

**Patterson**

**COMPENSATED DENSITY  
NEUTRON  
LOG**

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Predator 42-15	Well	Predator 42-15
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API # : 05 071 08531 00 2275' FNL & 569' FEL	Other Services	SIL
Permanent Datum	SEC 15 TWP 33S RGE 65W	Elevation	
Log Measured From	Ground Level	K.B. 6615'	
Drilling Measured From	Kelly Bushing 4' Above G.L. Kelly Bushing	D.F. -----	
		G.L. 6611'	
Date	10-05-05		
Run Number	Two		
Depth Driller	850'		
Depth Logger	850'		
Bottom Logged Interval	848'		
Top Log Interval	Surface		
Casing Driller	8 5/8" @ 569'		
Casing Logger	569'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	12:00 P.M.		
Time Logger on Bottom	2:00 P.M.		
Maximum Recorded Temperature	68 DEG F		
Equipment Number	T720		
Location	Trinidad		
Recorded By	M. Norton		
Witnessed By	Mr. Tom Beardslee		

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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**

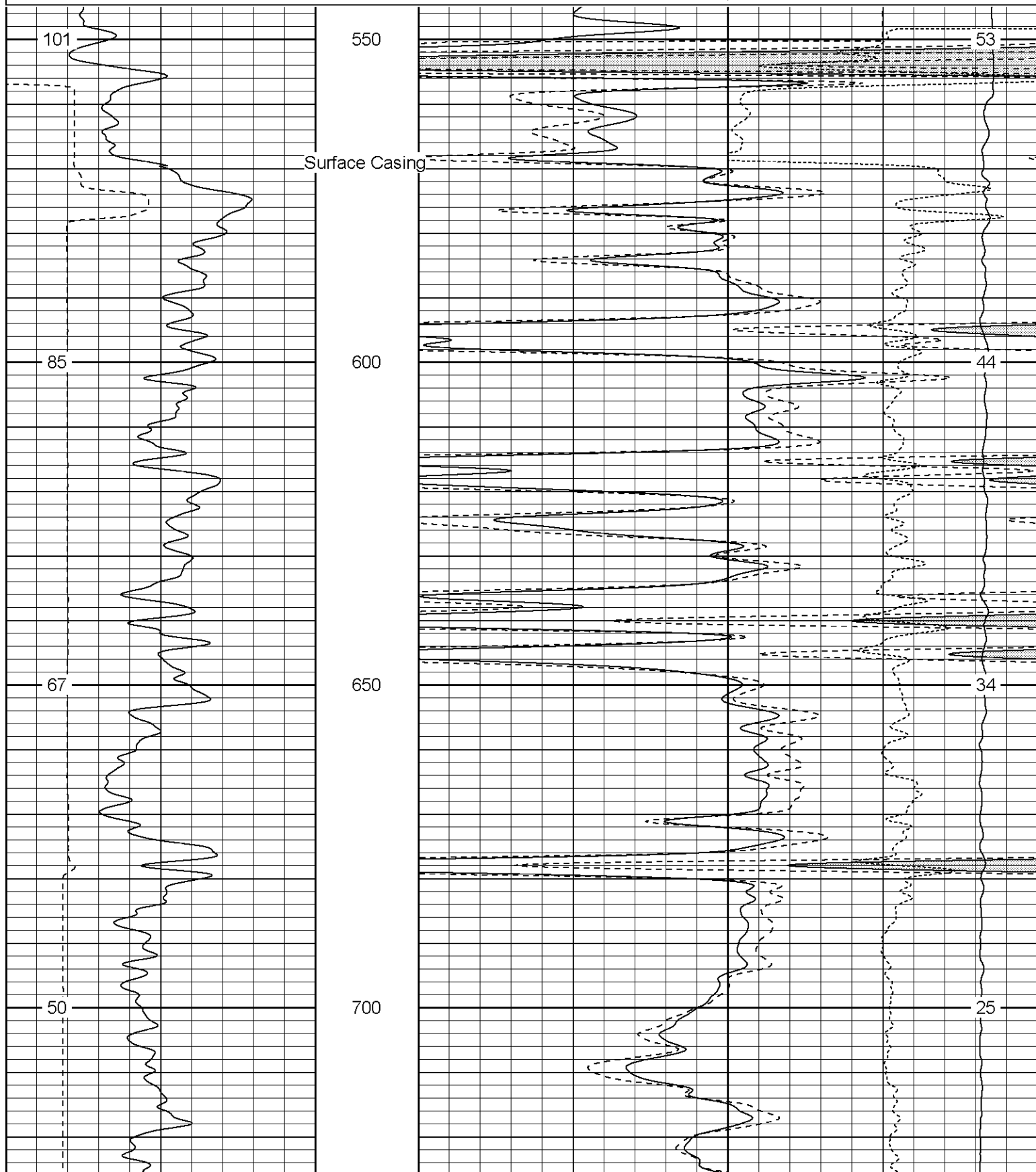
Neutron Density Porosity Presented On Sandstone Matrix.  
ABHV Calculated For 5 1/2" Casing.  
Well Directions:  
Bon Carbo Left Just Before Hootch House, First Left, Thru Gate(0000),  
First Left, First Left To Location.

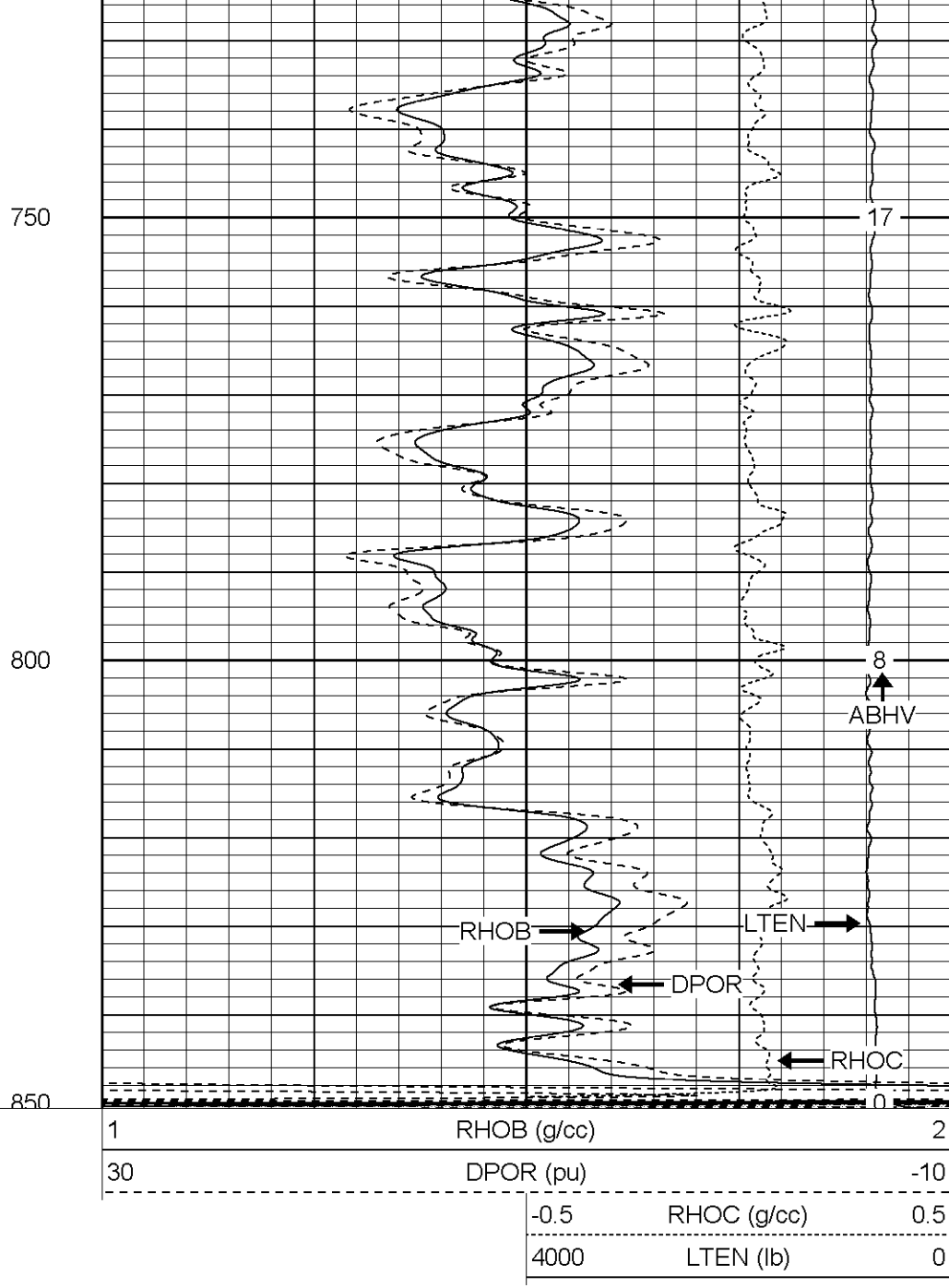
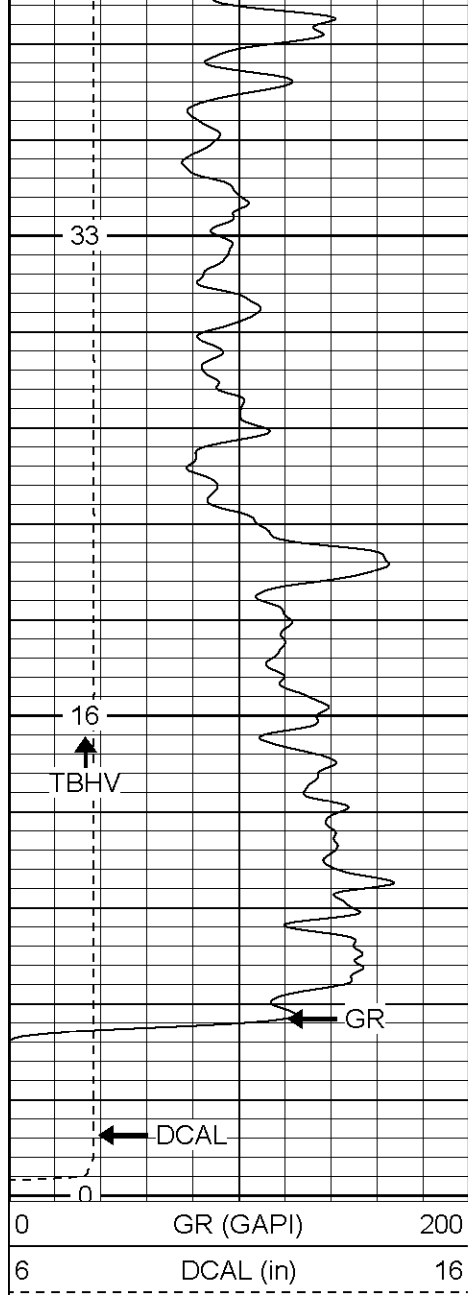
**Patterson**

**Main Pass**

Database File: predator.db  
Dataset Pathname: pass4.1  
Presentation Format: cdl  
Dataset Creation: Wed Oct 05 14:40:38 2005 by Calc Warrior 7.0 STD Ope  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	1	RHOB (g/cc)	2
6	DCAL (in)	16	30	DPOR (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0





**Patterson**

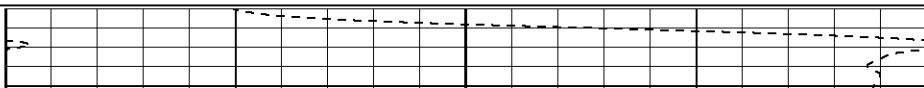
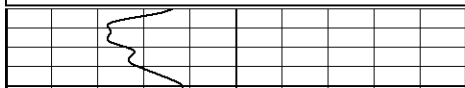
## Main Pass

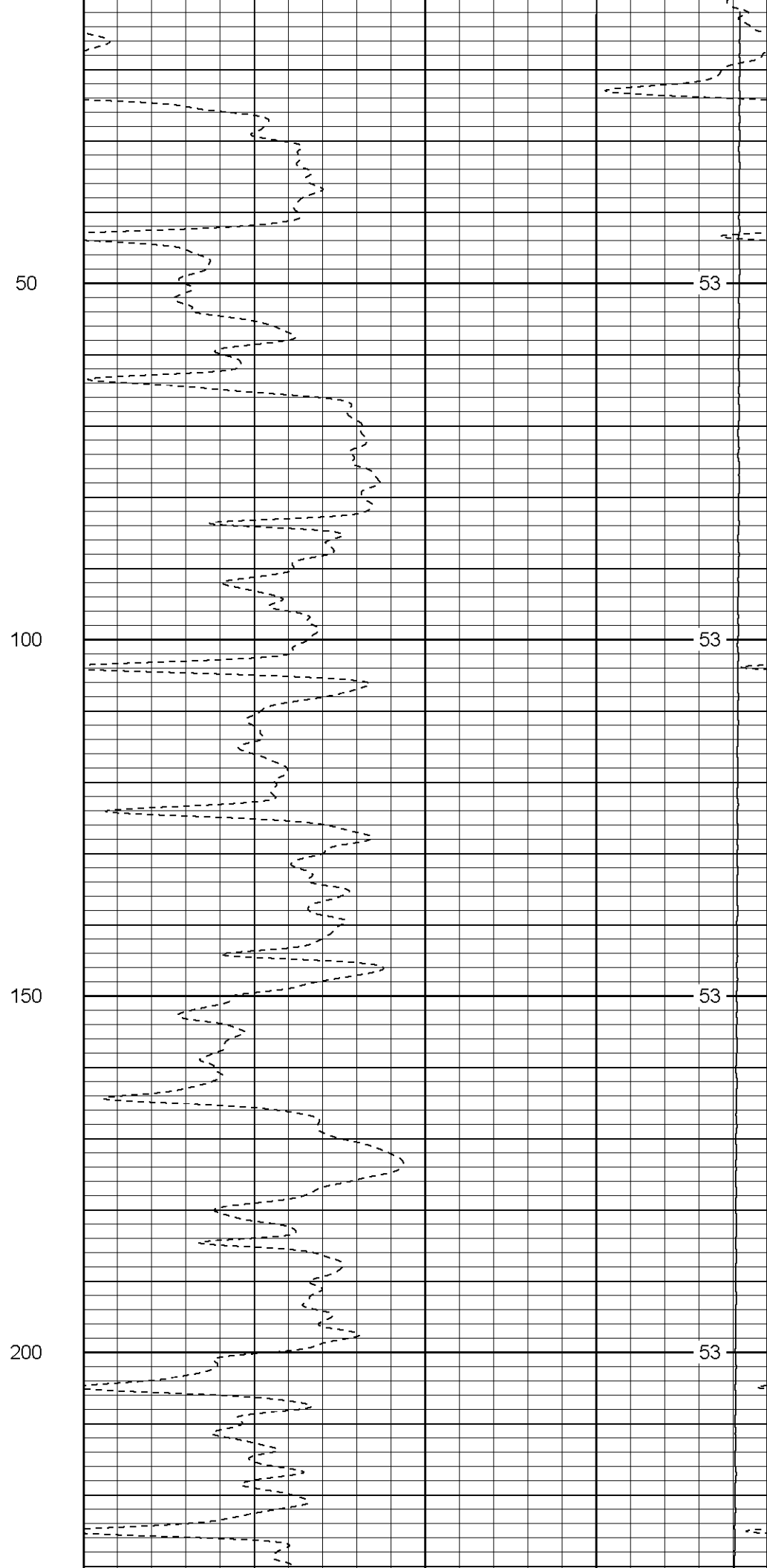
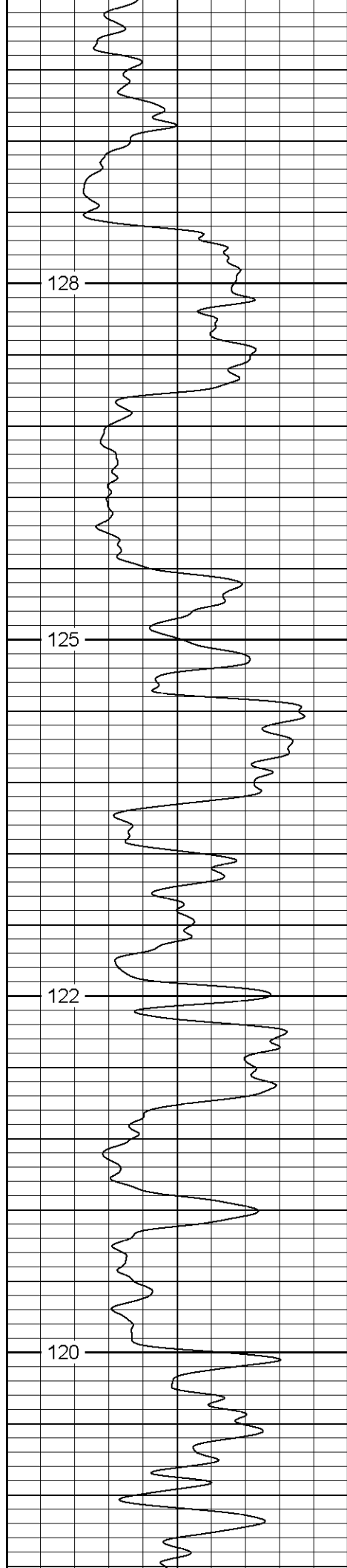
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 Dataset Pathname: pass4.1  
 Presentation Format: cdnl  
 Dataset Creation: Wed Oct 05 14:40:38 2005 by Calc Warrior 7.0 STD Ope  
 Charted by: Depth in Feet scaled 1:240

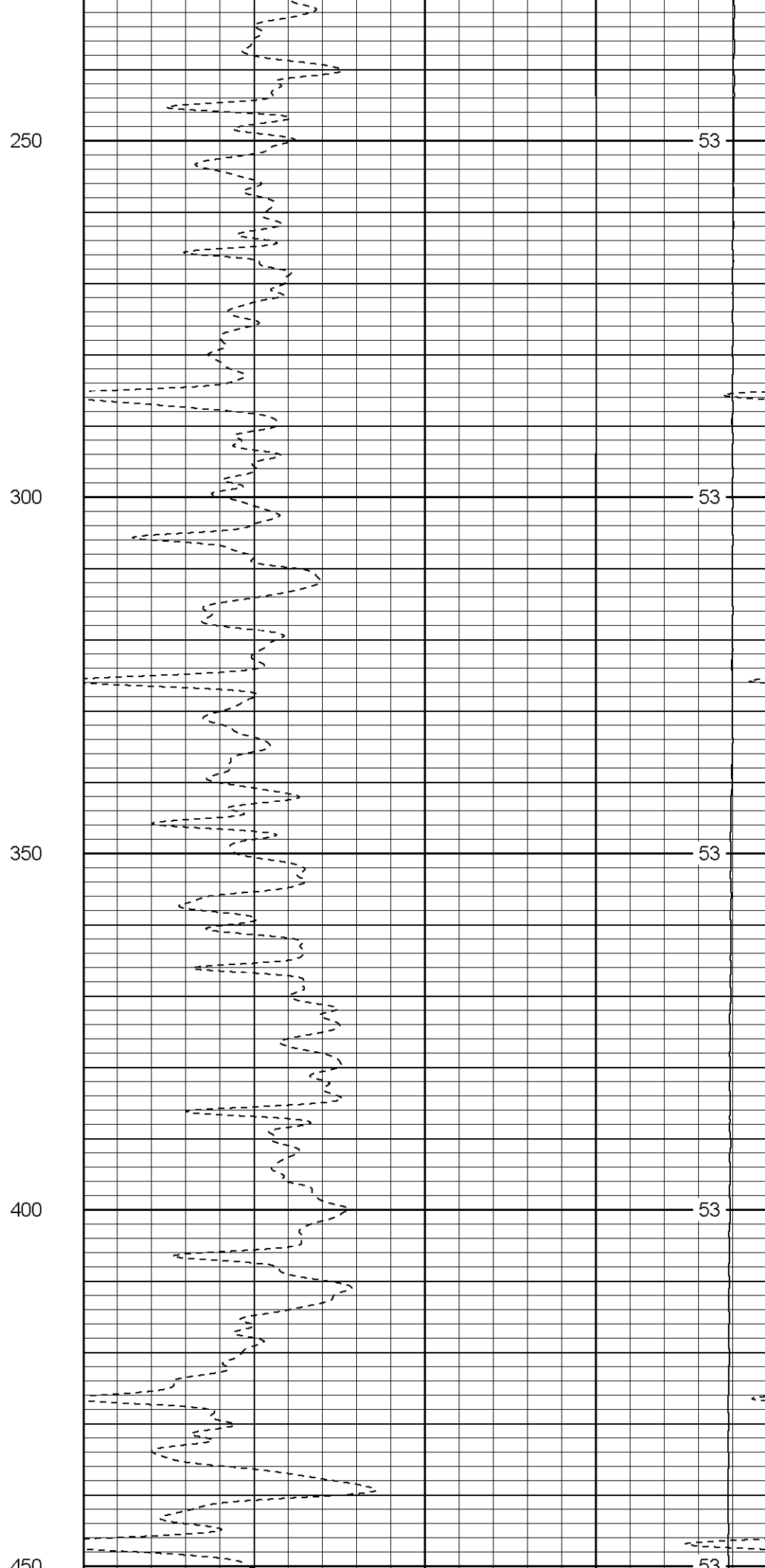
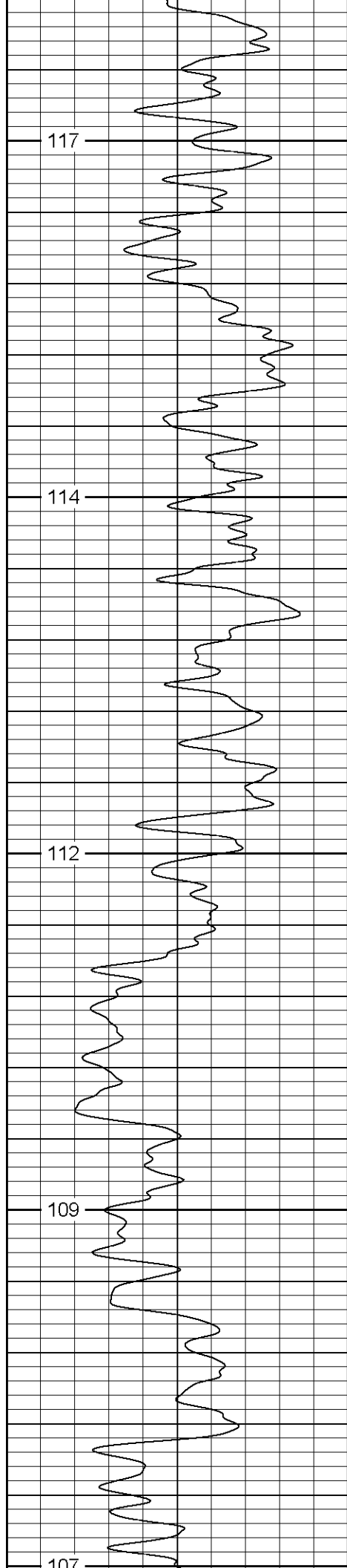
0	GR (GAPI)	200
6	DCAL (in)	16

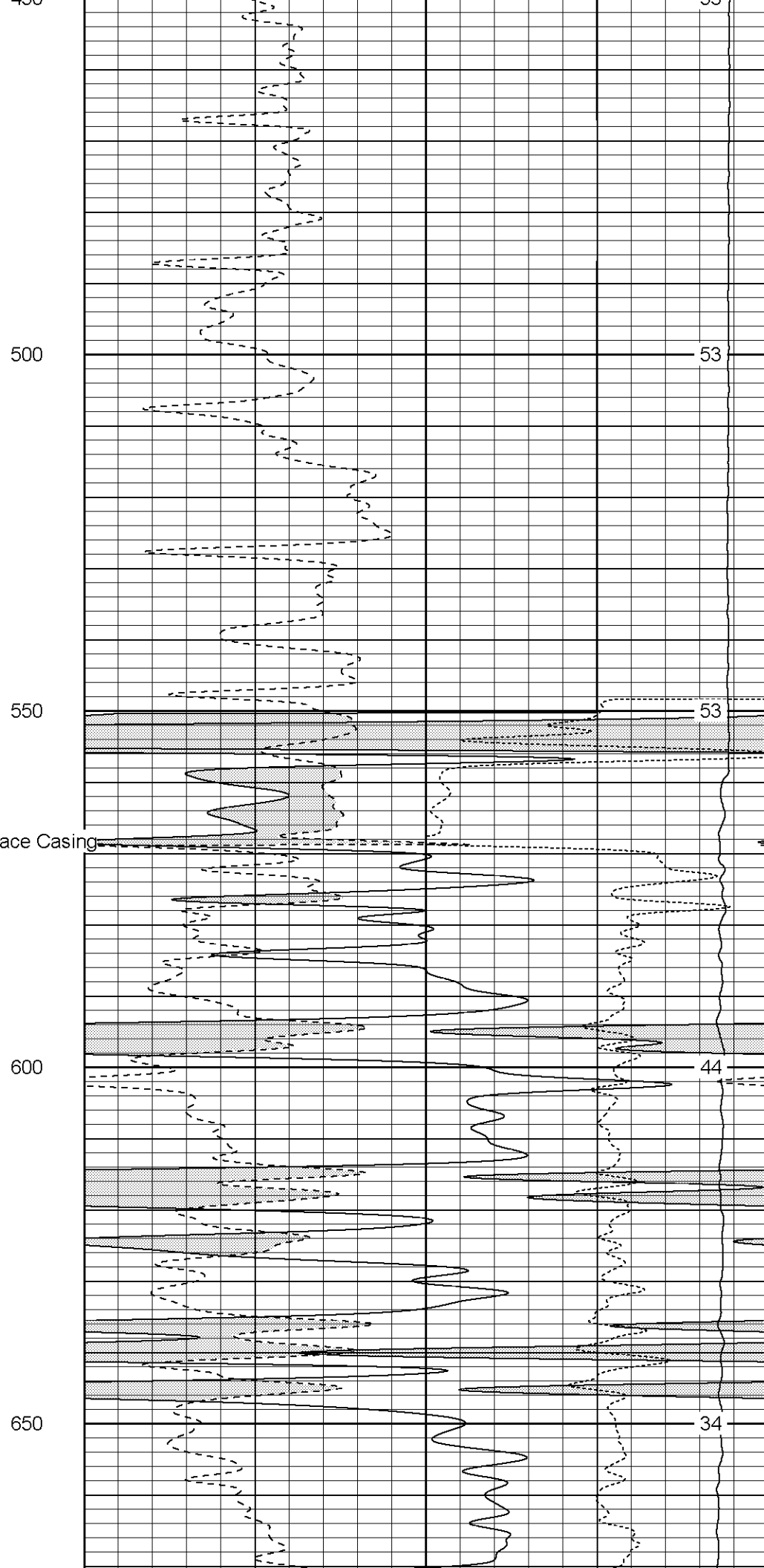
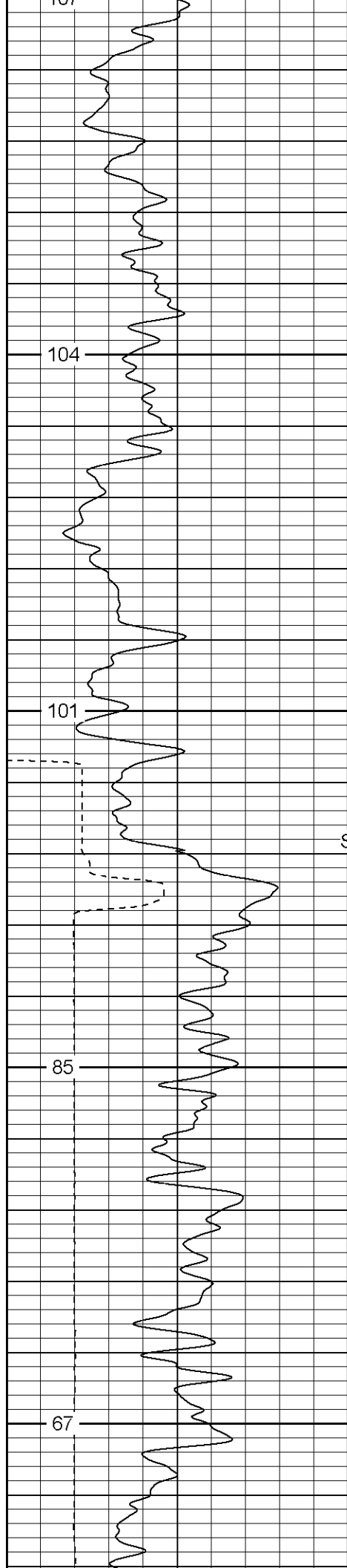
30	NPOR (pu)	-10
30	DPOR (pu)	-10

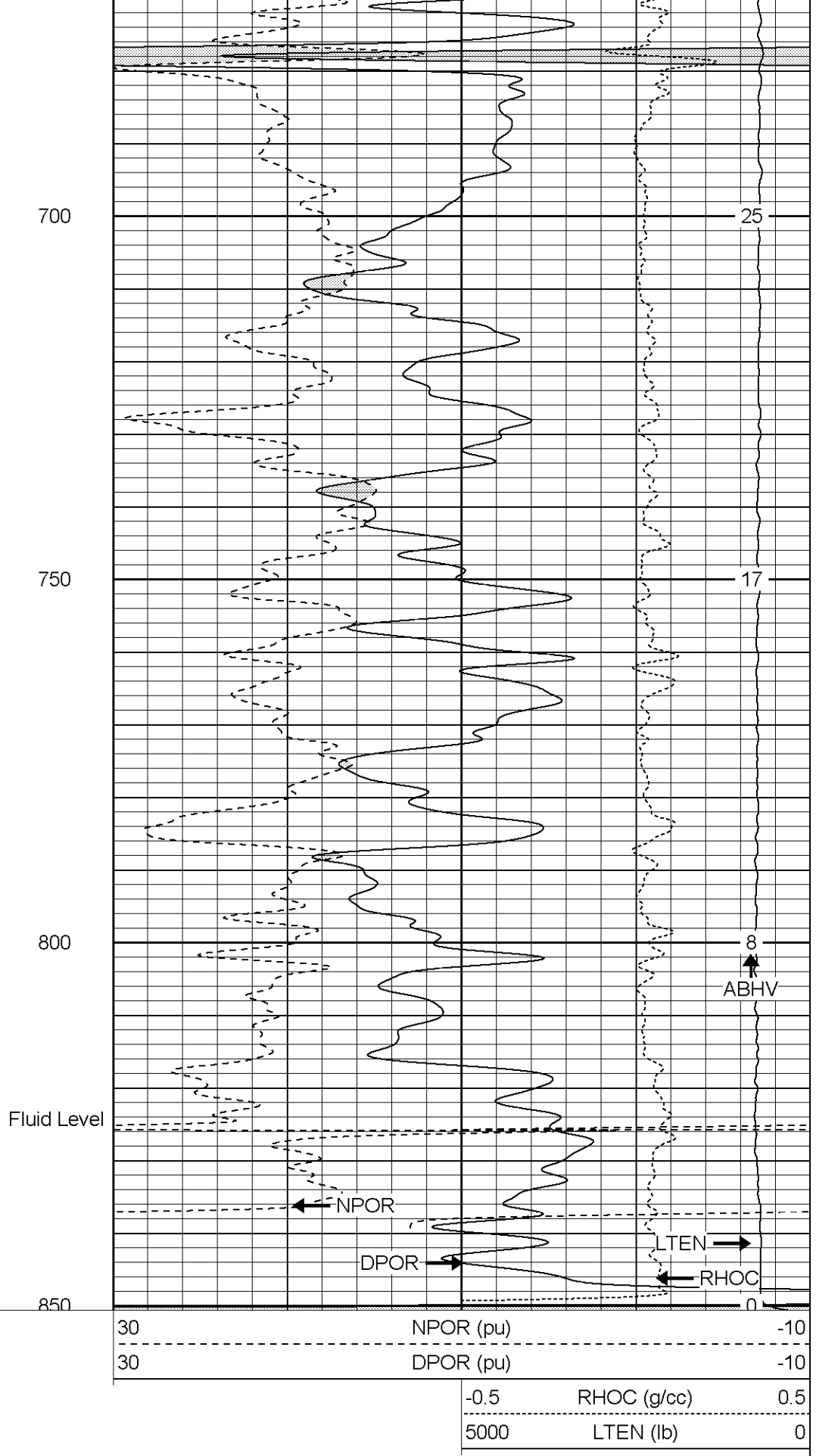
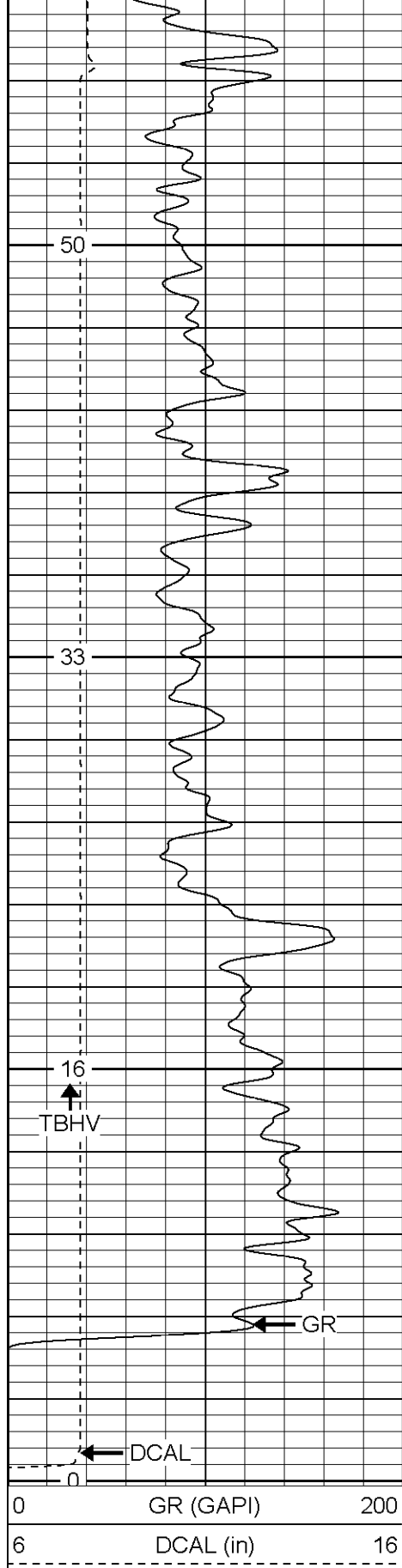
-0.5	RHO� (g/cc)	0.5
5000	LTEN (lb)	0





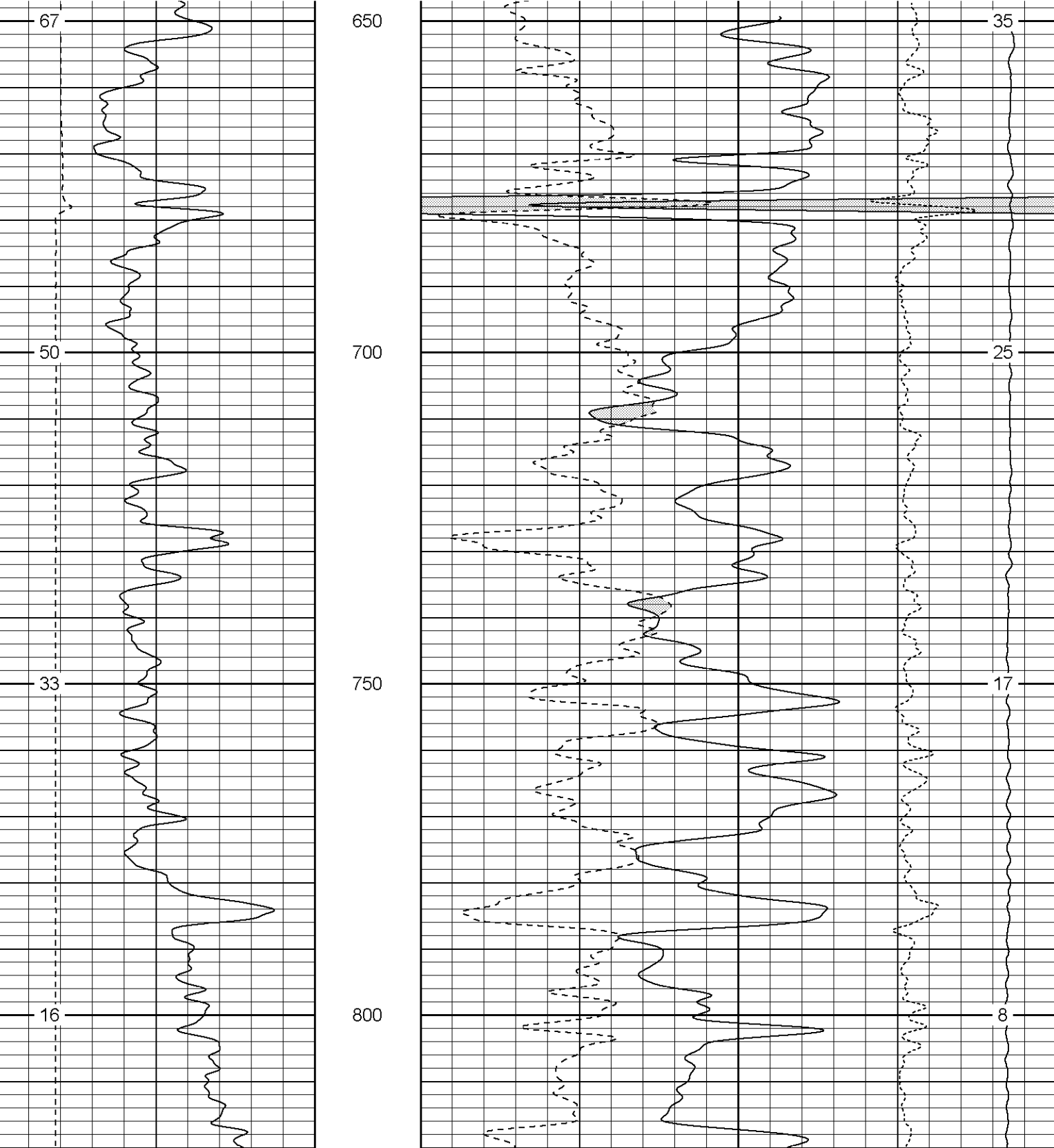




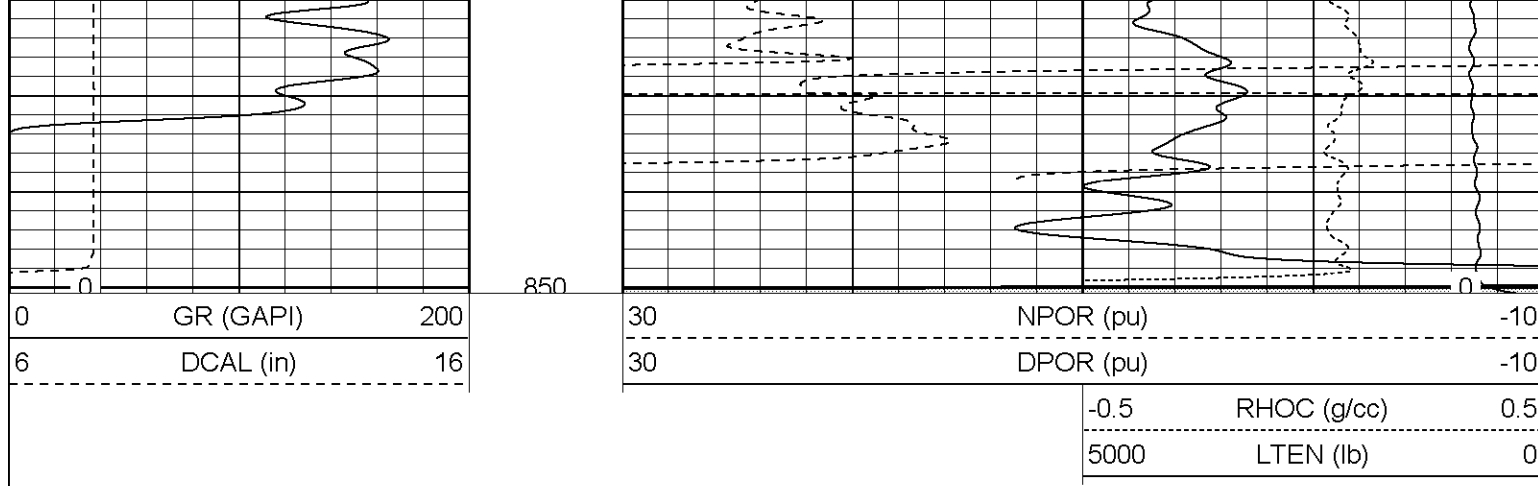


Database File: predator.db  
Dataset Pathname: pass3.1  
Presentation Format: cdnl  
Dataset Creation: Wed Oct 05 14:29:51 2005 by Calc Warrior 7.0 STD Ope  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200		30	NPOR (pu)	-10
6	DCAL (in)	16		30	DPOR (pu)	-10
					-0.5	RHOC (g/cc) 0.5
					5000	LTEN (lb) 0



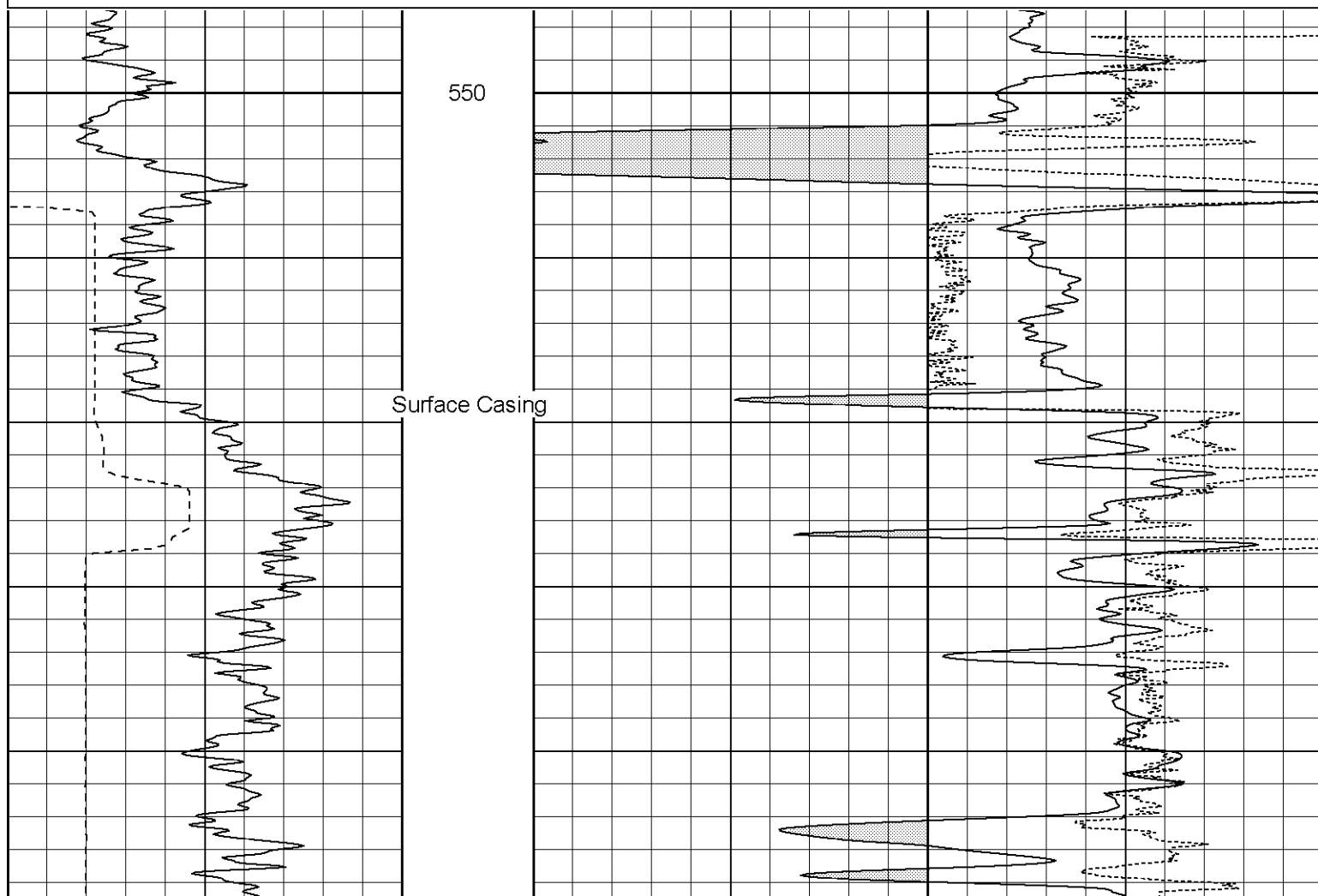
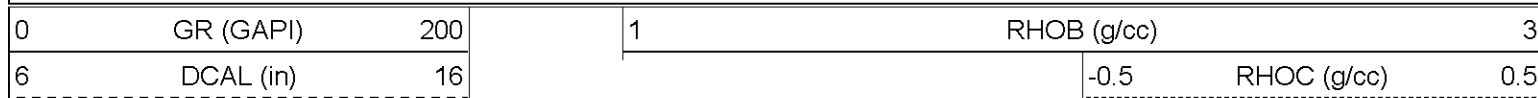


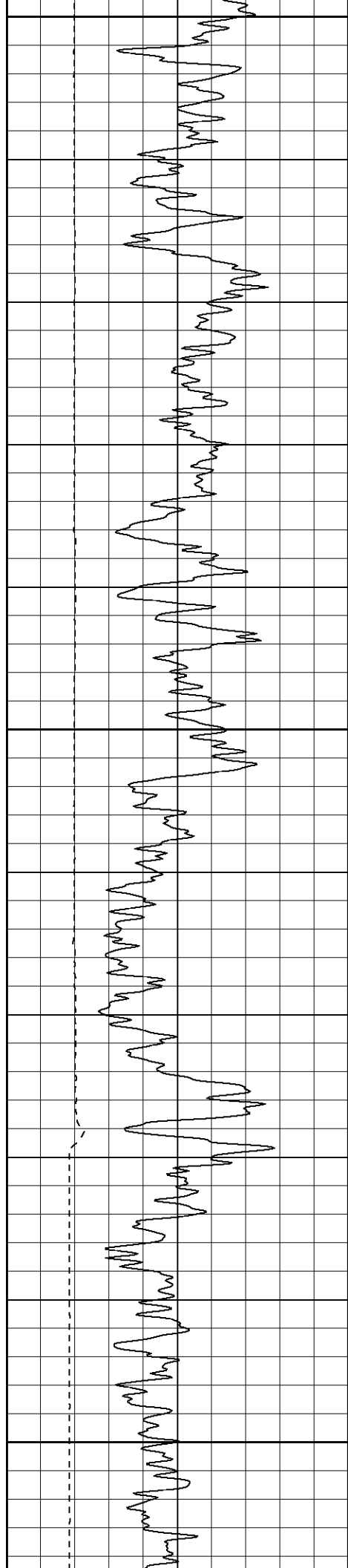


**Patterson**

# High Resolution Pass

Database File: predator.db  
 Dataset Pathname: pass4.2  
 Presentation Format: cdlhr  
 Dataset Creation: Wed Oct 05 16:03:15 2005 by Calc Warrior 7.0 STD Ope  
 Charted by: Depth in Feet scaled 1:120

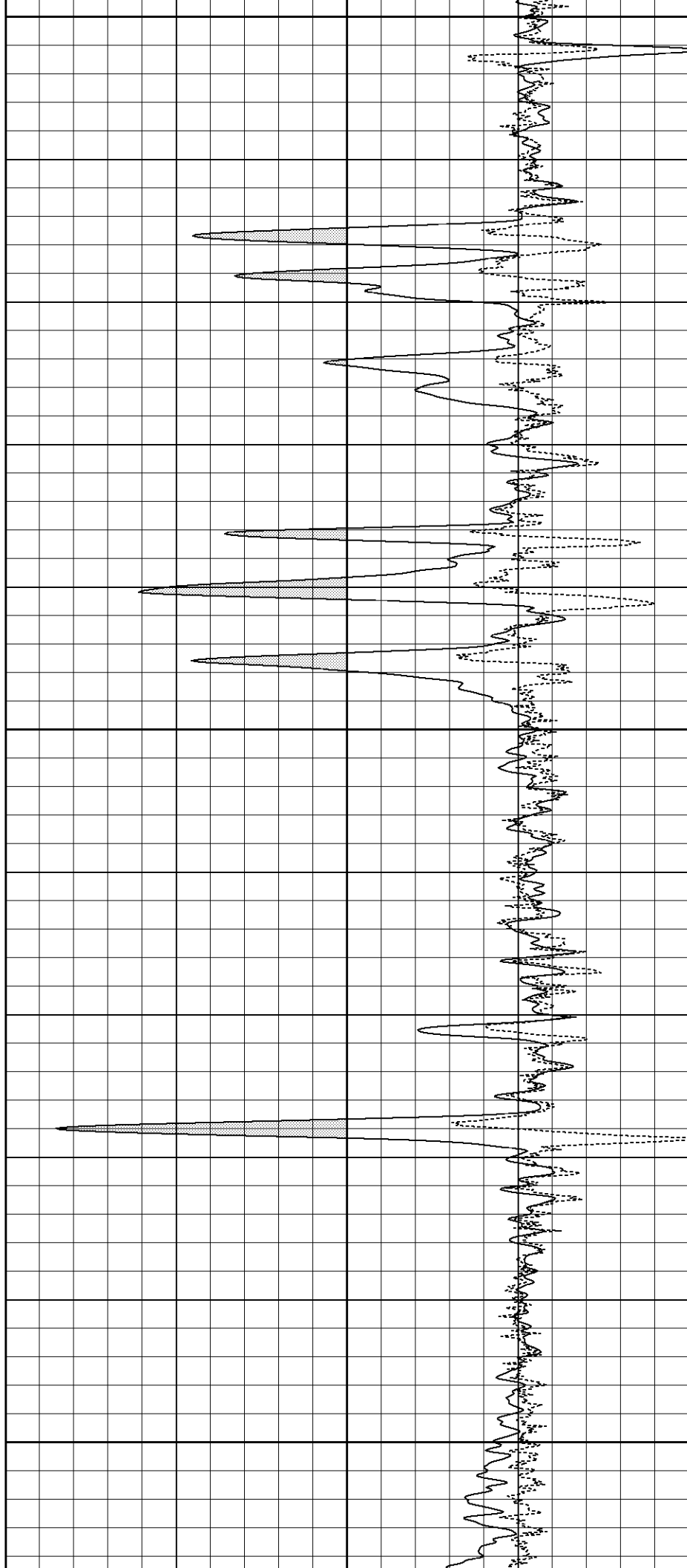


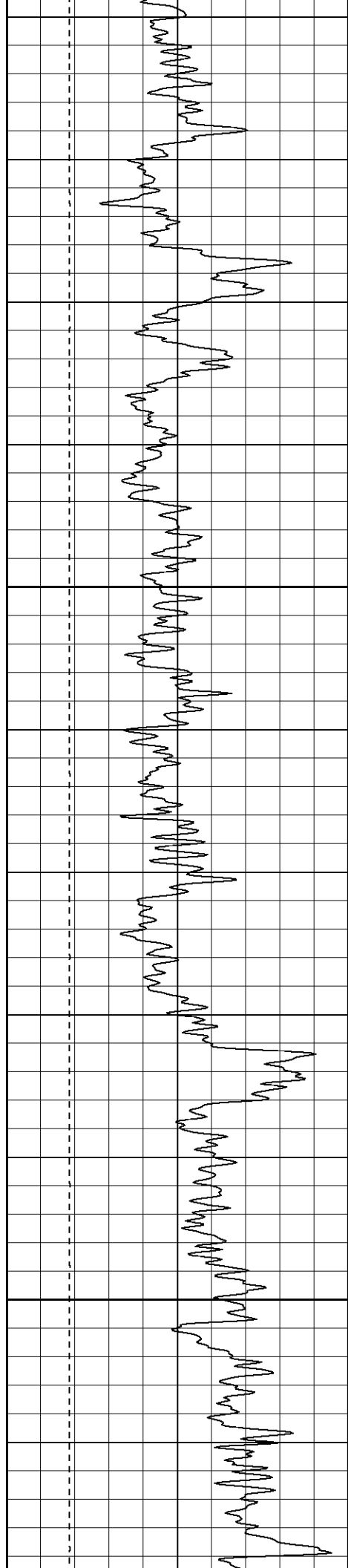


600

650

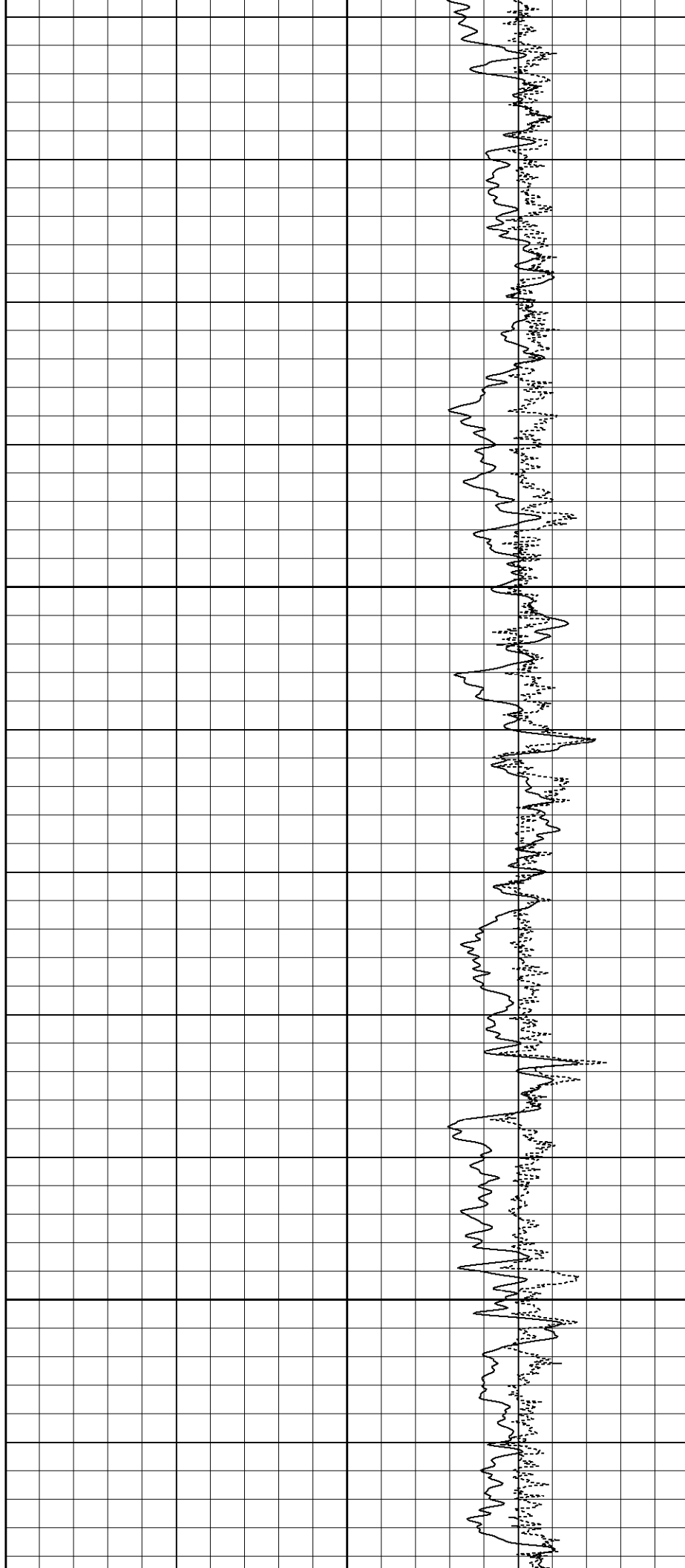
700

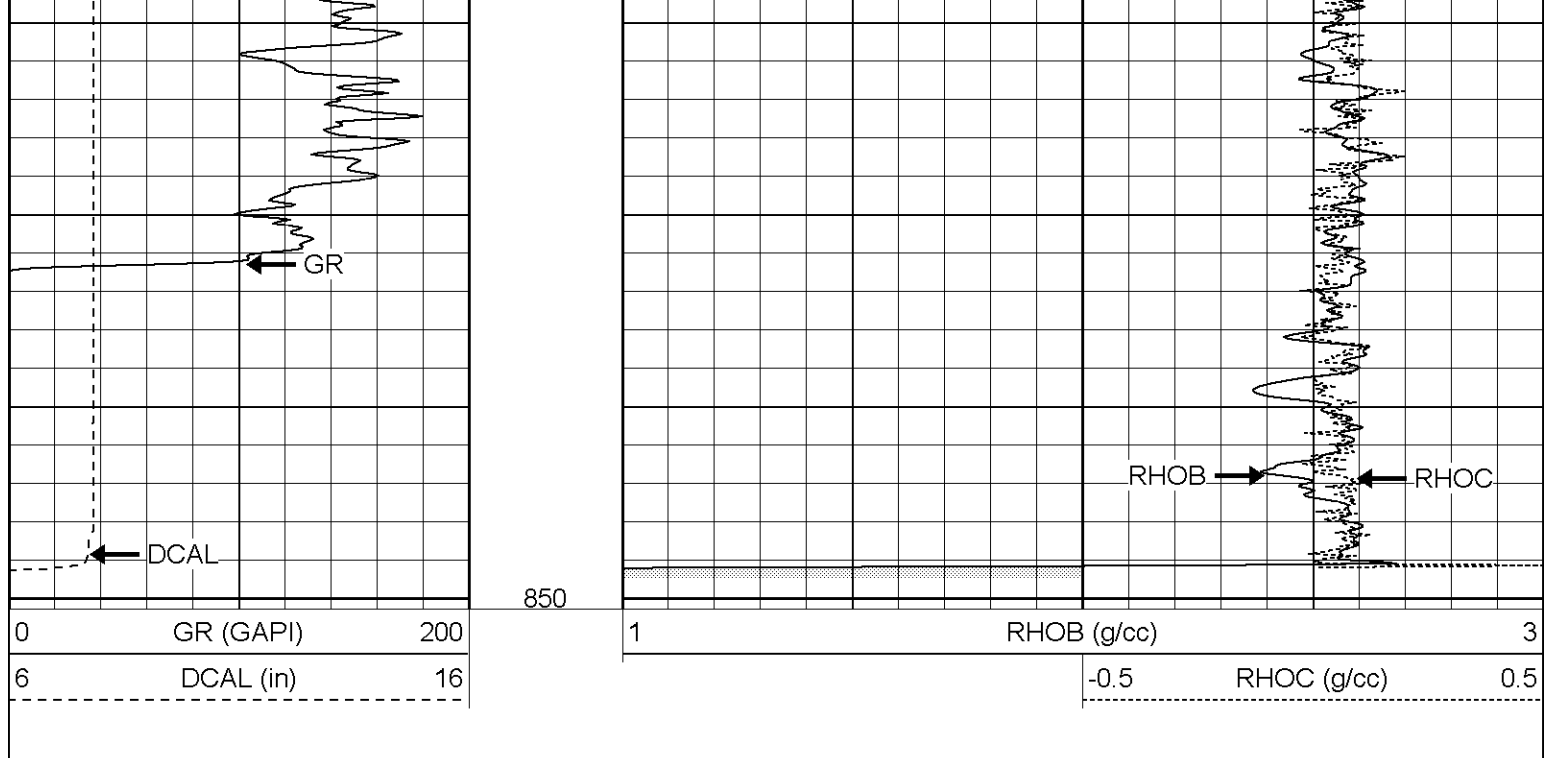




750

800





### Compensated Density Calibration Report

Serial-Model: 2119-O  
Source / Verifier: csv-j12 / blks  
Master Calibration Performed: Mon Sep 26 14:31:57 2005

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1017.02	630.85	cps
Aluminum	2.590	g/cc	229.14	422.12	cps
Spine Angle = 74.91			Density/Spine Ratio = 0.570		
	Size		Reading		
Small Ring	7.85	in	4.39	V	
Large Ring	14.00	in	8.81	V	

### Gamma Ray Calibration Report

Serial Number: 2119  
Tool Model: O  
Performed: Mon Oct 03 22:39:27 2005

Calibrator Value: 170.0 GAPI

Background Reading: 42.6 cps  
Calibrator Reading: 139.0 cps

Sensitivity: 1.0000 GAPI/cps

### Neutron Calibration Report

Serial Number: 5138  
Tool Model: G  
Performed: Tue Sep 20 21:10:06 2005

Calibrator Value: 1 NAPI

1

cps

1

NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	13.07		NEU-G (5138) Gearhart Epithermal	5.75	3.50	85.00
GR	7.64		GR-O (2119) Oilex	2.60	3.63	74.00
LSD	2.13		CDL-O (2119) Oilex	5.77	4.00	201.00
DCAL	1.79					
SSD	1.58					

Dataset:	/field/well/run1/_plots/_jobs_/cdl
Total Length:	14.12 ft
Total Weight:	360.00 lb
O.D.	4.00 in