



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

Company Carmen Schmitt Inc.  
 Well Rolfs #2  
 Field Gregory  
 County Ellsworth  
 State Kansas

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 Field Gregory  
 County Ellsworth State Kansas

Location: API #: 15-053-21378-00-00  
 2045 FNL 1850 FWL  
 SEC 36 TWP 16S RGE 9W  
 Permanent Datum Ground Level Elevation 1764  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL/CDL  
 DIL  
 Elevation  
 K.B. 1774  
 D.F.  
 G.L. 1764

Date	12/21/2021
Run Number	One
Depth Driller	3340
Depth Logger	3341
Bottom Logged Interval	3340
Top Log Interval	2500
Casing Driller	8.625 @ 249
Casing Logger	250
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6000
Density / Viscosity	9.1 58
pH / Fluid Loss	9.5 8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 50
Rmt @ Meas. Temp	0.30 @ 50
Rmc @ Meas. Temp	0.54 @ 50
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.18 @ 109
Operating Rig Time	3 Hours
Max Rec. Temp. F	109
Equipment Number	P-24
Location	Hays
Recorded By	D. Schmidt
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.

Ellsworth,  
 SW on Hwy 156 to 10 Rd, South to R Rd,  
 1/2 East, 1/2 South, 1/2 East,  
 North and East to location

Log Measured From: Kelly Bushing 10 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: Brad Rine  
 Secondary Witness:  
 Secondary Witness:  
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (101)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (305-05)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (501 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: carmen schmitt\_rolfs 2.db: field/well/stkml/pass3.12  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\carmen schmitt\_rolfs 2.db  
 Dataset field/well/stkml/pass3.12/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	109	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	310	30	Off	3341

## 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



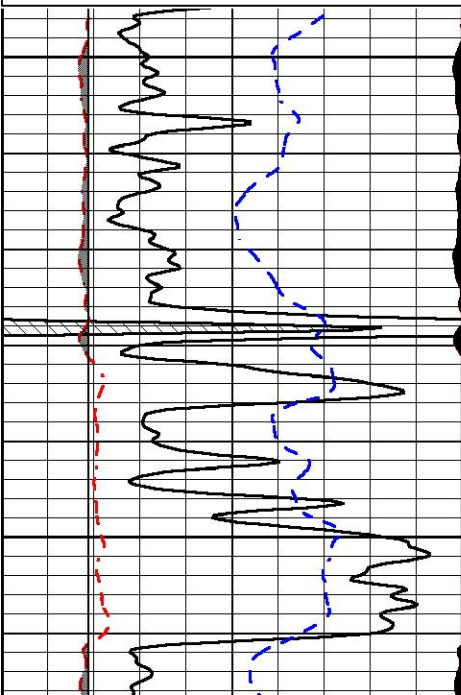
## DETAIL SECTION

### MAIN PASS

Database File carmen schmitt\_rolfs 2.db  
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 Presentation Format \_micro  
 Dataset Creation Tue Dec 21 11:36:39 2021  
 Charted by Depth in Feet scaled 1:240

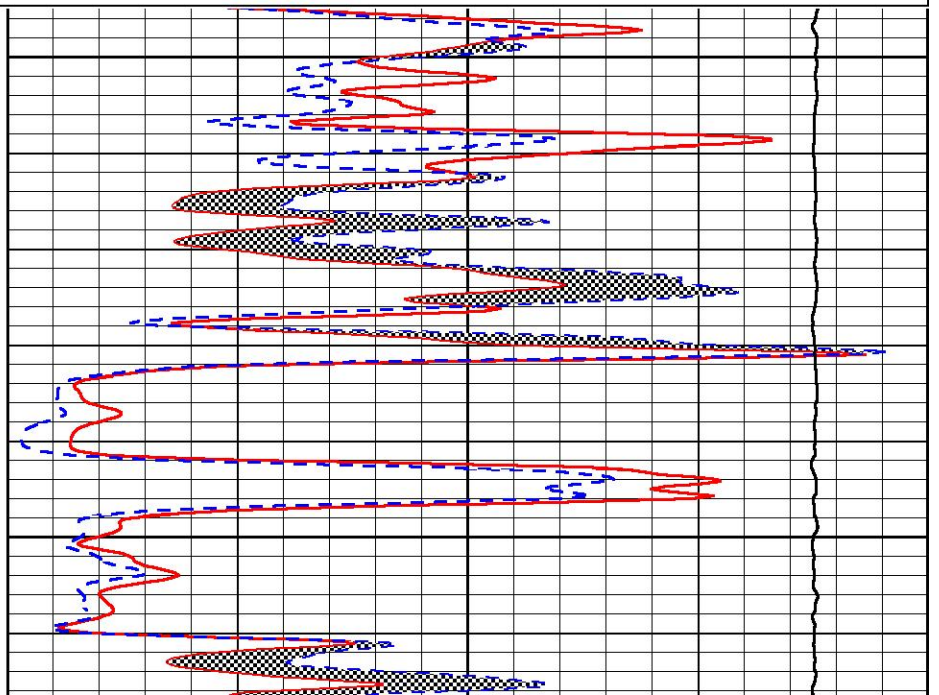
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-2.875	mcal (in)	7.875
-200	SP (mV)	0

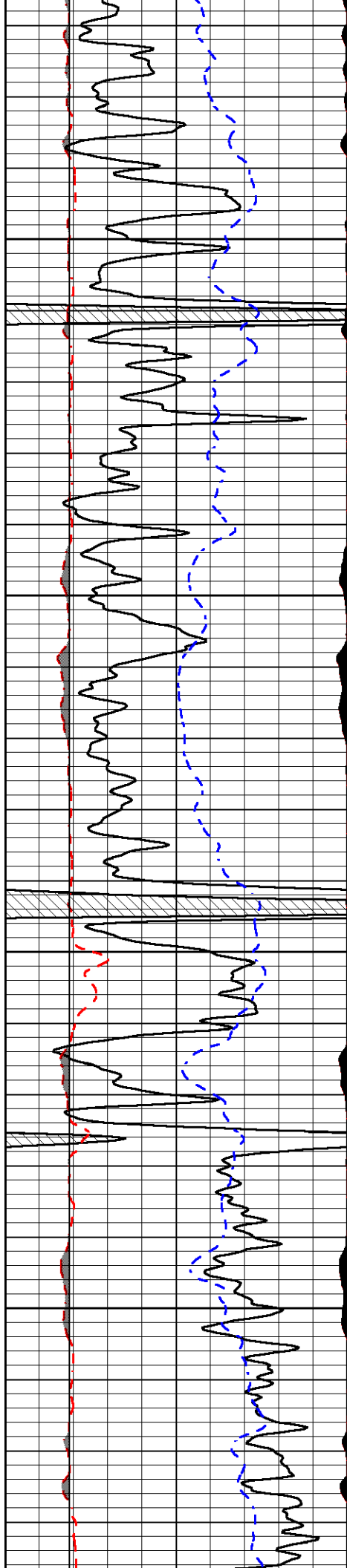
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2500

2550



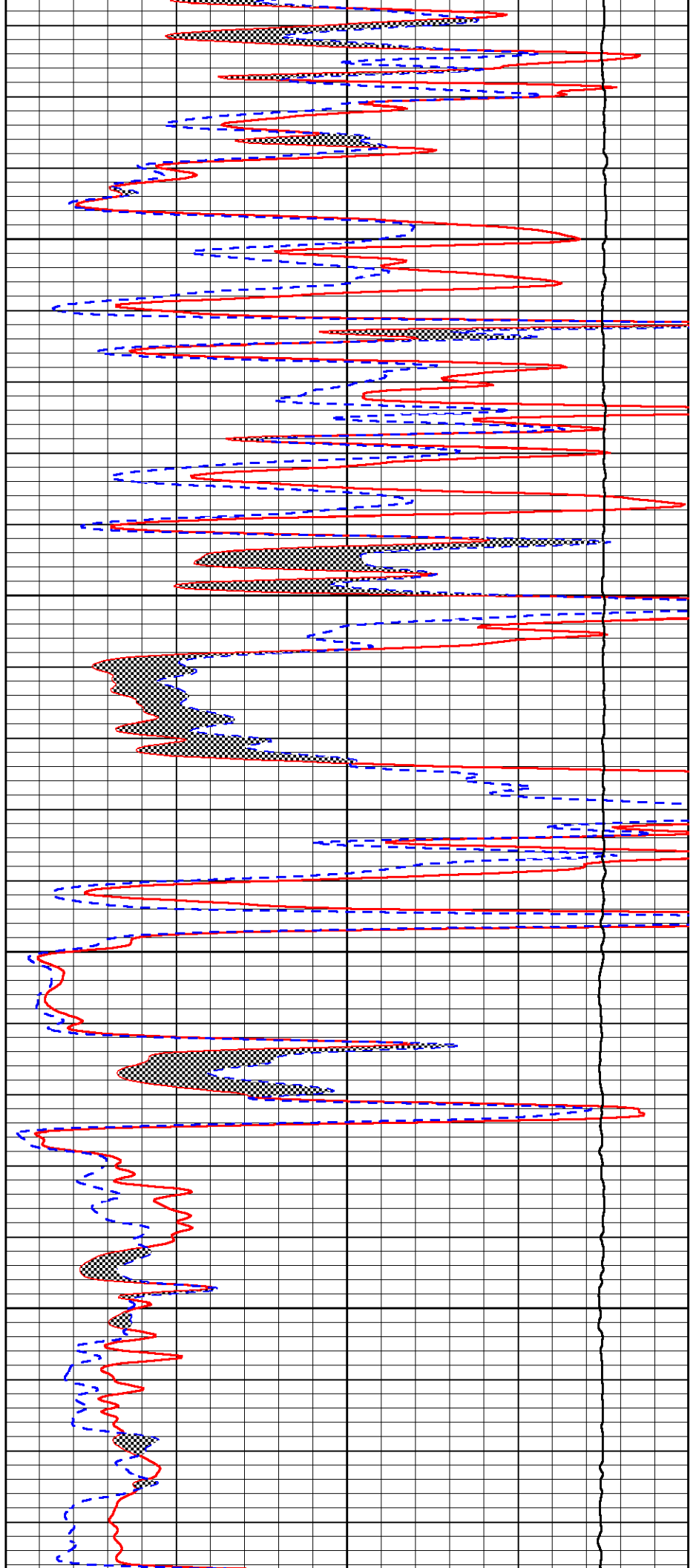


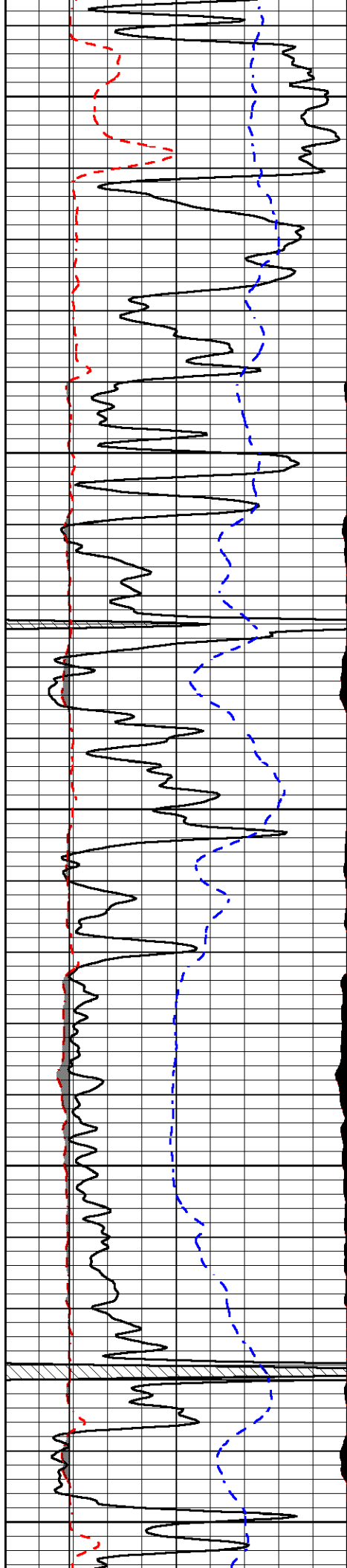
2600

2650

2700

2750





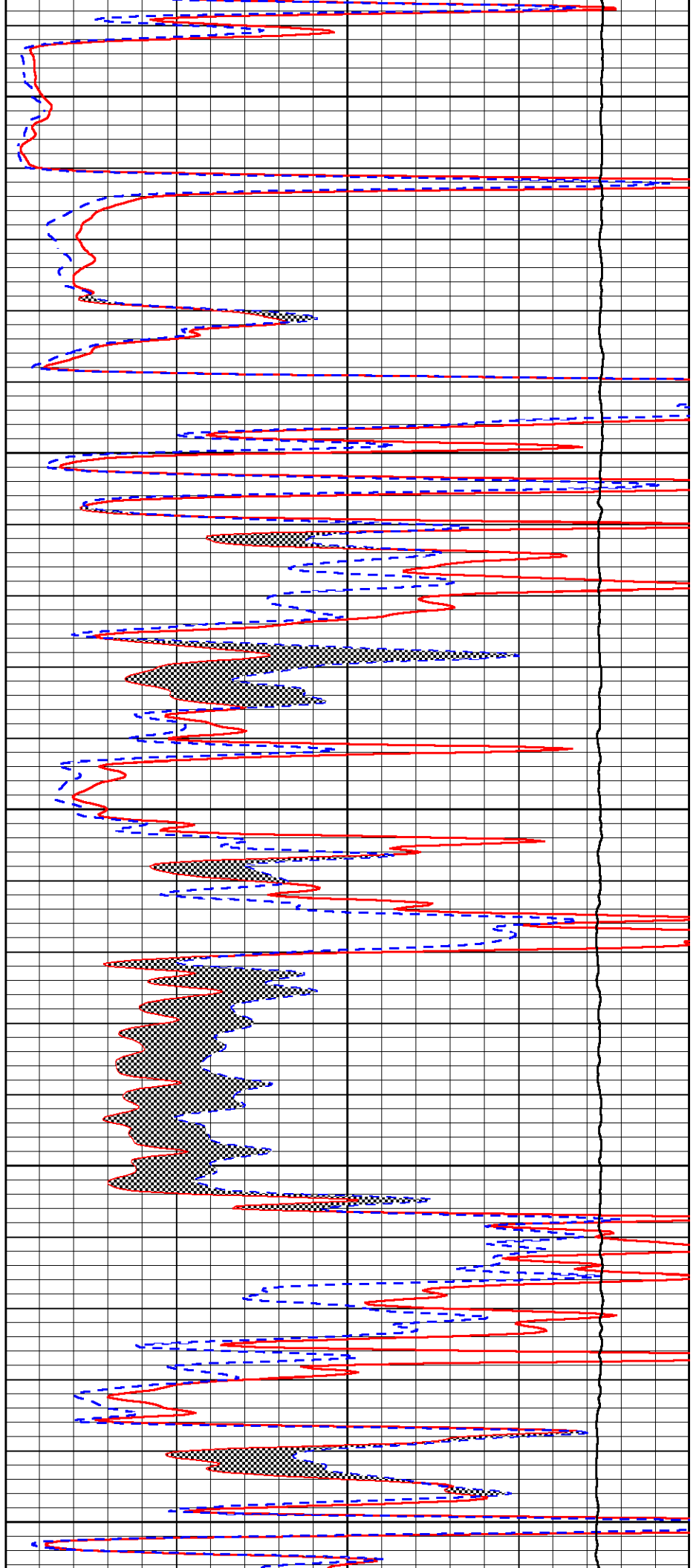
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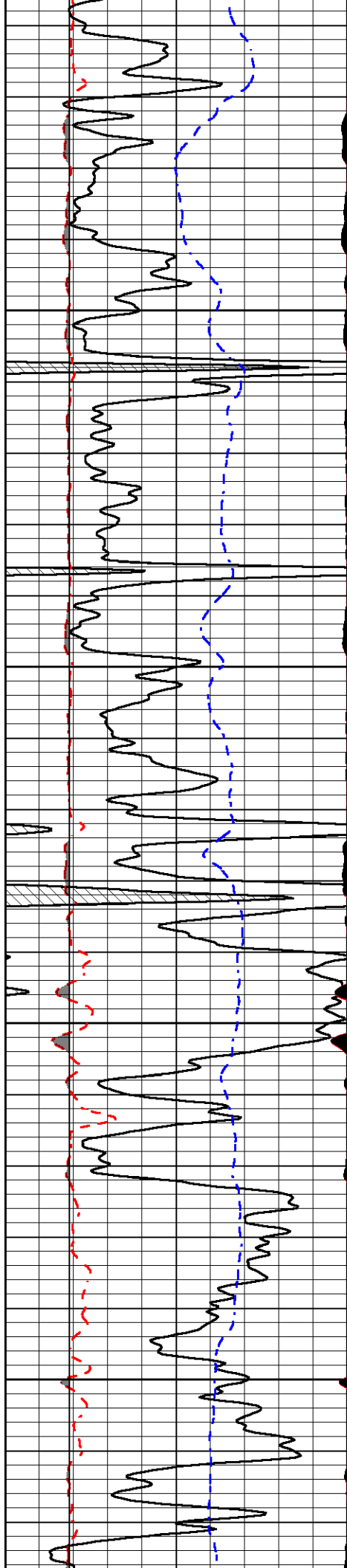
2850

2900

2950

3000



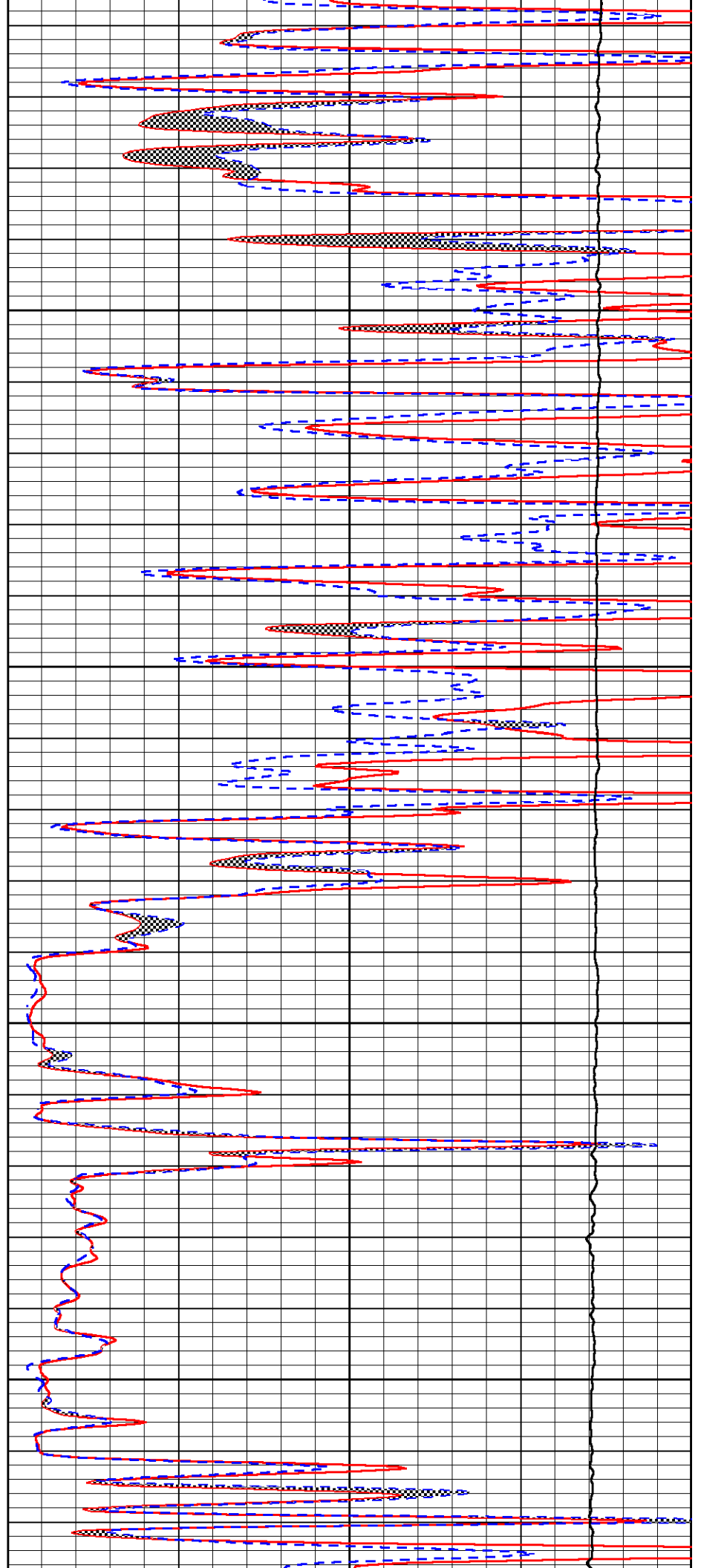


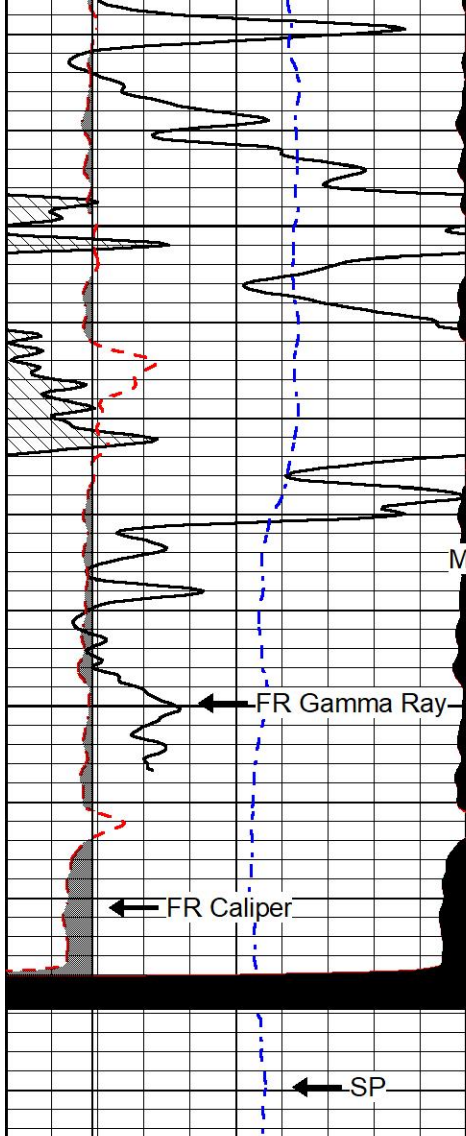
3050

3100

3150

3200





0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-2.875	mcal (in)	7.875
-200	SP (mV)	0

3250

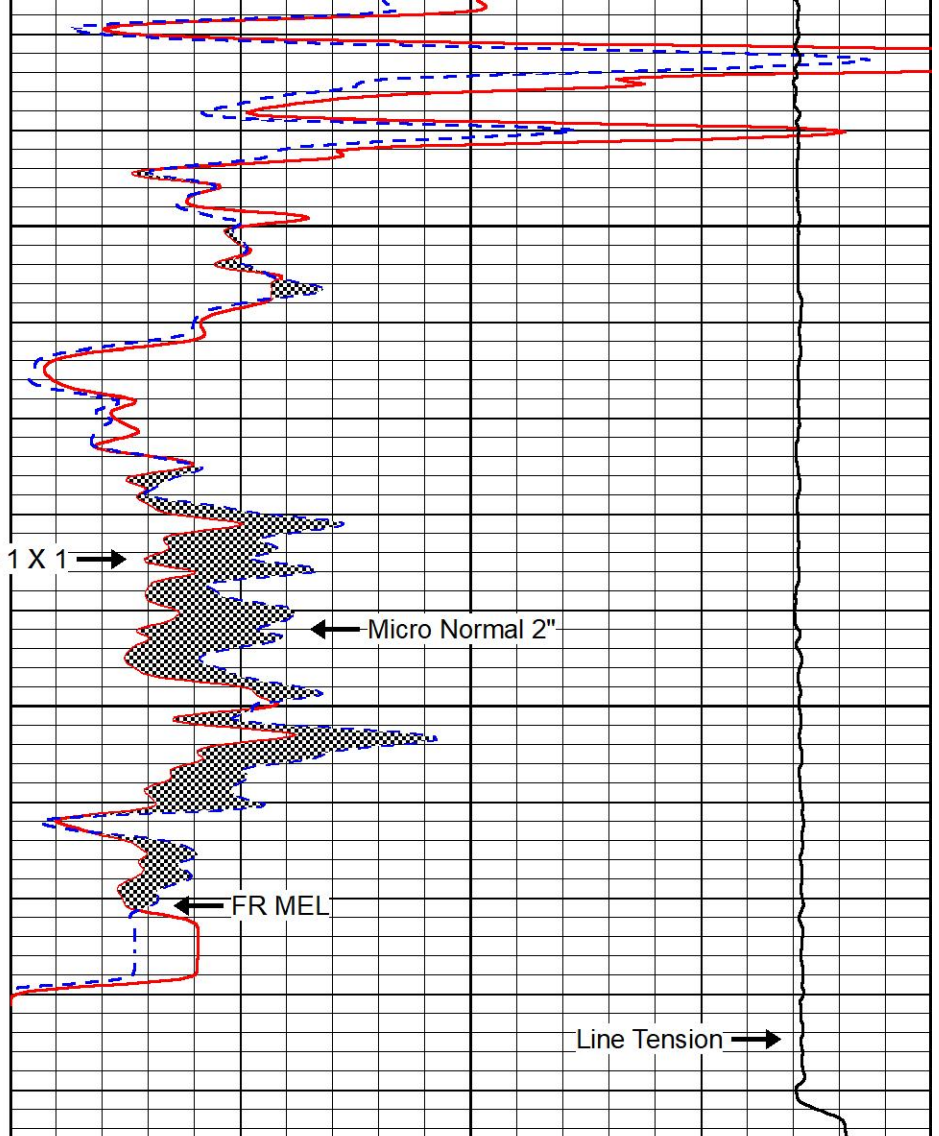
Micro Inverse 1 X 1 →

3300

← Micro Normal 2"

← FR MEL

Line Tension →



0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



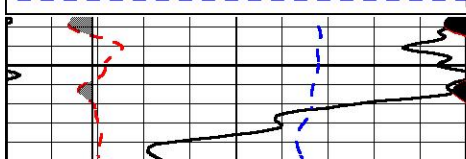
# REPEAT SECTION

## REPEAT PASS

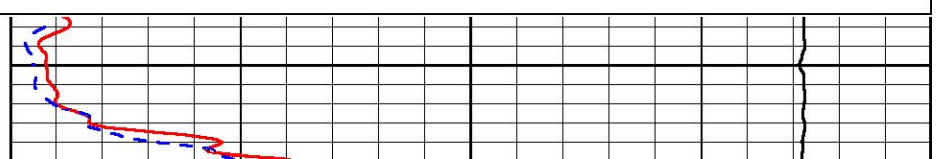
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 Presentation Format \_micro  
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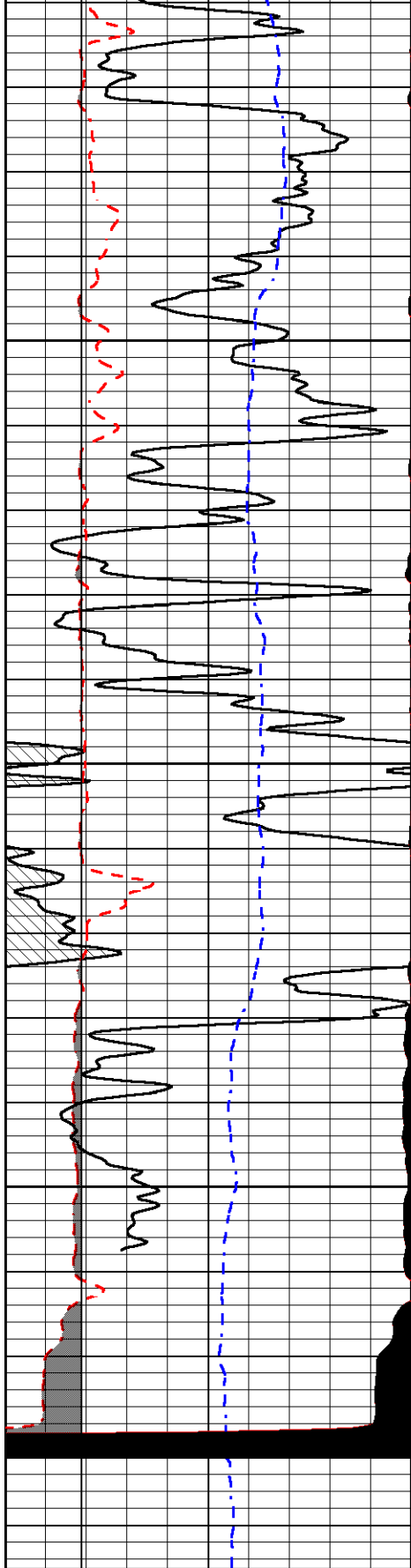
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-2.875	mcal (in)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

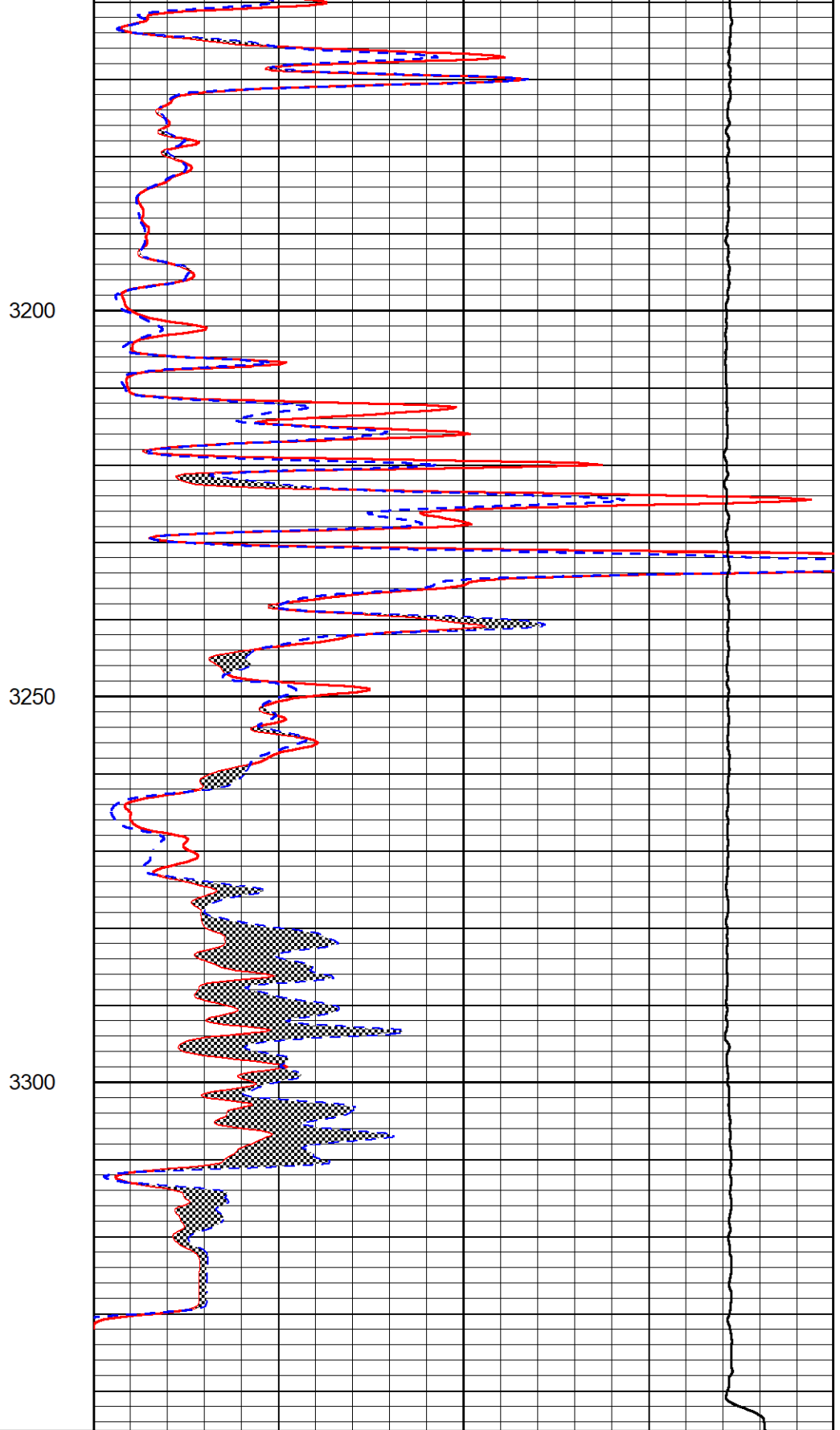


3150





0	Gamma Ray (GAPI)	150
6	Caliper (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

### Dual Induction Calibration Report

Serial-Model: 501 HT-M&W  
 Surface Cal Performed: Mon Dec 20 13:26:03 2021

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.420	-35.500
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.300	-33.500

### Microlog Calibration Report

Serial-Model: 402-PSIML  
 Performed: Tue Dec 21 10:30:27 2021

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	39500.0000	-2.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-142.4000

### Compensated Density Calibration Report

Serial-Model: 305-05-M&W  
 Source #: 20762B  
 Master Calibration Performed: Mon Dec 13 15:18:29 2021

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	8758.11	9709.36	cps
Aluminum	2.630	g/cc	1513.14	5652.54	cps
Spine Angle = 72.88			Density/Spine Ratio = 0.476		
	Size		Reading		
Small Ring	4.00	in	1.75		
Large Ring	14.00	in	1.38		

### Compensated Neutron Calibration Report

Serial-Model: 207-MW-M&W  
 Source #: 100046B  
 Master Calibration Performed: Mon Nov 29 15:06:24 2021

#### Master Calibration

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: 101  
Tool Model: M&W  
Performed: Fri Dec 3 15:10:46 2021

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps  
Calibrator Reading: 637.0 cps

Sensitivity: 0.5500 GAPI/cps



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