

**NABORS****COMPLETION
& PRODUCTION
SERVICES CO.****COMPENSATED
DENSITY / NEUTRON
LOG**

Company	PHILLIPS EXPLORATION CO., L.C.		
Well	ROSPROY #1-20		
Field	WILDCAT		
County	TREGO		
State	KANSAS		
Location:	Company	PHILLIPS EXPLORATION COMPANY, L.C.	
	Well	ROSPROY #1-20	
	Field	WILDCAT	
	County	TREGO	
Location:	State	KANSAS	
	API # :	15-195-22886-0000	
	1980' FSL & 1980' FWL		
	SEC 20 TWP 14S RGE 24W		
Permanent Datum	GROUND LEVEL	Elevation	2341
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 2346 D.F. 2344 G.L. 2341
Date	9/11/13		
Run Number	ONE		
Depth Driller	4270		
Depth Logger	4266		
Bottom Logged Interval	4244		
Top Log Interval	3300		
Casing Driller	8 5/8"@217'		
Casing Logger	217		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.8/48		
pH / Fluid Loss	10.0/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.950@80F		
Rmf @ Meas. Temp	.713@80F		
Rmc @ Meas. Temp	1.14@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.644@118F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	2:45 A.M.		
Maximum Recorded Temperature	118F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JIM PHILLIPS		

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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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS

WAKEENEY, KS. & I-70, 13S. ON HWY 283 TO "RD. V", 7W. TO "T", (VODA RD.) S. INTO @CORNER

**NABORS****COMPLETION
& PRODUCTION****MAIN SECTION**

Database File:

011669ddn.db

Dataset Pathname:

pass3.4

Presentation Format:

den_neu

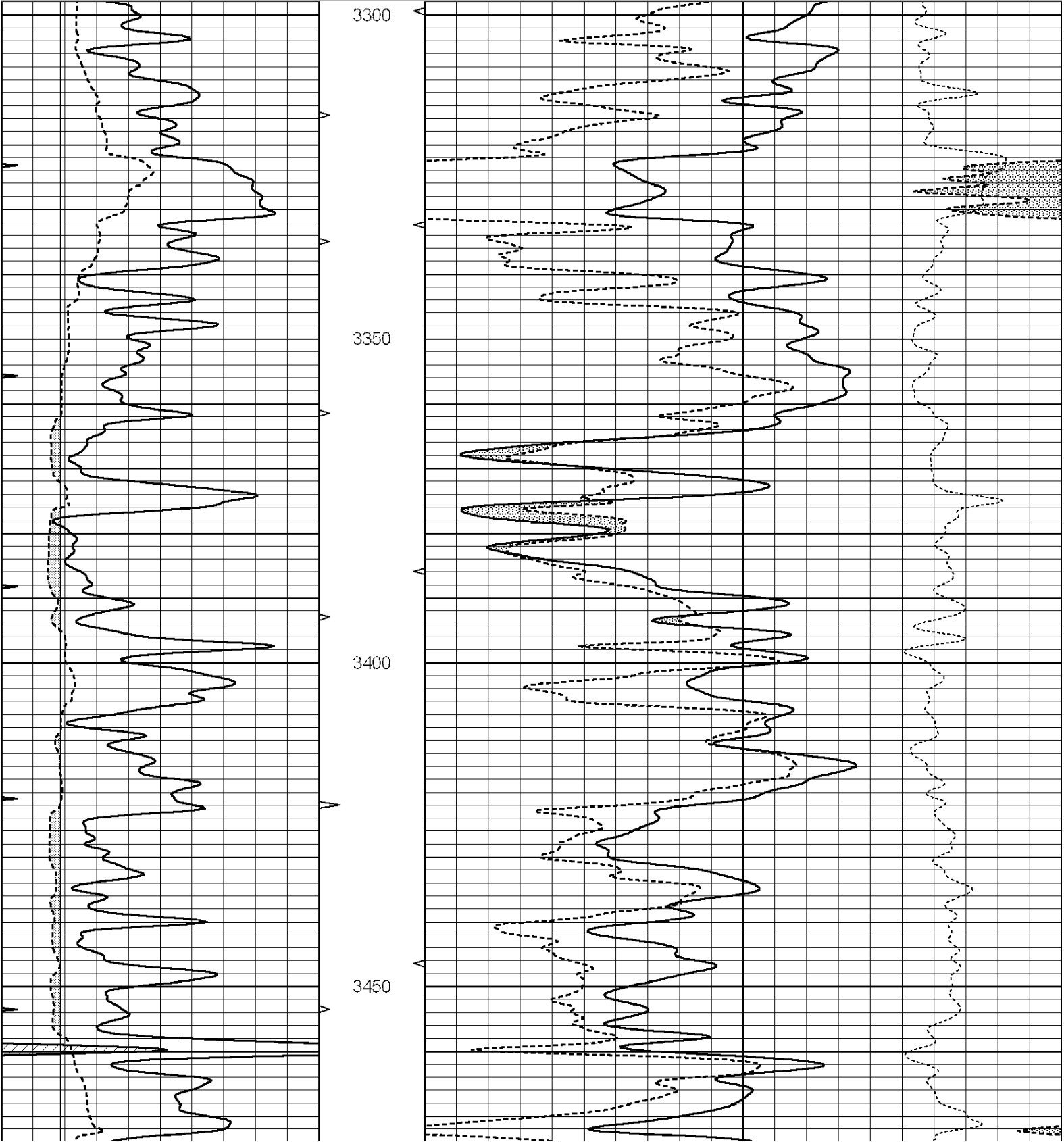
Dataset Creation:

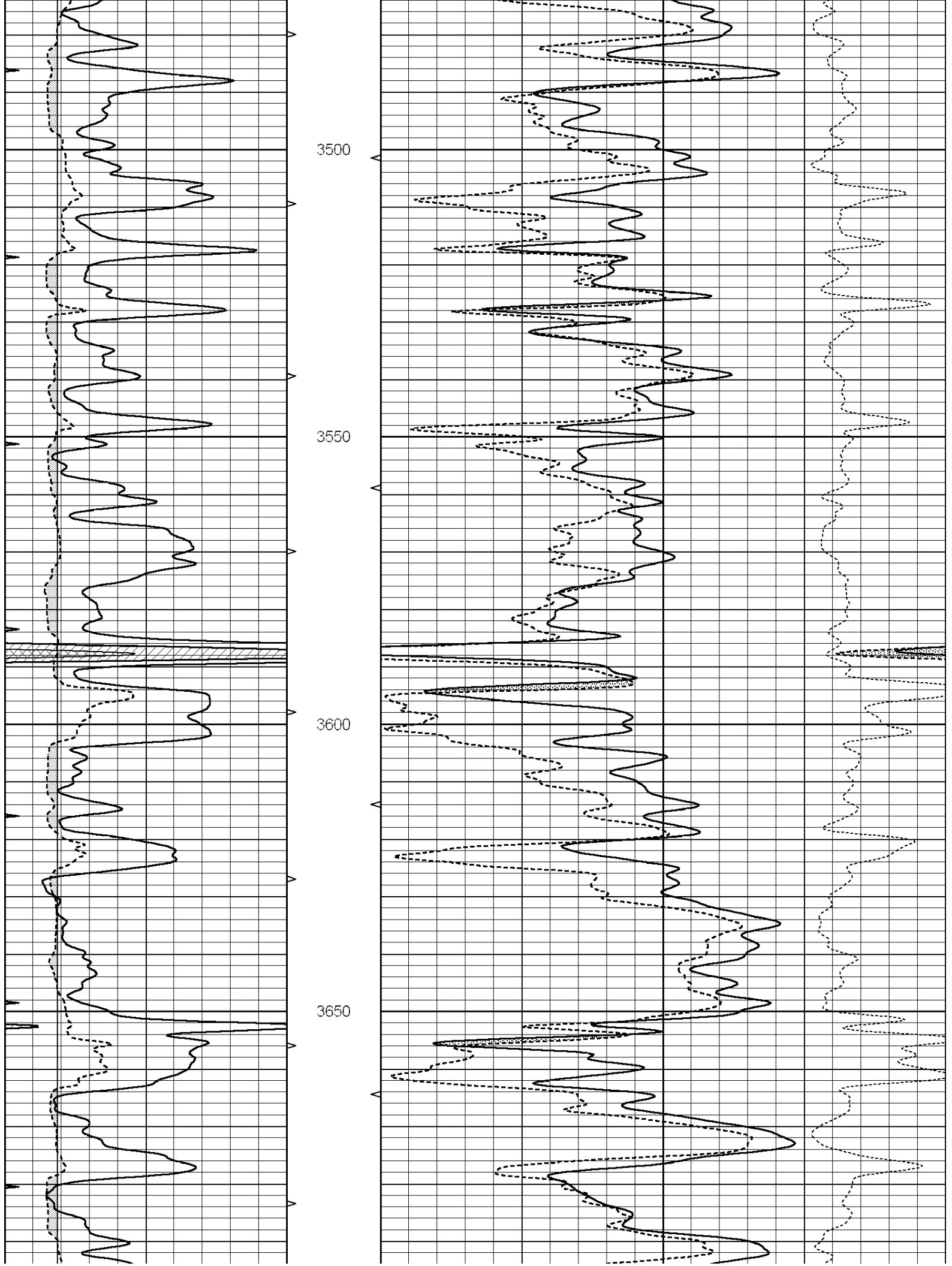
Wed Sep 11 04:14:54 2013 by Calc SOC 120430

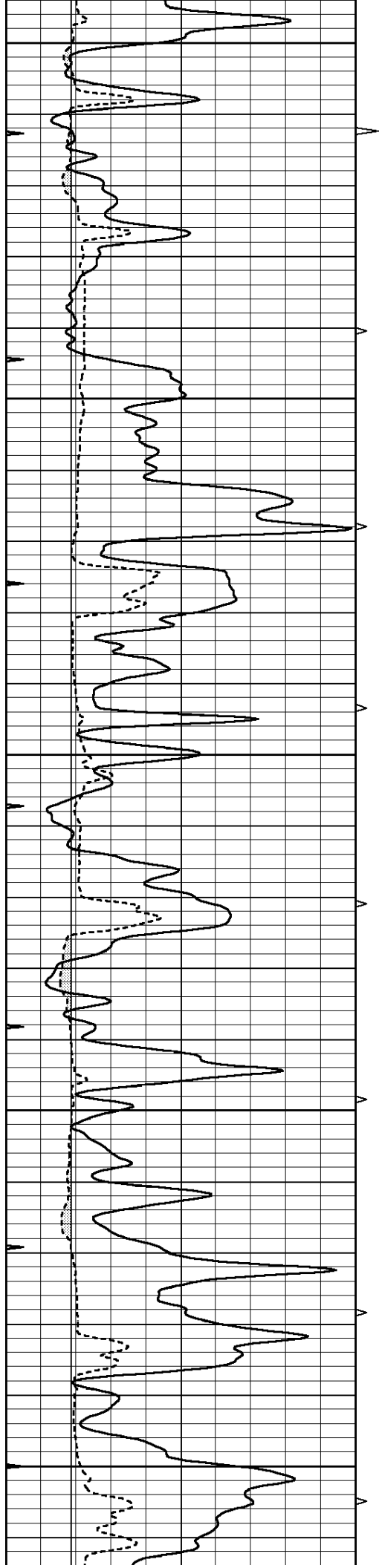
Charted by:

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		







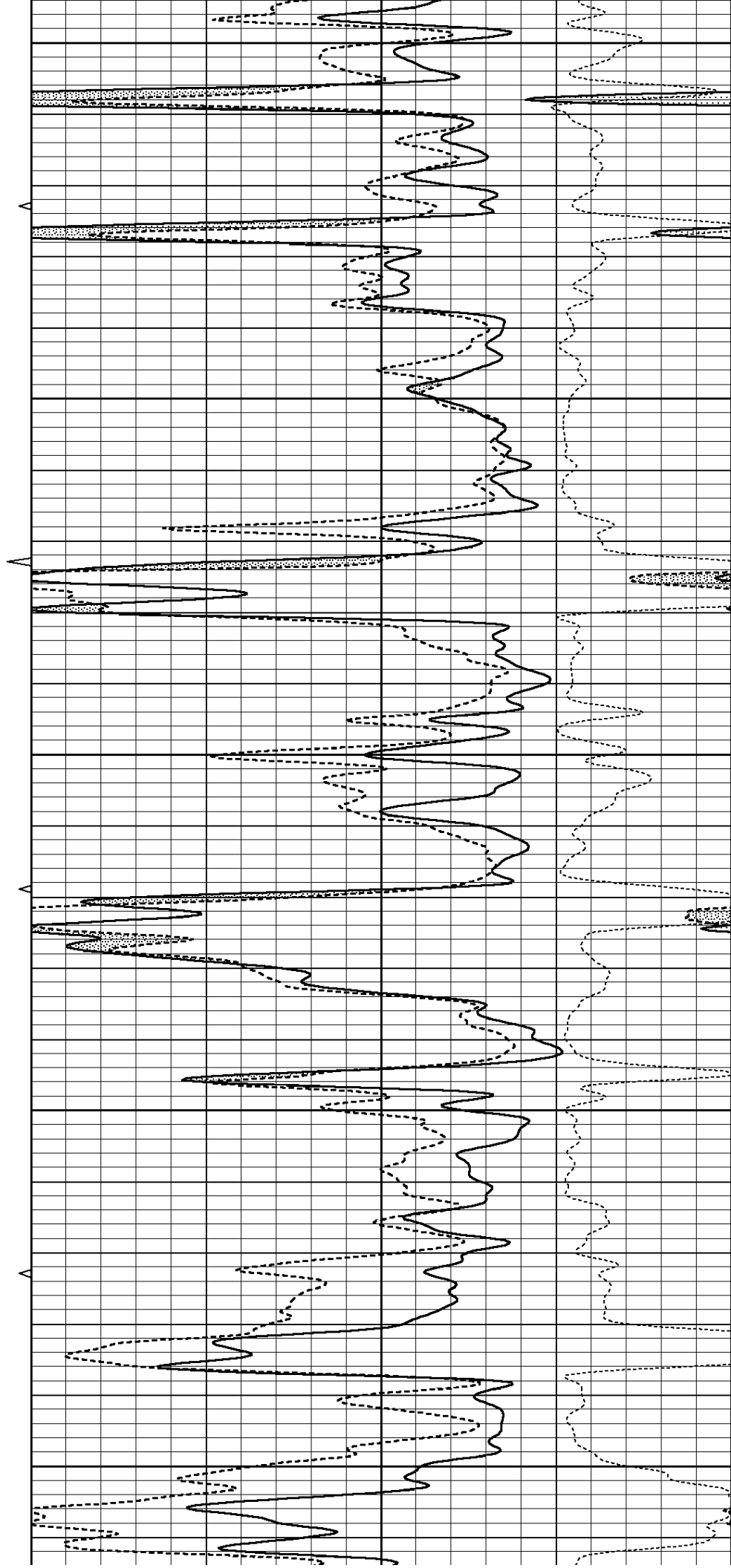
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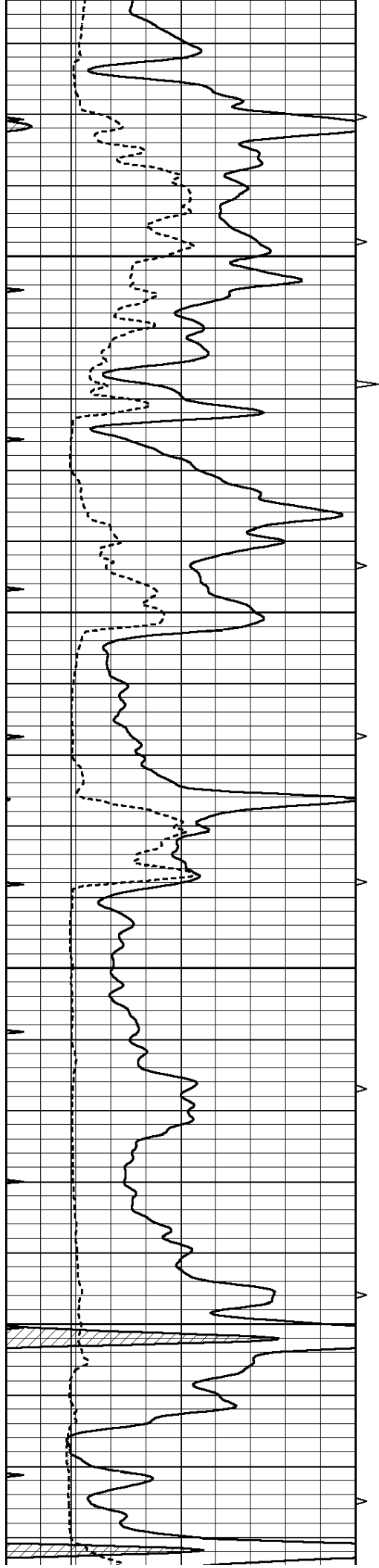
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3800

3850

3900



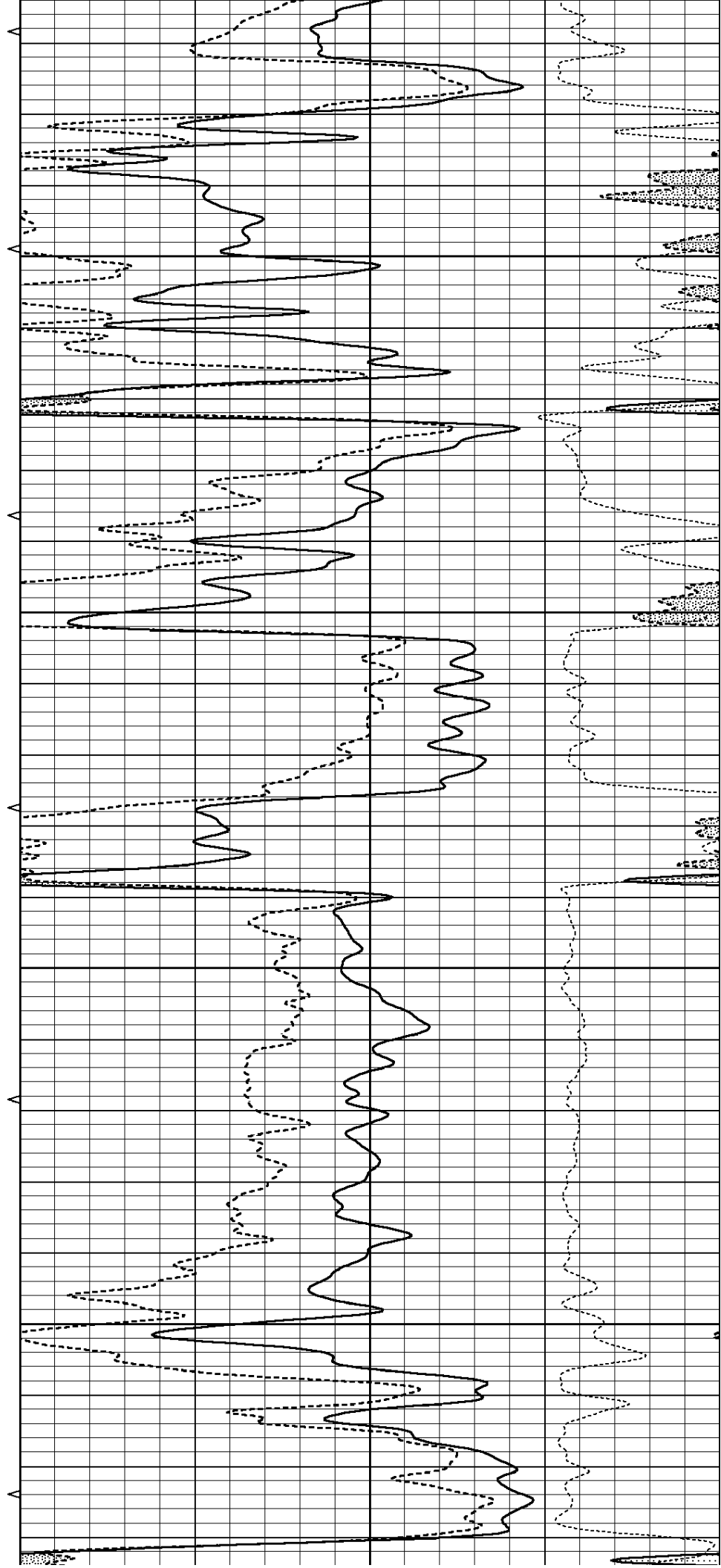


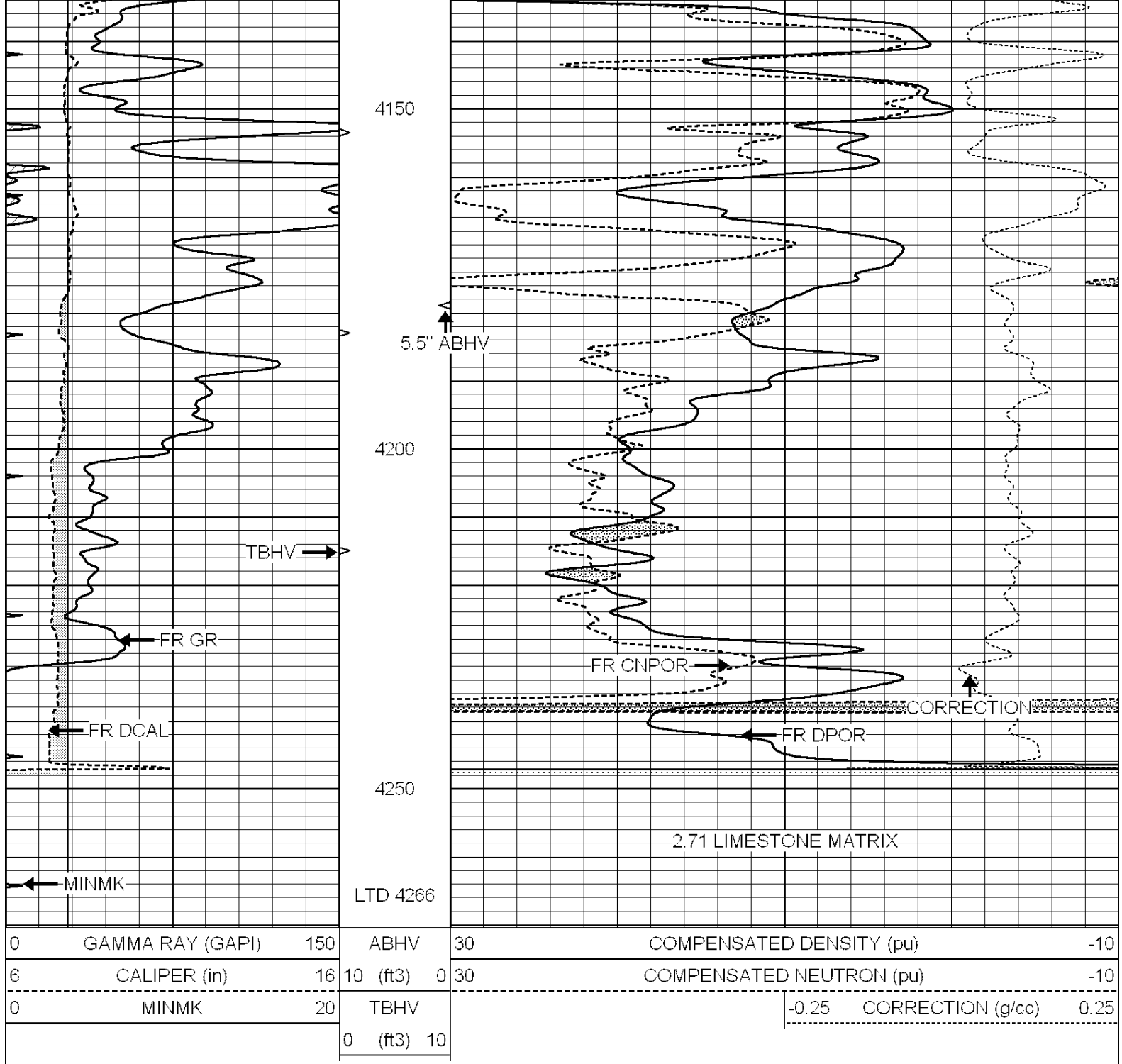
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4000

4050

4100



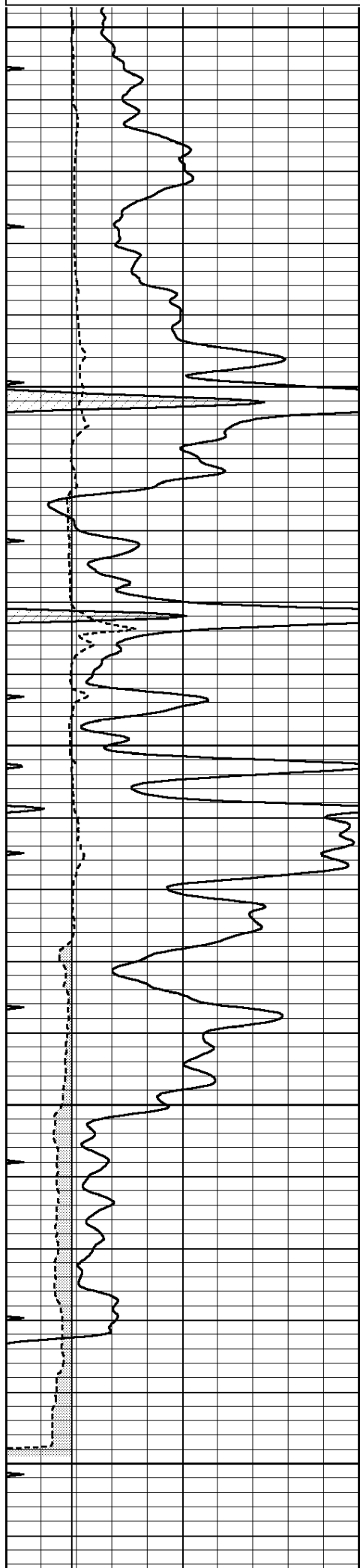


NABORS
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SERVICES CO.

REPEAT SECTION

Database File: 011669ddn.db
Dataset Pathname: pass2.3
Presentation Format: den_neu
Dataset Creation: Wed Sep 11 04:06:02 2013 by Calc SOC 120430
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		



