



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**RADIATION  
GUARD LOG**

Company BAIRD OIL COMPANY, LLC.  
Well ESTHER WORCESTER #4-13  
Field WORCESTER EAST  
County GRAHAM  
State KANSAS

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Location: API #: 15-065-24037  
1610' FNL & 1600' FEL  
SEC 13 TWP 7SW RGE 22W  
Permanent Datum GROUND LEVEL Elevation 2168  
Log Measured From KELLY BUSHING 8' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
MICRO  
Elevation  
K.B. 2176  
D.F.  
G.L. 2168

Date	5-11-14
Run Number	ONE
Depth Driller	3800
Depth Logger	3799
Bottom Logged Interval	3798
Top Log Interval	3000
Casing Driller	219
Casing Logger	219
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.1 / 55
pH / Fluid Loss	10.0 / 7.2
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.85 @ 88F
Rmf @ Meas. Temp	0.64 @ 88F
Rmc @ Meas. Temp	1.02 @ 88F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	.660 @ 113F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	9:00 A.M.
Maximum Recorded Temperature	113F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	RICHARD BELL

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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

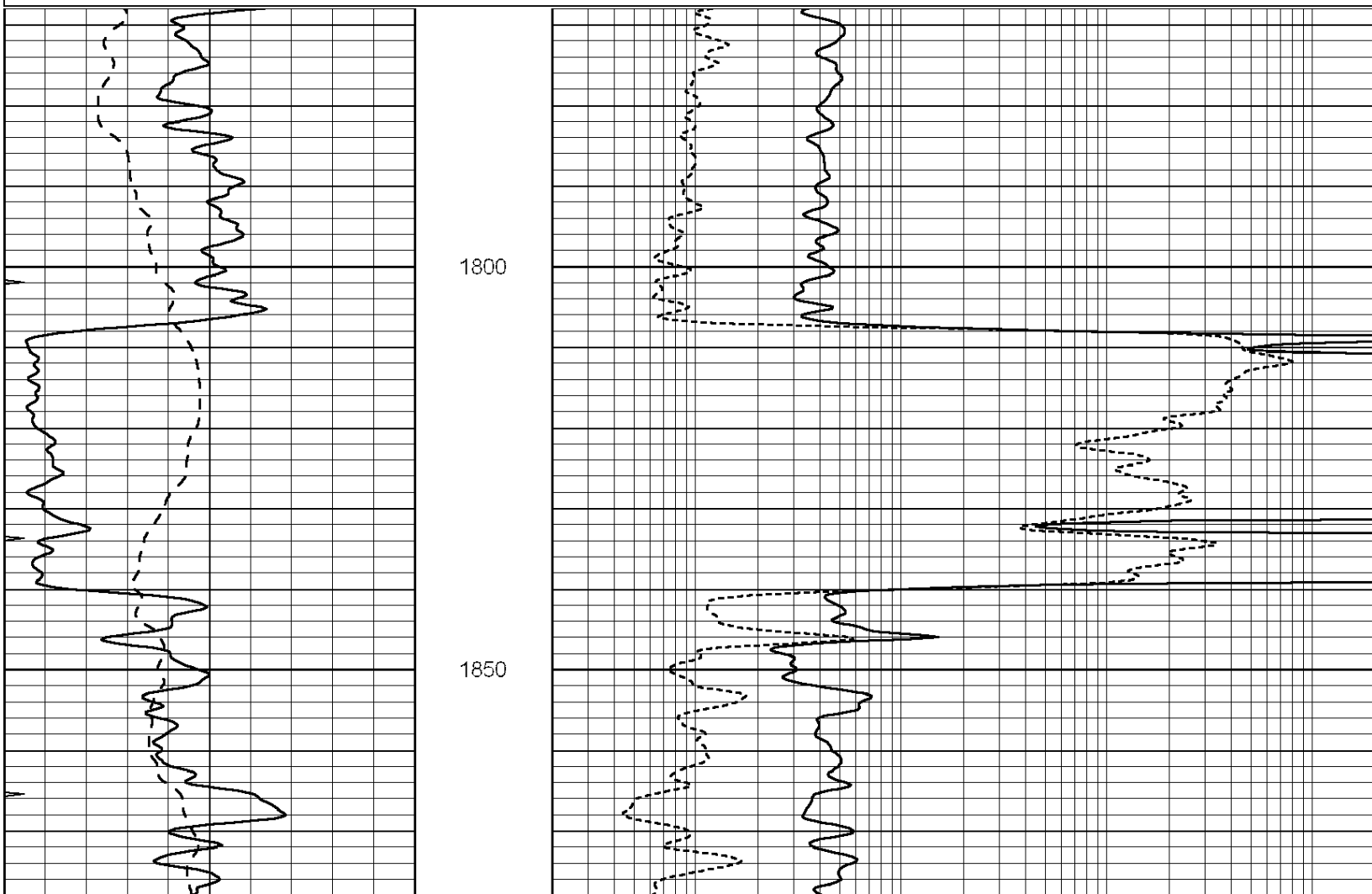
NABORS COMPLETION & PRODUCTION SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: BOGUE & #24, 1 1/2W TO 340TH RD., 4N TO W RD., 1/2W, S INTO.



