Company	PALOMINO PETROLEUM, INC.
Well	ROHR NO. 1
Field	BROUGHTON NORTH
County	LANE
State	KANSAS

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DUAL INDUCTION LOG

Company	PALOMINO PETROLEUM, INC.
Well	ROHR NO. 1
Field	BROUGHTON NORTH
County	LANE
State	KANSAS

Location: API #: 15-101-22585-00-00
SW-NE-NW-SE
2088' FSL & 1955' FEL
SEC 4 TWP 16S RGE 27W

Other Services: CNL/CDL, MEL

Permanent Datum GROUND LEVEL Elevation 2603'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation: K.B. 2611', D.F. N/A, G.L. 2603'

Date	2/5/17			
Run Number	ONE			
Depth Driller	4636'			
Depth Logger	4626'			
Bottom Logged Interval	4625'			
Top Log Interval	200'			
Casing Driller	8.625" @ 211'			
Casing Logger	209'			
Bit Size	7.875"			
Type Fluid in Hole	CHEMICAL			
Salinity,ppm CL	3,600			
Density / Viscosity	9.3 | 50			
pH / Fluid Loss	10.5 | 8.0			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	.95 @ 68			
Rmf @ Meas. Temp	.71 @ 68			
Rmc @ Meas. Temp	1.28 @ 68			
Source of Rmf / Rmc	CHARTS			
Rm @ BHT	.53 @ 122			
Operating Rig Time	3 1/2 HOURS			
Max Rec. Temp. F	122 DEG/F			
Equipment Number	108			
Location	COLBY			
Recorded By	J. HENRICKSON			
Witnessed By	ANDREW STENZEL			

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

PENDENNIS KANSAS
2 NORTH TO 285 ROAD, 1 NORTH/EAST, 1/2 NORTH, WEST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. HENRICKSON	Primary Witness: ANDREW STENZEL
Operator: C. PFEIFER	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\palomino_rohr_1.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	122	5.5	0	1	2	2.71

NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-102	0	Off	4626

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			GR-M&W (89-M&W)	3.00	3.50	50.00
GR	33.00					
CNLSC	29.90		CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	29.15					
			CDL-M&W (71-914)	8.50	4.00	250.00
LSD	20.85					
DCAL	20.83					
SSD	20.35					
RLL3	15.80					
RLL3F	15.79					
			DIL-M&W (1987)	18.50	3.50	220.00
CILD	8.00					

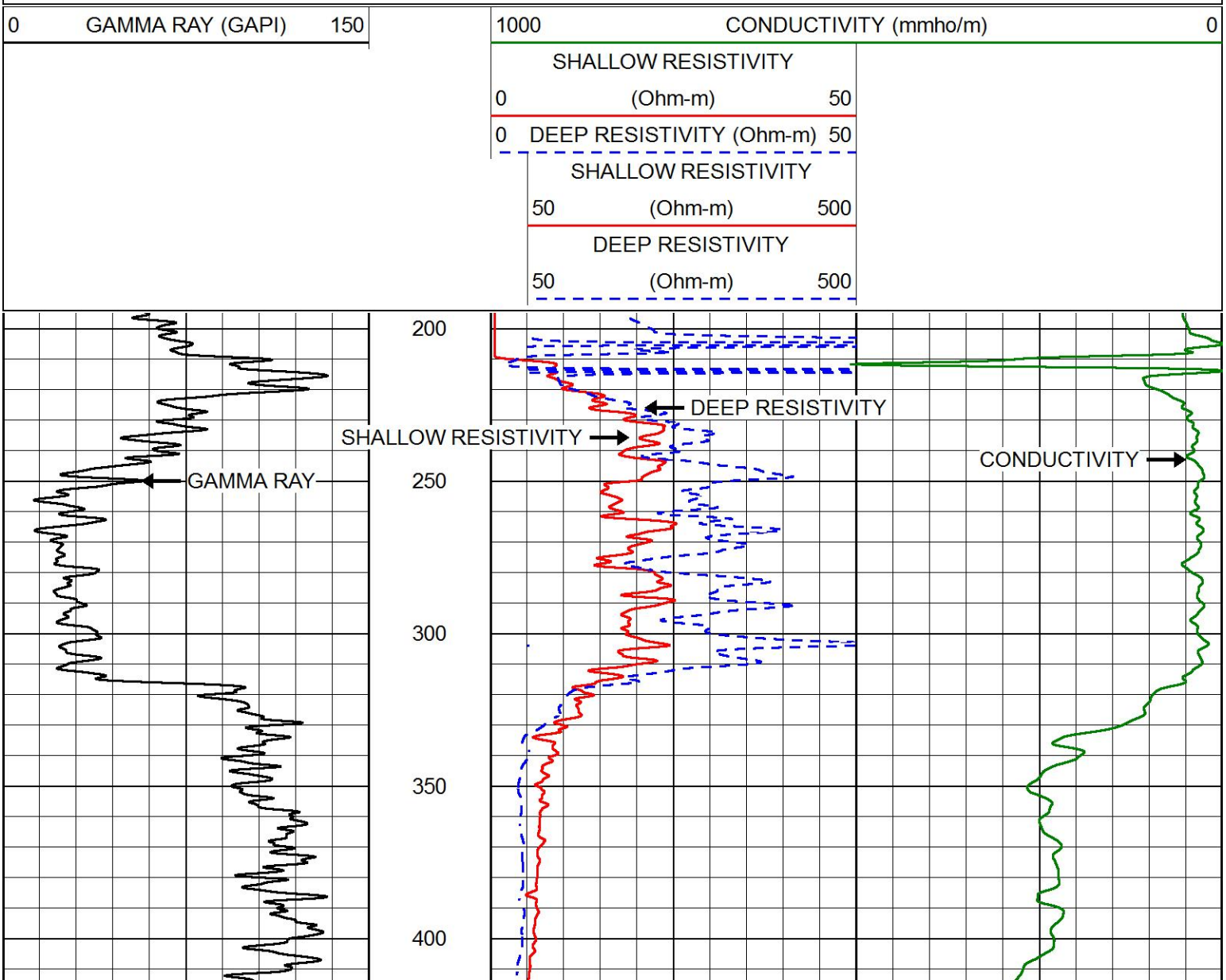
CILM	4.70					
SP	0.20					

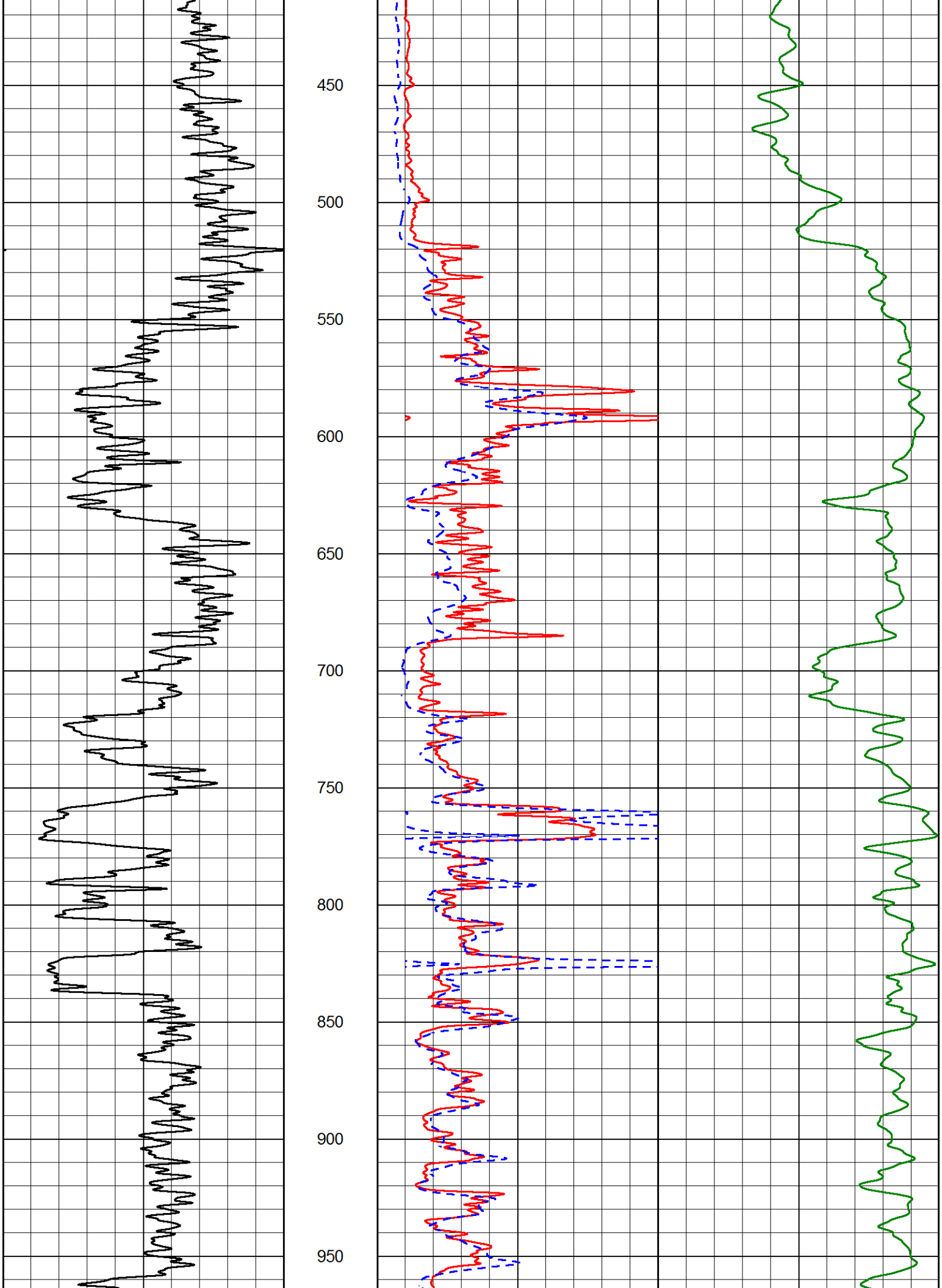
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Total length: 35.50 ft
Total weight: 620.00 lb
O.D.: 4.00 in