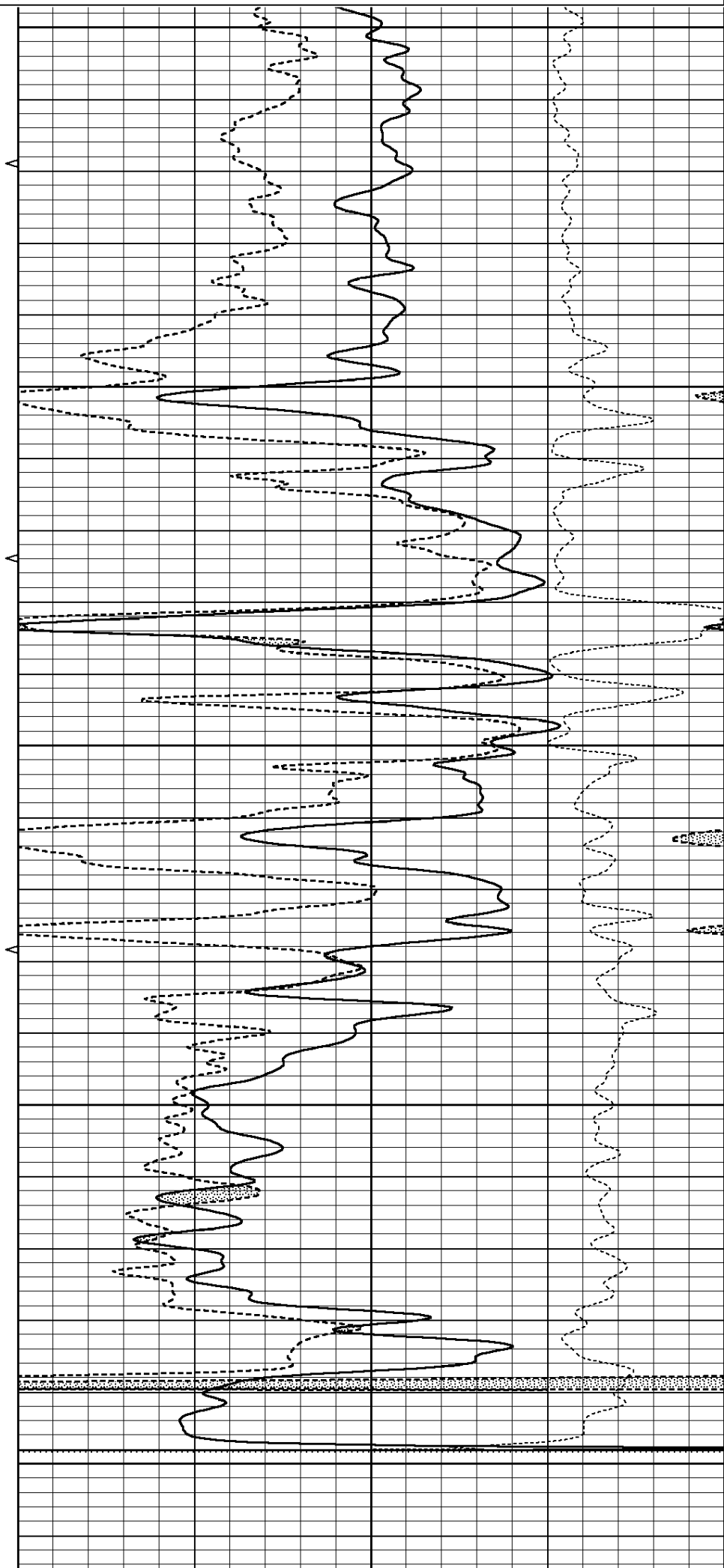
4050

4100

4150

4200

4250



Litho Density Calibration Report					
Serial: 001		Model: PRB			
Master Calibration		Performed Tue May 28 08:54:22 2013			
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1890.3	12786.5	4236.7	13497.2	cps
Window 2	1764.1	11051.7	3765.5	11456.4	cps
Window 3	1442.8	5894.4	2376.2	5911.4	cps
Window 4	428.0	428.9	420.8	426.5	cps
Long Space	0.0	9287.6	2001.3	9692.3	cps

Short Space	3.2	3351.1	2186.8	3398.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 44.5	Rib Slope	: 0.981	Density/Spine Ratio	: 0.552
Spine Angle	: 74.5	Spine Slope	: 3.596	Spine Intercept	: -20.1

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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Compensated Neutron Calibration Report

Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070559	
Tool Model:	OPEN_GR	
Performed:	Wed Jun 12 18:25:42 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2500	GAPI/cps

SERBILLY. U.S. AIRCRAFT