



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company DOWNING - NELSON OIL CO. INC.
Well SEITZ - BARNHARDT C #5
Field RIDGEWAY
County TREGO
State KANSAS

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Location: API # : 15-195-22952-0000
1235' FNL & 1070' FEL
SW - SW - NE - NE
SEC 34 TWP 12S RGE 21W
Permanent Datum GROUND LEVEL Elevation 2194
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation K.B. 2202
D.F. 2200
G.L. 2194

Date	7/8/14		
Run Number	ONE		
Depth Driller	3959		
Depth Logger	3961		
Bottom Logged Interval	3937		
Top Log Interval	3200		
Casing Driller	8 5/8"@22'		
Casing Logger	221		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.2/59		
pH / Fluid Loss	10.0/7.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.700@90F		
Rmf @ Meas. Temp	.525@90F		
Rmc @ Meas. Temp	.840@90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.543@116F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	8:45 A.M.		
Maximum Recorded Temperature	116F		
Equipment Number	4854		
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

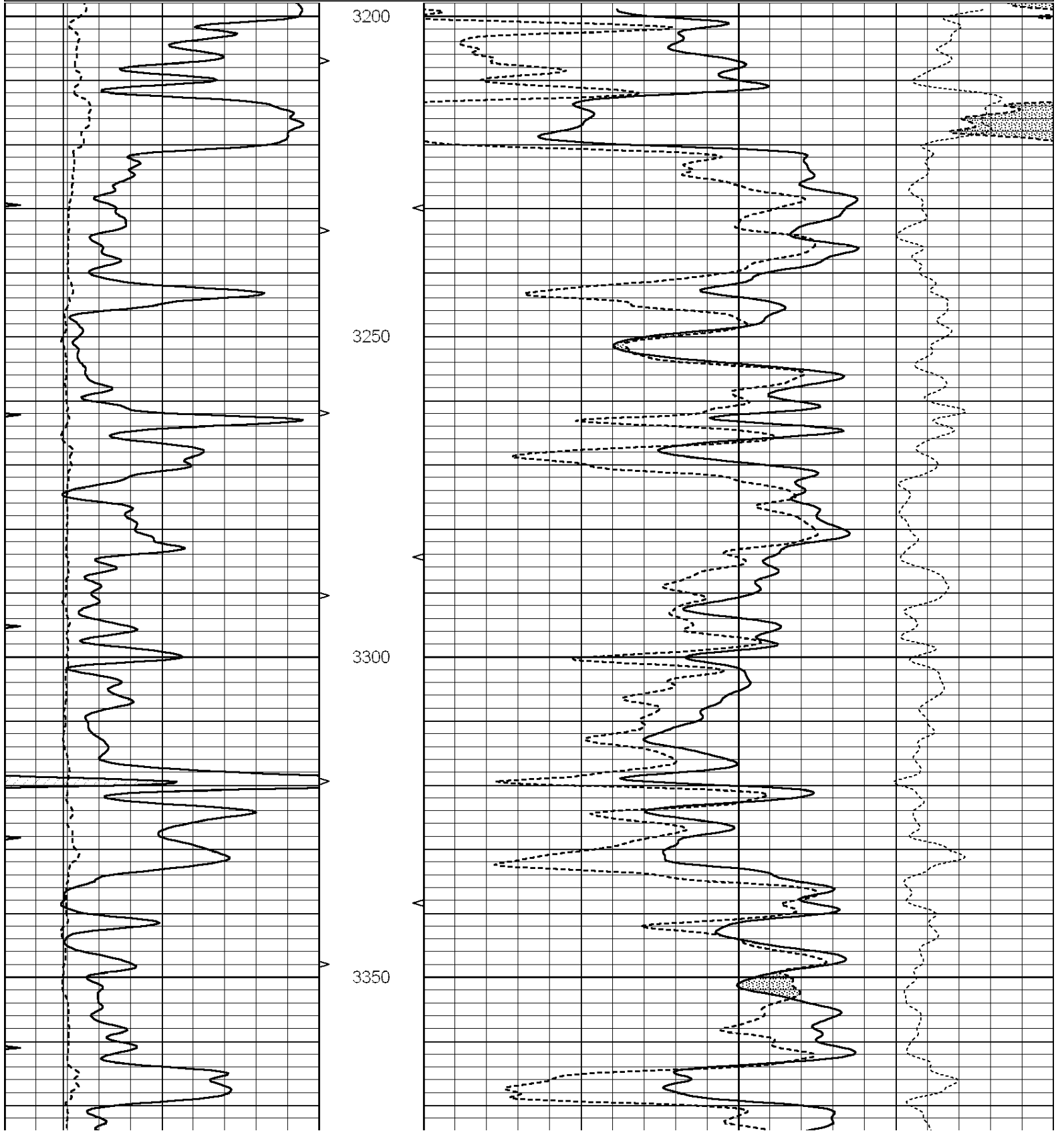
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
RIGA & I-70, 1N., 1/2E. TO TANK BATTERY, S. INTO

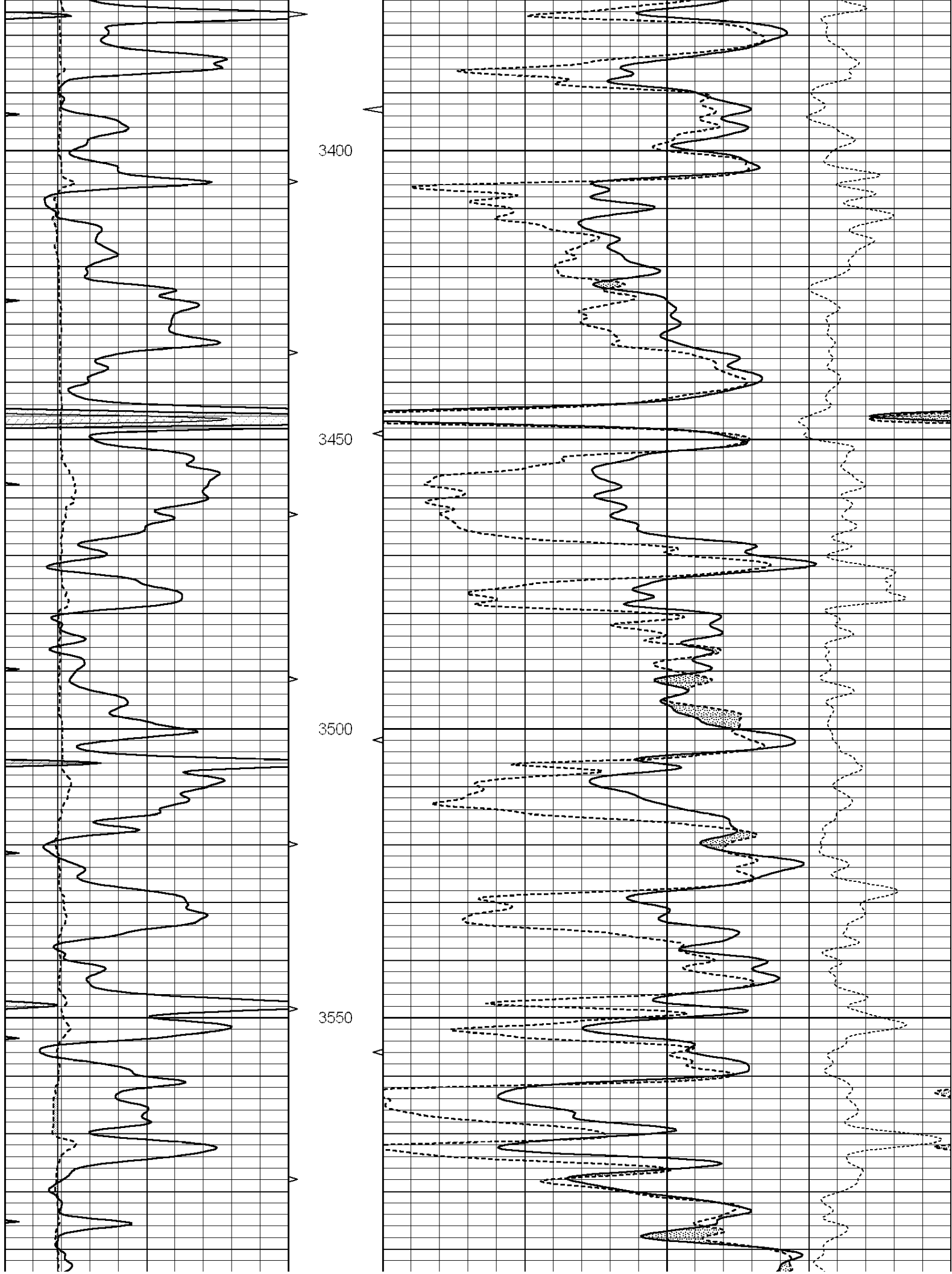


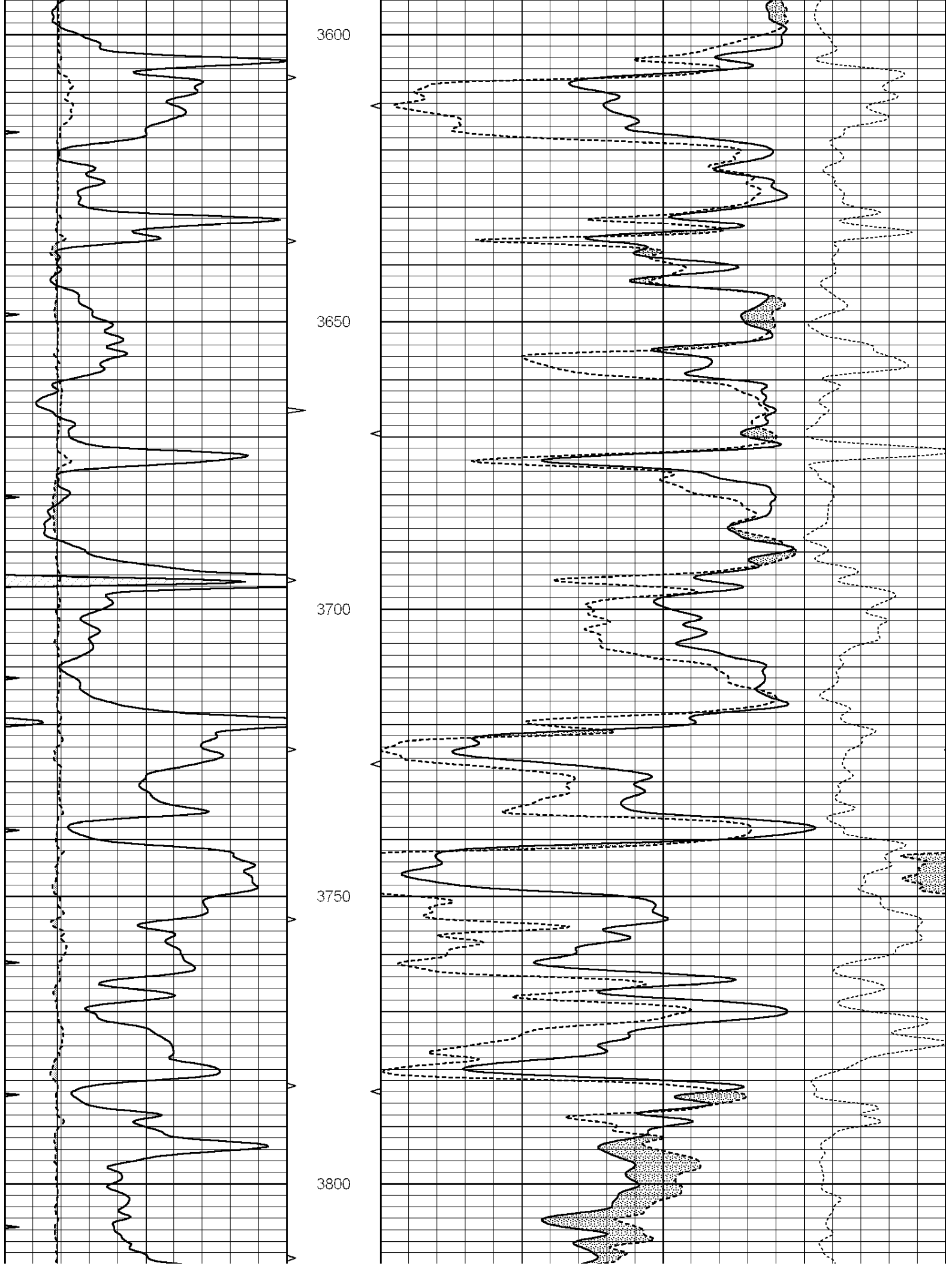
MAIN SECTION

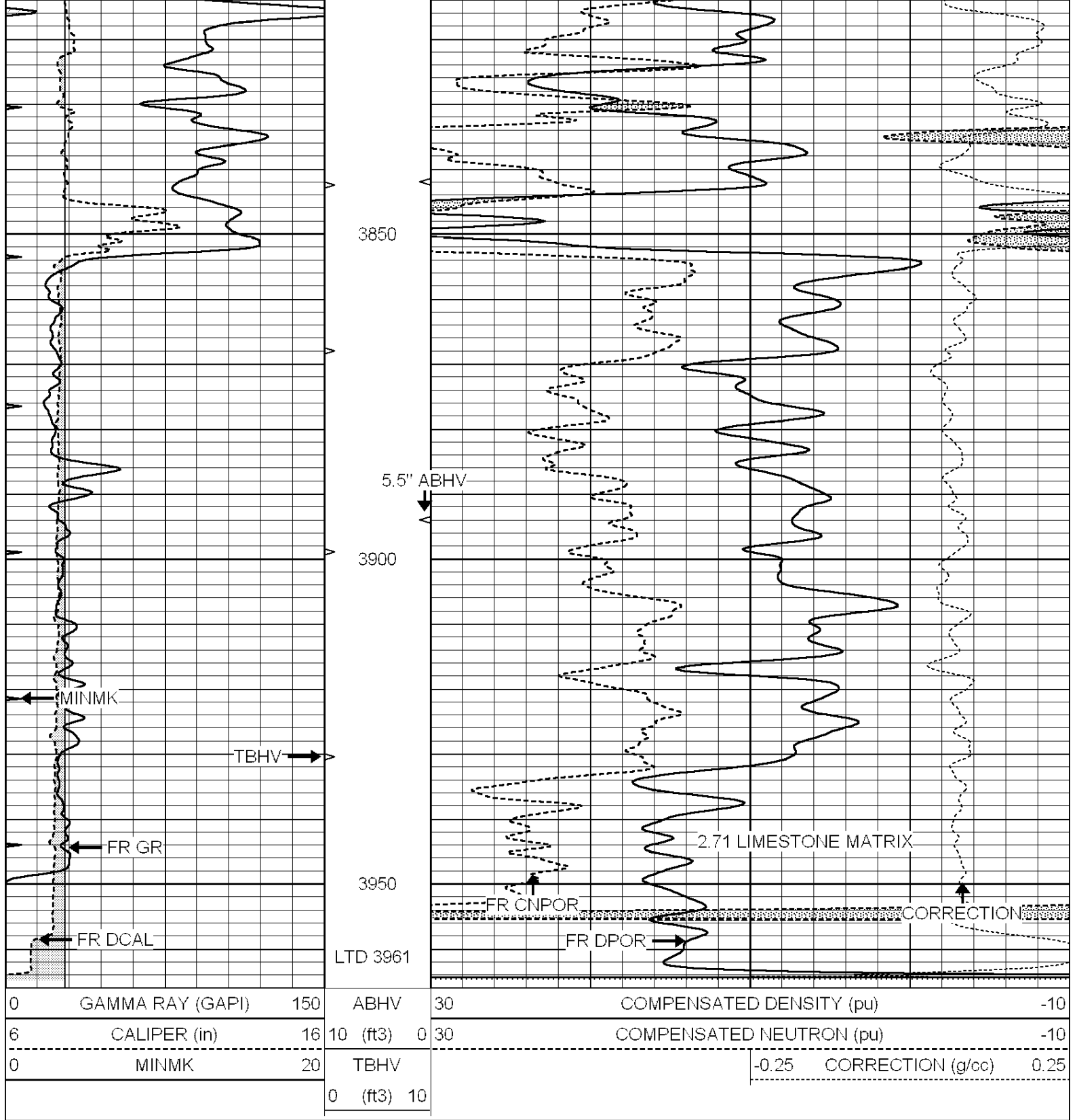
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 Dataset Pathname: pass6.2
 Presentation Format: den_neu
 Dataset Creation: Tue Jul 08 11:29:20 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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		







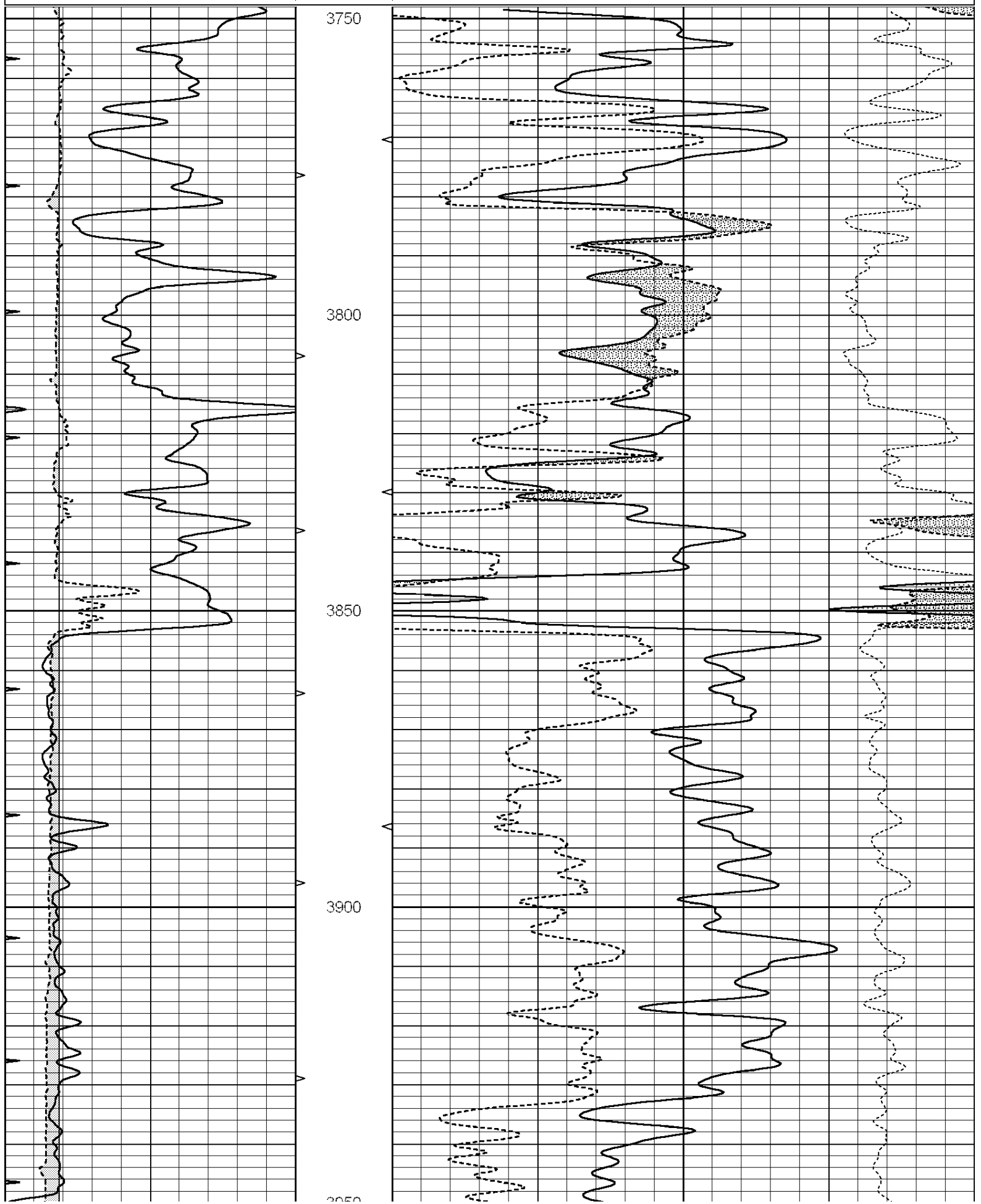


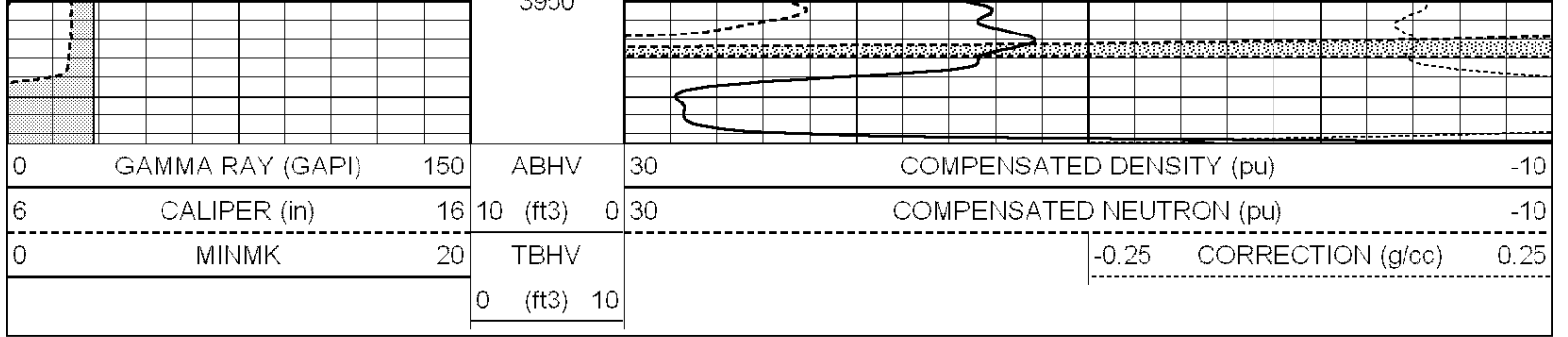
REPEAT SECTION

Database File: 24551ddn.db
 Dataset Pathname: pass5.1
 Presentation Format: den_neu
 Dataset Creation: Tue Jul 08 10:56:10 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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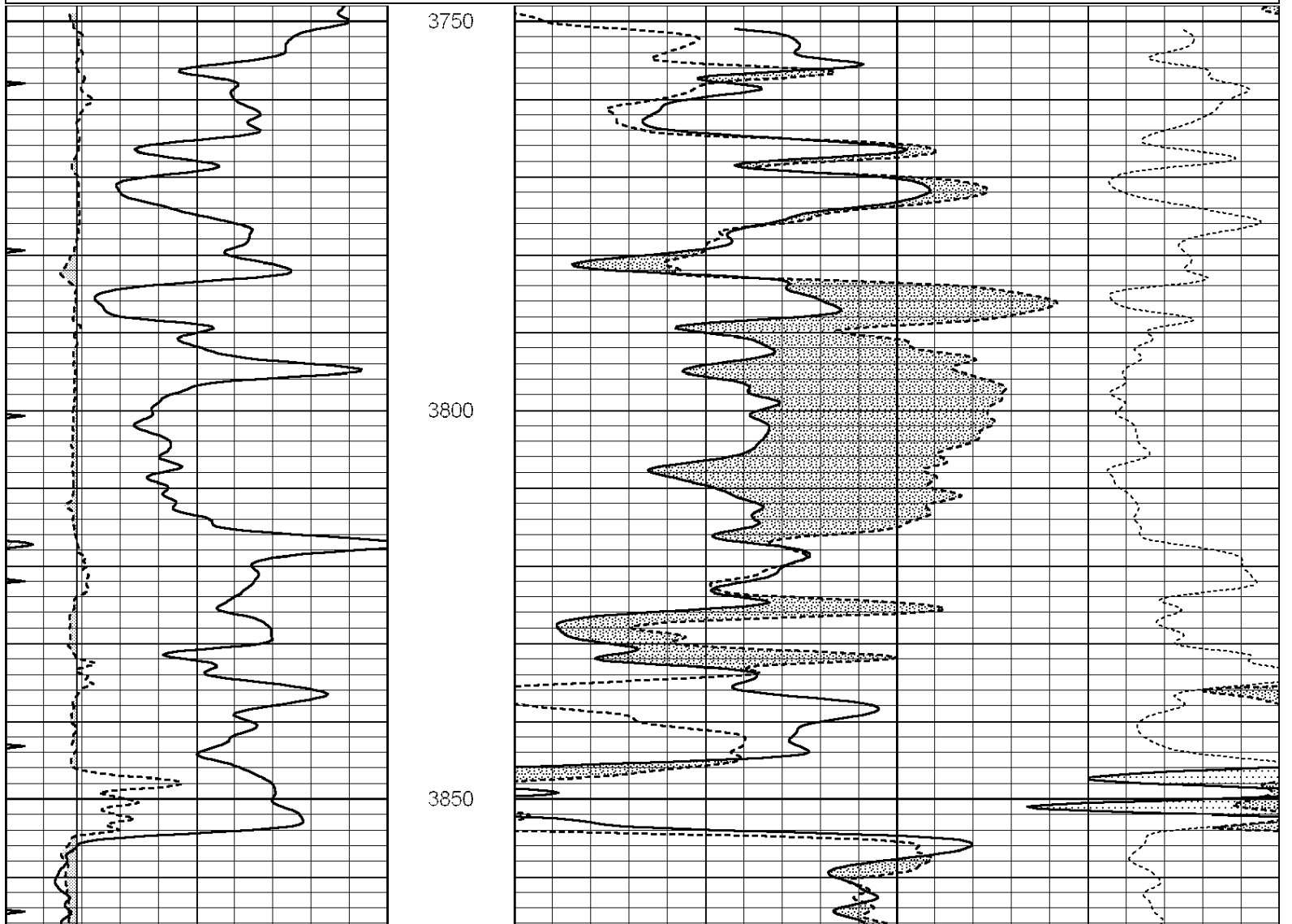
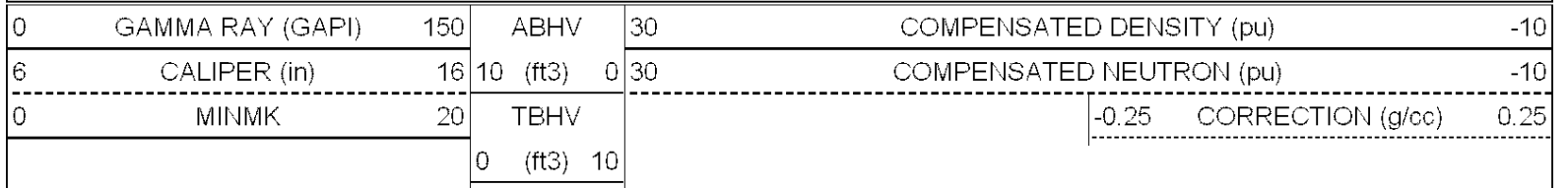
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10	
0	MINMK	20	TBHV			-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10				

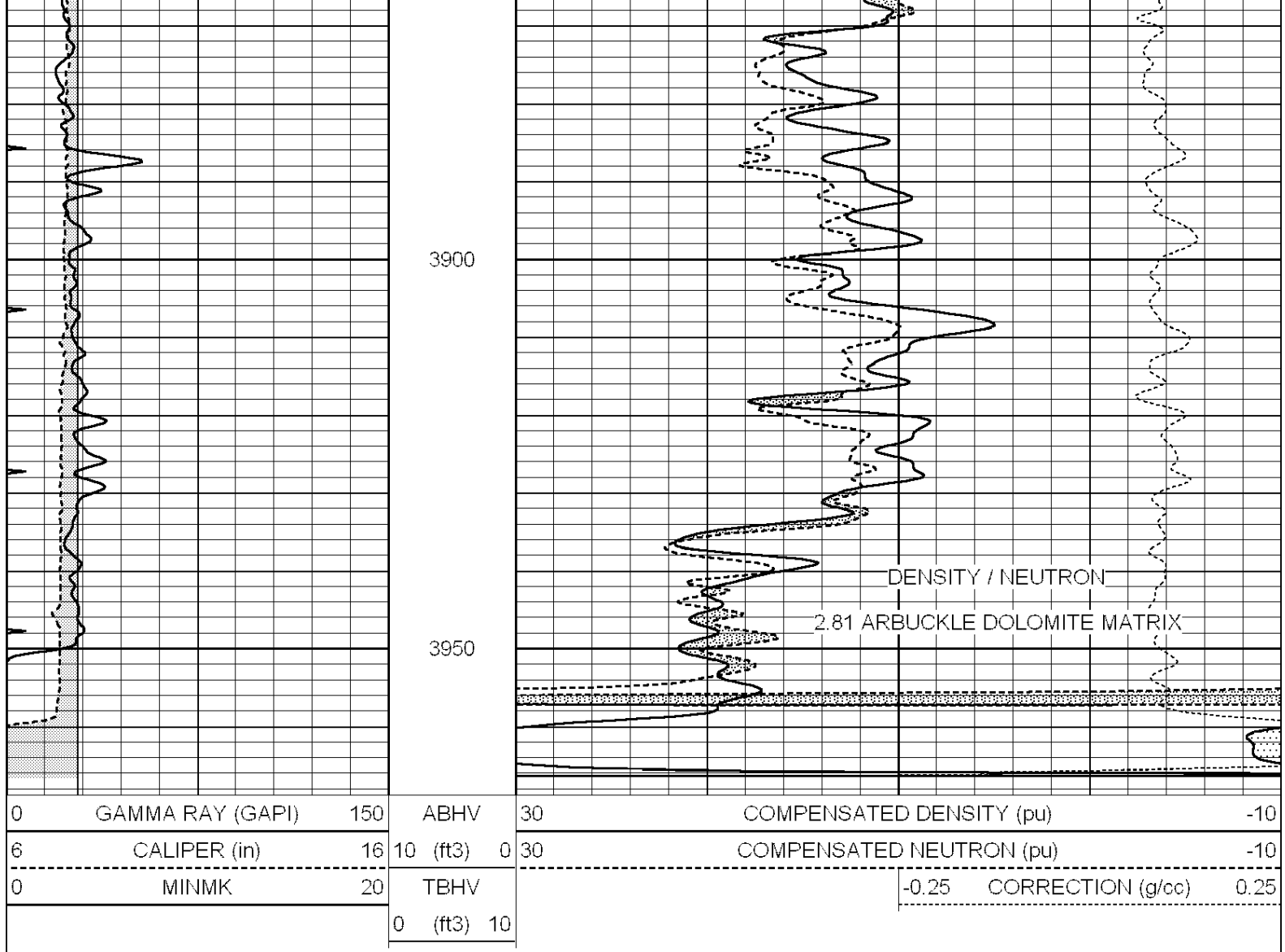




DOLOMITE MATRIX

Database File: 24551ddn.db
 Dataset Pathname: pass5.3
 Presentation Format: den_neu
 Dataset Creation: Tue Jul 08 11:12:34 2014
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 24551ddn.db
 Dataset Pathname: pass6.2
 Dataset Creation: Tue Jul 08 11:29:20 2014 by Calc SOC 120430

Litho Density Calibration Report

Serial: 004N Model: PRB

Master Calibration

Performed Fri May 30 11:01:00 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1378.8	10804.6	3492.0	12453.4	cps
Window 2	1262.4	9313.5	3076.7	10594.7	cps
Window 3	1077.6	5668.7	2076.0	6314.8	cps
Window 4	306.4	313.0	306.4	315.6	cps
Long Space	0.0	8051.0	1814.3	9332.3	cps
Short Space	1.9	1706.1	1146.0	1707.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 45.0	Rib Slope	: 1.002	Density/Spine Ratio	: 0.571
Spine Angle	: 75.0	Spine Slope	: 3.745	Spine Intercept	: -18.9

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	

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: 070558
Tool Model: OPEN_GR
Performed: Mon Jun 30 21:53:39 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2800 GAPI/cps