				RAPTOR NVISION LOG			
COMPANY WELL FIELD PROVINCE/COUNTY COUNTRY/STATE LOCATION				CAERUS OIL & GAS LLC PUCKETT 31B-1 GRAND VALLEY GARFIELD USA / COLORADO SHL: 2074 N 1354 W & BHL: 631 N 1998 FIELD PRINT			
SEC 1	TWP 7S	RGE 97W	Other Services SSSB			Elevations: KB 8351.00 DF 8351.00 GL 8329.00	
Latitude		Longitude					
API Number		5045228530000					
Permanent Datum GROUND LEVEL, Elevation 8329 feet							
Log Measured From KB							
Drilling Measured From KB @ 22'							
Date	03-DEC-2015		PERFORATION RECORD				
Run Number	ONE		Shot	Number	Depth From	Depth To	
Service Order	136369518		Density	of Shots	feet	feet	
Type Log	CREB-SSSB						
Depth Driller	9405.00						
Depth Logger	9281.00						
Top Log Interval	2500.00						
Bottom Log Interval	9277.00						
Hole Fluid Type	1.4% KCL						
Hole Fluid Level	0.00						
Restriction ID	3.875						
Max Recorded Temp	226.00						
Well Head Pressure	0.00						
Well Head Equipment	N/A		CASING / TUBING RECORD				
Time Well Ready	ROA		Size	Weight	Depth From	Depth To	
Time Logger Bottom	0823		inches	pounds/ft	feet	feet	
Unit	14113						
Equipment Name	WSS-E						
Base	CASPER						
Recorded By	MAZUR						
Witnessed By	NOT WITNESSED						

BOREHOLE RECORD						Last Edited: 03-DEC-2015 22:33
Bit Size inches		Depth From feet		Depth To feet		
14.750		0.00		2551.00		
8.750		2551.00		9406.00		
CASING / TUBING RECORD						
Type	Grade	TypeJoint	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	J-55	LT&C	9.625	0.00	2550.00	36.00
PRODUCTION	P-110	LT&C	4.500	0.00	9405.00	11.60

REMARKS
SOFTWARE VERSION 16.00.6296 - DEVELOPMENT BUILD VERSION
ALL DEPTH CONTROL PROCEDURES FOR SUBSEQUENT RUN IN HOLE WERE FOLLOWED. LOG RUN FROM 22' K.B.
SHORT JOINT LOCATED AT 4541' - 4552'
SURFACE SYSTEM USED: WCM-D 307
TOOLS RUN: WCCC, UGRK, QPGE, CR3B, TMPN, CRPB, CRMB, CR3B, UGRK, SUEC, SSSB, STEB, CENA WERE RAN IN COMBINATION
GAMMA RAY COUNTS ON SUBSEQUENT PASSES ARE AFFECTED BY RESIDUAL NEUTRON ACTIVATION CAUSED BY THE PREVIOUS PASS
PREDICTED 3' AMPLITUDE FOR 4.5" WITH 11.6 LB/FT CASING: 81 mv

FREE PIPE CALIBRATION DONE AT 3765 FT

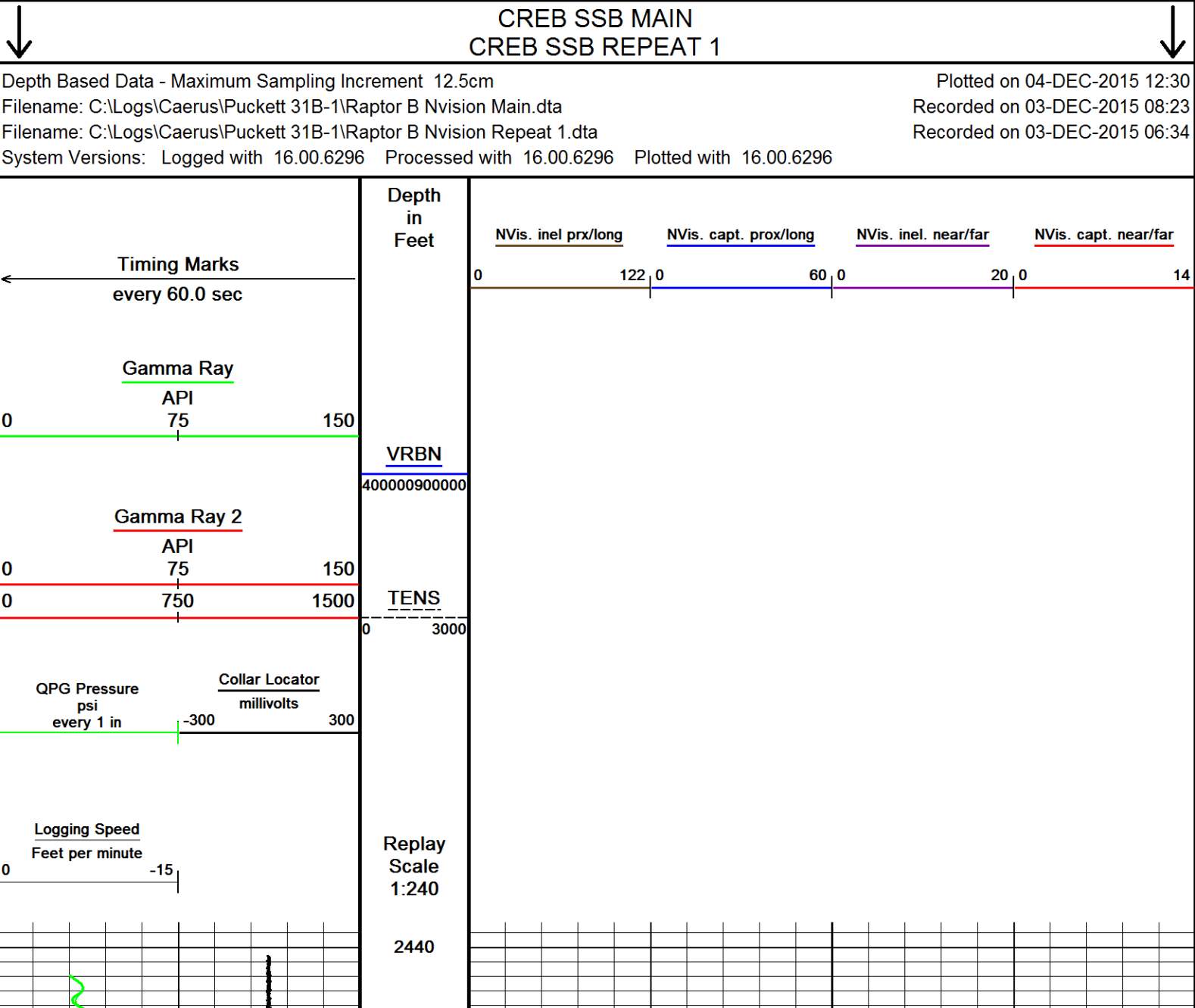
UNKNOWNEN CEMENT CLASS DUE MISSING DATA FROM CLIENT

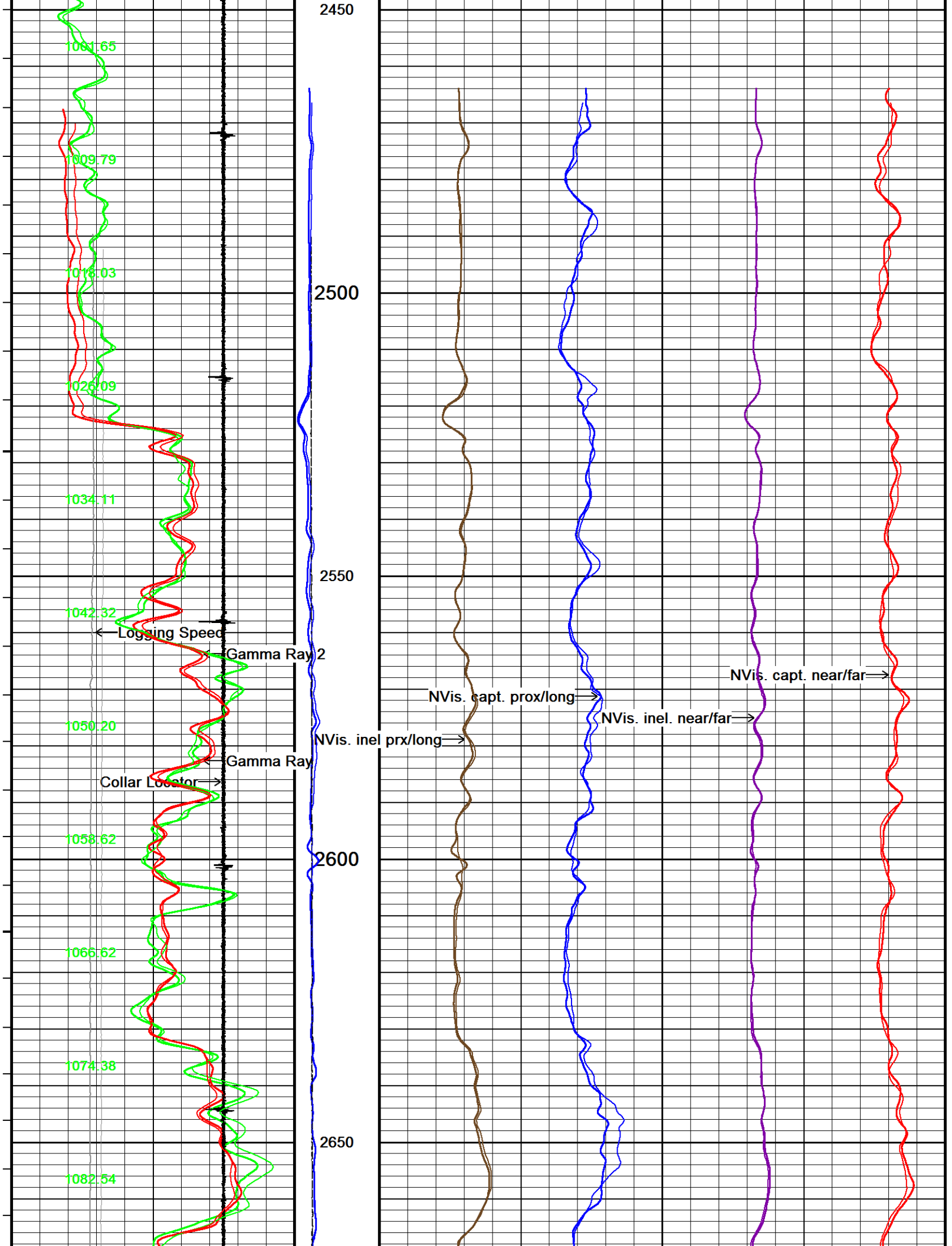
UNKNOWNEN CEMENT JOB ENDED TIME DUE TO MISSING DATA FROM CLIENT

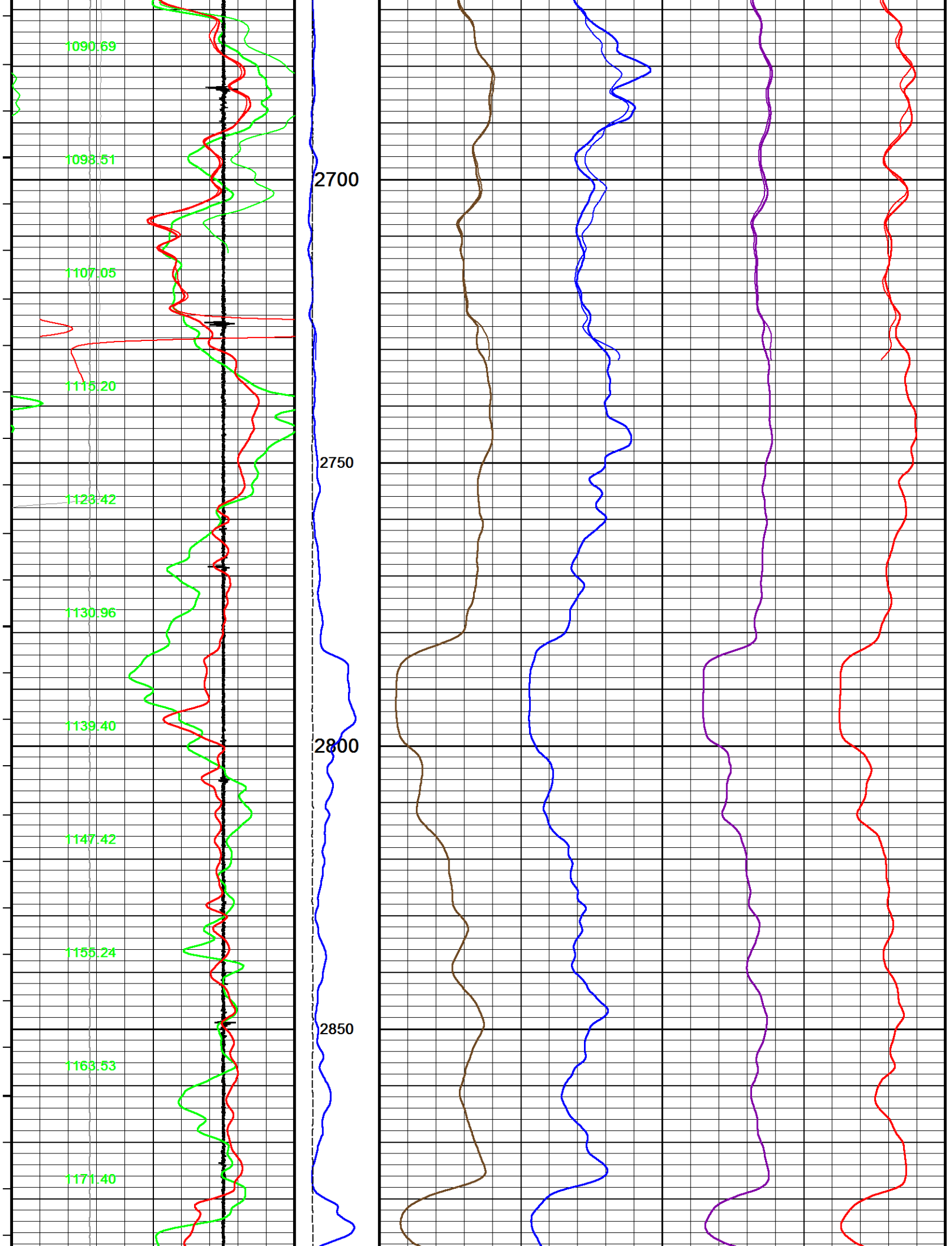
BOTTOM HOLE TEMPERATURE WAS 226 DEG. F

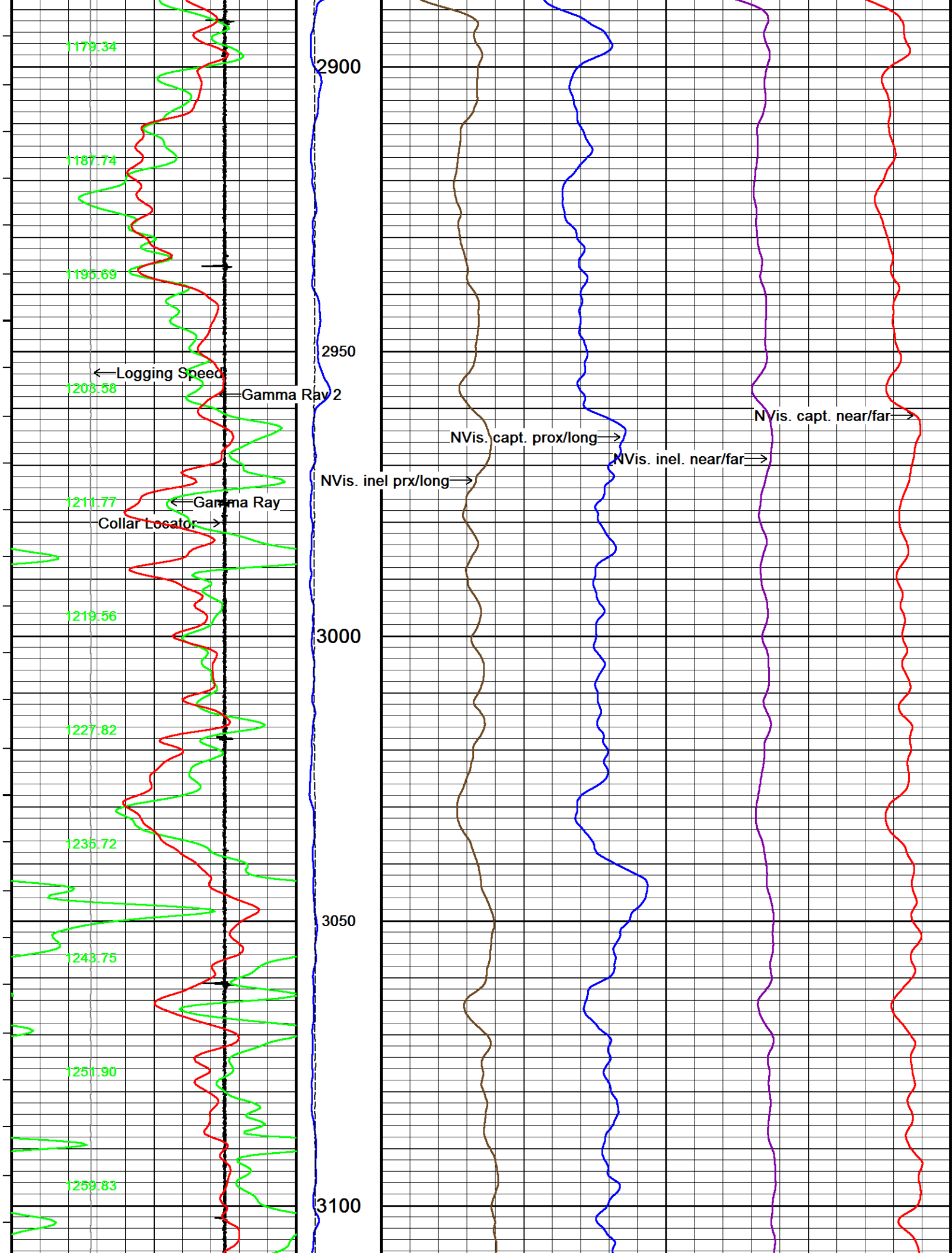
CREW: PAUL MAZUR, DARREN BEANS, BRYAN DIESBURG, JAMES BARNETT

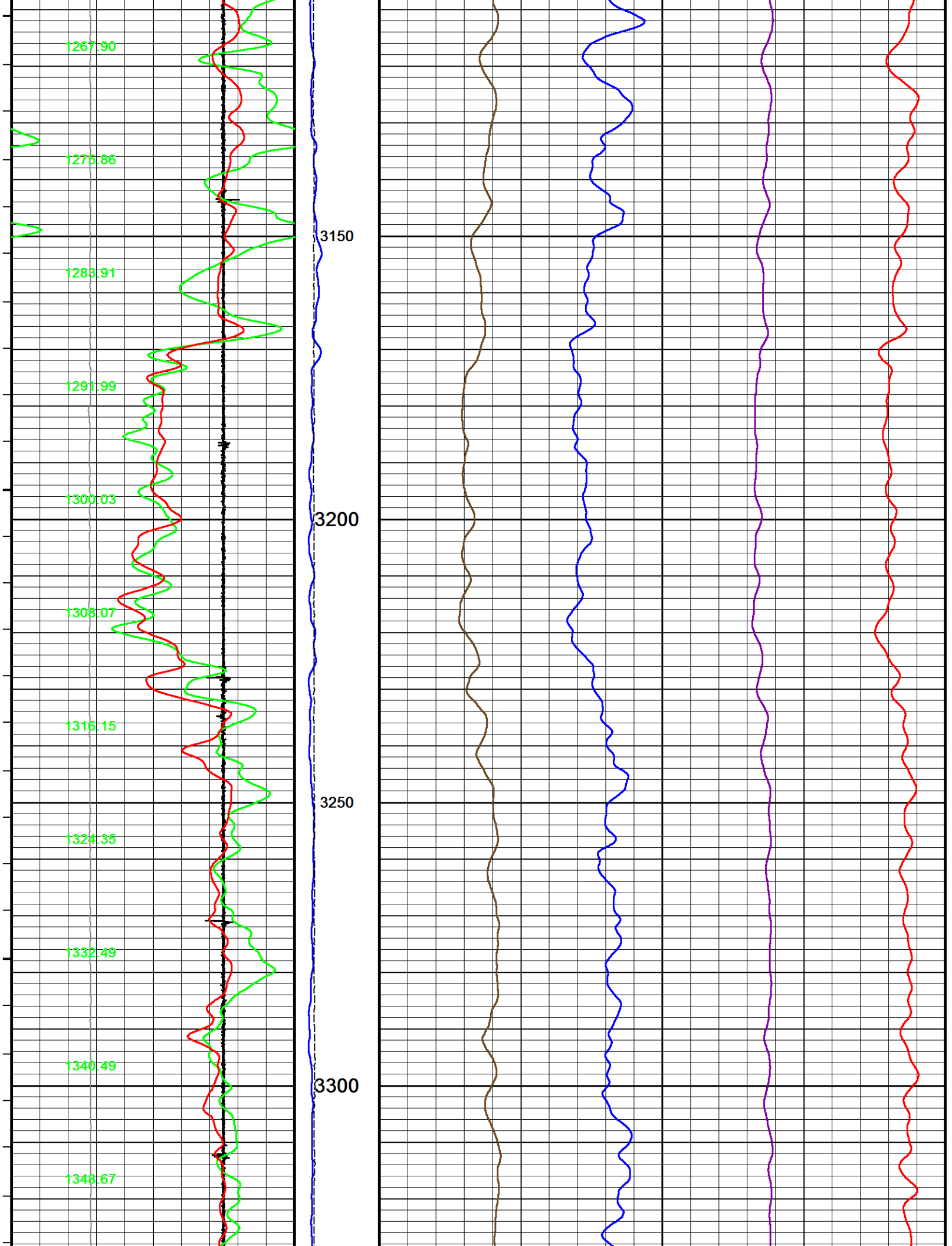
In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

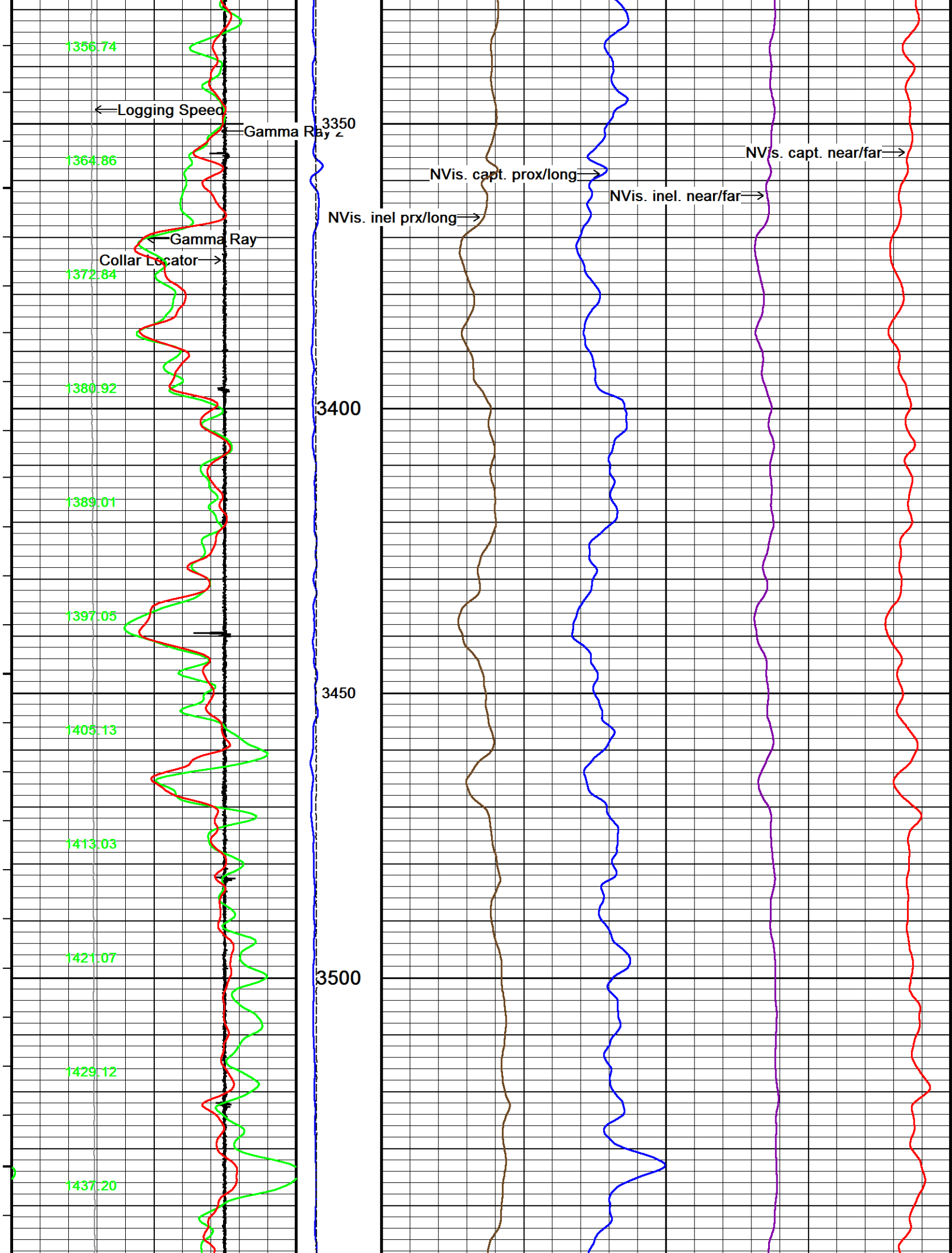


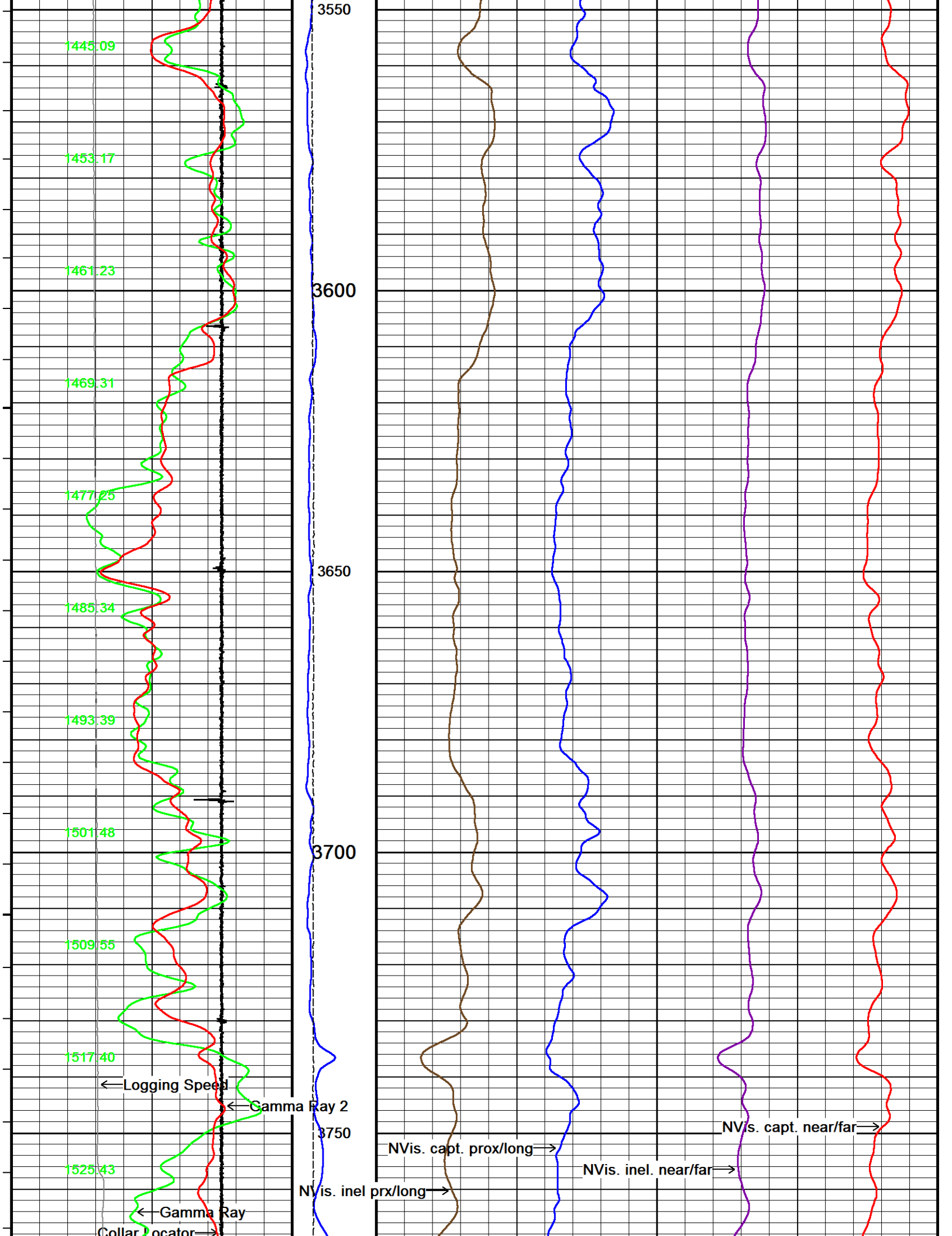


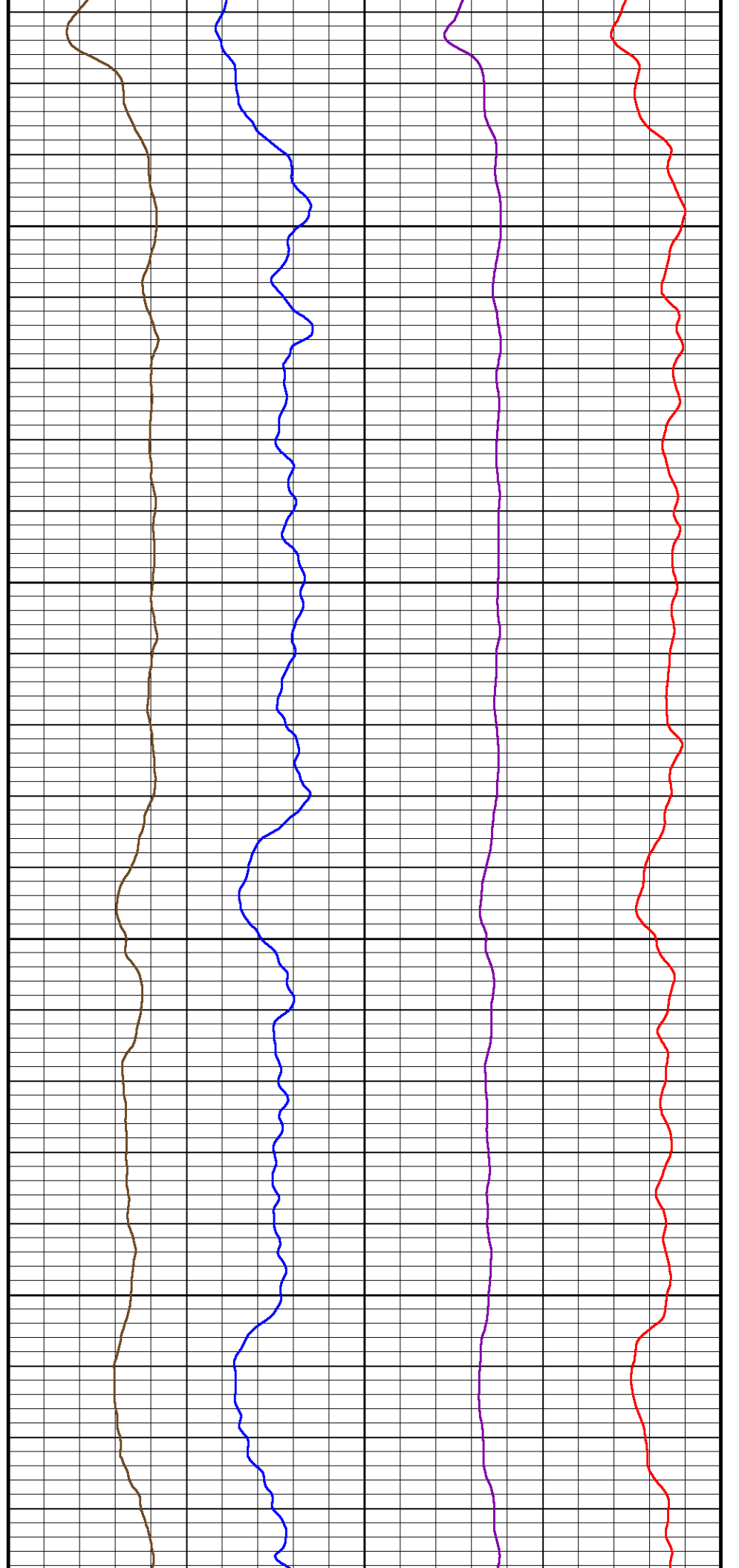
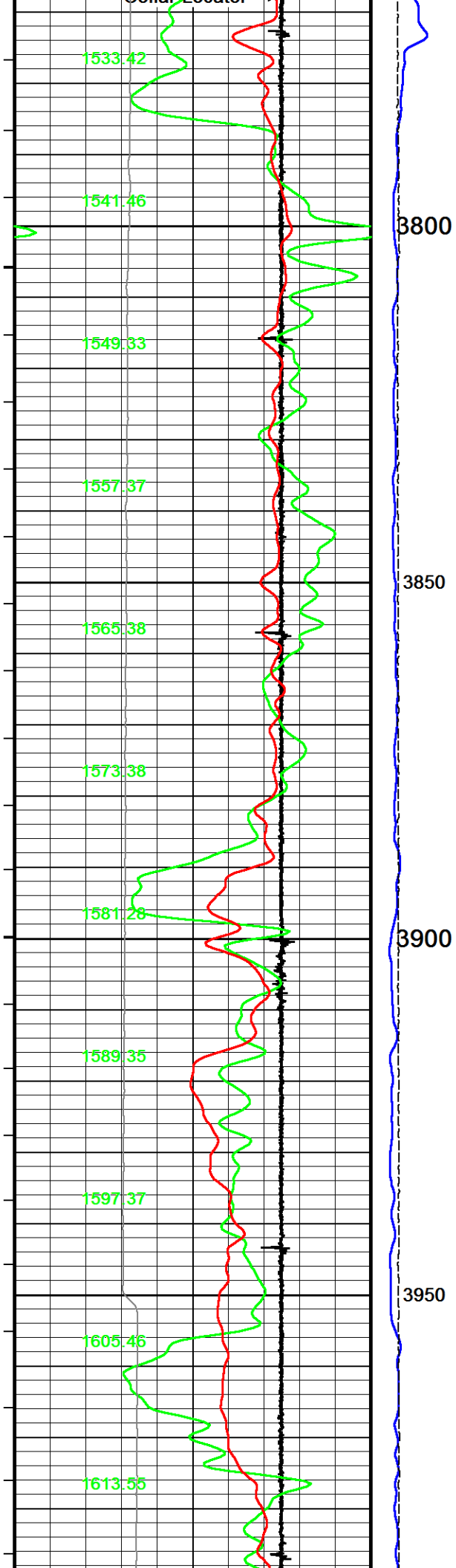


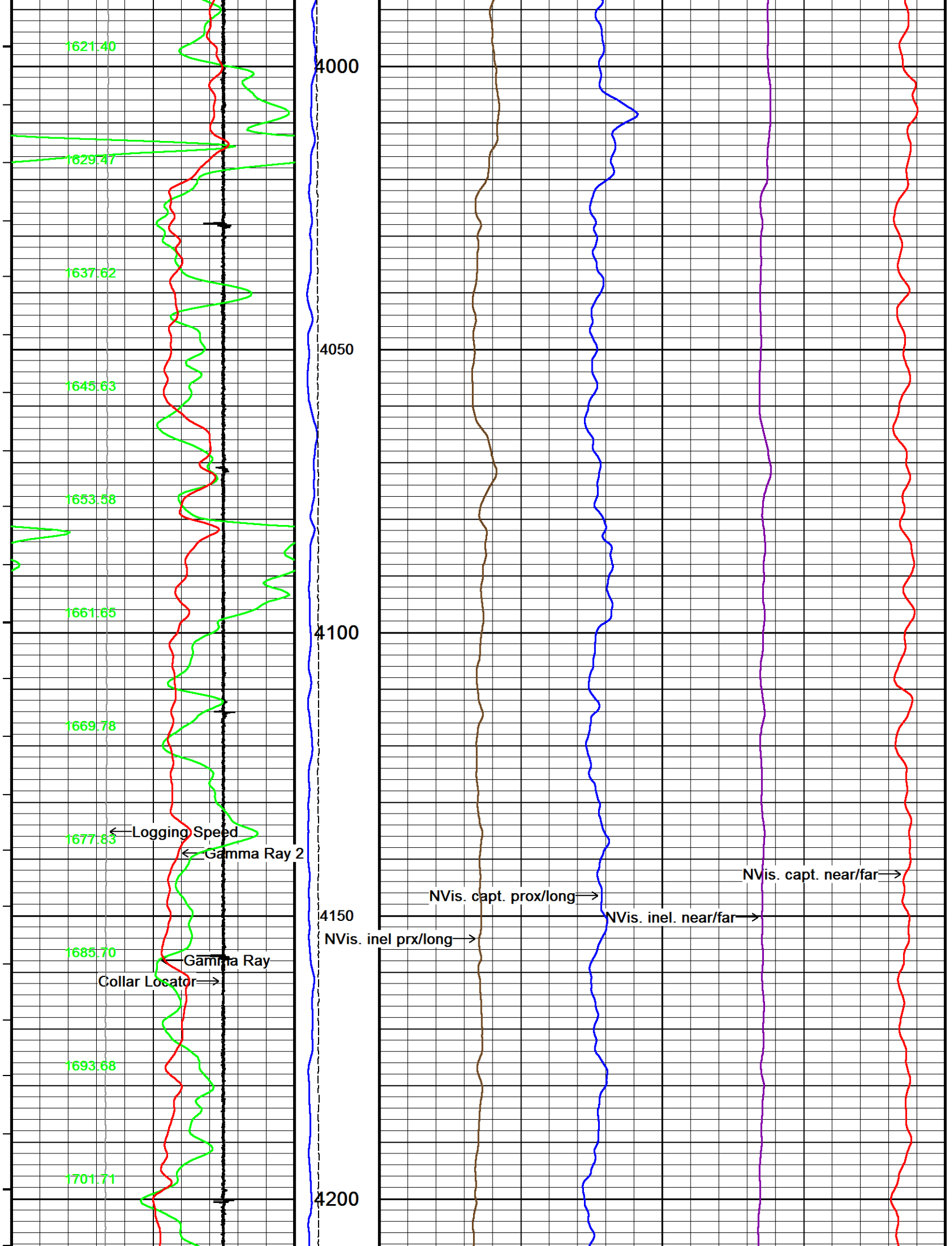


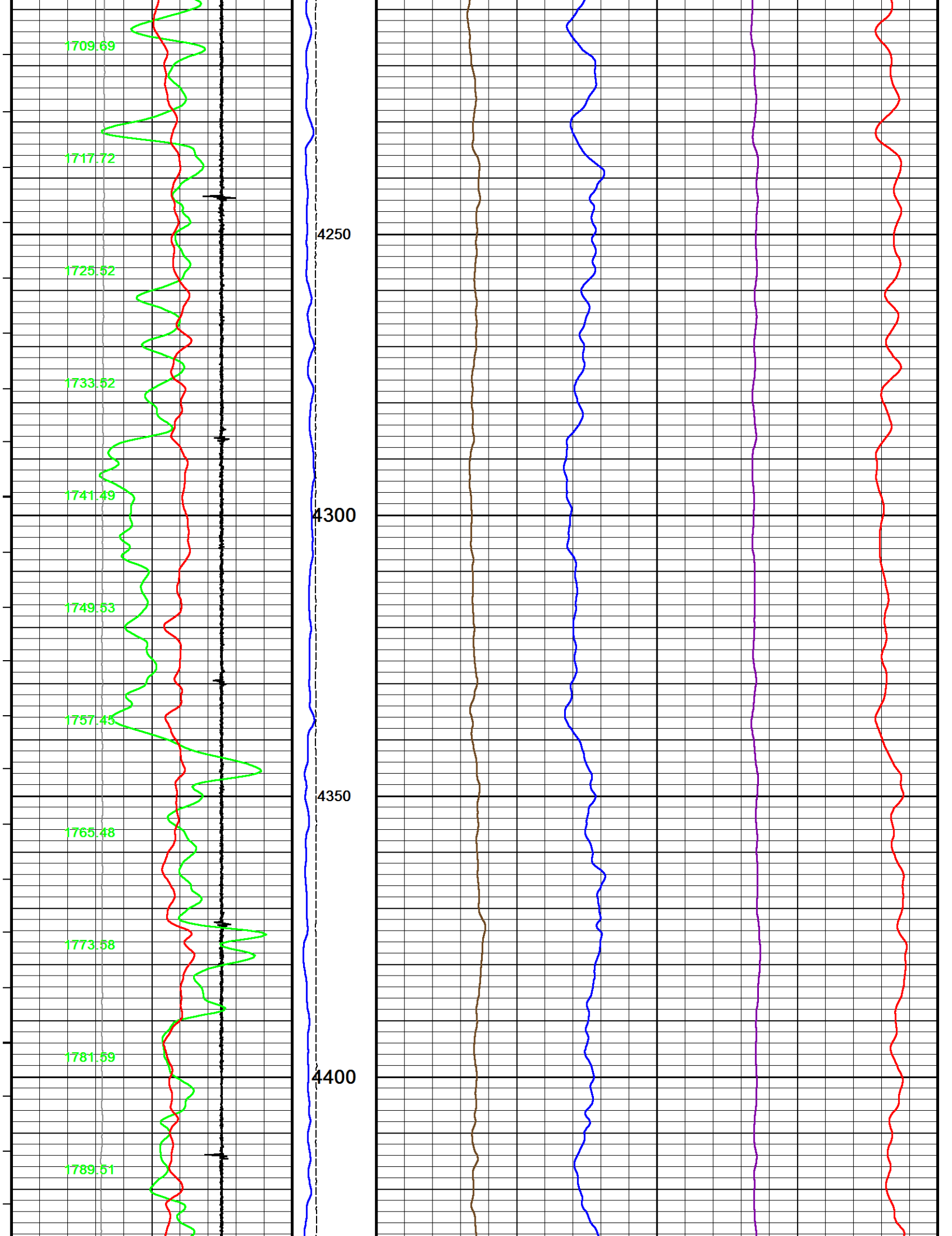


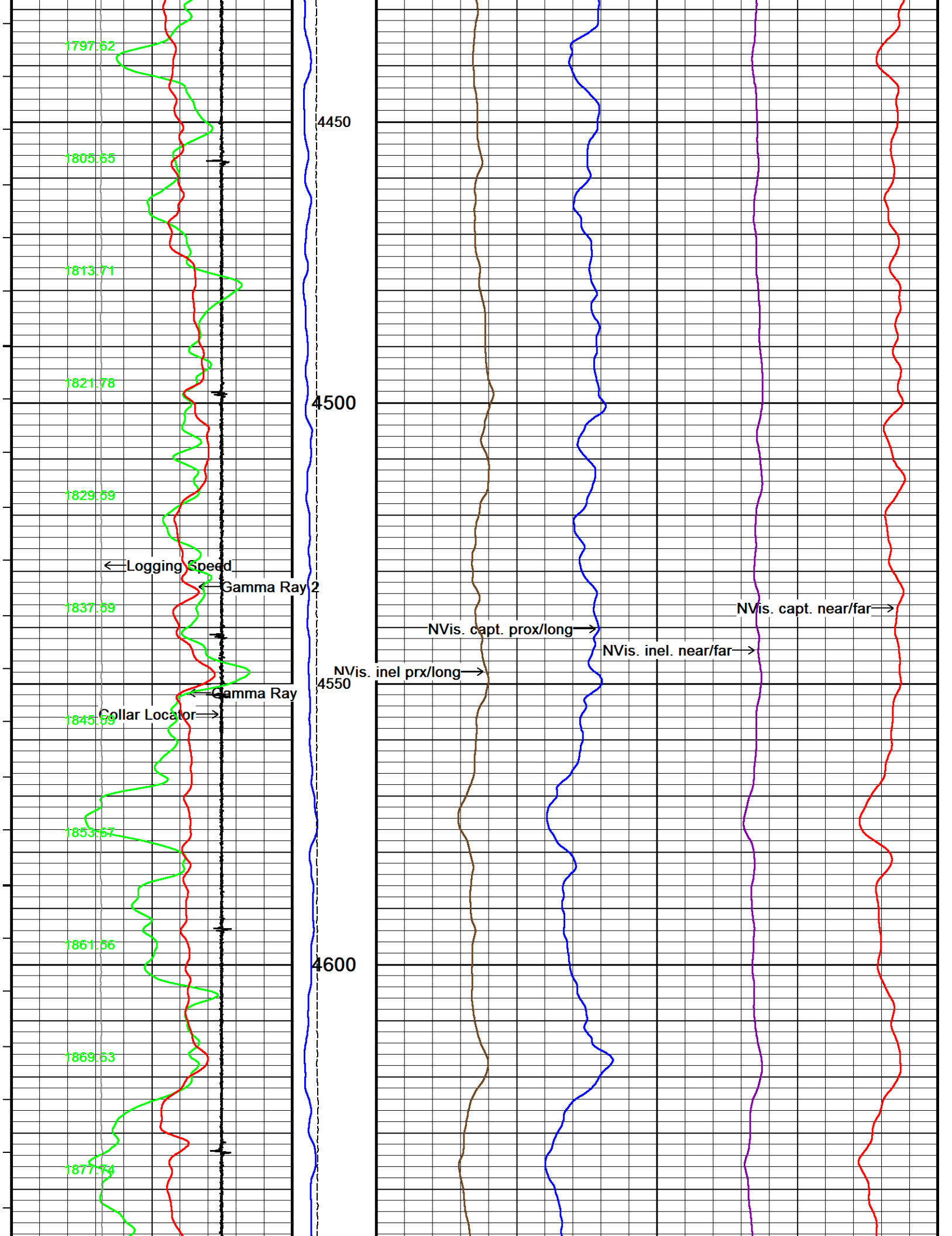


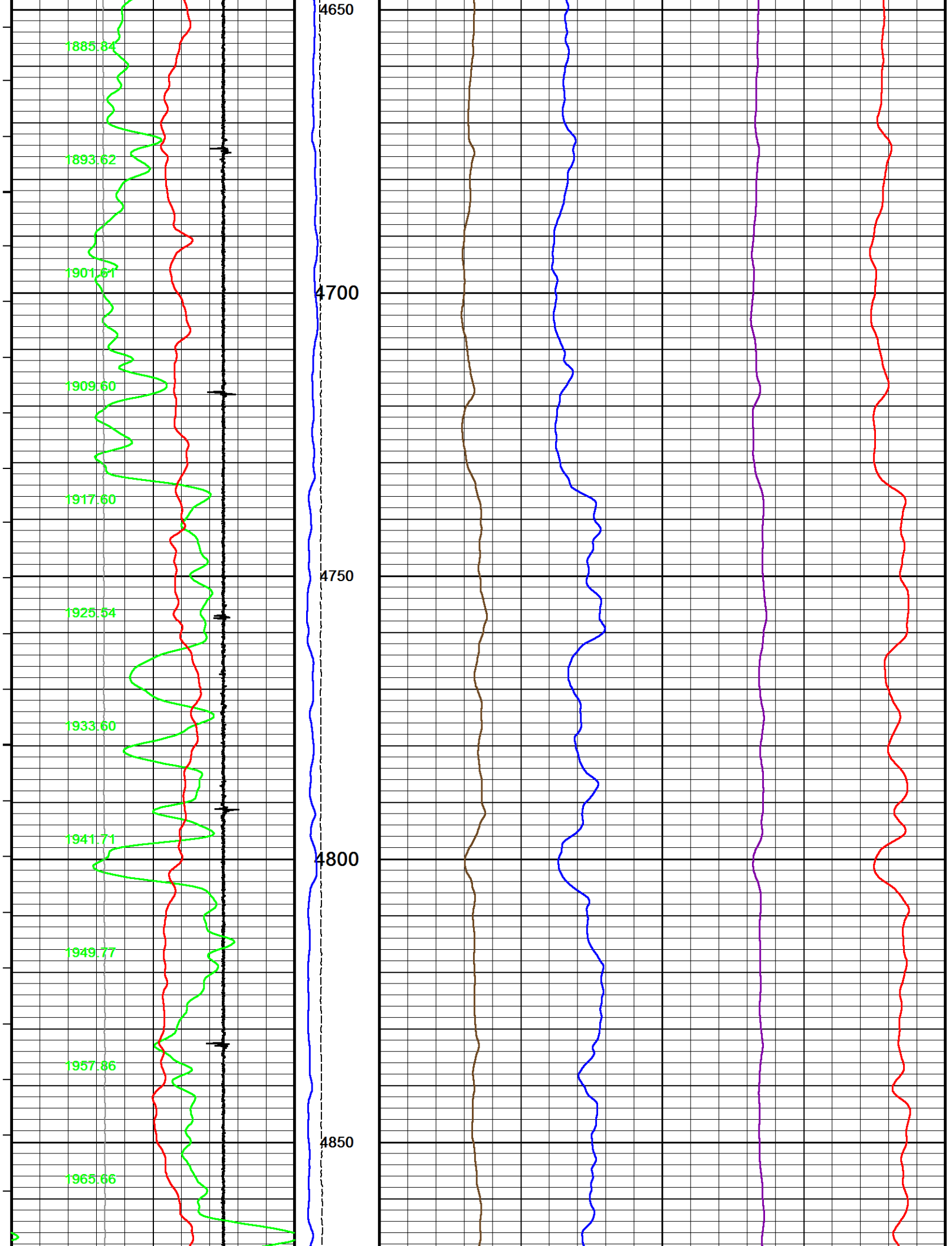


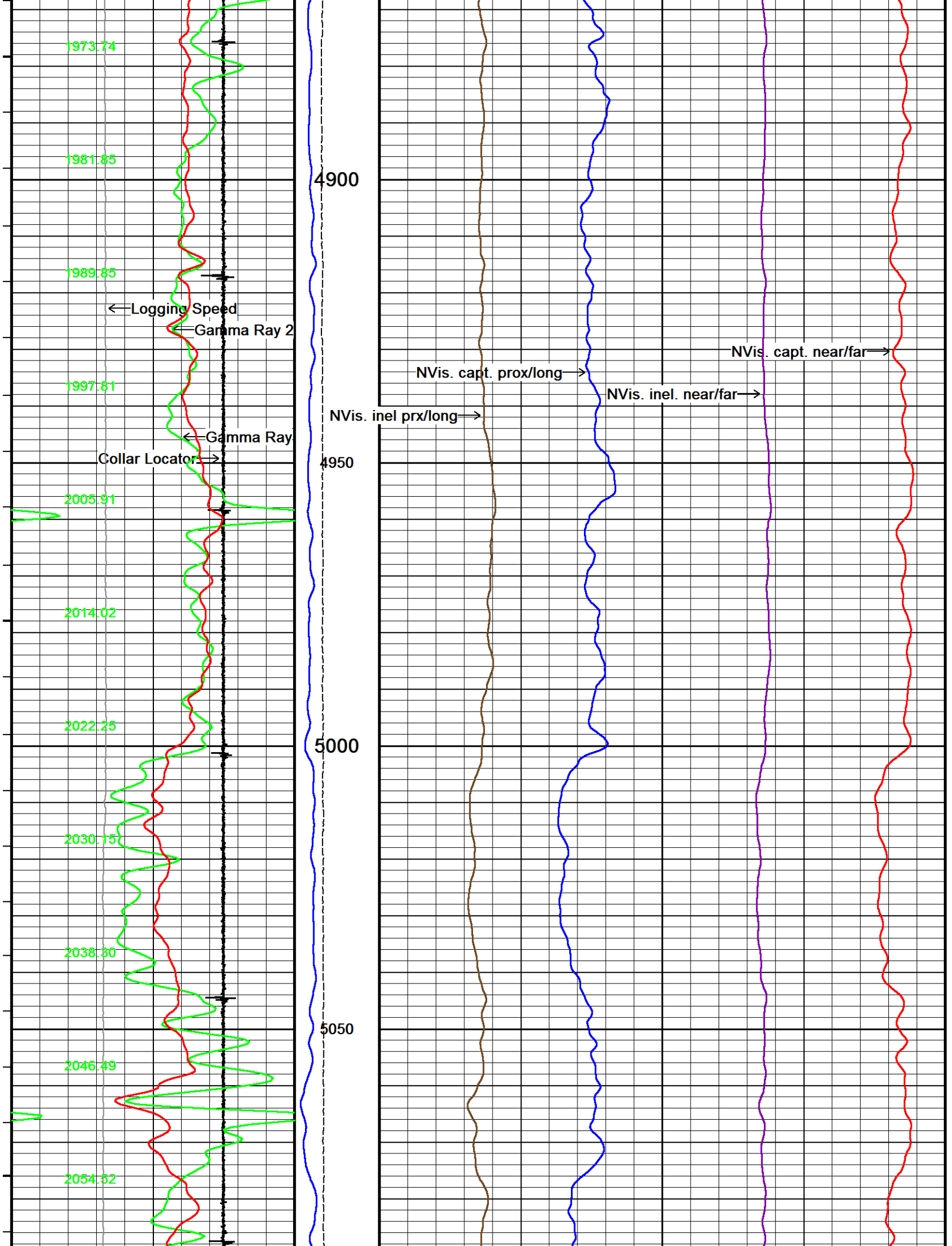


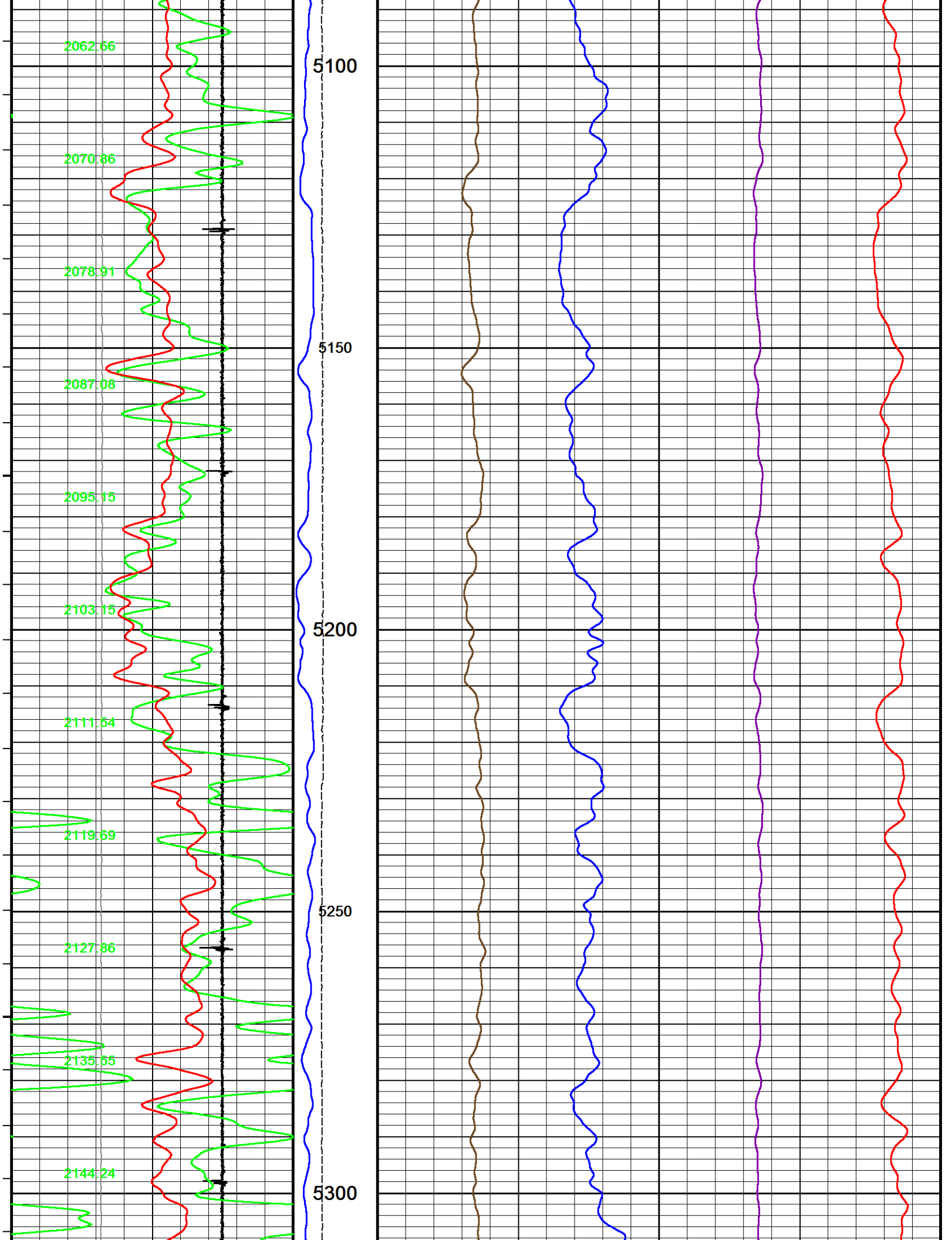


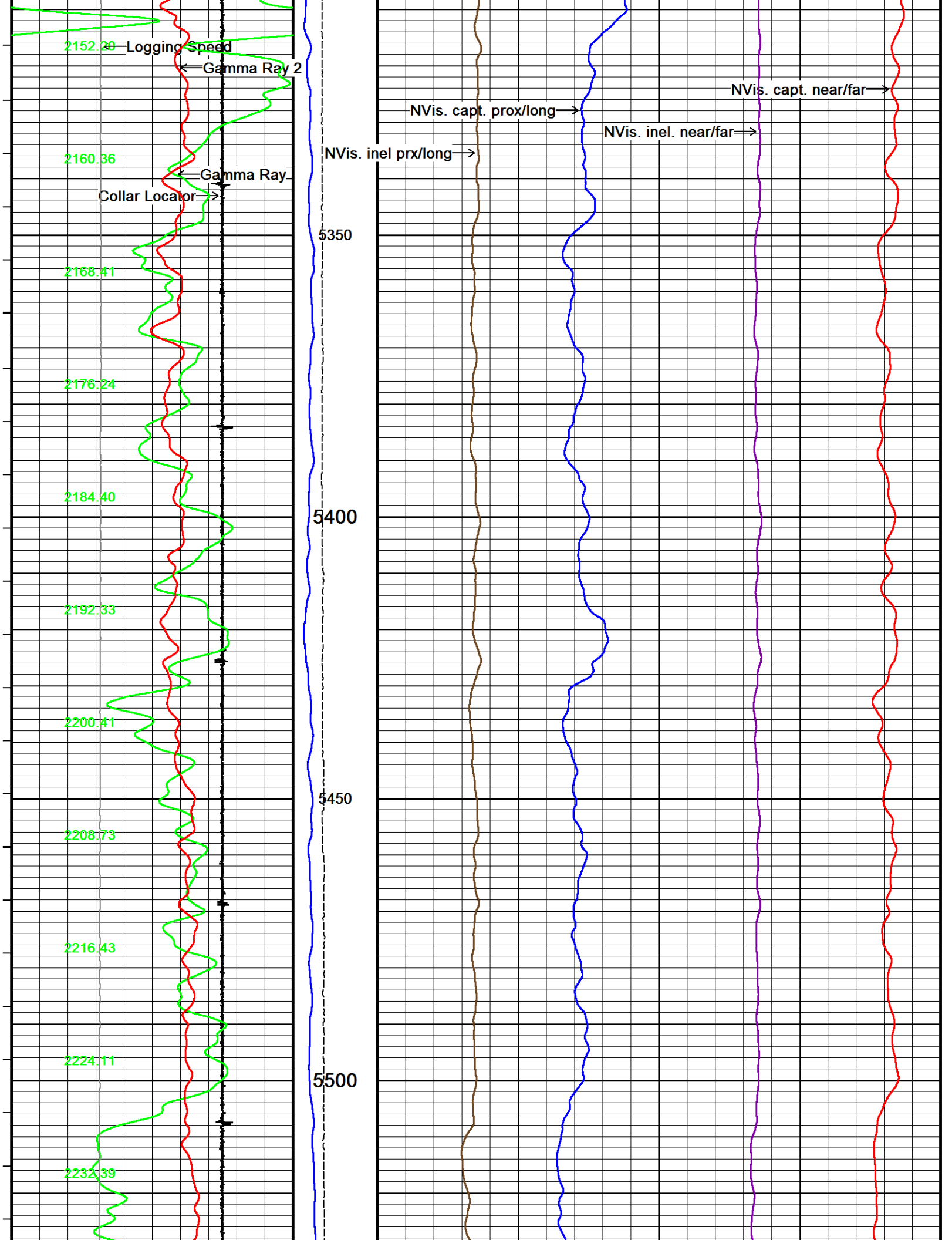


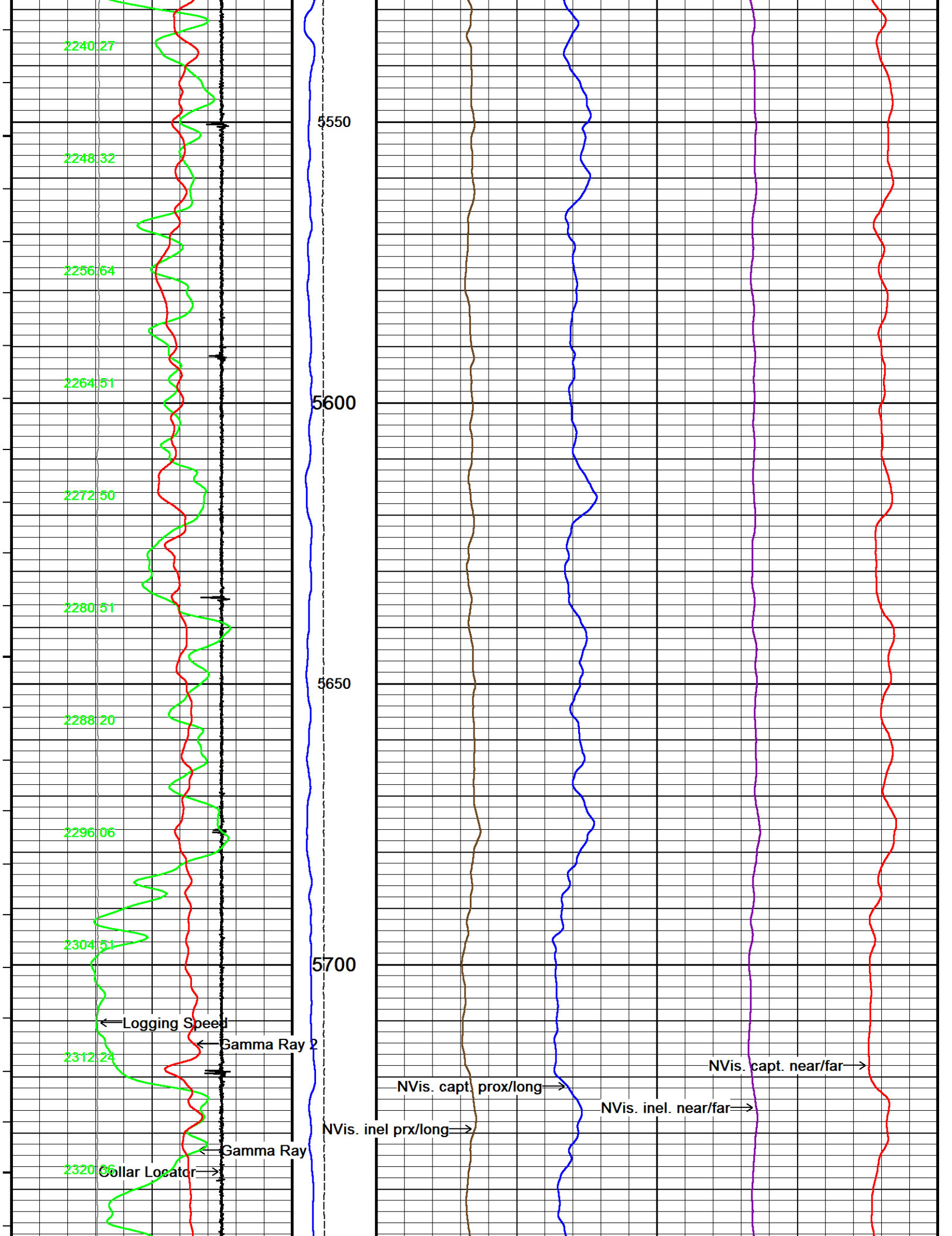


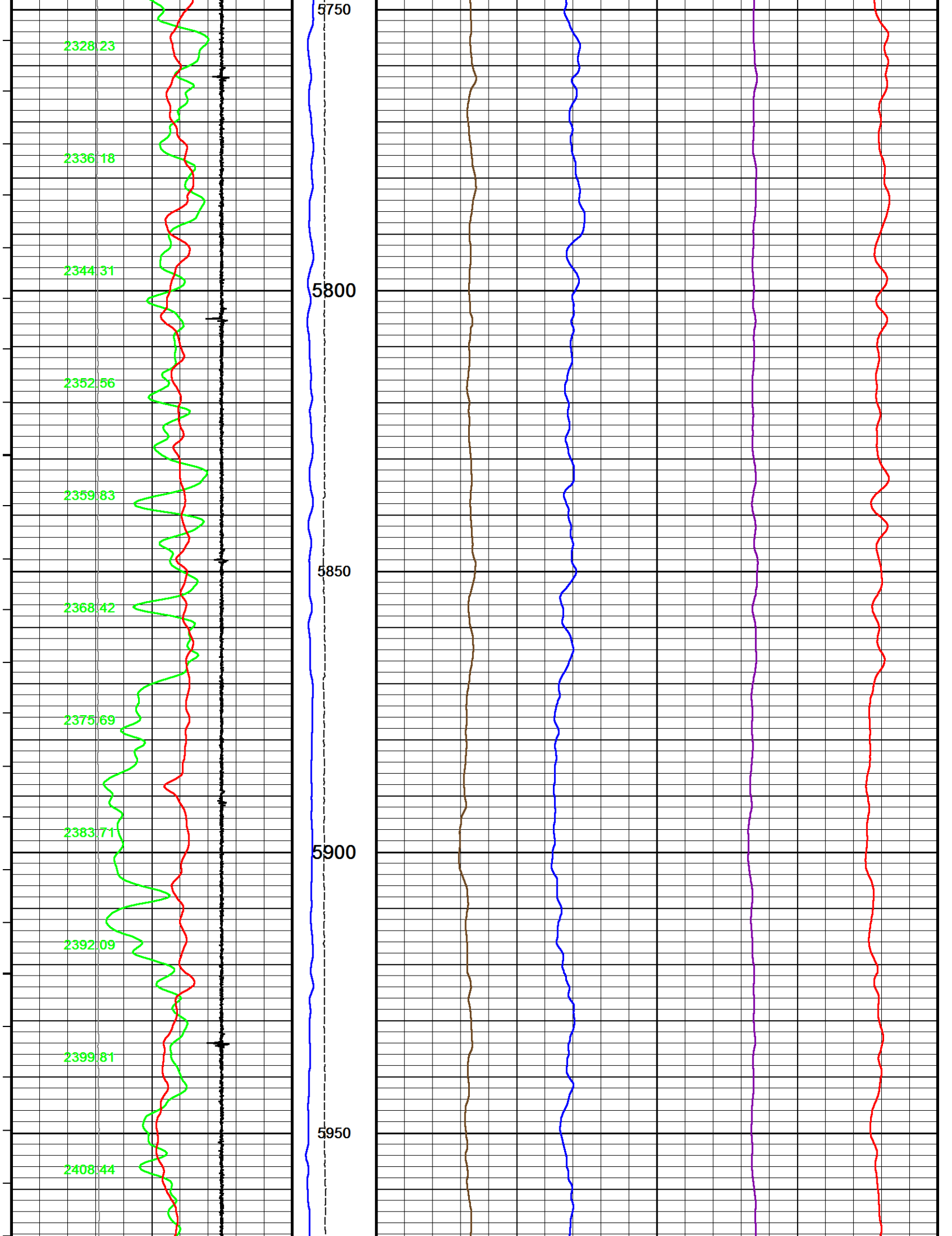


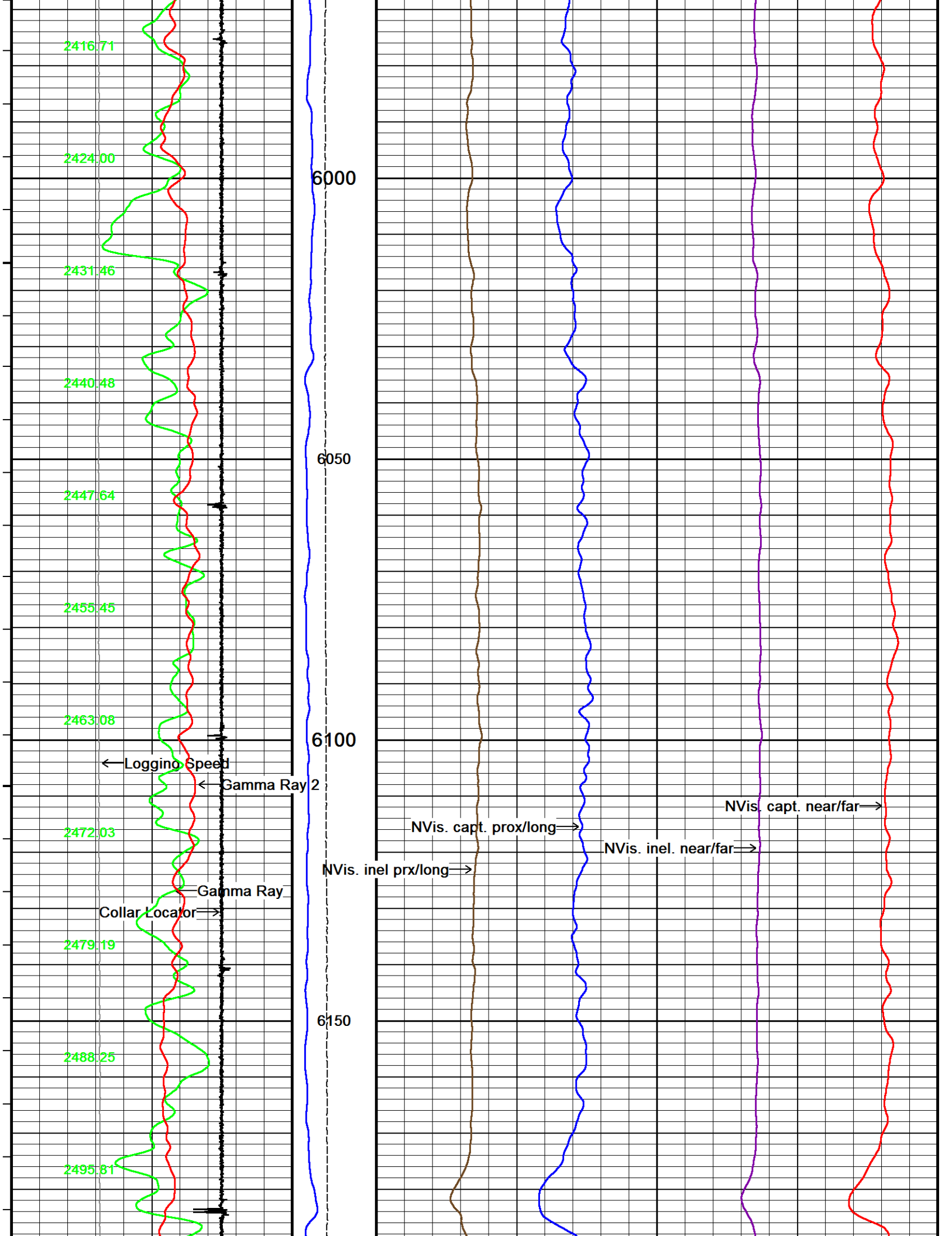


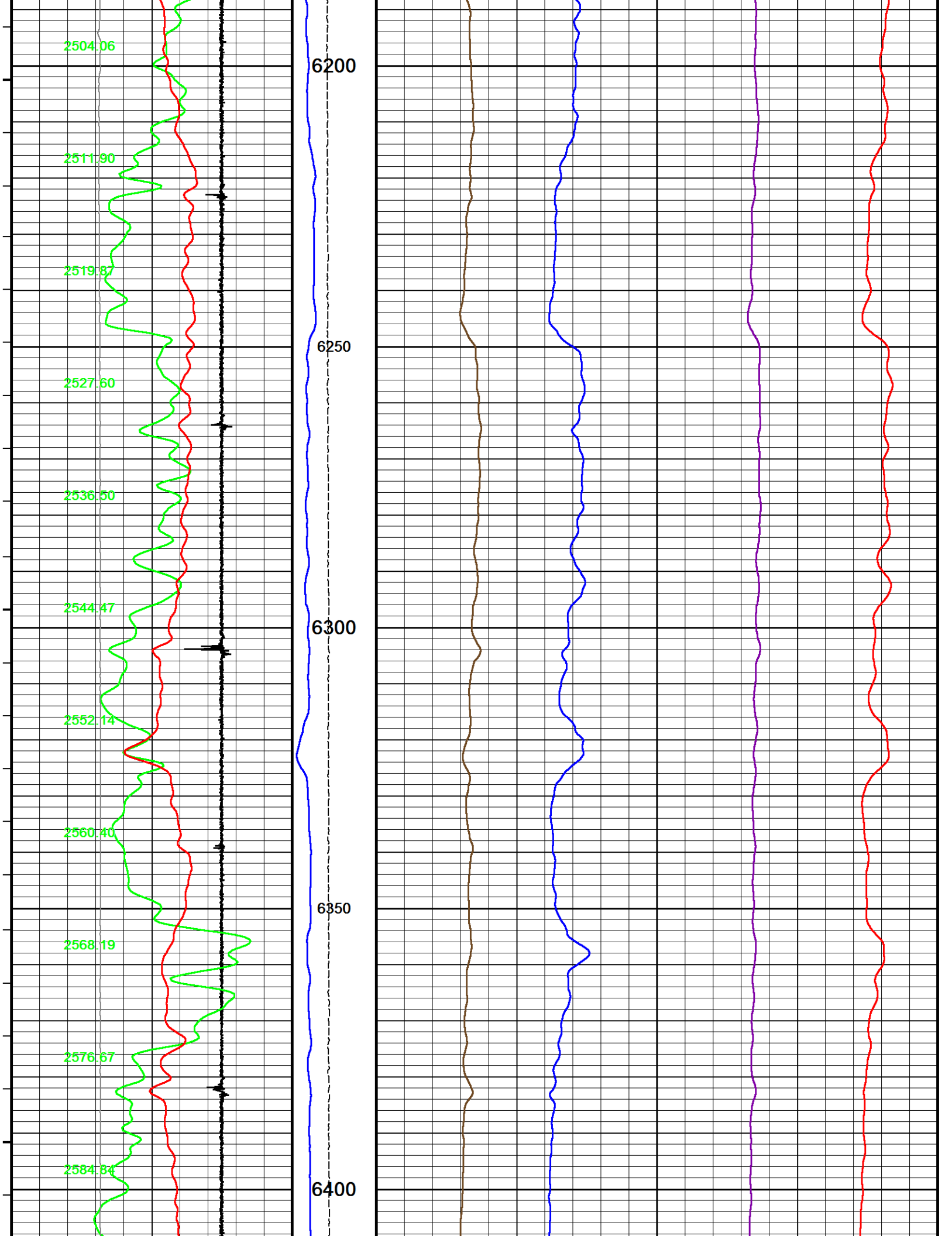


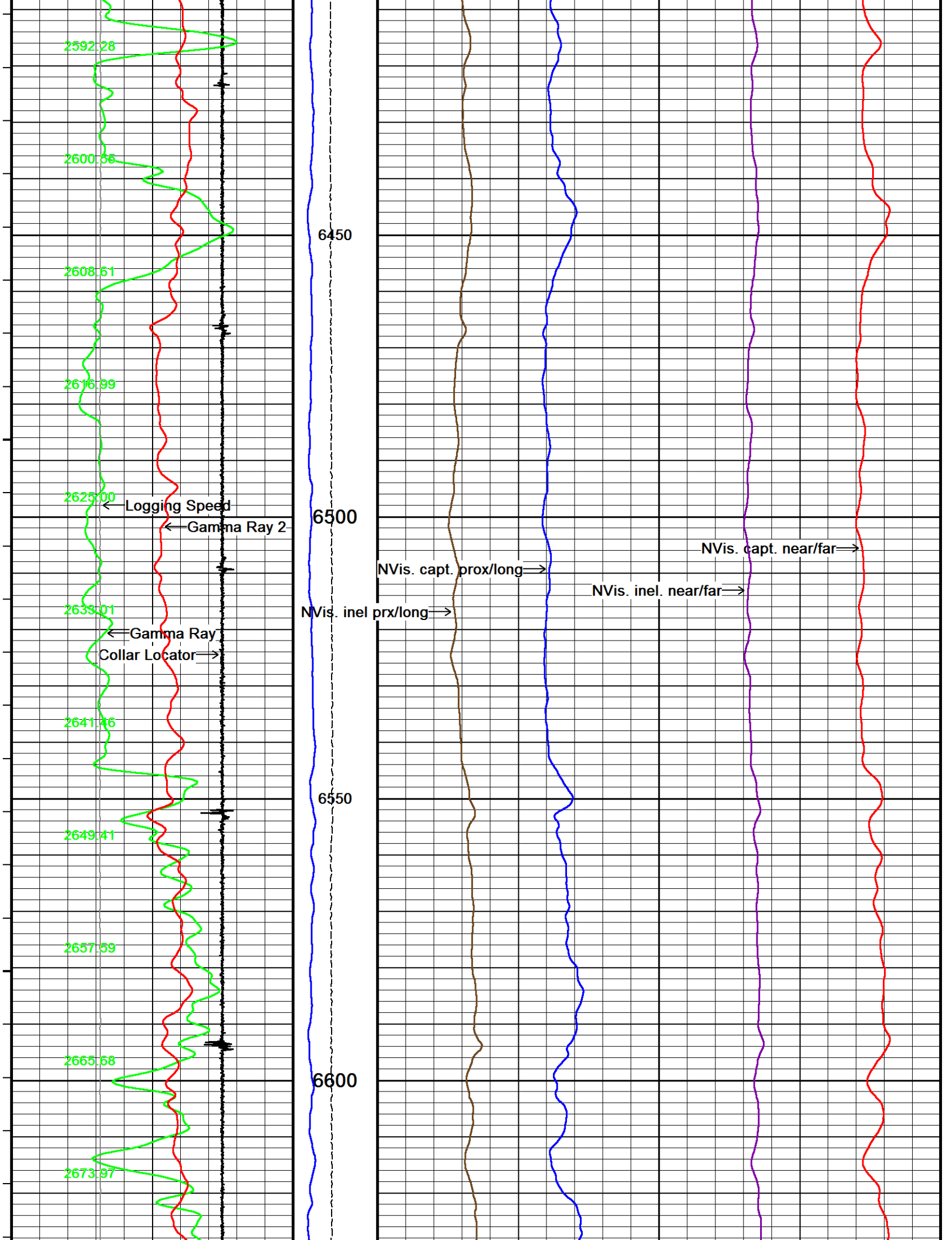


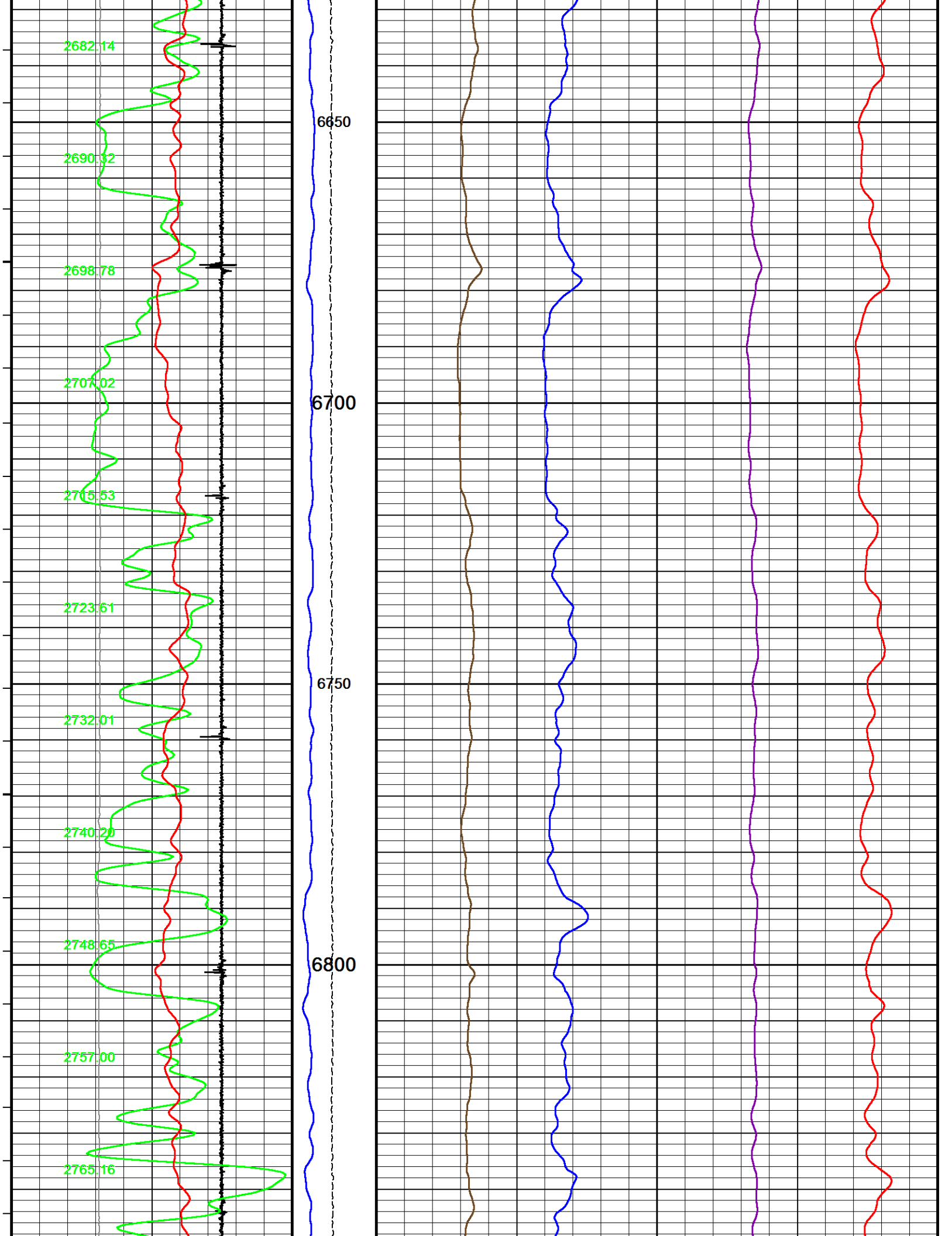


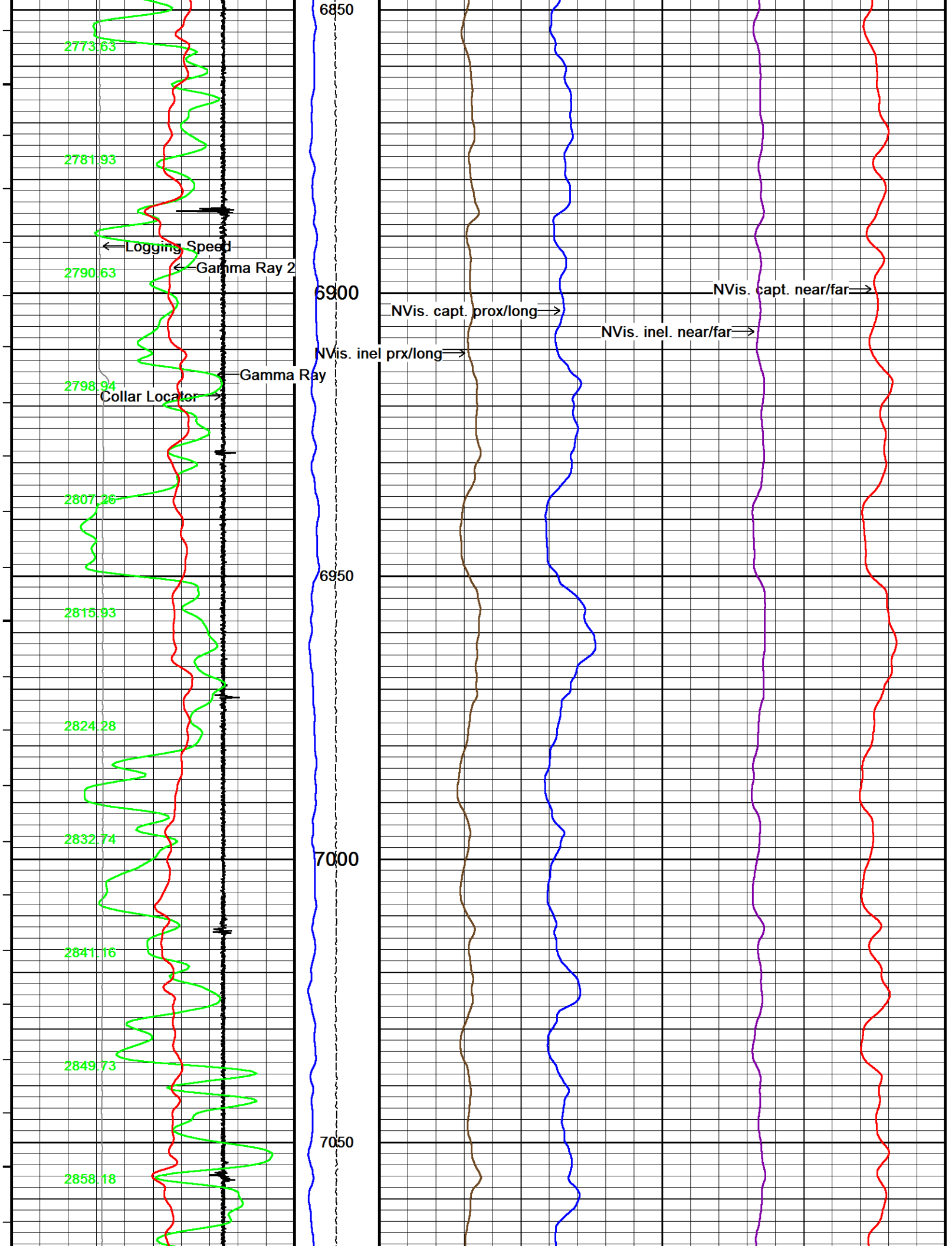


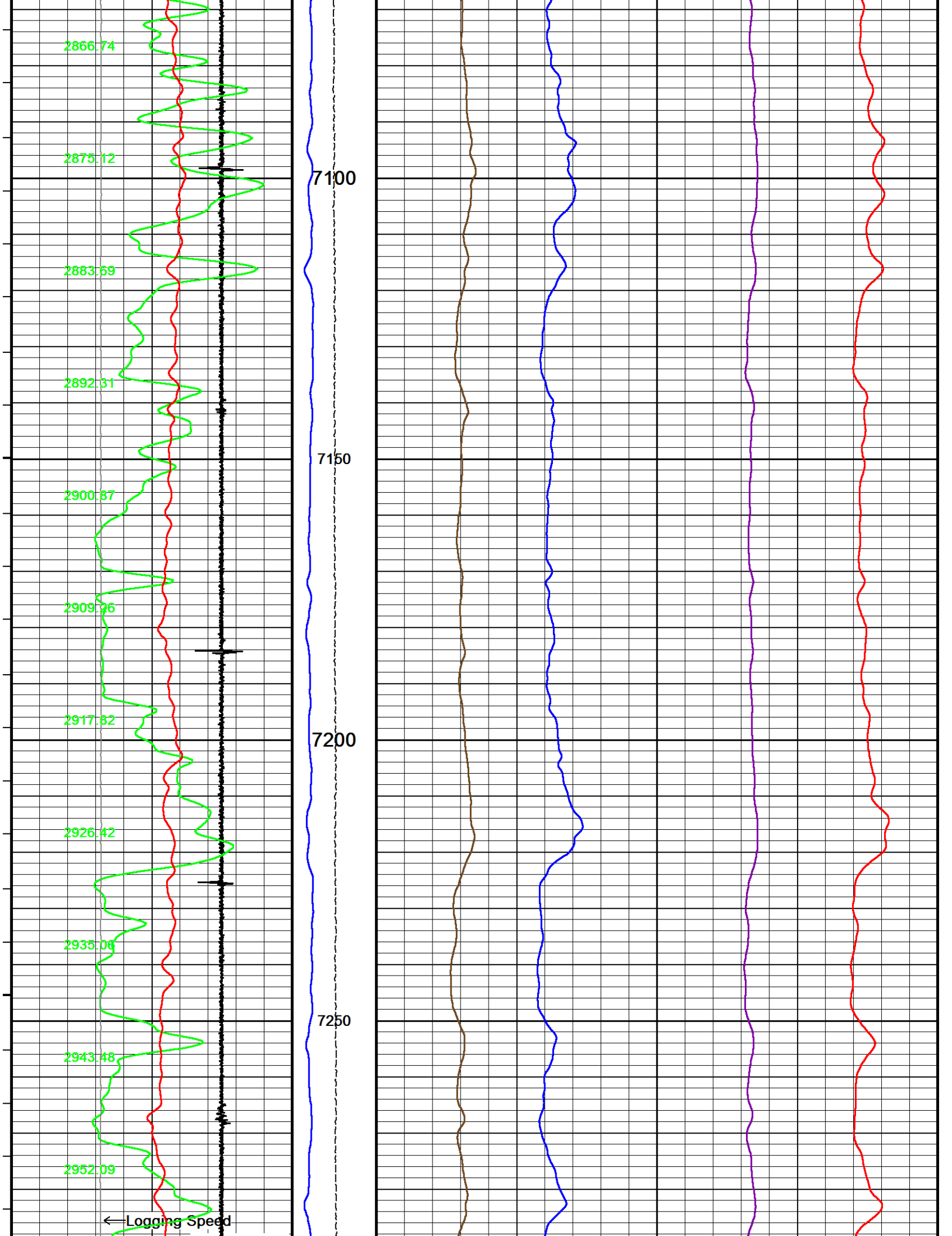


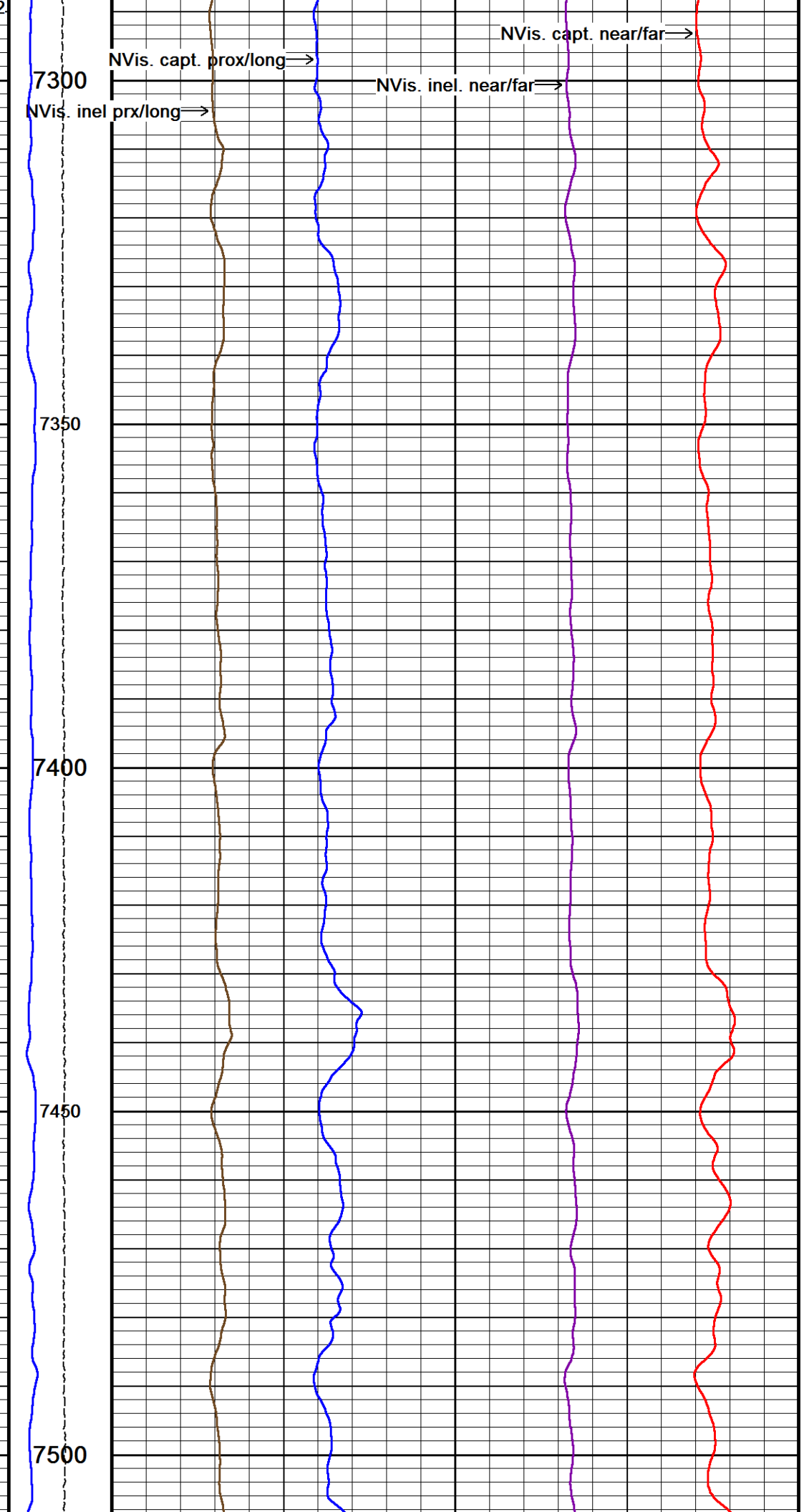
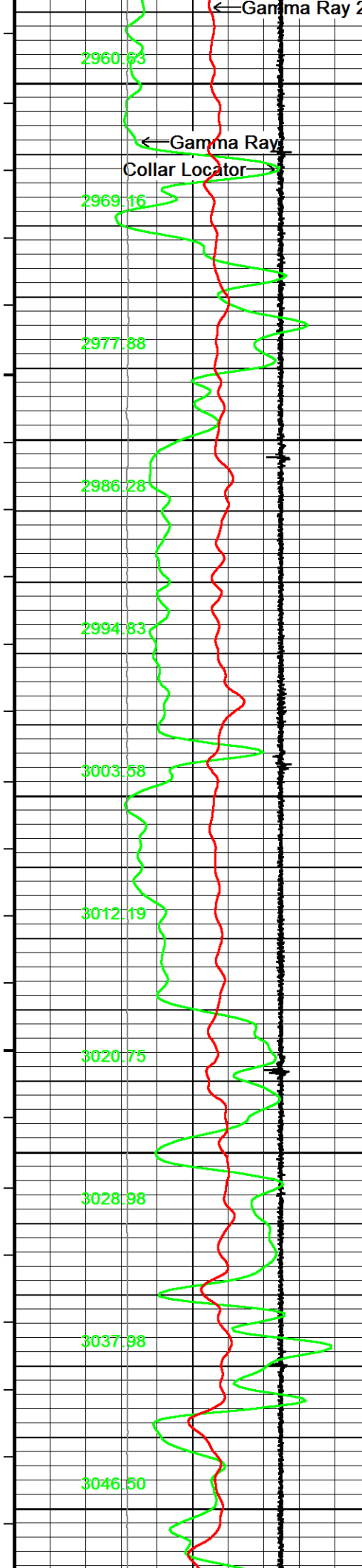


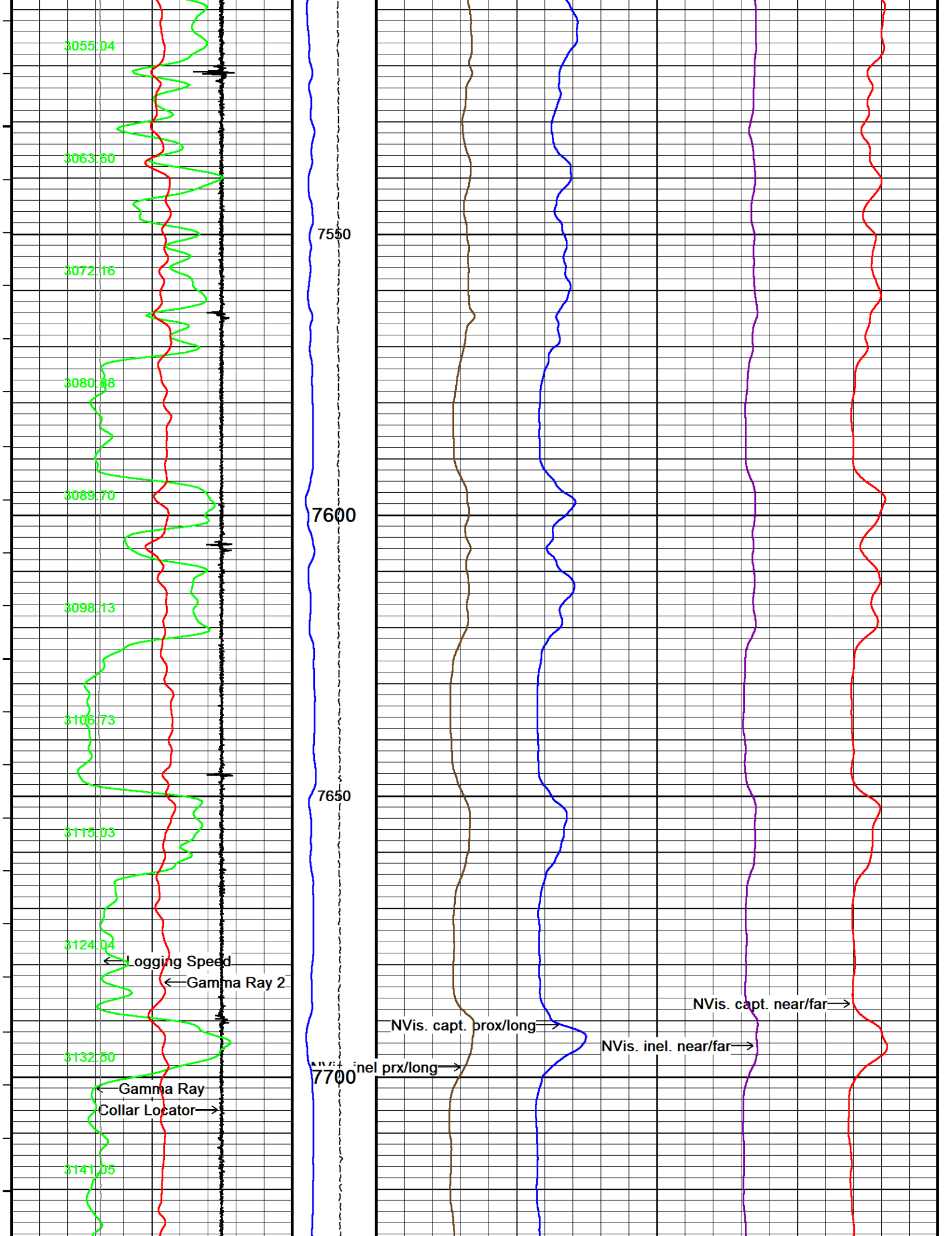


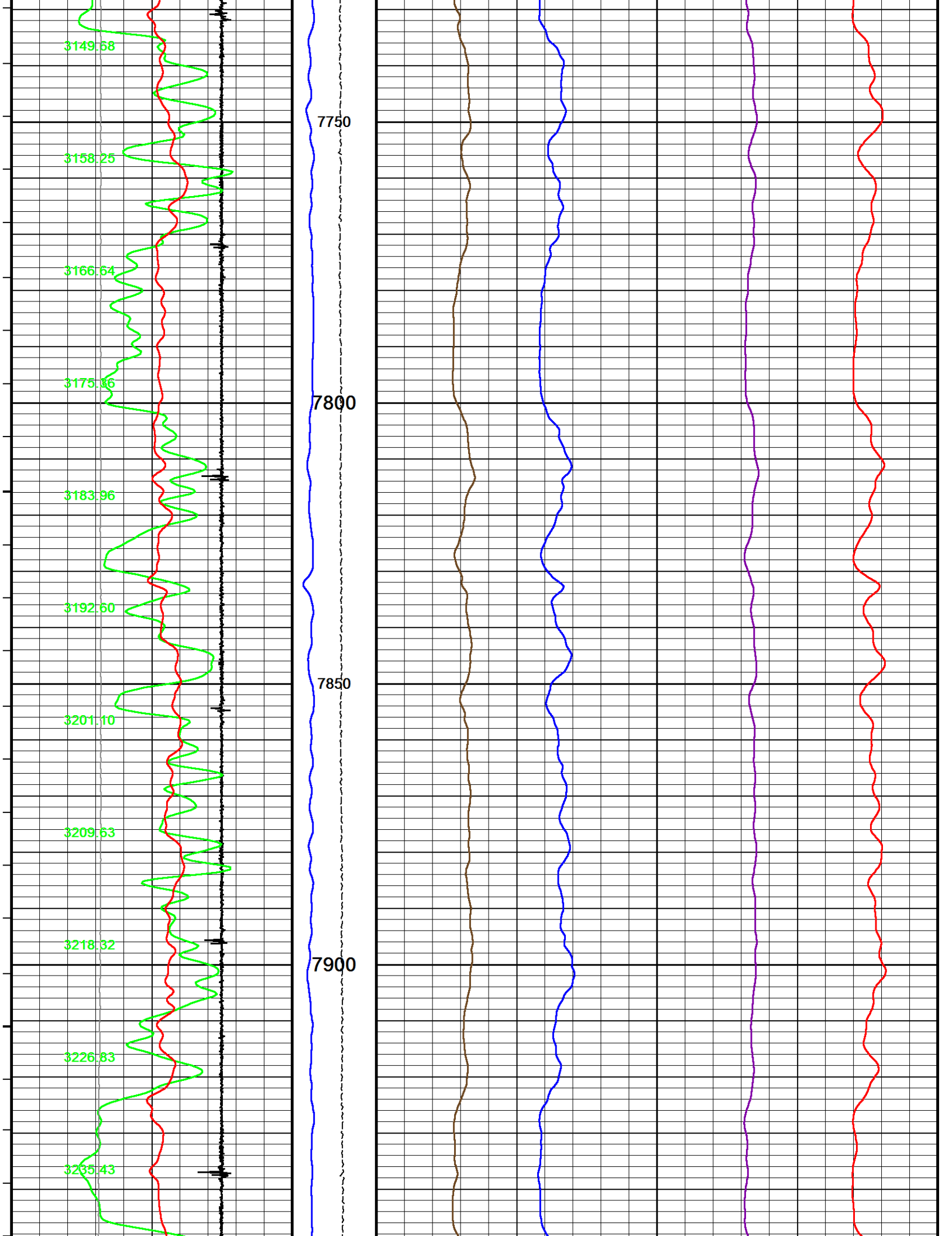


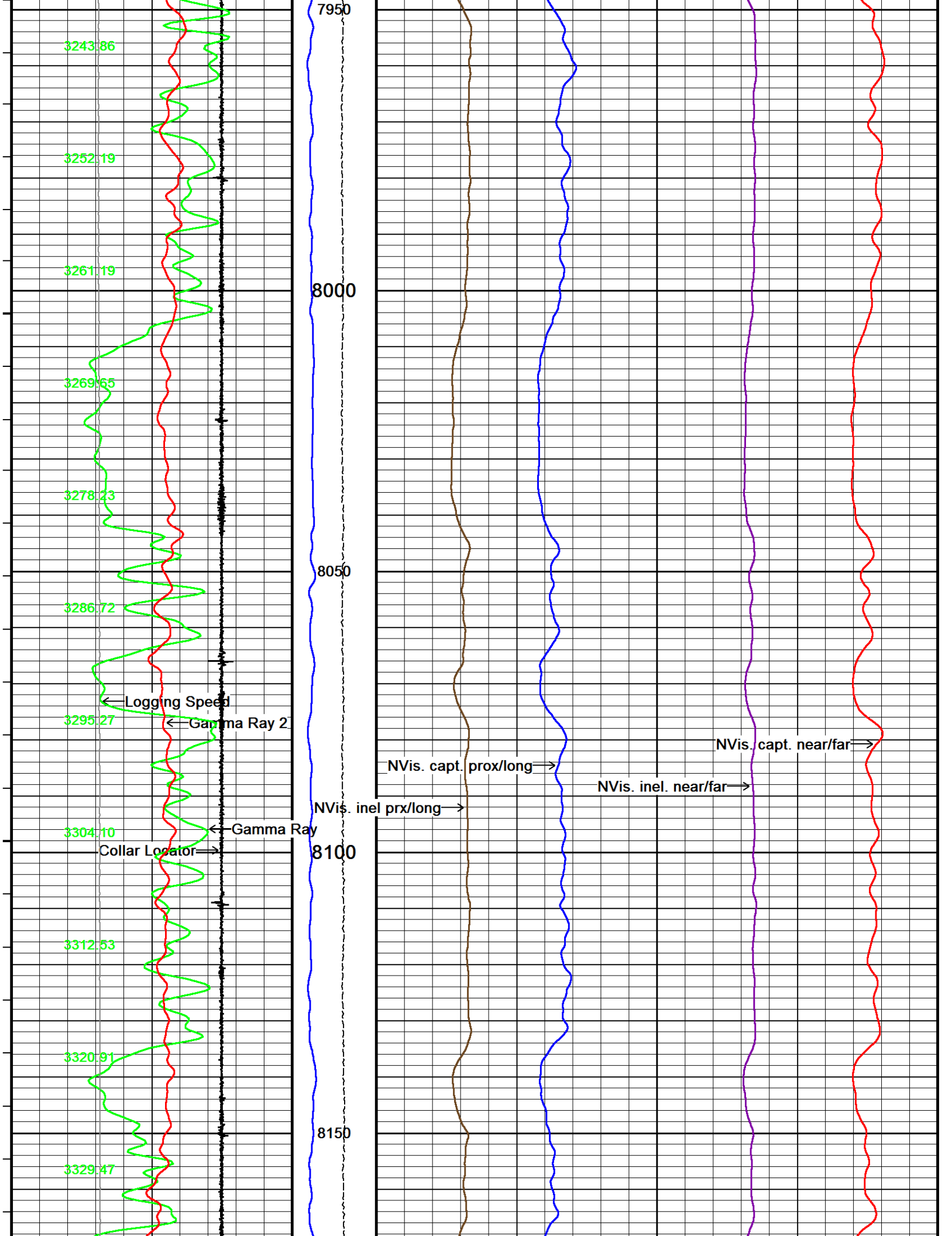


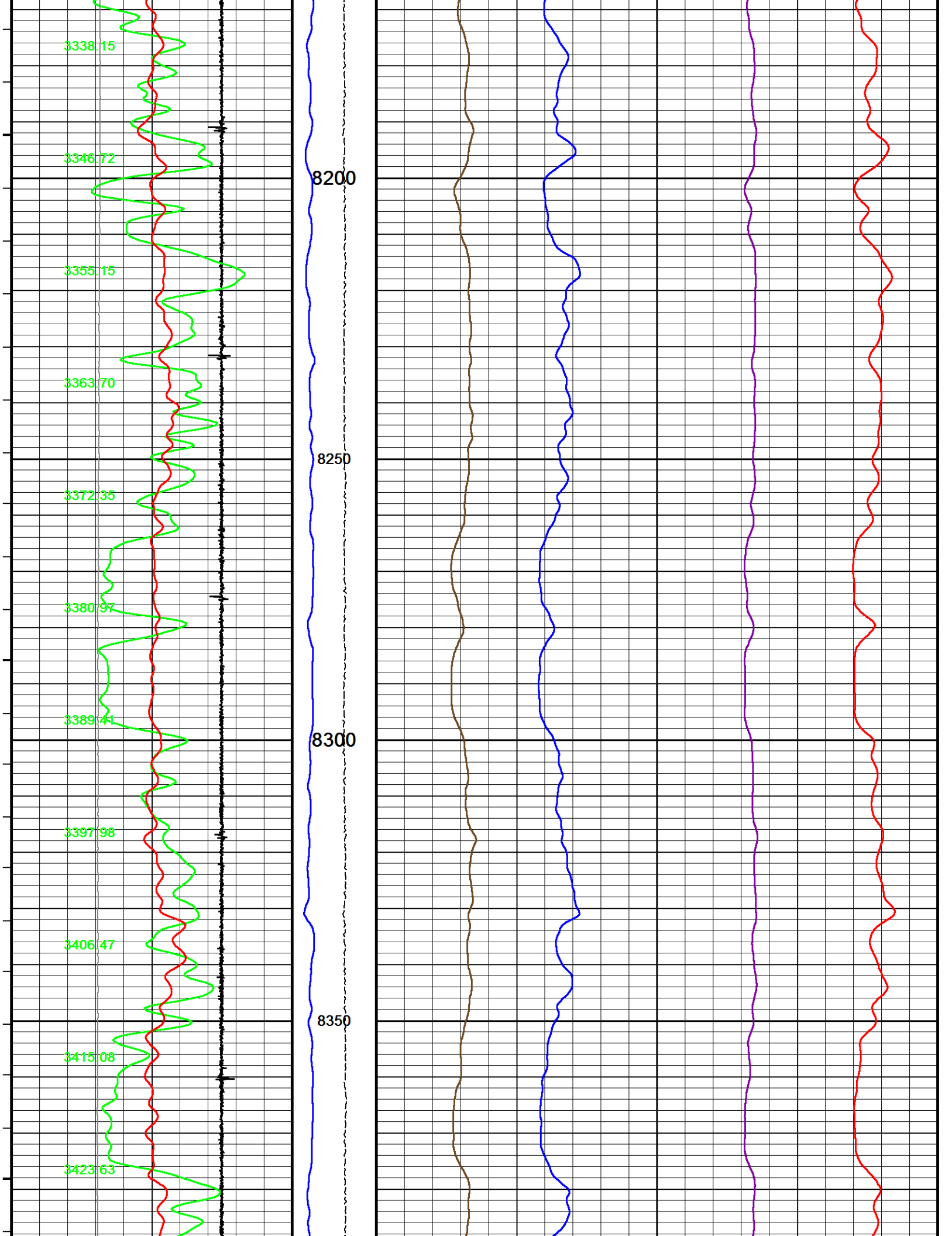


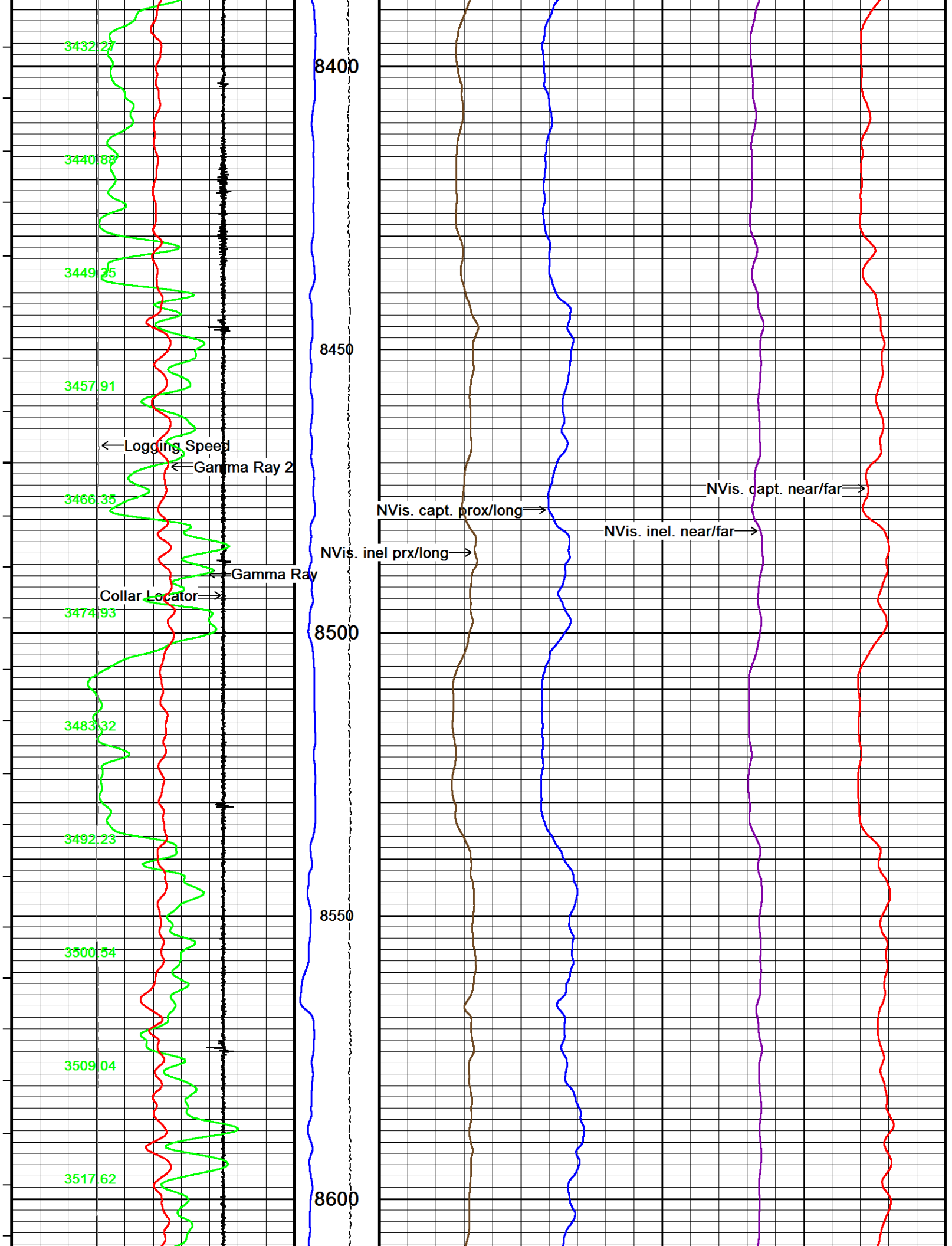


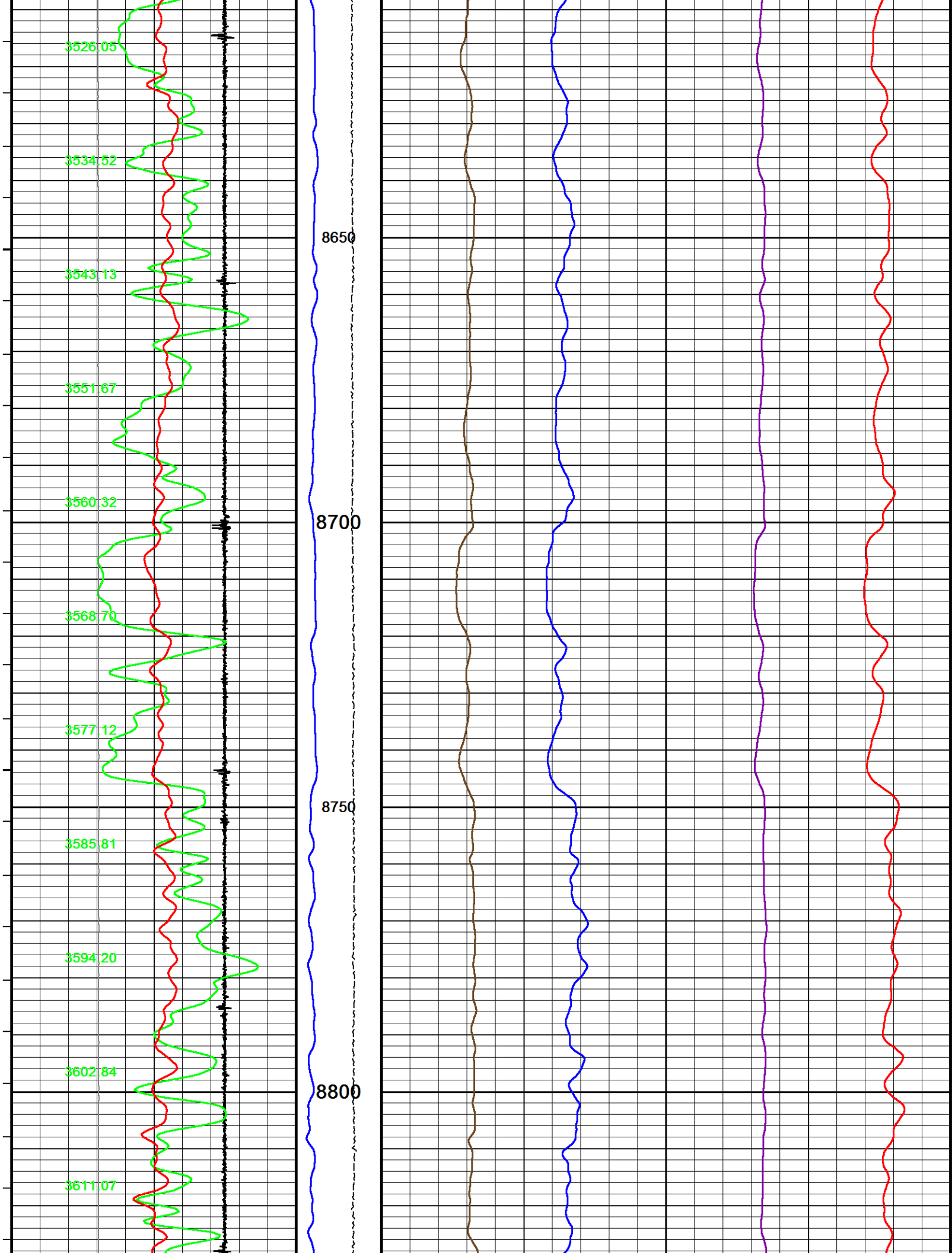


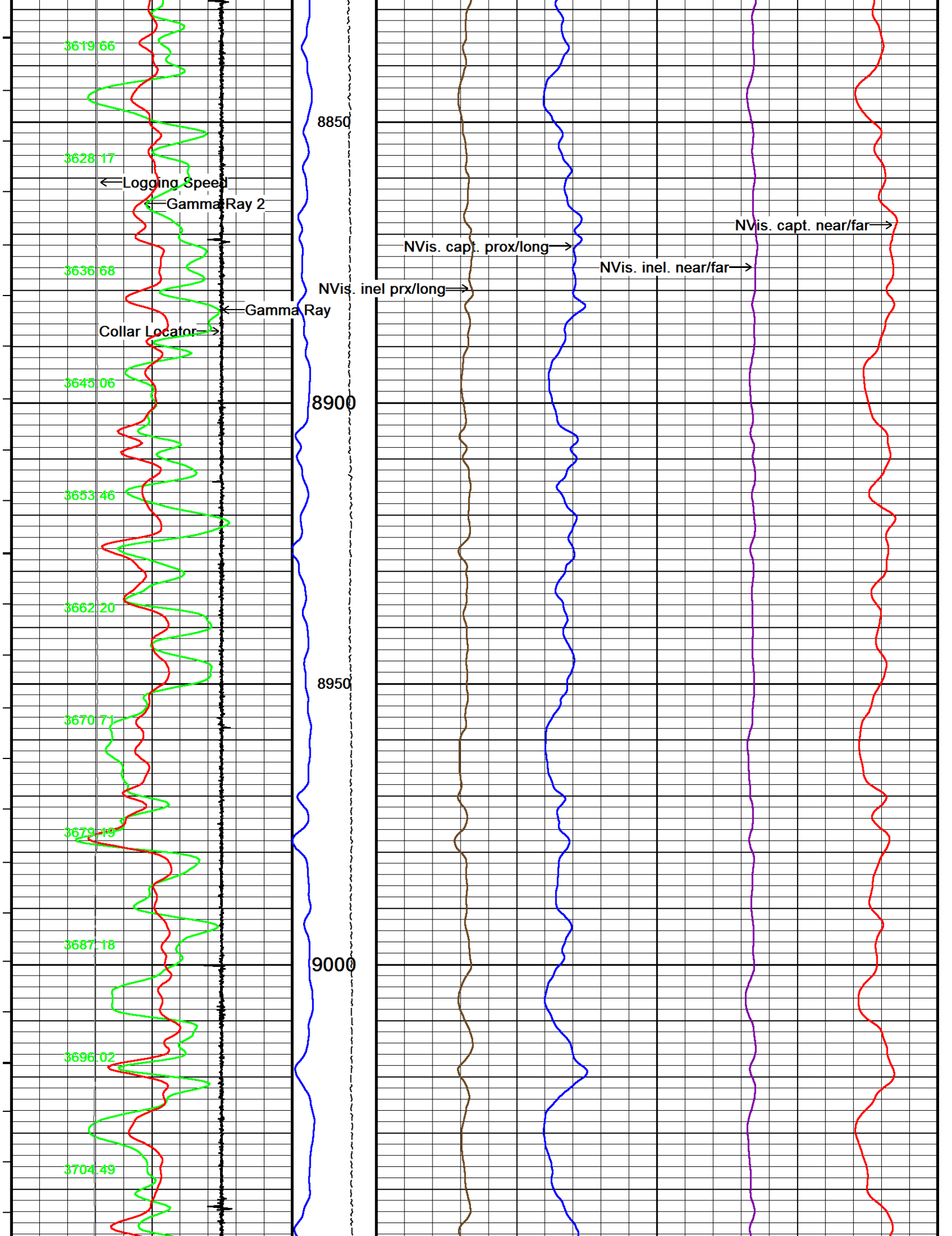


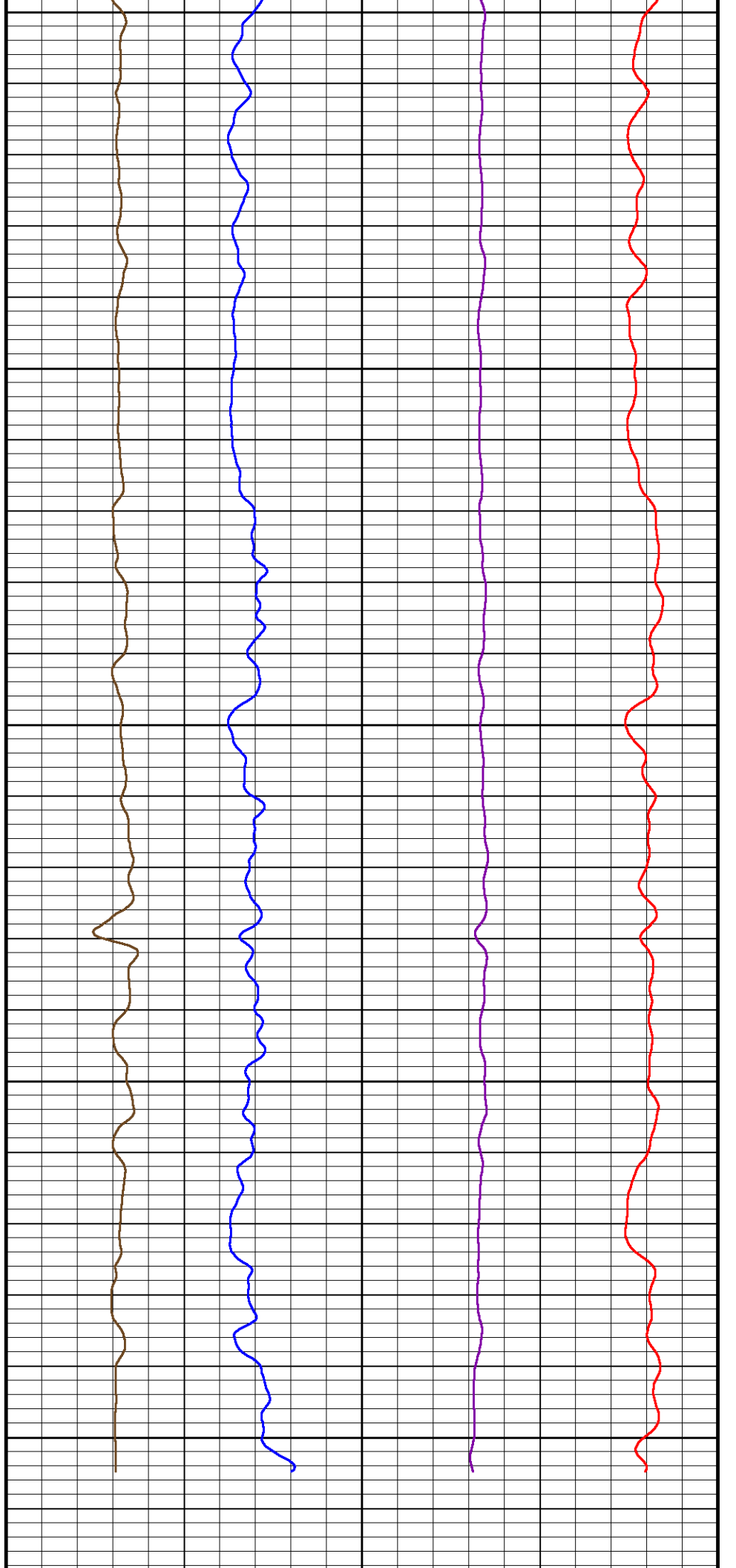
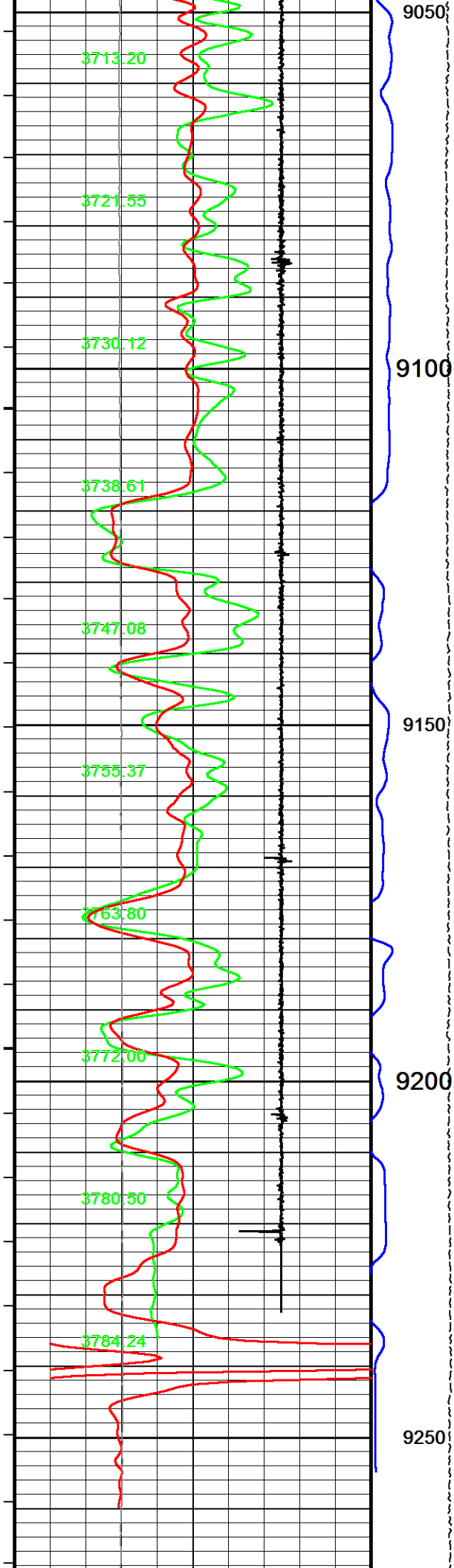


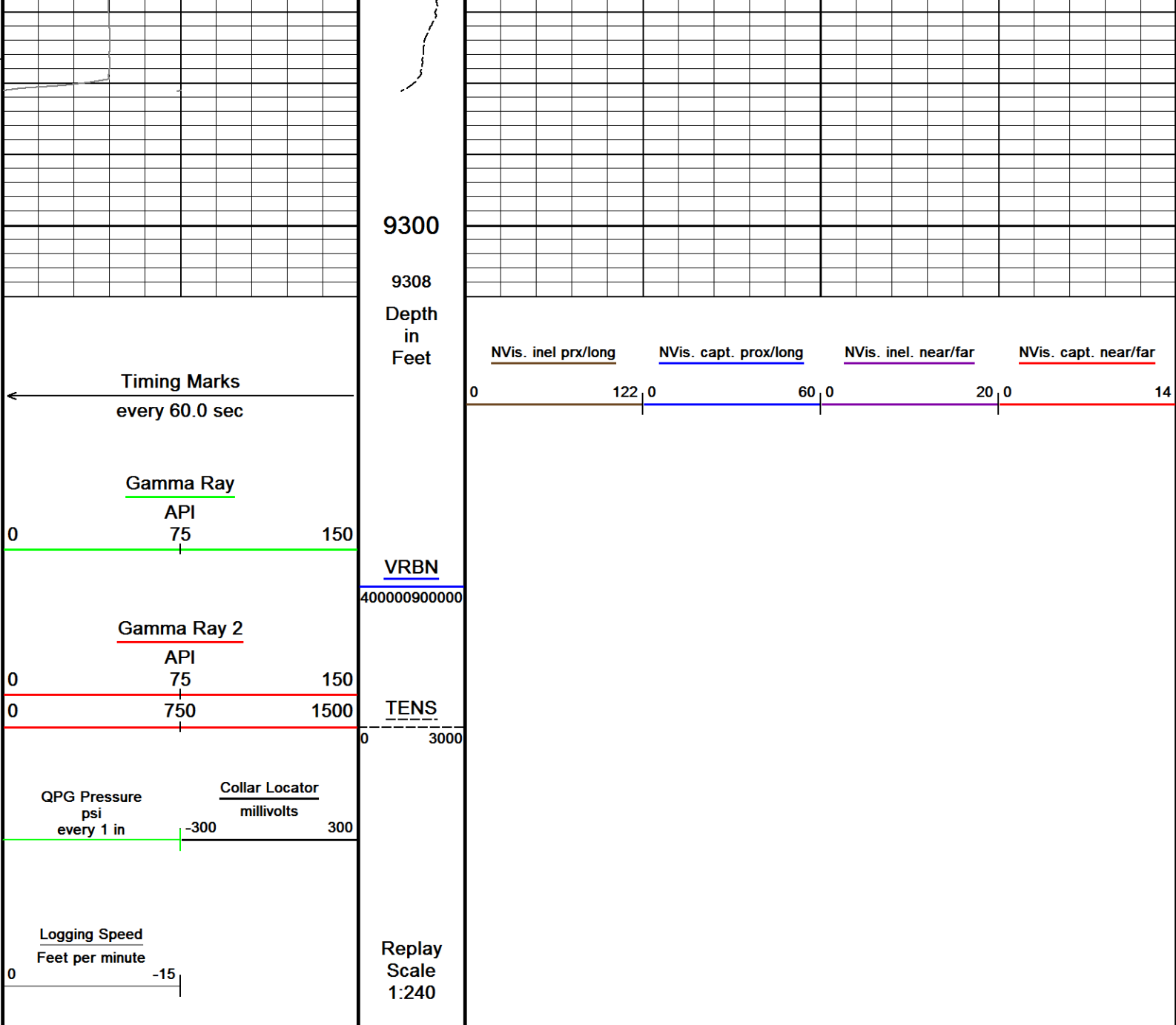












Depth Based Data - Maximum Sampling Increment 12.5cm

Filename: C:\Logs\Caerus\Puckett 31B-1\Raptor B Nvision Main.dta

Filename: C:\Logs\Caerus\Puckett 31B-1\Raptor B Nvision Repeat 1.dta

System Versions: Logged with 16.00.6296 Processed with 16.00.6296 Plotted with 16.00.6296

