DUAL INDUCTION LOG

Company Patterson Energy
Well Habiger #2
Field Bloomer
County Rice State Kansas

Company Patterson Energy
Well Habiger #2
Field Bloomer
County Rice
State Kansas

Location: API # : 15 159 22883

900' FNL & 1400' FEL

SEC 5 TWP 18S RGE 10W

Other Services

ML
CDNL

Permanent Datum	Ground Level	Elevation	1775'
Log Measured From	KB 8' AGL		
Drilling Measured From	KB		

Elevation

K.B. 1783'
D.F. 1782'
G.L. 1775.

Date	5/1/22		
Run Number	One		
Depth Driller	3500'		
Depth Logger	3500'		
Bottom Logged Interval	3498'		
Top Log Interval	370'		
Casing Driller	8 5/8"@ 394'		
Casing Logger	394'		
Bit Size	7 7/8"		
Type Fluid in Hole	Chemical	Chlorides 6500 PPM	
Density / Viscosity	9.1/53		
pH / Fluid Loss	9.5/9.2		
Source of Sample	Pit		
Rm @ Meas. Temp	1.2@73degf		
Rmf @ Meas. Temp	0.9@73degf		
Rmc @ Meas. Temp	1.44@73degf		
Source of Rmf / Rmc	Calculated		
Rm @ BHT	0.83@104degf		
Time Circulation Stopped	8:00 a.m		
Time Logger on Bottom	10:15 a.m		
Maximum Recorded Temperature	104degf		
Equipment Number	T-605		
Location	Hays, KS.		
Recorded By	Casey Patterson		
Witnessed By	Mr. Austin Klaus		

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Comments

East of Claflin, KS Apporx 4 mi.
Then South Into Location

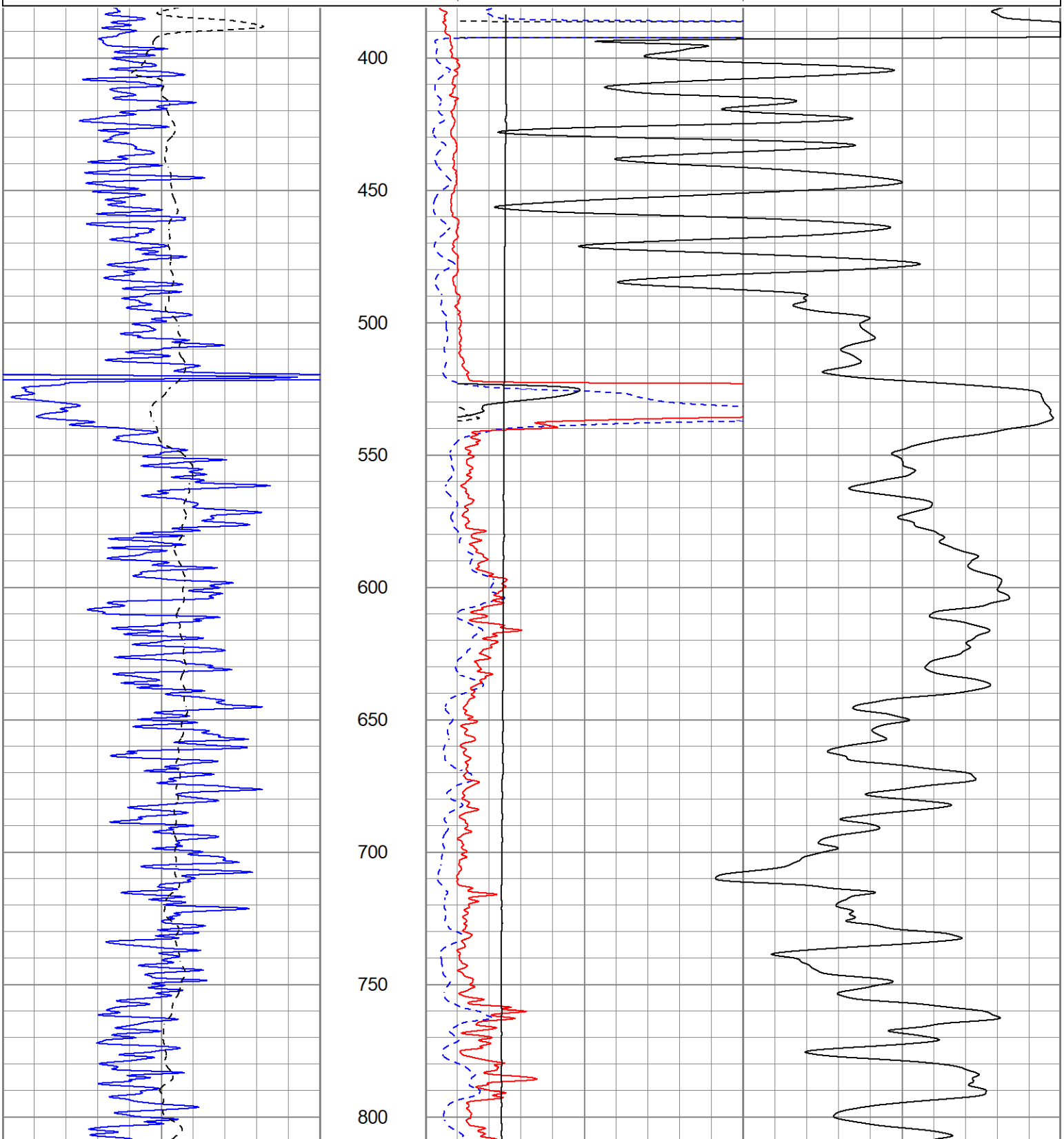
Thanks for using Gemini Wireline LLC
785-625-1182

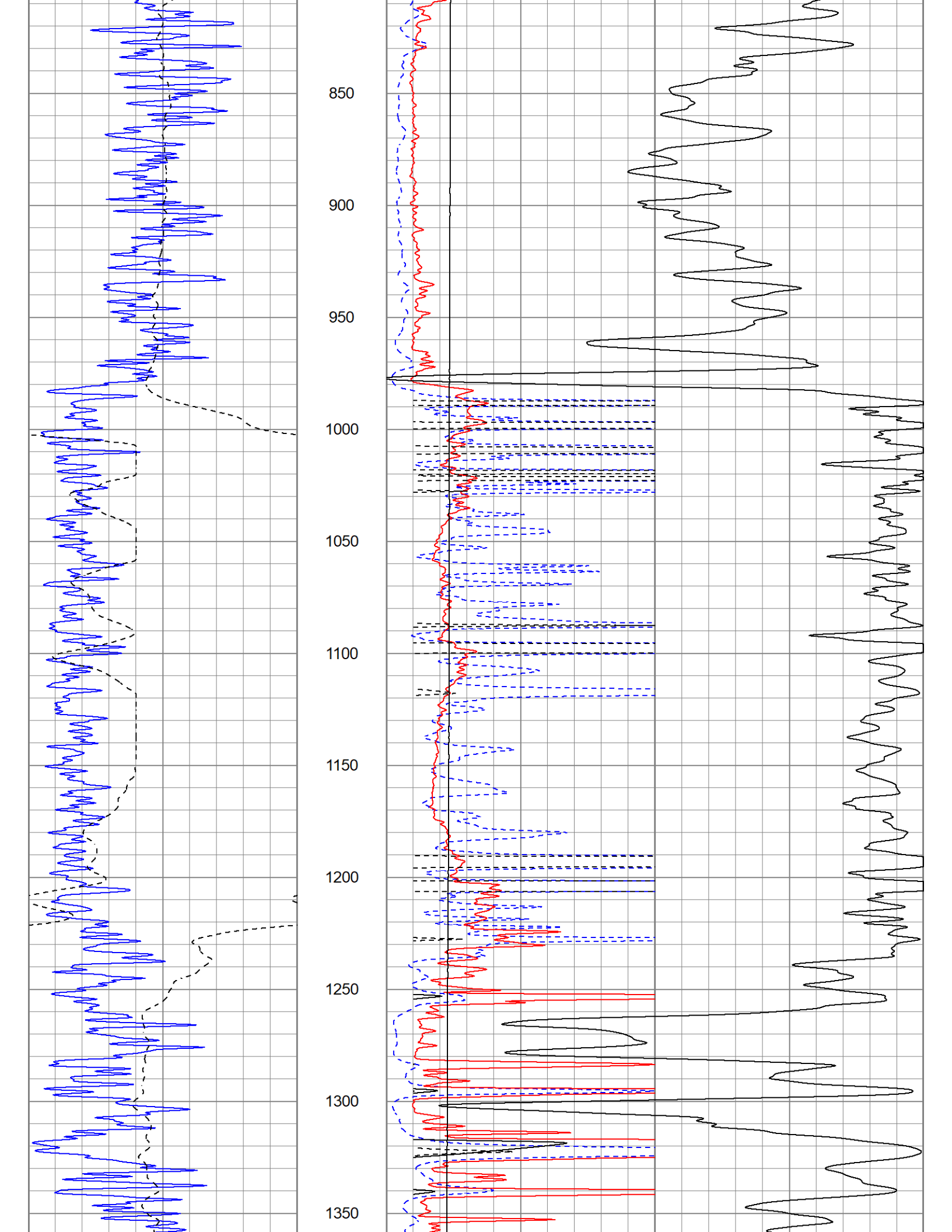
MAIN PASS

Database File	pehabiger#2oh.db
Dataset Pathname	pass3.1
Presentation Format	kdillinn
Dataset Creation	Sun May 01 11:32:49 2022
Charted by	Depth in Feet scaled 1:600

