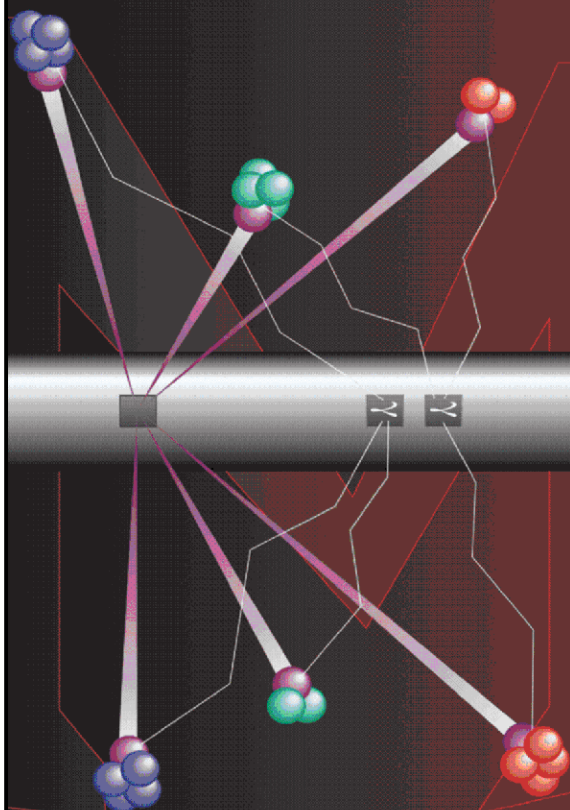




# Pulsed Neutron Formation Evaluation



## NEO Neutron Emulated Openhole

COMPANY LARAMIE ENERGY

WELL PICEANCE FEDERAL 28-04M

FIELD VEGA

COUNTY MESA STATE COLORADO

LOCATION: SEE REMARKS SECTION

SEC 28 TWP 9S RGE 93W

ELEVATIONS:

KB 7578 FT DF GL 7556 FT

DATE 23-OCT-2015 ECC 21033-01

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>HOUSTON GEOSCIENCES</u>	LOG ANALYST: <u>SEB. KAMGANG</u>	DATE: <u>23-OCT-2015</u>
FIELD DATA	LOCATION: <u>GRAND JCT</u>	ENGINEER: <u>NEWELL / US100241</u>	DATE: <u>21-OCT-2015</u>
FROM	TO		
<u>2672 FT</u>	<u>3275 FT</u>		
<u>4942 FT</u>	<u>7960 FT</u>		

### REMARKS

LOCATION:  
SHL: LAT 39.251039 LONG: -107.779486  
BHL: LAT 39.252897 LONG: -107.774506

TRAINING WELL: PICEANCE 28-09W

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

# NEO RESULTS FOR PICEANCE FEDERAL 28-04M (G-SAND)

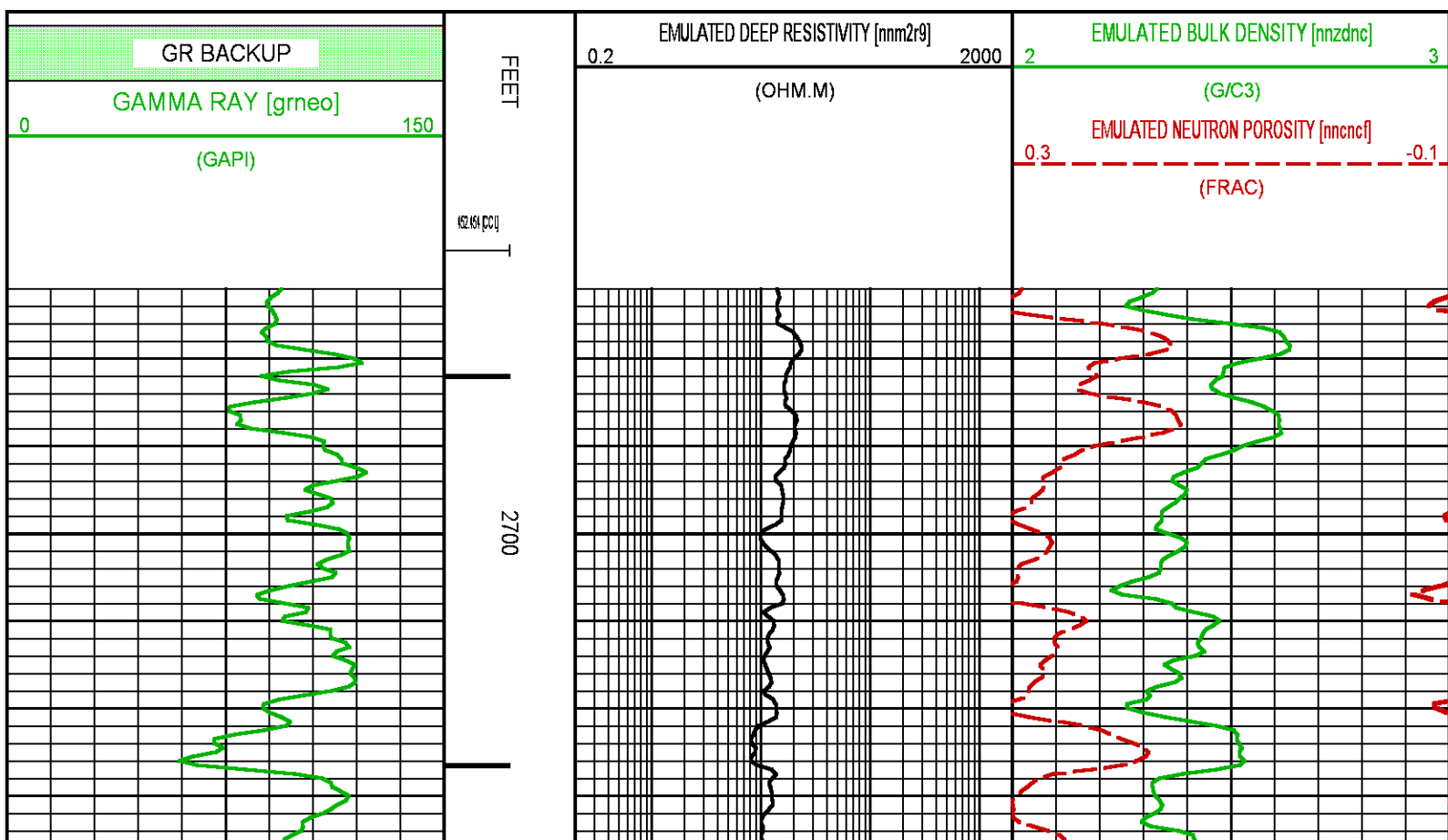
ECLIPS EC PLOT 6.2 ECLIPS Plotting &amp; Post-Processing Mon 11/17/2014 14:36:44.29

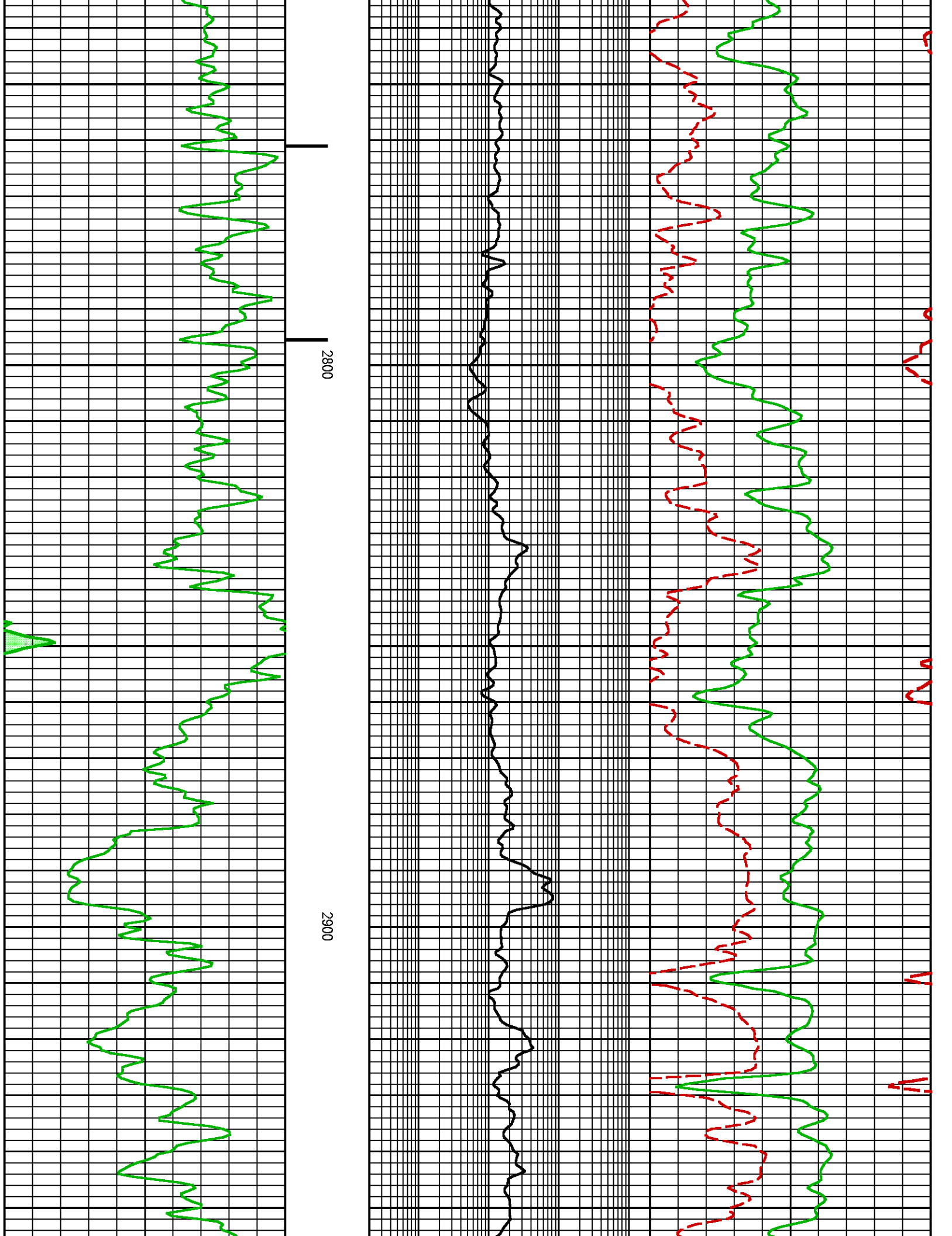
Plotted: Fri Oct 23 14:09:08 2015

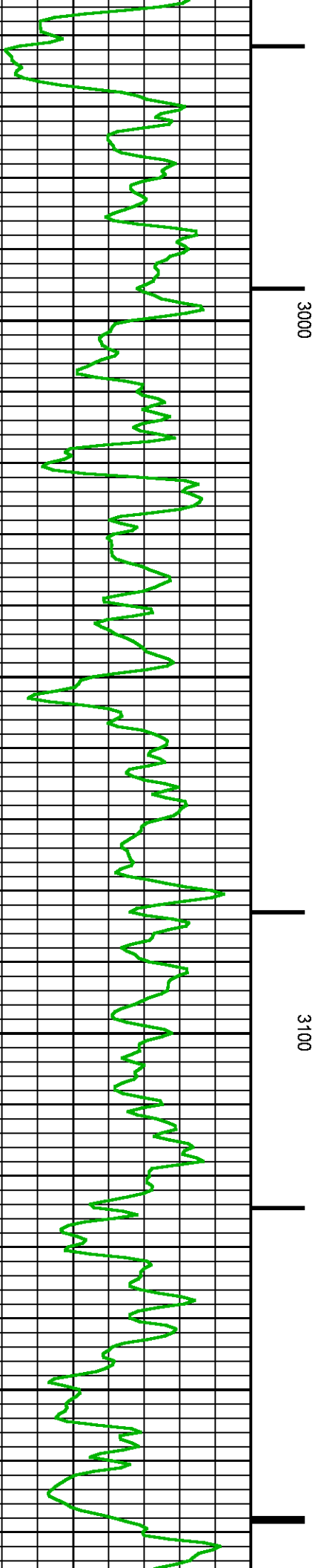
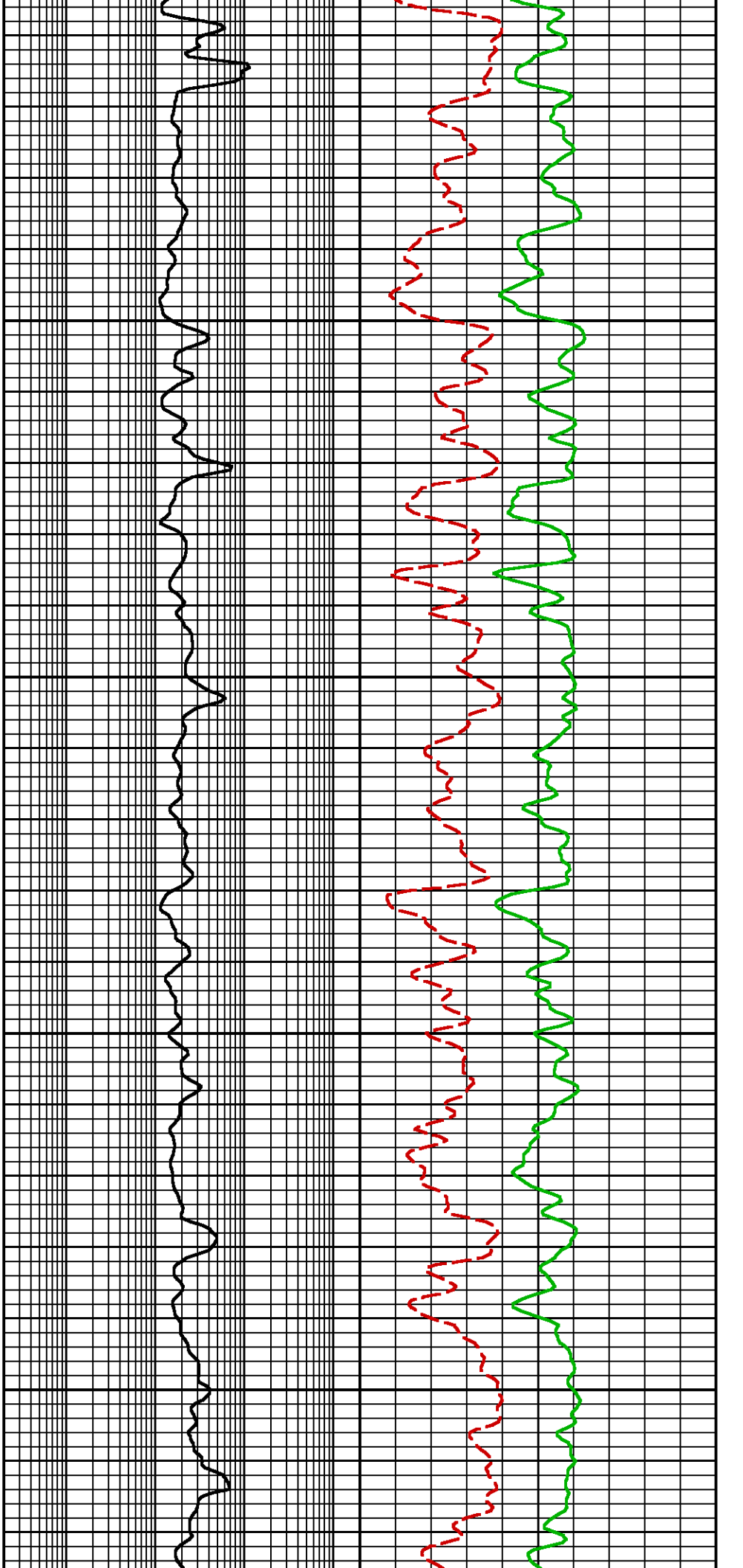
## CURVE MEASURE POINT OFFSET

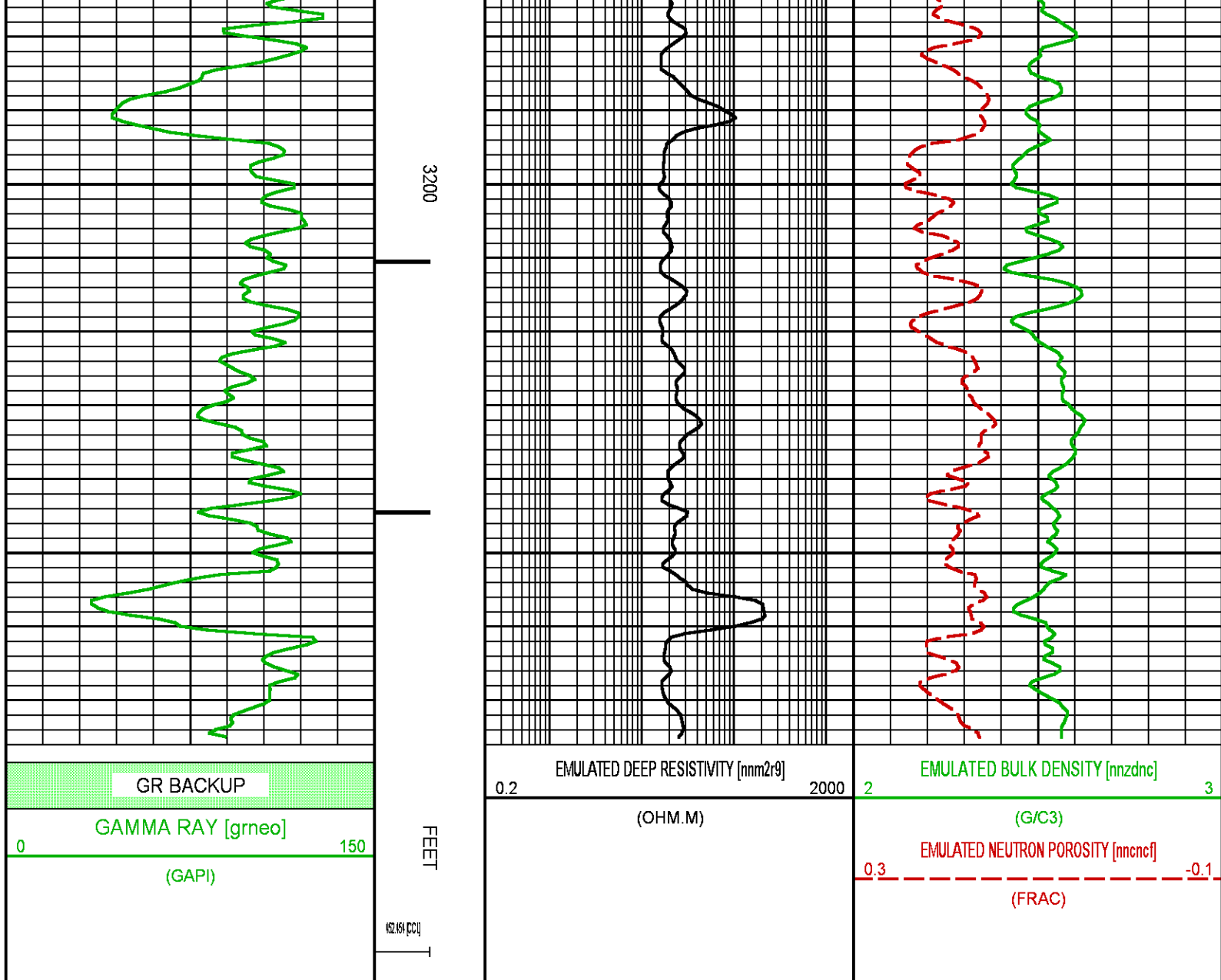
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNC	0.00	NNZDNC	0.00		
GRNEO	0.00	NNM2R9	0.00				

**Project** : NA  
**User** : kamgseb  
**Presentation** : BHIBZG9YY1:E:\Projects\Processing\NEO\LaramiePiceanceFederal2804M\  
                   1NEO\_PRESENTATION+PICEANCE FEDERAL 28-04M\_Merged\_Set\_Final.fvpdf [5"/100' Scale]  
**Plot Interval** : 2672 - 3275 Feet  
  
**Data File 1** : F1 : BHIBZG9YY1:E:\Projects\Processing\NEO\LaramiePiceanceFederal2804M\  
                   PICEANCE FEDERAL 28-04M\_Merged\_Set\_Final.xtf  
**Created On** : Oct 23 14:03:07 2015  
**Company** : LARAMIE ENERGY  
**Well** : PICEANCE FEDERAL 28-04M  
**Field** : VEGA  
**File Interval** : 2670 - 7962 Feet  
**OCT** : NA









## NEO RESULTS FOR PICEANCE FEDERAL 28-04M (MAIN)

ECLIPS EC PLOT 6.2 ECLIPS Plotting & Post-Processing Mon 11/17/2014 14:36:44.29

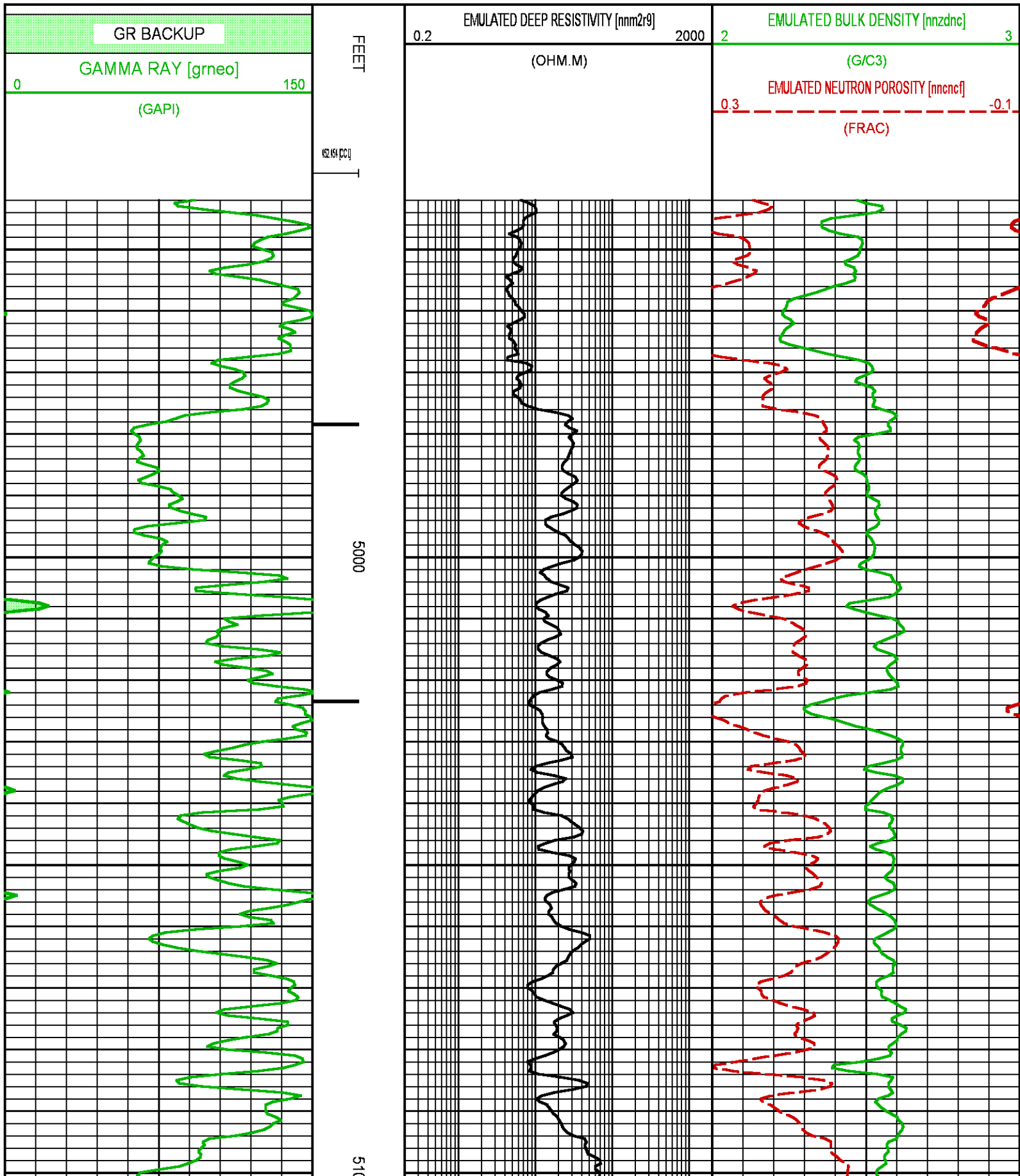
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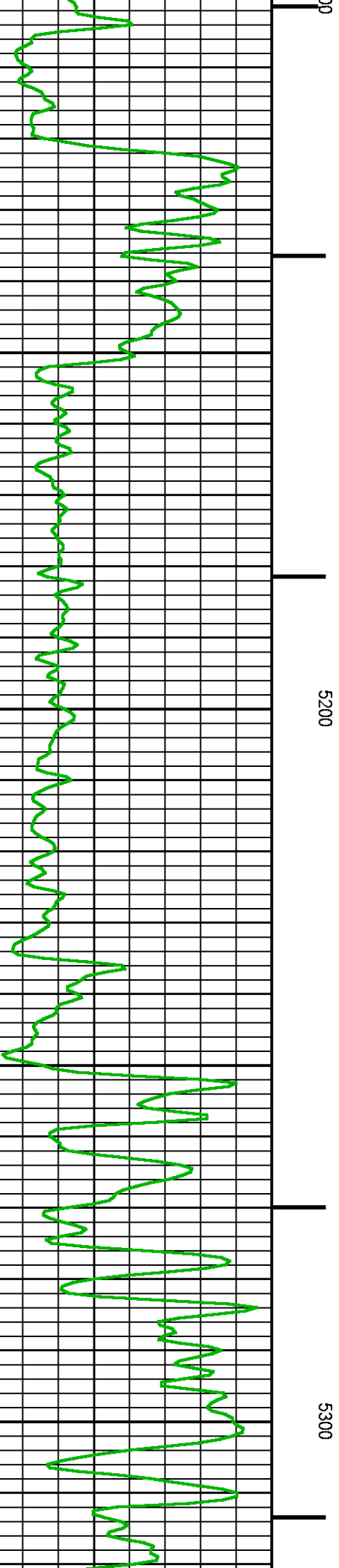
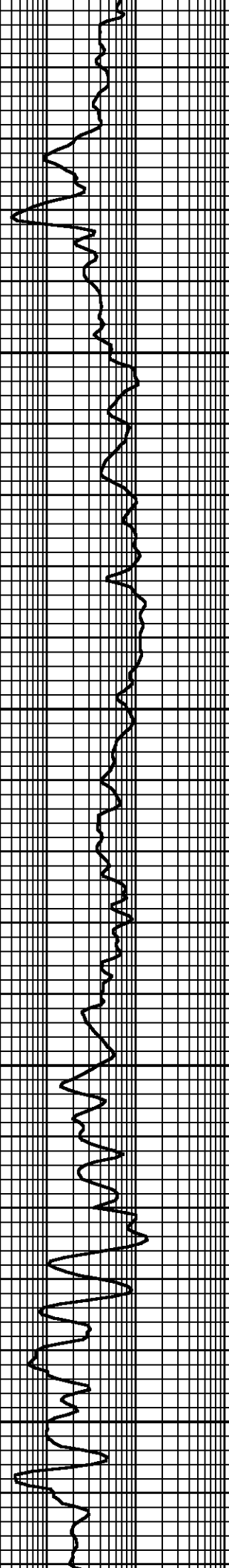
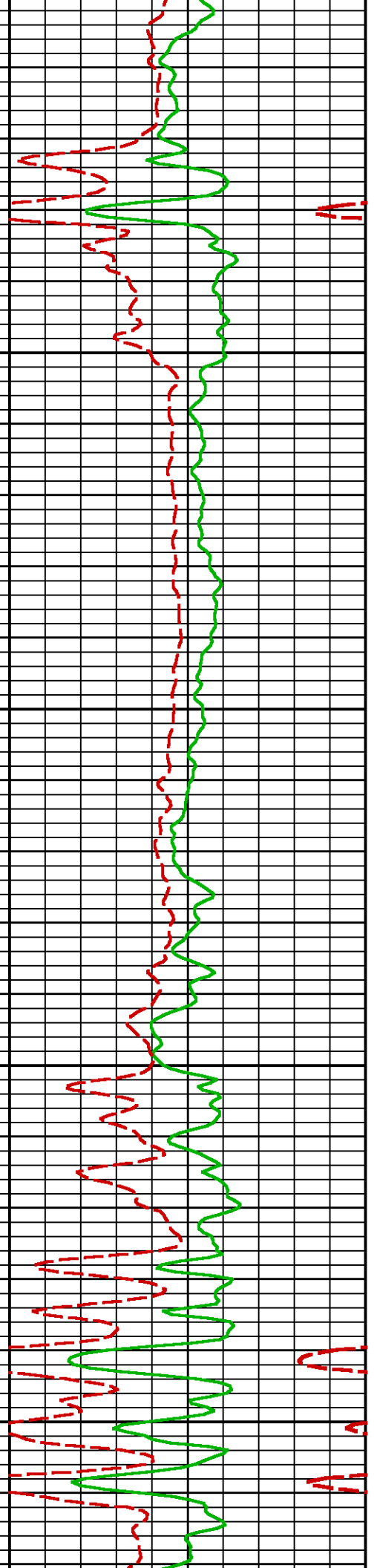
### CURVE MEASURE POINT OFFSET

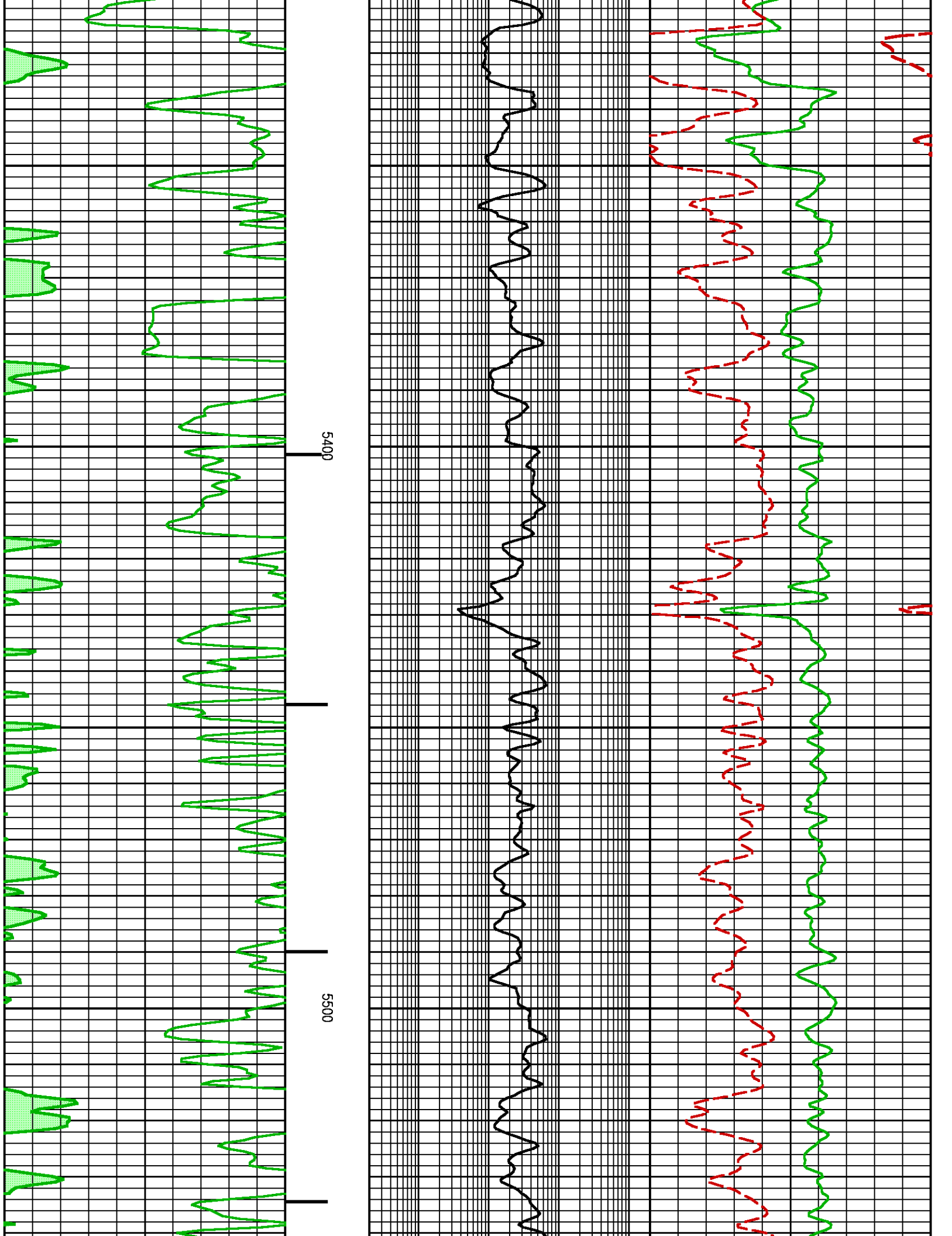
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNC	0.00	NNZDNC	0.00		
GRNEO	0.00	NNM2R9	0.00				

Project : NA  
 User : kamgseb  
 Presentation : BHIBZG9YY1:E:\Projects\Processing\NEO\LaramiePiceanceFederal2804M\2NEO\_PRESENTATION+PICEANCE FEDERAL 28-04M\_Merged\_Set\_Final.fvpdf [5"/100' Scale]  
 Plot Interval : 4942 - 7960 Feet

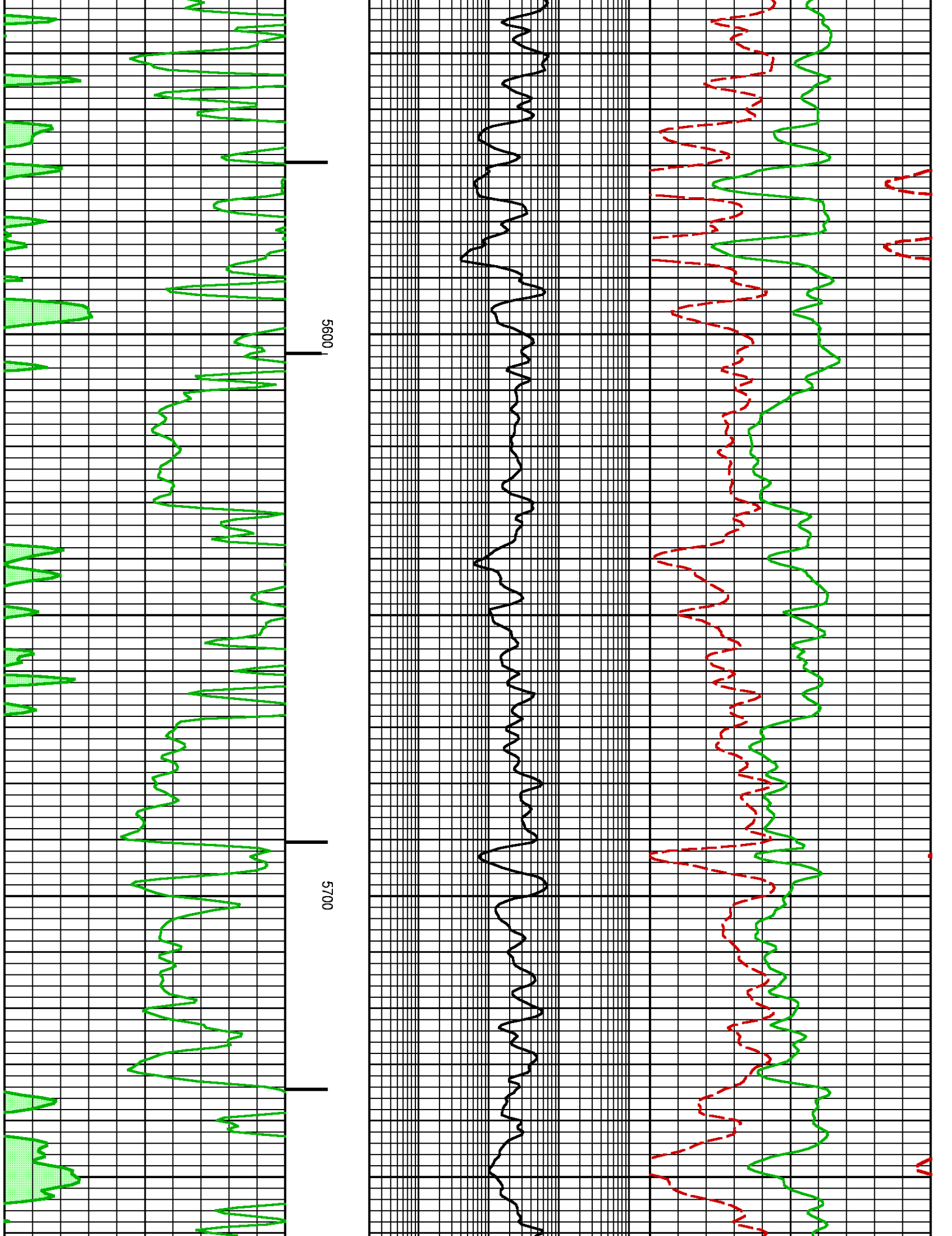
File Interval : 1012 - 7962 Feet  
Data File 1 : F1 : BHIBZG9YY1:E:\Projects\Processing\NEO\LaramiePiceanceFederal2804M\  
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Created On : Oct 23 14:03:07 2015  
Company : LARAMIE ENERGY  
Well : PICEANCE FEDERAL 28-04M  
Field : VEGA  
File Interval : 2670 - 7962 Feet  
OCT : NA

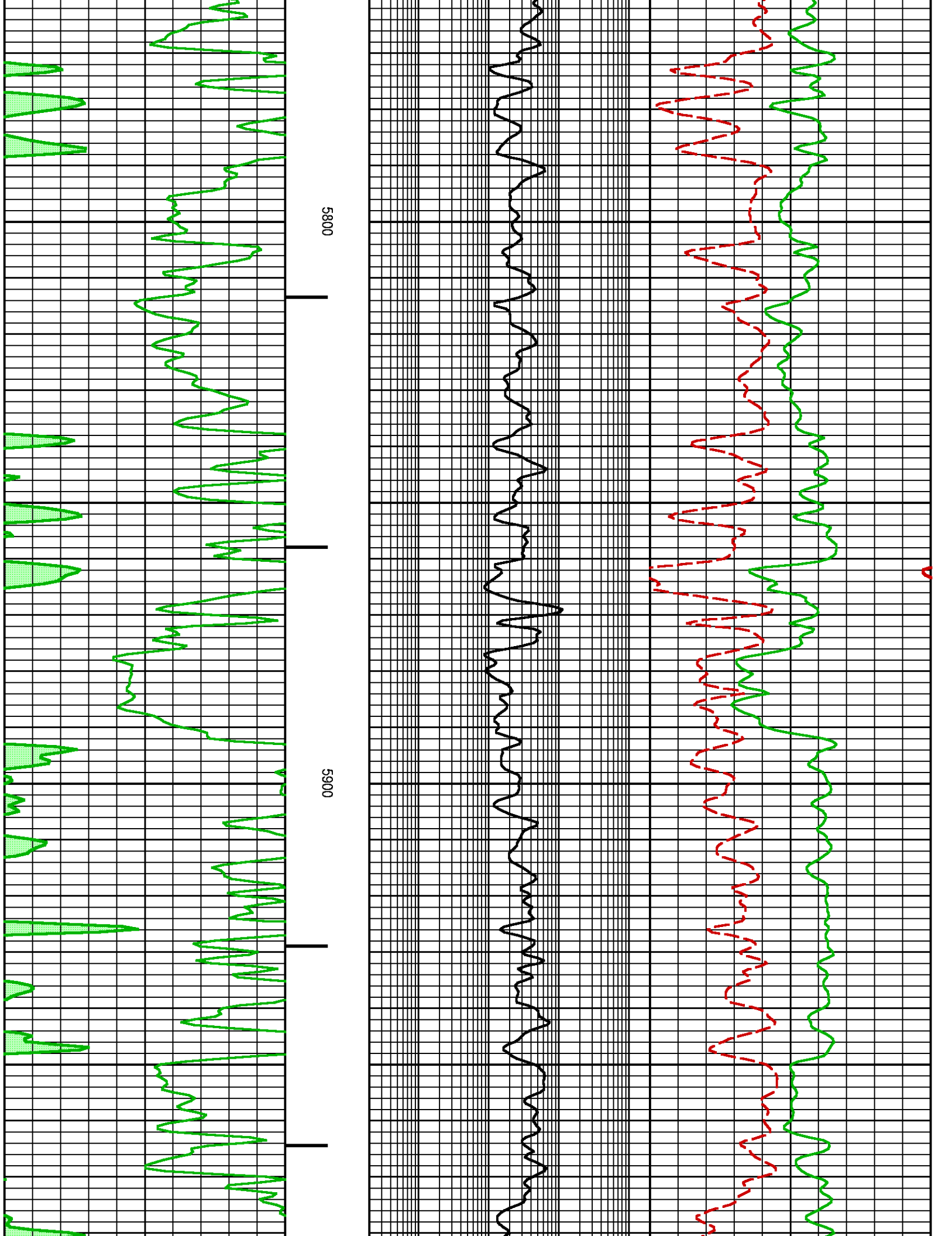


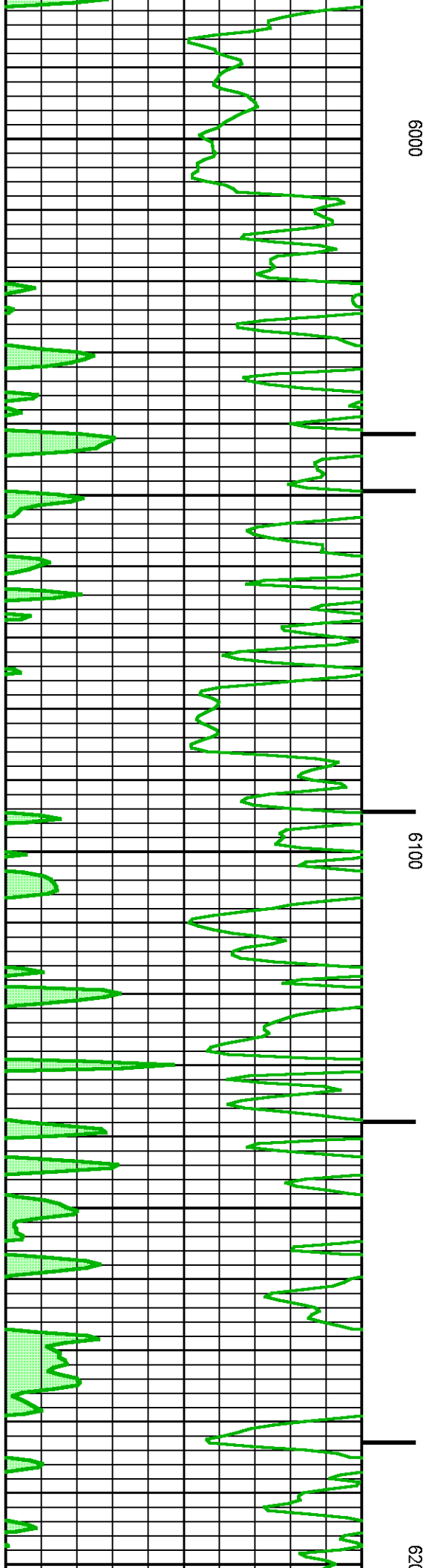
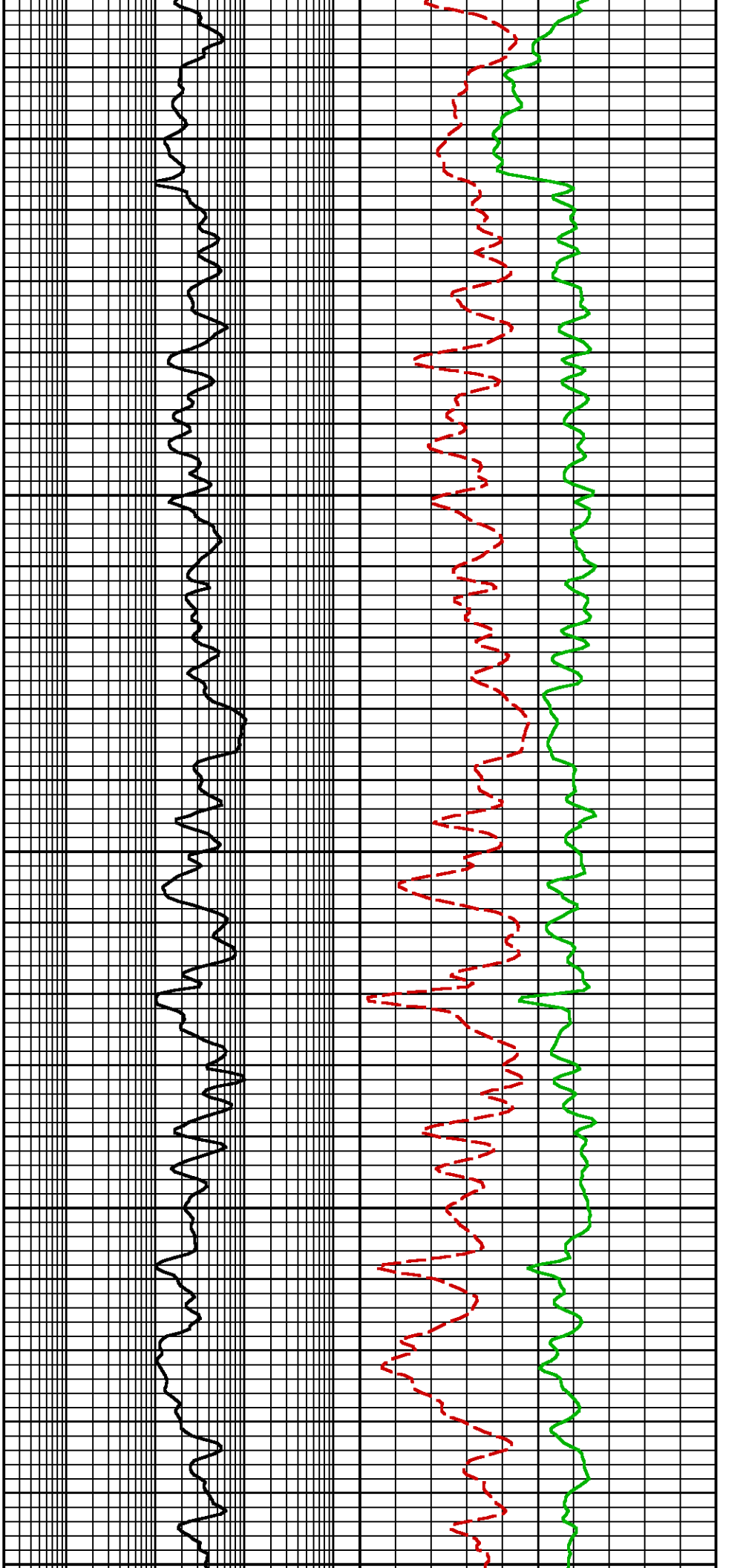


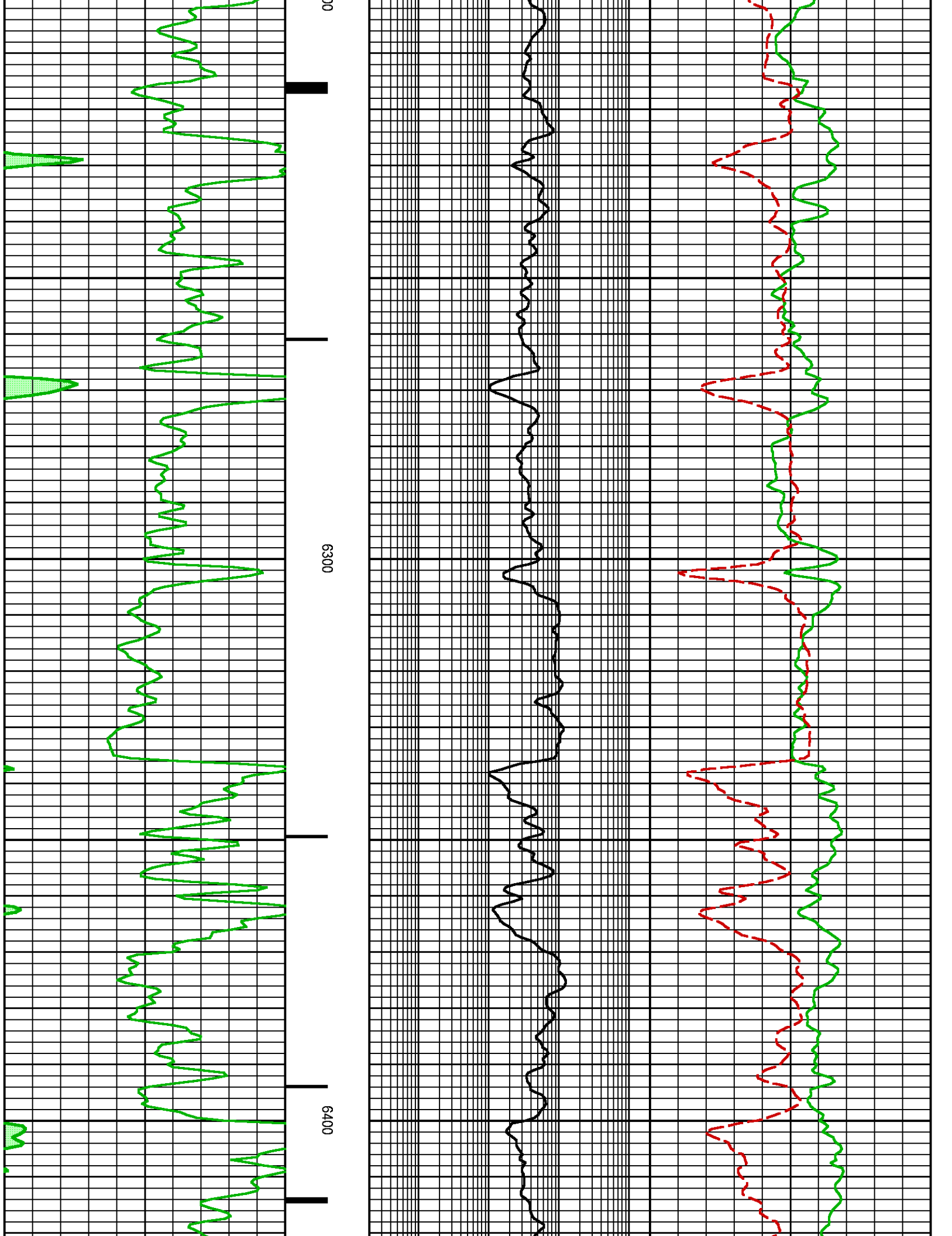


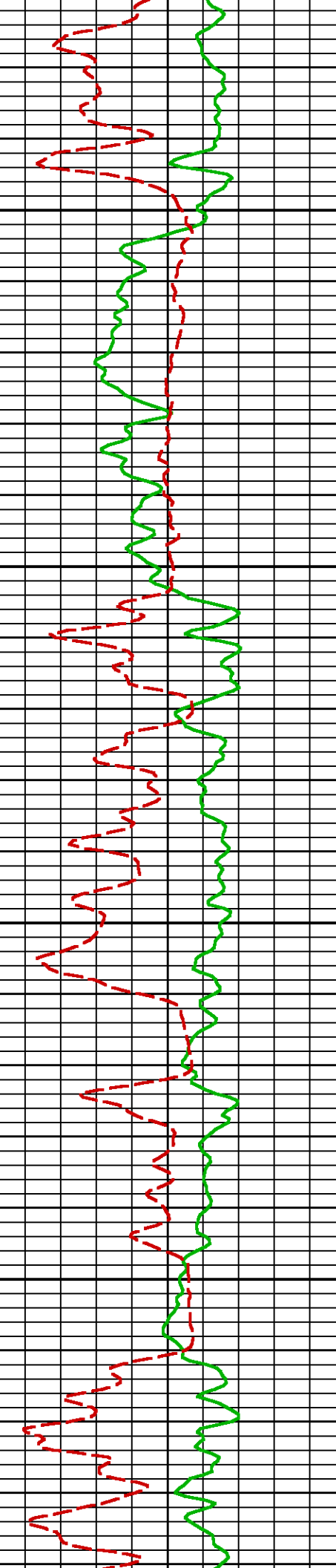
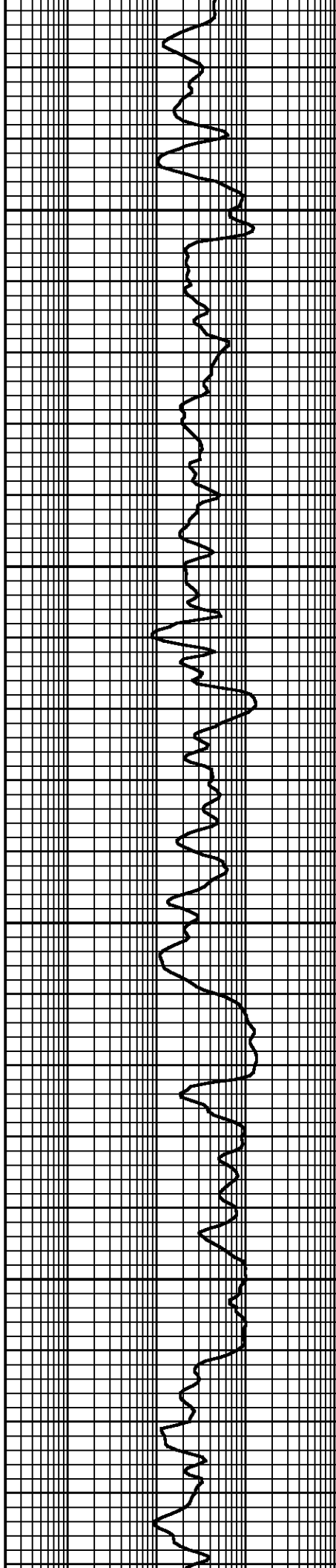
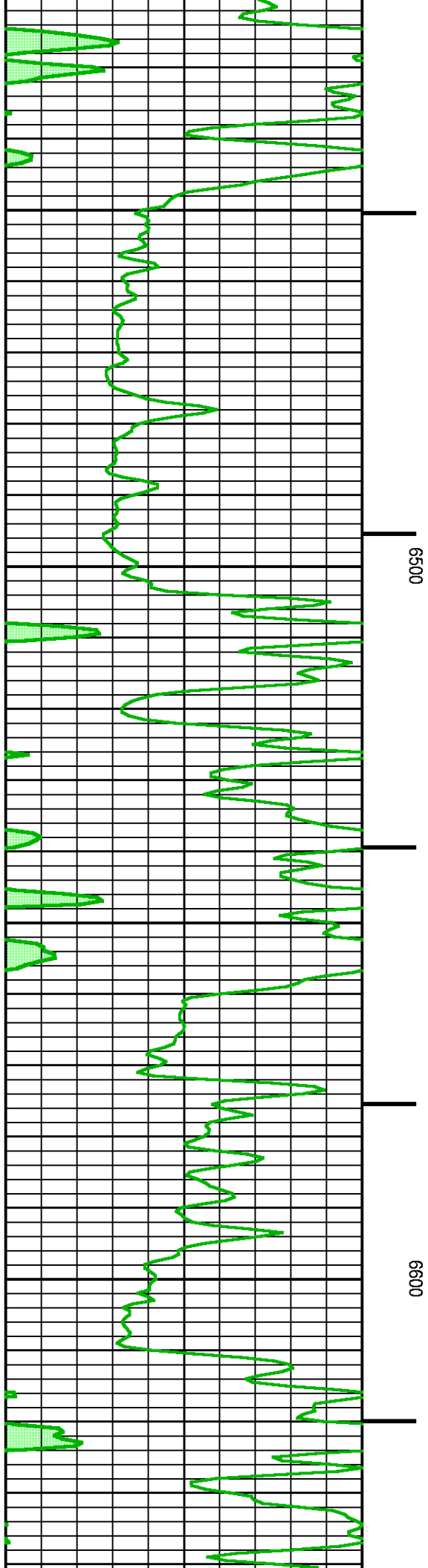


