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MICRORESISTIVITY 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
DIL

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	TWO			
Depth Driller	4636'			
Depth Logger	4626'			
Bottom Logged Interval	4625'			
Top Log Interval	3500'			
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			

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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
			ML-Armadillo (Armadillo-1) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
MCAL	1.00					
MI	1.00					
MN	1.00					

Dataset: palomino_rohr_1.db: field/well/MICRO/pass2
Total length: 5.00 ft
Total weight: 100.00 lb
O.D.: 3.50 in

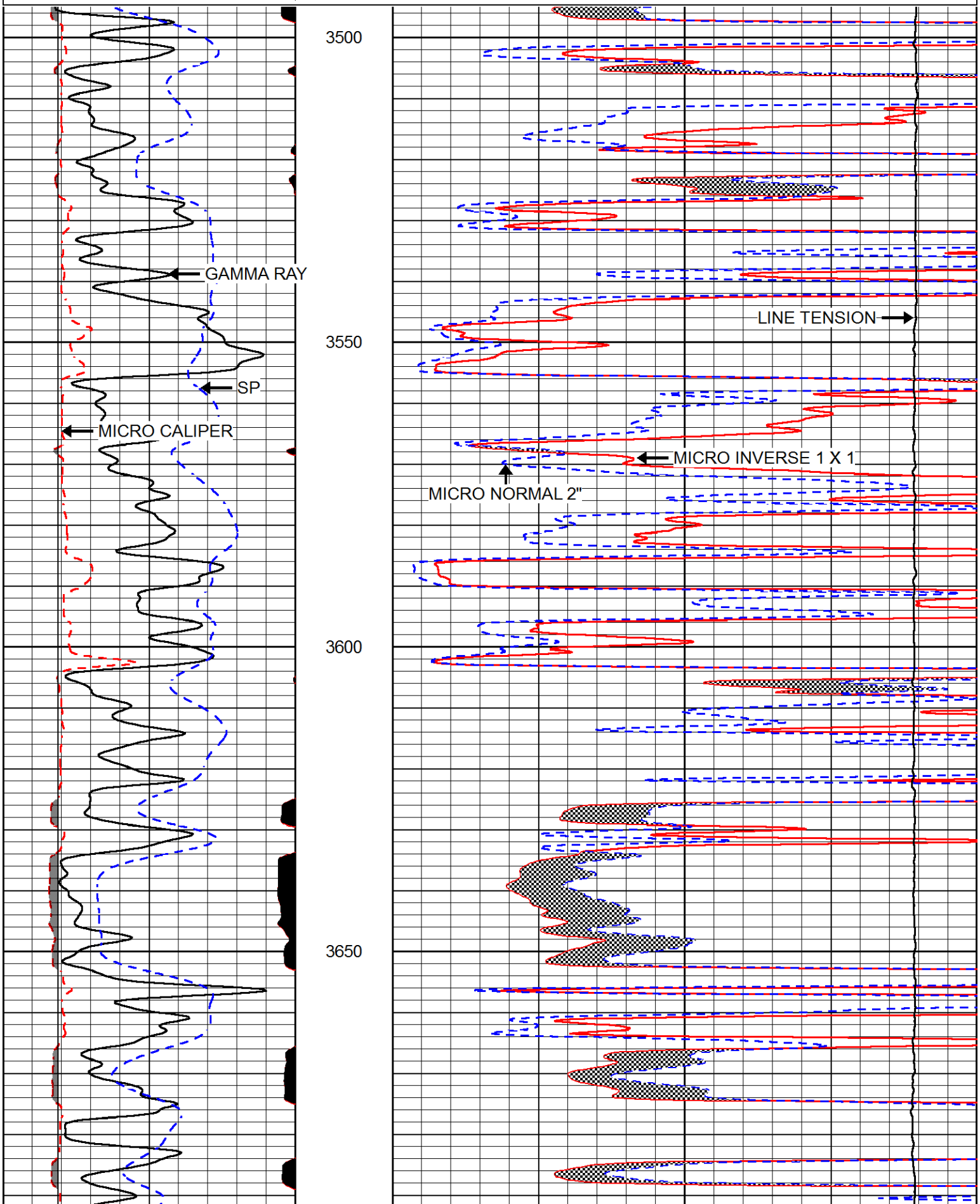
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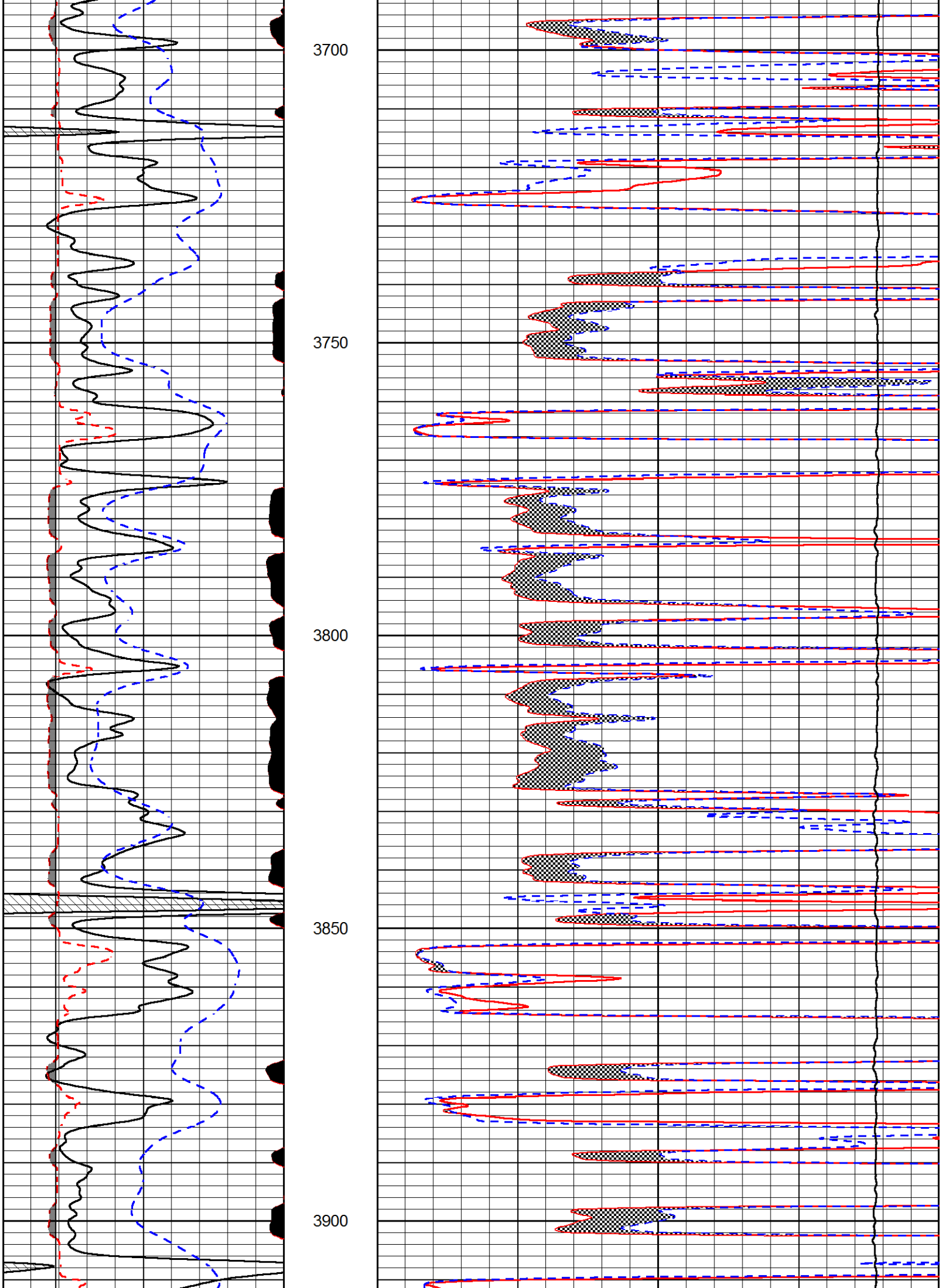
MAIN PASS

