

**COMPENSATED DENSITY
NEUTRON
LOG**

Company	Charles N. Griffin	Company	Charles N. Griffin
Well	Gates # 2	Well	Gates # 2
Field	Wharton	Field	Wharton
County	Harper	County	Harper
State	Kansas	State	Kansas
Location:	990' FSL & 1650' FWL		API #: 15 077 21741
Permanent Datum	SEC 2	TWP 34S	RGE 8W
Log Measured From	KB 10' AGL		
Drilling Measured From	KB		
		Elevation	1387'
		Other Services	DIL
		Elevation	K.B. 1397'
			D.F. -----
			G.L. 1387'

Date	5-8-11
Run Number	One
Depth Driller	4750'
Depth Logger	4750'
Bottom Logged Interval	4724'
Top Log Interval	3400'
Casing Driller	218'
Casing Logger	218'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.0/70
pH / Fluid Loss	8.5/13.6
Source of Sample	Pit
Rm @ Meas. Temp	2.45@70degf
Rmf @ Meas. Temp	1.84@70degf
Rmc @ Meas. Temp	3.92@70degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.38@125degf
Time Circulation Stopped	4:00 a.m.
Time Logger on Bottom	7:00 a.m.
Maximum Recorded Temperature	125 degf
Equipment Number	T045
Location	Hays, KS.
Recorded By	L. Smith
Witnessed By	Mr. Bruce Reed

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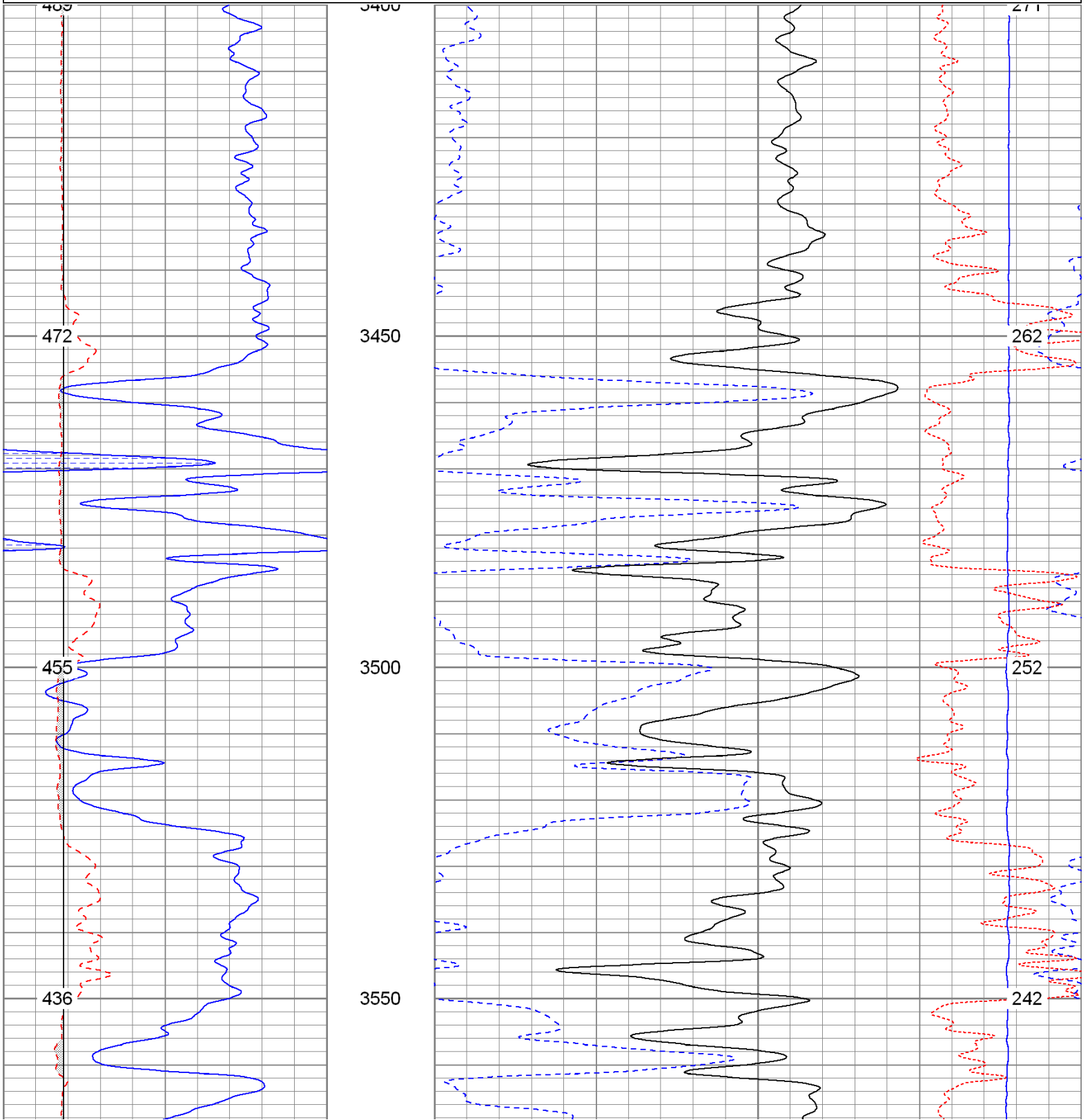
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

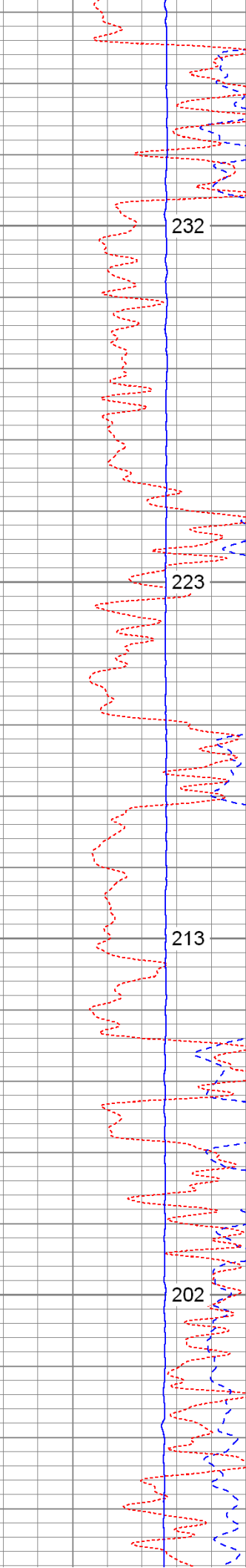
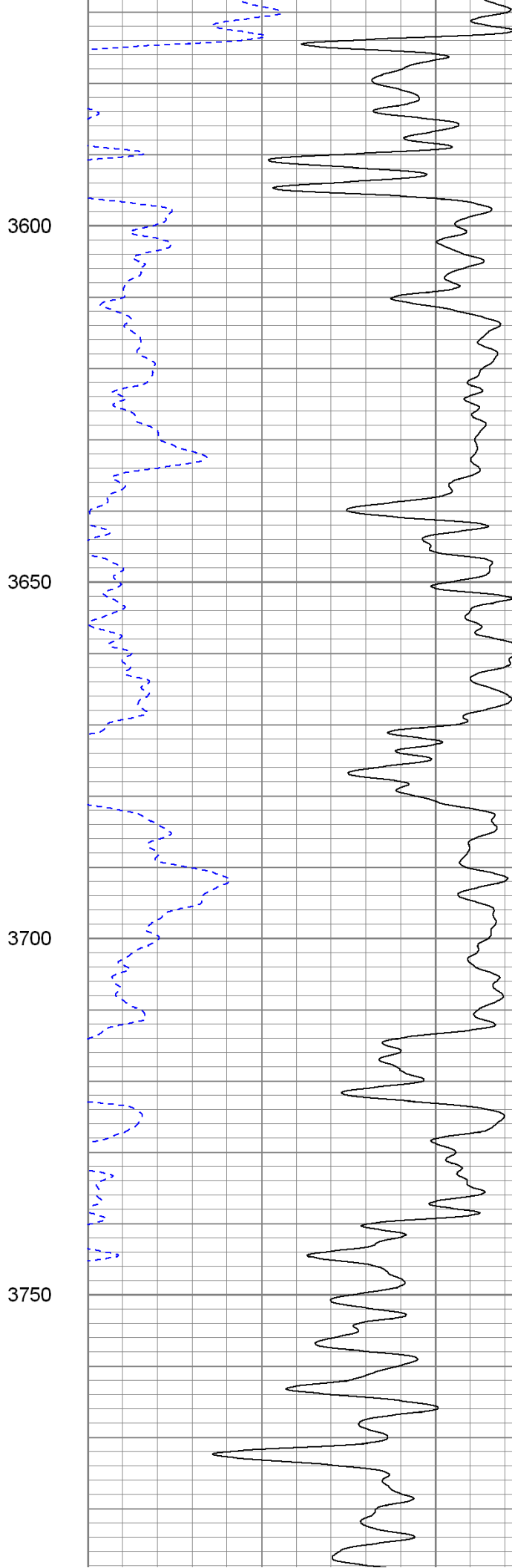
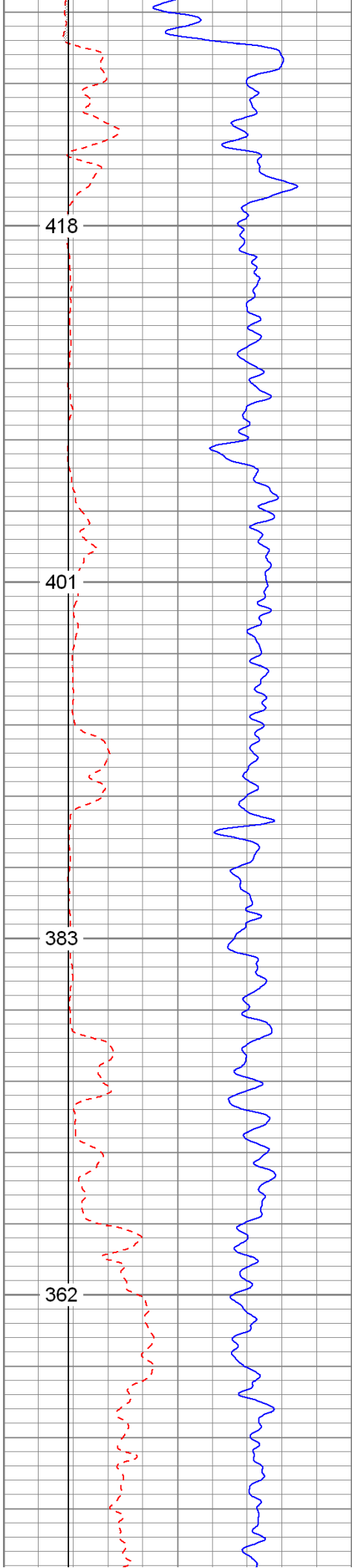
Comments

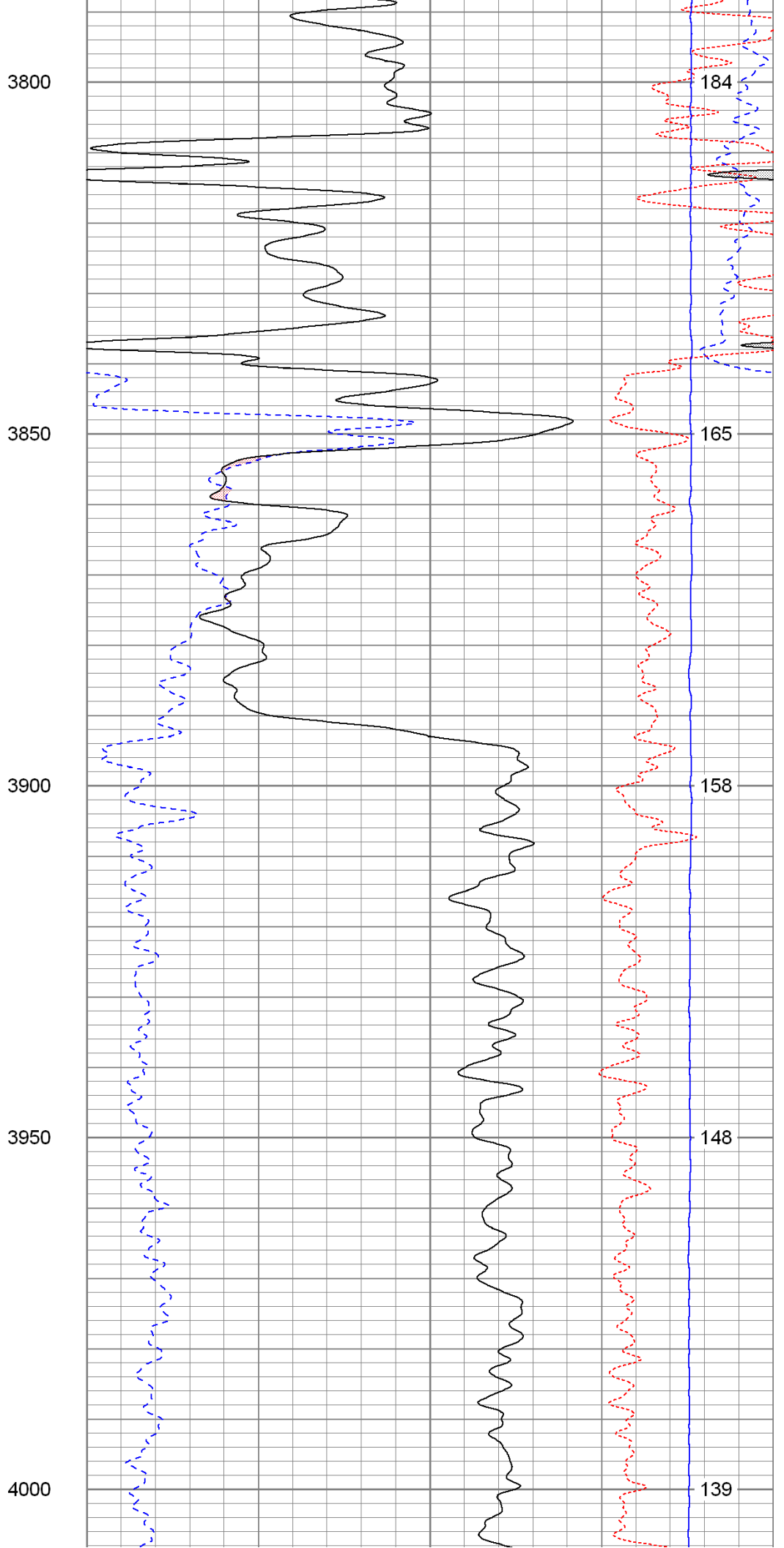
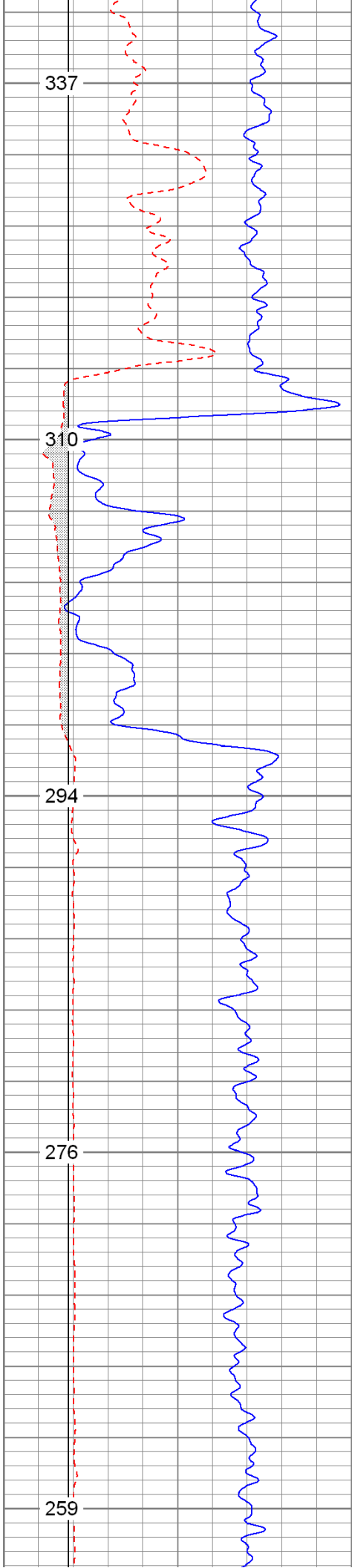
East of Sharon Ks. to 140th, S to Hyw. 2, E to 70th, S 3, E 1/2, N into.
 ABHV Caculated for 5.5" Casing.
 Thanks for using The Perforators LLC Hays, KS. (785-621-4604)

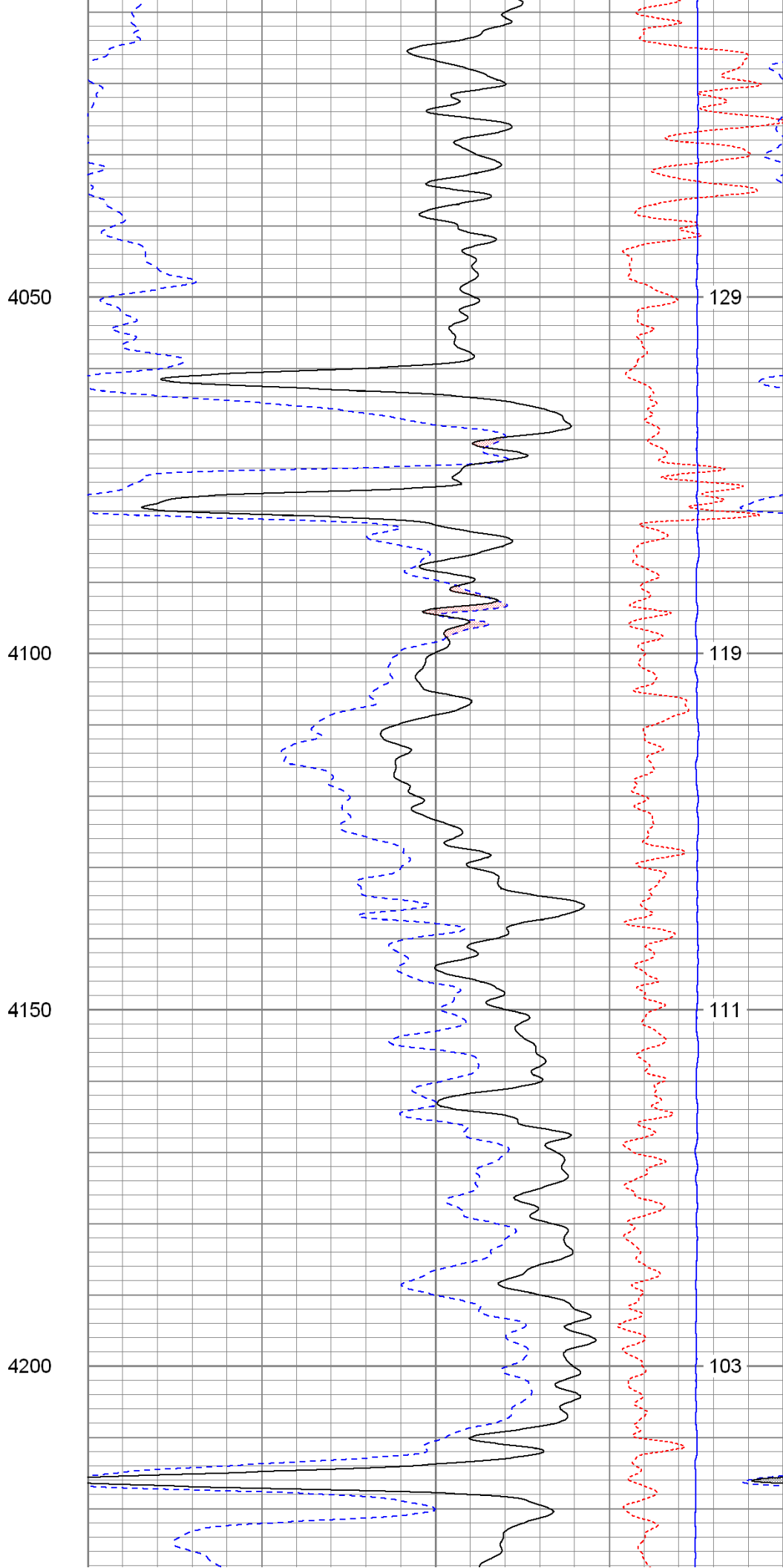
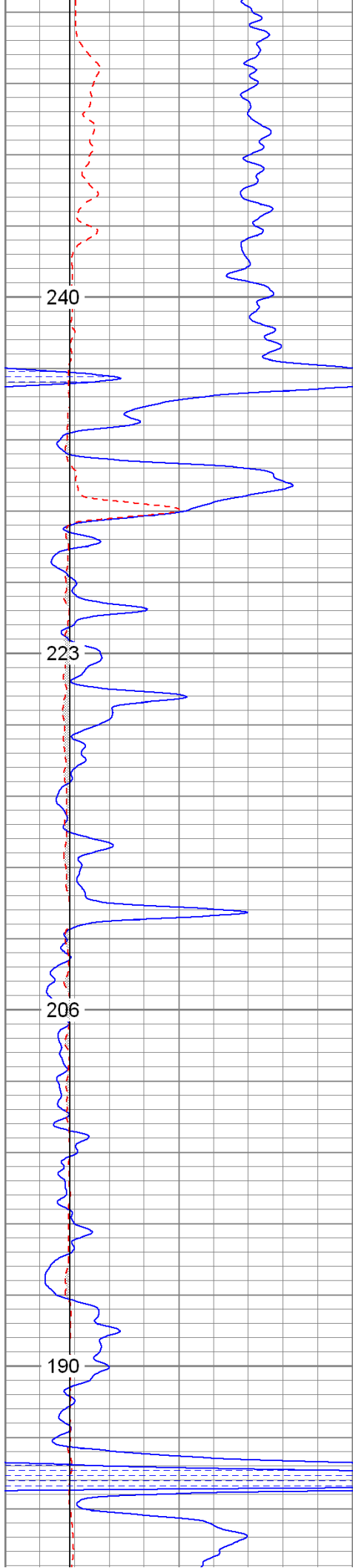
Database File: cggates#2.db
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 Presentation Format: kcdnl
 Dataset Creation: Sun May 08 07:28:37 2011 by Log Open-Cased 100827
 Charted by: Depth in Feet scaled 1:240

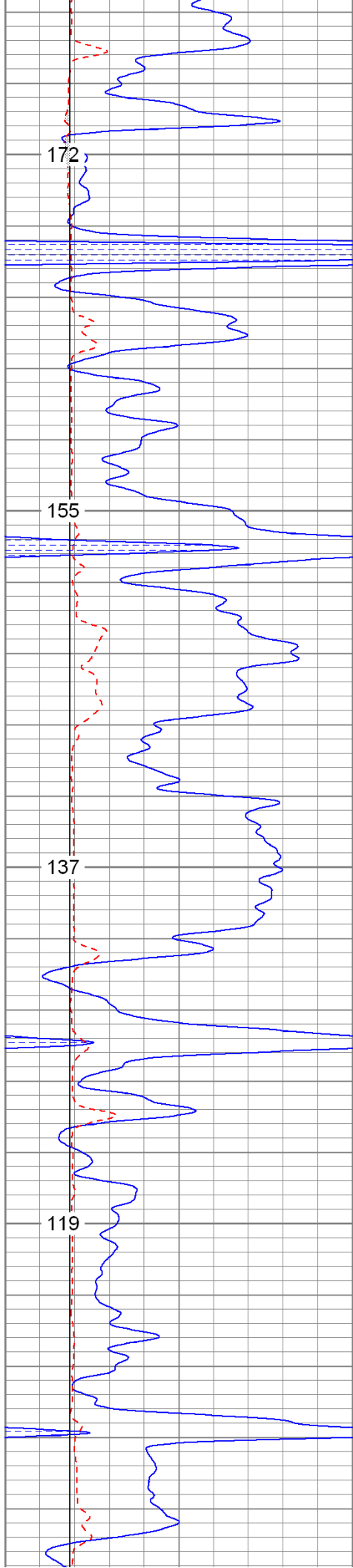
0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			-0.25	RHOC (g/cc)	0.25
			8000	LTEN (lb)	0
				ABHV (ft3)	









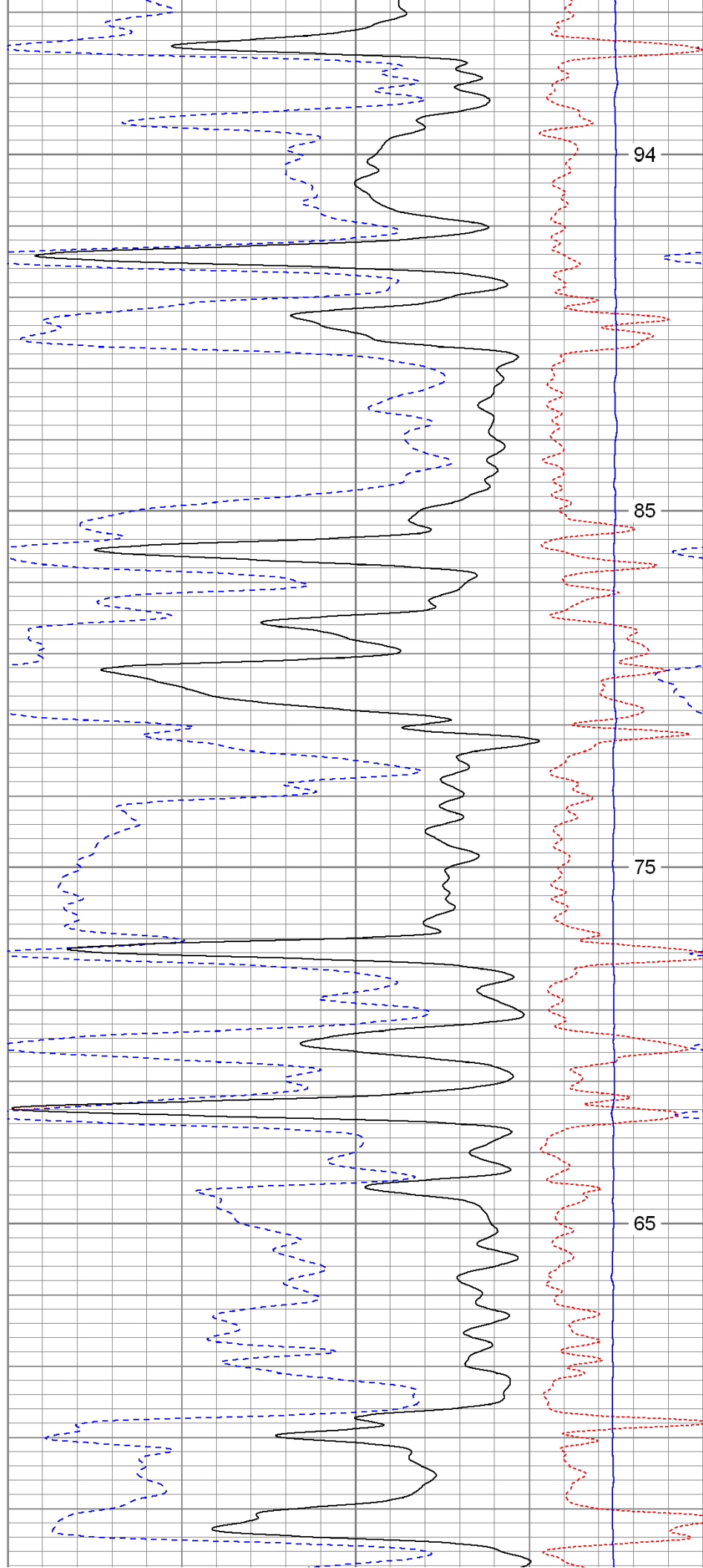


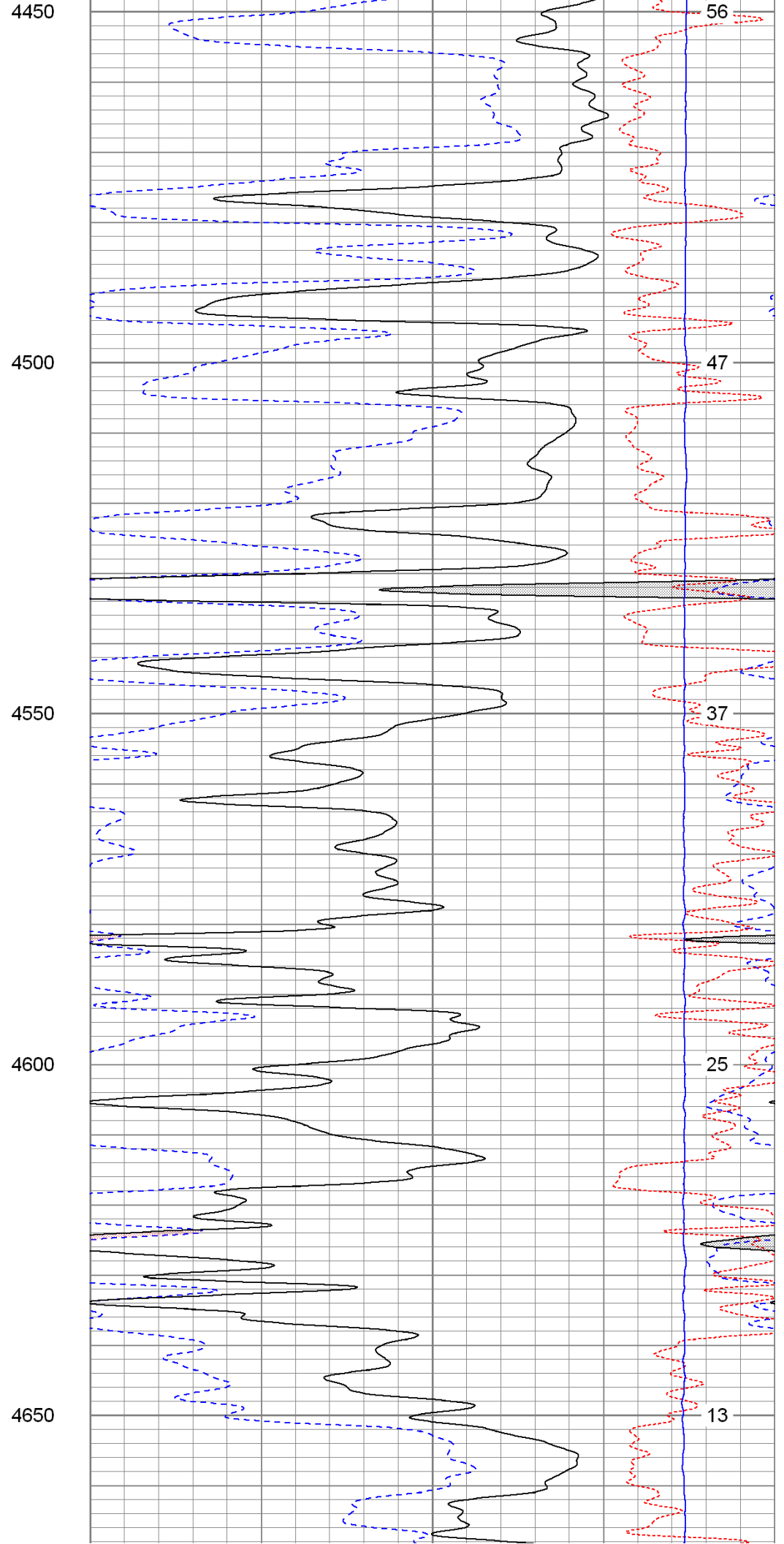
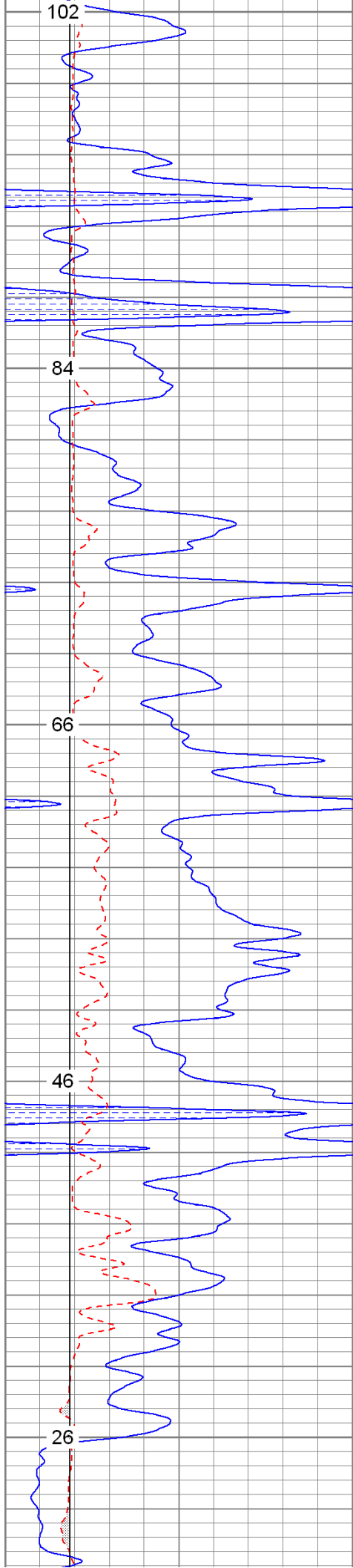
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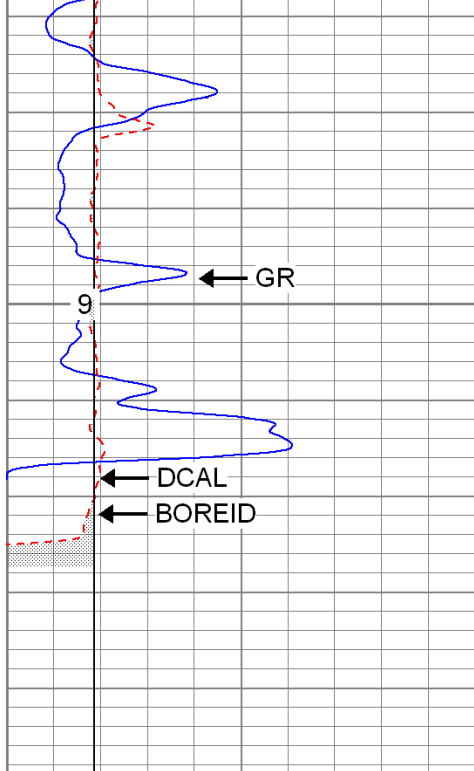
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4350

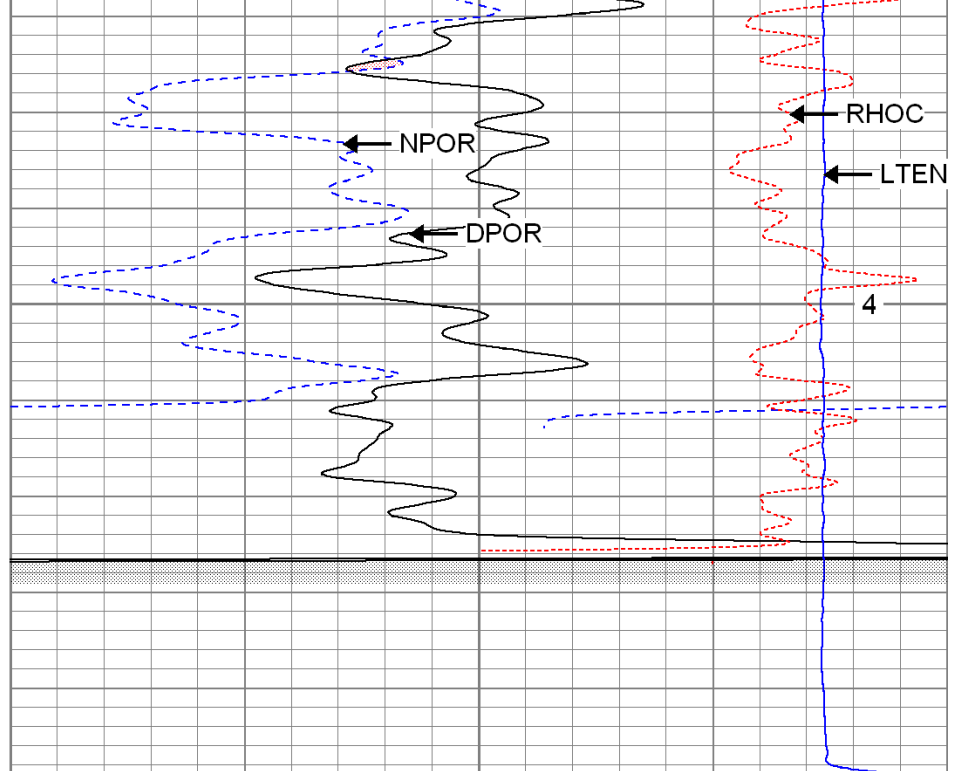
4400







4700



0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

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

TBHV (ft3)

-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0

ABHV (ft3)



Repeat Pass

Database File: cggates#2.db
 Dataset Pathname: pass3
 Presentation Format: kcdnl
 Dataset Creation: Sun May 08 07:17:17 2011 by Log Open-Cased 100827
 Charted by: Depth in Feet scaled 1:240

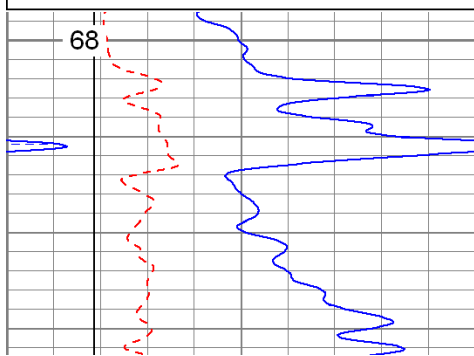
0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

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

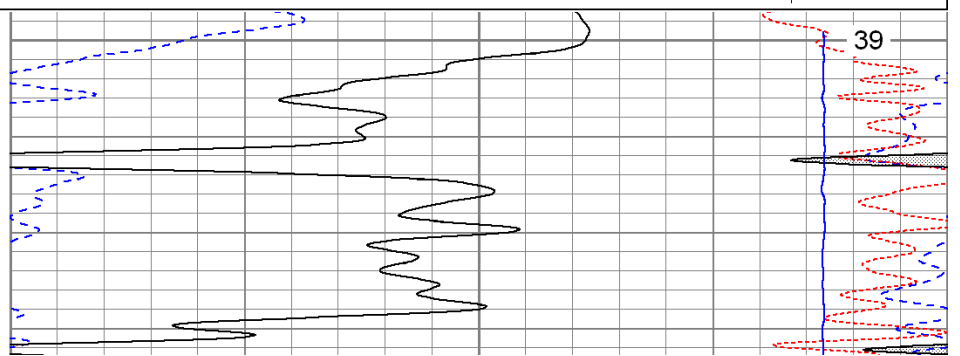
TBHV (ft3)

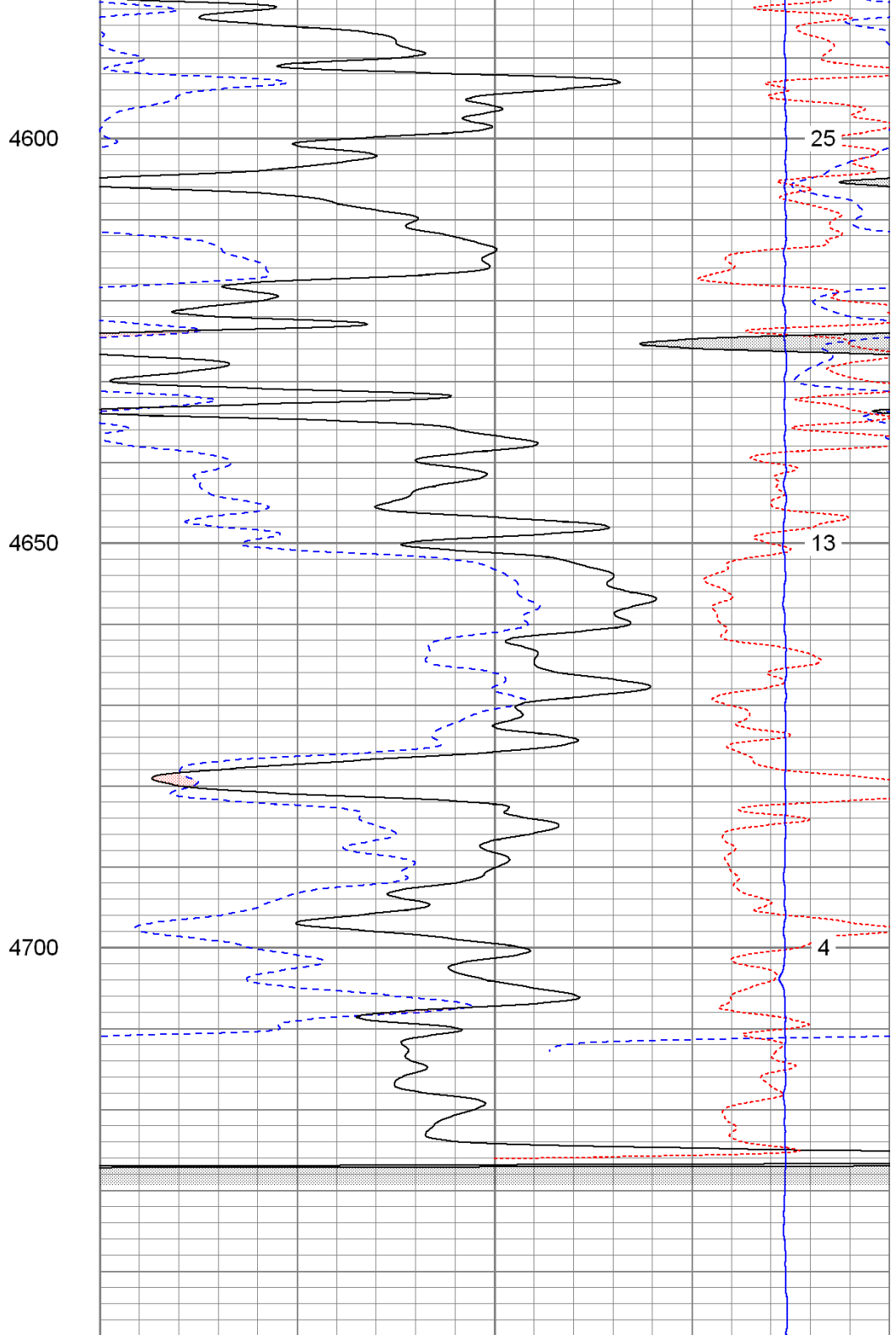
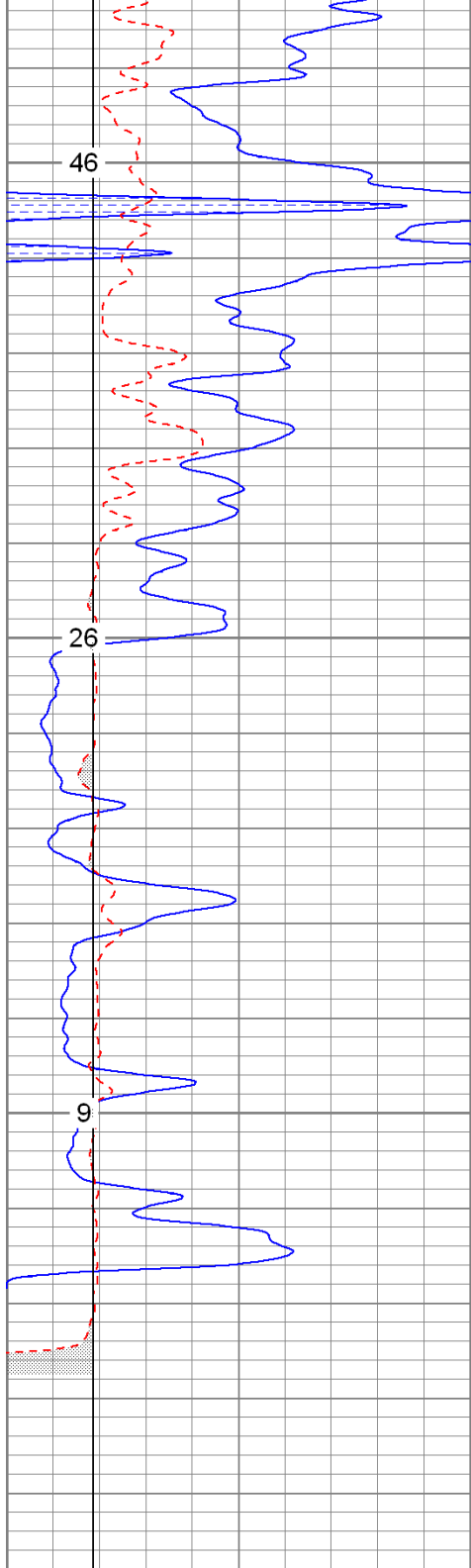
-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0

ABHV (ft3)



4550





0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

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

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
			ABHV (ft3)

Calibration Report

Database File: cggates#2.db
 Dataset Pathname: pass3
 Dataset Creation: Sun May 08 07:17:17 2011 by Log Open-Cased 100827

Serial-Model: 080522-Probe
 Surface Cal Performed: Fri Apr 29 21:50:46 2011
 Downhole Cal Performed: Fri Apr 29 21:50:49 2011
 After Survey Verification Performed: Tue Mar 15 11:48:43 2011

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.000	0.638	V	0.000	400.000	mmho/m	626.857	0.275
Medium	0.001	0.741	V	0.000	464.000	mmho/m	626.953	-0.823
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	0.638	V	0.000	400.000	mmho/m	627.013	-0.291
Medium	0.001	0.741	V	0.000	464.000	mmho/m	627.190	-0.915

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.096	400.608	mmho/m	0.566	400.467	mmho/m	0.998	0.471
Medium	-0.069	464.142	mmho/m	0.092	463.916	mmho/m	0.999	0.161
LL3		7.358	V		750.000	Ohm-m		
		0.001	V		12.000	Ohm-m		
		-7.218	V		3745.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: 2501DHT-DHT
 Source / Verifier: /
 Master Calibration Performed: Thu Apr 21 07:35:50 2011

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	733.13	288.65	cps
Aluminum	2.670	g/cc	138.45	188.57	cps
Spine Angle = 75.67			Density/Spine Ratio = 0.535		
	Size		Reading		
Small Ring	7.70	in	6064.22		
Large Ring	14.00	in	10296.80		

Gamma Ray Calibration Report

Serial Number: 2000
 Tool Model: P2000
 Performed: Mon Apr 11 04:05:46 2011

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2200 GAPI/cps

Neutron Calibration Report

Serial Number: 5108
 Tool Model: PROBE
 Performed: Mon Mar 28 13:28:28 2011

Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)	
NEU	37.96		None	0.75	1.50	5.00	
			NEU-PROBE (5108) Probe	4.92	3.63	85.00	
GR	32.57		GR-P2000 (2000)	3.67	3.25	40.00	
			CDL-DHT (2501DHT) Digital High Temp CDL Tool	9.69	4.00	201.00	
LSD	23.78						
DCAL	23.49						
SSD	23.24						
HEADVOLT	21.47						
CILD	10.60			DIL-Probe (080522) Probe Dual Induction	21.47	4.00	345.00
SP	10.60						
CILM	6.89						
RLL3	1.70						

Dataset:	cggates#2.db: field/well/run1/pass3
Total Length:	40.49 ft
Total Weight:	676.00 lb
O.D.	4.00 in