PIONEER
Pioneer Energy Services

DUAL INDUCTION GAMMA RAY GUARD LOG

Company	Bonanza Creek Energy Operating
Well	Pronghorn 11-14-18HNB
Field	Wattenberg
County	Weld
State	Colorado

Company Bonanza Creek Energy Operating Company LLC
Well Pronghorn 11-14-18HNB
Field Wattenberg
County Weld State Colorado

Location: API # : 05123389730000
SHL: 200' FNL & 1311' FWL
NE NW
SEC 18 TWP 5N RGE 61W

Other Services
None

Permanent Datum	GL	Elevation 4569
Log Measured From	KB	
Drilling Measured From	KB	

Elevation
K.B. 4585
D.F. 4584
G.L. 4569

Date	March 23, 2014		
Run Number	1		
Depth Driller	6478		
Depth Logger	4082		
Bottom Logged Interval	4082		
Top Log Interval	Casing		
Casing Driller	424		
Casing Logger	424		
Bit Size	8+3/4"		
Type Fluid in Hole	WBM		
Density / Viscosity	9.15 / 34		
pH / Fluid Loss	8.5 / 10.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.75 @ 60 F		
Rmf @ Meas. Temp	3.00 @ 60 F		
Rmc @ Meas. Temp	4.50 @ 60 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.26 @ 178 F		
Time Circulation Stopped	0100		
Time Logger on Bottom	0810		
Maximum Recorded Temperature	178 F		
Equipment Number	48		
Location	Brighton, CO		
Recorded By	Matt Gill		
Witnessed By	Gary Polk		

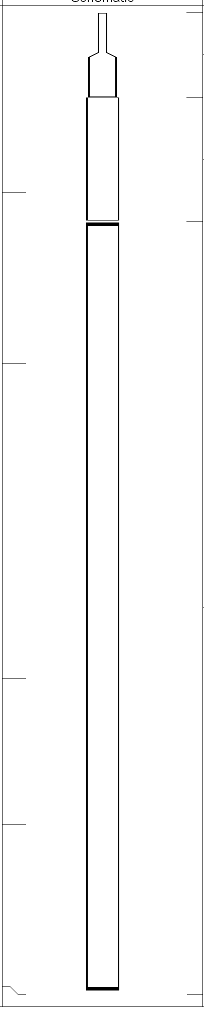
<<< Fold Here >>>

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

Cade Drilling Rig 25

Thank you for using Pioneer Energy Services

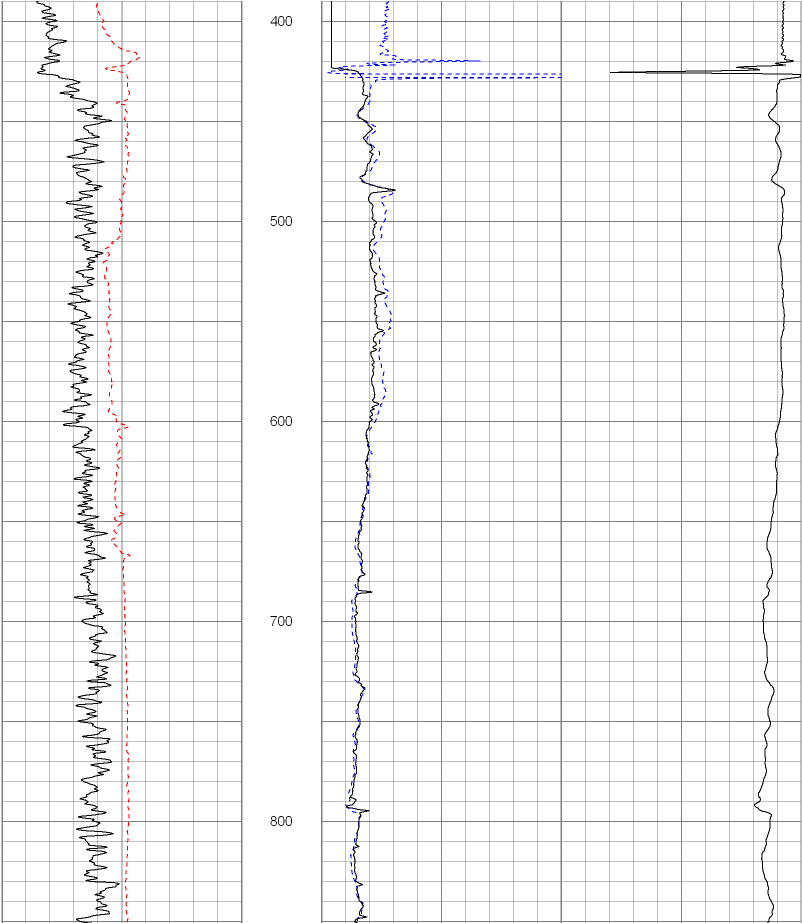


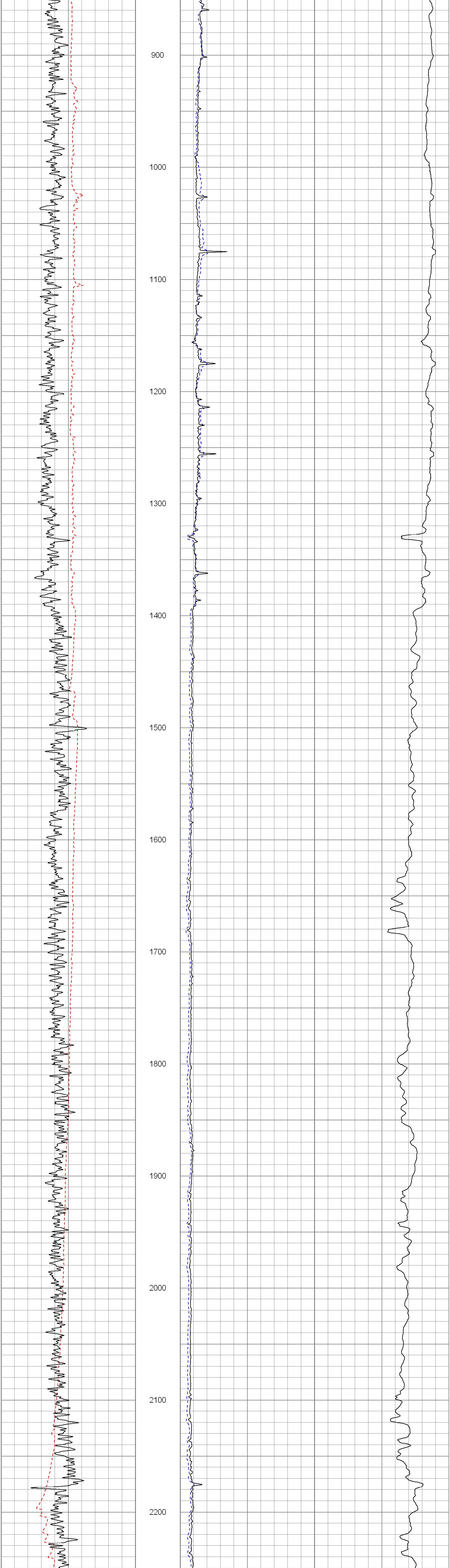
Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CHD (~0)	2.00	3.50	30.00
		GR-PSI (923)	2.92	3.50	40.00
GR	0.00				
RLL3	-4.02				
		DIL-PSI (1024)	18.25	3.75	175.00
CILD	-11.47				
CILM	-14.92				
SP	-18.92				

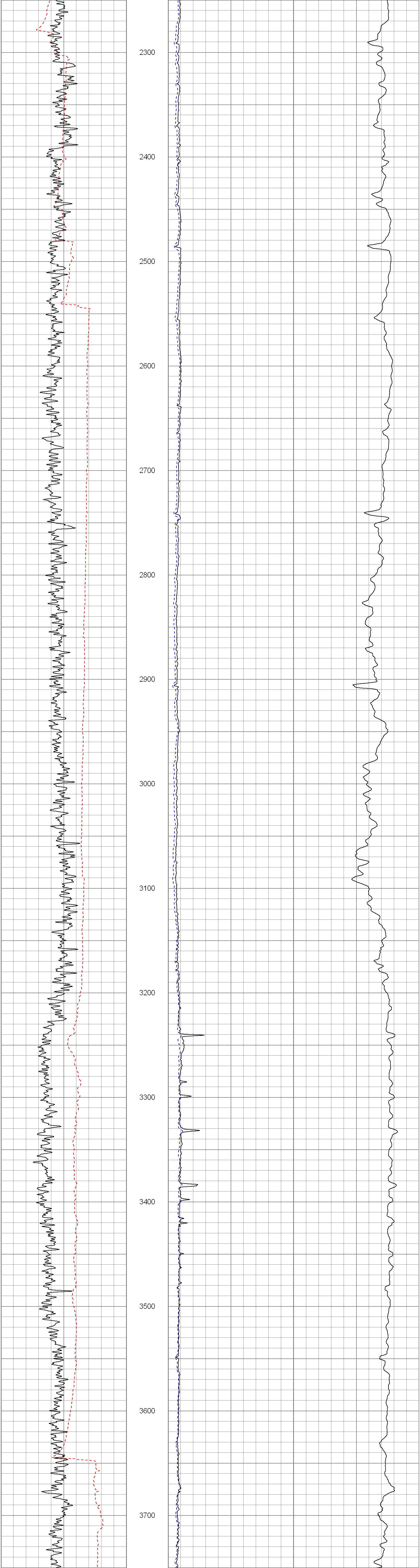
Dataset: 13441.db: field/well/run1/pass3
Total Length: 23.17 ft
Total Weight: 245.00 lb
O.D. 3.75 in

