



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

Company LOTUS OPERATING COMPANY, LLC.  
Well MOLZ "L" #8  
Field STRANATHAN  
County BARBER  
State KANSAS

Company LOTUS OPERATING COMPANY, LLC.  
Well MOLZ "L" #8  
Field STRANATHAN  
County BARBER State KANSAS

Location: API # : 15-007-24159-0000  
660' FNL & 1980' FEL  
SEC 1 TWP 35S RGE 12W  
Permanent Datum GROUND LEVEL Elevation 1402  
Log Measured From KELLY BUSHING 13' A.G.L.  
Drilling Measured From KELLY BUSHING  
Elevation  
K.B. 1415  
D.F. 1413  
G.L. 1402

Date	4/13/14
Run Number	ONE
Depth Driller	5584
Depth Logger	5592
Bottom Logged Interval	5590
Top Log Interval	0
Casing Driller	10 3/4" @ 293
Casing Logger	293
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/52
pH / Fluid Loss	10.0/9.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.05 @ 86F
Rmt @ Meas. Temp	0.79 @ 86F
Rmc @ Meas. Temp	1.26 @ 86F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	0.69 @ 130F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	130F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	JEFF GRONEWEG
Witnessed By	TIM HELLMAN

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

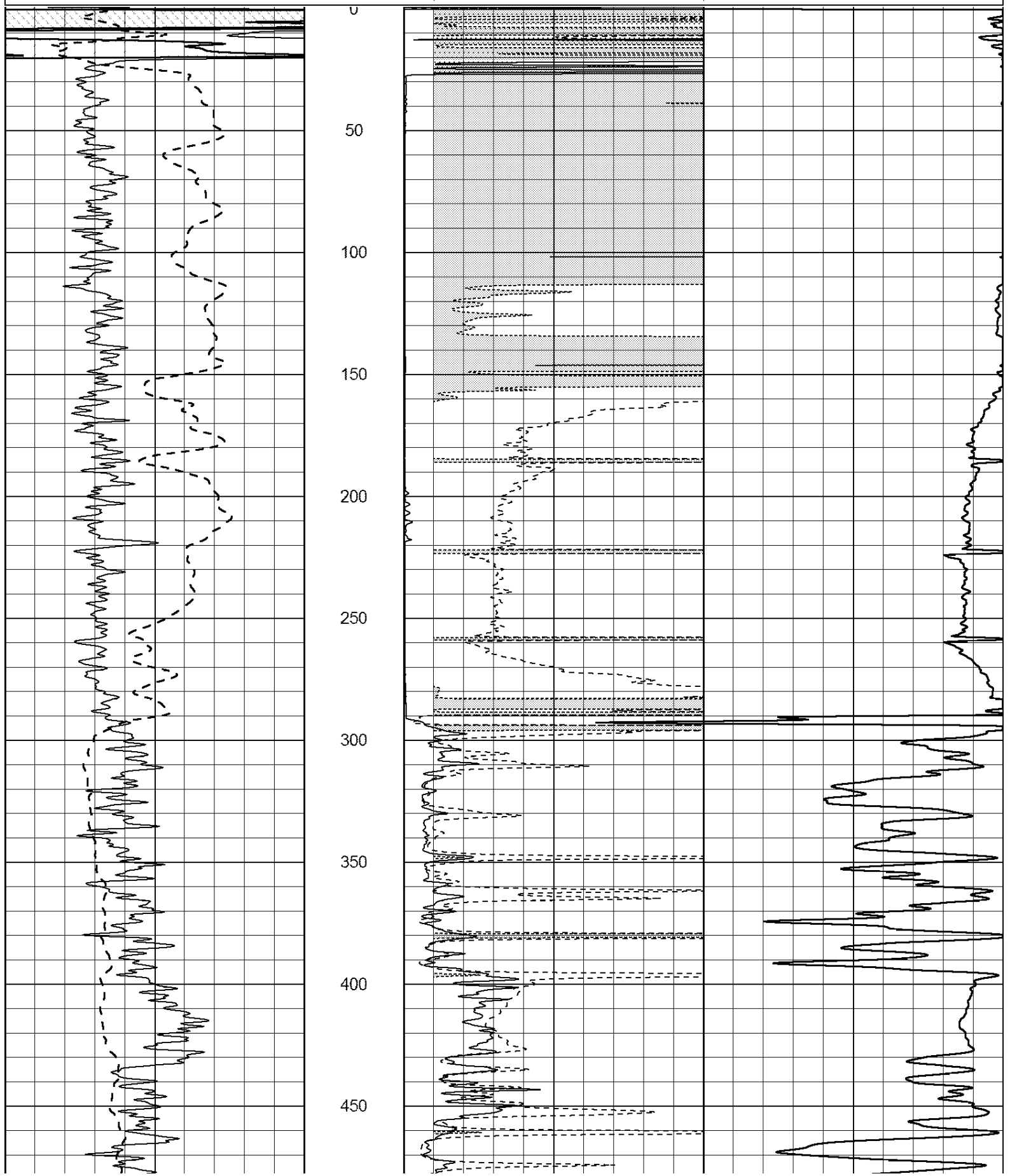
**Comments**

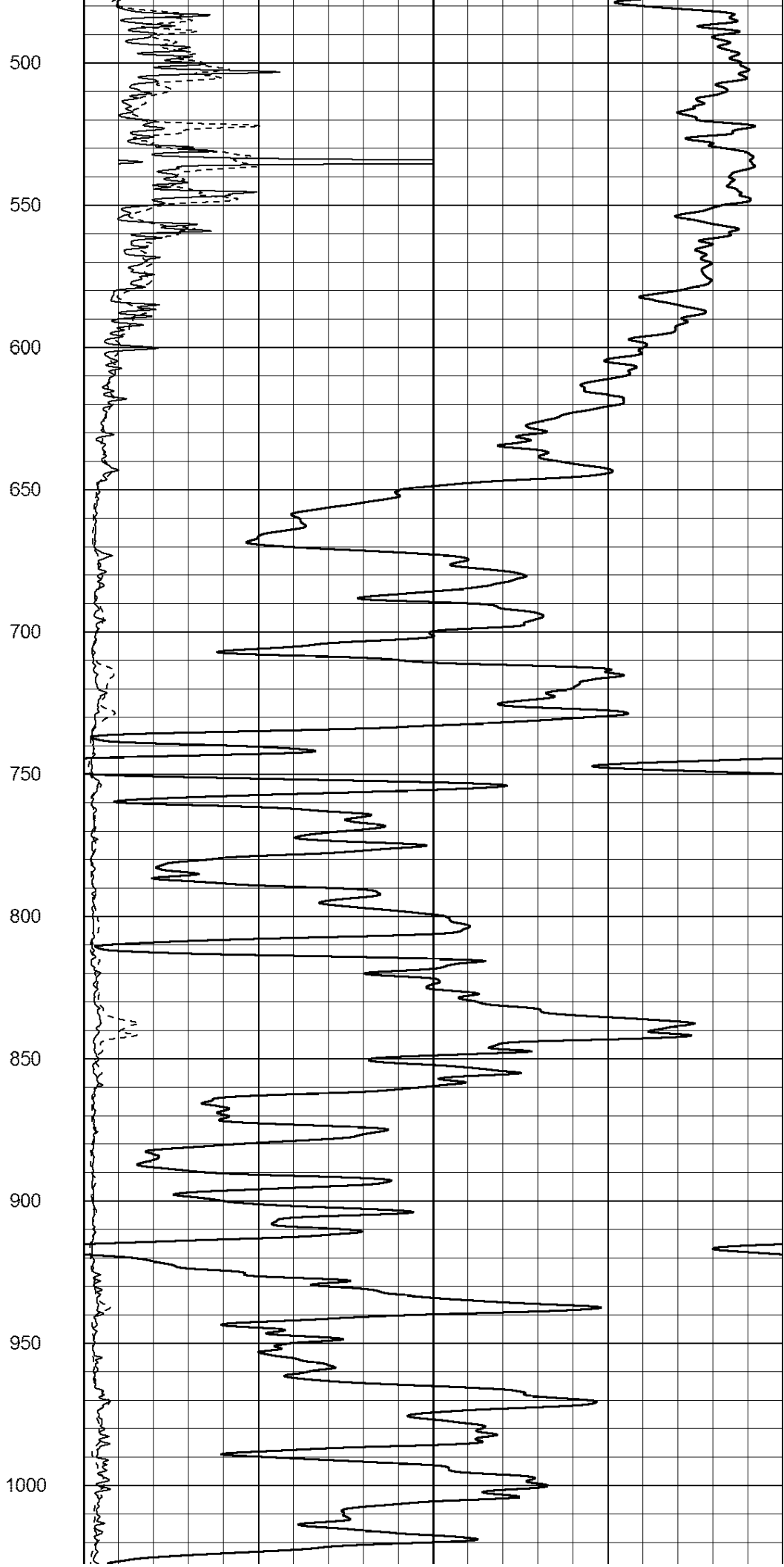
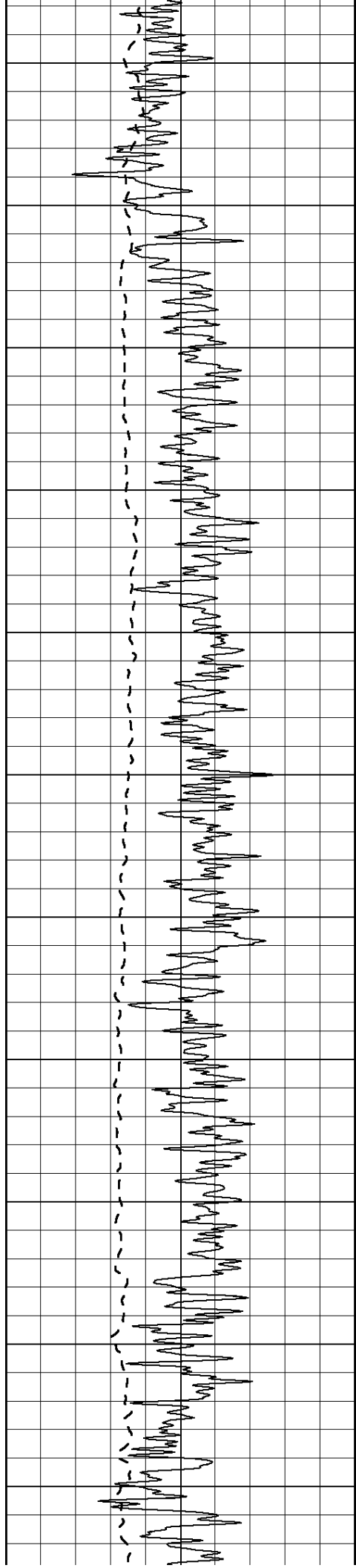
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395  
DIRECTIONS:  
MEDICINE LODGE SOUTH TO INTERSECTION OF HWYS 281 & 14  
1/2 MILE NORTH - WEST IN TO FARMHOUSE - SOUTH INTO

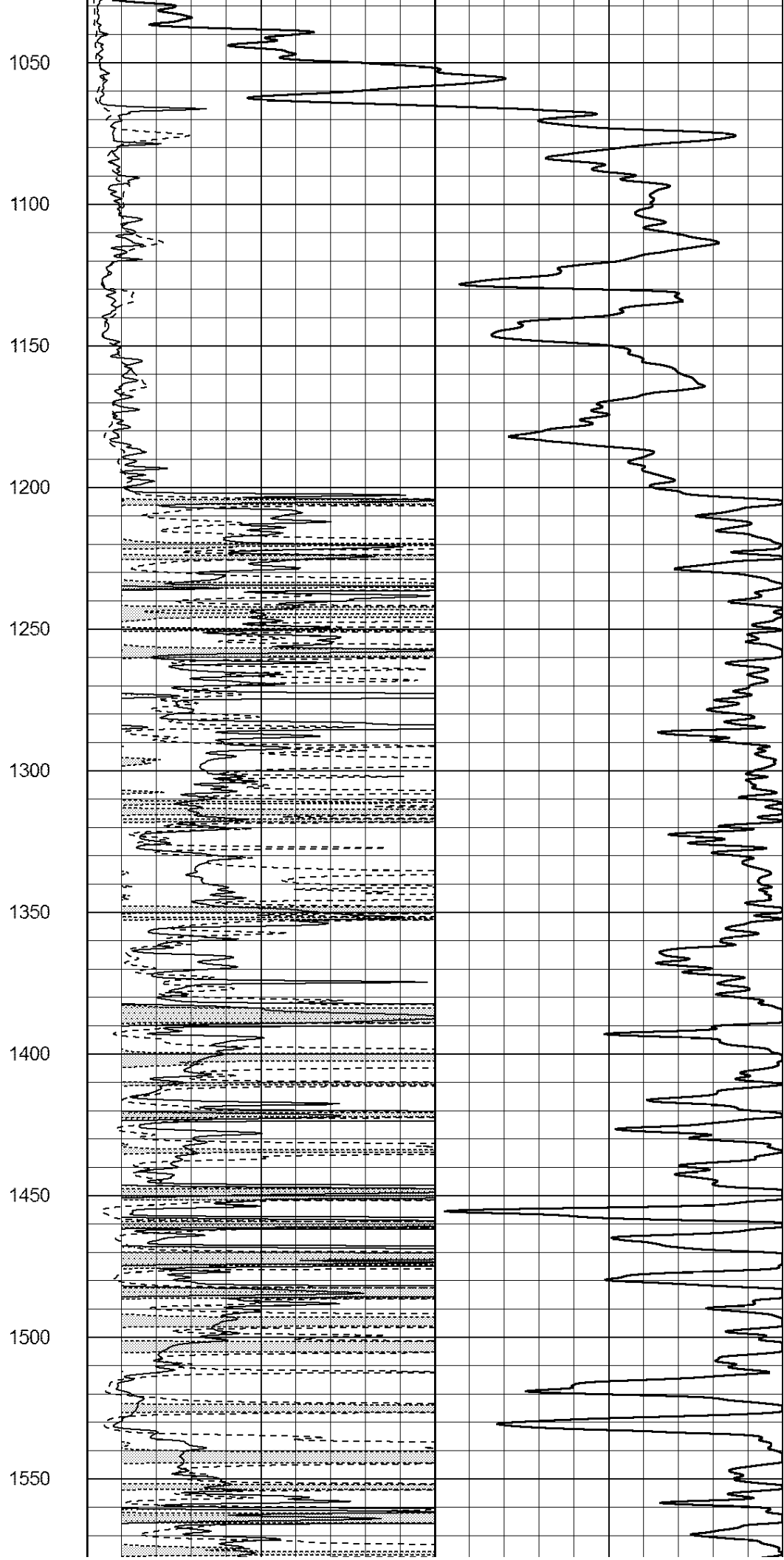
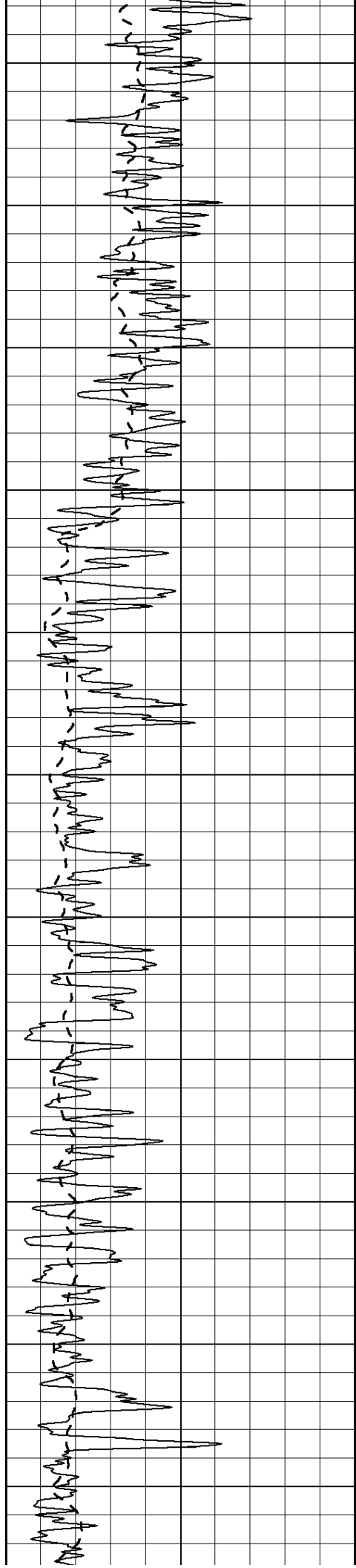
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

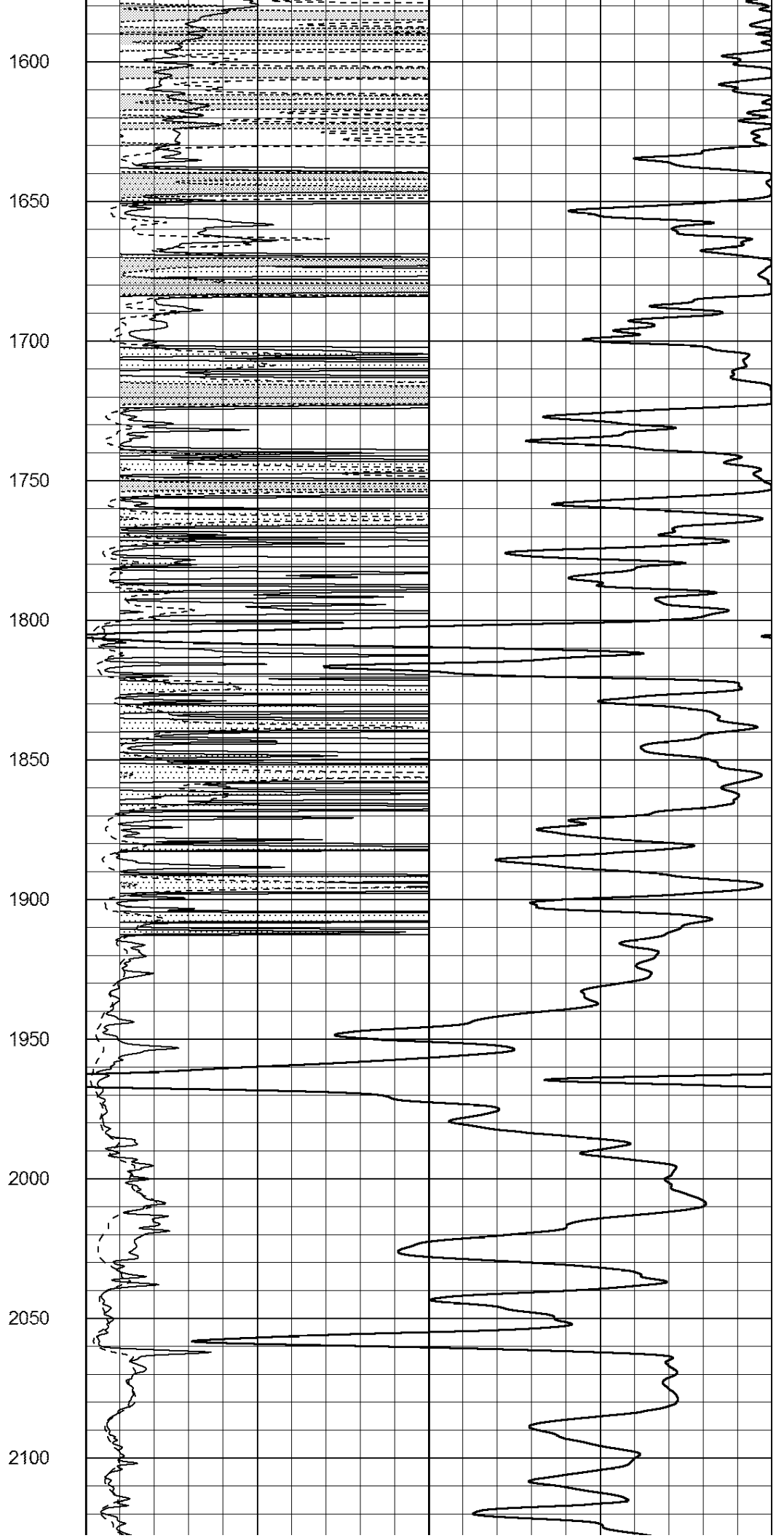
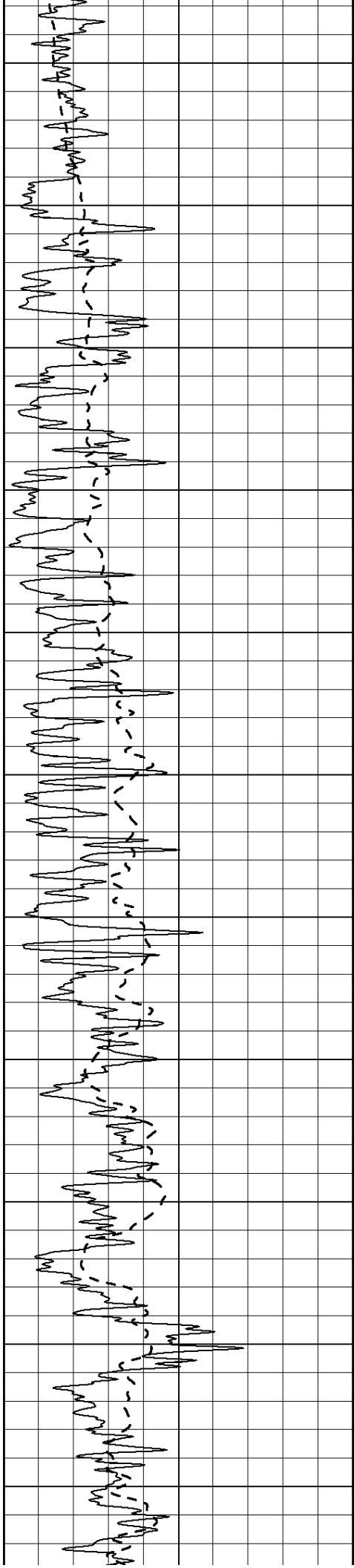
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

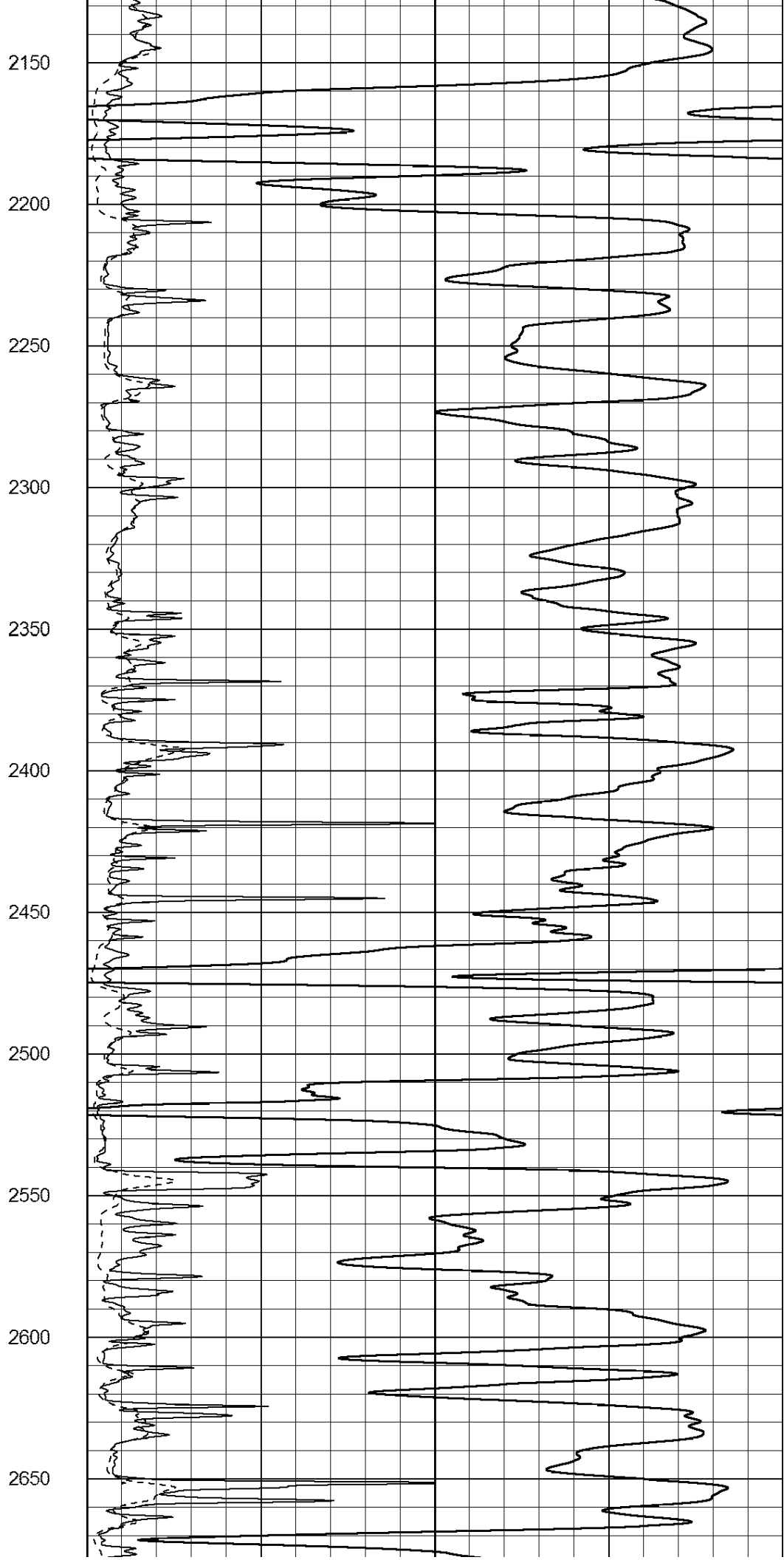
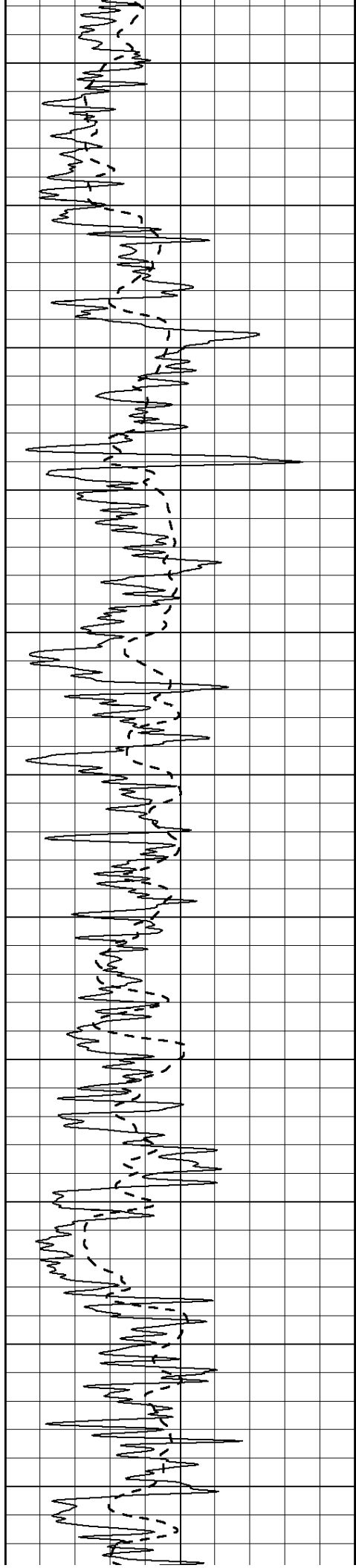
0