0	GR (GAPI)	150
-100	SP (mV)	100

1000	CILD (mmho/m)	0
10000	LTEN (lb)	0
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

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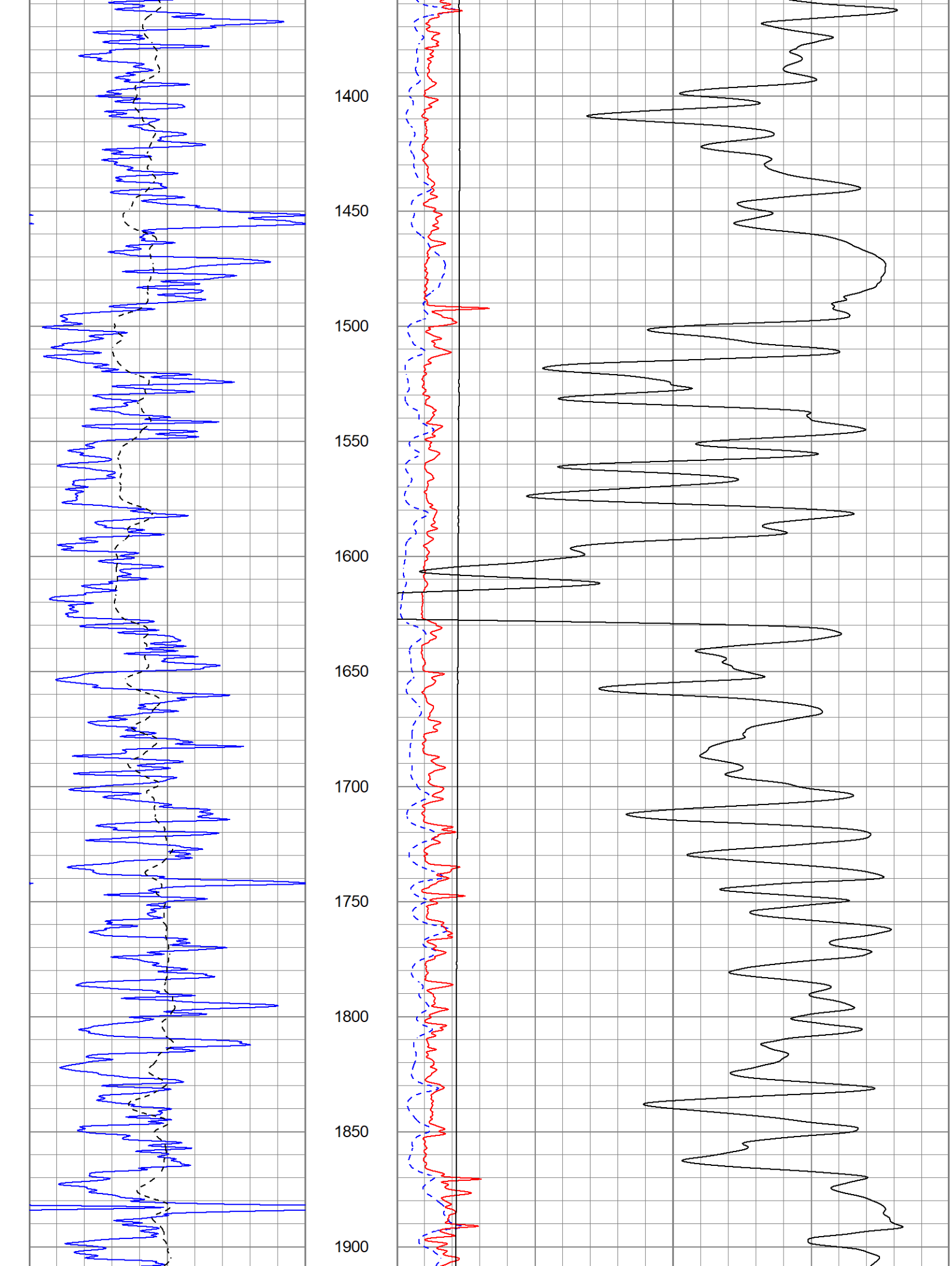