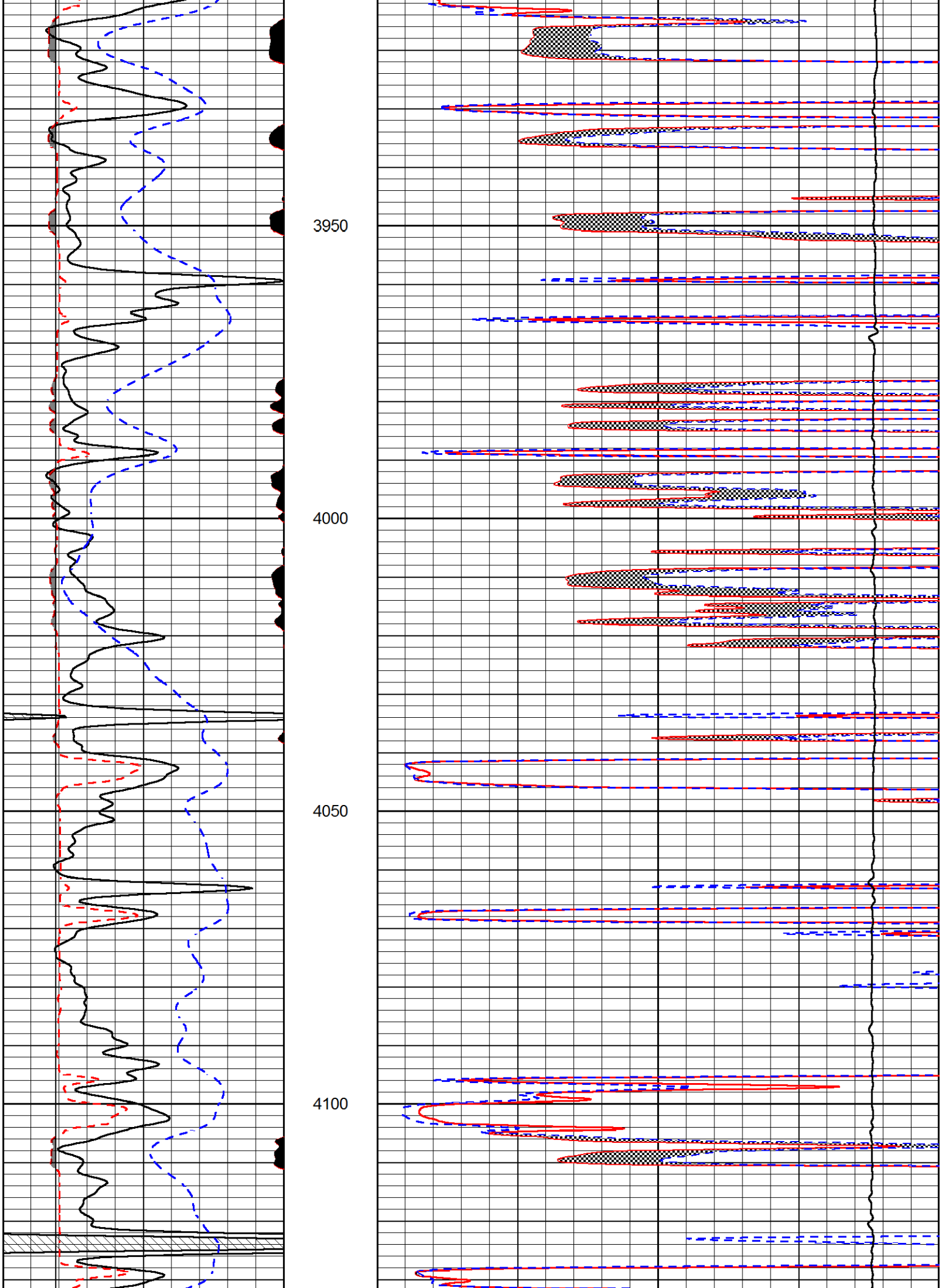
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Dataset Pathname stack/pass3.1
Presentation Format micro
Dataset Creation Sun Feb 05 15:38:31 2017
Charted by Depth in Feet scaled 1:240