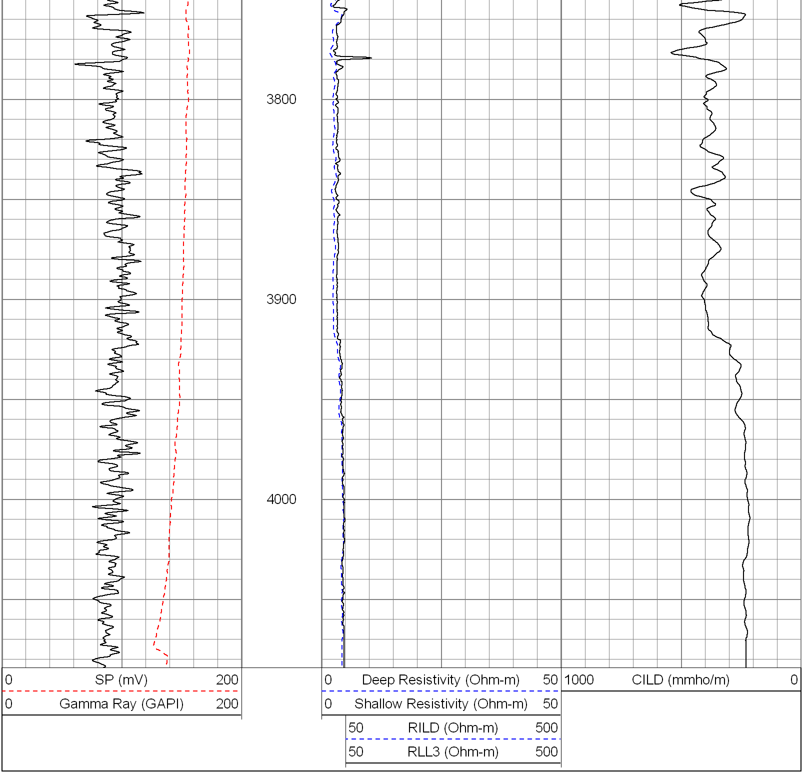
Database File: 13441.db
Dataset Pathname: final
Presentation Format: dilin5
Dataset Creation: Sun Mar 23 09:07:02 2014
Charted by: Depth in Feet scaled 1:600

Track 1	Track 2	Track 3
0 SP (mV) 200	0 Deep Resistivity (Ohm-m) 50	1000 CILD (mmho/m) 0
0 Gamma Ray (GAPI) 200	0 Shallow Resistivity (Ohm-m) 50	
	50 RILD (Ohm-m) 500	
	50 RLL3 (Ohm-m) 500	

