SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

COMPENSATED DENSITY/NEUTRON LOG

Company RITCHIE EXPLORATION, INC.
Well #1 S. RIEDEL
Field
County FORD State KANSAS

Location: API # : 15-057-20769-0000
920' FNL & 765' FWL

SEC 19 TWP 27S RGE 22W

Other Services
DIL

Elevation

Permanent Datum	GROUND LEVEL	Elevation 2426
Log Measured From	KELLY BUSHING 11' A.G.L.	
Drilling Measured From	KELLY BUSHING	

K.B. 2437
D.F. 2435
G.L. 2426

Date	12/29/11		
Run Number	ONE		
Depth Driller	5200		
Depth Logger	5202		
Bottom Logged Interval	5178		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 349		
Casing Logger	NA		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8300 PPM	
Density / Viscosity	9.5/53		
pH / Fluid Loss	8.5/14.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.0 @ 56F		
Rmf @ Meas. Temp	.75 @ 56F		
Rmc @ Meas. Temp	1.2 @ 56F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.44 @ 126F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	126F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	TERRY McCLEOD		

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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
FORD, KS. - 4 NORTH ON HWY 400 - E. INTO

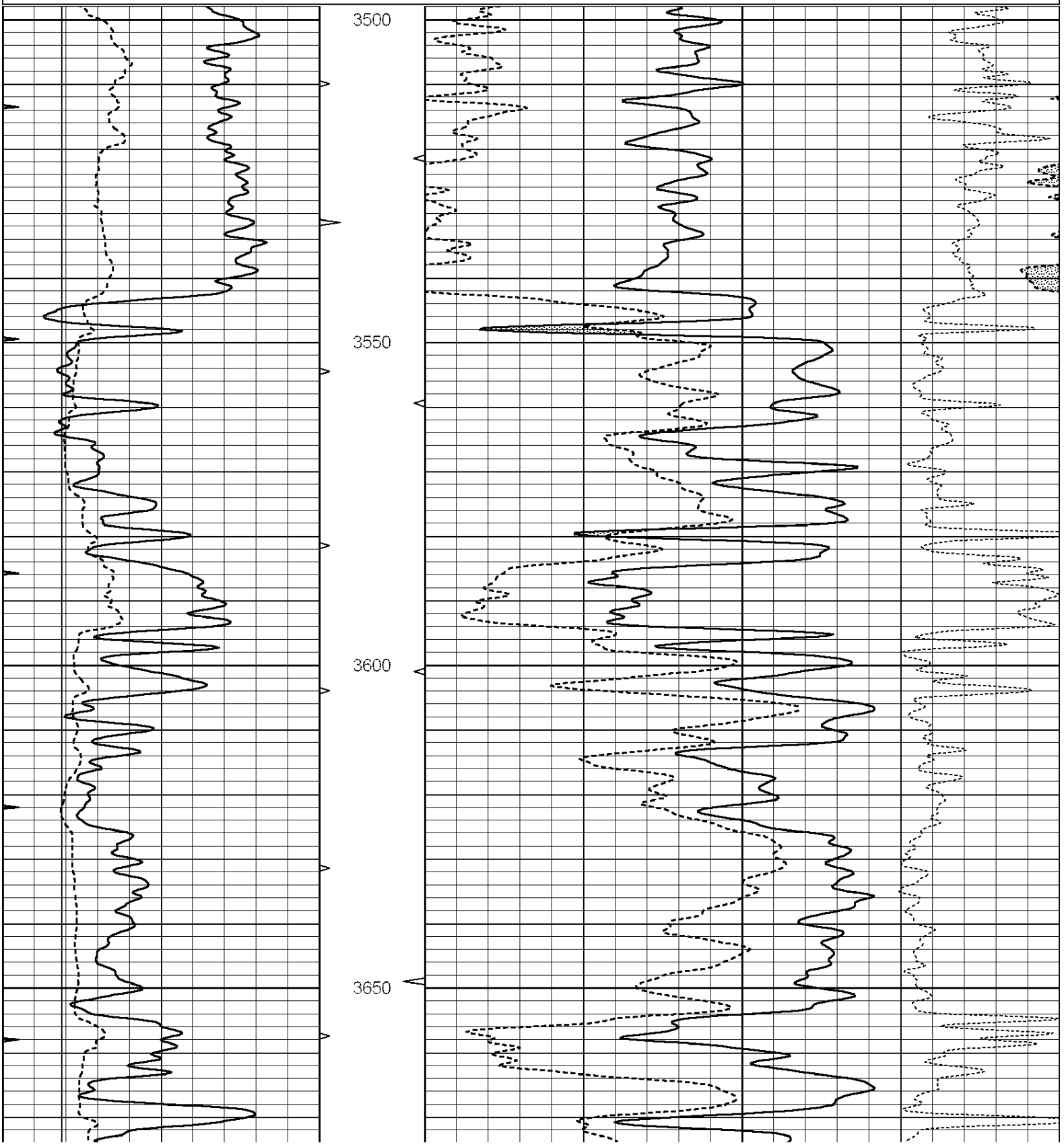
MAIN SECTION

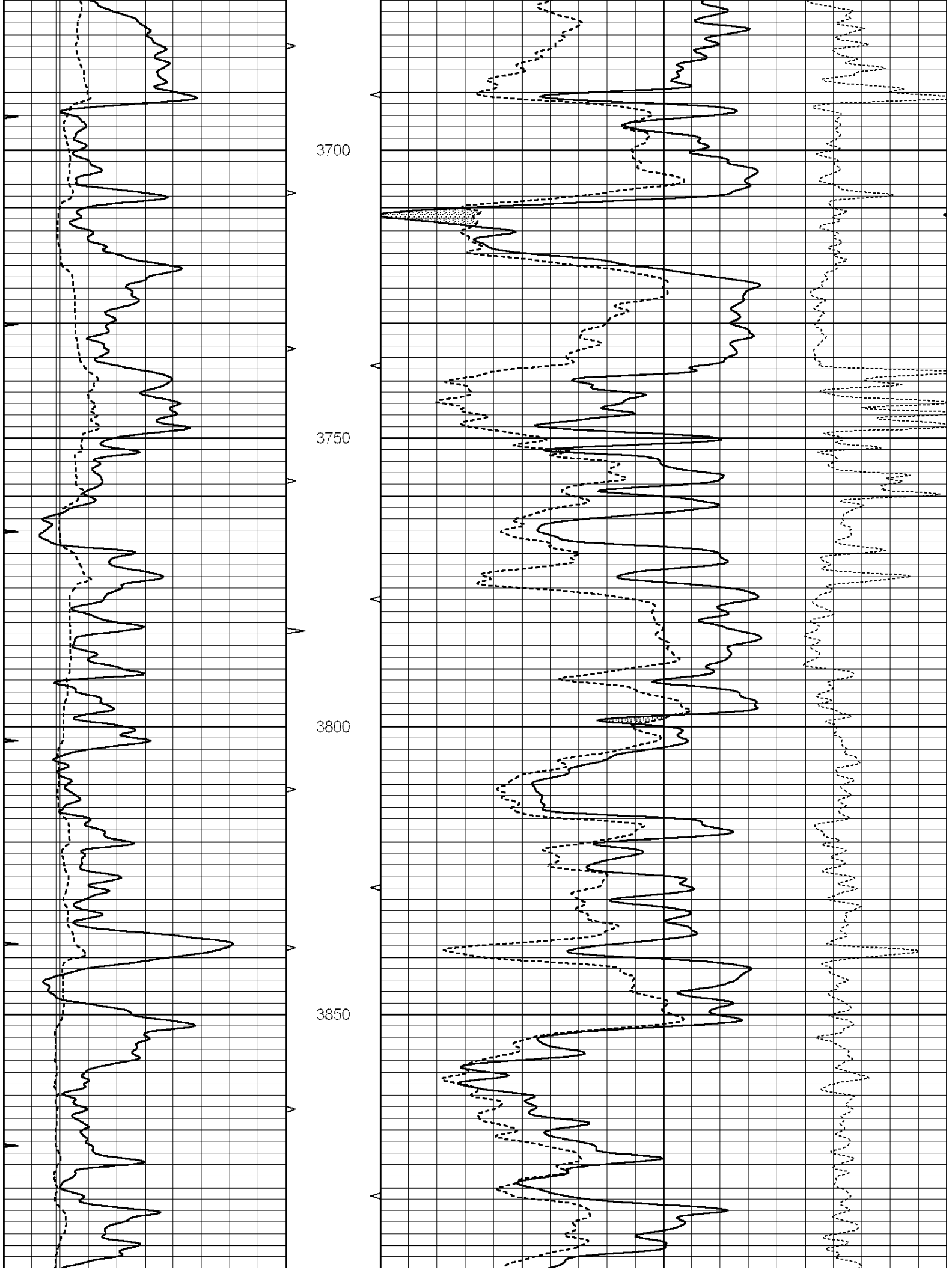
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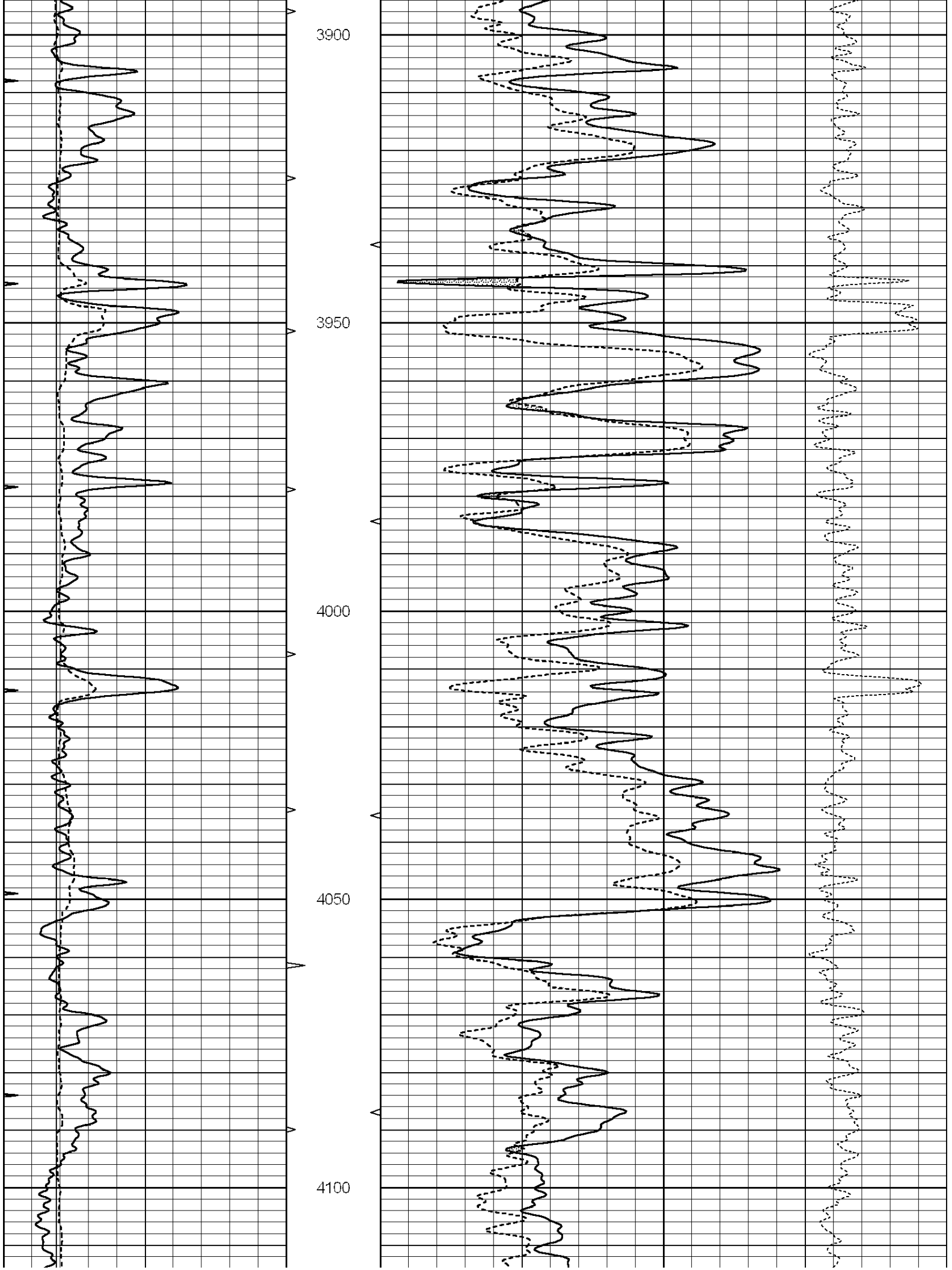
SUPERIOR WELL SERVICES

