



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
PE LOG

Company	CAERUS KANSAS, LLC.		
Well	MORTIMER #31-41		
Field	SETTE		
County	BARTON		
State	KANSAS		
Company	CAERUS KANSAS, LLC.		
Well	MORTIMER #31-41		
Field	SETTE		
County	BARTON		
State	KANSAS		
Location:	API # : 15-009-25726-0000		
Permanent Datum	GROUND LEVEL	Elevation	1870
Log Measured From	KELLY BUSHING 10' A.G.L.	Other Services	DIL/MEL SONIC
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 1880 D.F. 1878 G.L. 1870
Date	7/31/12		
Run Number	ONE		
Depth Driller	3472		
Depth Logger	3474		
Bottom Logged Interval	3450		
Top Log Interval	2700		
Casing Driller	8 5/8" @ 852'		
Casing Logger	854		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.3/52		
pH / Fluid Loss	10.5/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.20 @ 98F		
Rmt @ Meas. Temp	.900 @ 98F		
Rmc @ Meas. Temp	1.44 @ 98F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	1.06 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	8:00 P.M.		
Maximum Recorded Temperature	111F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JUSTIN CARTER	BRIAN KARLIN	

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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

RUSSELL, KS. & I-70, S. ON HWY 281 TO HWY 4, E. TO CURVE, AFTER CURVING S., W. INTO THEN
FOLLOW TRAIL PARALLEL TO HIGHWAY N. & W.

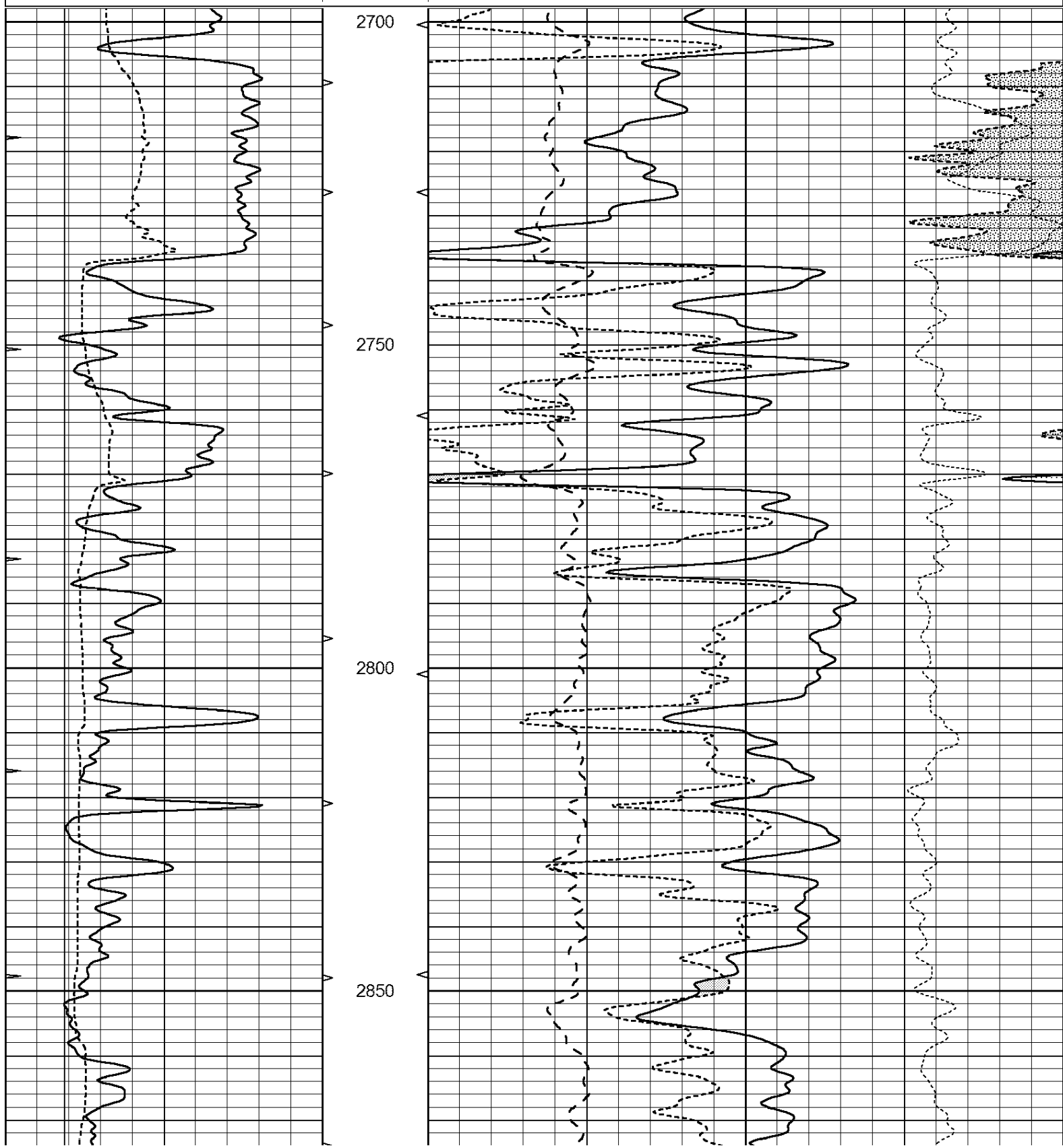


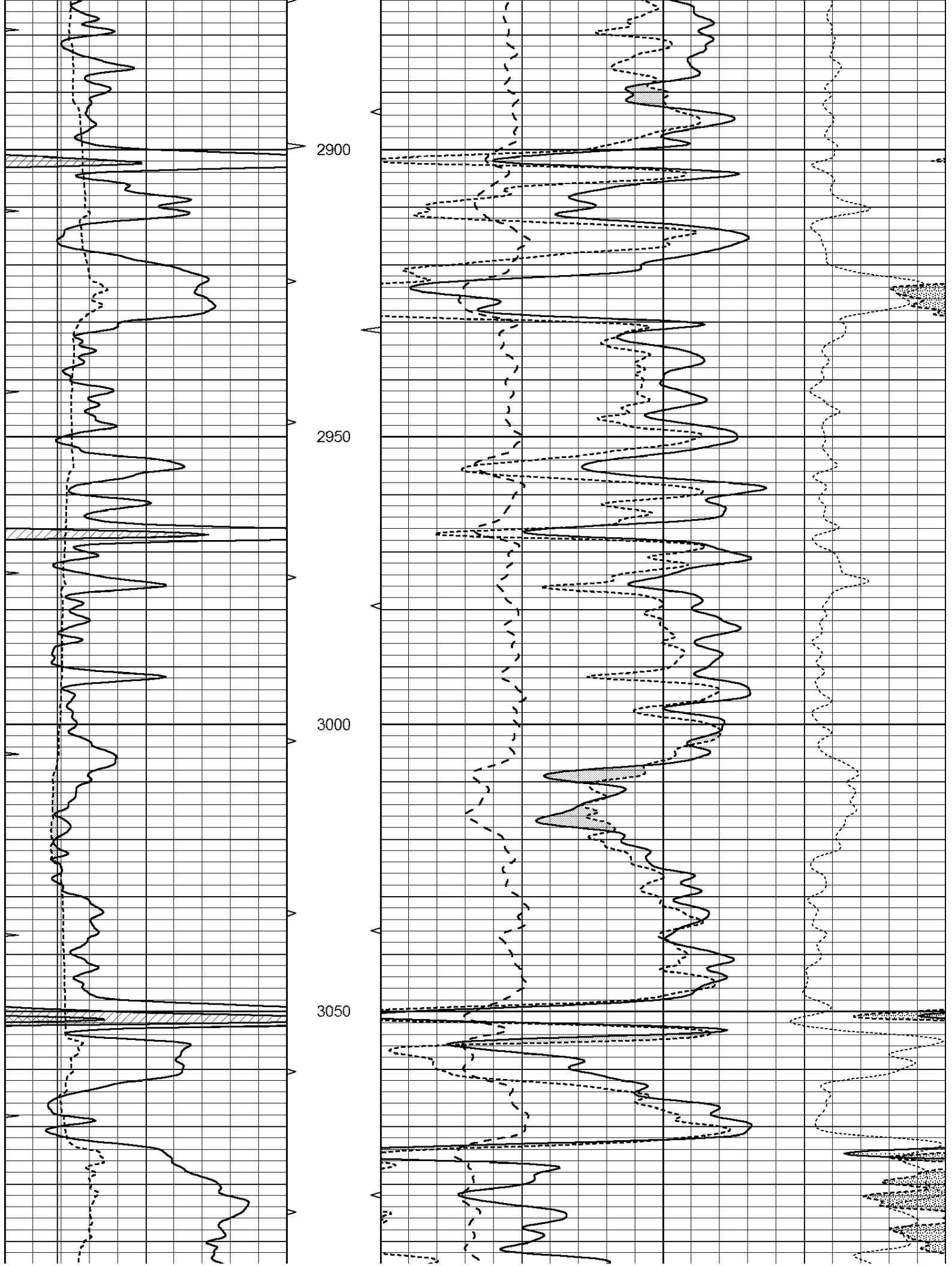
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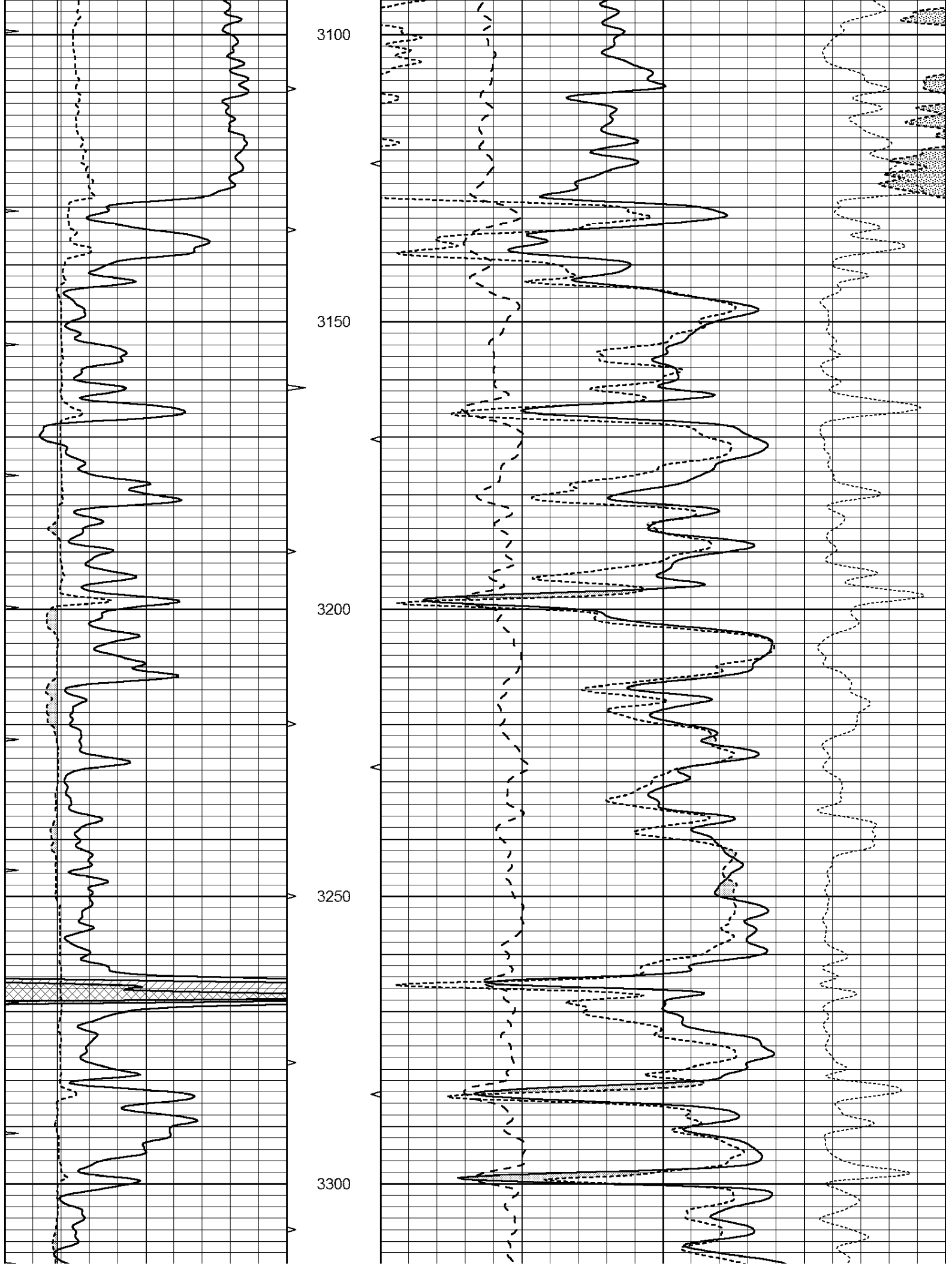
MAIN SECTION

