



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company DOWNING - NELSON OIL CO. INC.
Well CROSSLAND #1-16
Field WILDCAT
County TREGO
State KANSAS

Company DOWNING - NELSON OIL COMPANY, INC.
Well CROSSLAND #1-16
Field WILDCAT
County TREGO State KANSAS

Location: API # : 15-195-22697-0000
1710' FNL & 960' FWL
SW - NE - SW - NW
SEC 16 TWP 13S RGE 22W
Permanent Datum GROUND LEVEL Elevation 2306
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SONIC
Elevation
K.B. 2314
D.F. 2312
G.L. 2306

Date	2/10/11		
Run Number	ONE		
Depth Driller	4243		
Depth Logger	4244		
Bottom Logged Interval	4220		
Top Log Interval	3300		
Casing Driller	8 5/8"@223'		
Casing Logger	223		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,000 PPM	
Density / Viscosity	9.3/48		
pH / Fluid Loss	8.8/9.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.850@.65F		
Rmf @ Meas. Temp	.638@.65F		
Rmc @ Meas. Temp	1.02@.65F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.468@118F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	7:15 A.M.		
Maximum Recorded Temperature	118F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	RON NELSON		

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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

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
OGALLAH, KS. & I-70 4S. ON HWY 147 TO (BOOSTER STATION) "RD. 0", 2W. PAST LOW WATER
BRIDGE, 1/2S., E. INTO

