



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

Company: Norstar Petroleum Inc.  
 Well: BLU Unit #1-22  
 Field: Unnamed  
 County: Lyon  
 State: Kansas

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 Well: BLU Unit #1-22  
 Field: Unnamed  
 County: Lyon  
 State: Kansas

Location: API #: 15-111-20555-00-00  
 1322' FNL & 2373' FEL  
 SEC 22 TWP 16S RGE 11E  
 Permanent Datum: Ground Level Elevation 1341'  
 Log Measured From: Kelly Bushing  
 Drilling Measured From: Kelly Bushing  
 Other Services: CNL/CDL DIL/BHCS  
 Elevation: K.B. 1353', D.F., G.L. 1341'

Date	9/12/2021	
Run Number	Two	
Depth Driller	3135'	
Depth Logger	3135'	
Bottom Logged Interval	3134'	
Top Log Interval	2200'	
Casing Driller	8.625" @ 230'	
Casing Logger	243'	
Bit Size	7.875"	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	550	
Density / Viscosity	9.1	47
pH / Fluid Loss	10.5	8.5
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	.80 @ 80	
Rmt @ Meas. Temp	.60 @ 80	
Rmc @ Meas. Temp	1.08 @ 80	
Source of Rmf / Rmc	CHARTS	
Rm @ BHT	.60 @ 107	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	107	
Equipment Number	P-24	
Location	HAYS	
Recorded By	D. Schmidt	C. McLaughlin
Witnessed By	Brad Rine	

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

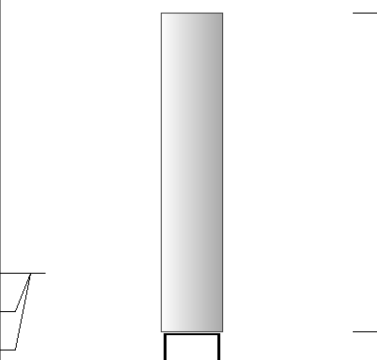
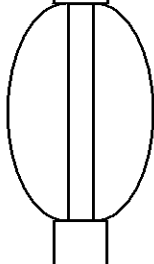
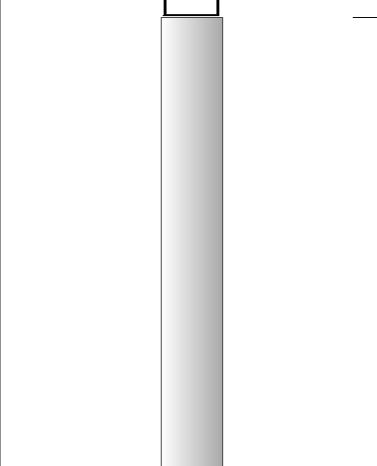
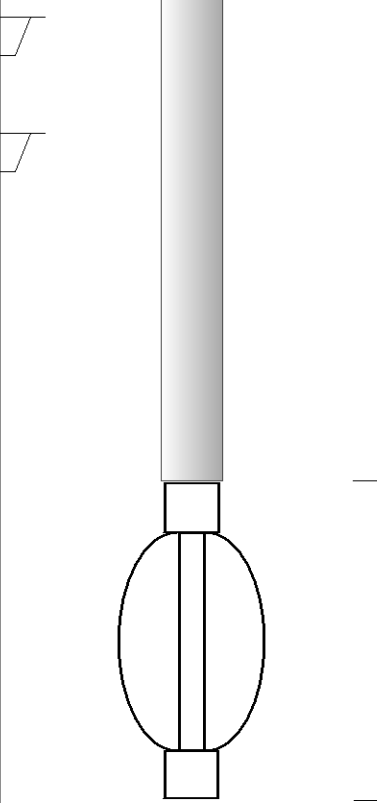
Allen,  
 1/2 South on L Rd,  
 West into

Log Measured From: Kelly Bushing 12 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
 785-625-3858

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt	Operator:	Primary Witness: Brad Rine	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Operator	Offset (ft)	Substrate	Description	Length (ft)	C.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	28.00 28.00 28.00		ML-Pengo (Pengo3)	5.50	3.50	100.00
			CENT-PENGO (4-PENGO)	5.50	3.00	70.00
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50					
			CENT-PENGO (3-PENGO)	5.50	3.00	70.00

Dataset: norstar\_blu1-22.db: field/well/sonmel/pass3  
 Total length: 32.50 ft  
 Total weight: 540.00 lb  
 O.D.: 3.50 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\norstar\_blu1-22.db  
 Dataset field/well/stack/pass3.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	107	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	115	80	Off	3135

## Variable Description

A : Cement Factor (a)  
 BOREID : Borehole I.D.  
 BOTTEMP : Bottom Hole Temperature  
 CASEOD : Casing O.D.  
 CASETHCK : Casing Thickness  
 FLUIDDEN : Fluid Density  
 M : Cement Exp (m)  
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select  
 PERFS : Perforation Flag  
 SNDERR : Deep Sonde Error Correction  
 SNDERRM : Medium Sonde Error Correction  
 SPSHIFT : S.P. Baseline Offset  
 SRFTEMP : Surface Temperature  
 SZCOR : CN Size Cor. ?  
 TDEPTH : Total Depth



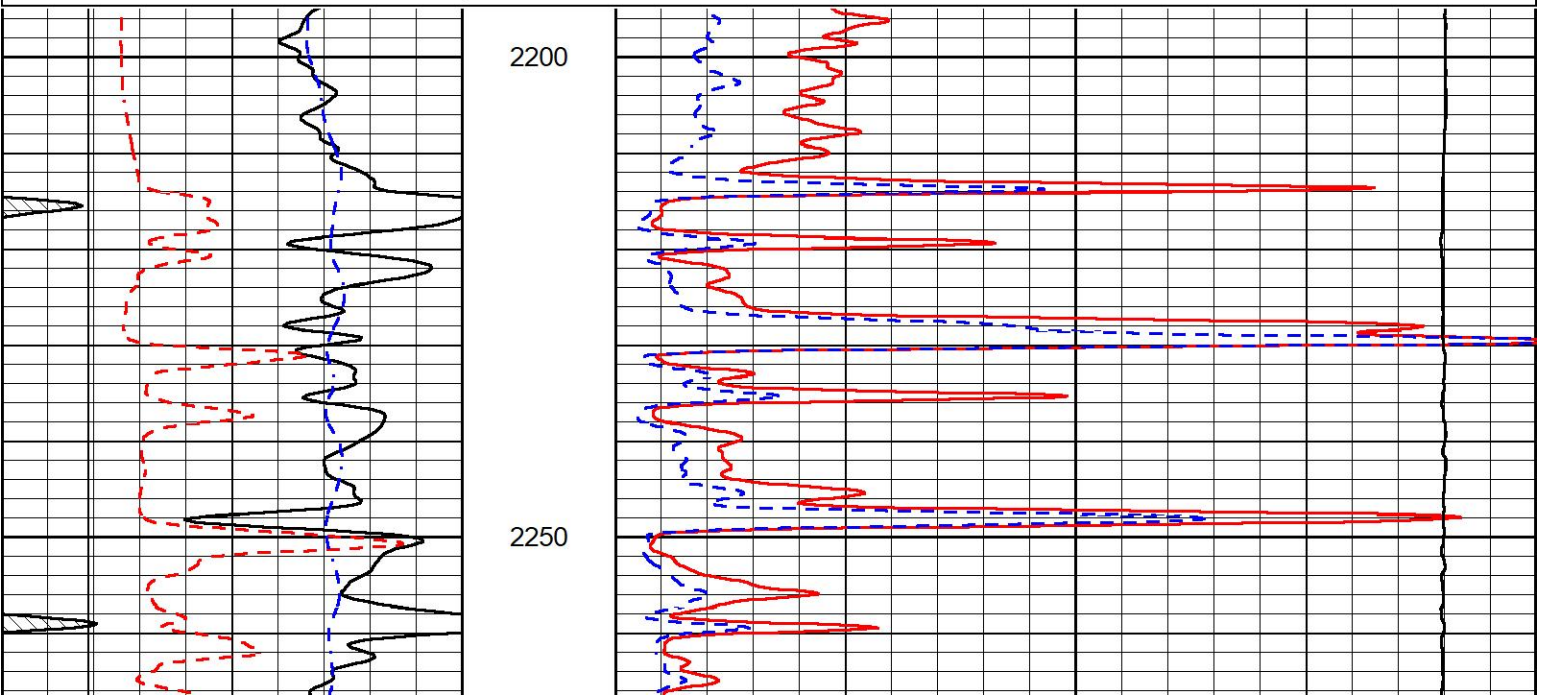
## DETAIL SECTION

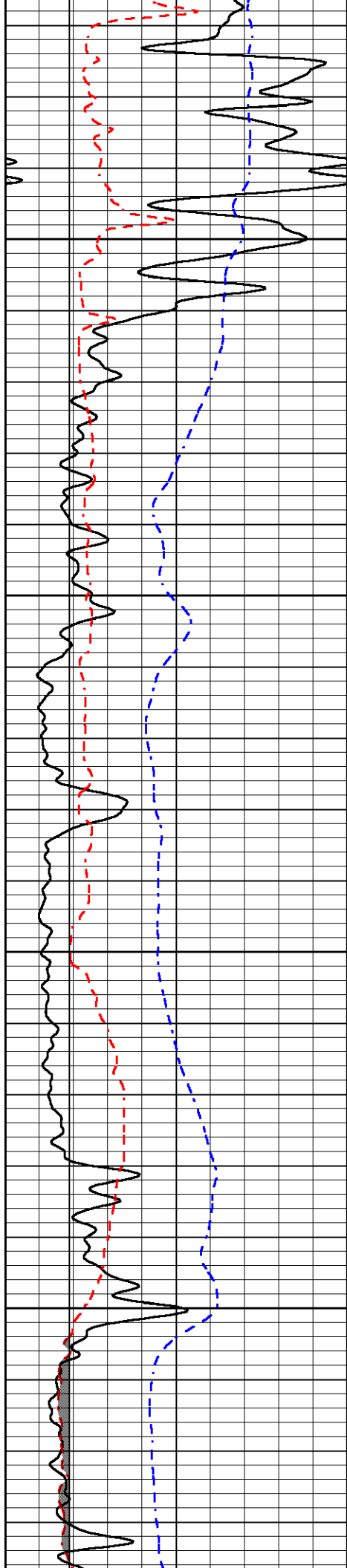
### MAIN PASS

Database File norstar\_blu1-22.db  
 Dataset Pathname stack/pass3.1  
 Presentation Format \_micro  
 Dataset Creation Sun Sep 12 04:07:32 2021  
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MCAL (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
10000	Line Weight (lb)	0



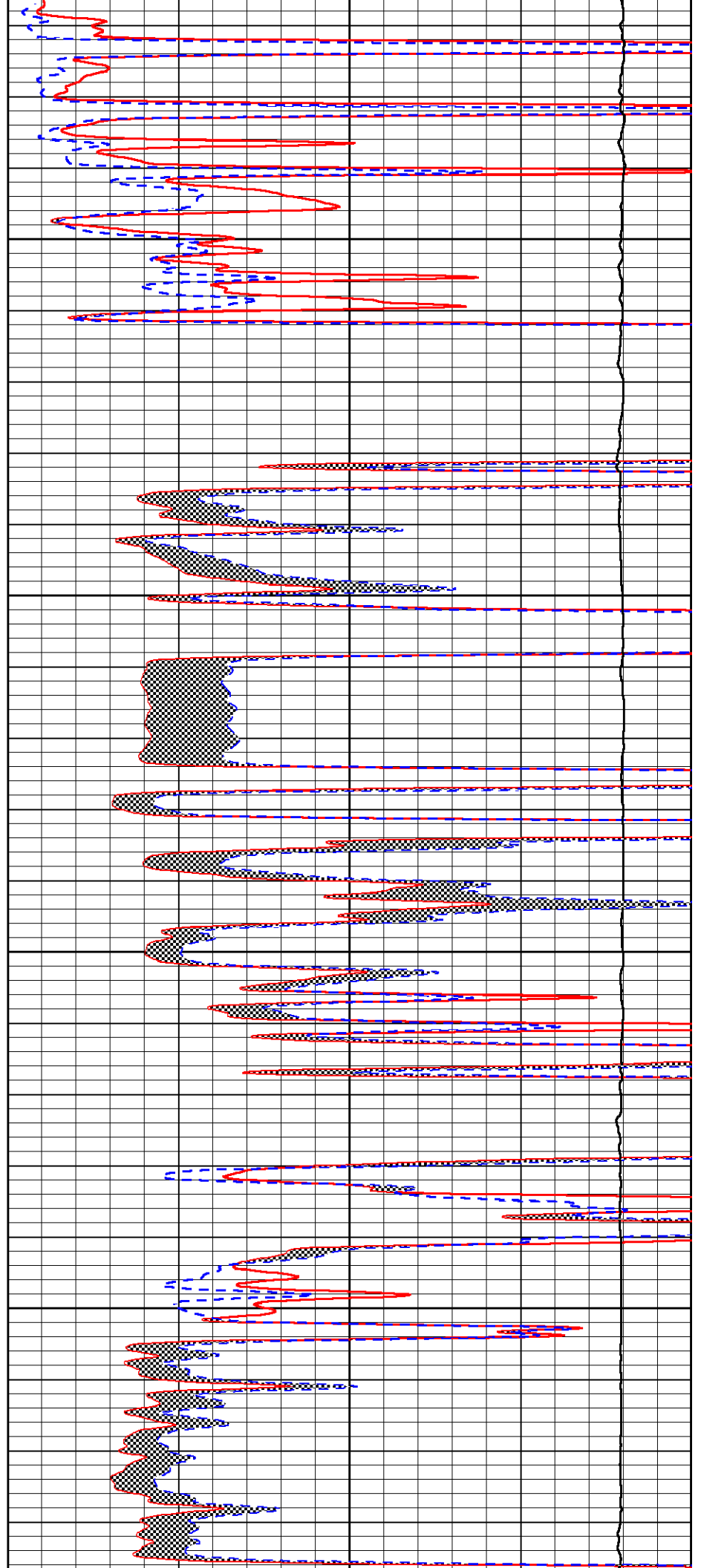


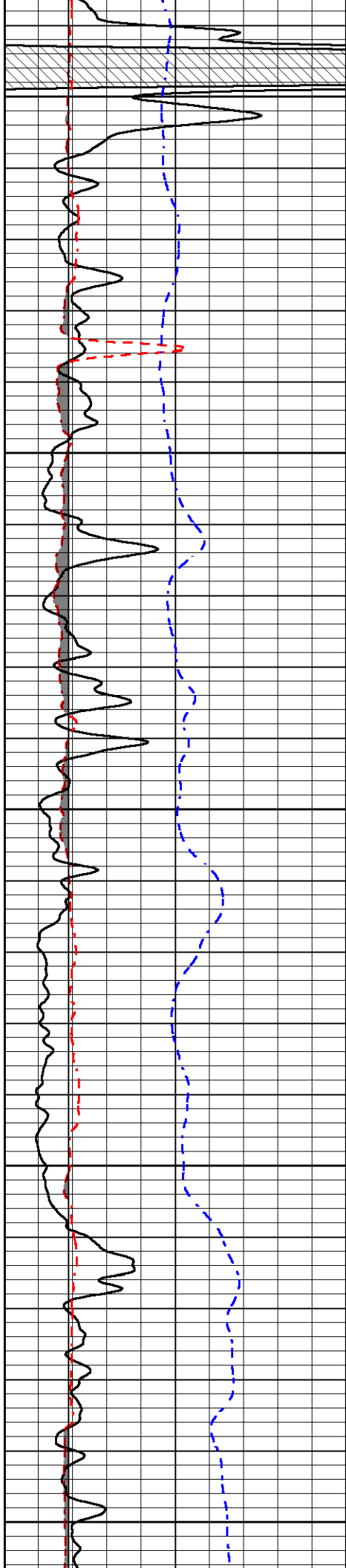
2300

2350

2400

2450





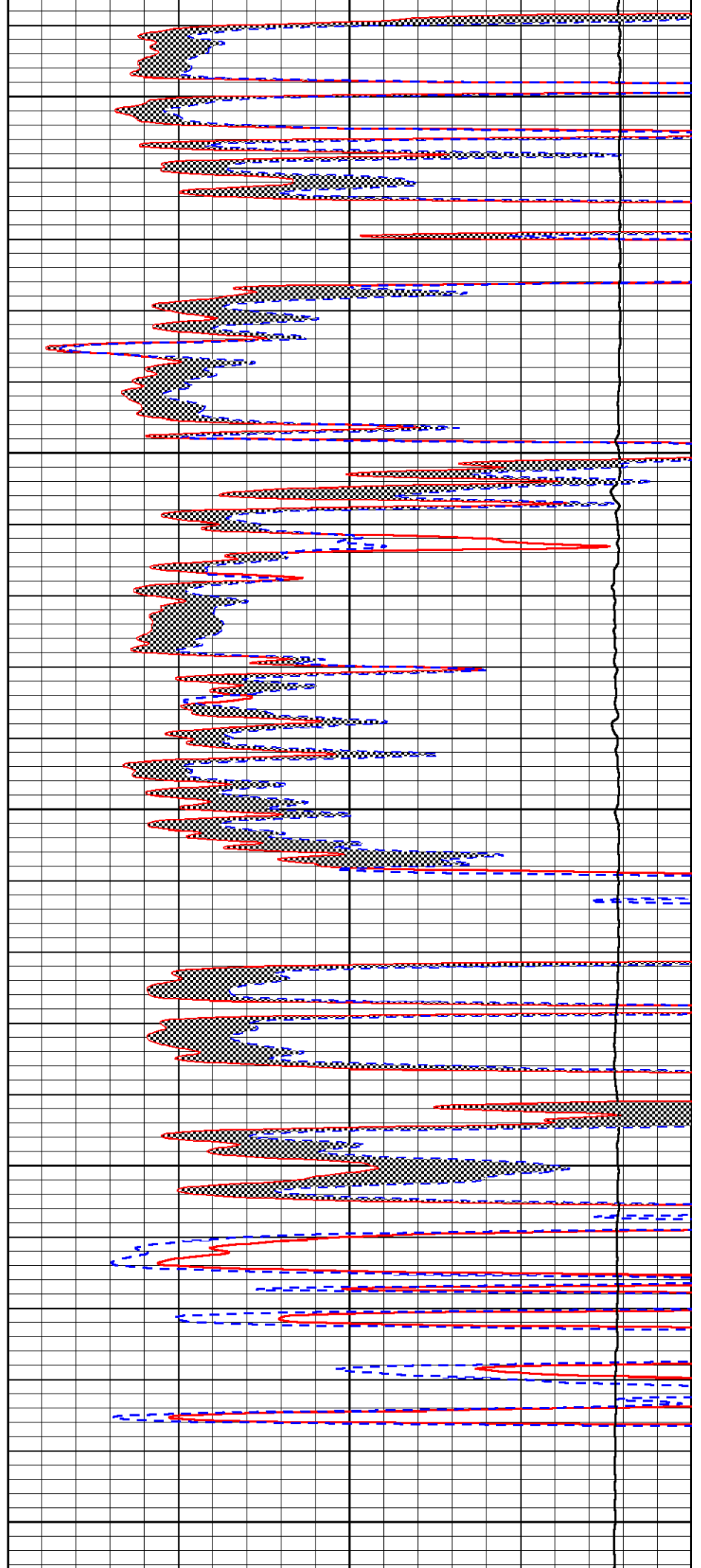
2500

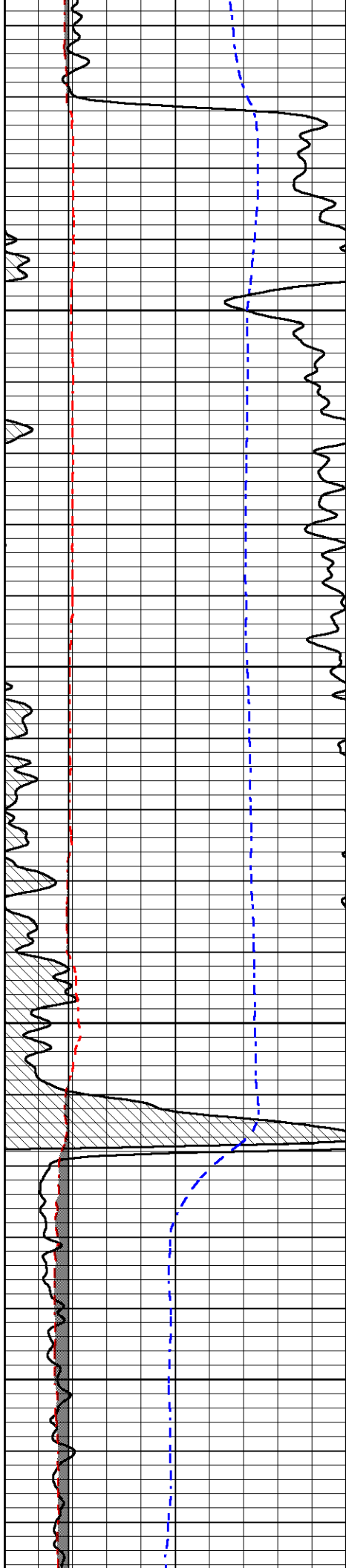
2550

2600

2650

2700



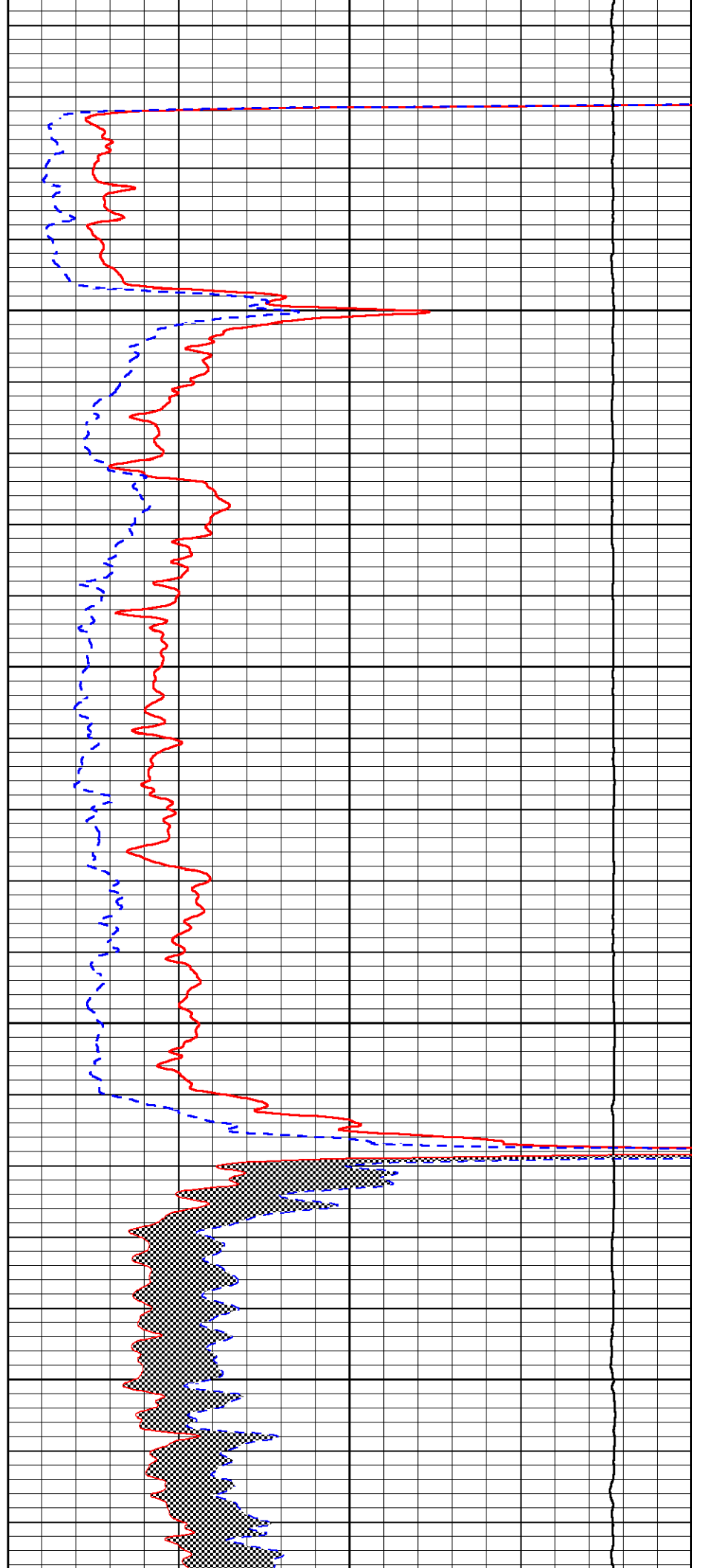


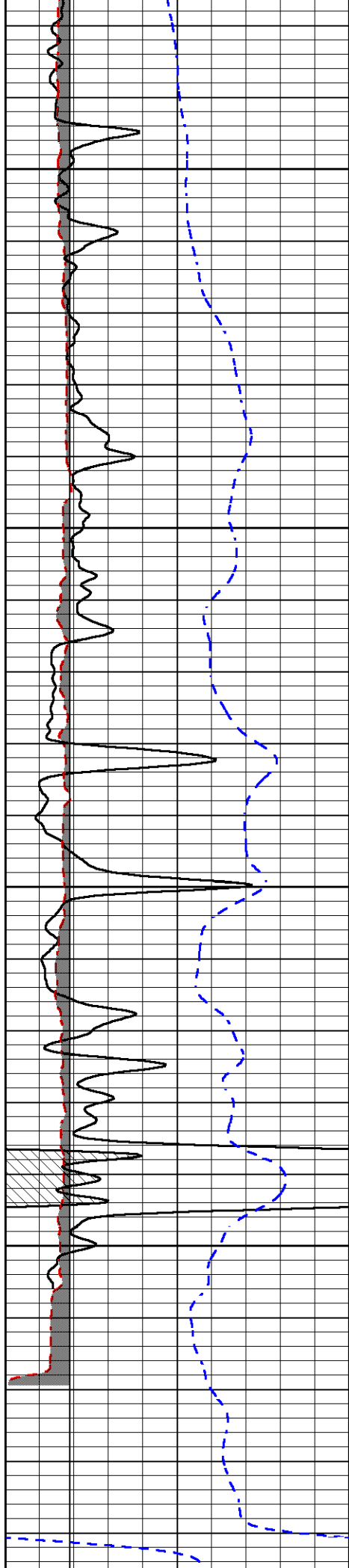
2750

2800

2850

2900



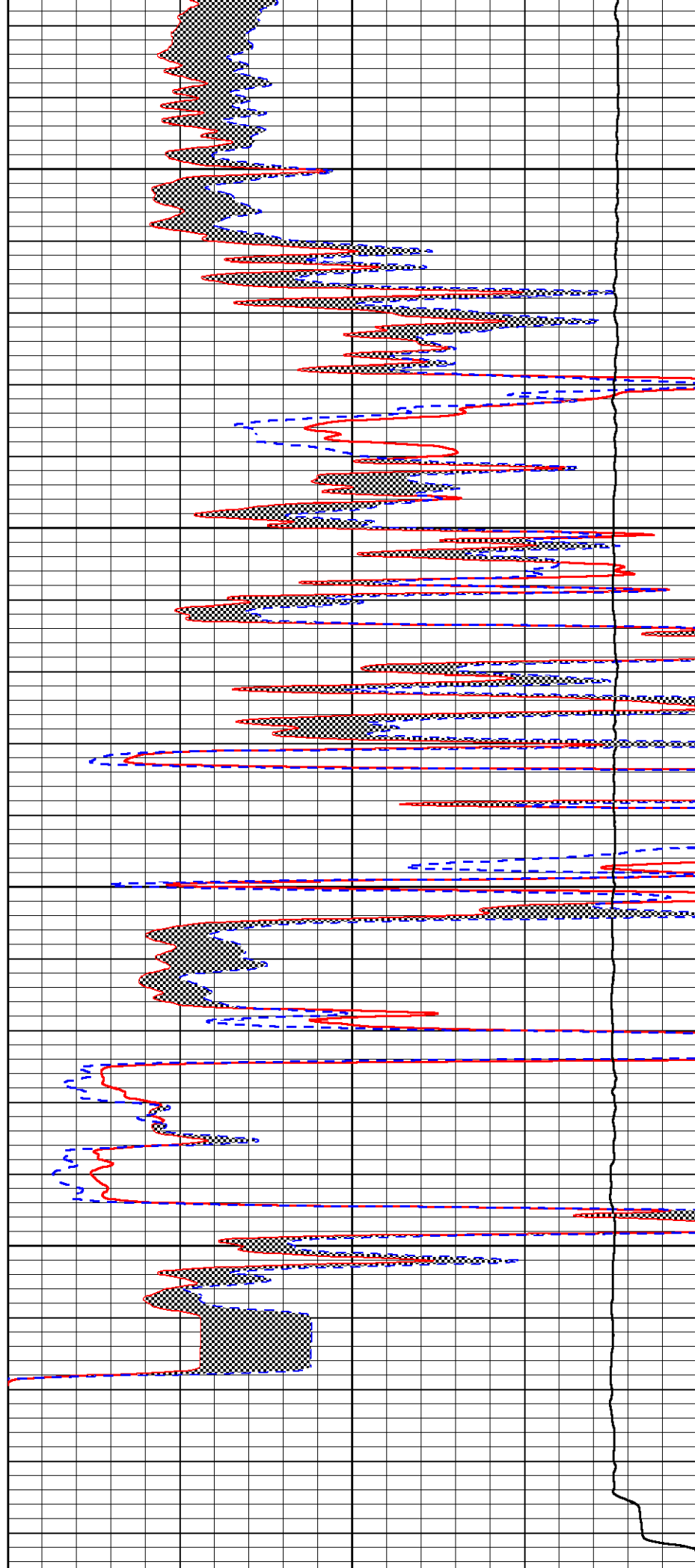


2950

3000

3050

3100



0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	sp (mV)	0

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10000	Line Weight (lb)	0



MIDWEST WIRELINE

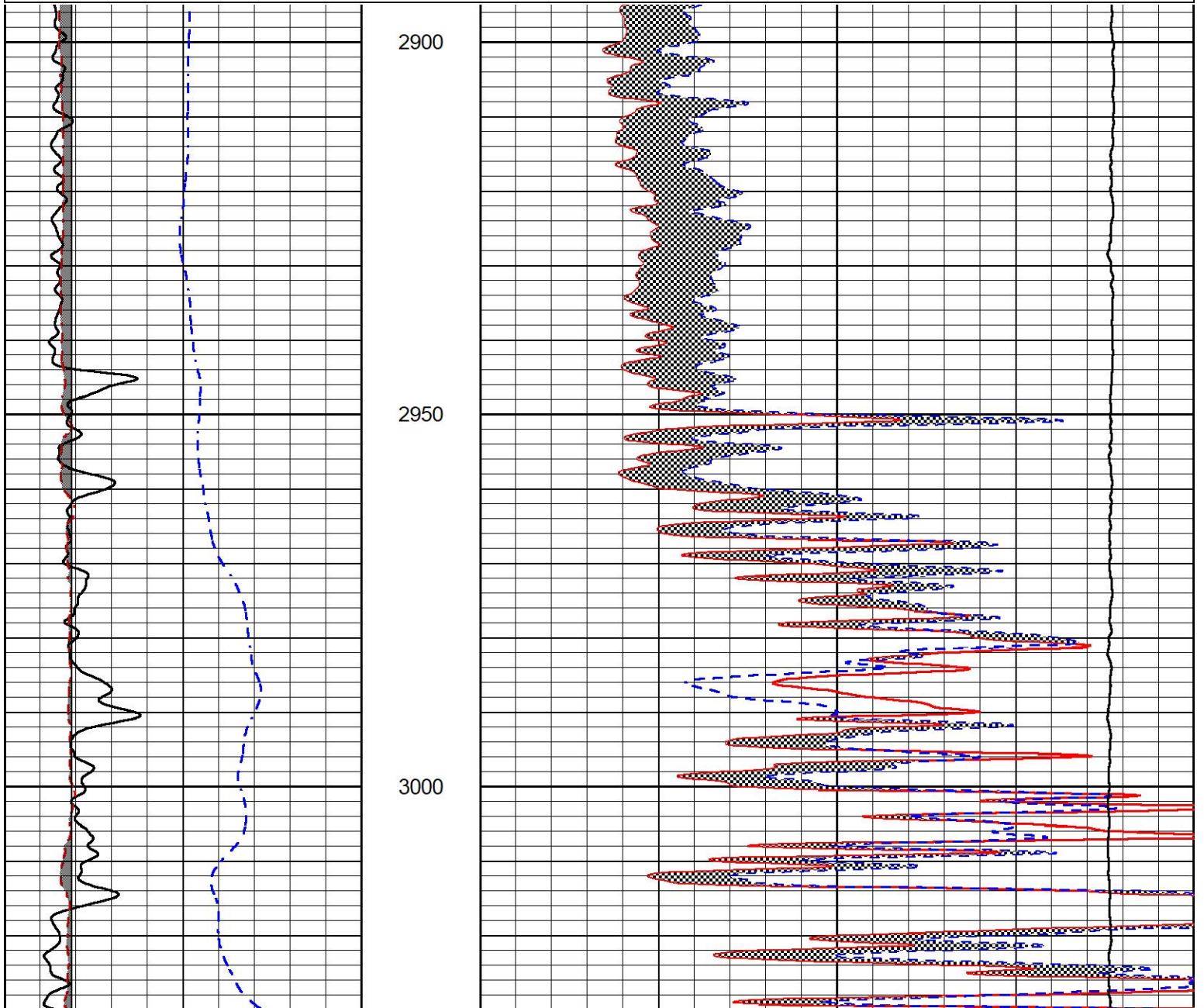
# REPEAT SECTION

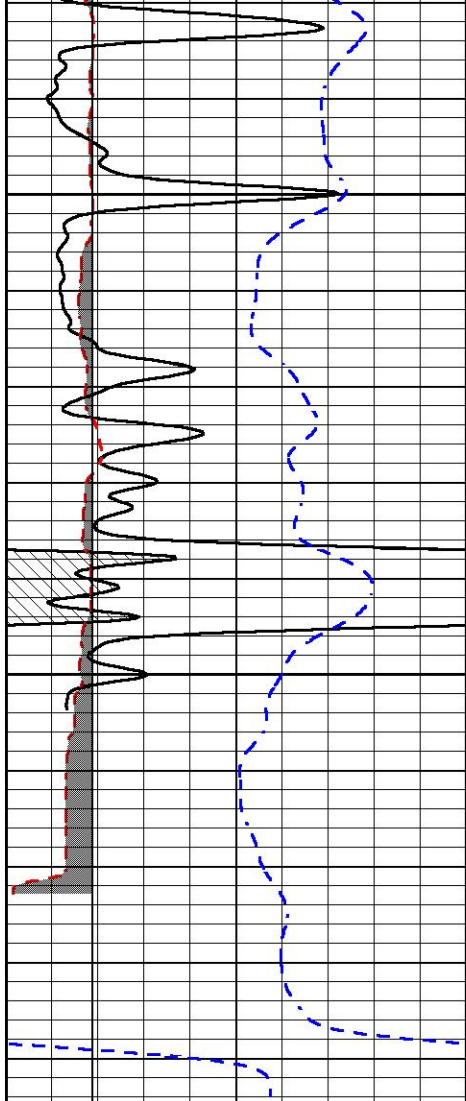
## REPEAT PASS

Database File norstar\_blu1-22.db  
 Dataset Pathname stack/pass2.1  
 Presentation Format \_micro  
 Dataset Creation Sun Sep 12 03:45:46 2021  
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MCAL (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
10000	Line Weight (lb)	0

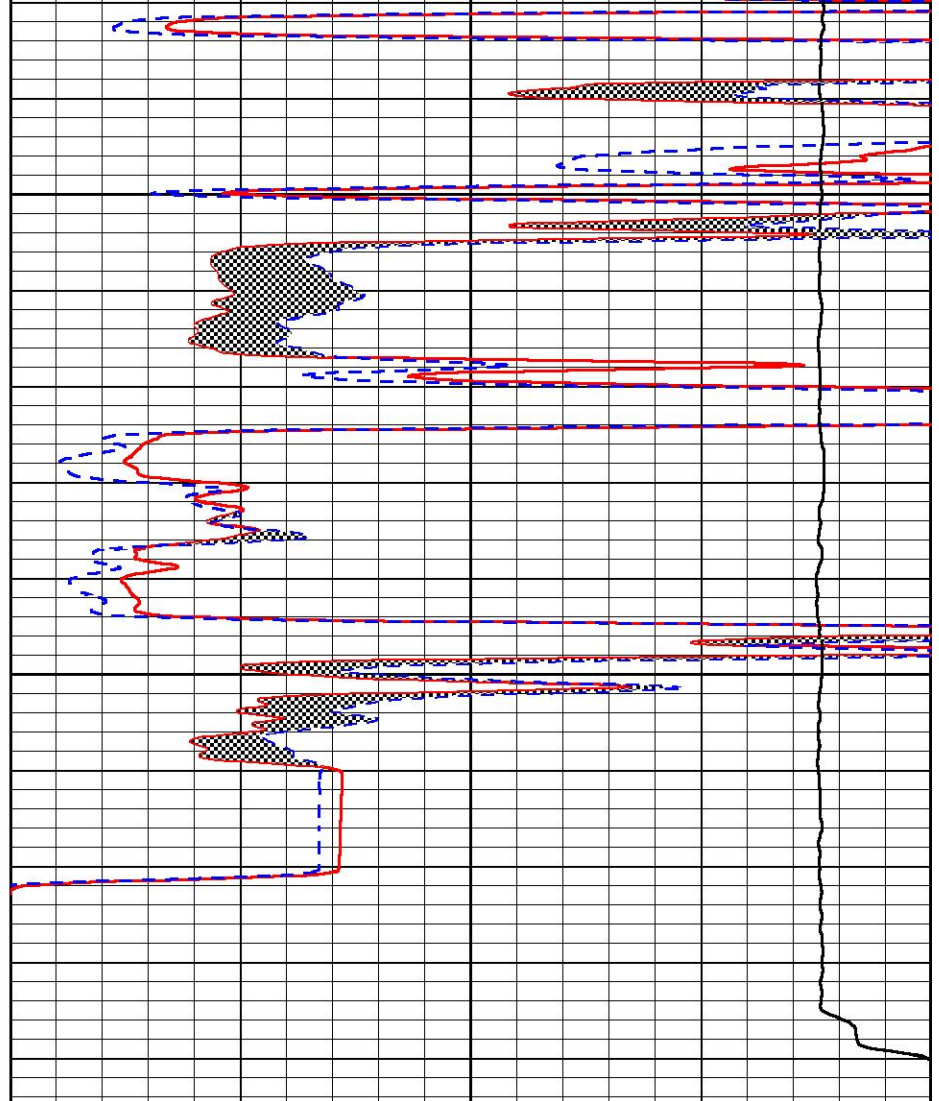




3050

3100

0	GAMMA RAY (GAPI)	150
6	MCAL (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
10000	Line Weight (lb)	0



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 State Kansas