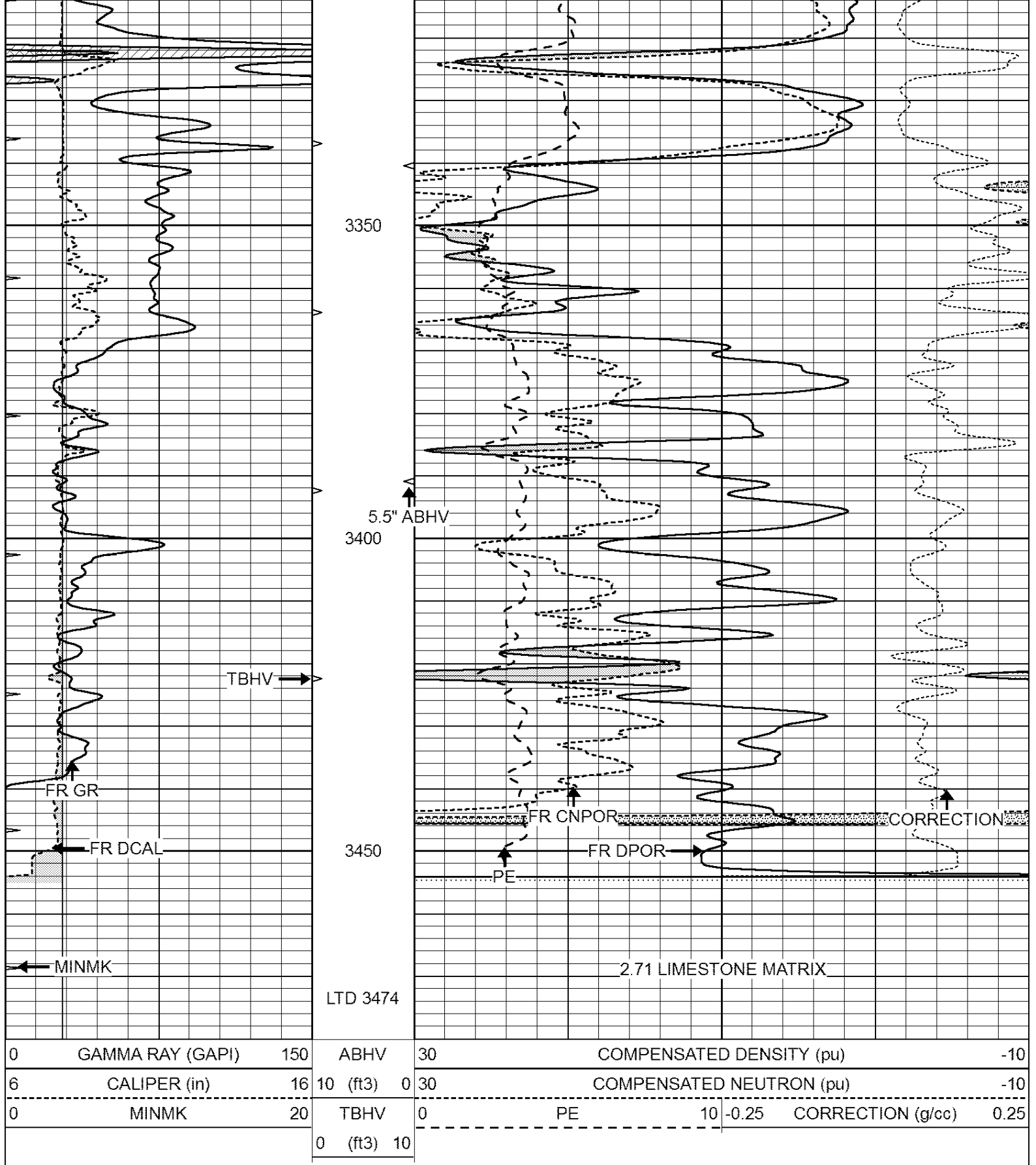
Database File: 409443ddn.db
Dataset Pathname: pass3.6
Presentation Format: ldt_neu
Dataset Creation: Sun Aug 12 23:20:07 2012
Charted by: Depth in Feet scaled 1:240

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





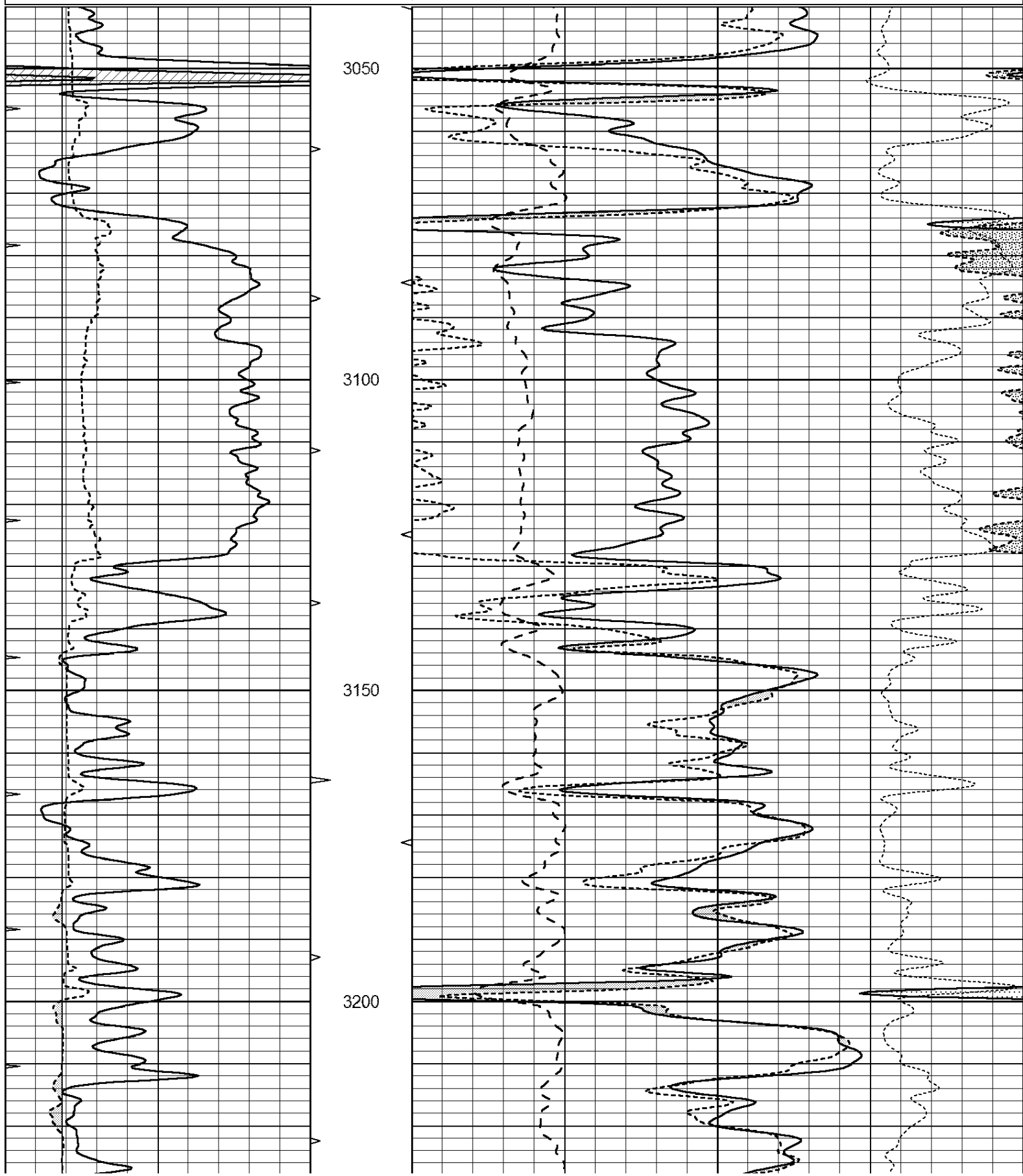


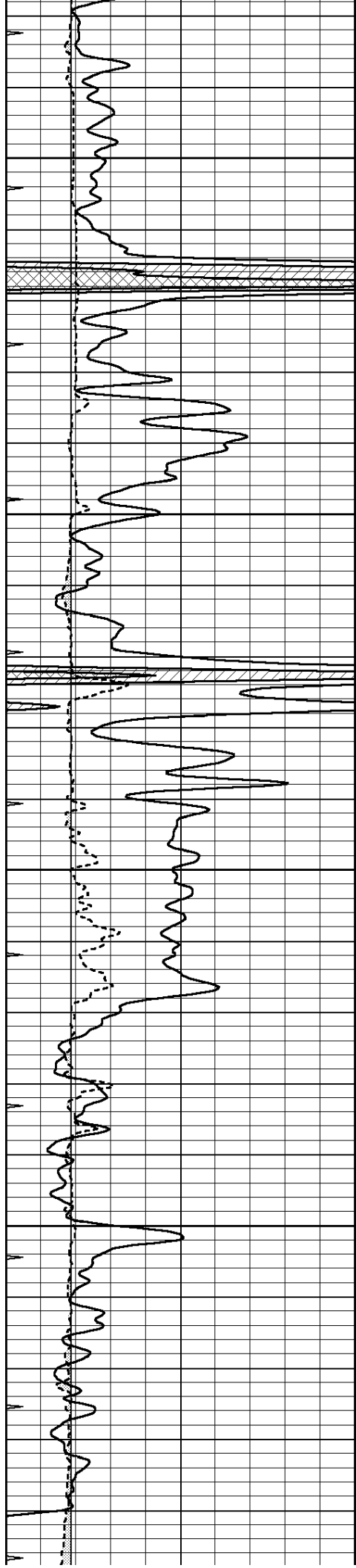


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REPEAT SECTION

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



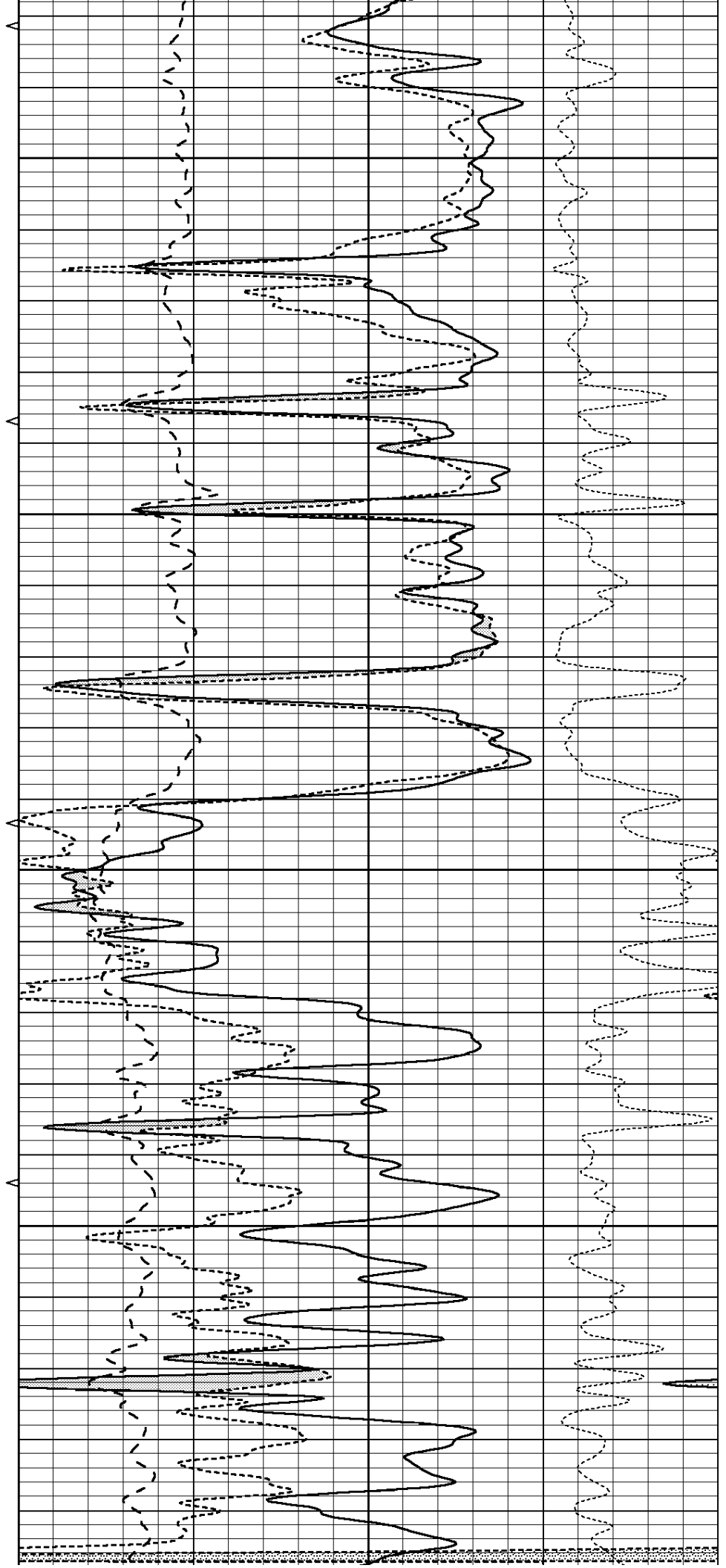


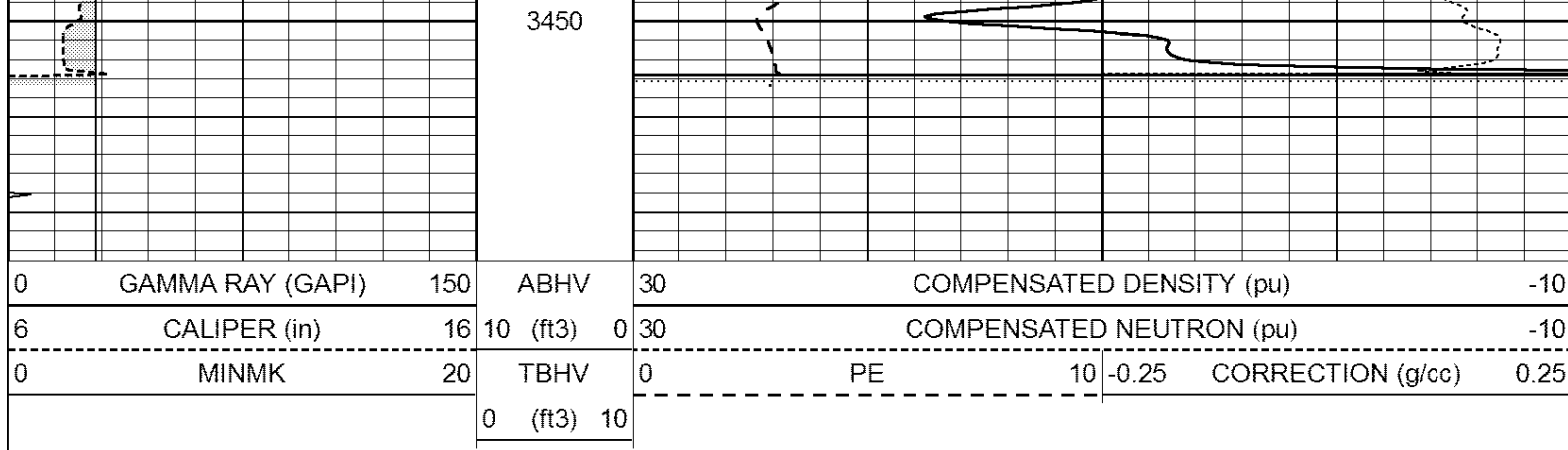
3250

3300

3350

3400

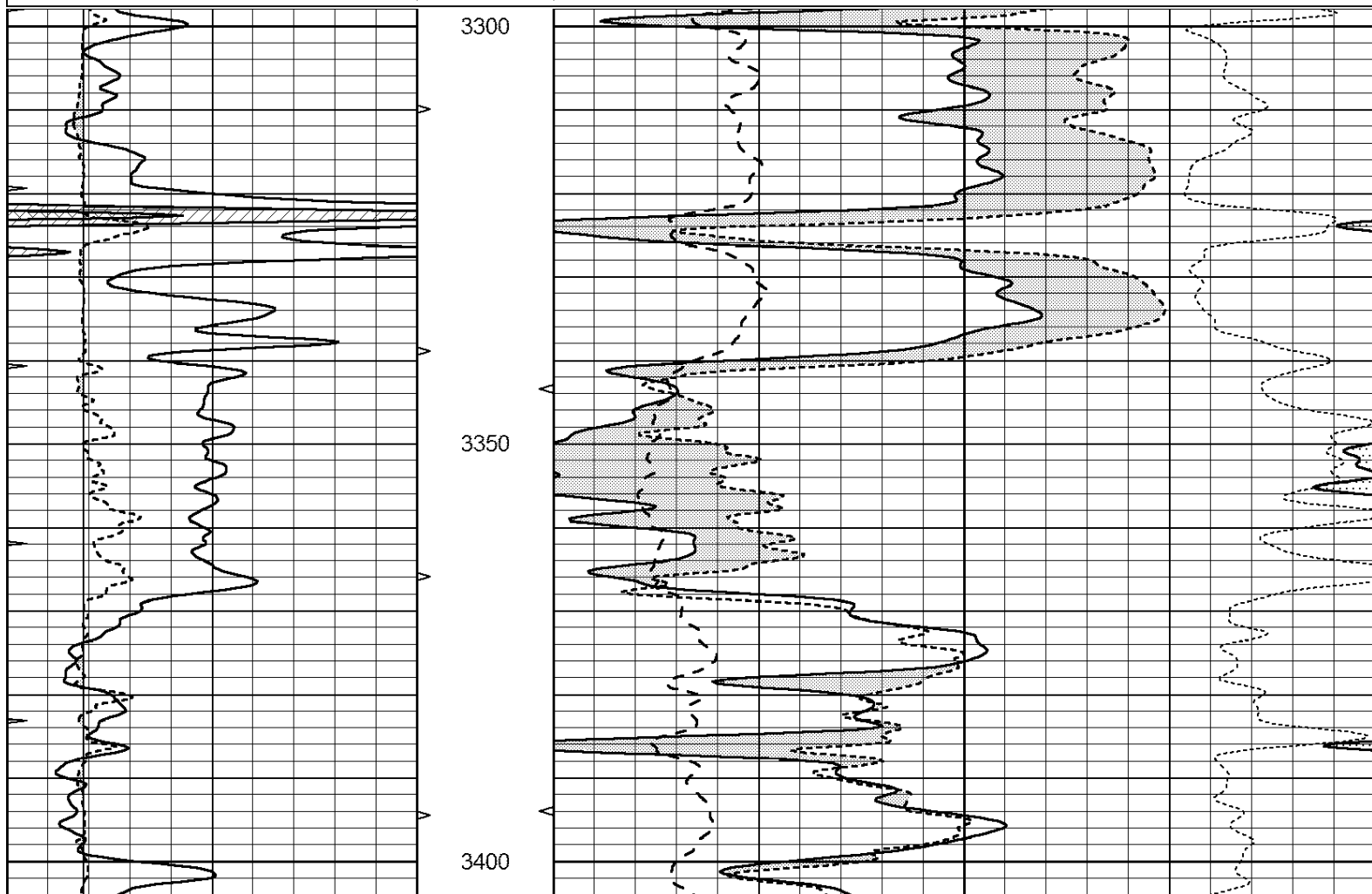
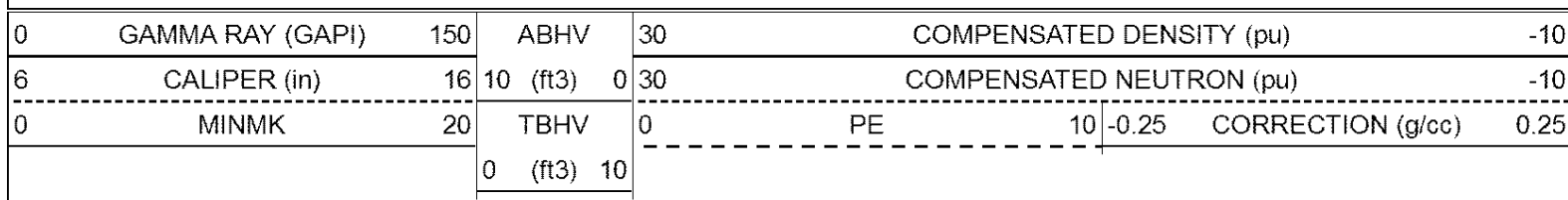


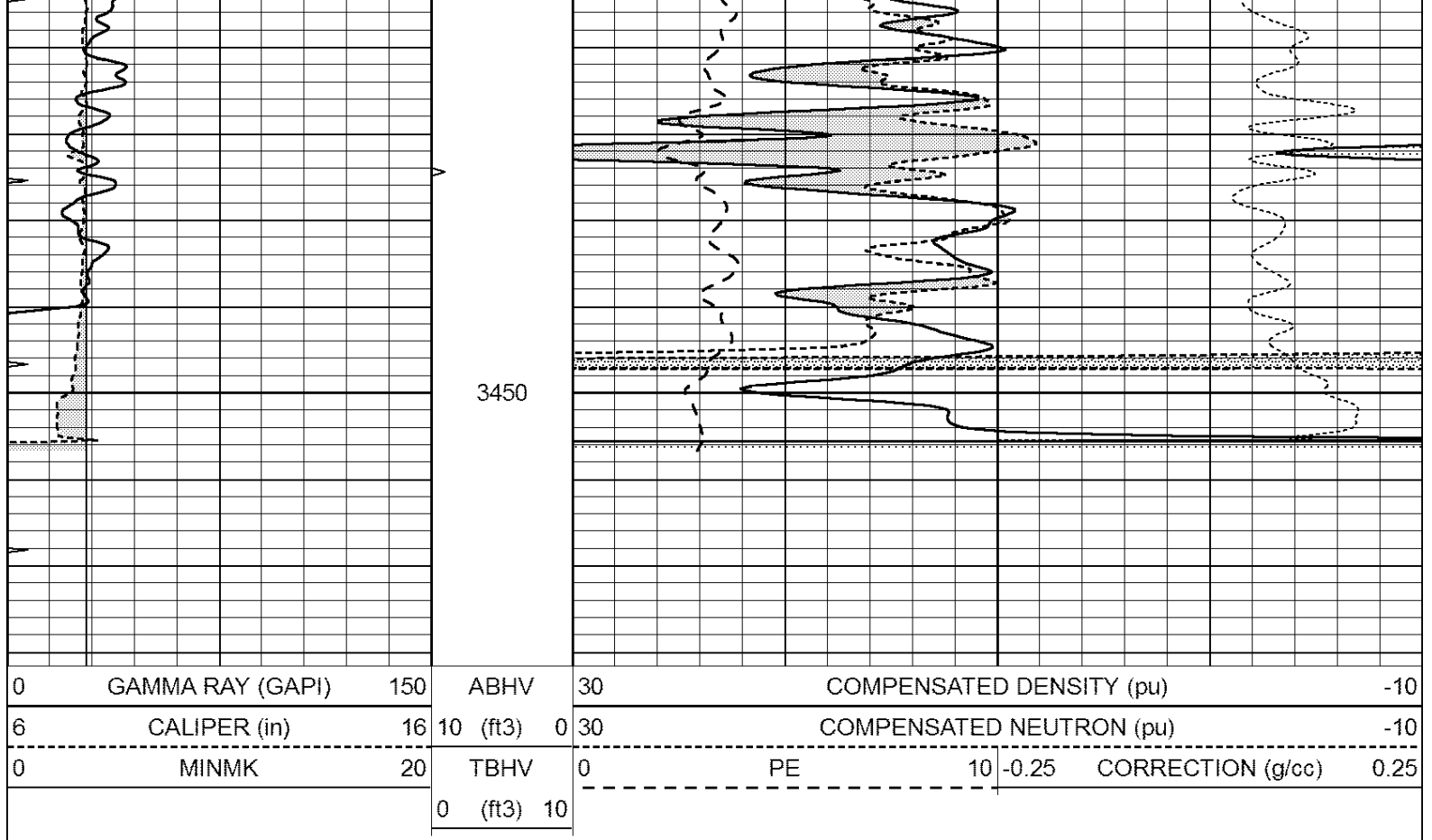


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DOLOMITE MATRIX

Database File: 409443ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: ldt_neu
 Dataset Creation: Mon Jul 30 20:45:54 2012
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 409443ddn.db
 Dataset Pathname: pass3.6
 Dataset Creation: Sun Aug 12 23:20:07 2012

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
 Performed: Thu Jul 26 17:34:42 2012

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	0.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-2.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report

Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5000	1.2800	g/cc

K10 Pe		1.7100	2.5900 2.5700	1.5800 1.5500	g/cc
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8
Caliper					
	Readings	Reference			
Low Ref	3.4	7.8			
High Ref	5.5	15.0			
	Gain: 3.4	Offset: -3.6			
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:		Thu Jul 26 17:34:29 2012			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.3000	GAPI/cps		