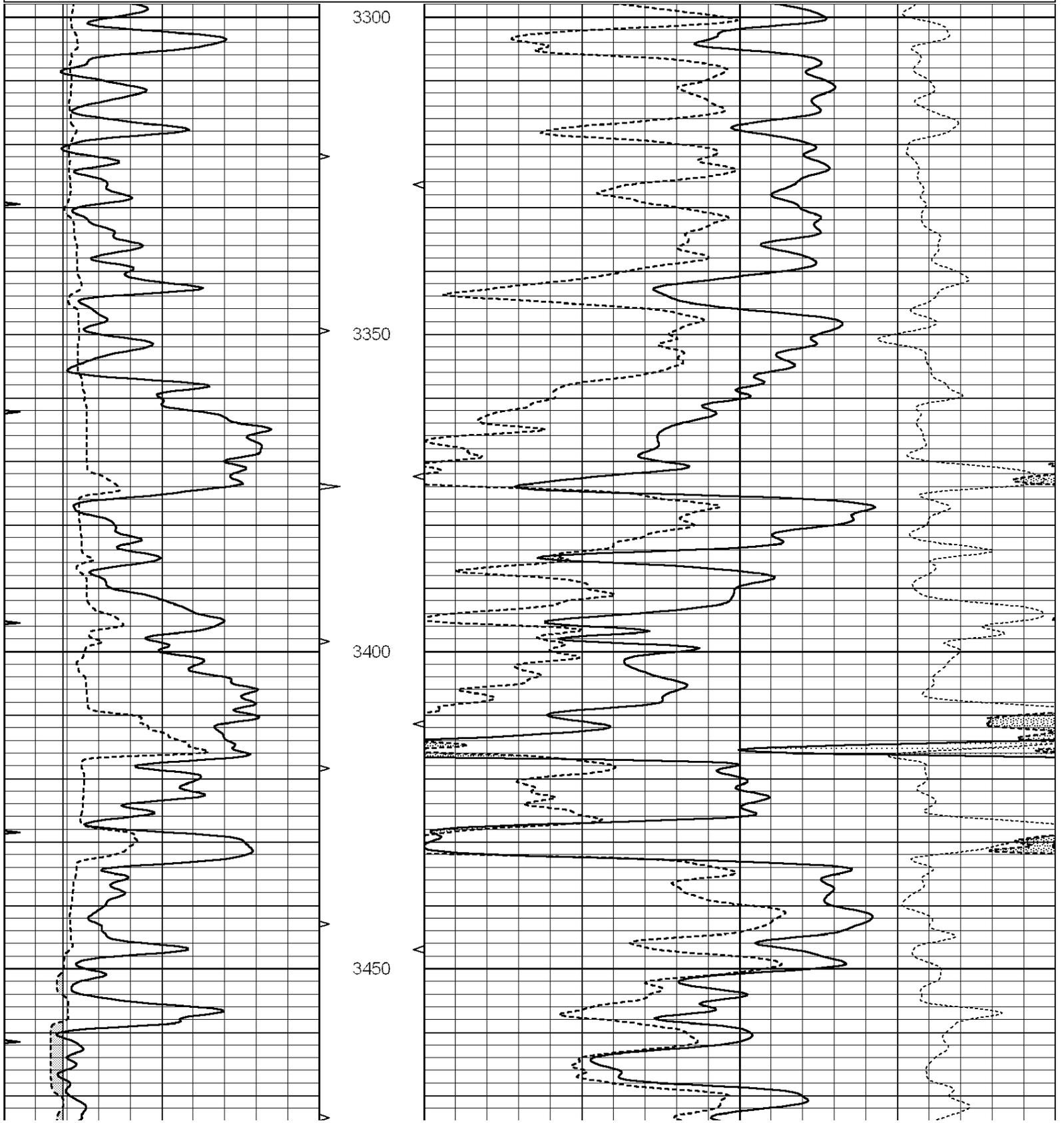


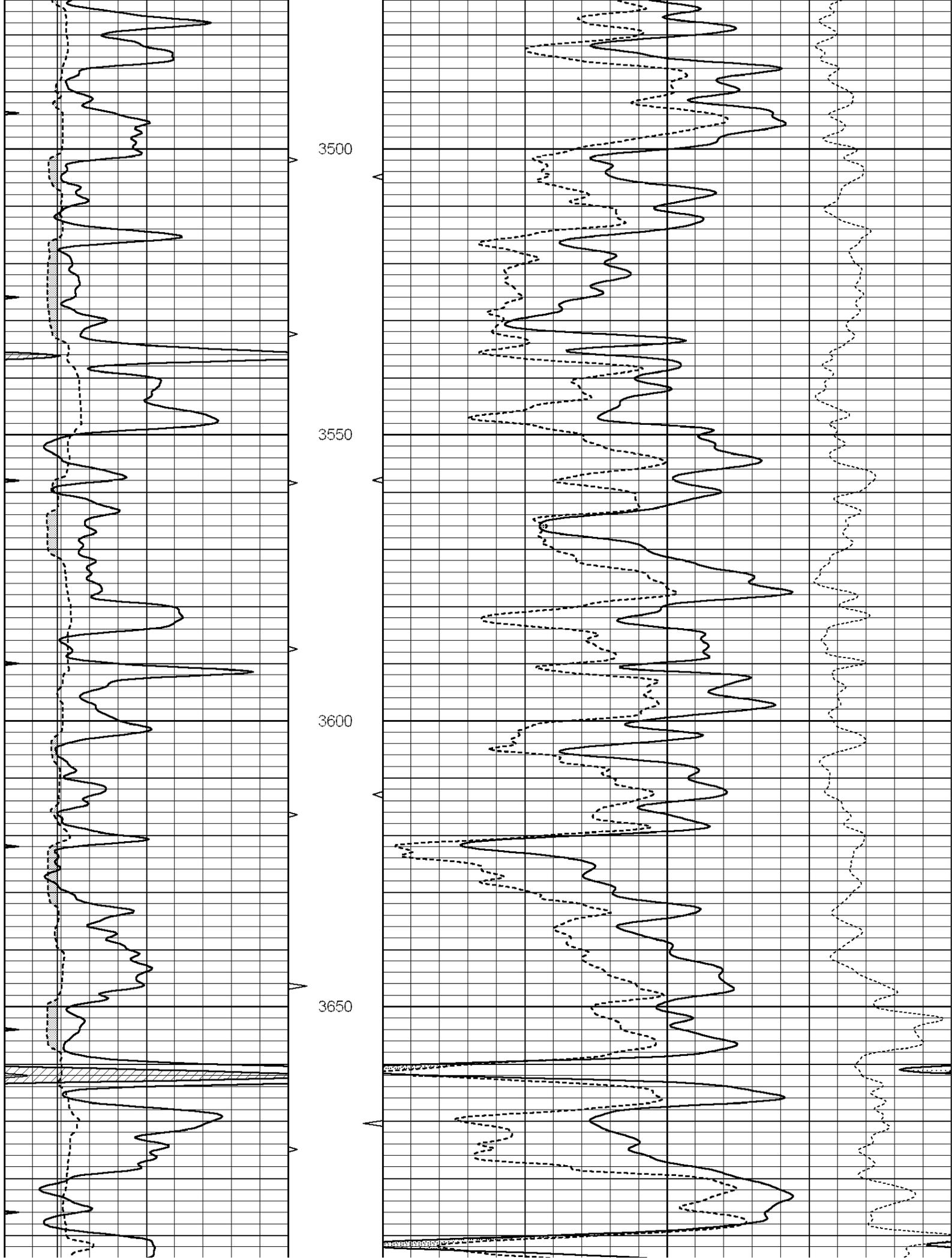
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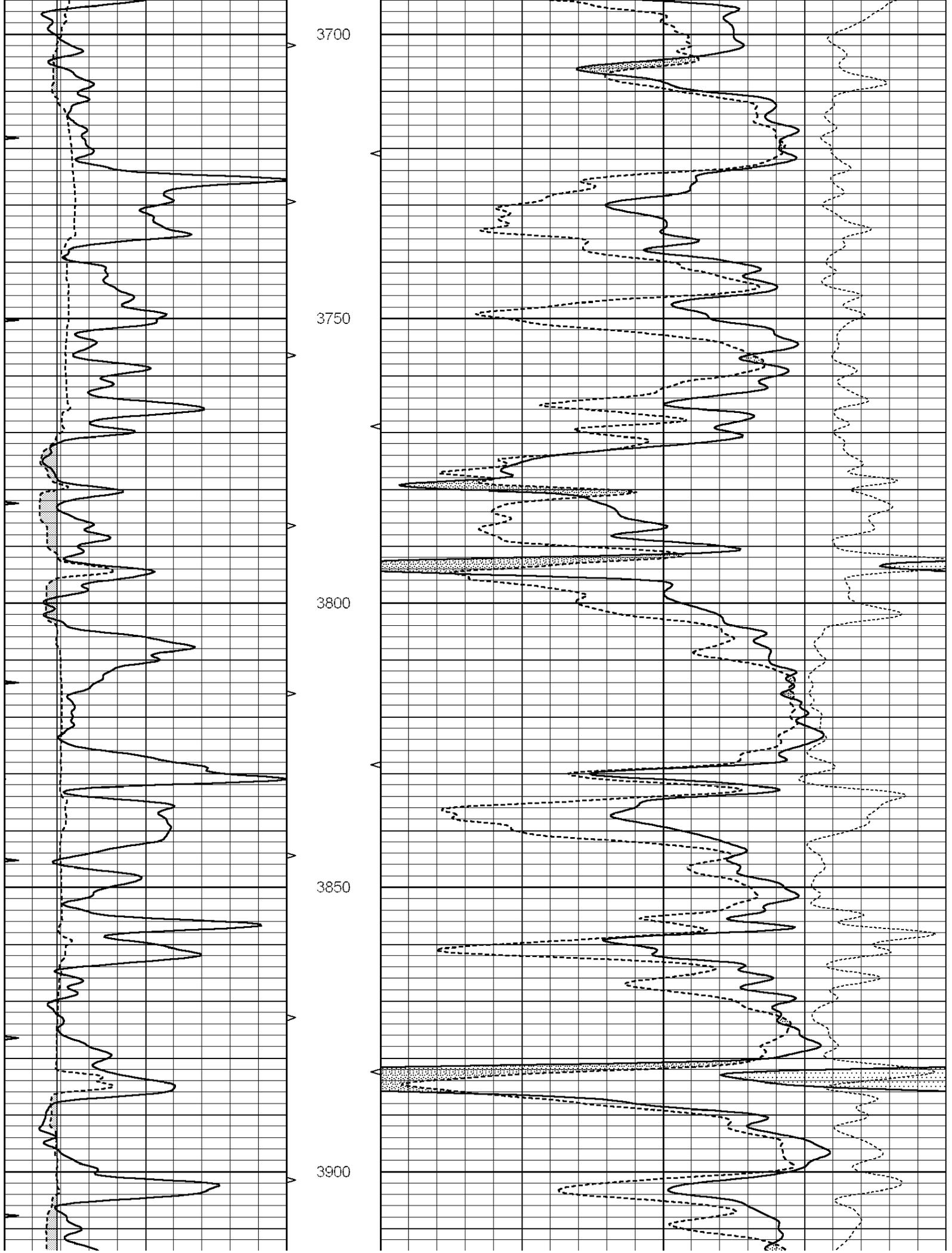
MAIN SECTION

