DUAL INDUCTION LOG

Company SHELBY RESOURCES, LLC.
Well BORCK UNIT #1-25
Field N/A
County PAWNEE State KANSAS
Location: API # : 15-145-21843-00-00
1024 FSL & 2521 FEL
SEC 25 TWP 21S RGE 16W
Permanent Datum GROUND LEVEL Elevation 1970'
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/MEL
SONIC

Elevation
K.B. 1981
D.F. 1979
G.L. 1970

Date	12/11/18		
Run Number	ONE		
Depth Driller	3980		
Depth Logger	3980		
Bottom Logged Interval	3978		
Top Log Interval	900		
Casing Driller	8 5/8@ 975		
Casing Logger	975		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.4/64		
pH / Fluid Loss	10.0/10.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.1@62		
Rmf @ Meas. Temp	.83@62		
Rmc @ Meas. Temp	1.32@62		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.59@116		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	116F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	JEREMY SCHWARTZ		

<<< Fold Here >>>

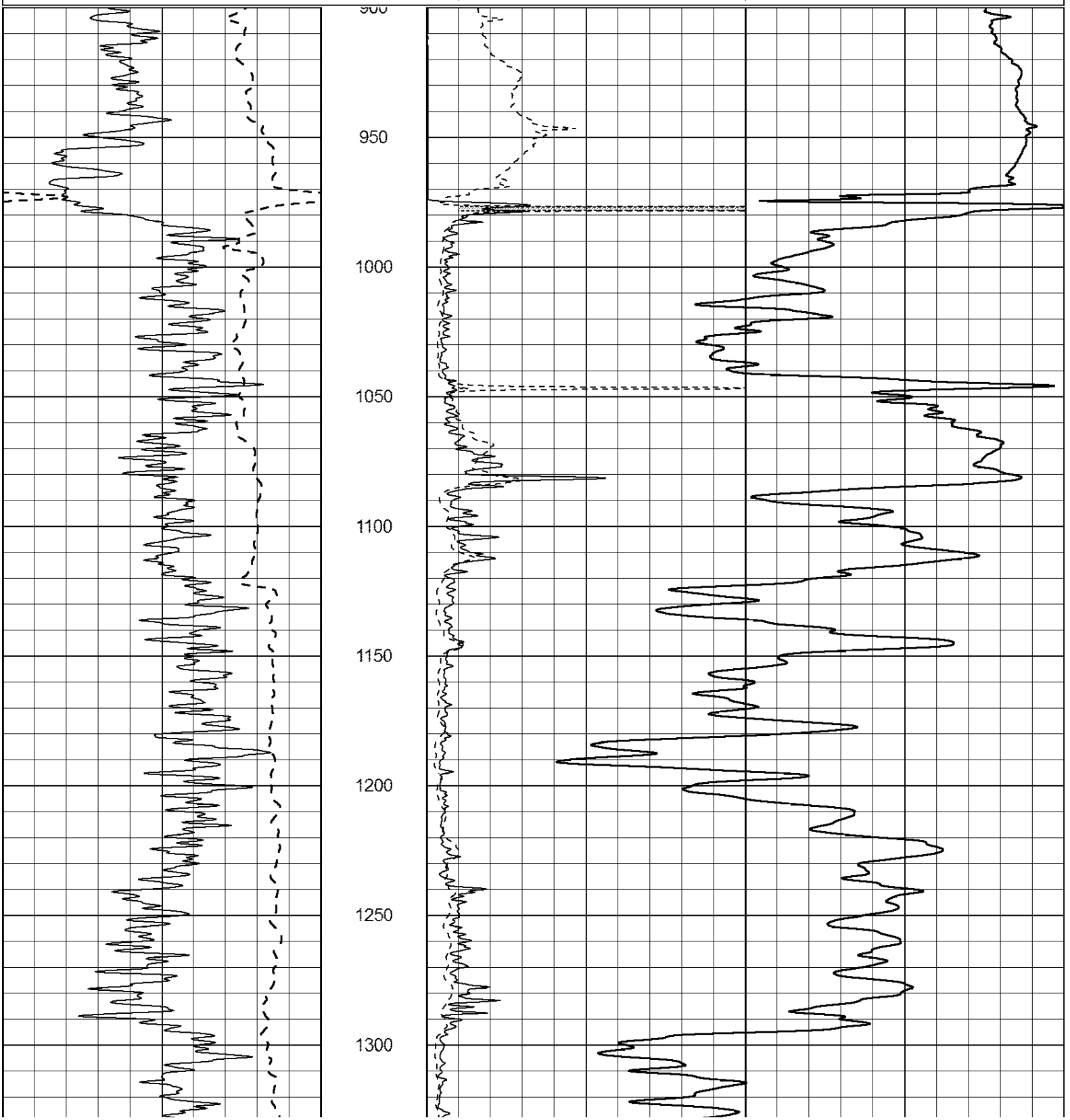
Comments

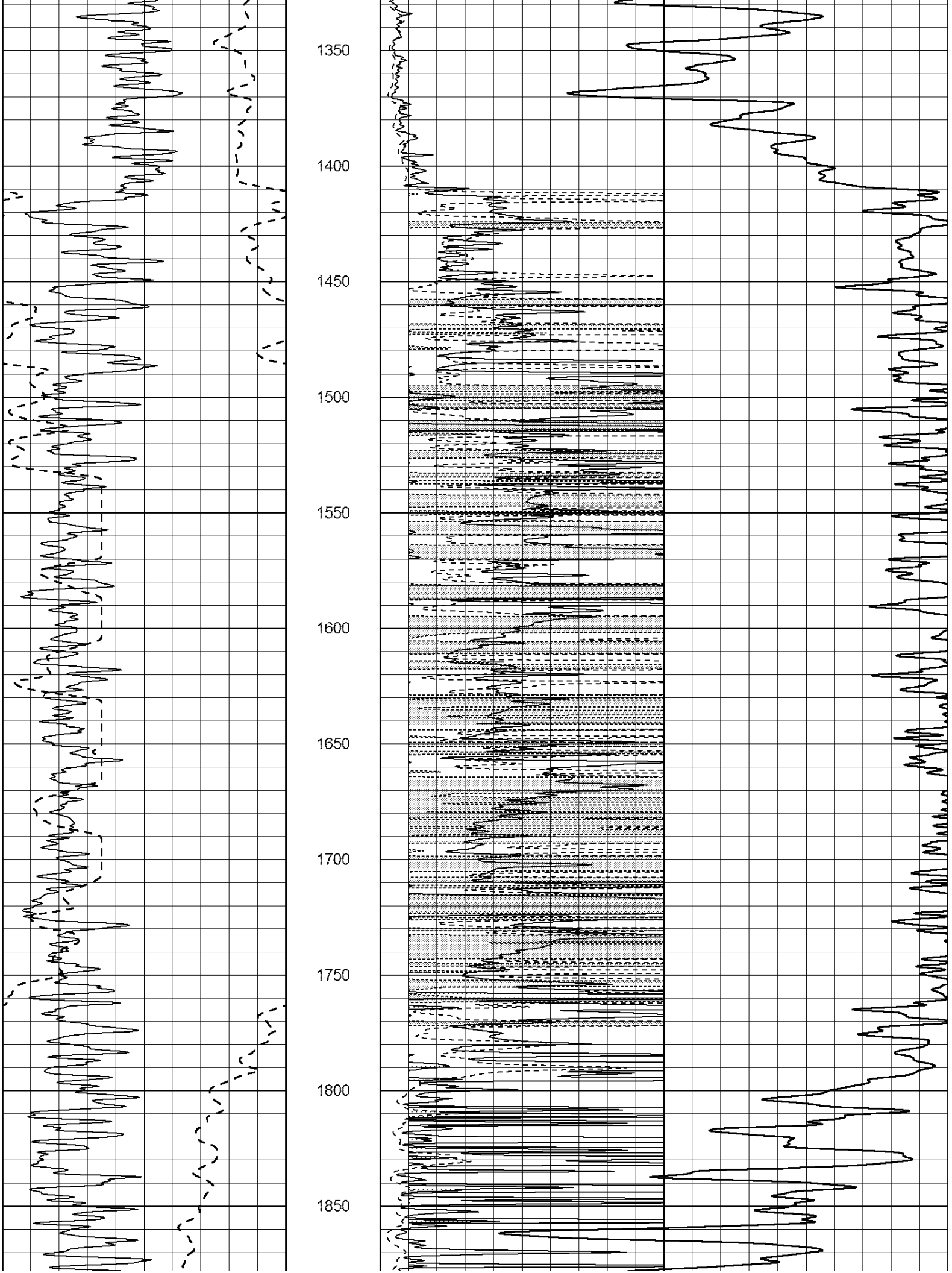
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395

DIRECTIONS
LARNED, HEAD NE ON HIGHWAY TILL YOU GET TO O RD.
GO SE TO 80 TH, GO SOUTH TO DEAD IN EAST INTO.

MAIN PASS

Database File: 3165ddn.db
Dataset Pathname: pass3
Presentation Format: _dil2
Dataset Creation: Tue Dec 11 17:06:12 2018 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

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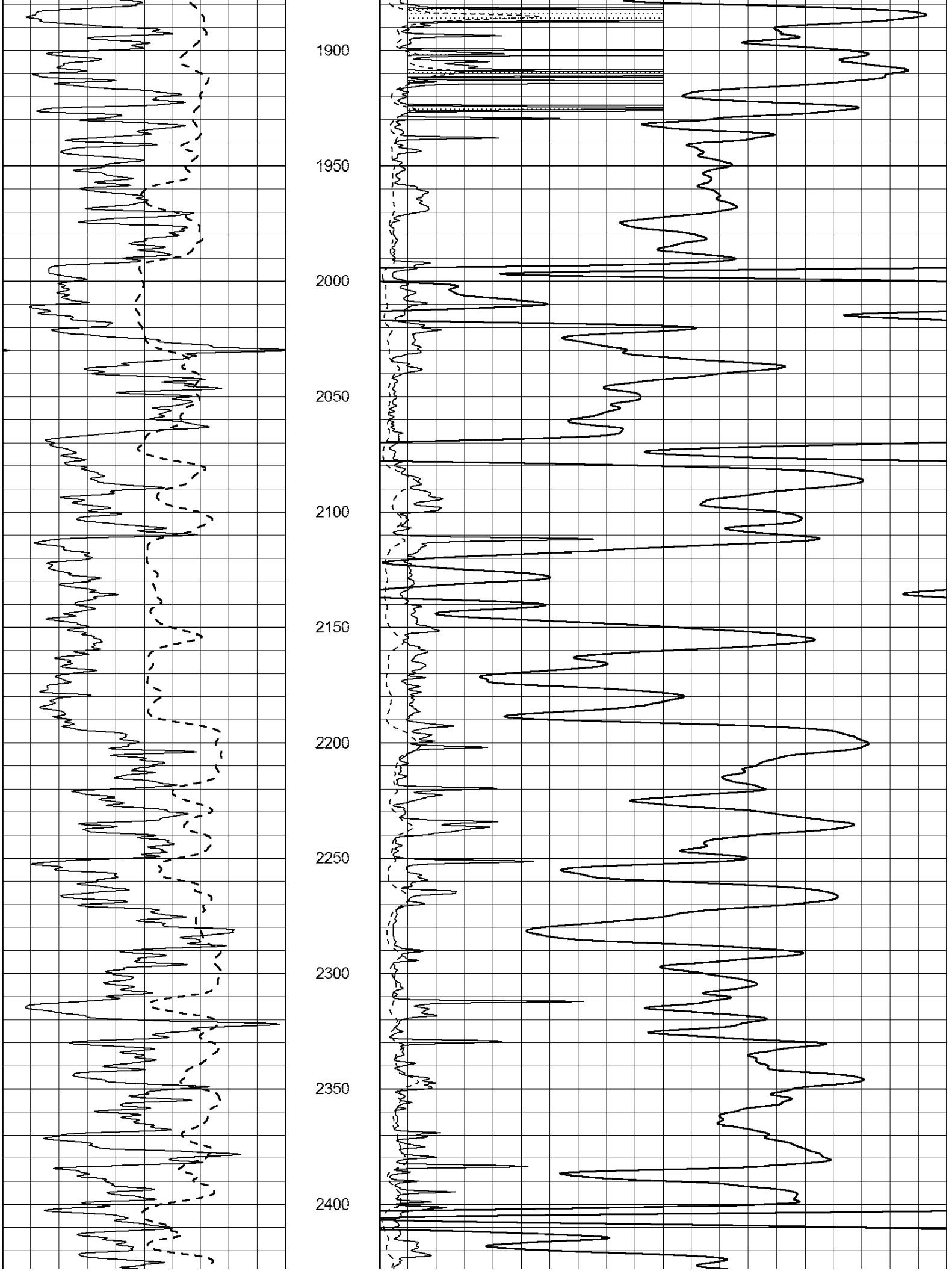
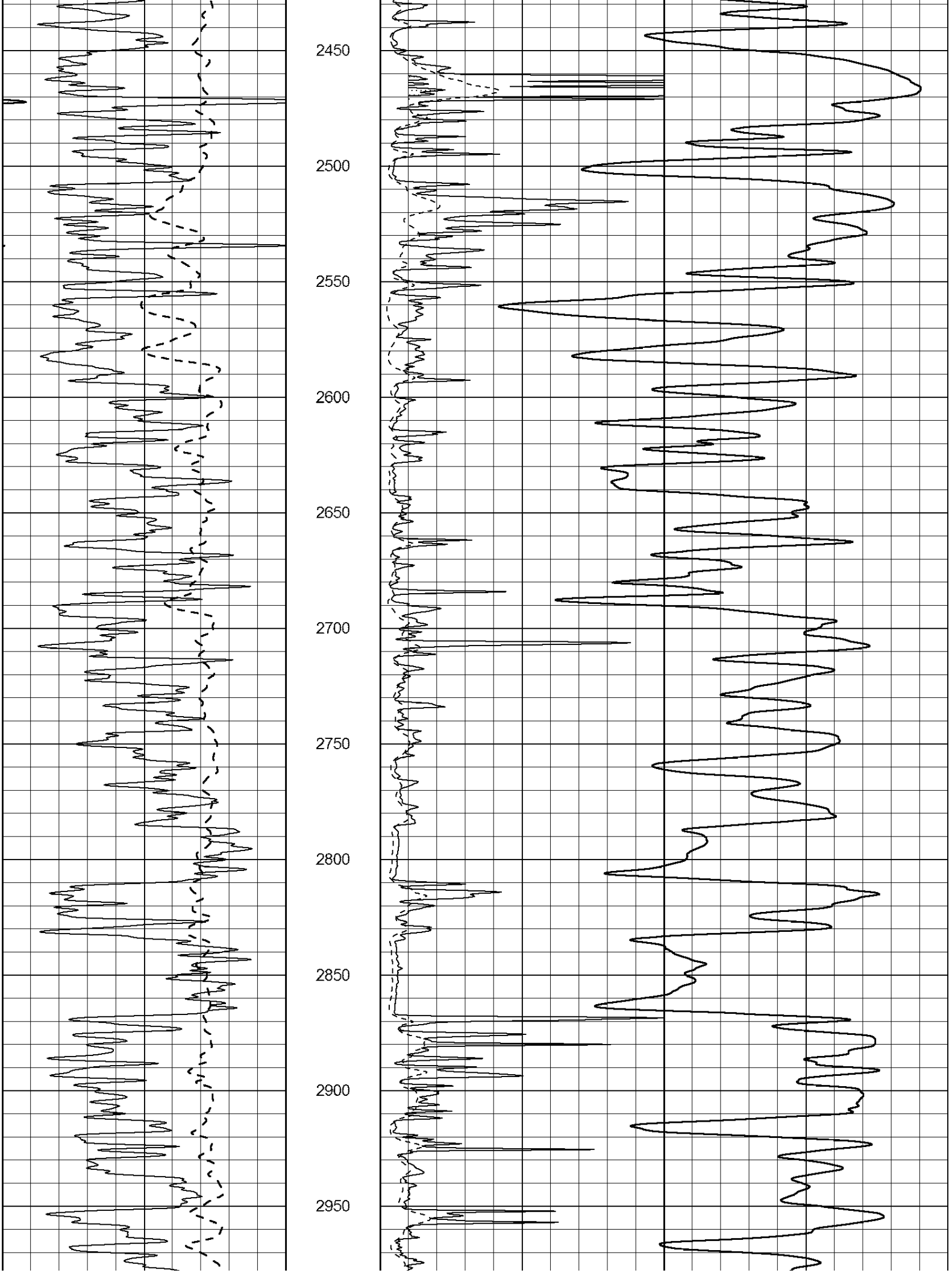
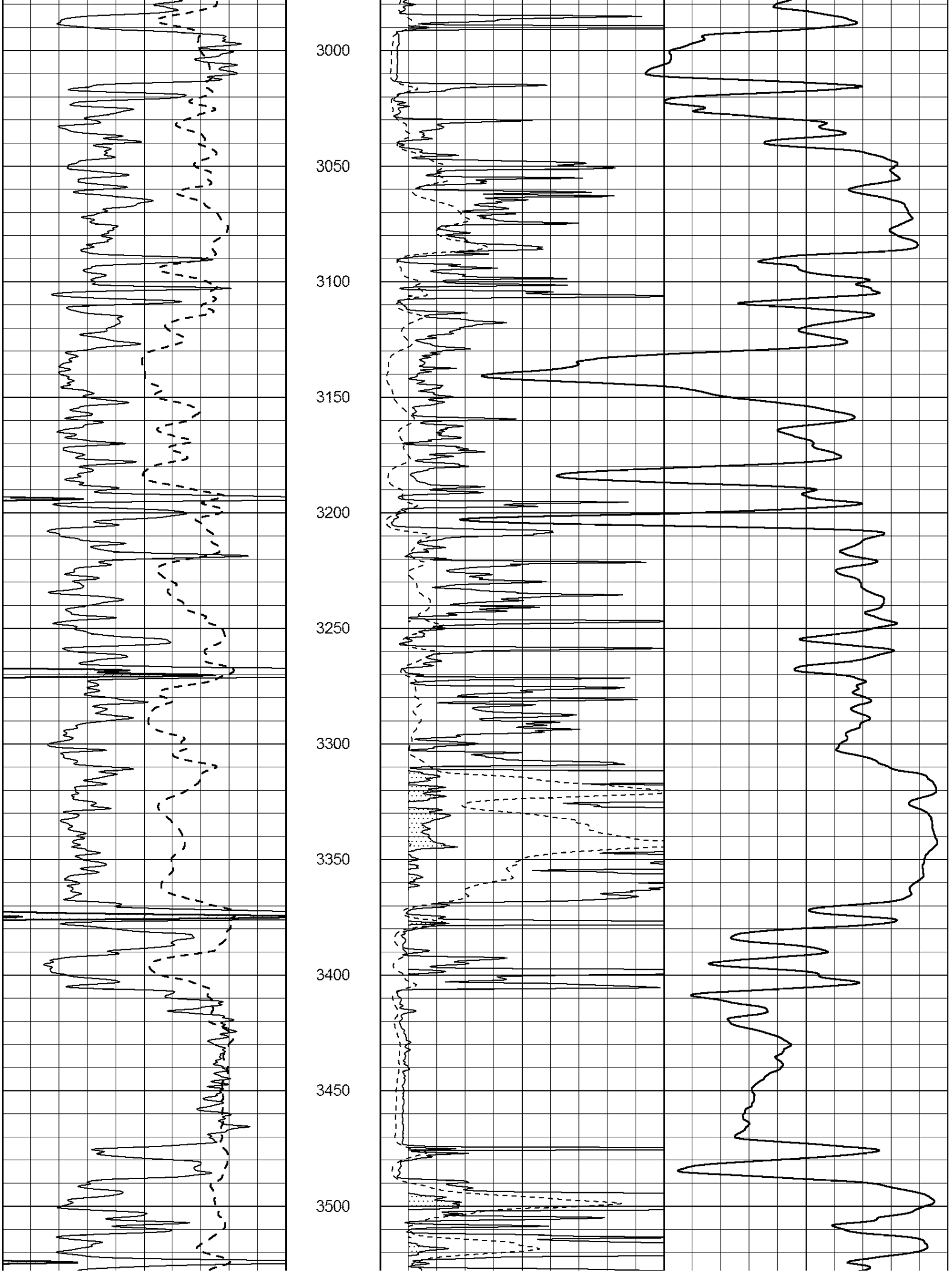
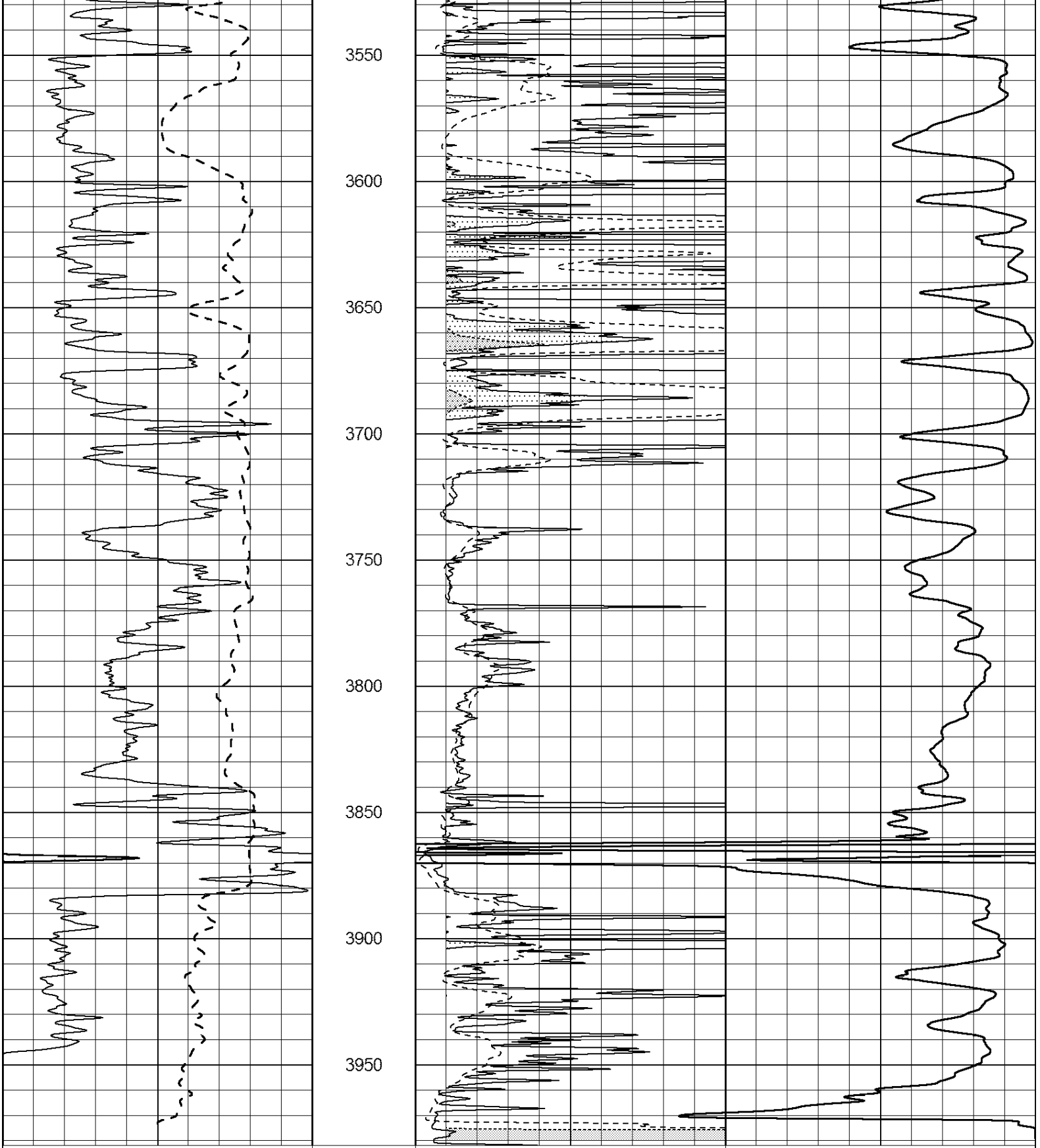
1400
1450
1500
1550
1600
1650
1700
1750
1800
1850


