

MICRO LOG

Company	PHILLIPS EXPLORATION COMPANY, LLC.
Well	ZIEGLER-GARBER UNIT #1-20 CR
Field	NA
County	TREGO
State	KANSAS
Company	PHILLIPS EXPLORATION COMPANY, LLC.
Well	ZIEGLER-GARBER UNIT #1-20 CR
Field	NA
County	TREGO
State	KANSAS
Location:	API # : 15-195-23061-00-00
Permanent Datum	2520' FNL & 1000' FWL
Log Measured From	GROUND LEVEL Elevation 2543
Drilling Measured From	KELLY BUSHING 5' A.G.L. KELLY BUSHING Elevation K.B. 2548 D.F. 2546 G.L. 2543
Date	08/14/18
Run Number	TWO
Depth Driller	4482
Depth Logger	4484
Bottom Logged Interval	4482
Top Log Interval	3500
Casing Driller	8 5/8" @ 218
Casing Logger	218
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.160
pH / Fluid Loss	11.0/6.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.1@76
Rmt @ Meas. Temp	.83@76
Rmc @ Meas. Temp	1.32@76
Source of Rmt / Rmc	MEASURED
Rm @ BHT	.70@120
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	///
Maximum Recorded Temperature	120F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	GUS PFANENSTIEL
Witnessed By	PAT DEENIHAN

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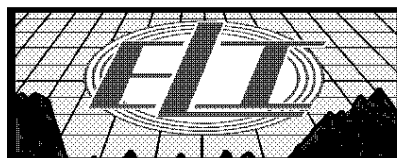
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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, HAYS, KS. (785) 628-6395

DIRECTIONS

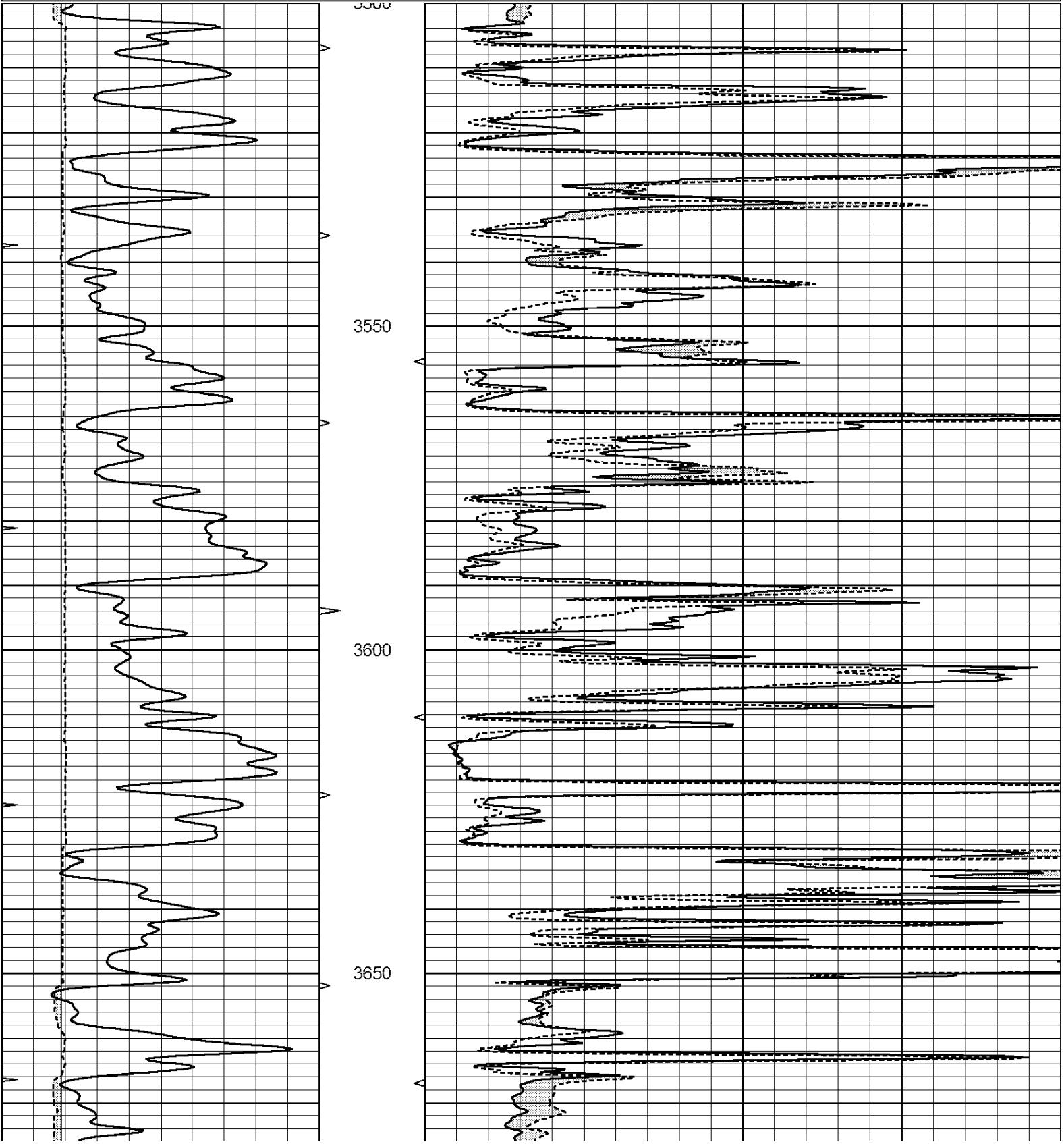
COLLYER EXIT SOUTH TO FIRST INTERSECTION WEST 1,
SOUTH 1.5, EAST INTO.