**MAIN SECTION**

Database File: 24430rag.db  
 Dataset Pathname: pass4.2A  
 Presentation Format: rag2  
 Dataset Creation: Sun May 11 10:01:44 2014 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV (ft3)	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100		0	NEUTRON (NAPI)	1000
-----			TBHV (ft3)	-----		



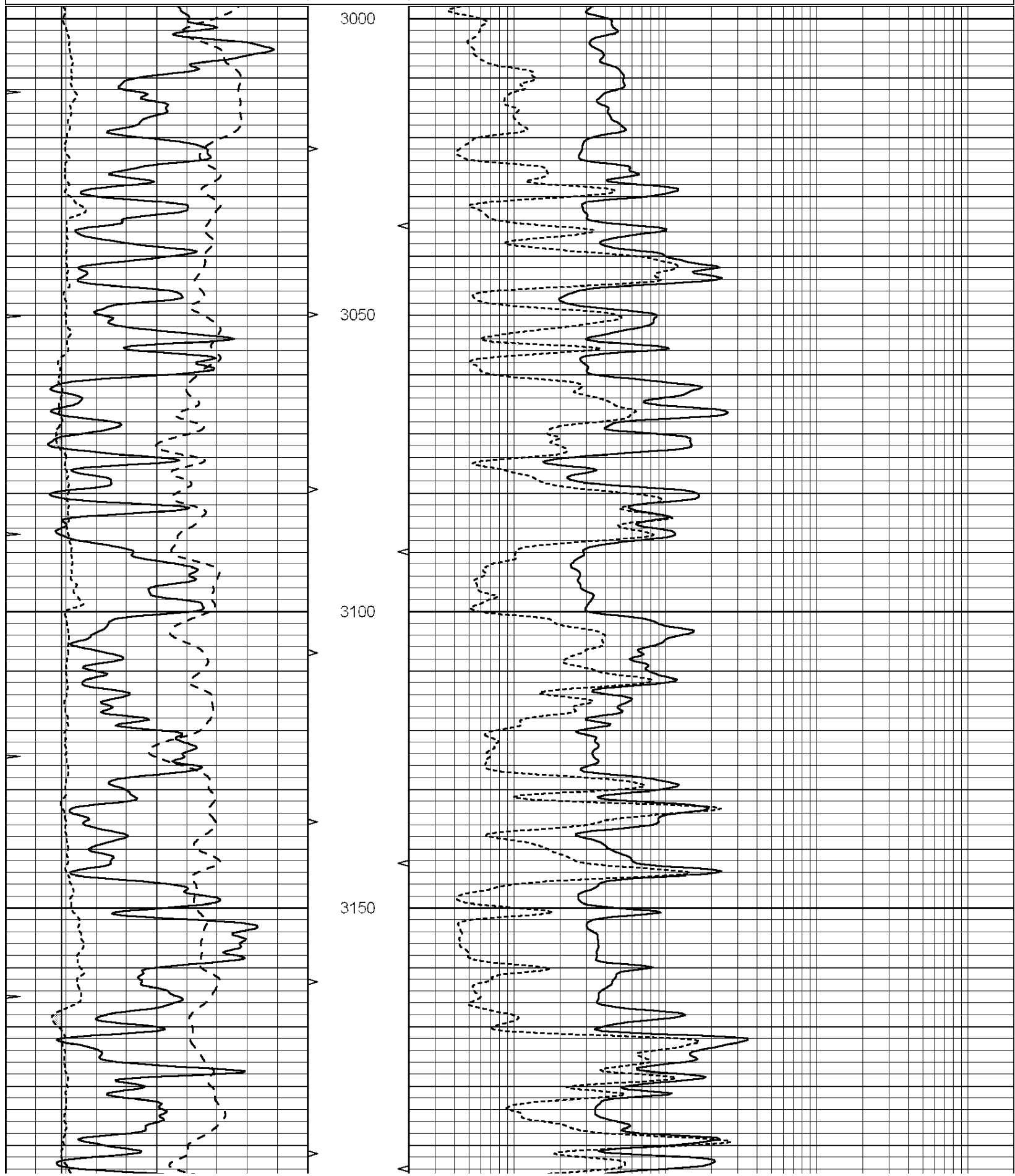
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-100	SP (mV)	100		0	NEUTRON (NAPI)	1000
-----			TBHV (ft3)	-----		

