



**SUPERIOR
Hays,
Kansas**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company RITCHIE EXPLORATION, INC.
Well #1 JACOBS-WOOD
Field
County HASKELL
State KANSAS

Company RITCHIE EXPLORATION, INC.
Well #1 JACOBS-WOOD
Field
County HASKELL State KANSAS

Location: 660' FNL & 660' FEL
API # : 15-081-21887-00-00
Other Services DIL
SEC 1 TWP 30S RGE 31W
Permanent Datum GROUND LEVEL Elevation 2827
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING
Elevation
K.B. 2838
D.F. 2836
G.L. 2827

Date	2-4-10
Run Number	ONE
Depth Driller	5700
Depth Logger	5708
Bottom Logged Interval	5684
Top Log Interval	2000
Casing Driller	8 5/8" @ 1670'
Casing Logger	1665
Bit Size	7 7/8
Type Fluid In Hole	CHEMICAL MUD
Density / Viscosity	9.3/62
pH / Fluid Loss	9.5/8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.90 @ 70F
Rmf @ Meas. Temp	.675 @ 70F
Rmc @ Meas. Temp	1.08 @ 70F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.480 @ 131F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	131F
Equipment Number	680
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	TERRY MCLEOD

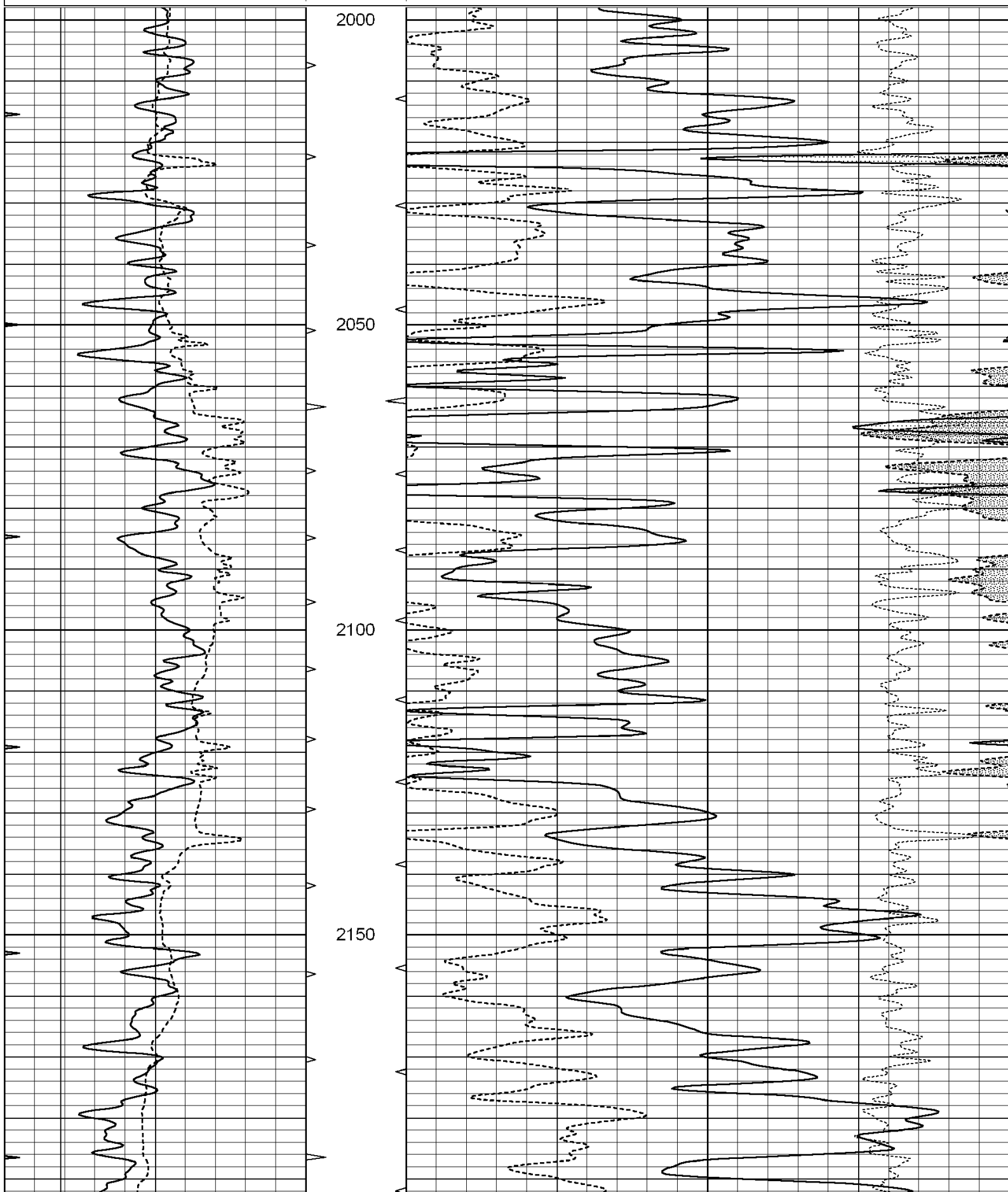
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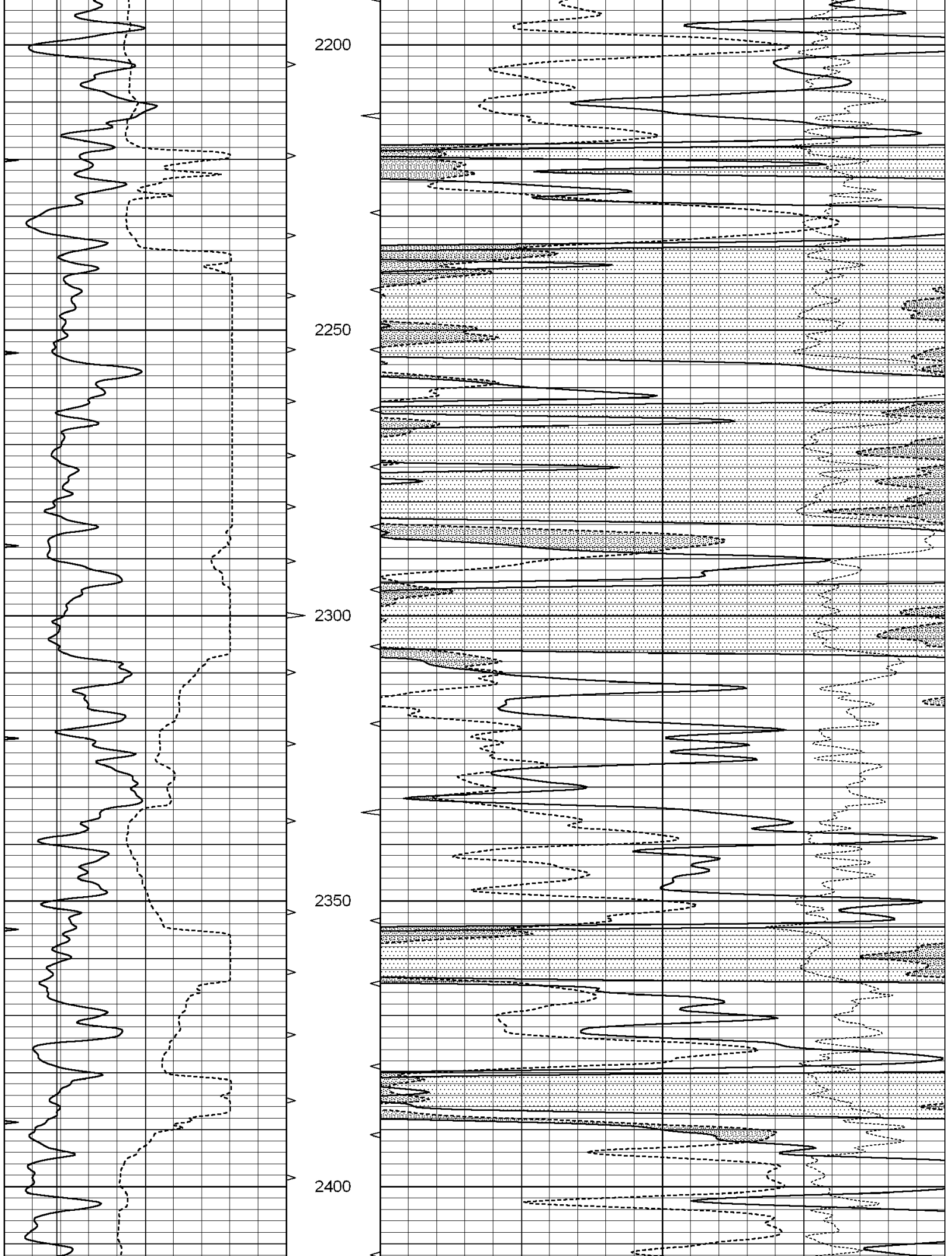
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

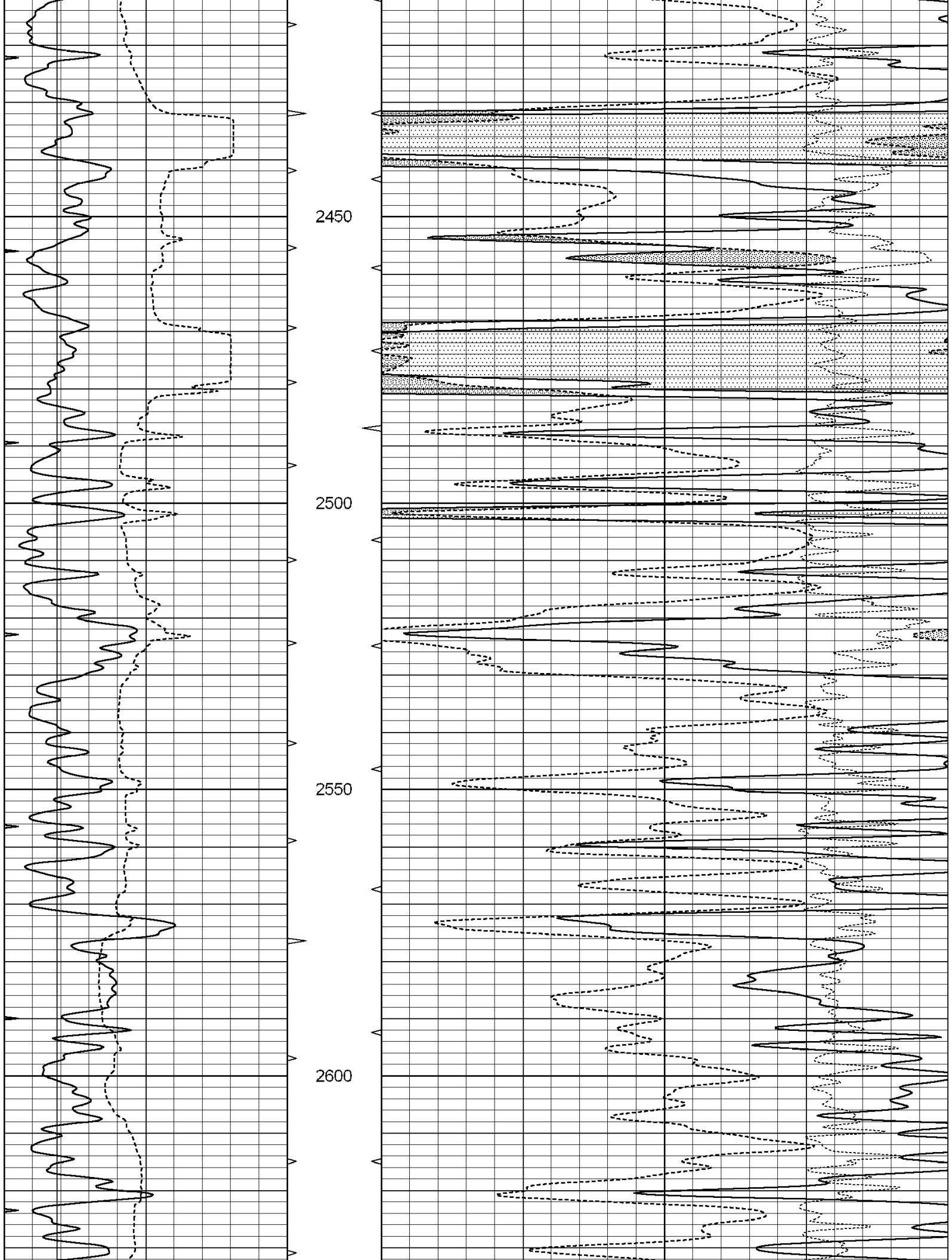
Comments

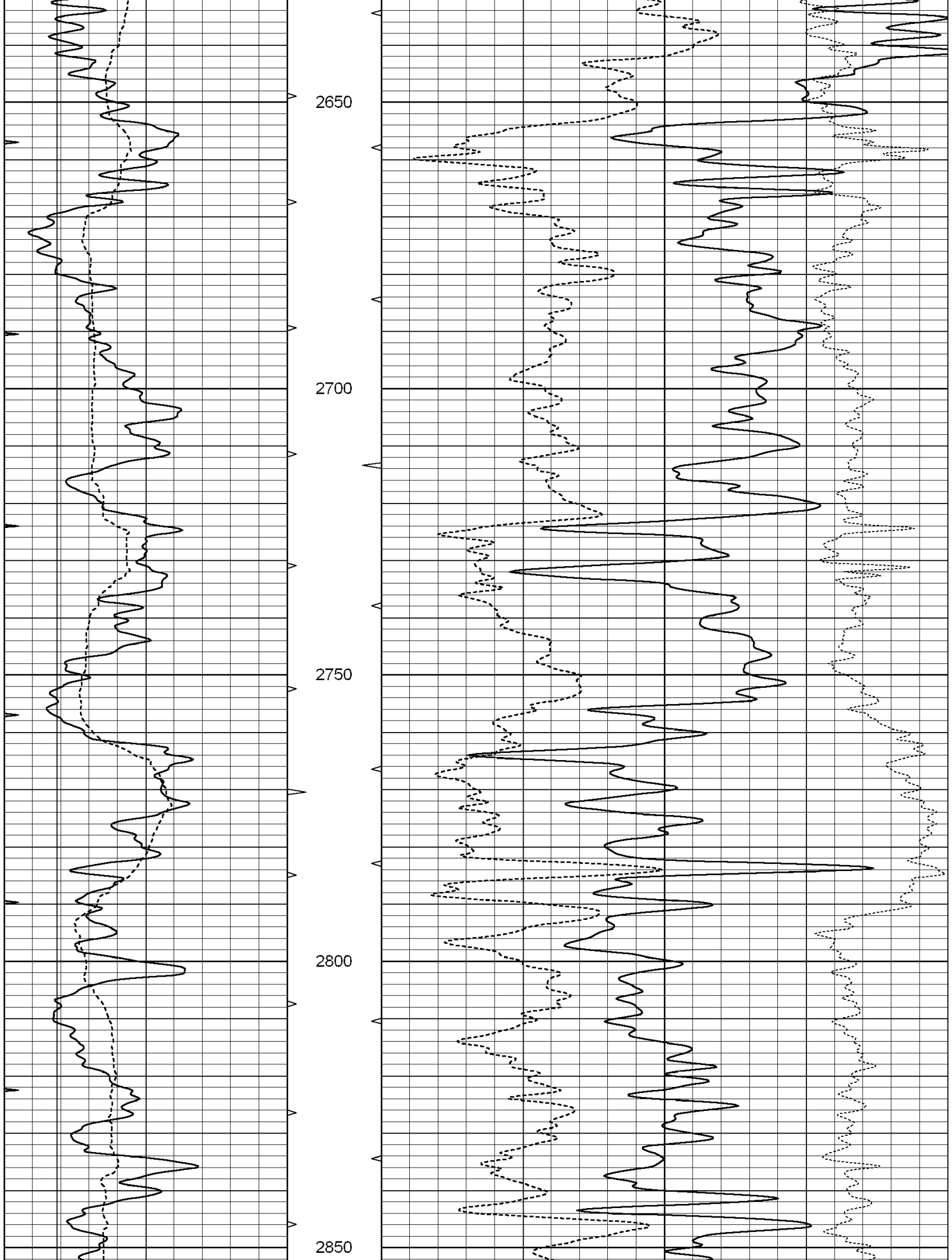
THANK YOU FOR USING SUPERIOR WELL SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
COPELAND KS., W. SIDE OF TOWN TO BLACKTOP, 5 S. TO INTERSECTION
2 W. - 1/4 S. - W. INTO

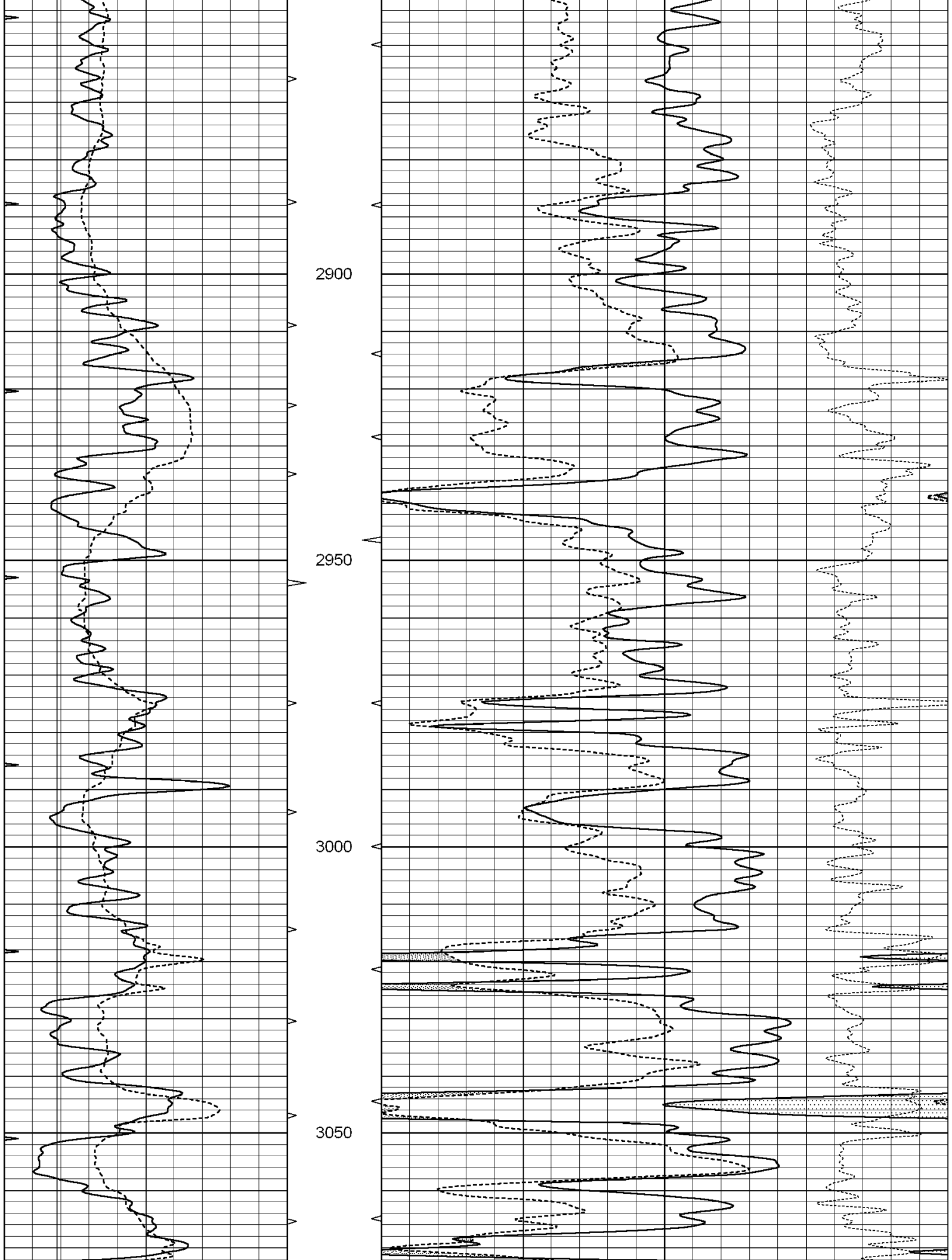
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

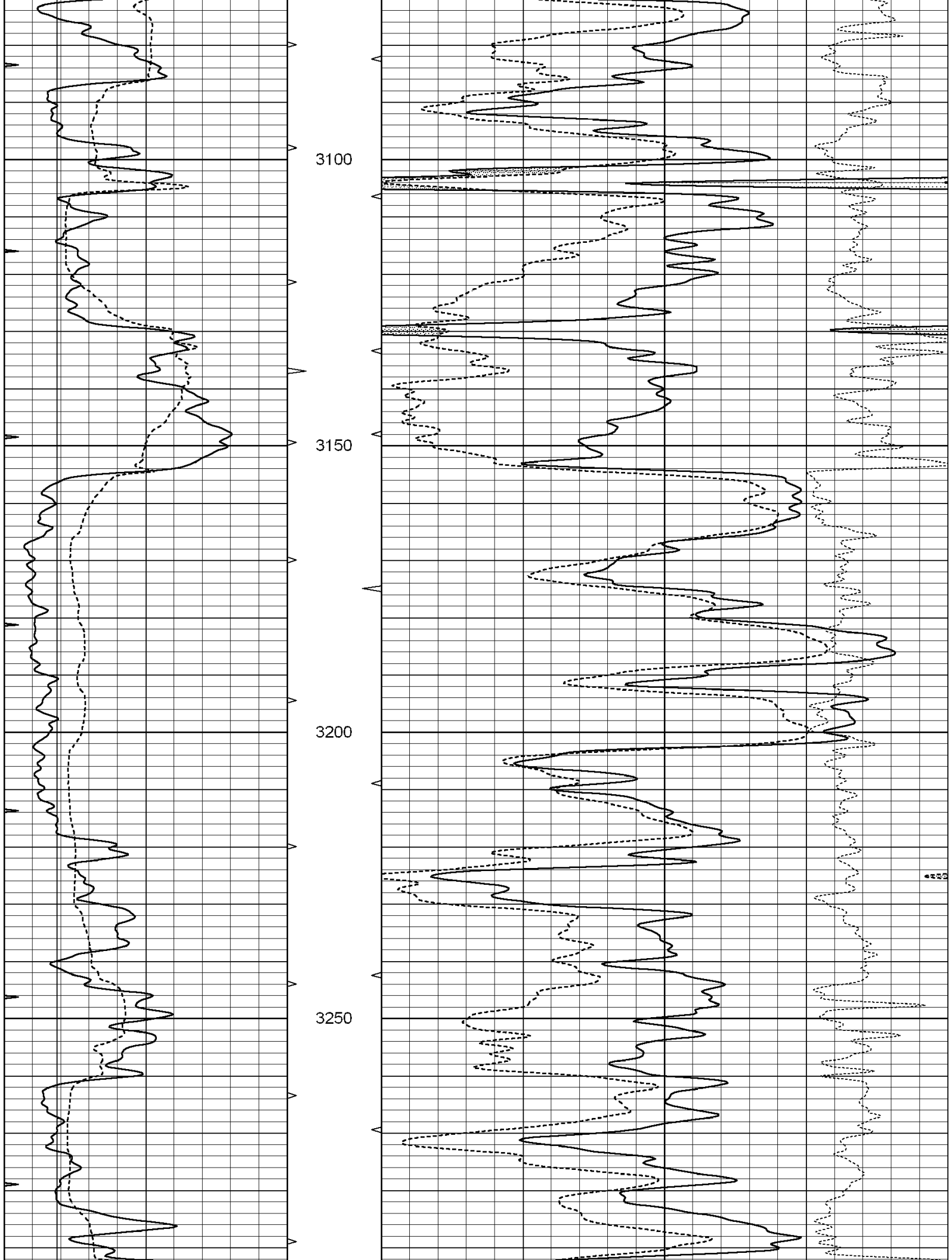


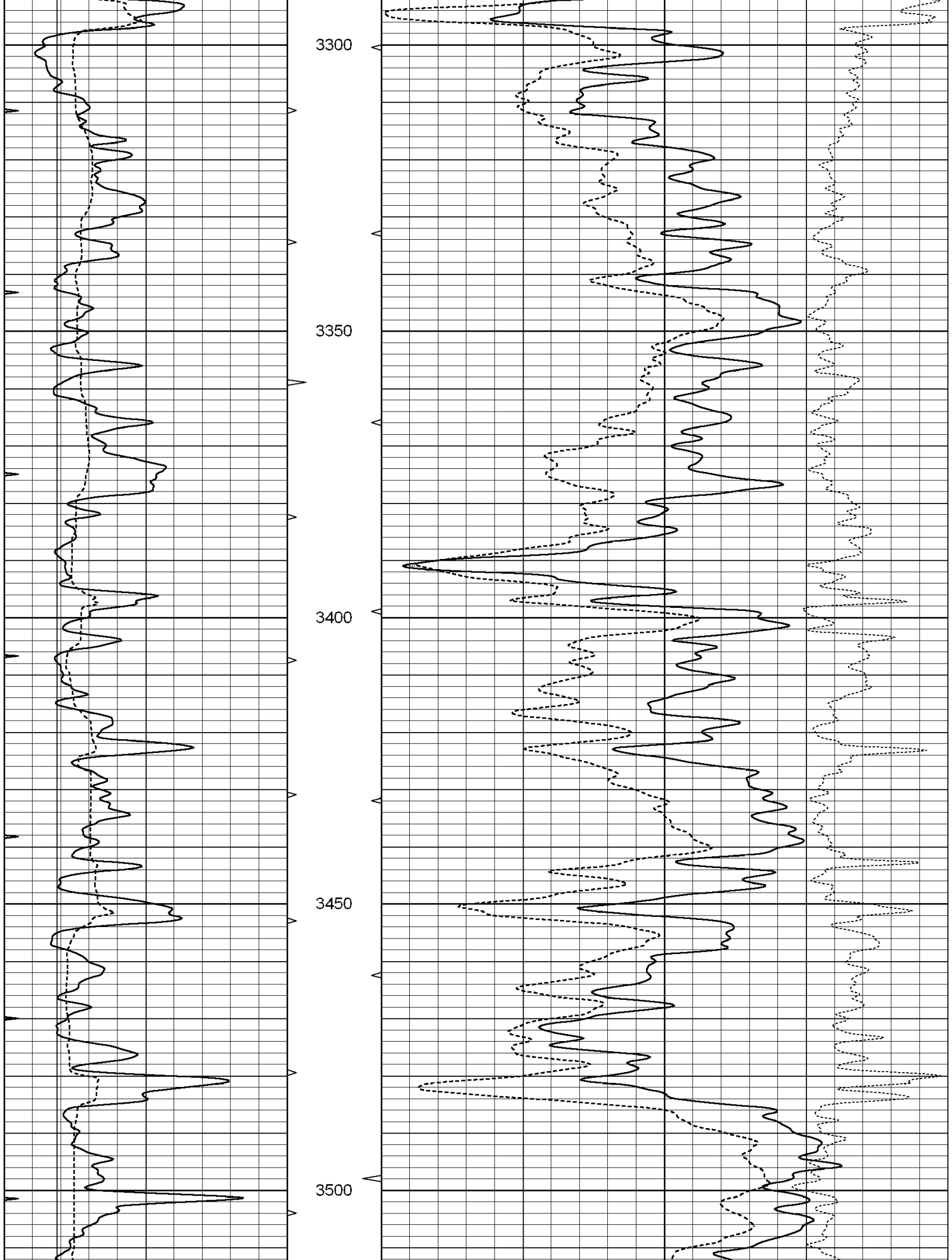


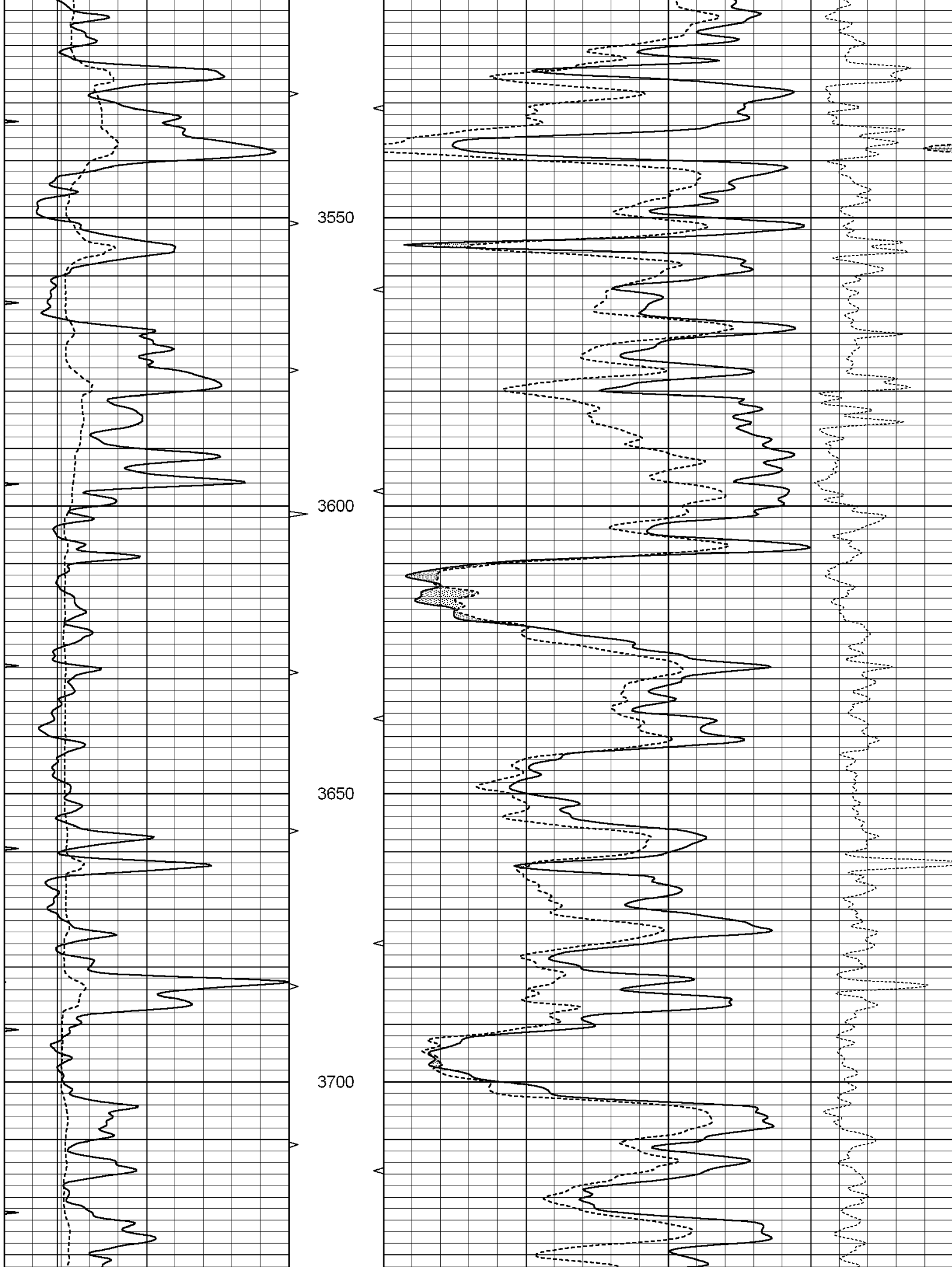


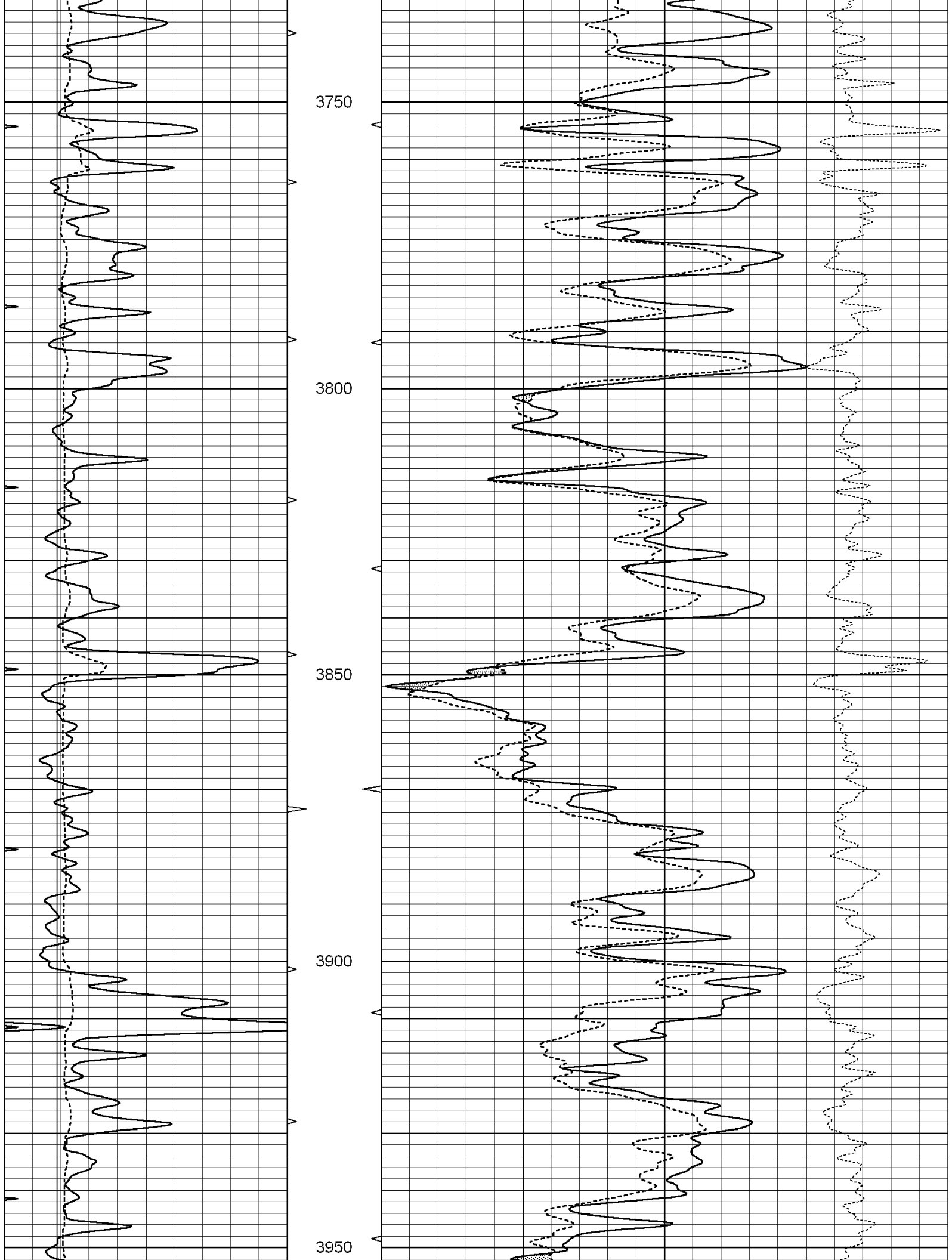


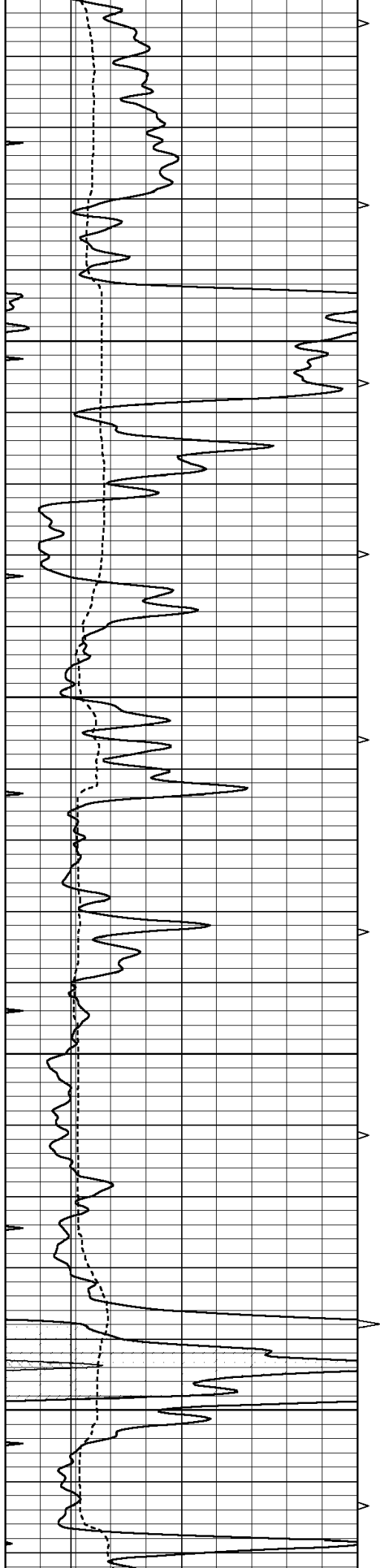










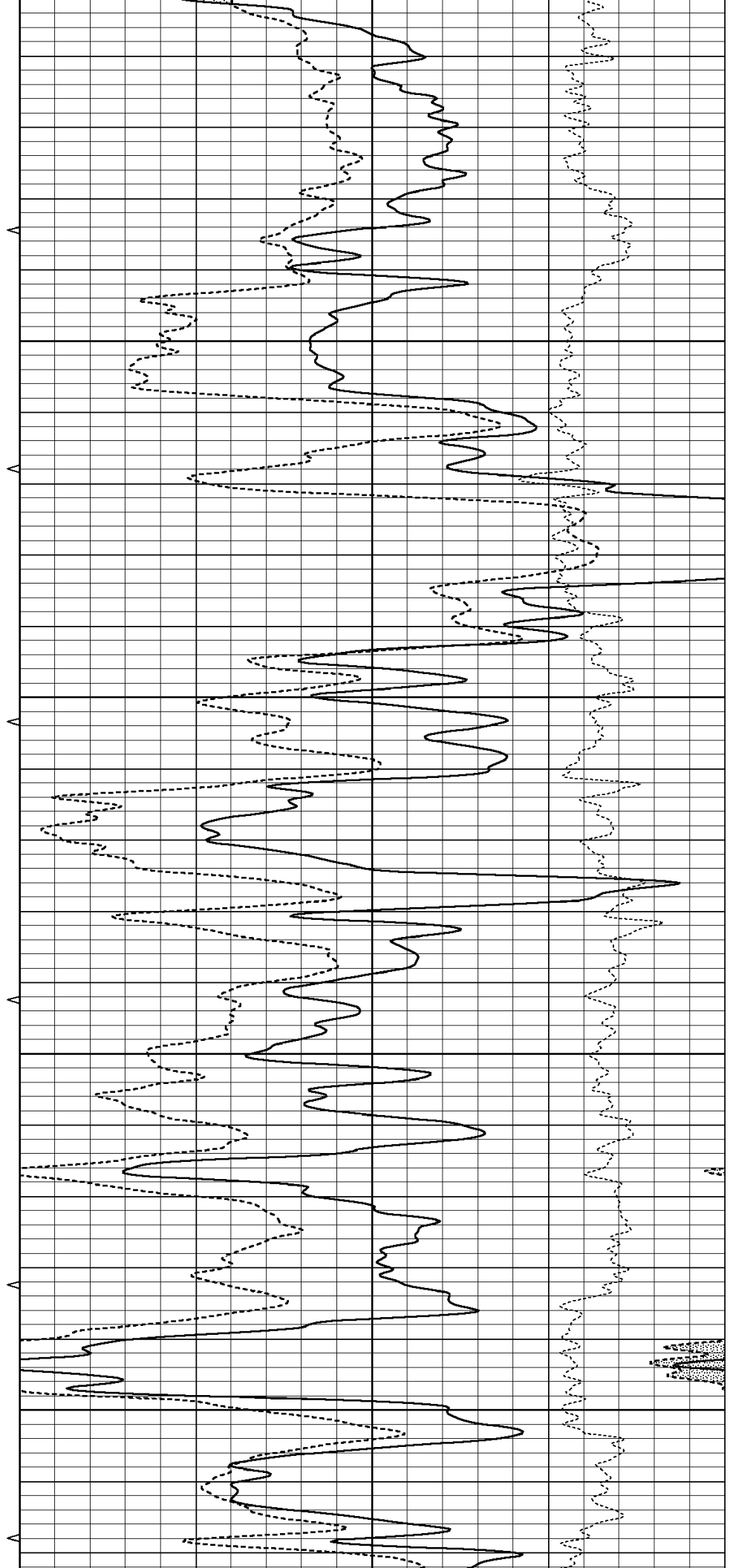


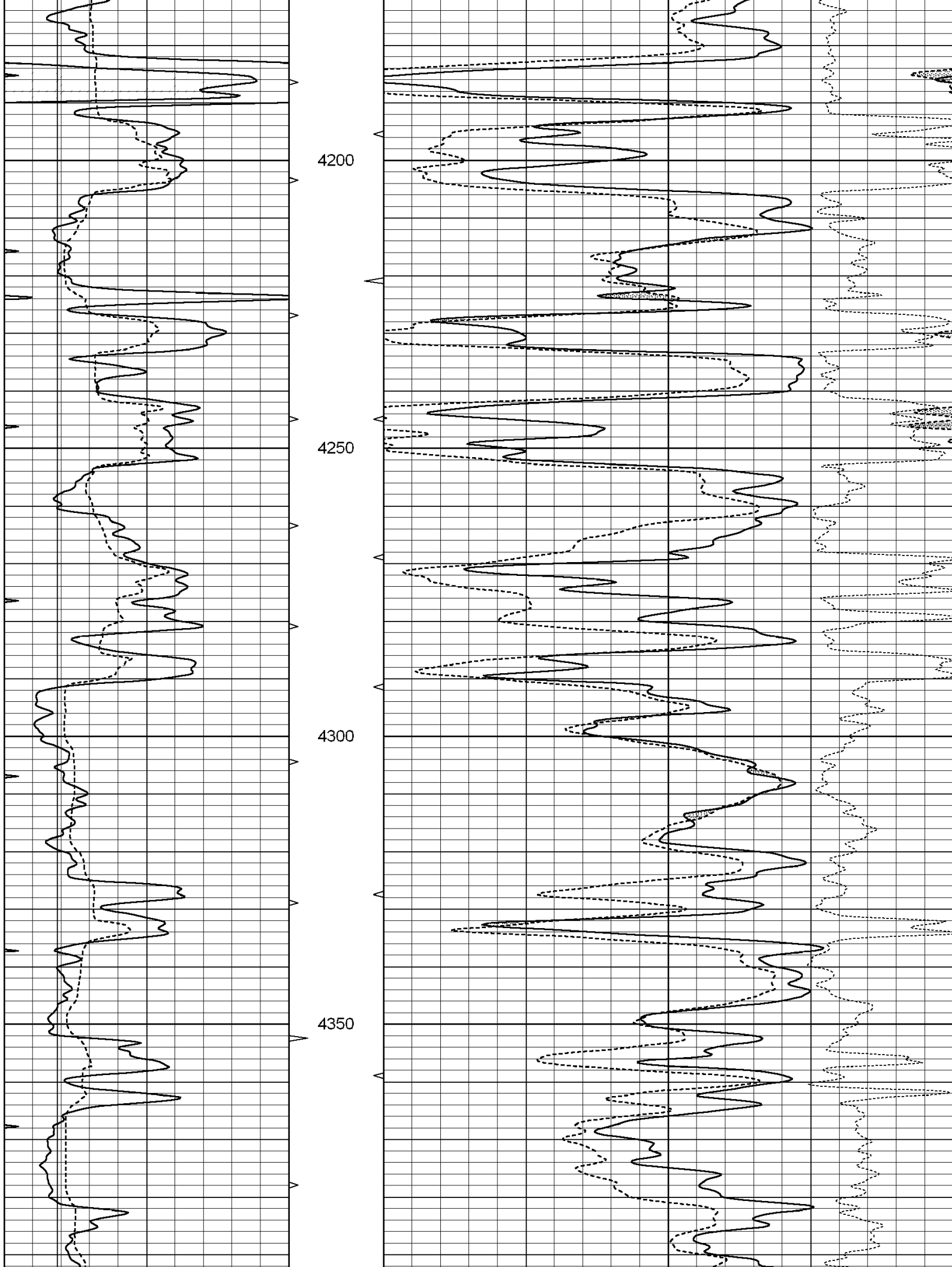
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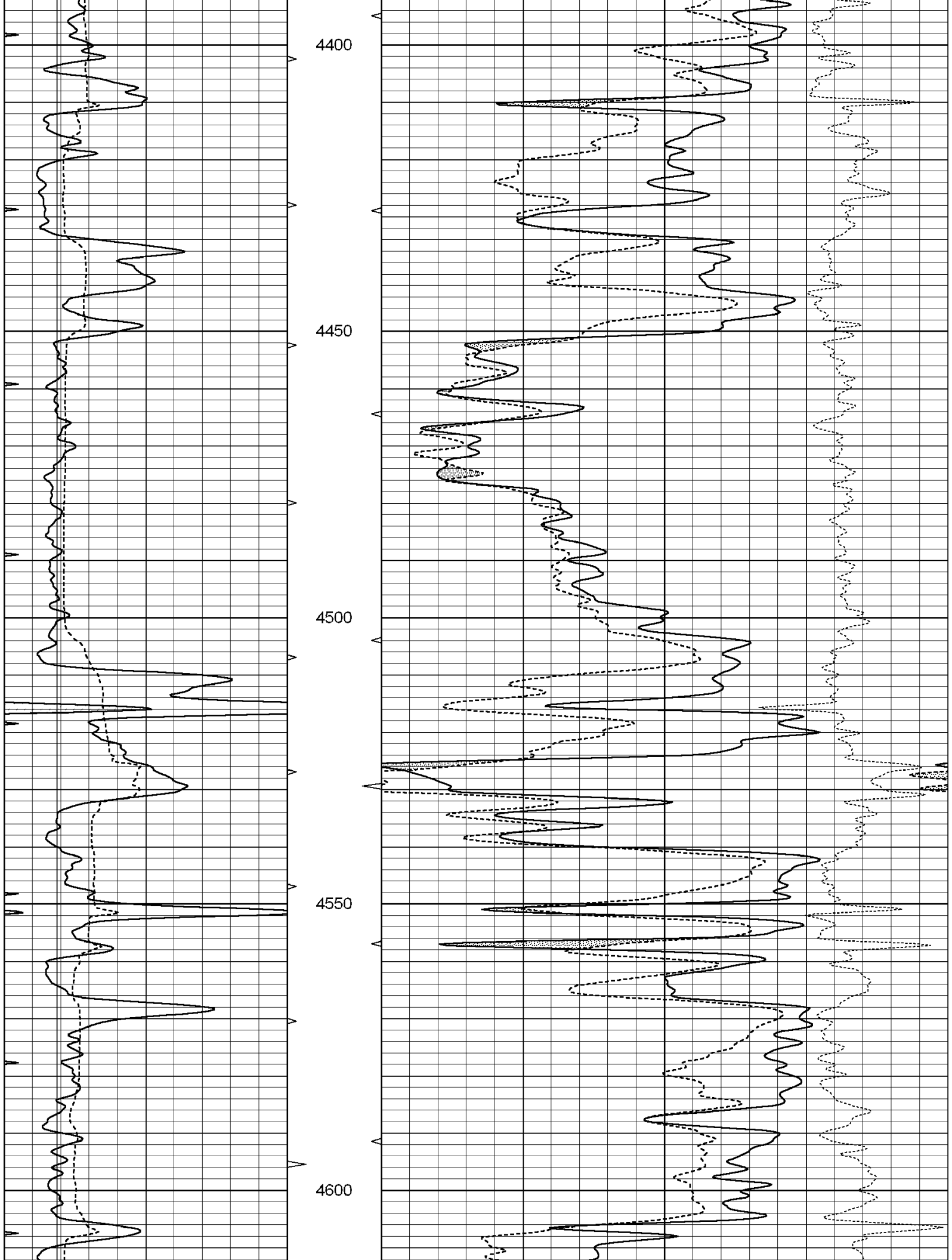
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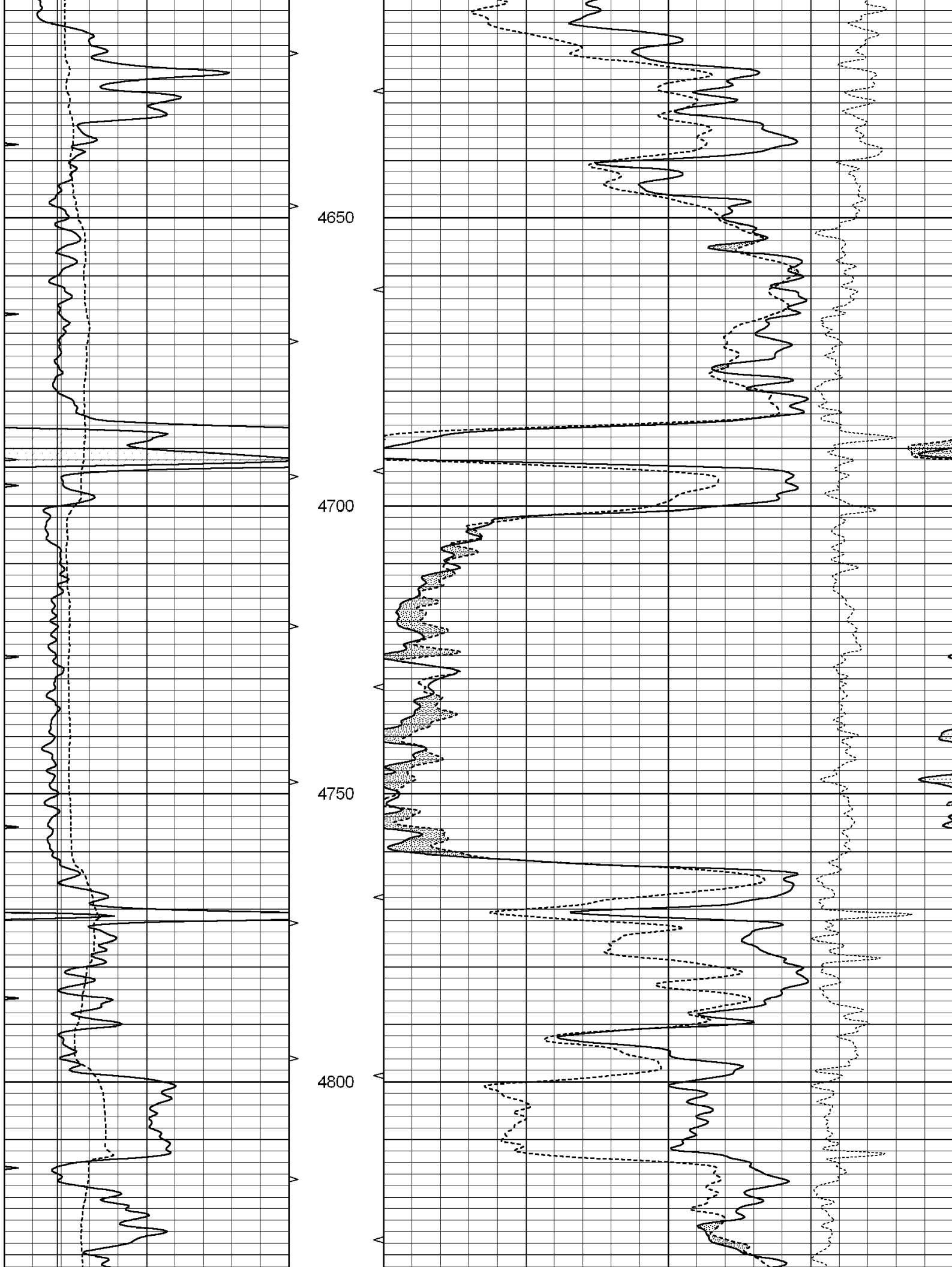
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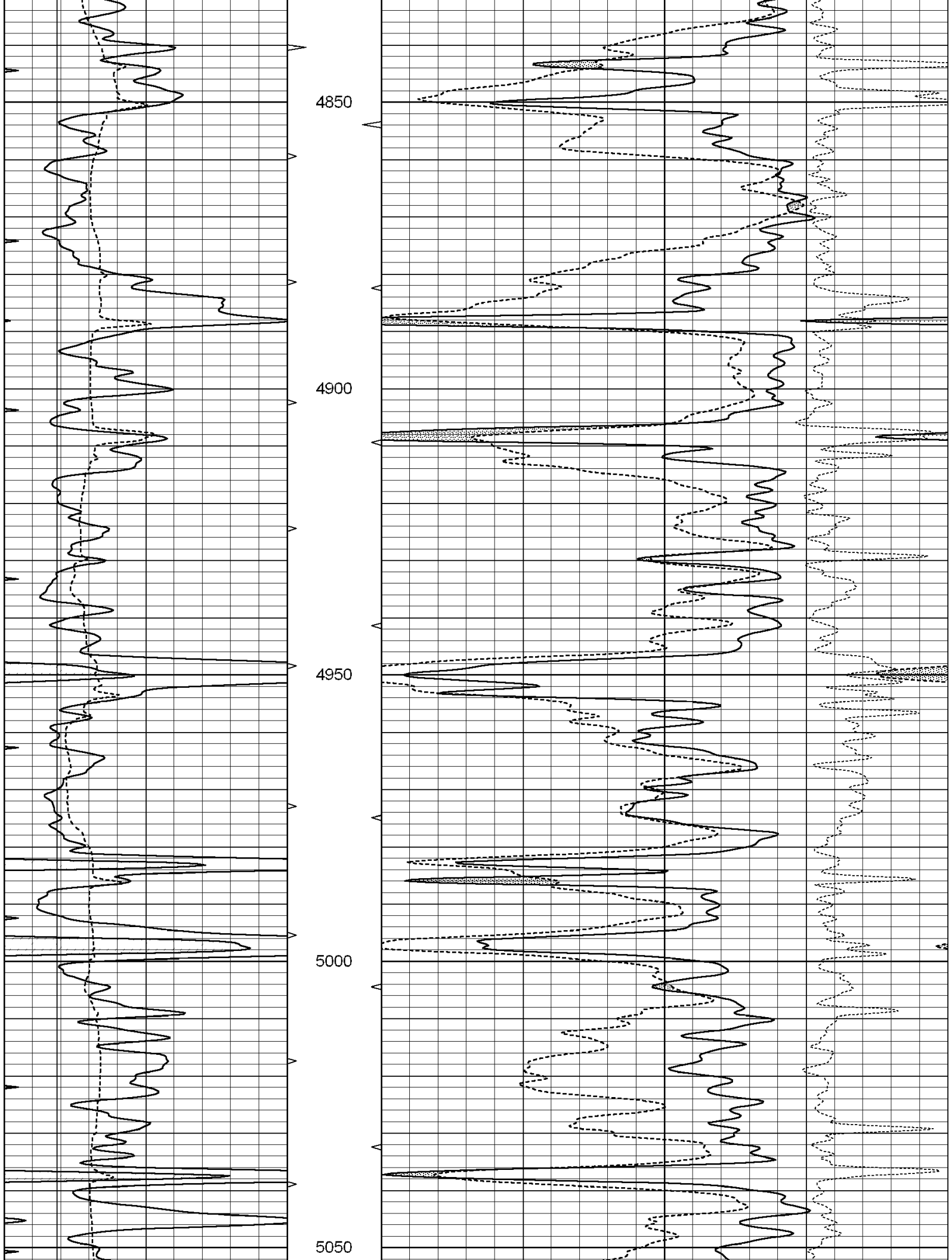
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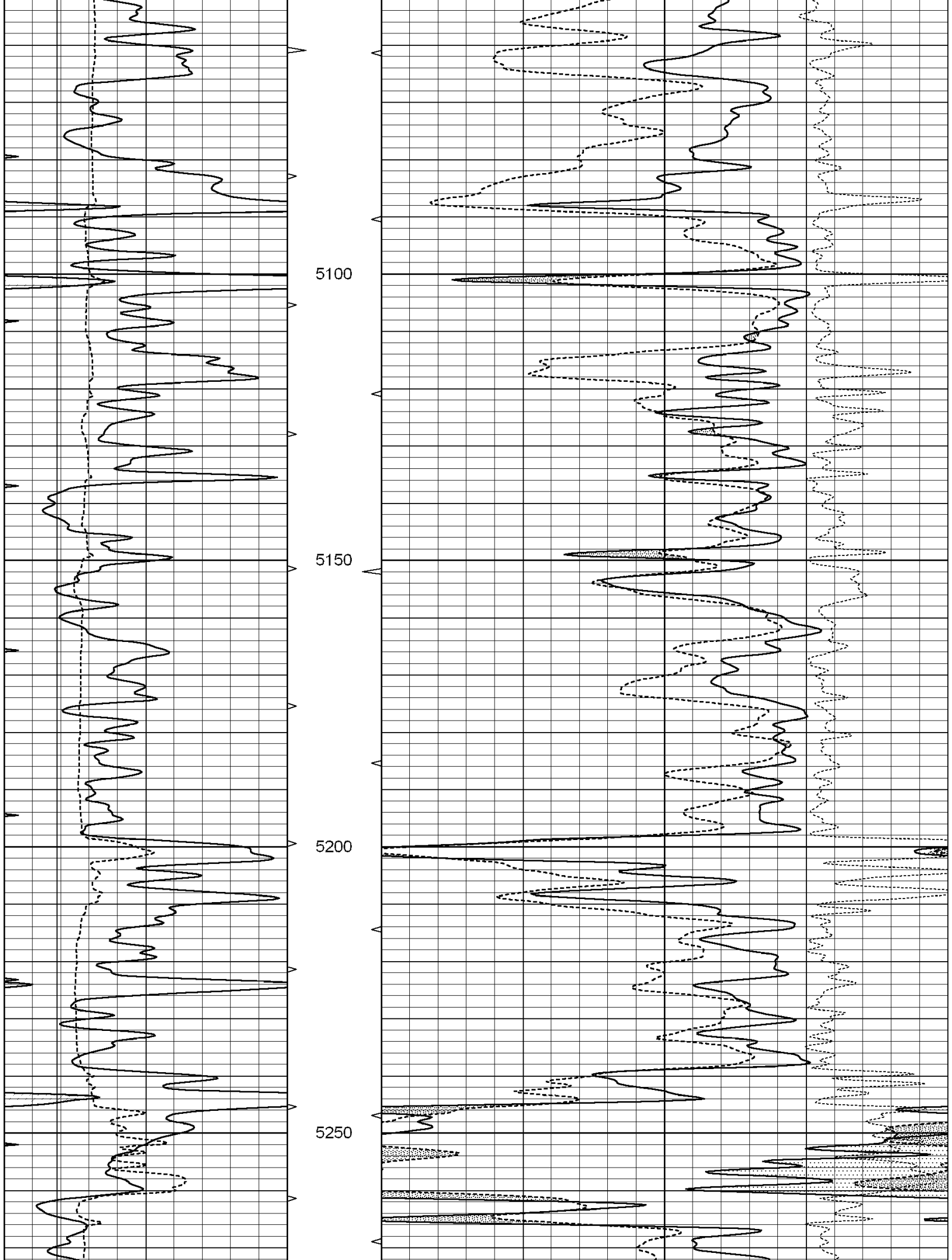


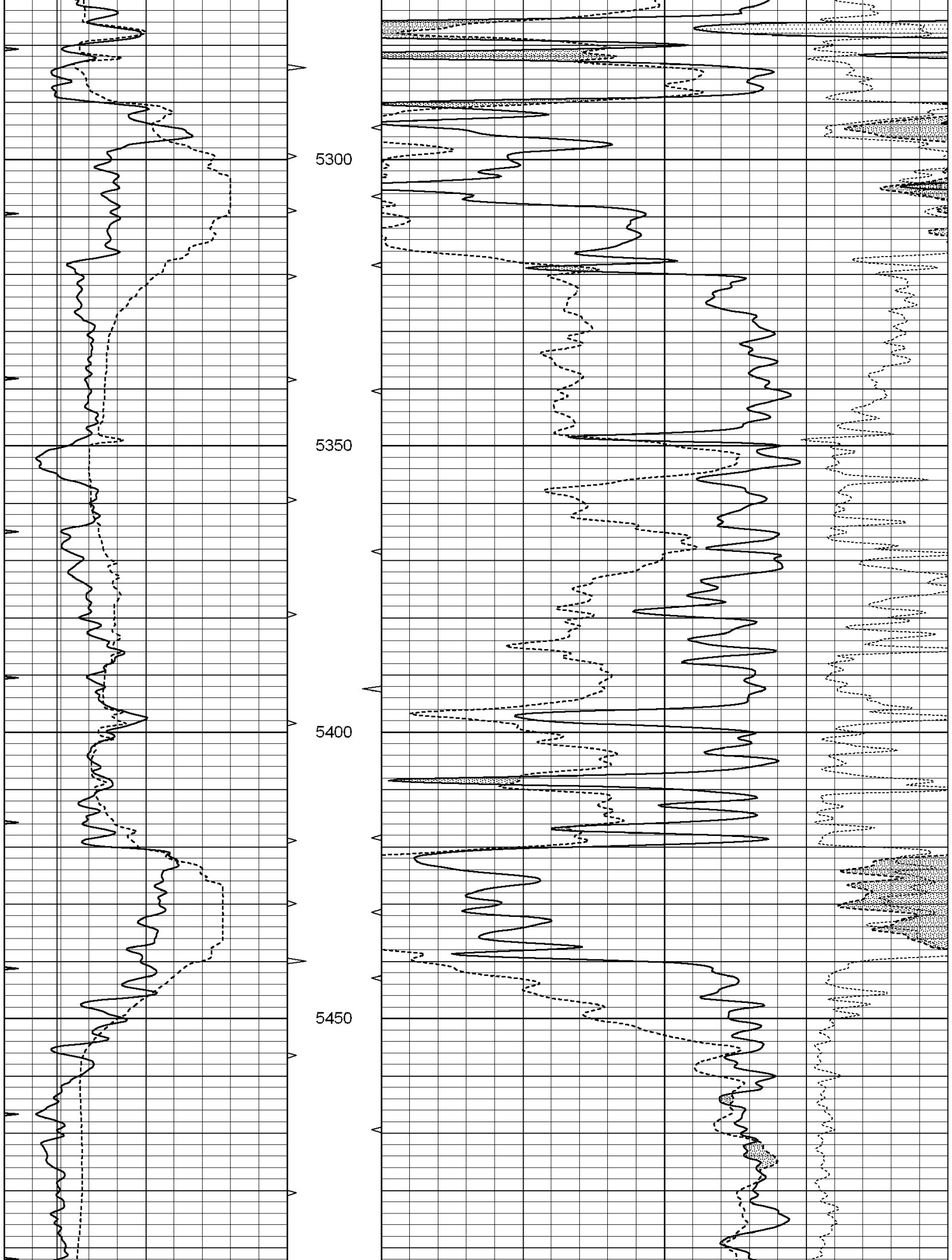


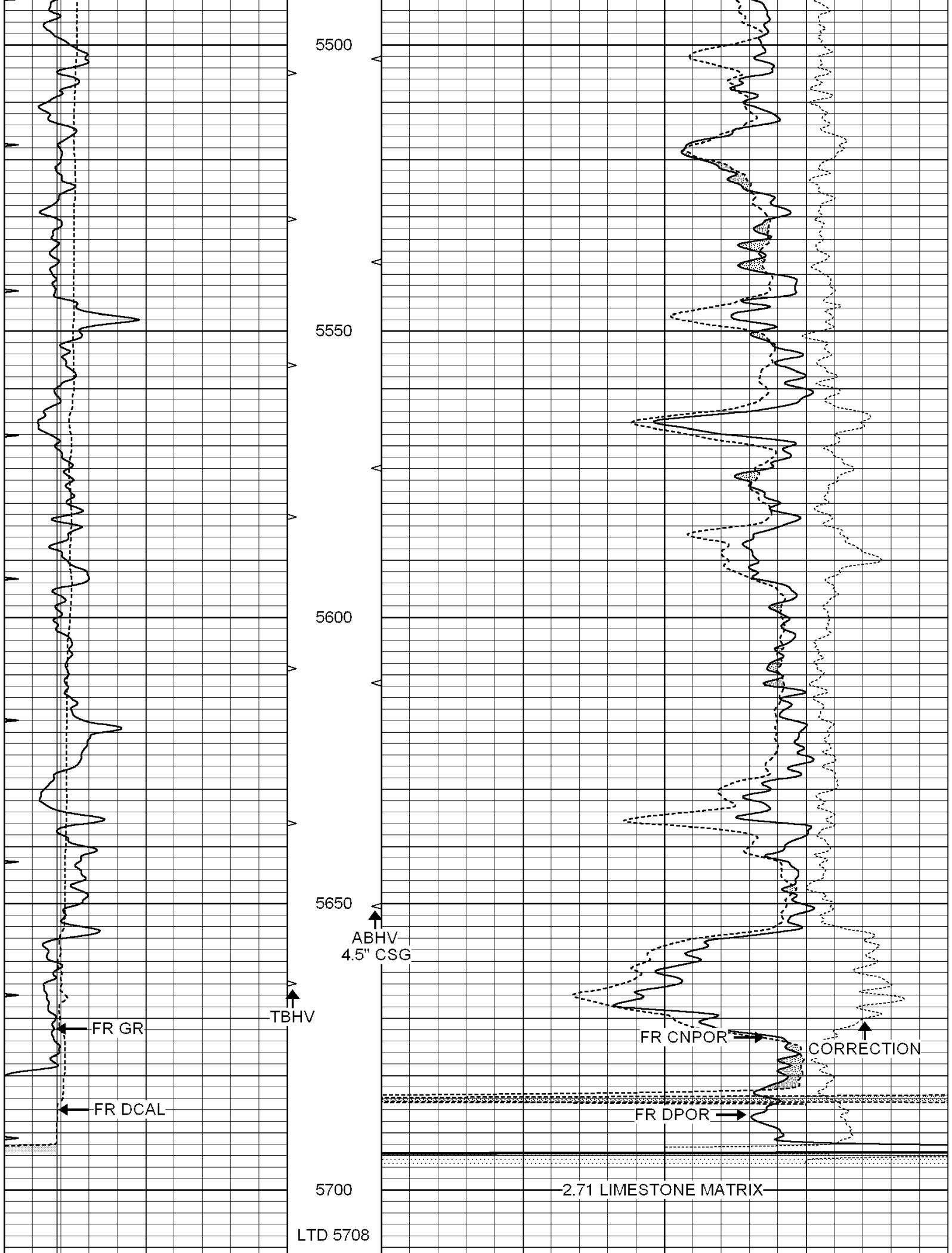












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			0 (ft3) 10			

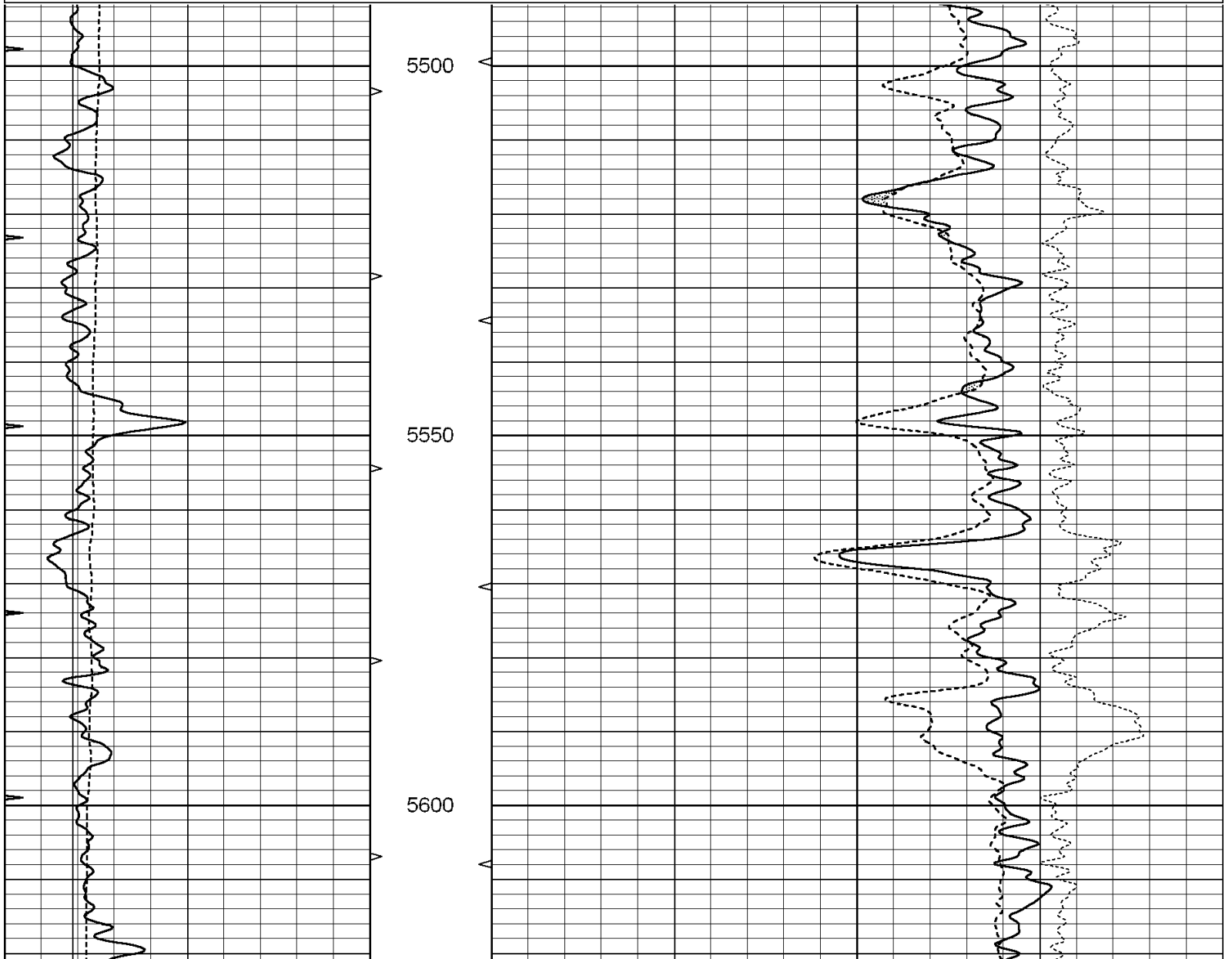


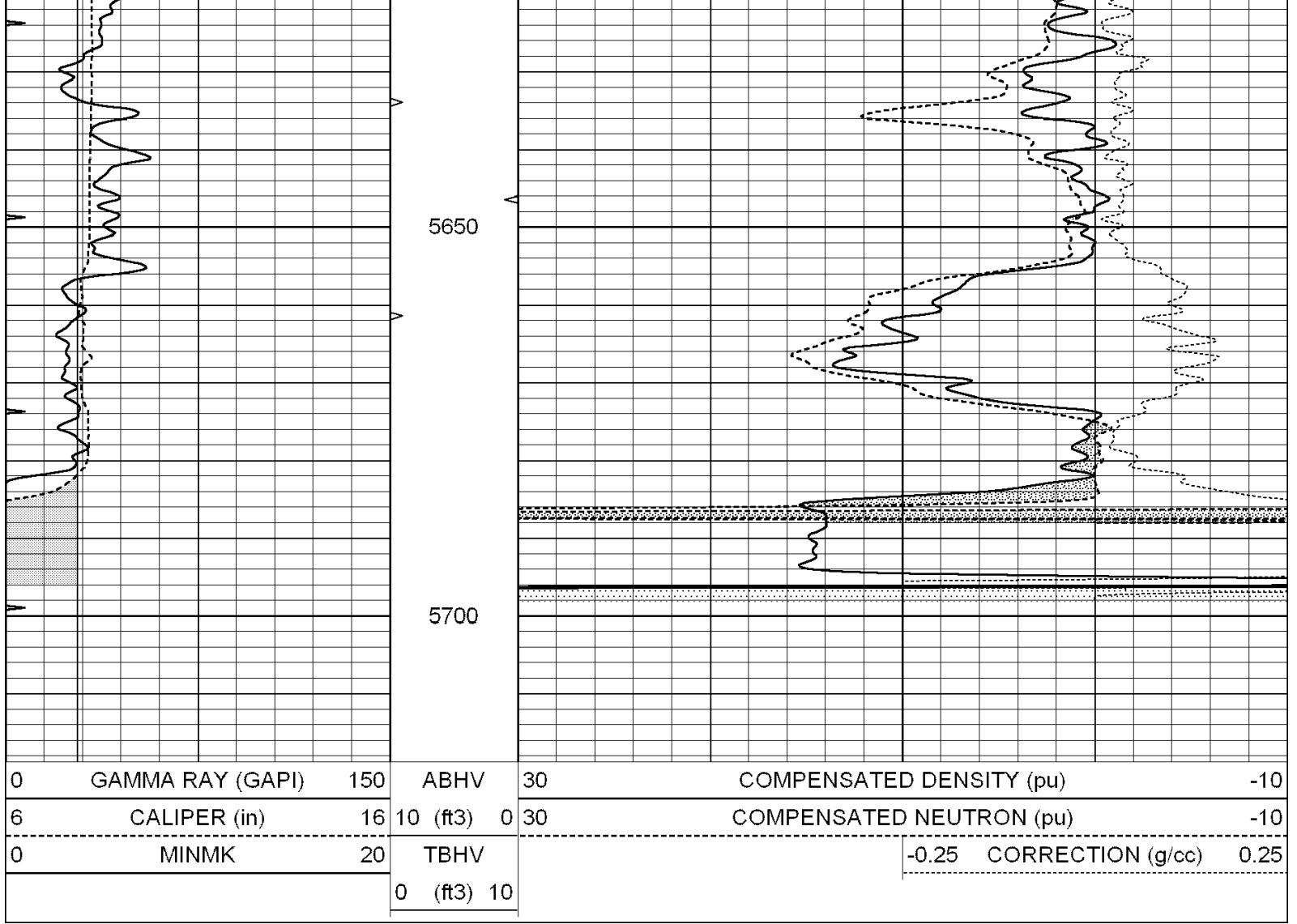
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 004858ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _den_neu
 Dataset Creation: Fri Feb 05 00:00:15 2010 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			





Calibration Report

Database File: 004858ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Fri Feb 05 00:00:15 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop	V		Air	Loop	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings			References		Results	
Zero	Cal		Zero	Cal	m'	b'

Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-6.500	V		3800.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Compensated Density Calibration Report

Serial-Model:	GEAR3-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Fri Mar 06 10:44:04 2009

Master Calibration						
	Density		Far Detector		Near Detector	
Magnesium	1.710	g/cc	1127.25	444.45	cps	
Aluminum	2.600	g/cc	260.89	307.54	cps	
Spine Angle = 75.88			Density/Spine Ratio = 0.590			
	Size		Reading			
Small Ring	8.00	in	4.15	V		
Large Ring	14.00	in	5.96	V		

Compensated Neutron Calibration Report

Serial Number:	5I
Tool Model:	G

CALIBRATION						
Detector	Readings		Target		Normalization	
Short Space	1.00	cps	1.00	cps	1.0000	
Long Space	1.00	cps	1.00	cps	1.0000	

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Tue Nov 10 08:32:36 2009	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5535	GAPI/cps