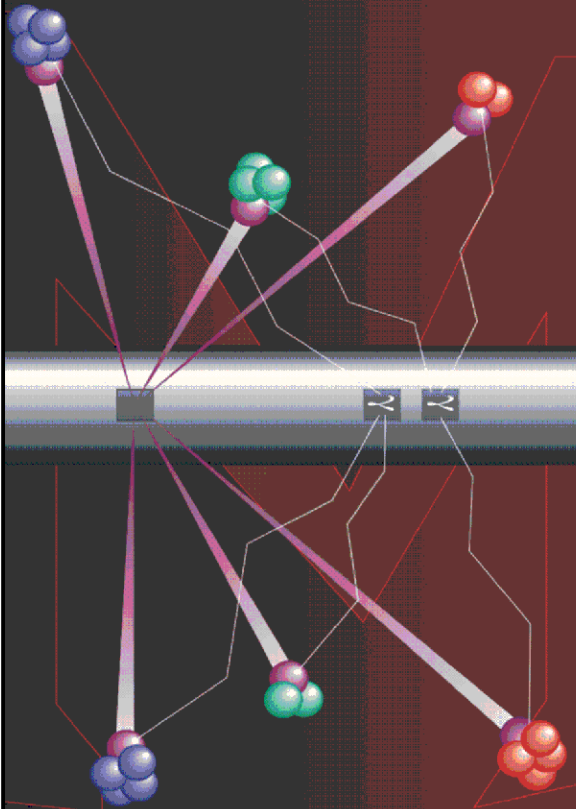




# Pulsed Neutron Formation Evaluation



## NEO Neutron Emulated Openhole

COMPANY LARAMIE ENERGY LLC

WELL NICHOLS 0994-24-09E

FIELD VEGA

COUNTY MESA STATE COLORADO

LOCATION:

SEE REMARKS SECTION

SEC 24 TWP 9S RGE 94W

ELEVATIONS:

KB 7161.0 FT DF 7160.0 FT GL 7137.0 FT

DATE 23-JAN-2018 ECC 30113-01

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>31-JAN-2018</u>
FIELD DATA	LOCATION: <u>WOODWARD</u>		ENGINEER: <u>M.MENTZER/US131991</u>	DATE: <u>22-JAN-2018</u>
FROM	TO			
<u>2279 FT</u>	<u>7379 FT</u>			

### REMARKS

LOCATION:  
SHL: LAT:39.264445 N; 107.830731 W  
BHL: LAT:39.264072 N; 107.826023 W

TRAINING WELL: NICHOLS 0994-24-06W

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

BOND LOG IS DEPTH REFERENCE LOG

# NEO RESULTS FOR NICHOLS 0994-24-09E (G-Sand)

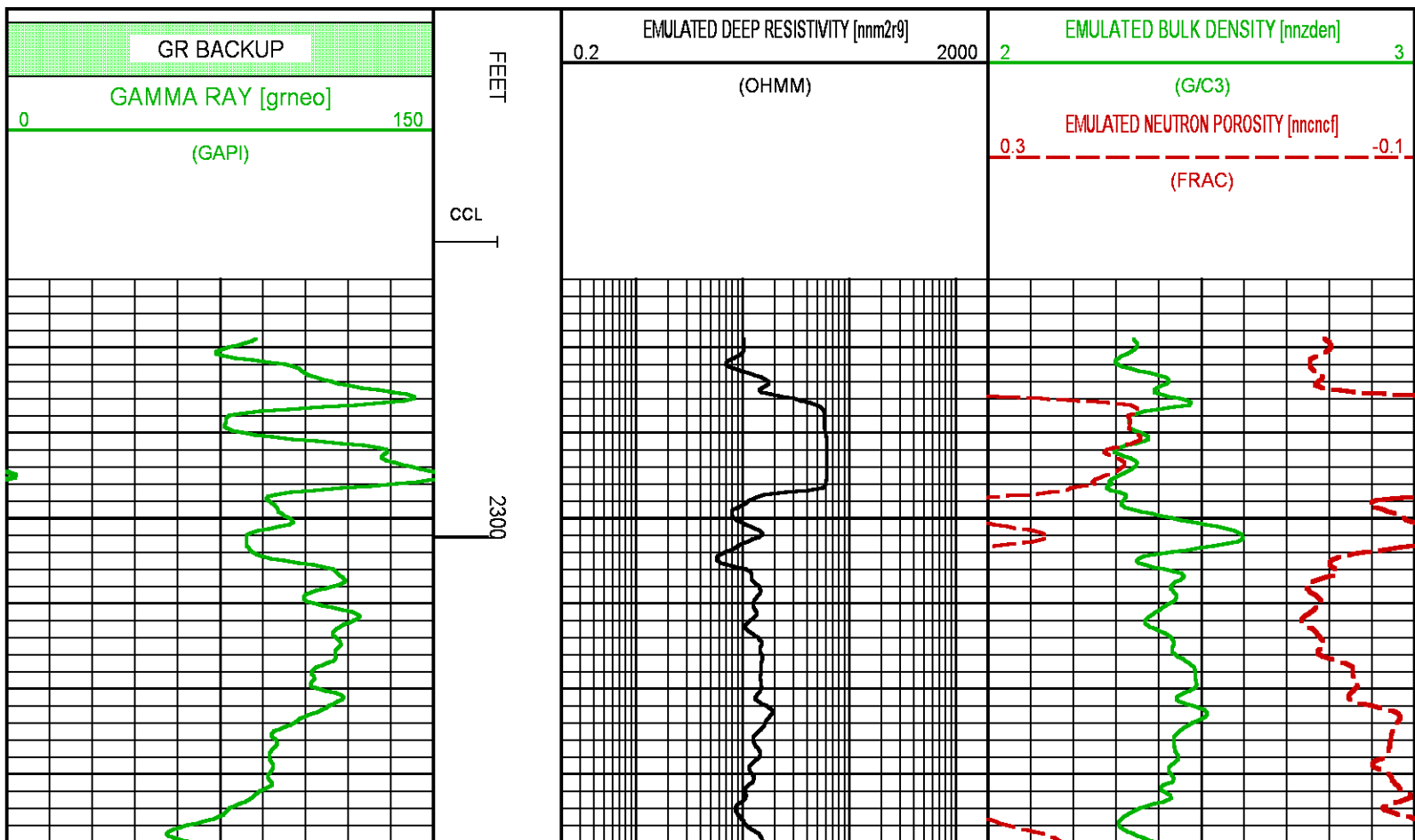
ECLIPS ECPLLOT from ECLIPS 7.0 WFM 5.0.7343.1 Sun 02/07/2016 16:48:51.73

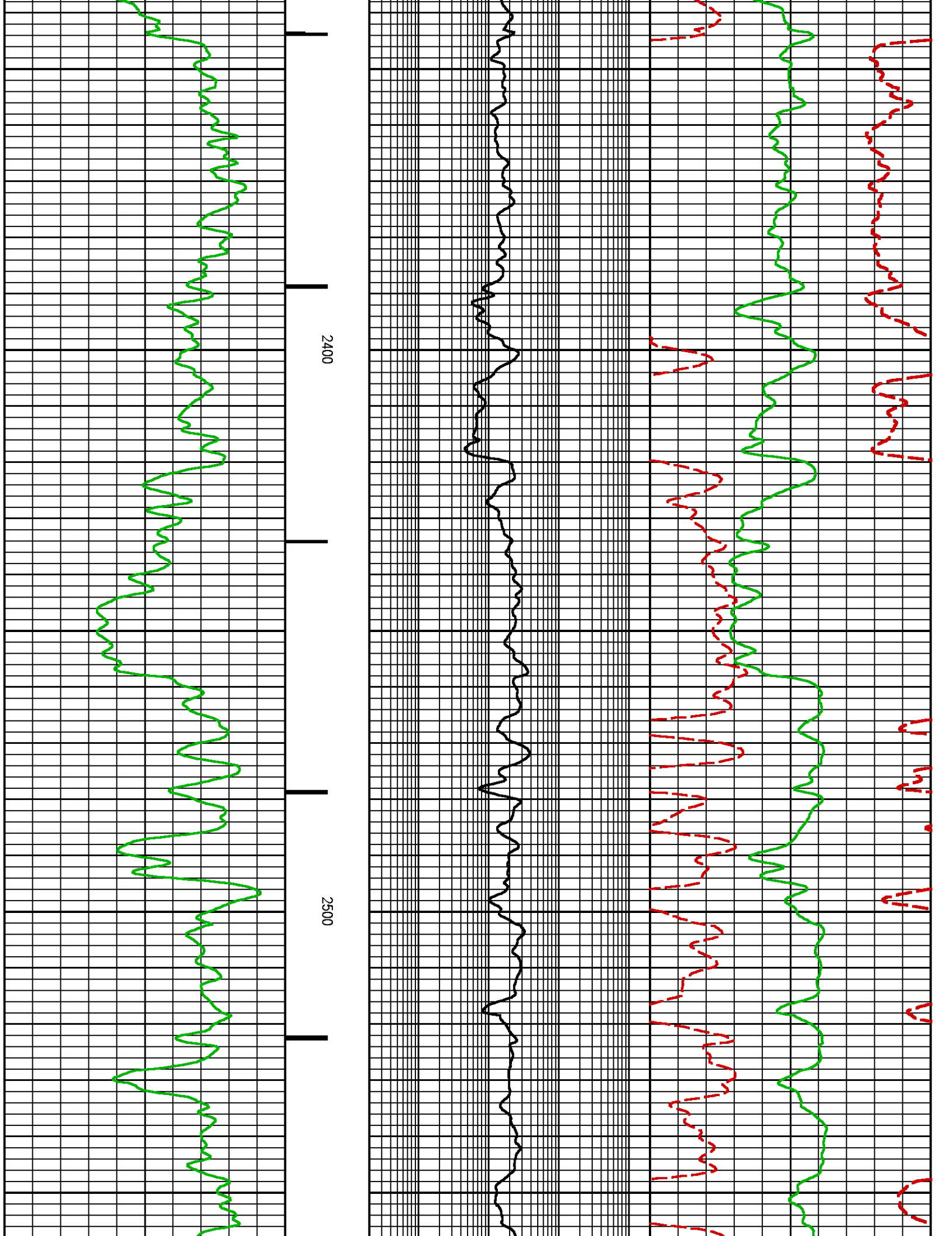
Plotted: Wed Jan 31 13:06:28 2018

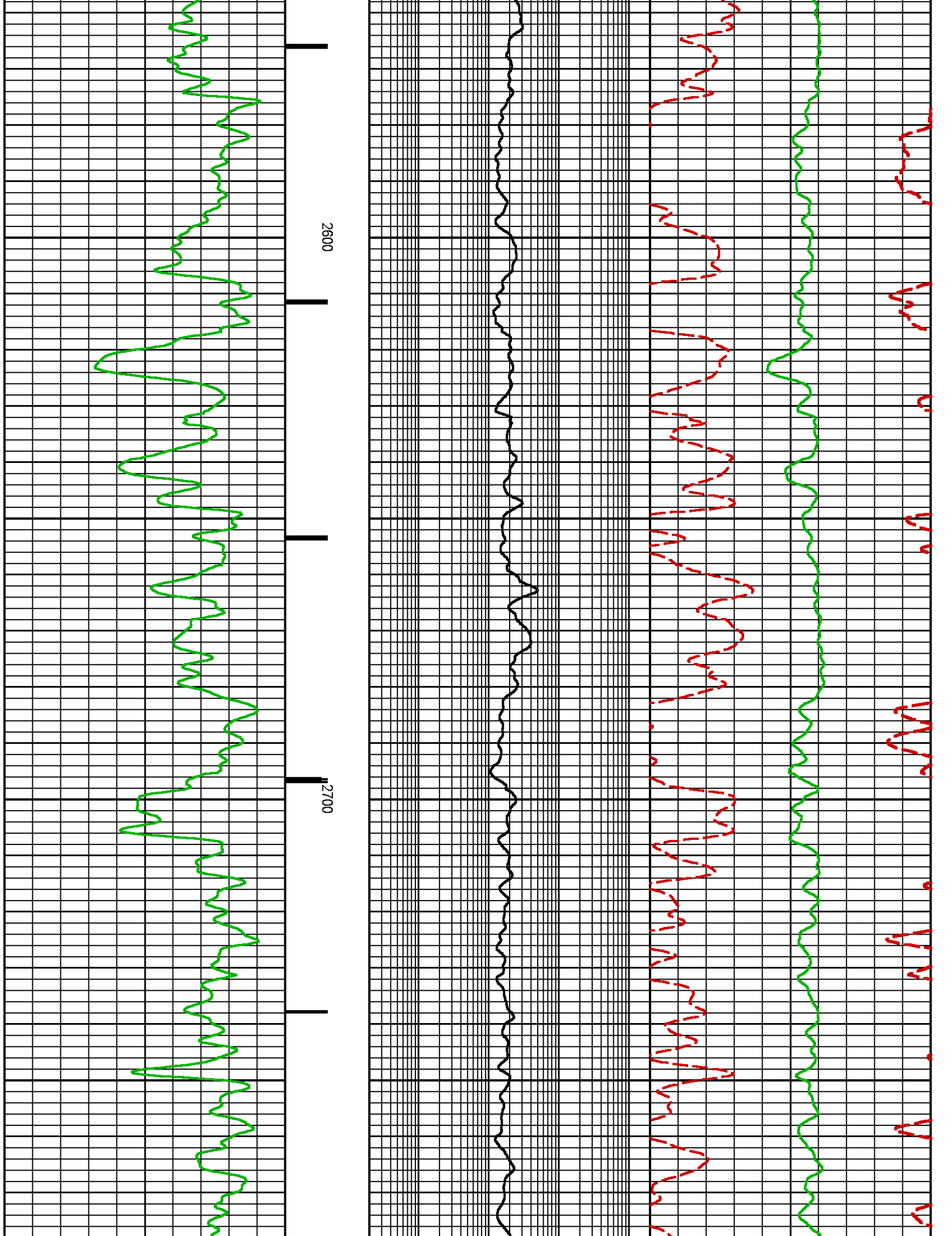
## CURVE MEASURE POINT OFFSET

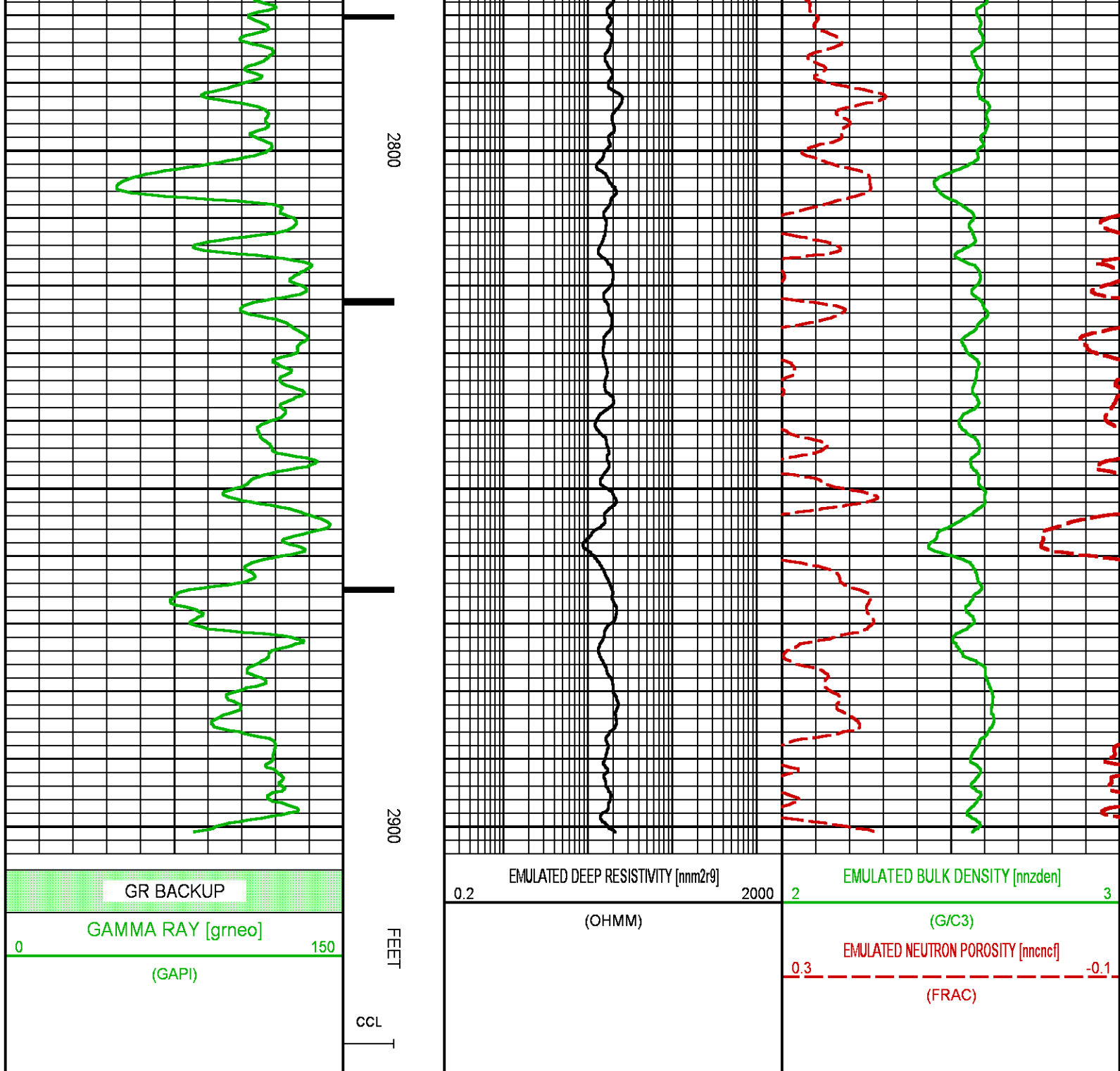
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNC	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

**Project** : NA  
**User** : kotoale  
**Presentation** : BHI1F65XZ1:d:\Ape\_Projects\Laramie\_NICHOLS\_0994\_24\_09E\_NEO\NEO\_PRESENTATION\_LARAMIE\_G-Sand.pdf [5"/100" Scale]  
**Plot Interval** : 2273 - 2903 Feet  
**Data File 1** : F1 : BHI1F65XZ1:D:\Ape\_Projects\Laramie\_NICHOLS\_0994\_24\_09E\_NEO\Merged\_Set\_Final.xtf  
**Created On** : N/A  
**Company** : LARAMIE ENERGY LLC  
**Well** : NICHOLS 0994-24-09E  
**Field** : VEGA  
**File Interval** : 2279 - 7379 Feet  
**OCT** : NA









