



MICRORESISTIVITY LOG

MIDWEST WIRELINE

Company Darrah Oil Company, LLC
Well Keller #1-31
Field Hiss South
County Barton State Kansas

Location: API #: 15-009-31702-00-00

1847 FSL & 748 FEL

SEC 31 TWP 20S RGE 13W

Permanent Datum Ground Level Elevation 1904
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
DIL/BHCS
Elevation
K.B. 1914
D.F.
G.L. 1904

Date 6/19/2022

Run Number

Two

Depth Driller

3572

Depth Logger

3563

Bottom Logged Interval

3562

Top Log Interval

2700

Casing Driller

8.625 @ 440

Casing Logger

435

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

Density / Viscosity

pH / Fluid Loss

Source of Sample

FLOWLINE

Rm @ Meas. Temp

0.19 @ 88

Rmt @ Meas. Temp

0.14 @ 88

Rmc @ Meas. Temp

0.26 @ 88

Source of Rmt / Rmc

CHARTS

Rm @ BHT

0.15 @ 112

Operating Rig Time

4 Hours

Max Rec. Temp. F

112

Equipment Number

P-108

Location

HAYS

Recorded By

D. Schmidt

Witnessed By

Roger Martin

<<< 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.

Great Bend,
South to 50th, 2 West, 1 3/4 South,
West into

Log Measured From: Kelly Bushing

10 Ft. Above Permanent Datum

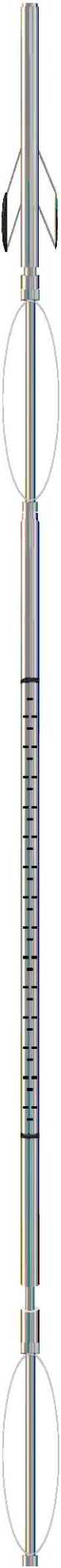
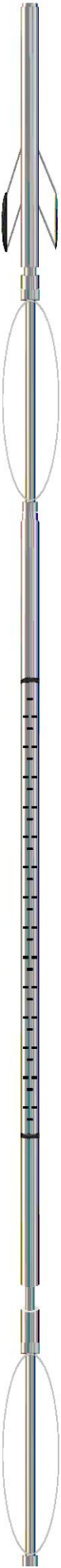
THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Roger Martin
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	25.42		ML-PENGO (P002)	5.50	3.50	100.00
	25.42		CENT-PENGO	4.25	3.00	70.00
	25.42					
WVF4 WVF1	12.50		SLT-PENGO (602)	15.92	3.50	300.00
WVF3 WVF2	10.50					
	10.50					
			CENT-PENGO	4.25	3.00	70.00
Dataset: darrah_keller 1-31.db: field/well/sonmel/pass2 Total length: 29.92 ft Total weight: 540.00 lb O.D.: 3.50 in						

Log Variables

DatabaseC:\ProgramData\Warrior\Data\darrah_keller 1-31.db
Dataset field/well/stack/pass3.12/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	112	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	335	0		3563

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



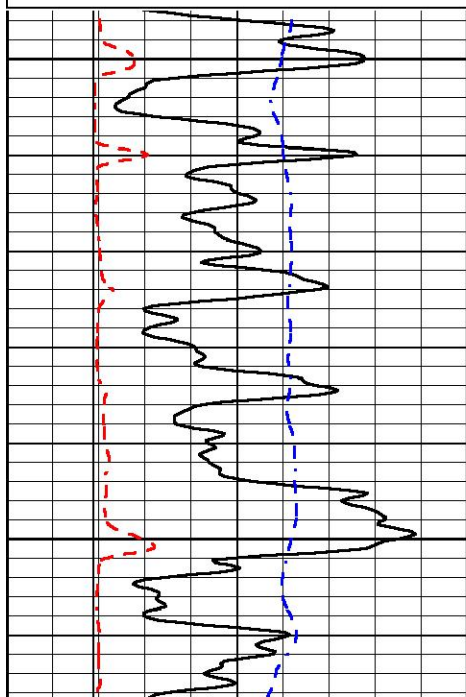
DETAIL SECTION

MAIN PASS

Database File darrah_keller 1-31.db
Dataset Pathname stack/pass3.1
Presentation Format _micro
Dataset Creation Sun Jun 19 16:29:00 2022
Charted by Depth in Feet scaled 1:240

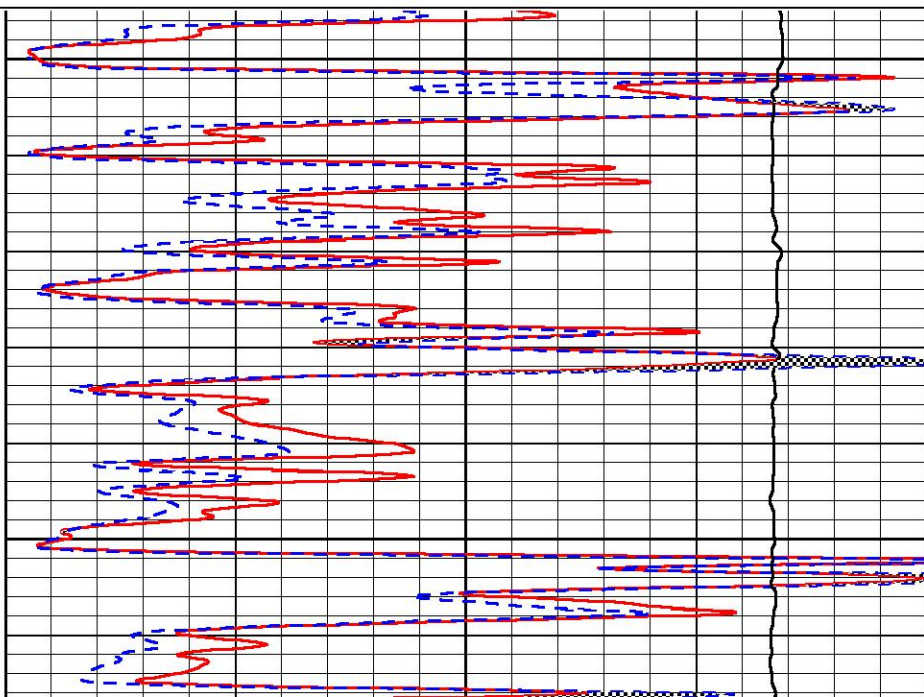
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

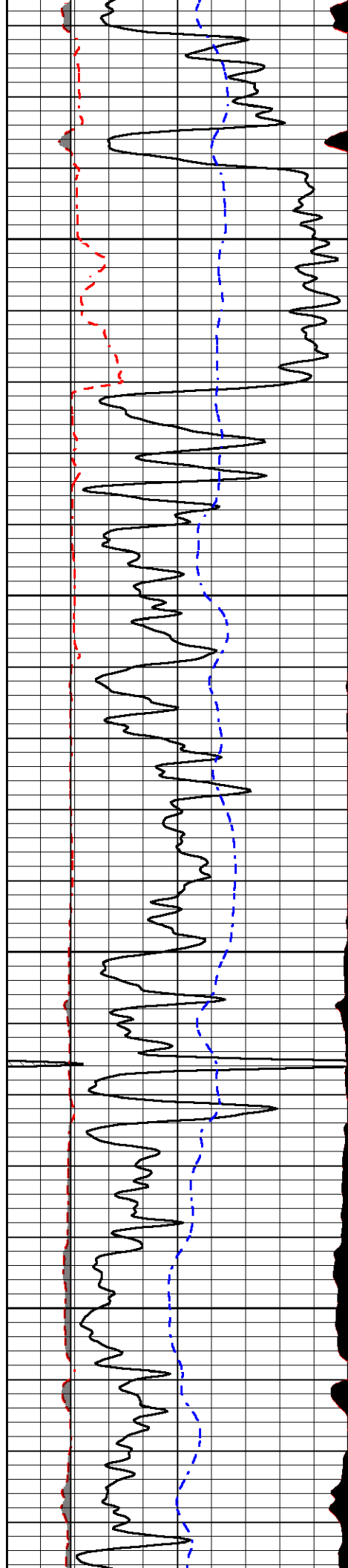
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2700

2750



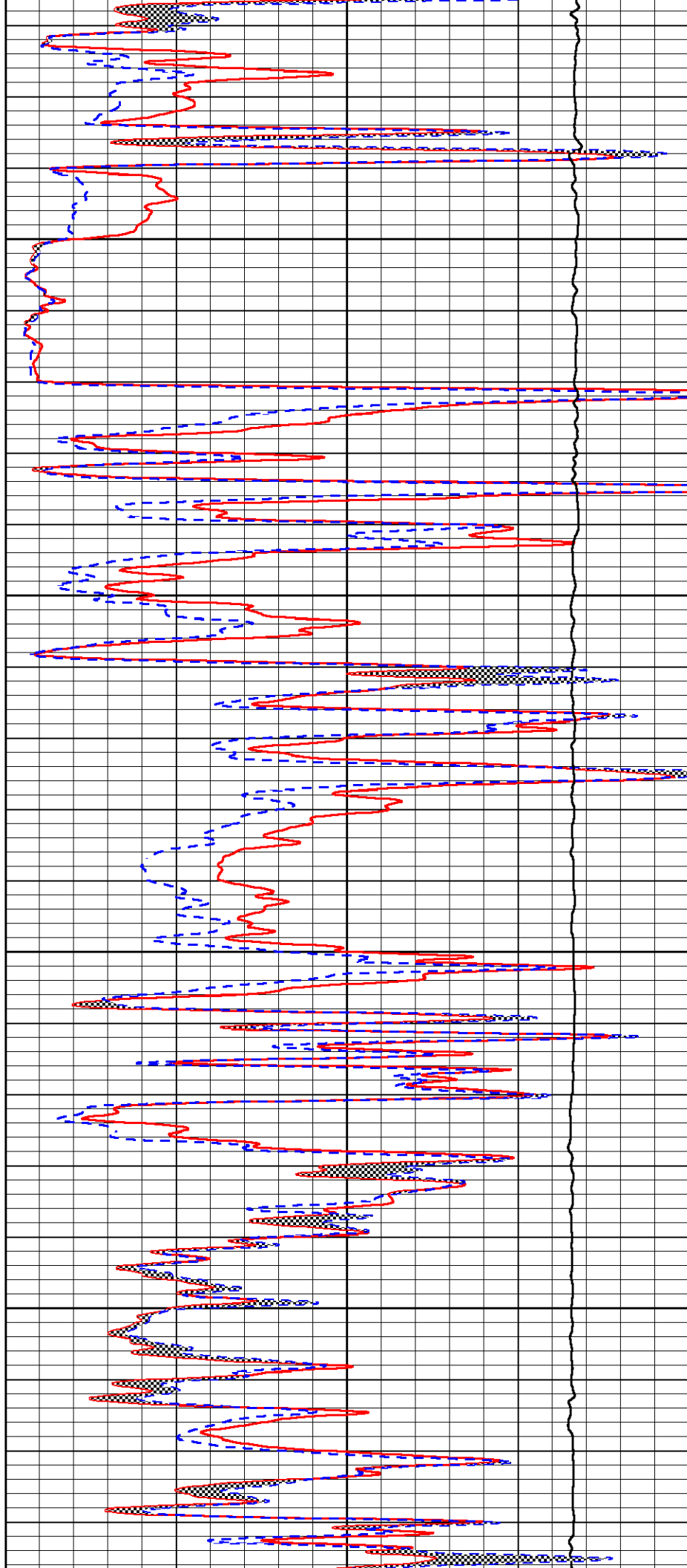


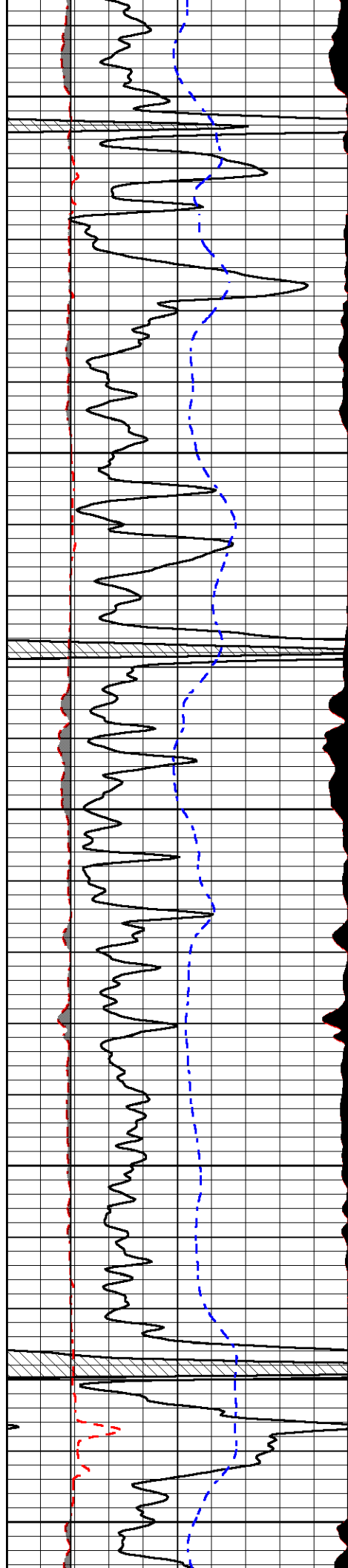
2800

2850

2900

2950





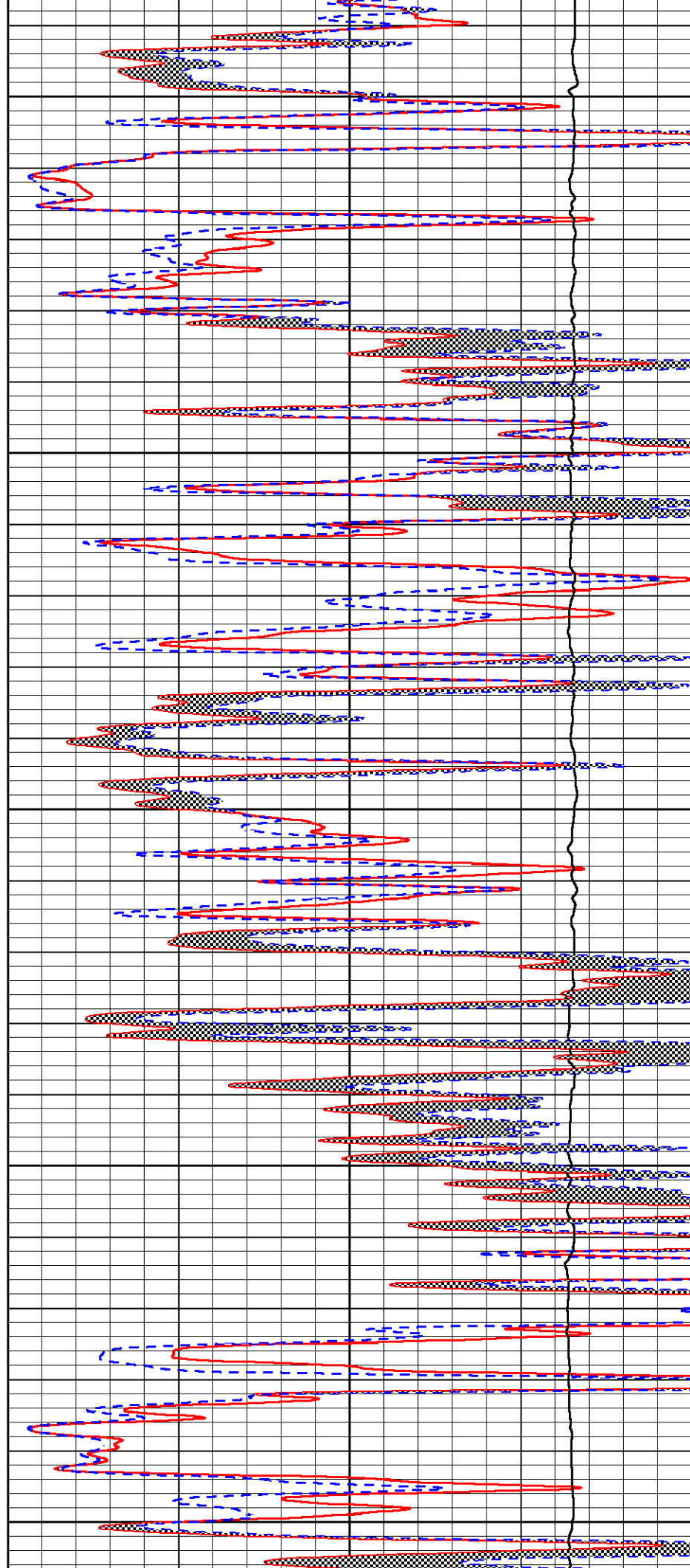
3000

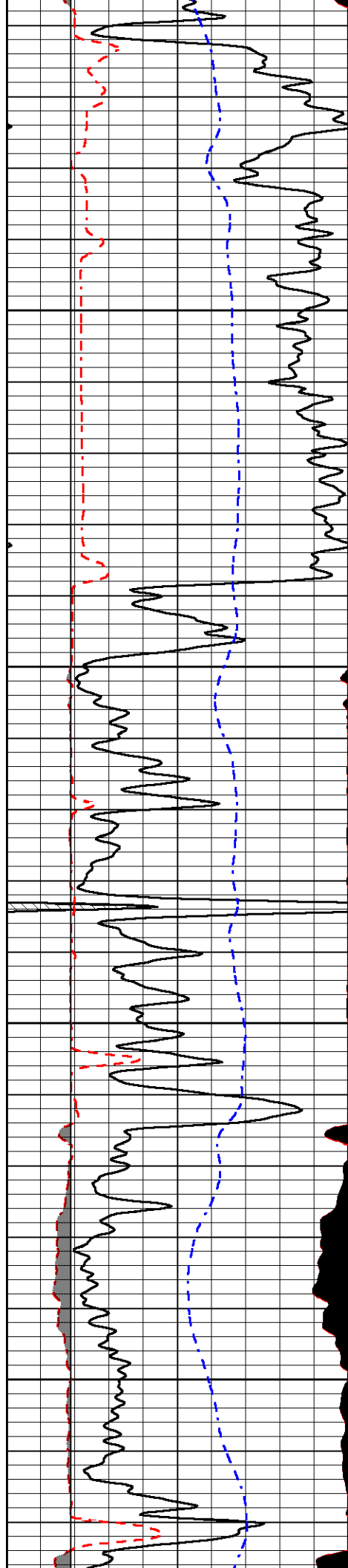
3050

3100

3150

3200



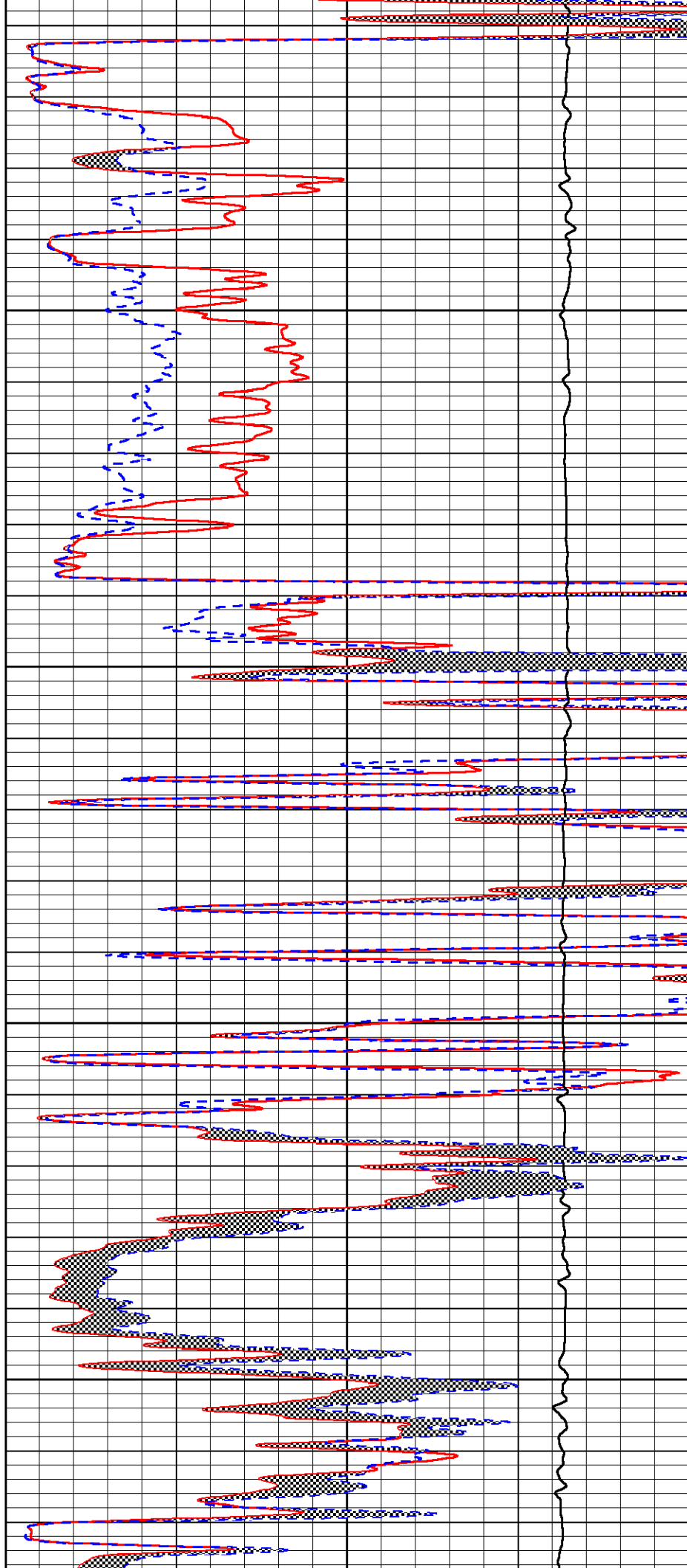


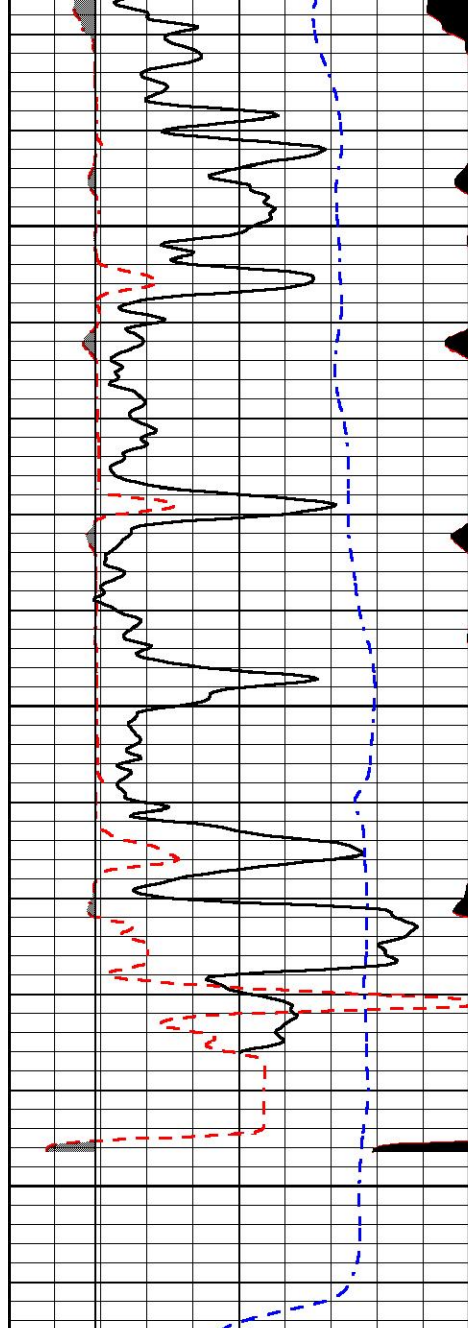
3250

3300

3350

3400



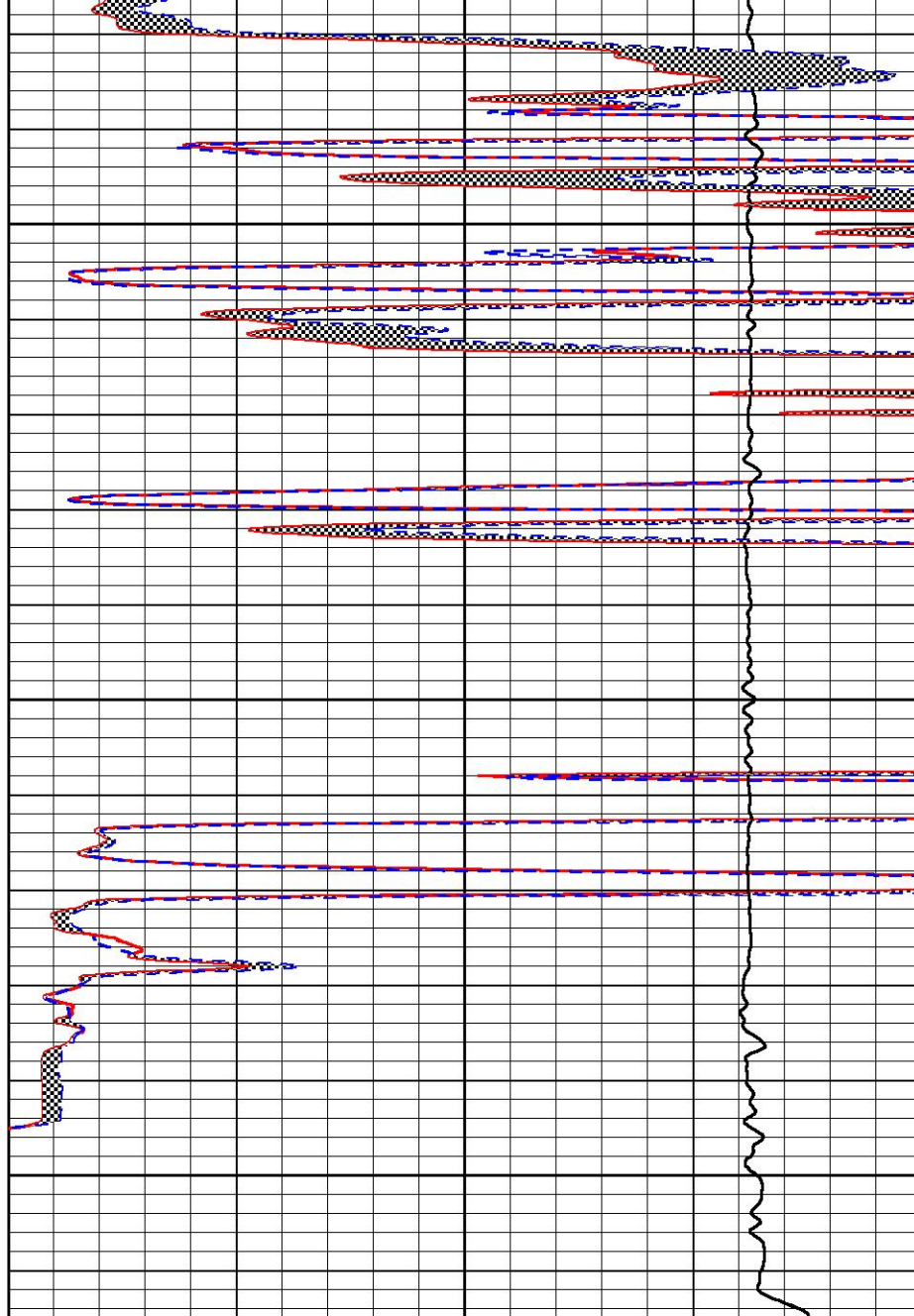


3450

3500

3550

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



MIDWEST WIRELINE

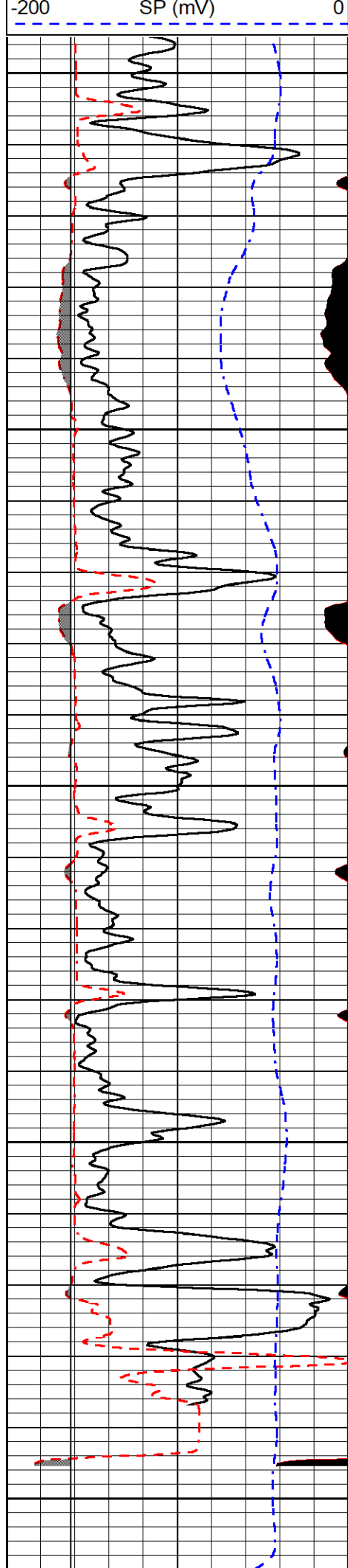
REPEAT SECTION

REPEAT PASS

Database File darrah_keller 1-31.db
 Dataset Pathname stack/pass2.1
 Presentation Format _micro
 Dataset Creation Sun Jun 19 15:56:51 2022
 Charted by Depth in Feet scaled 1:240

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

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



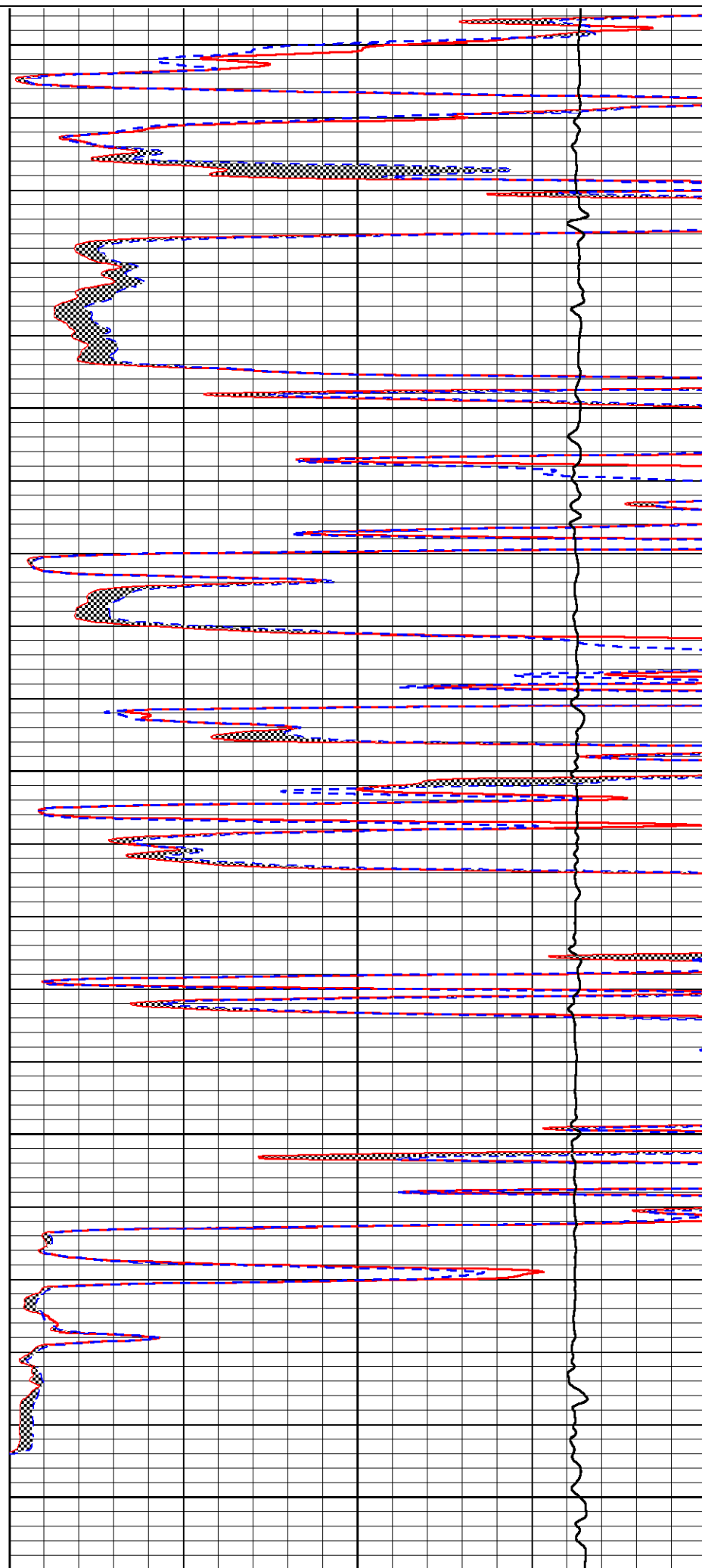
3350

3400

3450

3500

3550



0	Gamma Ray (GAPI)	150	0	Micro Inverse 1 X 1 (Ohm-m)	40
6	Caliper (in)	16	0	Micro Normal 2" (Ohm-m)	40
2.875	mcal (in)	7.875	10000	Line Weight (lb)	0
-200	SP (mV)	0			

Calibration Report	
Database File	darrah_keller 1-31.db
Dataset Pathname	stack/pass3.12
Dataset Creation	Sun Jun 19 15:50:16 2022

Dual Induction Calibration Report

Serial-Model:	504 HT-M&W
Surface Cal Performed:	Thu Dec 16 22:32:49 2021

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	0.650	-10.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.435	-42.000

Compensated Density Calibration Report
--

Serial-Model:	304-04-M&W
Source #:	21170B
Master Calibration Performed:	Sun May 29 09:31:45 2022

Master Calibration					
Density		Far Detector		Near Detector	
Magnesium	1.755 g/cc	6392.84	8538.69	cps	
Aluminum	2.675 g/cc	1184.69	5433.63	cps	
Spine Angle = 74.99			Density/Spine Ratio = 0.527		
Size		Reading			
Small Ring	4.00 in	1.15			
Large Ring	14.00 in	1.02			

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	cps	1.6025
Long Space	460.00	cps	1000.00	cps	1.9500

Gamma Ray Calibration Report

Serial Number: 103
Tool Model: M&W
Performed: Fri Dec 3 12:13:24 2021

Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



Company	Darrah Oil Company, LLC
Well	Keller #1-31
Field	Hiss South
County	Barton
State	Kansas