

MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company MTM Petroleum, Inc.	
Well	Leslie #2
Field	Spivey-Grabs-Basil
County	Kingman
State	Kansas
Location: API #: 15-095-22336-00-00 NE - NE - SE 2310' FSL & 330' FEL SEC 13 TWP 30S RGE 8W	
Permanent Datum Log Measured From Drilling Measured From	Ground Level Kelly Bushing Kelly Bushing
Elevation 1477'	Elevation 1484' D.F. N/A G.L. 1477'
Date 3/9/2021	
Run Number	One
Depth Driller	4235'
Depth Logger	4233'
Bottom Logged Interval	4232'
Top Log Interval	3100'
Casing Driller	8.625" @ 218'
Casing Logger	218'
Bit Size	7.875"
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.2 55
pH / Fluid Loss	11.0 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 50
Rmt @ Meas. Temp	0.30 @ 50
Rmc @ Meas. Temp	0.54 @ 50
Source of Rmt / Rmc	CHARTS
Rm @ BHT	0.17 @ 118
Operating Rig Time	3 Hours
Max Rec. Temp. F	118
Equipment Number	P-24
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Marvin Miller

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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.

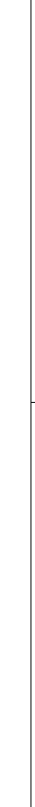
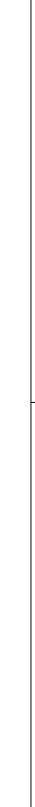
Rago,
2 South to 150th, 3 West, North into

Log Measured From: Kelly Bushing 7 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	Primary Witness: Marvin Miller
Operator:	Secondary Witness: Jerry Smith
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Operator	Offset (ft)	Depth (ft)	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73			CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (817-947)	8.50	4.00	250.00
ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics					7.58	4.00	65.00
MCAL MI MN	19.83 19.83 19.83						
RLL3F RLL3	15.80 15.80						
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70						
SP	0.20						
Dataset: mtm_leslie 2.db: field/well/STKML/pass5.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in							

Log Variables

DatabaseC:\ProgramData\Warrior\Data\mtm_leslie 2.db
Dataset field/well/STKML/pass5.6/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	100	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	250	0		0

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

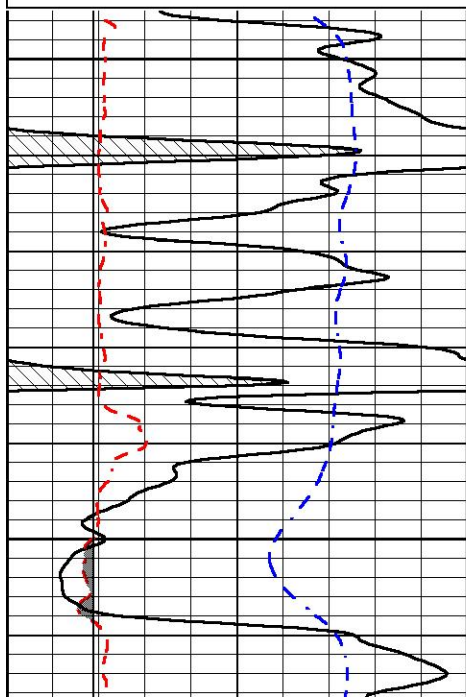


MAIN PASS

Database File mtm_leslie 2.db
Dataset Pathname STKML/pass5.1
Presentation Format _micro
Dataset Creation Tue Mar 09 07:26:10 2021
Charted by Depth in Feet scaled 1:240

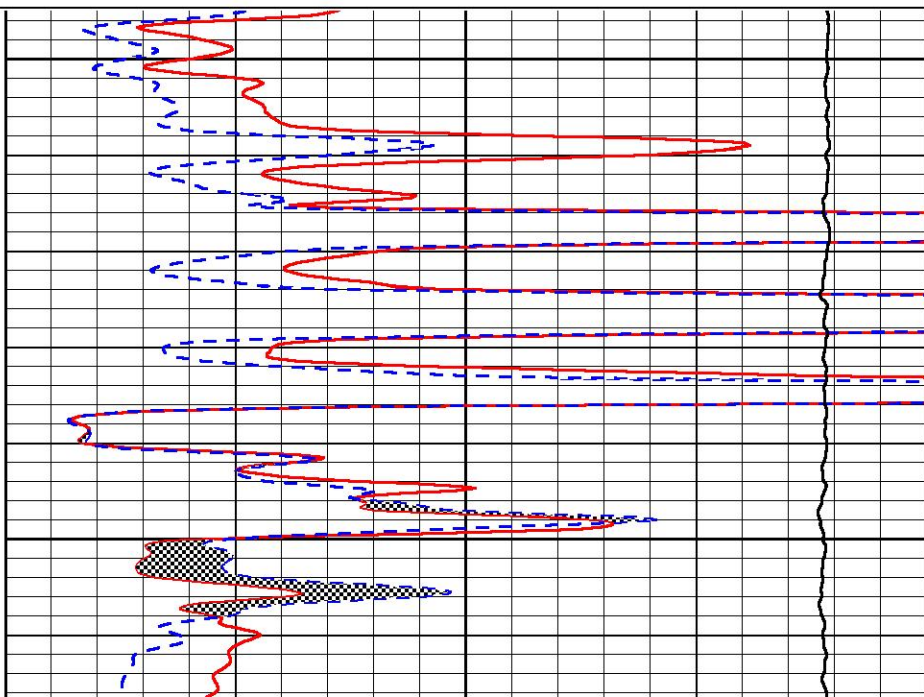
0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	sp (mV)	0

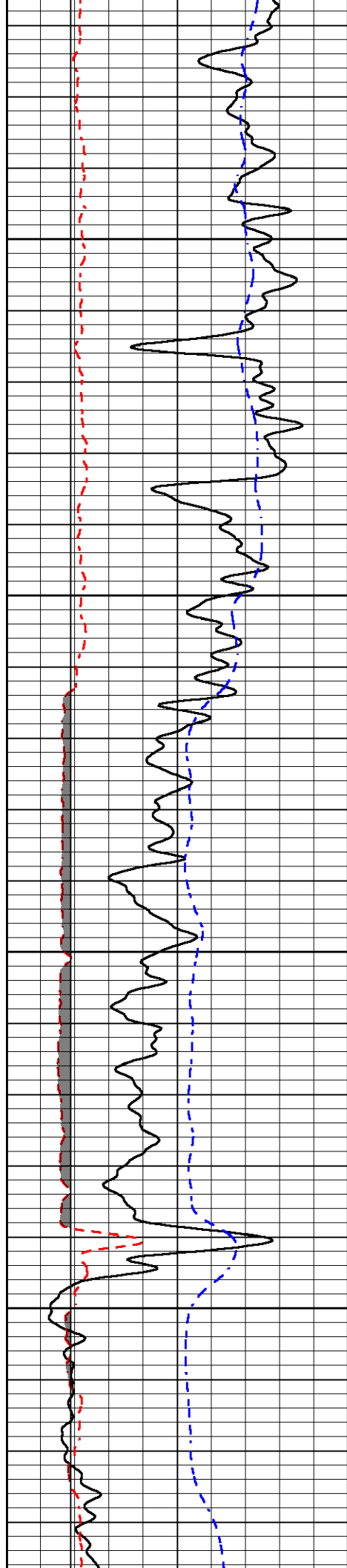
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0



3100

3150



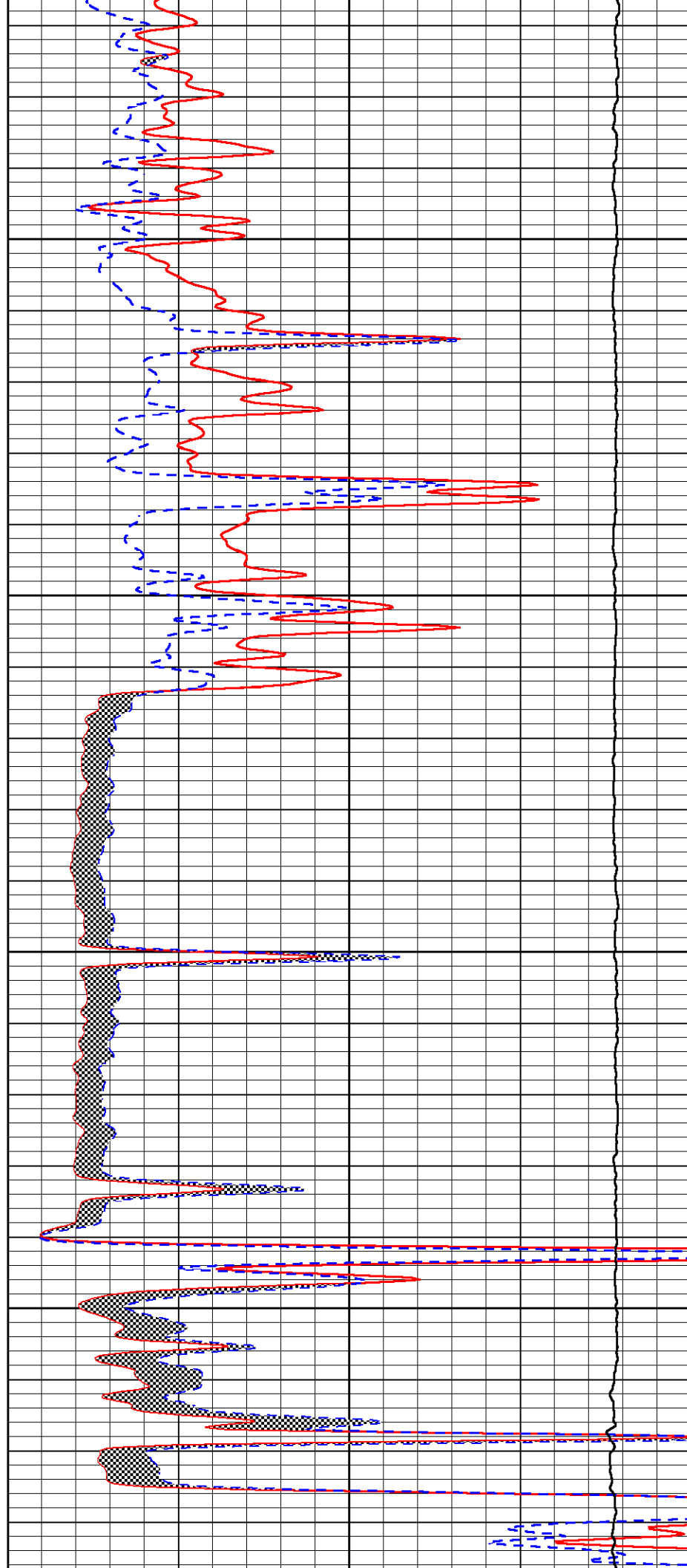


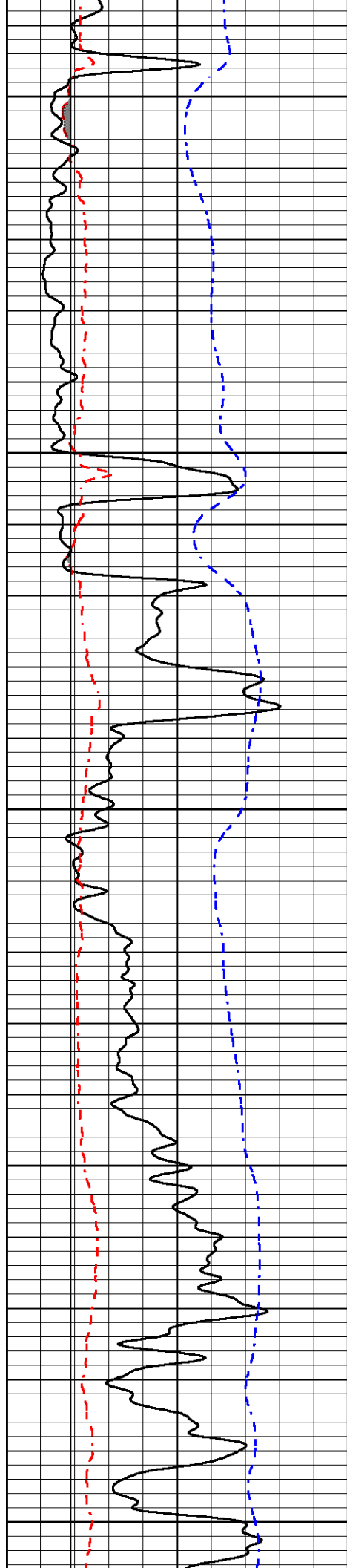
3200

3250

3300

3350





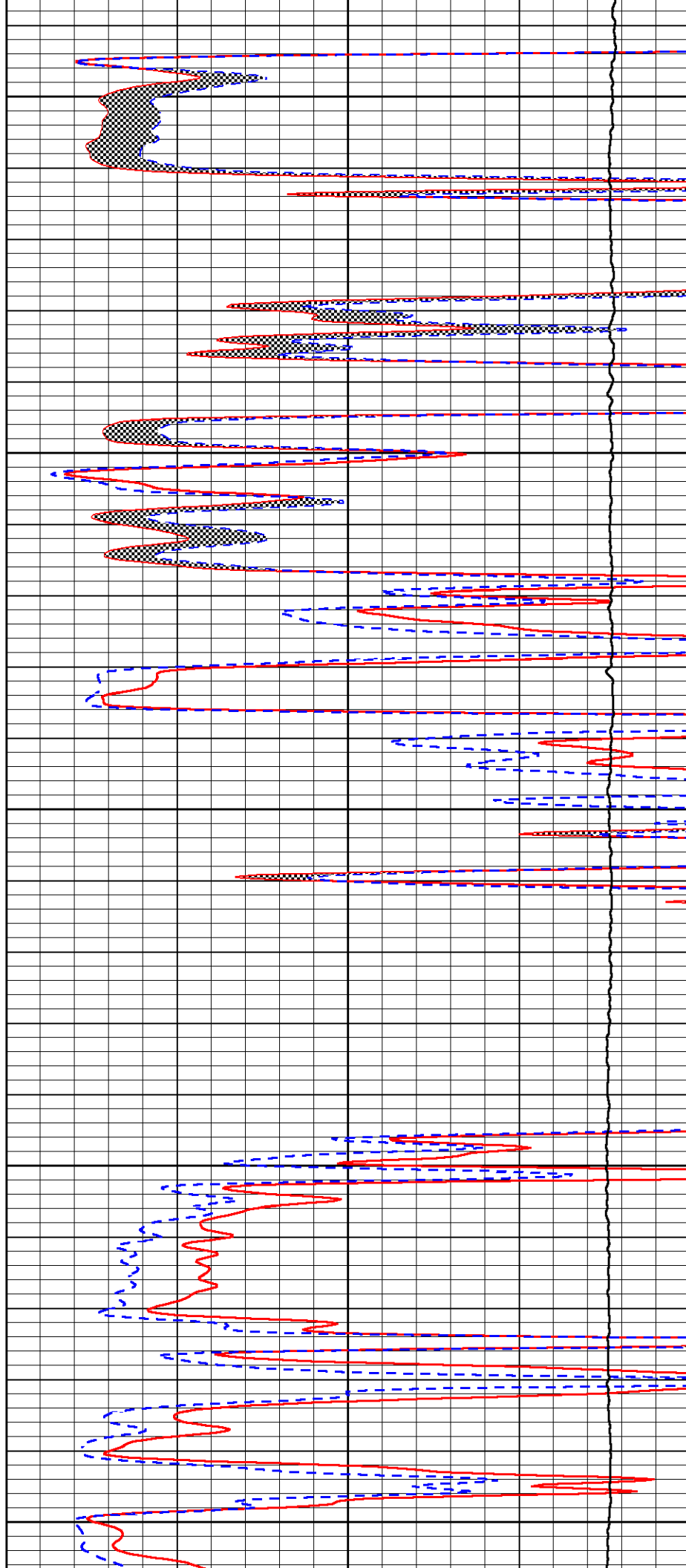
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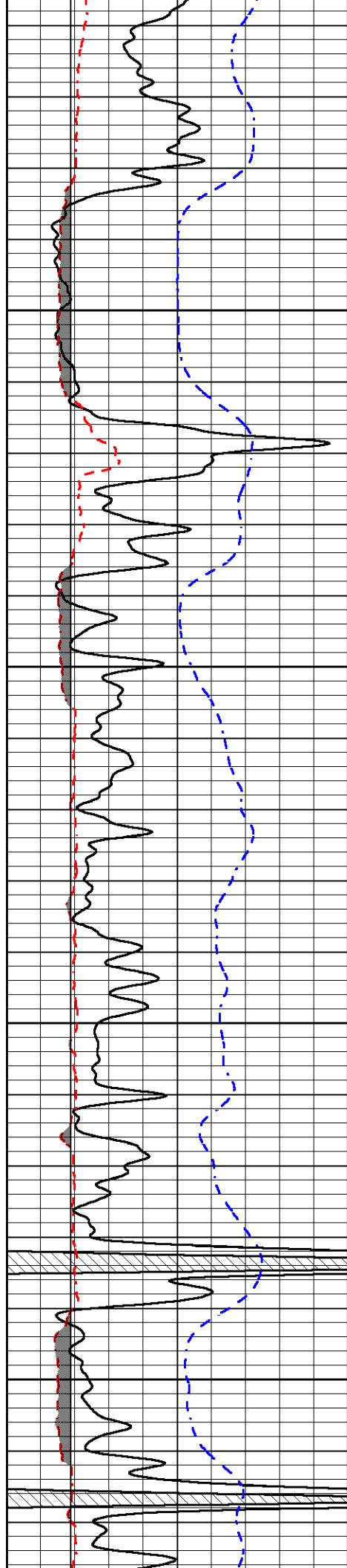
3450

3500

3550

3600



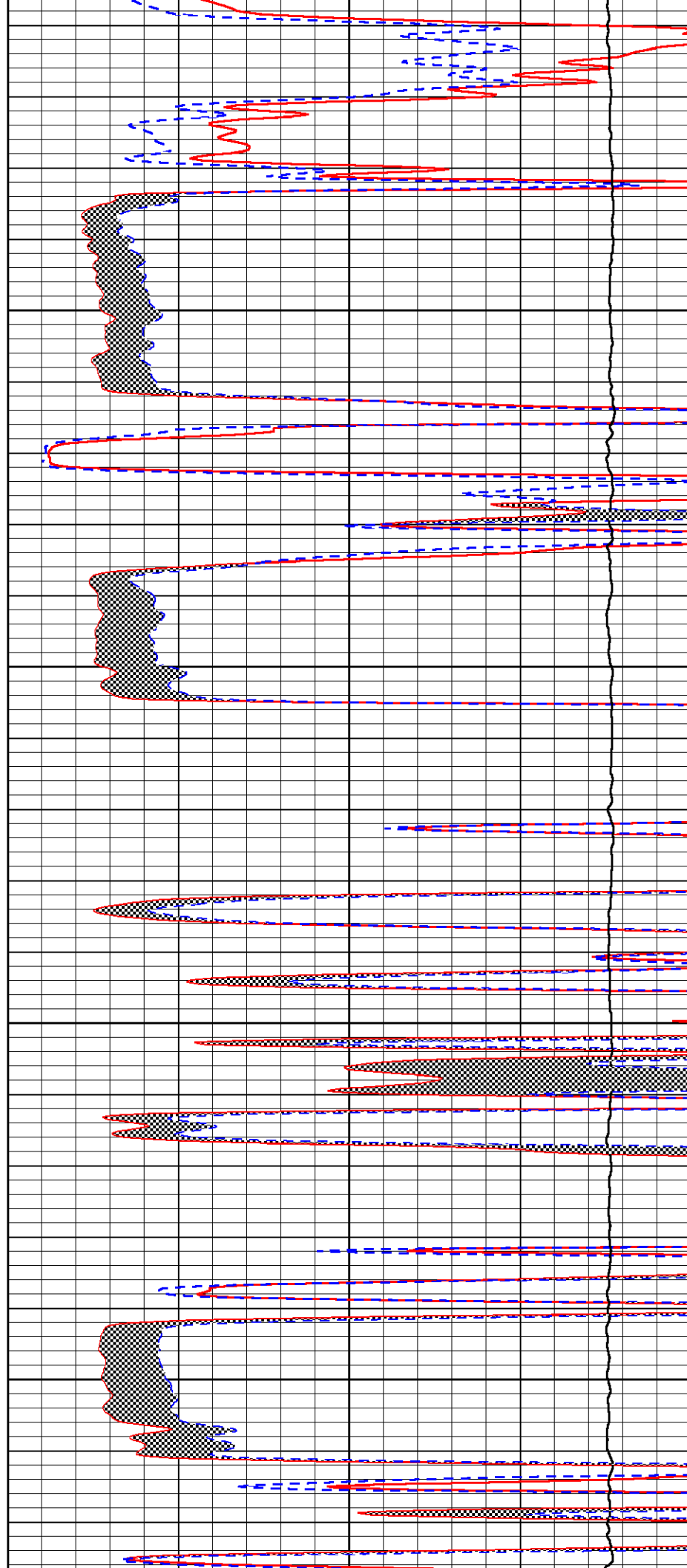


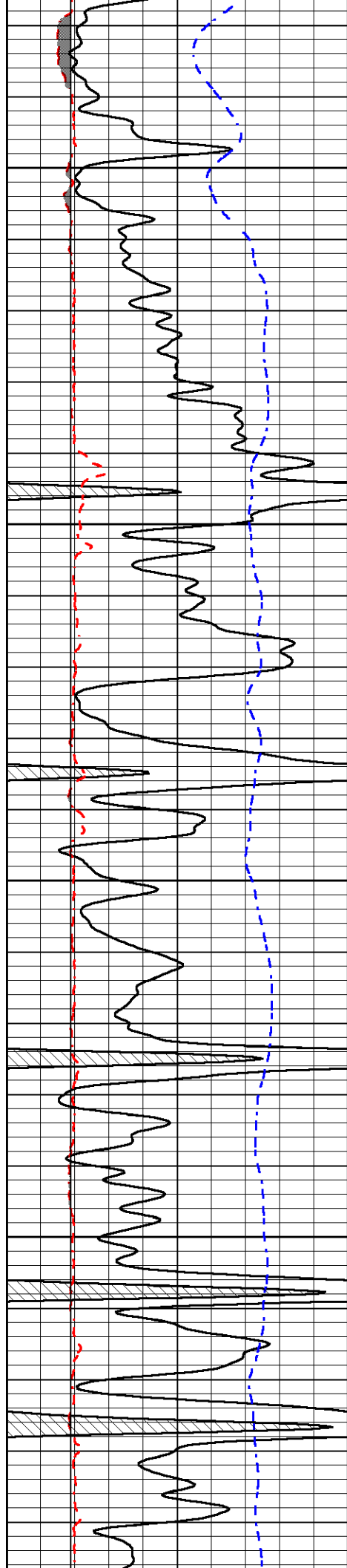
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3700

3750

3800



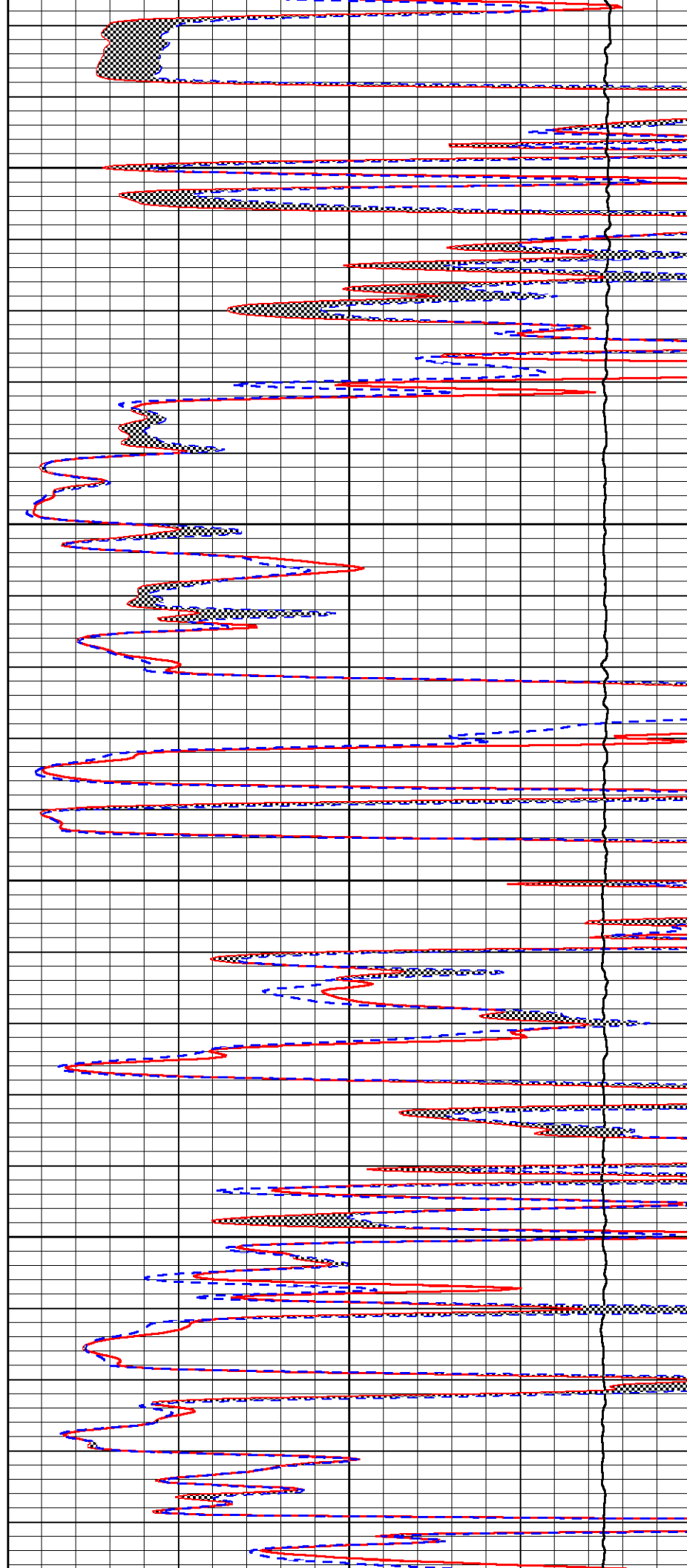


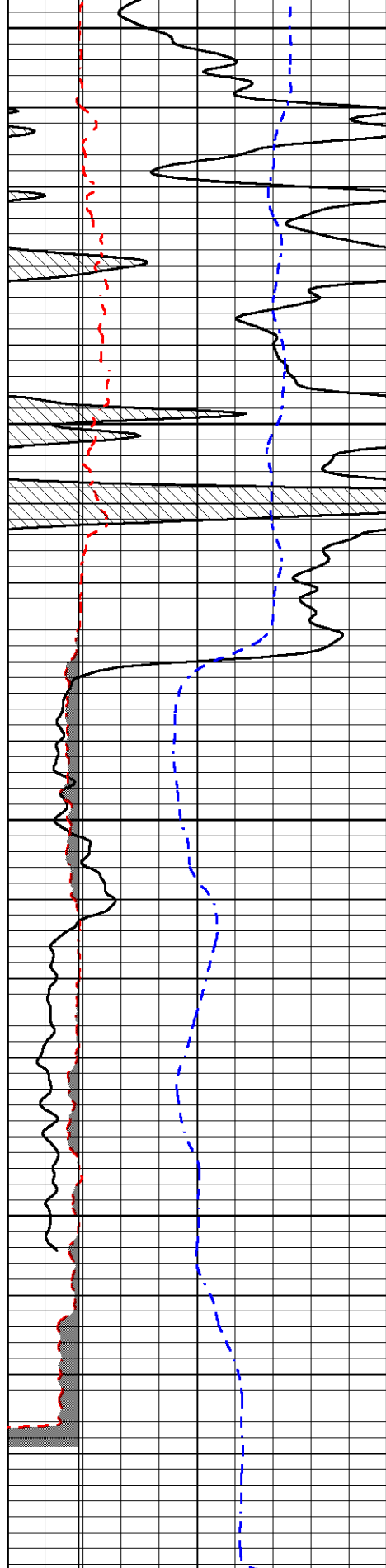
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3900

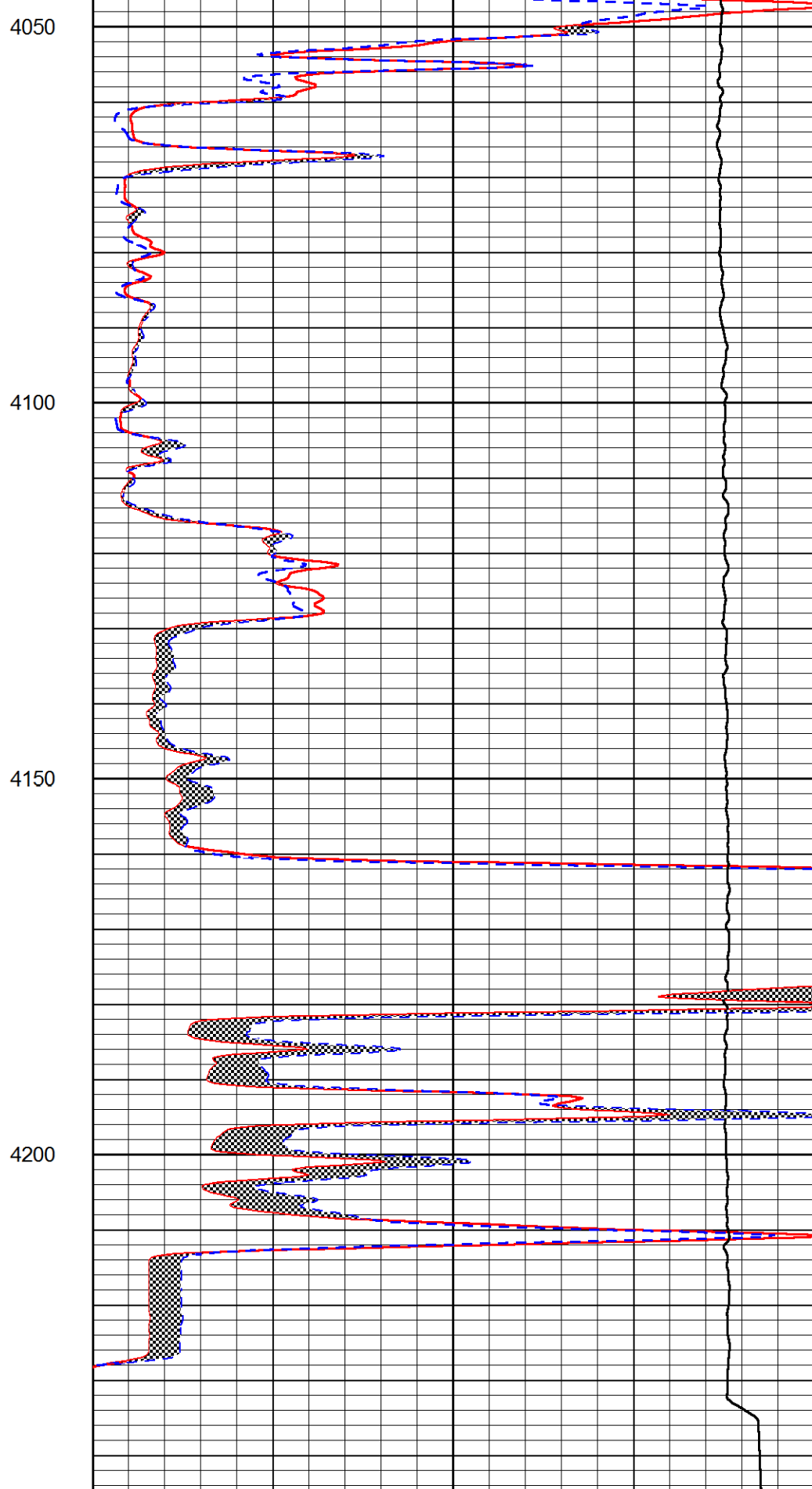
3950

4000





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

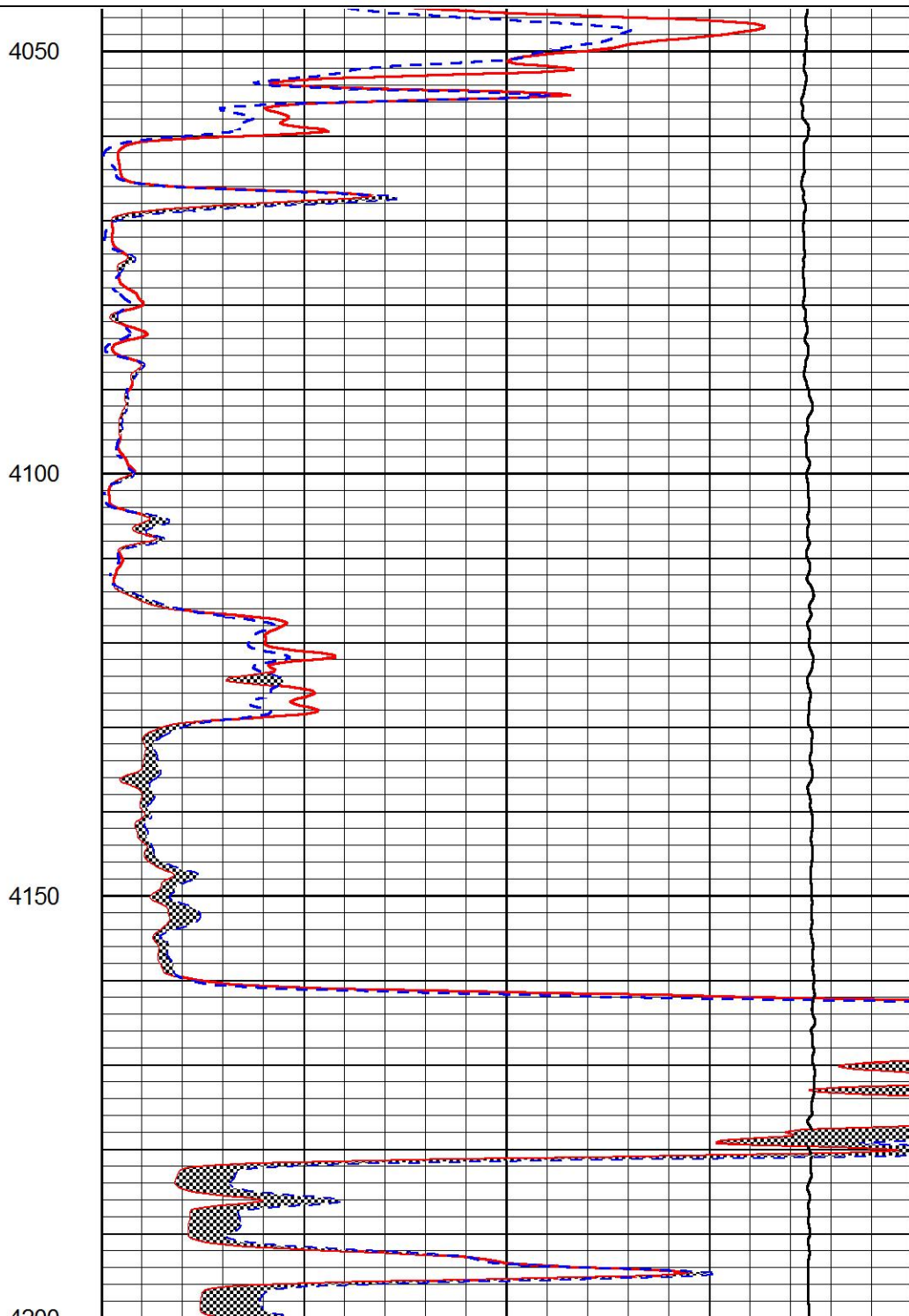
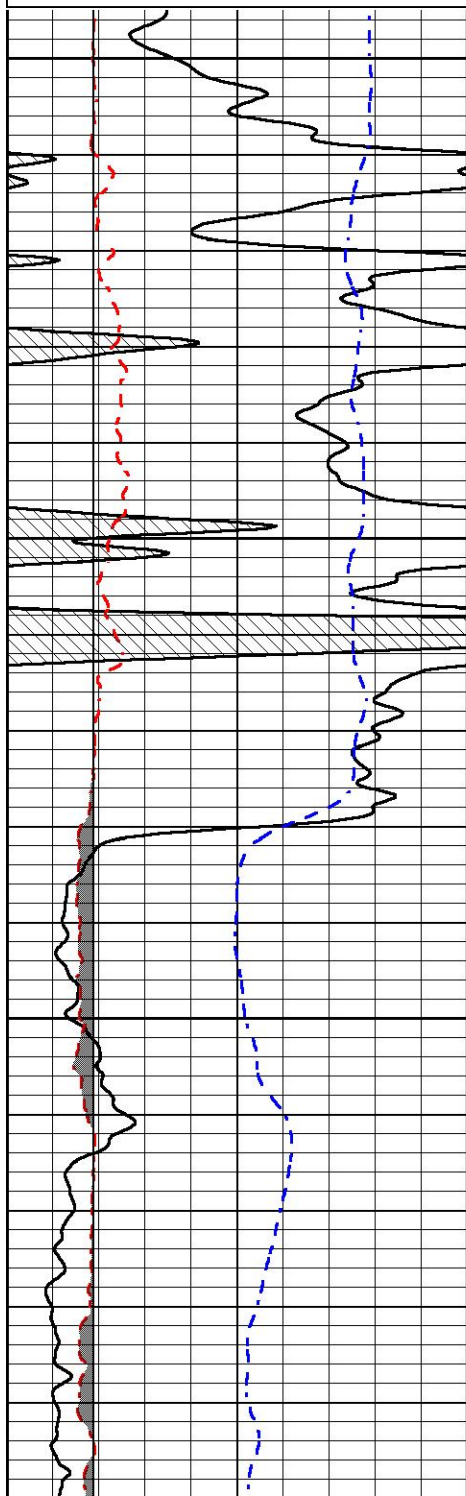


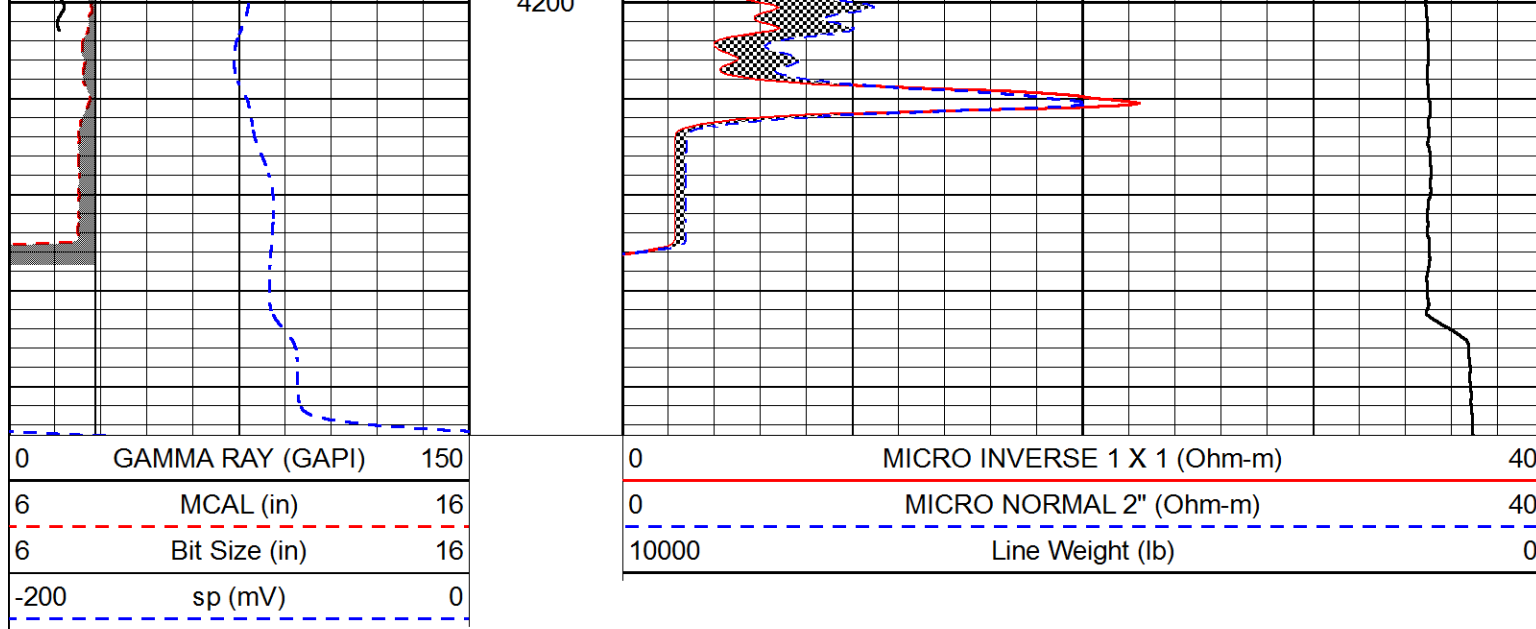
REPEAT SECTION

Database File mtm_leslie 2.db
Dataset Pathname STKML/pass3.1
Presentation Format _micro
Dataset Creation Tue Mar 09 07:17:39 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





Calibration Report								
Database File	mtm_leslie 2.db							
Dataset Pathname	STKML/pass5.6							
Dataset Creation	Tue Mar 09 06:47:33 2021							
Dual Induction Calibration Report								
Serial-Model:				952-828-PSI HIGH TEMP				
Calibration Performed:				Wed Mar 03 05:24:49 2021				
Loop:	Readings		References			Results		
	Air	Loop	Air	Loop		Gain	Offset	
	Deep	167.000	835.000	0.000	255.000	mmho/m	0.455	-31.500
	Medium	0.000	1348.000	142.000	255.000	mmho/m	0.325	-30.000
Microlog Calibration Report								
Serial-Model:				PSI-01-PSIML				
Performed:				Wed Mar 03 05:24:59 2021				
	Readings		References			Results		
	Zero	Cal	Zero	Cal		m	b	
	Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	19000.0000	-1.0000
	Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	18500.0000	-0.3000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.6000	
Compensated Density Calibration Report								
Serial-Model:				817-947-M&W				
Source / Verifier:				16955B / 2ci				
Master Calibration Performed:				Wed Mar 03 05:25:05 2021				
Master Calibration								
	Density		Far Detector		Near Detector			
Magnesium	1.755	g/cc	6127.15		5922.31	cps		

Magnesium	1.760	g/cc	6127.16	6622.61	cps
Aluminum	2.670	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.526		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

Compensated Neutron Calibration Report					
		Serial Number:	207-MW		
		Tool Model:	M&W		
		Calibration Performed:	WED MAR 3 7:30:30 2021		
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:		233-M&W			
Tool Model:		M&W			
Calibration Performed:		Wed Mar 03 05:25:33 2021			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.5500	GAPI/cps		