Plotted on 04-DEC-2015 12:30

Recorded on 03-DEC-2015 08:23

Recorded on 03-DEC-2015 06:34

↑ CREB SSB MAIN ↑

CREB SSB REPEAT 1

↓ CREB SSB REPEAT 1 ↓

CREB SSB REPEAT 2

Depth Based Data - Maximum Sampling Increment 12.5cm

Filename: C:\Logs\Caerus\Puckett 31B-1\Raptor B Nvision Repeat 1.dta

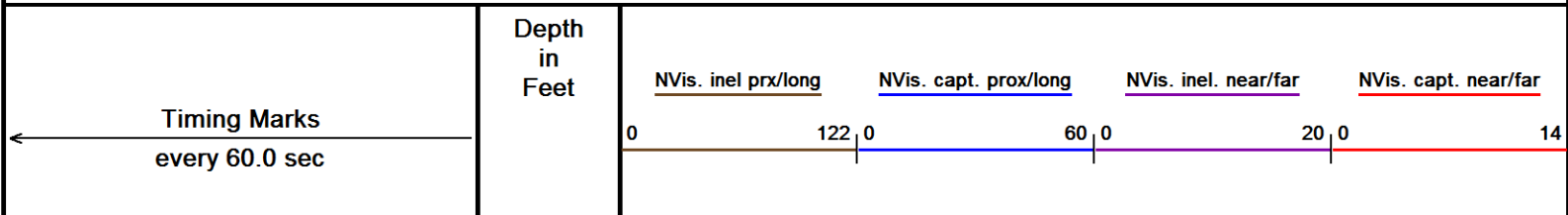
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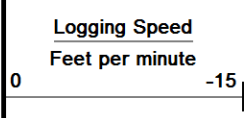
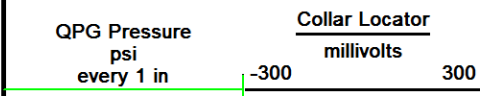
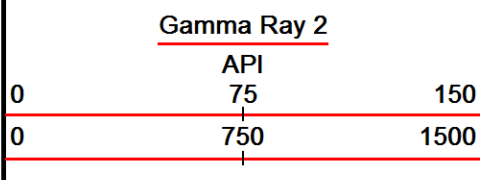
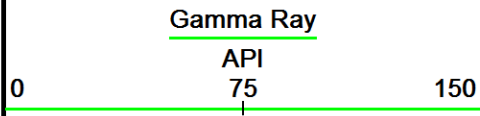
System Versions: Logged with 16.00.6296 Processed with 16.00.6296 Plotted with 16.00.6296

Plotted on 04-DEC-2015 12:30

Recorded on 03-DEC-2015 06:34

Recorded on 03-DEC-2015 20:45





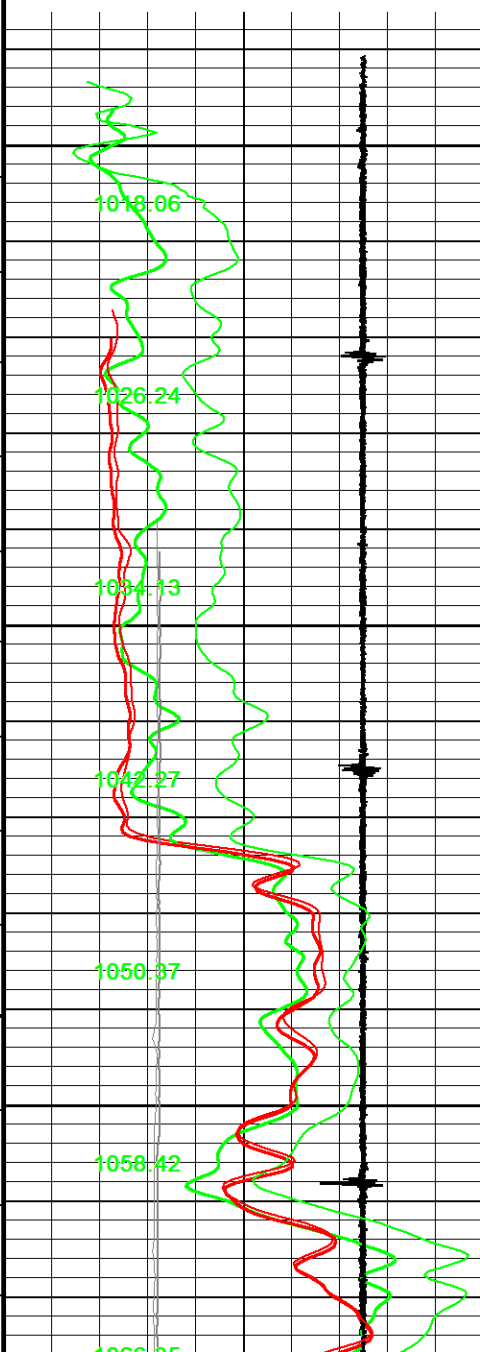
VRBN

400000900000

TENS

0 3000

Replay
Scale
1:240

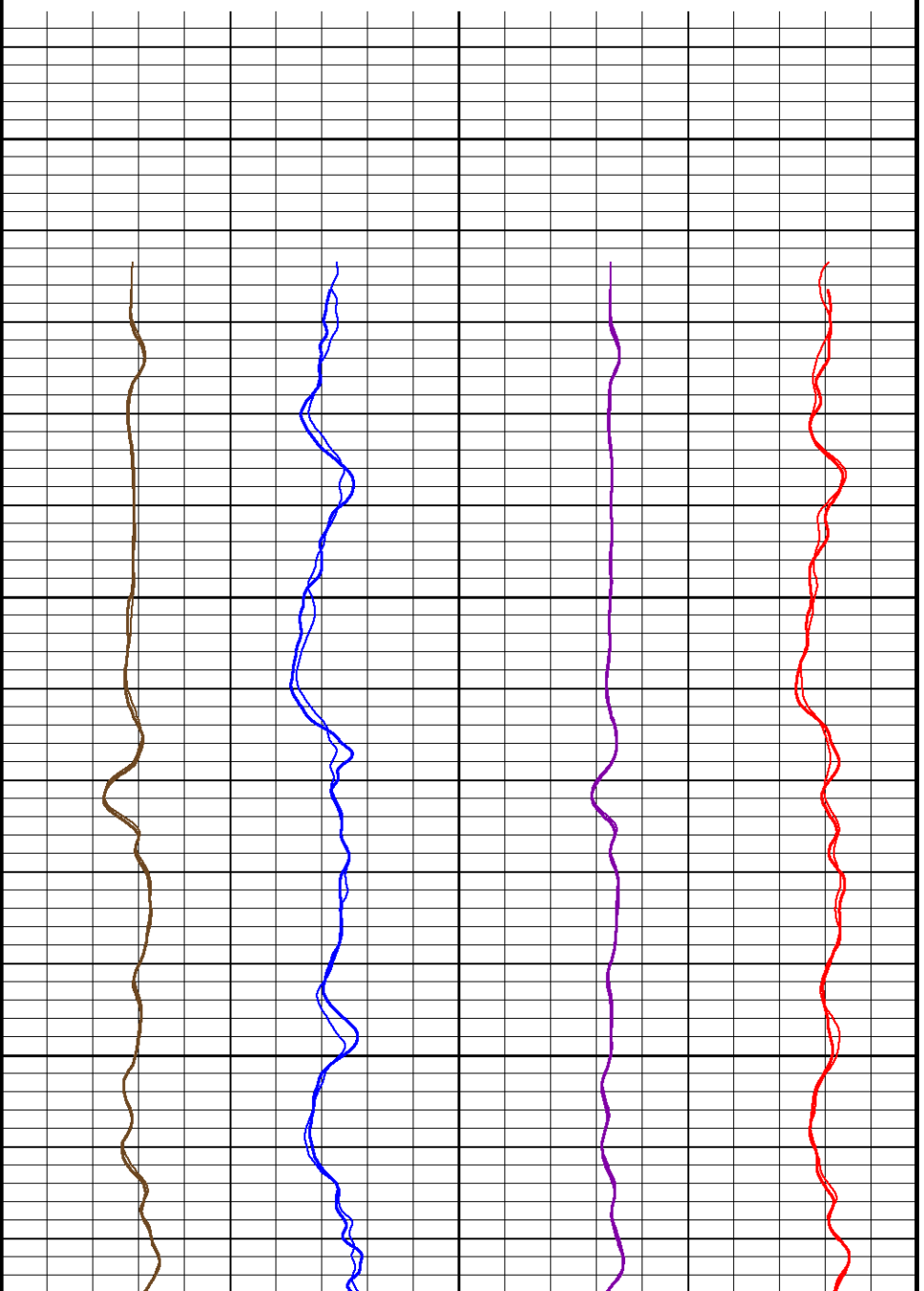


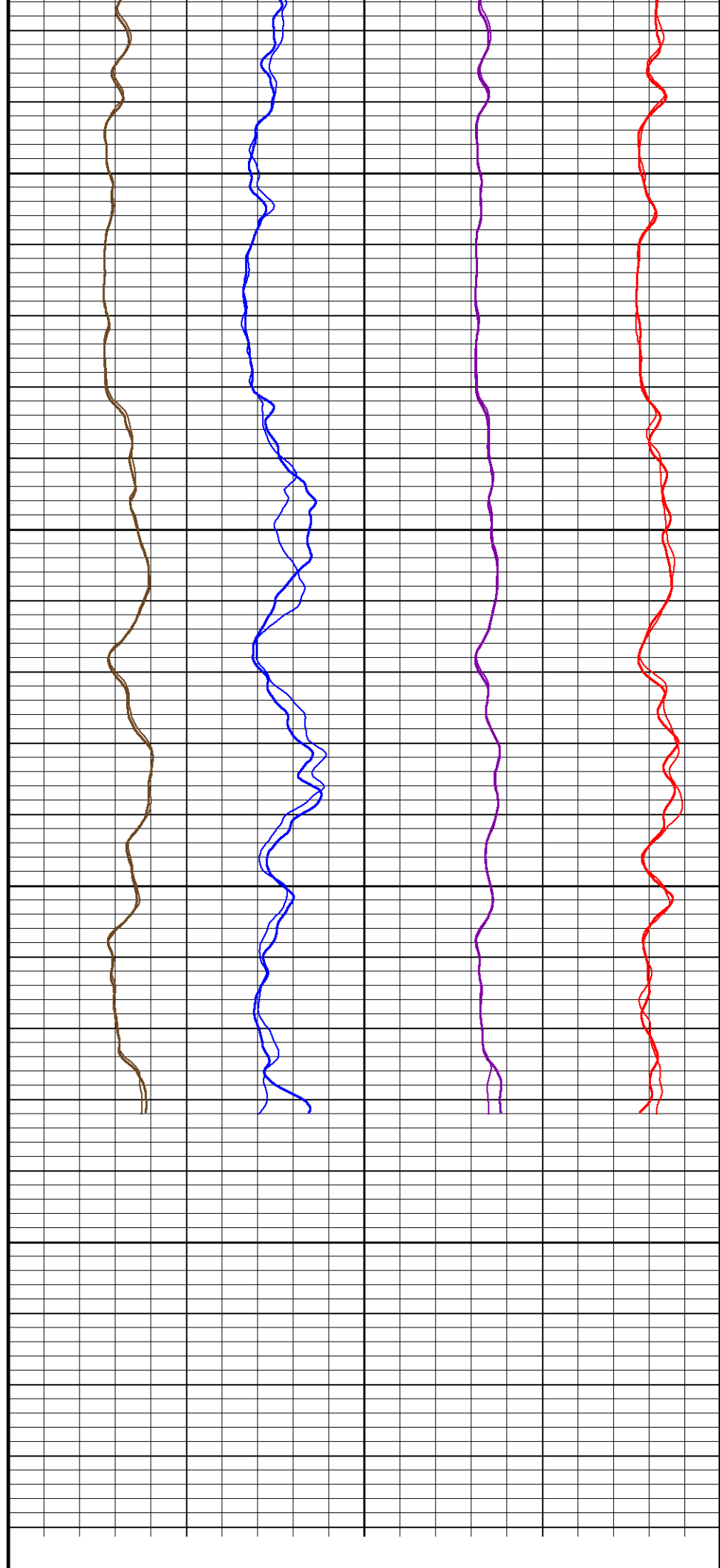
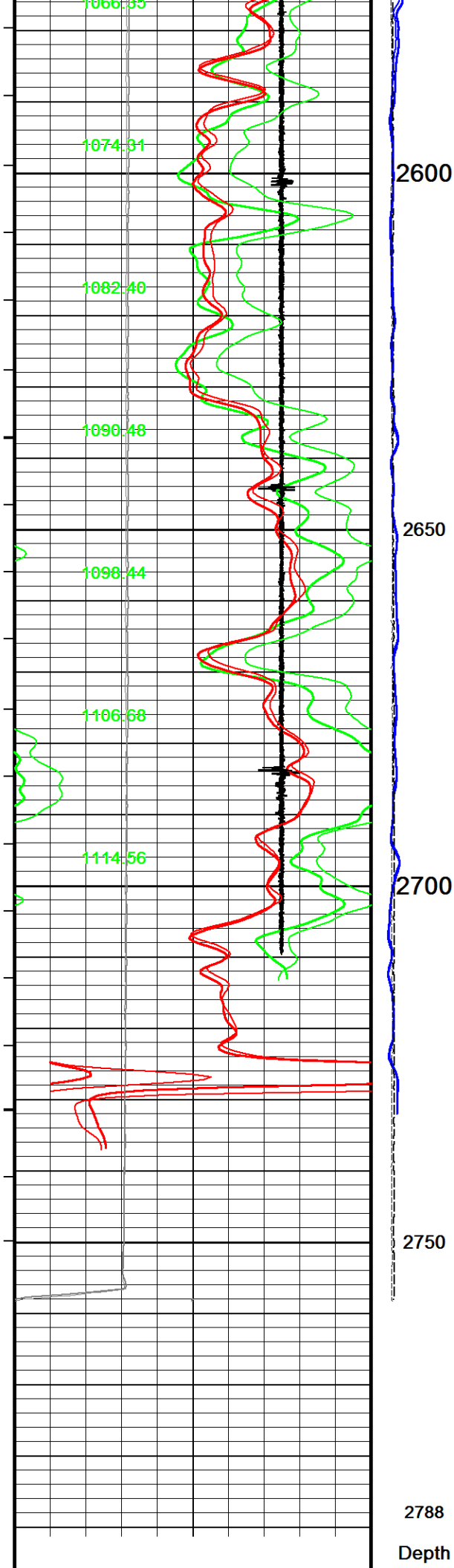
2438

2450

2500

2550





QPG-EA 107 LG: 2.23 ft WT: 8.8 lb OD: 1.693 in

Centroller, 43mm, ITB, 3-arm Bi-Direct
CR3-BA 106 LG: 2.44 ft WT: 8.8 lb OD: 1.693 in

Tool Temperature, 43mm, 177C, 10-pin ITB
TMP-NA 106 LG: 1.93 ft WT: 8.8 lb OD: 1.693 in

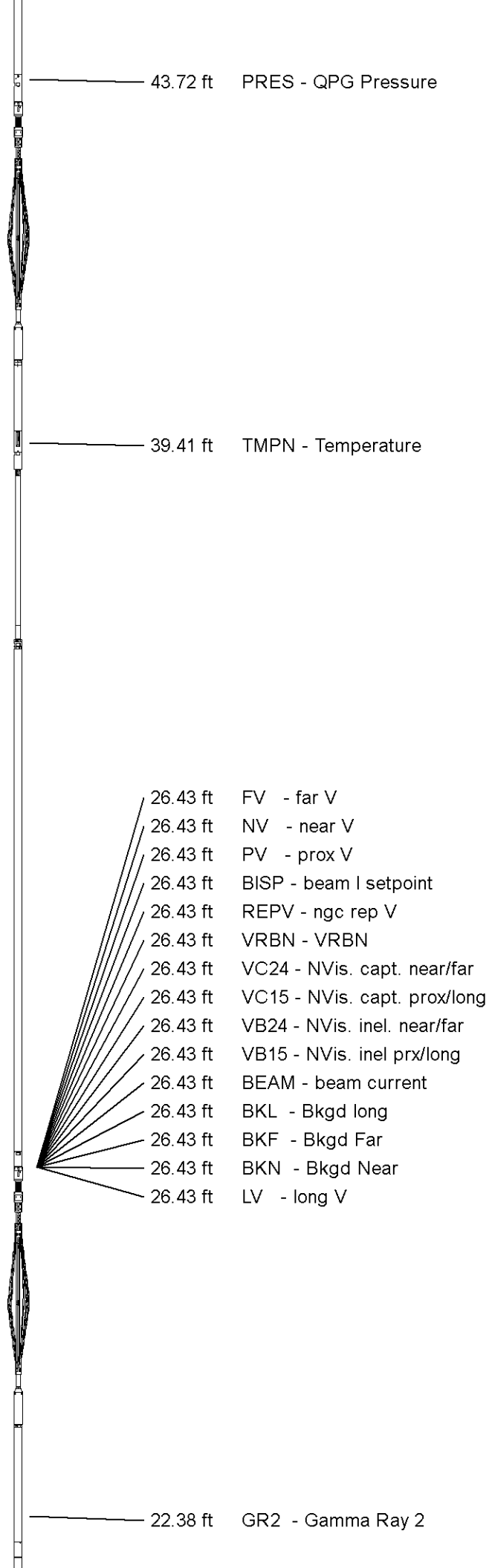
CRE series II processor section
CRP-BA 2 LG: 3.31 ft WT: 15.4 lb OD: 1.654 in

Casing Reservoir Evaluation Tool Sonde
CRM-BA 2 LG: 9.19 ft WT: 46.3 lb OD: 1.693 in

Centroller, 43mm, ITB, 3-arm Bi-Direct
CR3-BA 107 LG: 2.44 ft WT: 8.8 lb OD: 1.693 in

Gamma Ray K
UGR-KA 131 LG: 2.34 ft WT: 17.6 lb OD: 1.693 in

SSP Upper Electronics, ITB



SSB Upper Electronics, ITB
SUE-CA 137 LG: 7.64 ft WT: 26.5 lb OD: 1.650 in

SSB Receiver Sonde
SSS-BA 117 LG: 8.76 ft WT: 30.9 lb OD: 1.693 in

SSB Transmitter Section
STE-BA 129 LG: 2.64 ft WT: 17.6 lb OD: 1.654 in

Centralizer, 35mm, ITB, uni-directional
CEN-LA 220 LG: 2.60 ft WT: 8.8 lb OD: 1.380 in

Total Length: 54.87 ft Weight: 242.5 lb



0.00 ft TENS - Tension
Tool Zero (0.00ft from bottom)
All measurements relative to tool zero.

SHOP AND FIELD CALIBRATIONS

C:\Logs\Caerus\Puckett 31B-1\Raptor B Nvision Main.dta

UGK Before survey cal UGR-KA 108

Field calibration on 05-OCT-2015 16:31

Gamma Ray Before Survey calibration

Tool Type: UGR-KA
Calibrator No: 99

Serial No: 108

Background	Calibrator	Standard	Units
42.7	1067.9	631.5	API
Delta Counts Per Sec: 1025.2		CPS/API = 1.623	

QPG Master Calibration QPG-EA 107

Gauge

Serial Number	220929	Calibration Date	15 Sep 2012
Gauge Type	QHB108-16-177	Base Check Date	
Max Pressure	16000 PSI	Max Temperature	177 Deg C
Min Pressure	13 PSI	Min Temperature	25 Deg C

Pressure

Pressure polynomial order 3			Temperature polynomial order 3		
	T0	T1	T2	T3	T4
P0	14.1363	-0.231359	-0.0199948	9.69338e-006	
P1	9.69338e-006	42.6942	-0.0212493	2.7973e-005	
P2	2.7973e-005	-5.21212e-008	-0.00210258	8.46866e-006	
P3	8.46866e-006	-4.68837e-008	2.25752e-011	7.55316e-007	
P4					

Temperature

Temperature polynomial order 3				
T0	T1	T2	T3	T4
25.2281	-0.730006	-0.000855483	-6.83633e-007	

UGK Before Survey Cal UGR-KA 131

Field calibration on 23-OCT-2015 14:59

Gamma Ray Before Survey Calibration


Tool Type: UGR-KA	Serial No: 131
Calibrator No: 101	

Background	Calibrator	Standard	Units
43.9	778.4	470.2	API
Delta Counts Per Sec: 734.5		CPS/API = 1.562	

SMS Constants SMS-A 0	
Last Edited on 00-JAN-1988 00:00	
Cement Weight	0.00 LB/G

COMPANY	CAERUS OIL & GAS LLC
WELL	PUCKETT 31B-1
FIELD	GRAND VALLEY
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	USA / COLORADO

Elevation Kelly Bushing	8351.00	feet	Bottom Log Interval	9277.00	feet
Elevation Drill Floor	8351.00	feet	Depth Driller	9405.00	feet
Elevation Ground Level	8329.00	feet	Depth Logger	9281.00	feet


Weatherford[®]

RAPTOR NVISION LOG