



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company	CAPTIVA II	Company	CAPTIVA II
Well	WARD-COUNTY UNIT #1-3	Well	WARD-COUNTY UNIT #1-3
Field	LARNED	Field	LARNED
County	PAWNEE	County	PAWNEE
State	KANSAS	State	KANSAS
Location:	API # : 15-145-21735-00-00	Other Services	MEL/DIL SONIC
Permanent Datum	330' FNL & 852' FWL	Elevation	
Log Measured From	E2 - NW - NE - NE	K.B. 1999	
Drilling Measured From	SEC 3 TWP 22S RGE 16W	D.F. 1997	
		G.L. 1986	
Date	11/4/13		
Run Number	ONE		
Depth Driller	4040		
Depth Logger	4041		
Bottom Logged Interval	4017		
Top Log Interval	3100		
Casing Driller	8 5/8 @ 1021		
Casing Logger	1020		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 58		
pH / Fluid Loss	9.5 / 7.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.65 @ 60F		
Rmf @ Meas. Temp	0.49 @ 60F		
Rmc @ Meas. Temp	0.78 @ 60F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.34 @ 116F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	116F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	JEREMY SCHWARTZ		

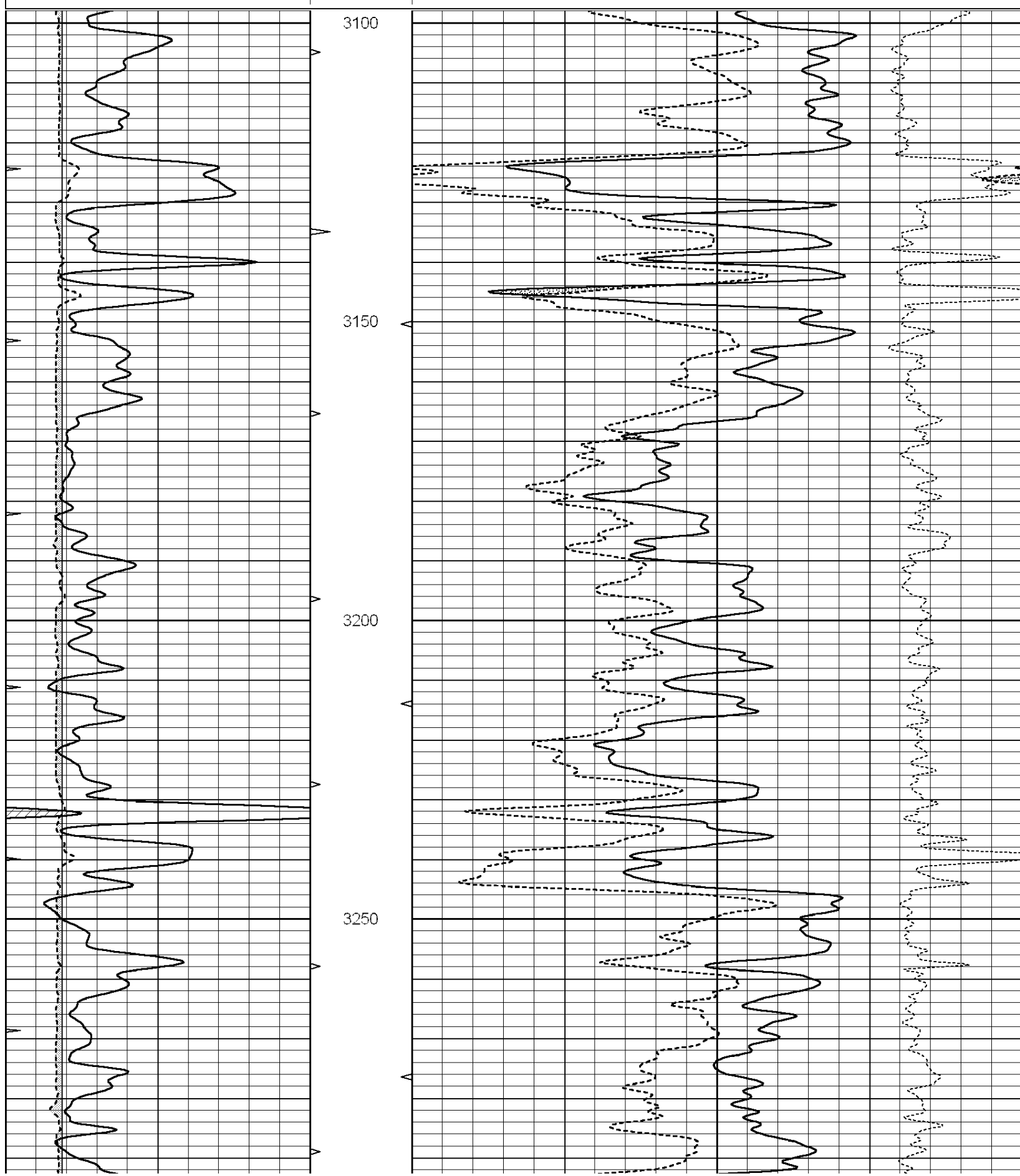
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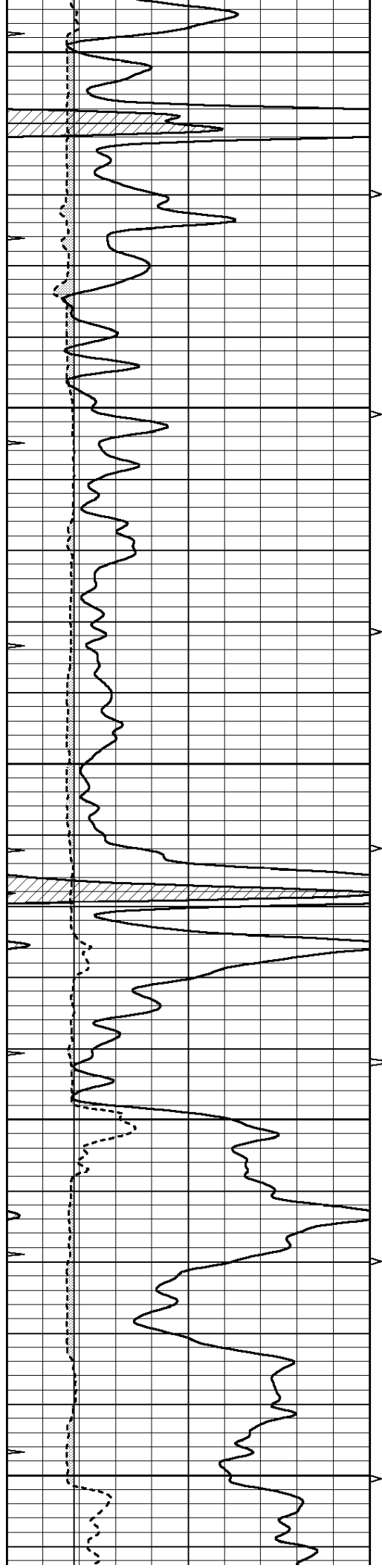
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: LARNED, KS. - HWY 56 & 100 AVE - 1 1/2 SOUTH - 1/2 EAST - SOUTH INTO

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			





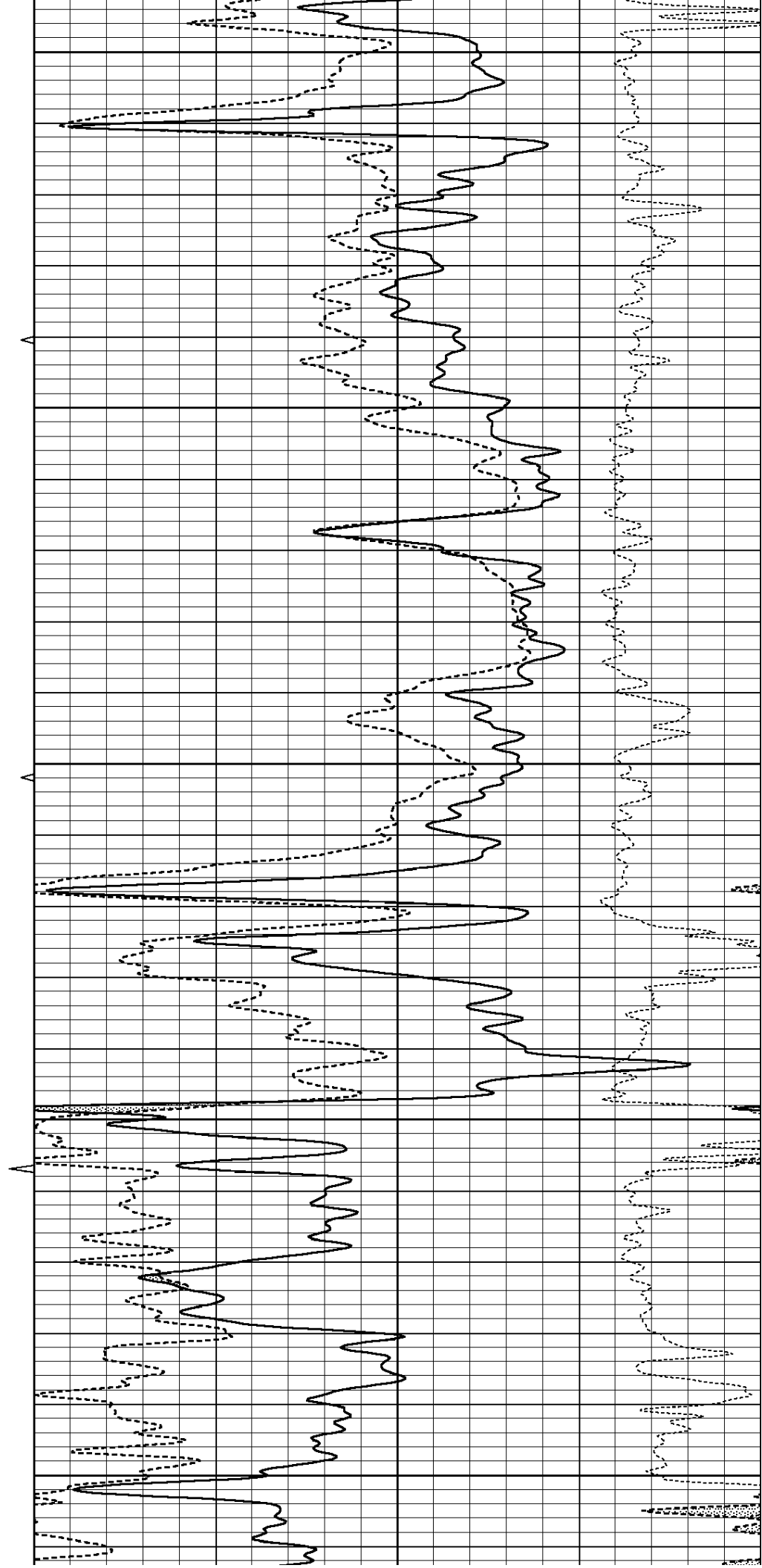
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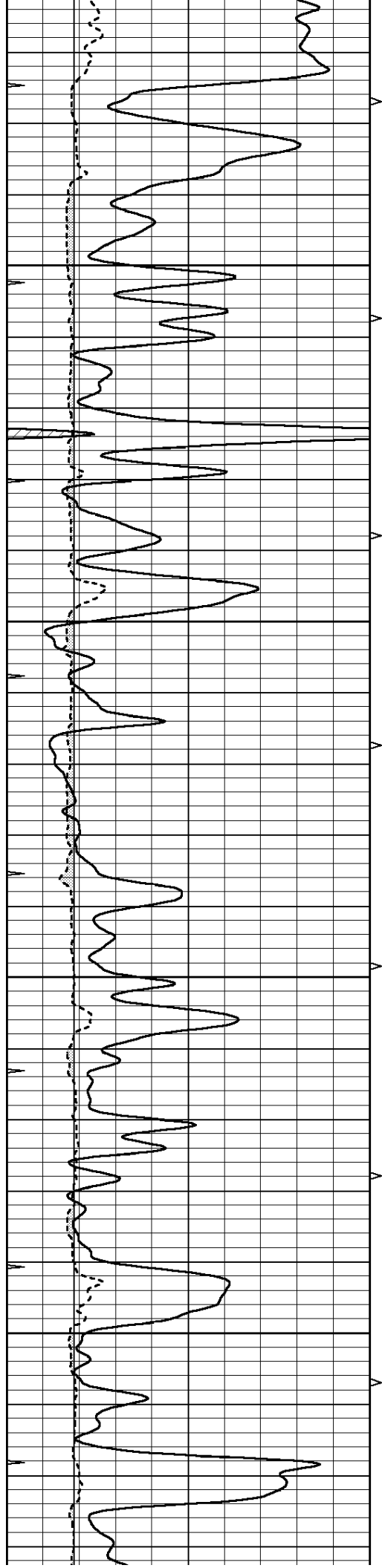
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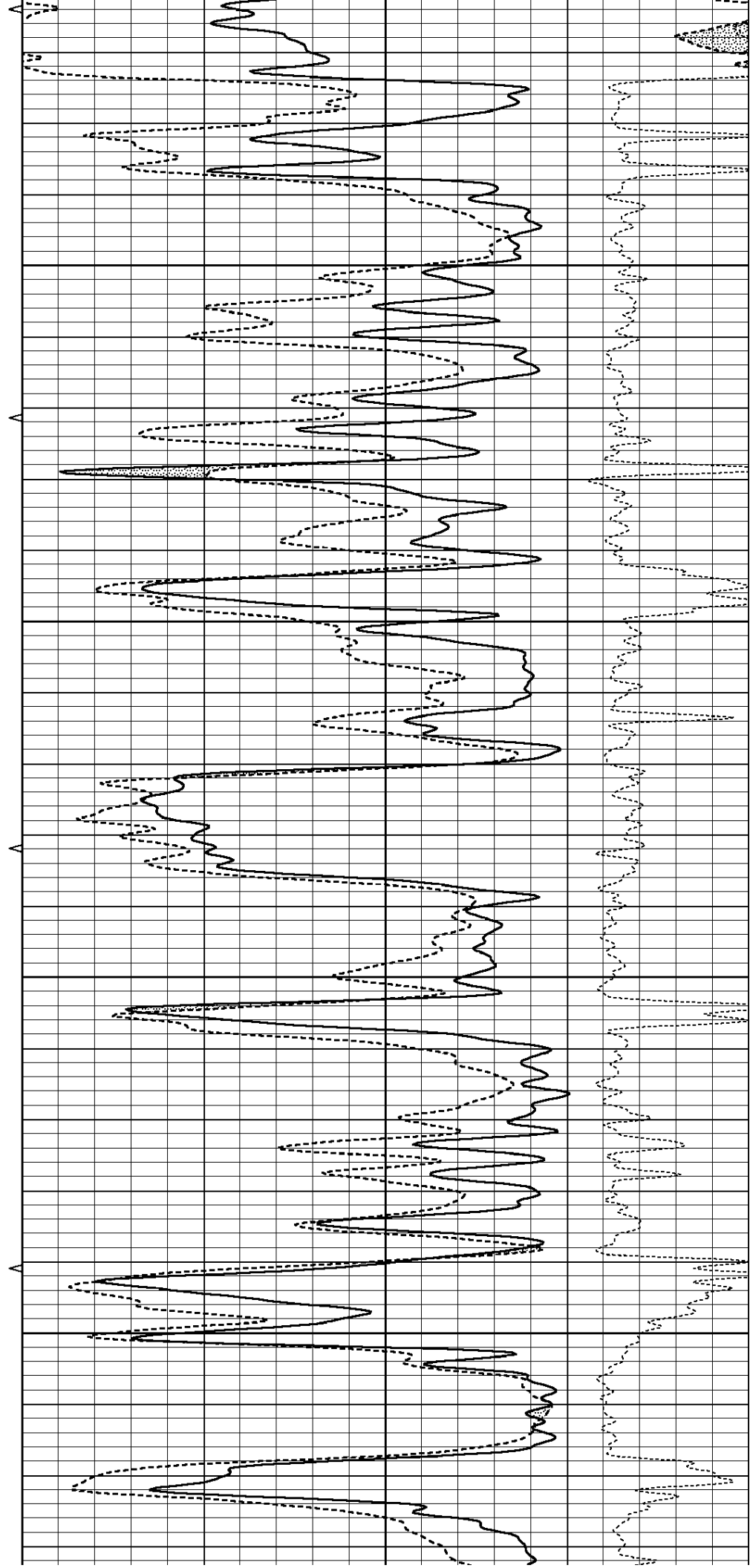


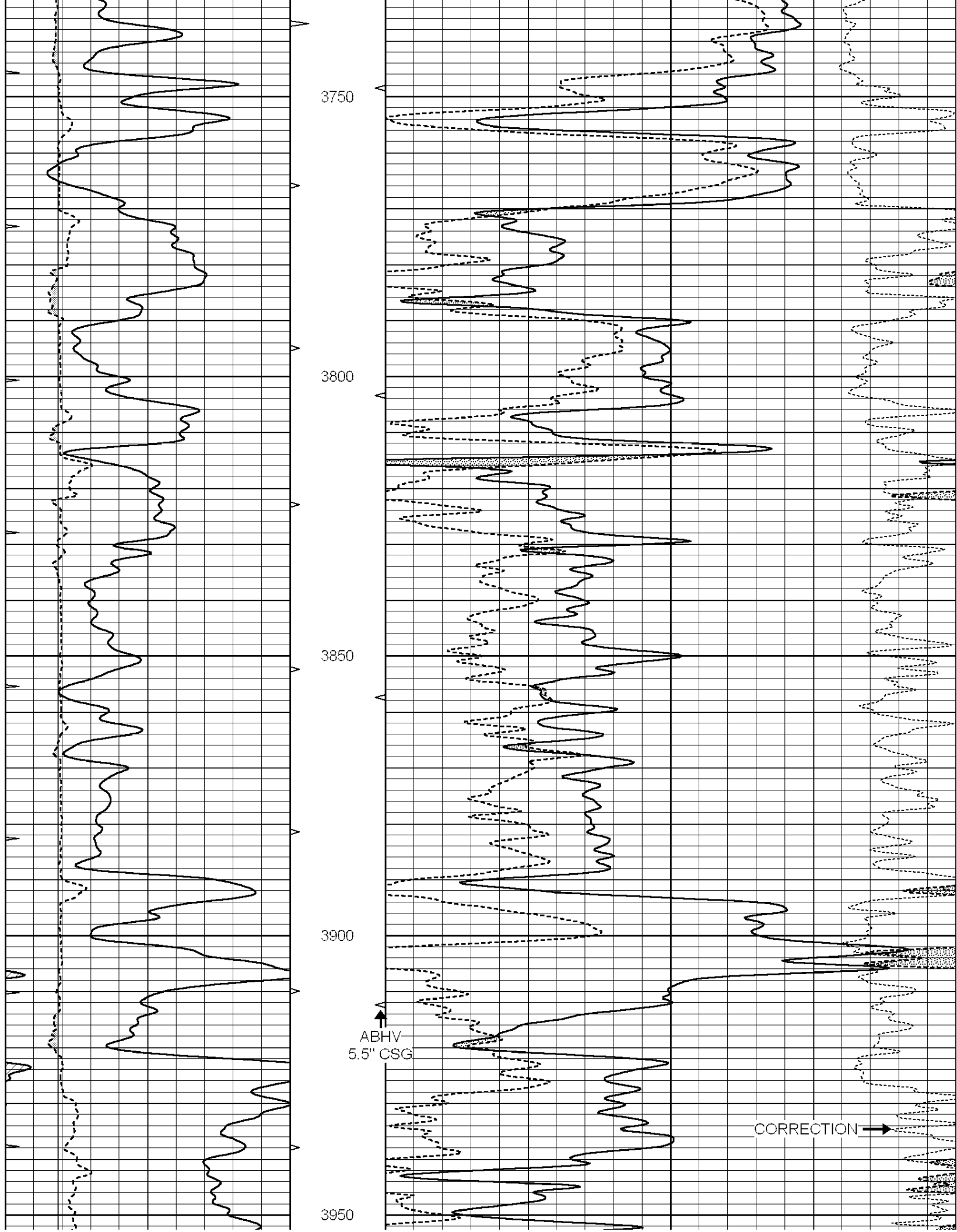
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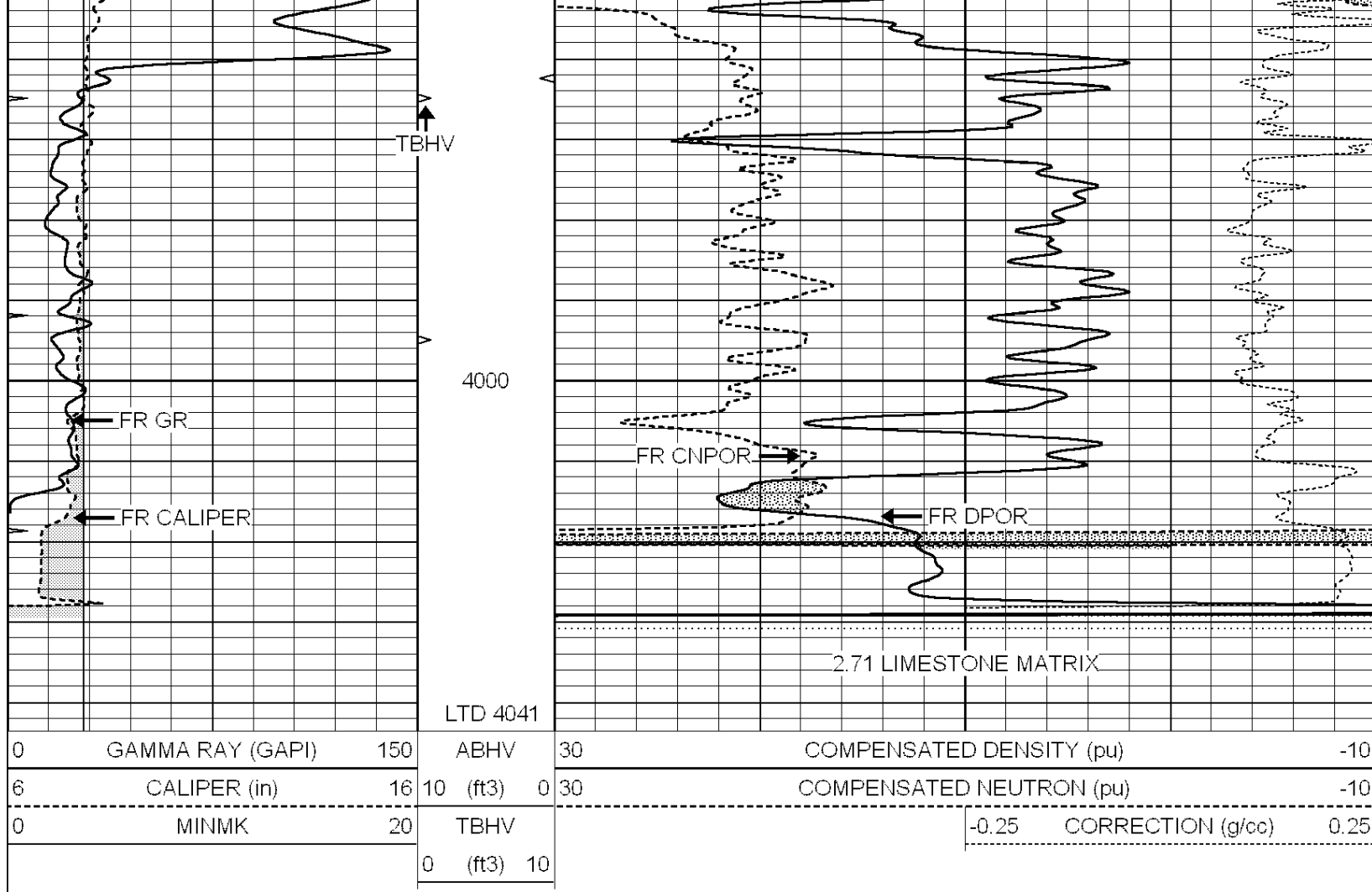
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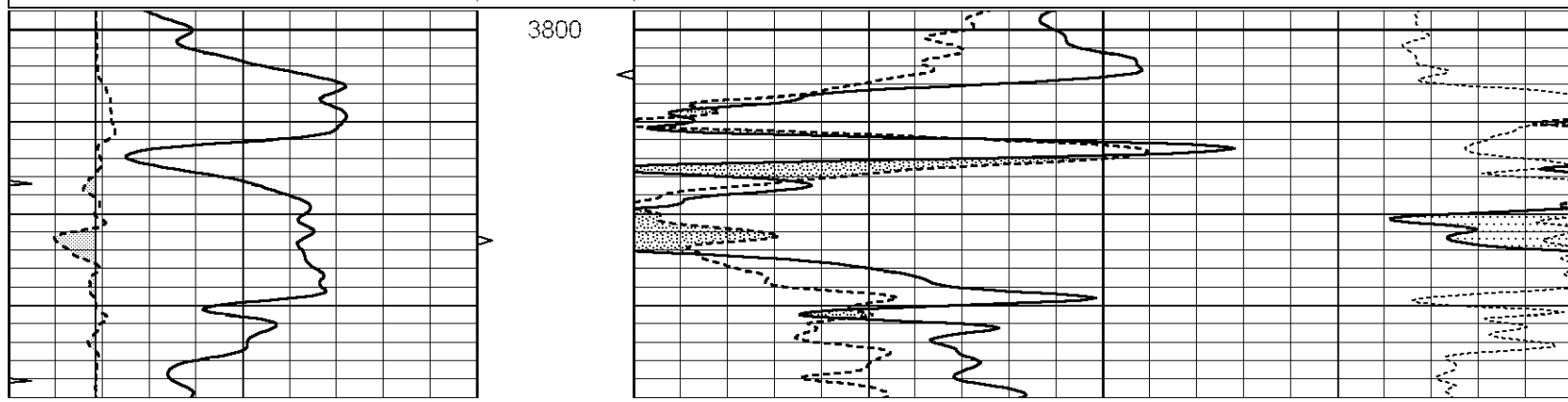


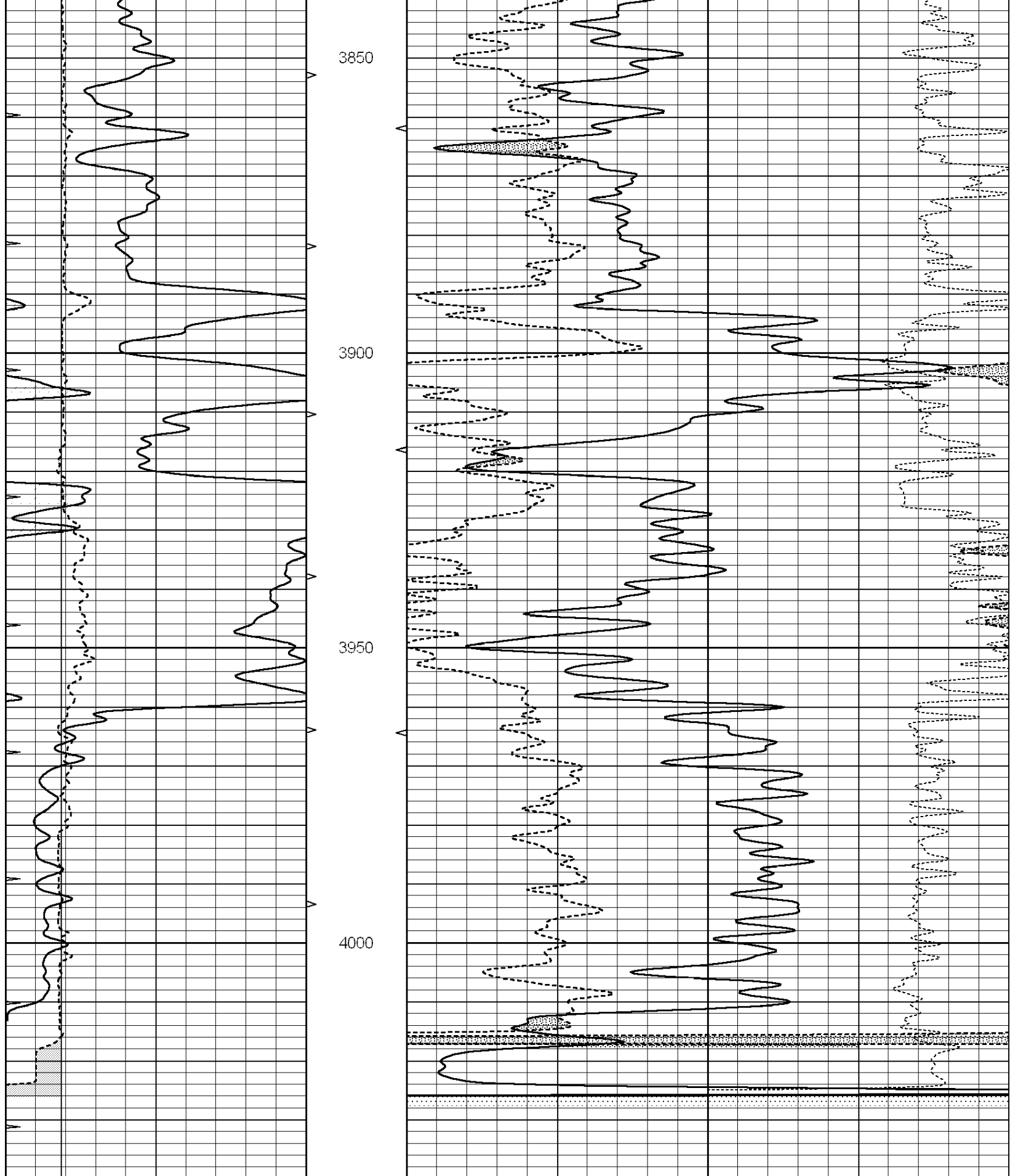


REPEAT SECTION

Database File: 012032ddn.db
 Dataset Pathname: pass2.4
 Presentation Format: _den_neu
 Dataset Creation: Mon Nov 04 23:54:22 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			





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					

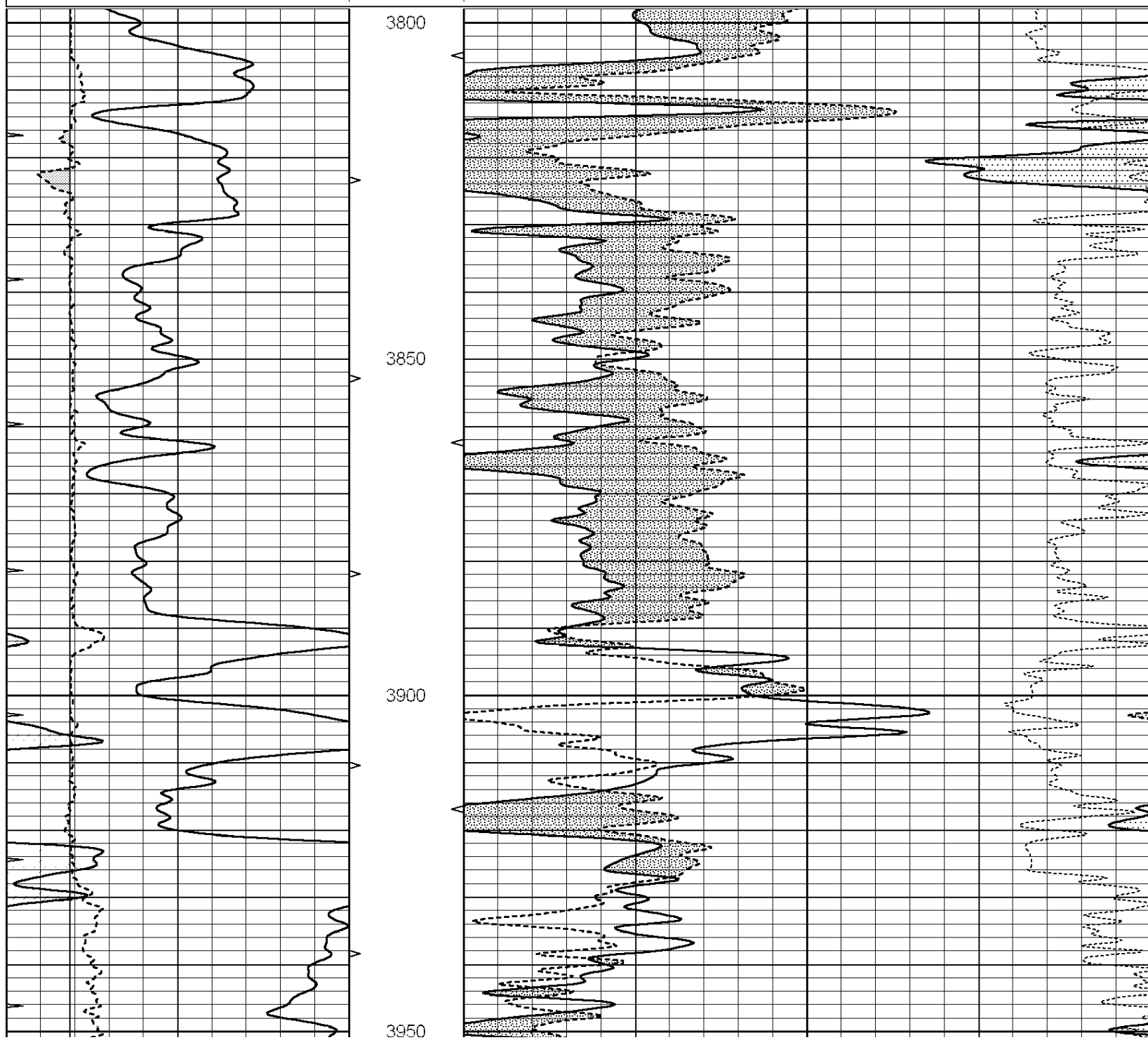


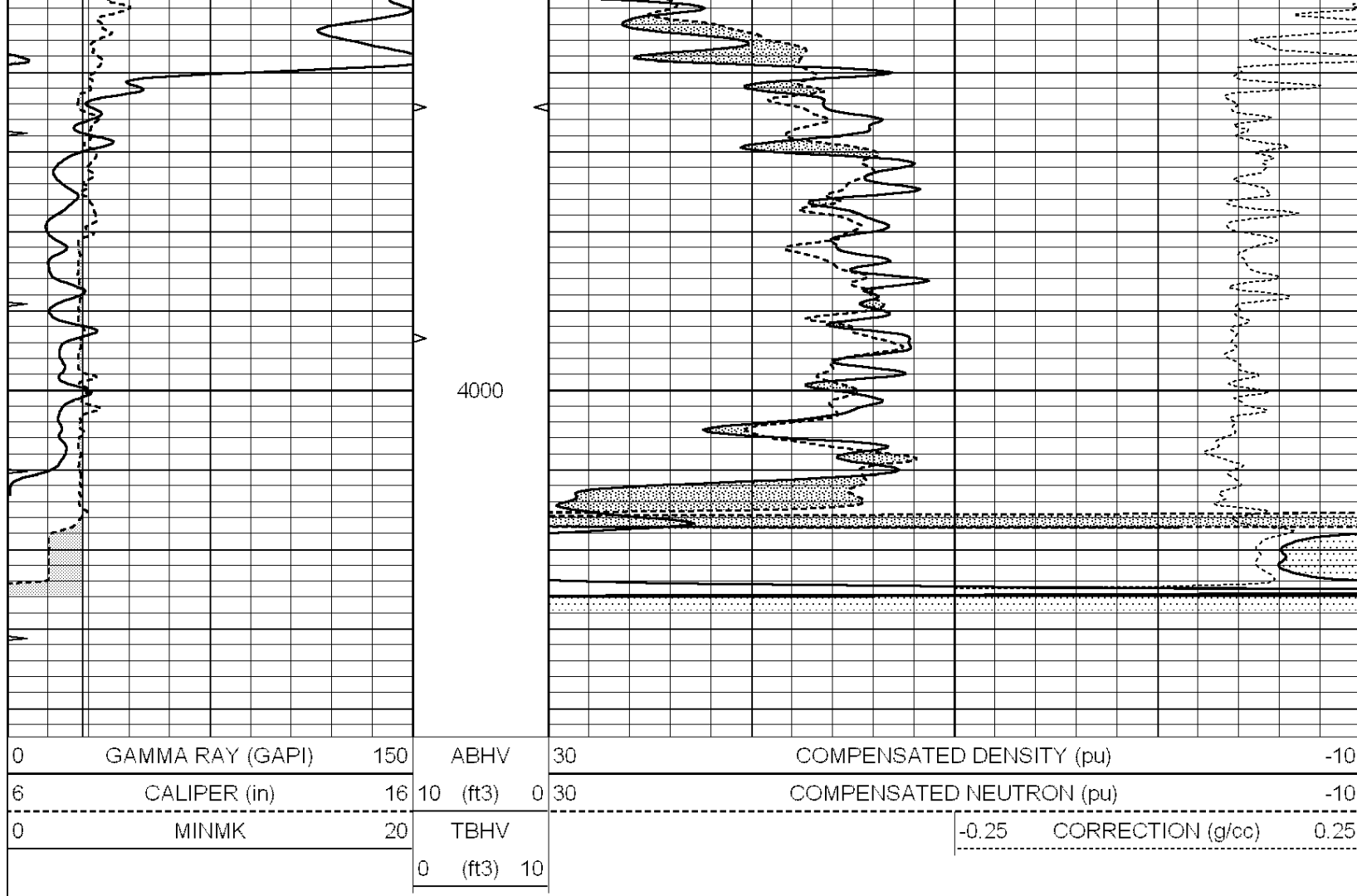
COMPLETION
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SERVICES CO.

DOLOMITE MATRIX 2.71

Database File: 012032ddn.db
Dataset Pathname: passD
Presentation Format: _den_neu
Dataset Creation: Tue Nov 05 00:26:36 2013
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: 012032ddn.db
Dataset Pathname: pass3.3
Dataset Creation: Tue Nov 05 00:10:38 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
Performed: Sun Nov 03 15:42:07 2013

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	480.000	4.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	540.000	-4.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Sun Nov 03 15:50:26 2013

Master Calibration

Density

Far Detector

Near Detector

Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.550	g/cc	271.21	419.72	cps
Spine Angle = 75.89			Density/Spine Ratio = 0.546		
	Size		Reading		
Small Ring	8.20	in	4.83	V	
Large Ring	14.00	in	7.01	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
Long Space		1.00	cps	1.00	cps
Gamma Ray Calibration Report					
Serial Number:		GR5			
Tool Model:		OPEN			
Performed:		Sun Nov 03 15:58:48 2013			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.9100	GAPI/cps		