



**SUPERIOR  
Hays,  
Kansas**

**COMPENSATED  
DENSITY  
NEUTRON LOG**

Company NORSTAR PETROLEUM, INC.  
Well WJLH KOONS #1-36  
Field  
County THOMAS  
State KANSAS

Company NORSTAR PETROLEUM, INC.  
Well WJLH KOONS #1-36  
Field  
County THOMAS State KANSAS

Location: API #: 15-193-20824  
237' FSL & 1005' FEL  
SEC 36 TWP 10S RGE 35W  
Permanent Datum GROUND LEVEL Elevation 3289  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL  
MICRO  
Elevation  
K.B. 3294  
D.F.  
G.L. 3289

Date	11-2-11
Run Number	ONE
Depth Driller	4900
Depth Logger	4901
Bottom Logged Interval	4877
Top Log Interval	3700
Casing Driller	260
Casing Logger	260
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3 / 64
pH / Fluid Loss	10.0 / 11.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.45 @ 71F
Rmf @ Meas. Temp	0.34 @ 71F
Rmc @ Meas. Temp	0.54 @ 71F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.260 @ 124F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	12:30 A.M.
Maximum Recorded Temperature	124F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	BOB ELDER

<<< Fold Here >>>

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: MONUMENT, 2W TO HIGHWAY #25, 2N, TO RD. "A", 6W, 1/2N, W INTO.

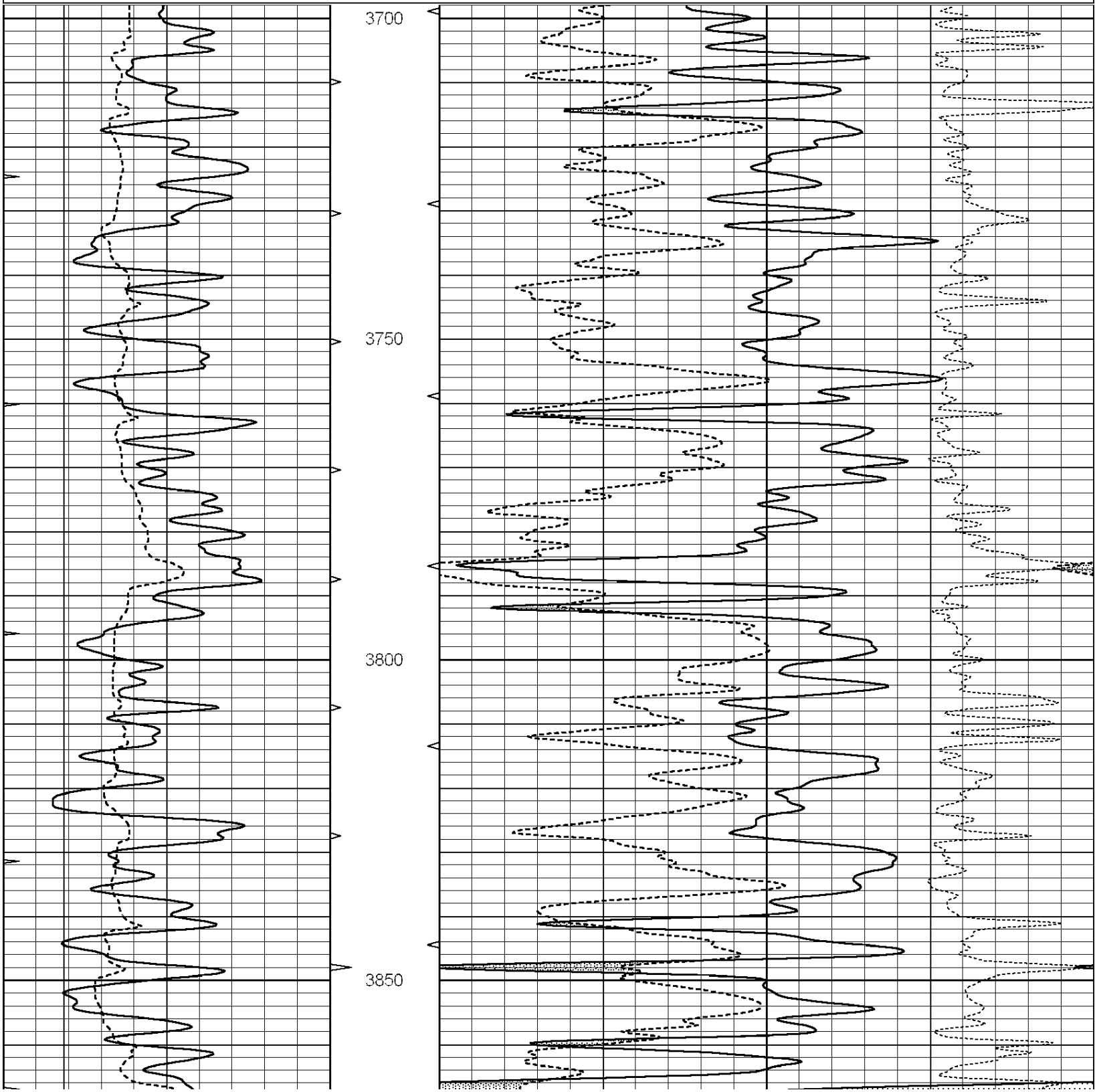


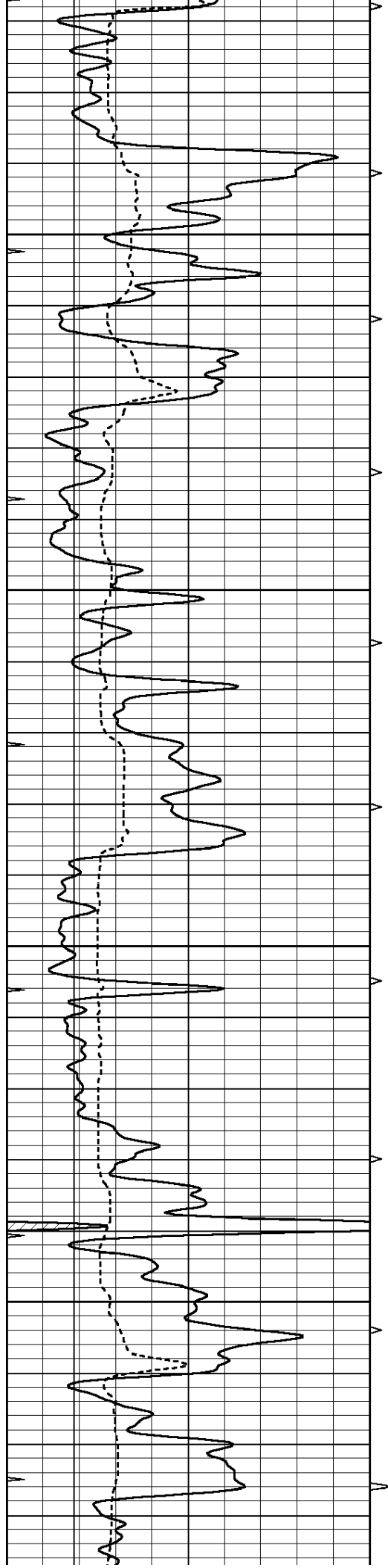
**SUPERIOR  
Hays,  
Kansas**

# MAIN SECTION

Database File: 007776ddn.db  
 Dataset Pathname: pass3.A  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Nov 02 02:31:23 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	COMPENSATED NEUTRON (pu)	-10
6	CALIPER (in)	16	TBHV		-0.25 CORRECTION (g/cc)	0.25
0	MINMK	20	0 (ft3)	10		



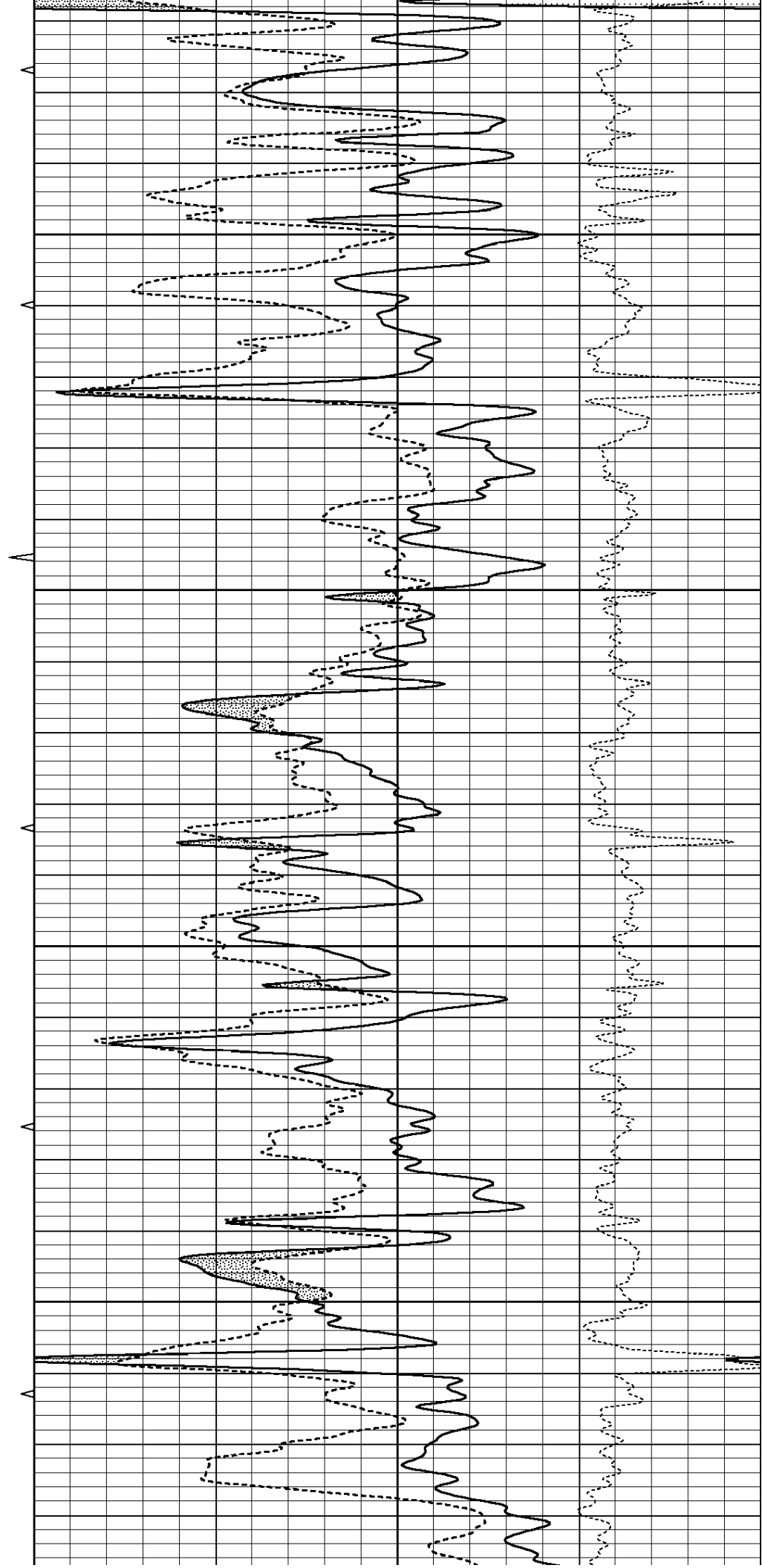


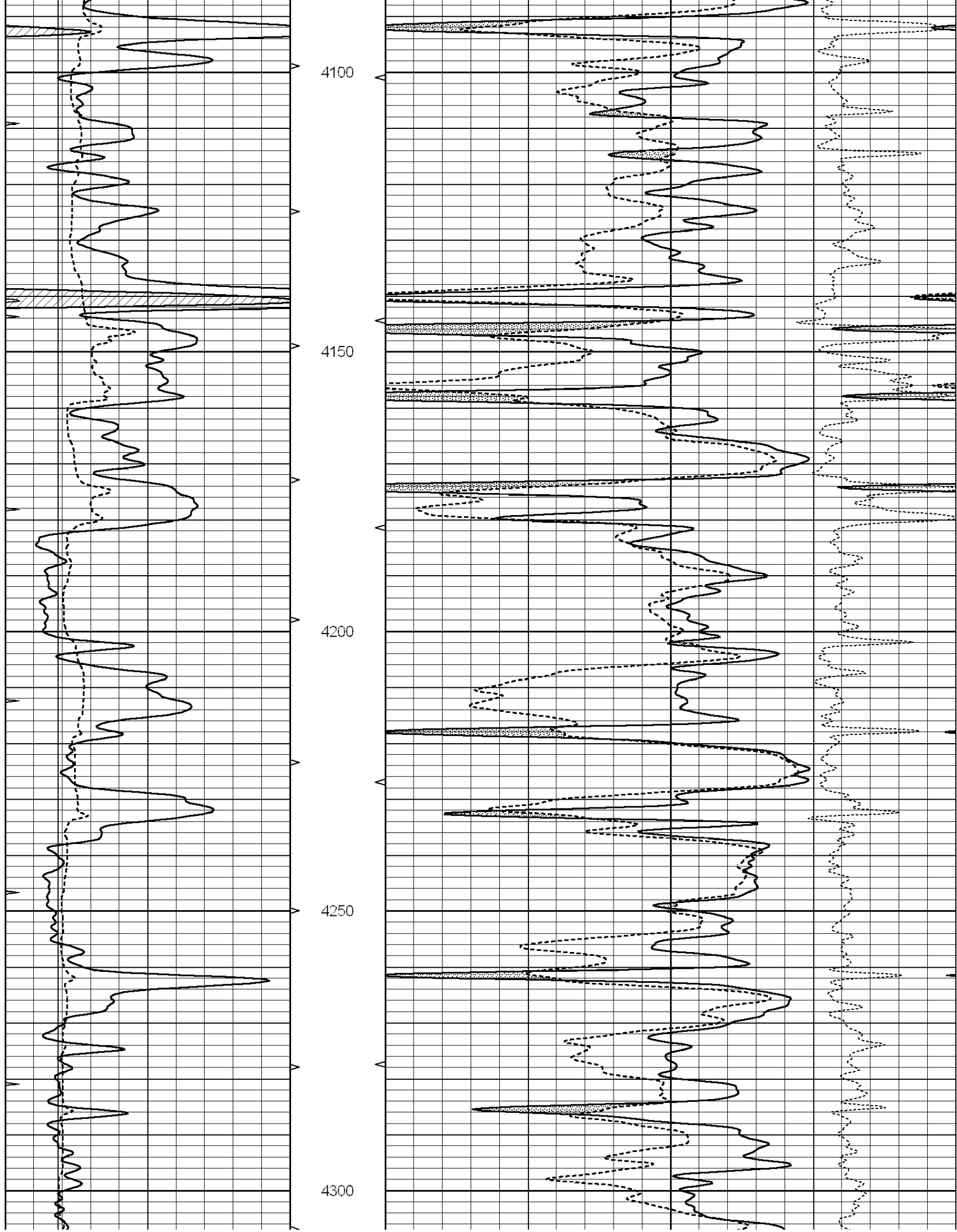
3900

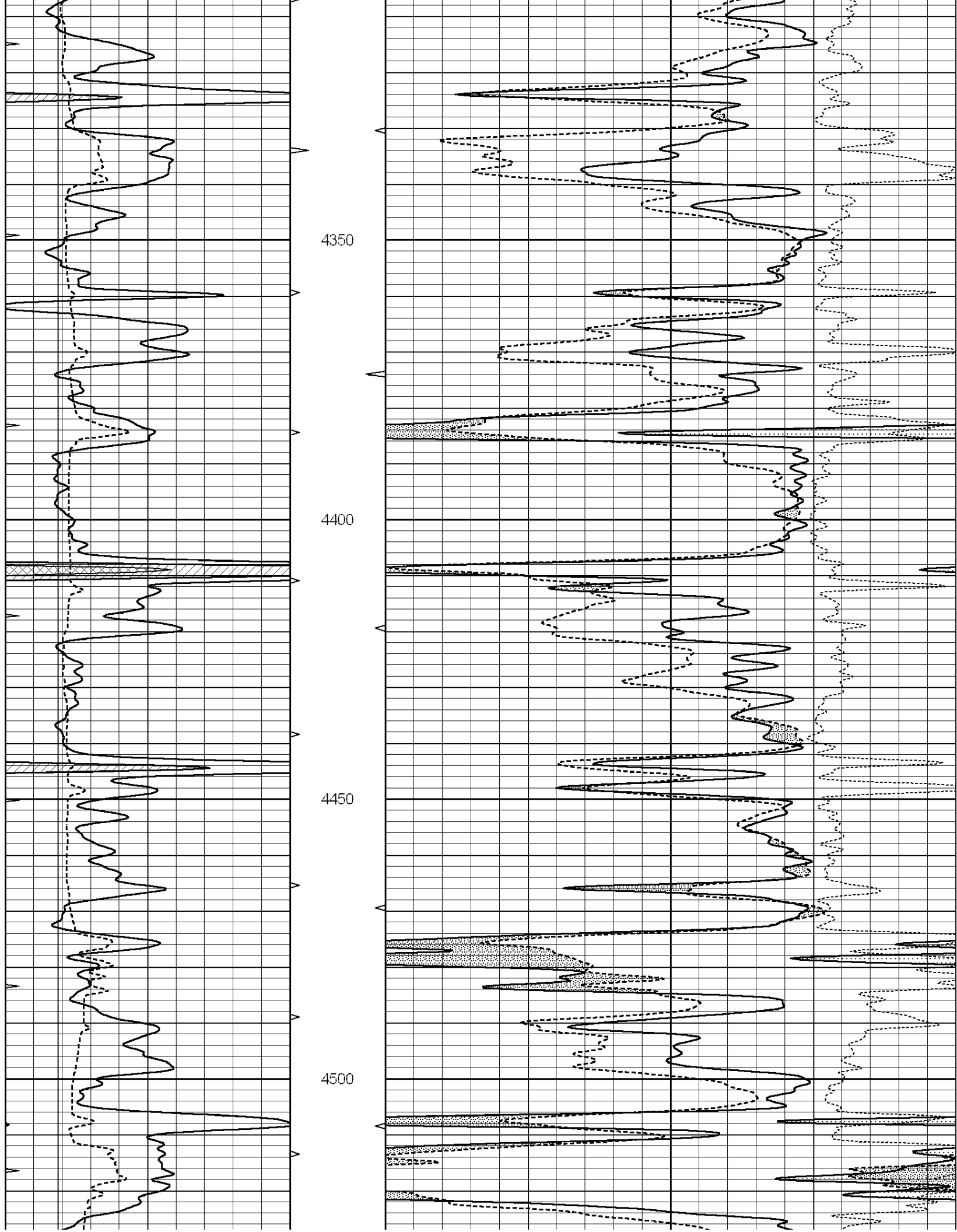
3950

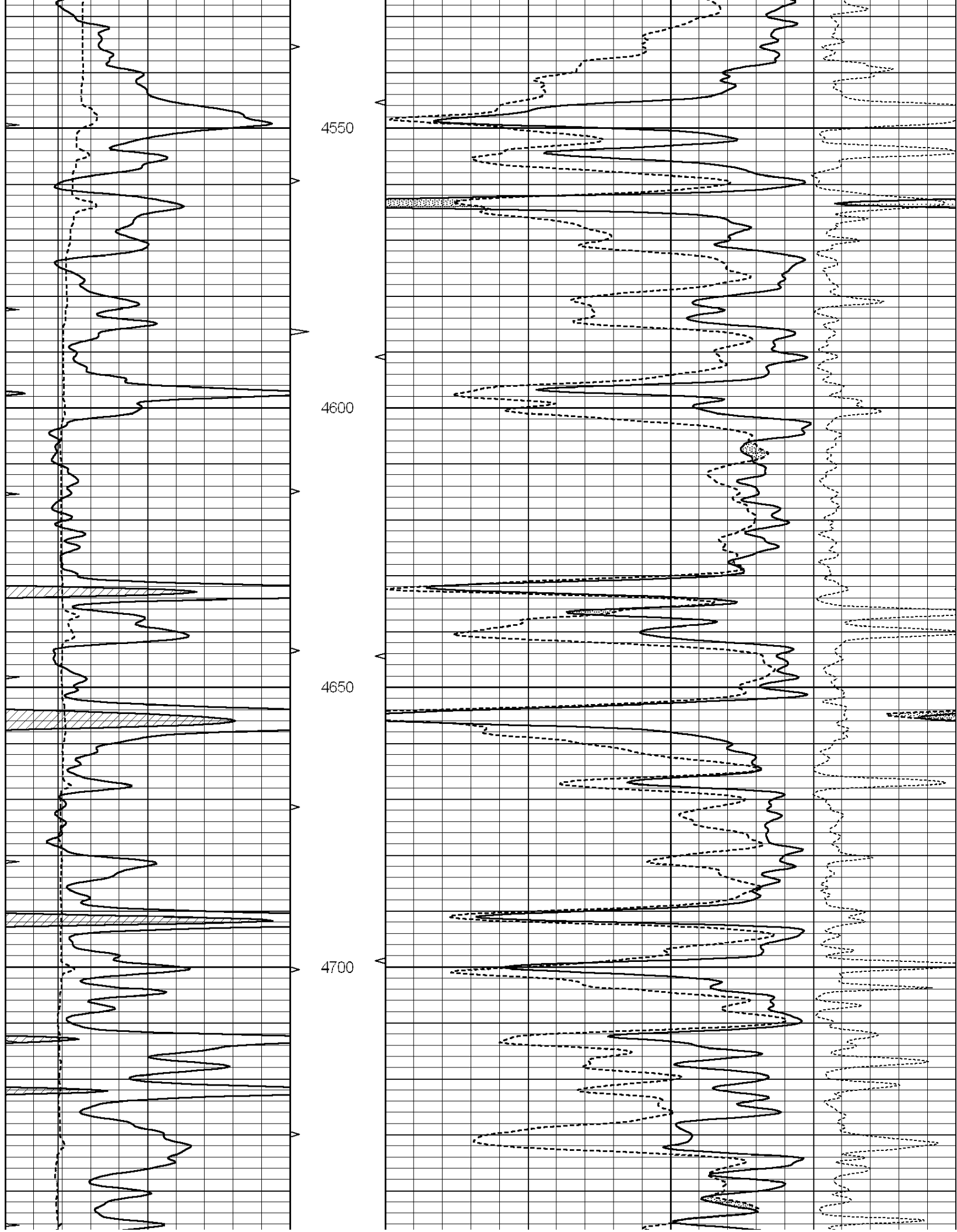
4000

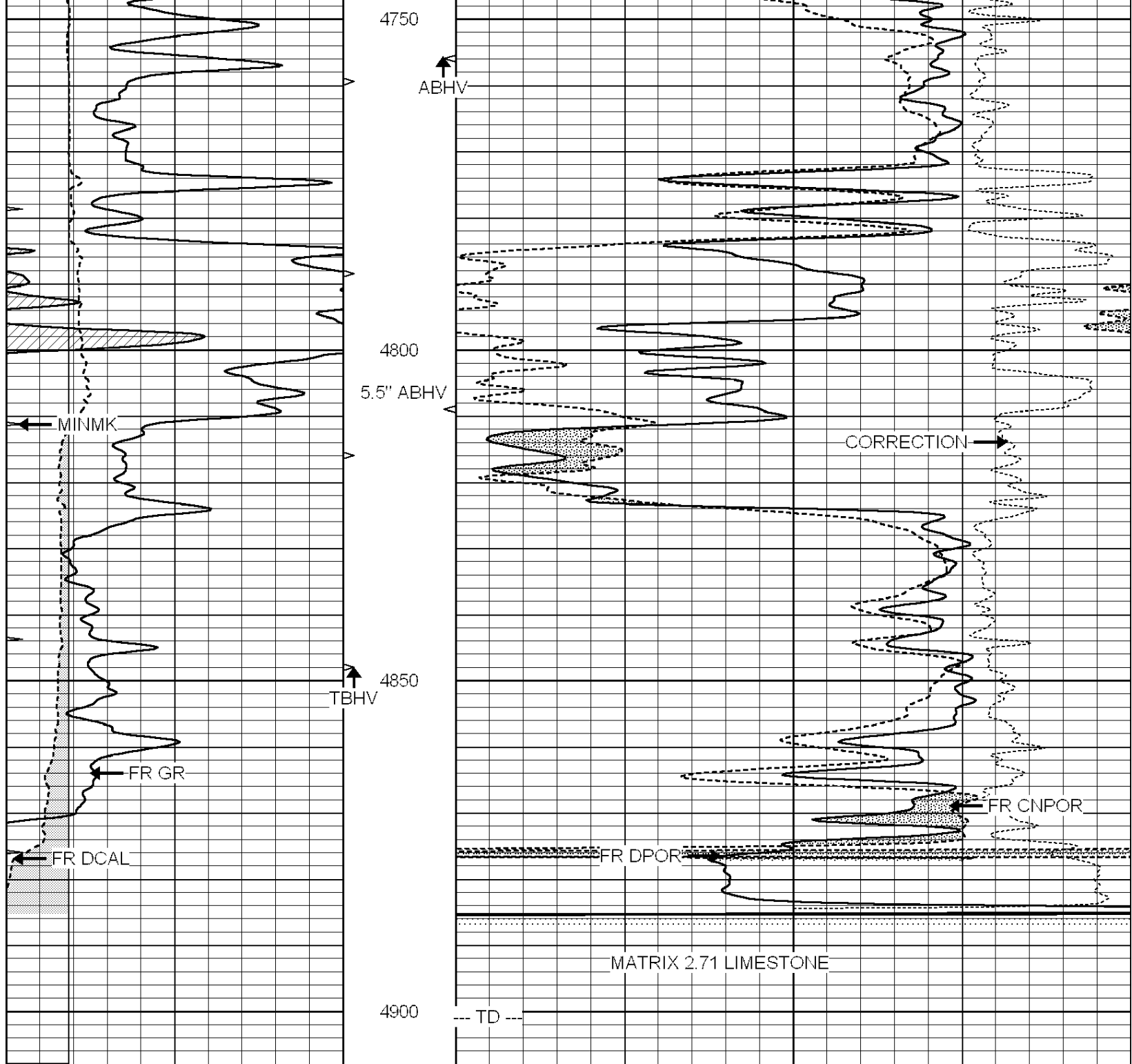
4050











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

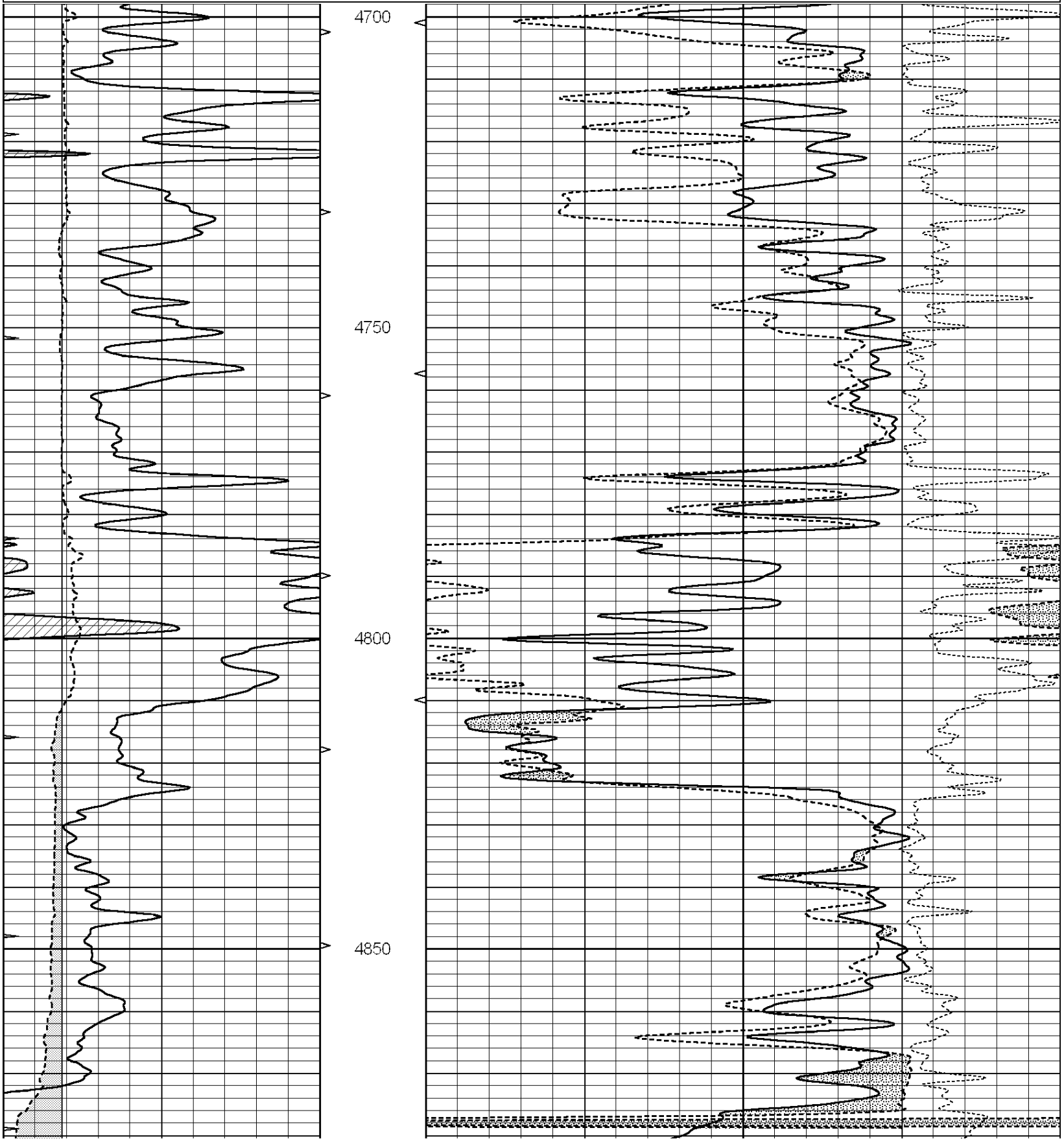


SUPERIOR  
Hays,  
Kansas

# REPEAT SECTION

Presentation Format: den\_neu  
 Dataset Creation: Wed Nov 02 02:37:13 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	COMPENSATED NEUTRON (pu)	-10
6	CALIPER (in)	16	TBHV		-0.25 CORRECTION (g/cc)	0.25
0	MINMK	20	0 (ft3)	10		



			4900					
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)			-10
6	CALIPER (in)	16	TBHV		-0.25	CORRECTION (g/cc)		0.25
0	MINMK	20	0 (ft3) 10					

### Calibration Report

Database File: 007776ddn.db  
 Dataset Pathname: pass3.1A  
 Dataset Creation: Wed Nov 02 02:29:04 2011

### Dual Induction Calibration Report

Serial-Model: DIL5-GEAR  
 Performed: Wed Nov 02 00:39:53 2011

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	530.000	-18.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	550.000	-13.000
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

### Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART  
 Source / Verifier: 147 / 147  
 Master Calibration Performed: Tue Nov 01 22:42:35 2011

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.590	g/cc	282.16	435.01	cps
Spine Angle = 76.03			Density/Spine Ratio = 0.576		
	Size		Reading		
Small Ring	8.80	in	3.15	V	
Large Ring	14.00	in	4.72	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:	Wed Nov 02 00:54:00 2011	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6500	GAPI/cps