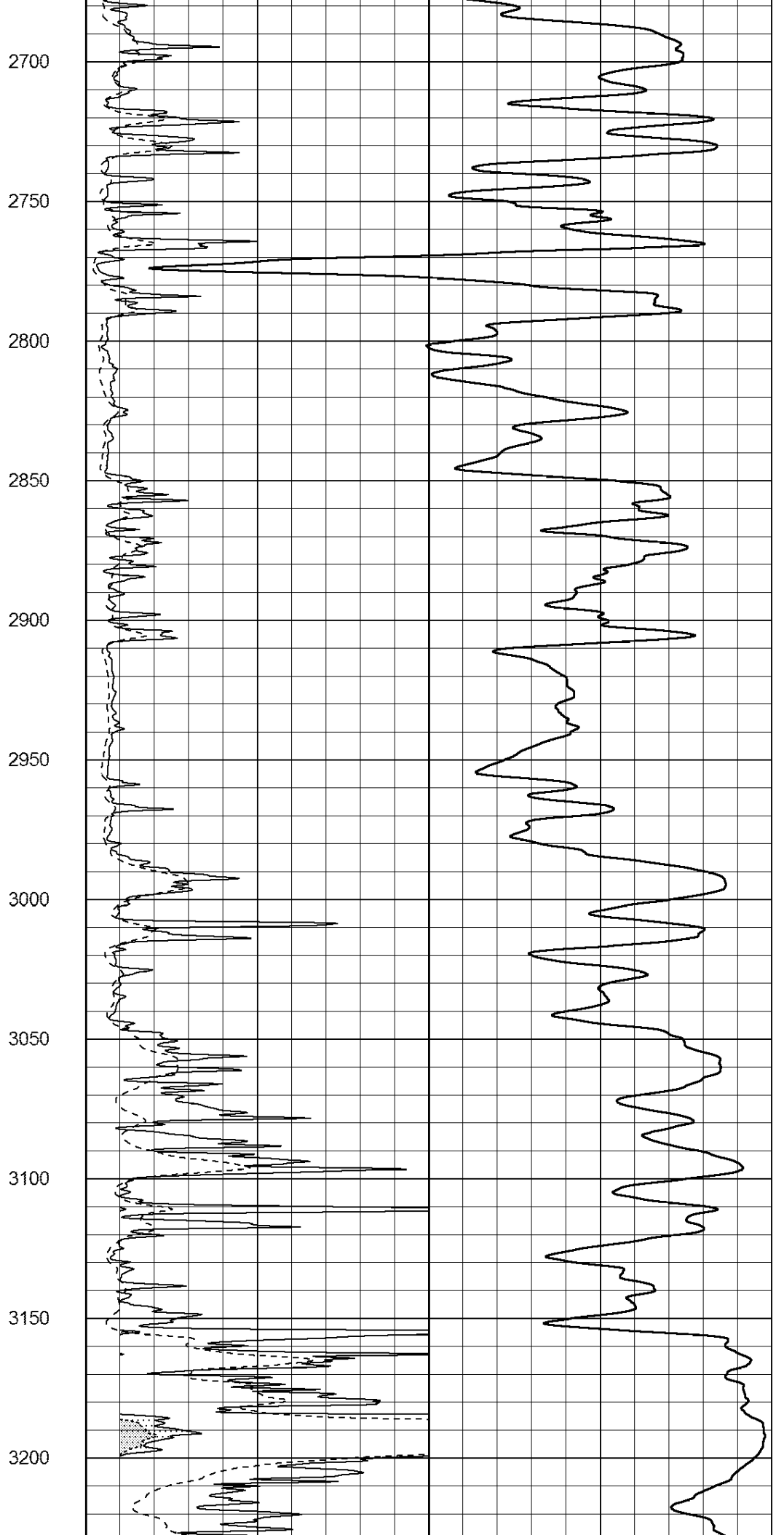
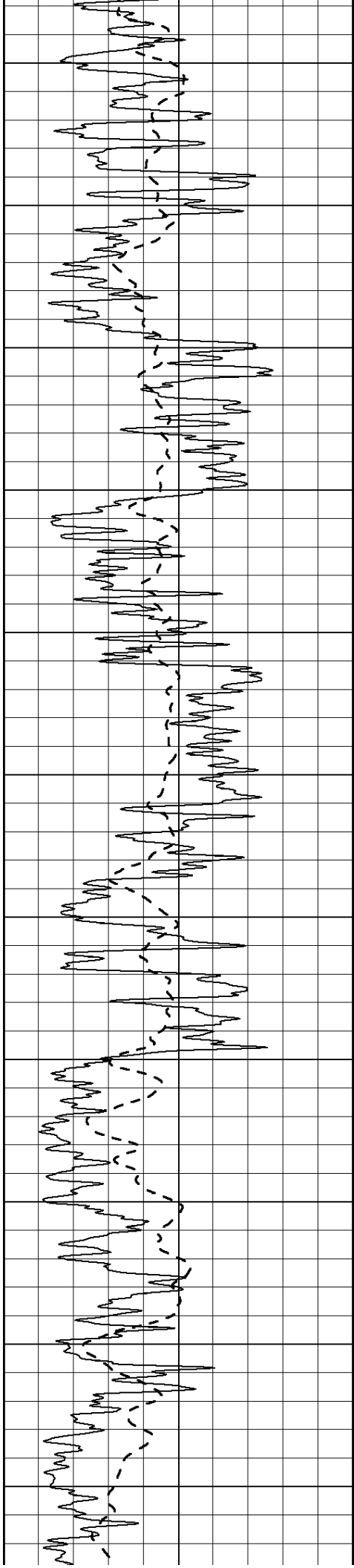


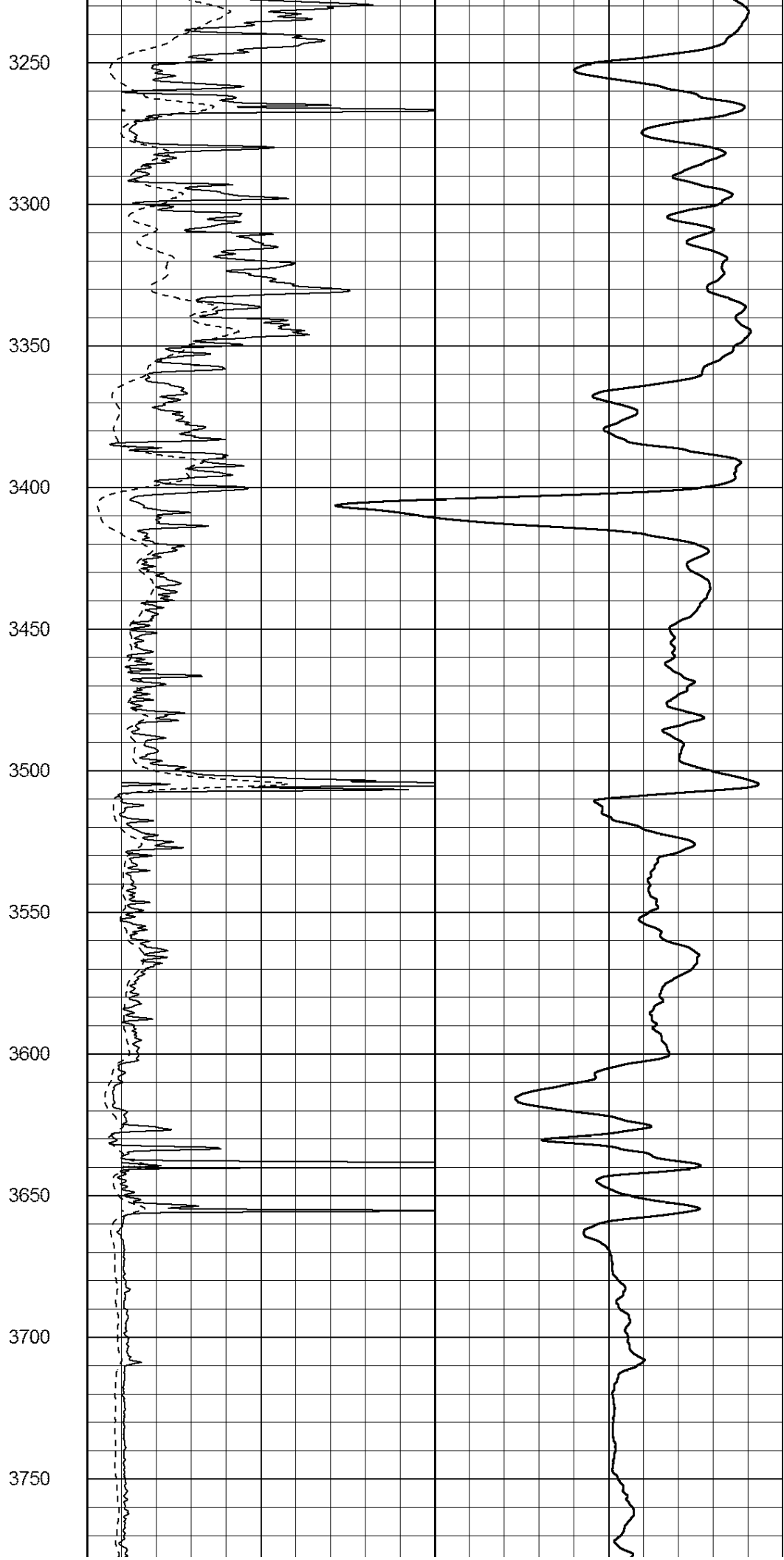
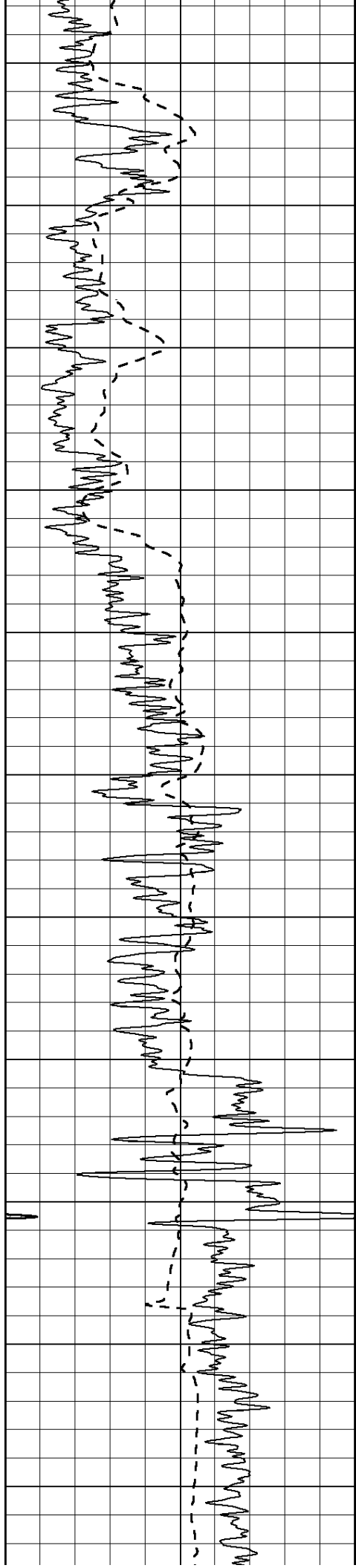


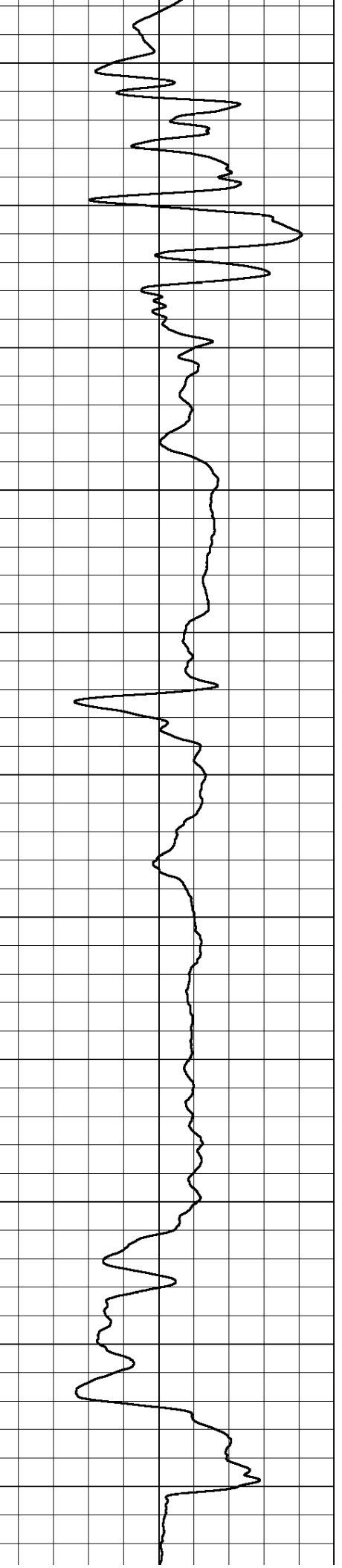
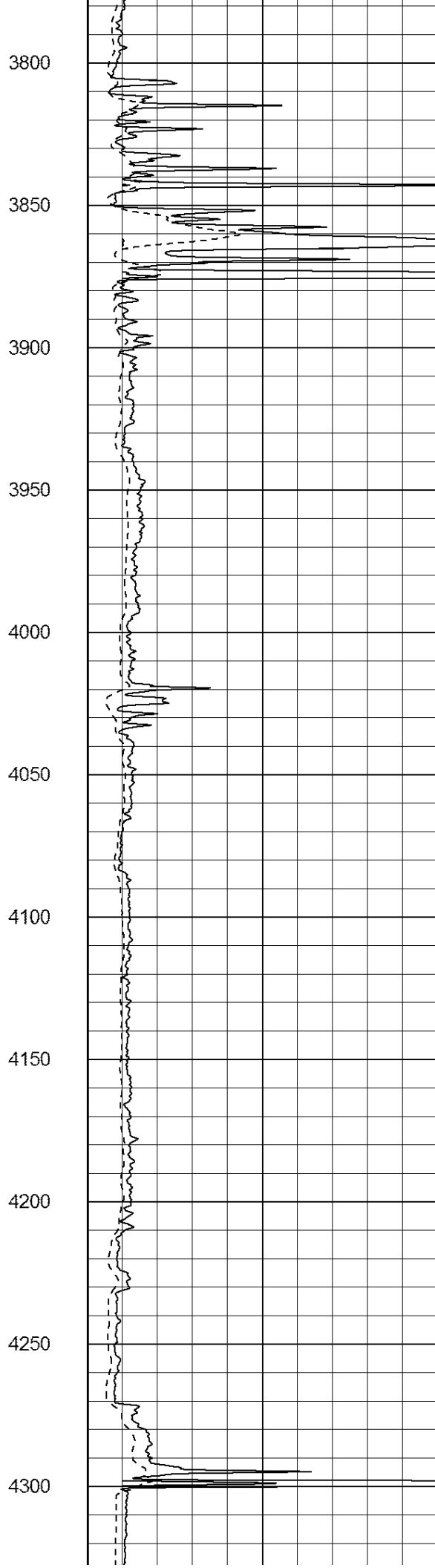
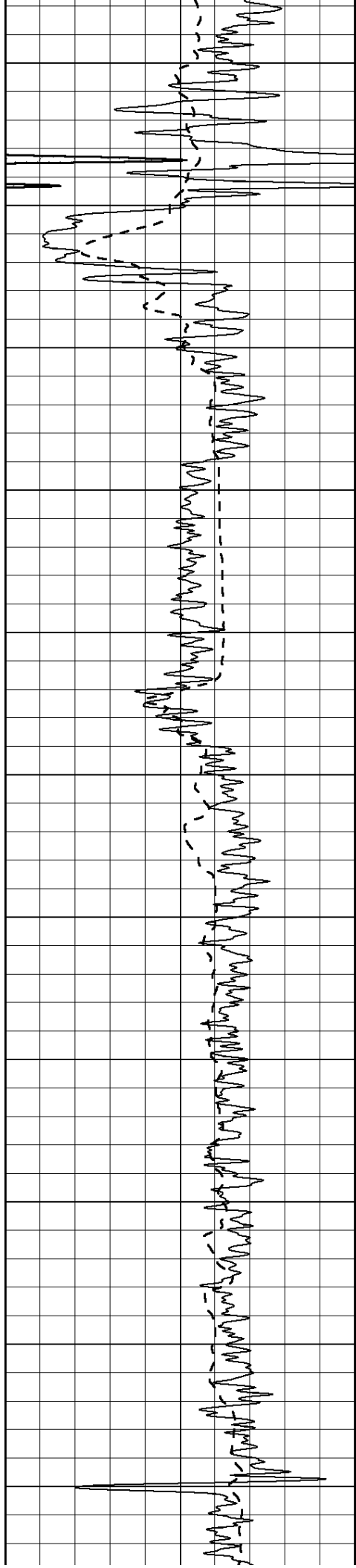


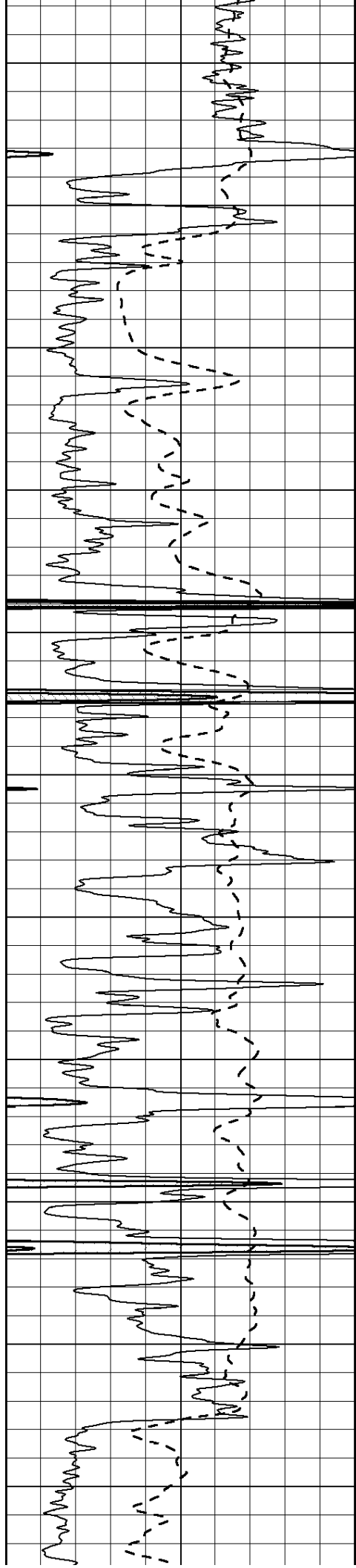




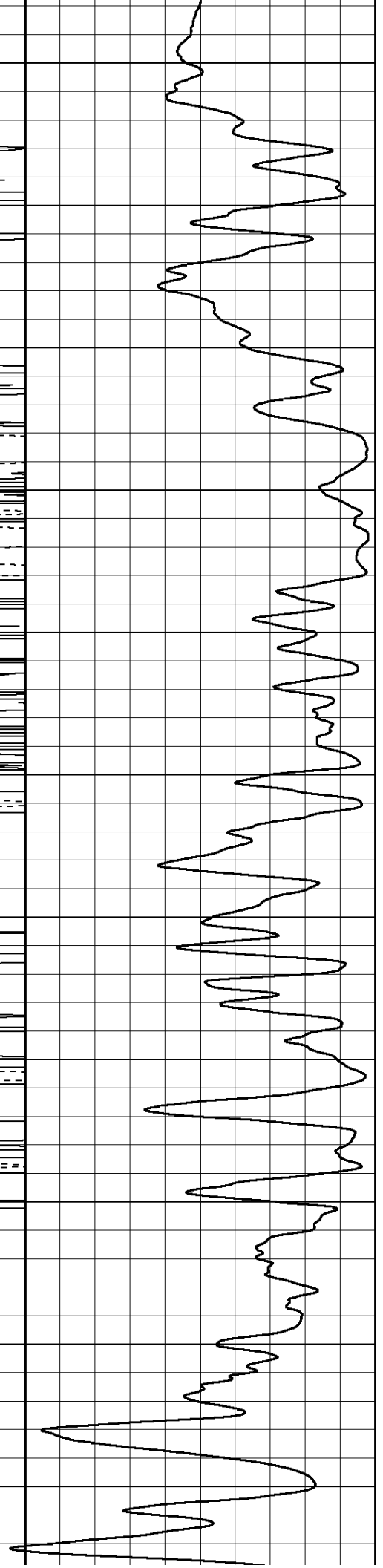
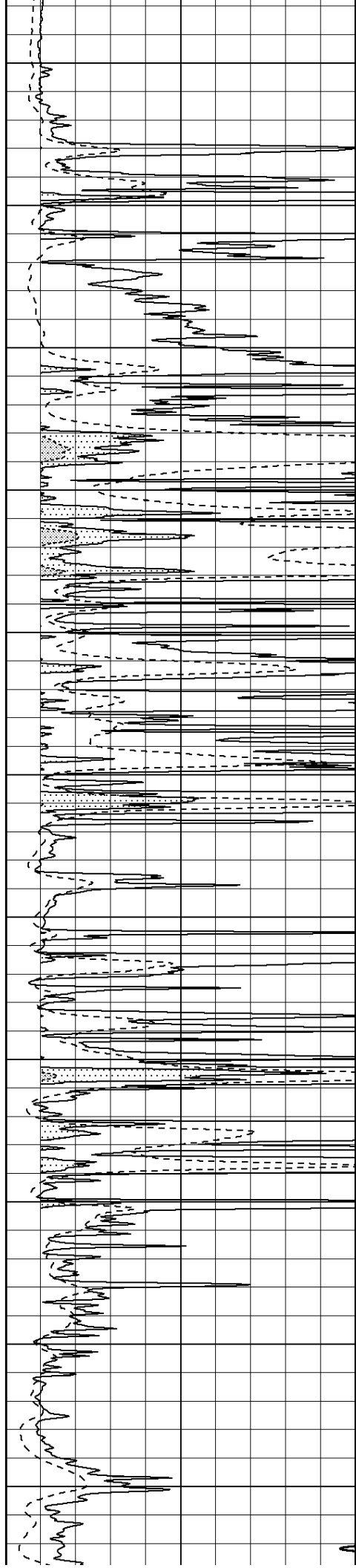


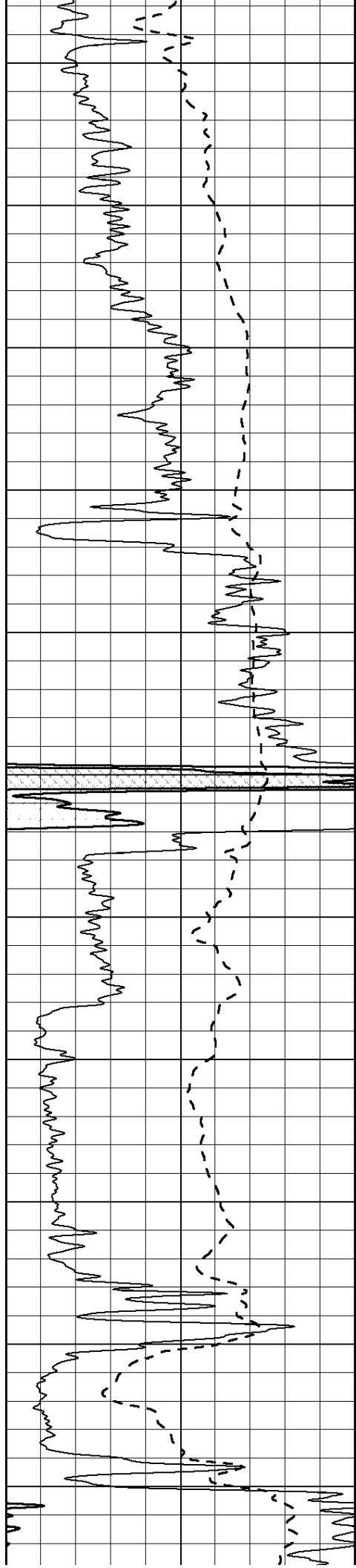




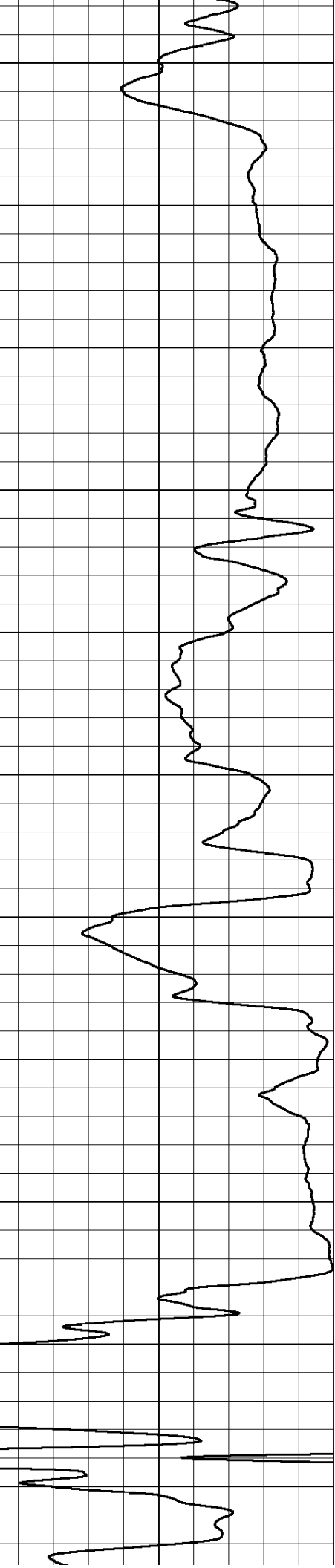
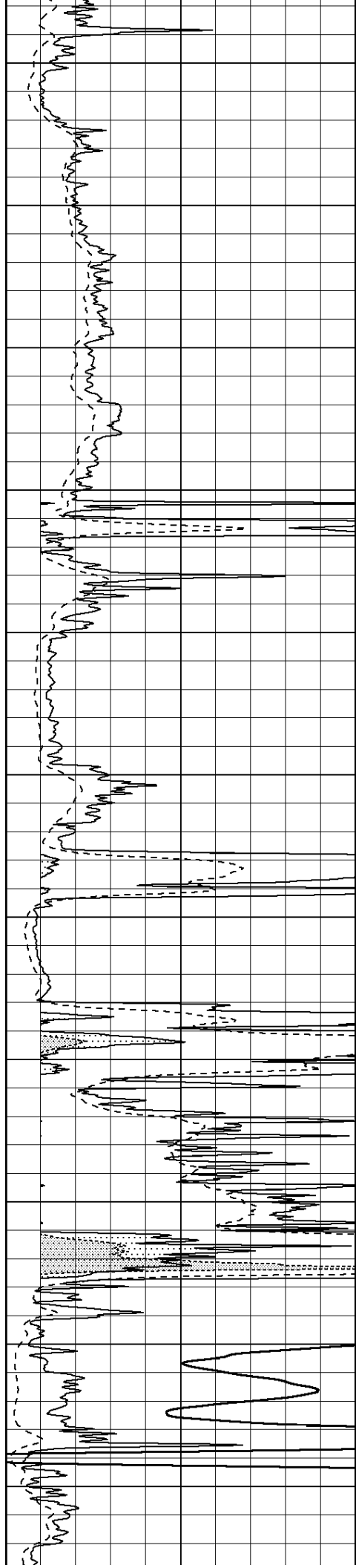


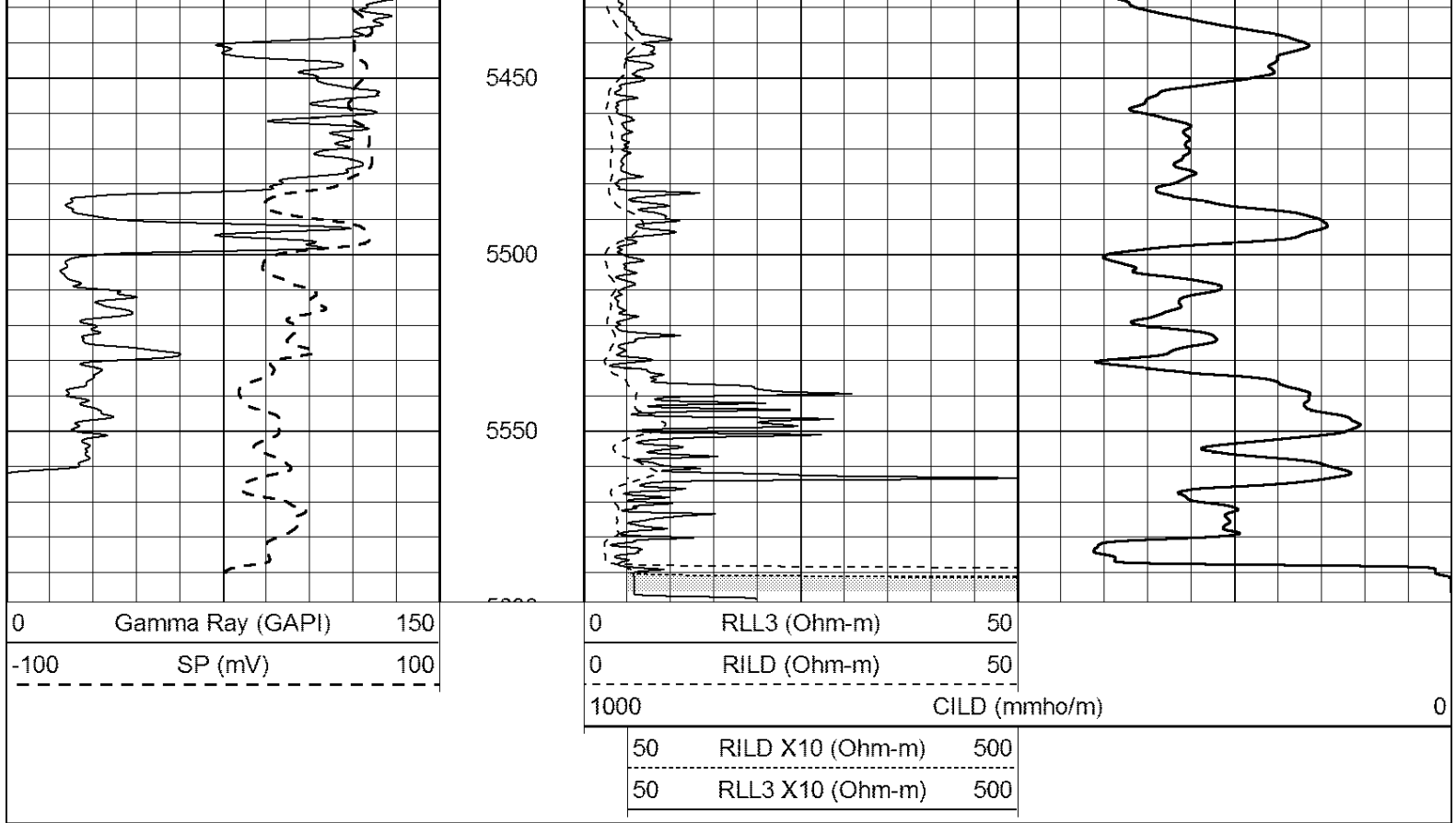
4350  
4400  
4450  
4500  
4550  
4600  
4650  
4700  
4750  
4800  
4850





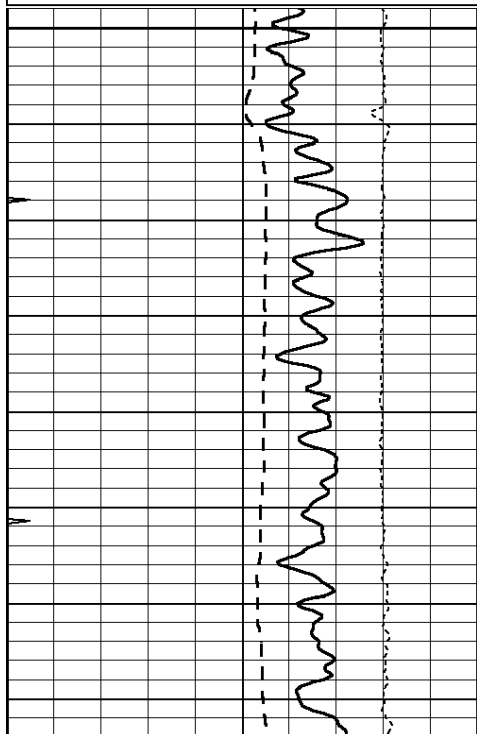
4900  
4950  
5000  
5050  
5100  
5150  
5200  
5250  
5300  
5350  
5400





