



# MICRO LOG

Company PIONEER RESOURCES, INC.  
 Well KNOPP #8  
 Field BRIDGES NORTHEAST  
 County LOGAN  
 State KANSAS

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Location: API # : 15-109-21593-0000  
 1460' FSL & 2170' FVL  
 SW - SE - NE - SW  
 SEC 13 TWP 14S RGE 32W  
 Permanent Datum GROUND LEVEL Elevation 2785  
 Log Measured From KELLY BUSHING 7' A.G.L.  
 Drilling Measured From KELLY BUSHING  
 Other Services CDL/CNL DIL  
 Elevation K.B. 2792 D.F. 2790 G.L. 2785

Date	5/19/19
Run Number	TWO
Depth Driller	4530
Depth Logger	4531
Bottom Logged Interval	4529
Top Log Interval	3500
Casing Driller	8 5/8" @ 221'
Casing Logger	221
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/58
pH / Fluid Loss	10.5/9.6
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.480 @ 90F
Rmf @ Meas. Temp	.360 @ 90F
Rmc @ Meas. Temp	.576 @ 90F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.357 @ 121F
Time Circulation Stopped	4 HOURS
Time Logger on Bottom	2:45 A.M.
Maximum Recorded Temperature	121F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	JASON T. ALM

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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

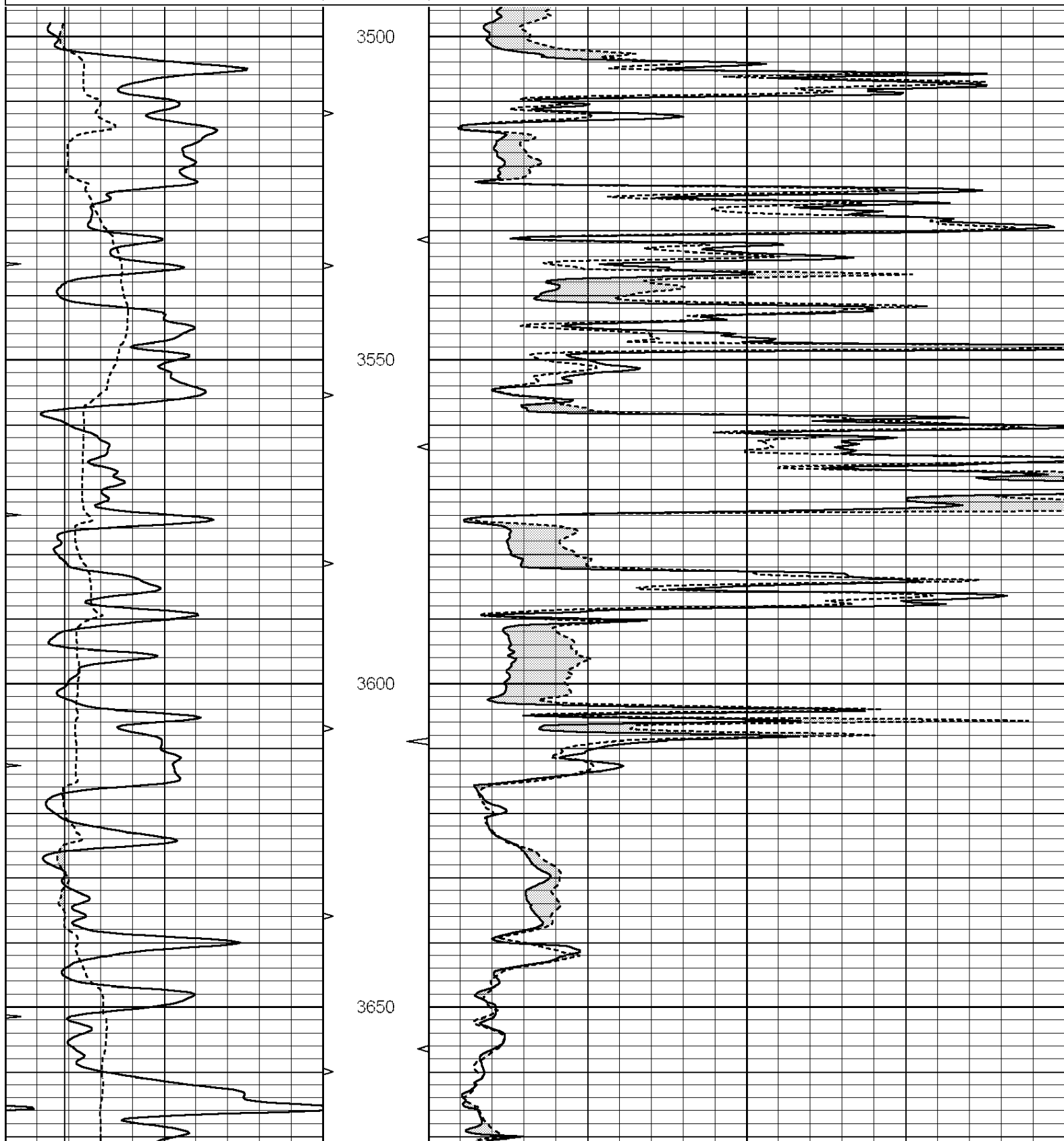
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
 DIRECTIONS  
 OAKLEY, KS., 20S. ON HWY 83 TO "JAYWAWK RD.", 1 1/2E., N. INTO

