



**SUPERIOR
Hays,
Kansas**

COMPENSATED DENSITY / NEUTRON LOG

Company CAERUS KANSAS, LLC
Well WATERS #30-42
Field SATTERLEE
County STAFFORD
State KANSAS

Company CAERUS KANSAS, LLC.
Well WATERS #30-42
Field SATTERLEE
County STAFFORD State KANSAS

Location: API # : 15-185-23679
1651' FNL & 441' FEL
SEC 30 TWP 24S RGE 14W
Permanent Datum GROUND LEVEL Elevation 1987
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
SONIC/MEL
Elevation
K.B. 1996
D.F.
G.L. 1987

Date	6-23-11		
Run Number	ONE		
Depth Driller	4450		
Depth Logger	4449		
Bottom Logged Interval	4425		
Top Log Interval	3200		
Casing Driller	266		
Casing Logger	264		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.4 / 58		
pH / Fluid Loss	9.5 / 9.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.80 @ 95F		
Rmf @ Meas. Temp	0.60 @ 95F		
Rmc @ Meas. Temp	0.96 @ 95F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.640 @ 119F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:15 A.M.		
Maximum Recorded Temperature	119F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	HERB DIENES		

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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: MACKSVILLE, 4E, 1 1/2S, W INTO.

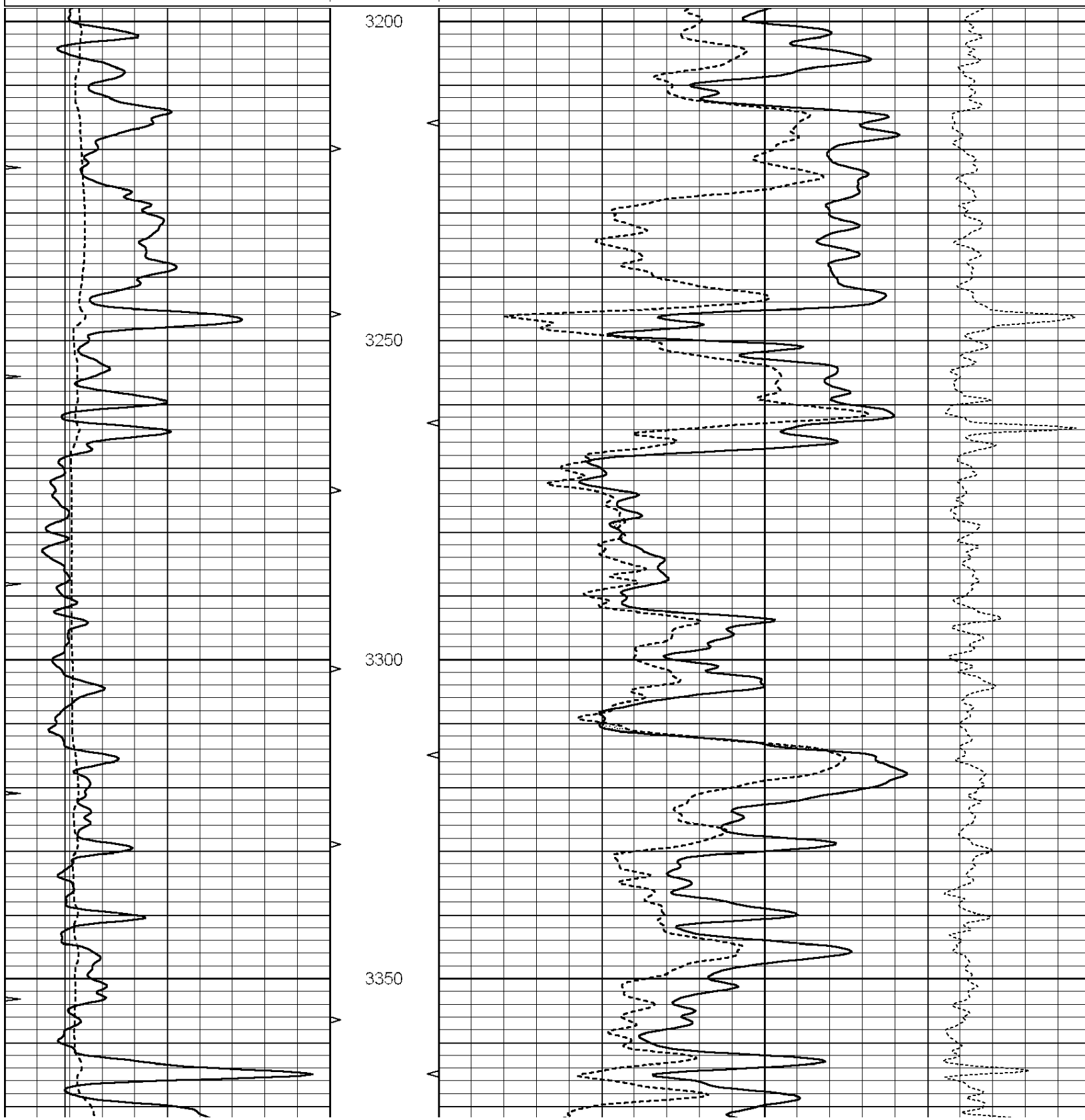


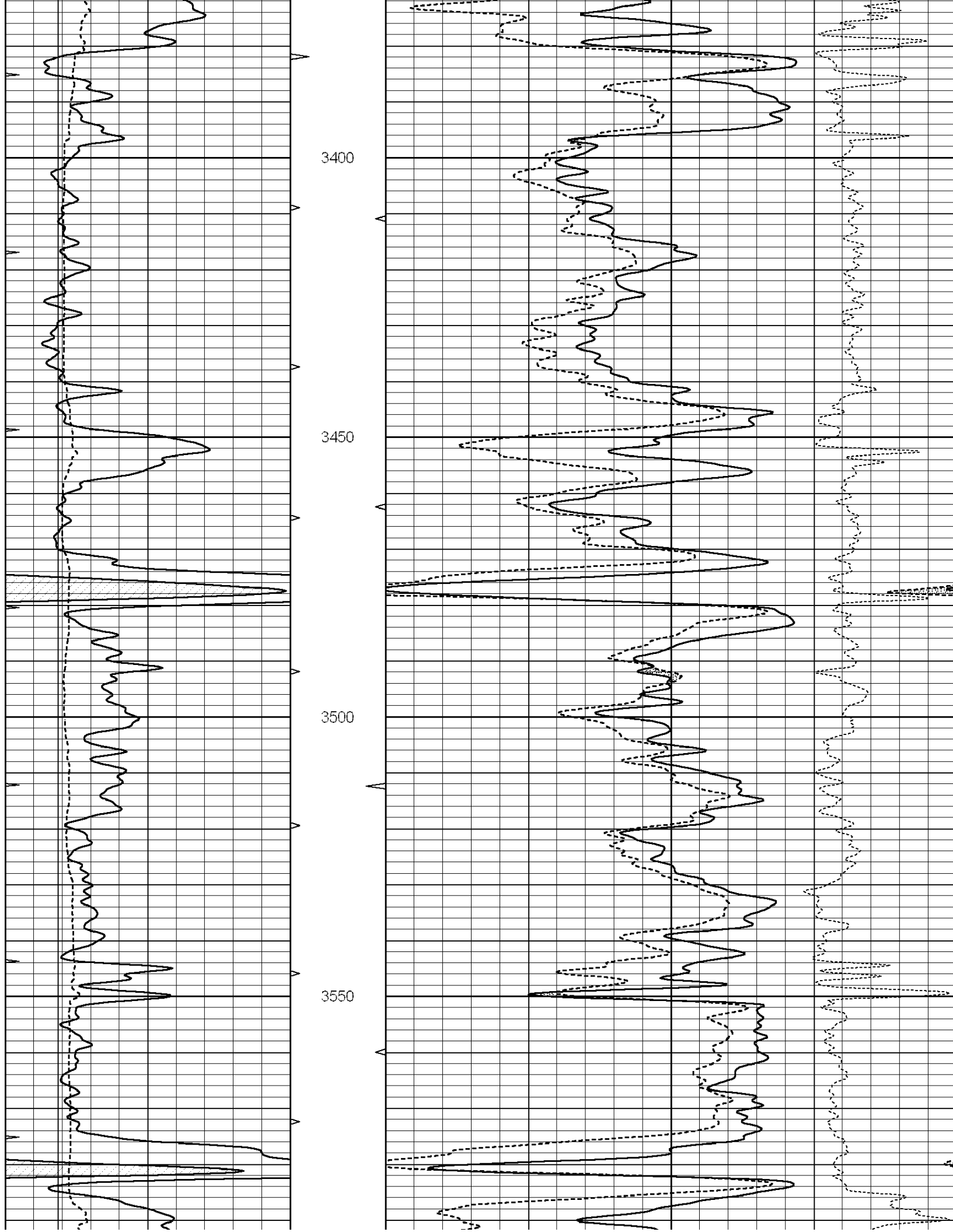
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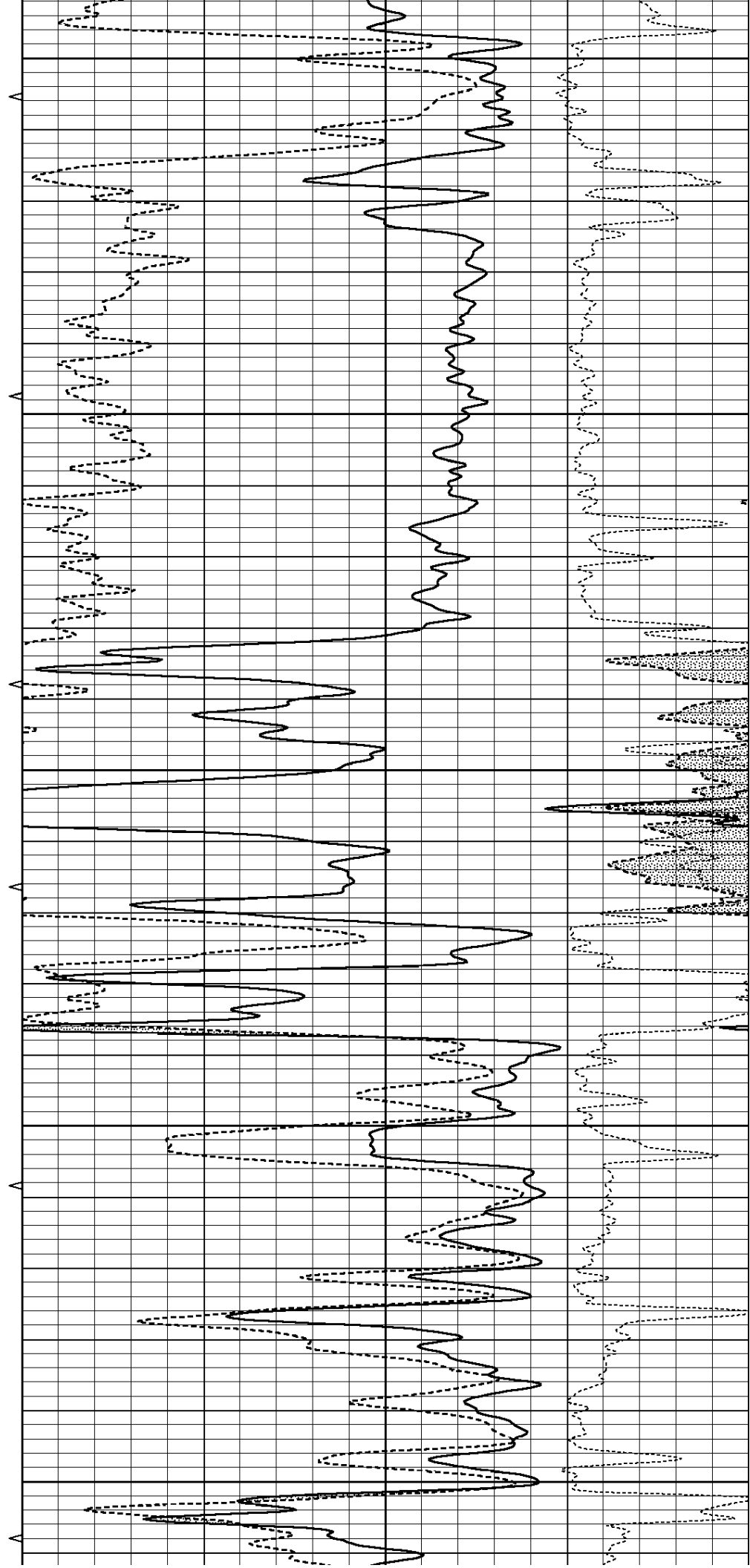
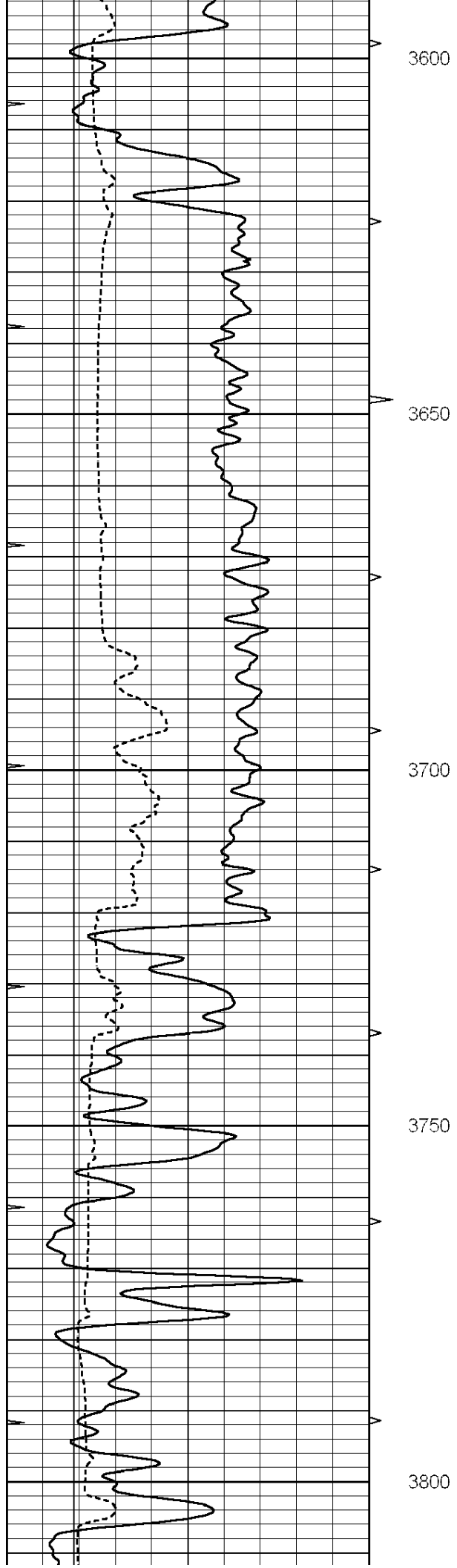
MAIN SECTION

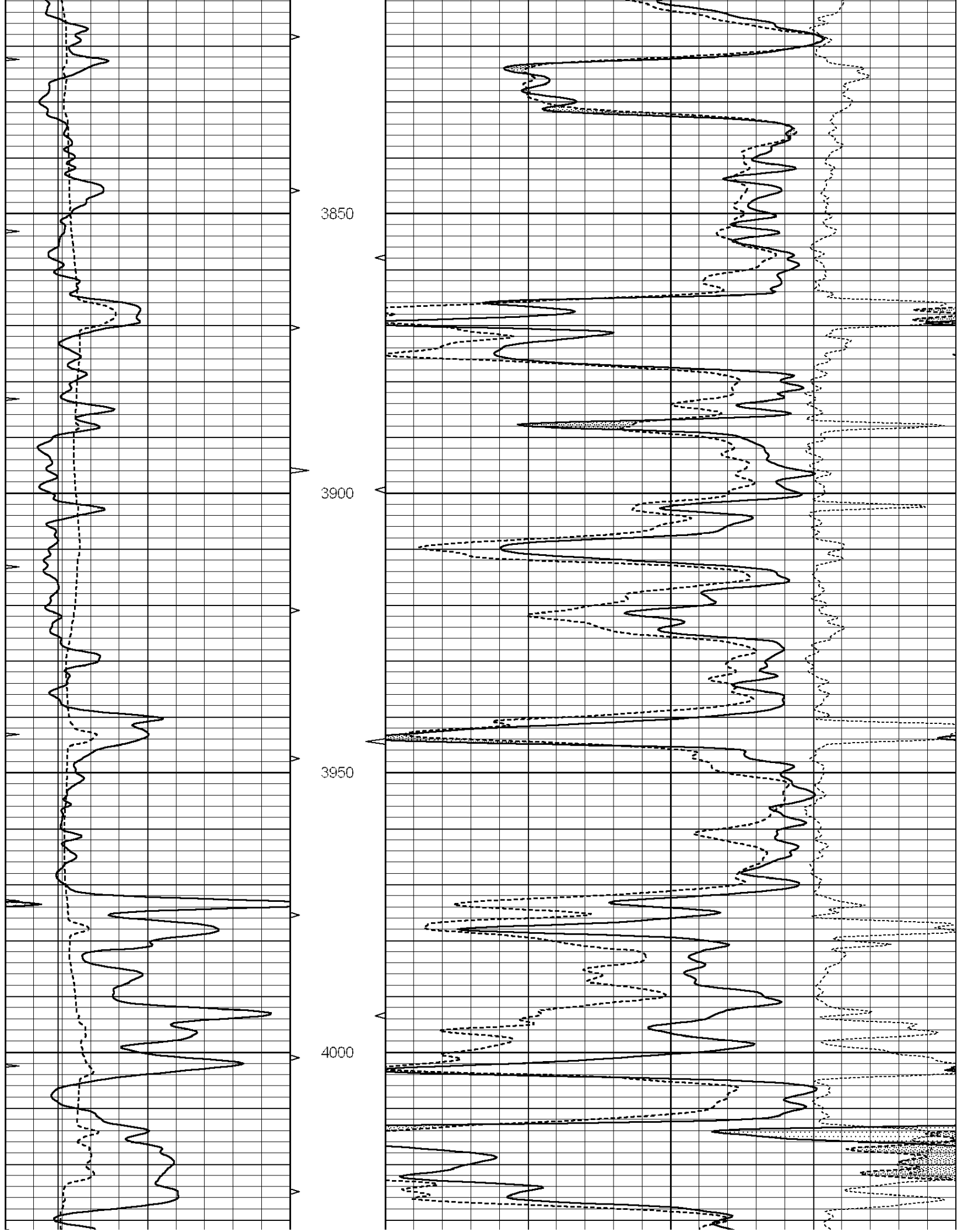
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Presentation Format: den_neu
Dataset Creation: Thu Jun 23 05:05:23 2011
Charted by: Depth in Feet scaled 1:240