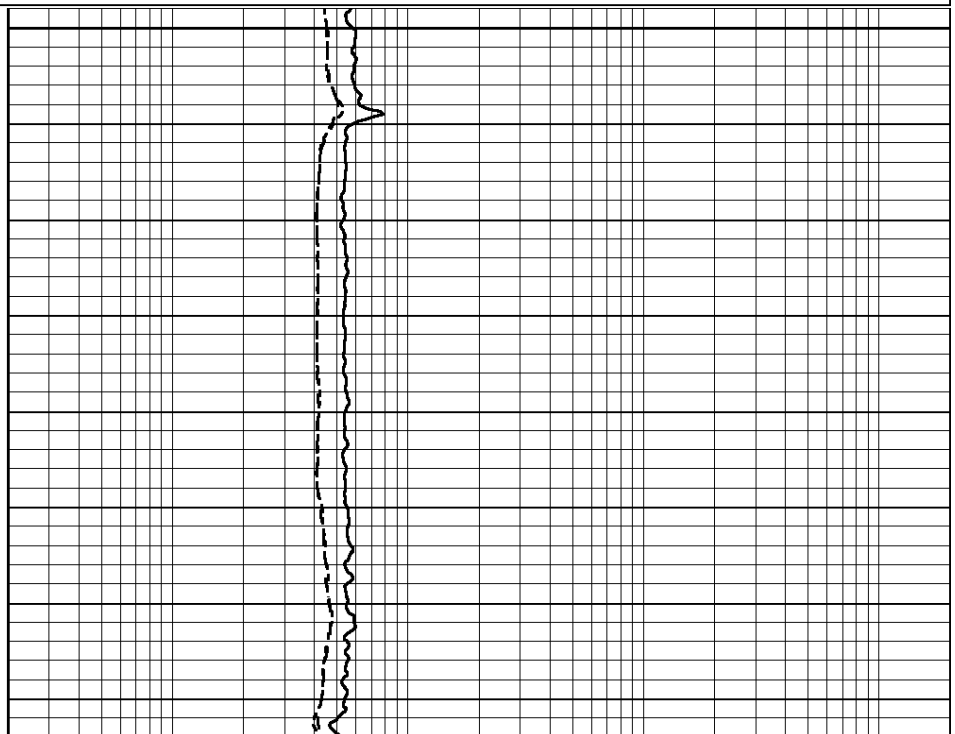
Database File: 24024pe.db  
 Dataset Pathname: pass3.2.3  
 Presentation Format: \_dil  
 Dataset Creation: Sun Apr 13 18:34:04 2014 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

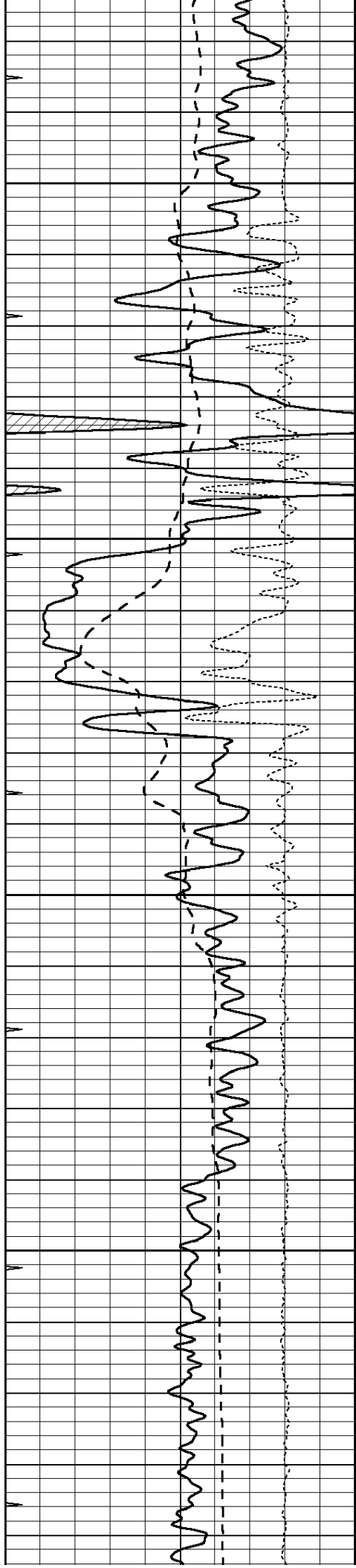
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