1900
1950
2000
2050
2100
2150
2200
2250
2300
2350
2400


2450
2500
2550
2600
2650
2700
2750
2800
2850
2900
2950


3000
3050
3100
3150
3200
3250
3300
3350
3400
3450
3500


3550
3600
3650
3700
3750
3800
3850
3900
3950
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100
0 RLL3 (Ohm-m) 50
0 RILD (Ohm-m) 50
1000 CILD (mmho/m) 0
50 RILD X10 (Ohm-m) 500
50 RLL3 X10 (Ohm-m) 500

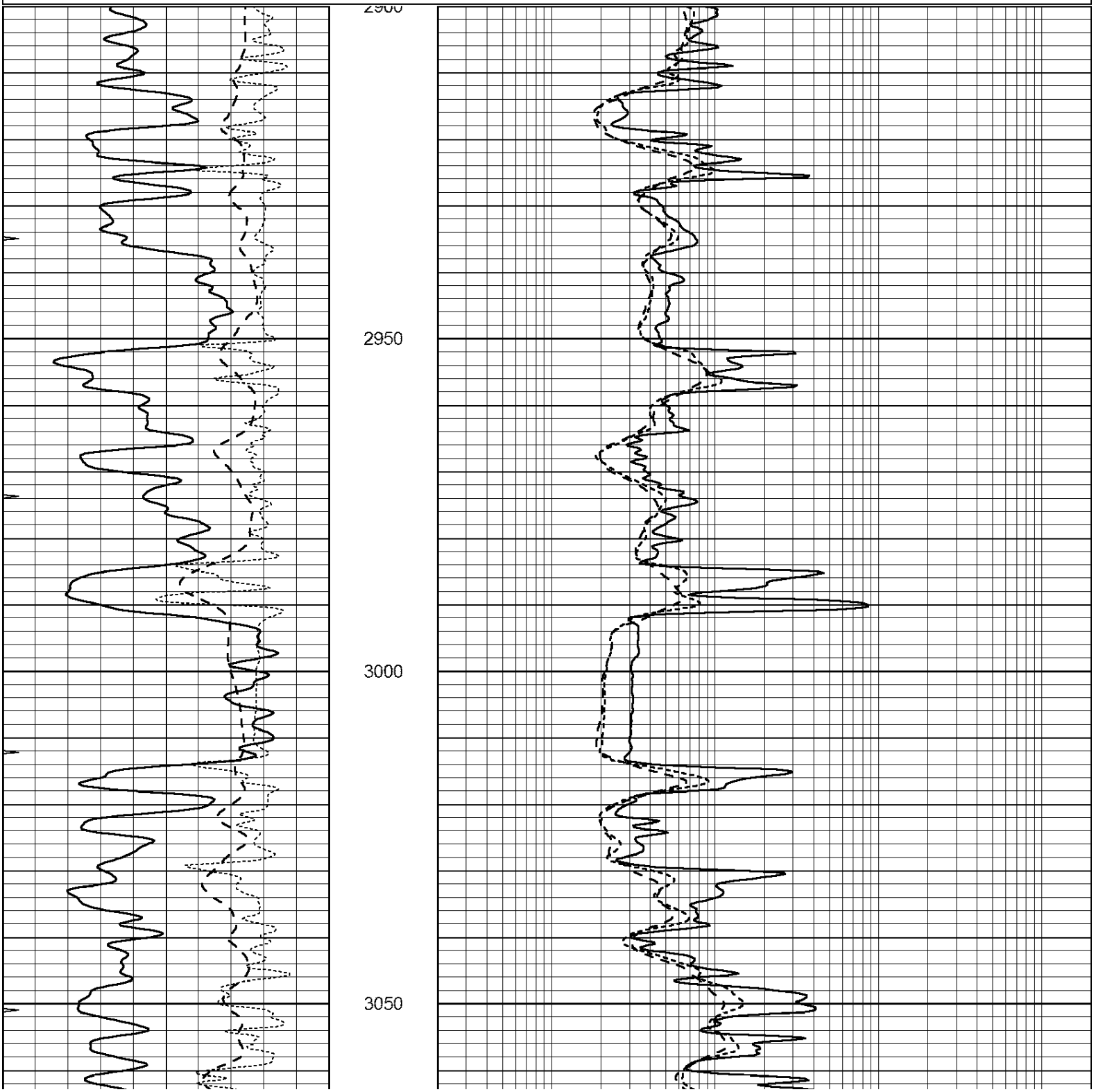
MAIN PASS

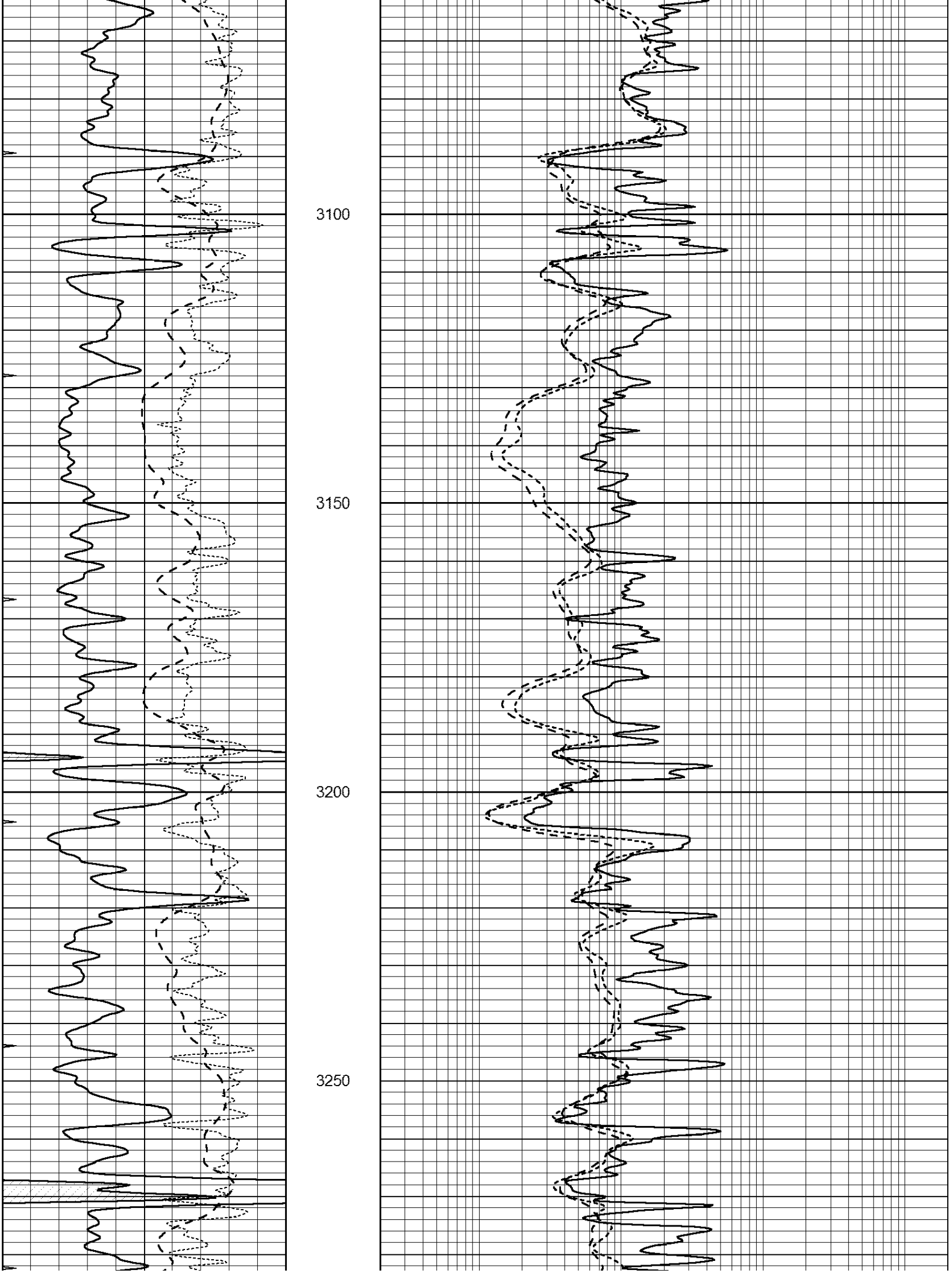
MAIN PASS

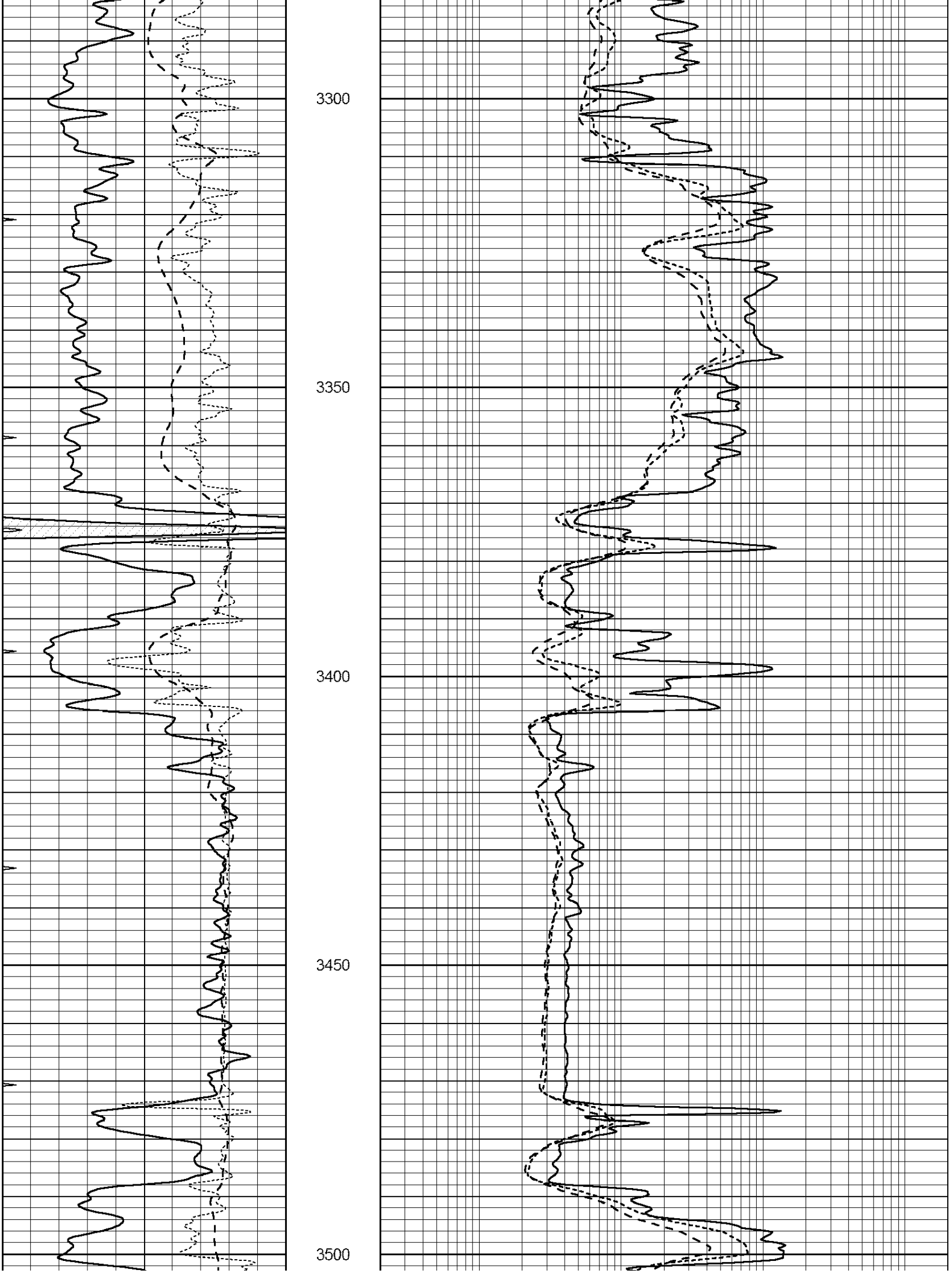
Database File: 3165ddn.db
Dataset Pathname: pass3
Presentation Format: _dil
Dataset Creation: Tue Dec 11 17:06:12 2018 