



SUPERIOR
Hays,
Kansas

COMPENSATED
NEUTRON/DENSITY
LOG

Company	ATLAS OPERATING, LLC.		
Well	B & A SMITH #5-8		
Field	SPIVEY-GRABS-BASIL		
County	HARBER	State	KANSAS
Location:	API # : 15-077-21730-0000		Other Services DIL/MEL
SEC 8 TWP 31S RGE 8W			
Permanent Datum	GROUND LEVEL	Elevation	1645
Log Measured From	KELLY BUSHING 10' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Elevation		K.B. 1655 D.F. 1653 G.L. 1645	
Date	1/24/10		
Run Number	ONE		
Depth Driller	4547		
Depth Logger	4549		
Bottom Logged Interval	4547		
Top Log Interval	0		
Casing Driller	8 5/8" @ 237'		
Casing Logger	230'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	9.3/46		
pH / Fluid Loss	9.5/9.6		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	0.95 @ 81F		
Rmf @ Meas. Temp	0.71 @ 81F		
Rmc @ Meas. Temp	1.14 @ 81F		
Source of Rmf / Rmc	MEASURED		
Rin @ BHT	0.64 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	121F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEMEG		
Witnessed By	PAT DEENIHAN		

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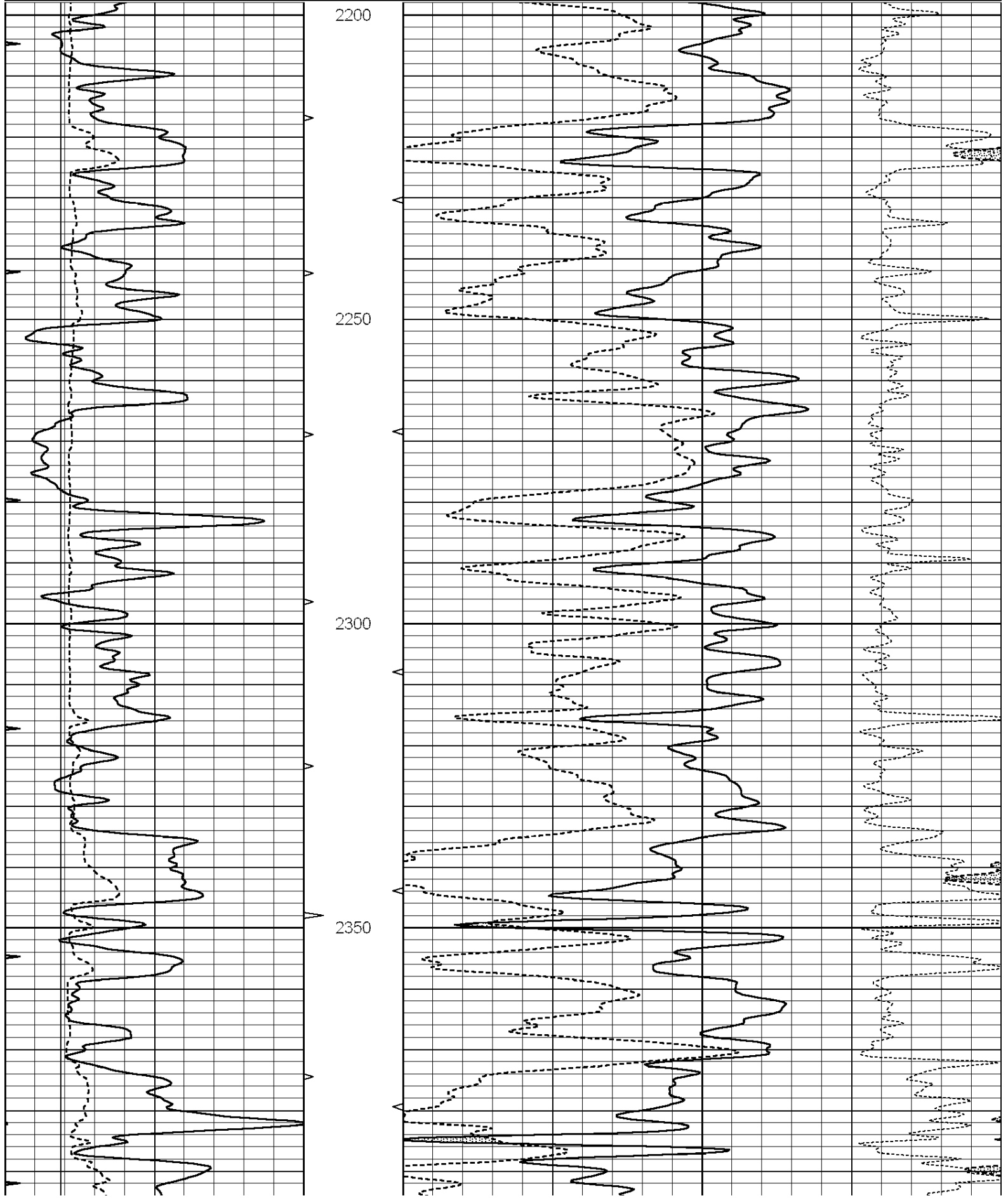
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

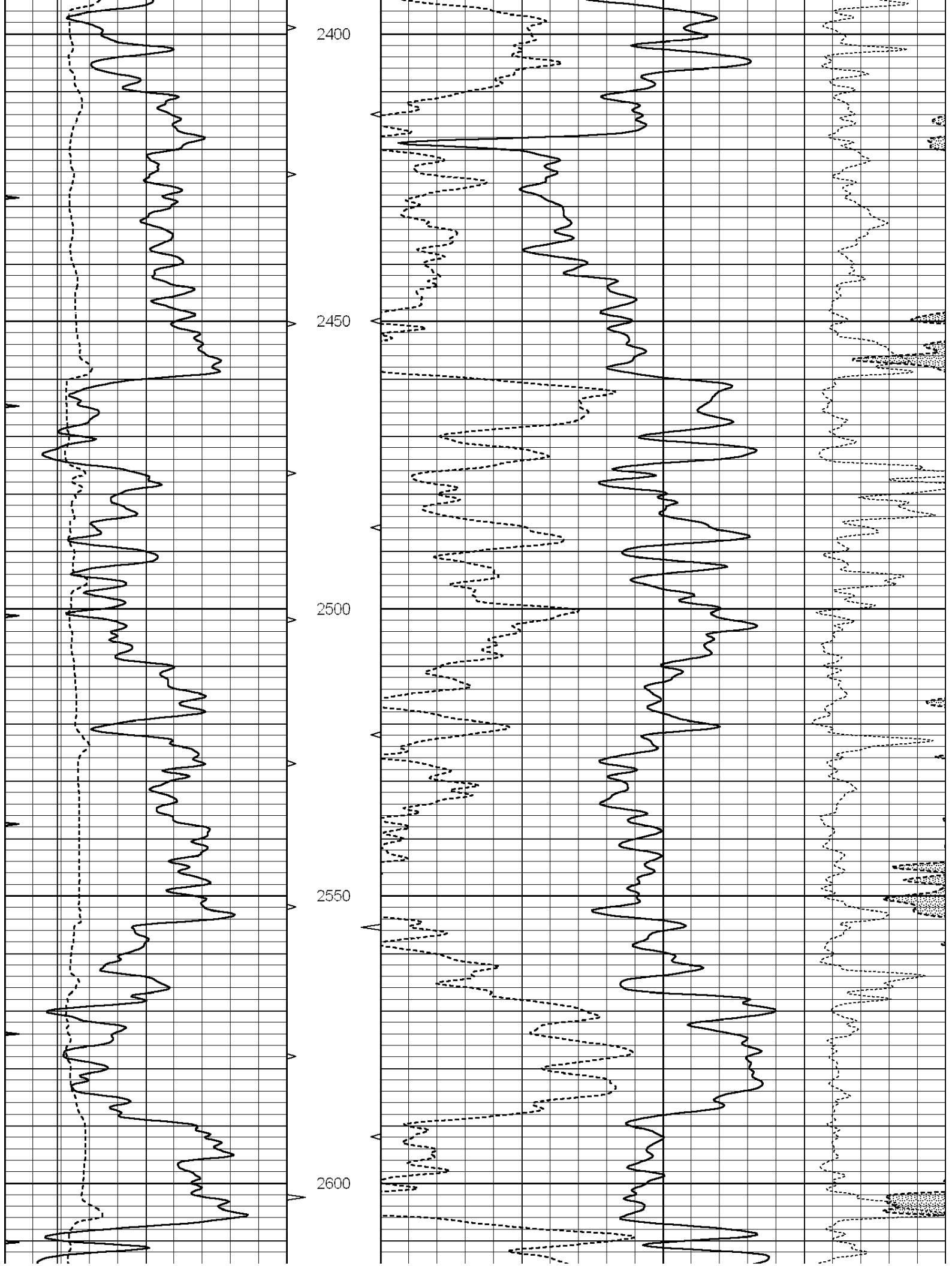
Comments

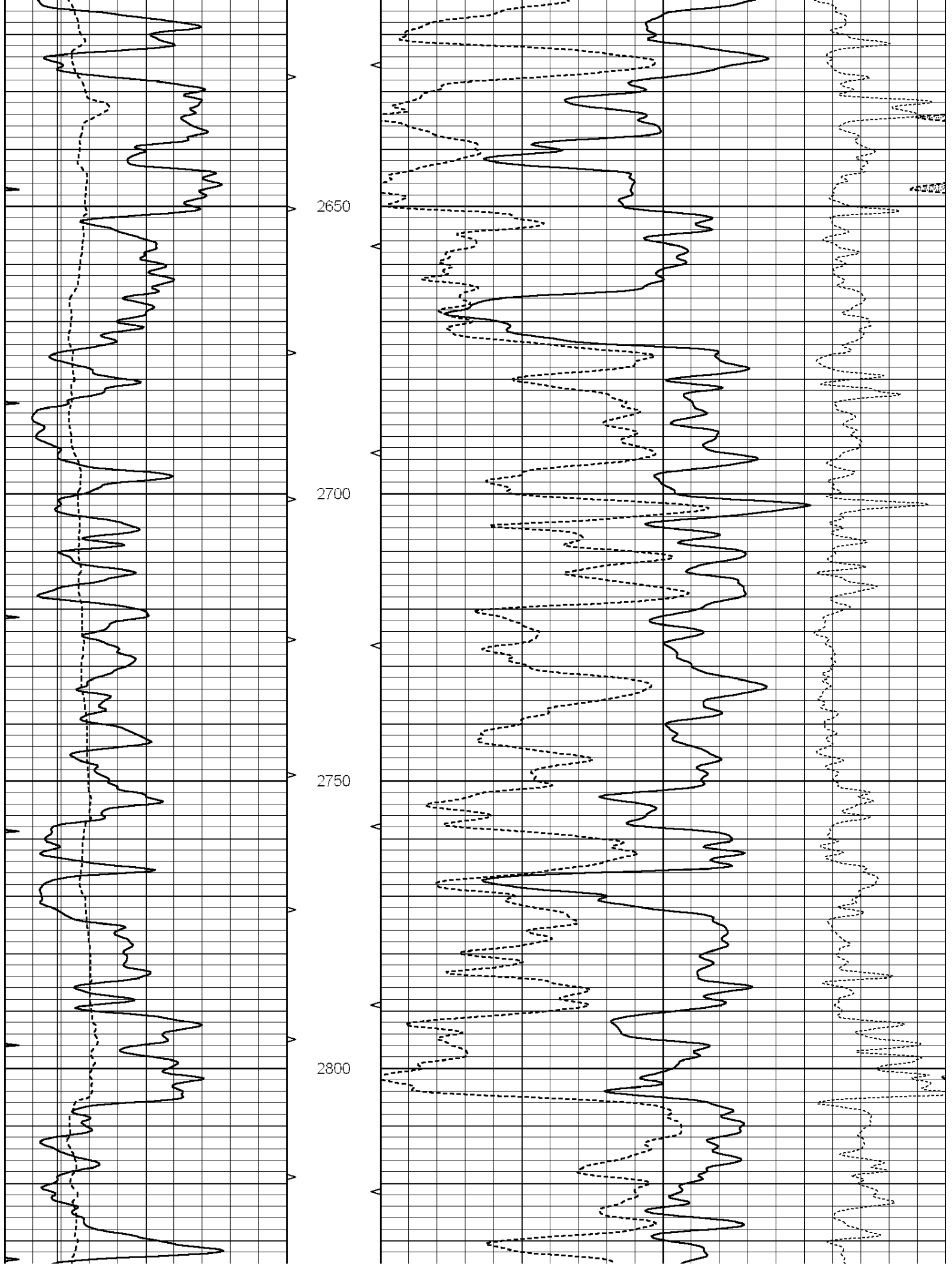
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
ZENDA, KS - 4 MILES EAST TO SW 50 - SOUTH TO SPIVEY GAS PLANT
SOUTH 1/4 TO NW 150 - 1/2 MILE EAST - SOUTH INTO

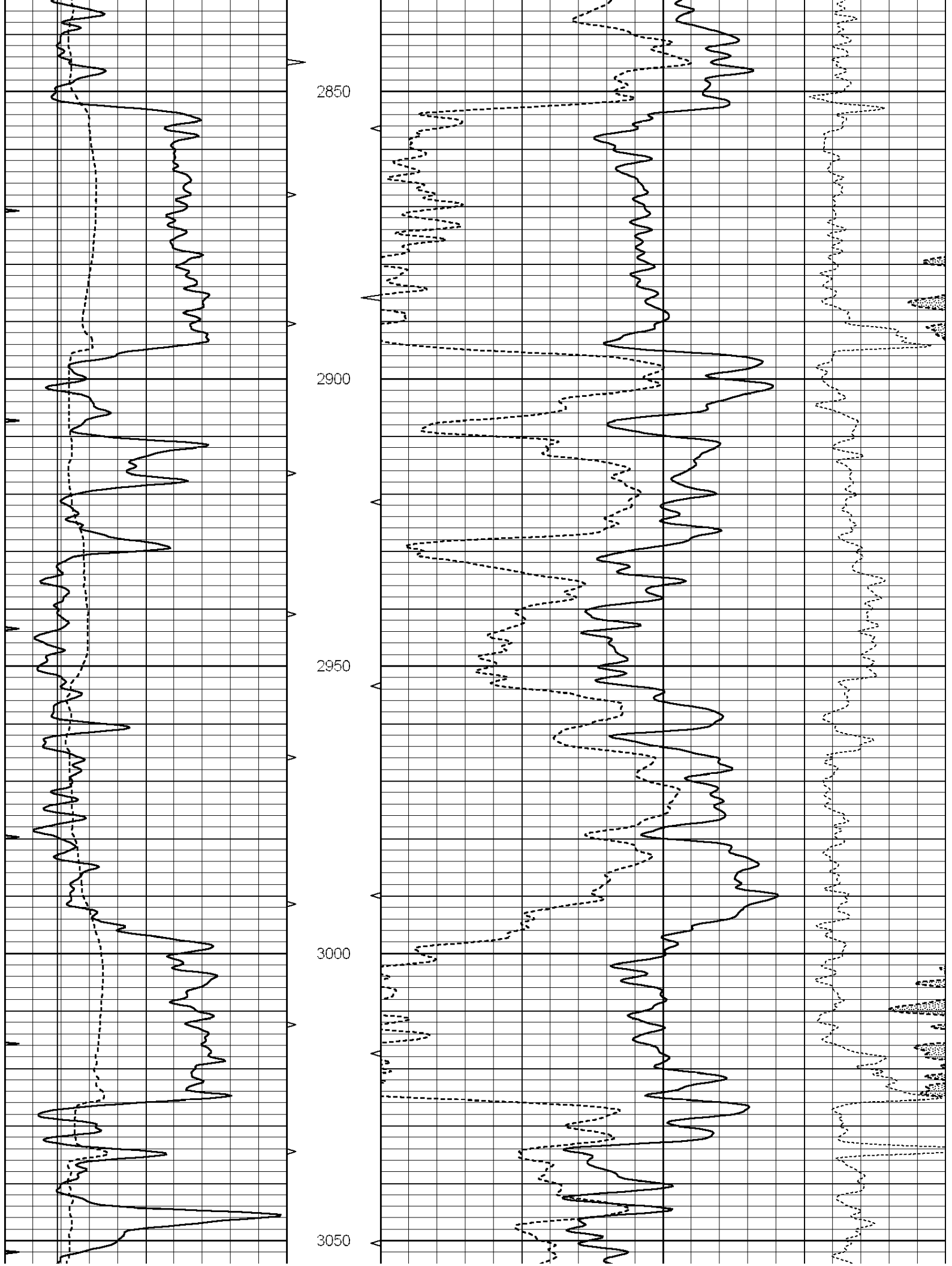
Charted by: Depth in Feet scaled 1:2.15												
0	GAMMA RAY (GAPI)		150	AVTX		30	COMPENSATED DENSITY (pu)			-10		
6	CALIPER (in)		16	10	(ft3)	0	30	COMPENSATED NEUTRON (pu)			-10	

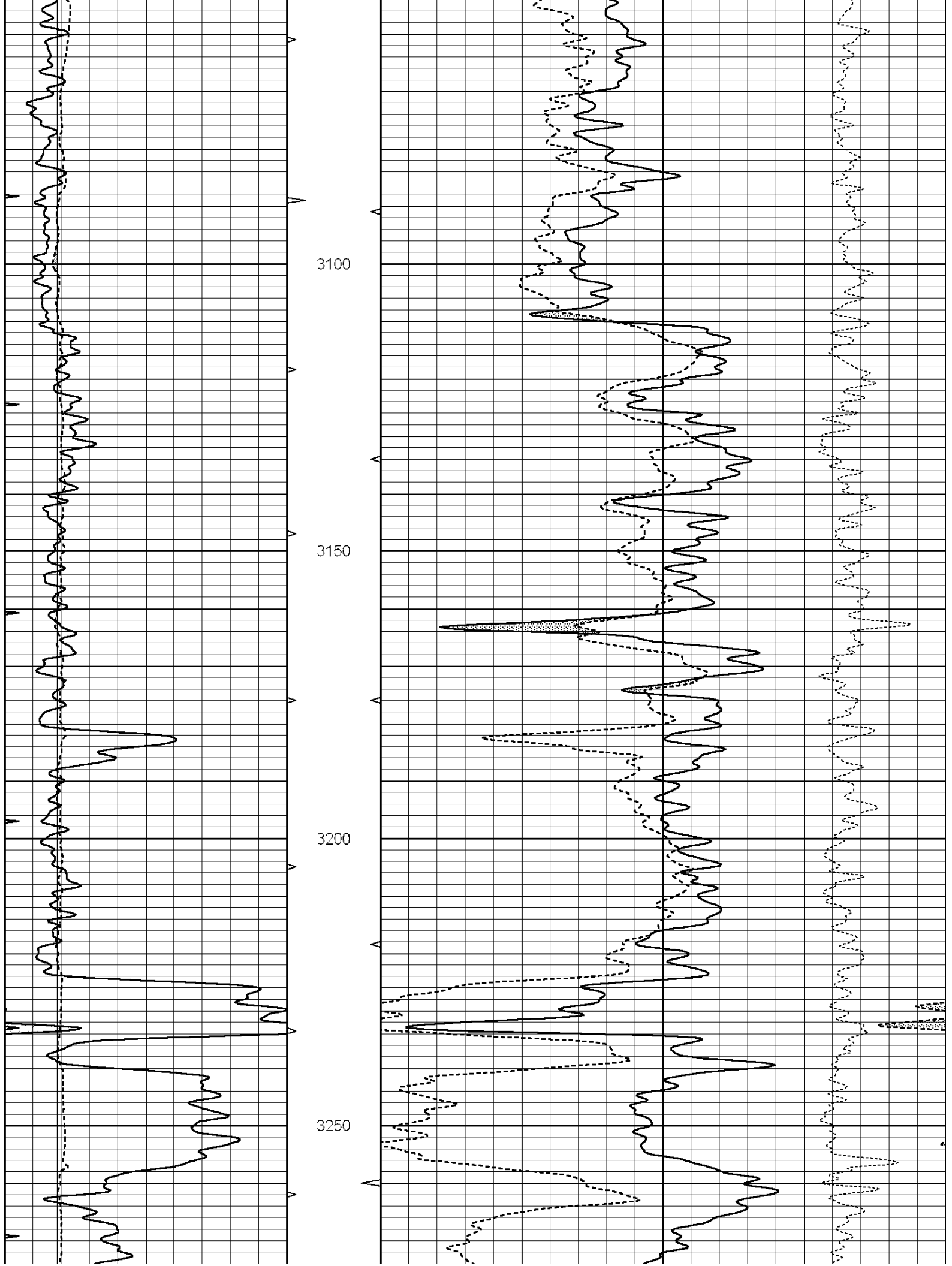
0	MINMK		20	BVTX						-0.25	CORRECTION (g/cc)	0.25
				0		(ft3)	10					

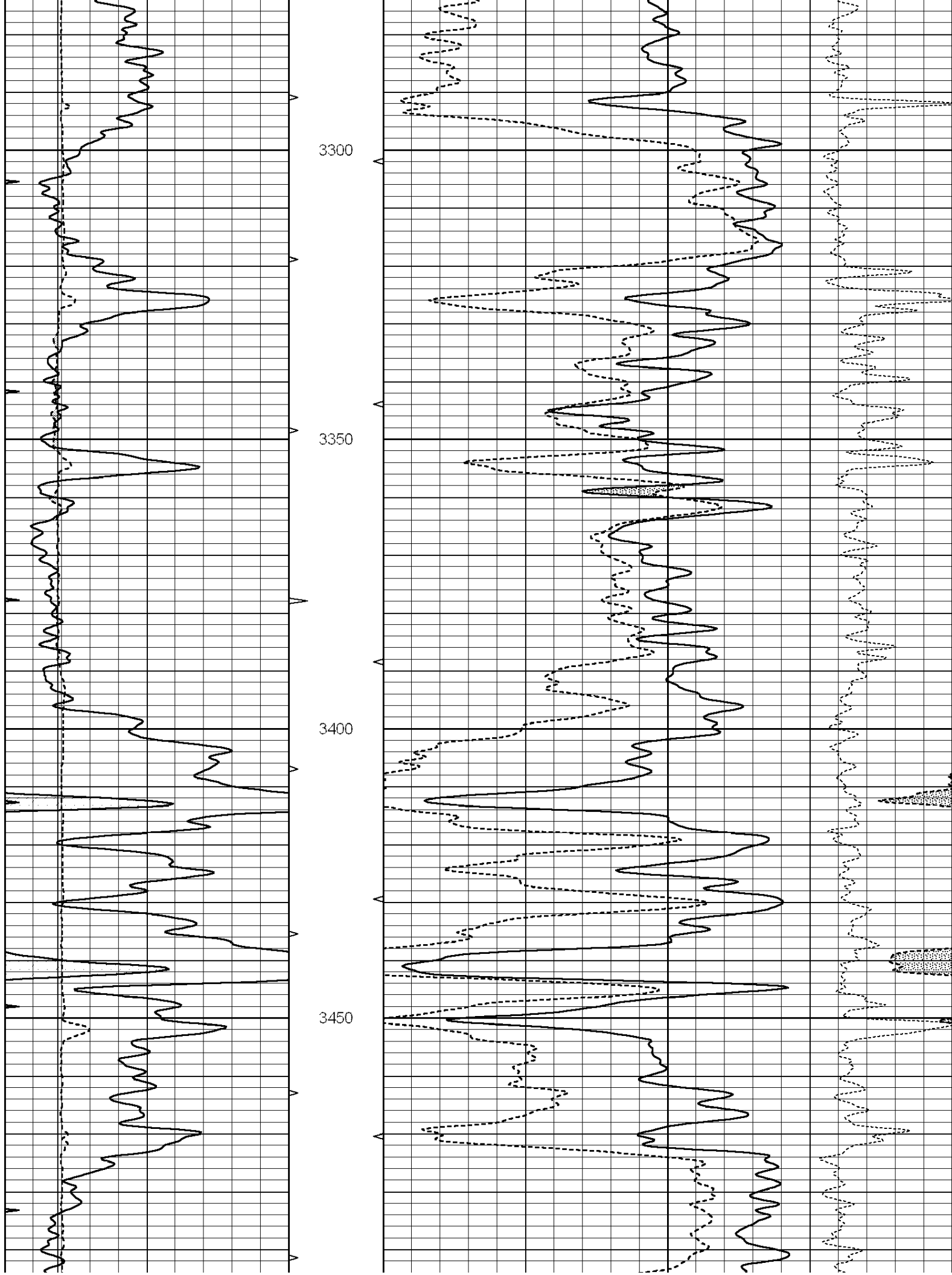


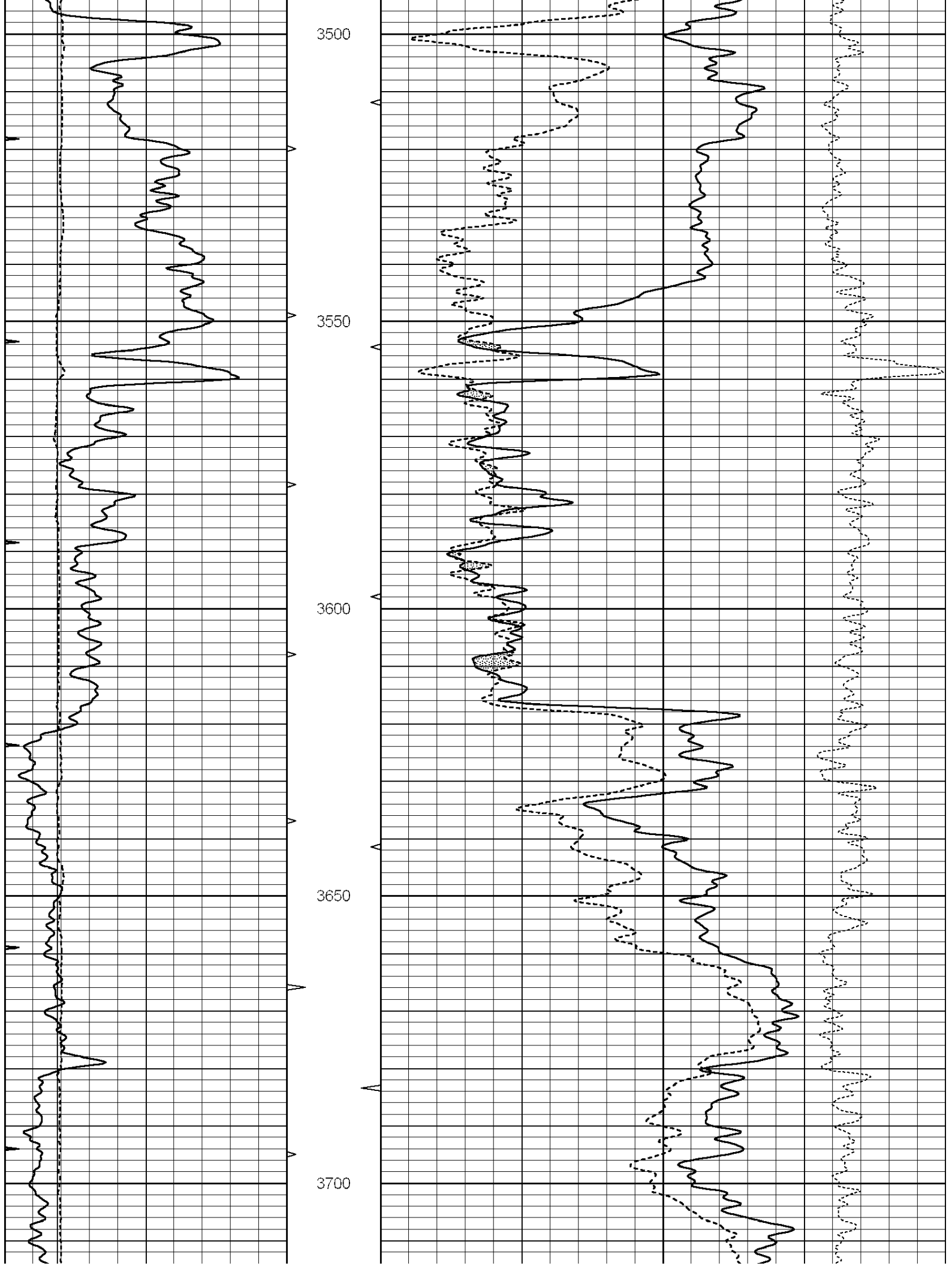


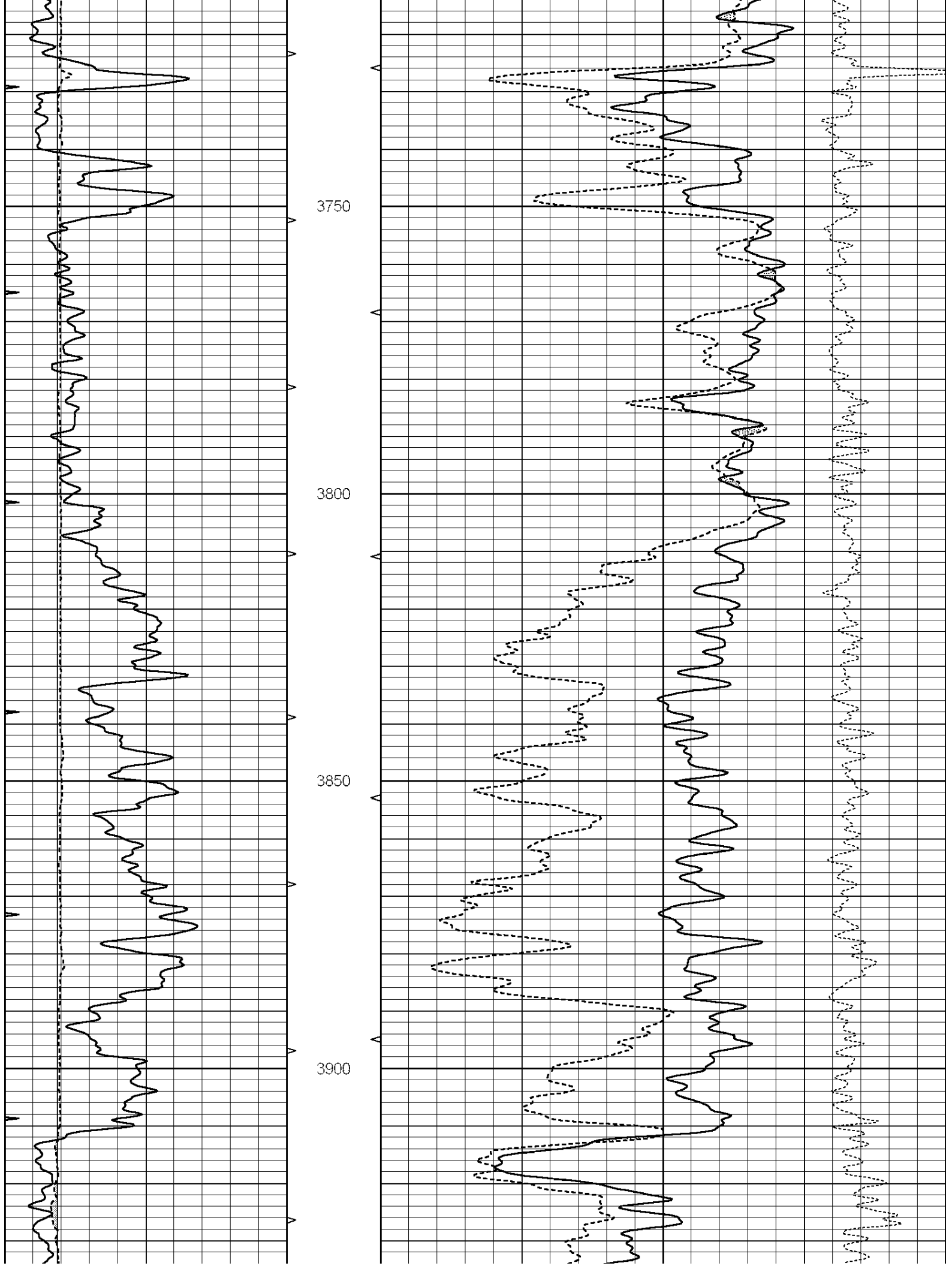


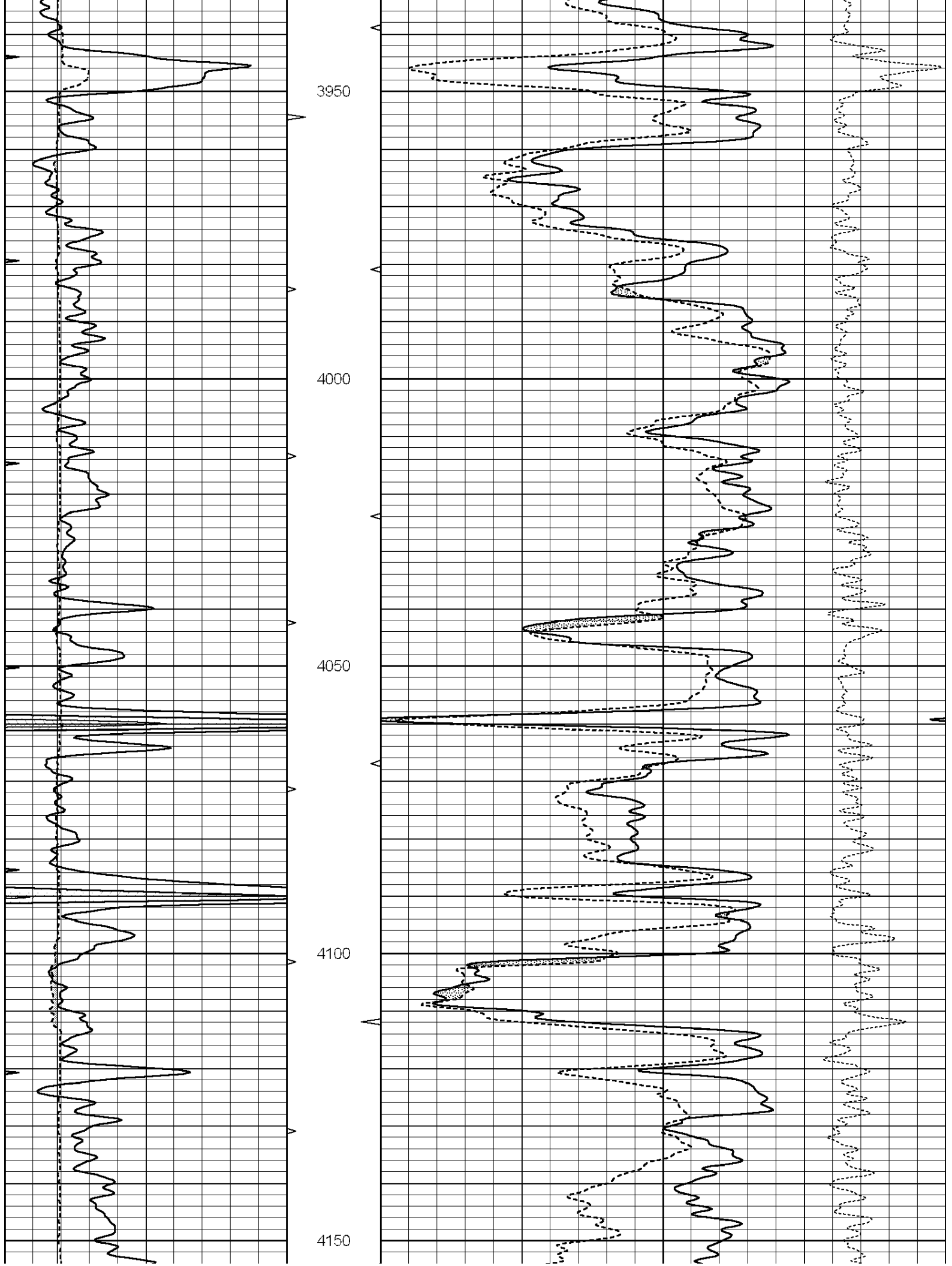


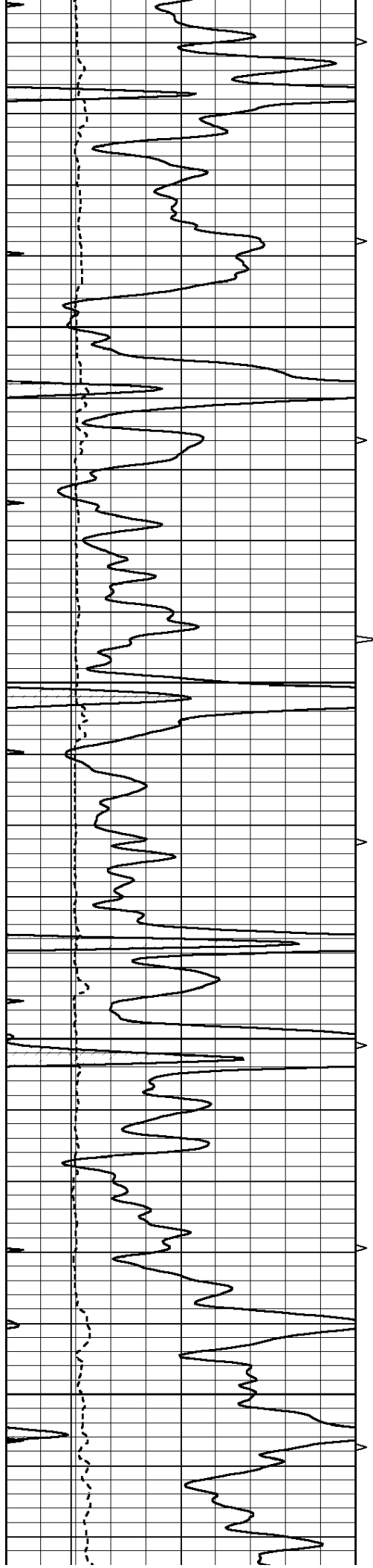










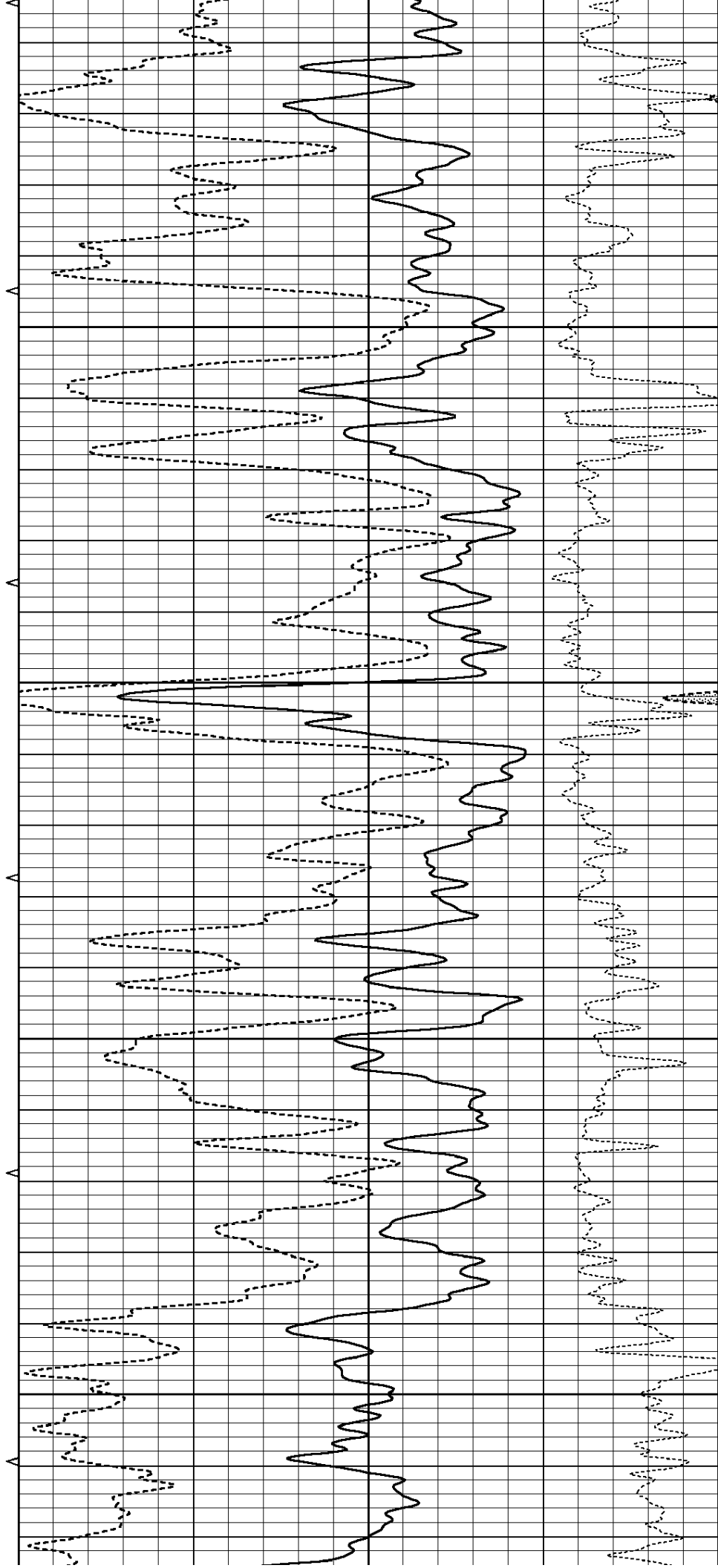


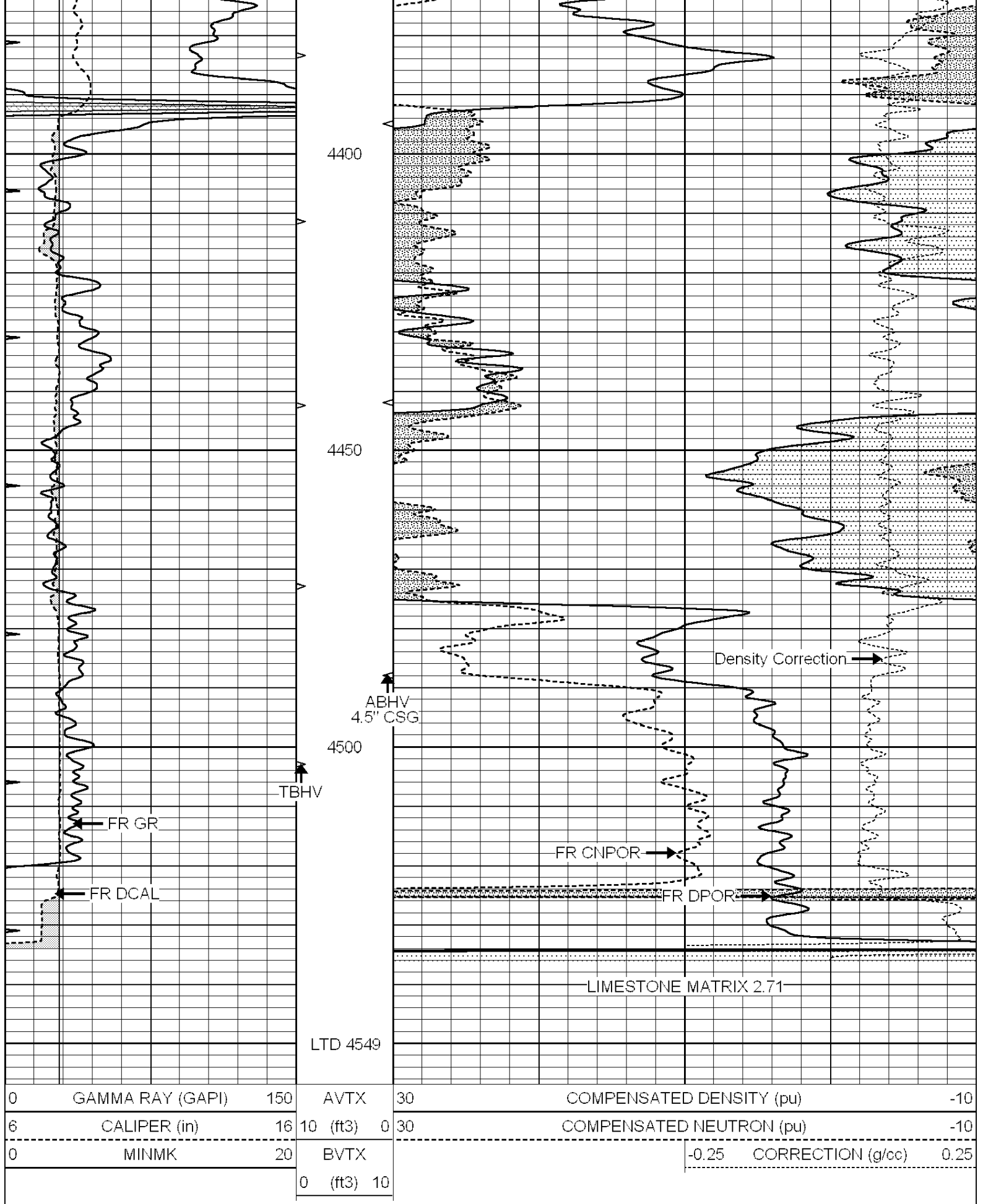
4200

4250

4300

4350





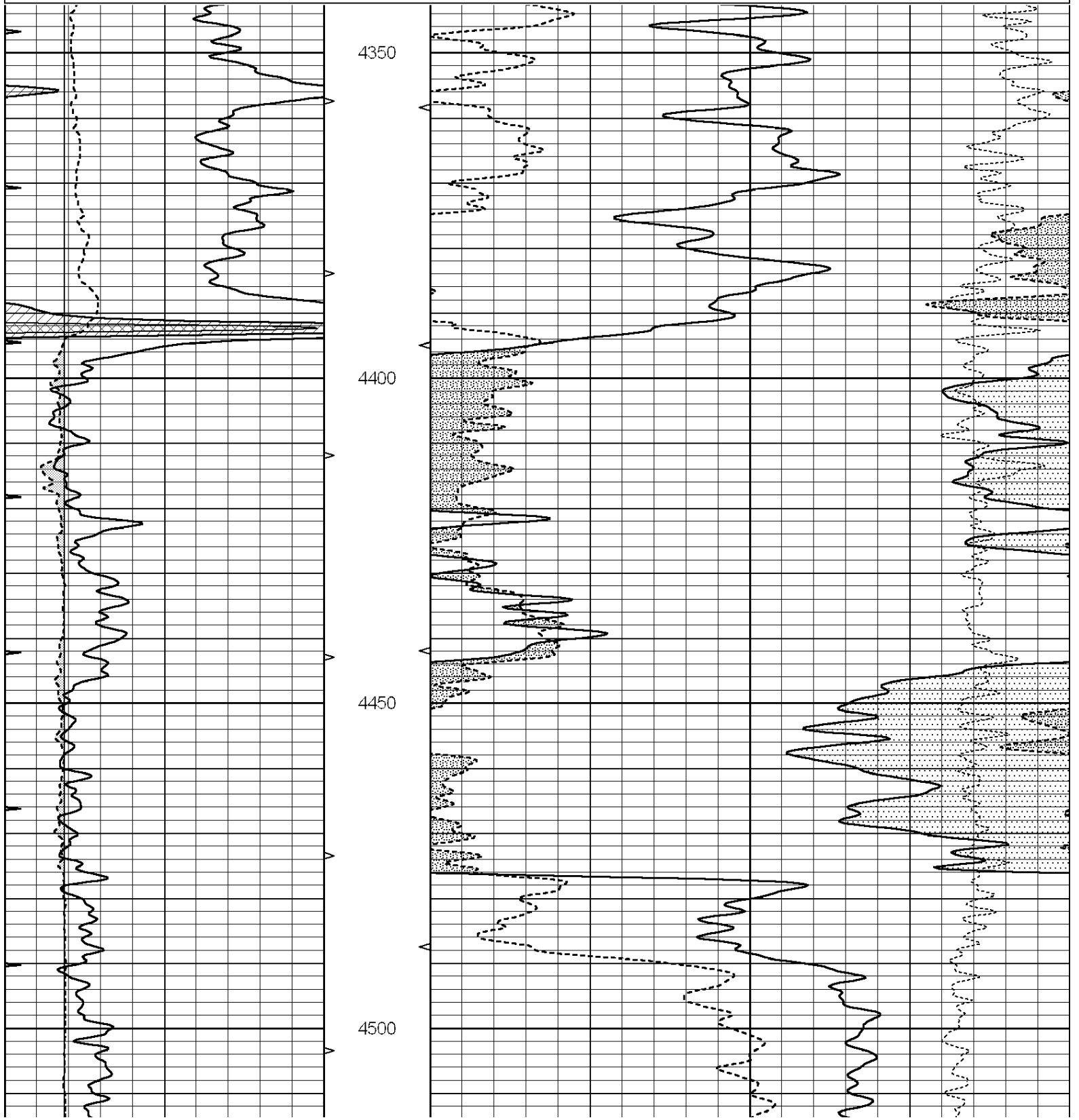
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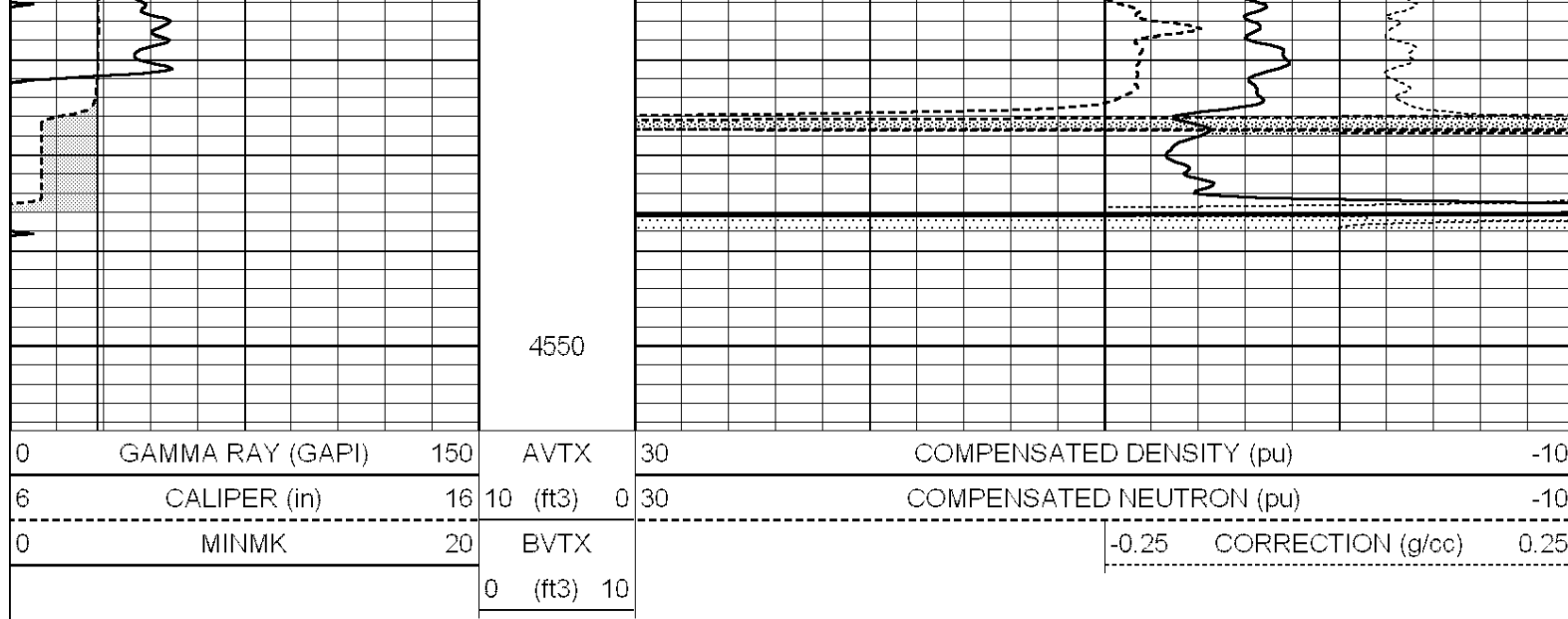
REPEAT SECTION



Database File: 006677ddn.db
Dataset Pathname: pass3.2
Presentation Format: _den_neu
Dataset Creation: Mon Jan 24 22:23:26 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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





Calibration Report

Database File: 006677ddn.db
Dataset Pathname: pass4.3.3
Dataset Creation: Mon Jan 24 22:07:26 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
Surface Cal Performed: Wed Jul 30 06:14:24 2008
Downhole Cal Performed: Mon Jul 28 12:02:56 2008
After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Tue May 11 10:59:10 2010

Master Calibration

	Density			Far Detector		Near Detector	
Magnesium	1.710	g/cc		1015.91		497.51	cps
Aluminum	2.580	g/cc		227.67		350.20	cps
Spine Angle = 76.79			Density/Spine Ratio = 0.566				
	Size			Reading			
Small Ring	8.00	in		2.50		V	
Large Ring	14.00	in		4.70		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:	Mon Jan 24 18:24:21 2011
Calibrator Value:	150.0
	GAPI
Background Reading:	0.0
Calibrator Reading:	276.0
	cps
Sensitivity:	0.9635
	GAPI/cps