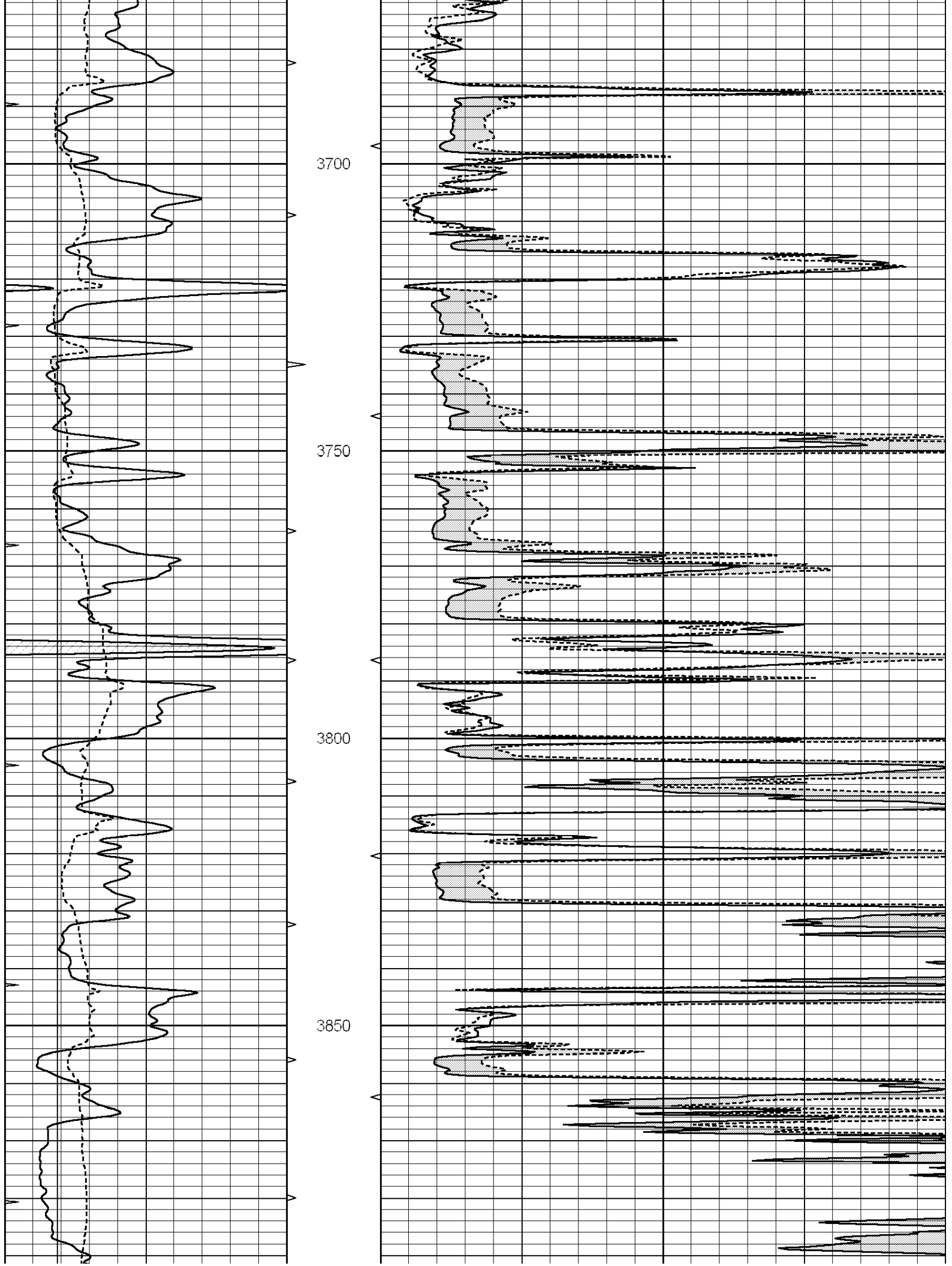


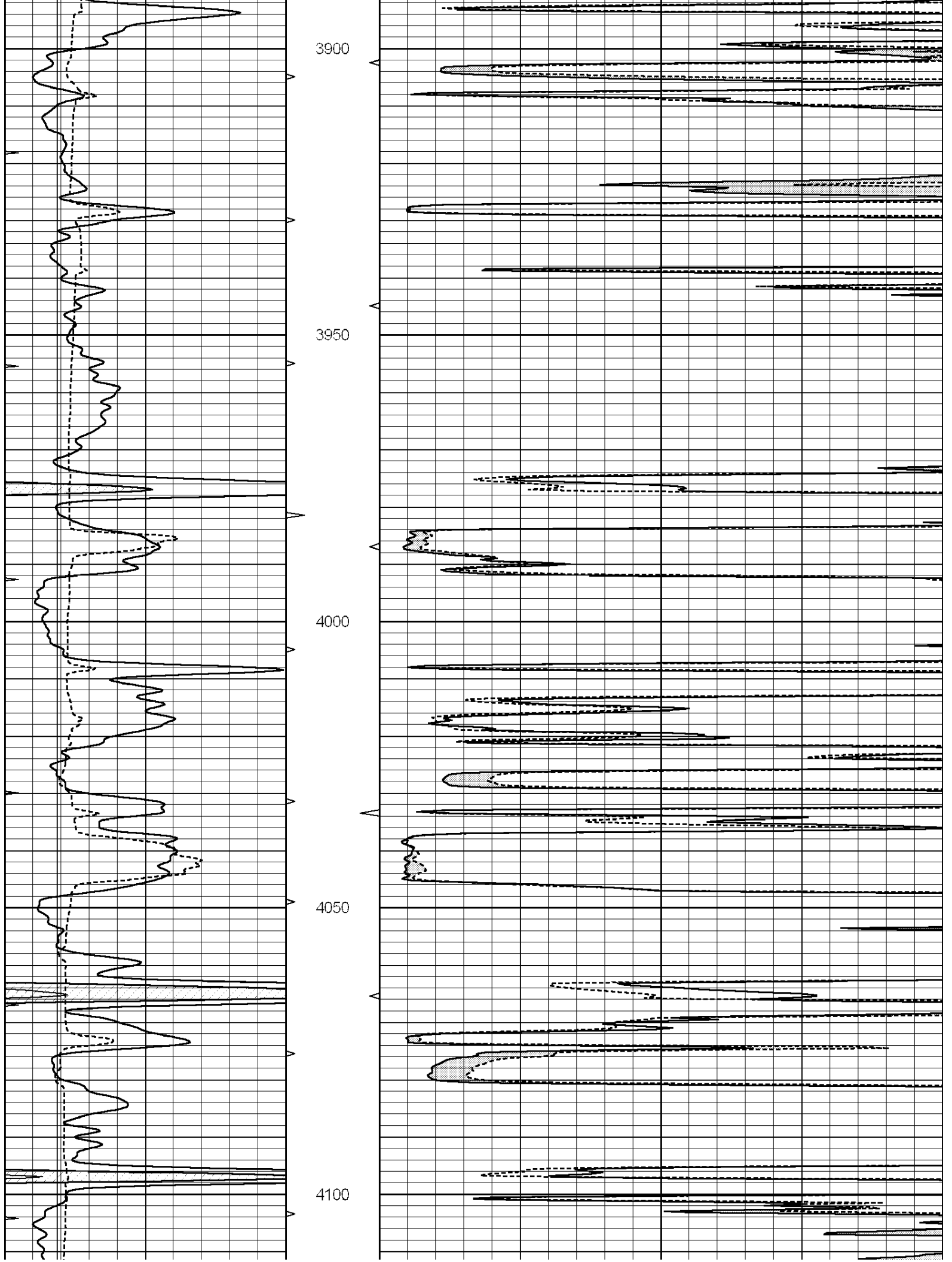
# MAIN SECTION

