



MICRORESISTIVITY LOG

Company THOMAS GARNER, INC.
Well SHRACK UNIT #1
Field VAN LIEU
County STAFFORD **State** KANSAS

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Well SHRACK UNIT #1
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County STAFFORD
State KANSAS

Location: API #: 15-185-24065-00-00
 1145' FNL & 100' FEL
 SE - SE - NE - NE
 SEC 20 TWP 24S RGE 13W
Permanent Datum GROUND LEVEL Elevation 1922'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Other Services CNL/CDL DIL
Elevation 1933'
K.B. N/A
D.F. N/A
G.L. 1922'

Date	1/3/2020
Run Number	ONE
Depth Driller	4120'
Depth Logger	4120'
Bottom Logged Interval	4119'
Top Log Interval	2800'
Casing Driller	8.625" @ 307'
Casing Logger	308'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	6000
Density / Viscosity	9.4 103
pH / Fluid Loss	10.5 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.65 @ 60
Rmt @ Meas. Temp	0.49 @ 60
Rmc @ Meas. Temp	0.88 @ 60
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.33 @ 117
Operating Rig Time	3 HOURS
Max Rec. Temp. F	117
Equipment Number	P-24
Location	HAYS
Recorded By	IAN MABB
Witnessed By	JOSH AUSTIN

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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.
 ST. JOHN, KS.
 HWY 281 & HWY 50, WEST 1 MILE TO SW 10TH AVE,
 SOUTH 3/8 OF A MILE & WEST INTO

Log Measured From: KELLY BUSHING 10 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew Engineer: IAN MABB Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: JOSH AUSTIN Secondary Witness: Secondary Witness: Secondary Witness:
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Log Variables

DatabaseC:\ProgramData\Warrior\Data\thomas_garner_shrack_unit_1.db
Dataset field/well/stackmel/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	3	4	0	0	Off	4120

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC CNSSC	41.40 40.65		CNT-M&W (207-MW)	5.50	3.50	100.00	
LSD DCAL SSD	32.35 32.33 31.85		CDL-M&W (817-947)	8.50	4.00	250.00	
ML-PSI UDM ML (UDM-01) Stackable Microlog Tools				11.50	4.00	215.00	
MCAL MI MN	20.87 20.87 20.87						
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: thomas_garner_shrack_unit_1.db: field/well/stackmel/pass3.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

