



HIGH RESOLUTION INDUCTION COMPENSATED DENSITY COMPENSATED NEUTRON

Pioneer Energy Services

Company Augustus Energy Resources, LLC
Well Lippert 24-01 1S45W
Field Wildcat
County Yuma State Colorado

Location: API #: 05 125 12098 0000

242' FSL & 1685' FWL
SESW

SEC 1 TWP 1S RGE 45W

Permanent Datum GL Elevation 3849
Log Measured From KB
Drilling Measured From KB

Elevation
K.B. 3855
D.F. 3854
G.L. 3849

Date Aug 03, 2014

Run Number 1

Depth Driller 2477'

Depth Logger 2470'

Bottom Logged Interval 2450'

Top Log Interval Casing

Casing Driller 457'

Casing Logger 457'

Bit Size 6.25"

Type Fluid in Hole WBM

Density / Viscosity 8.5 / 28

pH / Fluid Loss 8.0 / 7.0

Source of Sample Flowline

Rm @ Meas. Temp 0.27 @ 70 F

Rmf @ Meas. Temp 0.20 @ 70 F

Rmc @ Meas. Temp 0.32 @ 70 F

Source of Rmf / Rmc Calc / Calc

Rm @ BHT 0.17 @ 104 F

Time Circulation Stopped 0100

Time Logger on Bottom 0500

Maximum Recorded Temperature 104 F

Equipment Number 48

Location Ft. Morgan, CO

Recorded By Tracy Crane

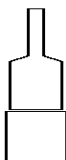
Witnessed By Justin Stone

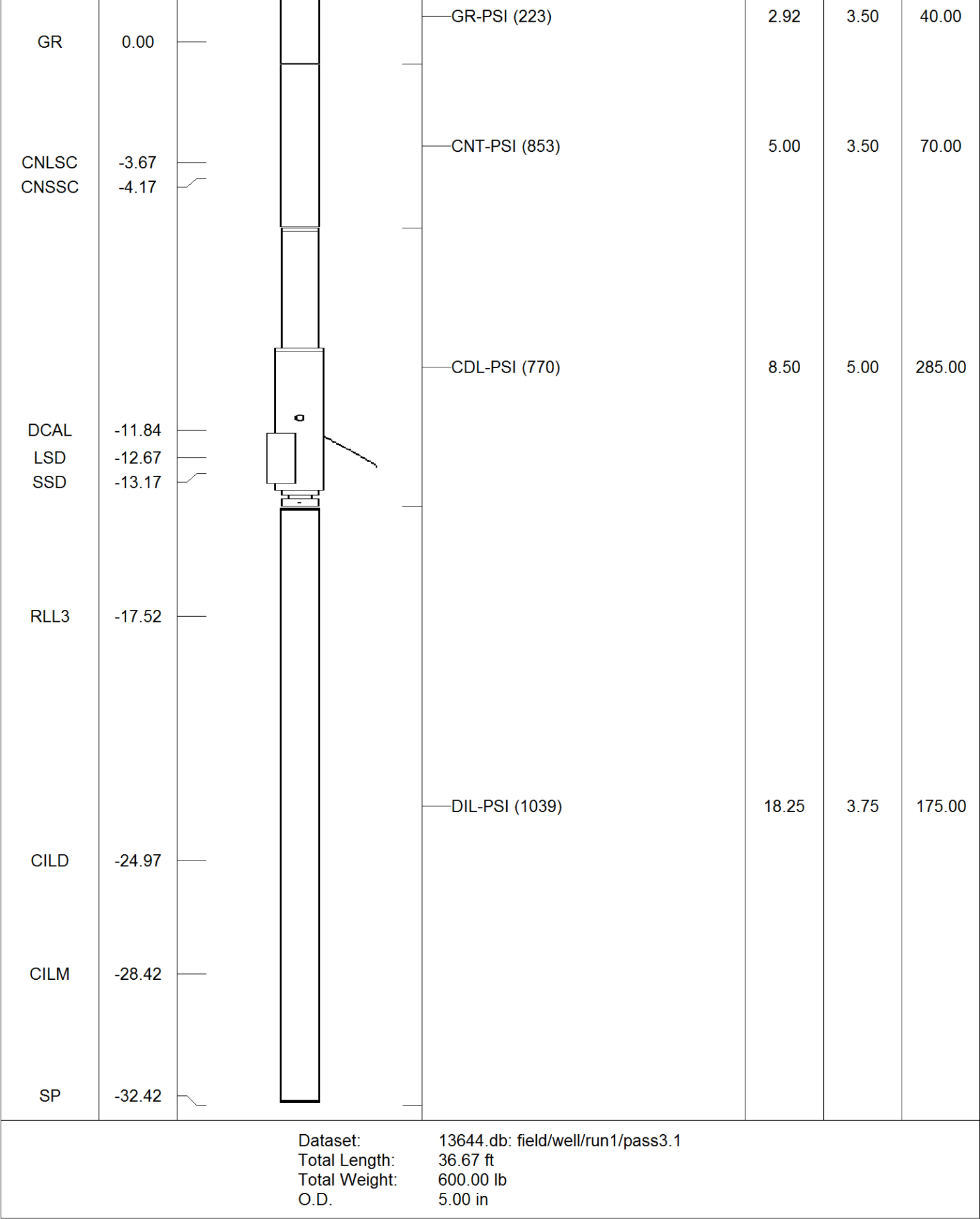
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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not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

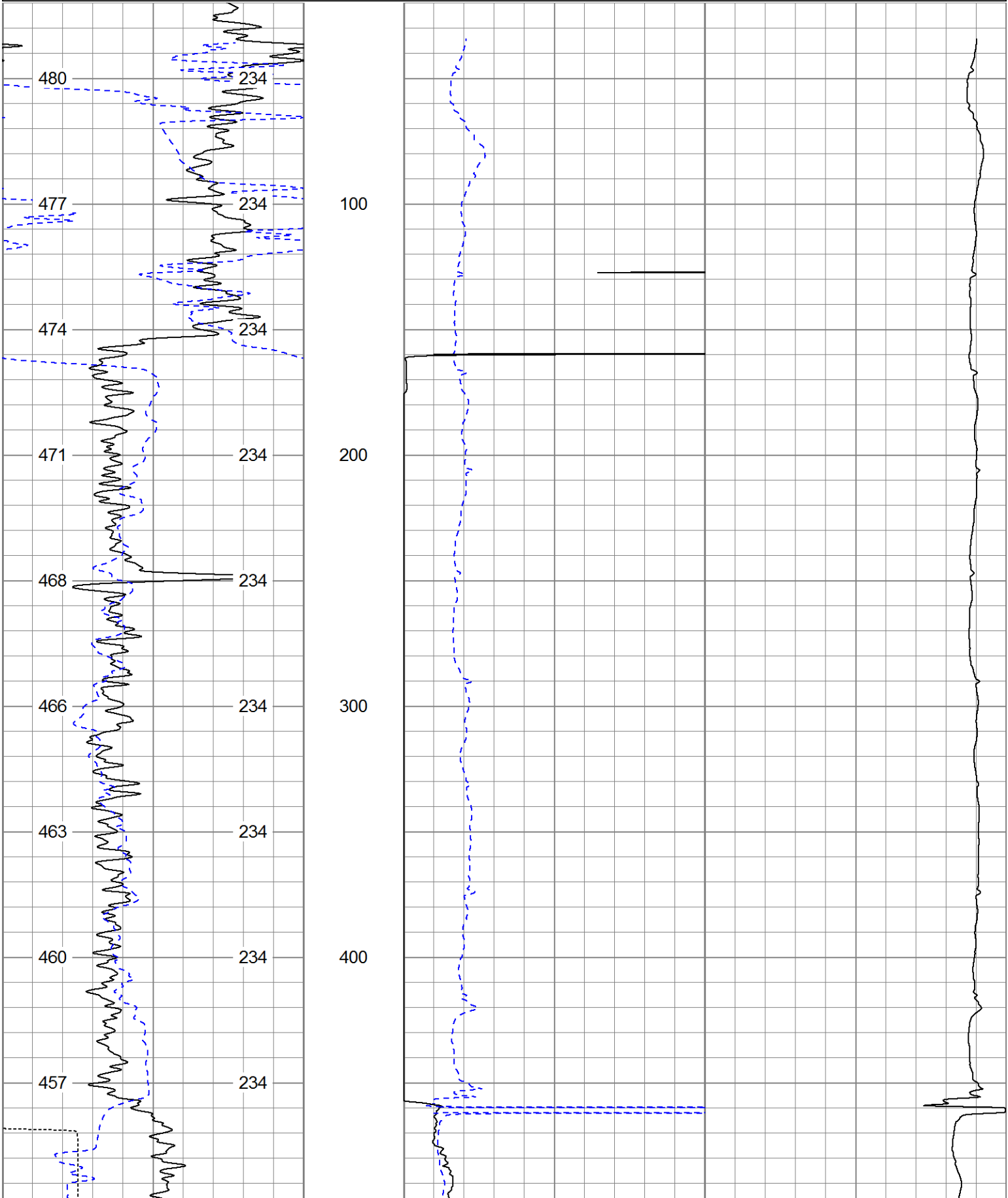
Comments

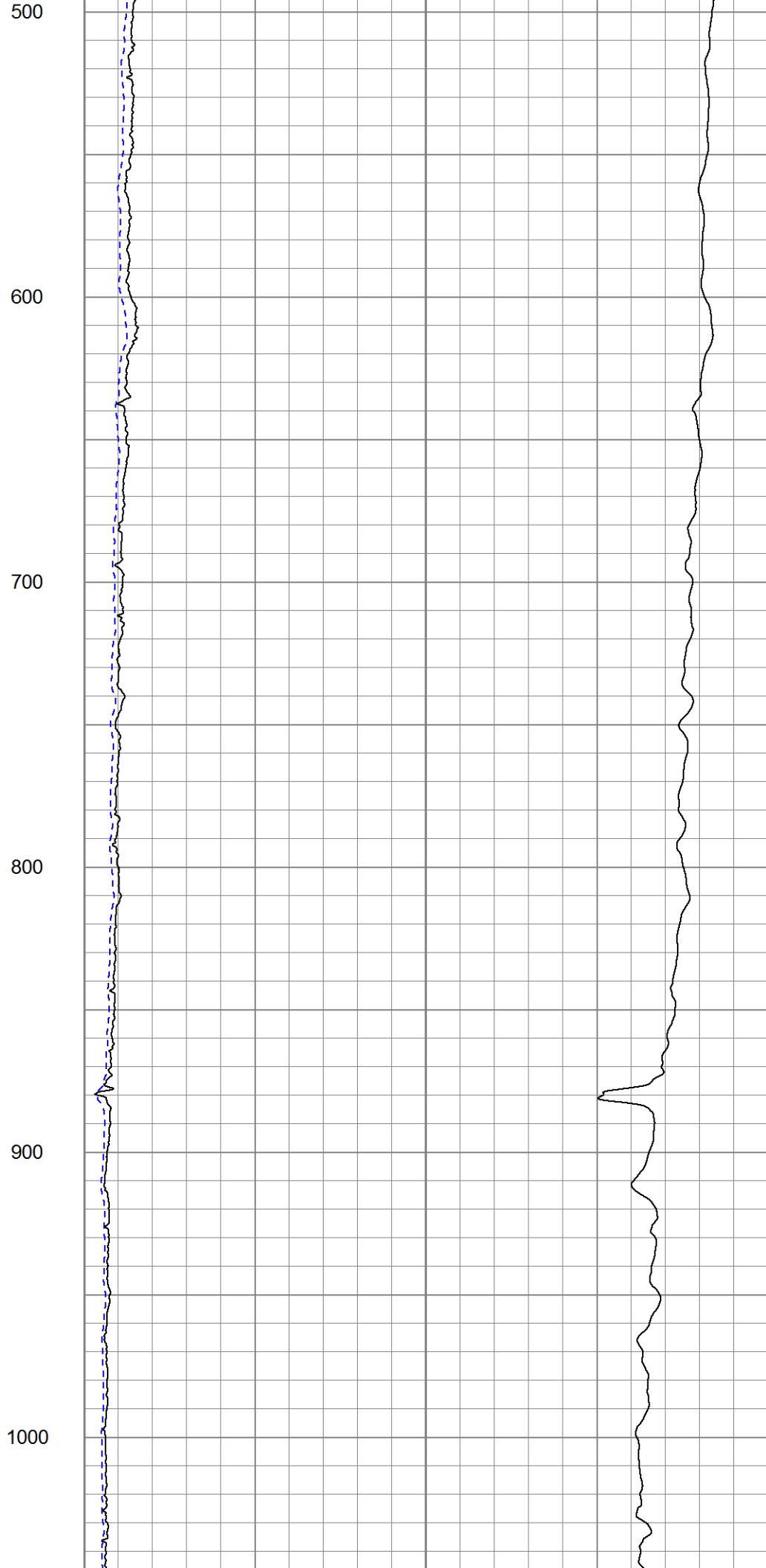
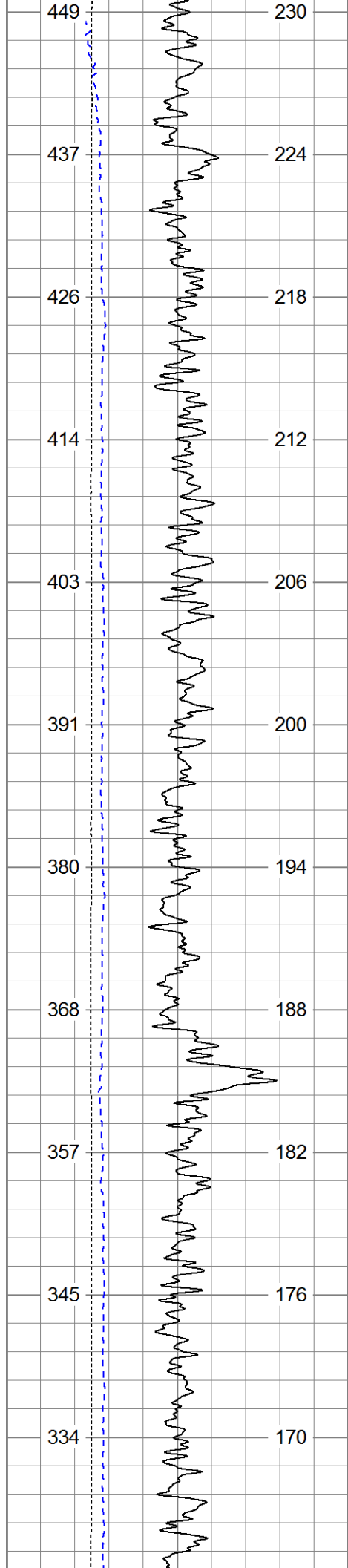
Annular volume calculated for 4.5" casing
Excell Drilling Rig 2
Thank you for using Pioneer Energy Services.

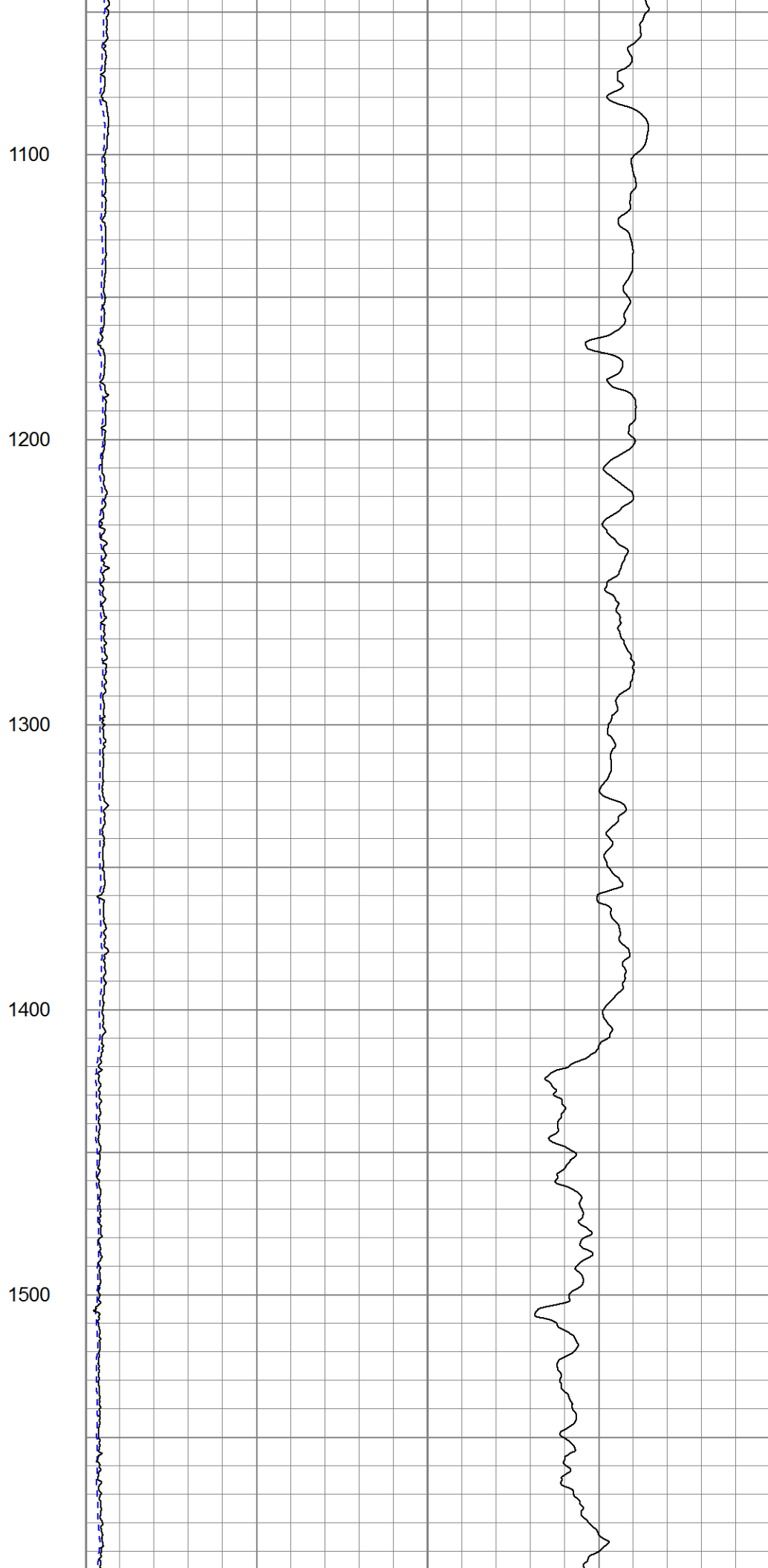
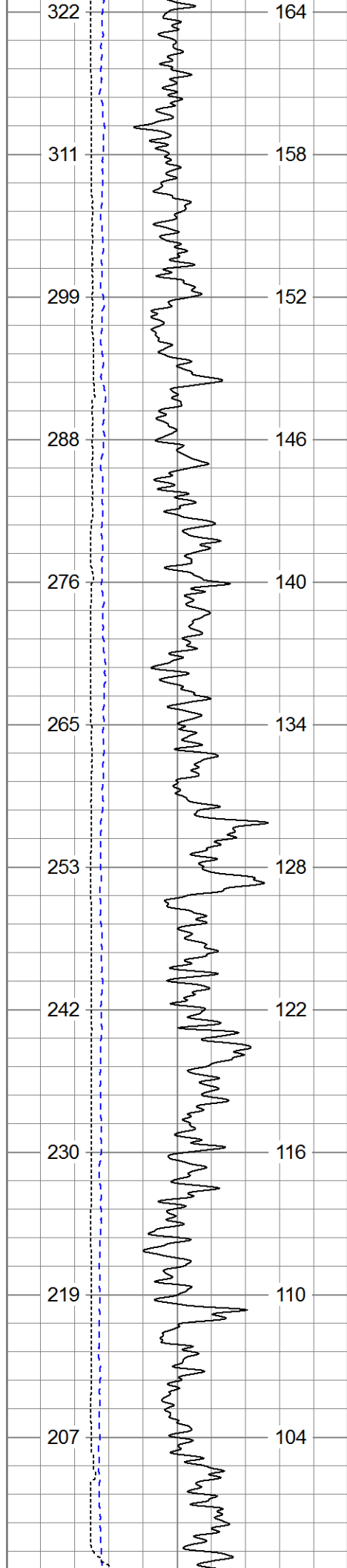
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00

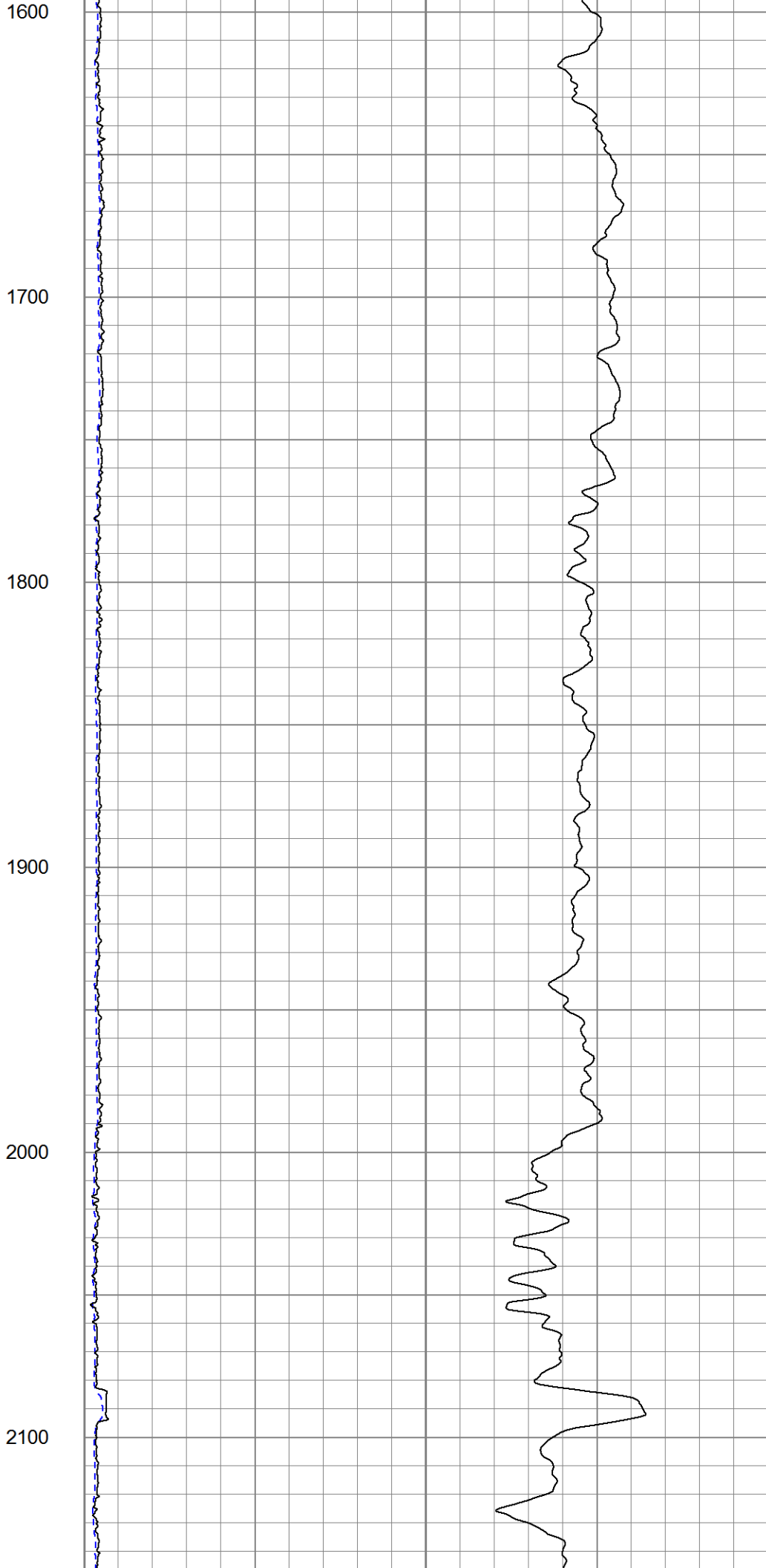
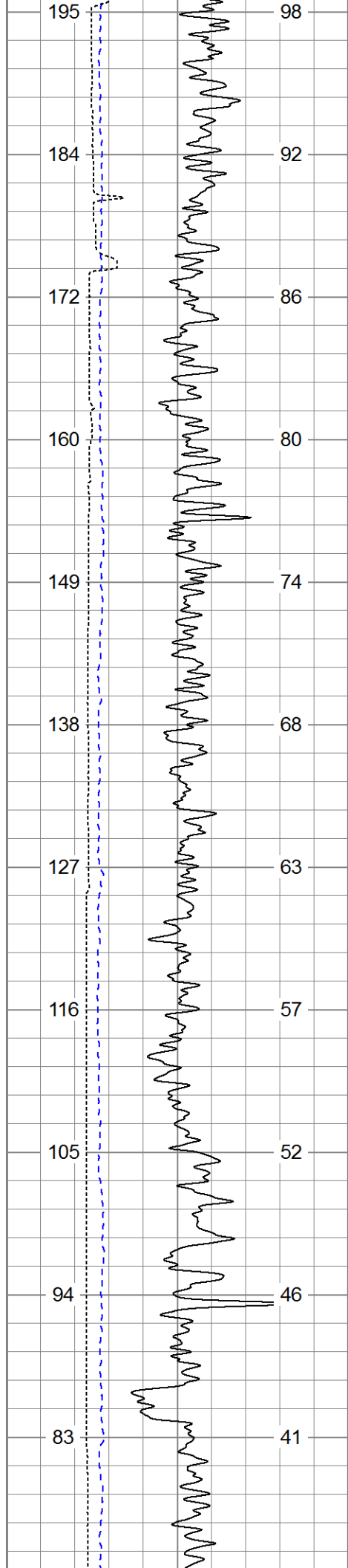


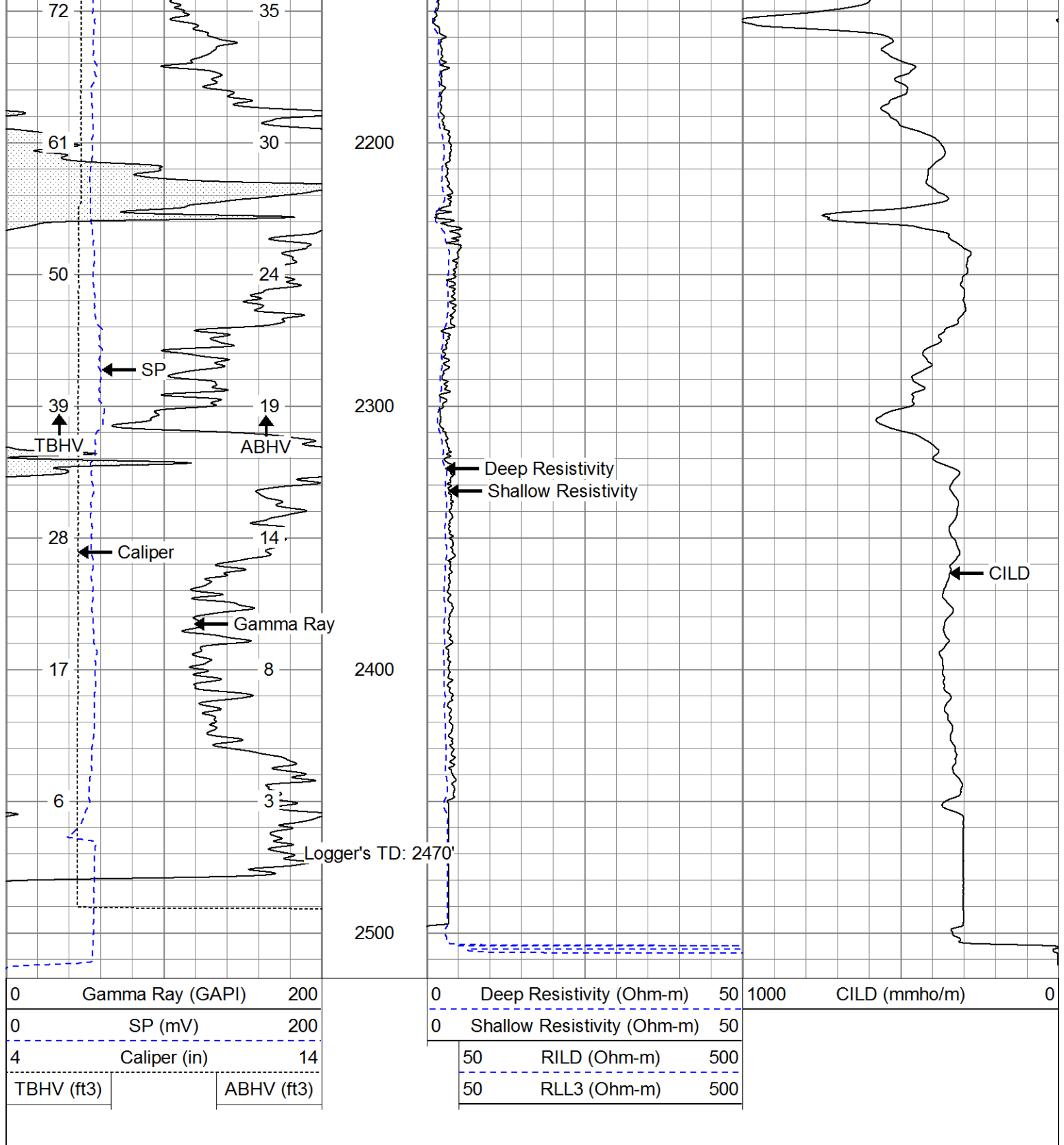
Charted by:			Depth in Feet scaled 1.000					
0	Gamma Ray (GAPI)	200	0	Deep Resistivity (Ohm-m)	50	1000	CILD (mmho/m)	0
0	SP (mV)	200	0	Shallow Resistivity (Ohm-m)	50			
4	Caliper (in)	14	50	RILD (Ohm-m)	500			
TBHV (ft3)		ABHV (ft3)	50	RLL3 (Ohm-m)	500			





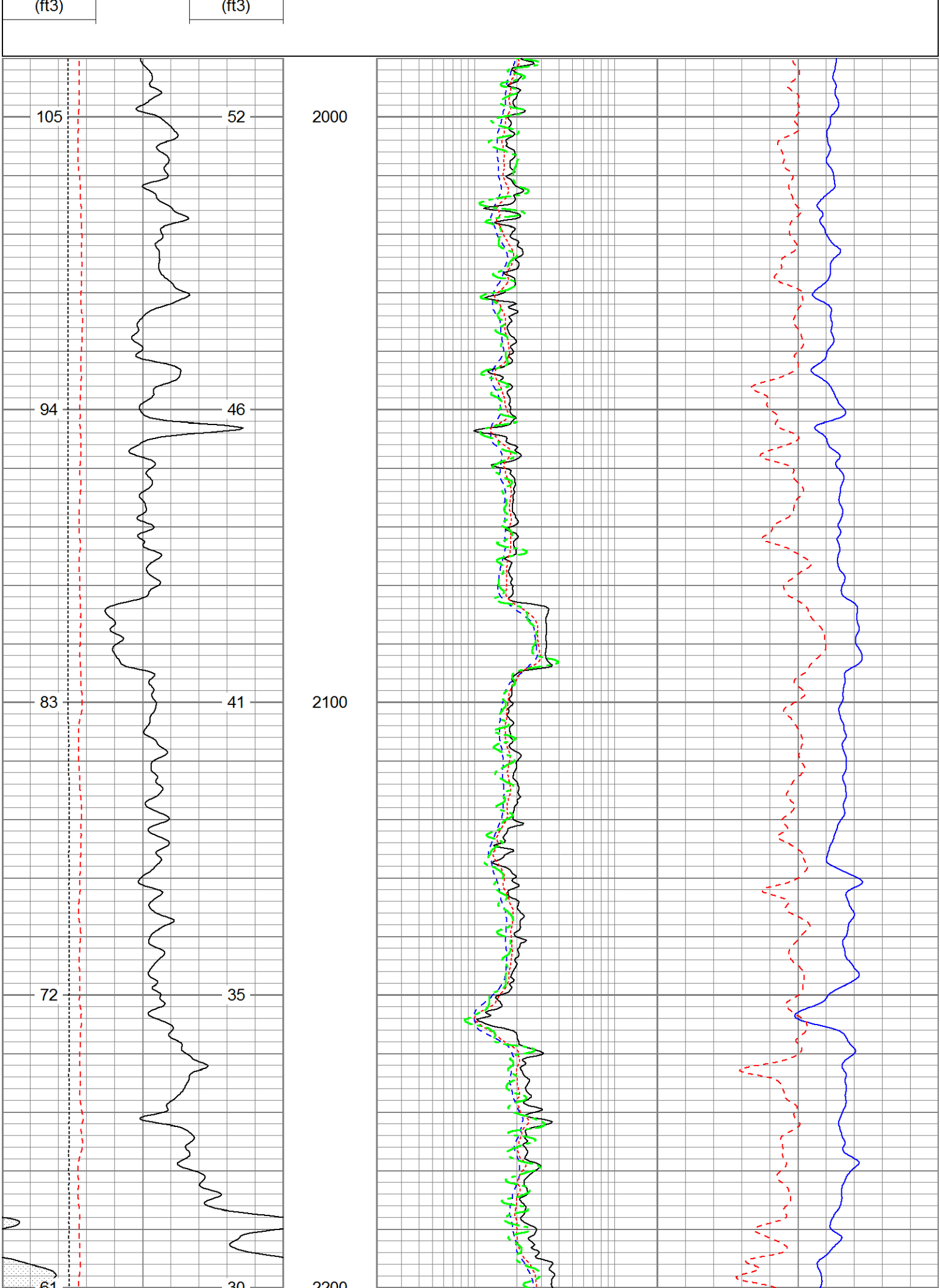


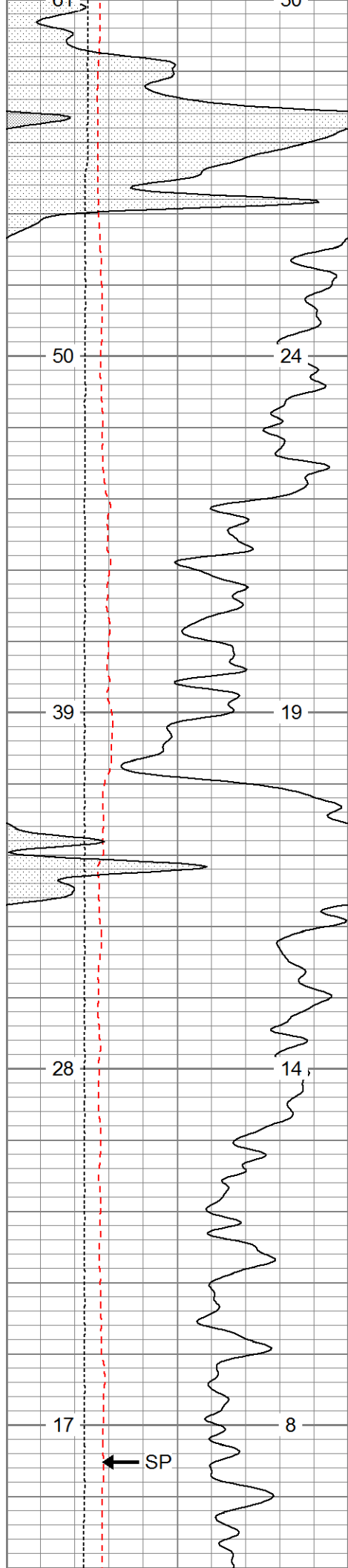




Database File: 13644.db
Dataset Pathname: pass3.1
Presentation Format: pdce
Dataset Creation: Sun Aug 03 06:52:10 2014 by Calc 0
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	20	60	Density Porosity (pu)	0
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	20	60	Neutron Porosity (pu)	0
4	Caliper (in)	14	0.2	Medium Resistivity (Ohm-m)	20			
TBHV (cu. ft.)	ABHV (cu. ft.)		0.2	Rt (Ohm-m)	20			

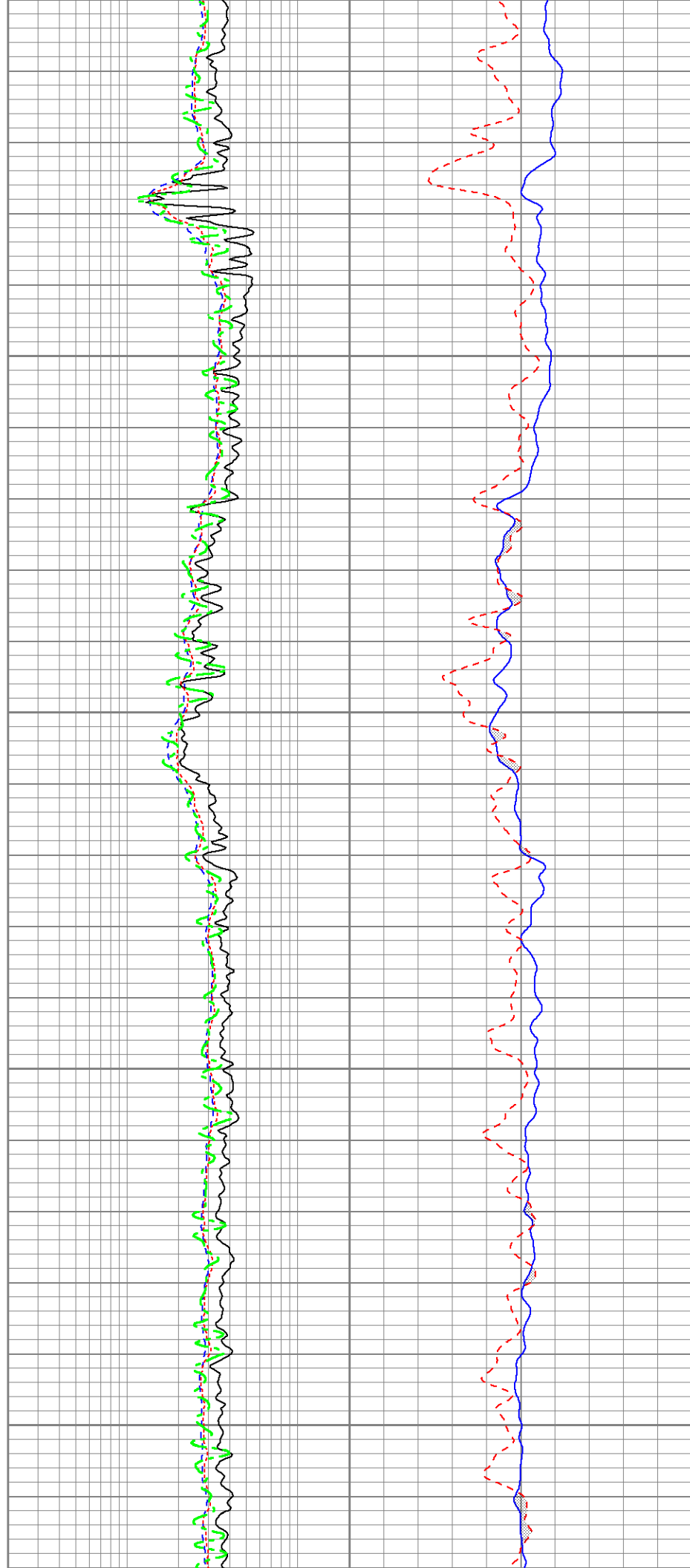


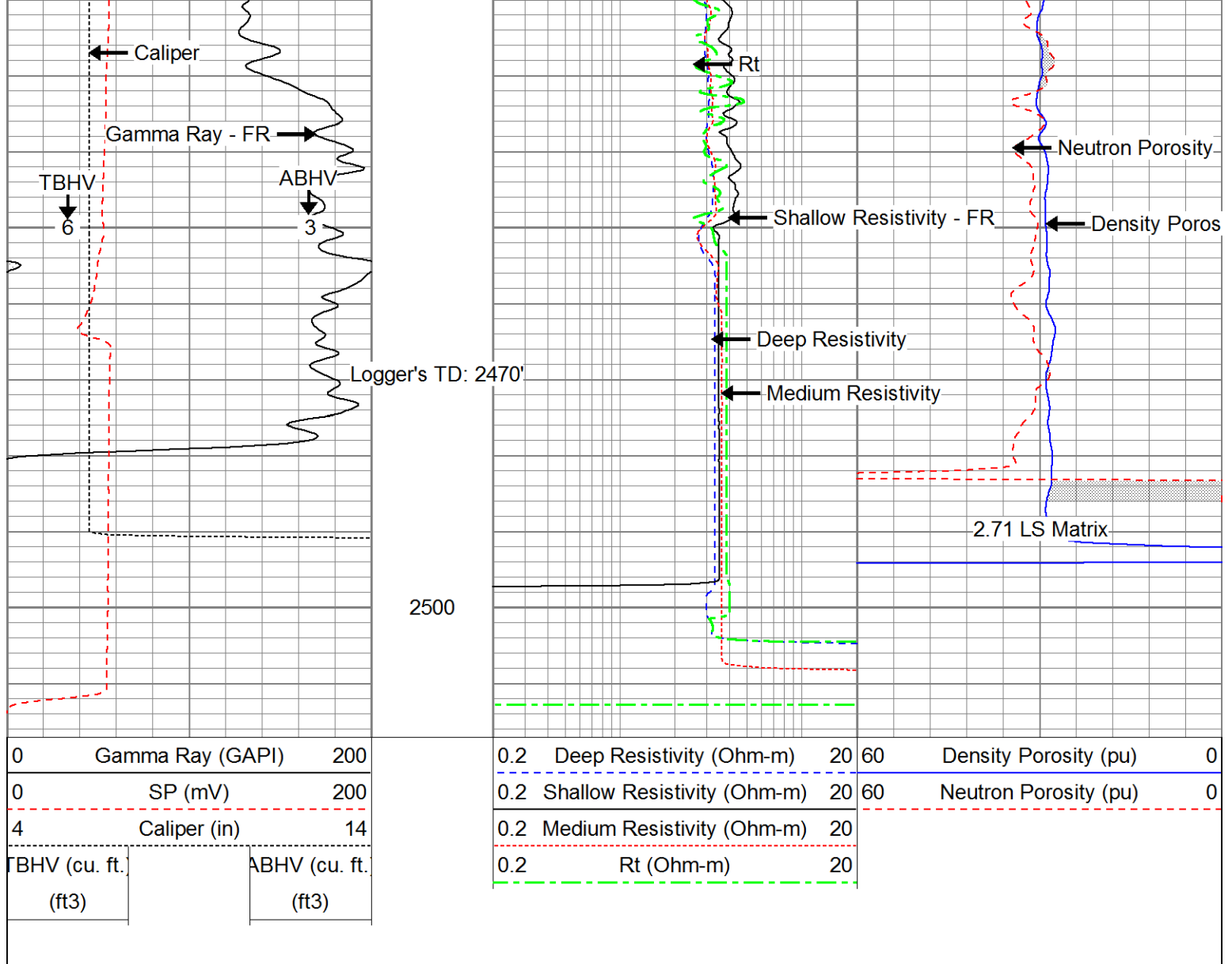


2200

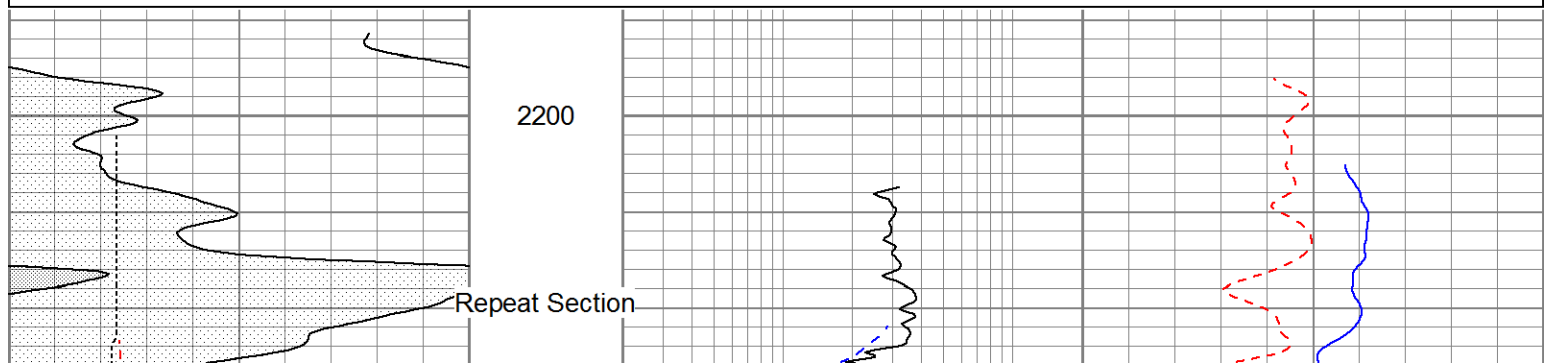
2300

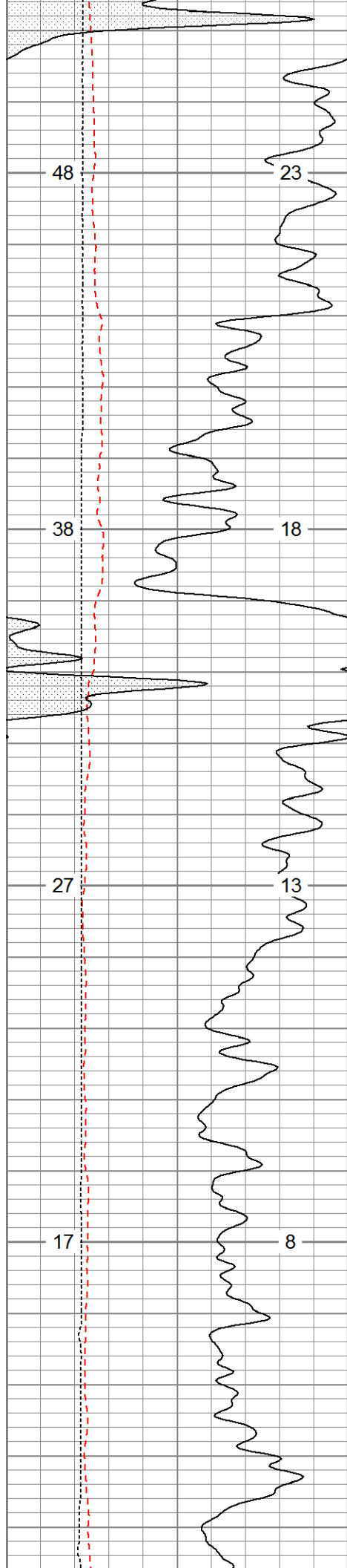
2400





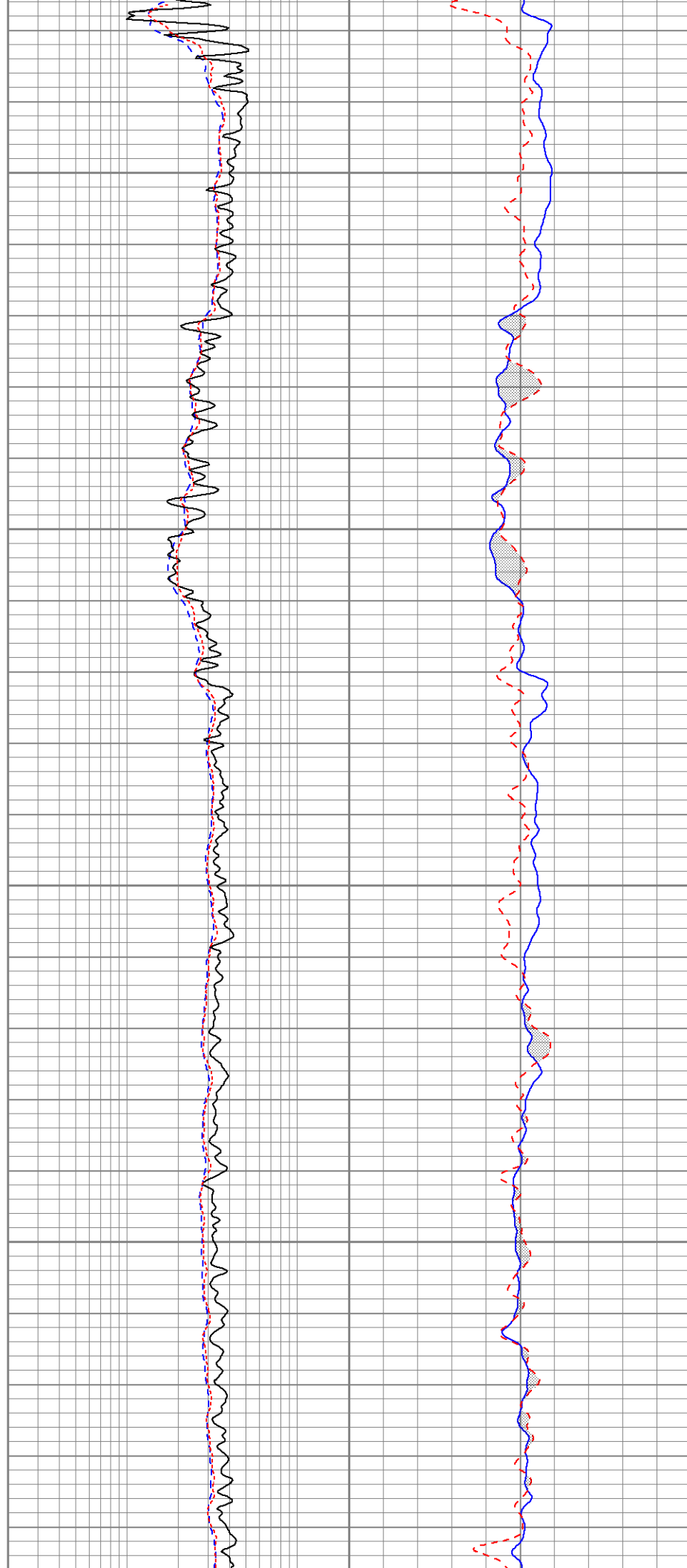
Database File: 13644.db					
Dataset Pathname: pass2.1					
Presentation Format: pdce					
Dataset Creation: Sun Aug 03 05:44:37 2014 by Calc 0					
Charted by: Depth in Feet scaled 1:240					
0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	20
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	20
4	Caliper (in)	14	0.2	Medium Resistivity (Ohm-m)	20
TBHV (cu. ft.)		ABHV (cu. ft.)			
(ft3)		(ft3)			

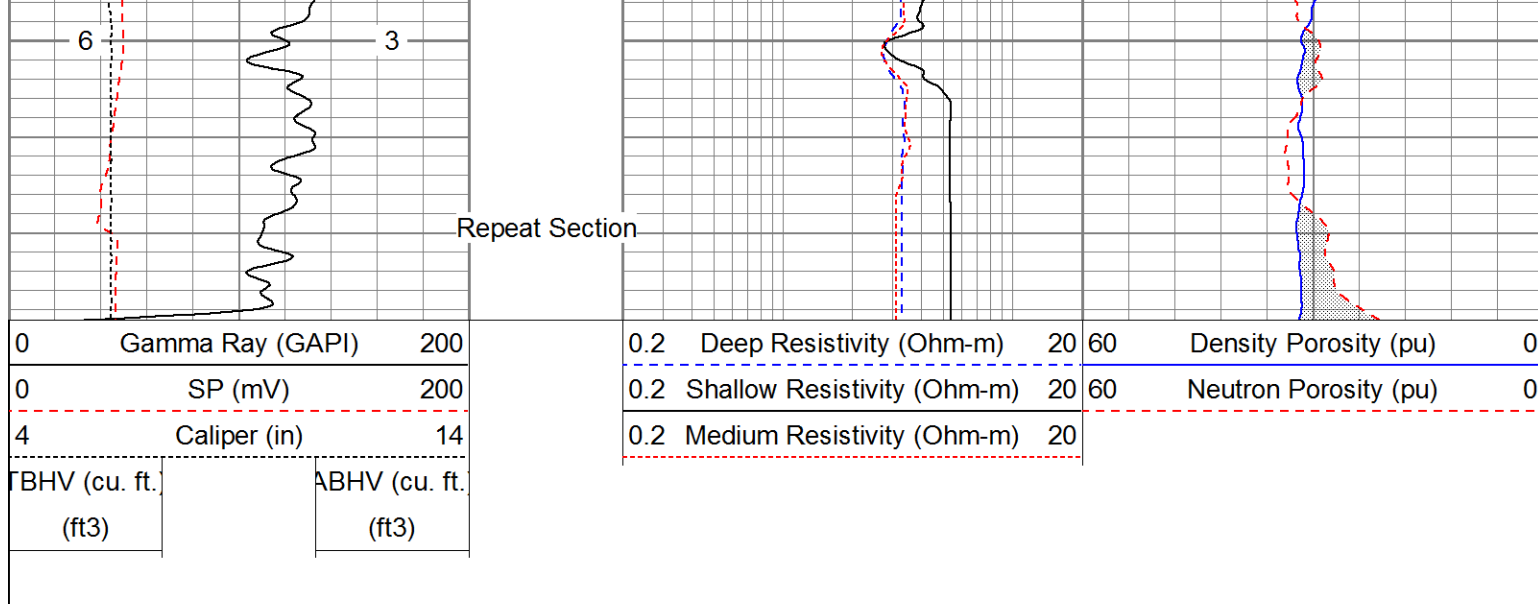




2300

2400





Calibration Report							
Database File:		13644.db					
Dataset Pathname:		pass3					
Dataset Creation:		Sun Aug 03 05:48:09 2014 by Log 0					
Dual Induction Calibration Report							
Serial-Model:		1039-PSI					
Surface Cal Performed:							
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	0.000	1.000		0.000	1.000	mmho/m	0.595
Medium	0.000	1.000		0.000	1.000	mmho/m	0.475
							-45.000
							-40.000
Compensated Density Calibration Report							
Serial-Model:		770-PSI					
Source / Verifier:		4400 / PSI					
Master Calibration Performed:		Mon Jul 21 02:13:30 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			
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

Gamma Ray Calibration Report						
Serial Number:		223				
Tool Model:		PSI				
Performed:		Tue Jul 29 05:11:24 2014				
Calibrator Value:		253.0	GAPI			
Background Reading:		30.0	cps			
Calibrator Reading:		380.0	cps			
Sensitivity:		0.6300	GAPI/cps			

Log Variables

Database: C:\Warrior\Data\13644.db

Dataset: field/well/run1/pass3

Top - Bottom

SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m	SNDERR mmho/m	SRFTEMP degF
Off	Limestone	1	2.71	0	0	0	0
CASEOD in 4.5	PERFS 0	TDEPTH ft 0	BOTTEMP degF 104	BOREID in 7.875			