3700

3750



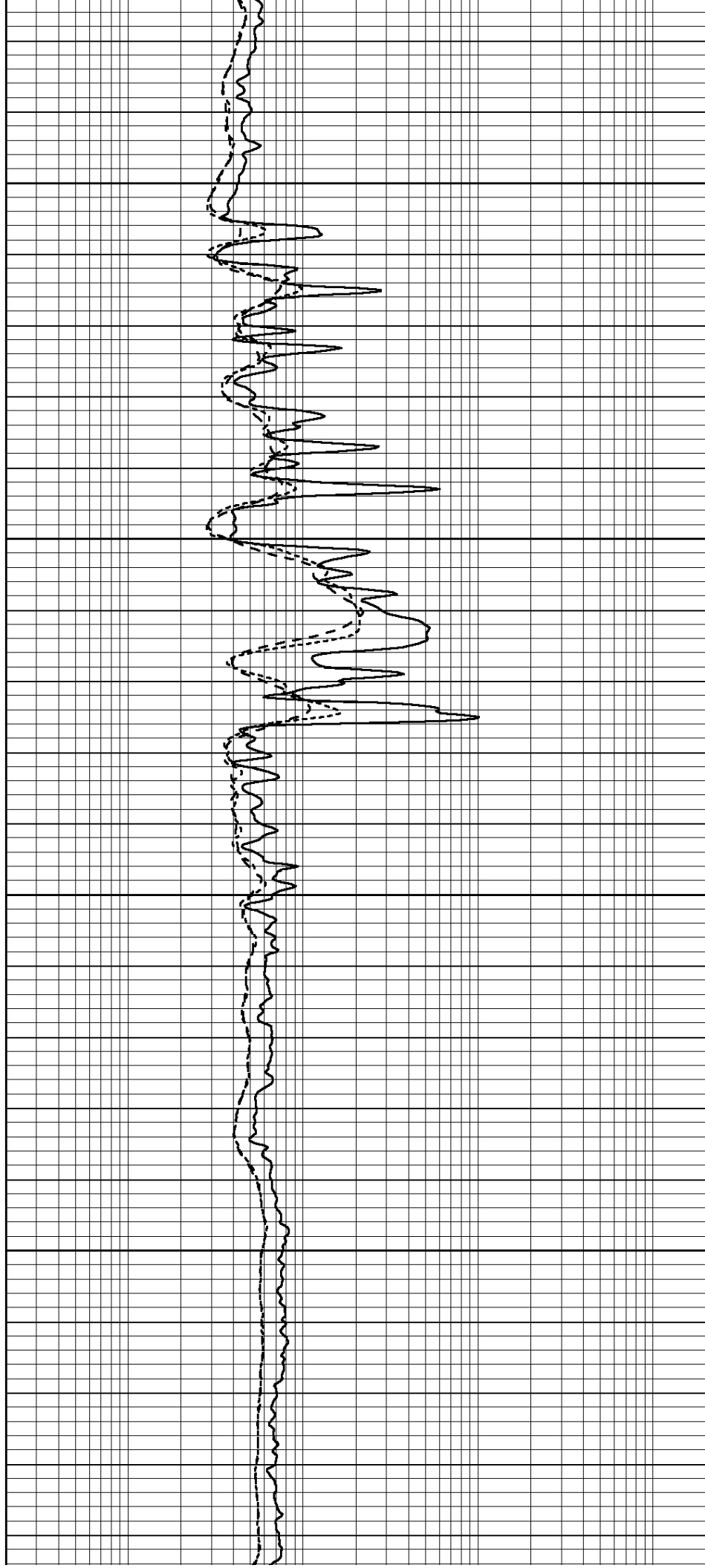


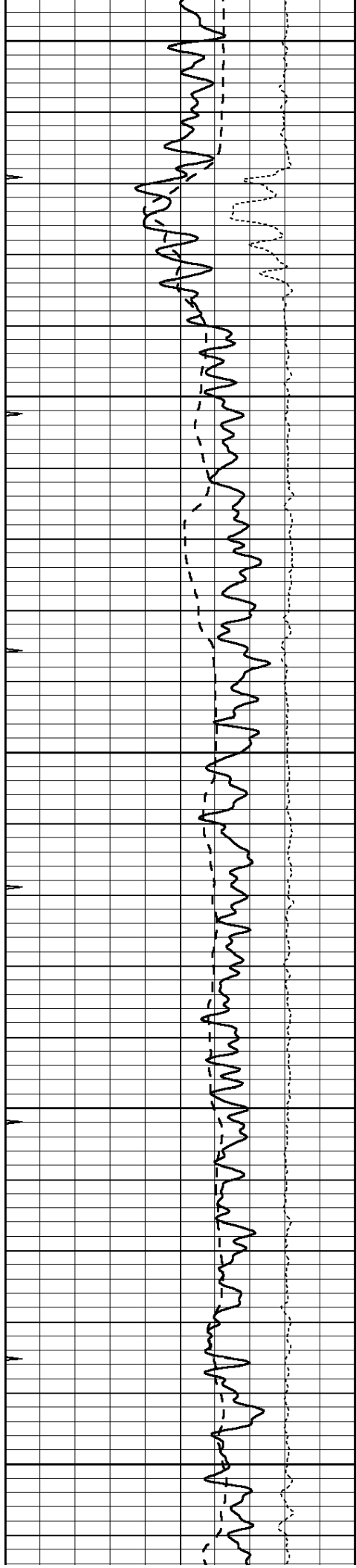
3800

3850

3900

3950





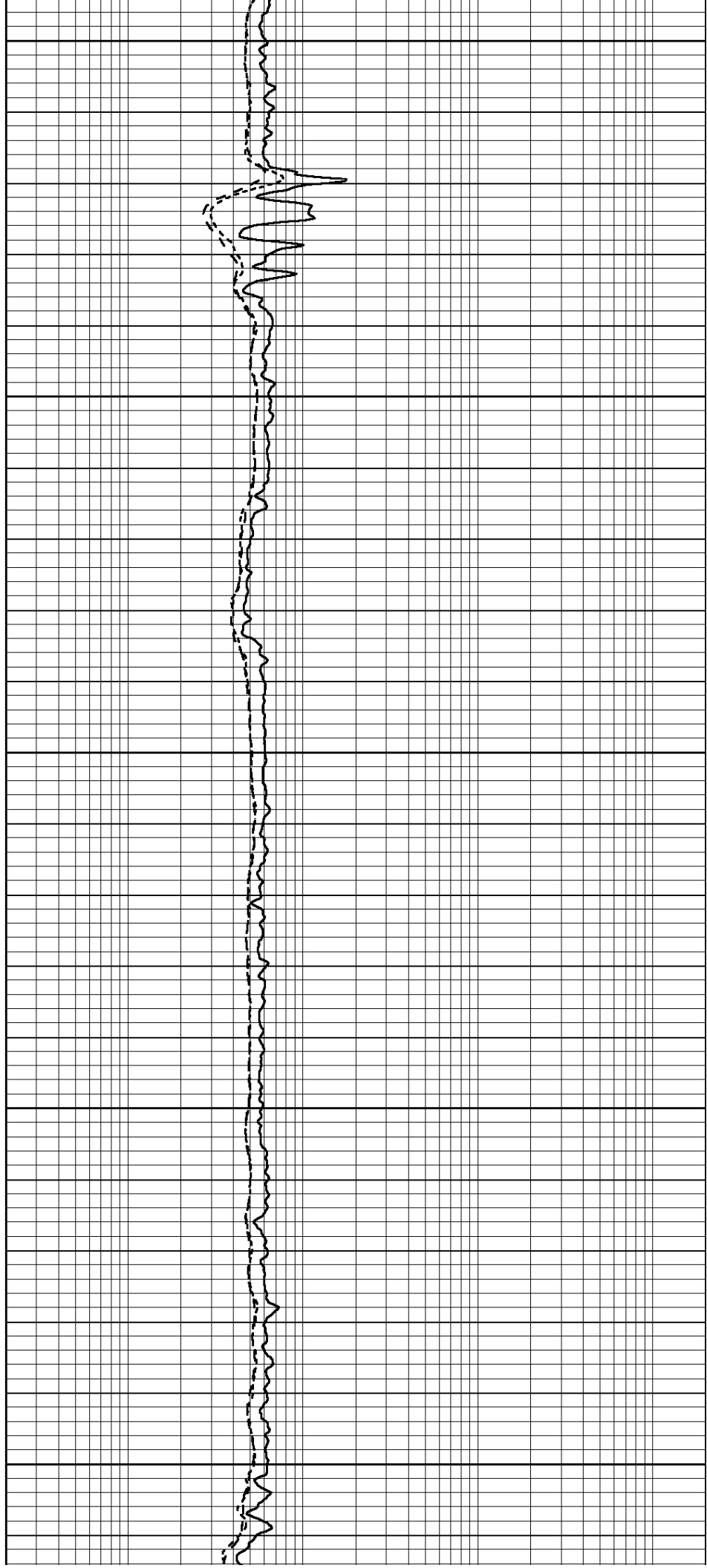
4000

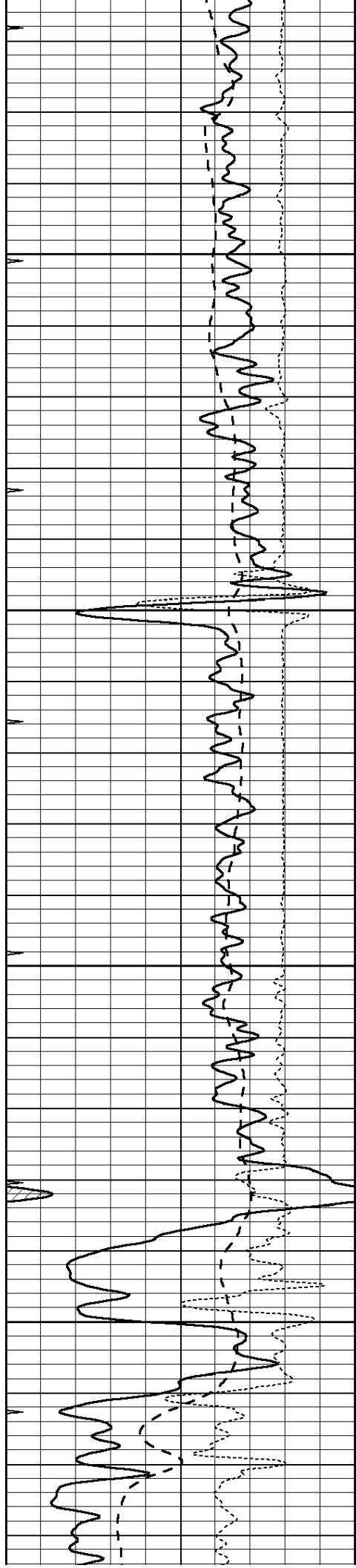
4050

4100

4150

4200



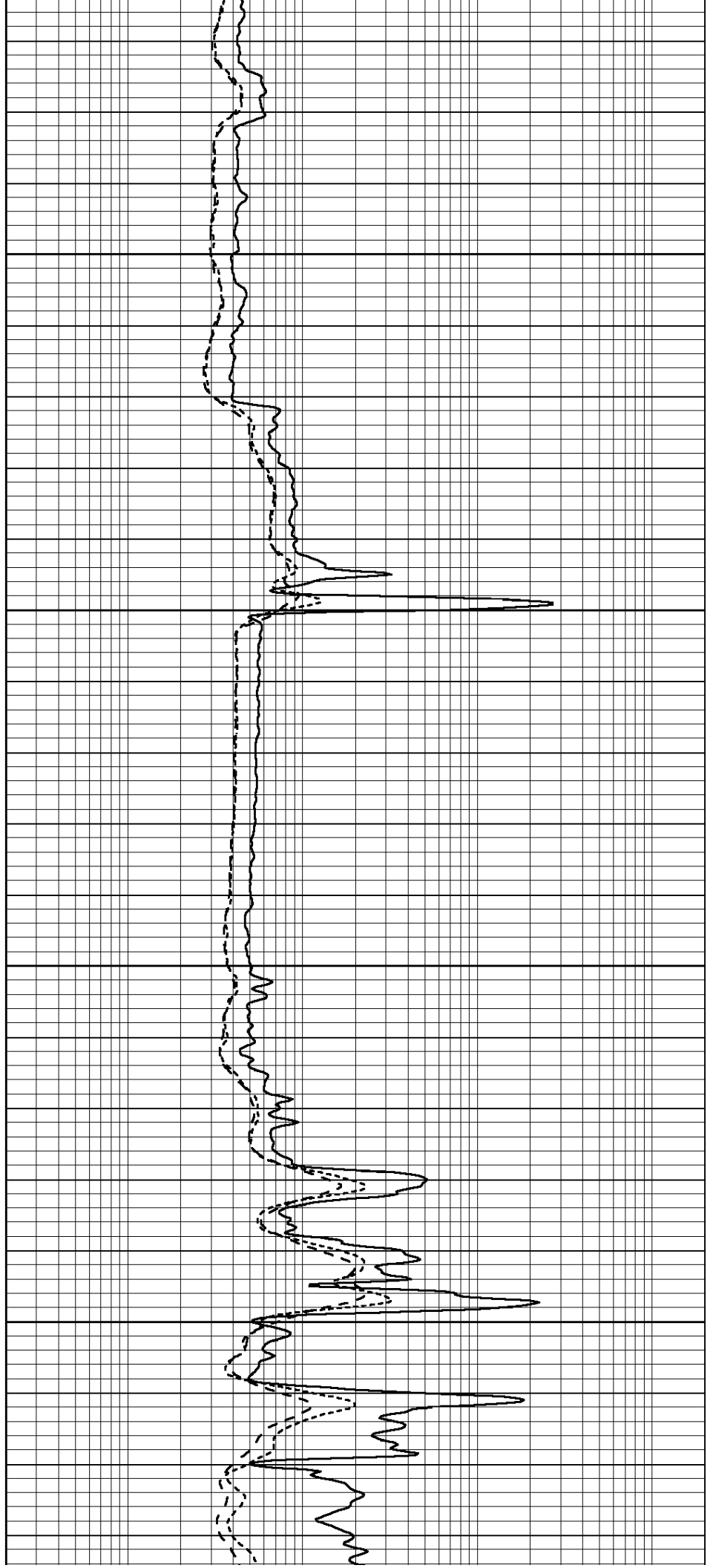


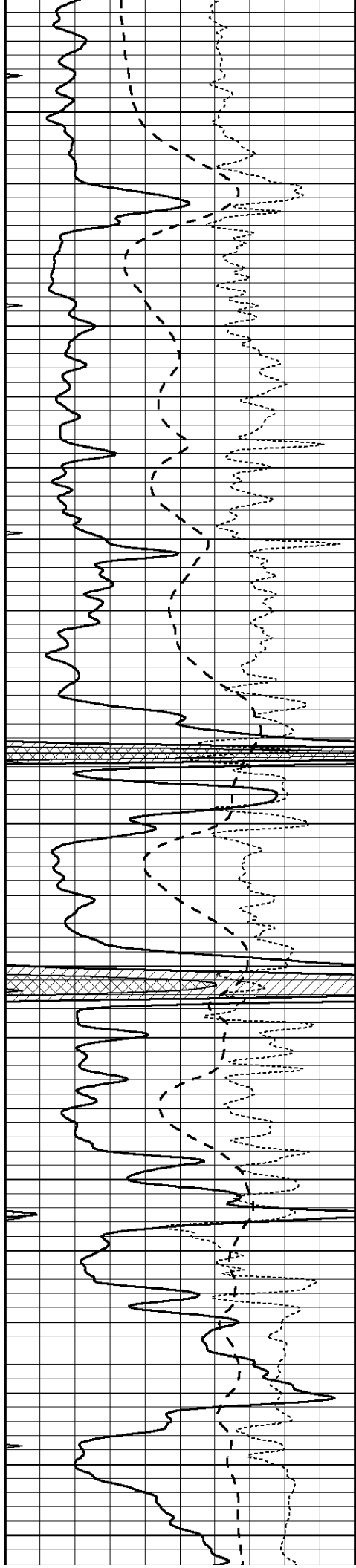
4250

4300

4350

4400





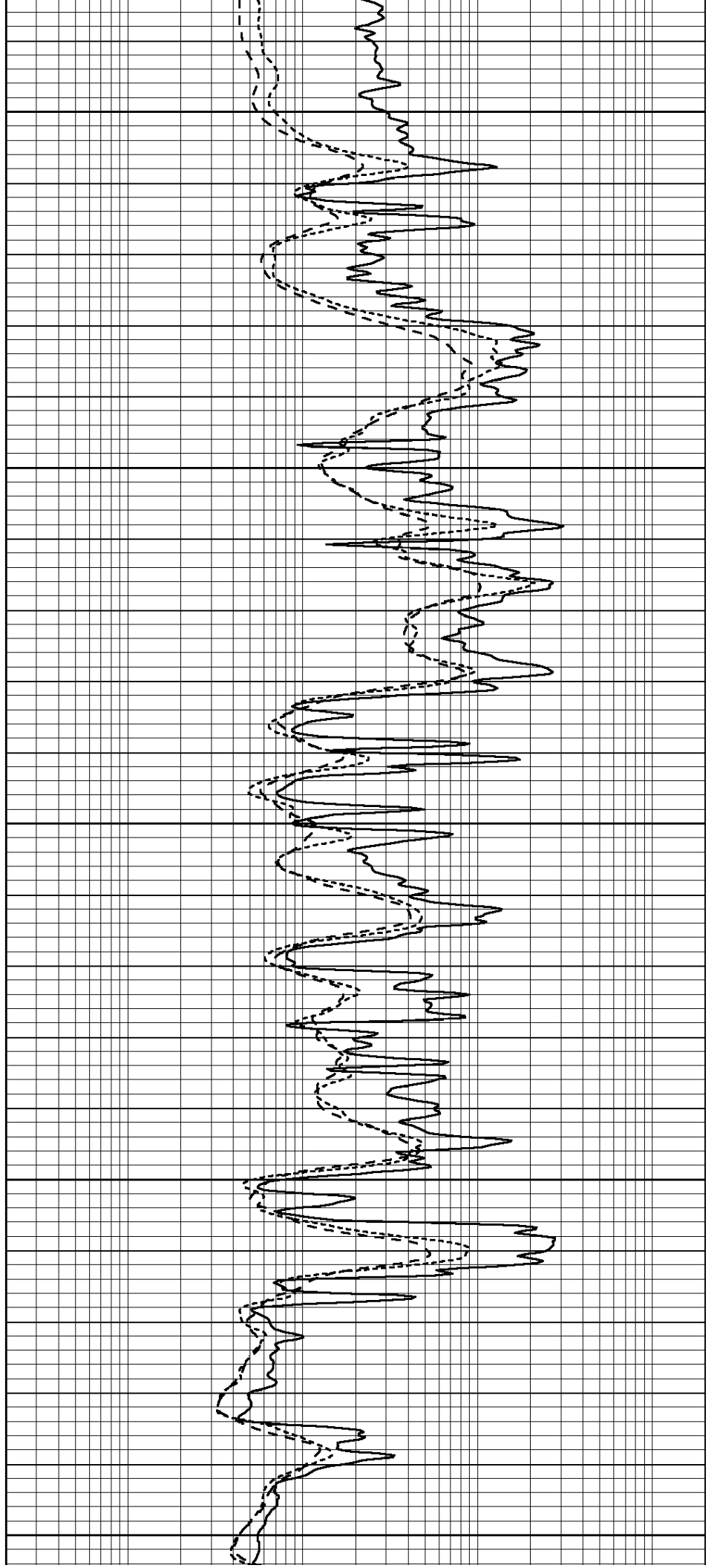
4450

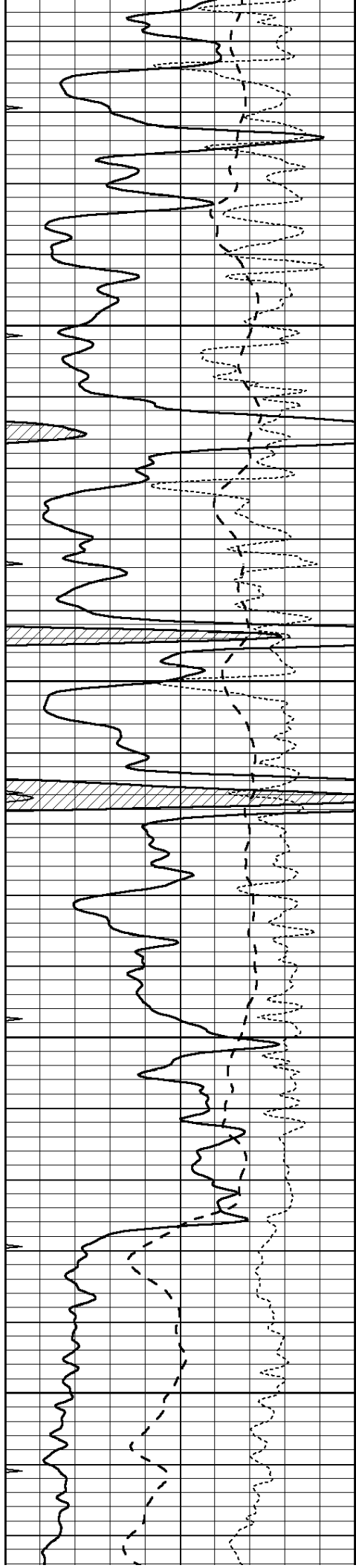
4500

4550

4600

4650



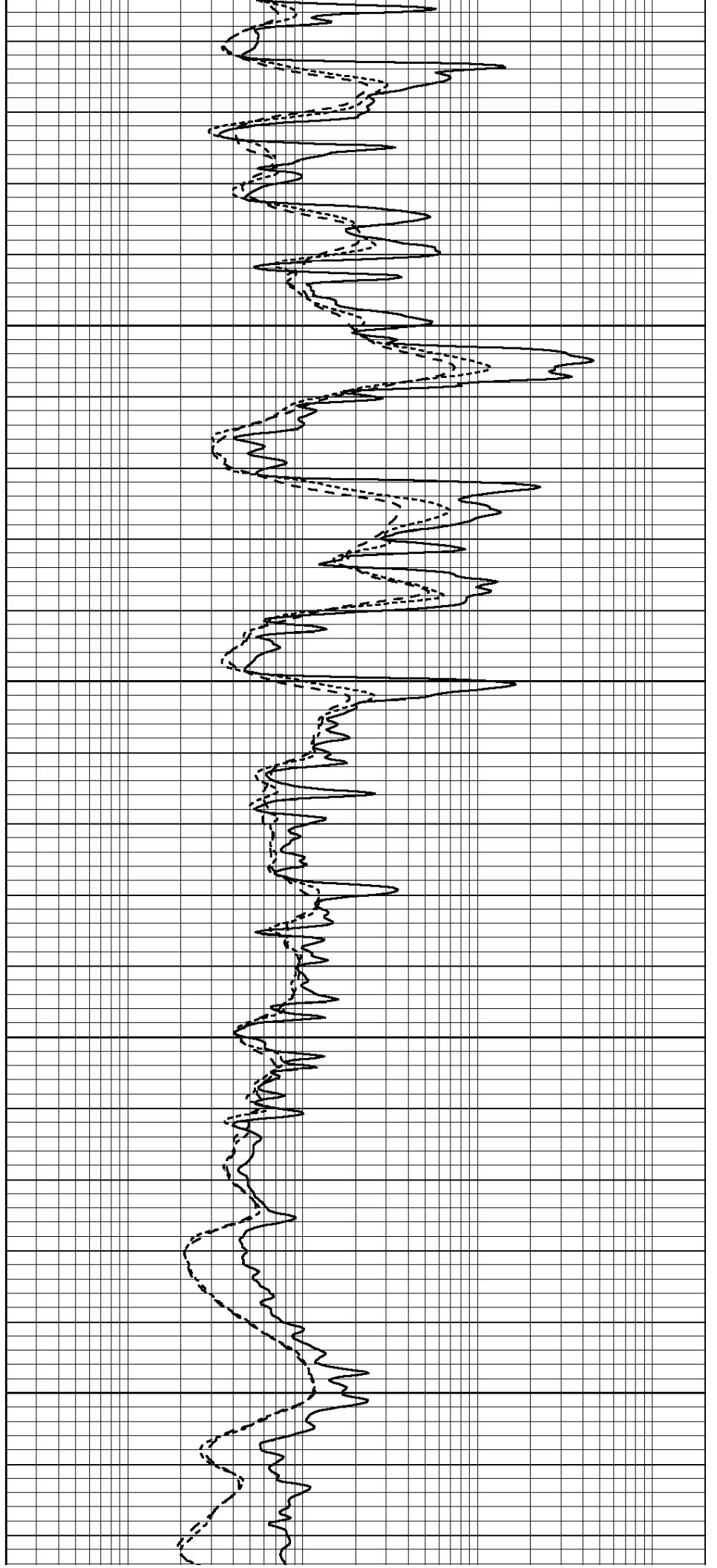


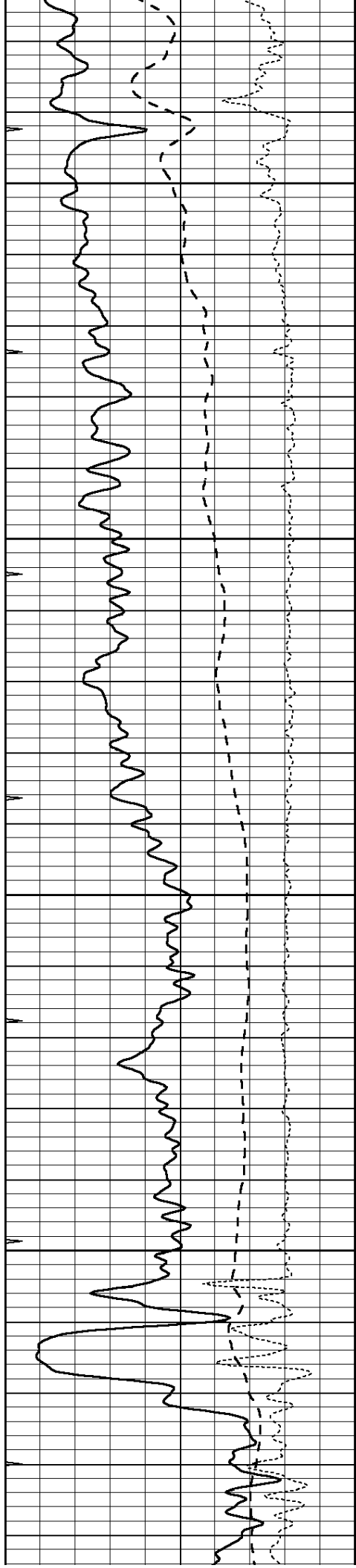
4700

4750

4800

4850



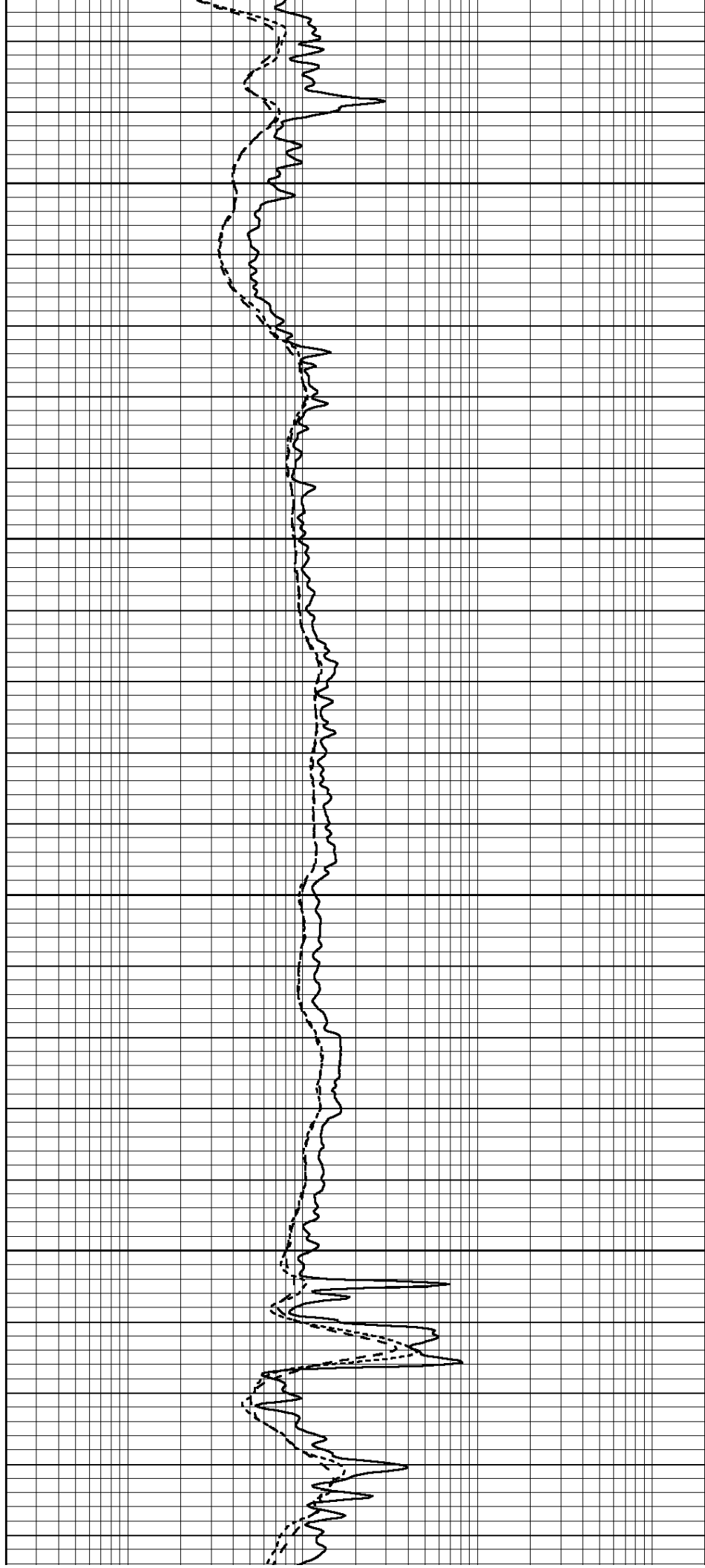


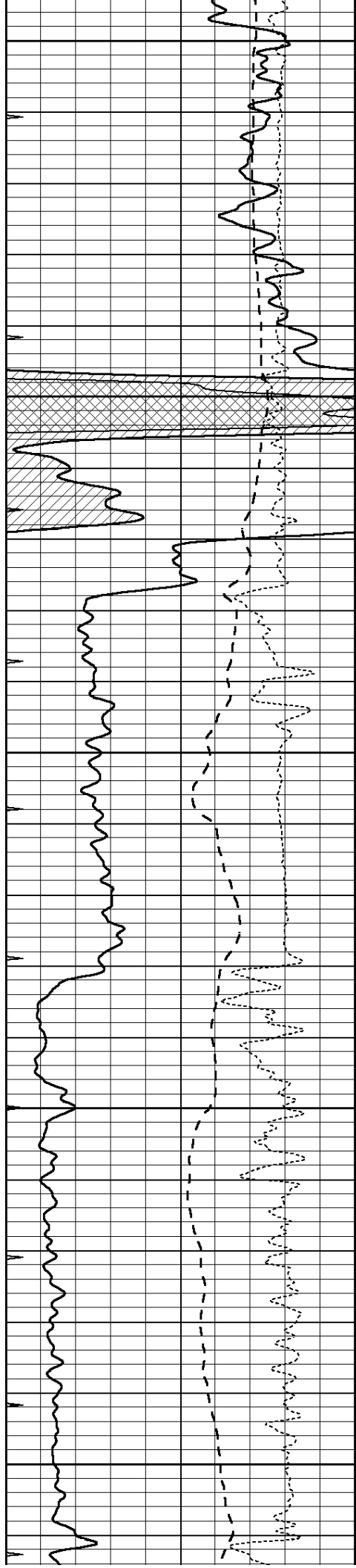
4900

4950

5000

5050





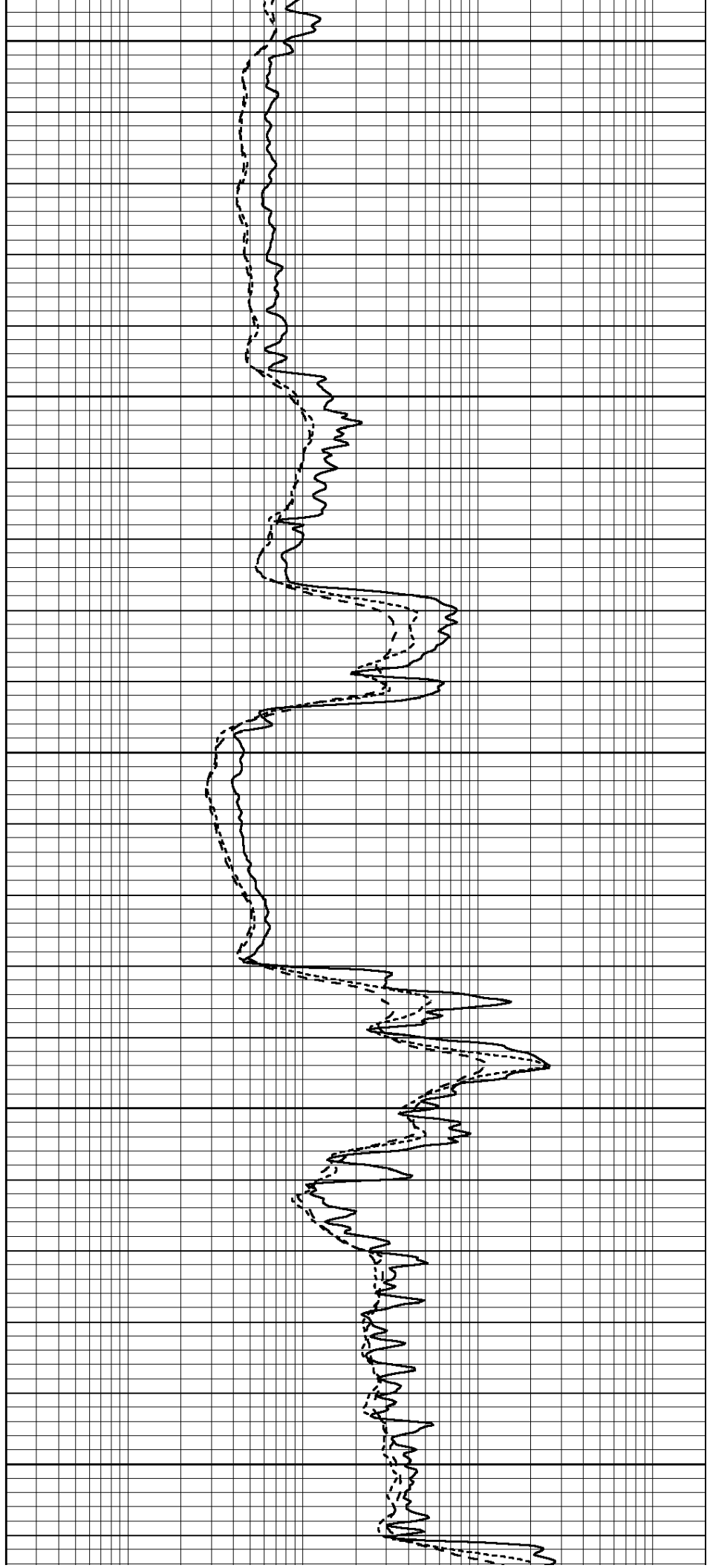
5100

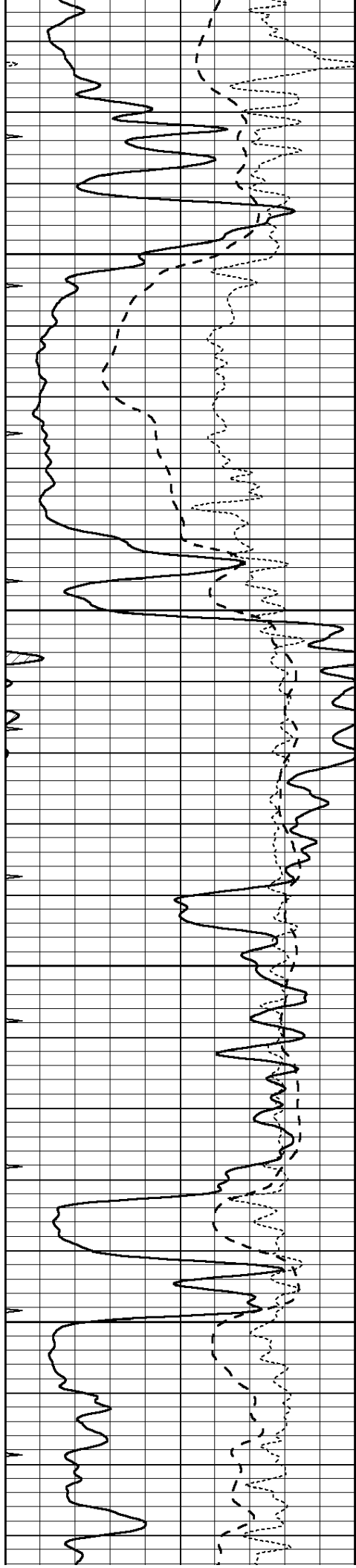
5150

5200

5250

5300



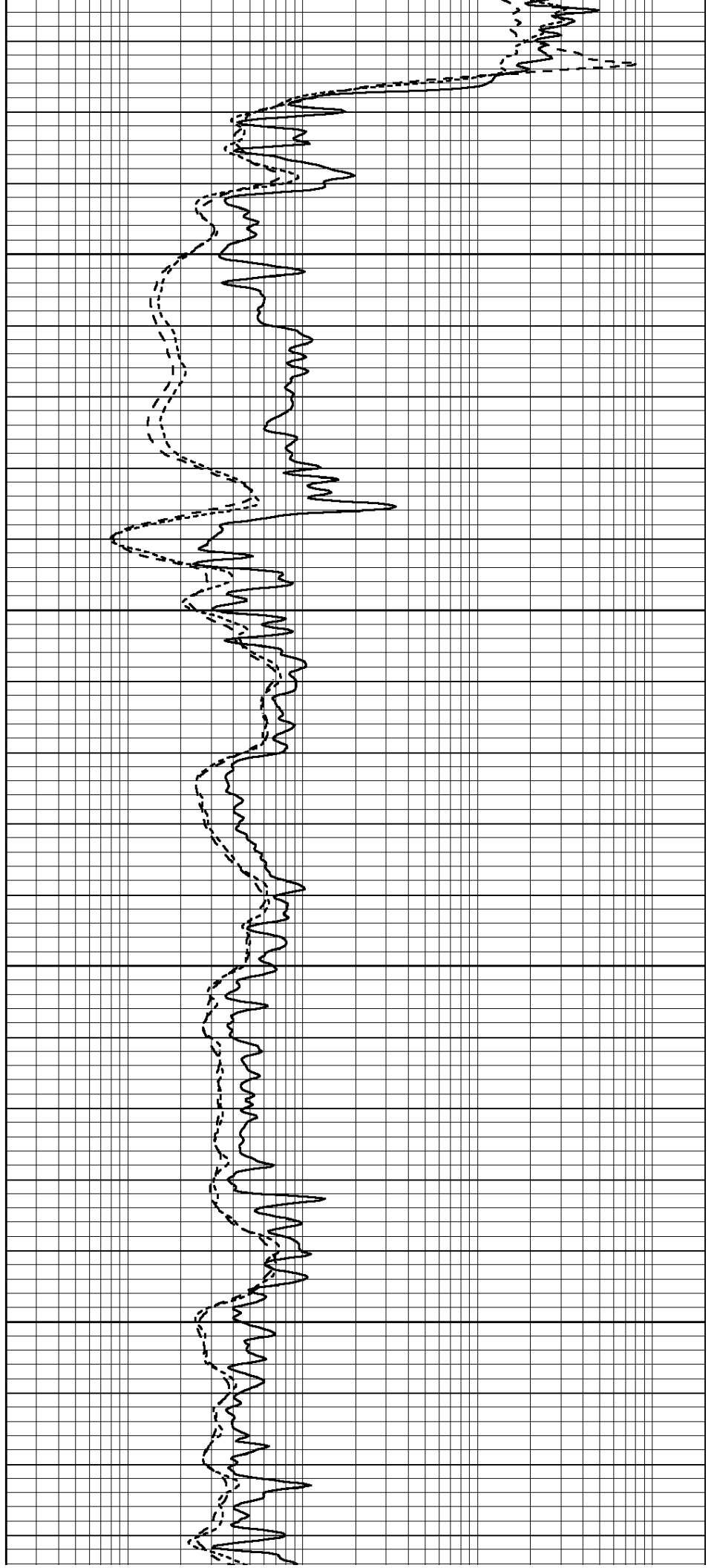


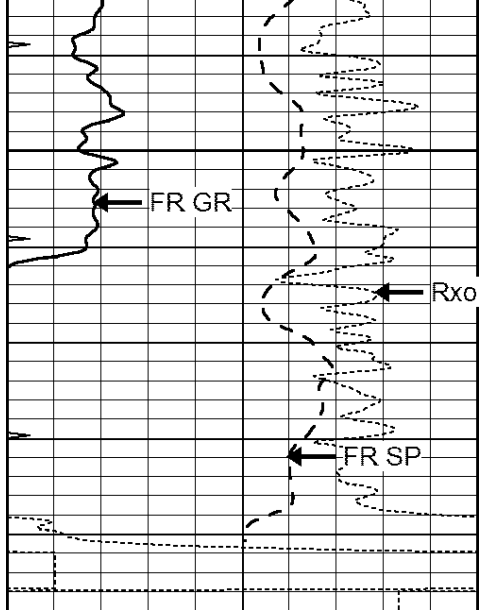
5350

5400

5450

5500

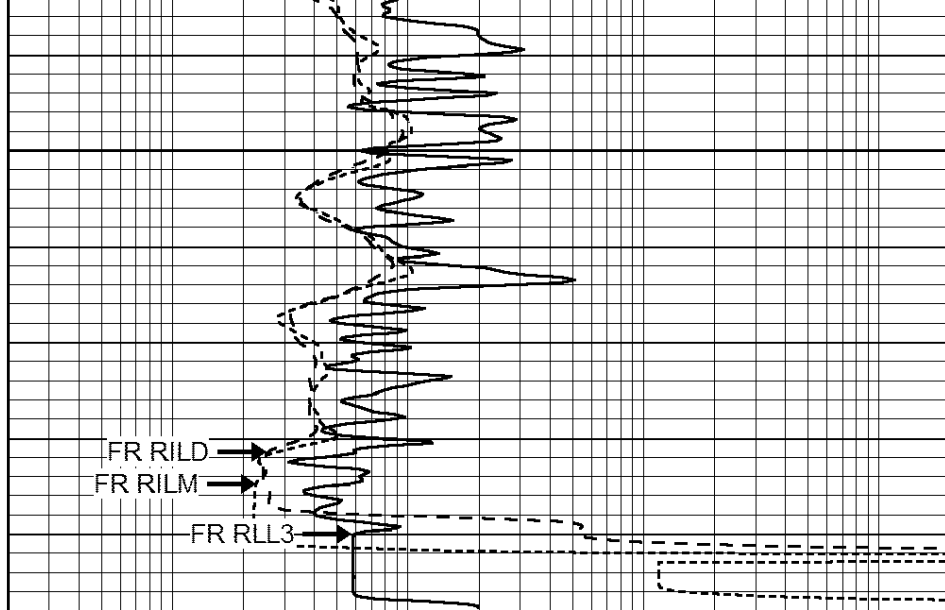




5550

LTD 5592

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