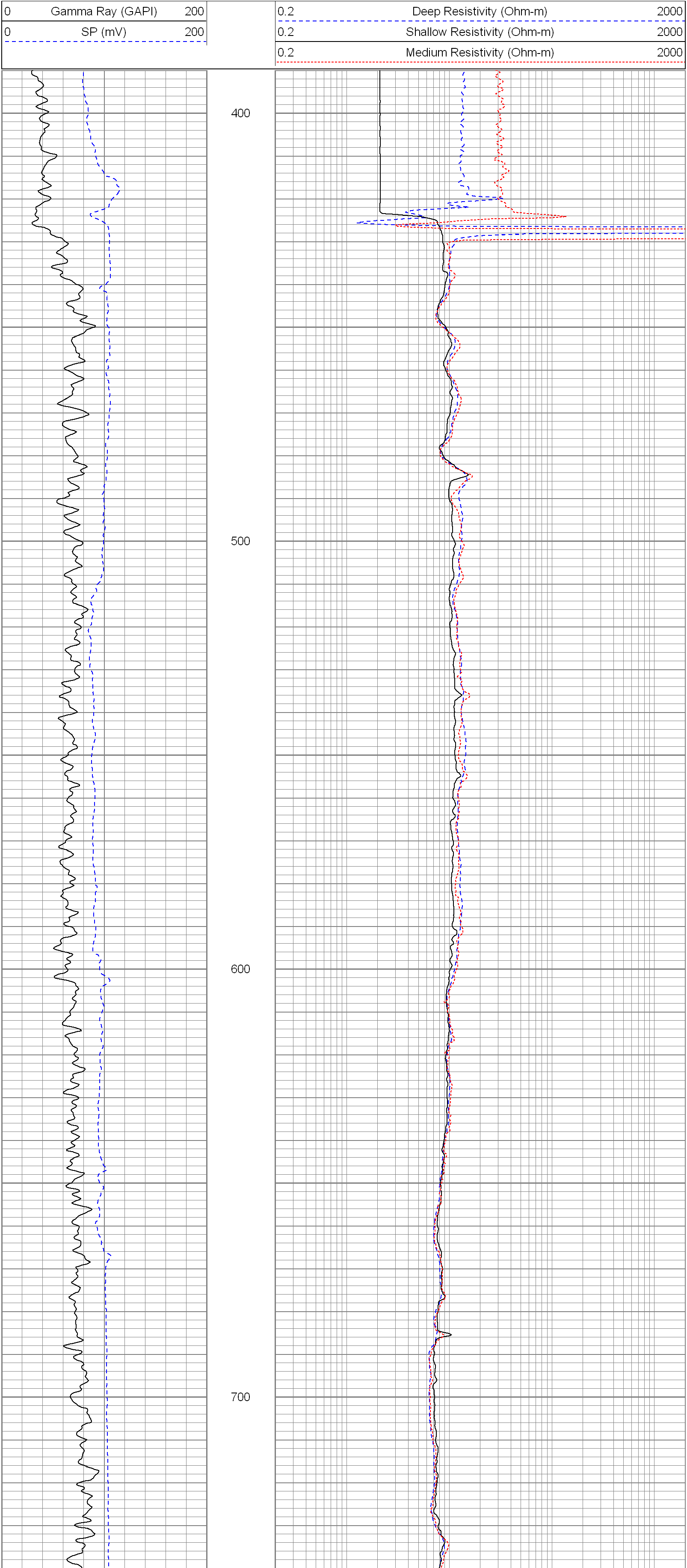


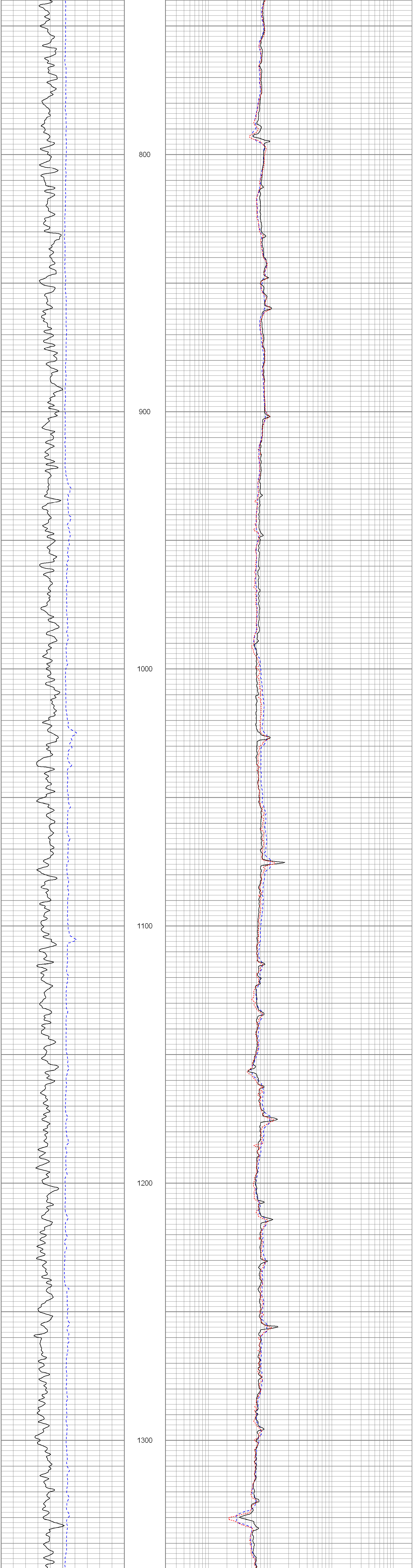


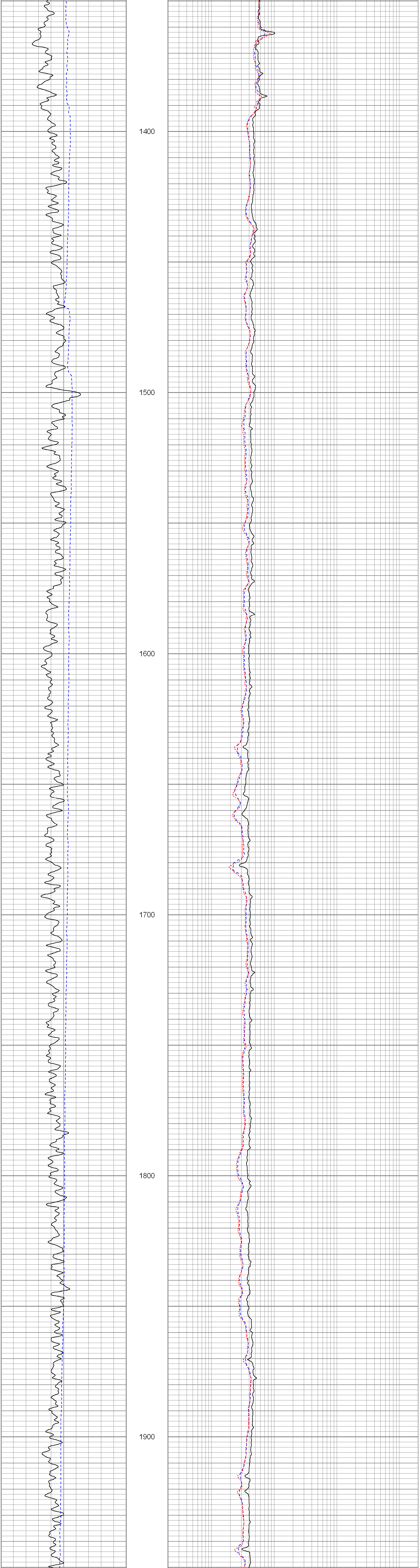