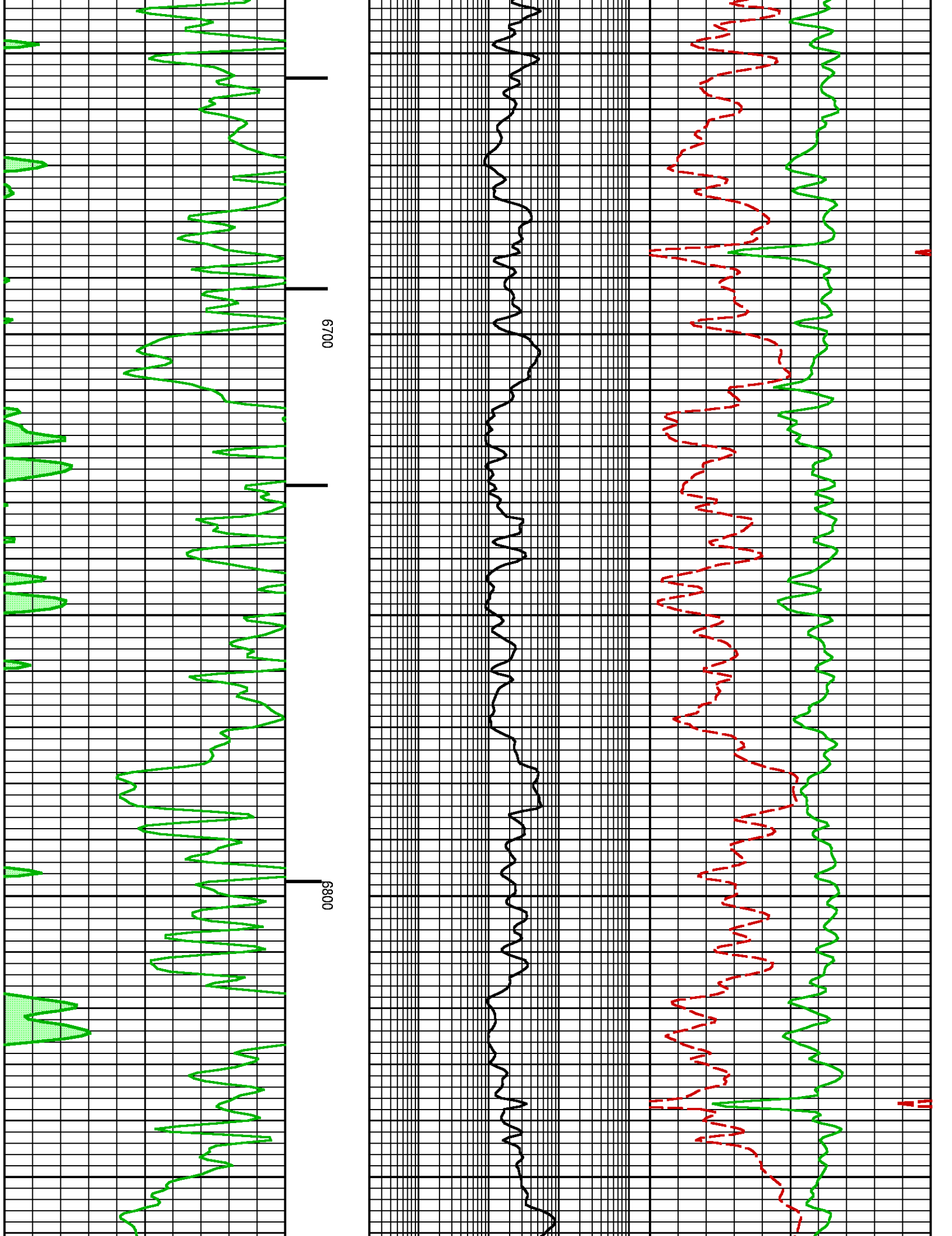


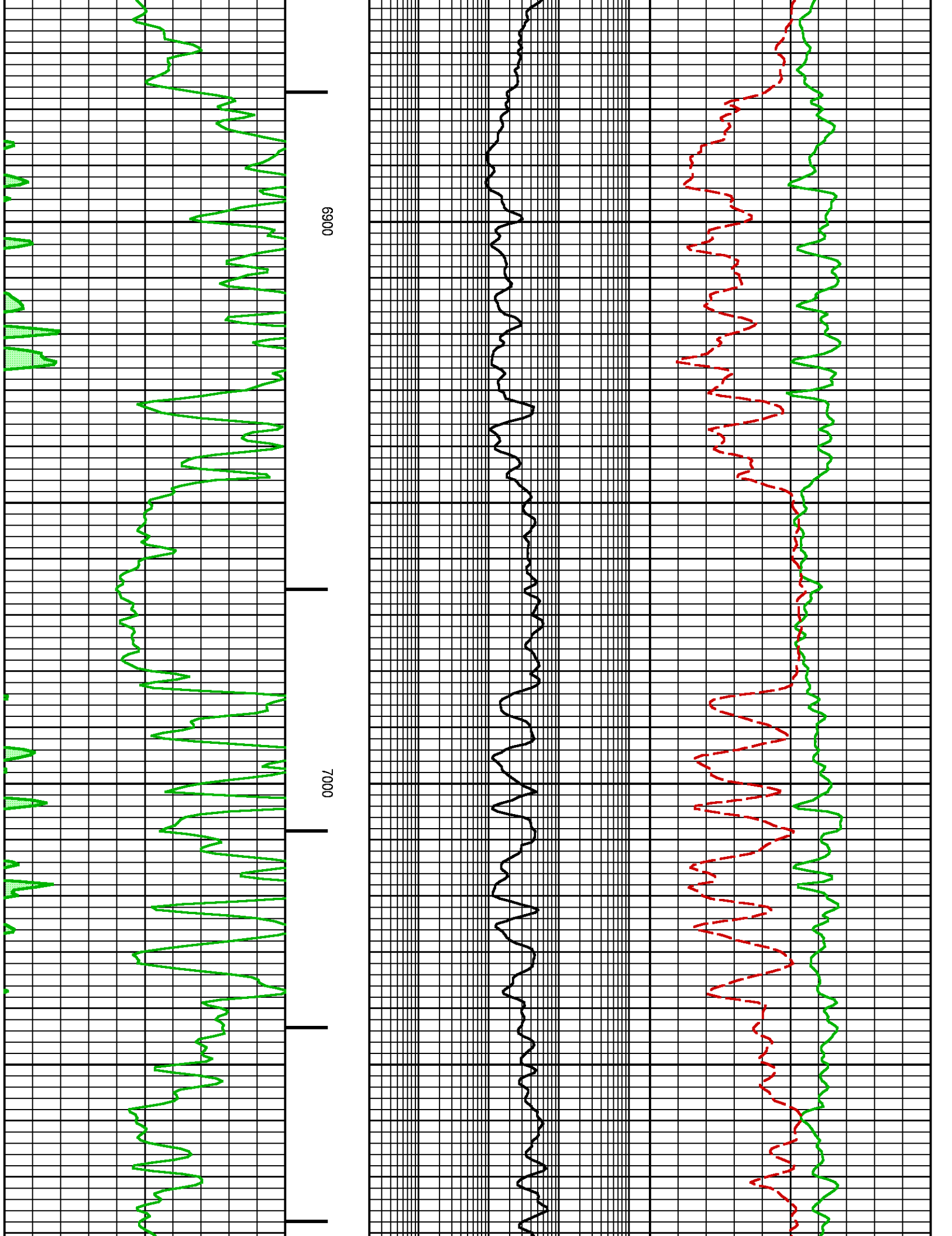


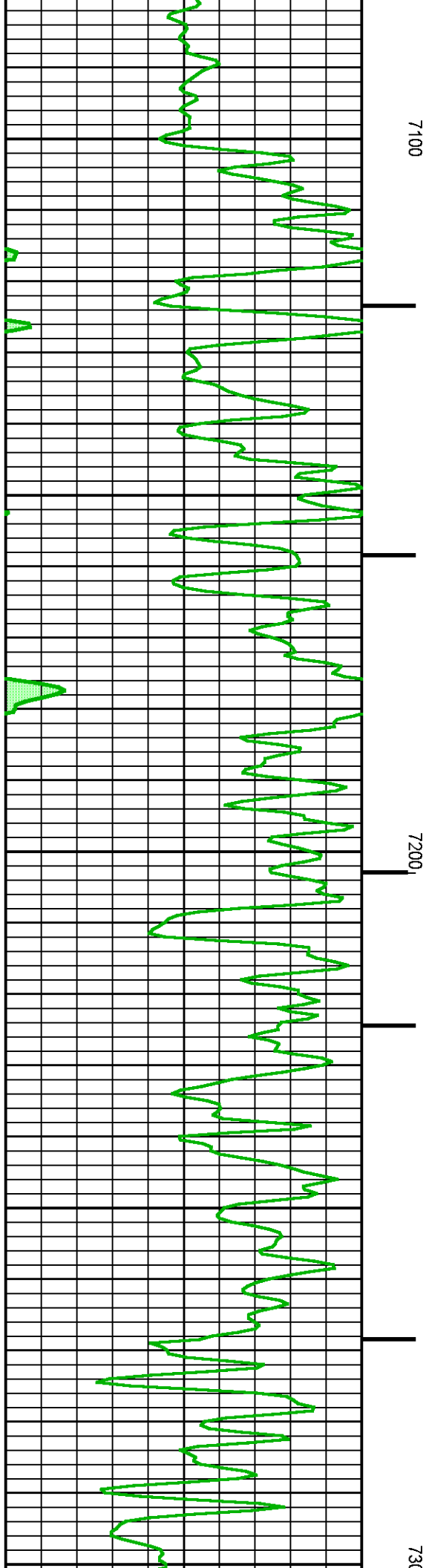
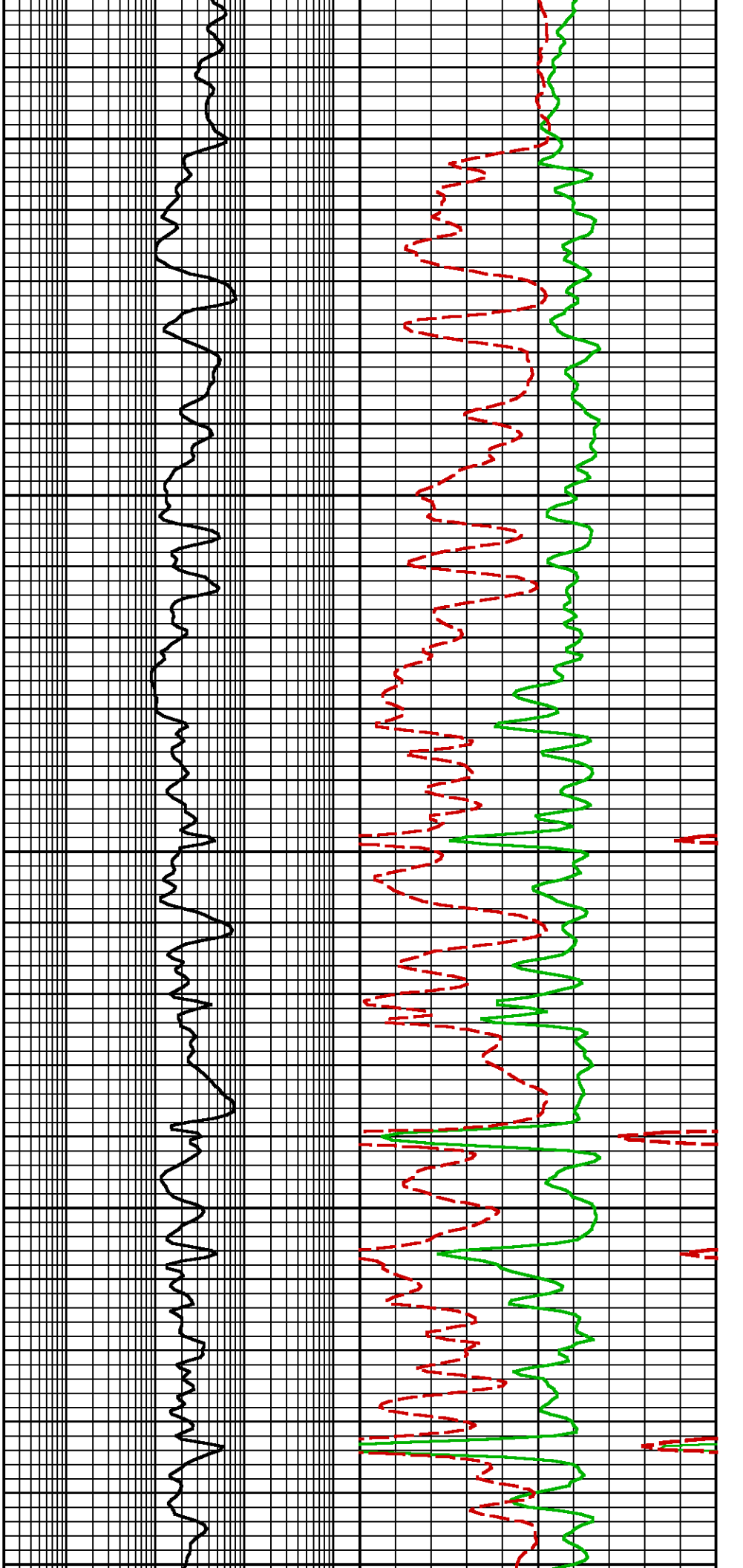




