



Dual Induction Log

Pioneer Energy Services

API No.	Company The Bill Bowman Oil Company			
	Well	Pywell #5		
	Field	Marcotte		
	County	Rooks	State	Kansas
	Location	615' FSL & 330' FEL		
	Sec: 36	Twp: 9S	Rge: 20W	Other Services CNL/CDL MEL
Permanent Datum	Ground Level		Elevation 2234	Elevation
Log Measured From	Kelly Bushing		5 Ft. Above Perm. Datum	K.B. 2239
Drilling Measured From	Kelly Bushing			D.F. 2234
Date	9/19/2013			
Run Number	One			
Depth Driller	3830			
Depth Logger	3835			
Bottom Logged Interval	3834			
Top Log Interval	200			
Casing Driller	8.625 @ 222			
Casing Logger	220			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity, ppm CL	8000			
Density / Viscosity	9.0 50			
pH / Fluid Loss	7.5 9.6			
Source of Sample	Flowline			
Rm @ Meas. Temp	0.75 @ 74			
Rmf @ Meas. Temp	0.56 @ 74			
Rmc @ Meas. Temp	1.01 @ 74			
Source of Rmf / Rmc	Charts			
Rm @ BHT	0.48 @ 116			
Operating Rig Time	4 Hours			
Max Rec. Temp. F	116			
Equipment Number	91			
Location	Hays			
Recorded By	D. Schmidt			
Witnessed By	Roger Moses			

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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.

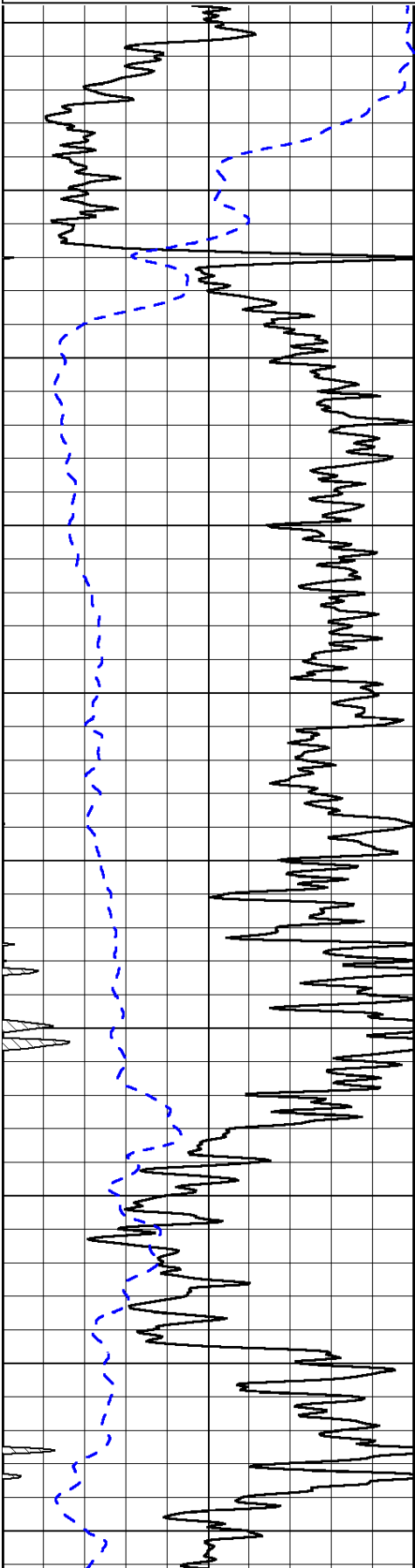
Comments

Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Zurich,
3 West to 7 Rd, 3/4 South,
West into

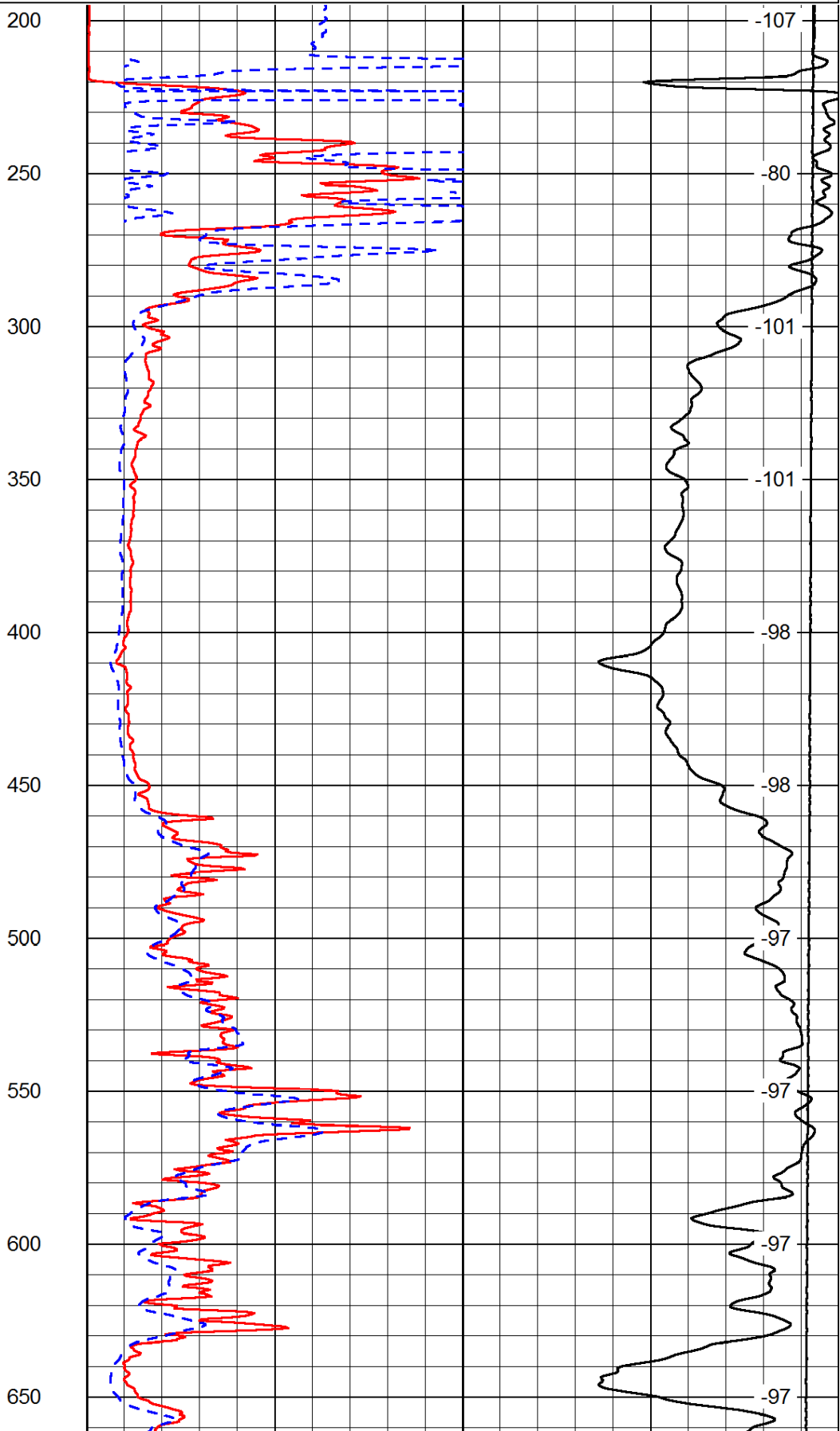
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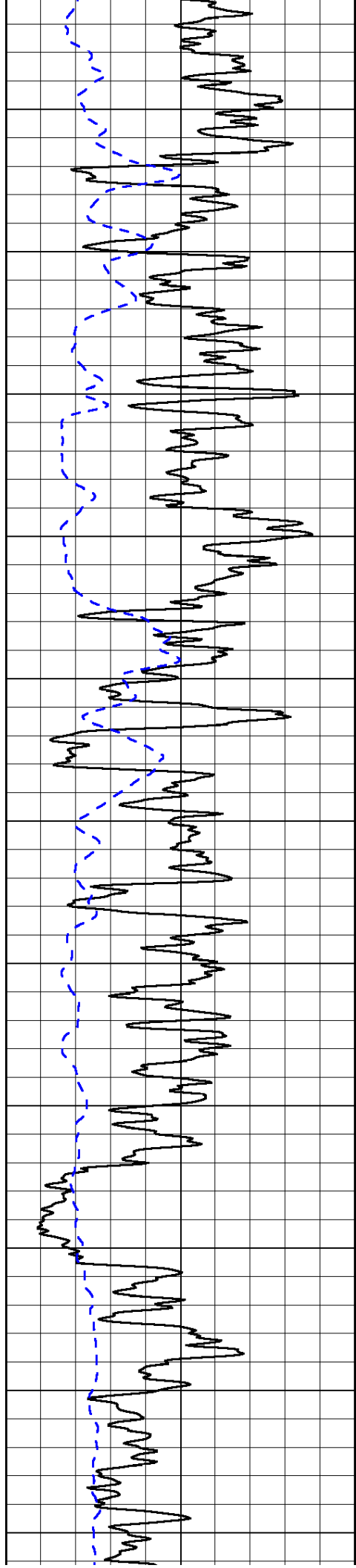
Charted by: Depth in Feet scaled 1:1000

0	Gamma Ray	150
-200	SP (mV)	0

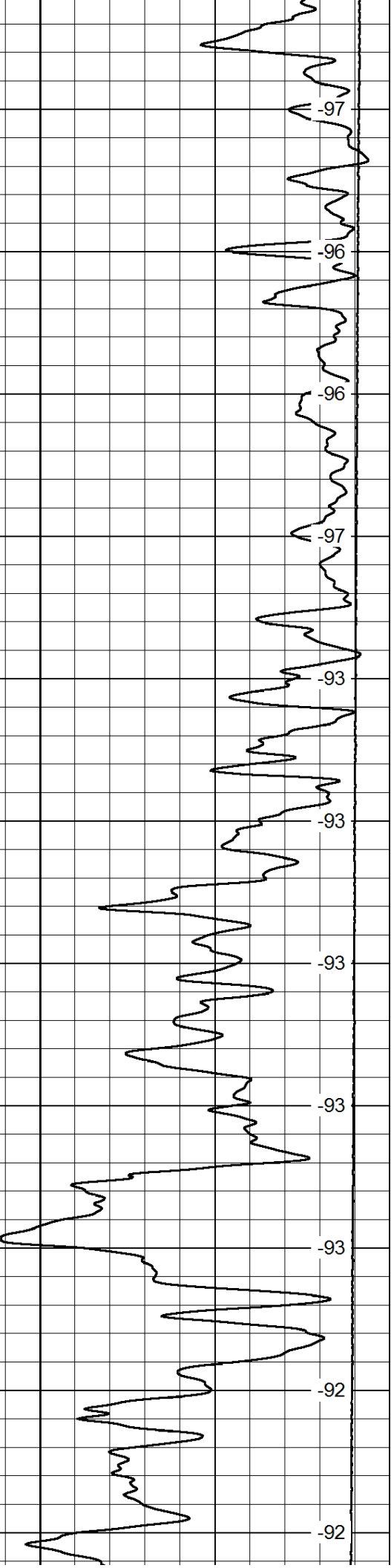
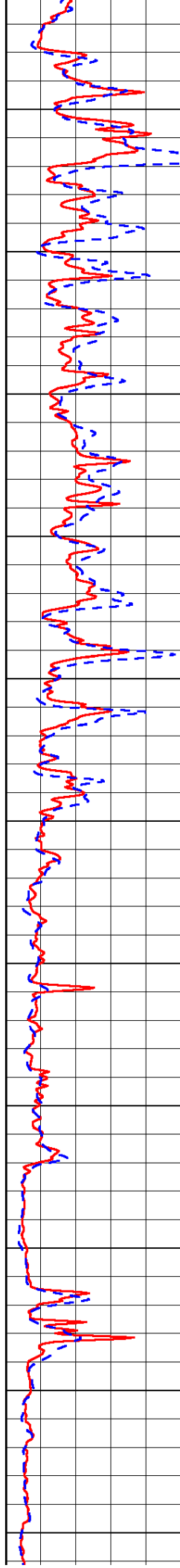


0	Shallow Resistivity	50	LSPD
0	Deep Resistivity	50	
1000	Conductivity		0
15000	Line Tension		0
50	Shallow Resistivity	500	
50	Deep Resistivity	500	

