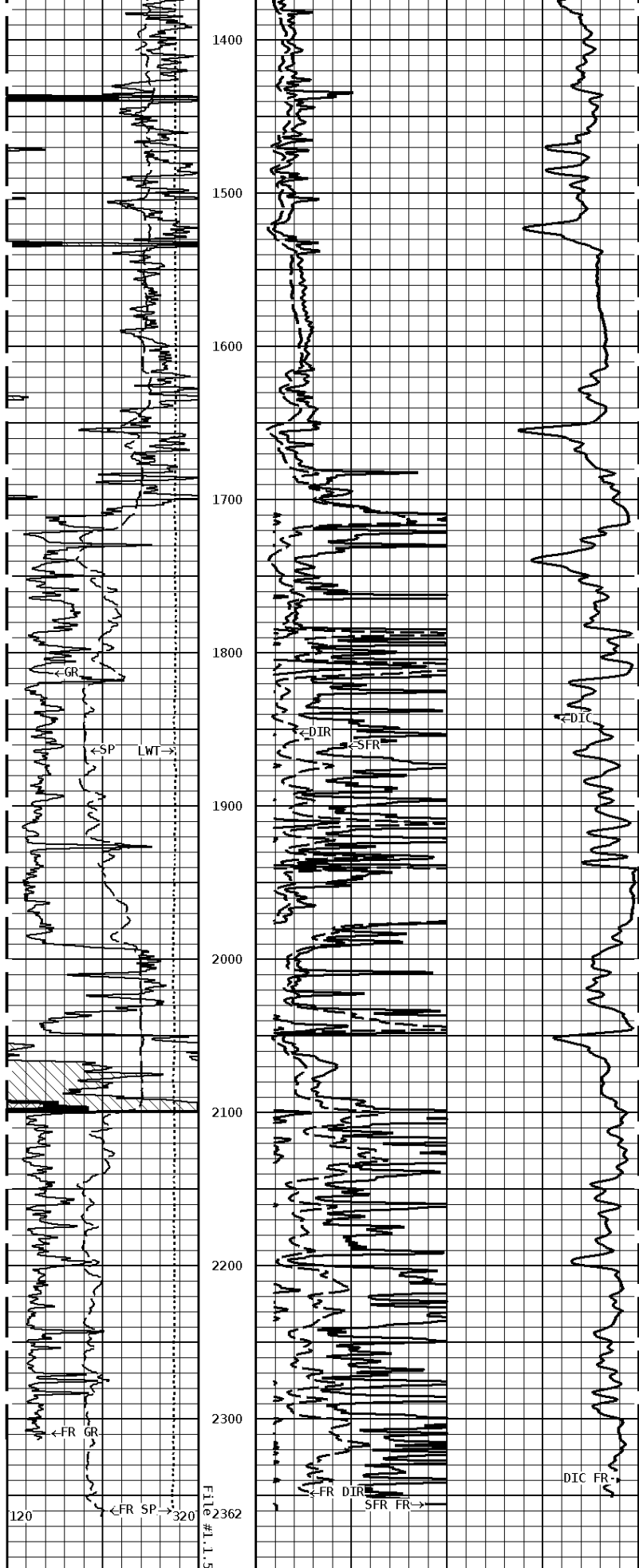
Well File: C3-oil-win-45-mstk-oct-20 **Scale:** 1:1200 **Format:** DIL1200
Segment: V1.D1.S5 MN **Acquired:** 2013-10/20 18:01 3.3.0-12261
Reference: 0 **Processed:** 2013-10/20 18:58 3.3.0-12261



1:1200 MAIN SECTION







1:1200 MAIN SECTION

GAMMA RAY API UNITS	
150	300
0	150
SPONTANEOUS POTENTIAL mV	
→ ← 20	
TENSION LBS	
10000	0

DEEP CONDUCTIVITY MHMO	
2000	1000
1000	0
SHALLOW FOCUSED OHMM	
0.0	500.0
0.0	50.0
DEEP INDUCTION OHMM	
0.0	500.0
0.0	50.0

Environmental Corrections

SHALLOW FOCUSED
 V1.D1.S5 SFLAEC

Mudcake Thickness



Tucker
 ENERGY SERVICES

Company: C3 OIL, LLC.
 Well: WINTERSCHIED #45
 Location: 2158' FSL & 3553' FEL
 Logged: 10-20-2013
 K.B. Elev: 0.0 Ft