



DUAL INDUCTION LOG

Company MIKE KELSO OIL, INC.
 Well FHW-WIERMAN #15-1
 Field MCGAUGHEY
 County NESS
 State KANSAS

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Location: API #: 15-135-25924-00-00
 982 FNL & 2430' FEL
 SEC 15 TWP 17S RGE 21W
 Permanent Datum GROUND LEVEL Elevation 2203'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 2210'
 D.F. N/A
 G.L. 2203'

Date	9/29/2016
Run Number	ONE
Depth Driller	4250'
Depth Logger	4250'
Bottom Logged Interval	4249'
Top Log Interval	300'
Casing Driller	8.625" @ 320'
Casing Logger	324'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	6800
Density / Viscosity	9.4 51
pH / Fluid Loss	9.0 9.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.50 @ 76
Rmt @ Meas. Temp	0.38 @ 76
Rmc @ Meas. Temp	0.68 @ 76
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.32 @ 119
Operating Rig Time	3 HOURS
Max Rec. Temp. F	119
Equipment Number	91
Location	COLBY
Recorded By	D. SCHMIDT
Witnessed By	PAT DEENIHAN

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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

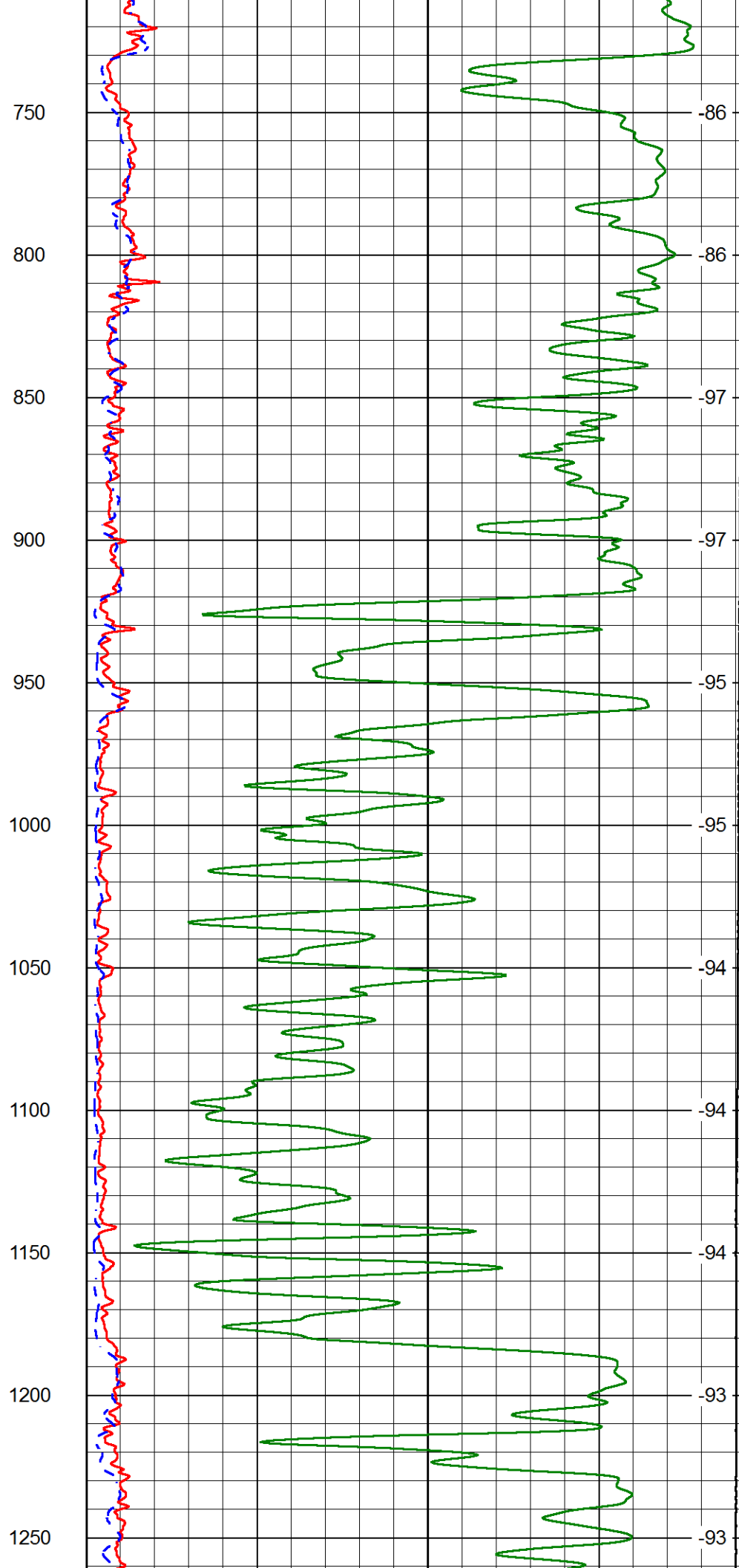
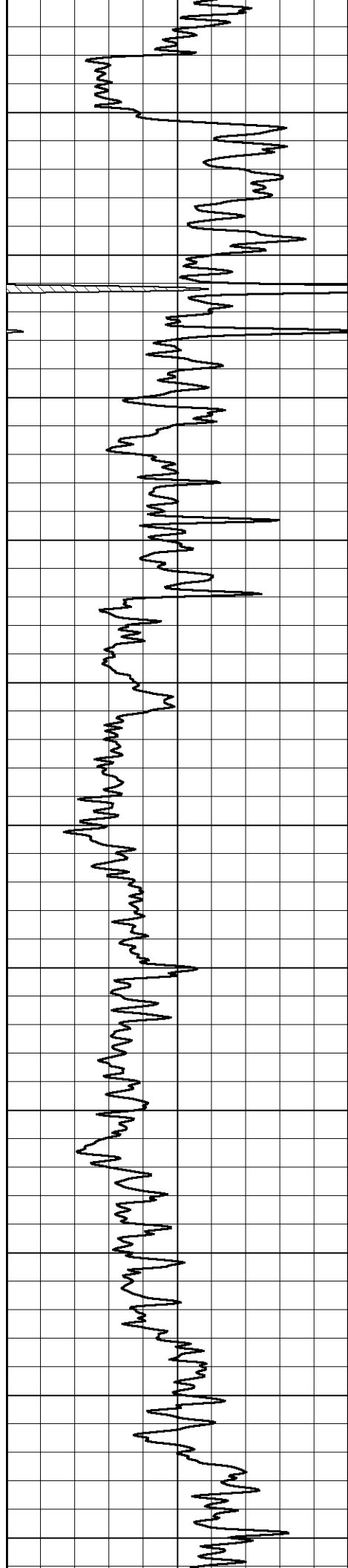
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

MCCRACKEN,
 FROM SOUTH END, 3 1/2 WEST,
 SOUTH INTO

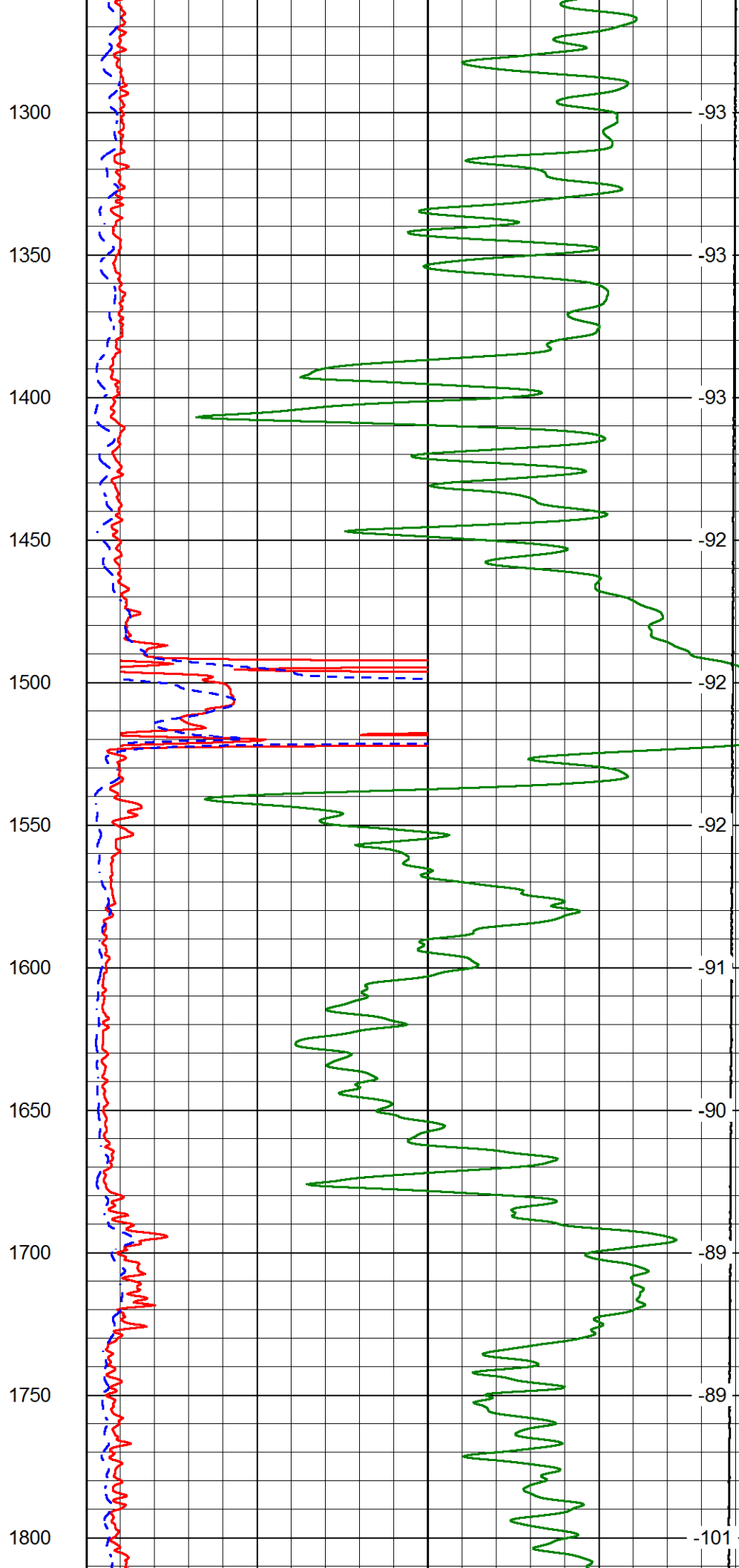
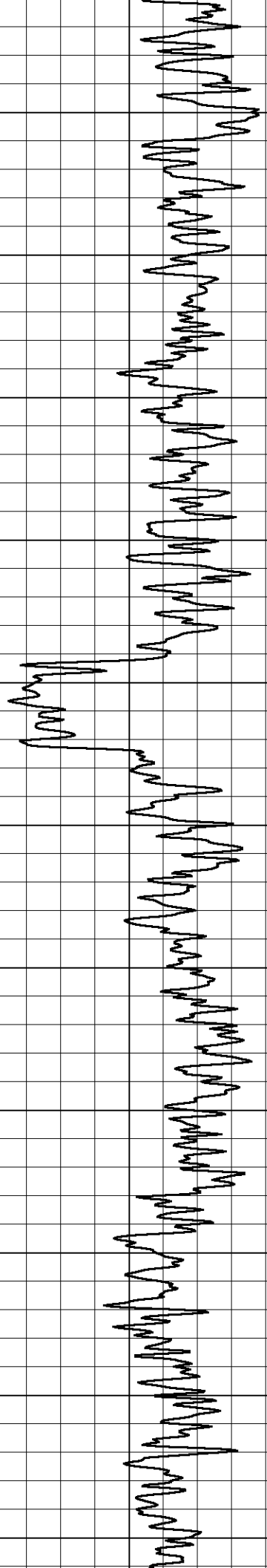
Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

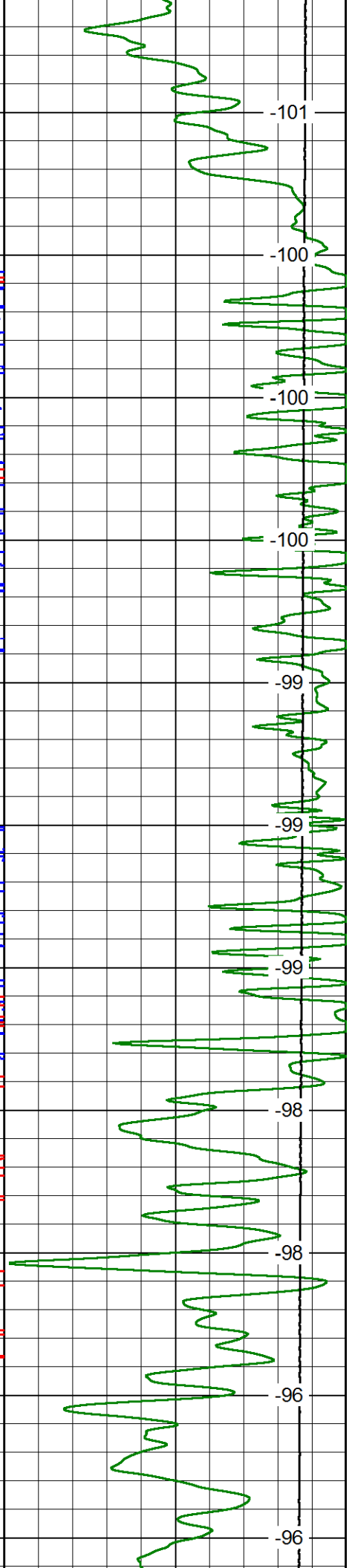
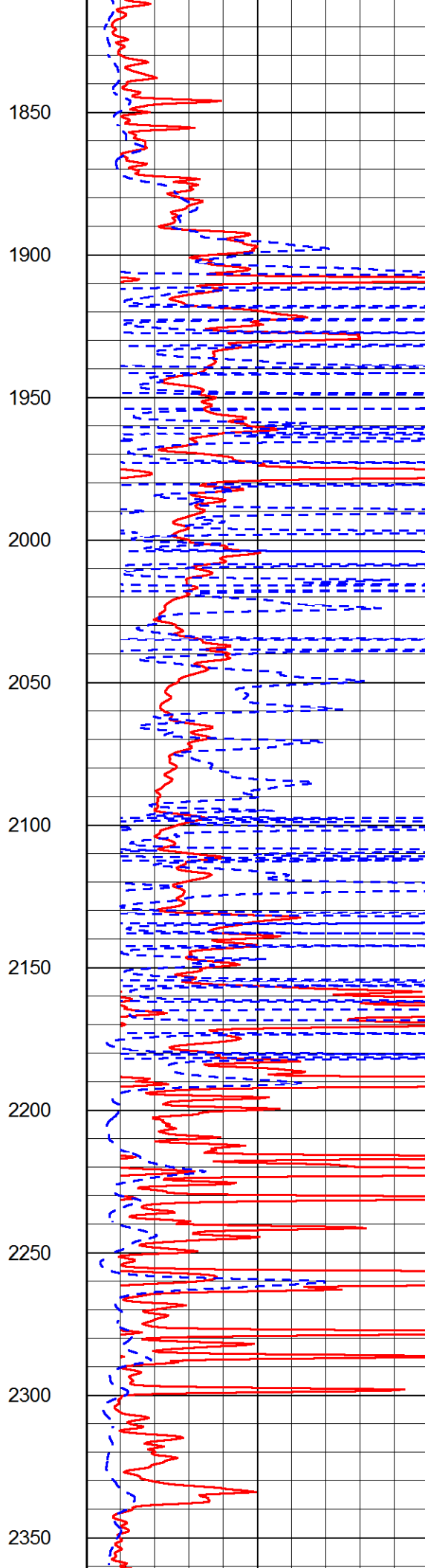
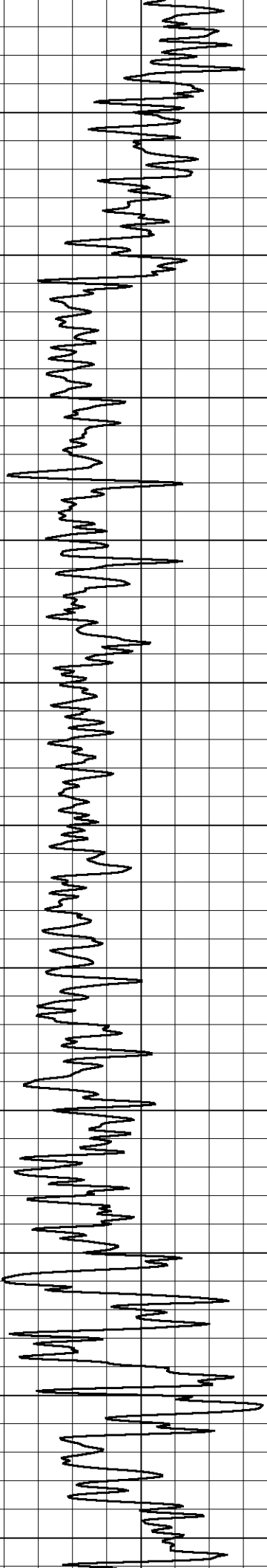
THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

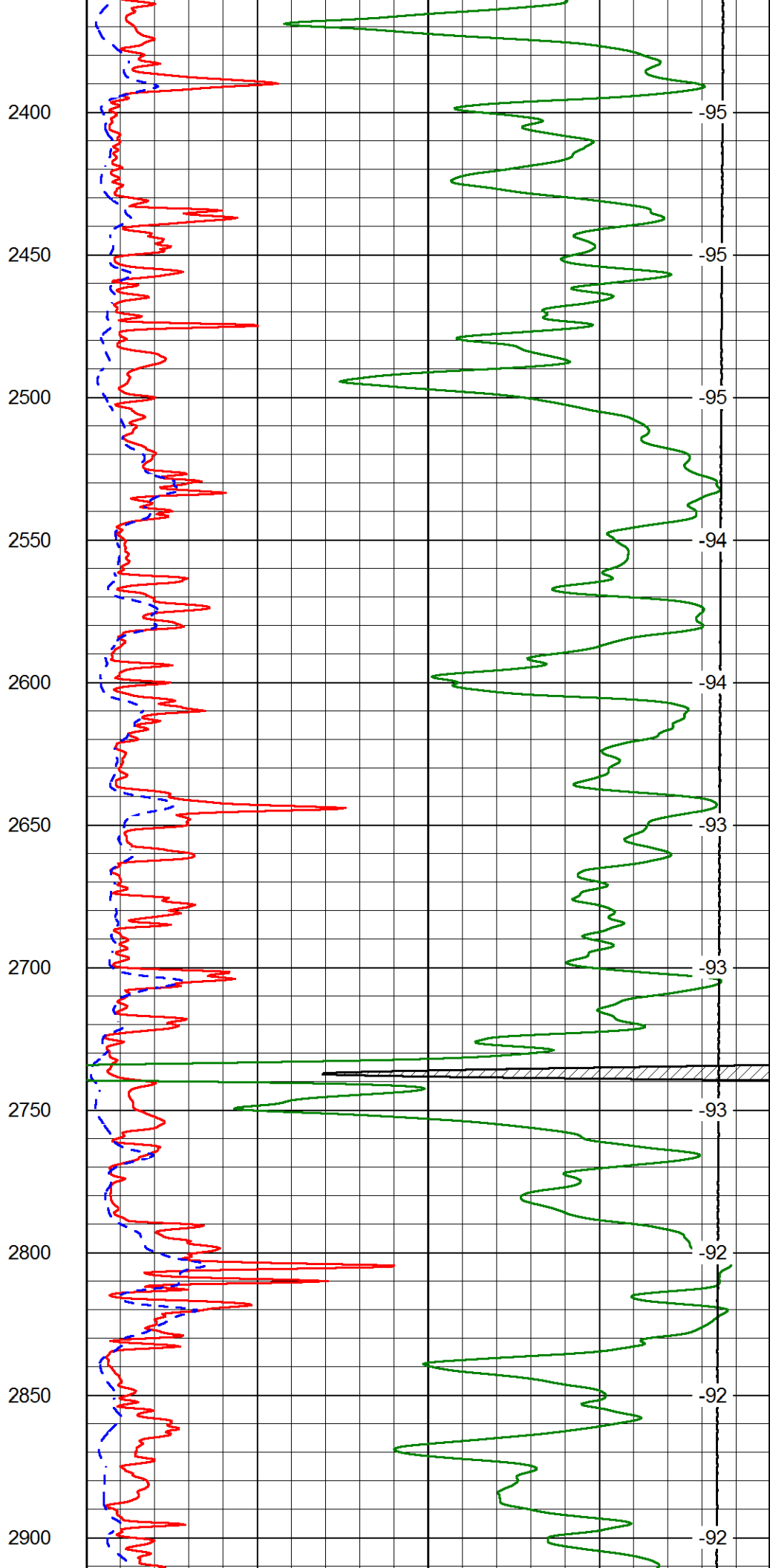
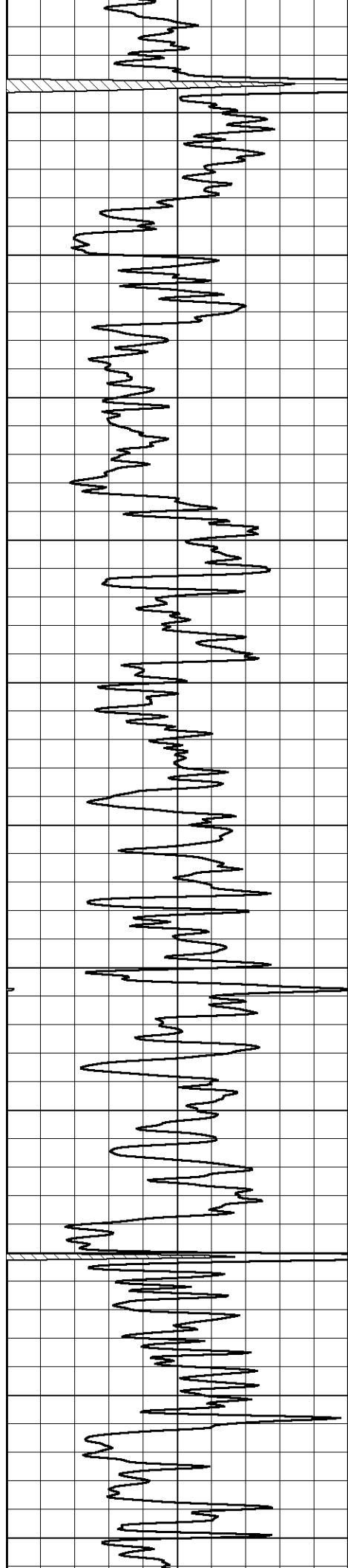
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: PAT DEENIHAN
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

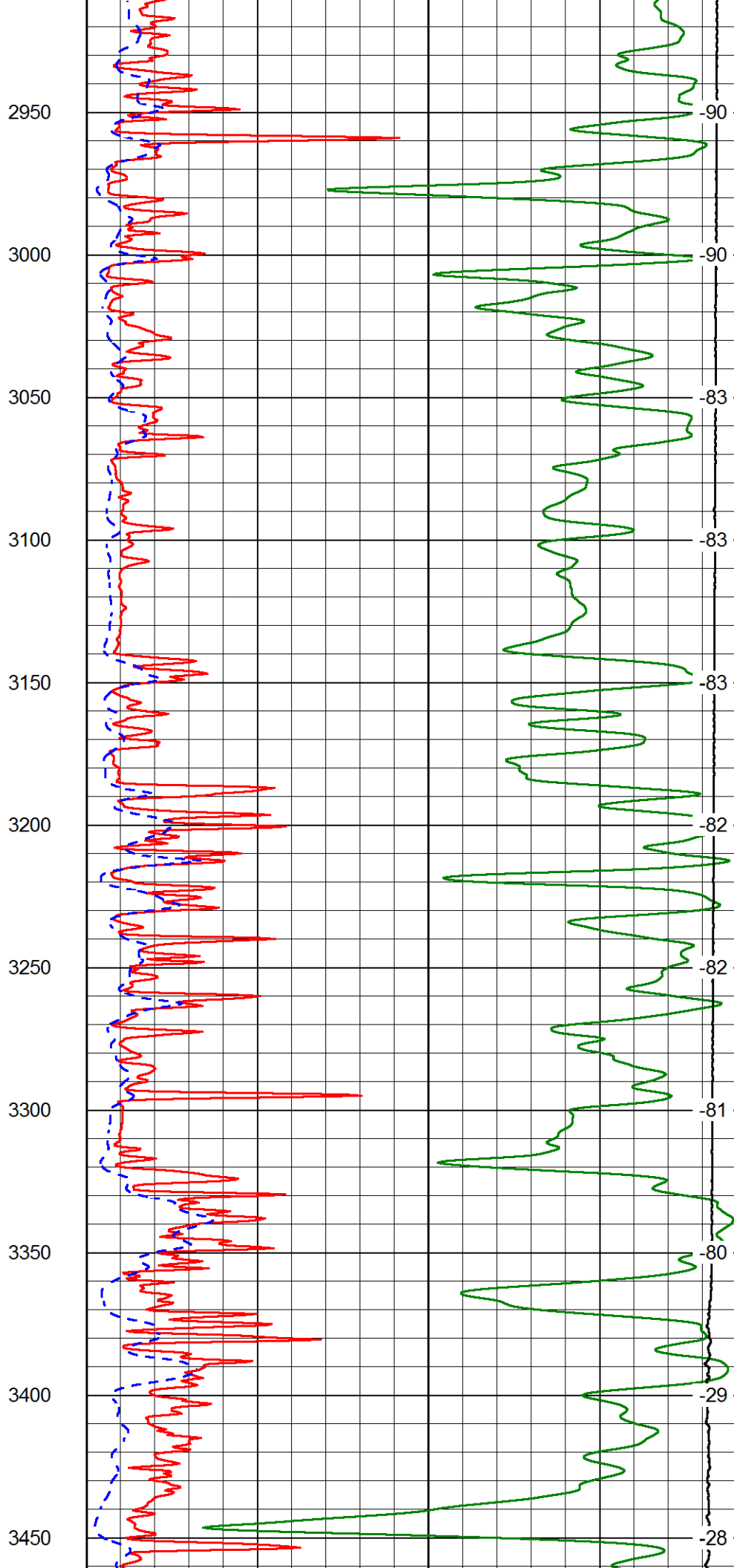
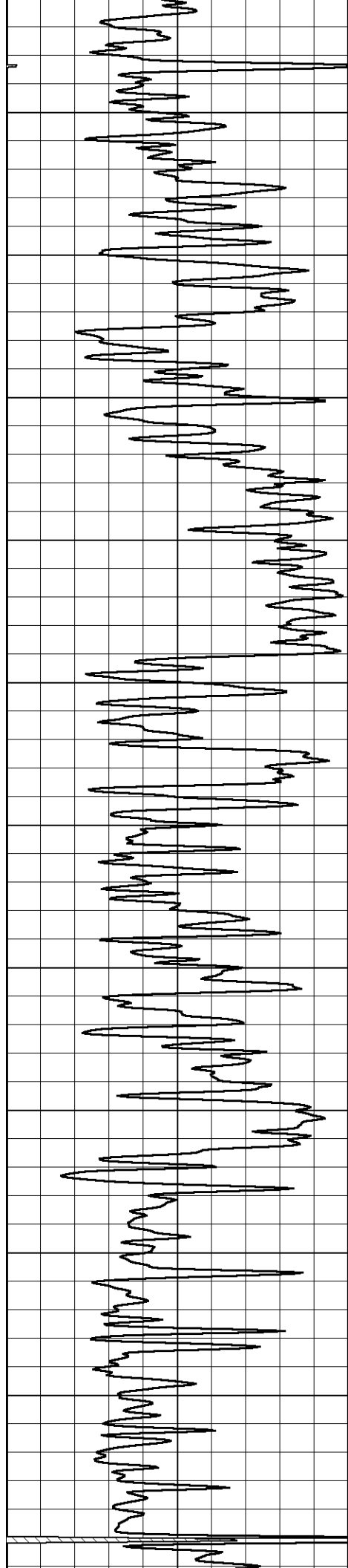


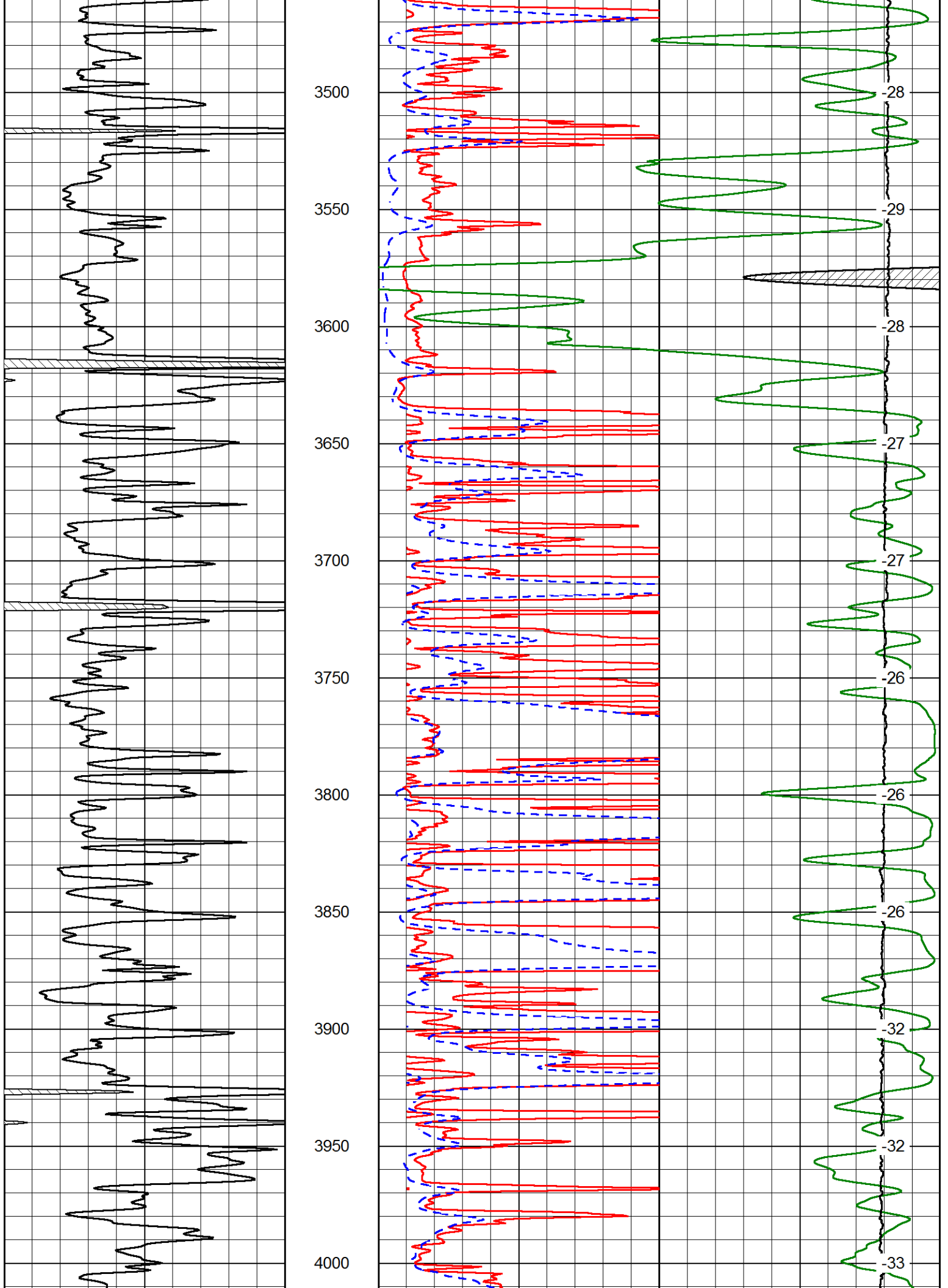
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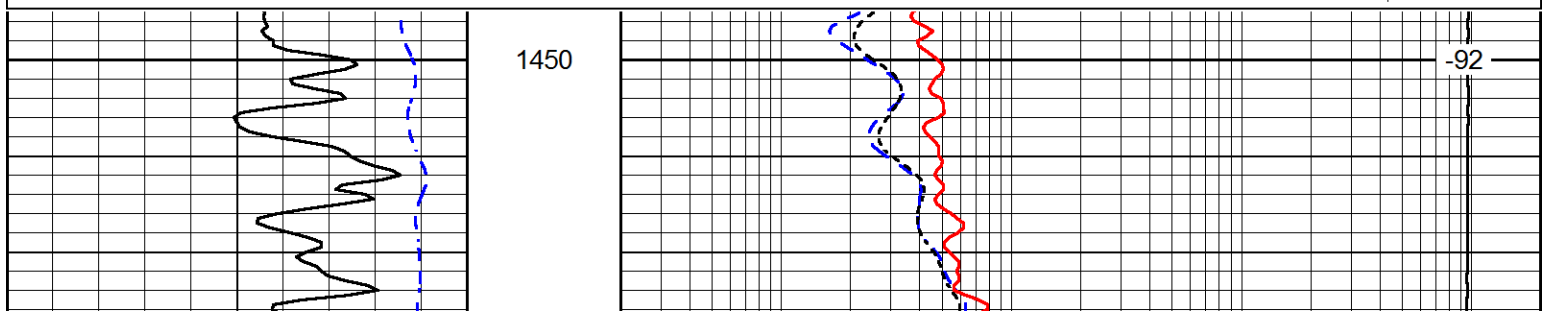
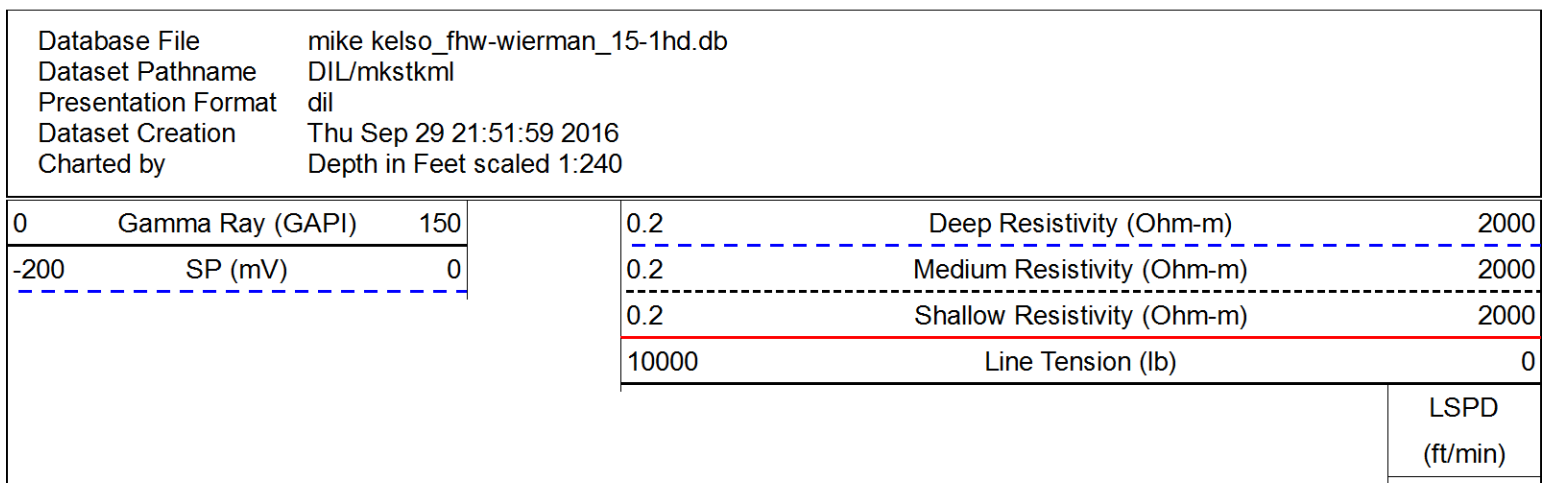
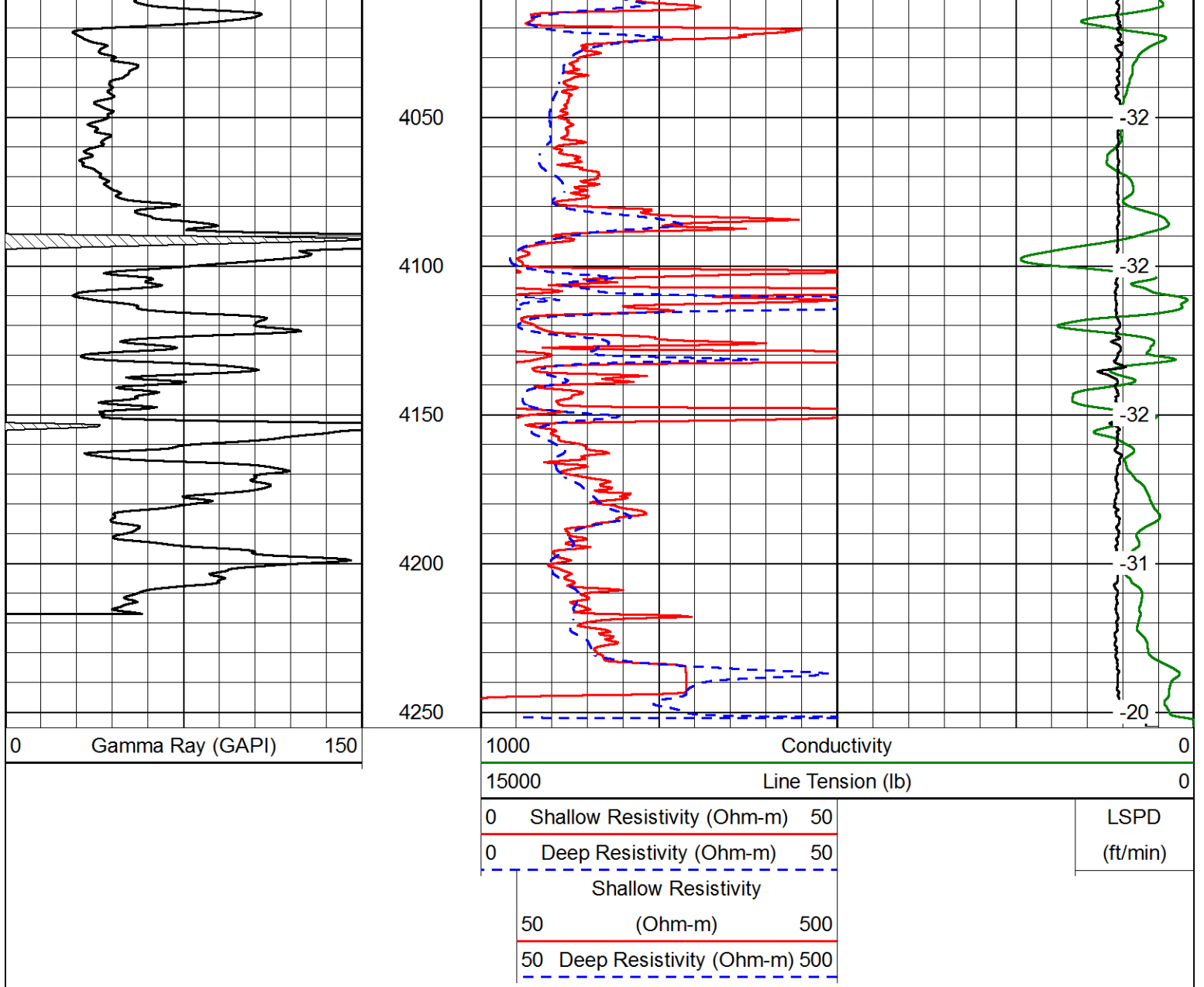


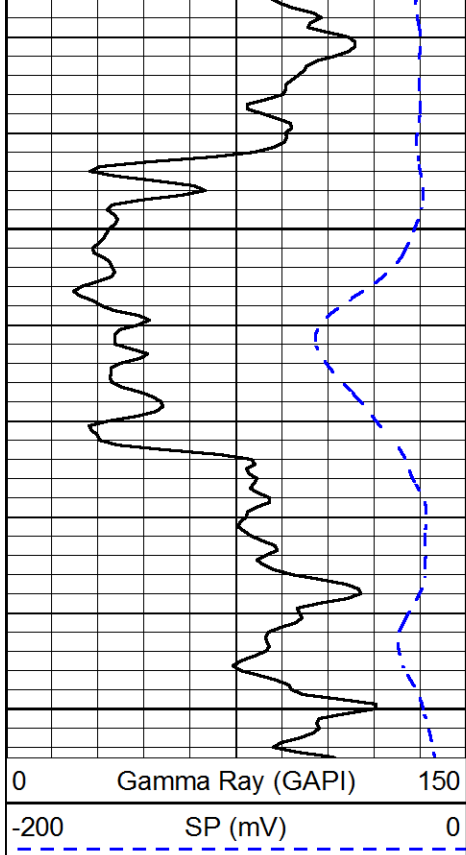








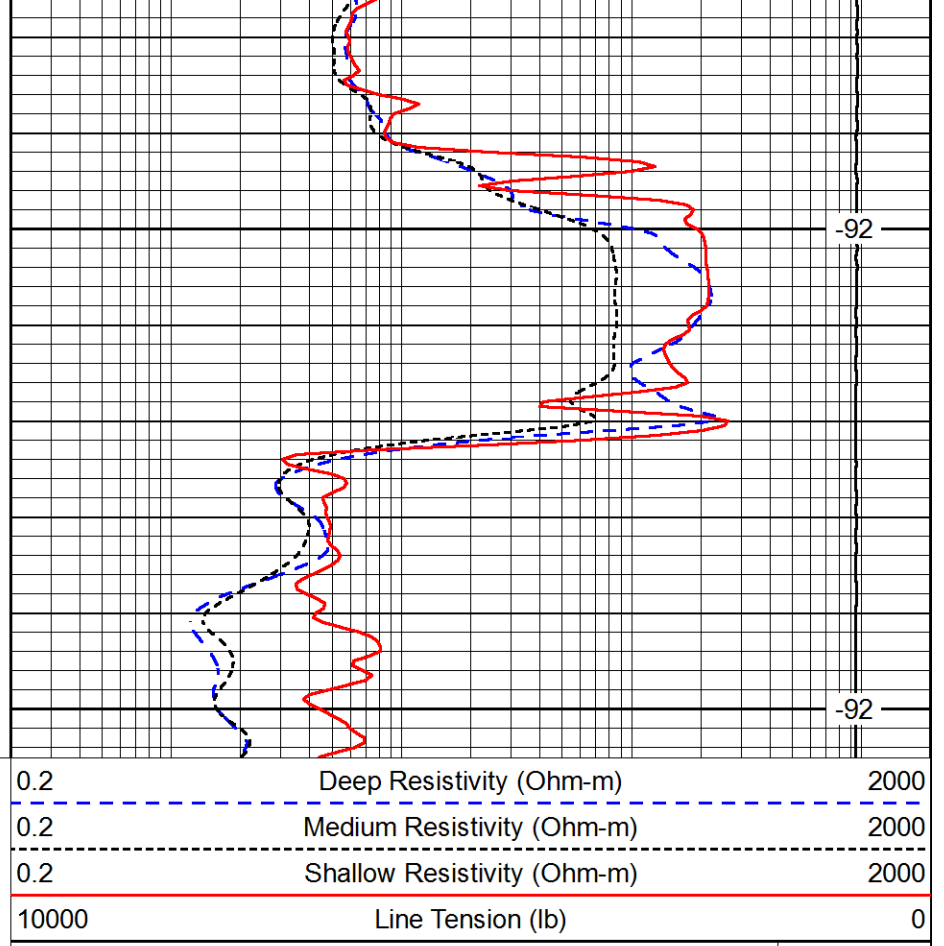




1500

1550

0 Gamma Ray (GAPI) 150
 -200 SP (mV) 0



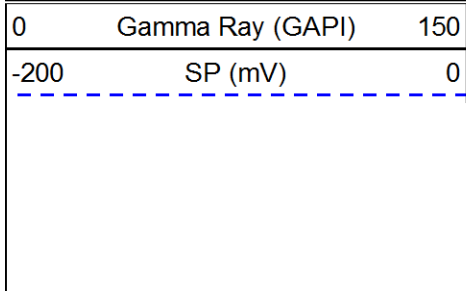
-92

-92

0.2 Deep Resistivity (Ohm-m) 2000
 0.2 Medium Resistivity (Ohm-m) 2000
 0.2 Shallow Resistivity (Ohm-m) 2000
 10000 Line Tension (lb) 0

LSPD
(ft/min)

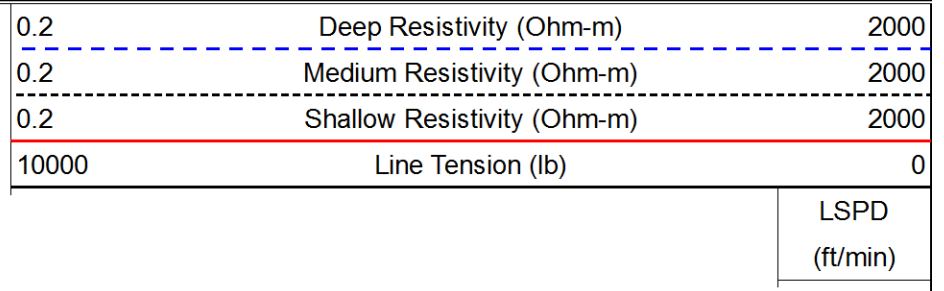
Database File mike kelso_fhw-wierman_15-1hd.db
 Dataset Pathname DIL/mkstkm1
 Presentation Format dil
 Dataset Creation Thu Sep 29 21:51:59 2016
 Charted by Depth in Feet scaled 1:240



3400

3450

0 Gamma Ray (GAPI) 150
 -200 SP (mV) 0

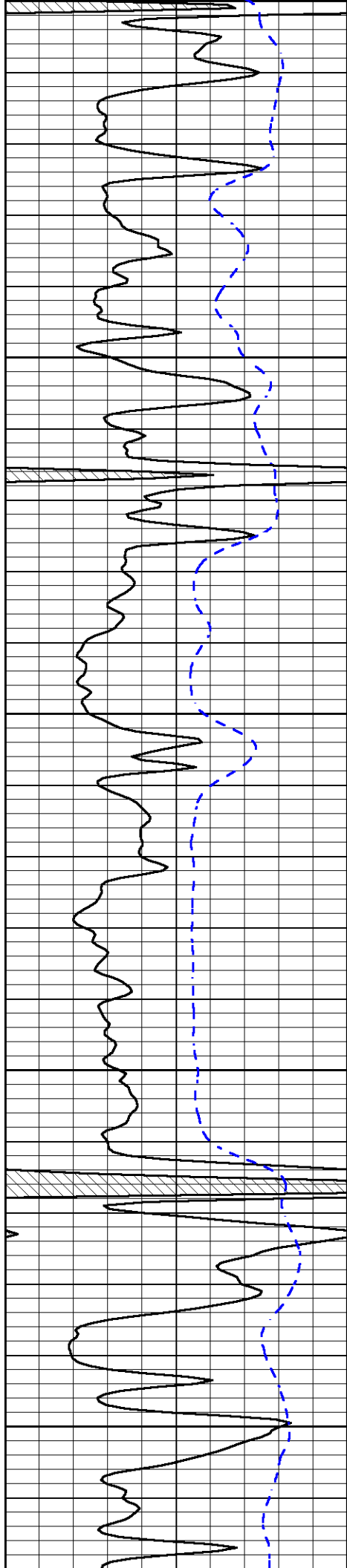


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0.2 Deep Resistivity (Ohm-m) 2000
 0.2 Medium Resistivity (Ohm-m) 2000
 0.2 Shallow Resistivity (Ohm-m) 2000
 10000 Line Tension (lb) 0

LSPD
(ft/min)



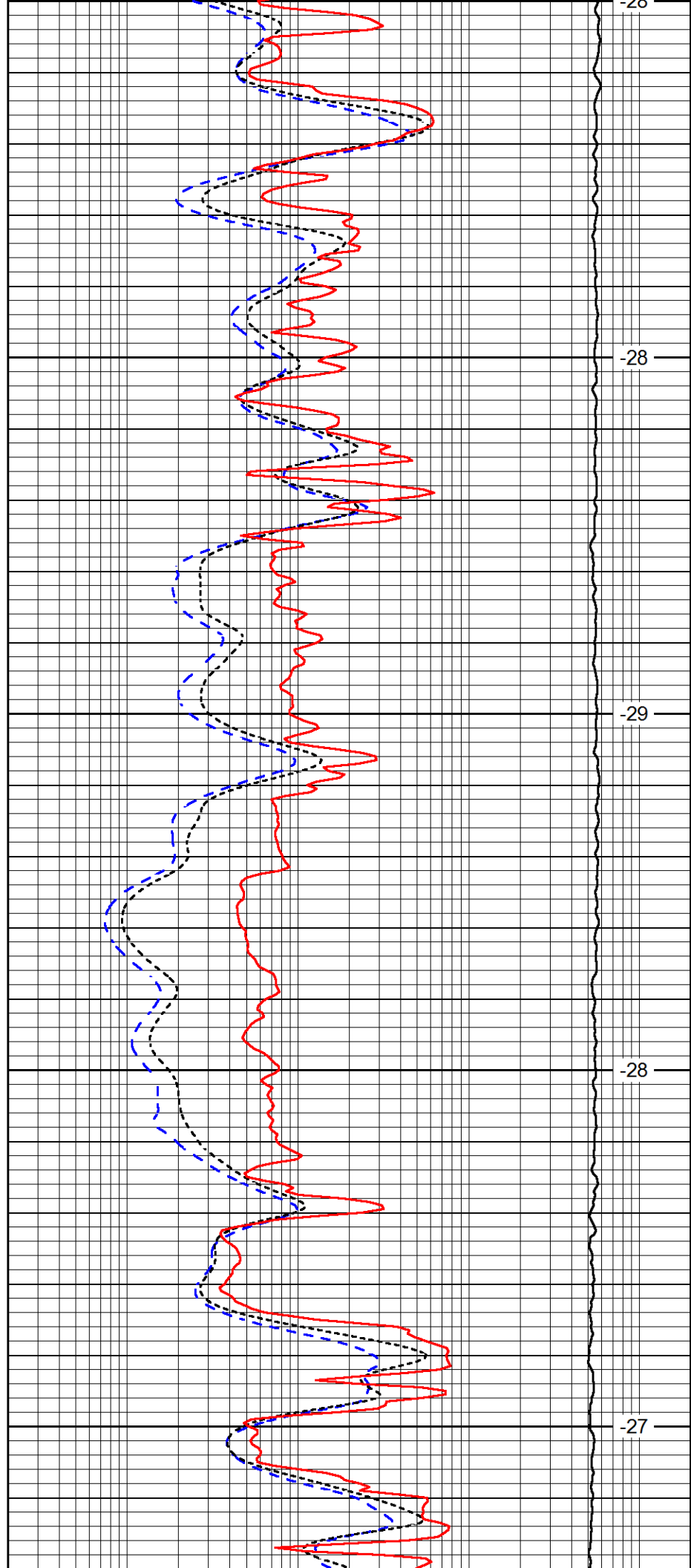
3450

3500

3550

3600

3650



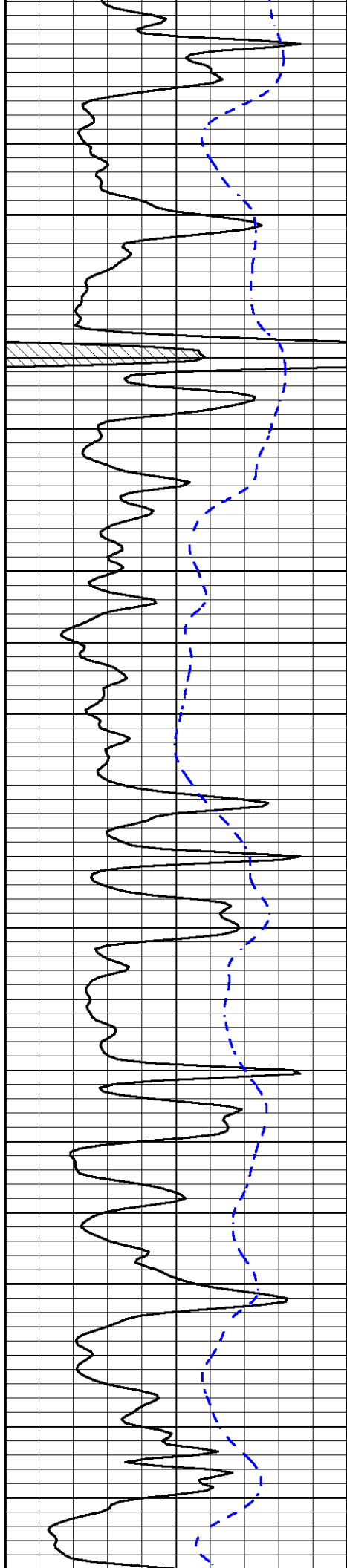
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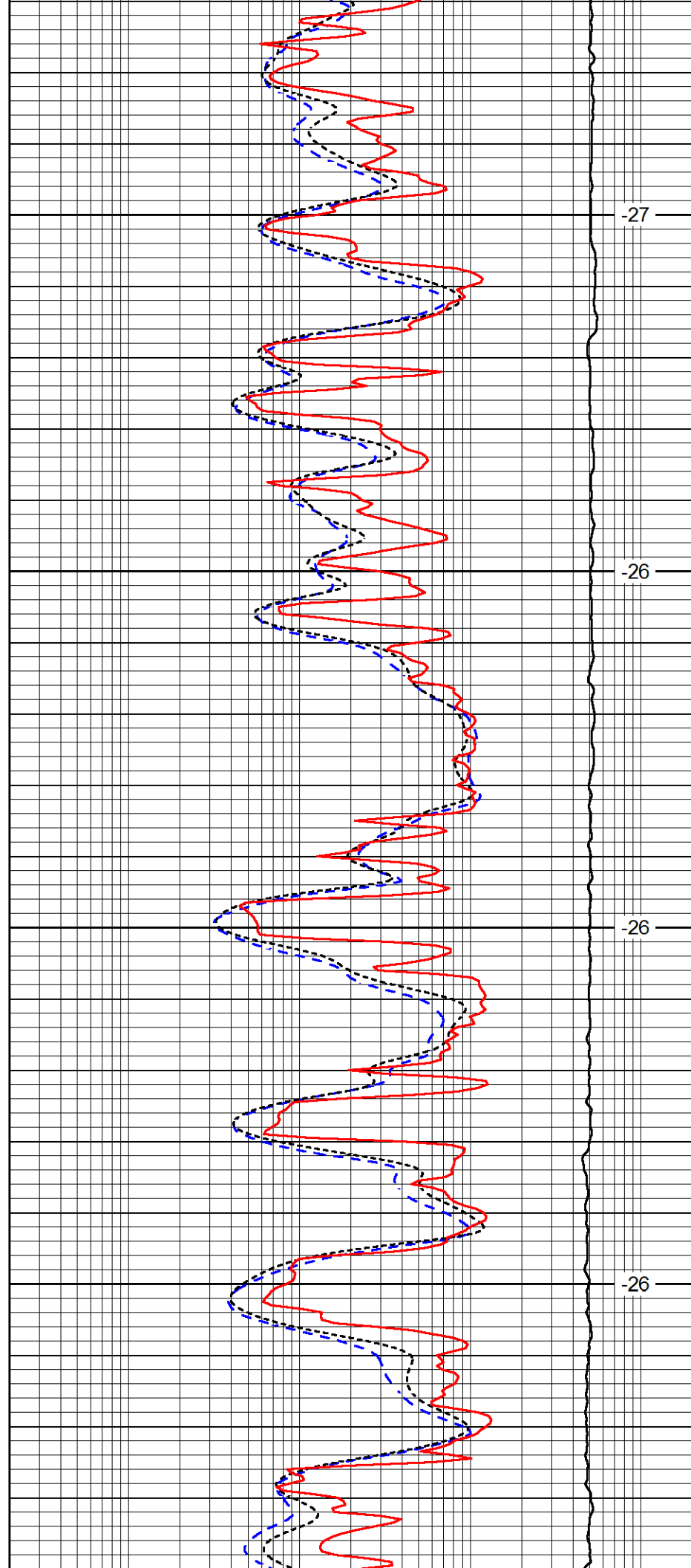


3700

3750

3800

3850

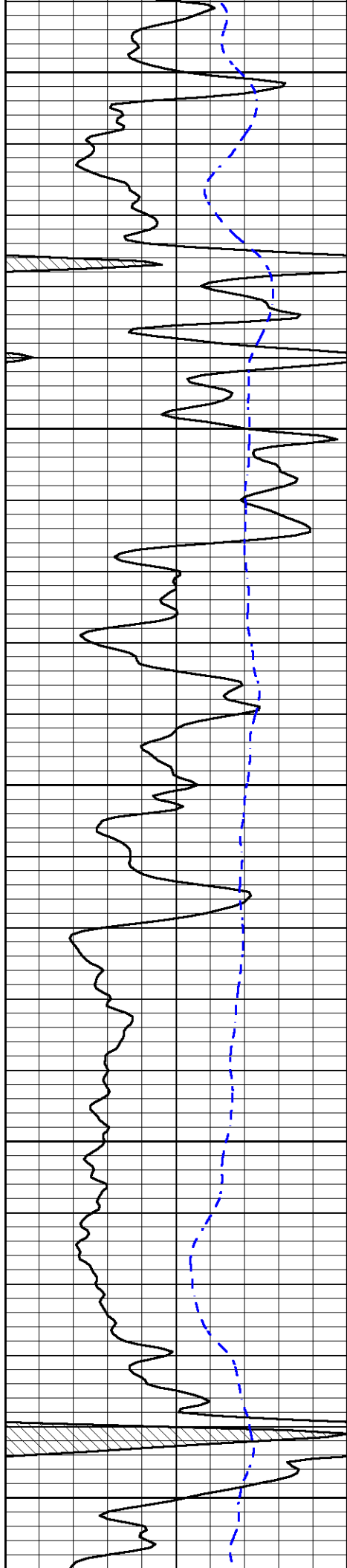


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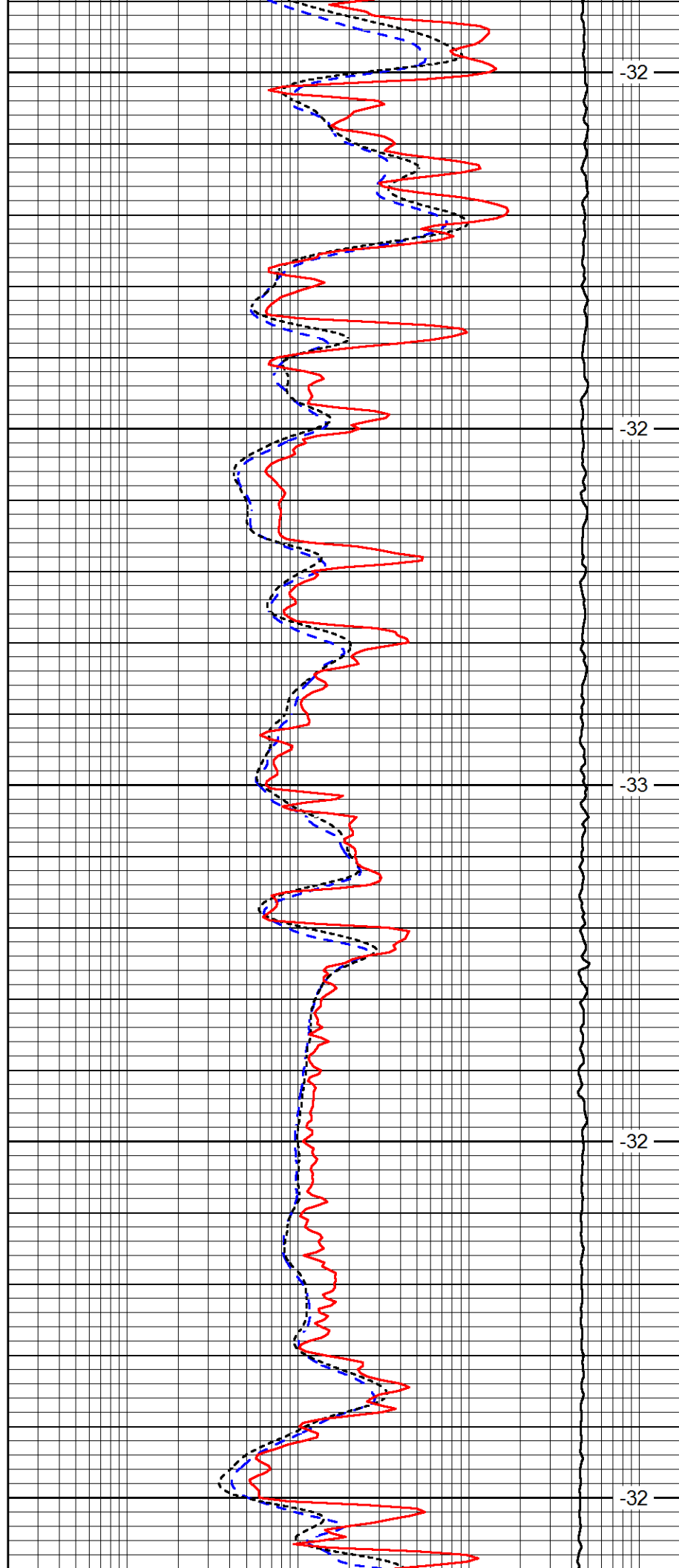
3900

3950

4000

4050

4100



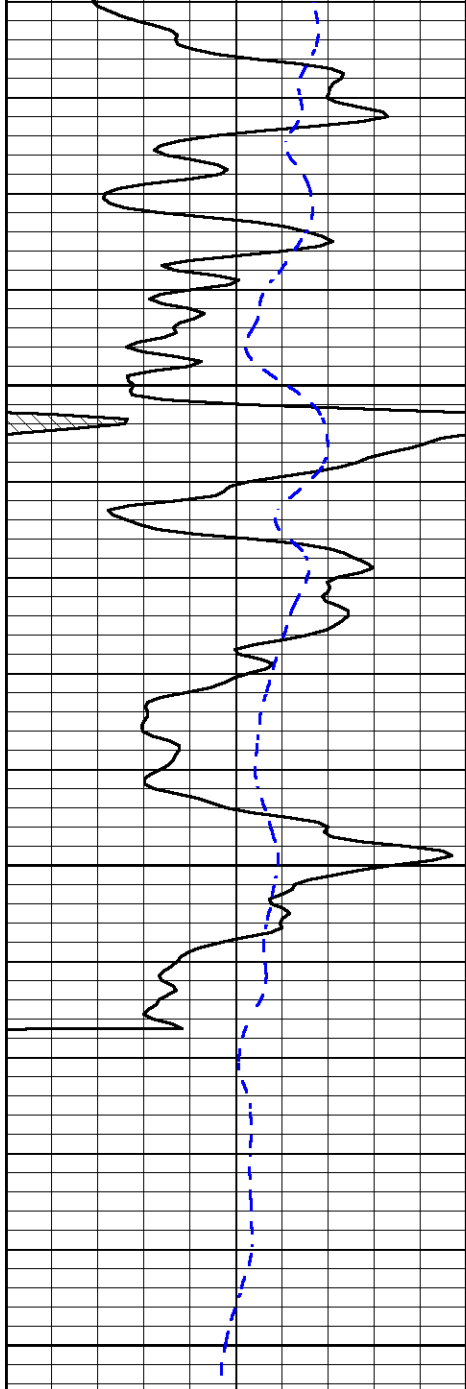
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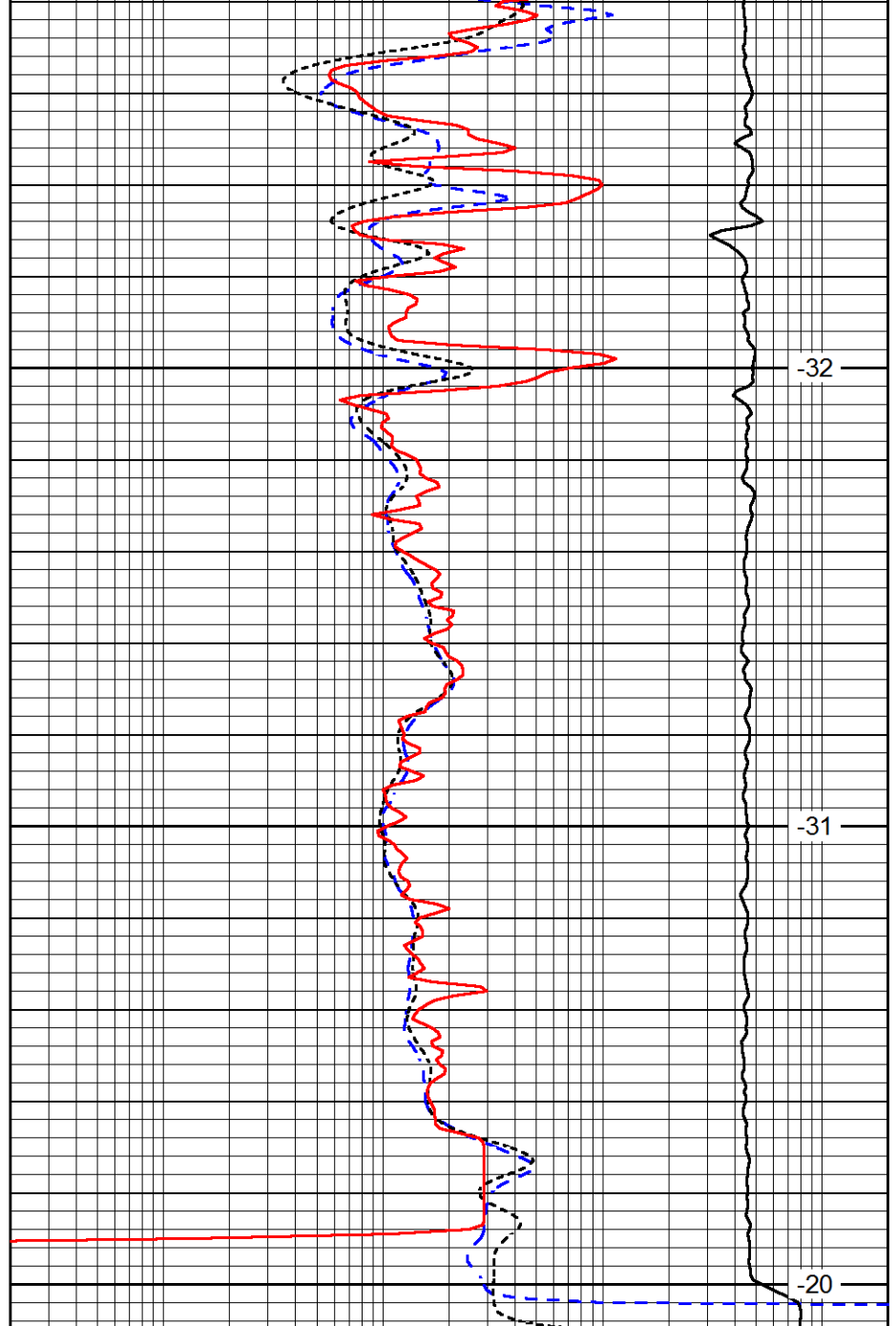


4150

4200

4250

0 Gamma Ray (GAPI) 150
 -200 SP (mV) 0



-32

-31

-20

0.2 Deep Resistivity (Ohm-m) 2000
 0.2 Medium Resistivity (Ohm-m) 2000
 0.2 Shallow Resistivity (Ohm-m) 2000
 10000 Line Tension (lb) 0

LSPD
(ft/min)