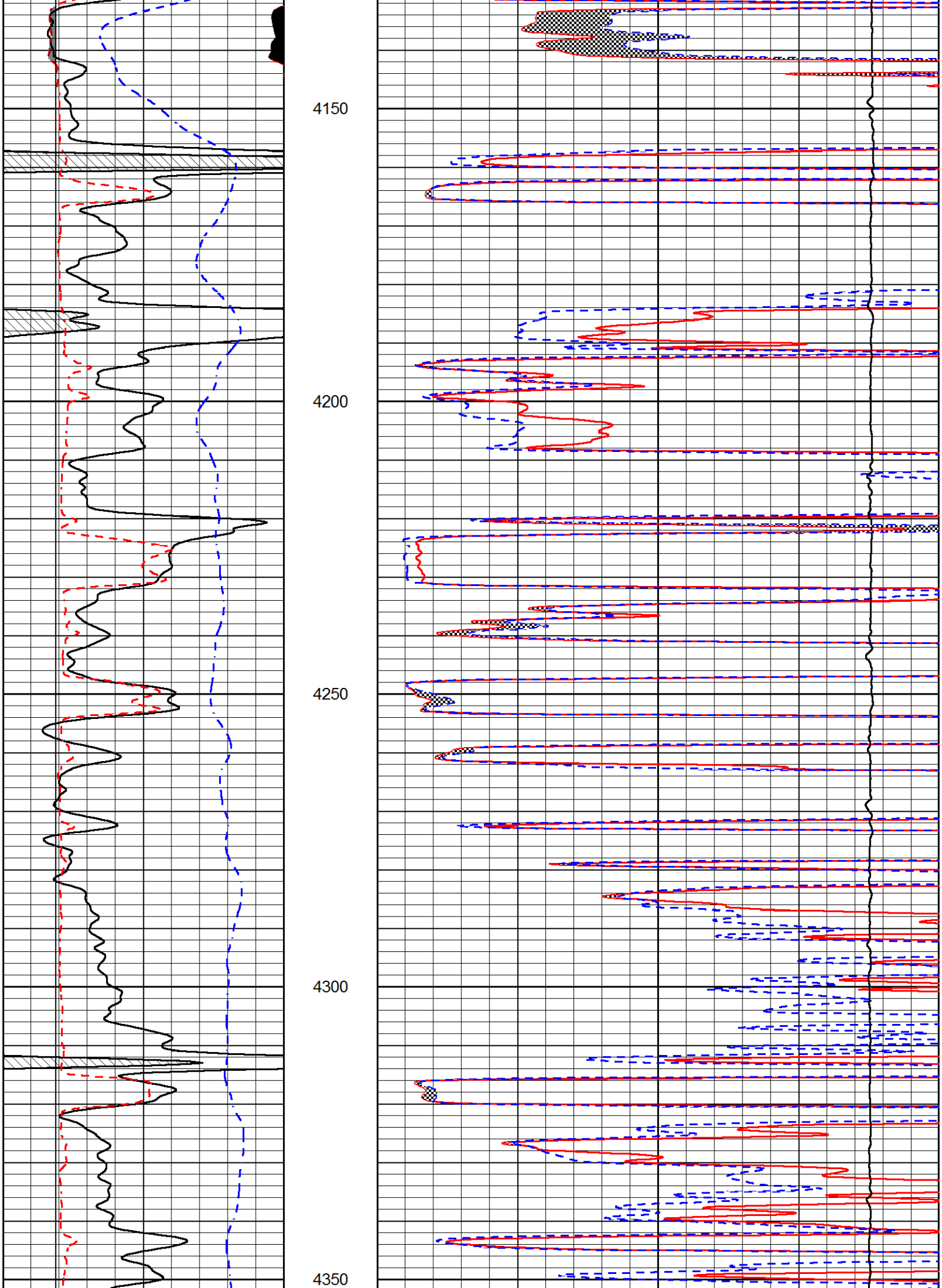
0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

