




COMPOSITE  
\*\*\* TVD \*\*\*

COMPANY	NAVEX RESOURCES LLC		
WELL	PFAFFLY #1-12		
FIELD	NORTH CHEYENNE PROJECT/ PFAFFLY PROSPECT		
COUNTY	KIT CARSON		
STATE	COLORADO		
LOCATION	1602' FSL & 1269' FWL		
SEC 12	TWP 11S	RGE 46W	Other Services
Latitude	39.1037632		
Longitude	-102.5167609		
API Number	05-063-06363		
Permanent Datum Gl.	Elevation 4466.9 feet		
Log Measured From KB	12.10 feet above Permanent Datum		
Drilling Measured From KB			
Date	26-MAY-2023		
Run Number	ONE		
Service Order	T1-230526WFT		
Depth Driller	6076.00	feet	Elevations: KB 4479.00 DF 4479.00 GL 4466.90
Depth Logger	6082.00	feet	
First Reading	6078.00	feet	
Last Reading	648.00	feet	
Casing Driller	651.00	feet	
Casing Logger	648.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	WBM		
Density / Viscosity	9.10 lb/USg	63.00 sec/qt	
PH / Fluid Loss	10.00	8.00 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.71 @ 86.0	ohm-m	
Rmf @ Measured Temp	0.61 @ 86.0	ohm-m	
Rmc @ Measured Temp	1.01 @ 86.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.36 @154.0	ohm-m	
Time Since Circulation	8 HRS		
Max Recorded Temp	154.00	deg F	
Equipment / Base	10001	OKC	
Recorded By	B. GRAHMANN		
Witnessed By	CRAIG ADAMS		
Rig Name	DUKE #9		

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.

 Powered by Weatherford tools, acquisition systems, and software

Bit Size		Depth From	Depth To
inches		feet	feet
12.250		0.00	651.00
7.875		651.00	6076.00

CASING RECORD			
Type	Size	Depth From	Shoe Depth
	inches	feet	feet
SURFACE	8.625	0.00	651.00
			Weight pounds/ft
			36.00

Last Edited: 26-MAY-2023 11:08

# REMARKS

WWLS VERSION 21.11

**- TOOLSTRING:**

RUN 1 : MAI, MSS, MFE, SKJ, MVC, MPD, MDN, MMR, MCG, SHA, MTA, CBHC

**- HARDWARE USED:**

MAI: 1" STANDOFF  
 MFE: 1" STANDOFF  
 MSS: 1" STANDOFFS  
 MDN: DUAL ECCENTERED BOWSPRING

- 2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO SURFACE CASING

**- CREW**

J. WILLIS, D. STEELE

## 5 INCH MAIN PASS TVD

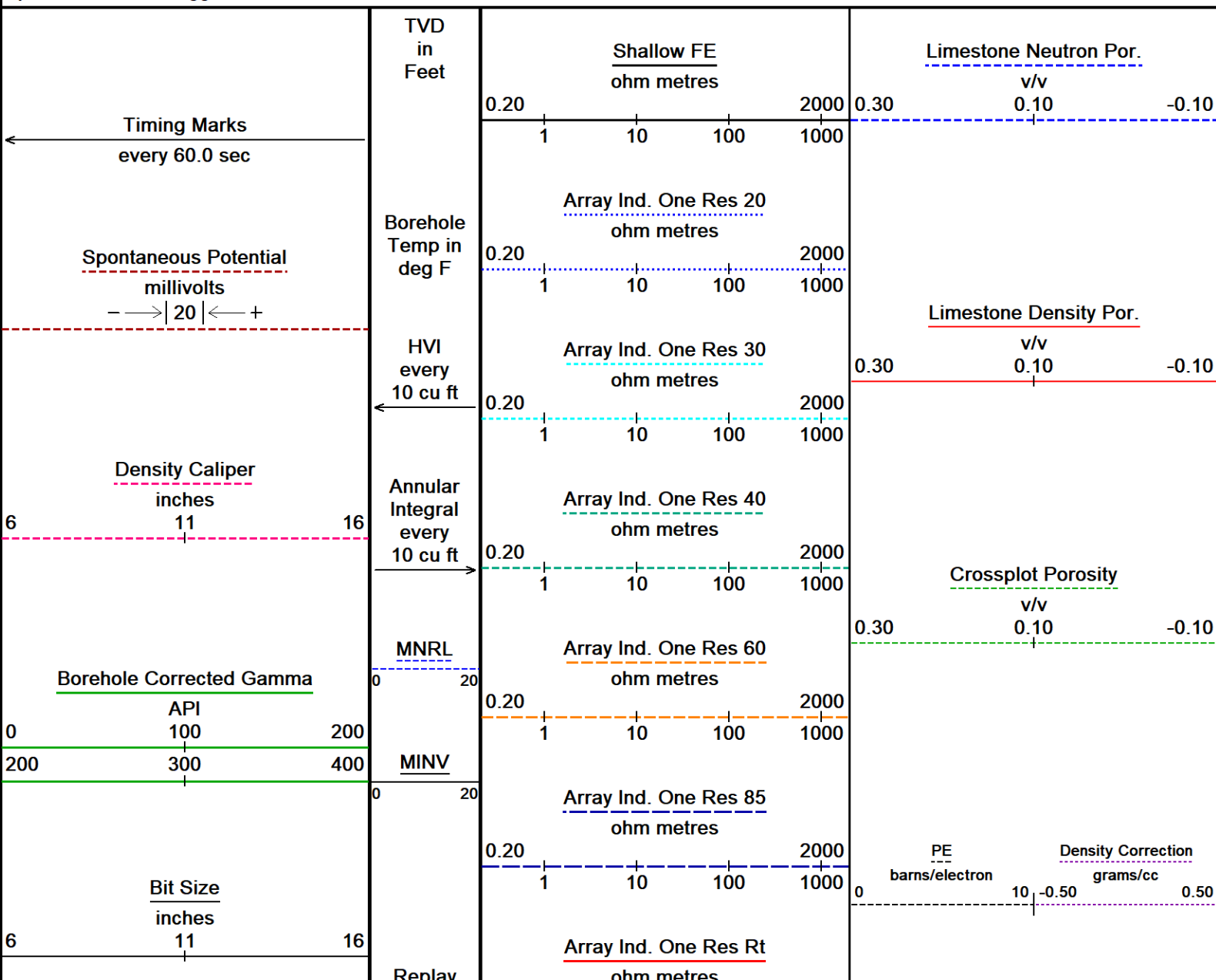
Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 01-JUN-2023 17:25

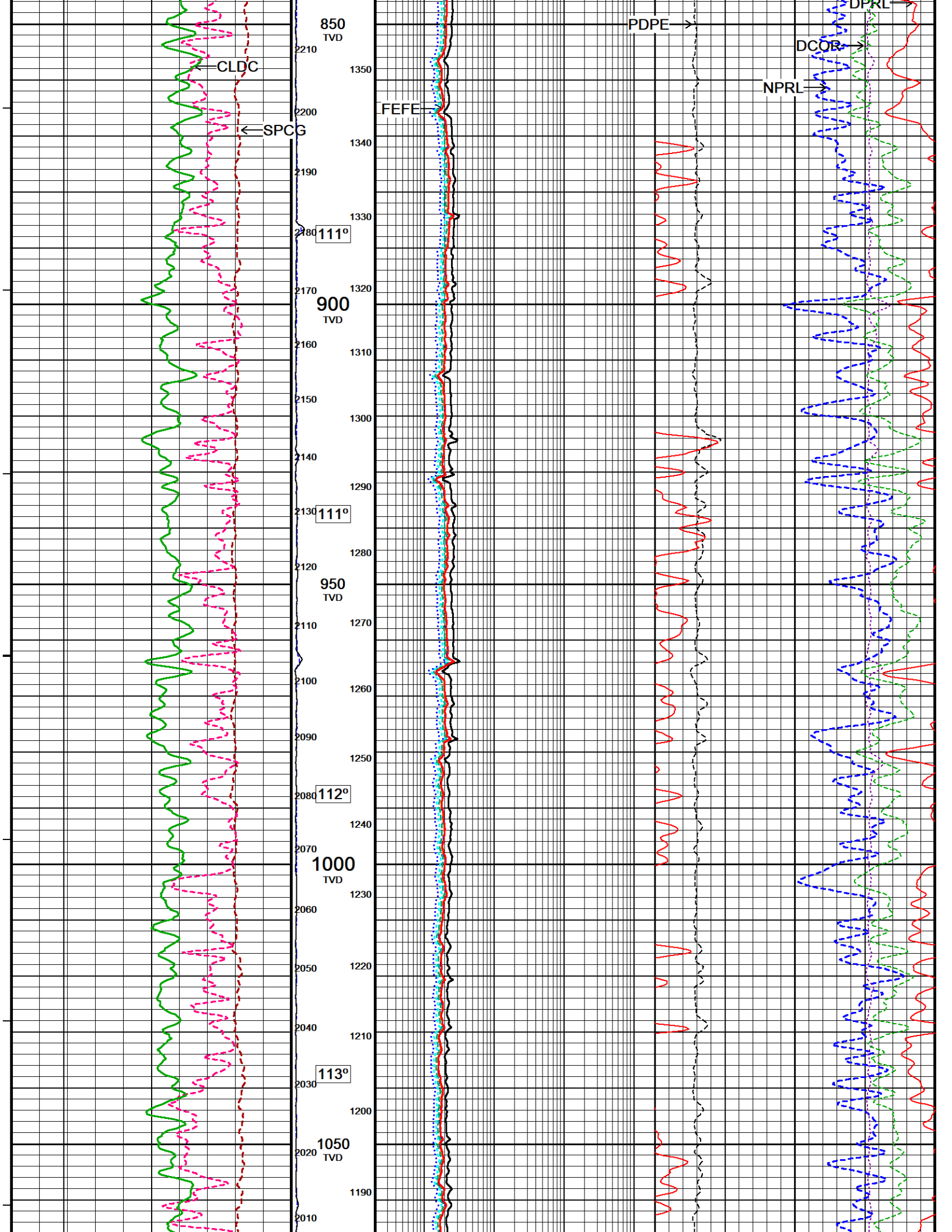
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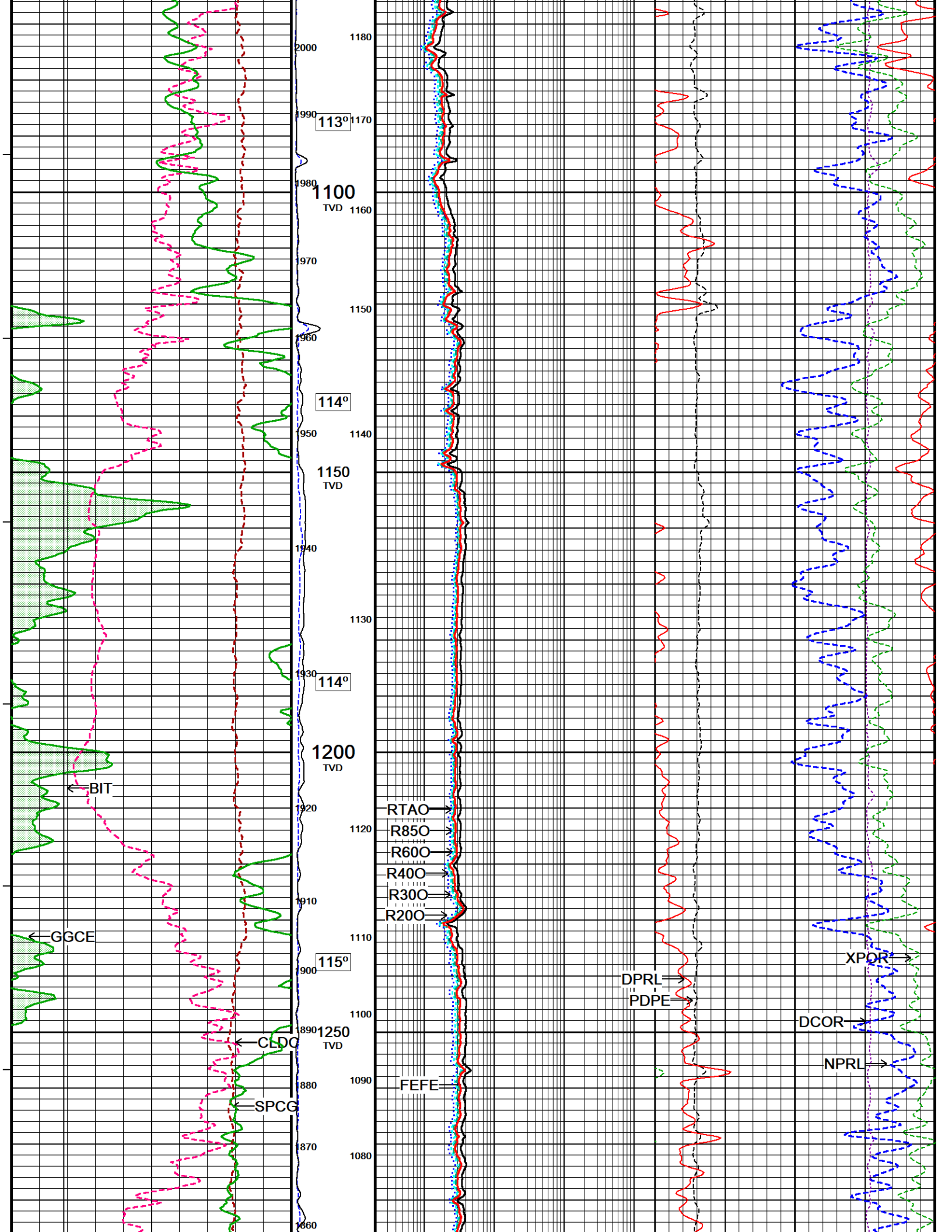
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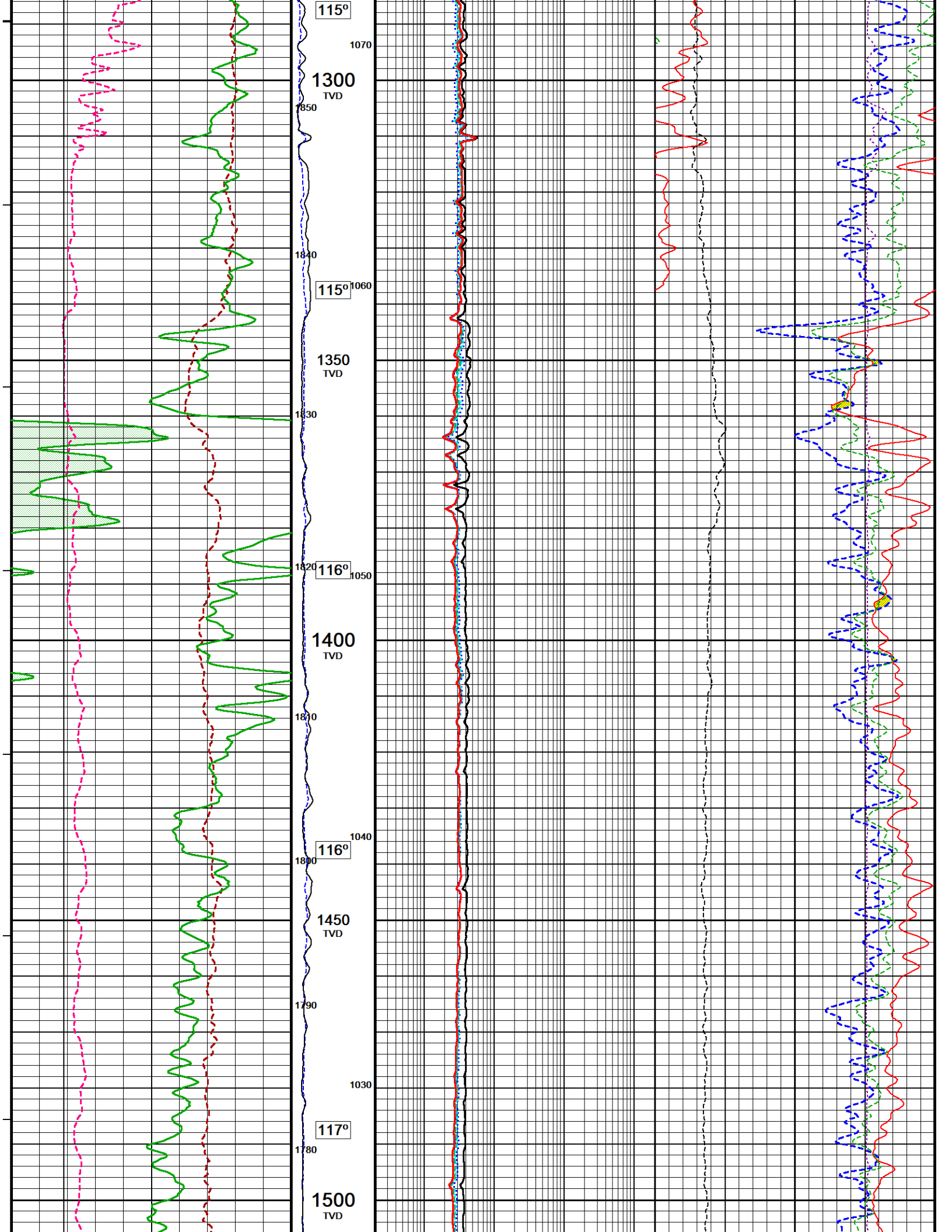
System Versions: Logged with 21.11.3172 Processed with 22.15.1312 Plotted with 22.15.1312

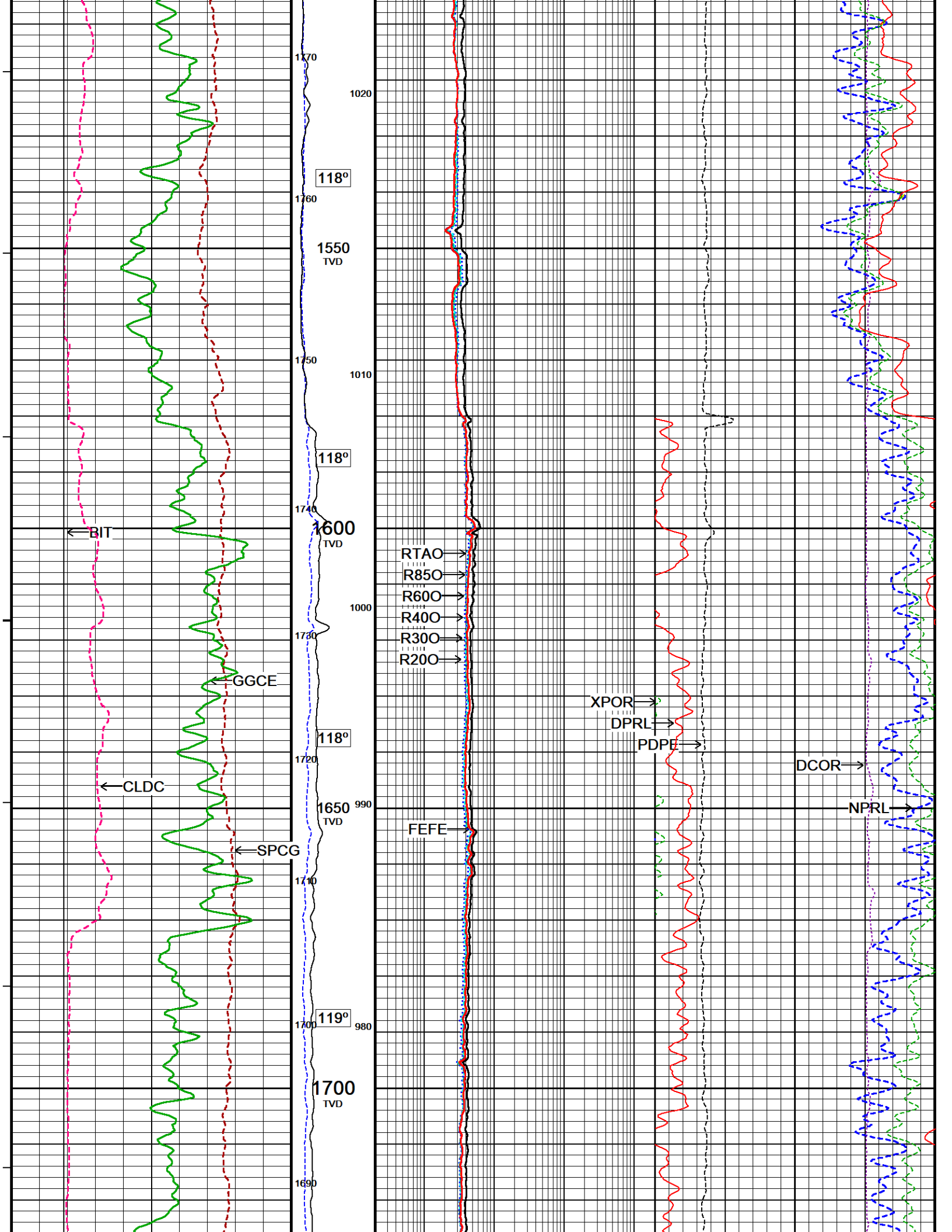


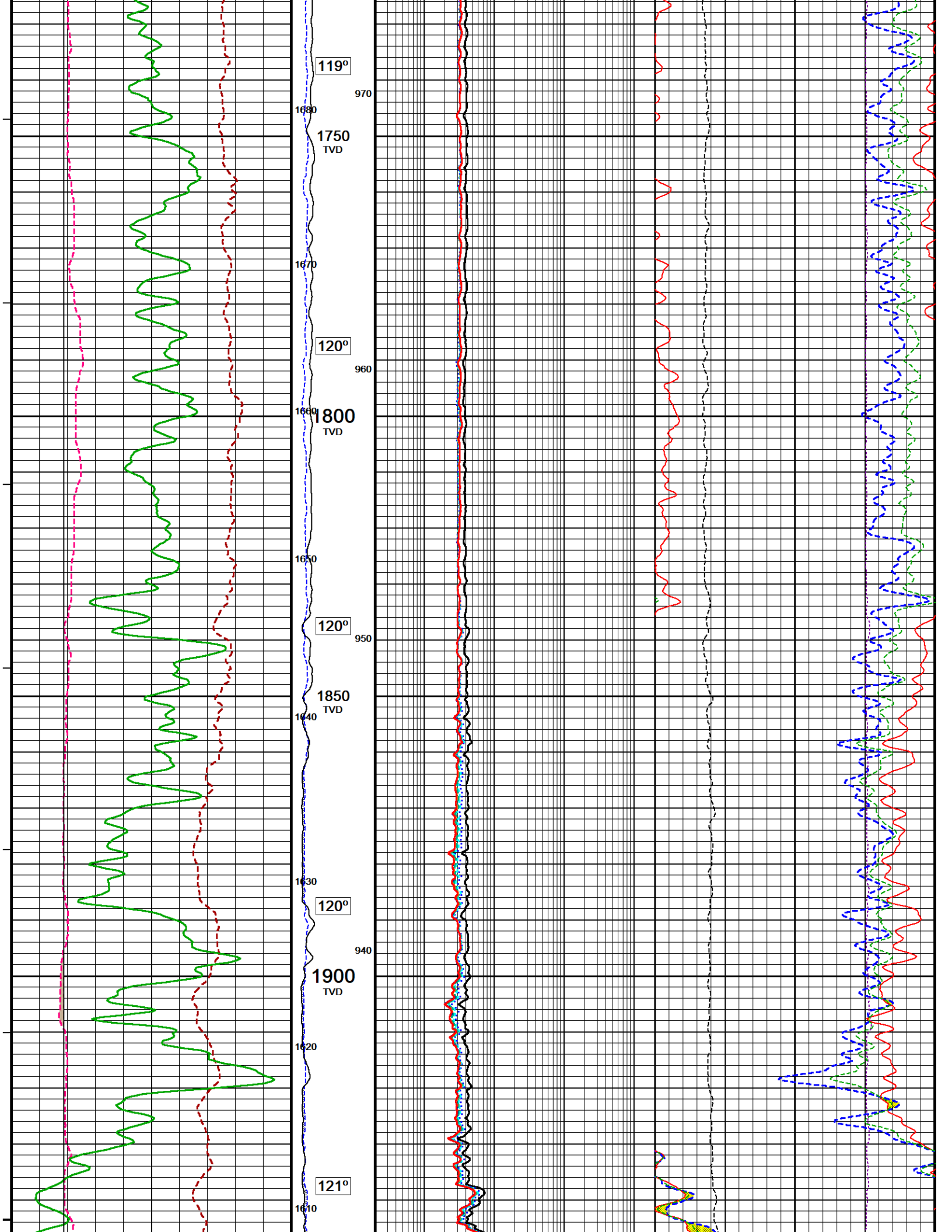


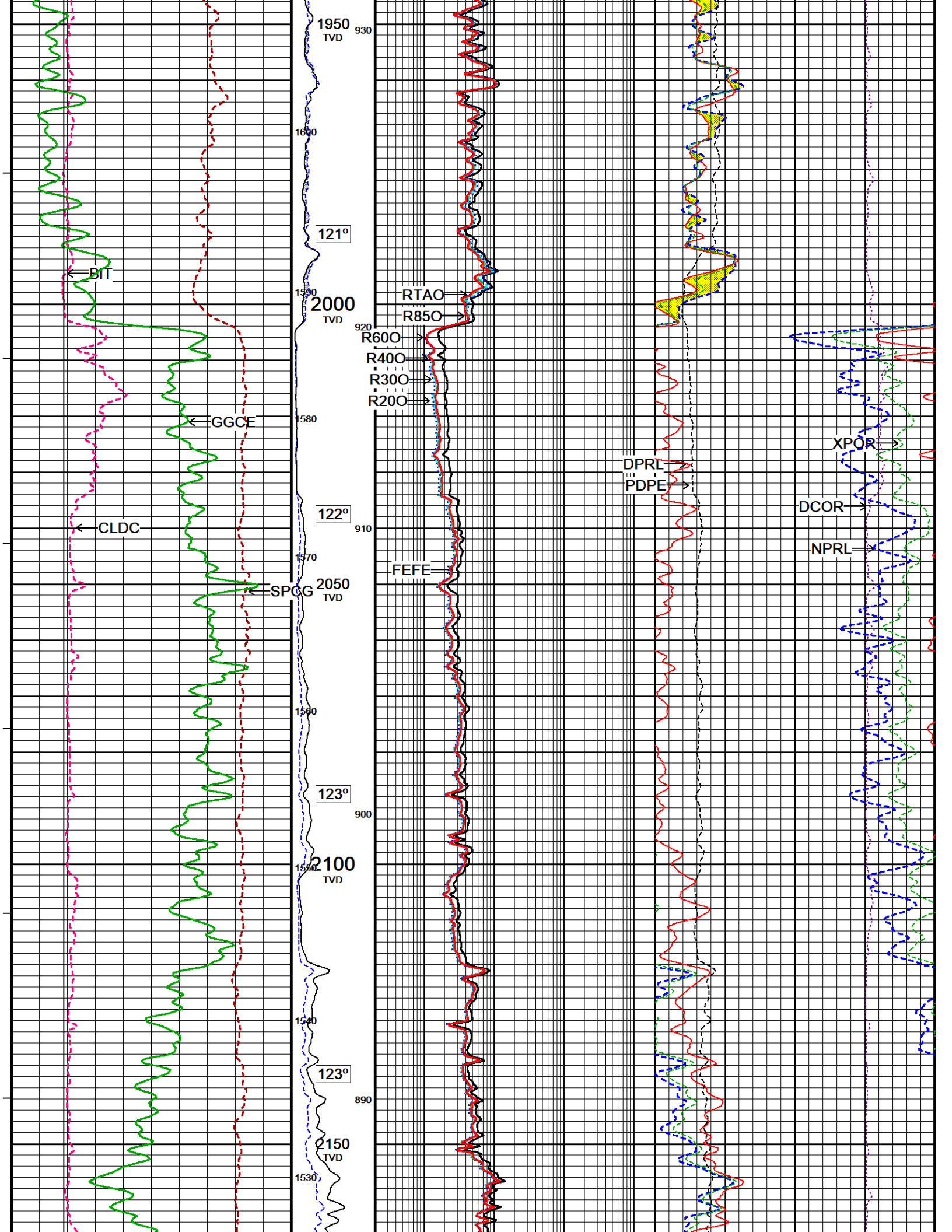


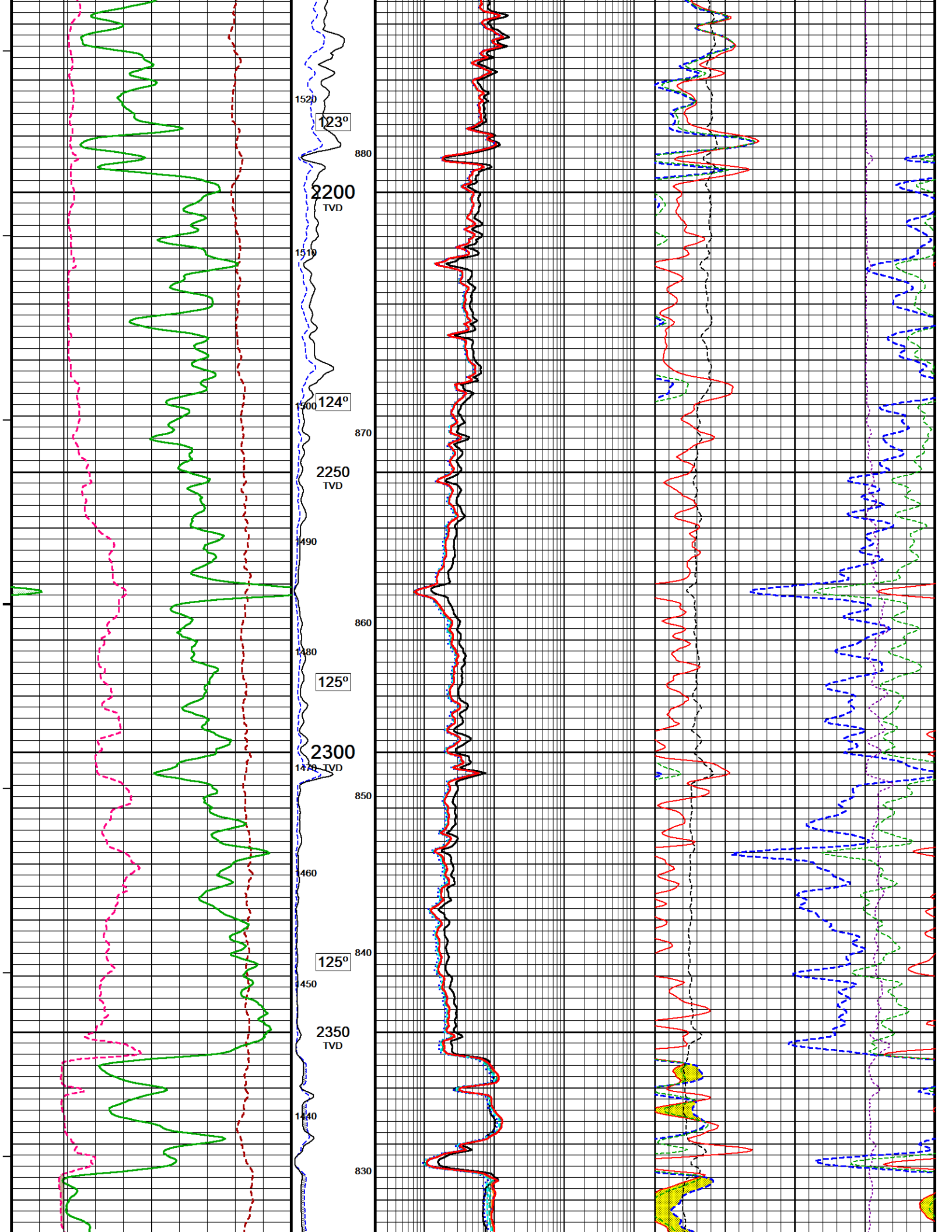


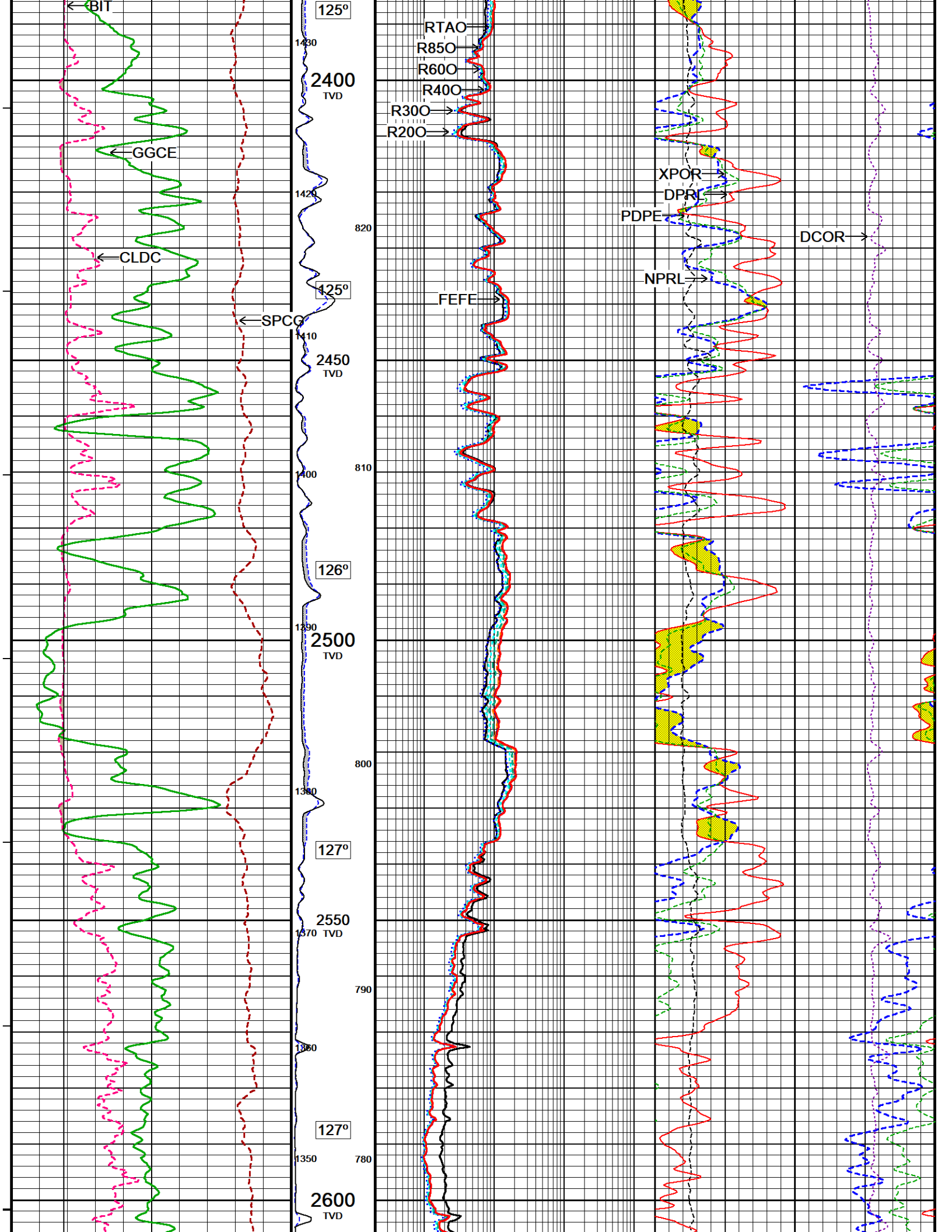


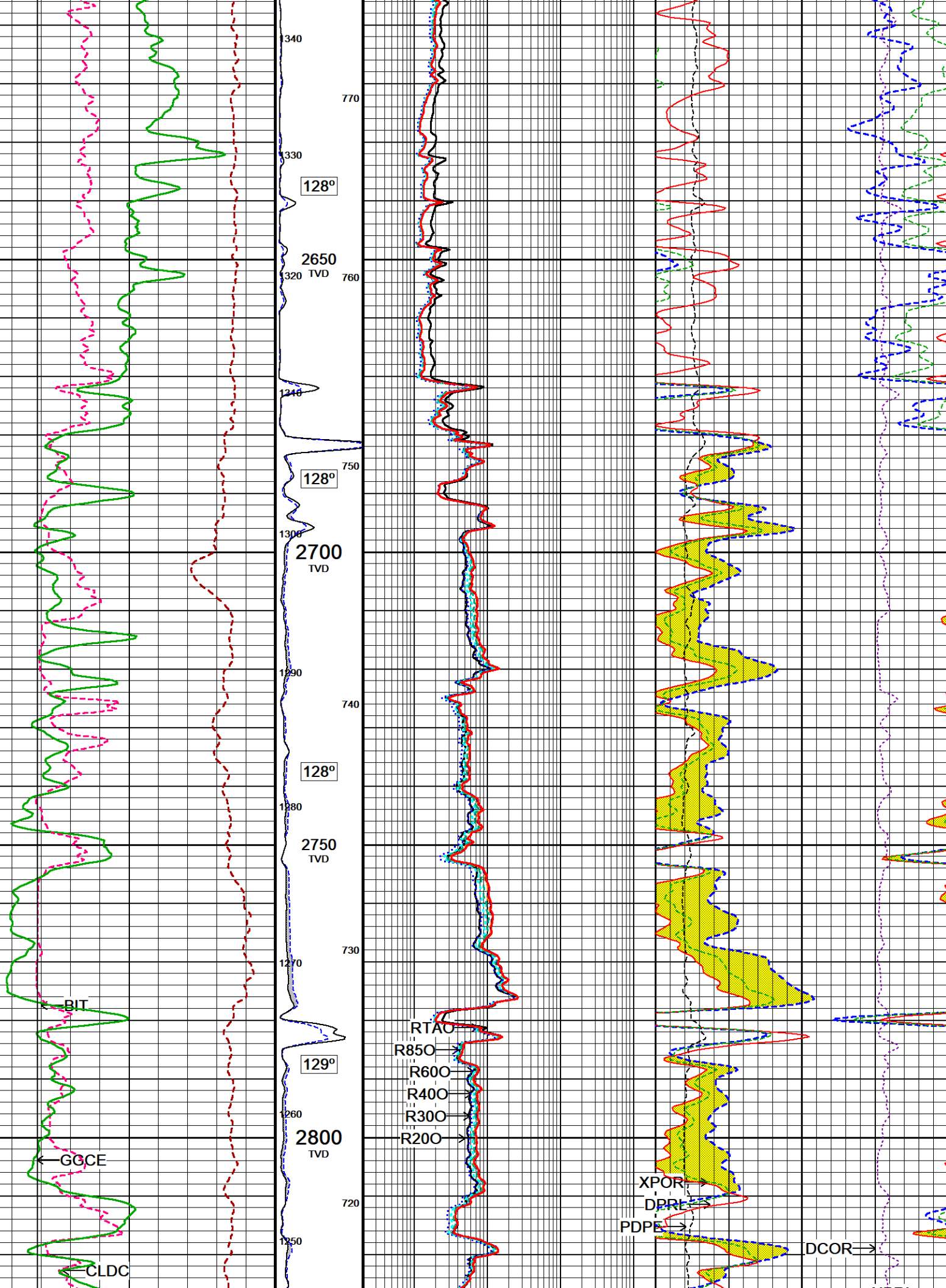


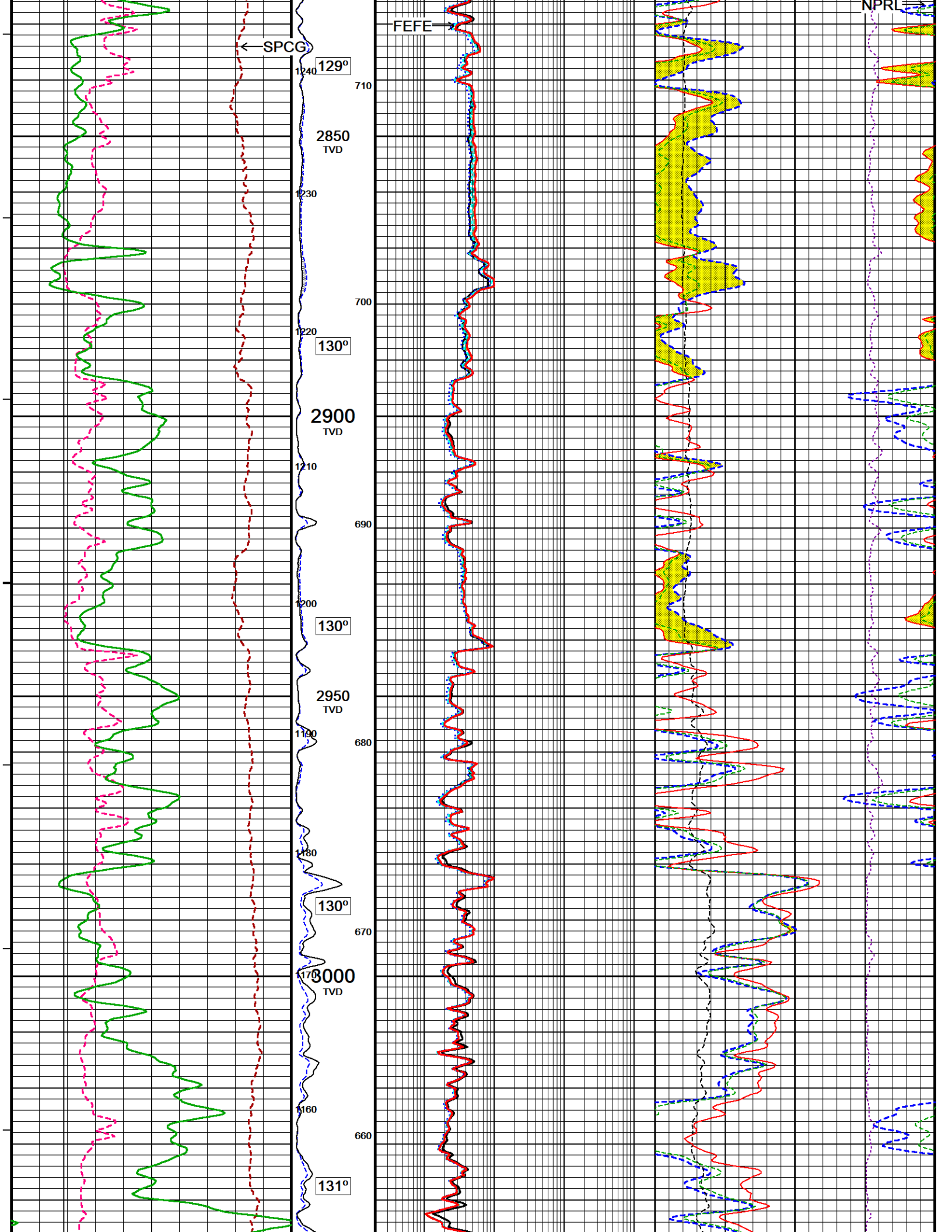


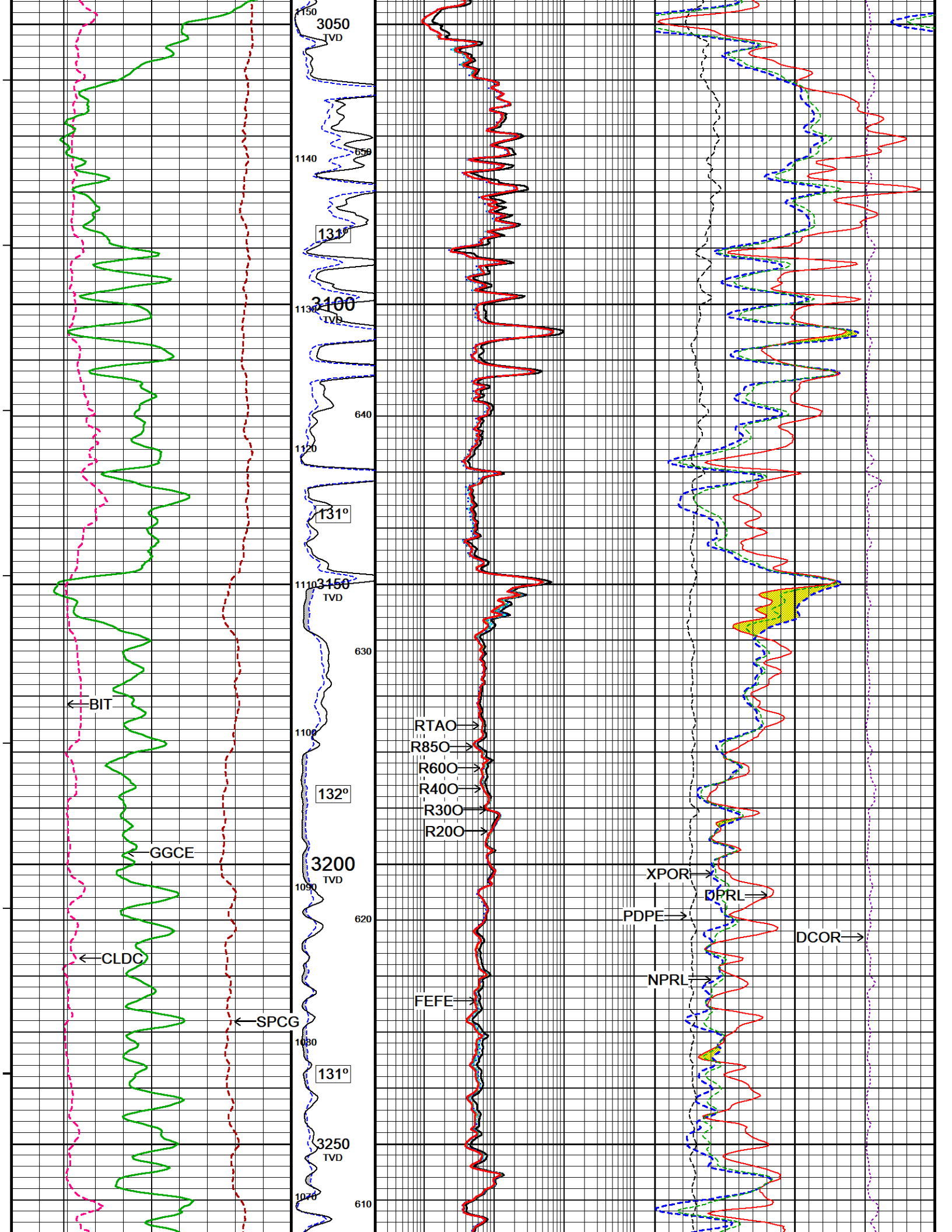


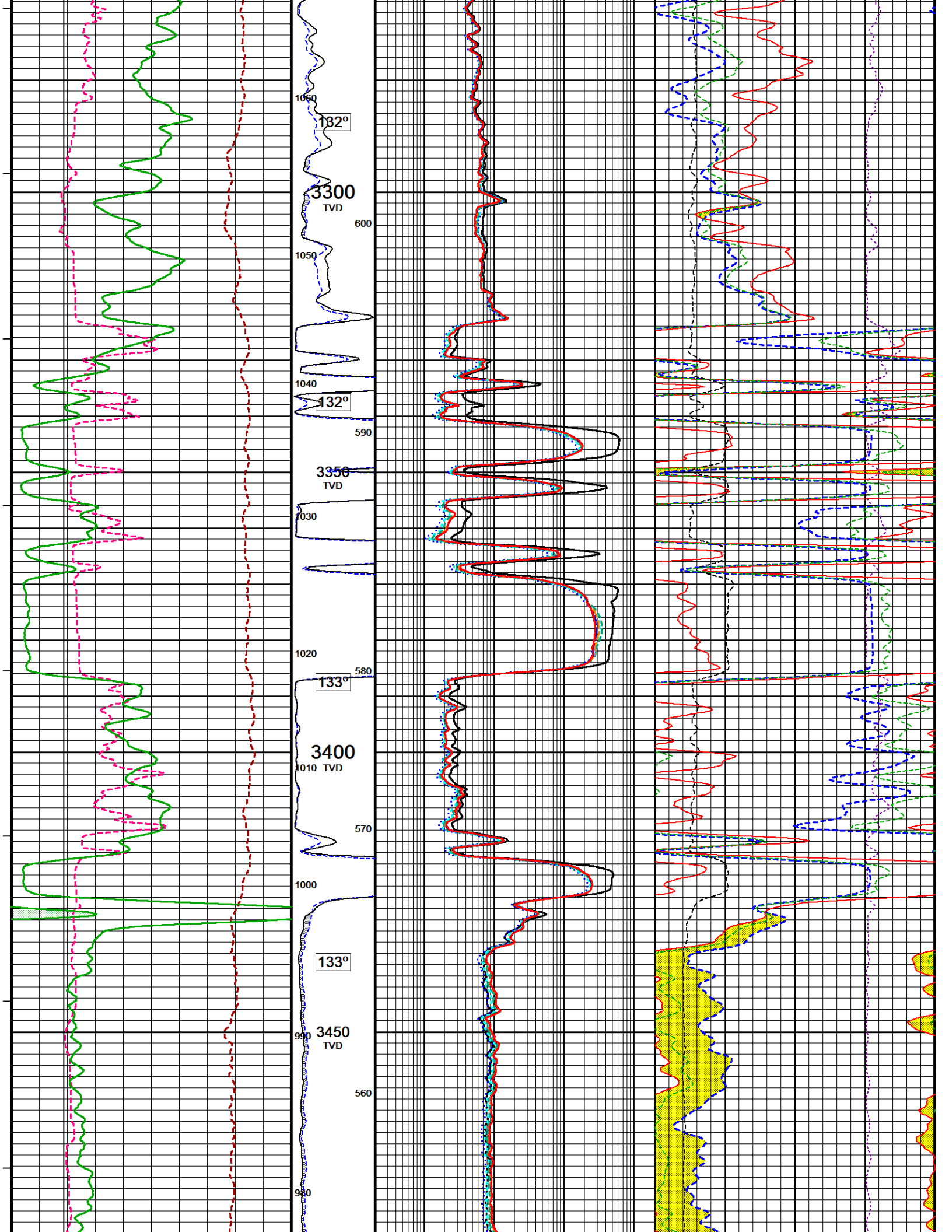


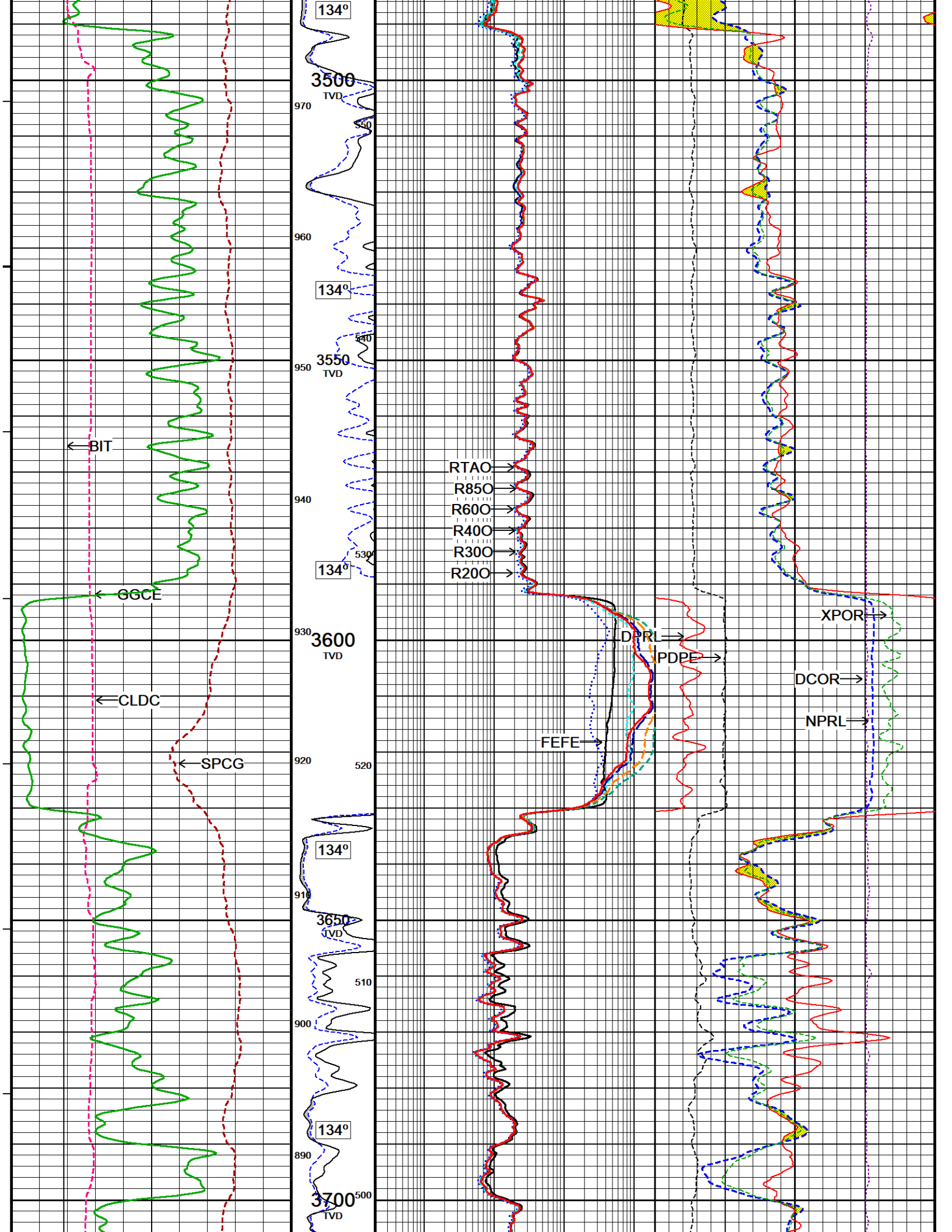


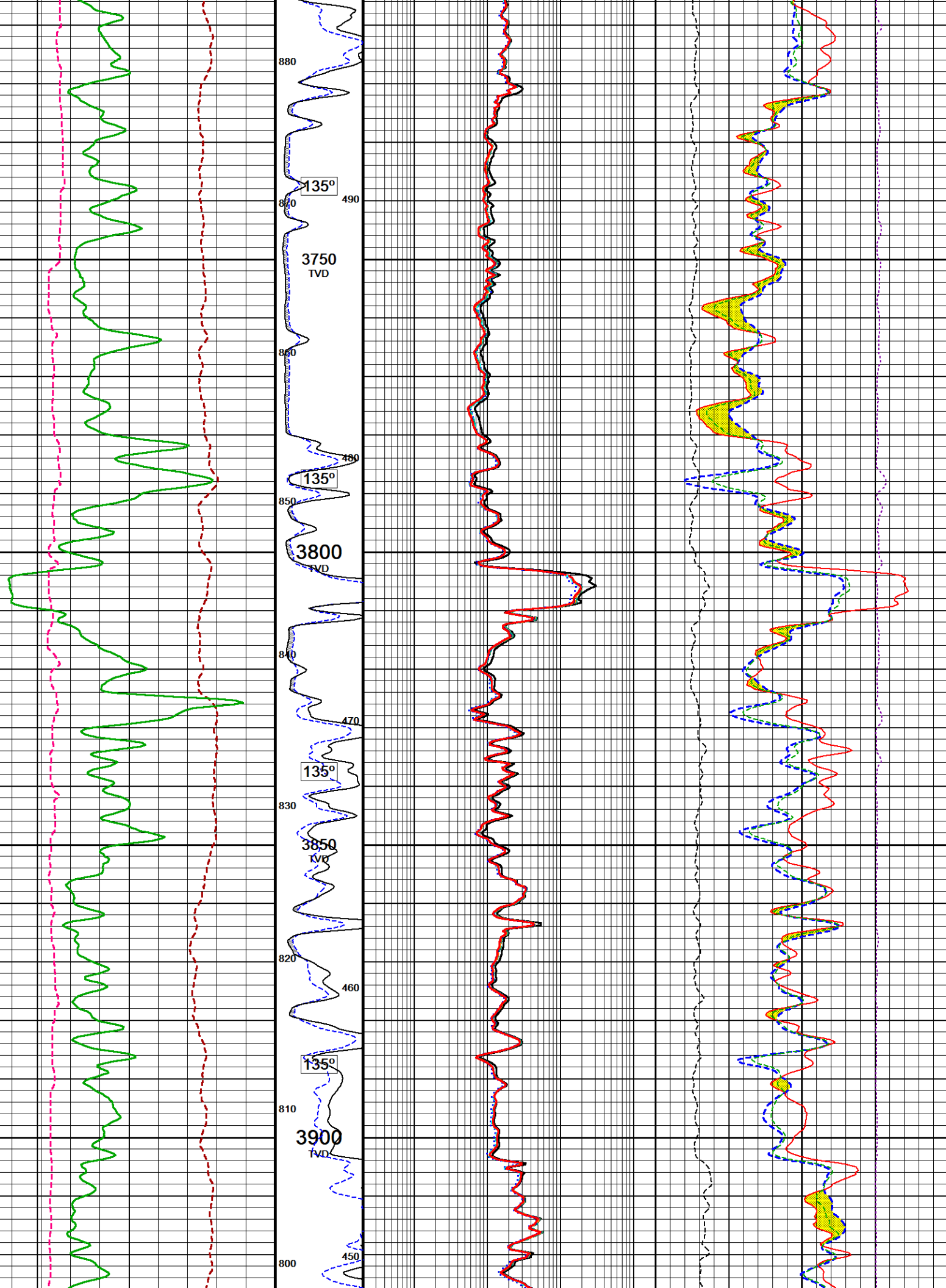


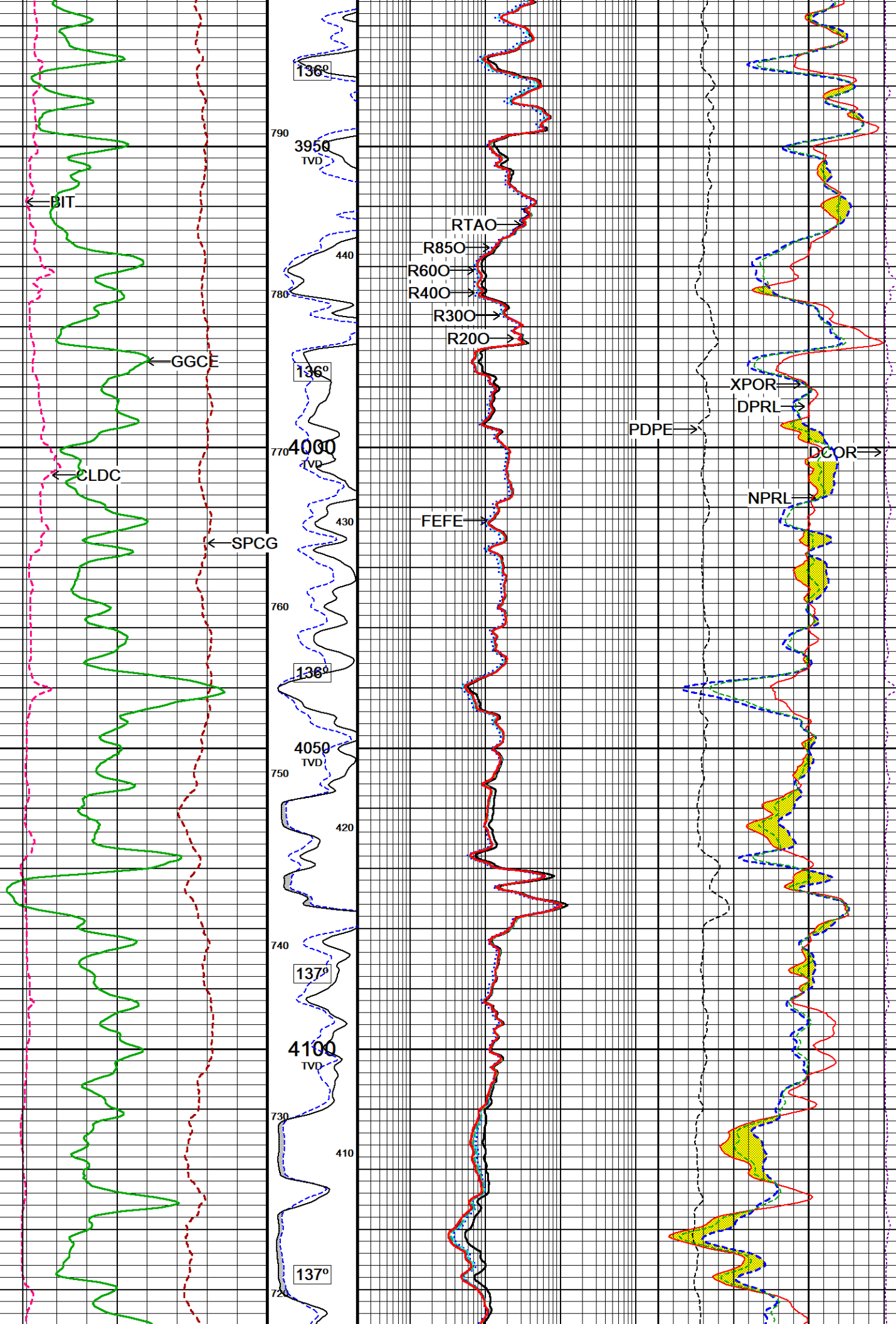


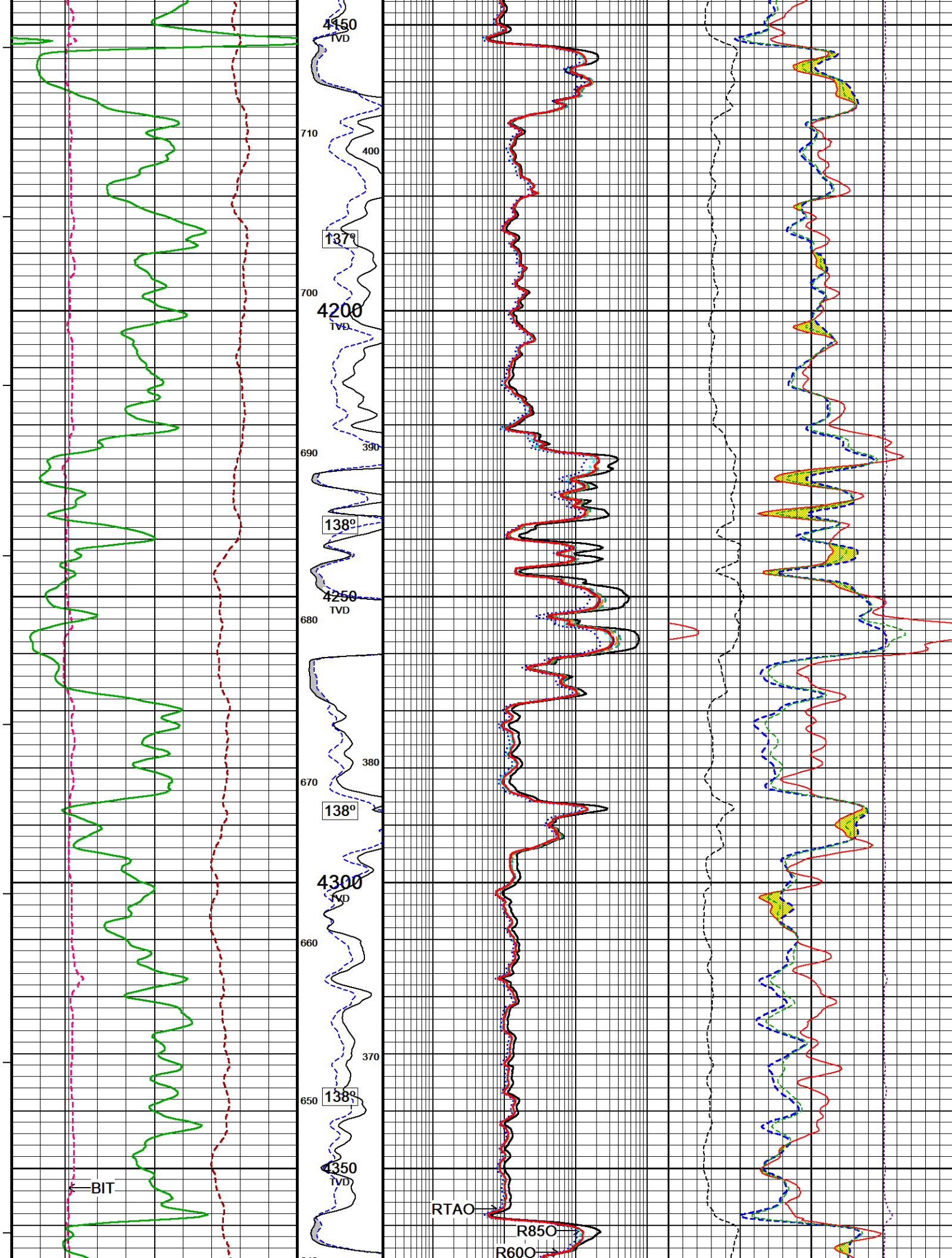


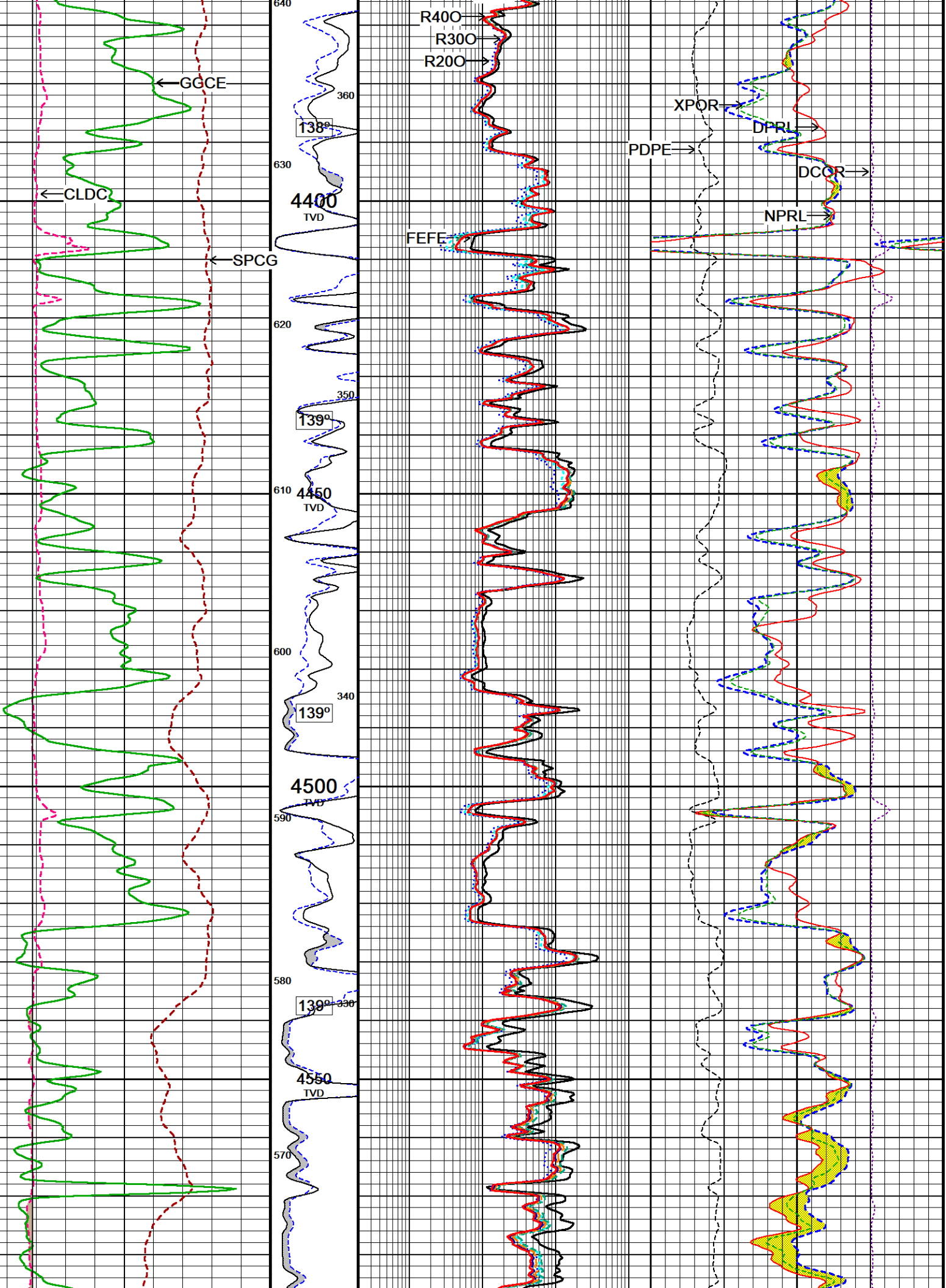


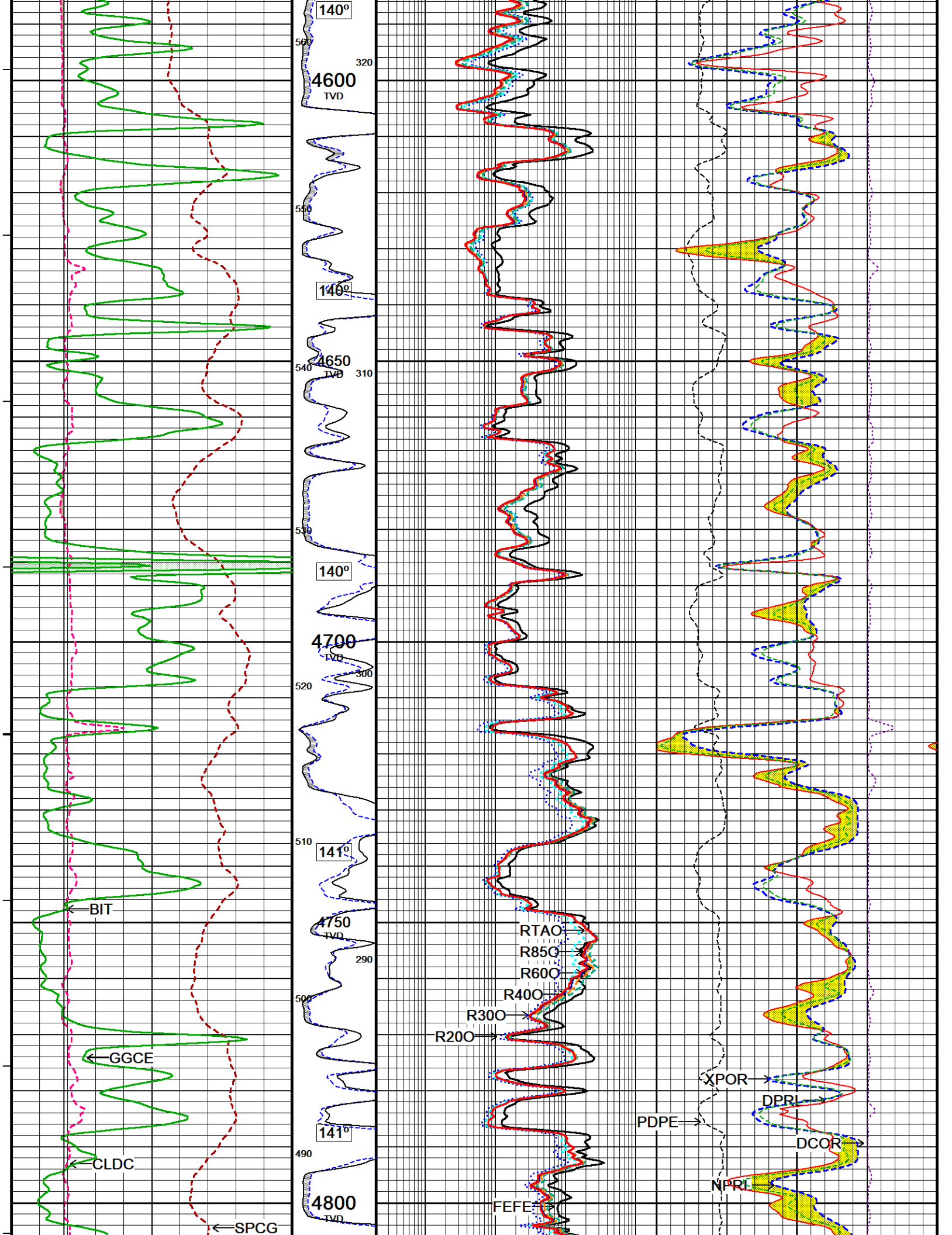


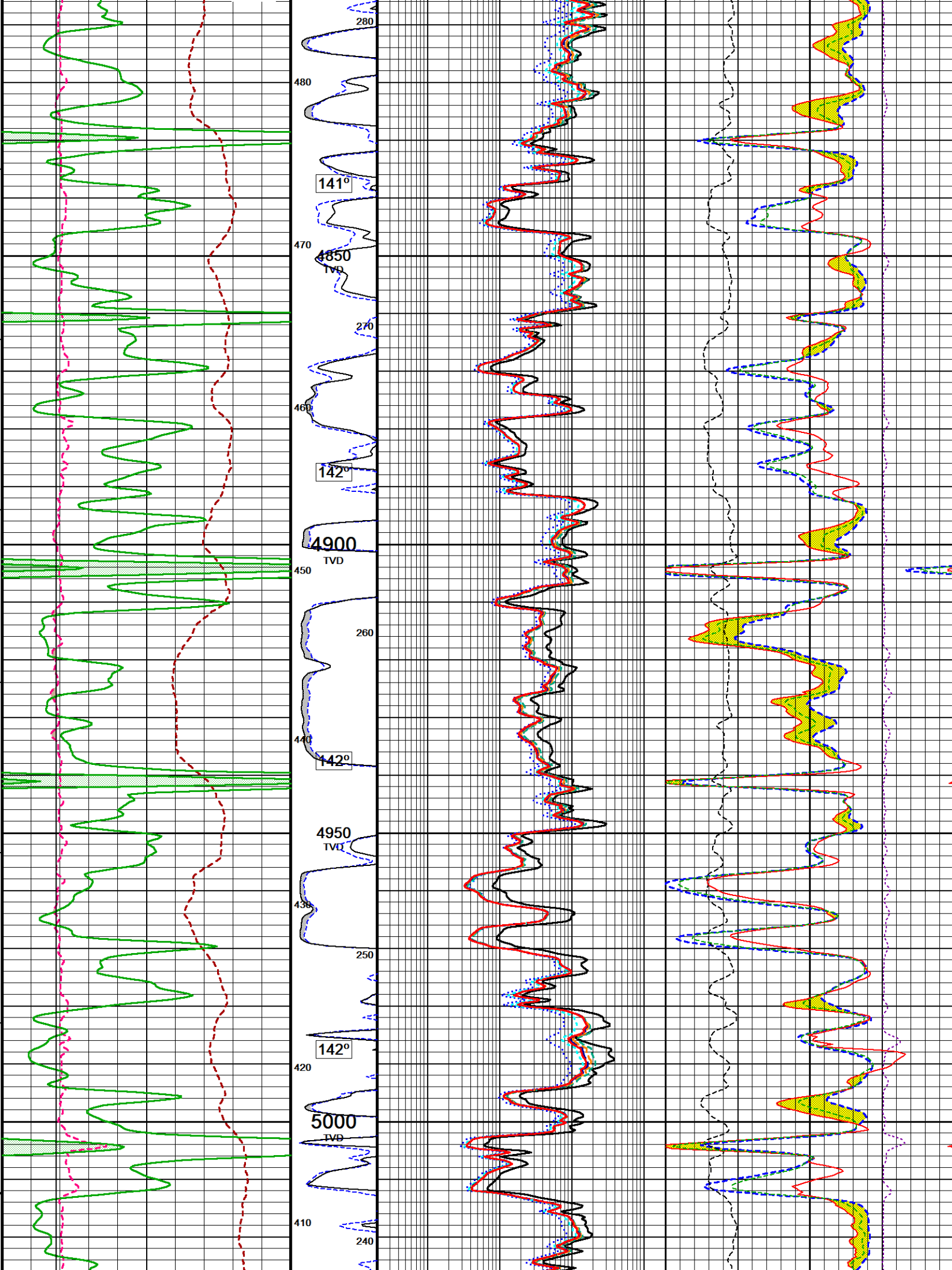


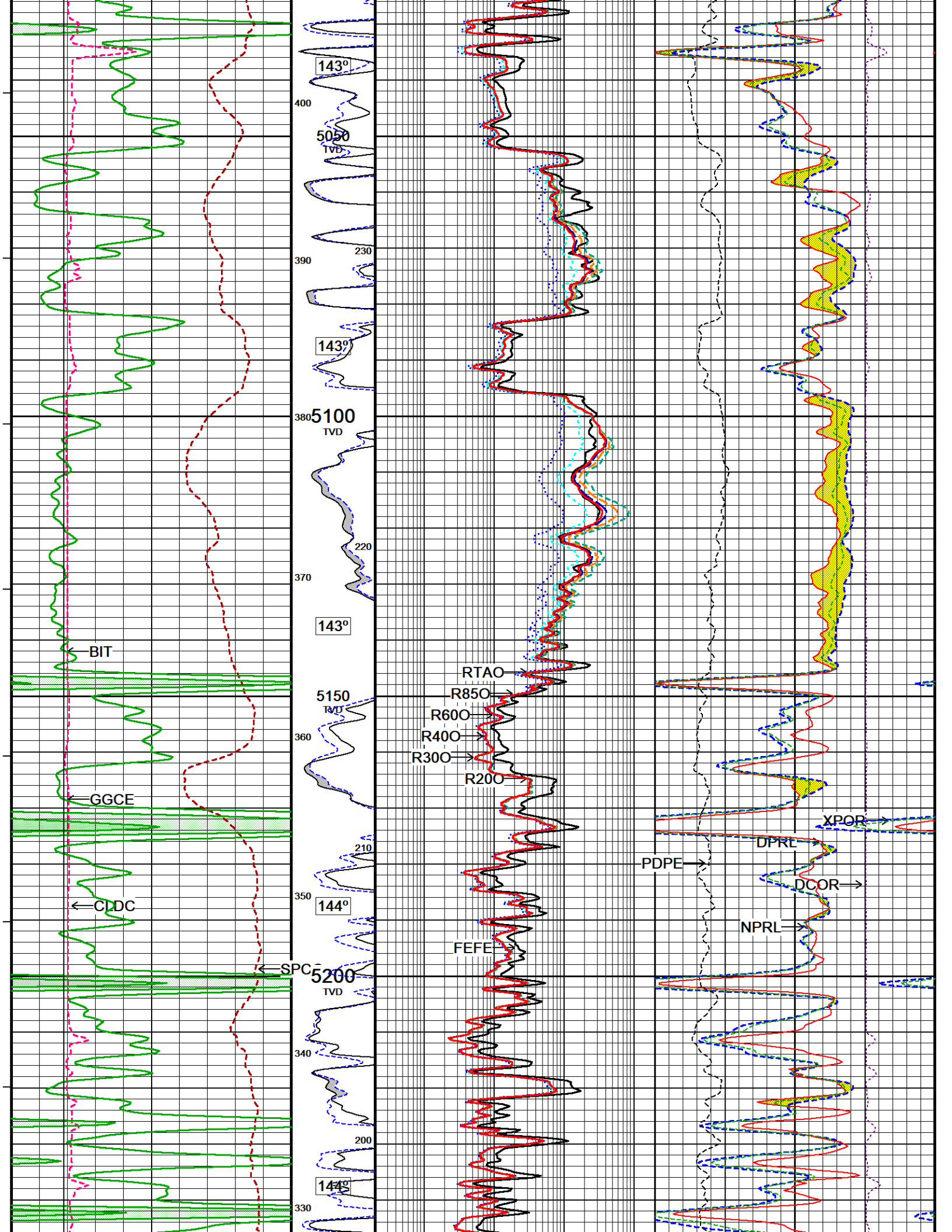


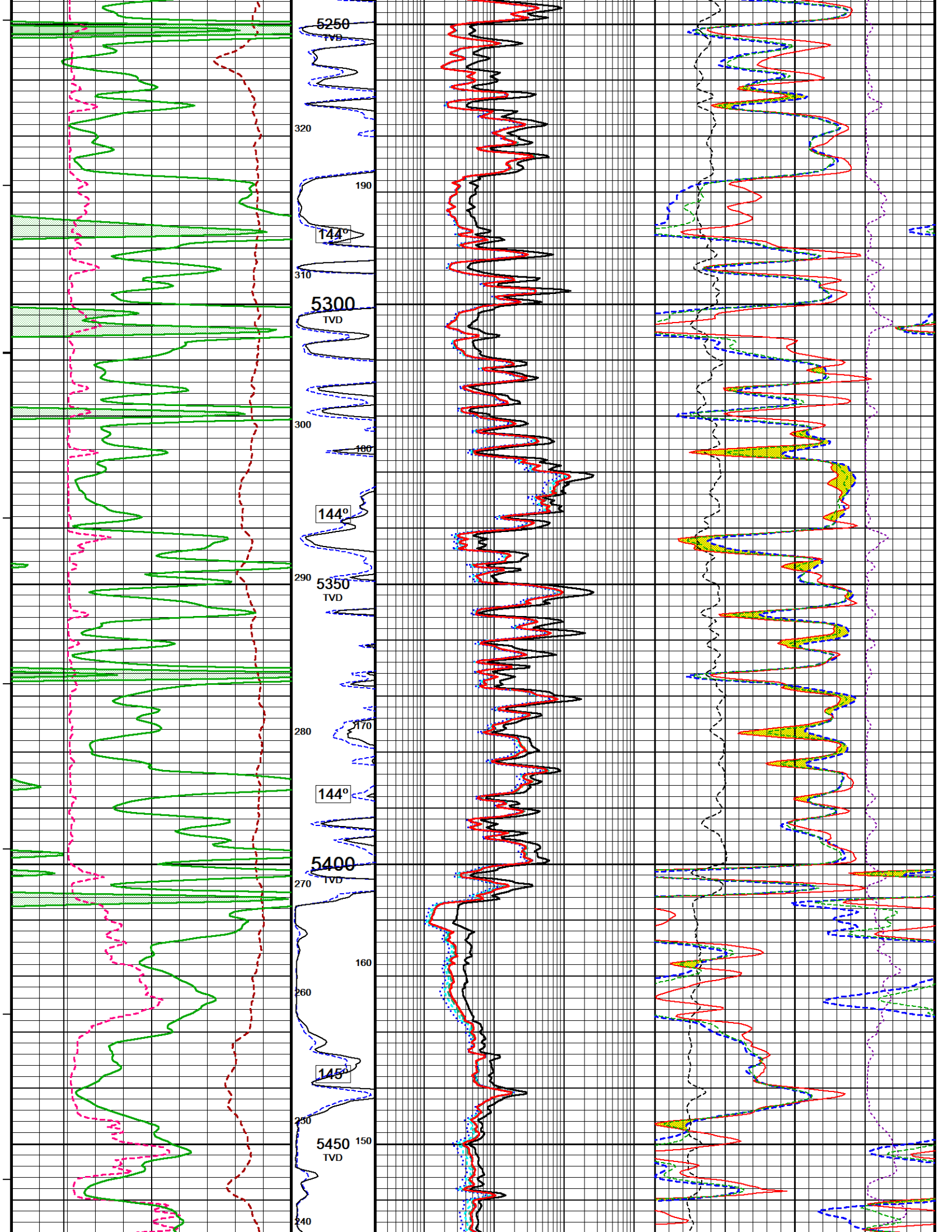


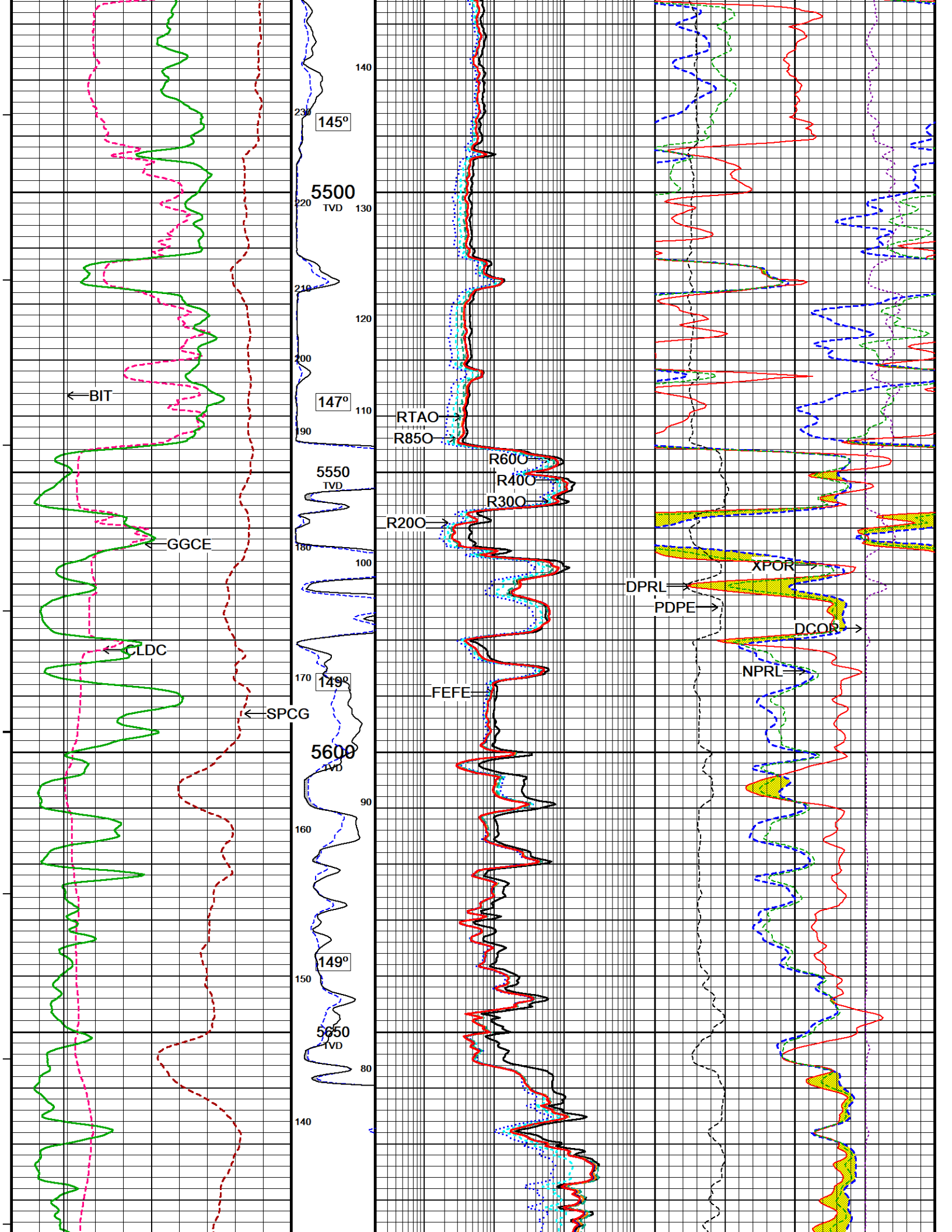


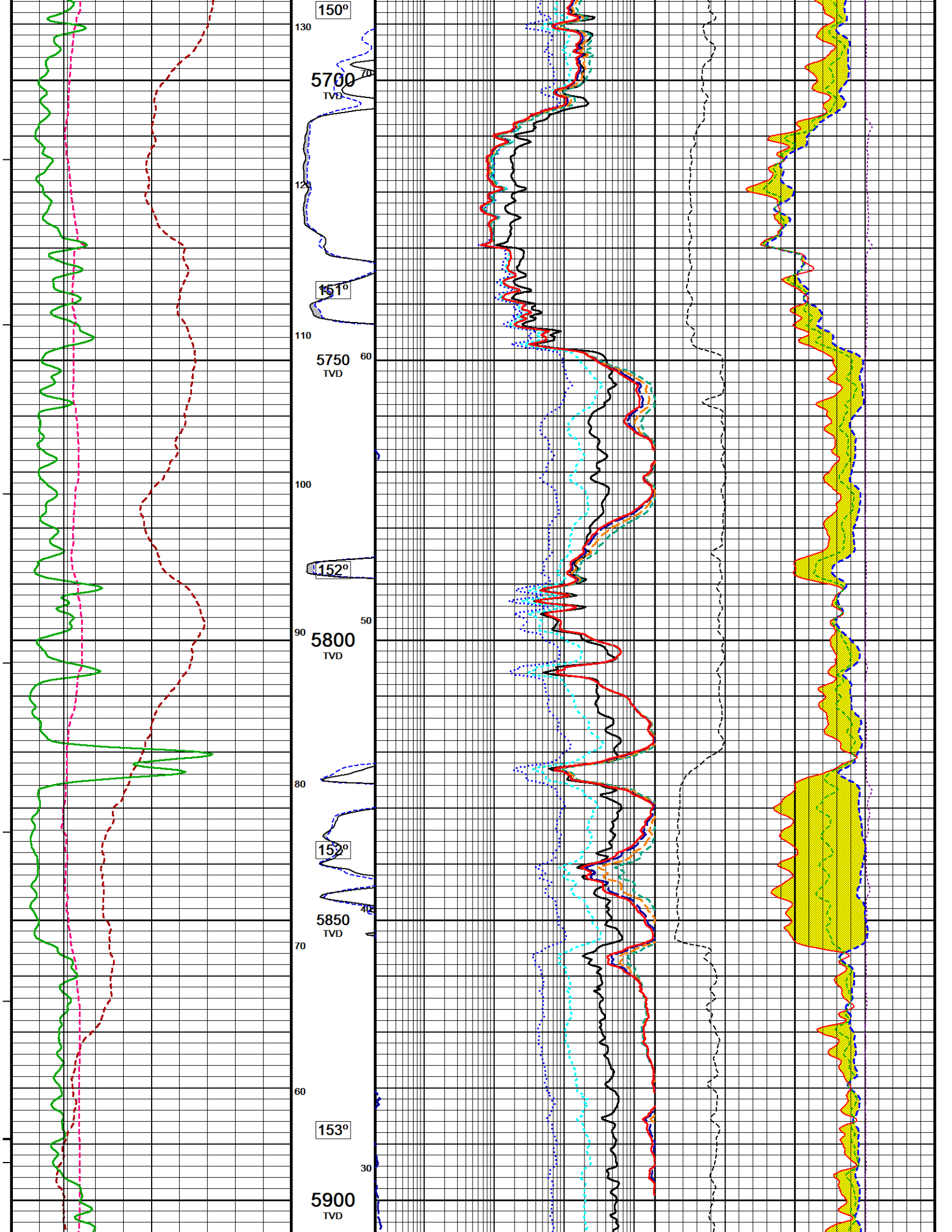


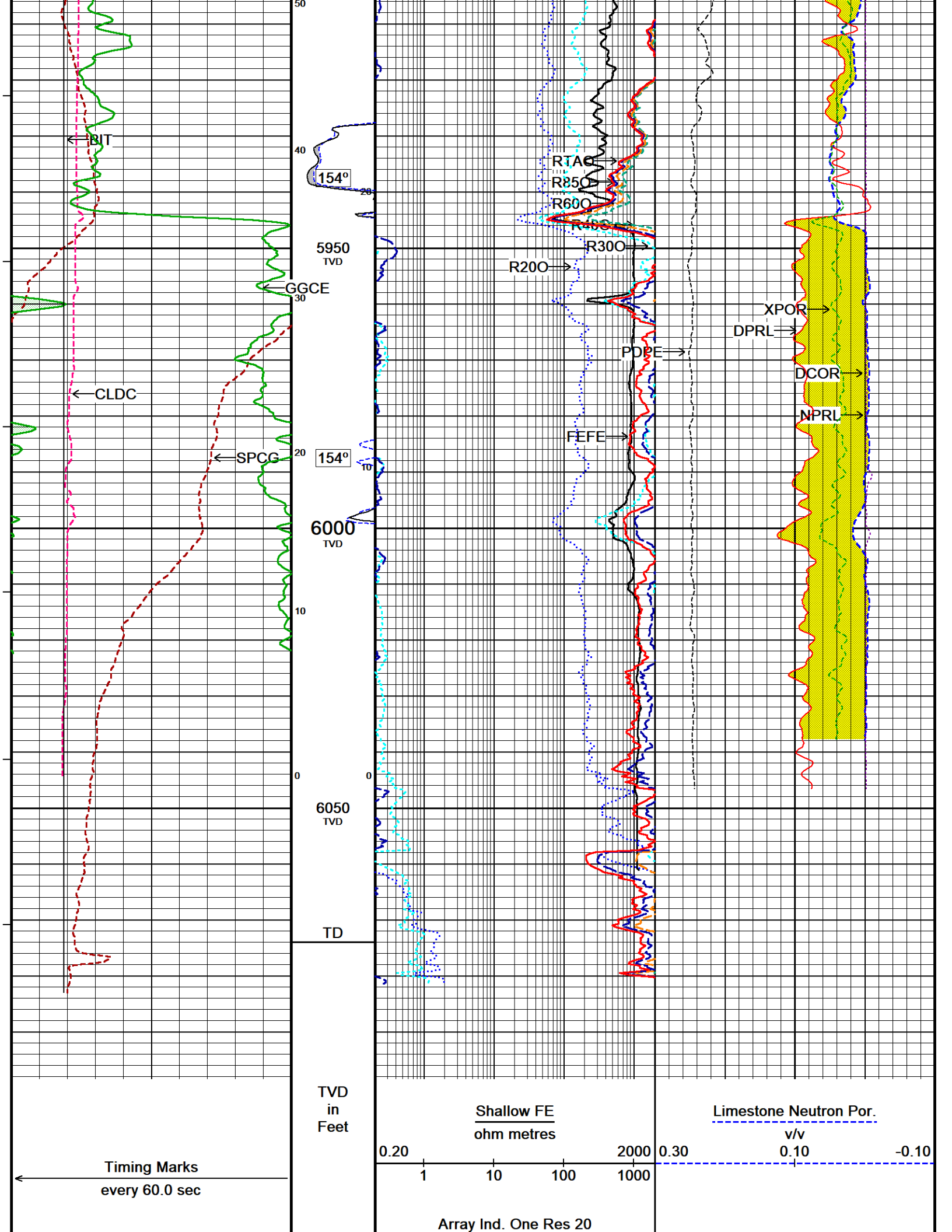


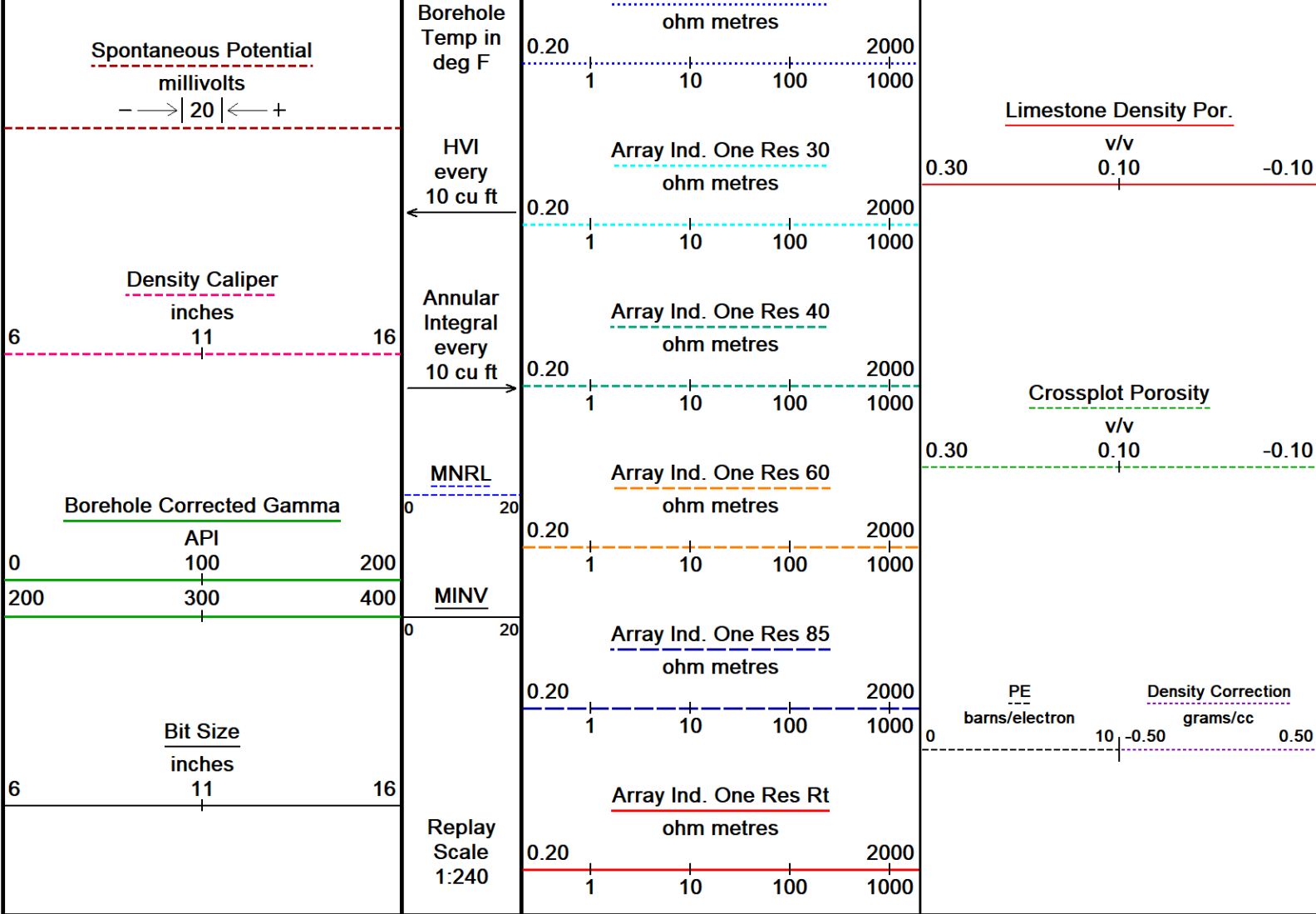








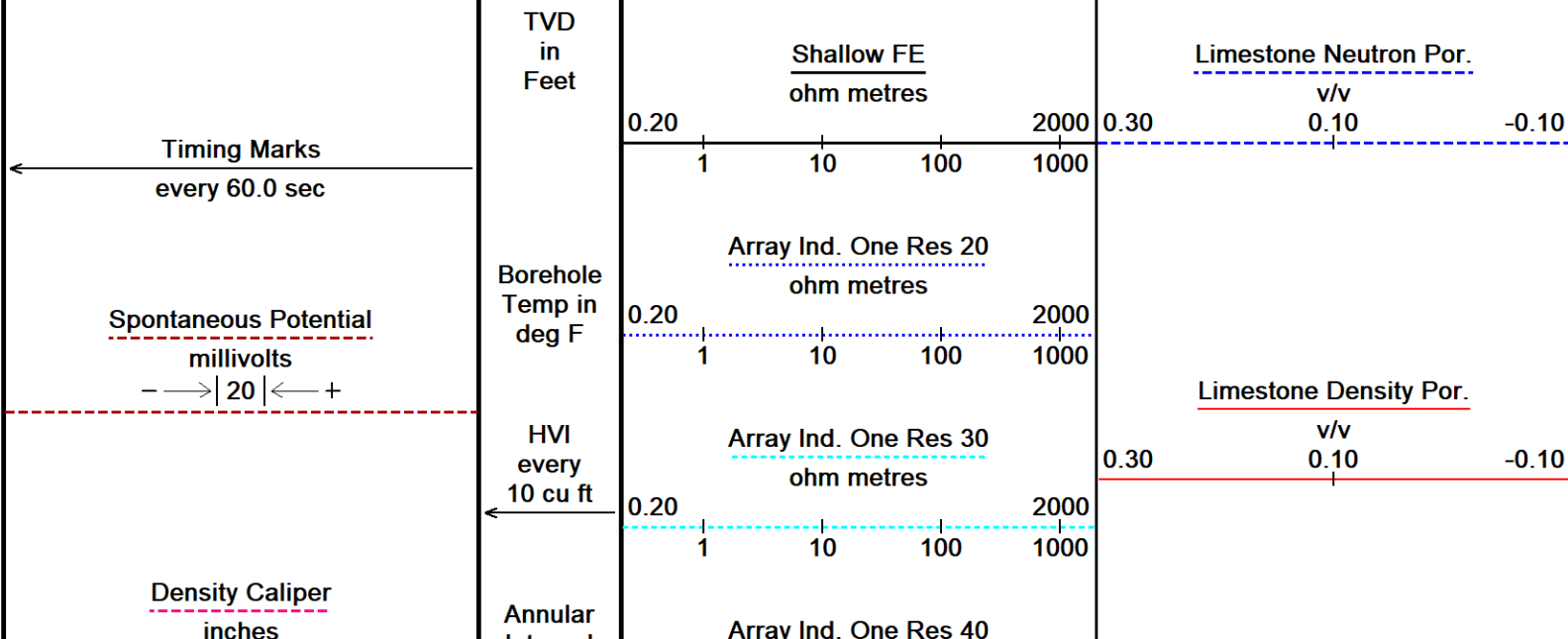




↑ 5 INCH MAIN PASS TVD ↑

↓ 5 INCH REPEAT PASS TVD ↓

Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 01-JUN-2023 17:25  
 Filename: C:\Users\grahm\AppData\Local\Temp\Weatherford PreView6\0\Repeat\_Reprocessed.dta  
 Recorded on 26-MAY-2023 12:08  
 System Versions: Logged with 20.11.3980 Processed with 22.15.1312 Plotted with 22.15.1312



6 11 16

Borehole Corrected Gamma

API

0	100	200
200	300	400

Bit Size  
inches

6	11	16
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Integral every 10 cu ft

ohm metres

0.20 1 10 100 2000 1000

MNRL

Array Ind. One Res 60

ohm metres

0.20 1 10 100 2000 1000

MINV

Array Ind. One Res 85

ohm metres

0.20 1 10 100 2000 1000

Array Ind. One Res Rt

ohm metres

0.20 1 10 100 2000 1000

Replay Scale 1:240

Crossplot Porosity

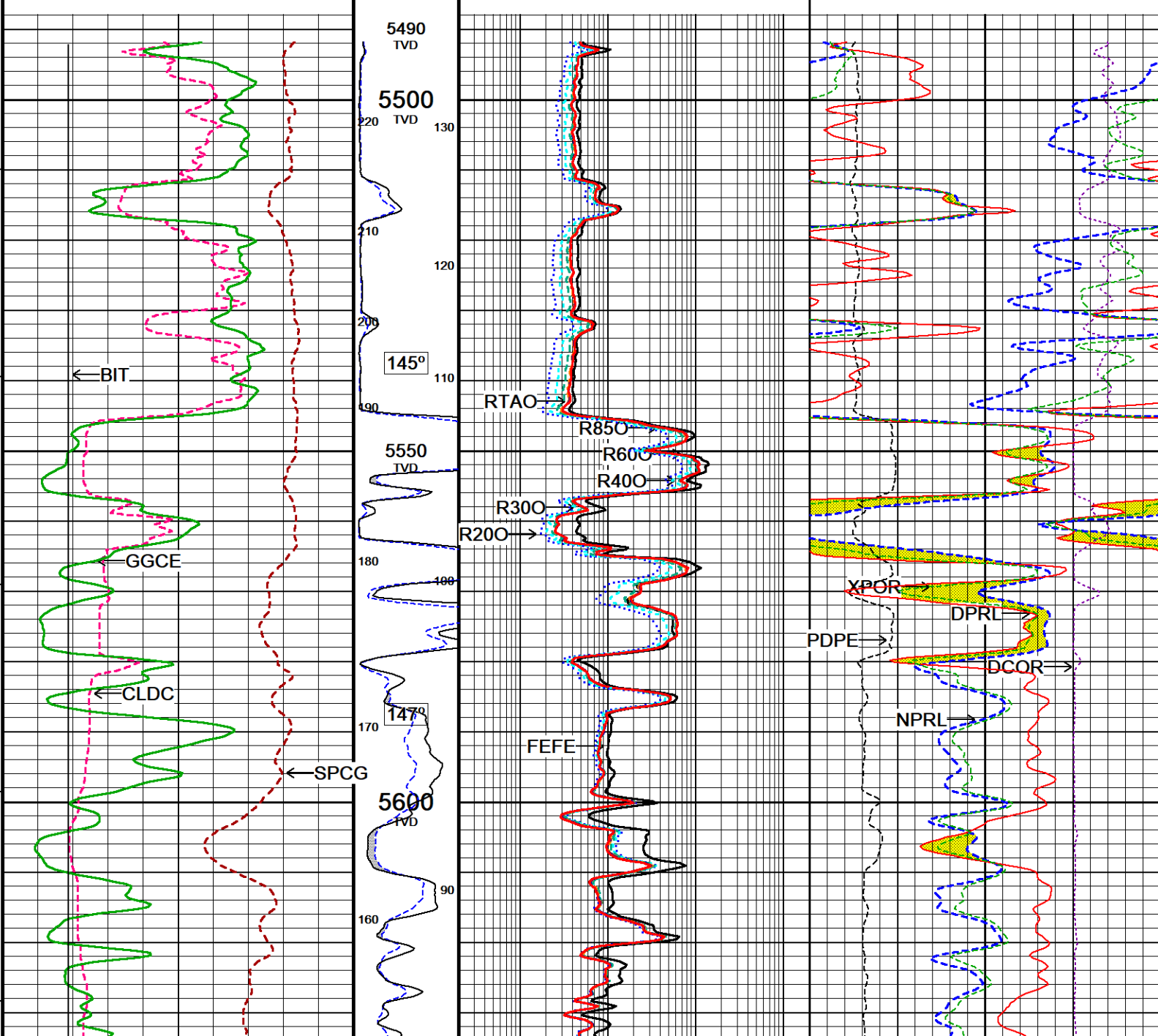
v/v

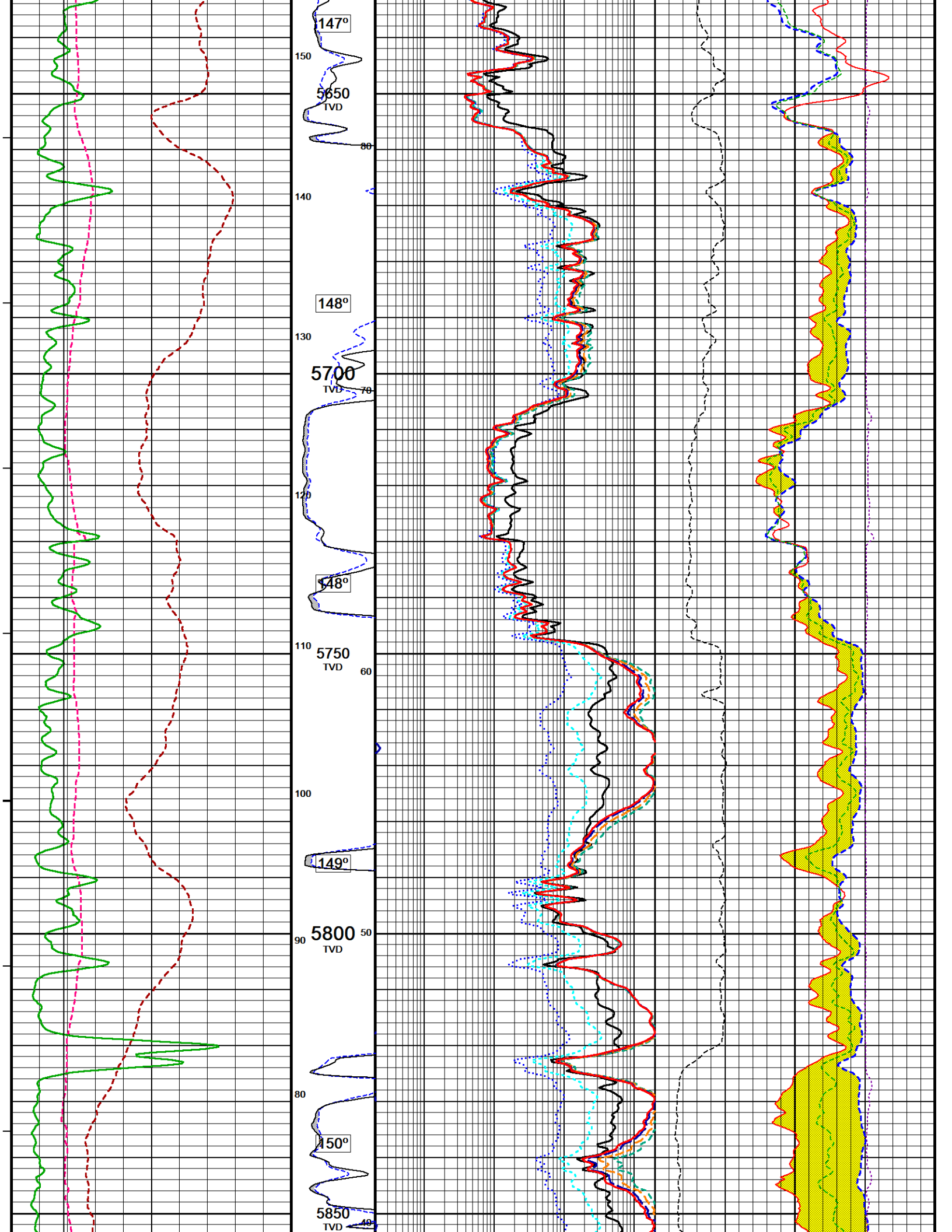
0.30 0.10 -0.10

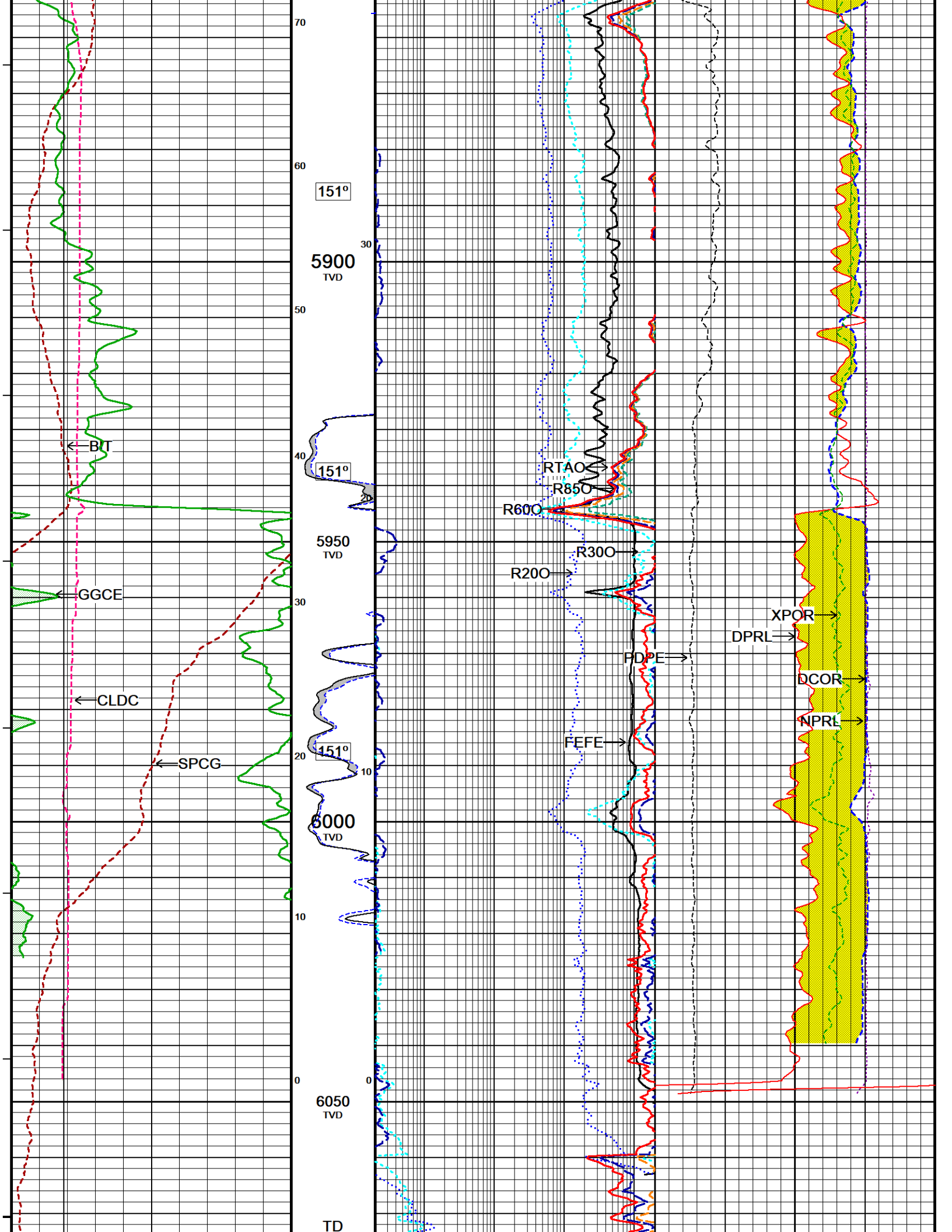
PE barns/electron

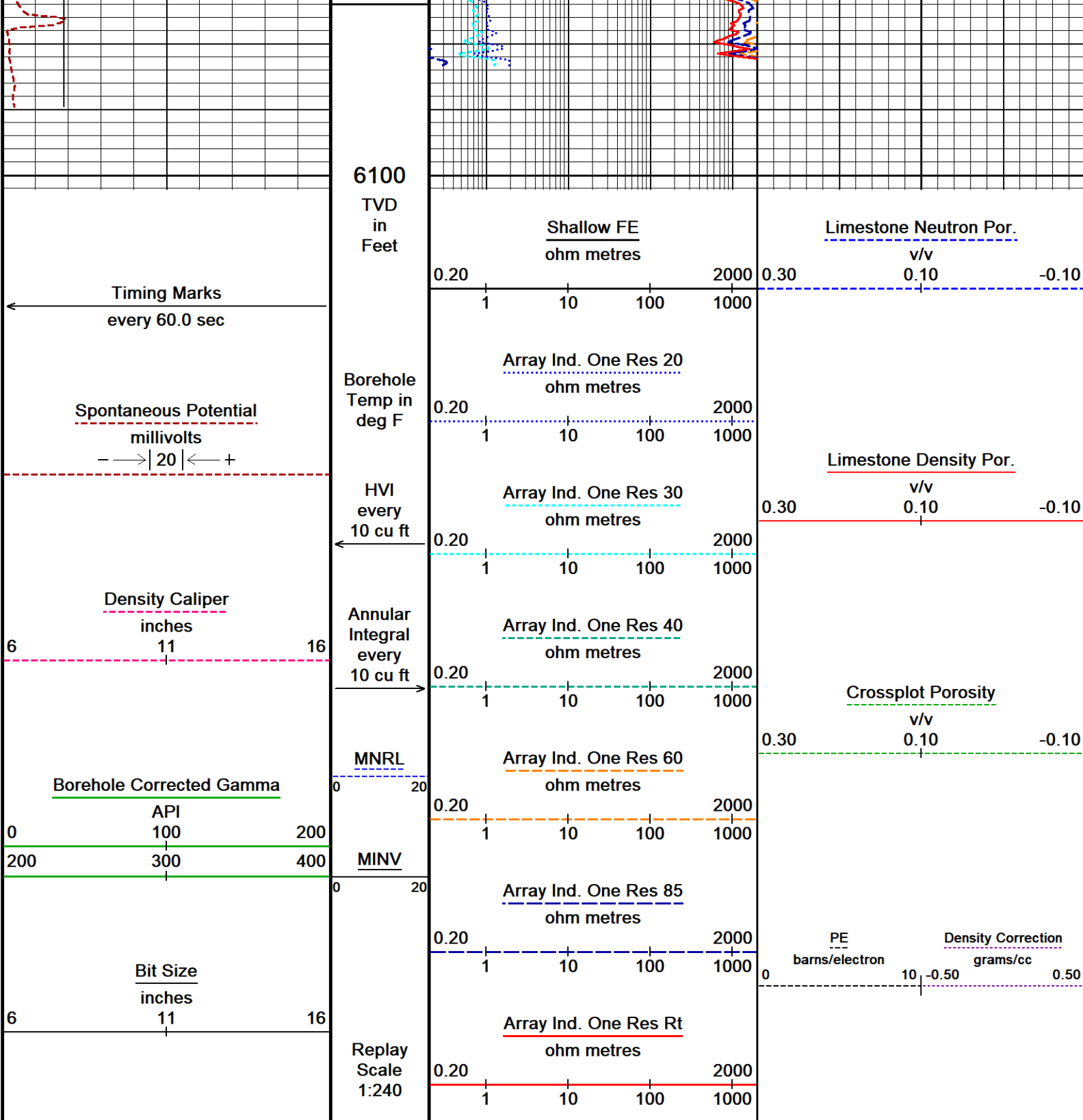
Density Correction grams/cc

0 10 -0.50 0.50









Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 01-JUN-2023 17:25  
 Filename: C:\Users\gramh\AppData\Local\Temp\Weatherford PreView6\0\Repeat\_Reprocessed.dta  
 Recorded on 26-MAY-2023 12:08  
 System Versions: Logged with 20.11.3980 Processed with 22.15.1312 Plotted with 22.15.1312

↑ 5 INCH REPEAT PASS TVD ↑

BEFORE SURVEY CALIBRATION  
 C:\Users\gramh\AppData\Local\Temp\Weatherford PreView6\0\MainPass.dta

General Constants All 000 Last Edited on 26-MAY-2023,12:35

General Parameters  
 Mud Resistivity 0.750 ohm-metres  
 Mud Resistivity Temperature 86.000 degrees F  
 Water Level 0.000 feet

Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Limestone Density Por.	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	1.000	
RWA Constant M	2.000	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0

Field Calibration on 25-APR-2023 19:13

Reading No	Measured	Calibrated (lbs)
1	15436.25	0.00
2	16961.69	516.00

High Resolution Temperature Constants MCG-E.A 551

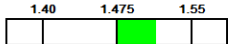
Pre-filter Length 11

Gamma Calibration MCG-E.A 551

Field Calibration on 20-APR-2023 13:00

	Measured	Calibrated (API)
Background	52	35
Calibrator (Gross)	860	568
Calibrator (Net)	807	533

Gamma Calibration Tolerances MCG-E.A 551

Ratio 1.515  Counts/API

Gamma Constants MCG-E.A 551

Last Edited on 26-MAY-2023,12:36

Gamma Calibrator Number	MCG 111	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.09	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	
K Mud Concentration	0.00	%

Micro-Resistivity Caliper Constants MMR-C.A 257

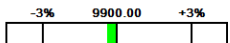
Sonde Configuration Resistivity Mode

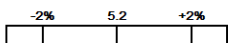
Micro Laterolog Calibration MMR-C.A 257

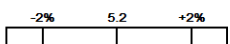
Base Calibration on 31-MAY-2021 11:30  
Field Check on 31-MAY-2021 11:32

	Resistor 1 (ohm)	Resistor 2 (ohm)
	0.0	10000.0
Base Calibration		
	Measured	Calibrated (ohm-m)
	Ref 1 Ref 2	Ref 1 Ref 2
	0.0 9858.5	0.0 128.0
	Base Check (ohm-m)	Field Check (ohm-m)
	5.2	5.2

Micro Laterolog Calibration Tolerances MMR-C.A 257

Ref 2 9858.5  ohm

Base Check 5.2  ohm-m

Field Check 5.2  ohm-m

Pad Type 6 in Solid Nylon B23059  
 Standoff Offset 0.5000 inches  
 Micro Laterolog K Factor 0.0128  
 Micro Laterolog Rm K Factor N/A

Mudcake Thickness Correction Constants

Mud Cake Source Differential Caliper  
 Mud Cake Thickness N/A inches  
 Mud Cake Thickness Caliper MMR Caliper  
 Mud Cake Resistivity 0.0470 ohm-m  
 Mud Cake Resistivity Temp. 72.00 Deg F  
 Mud Cake Resistivity Source Temperature Corr  
 Temp. for Rmc Corr. MCG External Temperature

Caliper Calibration MMR-C.A 257

Base Calibration on 01-MAY-2023 11:12  
 Field Calibration on 01-MAY-2023 11:13

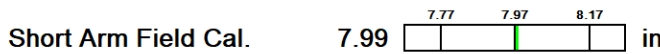
Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13341	5.96
2	16469	7.97
3	19652	9.86
4	23513	11.88
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.99	7.97

Caliper Calibration Tolerances MMR-C.A 257

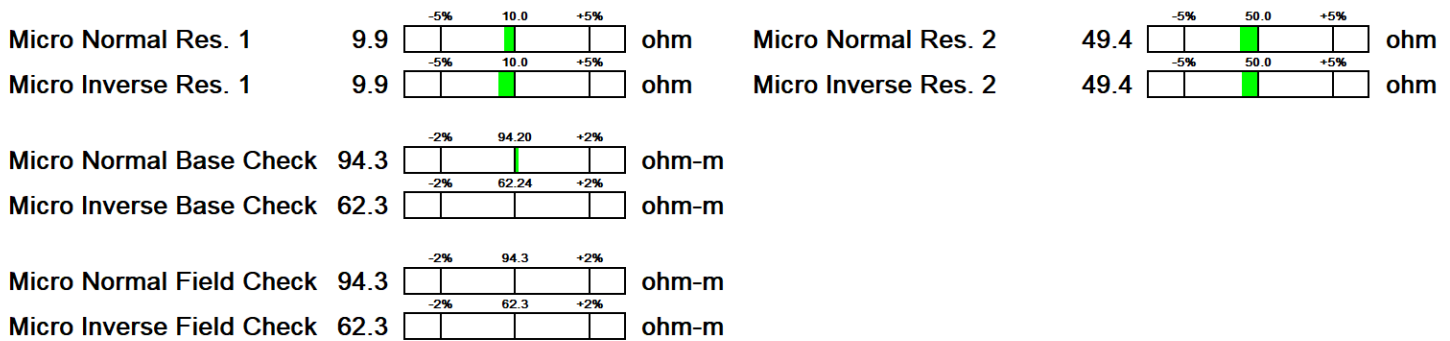


Micro Normal and Micro Inverse Calibration MMR-C.A 257

Base Calibration on 01-MAY-2023 11:02  
 Field Check on 01-MAY-2023 11:04

	Resistor 1 (ohm)	Resistor 2 (ohm)
	10.0	50.0
Base Calibration		
	Measured	Calibrated (ohm-m)
Micro Normal	9.9 49.4	5.1100 25.5500
Micro Inverse	9.9 49.4	3.3800 16.9000
Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	94.3	94.3
Micro Inverse	62.3	62.3

Micro Normal & Micro Inverse Calibration Tolerance MMR-C.A 257



Micro Normal and Micro Inverse Constants MMR-C.A 257

Last Edited on 09-FEB-2023,09:37

Pad Type 8-12 in Soft Rubber Inflatable 006-9011-159  
 Micro Normal K Factor 0.5110  
 Micro Inverse K Factor 0.3380  
 Standoff Offset 0.0000 inches

Neutron Calibration MDN-C.A 399

Base Calibration on 19-APR-2023 11:09  
 Field Check on 19-APR-2023 11:27

Base Calibration

Measured                      Calibrated (cps)

Near	Far	Near	Far
3110	96	3714	110
Ratio		32.539	
		33.764	

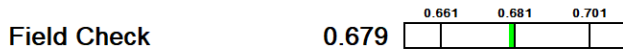
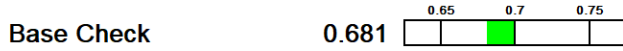
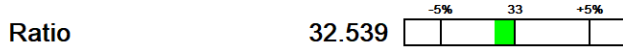
Field Calibrator at Base

Calibrated (cps)	
2014	2960
Ratio	
0.681	

Field Check

Calibrated (cps)	
2016	2970
Ratio	
0.679	

Neutron Calibration Tolerances MDN-C.A 399



Neutron Constants MDN-C.A 399

Last Edited on 26-MAY-2023,12:36

Neutron Source Id	N-1054	
Neutron Jig Number	NJ5239	
Air Hole Processing	Modified Ratio	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MVC-A.A 146

Base Calibration on 02-MAR-2023 08:28  
Field Calibration on 02-MAR-2023 08:31

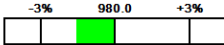
Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	10494	4.01
2	17351	5.96
3	24456	7.97
4	31239	9.86
5	38707	11.88
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	8.00	7.97

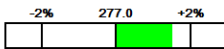
FE Calibration MFE-C.A 399

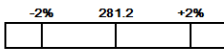
Base Calibration on 20-APR-2023 09:32  
Field Check on 20-APR-2023 09:38

	Resistor 1 (ohm)	Resistor 2 (ohm)
	0.0	1000.0
Base Calibration		
	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	964.6	126.8
Base Check		281.2
Field Check		281.2

FE Calibration Tolerances MFE-C.A 399

Reference 2 964.6  ohm

Base Check 281.2  ohm-m

Field Check 281.2  ohm-m

FE Constants MFE-C.A 399

Last Edited on 26-MAY-2023,12:37

Running Mode No Sleeve  
MFE K Factor 0.1268

Borehole Correction Constants

Sonde Position 1.0 inches  
Hole Size Source Density Caliper  
Hole Size Constant Value N/A inches  
Rm Source Global Value: Temperature Corrected  
Temp. for Rm Corr. MCG External Temperature

Sonic Constants MSS-C.K 374

Maximum Boundary Contrast 70.00 micro-sec/ft  
Fluid Transit Time 189.00 micro-sec/ft  
Limestone Transit Time 47.50 micro-sec/ft  
Sandstone Transit Time 55.50 micro-sec/ft  
Dolomite Transit Time 43.50 micro-sec/ft  
Sonic used for Porosities 3-5' Compensated  
Correction for Sonde Skew Applied  
Cycle Stretch Algorithm Applied  
MN3FT 0.00 micro-sec  
MX3FT 1500.00 micro-sec  
Hunt-Raymer Constant 83.12 micro-sec/ft

Sonde Mode Compensated  
Hole Type Open Hole

Sonde Parameters

Offset Measured Calibrated  
Free Pipe 0.0000 0.0000

Peak Amplitude Source

Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A

Processed Fixed Gate Parameters

Waveform Used For Processing	N/A			
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (m)	
0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	

Full Waveform Parameters

Use 3' Waveform to derive TR No  
Use 4' Waveform to derive TR No  
Use 5' Waveform to derive TR No  
Use 6' Waveform to derive TR No  
3' Waveform Discriminator Level 0.30 mV  
4' Waveform Discriminator Level 0.30 mV  
5' Waveform Discriminator Level 0.15 mV  
6' Waveform Discriminator Level 0.15 mV

Waveform Discriminator Filter Not Applied

Semblance Window Width 150.00 micro-sec  
 Semblance Processing Enabled Yes  
 Tracking Boxes Enabled In Processing Yes

Induction Calibration MAI-C.A 490

Factory Loop Calibration 17-DEC-2012,20:04  
 Field Check on 10-MAY-2022 15:43

Factory Loop Calibration

High Conductivity Reference Resistor 3.3 ohm  
 Low Conductivity Reference Resistor 333.3 ohm

Array	Measured Signal (unitless)		Reference Conductivity (mmho/m)		Calibration	
	Low	High	Low	High	Gain	Offset
1 (near)	15.2	455.2	9.3	966.2	0.000	0.0
2	5.9	373.9	7.6	821.4	0.000	0.0
3	3.7	251.6	5.2	566.0	0.000	0.0
4 (far)	1.8	128.7	2.6	279.2	0.000	0.0
Array Temperature	75.6		Deg F			

Tool Checks 10-MAY-2022 15:40

Array	Factory Reference (mmho/m)		Before Survey (mmho/m)		Deg F
	Low	High	Low	High	
1 (near)	-2.2	2114.9	-2.2	2114.9	
2	14.0	1921.9	13.9	1922.0	
3	14.0	1678.9	14.0	1679.0	
4 (far)	10.3	1145.1	10.3	1145.2	
Array Temperature	89.0		89.2		Deg F

Tool Zero Corrections

Array	Low	High	mmho/m
1 (near)		0.0	mmho/m
2		0.0	mmho/m
3		0.0	mmho/m
4 (far)		0.0	mmho/m

Induction Check Tolerances MAI-C.A 490

Low Array 1	-2.2	<input type="text" value="-3.7"/> <input type="text" value="-2.2"/> <input type="text" value="-0.7"/>	mmho/m	High Array 1	2114.9	<input type="text" value="-0.5%"/> <input type="text" value="2114.9"/> <input type="text" value="+0.5%"/>	mmho/m
Low Array 2	13.9	<input type="text" value="12.5"/> <input type="text" value="14.0"/> <input type="text" value="15.5"/>	mmho/m	High Array 2	1922.0	<input type="text" value="-0.5%"/> <input type="text" value="1921.9"/> <input type="text" value="+0.5%"/>	mmho/m
Low Array 3	14.0	<input type="text" value="12.5"/> <input type="text" value="14.0"/> <input type="text" value="15.5"/>	mmho/m	High Array 3	1679.0	<input type="text" value="-0.5%"/> <input type="text" value="1678.9"/> <input type="text" value="+0.5%"/>	mmho/m
Low Array 4	10.3	<input type="text" value="8.8"/> <input type="text" value="10.3"/> <input type="text" value="11.8"/>	mmho/m	High Array 4	1145.2	<input type="text" value="-0.5%"/> <input type="text" value="1145.1"/> <input type="text" value="+0.5%"/>	mmho/m

Induction Constants MAI-C.A 490

Last Edited on 26-MAY-2023,12:37

Induction Model RtAP

Borehole Correction Constants  
 Tool Centred No  
 Hole Size Source Density Caliper  
 Hole Size Constant Value N/A inches  
 Stand-off Type Fins  
 Stand-off 0.50 inches  
 Number of Fins on Stand-off 6.0000  
 Stand-off Fin Angle 60.00 degrees  
 Stand-off Fin Width 0.5000 inches  
 Rm Source Global Value: Temperature Corrected  
 Temp. for Rm Corr. MCG External Temperature  
 Borehole Correction Method Default

Squasher Start 0.0020 mhos/metre  
 Squasher Offset N/A mhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

<b>Calibration Site Corrections</b>		
Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre
<b>Symmetrised Receiver Gains</b>		
Receiver 1	1.00	
Receiver 2	1.00	
Receiver 3	1.00	
Receiver 4	1.00	
<b>Apparent Porosity and Water Saturation Constants</b>		
Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

High Resolution Temperature Calibration MAI-C.A 490

Field Calibration on 17-DEC-2012,07:08

	Measured	Calibrated(Deg C)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-C.A 490

Last Edited on 17-DEC-2012,20:09

Pre-filter Length	11
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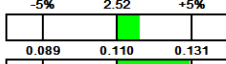
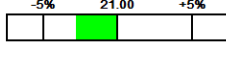
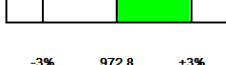
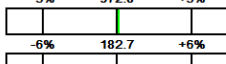
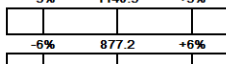
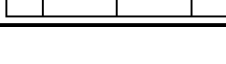
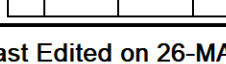
Photo Density Calibration MPD-C.J 438

Base Calibration on 06-APR-2023 14:01

Field Check on 06-APR-2023 14:07

<b>Density Calibration</b>					
<b>Base Calibration</b>					
		<b>Measured</b>		<b>Calibrated (sdu)</b>	
		Near	Far	Near	Far
Background		973	1140		
Reference 1		44856	20382	59814	31141
Reference 2		18117	2083	24963	2524
<b>Field Check at Base</b>					
		972.8	1140.5		
<b>Field Check</b>					
		974.0	1140.0		
<b>PE Calibration</b>					
<b>Base Calibration</b>					
		<b>Measured</b>		<b>Calibrated</b>	
	WS	WH	Ratio	Ratio	
Background	183	877			
Reference 1	20347	44708	0.460	0.368	
Reference 2	5757	18012	0.325	0.273	
<b>Field Check at Base</b>					
		182.7	877.2		
<b>Field Check</b>					
		182.8	875.9		

Photo Density Calibration Tolerances MPD-C.J 438

Near Density Ratio	2.56		Far Density Ratio	20.41	
PE Calibration	0.131				
Near Den. Field Check	974.0		Far Den. Field Check	1140.0	
PE WS Field Check	182.8		PE WH Field Check	875.9	

Density Constants MPD-C.J 438

Last Edited on 26-MAY-2023,12:37

Density Source Id	H79956B	
Nylon Calibrator Number	DNCE 687	
Aluminium Calibrator Number	DACD 526	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.09	gm/cc
Mud Density Type	Non-Barite	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Precision Enhanced Density Processing	Applied	
Density Detector Type	Compensated Density	

Matrix Density (gm/cc)	Depth (ft)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Caliper Calibration MPD-C.J 438

Base Calibration on 06-APR-2023 14:51  
Field Calibration on 06-APR-2023 14:52

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	15285	4.01
2	23599	5.96
3	32288	7.97
4	40480	9.86
5	49552	11.88
6	N/A	N/A

Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	7.98	7.97

Caliper Calibration Tolerances MPD-C.J 438

Long Arm Field Cal. 7.98  in

DOWNHOLE EQUIPMENT

C:\Users\grahm\AppData\Local\Temp\Weatherford PreView6\0\MainPass.dta

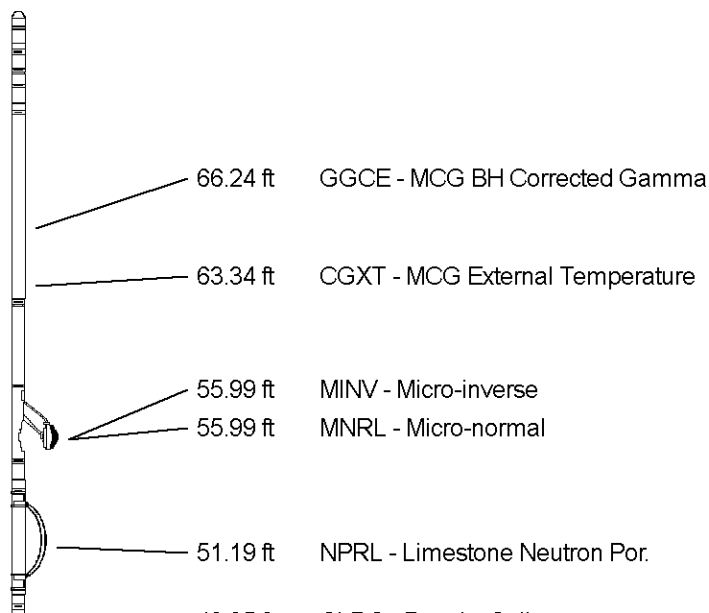
Cablehead, 11 pin  
CBH-CC 348 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

11C-11B Compact Tool Adaptor  
MTA-K.A 189 LG: 1.53 ft WT: 13.2 lb OD: 2.240 in

Compact Comms Gamma  
MCG-E.A 551 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-Resistivity  
MMR-C.A 257 LG: 8.59 ft WT: 81.6 lb OD: 4.882 in

Compact Neutron  
MDN-C.A 399 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in



Compact Density/Caliper  
MPD-C.J 438 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Vee Arm Caliper  
MVC-A.A 146 LG: 8.06 ft WT: 61.7 lb OD: 2.244 in

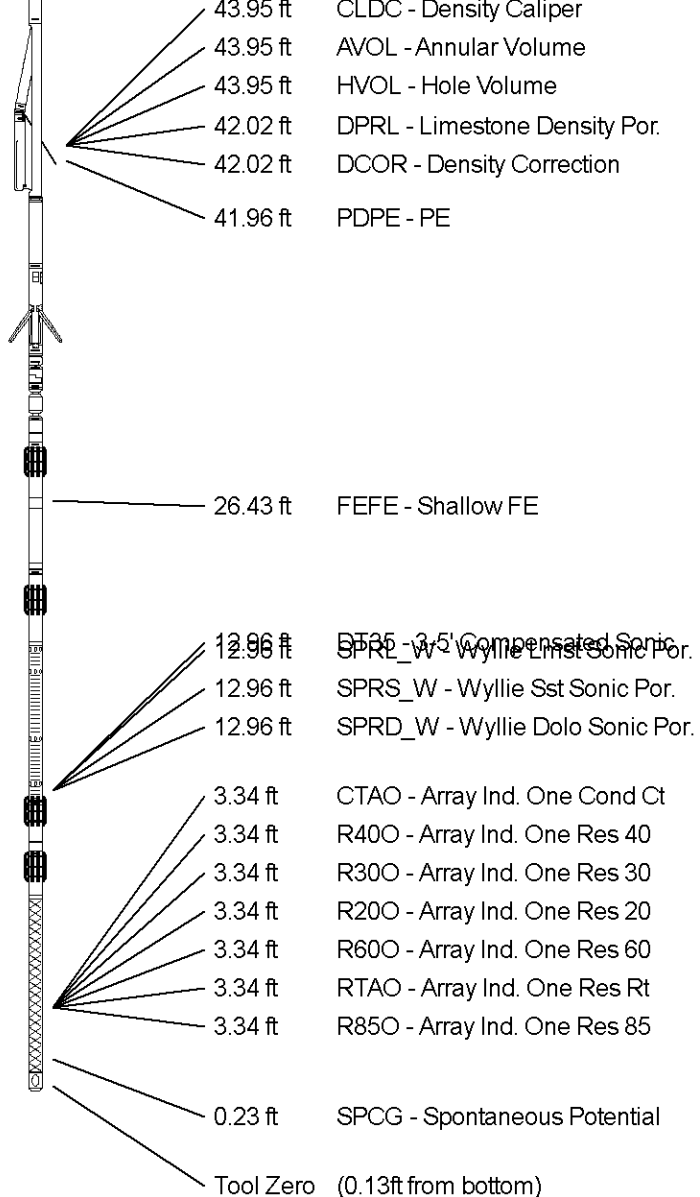
Compact Knuckle Joint  
SKJ-E.B 694 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Focussed Electric  
MFE-C.A 399 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Sonic  
MSS-C.K 374 LG: 12.52 ft WT: 72.8 lb OD: 2.244 in

Compact Induction  
MAI-C.A 490 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 75.45 ft Weight: 579.8 lb



All measurements relative to tool zero.

COMPANY	NAVEX RESOURCES LLC
WELL	PFAFFLY #1-12
FIELD	NORTH CHEYENNE PROJECT/ PFAFFLY PROSPECT
PROVINCE/COUNTY	KIT CARSON
COUNTRY/STATE	COLORADO

Elevation Kelly Bushing	4479.00	feet	Last Reading	648.00	feet
Elevation Drill Floor	4479.00	feet	First Reading	6078.00	feet
Elevation Ground Level	4466.90	feet	Depth Driller	6076.00	feet
			Depth Logger	6082.00	feet

**WIRELIN**  
**LOGGING** COMPOSITE  
**SOLUTIONS** \*\*\* TVD \*\*\*