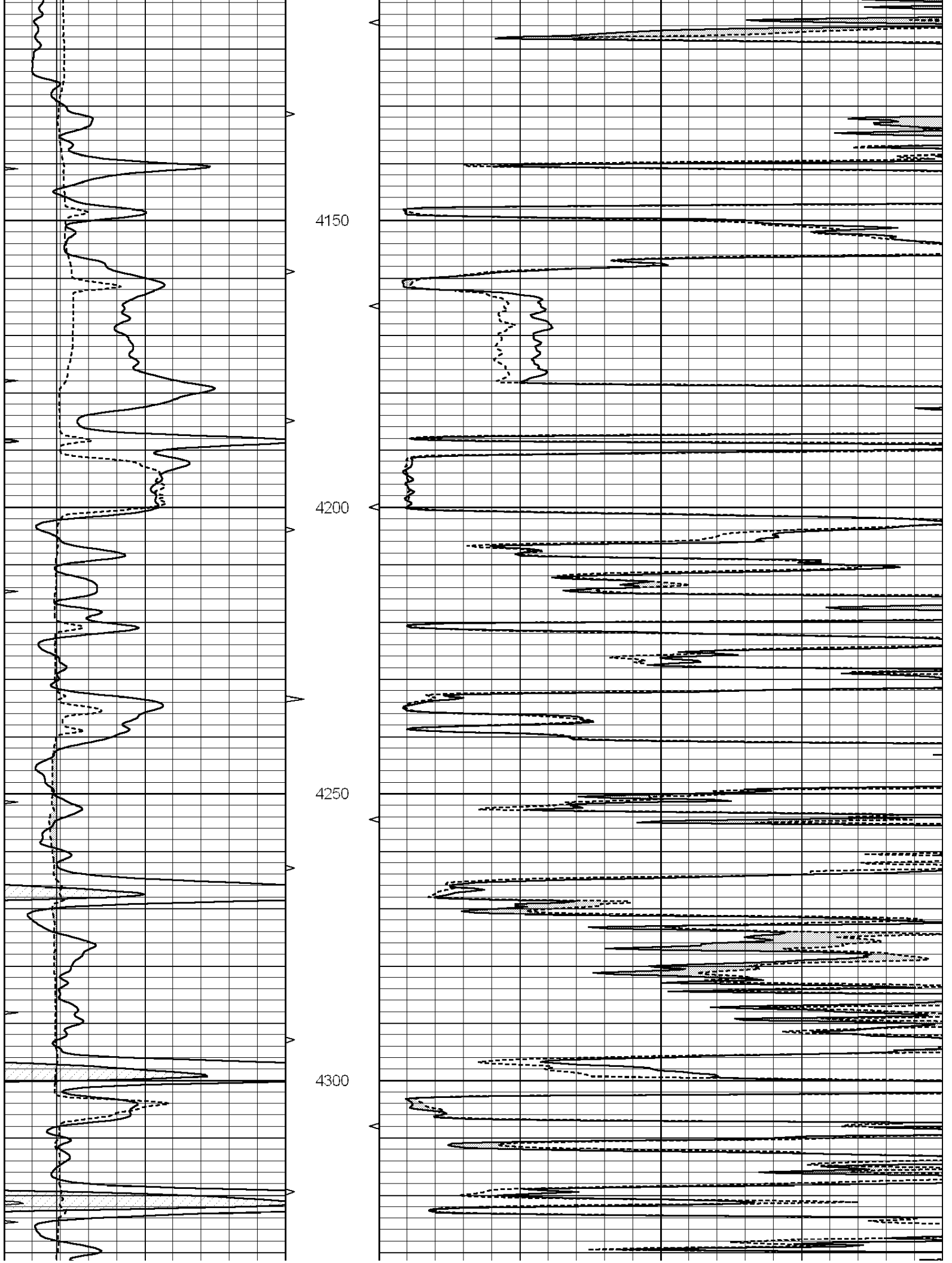
Database File: 3622ddn.db  
 Dataset Pathname: pass6.4  
 Presentation Format: micro  
 Dataset Creation: Mon May 20 03:39:01 2019  
 Charted by: Depth in Feet scaled 1:240

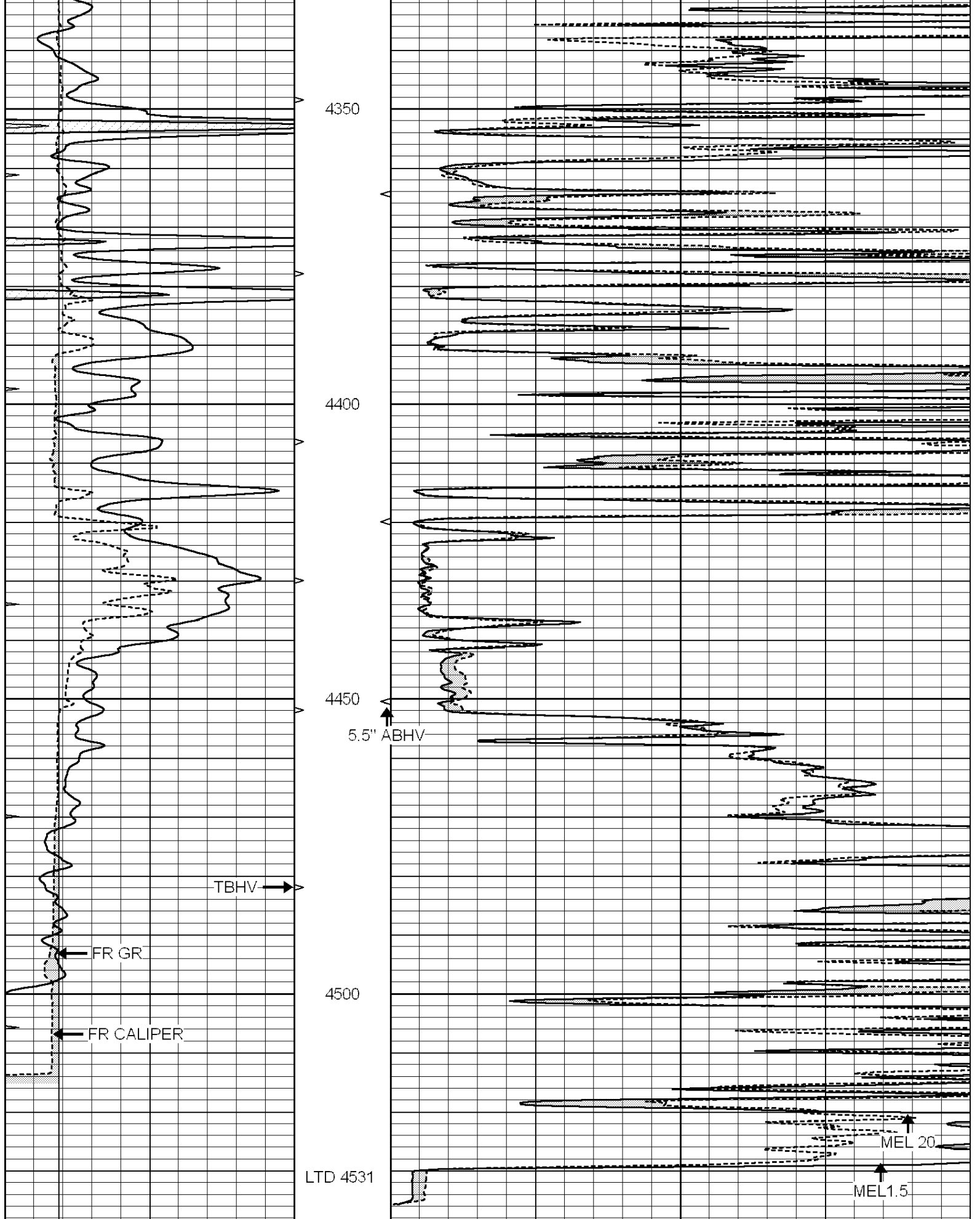
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0	MEL 20 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		



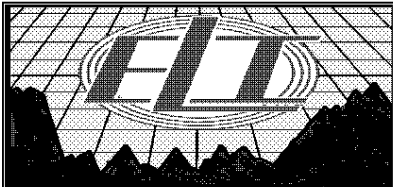








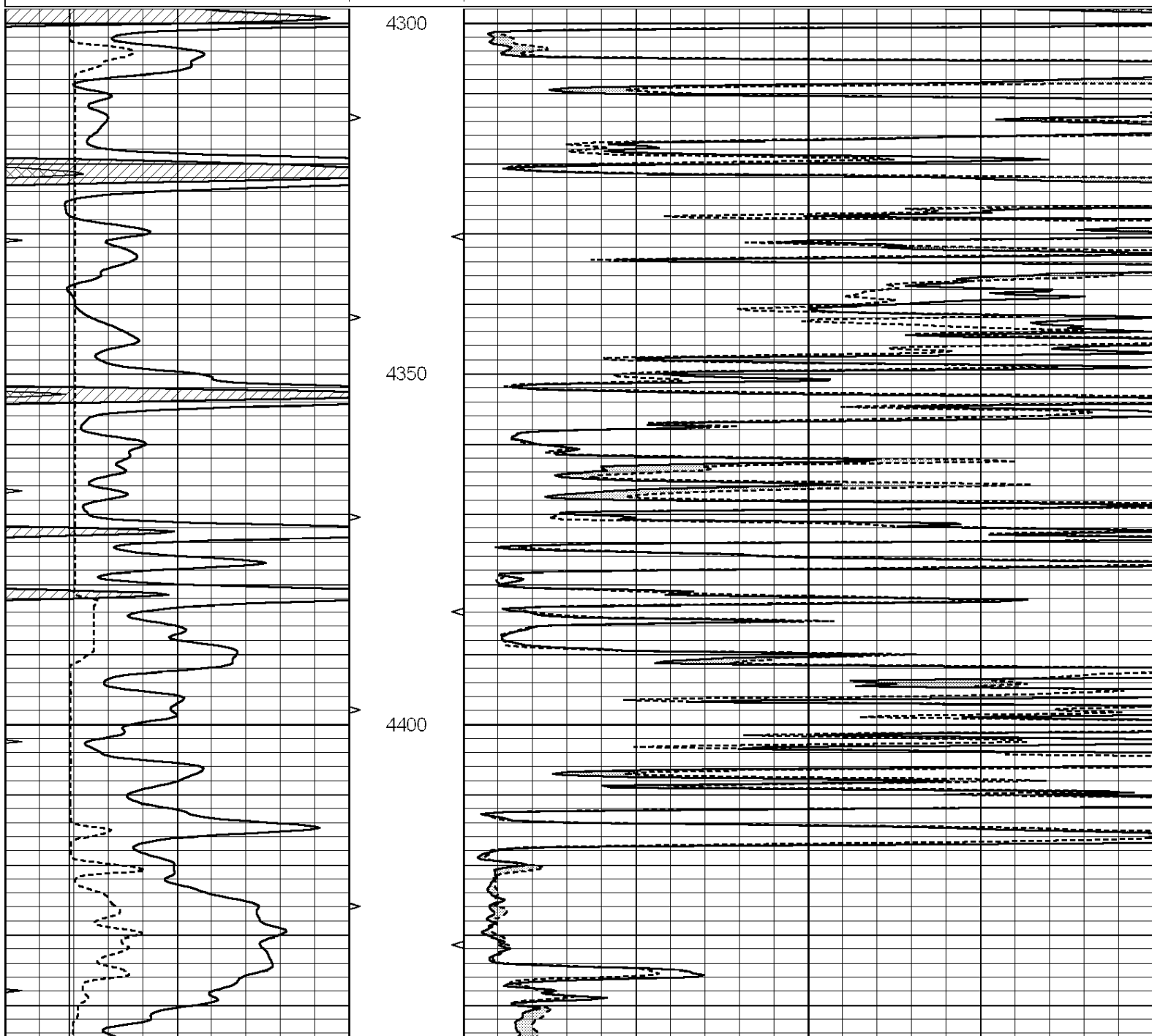
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0 0	MEL 20 (Ohm-m)	40
0	MINMK	20	TBHV			

