

DUAL INDUCTION LOG

Company ETERNITY EXPLORATION, LLC
 Well A7 FAMILY FARM #1
 Field N/A
 County THOMAS State KANSAS

Location: 947' FSL & 1953' FEL
 API #: 15-193-20995-0000
 Other Services CDL/CNL
 Permanent Datum GROUND LEVEL Elevation 2954
 Log Measured From KELLY BUSHING 7' A.G.L
 Drilling Measured From KELLY BUSHING
 SEC 7 TWP 9S RGE 31W
 Elevation K.B. 2961
 D.F. 2959
 G.L. 2954

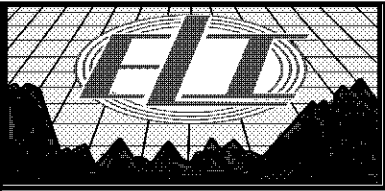
Date	5/31/17
Run Number	ONE
Depth Driller	4680
Depth Logger	4680
Bottom Logged Interval	4678
Top Log Interval	00
Casing Driller	8 5/8" @ 220'
Casing Logger	220
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/50
PH / Fluid Loss	9.1/7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.90 @ 68F
Rmt @ Meas. Temp	.68 @ 68F
Rmc @ Meas. Temp	1.08 @ 68F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.50 @ 122F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	122F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	GUS PFANENSTIEL
Witnessed By	LARRY NICHOLSON

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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 ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
 DIRECTIONS
 OAKLEY NORTH TO J. RD,
 EAST 3 MILES, NORTH 2 MILES
 WEST INTO.

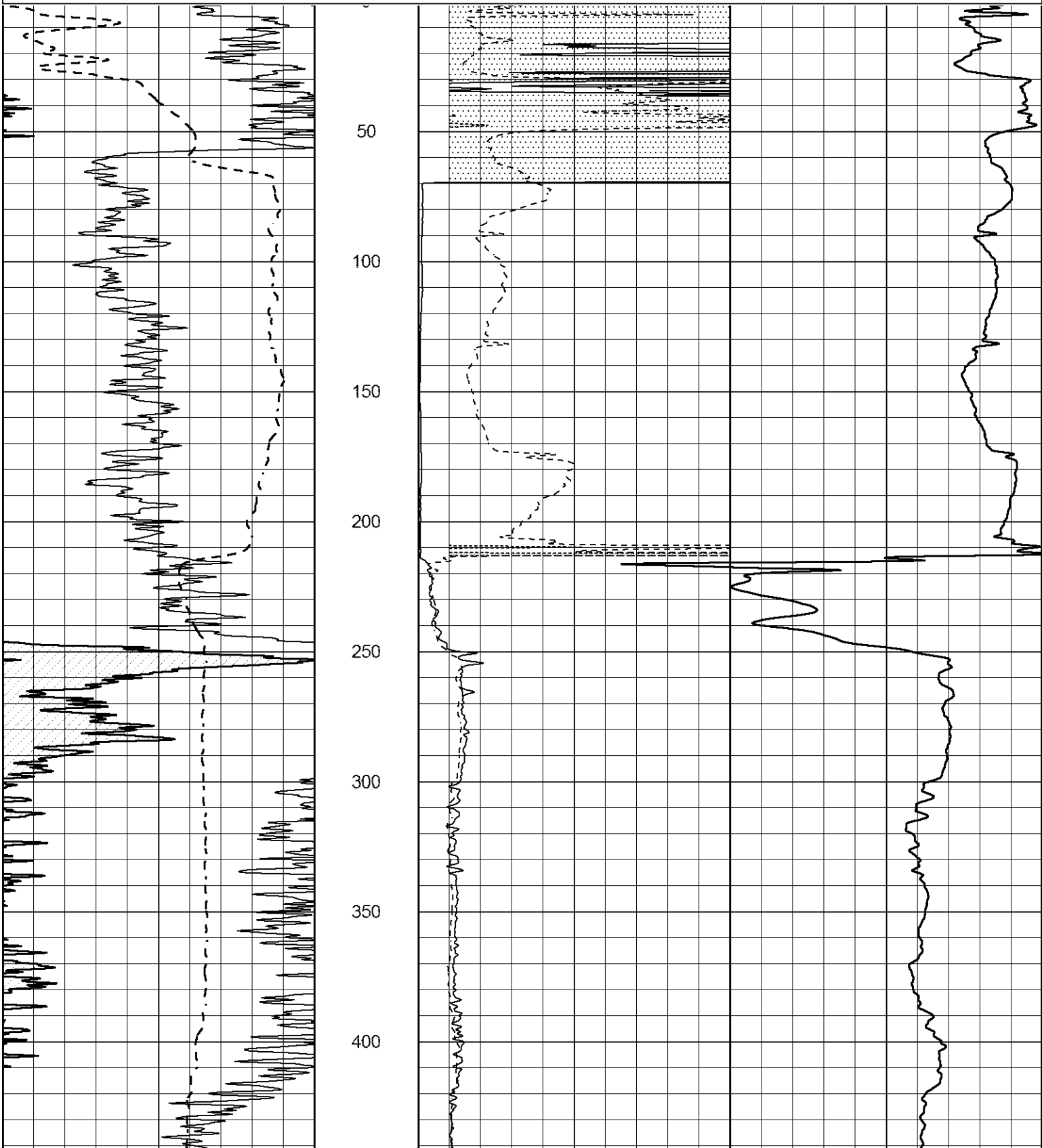


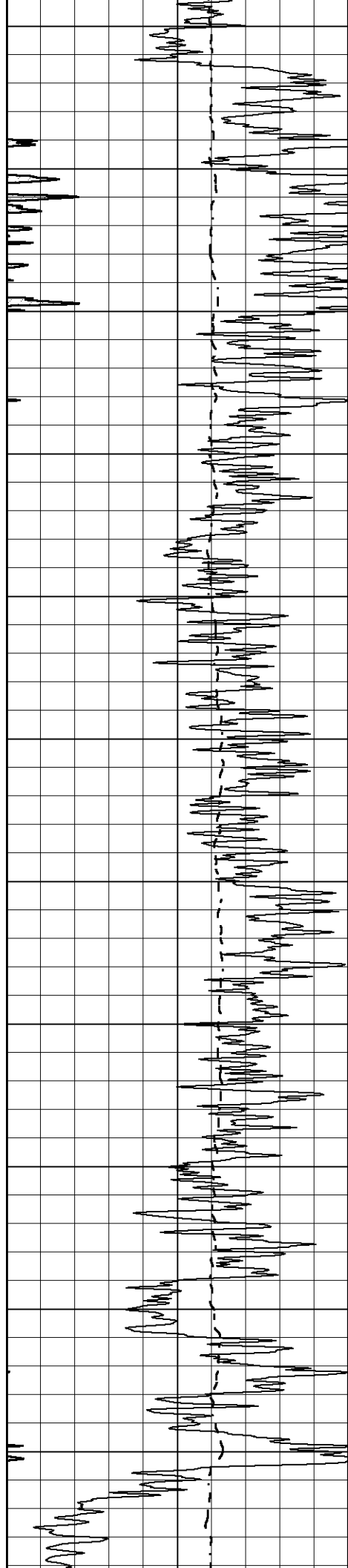
MAIN PASS

Database File 1145pe.db
 Dataset Pathname pass5.1
 Presentation Format _dil2
 Dataset Creation Thu Jun 01 01:26:03 2017
 Charted by Depth in Feet scaled 1:600

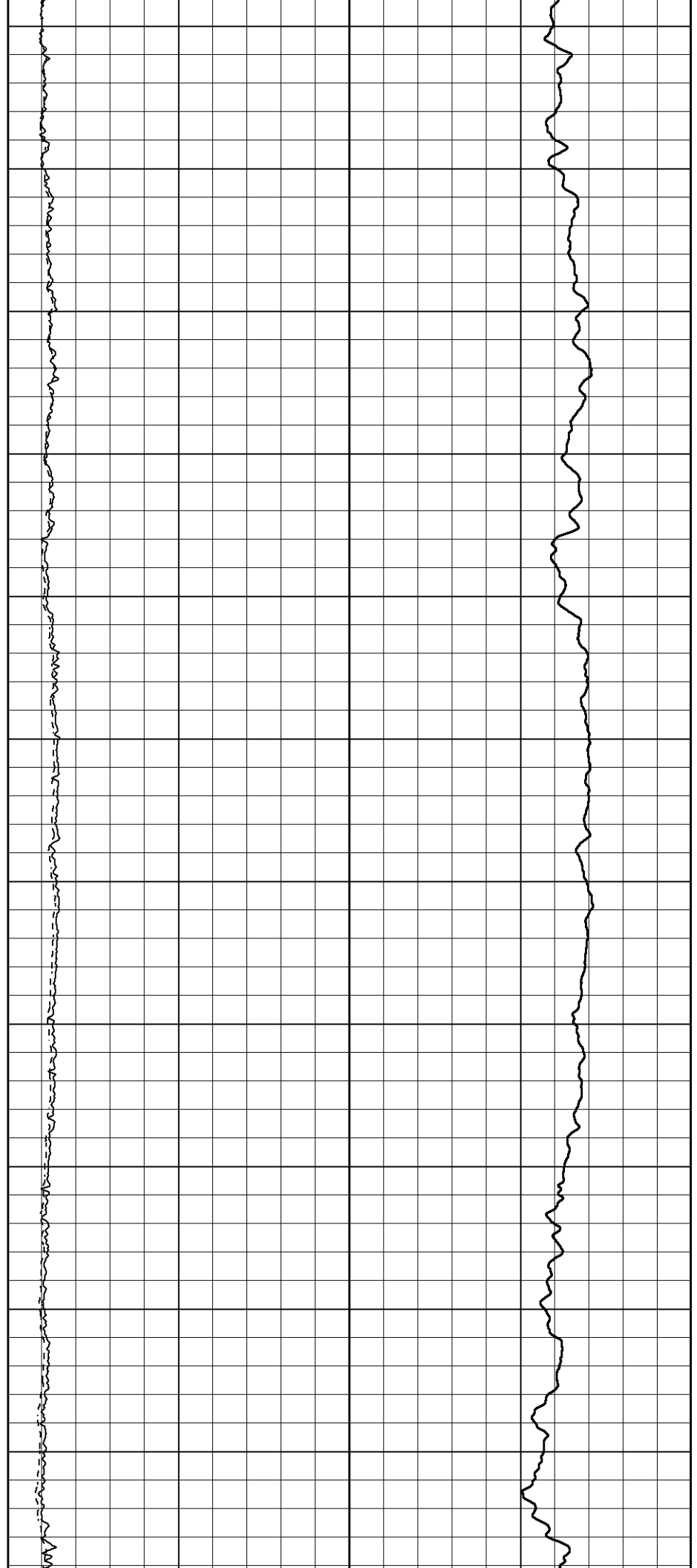
0 Gamma Ray (GAPI) 150
 -100 SP (mV) 100

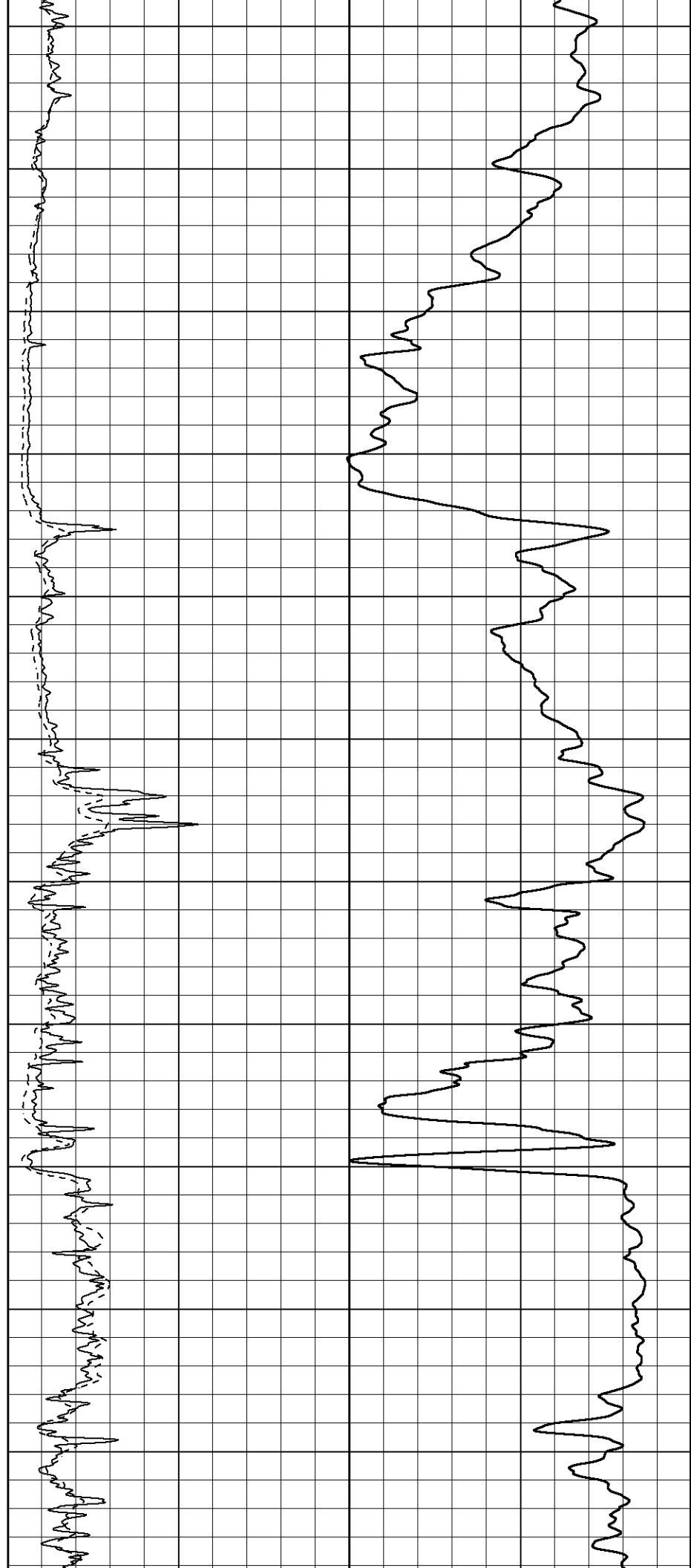
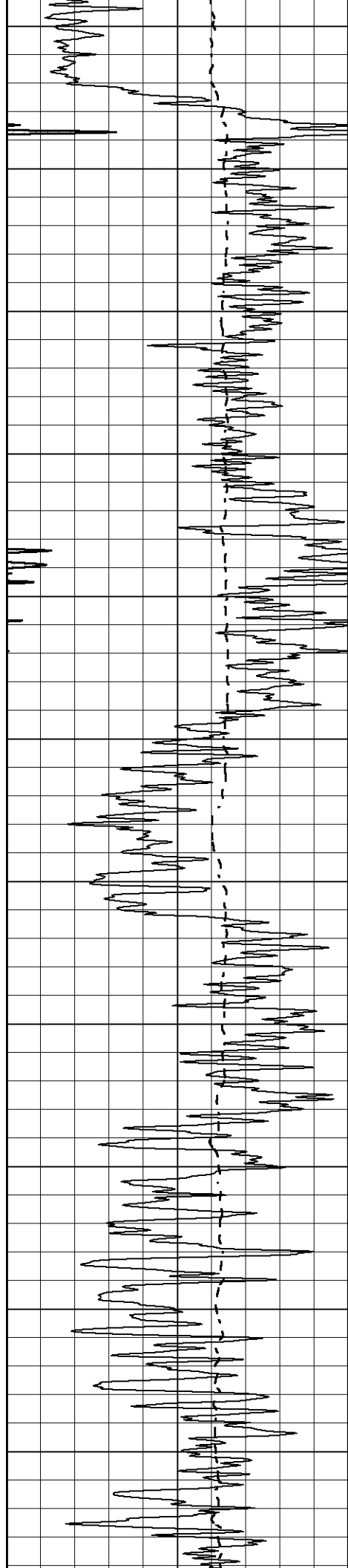
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500

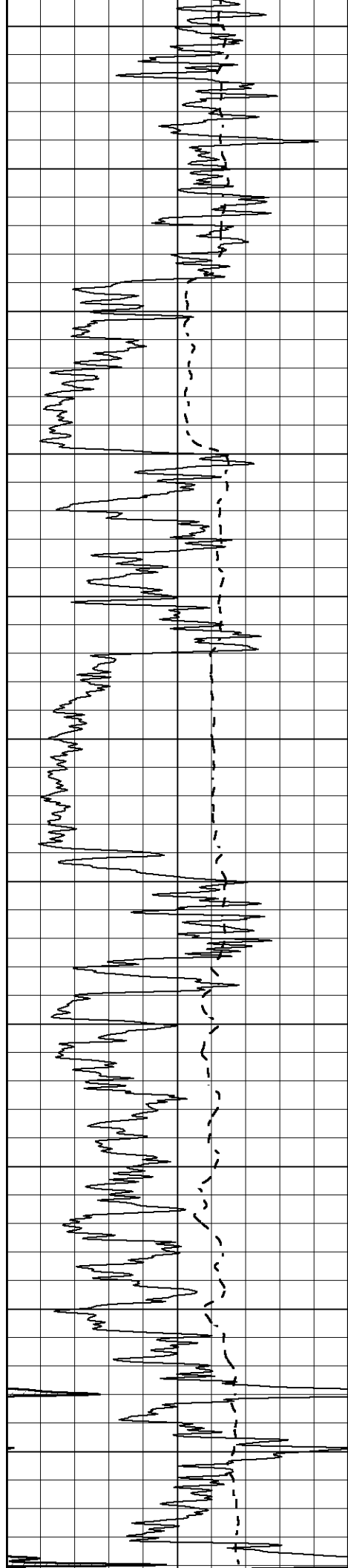




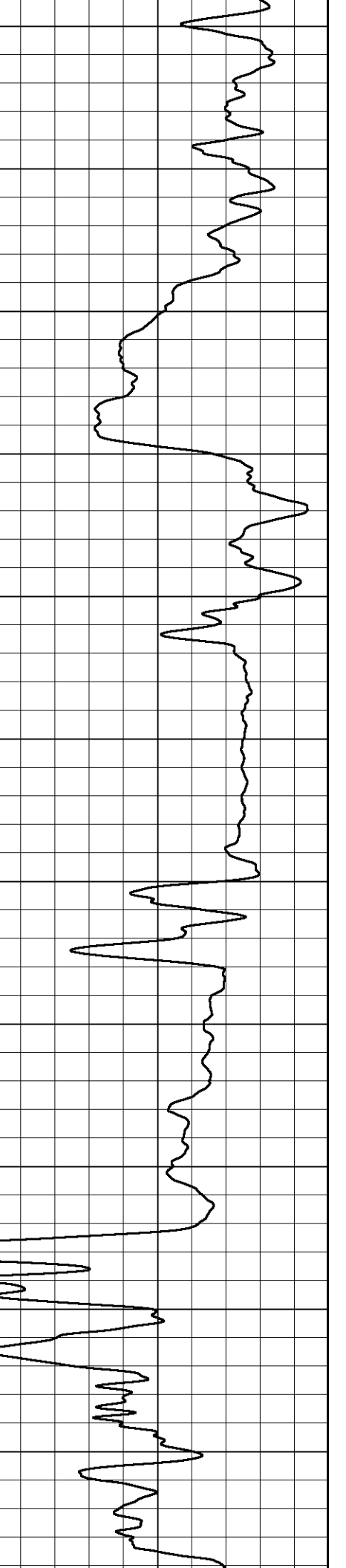
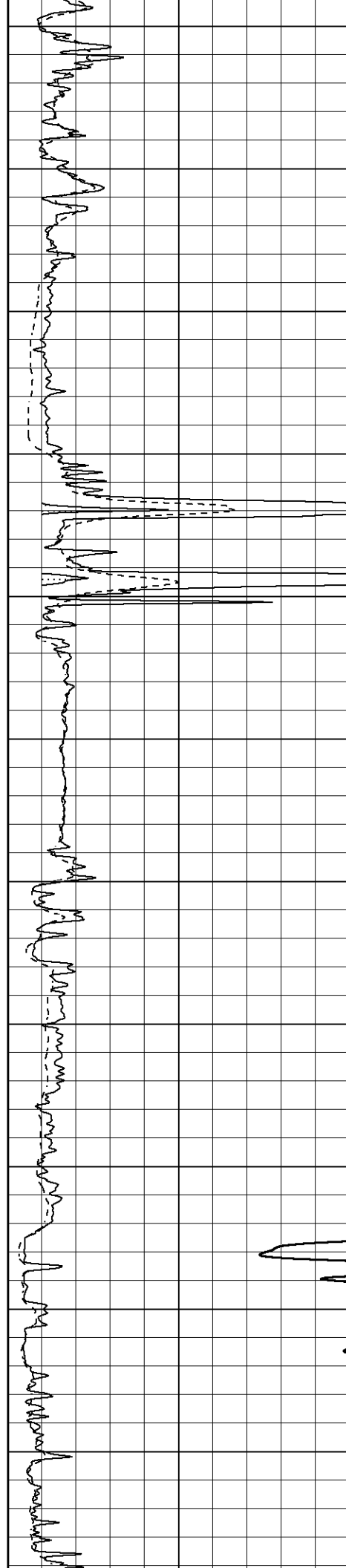
450
500
550
600
650
700
750
800
850
900
950

