

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

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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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. 662

Date	2-27-18	Sec.	30	Twp.	8	Range	15	County	Osborne	State	Ks	On Location		Finish	10:15PM
------	---------	------	----	------	---	-------	----	--------	---------	-------	----	-------------	--	--------	---------

Location Natoma, 10N, 1 1/4 W, 5/2 into

Lease	Griffin Trust Well No. 1-30		Owner	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.		
Contractor	Murfin 16		Type Job	Surface		
Hole Size	12 1/4"	T.D.	260'	Charge To	Gulf Exploration	
Csg.	8 5/8"	Depth	259'	Street		
Tbg. Size		Depth		City	State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
Cement Left in Csg.	15'	Shoe Joint	15'	Cement Amount Ordered 180 80/20 3% CC 2% Gel		
Meas Line	Displace 15 1/2 BS					

EQUIPMENT

Pumptrk	18	No.	Cementer	Travis			Common	145
			Helper				Poz. Mix	35
Bulktrk	3	No.	Driver	Glenn			Gel.	3
			Driver	Rick			Calcium	8

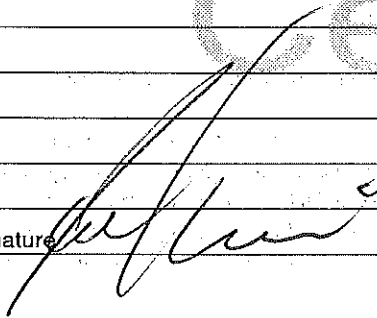
JOB SERVICES & REMARKS

Remarks:	Cement did Circulate			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	191
				Mileage	

FLOAT EQUIPMENT

	Guide Shoe	
	Centralizer	1
	Baskets	
	AFU Inserts	
	Float Shoe	
	Latch Down	

Pumptrk Charge	Surface
Mileage	34
Tax	
Discount	
Total Charge	

X Signature 

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the service as described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

- **TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

- **ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and attorney's fees.

- **PRICES AND TAXES:** All merchandise listed in "QUALITY'S" current price schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

- **TOWING CHARGES:** QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

- **PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

- **DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

- **SERVICE CONDITIONS AND LIABILITIES:** 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.



DUAL COMP POROSITY LOG

Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE **State** KANSAS

Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE
State KANSAS

Location: API #: 15-141-20476-00-00
 990' FNL & 2310' FEL
 SEC 30 TWP 8S RGE 15W
 Permanent Datum GROUND LEVEL Elevation 1976'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING

Other Services
 DIL
 MEL
 Elevation
 K.B. 1981'
 D.F. N/A
 G.L. 1976'

Date	3/4/2018						
Run Number	ONE						
Type Log	CNL/CDL						
Depth Driller	3694'						
Depth Logger	3691'						
Bottom Logged Interval	3662'						
Top Logged Interval	2000'						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	4000						
Density	9.1						
Level	FULL						
Max. Rec. Temp. F	113 DEG/F						
Operating Rig Time	3 HOURS						
Equipment -- Location	108 HAYS						
Recorded By	J. HENRICKSON						
Witnessed By	KEITH REAVIS						
Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	260'	8.625"	23#	0	260'
TWO	7.875"	260'	TD				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 NATOMA KANSAS
 10 NORTH TO 160 RD, 1/4 WEST, SOUTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

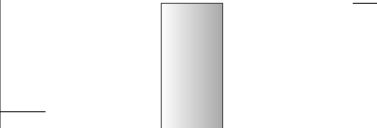
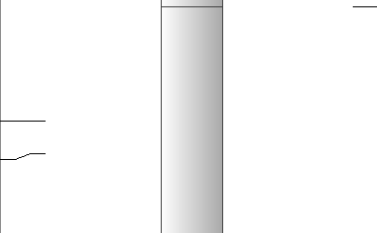
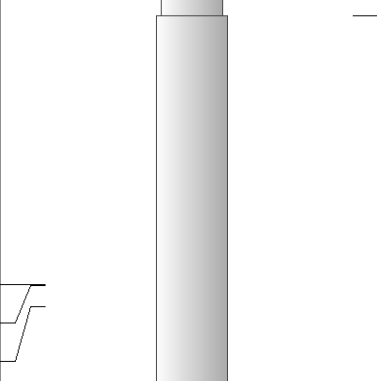
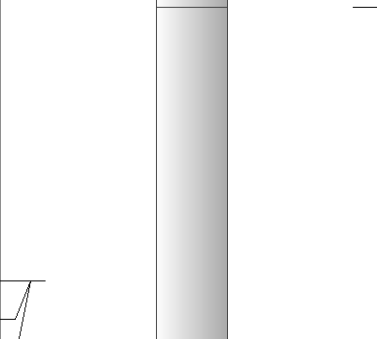
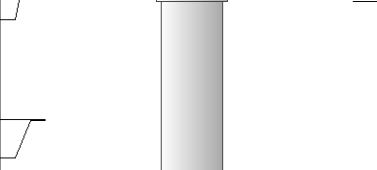
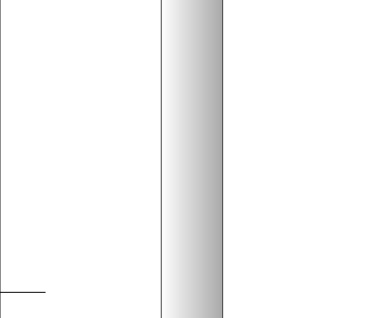
Your Pioneer Energy Services Crew Engineer: J. HENRICKSON Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: KEITH REAVIS Secondary Witness: Secondary Witness: Secondary Witness:
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Log Variables

DatabaseC:\ProgramData\Warrior\Data\gulf_explo_griffin_trust_1_30.db
 Dataset field/well/stackml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	113	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-217	42	Off	3691

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (168-986)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00	65.00
RLL3 RLL3F	15.80 15.79					
CILD	8.00		DIL-M&W (PSI 978)	18.50	3.50	220.00

CILM 4.70

SP 0.20

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 Total weight: 685.00 lb
 O.D.: 4.00 in

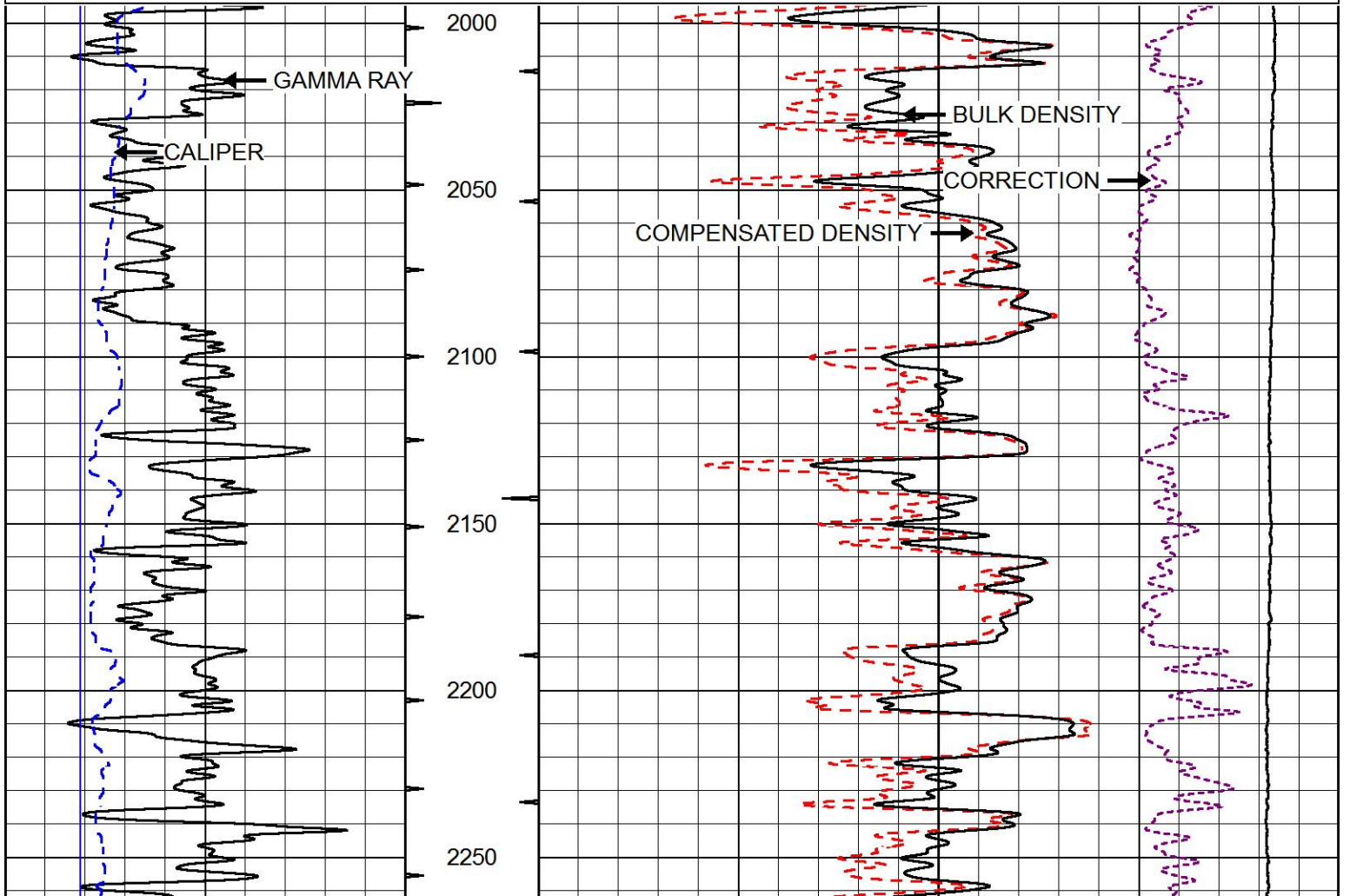


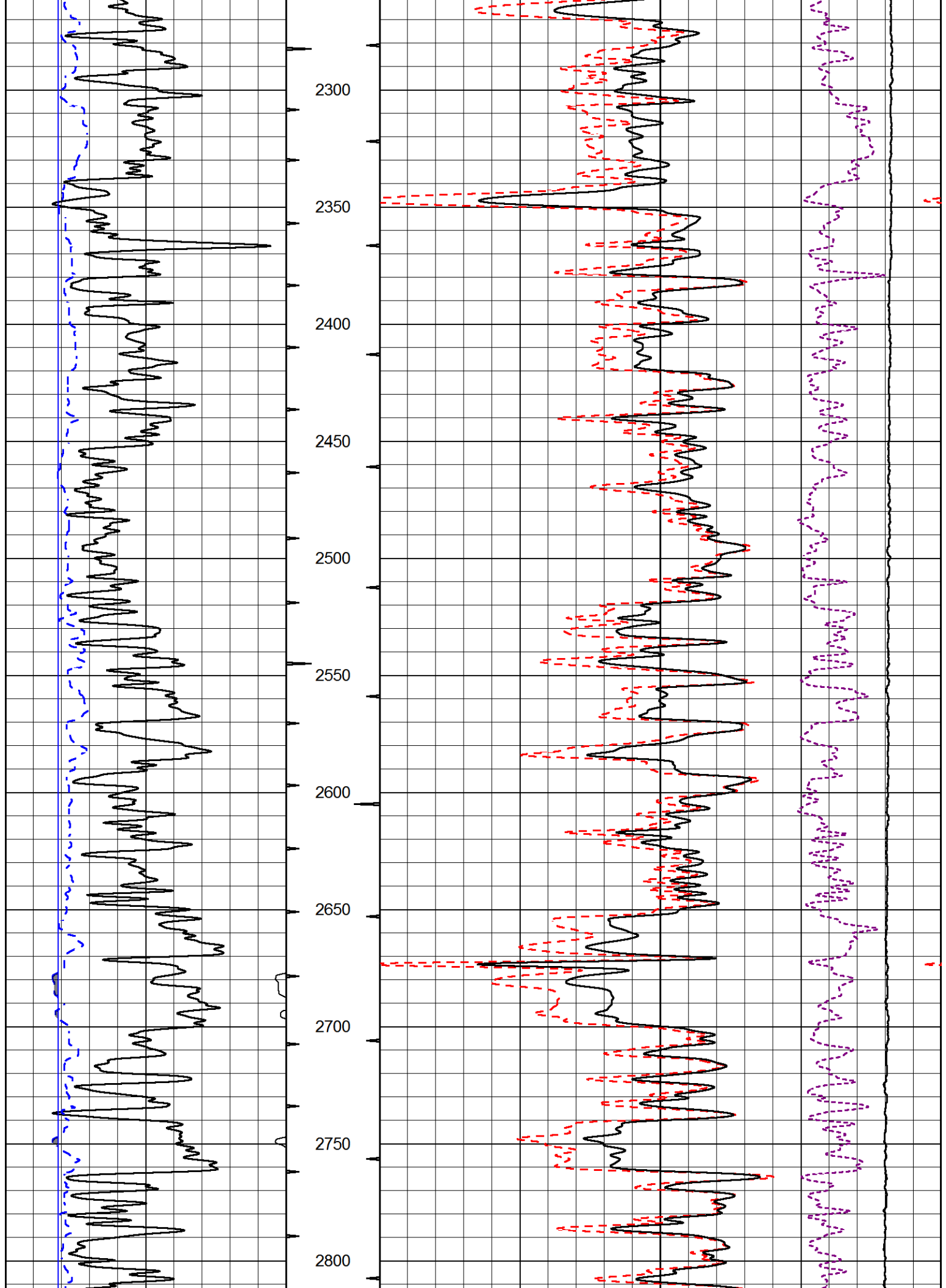
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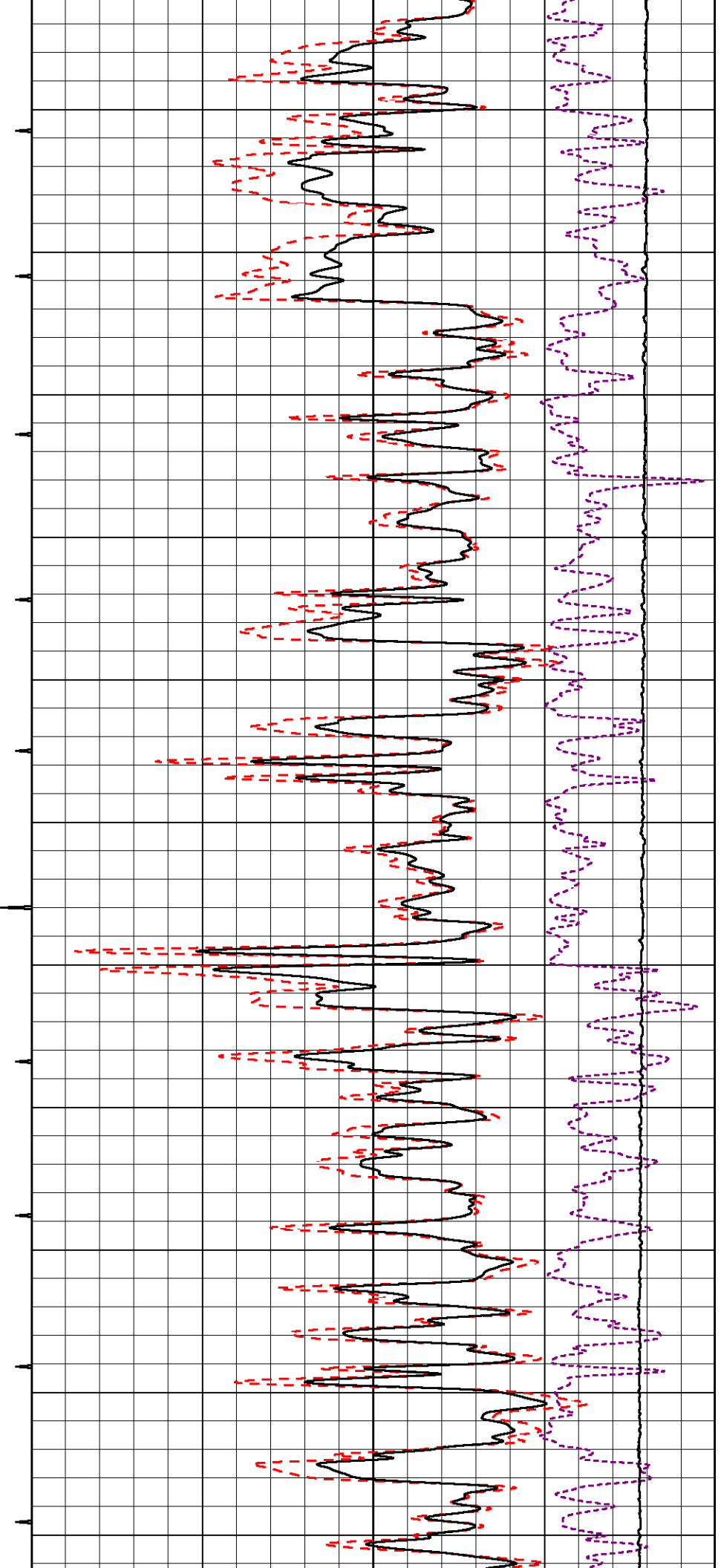
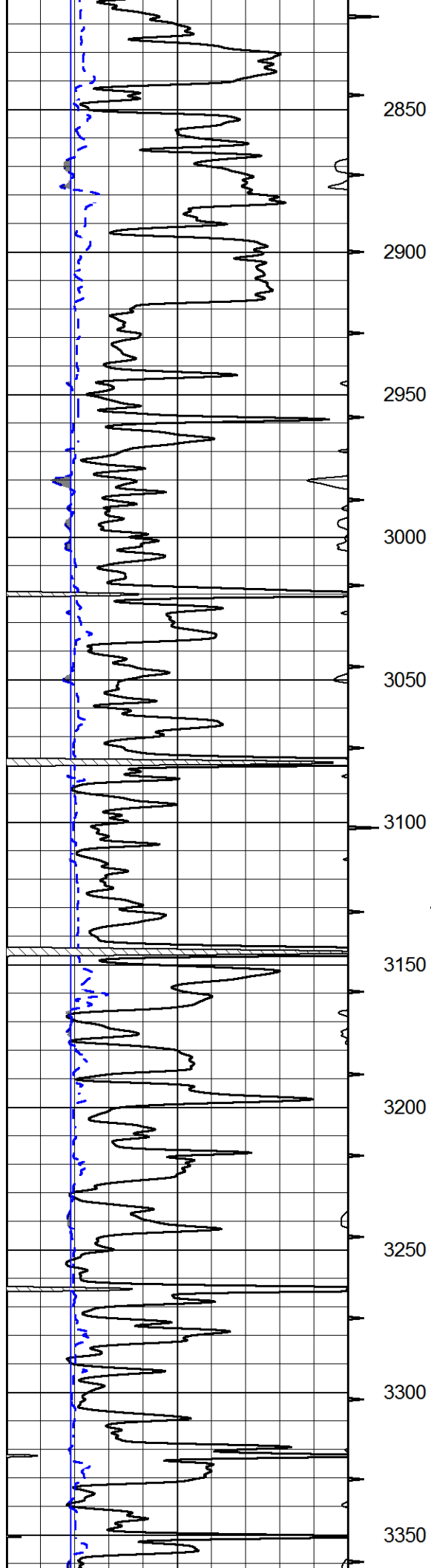
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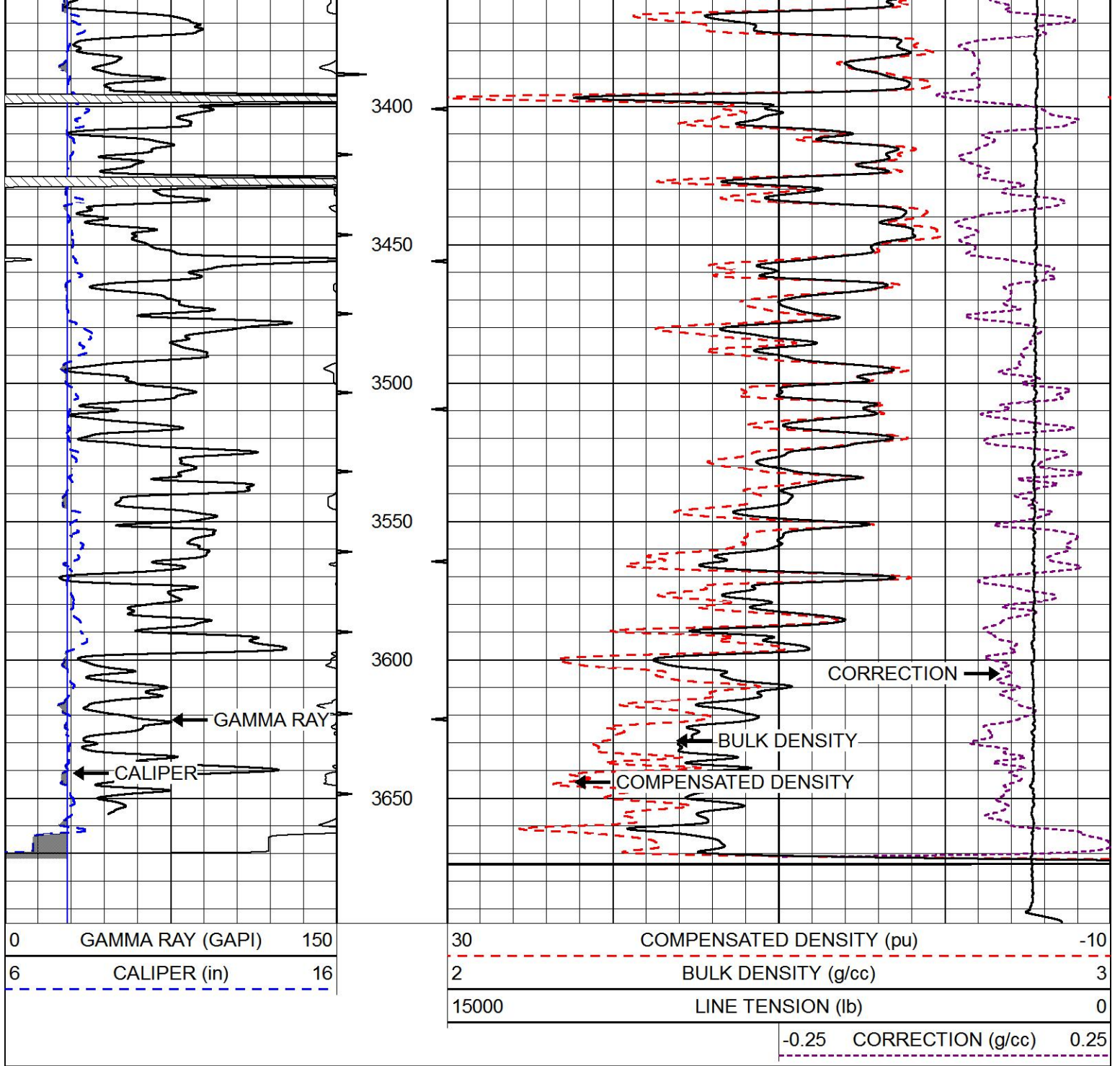
0	GAMMA RAY (GAPI)	150
6	CALIPER (in)	16

30	COMPENSATED DENSITY (pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25





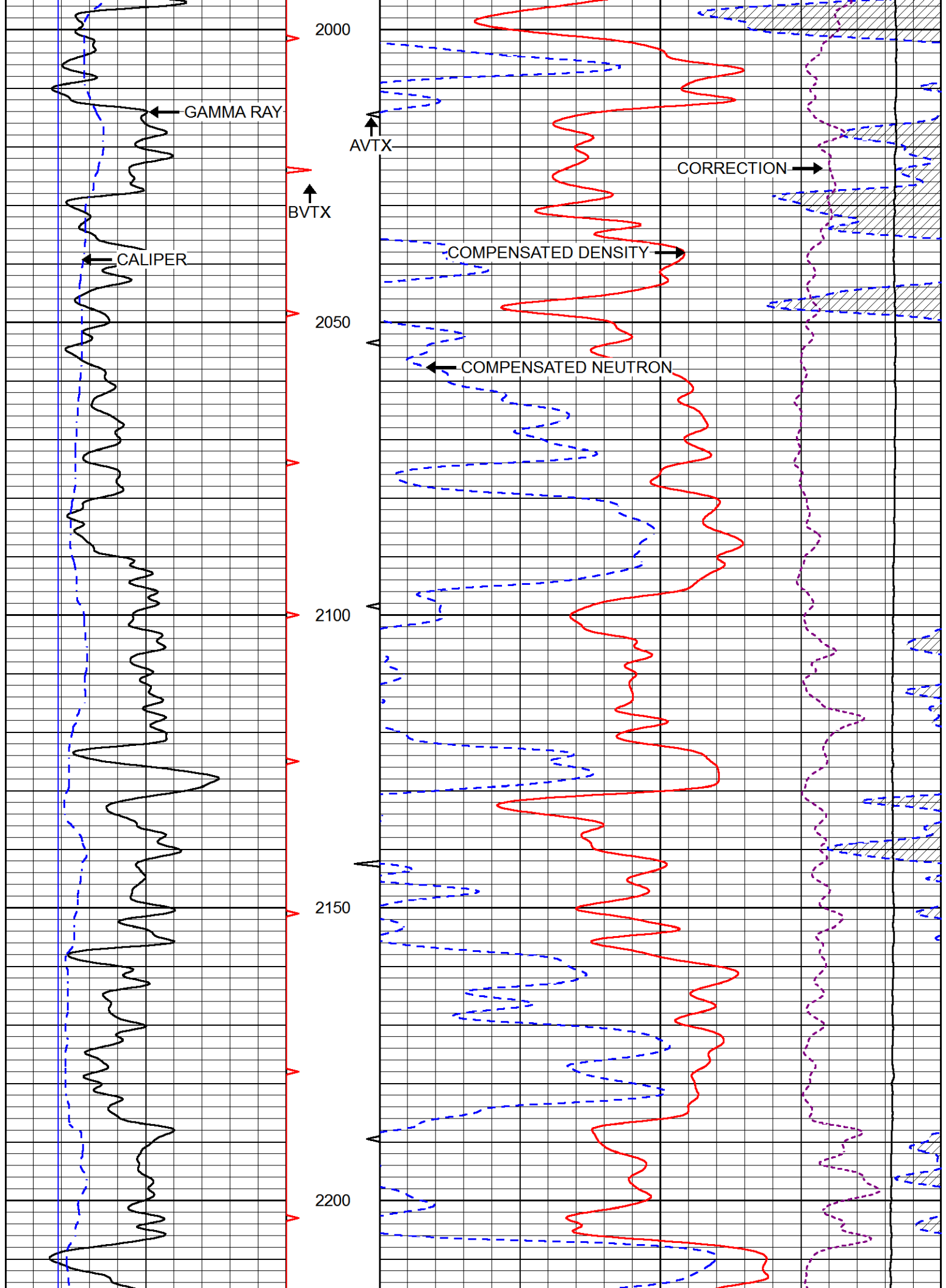


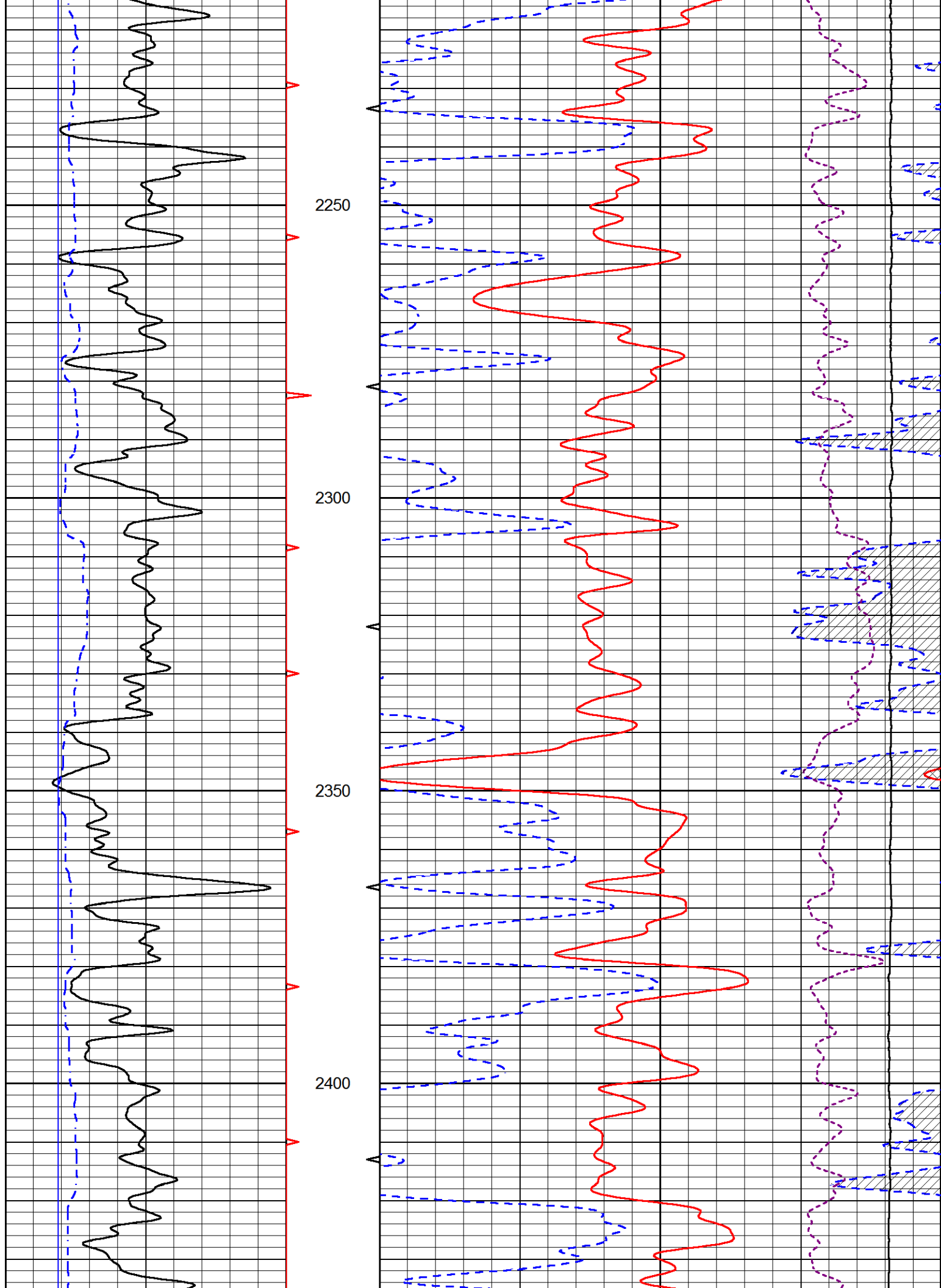


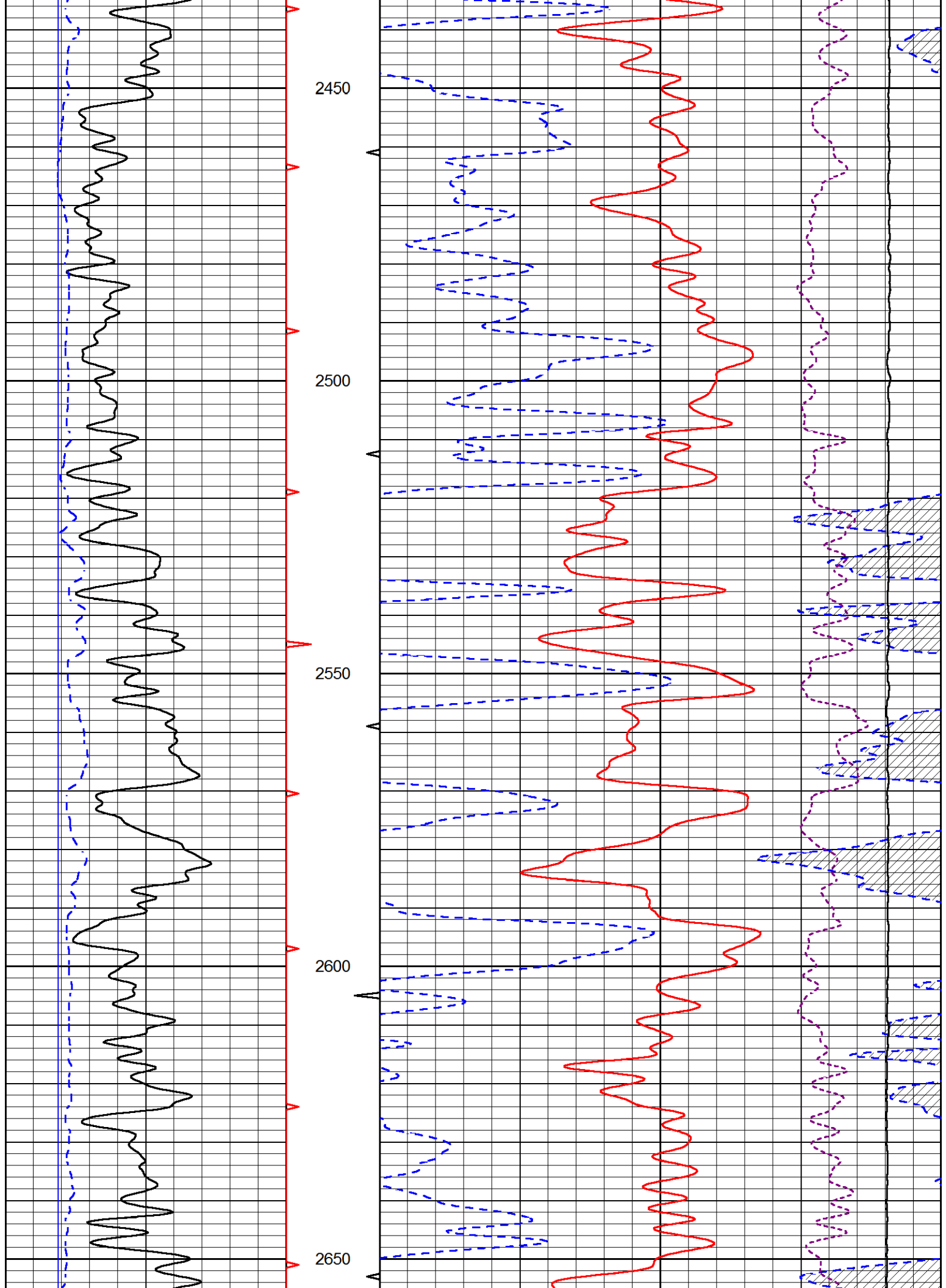
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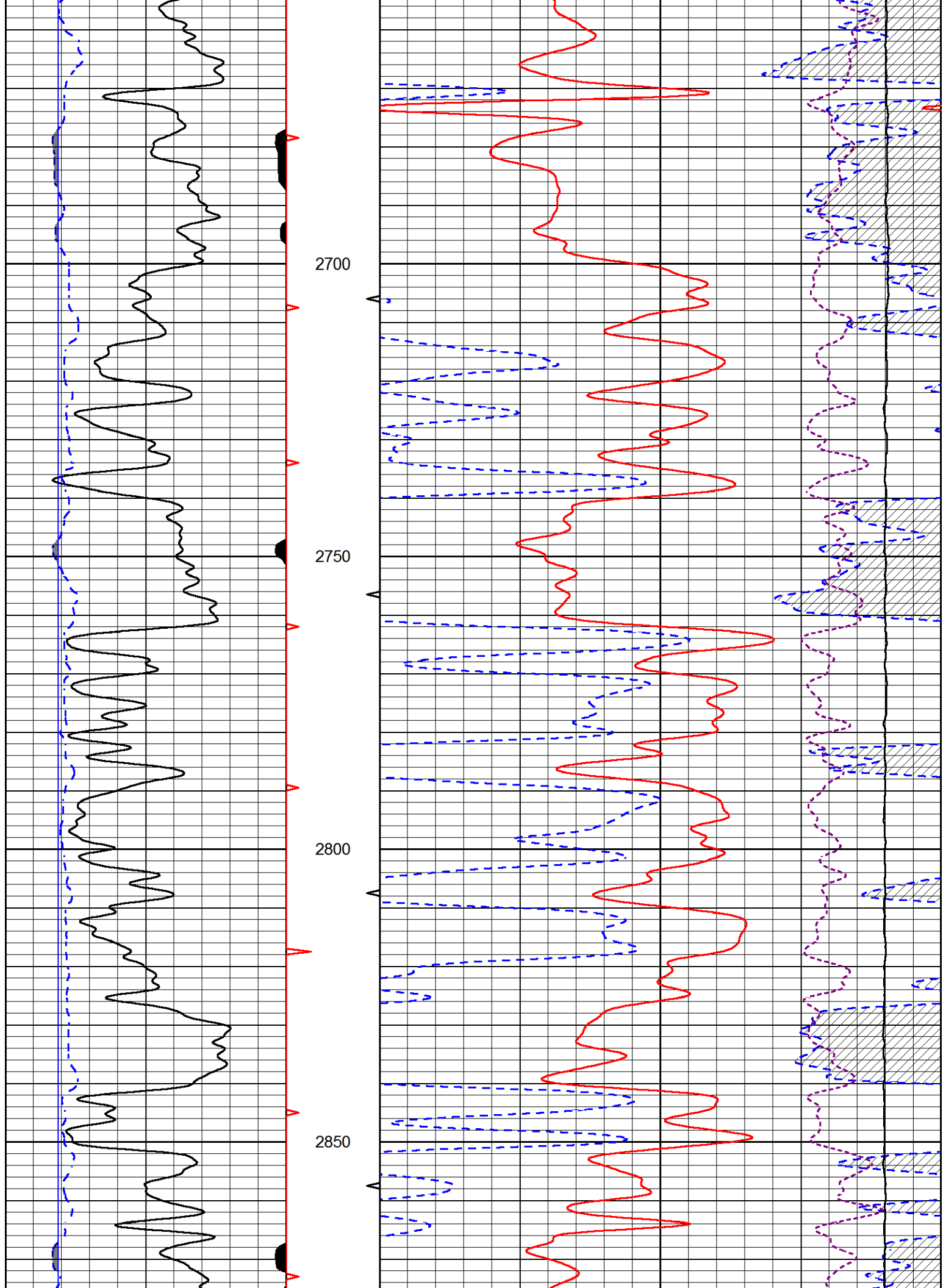
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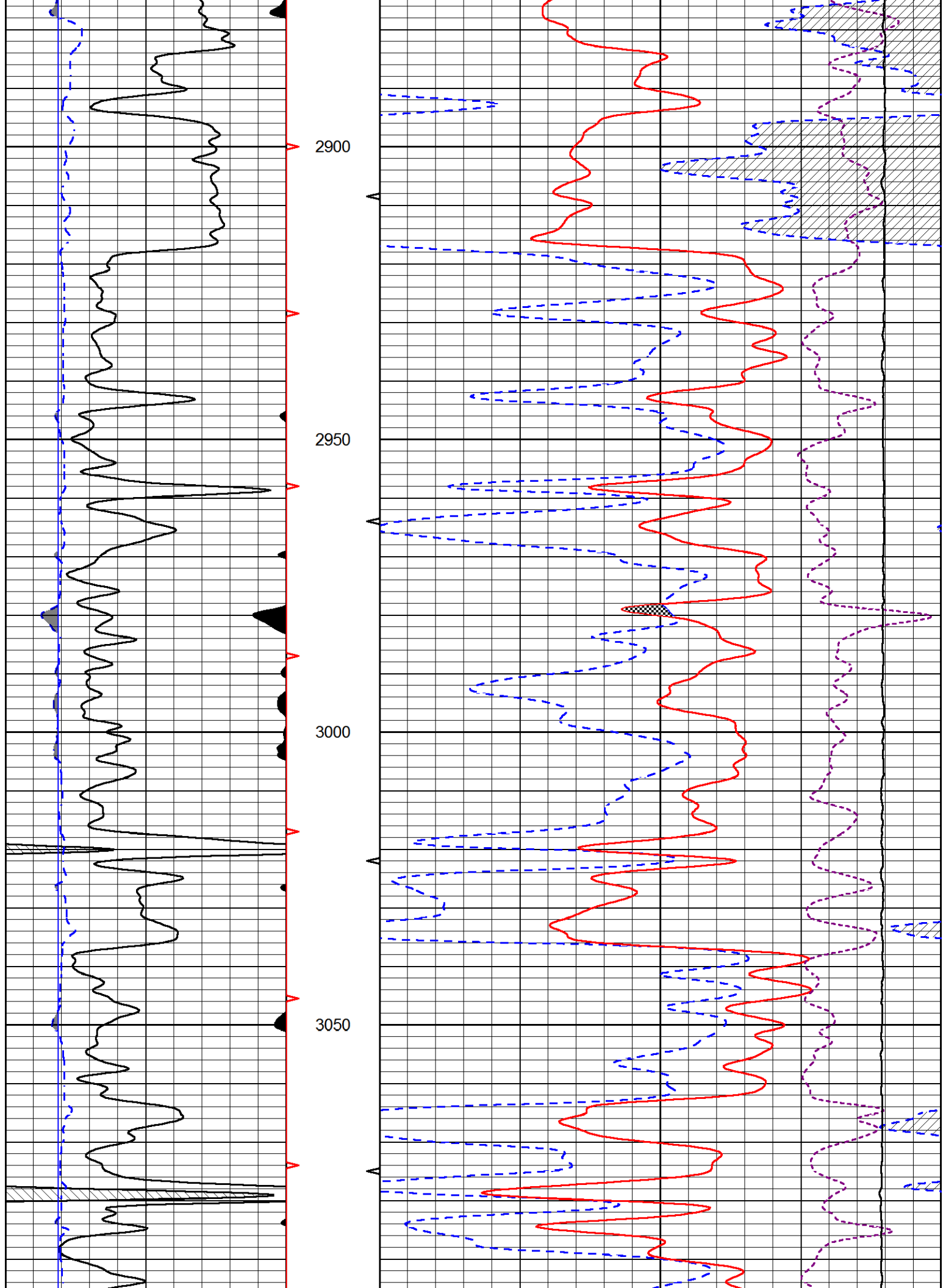
0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	dcal (in)	16	30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0
			-0.25	CORRECTION (g/cc)	0.25

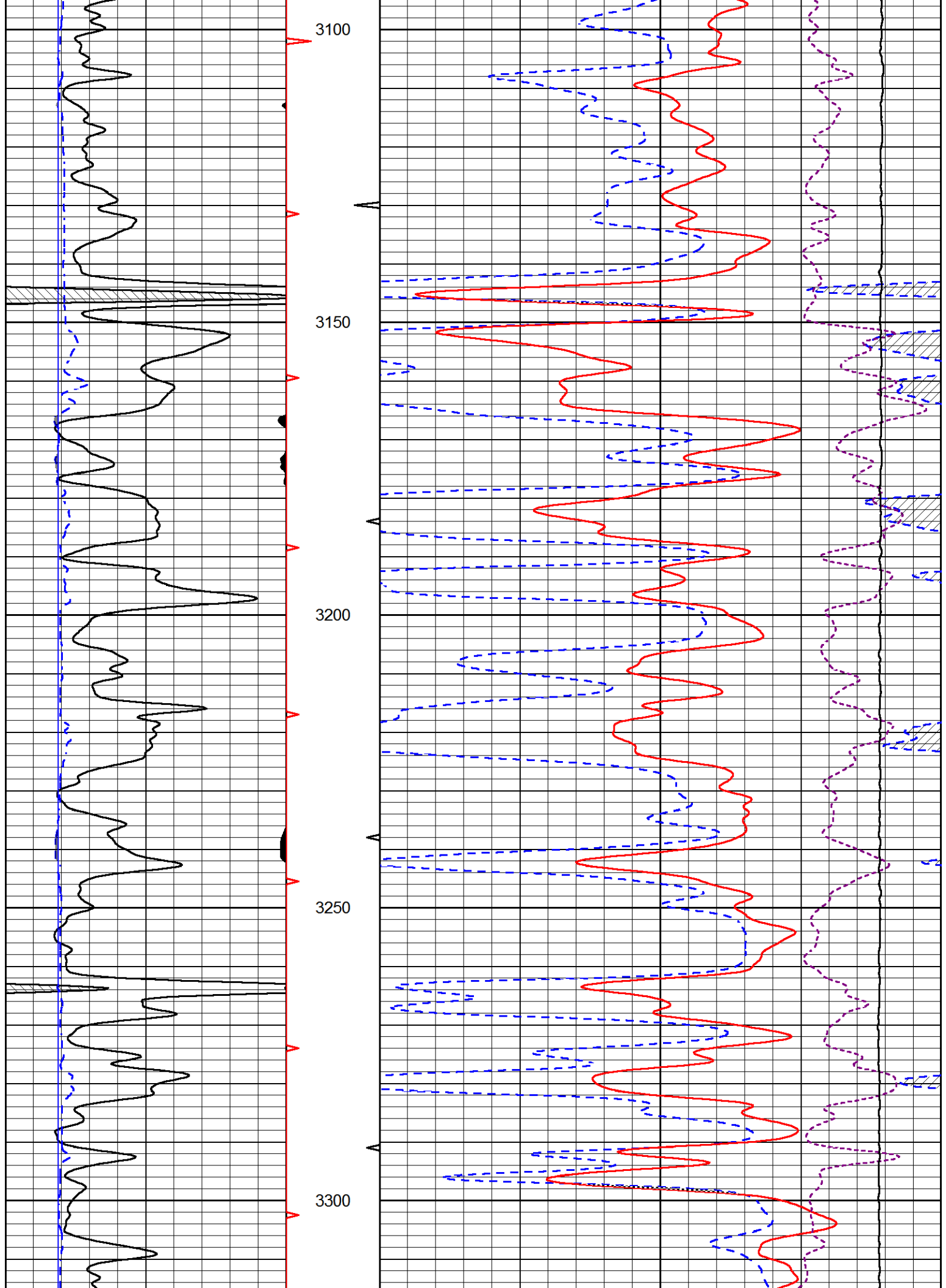


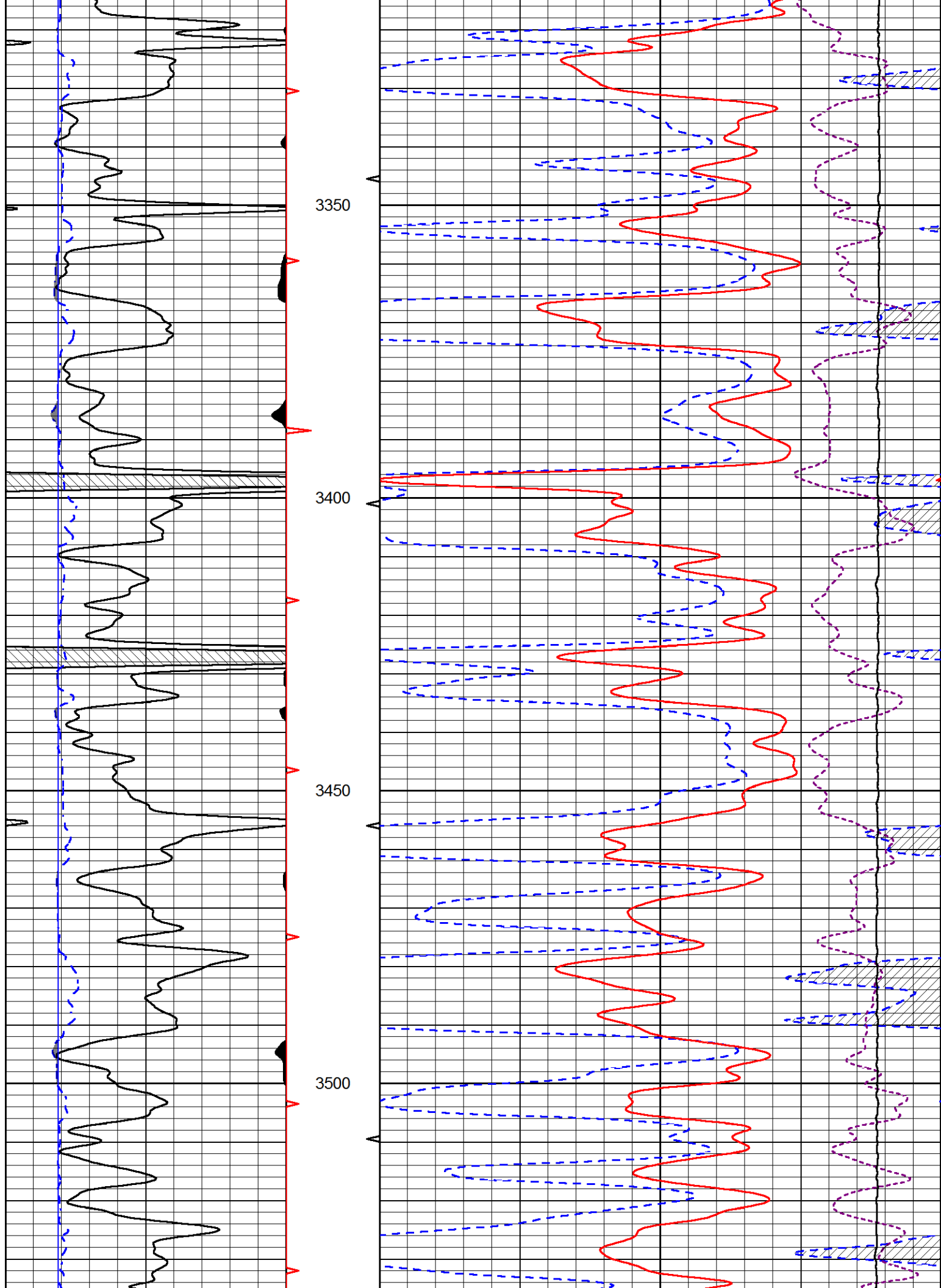


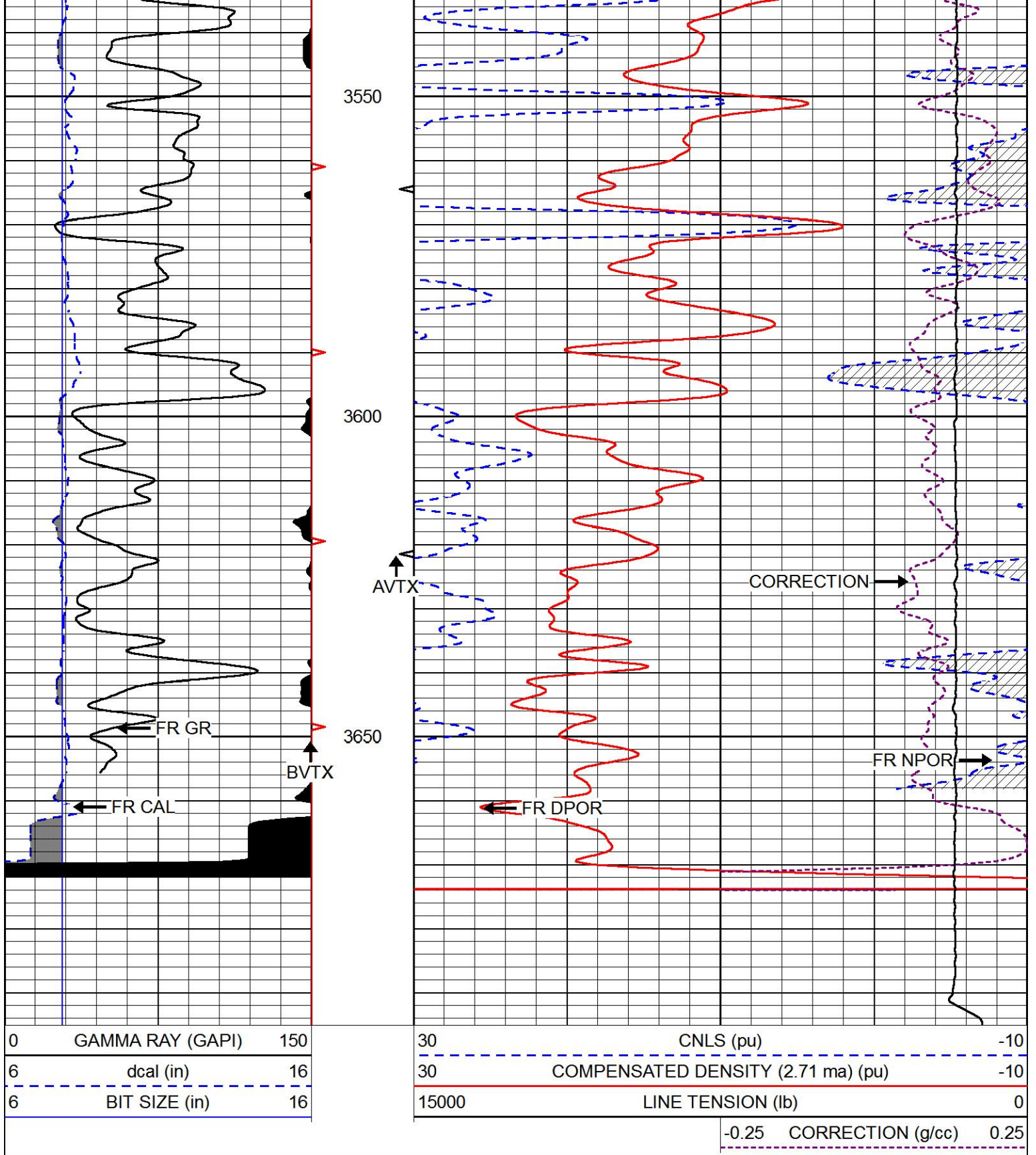










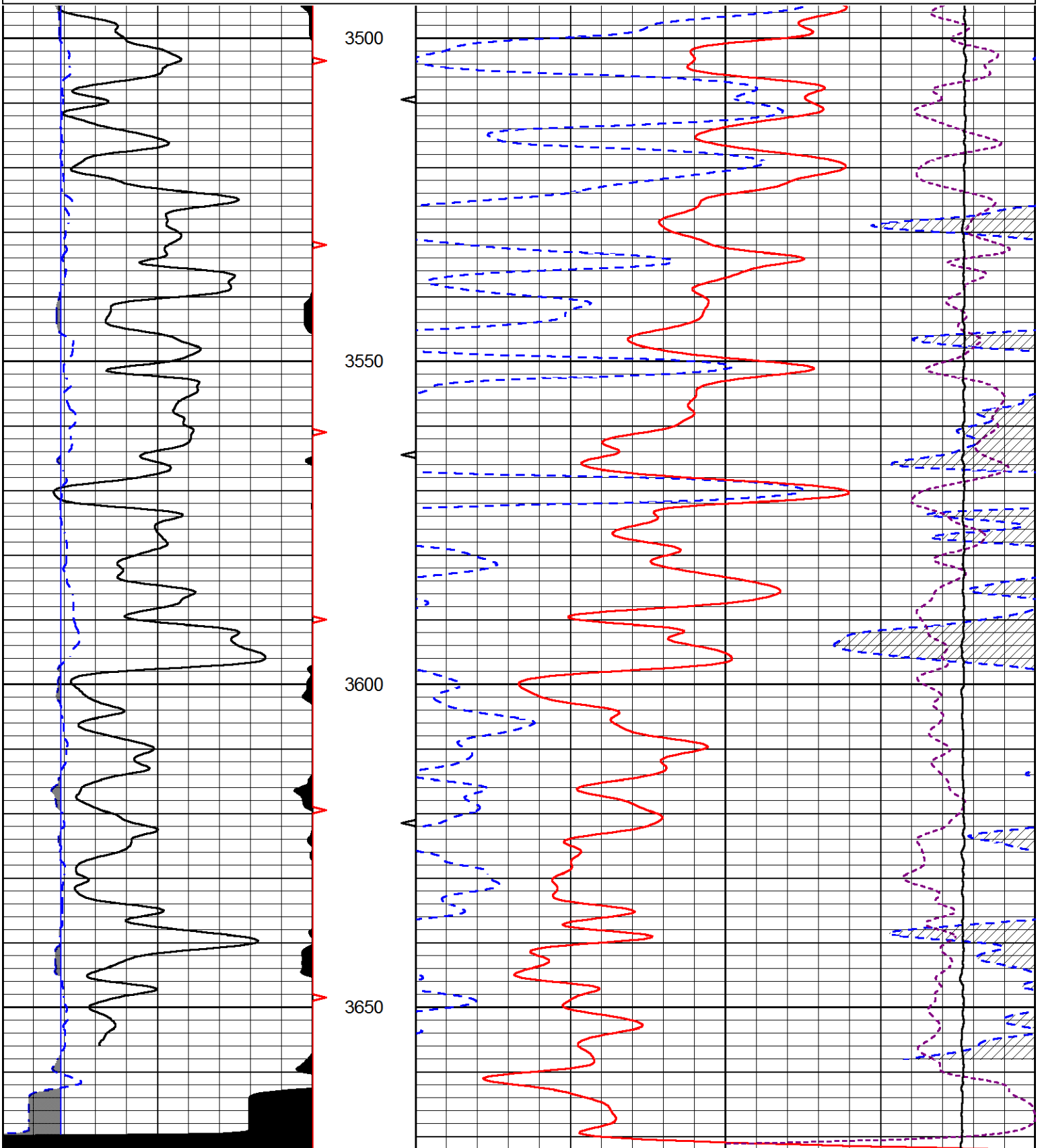


REPEAT SECTION

Database File gulf_explo_griffin_trust_1_30.db
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 Presentation Format cndlspec
 Dataset Creation Sun Mar 04 09:46:29 2018

0	GAMMA RAY (GAPI)	150
6	dcal (in)	16
6	BIT SIZE (in)	16

30	CNLS (pu)	-10
30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
15000	LINE TENSION (lb)	0
	-0.25 CORRECTION (g/cc)	0.25



0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	dcal (in)	16	30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0
				-0.25 CORRECTION (g/cc)	0.25

Calibration Report

Database File gulf_explo_griffin_trust_1_30.db
Dataset Pathname stackml/pass3.1
Dataset Creation Sun Mar 04 09:46:18 2018

Dual Induction Calibration Report

Serial-Model: PSI 978-M&W
Calibration Performed: Sun Feb 04 11:50:02 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-40.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-37.000

Microlog Calibration Report

Serial-Model: PSI-02-PSI STKBL ML
Performed: Fri Jun 23 01:25:19 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	16000.0000	-0.8000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	12000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.6000

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
Source / Verifier: /
Master Calibration Performed: Tue Apr 11 17:07:47 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.700	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.537		
	Size		Reading		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number:	89-M&W
Tool Model:	M&W
Calibration Performed:	Tue Apr 11 17:08:01 2017
Calibrator Value:	1000.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	6.2 cps
Sensitivity:	0.5200 GAPI/cps



Company	GULF EXPLORATION, LLC
Well	GRIFFIN TRUST NO. 1-30
Field	UNNAMED
County	OSBORNE
State	KANSAS



DUAL INDUCTION LOG

Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE **State** KANSAS

Location: API #: 15-141-20476-00-00
 990' FNL & 2310' FEL
 SEC 30 TWP 8S RGE 15W
Permanent Datum GROUND LEVEL Elevation 1976'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
 CNL/CDL
 MEL

Date	3/4/2018
Run Number	ONE
Depth Driller	3694'
Depth Logger	3691'
Bottom Logged Interval	3690'
Top Log Interval	250'
Casing Driller	8.625" @ 260'
Casing Logger	258'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	4000
Density / Viscosity	9.1 64
pH / Fluid Loss	11.5 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.80 @ 54
Rmt @ Meas. Temp	.60 @ 54
Rmc @ Meas. Temp	1.08 @ 54
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.38 @ 113
Operating Rig Time	3 HOURS
Max Rec. Temp. F	113 DEGF
Equipment Number	108
Location	HAYS
Recorded By	J. HENRICKSON
Witnessed By	KEITH REAVIS

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

NATOMA KANSAS
 10 NORTH TO 160 RD, 1/4 WEST, SOUTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

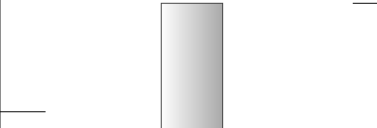
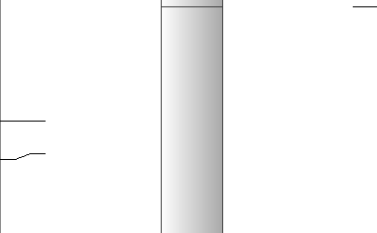
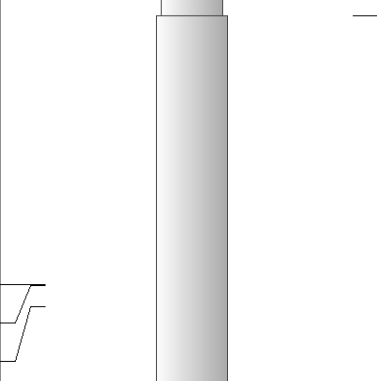
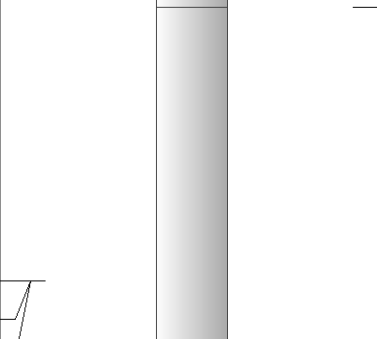
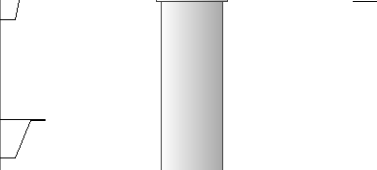
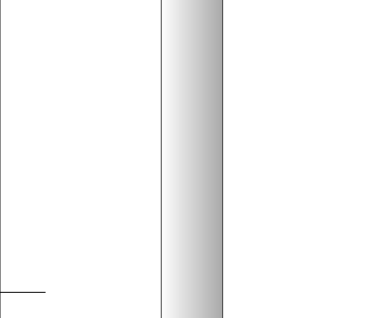
Your Pioneer Energy Services Crew Engineer: J. HENRICKSON Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: KEITH REAVIS Secondary Witness: Secondary Witness: Secondary Witness:
--	--

Log Variables

DatabaseC:\ProgramData\Warrior\Data\gulf_explo_griffin_trust_1_30.db
 Dataset field/well/stackml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	113	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-217	42	Off	3691

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (168-986)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00	65.00
RLL3 RLL3F	15.80 15.79					
CILD	8.00		DIL-M&W (PSI 978)	18.50	3.50	220.00

CILM 4.70

SP 0.20

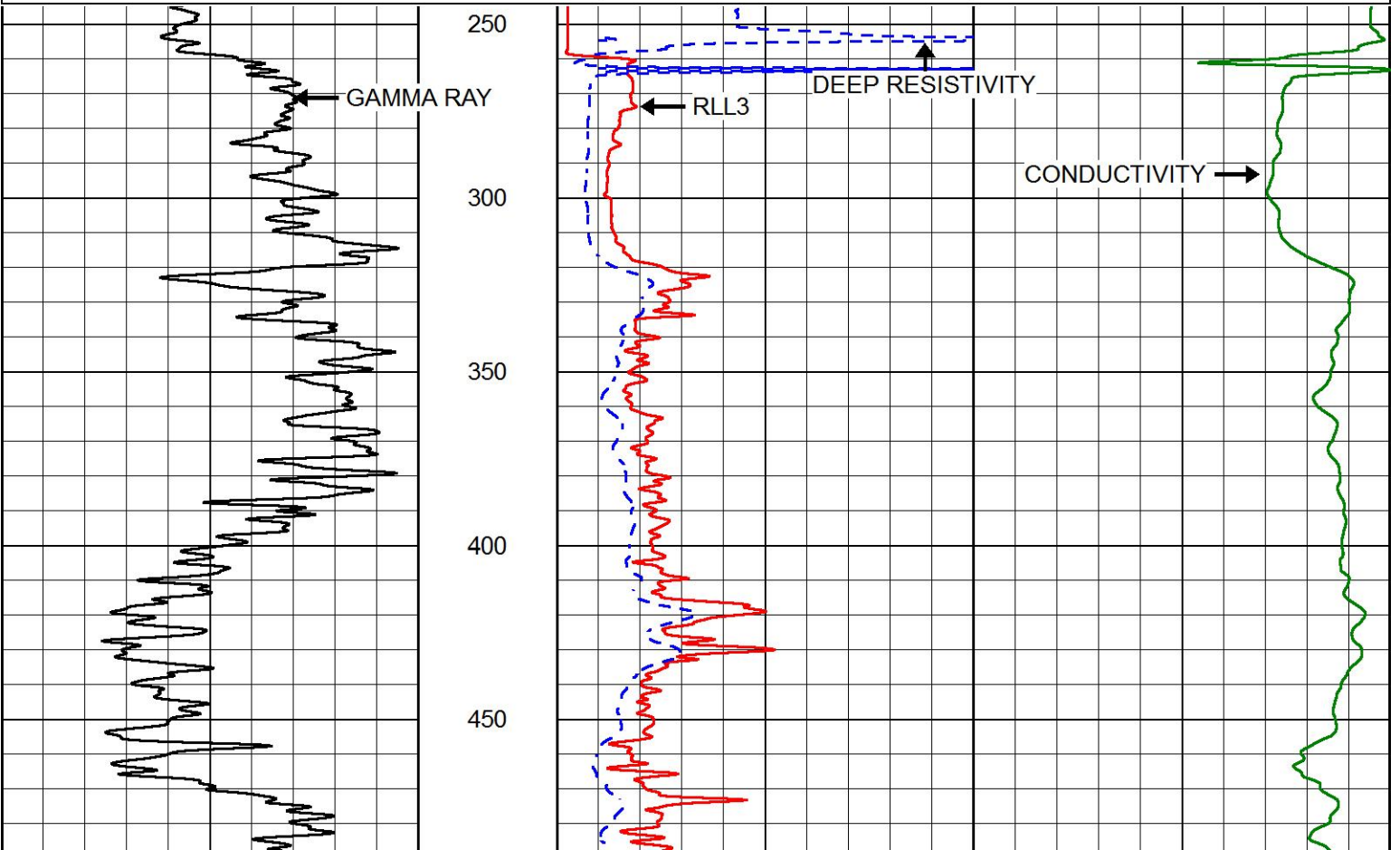
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 Total weight: 685.00 lb
 O.D.: 4.00 in

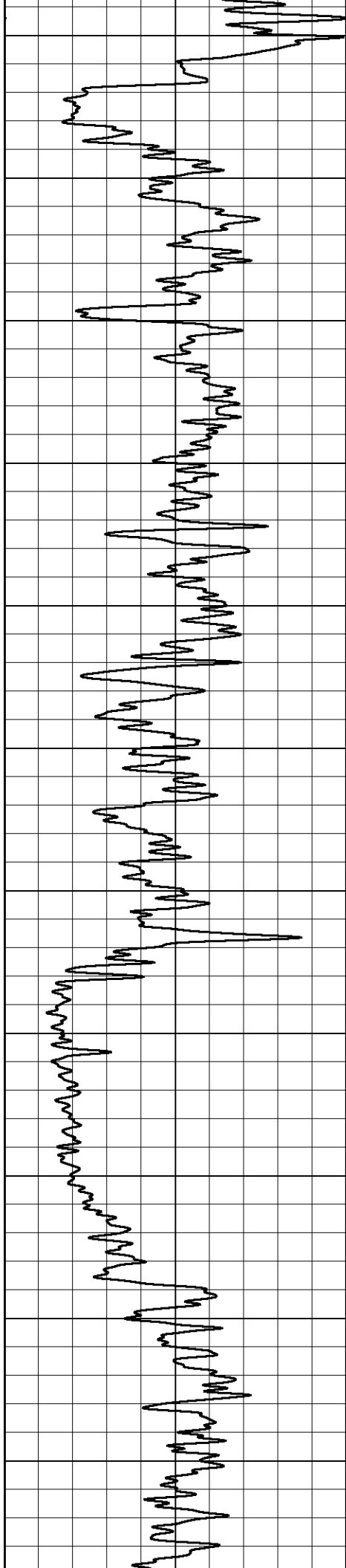


MAIN PASS

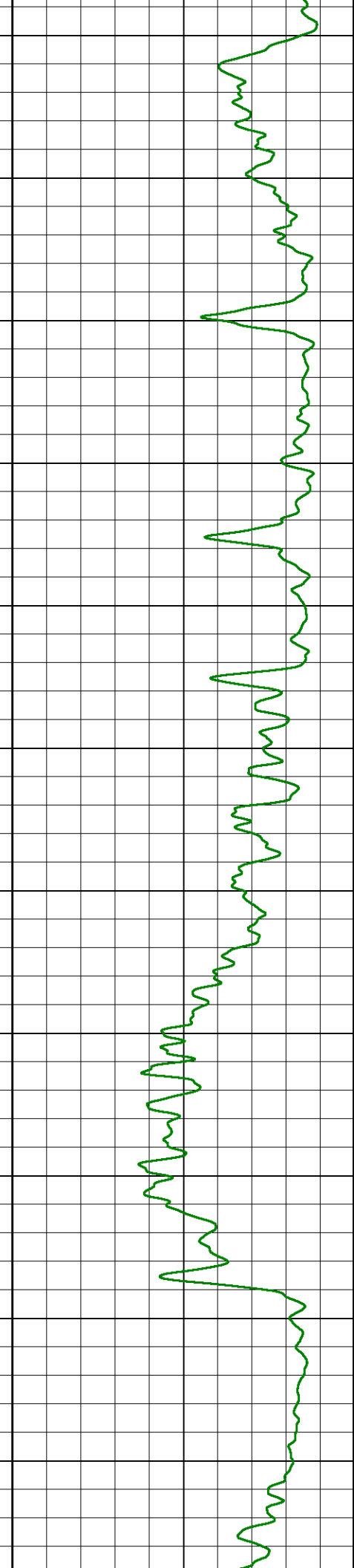
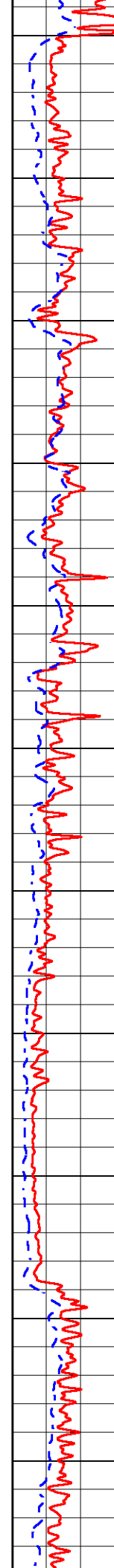
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 Presentation Format dil2in
 Dataset Creation Sun Mar 04 09:46:18 2018
 Charted by Depth in Feet scaled 1:600

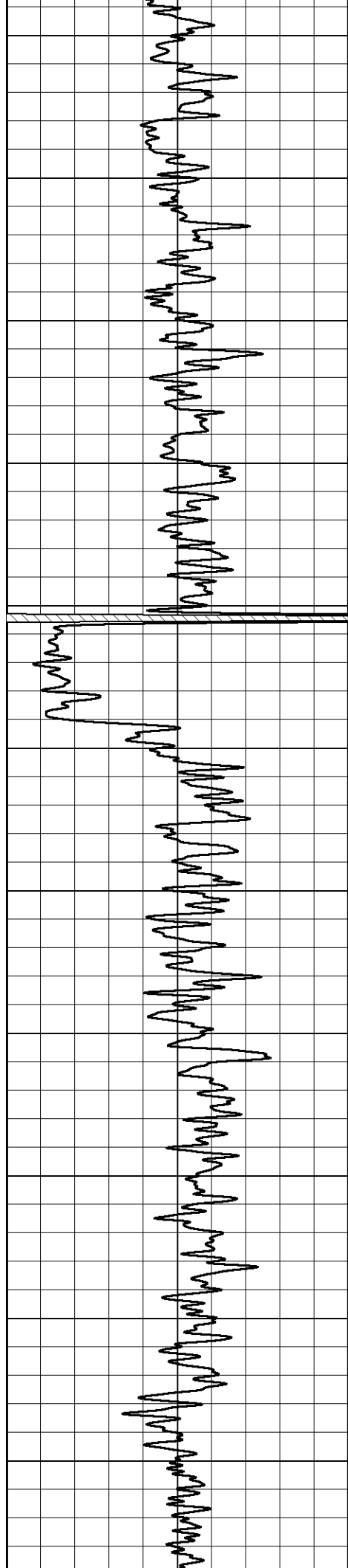
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			0	RLL3 (Ohm-m)	50
			0	DEEP RESISTIVITY (Ohm-m)	50
			50	RLL3 (Ohm-m)	500
				DEEP RESISTIVITY	
			50	(Ohm-m)	500



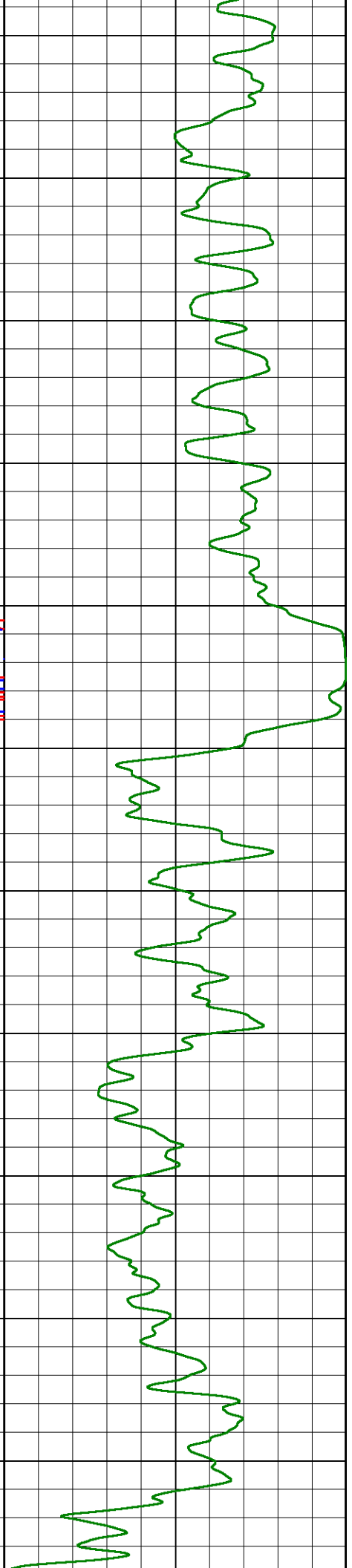
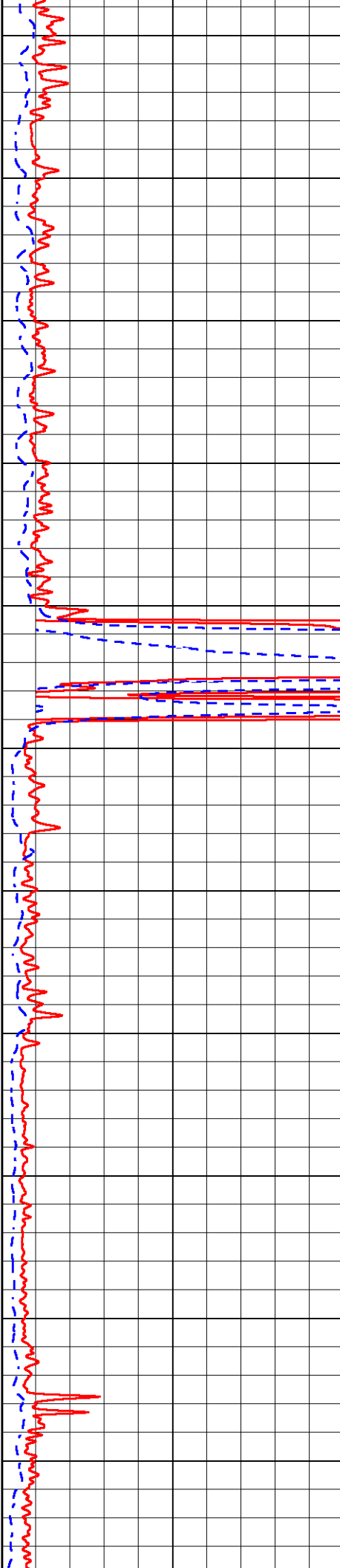


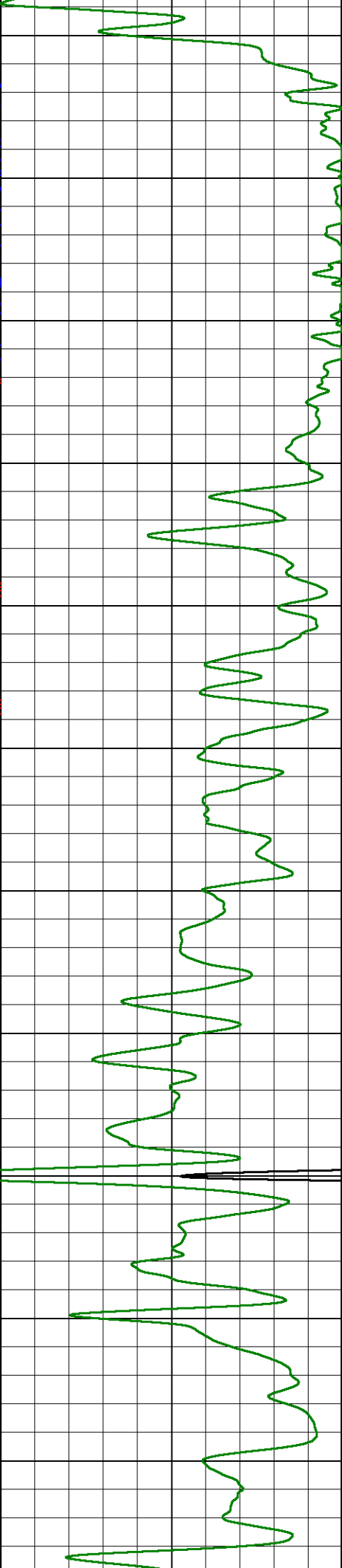
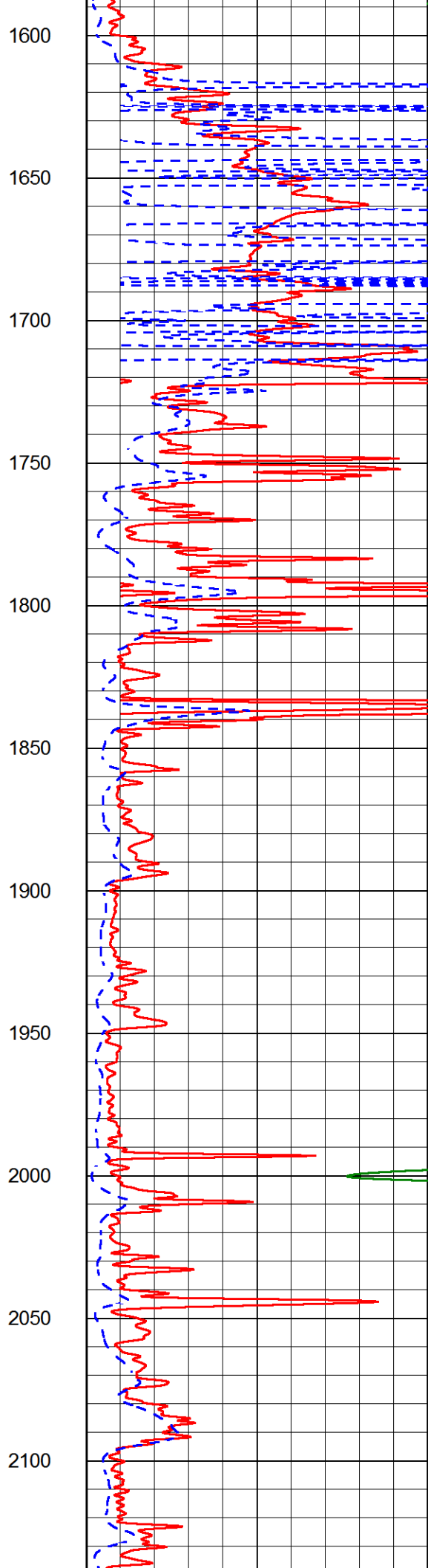
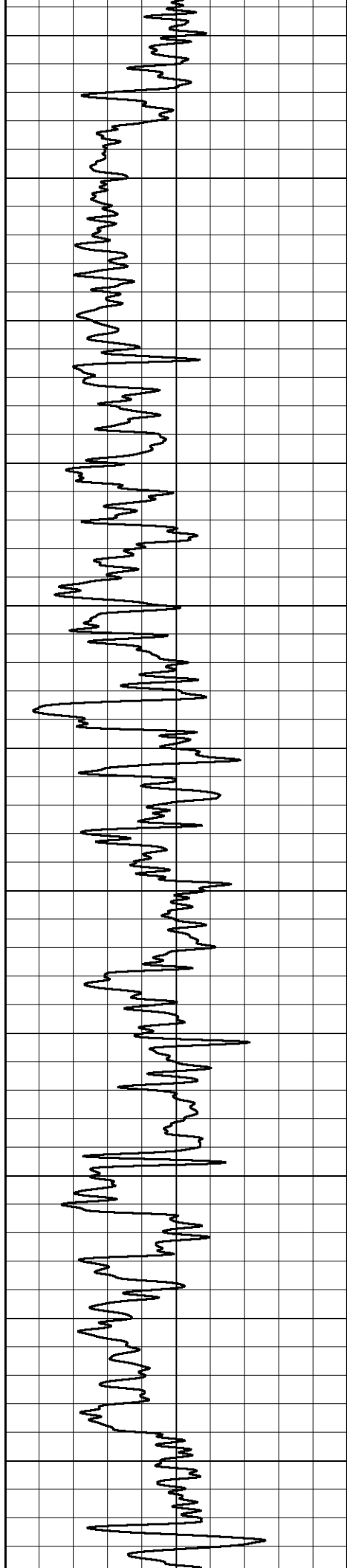
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950
1000

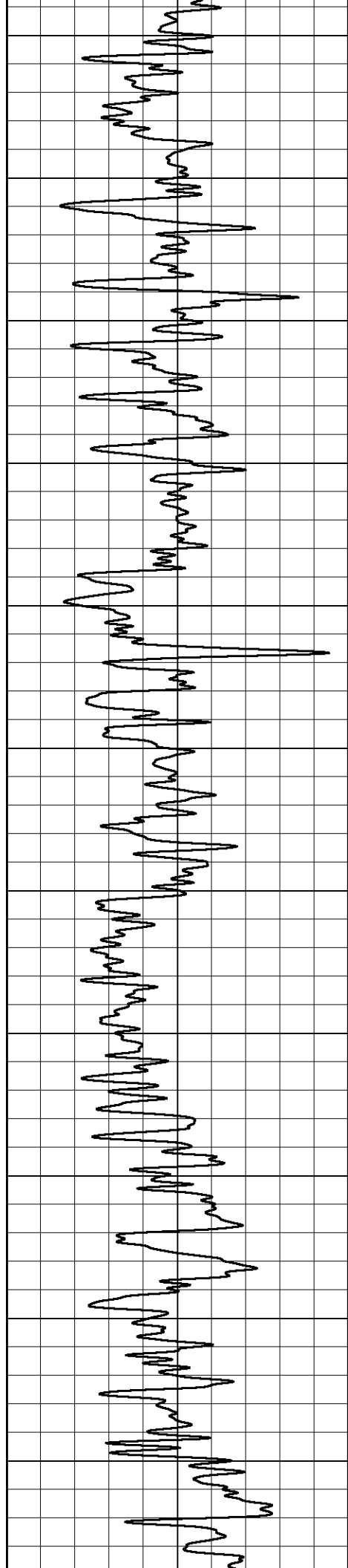




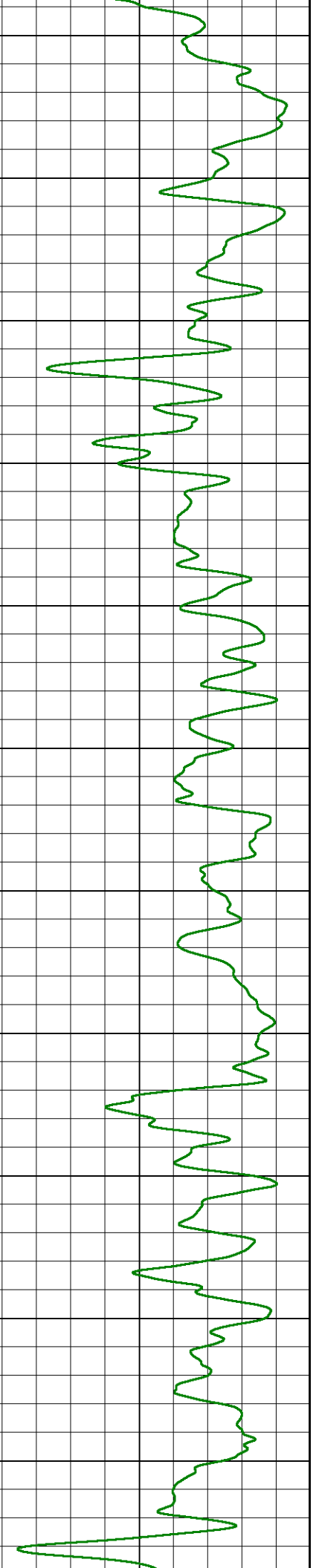
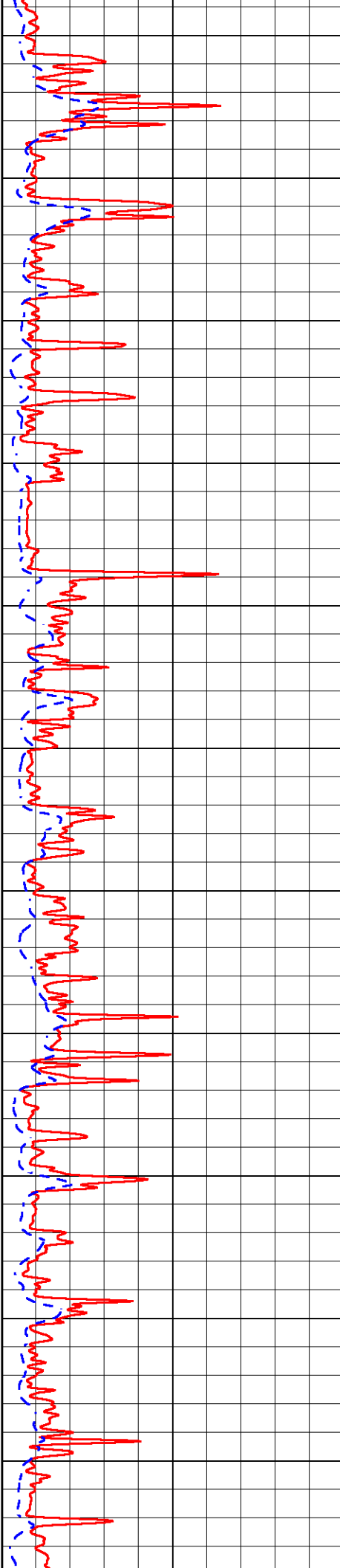
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1100
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1200
1250
1300
1350
1400
1450
1500
1550

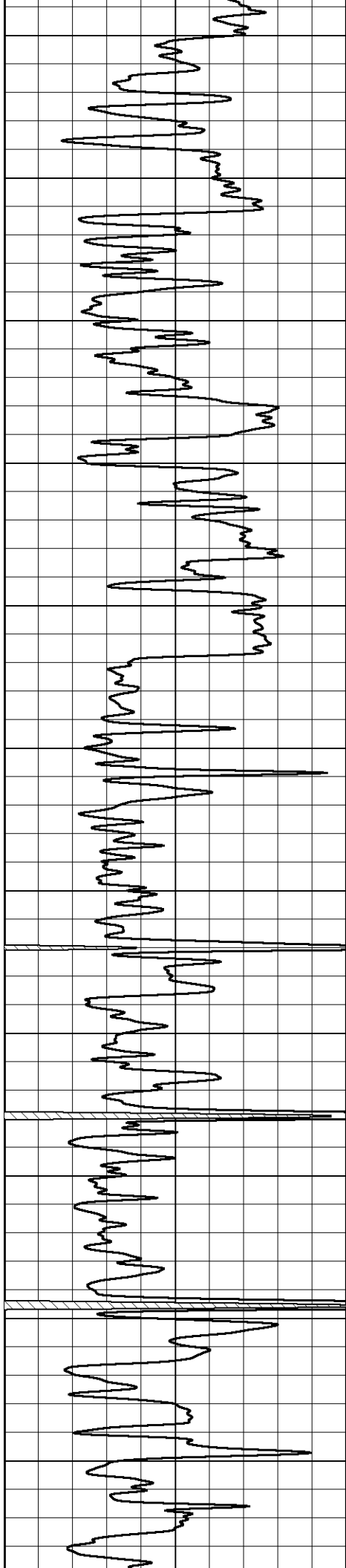






2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650





2700

2750

2800

2850

2900

2950

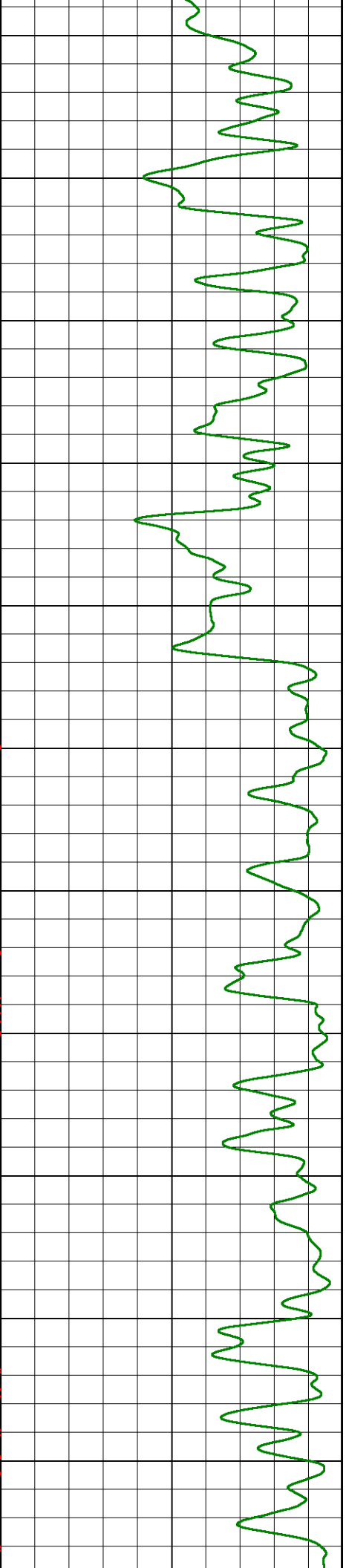
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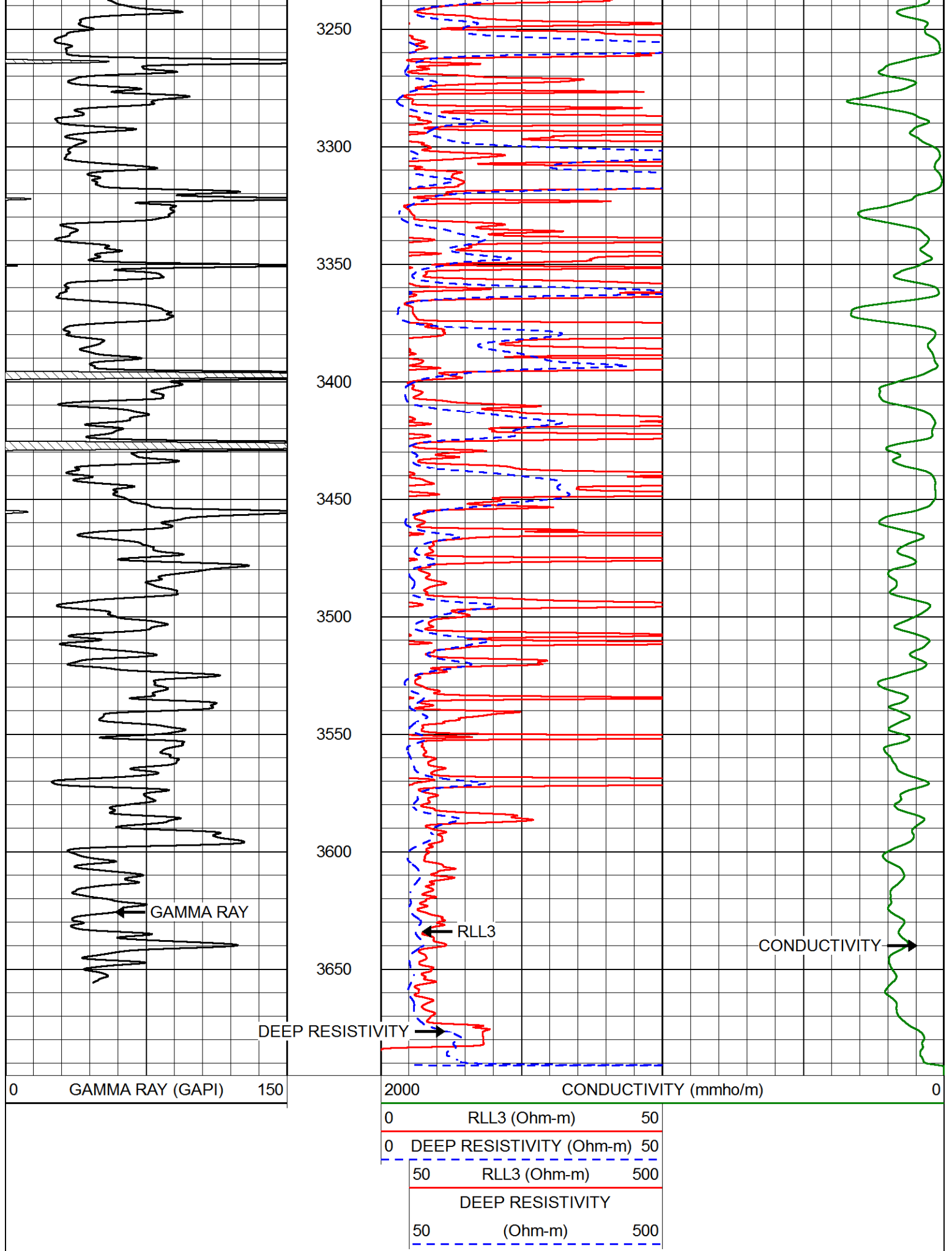
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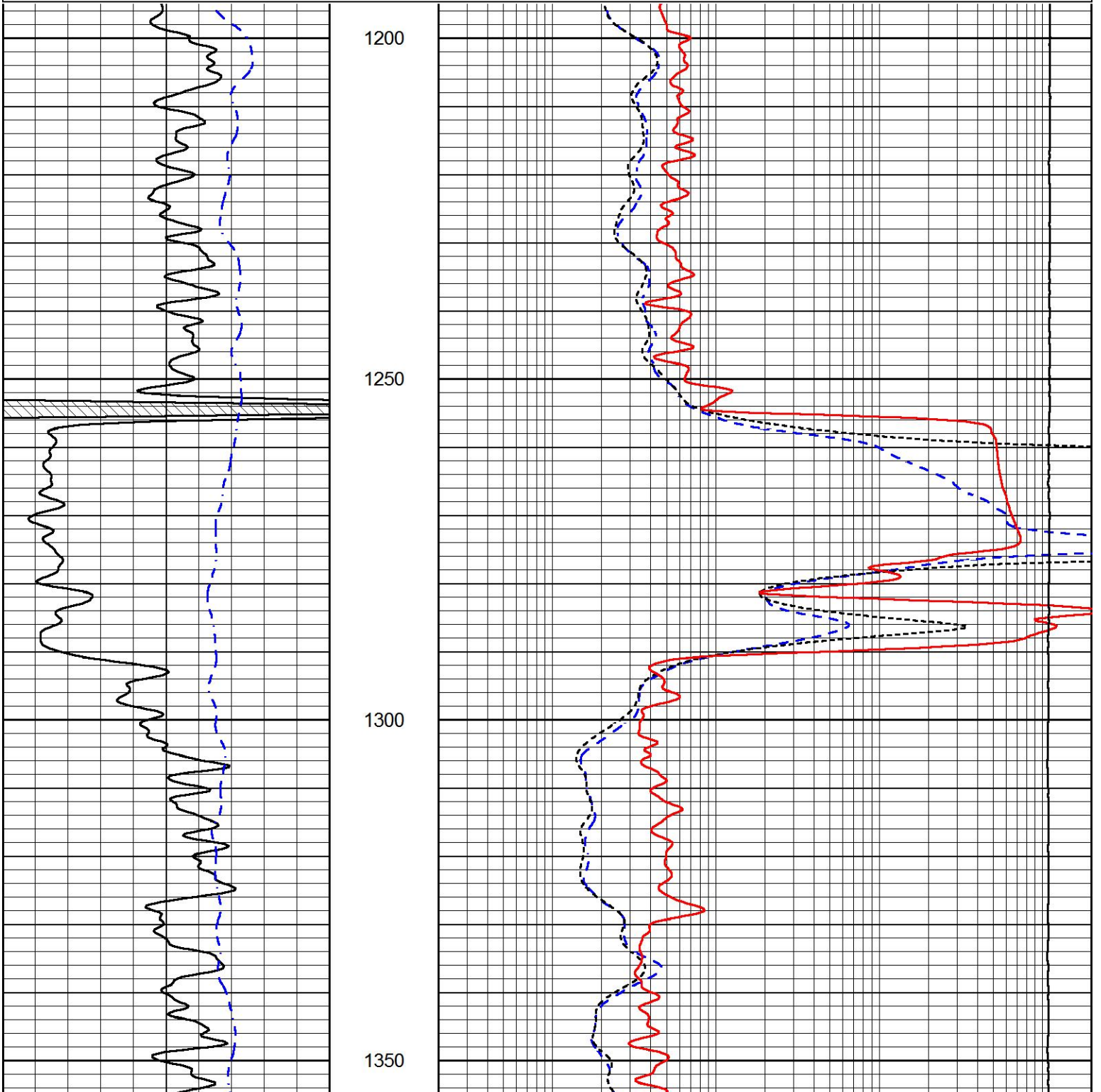


MAIN PASS

Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass3.1
 Presentation Format dil
 Dataset Creation Sun Mar 04 09:46:18 2018
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

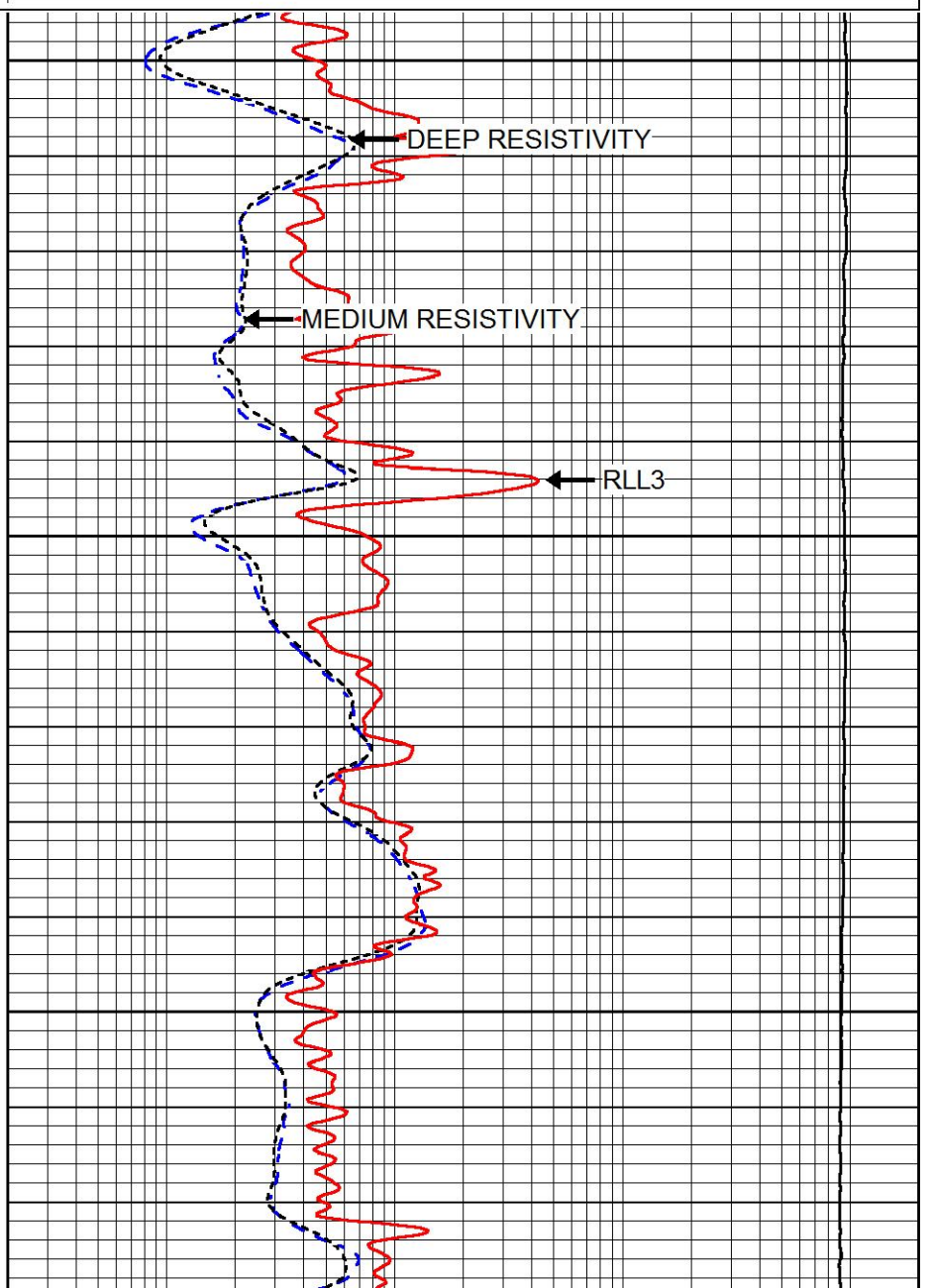
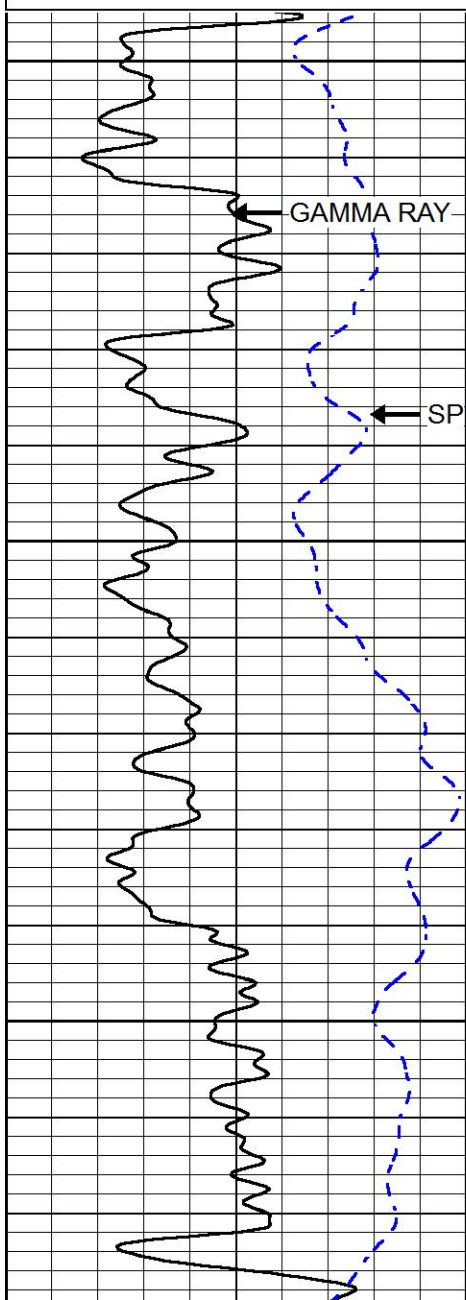


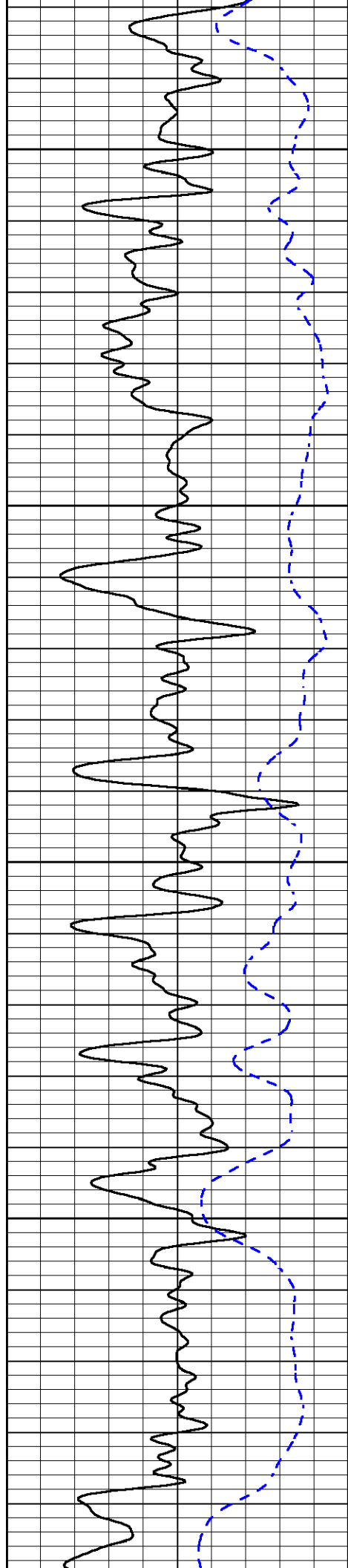
MAIN PASS

Database File	gulf_explo_griffin_trust_1_30.db
Dataset Pathname	stackml/pass3.1
Presentation Format	dil
Dataset Creation	Sun Mar 04 09:46:18 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0





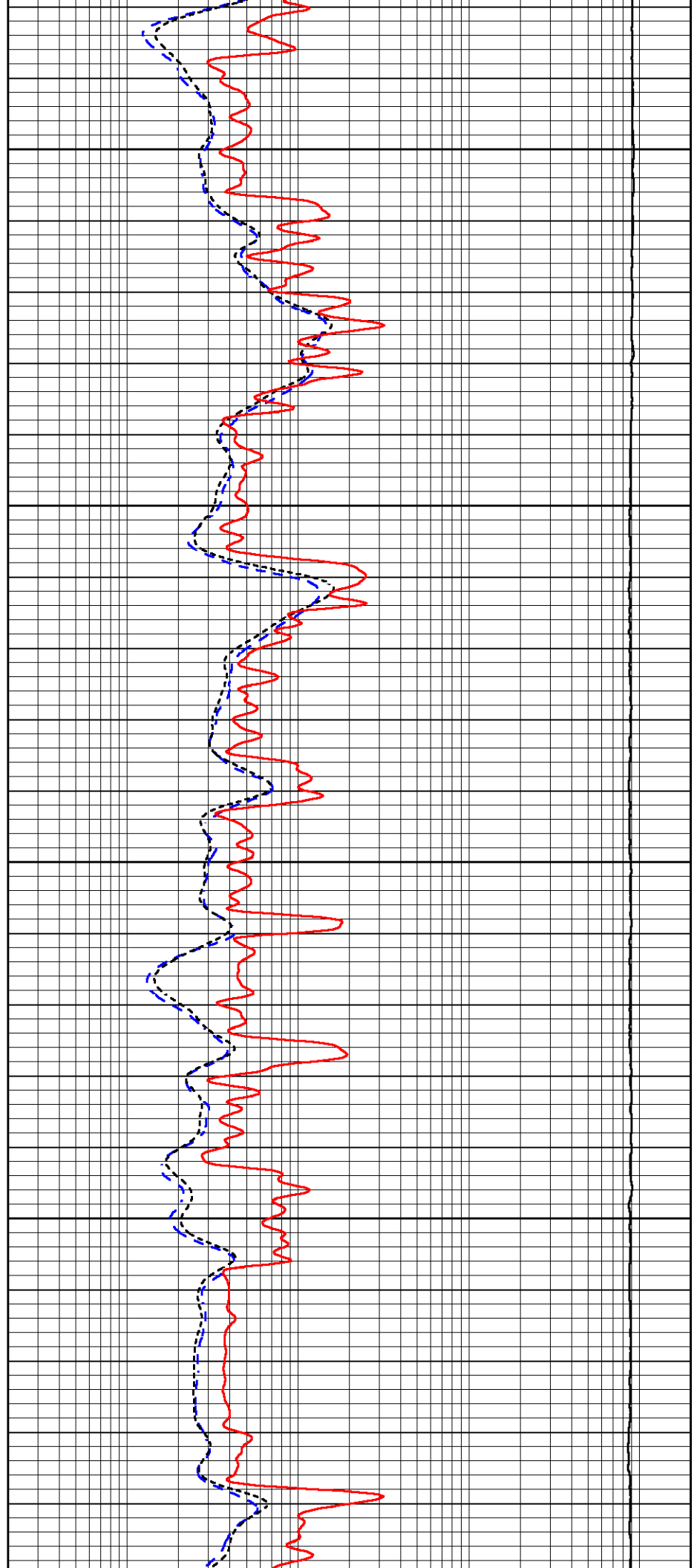
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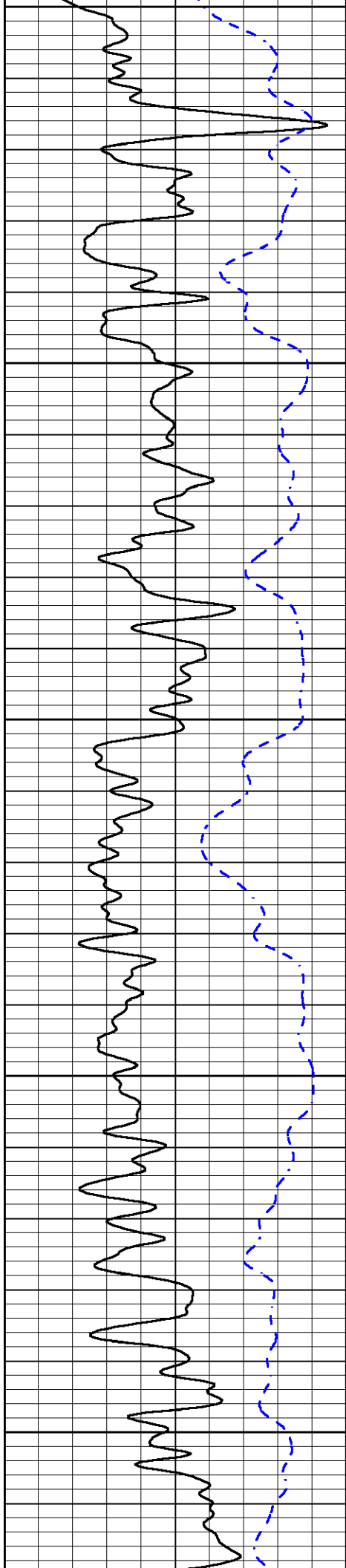
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2300

2350





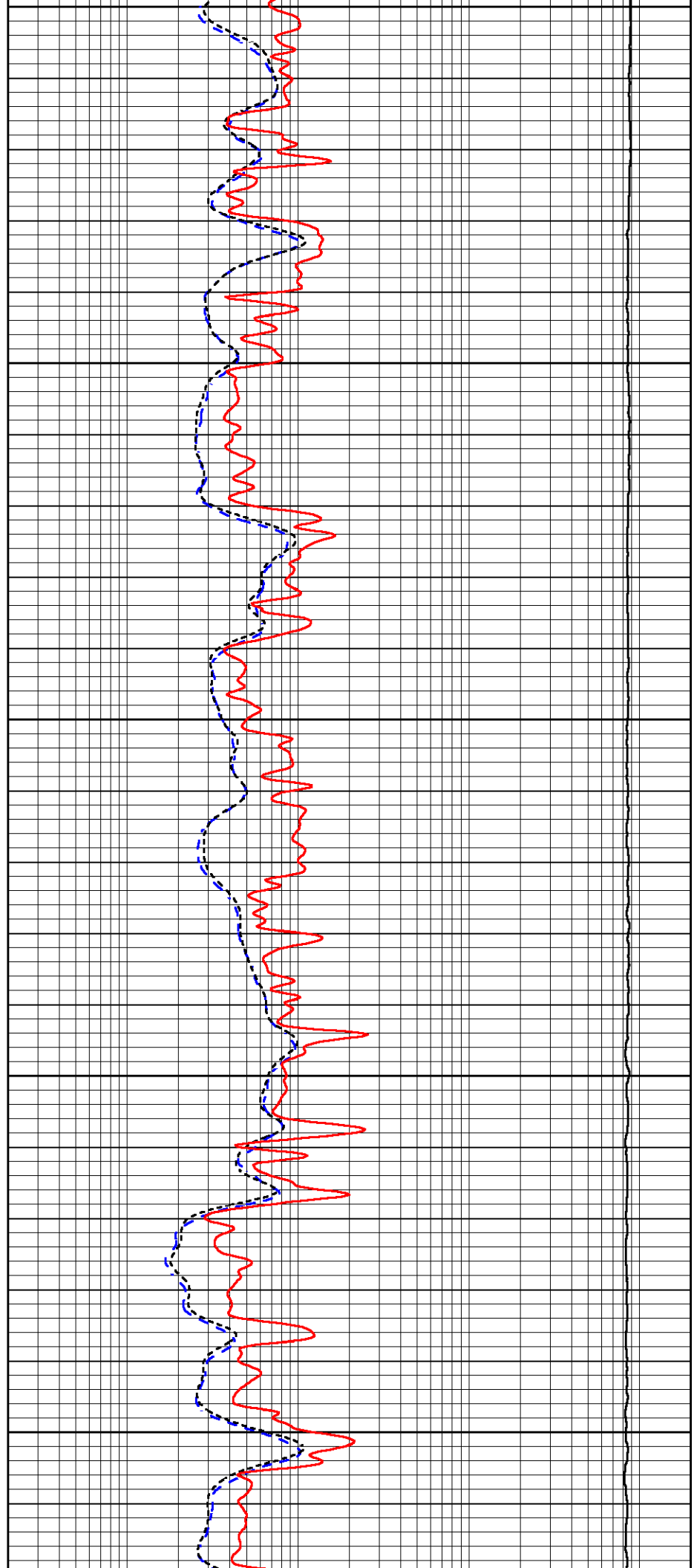
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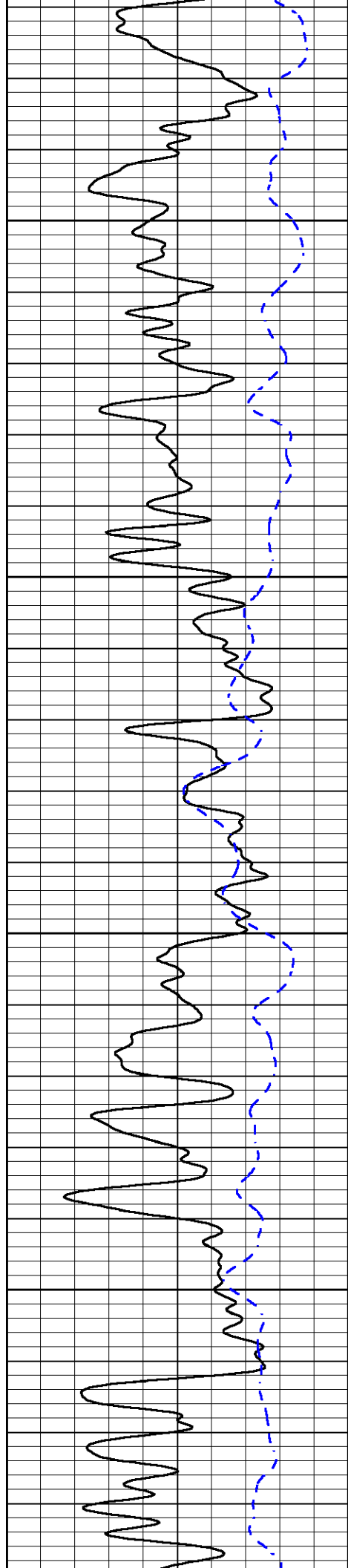
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2550



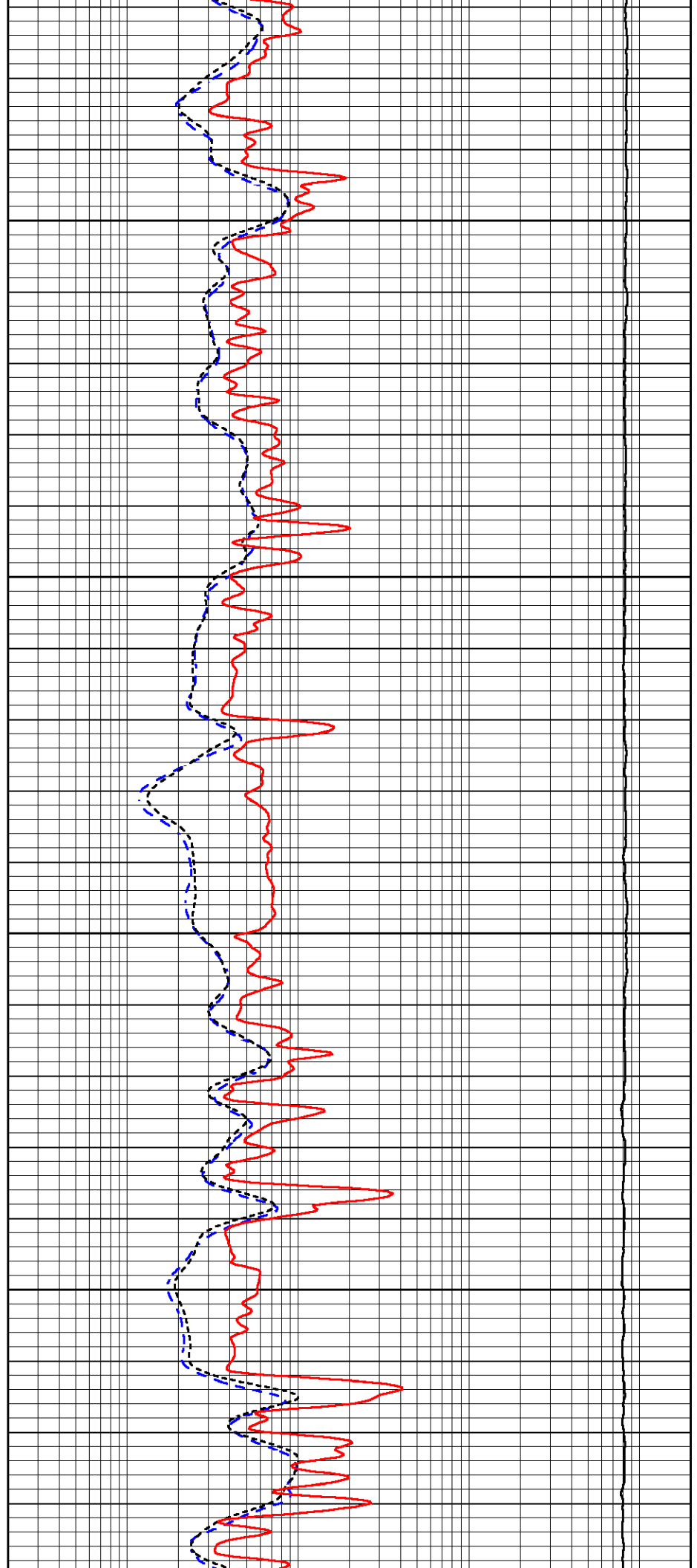


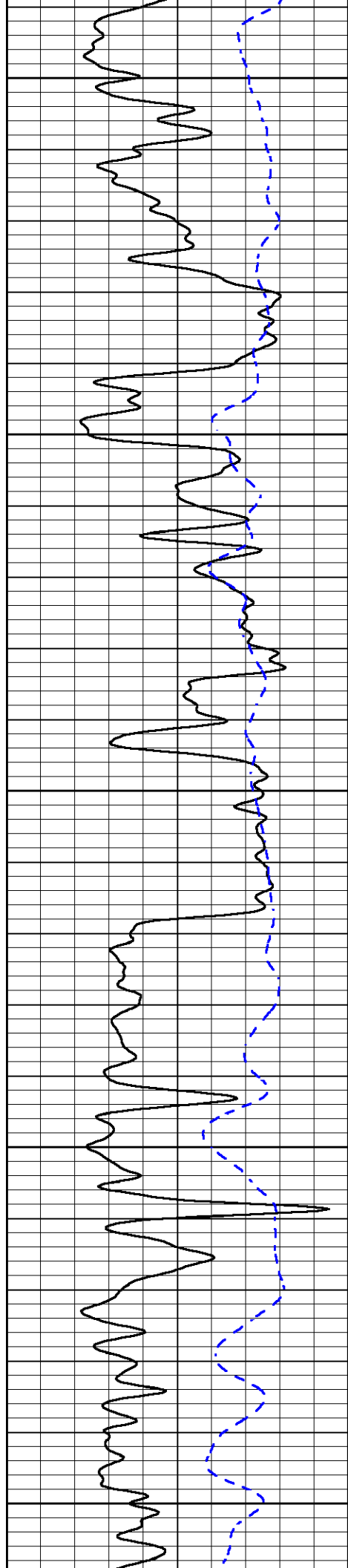
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2700

2750





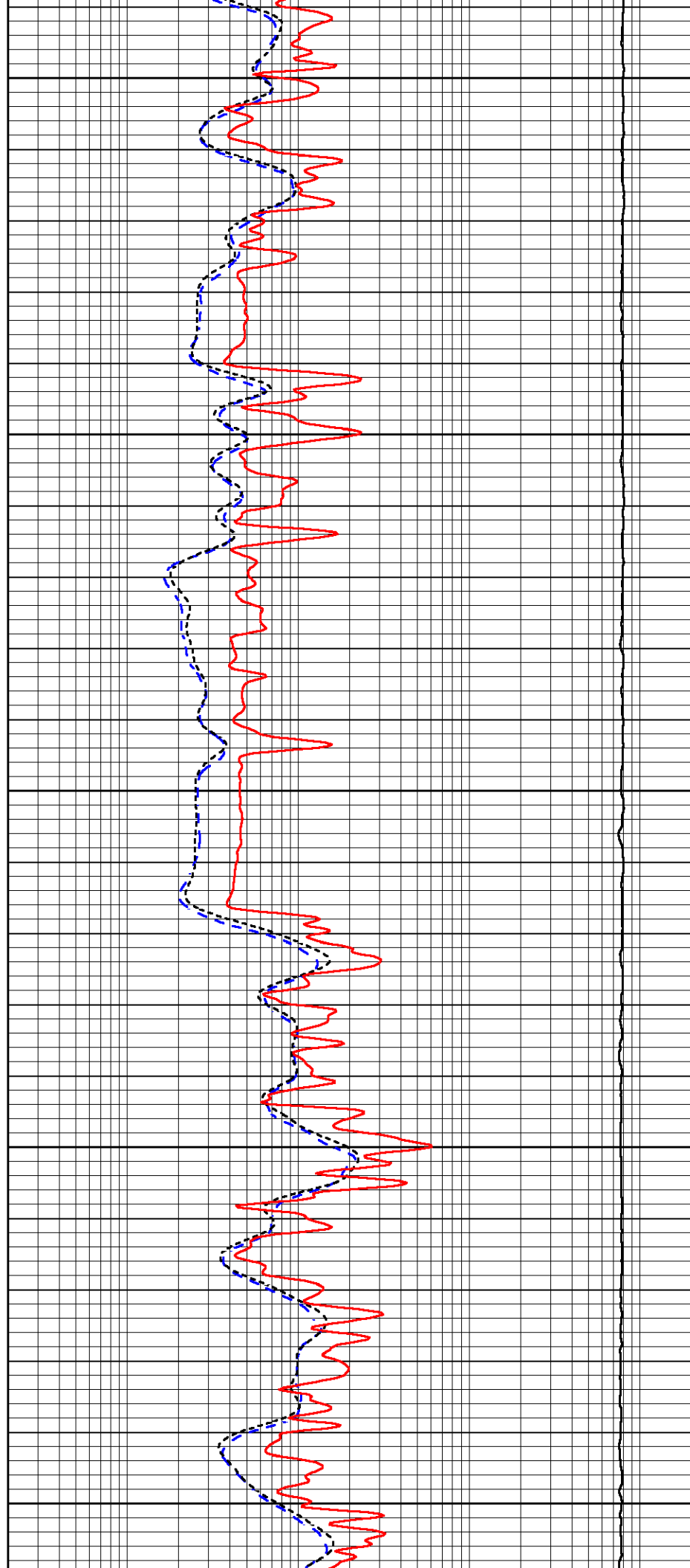
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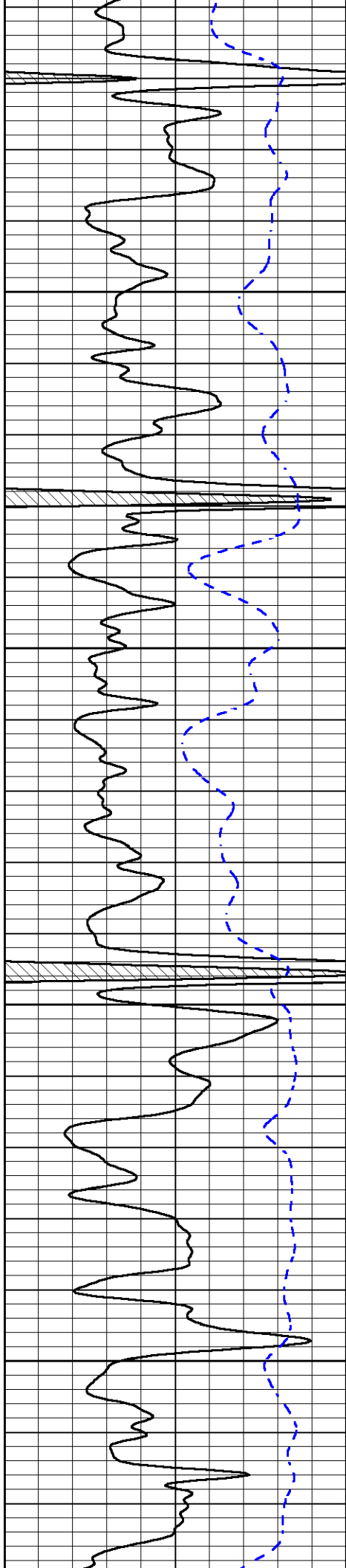
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2900

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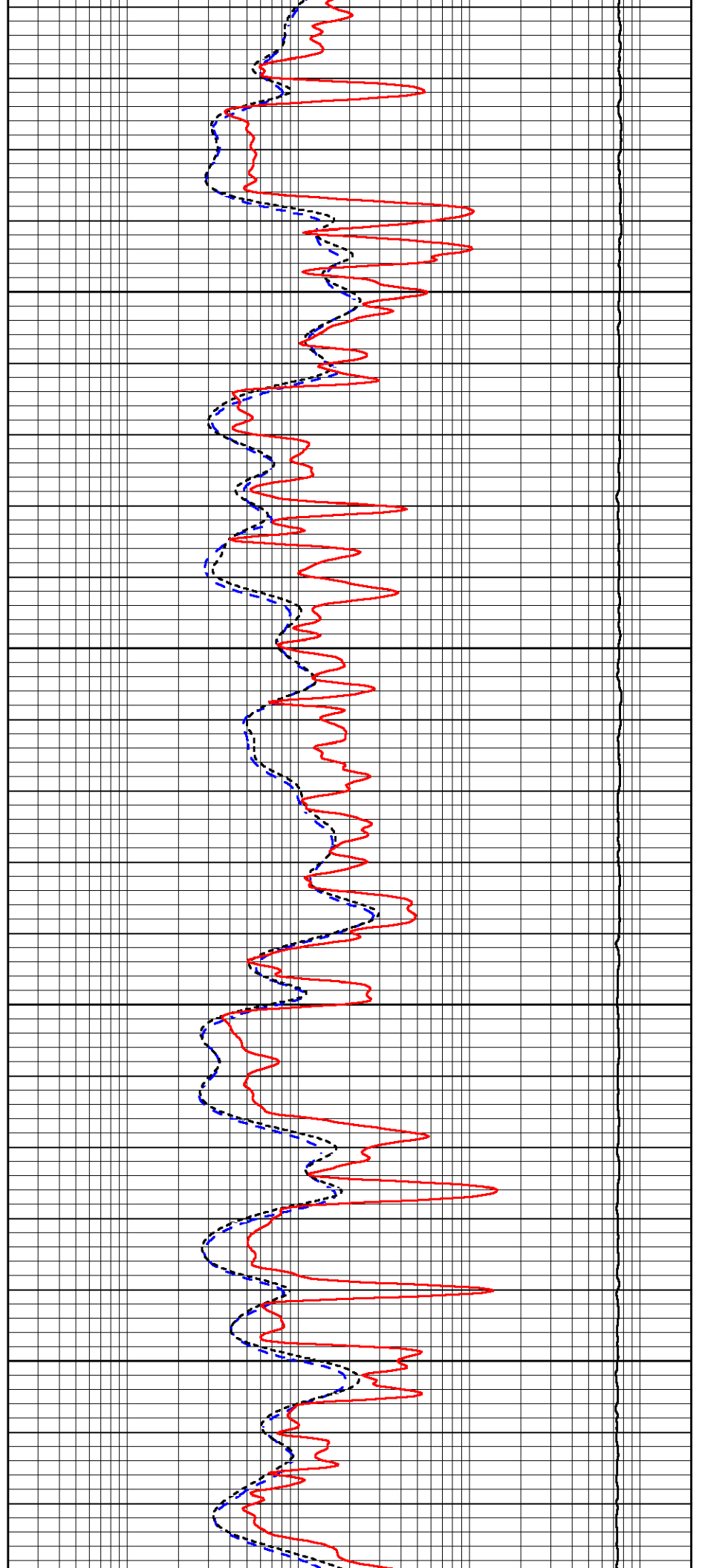


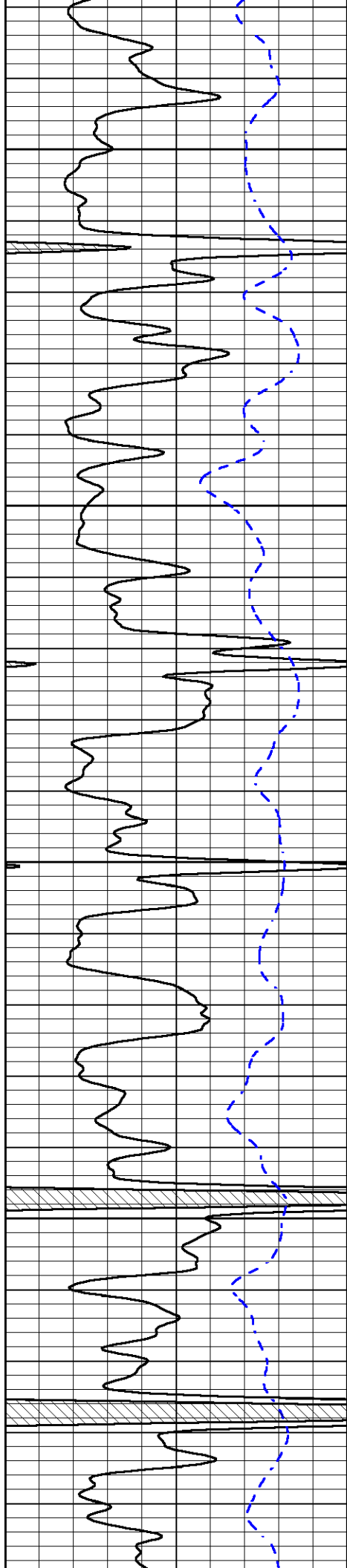
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3150

3200





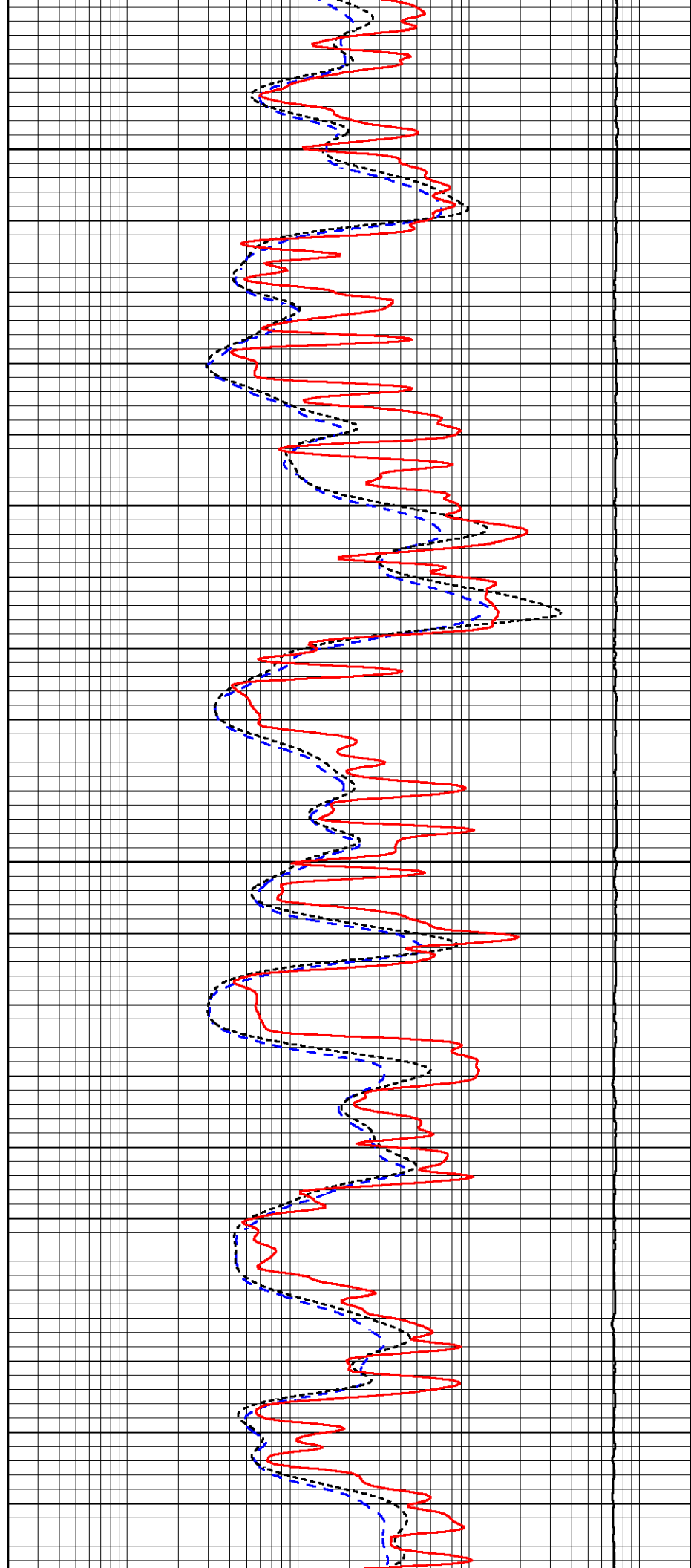
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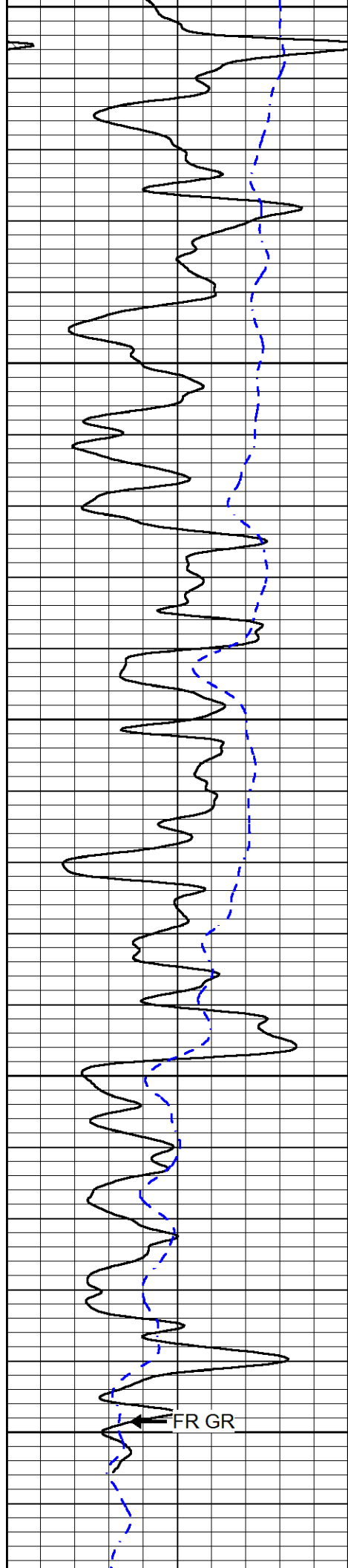
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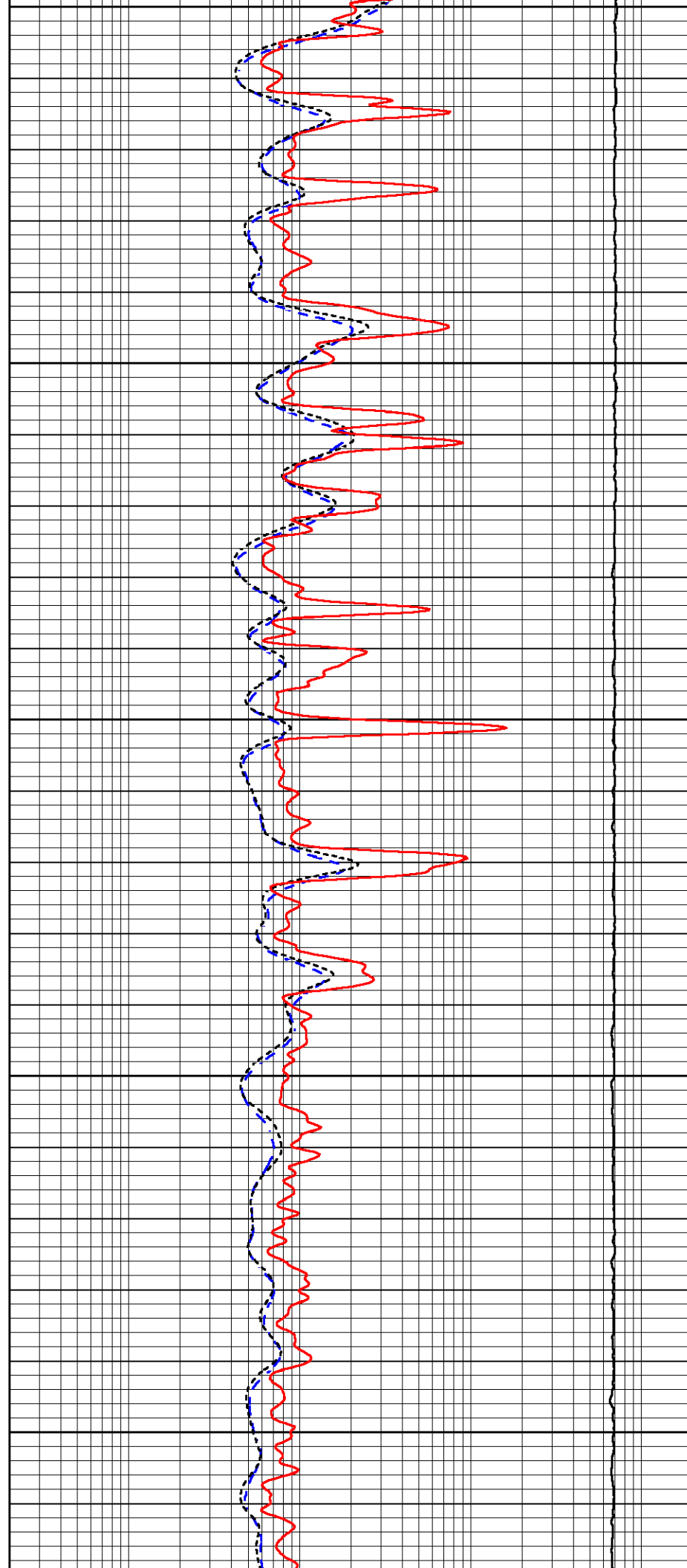
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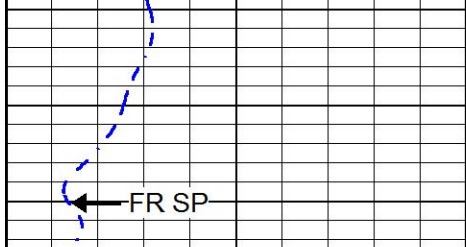
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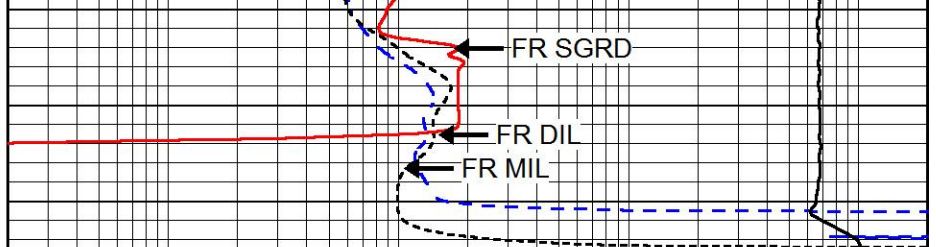
3650





0 GAMMA RAY (GAPI) 150

-200 SP (mV) 0



0.2 DEEP RESISTIVITY (Ohm-m) 2000

0.2 MEDIUM RESISTIVITY (Ohm-m) 2000

0.2 RLL3 (Ohm-m) 2000

15000 LINE TENSION (lb) 0



REPEAT SECTION

Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass2.1
 Presentation Format dil
 Dataset Creation Sun Mar 04 09:46:29 2018
 Charted by Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150

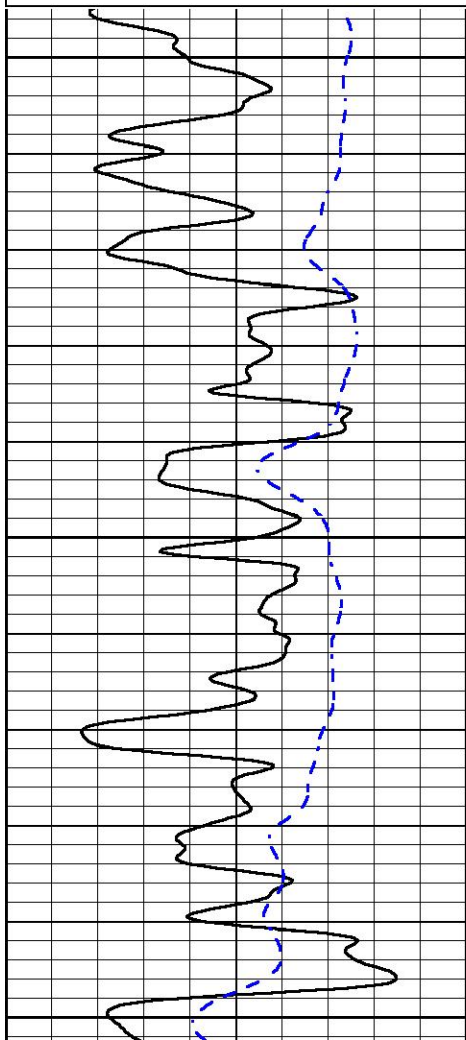
-200 SP (mV) 0

0.2 DEEP RESISTIVITY (Ohm-m) 2000

0.2 MEDIUM RESISTIVITY (Ohm-m) 2000

0.2 RLL3 (Ohm-m) 2000

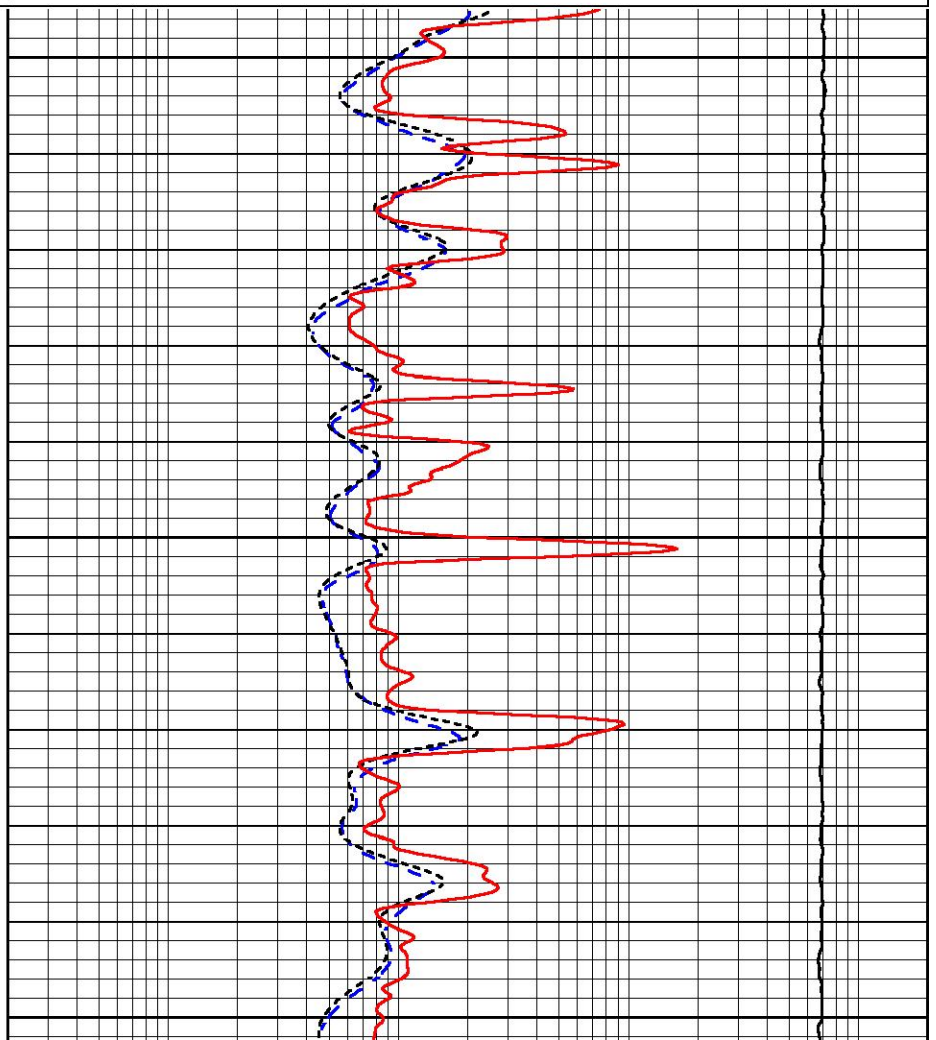
15000 LINE TENSION (lb) 0

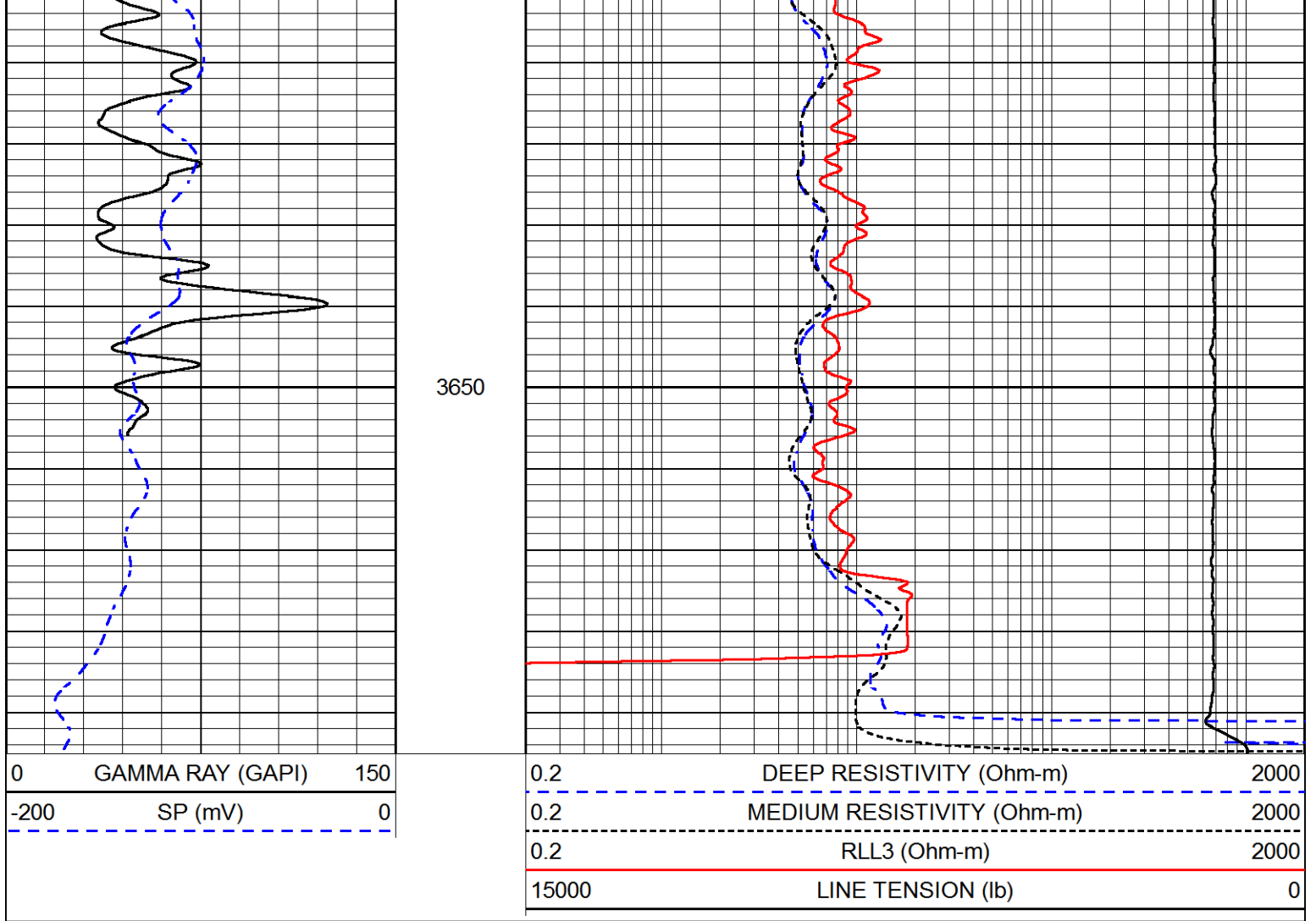


3500

3550

3600





Calibration Report

Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass3.1
 Dataset Creation Sun Mar 04 09:46:18 2018

Dual Induction Calibration Report

Serial-Model: PSI 978-M&W
 Calibration Performed: Sun Feb 04 11:50:02 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-40.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-37.000

Microlog Calibration Report

Serial-Model: PSI-02-PSI STKBL ML
 Performed: Fri Jun 23 01:25:19 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	16000.0000	-0.8000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	12000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.6000

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
 Source / Verifier: /
 Master Calibration Performed: Tue Apr 11 17:07:47 2017

Master Calibration

	<u>Density</u>		<u>Far Detector</u>	<u>Near Detector</u>	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.700	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.537		
	<u>Size</u>		<u>Reading</u>		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



Company GULF EXPLORATION, LLC
 Well GRIFFIN TRUST NO. 1-30
 Field UNNAMED
 County OSBORNE
 State KANSAS



MICRORESISTIVITY LOG

Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE **State** KANSAS

Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE
State KANSAS

Location: API #: 15-141-20476-00-00
 990' FNL & 2310' FEL
 SEC 30 TWP 8S RGE 15W
 Permanent Datum GROUND LEVEL Elevation 1976'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 1981'
 D.F. N/A
 G.L. 1976'

Date	3/4/2018
Run Number	ONE
Depth Driller	3694'
Depth Logger	3691'
Bottom Logged Interval	3690'
Top Log Interval	2000'
Casing Driller	8.625" @ 260'
Casing Logger	258'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	4000
Density / Viscosity	9.1 64
pH / Fluid Loss	11.5 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.80 @ 54
Rmt @ Meas. Temp	.60 @ 54
Rmc @ Meas. Temp	1.08 @ 54
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.38 @ 113
Operating Rig Time	3 HOURS
Max Rec. Temp. F	113 DEGF
Equipment Number	108
Location	HAYS
Recorded By	J. HENRICKSON
Witnessed By	KEITH REAVIS

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 NATOMA KANSAS
 10 NORTH TO 160 RD, 1/4 WEST, SOUTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

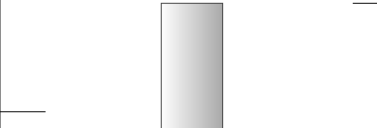
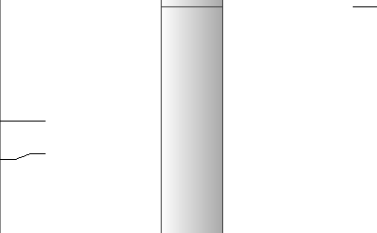
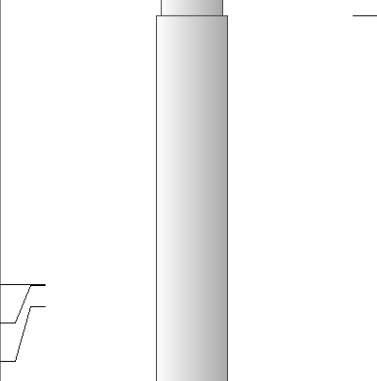
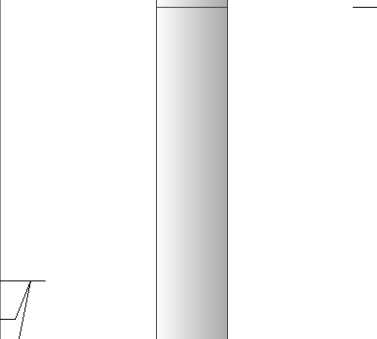
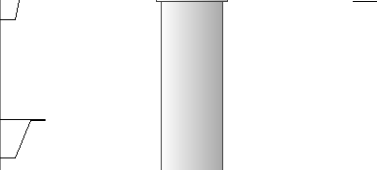
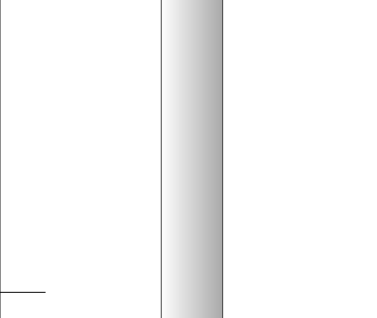
Your Pioneer Energy Services Crew Engineer: J. HENRICKSON Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: KEITH REAVIS Secondary Witness: Secondary Witness: Secondary Witness:
--	--

Log Variables

DatabaseC:\ProgramData\Warrior\Data\gulf_explo_griffin_trust_1_30.db
Dataset field/well/stackml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	113	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-217	42	Off	3691

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (168-986)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00	65.00
RLL3 RLL3F	15.80 15.79					
CILD	8.00		DIL-M&W (PSI 978)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: gulf_explo_griffin_trust_1_30.db: field/well/stackml/pass3.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

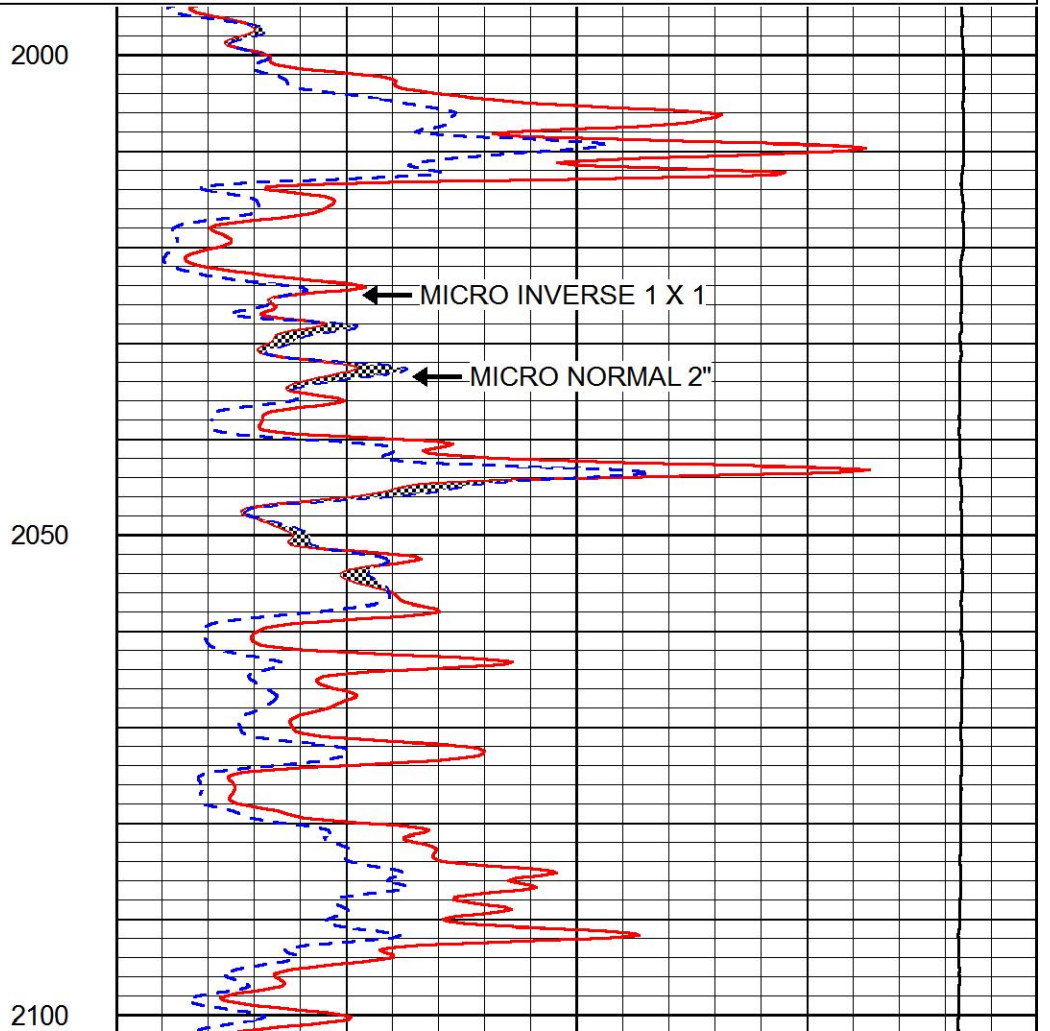
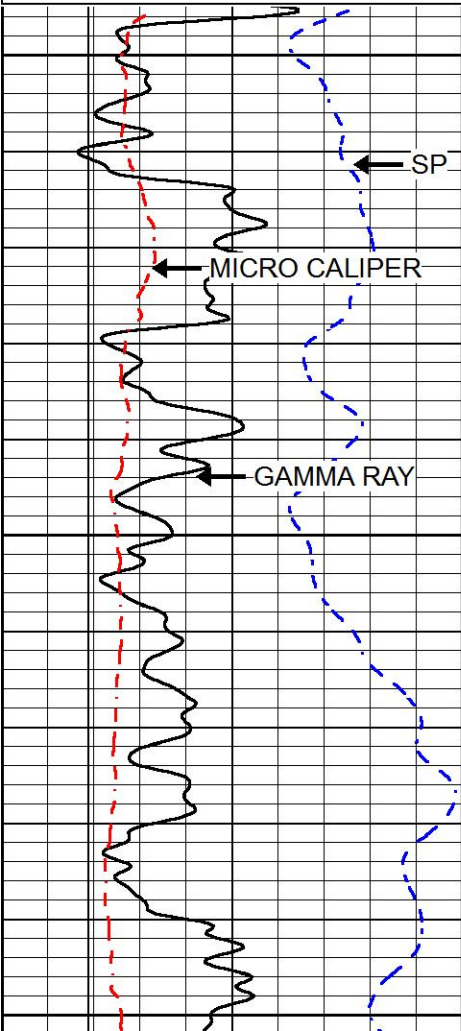


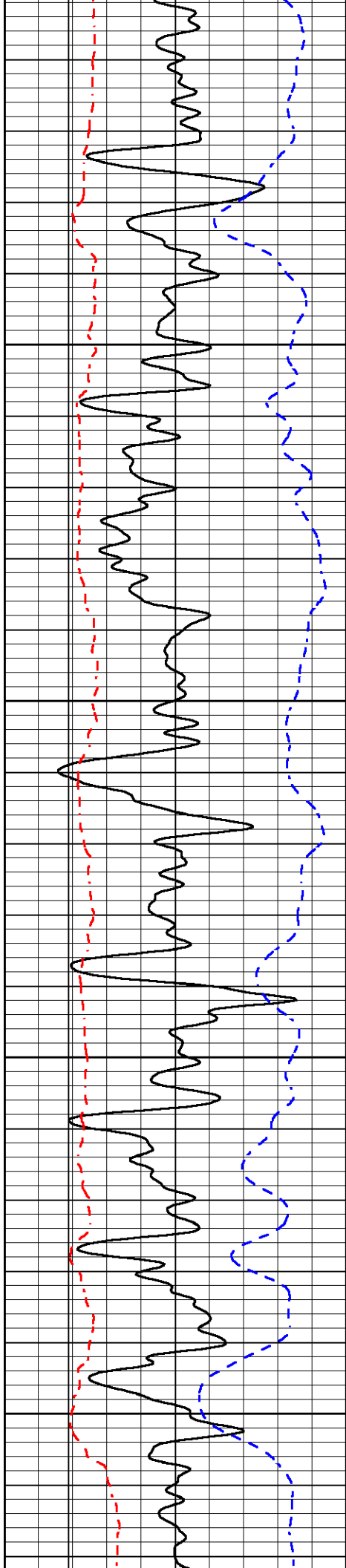
MAIN PASS

Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass3.1
 Presentation Format micro
 Dataset Creation Sun Mar 04 09:46:18 2018
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0



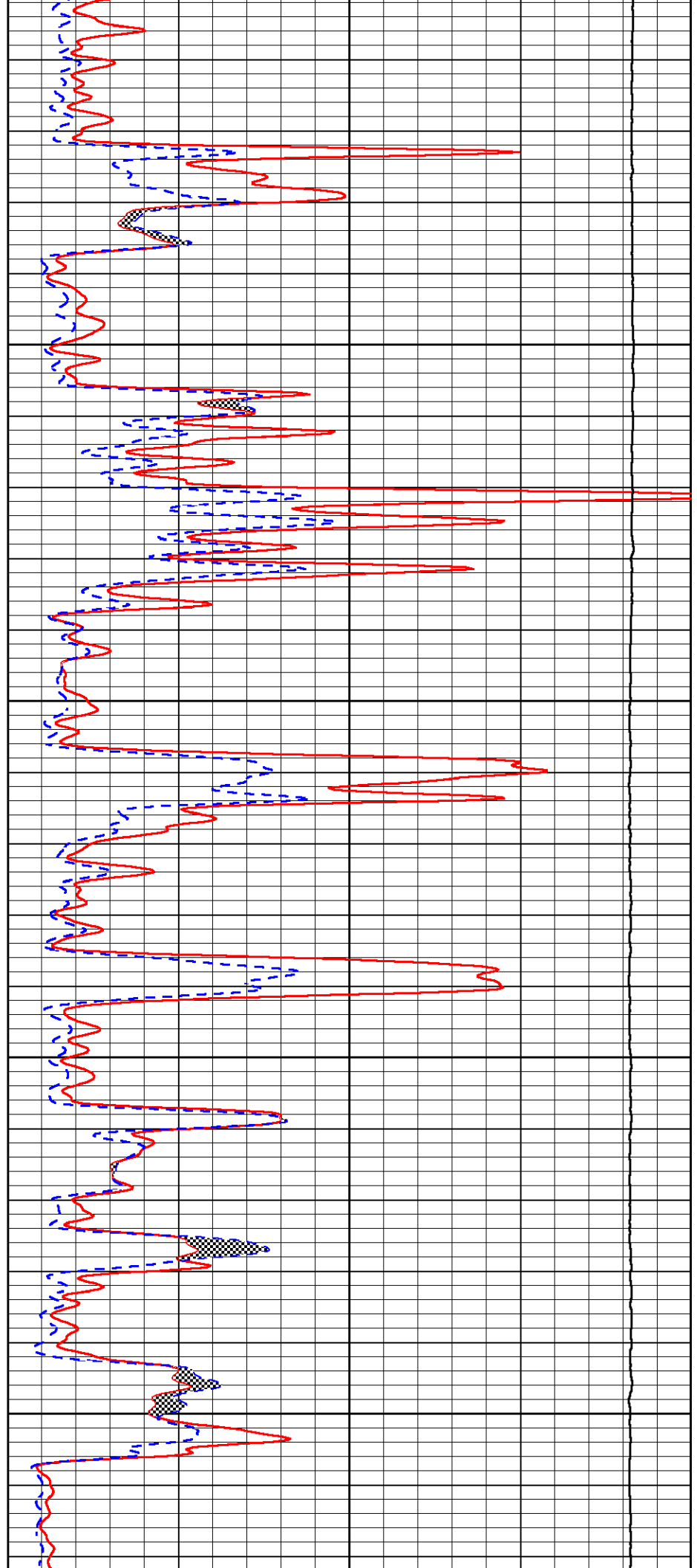


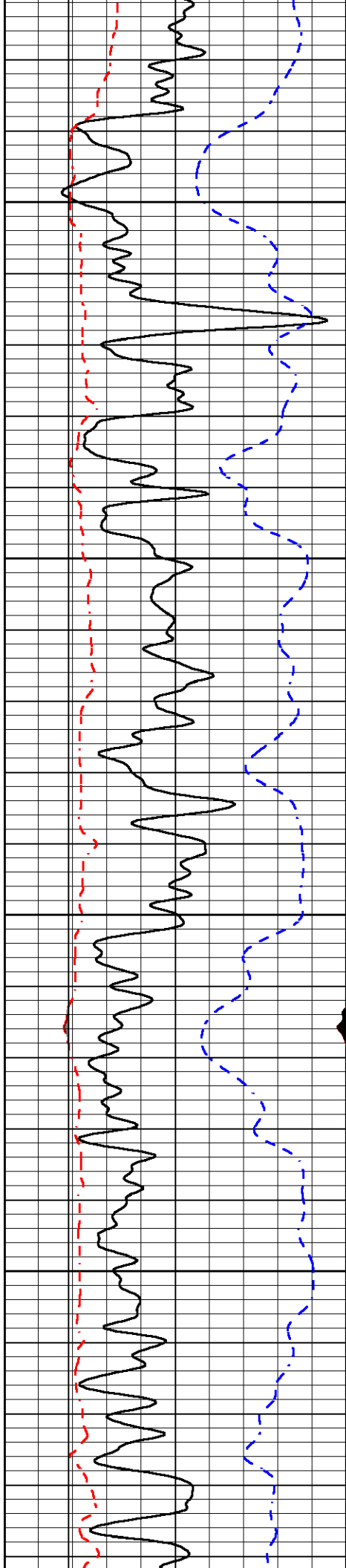
2150

2200

2250

2300



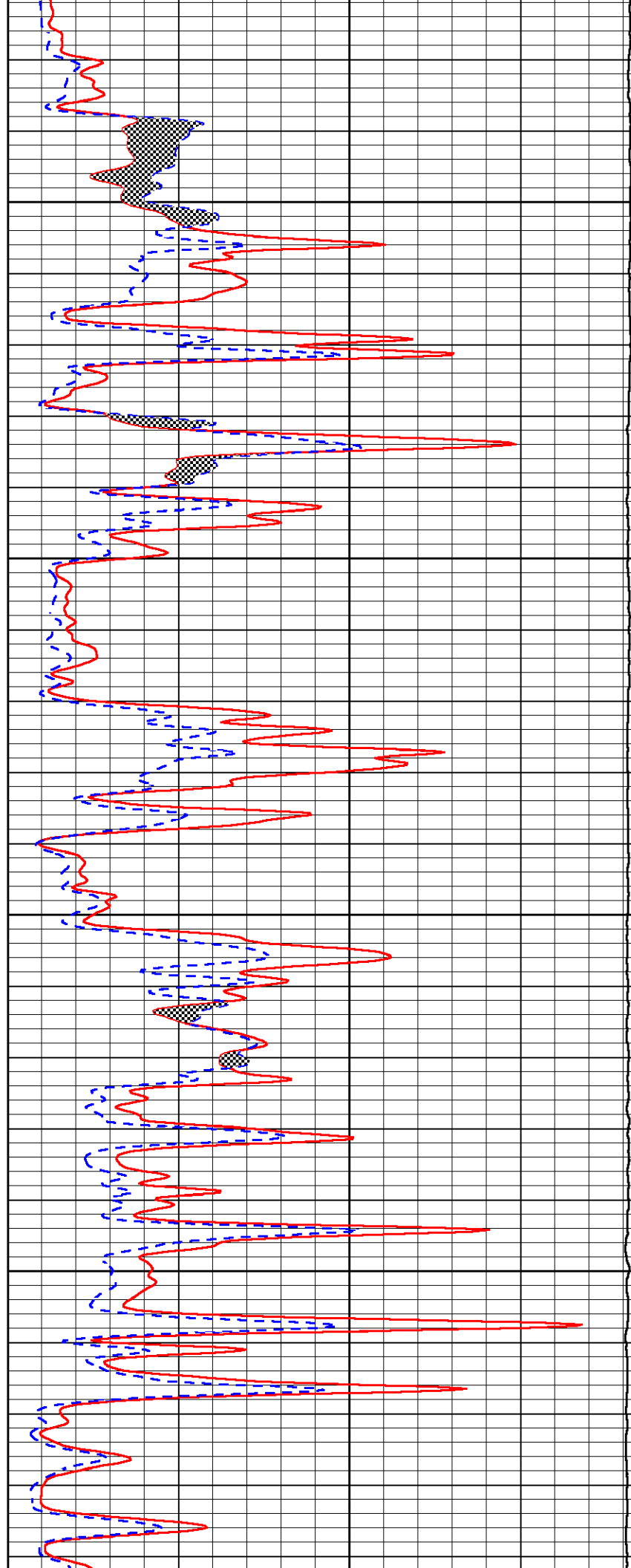


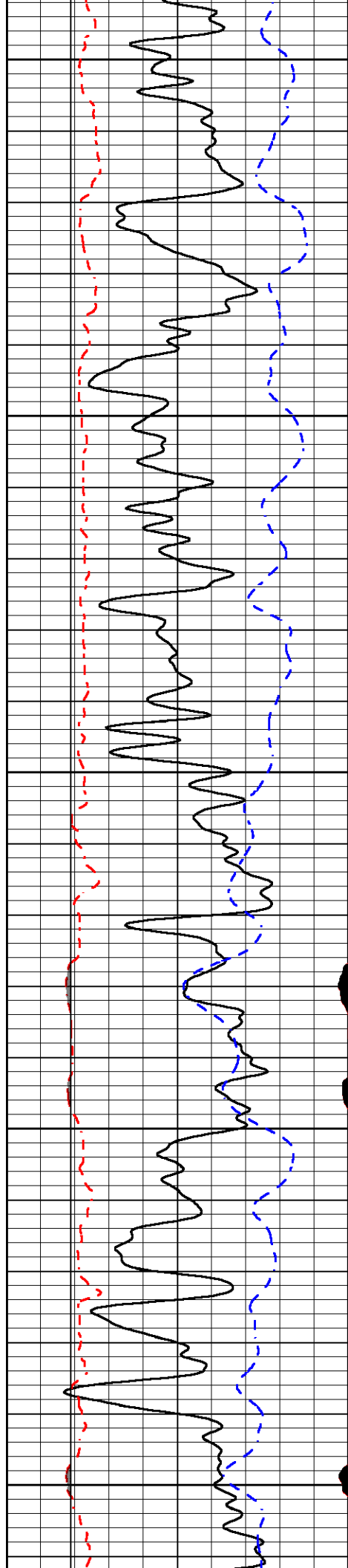
2350

2400

2450

2500





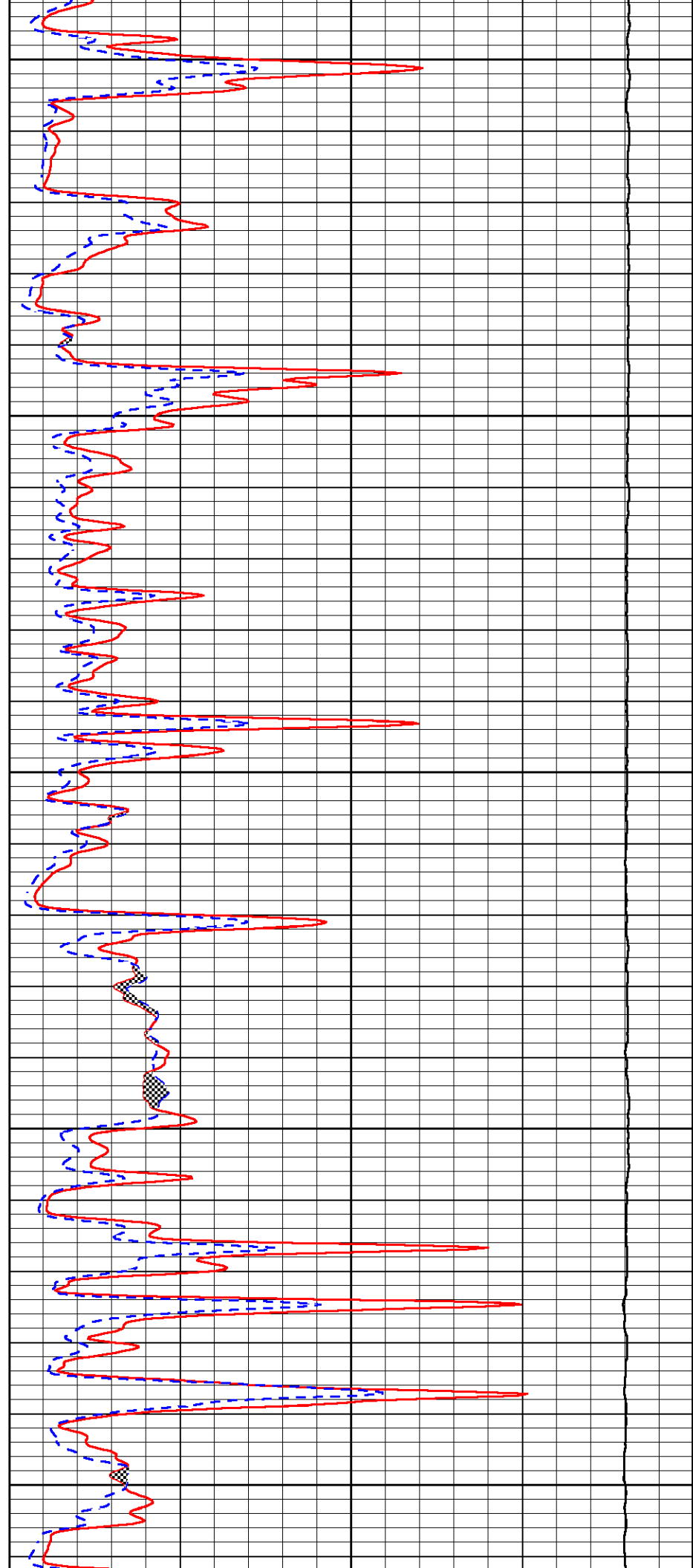
2550

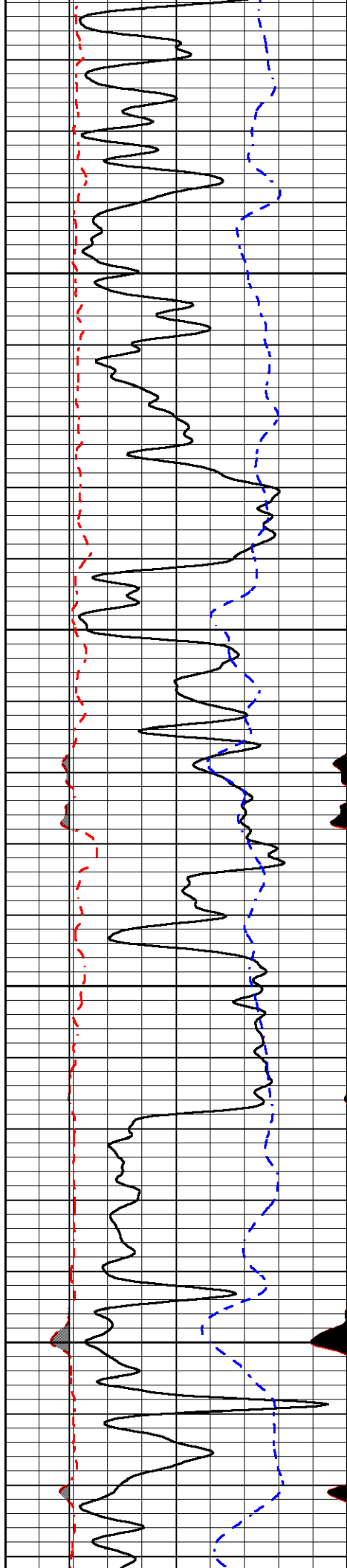
2600

2650

2700

2750



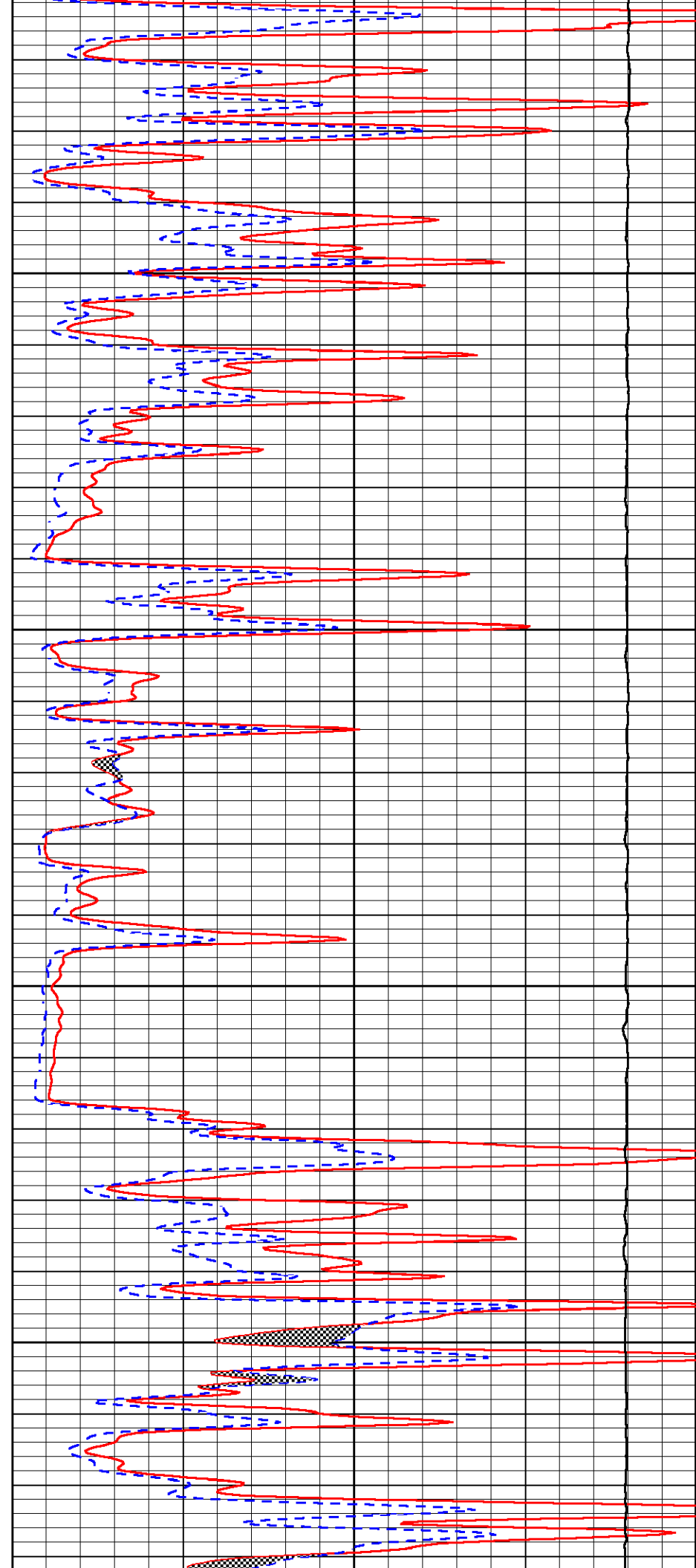


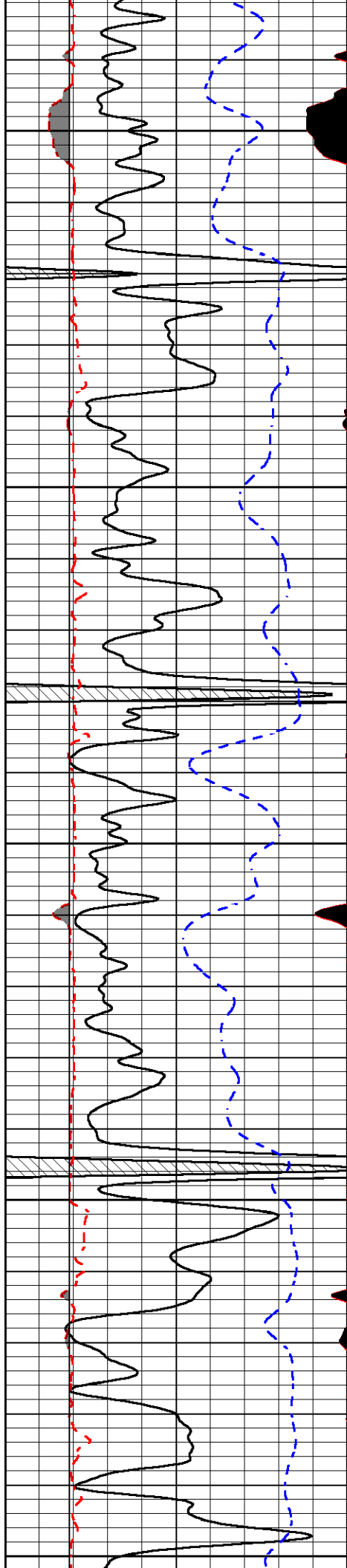
2800

2850

2900

2950





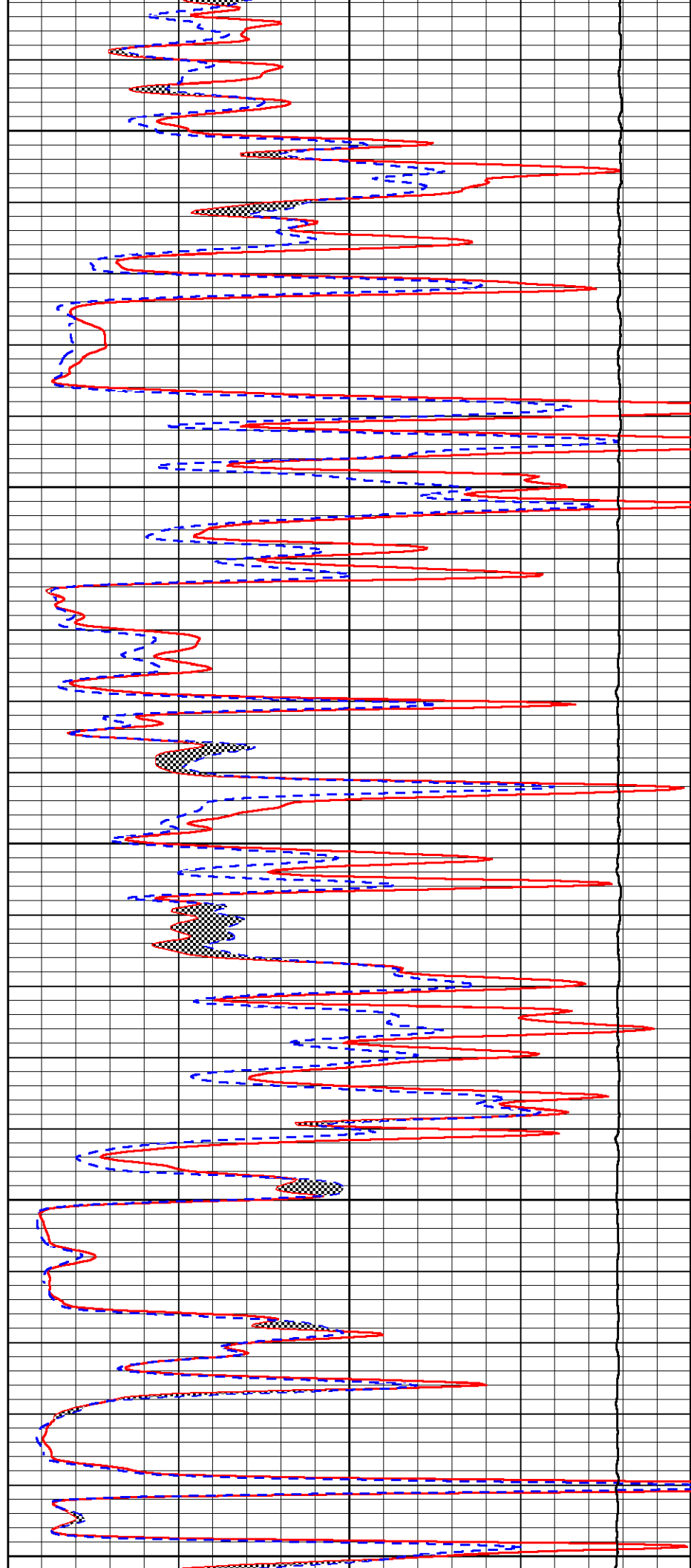
3000

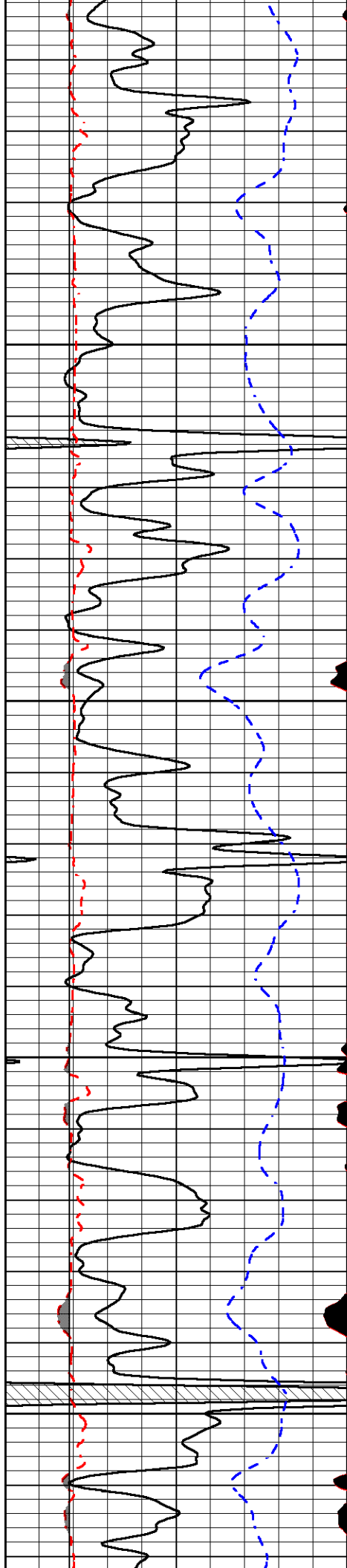
3050

3100

3150

3200



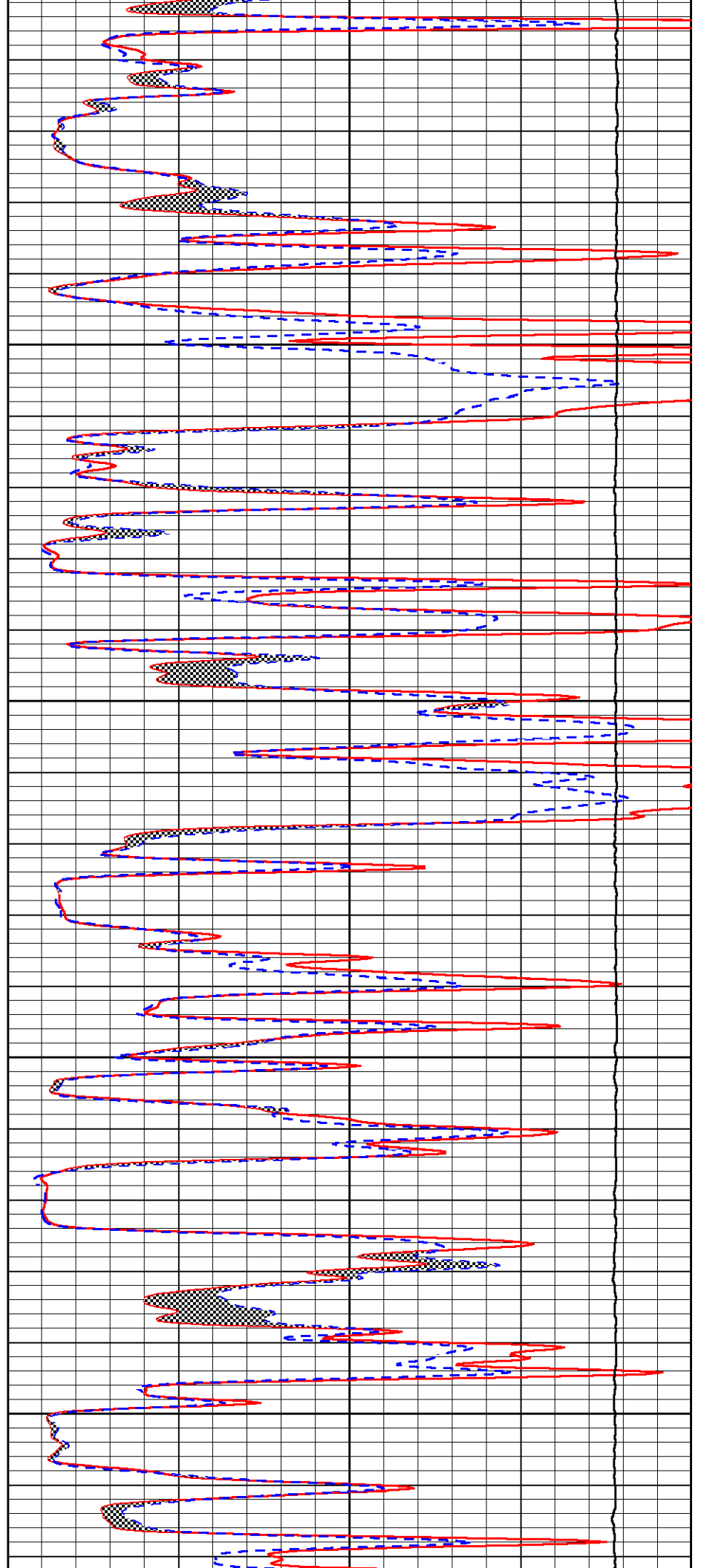


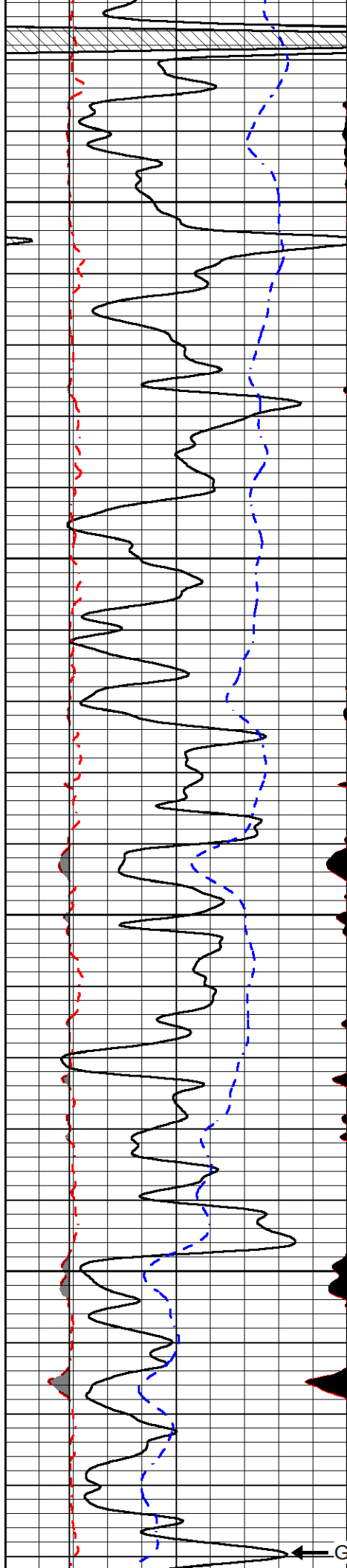
3250

3300

3350

3400





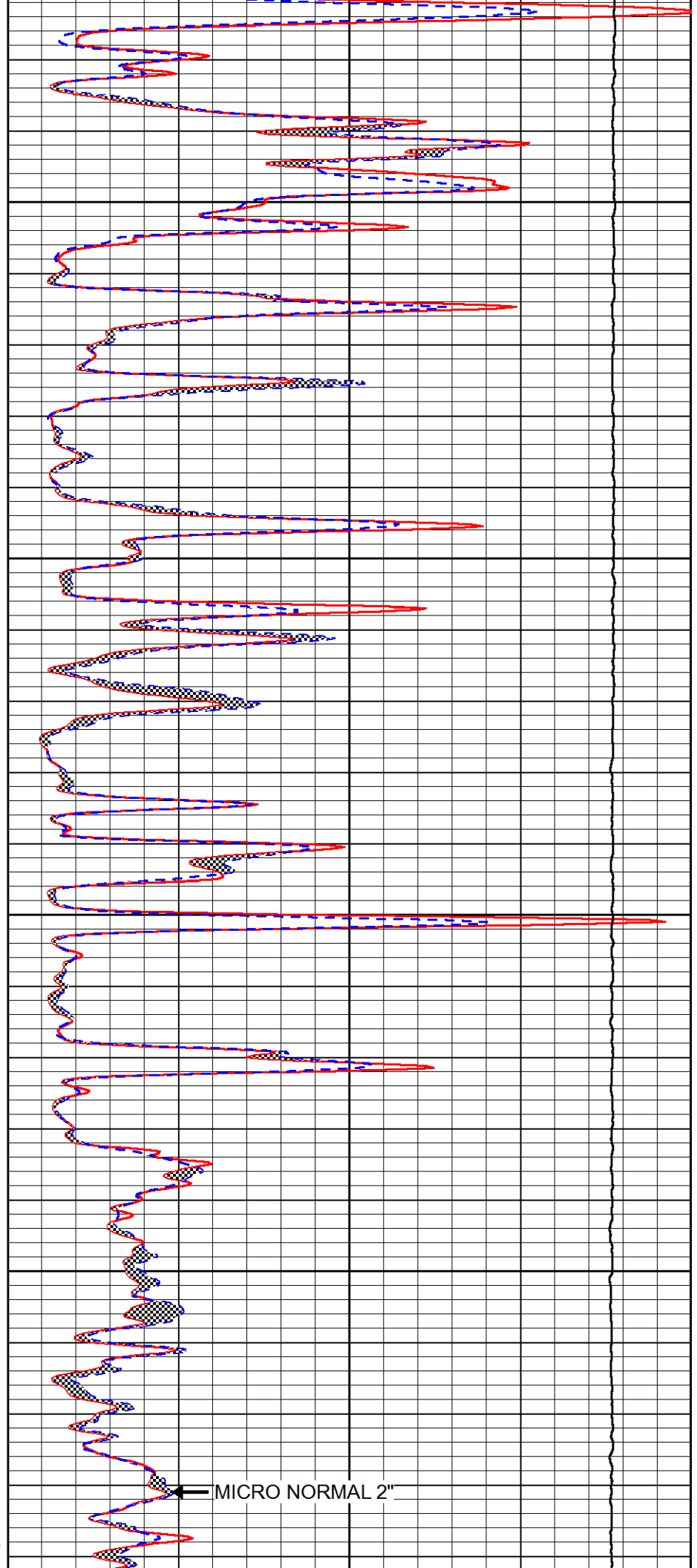
3450

3500

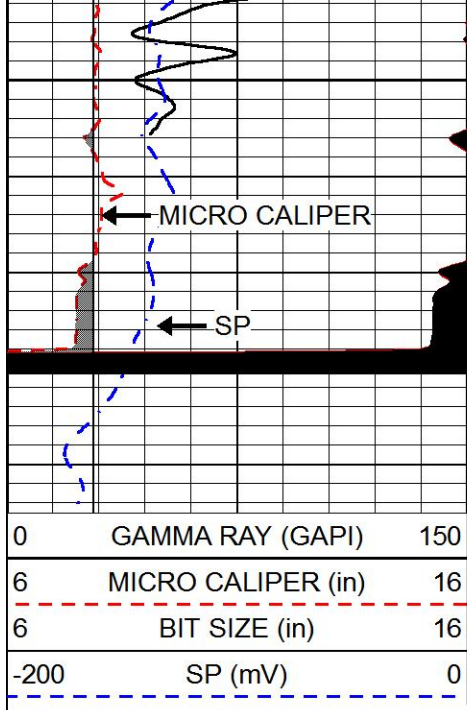
3550

3600

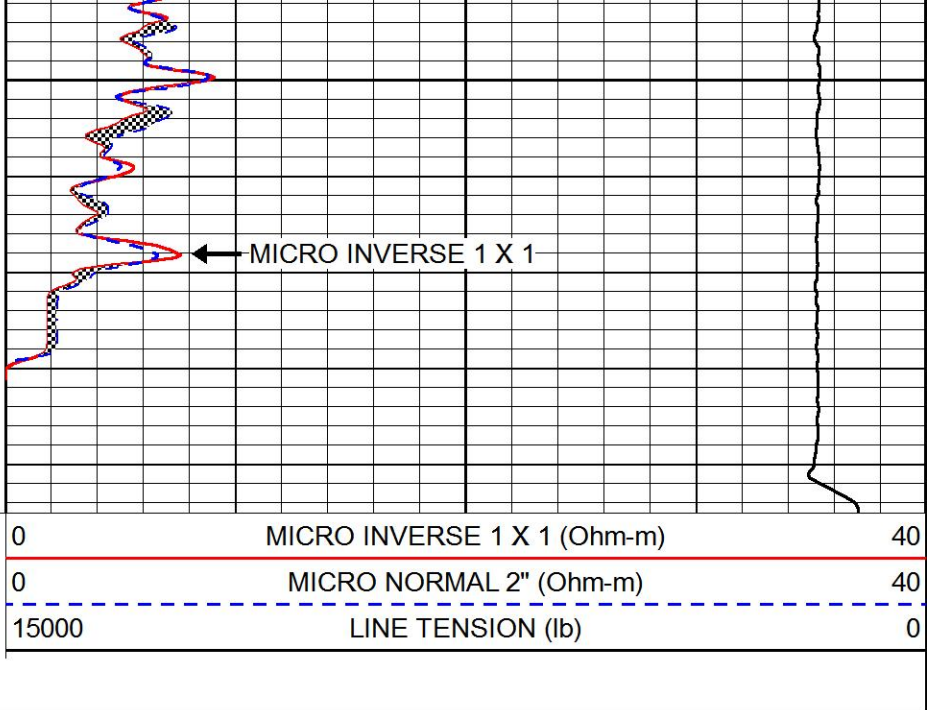
← GAMMA RAY



← MICRO NORMAL 2"



3650

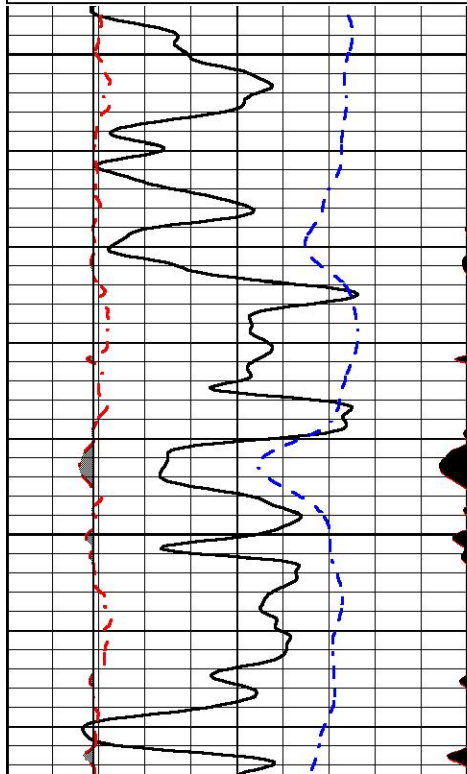
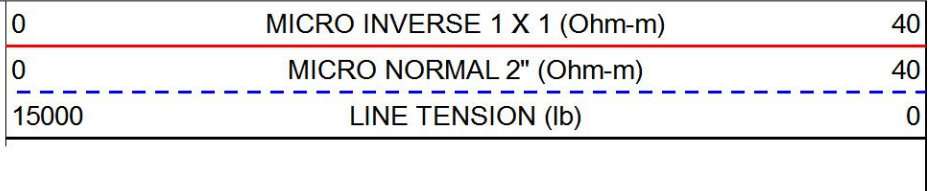
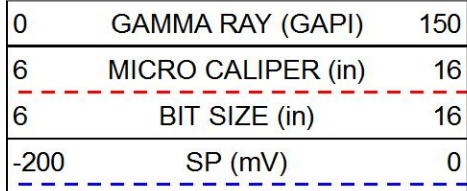


MICRO INVERSE 1 X 1



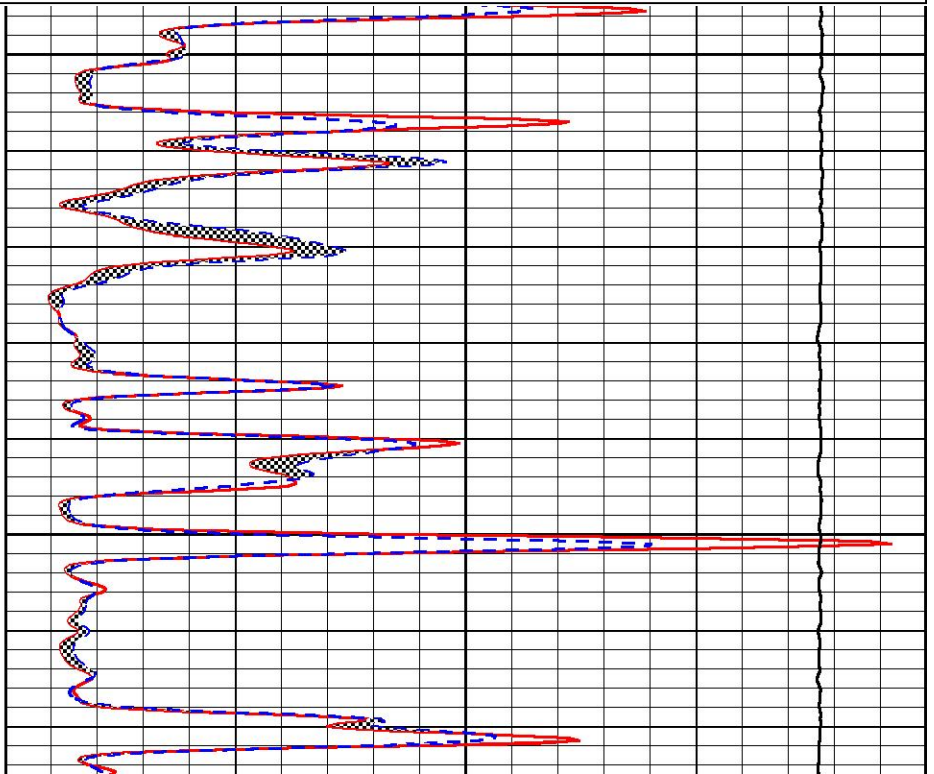
REPEAT SECTION

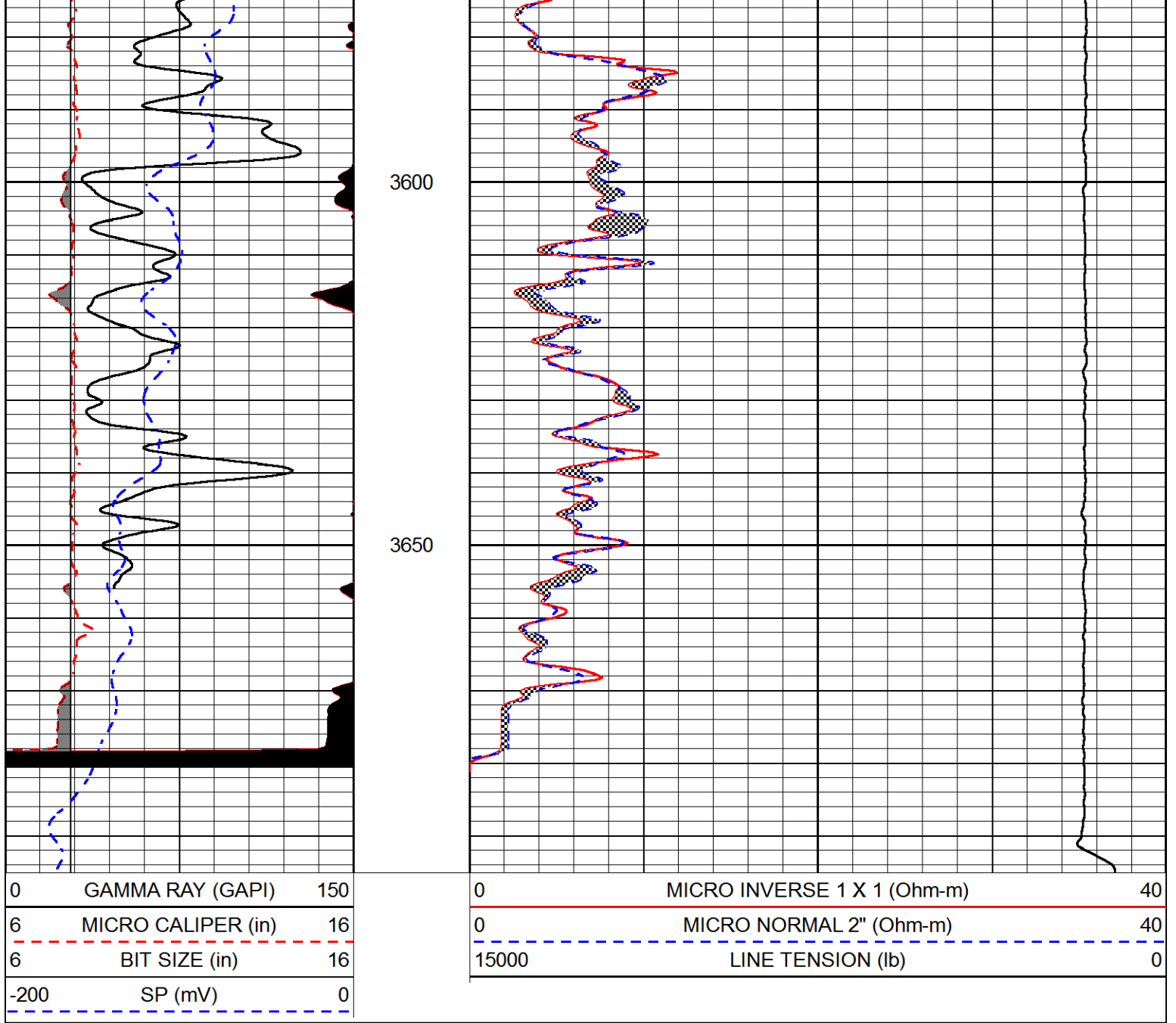
Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass2.1
 Presentation Format micro
 Dataset Creation Sun Mar 04 09:46:29 2018
 Charted by Depth in Feet scaled 1:240



3500

3550





Calibration Report

Database File gulf_explo_griffin_trust_1_30.db
 Dataset Pathname stackml/pass3.1
 Dataset Creation Sun Mar 04 09:46:18 2018

Dual Induction Calibration Report

Serial-Model: PSI 978-M&W
 Calibration Performed: Sun Feb 04 11:50:02 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-40.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-37.000

Microlog Calibration Report

Serial-Model: PSI-02-PSI STKBL ML
 Performed: Fri Jun 02 04:05:10 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	16000.0000	-0.8000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	12000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.6000

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
Source / Verifier: /
Master Calibration Performed: Tue Apr 11 17:07:47 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.700	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.537		
	Size		Reading		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
Tool Model: M&W
Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

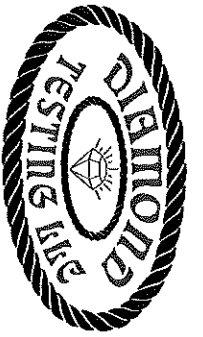
Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



Company GULF EXPLORATION, LLC
Well GRIFFIN TRUST NO. 1-30
Field UNNAMED
County OSBORNE
State KANSAS





Company: Gulf Exploration, LLC Lease: Griffin Trust #1-30

Tester: Tim Venters
On-Site Contact: Keith Reavis

SEC: 30 TWN: 8S RNG: 15W
County: OSBORNE
State: Kansas
Drilling Contractor: Murfin Drilling
Company, Inc - Rig 16
Elevation: 1976 GL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 119

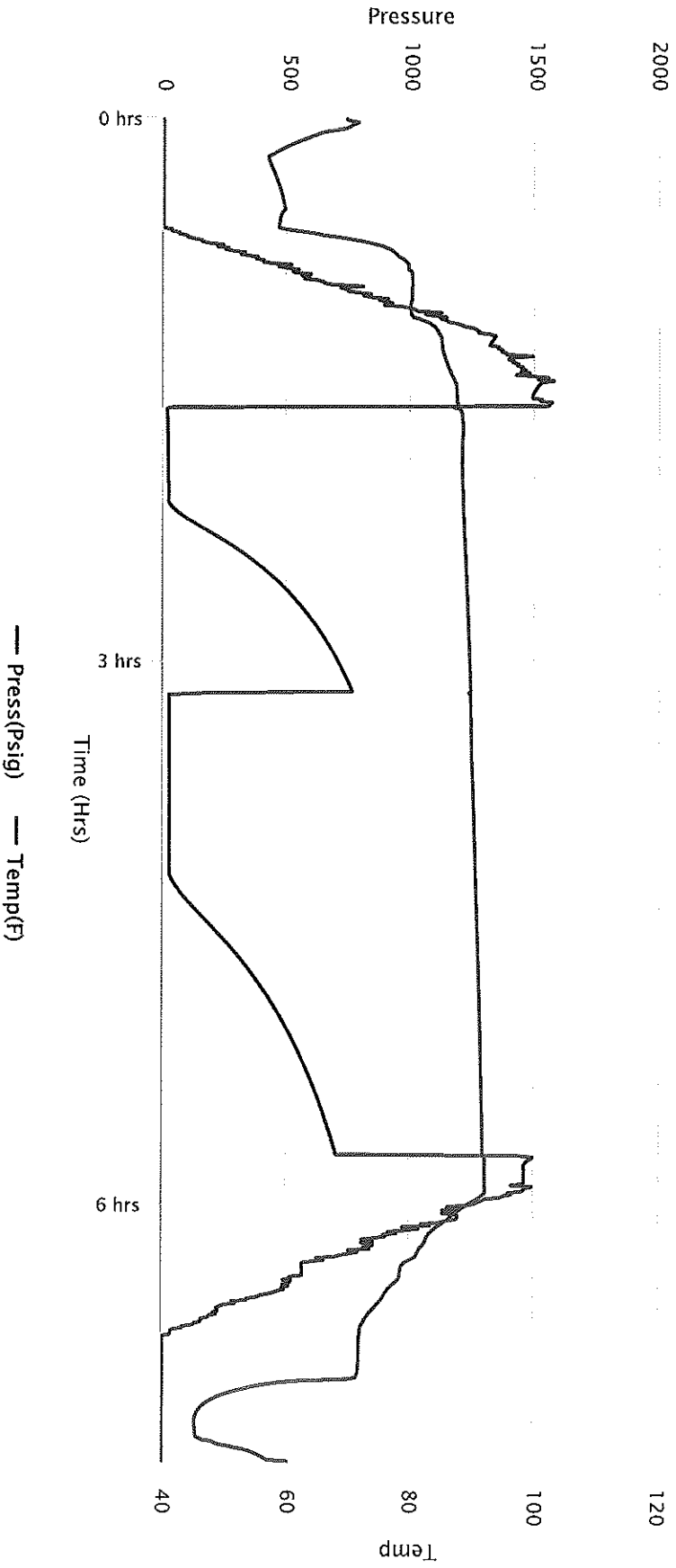
DATE
March
03
2018

DST #1 **Formation:** Toronto/Lans "D"
Test Interval: 3146 - 3270' **Total Depth:** 3270'

Time On: 01:02 03/03 Time Off: 08:14 03/03
Time On Bottom: 02:34 03/03 Time Off Bottom: 06:34 03/03

Electronic Volume Estimate:

1st Open	1st Close	2nd Open	2nd Close
Minutes: 30	Minutes: 60	Minutes: 60	Minutes: 90
.5" at 30 min	0" at 60 min	0" at 60 min	0" at 90 min

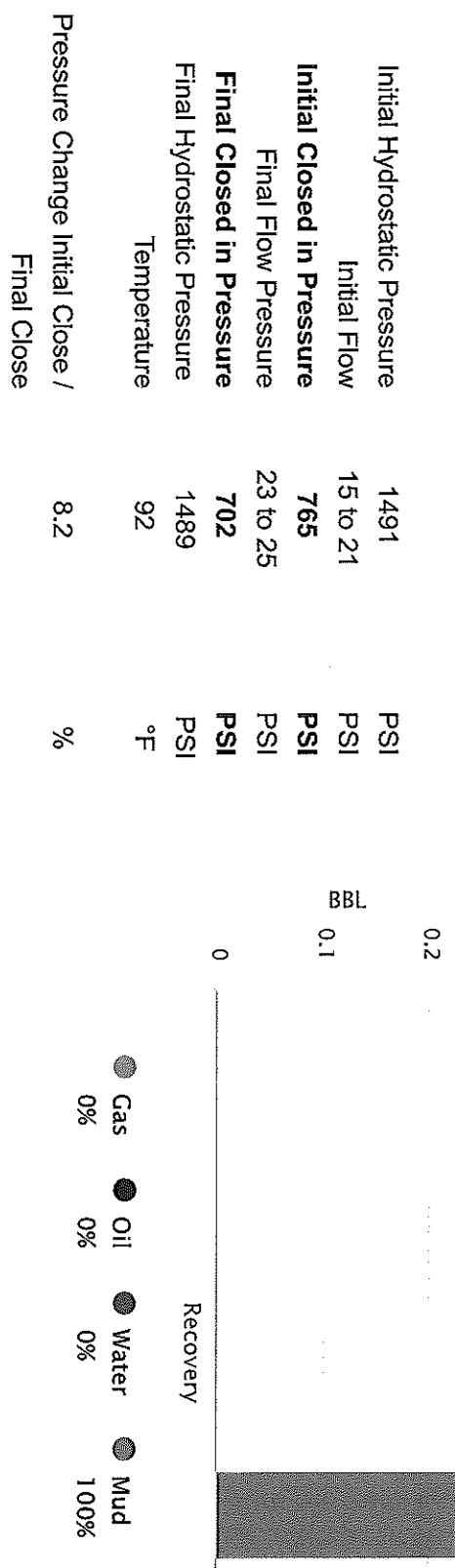


Foot	BLS	Description of Fluid	Gas %	Oil %	Water %	Mud %
35	0.2306668	M	0	0	0	100

Total Recovered: 35 ft
 Total Barrels Recovered: 0.2306668

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1491	PSI
Initial Flow	15 to 21	PSI
Initial Closed in Pressure	765	PSI
Final Flow Pressure	23 to 25	PSI
Final Closed in Pressure	702	PSI
Final Hydrostatic Pressure	1489	PSI
Temperature	92	°F
Pressure Change Initial Close / Final Close	8.2	%

REMARKS:

Initial Flow: 1 in. blow.
 Initial Shut-in: No blow back.
 Final Flow: Surface blow.
 Final Shut-in: No blow back.

Tool Sample: Oil specks, 100% mud