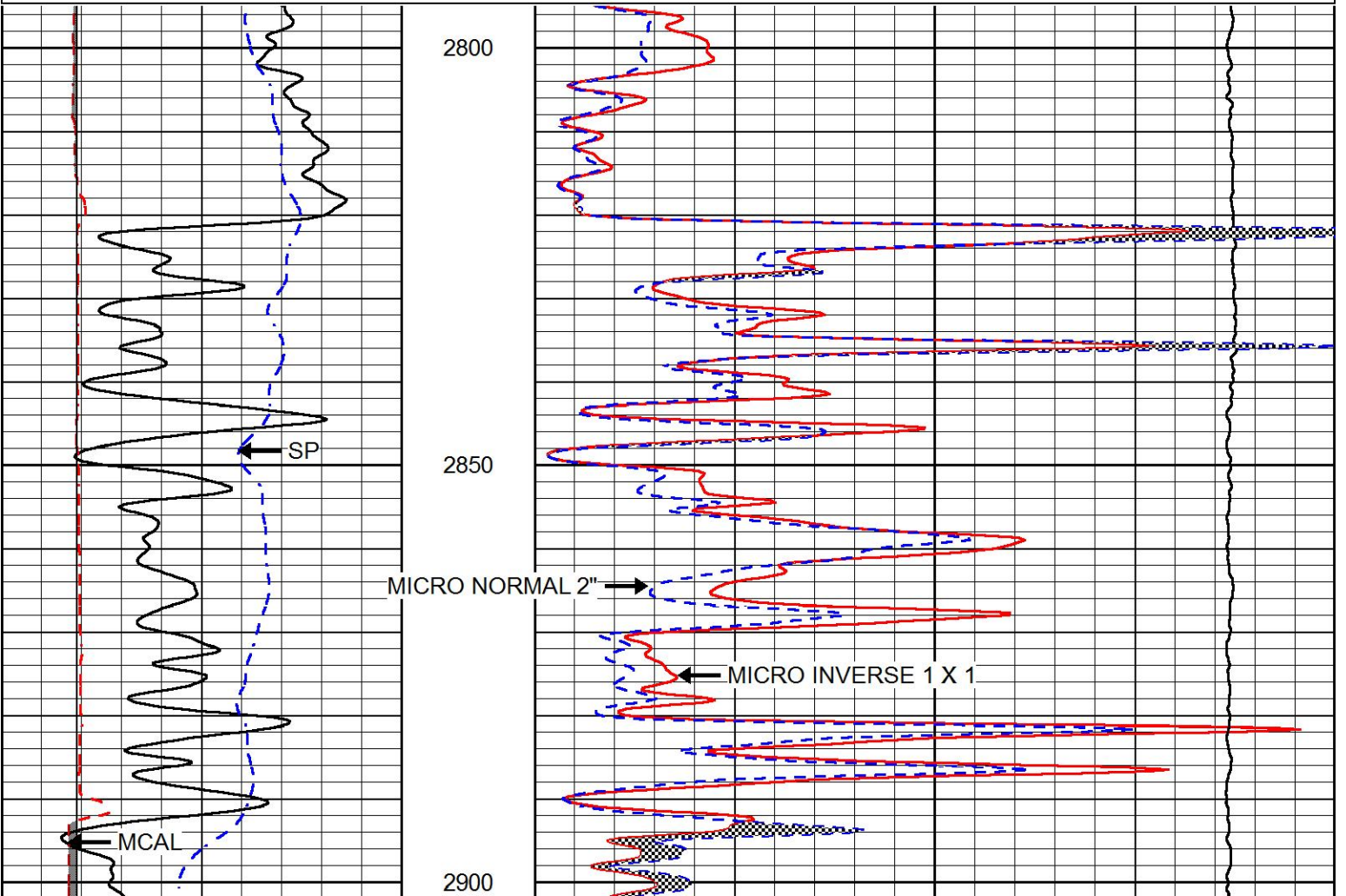


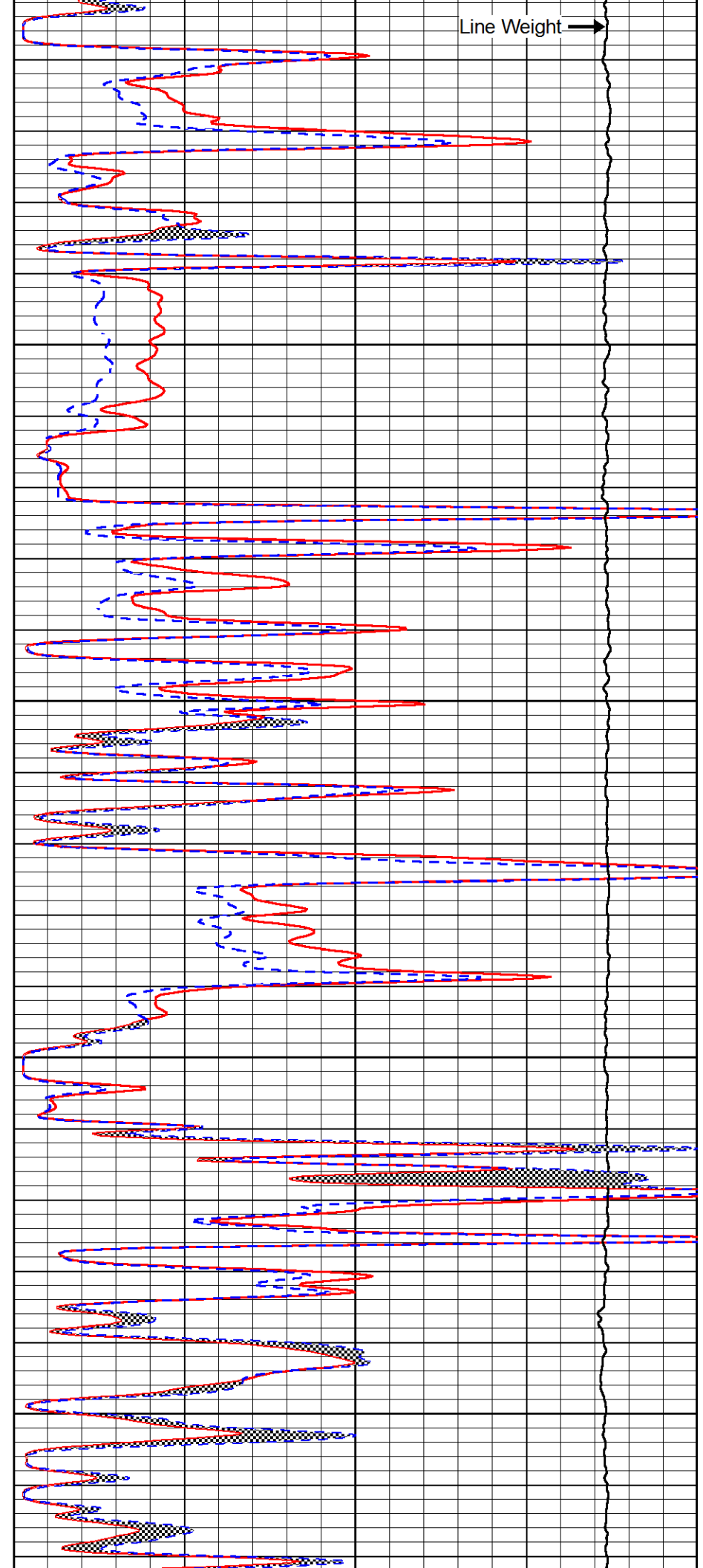
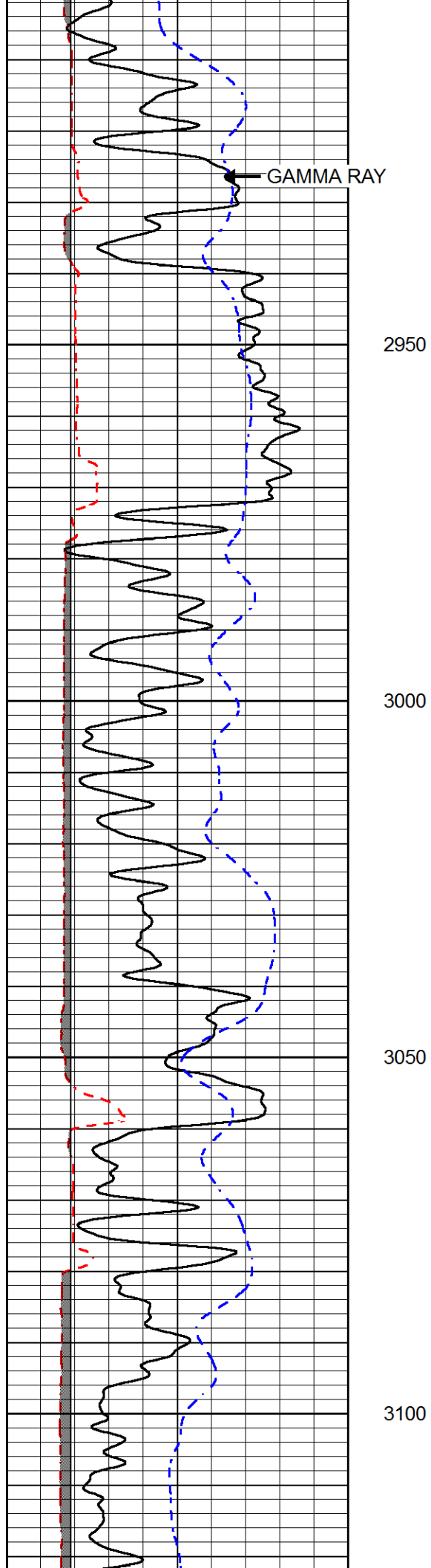
MAIN PASS

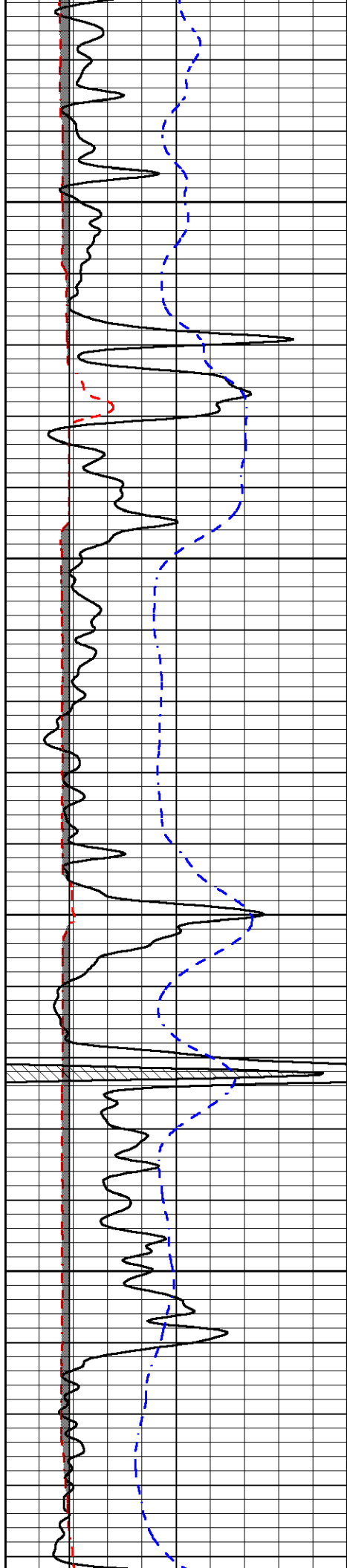
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 Dataset Pathname stackmel/pass3.1
 Presentation Format _micro
 Dataset Creation Fri Jan 03 04:25:18 2020
 Charted by Depth in Feet scaled 1:240

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





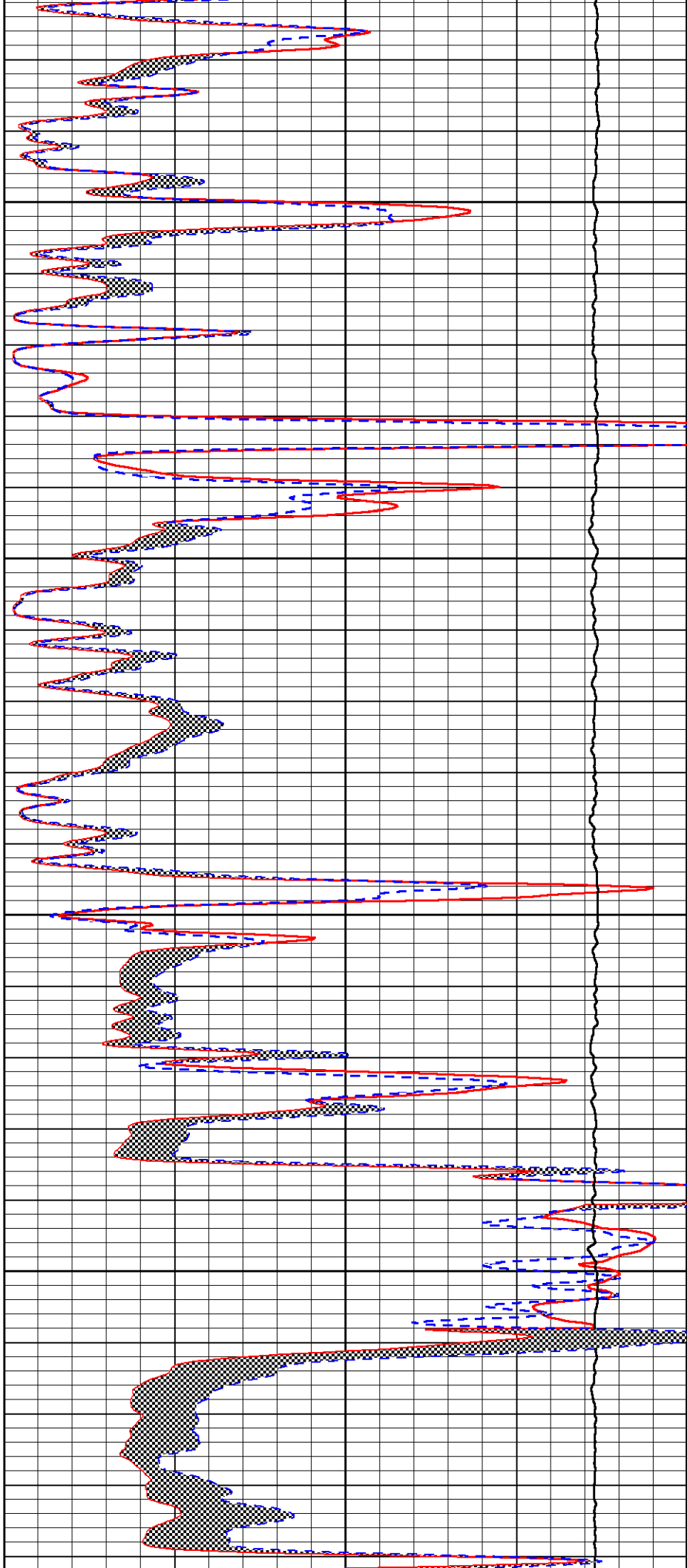


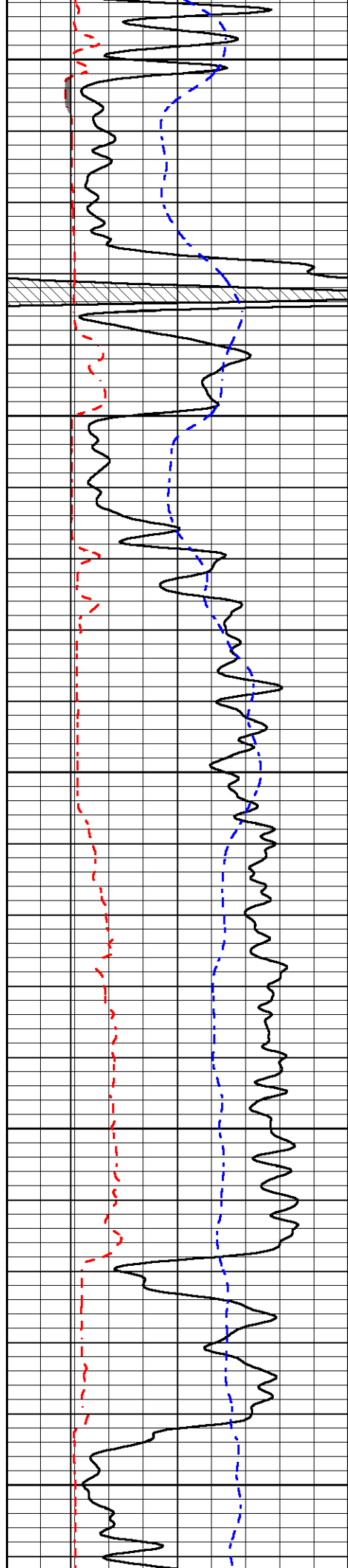
3150

3200

3250

3300





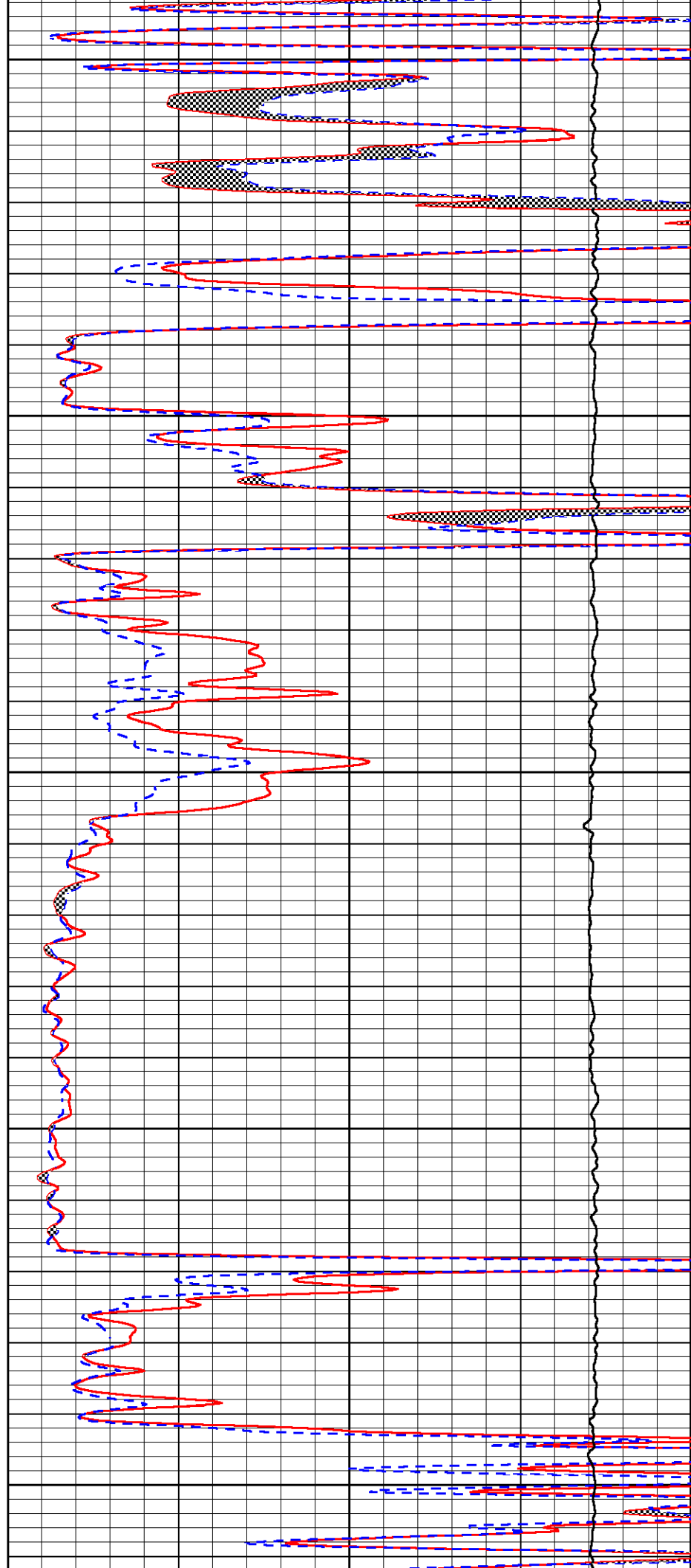
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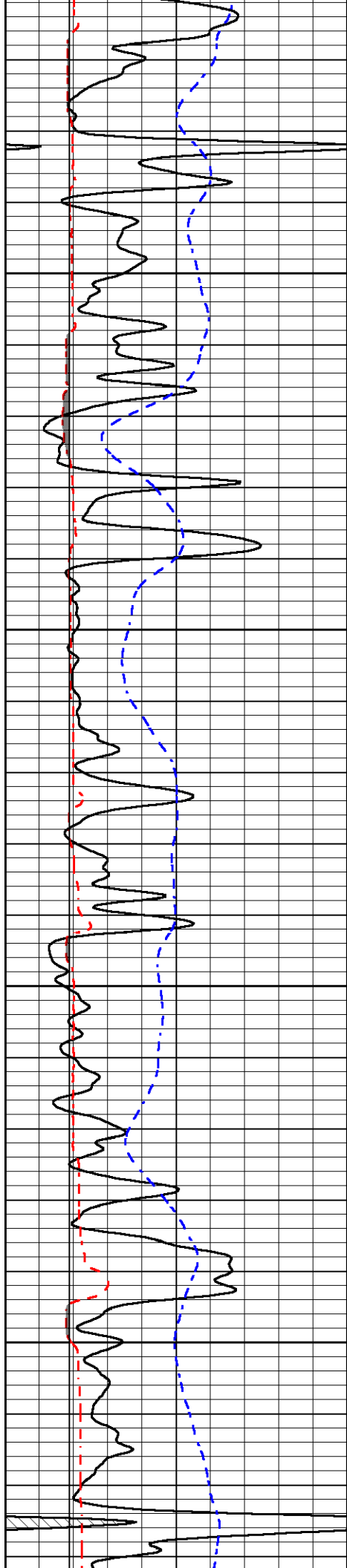
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3450

