SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company RITCHIE EXPLORATION, INC.

Well #1 HESS UNIT

Field WILDCAT

County GOVE State KANSAS

Location: API # : 15-063-21781-0000

1600' FSL & 51' FEL
SE - NE - SE

SEC 20 TWP 13S RGE 31W

Other Services
CDL/CNL

Elevation
K.B. 2886
D.F. 2884
G.L. 2877

Permanent Datum GROUND LEVEL Elevation 2877
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING

Company RITCHIE EXPLORATION, INC.
Well #1 HESS UNIT
Field WILDCAT
County GOVE
State KANSAS

Date	6/26/09		
Run Number	ONE		
Depth Driller	4577		
Depth Logger	4580		
Bottom Logged Interval	4578		
Top Log Interval	00		
Casing Driller	8 5/8"@232'		
Casing Logger	230		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7,200 PPM	
Density / Viscosity	9.0/70		
pH / Fluid Loss	10.0/7.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.500@99F		
Rmf @ Meas. Temp	.375@99F		
Rmc @ Meas. Temp	.600@99F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.409@121F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	1:45 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	MIKE ENGELBRECHT		

<<< Fold Here >>>

Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395

DIRECTIONS

OAKLEY, KS. 11S. ON HWY 83 TO GOVE RD., 3E., 4S., 1E., N. INTO

MAIN SECTION

SUPERIOR
Hays,
Kansas

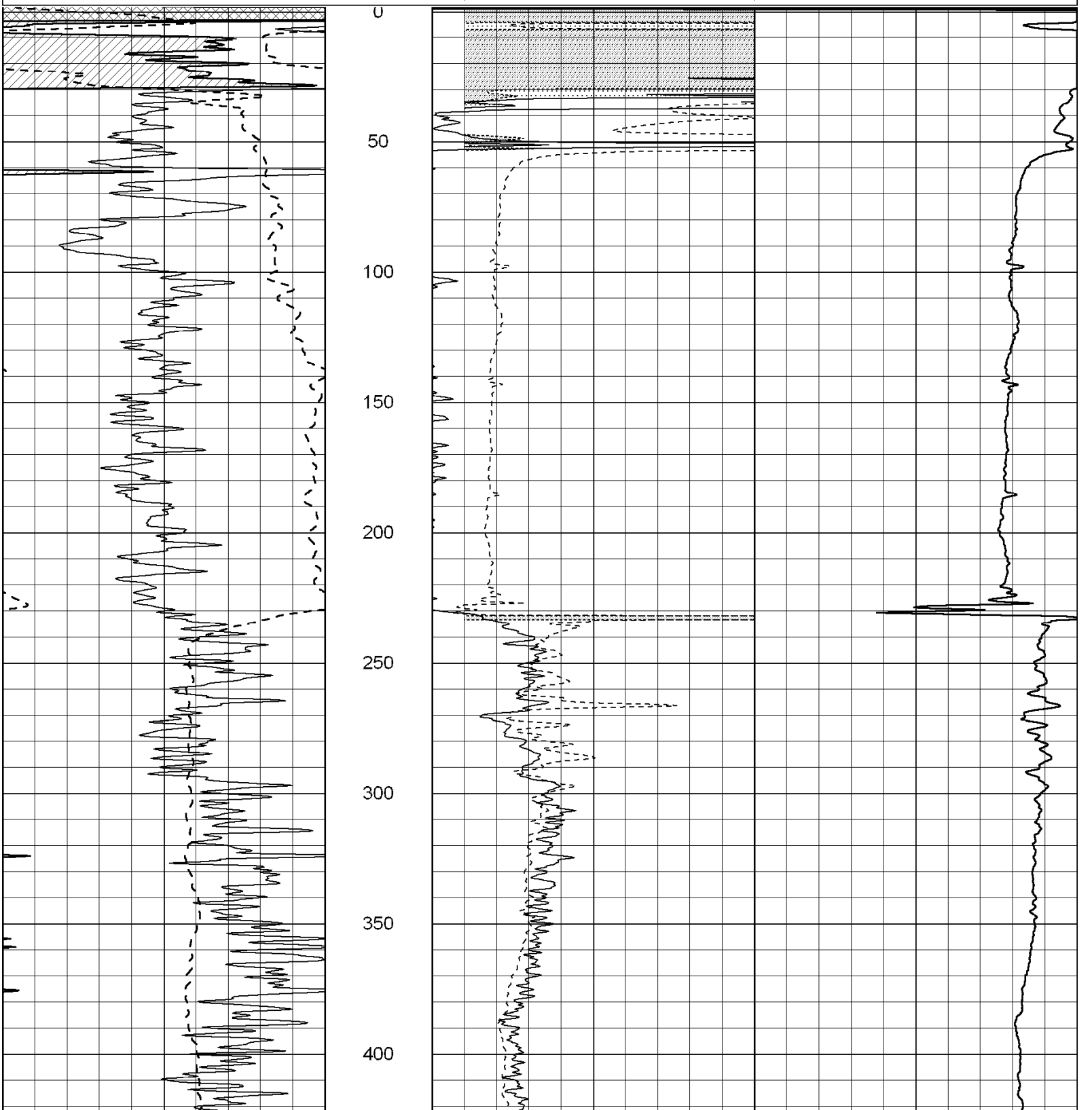
SUPERIOR WELL SERVICES

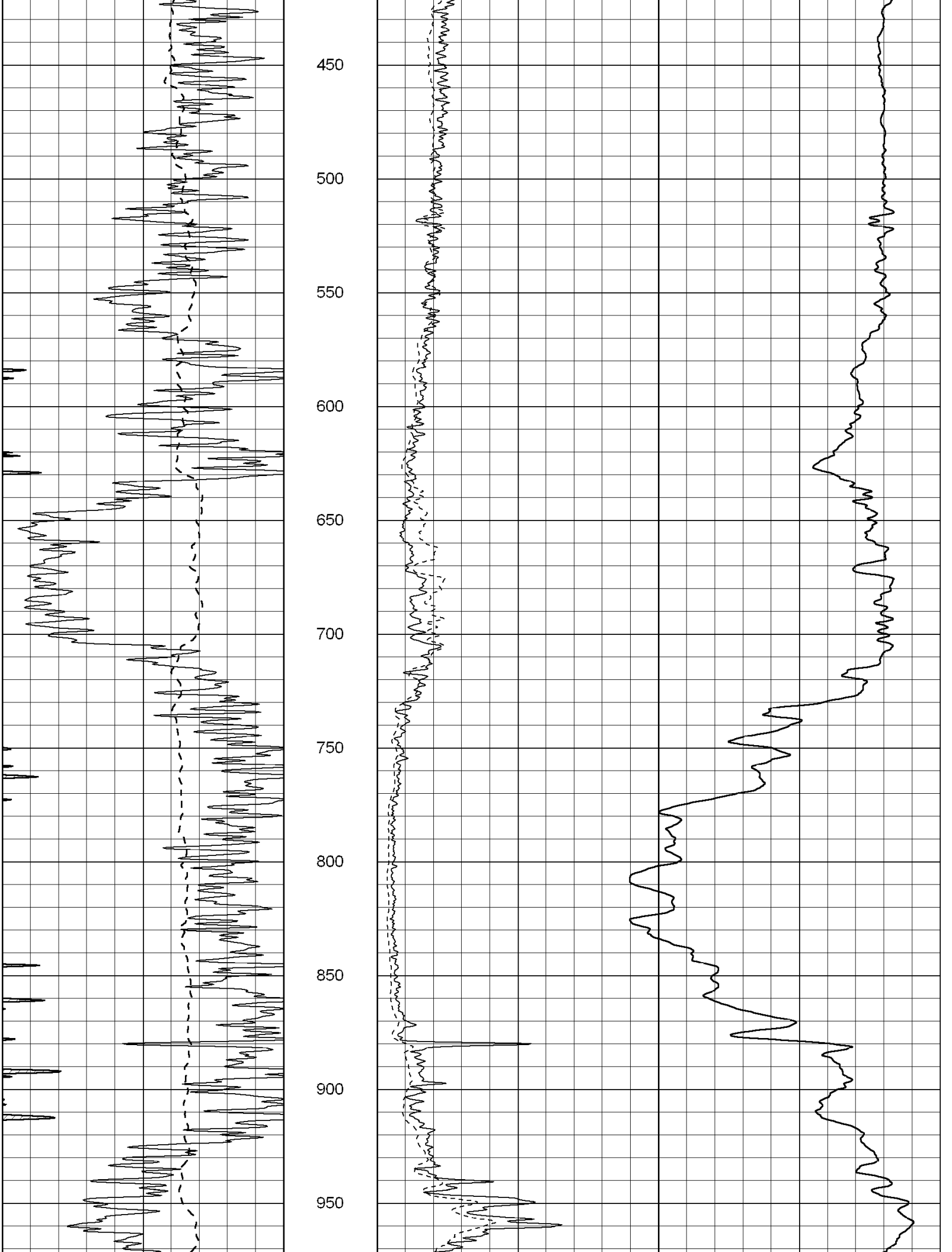
Kansas

Database File:	003528ddn.db
Dataset Pathname:	pass4.7
Presentation Format:	dil2
Dataset Creation:	Fri Jun 26 15:03:48 2009 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

0	*RLL3 (Ohm-m)*	50
0	*RILD (Ohm-m)*	50
1000	*CILD (mmho-m)*	0
50	*RILD X10 (Ohm-m)*	500
50	*RLL3 X10 (Ohm-m)*	500

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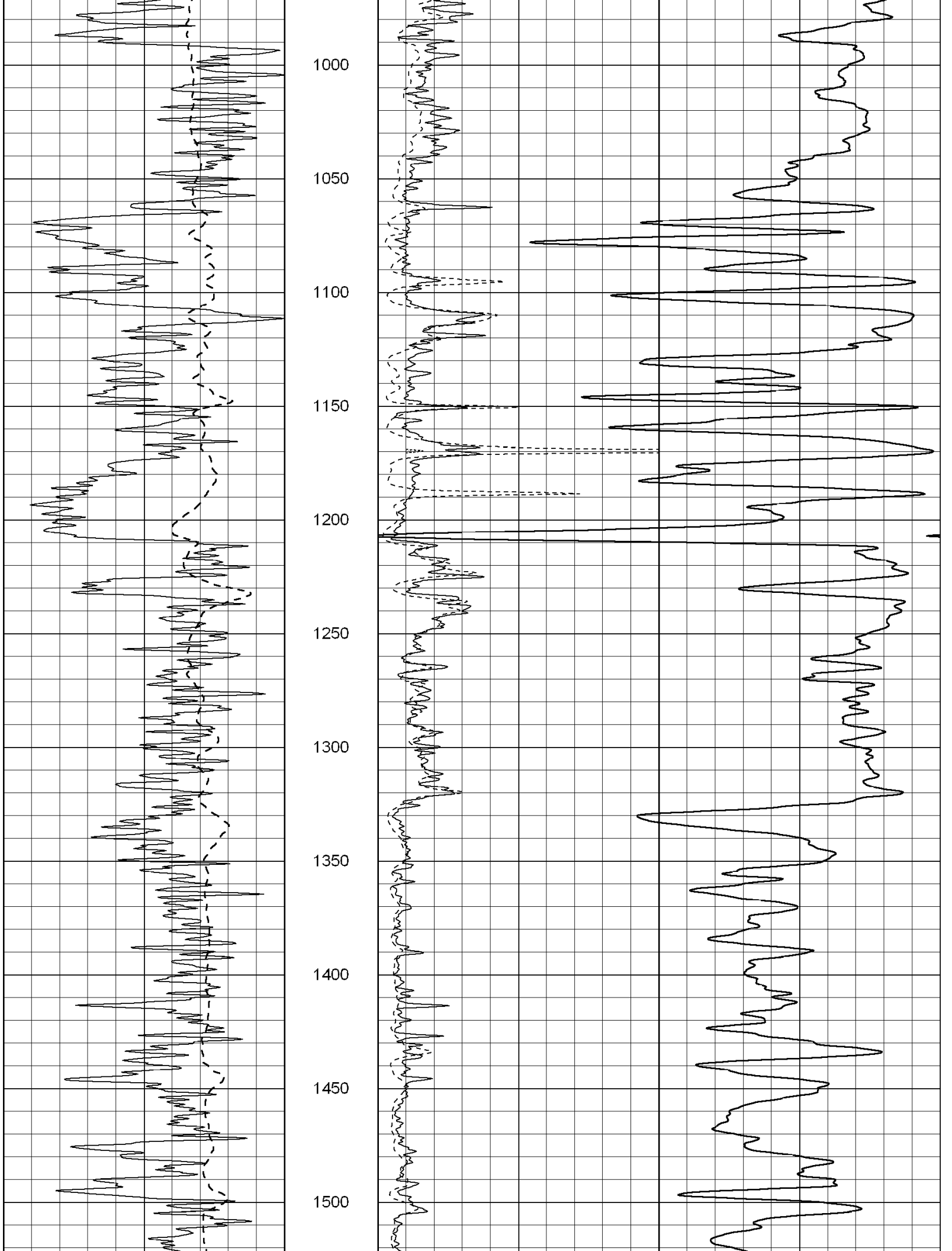
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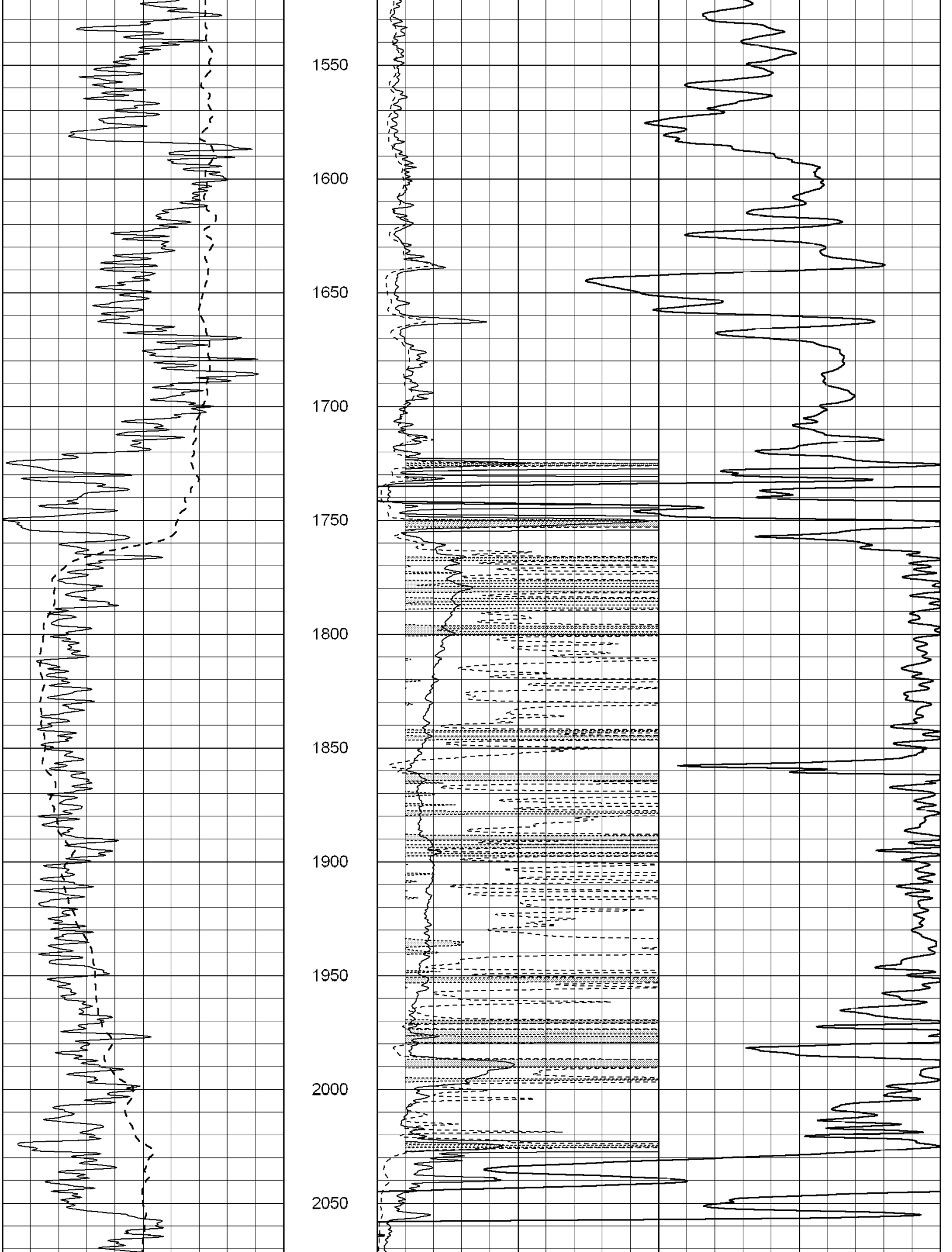
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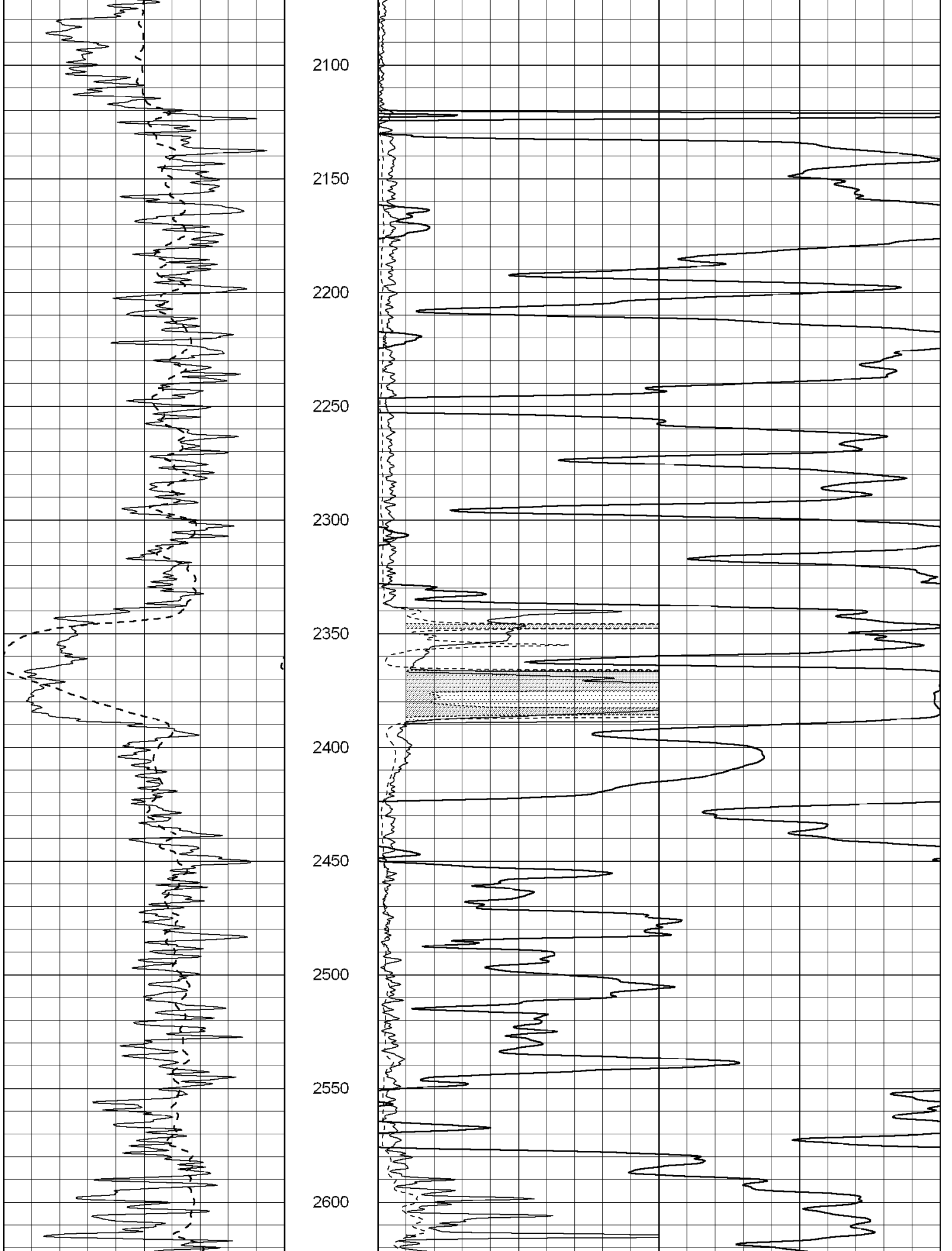
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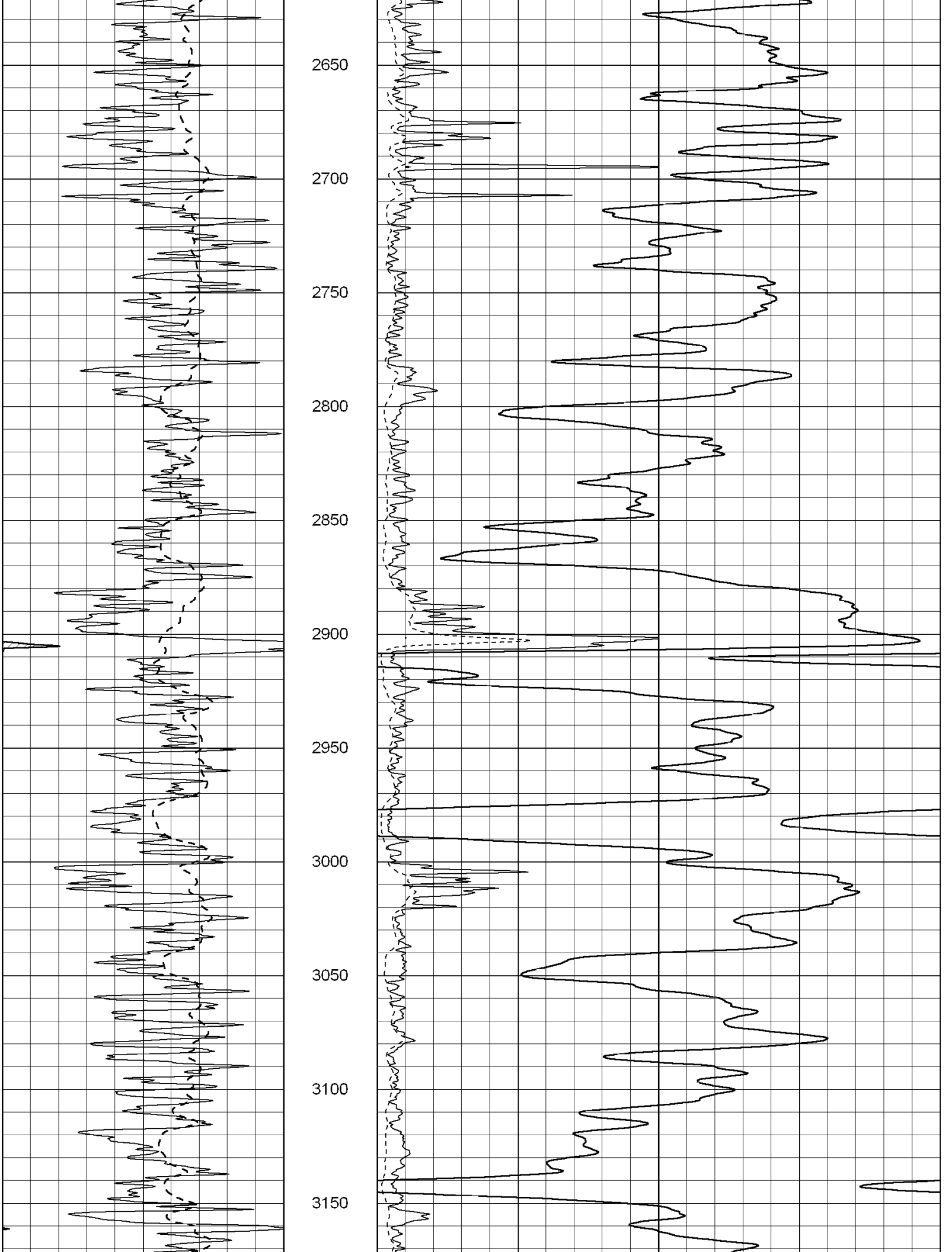
2550
2600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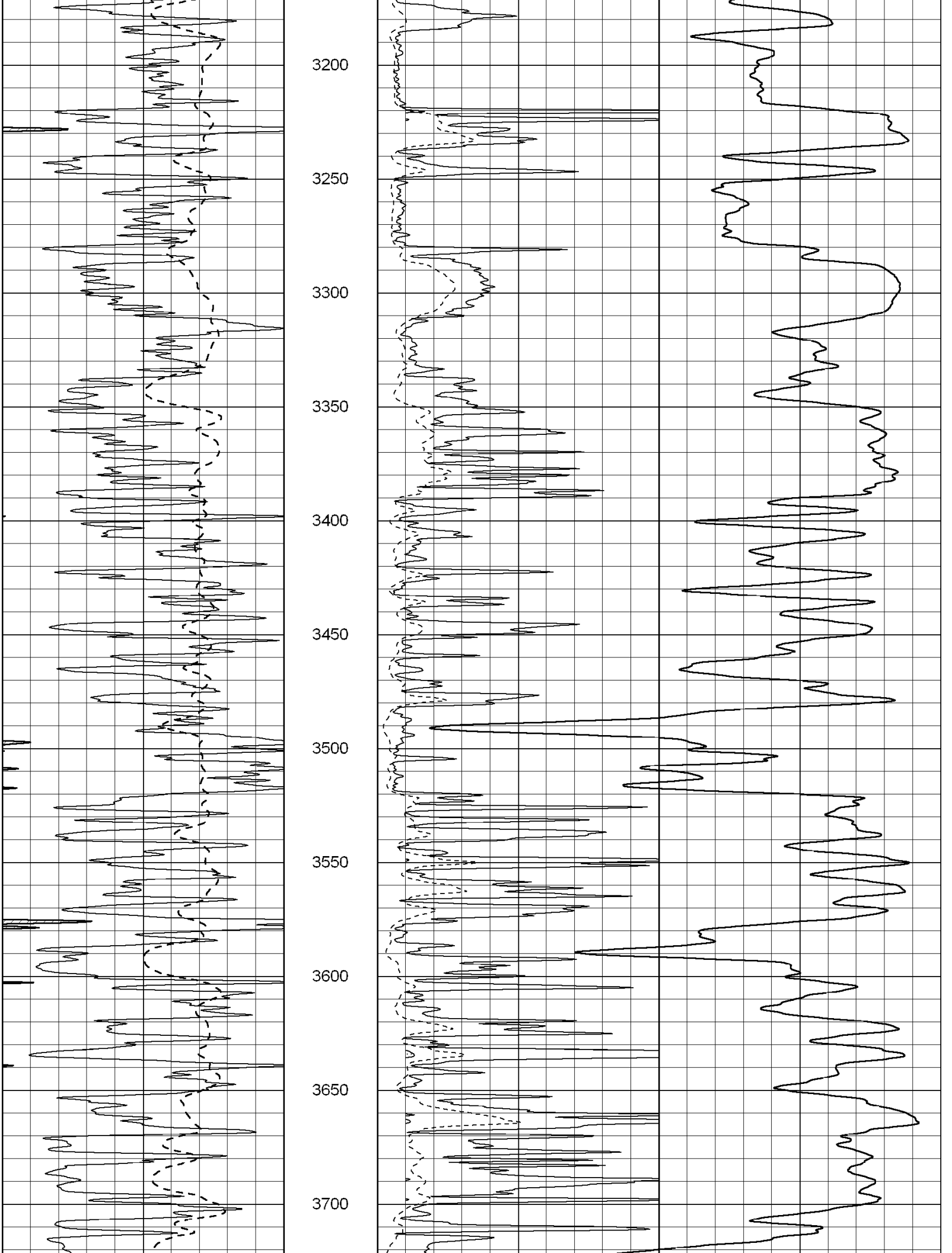
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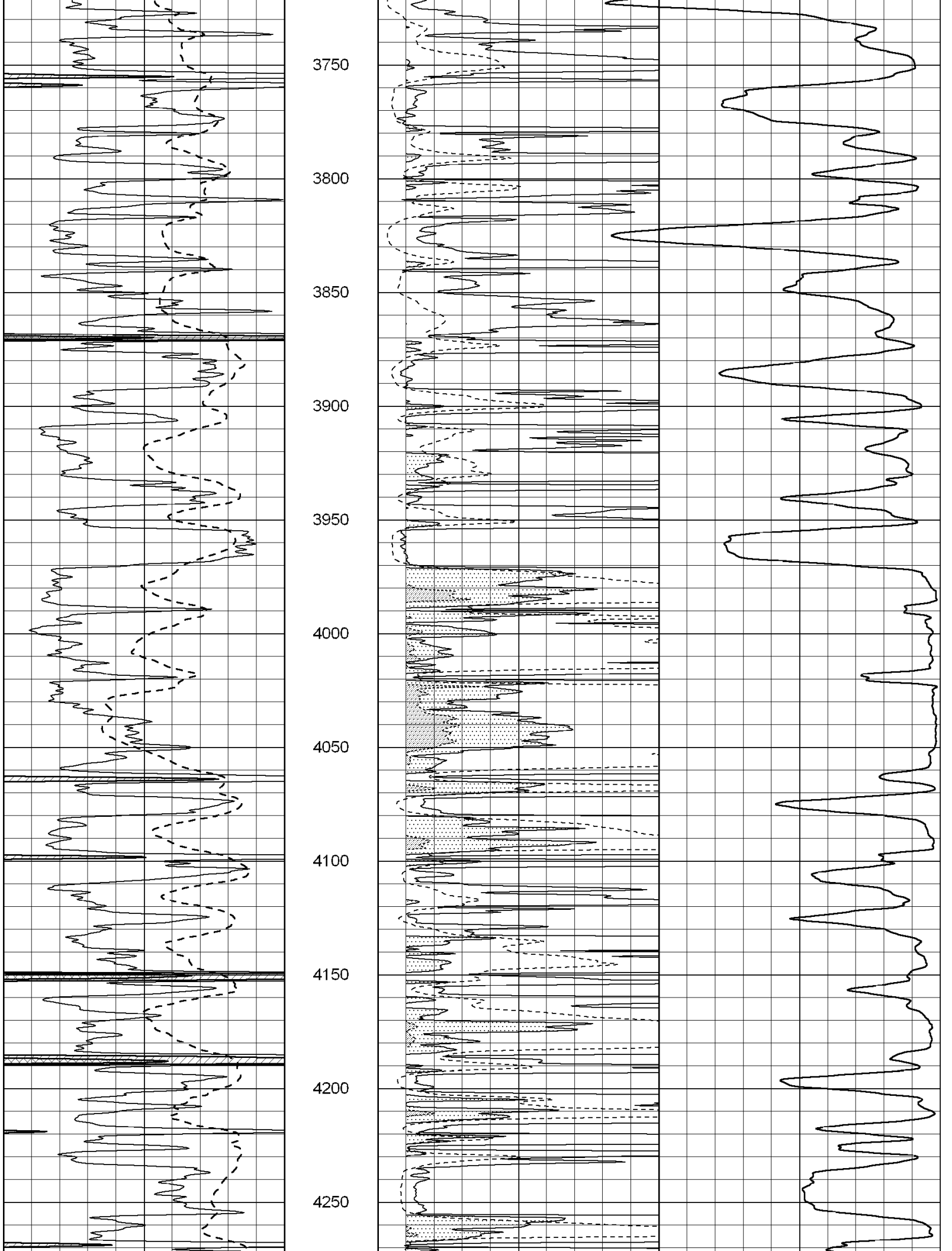
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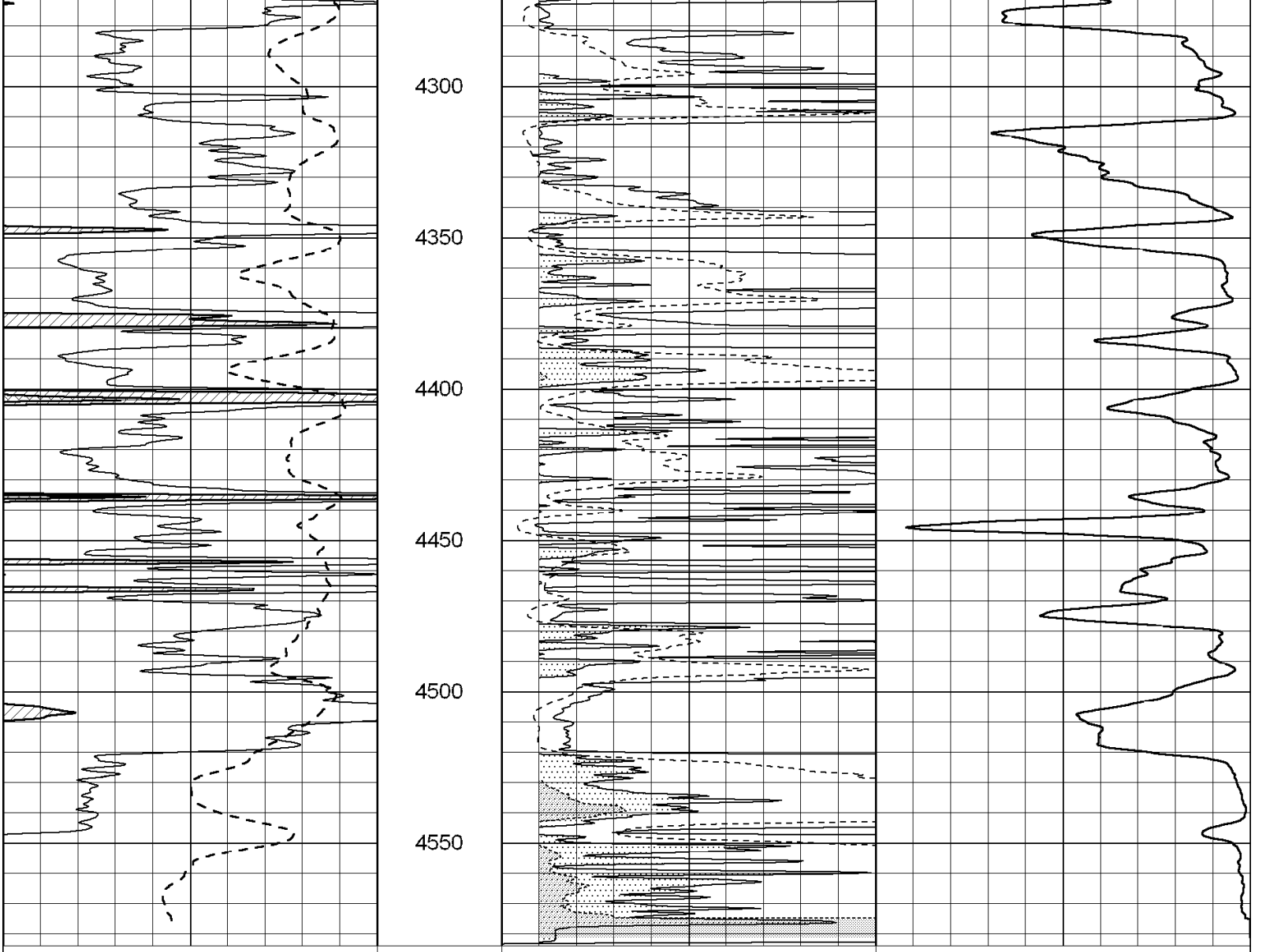


SUPERIOR WELL SERVICES

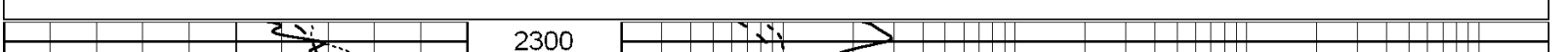
SUPERIOR
Hays,
Kansas

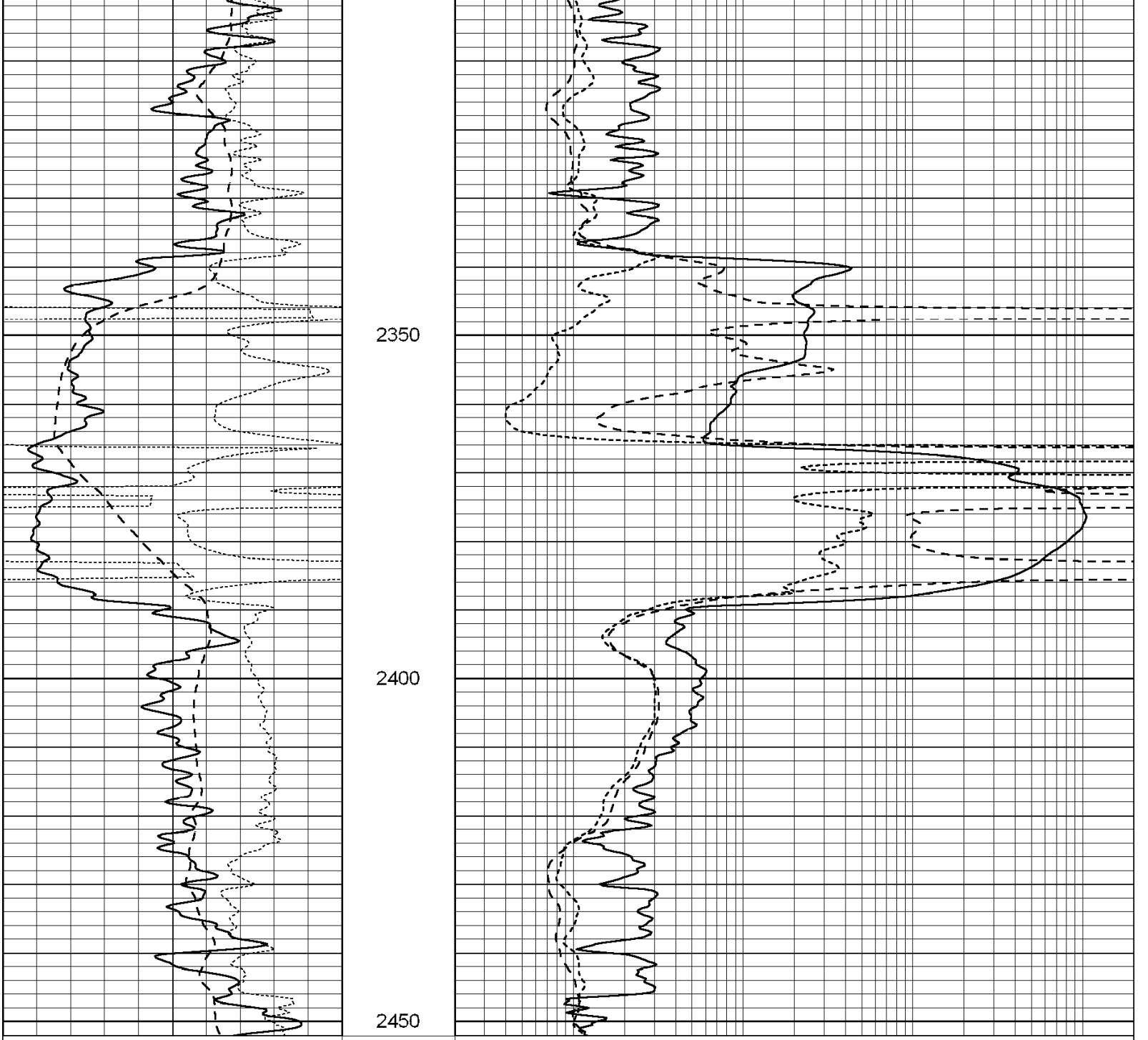
ANHYDRITE

Database File:	003528ddn.db
Dataset Pathname:	pass4.6
Presentation Format:	dil
Dataset Creation:	Fri Jun 26 14:43:53 2009 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

SUPERIOR WELL SERVICES

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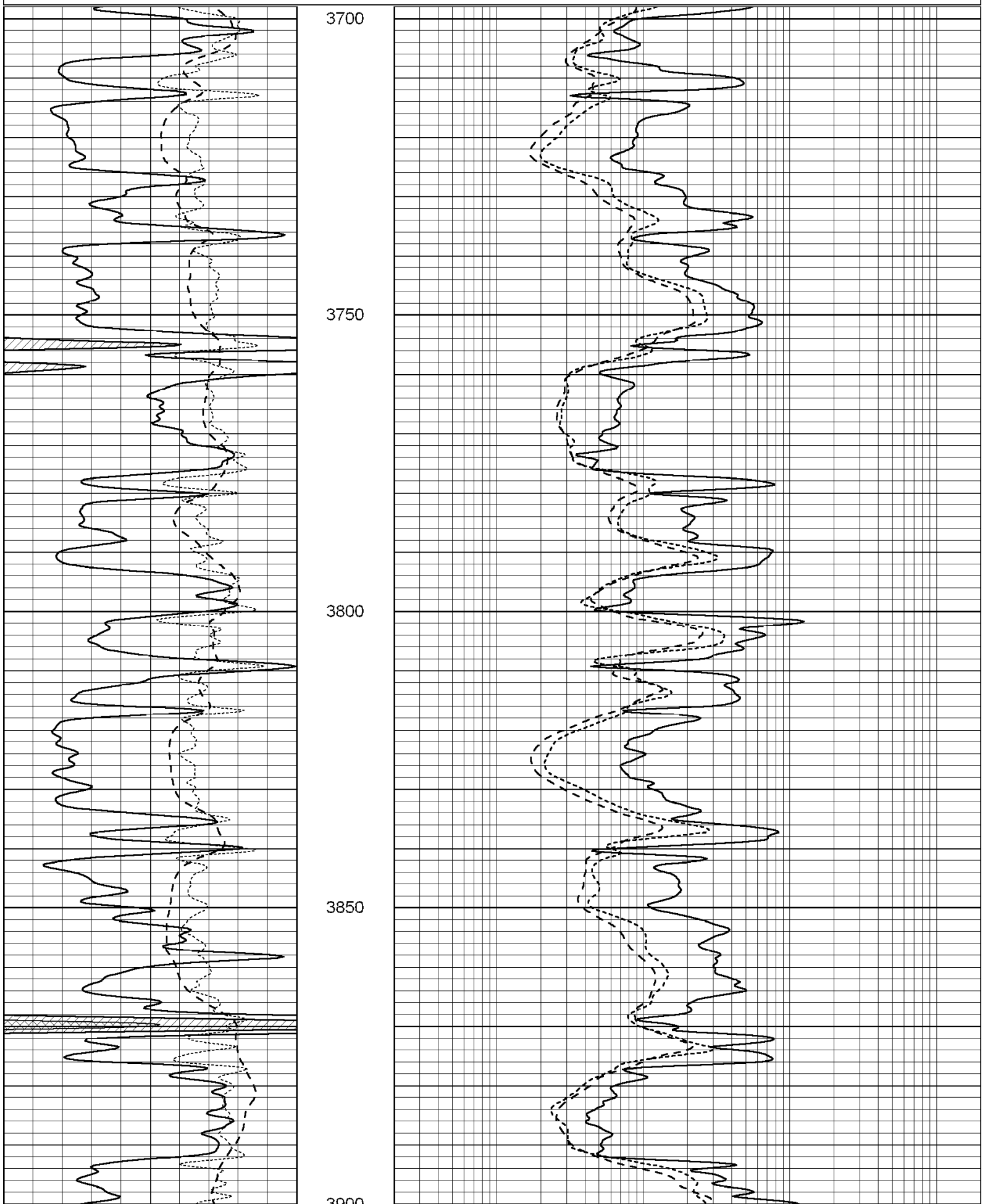
MAIN SECTION

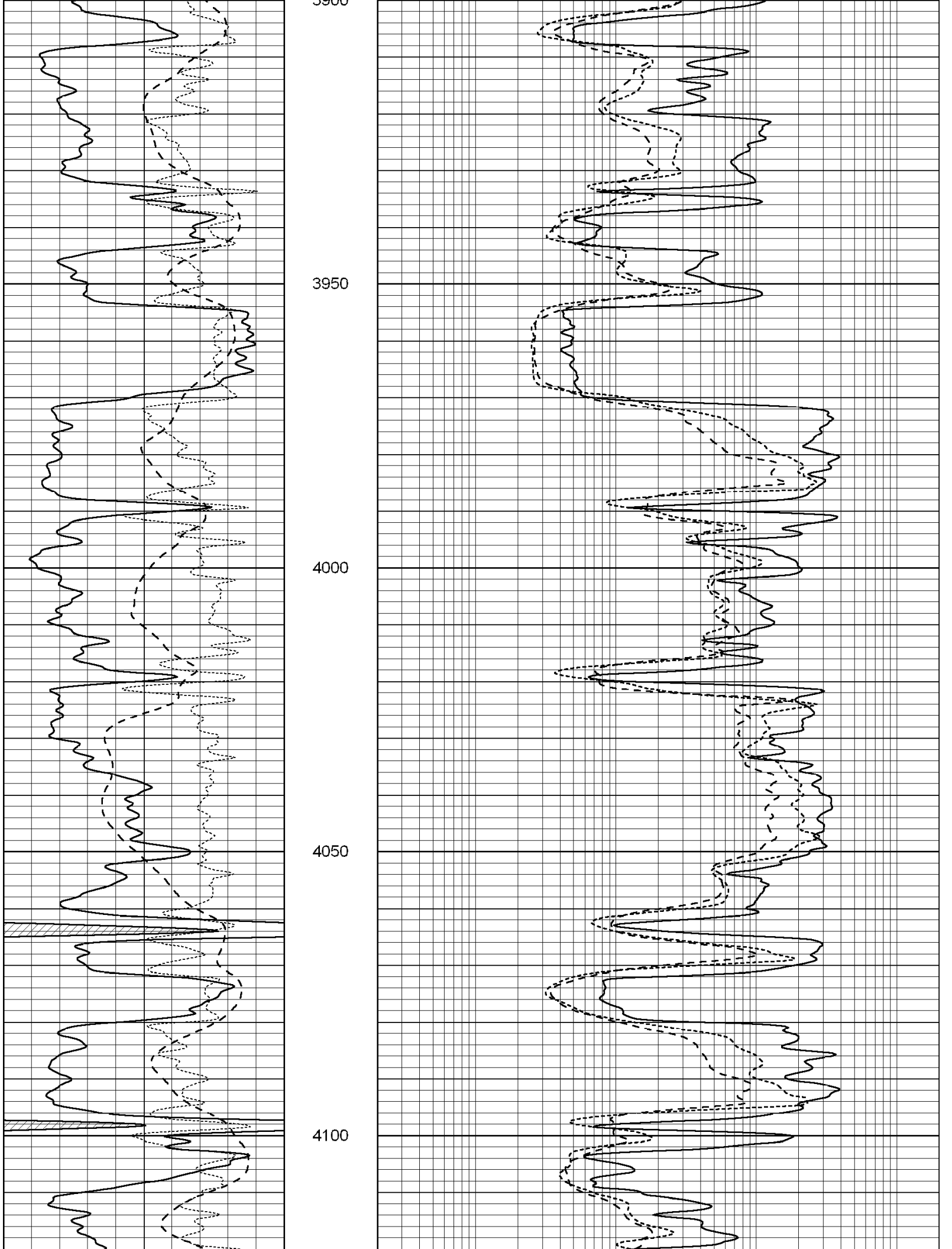
Database File:	003528ddn.db
Dataset Pathname:	pass4.7
Presentation Format:	dil
Dataset Creation:	Fri Jun 26 15:03:48 2009 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
0.2	SHALLOW GUARD (Ohm-m)	2000

0	GAMMA RAY (GAPI)	100
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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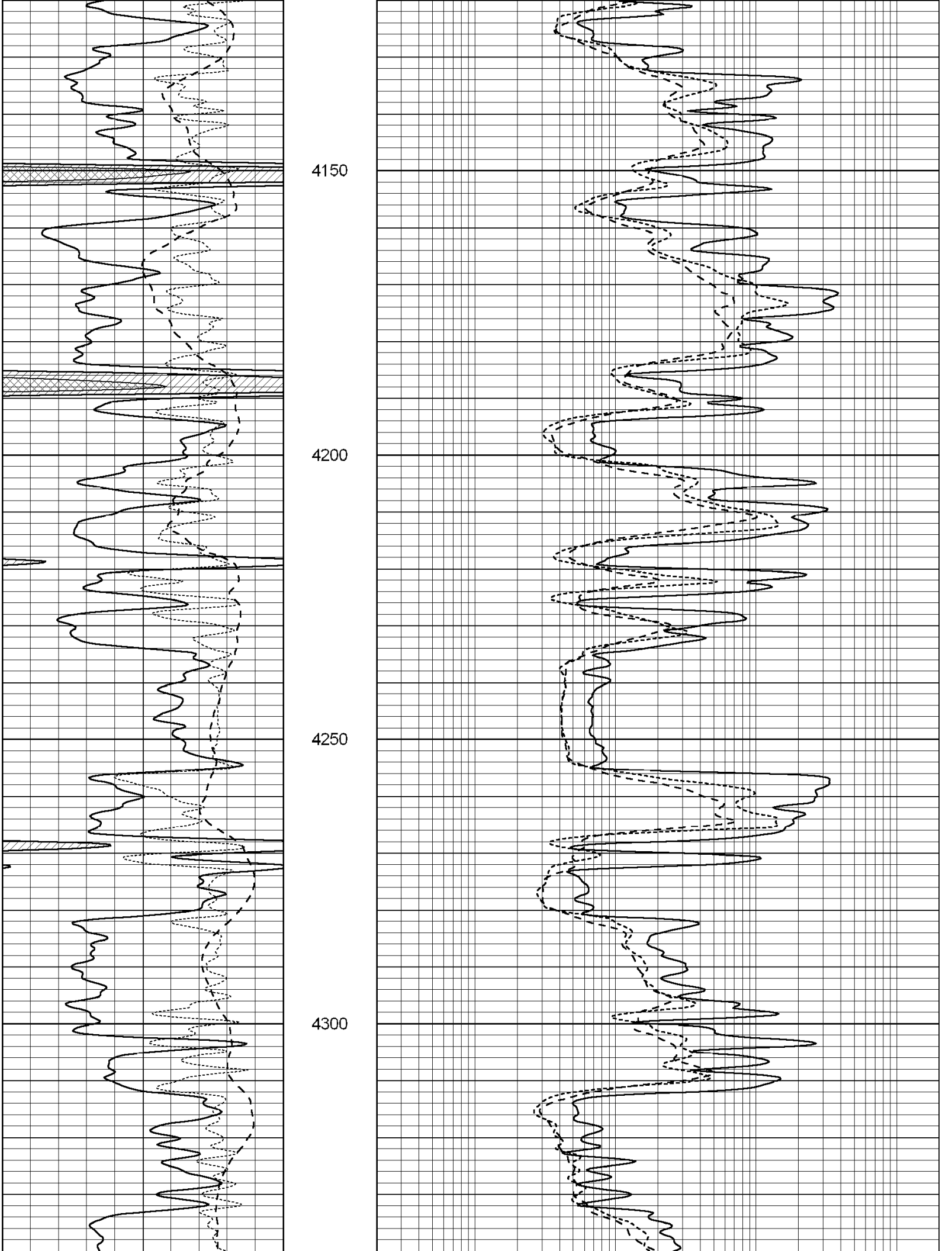
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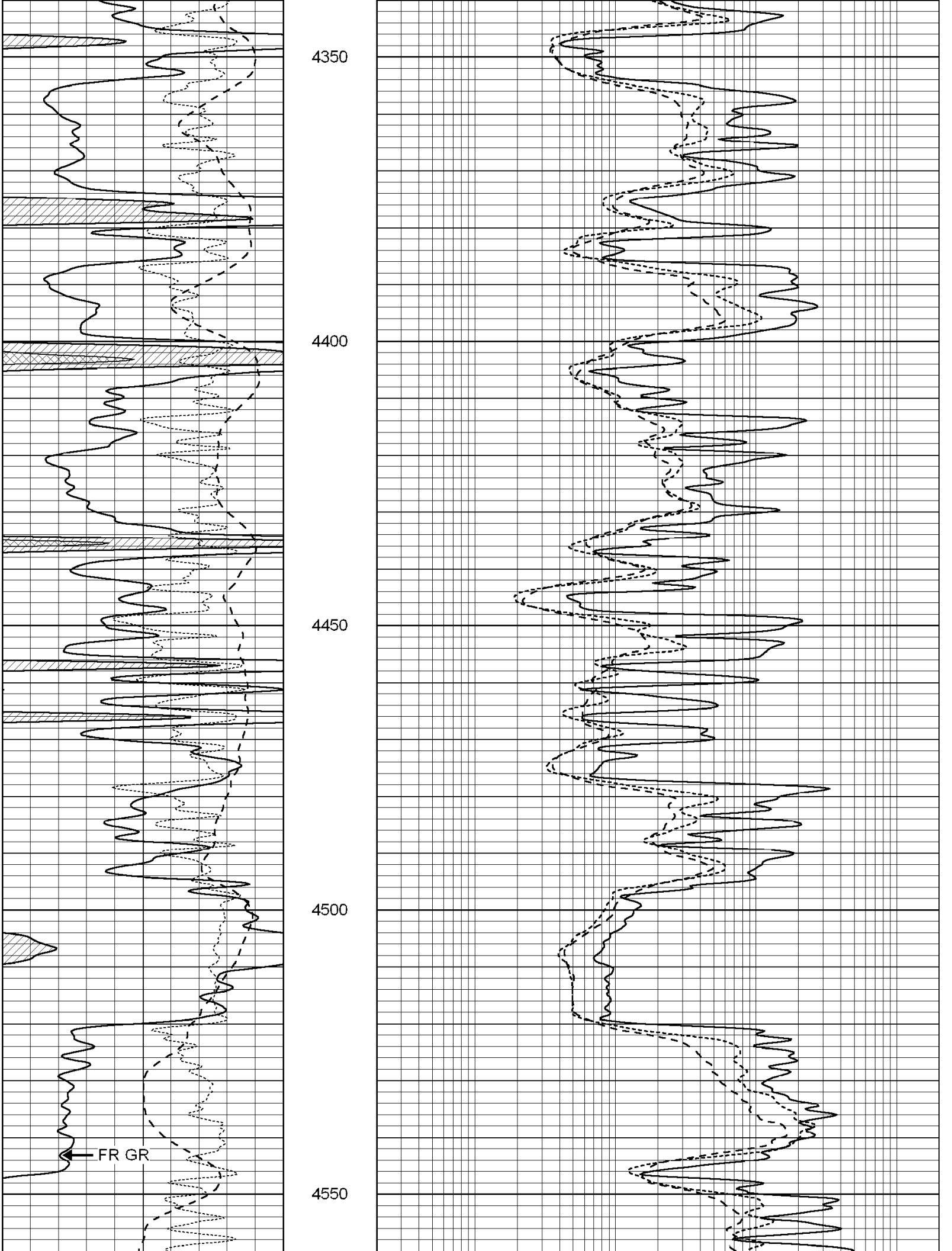
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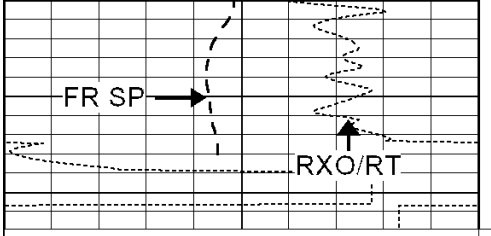

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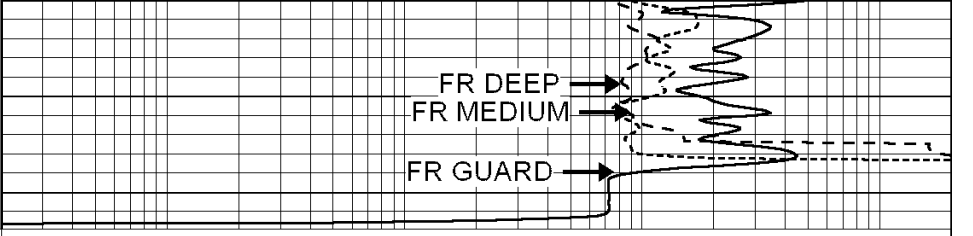

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	*SHALLOW GUARD (Ohm-m)*	2000
0.2	*DEEP INDUCTION (Ohm-m)*	2000
0.2	*MEDIUM INDUCTION (Ohm-m)*	2000

SUPERIOR WELL SERVICES

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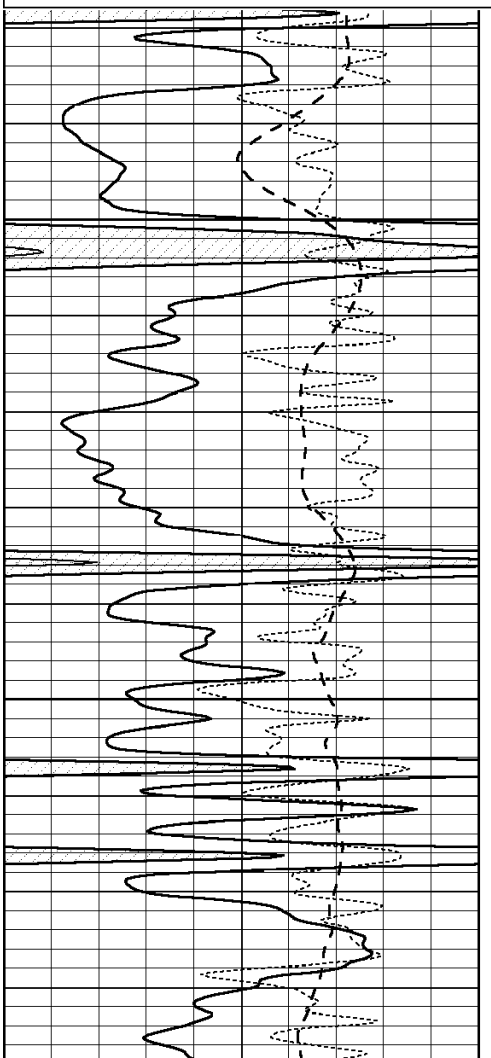
Kansas

REPEAT SECTION

Database File: 003528ddn.db
Dataset Pathname: pass3.6
Presentation Format: dil
Dataset Creation: Fri Jun 26 14:17:04 2009 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



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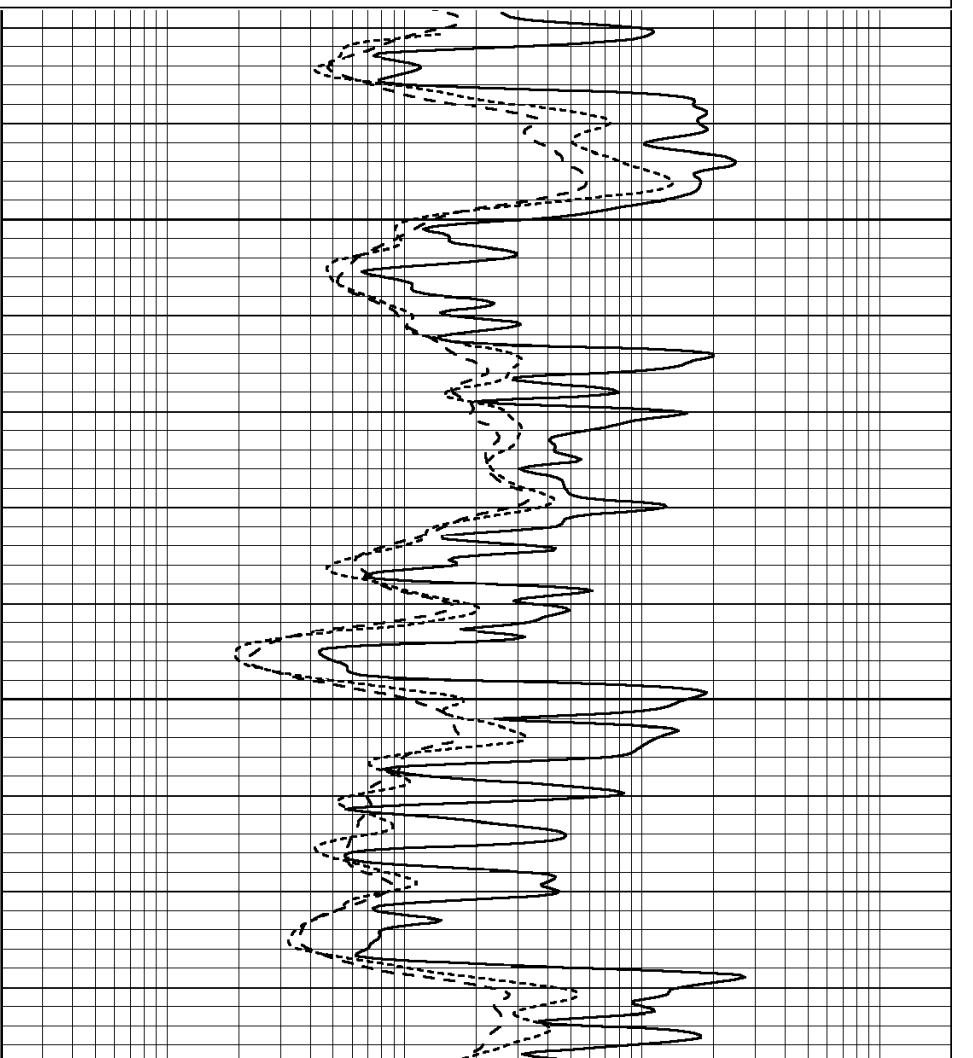

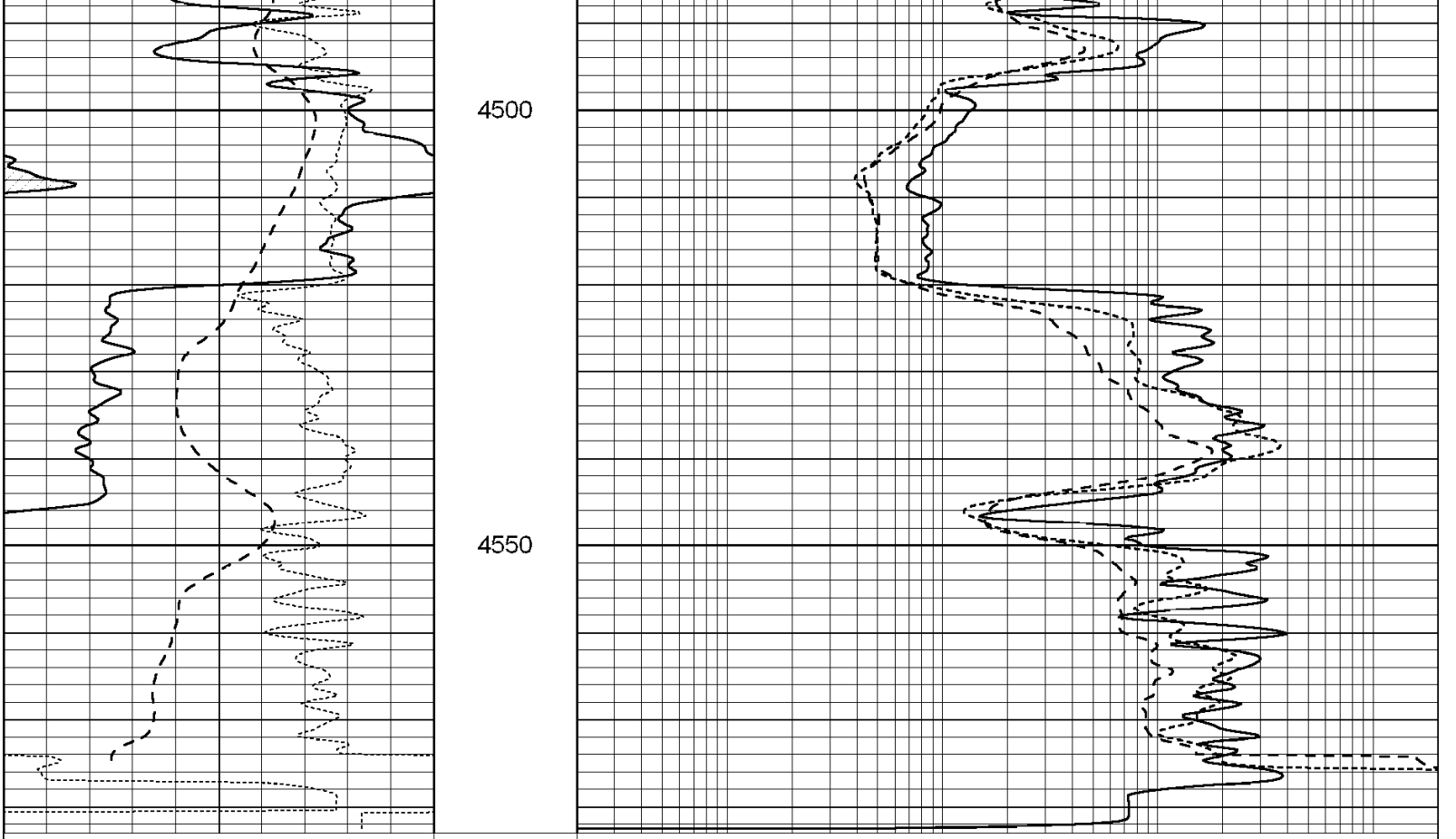

Calibration Report

Database File: 003528ddn.db
Dataset Pathname: pass4.7
Dataset Creation: Fri Jun 26 15:03:48 2009 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL2-GEAR
Performed: Fri Jun 26 13:53:49 2009

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.667	V	0.000	400.000	mmho-m	650.000	6.000
Medium	-0.003	0.739	V	0.000	462.500	mmho-m	750.000	-15.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.658	V	0.000	400.000	mmho-m	609.010	-0.700
Medium	0.015	0.761	V	0.000	462.500	mmho-m	620.392	-9.326

Litho Density Calibration Report

Serial: 003N Model: PRB
Performed Mon Jun 08 10:53:05 2009

Litho Density Calibration

Background	Magnesium	Aluminum	Sandstone

Window 1	2028.8	12047.1	4181.3	13199.9	cps
Window 2	1822.8	9337.8	3431.4	10000.3	cps
Window 3	1564.8	5811.2	2442.8	6095.5	cps
Window 4	469.1	474.6	468.9	469.9	cps
Long Space	0.0	7514.9	1608.6	8177.4	cps
Short Space	1.9	2397.2	1539.5	2522.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 44.0	Rib Slope	: 0.965	Density/Spine Ratio	: 0.549
Spine Angle	: 74.0	Spine Slope	: 3.481	Spine Intercept	: -18.2

Caliper

	Readings	Reference
Low Ref	2.1	6.4
High Ref	4.4	14.0
	Gain: 3.2	Offset: -0.3

Compensated Neutron Calibration Report

Serial Number: NEU_3I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR3
Tool Model: OPEN
Performed: Fri Jun 26 13:53:36 2009

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps
Calibrator Reading: 186.0 cps

Sensitivity: 0.4500 GAPI/cps