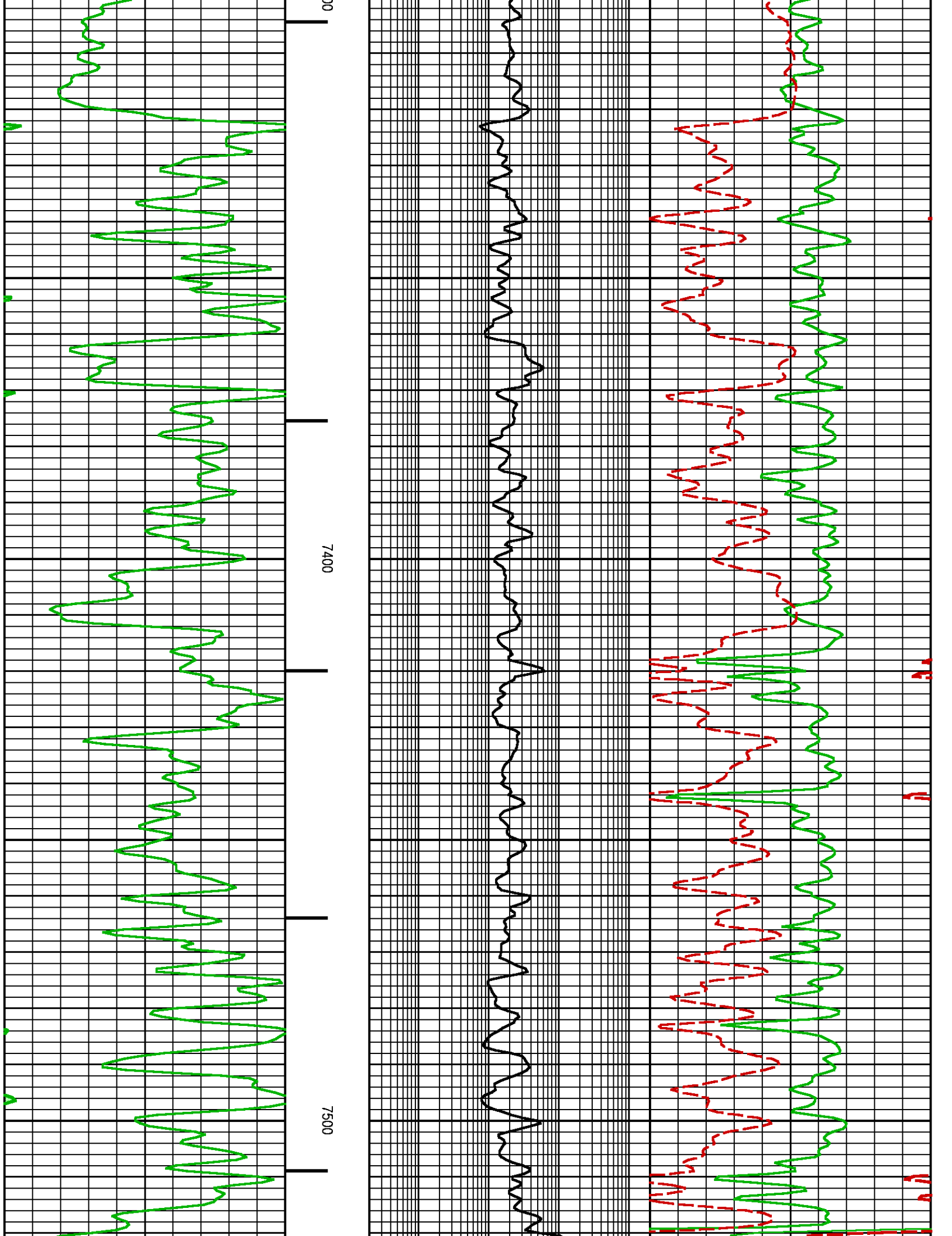


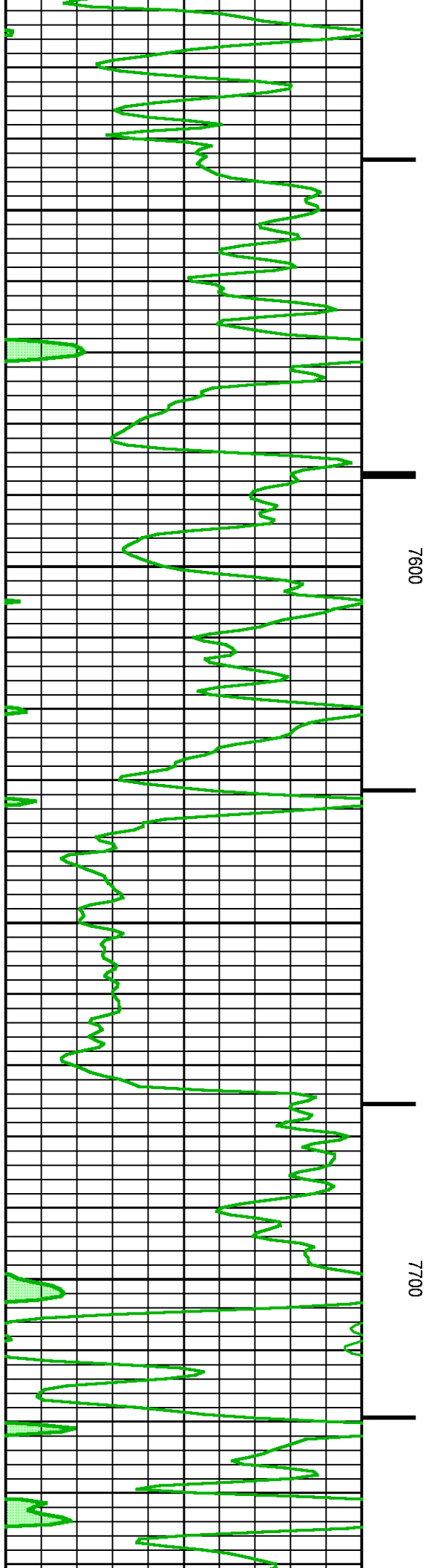
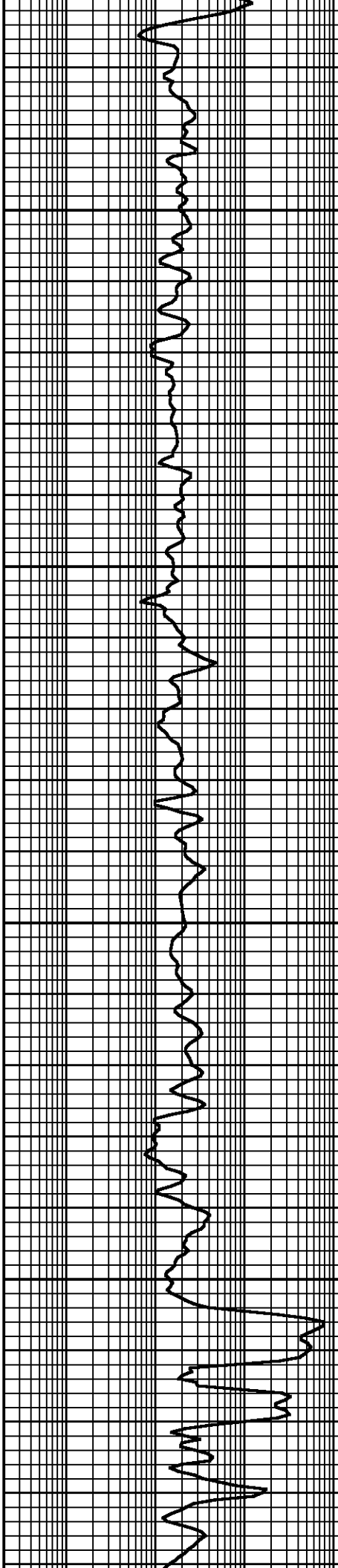
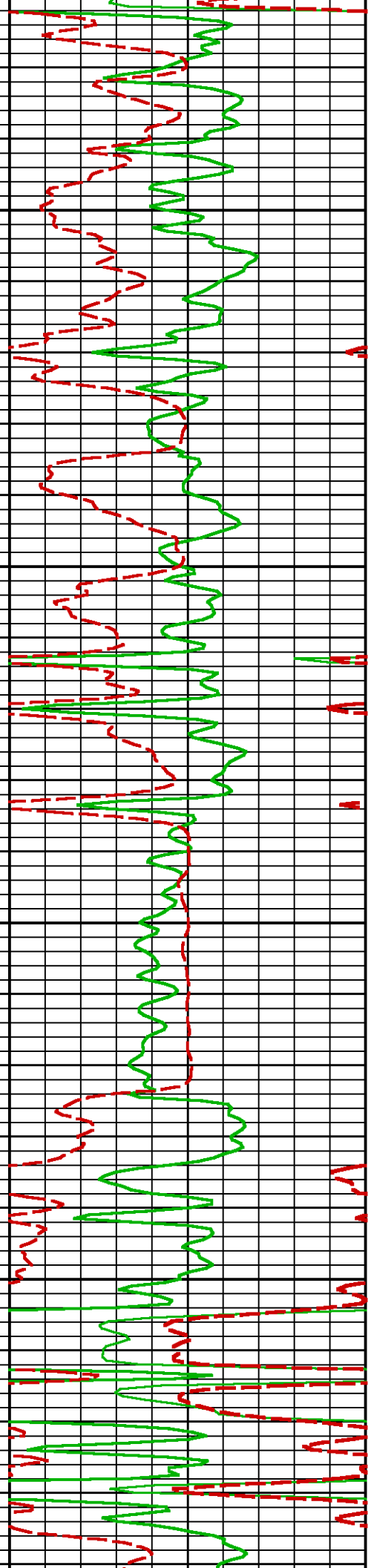


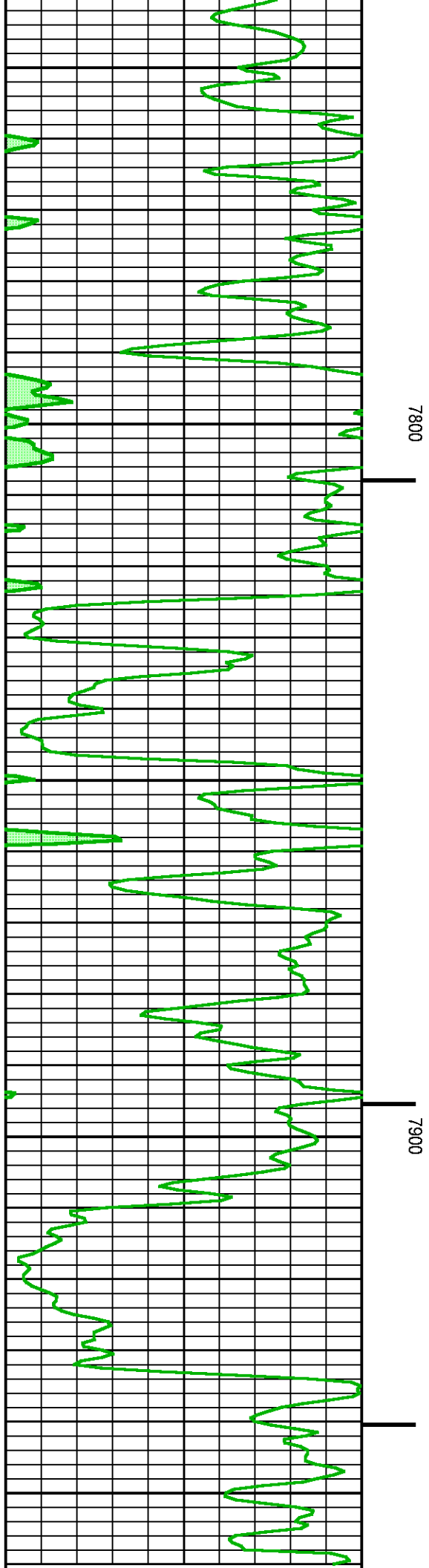
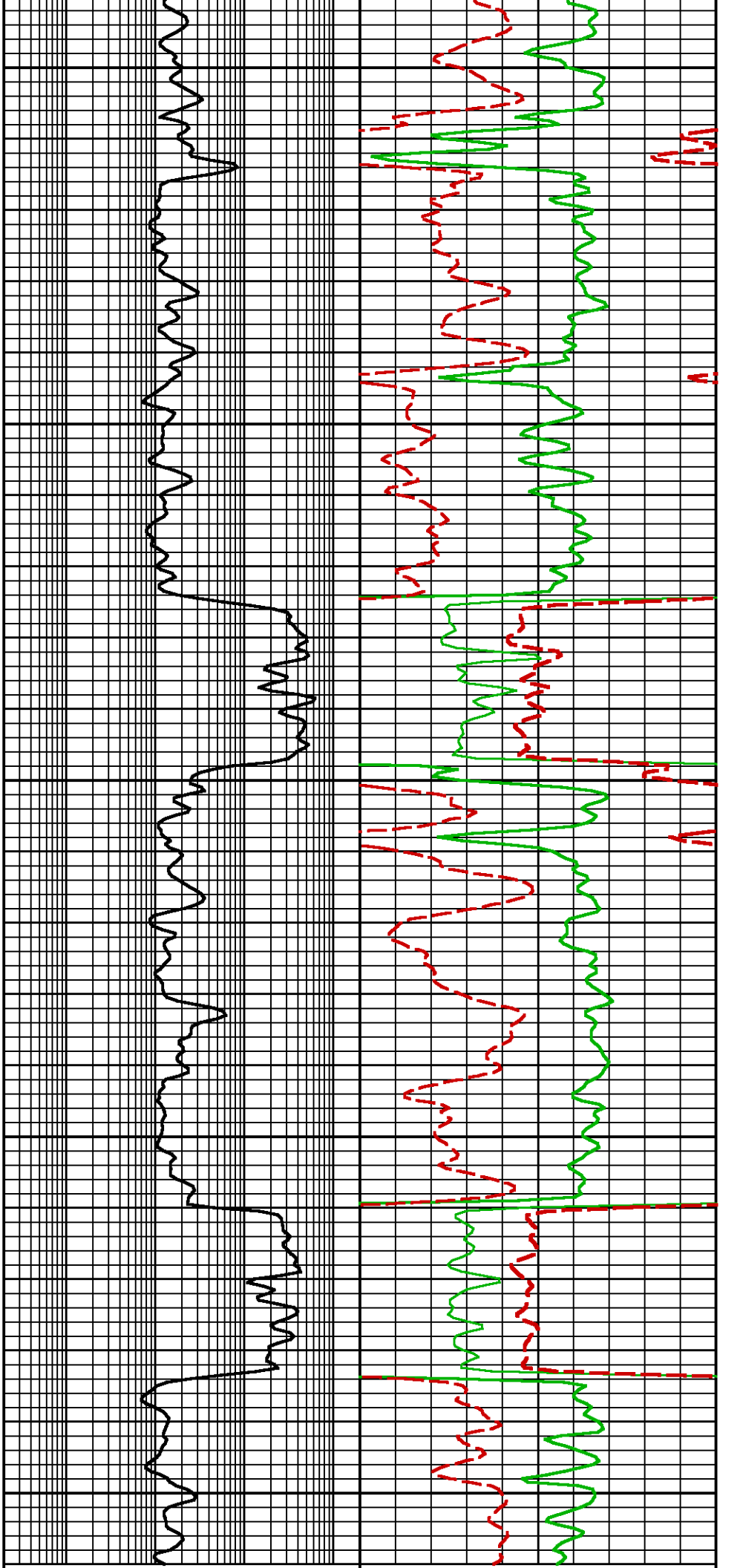





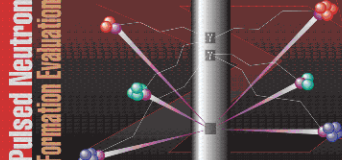








GR BACKUP		FEET	0.2	EMULATED DEEP RESISTIVITY [nm2r9]	2000	2	EMULATED BULK DENSITY [nnzdn9]	3
0	GAMMA RAY [grneo]		(OHM.M)		(G/C3)		(G/C3)	
	(GAPI)						EMULATED NEUTRON POROSITY [nnncnf]	
		150					0.3 - -0.1	
							(FRAC)	

 <b>BAKER HUGHES</b> 	COMPANY	<u>LARAMIE ENERGY</u>		FILE NO:	<u>21033-01</u>
	WELL	<u>PICEANCE FEDERAL 28-04M</u>		API NO:	<u>05077102370000</u>
	FIELD	<u>VEGA</u>			
	COUNTY	<u>MESA</u>	STATE	<u>COLORADO</u>	
	LOCATION:	SEE REMARKS SECTION		ELEVATIONS:	
				KB 7578 FT	
				DF	
				GL 7556 FT	
	SEC <u>28</u> TWP <u>9S</u> RGE <u>93W</u>			DATE	<u>23-OCT-2015</u>