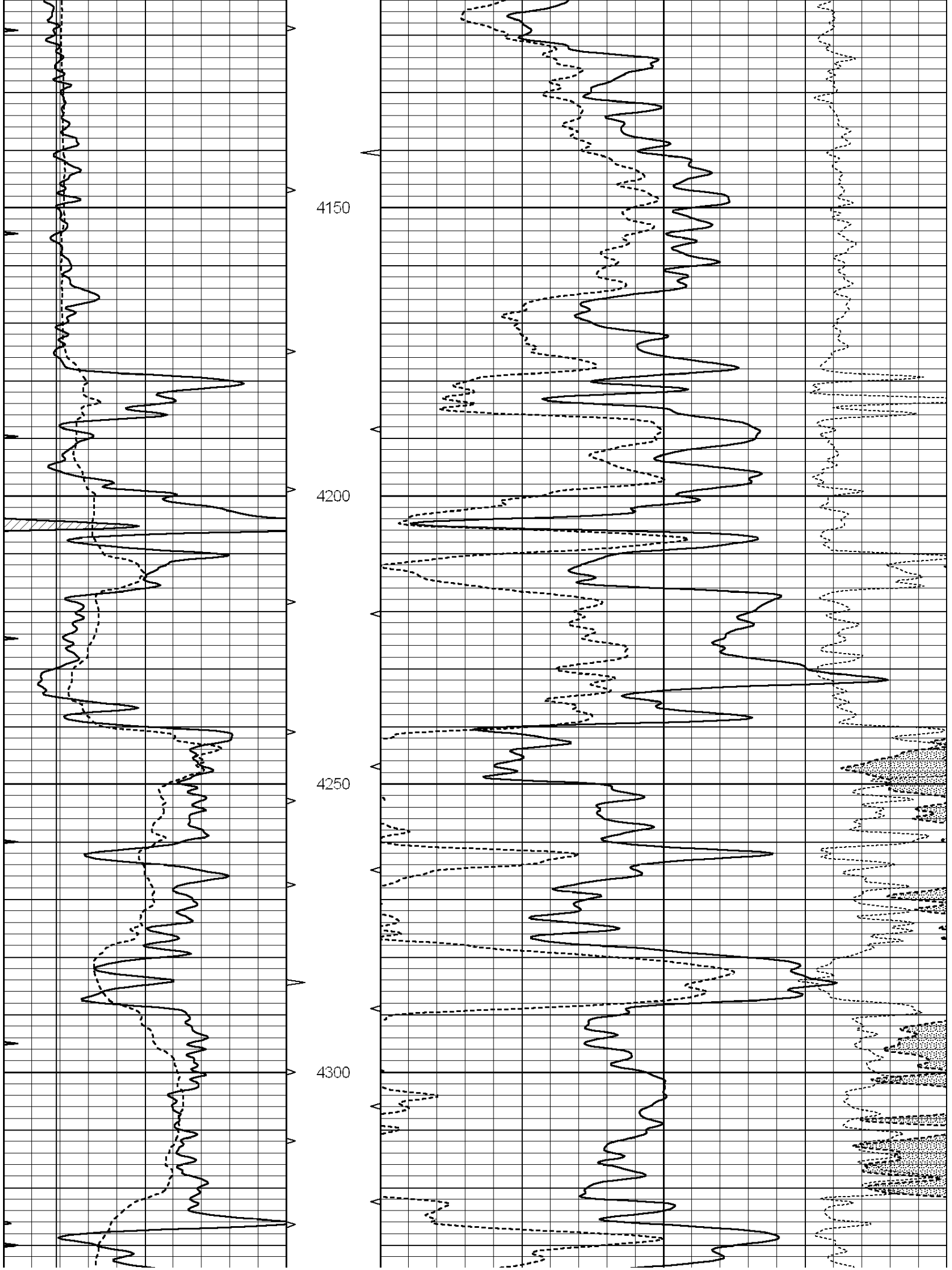
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Dataset Pathname:	pass3.1
Presentation Format:	_den_neu
Dataset Creation:	Thu Dec 29 01:52:01 2011 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

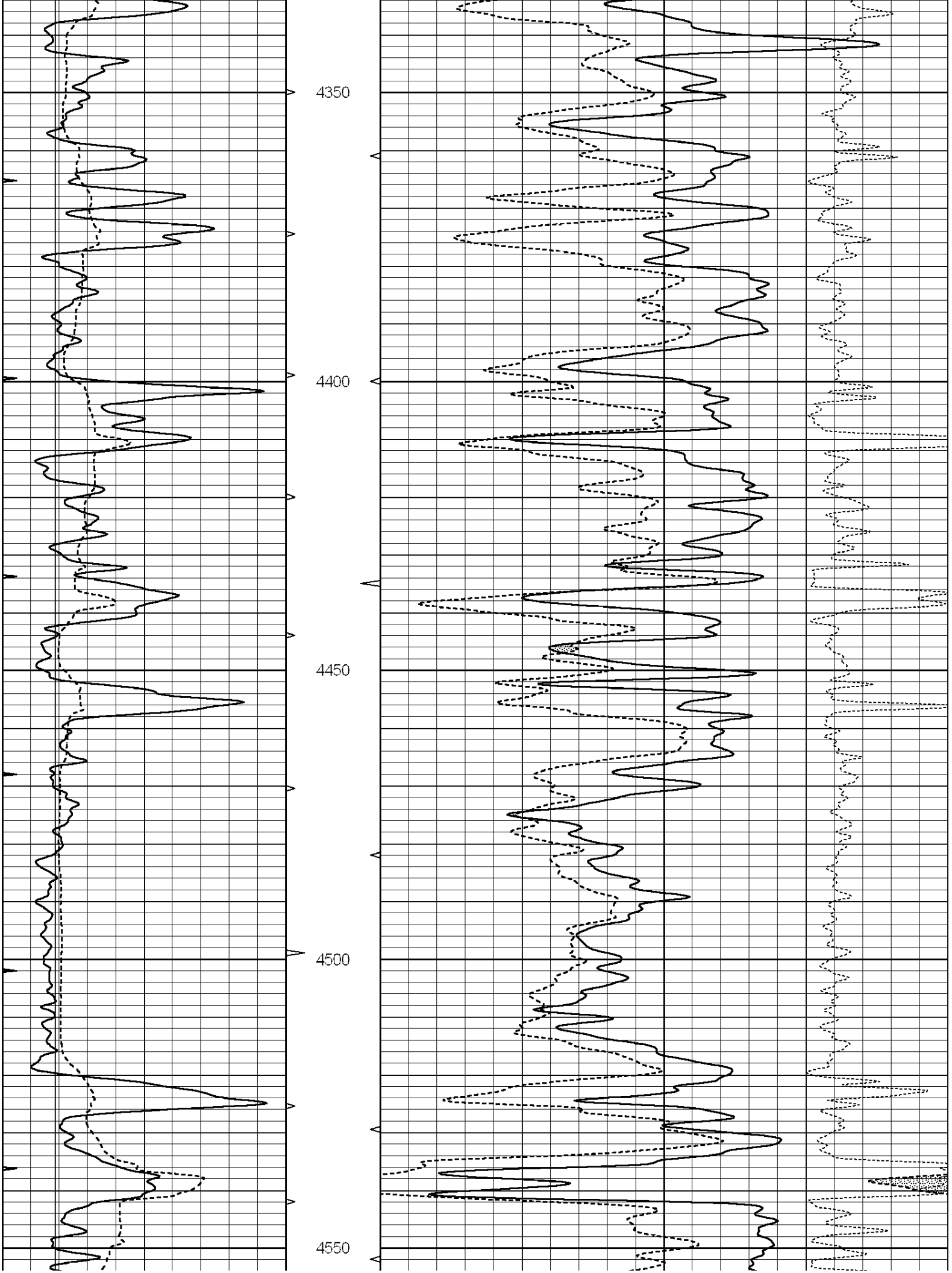
0	GAMMA RAY (GAPI) 150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in) 16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK 20	BVTX		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			

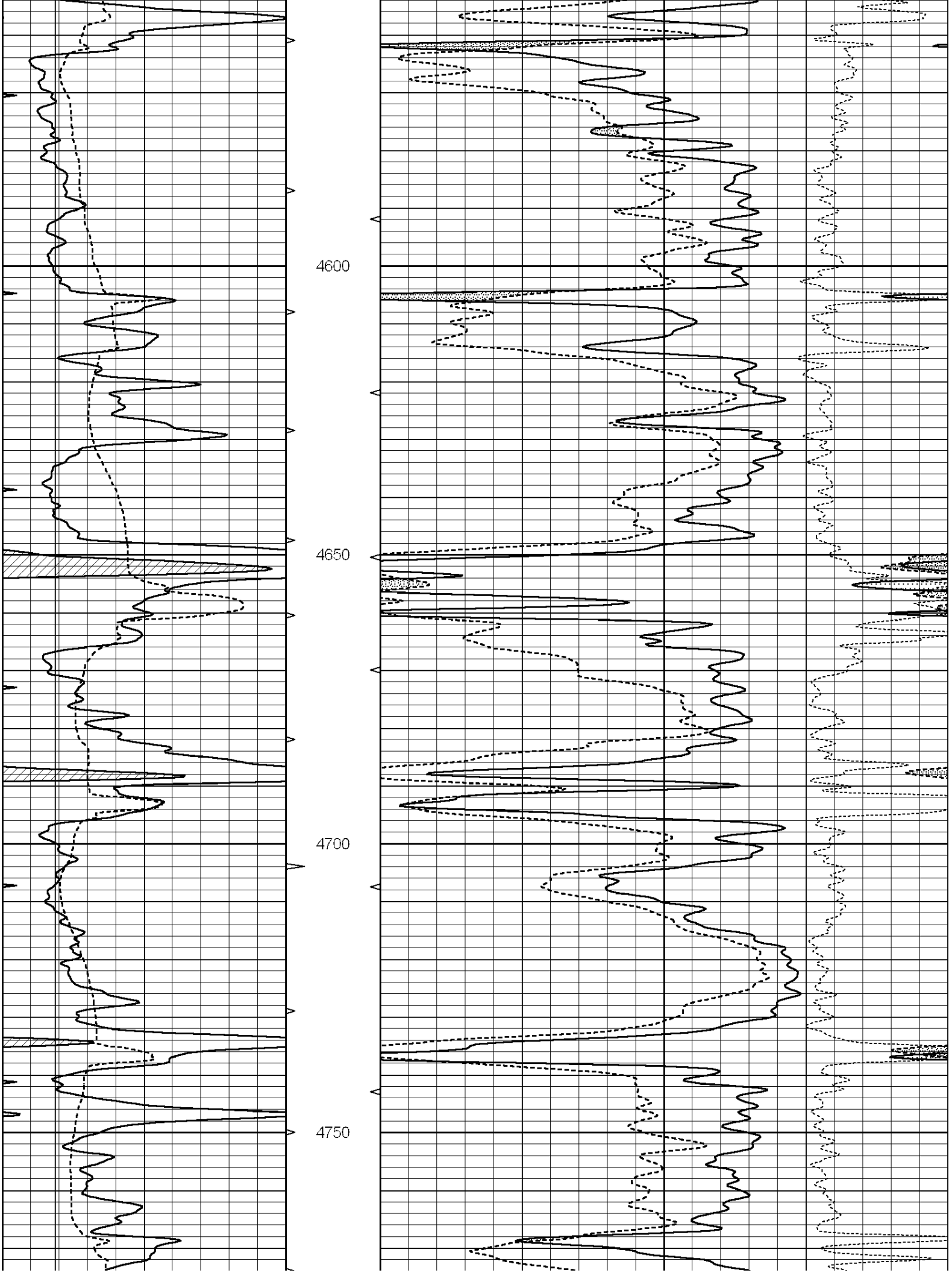


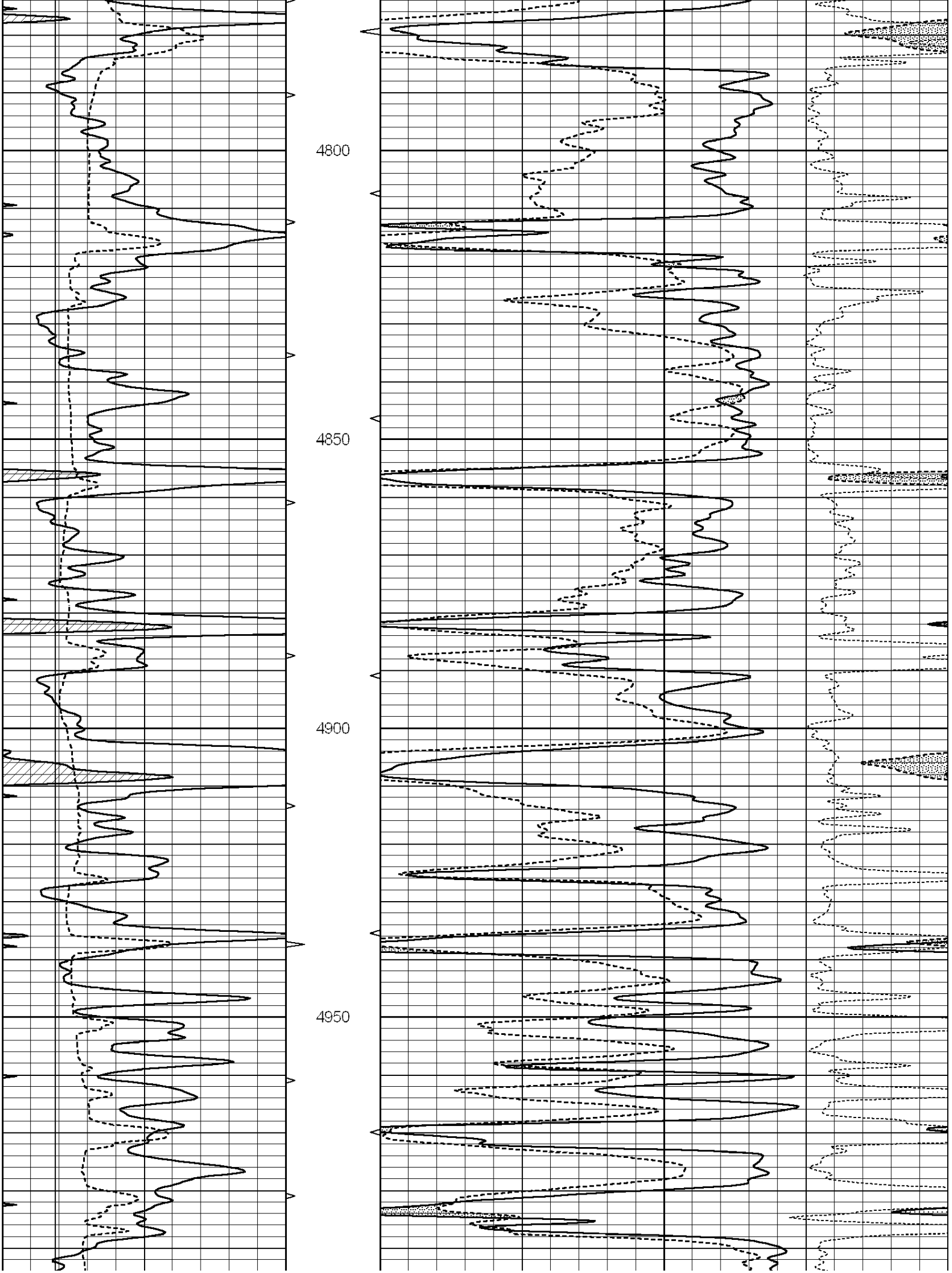

3700
3750
3800
3850

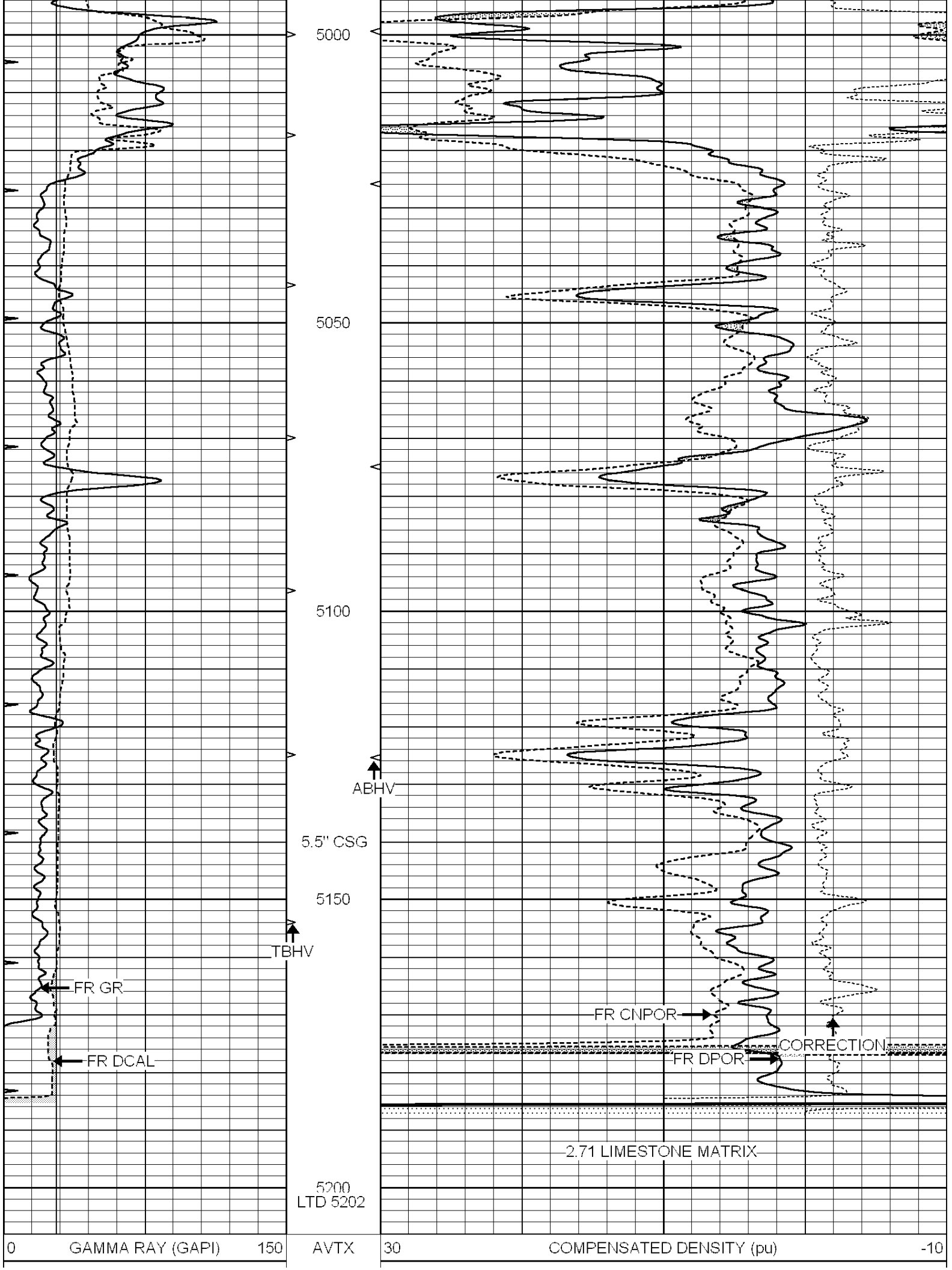

3900
3950
4000
4050
4100


4150
4200
4250
4300


4350
4400
4450
4500
4550


4600
4650
4700
4750


4800
4850
4900
4950


5000
5050
5100
ABHV
5.5" CSG
5150
TBHV
FR GR
FR DCAL
FR CNPOR
CORRECTION
FR DPOR
2.71 LIMESTONE MATRIX
5200
LTD 5202
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			

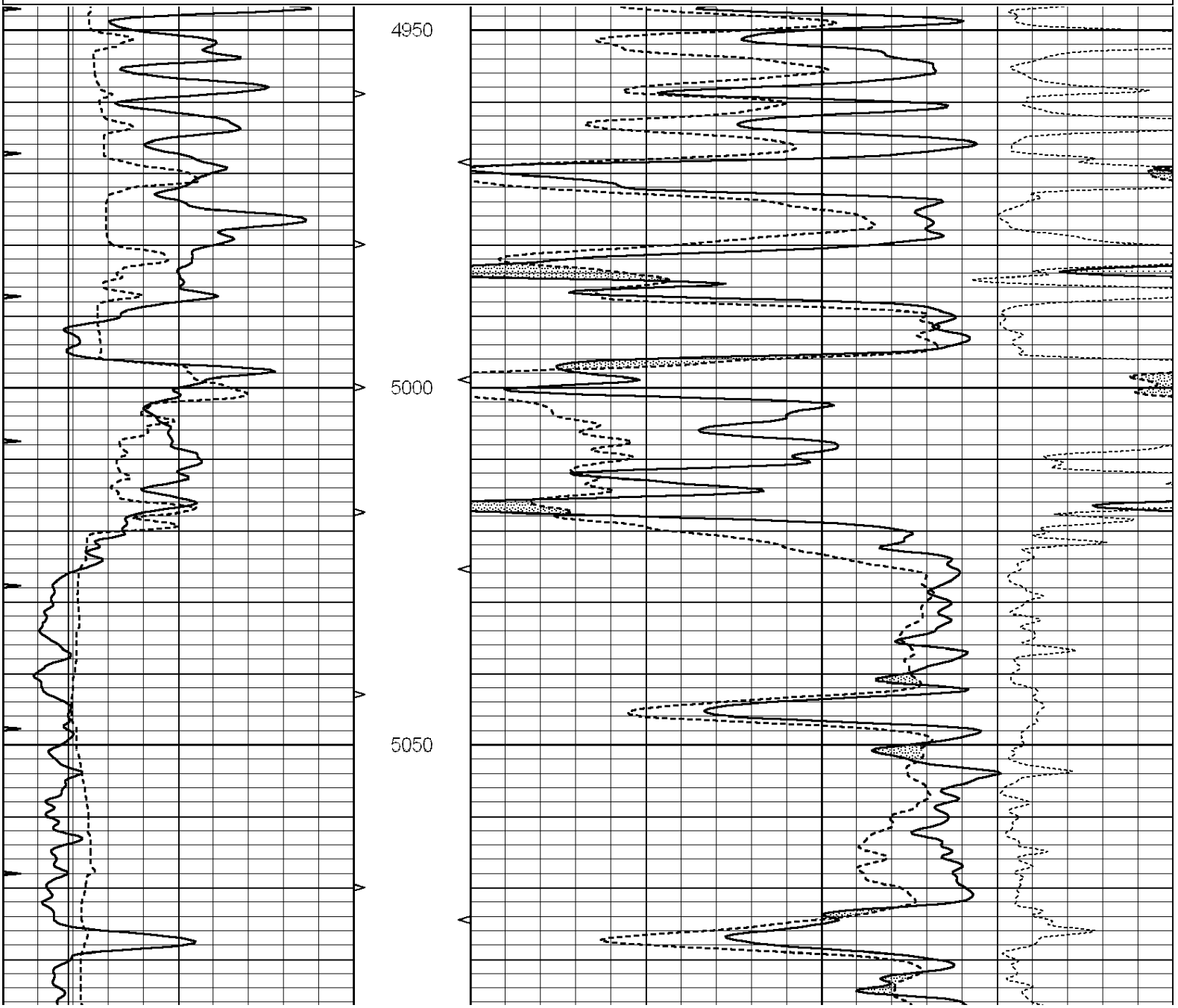
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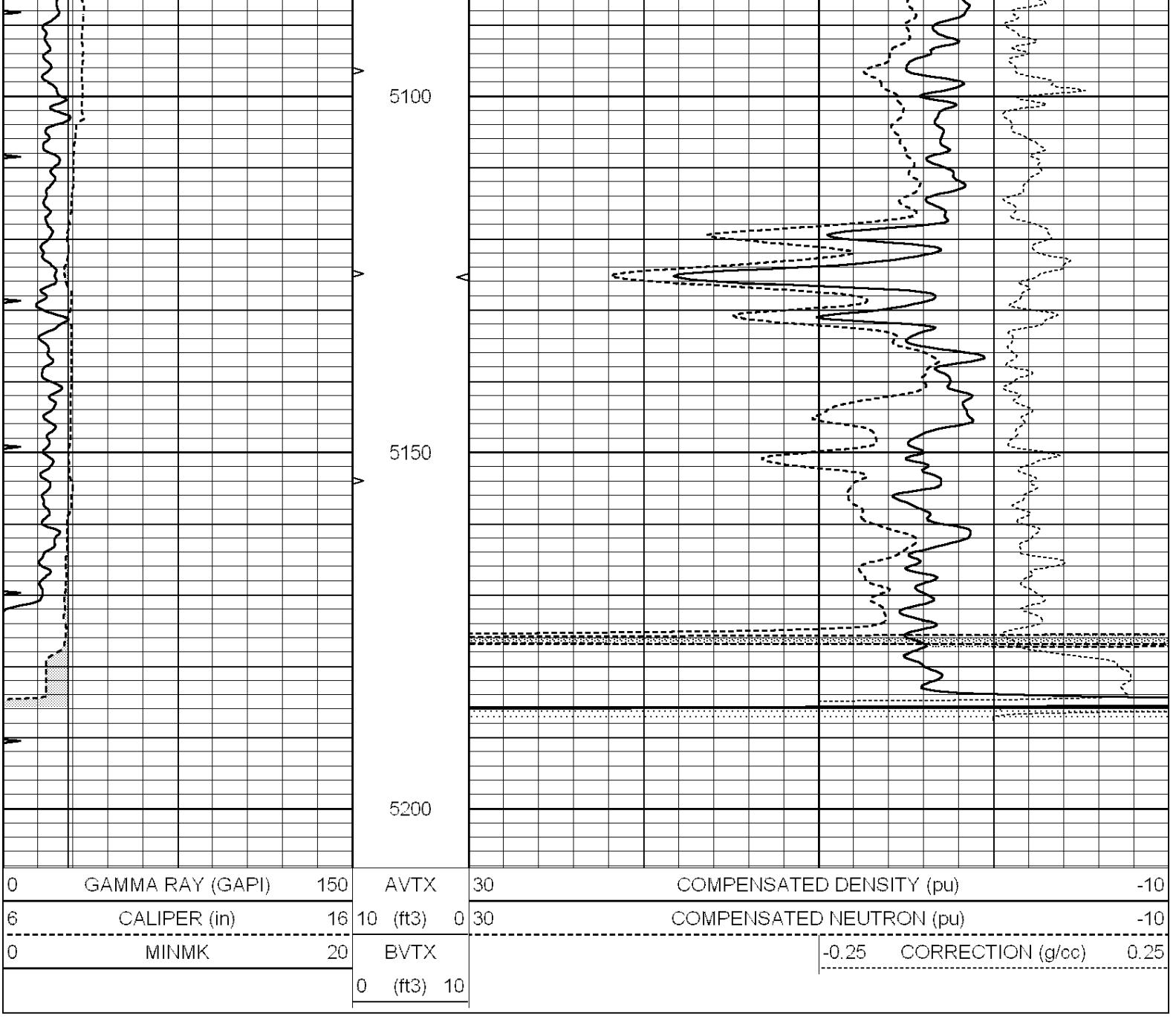
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REPEAT SECTION

Database File: 008660ddn.db
Dataset Pathname: pass2.1
Presentation Format: _den_neu
Dataset Creation: Thu Dec 29 01:16:39 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: 008660ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Thu Dec 29 01:16:39 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	2.610	V	0.000	428.000	mmho/m	207.135	-7.259

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: Sat Jul 16 17:35:04 2011

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	2.25	V
Large Ring	14.00	in	4.37	V

Compensated Neutron Calibration Report

Serial Number: 6I
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: #8
Tool Model: OPEN
Performed: Mon Jun 13 16:56:43 2011

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 175.0 cps

Sensitivity: 0.8371 GAPI/cps