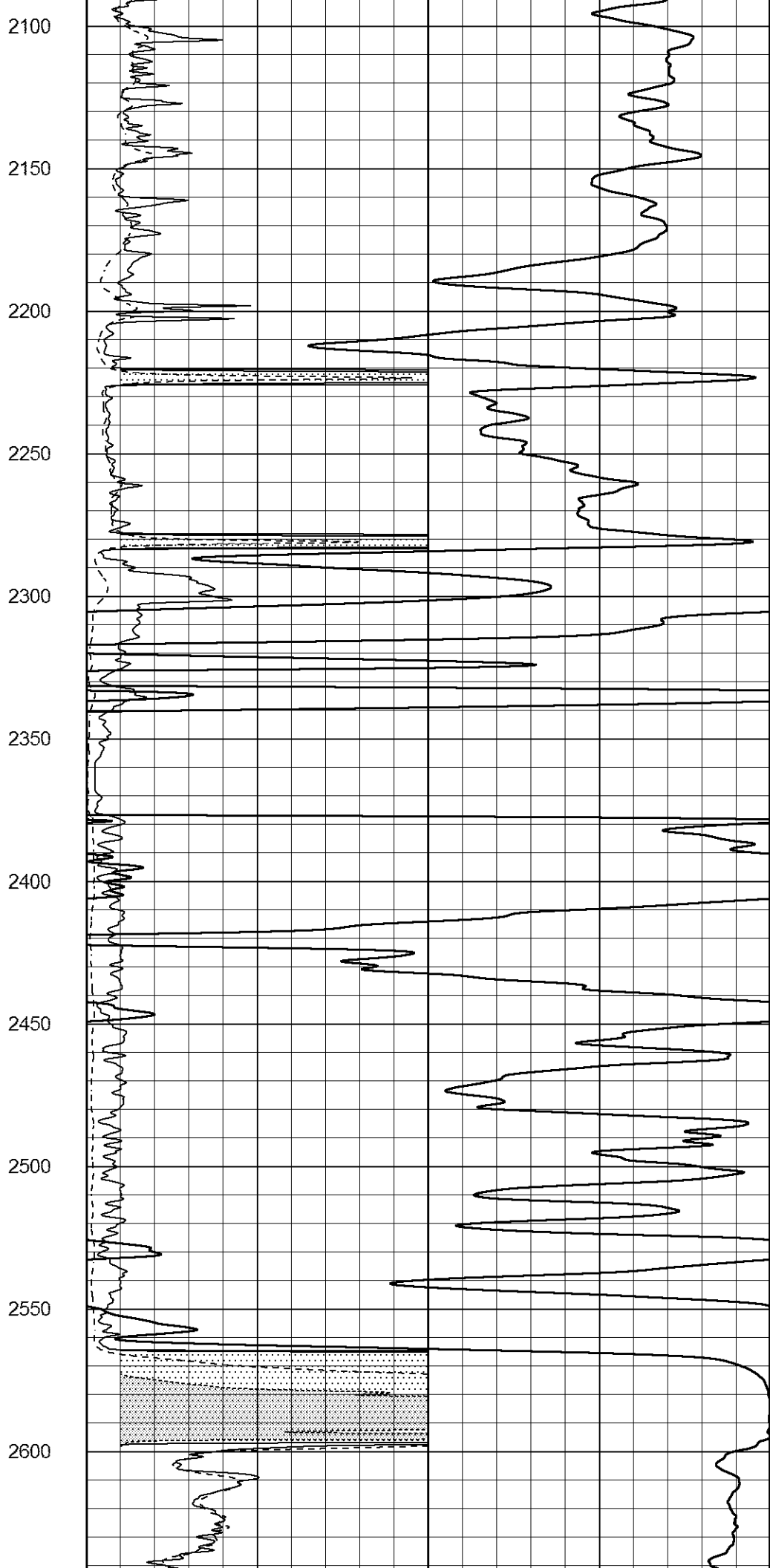
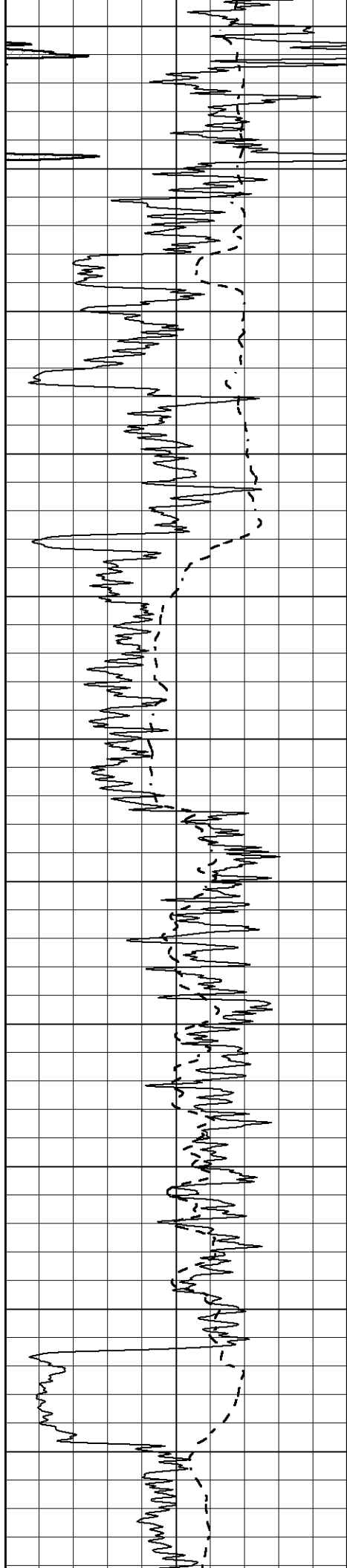