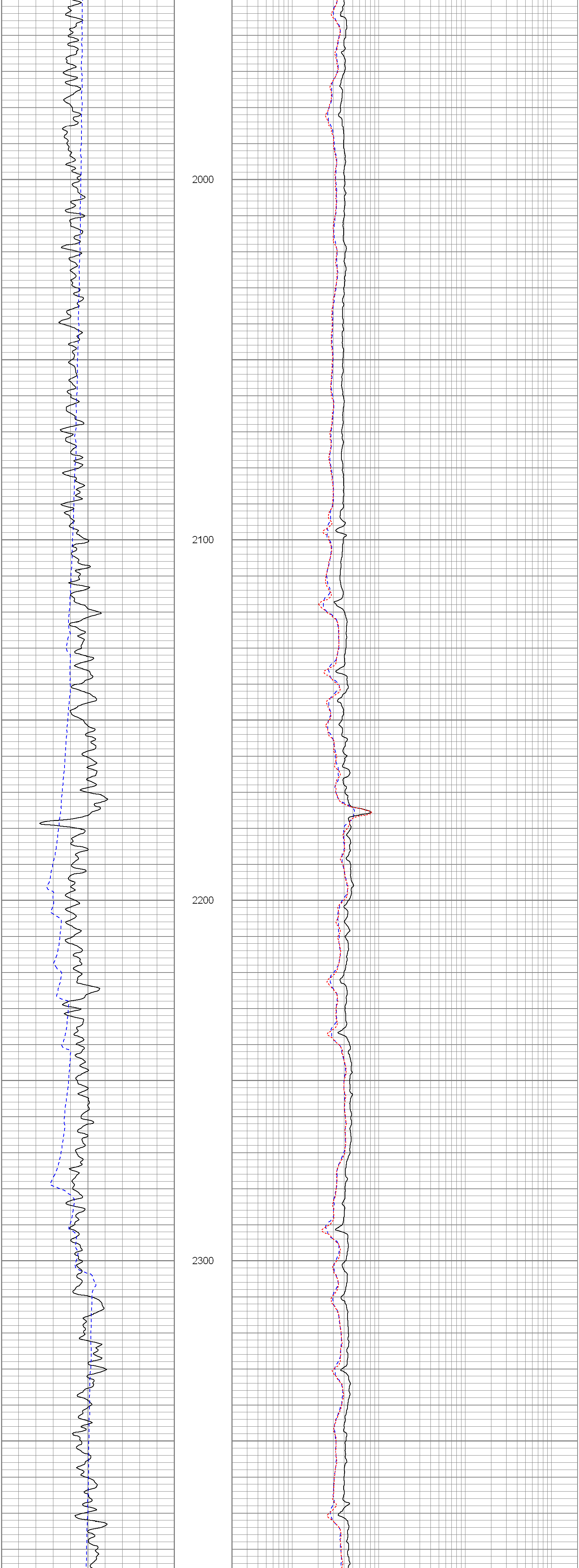


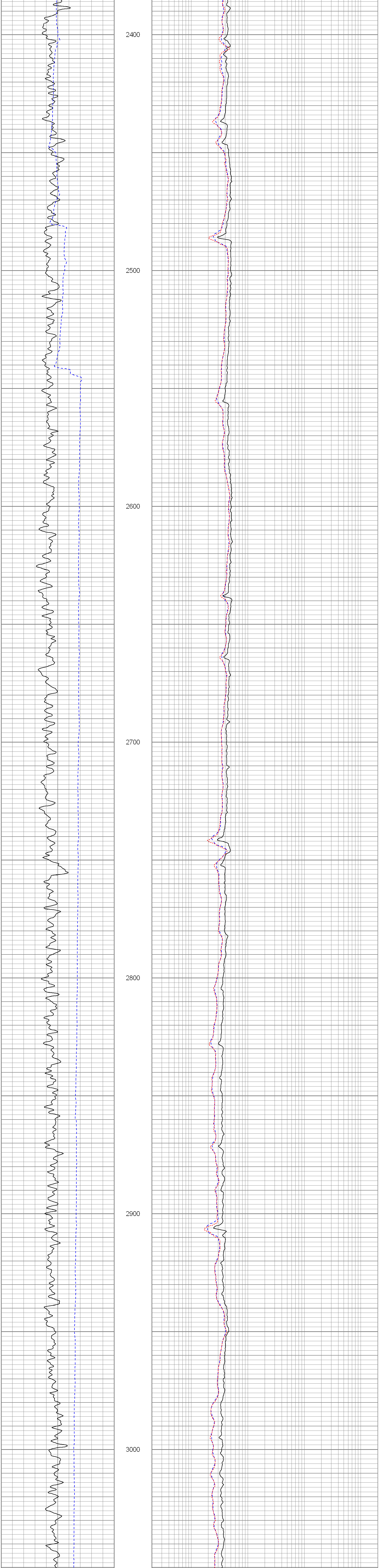
Database File: 13441.db
Dataset Pathname: final
Presentation Format: dil
Dataset Creation: Sun Mar 23 09:07:02 2014
Charted by: Depth in Feet scaled 1:240

