



DUAL INDUCTION LOG

Company AMERICAN WARRIOR, INC.
 Well WEBER NO. 2-7
 Field WILDCAT
 County ELLIS
 State KANSAS

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 Well WEBER NO. 2-7
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Location: API #: 15-051-26855-00-00
 1,425' FNL & 335' FWL
 SEC 7 TWP 13S RGE 19W
 Permanent Datum GROUND LEVEL Elevation 2144'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services CNL/CDL MEL
 Elevation K.B. 2152', D.F. N/A, G.L. 2144'

Date	12/18/2016
Run Number	ONE
Depth Driller	3910'
Depth Logger	3910'
Bottom Logged Interval	3909'
Top Log Interval	200'
Casing Driller	8.625" @ 230'
Casing Logger	226'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	1500
Density / Viscosity	8.8 51
pH / Fluid Loss	11.0 6.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.00 @ 38
Rmt @ Meas. Temp	.75 @ 38
Rmc @ Meas. Temp	1.35 @ 38
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.33 @ 115
Operating Rig Time	2 1/2 HOURS
Max Rec. Temp. F	115 DEG F.
Equipment Number	108
Location	COLBY
Recorded By	J. LONG
Witnessed By	JASON T. ALM

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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.
 ELLIS, NORTH TO EMMERAM ROAD, 4 EAST TO 160TH AVENUE, 1 1/4 SOUTH,
 EAST INTO (JUST NORTH OF INTERSTATE)

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

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

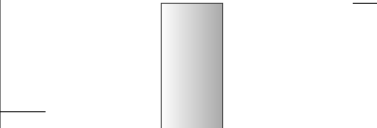
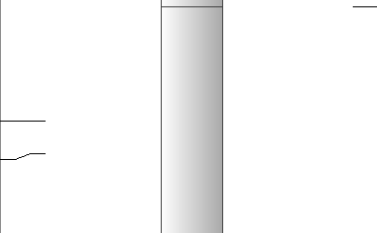
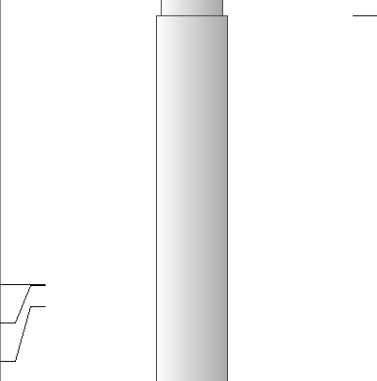
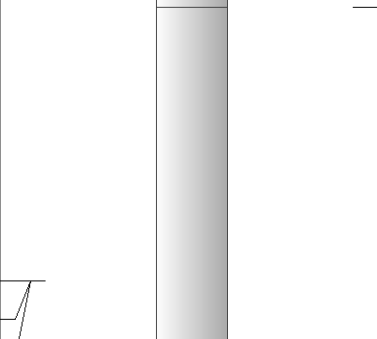
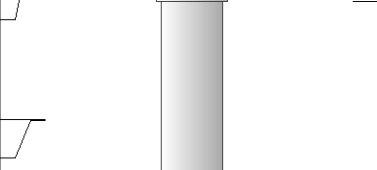
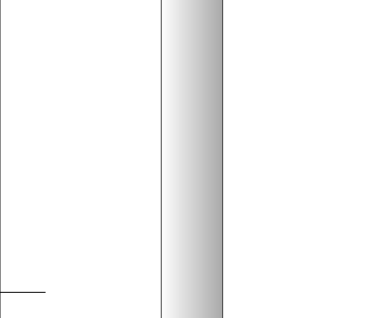
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. LONG	Primary Witness: JASON T. ALM
Operator: C. PFEIFER	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\Americanwarrior_weber_2-7.db
Dataset field/well/stackmel/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	115	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	-150	-7	Off	3910

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 CNSSC	37.48 36.73		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (71-914)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSI STKBL ML (PSI-01) Stackable Microlog Tools	7.58	4.00	65.00
RLL3 RLL3F	15.80 15.79					
CILD	8.00		DIL-M&W (1987)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: americanwarrior_weber_2-7.db: field/well/stackmel/pass1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

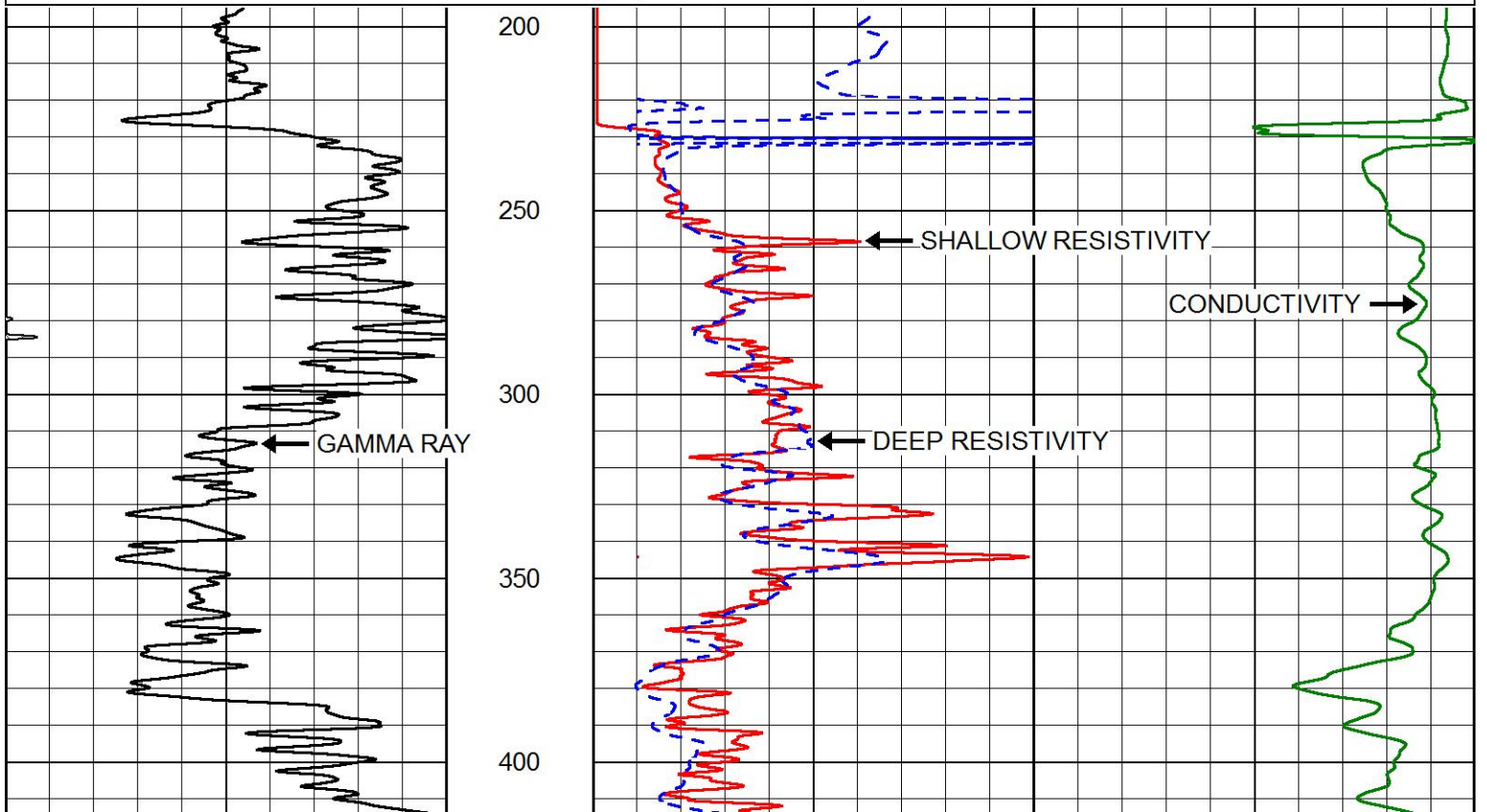
PIONEER
 Pioneer Energy Services

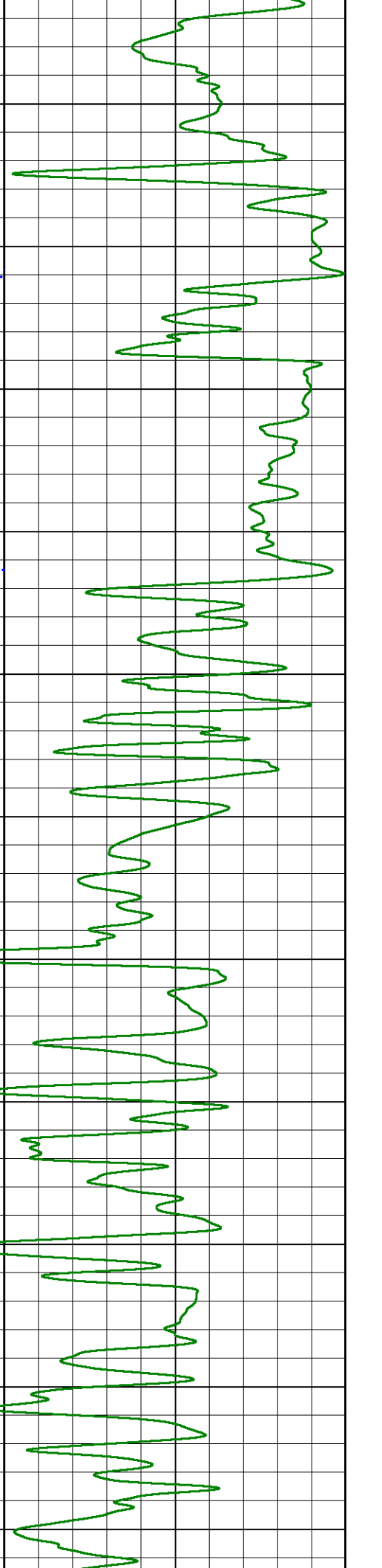
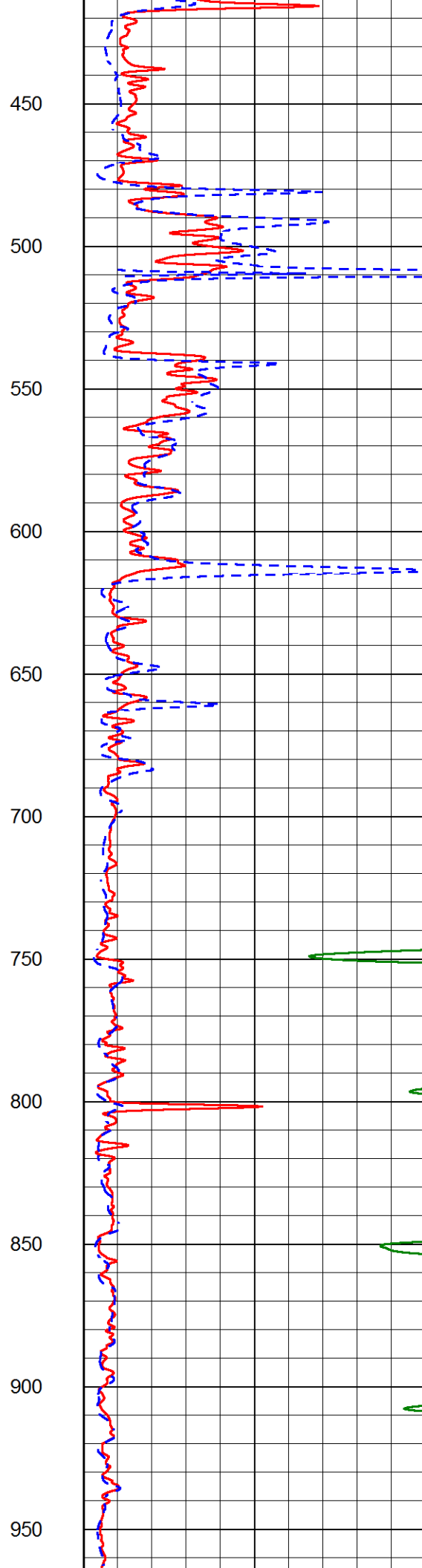
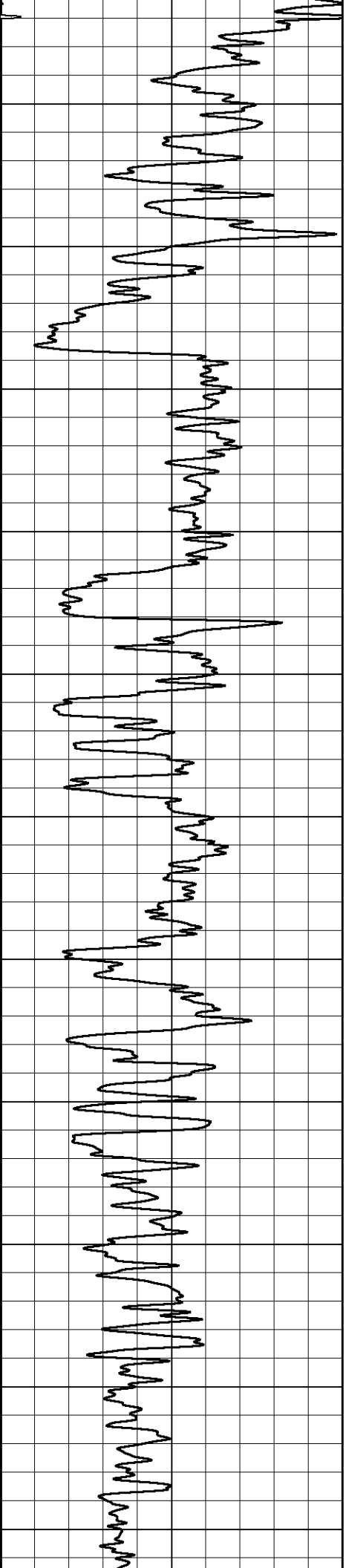
2" SCALE RESISTIVITY

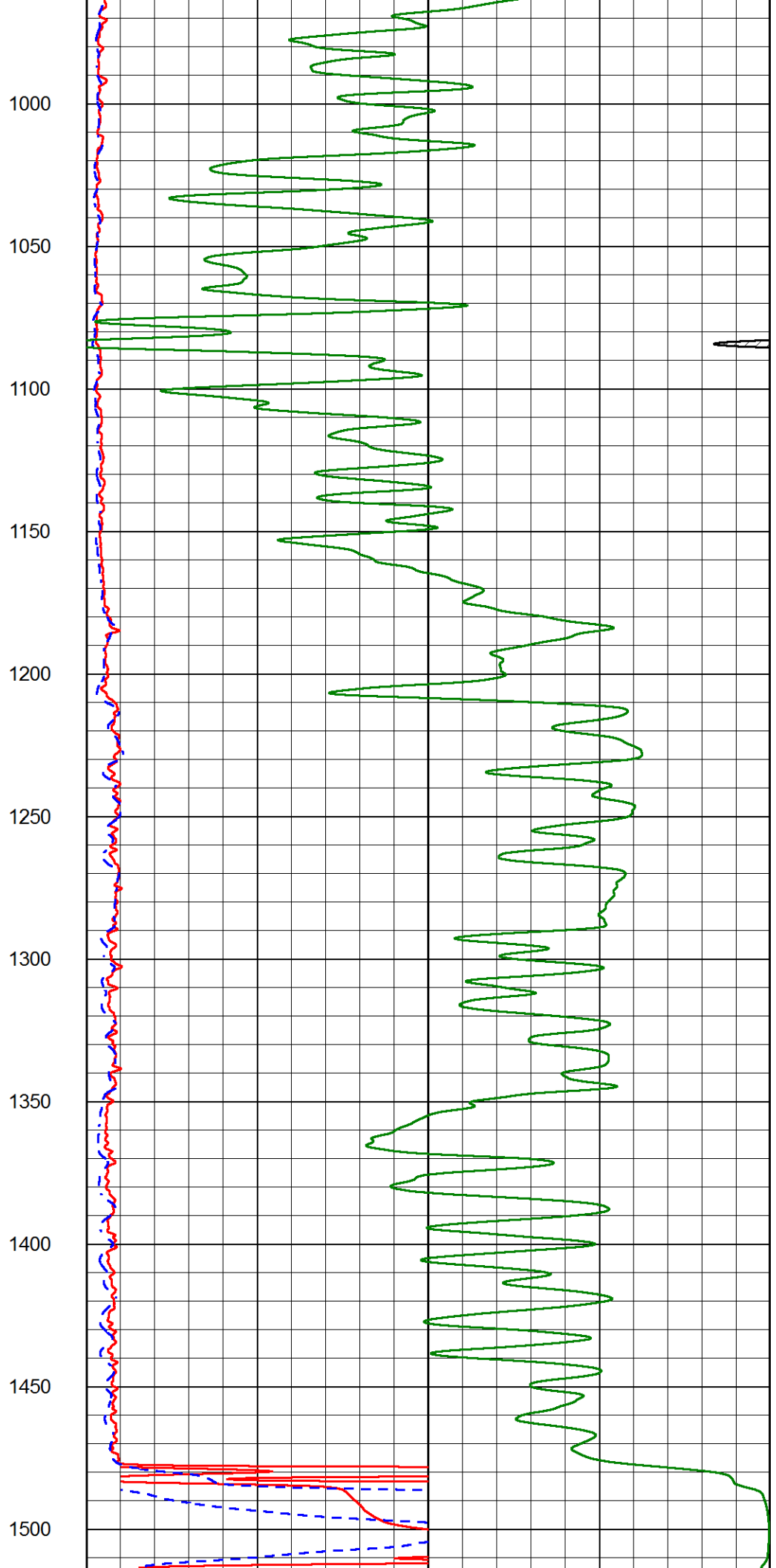
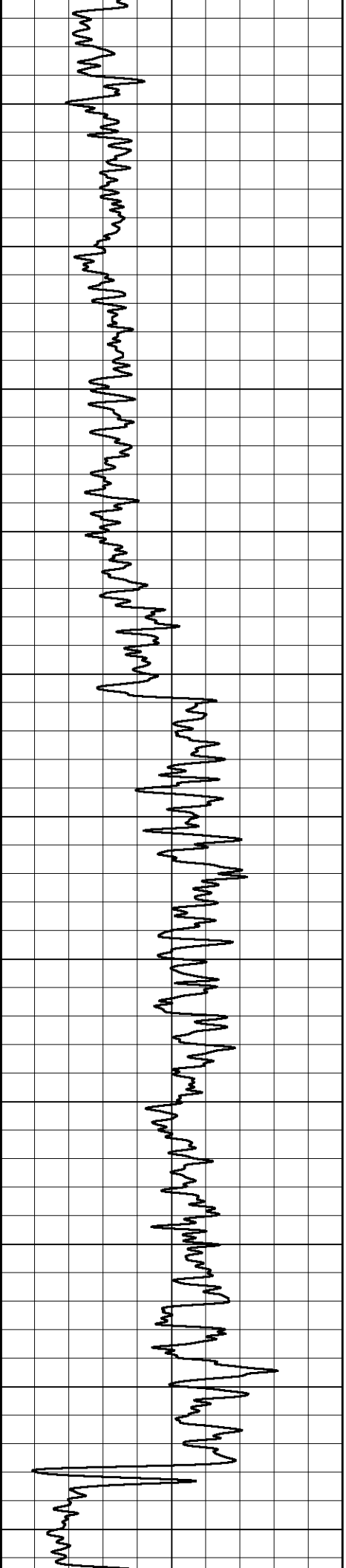
MAIN PASS

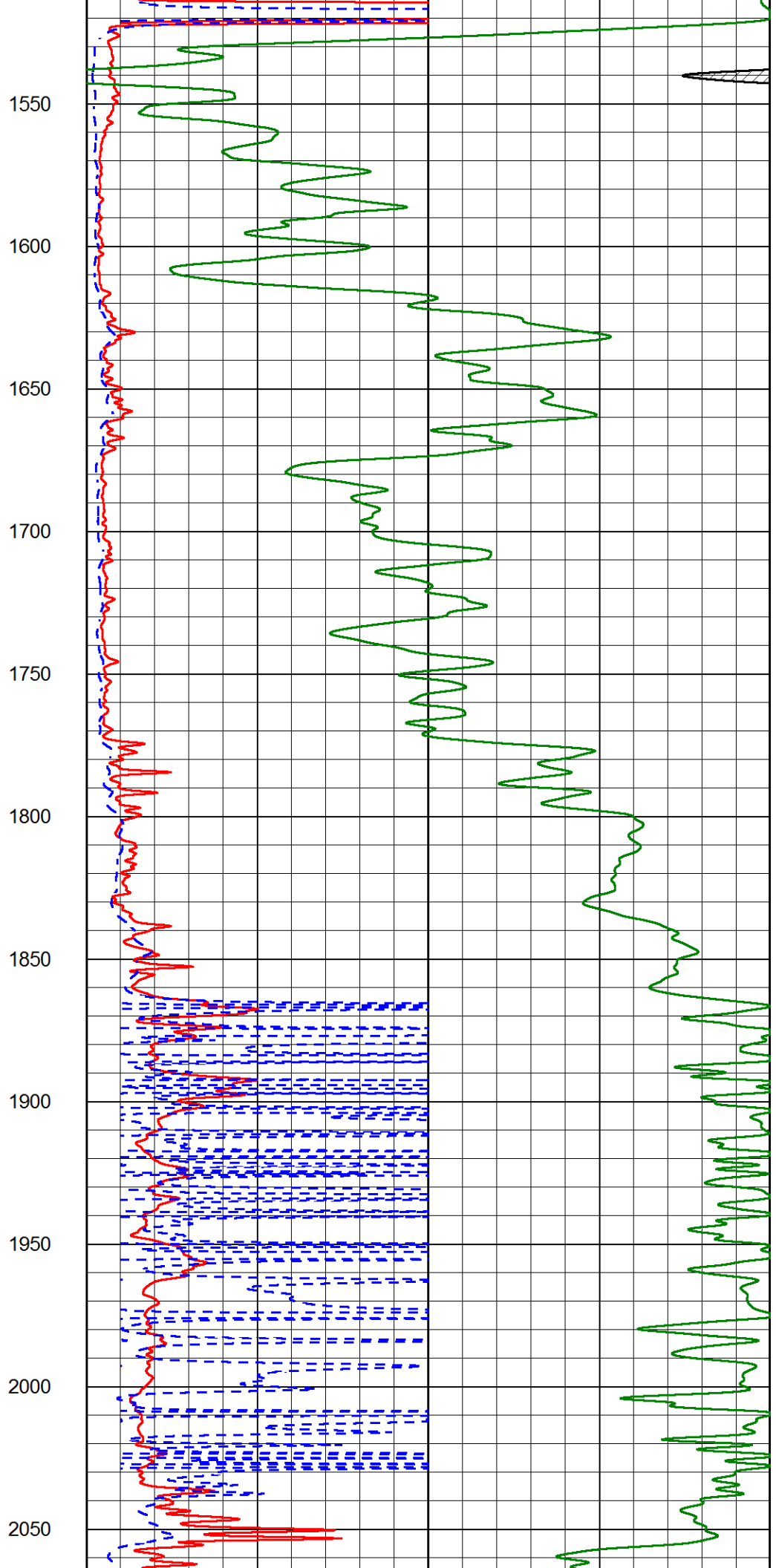
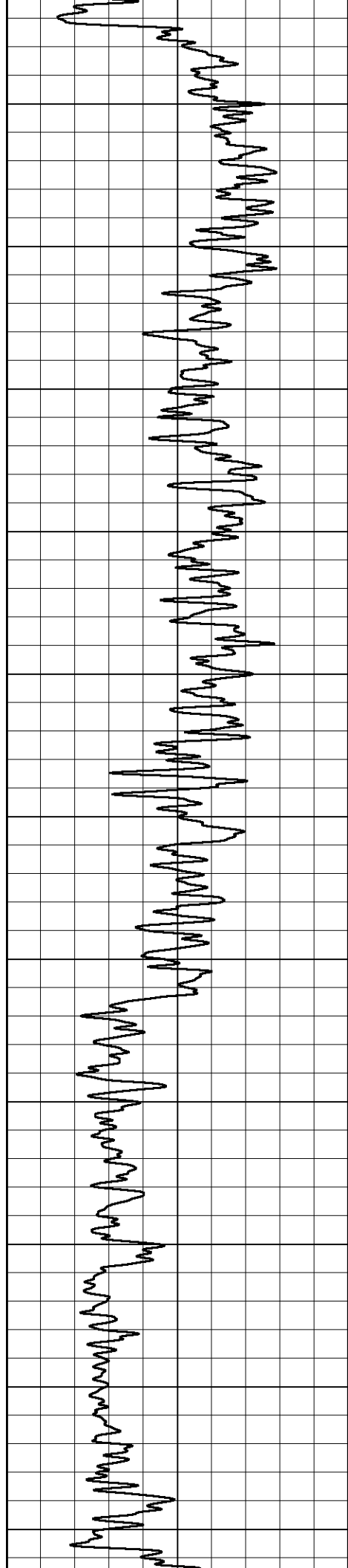
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 Dataset Pathname stackmel/pass4.2
 Presentation Format dil2in
 Dataset Creation Sun Dec 18 11:20:56 2016
 Charted by Depth in Feet scaled 1:600

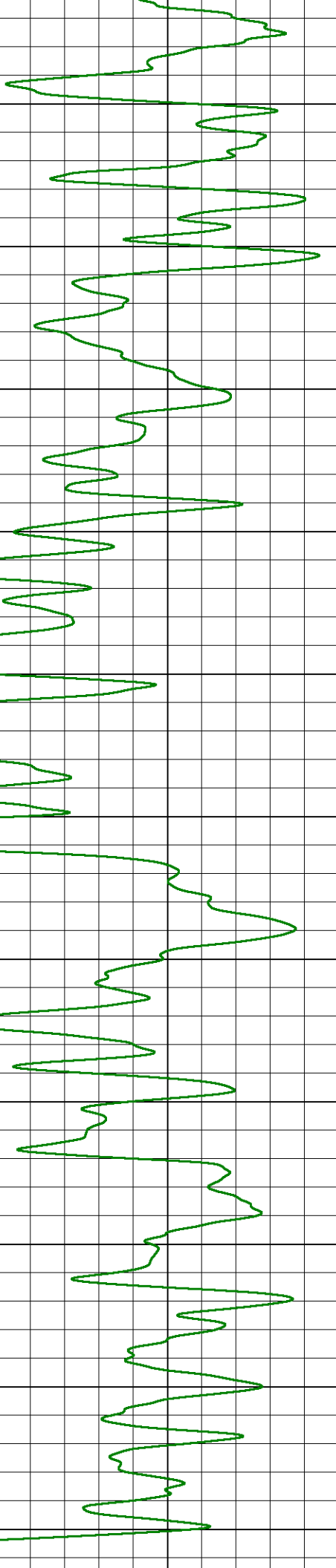
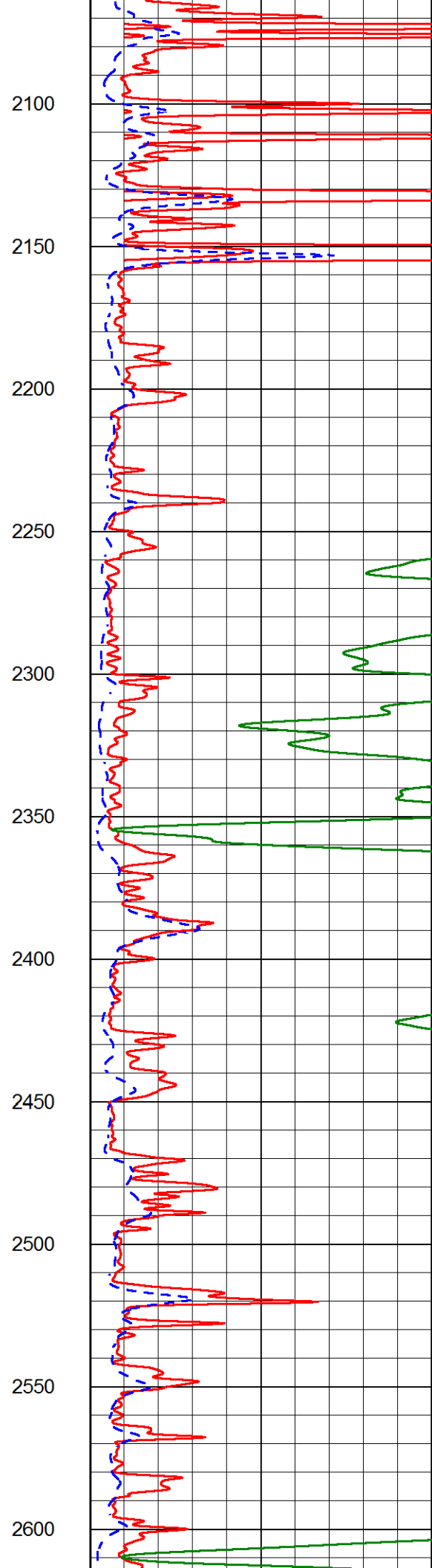
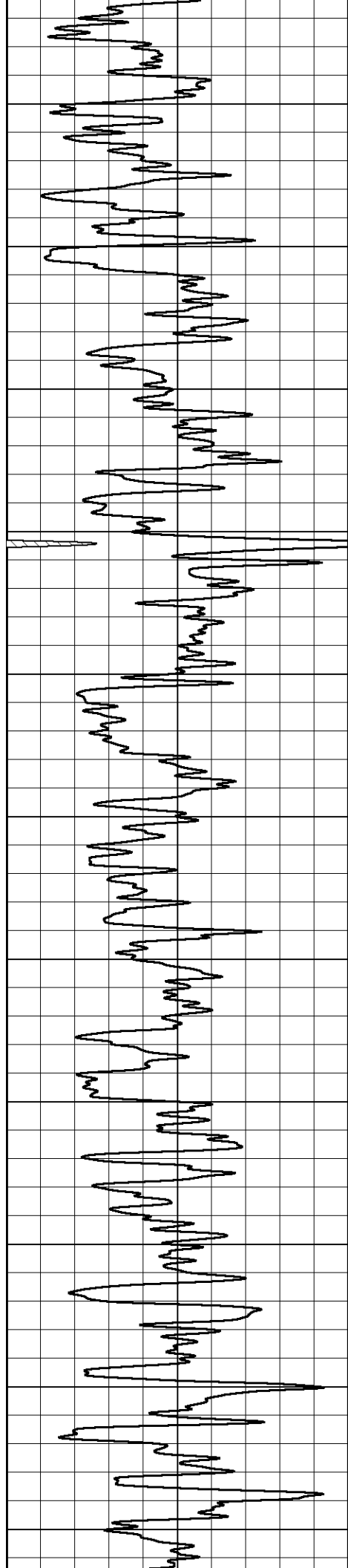
0	GAMMA RAY (GAPI)	150	1000	CONDUCTIVITY (mmho/m)	0
			SHALLOW RESISTIVITY		
			0	(Ohm-m)	50
			DEEP RESISTIVITY (Ohm-m) 50		
			SHALLOW RESISTIVITY		
			50	(Ohm-m)	500
			DEEP RESISTIVITY		
			50	(Ohm-m)	500

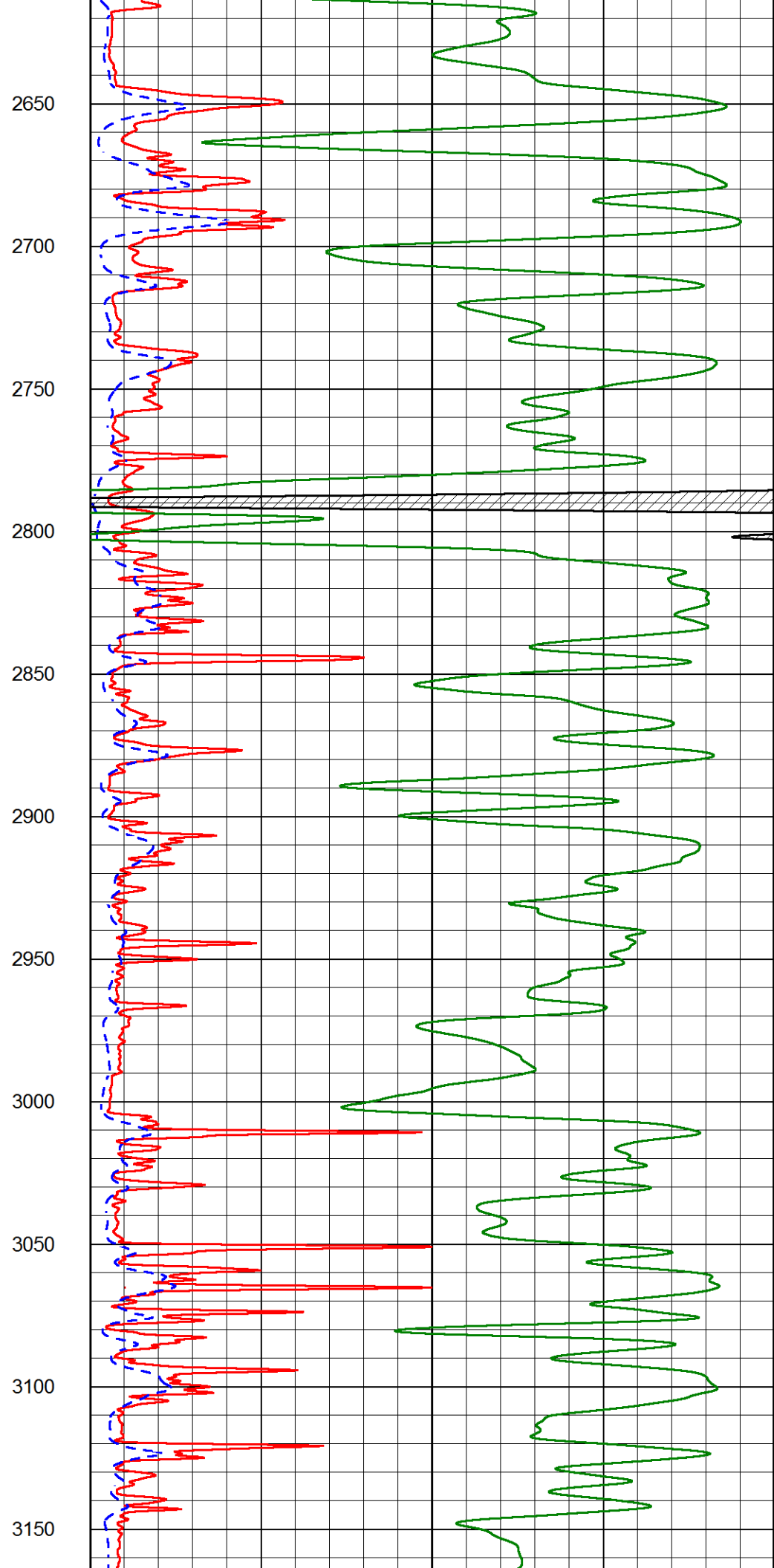
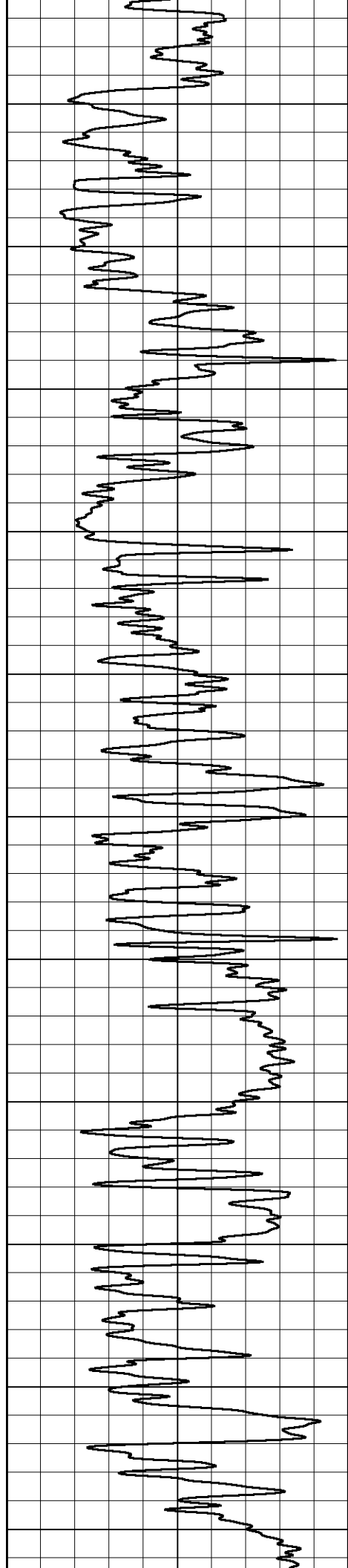


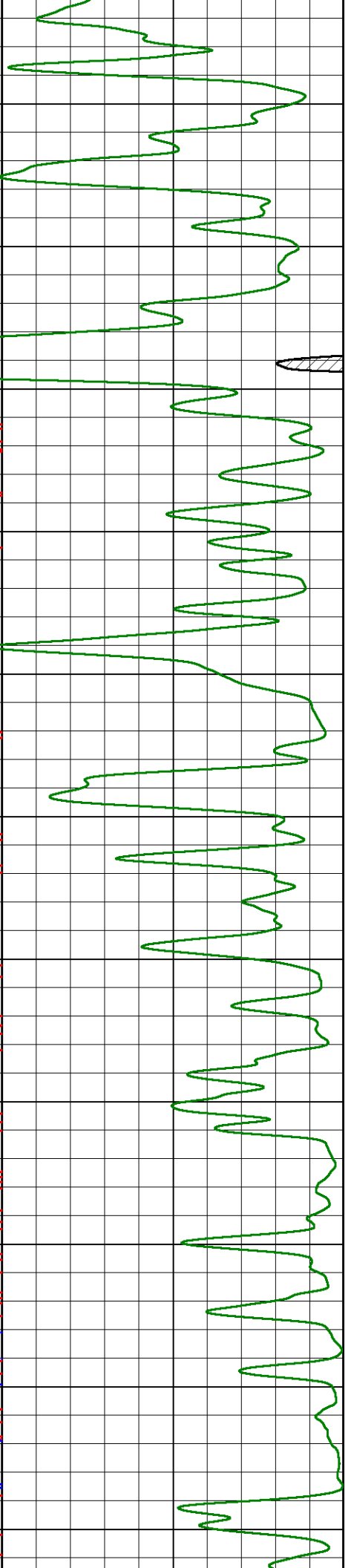
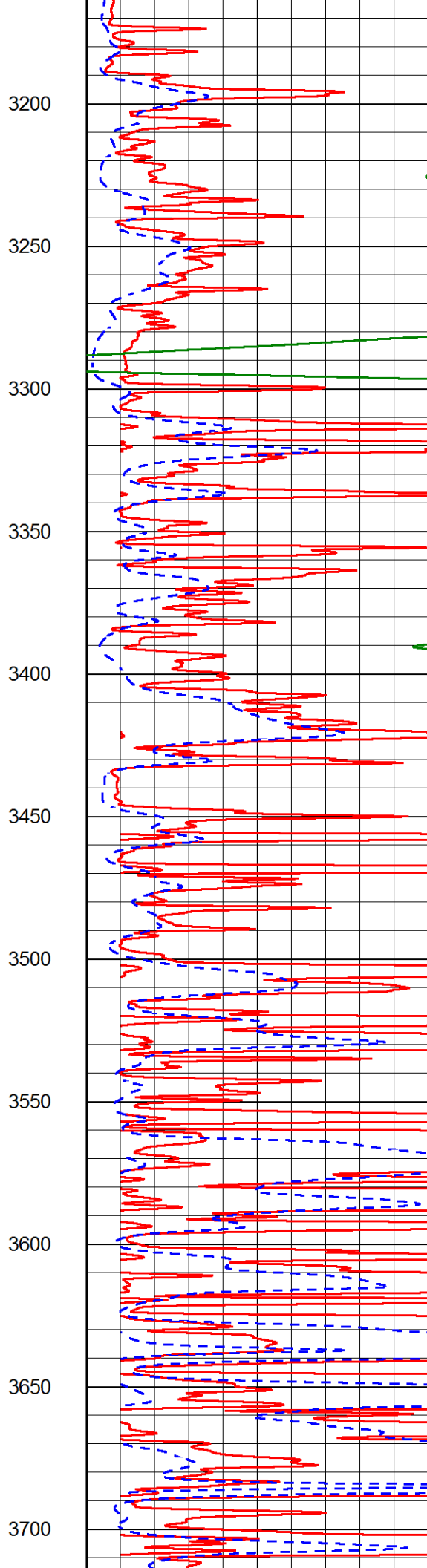
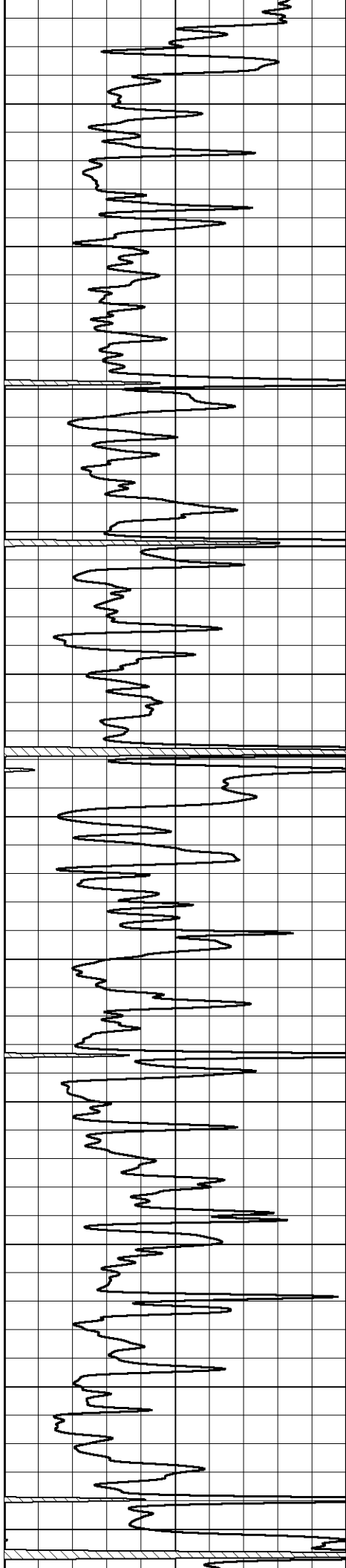


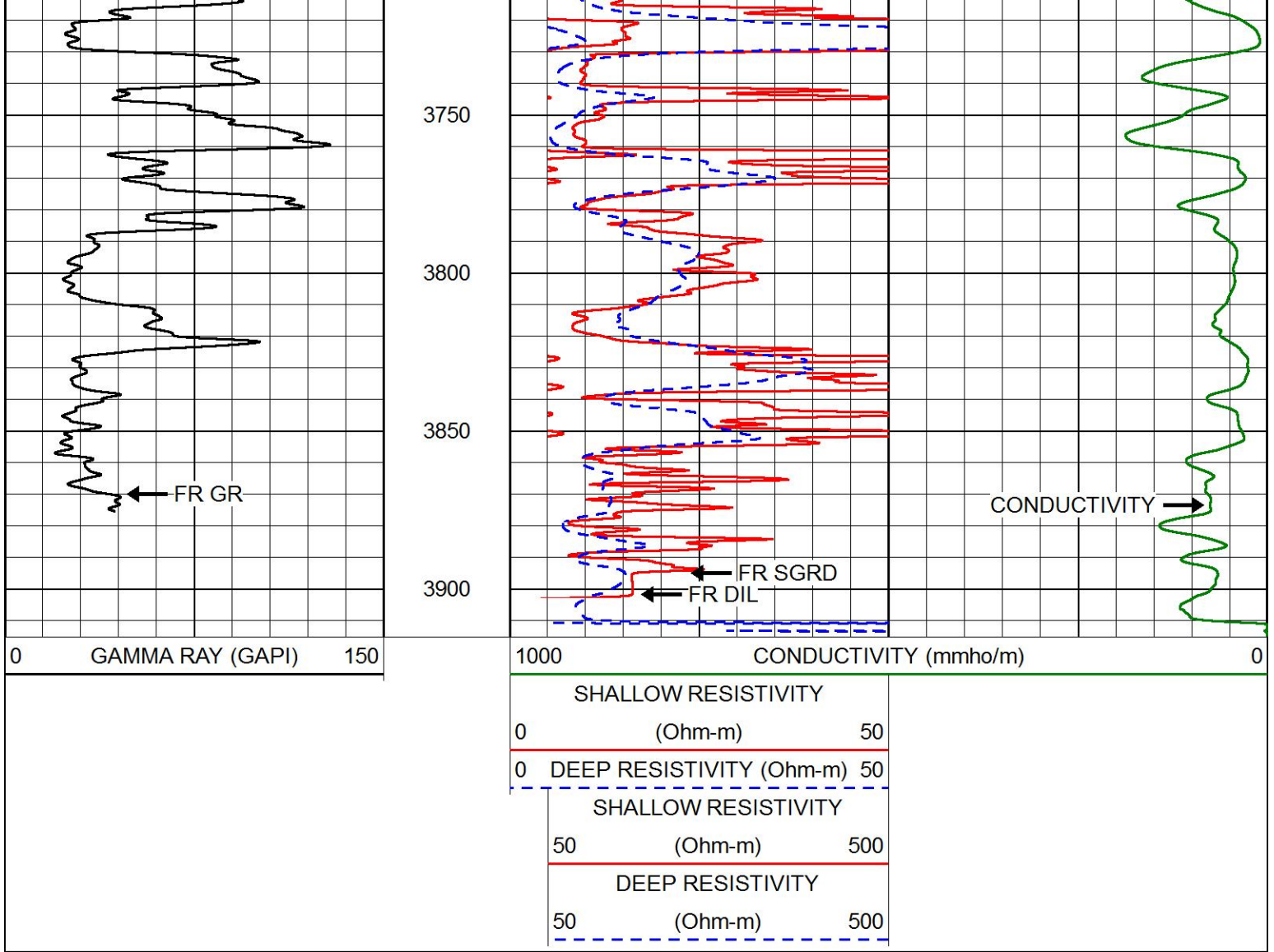










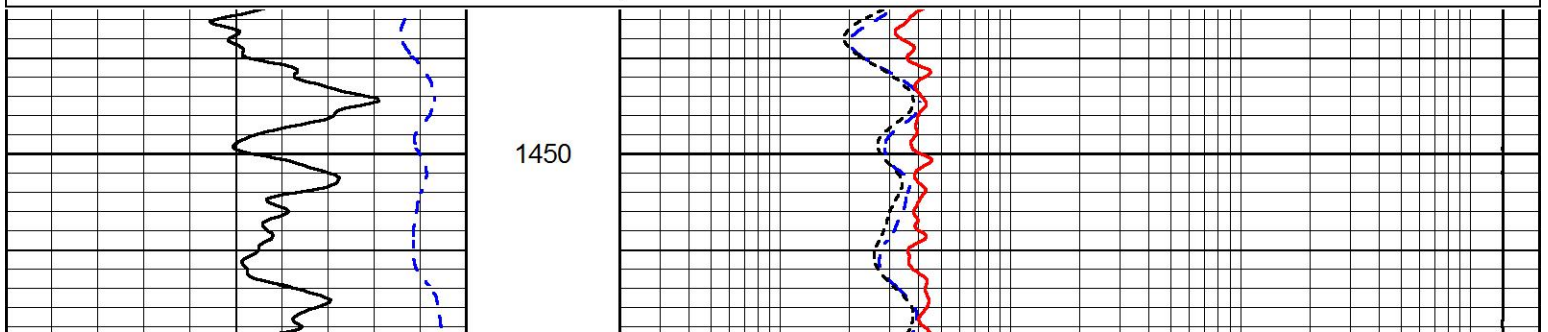


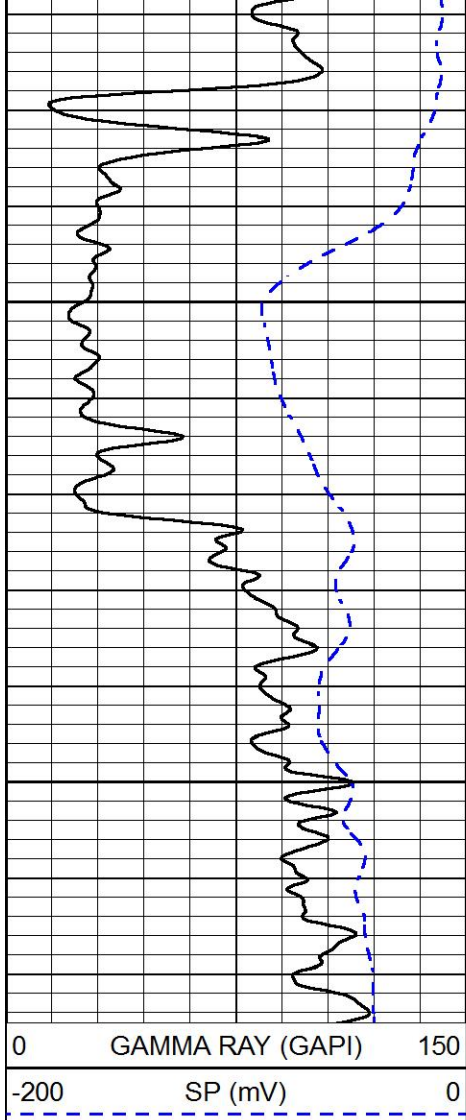
ANHYDRITE SECTION

MAIN PASS

Database File americanwarrior_weber_2-7.db
 Dataset Pathname stackmel/pass4.4
 Presentation Format dil
 Dataset Creation Sun Dec 18 11:05:47 2016
 Charted by Depth in Feet scaled 1:240

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

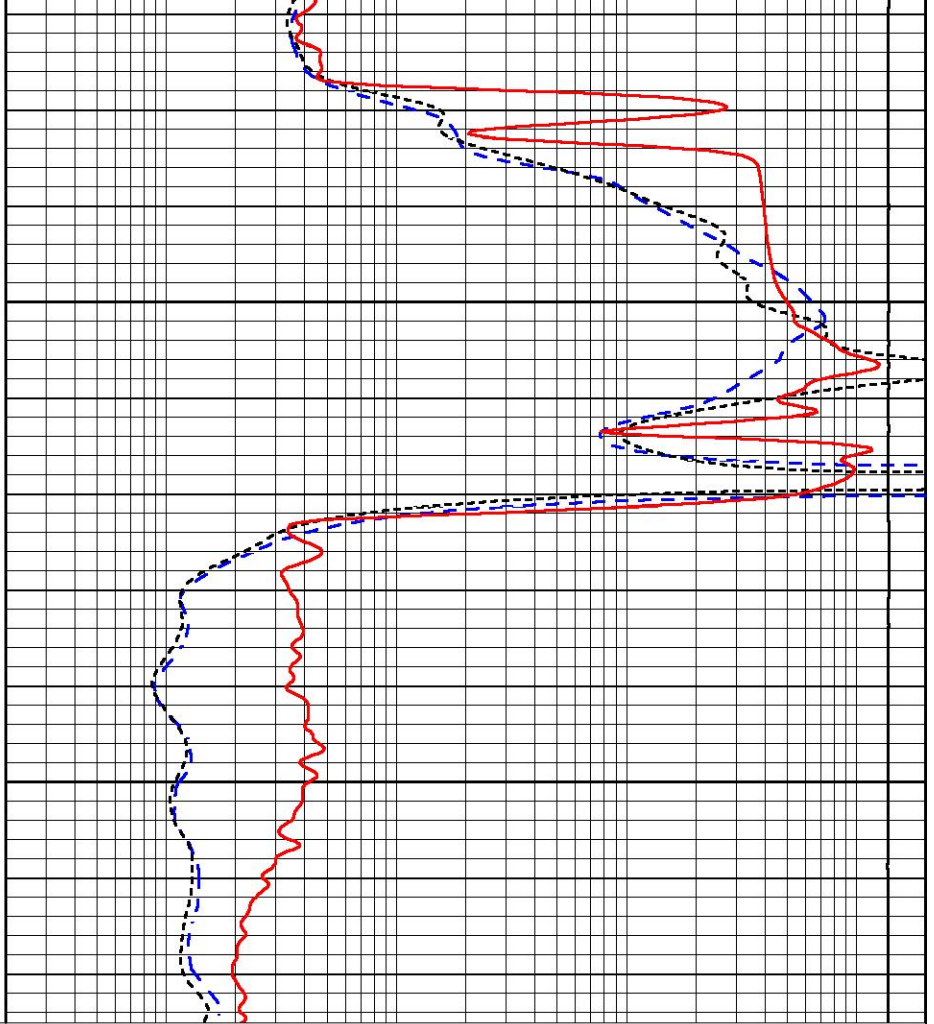




1500

1550

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 SHALLOW RESISTIVITY (Ohm-m) 2000
15000 LINE TENSION (lb) 0

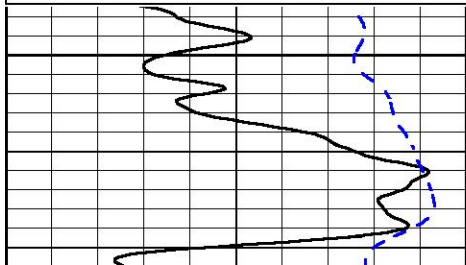


MAIN PASS

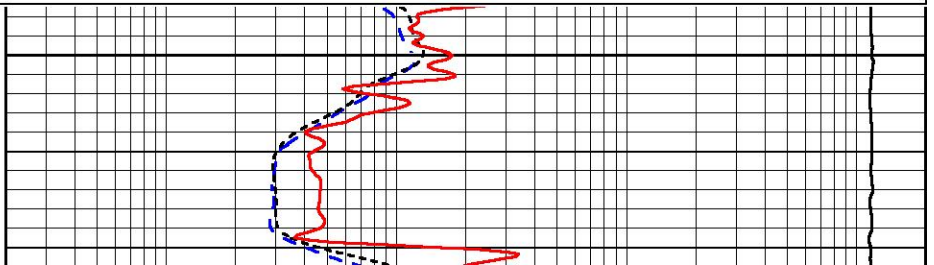
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Presentation Format dil
Dataset Creation Sun Dec 18 10:47:09 2016
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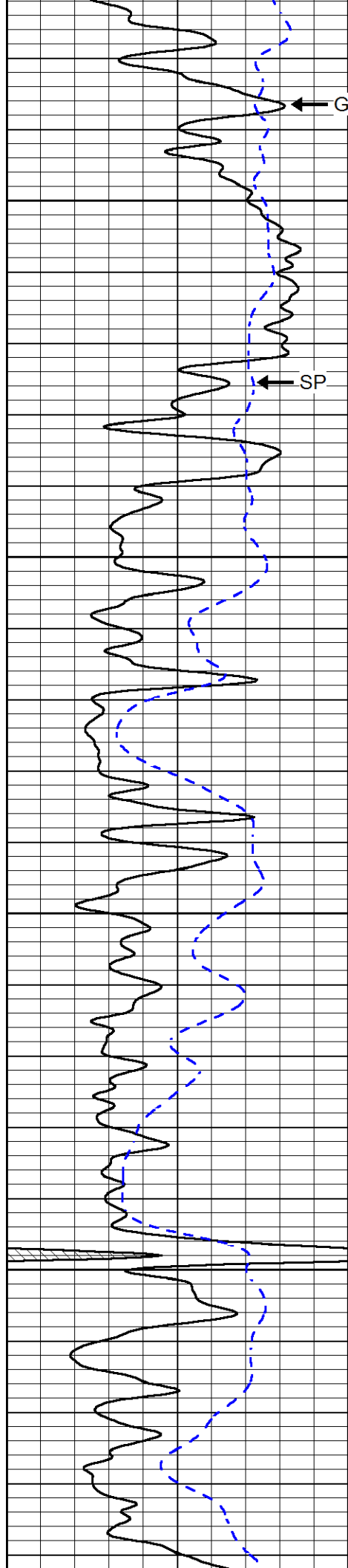
0 GAMMA RAY (GAPI) 150
-200 SP (mV) 0

0.2 DEEP RESISTIVITY (Ohm-m) 2000
0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
0.2 SHALLOW RESISTIVITY (Ohm-m) 2000
15000 LINE TENSION (lb) 0



3100





GAMMA RAY

3150

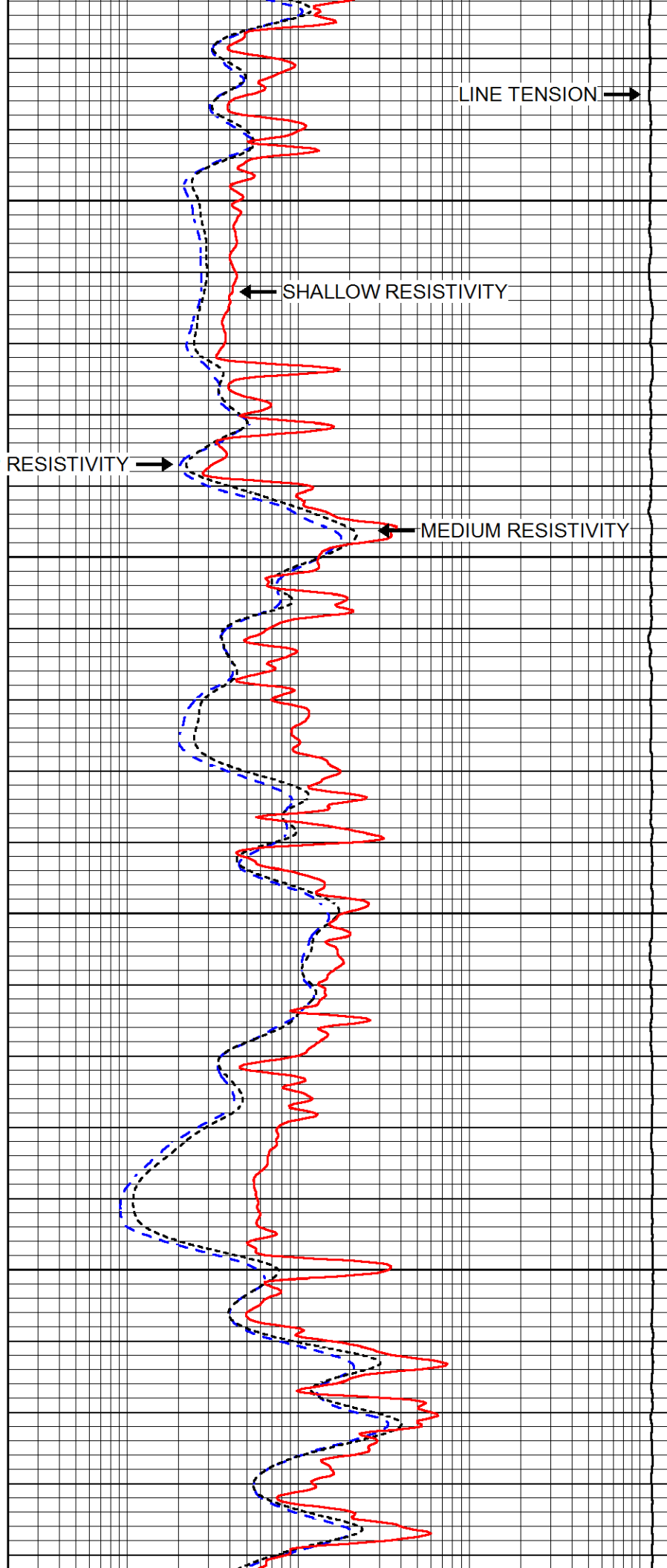
SP

DEEP RESISTIVITY

3200

3250

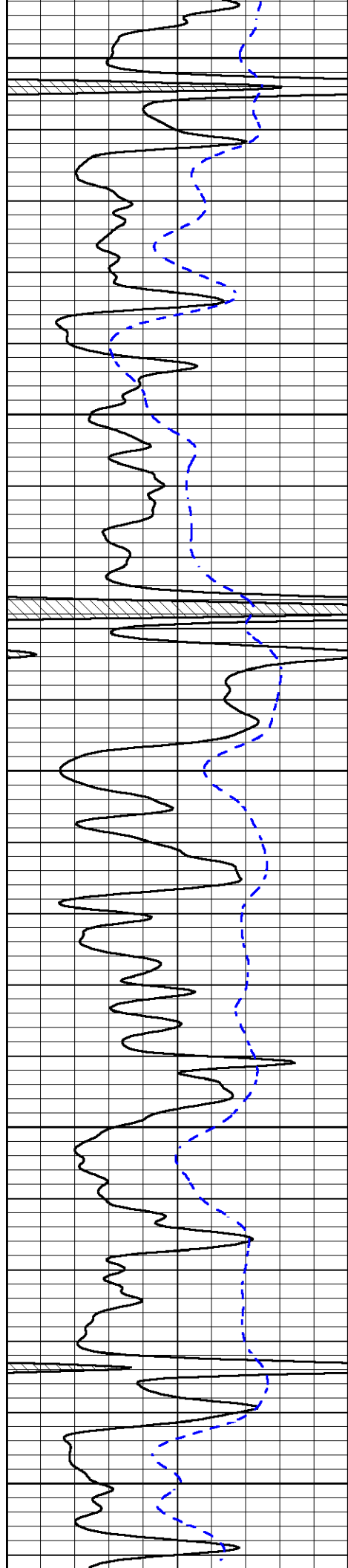
3300



LINE TENSION

SHALLOW RESISTIVITY

MEDIUM RESISTIVITY



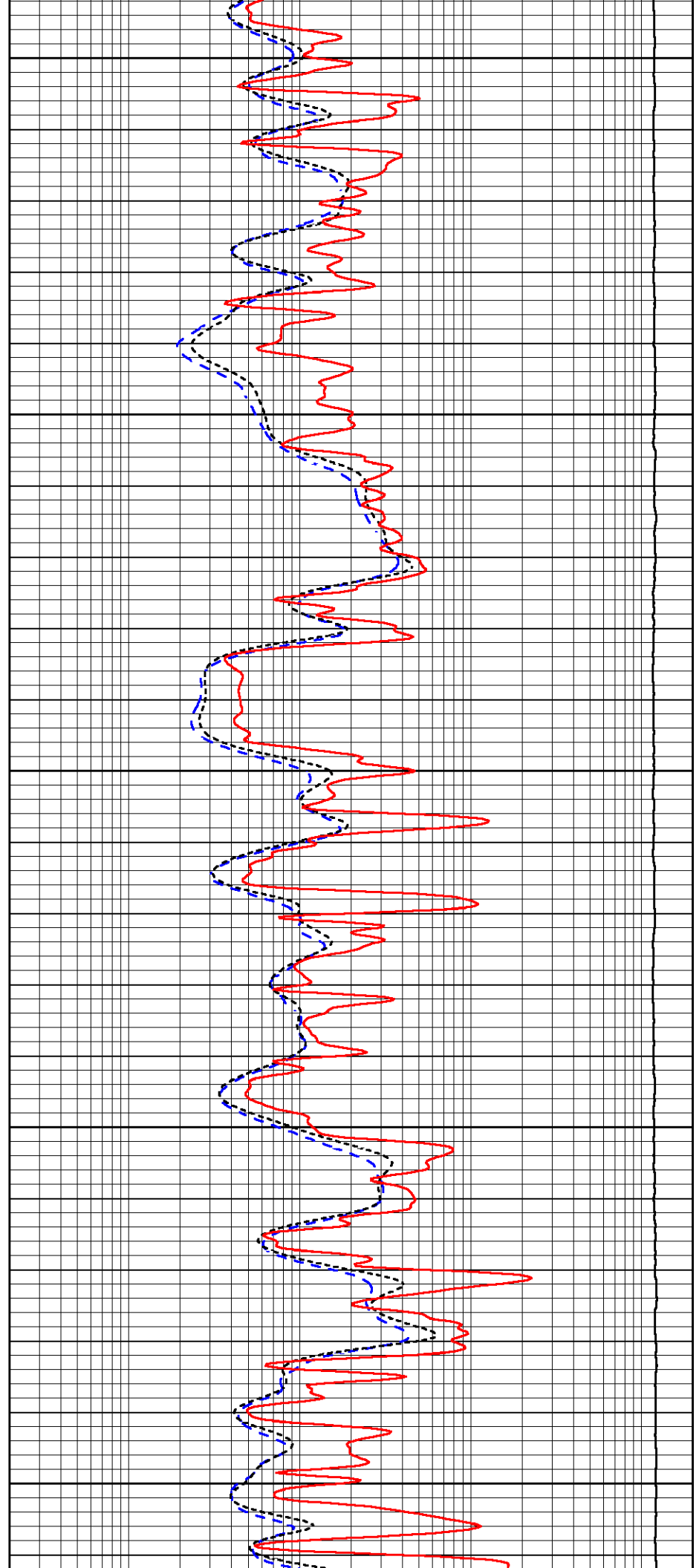
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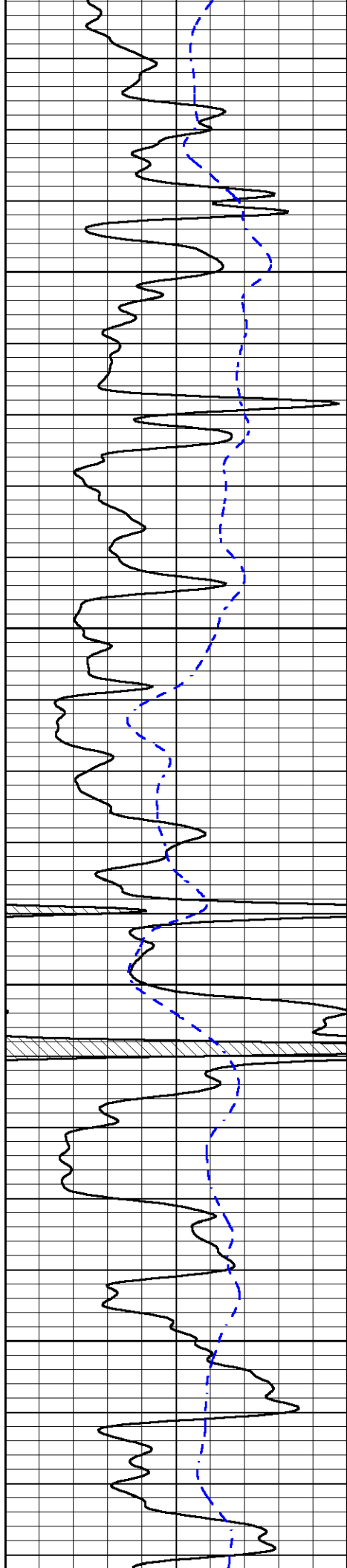
3400

3450

3500

3550



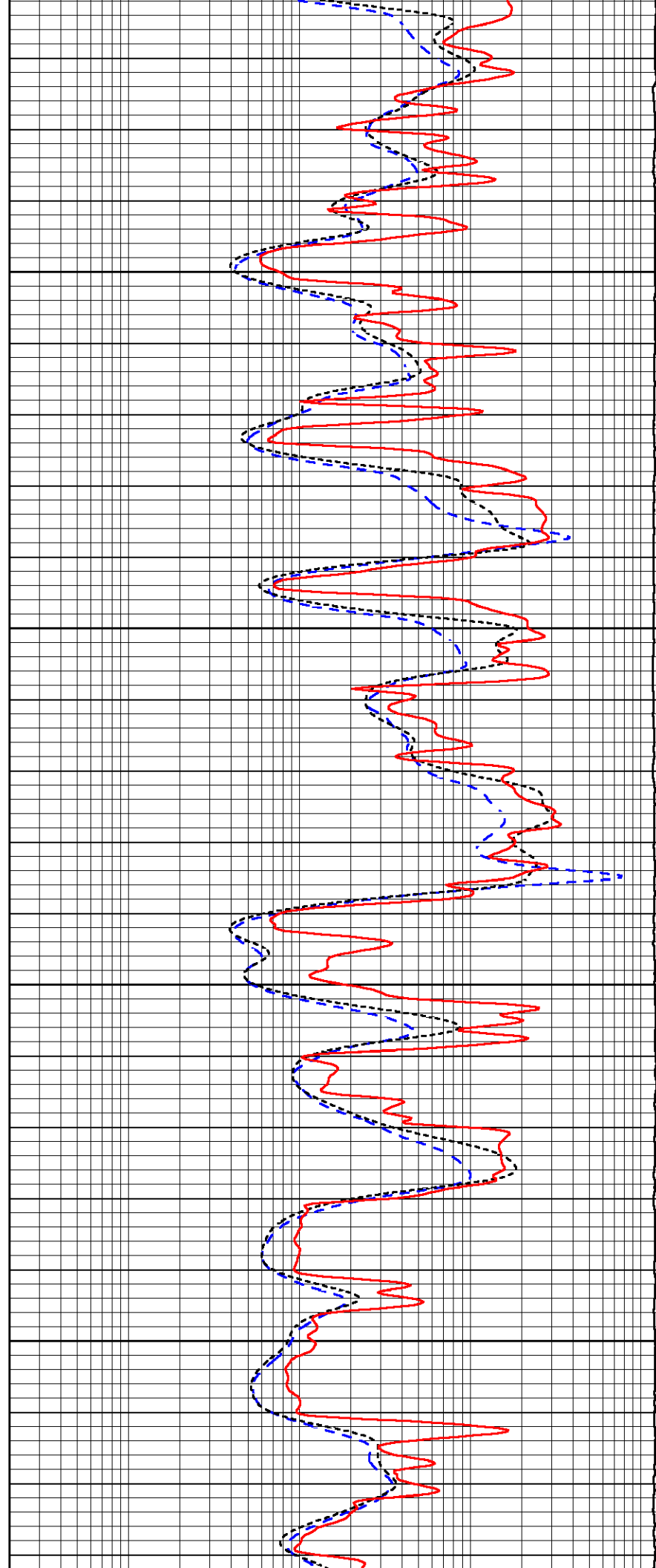


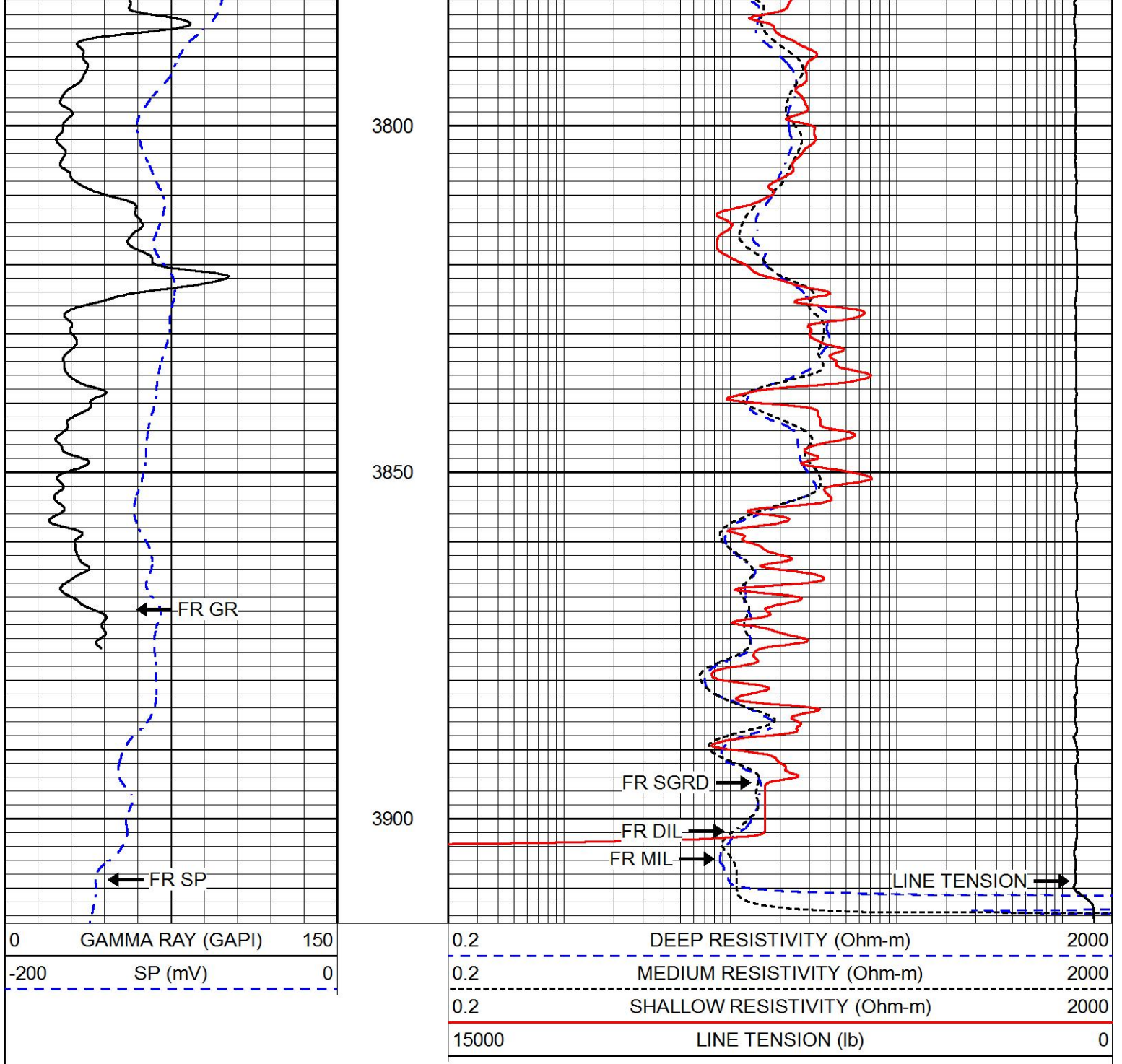
3600

3650

3700

3750

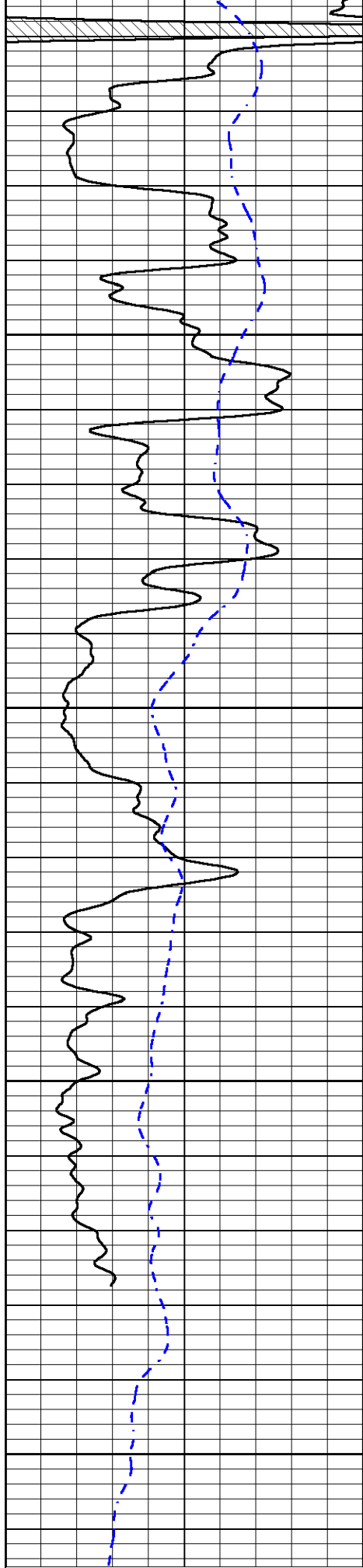




REPEAT SECTION

Database File americanwarrior_weber_2-7.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format dil
 Dataset Creation Sun Dec 18 10:51:09 2016
 Charted by Depth in Feet scaled 1:240





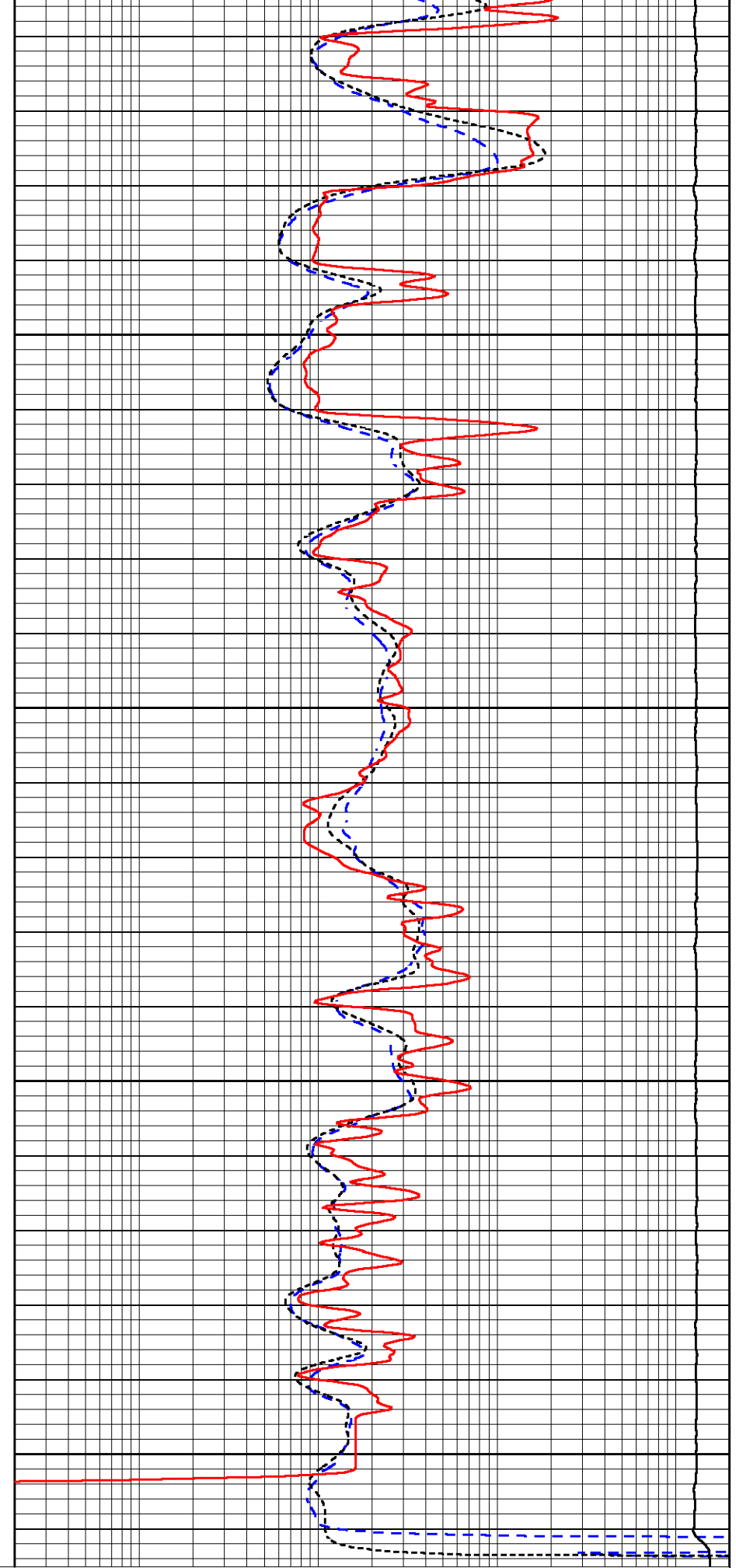
0 GAMMA RAY (GAPI) 150
 -200 SP (mV) 0

3750

3800

3850

3900



0.2 DEEP RESISTIVITY (Ohm-m) 2000
 0.2 MEDIUM RESISTIVITY (Ohm-m) 2000

Background Reading:	0.0	cps
Calibrator Reading:	6.2	cps
Sensitivity:	0.5200	GAPI/cps



PIONEER
Pioneer Energy Services

Company	AMERICAN WARRIOR, INC.
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