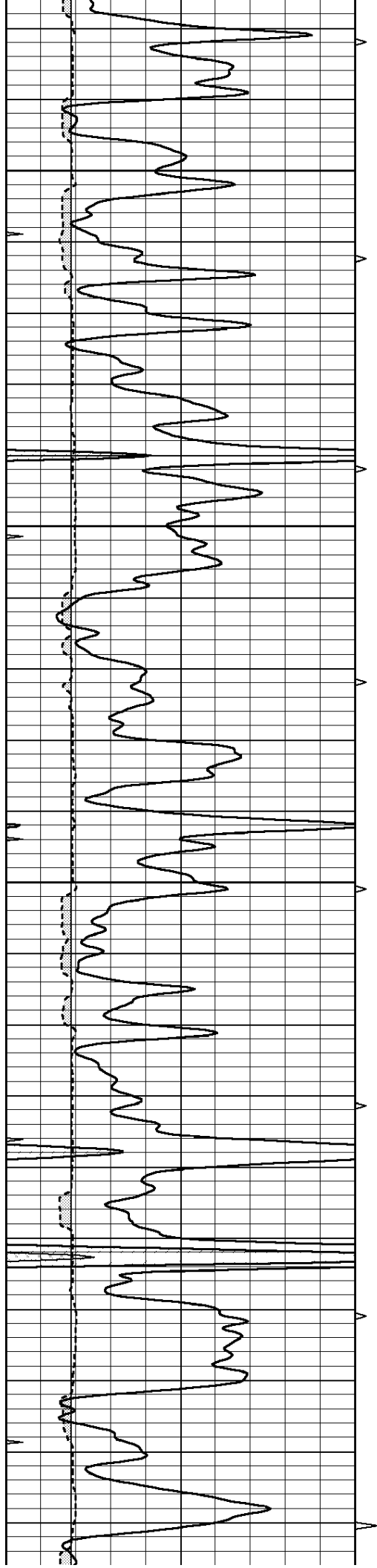


MAIN PASS

Database File: 2903ddn.db
Dataset Pathname: pass5.1
Presentation Format: _micro
Dataset Creation: Tue Aug 14 21:22:49 2018 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		



