



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Castle Resources, Inc.

Well Hund #1

Field Newberry

County Wabaunsee State Kansas

Location: API #: 15-197-20322-00-00

Other Services
CNL/CDL
DIL/BHCS

Permanent Datum Ground Level Elevation 1133

Log Measured From Kelly Bushing

Drilling Measured From Kelly Bushing

SEC 2 TWP 11S RGE 11E

Date 3/28/2023

Run Number One

Depth Driller 3203

Depth Logger 3205

Bottom Logged Interval 3204

Top Log Interval 2100

Casing Driller 8:625 @ 300

Casing Logger 286

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 4000

Density / Viscosity 9.6 43

pH / Fluid Loss 9.6 9.6

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.50 @ 68

Rmt @ Meas. Temp 0.38 @ 68

Rmc @ Meas. Temp 0.31 @ 68

Source of Rmf / Rmc CHARTS

Rm @ BHT 0.31 @ 108

Operating Rig Time 4 Hours

Max Rec. Temp. F 108

Equipment Number P-108

Location HAYS

Recorded By D. Schmidt

Witnessed By Jerry Green

<<< Fold Here >>>

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.

I-70 and Paxico Rd,
5 North to Homestead Rd, 1 East,
1/4 North, West and North to location

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Jerry Green
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSI STKBL ML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (505 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: castle_hund1.db: field/well/stkml/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\castle_hund1.db
 Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	108	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	-8	-0.2	250	50	Off	3203

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



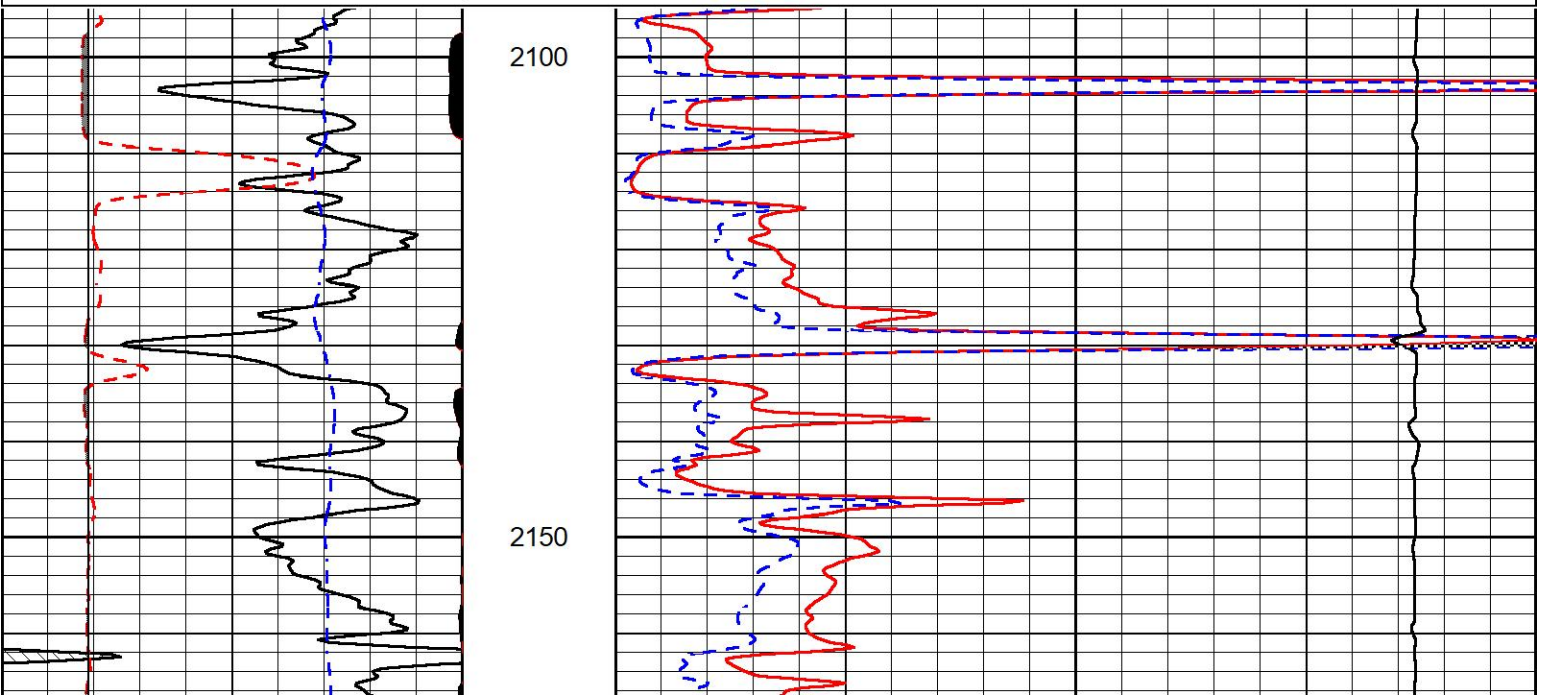
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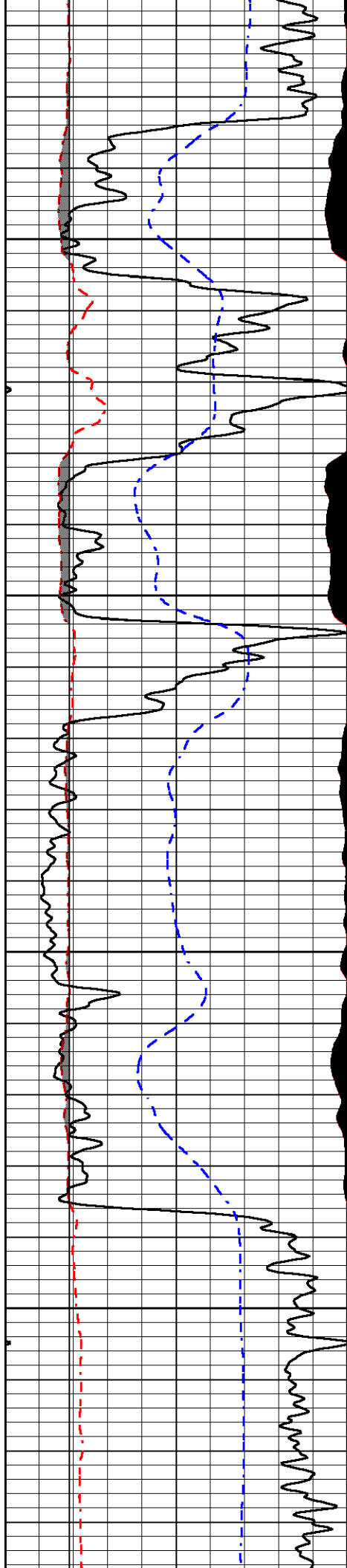
MAIN PASS

Database File castle_hund1.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _micro
 Dataset Creation Tue Mar 28 19:45:01 2023
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-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



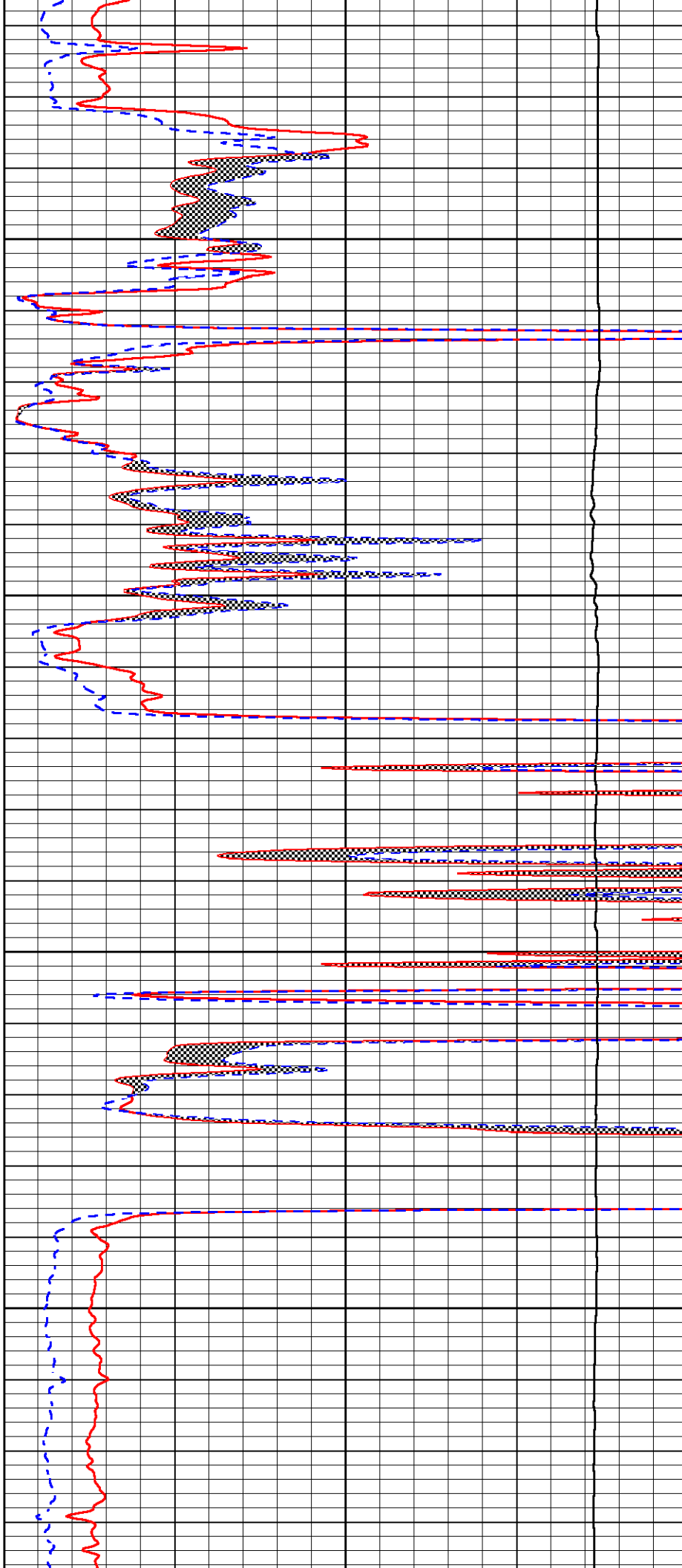


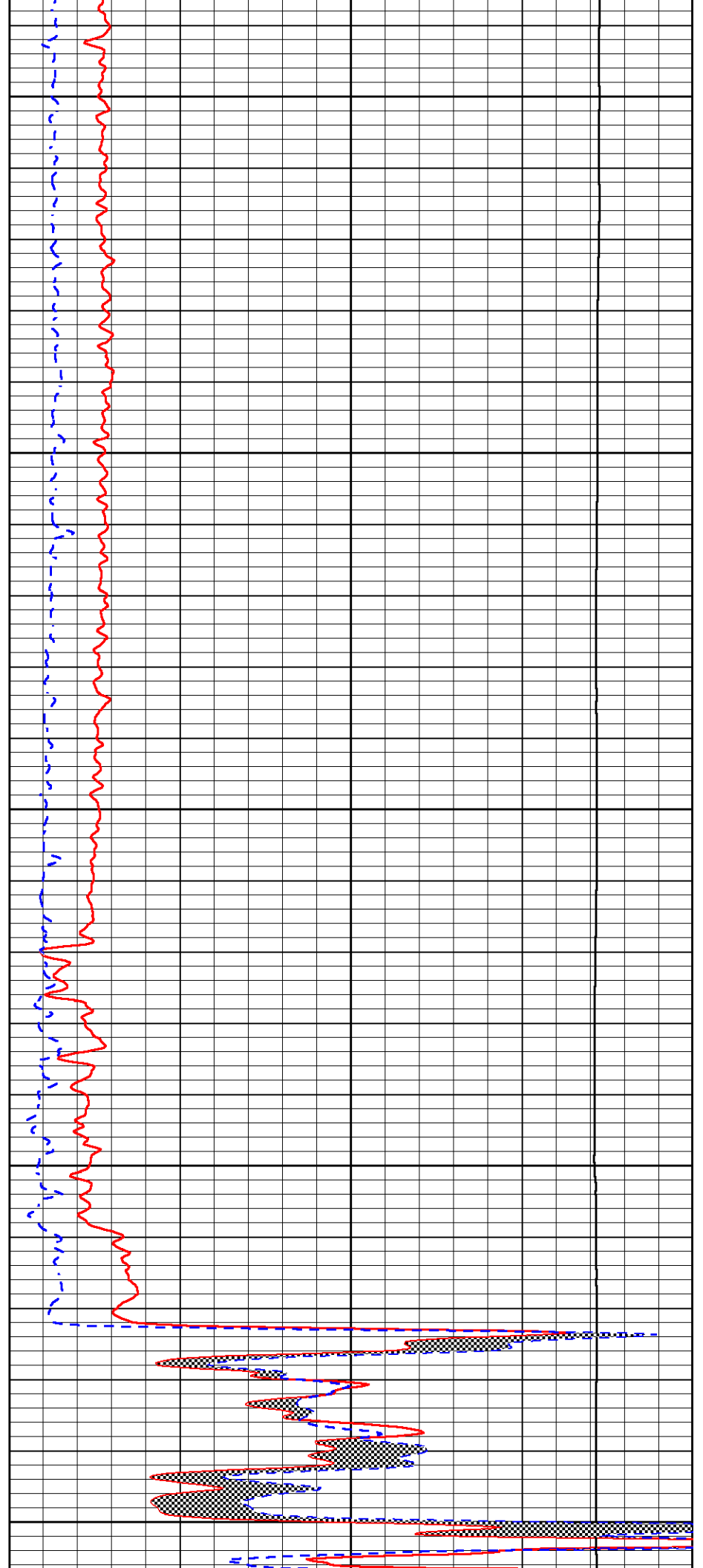
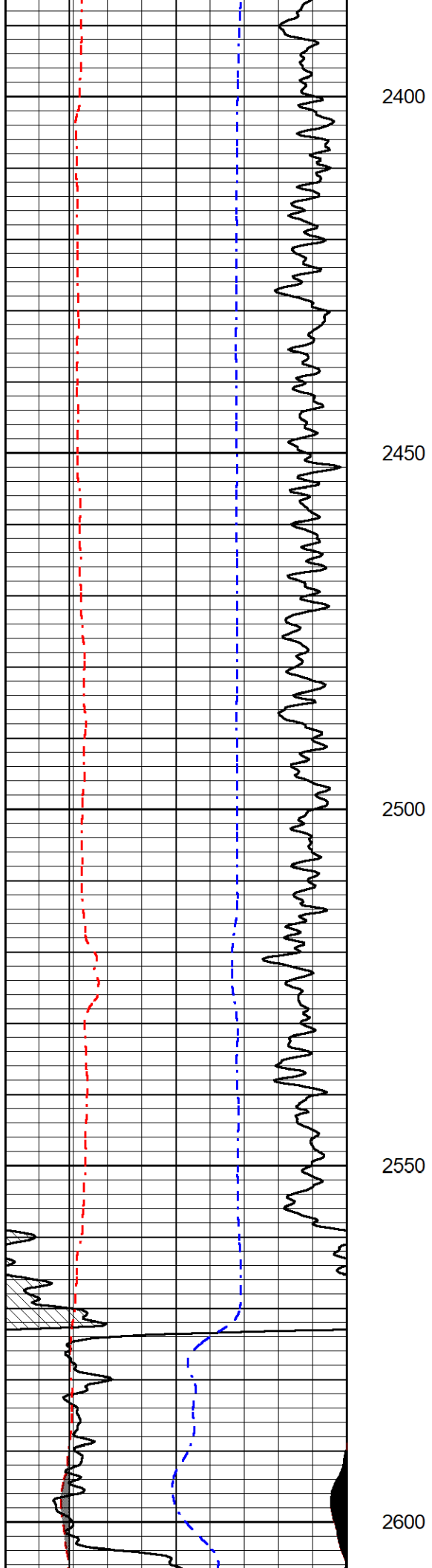
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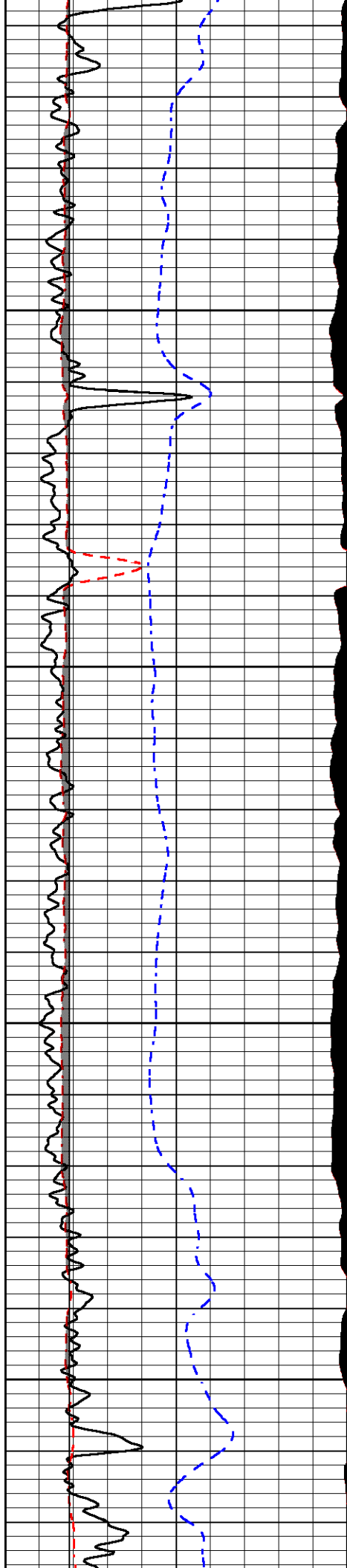
2250

300

350





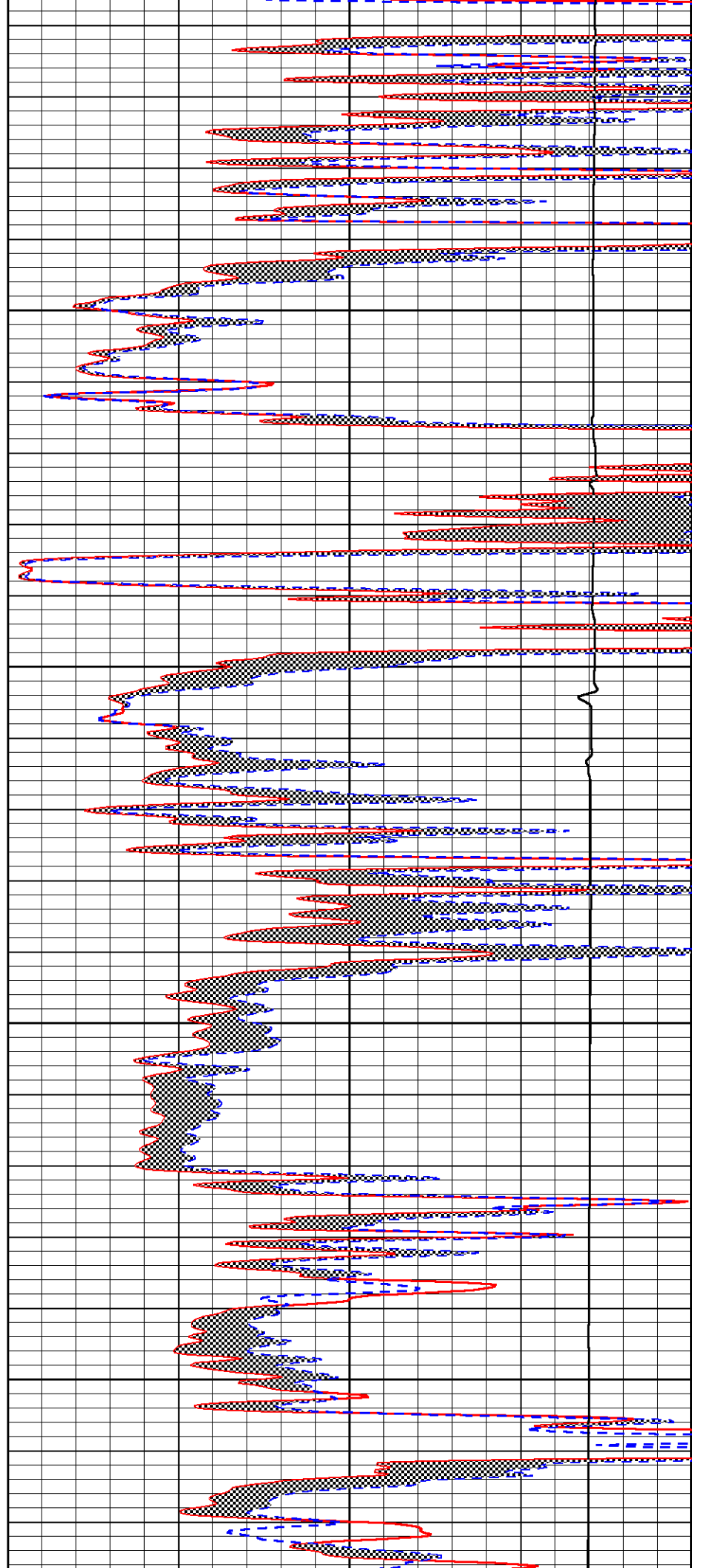


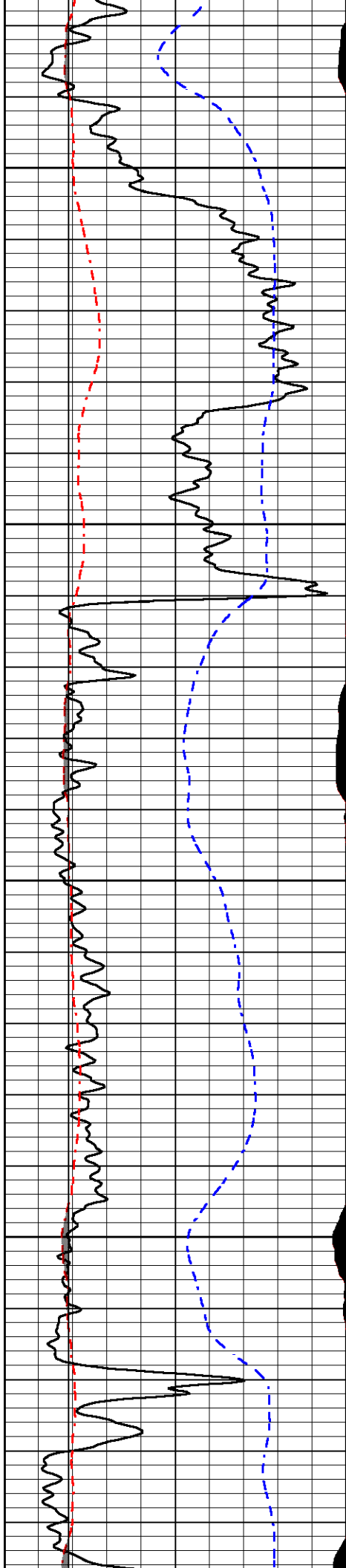
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2700

2750

2800



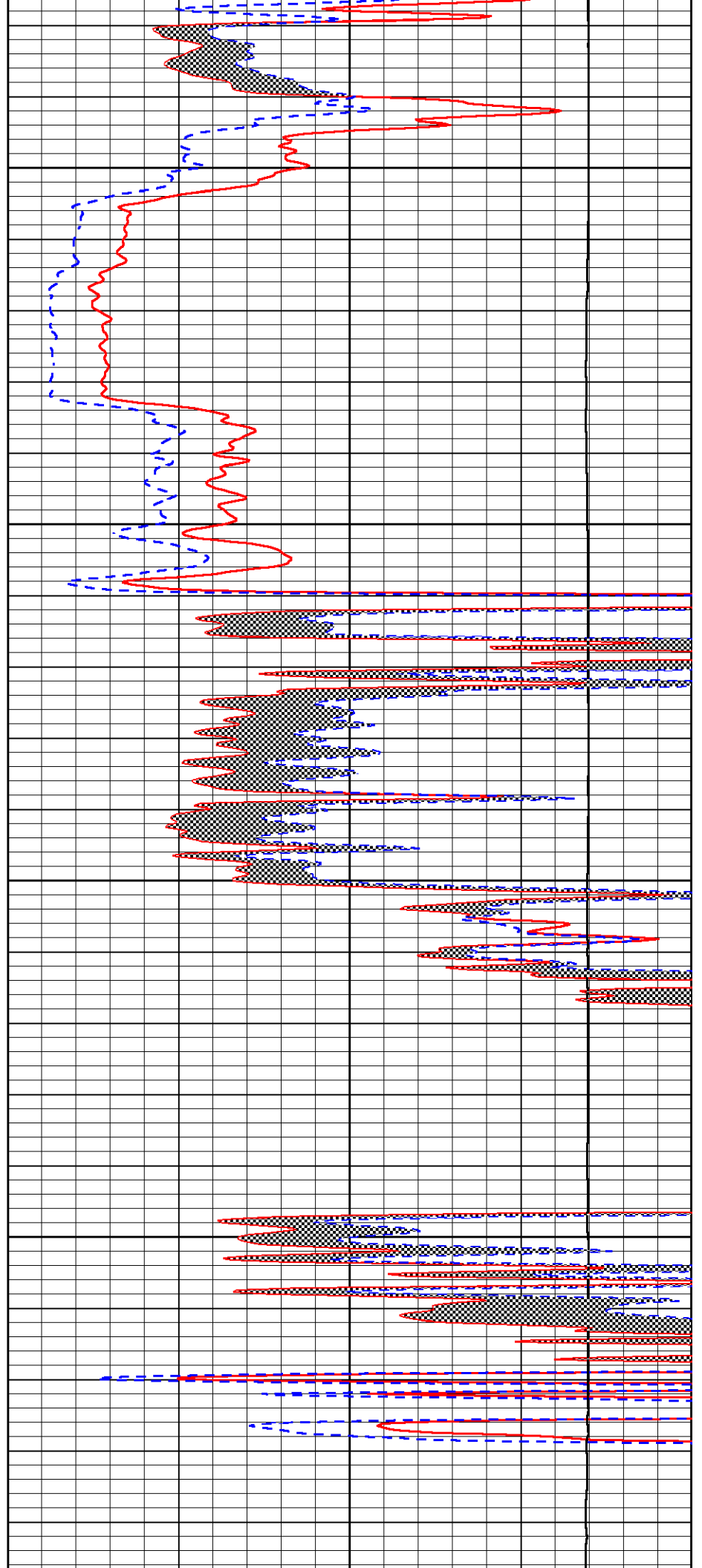


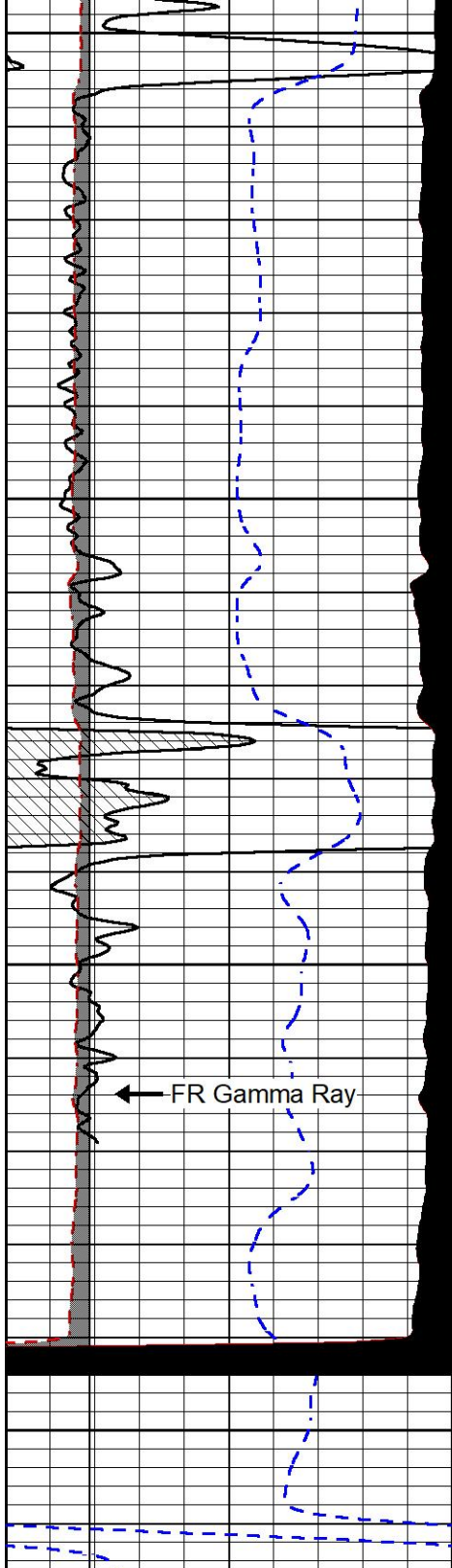
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2900

2950

3000





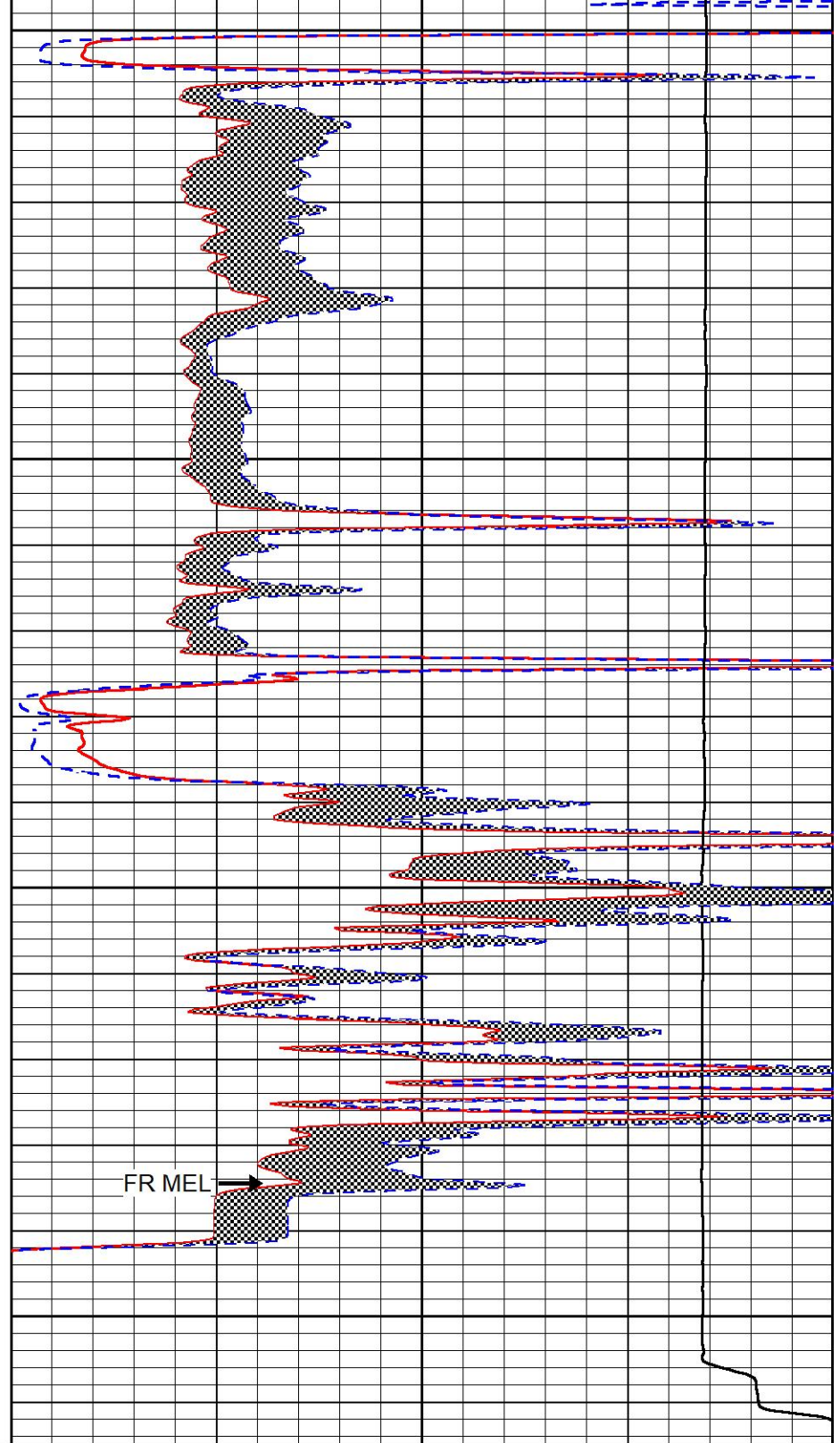
3050

3100

3150

3200

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-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



MIDWEST WIRELINE

REPEAT SECTION

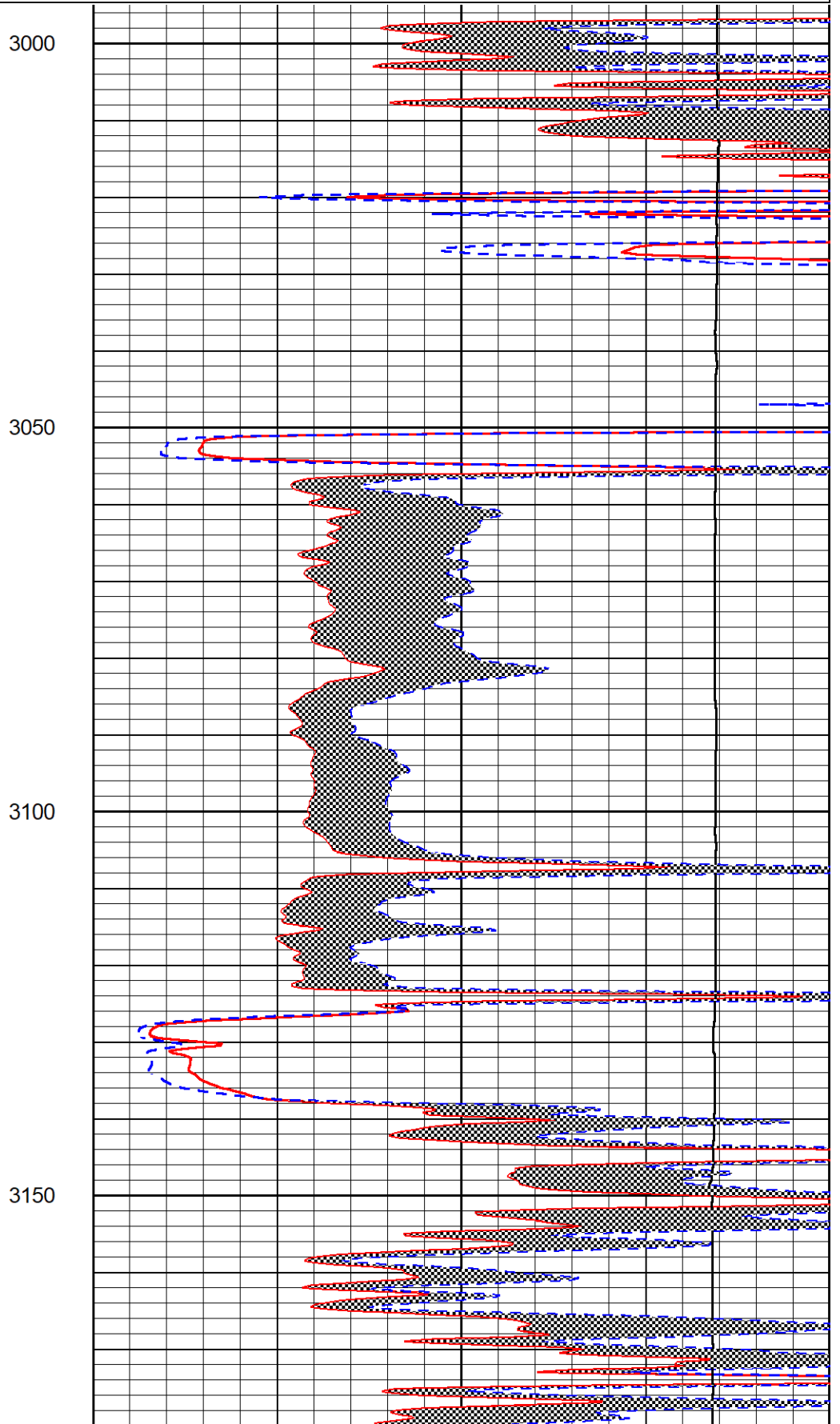
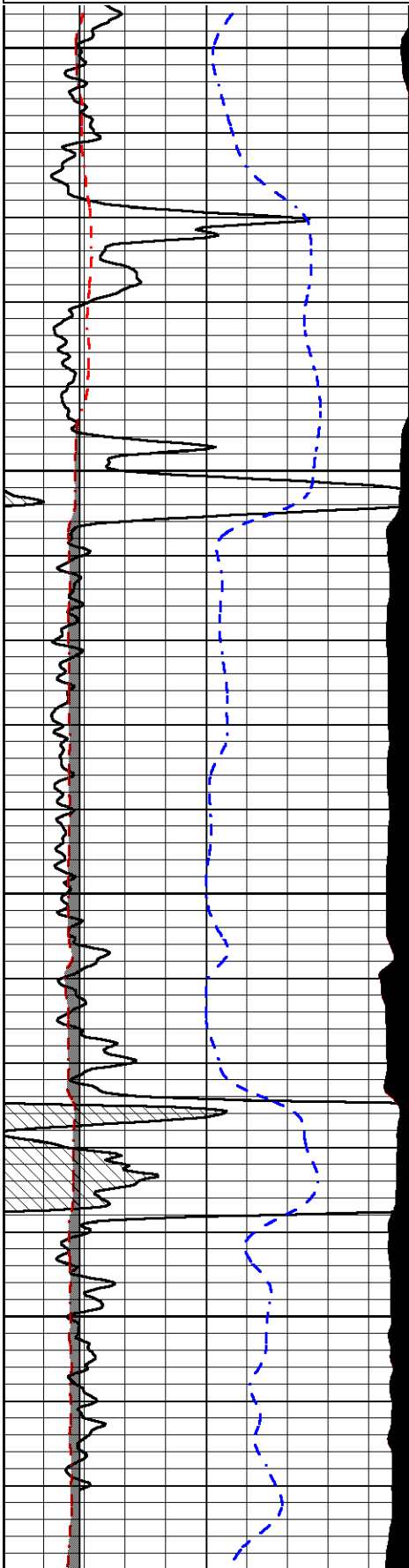
REPEAT PASS

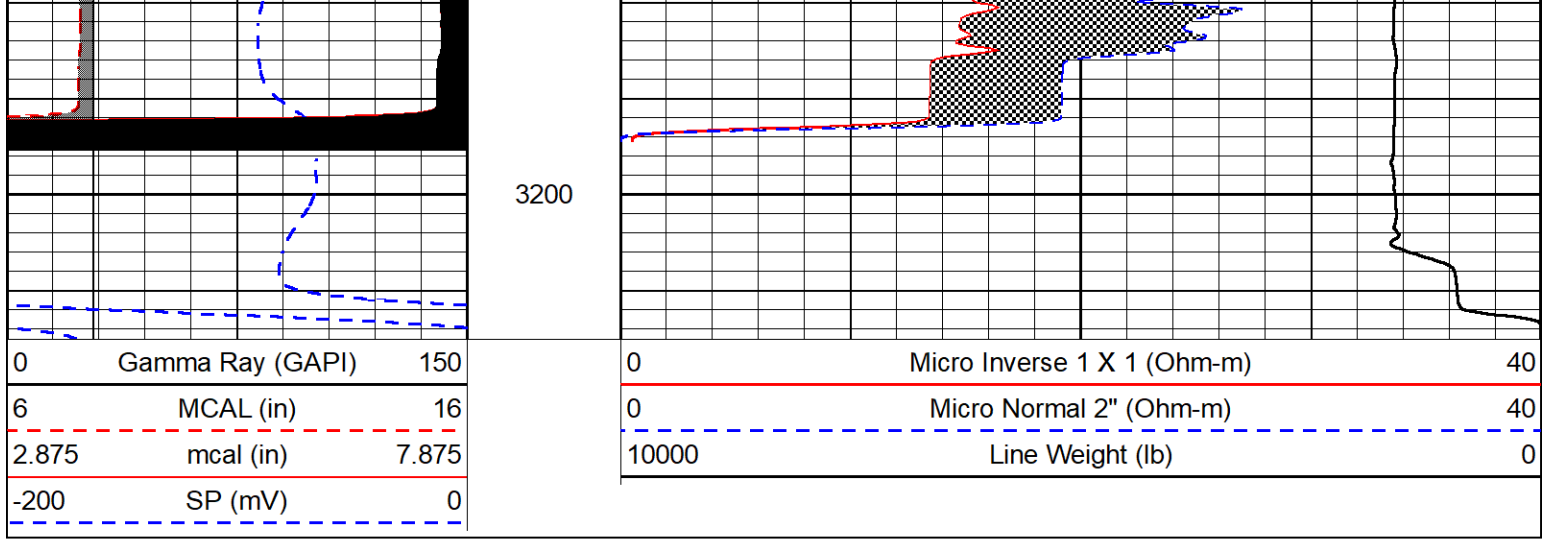
Database File

castle_hund1.db

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
-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: castle_hund1.db
 Dataset Pathname: stkml/pass3.1
 Dataset Creation: Tue Mar 28 19:45:01 2023

Dual Induction Calibration Report

Serial-Model: 505 HT-M&W
 Surface Cal Performed: Mon Mar 20 13:26:49 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.475	-43.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.410	-52.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Wed Jan 25 21:26:04 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	11000.0000	-1.5000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	12000.0000	-1.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.7500

Compensated Density Calibration Report

Serial-Model: 303-03-M&W
 Source #: 21170B
 Master Calibration Performed: Mon Mar 20 13:27:55 2023

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.655	g/cc	700.98	3068.49	cps

Spine Angle = 73.06

Density/Spine Ratio = 0.506

	Size		Reading
Small Ring	4.00	in	1.17
Large Ring	16.00	in	1.03

Compensated Neutron Calibration Report

Serial-Model:	210-M&W
Source #:	N-1238
Master Calibration Performed:	Fri Dec 3 09:16:24 2021

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

Gamma Ray Calibration Report

Serial Number:	103	
Tool Model:	M&W	
Performed:	Wed Jan 25 21:25:33 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps

	Company	Castle Resources, Inc.
	Well	Hund #1
	Field	Newberry
	County	Wabaunsee
	State	Kansas