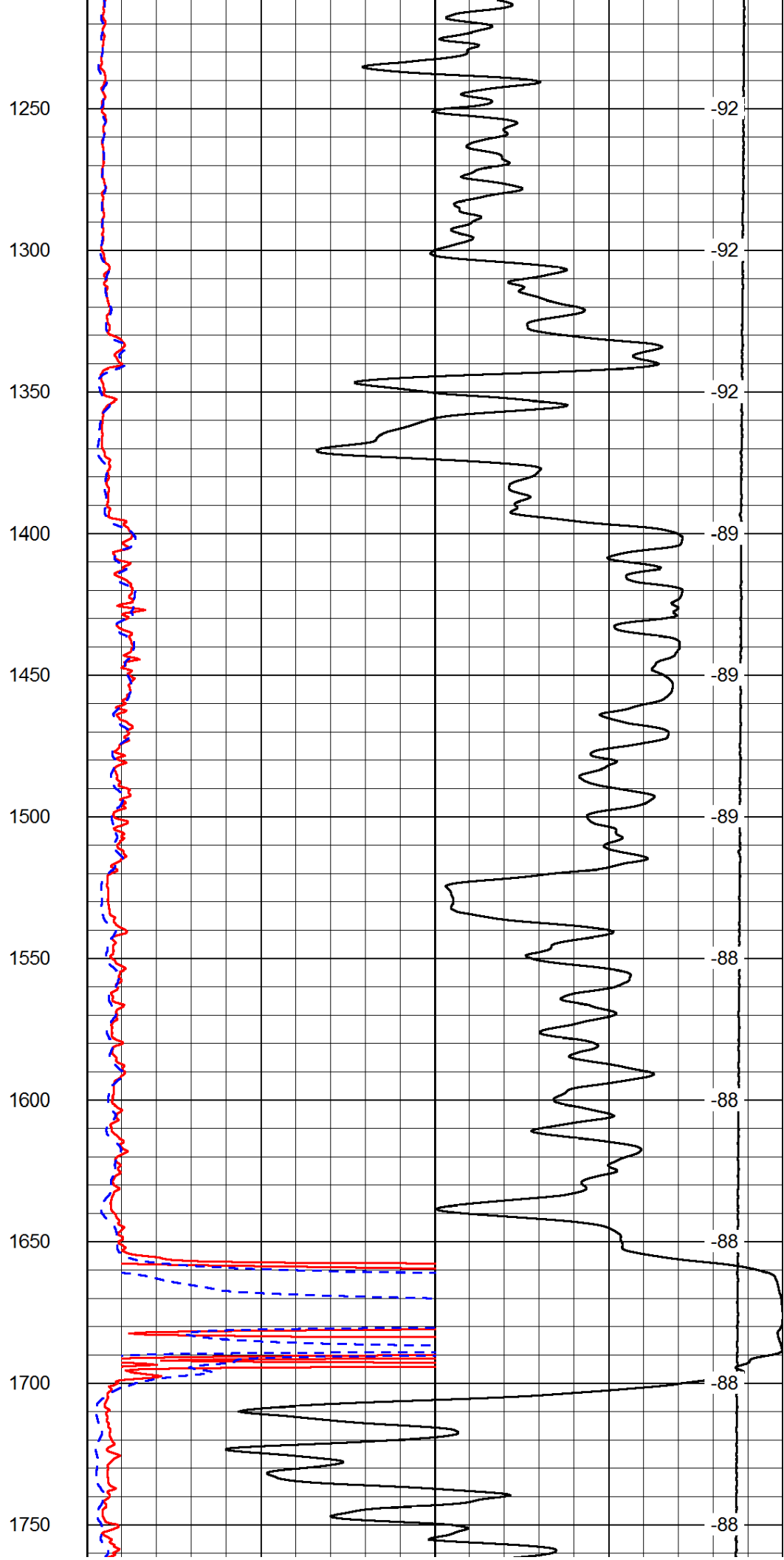
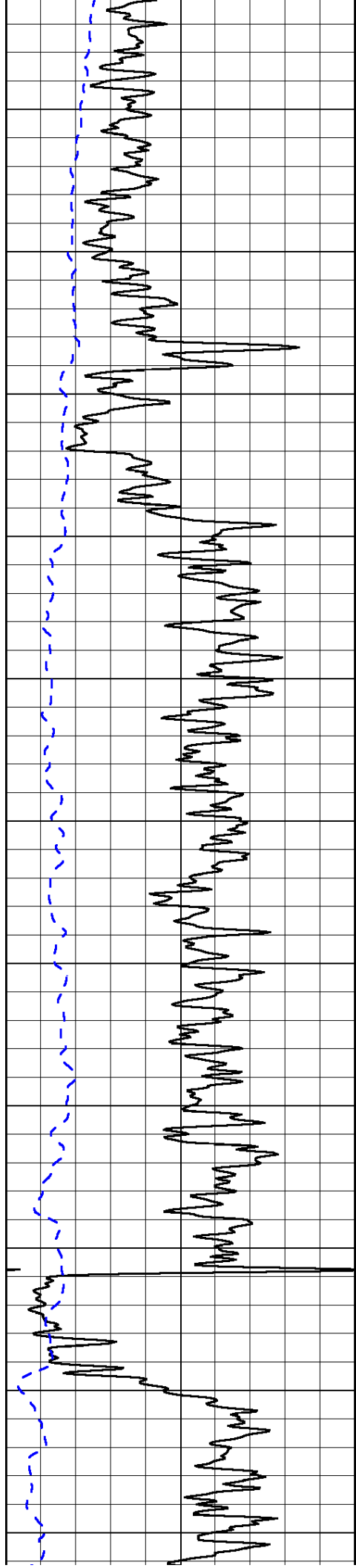


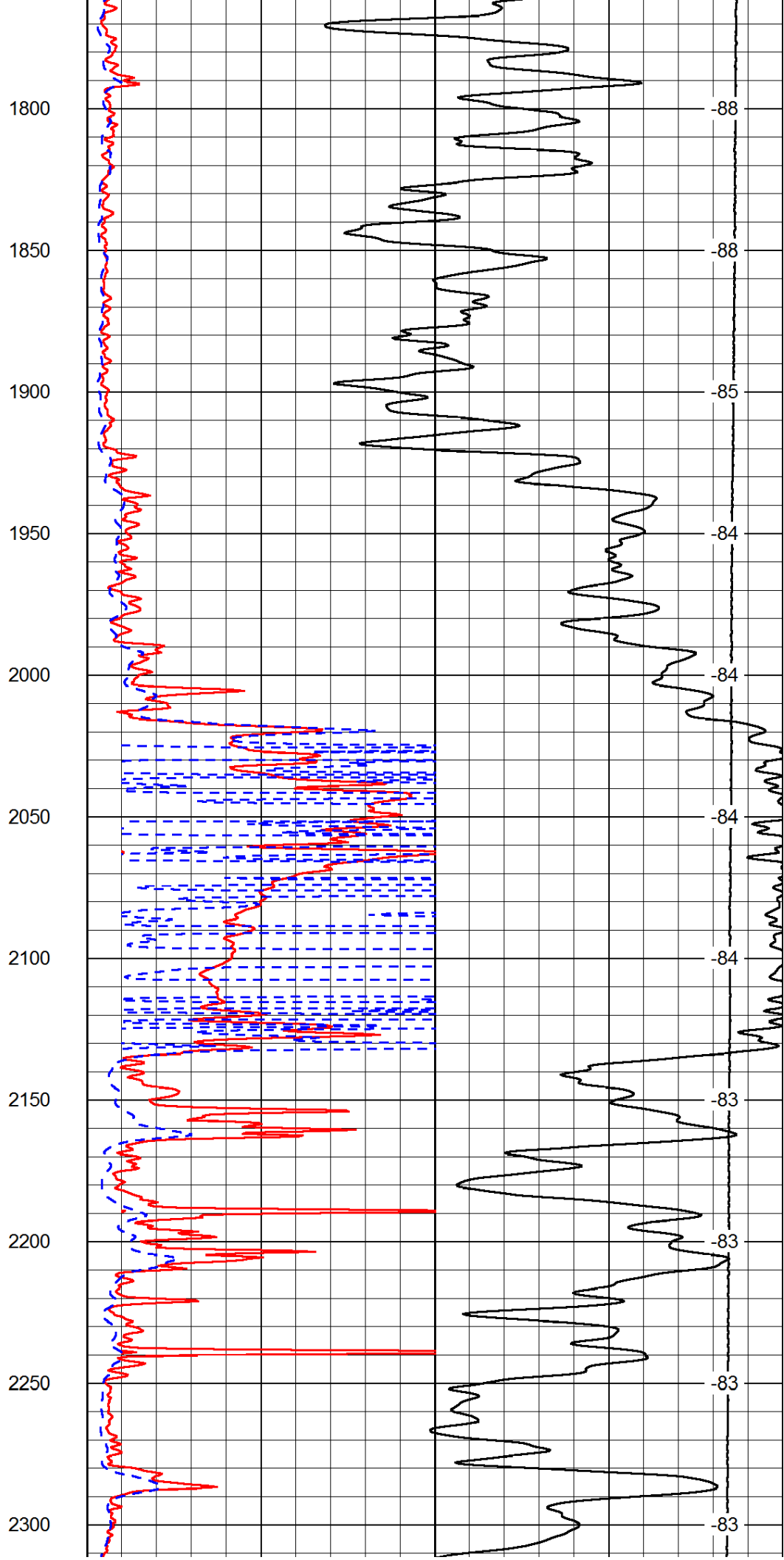
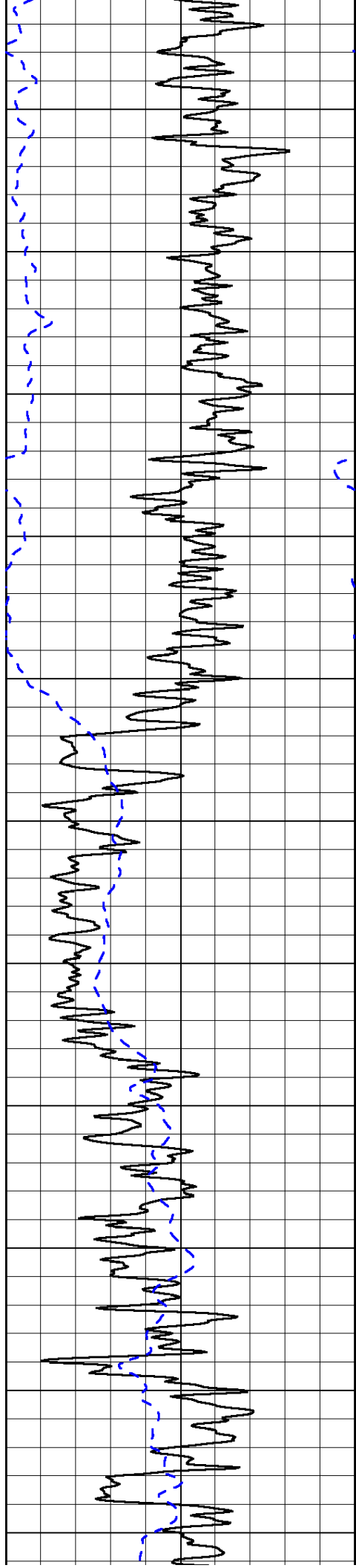


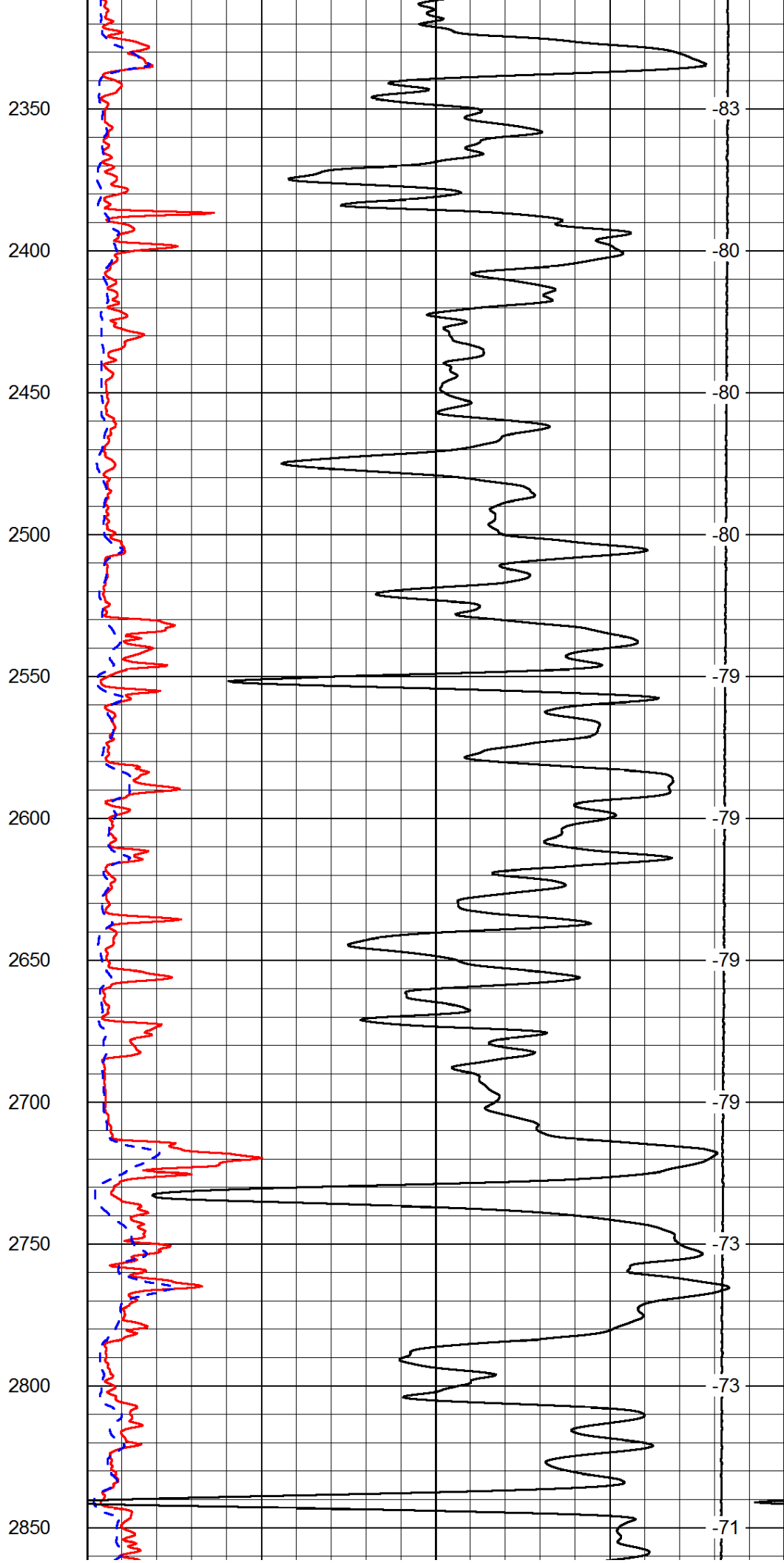
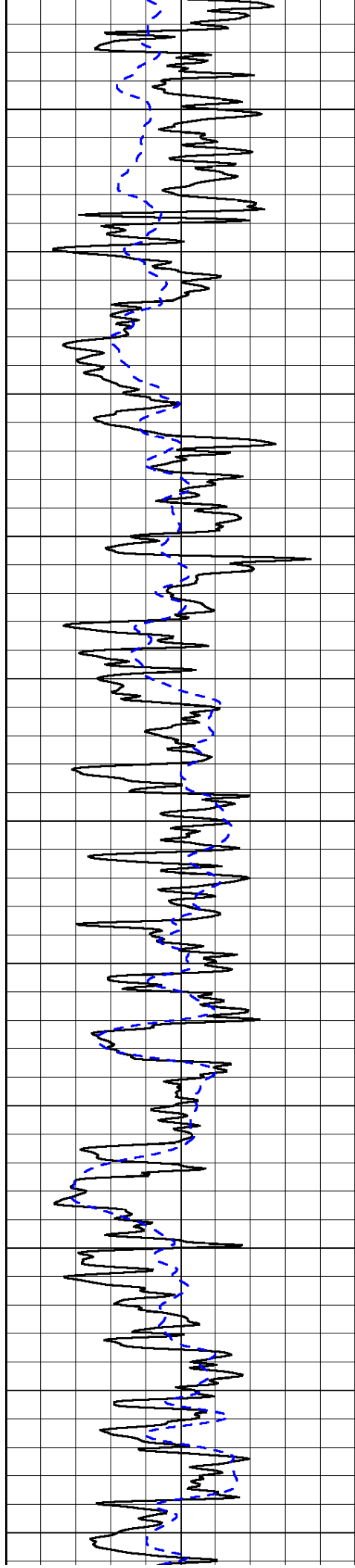
700
750
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850
900
950
1000
1050
1100
1150
1200

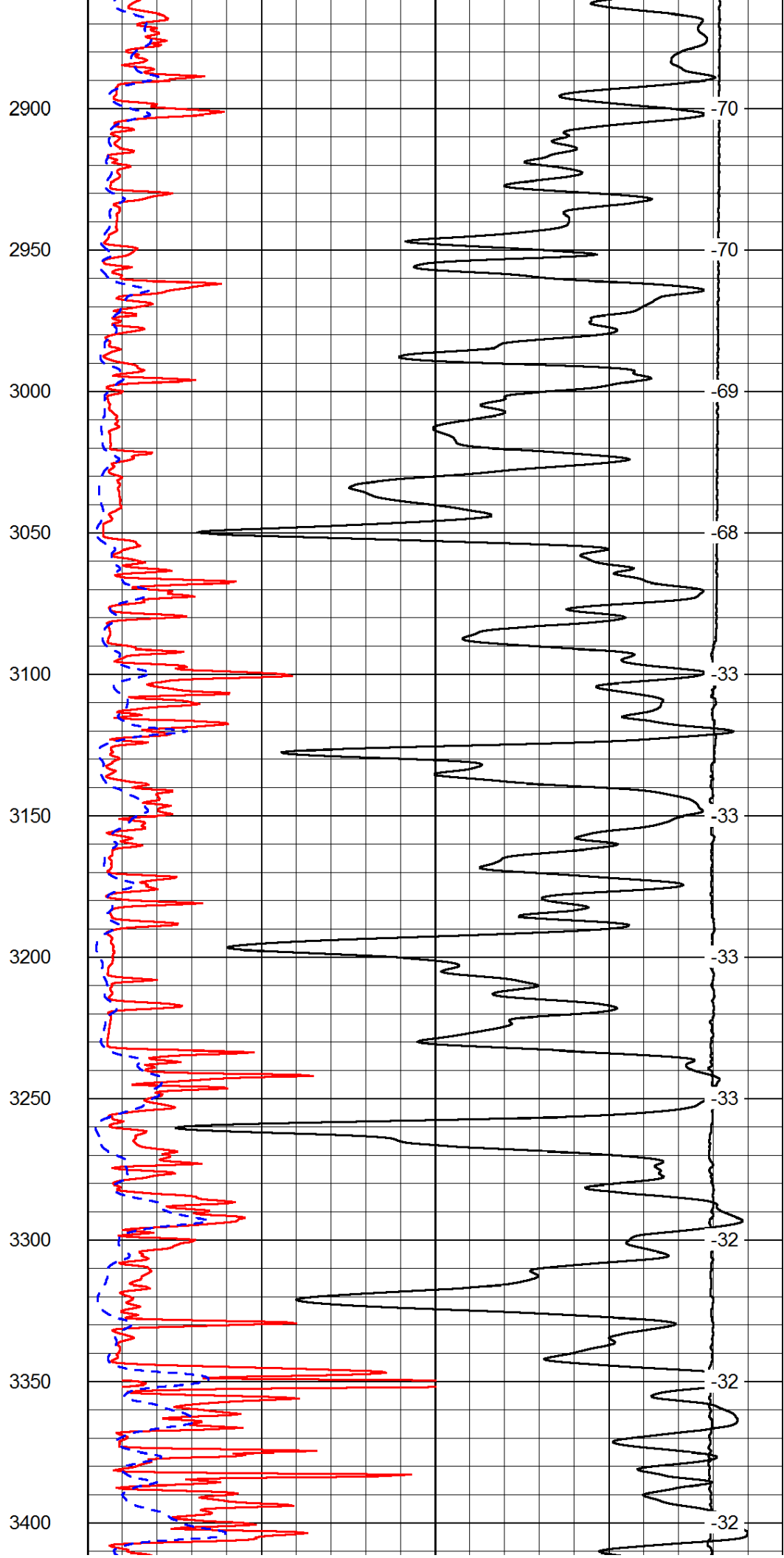
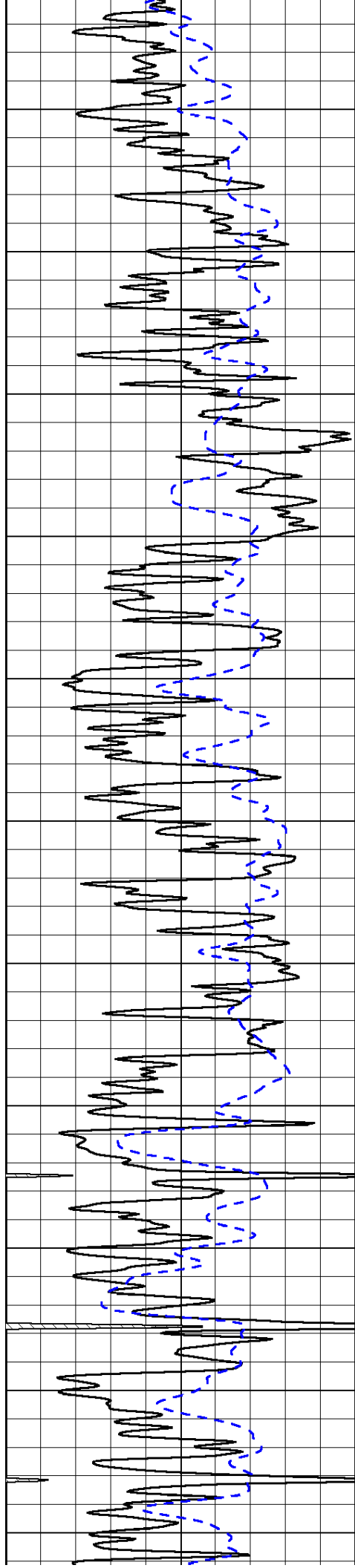


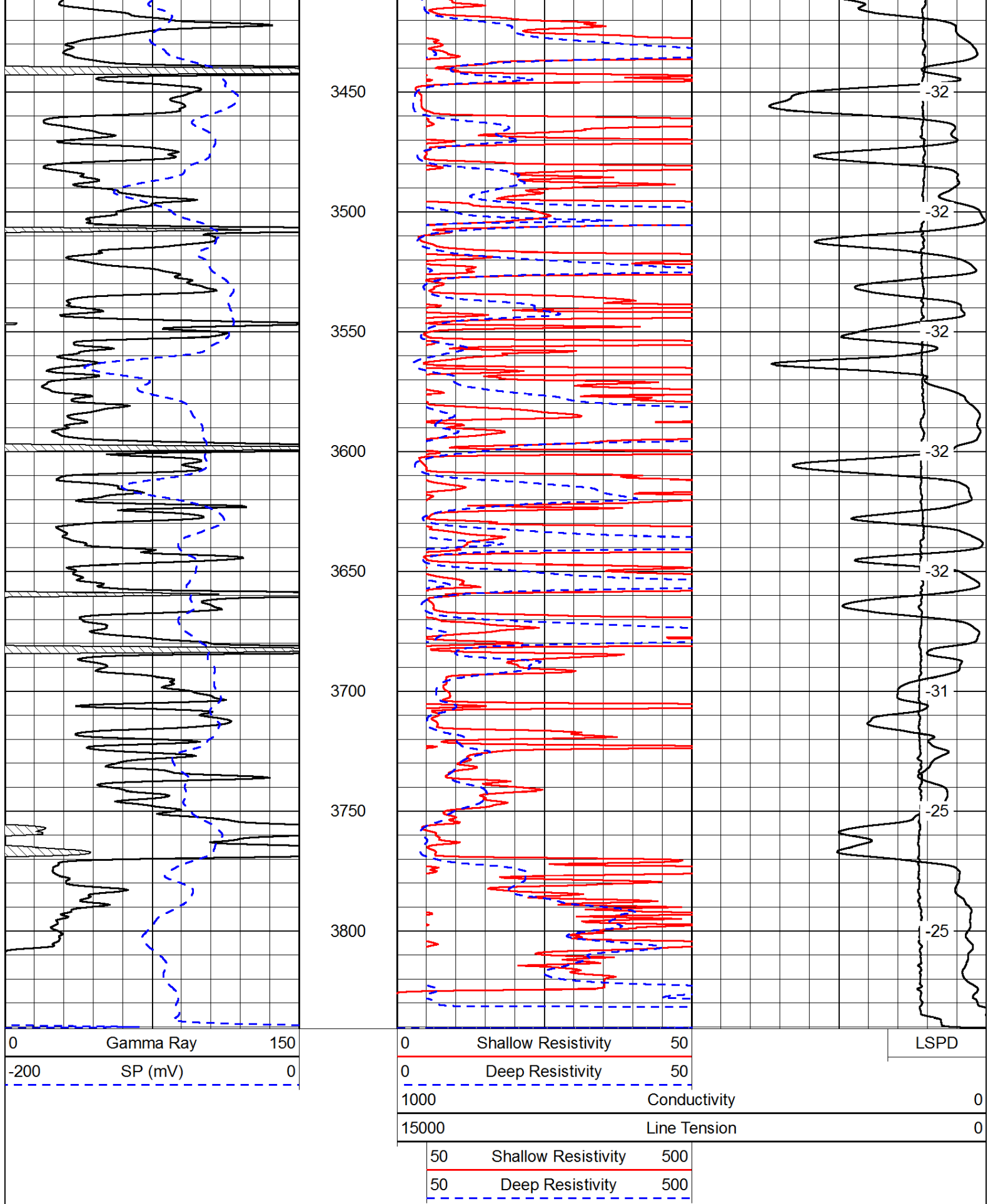
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-92





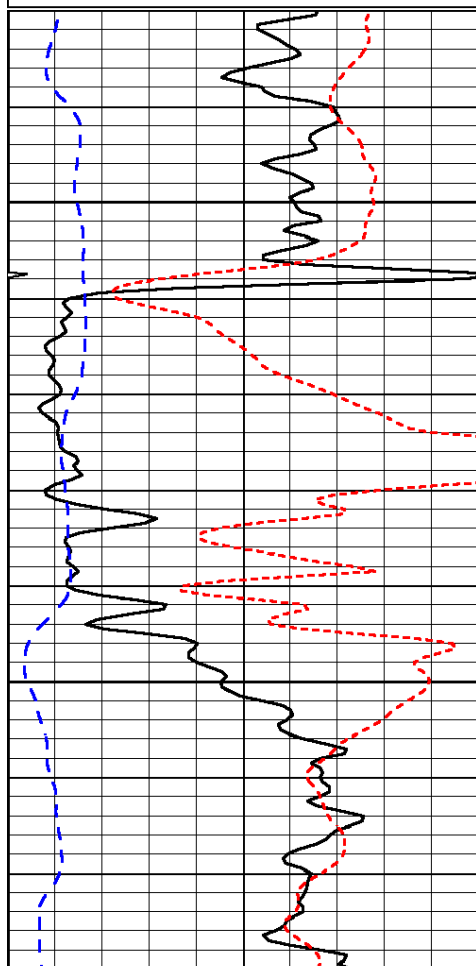






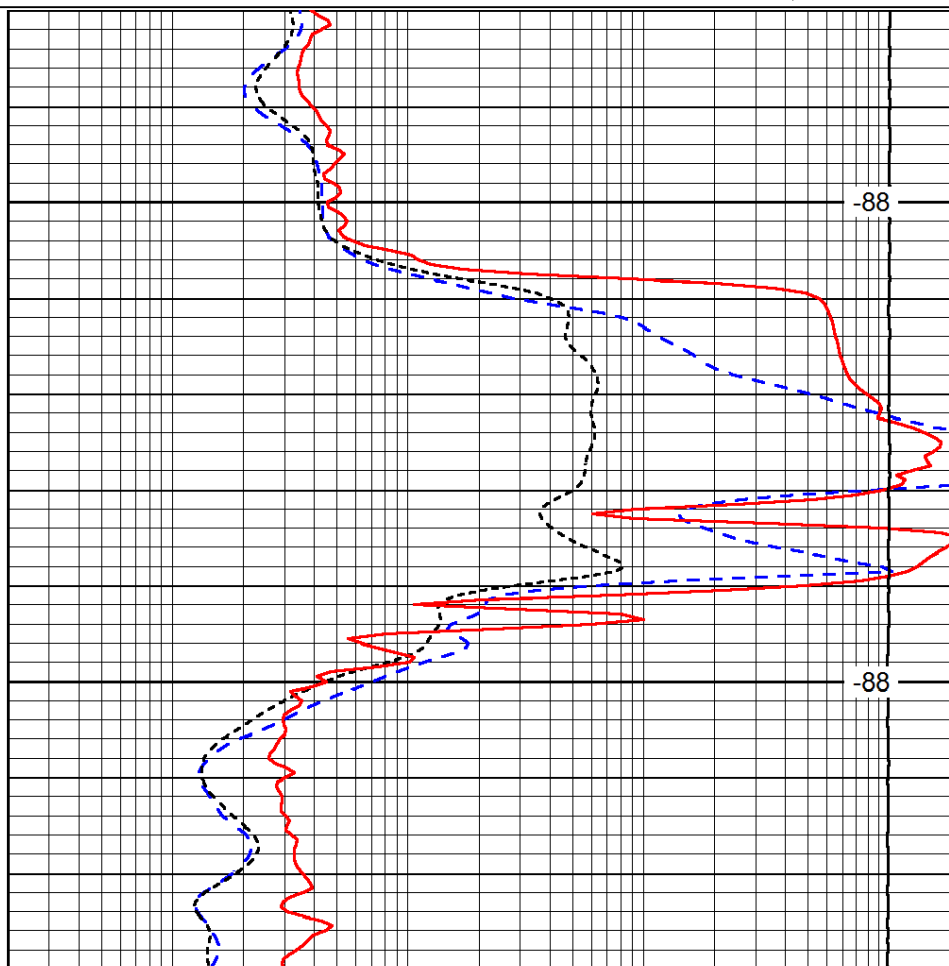
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-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD



1650

1700



-88

-88

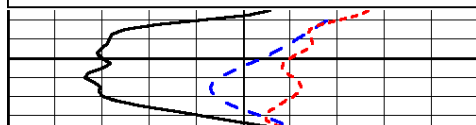
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-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD

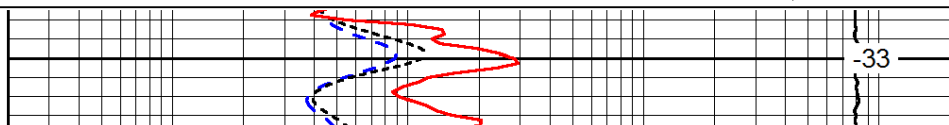
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Presentation Format: dil
Dataset Creation: Thu Sep 19 15:32:22 2013
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

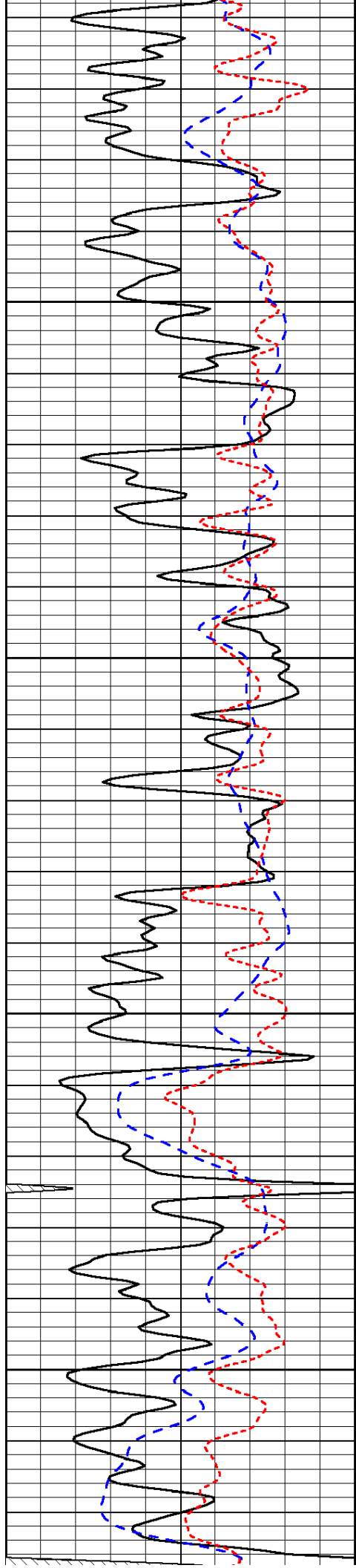
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD



3100



-33

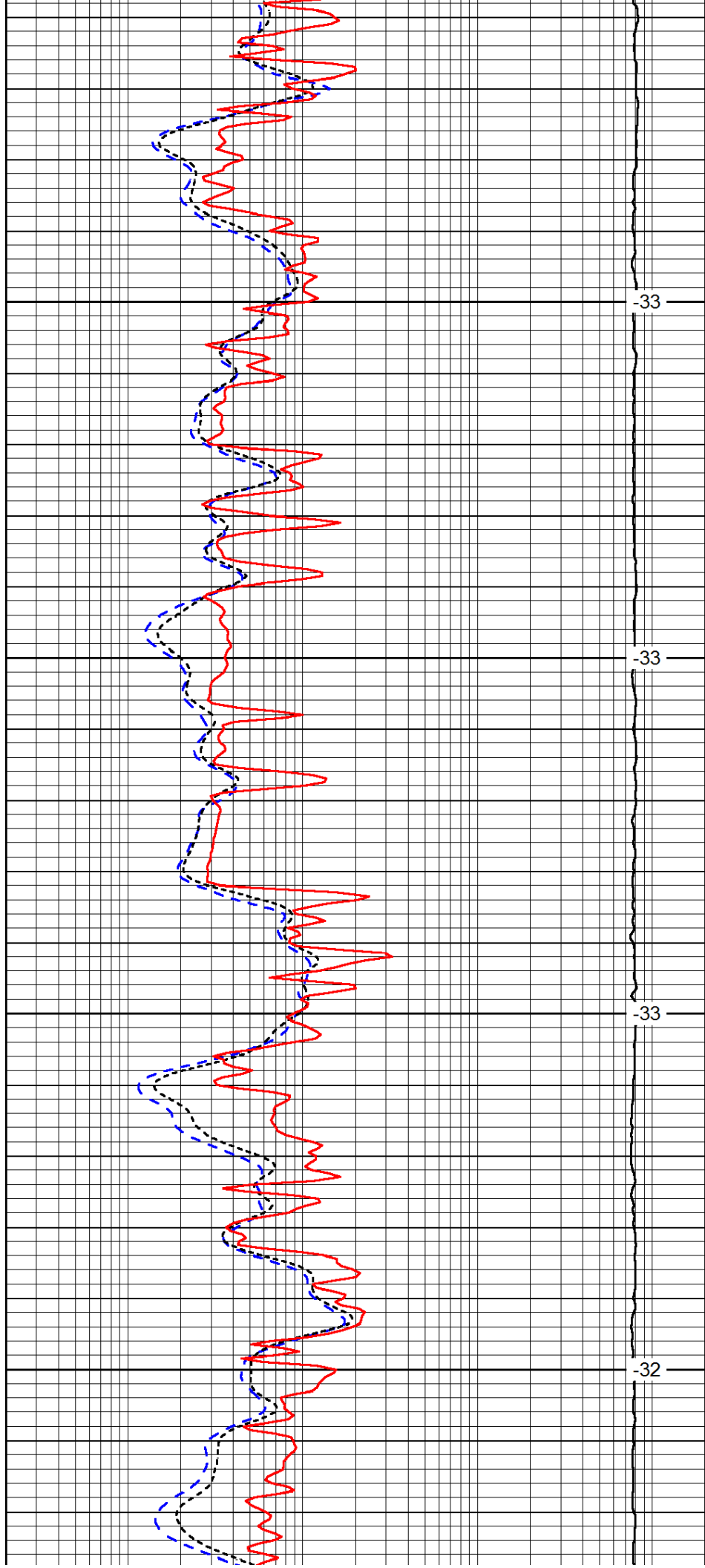


3150

3200

3250

3300

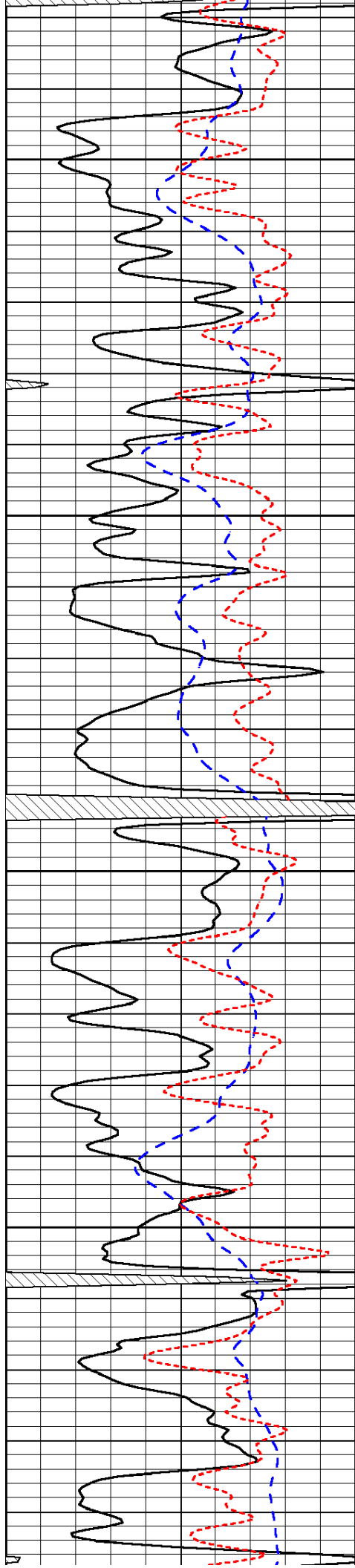


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-33

-33

-32

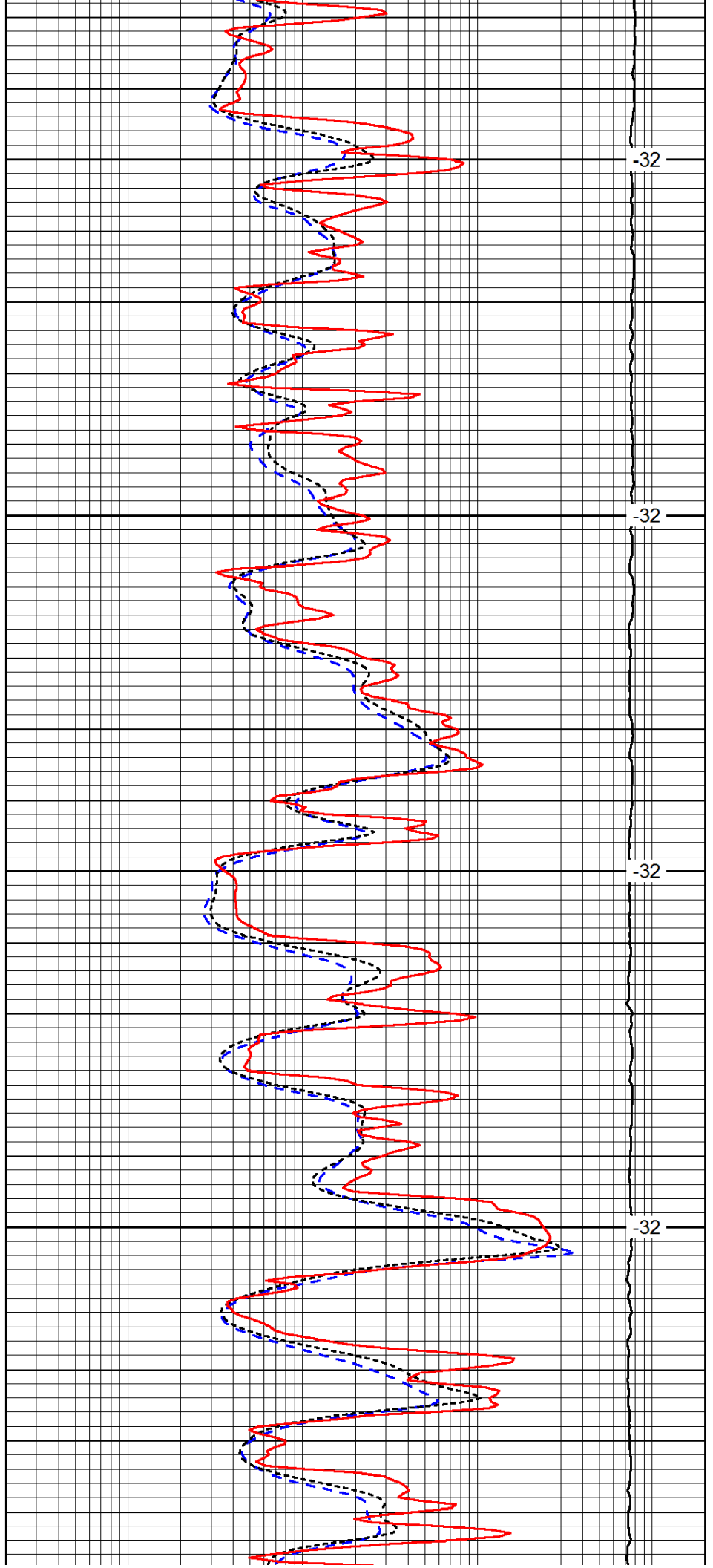


3350

3400

3450

3500

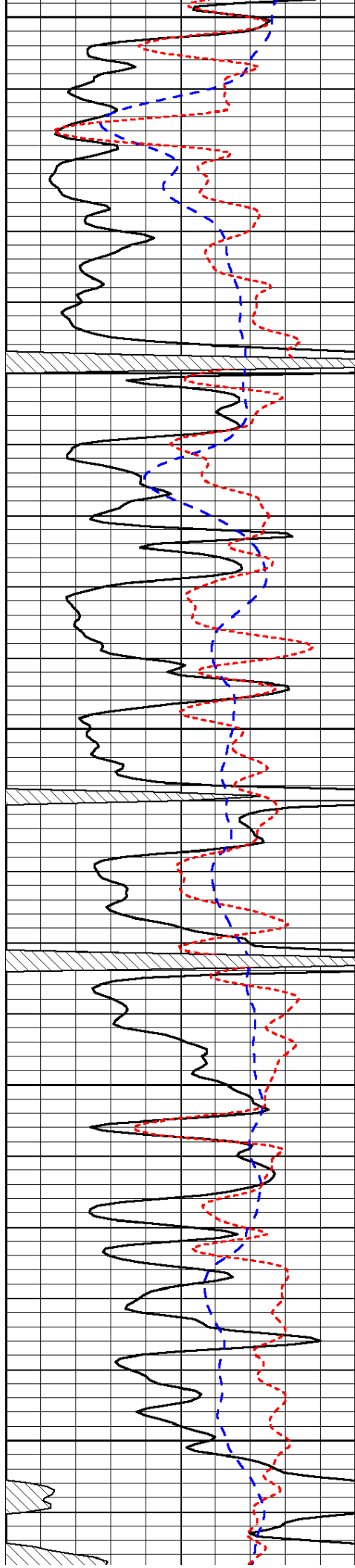


-32

-32

-32

-32



3550

3600

3650

3700

3750

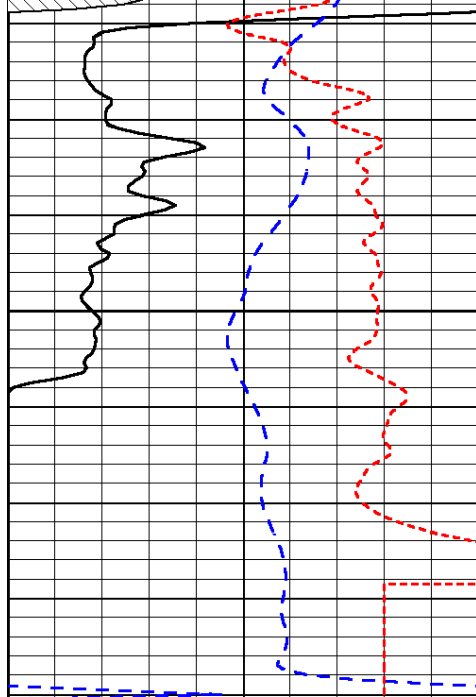
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-32

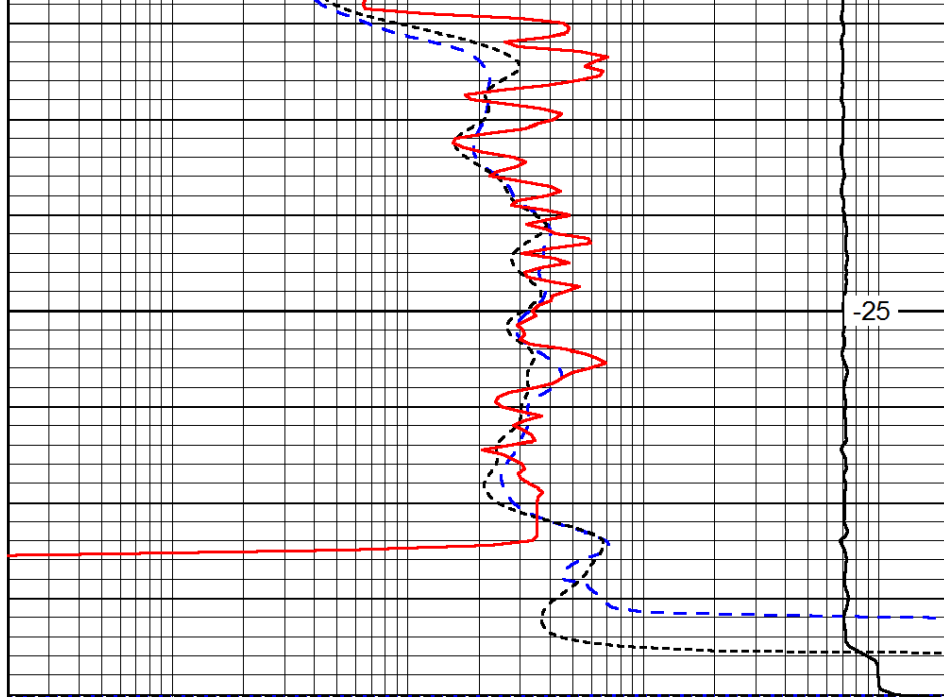
-31

-25



0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

3800



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

-25