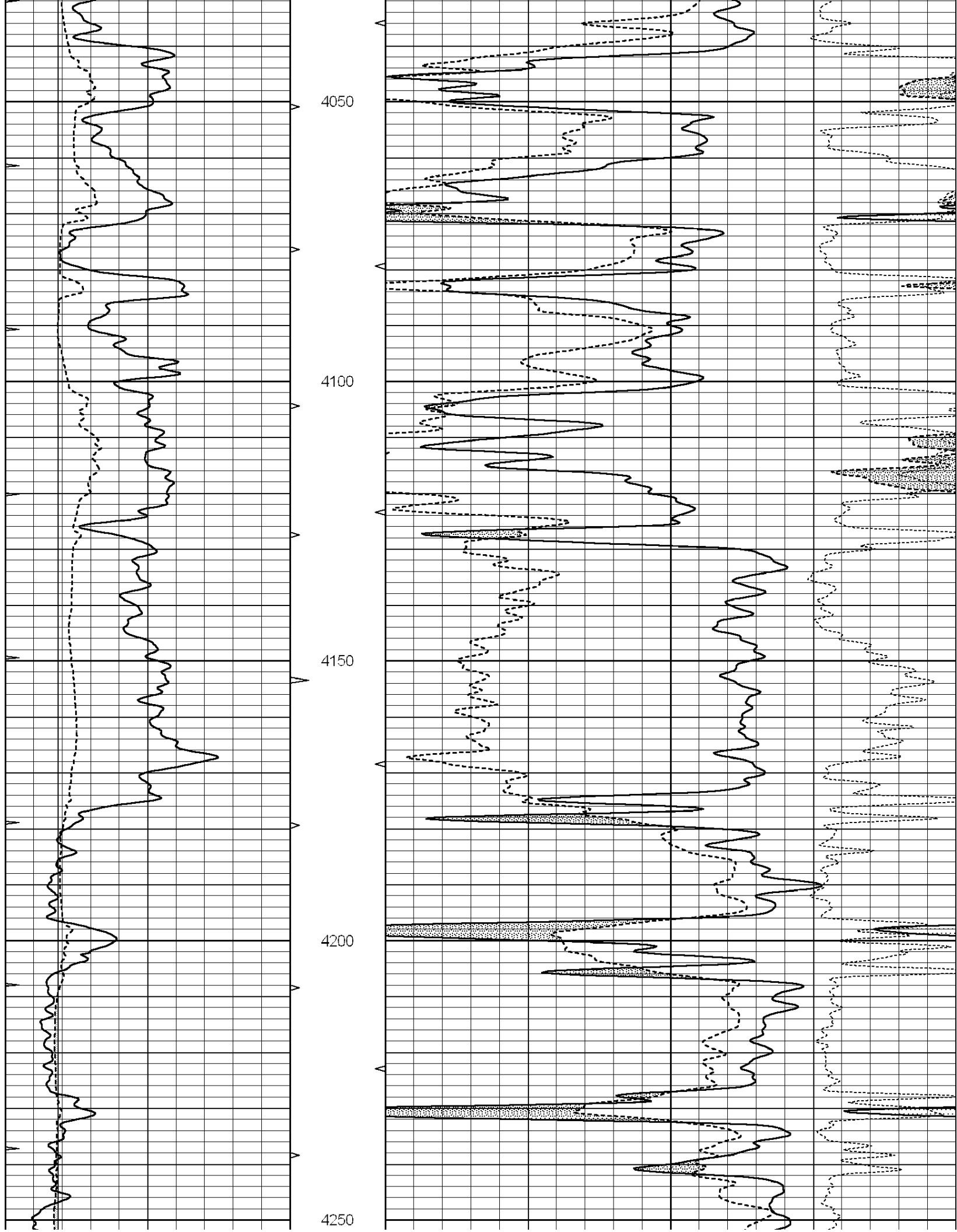
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

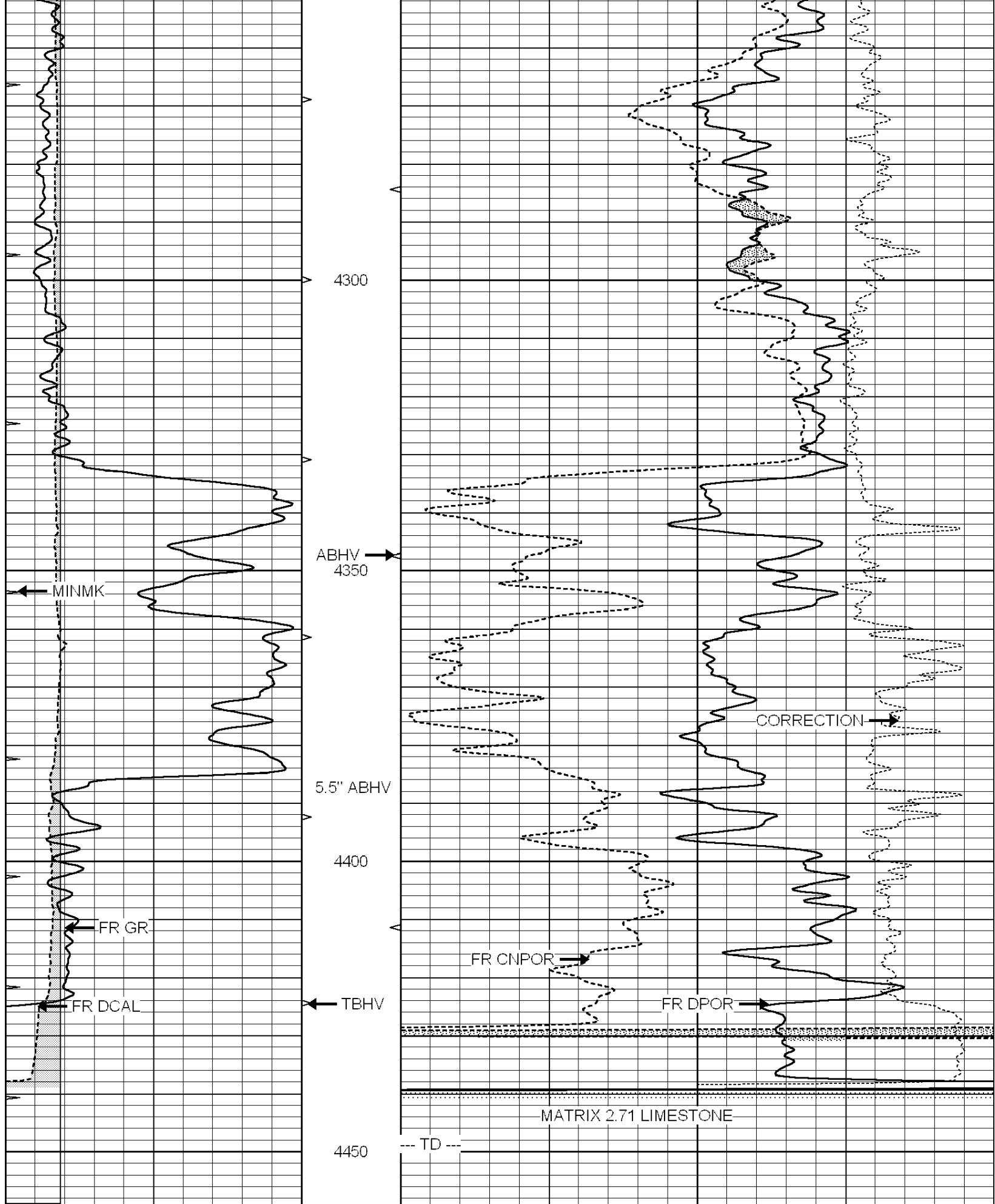












0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV		-0.25	CORRECTION (a/cc)		0.25