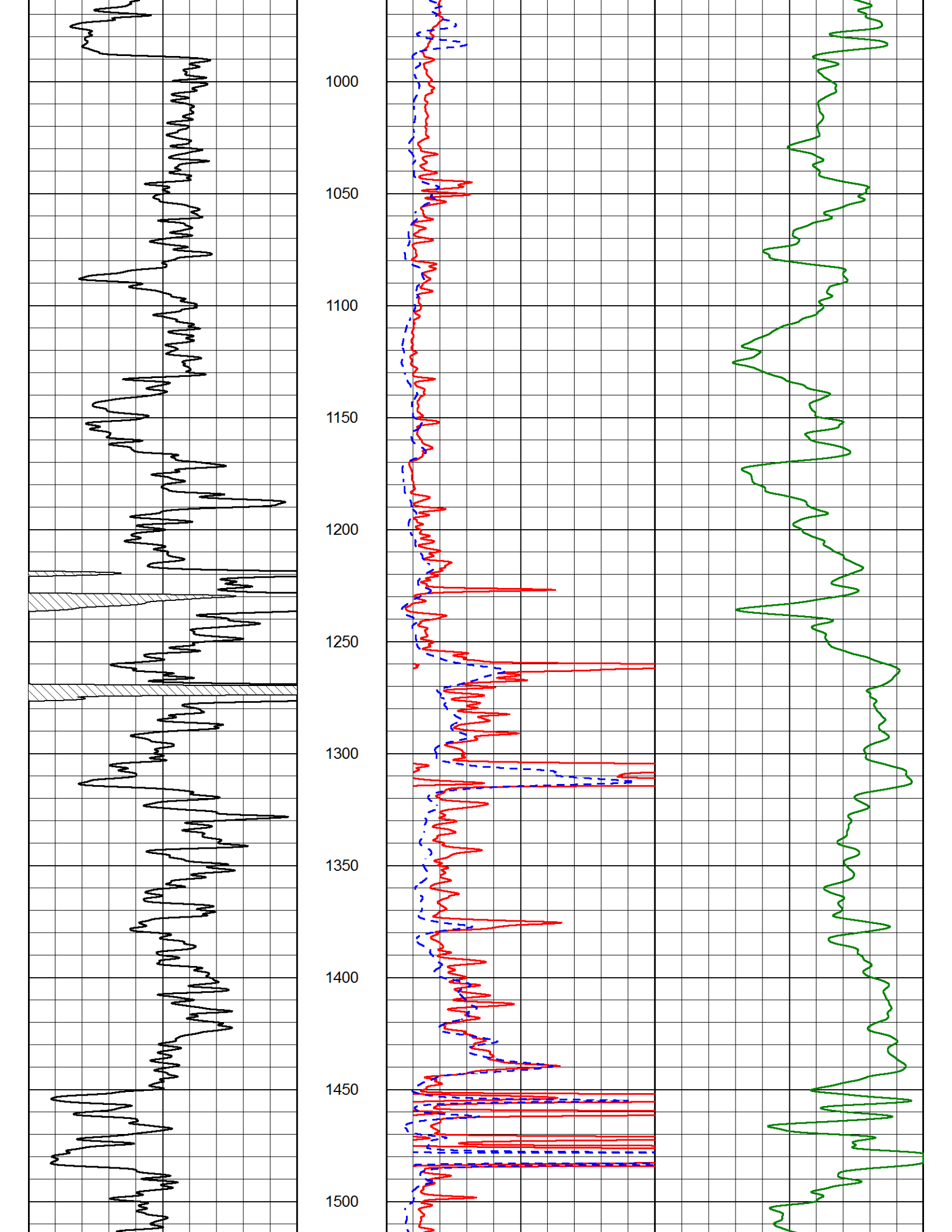
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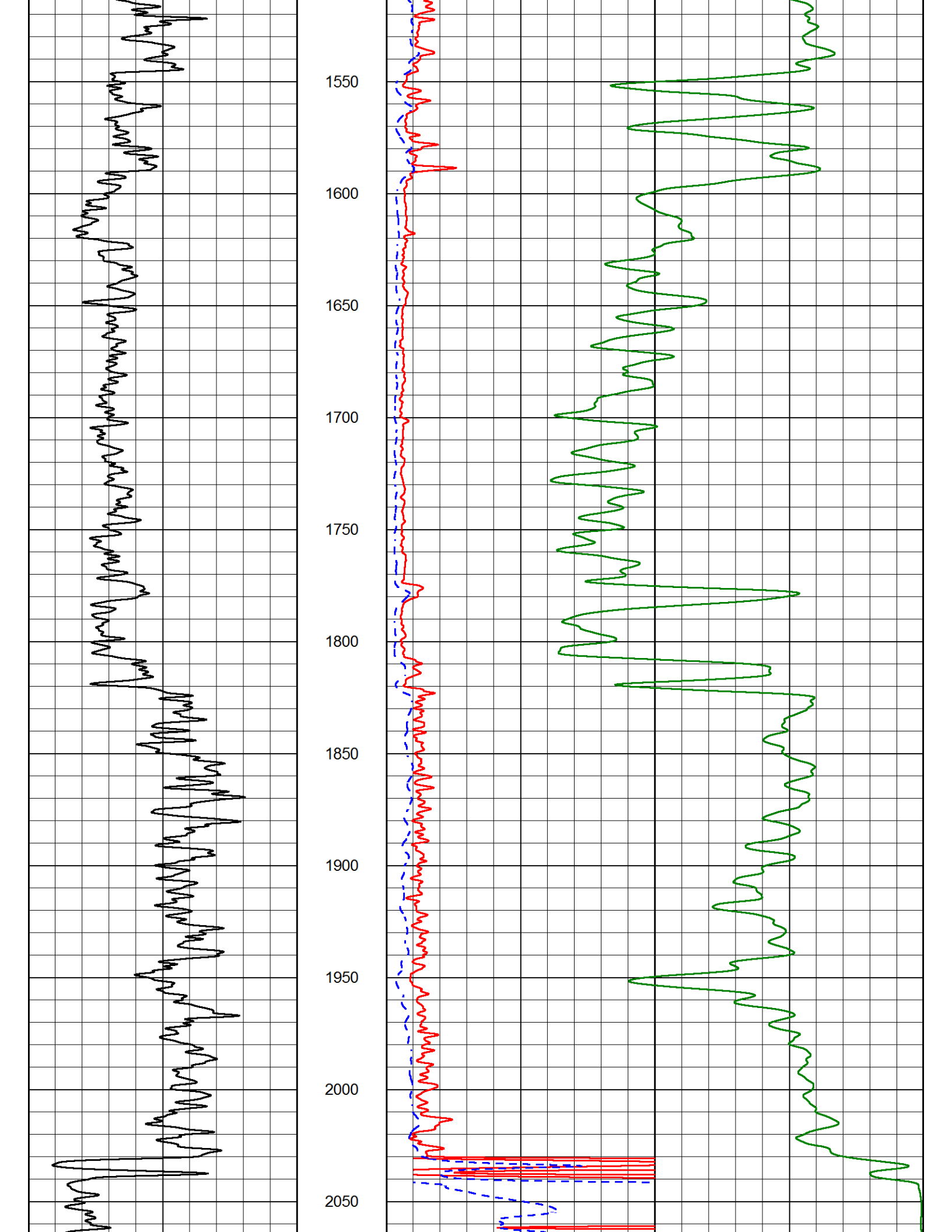
MAIN PASS