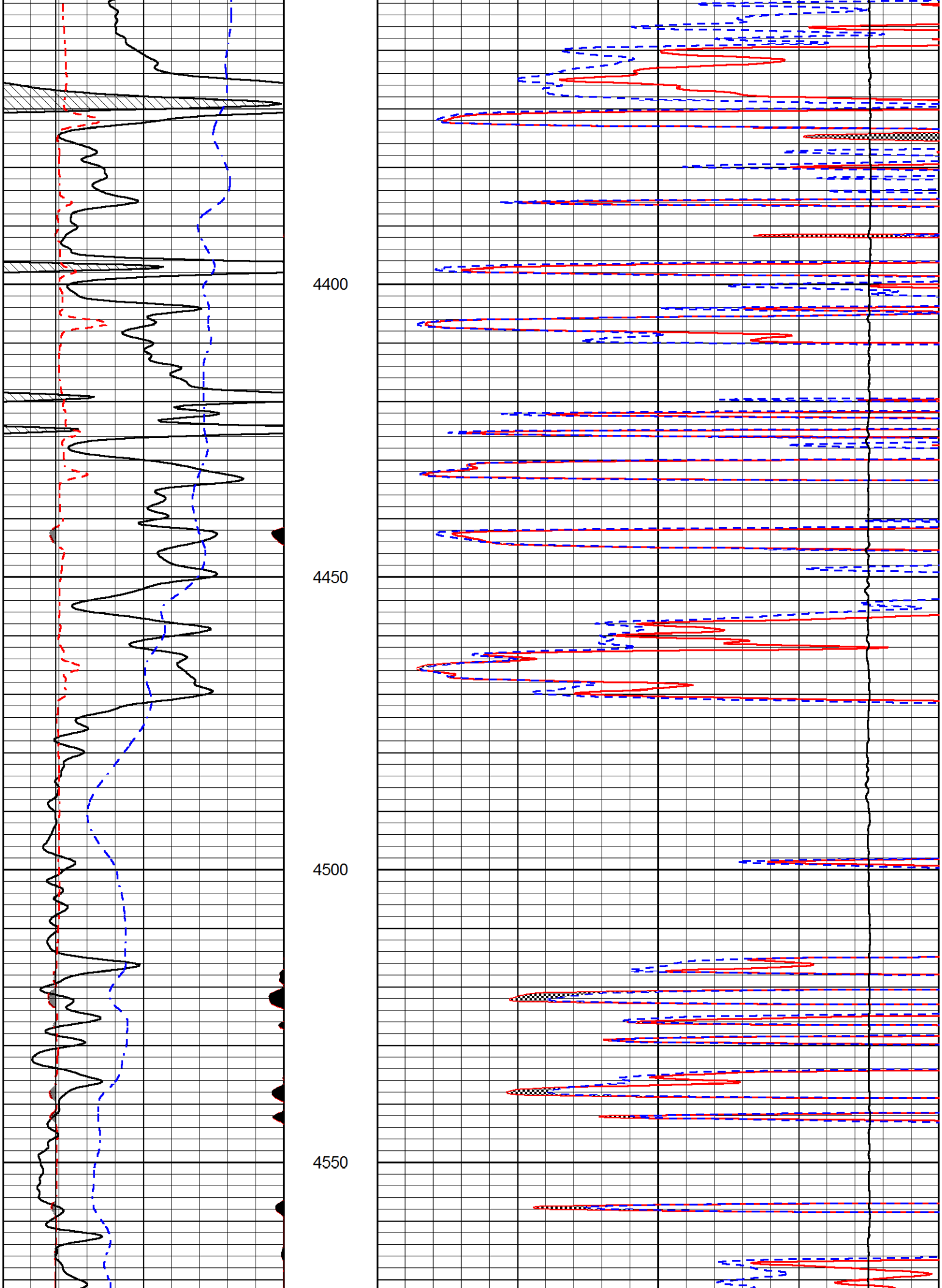
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0

