



# COMPENSATED DENSITY COMPENSATED NEUTRON GAMMA RAY

Pioneer Energy Services

Company Augustus Energy Resources LLC  
Well Five Rivers 22-19 2N46W  
Field Wildcat  
County Yuma State Colorado

Location: API #: 05125120790000

1794' FNL & 2299' FWL SENW

SEC 19 TWP 2N RGE 46W

Permanent Datum GL Elevation 3978  
Log Measured From KB  
Drilling Measured From KB

Elevation

K.B. 3984  
D.F. 3983  
G.L. 3978

Date March 20, 2014

Run Number 1

Depth Driller 2880

Depth Logger 2879

Bottom Logged Interval 2859

Top Log Interval 1900

Casing Driller 501

Casing Logger Not logged

Bit Size 6.25"

Type Fluid in Hole Polymer Kcl

Density / Viscosity 8.7 / 28

pH / Fluid Loss 8 / 5.6

Source of Sample Mudpit

Rm @ Meas. Temp 0.39 @ 65 F

Rmf @ Meas. Temp 0.31 @ 65 F

Rmc @ Meas. Temp 0.47 @ 65 F

Source of Rmf / Rmc Measure / Calc

Rm @ BHT 0.24 @ 107 F

Time Circulation Stopped 2015

Time Logger on Bottom 2330

Maximum Recorded Temperature 107 F

Equipment Number 49

Location Ft. Morgan

Recorded By Clint Christensen

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.

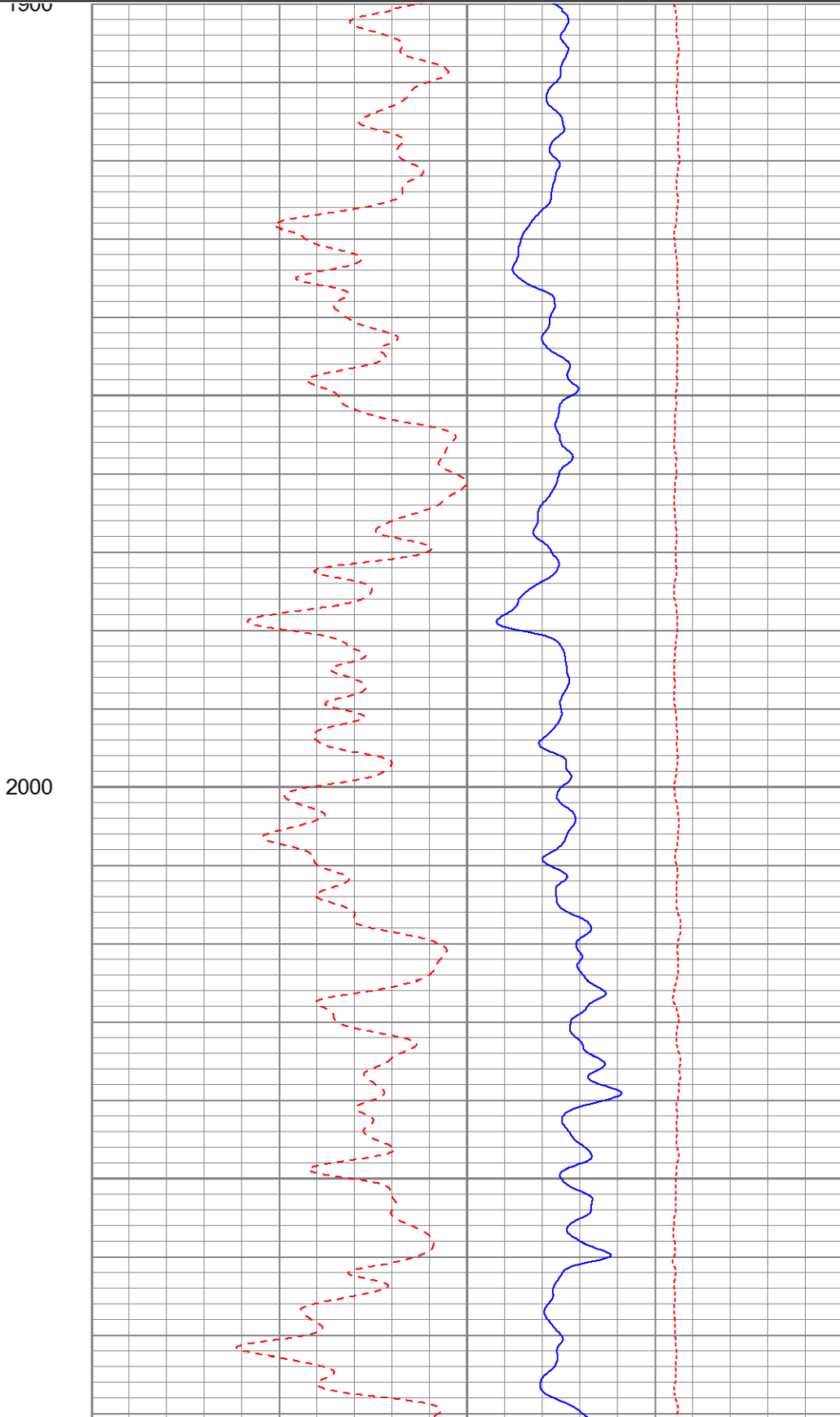
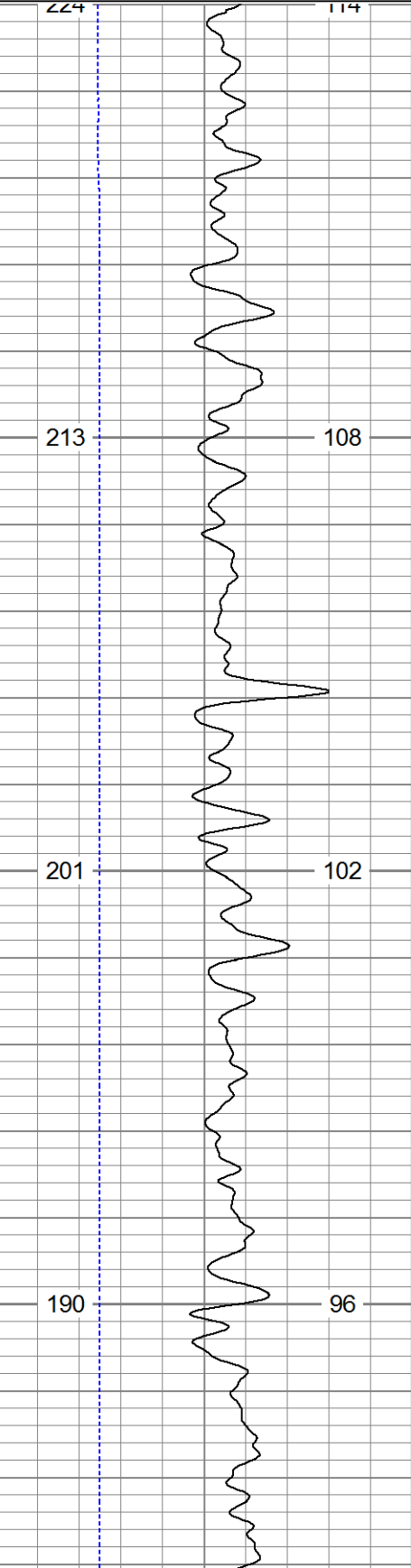
## Comments

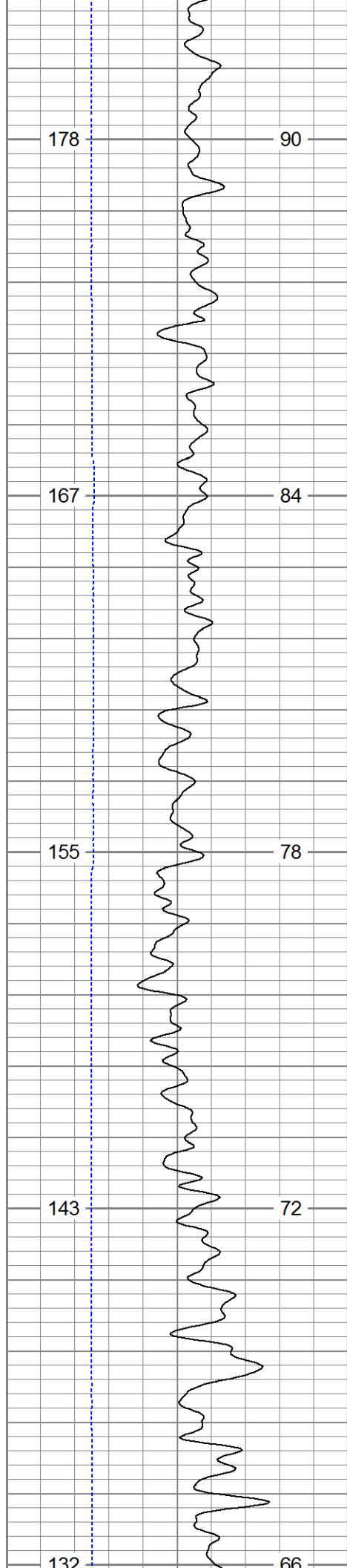
Annular volume calculated for 4-1/2" casing  
Excel Drilling Rig 2  
Thank you for using Pioneer Energy Services!

Database File: 13491.db  
Dataset Pathname: final  
Presentation Format: denneu60  
Dataset Creation: Fri Mar 21 00:36:02 2014  
Charted by: Depth in Feet scaled 1:240

4	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

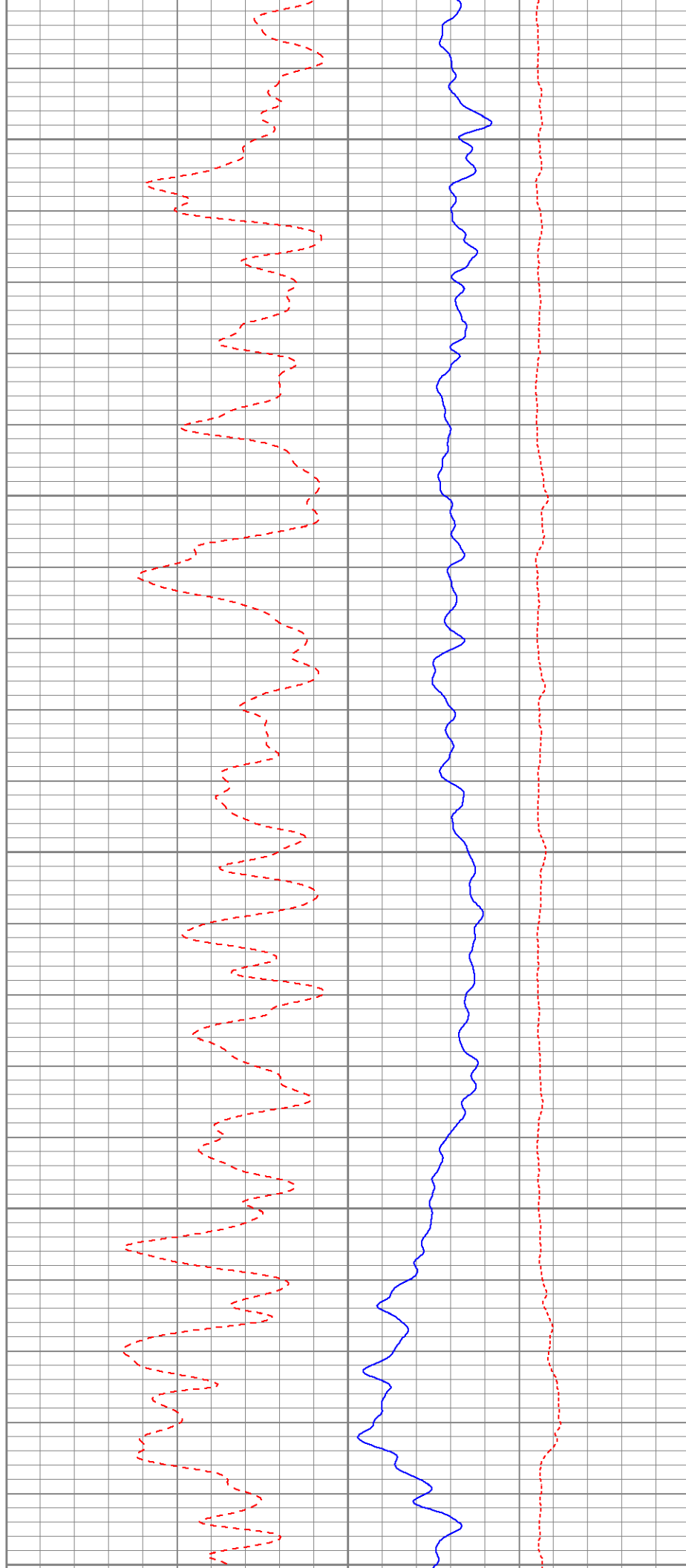


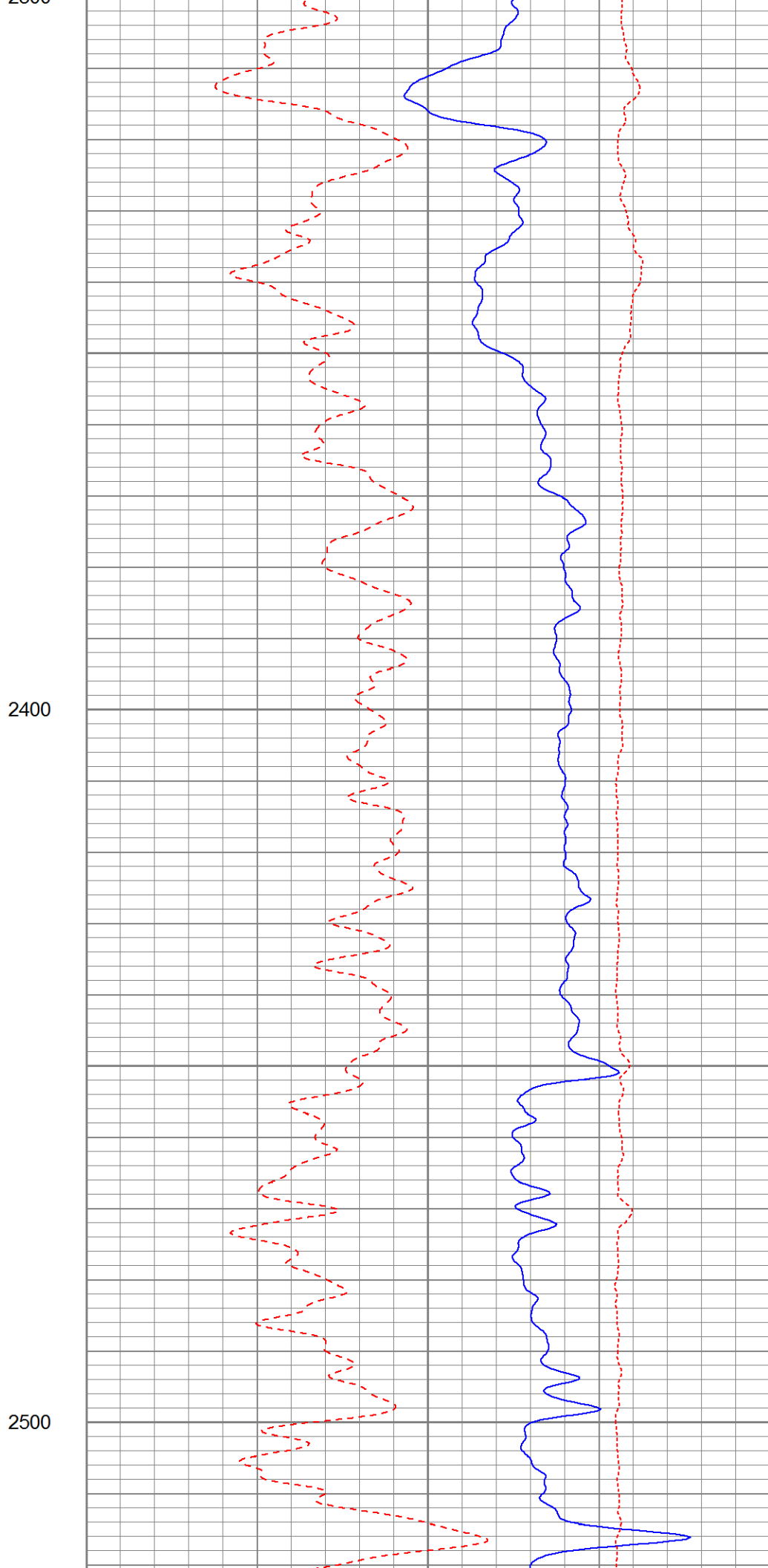
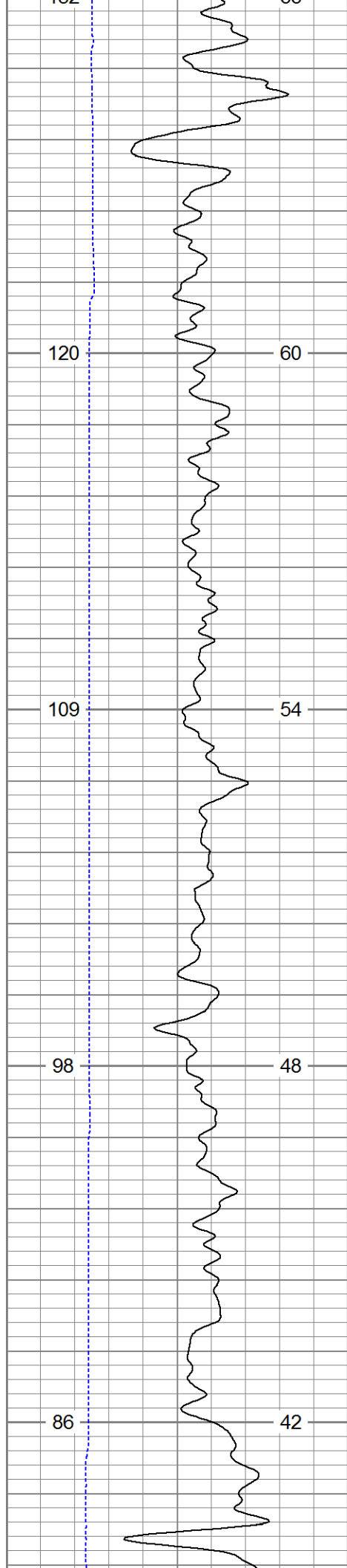