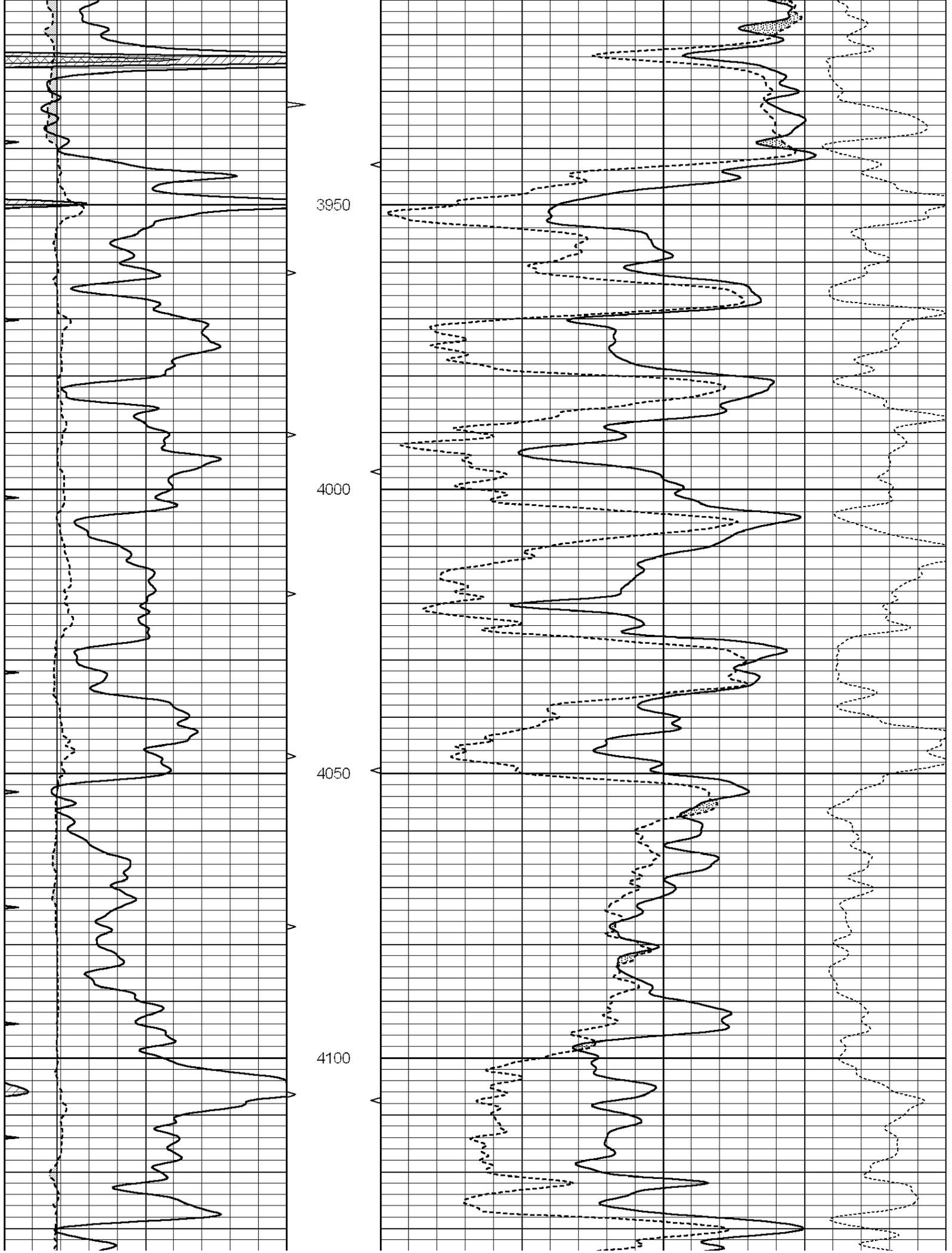
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 Dataset Pathname: pass3.7
 Presentation Format: den_neu
 Dataset Creation: Thu Feb 10 10:13:45 2011
 Charted by: Depth in Feet scaled 1:240