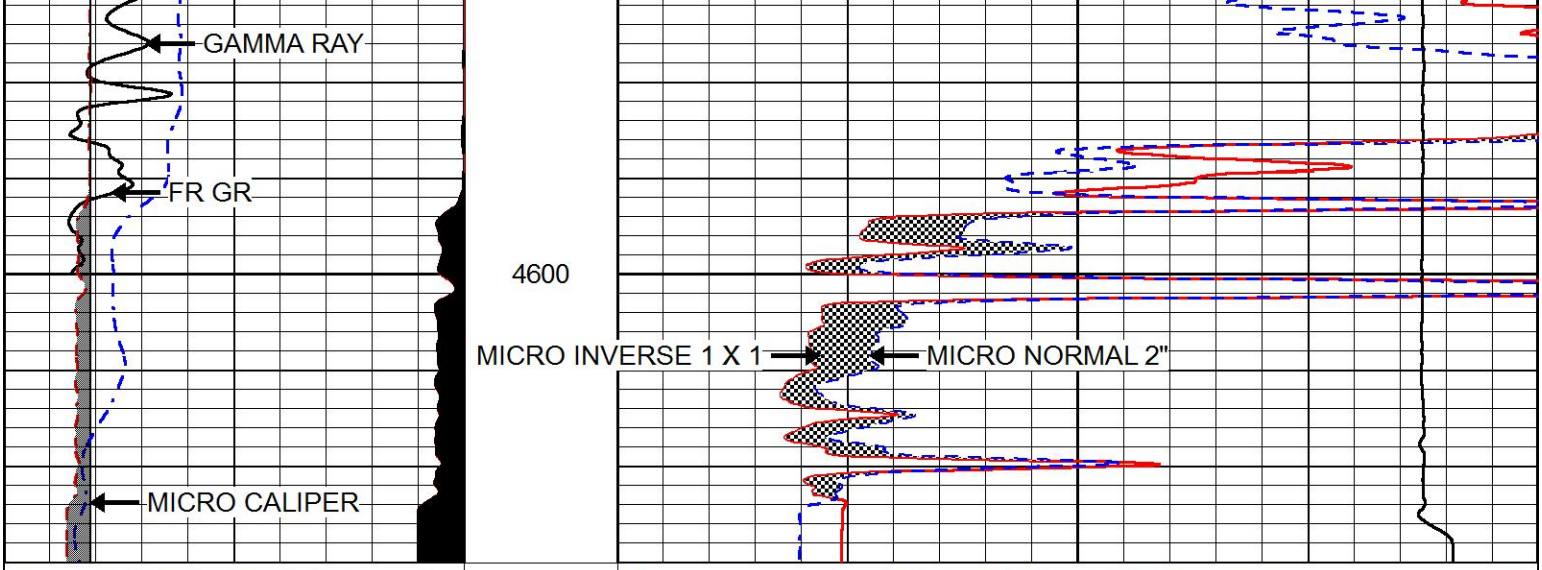



3700
3750
3800
3850
3900


3950
4000
4050
4100


4150
4200
4250
4300
4350


4400
4450
4500
4550



0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0

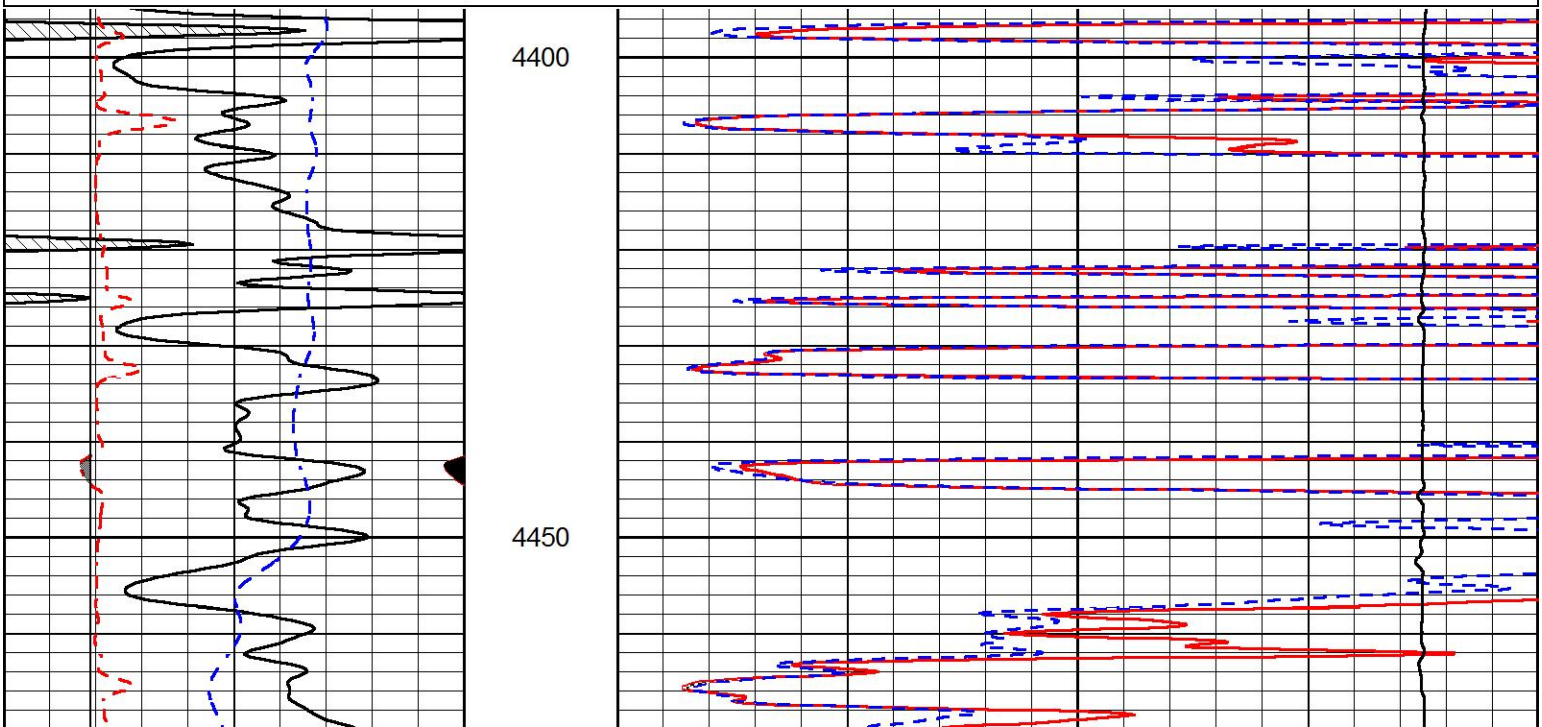
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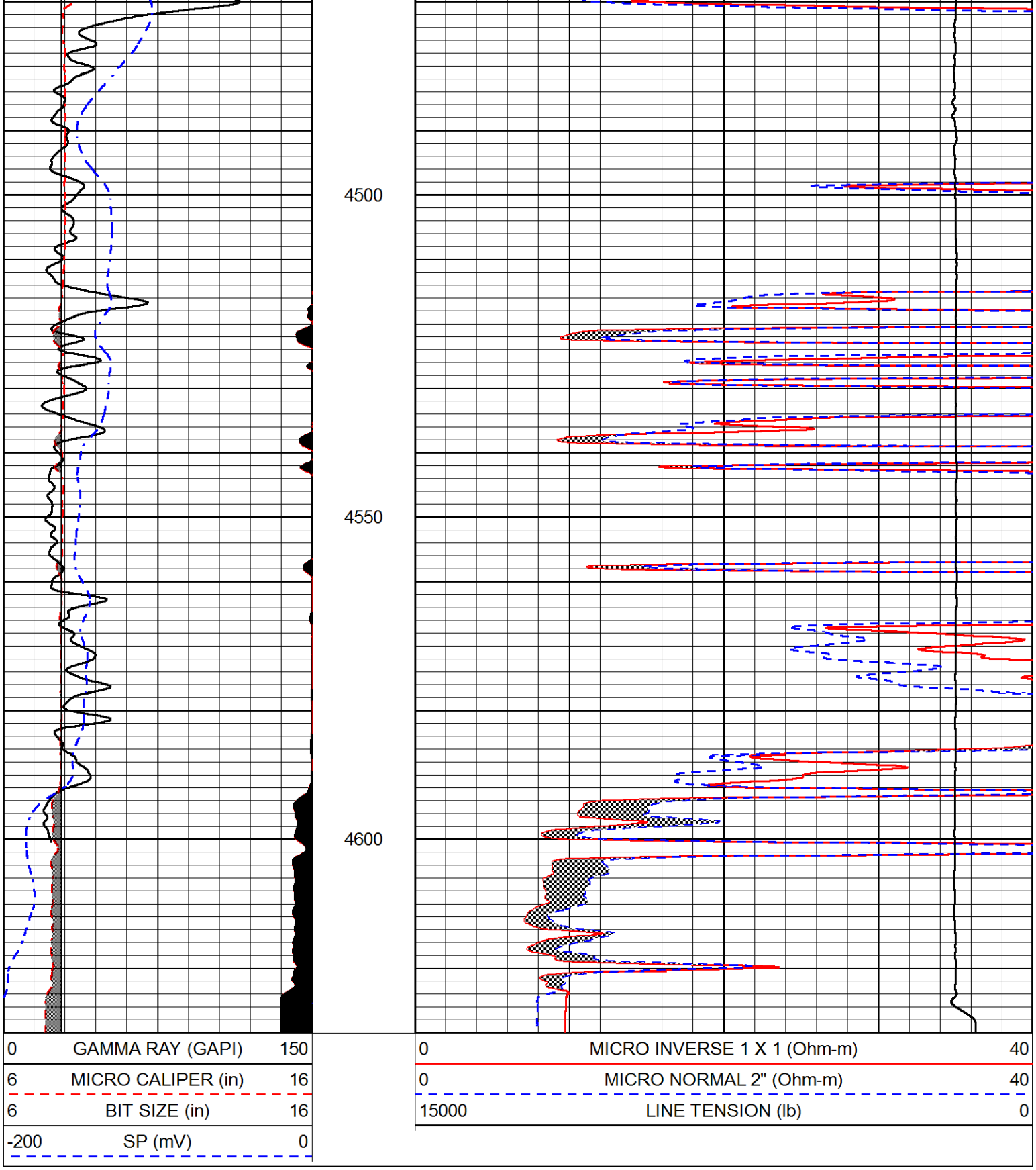
REPEAT SECTION

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

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0





Calibration Report

Database File	palomino_rohr_1.db
Dataset Pathname	MICRO/pass2.10
Dataset Creation	Sun Feb 05 16:45:53 2017

Microlog Calibration Report

Serial-Model:	Armadillo-1-Armadillo
Performed:	Fri Nov 18 10:19:49 2016

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	0.0122	1.0361	V	0.0000	10.0000	Ohm-m	35.0000	-2.0000
Inverse	-0.0037	0.9549	V	0.0000	10.0000	Ohm-m	25.0000	-0.6000
Caliper	1.1139	8.3644	V	5.0000	19.0000	in	1.9309	3.0493

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Well	ROHR NO. 1
Field	BROUGHTON NORTH
County	LANE
State	KANSAS