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MICRORESISTIVITY LOG

Company MAREXCO, INC.
Well STUCKY #14-2
Field WILDCAT
County SCOTT State KANSAS

Location: API #: 15-171-21243-00-00
875' FSL & 920' FWL
SEC 2 TWP 19S RGE 31W

Other Services: CNL/CDL, DIL/BHCS

Permanent Datum: GROUND LEVEL Elevation 2928'
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 2933', D.F. N/A, G.L. 2928'

Company	MAREXCO, INC.		
Company	MAREXCO, INC.		
Well	STUCKY #14-2		
Field	WILDCAT		
County	SCOTT		
State	KANSAS		
Date	5/1/2019		
Run Number	TWO		
Depth Driller	4670'		
Depth Logger	4668'		
Bottom Logged Interval	4667'		
Top Log Interval	3400'		
Casing Driller	8.625" @ 219'		
Casing Logger	224'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity,ppm CL	3000		
Density / Viscosity	8.9 54		
pH / Fluid Loss	8.0 12.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.80 @ 74		
Rmf @ Meas. Temp	.60 @ 74		
Rmc @ Meas. Temp	1.08 @ 74		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	.48 @ 123		
Operating Rig Time	4 HOURS		
Max Rec. Temp. F	123 DEG/F		
Equipment Number	P-108		
Location	HAYS		
Recorded By	J. HENRICKSON		
Witnessed By	RICK HALL		

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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.

DIGHTON KANSAS
14 WEST TO VENISON ROAD, 3 SOUTH, EAST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. HENRICKSON	Primary Witness: RICK HALL
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

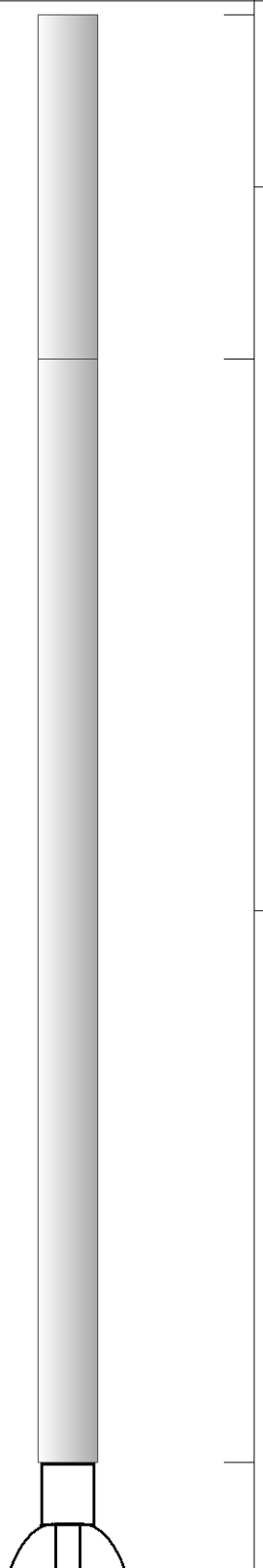
Log Variables

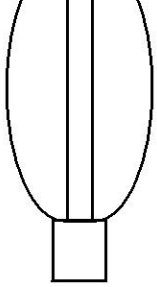
DatabaseC:\ProgramData\Warrior\Data\marexco_stucky_14_2.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	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	143	53	Off	4668

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			ML-Armadillo (Armadillo-1) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
MCAL	22.50					
MI	22.50					
MN	22.50					
WVF4	13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF1	13.50					
WVF3	11.50					
WVF2	11.50					



CENT-PENGO	5.50	3.00	70.00

Dataset: marexco_stucky_14_2.db: field/well/SONMEL/pass2
Total length: 26.50 ft
Total weight: 470.00 lb
O.D.: 3.50 in

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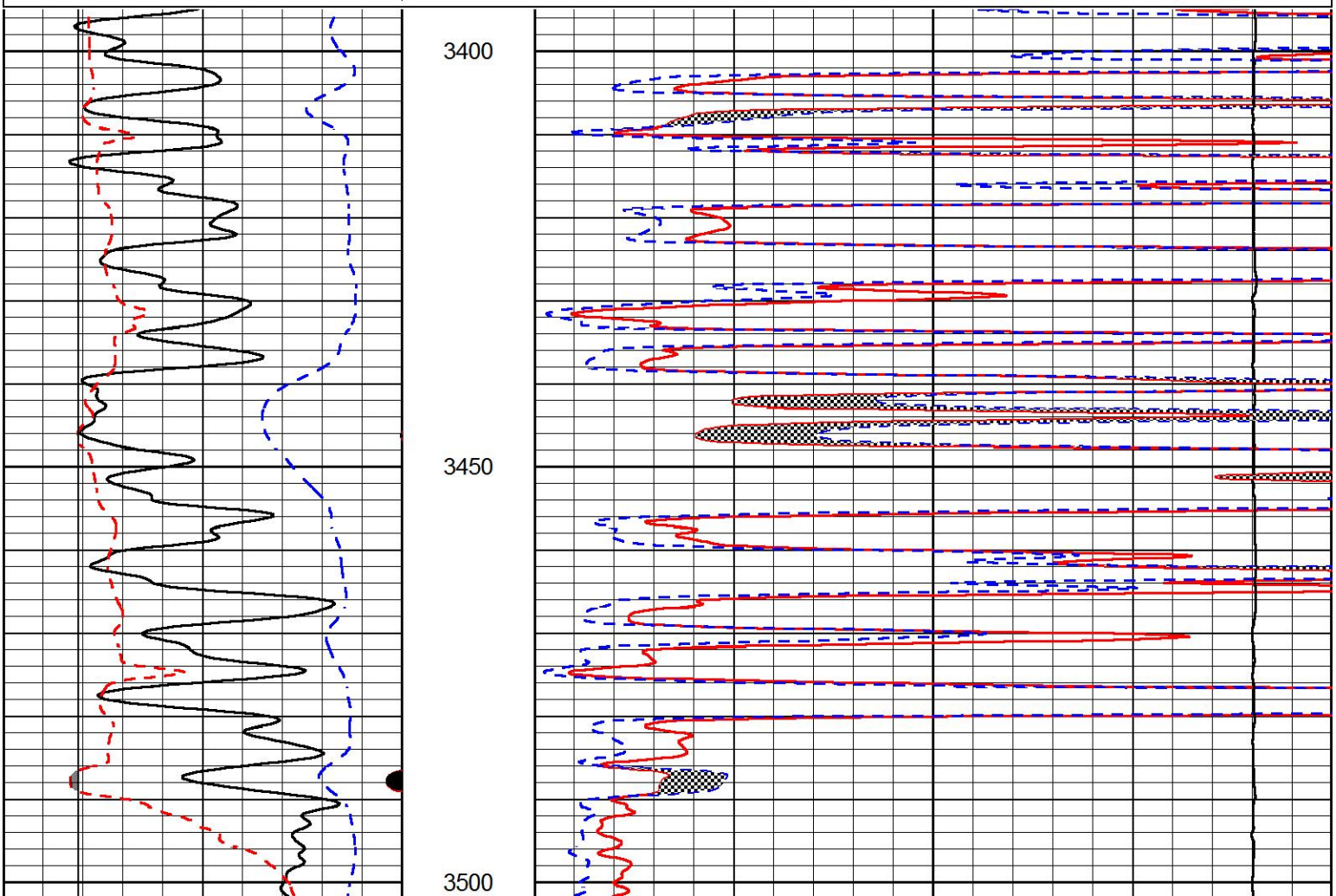
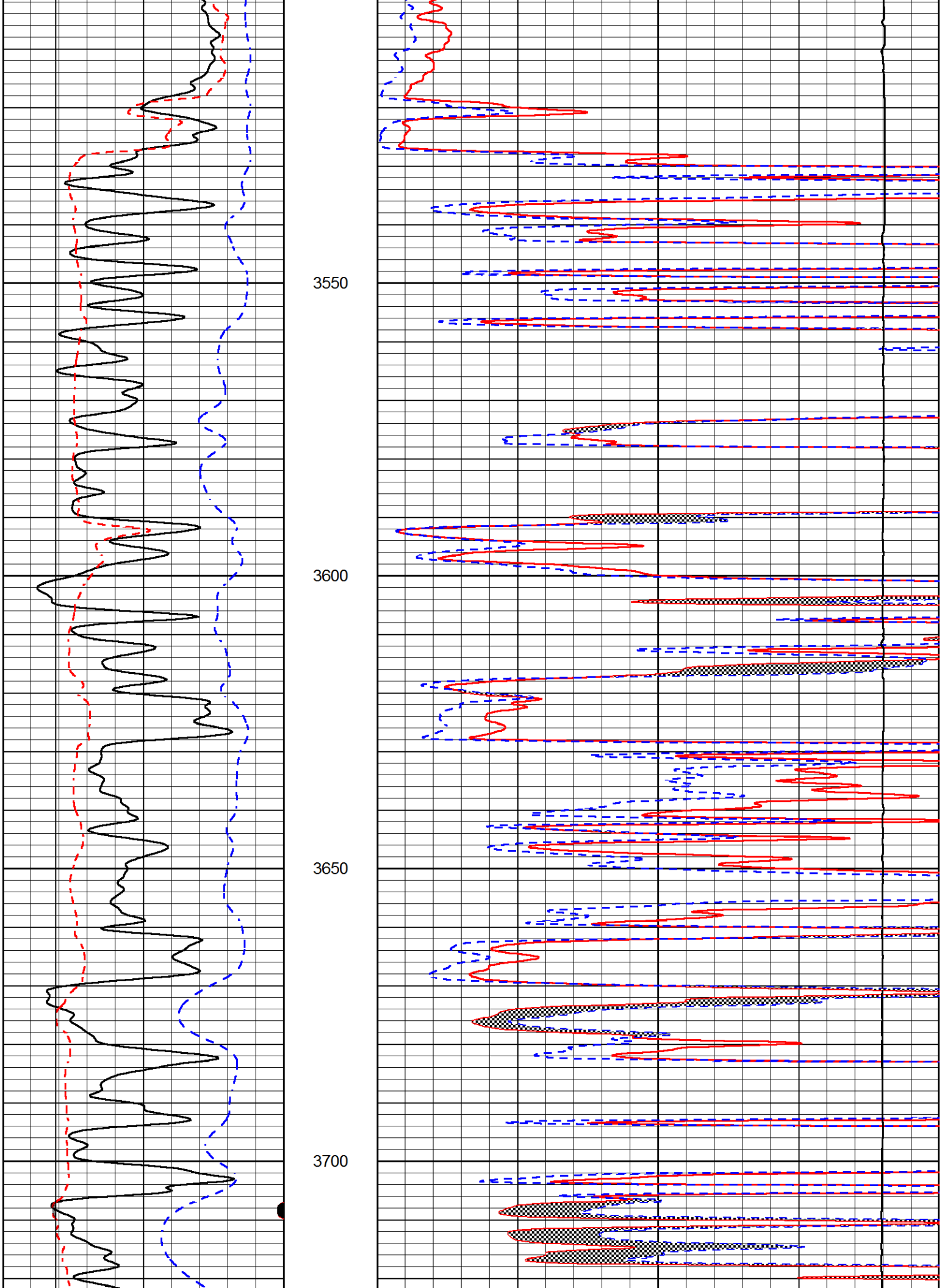
MAIN PASS

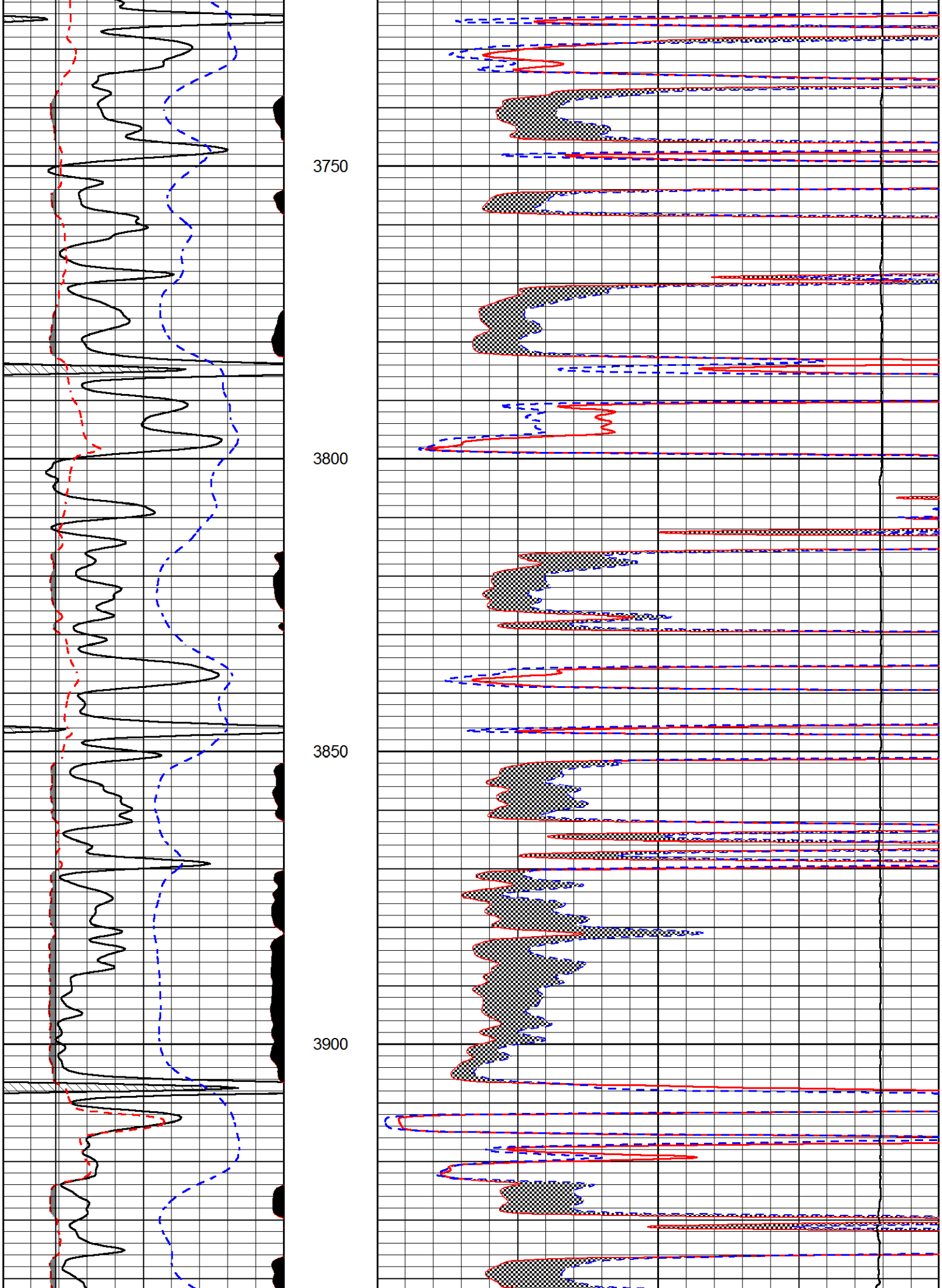
Database File	marexco_stucky_14_2.db
Dataset Pathname	stack/pass3.1
Presentation Format	micro
Dataset Creation	Wed May 01 13:59:50 2019
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (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
15000	LINE TENSION (lb)	0




3550
3600
3650
3700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3800
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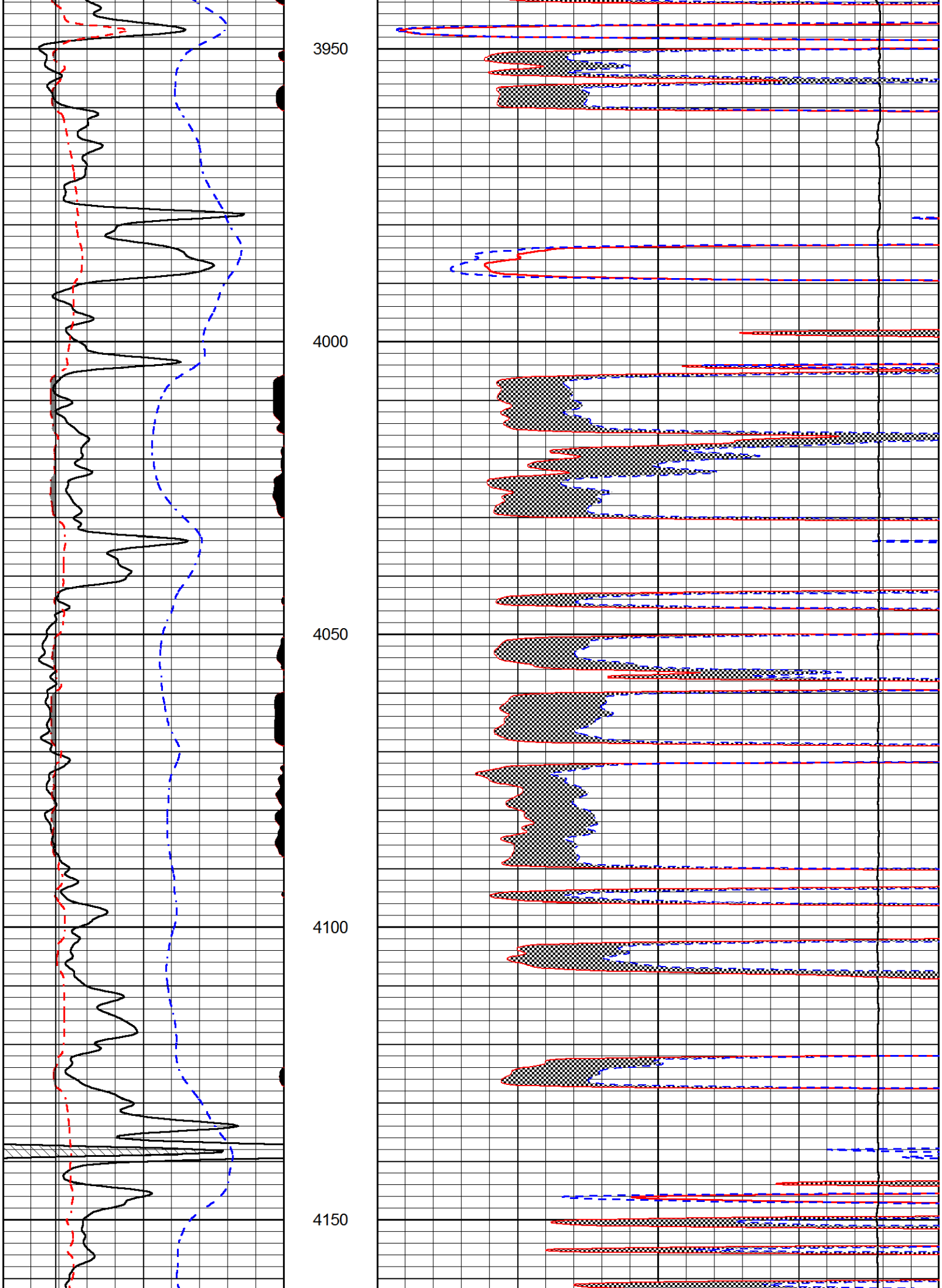
3900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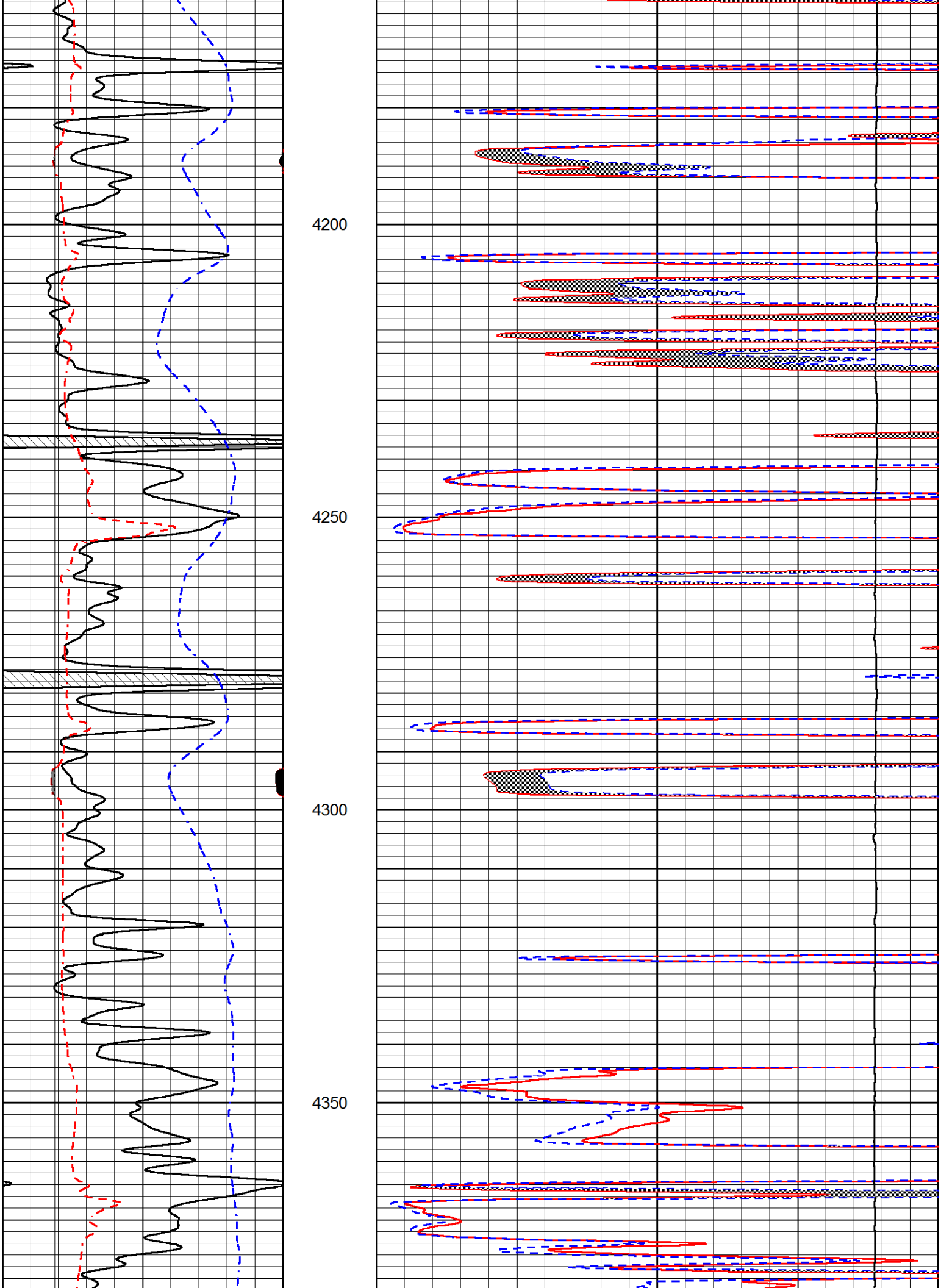
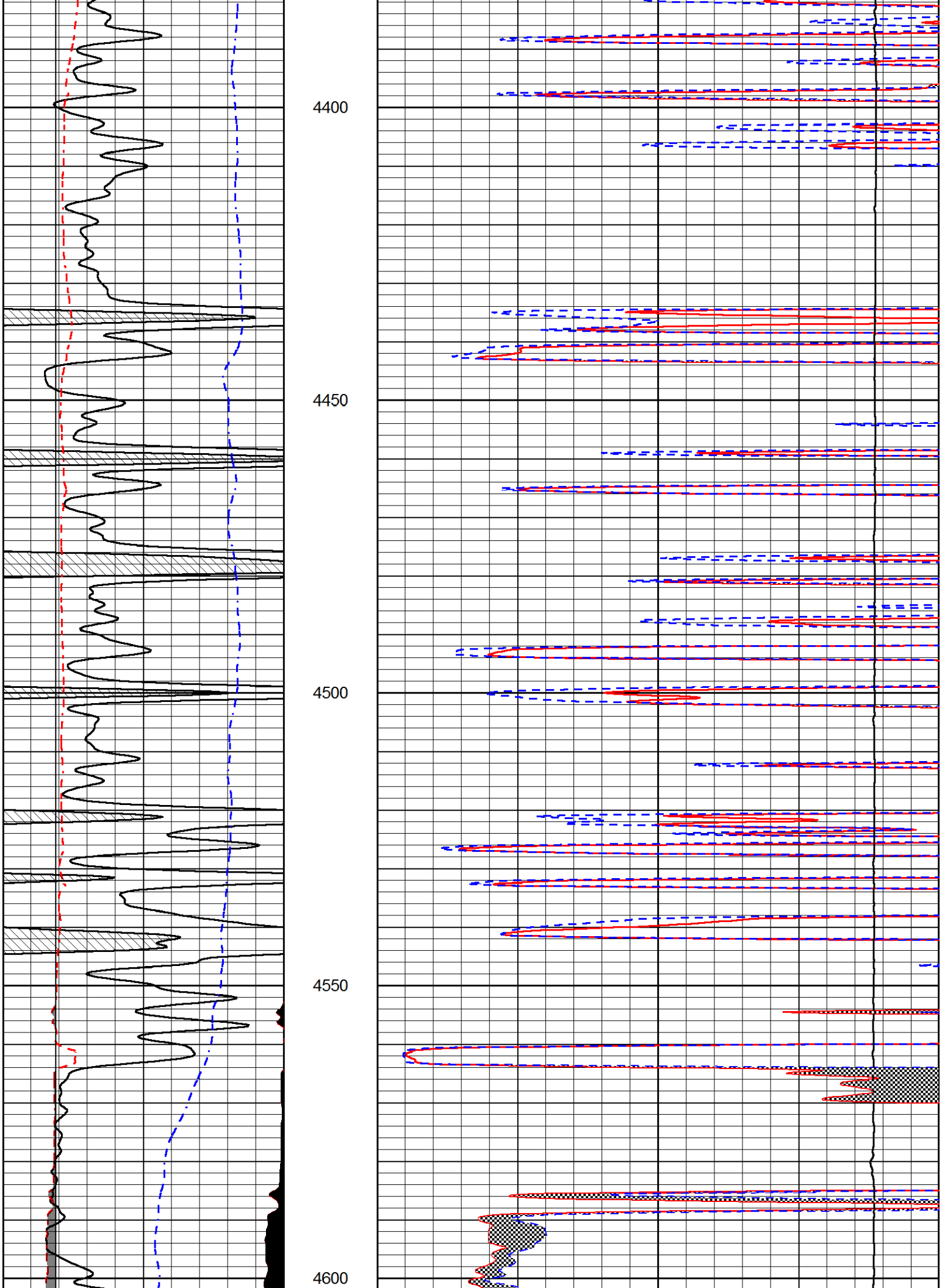
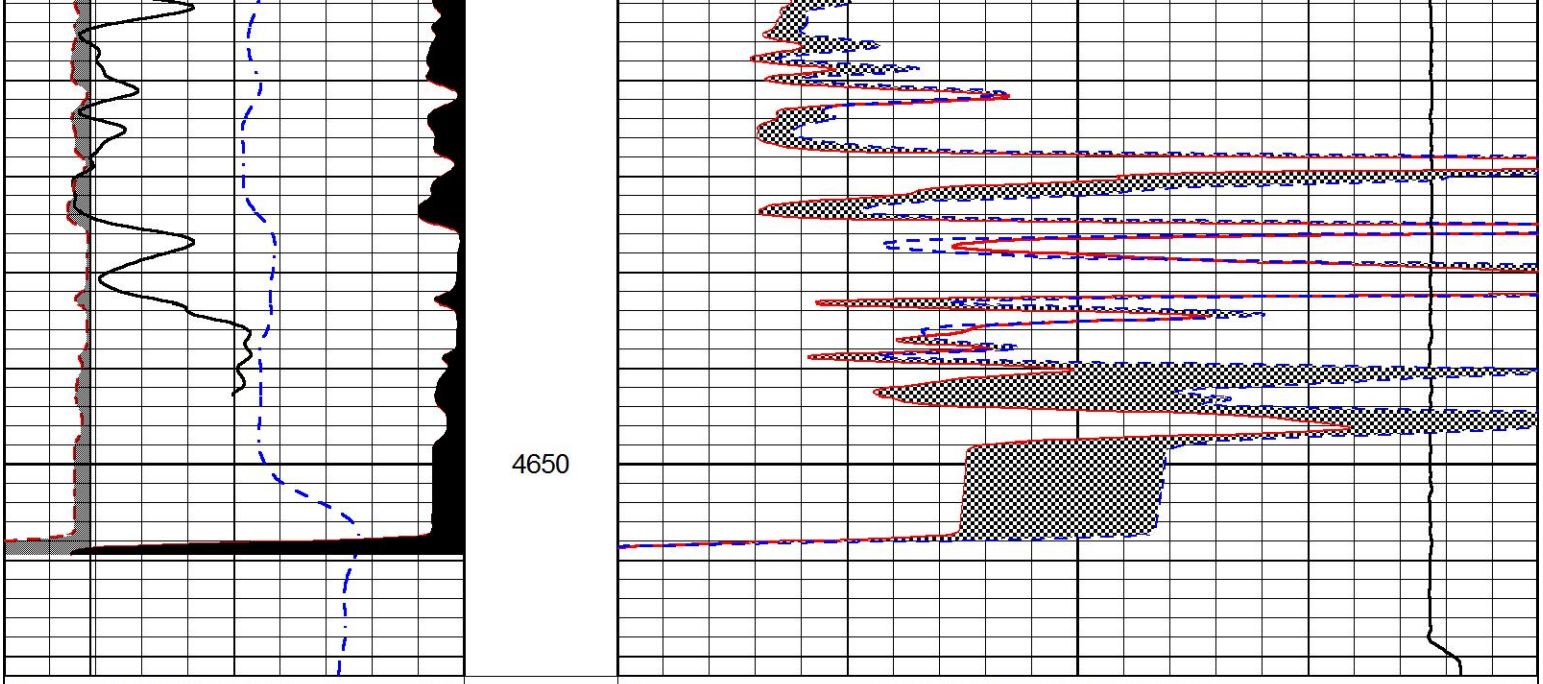
4000
4050
4100
4150


4200
4250
4300
4350


4400
4450
4500
4550
4600



0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (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
15000	LINE TENSION (lb)	0

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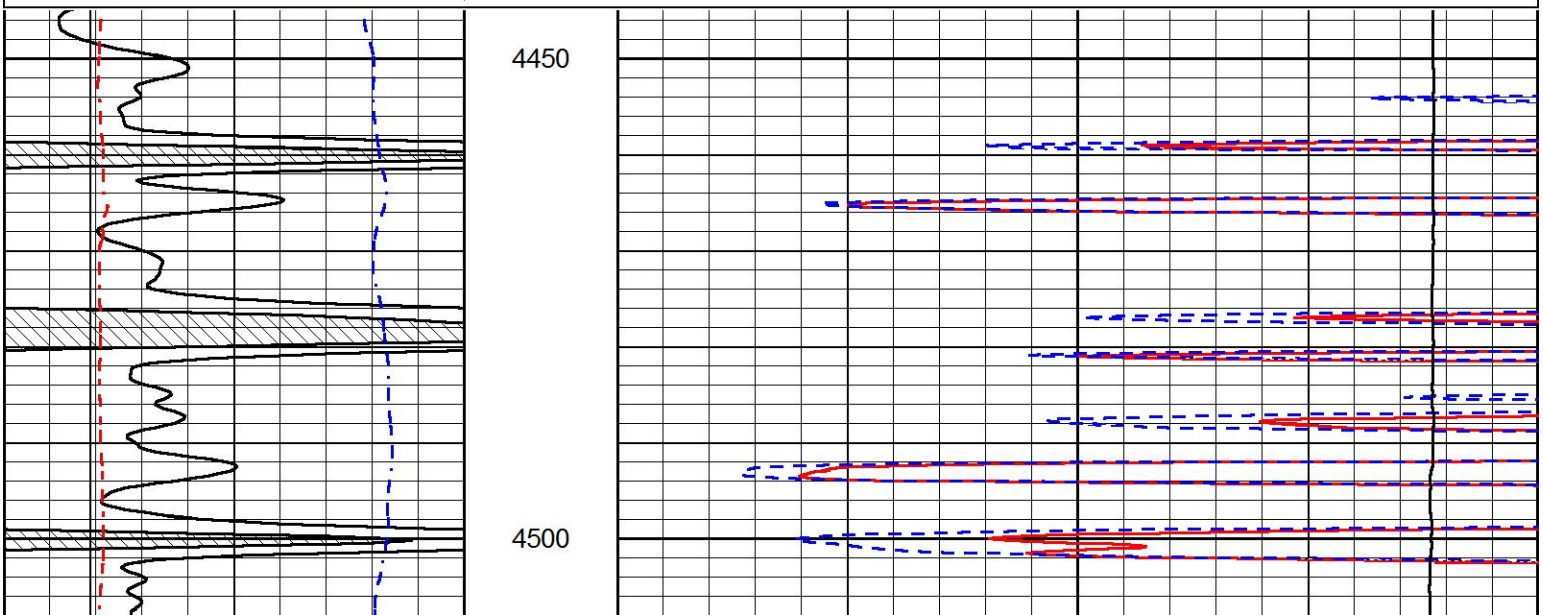
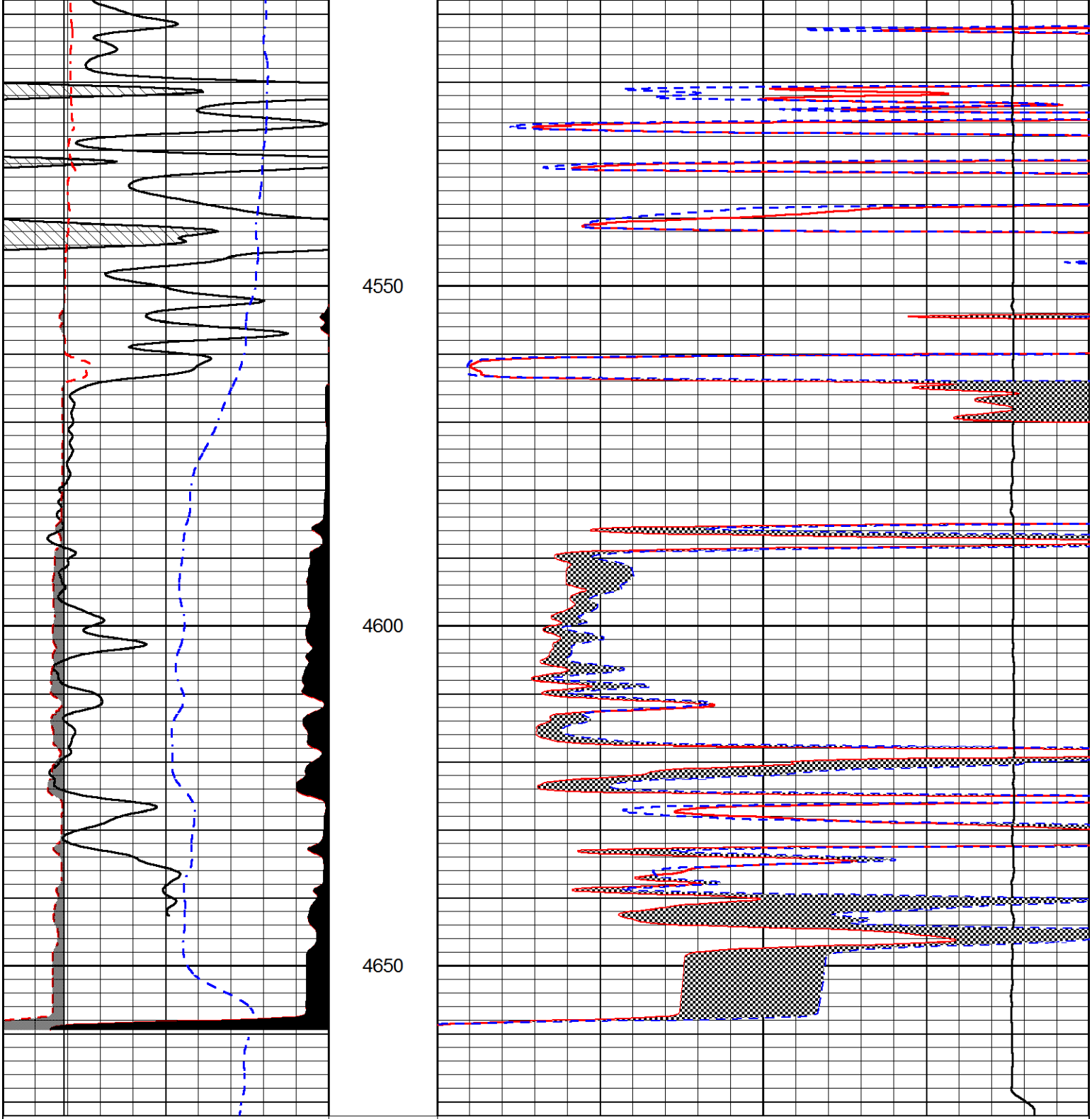
REPEAT SECTION

Database File	marexco_stucky_14_2.db
Dataset Pathname	stack/pass2.1
Presentation Format	micro
Dataset Creation	Wed May 01 13:08:22 2019
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (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
15000	LINE TENSION (lb)	0





Calibration Report

Database File	marexco_stucky_14_2.db
Dataset Pathname	stack/pass3.1
Dataset Creation	Wed May 01 13:59:50 2019

Dual Induction Calibration Report

Serial-Model:	PSI 988-M&W
Calibration Performed:	Tue Nov 20 10:50:19 2018

Loop:	Readings Air	Readings Loop	References Air	References Loop		Results Gain	Results Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.525	-44.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.380	-17.000

Compensated Density Calibration Report

Serial-Model: 144-84-M&W
Source / Verifier: /
Master Calibration Performed: Mon Jan 07 15:00:31 2019

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4315.49	5309.89	cps
Aluminum	2.675	g/cc	825.26	3443.46	cps

Spine Angle = 75.33 Density/Spine Ratio = 0.538

	Size		Reading
Small Ring	4.00	in	0.69
Large Ring	14.00	in	0.04

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

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: 89-M&W
Tool Model: M&W
Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps

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Well STUCKY #14-2
Field WILDCAT
County SCOTT
State KANSAS