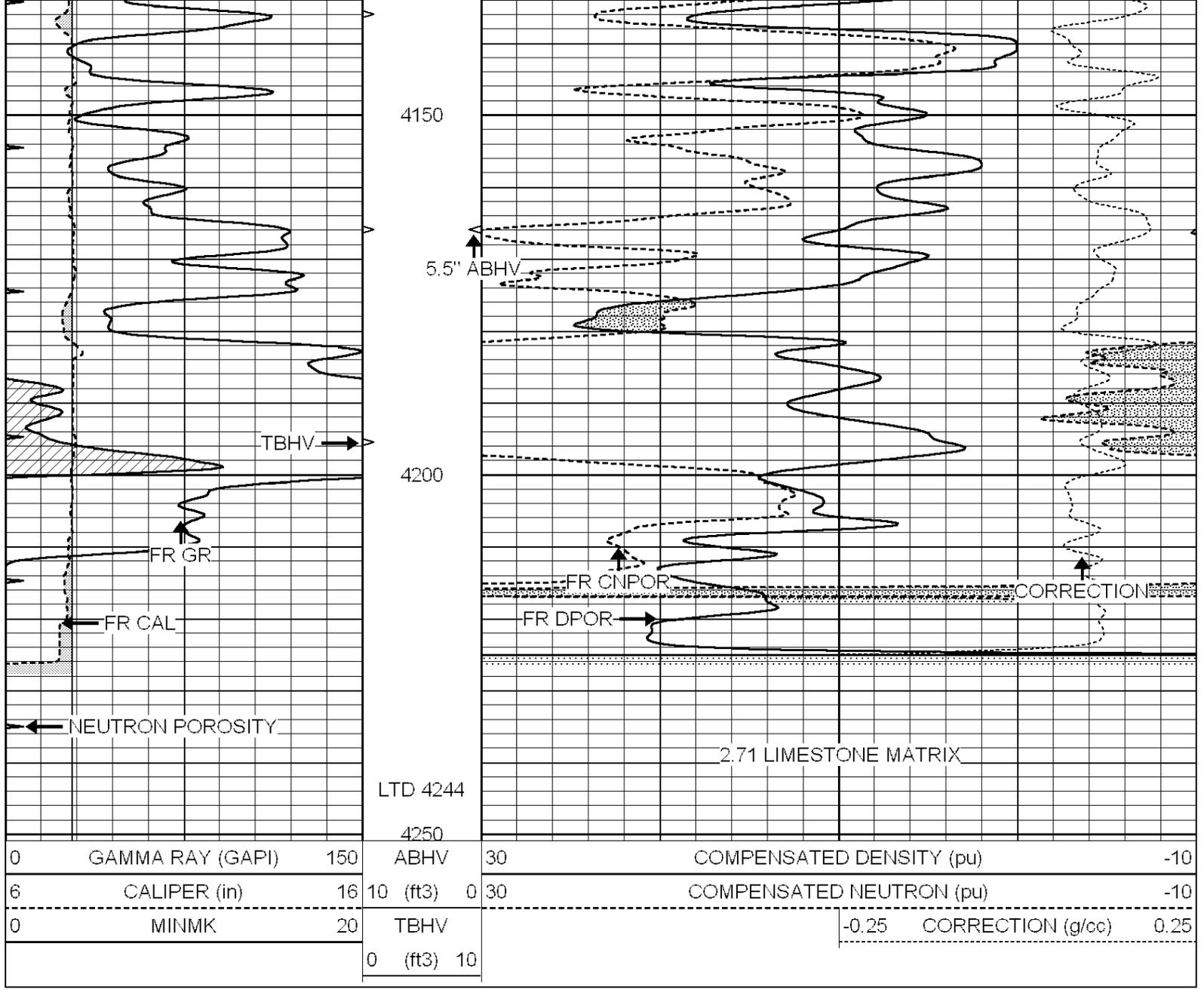
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		









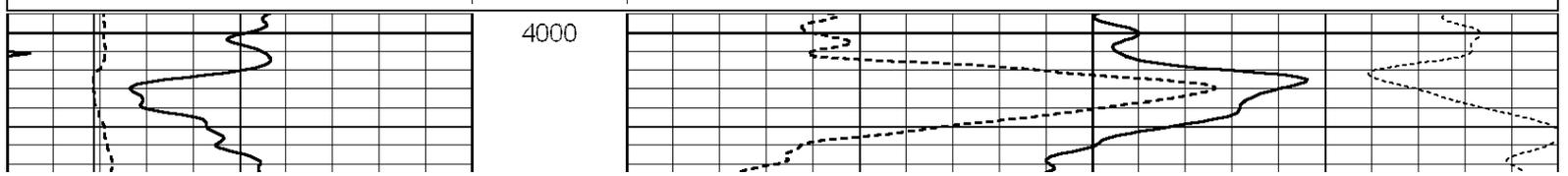


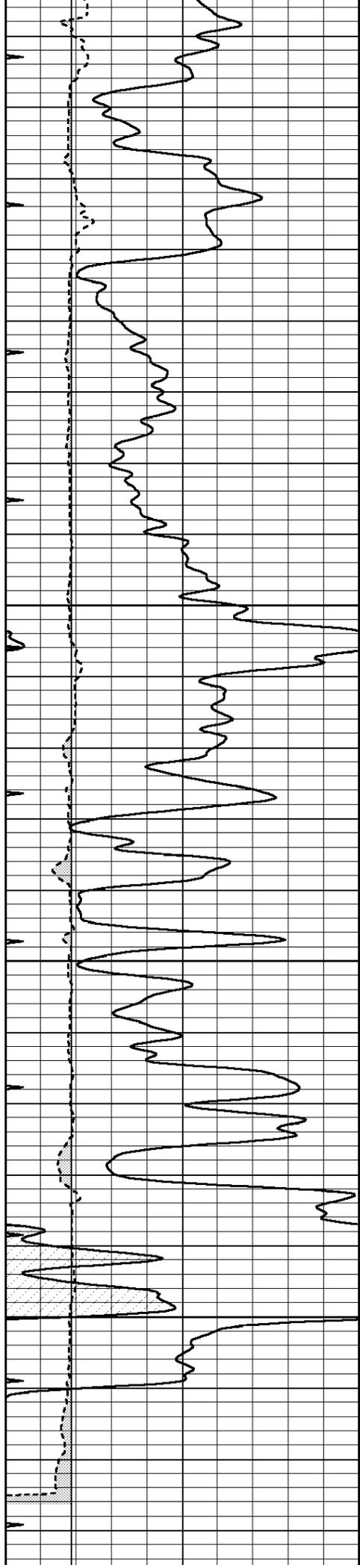
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REPEAT SECTION

Database File: 006285ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: den_neu
 Dataset Creation: Thu Feb 10 09:32:52 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		



