

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Triple Crown Operating LLC
Well Name	Barricklow 1-33
Doc ID	1311151

All Electric Logs Run

Micro
Dual Induction
Cement Bond
Compensated Density Neutron

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1719

Date	6-22-16	Sec.		Range		County	Ness	State	Ks	On Location		Finish	10:30 PM
Lease						Well No.		Location					
Barricklow						#1		Ness City 115 to 20 Rd, 7E to 2 Rd					
Contractor						Express well Service		Owner 15, 1E, 1/4 S, W/3					
Type Job						Squeeze		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Hole Size						T.D.		Charge To Triple Crown					
Csg.						5 1/2"		Depth		Street			
Tbg. Size						2 7/8"		Depth		4222'			
Tool						Depth		City State					
Cement Left in Csg.						Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.					
Meas Line						Displace		H2O		Cement Amount Ordered 100 Com			
								Used 50					
								Common 50					
EQUIPMENT													
Pumptrk		18	No.	Cementer		Craig		Poz. Mix					
Bulktrk		15	No.	Driver		Doug		Gel.					
Bulktrk		p.u.	No.	Driver		Rick		Calcium					
JOB SERVICES & REMARKS													
Remarks:						Perfs 4340' - 4354'							
Rat Hole						Packer to 4222' to squeeze							
Mouse Hole						Injection 3 BPM to 1400							
Centralizers						Mud CLR 48							
Baskets						Load + pressure backside to CFL-117 or CD110 CAF 38							
D/V or Port Collar						Sub # Shut in take Sand							
injection rate						Mix 50 SX Com Handling 100							
shut down wash pump + lines						Mileage							
Hook to casing + displaced with						FLOAT EQUIPMENT							
Staged + Squeezed to 2500#.						Guide Shoe							
Released + held, wash clean.						Centralizer							
Pull 5 Jts + Repressure to 1500#						Baskets							
+ held. PTOH + pressure to						AFU Inserts							
Sub # Shut in.						Float Shoe							
						Latch Down							
						Pumptrk Charge Squeeze							
						Mileage 18							
						Tax							
						Discount							
						Total Charge							
X Signature													

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1714

Date	6-11-16	Sec.	33	Twp.	20	Range	22	County	Ness	State	Ks	On Location		Finish	11:30 AM
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Lease Barricklow Well No. 1-33 Owner 15 IE 1/4 S 1/4 W 1/4
Location Ness City 115 to 20rd, 6E to 2R

Contractor	<u>W W 12</u>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	<u>Bottom</u>		

Hole Size	<u>7 7/8"</u>	T.D.	<u>4480'</u>	Charge To	<u>Triple Crown operating LLC</u>
Csg.	<u>5 1/2" New 17A</u>	Depth	<u>4480.15'</u>	Street	

Tbg. Size		Depth		City		State	
Tool	<u>DU Tool #73</u>	Depth	<u>1378.28'</u>	The above was done to satisfaction and supervision of owner agent or contractor.			

Cement Left in Csg.	<u>20.81</u>	Shoe Joint	<u>20.81</u>	Cement Amount Ordered	<u>175 Com 10% Salt 5%</u>
Meas Line		Displace	<u>103 1/2 BLS</u>	<u>Gilsonite - 500 gal Mud Clear 48</u>	<u>20 BL KCL</u>

EQUIPMENT		<u>32 mud</u>	Common	<u>175</u>
Pumptrk	<u>20</u>	No.		
Bulktrk	<u>15</u>	No.		
Bulktrk	<u>P.W.</u>	No.		

JOB SERVICES & REMARKS

Remarks:		Hulls	<u>KCL 2 gal</u>
Rat Hole	<u>305X</u>	Salt	<u>15</u>
Mouse Hole		Flowseal	
Centralizers	<u>1, 3, 5, 8, 11, 15, 23, 72</u>	Kol-Seal	<u>875#</u>
Baskets	<u>6, 24, 73</u>	Mud CLR 48	
DN or Port Collar	<u>#73 1378.28'</u>	CFL-117 or CD110 CAF 38	<u>500 gal</u>
pipe on bottom break Circulation		Sand	
plump 500 gal mud clear 48		Handling	
1 mix 145 SX Cement. Shut		Mileage	

FLOAT EQUIPMENT

down wash pump + lines		Guide Shoe	
Released plug Displaced		Centralizer	<u>8</u>
w/103 1/2 BLS.		Baskets	<u>2 Red 1 Blue</u>
Released + held.		AFU Inserts	
Lift pressure 600 #		Float Shoe	<u>1</u>
Land plug to 1900 #		Latch Down	
Drop back open tool 800 #		DU Tool w/ latch down	

break Circulation		Pumptrk Charge	<u>prod string Bottom Stage</u>
		Mileage	<u>18</u>

X Signature	<u>[Signature]</u>	Tax	
		Discount	
		Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1715

Date	6-11-16	Sec.	33	Twp.	20	Range	22	County	Ness	State	Ks	On Location		Finish	3:15 PM
Lease								Location		Ness City 115 to 20 Rd, 6E to Z Rd					
Contractor				Well No.				Owner							
Type Job				Cement Left in Csg.				Shoe Joint				Cement Amount Ordered			
Hole Size				Depth				City				State			
Csg.				T.D.				Street				Charge To			
Tbg. Size				Depth				City				State			
Tool				Depth				City				State			
Meas Line				Displace				Common							
EQUIPMENT								Common							
Pumptrk				No.				Cementer				Helper			
Bulktrk				No.				Driver				Driver			
Bulktrk				No.				Driver				Driver			
JOB SERVICES & REMARKS								Hulls							
Remarks:								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
Pipe on bottom, break Circulation								Handling							
Miss 250 SX Cement								Mileage							
Released plug + Displaced								FLOAT EQUIPMENT							
w/ 32 BLS of H2O.								Guide Shoe							
Closed tool w/ 200 #								Centralizer							
Lift pressure 550 #								Baskets							
wash up + Rigged down								AFU Inserts							
Cement did Circulate								Float Shoe							
Signature								Latch Down							
								Pumptrk Charge							
								Mileage							
								Tax							
								Discount							
								Total Charge							

X Signature *[Signature]*

prod string Top Stage
Mileage 18

Tax
Discount
Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1865

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-2-16	33	20	22	Ness	KS		10:45 PM

Location Ness City 115 to Rd 20 7E to Z Rd

Lease	Well No.	Owner	
<u>Barricklow</u>	<u>1-33</u>	<u>IS 1E 1/4 S W1/4</u>	
Contractor	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.		
Type Job	Charge To		
<u>Surface</u>	<u>Triple Crown Operating Inc</u>		
Hole Size	T.D.	Street	
<u>12 1/4</u>	<u>513'</u>		
Csg.	Depth	City	
<u>8 5/8</u>	<u>513'</u>	State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
		Cement Amount Ordered <u>250 70/30 3% cc 2% Ge</u>	
Cement Left in Csg.	Shoe Joint		
<u>25'</u>			

Meas Line Displace 31661

EQUIPMENT

Pumptrk	No.	Cementer
<u>18</u>		<u>Brett</u>
Bulktrk	No.	Helper
<u>19</u>		<u>Graig</u>
Bulktrk	No.	Driver
		<u>Doug</u>

Common	<u>125</u>
Poz. Mix	<u>50 75</u>
Gel.	<u>5</u>
Calcium	<u>10</u>

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38

Sand
Handling <u>265</u>
Mileage

Cement

Circulated!!

FLOAT EQUIPMENT

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge	<u>Long Surface</u>
Mileage	<u>2321</u>

X Signature [Signature]

Tax
Discount
Total Charge

OPERATOR

Company: Triple Crown Operating
 Address:

Contact Geologist: Rod Andersen
 Contact Phone Nbr: 316-204-3359
 Well Name: Barricklow #1-33
 Location: 1440 FNL 1200 FEL 33-20-22
 API:
 Pool: Infield
 State: Kansas

Field: Barricklow
 Country: USA

Scale 1:240 Imperial

Well Name: Barricklow #1-33
 Surface Location: 1440 FNL 1200 FEL 33-20-22
 Bottom Location:
 API:
 License Number:
 Spud Date: 6/2/2016 Time: 12:00 AM
 Region:
 Drilling Completed: 6/10/2016 Time: 12:00 AM
 Surface Coordinates:
 Bottom Hole Coordinates:
 Ground Elevation: 2179.00ft
 K.B. Elevation: 0.00ft
 Logged Interval: 0.00ft To: 0.00ft
 Total Depth: 4480.00ft
 Formation: Mississippian
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord:
 E/W Co-ord:

LOGGED BY

Company: Eurypterid LLC
 Address:

Phone Nbr: 316-204-3359
 Logged By: Geologist

Name: Rod Andersen

CONTRACTOR

Contractor: WW Drilling
 Rig #: 12
 Rig Type: mud rotary
 Spud Date: 6/2/2016
 TD Date: 6/10/2016
 Rig Release:

Time: 12:00 AM
 Time: 12:00 AM
 Time:

ELEVATIONS

K.B. Elevation: 0.00ft
 K.B. to Ground: 8.00ft

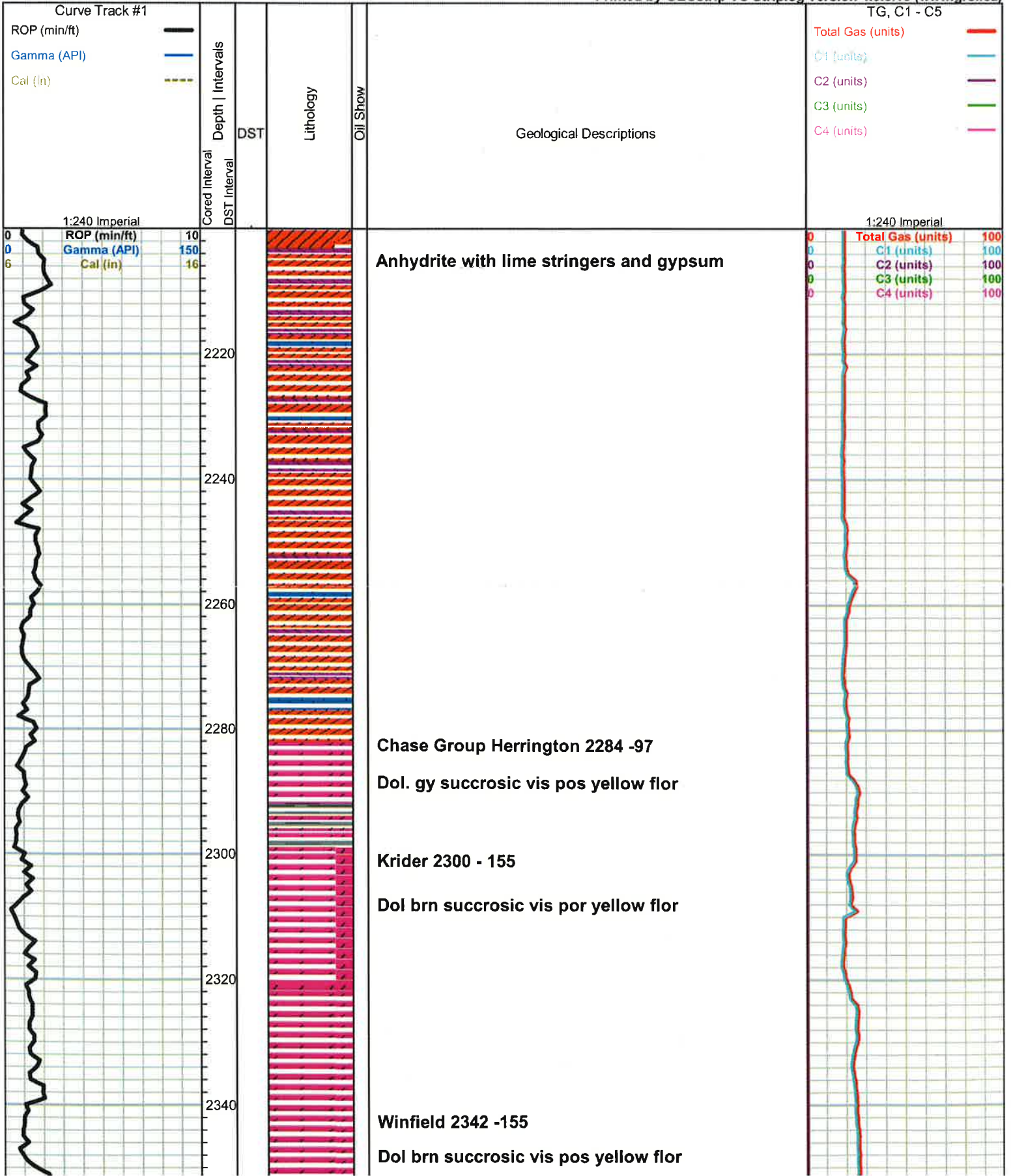
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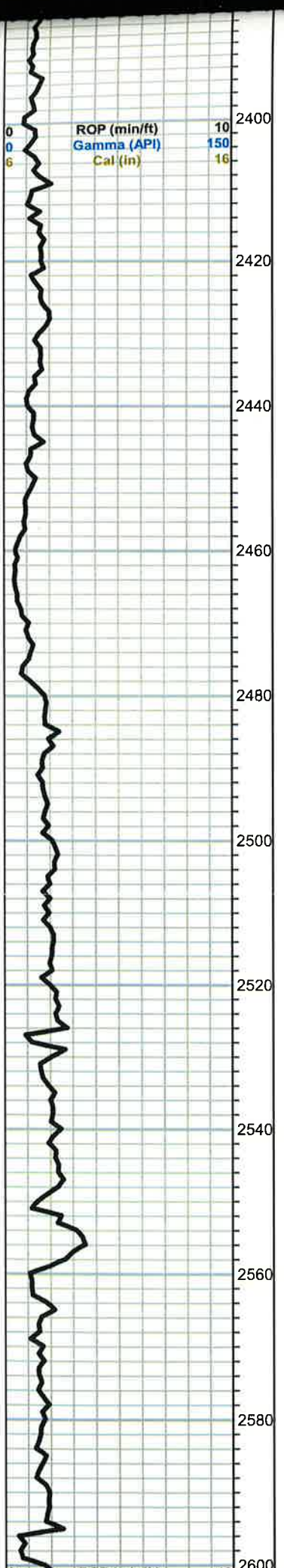
NOTES

- Oil Show**
- Good Show
 - Fair Show
 - Poor Show
 - Spotted or Trace
 - Questionable Stn
 - Dead Oil Stn
 - Fluorescence
 - ◆ Gas

- DST**
- DST Int
 - DST alt
 - Core
 - || tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





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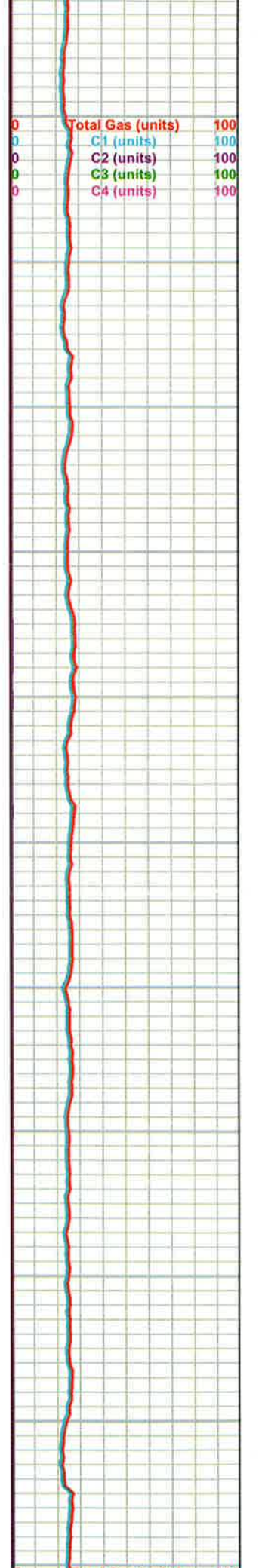
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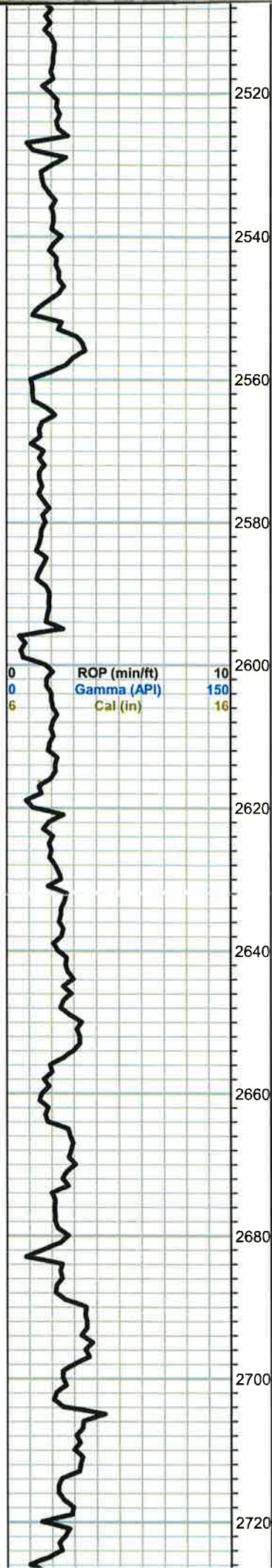
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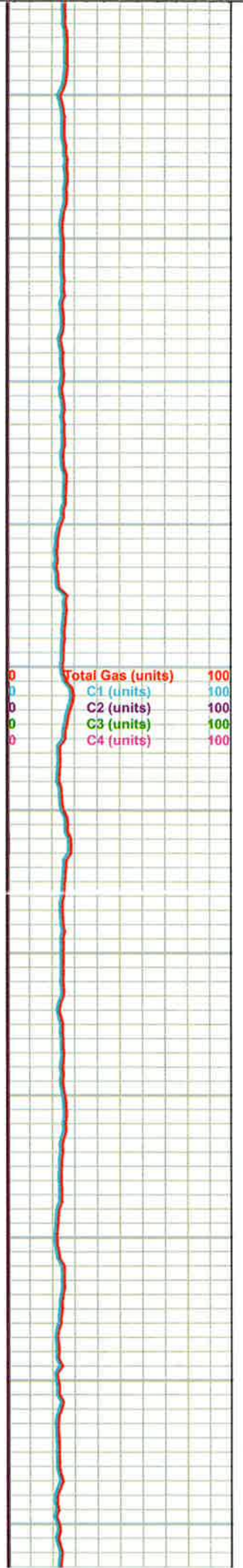
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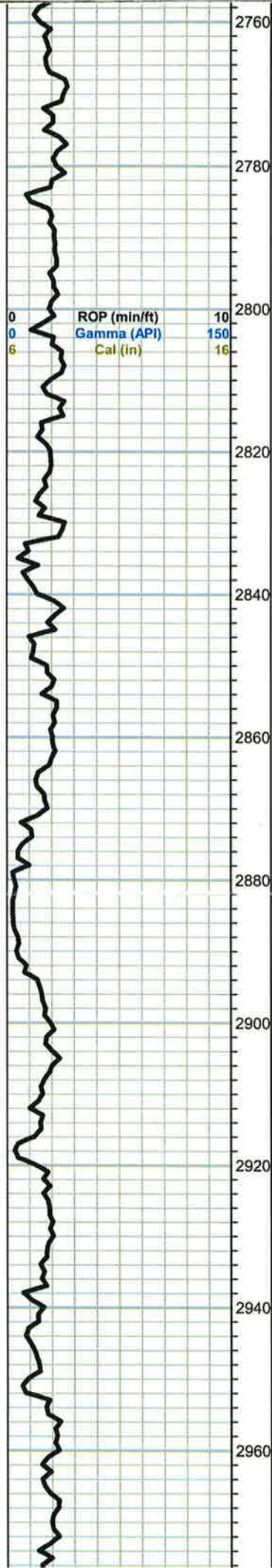
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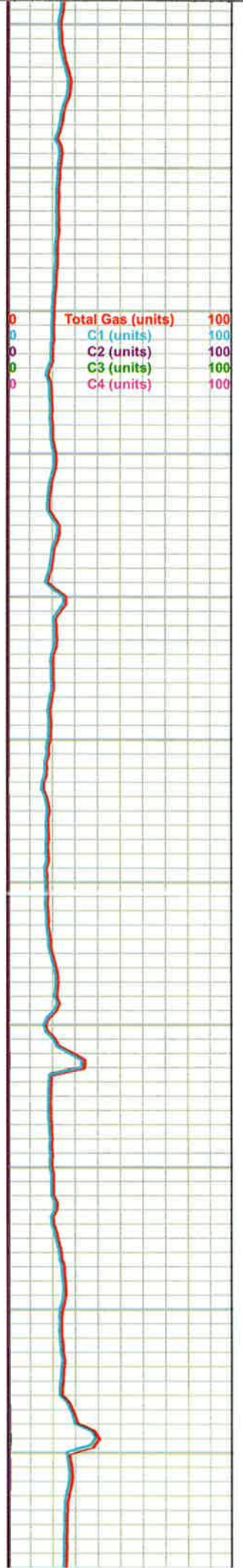


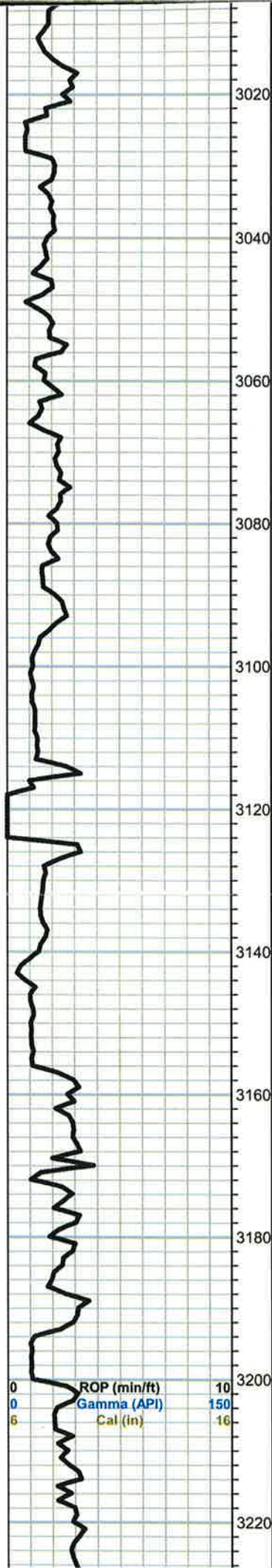
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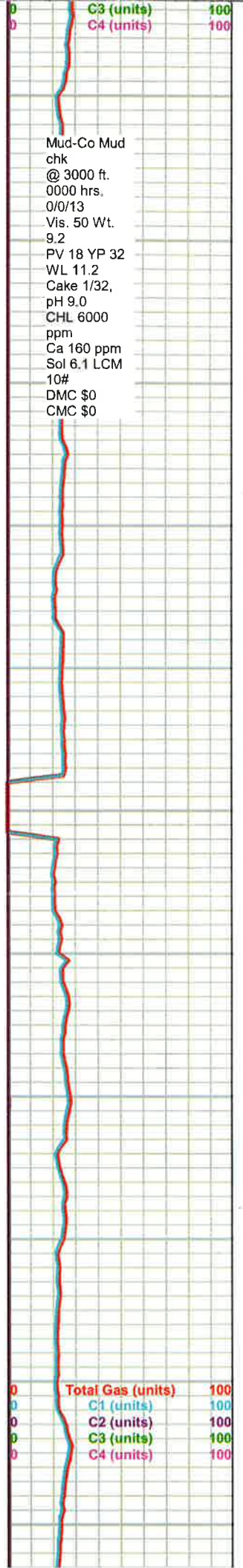
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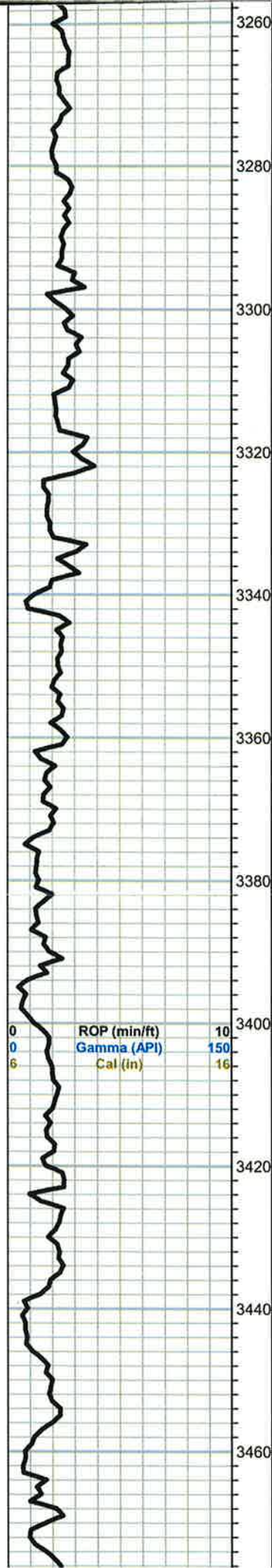
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Mud-Co Mud
chk
@ 3000 ft.
0000 hrs.
0/0/13
Vis. 50 Wt.
9.2
PV 18 YP 32
WL 11.2
Cake 1/32,
pH 9.0
CHL 6000
ppm
Ca 160 ppm
Sol 6.1 LCM
10#
DMC \$0
CMC \$0

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100



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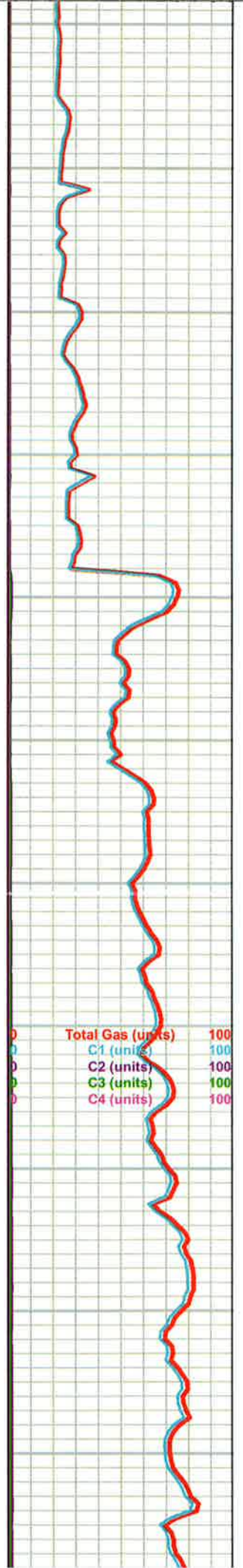
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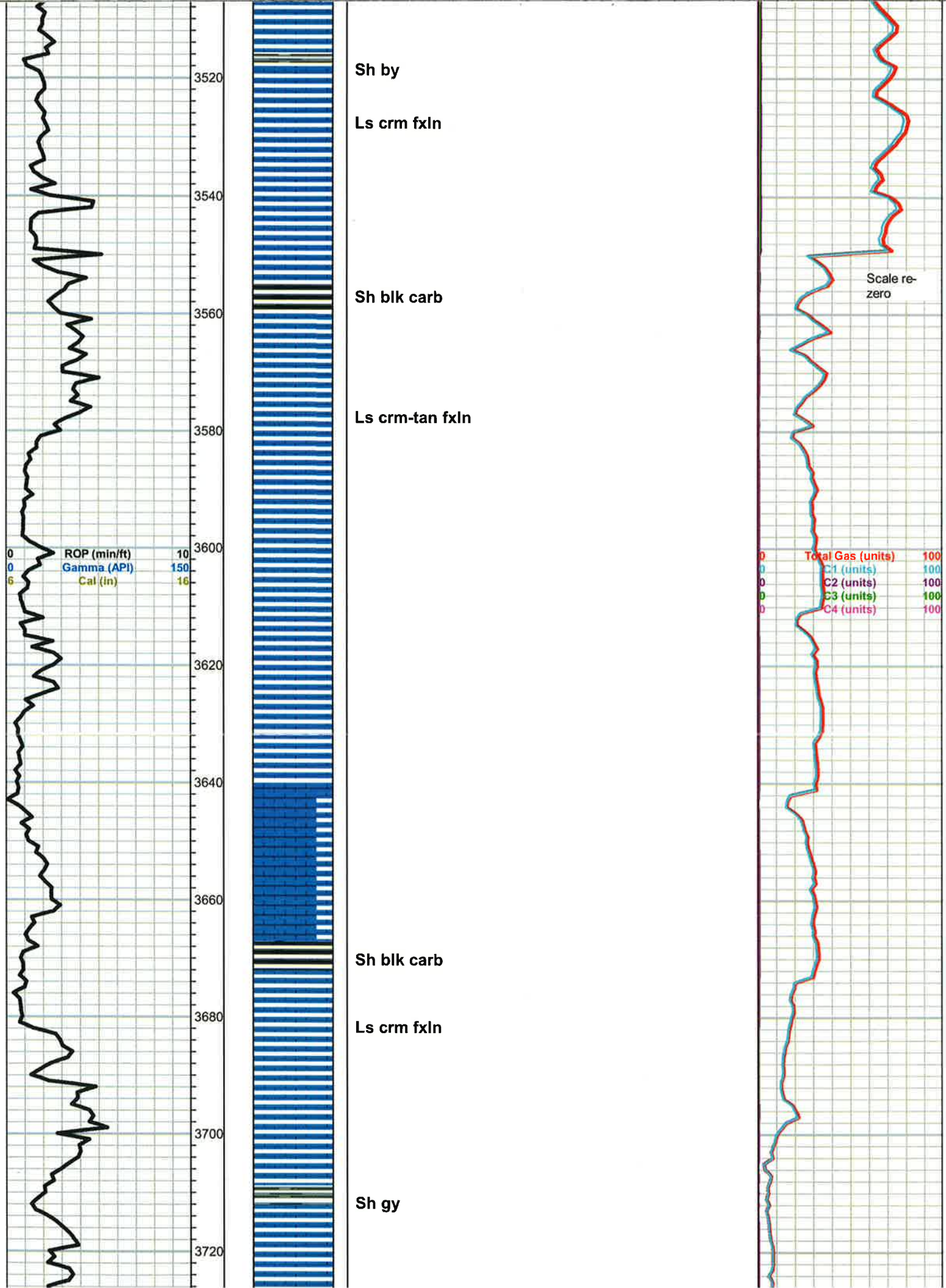
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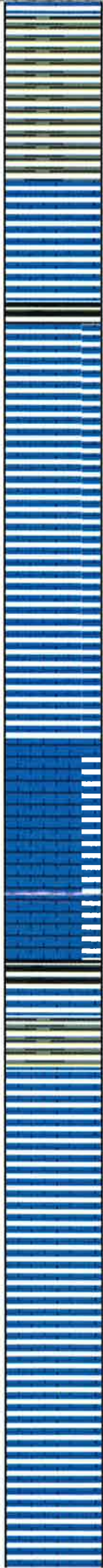
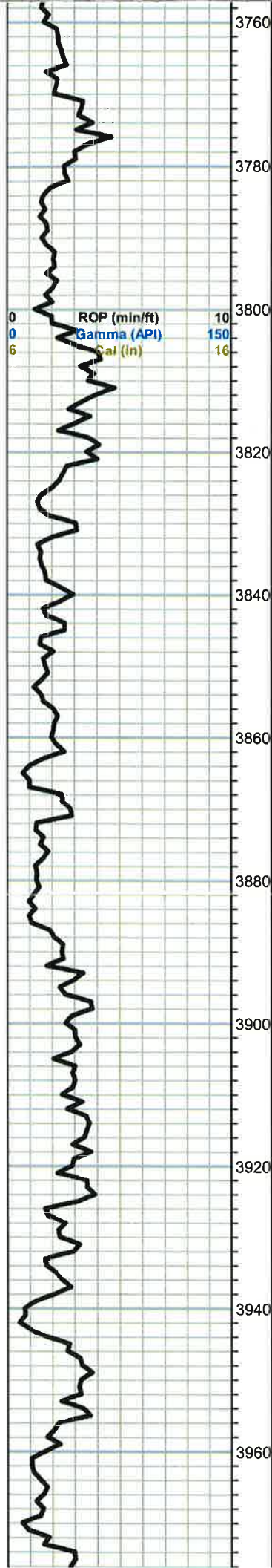
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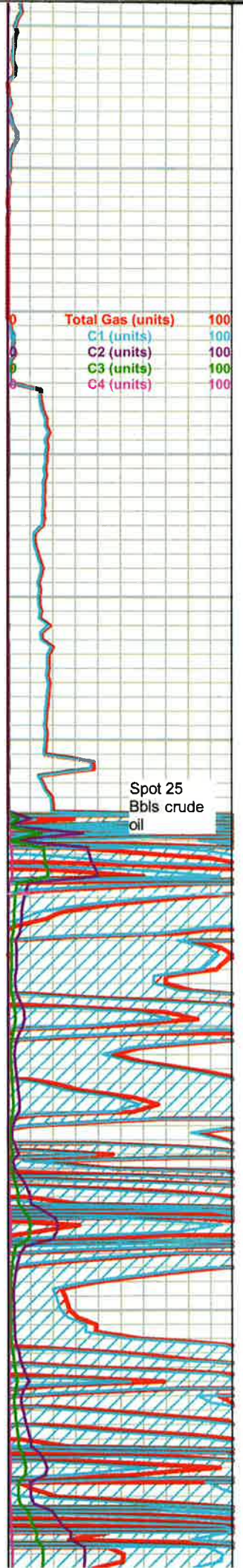
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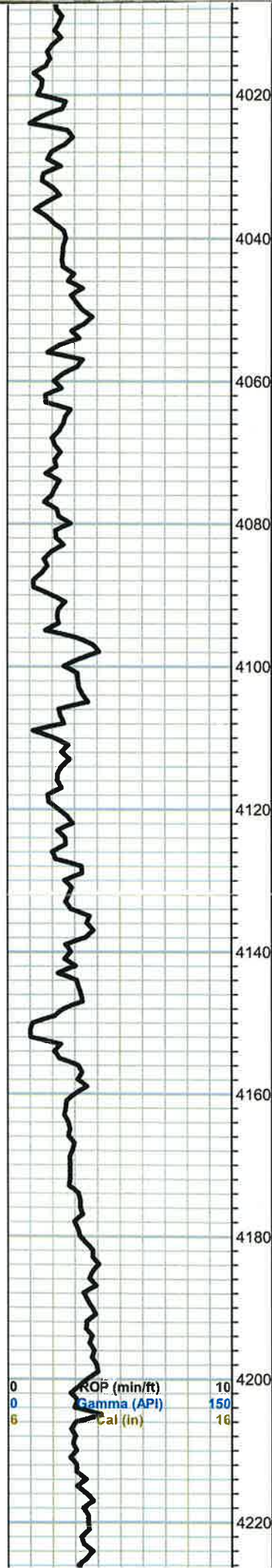
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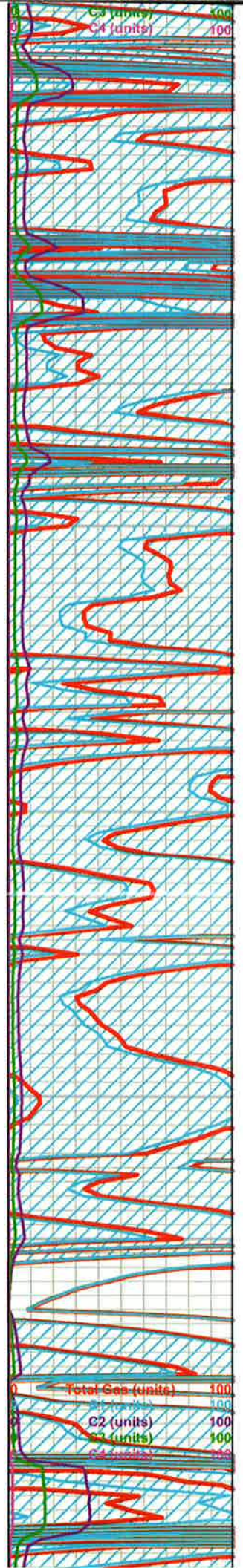
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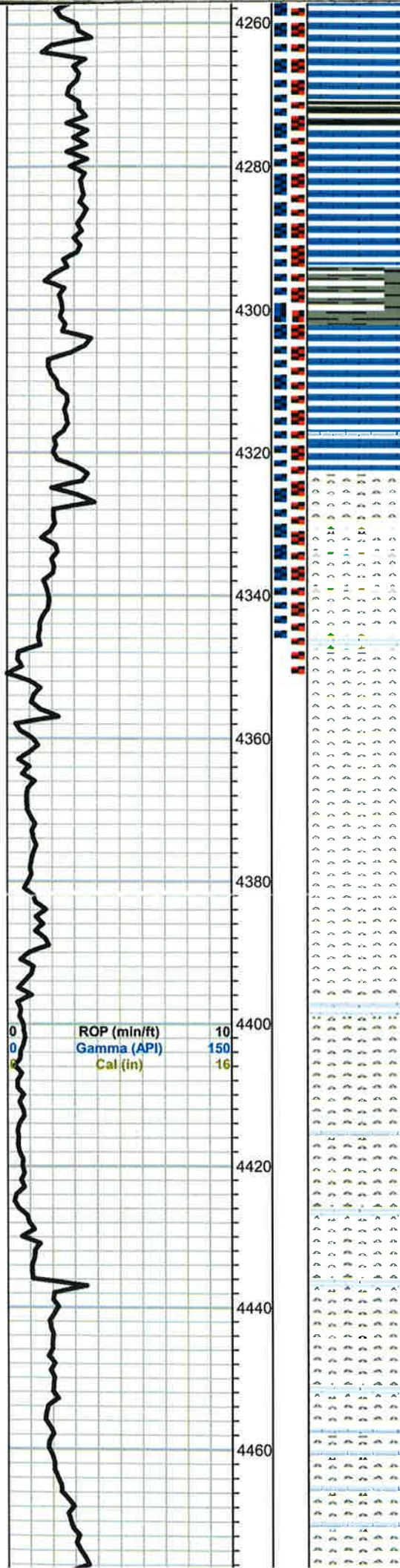
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Ls crm fxln

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Ls crm fxln





Cherokee 4267 -2080

Sh blk carb

Sh gy

Ls crm fxln

Miss 4322 -2135

Chert white to clear tripolitic edge porosity
pinpoint to vuggy por good stain some free oil
bleeding oil when samples were broken

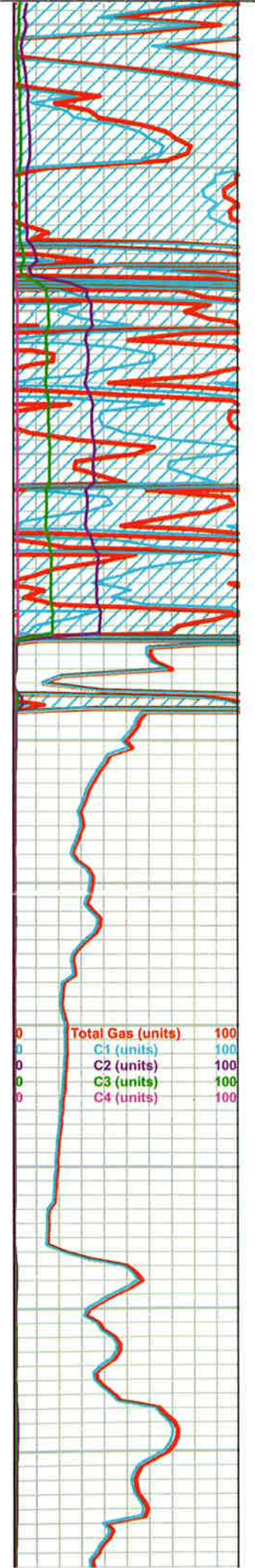
Chrt wt to cl scattered stain some free oil

Chert white tripolitic good vis por pinpoint to
vuggy bleeding oil good stain

Gilmore City 4432 -2245

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Ls crm foss no show





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Triple Crown Operating LLC

33 20s 22w Ness,KS

2201 S Utica Pl Ste 100
Tulsa OK 74114-7099

Barricklow #1-33

Job Ticket: 64929

DST#: 1

ATTN: Rod Anderson

Test Start: 2016.06.08 @ 23:28:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:25:30

Time Test Ended: 08:14:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 4250.00 ft (KB) To 4346.00 ft (KB) (TVD)

Reference Elevations: 2189.00 ft (KB)

Total Depth: 4346.00 ft (KB) (TVD)

2181.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8289 Outside

Press@RunDepth: 233.30 psig @ 4255.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.06.08

End Date:

2016.06.09

Last Calib.:

2016.06.09

Start Time: 23:28:02

End Time:

08:14:15

Time On Btm:

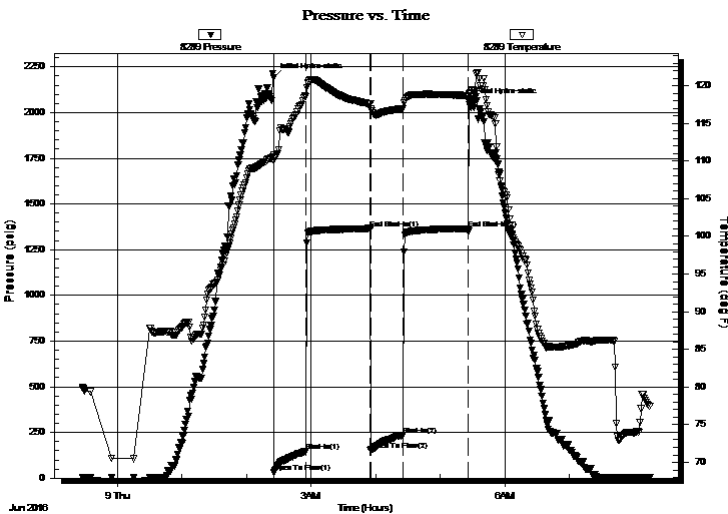
2016.06.09 @ 02:25:15

Time Off Btm:

2016.06.09 @ 05:26:45

TEST COMMENT: 30-IFP- BOB in 15min.
60-ISIP- 1/4in. Blow Died in 29min.
30-FFP- BOB in 14min.
60-FSIP- Weak Surface Blow Died in 12min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.73	110.89	Initial Hydro-static
1	32.32	110.07	Open To Flow (1)
30	148.46	118.57	Shut-In(1)
90	1364.76	117.62	End Shut-In(1)
90	151.93	116.90	Open To Flow (2)
120	233.30	117.00	Shut-In(2)
181	1365.39	118.70	End Shut-In(2)
182	2057.05	118.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	GMCO 10%g 40%m 50%o	2.40
250.00	GMCO 30%g 30%m 40%o	3.51
65.00	Free Oil 100%	0.91
0.00	180 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Triple Crown Operating LLC

33 20s 22w Ness, KS

2201 S Utica Pl Ste 100
Tulsa OK 74114-7099

Barricklow #1-33

Job Ticket: 64929

DST#: 1

ATTN: Rod Anderson

Test Start: 2016.06.08 @ 23:28:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 2.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
250.00	GMCO 10%g 40%m 50%o	2.405
250.00	GMCO 30%g 30%m 40%o	3.507
65.00	Free Oil 100%	0.912
0.00	180 GIP	0.000

Total Length: 565.00 ft

Total Volume: 6.824 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

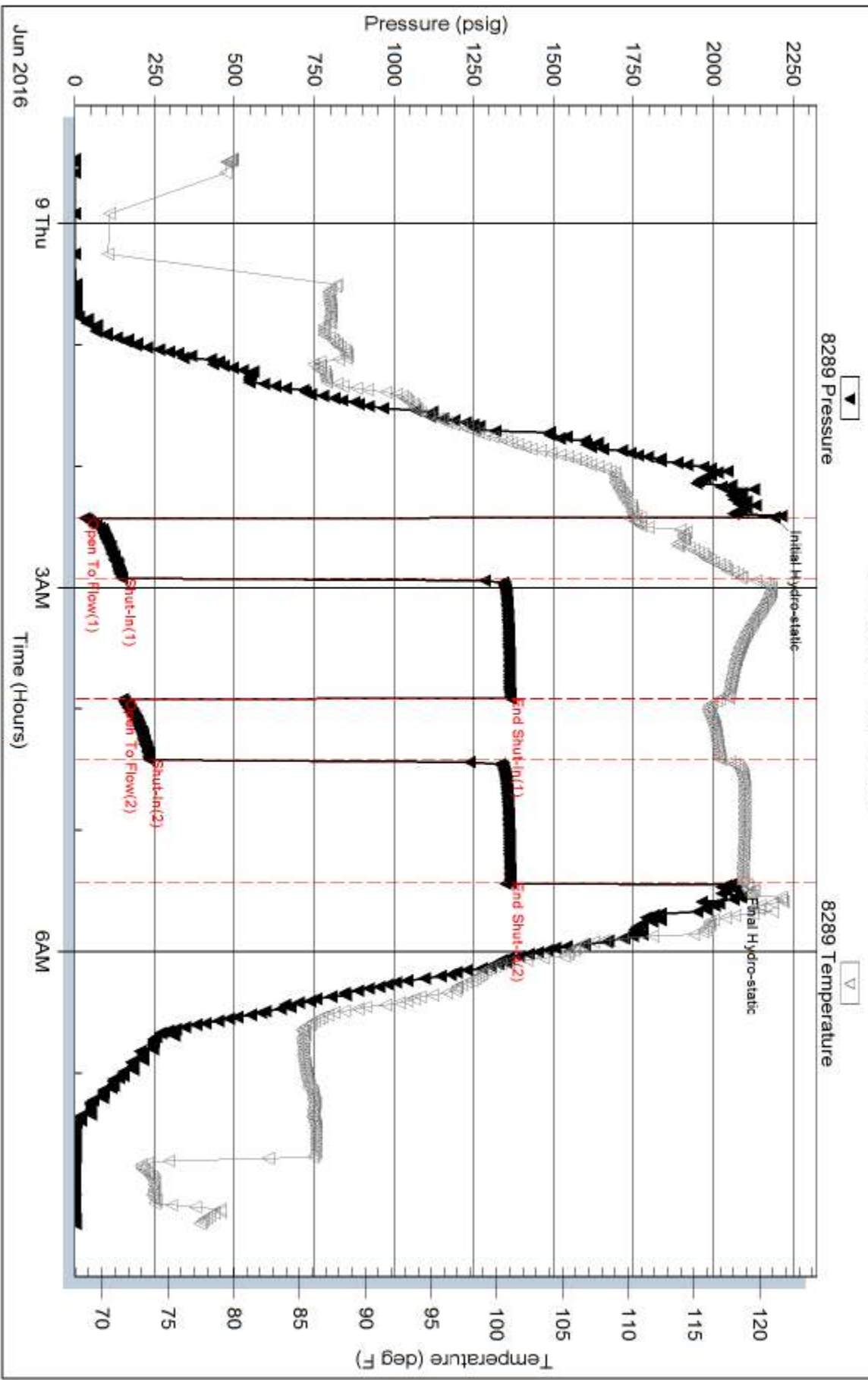
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Triple Crown Operating LLC

33 20s 22w Ness

2201 S Utica Pl Ste 100
Tulsa OK 74114-7099

Barricklow 1-33

Job Ticket: 64930

DST#: 2

ATTN: Rod Anderson

Test Start: 2016.06.09 @ 16:42:00

GENERAL INFORMATION:

Formation: **Miss**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:14:00
 Time Test Ended: 03:23:00
 Interval: **4250.00 ft (KB) To 4351.00 ft (KB) (TVD)**
 Total Depth: 4351.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2189.00 ft (KB)
 2181.00 ft (CF)
 KB to GR/CF: 8.00 ft

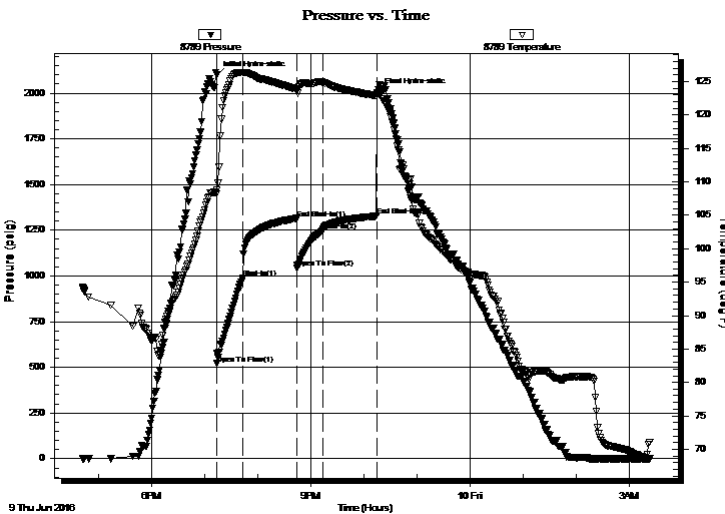
Serial #: 8789

Inside

Press@RunDepth: 1247.22 psig @ 4255.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.06.09 End Date: 2016.06.10 Last Calib.: 2016.06.10
 Start Time: 16:42:00 End Time: 03:23:13 Time On Btm: 2016.06.09 @ 19:13:13
 Time Off Btm: 2016.06.09 @ 22:14:58

TEST COMMENT: 30-IFP- BOB in 45sec.
 60-ISIP- No Blow
 30-FFP- BOB in 45sec.
 60-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2098.20	108.76	Initial Hydro-static
1	519.84	108.21	Open To Flow (1)
30	990.28	126.32	Shut-In(1)
91	1314.23	123.84	End Shut-In(1)
91	1042.06	123.58	Open To Flow (2)
121	1247.22	124.90	Shut-In(2)
181	1326.91	122.87	End Shut-In(2)
182	2003.99	123.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
496.00	Water 100%	5.86
372.00	MOCW 5%M 10%O 85%W	5.22
1178.00	GWCO 10%G 25%W 65%O	16.52
434.00	GMWCO 20%G 10%M 20%W 50%O	6.09
464.00	OCM 40%O60%M	6.51

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Triple Crown Operating LLC

33 20s 22w Ness

2201 S Utica Pl Ste 100
Tulsa OK 74114-7099

Barricklow 1-33

Job Ticket: 64930

DST#: 2

ATTN: Rod Anderson

Test Start: 2016.06.09 @ 16:42:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
496.00	Water 100%	5.855
372.00	MOCW 5%M 10%O 85%W	5.218
1178.00	GWCO 10%G 25%W 65%O	16.524
434.00	GMWCO 20%G 10%M 20%W 50%O	6.088
464.00	OCM 40%O60%M	6.509

Total Length: 2944.00 ft Total Volume: 40.194 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

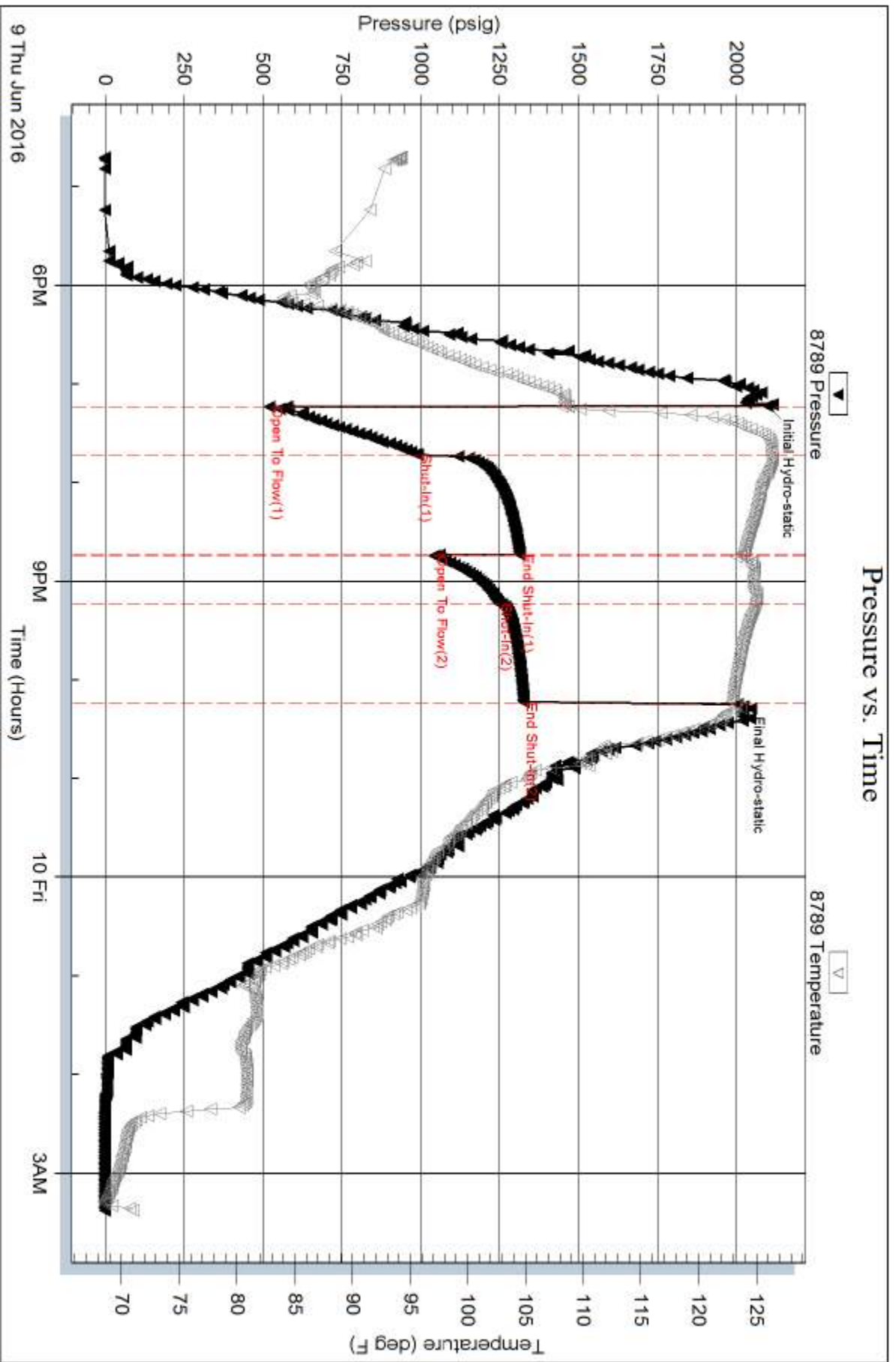
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .220 @ 70

Pressure vs. Time





**BOREHOLE
COMPENSATED
SONIC
LOG**

Company Triple Crown Operating, LLC.
Well Barricklow #1-33
Field Barricklow
County Ness
State Kansas

Company Triple Crown Operating, LLC.
Well Barricklow #1-33
Field Barricklow
County Ness State Kansas

Location: 1440' FNL & 1200' FEL
API #: 15 135 25911
SEC 33 TWP 20S RGE 22W
Permanent Datum Ground Level Elevation 2179'
Log Measured From KB 8' AGL
Drilling Measured From KB
Other Services
CDNL
DIL
ML
Elevation
K.B. 2187'
D.F. 2186'
G.L. 2179'

Date	6-10-16
Run Number	Two
Depth Driller	4480'
Depth Logger	4480
Bottom Logged Interval	4475'
Top Log Interval	600'
Casing Driller	8 5/8" @ 513'
Casing Logger	513'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	8.9/50
PH / Fluid Loss	8.5/12
Source of Sample	Pit
Rm @ Meas. Temp	2.8@76degf
Rmf @ Meas. Temp	2.1@76degf
Rmc @ Meas. Temp	3.36@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.77@120degf
Time Circulation Stopped	3:00 p.m.
Time Logger on Bottom	8:00 p.m.
Maximum Recorded Temperature	120degf
Equipment Number	T127
Location	Hays, KS
Recorded By	Gus Pfanenstiel
Witnessed By	Mr. Rod Andersen

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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

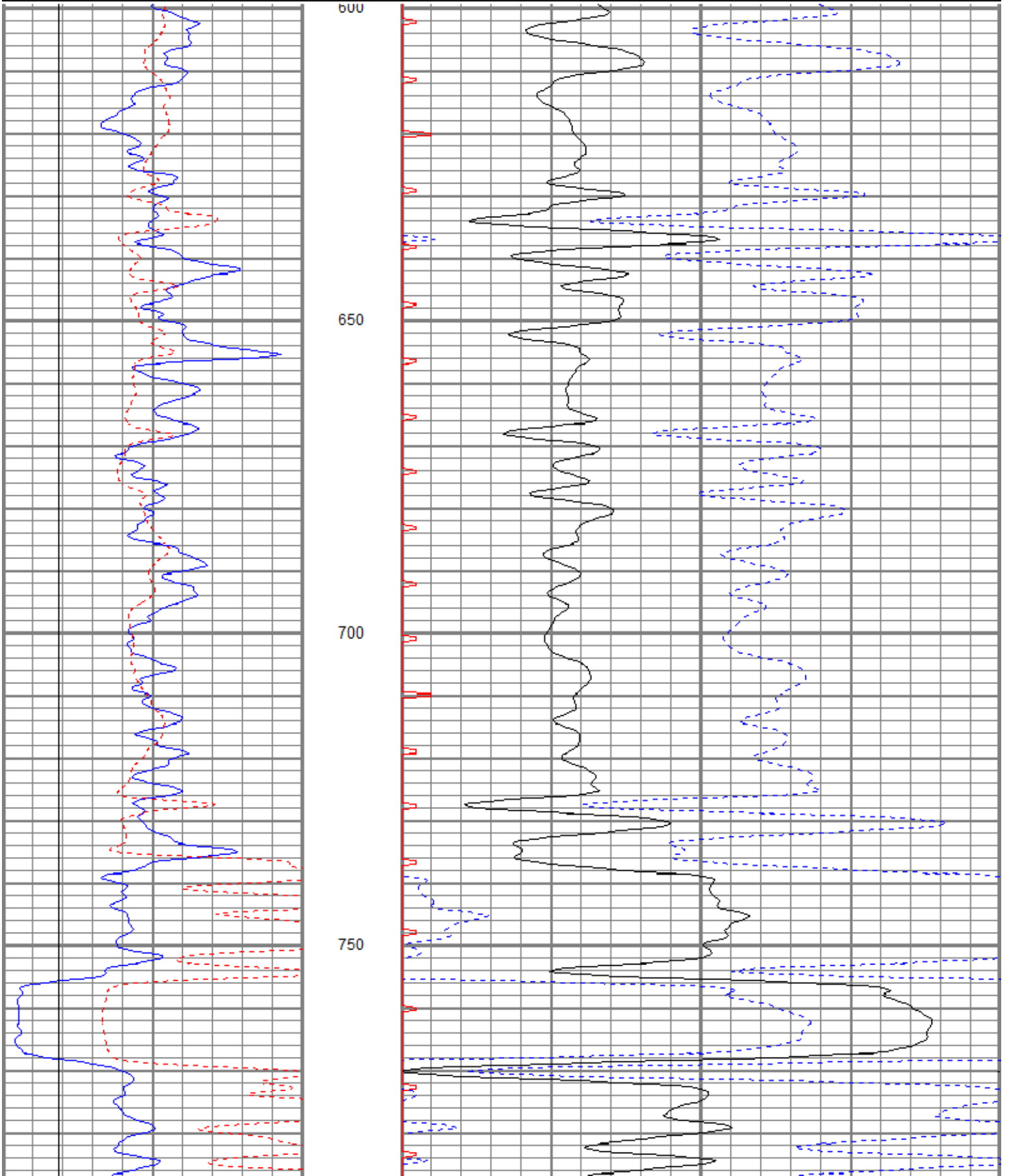
South of Ness City to 20 Rd.
East to Z Rd. 1 South, 1 East, 1/2 South
West into.

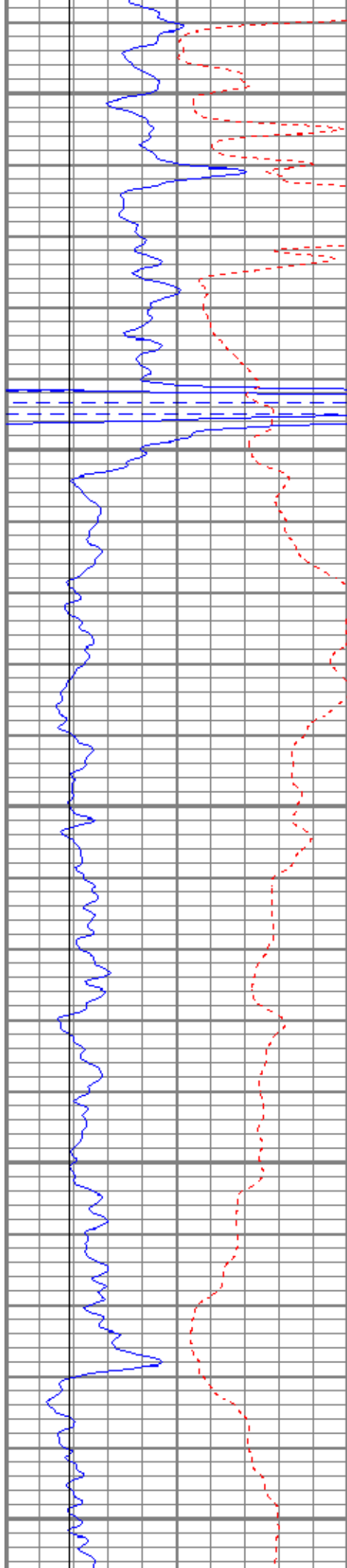


Main Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass4bcs
 Presentation Format kbc
 Dataset Creation Fri Jun 10 21:24:52 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	140	DT (usec/ft)	40
6	MCAL (in)	16	30	SPOR (pu)	-10
6	BOREID (in)	16	0	ITT (msec)	20





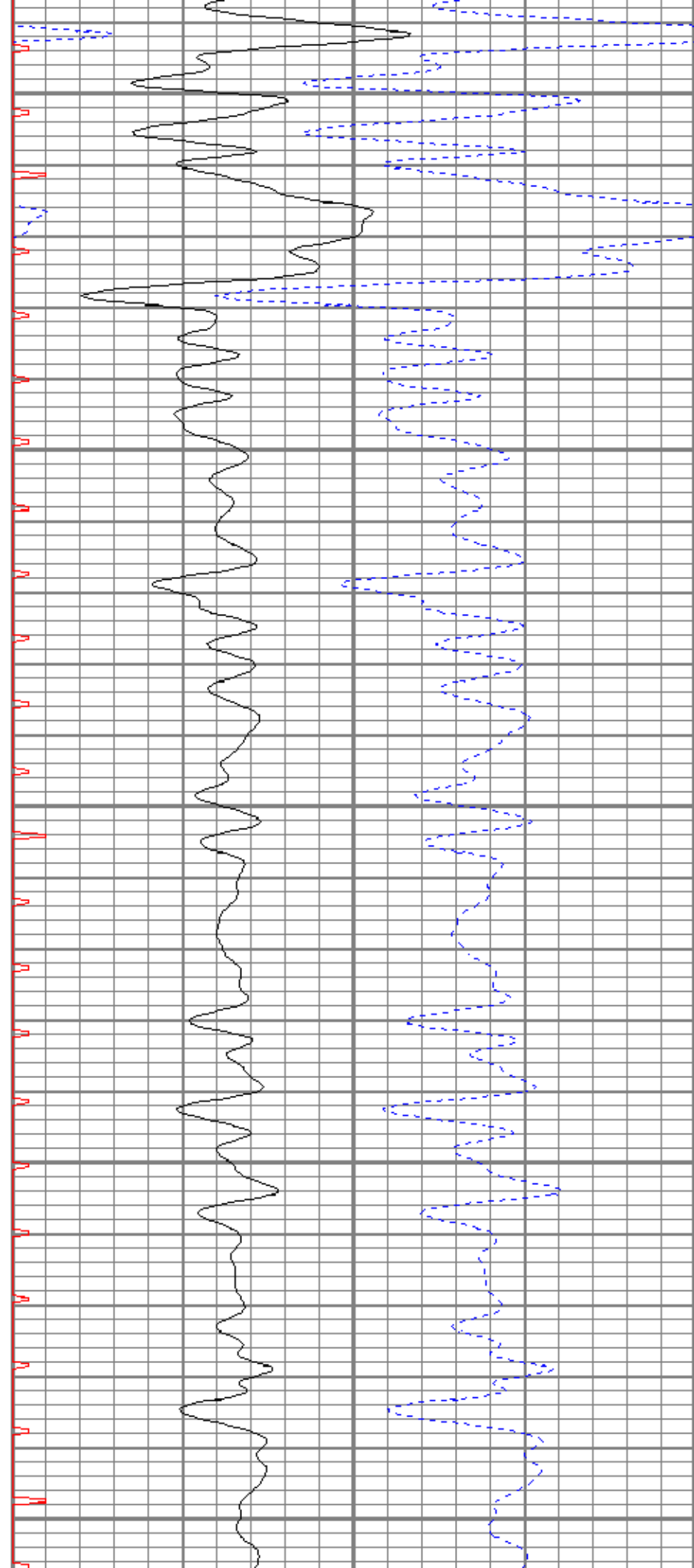
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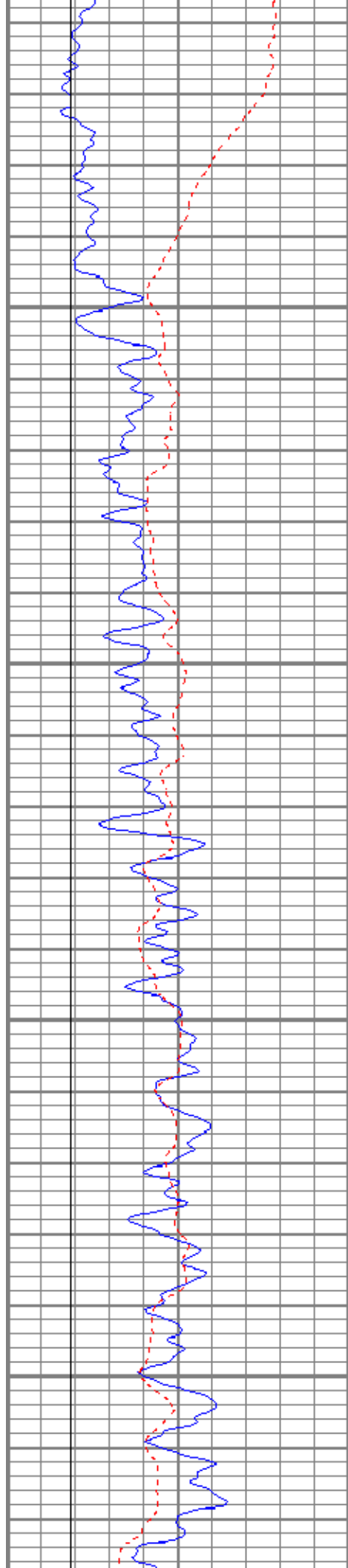
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950

1000



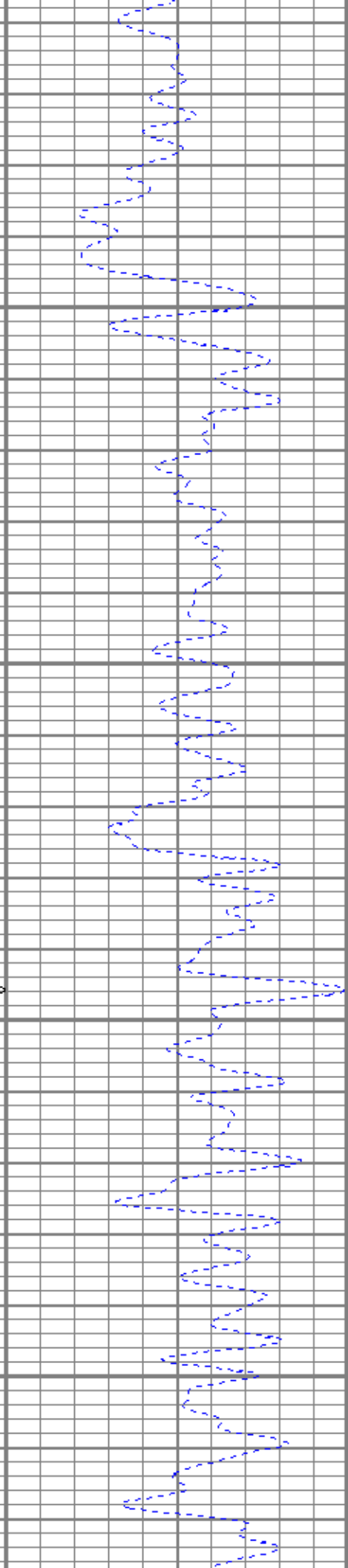
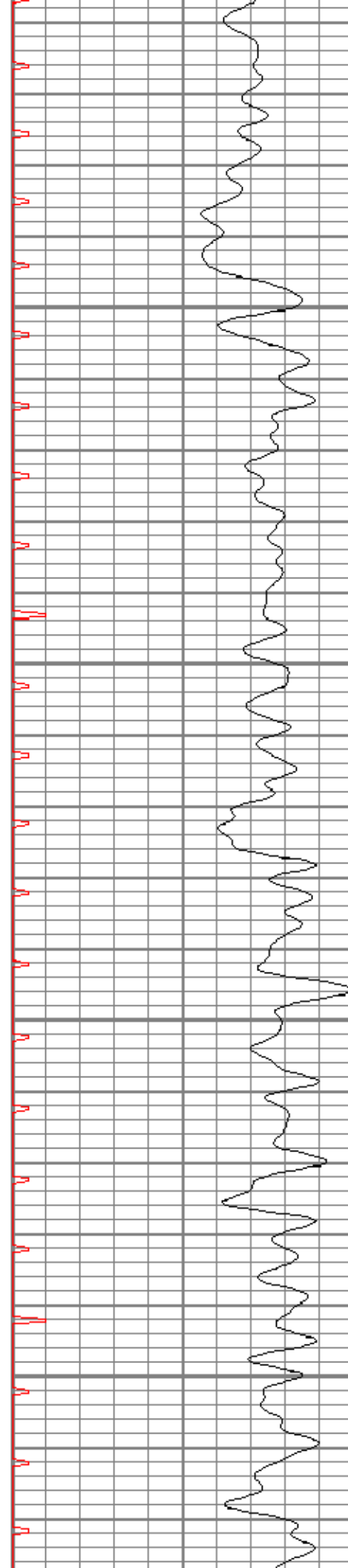


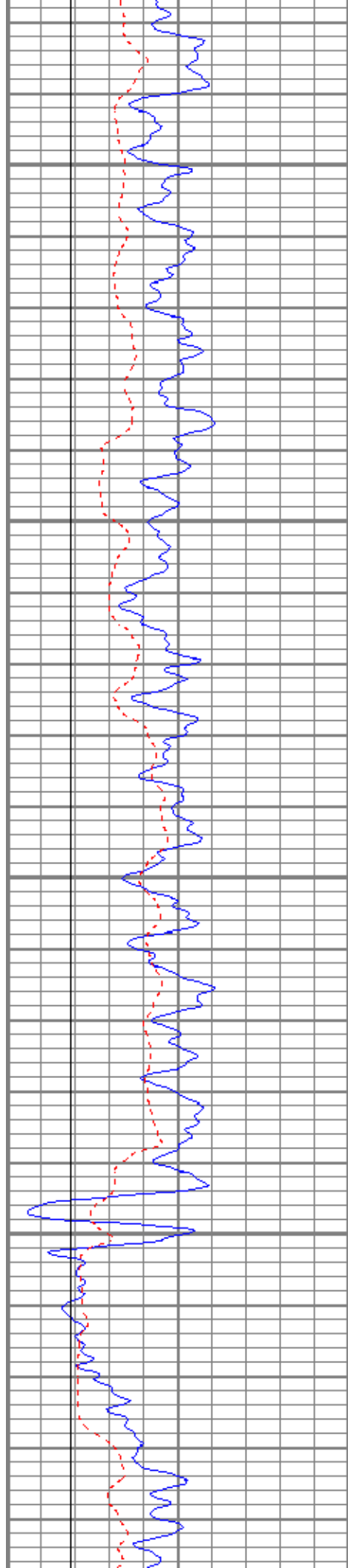
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1100

1150

1200



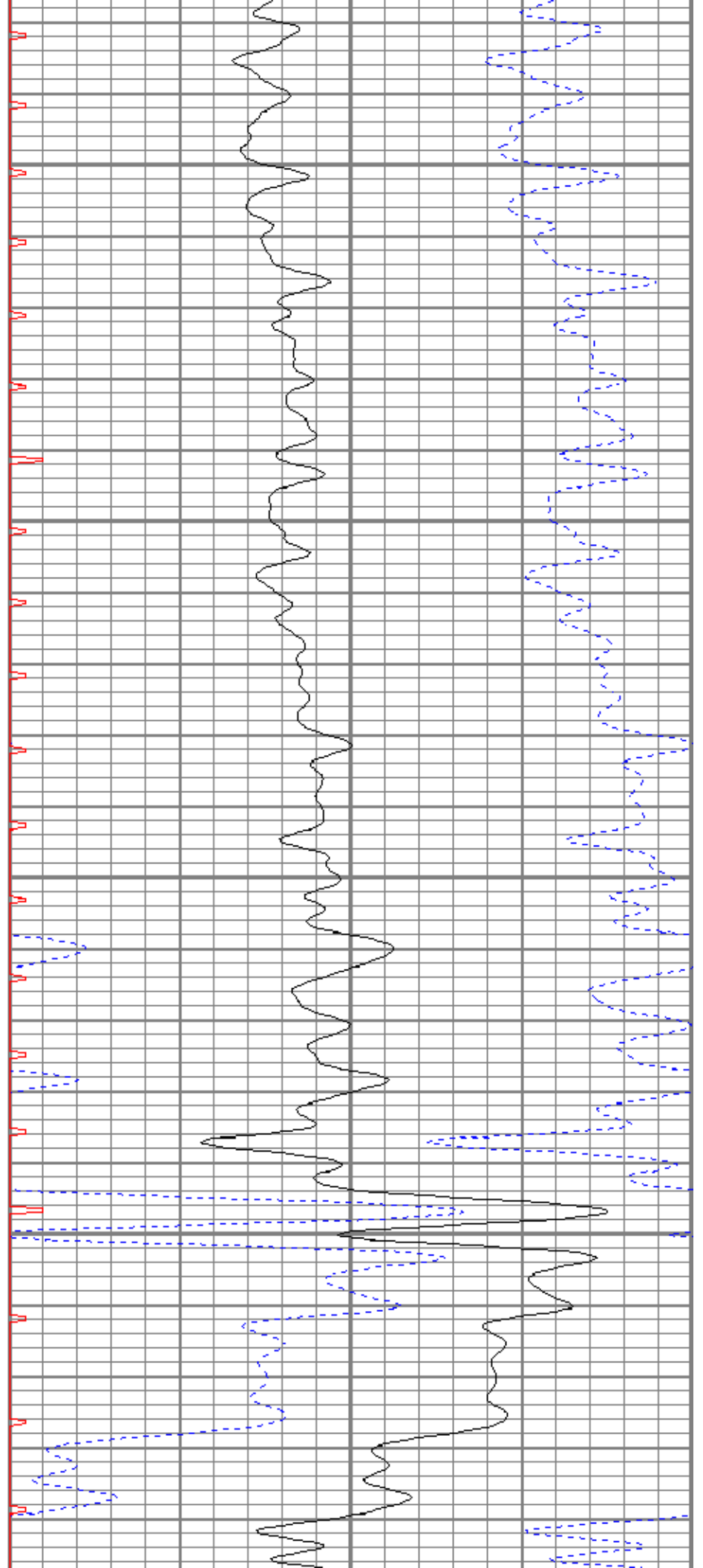


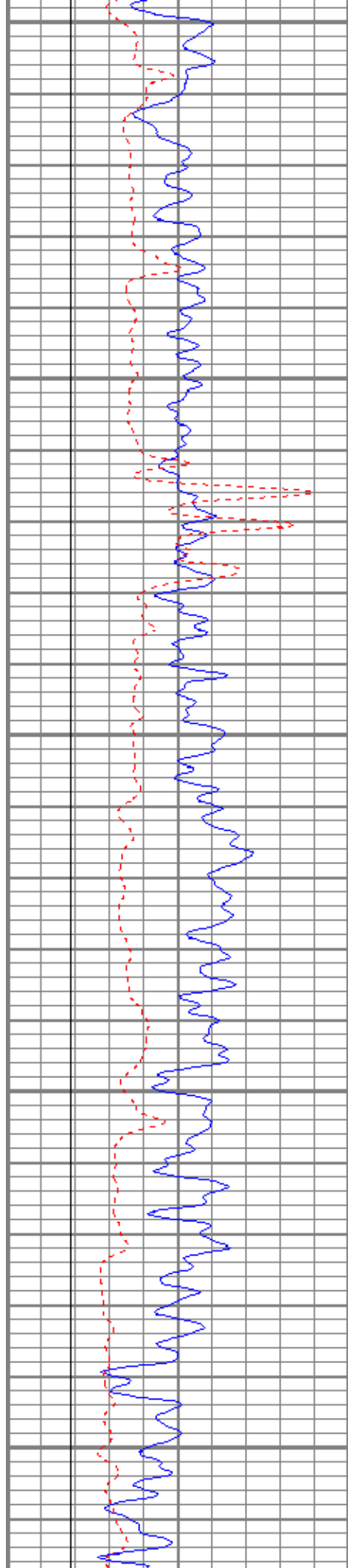
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1400





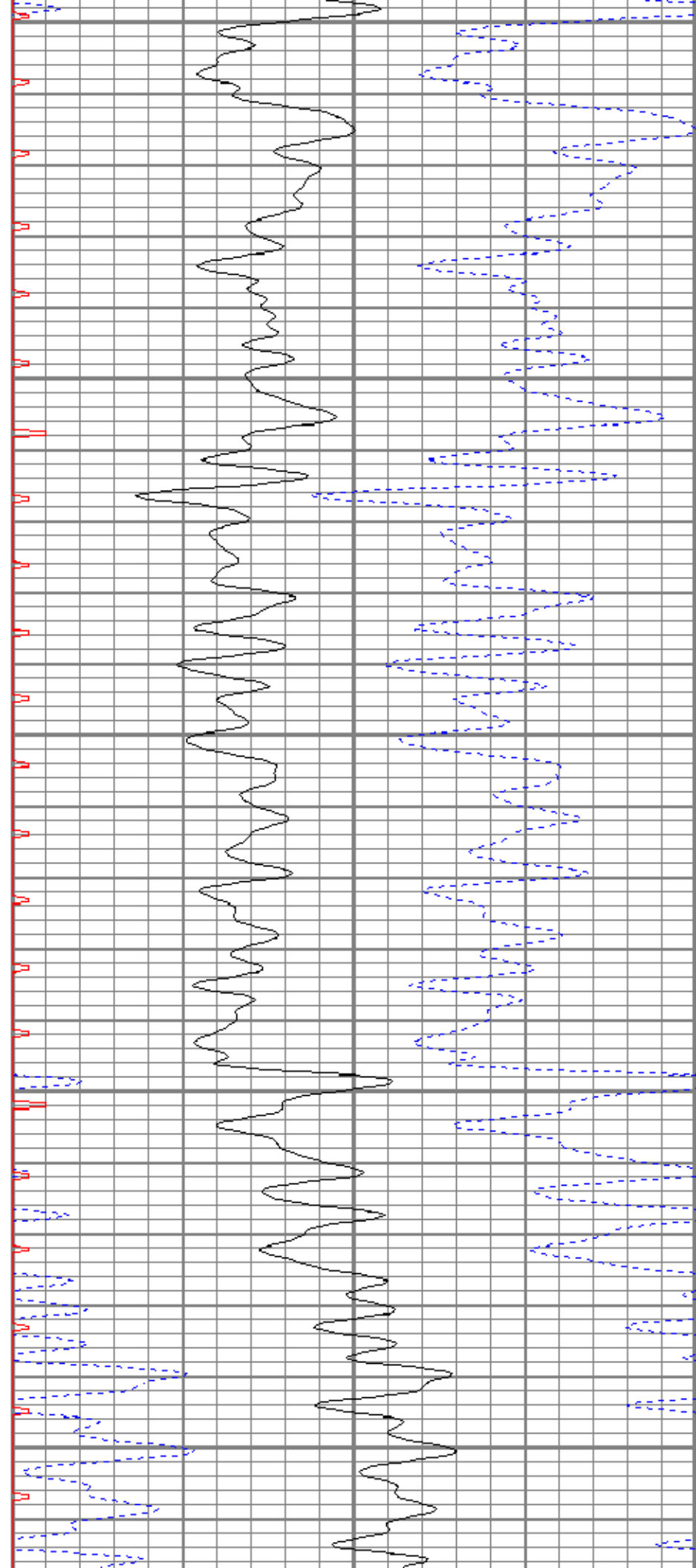
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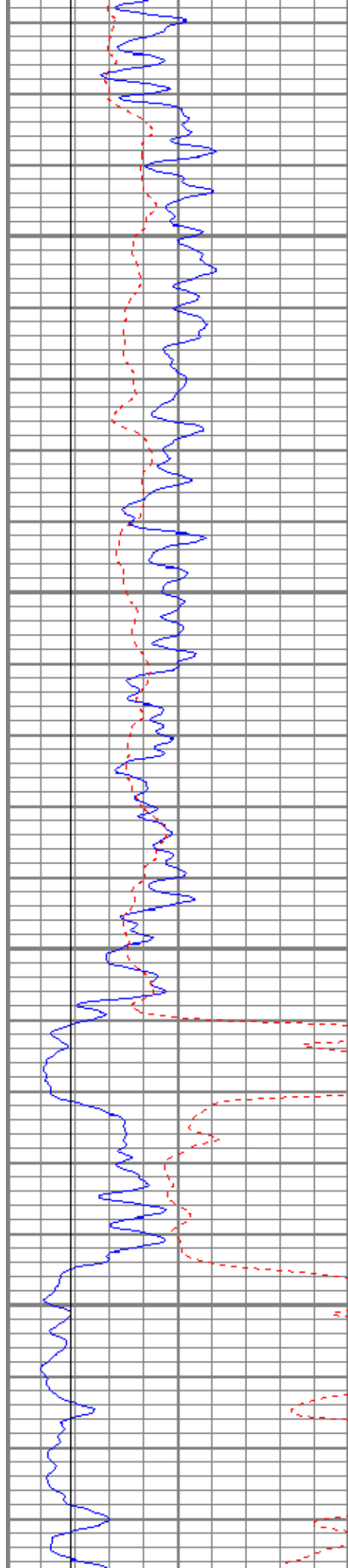
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1650



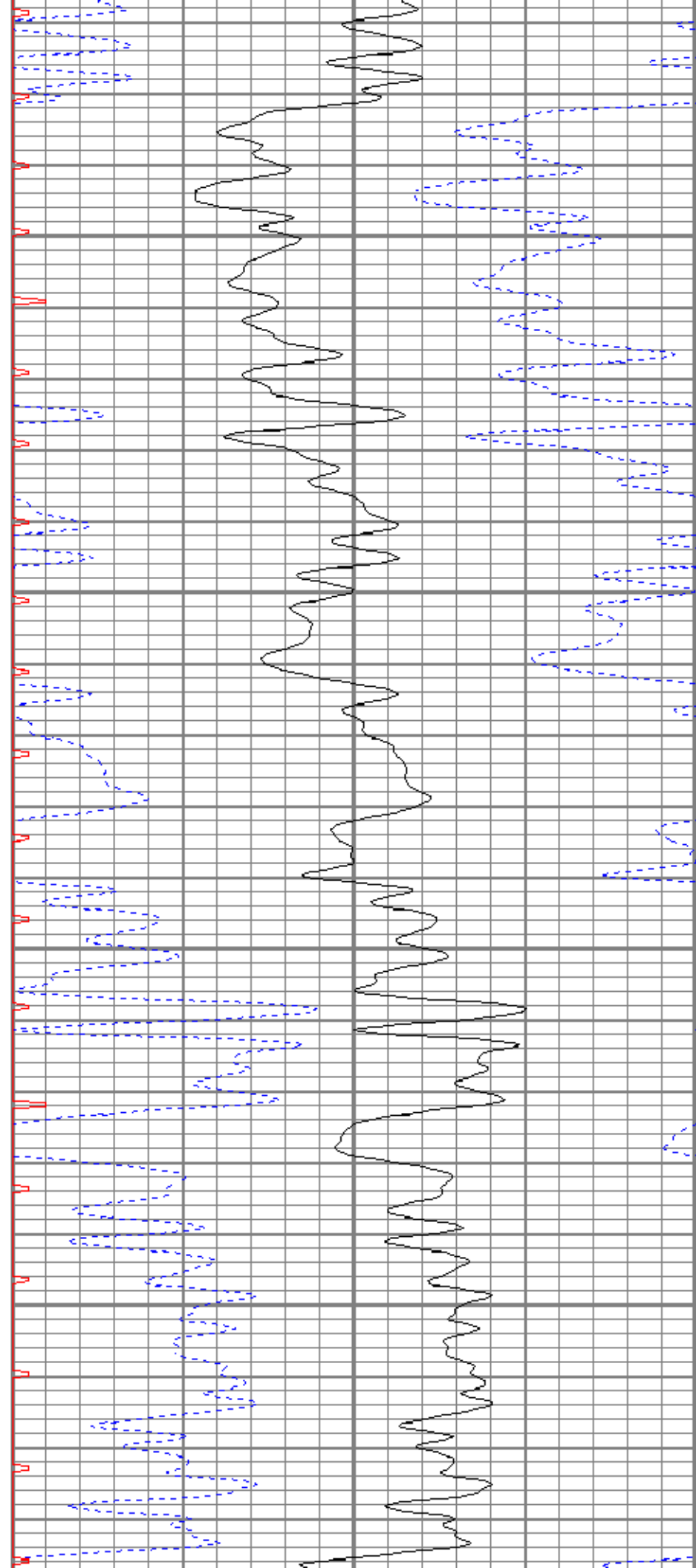


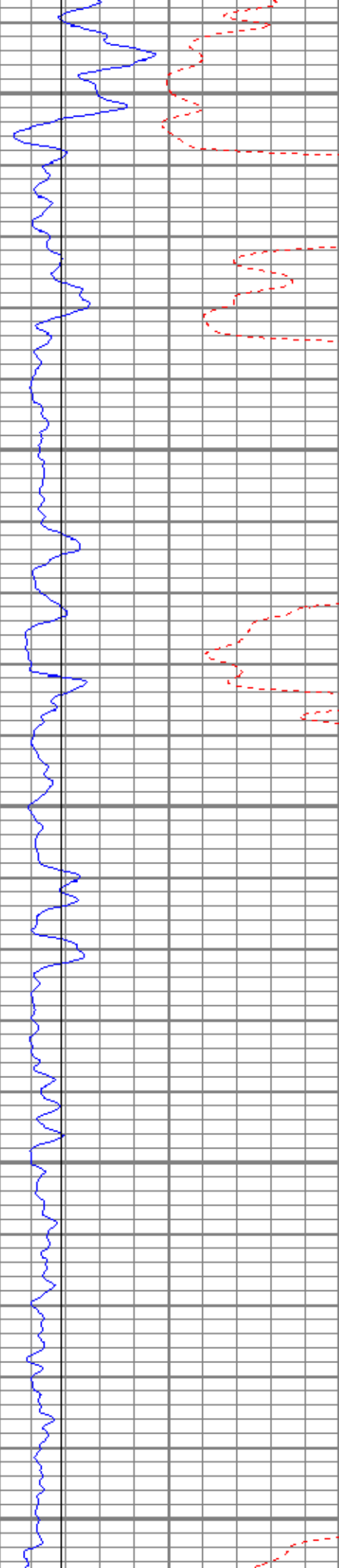
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1750

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1850





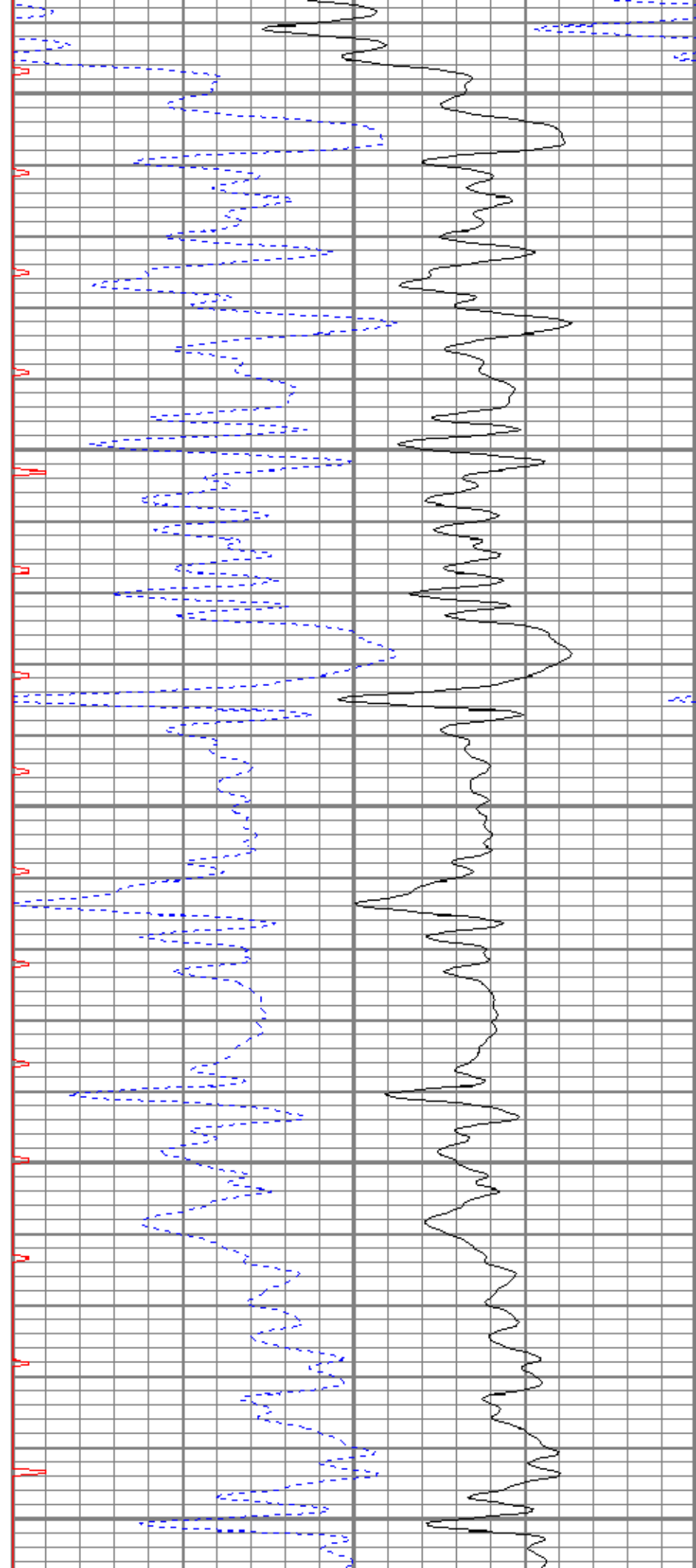
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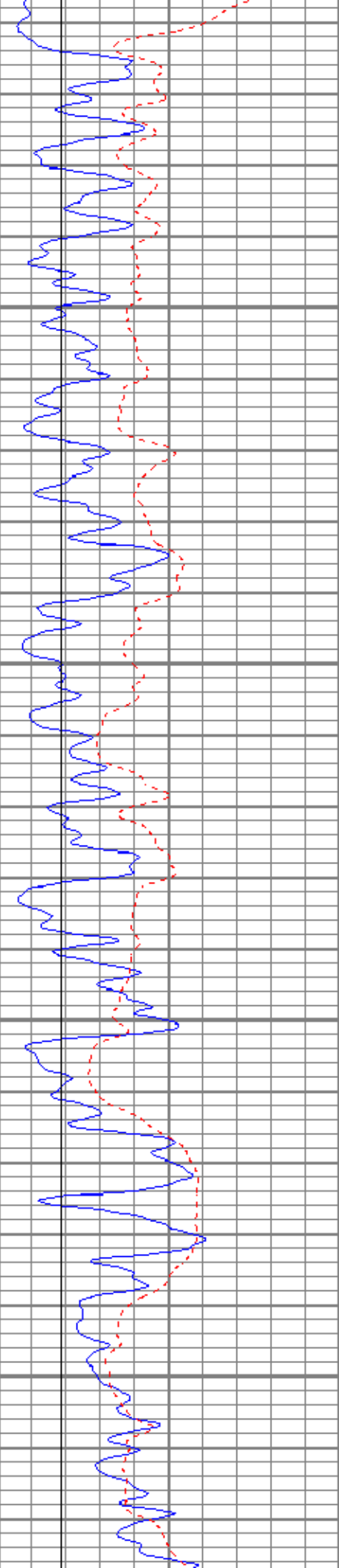
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2000

2050

2100



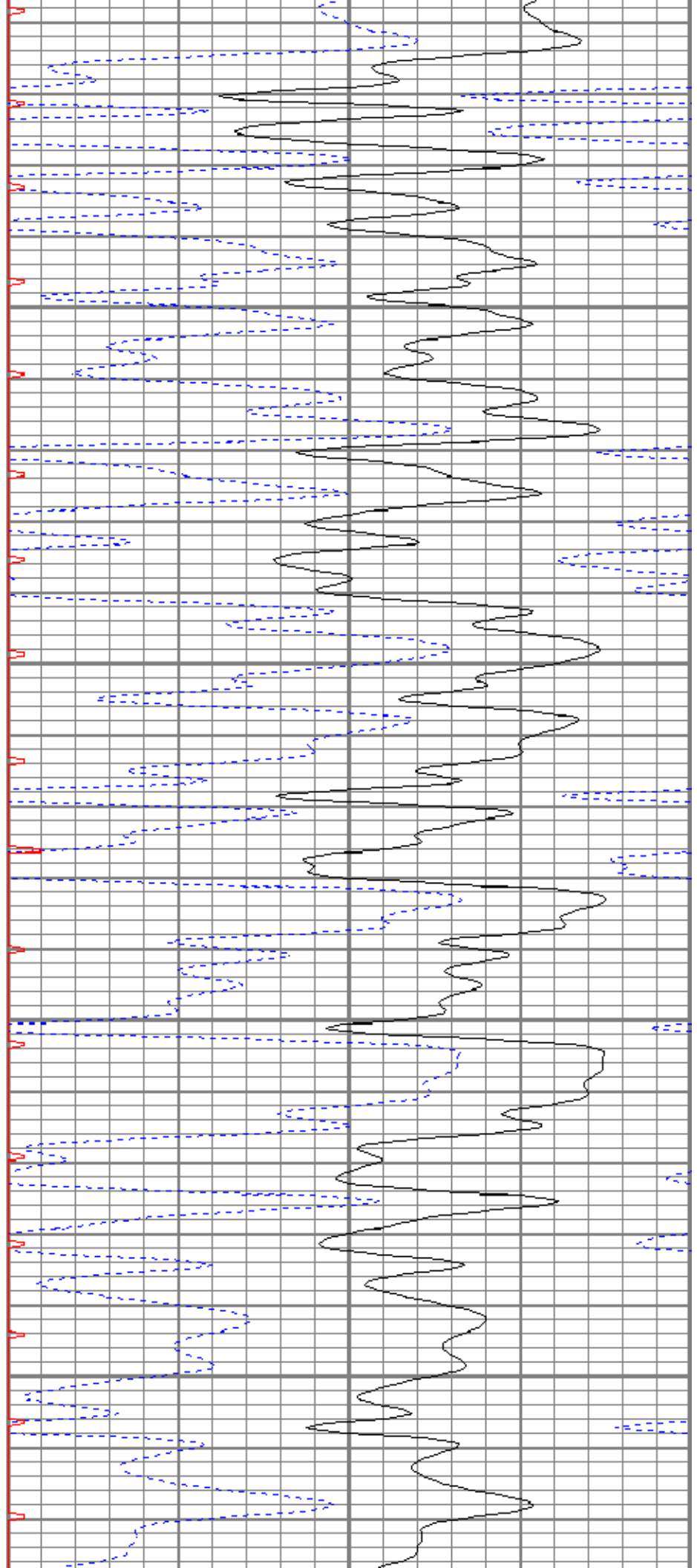


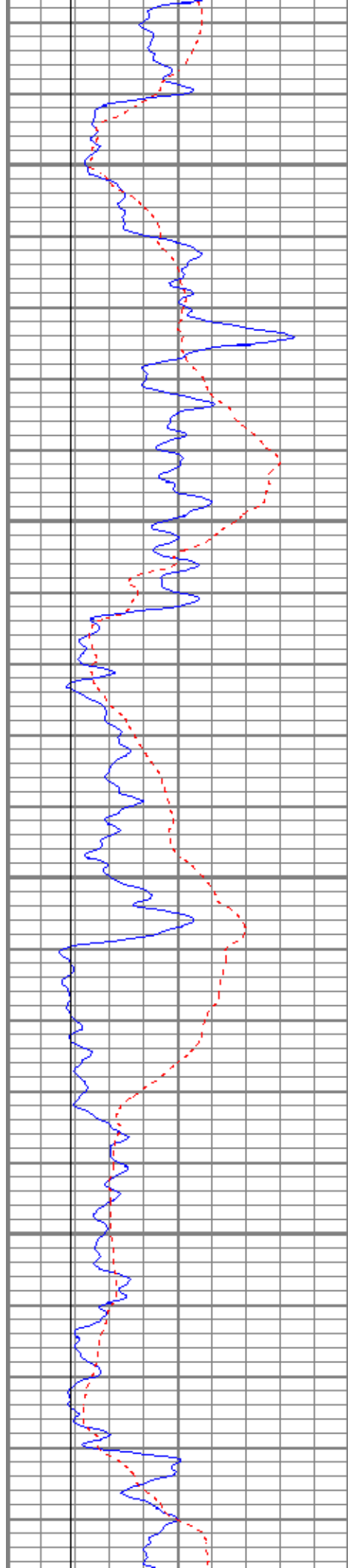
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2200

2250

2300



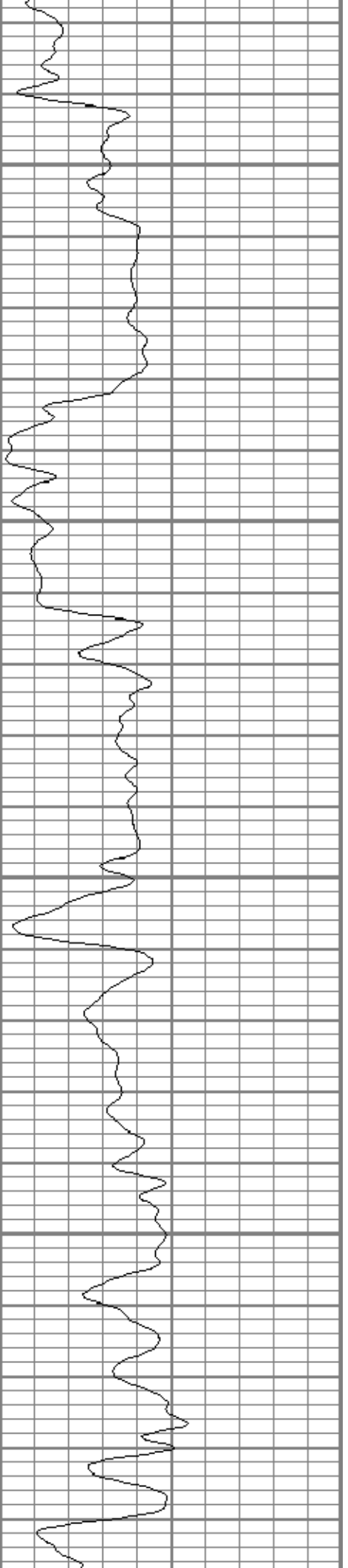
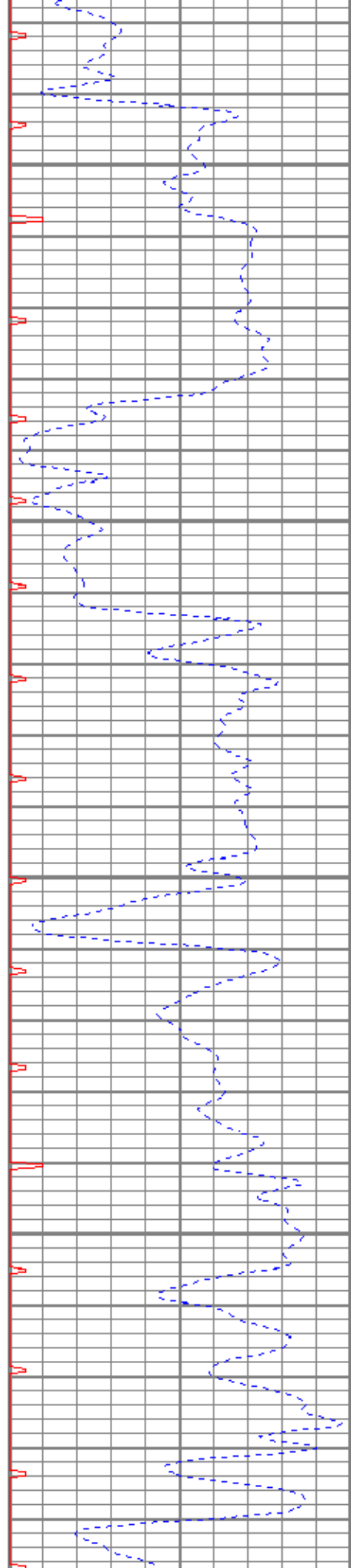


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2400

2450

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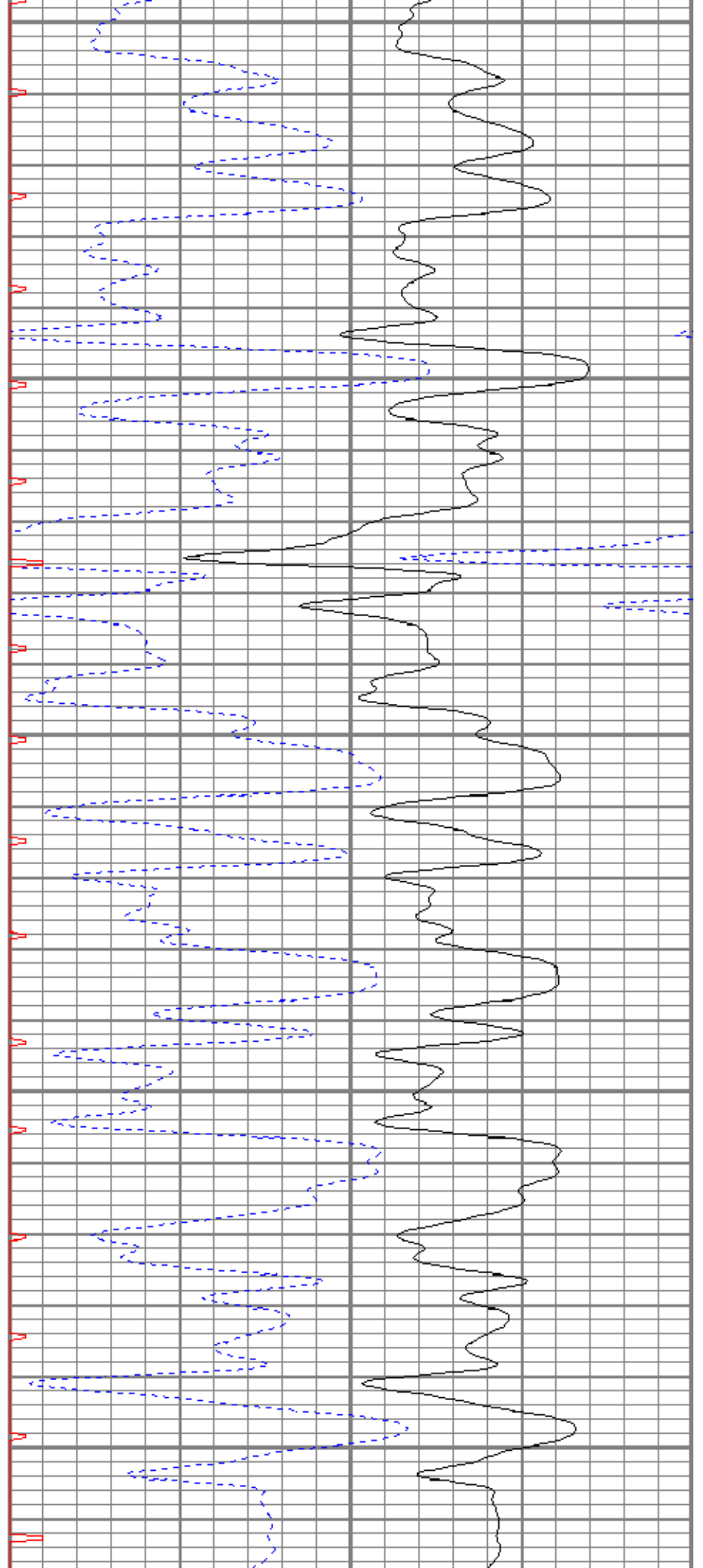
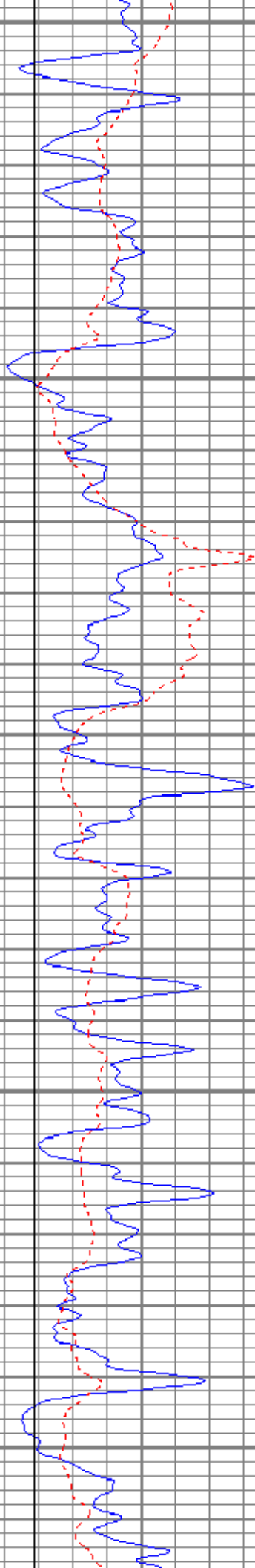
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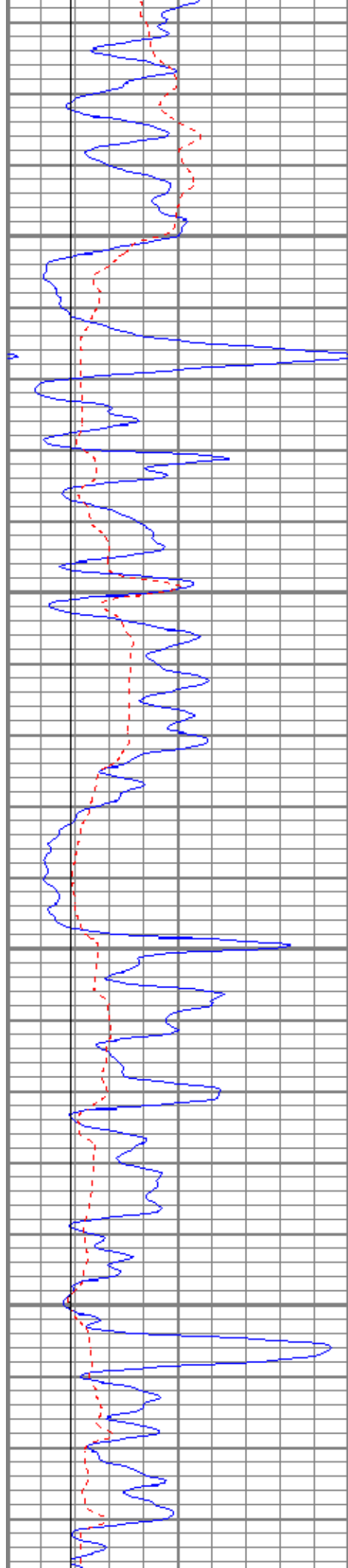
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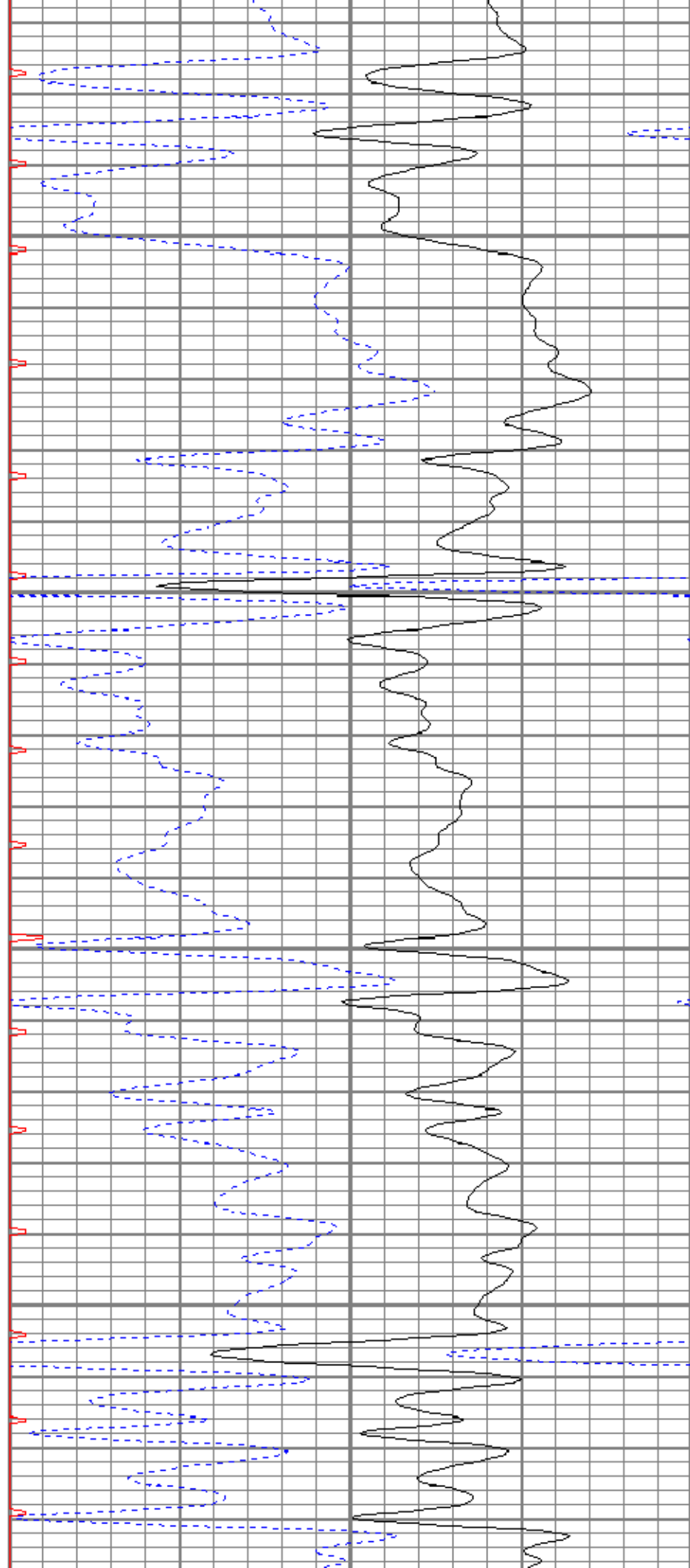


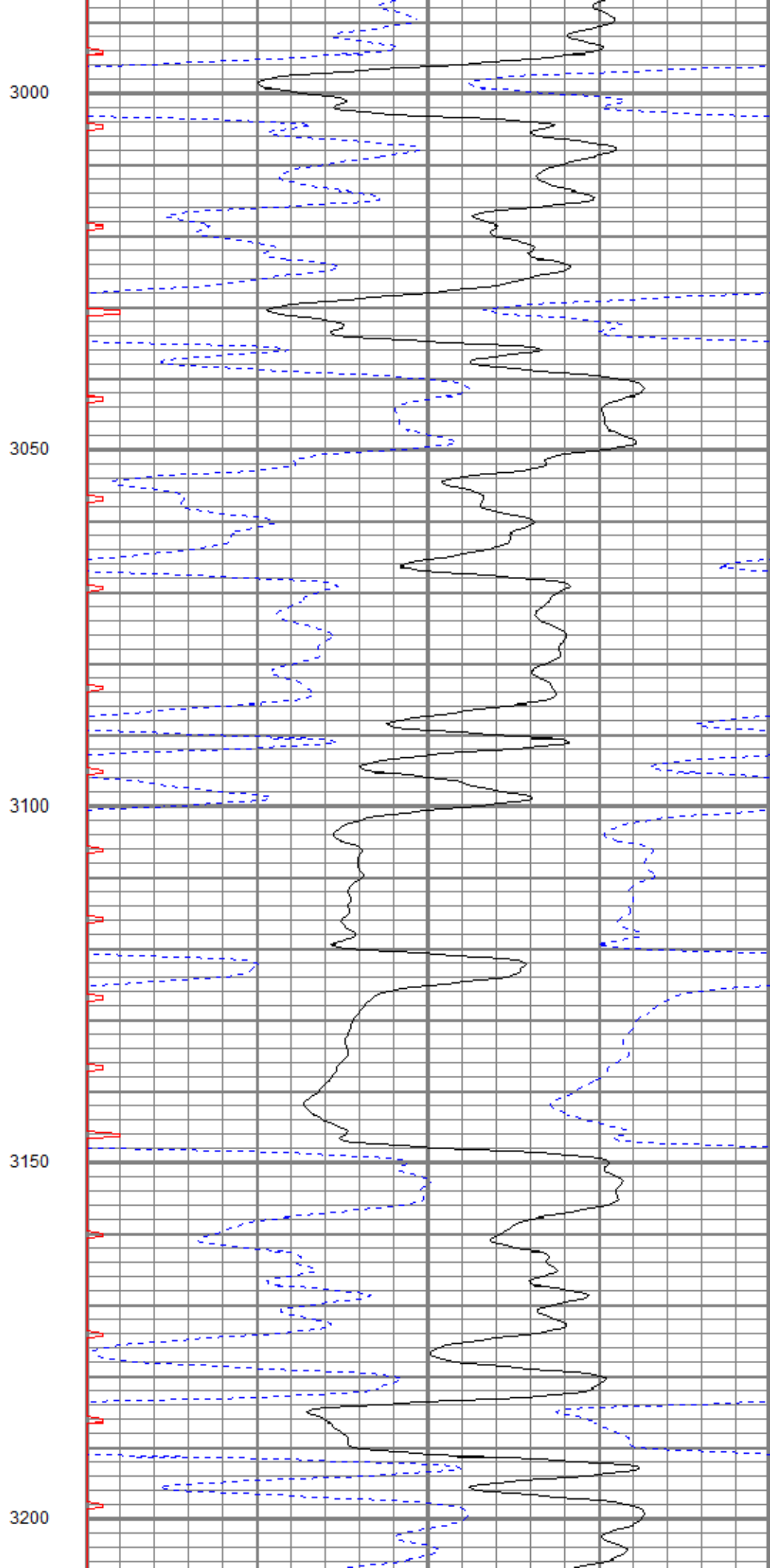
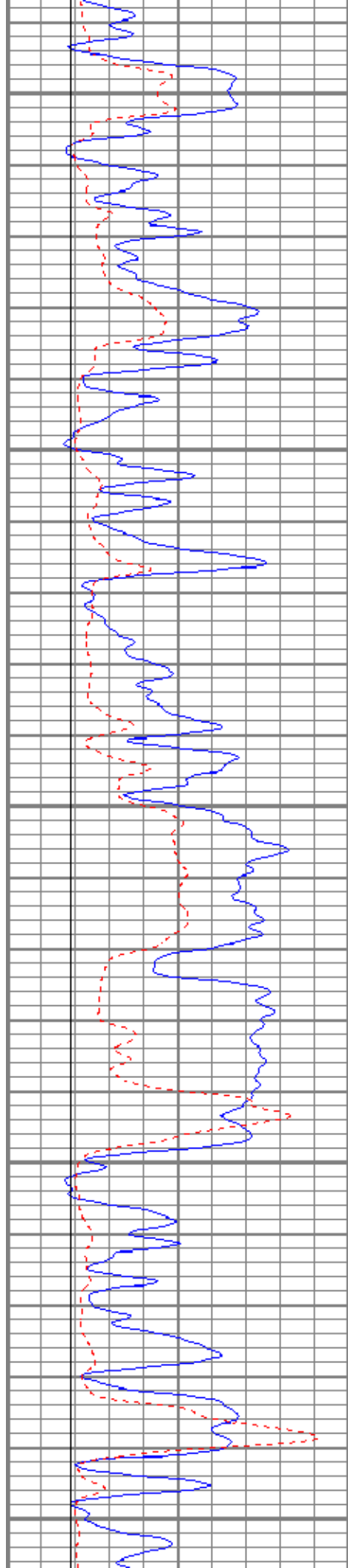
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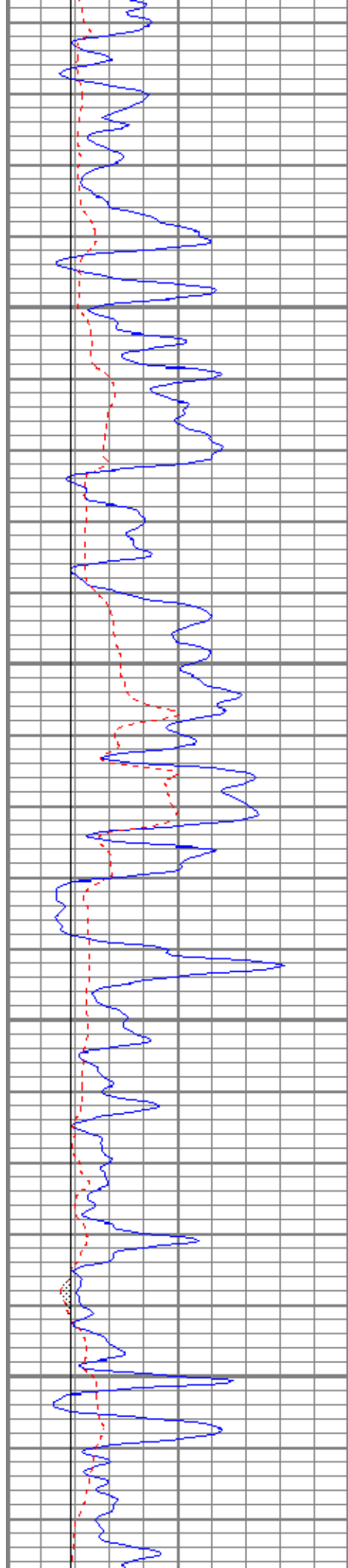
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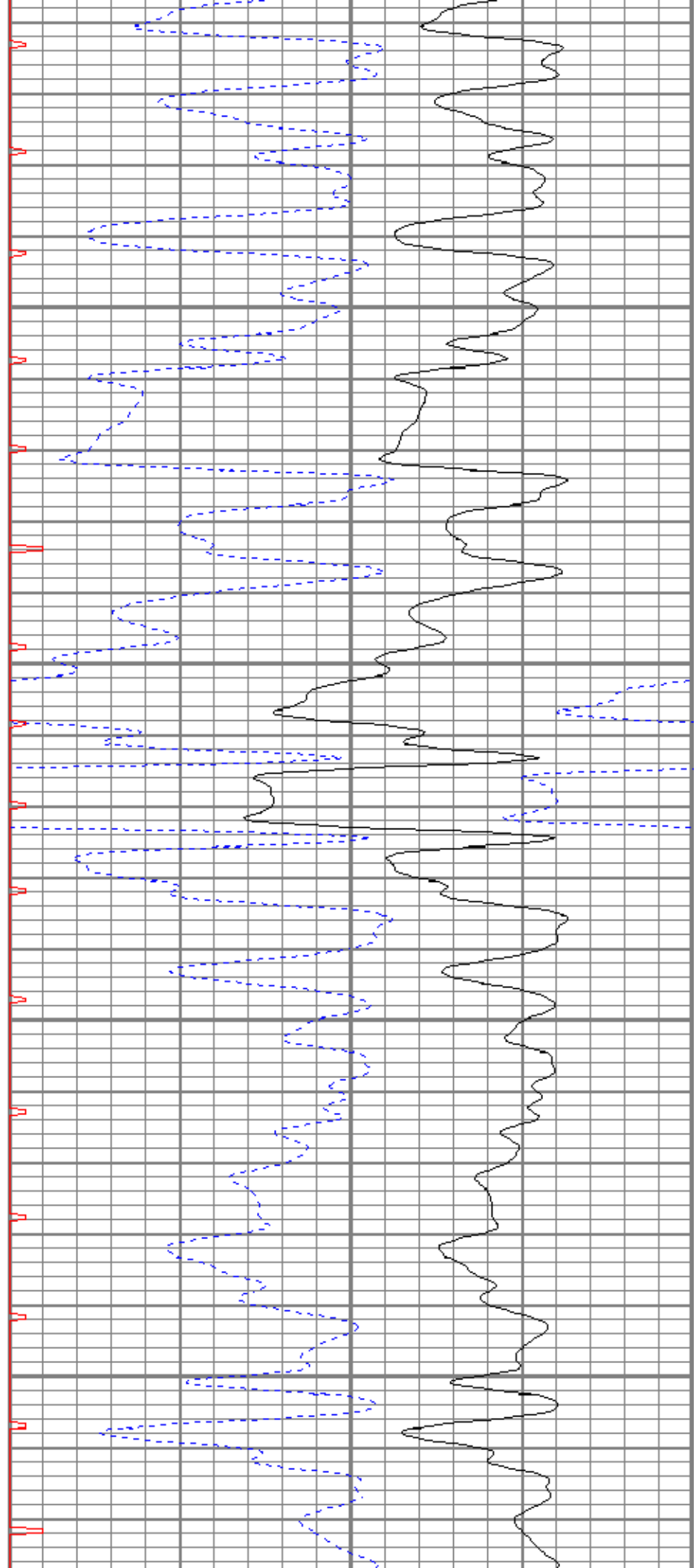


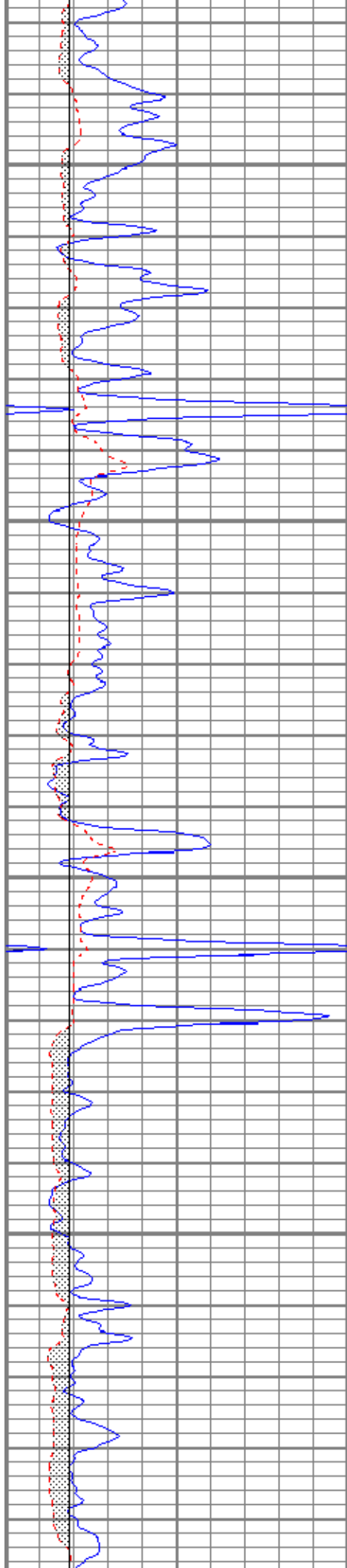
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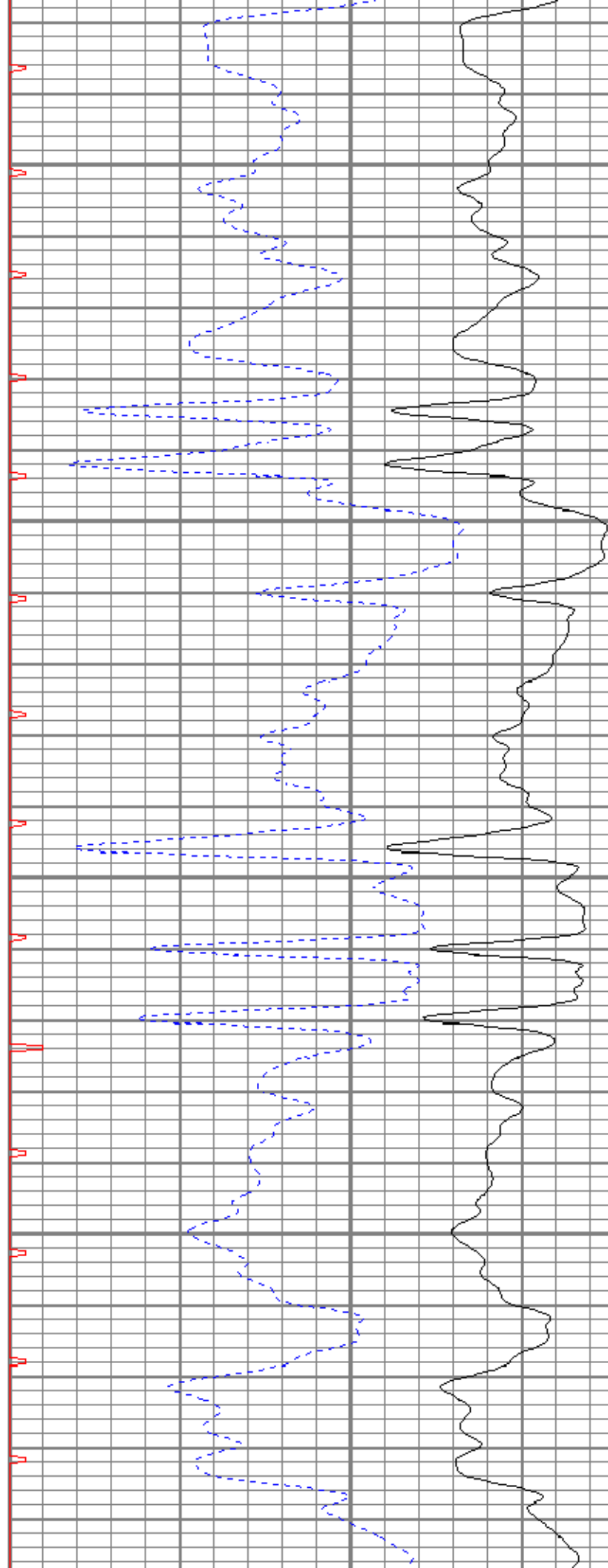


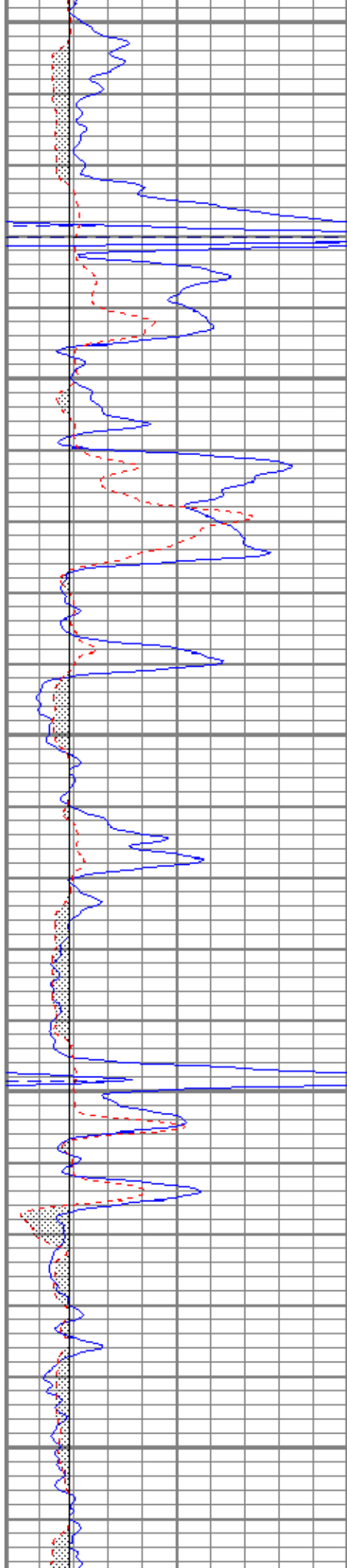
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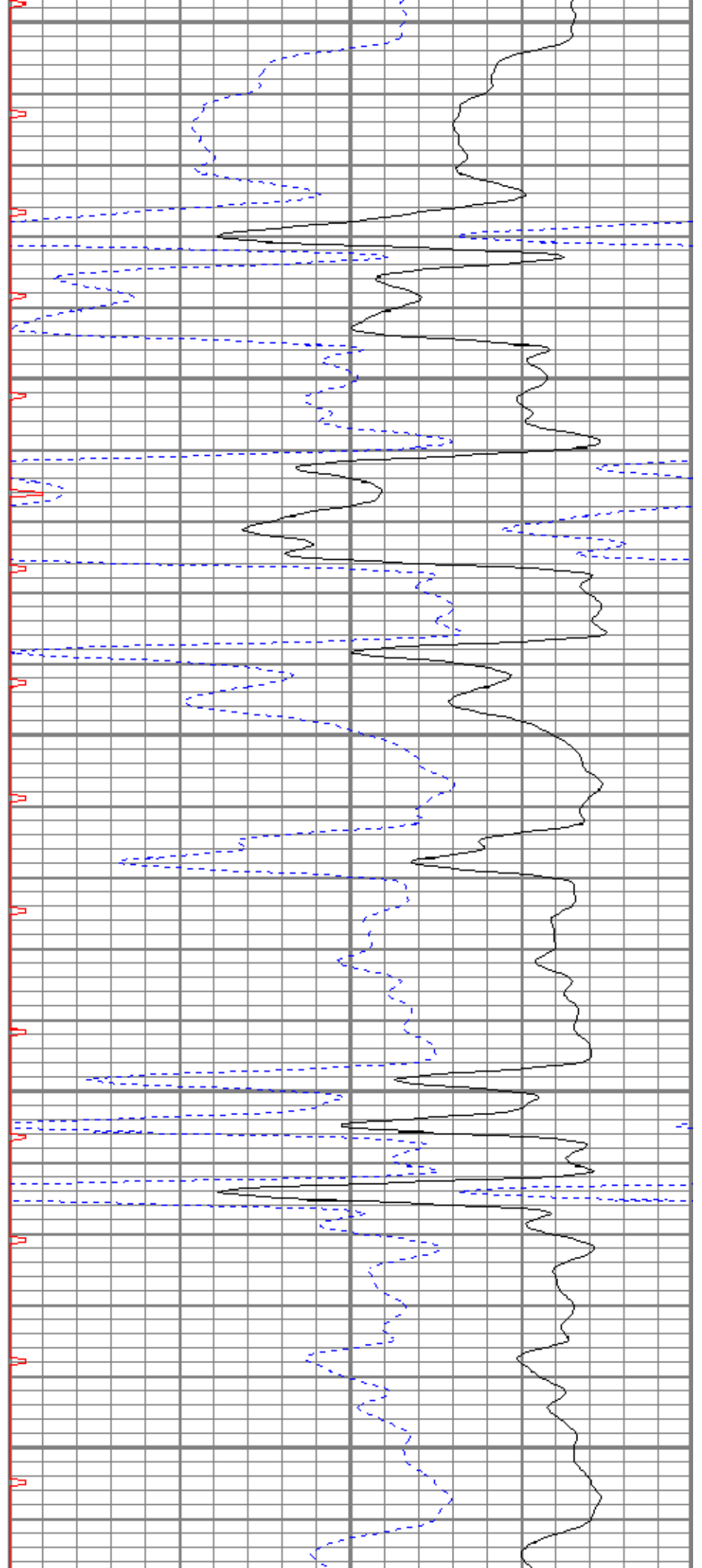
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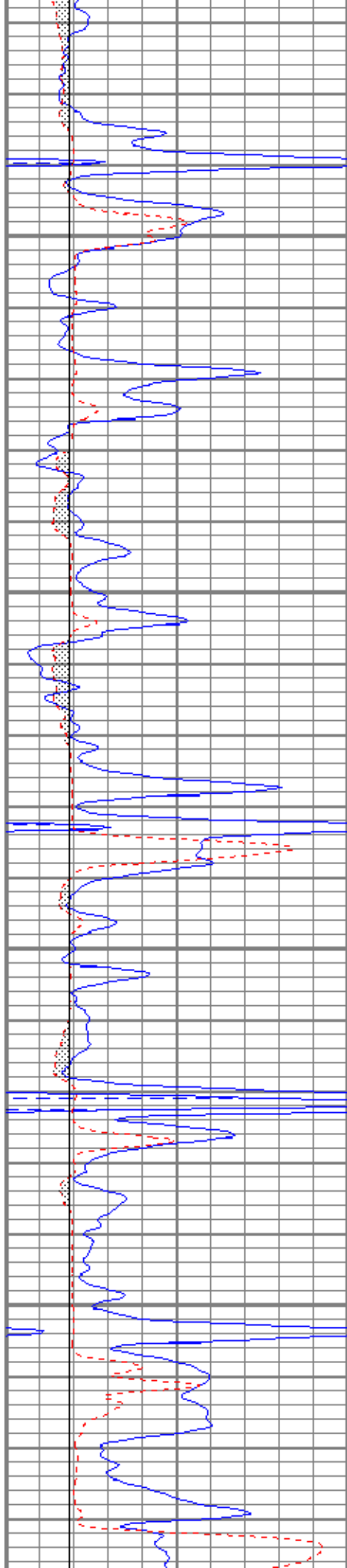
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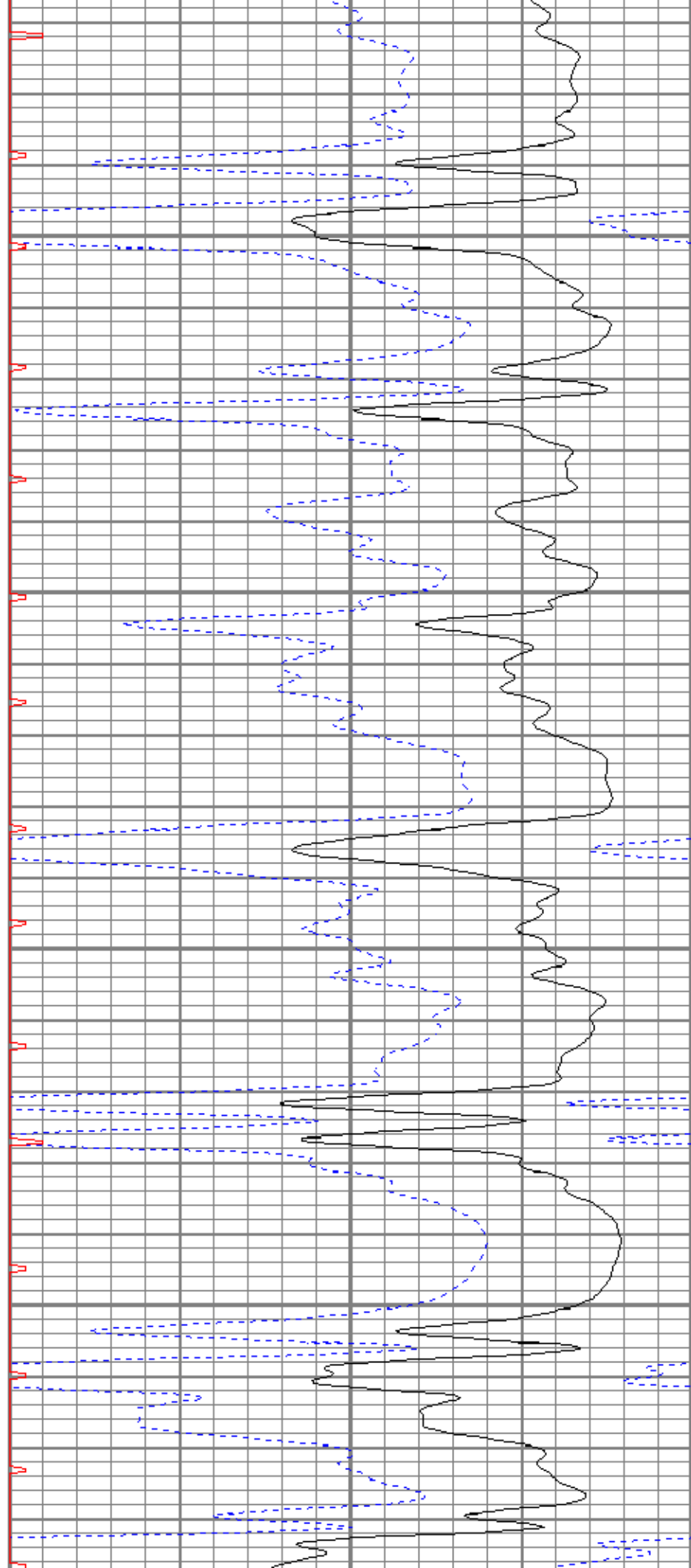


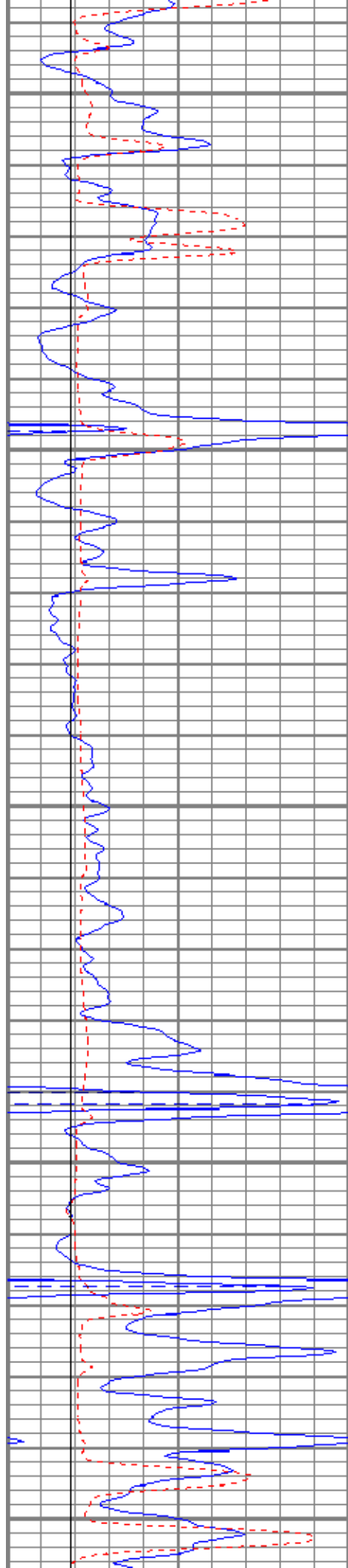
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3950

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4050





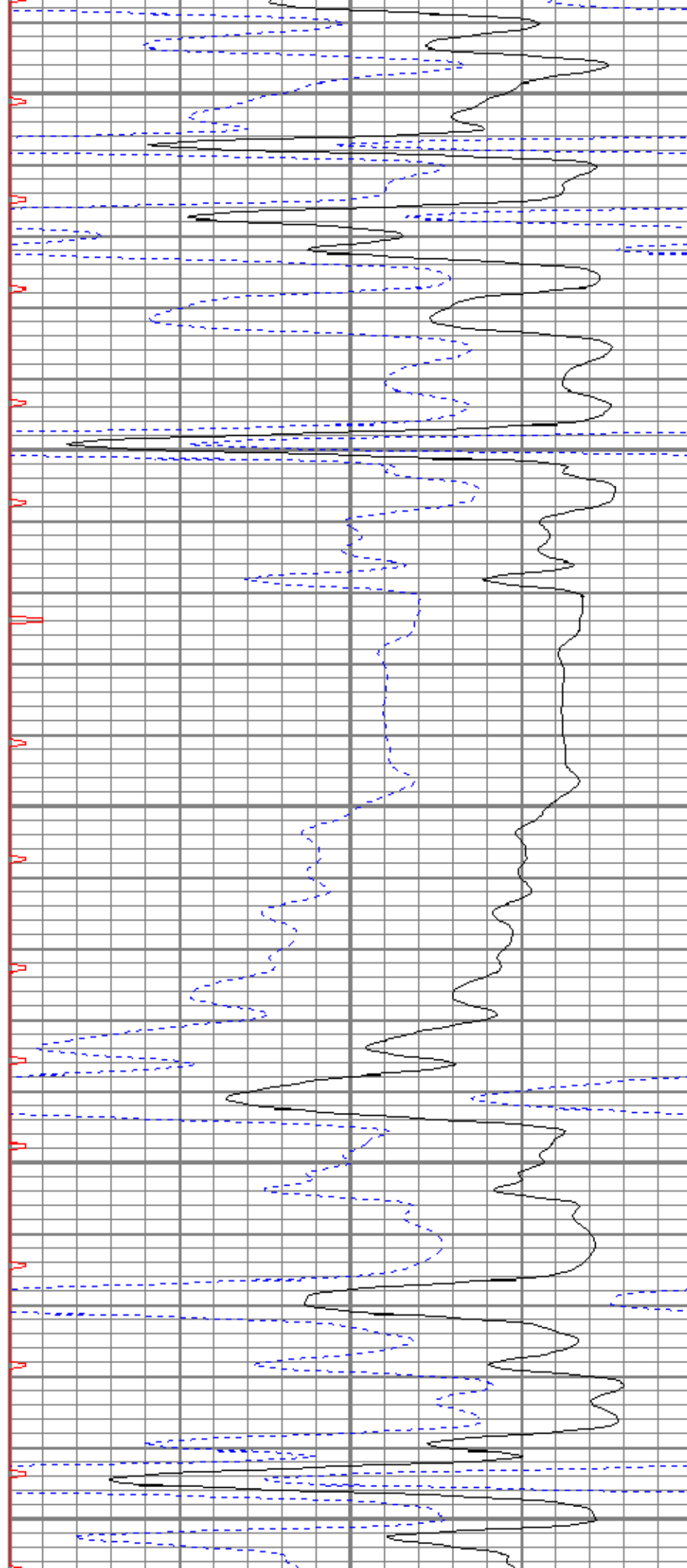
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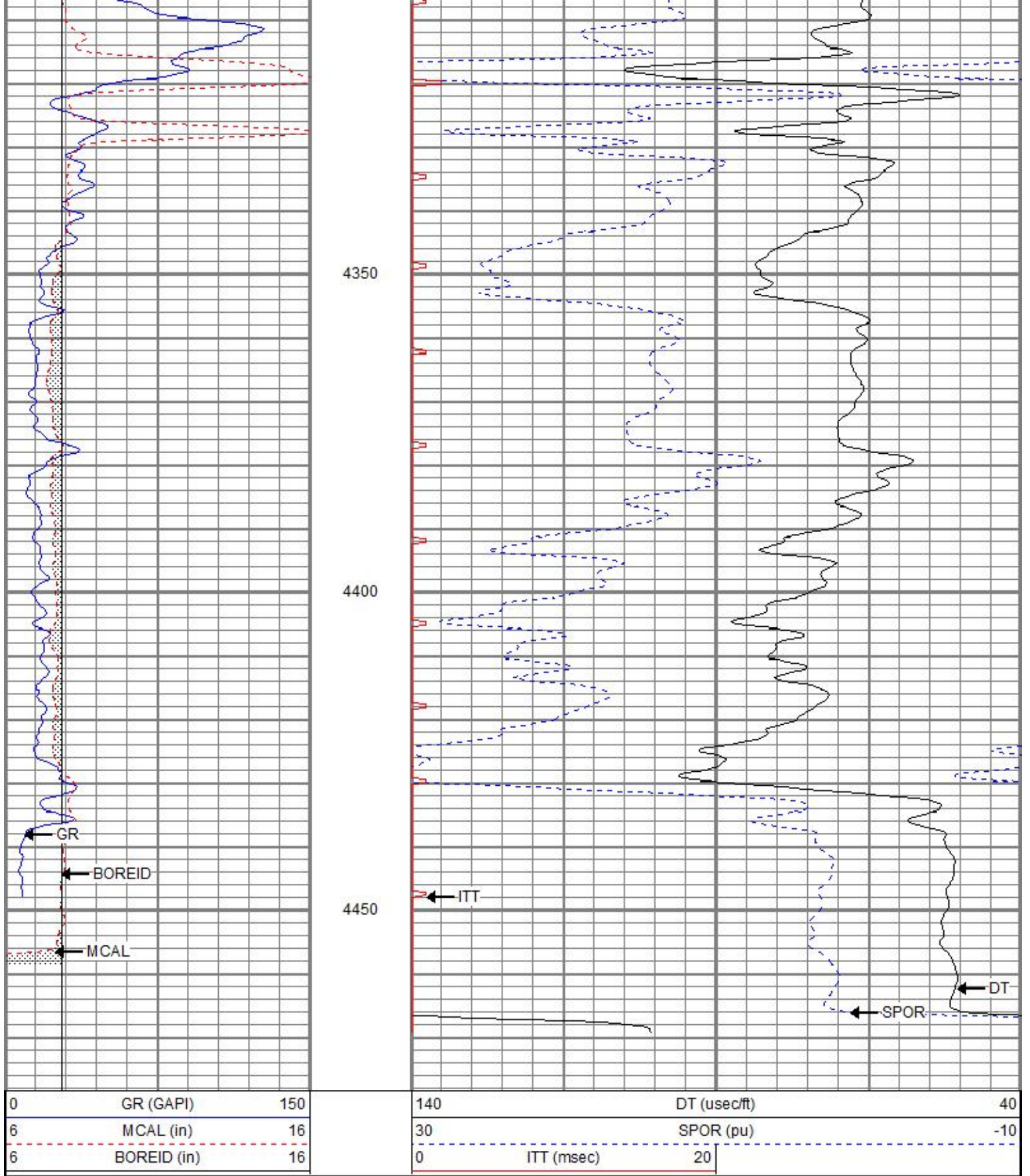
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4200

4250

4300

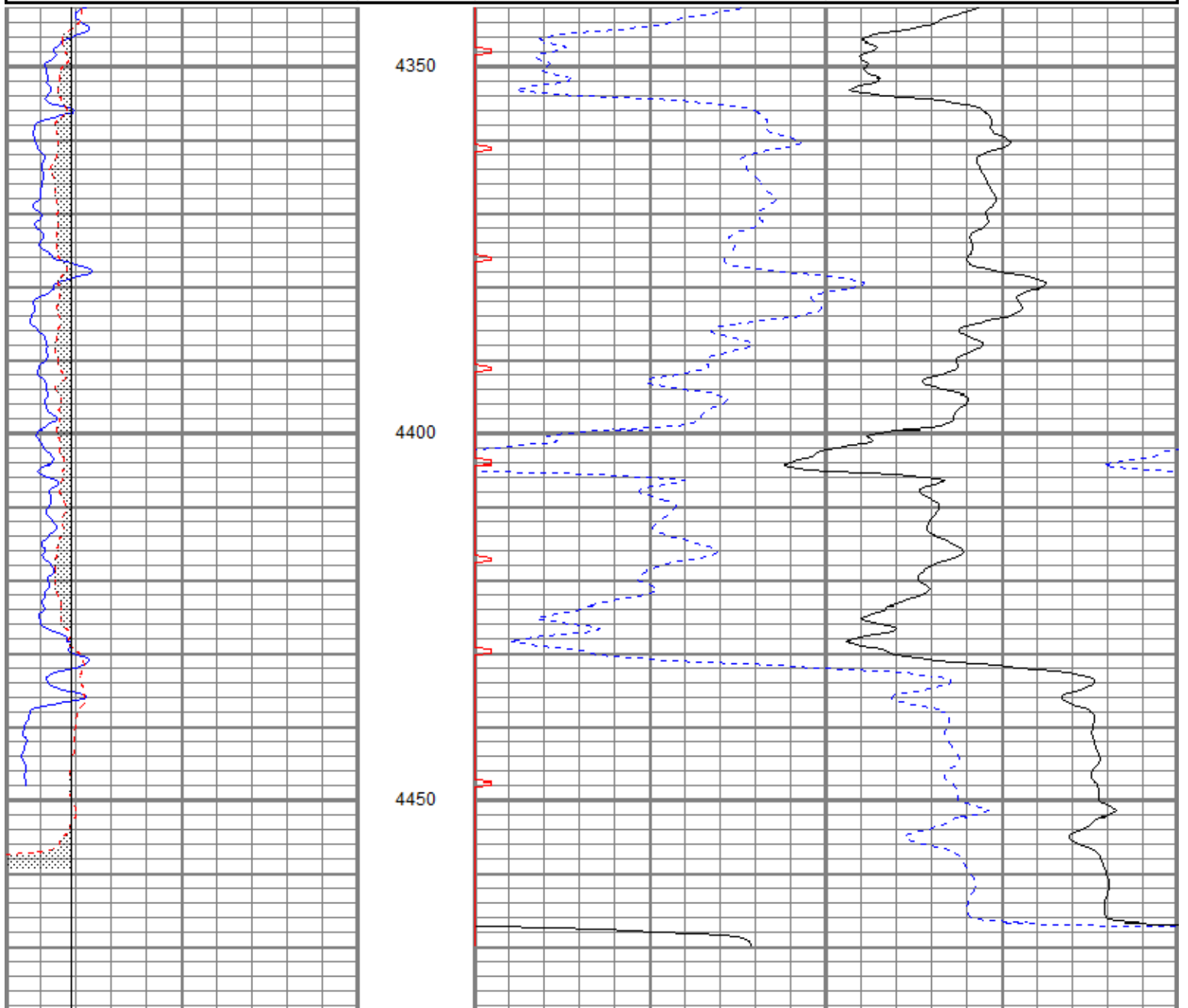




Repeat Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass3.1
 Presentation Format khcs

0	GR (GAPI)	150	140	DT (usec/ft)	40
6	MCAL (in)	16	30	SPOR (pu)	-10
6	BOREID (in)	16	0	ITT (msec)	20



0	GR (GAPI)	150	140	DT (usec/ft)	40
6	MCAL (in)	16	30	SPOR (pu)	-10
6	BOREID (in)	16	0	ITT (msec)	20

Calibration Report

Database File: tcbarricklow#1-33oh.db
 Dataset Pathname: pass3.1
 Dataset Creation: Fri Jun 10 20:48:09 2016

Microlog Calibration Report

Serial-Model: 012-Pengo
 Performed: Wed Apr 20 21:39:52 2016

Readings

Zero Cal

References

Zero Cal

Results

m h

	Zc10	Cal	V	Zc10	Cal	in	in
Normal	0.0073	0.4397	V	0.0000	11.0000	Ohm-m	25.4408
Inverse	0.0081	0.5639	V	0.0000	7.3000	Ohm-m	13.1357
Caliper	2.0536	4.5712	V	7.6000	14.0000	in	2.5420

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Jan 21 09:36:03 2016

 Calibrator Value: 1.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

 Sensitivity: 0.2400 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	27.88		GR-OH (2001) 2001	3.56	3.25	40.00
			ML-Pengo (012)	6.97	3.50	100.00
MCAL	21.05					
MI	21.05					
MN	21.05					
WVF4	13.79					
WVF3	12.79					
			SLT-G (101127) Sonic	15.71	3.50	250.00
WVF2	9.79					
WVF1	8.79					
			CENT-OHshort Open Hole short centralizer	4.04	3.50	50.00

Dataset: tcbarricklow#1-33oh.db: field/well/run1/pass3.1
 Total length: 30.28 ft
 Total weight: 440.00 lb
 O.D.: 3.50 in



**COMPENSATED DENSITY
NEUTRON
LOG**

Company Triple Crown Operating, LLC.		Company Triple Crown Operating, LLC.	
Well	Barricklow #1-33	Well	Barricklow #1-33
Field	Barricklow	Field	Barricklow
County	Ness	County	Ness
State	Kansas	State	Kansas
Location:	API #: 15 135 25911	Location:	1440' FNL & 1200' FEL
Permanent Datum	SEC 33 TWP 20S RGE 22W	Ground Level	Elevation 2179'
Log Measured From	KB 8' AGL	Drilling Measured From	KB
Other Services	DIL ML BCS	Elevation	K.B. 2187' D.F. 2186' G.L. 2179'

Date	6-10-16
Run Number	One
Depth Driller	4480'
Depth Logger	4480
Bottom Logged Interval	4457'
Top Log Interval	2200'
Casing Driller	8 5/8" @ 513'
Casing Logger	513'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	8.9/50
PH / Fluid Loss	8.5/12
Source of Sample	Pit
Rm @ Meas. Temp	2.8@76degf
Rmf @ Meas. Temp	2.1@76degf
Rmc @ Meas. Temp	3.36@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.77@120degf
Time Circulation Stopped	3:00 p.m.
Time Logger on Bottom	6:30 p.m.
Maximum Recorded Temperature	120degf
Equipment Number	T127
Location	Hays, KS
Recorded By	Gus Pfanenstiel
Witnessed By	Mr. Rod Andersen

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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

South of Ness City to 20 Rd.
East to Z Rd. 1 South, 1 East, 1/2 South
West into.



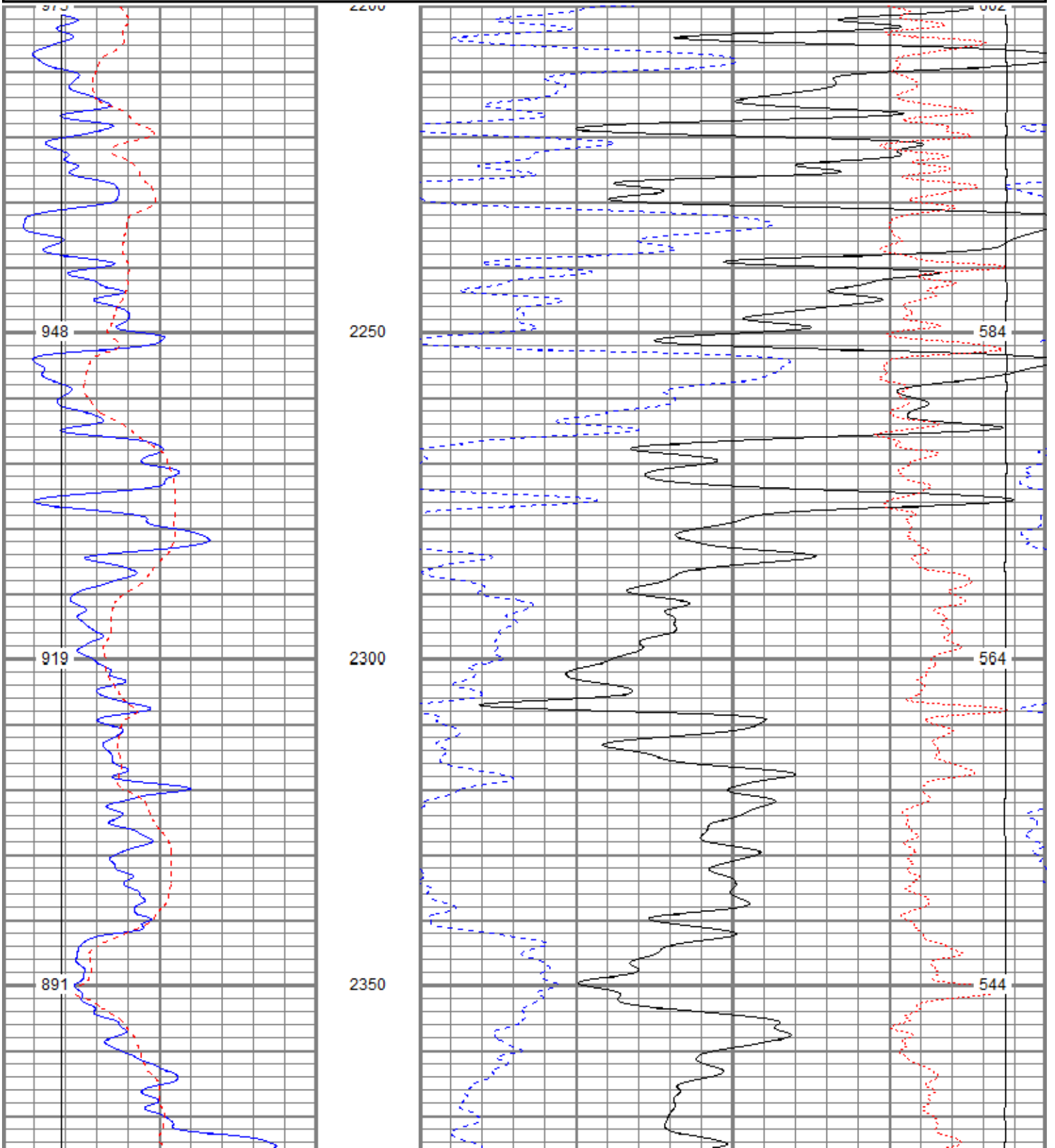
Main Pass

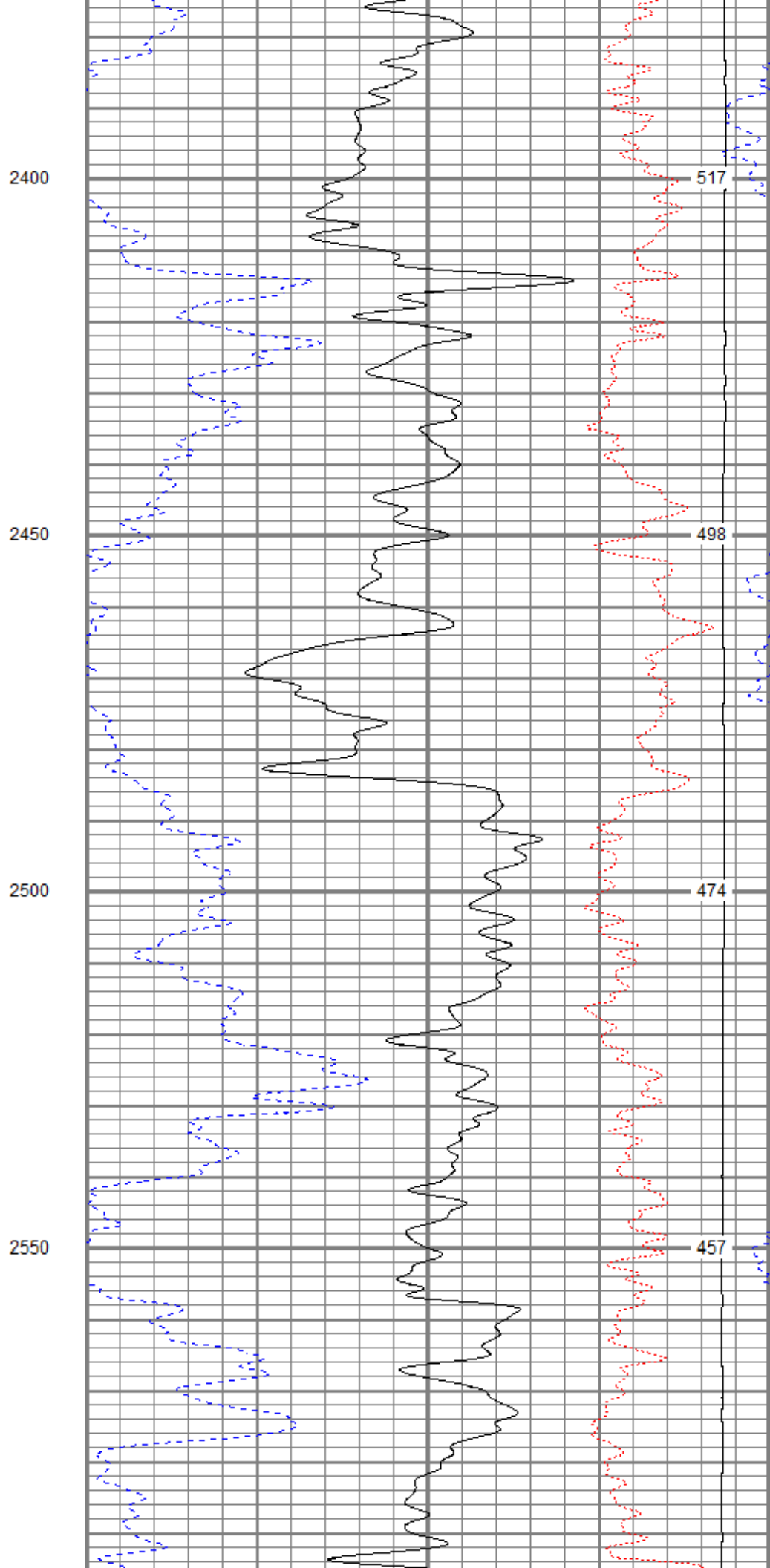
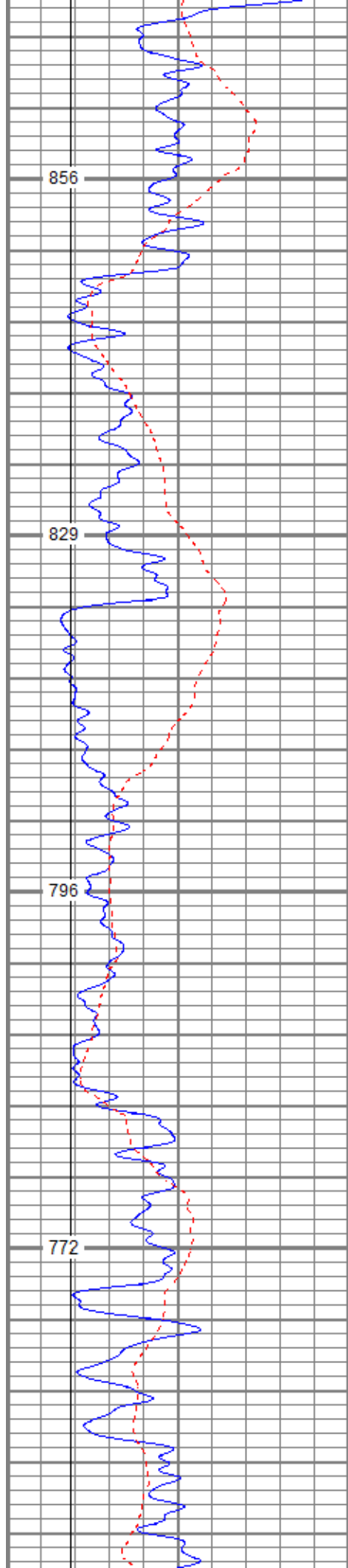
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 Dataset Pathname pass2.1
 Presentation Format kcdnl
 Dataset Creation Fri Jun 10 19:42:26 2016
 Charted by Depth in Feet scaled 1:240

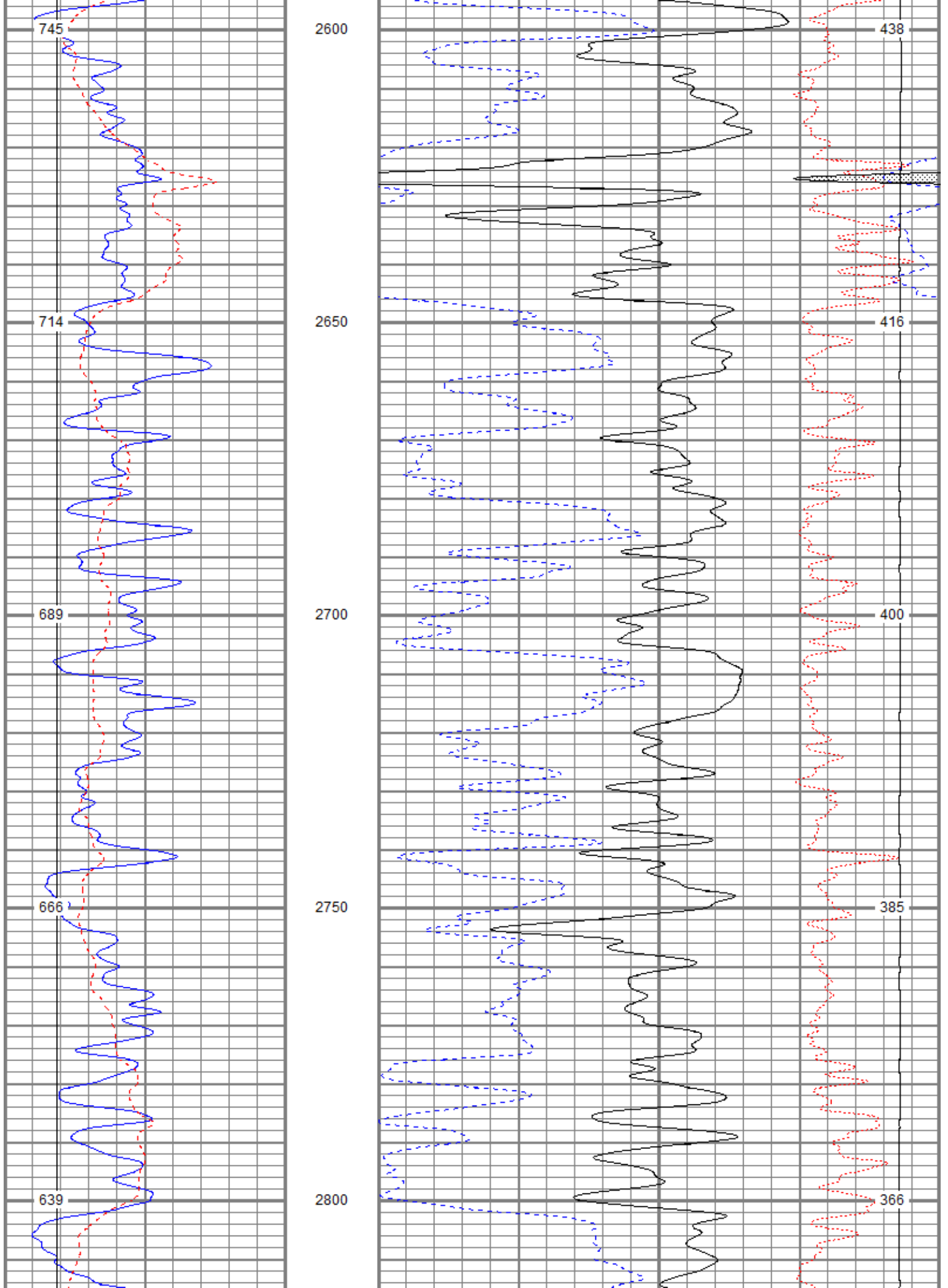
0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

