



**SUPERIOR
Hays,
Kansas**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company LOTUS OPERATING COMPANY, LLC.
Well ROSE #3
Field STRANATHAN
County BARBER State KANSAS

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Well ROSE #3
Field STRANATHAN
County BARBER
State KANSAS

Location: API #: 15-007-23921
50' S OF
E/2 - NE - SE
SEC 25 TWP 34S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1404
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
SONIC/MEL
Elevation
K.B. 1417
D.F.
G.L. 1404

Date	8-8-12
Run Number	ONE
Depth Driller	5425
Depth Logger	5426
Bottom Logged Interval	5402
Top Log Interval	3600
Casing Driller	1140
Casing Logger	1140
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.5 / 48
pH / Fluid Loss	9.0 / 11.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.75 @ 86F
Rmf @ Meas. Temp	0.56 @ 86F
Rmc @ Meas. Temp	0.90 @ 86F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.500 @ 129F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	11:45 A.M.
Maximum Recorded Temperature	129F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	TIM HELLMAN

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: MEDICINE LODGE, S TO HAWKINS RD., 1/2S, W INTO.



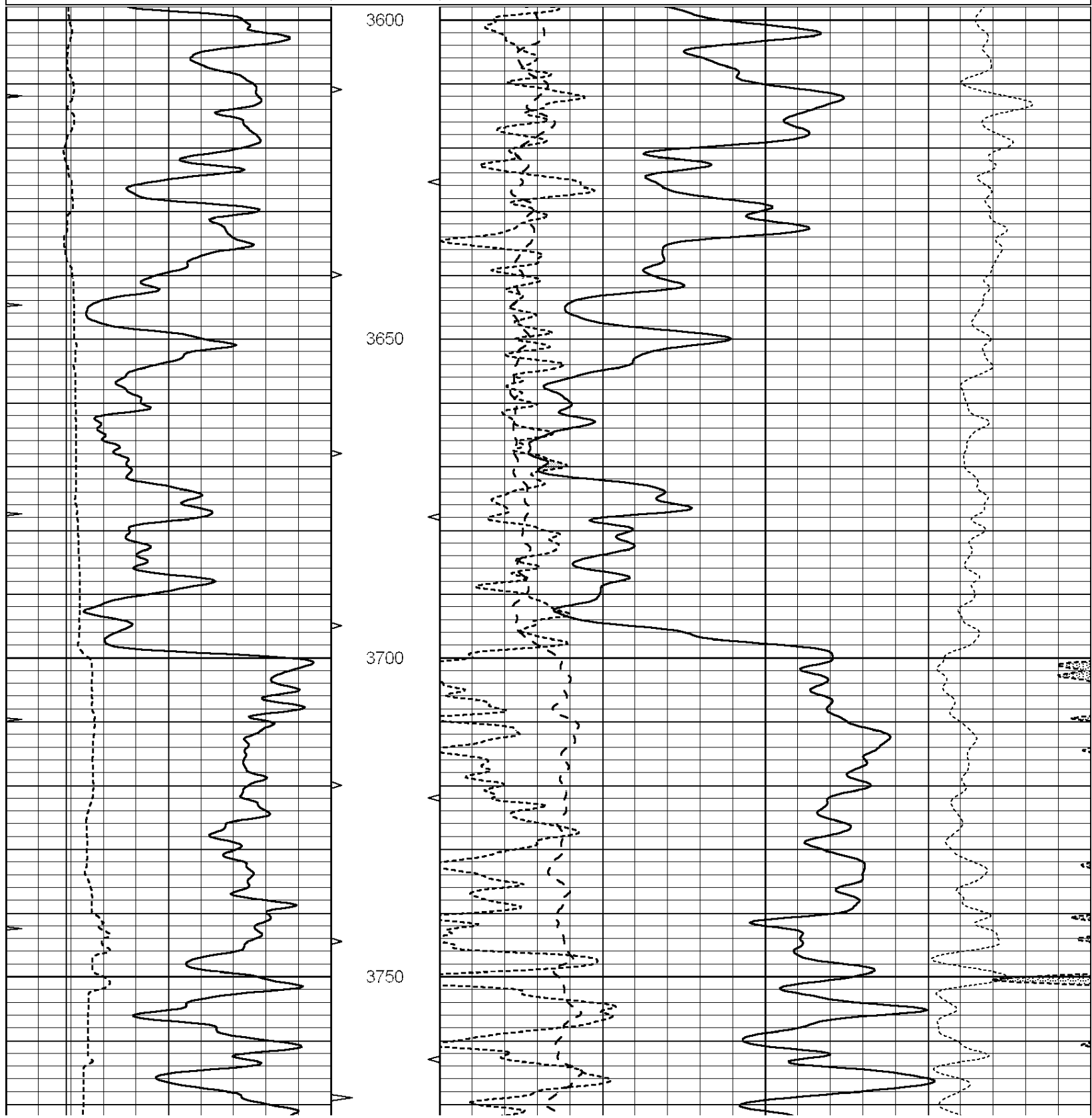
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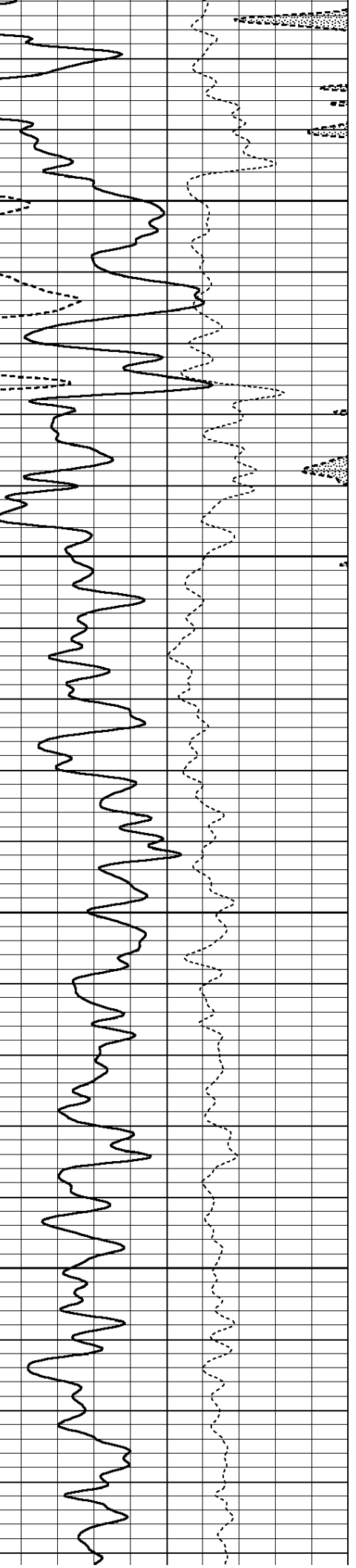
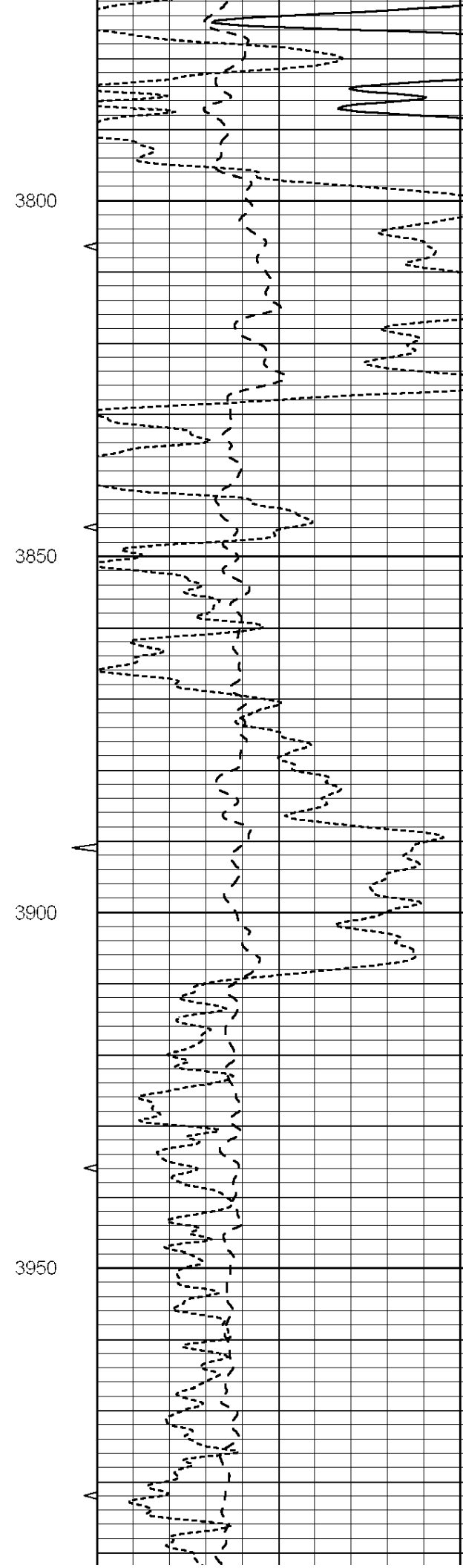
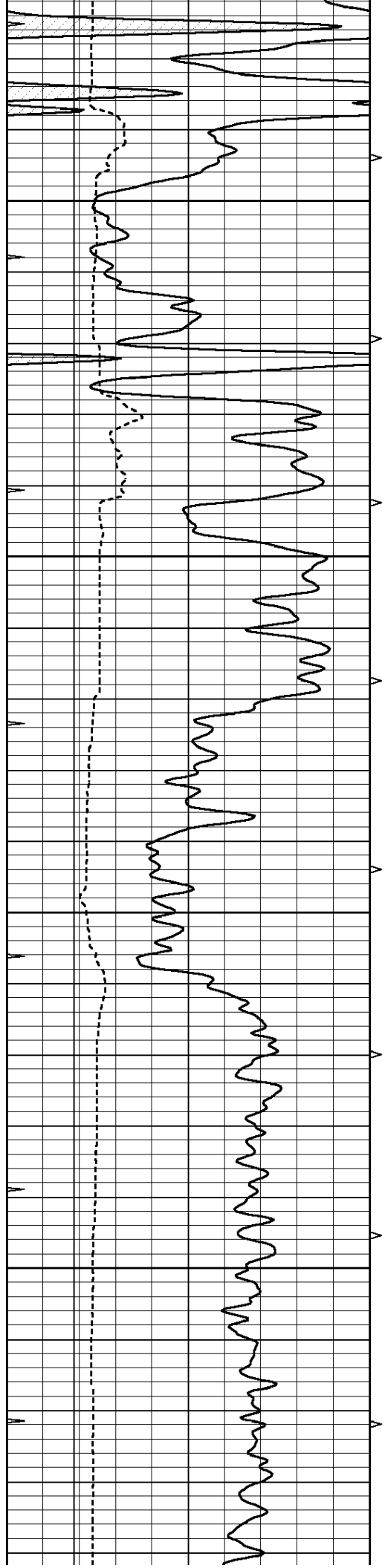
MAIN SECTION

