NABORS COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY / NEUTRON LOG

Company RITCHIE EXPLORATION, INC.
Well DERSTEIN 8D NO 1
Field
County FORD
State KANSAS

Company RITCHIE EXPLORATION, INC.
Well DERSTEIN 8D NO 1
Field
County FORD State KANSAS

Location: API #: 15-057-20875-0000
N2 - NW - SE
2305' FSL & 1860' FEL
SEC 8 TWP 28S RGE 22W

Other Services: DIL

Permanent Datum: GROUND LEVEL Elevation 2412
Log Measured From: KELLY BUSHING 12' A.G.L.
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 2424, D.F. 2422, G.L. 2412

Date	02/12/2013		
Run Number	ONE		
Depth Driller	5230		
Depth Logger	5234		
Bottom Logged Interval	5210		
Top Log Interval	3400		
Casing Driller	396		
Casing Logger			
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,000	
Density / Viscosity	9.4 /48		
pH / Fluid Loss	10.0 / 8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.6 @ 65F		
Rmf @ Meas. Temp	.48 @ 65F		
Rmc @ Meas. Temp	.72 @ 65F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.30 @ 127F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	9 :30 A.M.		
Maximum Recorded Temperature	127F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	MIKE GARRISON		
Witnessed By	MACKLIN ARMSTRONG		

<<< Fold Here >>>

Comments

NABORS COMPLETION & PRODUCTION CO.
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: FORD, KS- .7 SOUTH ON BLACKTOP SE OF TOWN, EAST INTO

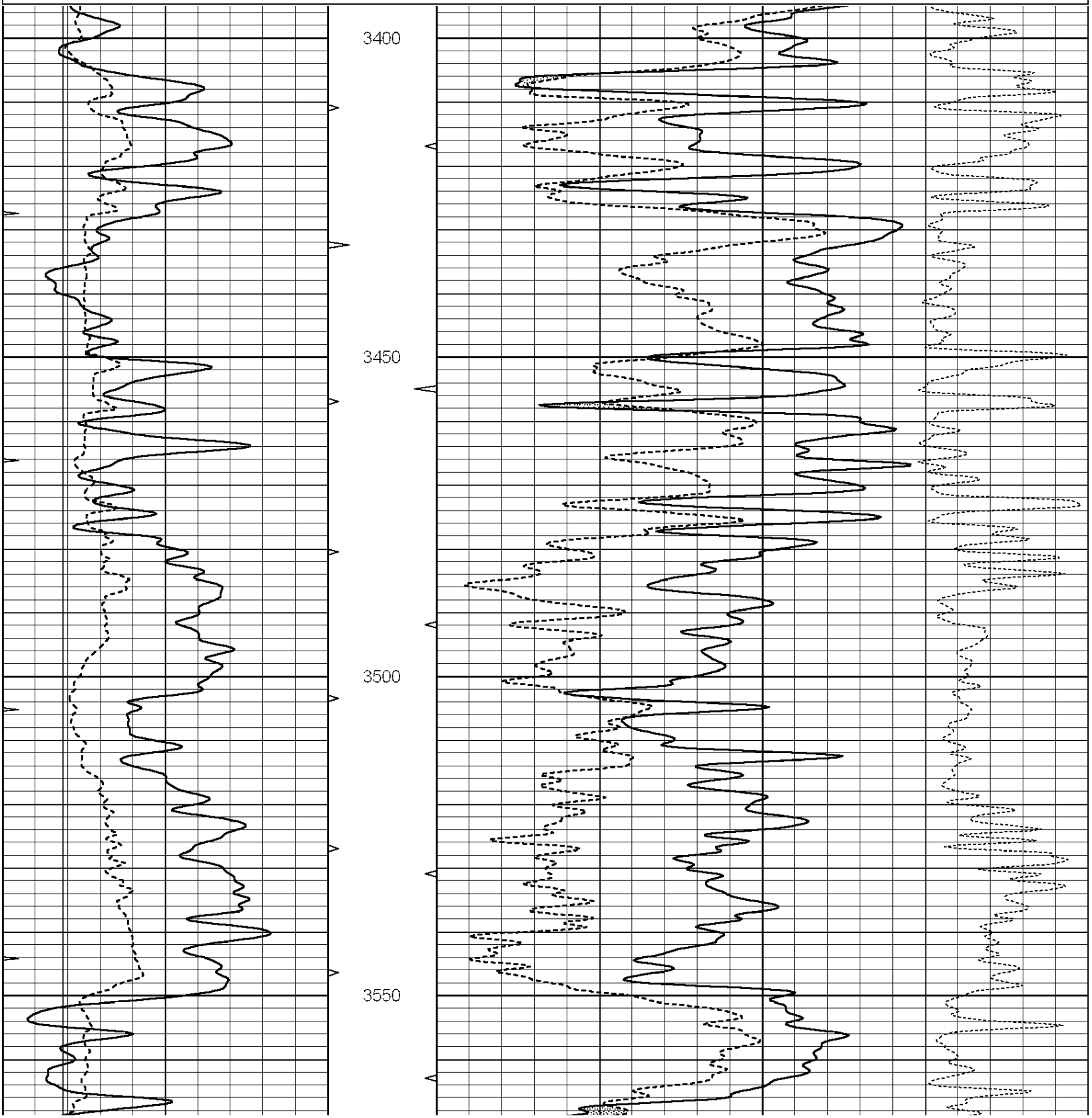
NABORS COMPLETION & PRODUCTION

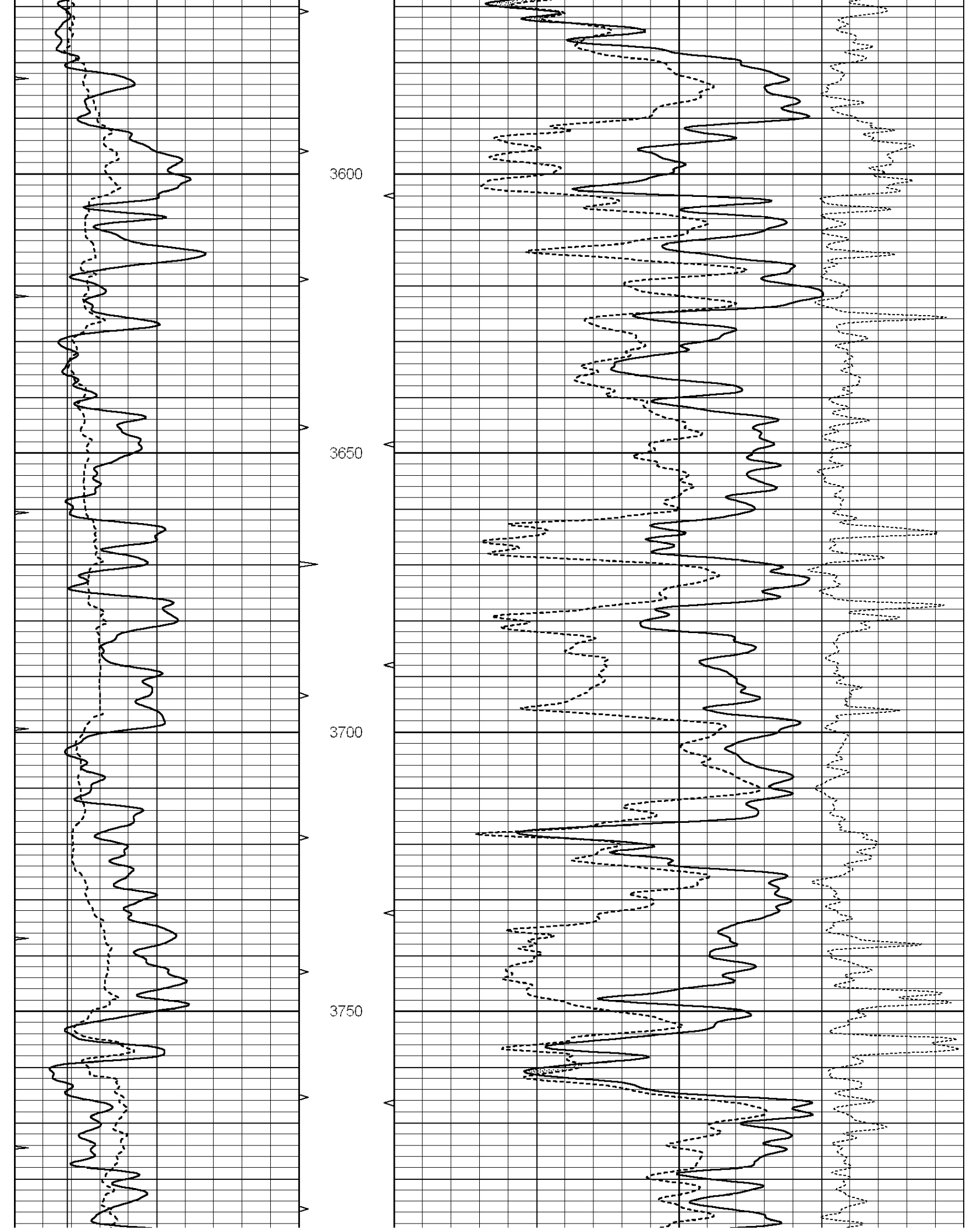
MAIN SECTION

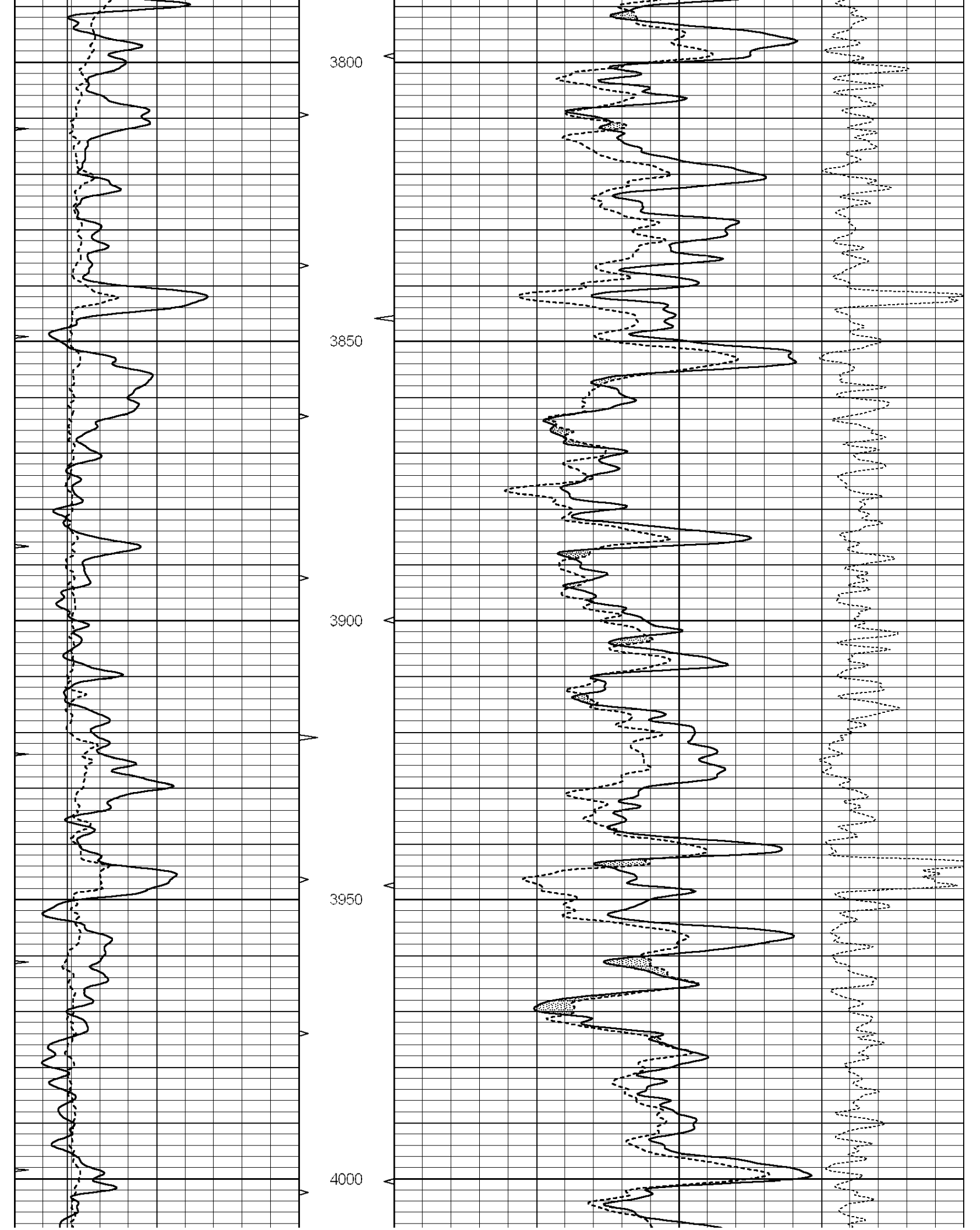
SERVICES CO.

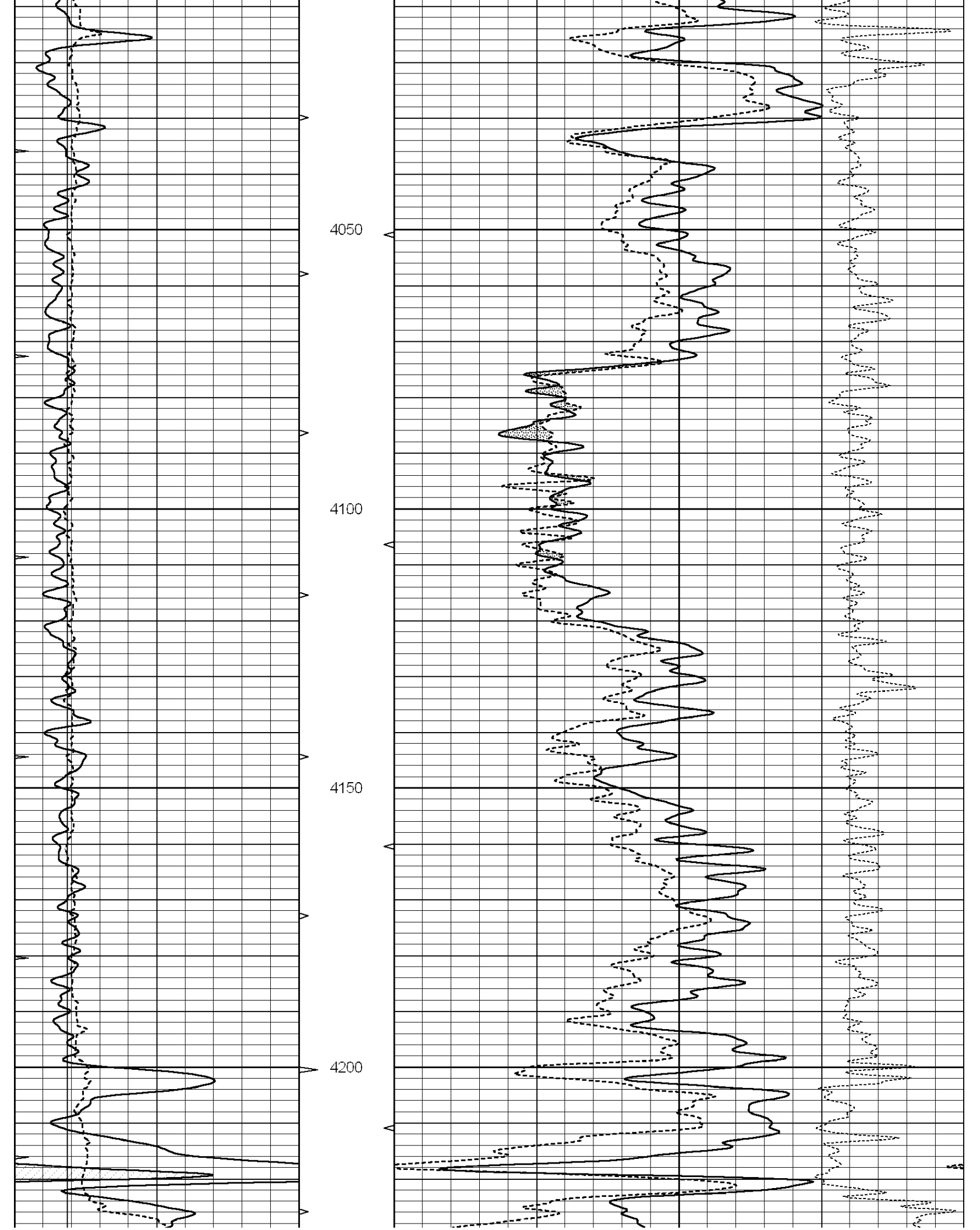
Database File: 010670dildn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Tue Feb 12 10:36:40 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

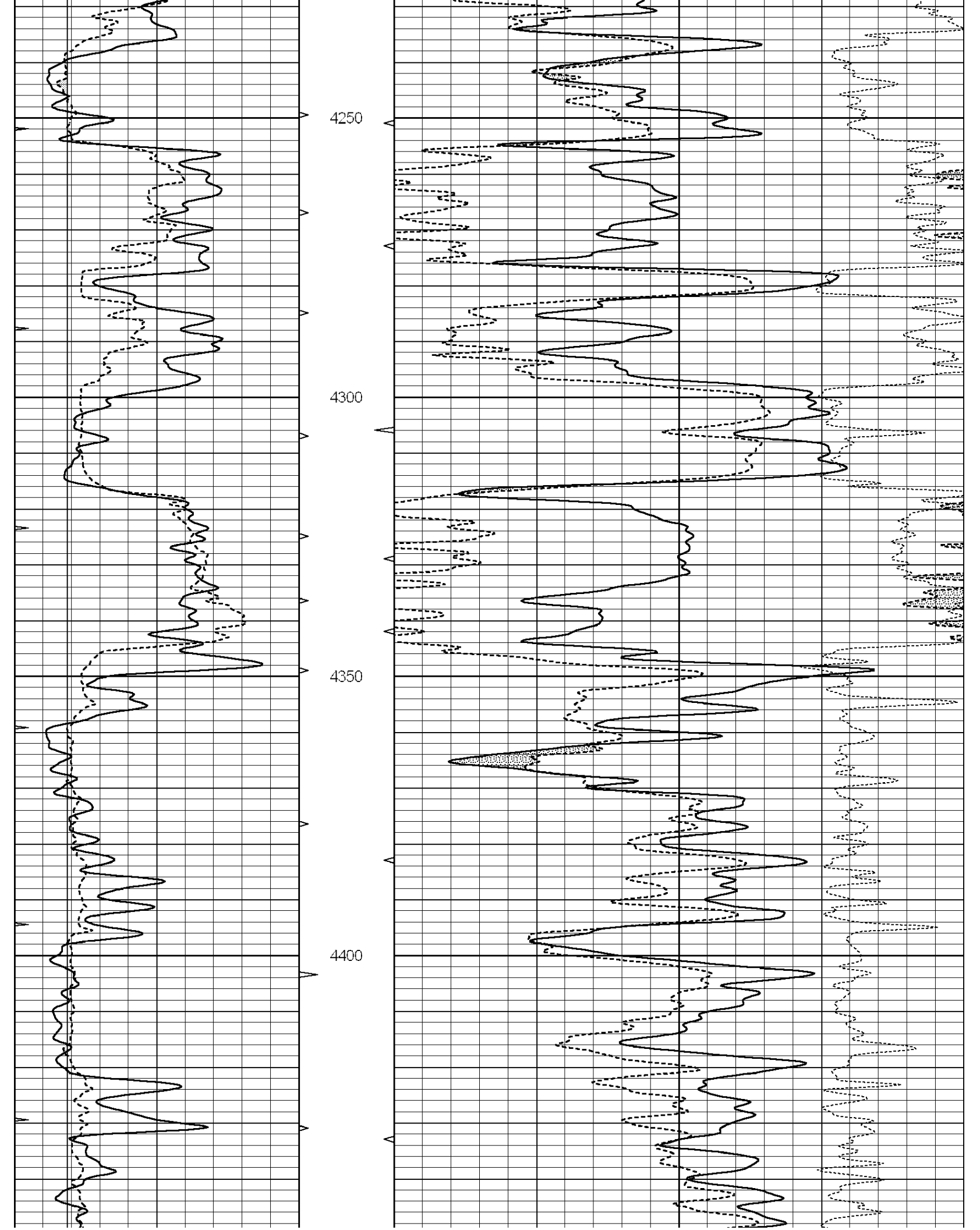
0 GAMMA RAY (GAPI) 150	ABHV	30 COMPENSATED DENSITY (pu) -10		
6 CALIPER (in) 16	10 (ft3) 0	30 COMPENSATED NEUTRON (pu) -10		
0 MINMK 20	TBHV	-0.25 CORRECTION (g/cc) 0.25		
	0 (ft3) 10			

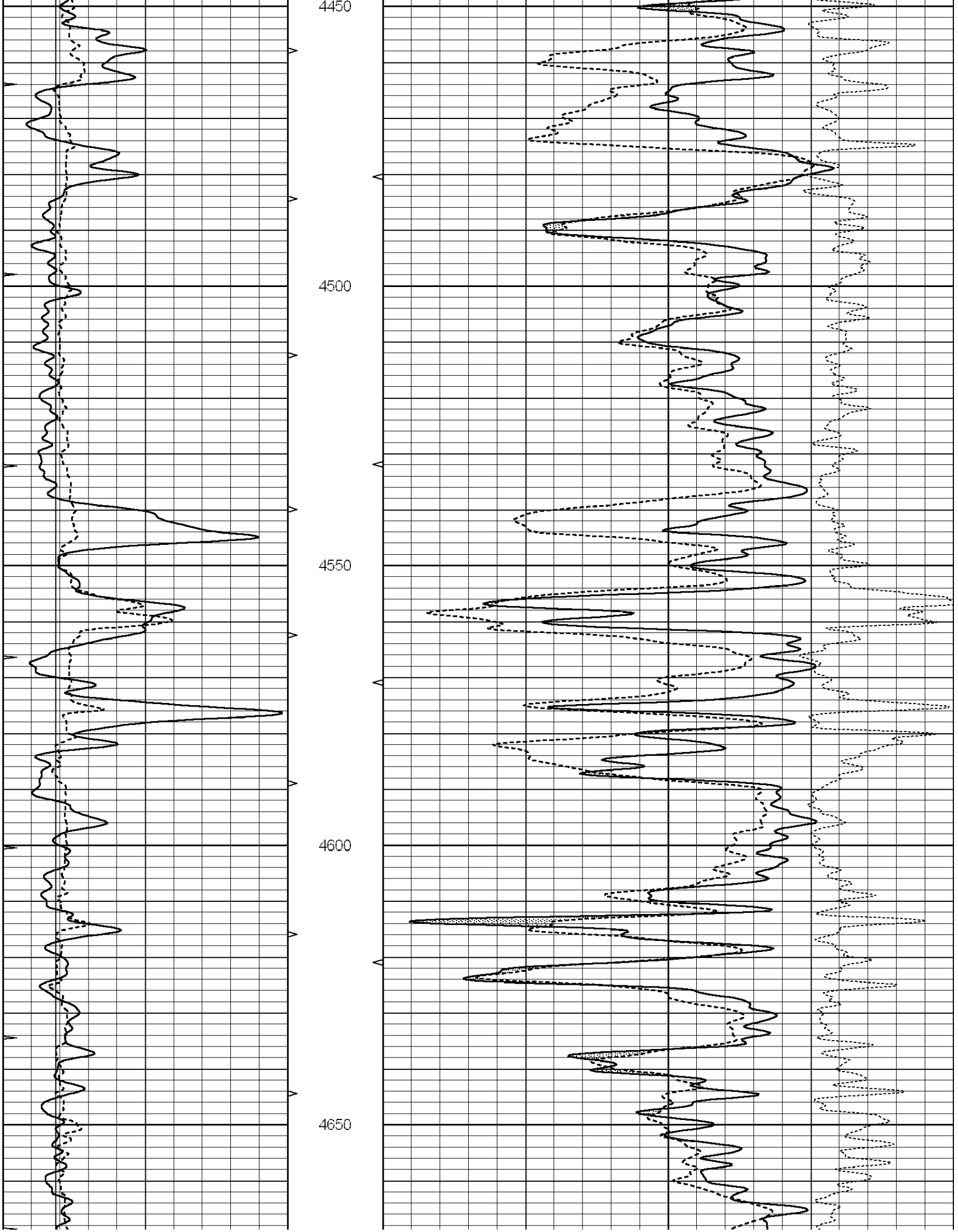


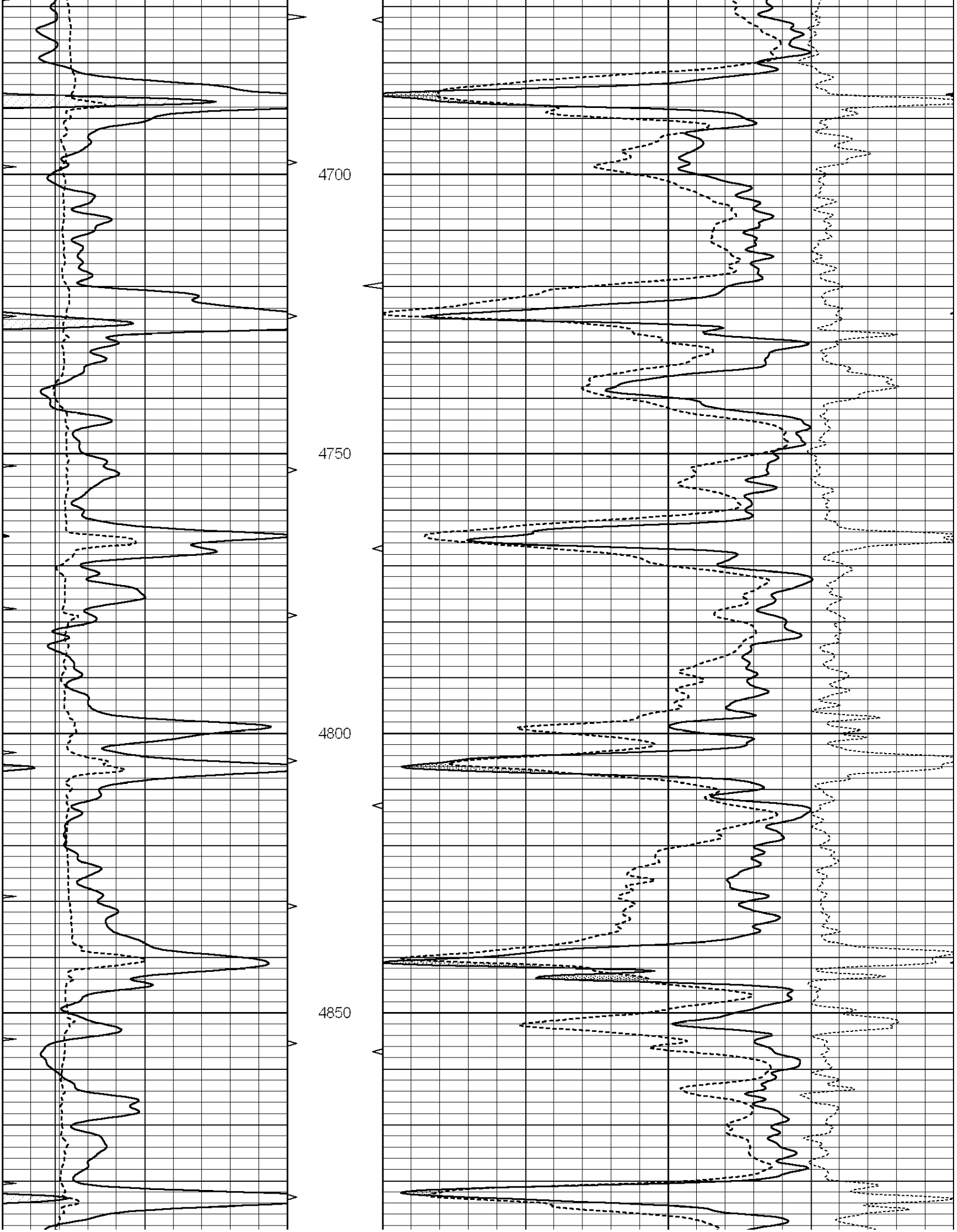

3600
3650
3700
3750

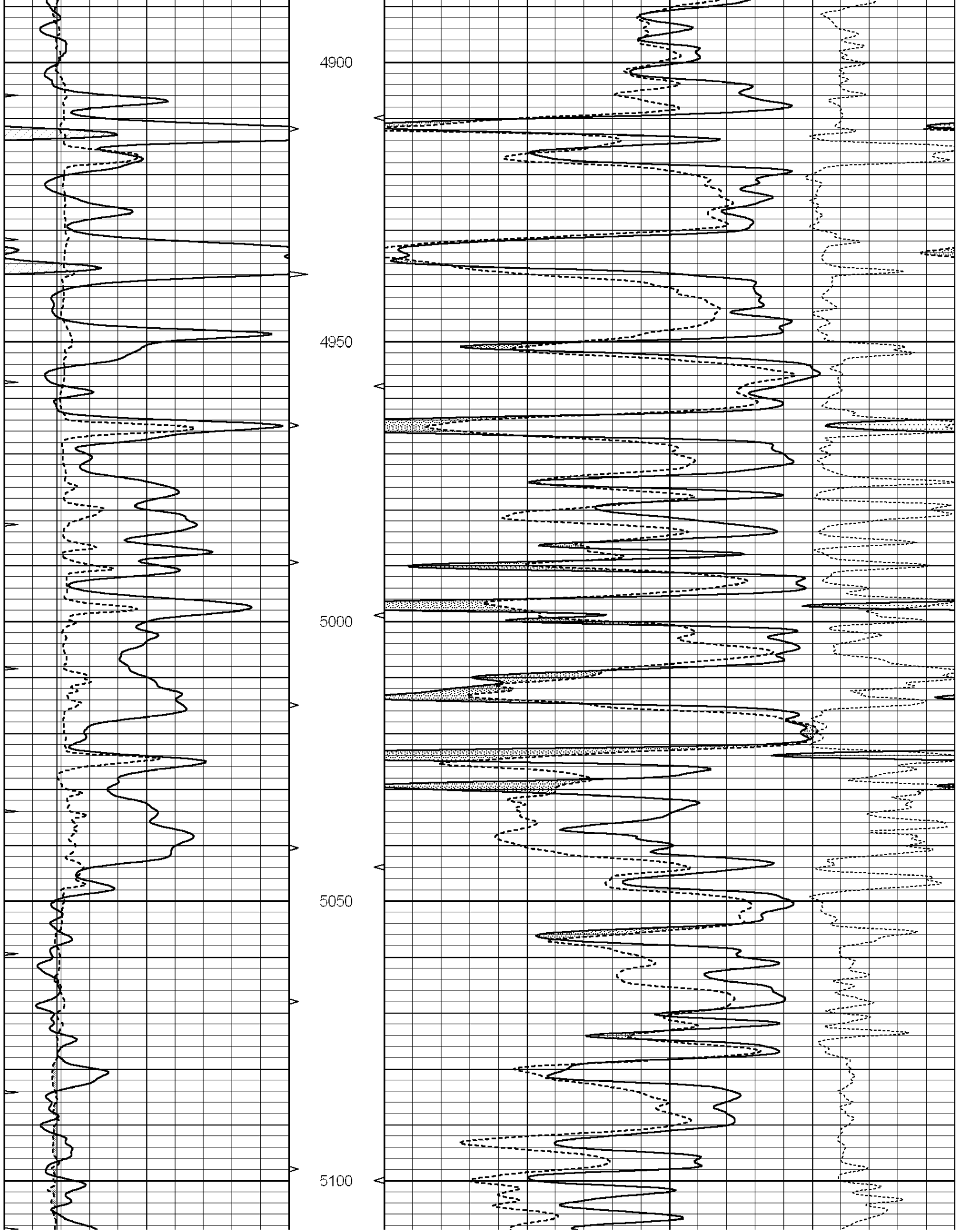

3800
3850
3900
3950
4000

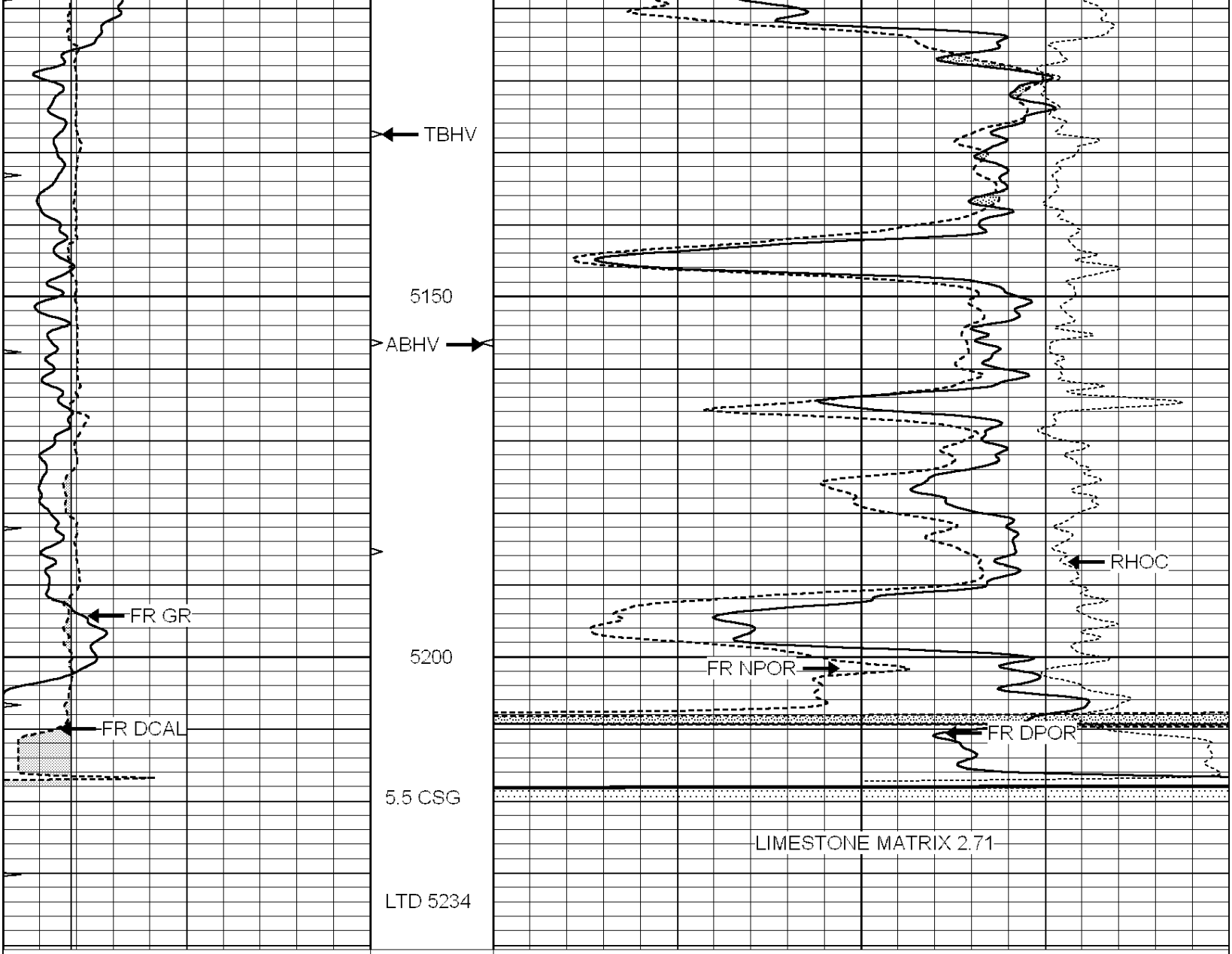

4050
4100
4150
4200


4250
4300
4350
4400


4450
4500
4550
4600
4650


4700
4750
4800
4850


4900
4950
5000
5050
5100



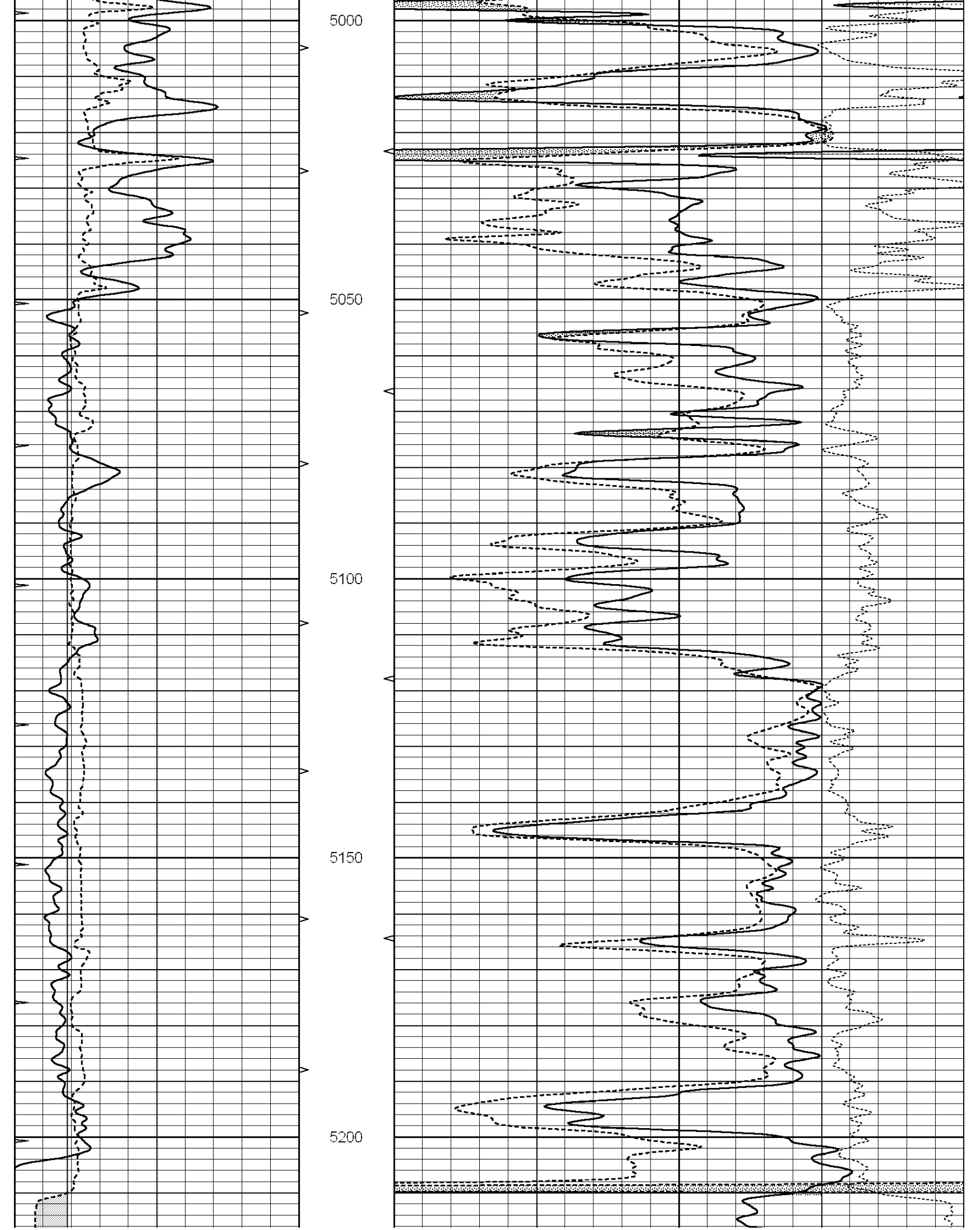
0	GAMMA RAY (GAPI) 150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in) 16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK 20	TBHV		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			

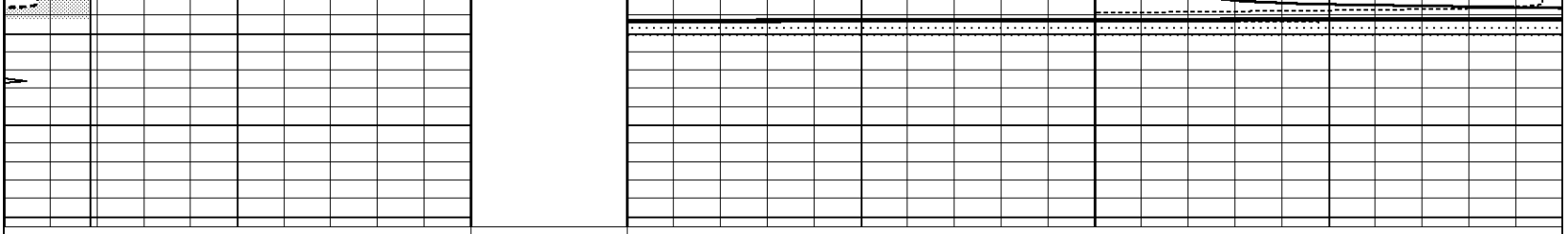
NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 010670dildn.db
Dataset Pathname: pass2.1
Presentation Format: den_neu
Dataset Creation: Tue Feb 12 10:10:26 2013 by Calc Open-Cased 090629
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		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			


5000
5050
5100
5150
5200



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

Calibration Report

Database File: 010670dildn.db
Dataset Pathname: pass3.1
Dataset Creation: Tue Feb 12 10:36:40 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
Surface Cal Performed: Sat Feb 02 01:31:14 2013
Downhole Cal Performed: Sat Jan 19 19:51:38 2013
After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	630.000	0.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	700.000	-49.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Fri Feb 01 23:17:10 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.600	g/cc	271.21	419.72	cps

Spine Angle = 75.89 Density/Spine Ratio = 0.579

	Size		Reading	
Small Ring	6.90	in	4.69	V
Large Ring	14.00	in	6.52	V

Compensated Neutron Calibration Report

Serial Number: NEU_4I
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: GR5
Tool Model: OPEN
Performed: Fri Feb 08 10:03:25 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 2.4000 GAPI/cps