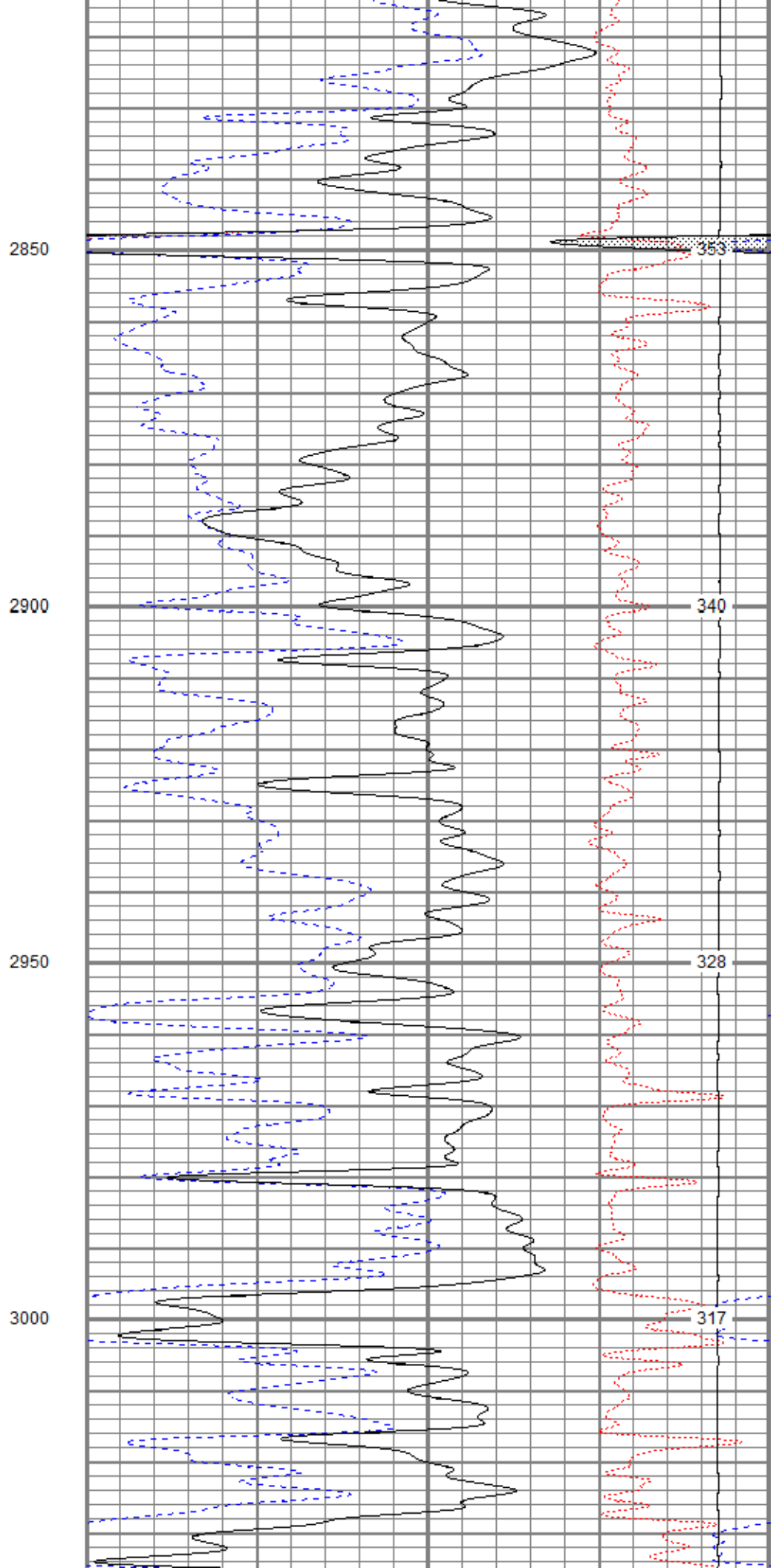
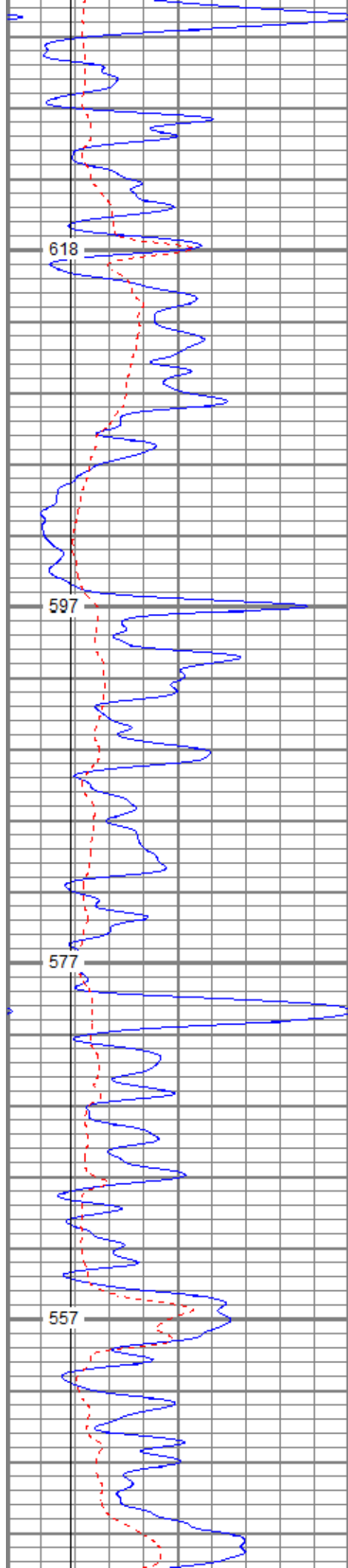
30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
		ABHV (ft3)	









2850

2900

2950

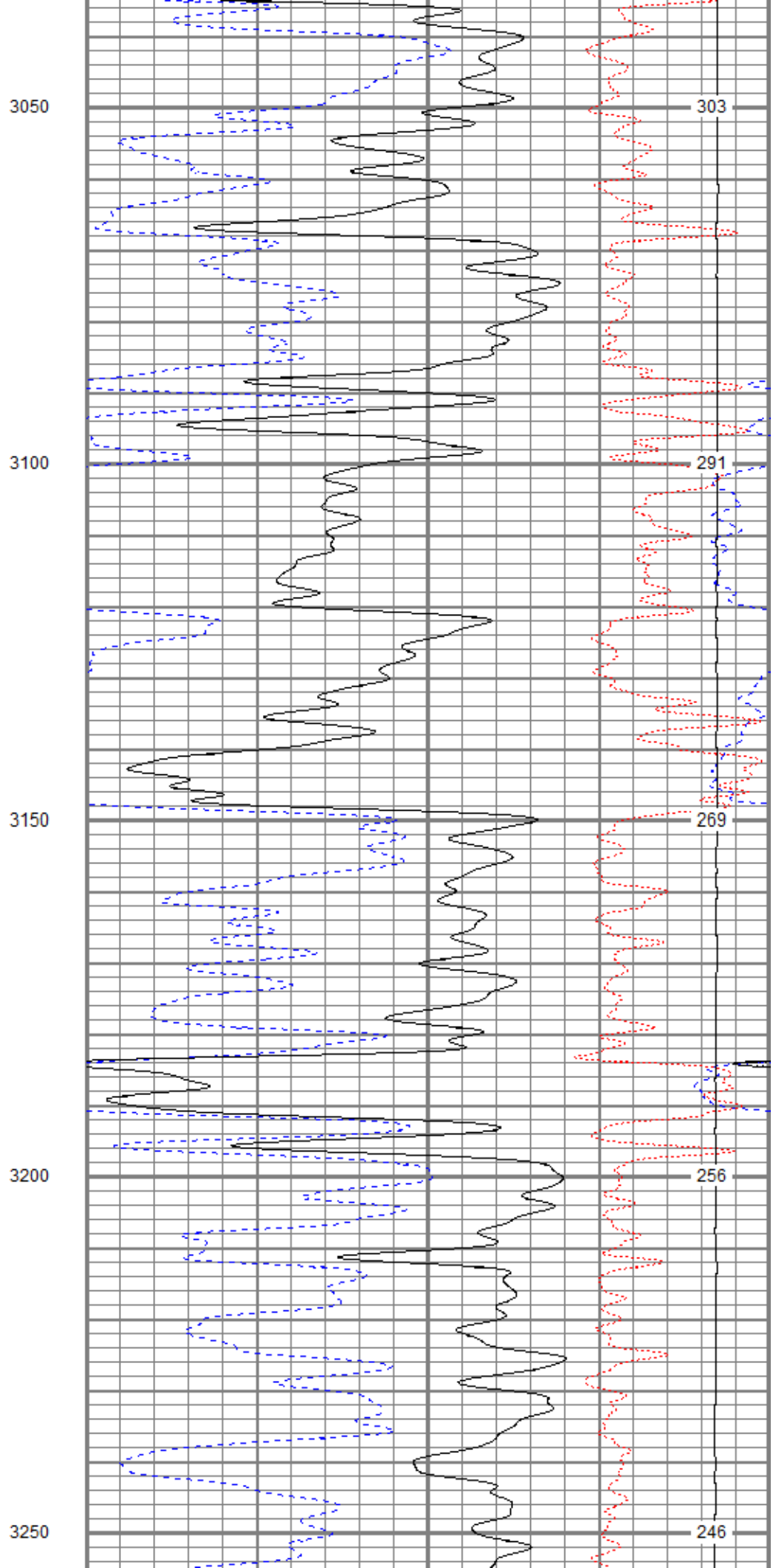
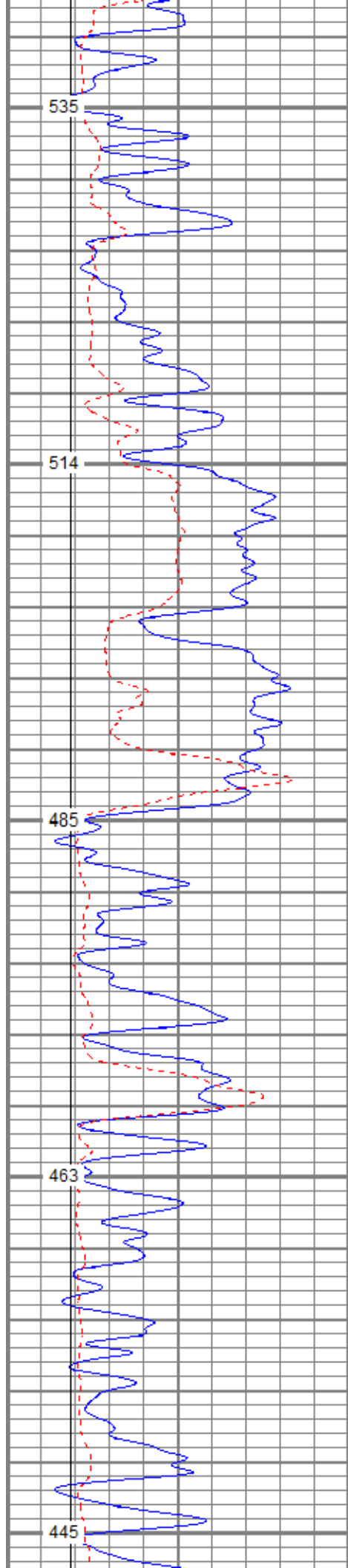
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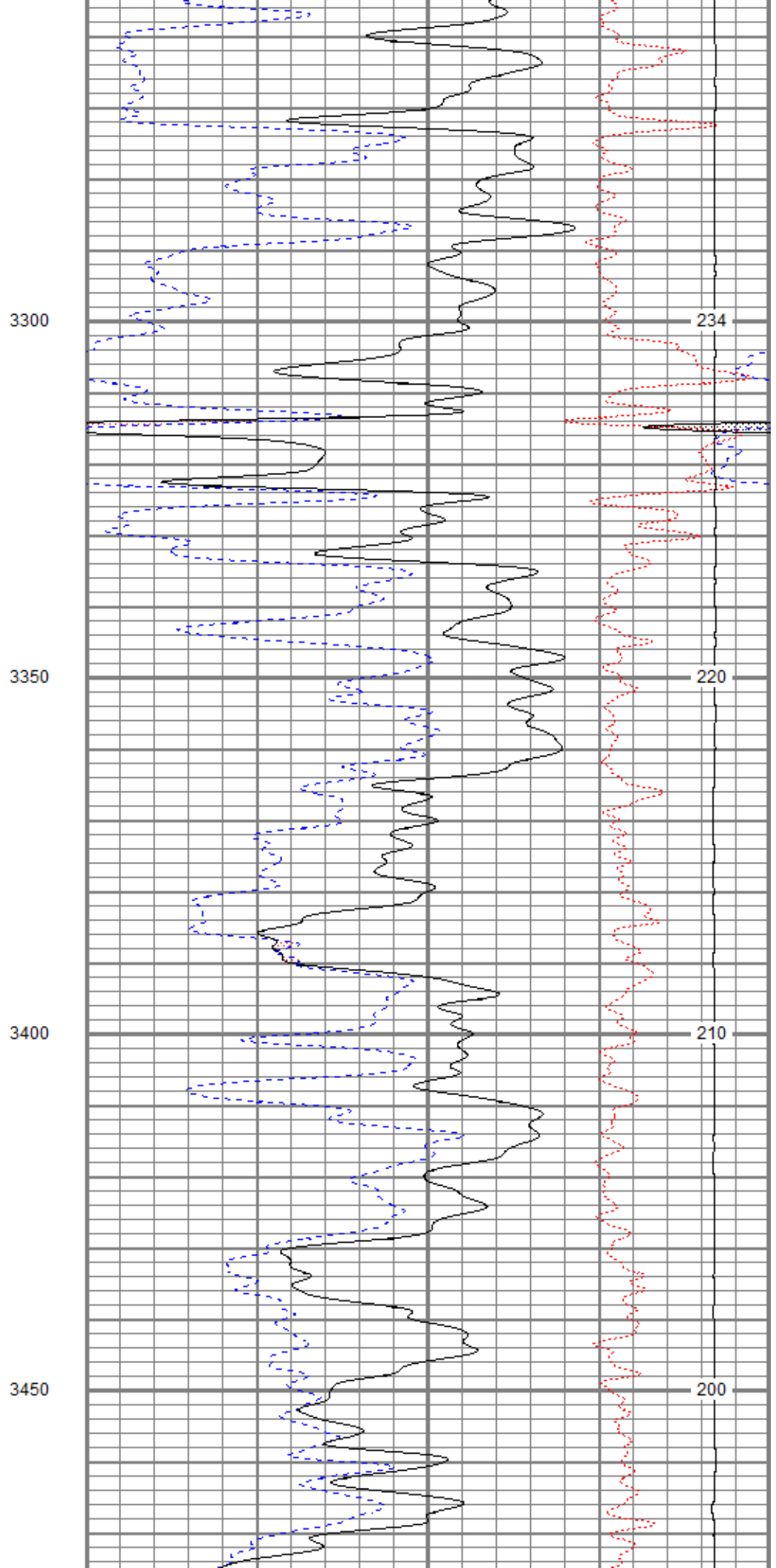
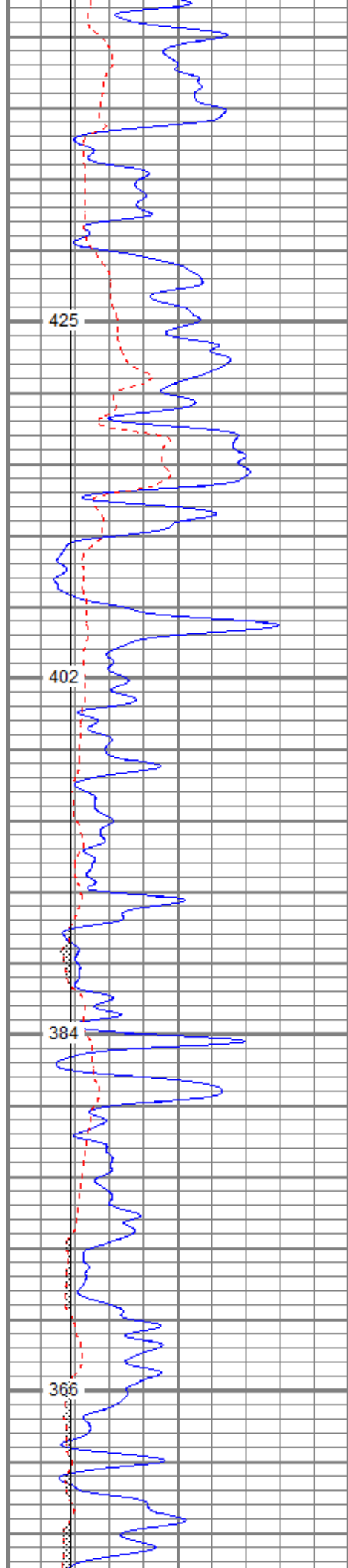
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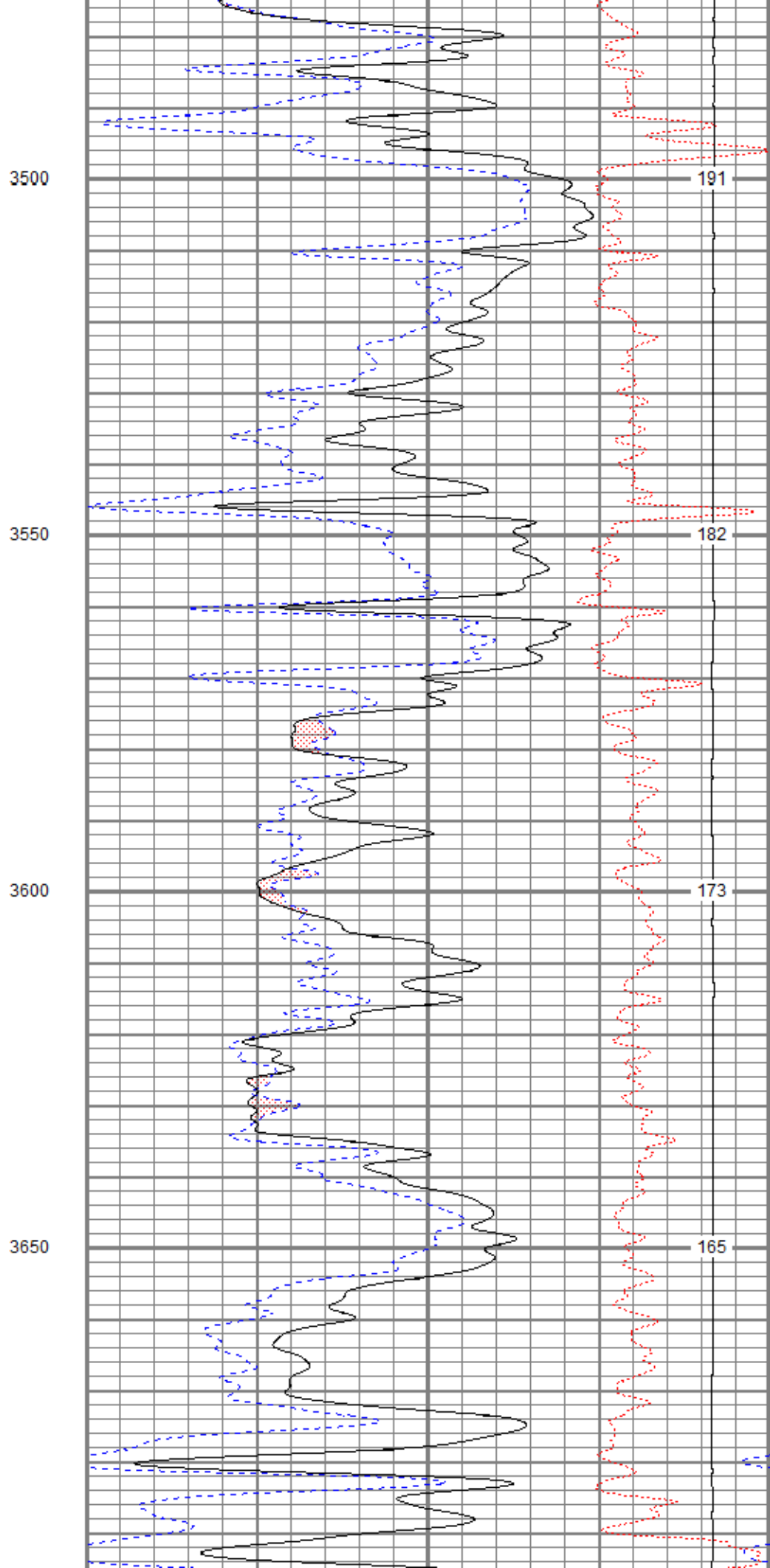
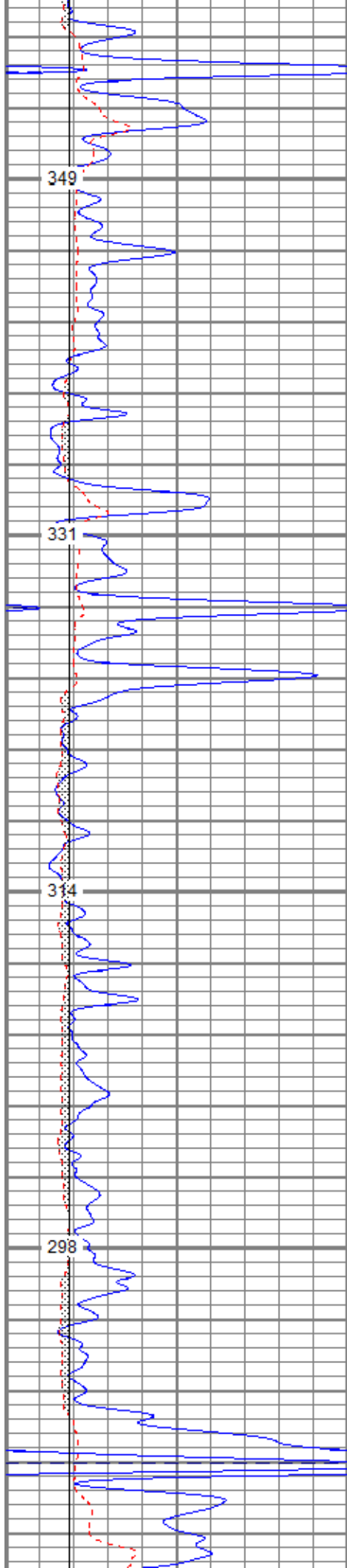
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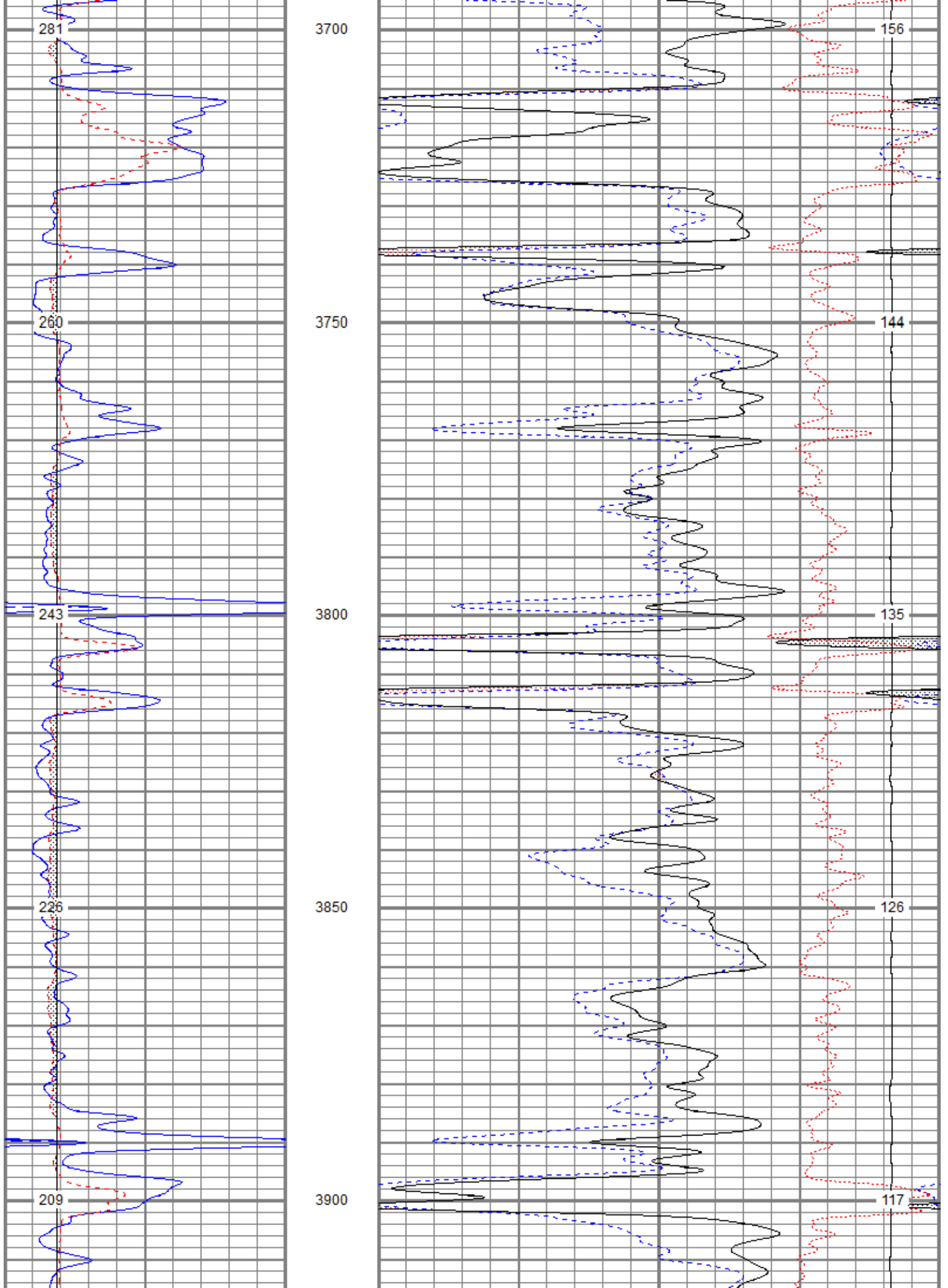
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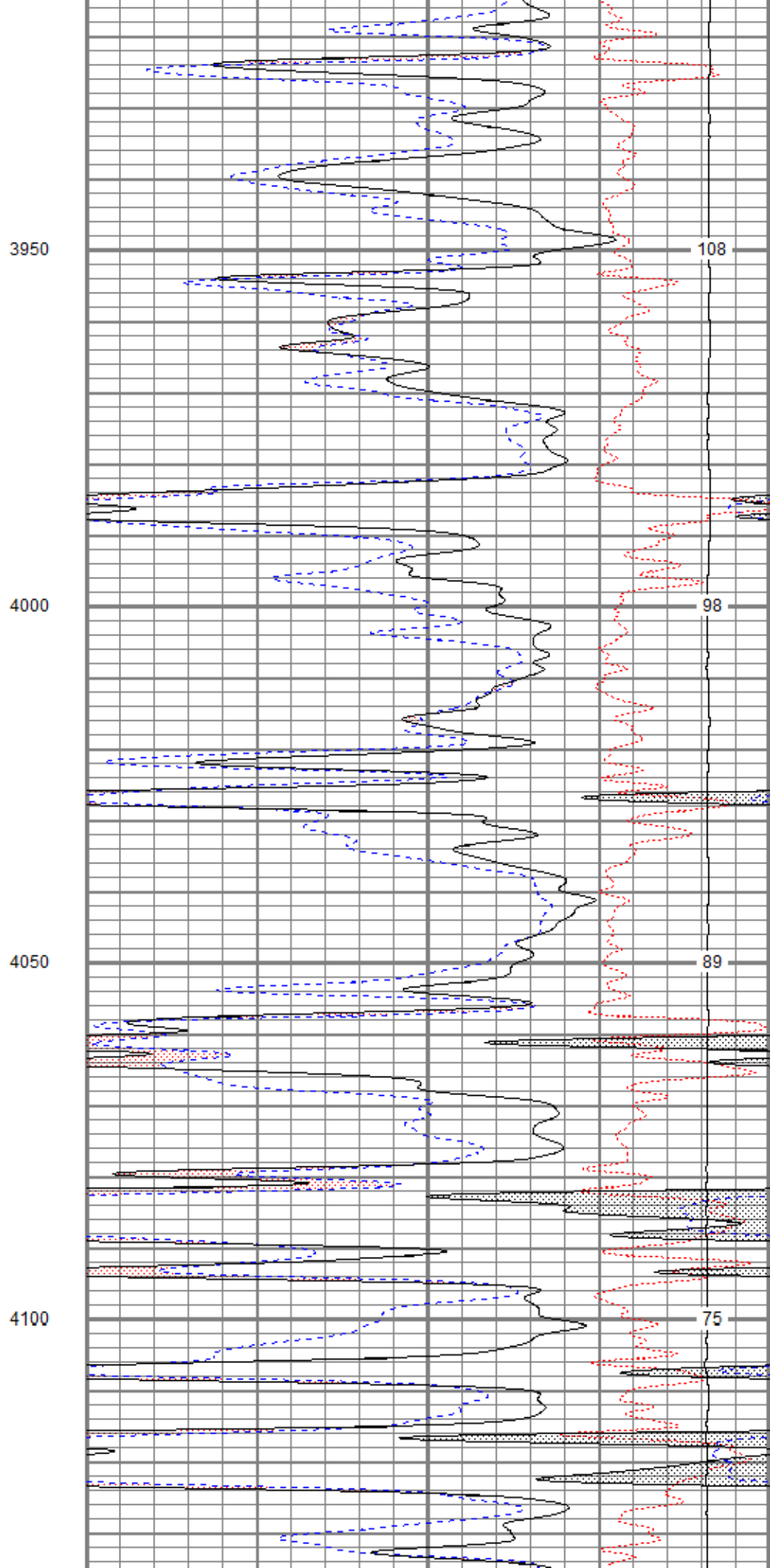
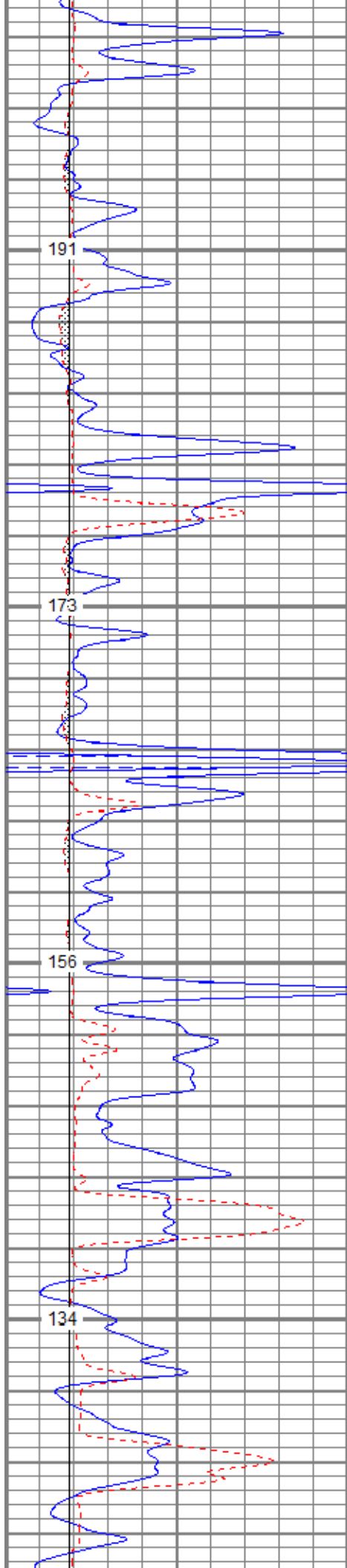
317

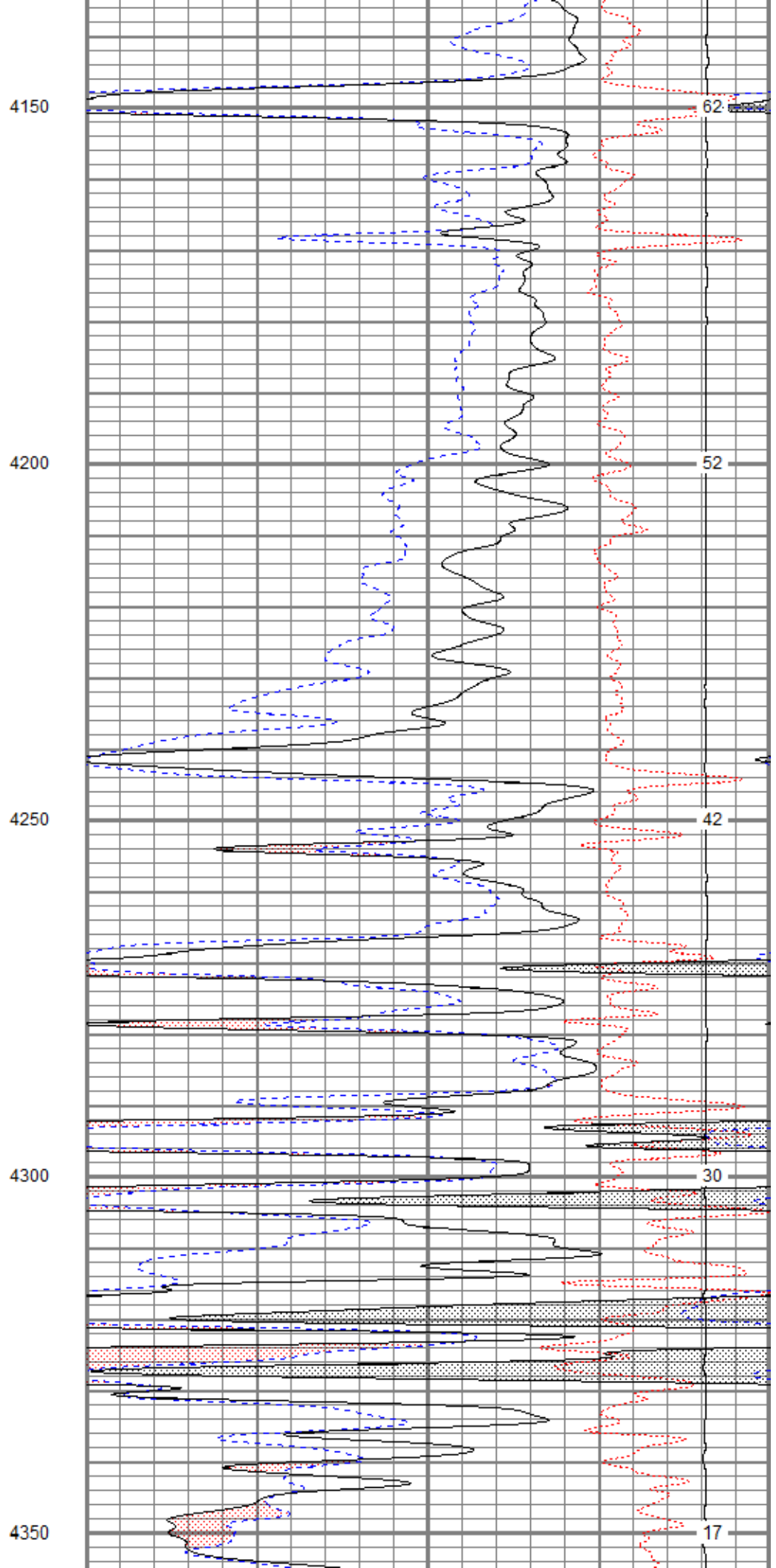
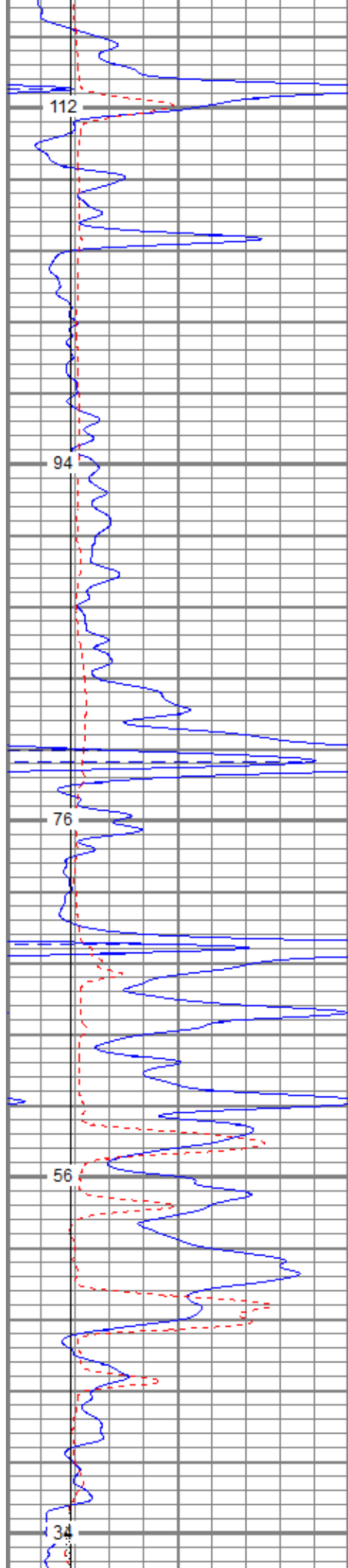


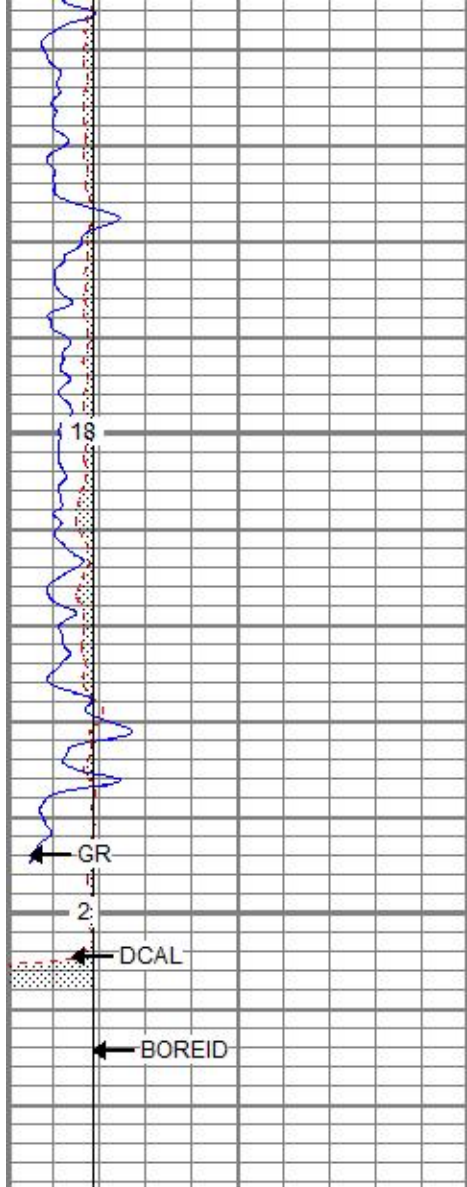






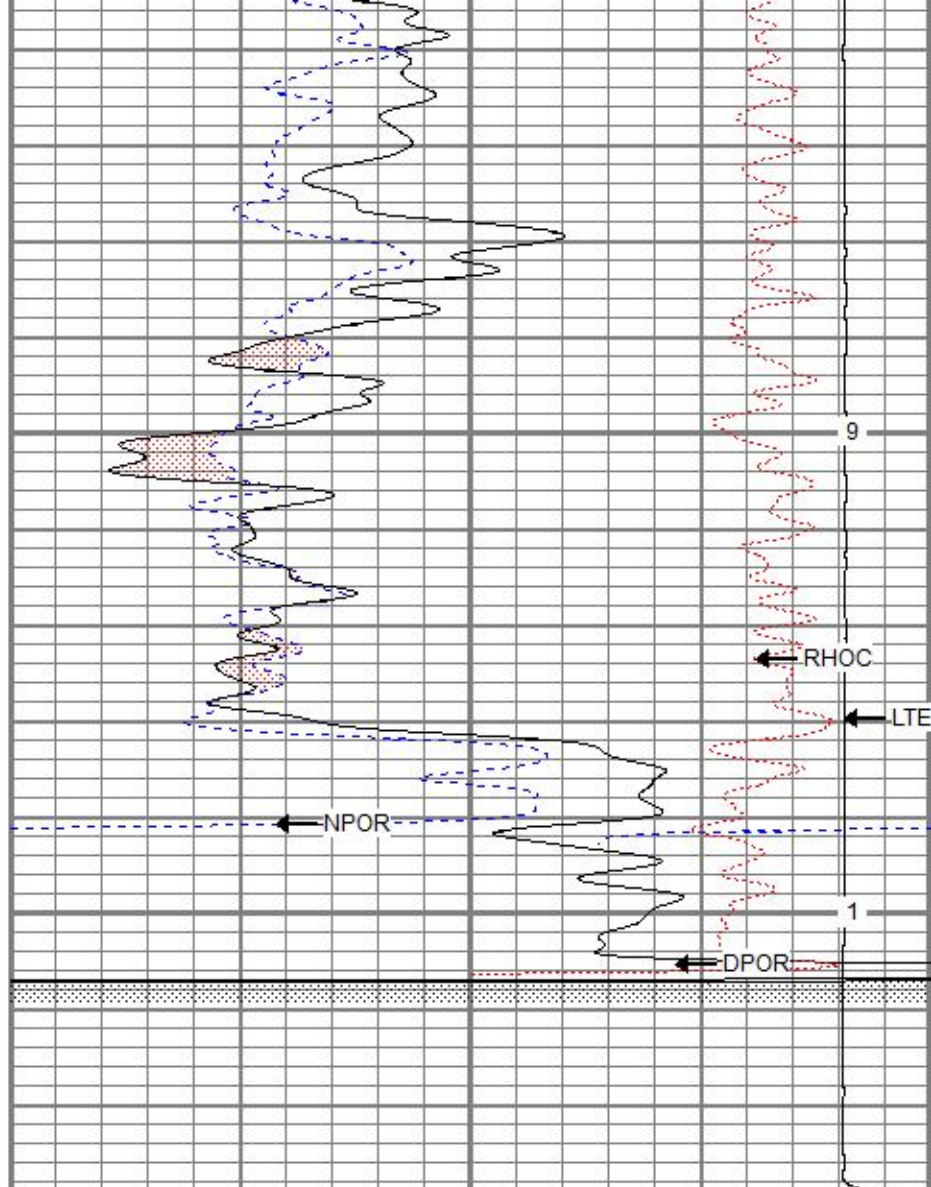






4400

4450



0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)

-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0

ABHV (ft3)



Repeat Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass1.1
 Presentation Format kcdnl
 Dataset Creation Fri Jun 10 19:07:35 2016
 Charted by Depth in Feet scaled 1:240

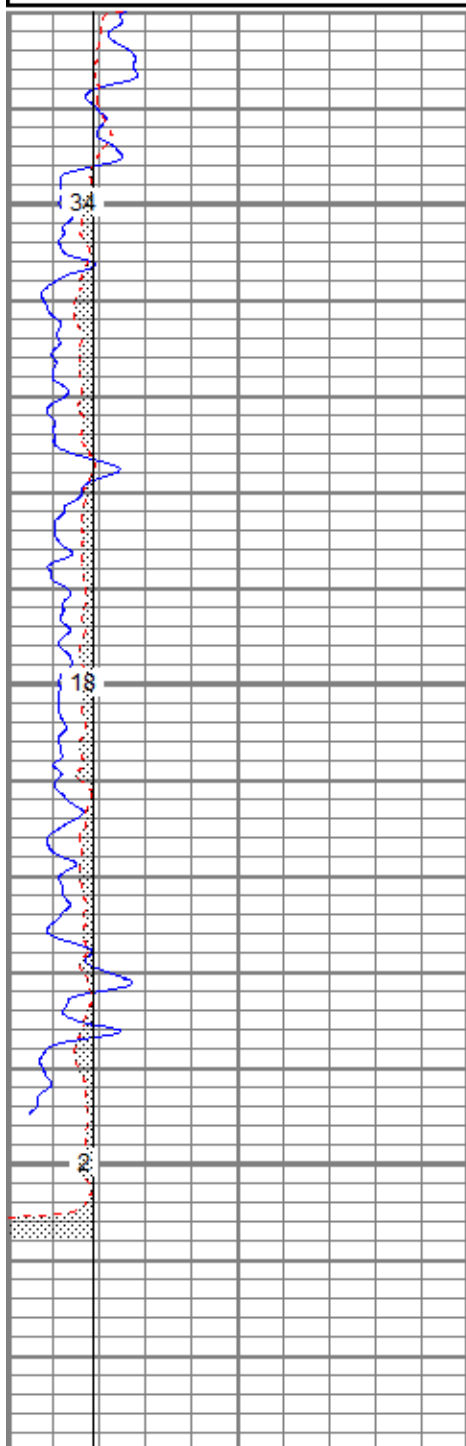
0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)

-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0

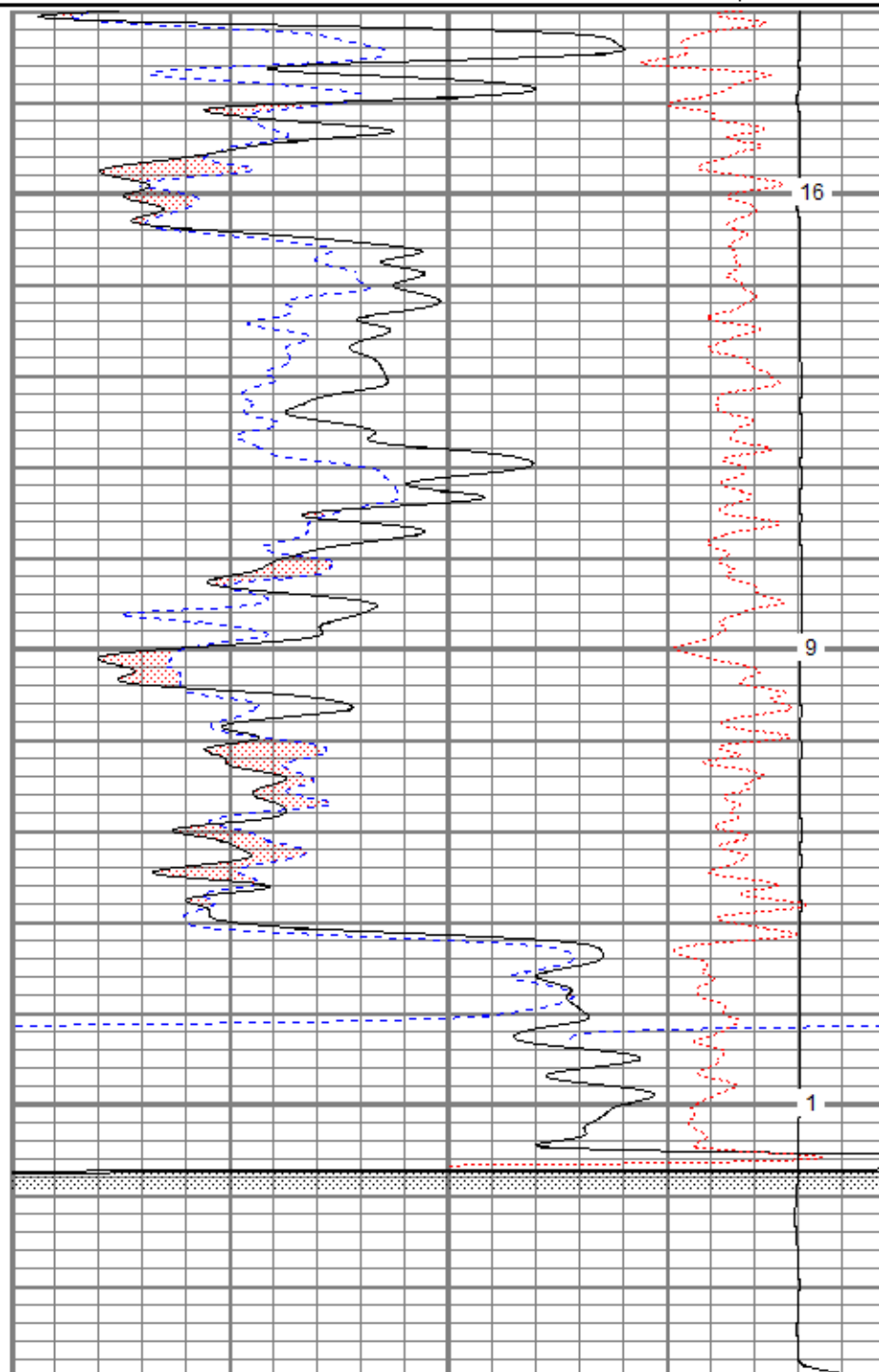
ABHV (ft3)



4350

4400

4450



16

9

1

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
		ABHV (ft3)	

Calibration Report

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass1.1
 Dataset Creation Fri Jun 10 19:07:35 2016

Dual Induction Calibration Report

Serial-Model: 080522-Probe
 Surface Cal Performed: Mon Mar 14 11:26:37 2016
 Downhole Cal Performed: Mon Mar 14 11:26:40 2016
 After Survey Verification Performed: Mon Mar 14 11:26:42 2016

Surface Calibration								
Readings			References			Results		
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.040	0.651	V	0.000	400.000	mmho/m	578.981	22.871
Medium	-0.028	0.742	V	0.000	464.000	mmho/m	602.582	16.690
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.016	0.653	V	0.000	400.000	mmho/m	598.311	9.396
Medium	-0.025	0.747	V	0.000	464.000	mmho/m	601.262	14.808

Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	6.834	401.088	mmho/m	13.778	400.855	mmho/m	0.982	7.068
Medium	-2.964	468.230	mmho/m	1.850	466.869	mmho/m	0.987	4.775
LL3		7.145	V		750.000	Ohm-m		
		0.016	V		12.000	Ohm-m		
		-7.248	V		3745.000	mmho-m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	6.834	401.088	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-2.964	468.230	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		750.000	Ohm-m		
		0.000	Ohm-m		12.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Density Calibration Report

Serial-Model:	2388DHT-DHT
Source / Verifier:	csv j12 / csv j12
Master Calibration Performed:	Fri Aug 01 09:45:19 2014
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.750	g/cc	668.56	327.82	cps	
Aluminum	2.650	g/cc	125.78	210.67	cps	
	Spine Angle = 75.17		Density/Spine Ratio = 0.521			
	Size		Reading			
Small Ring	7.35	in	5695.86			
Large Ring	14.00	in	9900.52			

Before Survey Verification				
	Target		Measured	
		g/cc		g/cc
		g/cc		g/cc
		g/cc		g/cc

After Survey Verification				
	Target		Measured	
		g/cc		g/cc
		g/cc		g/cc
		g/cc		g/cc

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Jan 21 09:36:03 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2400 GAPI/cps

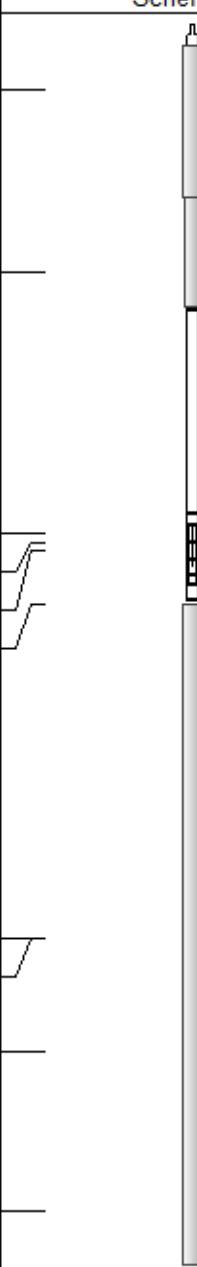
Neutron Calibration Report

Serial Number: 5108
 Tool Model: PROBE
 Performed: Thu Jan 21 09:36:17 2016

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-None	0.75	1.50	5.00
NEU	38.26		NEU-PROBE (5108) Probe	4.92	3.63	85.00
GR	32.32		GR-OH (2001) 2001	3.56	3.25	40.00
			CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	23.78					
DCAL	23.49					
SSD	23.24					
HEADVOLT	21.47					
SP	10.60		DIL-Probe (080522) Probe Dual Induction	21.47	4.00	345.00
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset:	tcbarrieklow#1-33oh.db: field/well/run1/pass1.1
Total length:	40.39 ft
Total weight:	676.00 lb
O.D.:	4.00 in



**COMPENSATED DENSITY
NEUTRON
LOG**

Company Triple Crown Operating, LLC.		Company Triple Crown Operating, LLC.	
Well	Barricklow #1-33	Well	Barricklow #1-33
Field	Barricklow	Field	Barricklow
County	Ness	County	Ness
State	Kansas	State	Kansas
Location:	API #: 15 135 25911	Location:	1440' FNL & 1200' FEL
Permanent Datum	SEC 33 TWP 20S RGE 22W	Permanent Datum	Ground Level
Log Measured From	KB 8' AGL	Log Measured From	KB 8' AGL
Drilling Measured From	KB	Drilling Measured From	KB
Elevation	2179'	Elevation	2179'
Other Services	DIL ML BCS	Other Services	DIL ML BCS
Elevation	K.B. 2187' D.F. 2186' G.L. 2179'	Elevation	K.B. 2187' D.F. 2186' G.L. 2179'

Date	6-10-16
Run Number	One
Depth Driller	4480'
Depth Logger	4480
Bottom Logged Interval	4457'
Top Log Interval	2200'
Casing Driller	8 5/8" @ 513'
Casing Logger	513'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	8.9/50
PH / Fluid Loss	8.5/12
Source of Sample	Pit
Rm @ Meas. Temp	2.8@76degf
Rmf @ Meas. Temp	2.1@76degf
Rmc @ Meas. Temp	3.36@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.77@120degf
Time Circulation Stopped	3:00 p.m.
Time Logger on Bottom	6:30 p.m.
Maximum Recorded Temperature	120degf
Equipment Number	T127
Location	Hays, KS
Recorded By	Gus Pfanenstiel
Witnessed By	Mr. Rod Andersen

<<< Fold Here >>>

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

South of Ness City to 20 Rd.
East to Z Rd. 1 South, 1 East, 1/2 South
West into.



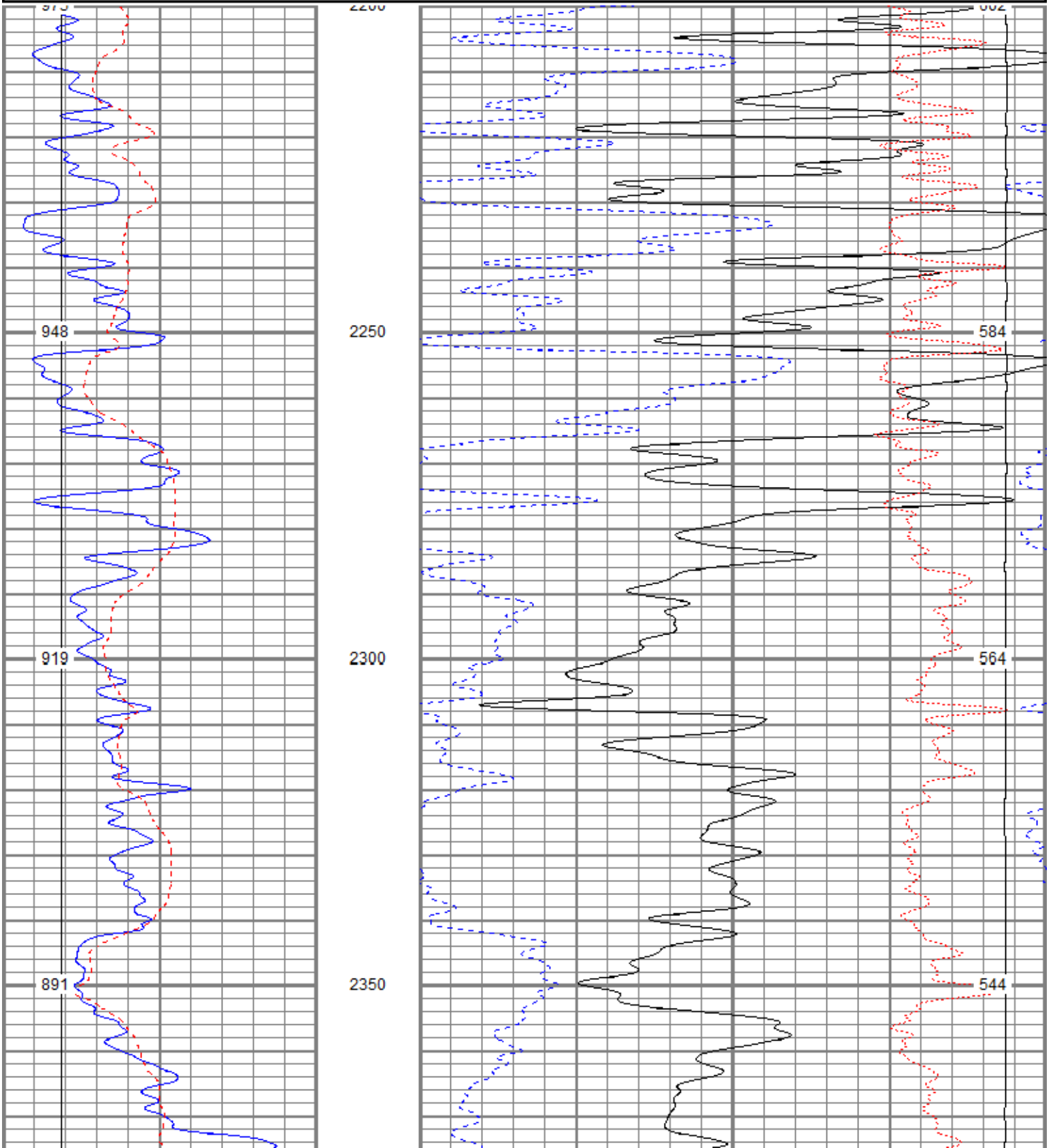
Main Pass

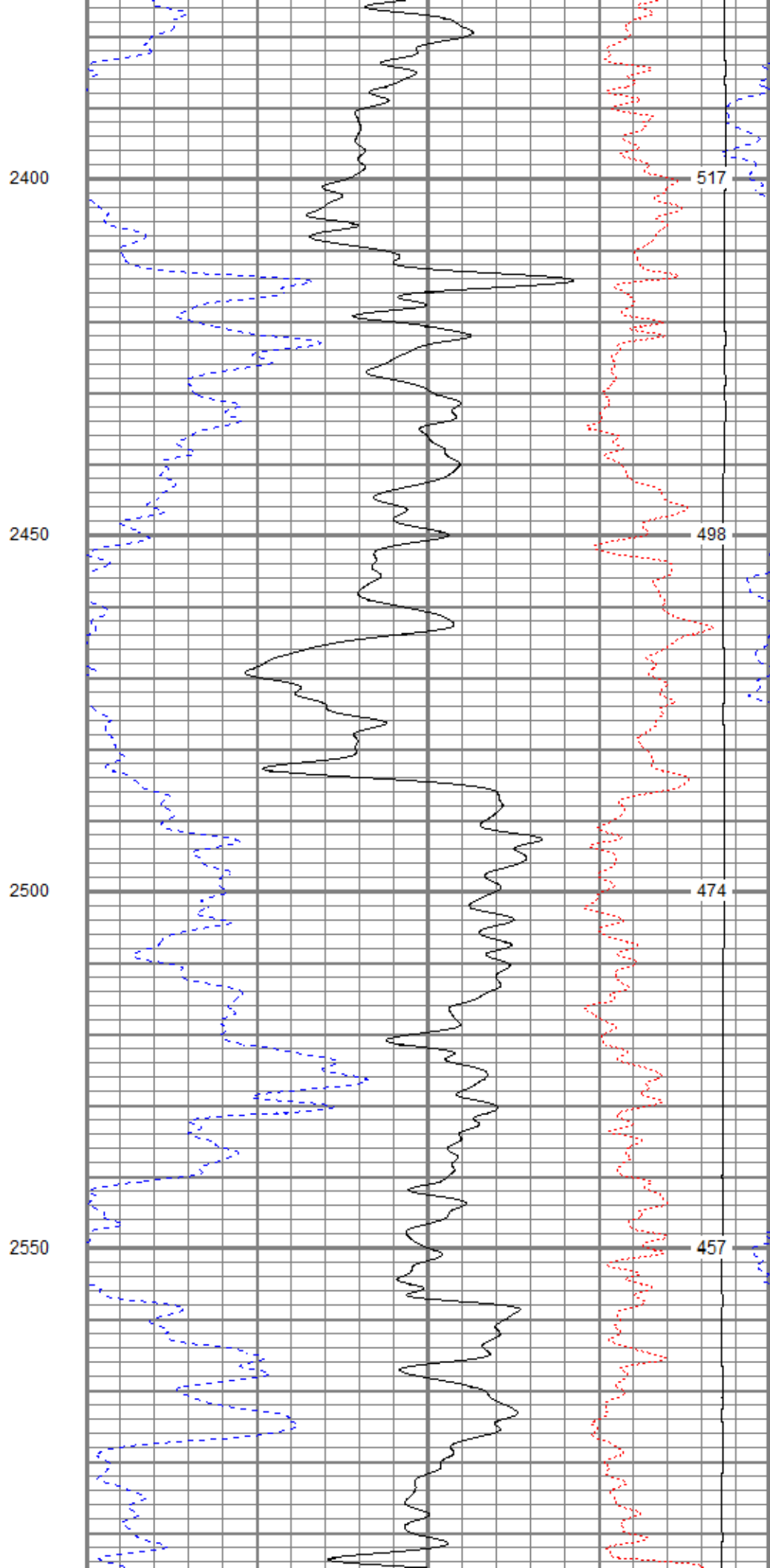
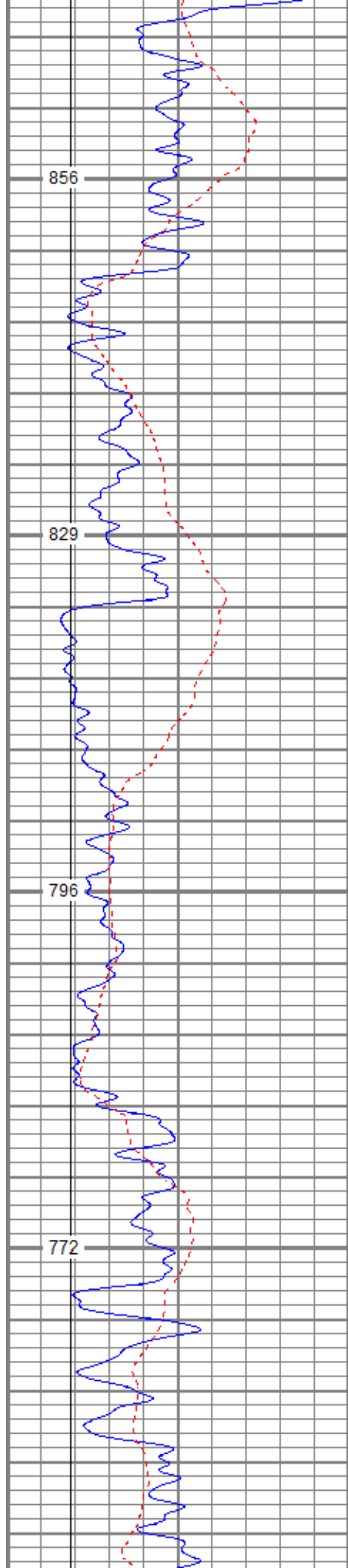
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 Dataset Pathname pass2.1
 Presentation Format kcdnl
 Dataset Creation Fri Jun 10 19:42:26 2016
 Charted by Depth in Feet scaled 1:240

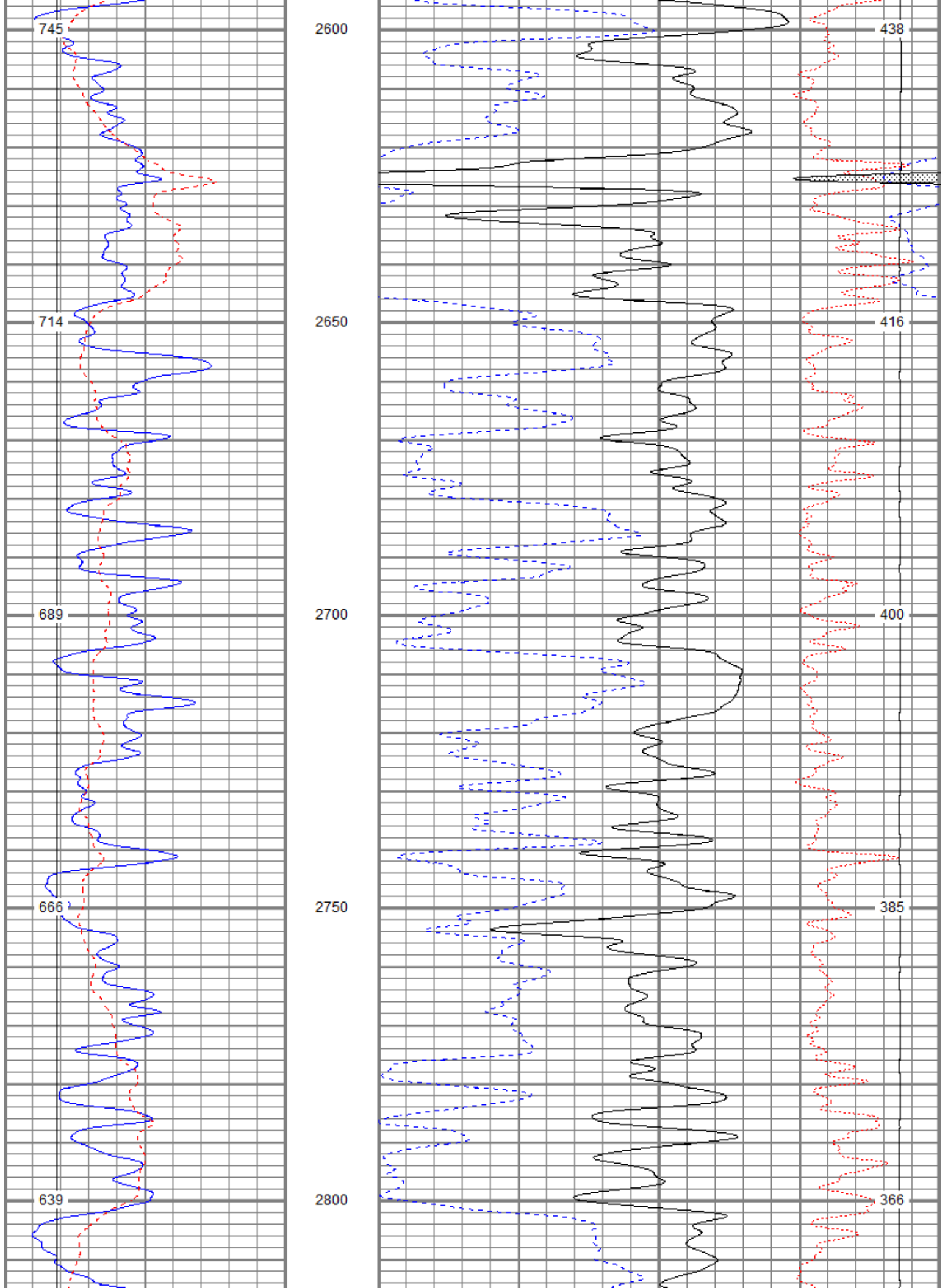
0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

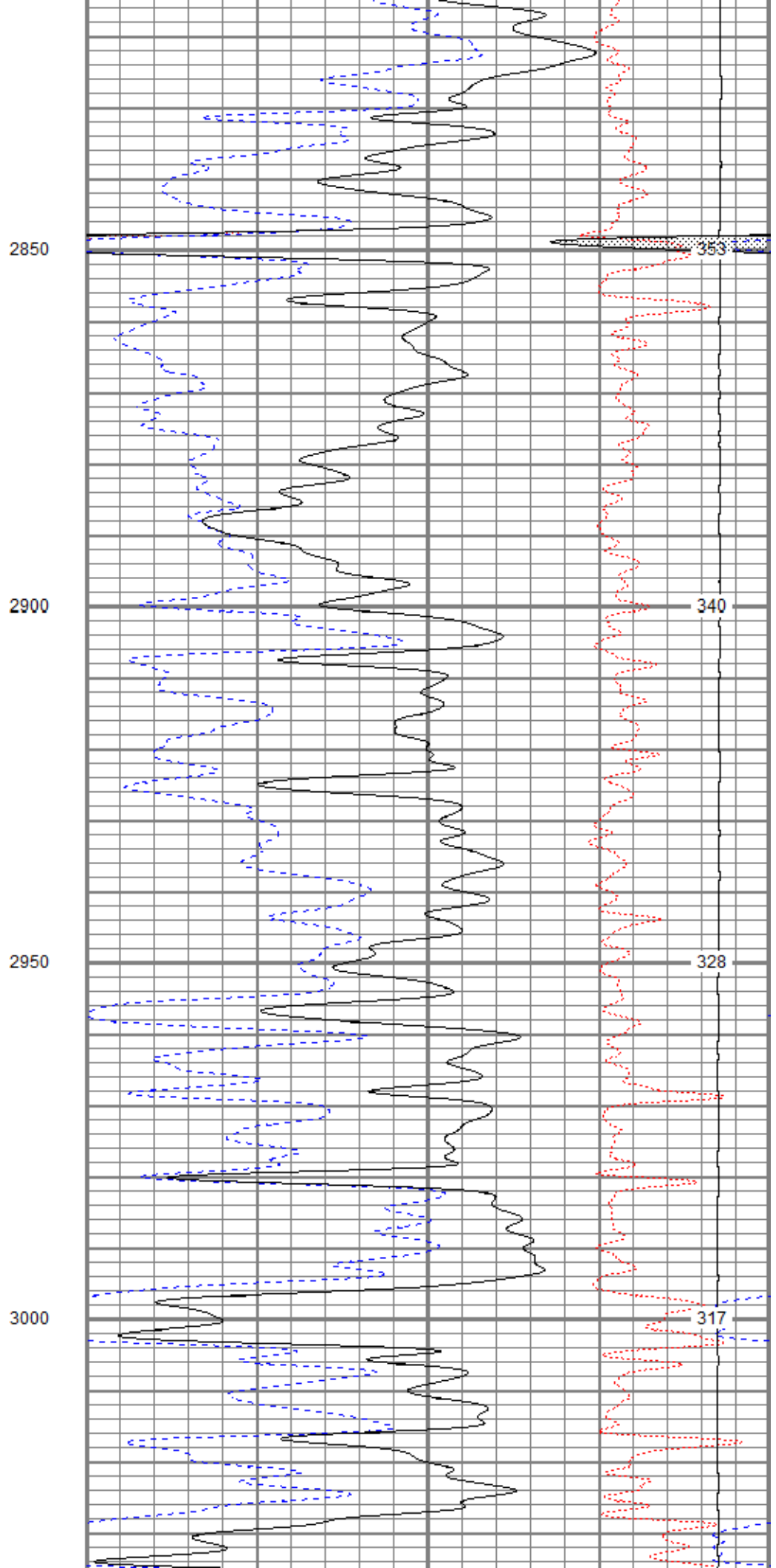
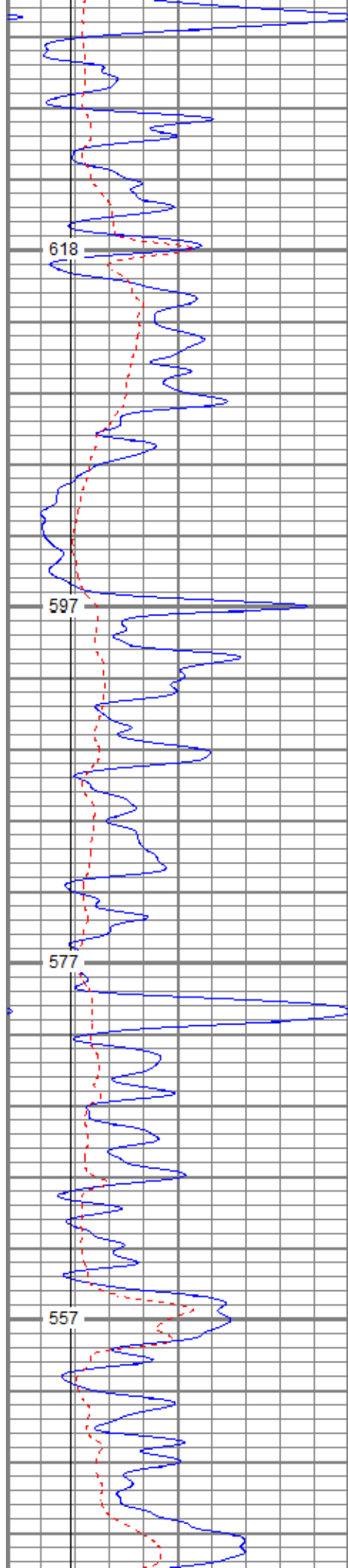
30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

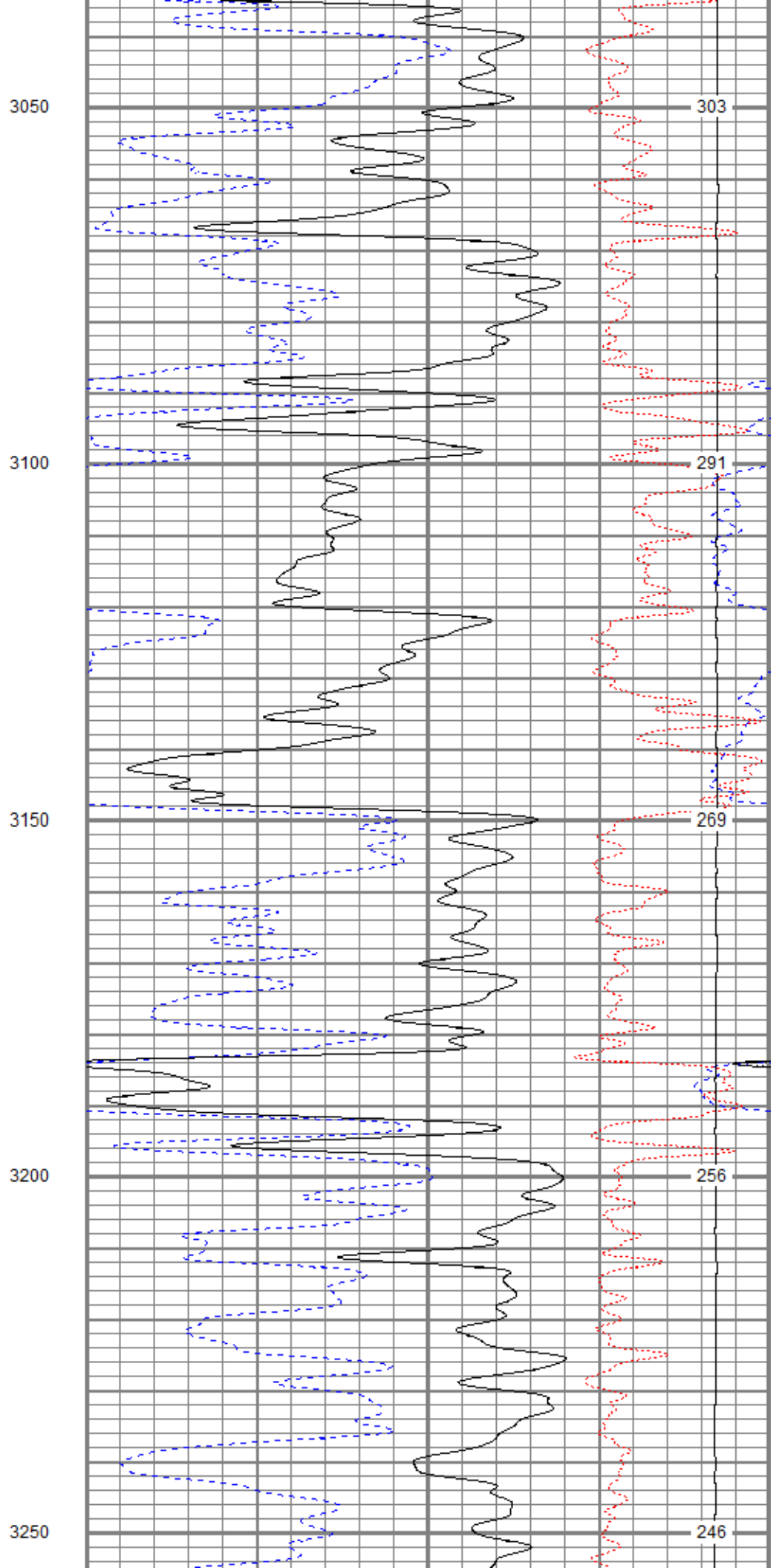
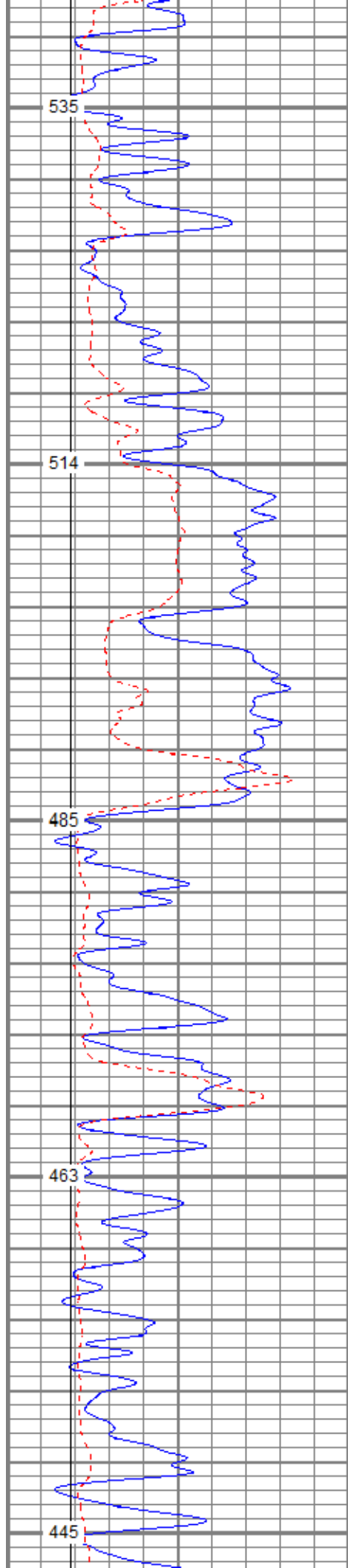
TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
		ABHV (ft3)	

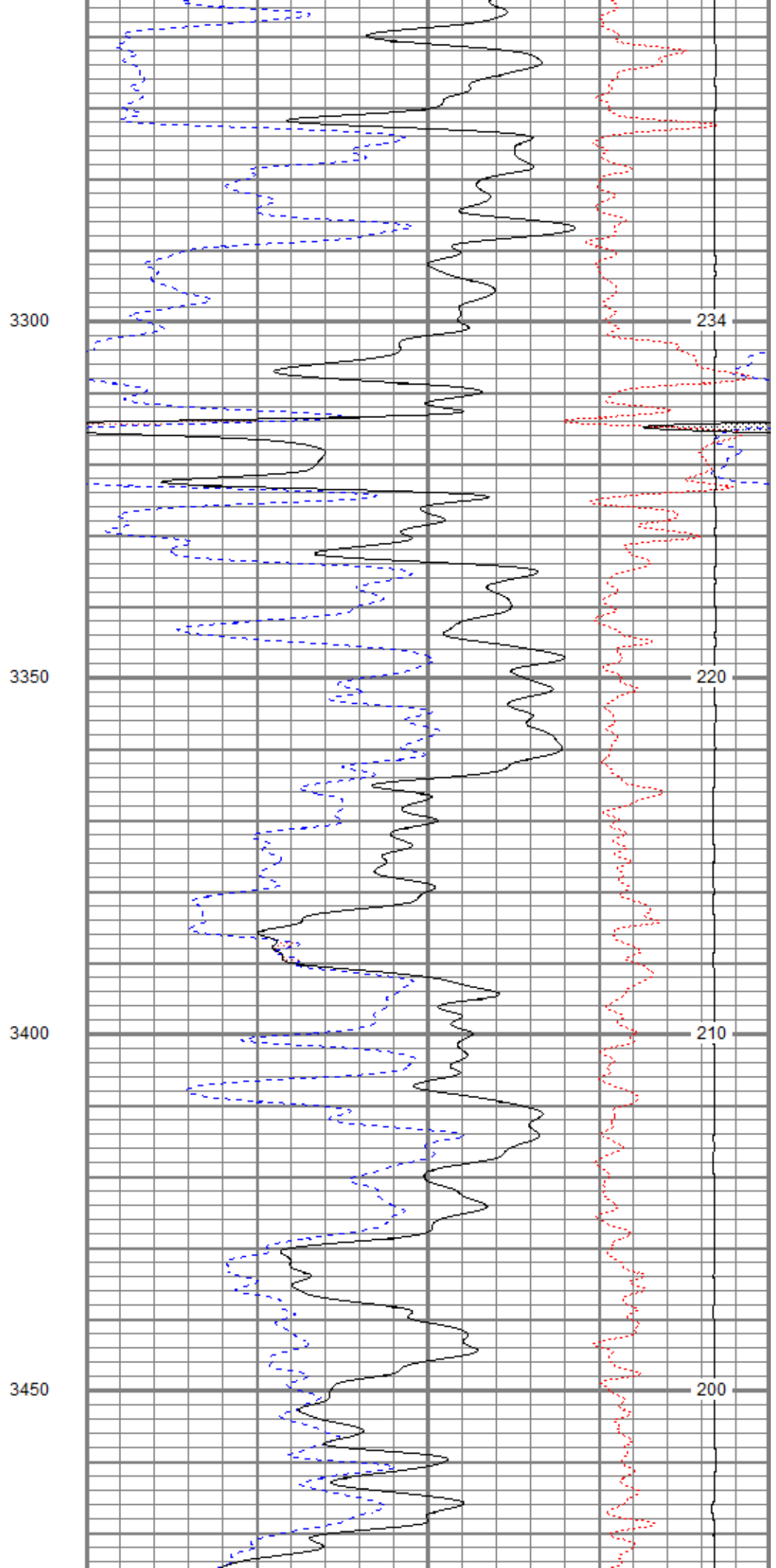
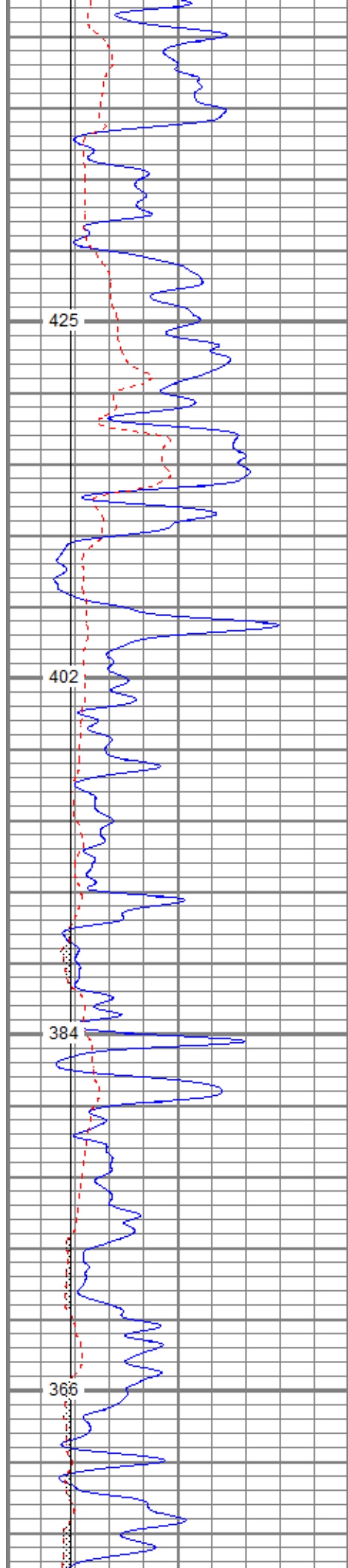


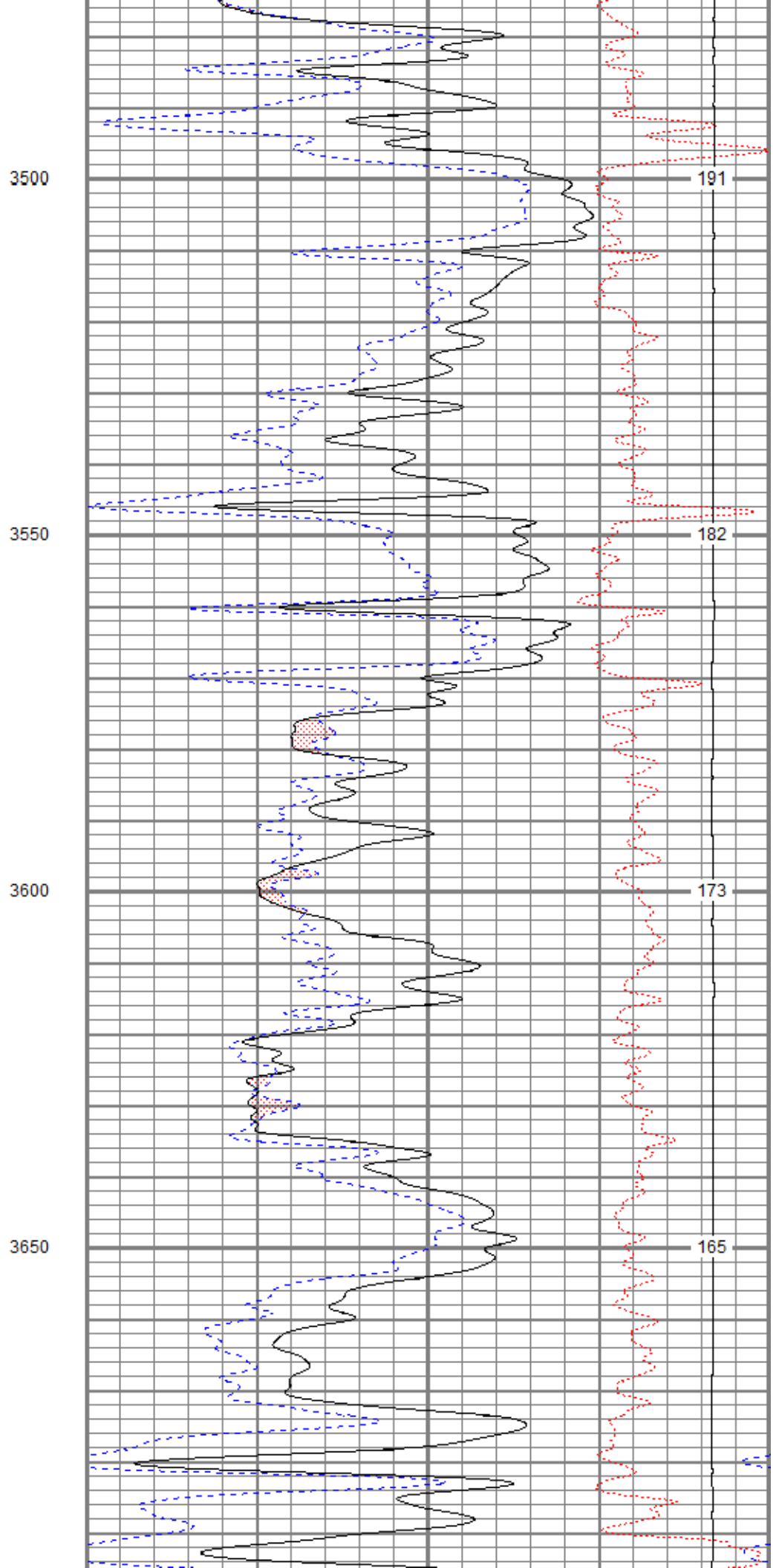
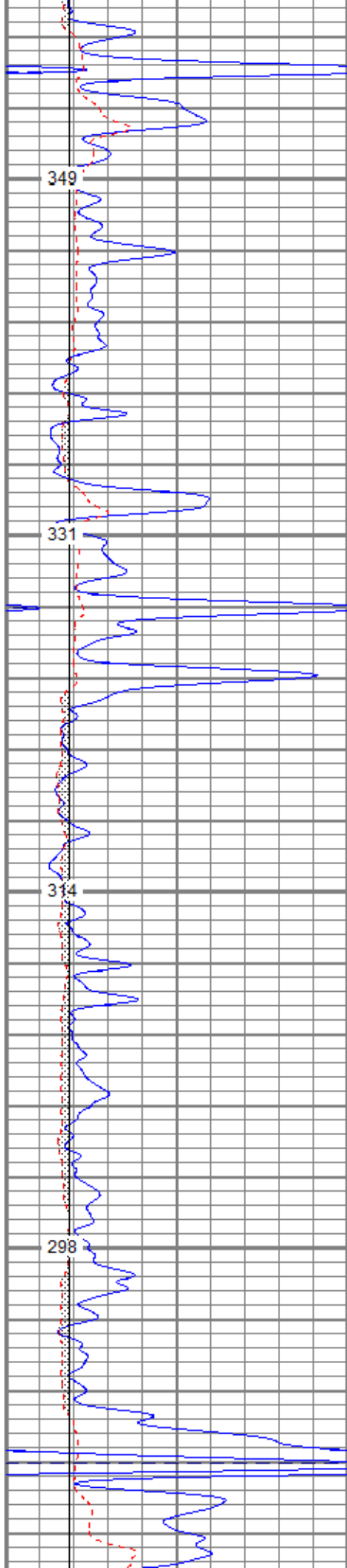


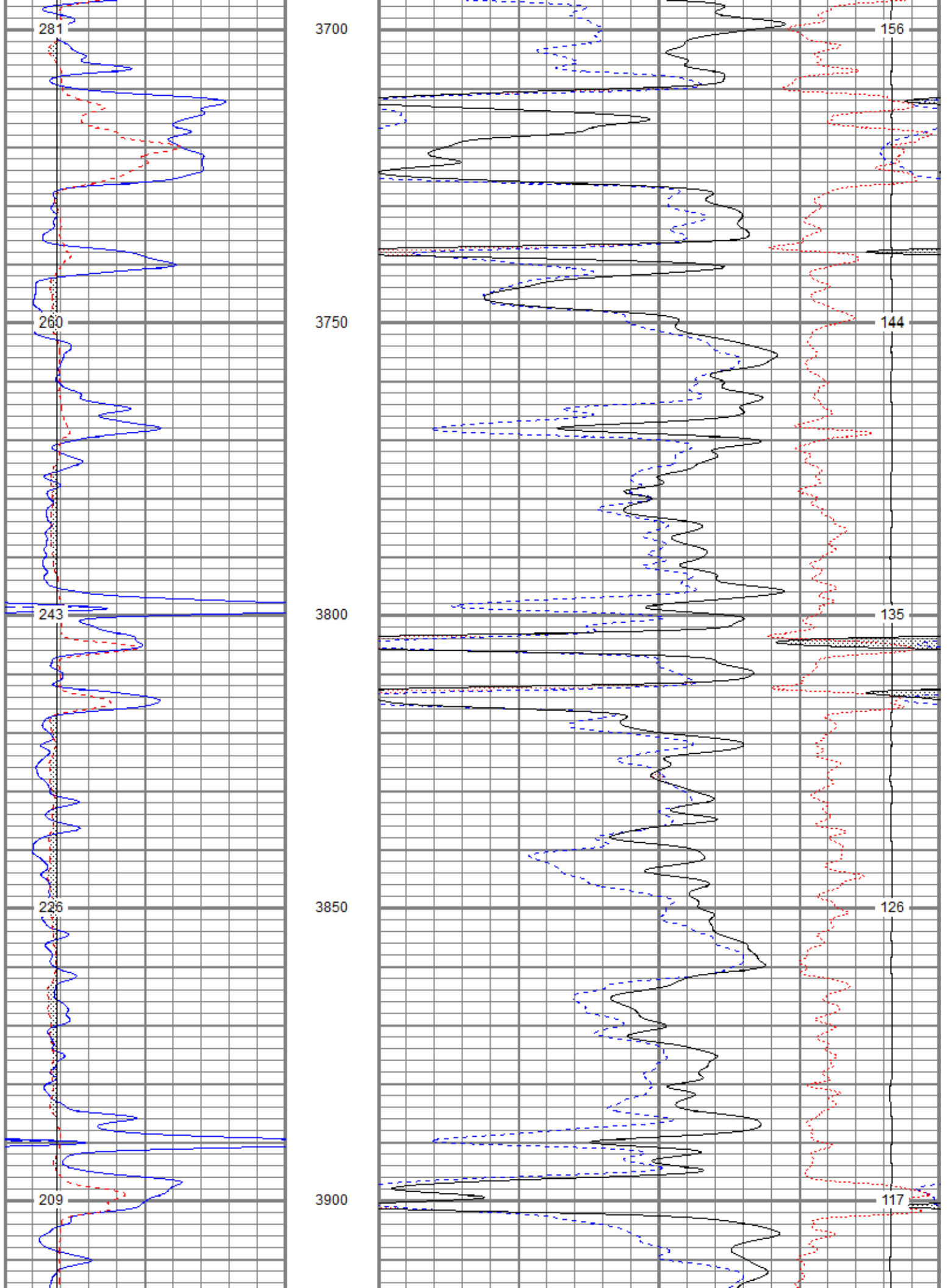


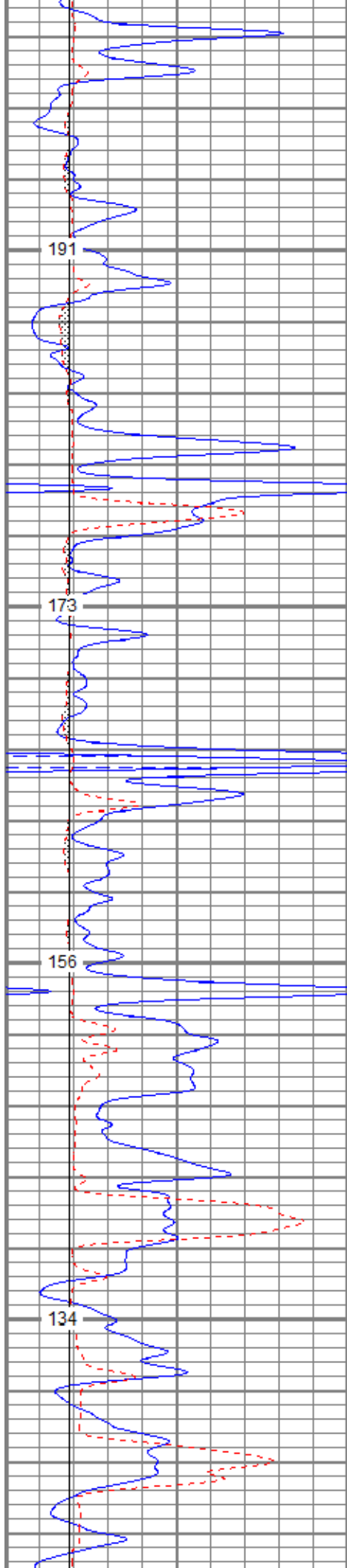










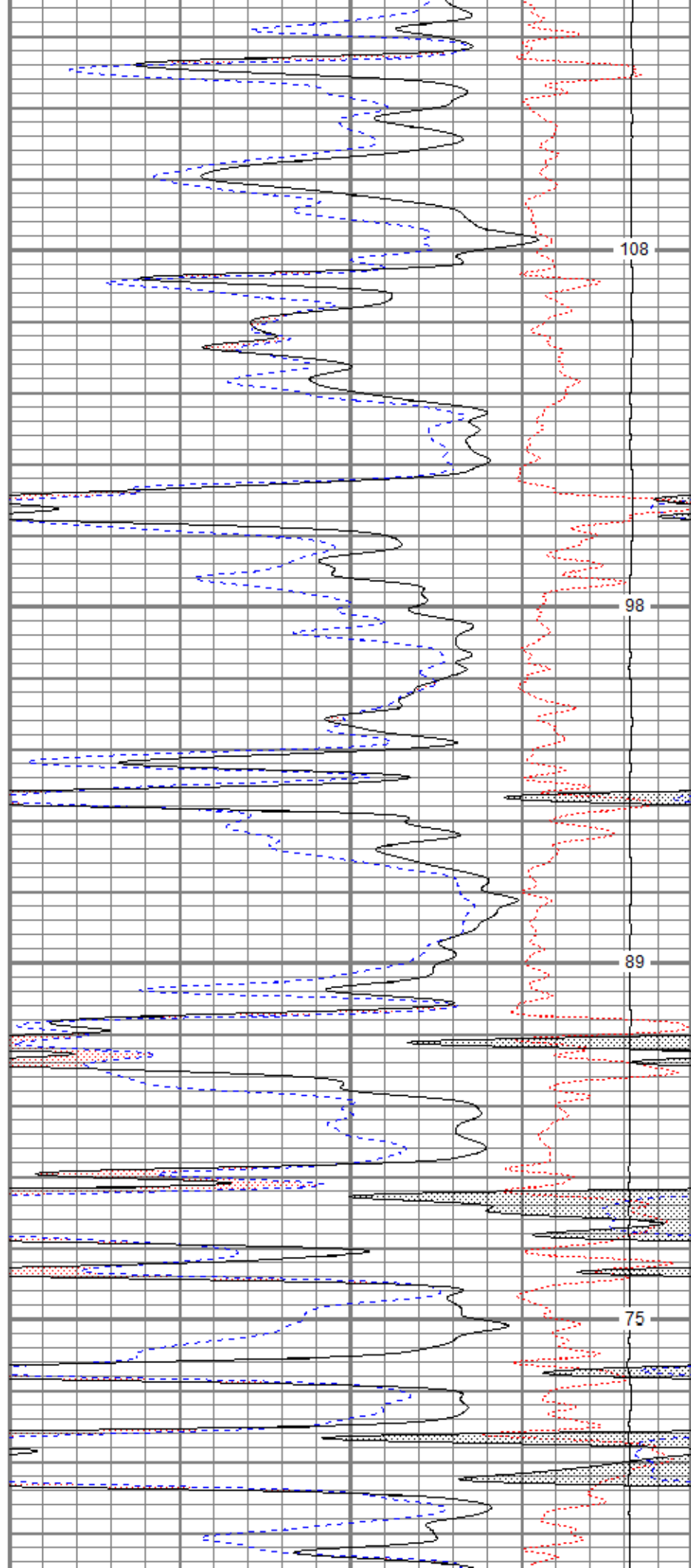


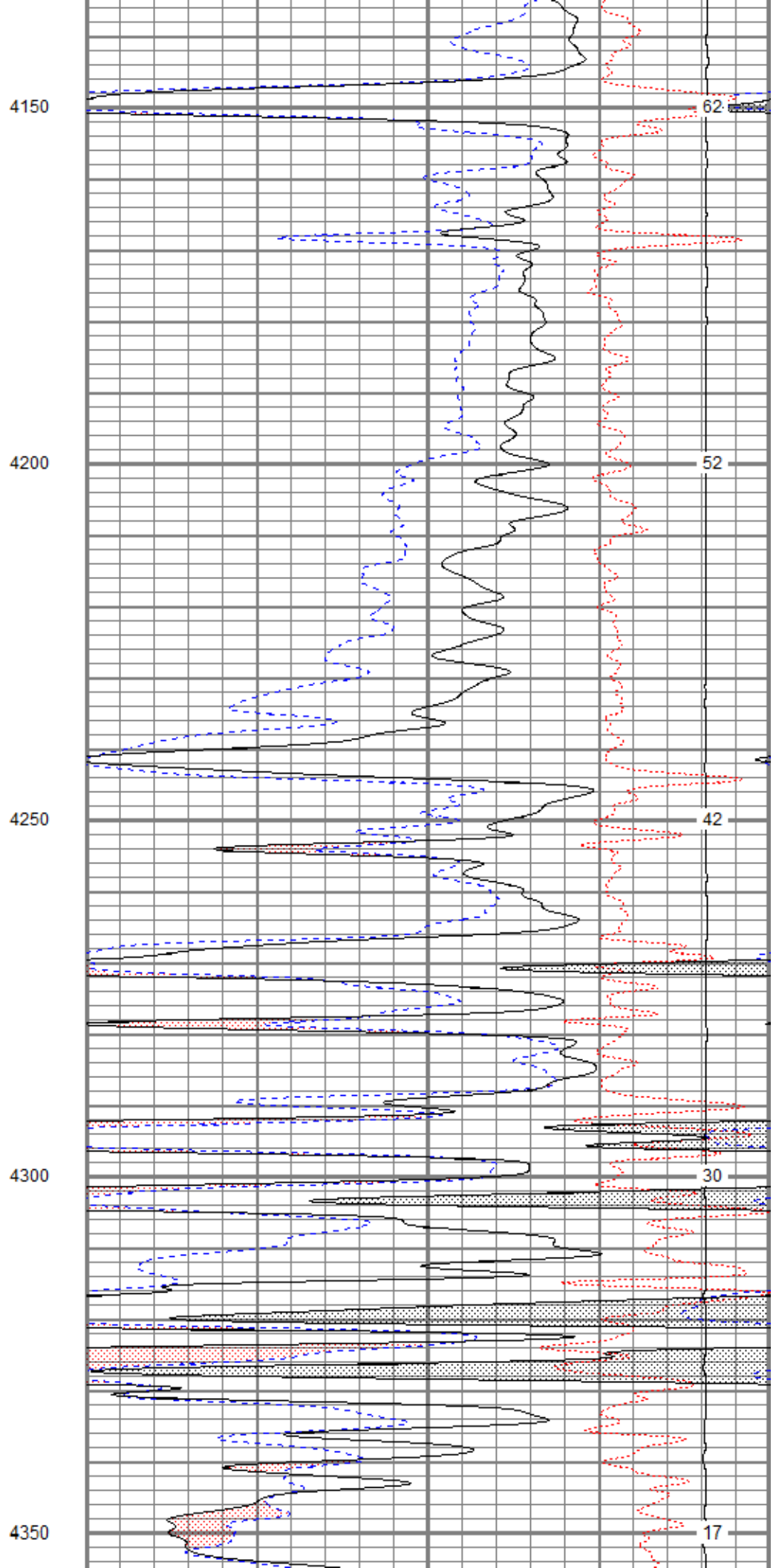
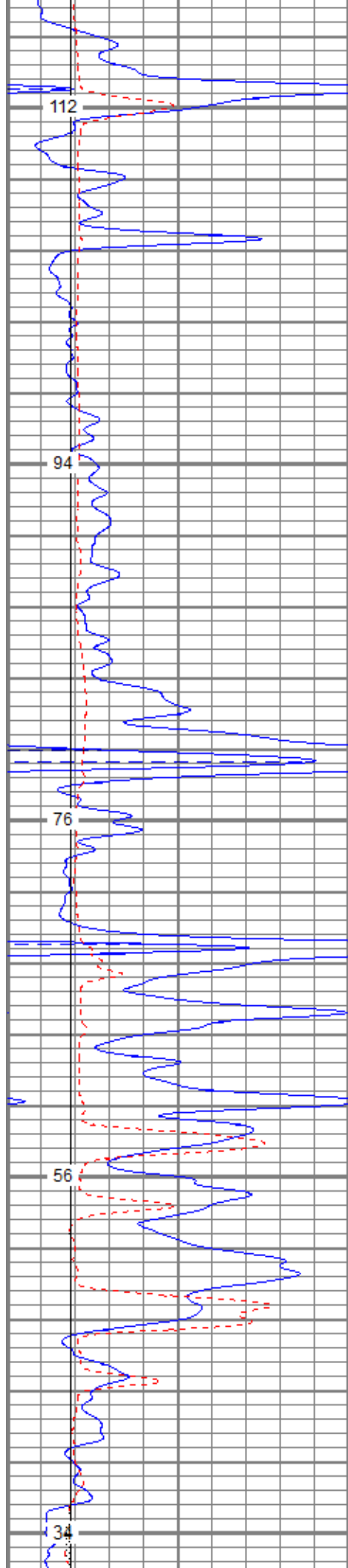
3950

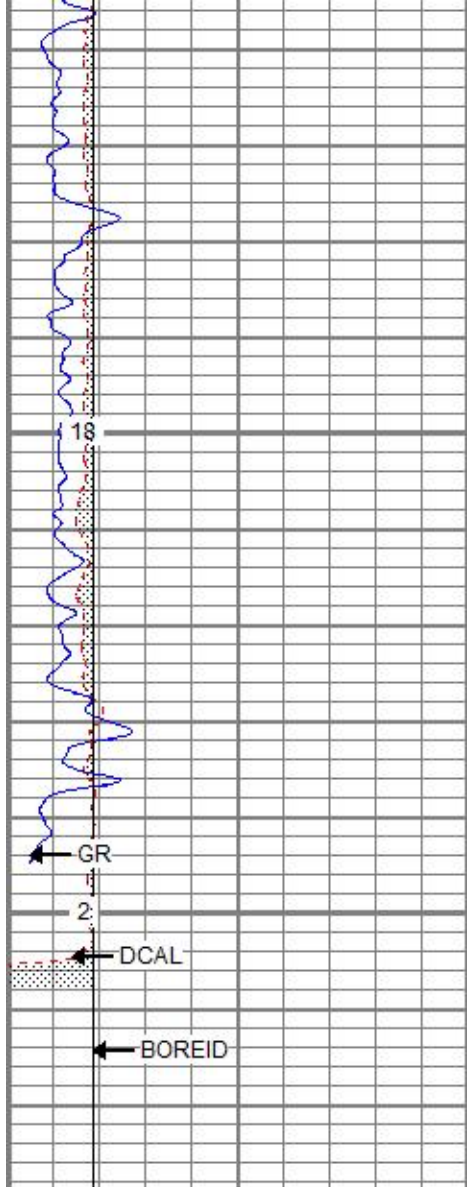
4000

4050

4100

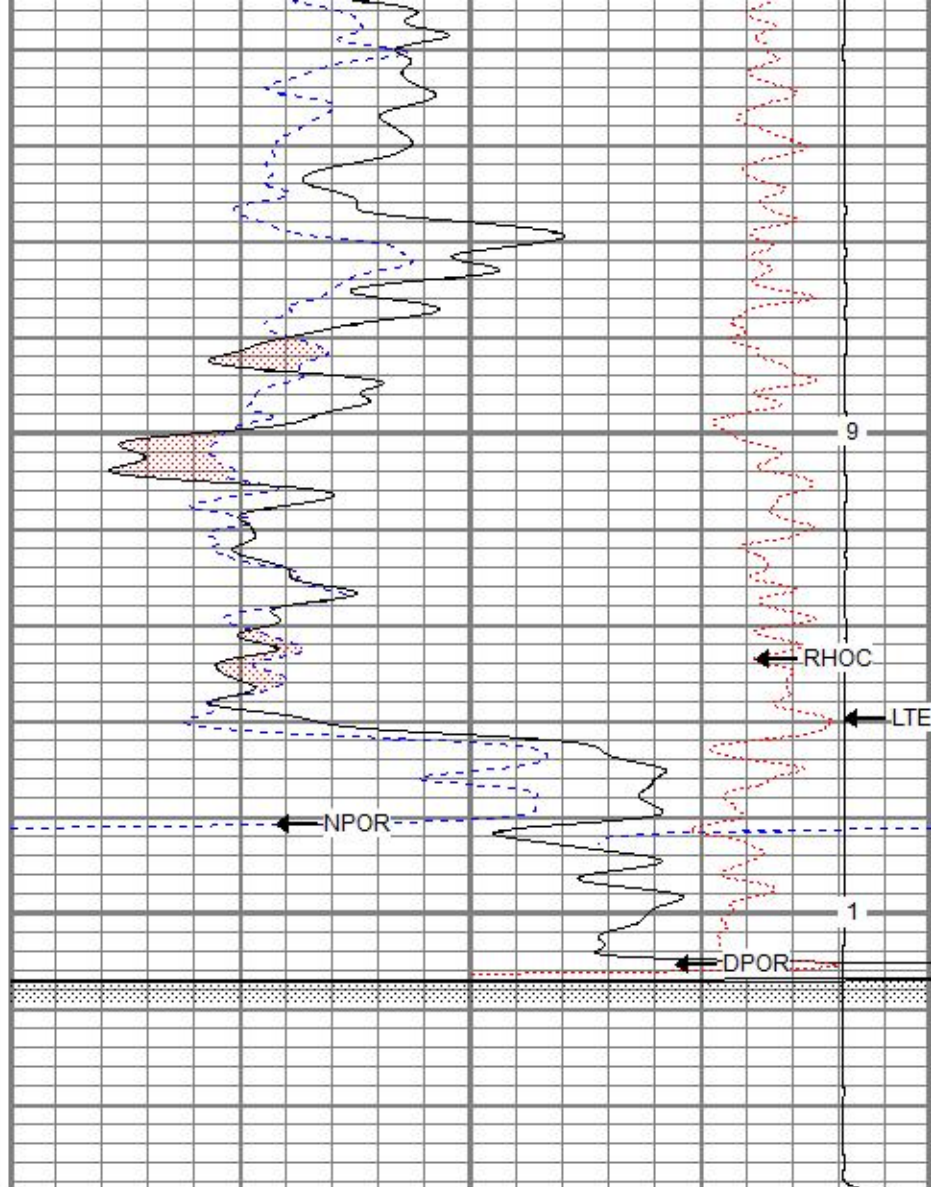






4400

4450



0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
		ABHV (ft3)	



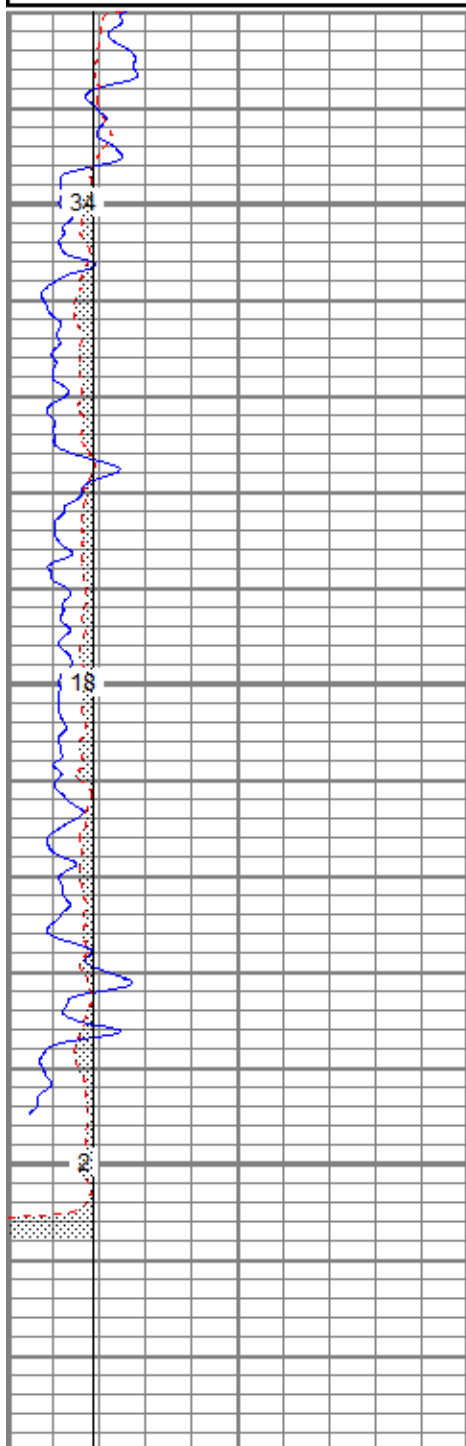
Repeat Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass1.1
 Presentation Format kcdnl
 Dataset Creation Fri Jun 10 19:07:35 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

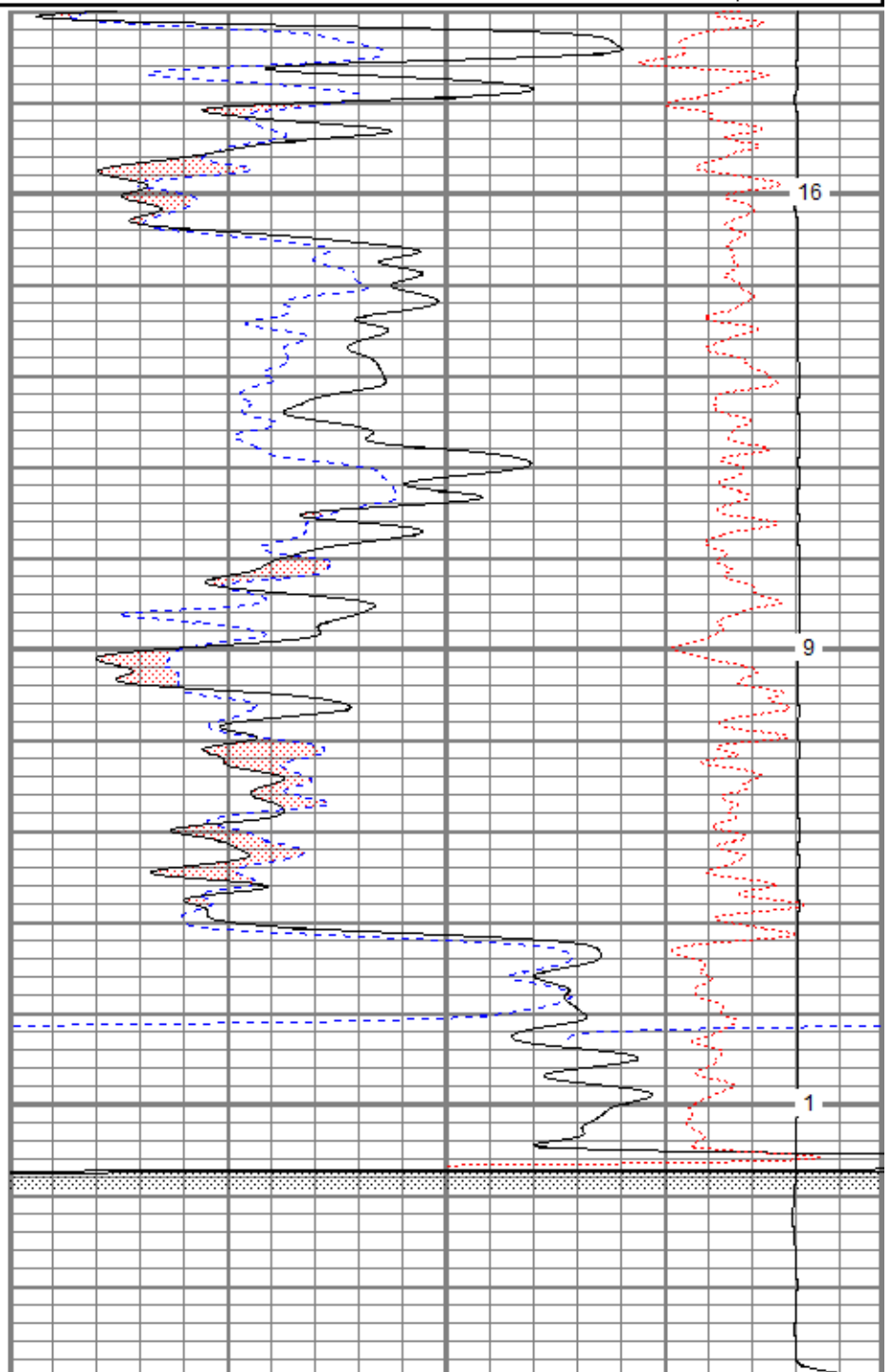
TBHV (ft3)	-0.25	RHOC (g/cc)	0.25
	8000	LTEN (lb)	0
		ABHV (ft3)	



4350

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16

9

1

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30

TBHV (ft3)

-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0

ABHV (ft3)

Calibration Report

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass1.1
 Dataset Creation Fri Jun 10 19:07:35 2016

Dual Induction Calibration Report

Serial-Model: 080522-Probe
 Surface Cal Performed: Mon Mar 14 11:26:37 2016
 Downhole Cal Performed: Mon Mar 14 11:26:40 2016
 After Survey Verification Performed: Mon Mar 14 11:26:42 2016

Surface Calibration								
Readings			References			Results		
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.040	0.651	V	0.000	400.000	mmho/m	578.981	22.871
Medium	-0.028	0.742	V	0.000	464.000	mmho/m	602.582	16.690
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.016	0.653	V	0.000	400.000	mmho/m	598.311	9.396
Medium	-0.025	0.747	V	0.000	464.000	mmho/m	601.262	14.808

Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	6.834	401.088	mmho/m	13.778	400.855	mmho/m	0.982	7.068
Medium	-2.964	468.230	mmho/m	1.850	466.869	mmho/m	0.987	4.775
LL3		7.145	V		750.000	Ohm-m		
		0.016	V		12.000	Ohm-m		
		-7.248	V		3745.000	mmho-m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	6.834	401.088	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-2.964	468.230	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		750.000	Ohm-m		
		0.000	Ohm-m		12.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: 2388DHT-DHT
 Source / Verifier: csv j12 / csv j12
 Master Calibration Performed: Fri Aug 01 09:45:19 2014
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.750	g/cc	668.56	327.82	cps	
Aluminum	2.650	g/cc	125.78	210.67	cps	
Spine Angle = 75.17			Density/Spine Ratio = 0.521			
	Size		Reading			
Small Ring	7.35	in	5695.86			
Large Ring	14.00	in	9900.52			

Before Survey Verification				
	Target		Measured	
		g/cc		
		g/cc		
		g/cc		

After Survey Verification				
	Target		Measured	
		g/cc		
		g/cc		
		g/cc		

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Jan 21 09:36:03 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2400 GAPI/cps

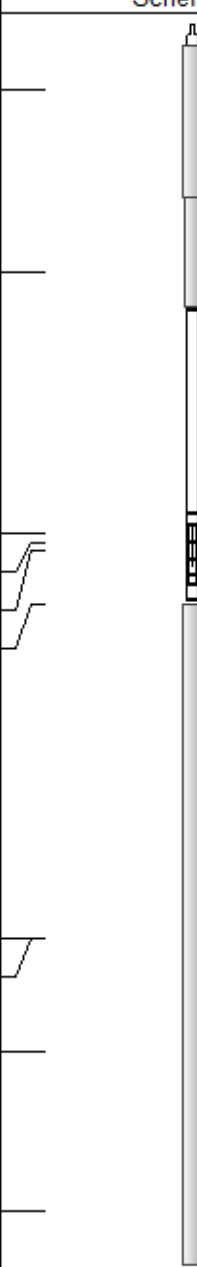
Neutron Calibration Report

Serial Number: 5108
 Tool Model: PROBE
 Performed: Thu Jan 21 09:36:17 2016

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-None	0.75	1.50	5.00
NEU	38.26		NEU-PROBE (5108) Probe	4.92	3.63	85.00
GR	32.32		GR-OH (2001) 2001	3.56	3.25	40.00
			CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	23.78					
DCAL	23.49					
SSD	23.24					
HEADVOLT	21.47					
SP	10.60		DIL-Probe (080522) Probe Dual Induction	21.47	4.00	345.00
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset:	tcbarriklow#1-33oh.db: field/well/run1/pass1.1
Total length:	40.39 ft
Total weight:	676.00 lb
O.D.:	4.00 in



**DUAL
INDUCTION
LOG**

Company Triple Crown Operating, LLC.
Well Barricklow #1-33
Field Barricklow
County Ness
State Kansas

Company Triple Crown Operating, LLC.
Well Barricklow #1-33
Field Barricklow
County Ness
State Kansas

Location: 1440' FNL & 1200' FEL
API #: 15 135 25911
SEC 33 TWP 20S RGE 22W
Permanent Datum Ground Level Elevation 2179'
Log Measured From KB 8' AGL
Drilling Measured From KB
Other Services
CDNL
ML
BCS
Elevation
K.B. 2187'
D.F. 2186'
G.L. 2179'

Date	6-10-16
Run Number	One
Depth Driller	4480'
Depth Logger	4480
Bottom Logged Interval	4478'
Top Log Interval	500'
Casing Driller	8 5/8" @ 513'
Casing Logger	513'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	8.9/50
PH / Fluid Loss	8.5/12
Source of Sample	Pit
Rm @ Meas. Temp	2.8@76degf
Rmf @ Meas. Temp	2.1@76degf
Rmc @ Meas. Temp	3.36@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.77@120degf
Time Circulation Stopped	3:00 p.m.
Time Logger on Bottom	6:30 p.m.
Maximum Recorded Temperature	120degf
Equipment Number	T127
Location	Hays, KS
Recorded By	Gus Pfanenstiel
Witnessed By	Mr. Rod Andersen

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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

South of Ness City to 20 Rd.
East to Z Rd. 1 South, 1 East, 1/2 South
West into.

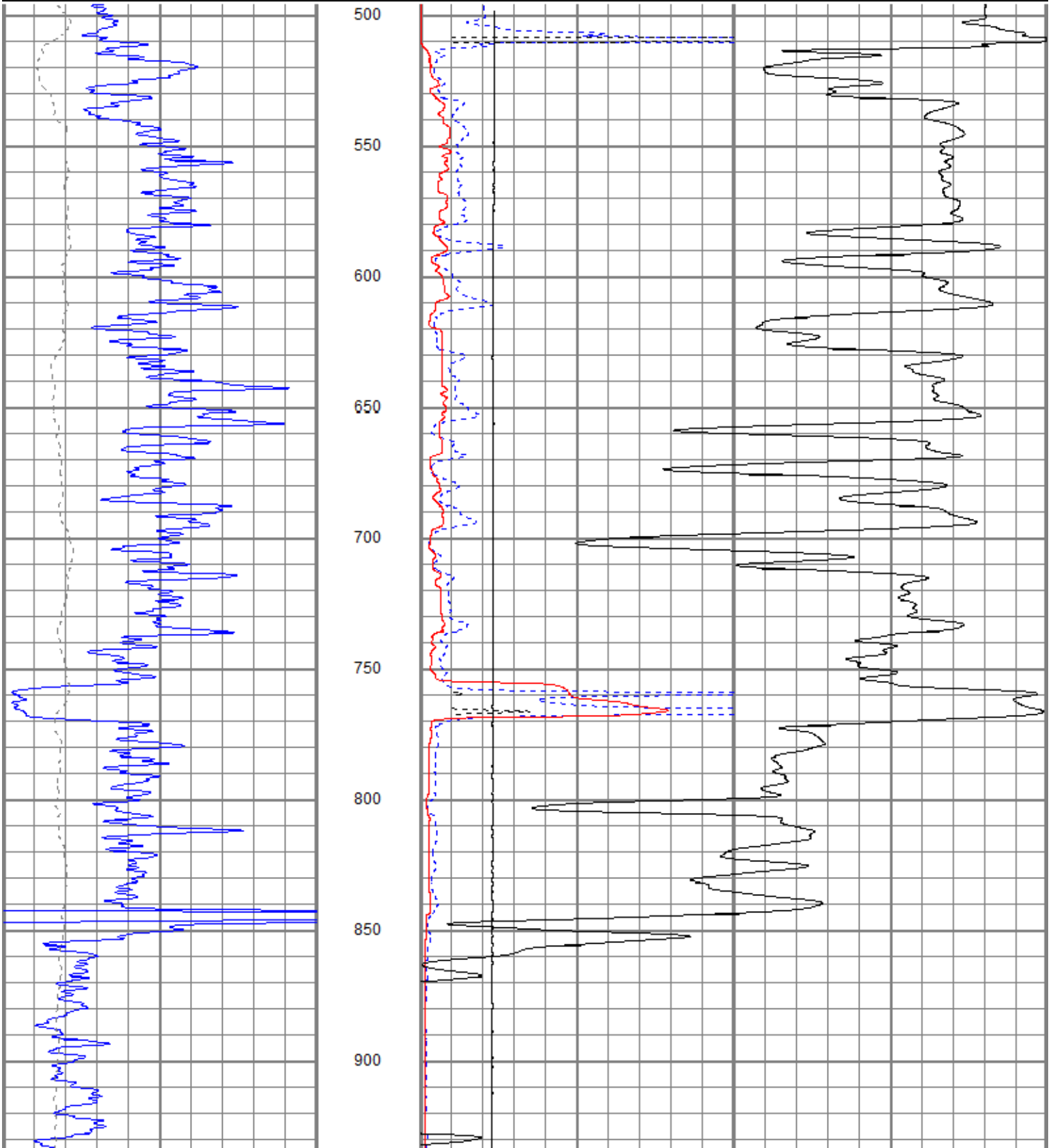


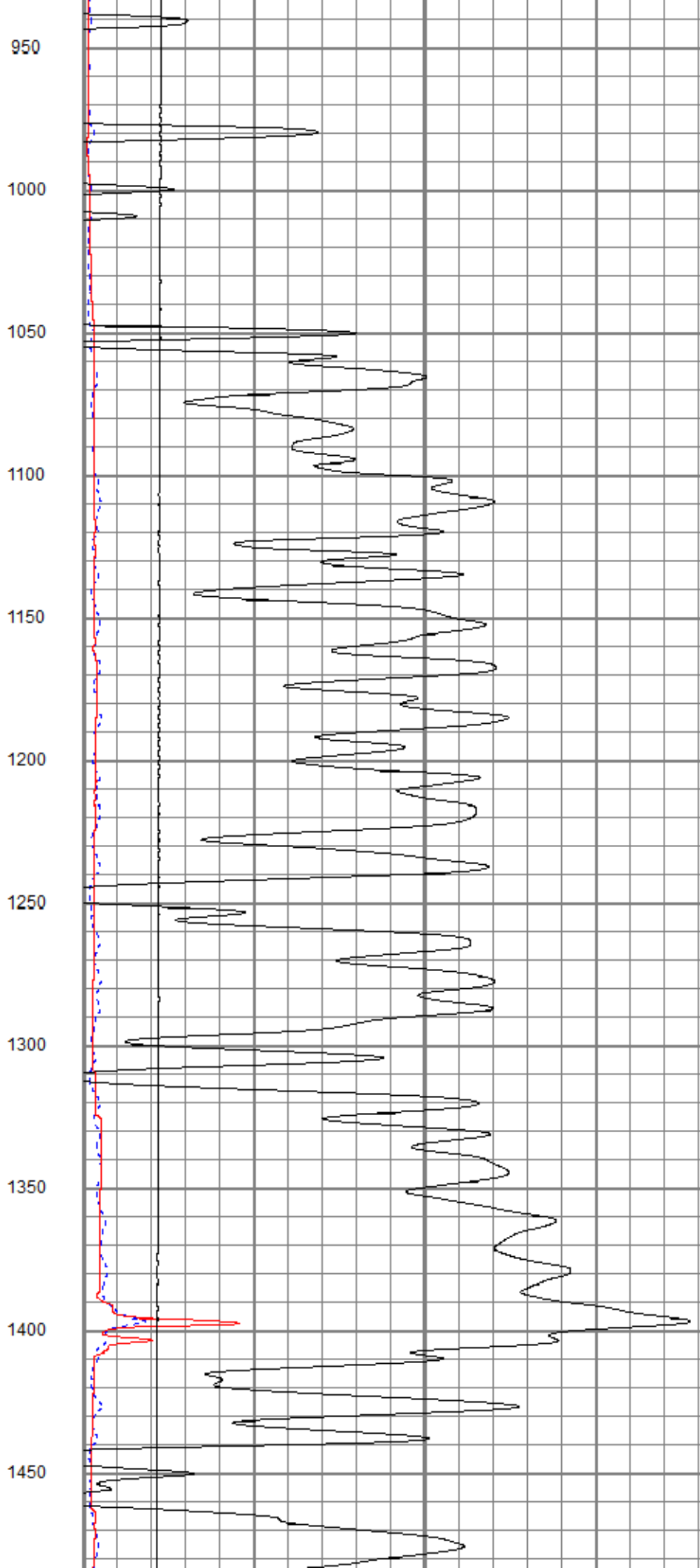
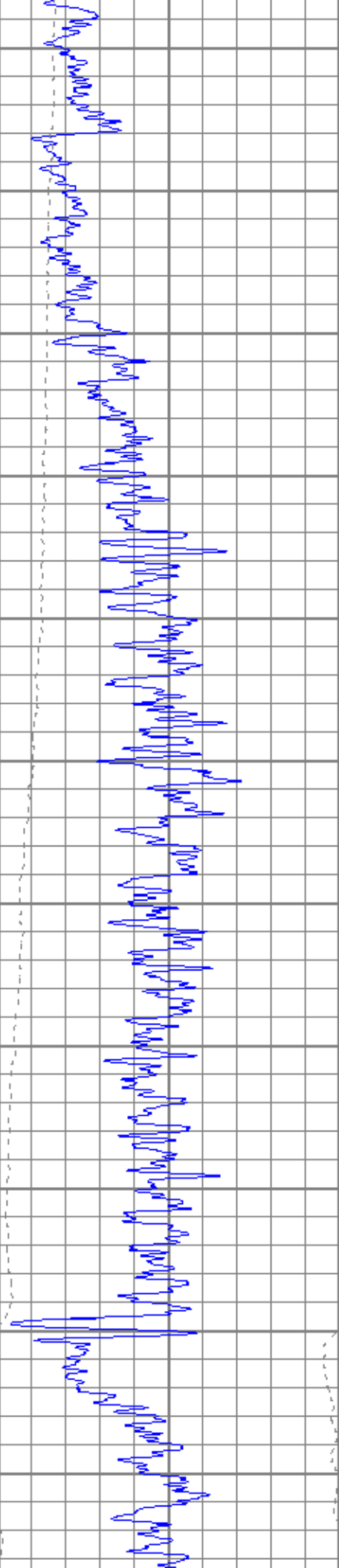
Main Pass

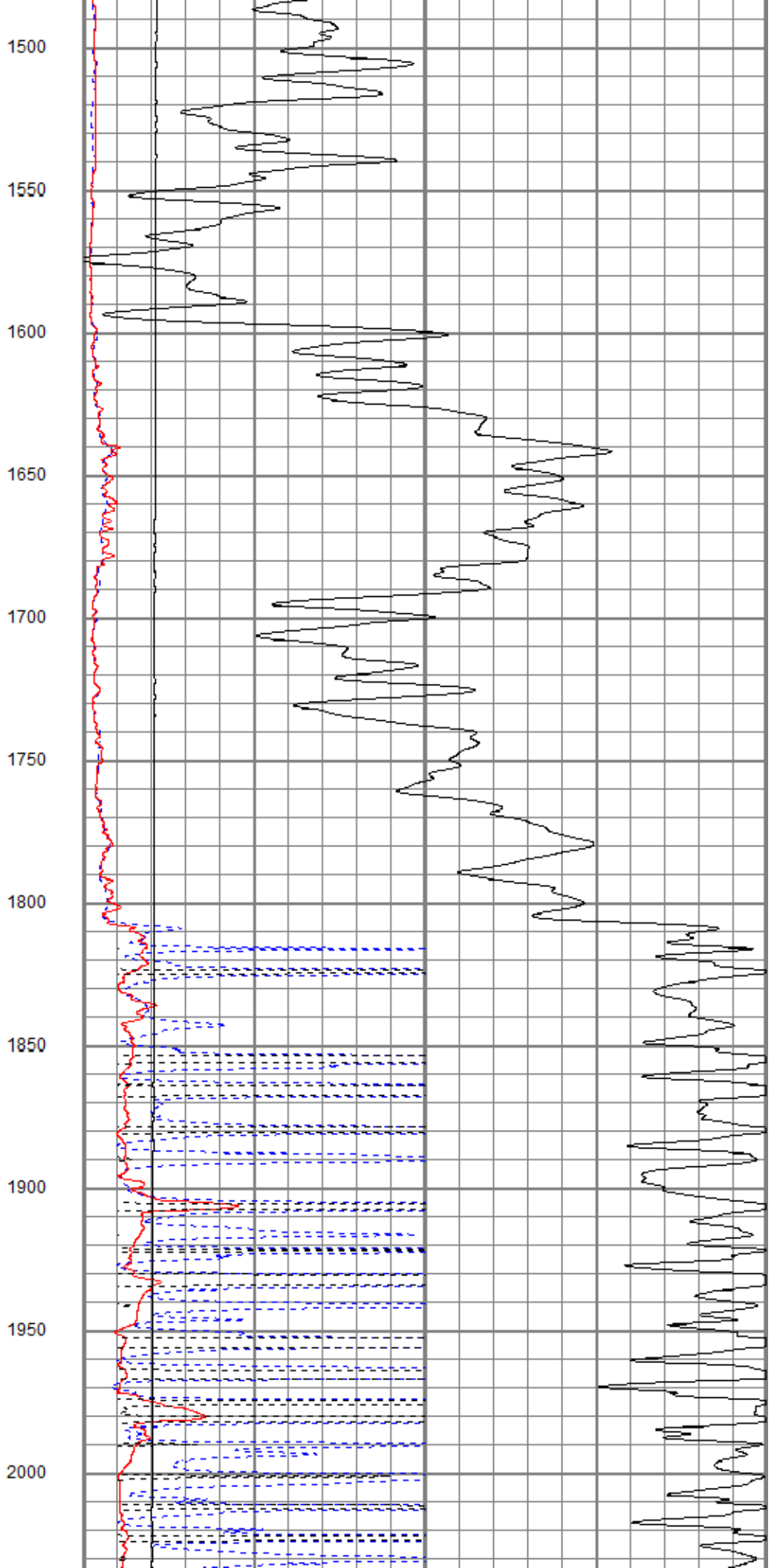
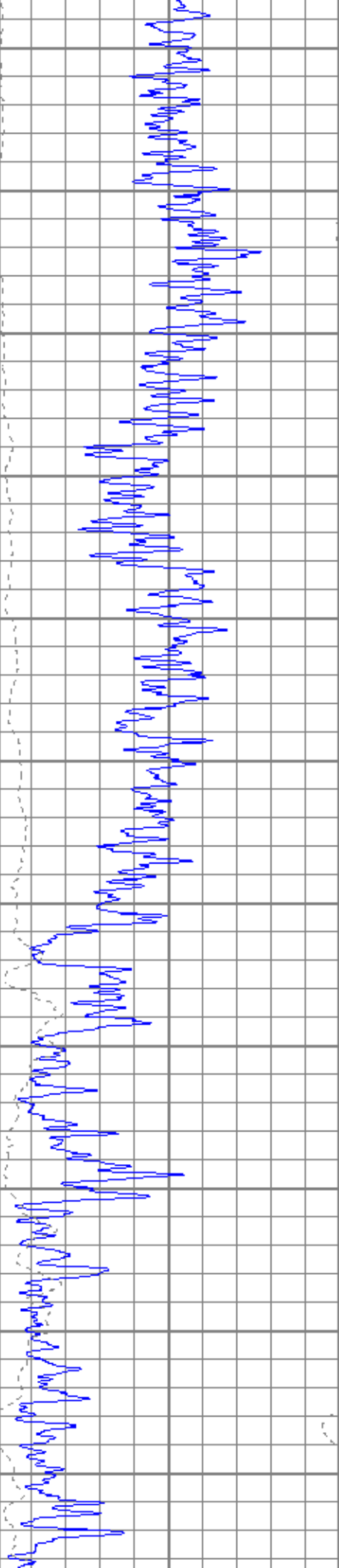
Database File tcbarrieklow#1-33oh.db
 Dataset Pathname pass2.1
 Presentation Format kdillin2
 Dataset Creation Fri Jun 10 19:42:26 2016
 Charted by Depth in Feet scaled 1:600

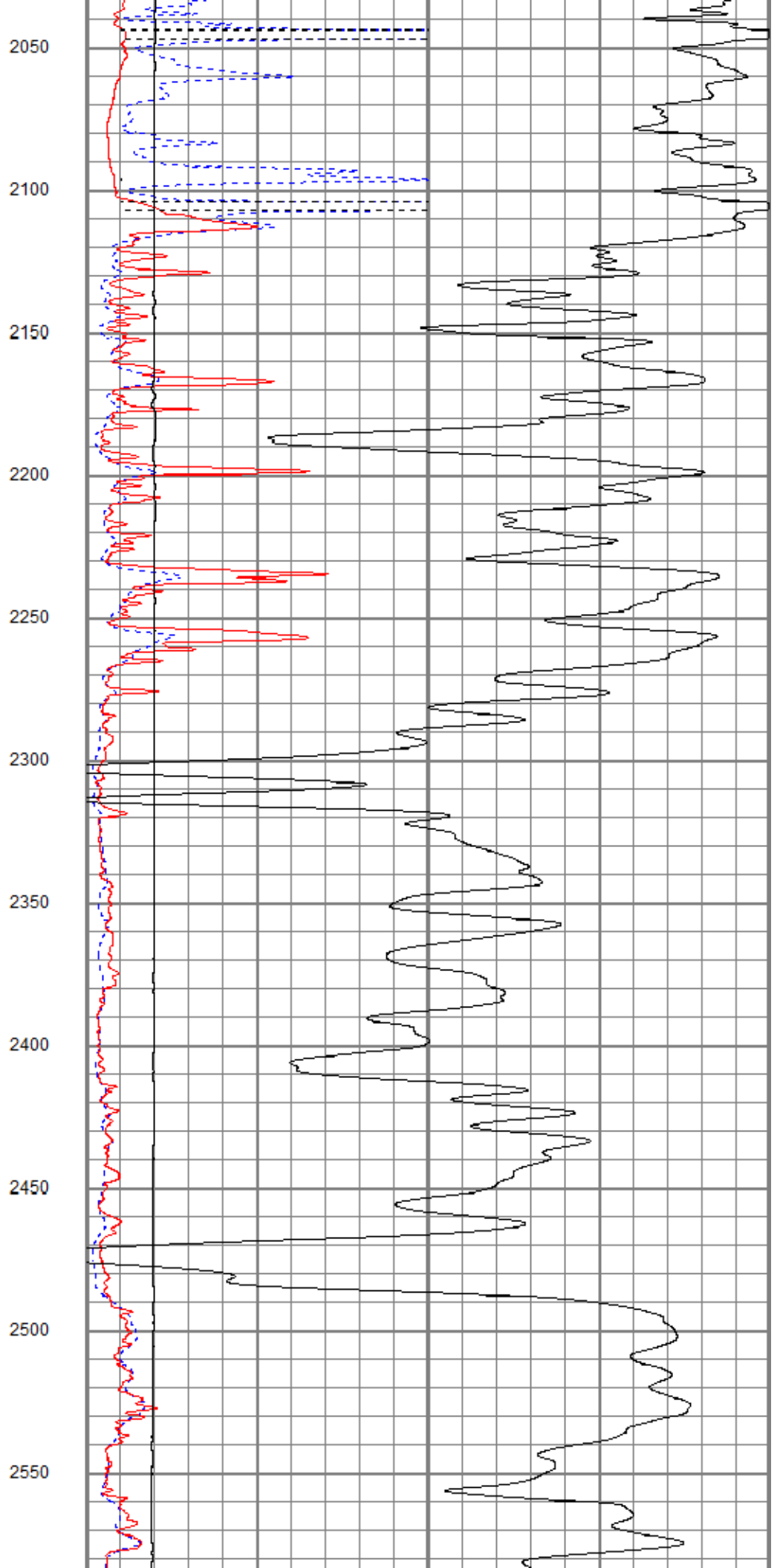
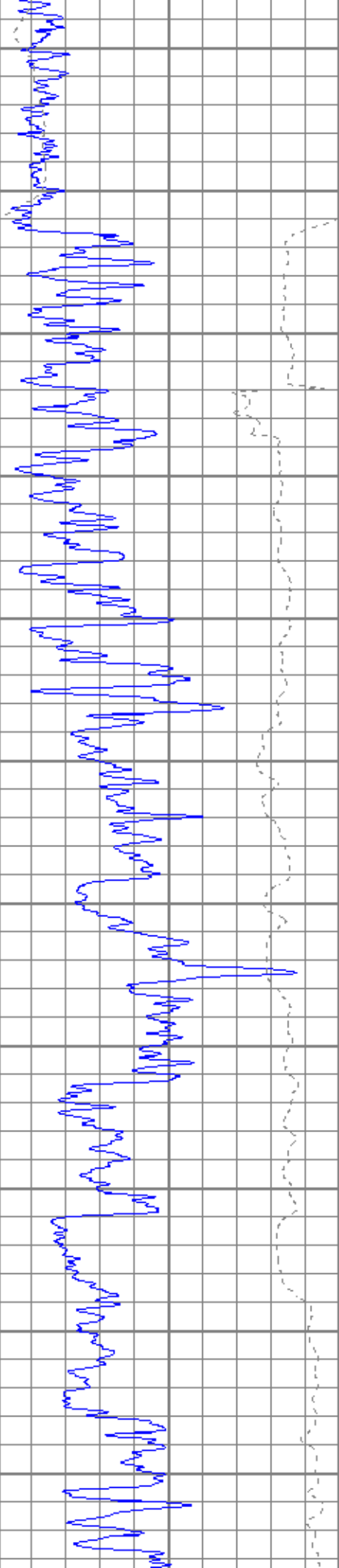
0	GR (GAPI)	150
-200	SP (mV)	0

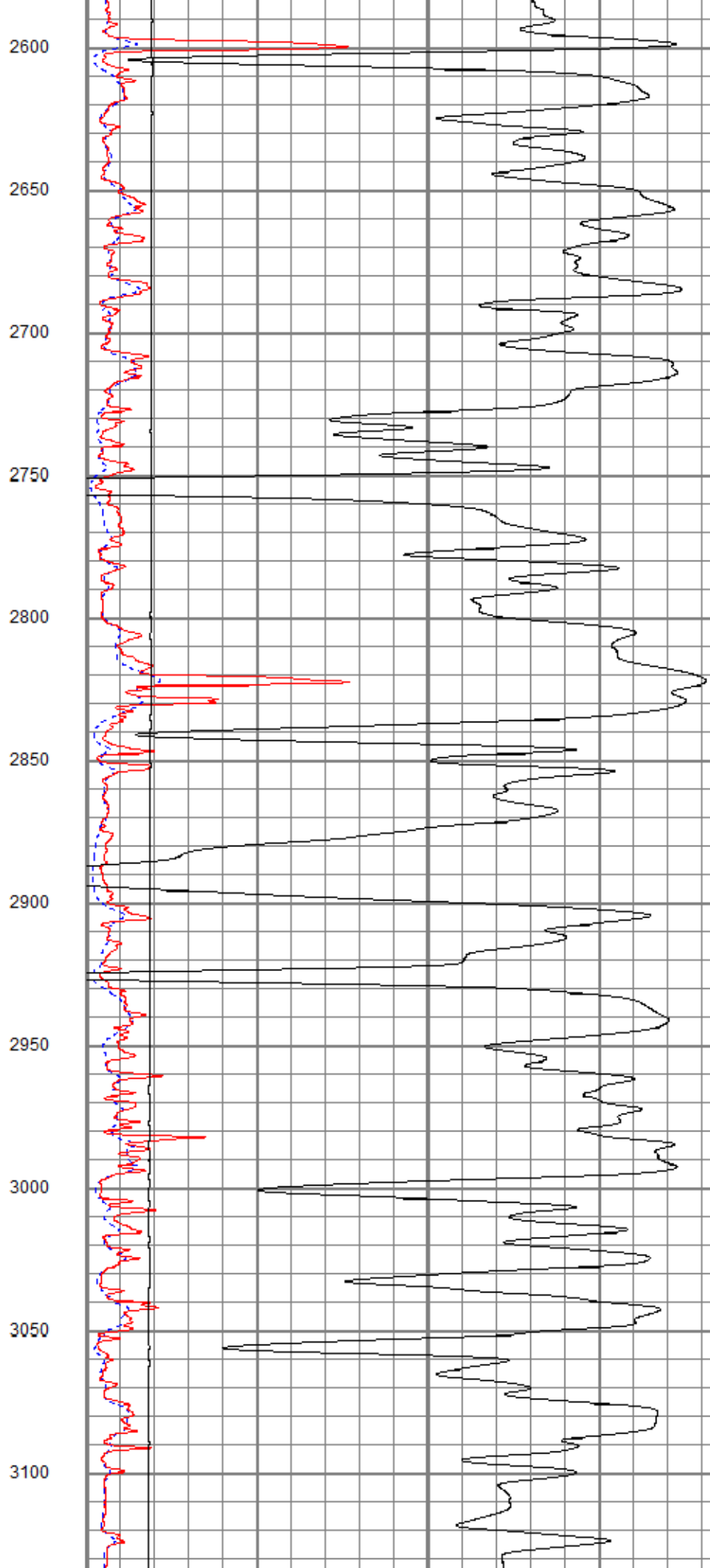
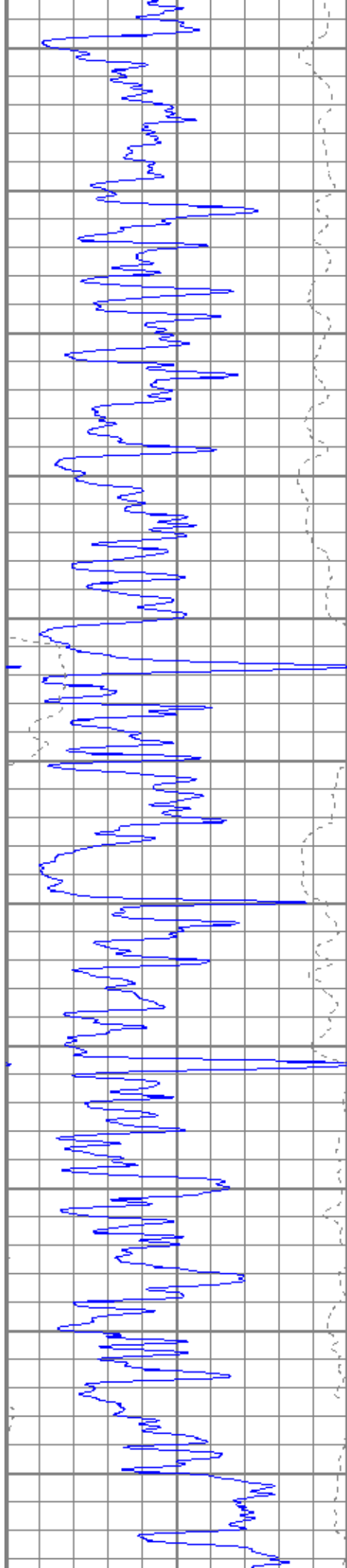
1000	CILD (mmho/m)	0
10000	LTEN (lb)	0
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

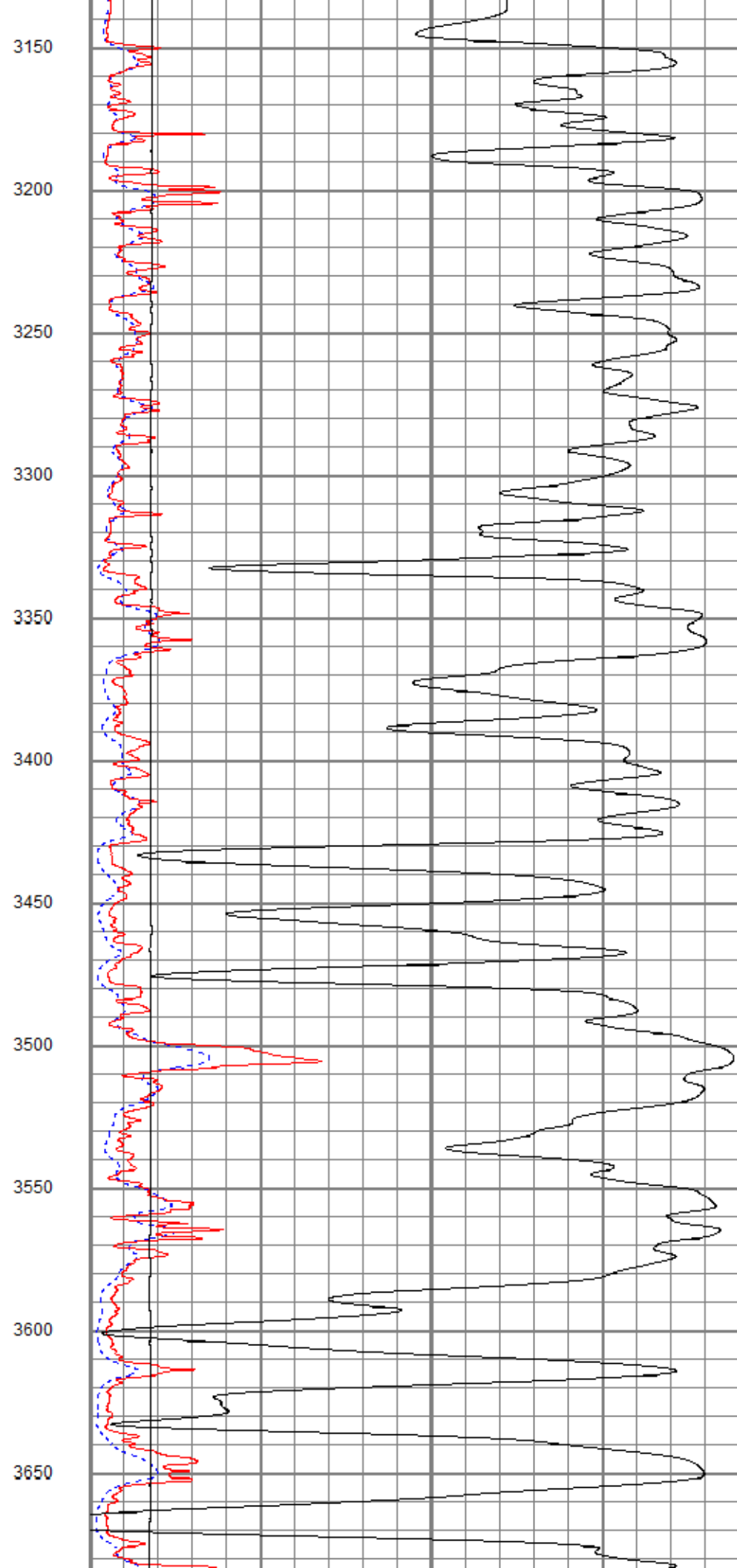
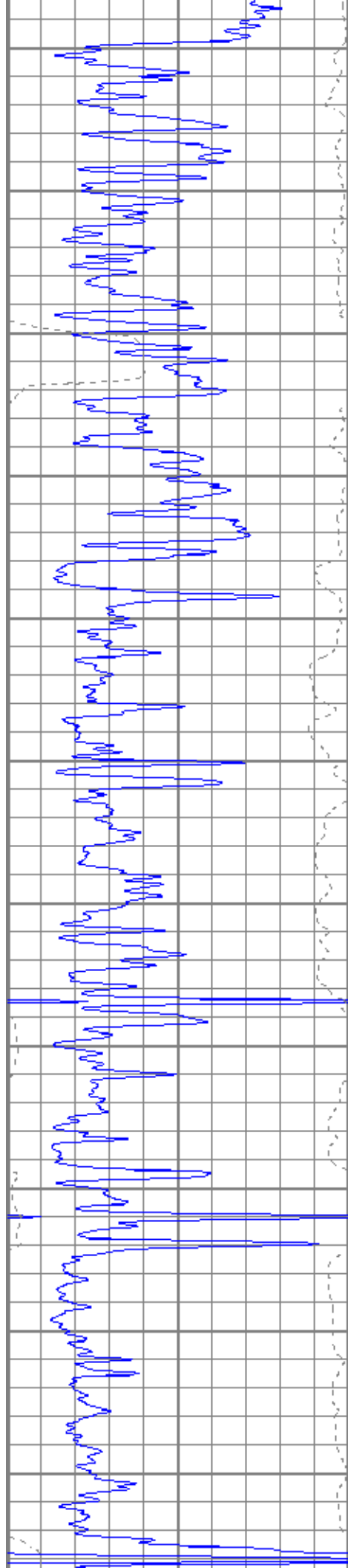


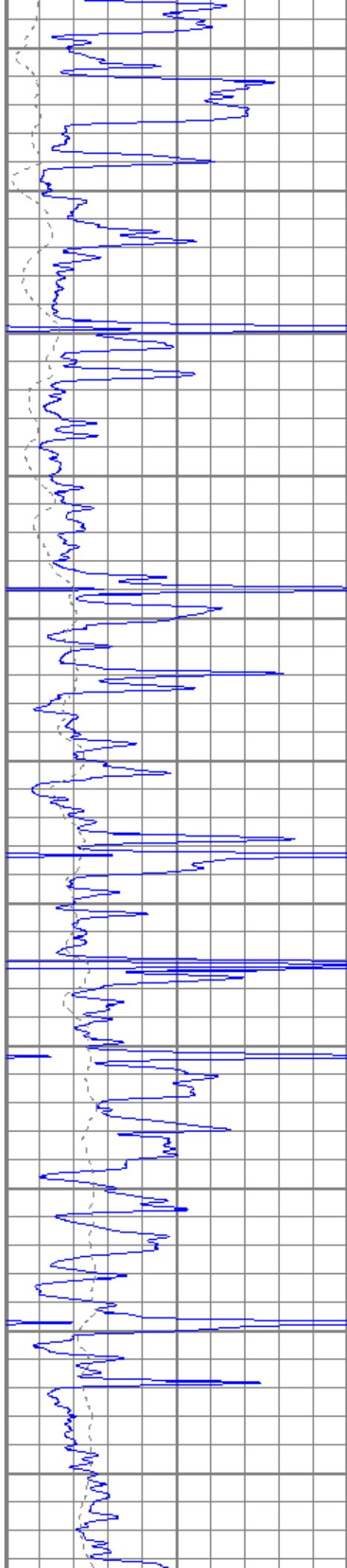












3700

3750

3800

3850

3900

3950

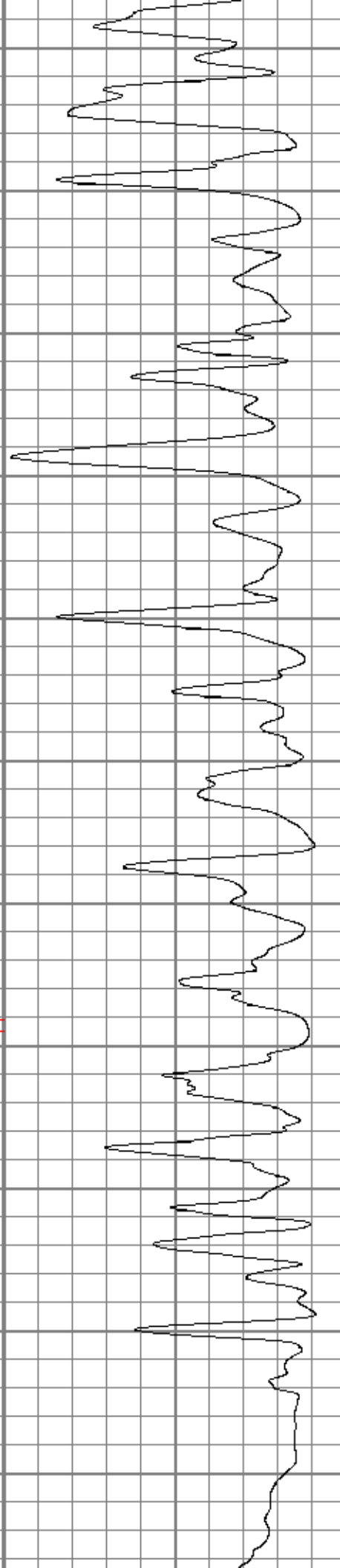
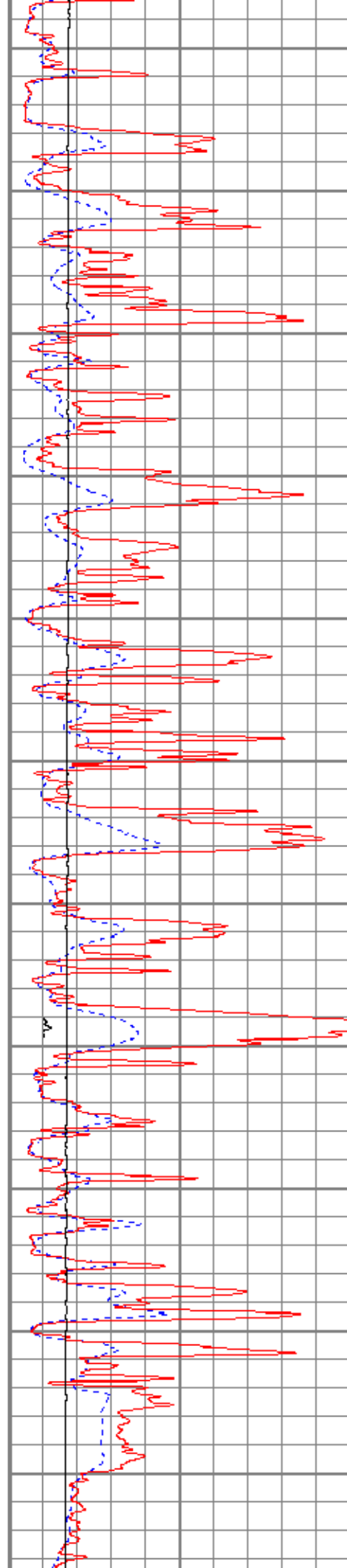
4000

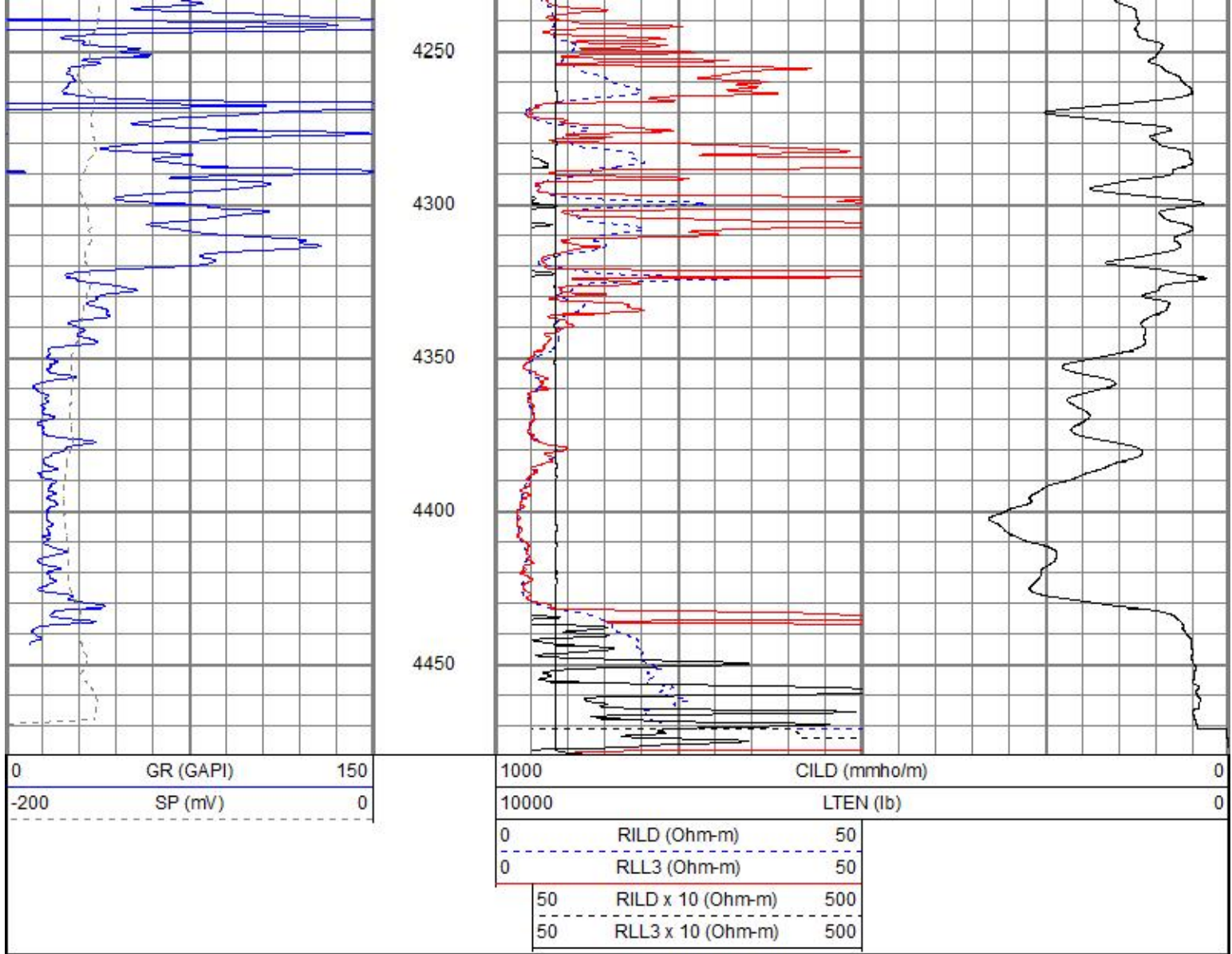
4050

4100

4150

4200

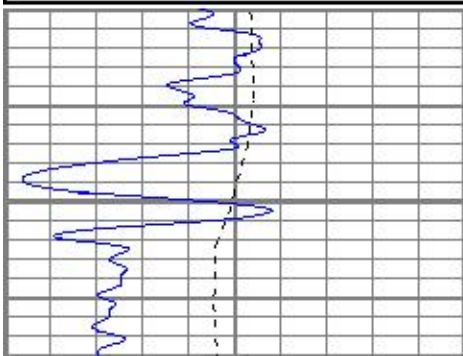




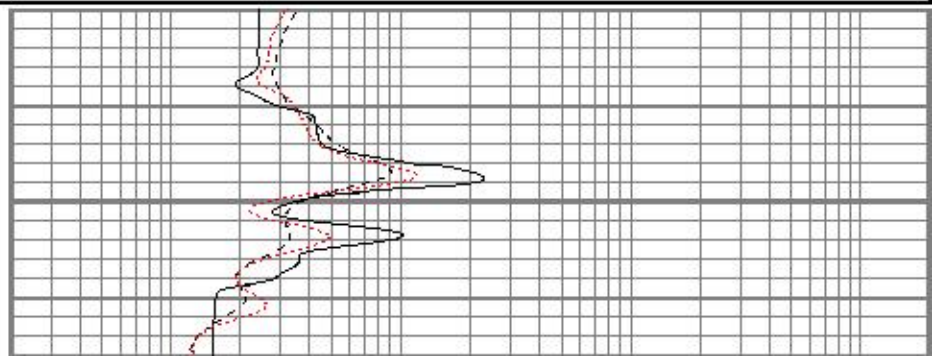
Main Pass

Database File: tcbarricklow#1-33oh.db
 Dataset Pathname: pass2.1
 Presentation Format: kdil
 Dataset Creation: Fri Jun 10 19:42:26 2016
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	0.2	RILD (Ohm-m)	2000
-100	SP (mV)	100	0.2	RLL3 (Ohm-m)	2000
			0.2	RILM (Ohm-m)	2000



1400



0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

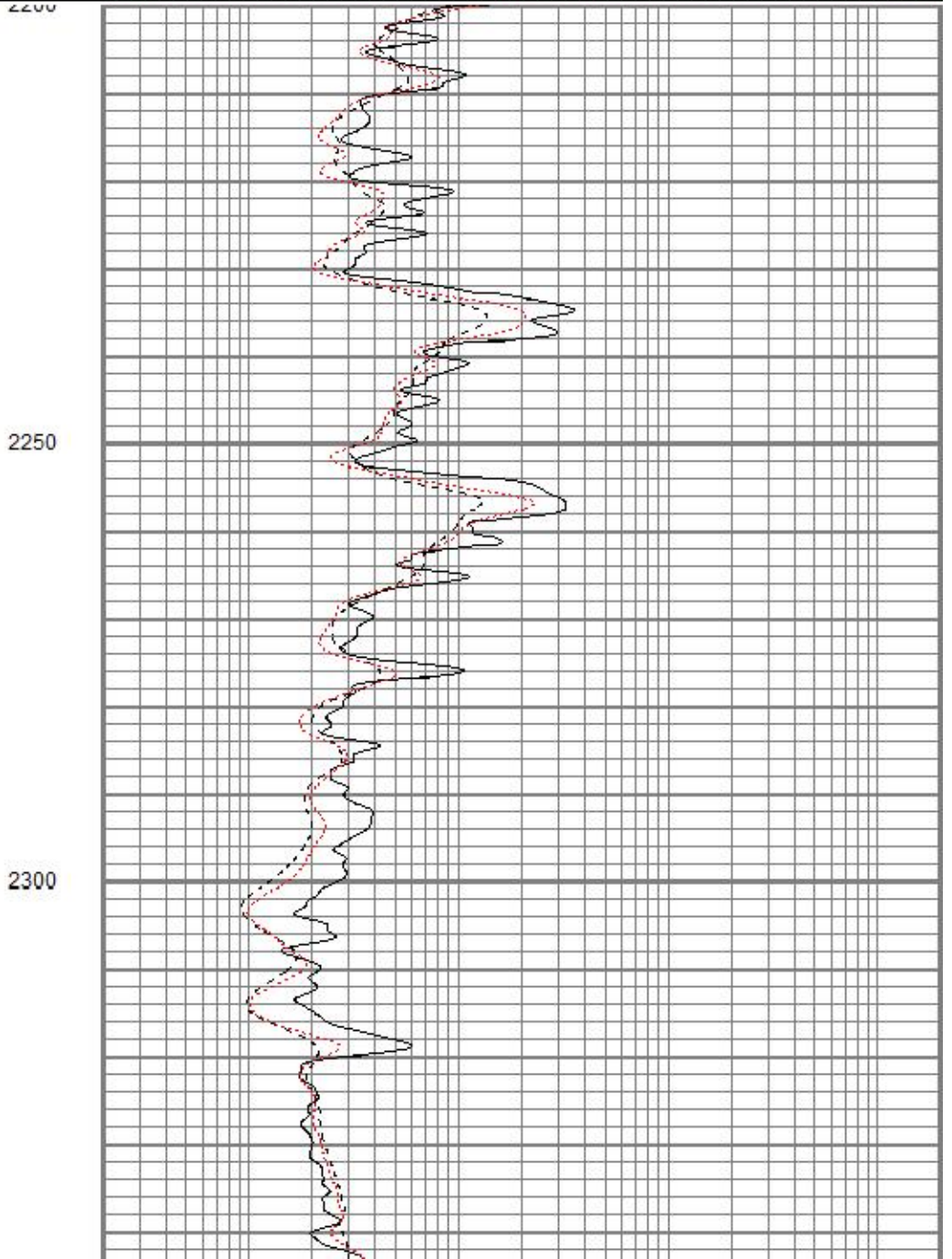
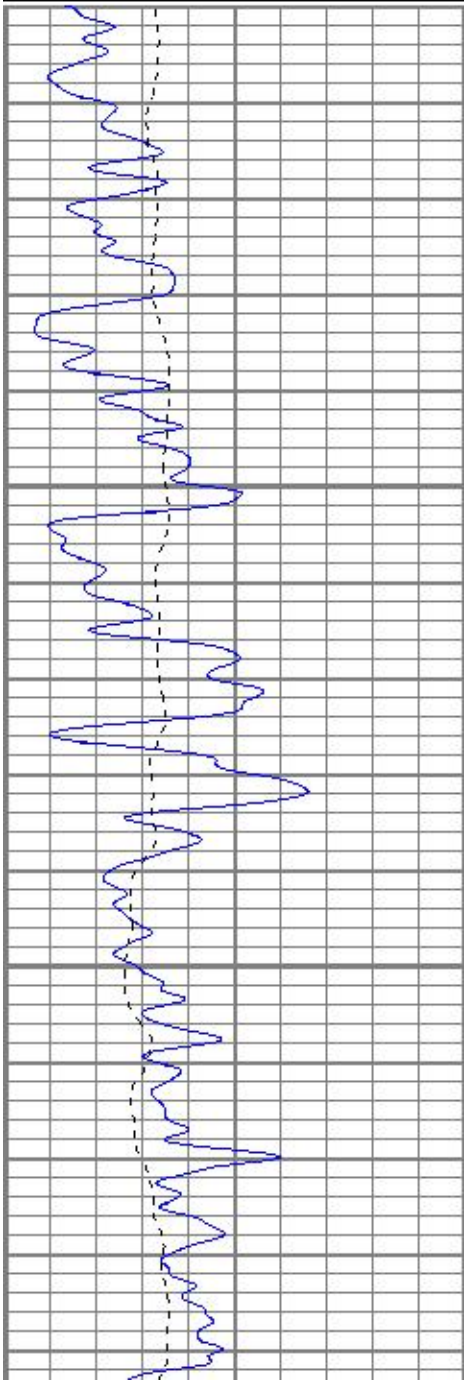


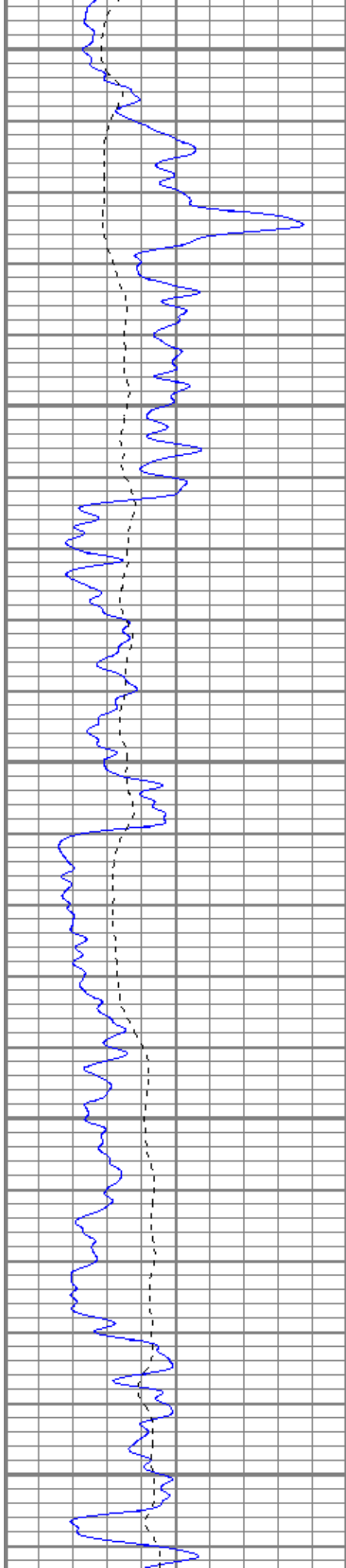
Main Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass2.1
 Presentation Format kdil
 Dataset Creation Fri Jun 10 19:42:26 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000





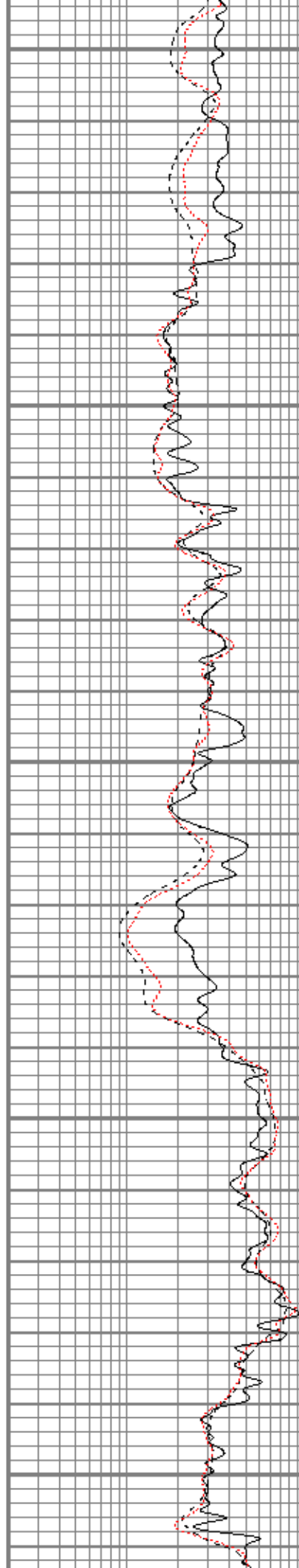
2350

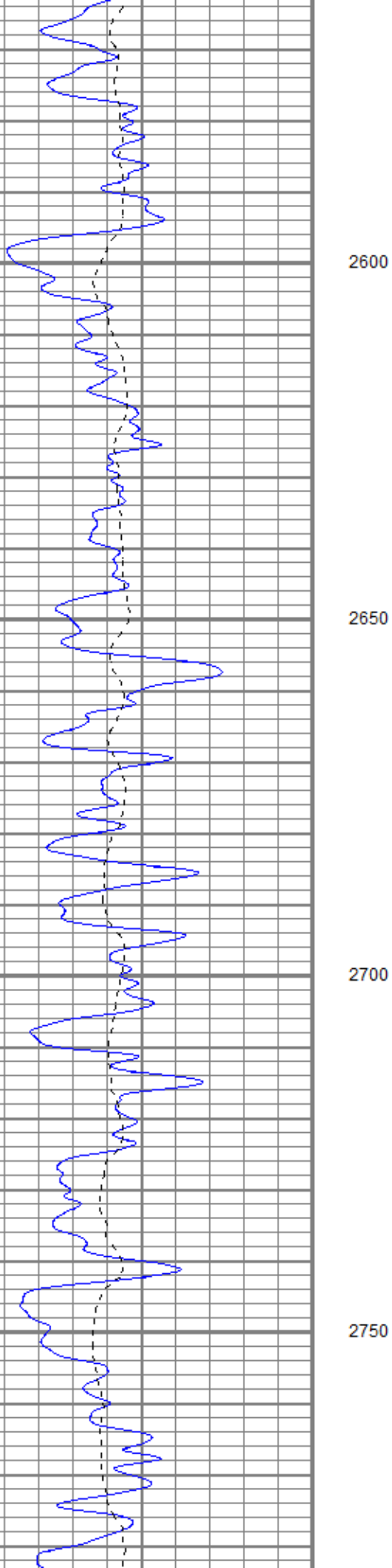
2400

2450

2500

2550



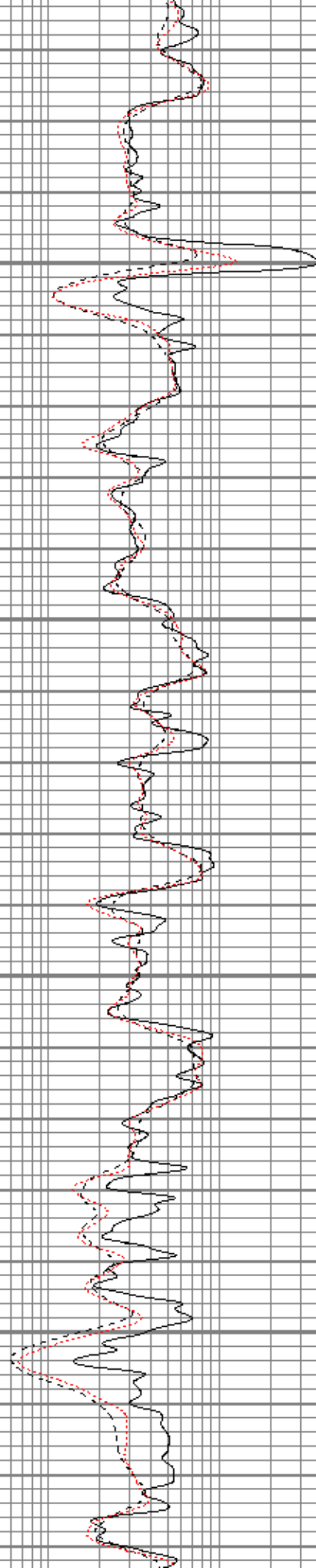


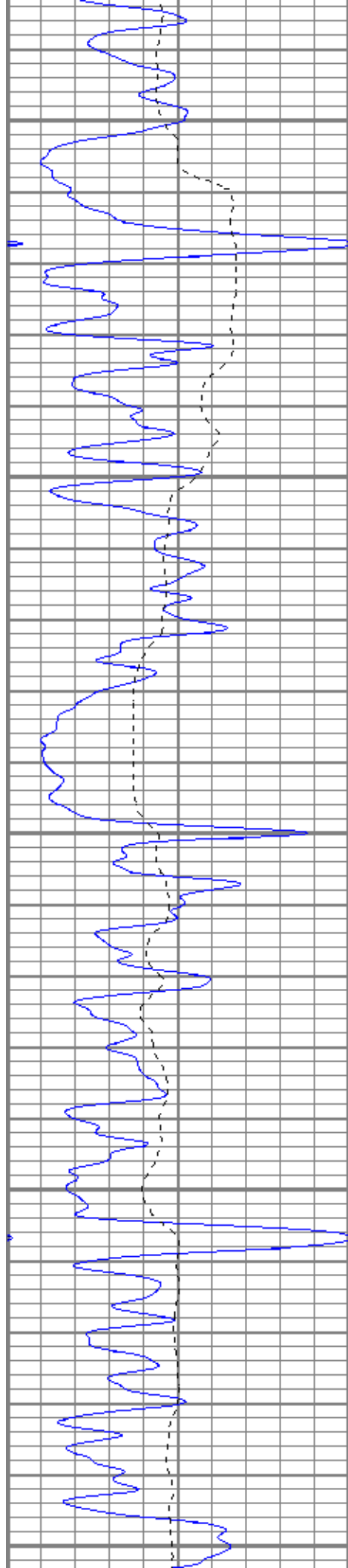
2600

2650

2700

2750





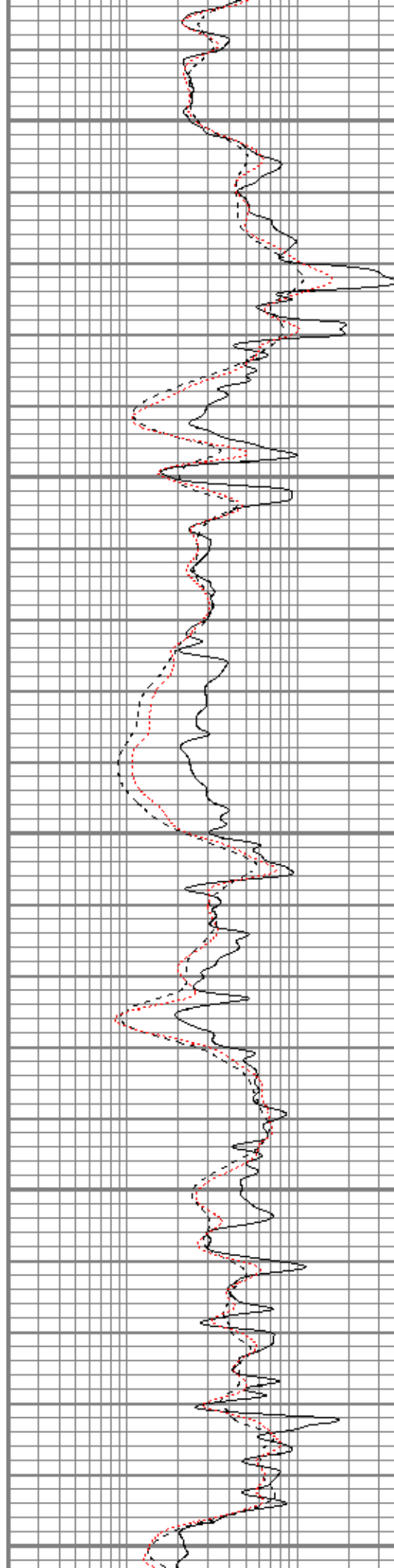
2800

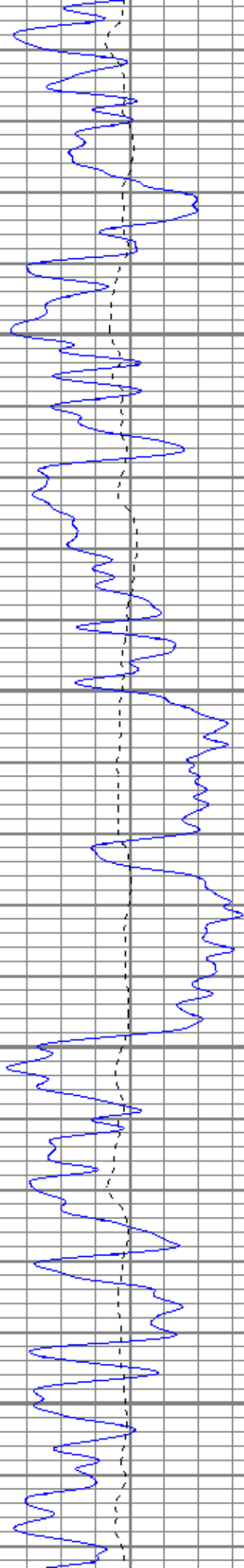
2850

2900

2950

3000



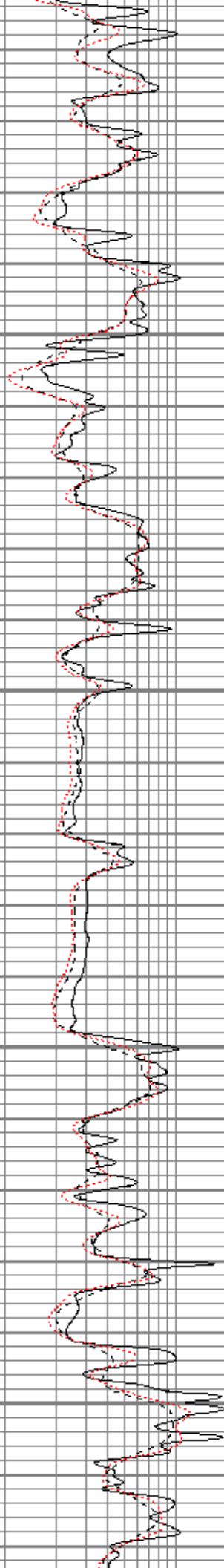


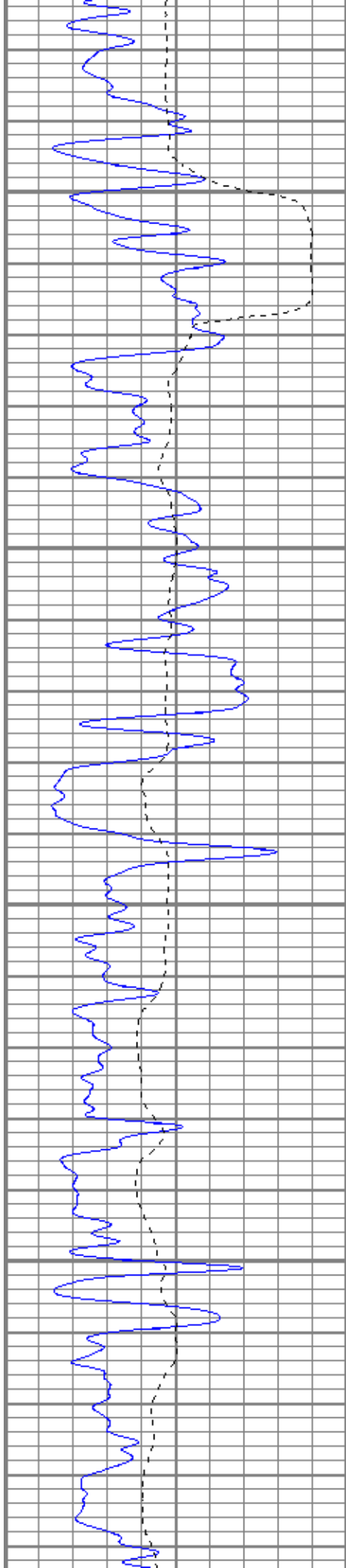
3050

3100

3150

3200



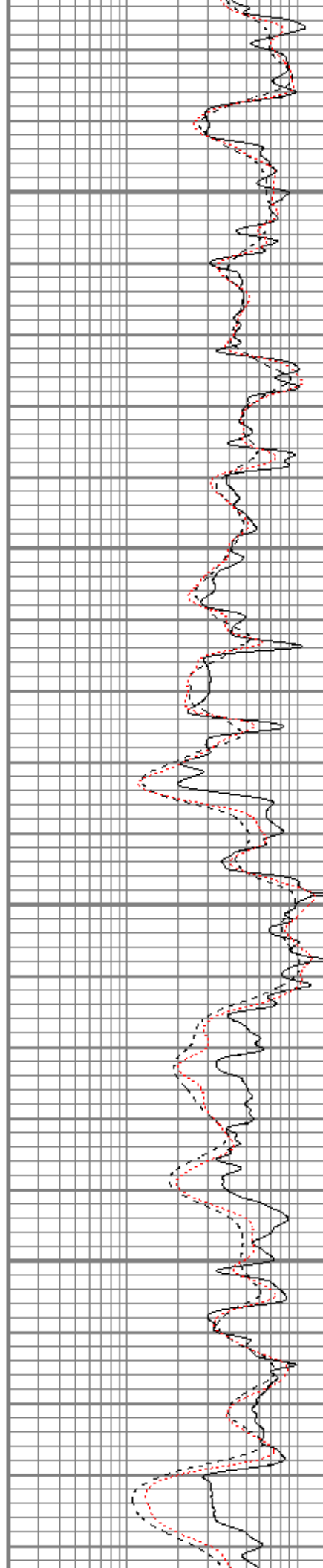


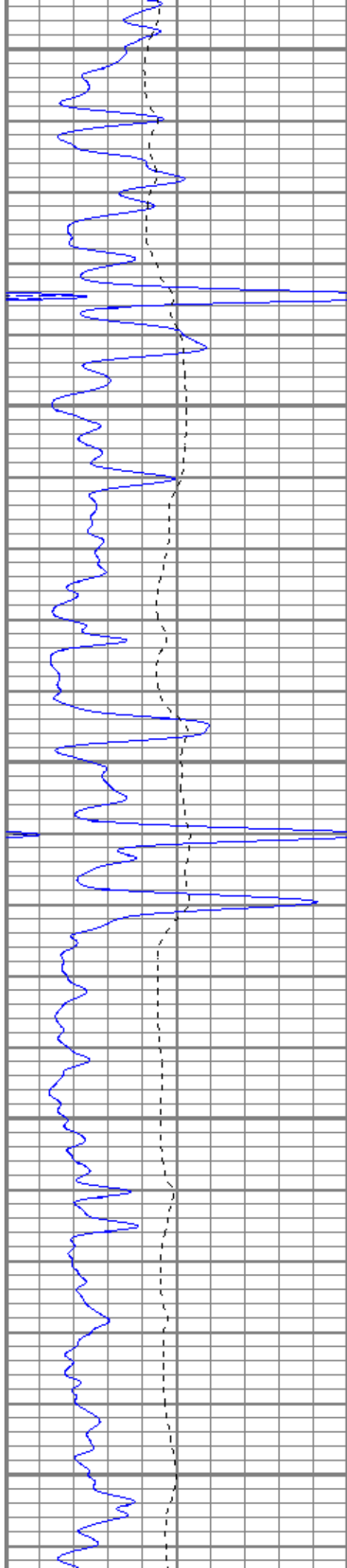
3250

3300

3350

3400





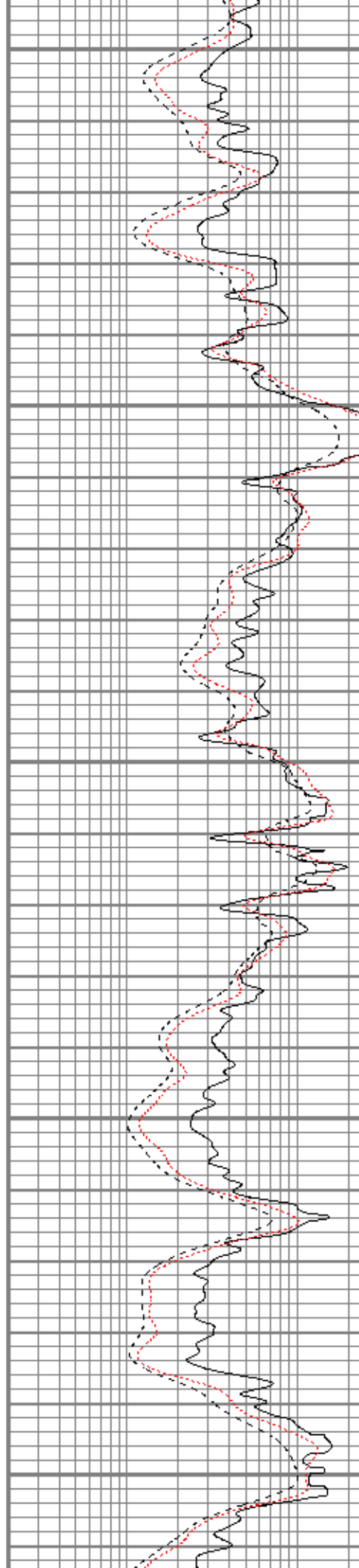
3450

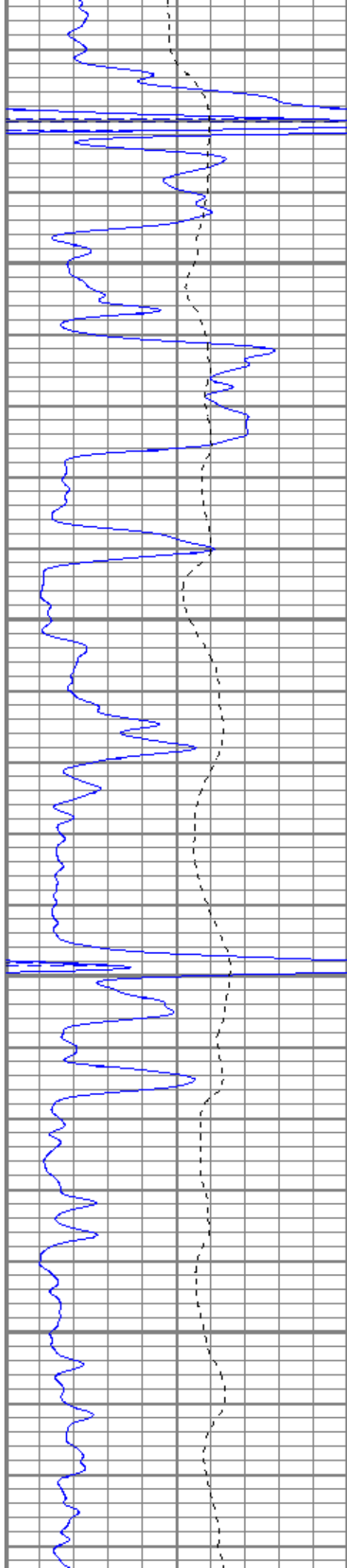
3500

3550

3600

3650



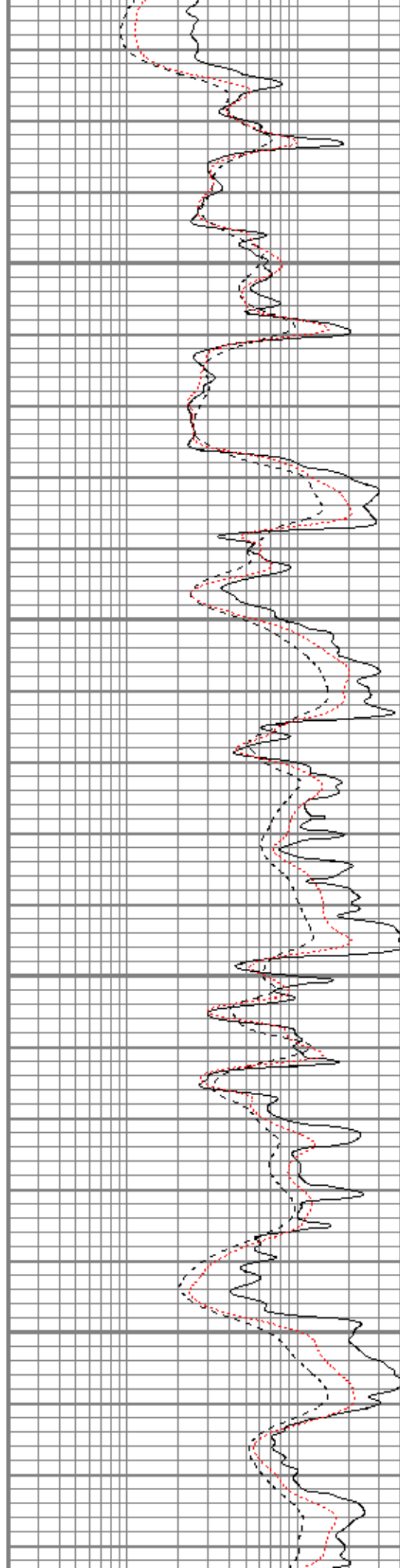


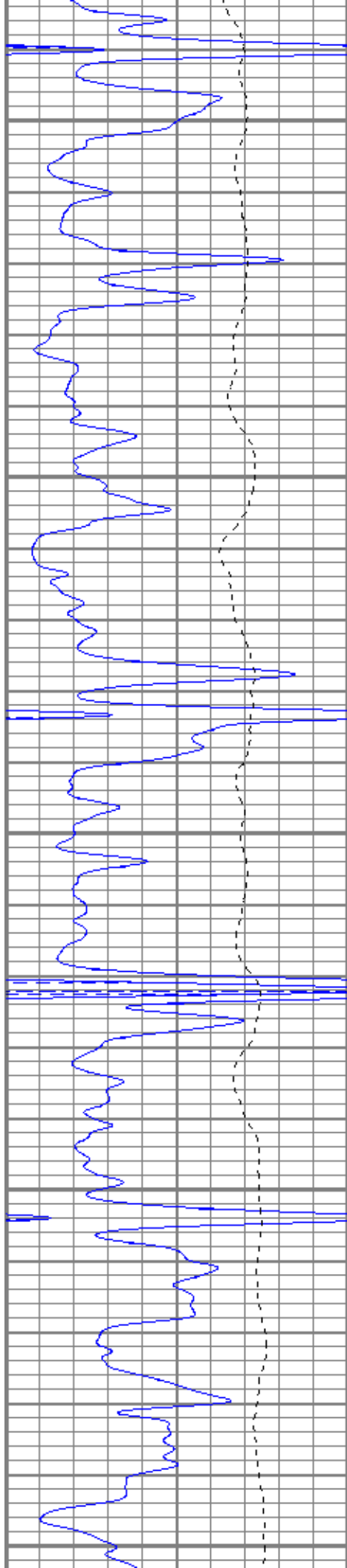
3700

3750

3800

3850





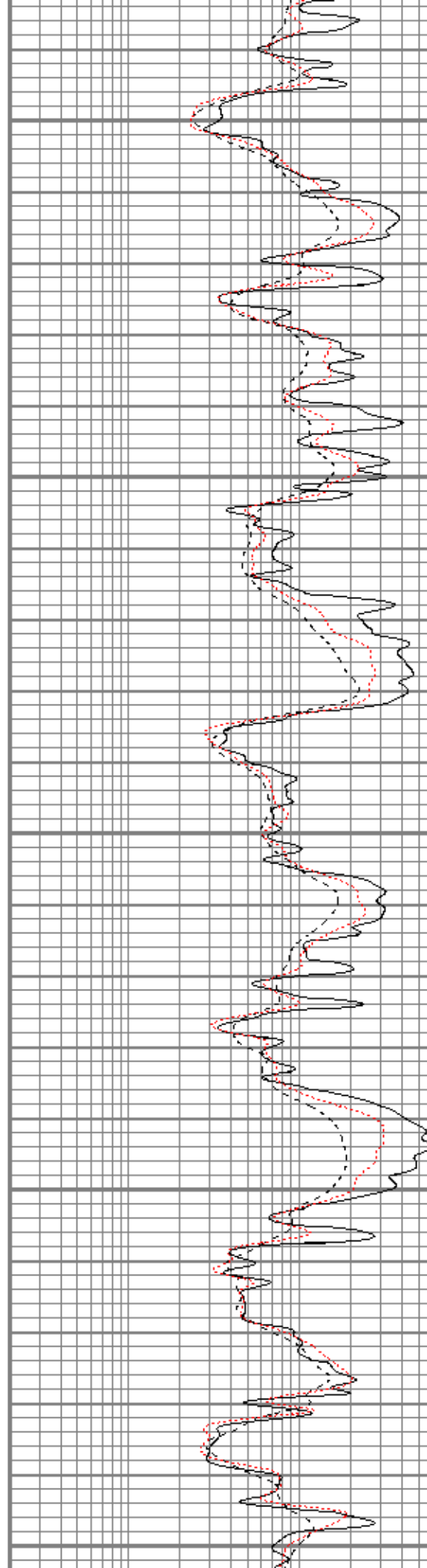
3900

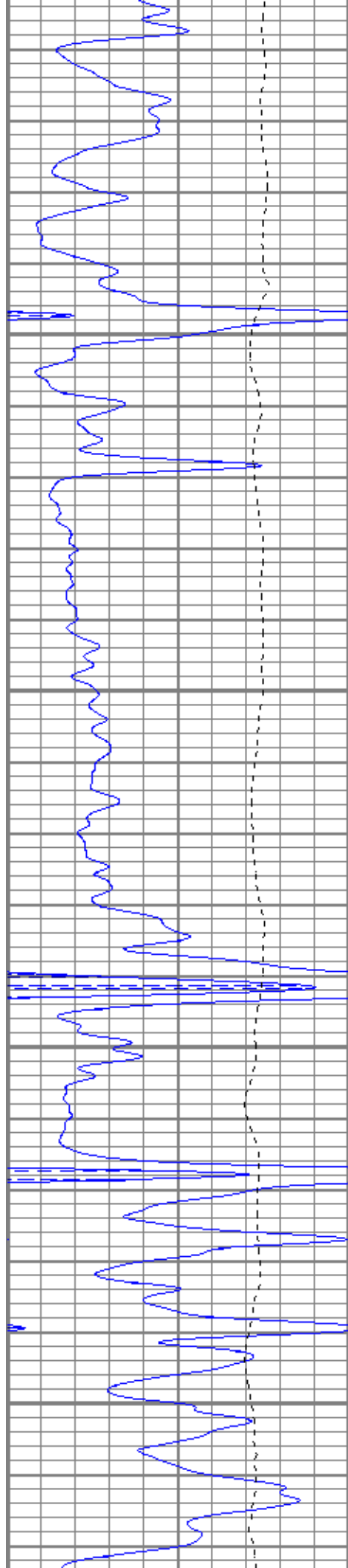
3950

4000

4050

4100



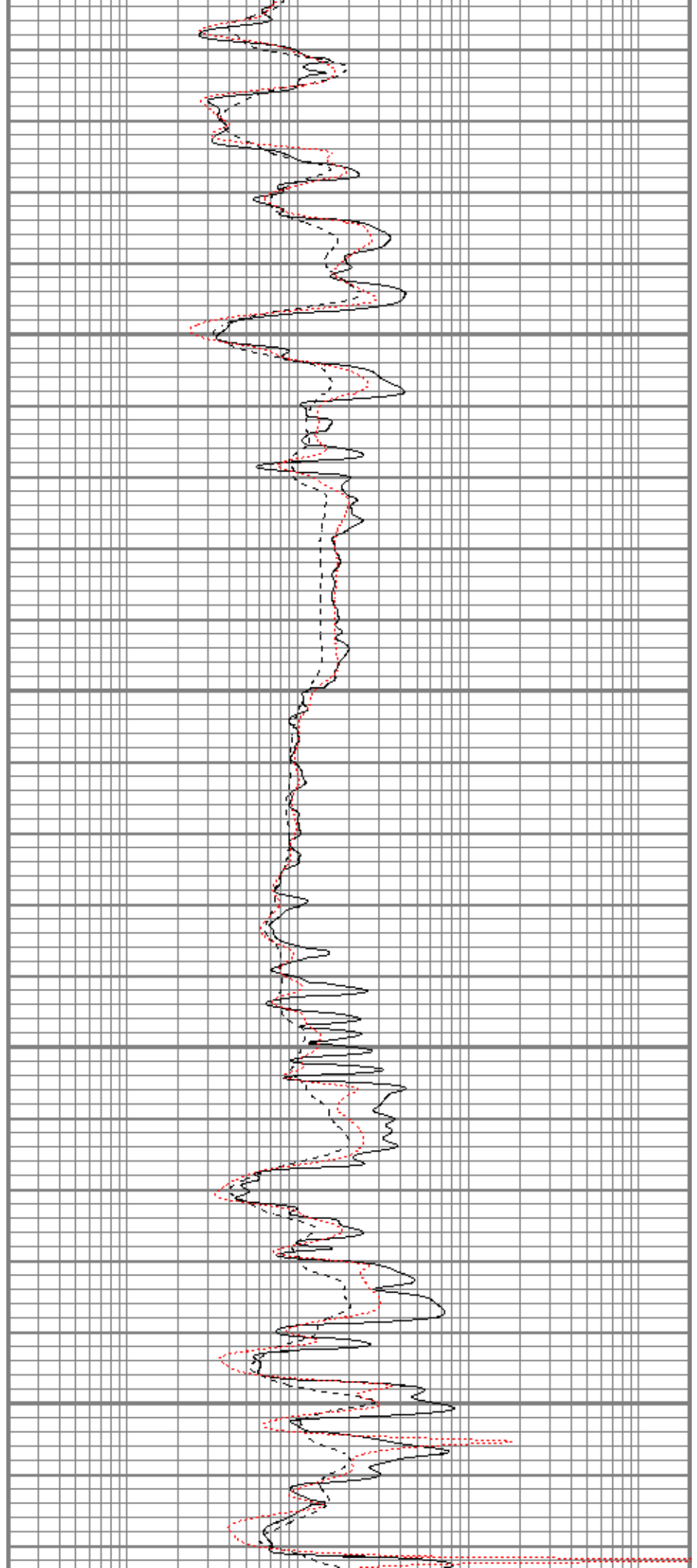


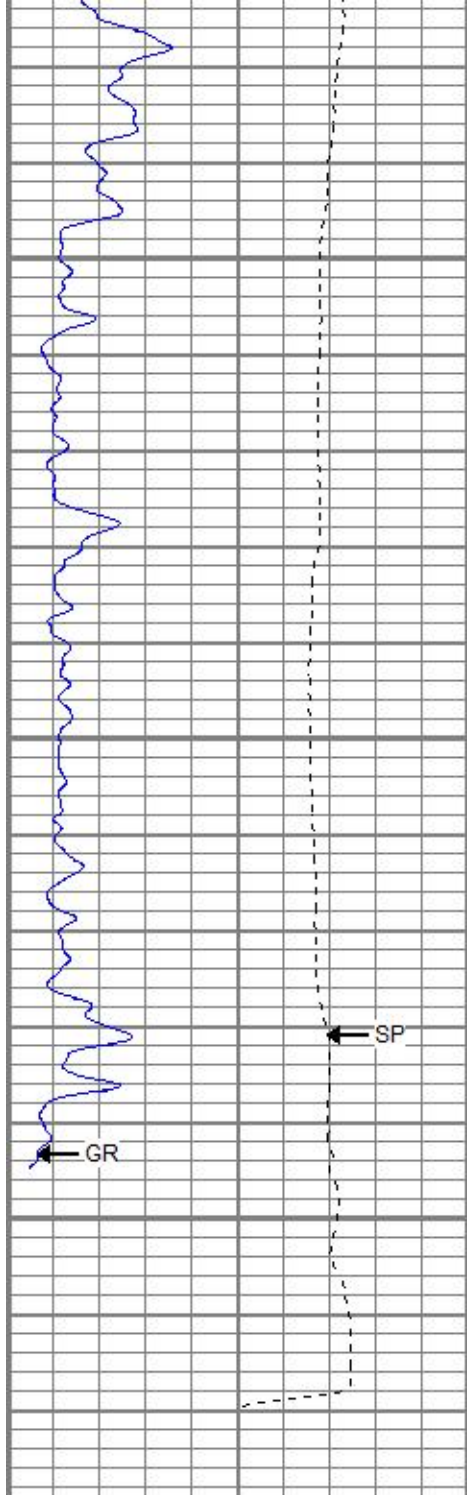
4150

4200

4250

4300





4350

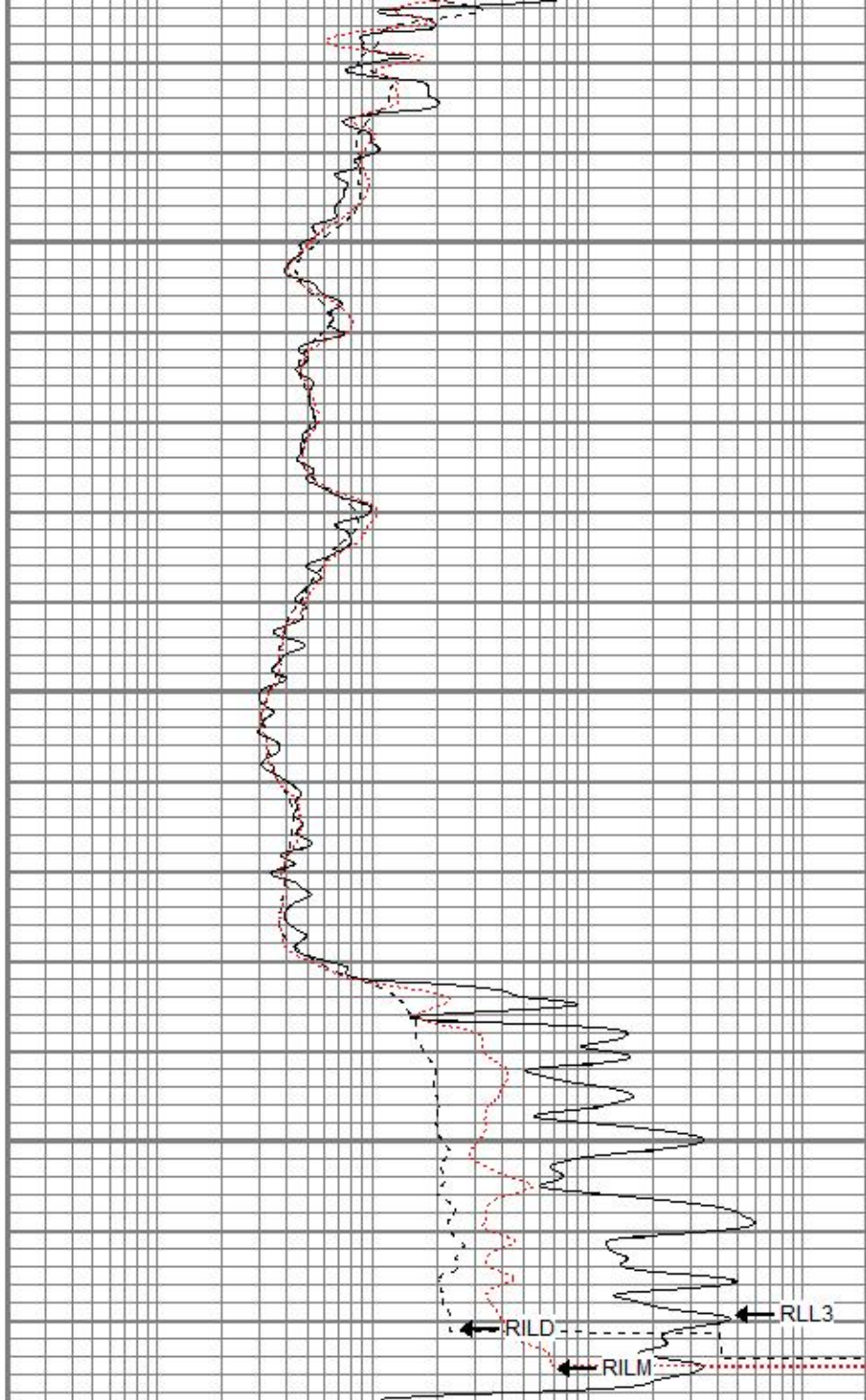
4400

4450

← SP

← GR

0	GR (GAPI)	150
-100	SP (mV)	100



← RILD

← RLL3

← RILM

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



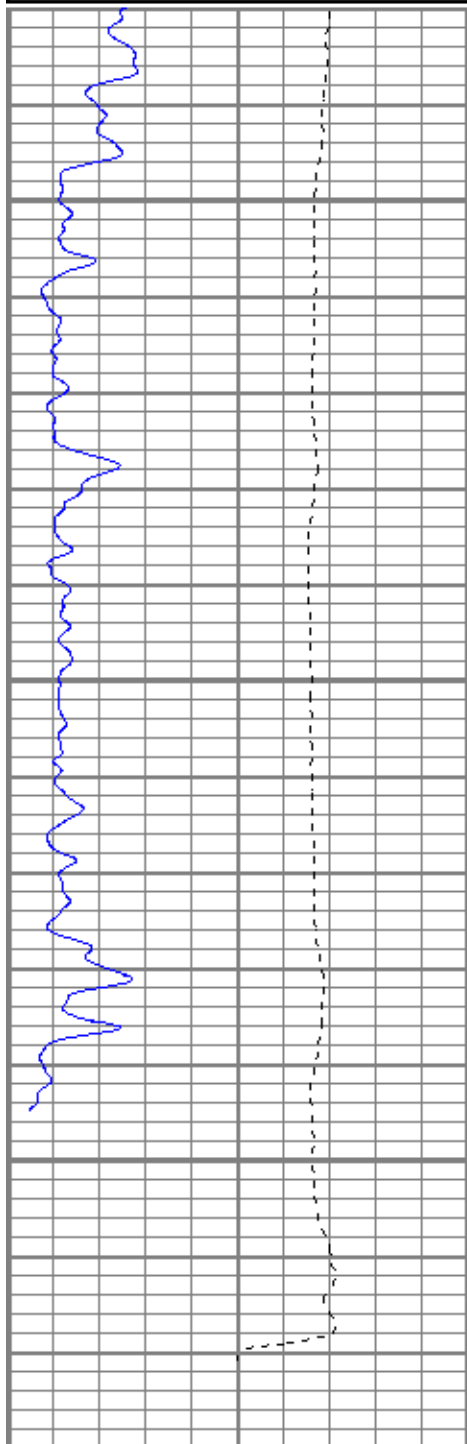
Repeat Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass1.1
 Presentation Format kdil
 Dataset Creation Fri Jun 10 19:07:35 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
---	-----------	-----

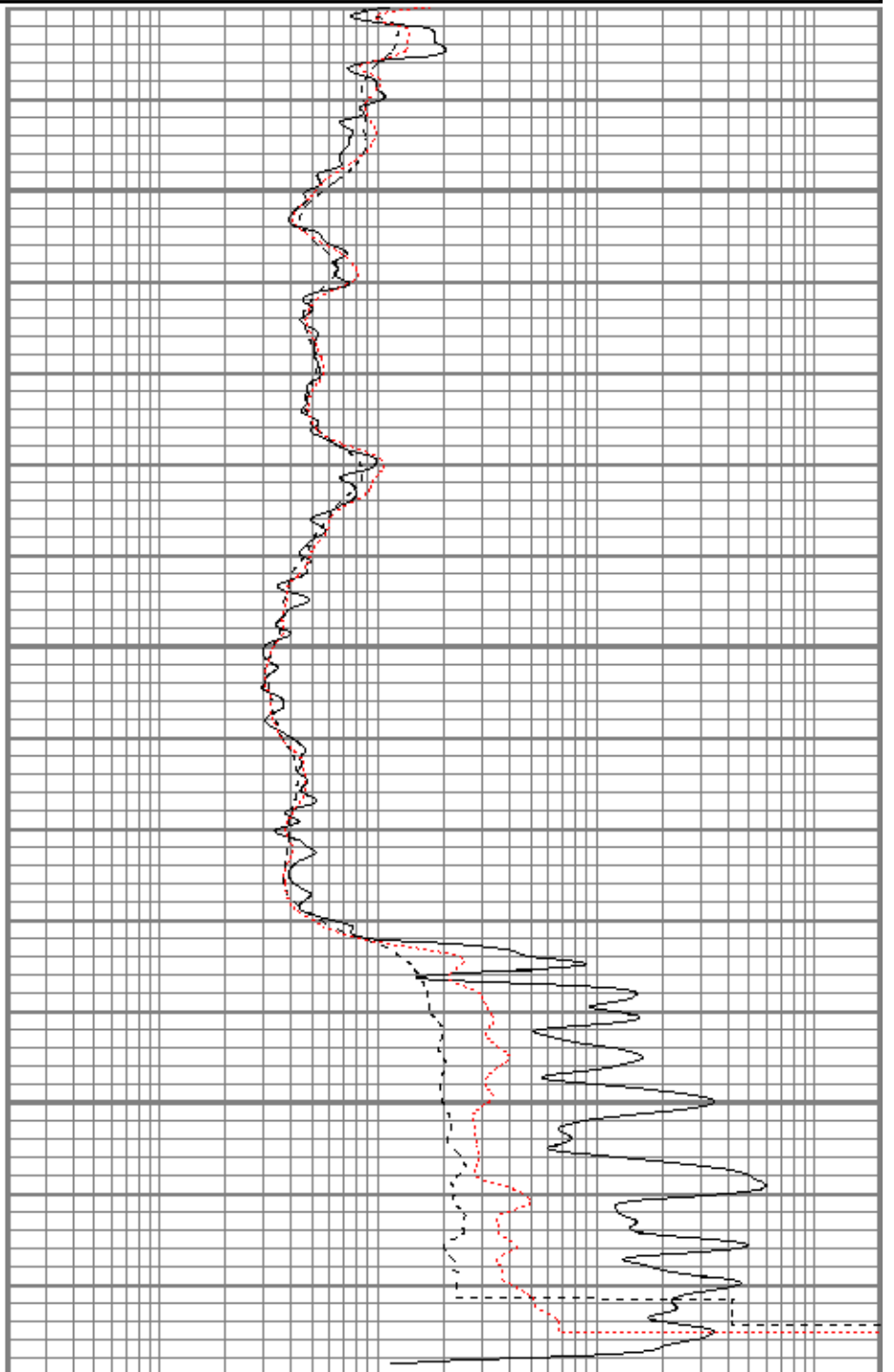
0.2	RILD (Ohm-m)	2000
-----	--------------	------

-100 SP (mV) 100



0 GR (GAPI) 150
-100 SP (mV) 100

0.2 RLL3 (Ohm-m) 2000
0.2 RILM (Ohm-m) 2000



0.2 RILD (Ohm-m) 2000
0.2 RLL3 (Ohm-m) 2000
0.2 RILM (Ohm-m) 2000

Calibration Report

Database File tcbarricklow#1-33oh.db
Dataset Pathname pass1.1
Dataset Creation Fri Jun 10 19:07:35 2016

Dual Induction Calibration Report

Serial-Model: 080522-Probe
Surface Cal Performed: Mon Mar 14 11:26:37 2016
Downhole Cal Performed: Mon Mar 14 11:26:40 2016
After Survey Verification Performed: Mon Mar 14 11:26:42 2016

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.040	0.651	V	0.000	400.000	mmho/m	578.981	22.871
Medium	-0.028	0.742	V	0.000	464.000	mmho/m	602.582	16.690
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.016	0.653	V	0.000	400.000	mmho/m	598.311	9.396
Medium	-0.025	0.747	V	0.000	464.000	mmho/m	601.262	14.808

Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	6.834	401.088	mmho/m	13.778	400.855	mmho/m	0.982	7.068
Medium	-2.964	468.230	mmho/m	1.850	466.869	mmho/m	0.987	4.775
LL3		7.145	V		750.000	Ohm-m		
		0.016	V		12.000	Ohm-m		
		-7.248	V		3745.000	mmho-m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	6.834	401.088	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-2.964	468.230	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		750.000	Ohm-m		
		0.000	Ohm-m		12.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Density Calibration Report								
Serial-Model:				2388DHT-DHT				
Source / Verifier:				csv j12 / csv j12				
Master Calibration Performed:				Fri Aug 01 09:45:19 2014				
Before Survey Verification Performed:								
After Survey Verification Performed:								

Master Calibration								
Density			Far Detector		Near Detector			
Magnesium	1.750	g/cc		668.56	327.82	cps		
Aluminum	2.650	g/cc		125.78	210.67	cps		
Spine Angle = 75.17			Density/Spine Ratio = 0.521					
Size			Reading					
Small Ring	7.35	in	5695.86					
Large Ring	14.00	in	9900.52					

Before Survey Verification								
Target			Measured					
		g/cc	g/cc					
		g/cc	g/cc					
		g/cc	g/cc					

After Survey Verification								
Target			Measured					
		g/cc	g/cc					
		g/cc	g/cc					
		g/cc	g/cc					

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Jan 21 09:36:03 2016

 Calibrator Value: 1.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

 Sensitivity: 0.2400 GAPI/cps


Neutron Calibration Report

Serial Number: 5108
 Tool Model: PROBE
 Performed: Thu Jan 21 09:36:17 2016

 Calibrator Value: 1 NAPI

 Calibrator Reading: 1 cps

 Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			CHD-None	0.75	1.50	5.00	
NEU	38.26		NEU-PROBE (5108) Probe	4.92	3.63	85.00	
GR	32.32		GR-OH (2001) 2001	3.56	3.25	40.00	
			CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00	
LSD	23.78						
DCAL	23.49						
SSD	23.24						
HEADVOLT	21.47						
SP	10.60			DIL-Probe (080522) Probe Dual Induction	21.47	4.00	345.00
CILD	10.60						
CILM	6.89						
RLL3	1.70						

Total length:	40.39 ft
Total weight:	676.00 lb
O.D.:	4.00 in



**MICRO
RESISTIVITY
LOG**

Company Triple Crown Operating, LLC.

Well Barricklow #1-33

Field Barricklow

County Ness

State Kansas

Location:

API #: 15 135 25911

SEC 33 TWP 20S RGE 22W

Permanent Datum Ground Level Elevation 2179'

Log Measured From KB 8' AGL

Drilling Measured From KB

Other Services
CDNL
DIL
BCS
Elevation
K.B. 2187'
D.F. 2186'
G.L. 2179'

Date	6-10-16
Run Number	Two
Depth Driller	4480'
Depth Logger	4480
Bottom Logged Interval	4460'
Top Log Interval	2200'
Casing Driller	8 5/8" @ 513'
Casing Logger	513'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	8.9/50
PH / Fluid Loss	8.5/12
Source of Sample	Pit
Rm @ Meas. Temp	2.8@76degf
Rmf @ Meas. Temp	2.1@76degf
Rmc @ Meas. Temp	3.36@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.77@120degf
Time Circulation Stopped	3:00 p.m.
Time Logger on Bottom	8:00 p.m.
Maximum Recorded Temperature	120degf
Equipment Number	T127
Location	Hays, KS
Recorded By	Gus Pfanenstiel
Witnessed By	Mr. Rod Andersen

<<< Fold Here >>>

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

South of Ness City to 20 Rd.
East to Z Rd. 1 South, 1 East, 1/2 South
West into.

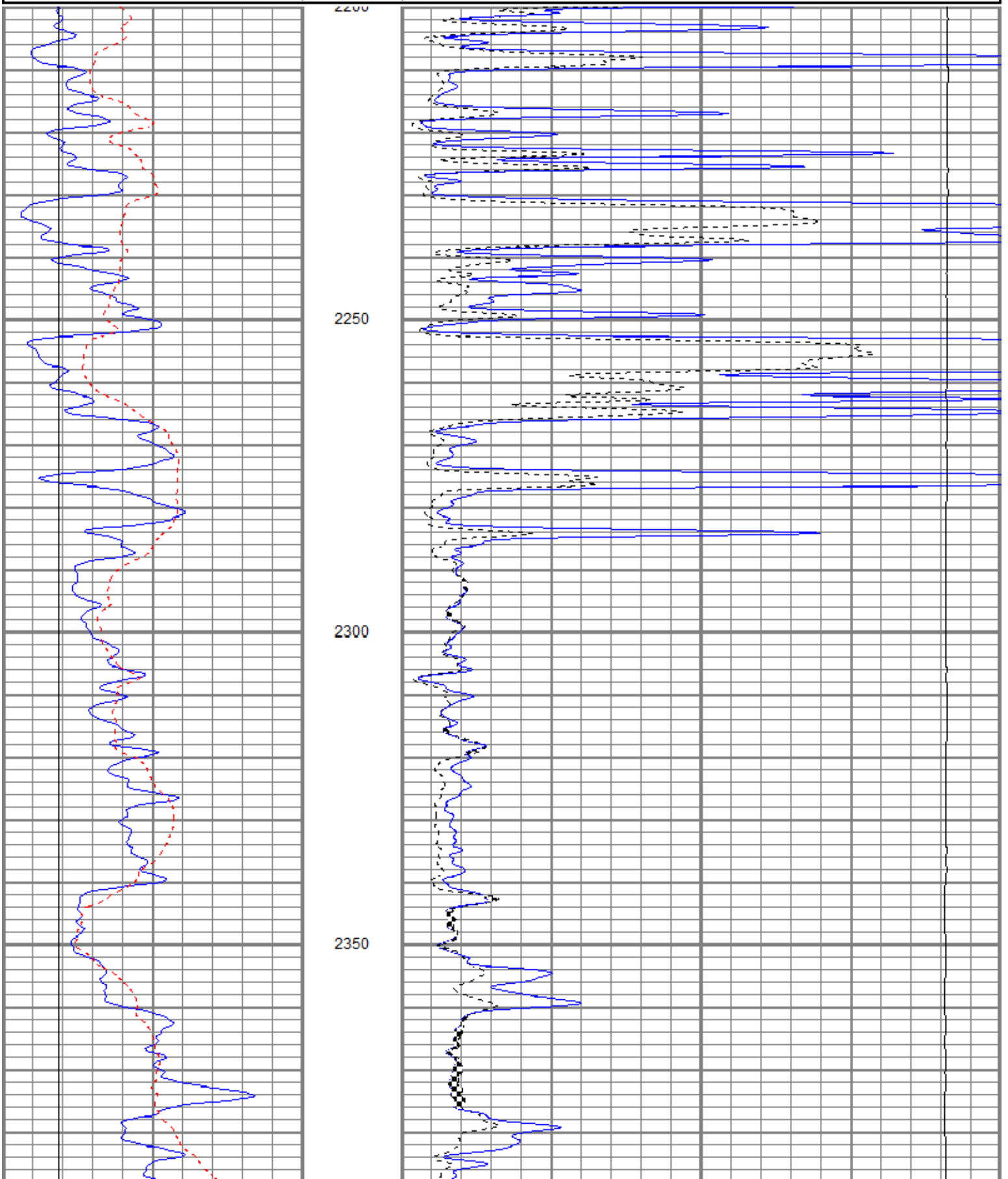


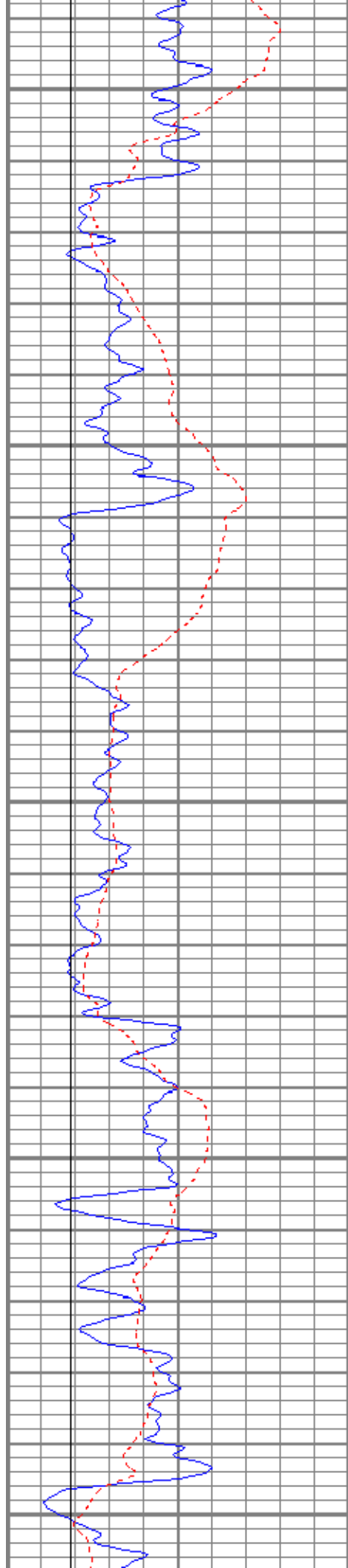
Main Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass4ml.1
 Presentation Format kml
 Dataset Creation Fri Jun 10 21:07:46 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16

0	MN 2" (Ohm-m)	20
0	MI 1" (Ohm-m)	20
10000	LTEN (lb)	0





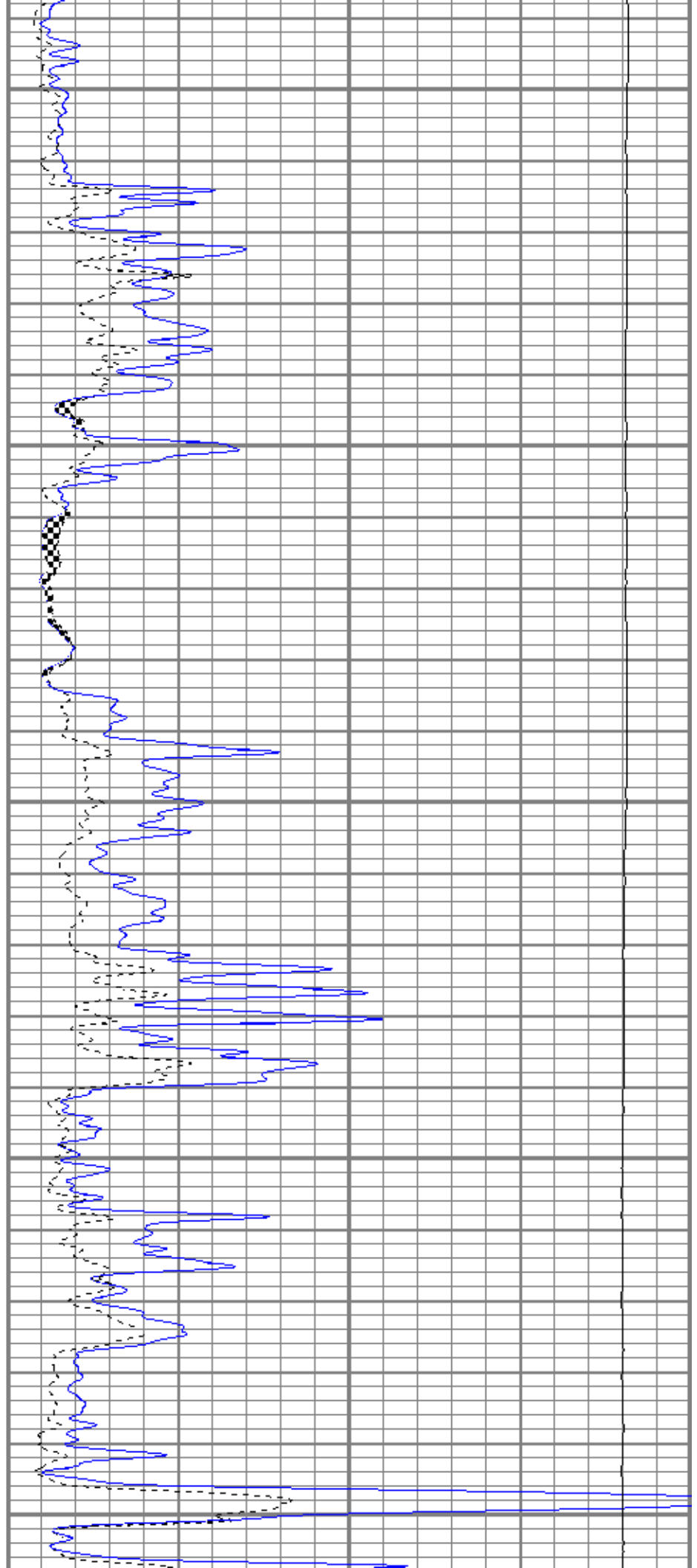
2400

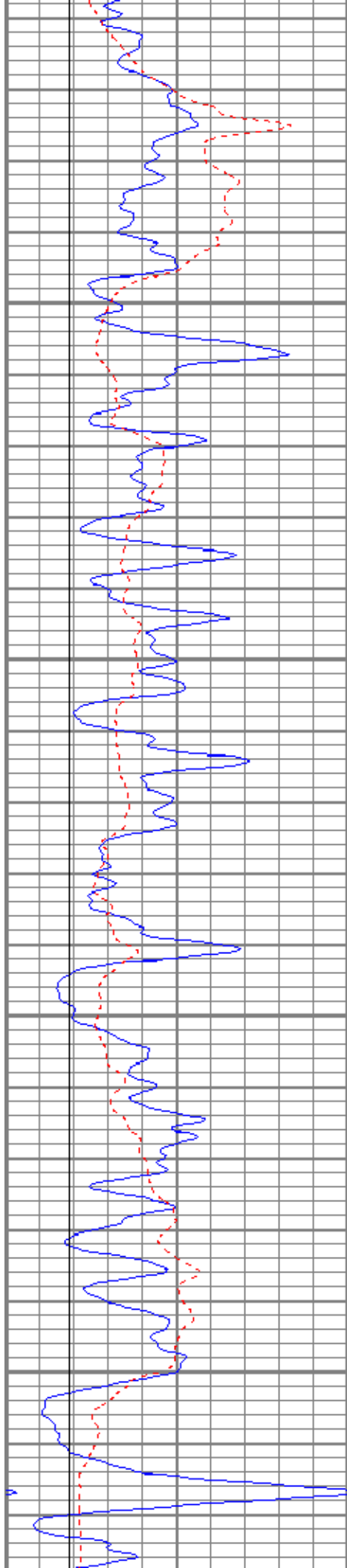
2450

2500

2550

2600



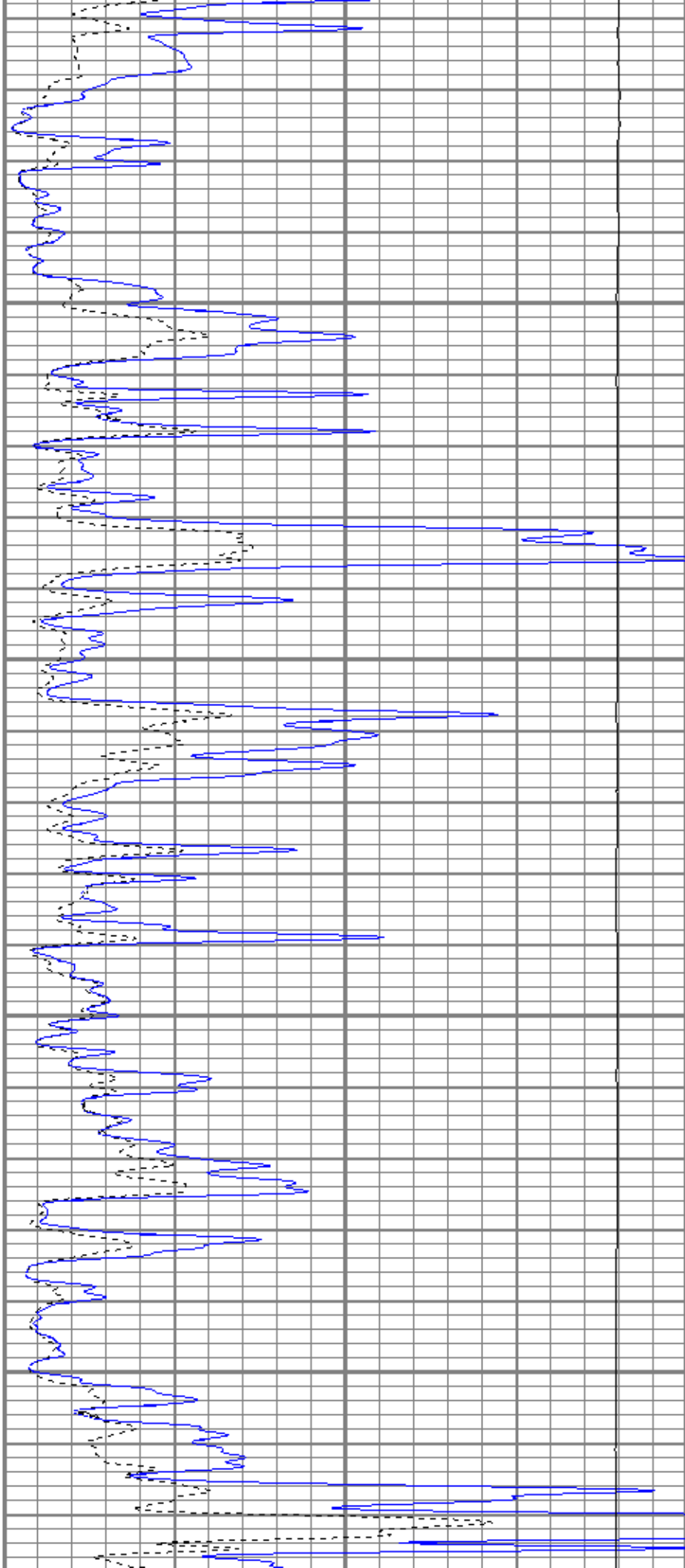


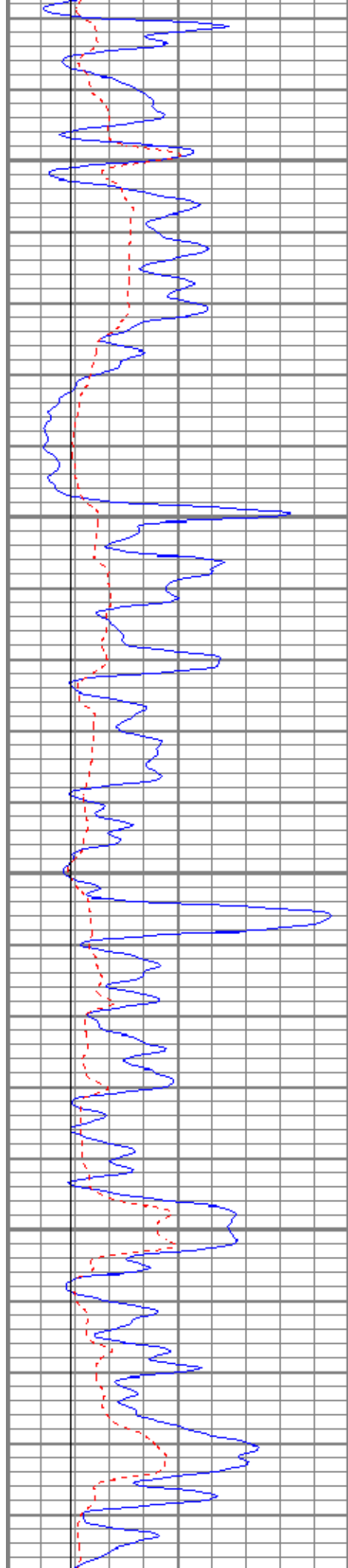
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2700

2750

2800



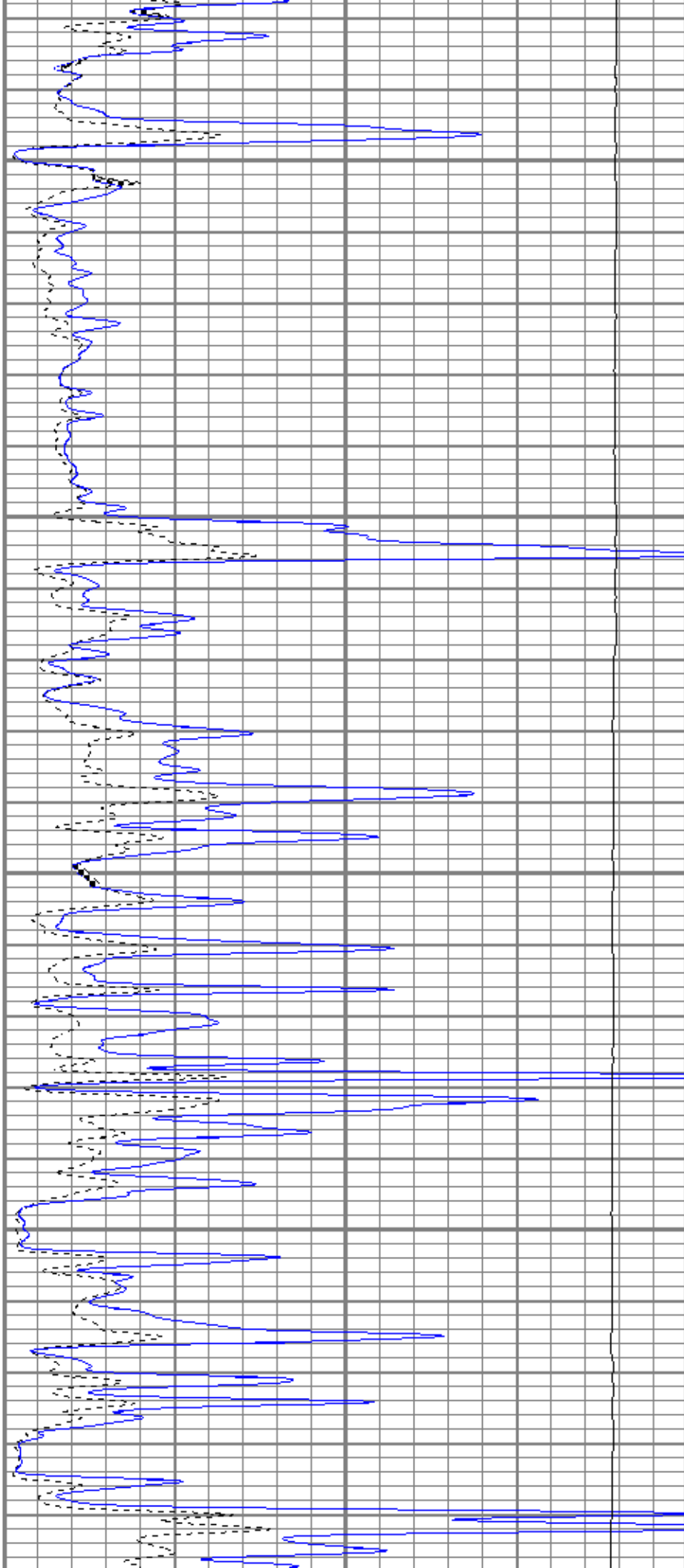


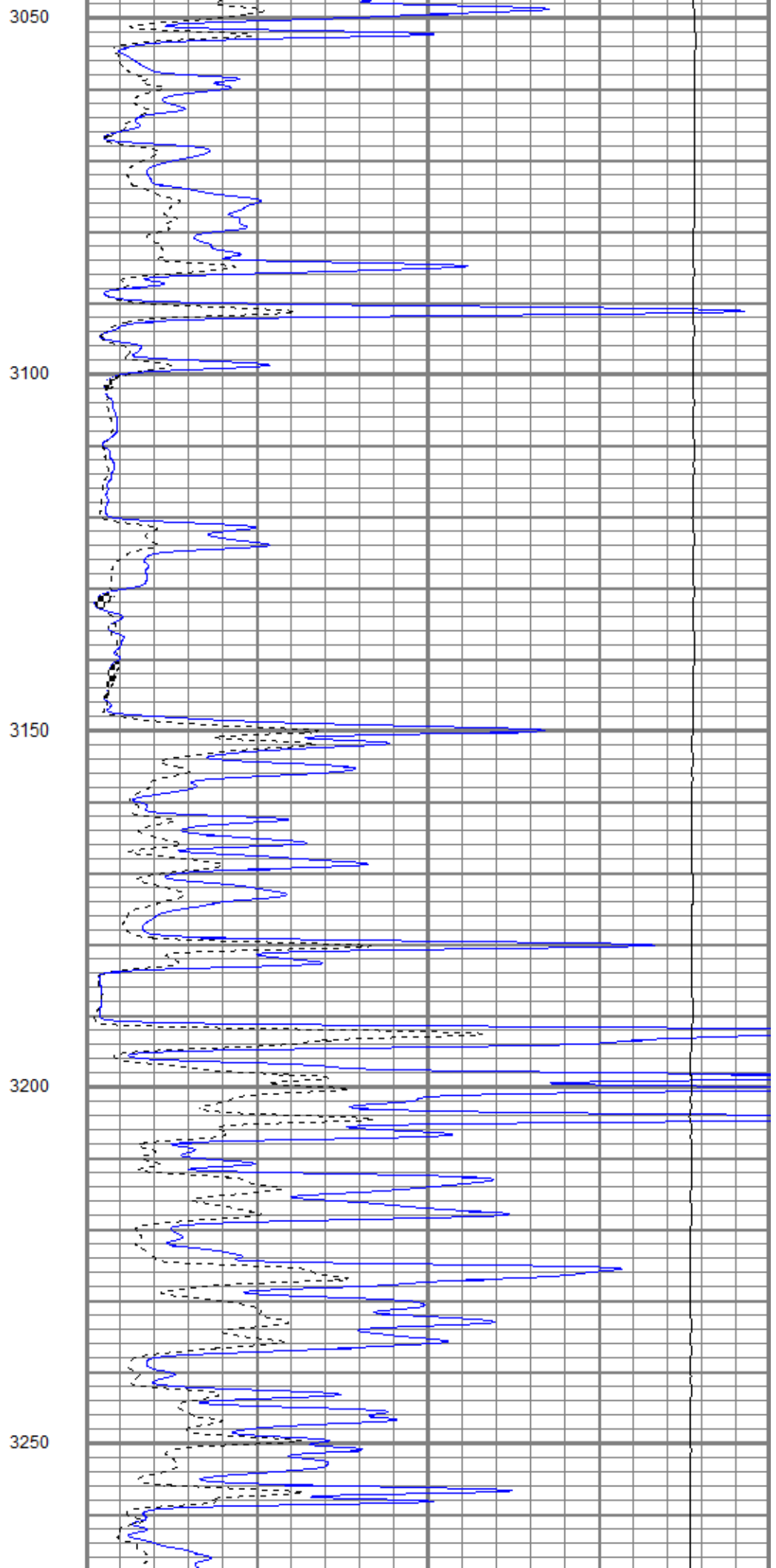
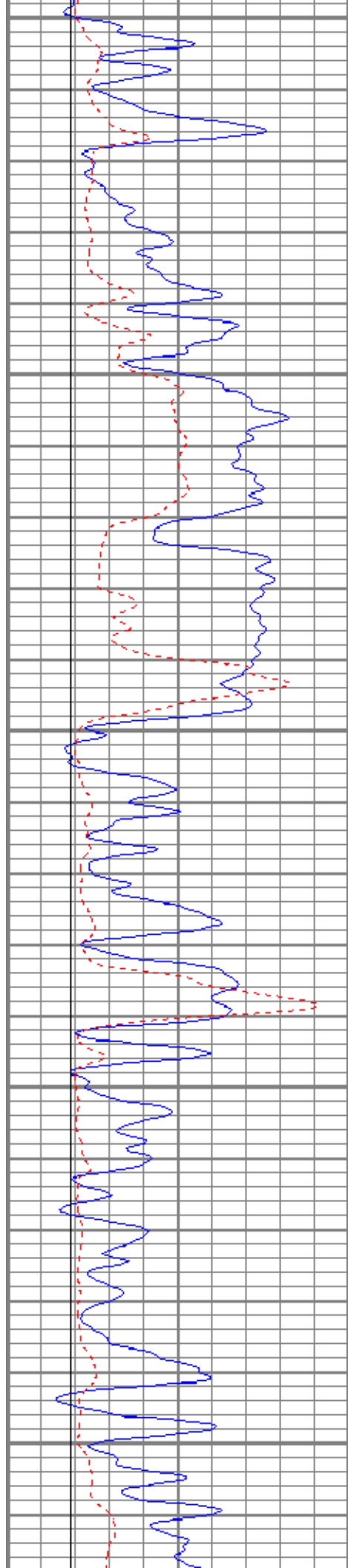
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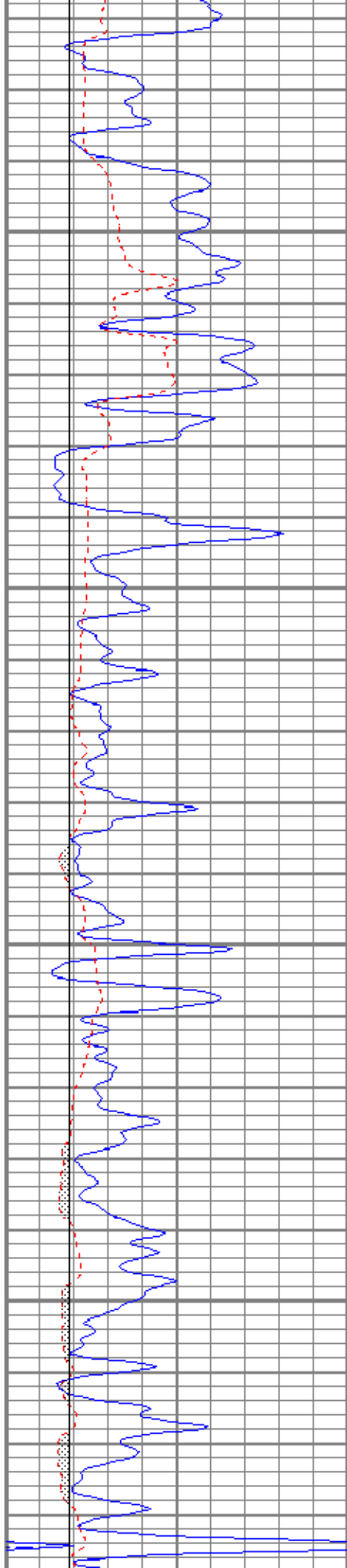
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2950

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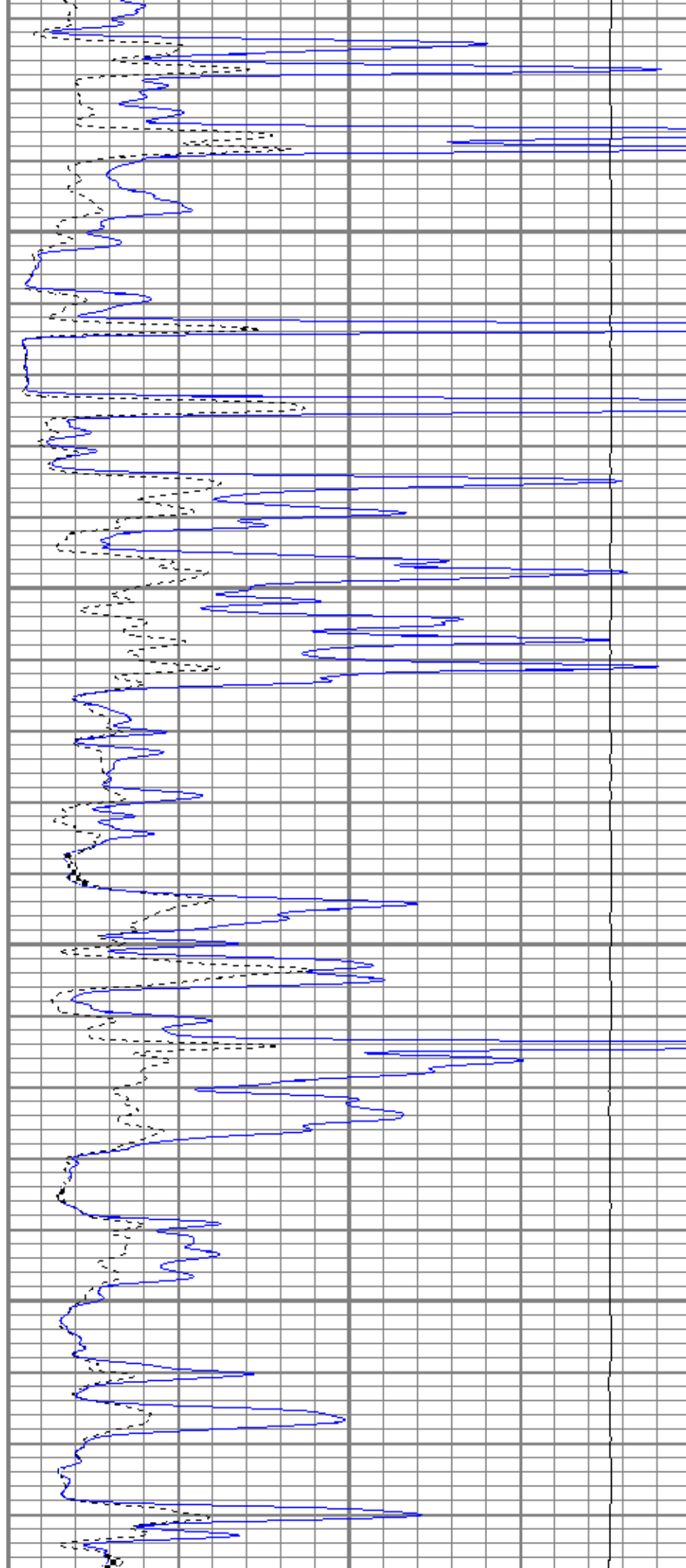


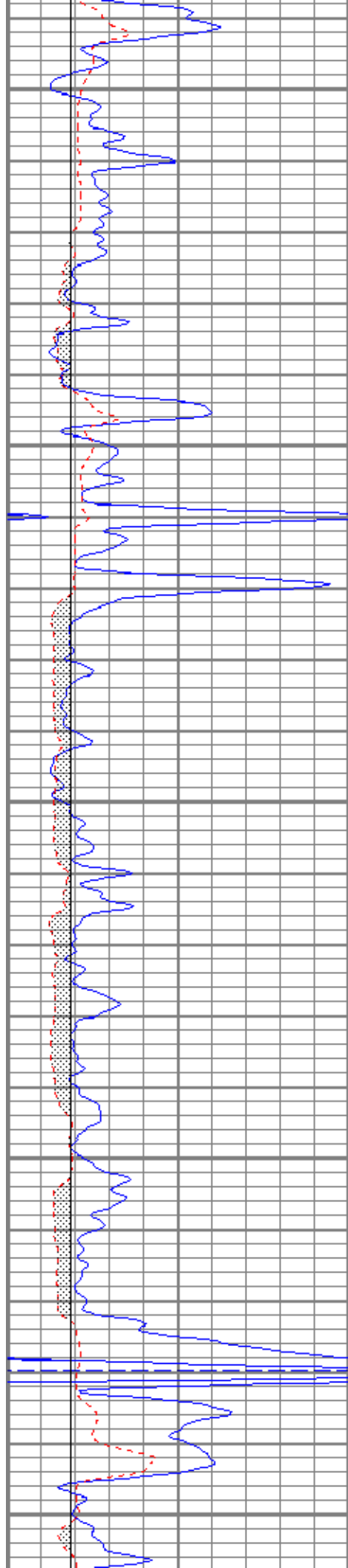
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3350

3400

3450





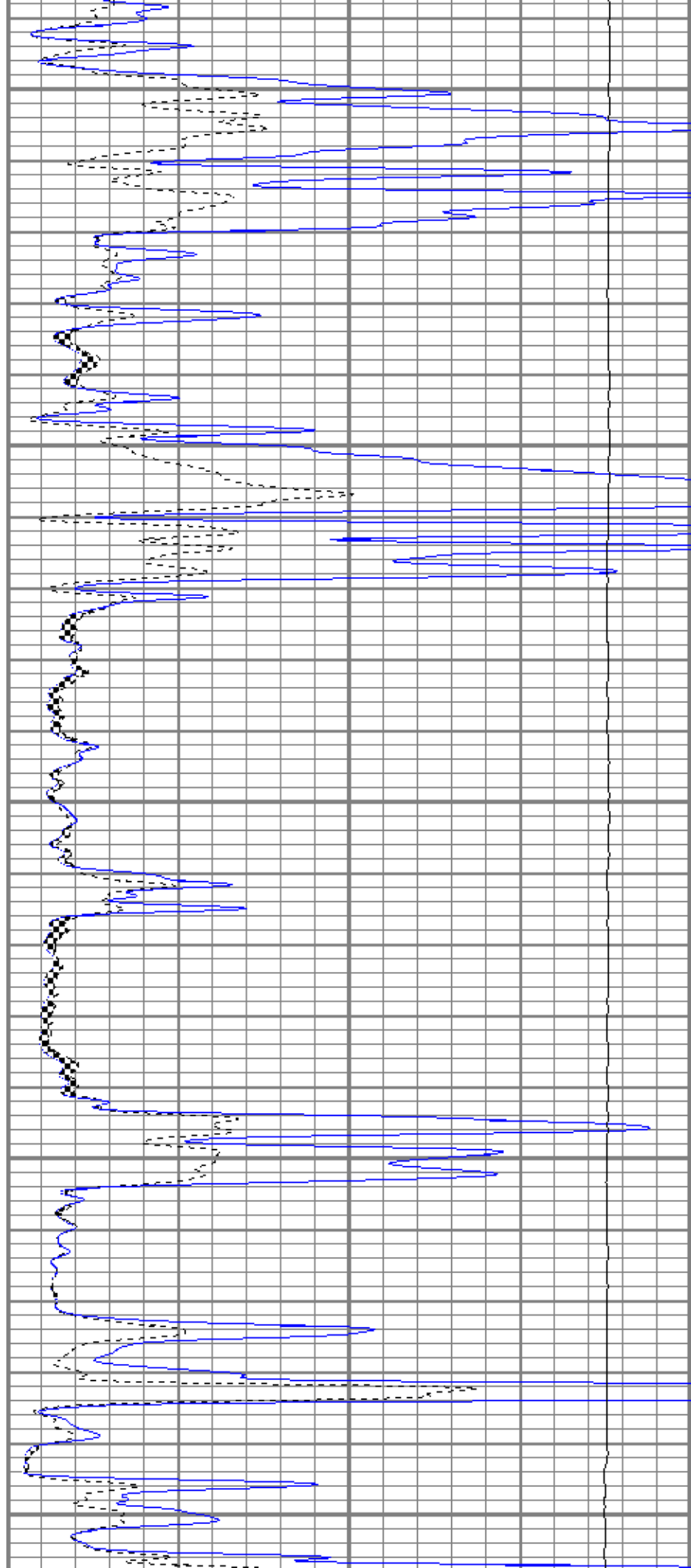
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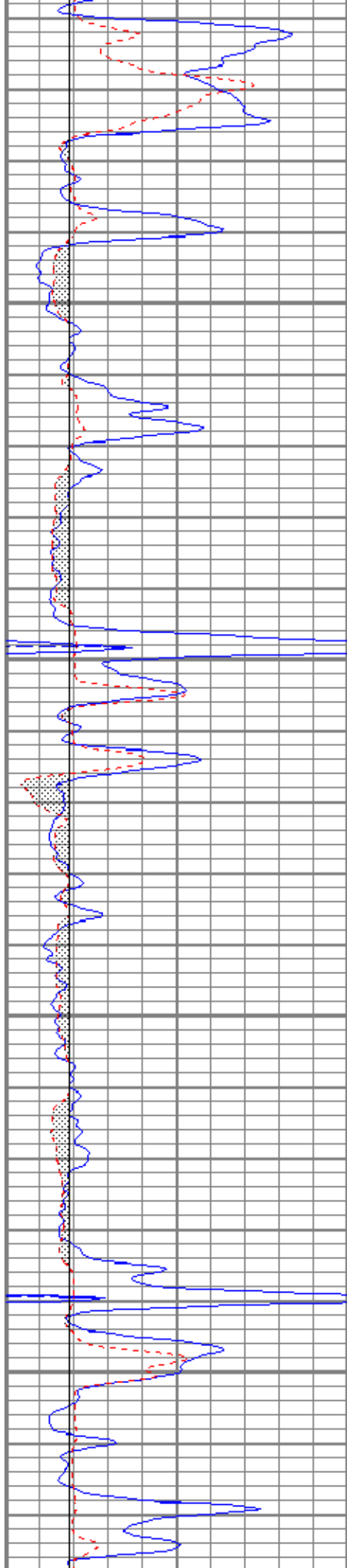
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3600

3650

3700



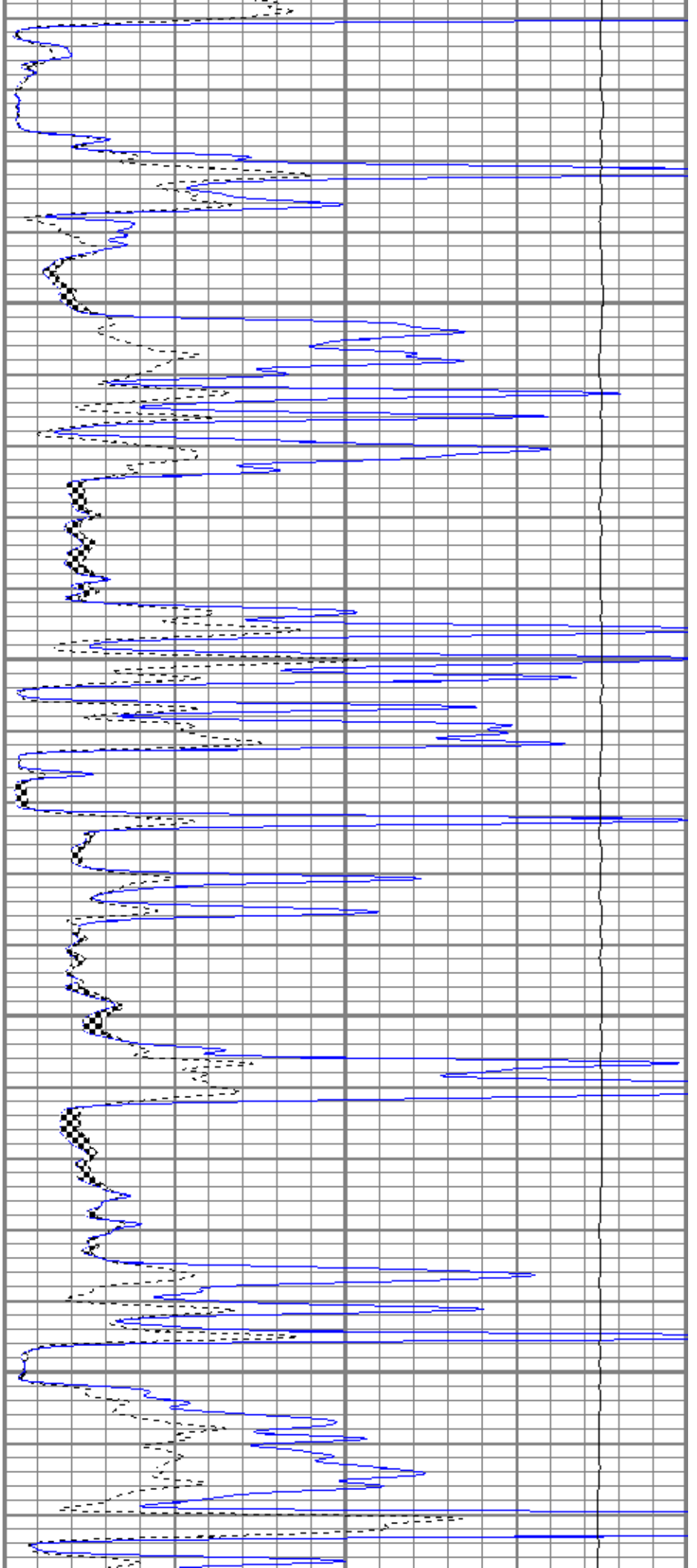


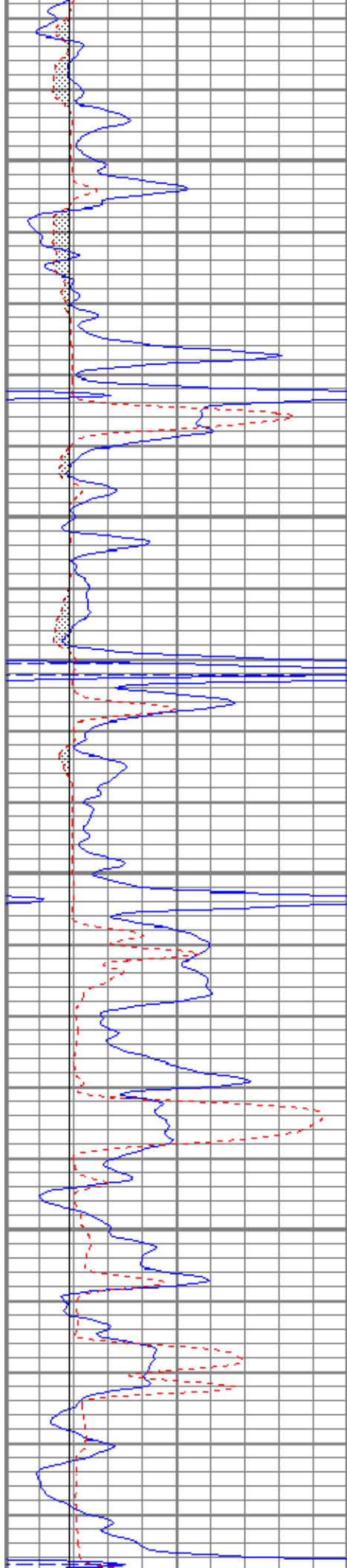
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3800

3850

3900



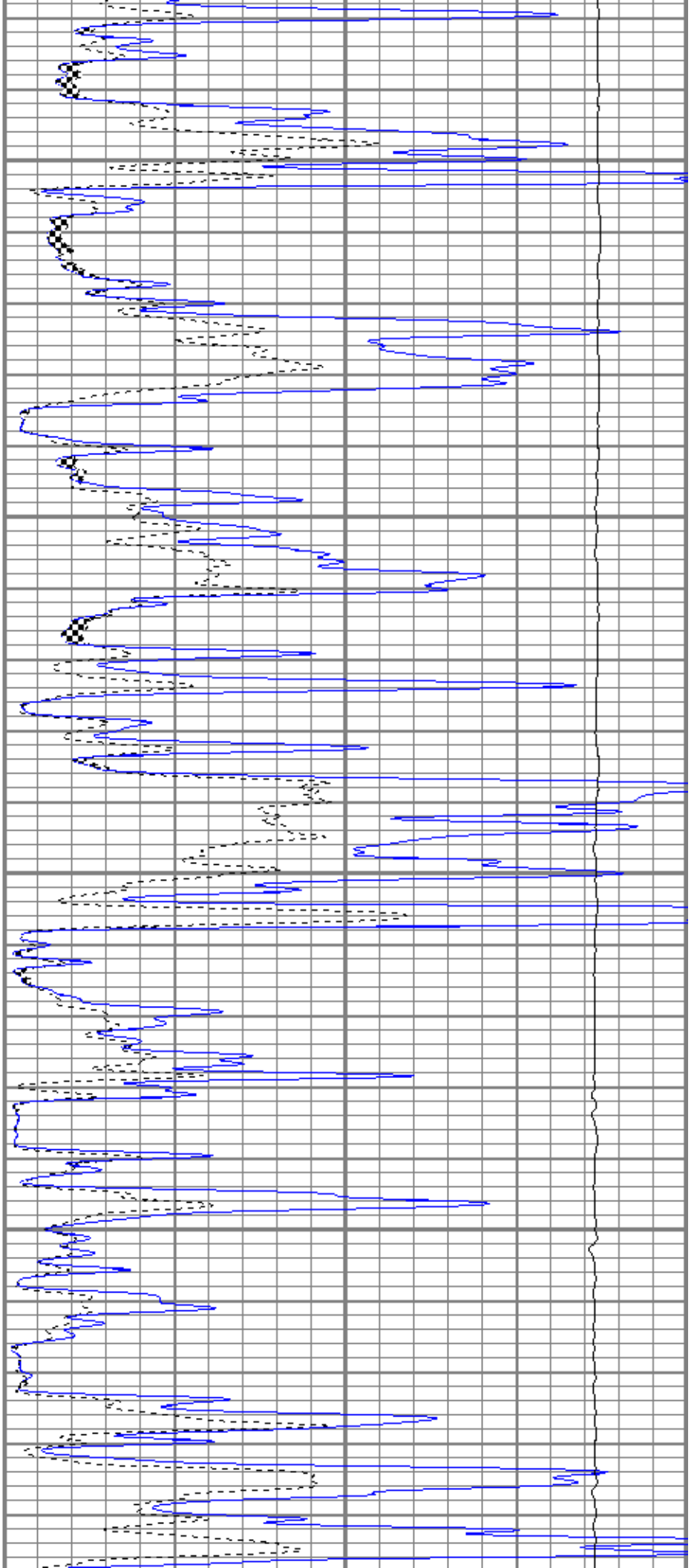


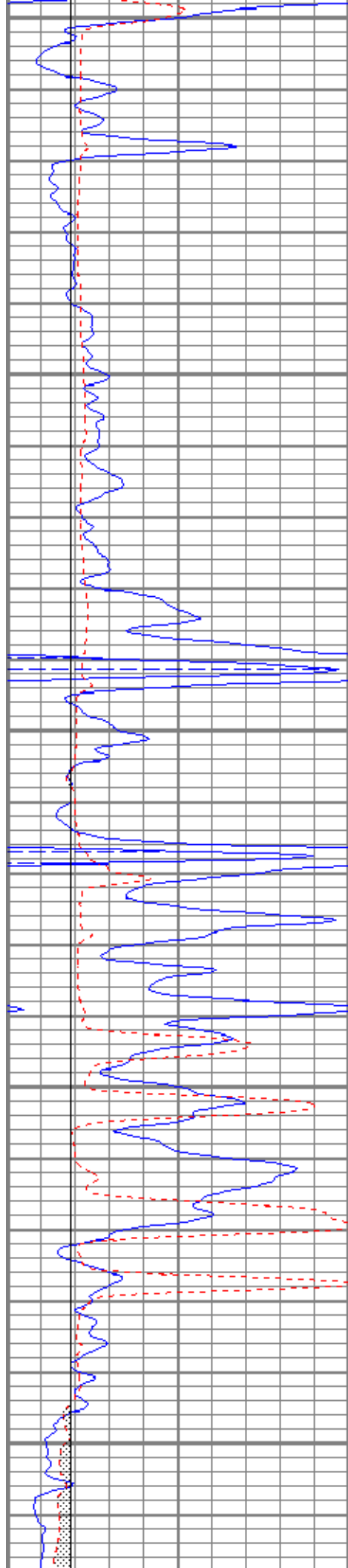
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4050

4100





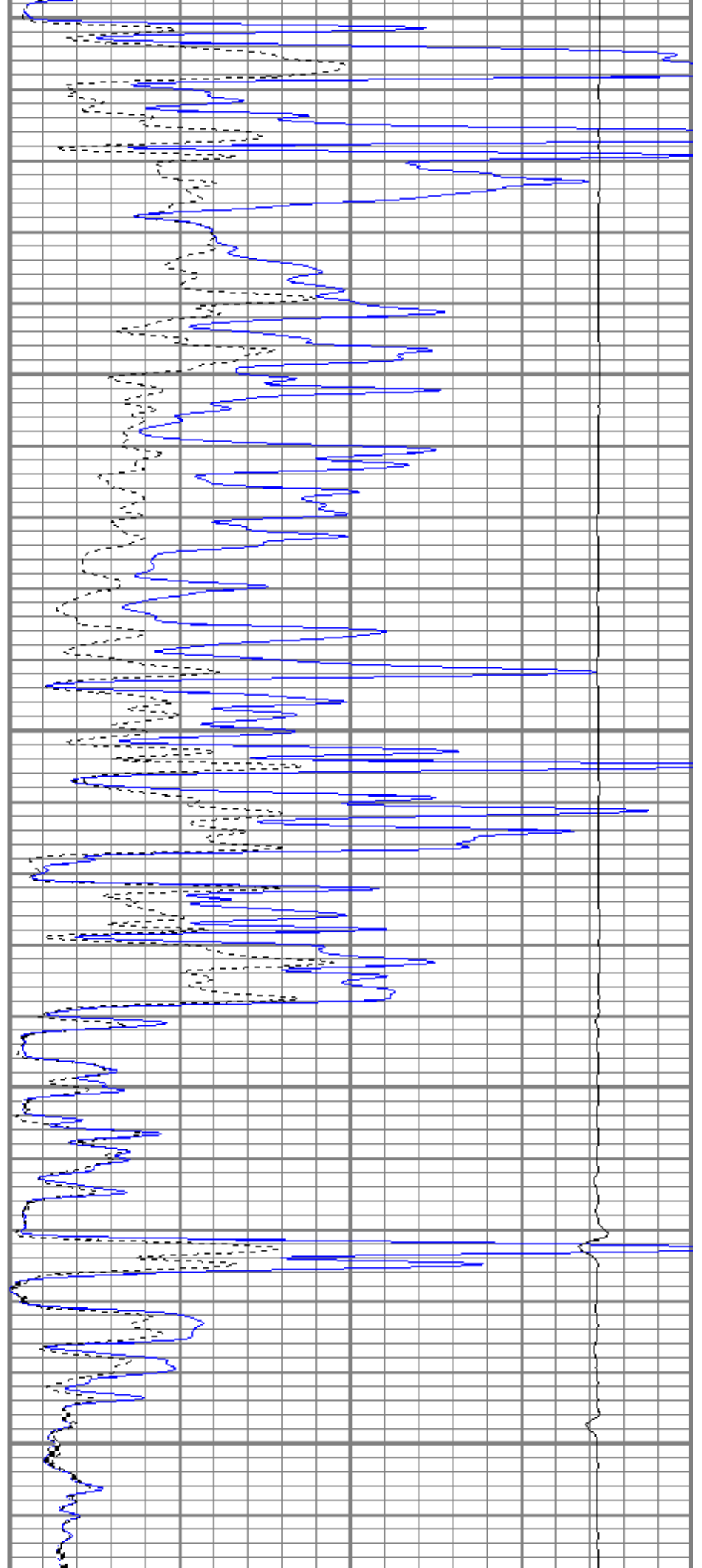
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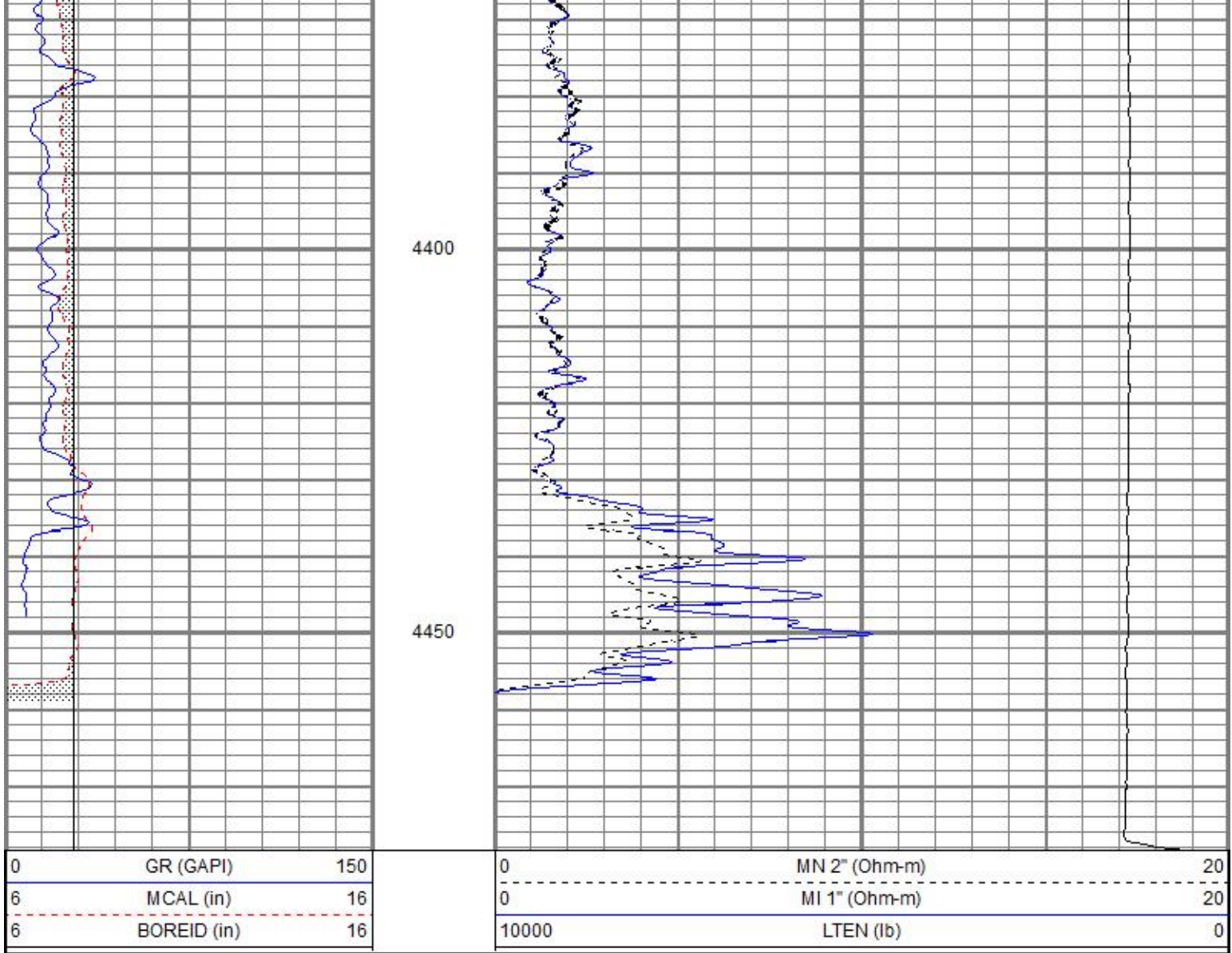
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4250

4300

4350

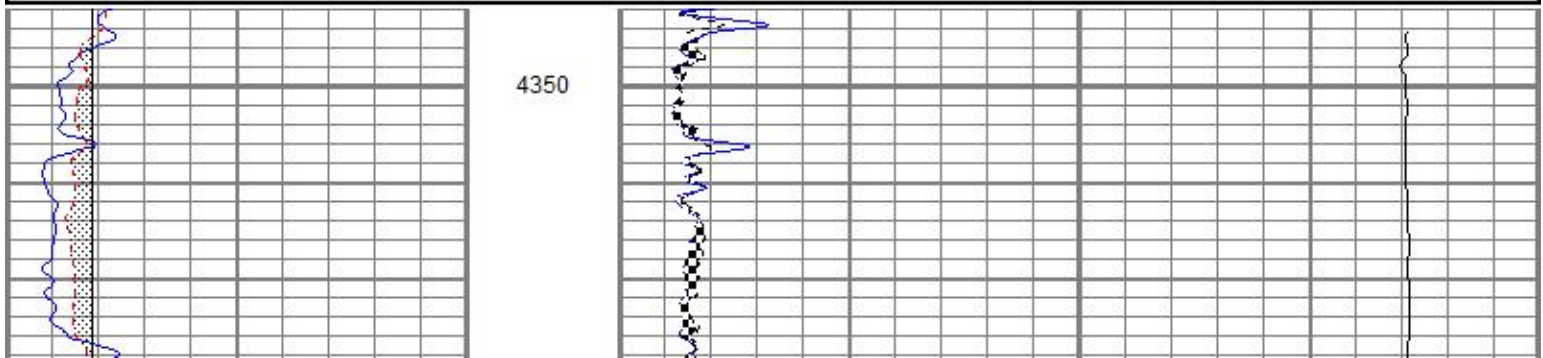


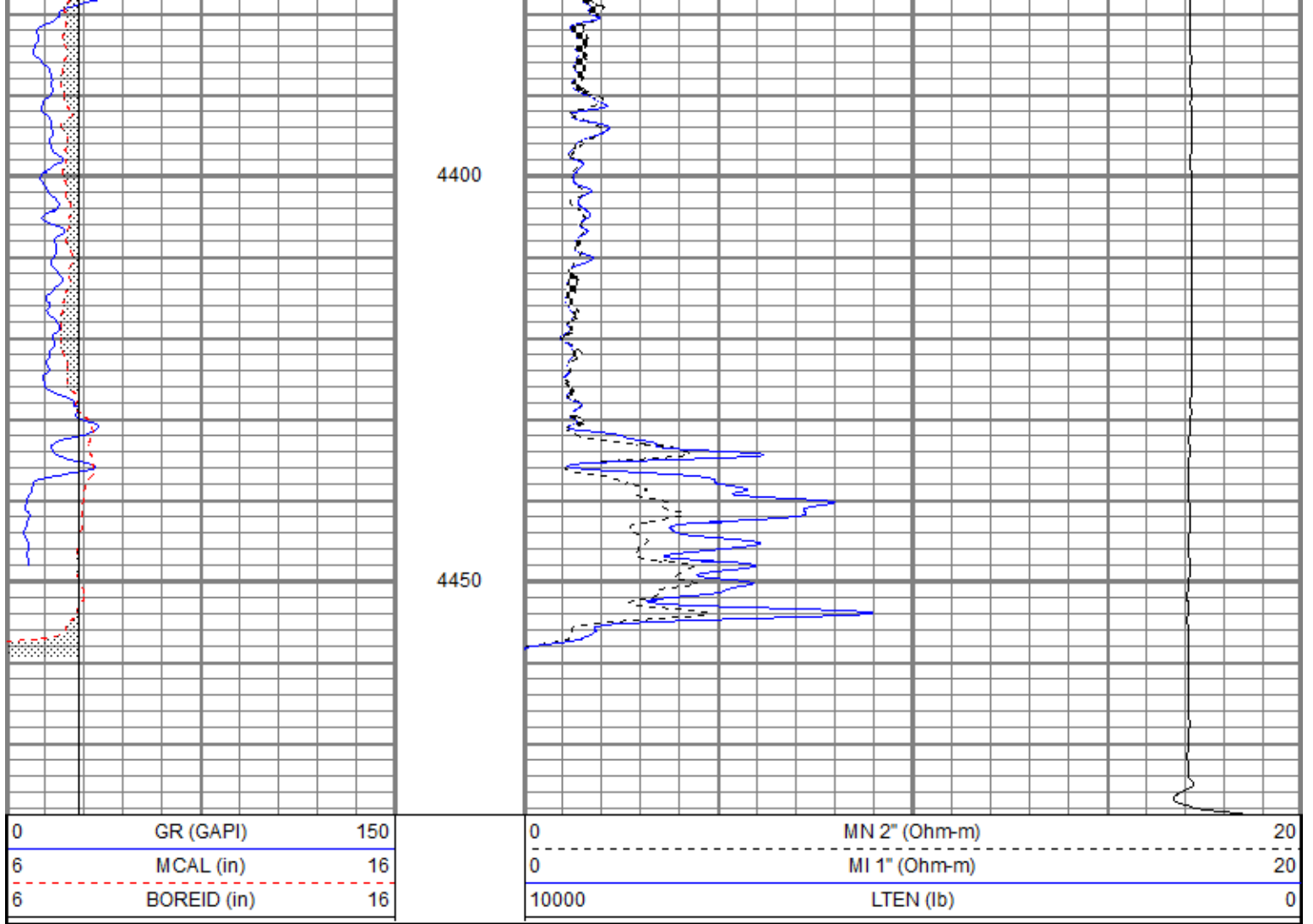


Repeat Pass

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass3.1
 Presentation Format kml
 Dataset Creation Fri Jun 10 20:48:09 2016
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	0	MN 2" (Ohm-m)	20
6	MCAL (in)	16	0	MI 1" (Ohm-m)	20
6	BOREID (in)	16	10000	LTEN (lb)	0





Calibration Report

Database File tcbarricklow#1-33oh.db
 Dataset Pathname pass3.1
 Dataset Creation Fri Jun 10 20:48:09 2016

Microlog Calibration Report

Serial-Model: 012-Pengo
 Performed: Wed Apr 20 21:39:52 2016

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	0.0073	0.4397	V	0.0000	11.0000	Ohm-m	25.4408	-0.1852
Inverse	0.0081	0.5639	V	0.0000	7.3000	Ohm-m	13.1357	-0.1070
Caliper	2.0536	4.5712	V	7.6000	14.0000	in	2.5420	2.3798

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Thu Jan 21 09:36:03 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.2400 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	27.88		GR-OH (2001) 2001	3.56	3.25	40.00	
			ML-Pengo (012)	6.97	3.50	100.00	
MCAL	21.05						
MI	21.05						
MN	21.05						
WVF4	13.79						
WVF3	12.79						
			SLT-G (101127) Sonic	15.71	3.50	250.00	
WVF2	9.79						
WVF1	8.79						
			CENT-OHshort Open Hole short centralizer	4.04	3.50	50.00	

Dataset: tcbarricklow#1-33oh.db: field/well/run1/pass3.1
 Total length: 30.28 ft
 Total weight: 440.00 lb
 O.D.: 3.50 in