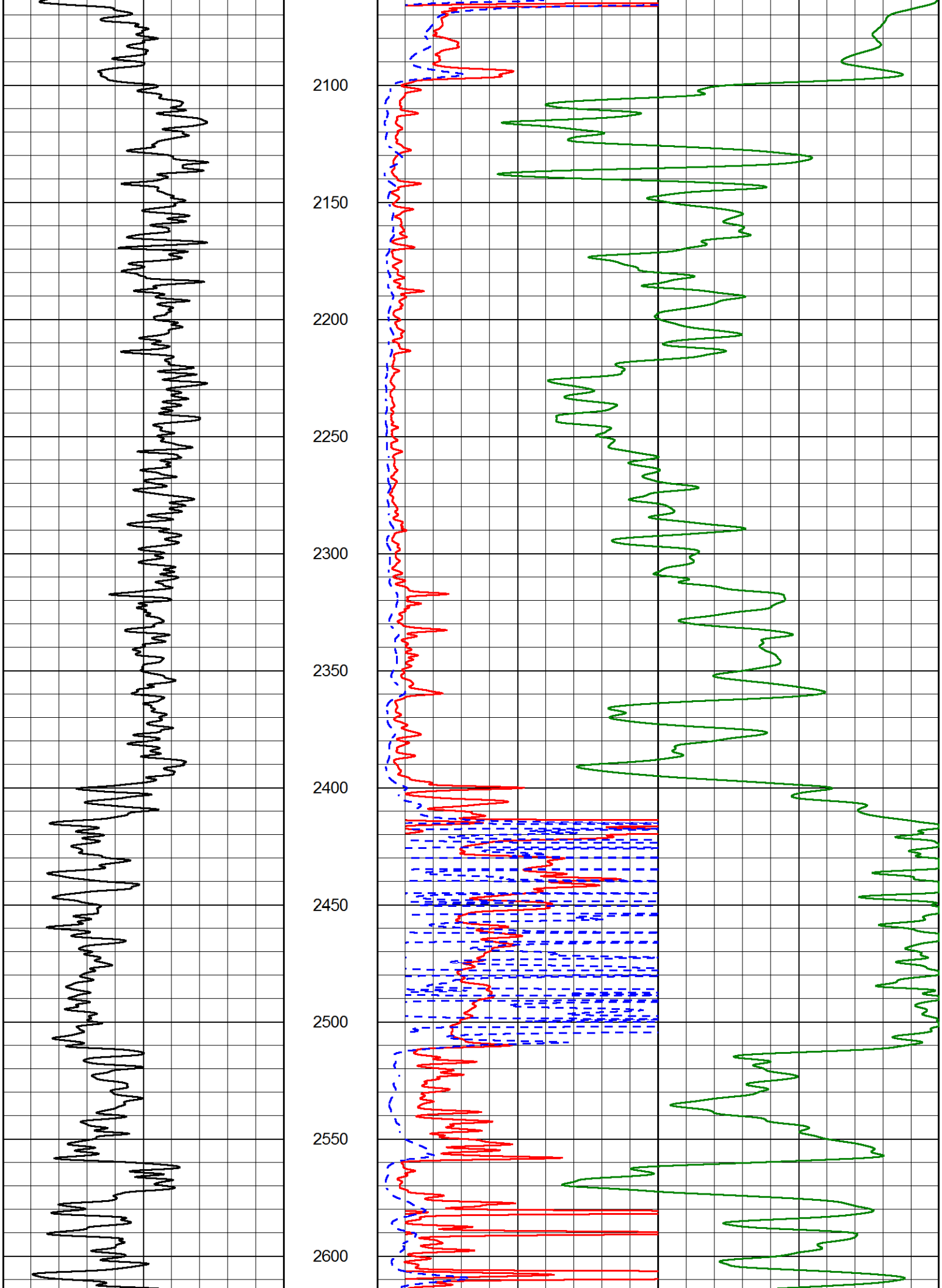
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Dataset Pathname	stack/pass3.1
Presentation Format	dil2in
Dataset Creation	Sun Feb 05 15:38:31 2017
Charted by	Depth in Feet scaled 1:600