3500

3550



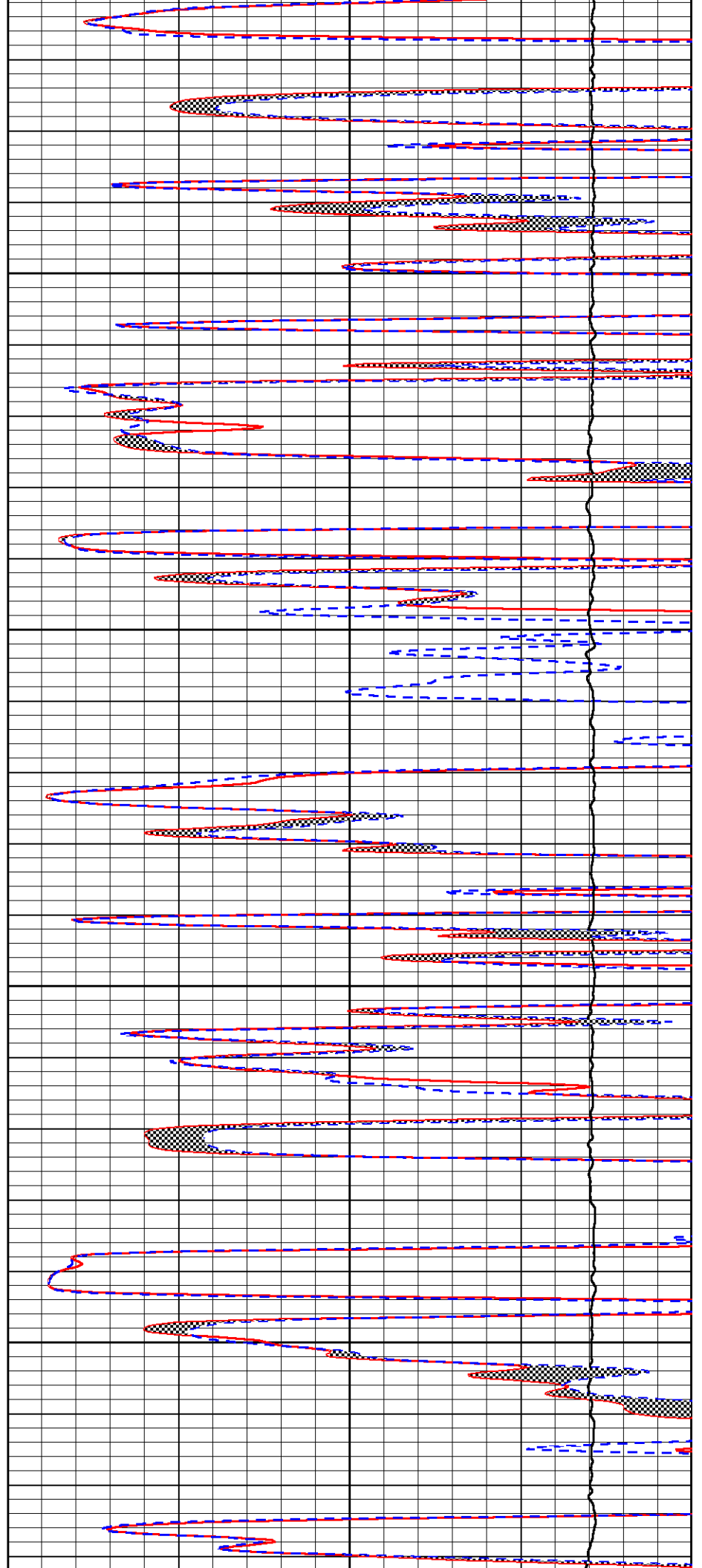


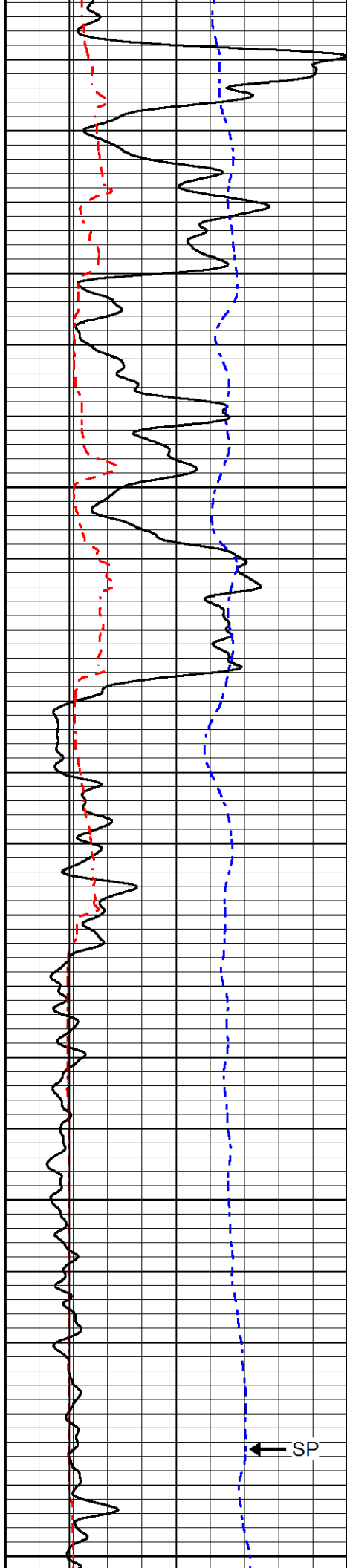
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3650

3700

3750





3800

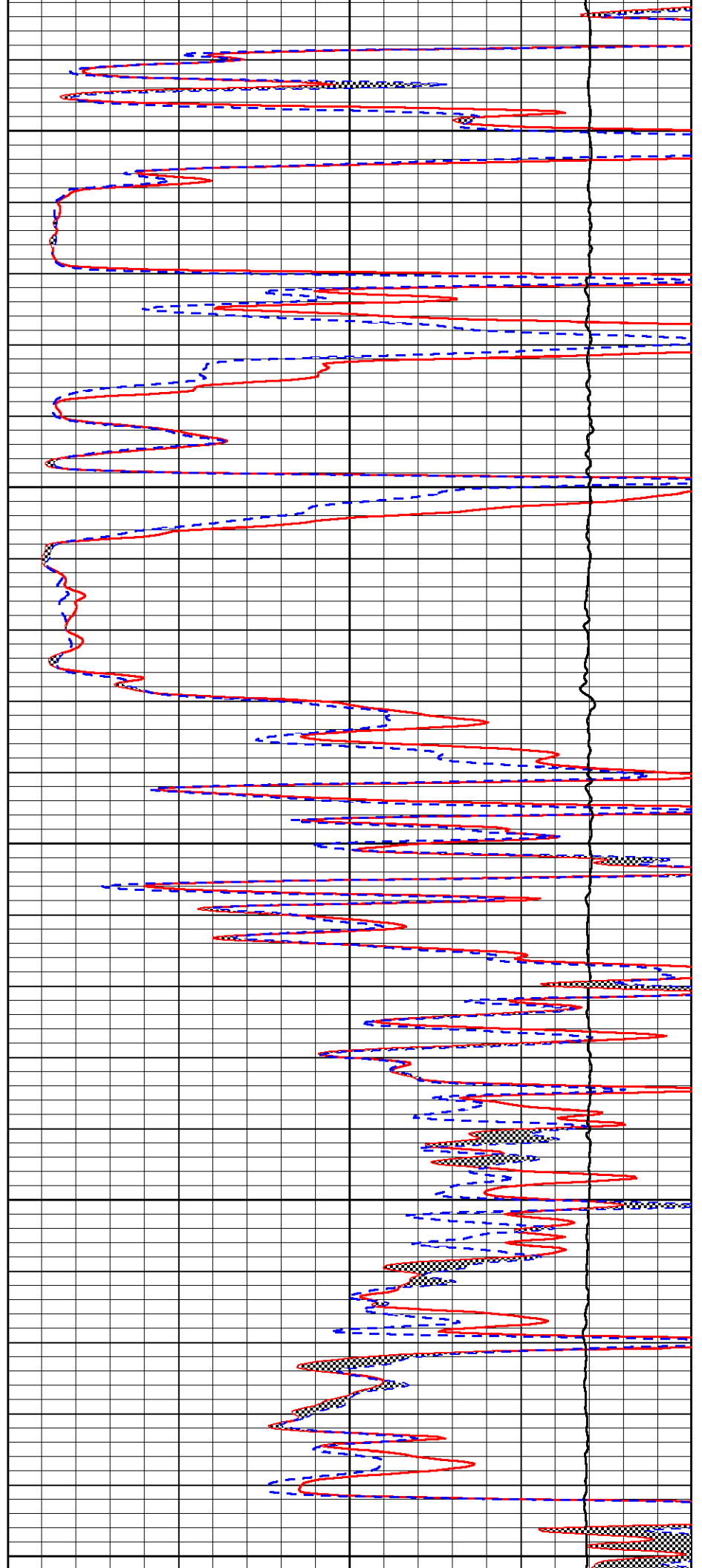
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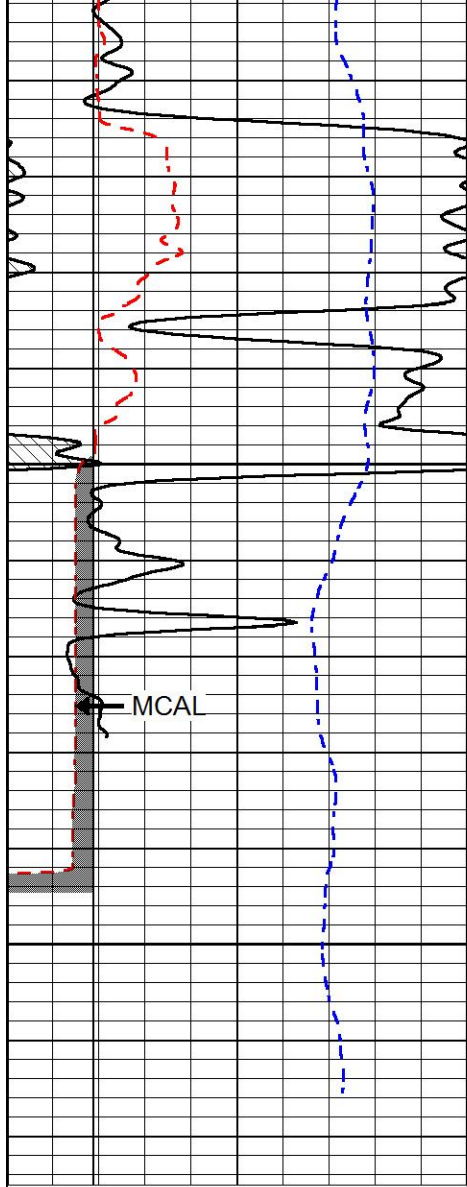
3900

3950

4000

← SP

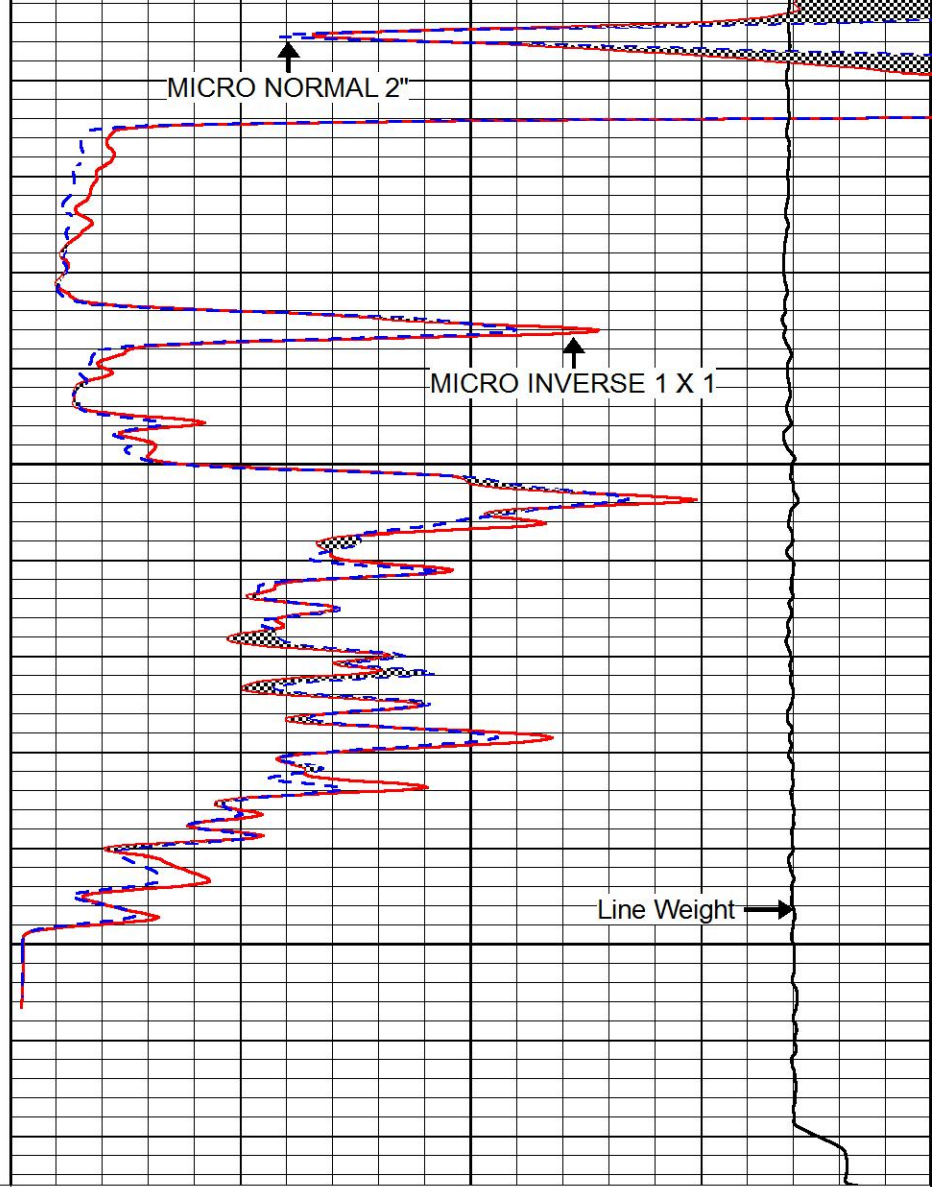




0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	SP (mV)	0

4050

4100



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

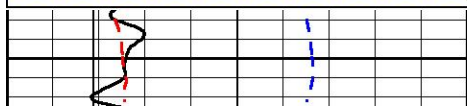


REPEAT SECTION

Database File thomas_garner_shrack_unit_1.db
 Dataset Pathname stackmel/pass2.1
 Presentation Format _micro
 Dataset Creation Fri Jan 03 04:33:17 2020
 Charted by Depth in Feet scaled 1:240

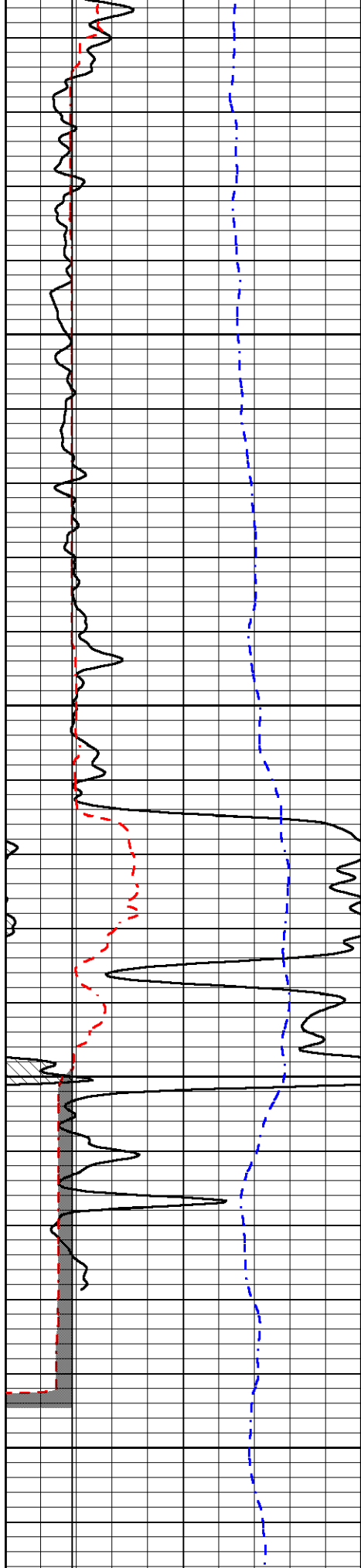
0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
6	Bit Size (in)	16
-200	SP (mV)	0

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



3900



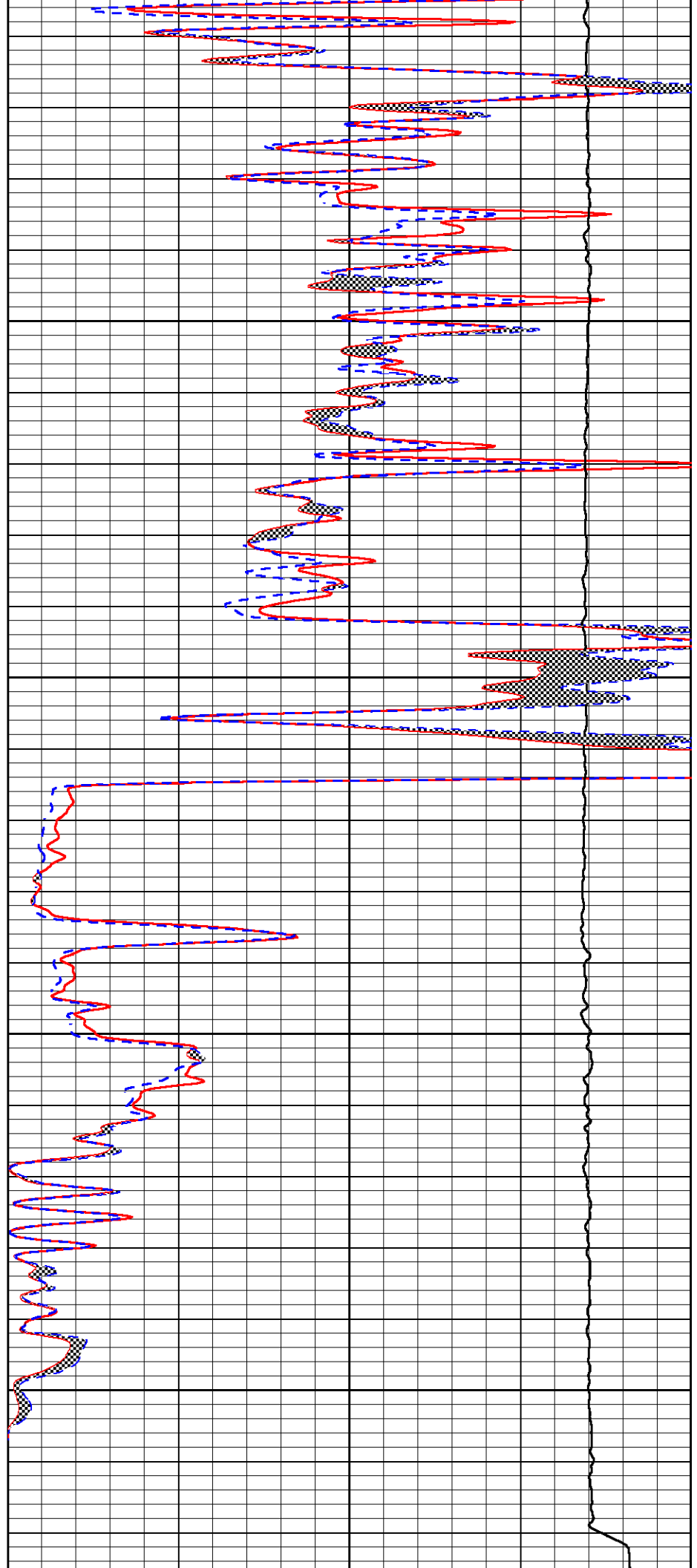


3950

4000

4050

4100



0	GAMMA RAY (GAPI)	150	0	MICRO INVERSE 1 X 1 (Ohm-m)	40
6	MCAL (in)	16	0	MICRO NORMAL 2" (Ohm-m)	40
6	Bit Size (in)	16	10000	Line Weight (lb)	0
-200	SP (mV)	0			

Calibration Report

Database File thomas_garner_shrack_unit_1.db
 Dataset Pathname stackmel/pass3.1
 Dataset Creation Fri Jan 03 04:25:18 2020

Dual Induction Calibration Report

Serial-Model: 952-828-PSI HIGH TEMP
 Calibration Performed: Wed Oct 09 13:38:53 2019

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.400	-27.500
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.275	-27.000

Microlog Calibration Report

Serial-Model: UDM-01-PSI UDM ML
 Performed: (Not Performed)

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	32000.0000	0.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	32000.0000	0.5000
Caliper	0.0000	1.0000	0.0000	1.0000	in	6.2000	0.0000

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16955B / 2ci
 Master Calibration Performed: Tue Sep 24 21:18:50 2019

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.680	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.532		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	15.00	in	1.34		

Compensated Neutron Calibration Report

Serial Number: 207-MW
 Tool Model: M&W

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: Fri Feb 07 01:42:40 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps



PIONEER
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