COMPENSATED DENSITY / NEUTRON PE LOG

Company RED OAK ENERGY, INC.
Well PWAB #1-35
Field LADDER CREEK N.W.
County WALLACE State KANSAS

Location: API # : 15-199-20438-0000
2480' FNL & 2442' FWL
SE - SE - SE - NW
SEC 35 TWP 14S RGE 41W

Other Services: DIL

Permanent Datum	GROUND LEVEL	Elevation 3775	Elevation K.B. 3786
Log Measured From	KELLY BUSHING 11' A.G.L.		D.F. 3784
Drilling Measured From	KELLY BUSHING		G.L. 3775

Date	12/14/16		
Run Number	ONE		
Depth Driller	5170		
Depth Logger	5171		
Bottom Logged Interval	5147		
Top Log Interval	3800		
Casing Driller	8 5/8"@506'		
Casing Logger	506		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,000 PPM	
Density / Viscosity	9.3/55		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.500@50F		
Rmf @ Meas. Temp	.375@50F		
Rmc @ Meas. Temp	.600@50F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.197@127F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	12:30 P.M.		
Maximum Recorded Temperature	127F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	SEAN DEENIHAN	KEVIN DAVIS	SCOTT BANKS

<<< Fold Here >>>

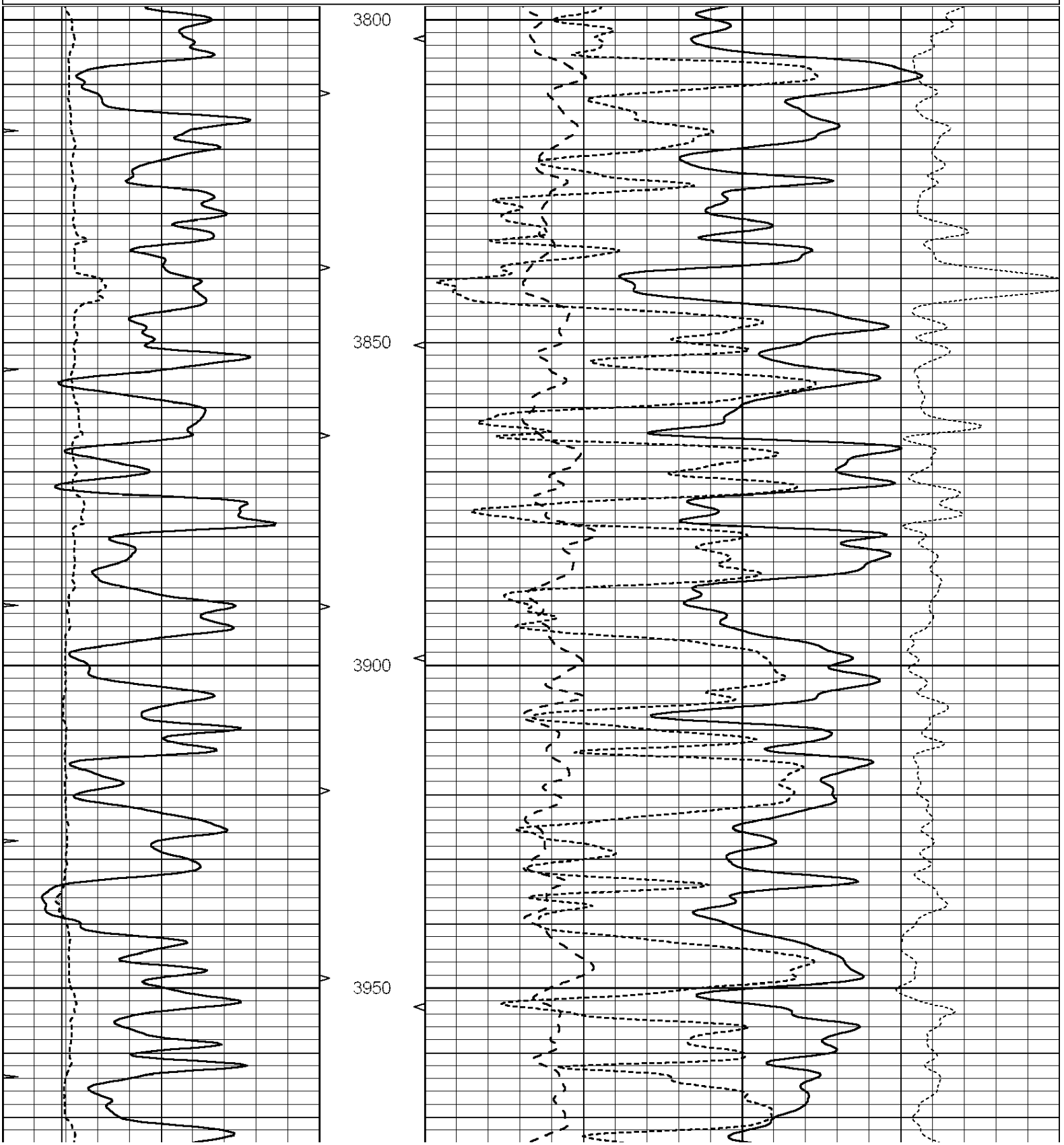
Comments

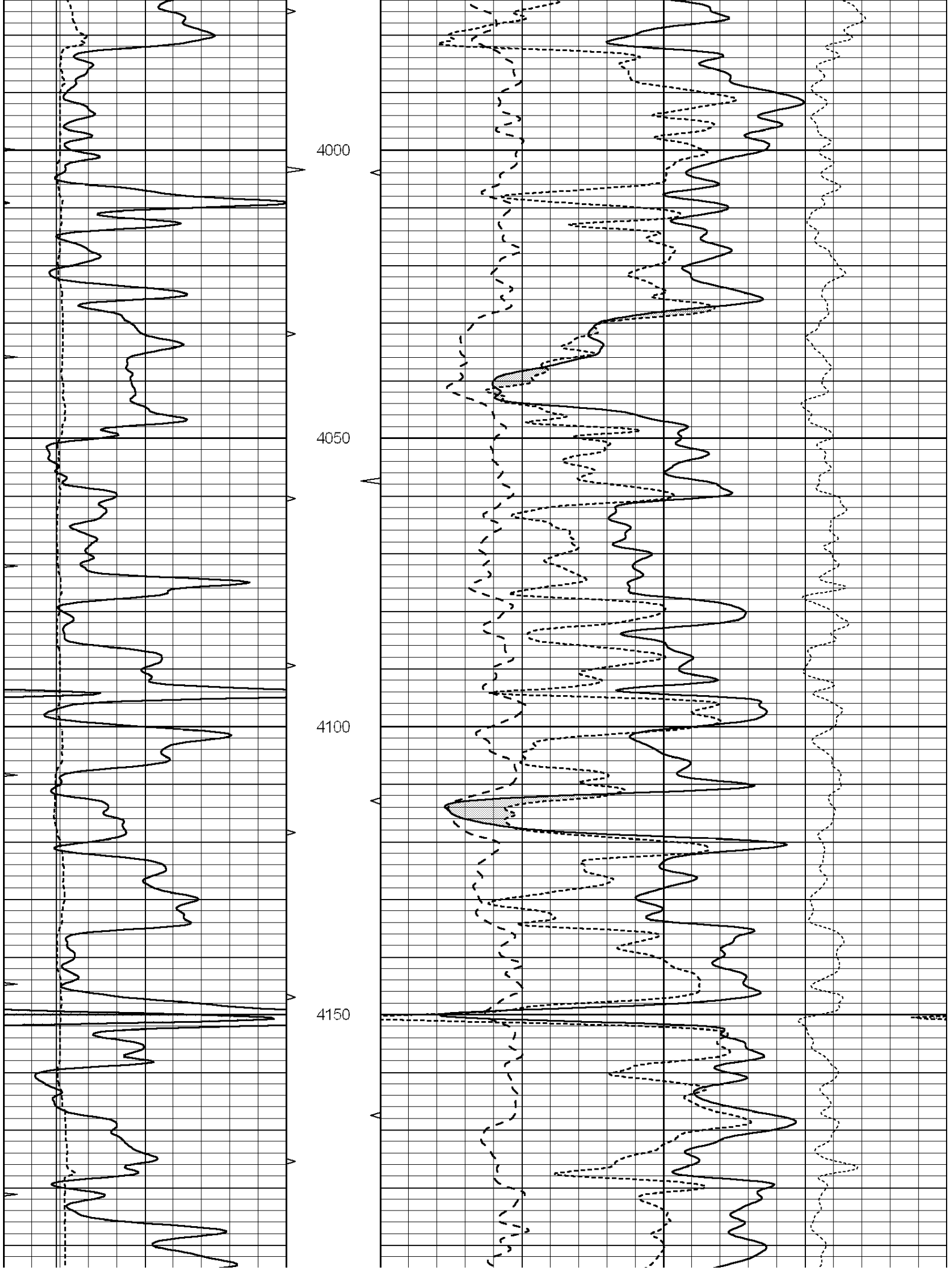
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
SHARON SPRINGS, KS., 8S. ON HWY 27 TO "GOOSEBERRY RD.", 5 1/4W., N. INTO