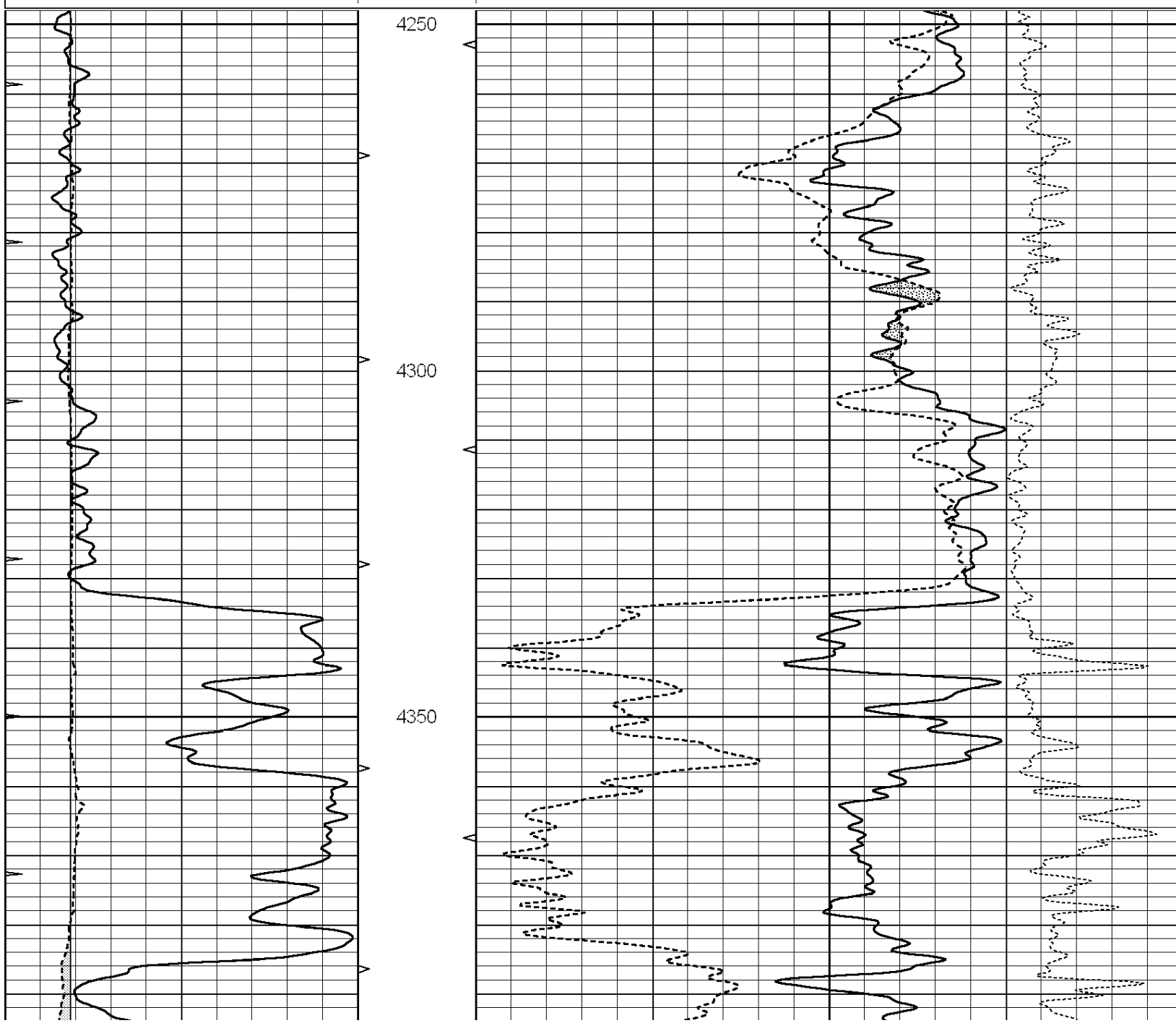
SUPERIOR

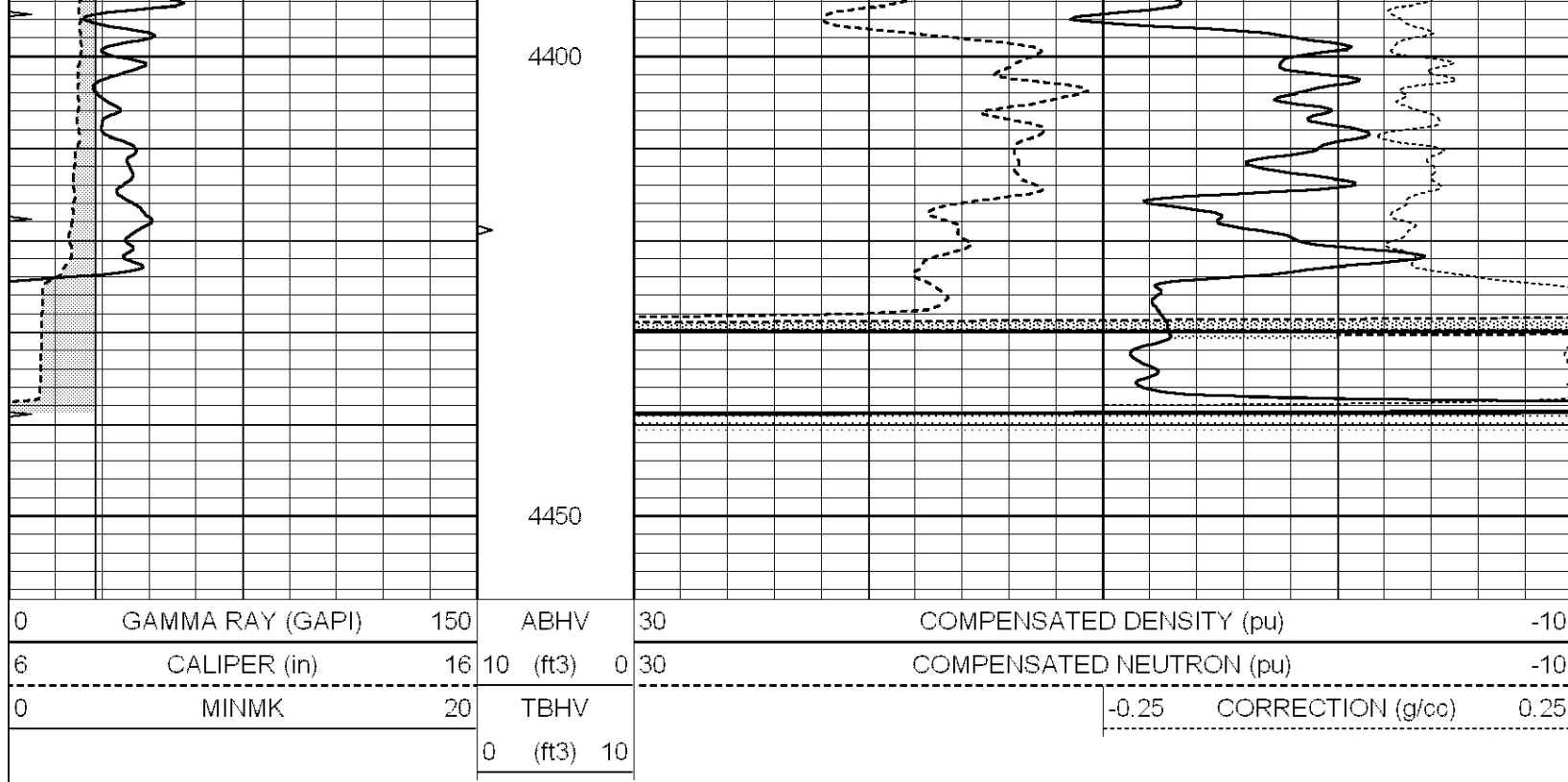
Hays,
Kansas

REPEAT SECTION

Database File: 006941ddn.db
Dataset Pathname: pass2.1
Presentation Format: den_neu
Dataset Creation: Thu Jun 23 04:29:54 2011
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		





Calibration Report

Database File: 006941ddn.db
 Dataset Pathname: pass3.3
 Dataset Creation: Thu Jun 23 05:05:23 2011

Dual Induction Calibration Report

Serial-Model: DIL2-GEAR
 Performed: Thu Jun 23 01:06:37 2011

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.667	V	0.000	400.000	mmho/m	530.000	-2.000
Medium	-0.003	0.739	V	0.000	462.500	mmho/m	550.000	-10.000
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

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Sat Jun 18 15:23:57 2011

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.580	g/cc	282.16	435.01	cps

Spine Angle = 76.03

Density/Spine Ratio = 0.569

	Size		Reading	
Small Ring	9.20	in	3.82	V

Large Ring 14.20 in 6.37 V

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: GR5
Tool Model: OPEN
Performed: Thu Jun 23 01:57:15 2011

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6500 GAPI/cps