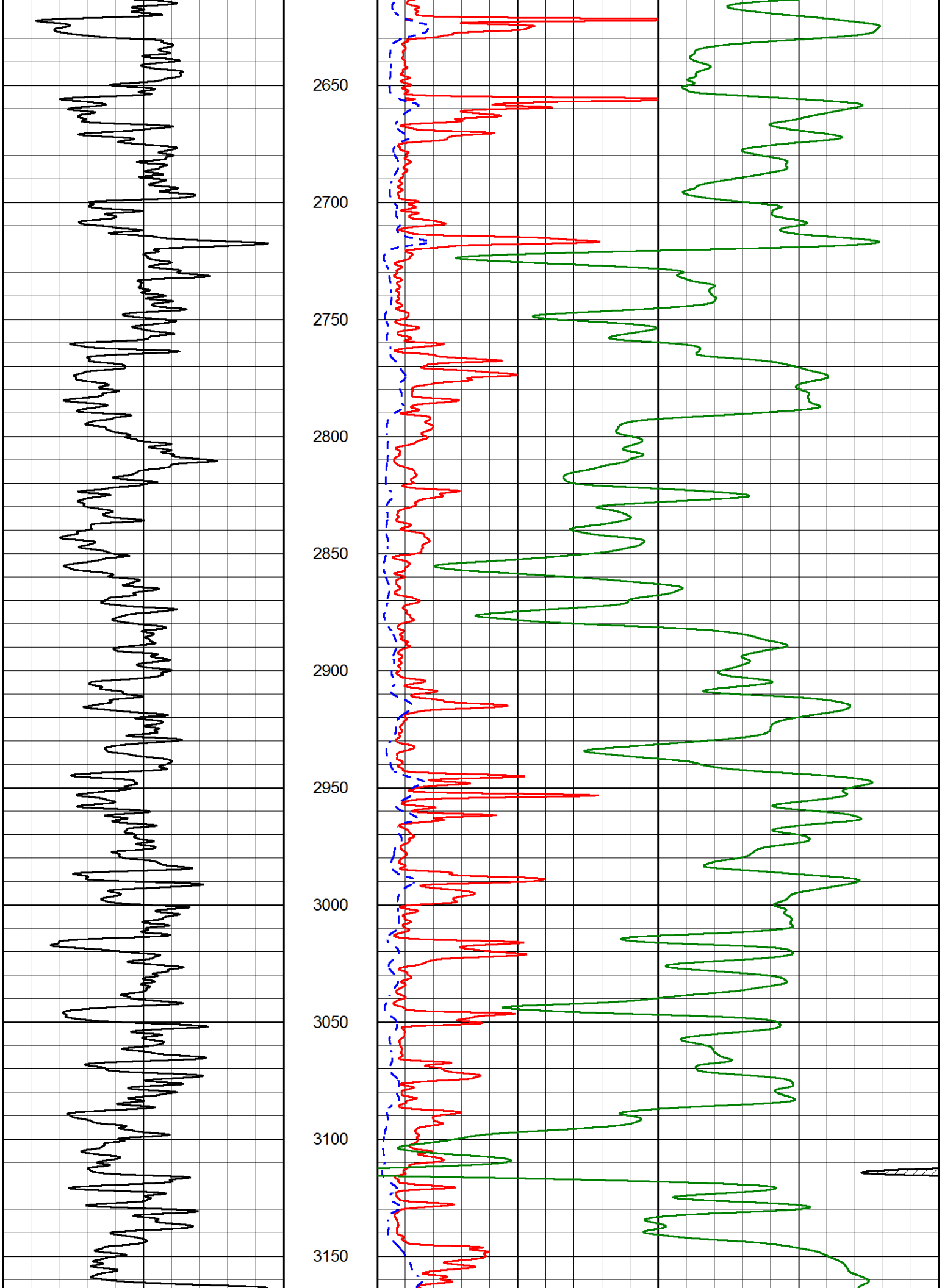


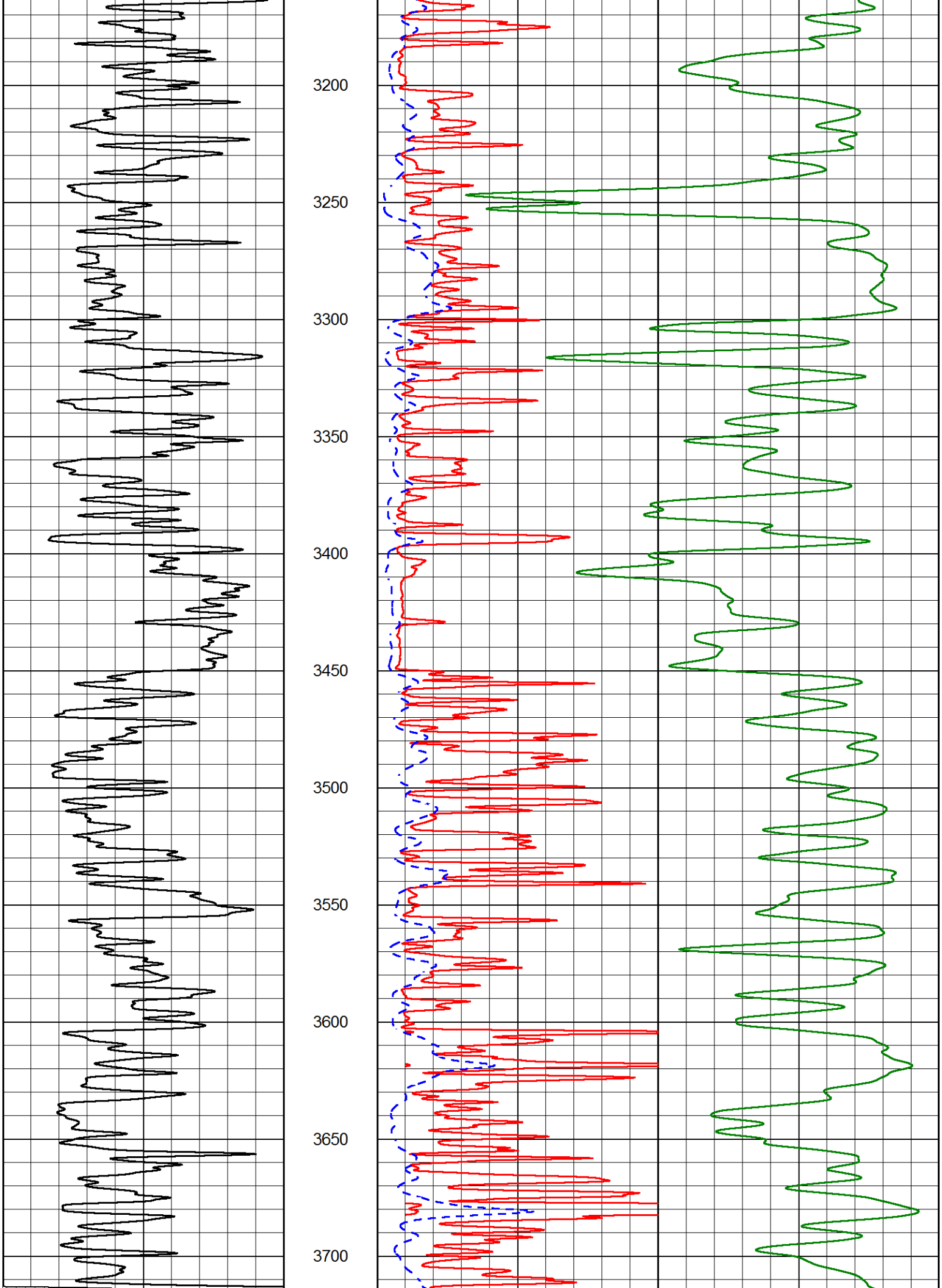

450
500
550
600
650
700
750
800
850
900
950

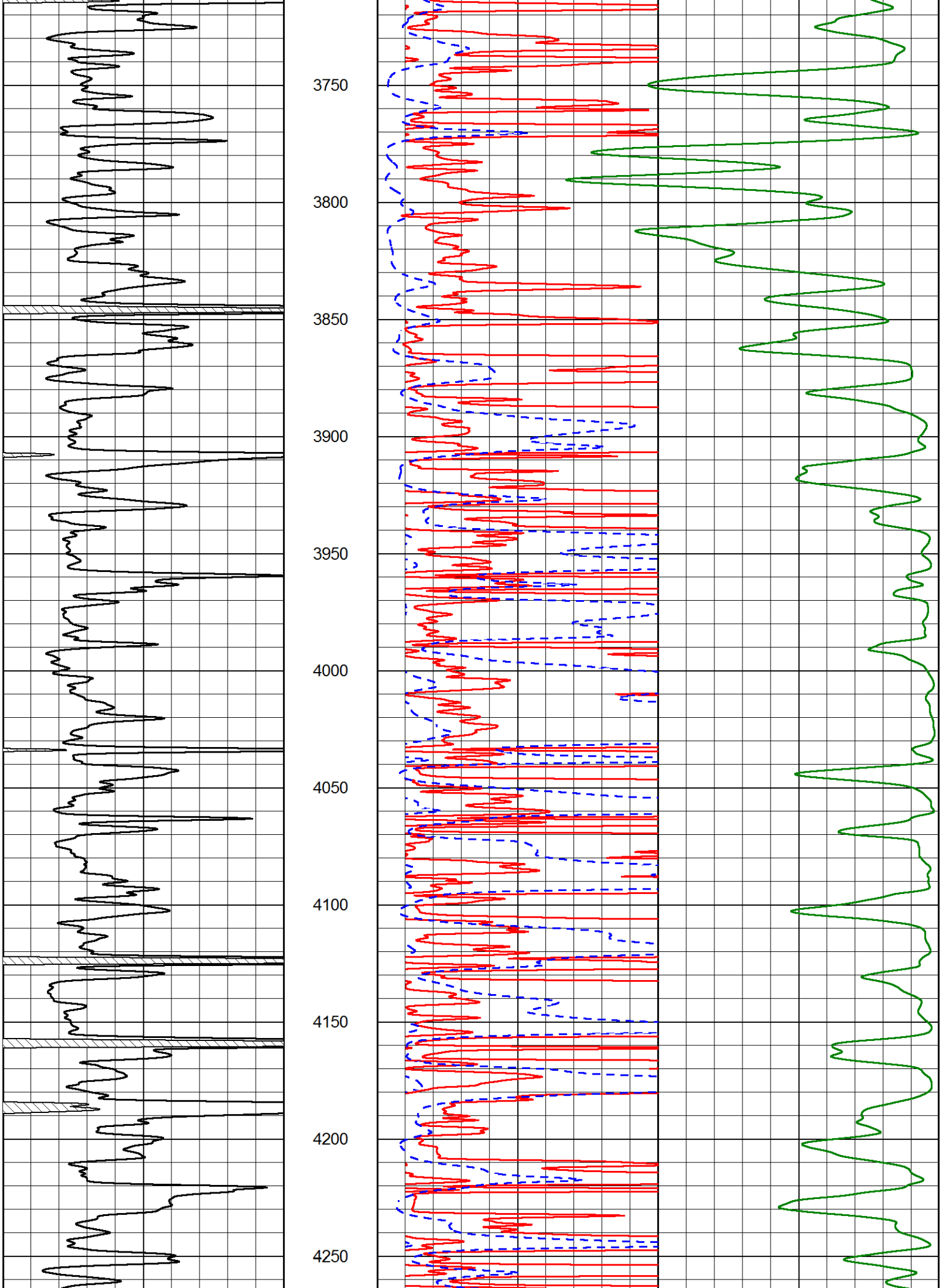

1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

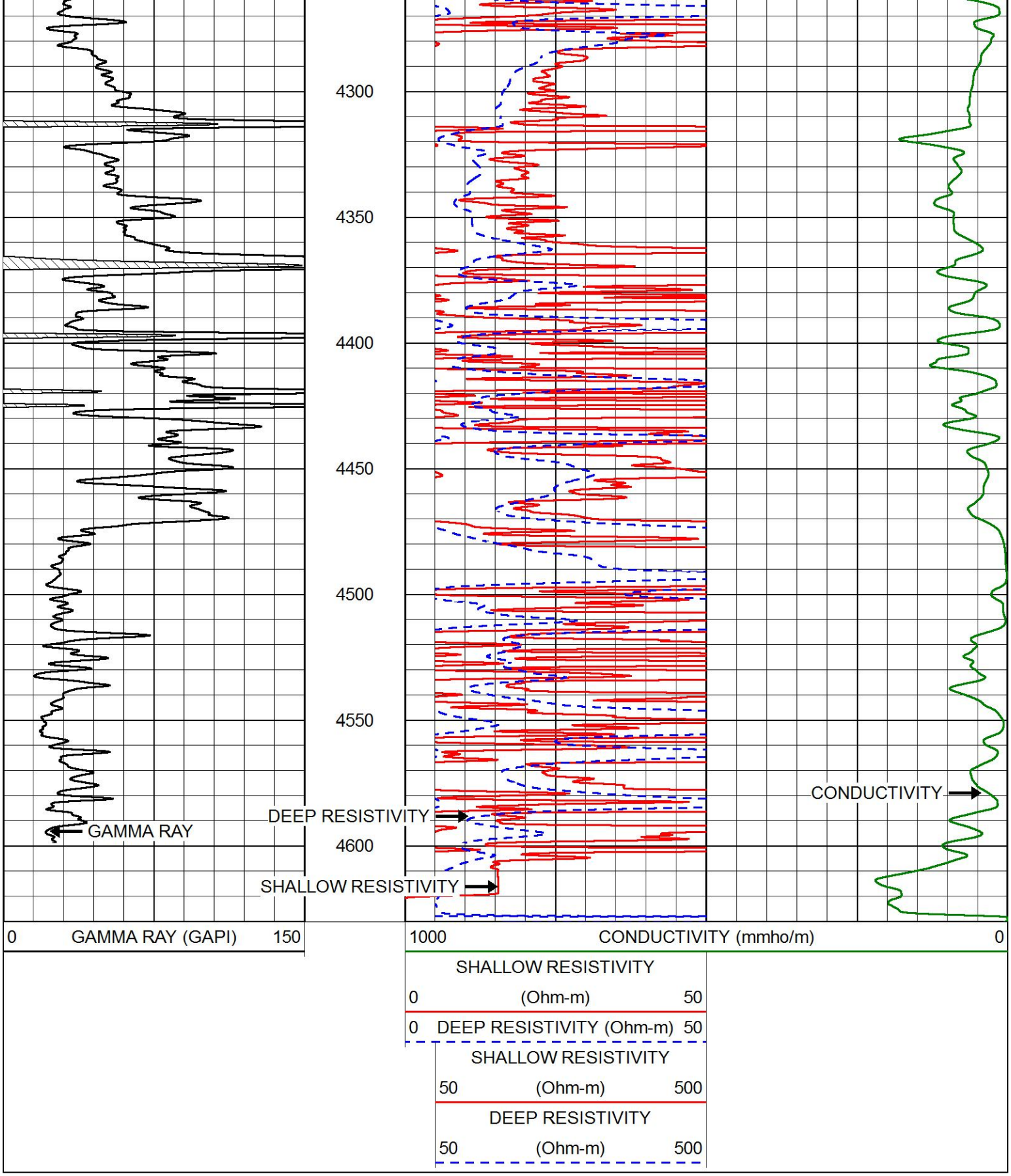

1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600


2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150


3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700


3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250



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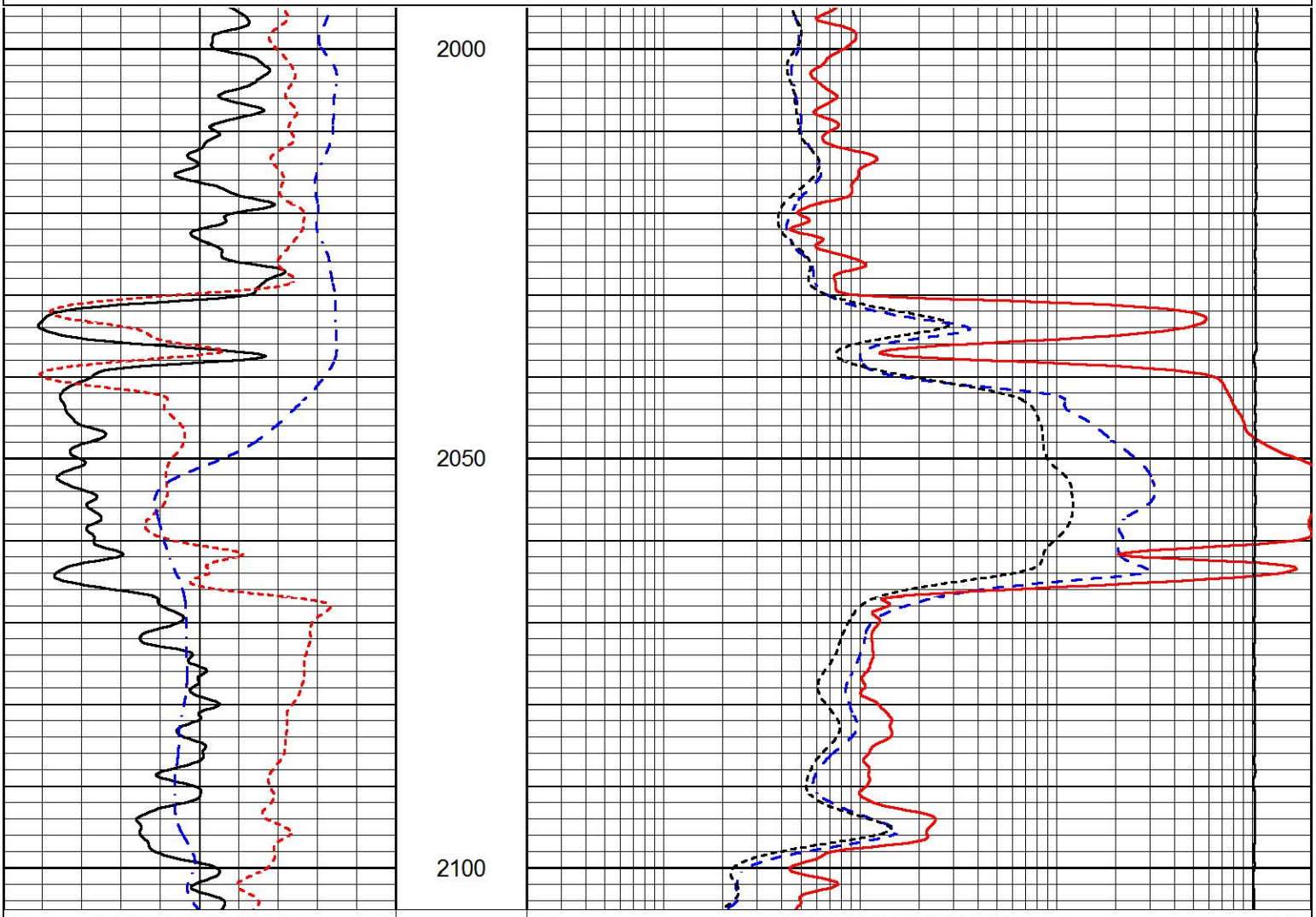
MAIN PASS

Database File	palomino_rohr_1.db
Dataset Pathname	stack/pass3.1

Presentation Format	dil
Dataset Creation	Sun Feb 05 15:38:31 2017
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0



0	GAMMA RAY (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0

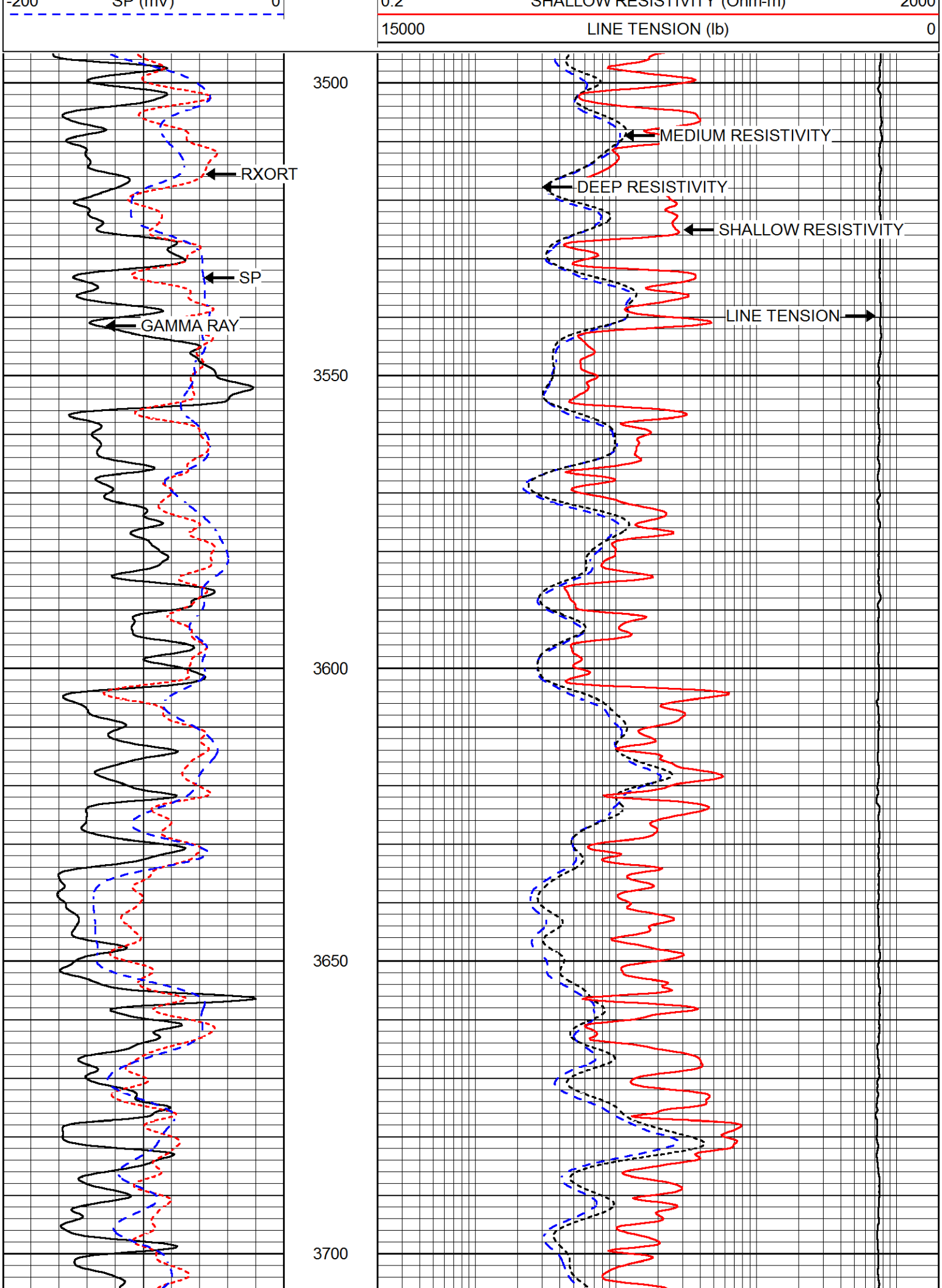
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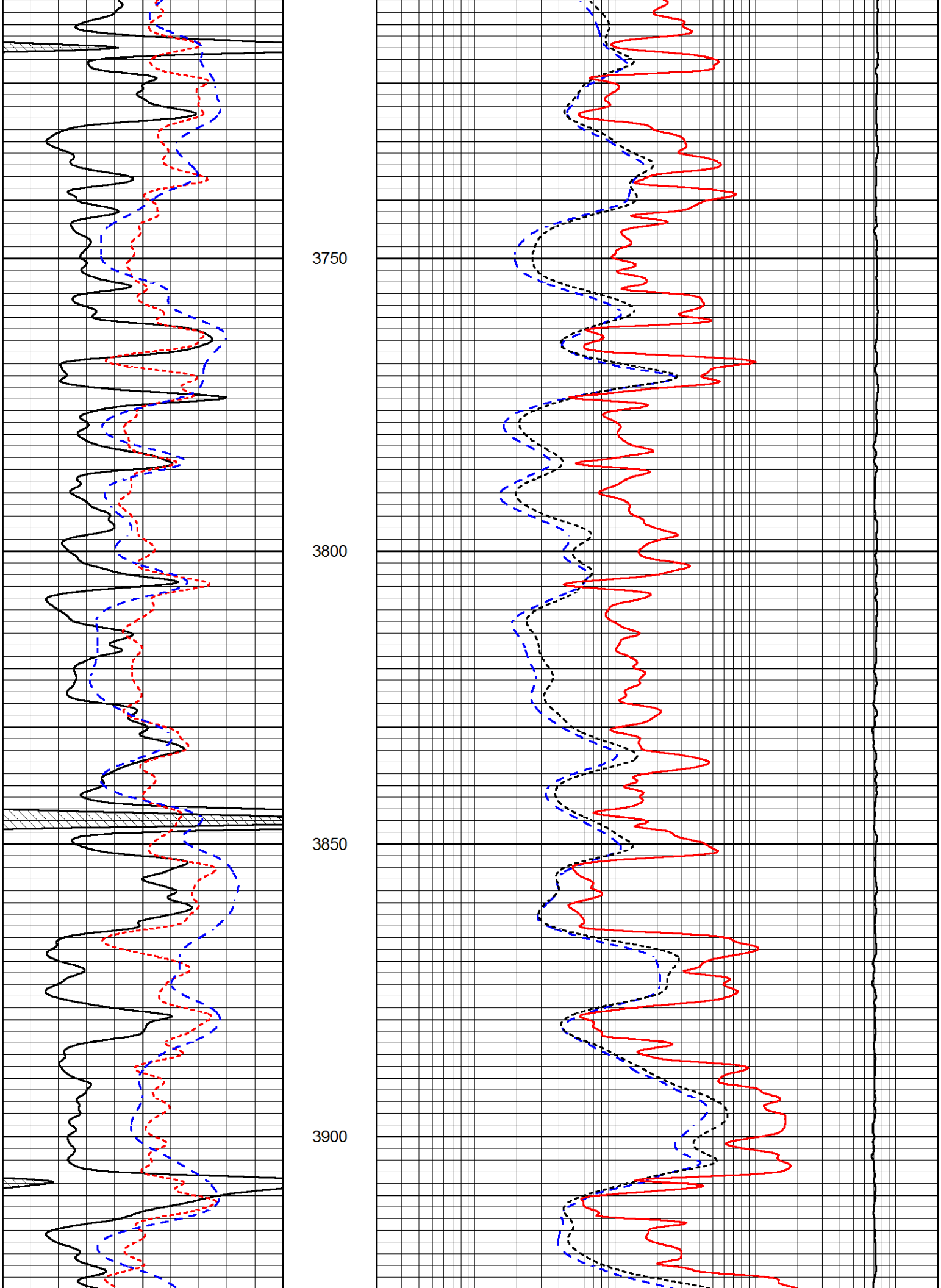
MAIN PASS