MAIN SECTION

Database File:	1335pe.db
Dataset Pathname:	pass3.8
Presentation Format:	ldt_neu
Dataset Creation:	Wed Dec 14 14:21:22 2016
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				

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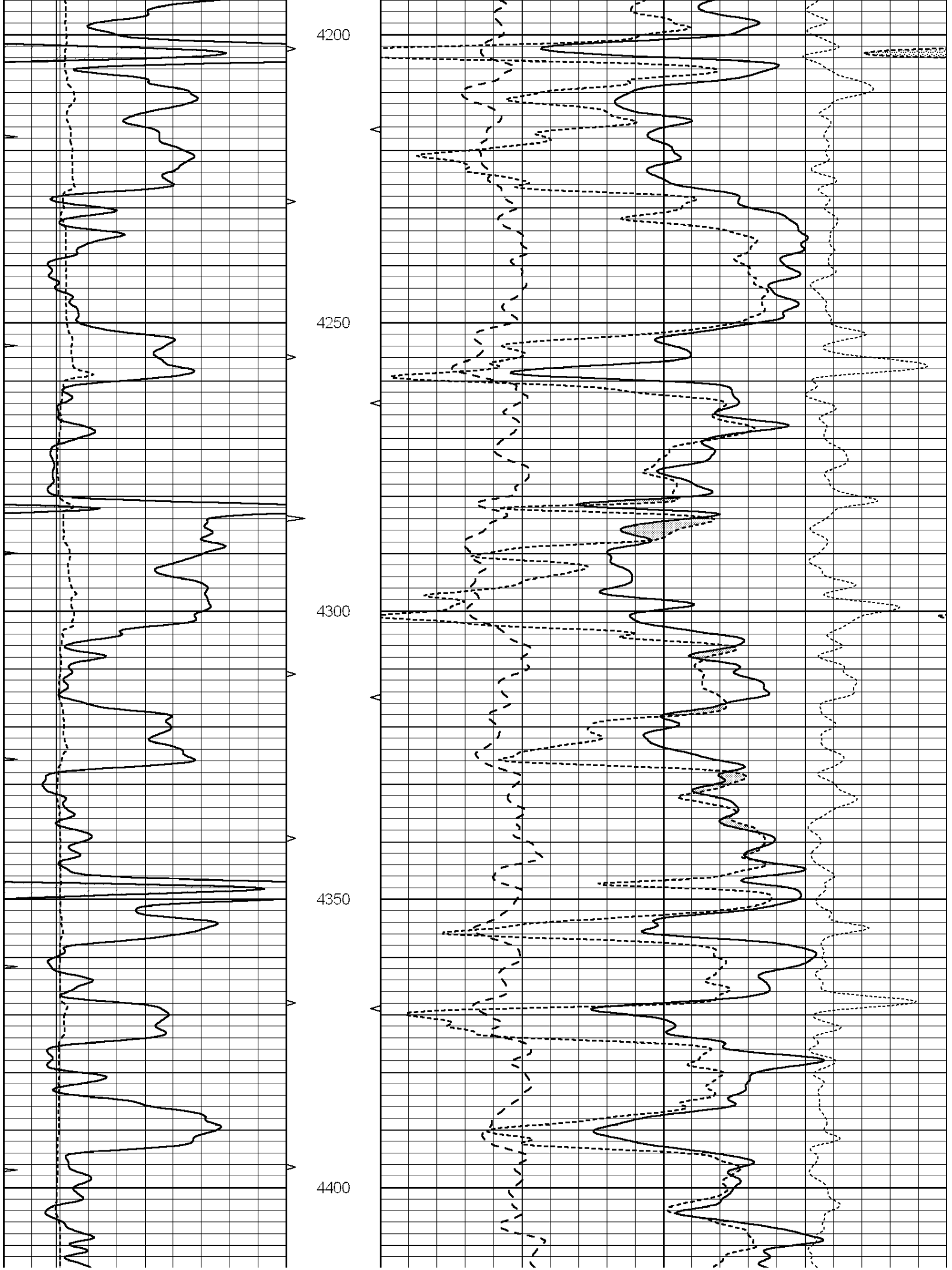
4050
4100
4150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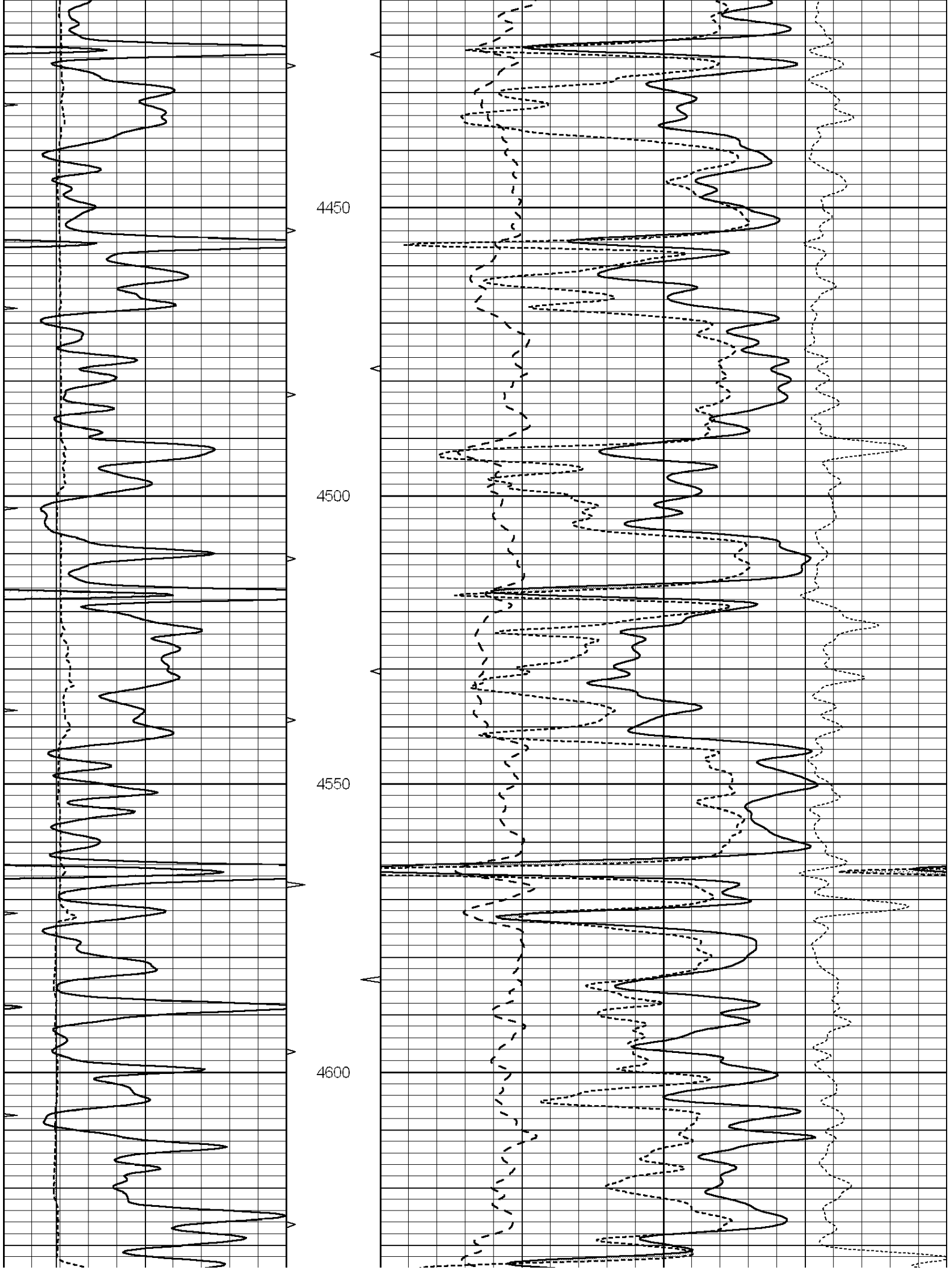
