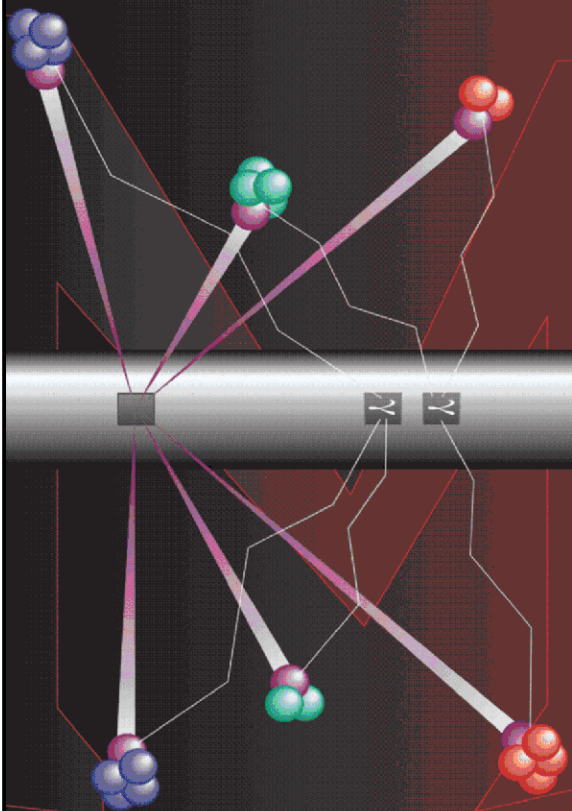




Pulsed Neutron Formation Evaluation



NEO Neutron Emulated Openhole

COMPANY LARAMIE ENERGY

WELL PICEANCE FEDERAL 29-19E

FIELD VEGA

COUNTY MESA STATE COLORADO

LOCATION: SEE REMARKS SECTION

SEC 29 TWP 9S RGE 93W

ELEVATIONS:

KB 7561.0 FT DF GL 7531.0 FT

DATE 29-MAY-2017 ECC 26983-01

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>01-JUN-2017</u>
FIELD DATA	LOCATION: <u>WOODWARD</u>	ENGINEER: <u>S.YASSA/US123646J</u>	DATE: <u>29-MAY-2017</u>
FROM	TO		
<u>2645 FT</u>	<u>6937 FT</u>		

REMARKS

LOCATION:
SHL: LAT:39.248795N; LONG:107.788006W
BHL: LAT:39.243004N; LONG:107.788353W

TRAINING WELL: GUNDERSON 29-11E

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

BONG LOG IS DEPTH REFERENCE LOG

2465' 2791' HAS NO RELEVANT DATA ON TW AND THEREFORE WAS EMULATED FROM C SAND

NEO RESULTS FOR PICEANCE FEDERAL 29-19E (G-SAND)

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

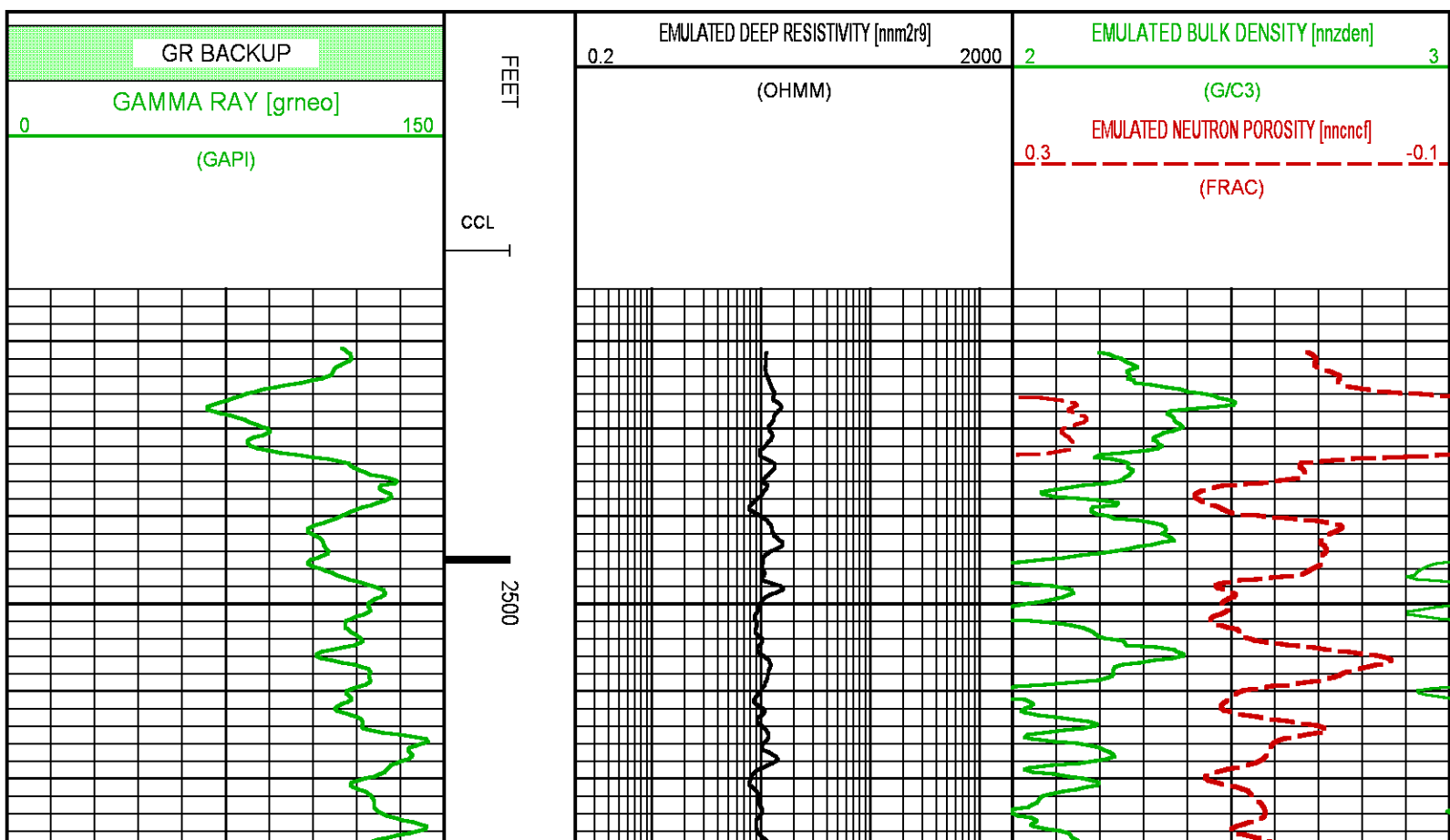
Plotted: Thu Jun 01 12:37:06 2017

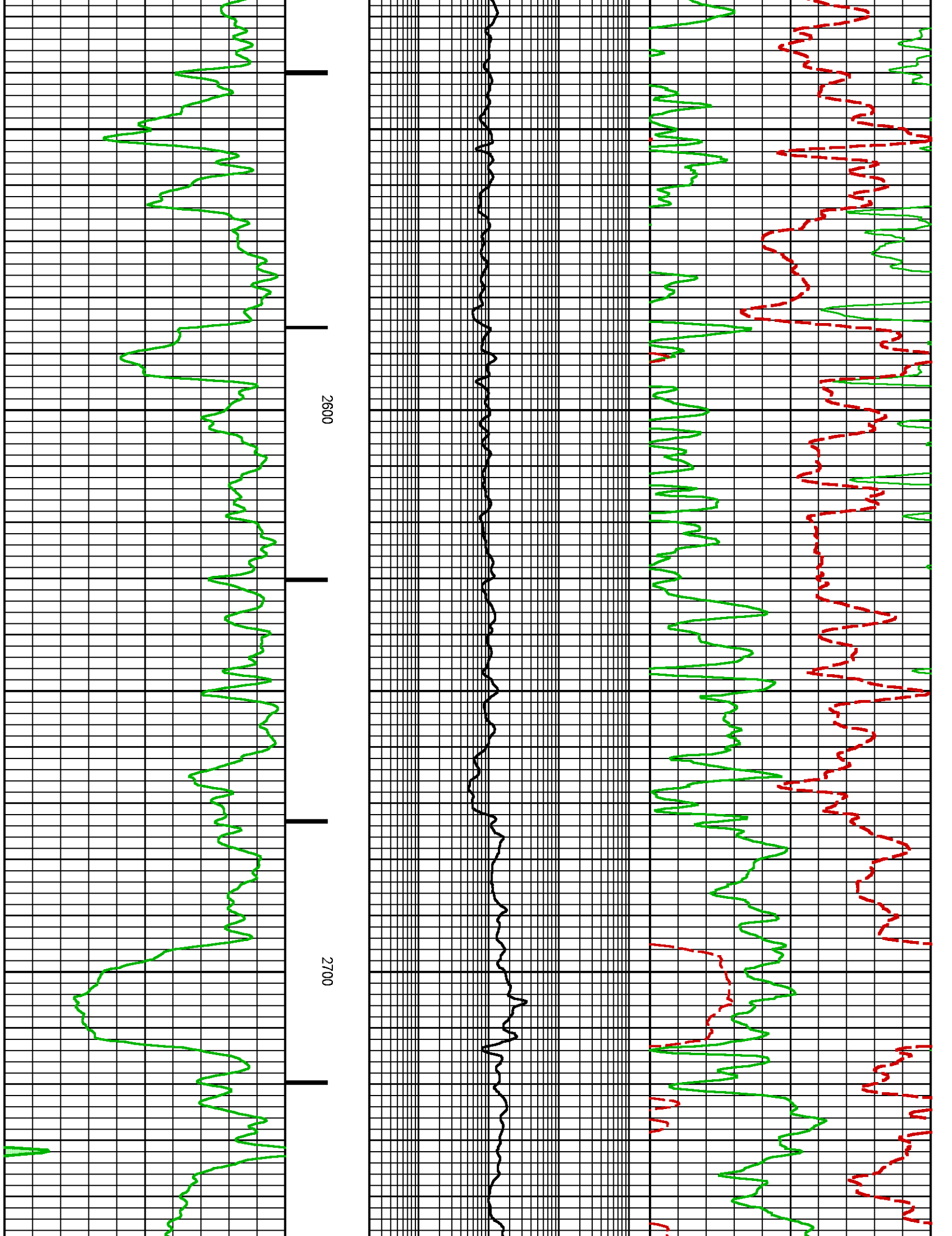
CURVE MEASURE POINT OFFSET

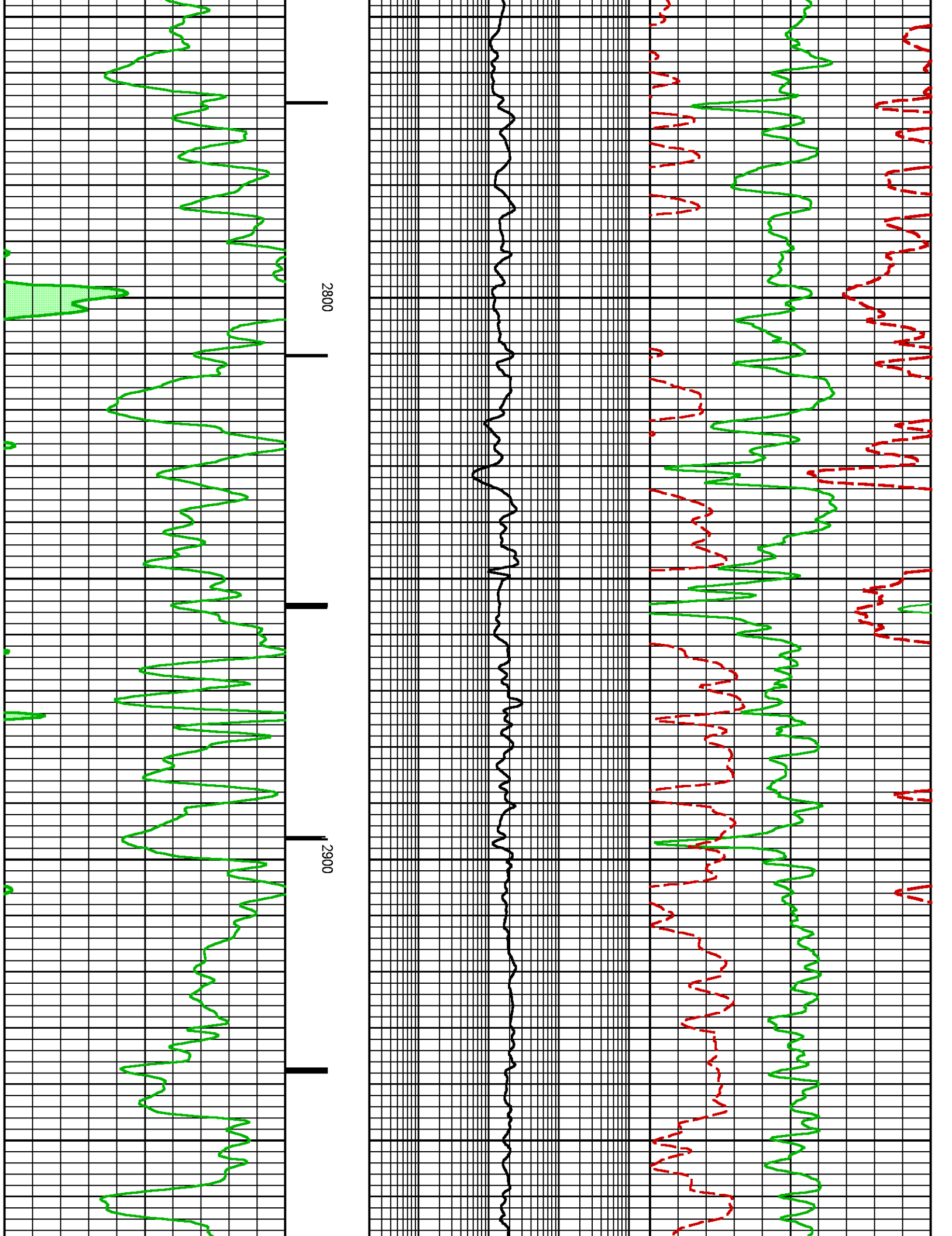
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNCf	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

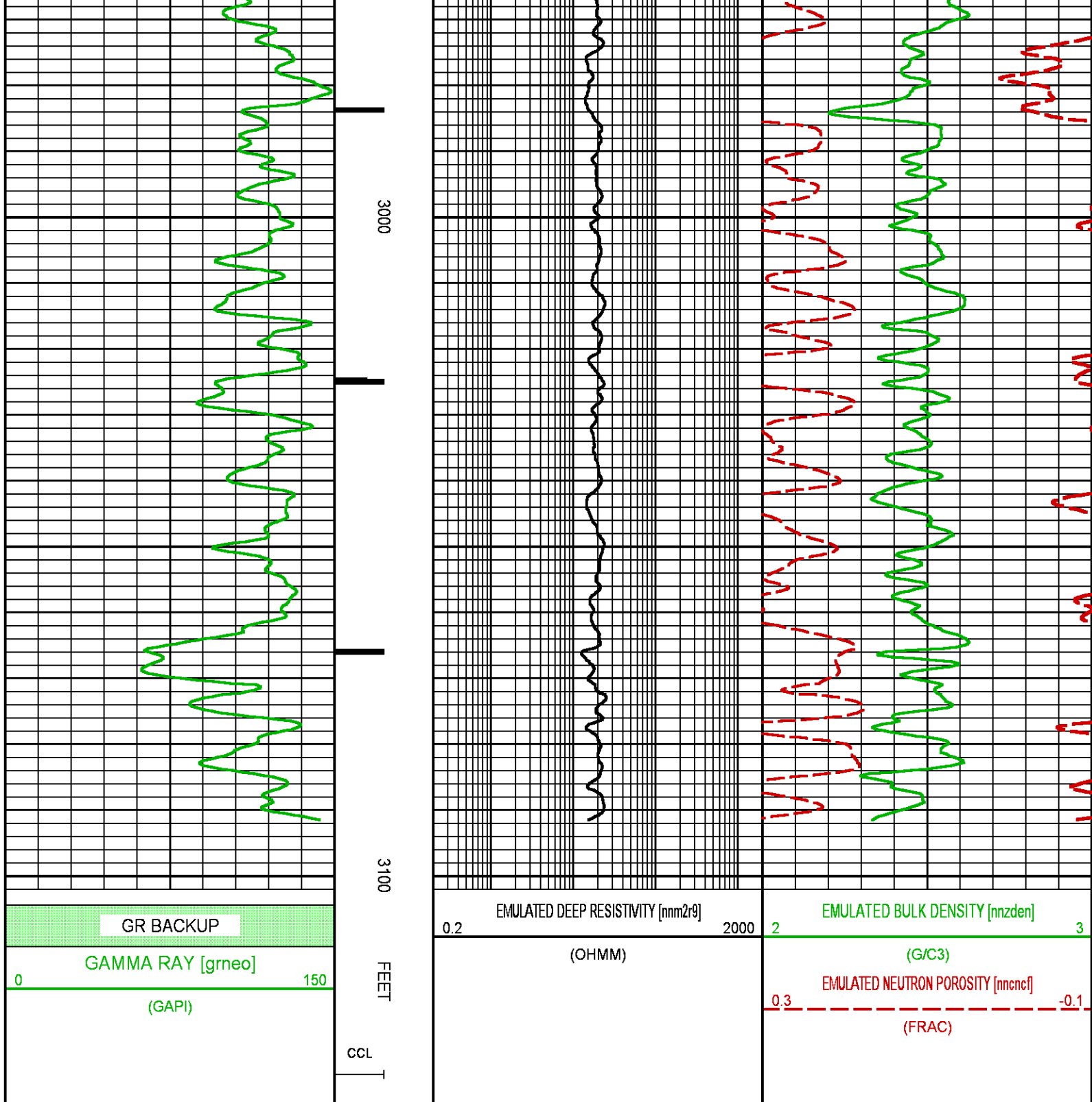
Project : NA
User : kotoale
Presentation : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_29_19E_NEO\
NEO_PRESENTATION_LARAMIE_G-Sand.pdf [5"/100' Scale]
Plot Interval : 2465 - 3102 Feet

Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_29_19E_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY
Well : PICEANCE FEDERAL 29-19E
Field : VEGA
File Interval : 2467.75 - 7936.75 Feet
OCT : NA









NEO RESULTS FOR PICEANCE FEDERAL 29-19E (MAIN)

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

Plotted: Thu Jun 01 12:37:08 2017

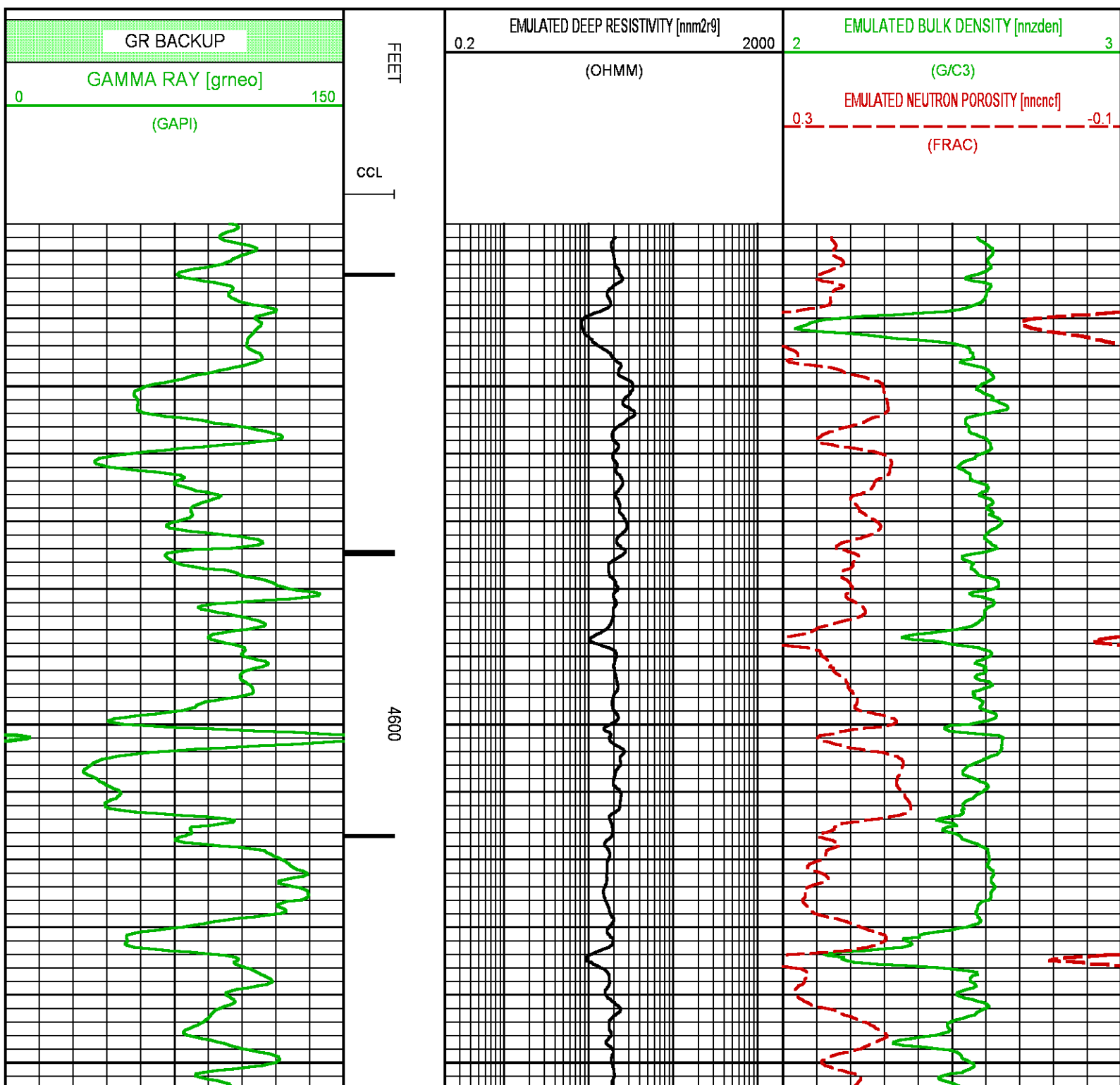
CURVE MEASURE POINT OFFSET

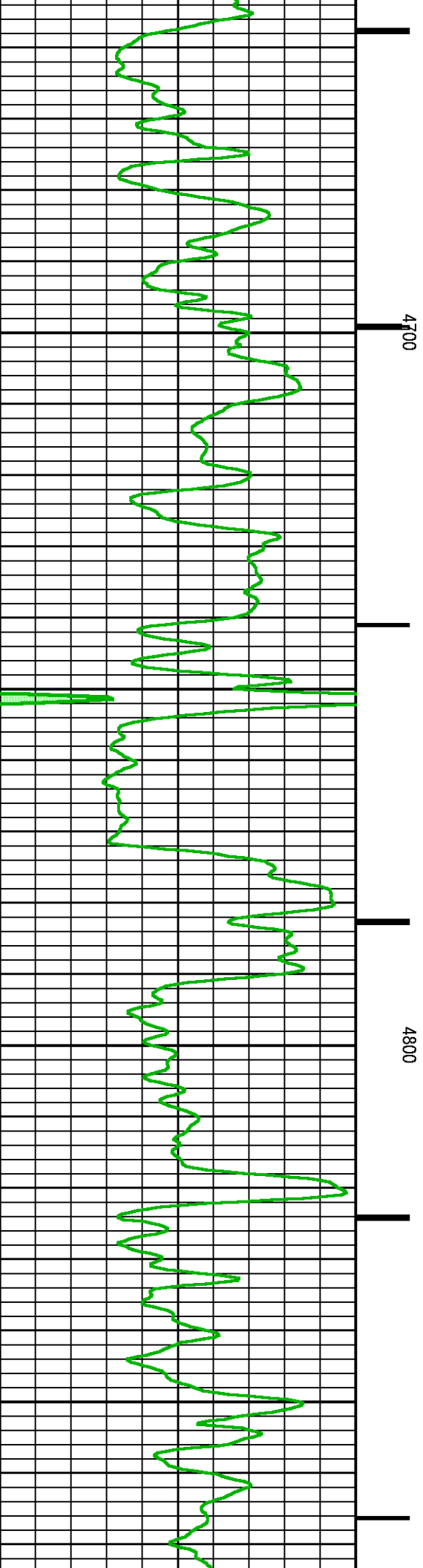
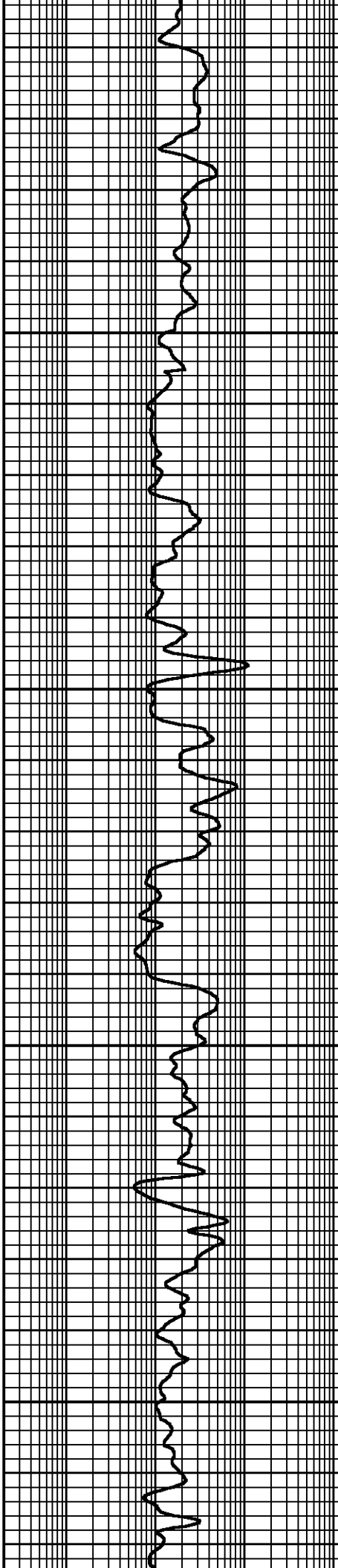
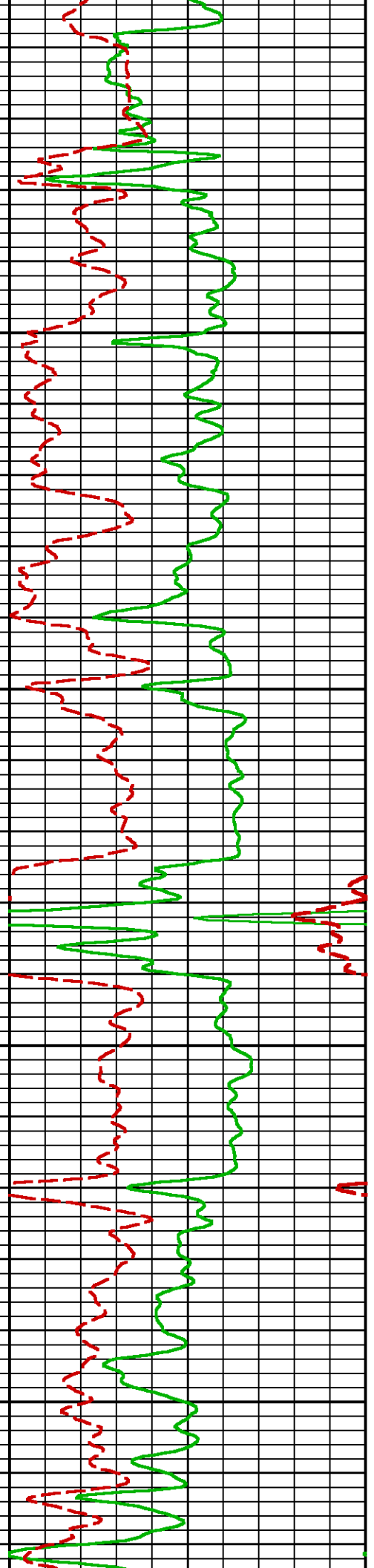
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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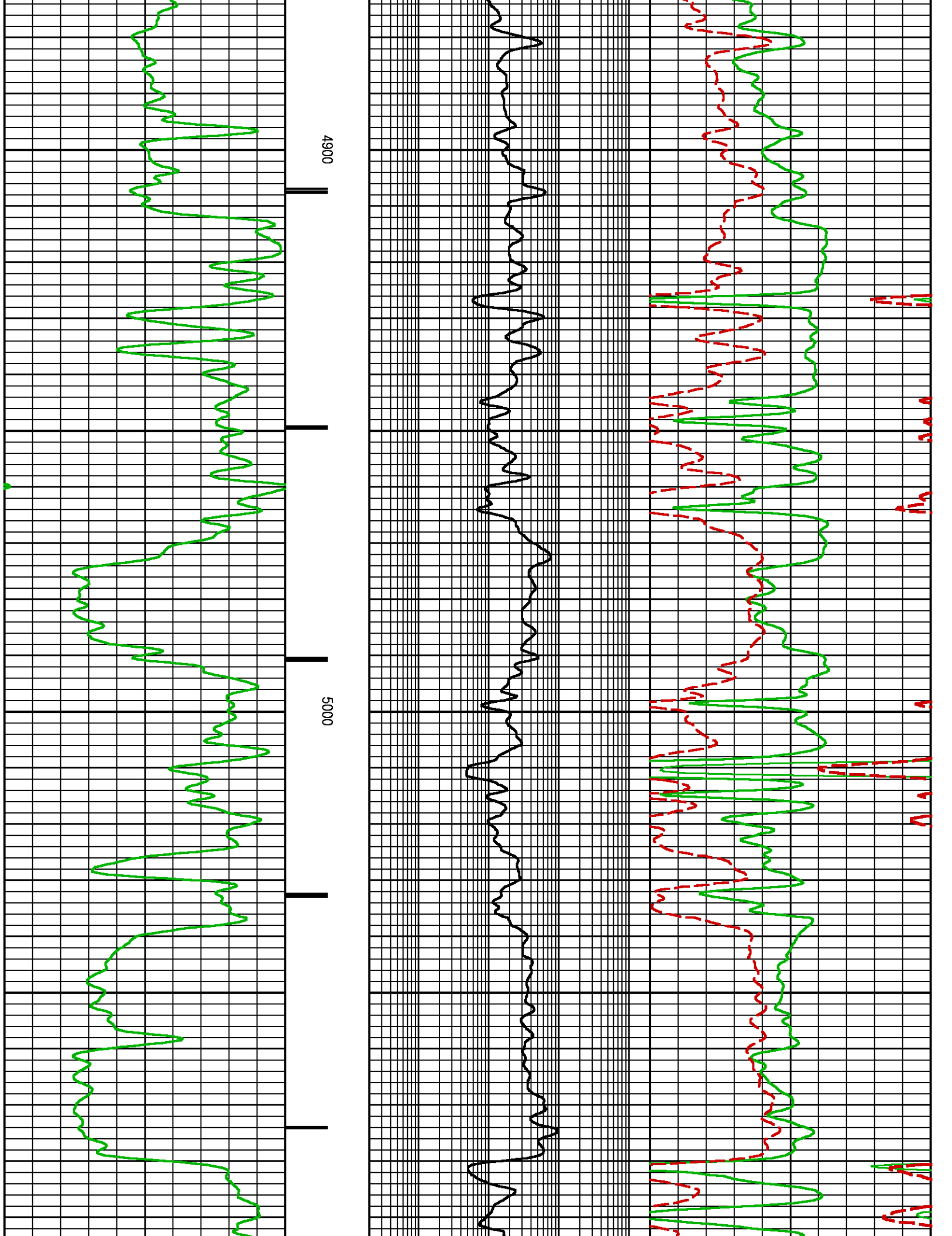
CCL	0.00	NNCNCf	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

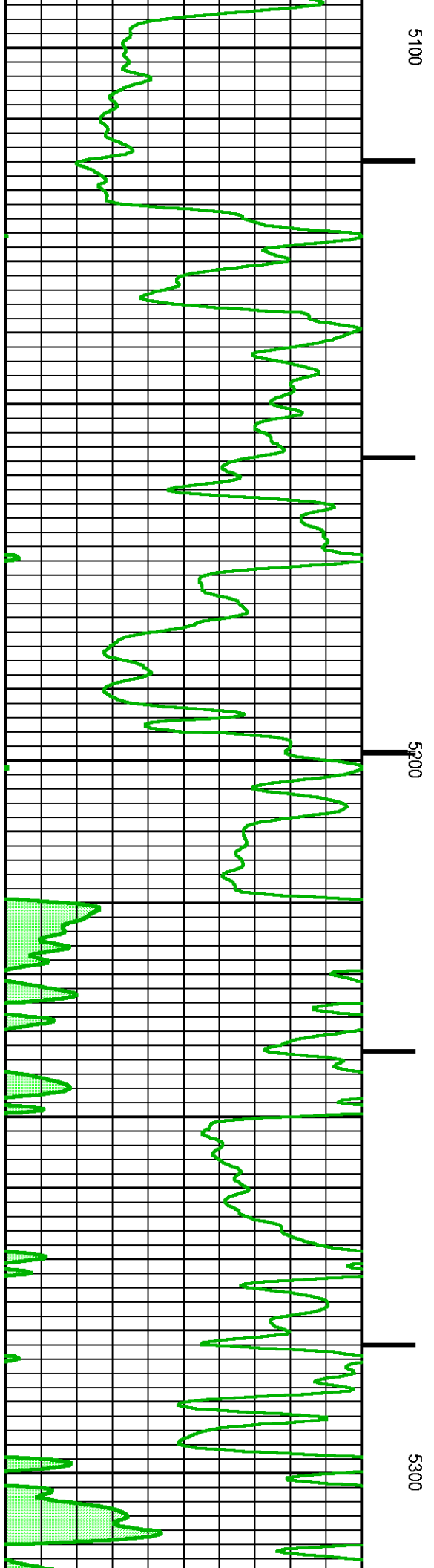
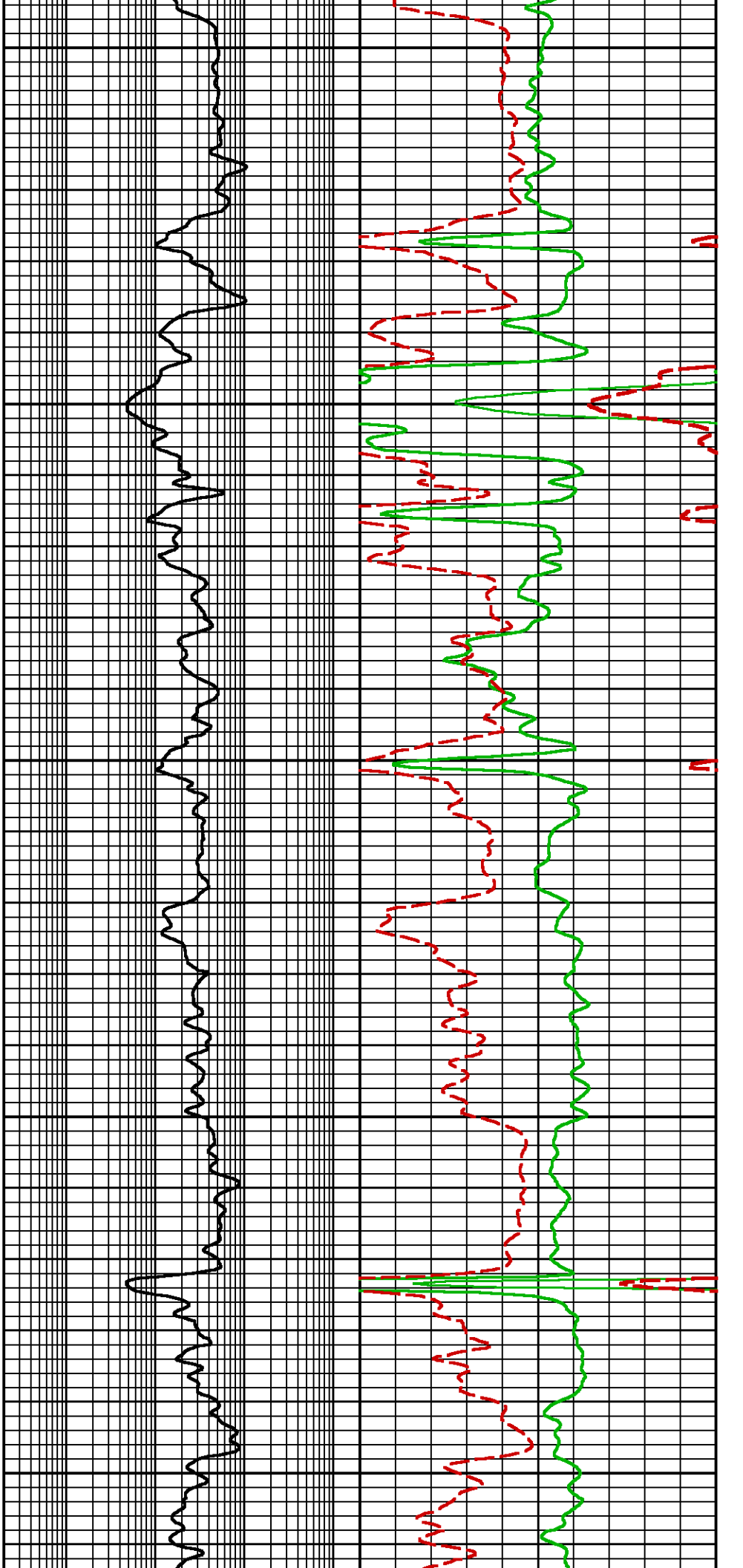
Project : NA
User : kotoale
Presentation : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_29_19E_NEO\NEO_PRESENTATION_LARAMIE_MAIN.pdf [5"/100' Scale]
Plot Interval : 4526 - 7936.75 Feet

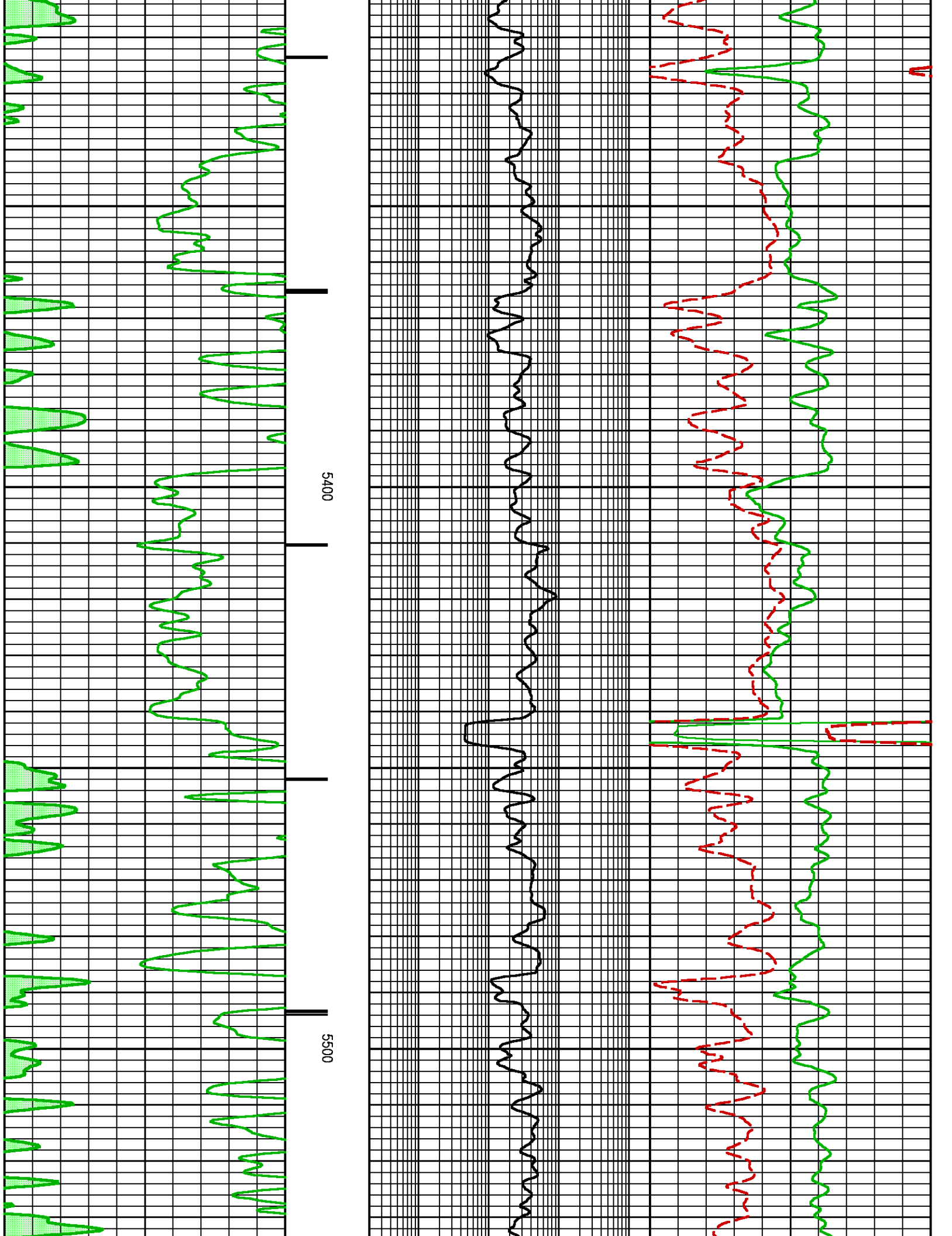
Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_29_19E_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY
Well : PICEANCE FEDERAL 29-19E
Field : VEGA
File Interval : 2467.75 - 7936.75 Feet
OCT : NA

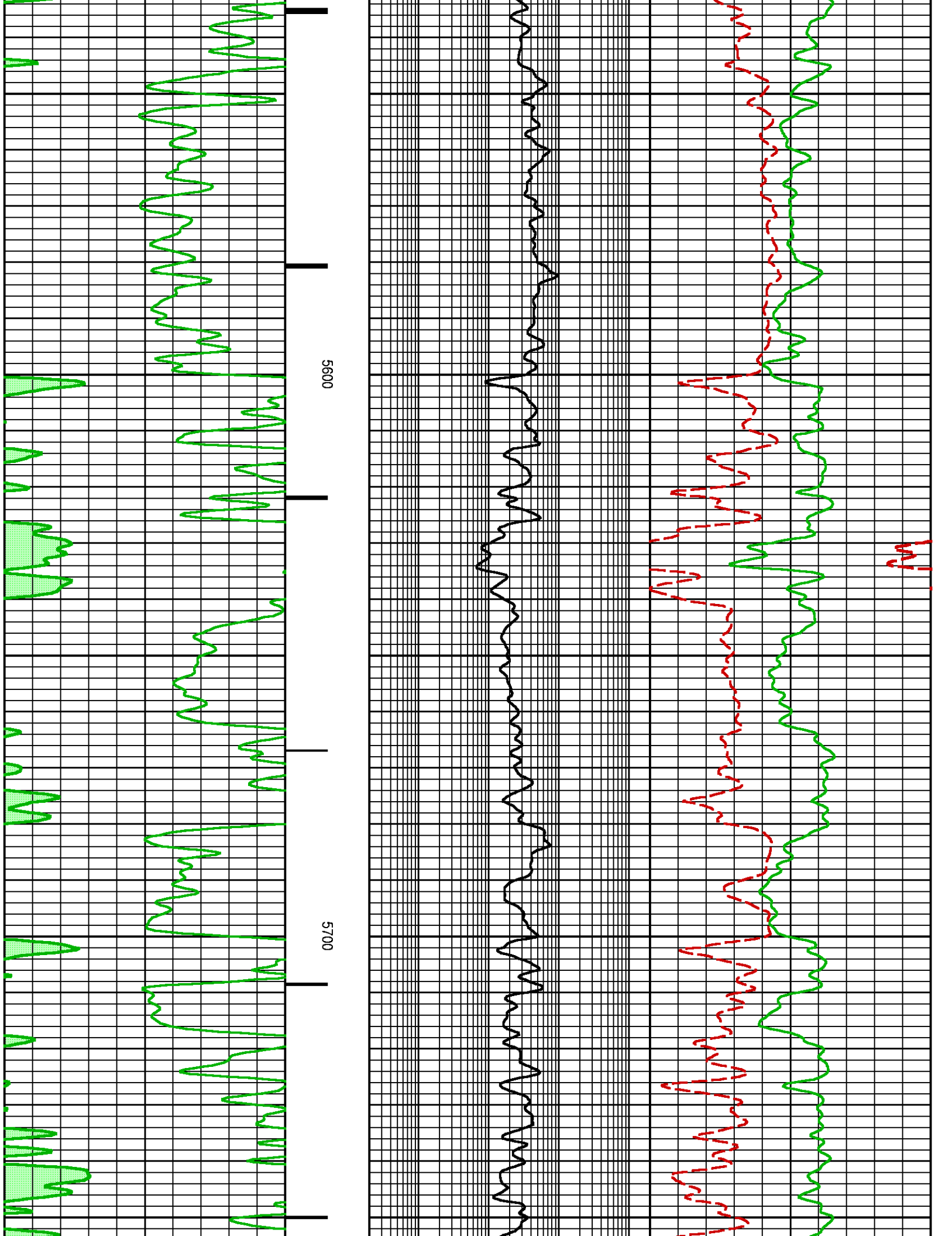


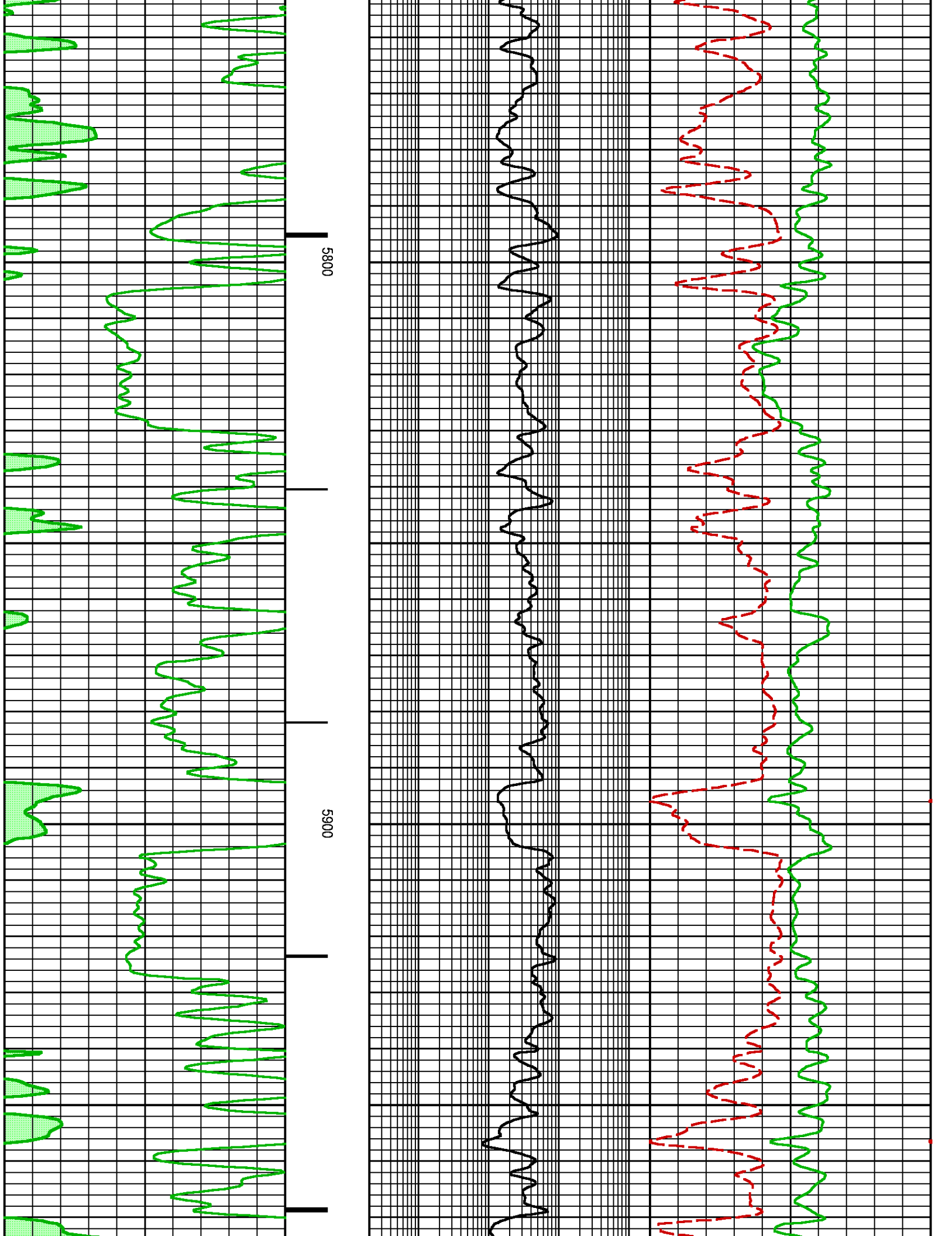


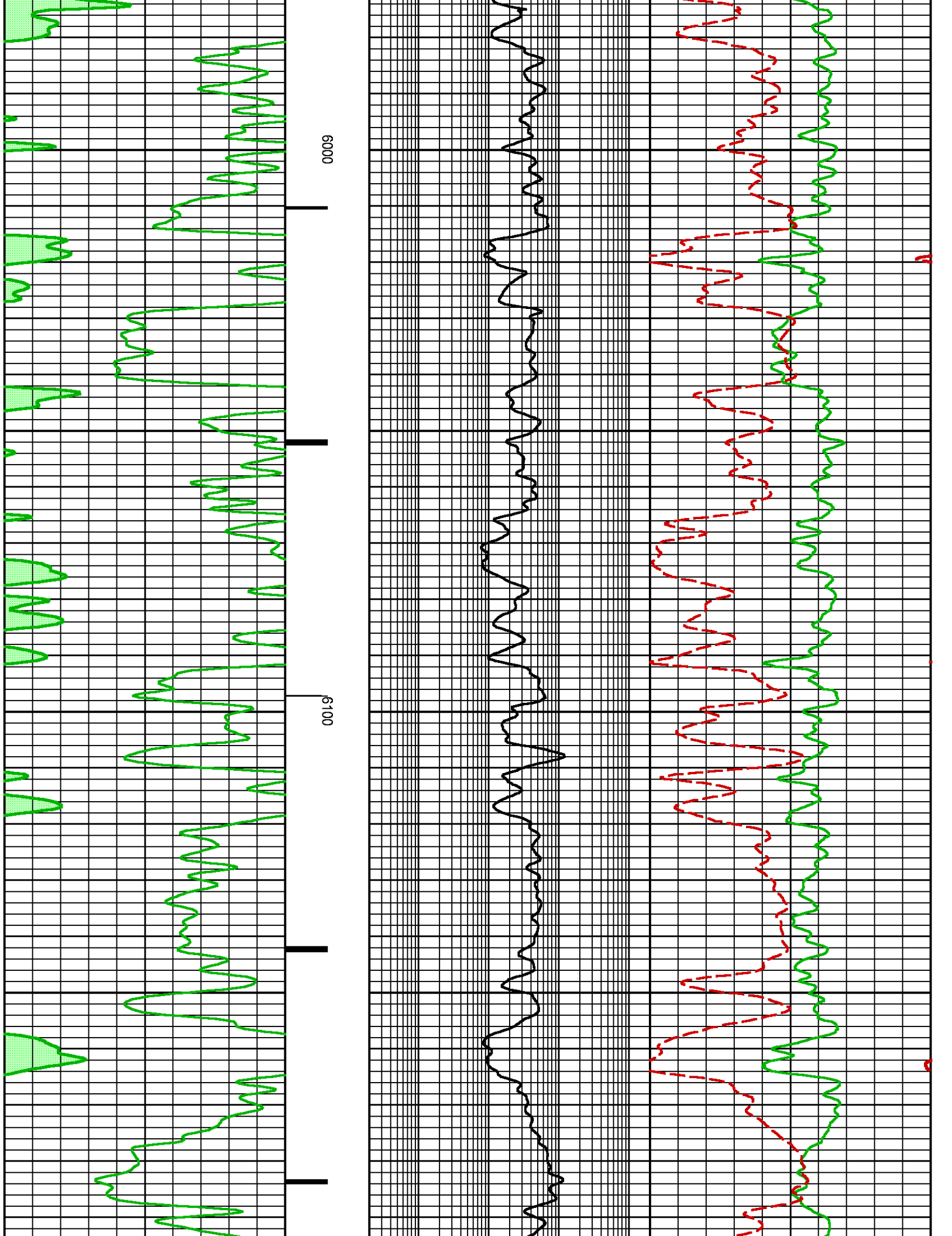


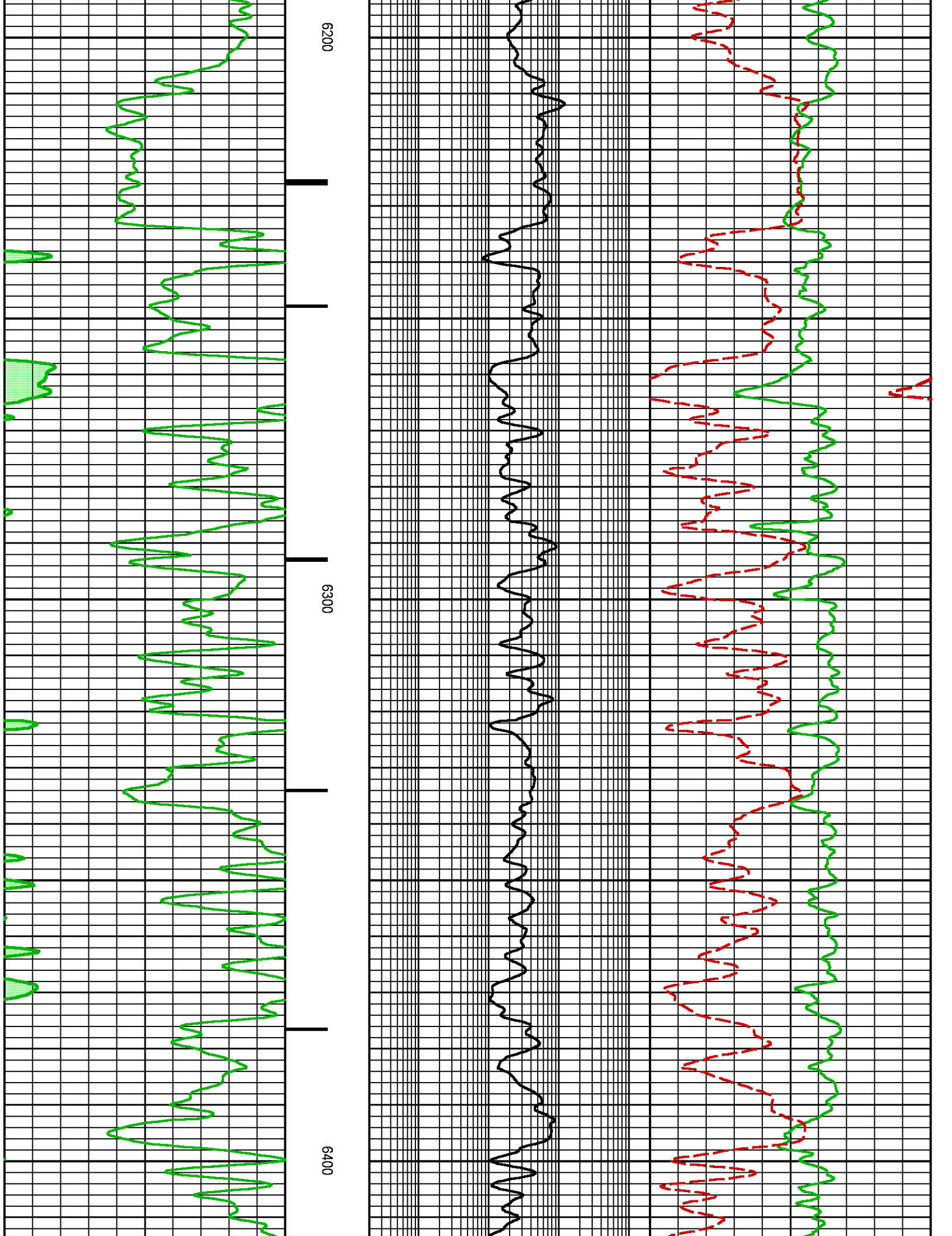


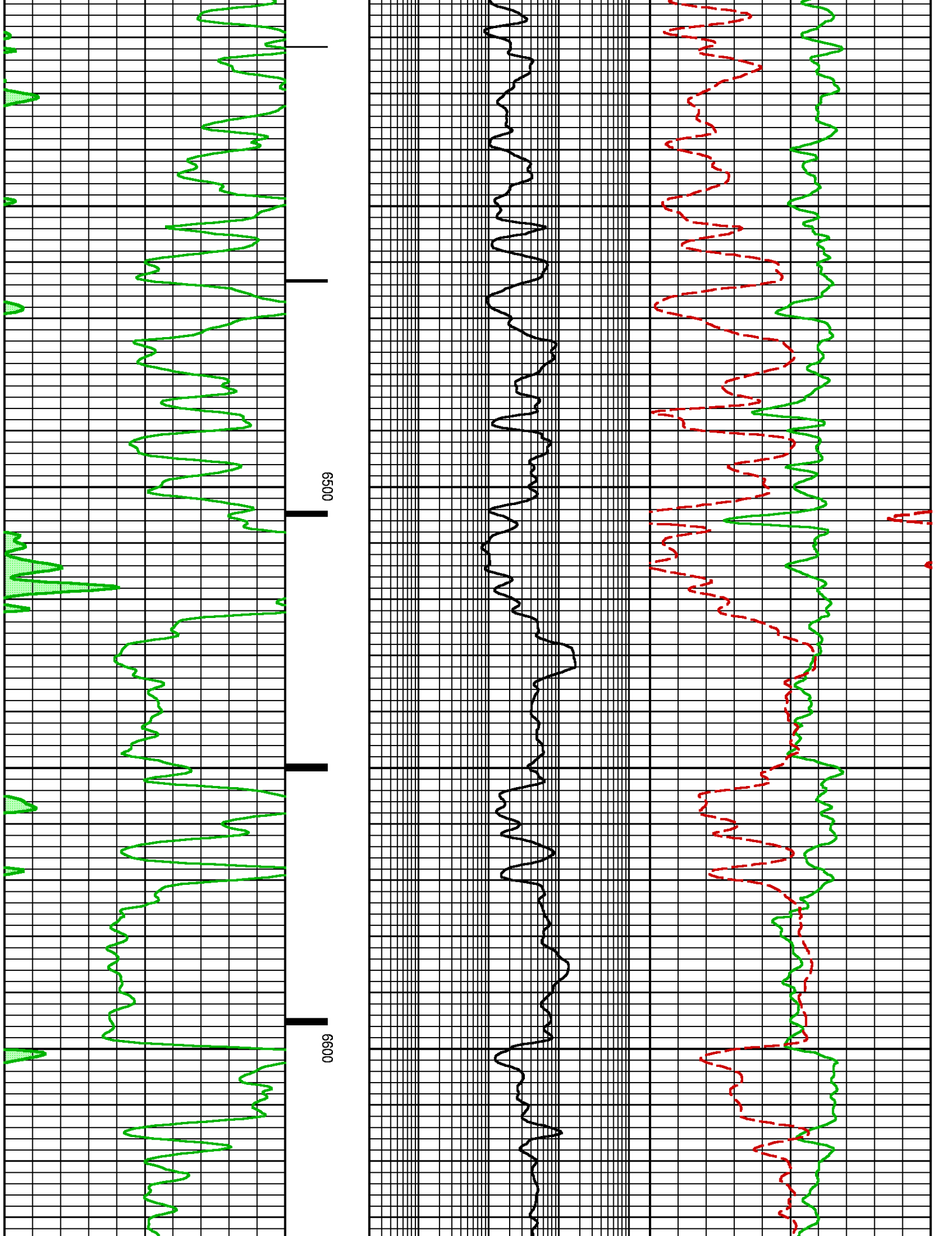


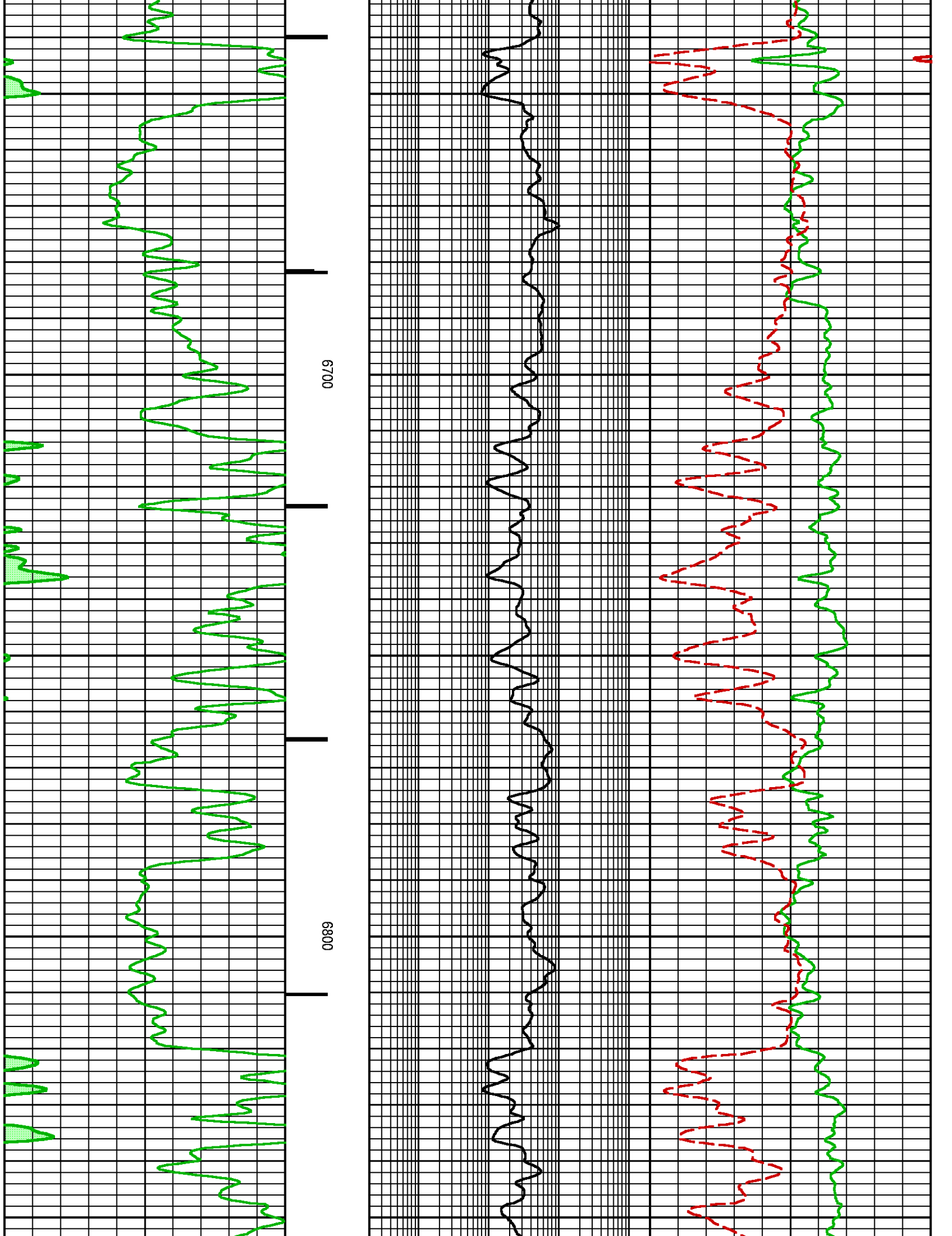


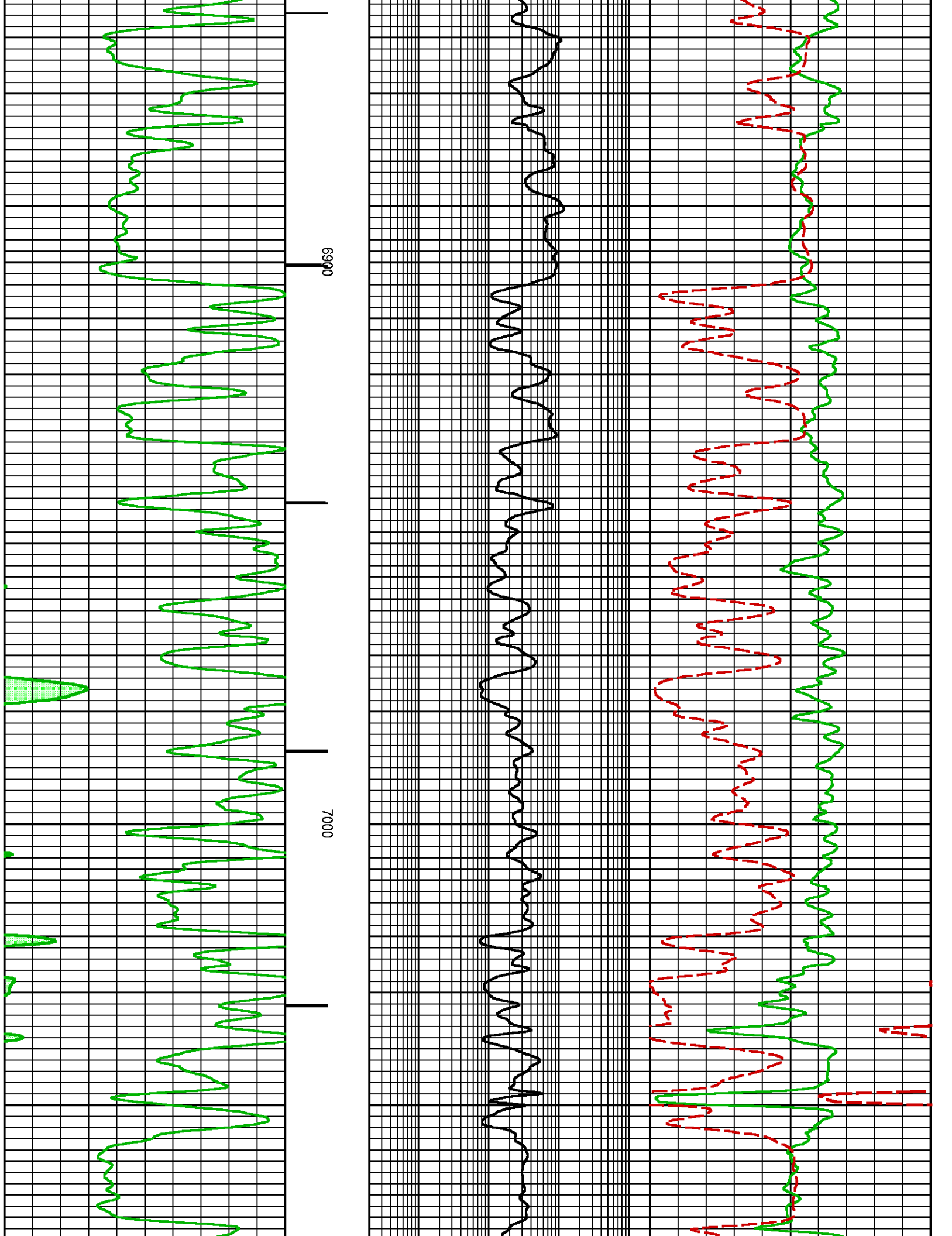


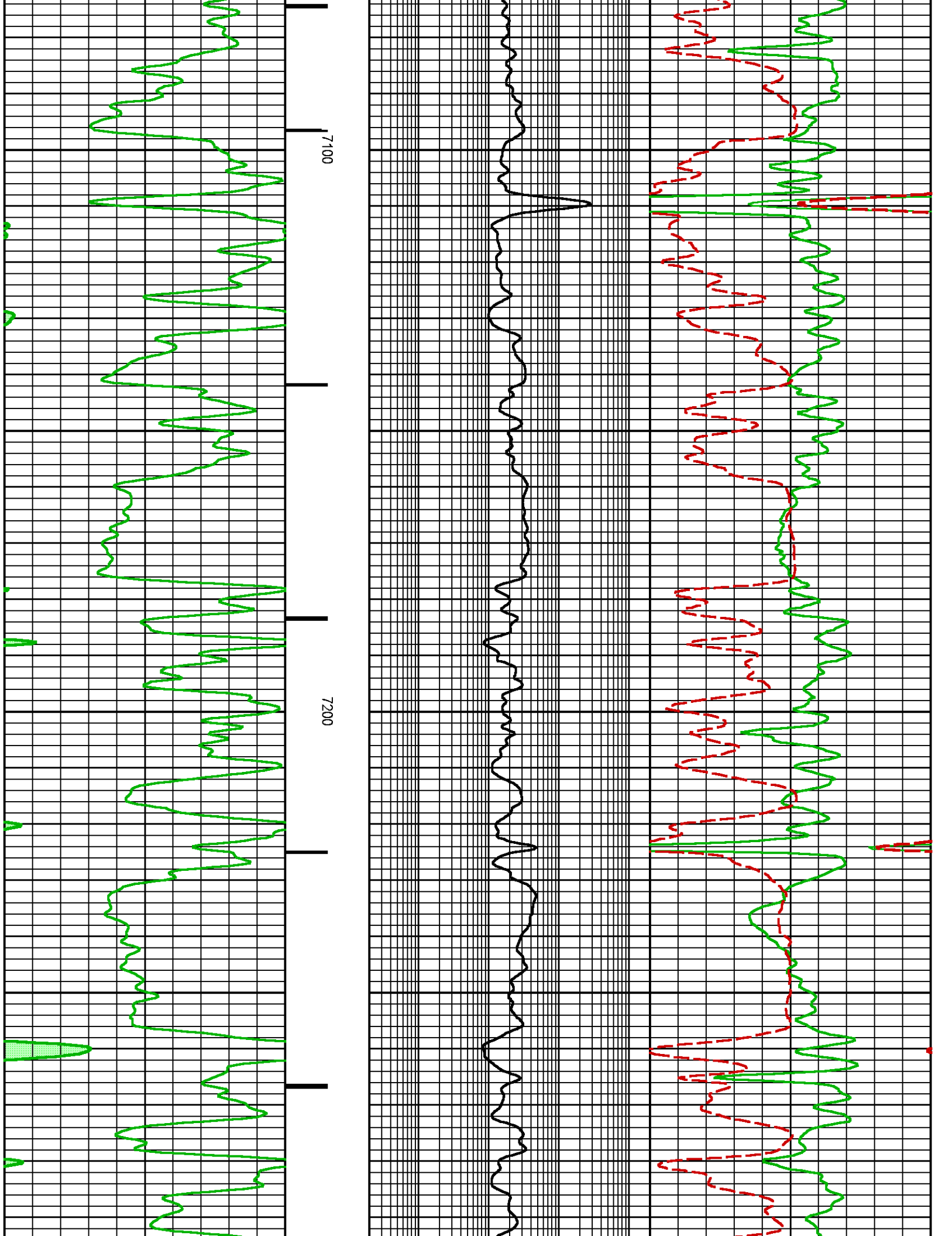


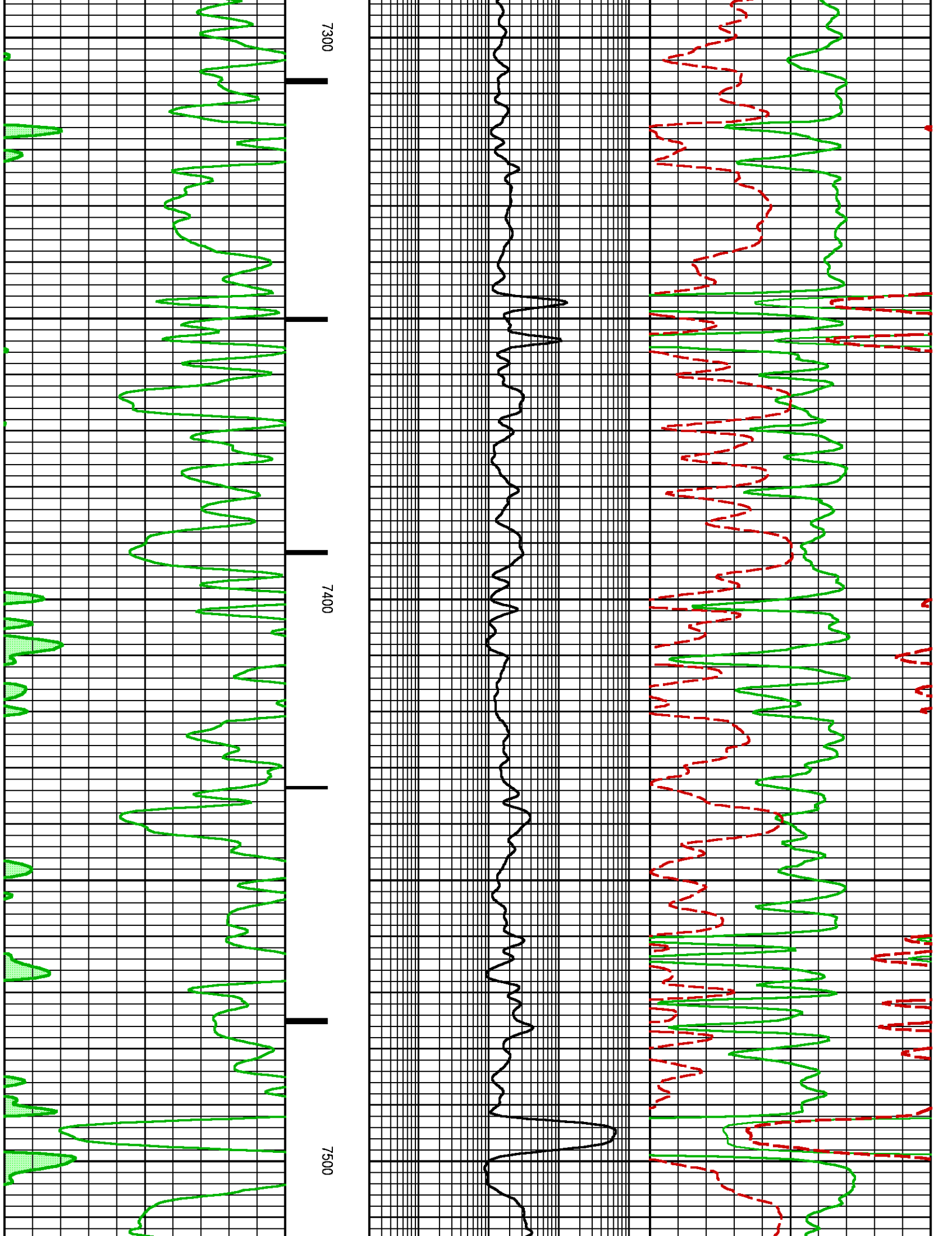


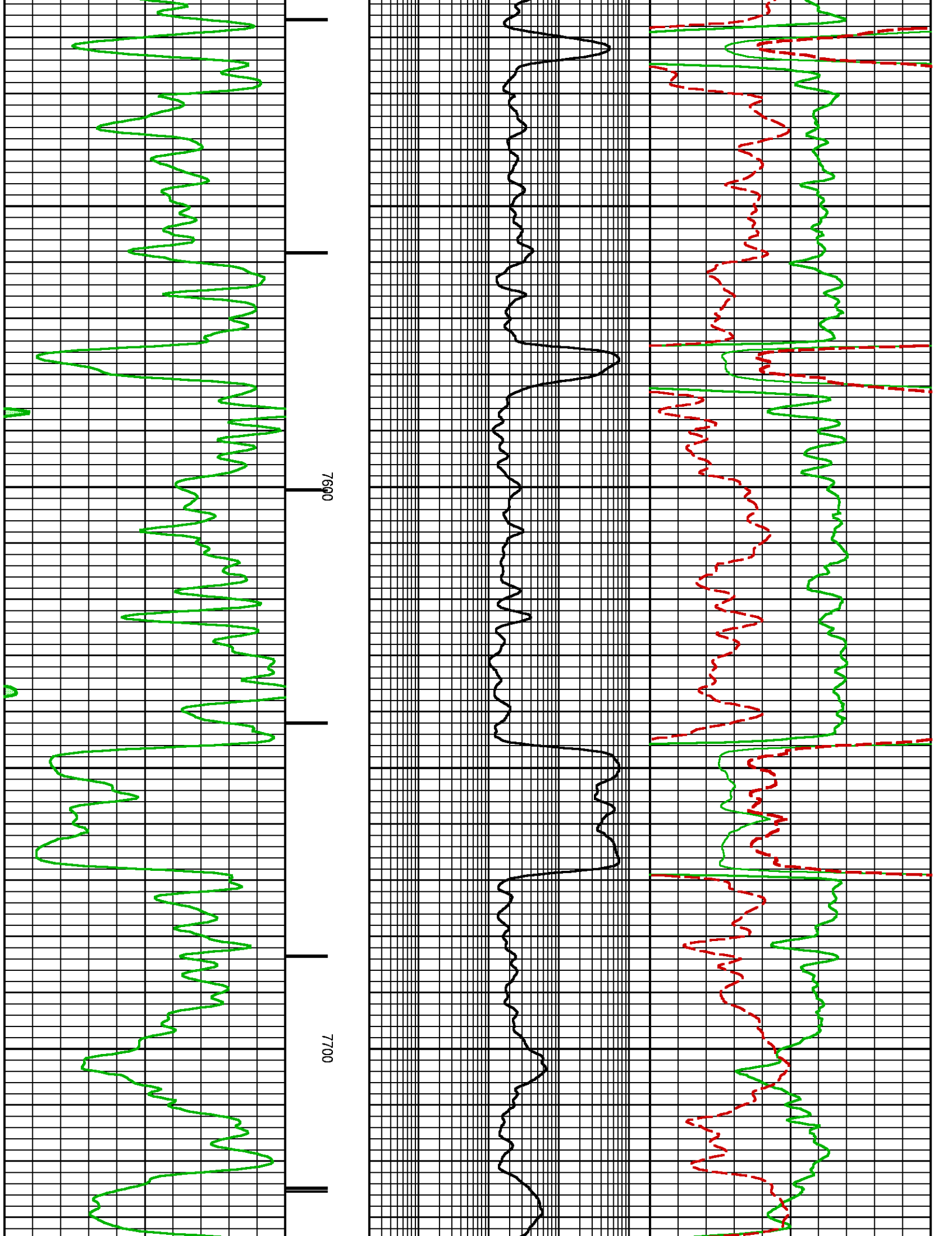


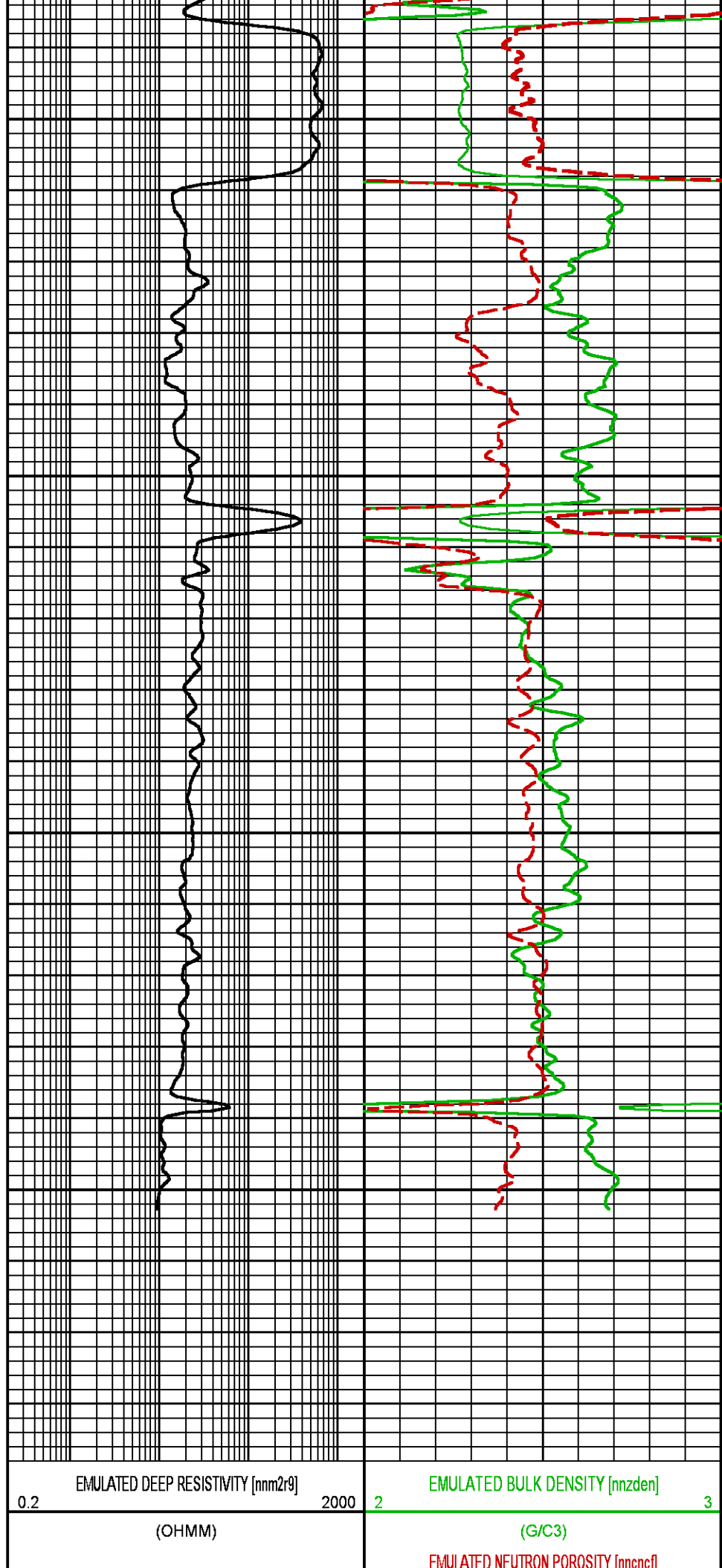
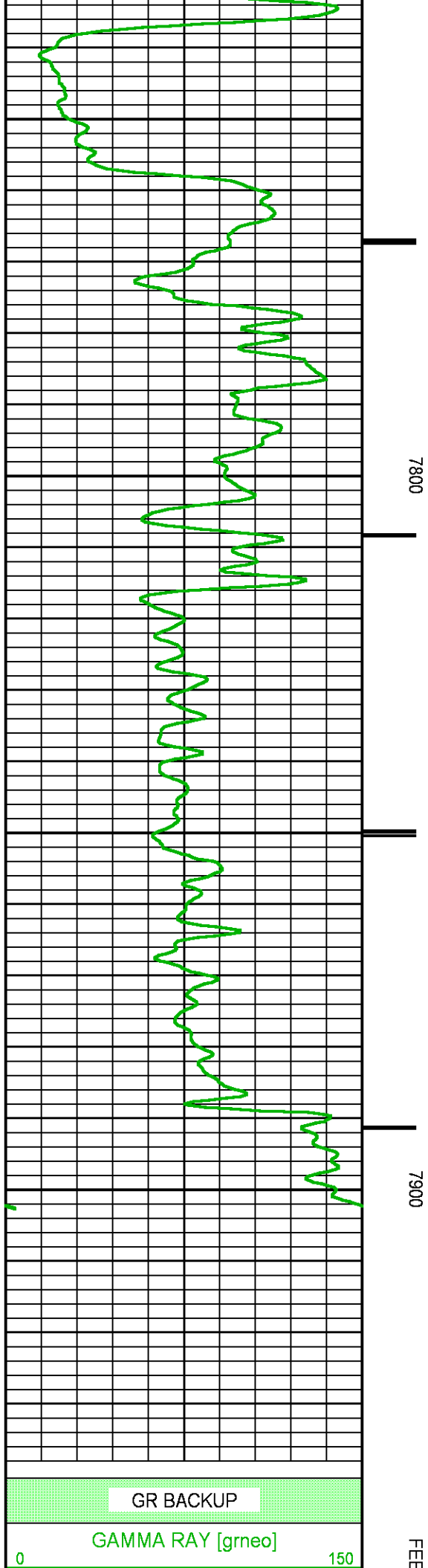












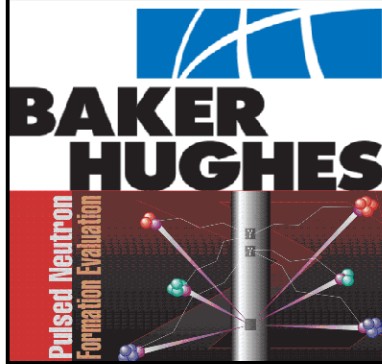
(GAPI)

CCL

0.3

(FRAC)

-0.1



COMPANY LARAMIE ENERGY
WELL PICEANCE FEDERAL 29-19E
FIELD VEGA
COUNTY MESA STATE COLORADO

FILE NO: 26983-01
API NO: 05-077-10359-0000

LOCATION:
SEE REMARKS SECTION
SEC 29 TWP 9S RGE 93W

ELEVATIONS:
KB 7561.0 FT
DF
GL 7531.0 FT
DATE 29-MAY-2017