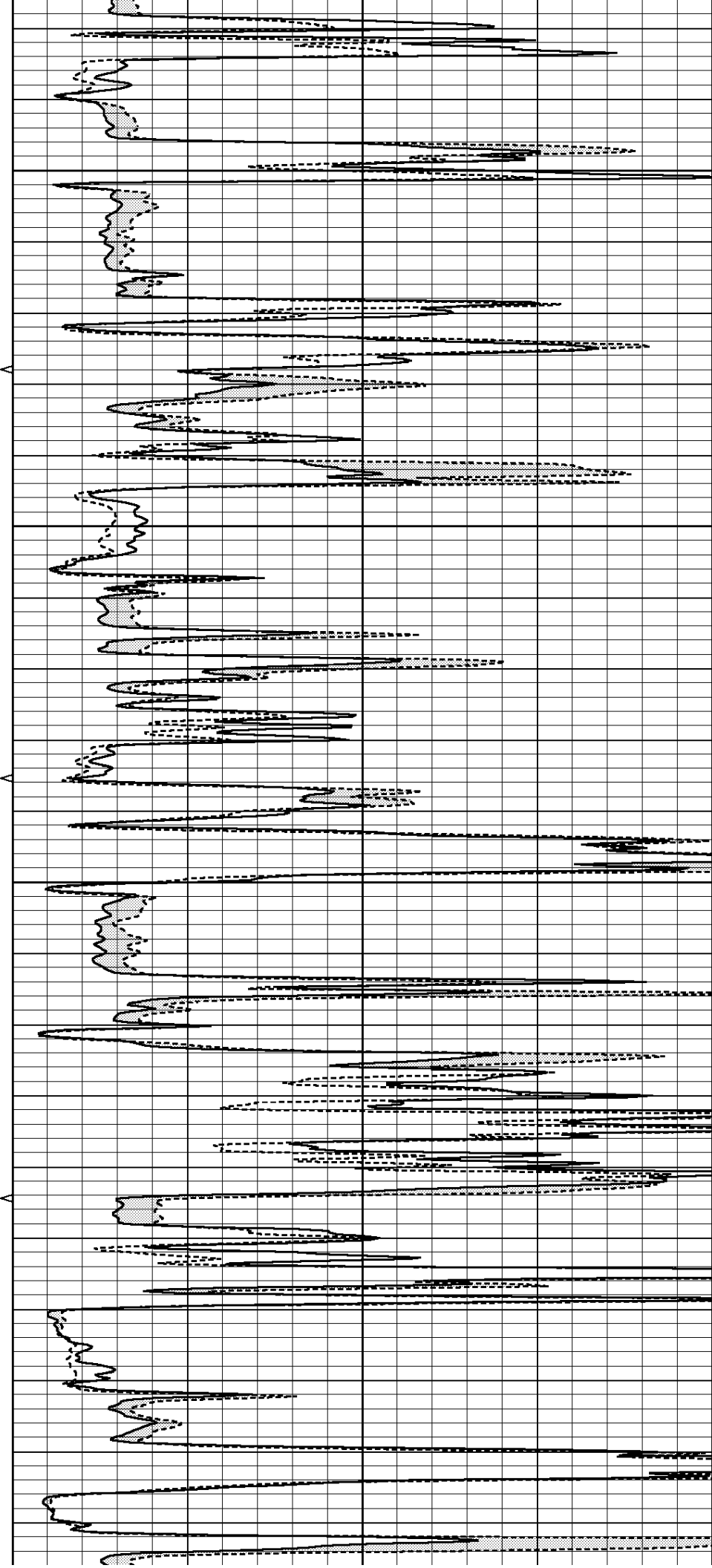


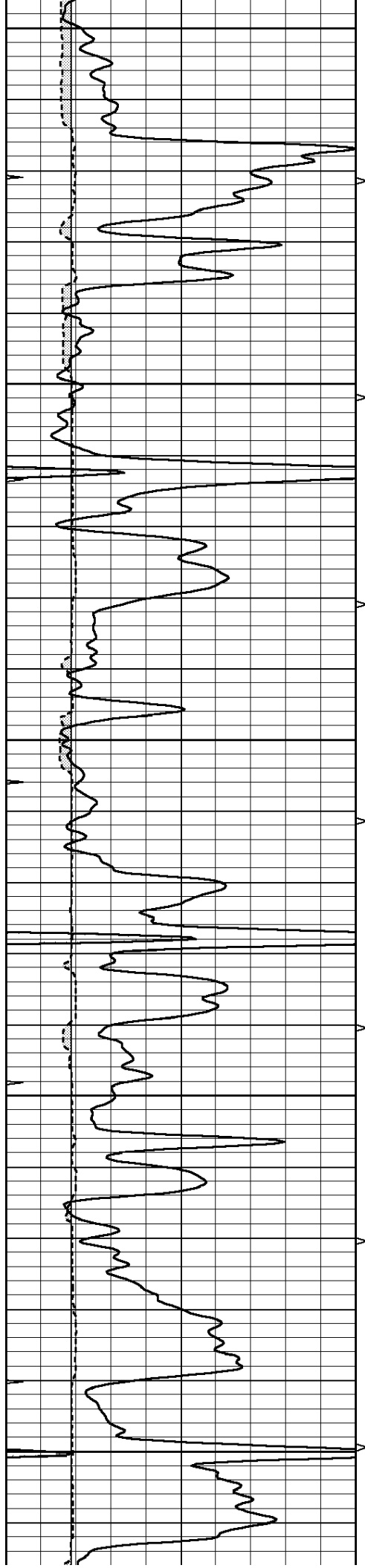
3700

3750

3800

3850





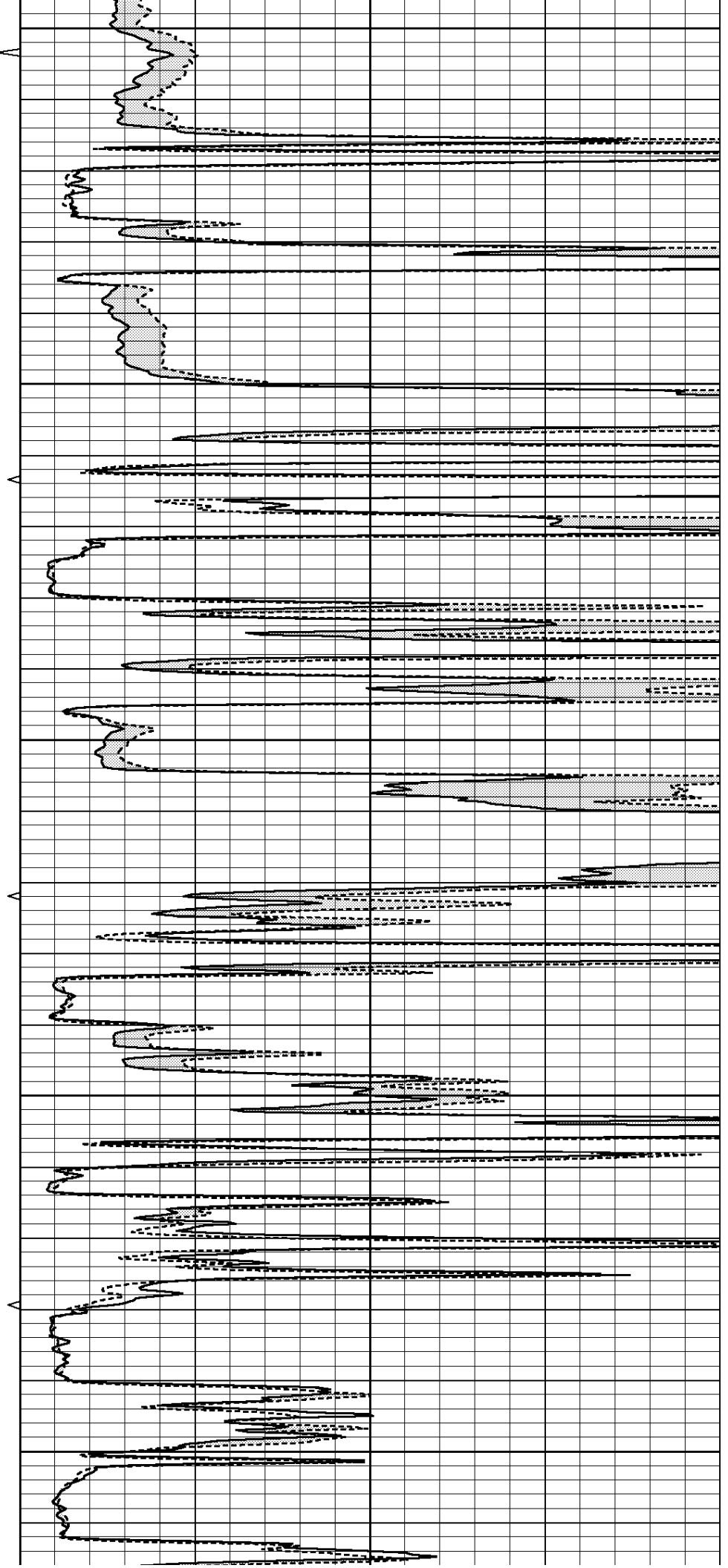
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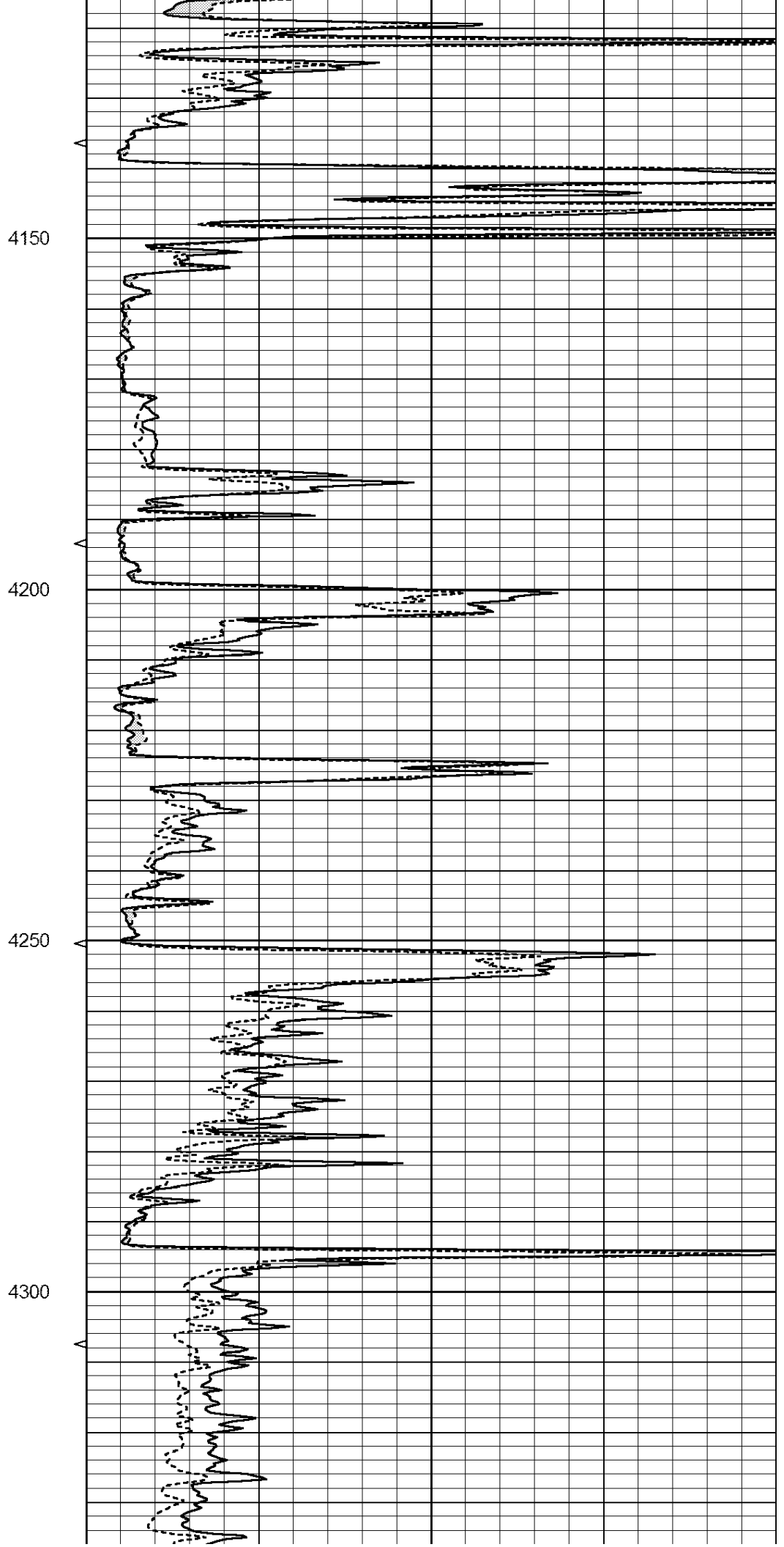
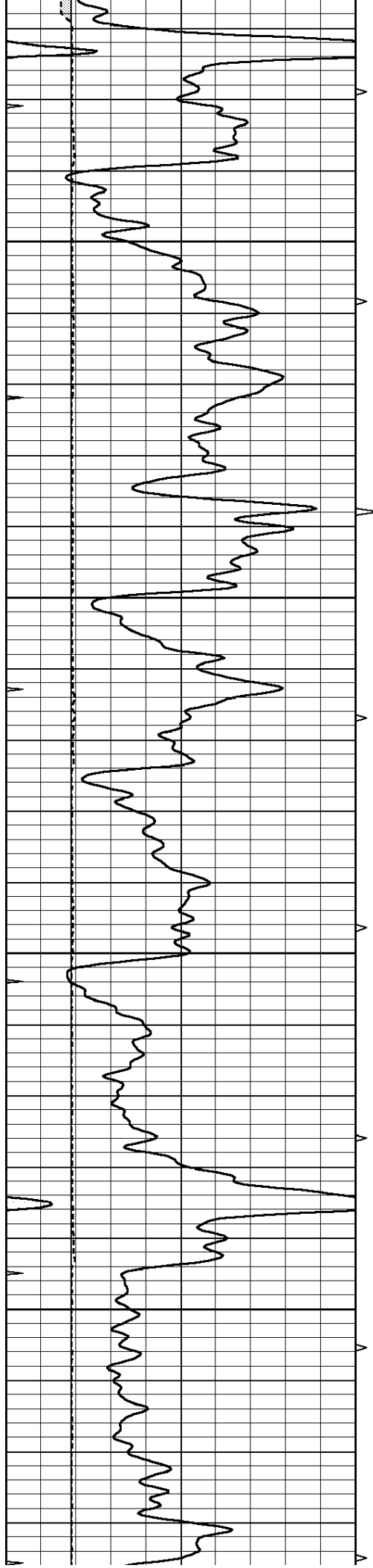
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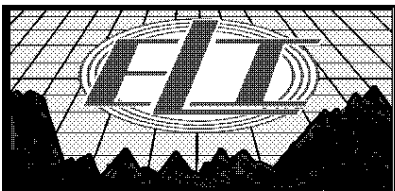
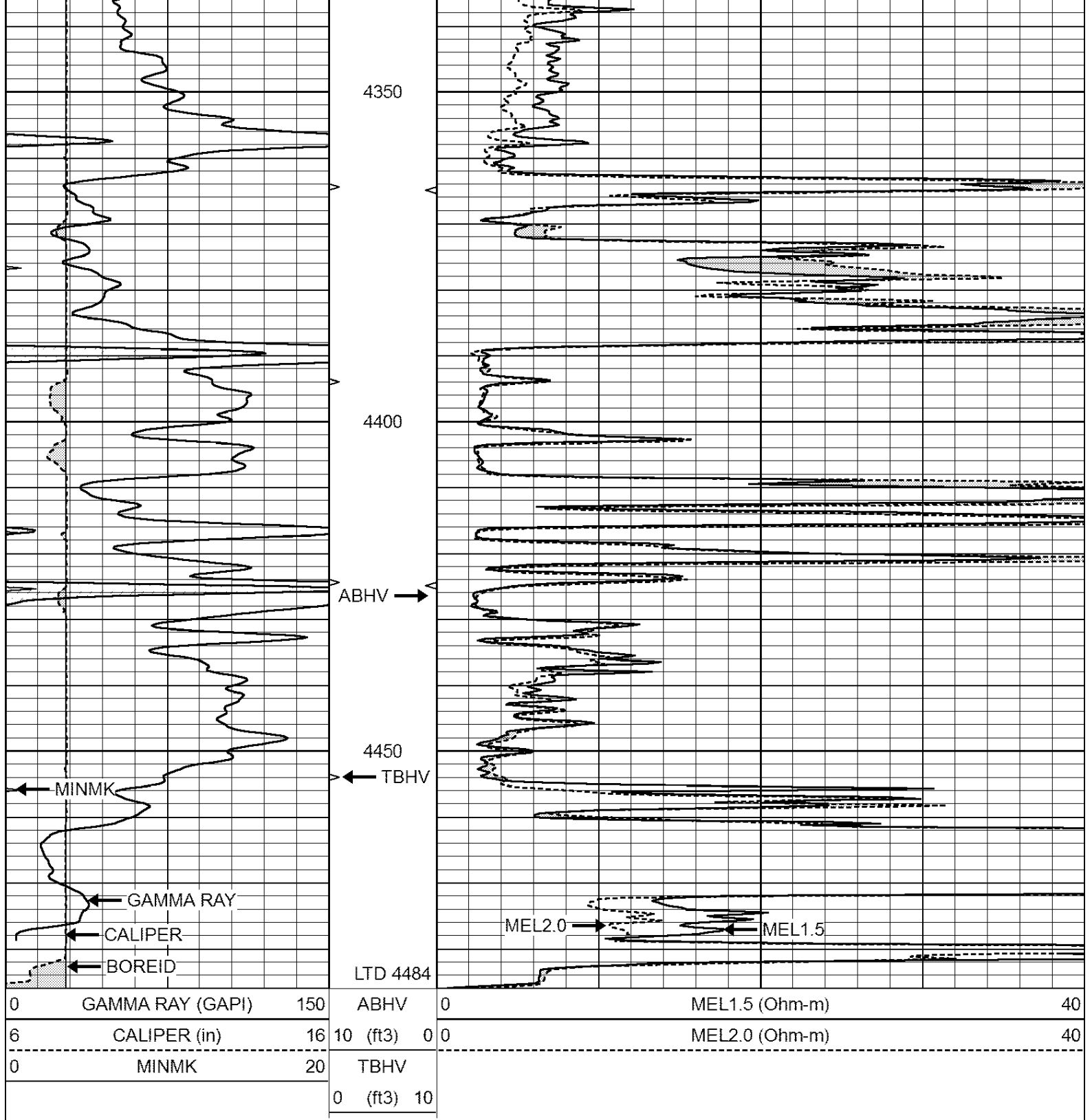
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4050

4100





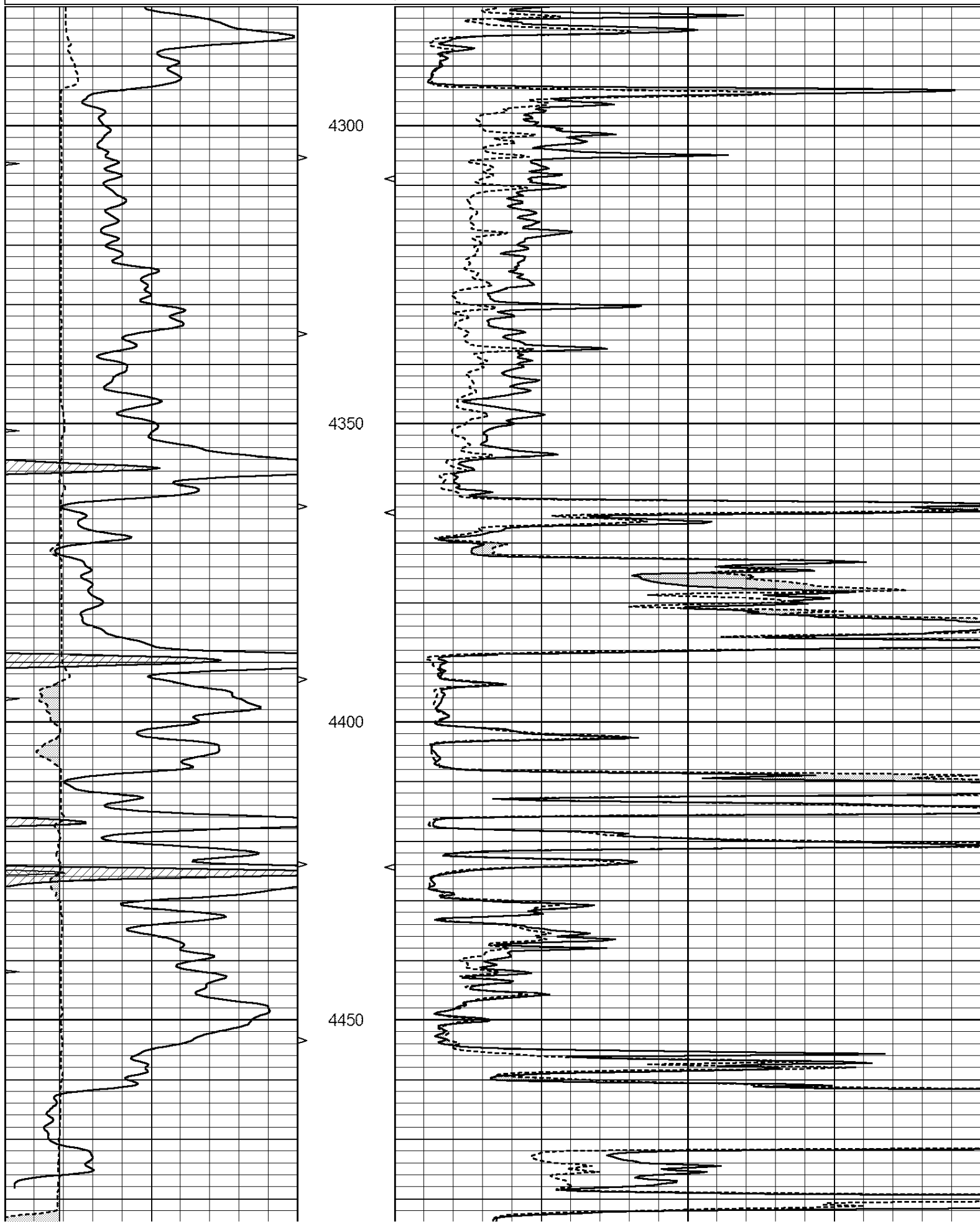


REPEAT SECTION

Database File: 2903ddn.db
 Dataset Pathname: pass4MRP
 Presentation Format: _micro
 Dataset Creation: Tue Aug 14 21:15:25 2018
 Charted by: Depth in Feet scaled 1:240



6	CALIPER (in)	16	10 (ft3)	0	0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV				
			0 (ft3) 10				



0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3) 0	0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3) 10			

Calibration Report					
Database File:	2903ddn.db				
Dataset Pathname:	pass4MRP				
Dataset Creation:	Tue Aug 14 21:15:25 2018				
MICRO Calibration Report					
Serial Number:	MICRO3				
Tool Model:	PROBE				
Performed:	Wed Aug 08 09:13:43 2018				
Caliper Calibration:	Gain=3.840	Offset=-7.702			
References	Low Cal	High Cal			
Readings	7.000	14.000			
	3.622	5.514			
1.5" Calibration:	Gain=120.000	Offset=0.400			
References	Low Cal	High Cal			
Readings	0.000	20.000			
	0.004	0.228			
2" Calibration:	Gain=110.553	Offset=0.220			
References	Low Cal	High Cal			
Readings	0.000	20.000			
	0.005	0.175			
Gamma Ray Calibration Report					
Serial Number:	GR5				
Tool Model:	OPEN				
Performed:	Mon Jul 02 20:05:37 2018				
Calibrator Value:	1.0	GAPI			
Background Reading:	0.0	cps			
Calibrator Reading:	1.0	cps			
Sensitivity:	0.9700	GAPI/cps			