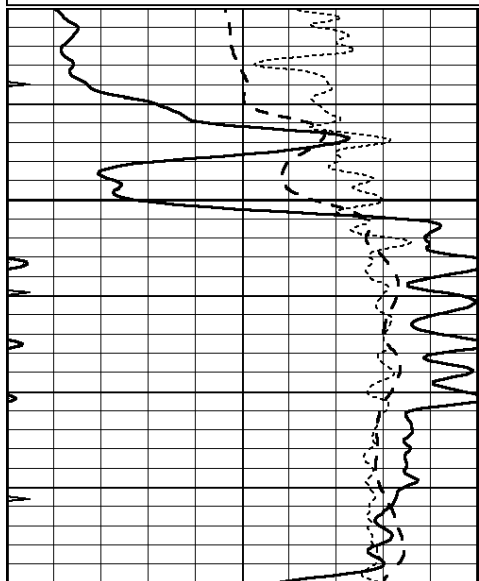


# REPEAT SECTION

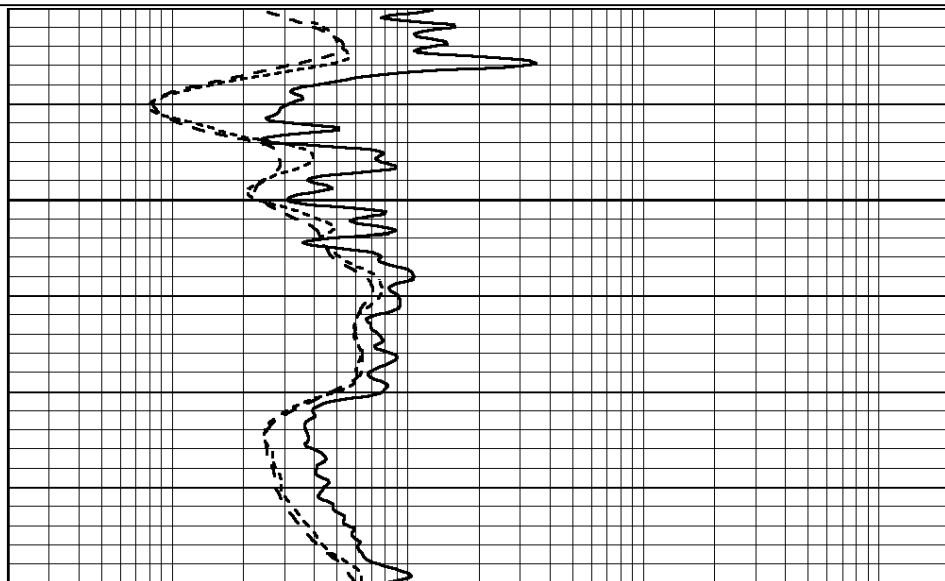
Database File: 24024pe.db  
 Dataset Pathname: pass2.3  
 Presentation Format: \_dil  
 Dataset Creation: Sun Apr 13 18:56:57 2014  
 Charted by: Depth in Feet scaled 1:240

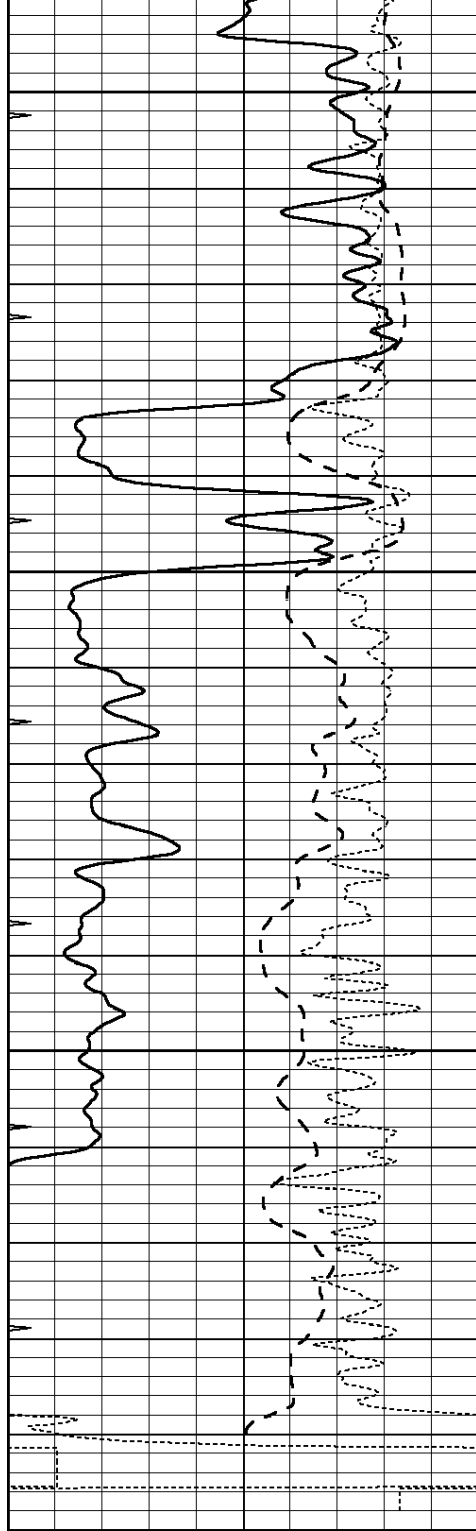
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



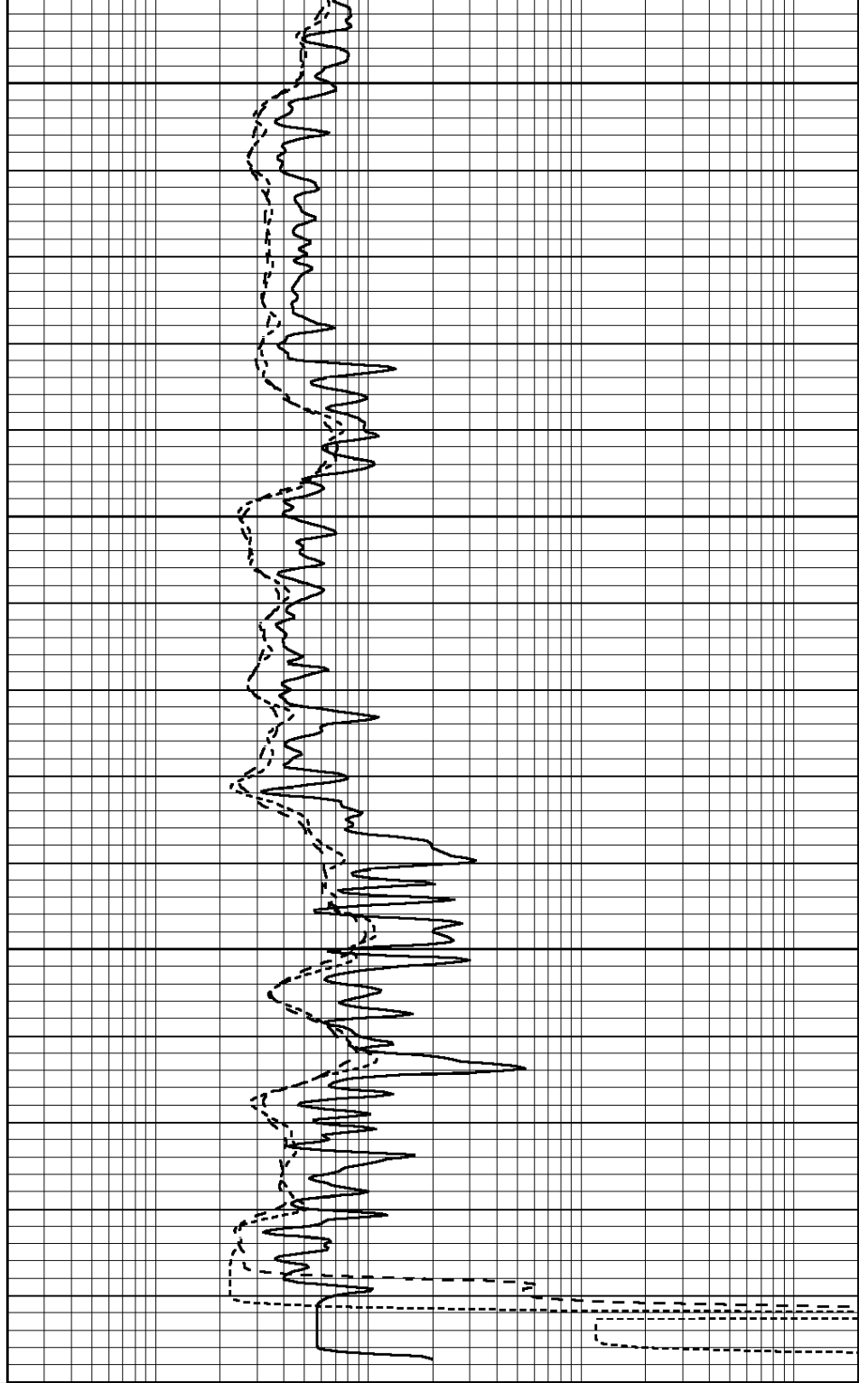
5400





5450  
5500  
5550  
5600

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 24024pe.db  
 Dataset Pathname: pass3.3  
 Dataset Creation: Sun Apr 13 20:20:15 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Fri Aug 01 06:33:19 2008

Surface Calibration								
Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report  
Serial: 001      Model: PRB

Master Calibration					Performed Thu Sep 17 09:57:21 2009			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	2056.0	9796.8	3673.1	10821.3				cps
Window 2	1920.0	8541.1	3303.5	9307.2				cps
Window 3	1563.1	4735.7	2212.8	5017.5				cps
Window 4	466.0	466.1	465.6	471.5				cps
Long Space	0.0	6621.1	1383.5	7387.2				cps
Short Space	2.5	2361.7	1523.2	2534.0				cps
Rho		1.7100	2.5900	1.3800				g/cc
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 44.4	Rib Slope	: 0.978	Density/Spine Ratio				: 0.541
Spine Angle	: 74.4	Spine Slope	: 3.570	Spine Intercept				: -18.9

Before Survey Verification					Performed Wed Dec 31 18:00:00 1969			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	0.0	0.0	0.0	0.0				cps
Window 2	0.0	0.0	0.0	0.0				cps
Window 3	0.0	0.0	0.0	0.0				cps
Window 4	0.0	0.0	0.0	0.0				cps
Long Space	0.0	0.0	0.0	0.0				cps
Short Space	0.0	0.0	0.0	0.0				cps
Measured Rho		0.0000	0.0000	0.0000				g/cc
Measured Correction		0.0000	0.0000	0.0000				g/cc

Measured Correction	0.0000	0.0000	0.0000	g/cc
Measured Pe		0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 6I  
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	GR6
Tool Model:	OPEN
Performed:	Fri Nov 29 08:34:37 2013
Calibrator Value:	150.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	276.0 cps
Sensitivity:	0.6035 GAPI/cps