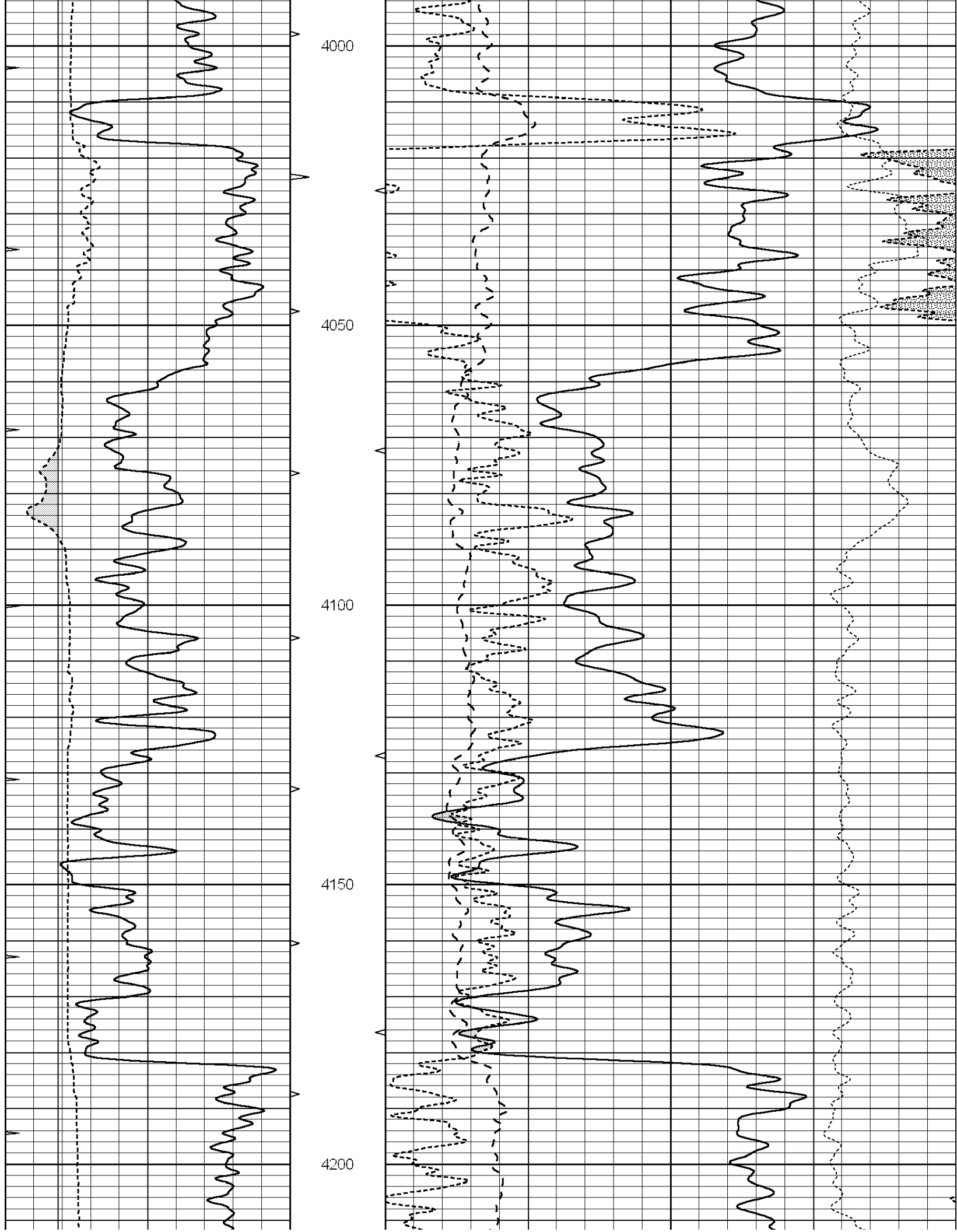


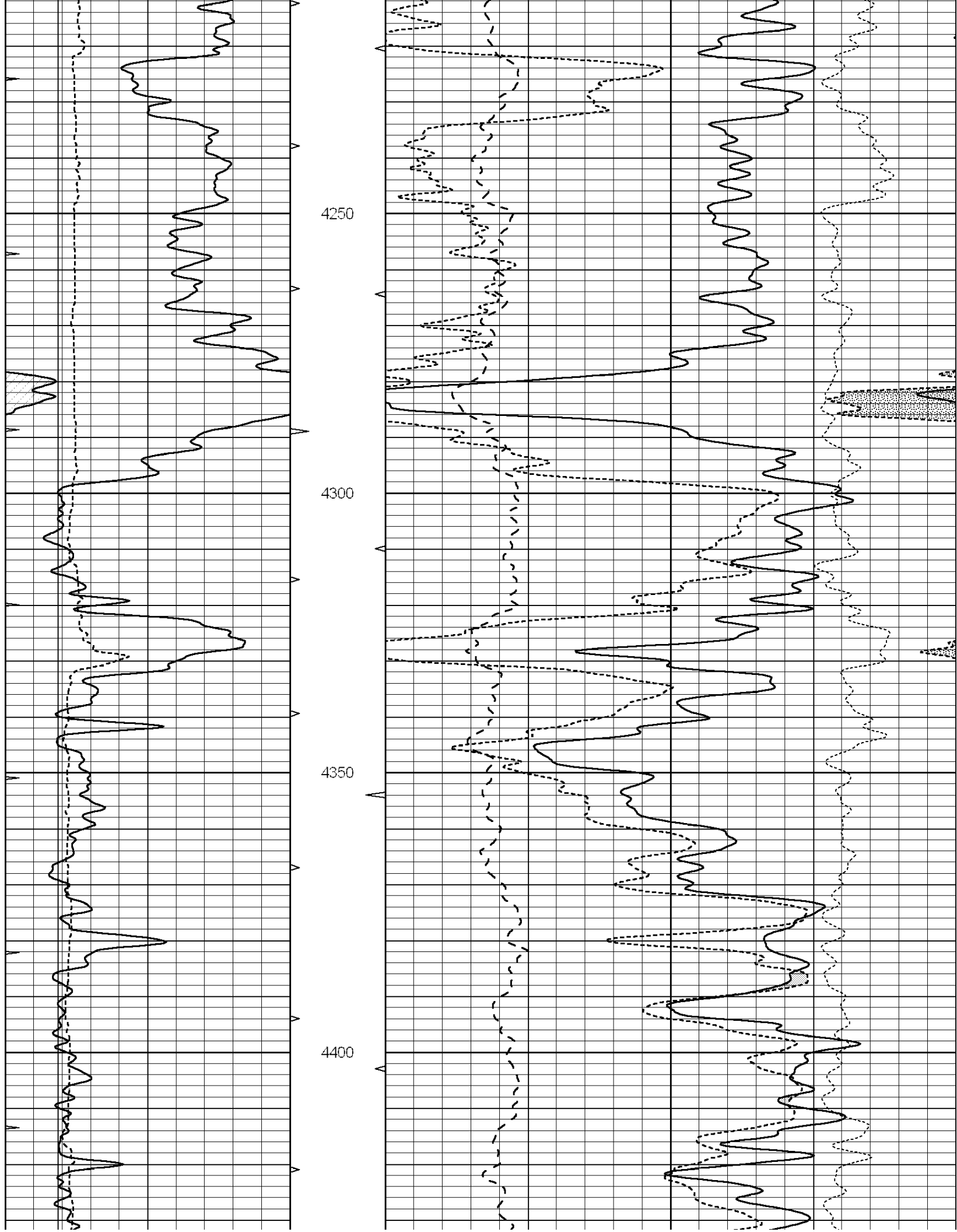
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 Presentation Format: ldt_neu
 Dataset Creation: Wed Aug 08 14:30:03 2012
 Charted by: Depth in Feet scaled 1:240

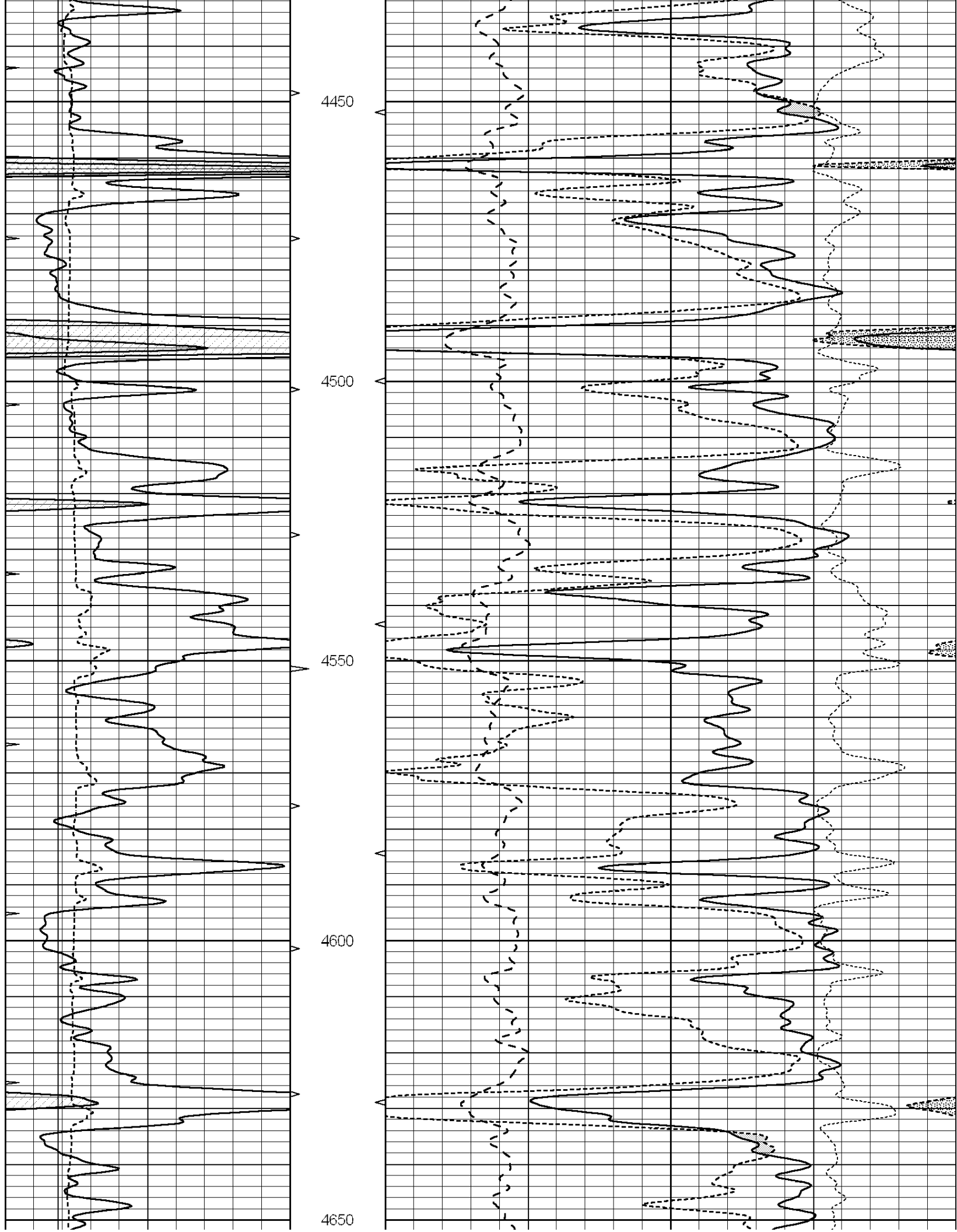
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6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			

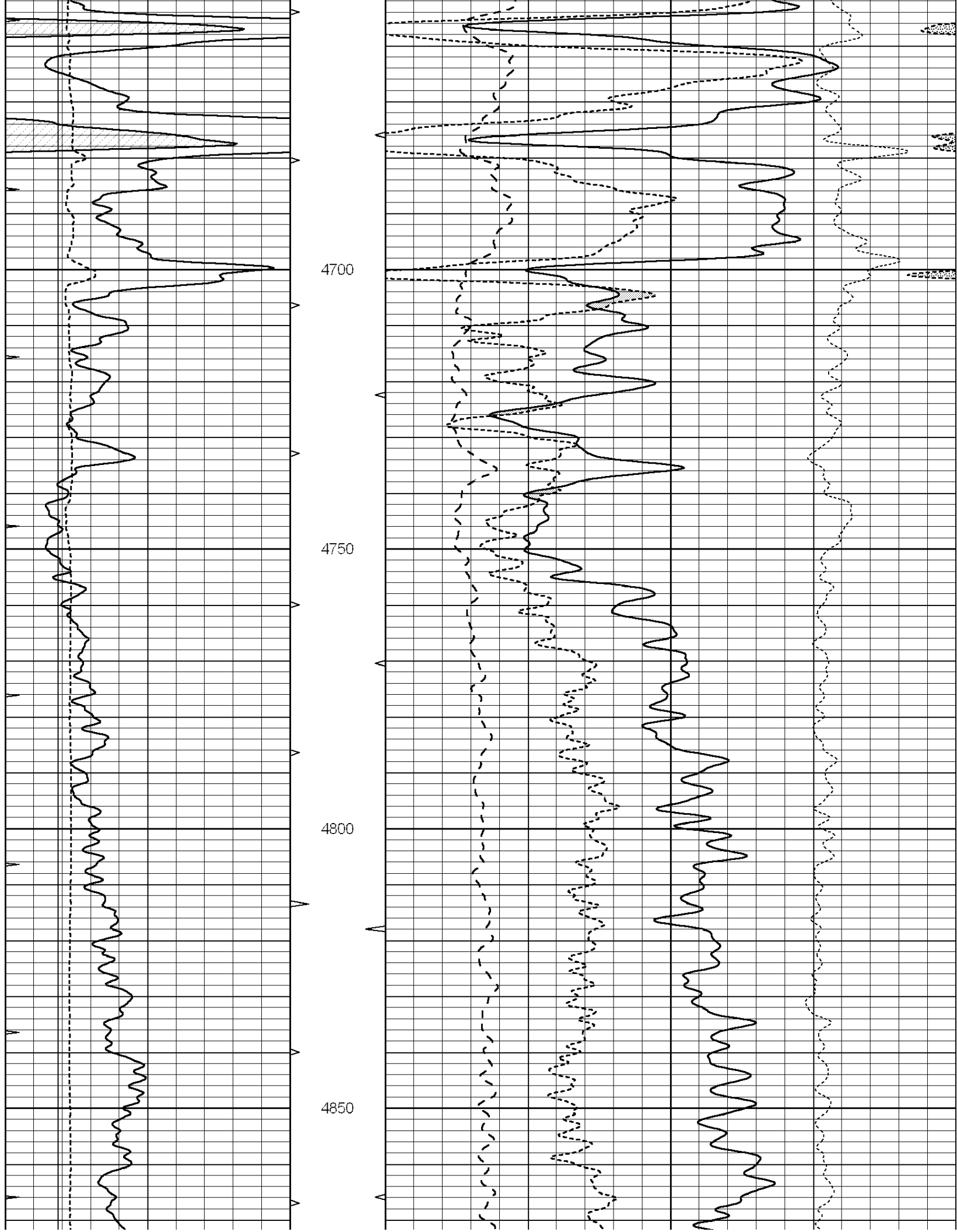


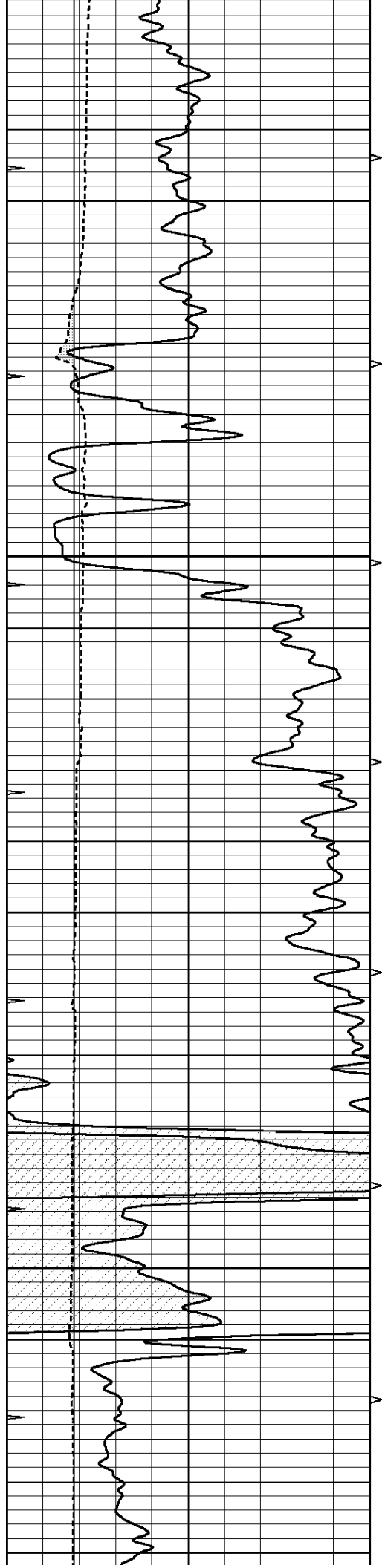










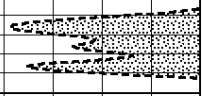
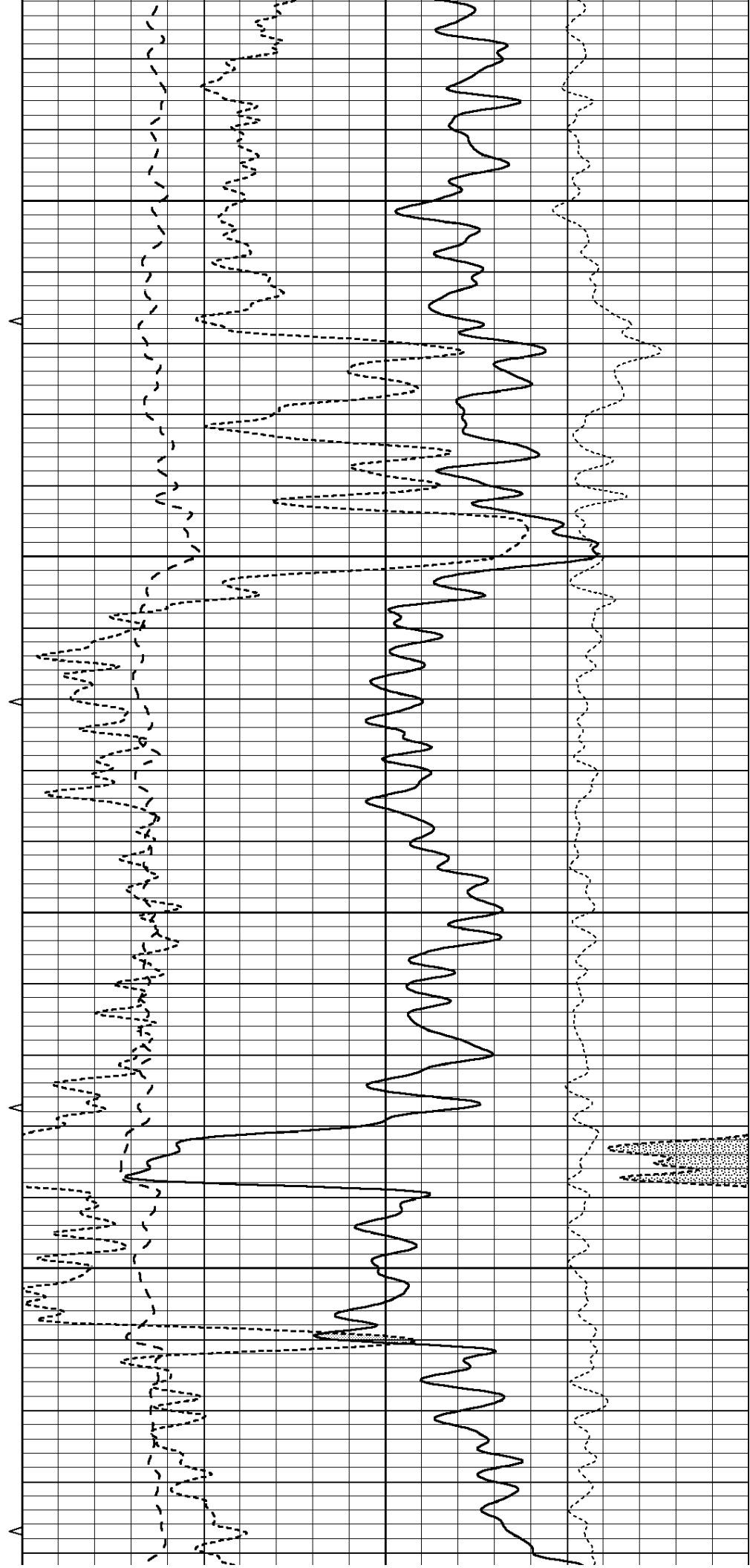


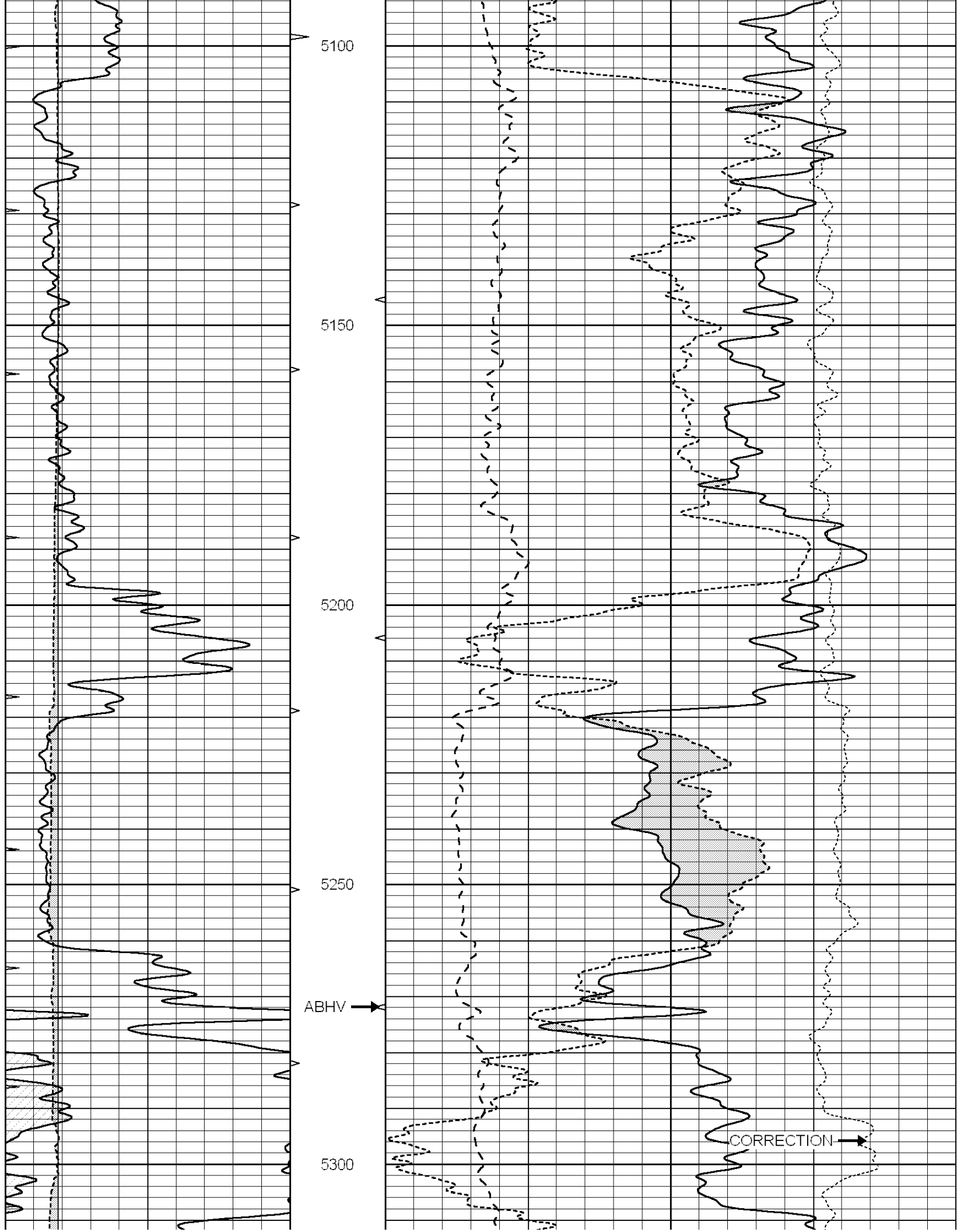
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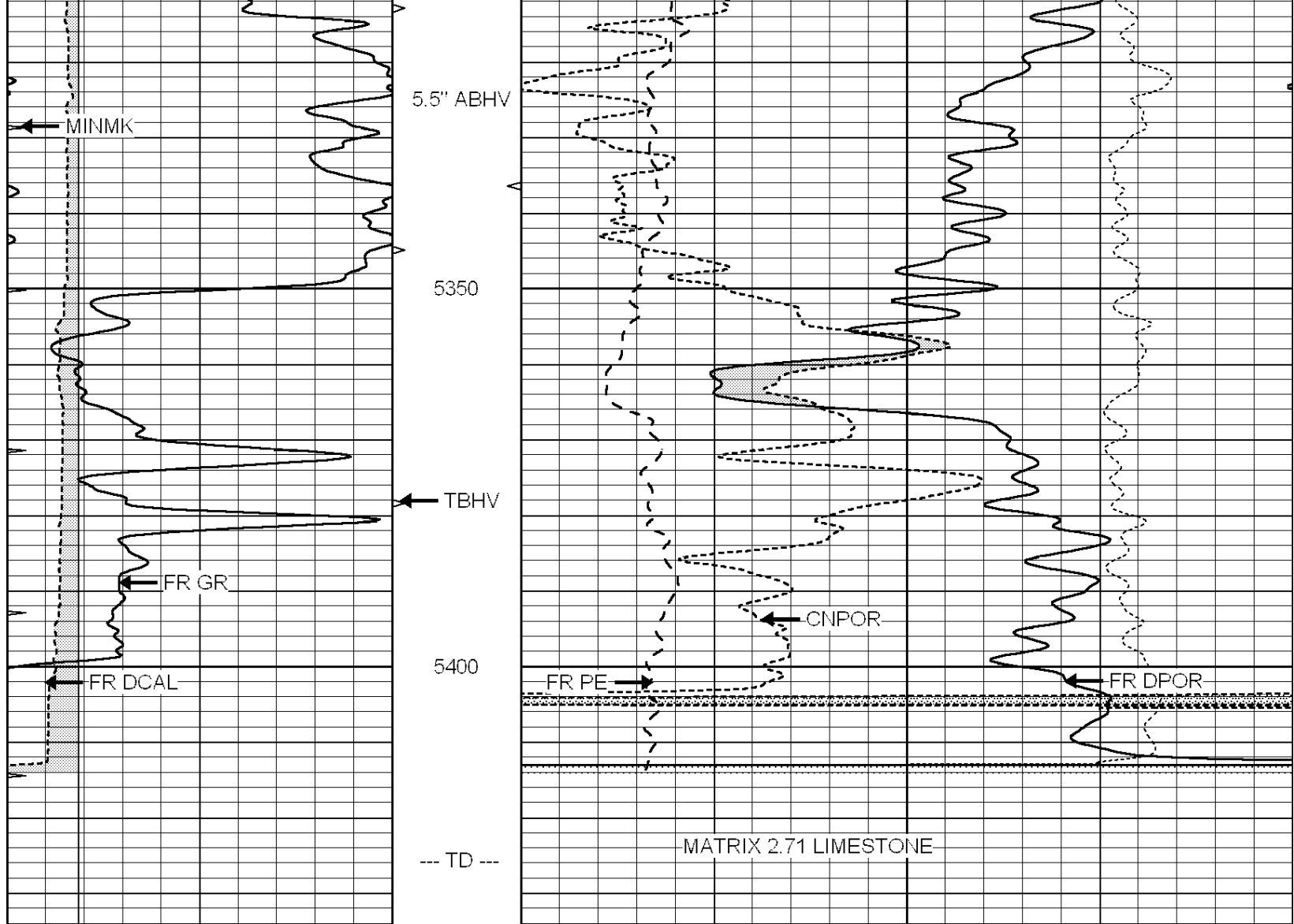
4950

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5050







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	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		

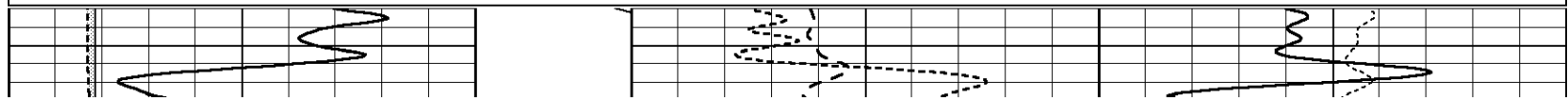


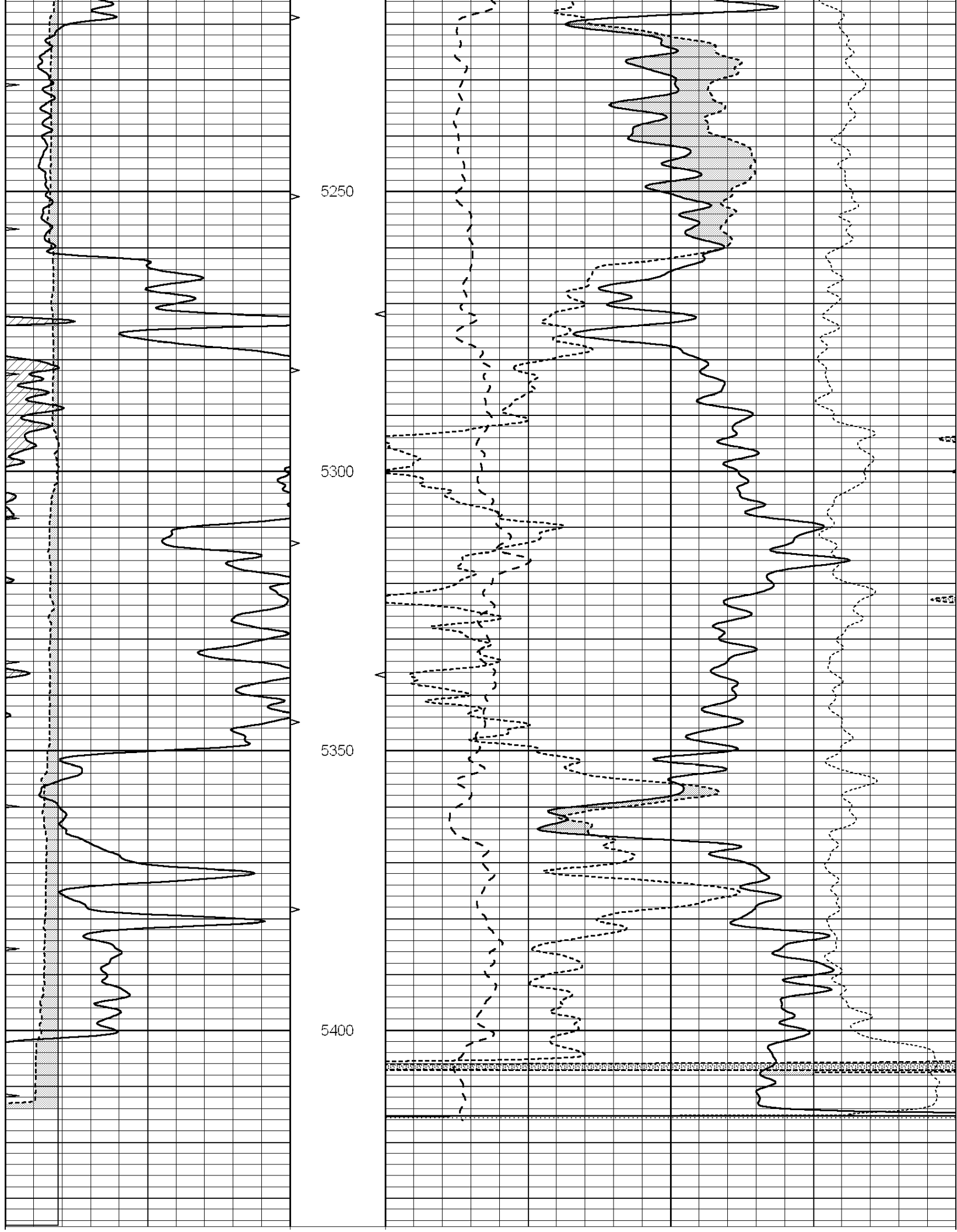
SUPERIOR
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REPEAT SECTION

Database File: 009571pdn.db
 Dataset Pathname: pass2.2
 Presentation Format: ldt_neu
 Dataset Creation: Wed Aug 08 14:38:01 2012
 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	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		





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	PE	10	-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10				

Calibration Report

Database File: 009571pdn.db
 Dataset Pathname: pass3.3
 Dataset Creation: Wed Aug 08 14:30:03 2012

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Wed Aug 08 11:44:05 2012

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	490.000	-12.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	530.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Litho Density Calibration Report

Serial: 002 Model: PRB
 Performed Mon Apr 02 17:56:53 2012

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	872.3	7266.3	2292.6	7931.5	cps
Window 2	822.9	5957.5	1958.0	6389.6	cps
Window 3	670.4	3219.9	1211.9	3388.2	cps
Window 4	201.6	201.1	202.3	204.6	cps
Long Space	0.0	5134.6	1135.0	5566.6	cps
Short Space	1.1	994.2	674.4	1059.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.6	Rib Slope	: 1.020	Density/Spine Ratio	: 0.569
Spine Angle	: 75.6	Spine Slope	: 3.888	Spine Intercept	: -18.3

Caliper

	Readings	Reference
Low Ref	2.0	7.5
High Ref	3.0	12.0
	Gain: 4.5	Offset: -1.5

Compensated Neutron Calibration Report

Serial Number: NUE_2I
 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: GR2
Tool Model: OPEN
Performed: Wed Aug 08 12:25:11 2012

Calibrator Value: 200.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 740.0 cps

Sensitivity: 0.7500 GAPI/cps