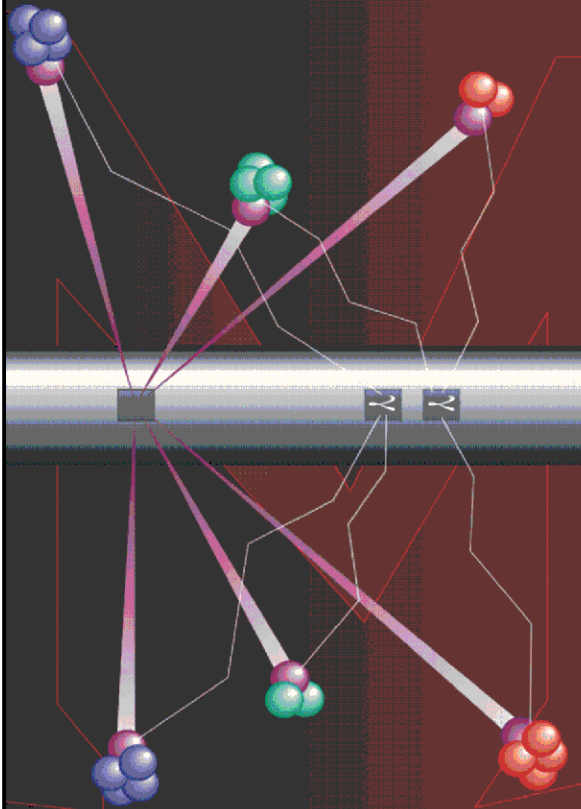


Pulsed Neutron Formation Evaluation



NEO Neutron Emulated Openhole

COMPANY LARAMIE ENERGY

WELL BRUTON 19-02W

FIELD VEGA

COUNTY MESA STATE COLORADO

LOCATION:

SEE REMARKS SECTION

SEC 19 TWP 9S RGE 93W

ELEVATIONS:

KB 7286.0 FT DF GL 7262 FT

DATE 28-AUG-2017 ECC 29134-01

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

COMPUTATION PARAMETERS

COMPUTATION	LOGS USED: <u>RPM-C</u>		PROGRAM: <u>NEO</u>
	CENTER: <u>CALGARY GEOSCIENCE</u>	LOG ANALYST: <u>A. KOTOV</u>	DATE: <u>26-OCT-2017</u>
FIELD DATA	LOCATION: <u>WOODWARD</u>	ENGINEER: <u>S.YASSA/US127293</u>	DATE: <u>28-AUG-2017</u>

FROM	TO								
<u>2400 FT</u>	<u>7887 FT</u>								

REMARKS

LOCATION:
SHL: LAT:39.262995N;LONG:107.815083W
BHL: LAT:39.268693N;LONG:107.816128W

TRAINING WELL: BRUTON 19-07W

EXTREMELY POOR BOREHOLE CONDITIONS ABOVE G-SAND ON THE TRAINING WELL. PROBABLY AFFECTED QUALITY OF EMULATION ON CORRESPONDING INTERVAL OF THIS WELL.

ANY ERRORS IN THE TRAINING WELL OPEN HOLE DATA CAN PERPETUATE THROUGH AS AN

ANY ERRORS IN THE TRAINING WELL OPEN HOLE DATA CAN PERPETUATE THROUGH AS AN ERROR IN THE EMULATED RESULTS.

BOND LOG IS DEPTH REFERENCE LOG

ANALYST: ALEXANDR KOTOV

NEO RESULTS FOR BRUTON 19-02W (G-SAND)

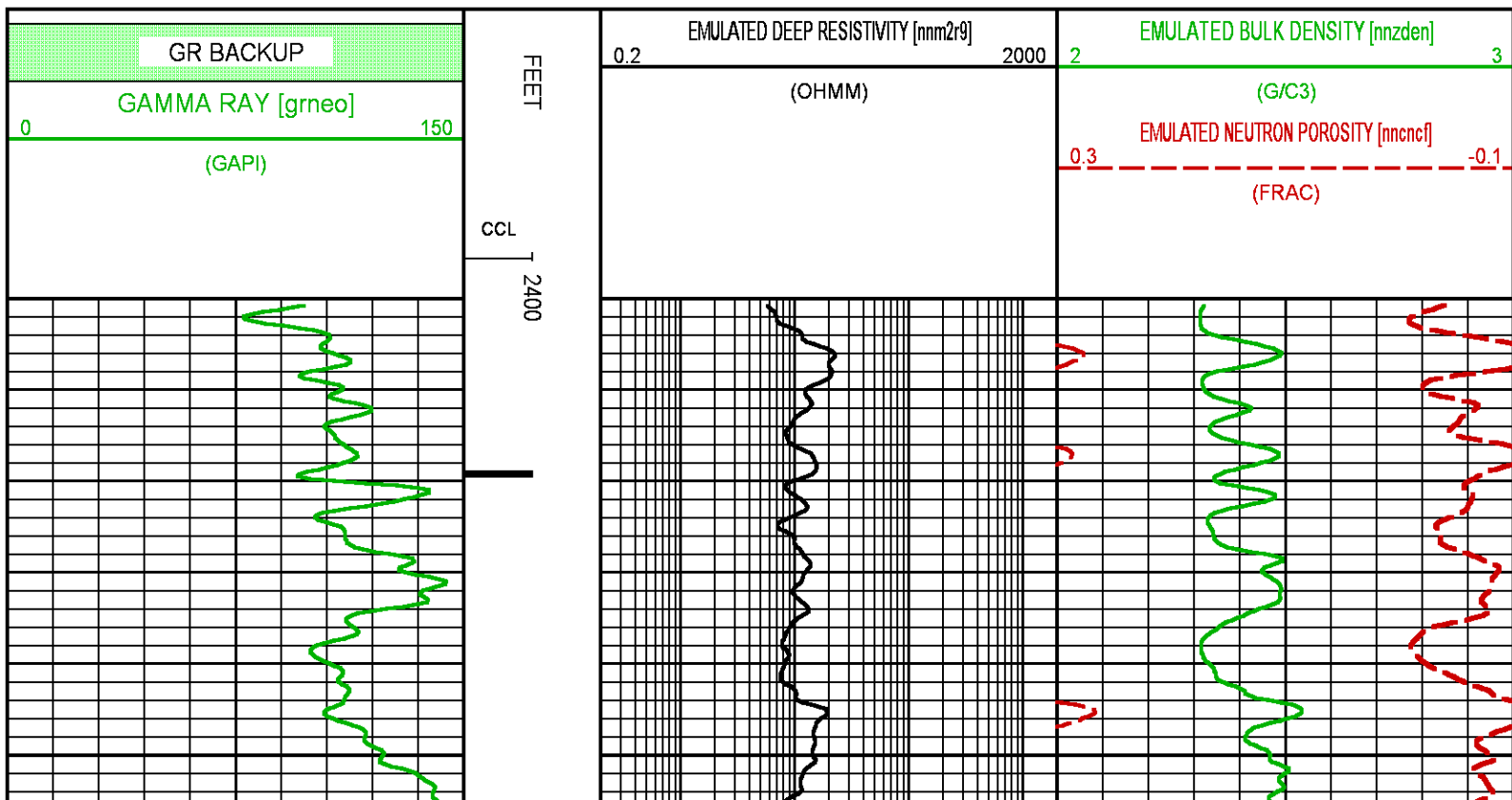
ECLIPS ECPLLOT from ECLIPS 7.0 WFM 5.0.7343.1 Sun 02/07/2016 16:48:51.73

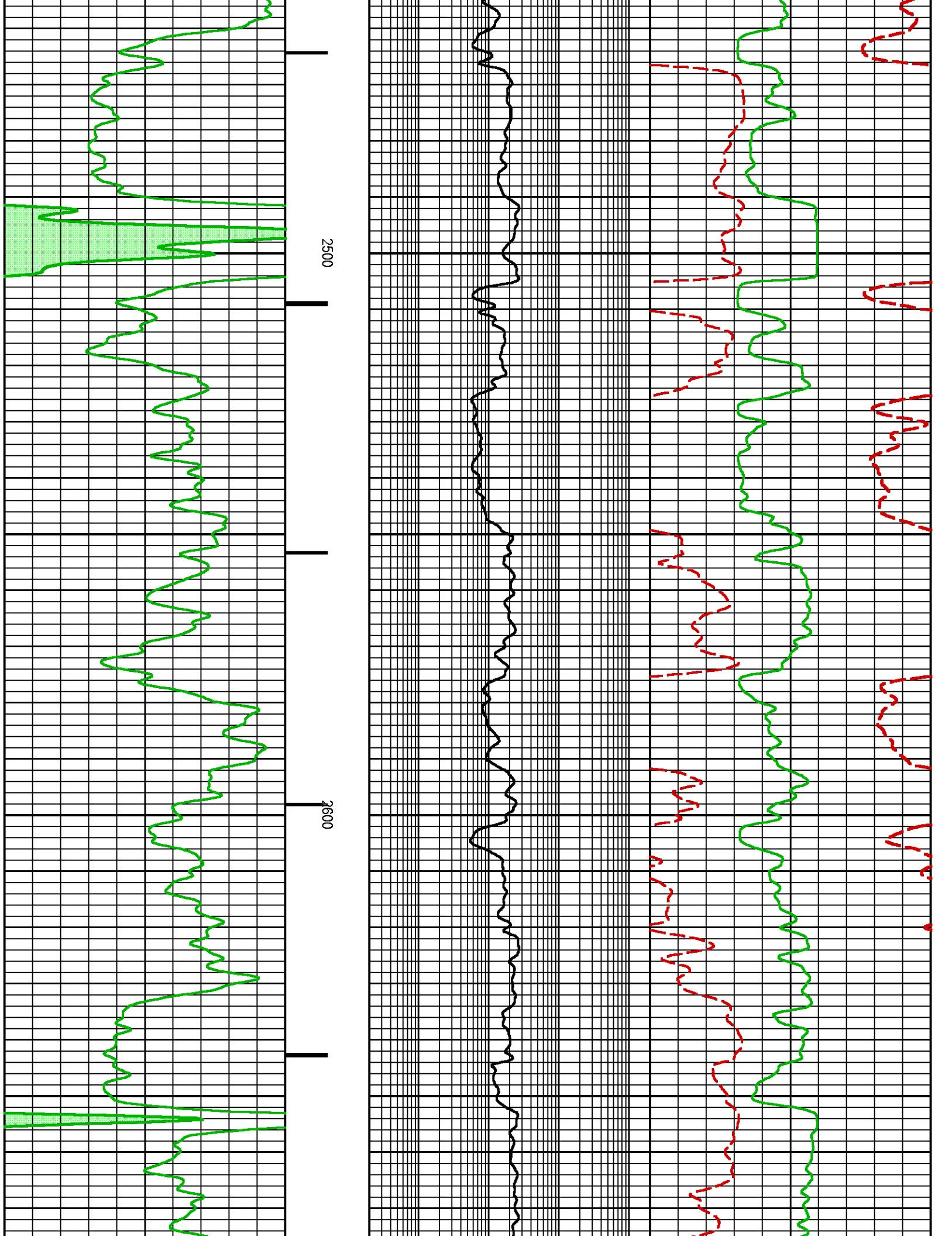
Plotted: Thu Oct 26 14:53:44 2017

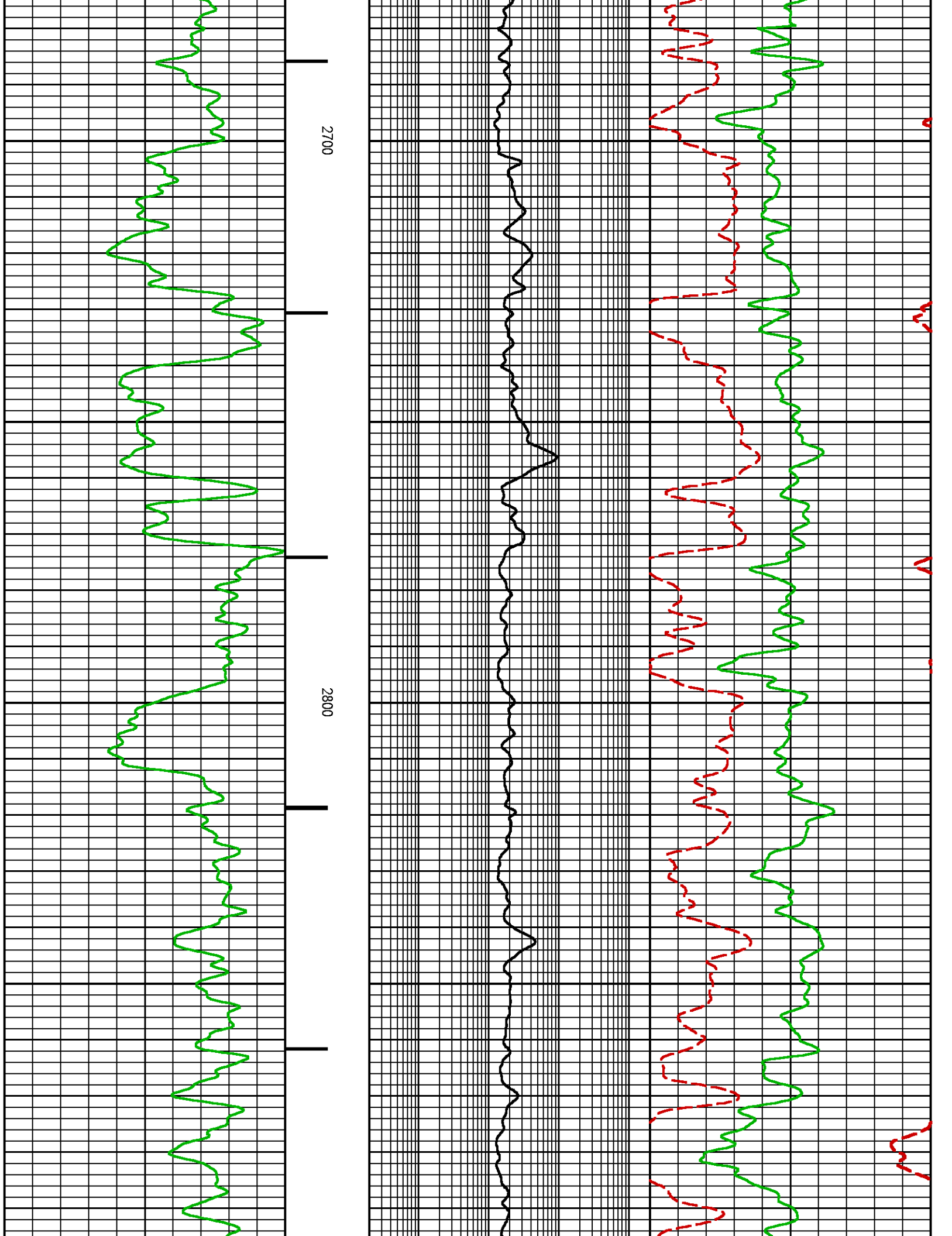
CURVE MEASURE POINT OFFSET

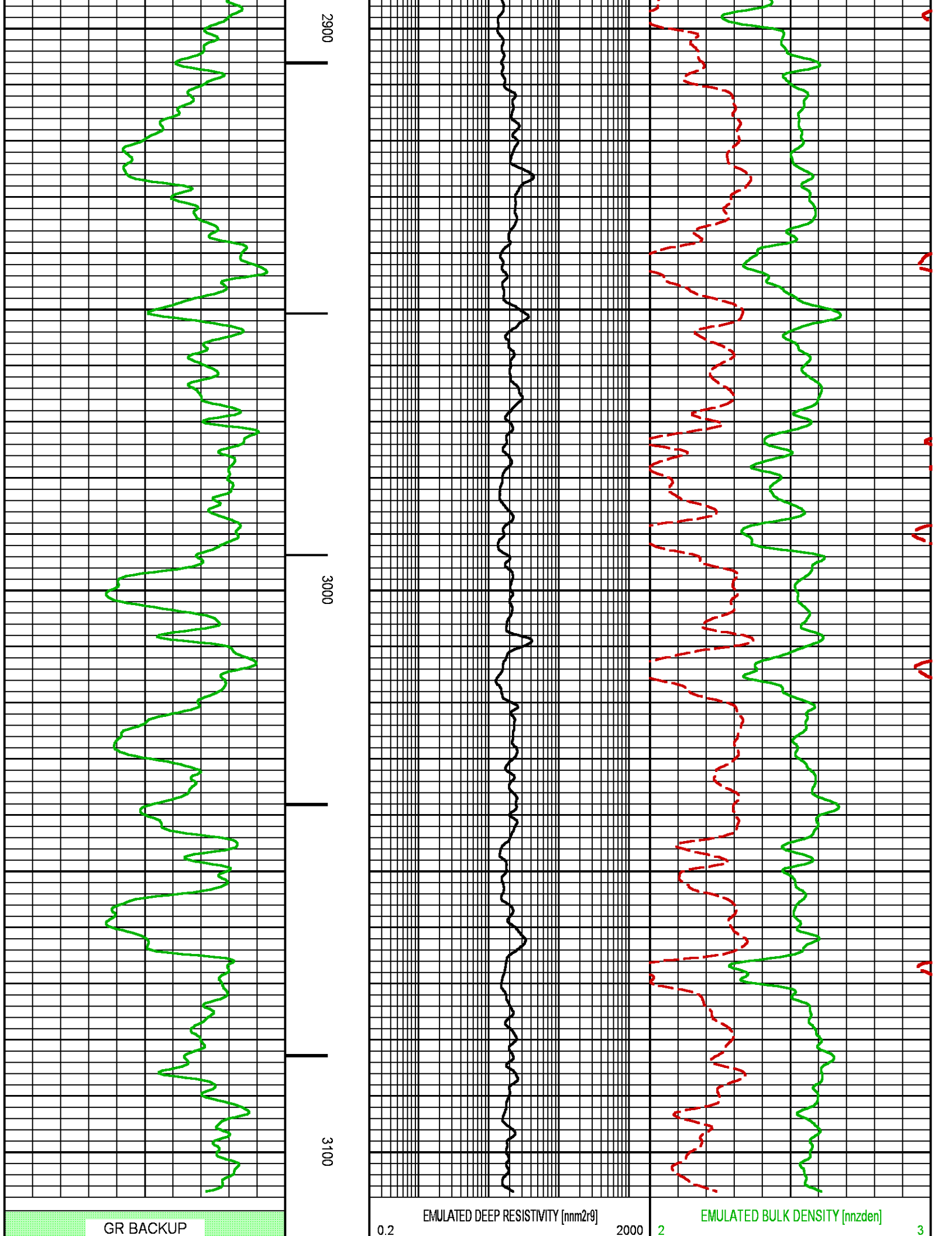
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNCf	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

Project : NA
User : kotoale
Presentation : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_19_02W_NEO\
NEO_PRESENTATION_LARAMIE_G-Sand.pdf [5"/100' Scale]
Plot Interval : 2400 - 3108 Feet
Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_19_02W_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY
Well : BRUTON 19-02W
Field : VEGA
File Interval : 2400.75 - 7887.75 Feet
OCT : NA









EMULATED BULK DENSITY [nnzden]

EMULATED DEEP RESISTIVITY [nm2r9]

GR BACKUP

0	GAMMA RAY [grneo]	150	FEET	(OHMM)	(G/C3)	0.3	EMULATED NEUTRON POROSITY [nnncf]	-0.1
	(GAPI)		CCL		(FRAC)			

NEO RESULTS FOR BRUTON 19-02W (MAIN)

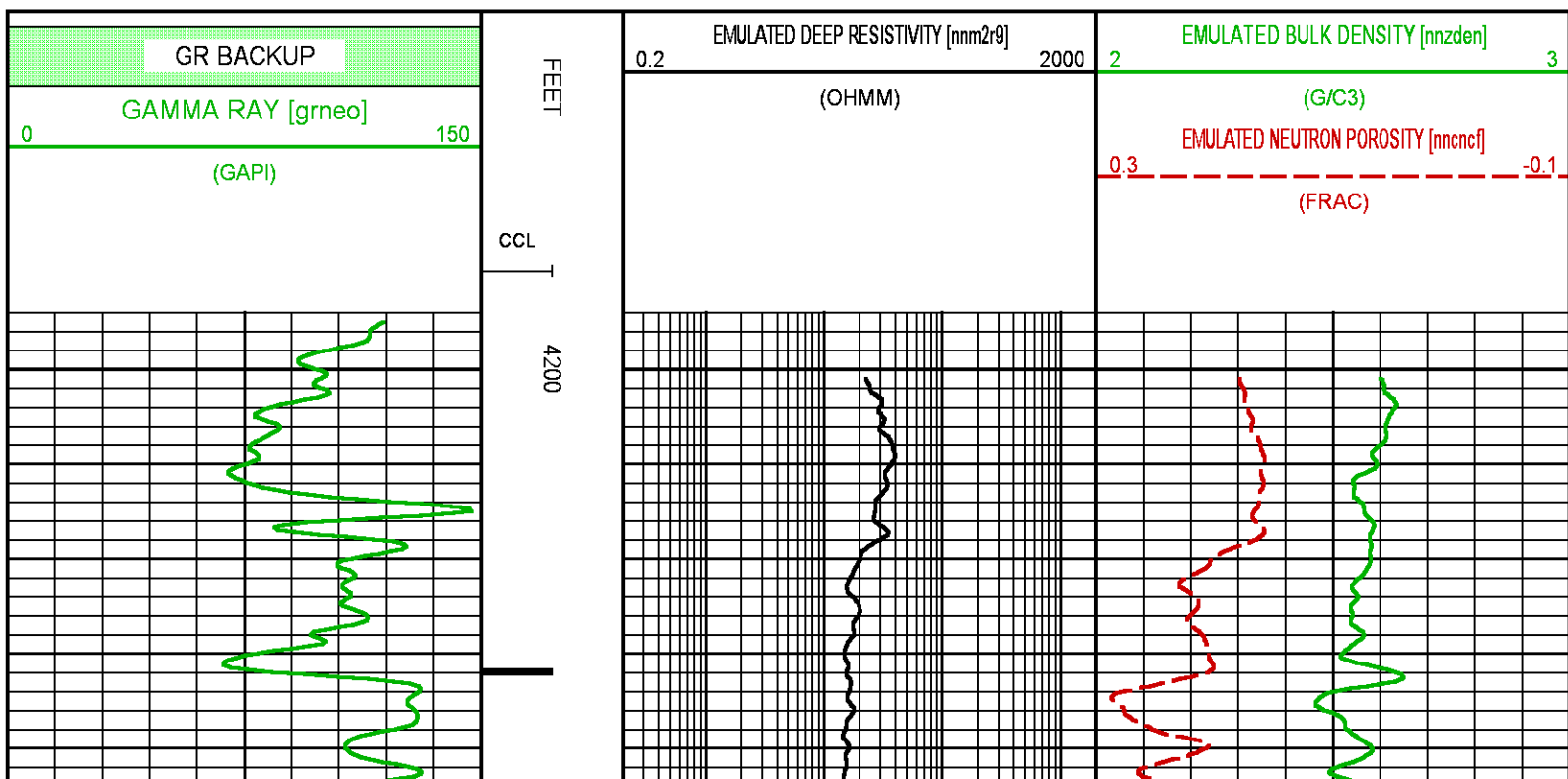
ECLIPS ECPLLOT from ECLIPS 7.0 WFM 5.0.7343.1 Sun 02/07/2016 16:48:51.73

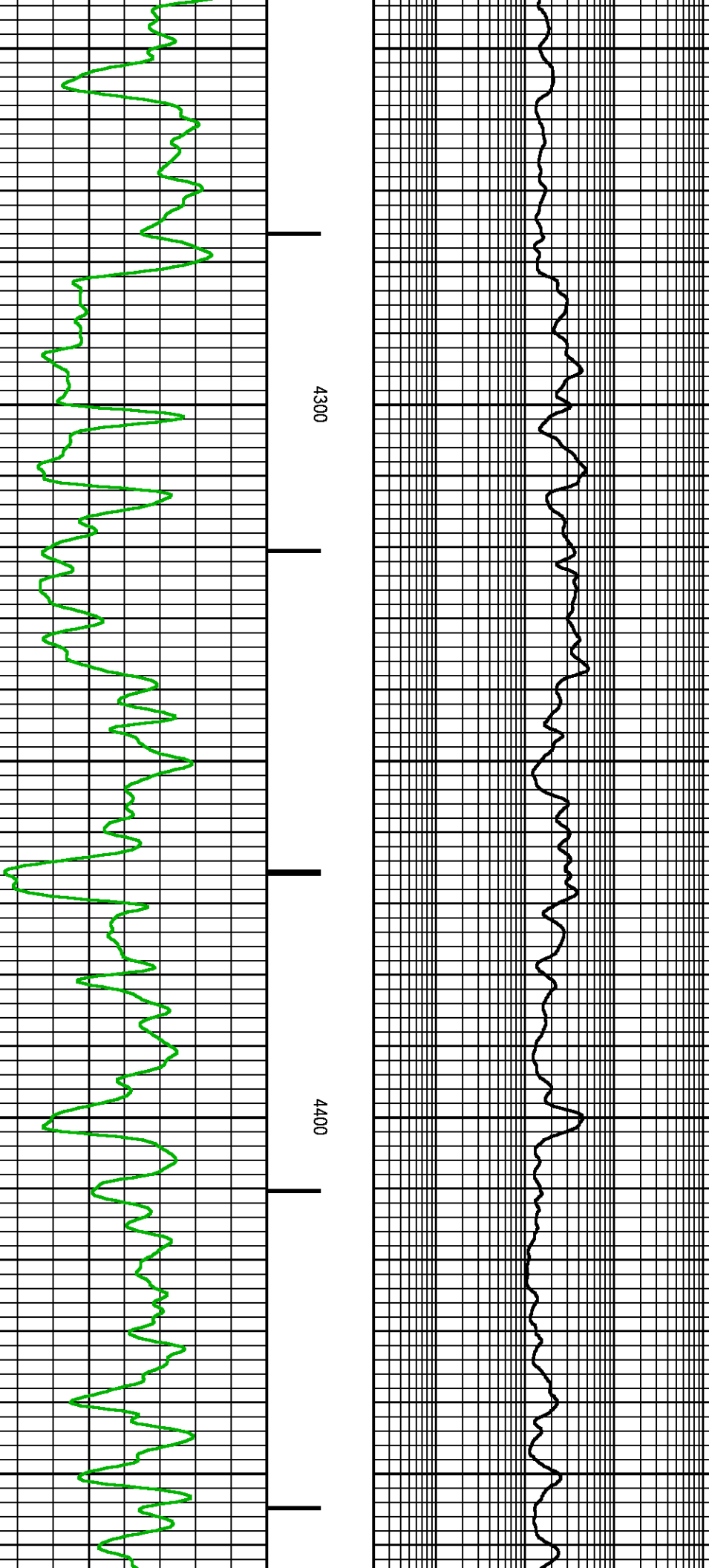
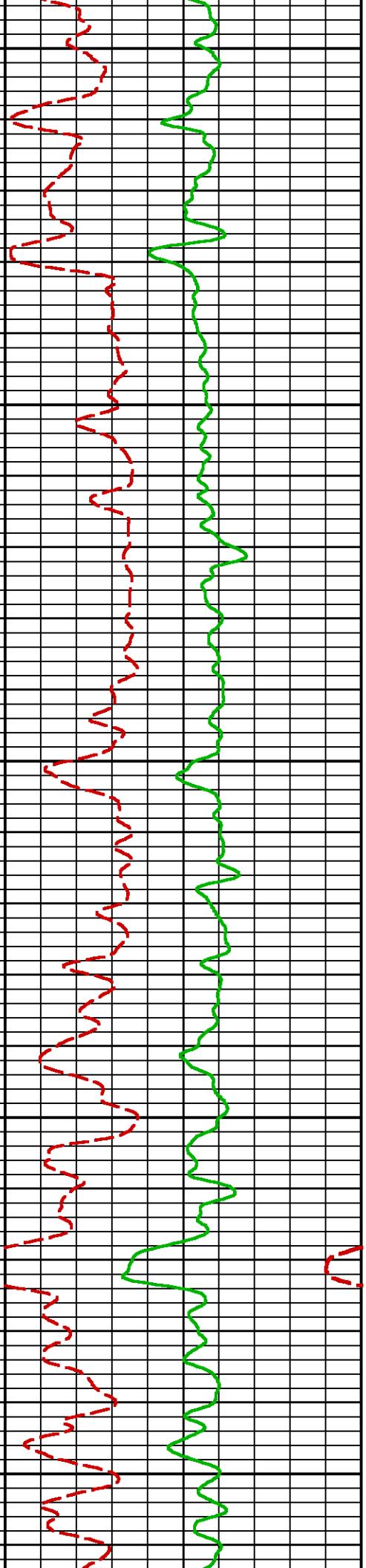
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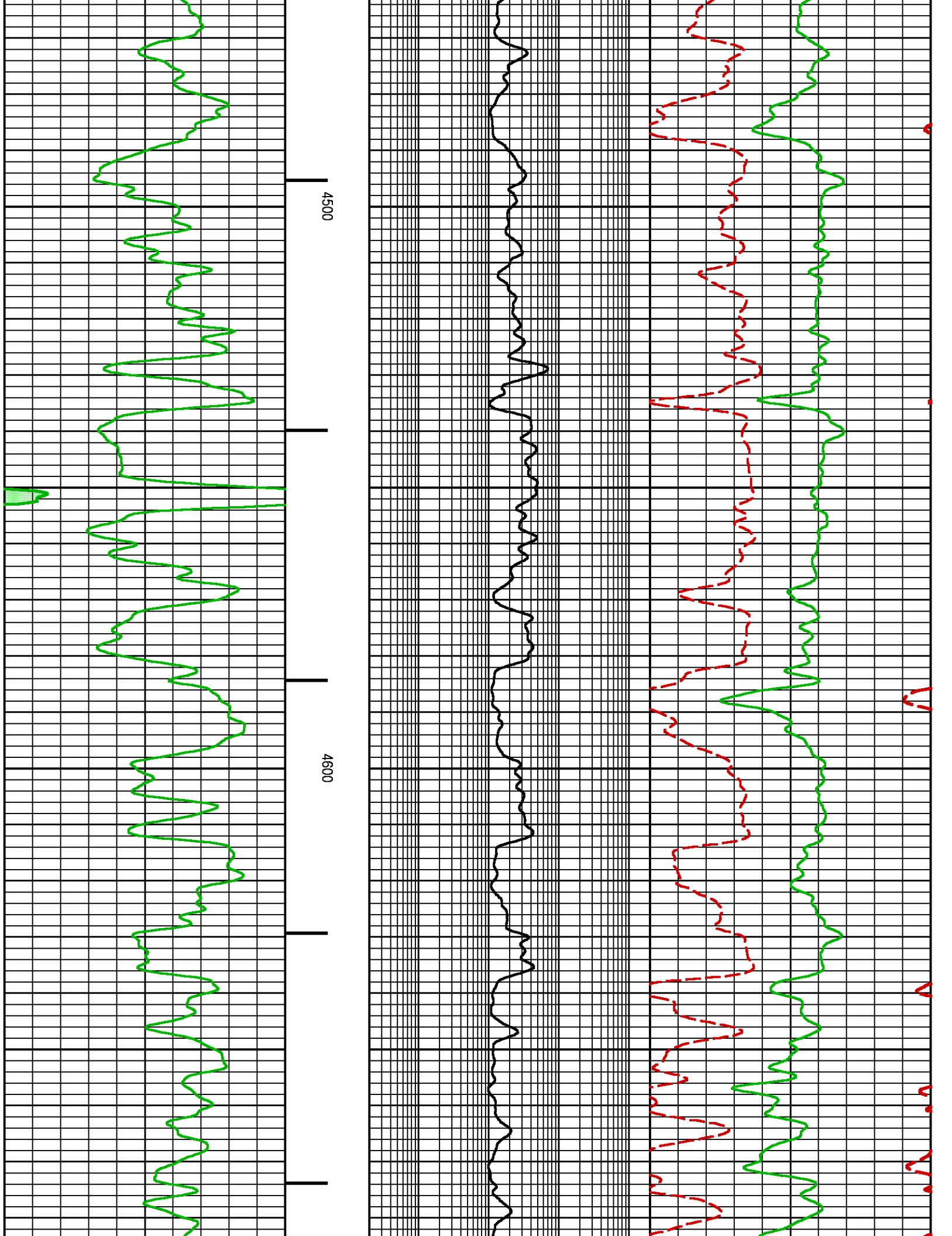
CURVE MEASURE POINT OFFSET

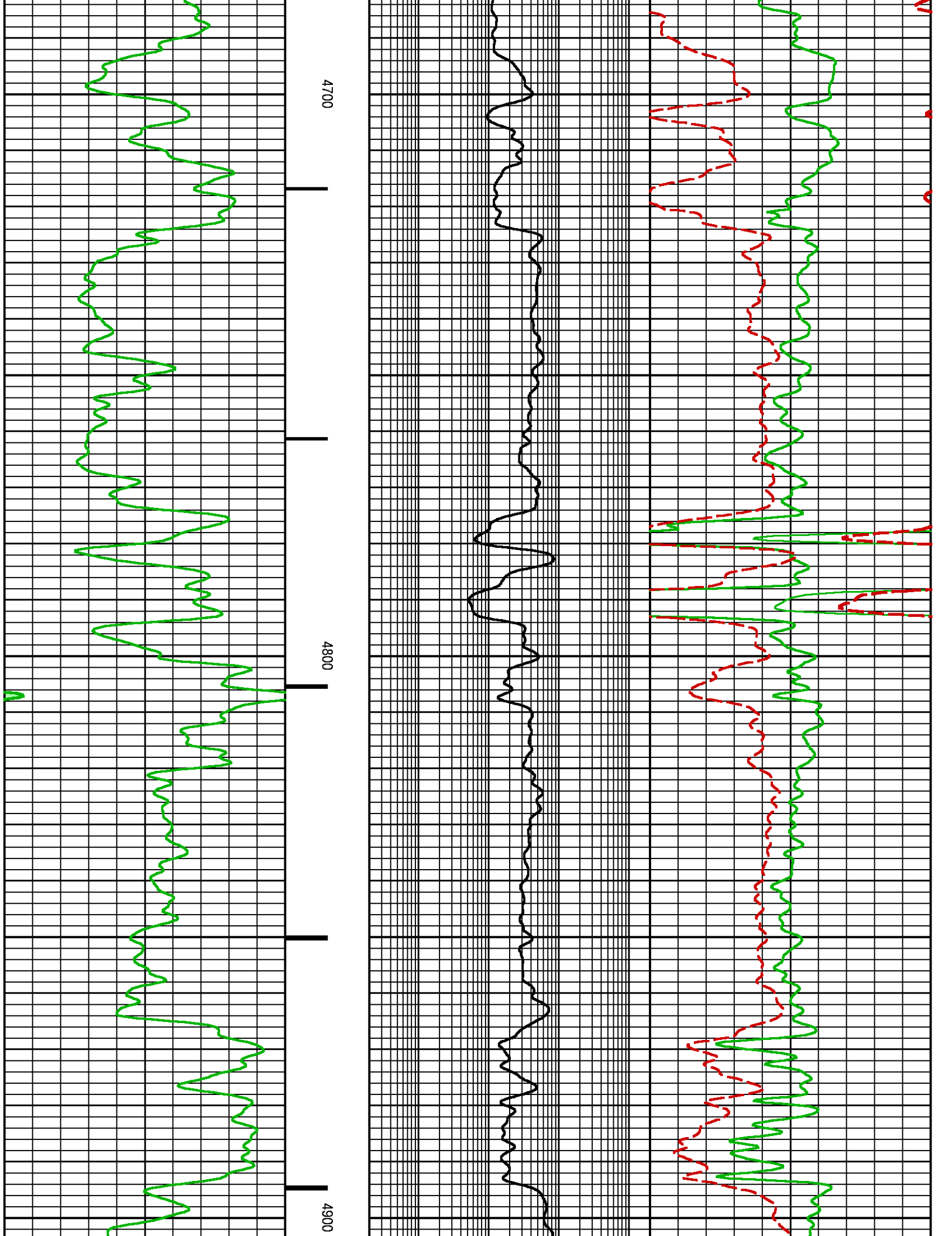
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNC	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

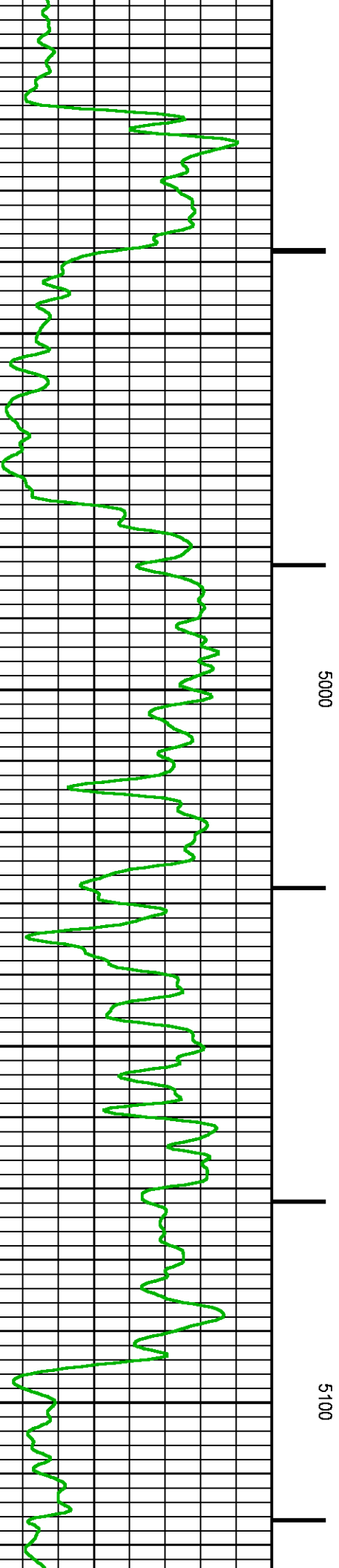
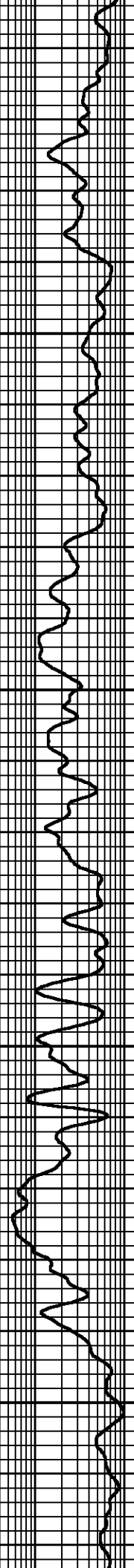
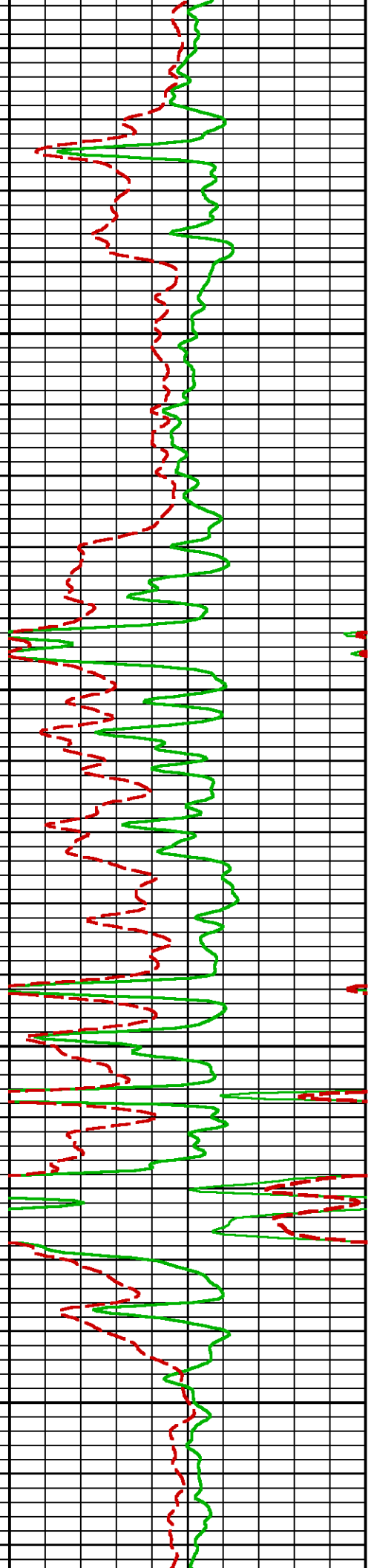
Project : NA
User : kotoale
Presentation : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_19_02W_NEO\NEO_PRESENTATION_LARAMIE_MAIN.pdf [5"7/100' Scale]
Plot Interval : 4195 - 7890 Feet
Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_19_02W_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY
Well : BRUTON 19-02W
Field : VEGA
File Interval : 2400.75 - 7887.75 Feet
OCT : NA

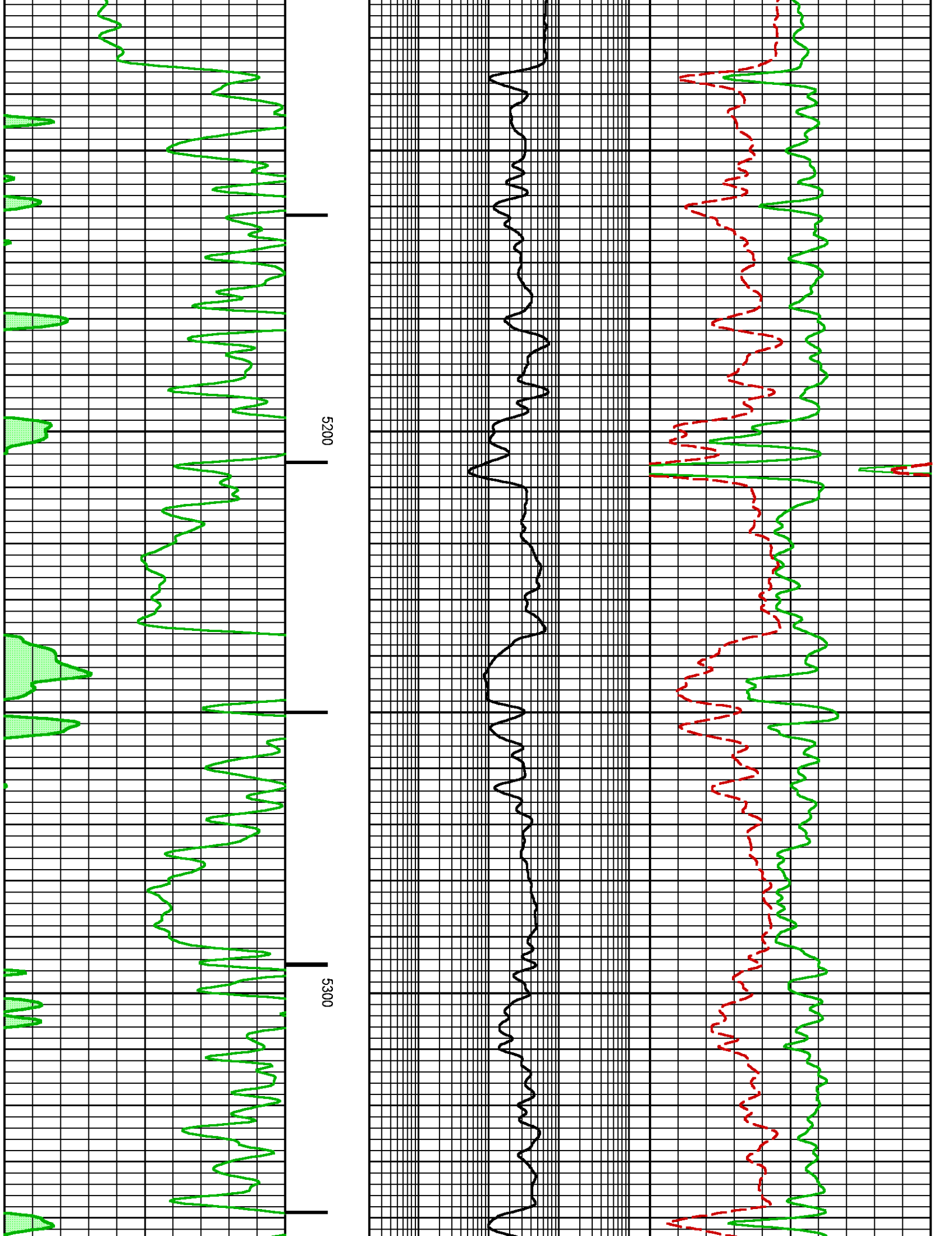


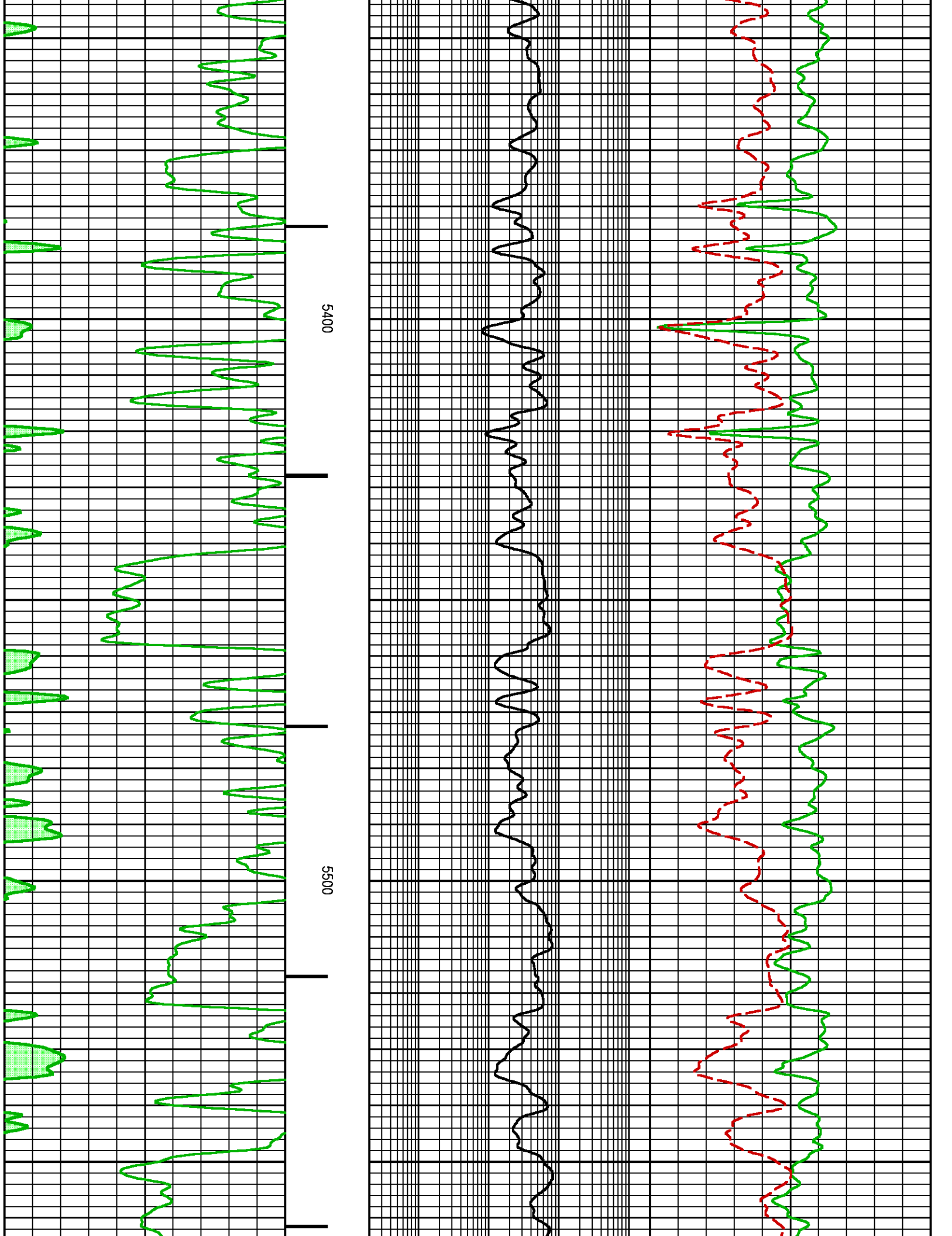


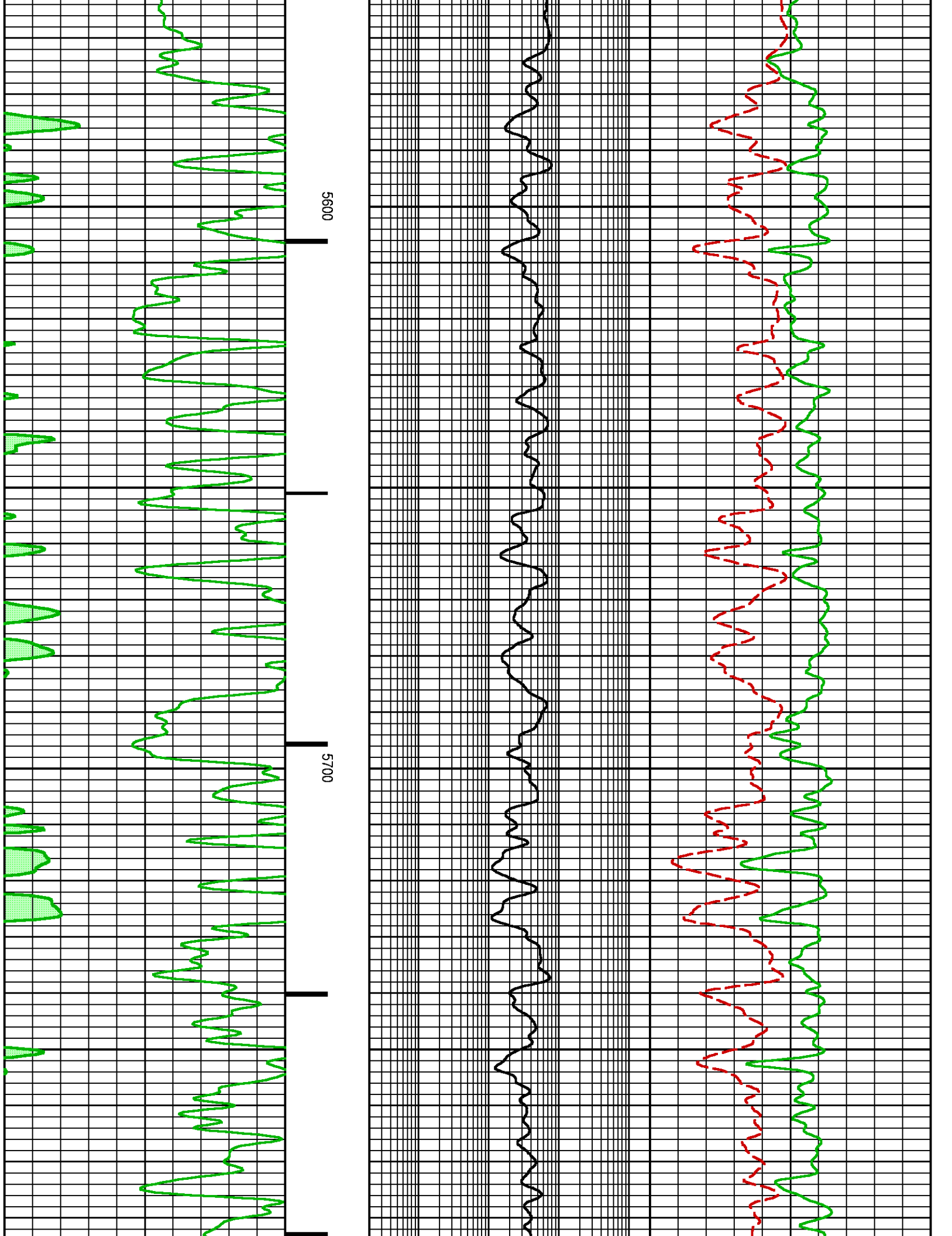


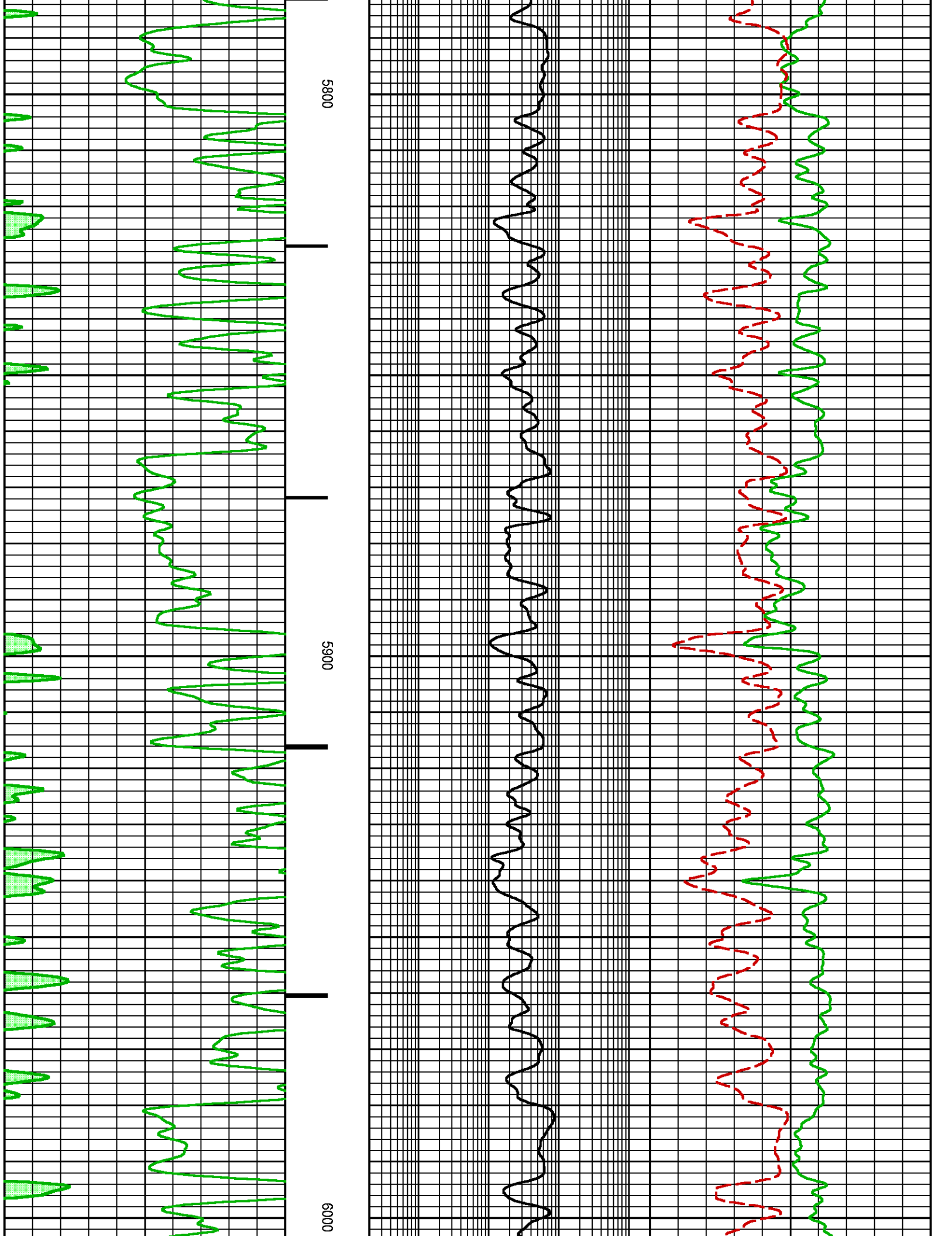


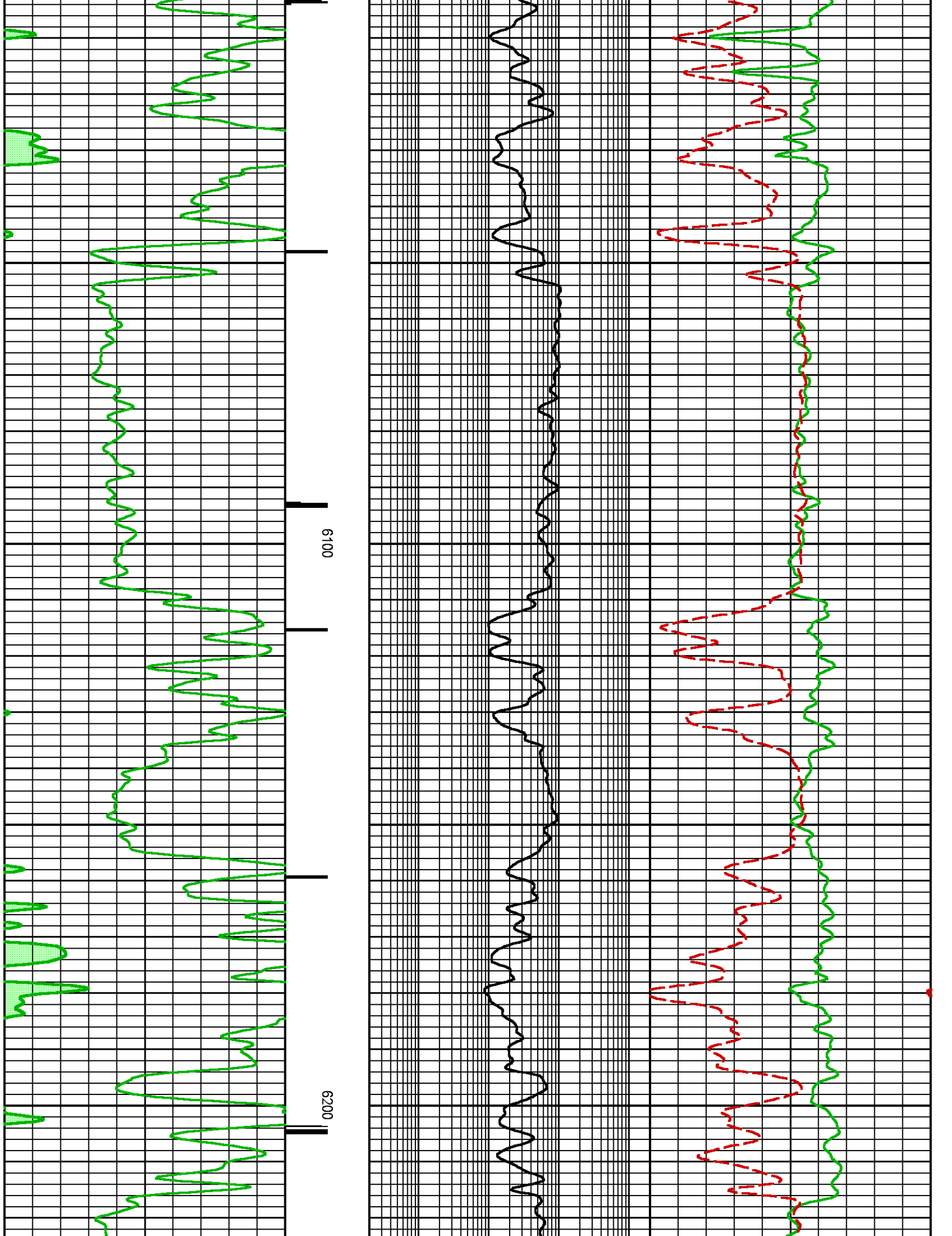


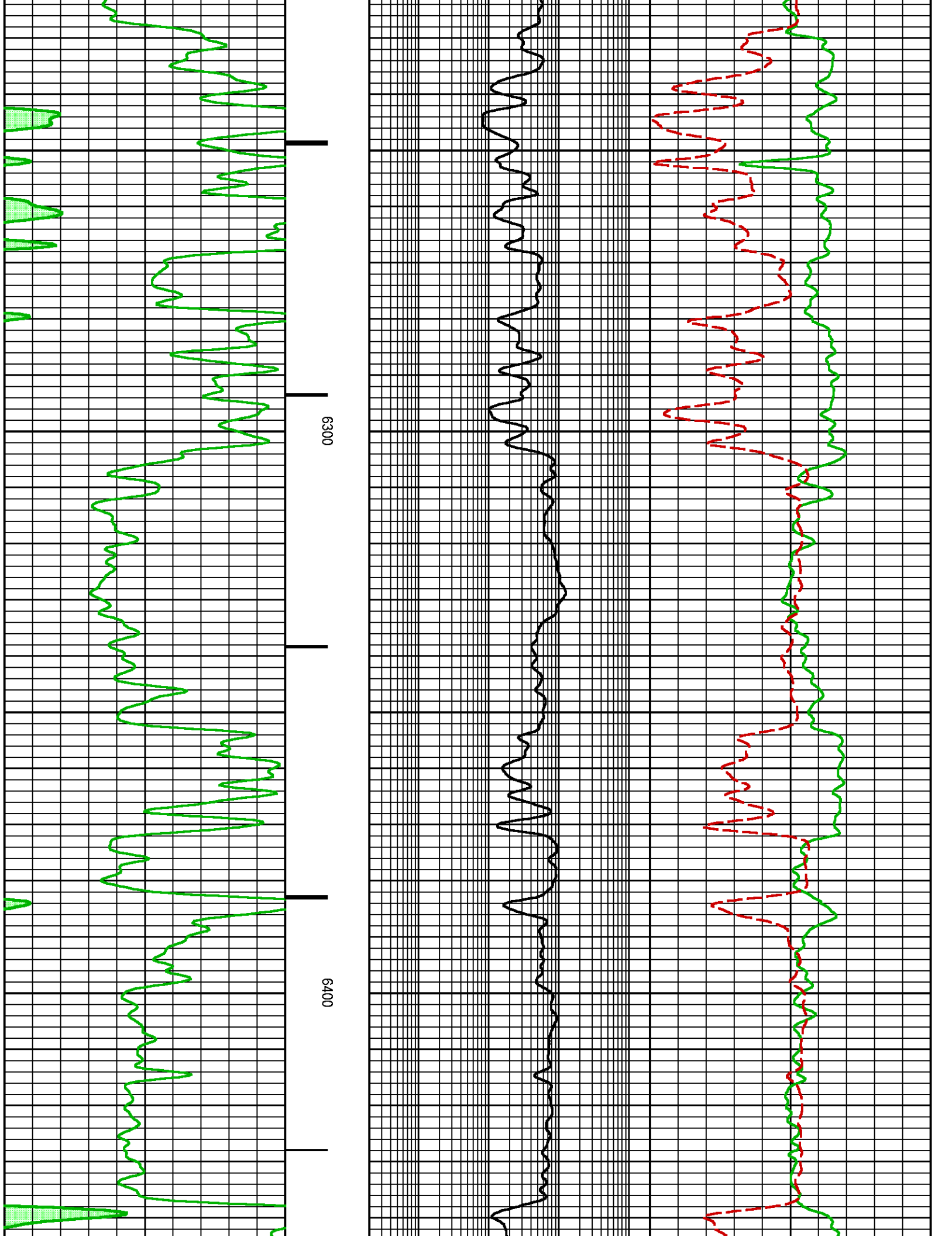


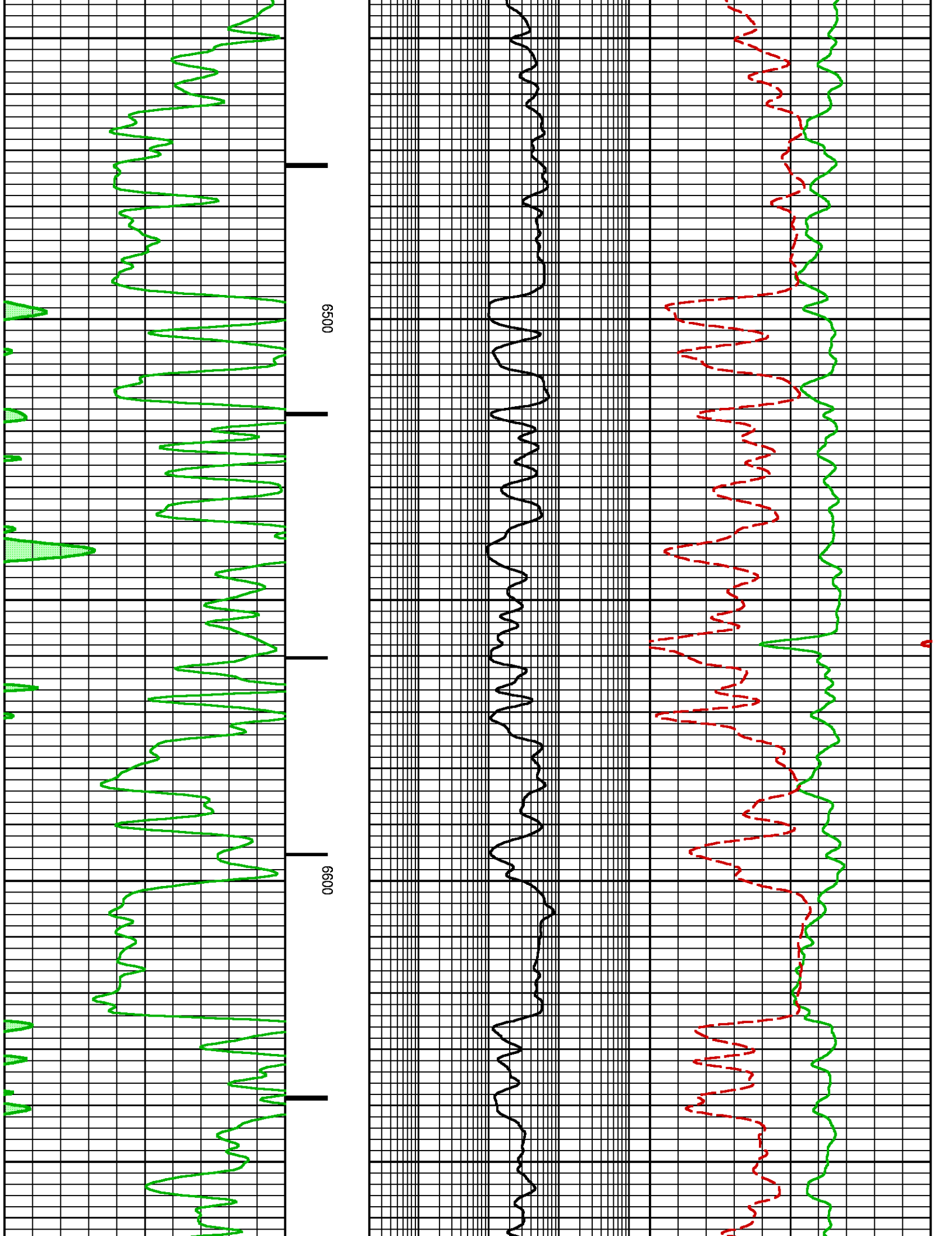


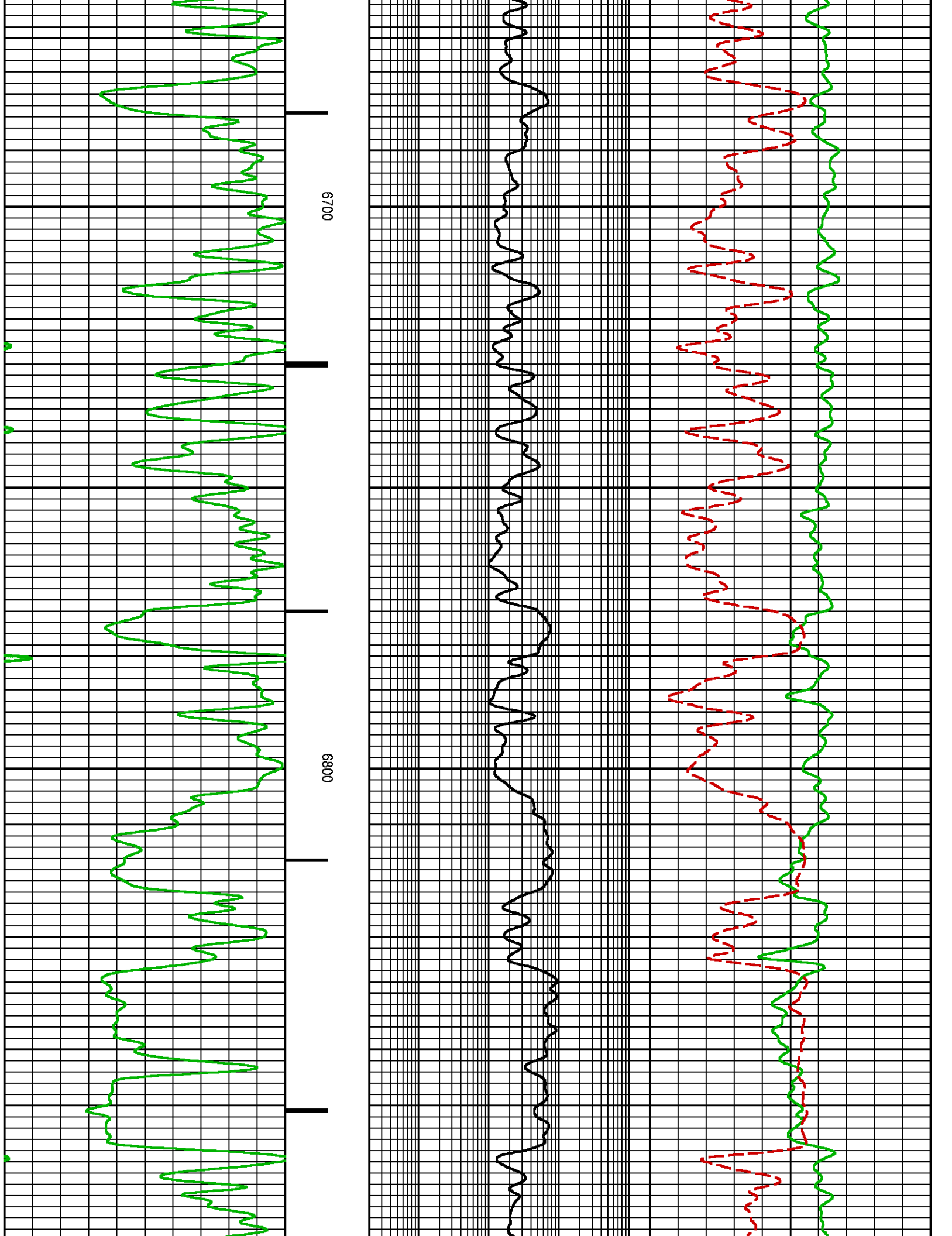


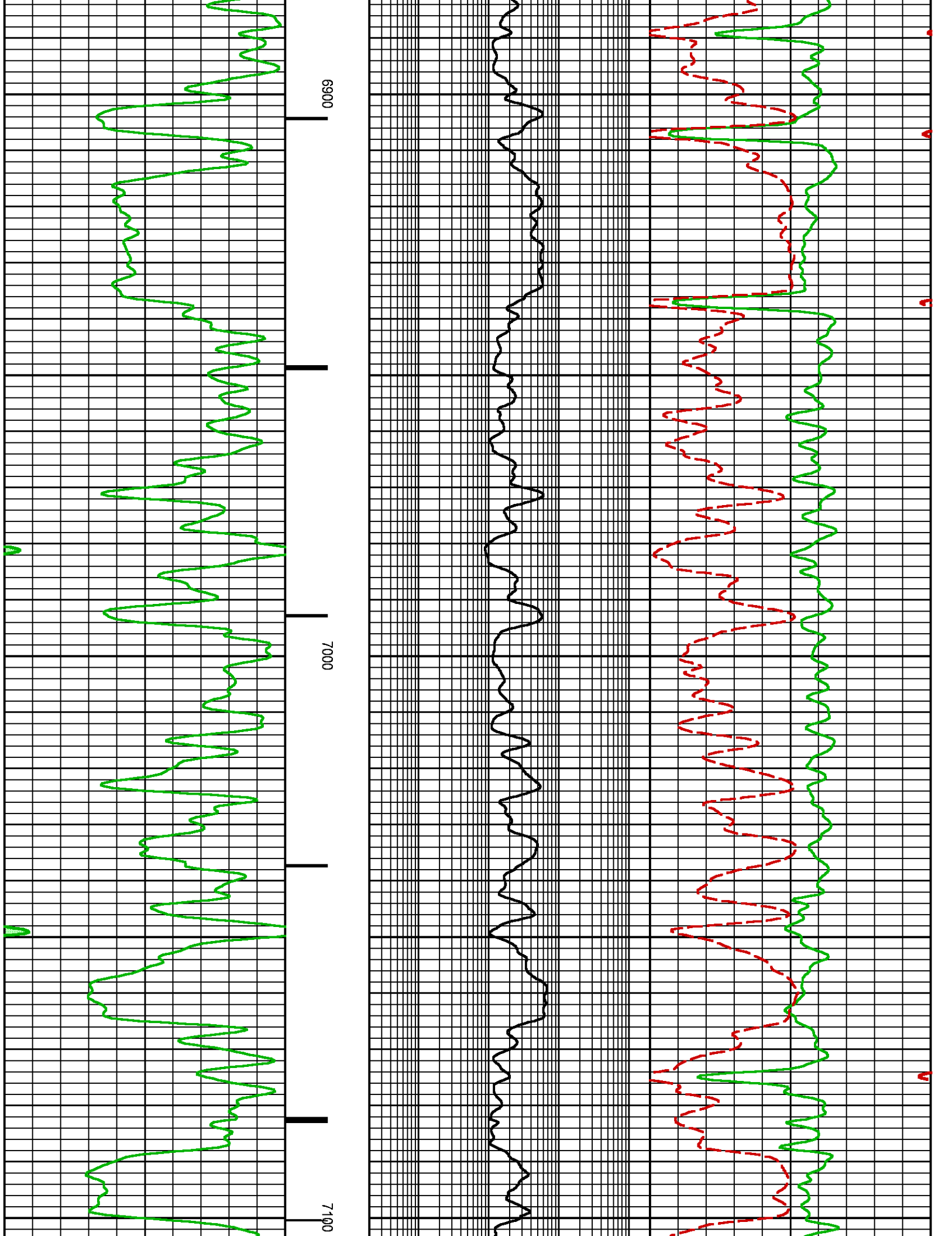


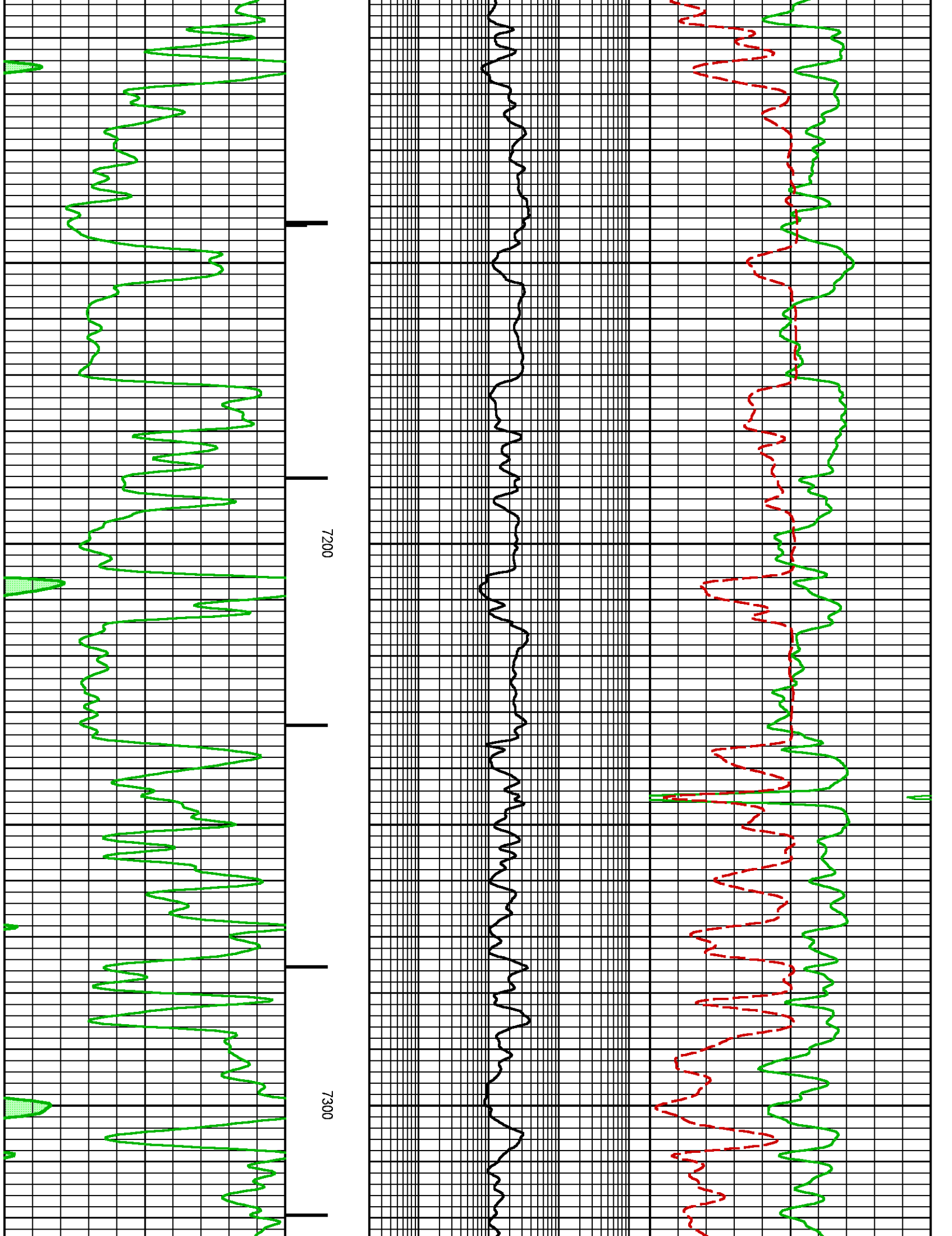


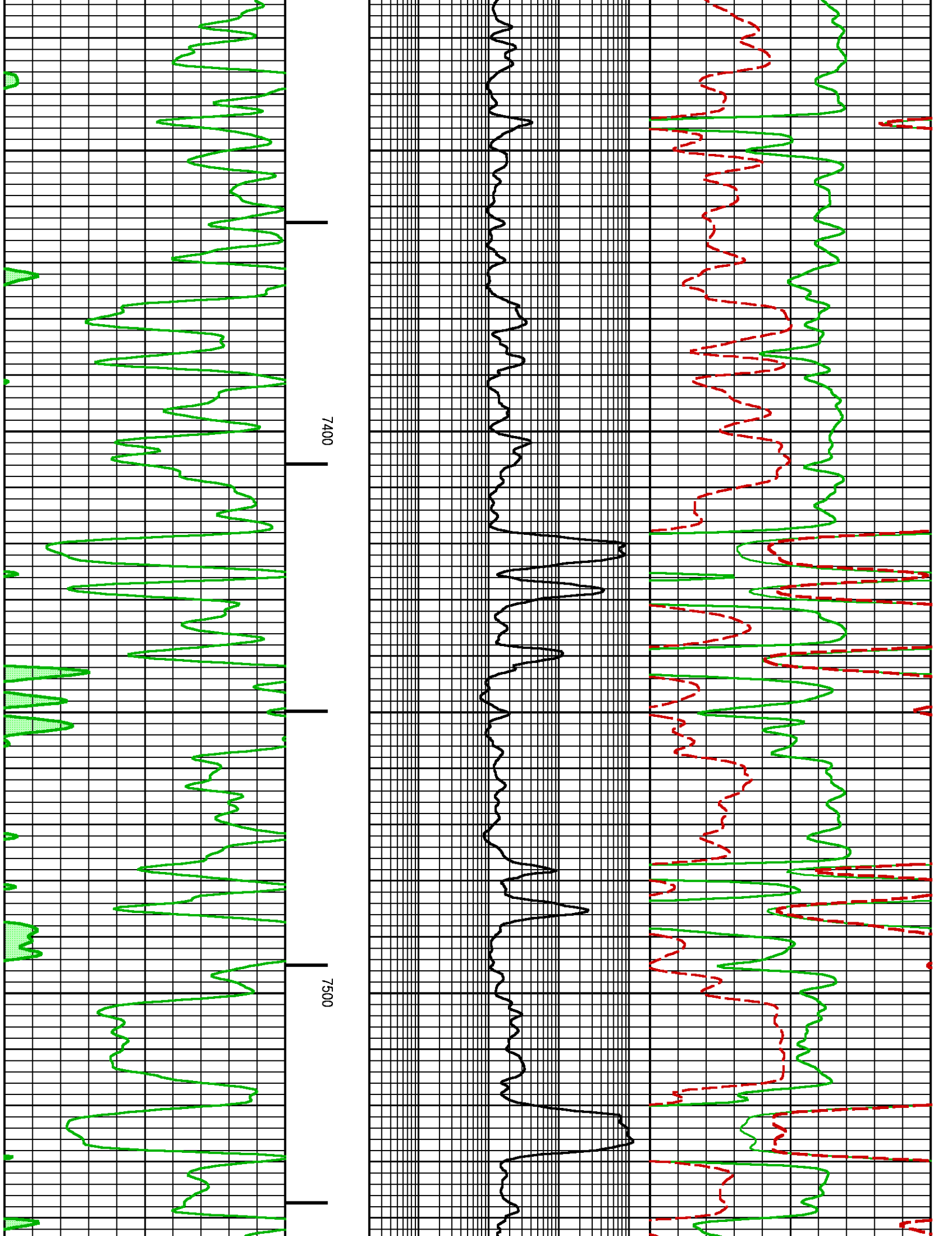


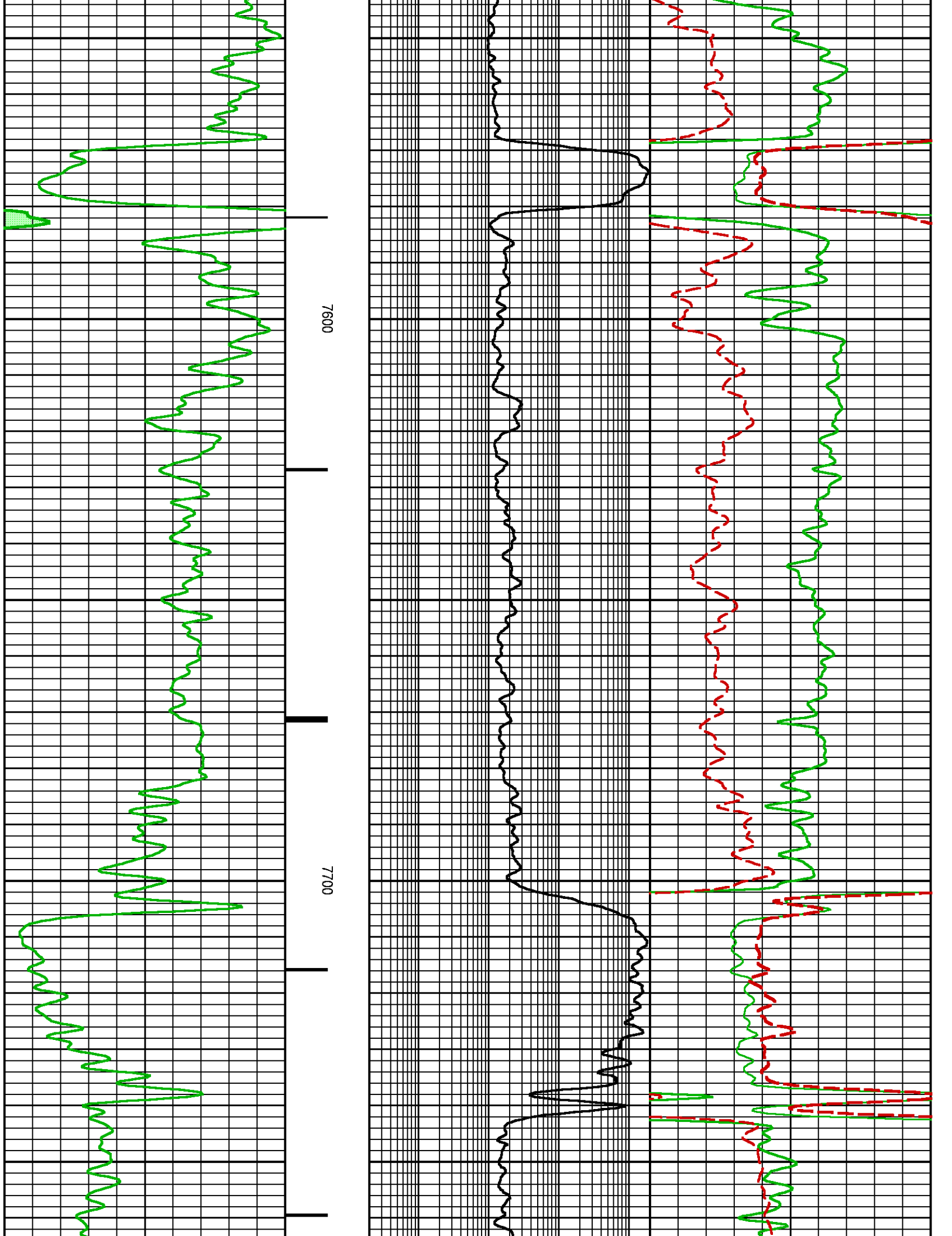


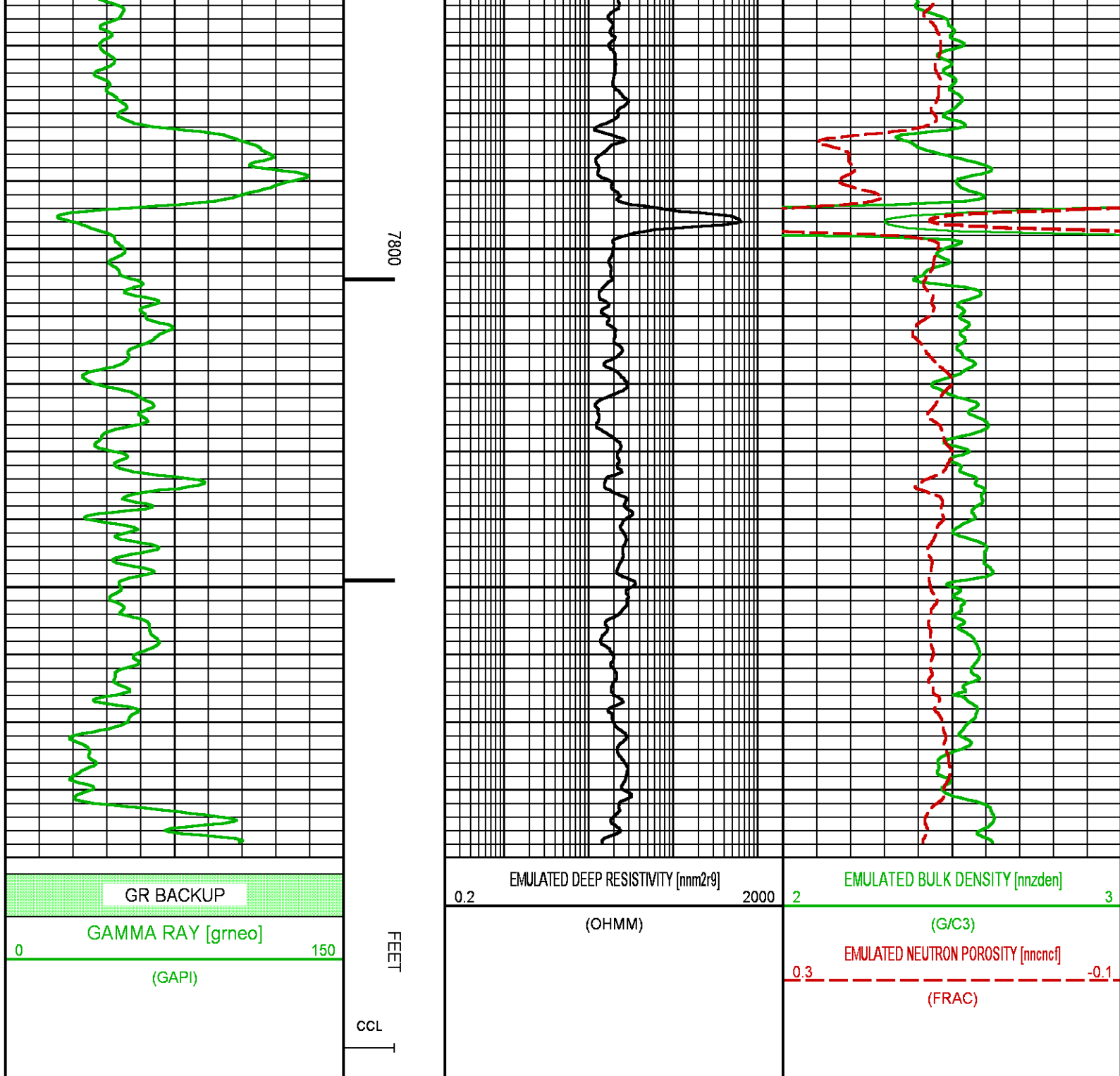












**BAKER
HUGHES**
a GE company



COMPANY
WELL
FIELD
COUNTY

LARAMIE ENERGY
BRUTON 19-02W
VEGA
MESA

STATE **COLORADO**

FILE NO:

29134-01

API NO:

05077104230000

LOCATION:

SEE REMARKS SECTION

ELEVATIONS:

KB 7286.0 FT

DF

GL 7262 FT

SEC 19 TWP 9S RGE 93W

DATE

28-AUG-2017

Pulsed Neutron
Formation Evaluation