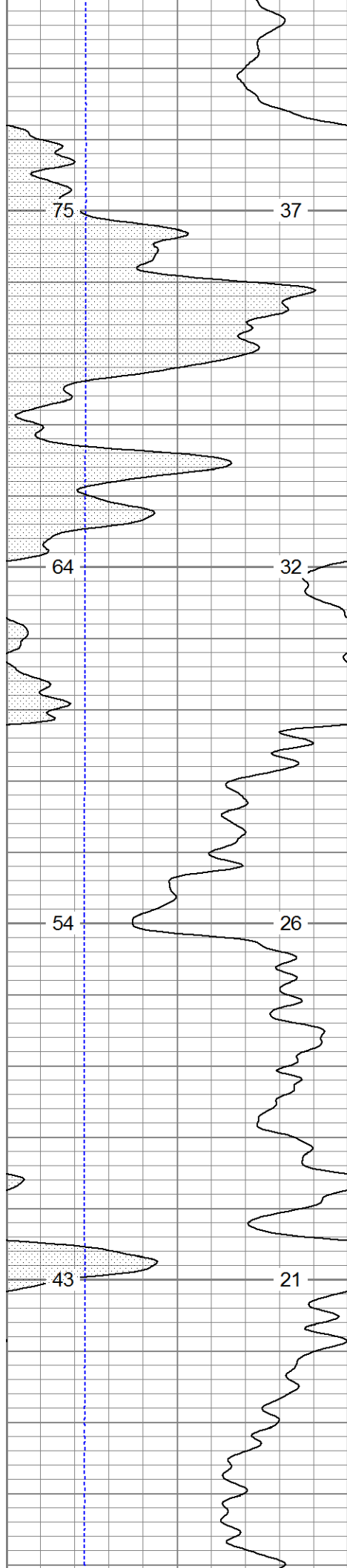
2100

2200

2300

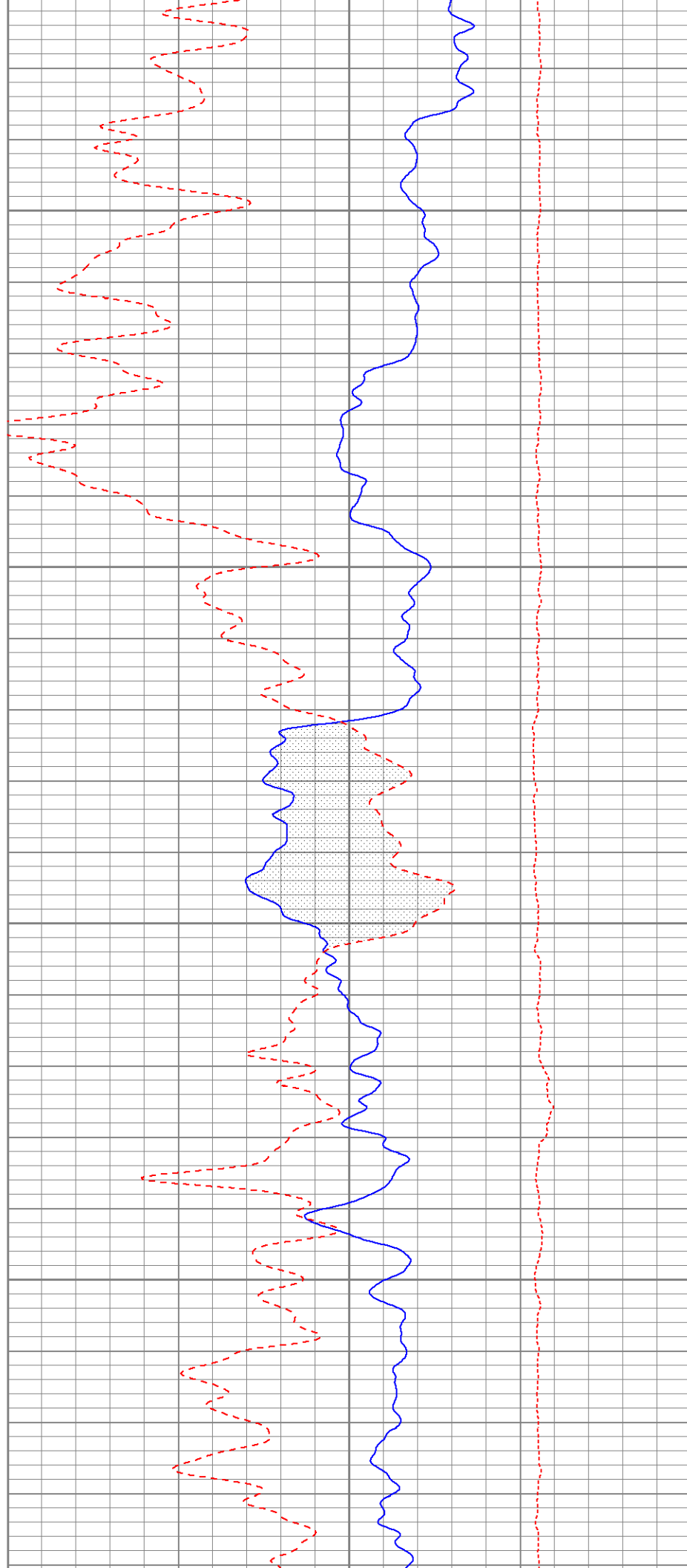


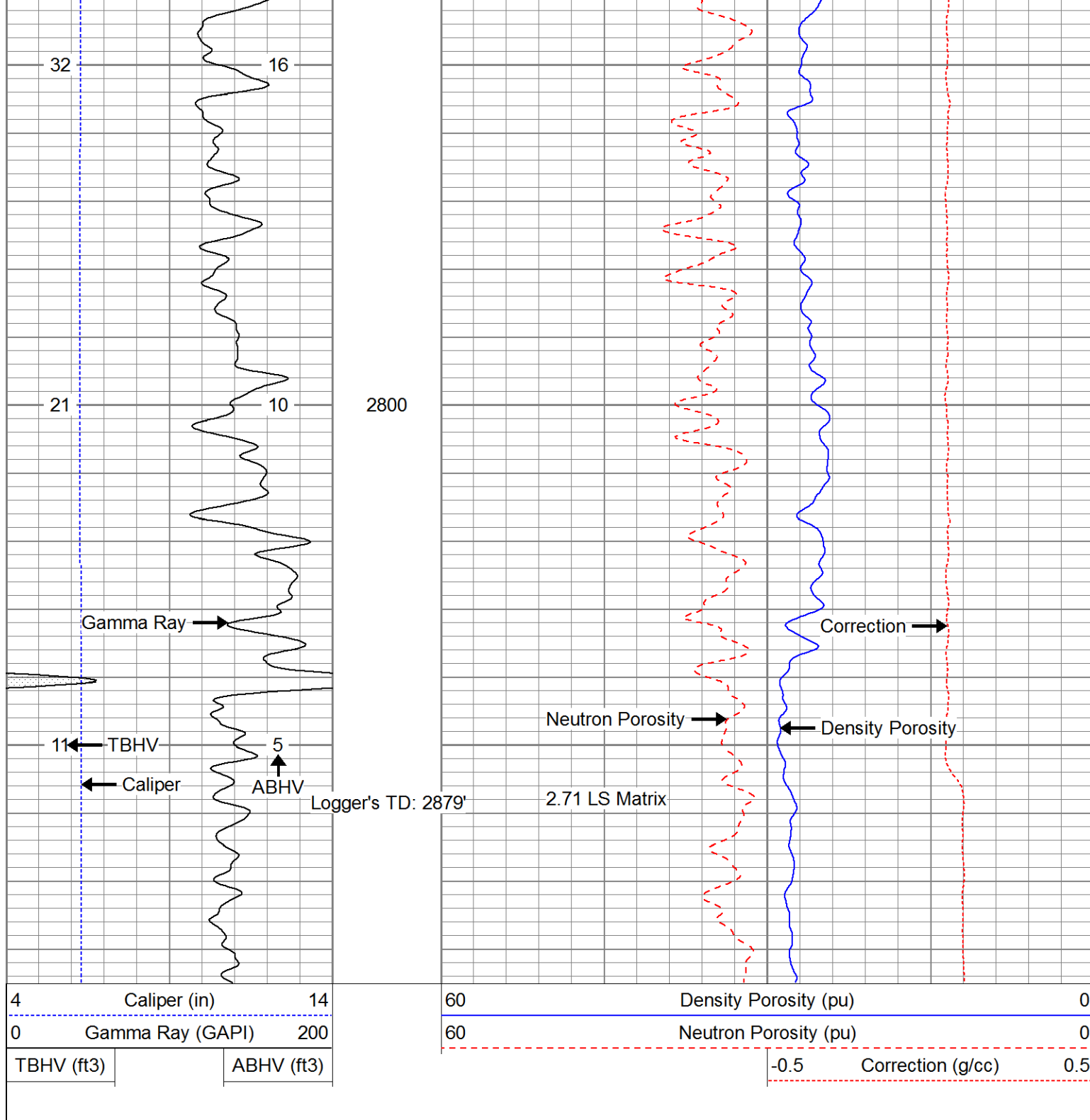




2600

2700







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# Main Pass

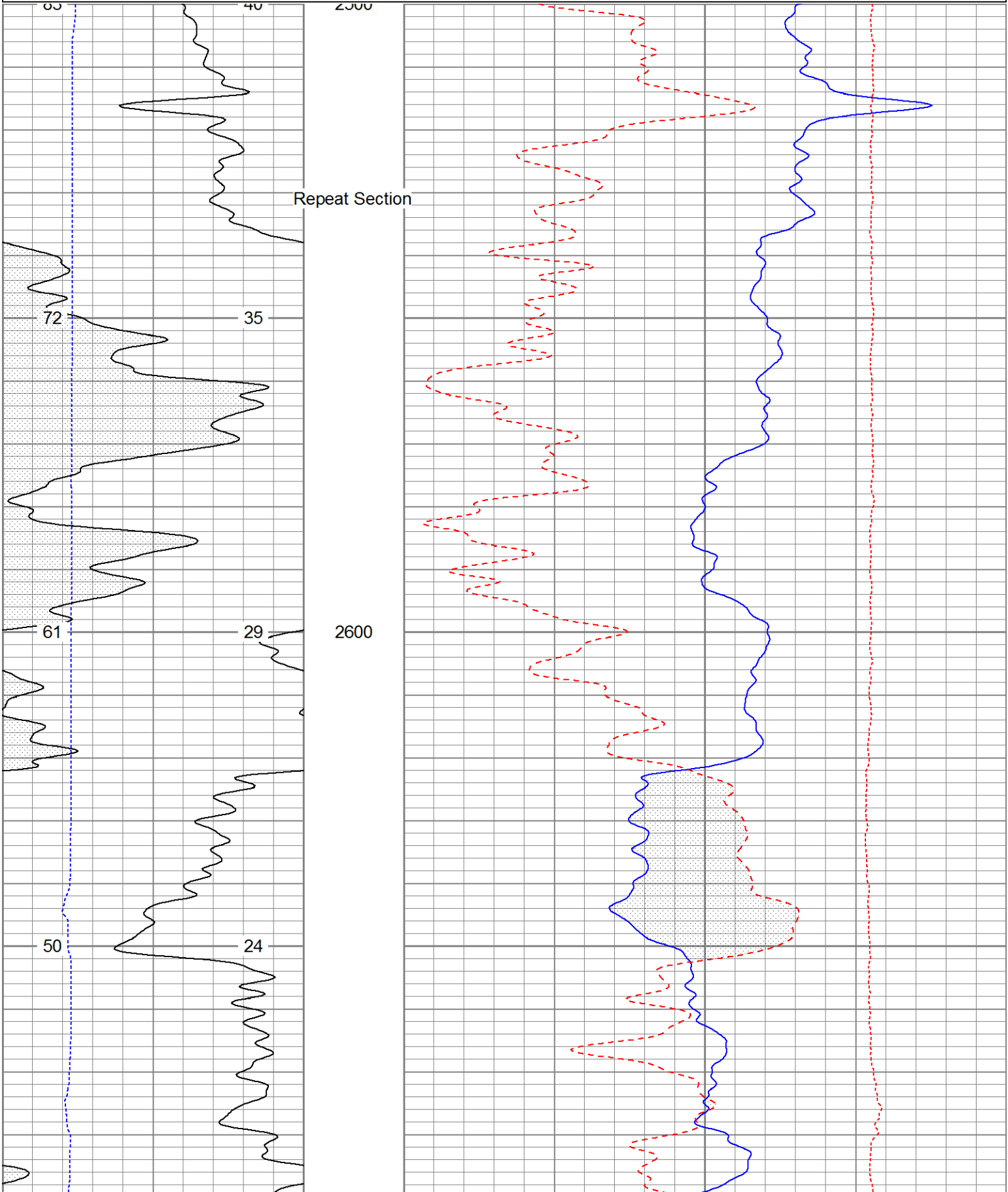


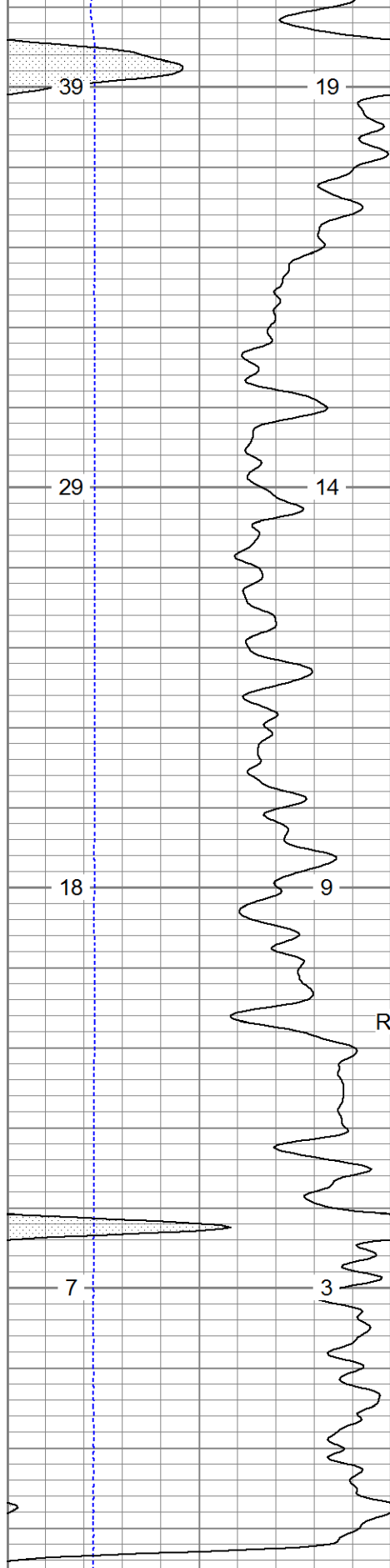
**PIONEER**  
Pioneer Energy Services

# Repeat Pass

Database File: 13491.db  
Dataset Pathname: pass2.1  
Presentation Format: denneu60

Presentation Format: denmeas		Thu Mar 20 23:51:41 2014 by Calc 0			
Dataset Creation:		Depth in Feet scaled 1:240			
Charted by:					
4	Caliper (in)	14	60	Density Porosity (pu)	0
0	Gamma Ray (GAPI)	200	60	Neutron Porosity (pu)	0
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5

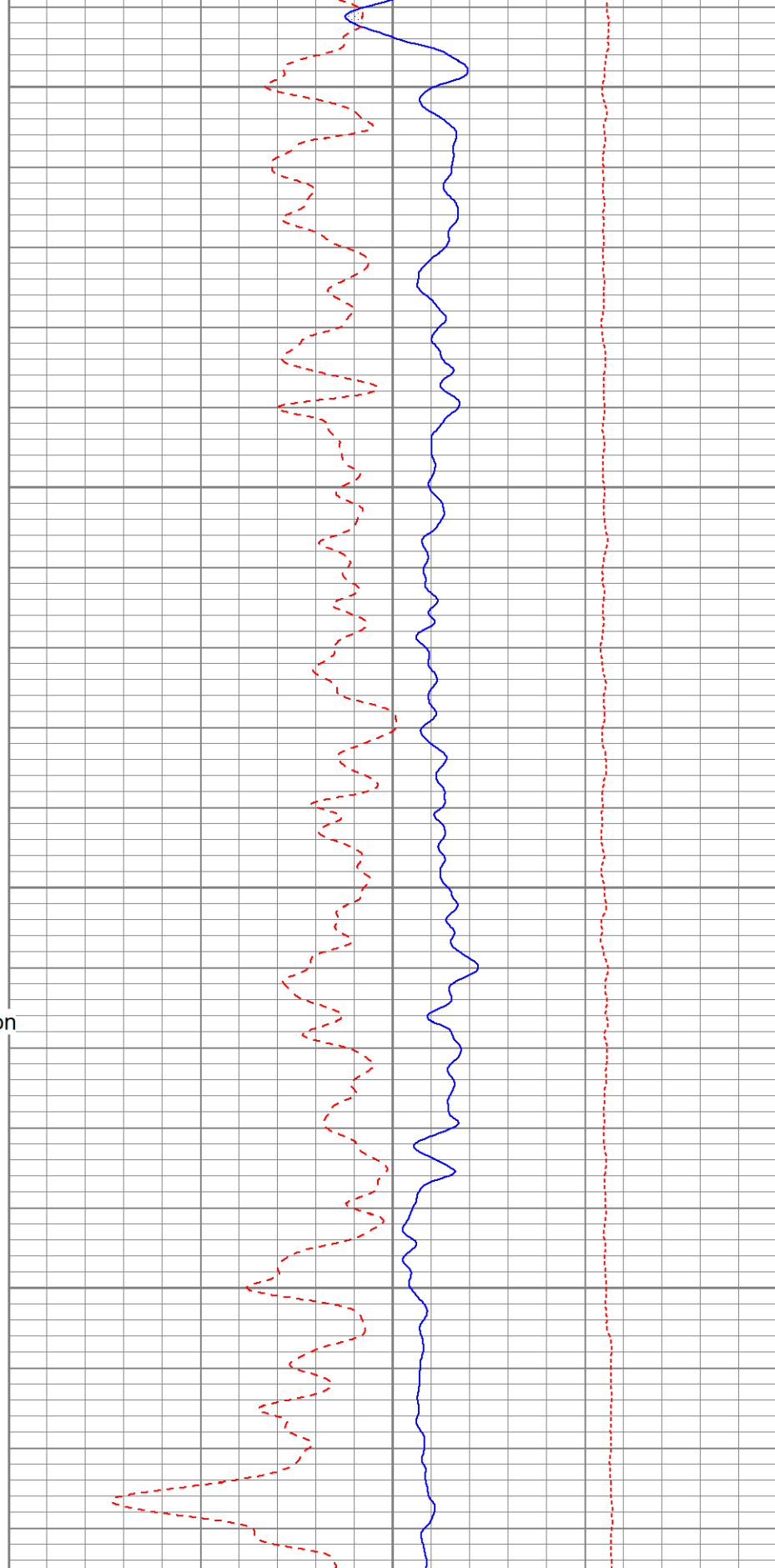




2700

2800

Repeat Section



4	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



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# Repeat Pass

**PIONEER**

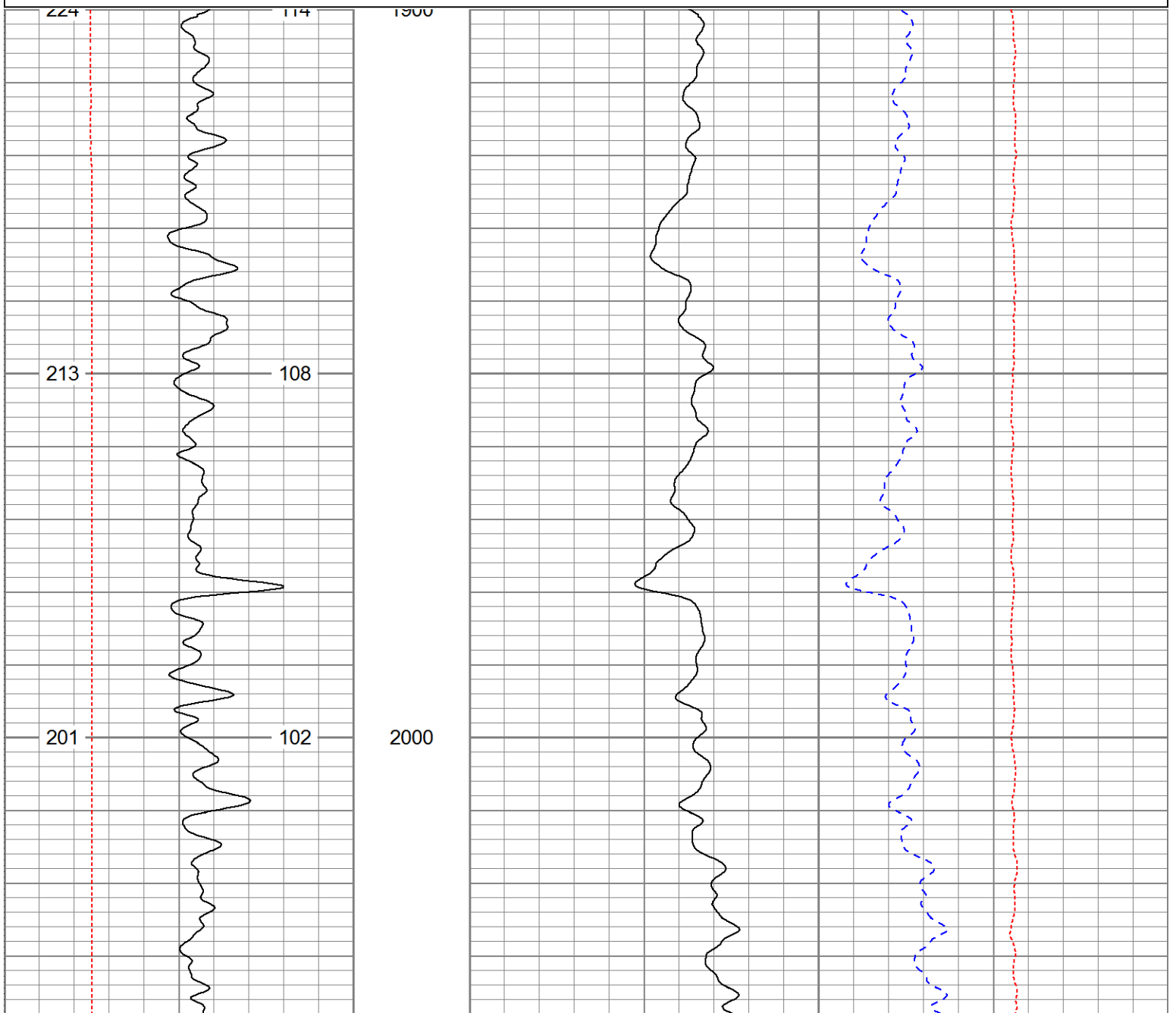
Pioneer Energy Services

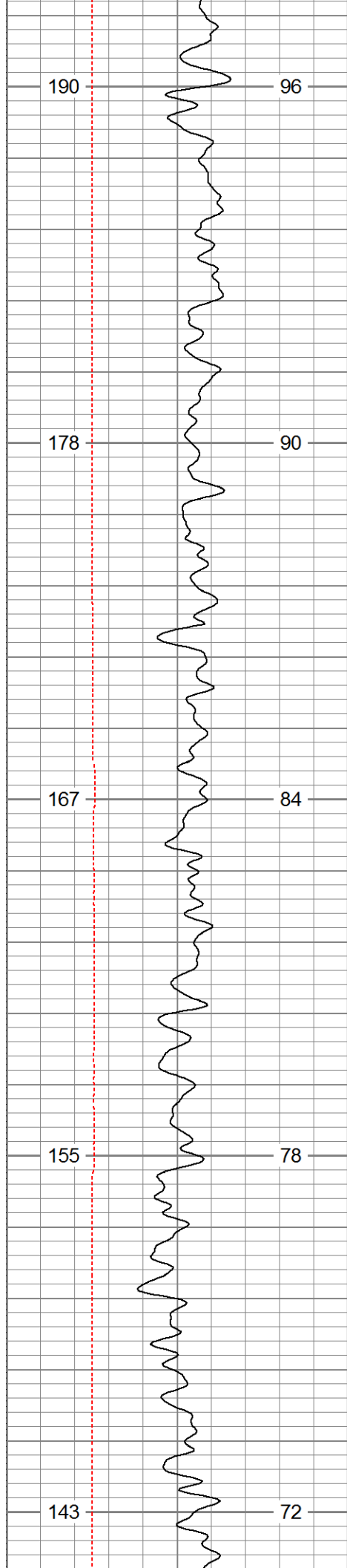
# Main Pass

Database File: 13491.db  
Dataset Pathname: final  
Presentation Format: cdl60  
Dataset Creation: Fri Mar 21 00:36:02 2014  
Charted by: Depth in Feet scaled 1:240

14	Caliper (in)	24
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)

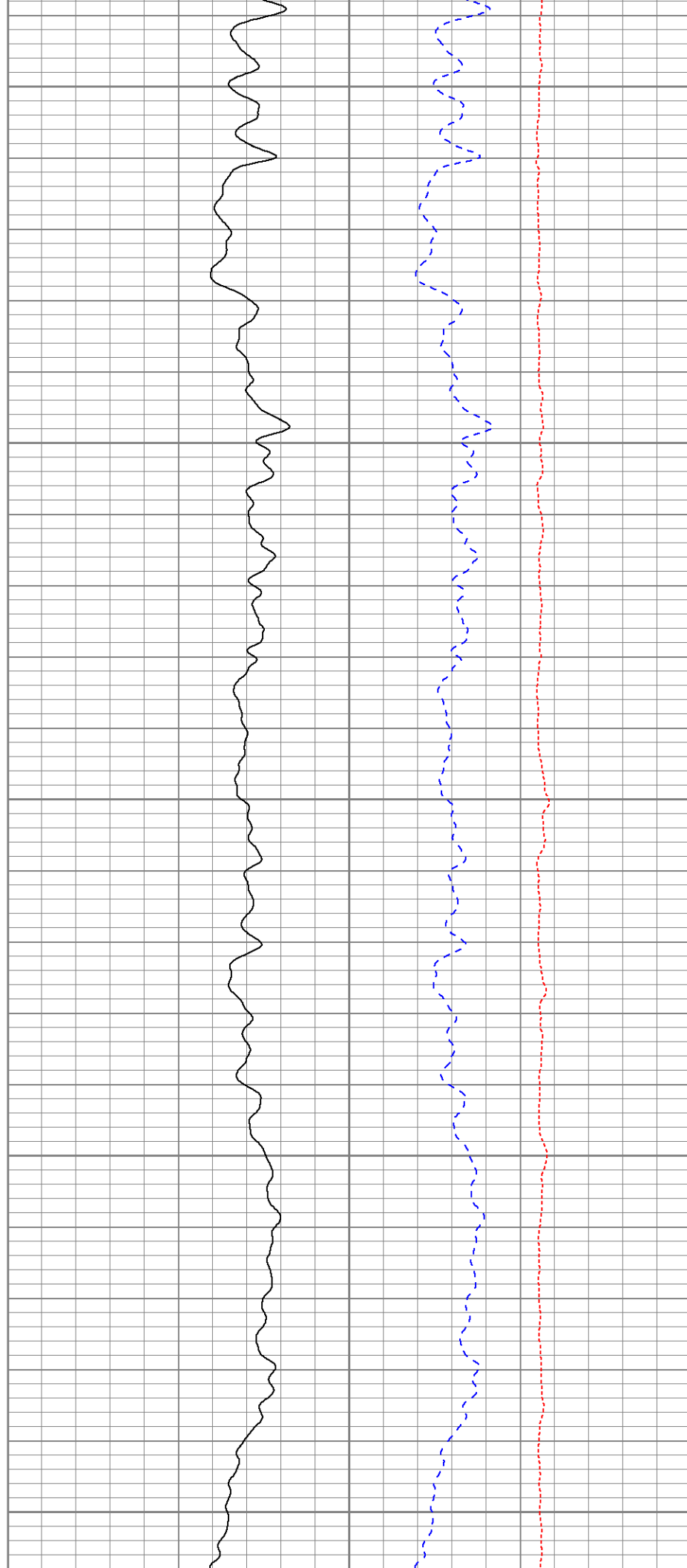
2	Bulk Density (g/cc)	3
60	Density Porosity (pu)	0
-0.5	Corr (g/cc)	0.5

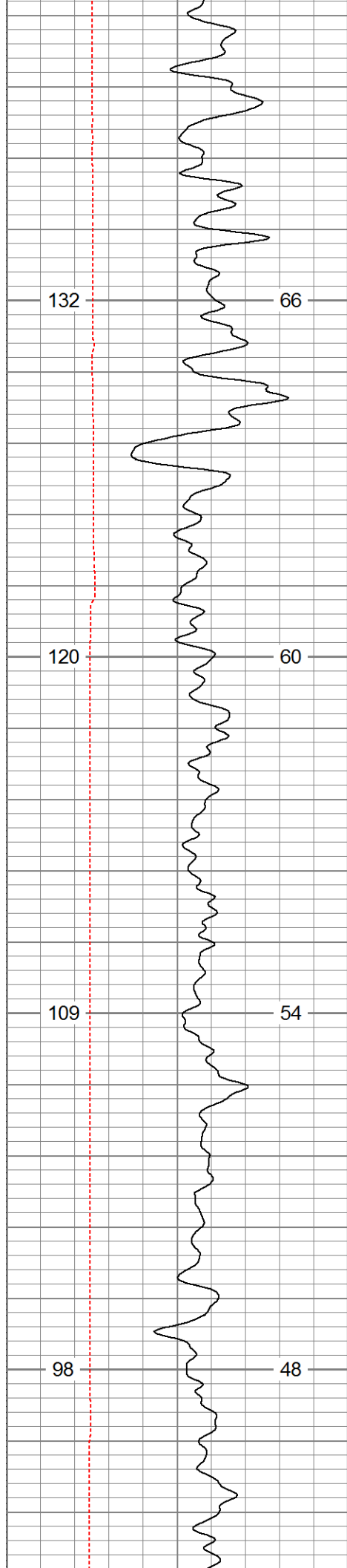




2100

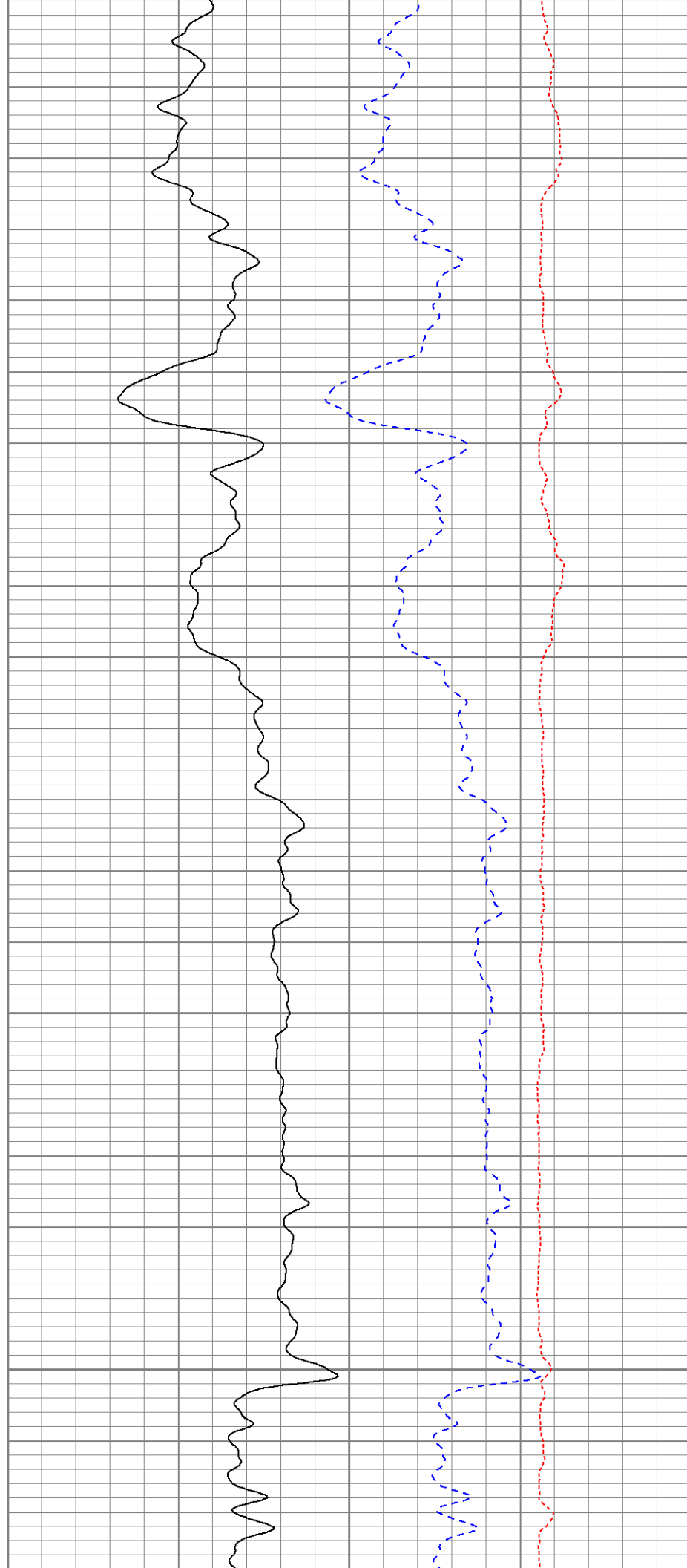
2200

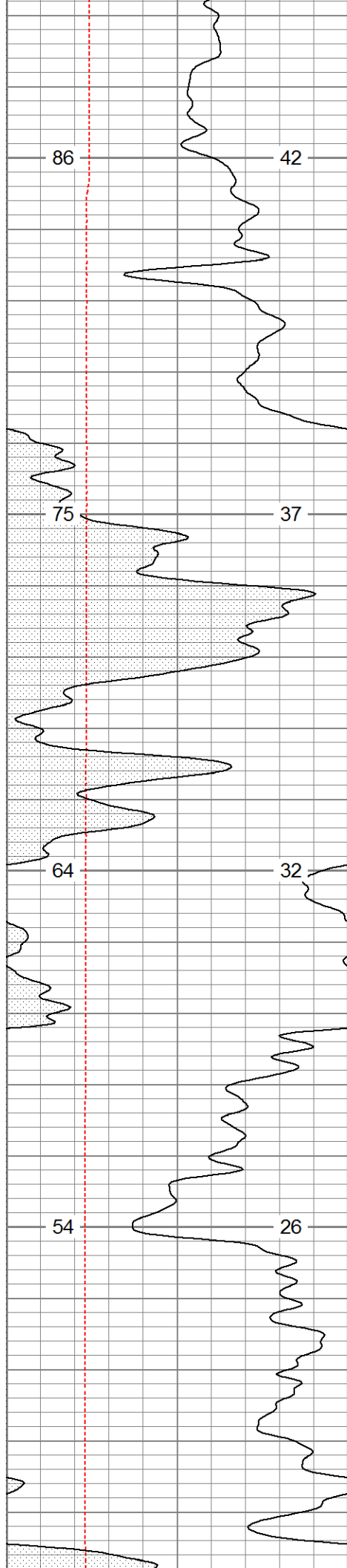




2300

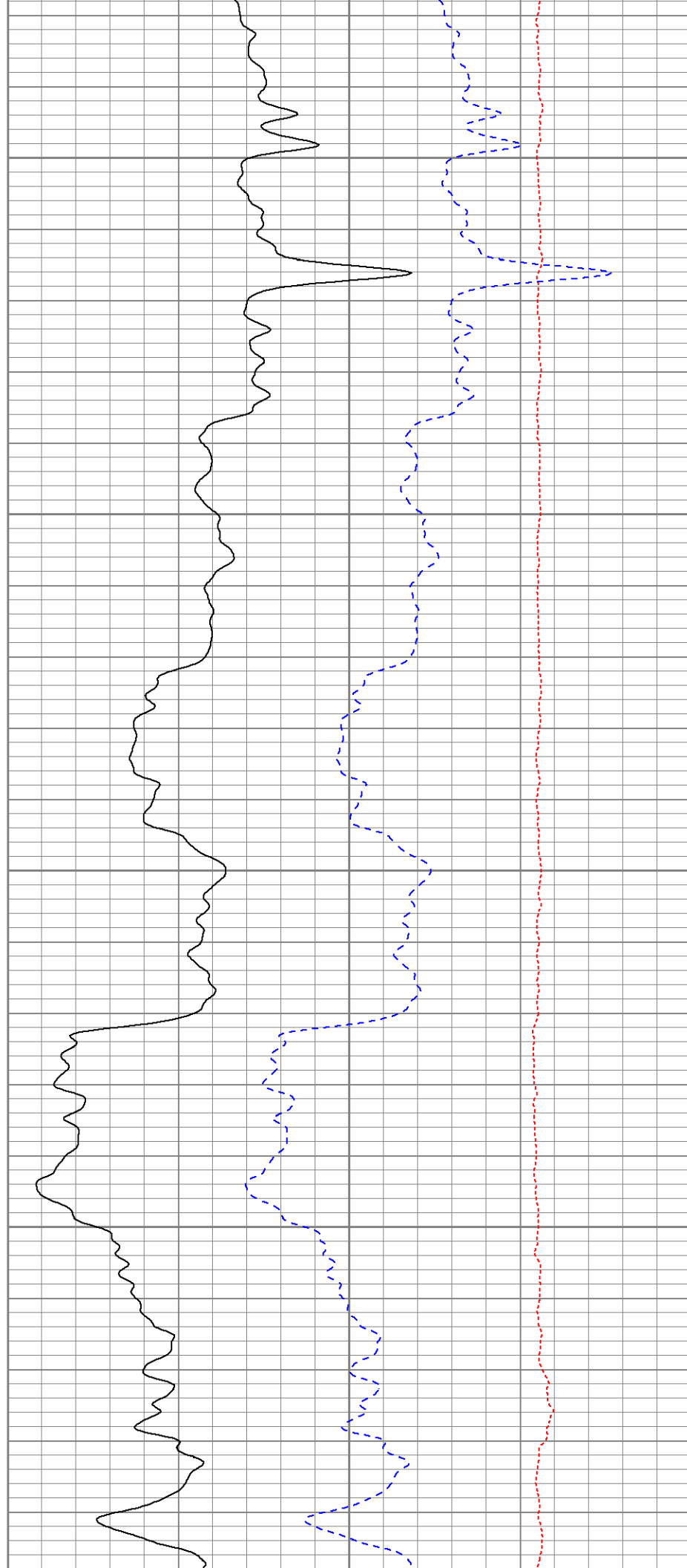
2400

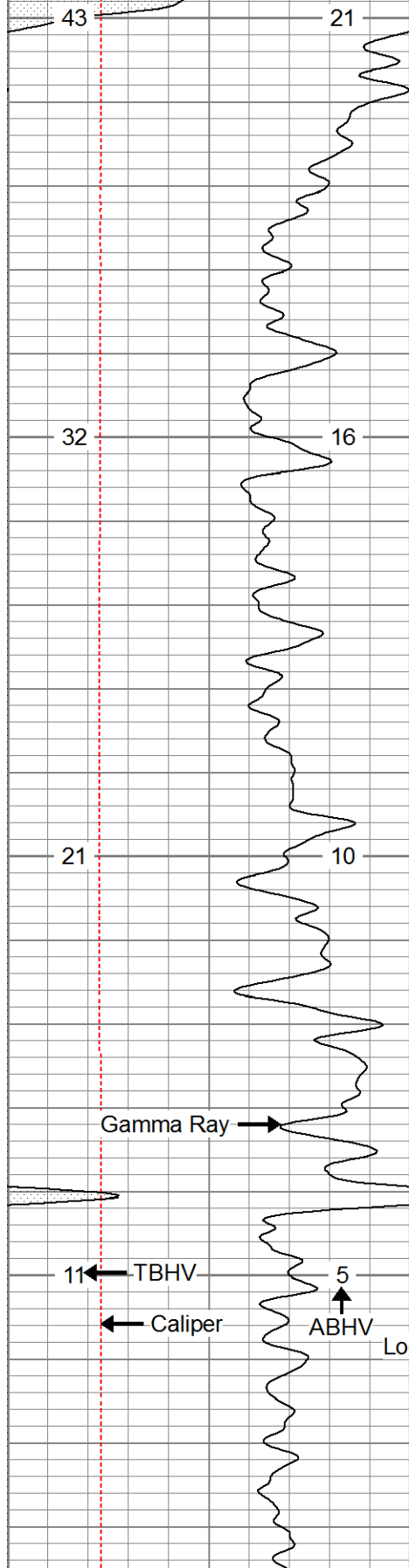




2500

2600

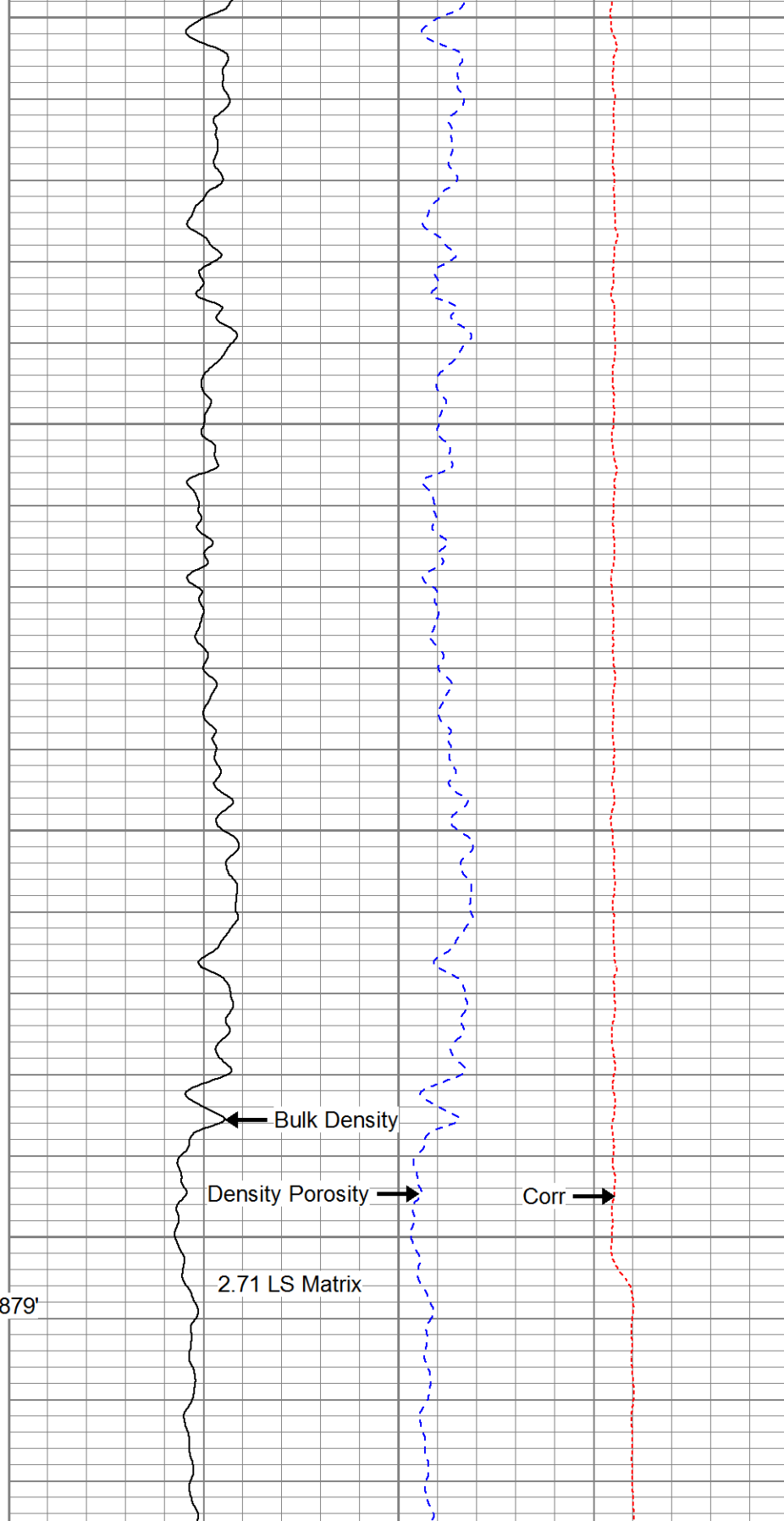




2700

2800

Logger's TD: 2879'



14	Caliper (in)	24
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)

2	Bulk Density (g/cc)	3
60	Density Porosity (pu)	0
-0.5	Corr (g/cc)	0.5

## Calibration Report

Database File: 13491.db  
 Dataset Pathname: pass2  
 Dataset Creation: Thu Mar 20 23:37:54 2014 by Log 0

## Dual Induction Calibration Report

Serial-Model: 1011-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	0.520	-28.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.440	-28.000

## Compensated Density Calibration Report

Serial-Model: 998-PSI  
 Master Calibration Performed: Sat Feb 22 21:47:06 2014

## Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.750	g/cc		7210.00	9816.00	cps
Aluminum	2.690	g/cc		1326.00	6231.00	cps
	Size			Reading		
Small Ring		in				
Medium Ring		in				
Large Ring		in				

## Compensated Neutron Calibration Report

Serial Number: 826  
 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	2.0900

## Gamma Ray Calibration Report

Serial Number: 939  
 Tool Model: PSI  
 Performed: Sat Feb 22 21:47:24 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6200 GAPI/cps