



COMPENSATED DENSITY COMPENSATED NEUTRON GAMMA RAY

Pioneer Energy Services

Company Augustus Energy Resources, LLC
Well Lippert 14-05 1S44W
Field Vernon
County Yuma State Colorado

Location: API #: 05125120850000

SEC 5 TWP 1S RGE 44W

Permanent Datum GL Elevation 3985
Log Measured From KB
Drilling Measured From KB

Other Services
Induction

Elevation
K.B. 3991
D.F. 3990
G.L. 3985

Date July 9, 2014

Run Number 1

Depth Driller 2545

Depth Logger 2541

Bottom Logged Interval 2521

Top Log Interval 440

Casing Driller 17# 7" @ 436

Casing Logger Not Logged

Bit Size 6.25"

Type Fluid in Hole WBM

Density / Viscosity 8.7 / 33

pH / Fluid Loss NA

Source of Sample Flowline

Rm @ Meas. Temp 0.21 @ 90 F

Rmf @ Meas. Temp 0.16 @ 90 F

Rmc @ Meas. Temp 0.26 @ 90 F

Source of Rmf / Rmc Calc / Calc

Rm @ BHT 0.18 @ 105 F

Time Circulation Stopped 0900

Time Logger on Bottom 1315

Maximum Recorded Temperature 105 F

Equipment Number 48

Location Ft. Morgan, CO

Recorded By Schuman

Witnessed By Justin Stone

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

Annular volume calculated for 4.5" casing
Excell Drilling Rig 2
Thank you for using Pioneer Energy Services.

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00

GR	0.00		GR-PSI (223)	2.92	3.50	40.00
CNLSC	-3.67		CNT-PSI (853)	5.00	3.50	70.00
CNSSC	-4.17					
			CDL-PSI (770)	8.50	5.00	285.00
DCAL	-11.84					
LSD	-12.67					
SSD	-13.17					
RLL3	-17.52					
			DIL-PSI (1039)	18.25	3.75	175.00
CILD	-24.97					
CILM	-28.42					
SP	-32.42					
<div> <div>Dataset:</div> <div>13523.db: field/well/run1/pass1</div> <div>Total Length:</div> <div>36.67 ft</div> <div>Total Weight:</div> <div>600.00 lb</div> <div>O.D.</div> <div>5.00 in</div> </div>						

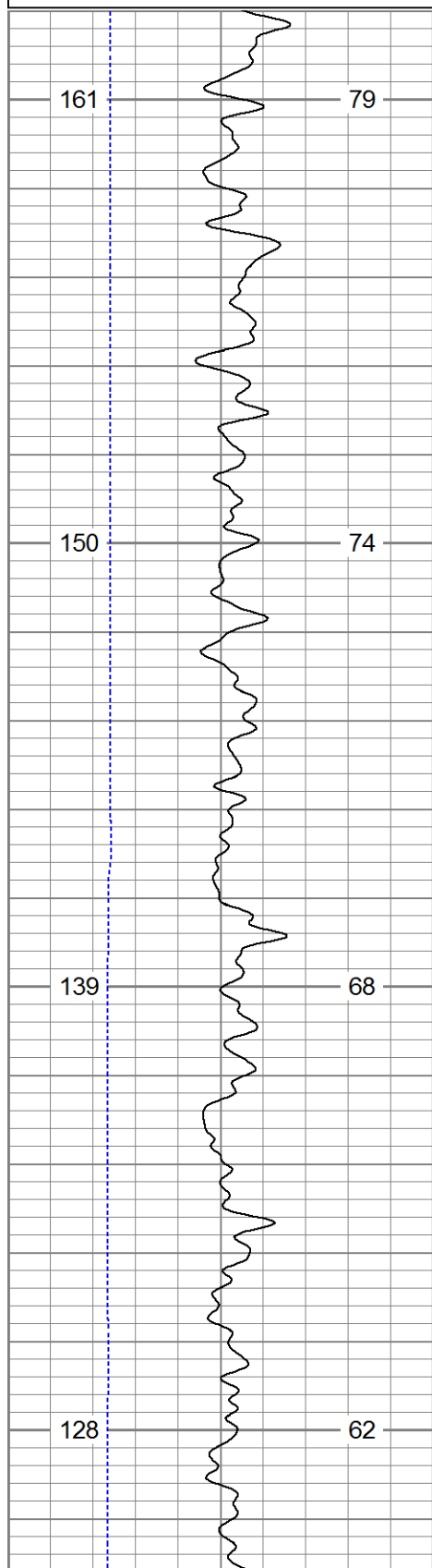


Main Pass

Database File: 13523.db
Dataset Pathname: pass3
Presentation Format: DEN_NE~1
Dataset Creation: Wed Jul 09 14:01:32 2014 by Log 0
Charted by: Depth in Feet scaled 1:240

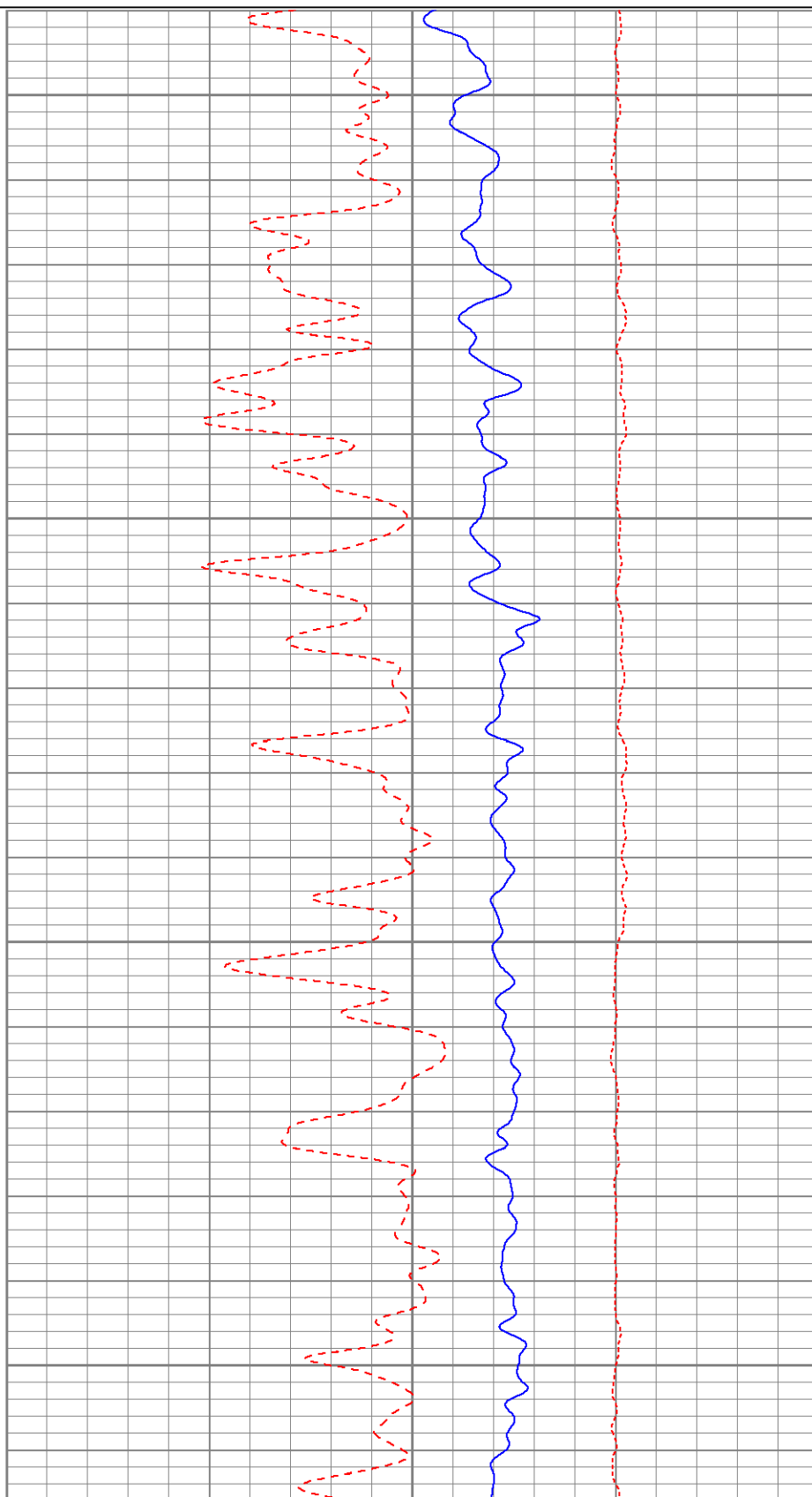
4	Density Caliper (in)	14
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)

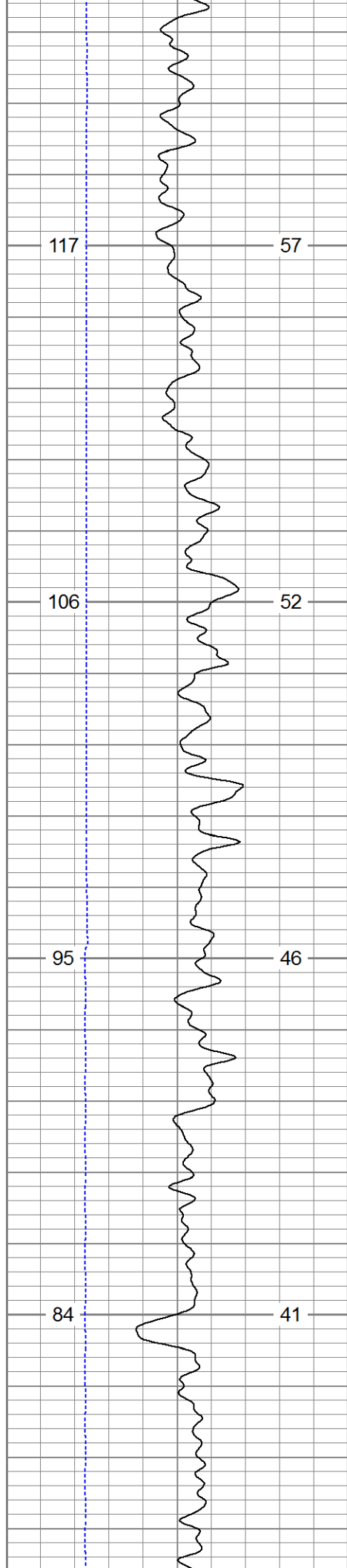
60	Density Porosity (pu)	0
60	Neutron Porosity (pu)	0
-0.5	Correction (g/cc)	0.5