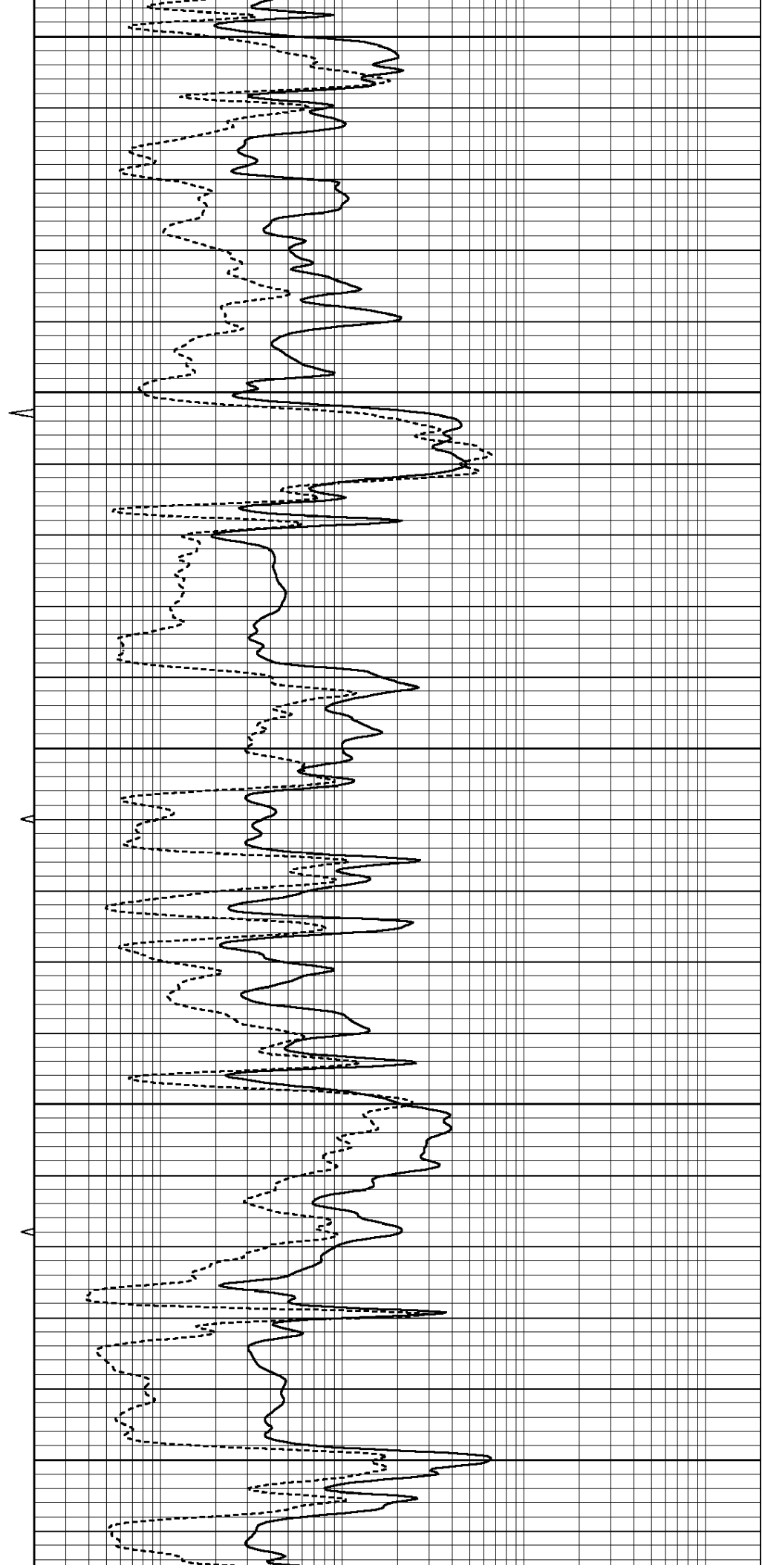
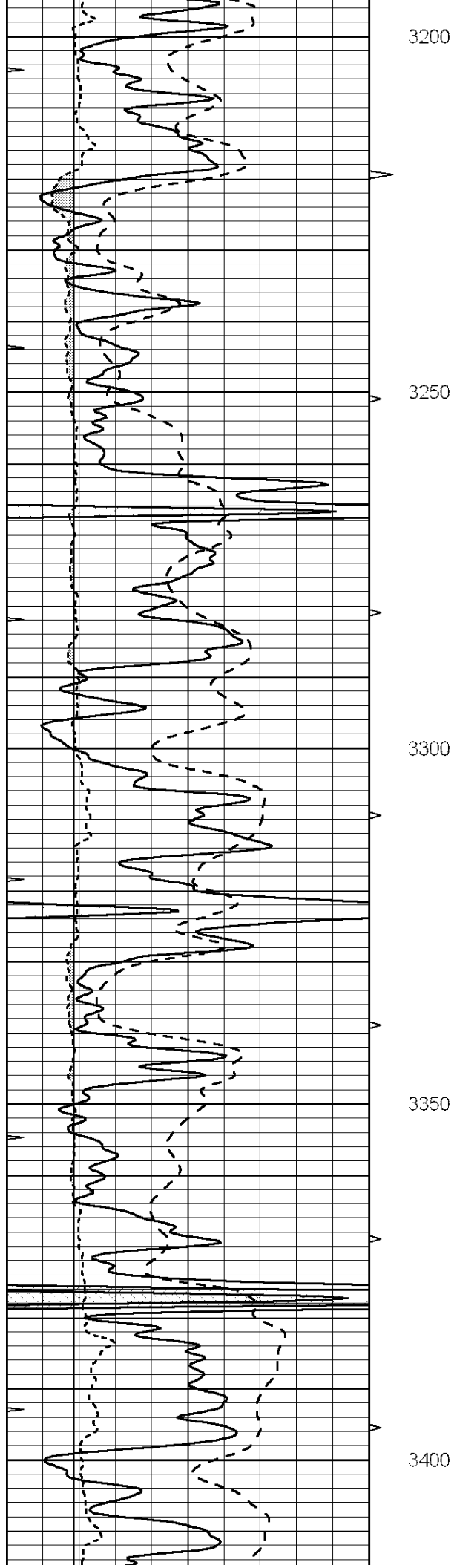


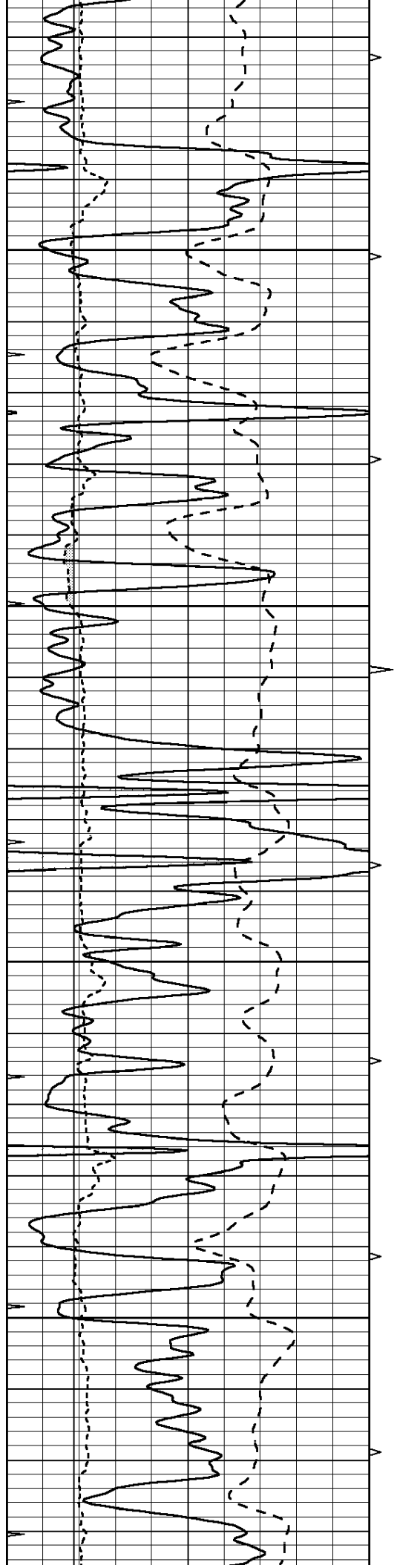
# MAIN SECTION

Database File: 24430rag.db  
 Dataset Pathname: pass3.2  
 Presentation Format: \_rag  
 Dataset Creation: Sun May 11 09:53:56 2014  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	10 (ft3)	0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		





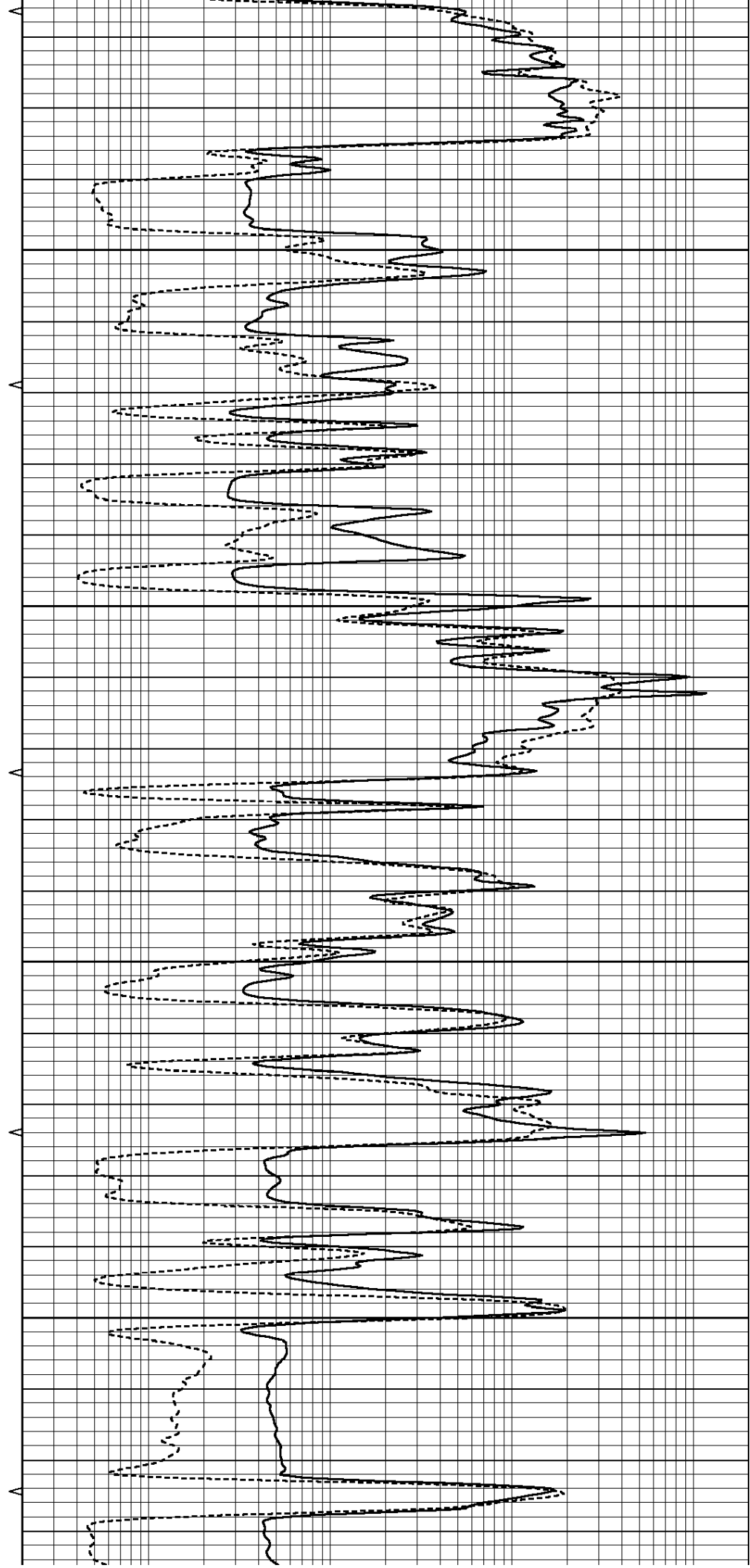


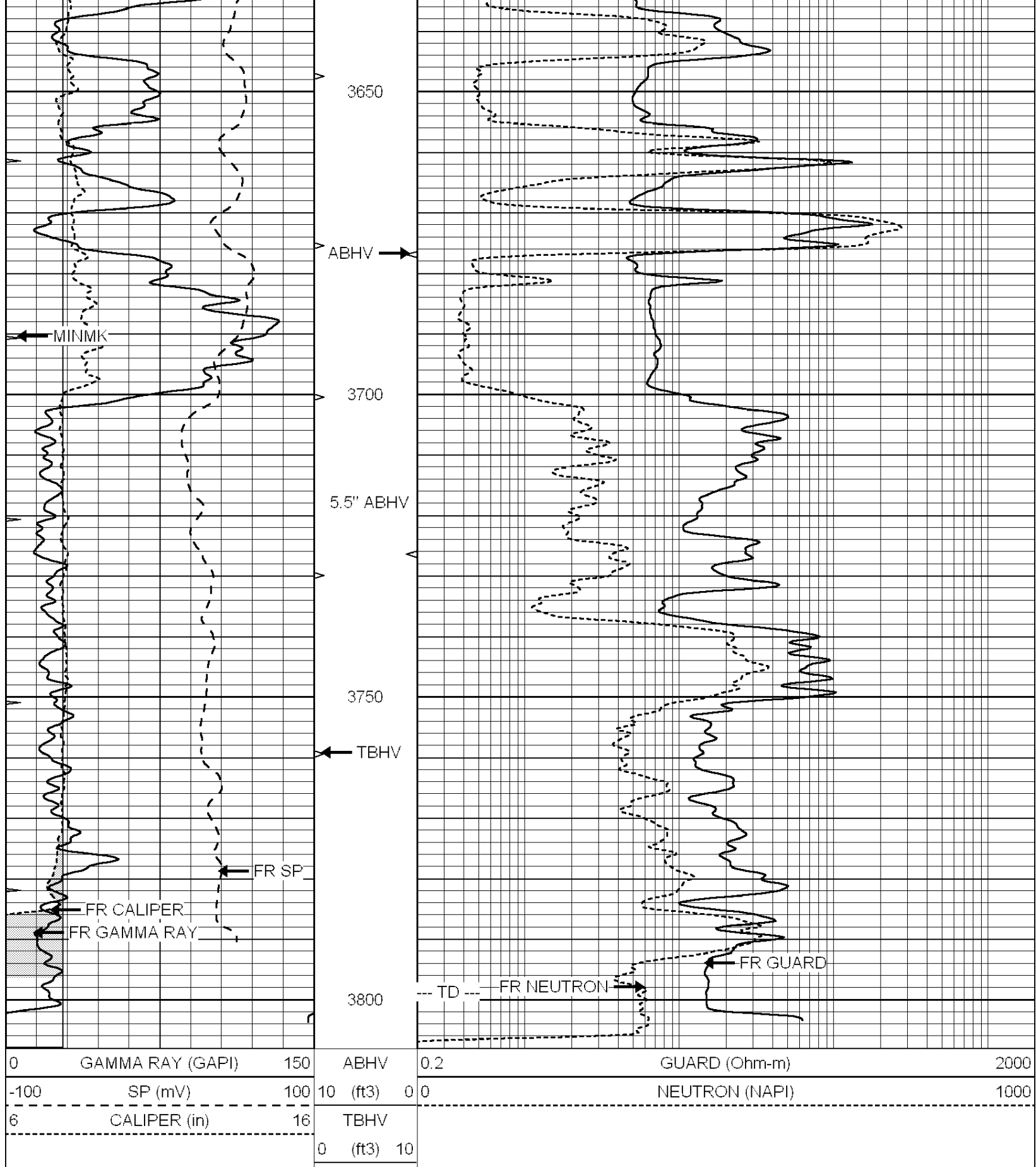
3450

3500

3550

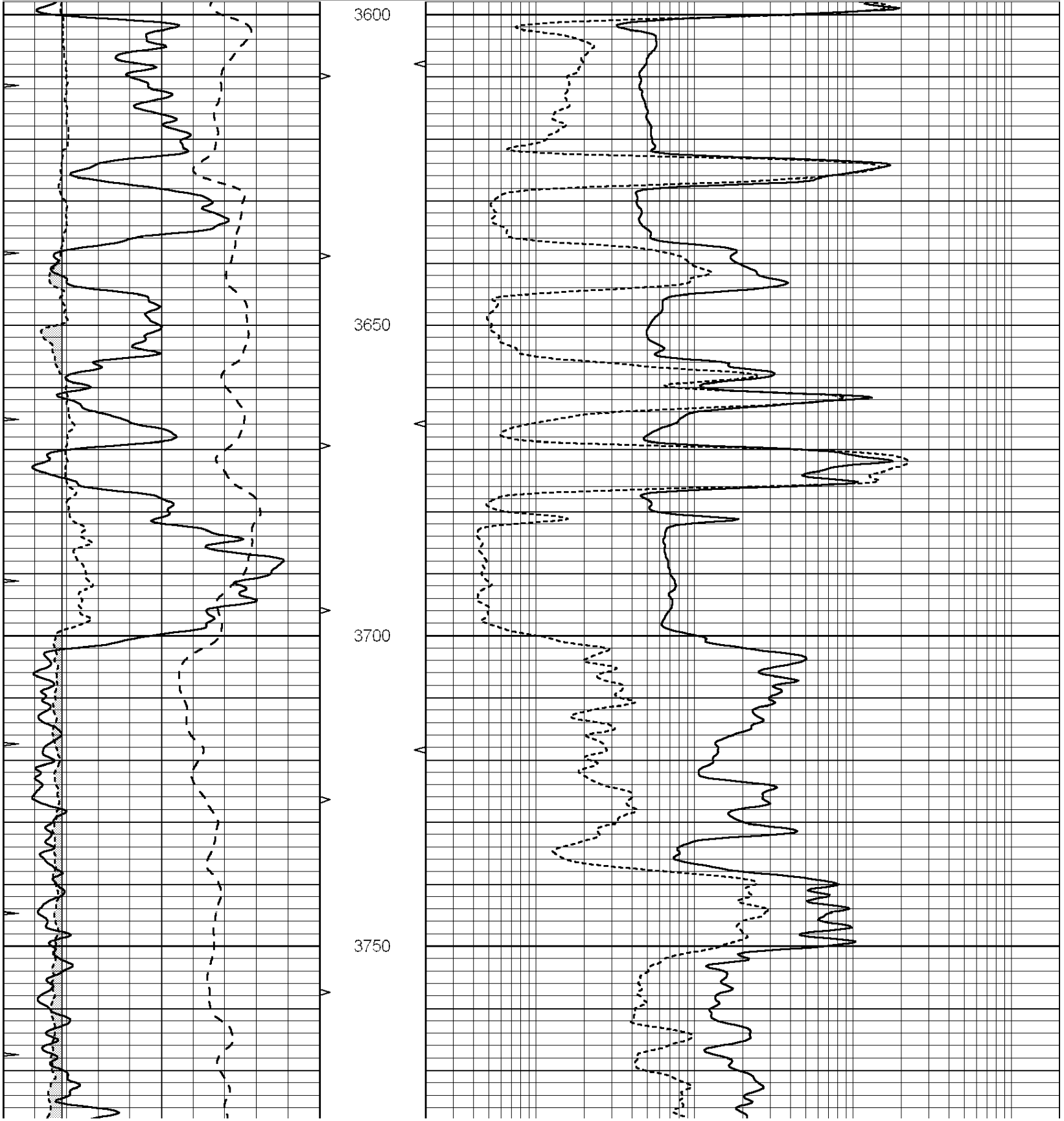
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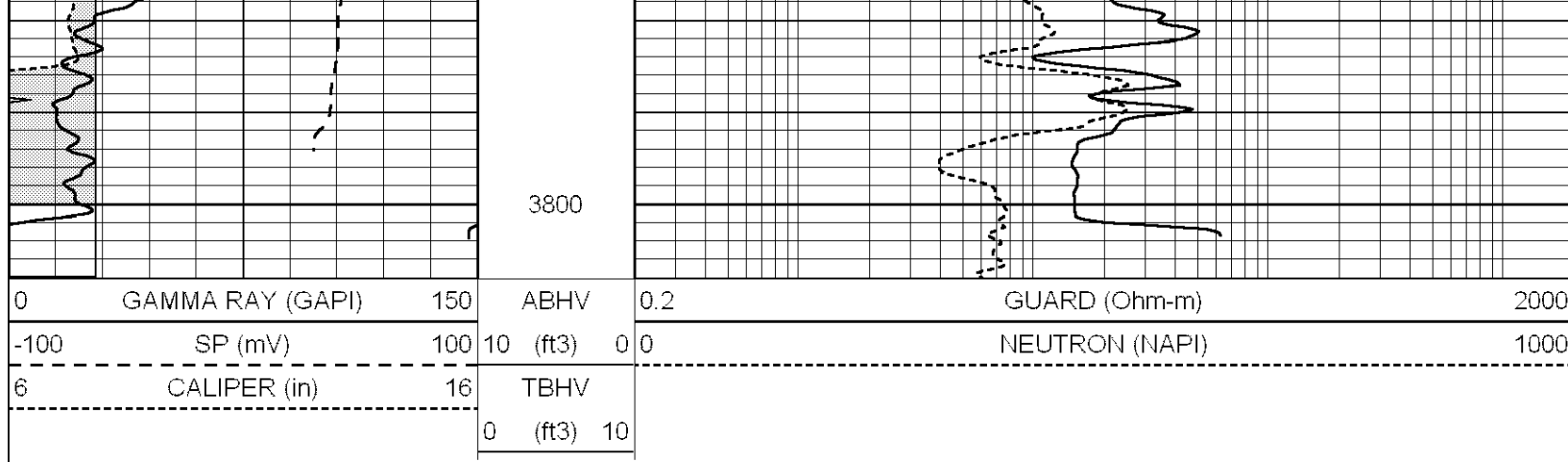




Database File: 24430rag.db  
 Dataset Pathname: pass2.2  
 Presentation Format: \_rag  
 Dataset Creation: Sun May 11 09:51:38 2014  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	10 (ft3)	0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		





### Calibration Report

Database File: 24430rag.db  
 Dataset Pathname: pass3.2  
 Dataset Creation: Sun May 11 09:53:56 2014

### Neutron Calibration Report

Serial Number: RAG1  
 Tool Model: RAG  
 Performed: Sun May 11 09:34:13 2014

Calibrator Values: 0 1 NAPI  
 Calibrator Readings: 0 1 cps

Sensitivity: 1.05 NAPI/cps

### Micro Spherically Focused Log Calibration Report

Serial-Model: RAG1-A  
 Performed: Sun May 11 09:41:30 2014

	Readings			References			Results	
	Low	High		Low	High		m	b
Conductivity	0.0110	0.9000	V	10.0000	1000.0000	mmho	3000.0000	16.0000
Caliper	0.2723	0.3535	V	7.8000	14.0000	in	76.3942	-12.8000

### Gamma Ray Calibration Report

Serial Number: RAG1  
 Tool Model: RAG  
 Performed: Sun May 11 09:26:27 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.9 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.9000 GAPI/cps