## NEO RESULTS FOR NICHOLS 0994-24-09E (MAIN)

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

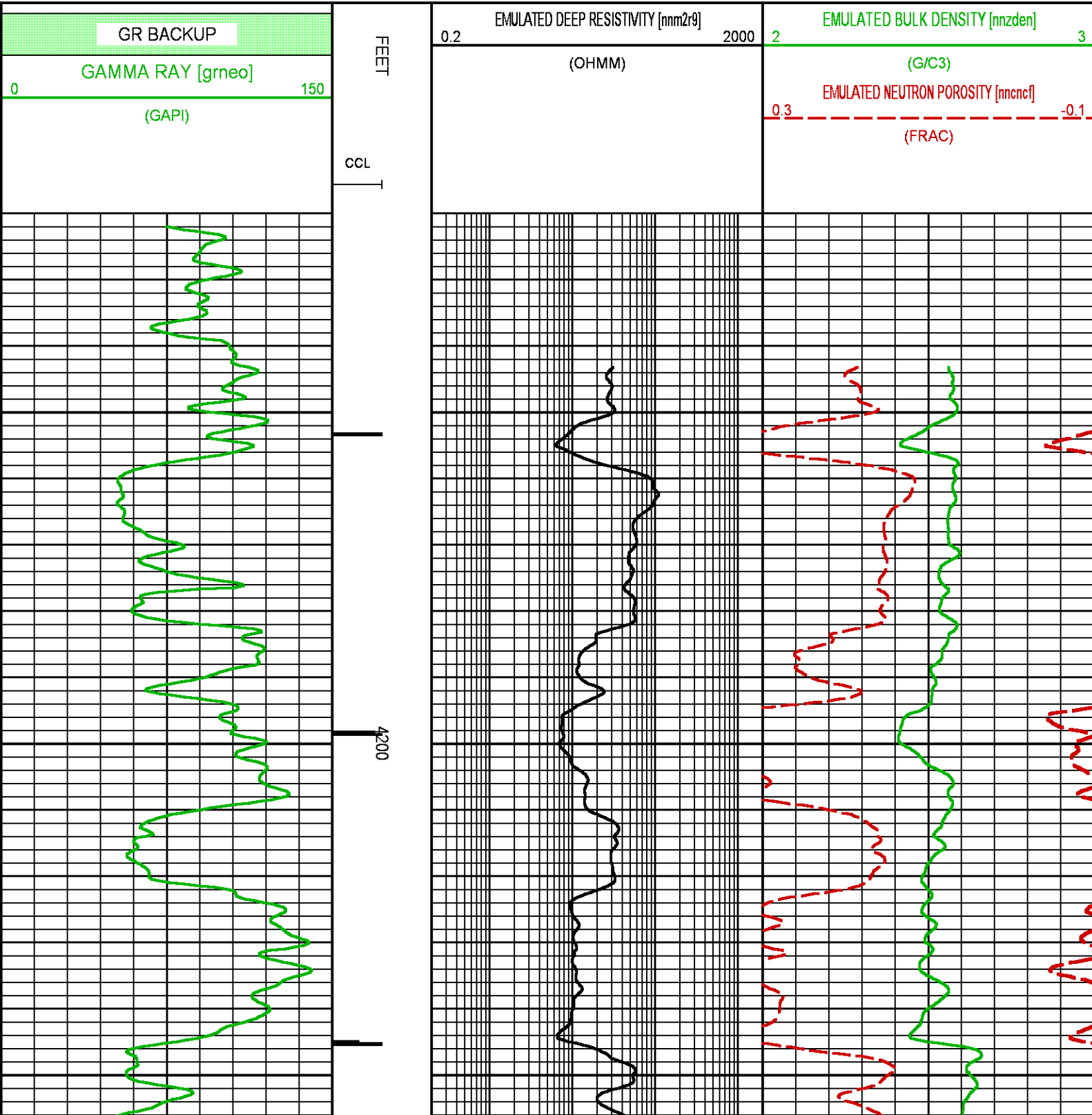
Plotted: Wed Jan 31 13:04:54 2018

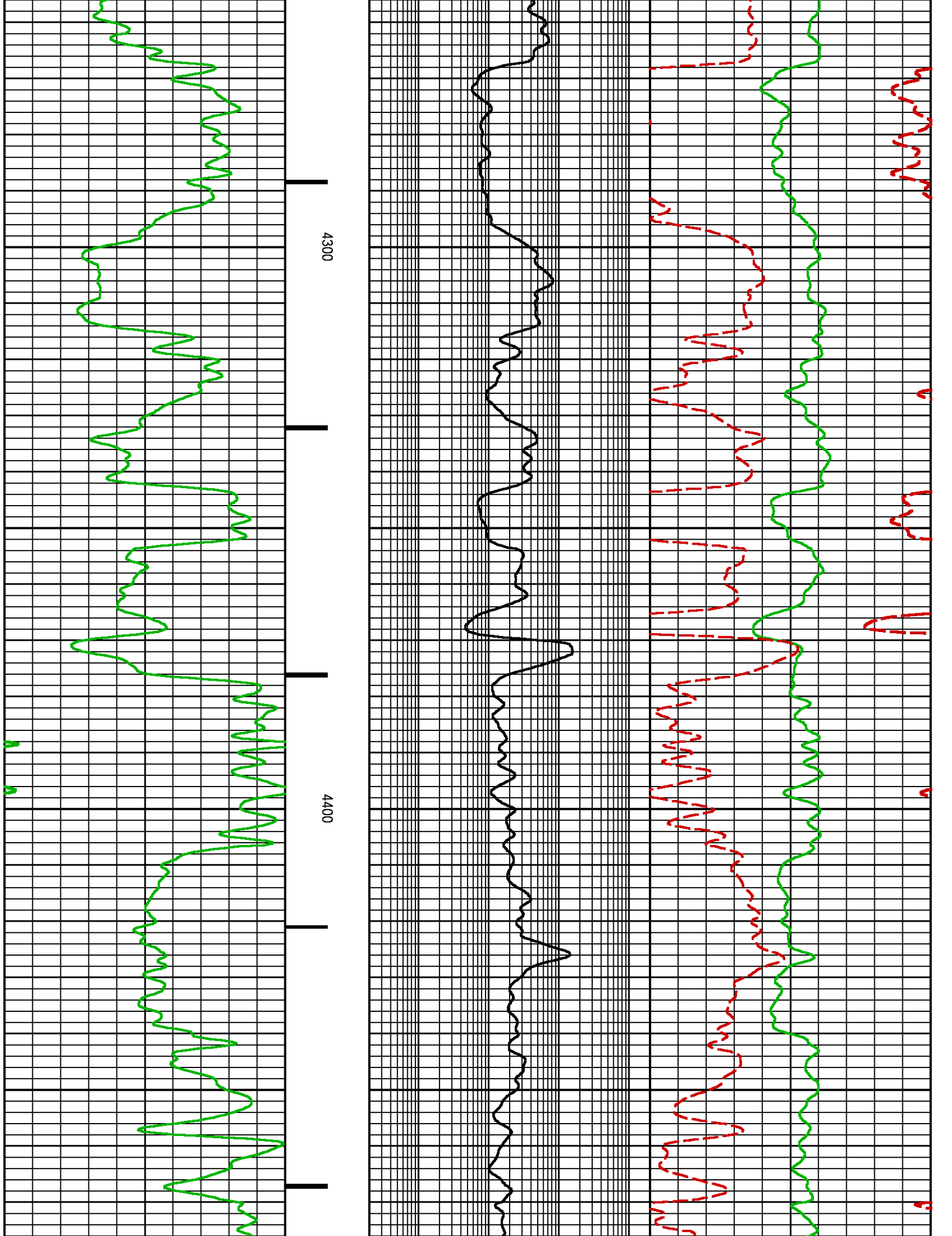
### CURVE MEASURE POINT OFFSET

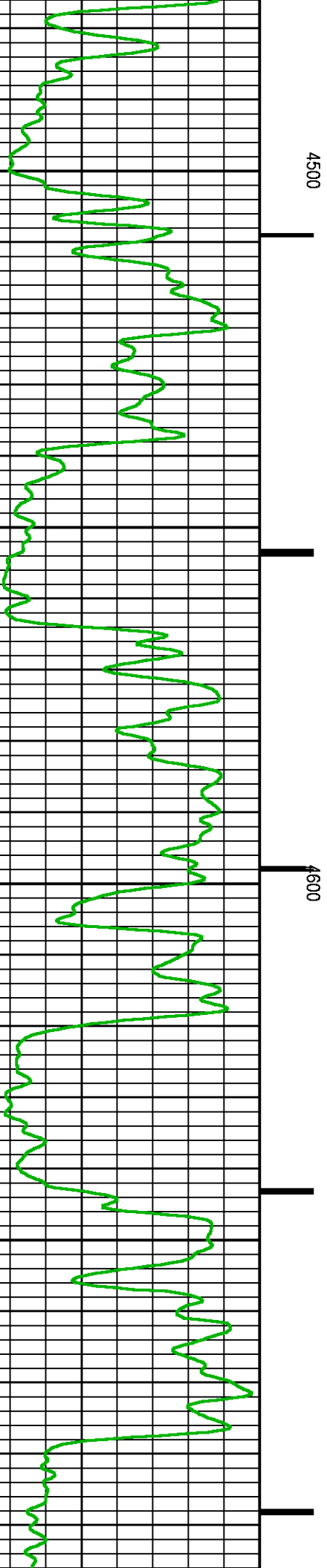
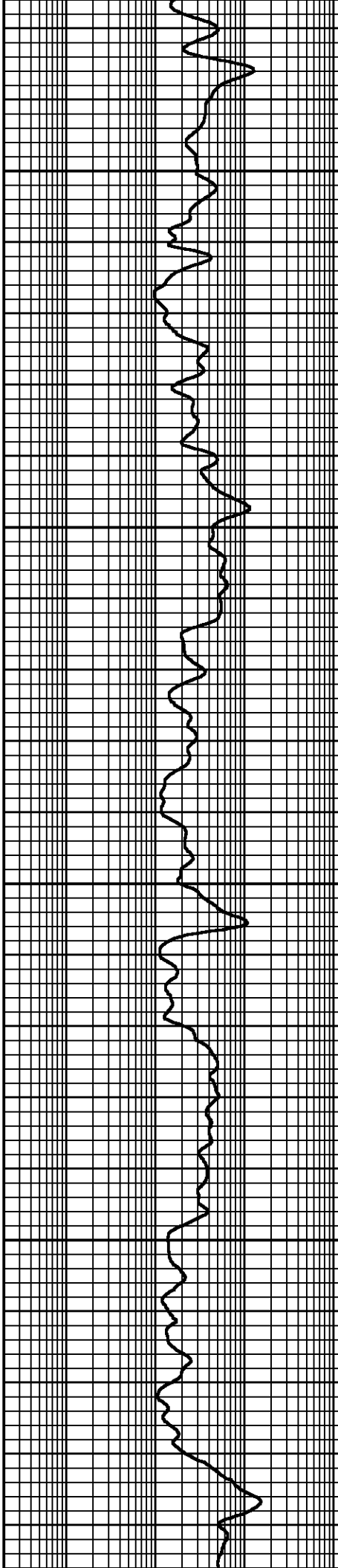
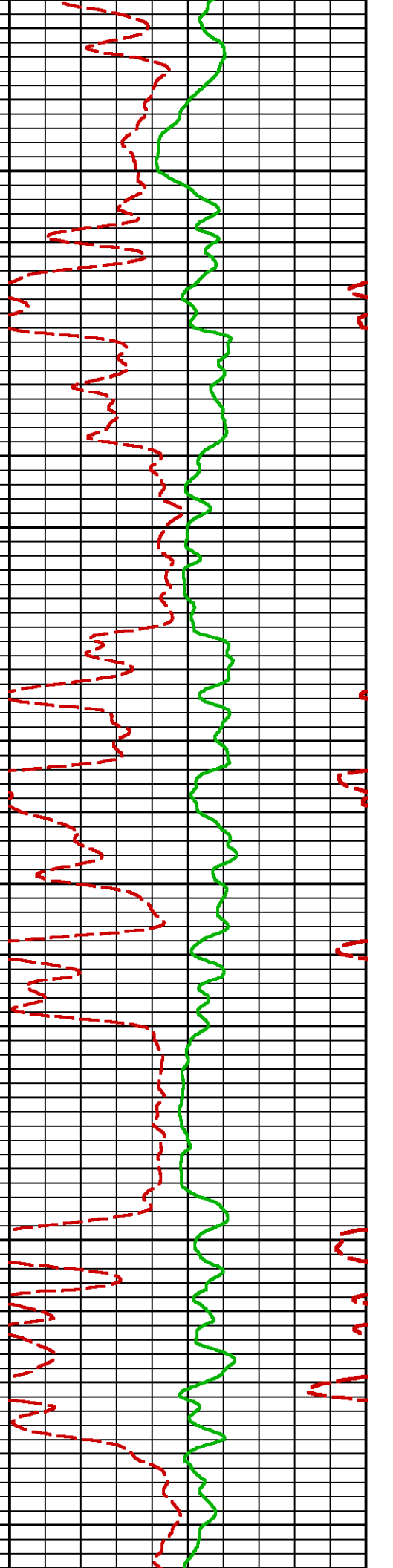
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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CCL	0.00	NNCNCf	0.00	NNZDEN	0.00
GRNEO	0.00	NNM2R9	0.00		