4250
4300
4350
4400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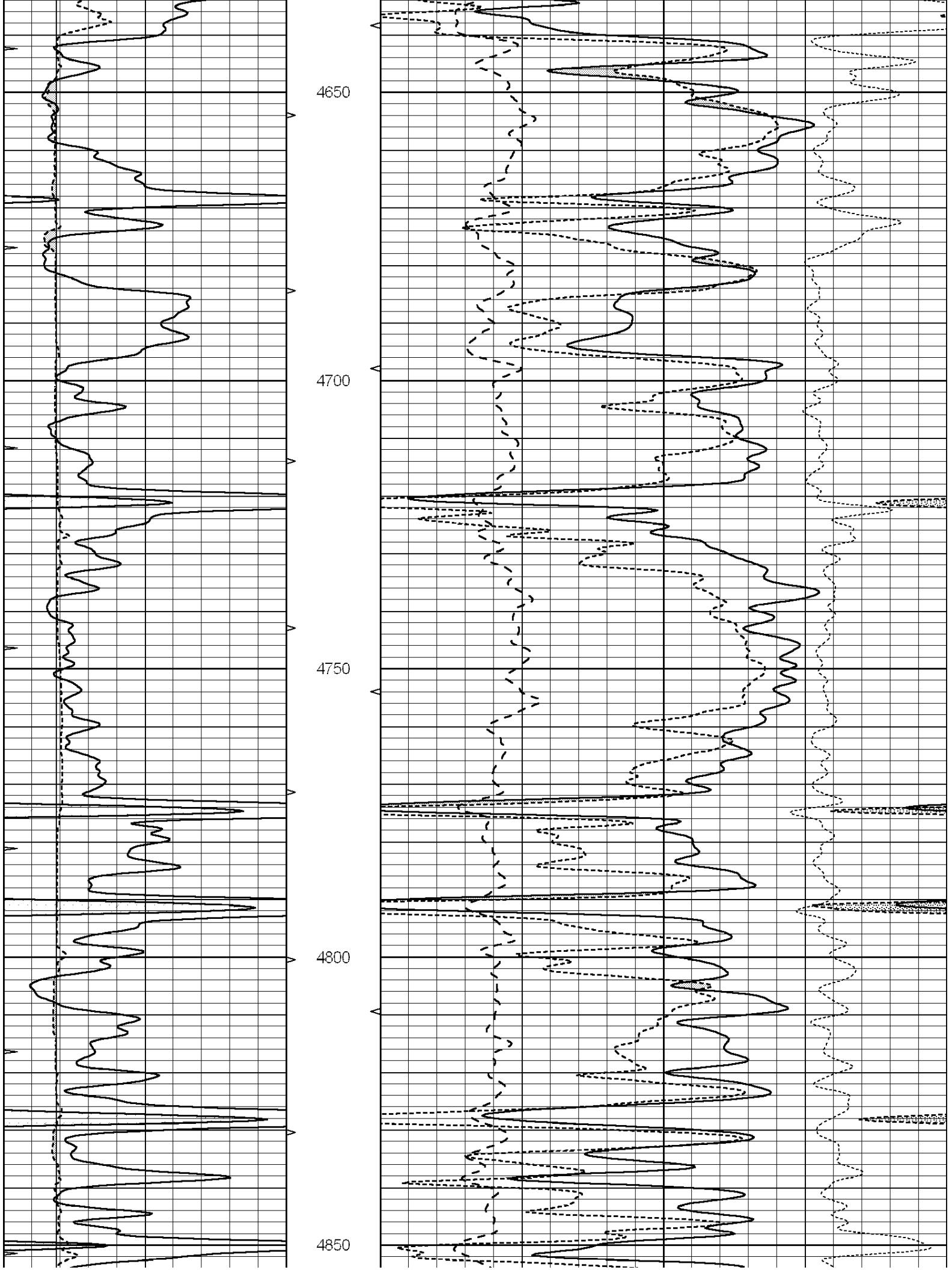
4500
4550
4600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4700
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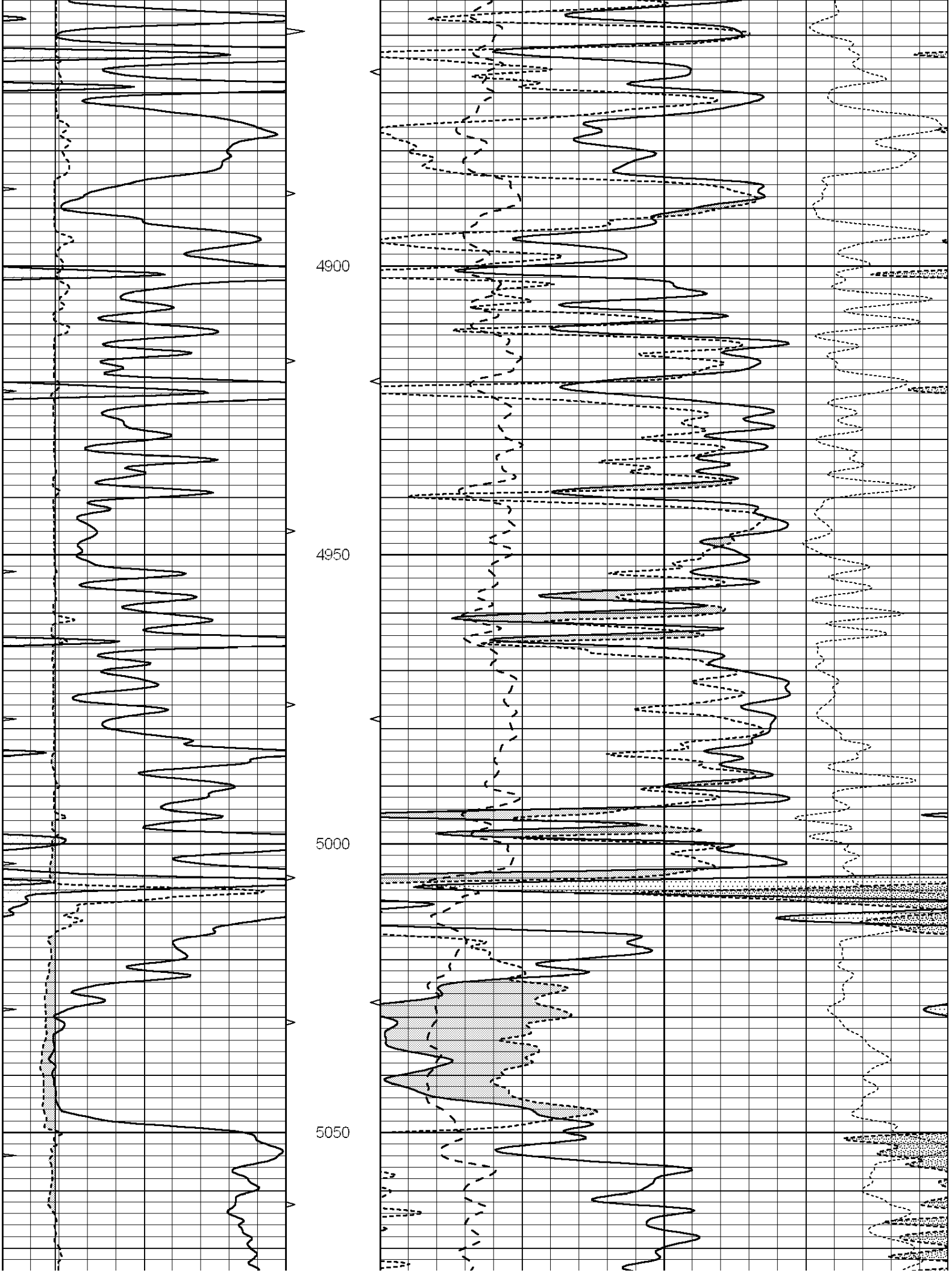
4800
4850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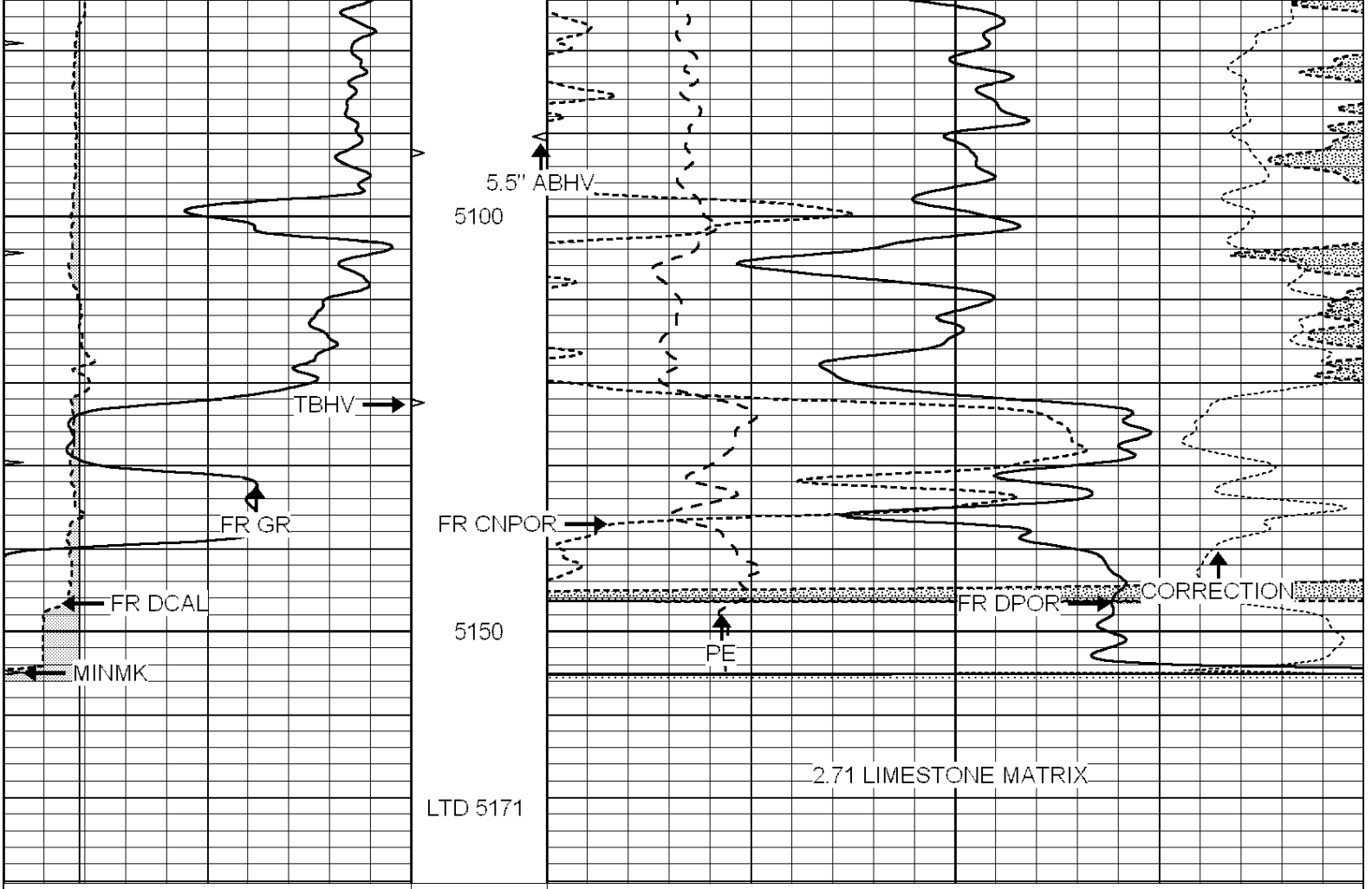
4950
5000
5050

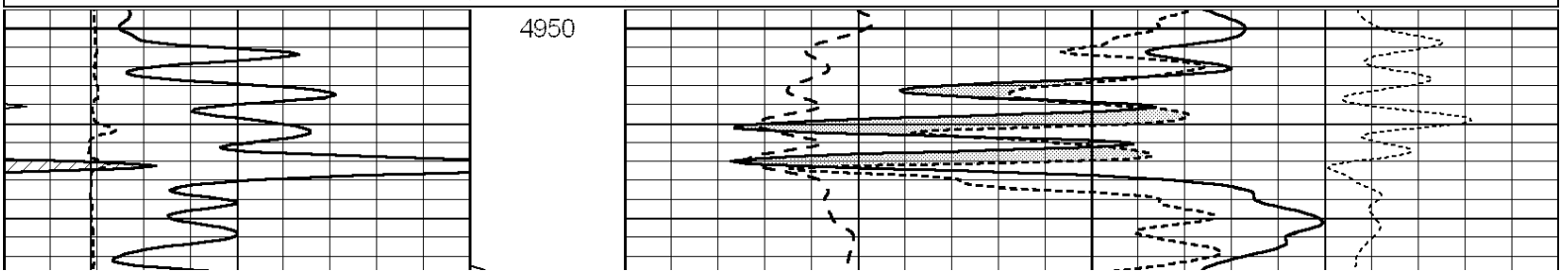


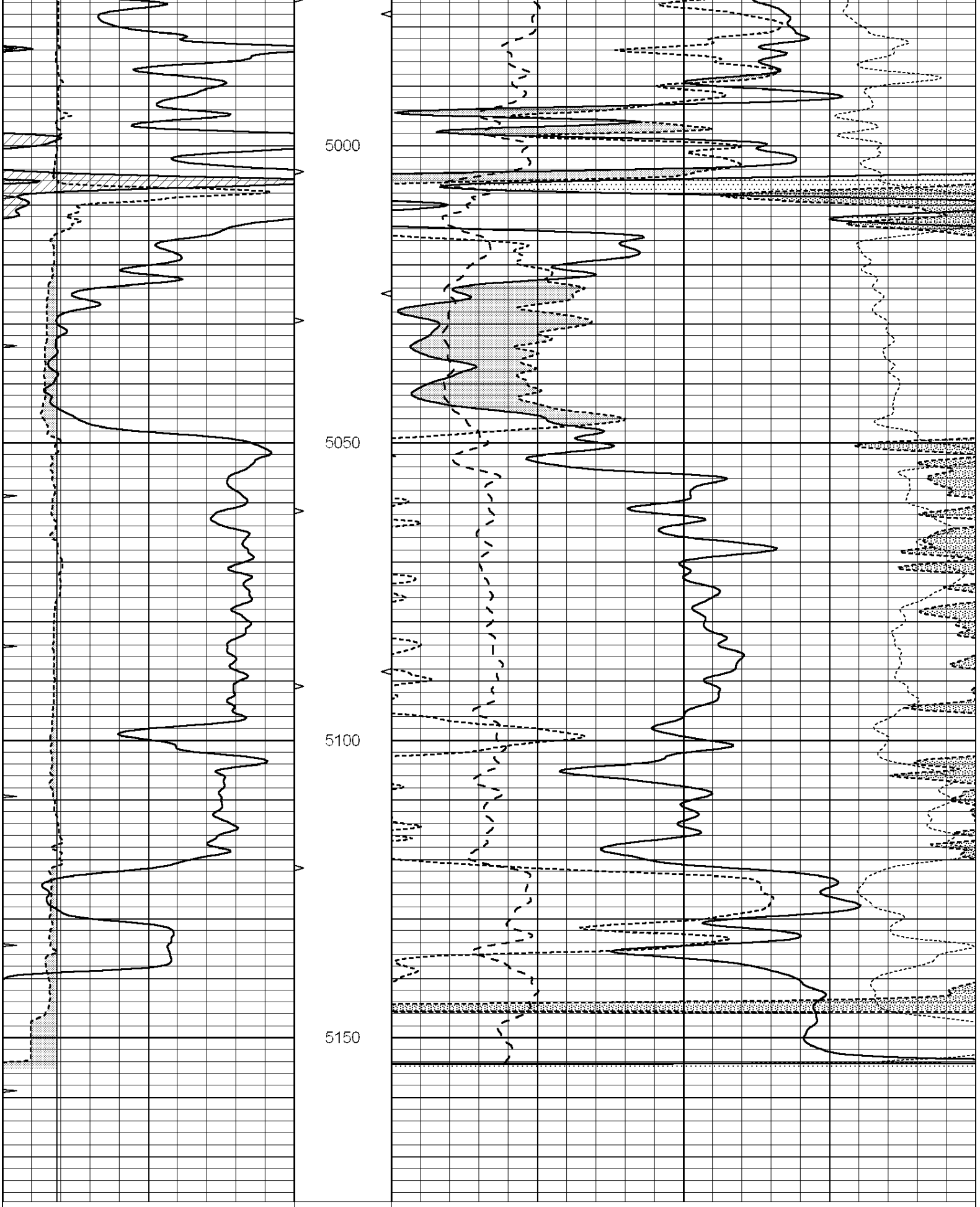
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE 10	-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10				

REPEAT SECTION

Database File: 1335pe.db
Dataset Pathname: pass2.5
Presentation Format: ldt_neu
Dataset Creation: Wed Dec 14 14:15:07 2016 by Calc SOC 120430
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				




5000
5050
5100
5150
0 GAMMA RAY (GAPI) 150
6 CALIPER (in) 16
0 MINMK 20
ABHV
10 (ft3) 0
TBHV
0 (ft3) 10
30 COMPENSATED DENSITY (pu) -10
30 COMPENSATED NEUTRON (pu) -10
0 PE 10
-0.25 CORRECTION (g/cc) 0.25

Calibration Report

Database File: 1335pe.db
Dataset Pathname: pass3.8
Dataset Creation: Wed Dec 14 14:21:22 2016

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Wed Dec 14 12:18:49 2016
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	625.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-54.000
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		

Litho Density Calibration Report

Serial: 004N Model: PRB

Master Calibration

Performed Fri May 30 11:01:00 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1378.8	10804.6	3492.0	12453.4	cps
Window 2	1262.4	9313.5	3076.7	10594.7	cps
Window 3	1077.6	5668.7	2076.0	6314.8	cps
Window 4	306.4	313.0	306.4	315.6	cps
Long Space	0.0	8051.0	1814.3	9332.3	cps
Short Space	1.9	1706.1	1146.0	1707.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	

Rib Angle	: 45.0	Rib Slope	: 1.002	Density/Spine Ratio	: 0.571
Spine Angle	: 75.0	Spine Slope	: 3.745	Spine Intercept	: -18.9

Before Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070558
Tool Model: OPEN_GR
Performed: Mon Aug 22 01:00:15 2016

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps