



**SUPERIOR  
Hays,  
Kansas**

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company I.A. OPERATING, INC.  
Well VIRGINIA K #18-1  
Field PLEASANT S.E.  
County ELLIS  
State KANSAS

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Location: API #: 15-051-26268  
2180' FNL & 2100' FWL  
SEC 18 TWP 14S RGE 19W  
Permanent Datum GROUND LEVEL Elevation 2215  
Log Measured From KELLY BUSHING 8' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL  
MICRO  
Elevation  
K.B. 2223  
D.F.  
G.L. 2215

Date	3-8-12
Run Number	ONE
Depth Driller	3925
Depth Logger	3924
Bottom Logged Interval	3900
Top Log Interval	3150
Casing Driller	221
Casing Logger	221
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2 / 60
pH / Fluid Loss	10.0 / 8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.65 @ 70F
Rmf @ Meas. Temp	0.49 @ 70F
Rmc @ Meas. Temp	0.78 @ 70F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	.400 @ 114F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	11:00 P.M.
Maximum Recorded Temperature	114F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	RANDY KILIAN

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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

SUPERIOR WELL SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: HAYS & GOLF COURSE RD., W TO RD. #170, 1S, 1/2W, S INTO.

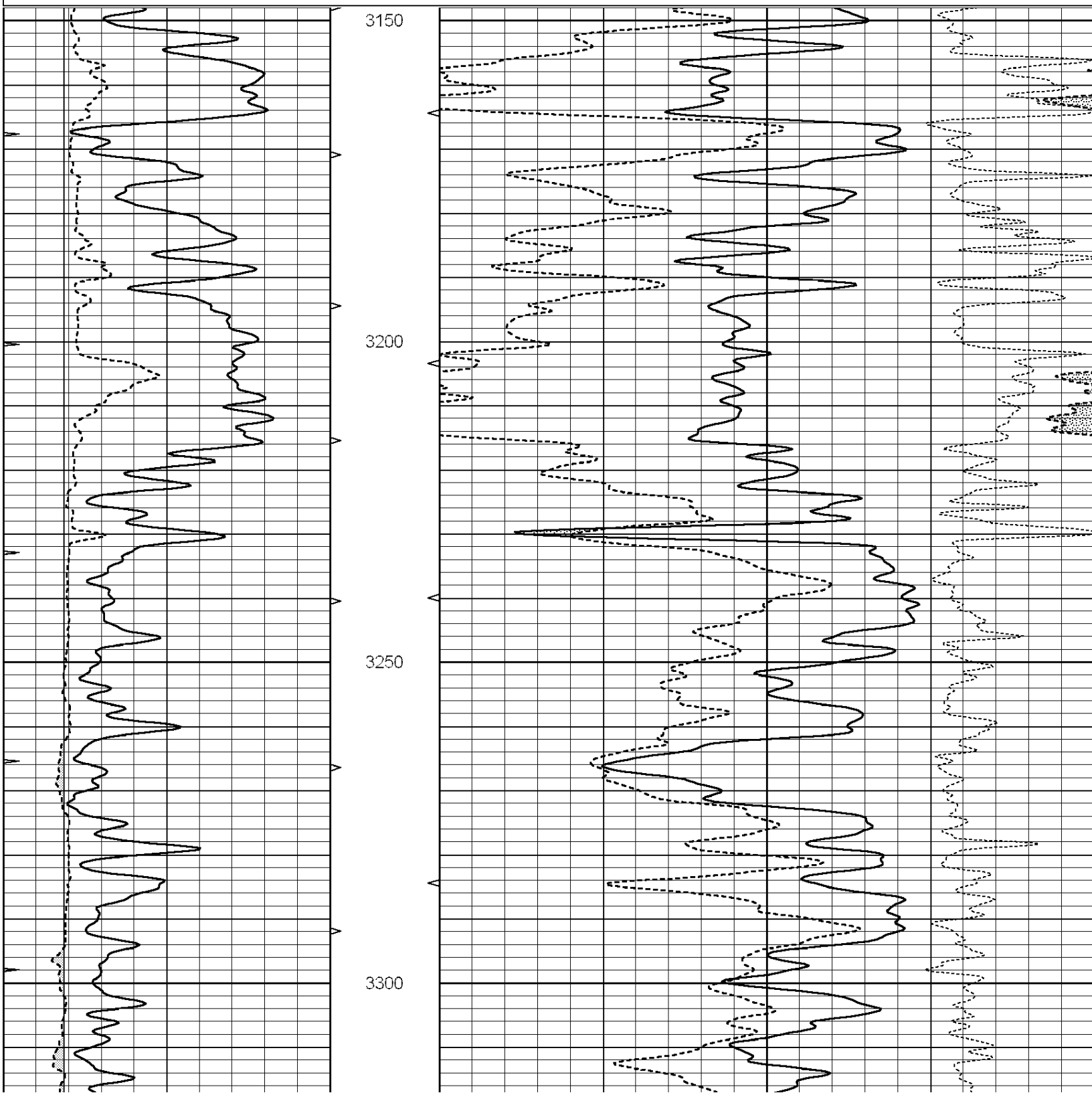


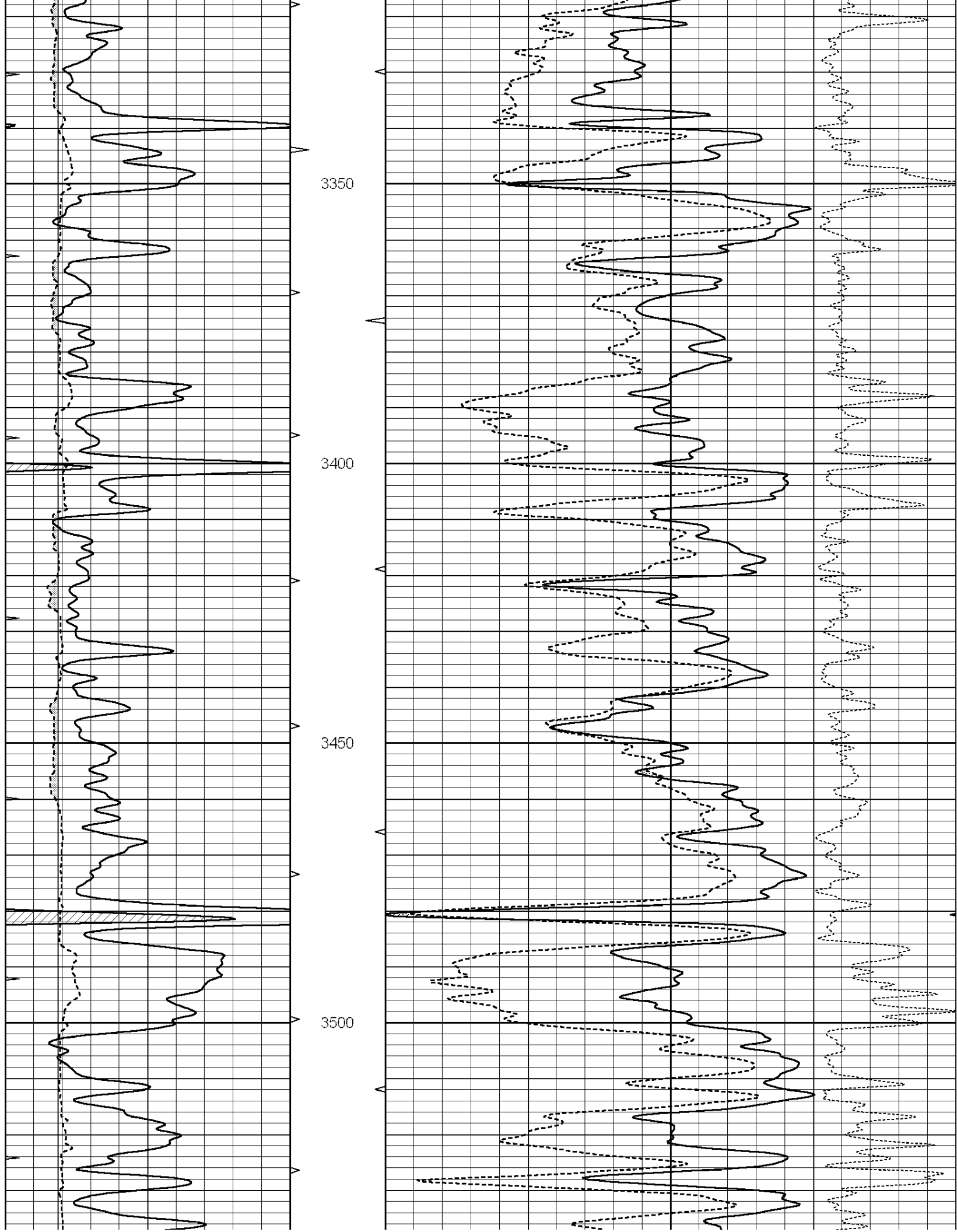
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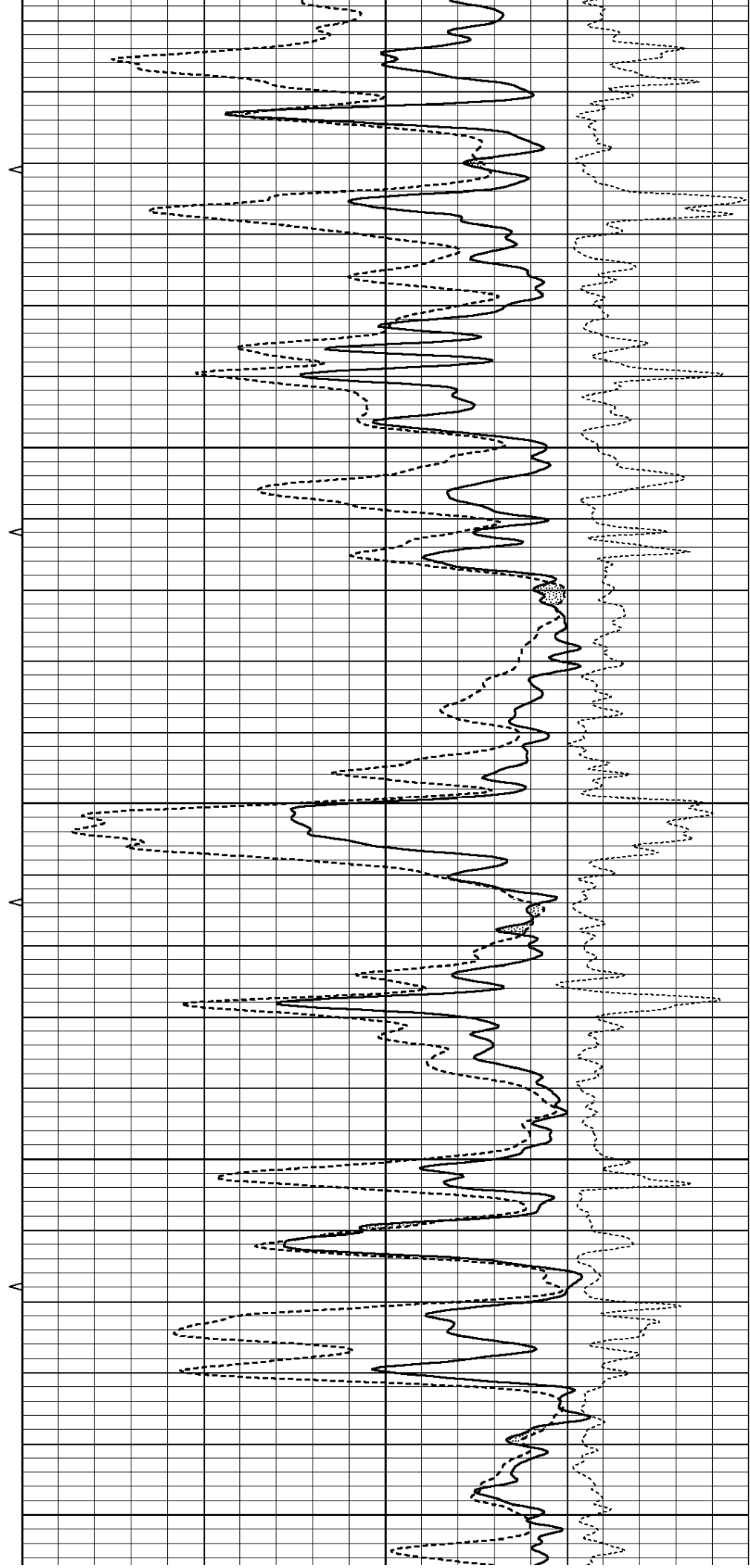
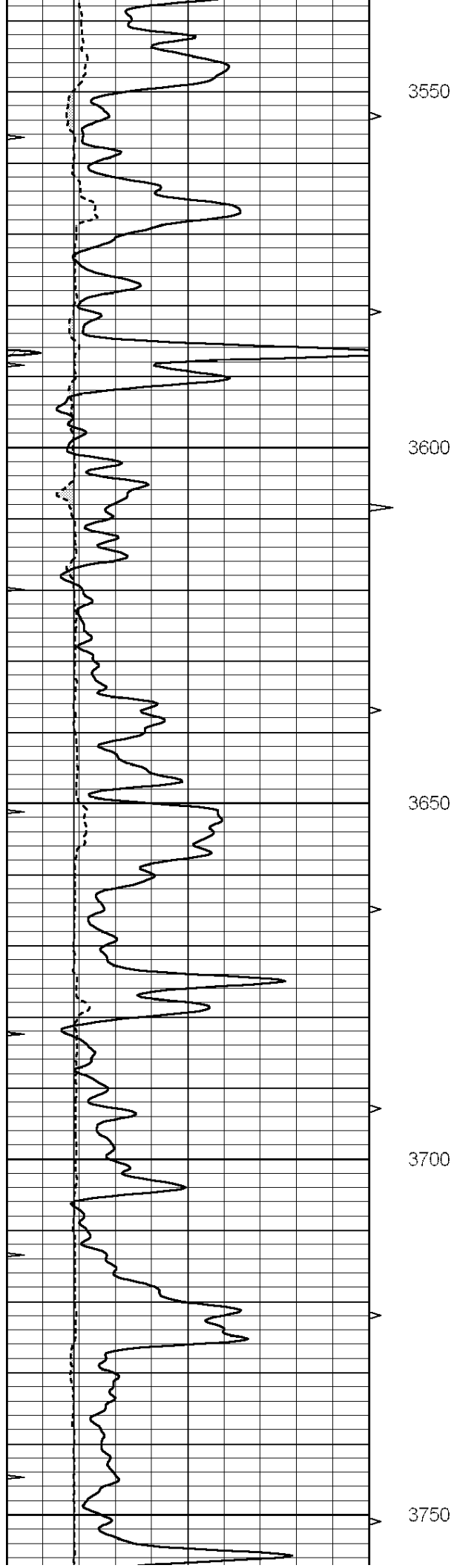
**MAIN SECTION**

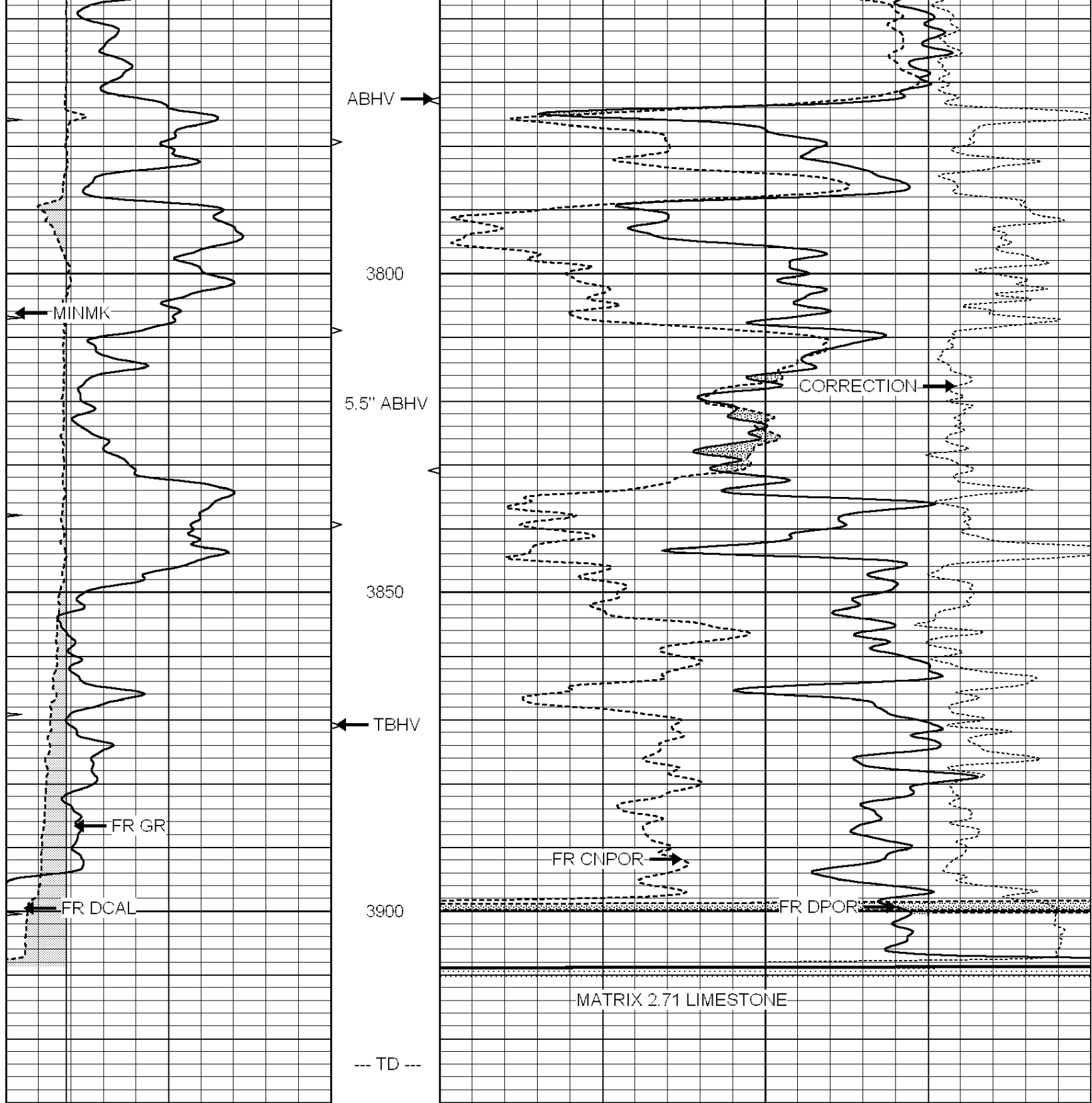
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 Dataset Pathname: pass4.A  
 Presentation Format: den\_neu  
 Dataset Creation: Thu Mar 08 02:23:00 2012  
 Charted by: Depth in Feet scaled 1:240

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		-0.25 CORRECTION (g/cc)	0.25
6	MELCAL (in)	16	0 (ft3)	10		









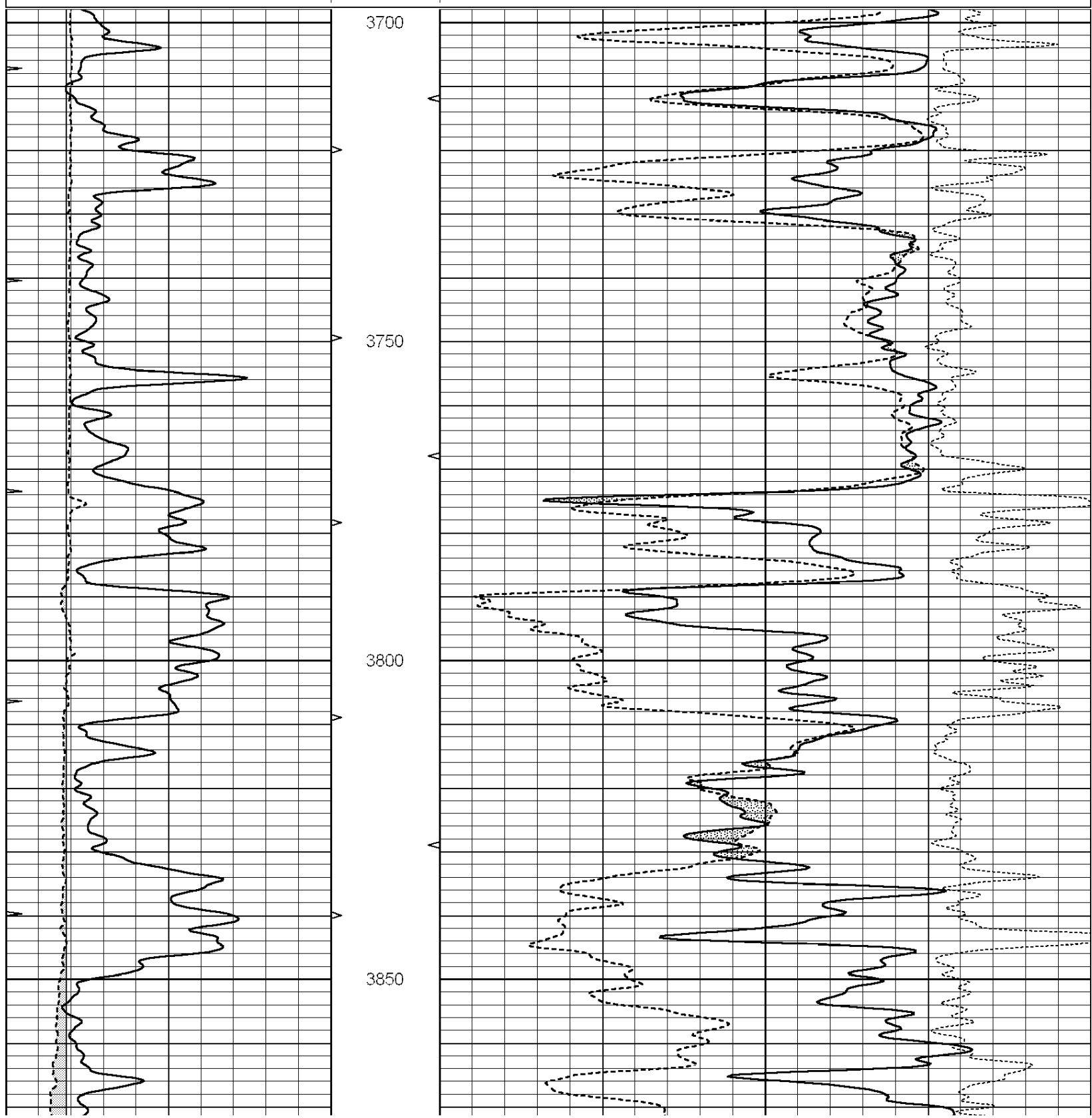
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
6	MELCAL (in)	16	0 (ft3)	10		



# REPEAT SECTION

Database File: 008491ddn.db  
Dataset Pathname: pass3.1A  
Presentation Format: den\_neu  
Dataset Creation: Thu Mar 08 01:20:57 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		





Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

### Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART  
Source / Verifier: 147 / 147  
Master Calibration Performed: Wed Mar 07 18:28:46 2012

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.590	g/cc	282.16	435.01	cps
Spine Angle = 76.03			Density/Spine Ratio = 0.576		
	Size		Reading		
Small Ring	9.35	in	3.50	V	
Large Ring	14.00	in	5.30	V	

### Compensated Neutron Calibration Report

Serial Number: NUE\_2I  
Tool Model: G

#### CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

### Gamma Ray Calibration Report

Serial Number: GR5  
Tool Model: OPEN  
Performed: Wed Mar 07 23:46:02 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.7000 GAPI/cps