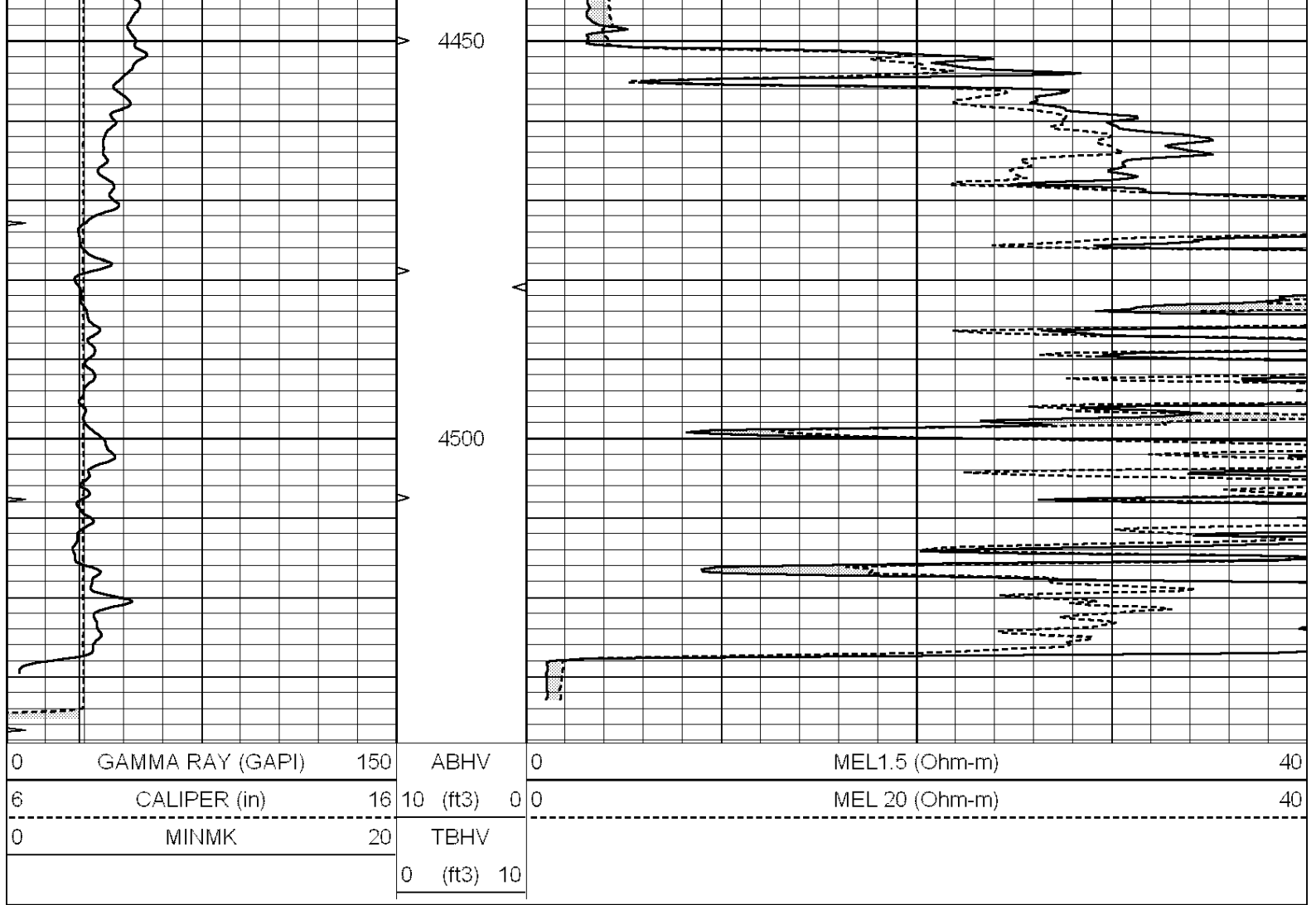


# REPEAT SECTION

Database File: 3622ddn.db  
 Dataset Pathname: pass5.2  
 Presentation Format: micro  
 Dataset Creation: Mon May 20 03:04:48 2019  
 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	MEL 20 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		





### Calibration Report

Database File: 3622ddn.db  
 Dataset Pathname: pass6.4  
 Dataset Creation: Mon May 20 03:39:01 2019

### MICRO Calibration Report

Serial Number: 070910  
 Tool Model: ProbeN  
 Performed: Mon May 20 02:55:47 2019

Caliper Calibration: Gain=4.292      Offset=1.692

	Low Cal	High Cal
References	7.700	18.000
Readings	1.400	3.800

1.5" Calibration: Gain=30.000      Offset=0.500

	Low Cal	High Cal
References	0.000	20.000
Readings	0.000	1.216

2" Calibration: Gain=50.000      Offset=0.000

	Low Cal	High Cal
References	0.000	20.000
Readings	0.002	1.053

### Gamma Ray Calibration Report

Serial Number: 070559  
Tool Model: OPEN\_GR  
Performed: Wed May 15 12:59:24 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.2300 GAPI/cps