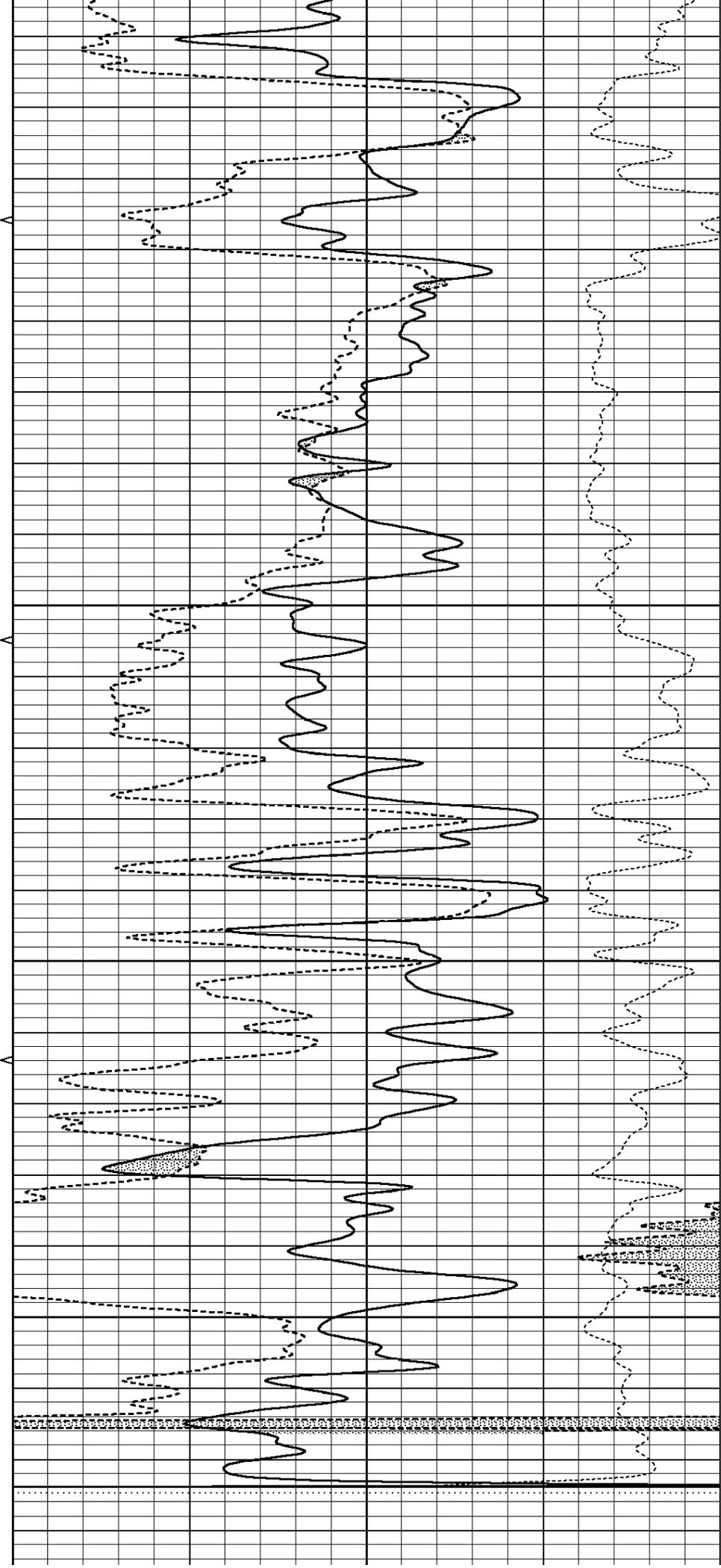


4050

4100

4150

4200



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: 006285ddn.db
 Dataset Pathname: pass3.7
 Dataset Creation: Thu Feb 10 10:13:45 2011

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
 Performed: Tue Jan 25 14:01:12 2011

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	-5.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	740.000	-19.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000

Litho Density Calibration Report

Serial: 004N Model: PRB
 Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle : 45.5 Rib Slope : 1.017 Density/Spine Ratio : 0.573
 Spine Angle : 75.5 Spine Slope : 3.865 Spine Intercept : -19.7

Caliper

	Readings	Reference	
Low Ref	1.2	8.0	
High Ref	3.2	14.0	
	Gain: 3.0		Offset: 4.4

Compensated Neutron Calibration Report

Serial Number: NEU_4I
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	996.00 cps	1000.00 cps	1.0000
Long Space	977.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number:	GR4	
Tool Model:	OPEN	
Performed:	Thu Feb 10 07:34:32 2011	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	1.3000	GAPI/cps