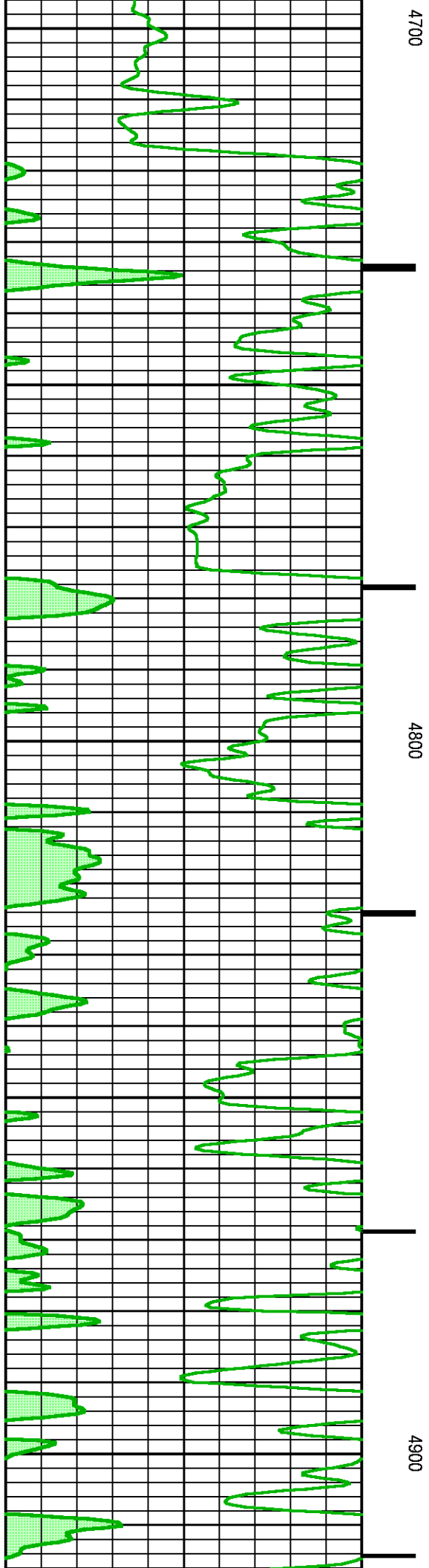
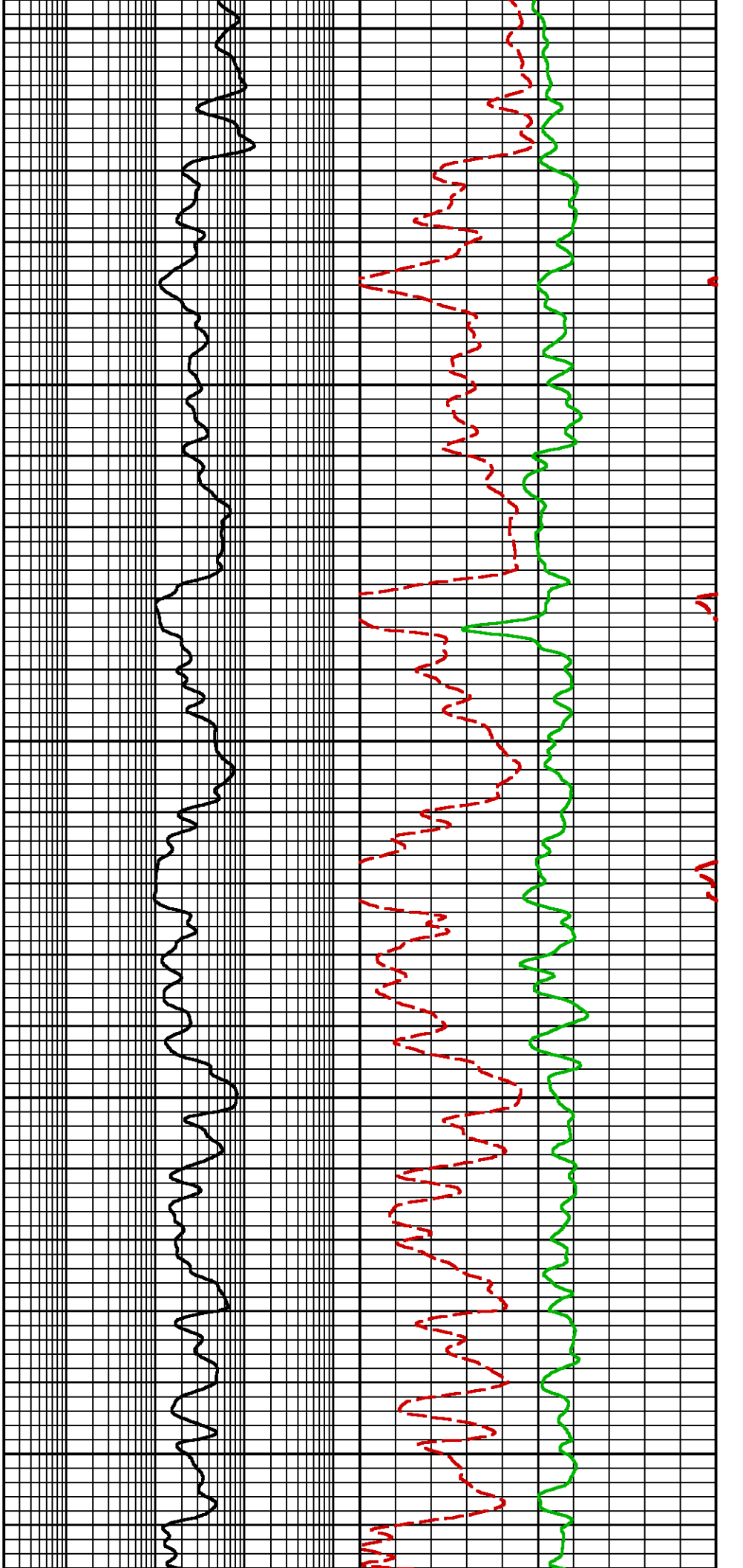
Project	: NA
User	: kotoale
Presentation	: BHI1F65XZ1:d:\Ape_Projects\Laramie_NICHOLS_0994_24_09E_NEO\NEO_PRESENTATION_LARAMIE_MAIN.pdf [5"7/100' Scale]
Plot Interval	: 4120 - 7382 Feet
Data File 1	: F1 : BHI1F65XZ1:D:\Ape_Projects\Laramie_NICHOLS_0994_24_09E_NEO\Merged_Set_Final.xtf
Created On	: N/A
Company	: LARAMIE ENERGY LLC
Well	: NICHOLS 0994-24-09E
Field	: VEGA
File Interval	: 2279 - 7379 Feet
OCT	: NA

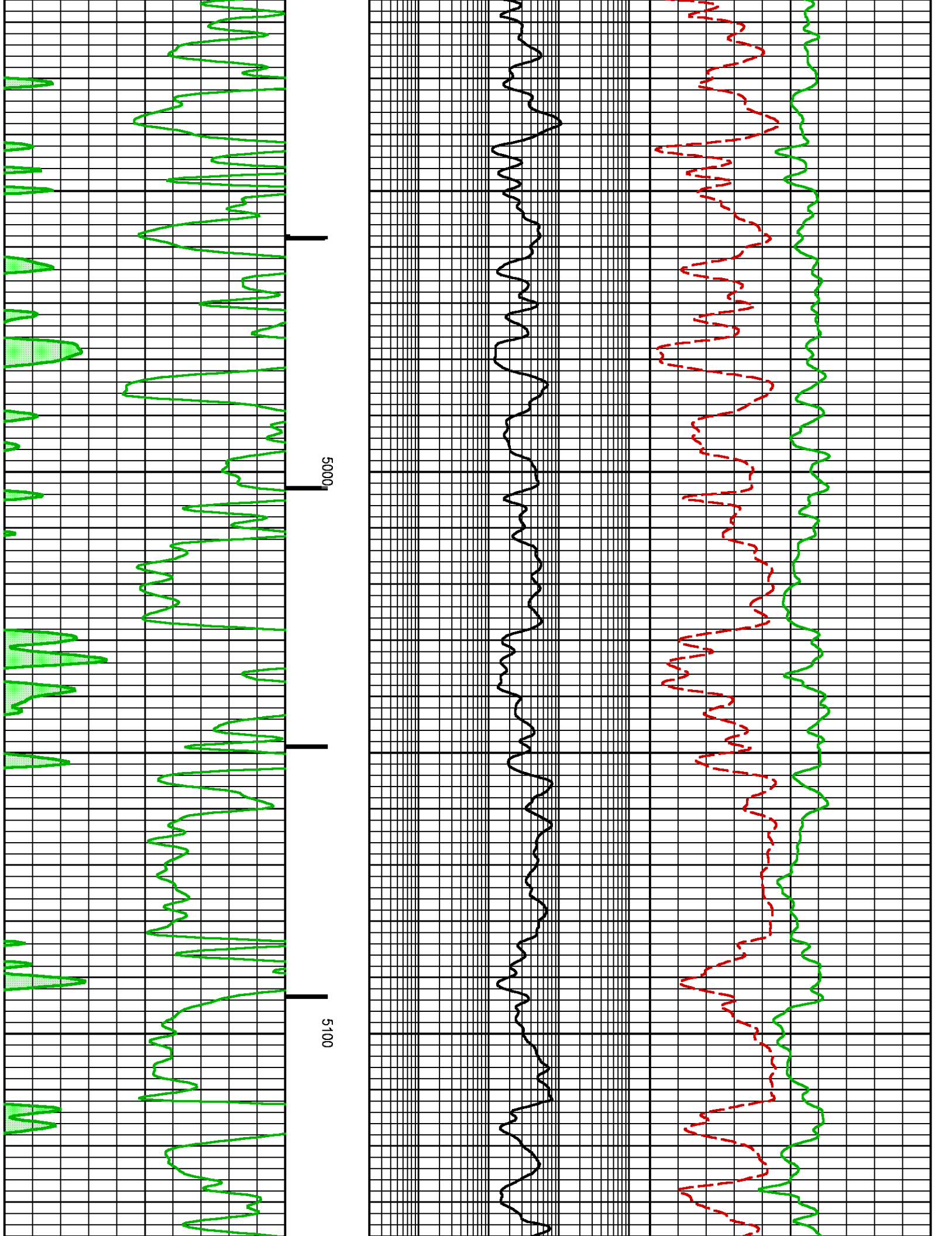


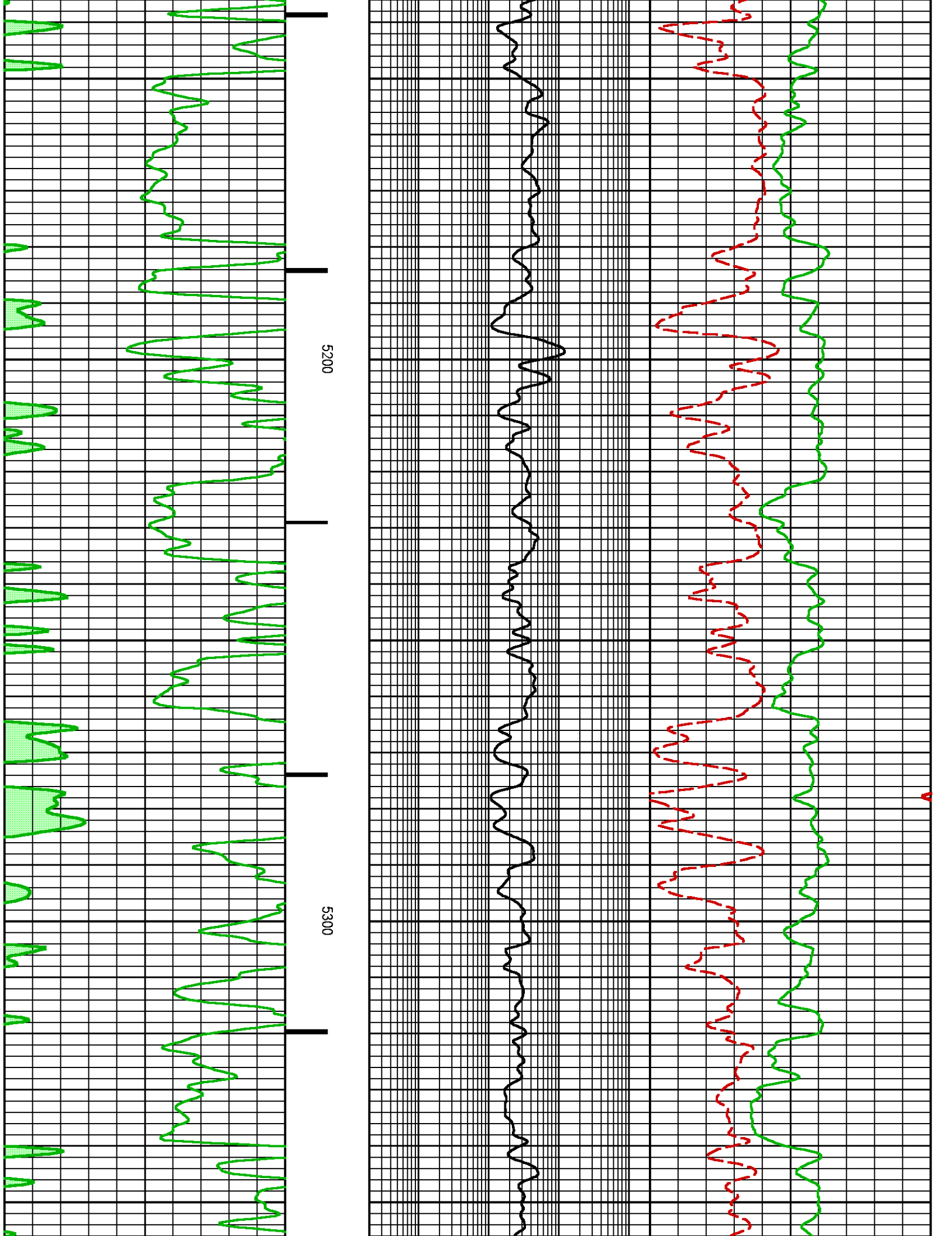


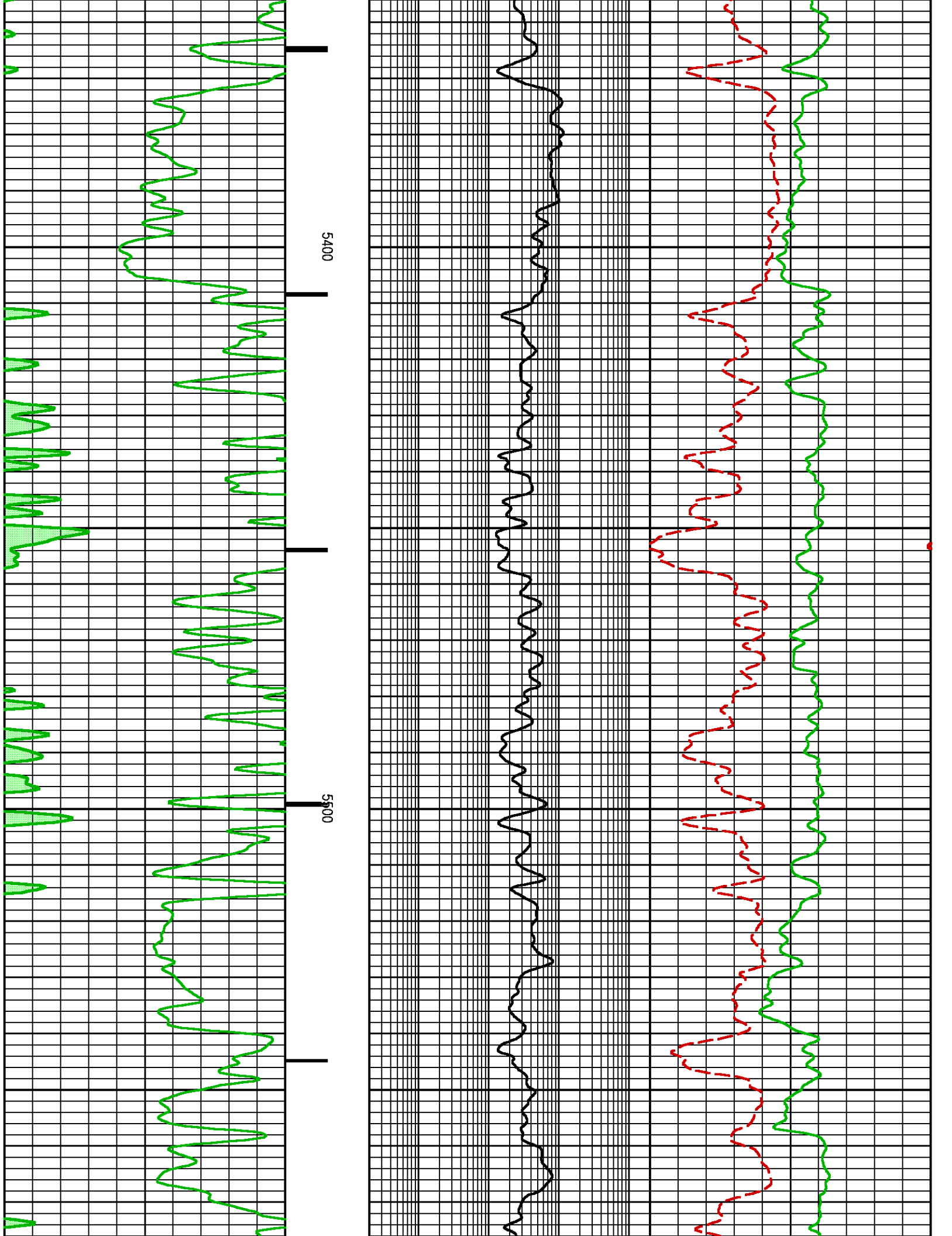


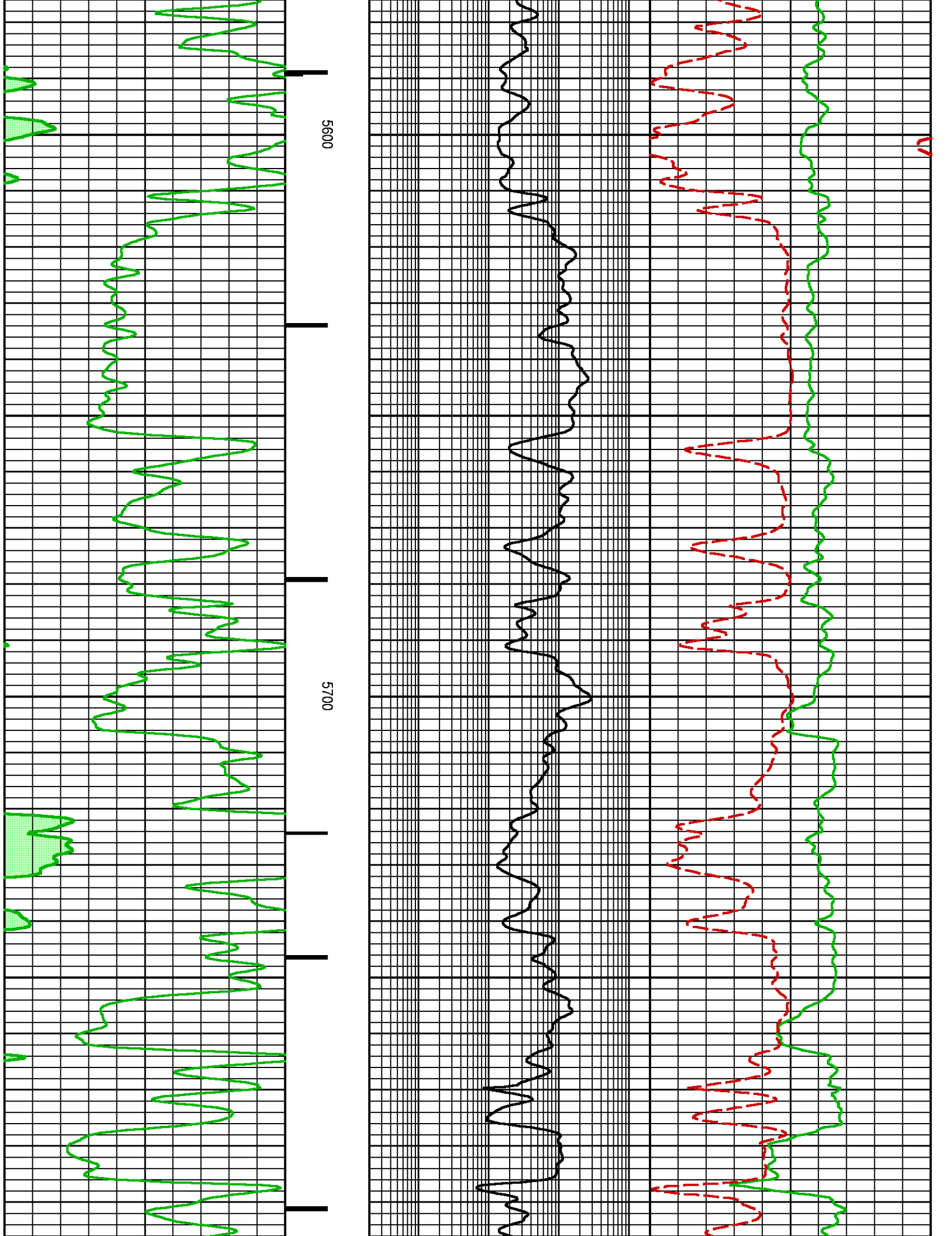


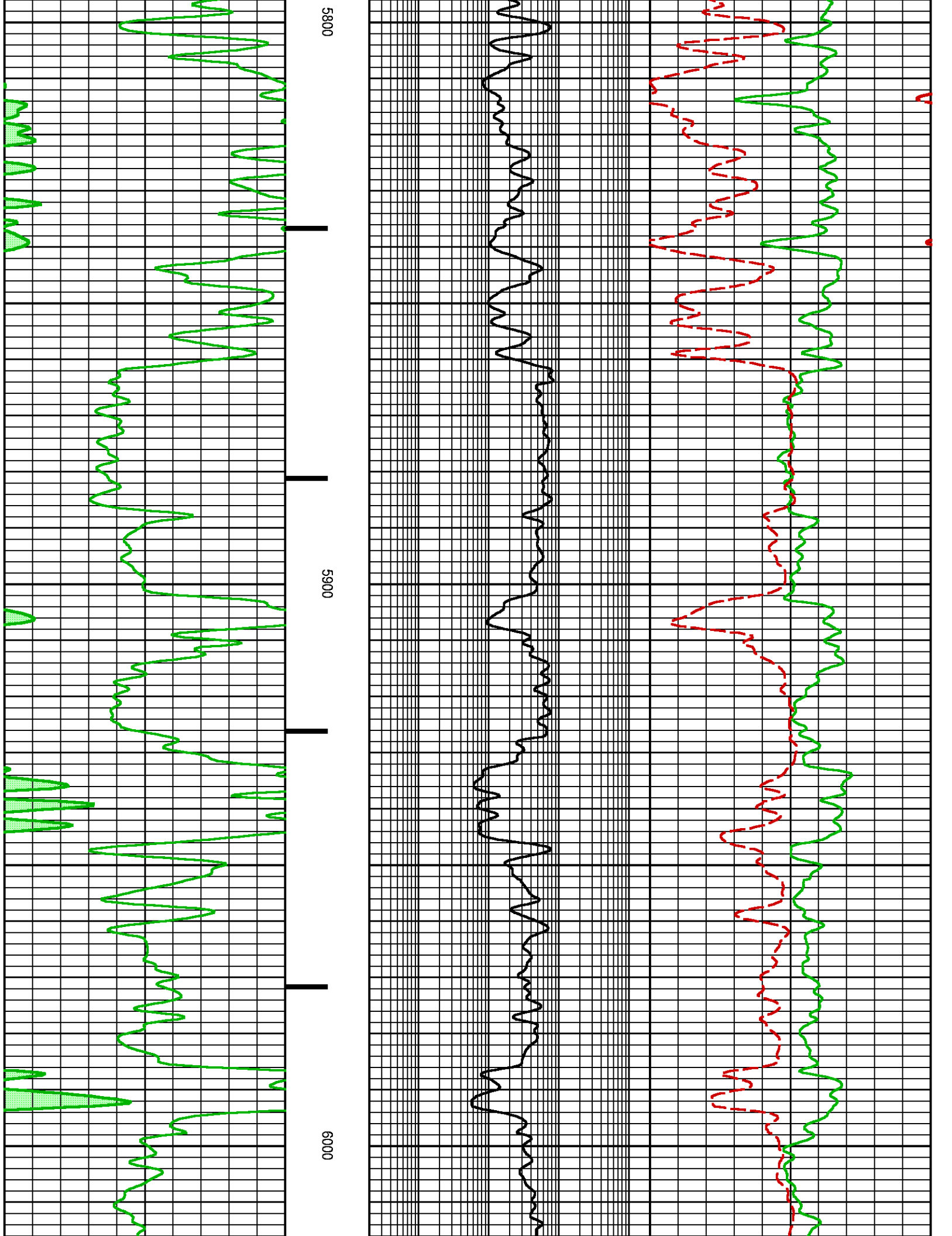


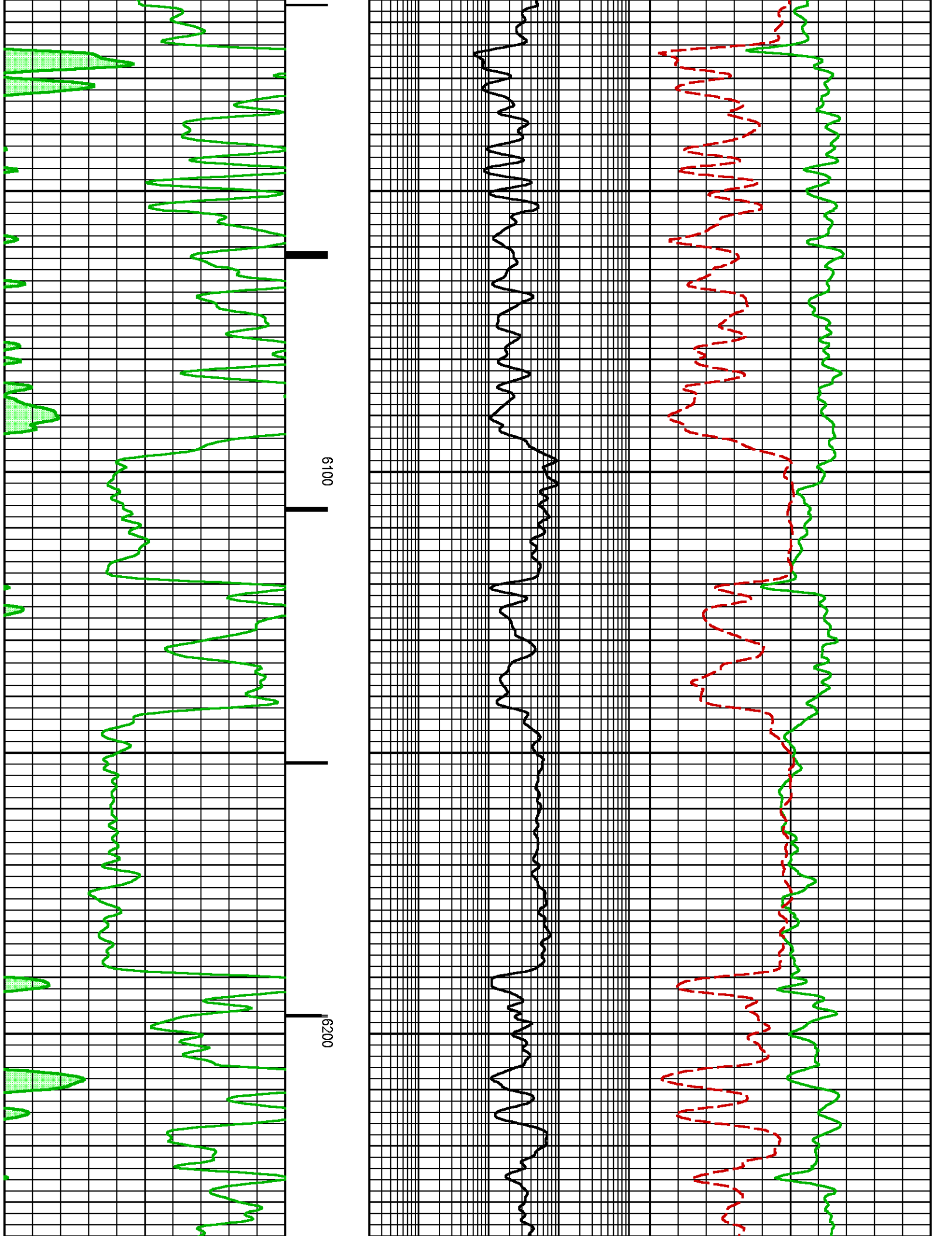


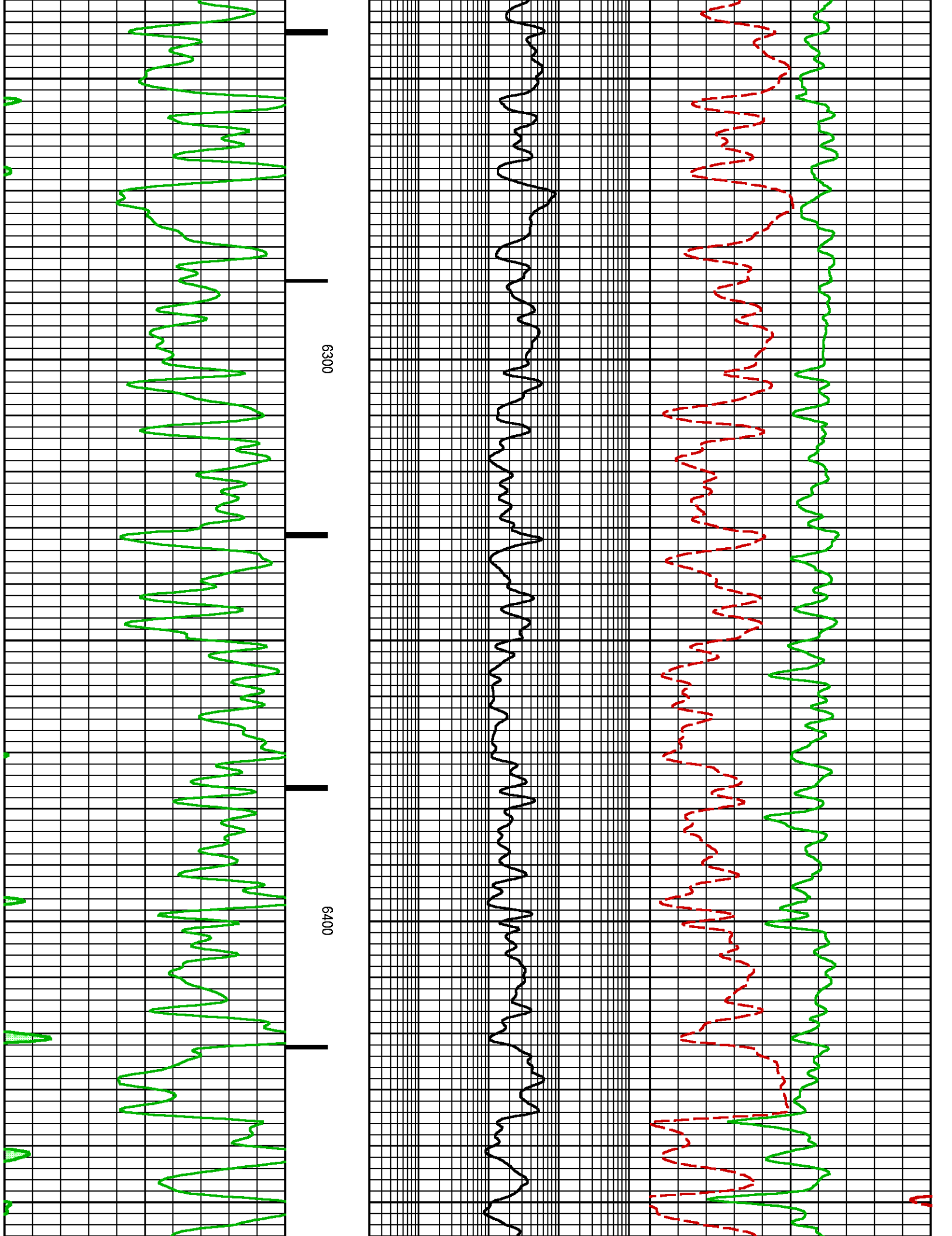




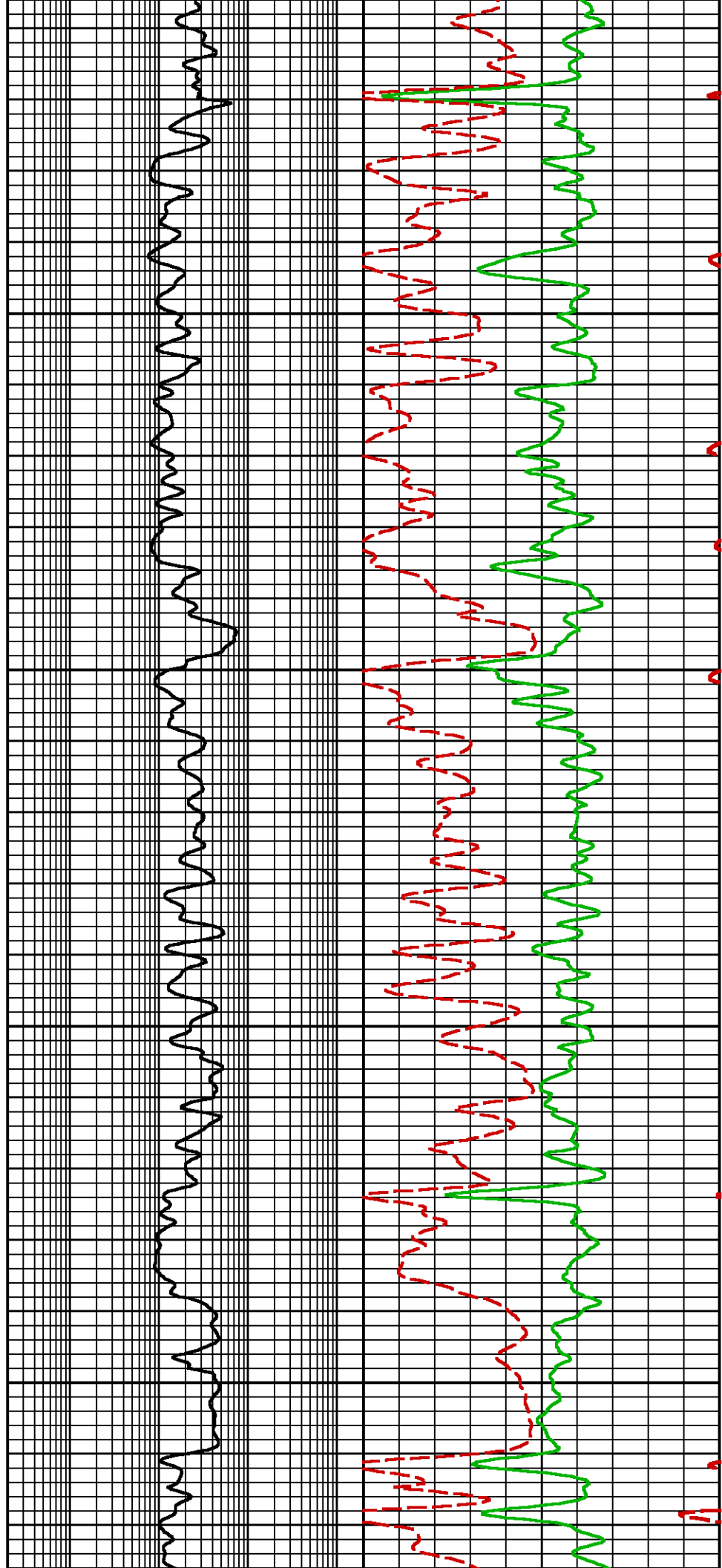
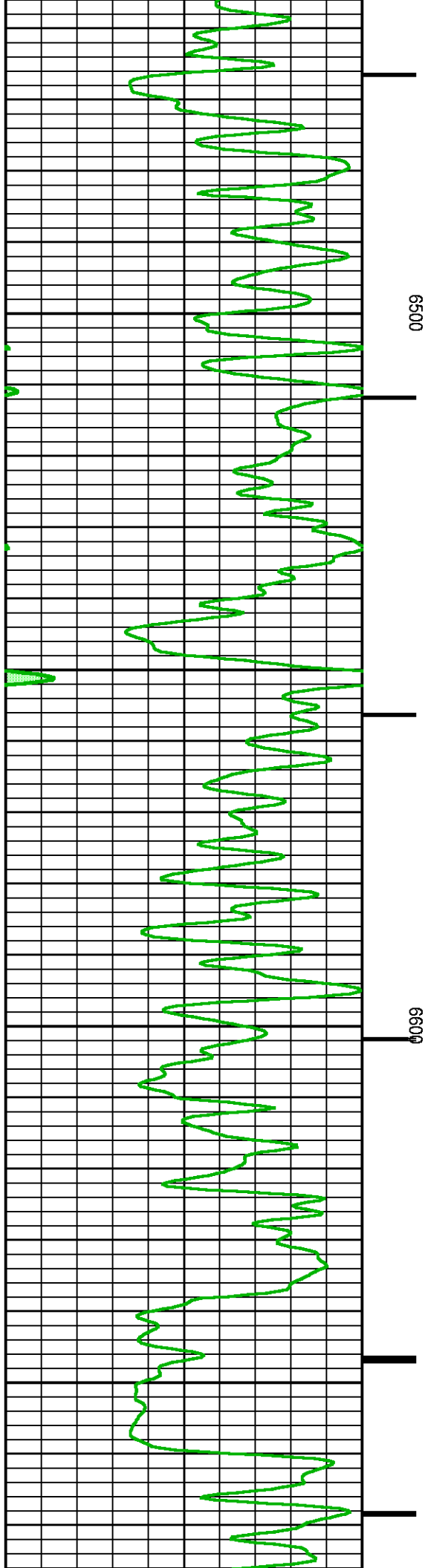


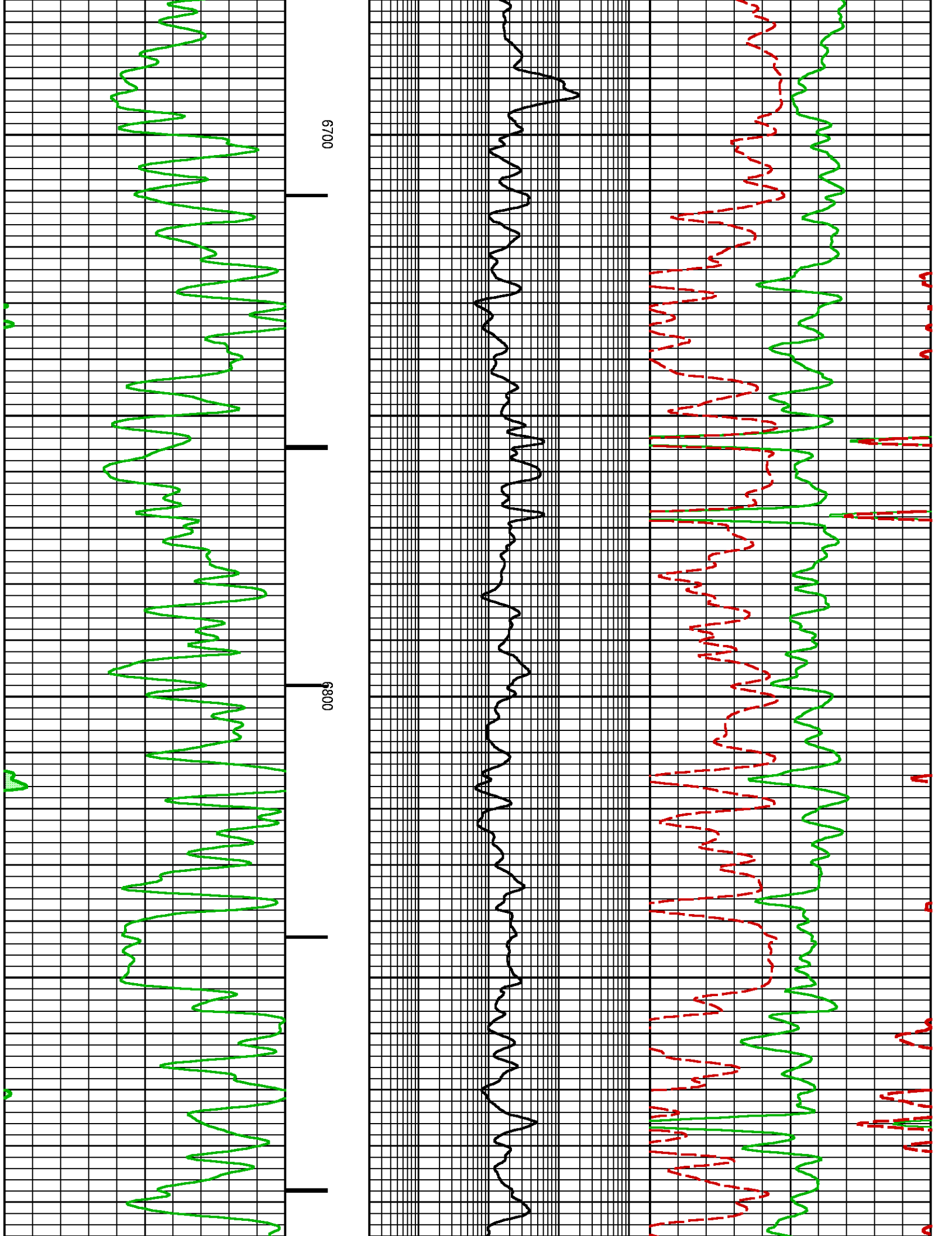


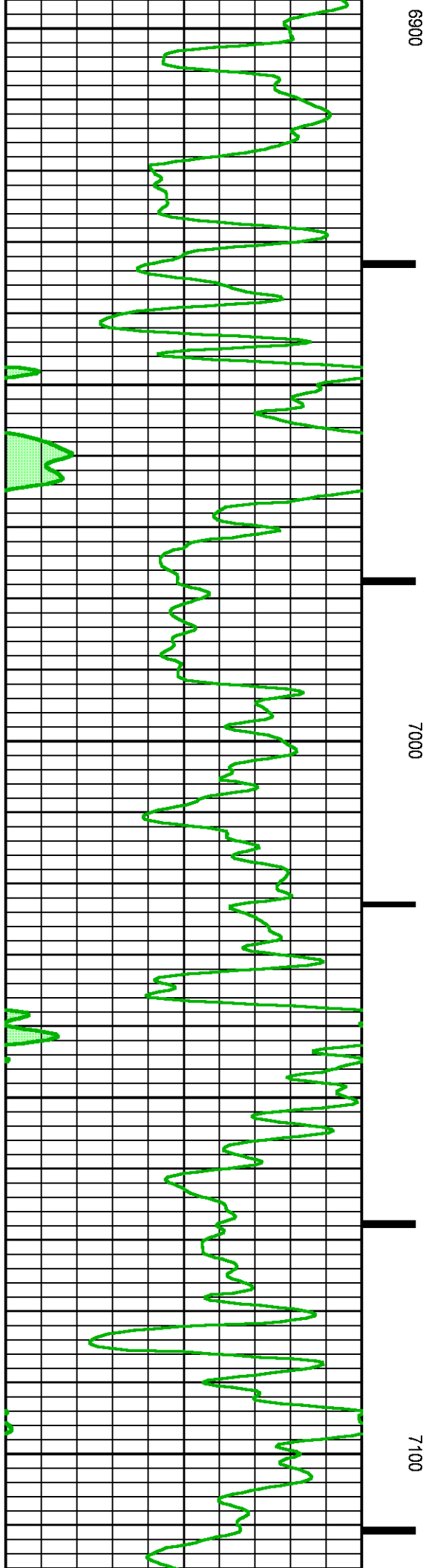
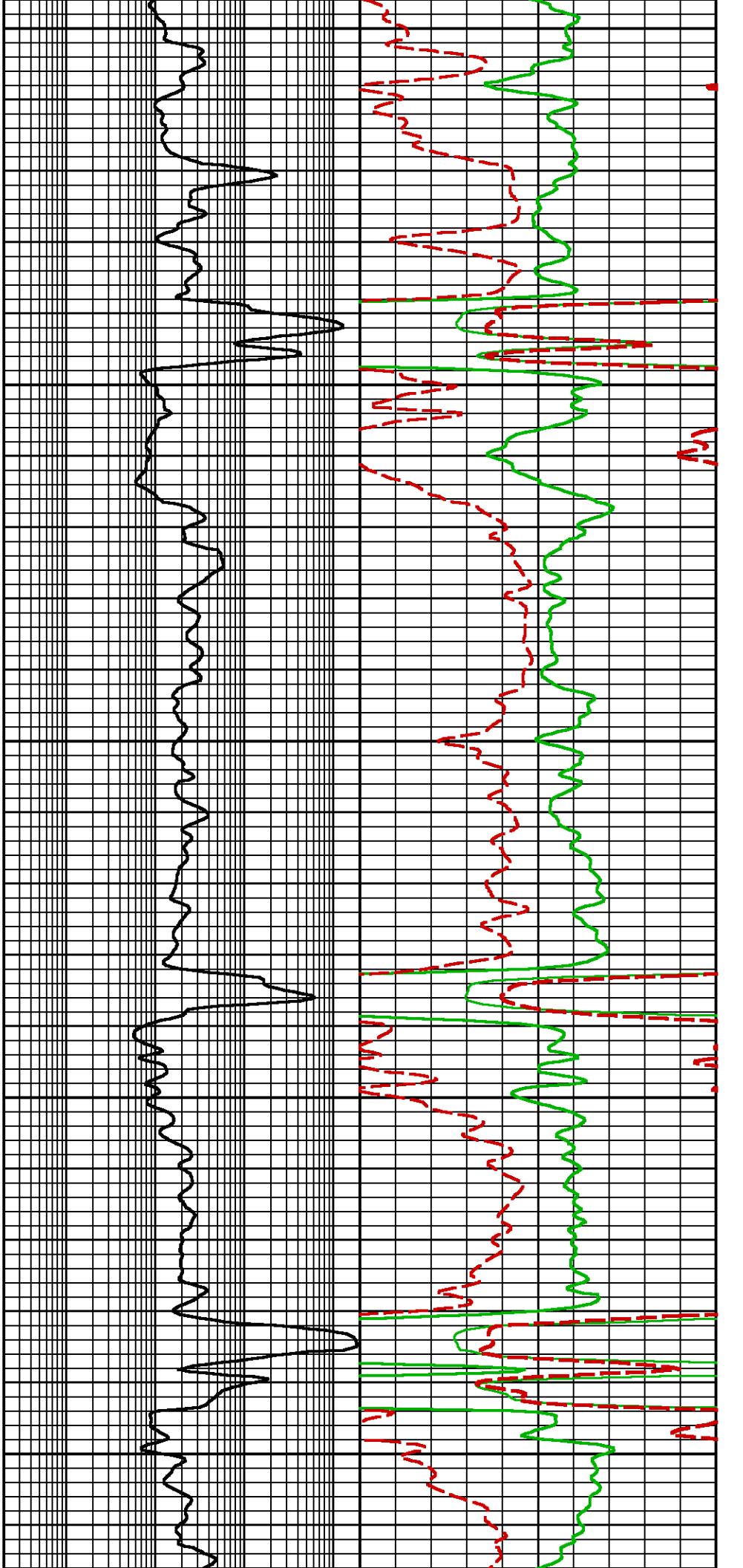


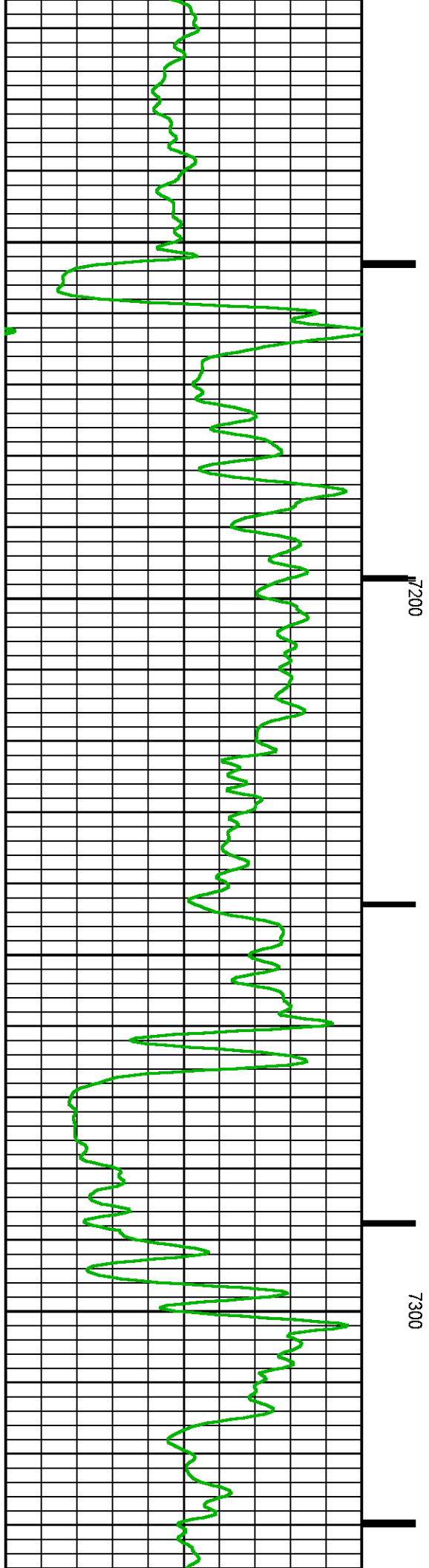
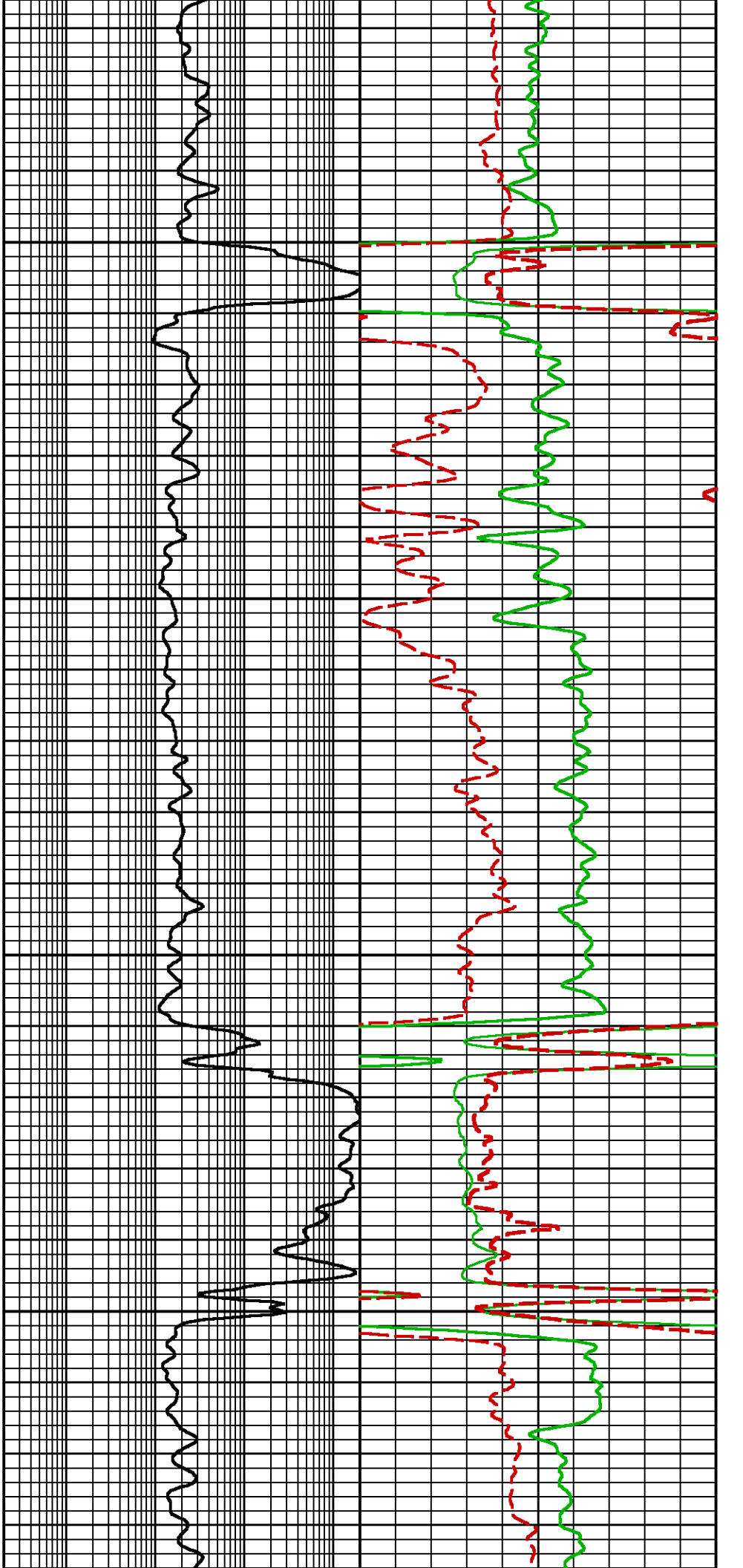


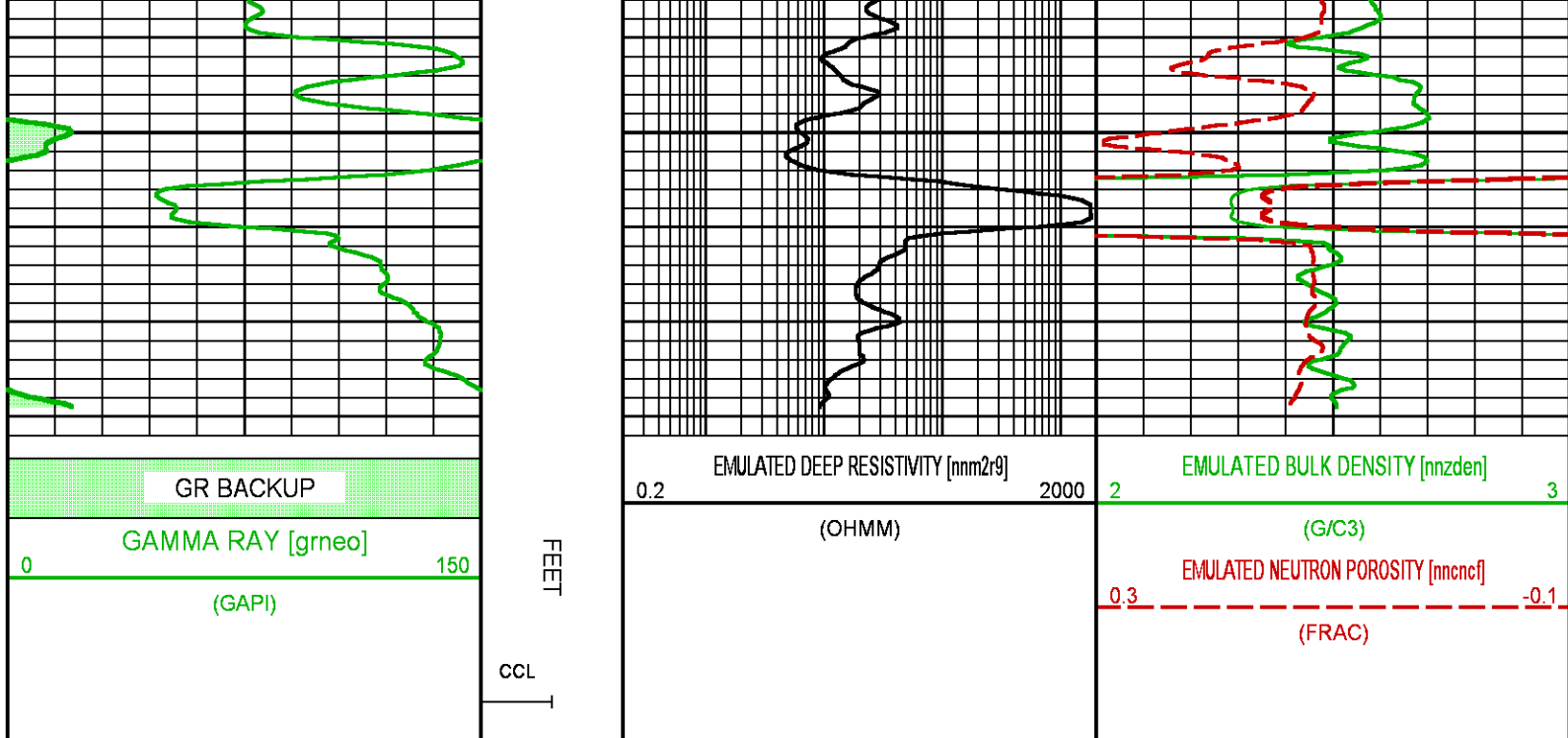



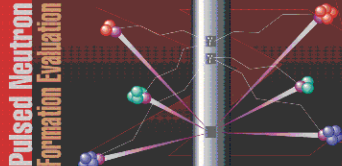










 	<b>COMPANY</b> <u>LARAMIE ENERGY LLC</u> <b>WELL</b> <u>NICHOLS 0994-24-09E</u> <b>FIELD</b> <u>VEGA</u> <b>COUNTY</b> <u>MESA</u> <b>STATE</b> <u>COLORADO</u>	<b>FILE NO:</b> <u>30113-01</u> <b>API NO:</b> <u>05077104100000</u>
	<b>LOCATION:</b> <u>SEE REMARKS SECTION</u>	<b>ELEVATIONS:</b> KB <u>7161.0 FT</u> DF <u>7160.0 FT</u> GL <u>7137.0 FT</u>
<b>SEC</b> <u>24</u> <b>TWP</b> <u>9S</u> <b>RGE</b> <u>94W</u>	<b>DATE</b> <u>23-JAN-2018</u>	