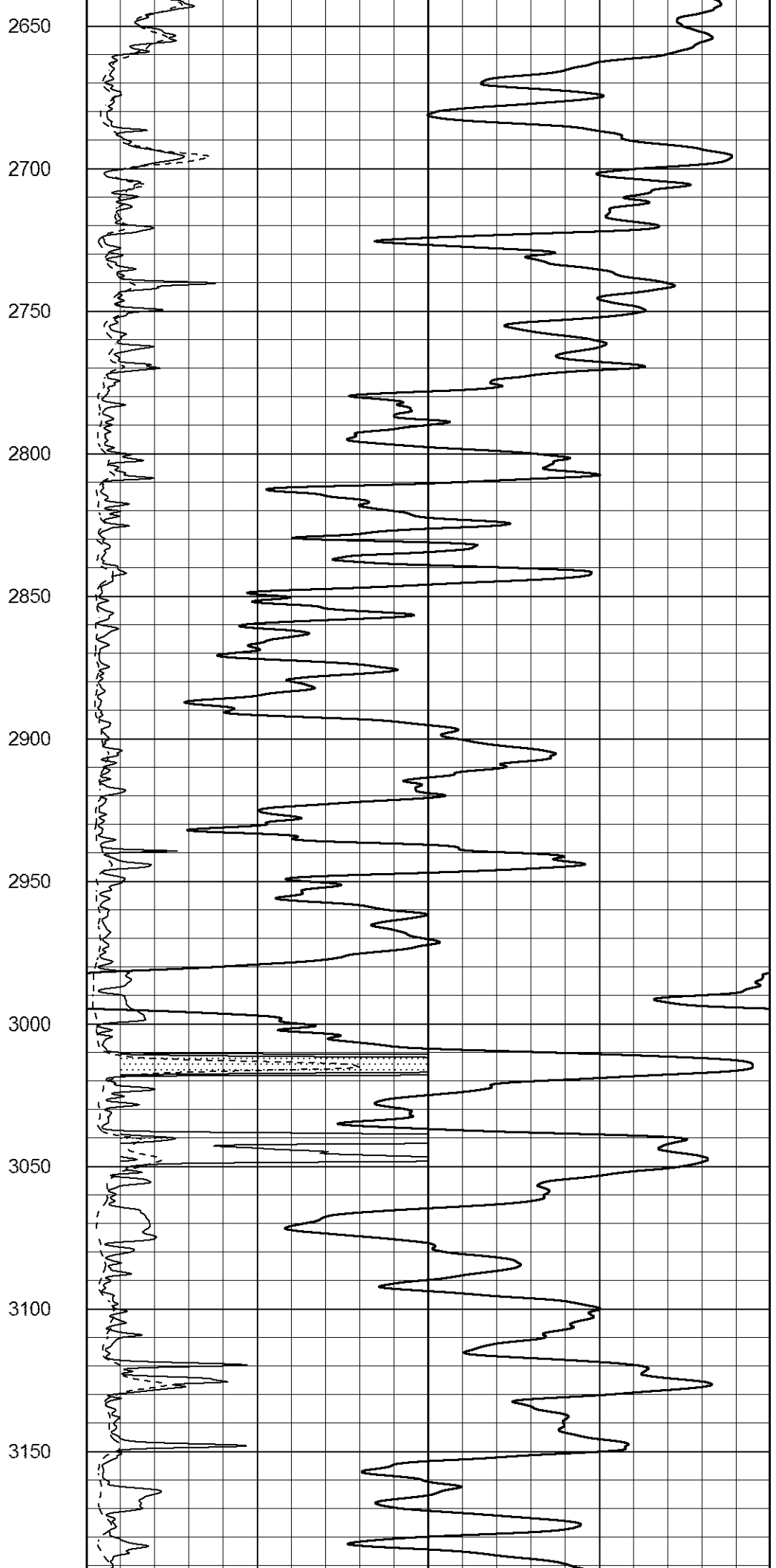
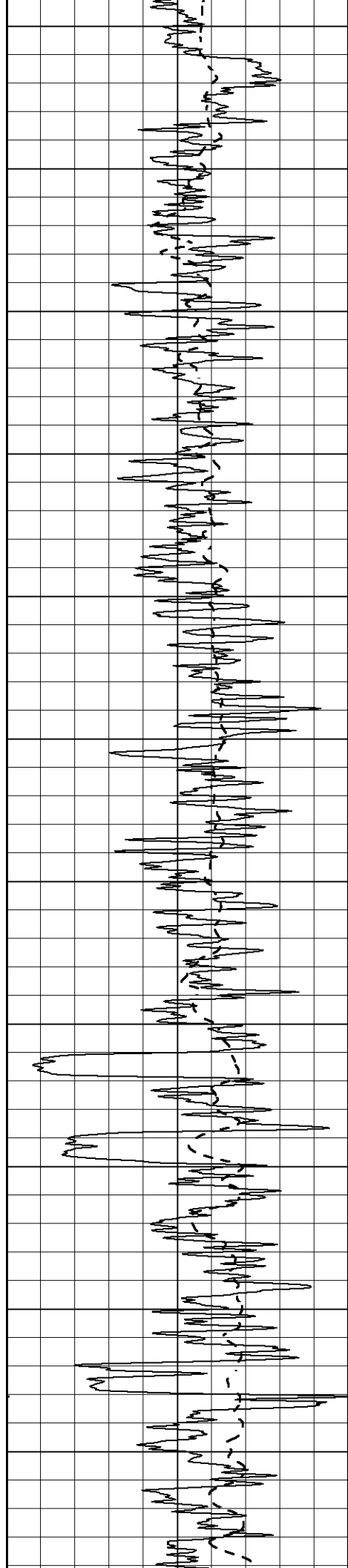


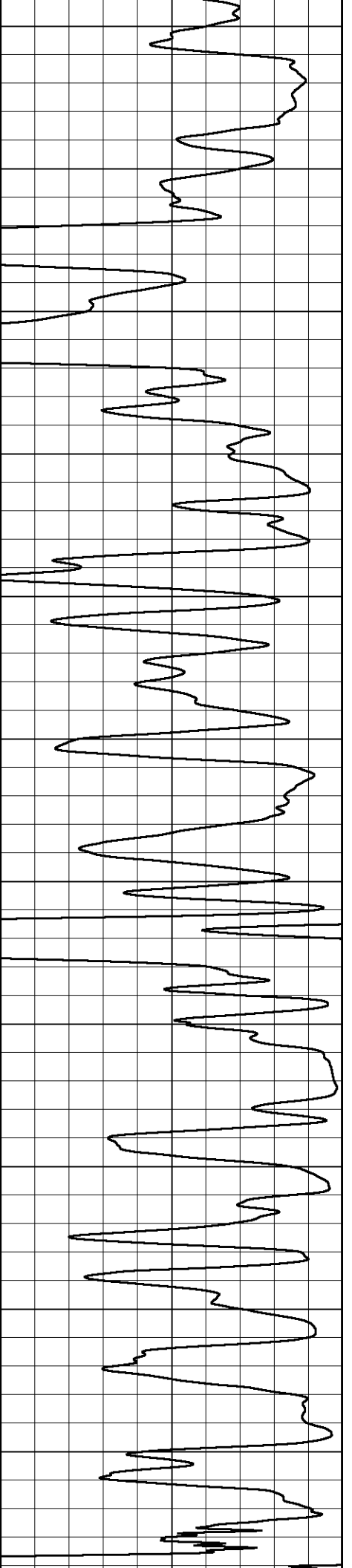
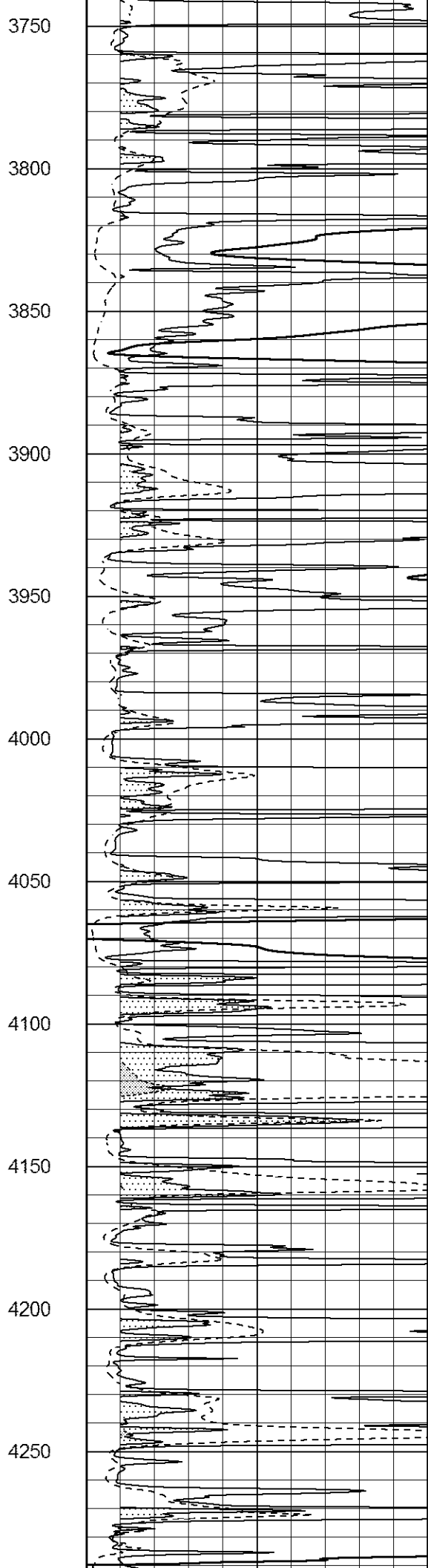
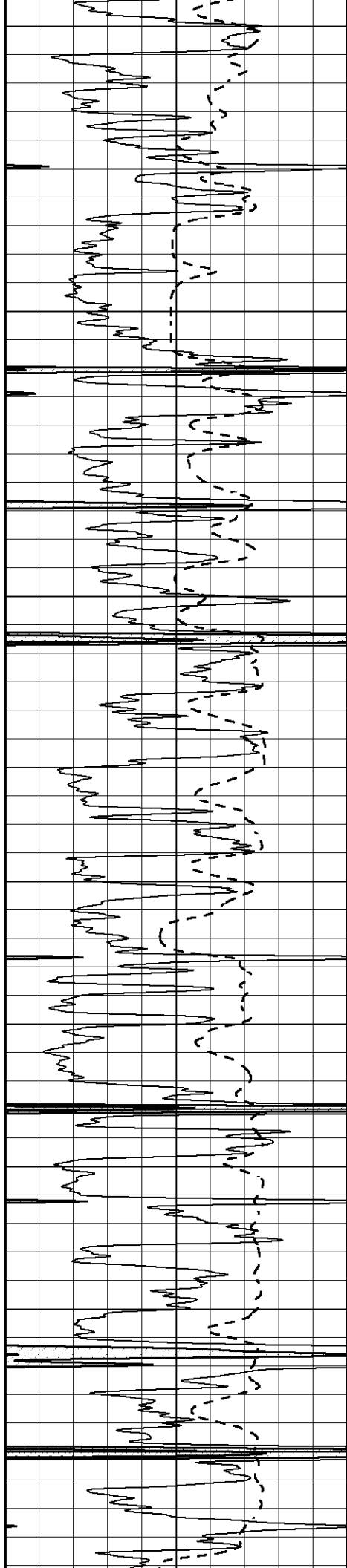


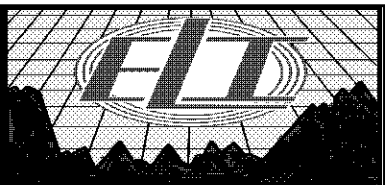
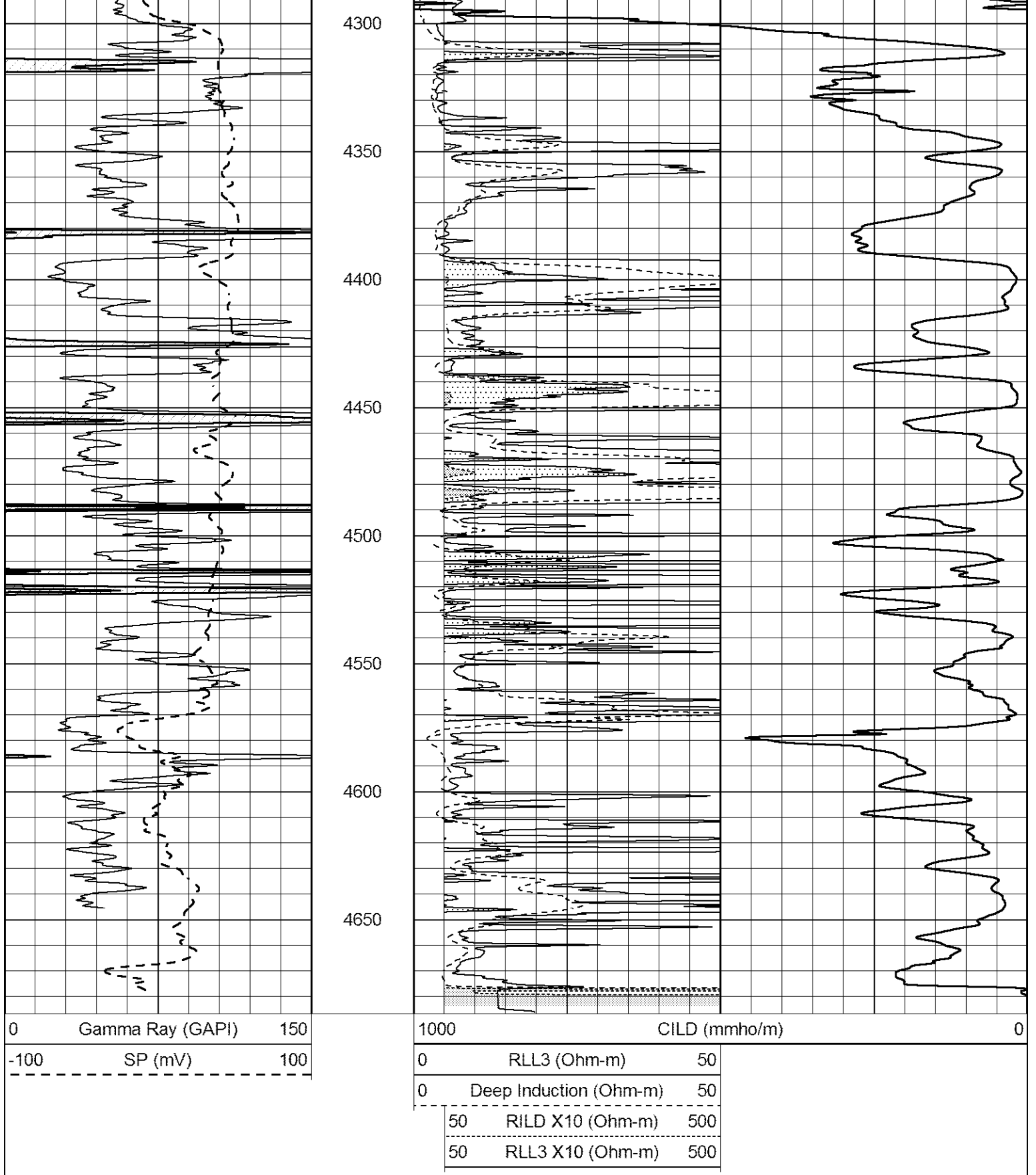
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050







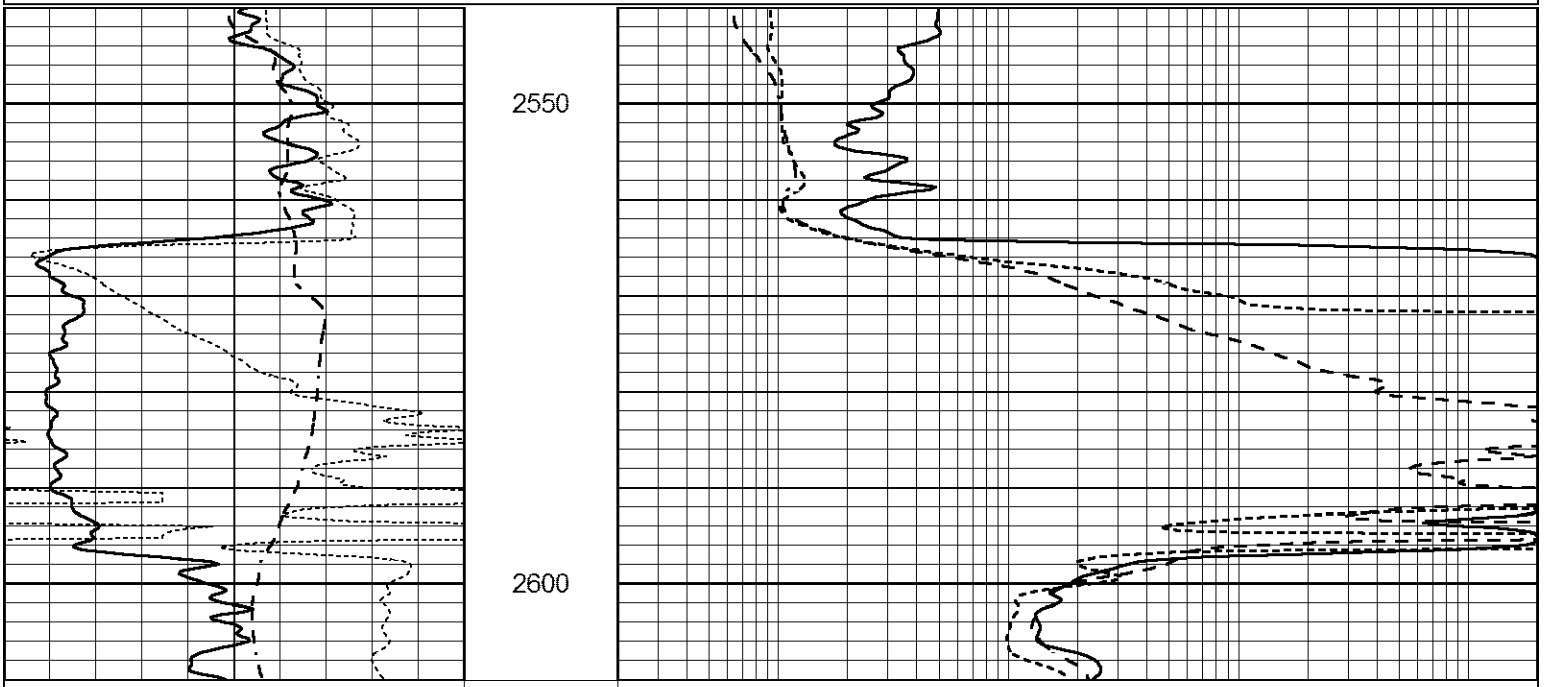




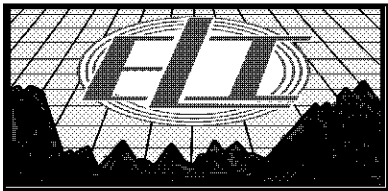
MAIN PASS

Database File 1145pe.db
 Dataset Pathname pass5.1
 Presentation Format _dil

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



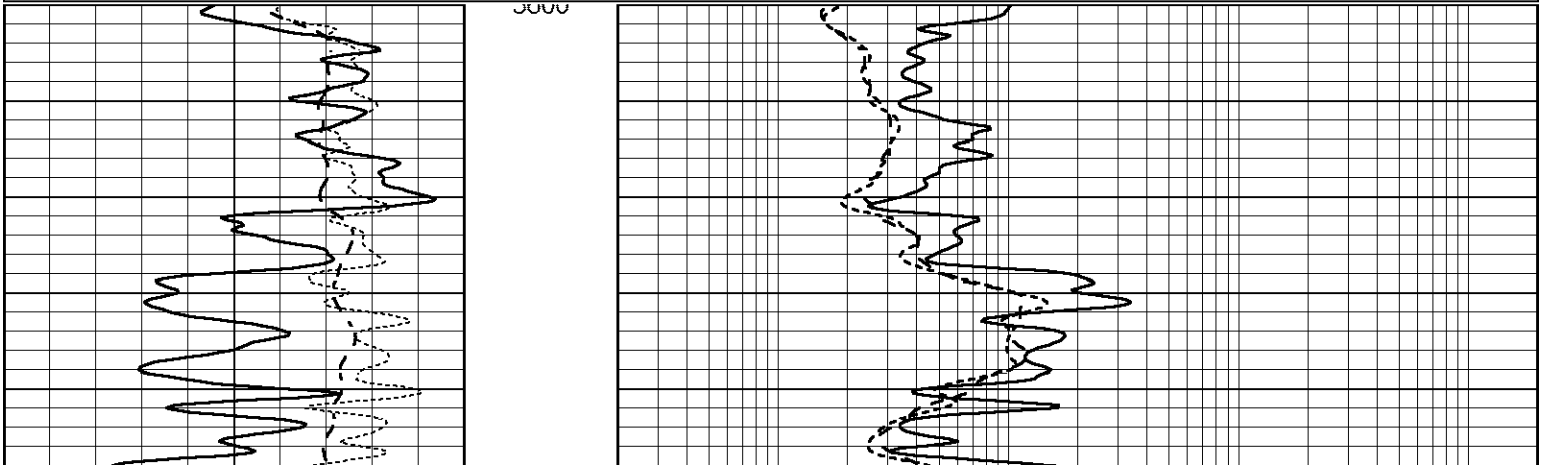
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-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

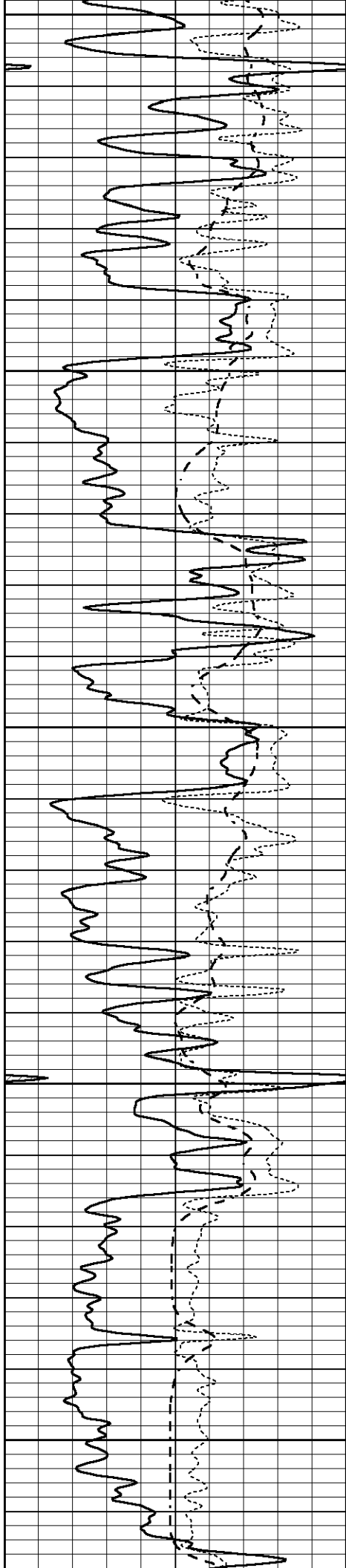


MAIN PASS

Database File 1145pe.db
 Dataset Pathname pass5.1
 Presentation Format _dil
 Dataset Creation Thu Jun 01 01:26:03 2017
 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	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000





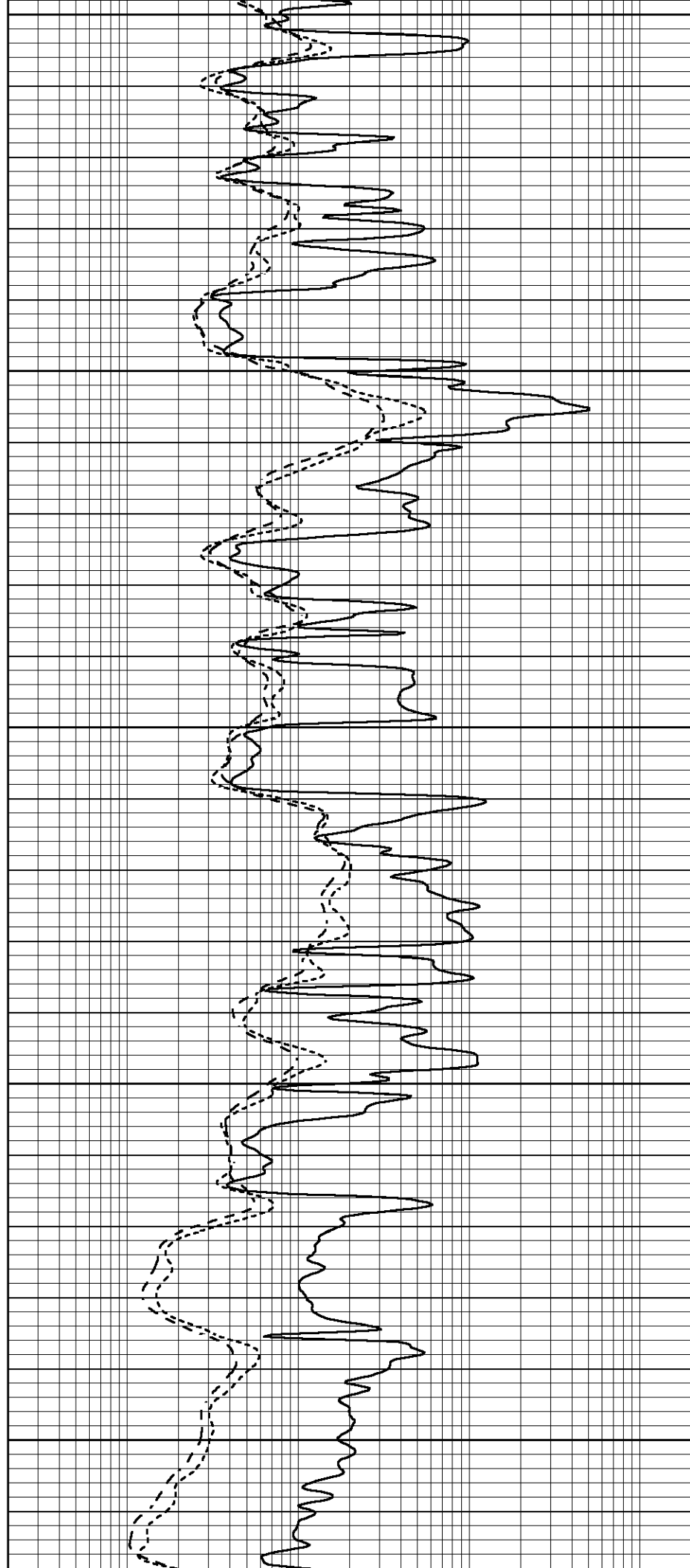
3650

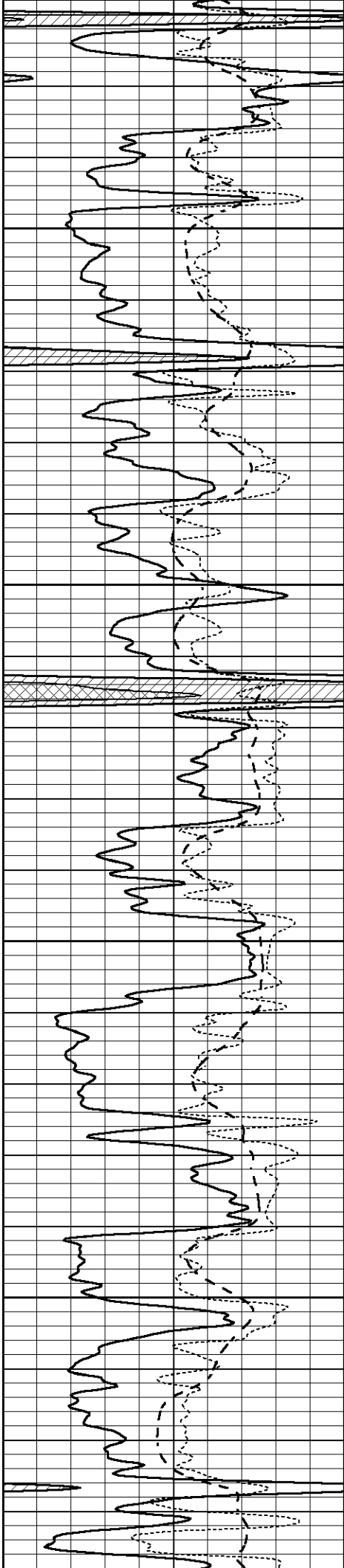
3700

3750

3800

3850



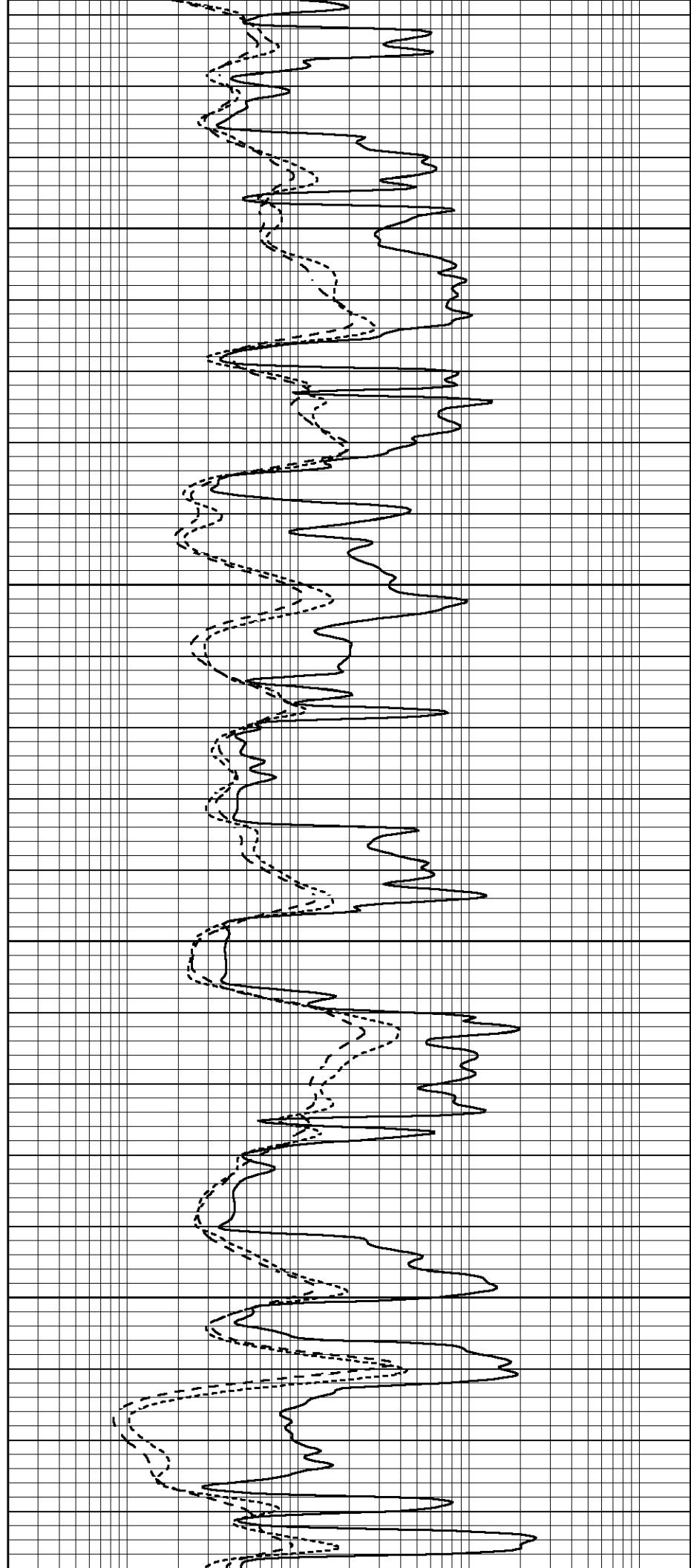


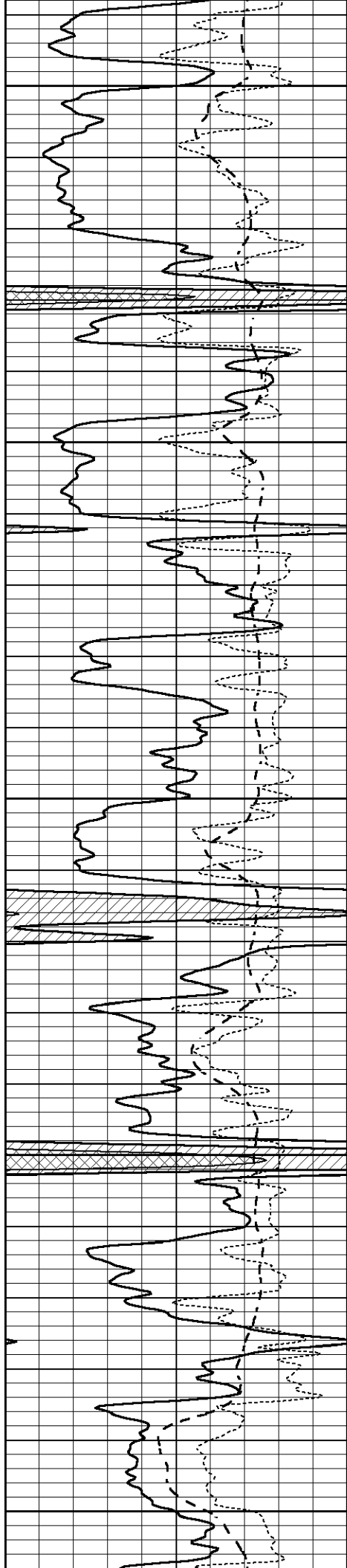
3900

3950

4000

4050





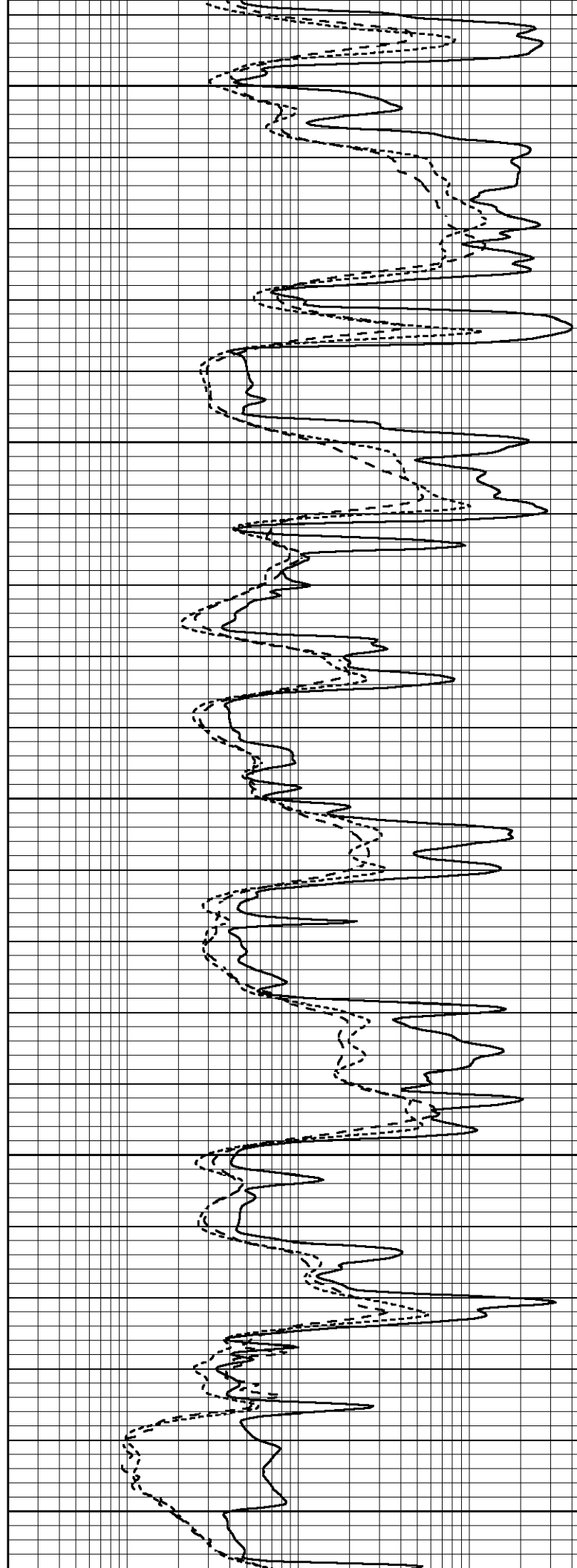
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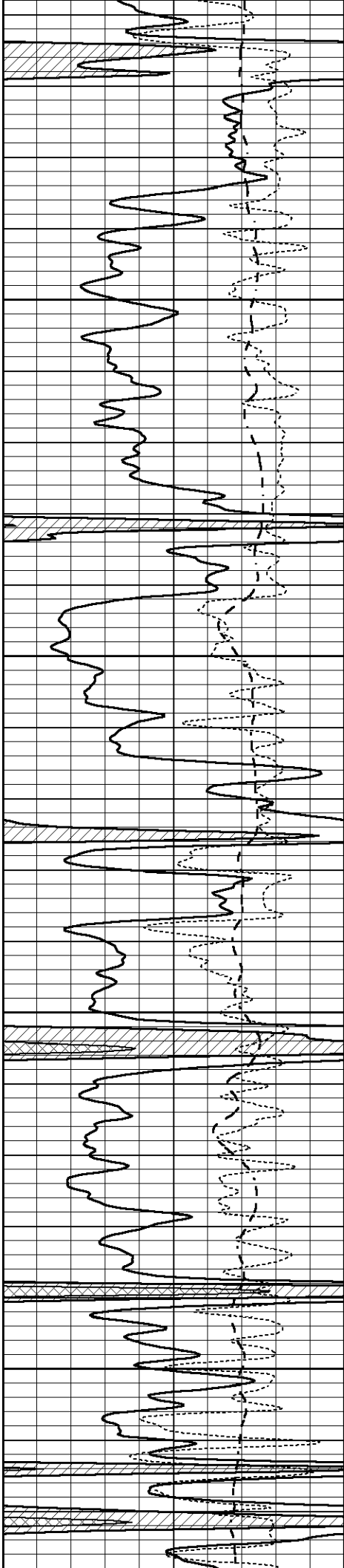
4150

4200

4250

4300



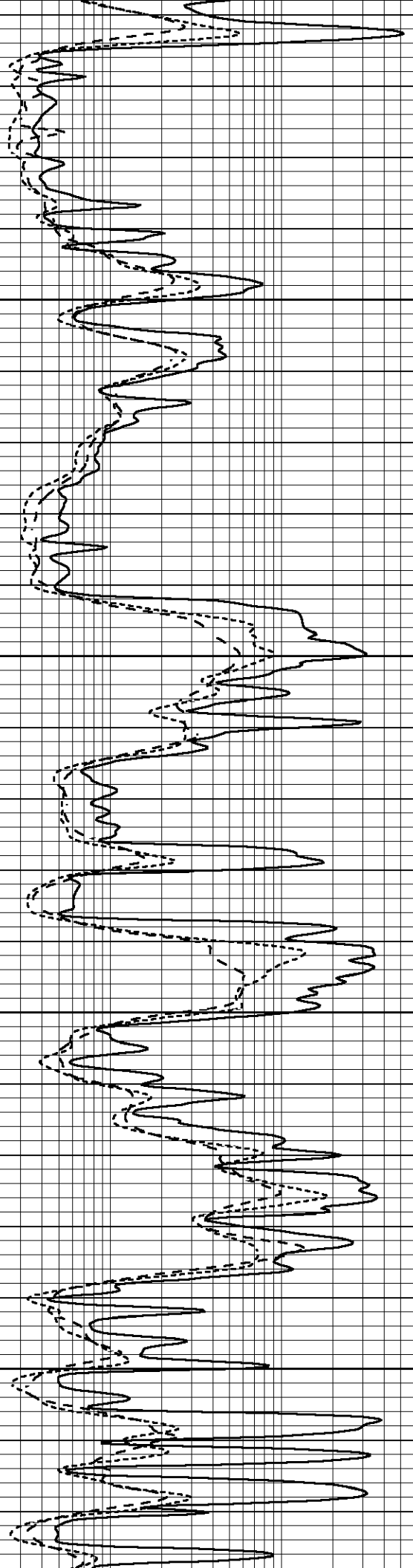


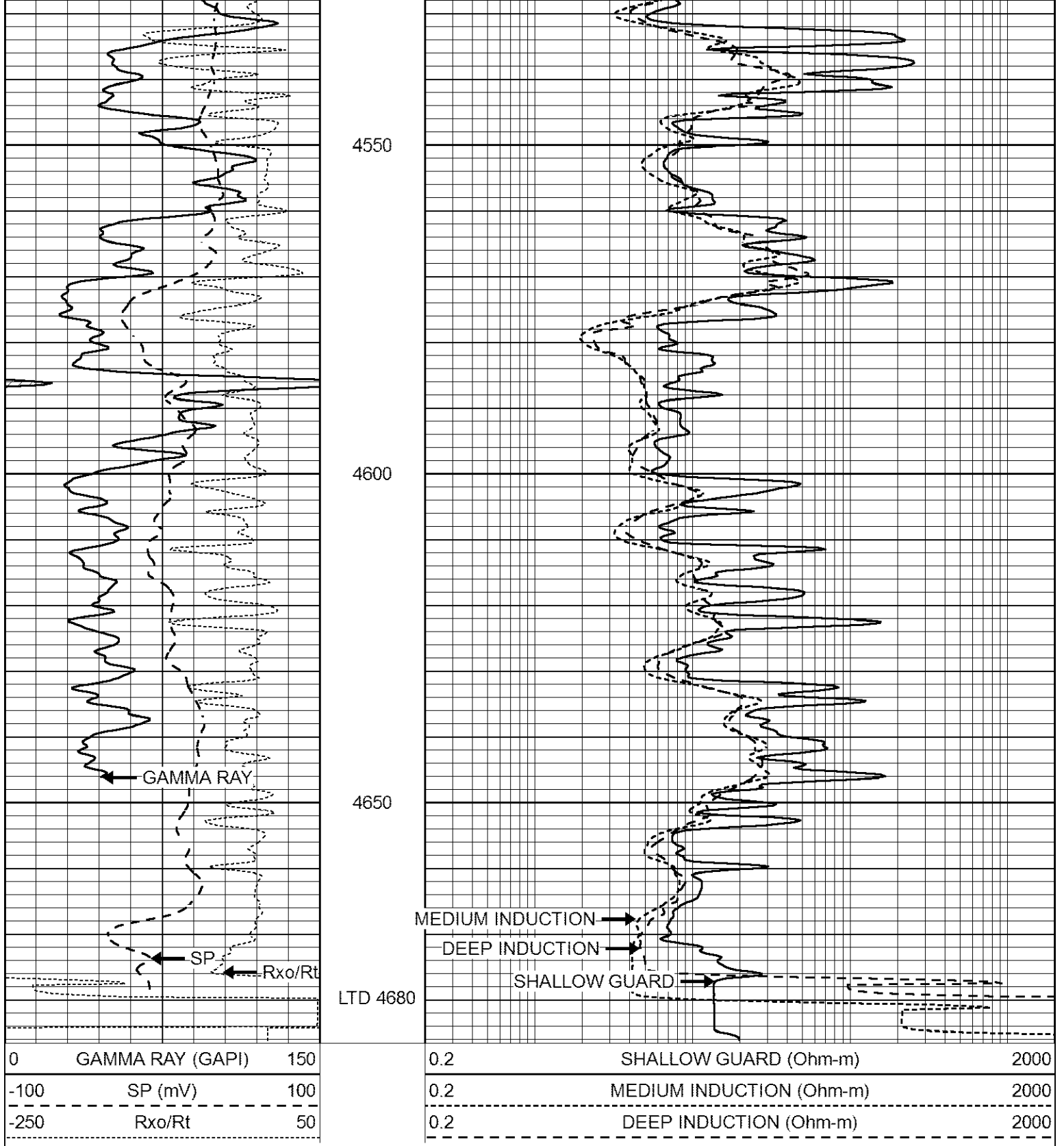
4350

4400

4450

4500



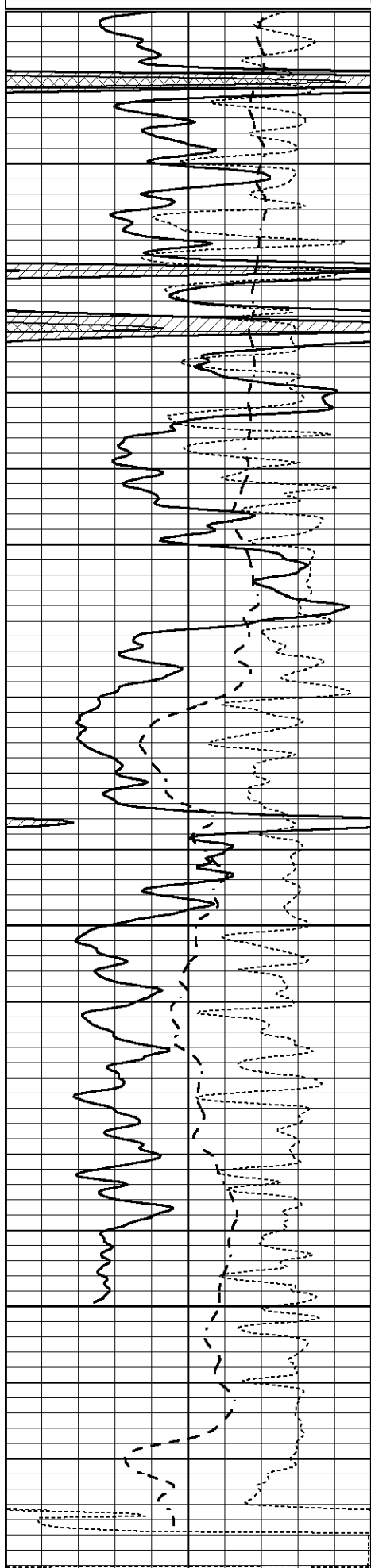


REPEAT SECTION

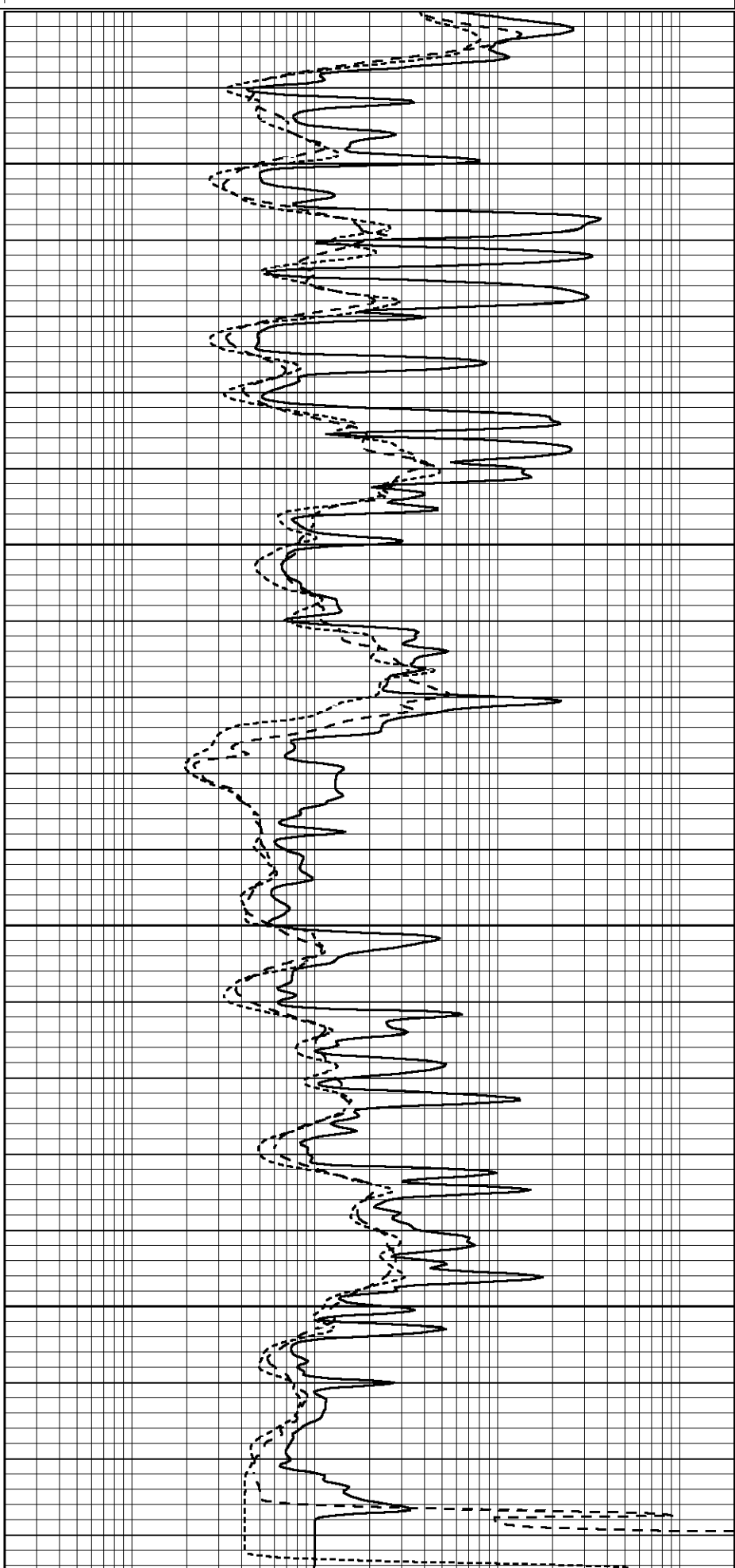
Database File 1145pe.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Thu Jun 01 01:37:33 2017
 Charted by Depth in Feet scaled 1:240

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

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



4500
4550
4600
4650



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

Calibration Report

Database File 1145pe.db
 Dataset Pathname pass3.1
 Dataset Creation Thu Jun 01 01:37:33 2017

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report

Serial: 140704
 Model: V4_10P
 Source Number: 74GBq-19

Master Calibration

Performed: Wed Feb 11 18:53:41 2015

	Background	Aluminum	Magnesium	
Window 1	613.01	6027.40	27508.60	cps
Window 2	48.21	1424.77	7132.66	cps
Window 4	266.48	1373.19	5767.15	cps

Window 5	622.07	10090.30	18937.90	cps	
Window 6	49.07	1682.84	3271.18	cps	
Window 8	298.04	3248.38	5980.58	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8451	SS Alpha:	: -0.7542	LS CPE:	: 1.0882
LS Beta:	: 138648.8473	SS Beta:	: 21960.9250	SS CPE:	: 1.5181

Before Survey Background Counts Verification Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

After Survey Background Counts Verification Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration Performed: Wed Feb 11 18:53:41 2015

Results	Readings	References (in)		Gain	Offset
<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Gain</u>	<u>Offset</u>
1107.5	7124.1	8.0	15.0	0.0	6.5

Before Survey Caliper Verification Performed:

	Reference	Reading
	_____	_____
Caliper (in)		

After Survey Caliper Verification Performed:

	Reference	Reading
	_____	_____
Caliper (in)		

Compensated Neutron Calibration Report

Serial Number: 080621PMC
Tool Model: NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558	
Tool Model:	Probe1	
Performed:	Mon May 22 14:24:46 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3800	GAPI/cps