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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




3100
3150
3200
3250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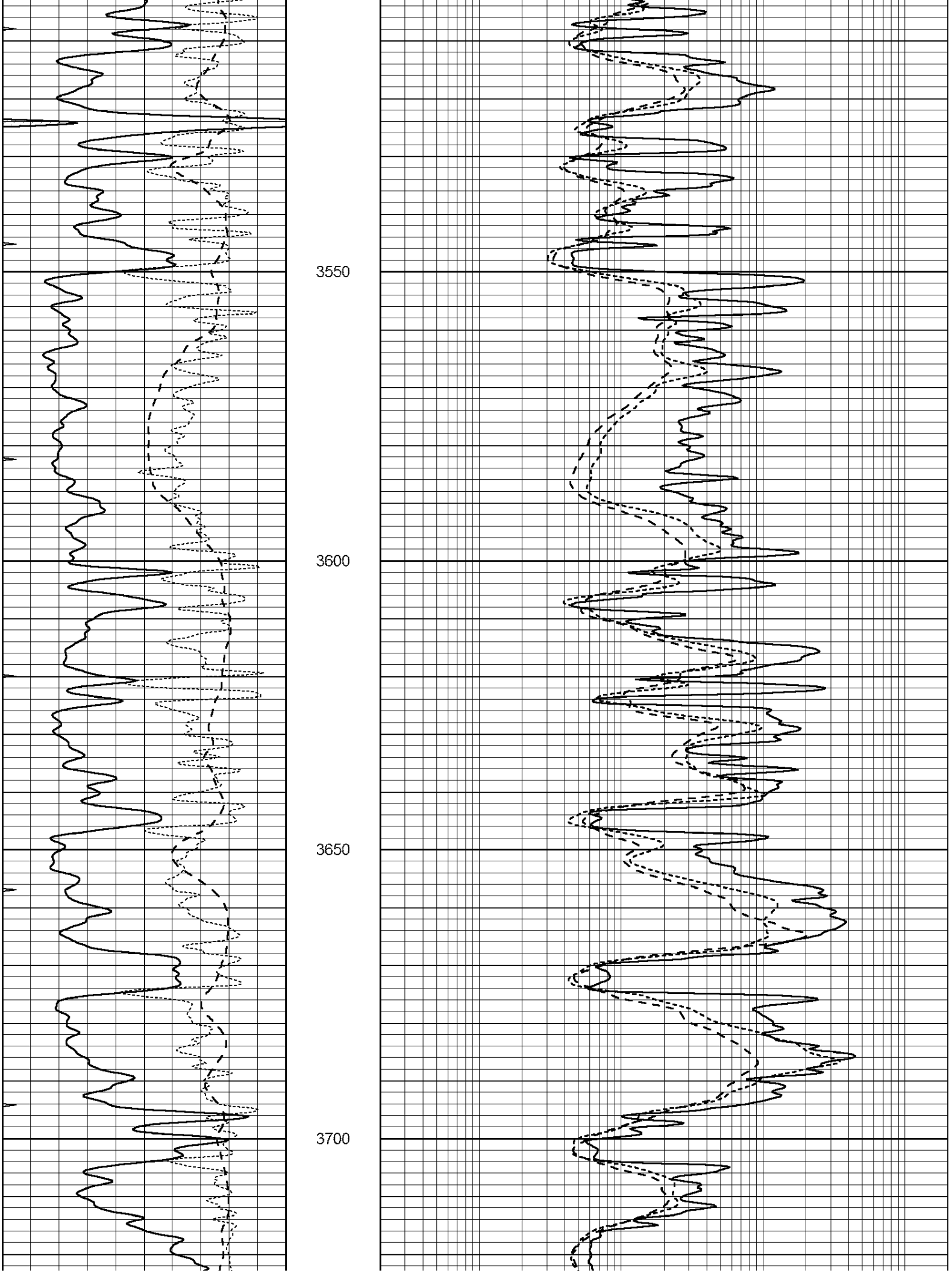
3350
3400
3450
3500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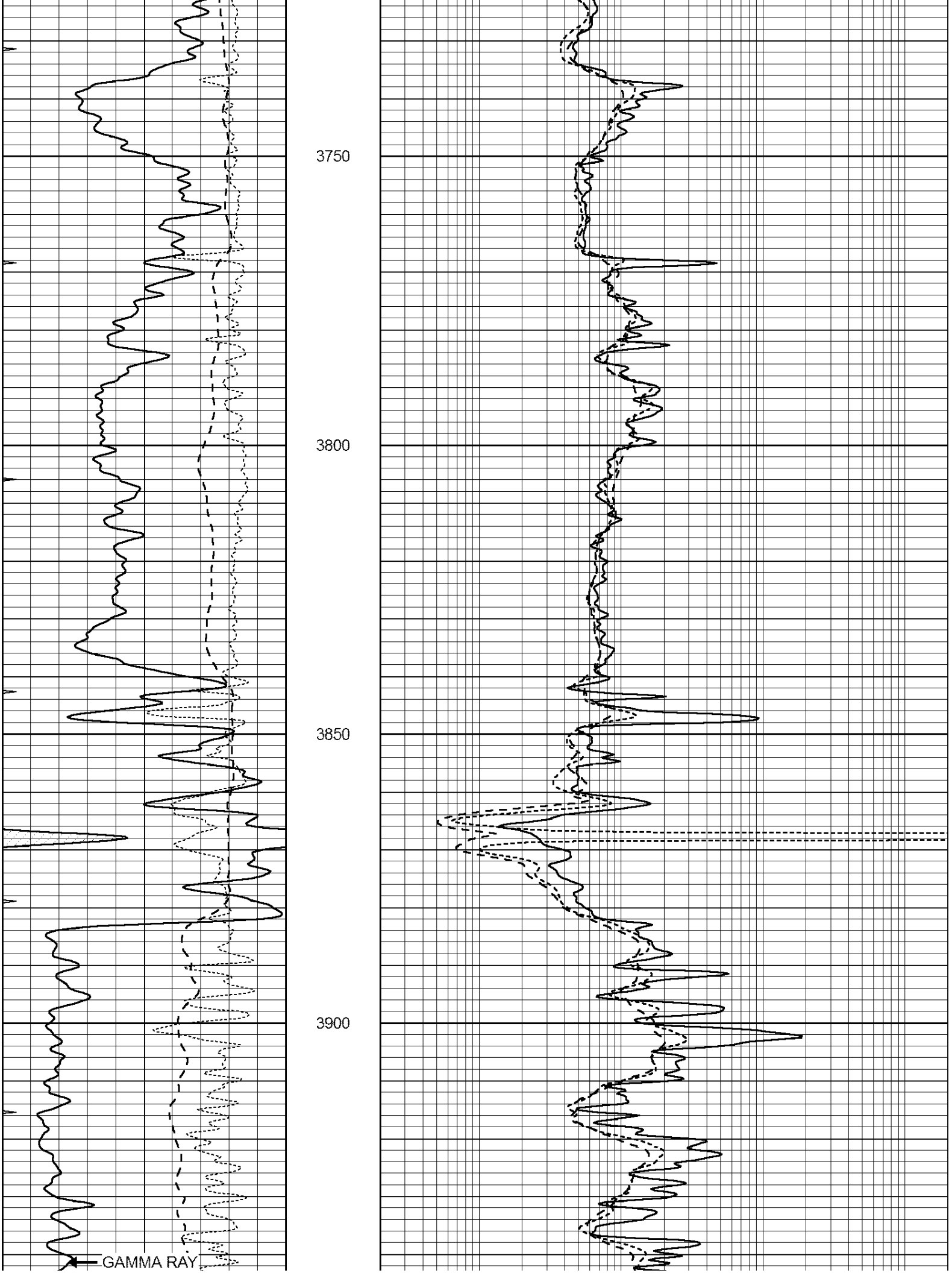
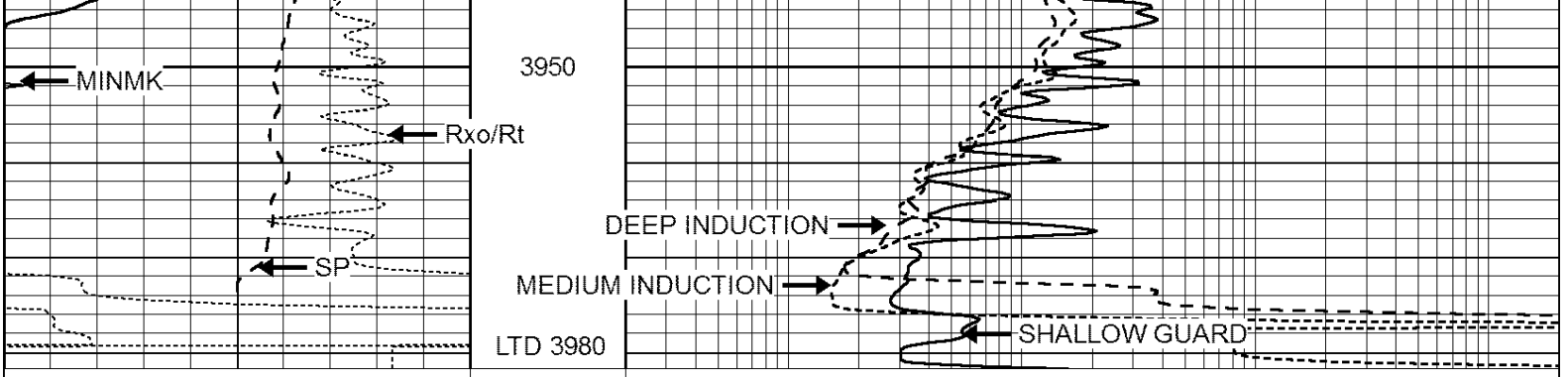
3600
3650
3700


3750
3800
3850
3900
GAMMA RAY



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

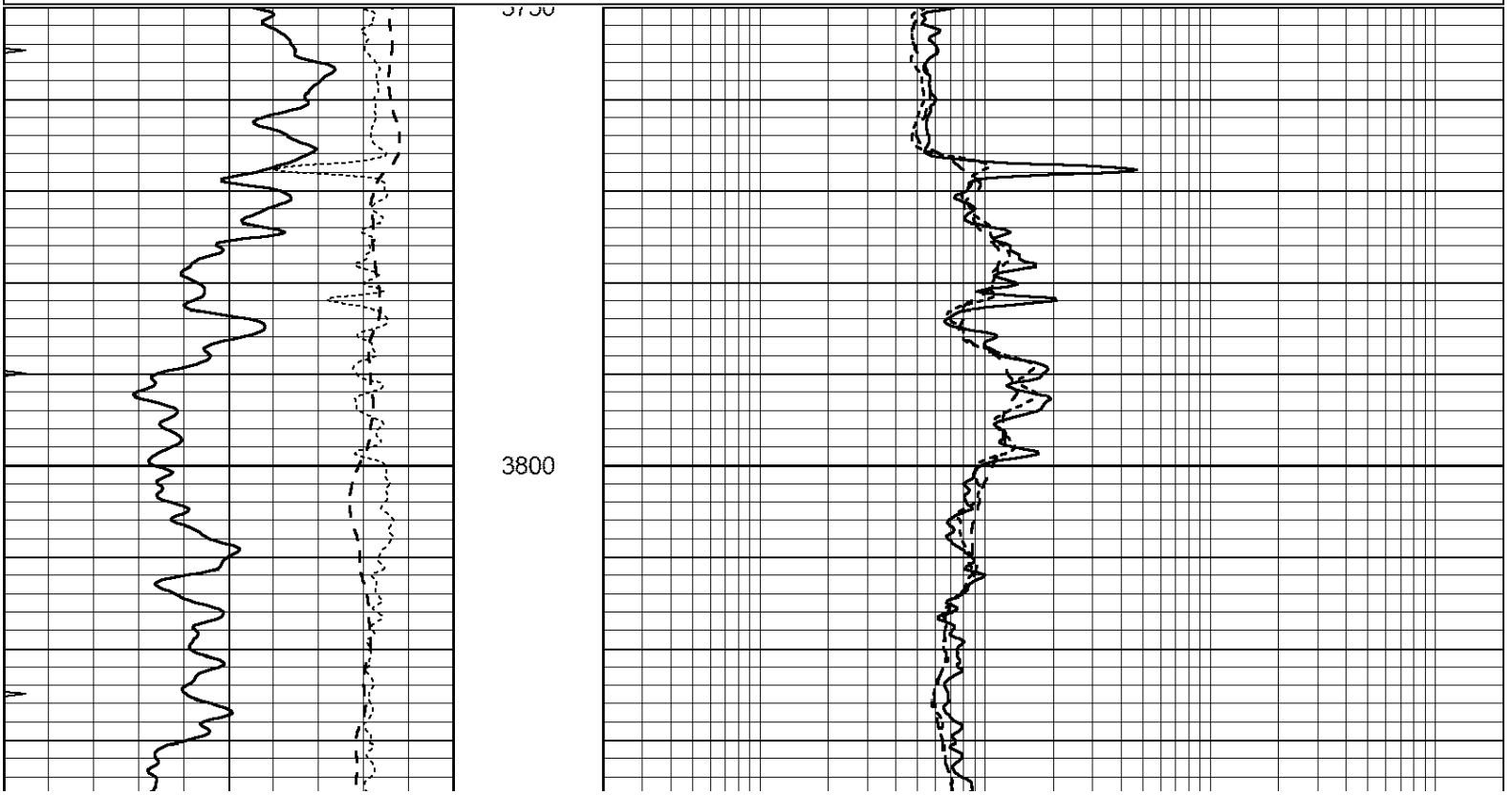
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

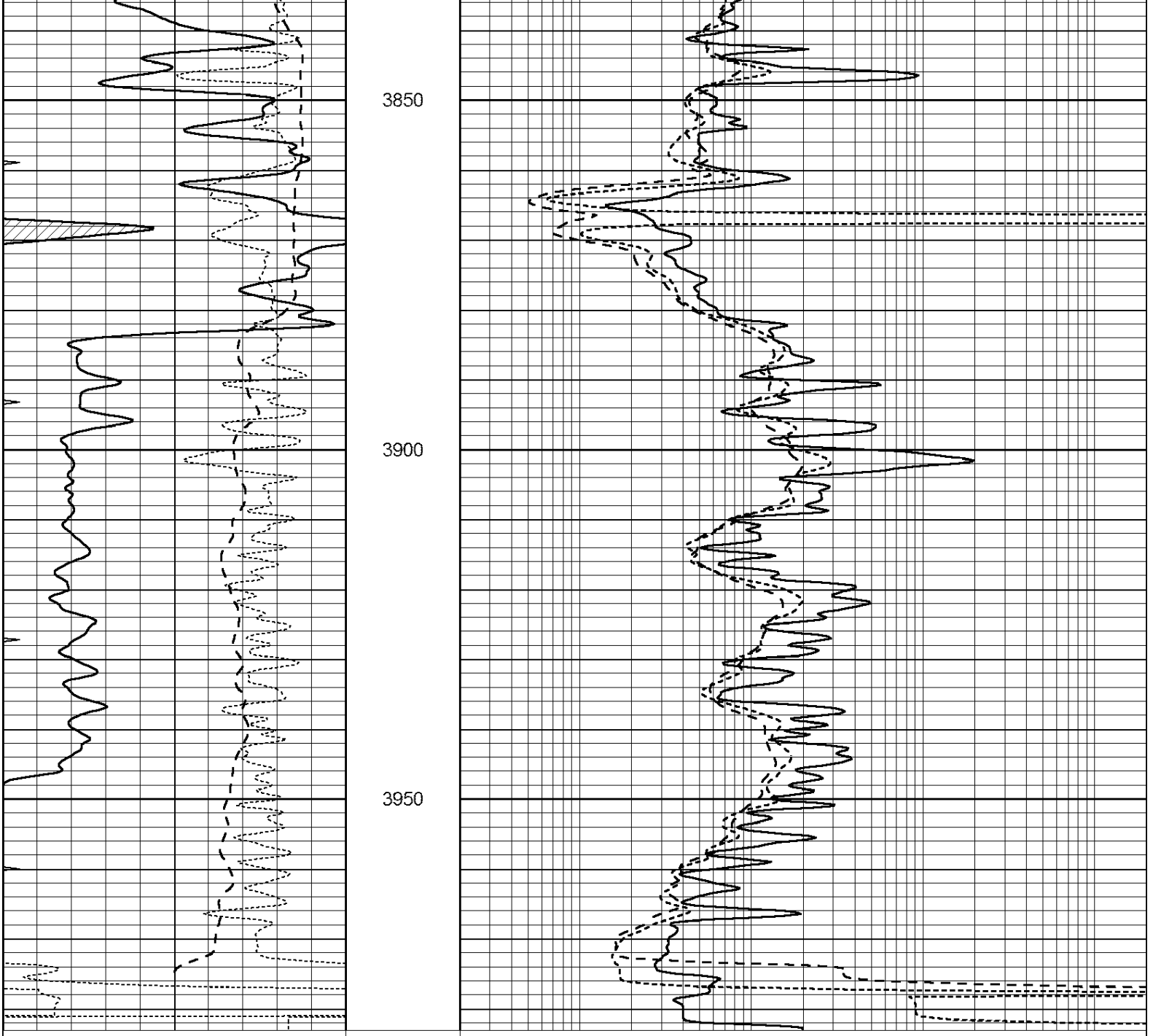
REPEAT SECTION

Database File: 3165ddn.db
Dataset Pathname: pass2
Presentation Format: _dil
Dataset Creation: Tue Dec 11 16:54:51 2018 by Log Open-Cased 090629
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





Calibration Report

Database File: 3165ddn.db
Dataset Pathname: pass2
Dataset Creation: Tue Dec 11 16:54:51 2018 by Log Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Mon Sep 10 14:28:35 2018
Downhole Cal Performed:	Mon Sep 10 14:28:38 2018
After Survey Verification Performed:	Mon Sep 10 14:28:40 2018

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
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: 006 Model: PRB

Master Calibration — Performed Thu Sep 27 12:07:11 2018

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1185.6	7077.4	2520.9	8182.4	cps
Window 2	1116.8	5910.1	2163.2	6739.4	cps
Window 3	880.1	3145.8	1325.0	3461.2	cps
Window 4	289.5	295.8	290.8	295.3	cps
Long Space	0.0	4793.3	1046.5	5622.7	cps
Short Space	2.9	1608.0	1038.9	1622.7	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	

Rib Angle	: 44.0	Rib Slope	: 0.965	Density/Spine Ratio	: 0.560
Spine Angle	: 74.0	Spine Slope	: 3.484	Spine Intercept	: -17.2

Before 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	

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

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: Mon Sep 10 14:29:23 2018

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 276.0 cps

Sensitivity: 0.5500 GAPI/cps