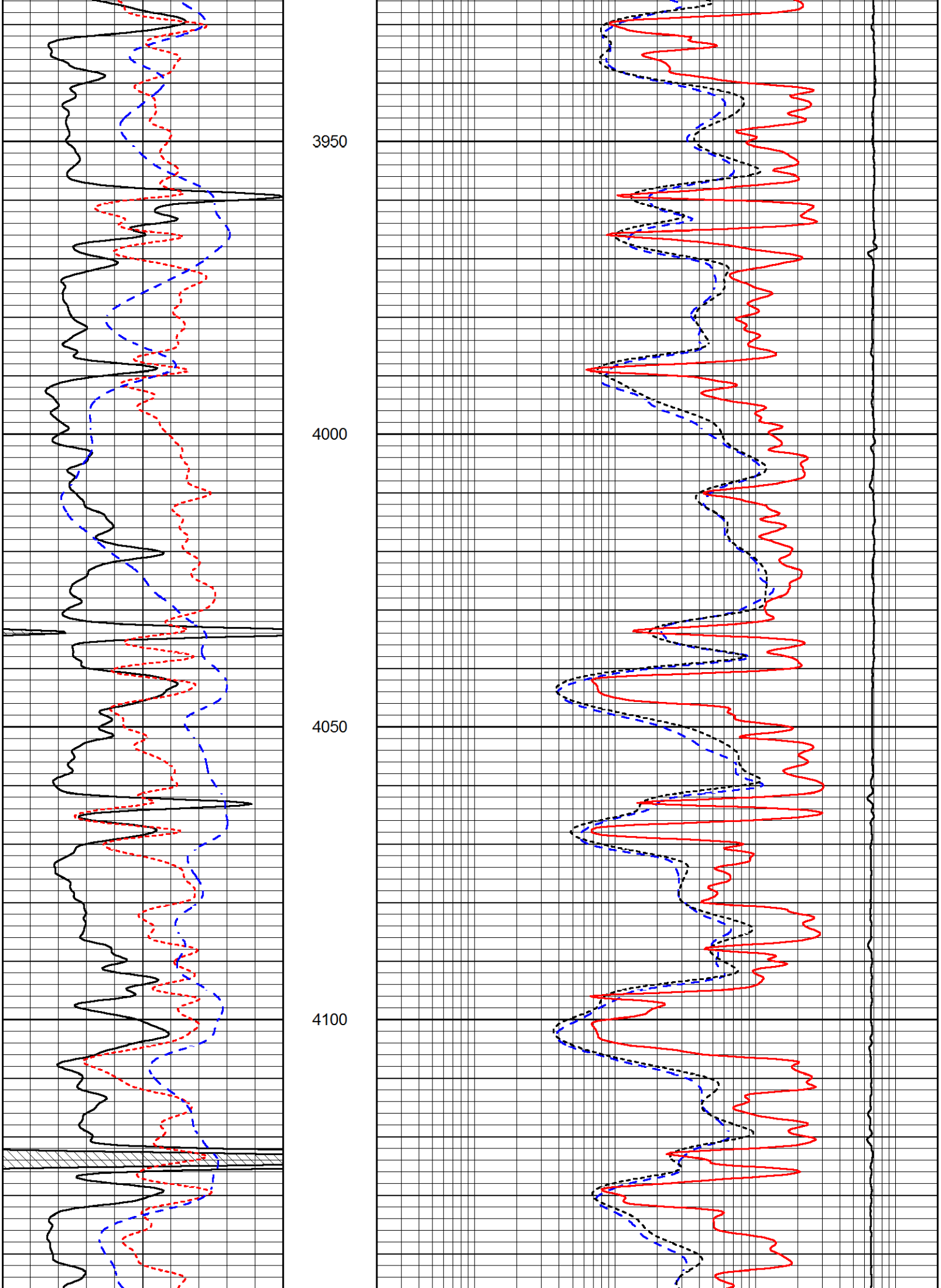
Database File	palomino_rohr_1.db
Dataset Pathname	stack/pass3.1
Presentation Format	dil
Dataset Creation	Sun Feb 05 15:38:31 2017
Charted by	Depth in Feet scaled 1:240

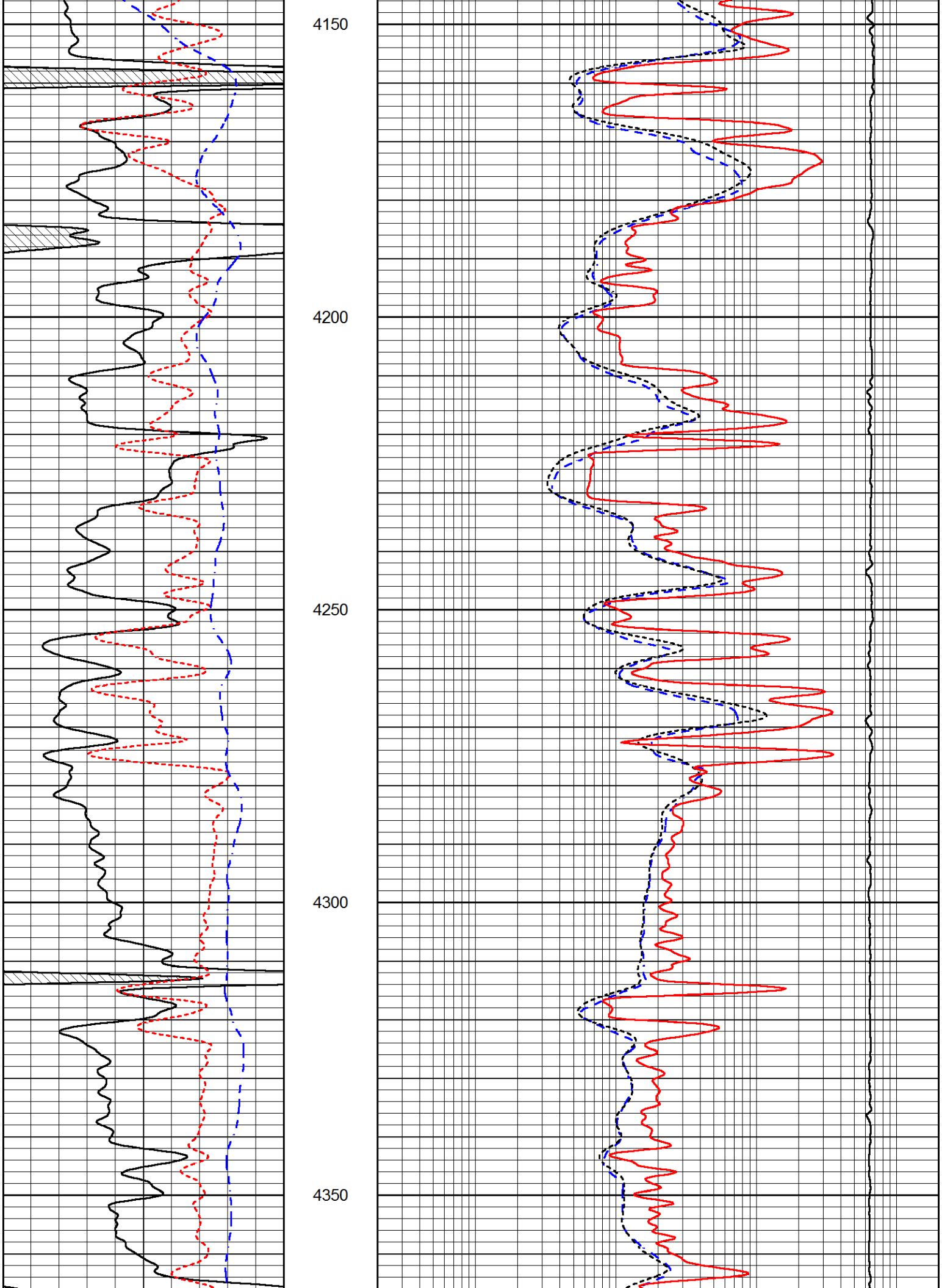
0	GAMMA RAY (GAPI)	150
-160	RXORT	40

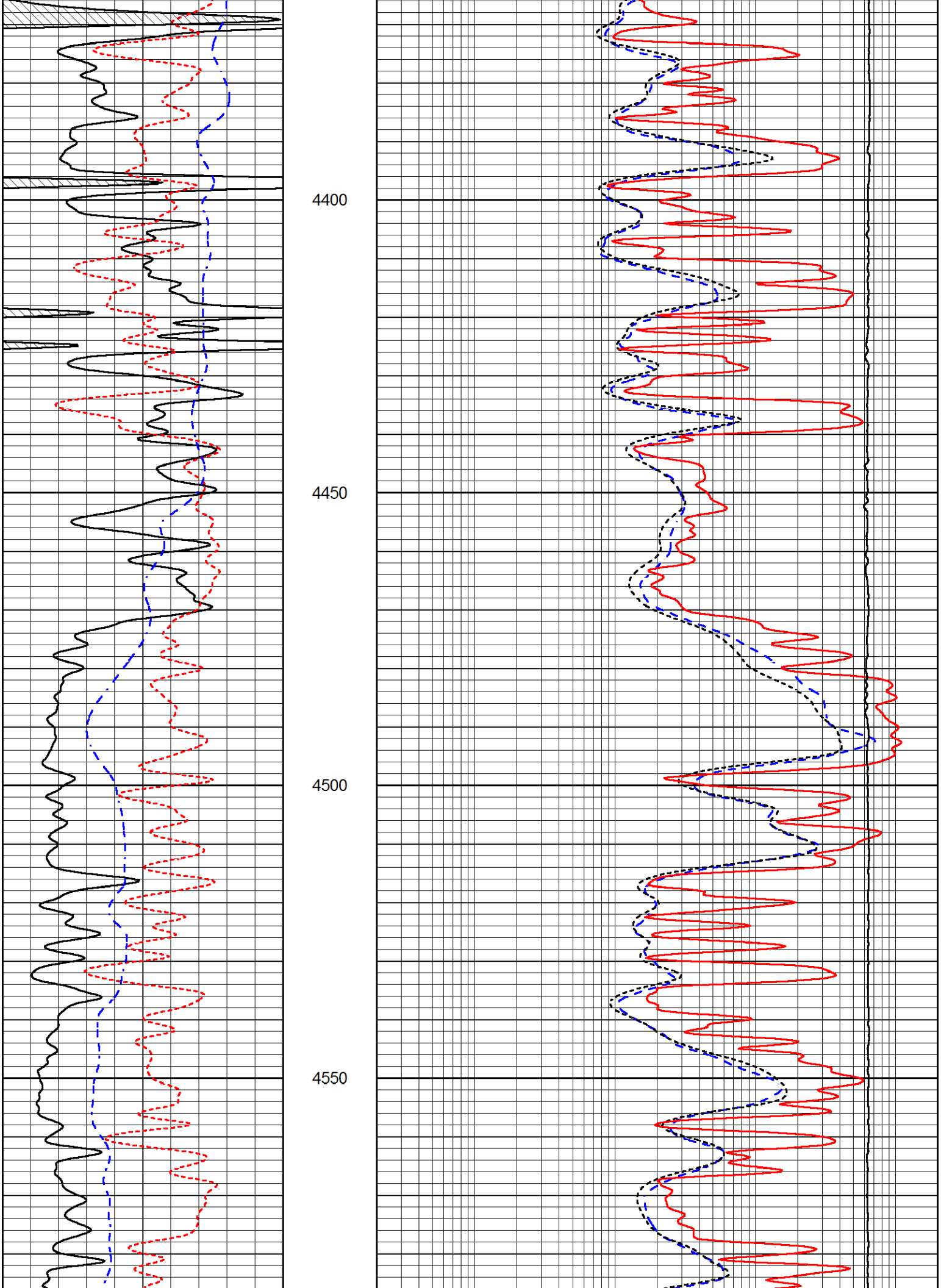
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000

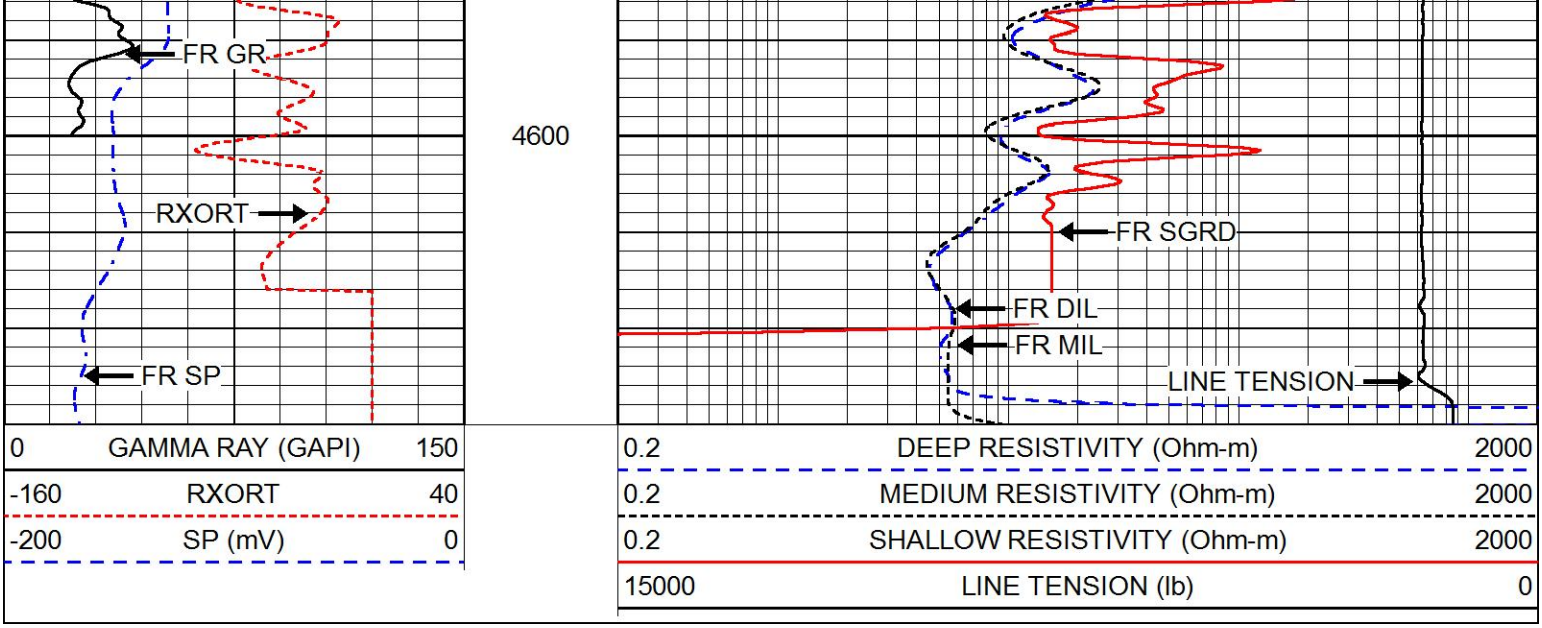

-200
SP (mV)
0
0.2
SHALLOW RESISTIVITY (Ohm-m)
2000
15000
LINE TENSION (lb)
0
3500
3550
3600
3650
3700
RXORT
SP
GAMMA RAY
MEDIUM RESISTIVITY
DEEP RESISTIVITY
SHALLOW RESISTIVITY
LINE TENSION


3750
3800
3850
3900


3950
4000
4050
4100


4150
4200
4250
4300
4350


4400
4450
4500
4550



0	GAMMA RAY (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0

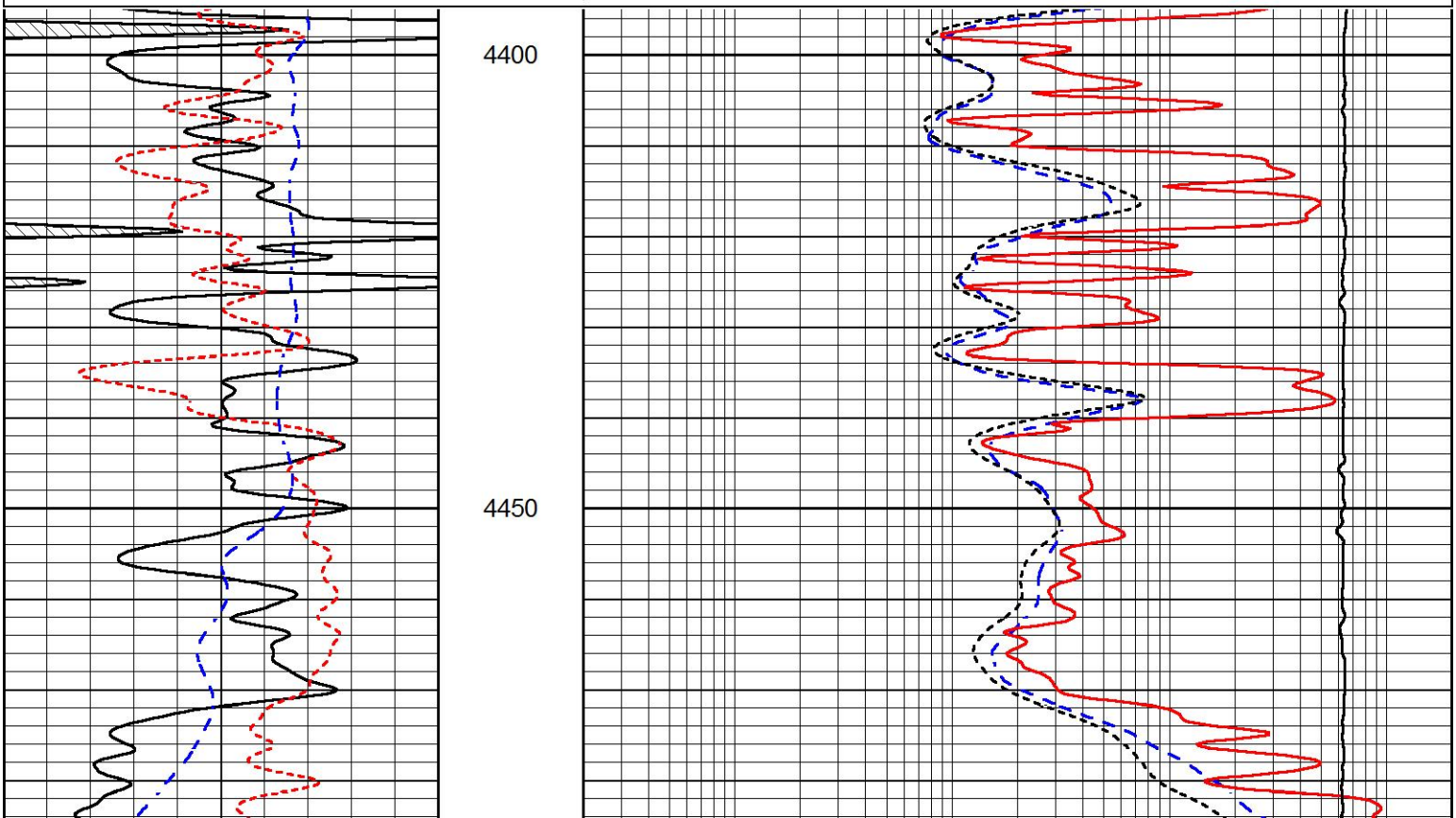
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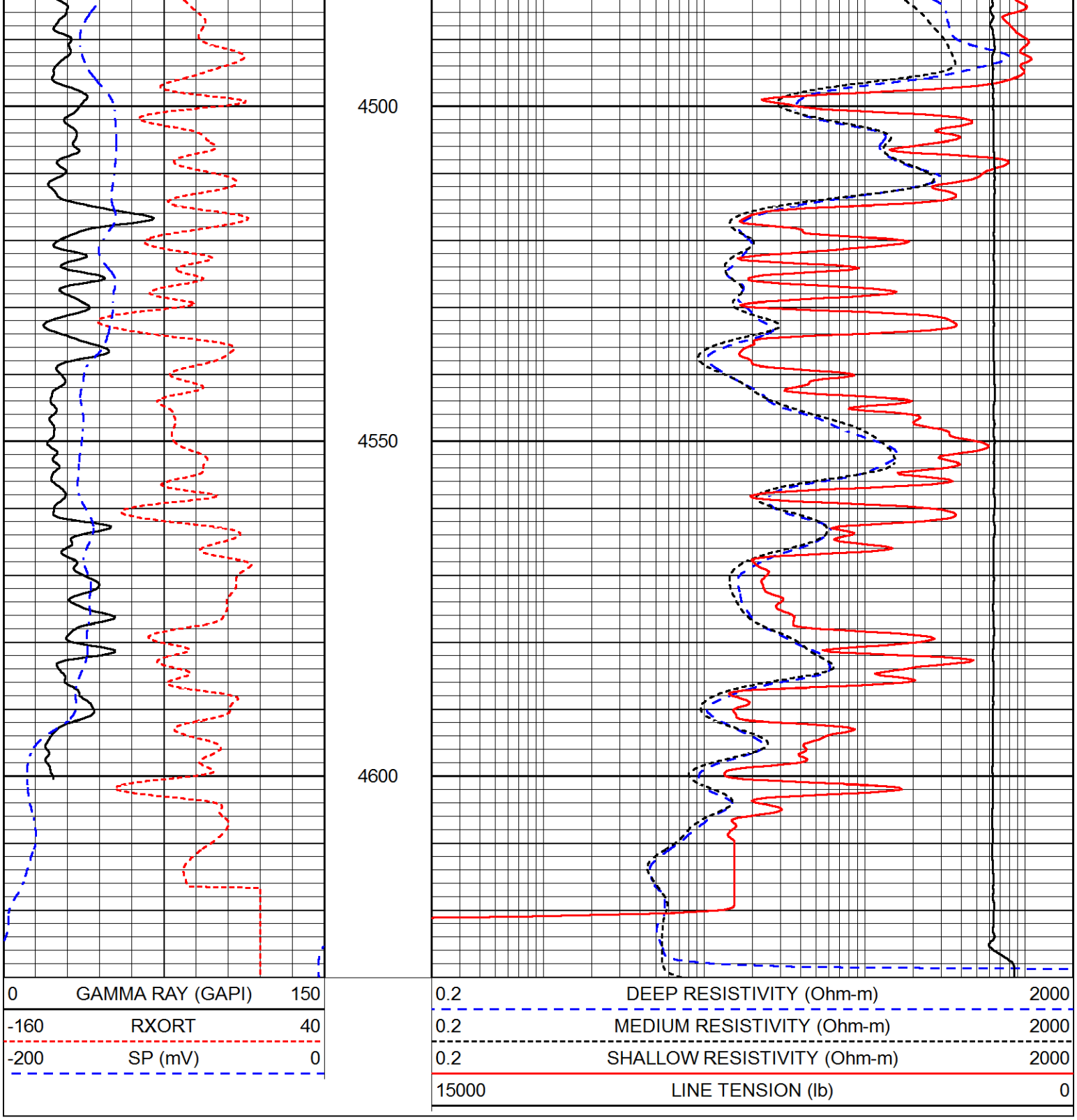
REPEAT SECTION

Database File	palomino_rohr_1.db
Dataset Pathname	stack/pass2.1
Presentation Format	dil
Dataset Creation	Sun Feb 05 15:39:11 2017
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0





Calibration Report

Database File	palomino_rohr_1.db
Dataset Pathname	stack/pass3.1
Dataset Creation	Sun Feb 05 15:38:31 2017

Dual Induction Calibration Report

Serial-Model:	1987-M&W
Calibration Performed:	Fri Dec 23 14:41:51 2016

	Readings		References		Results	
Loop:	Air	Loop	Air	Loop	Gain	Offset

Deep	178.615	710.235	0.000	255.800	mmho/m	0.530	-36.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.440	-110.500

Compensated Density Calibration Report

Serial-Model: 71-914-M&W
Source / Verifier: /
Master Calibration Performed: Fri Dec 23 14:42:24 2016

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4314.49	5307.52	cps
Aluminum	2.675	g/cc	822.19	3456.36	cps

Spine Angle = 75.49 Density/Spine Ratio = 0.537

	Size		Reading
Small Ring	4.00	in	1.16
Large Ring	14.00	in	1.57

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings		Target		Normalization
Short Space	6240.00	cps	1000.00	cps	1.6025
Long Space	460.00	cps	1000.00	cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
Tool Model: M&W
Calibration Performed: Fri Dec 23 14:43:38 2016

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps

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