1800

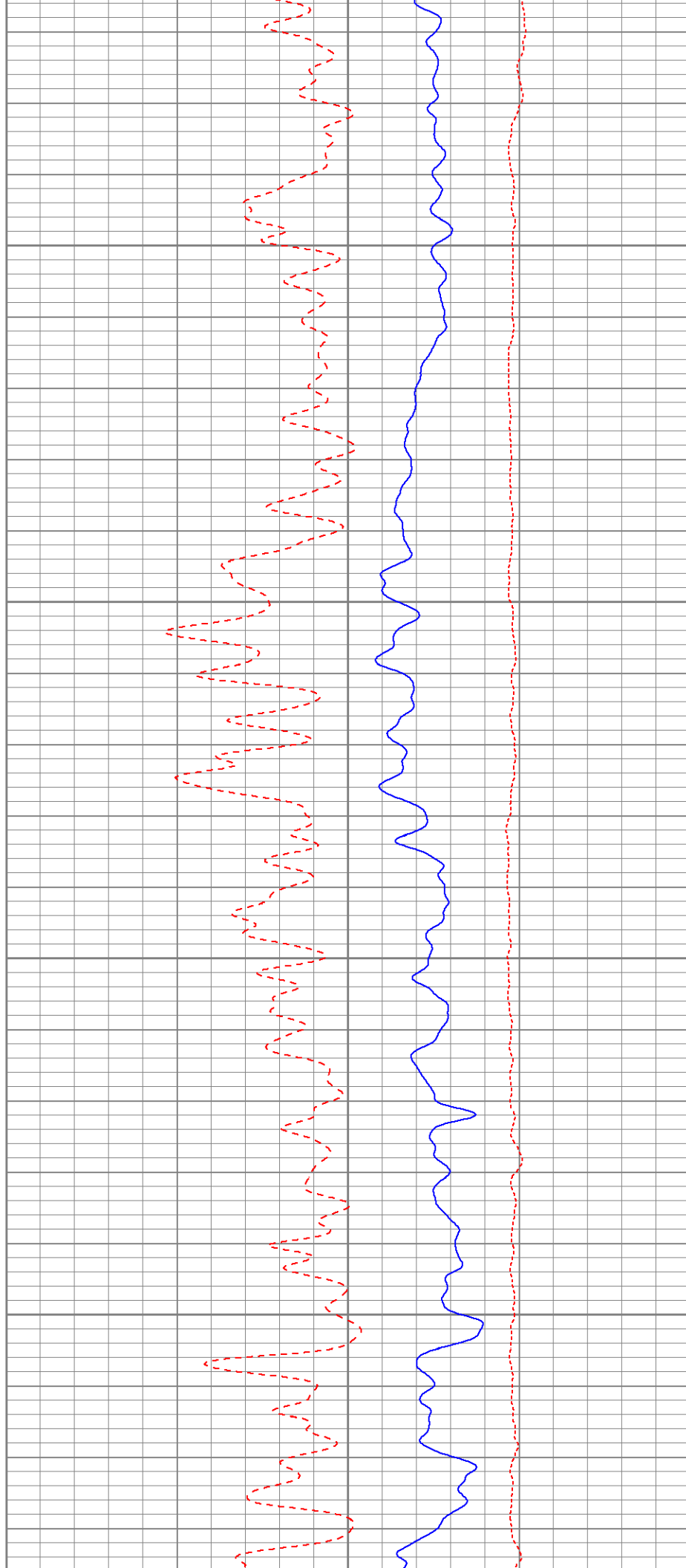
1900

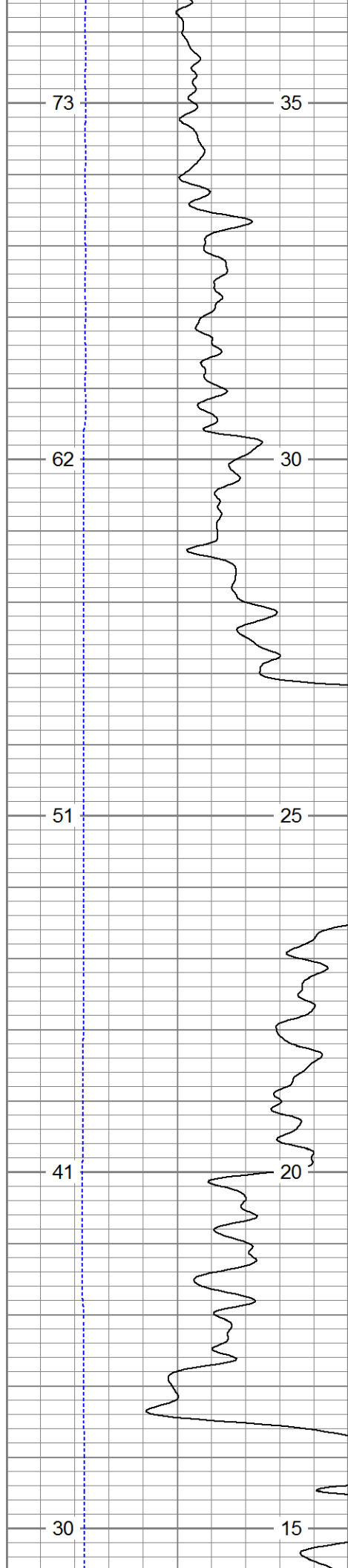




2000

2100

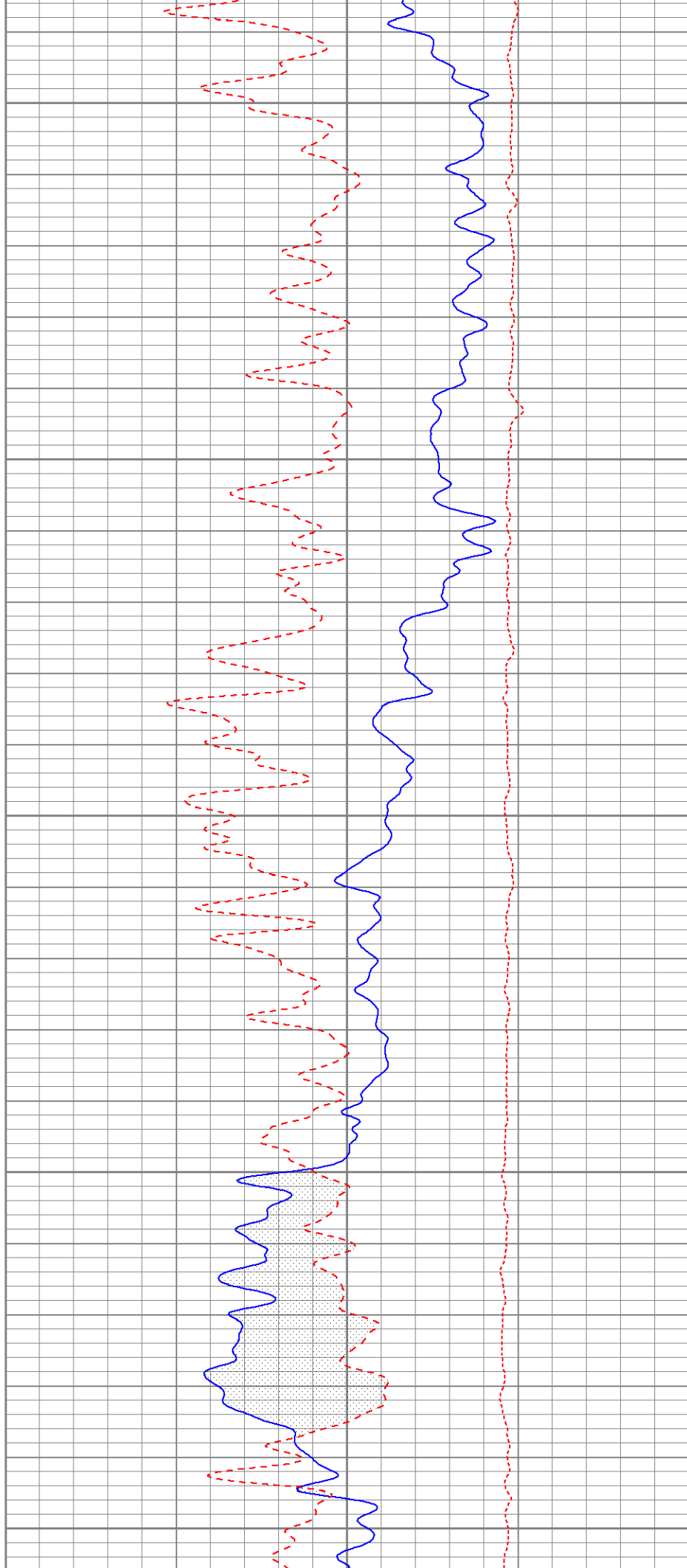


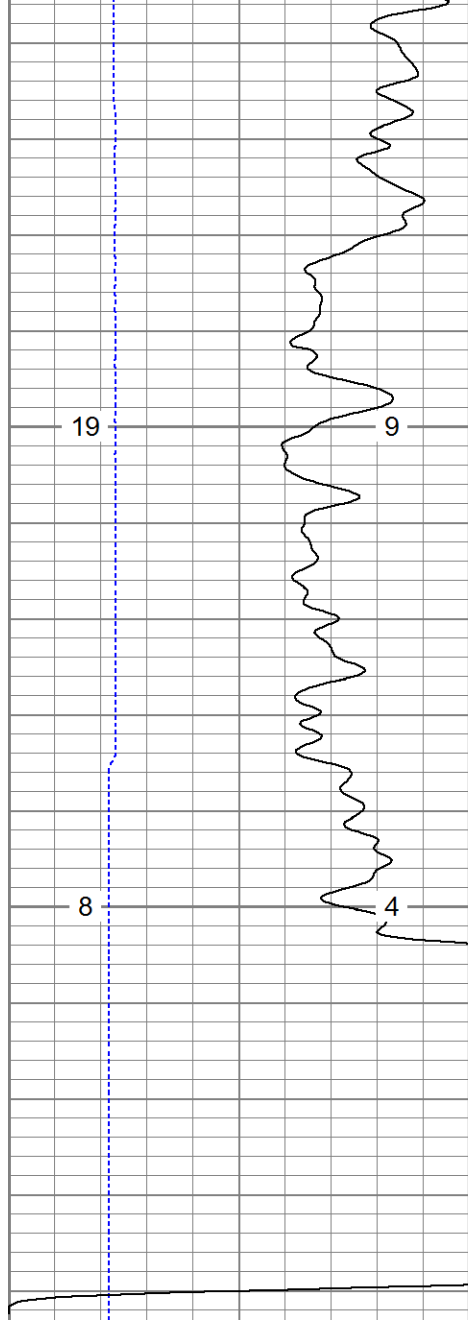


2200

2300

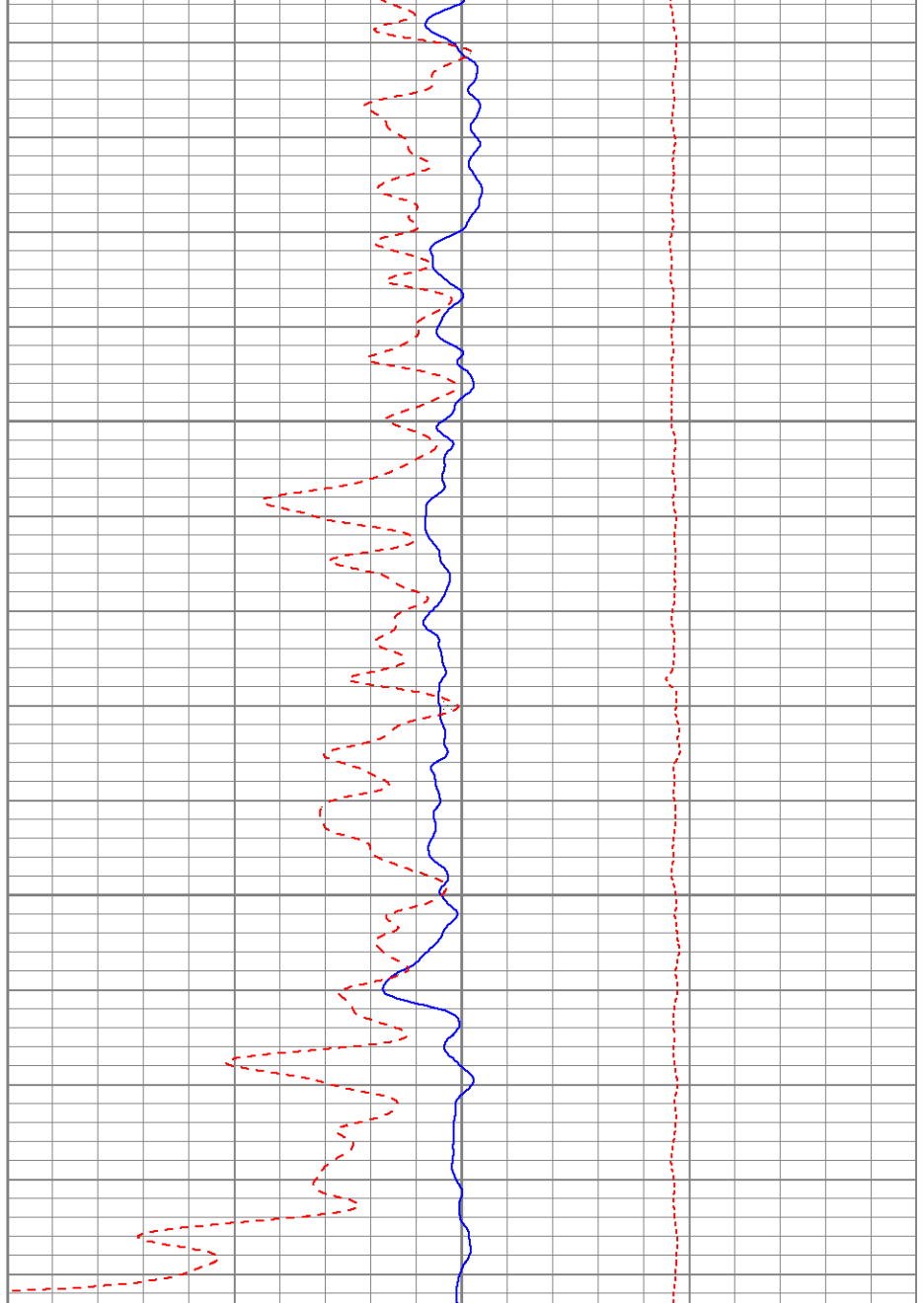
2400





2500

4	Density Caliper (in)	14
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)



60	Density Porosity (pu)	0
60	Neutron Porosity (pu)	0
-0.5	Correction (g/cc)	0.5

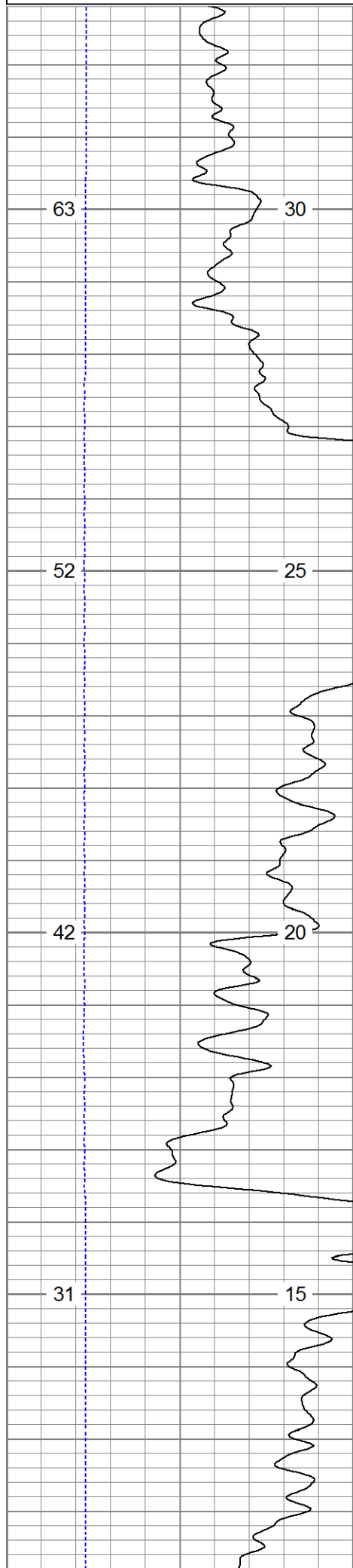


Repeat Pass

Database File: 13523.db
 Dataset Pathname: pass2.3
 Presentation Format: den_neu60
 Dataset Creation: Wed Jul 09 14:09:55 2014 by Calc 0
 Charted by: Depth in Feet scaled 1:240

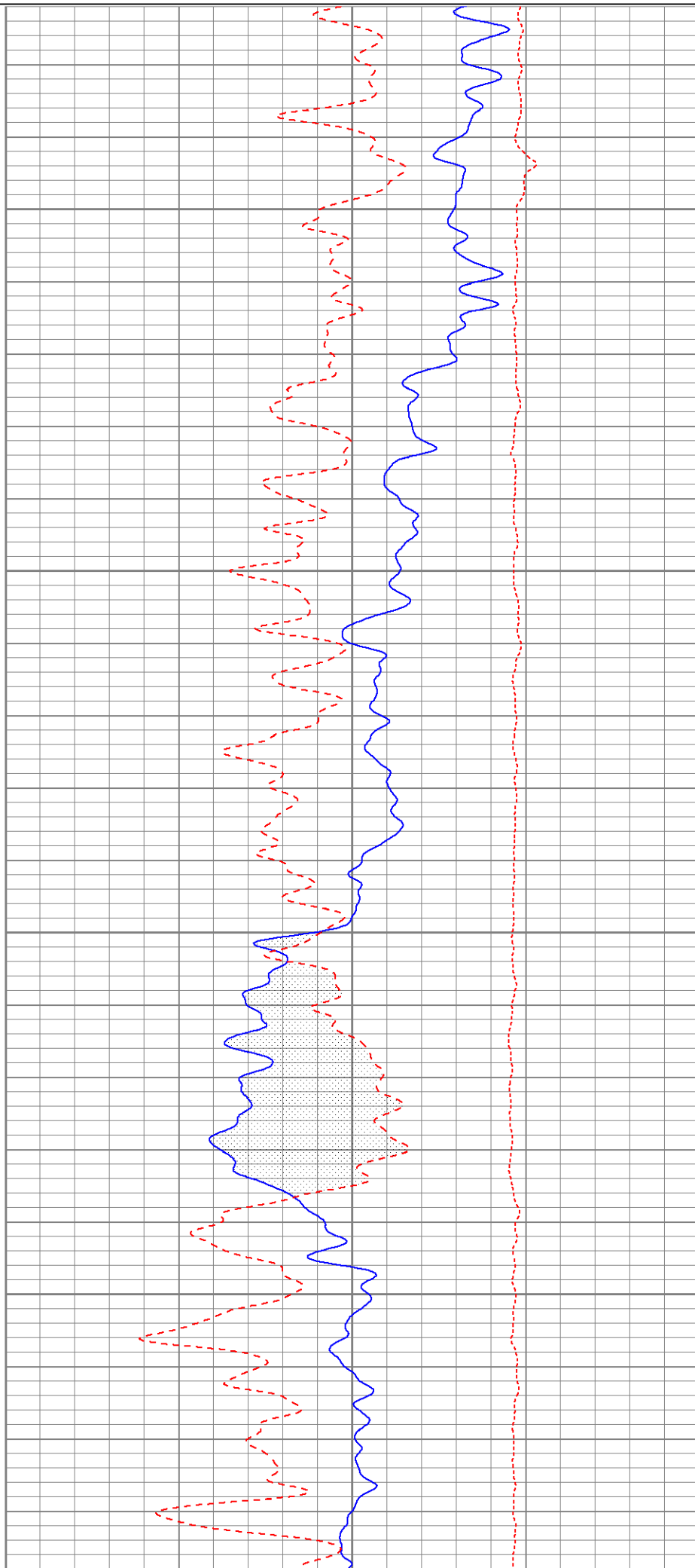
4	Density Caliper (in)	14
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)

