



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company PFEIFER EXPLORATIONS, LLC.
Well HASELHORST #15-1
Field WILDCAT
County ELLIS
State KANSAS

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County ELLIS State KANSAS

Location: API # : 15-051-26366-0000
1200' FNL & 430' FWL
SE - SW - NW - NW
SEC 15 TWP 15S RGE 19W
Permanent Datum GROUND LEVEL Elevation 2002.8
Log Measured From KELLY BUSHING 8.5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation
K.B. 2011.3
D.F. 2009.3
G.L. 2002.8

Date	9/12/12		
Run Number	ONE		
Depth Driller	3730		
Depth Logger	3728		
Bottom Logged Interval	3704		
Top Log Interval	2900		
Casing Driller	8 5/8"@1219'		
Casing Logger	1220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9,500 PPM	
Density / Viscosity	9.1/48		
pH / Fluid Loss	10.0/10.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.650@76F		
Rmt @ Meas. Temp	.486@76F		
Rmc @ Meas. Temp	.780@76F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.433@114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:30 A.M.		
Maximum Recorded Temperature	114F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ROGER MOSES	JAY PFEIFER	

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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
ANTONINO, KS. 2W., 2 1/4S., E. INTO

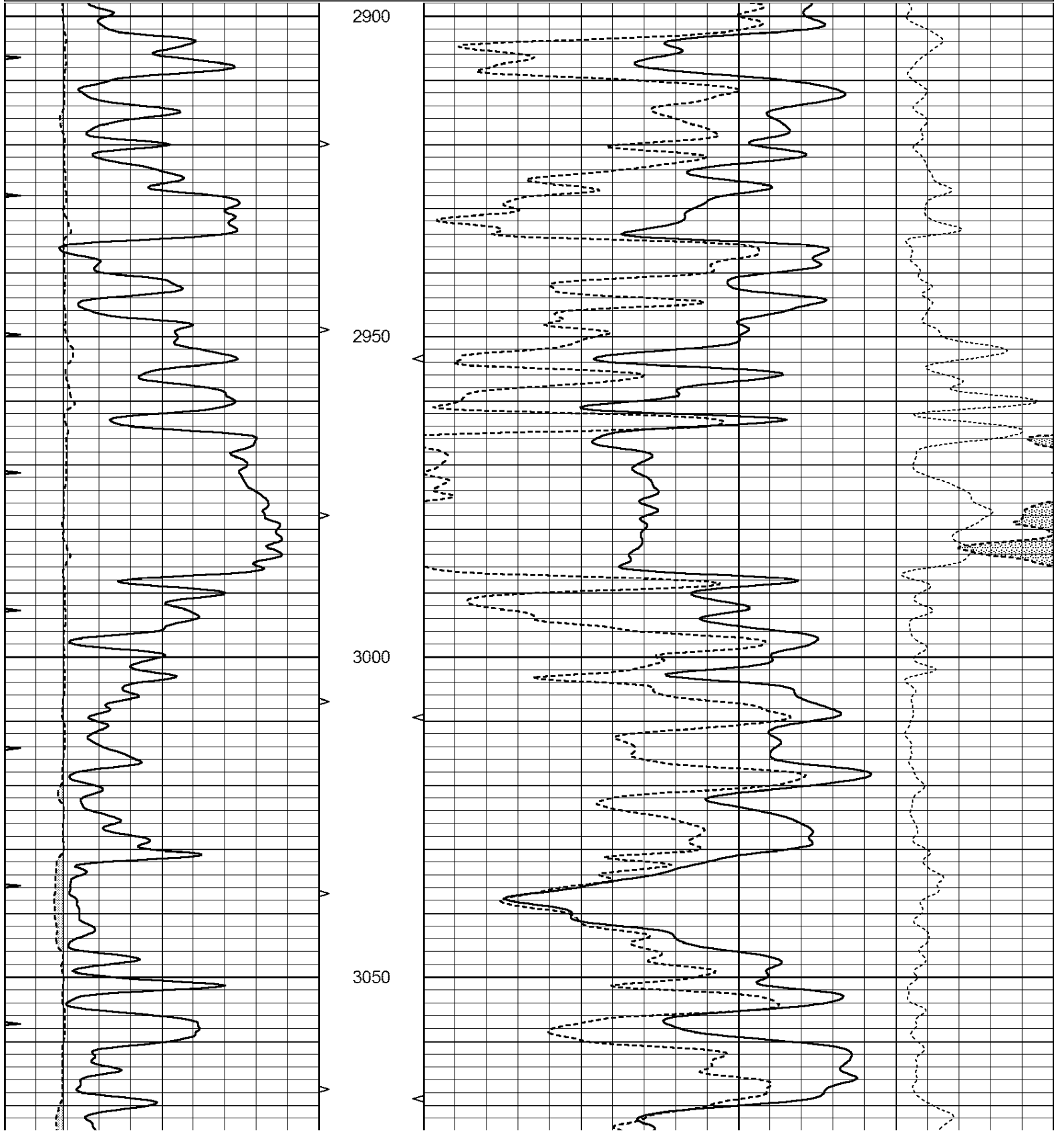


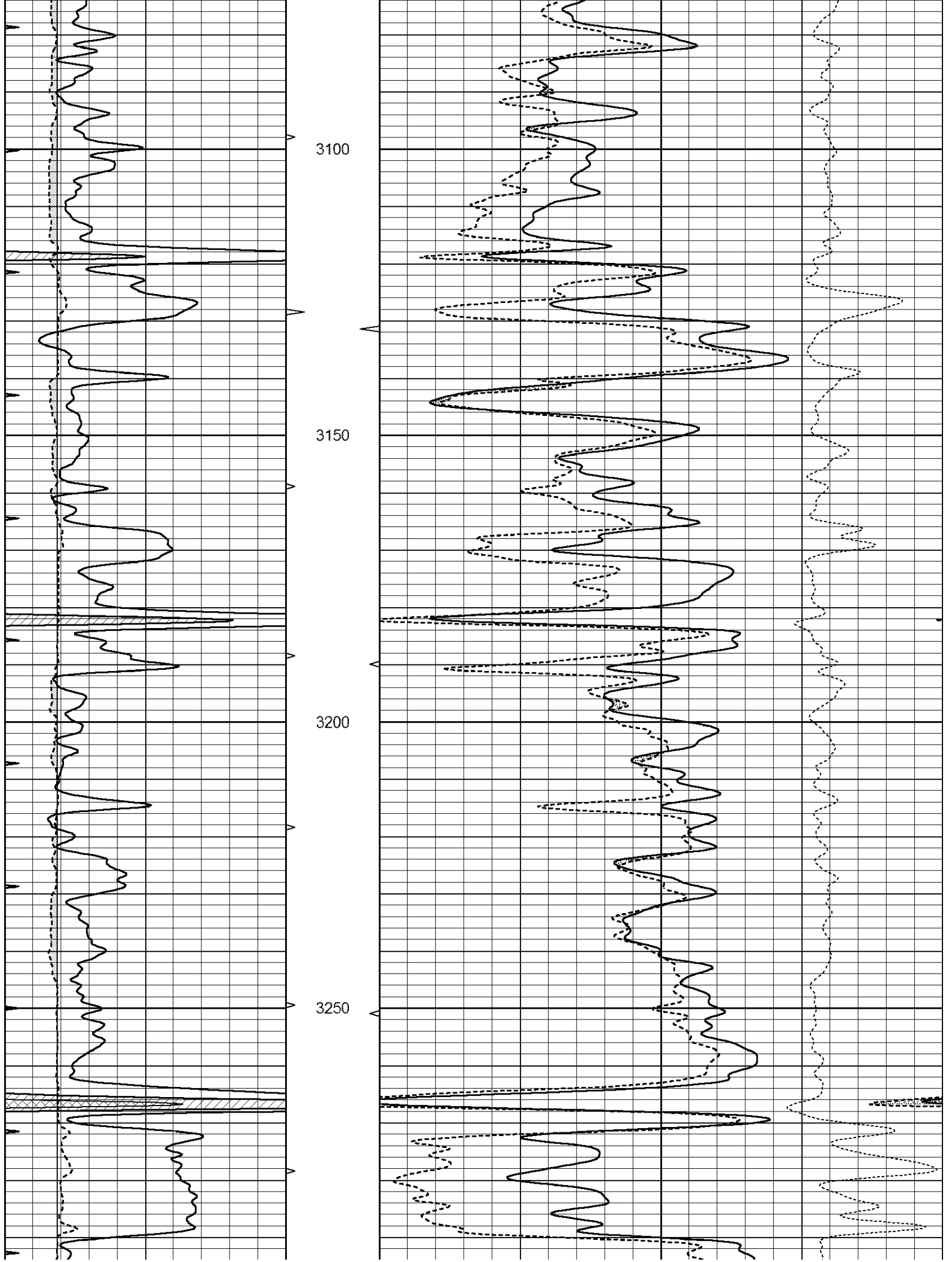
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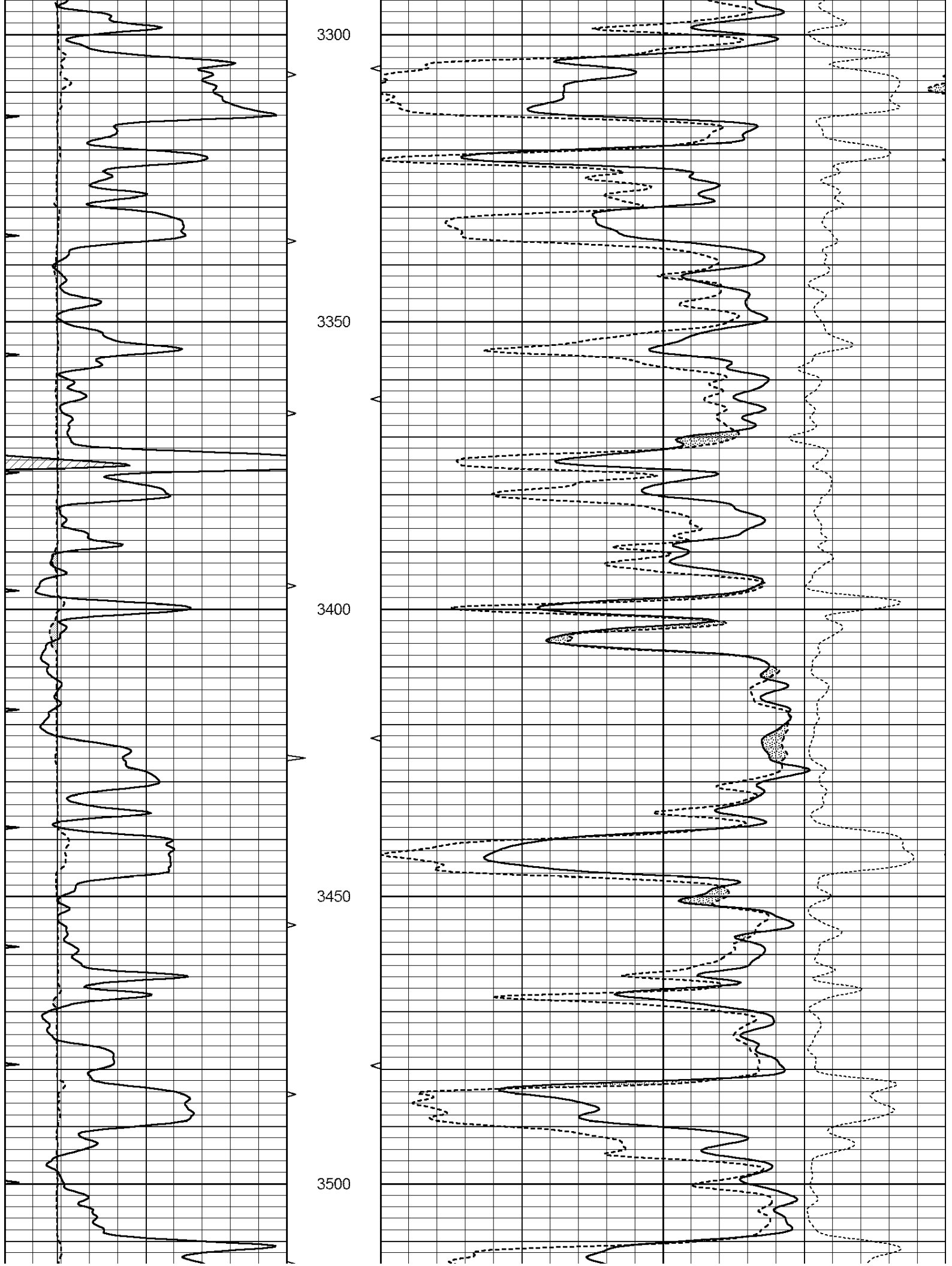
MAIN SECTION

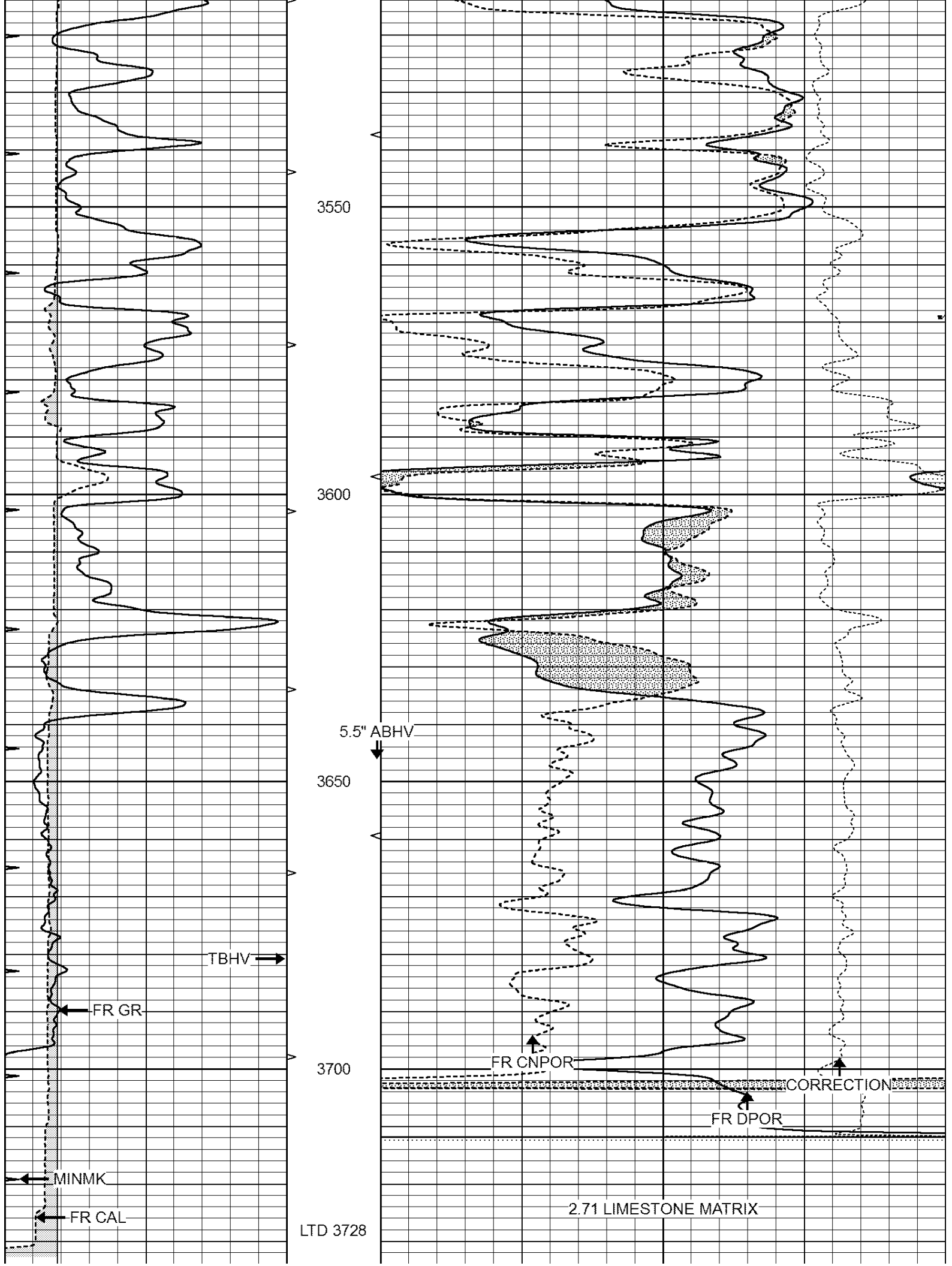
Database File: 409522ddn.db
 Dataset Pathname: pass3.5
 Presentation Format: den_neu
 Dataset Creation: Wed Sep 12 04:30:36 2012
 Charted by: Depth in Feet scaled 1:240

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









3550

3600

5.5" ABHV

3650

3700

TBHV →

← FR GR

↑ FR CNPOR

↑ FR DPOR

CORRECTION

2.71 LIMESTONE MATRIX

← MINMK

← FR CAL

LTD 3728

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			

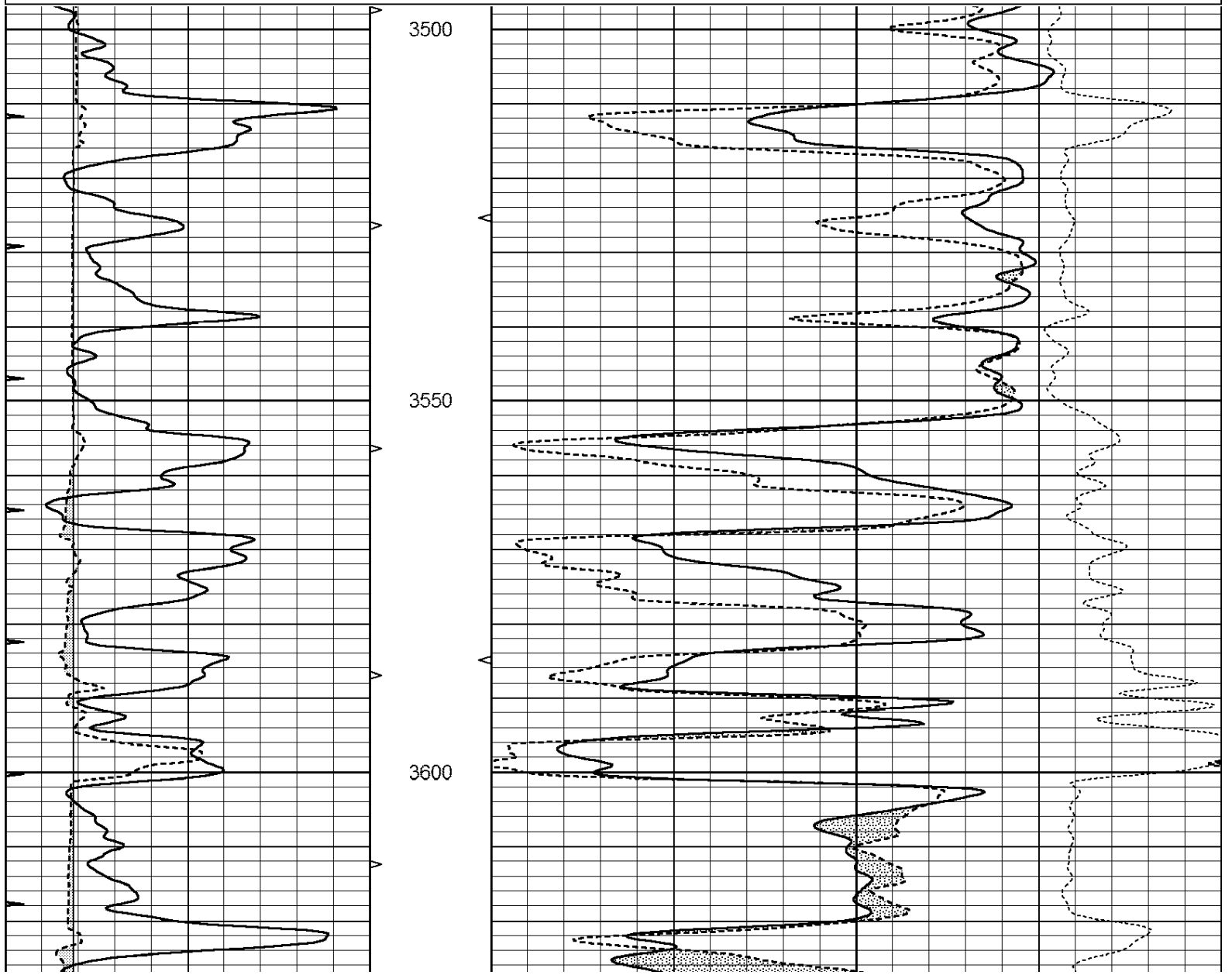


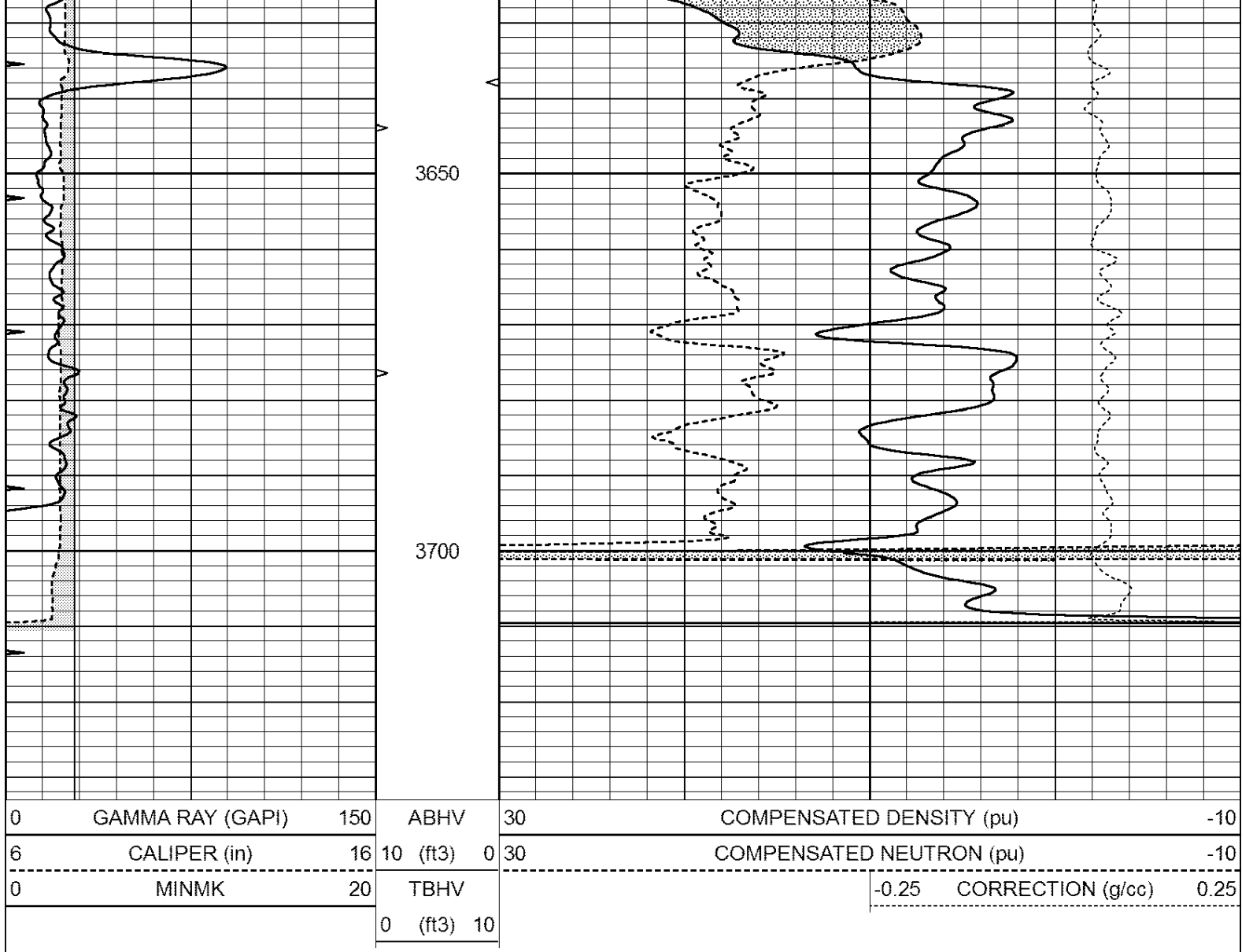
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REPEAT SECTION

Database File: 409522ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: den_neu
 Dataset Creation: Wed Sep 12 01:55:04 2012 by Calc Open-Cased 110302
 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: 409522ddn.db
 Dataset Pathname: pass3.5
 Dataset Creation: Wed Sep 12 04:30:36 2012

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
 Performed: Tue Aug 21 12:27:33 2012

Loop:	Readings				References		Results	
	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	-1.000
Internal:	Zero				Cal		m	
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

	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	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
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	7.9	
High Ref	5.0	15.0	
	Gain: 4.5		Offset: -7.4

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:	Tue Sep 04 17:31:06 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps