



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **BEREXCO, LLC**
Well **SYLVESTER NO.1**
Field **PETRACEK**
County **DECATUR** State **KANSAS**

Location: API #: 15-039-21256-00-00

Permanent Datum GROUND LEVEL Elevation 2674'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
CNL/CDL
MEL

Company **BEREXCO, LLC**
Well **SYLVESTER NO.1**
Field **PETRACEK**
County **DECATUR**
State **KANSAS**

Date 2/11/2019

Run Number ONE

Depth Driller 3860'

Depth Logger 3858'

Bottom Logged Interval 3857'

Top Log Interval 300'

Casing Driller 8.625" @ 316'

Casing Logger 318'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 2000

Density / Viscosity 9.0 59

pH / Fluid Loss 11.0 6.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .85 @ 58

Rmt @ Meas. Temp .64 @ 58

Rmc @ Meas. Temp 1.15 @ 58

Source of Rmt / Rmc CHARTS

Rm @ BHT .43 @ 115

Operating Rig Time 2 HOURS

Max Rec. Temp. F 115 DEGF

Equipment Number P-108

Location HAYS

Recorded By J. HENRICKSON

Witnessed By BRYAN BYNOG

<<< Fold Here >>>

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.

JENNINGS KANSAS

2 WEST ON I LN, 3 NORTH, 1 WEST, WEST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES

www.pioneerenergy.com

785-625-3858

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON

Operator:

Operator:

Operator:

This Log Record Was Witnessed By

Primary Witness: BRYAN BYNOG

Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 115	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 110	degF 0	Off	ft 3858

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (144-84)	8.50	4.00	250.00
ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58				7.58	4.00	65.00
MCAL	19.83						
MI	19.83						
MN	19.83						
RLL3	15.80						
RLL3F	15.79						
CILD	8.00			DIL-M&W (PSI 988)	18.50	3.50	220.00

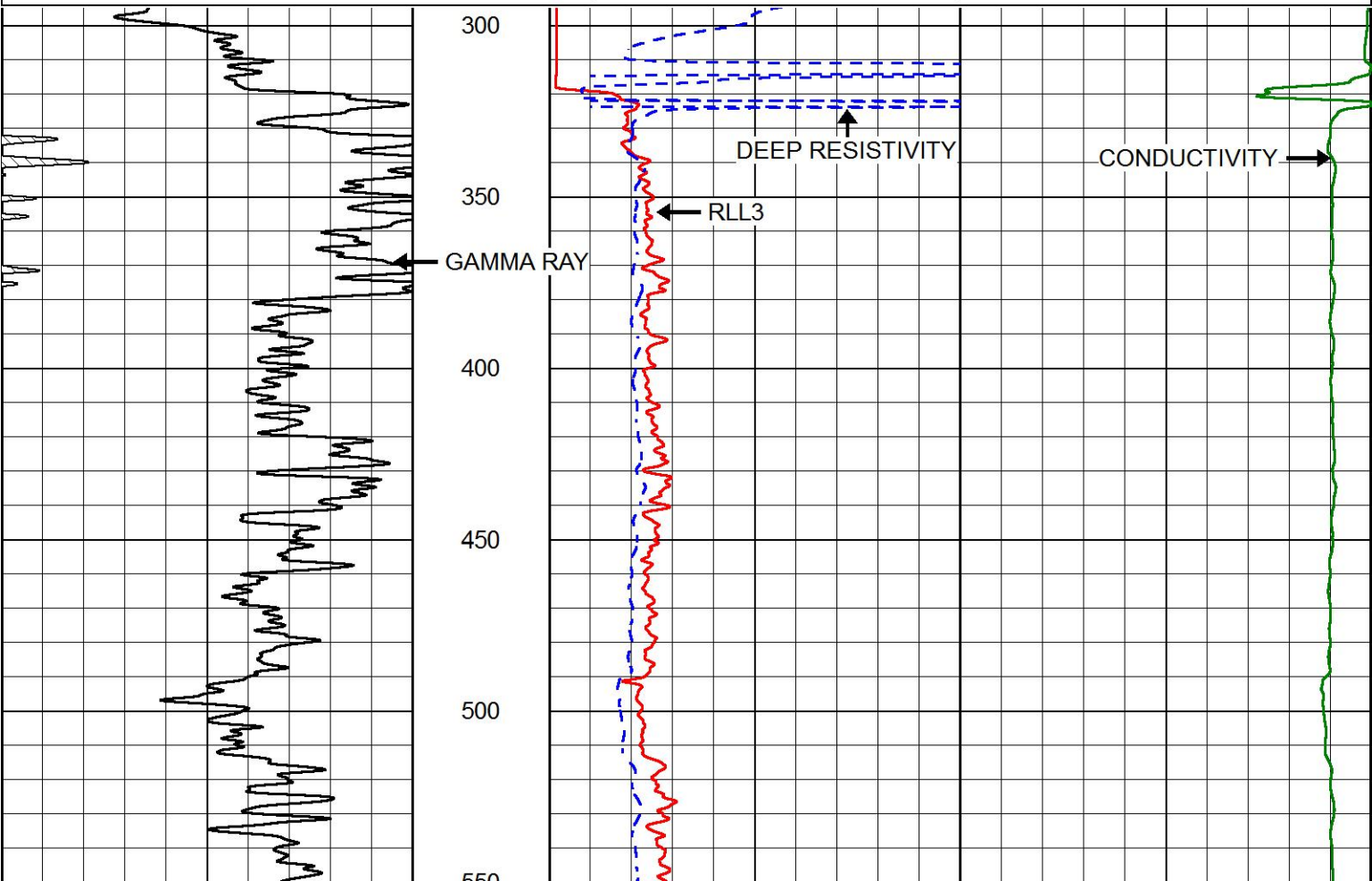
CILM	4.70								
SP	0.20								
Dataset: berexco_sylvester_1.db: field/well/stackml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in									

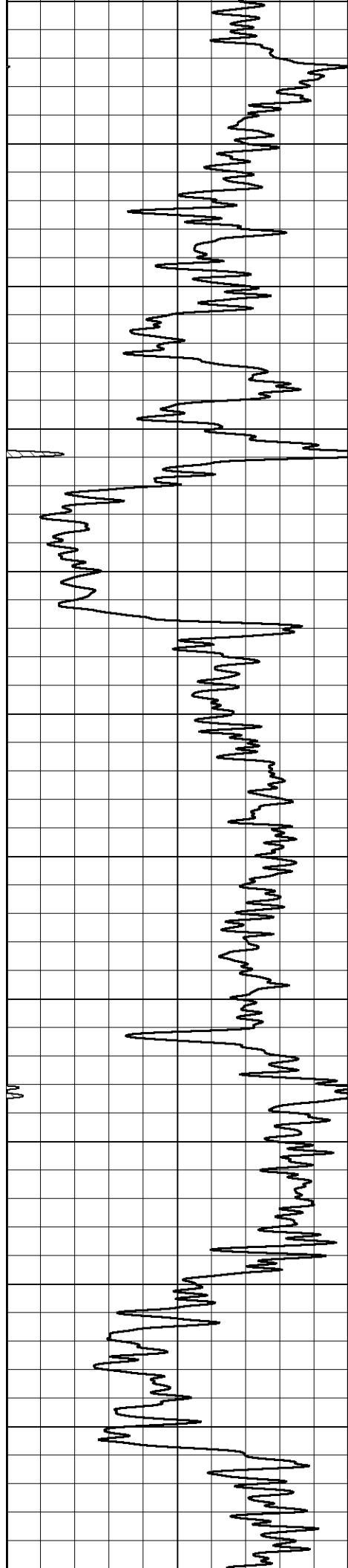


MAIN PASS

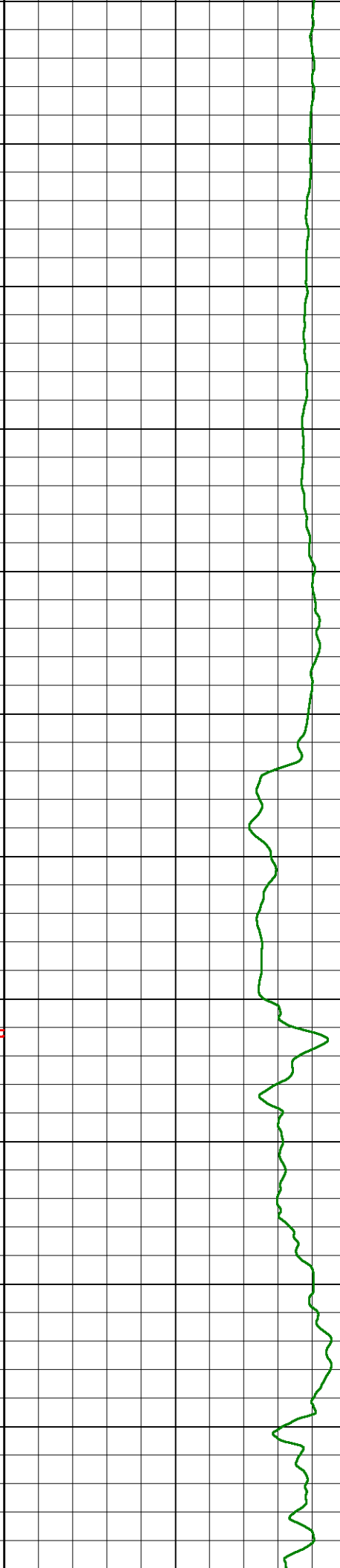
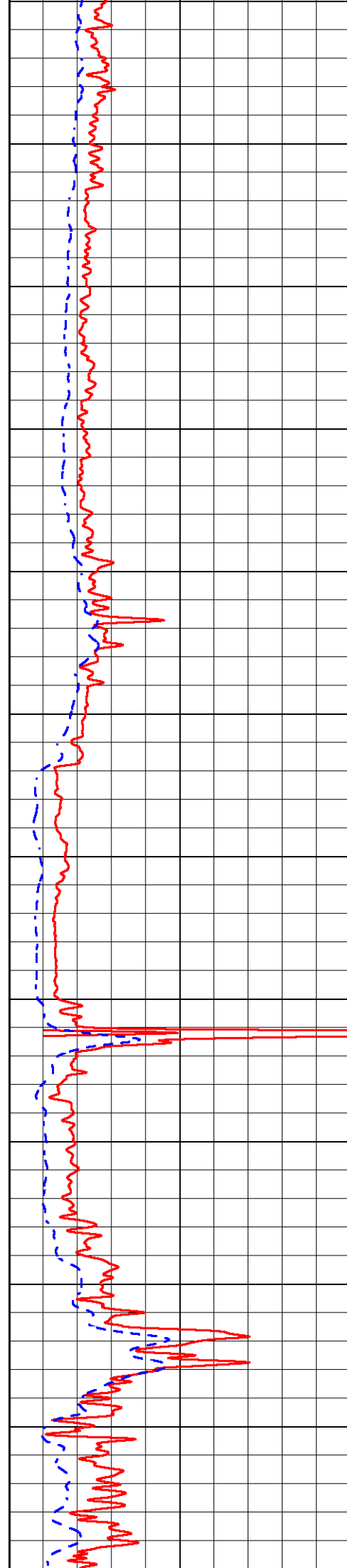
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Presentation Format	dil2in
Dataset Creation	Mon Feb 11 13:56:06 2019
Charted by	Depth in Feet scaled 1:600

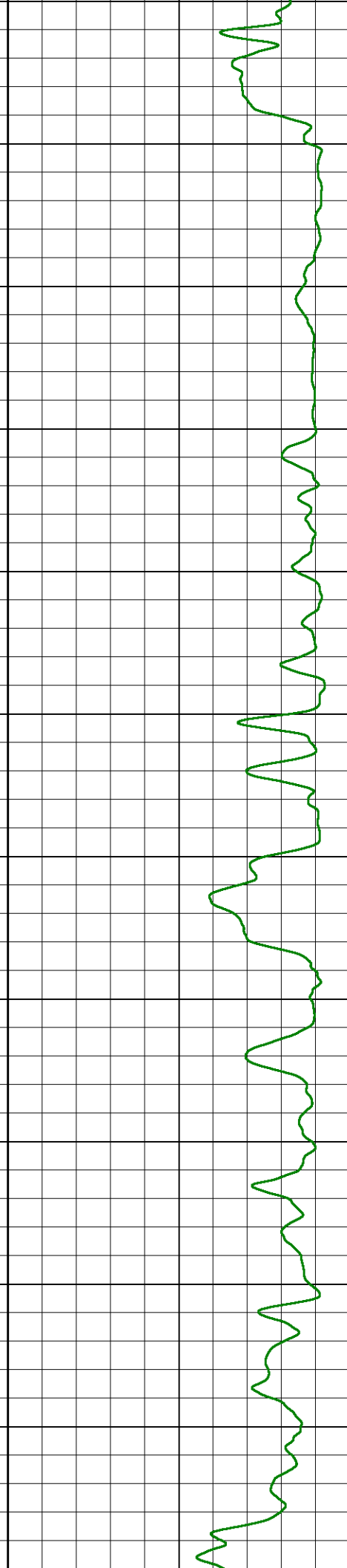
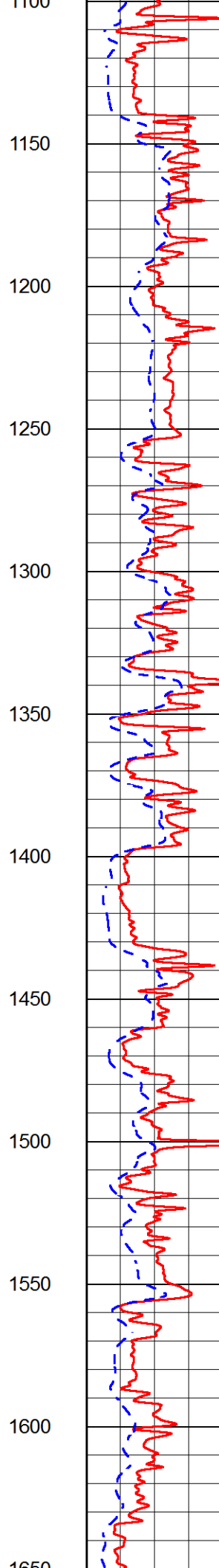
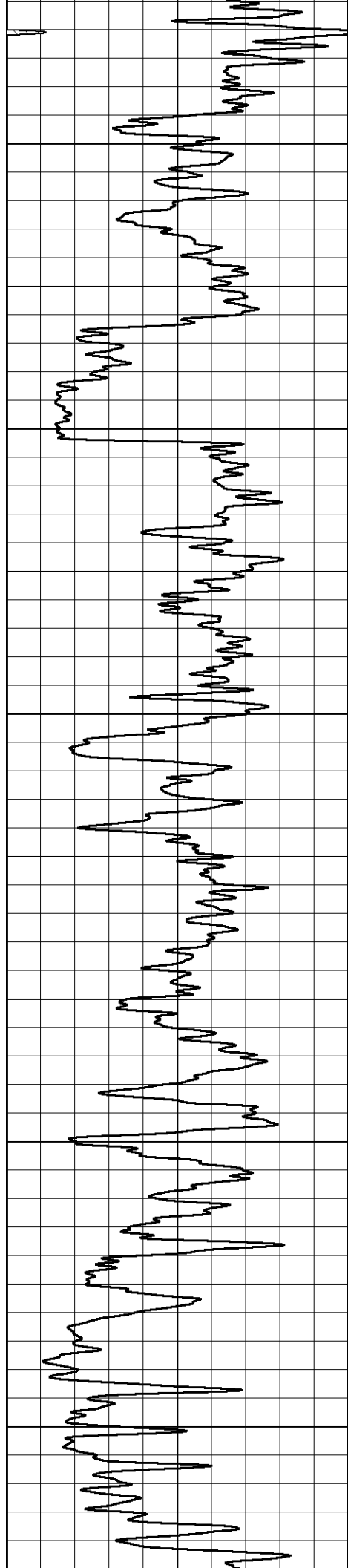
0	GAMMA RAY (GAPI)	150	2000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50			
0	DEEP RESISTIVITY (Ohm-m)	50			
50	RLL3 (Ohm-m)	200			
50	RILD (Ohm-m)	200			

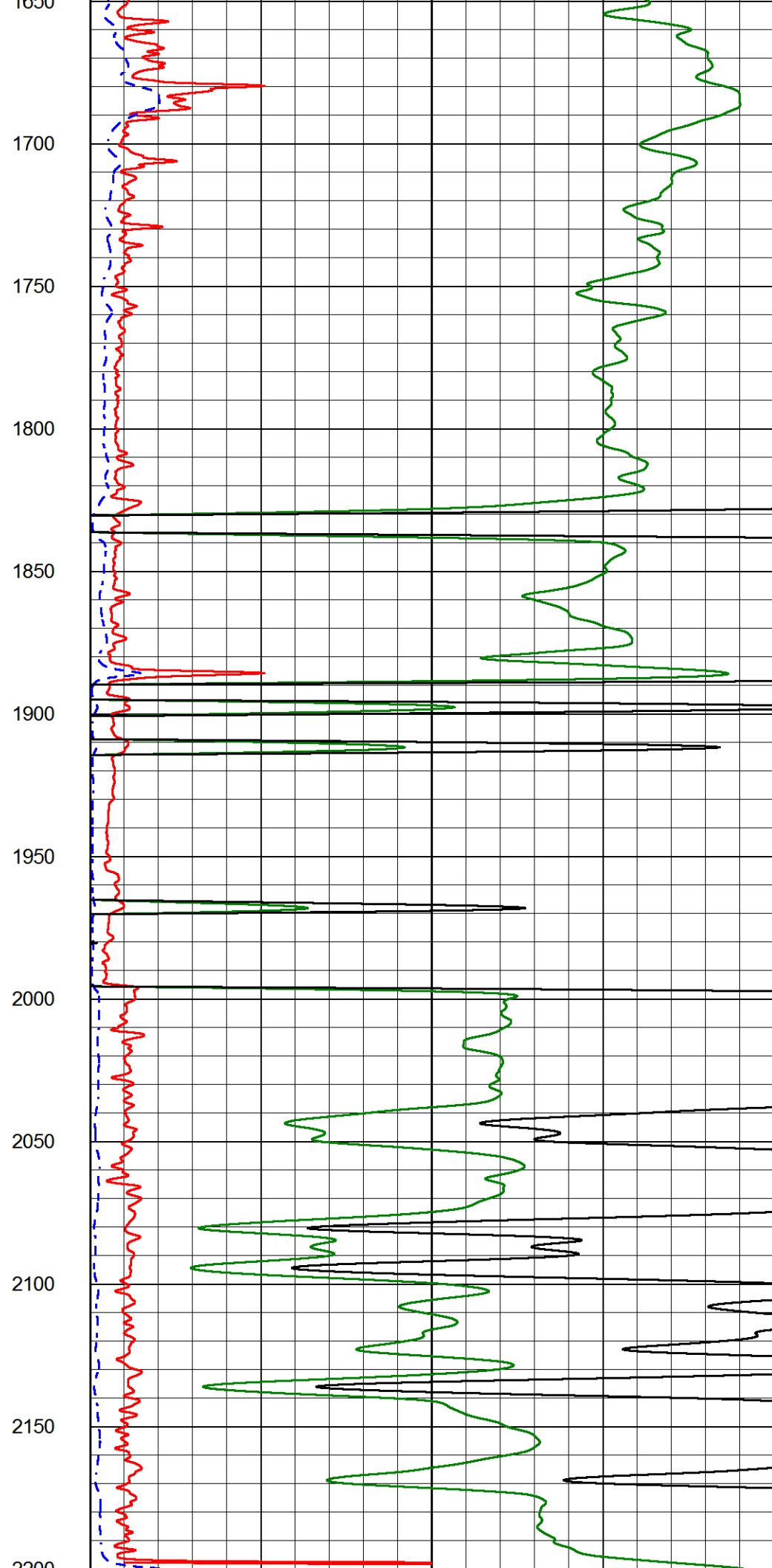
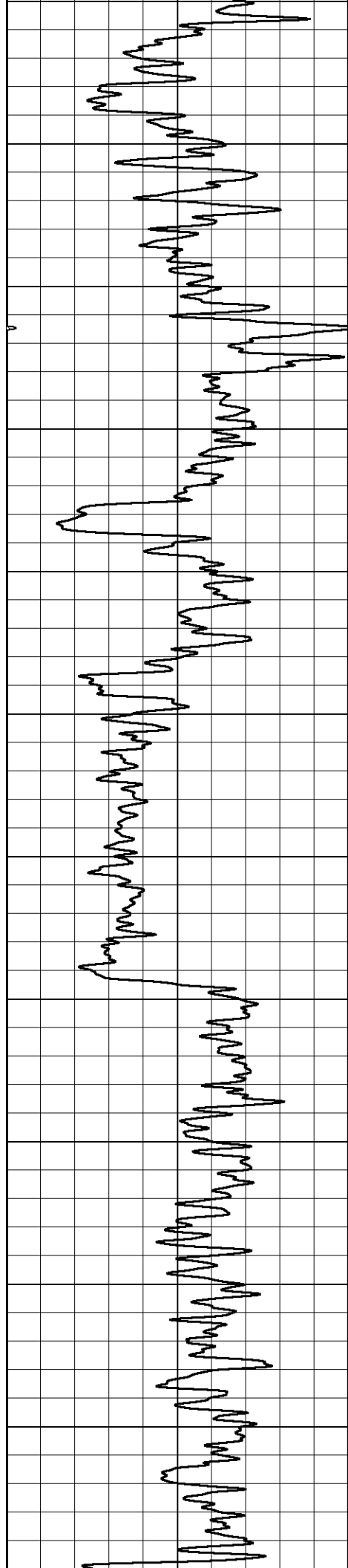


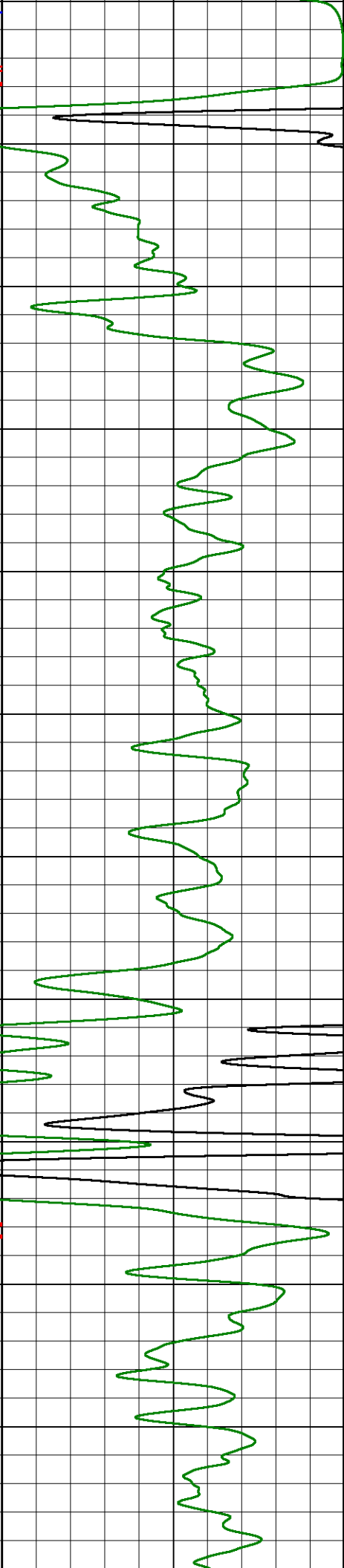
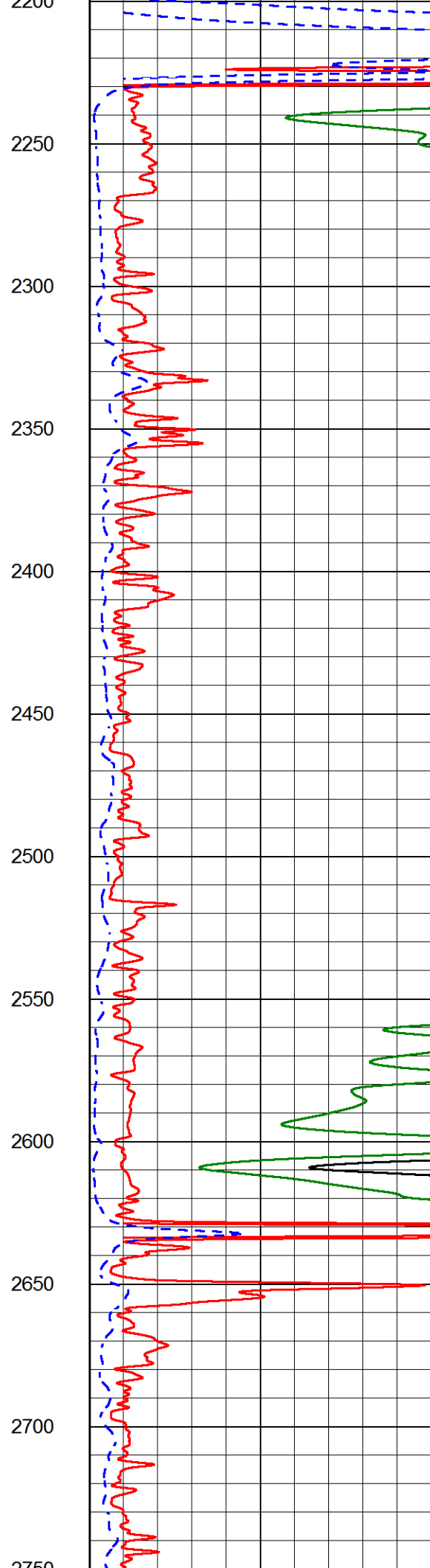
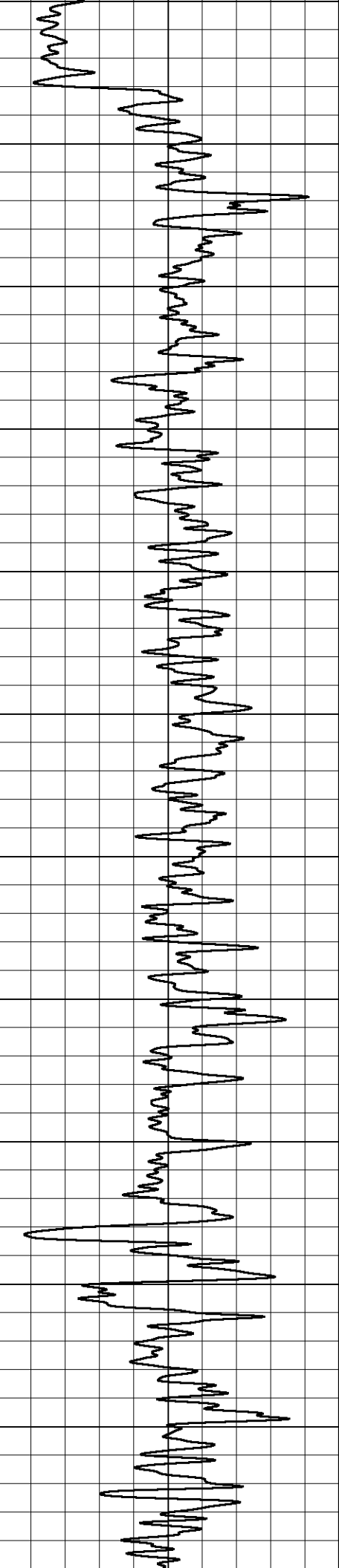


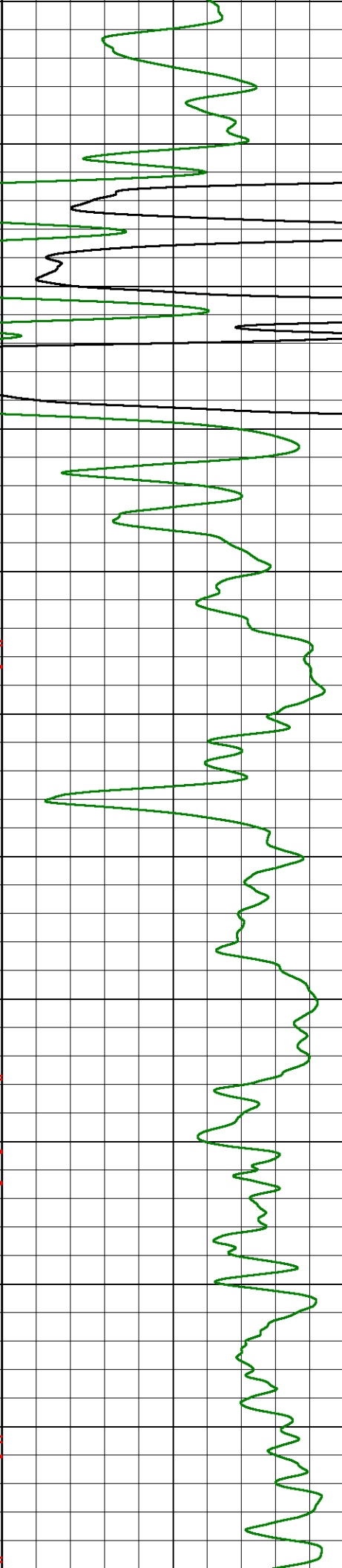
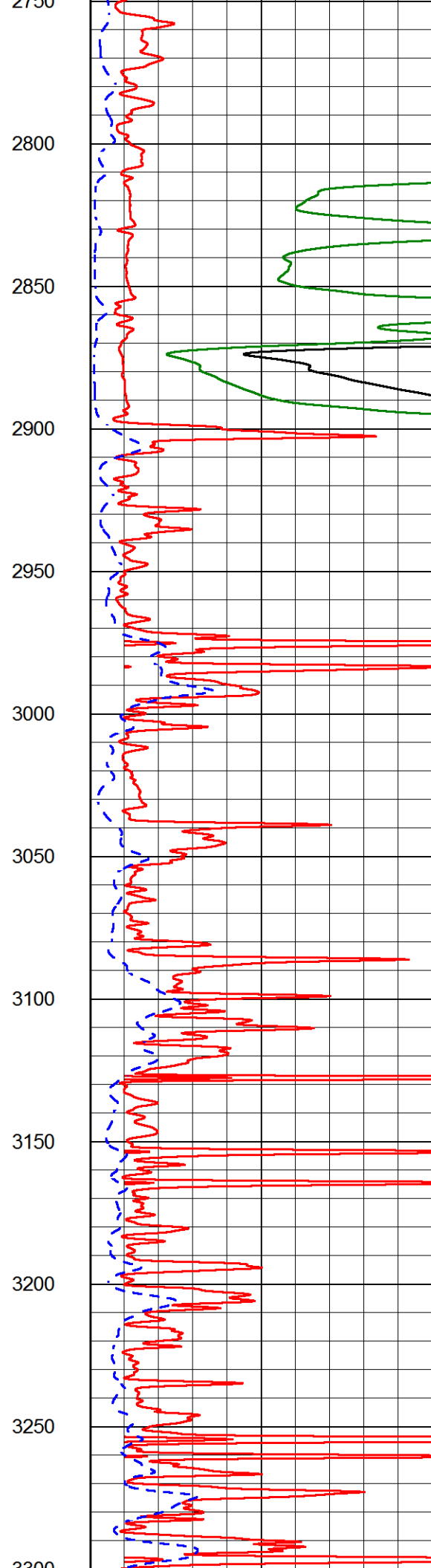
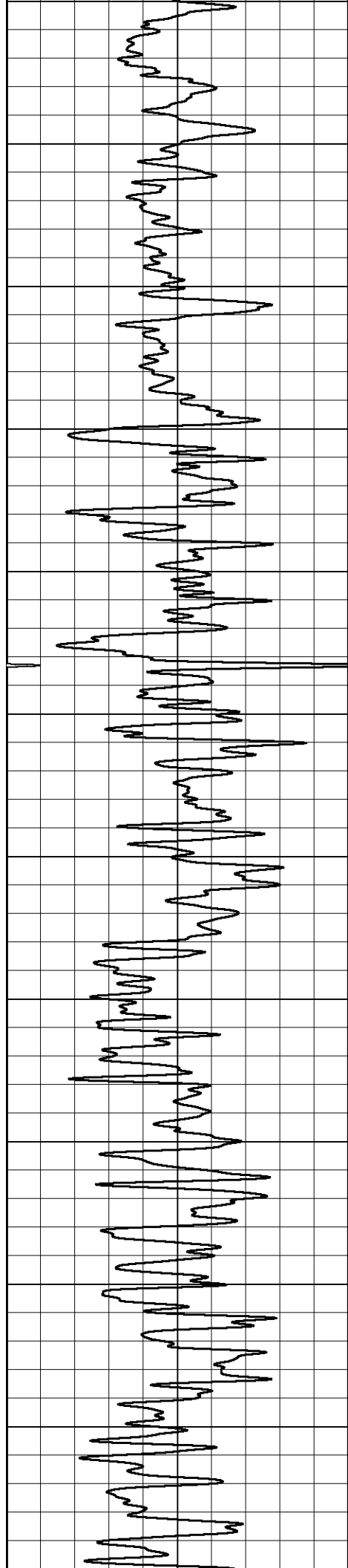
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600
650
700
750
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950
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1050
1100

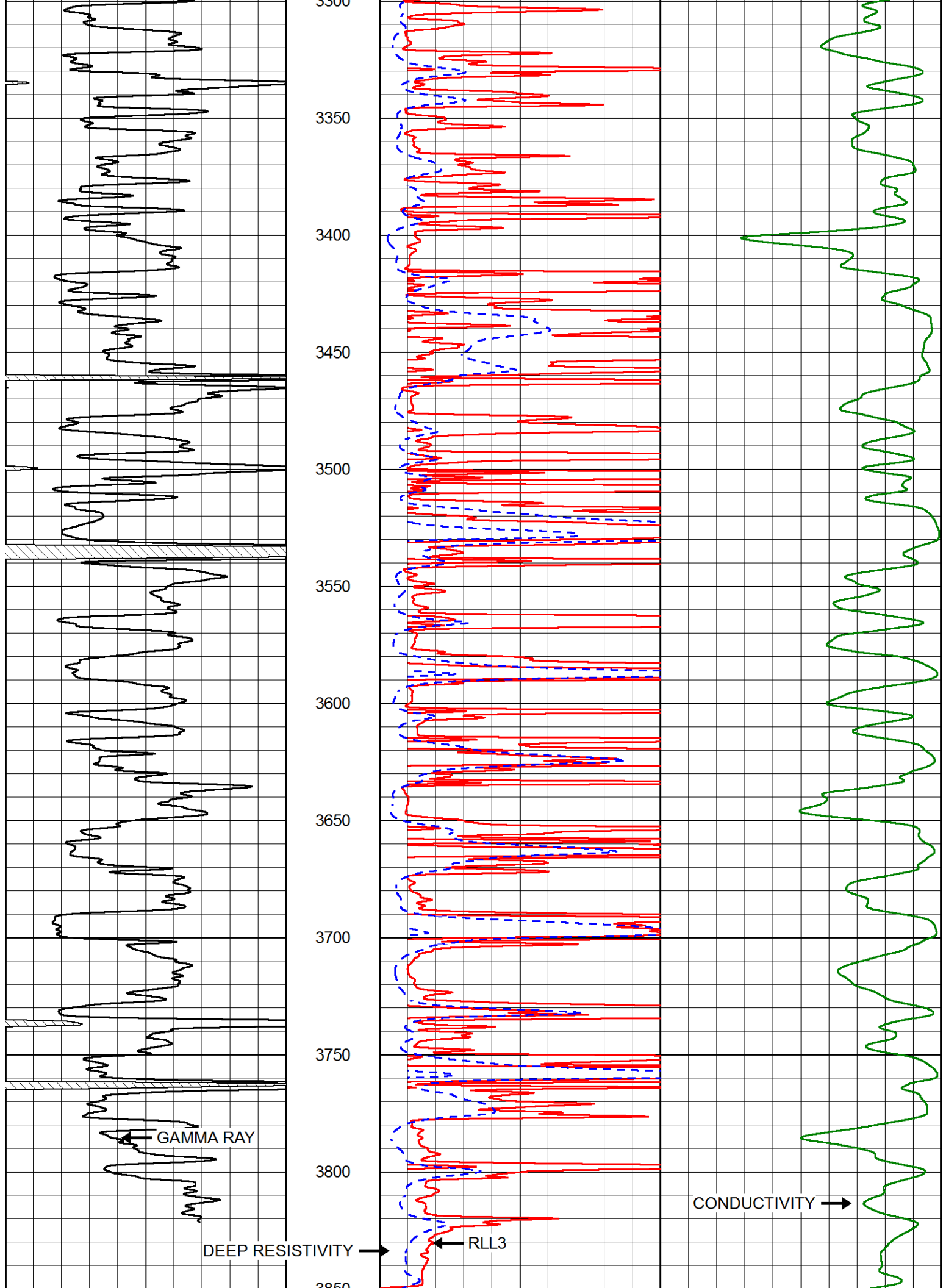


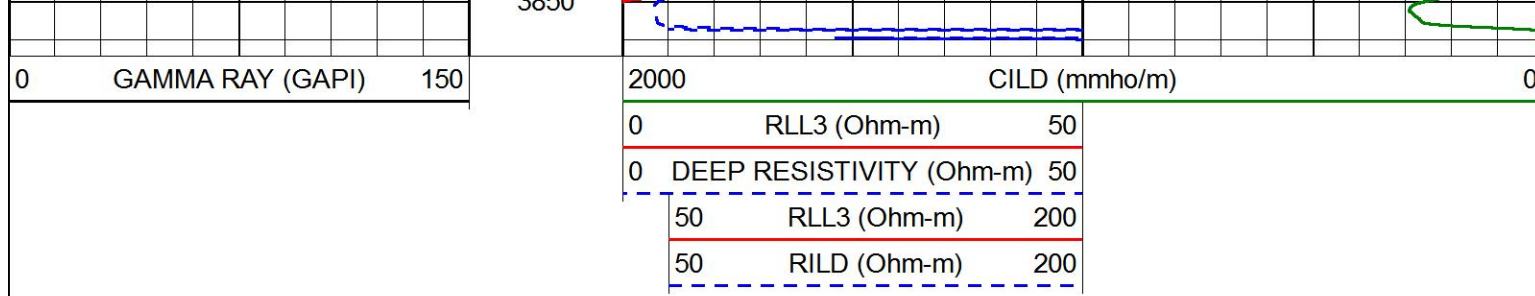












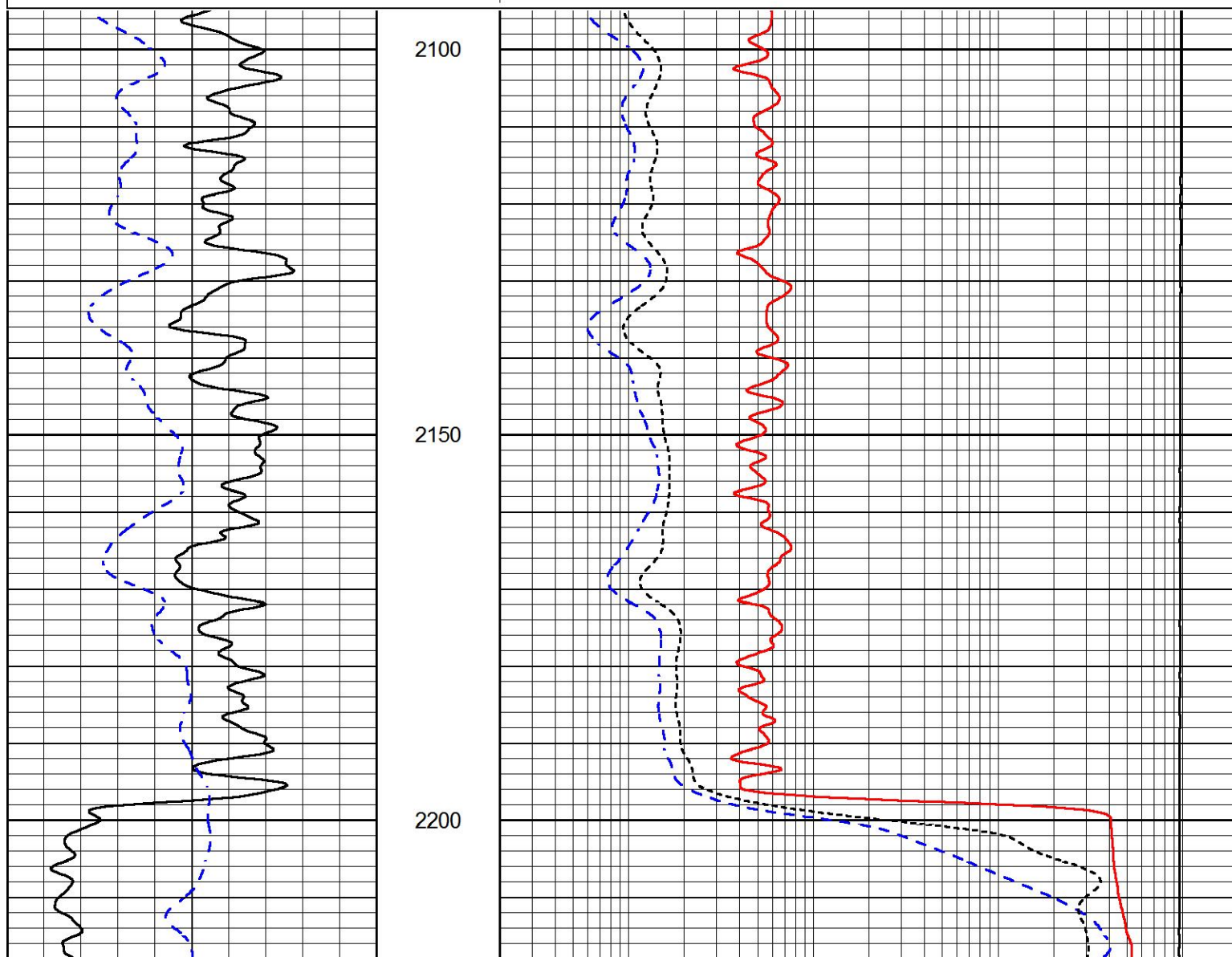


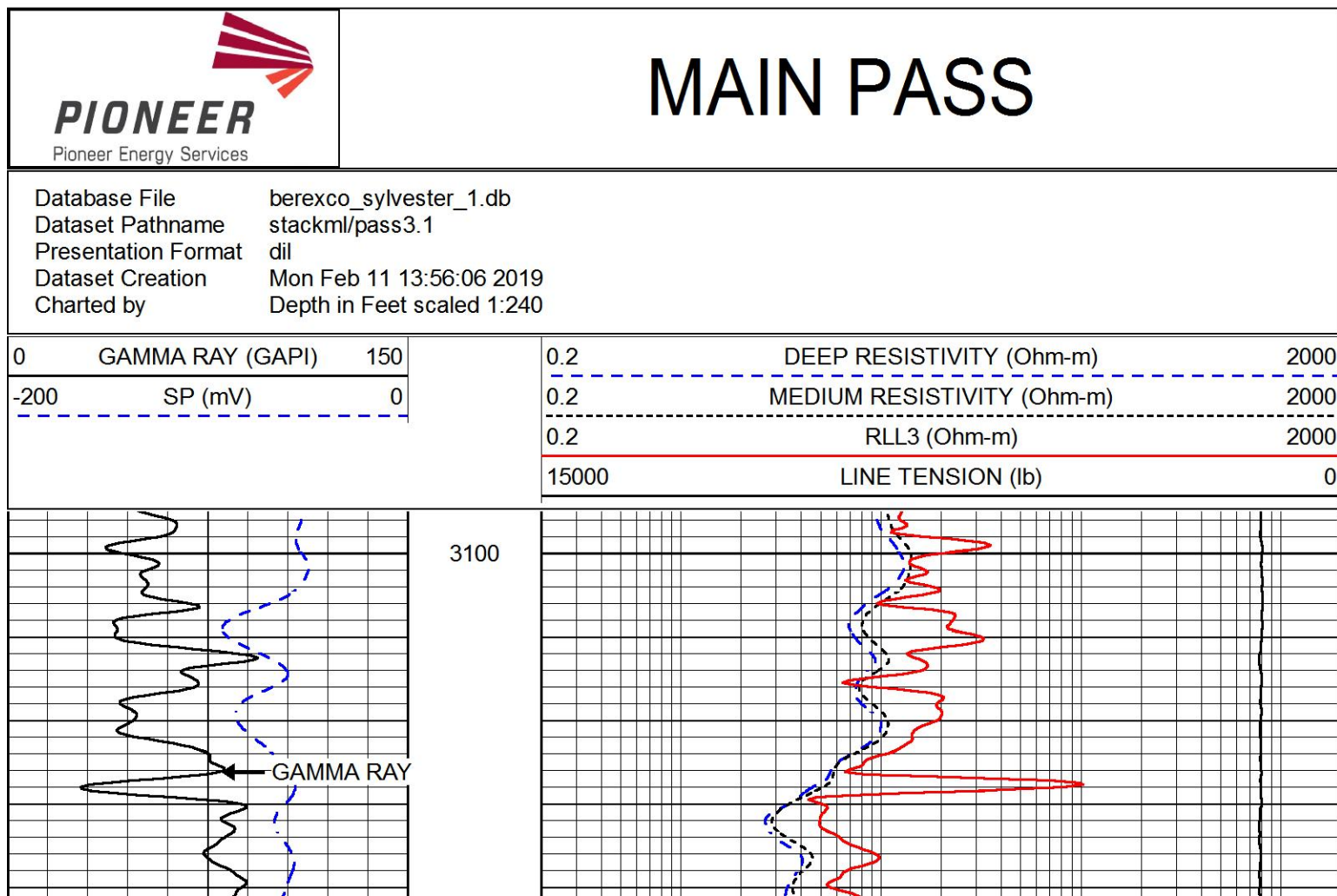
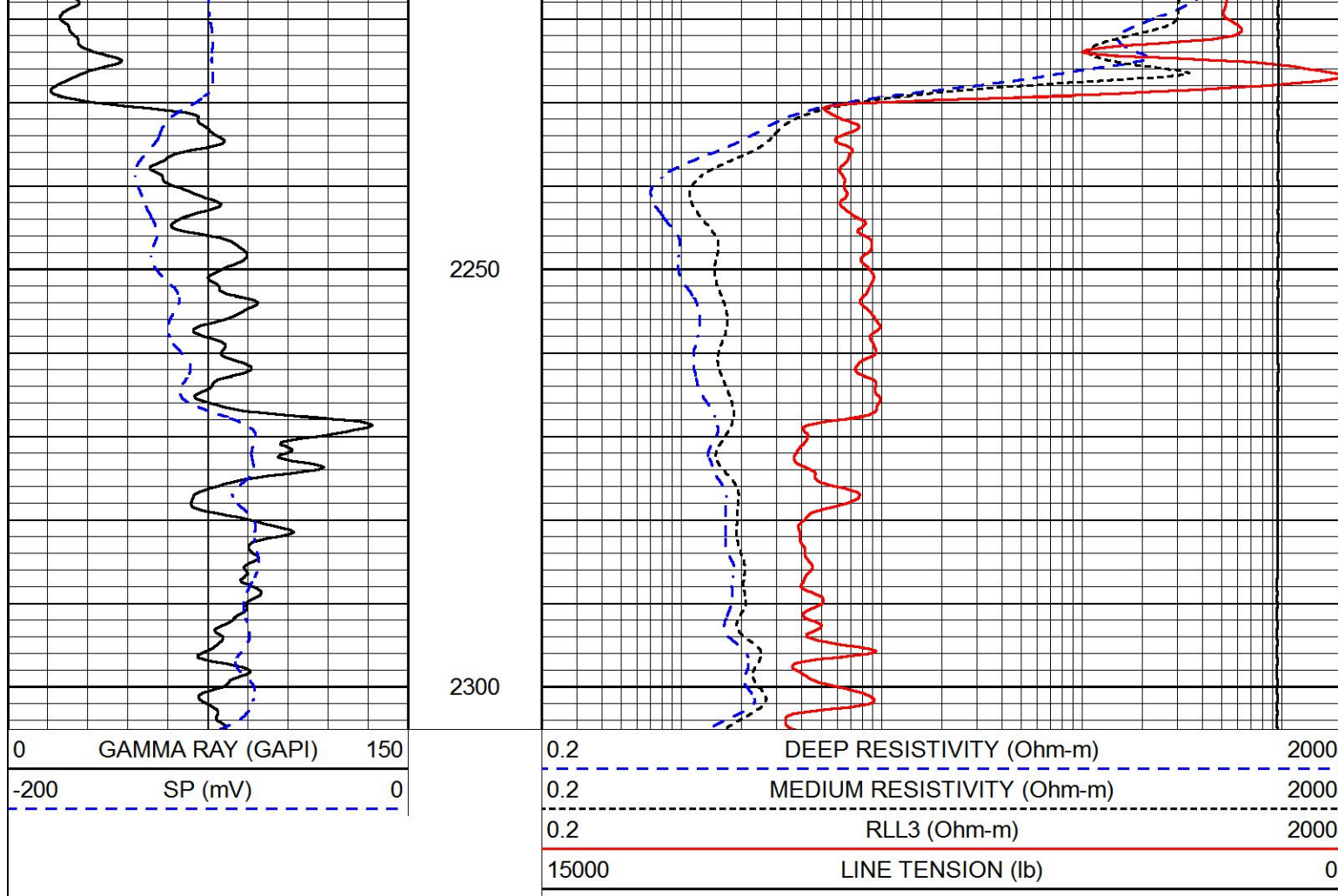
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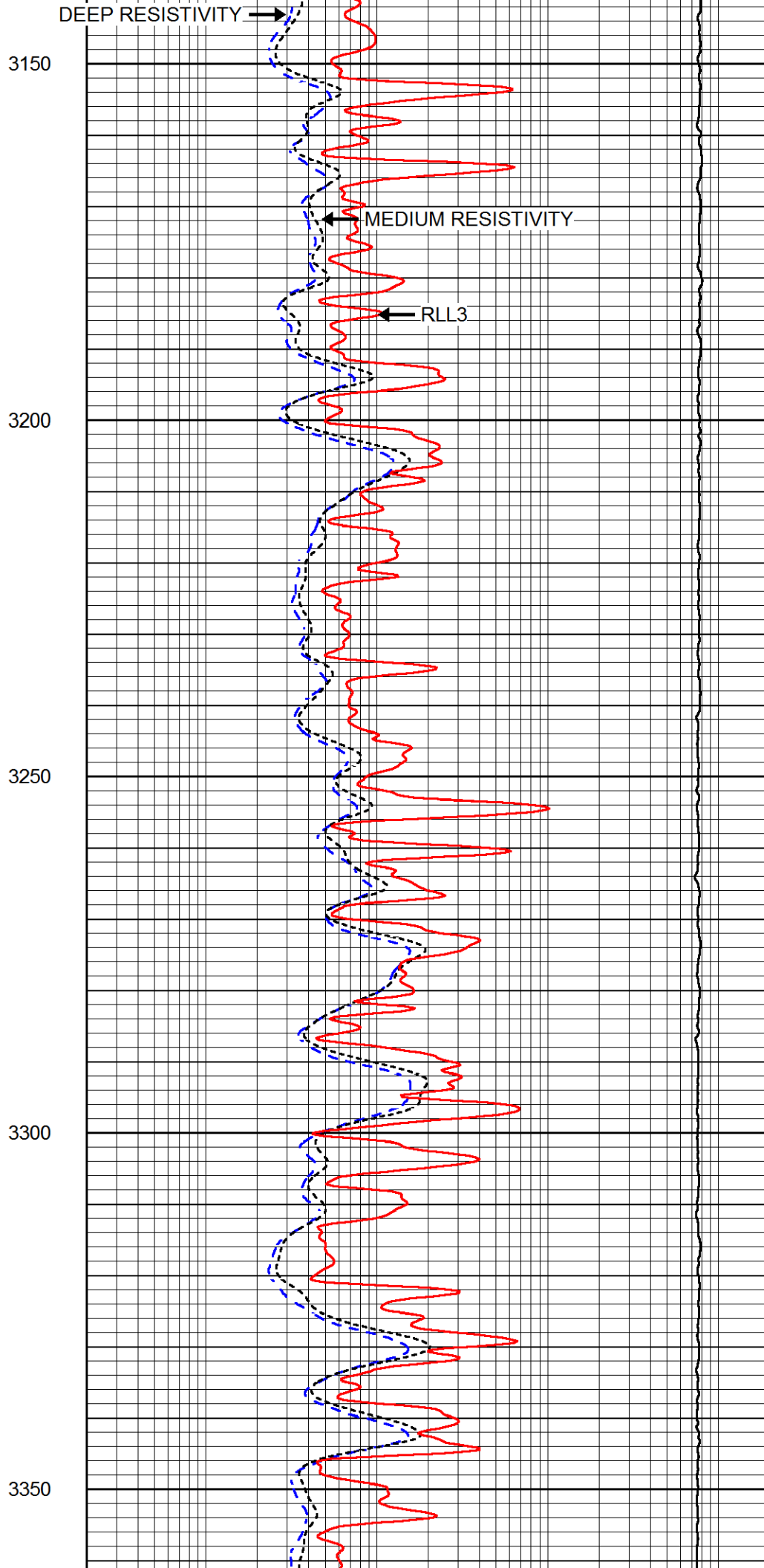
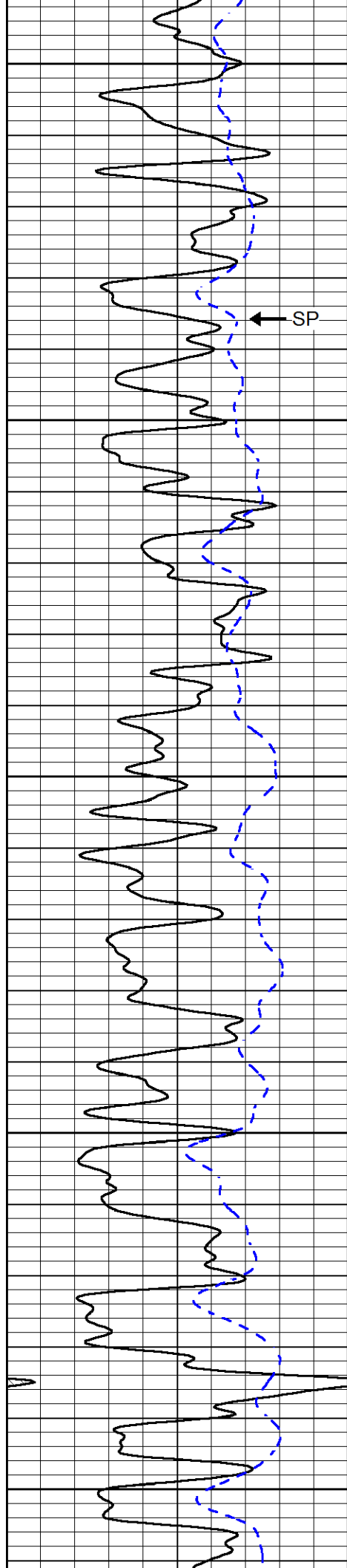
MAIN PASS

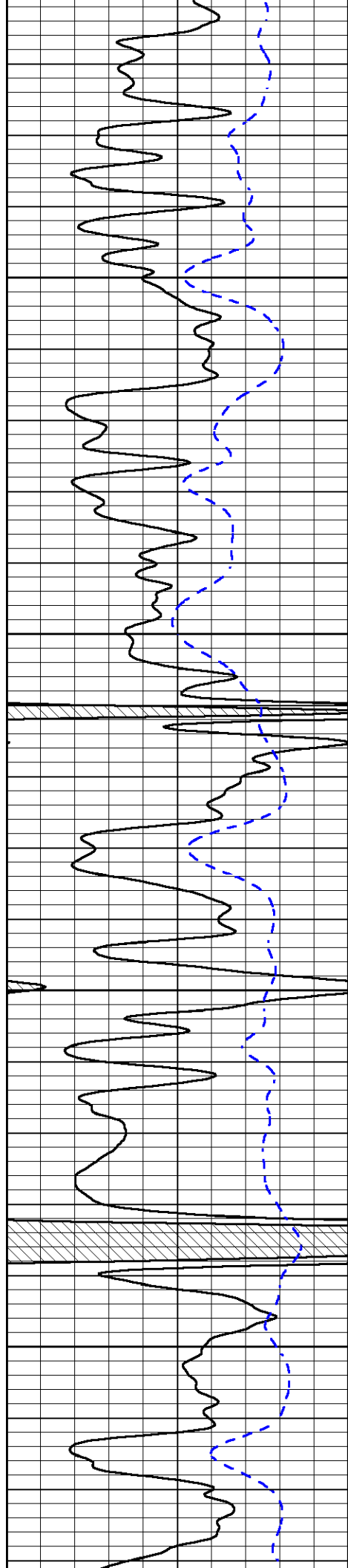
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Dataset Pathname	stackml/pass3.1
Presentation Format	dil
Dataset Creation	Mon Feb 11 13:56:06 2019
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0







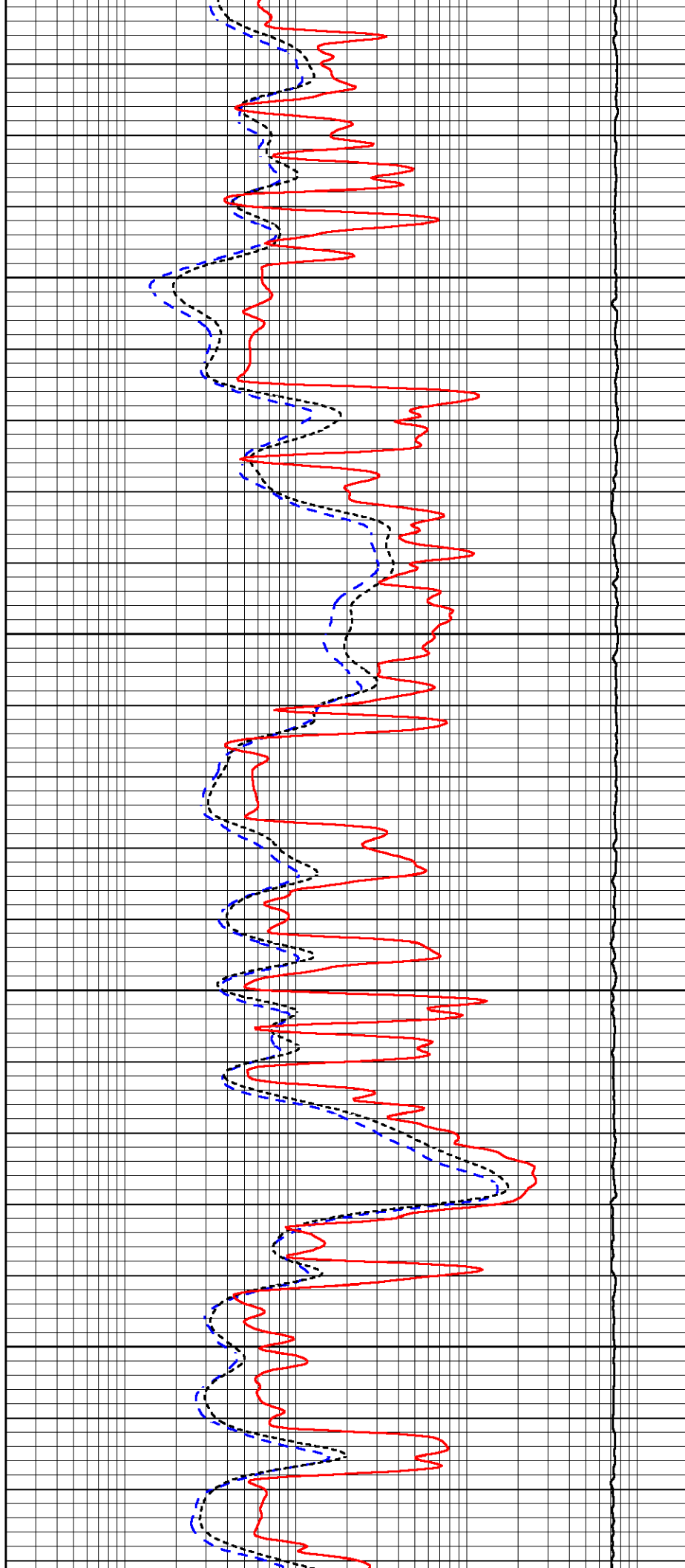


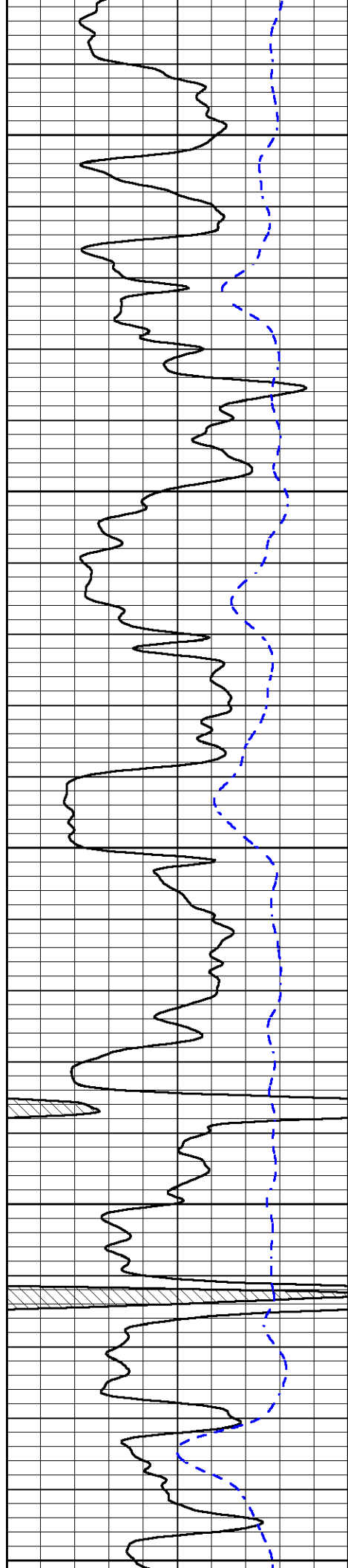
3400

3450

3500

3550





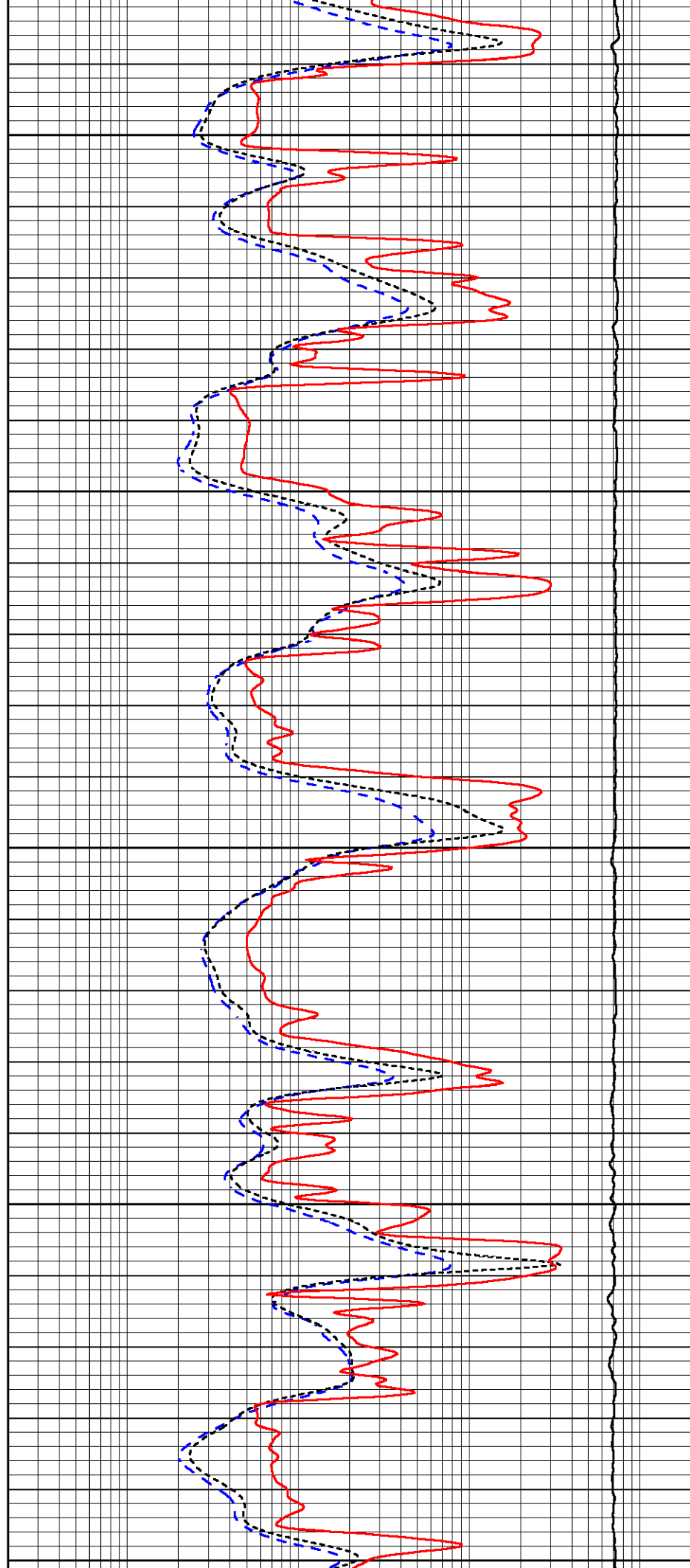
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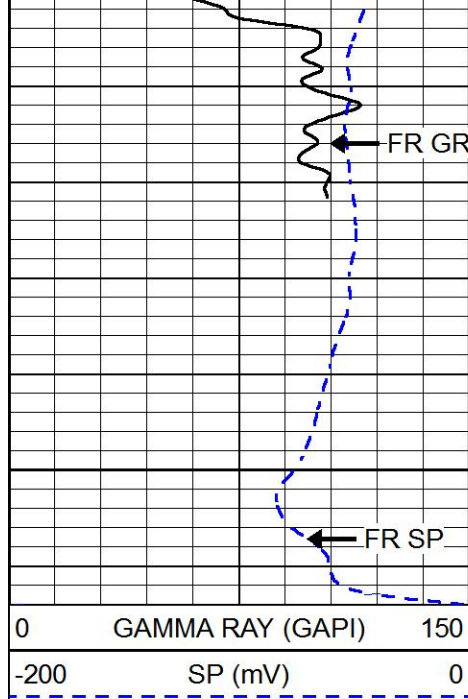
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3700

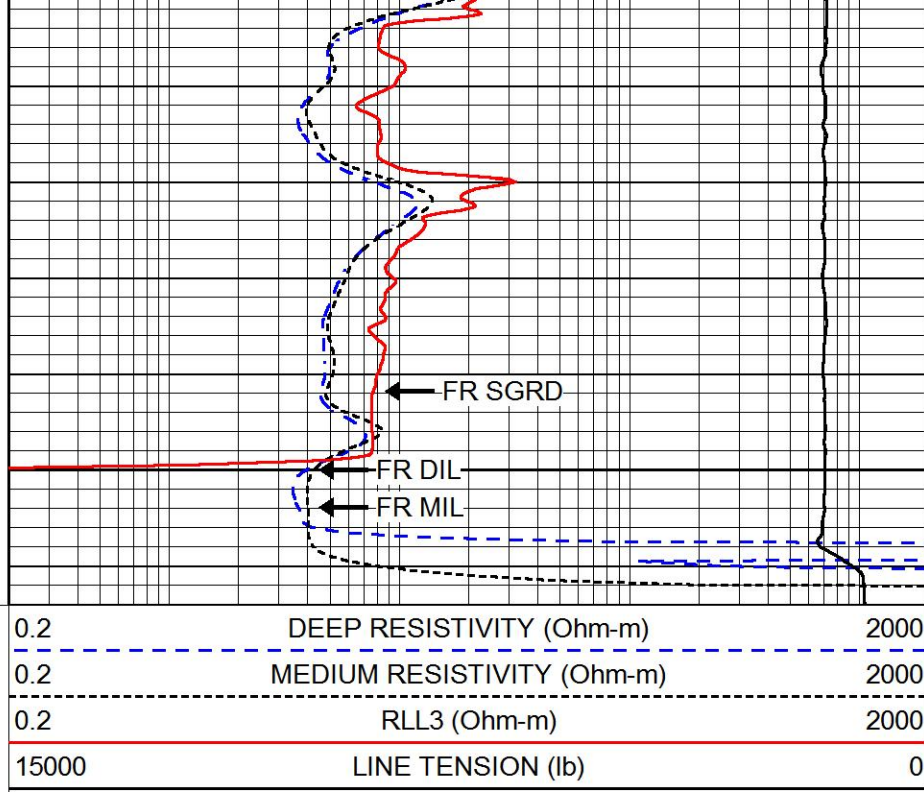
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3800





3850

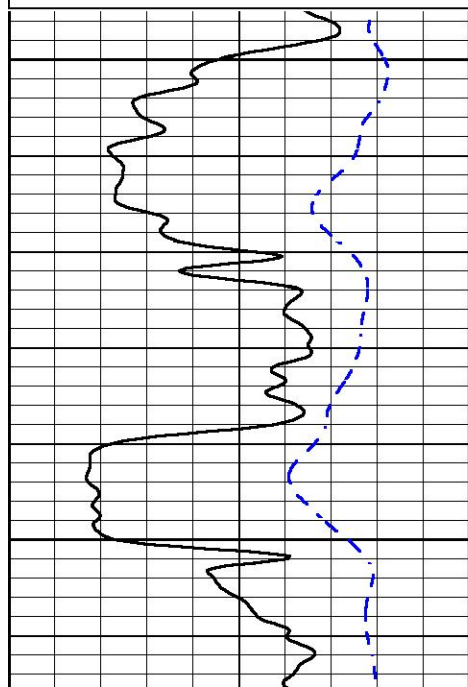
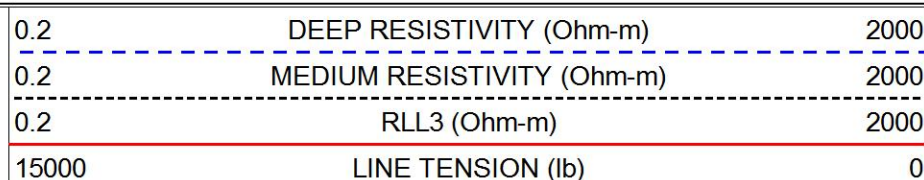
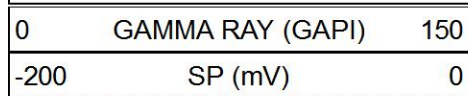


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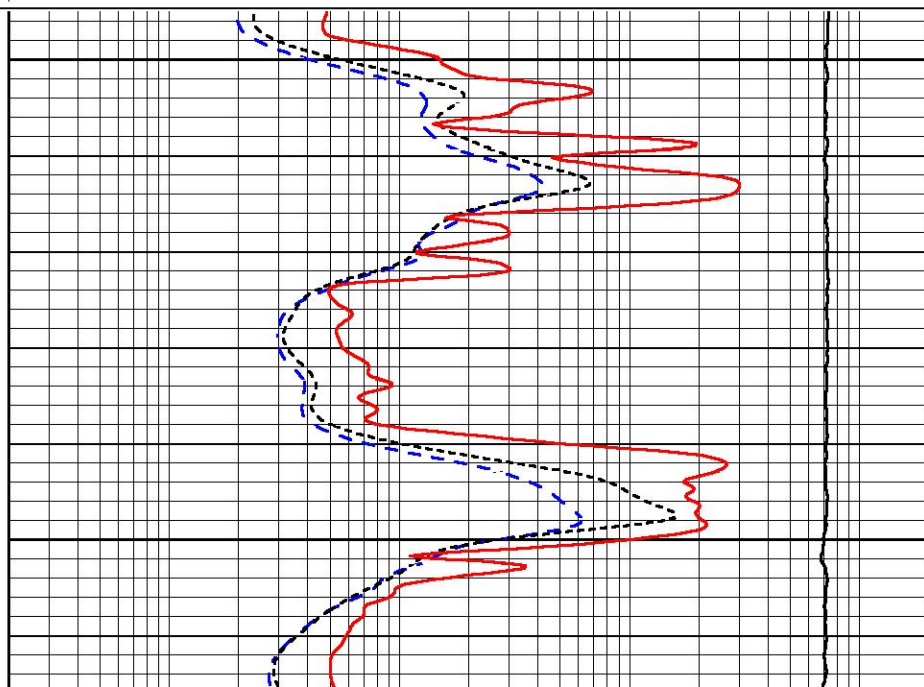
REPEAT SECTION

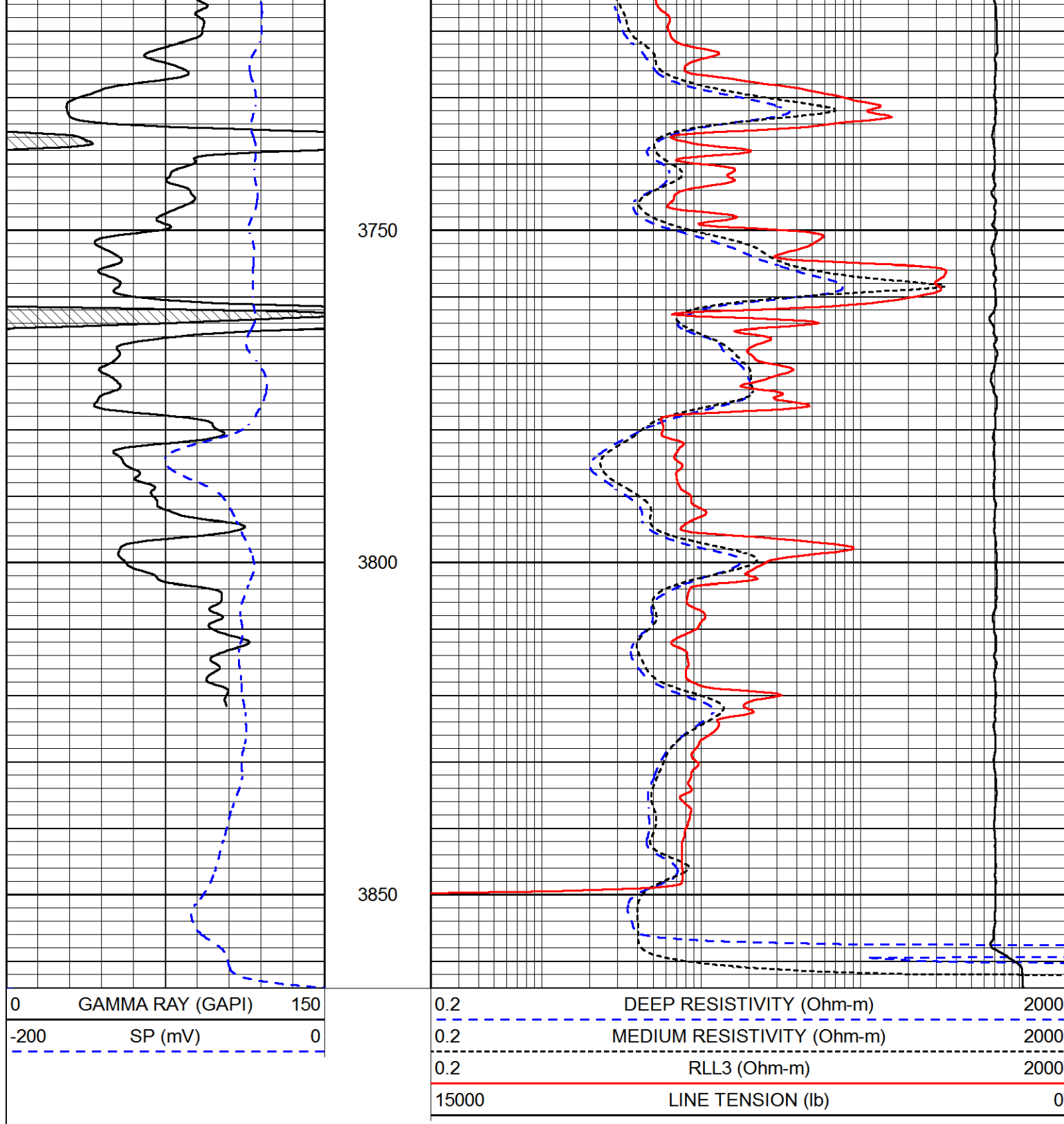
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 Presentation Format dil
 Dataset Creation Mon Feb 11 13:56:16 2019
 Charted by Depth in Feet scaled 1:240



3650

3700





Calibration Report

Database File: berexco_sylvester_1.db
Dataset Pathname: stackml/pass3.1
Dataset Creation: Mon Feb 11 13:56:06 2019

Dual Induction Calibration Report

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

Readings

References

Results

Loop: Air Loop Air Loop Gain Offset

Loop:	Alt	Loop	Alt	Loop	Gain	Onset	
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
Microlog Calibration Report							
Serial-Model: Performed:			PSI-02-PSI STKBL ML Sat Apr 07 12:01:20 2018				
	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	11000.0000	-0.6000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	10000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.3500
Compensated Density Calibration Report							
Serial-Model: Source / Verifier: Master Calibration Performed:			144-84-M&W / 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: Tool Model: Calibration Performed:			tk10-MW M&W 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: Tool Model: Calibration Performed:			89-M&W M&W 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		



Company	BEREXCO, LLC
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