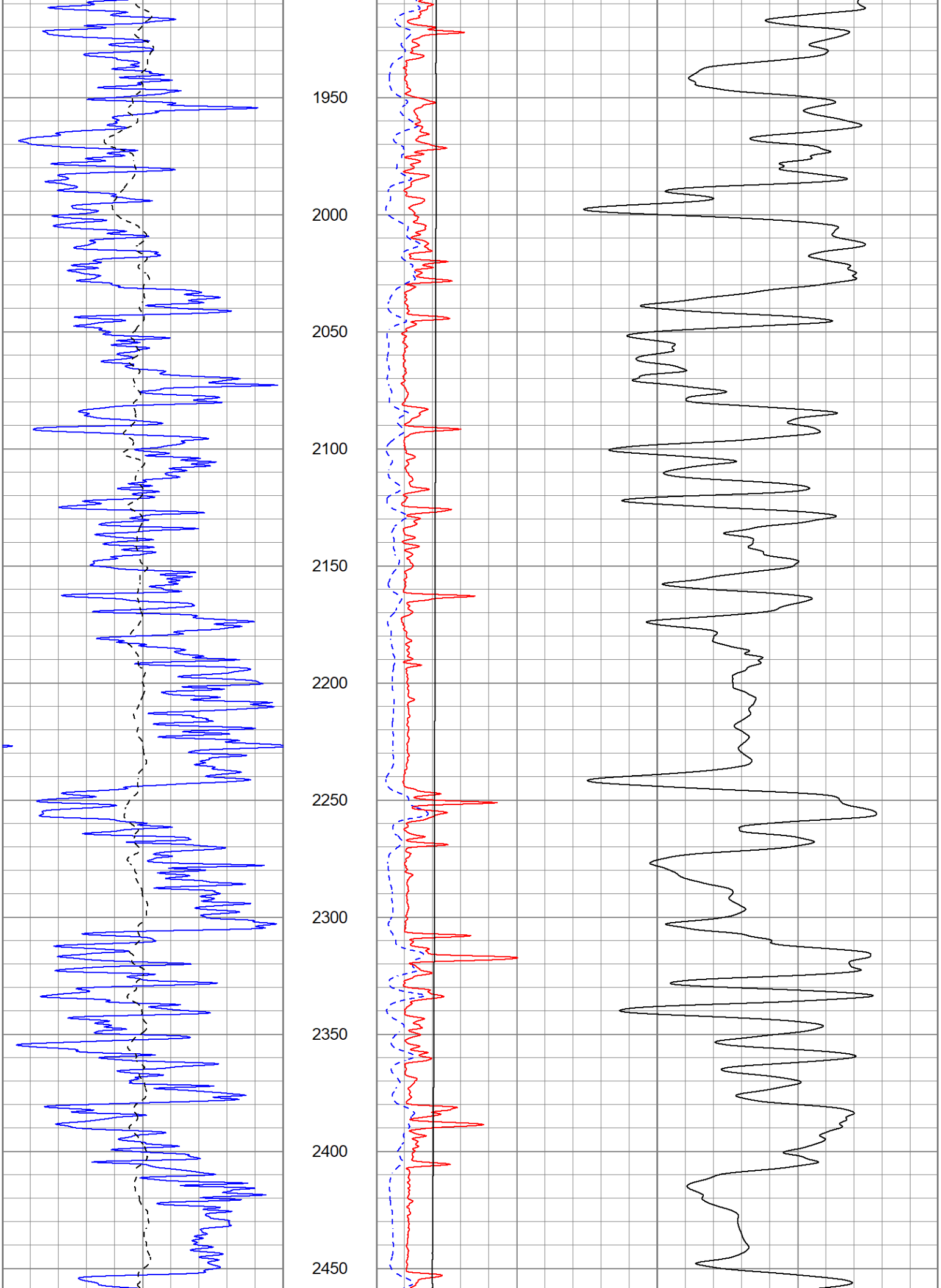
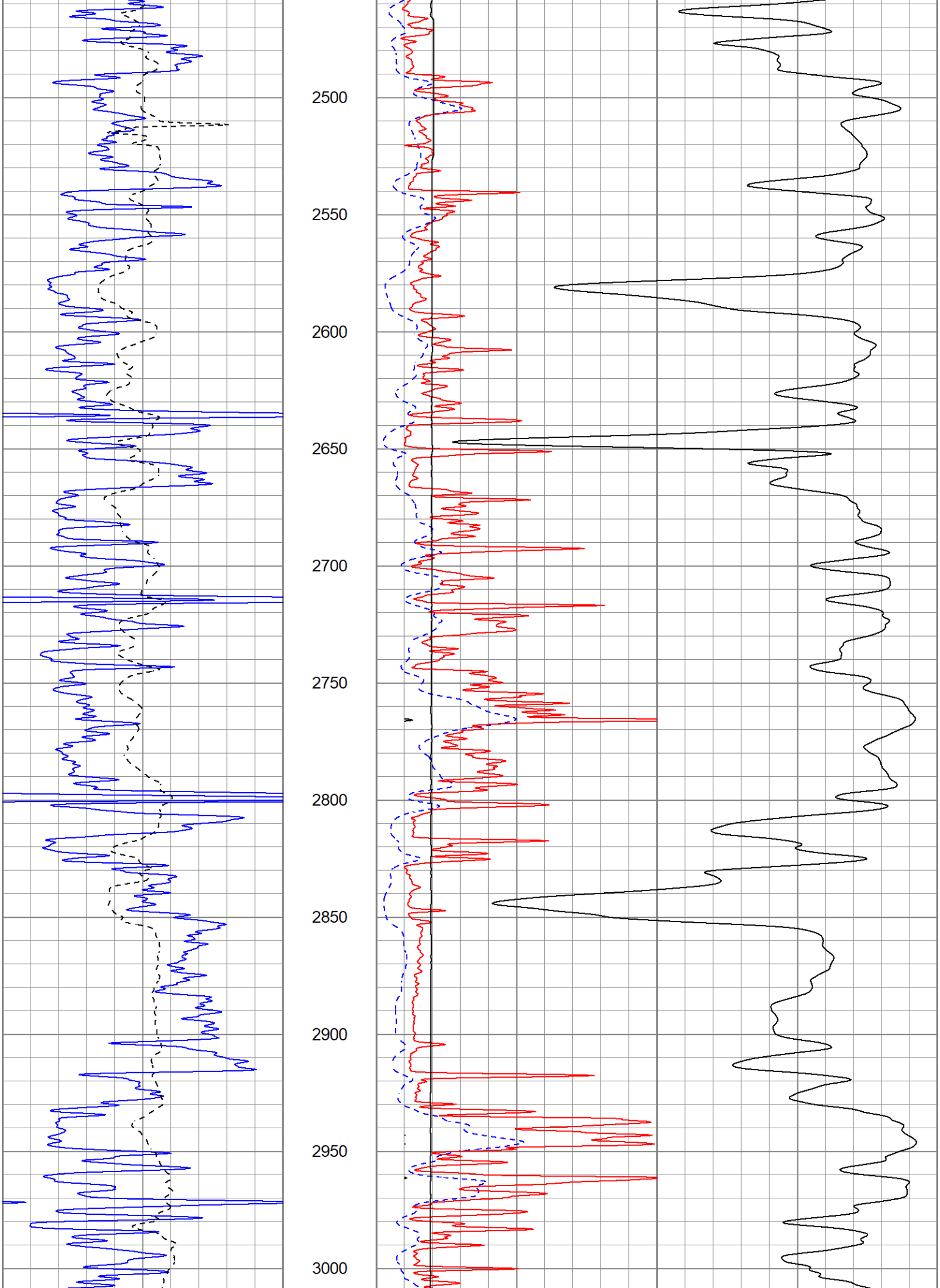
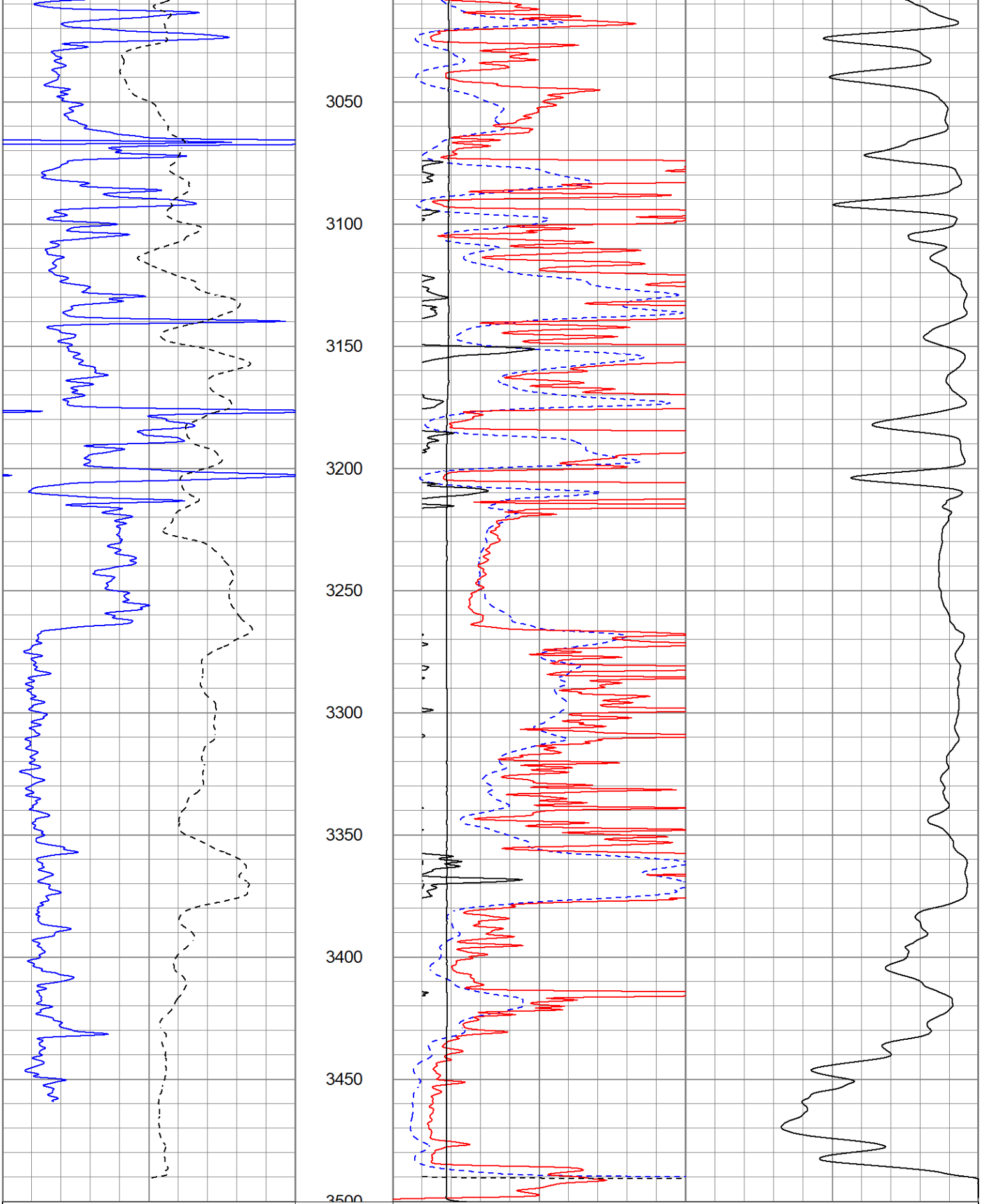
900
950
1000
1050
1100
1150
1200
1250
1300
1350


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



0	GR (GAPI)	150
-100	SP (mV)	100

1000	CILD (mmho/m)	0
10000	LTEN (lb)	0
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500

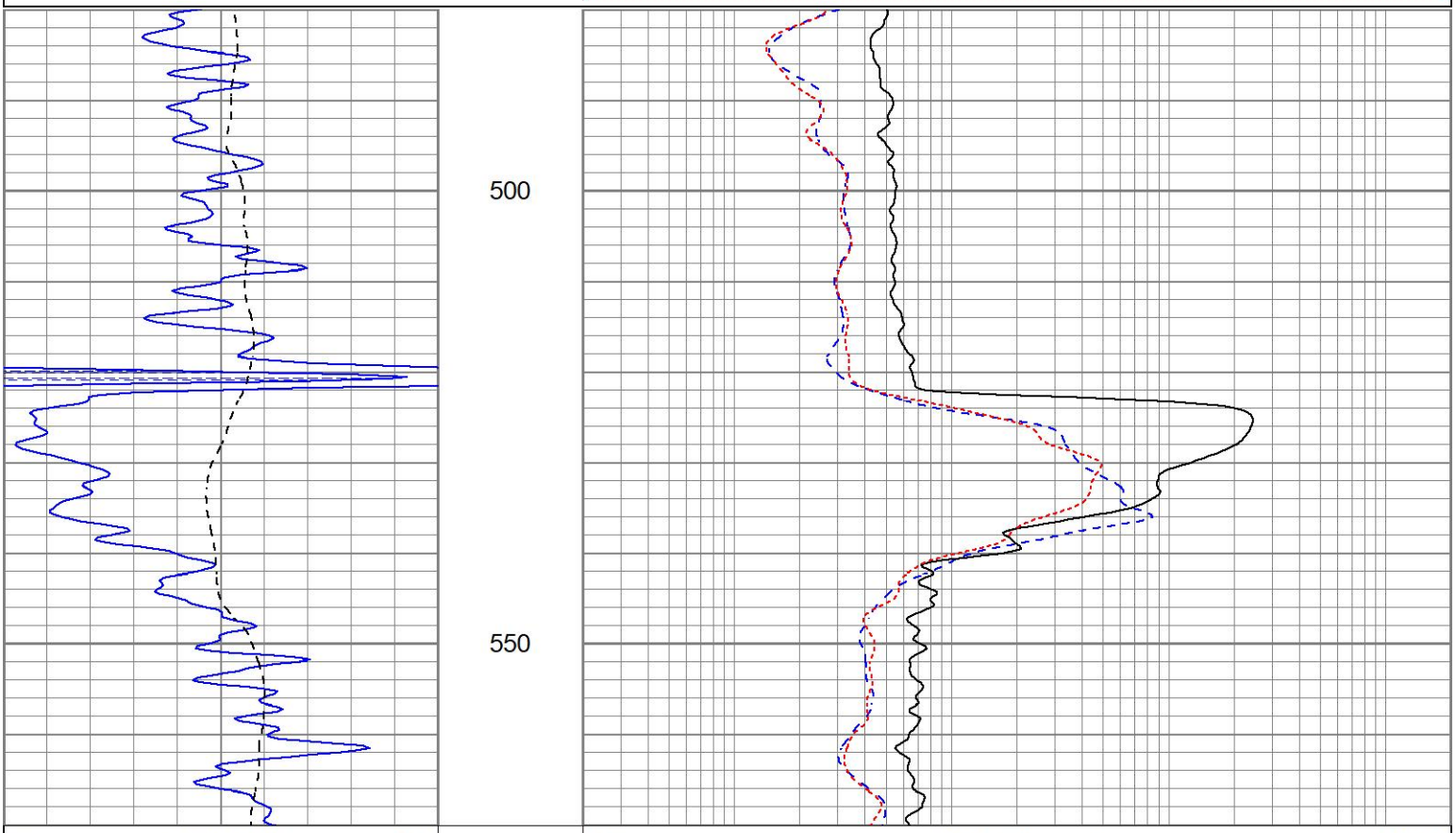
50	RLL3 x 10 (Ohm-m)	500

MAIN PASS

Database File	pehabiger#2oh.db
Dataset Pathname	pass3.1
Presentation Format	kdil
Dataset Creation	Sun May 01 11:32:49 2022
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



0	GR (GAPI)	150
-100	SP (mV)	100

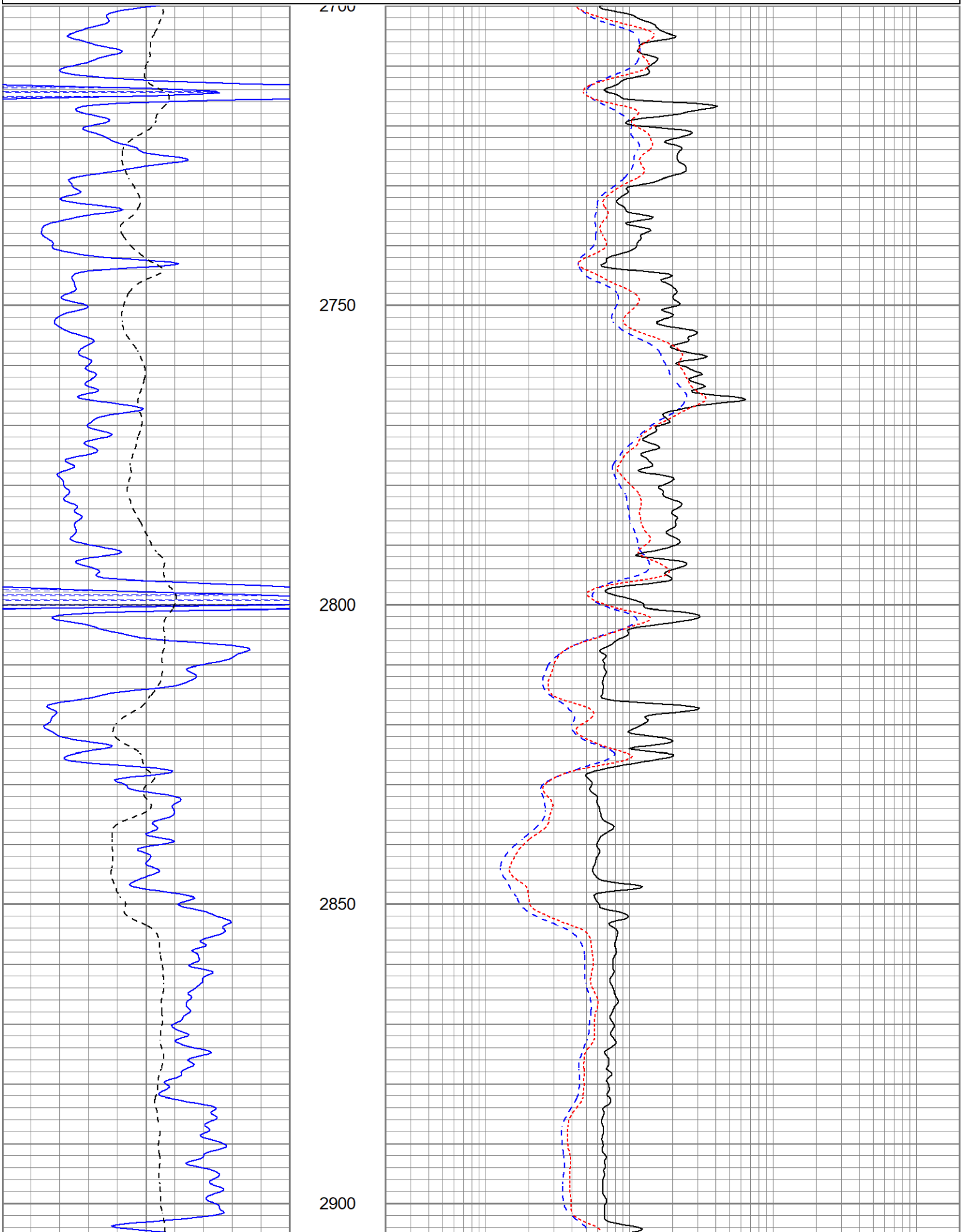
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

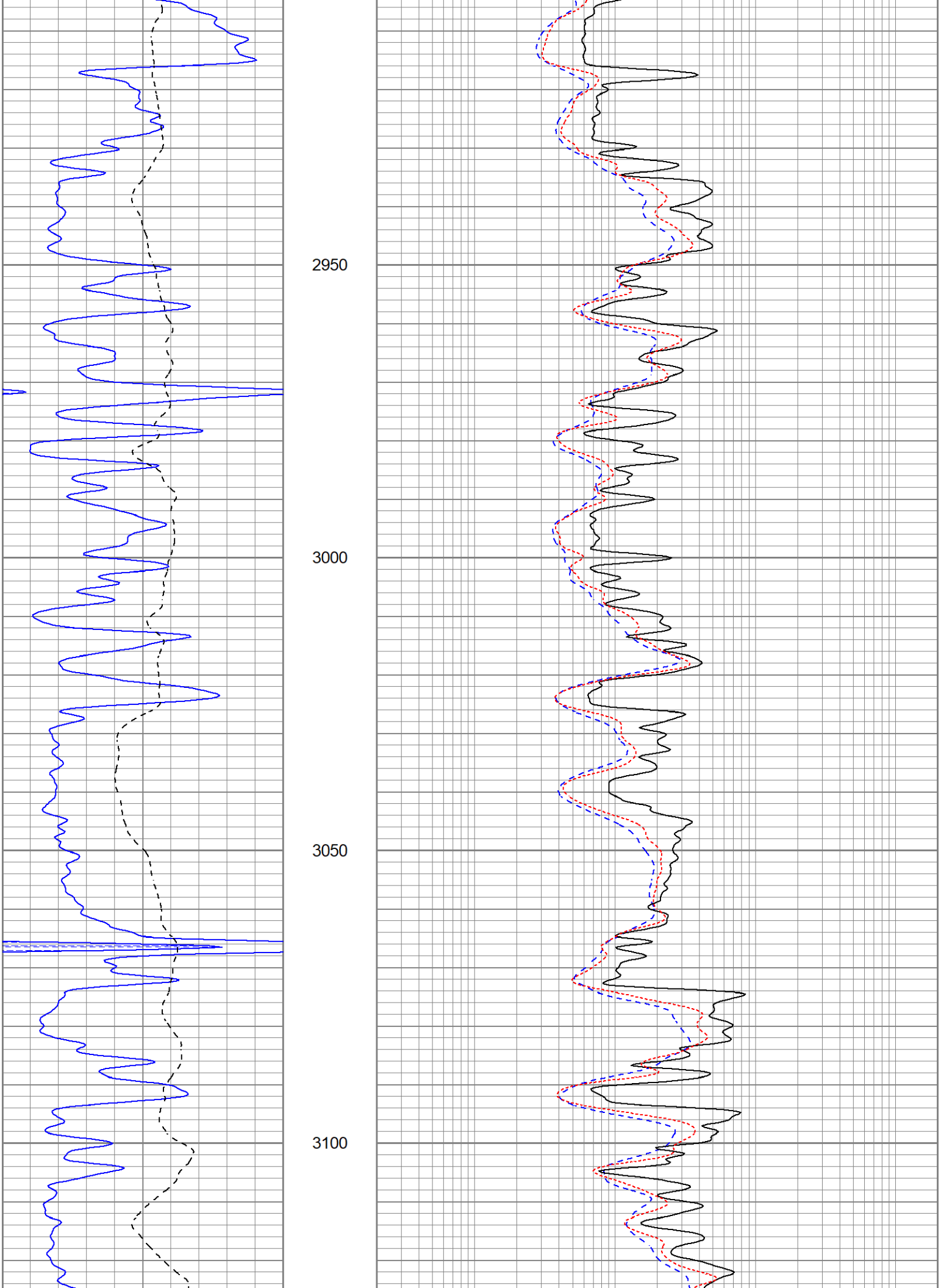
MAIN PASS

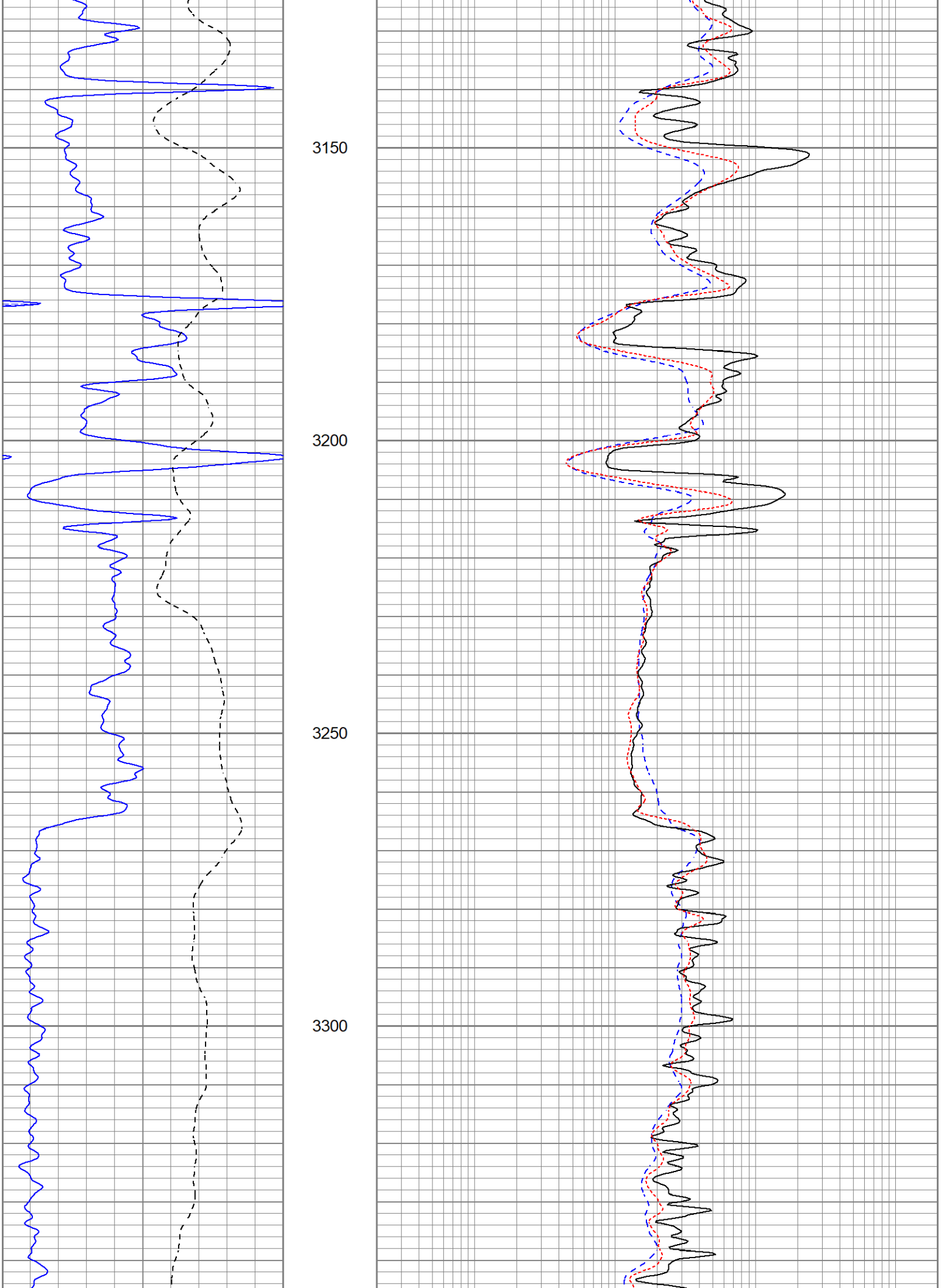
Database File	pehabiger#2oh.db
Dataset Pathname	pass3.1
Presentation Format	kdil
Dataset Creation	Sun May 01 11:32:49 2022
Charted by	Depth in Feet scaled 1:240

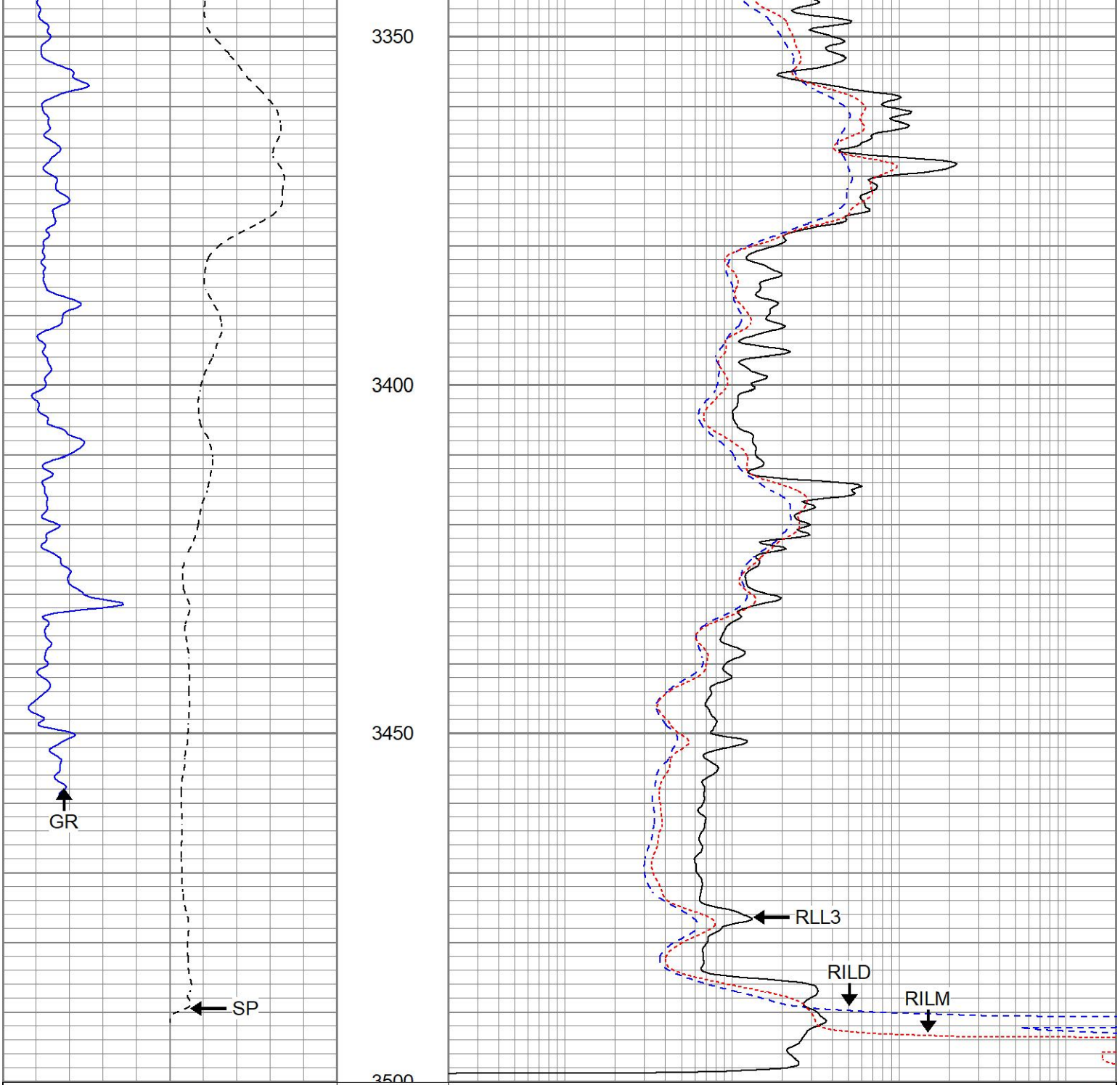
0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000




2950
3000
3050
3100


3150
3200
3250
3300



0	GR (GAPI)	150
-100	SP (mV)	100

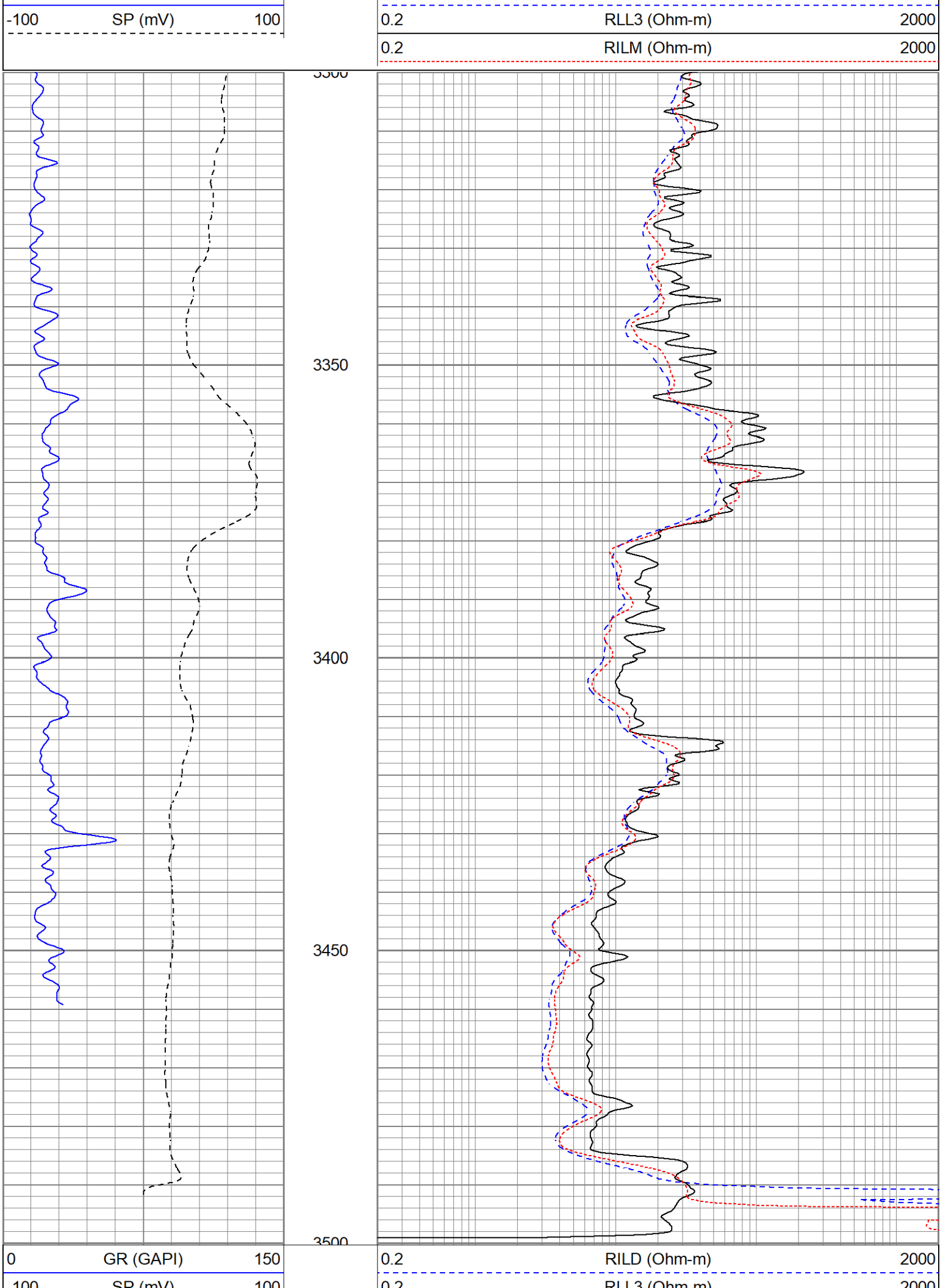
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

REPEAT SECTION

Database File	pehabiger#2oh.db
Dataset Pathname	pass2.2
Presentation Format	kdil
Dataset Creation	Sun May 01 11:15:53 2022
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150

0.2	RILD (Ohm-m)	2000


-100
SP (mV)
100
0.2
RLL3 (Ohm-m)
2000
0.2
RILM (Ohm-m)
2000
3350
3400
3450
0
GR (GAPI)
150
0.2
RILD (Ohm-m)
2000

0.2	RILM (Ohm-m)	2000

Calibration Report

Database File pehabiger#2oh.db
Dataset Pathname pass3.1
Dataset Creation Sun May 01 11:32:49 2022

Dual Induction Calibration Report

Serial-Model: 1842-ADM
Surface Cal Performed: Mon Sep 20 22:00:42 2021
Downhole Cal Performed: Mon Sep 20 22:00:24 2021
After Survey Verification Performed: Mon Sep 20 22:05:52 2021

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.475	-9.896
Medium	0.003	0.769	V	0.000	400.000	mmho/m	522.607	-1.745
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.240	-9.549
Medium	0.003	0.768	V	0.000	550.000	mmho/m	718.637	-2.088

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.219	349.905	mmho/m	-0.343	349.810	mmho/m	1.000	-3.124
Medium	-0.118	399.722	mmho/m	-0.226	399.745	mmho/m	1.000	-3.108
Shallow	2.536	0.025	V	500.000	2.000	Ohm-m	180.330	-1.504

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.219	349.905	mmho/m	1.000	-3.124
Medium	0.000	0.000	mmho/m	-0.118	399.722	mmho/m	1.000	-3.108
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Neutron Calibration Report

Serial Number: AD5139
Tool Model: ADMY5139
Performed: (Not Performed)

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Temperature Calibration Report

Serial Number: WithMC
Tool Model: WMC
Performed: Fri Apr 19 12:15:04 2019

	Reference		Reading	
Low Reference:	0.00	degF	0.00	degF
High Reference:	1.00	degF	1.00	degF
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			

Inclinometer Calibration Report

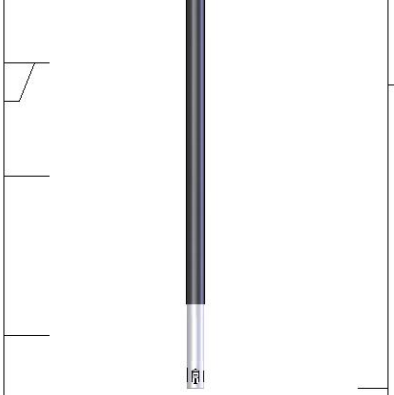
Performed: Wed May 5 19:20:48 2021

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Gamma Ray Calibration Report

Serial Number:	WithMC	
Tool Model:	WMC	
Performed:	Wed May 5 19:21:08 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CHD-STD	0.50	1.69	1.00
GR	38.71					
ACCY	37.54		ADT-WMC (WithMC) Admyr Telemetry With Mudcell	4.58	3.50	120.00
ACCX	37.54					
SSTAT	37.13					
PSTAT	36.29					
ASTAT	36.29		NEU-ADMY5139 (AD5139) Admyer NEU DIGITAL	5.65	3.50	50.00
GRD	35.46					
TEMP	35.46					
NEU	31.43					
			CDL-GEARHART (2501)	9.69	4.00	240.00
LSD	22.02					
DCAL	21.73					
SSD	21.48					

SP CILD CILM RLL3	10.60 10.60 6.89 1.70		DIL-ADM (1842) Dual Induction	19.71	4.00	300.00

Dataset:	pehabiger#2oh.db: field/well/run1/pass3.1
Total length:	40.13 ft
Total weight:	711.00 lb
O.D.:	4.00 in