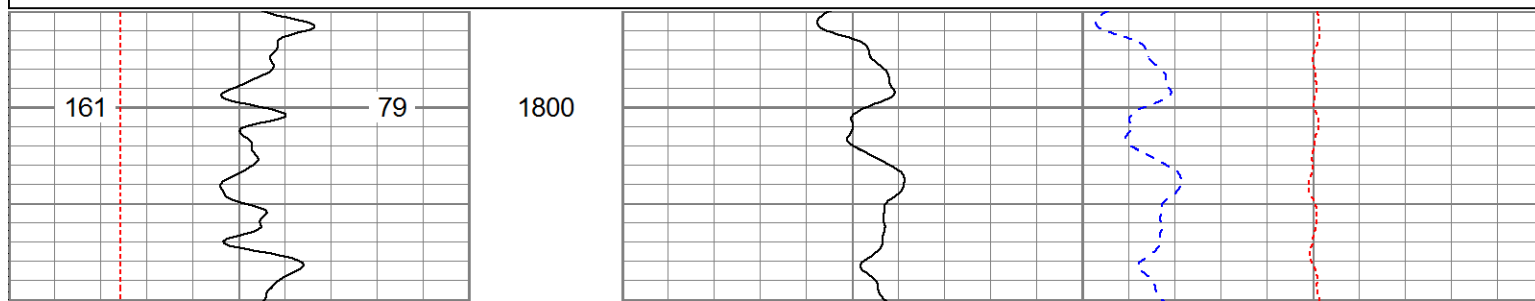
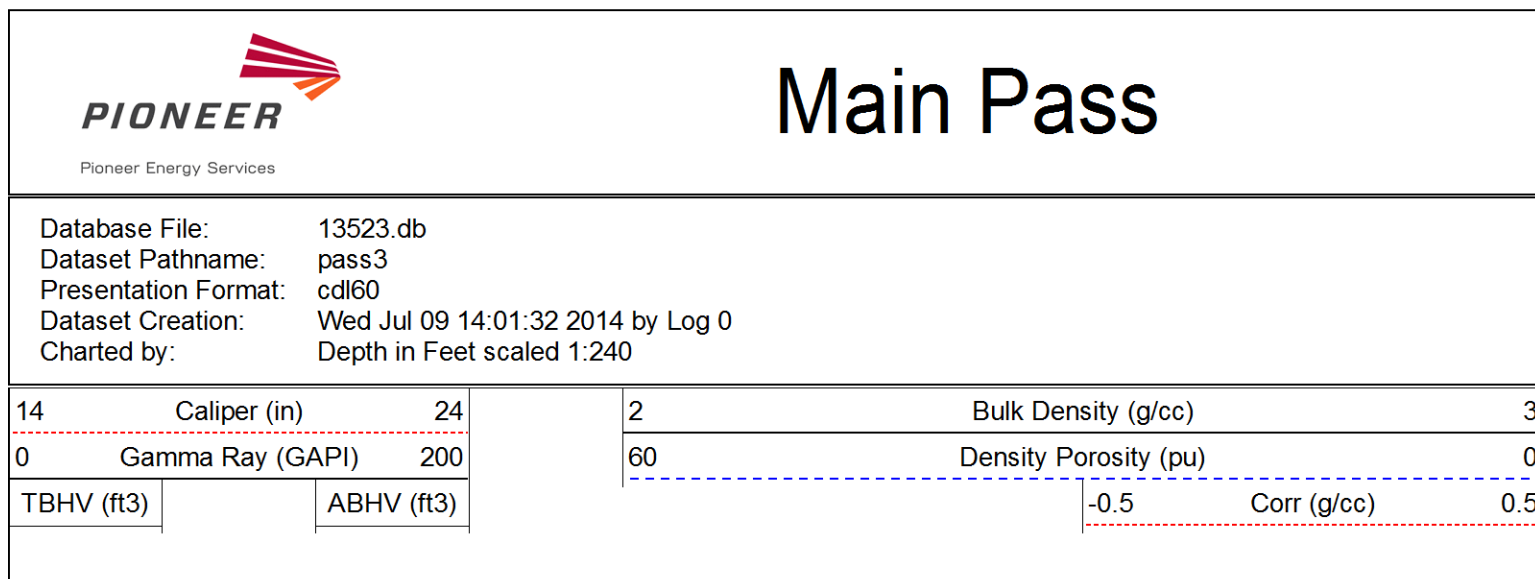
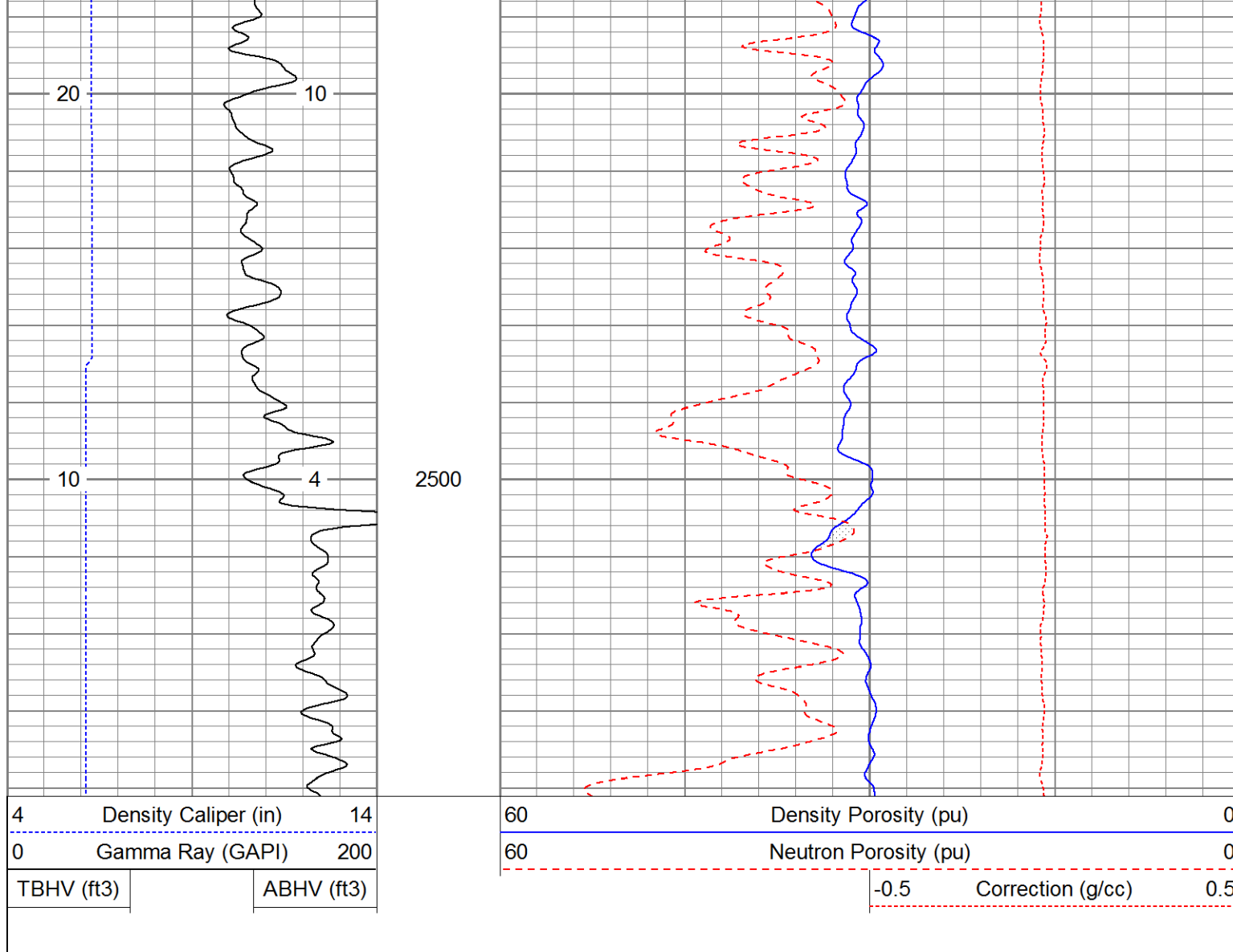
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60	Neutron Porosity (pu)	0
-0.5	Correction (g/cc)	0.5



2300

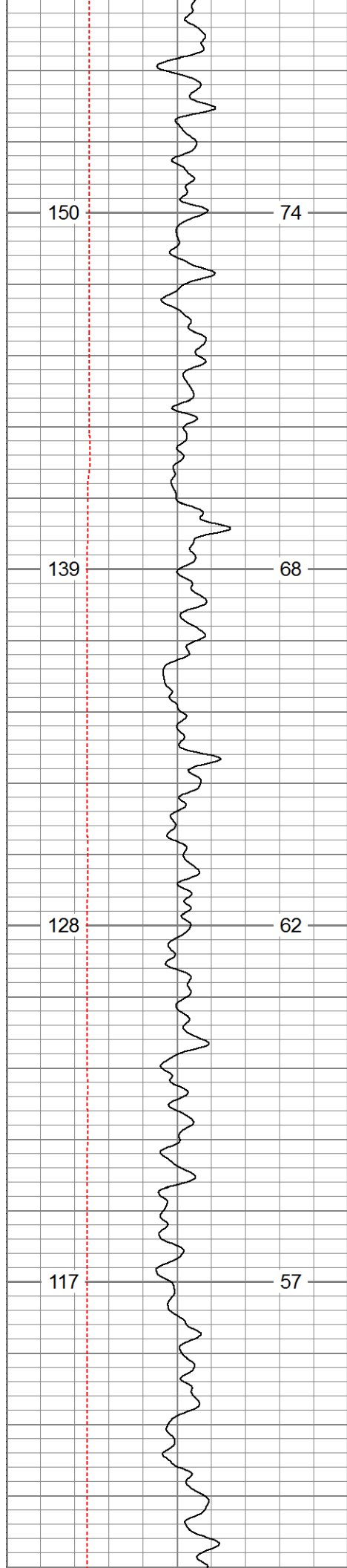
2400





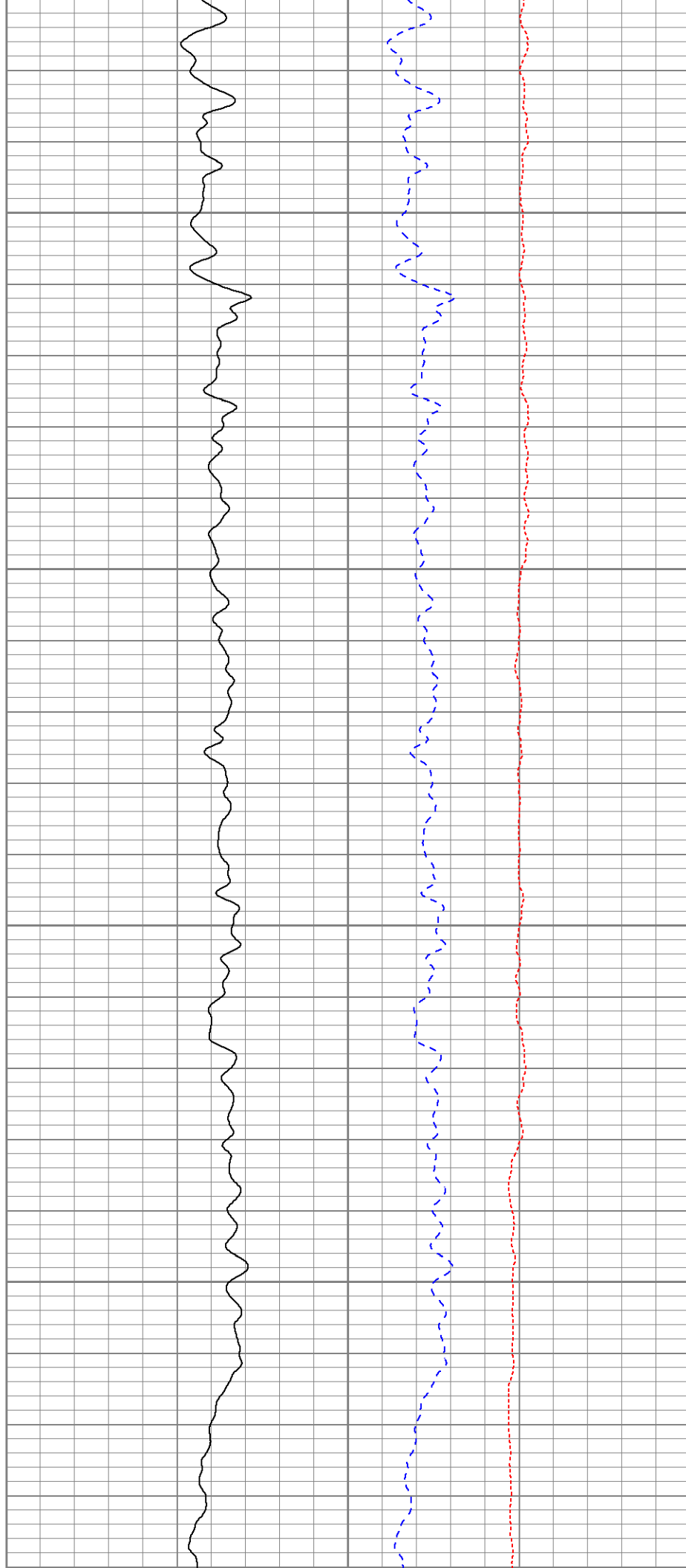
Main Pass

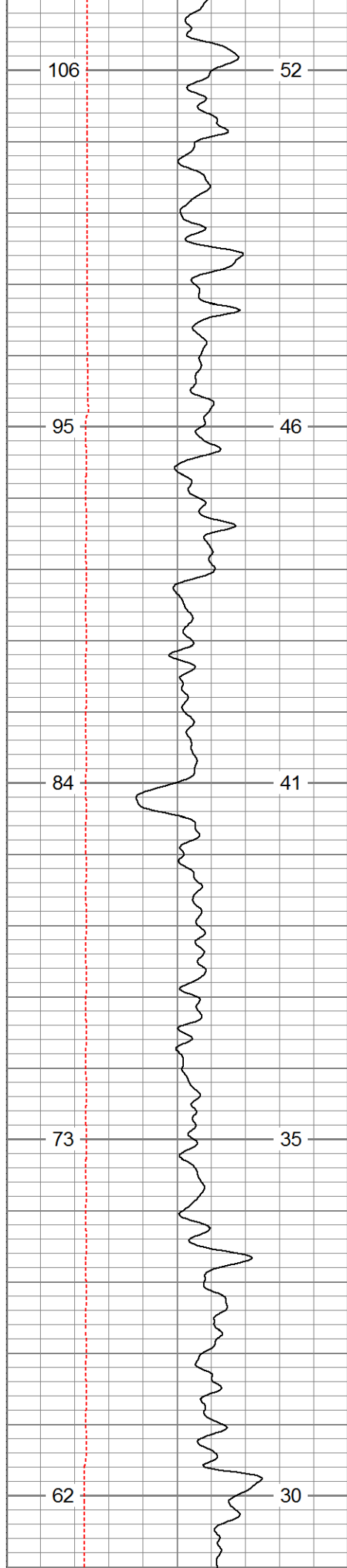
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 Dataset Pathname: pass3
 Presentation Format: cdl60
 Dataset Creation: Wed Jul 09 14:01:32 2014 by Log 0
 Charted by: Depth in Feet scaled 1:240



1900

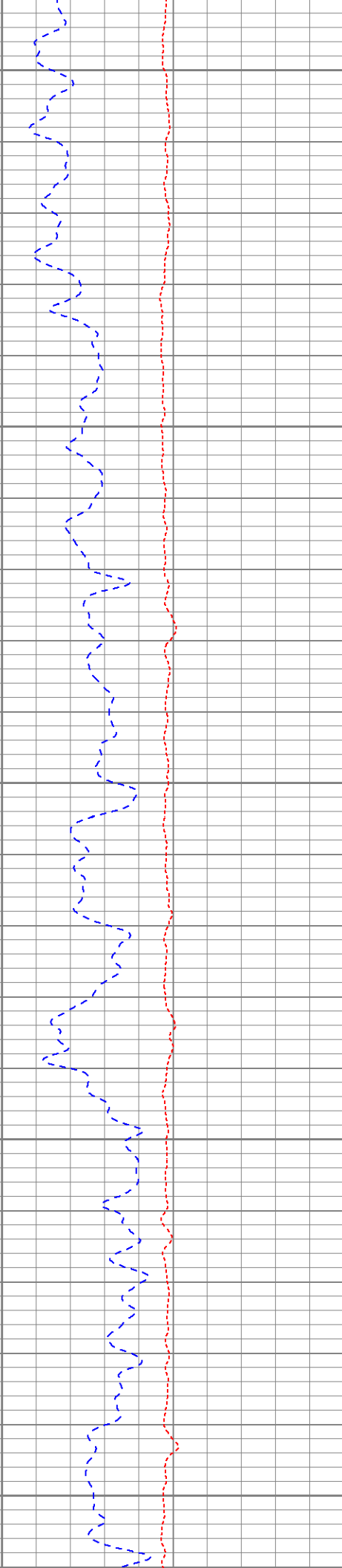
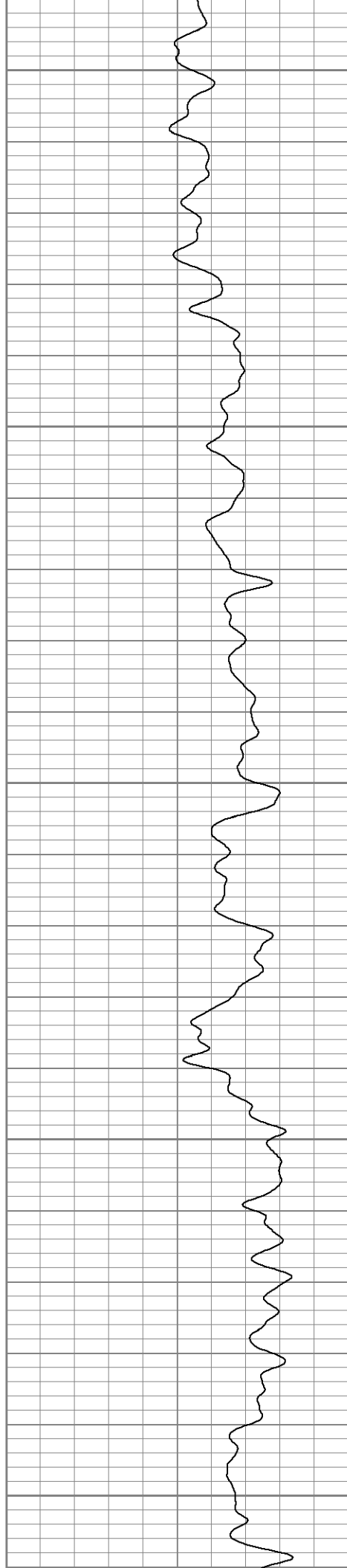
2000

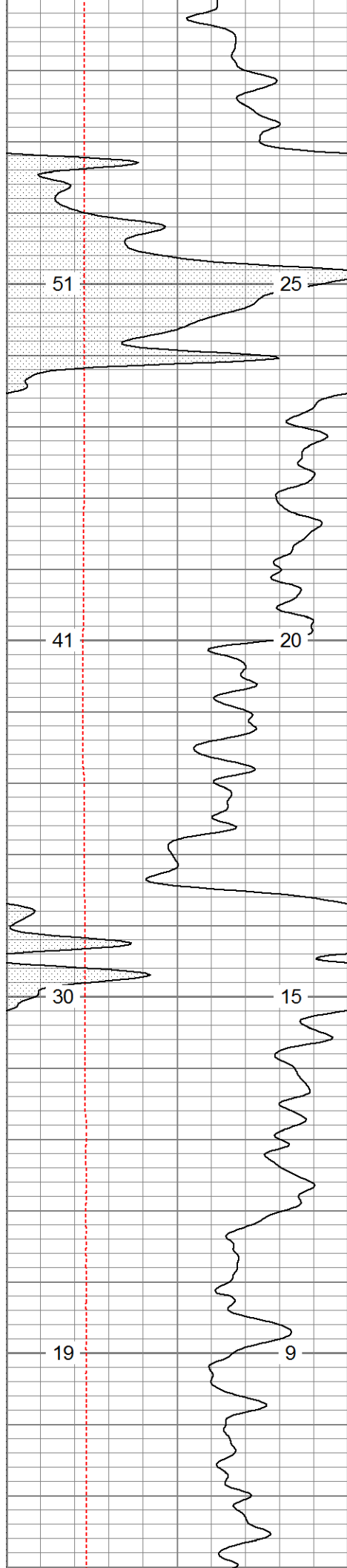




2100

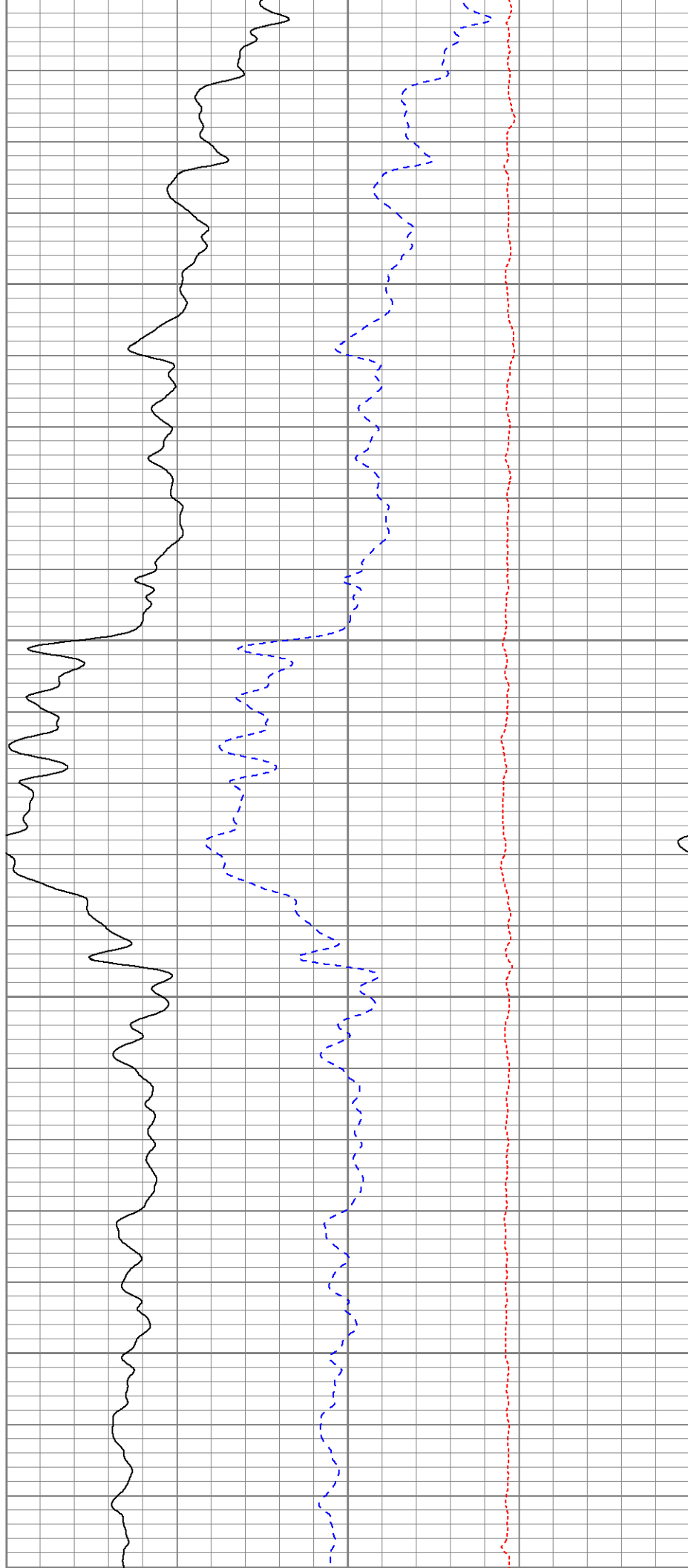
2200

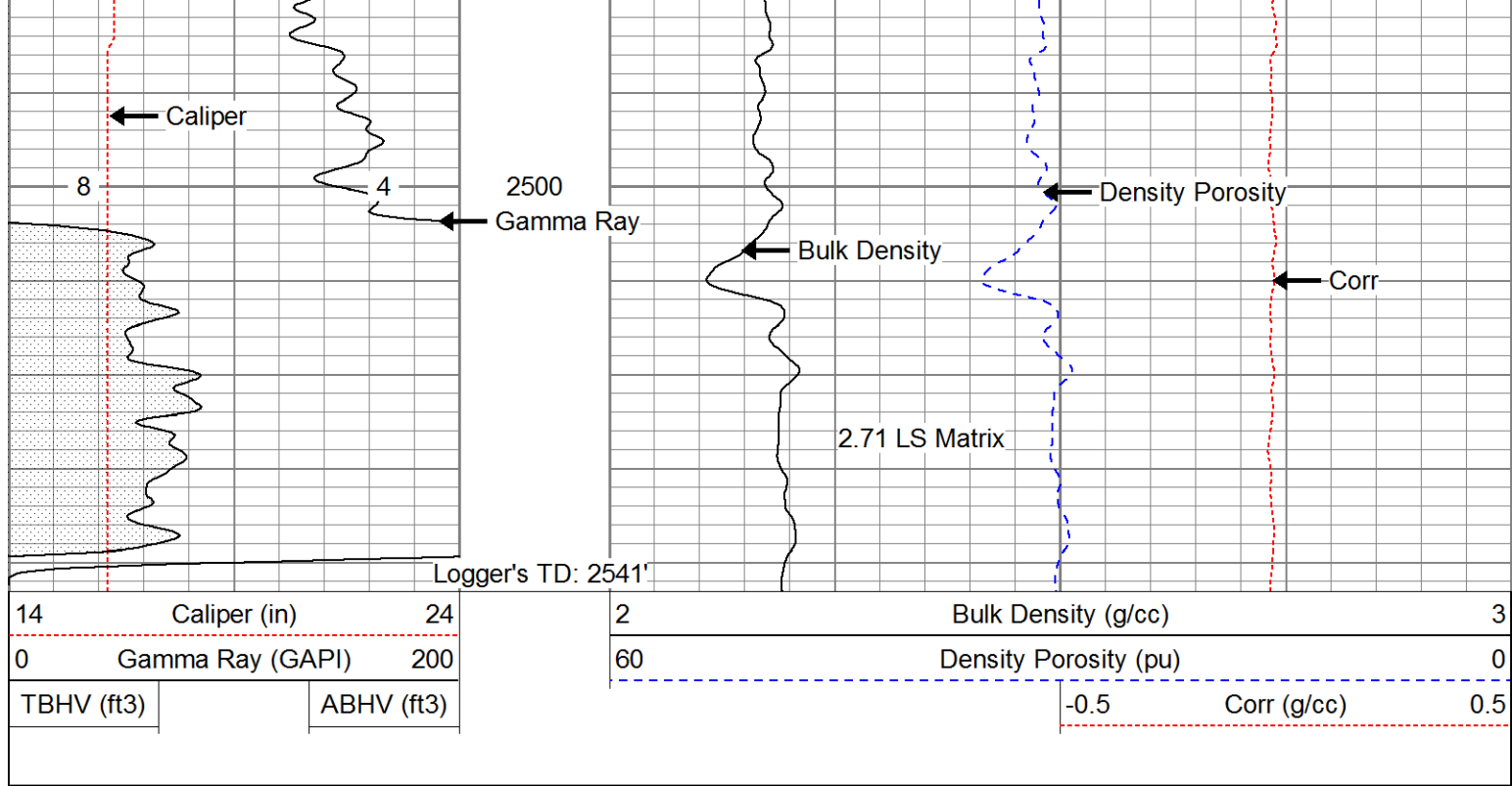




2300

2400





Calibration Report

Database File: 13523.db
 Dataset Pathname: pass1
 Dataset Creation: Wed Jul 09 13:19:26 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1039-PSI
 Surface Cal Performed:

Loop:	Readings		References		Results	
	Air	Loop	Air	Loop	m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.570
Medium	0.000	1.000	0.000	1.000	mmho/m	-45.000
						0.490
						-40.000

Compensated Density Calibration Report

Serial-Model: 770-PSI
 Source / Verifier: 4400 / PSI
 Master Calibration Performed: Wed Jun 04 12:13:48 2014
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	6052.27	9575.17	cps
Aluminum	2.690	g/cc	1090.90	5872.16	cps
Spine Angle = 74.07			Density/Spine Ratio = 0.528		
	Size		Reading		
Small Ring	4.50	in	1.80		
Large Ring	13.00	in	1.46		

Before Survey Verification						
		<u>Target</u>		<u>Measured</u>		
		g/cc		g/cc		
		g/cc		g/cc		
		g/cc		g/cc		
After Survey Verification						
		<u>Target</u>		<u>Measured</u>		
		g/cc		g/cc		
		g/cc		g/cc		
		g/cc		g/cc		
Compensated Neutron Calibration Report						
		Serial Number:		853		
		Tool Model:		PSI		
CALIBRATION						
Detector		Readings		Target		Normalization
Short Space		1.00	cps	1.00	cps	1.9000
Long Space		1.00	cps	1.00	cps	2.0600
PRE-SURVEY VERIFICATION						
Detector		Readings		Measured		Target
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		
POST-SURVEY VERIFICATION						
Detector		Readings		Measured		Target
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		pu
3)	Short Space		cps			
	Long Space		cps	pu		pu
Gamma Ray Calibration Report						
Serial Number:		223				
Tool Model:		PSI				
Performed:		Tue Apr 29 09:44:02 2014				
Calibrator Value:		253.0		GAPI		
Background Reading:		30.0		cps		
Calibrator Reading:		380.0		cps		
Sensitivity:		0.6300		GAPI/cps		



Company	Augustus Energy Resources, LLC
Well	Lippert 14-05 1S44W
Field	Vernon
County	Yuma
State	Colorado