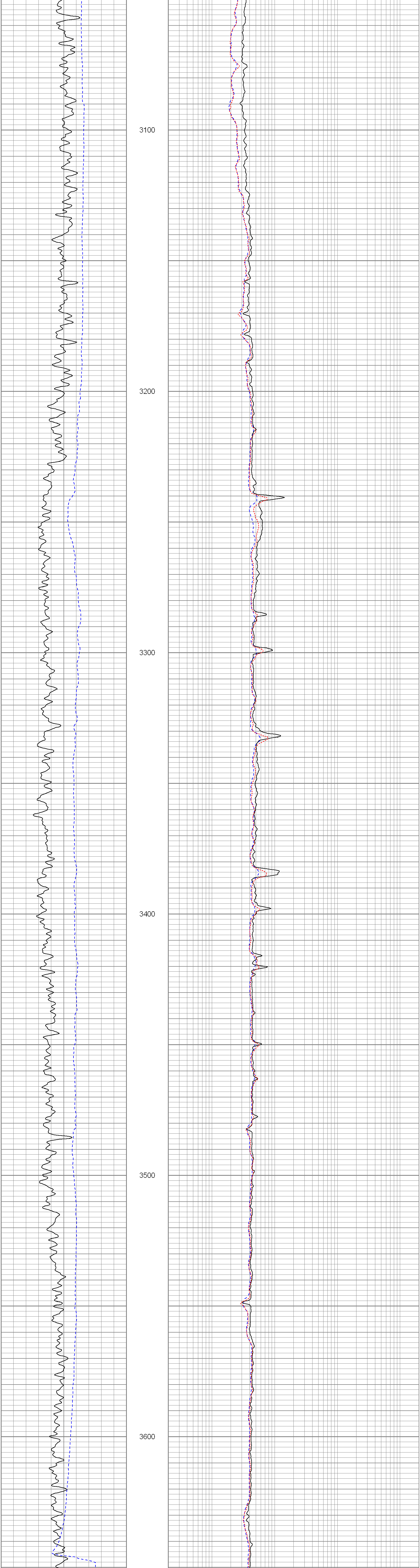


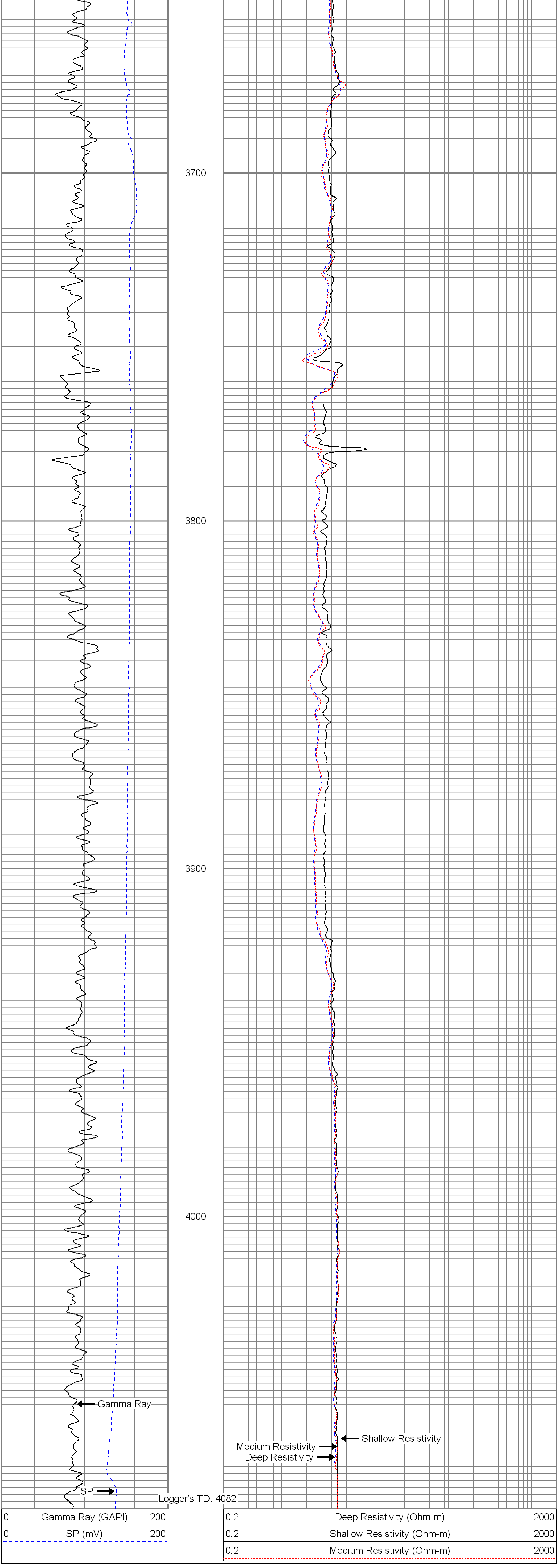












Calibration Report

Database File: 13441.db
Dataset Pathname: pass3
Dataset Creation: Sun Mar 23 08:10:27 2014 by Log Open-Cased 100827

Dual Induction Calibration Report

Serial-Model: 1024-PSI
Surface Cal Performed: Wed Mar 05 17:46:16 2014

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.610	-45.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.490	-40.000

Gamma Ray Calibration Report

Serial Number:	923	
Tool Model:	PSI	
Performed:	Wed Mar 05 17:46:19 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps