Schlumberger

Company: Caerus Piceance LLC

Well: Puckett SWD H2-797

Field: Wildcat

County: Garfield State: Colorado

Reservoir Saturation Tool

Sigma

County: Garfield
Field: Wildcat
Location: Sec. 2, T7S, R97W
Well: Puckett SWD H2-797
Company: Caerus Piceance LLC

Location:

Sec. 2, T7S, R97W SHL: 2229' FNL x 625' FEL	Elev.:	K.B.	8509.00 ft
		G.L.	8479.00 ft
		D.F.	8508.00 ft

Permanent Datum:	Ground Level	Elev.:	8479.00 f
Log Measured From:	Kelly Bushing	30.00 ft	above Perm.Datum
Drilling Measured From:	Kelly Bushing		

API Serial No.	Section:	Township:	Range:
05-045-22631-00	2	7S	97W

Logging Date		21-Jul-2015	
Run Number		Run 1	
Depth Driller		6300.00 ft	
Schlumberger Depth		6300.00 ft	
Bottom Log Interval		6249.00 ft	
Top Log Interval		500.00 ft	
Casing Fluid Type		3% KCl	
Salinity			
Density		8.7 lbm/gal	
Fluid Level		0.00 ft	
BIT/CASING/TUBING STRING			
Bit Size		8.75 in	
From		2493.00 ft	
To		6300.00 ft	
Casing/Tubing Size		5.5 in	
Weight		17 lbm/ft	
Grade		N80	
From		0.00 ft	
To		6300.00 ft	
Max Recorded Temperatures		168.1 degF	
Logger on Bottom	Time	21-Jul-2015	21:05:00
Unit Number	Location:	9115	Ft. Morgan, CO
Recorded By		Aleksei Bekhterev	
Witnessed By		Natalie Naeve	

Disclaimer

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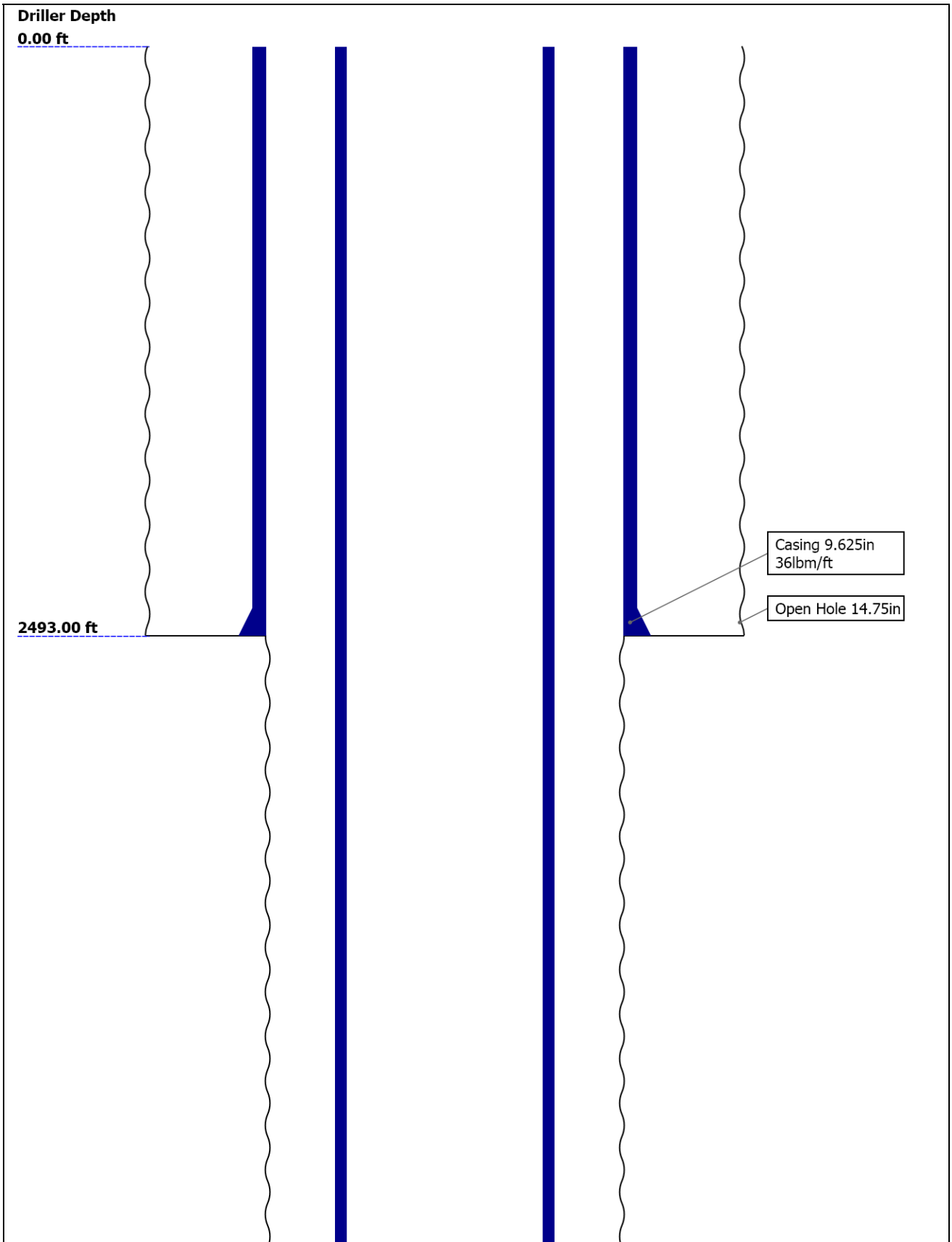
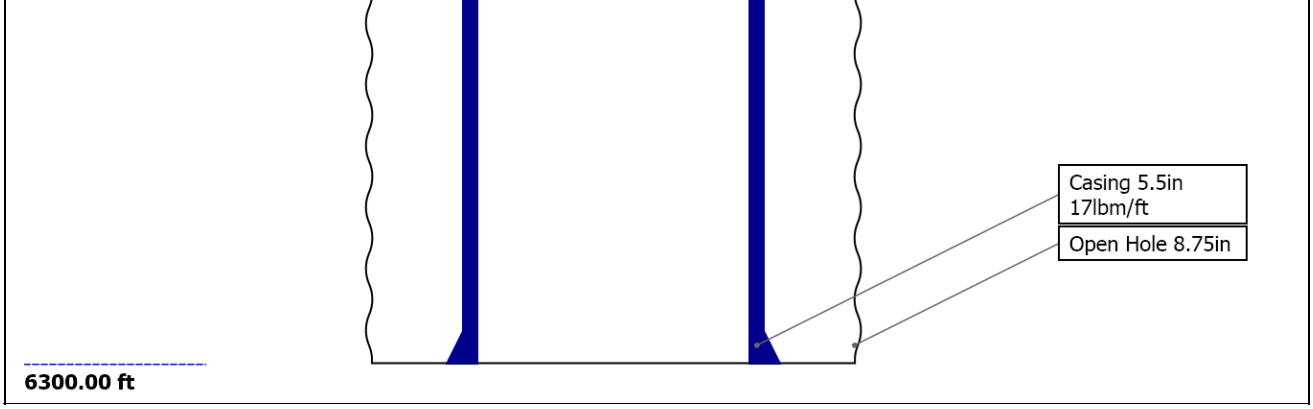
Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	14.75	8.75				
Top Driller (ft)	0	2493				
Top Logger (ft)	0	2493				
Bottom Driller (ft)	2493	6300				
Bottom Logger (ft)	2493	6300				
Casing						
Size (in)	9.625	5.5				
Weight (lbm/ft)	36	17				
Inner Diameter (in)	8.921	4.892				
Grade	J55	N80				
Top Driller (ft)	0	0				
Top Logger (ft)	0	0				
Bottom Driller (ft)	2493	6300				
Bottom Logger (ft)	2493	6300				

Operational Run Summary

Parameter (unit)	Run 1					
Date Log Started	21-Jul-2015					
Time Log Started	18:47:04					
Date Log Finished	22-Jul-2015					
Time Log Finished	01:04:49					
Top Log Interval (ft)	500.00					
Bottom Log Interval (ft)	6249.00					
Total Depth (ft)	6300.00					
Max Hole Deviation (deg)	0.00					
Azimuth of Max Deviation (deg)	0.00					
Bit Size (in)	8.750					
Logging Unit Number	9115					
Logging Unit Location	Ft. Morgan, CO					
Recorded By	Aleksei Bekhterev					

Witnessed By	Natalie Naeve					
Service Order Number	CY37-00125					

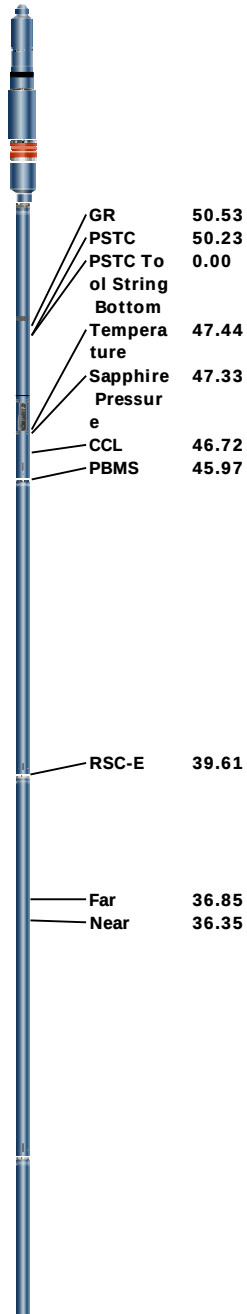
Borehole Fluids

Parameter(unit)	Run 1					
Fluid Type	Water					
Fluid Name	3% KCl					
Max Recorded Temperatures (degF)	168.1					
Salinity (ppm)	0					
Density (lbm/gal)	8.7					
Date Logger on Bottom	21-Jul-2015					
Time Logger on Bottom	21:05:00					
Total Solid (%)						
High Gravity Solids (%)						

Remarks and Equipment Summary

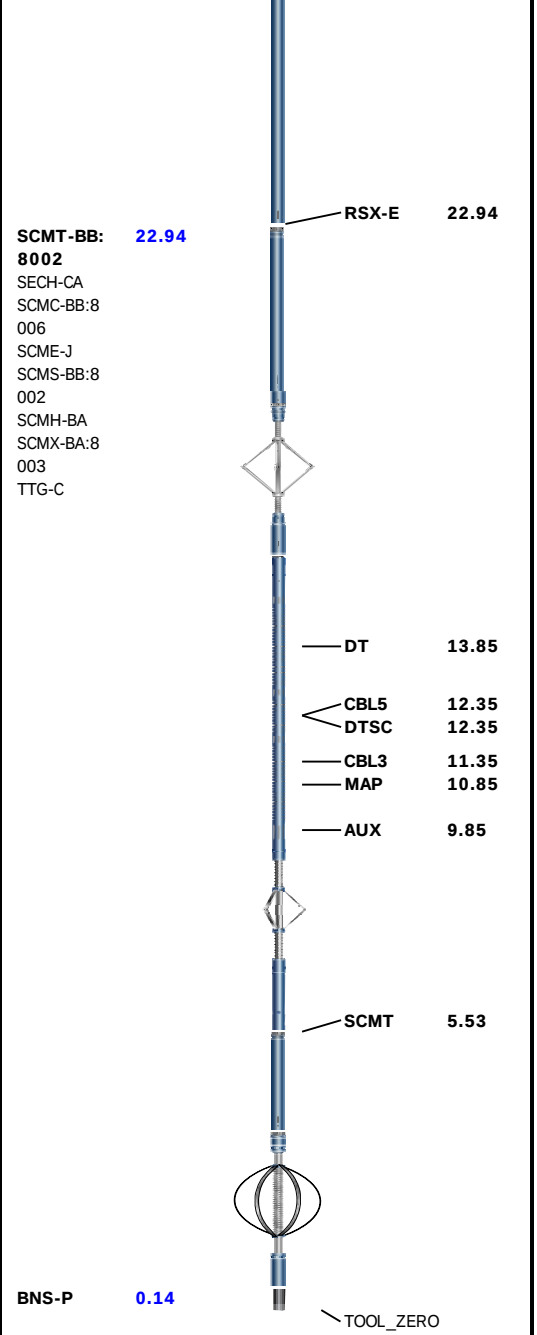
Run 1: Toolstring

Equip name	Length
LEH-QT	**58.3**
LEH-QT	
AH-63	**55.38**
AH-79	**55.06**
PSTP-A:1963	**54.23**
PSC-A	
PSTC-A	
PBMS-A:1963	
Sapphire 10 kPSI	
RST-C:282	**45.97**
RSCH-A	
RSC-E:381	
RSS-A:253	
MNTR-F:1	
RSXH-A:275	
RSX-E:282	



Run 1: Remarks

Run 1: Remarks
Toolstring ran as per tool sketch
This is first run in hole
Main and repeat passes are correlated to downlog as per client's request
RST ran in Sigma mode
Matrix: Sandstone, 2.68 g/cc
Tagged float collar at 6249 ft
Repeat pass is done with 0 psi
Main pass is done with 2200 psi
Log stopped at 500 ft as per client's request
Crew: Jay Musgrave, Jake Jump
Thank you for choosing Schlumberger Wireline!



Lengths are in ft
Maximum Outer Diameter = 3.375 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

	Run 1		
Depth Measuring Device			
Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		
Tension Device			
Type	CMTD-B/A		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		
Logging Cable			

Logging Cable

Type	7-46A-XS		
Serial Number			
Length	21000.00 ft		
Conveyance Type	Wireline		
Rig Type	Workover		

Run 1:Depth Control Parameters		Depth Control Remarks
Log Sequence	First Log In the Well	All Schlumberger depth policies followed
Rig Up Length At Surface		IDW used as primary depth device
Rig Up Length At Bottom		Z-chart used as secondary depth reference
Rig Up Length Correction		
Stretch Correction		
Tool Zero Check At Surface		

Run 1

Software Version

Acquisition System	Version
Maxwell	5.1.33858.3100
Application Patch	Maxwell_NPD-PNX-2014-SP1_5.1.43154

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Main[3]:Up	Up	503.53 ft	6255.49 ft	21-Jul-2015 9:45:48 PM	22-Jul-2015 1:04:12 AM	ON	3.53 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Caerus Piceance LLC Well:Puckett SWD H2-797

Run 1: Main[3]:Up:S004

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Jul-2015 01:19:52

TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

TIME_1900 - Time Marked every 60.00 (s)

IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

Stuck Tool Indicator, Total (STIT)

0 ft 50

Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C

2.5 0

Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C

5 0

Borehole Salinity (BSAL) RST-C

450 ppk -50

Inelastic Ratio Filtered (IRAT_FIL) RST-C

0.75 0

Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C

45 0

Cable Drag From STIA to STIT

Gamma Ray (GR) PSTP-A

0 gAPI 150

Thermal Decay Porosity (TPHI) RST-C

0.6 ft3/ft3 0

Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C

30000 1/s 0

Tool_Tot. Drag From D3T to STIT

Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C

10000 1/s 0

Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C

45 0

Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C

12000 1/s 0

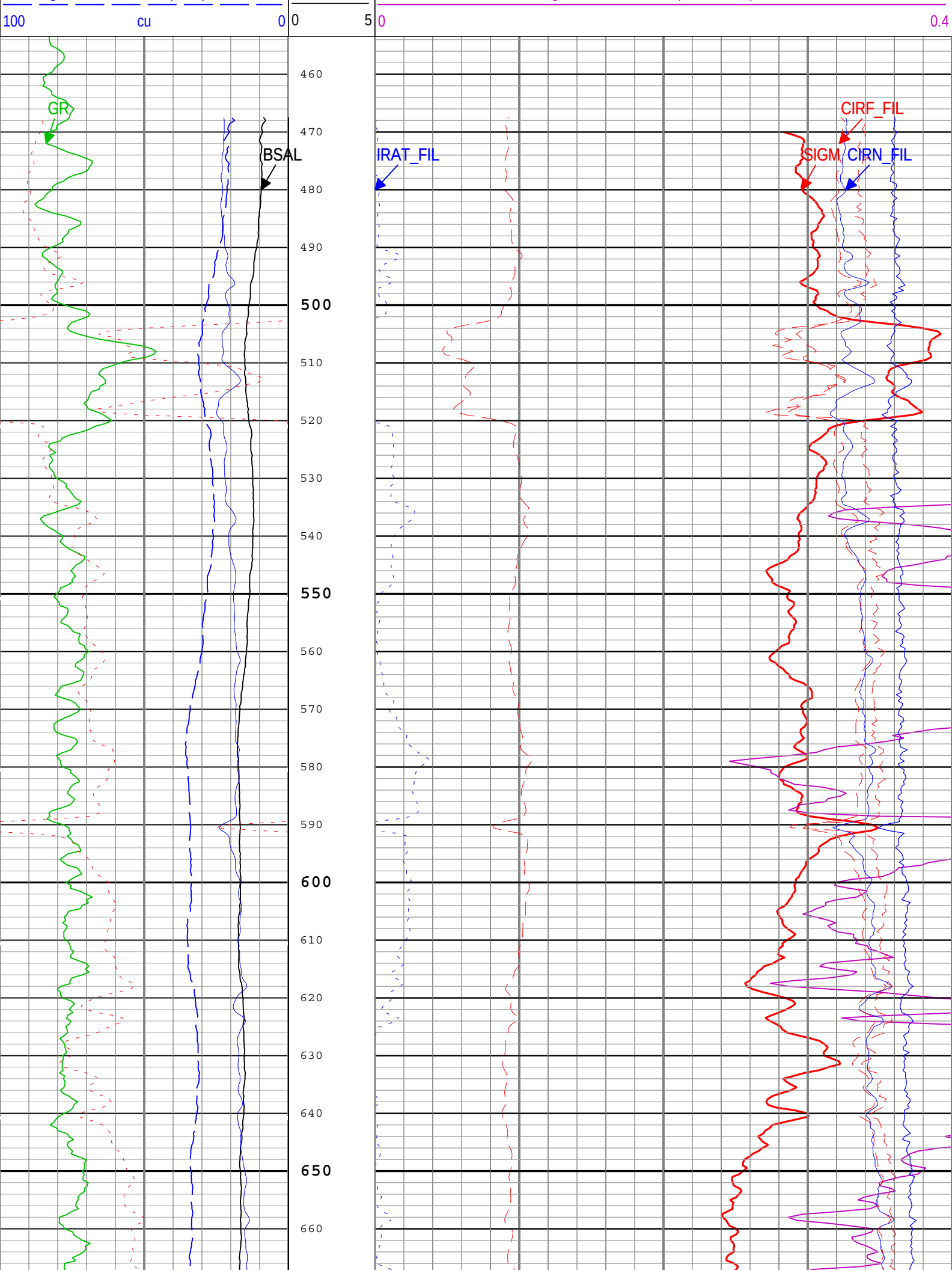
Minitron Arc Count (MARC) RST-C

Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C

60 cu 0

Sigma Borehole Fluid (SIBF) RST-C

Weighted Inelastic Ratio (WINR_RST) RST-C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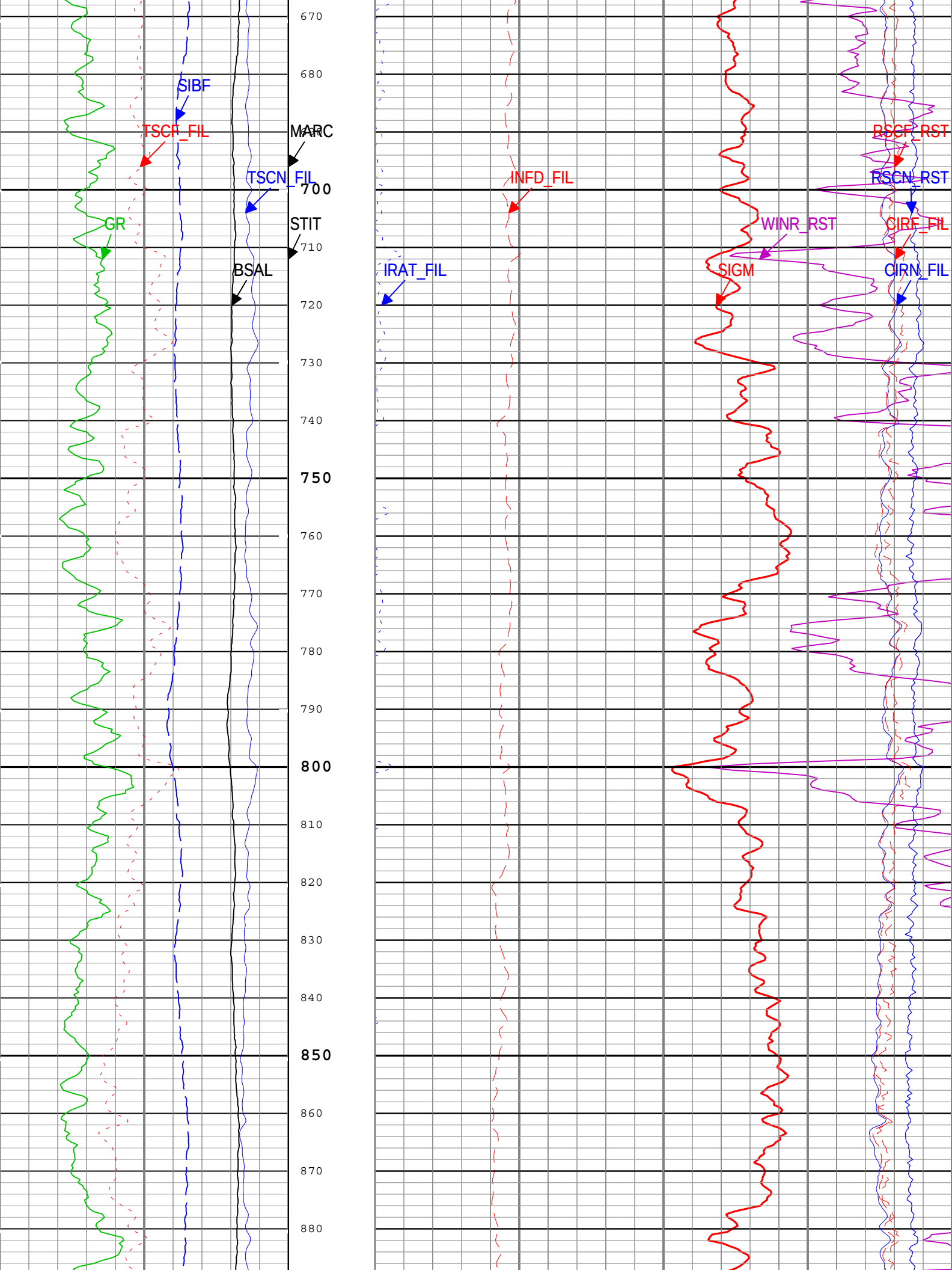
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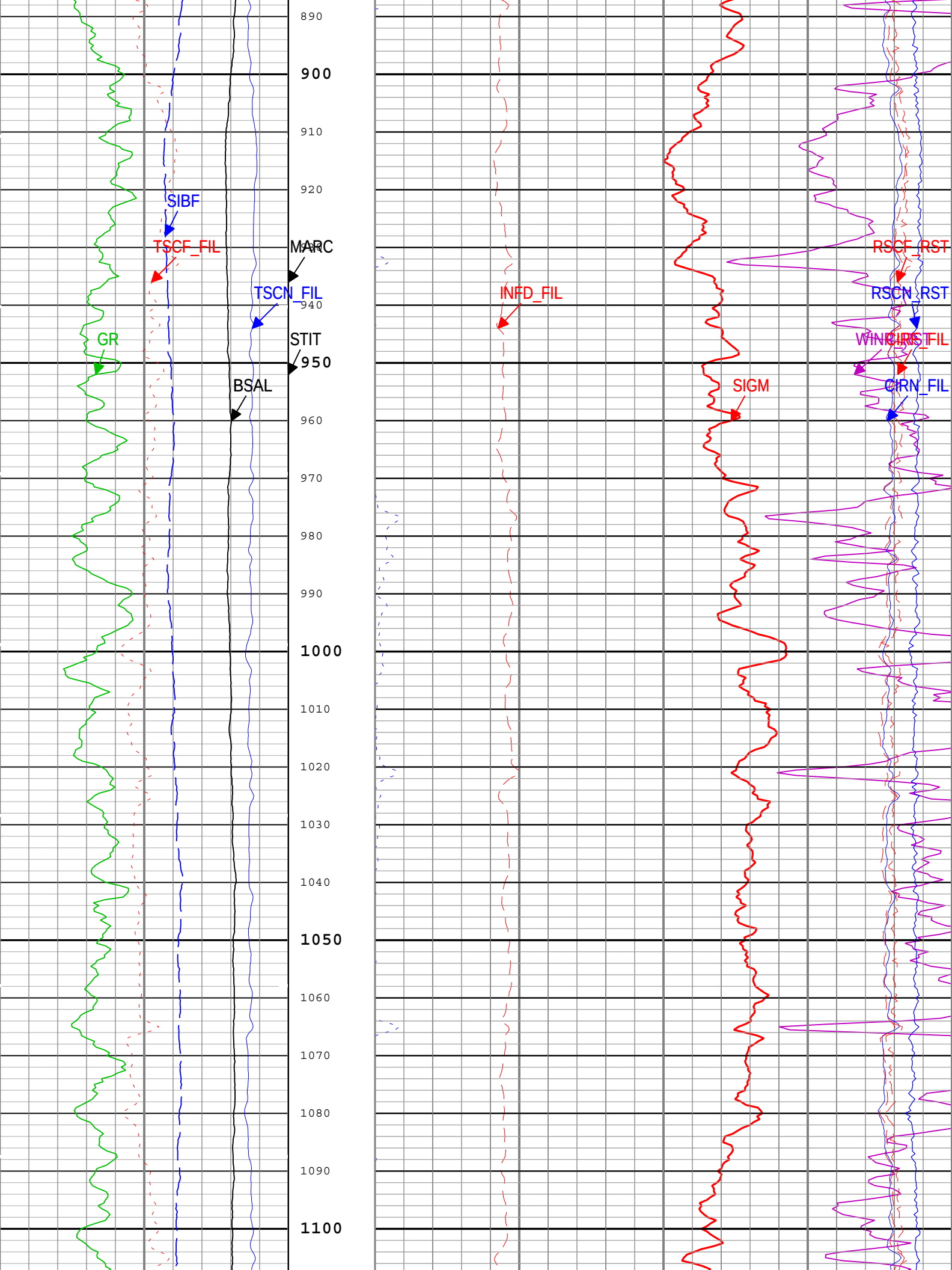
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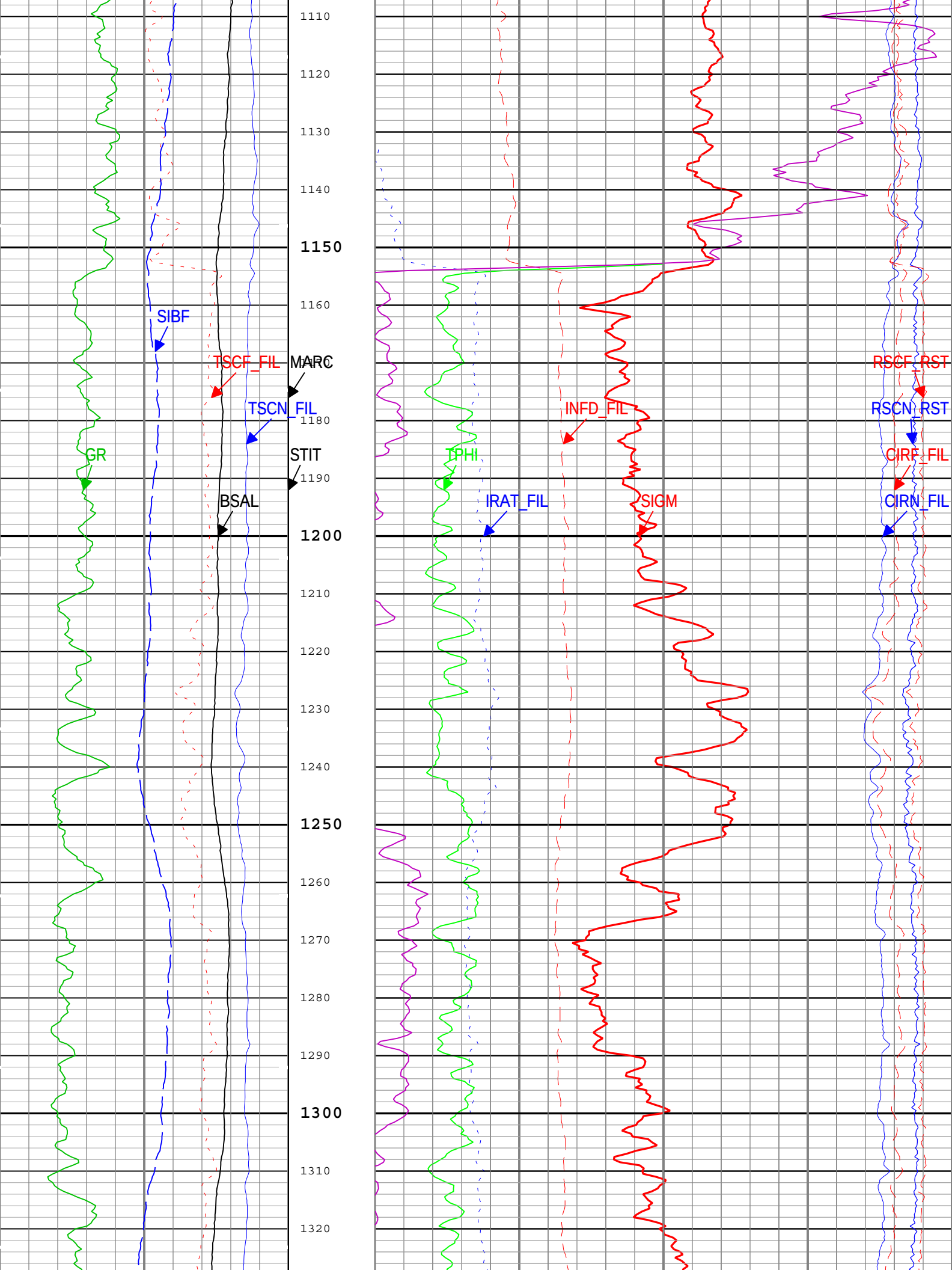
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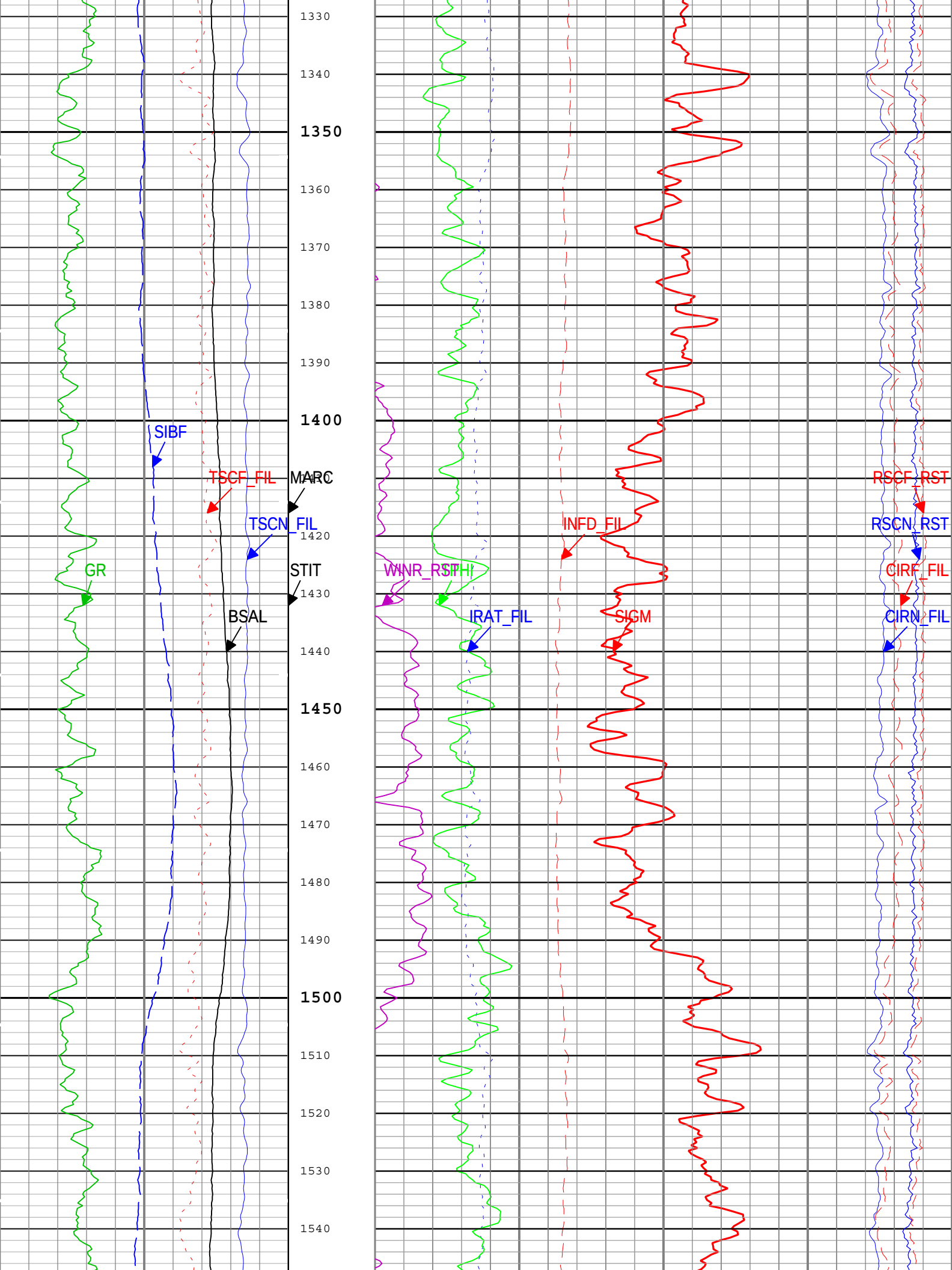
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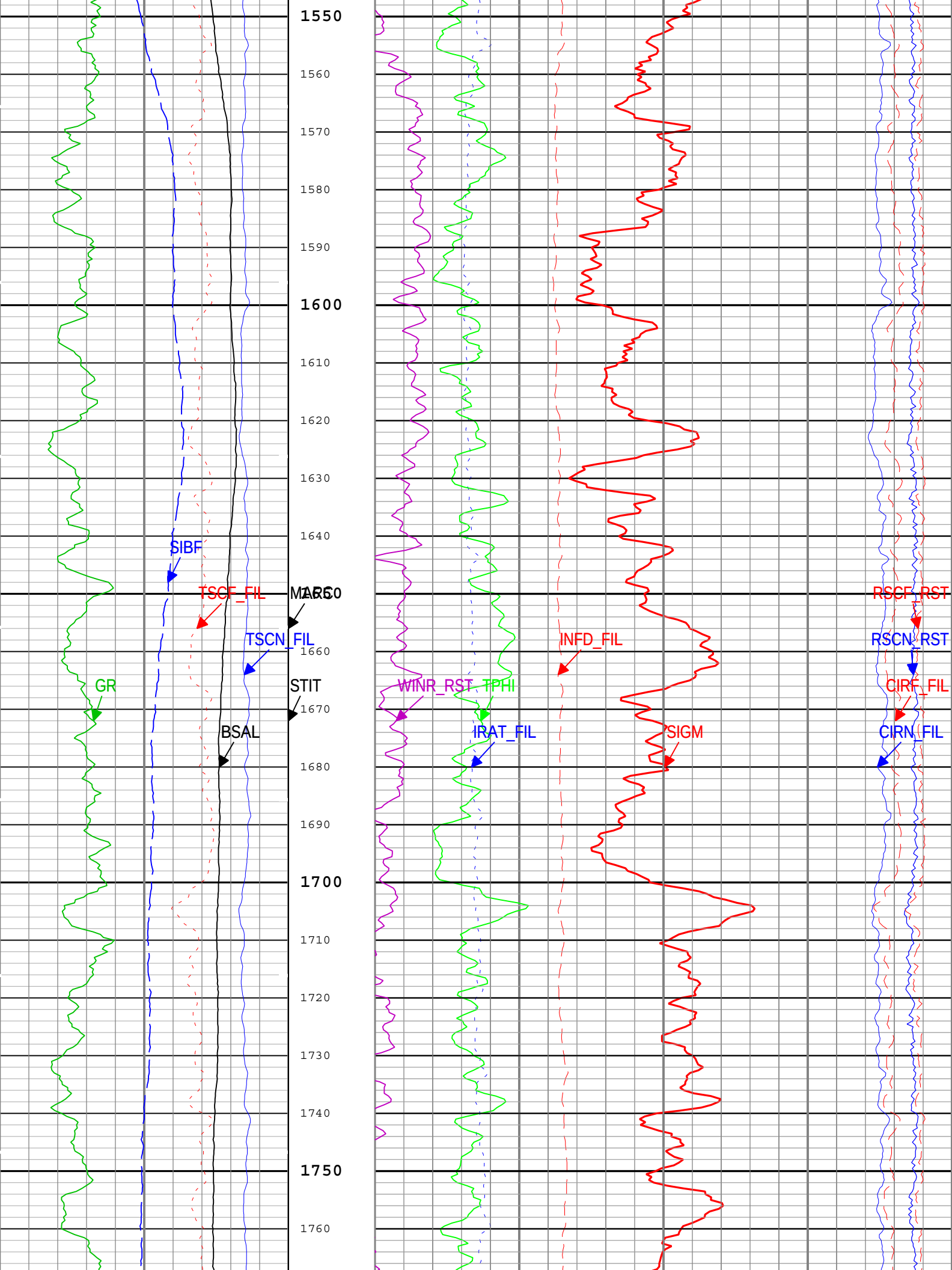
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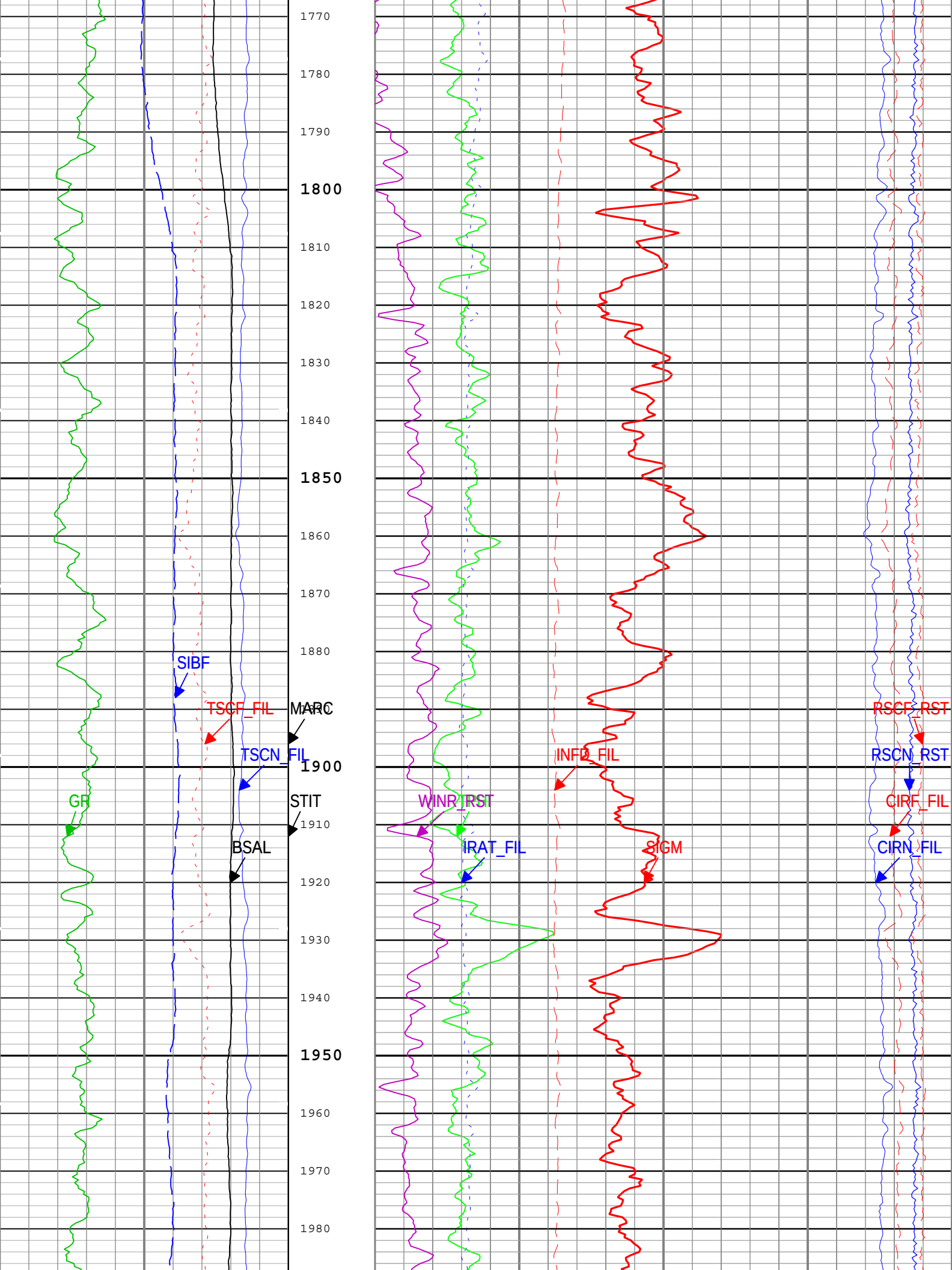
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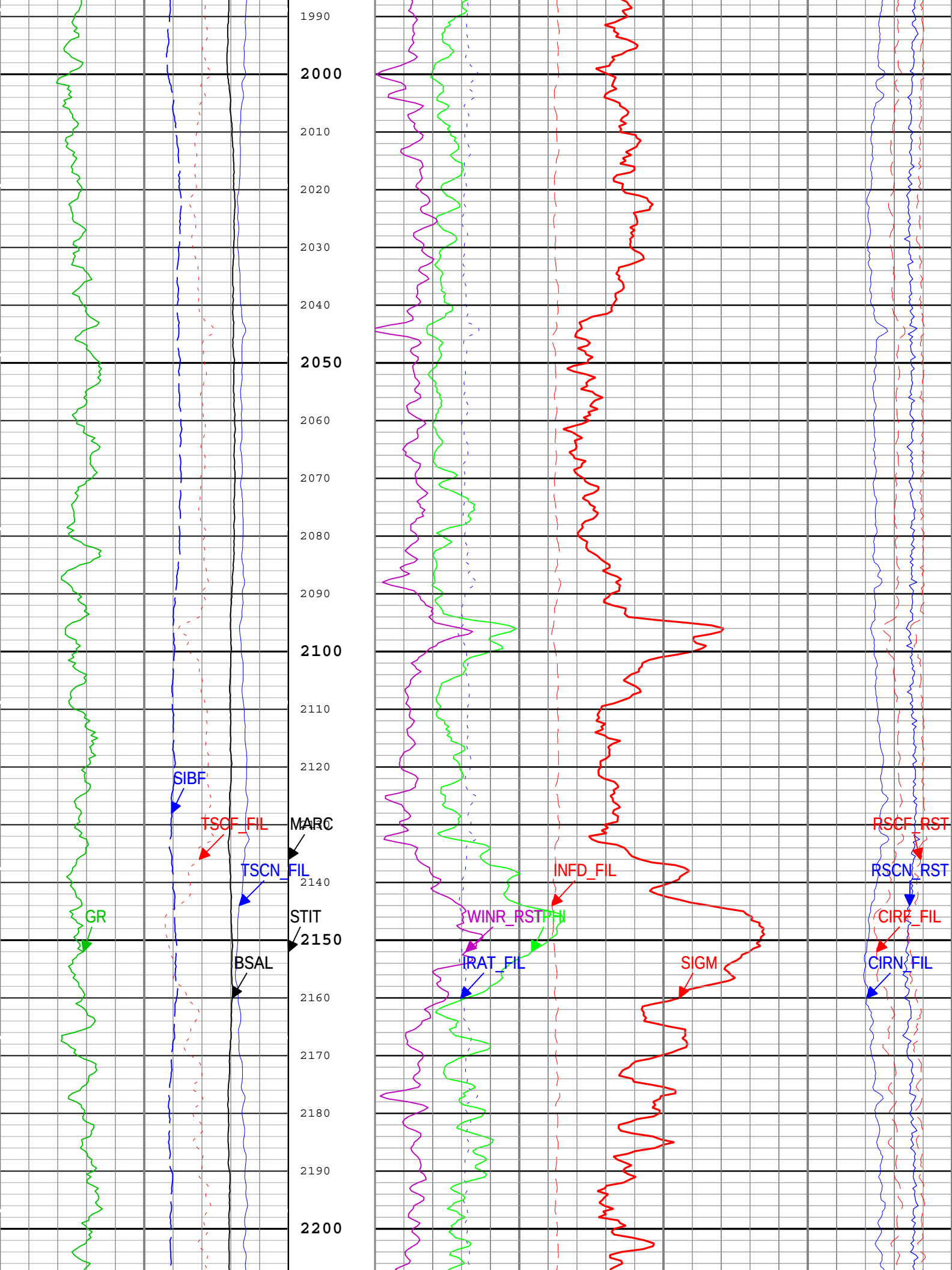
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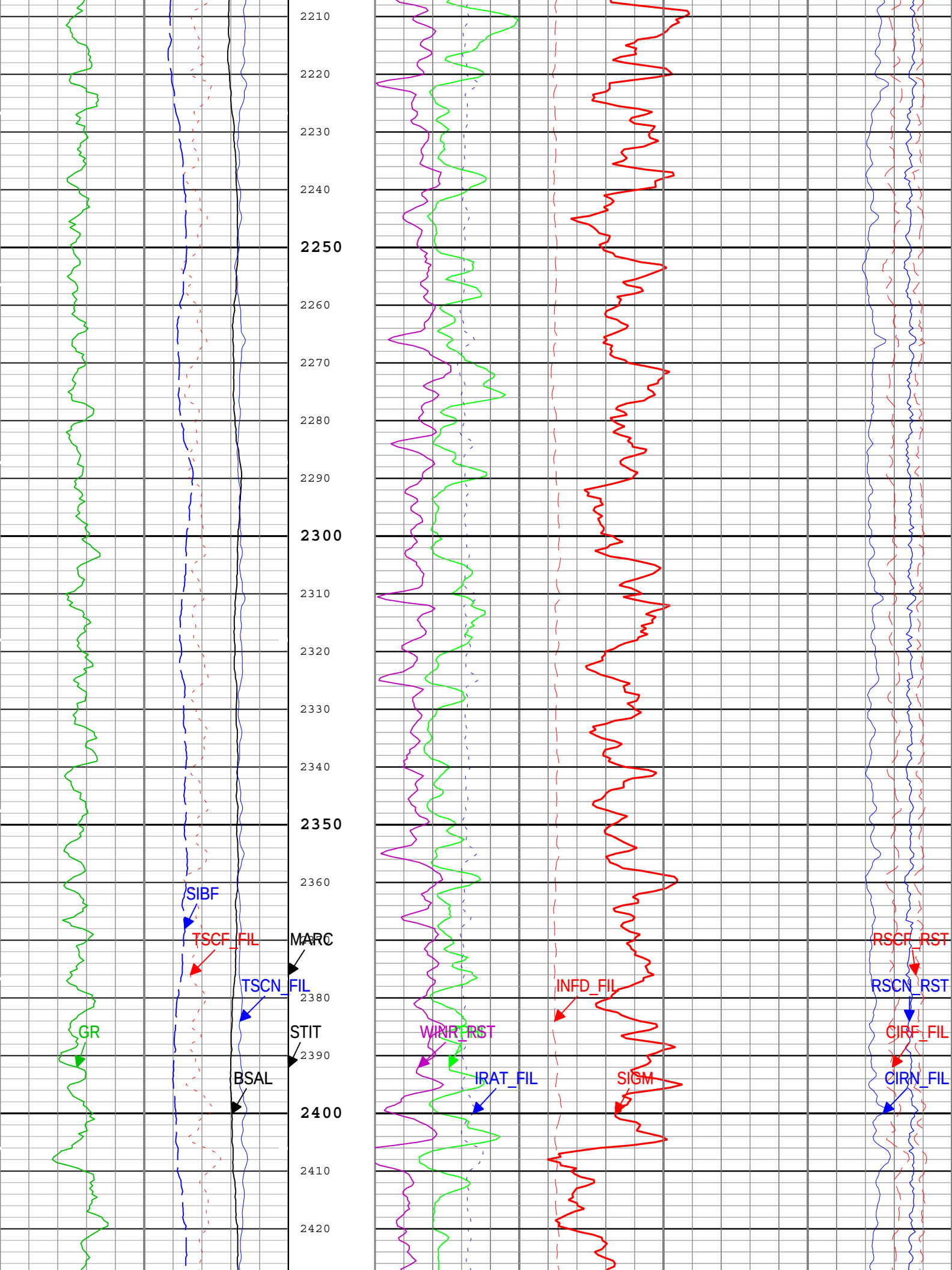
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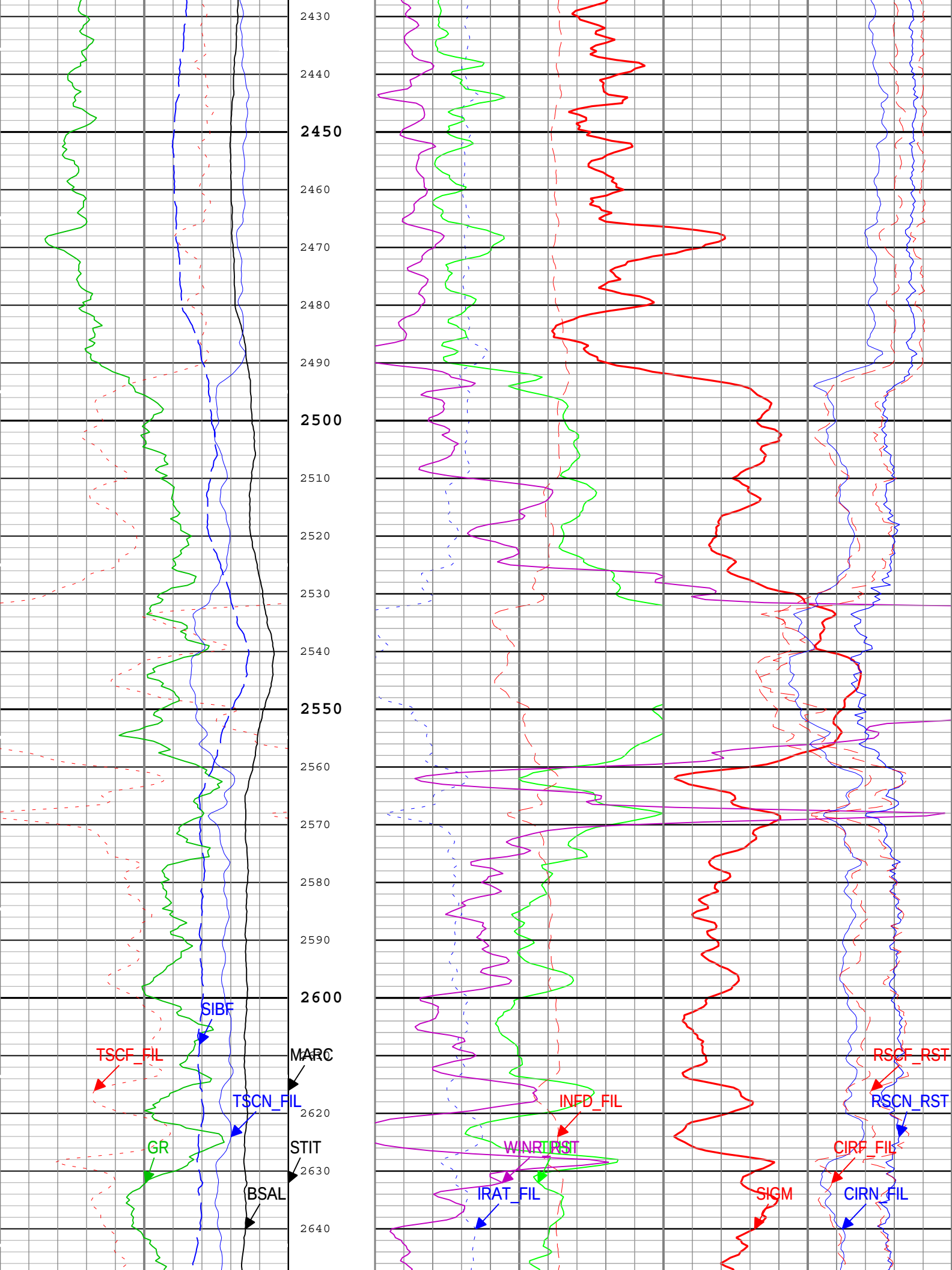
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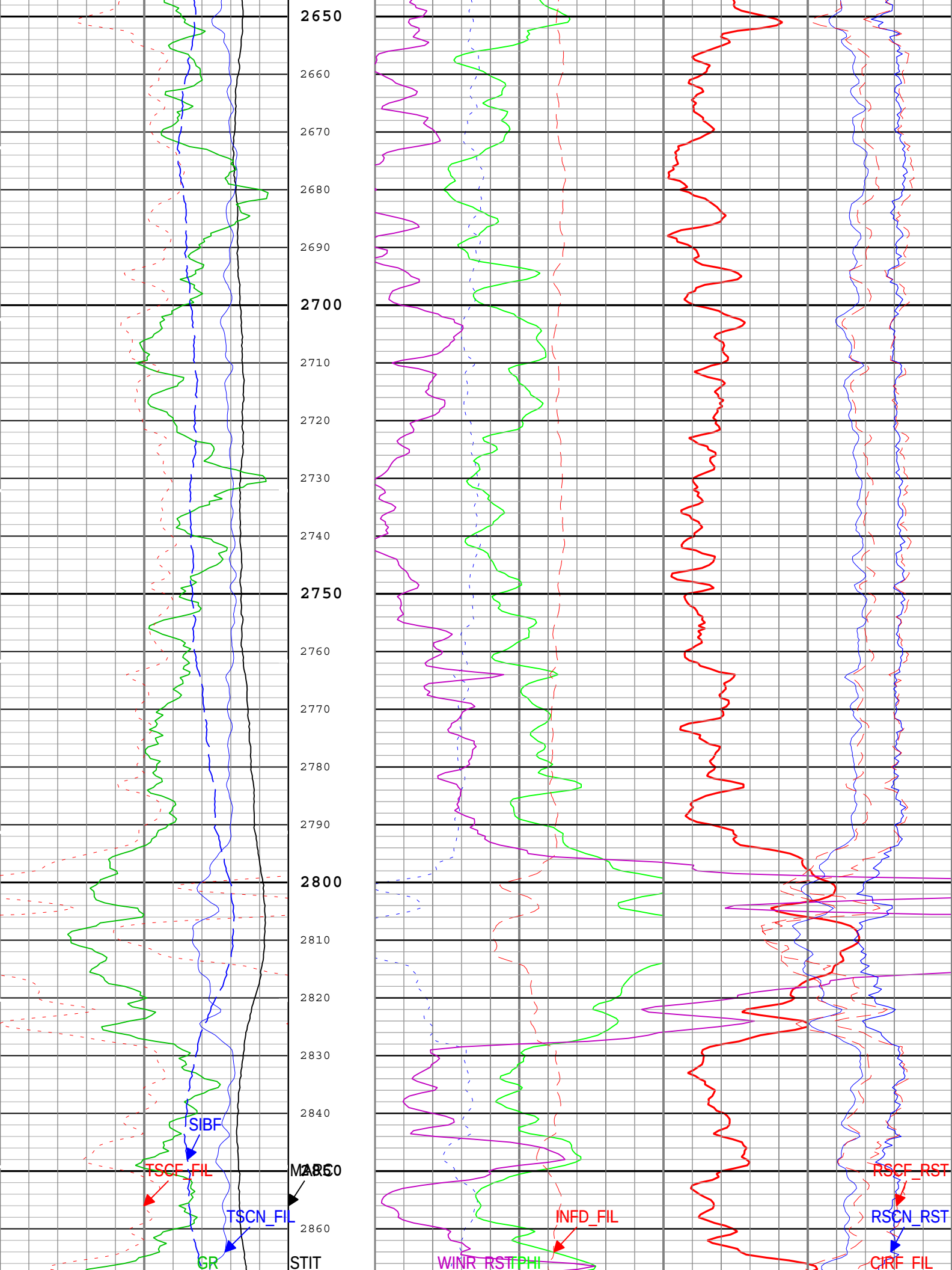
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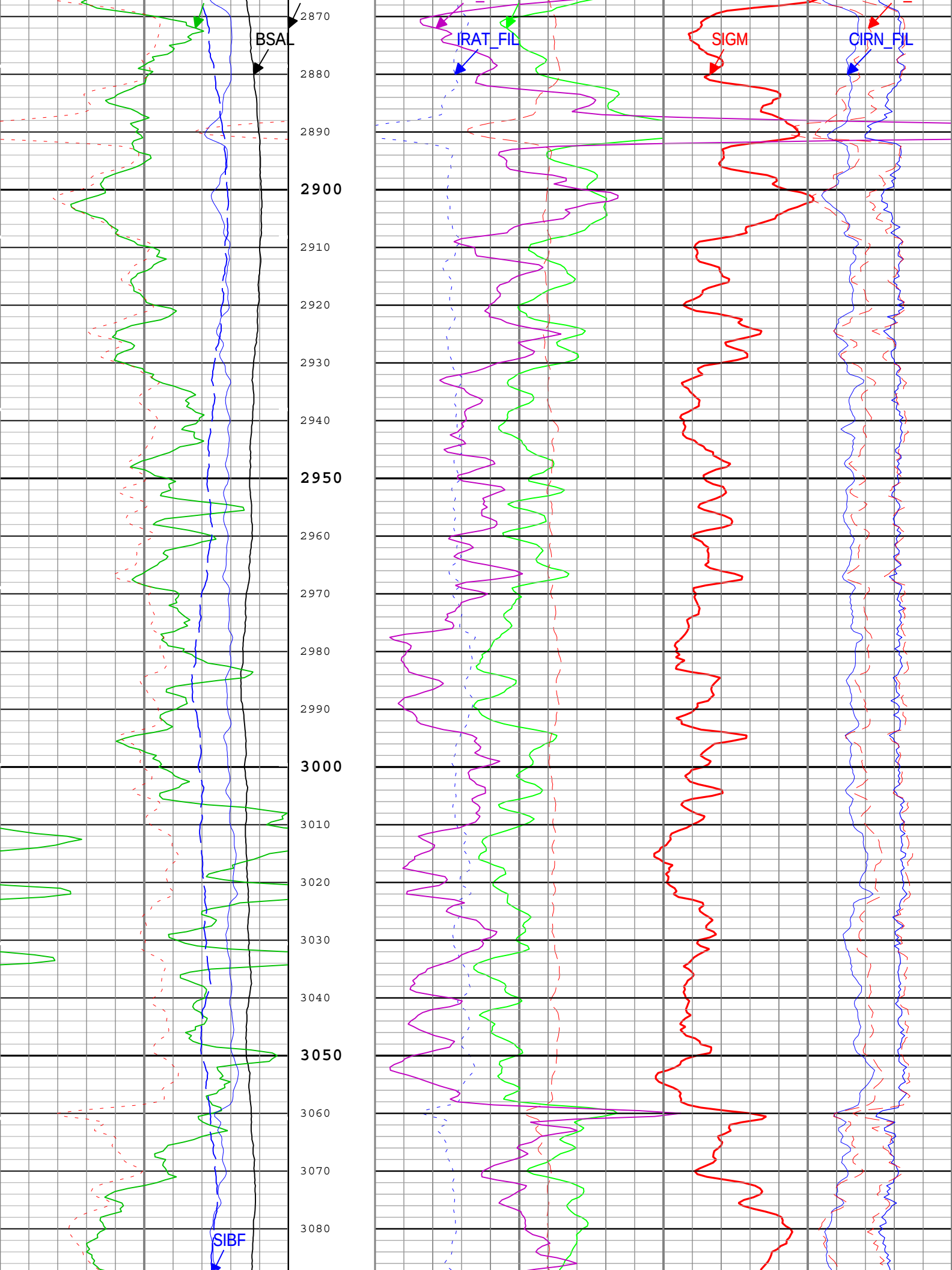
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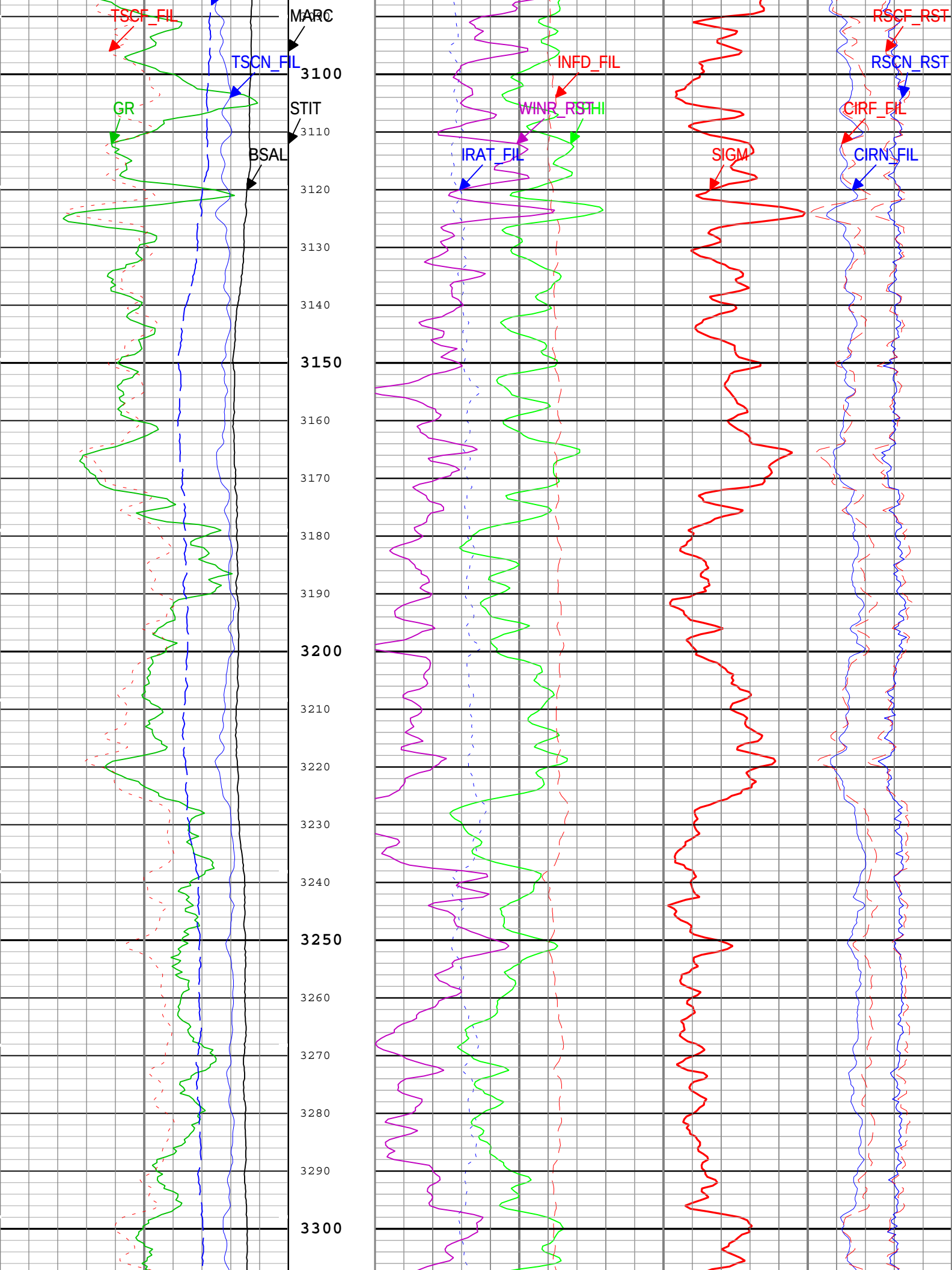
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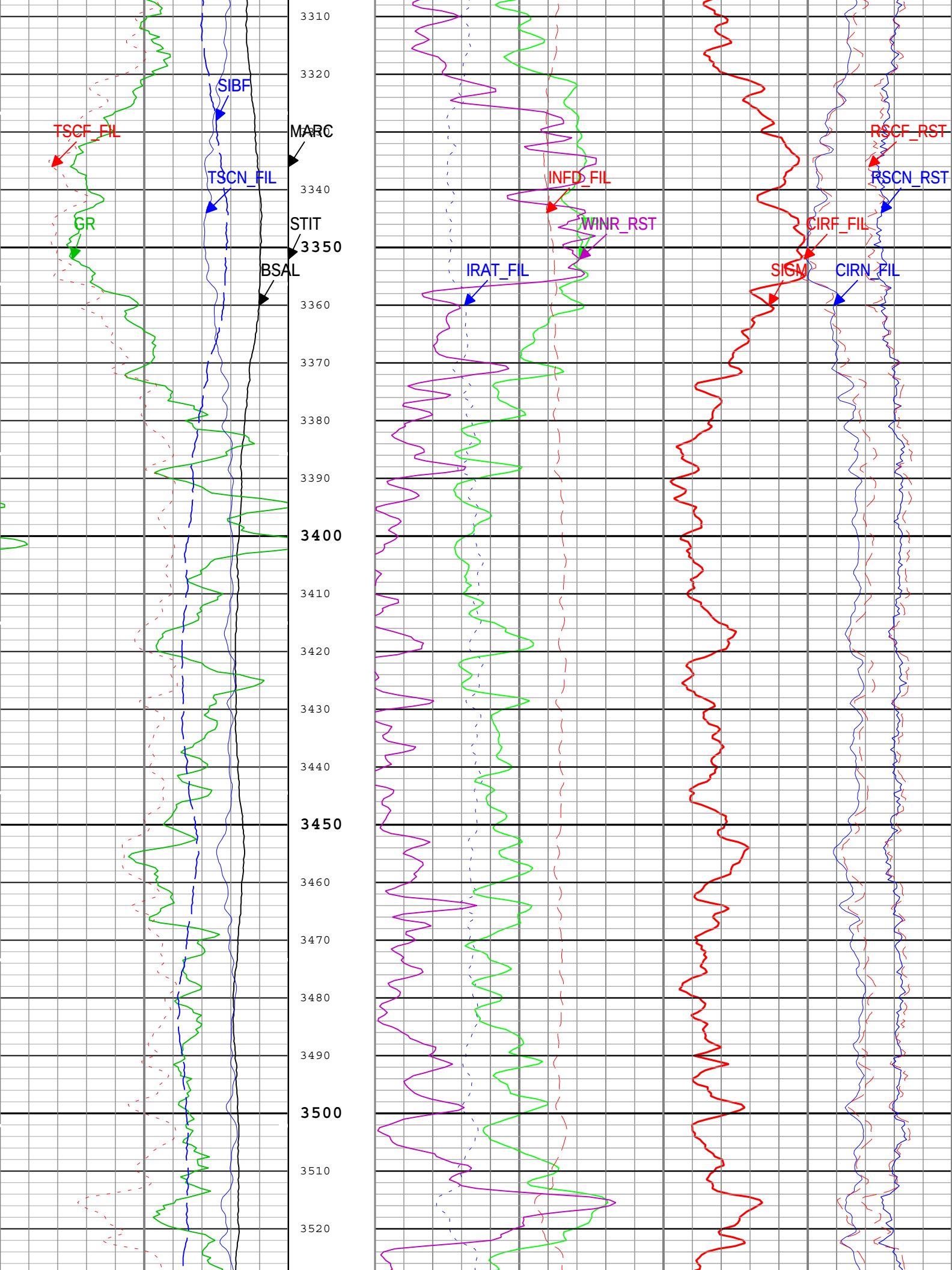
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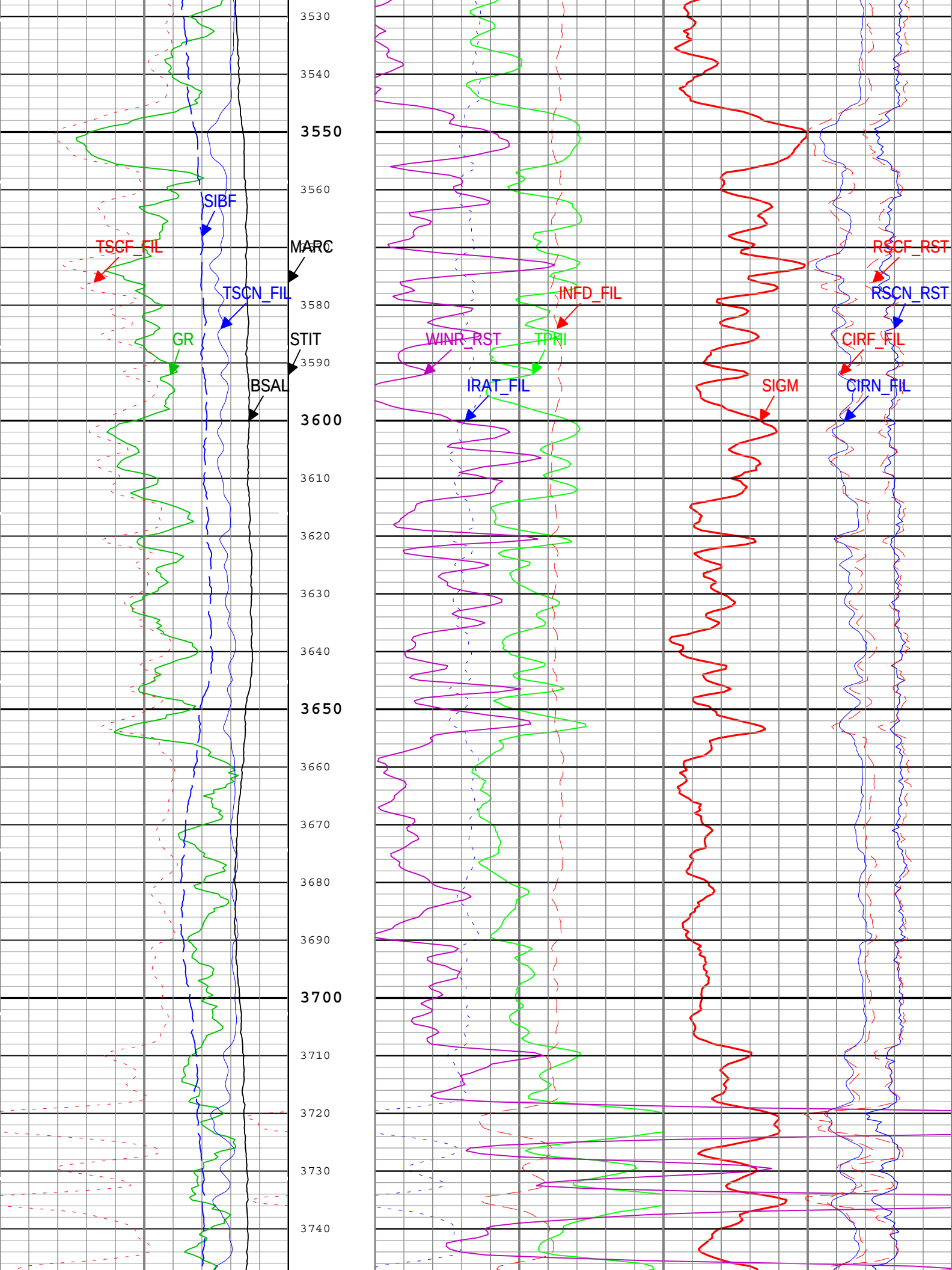
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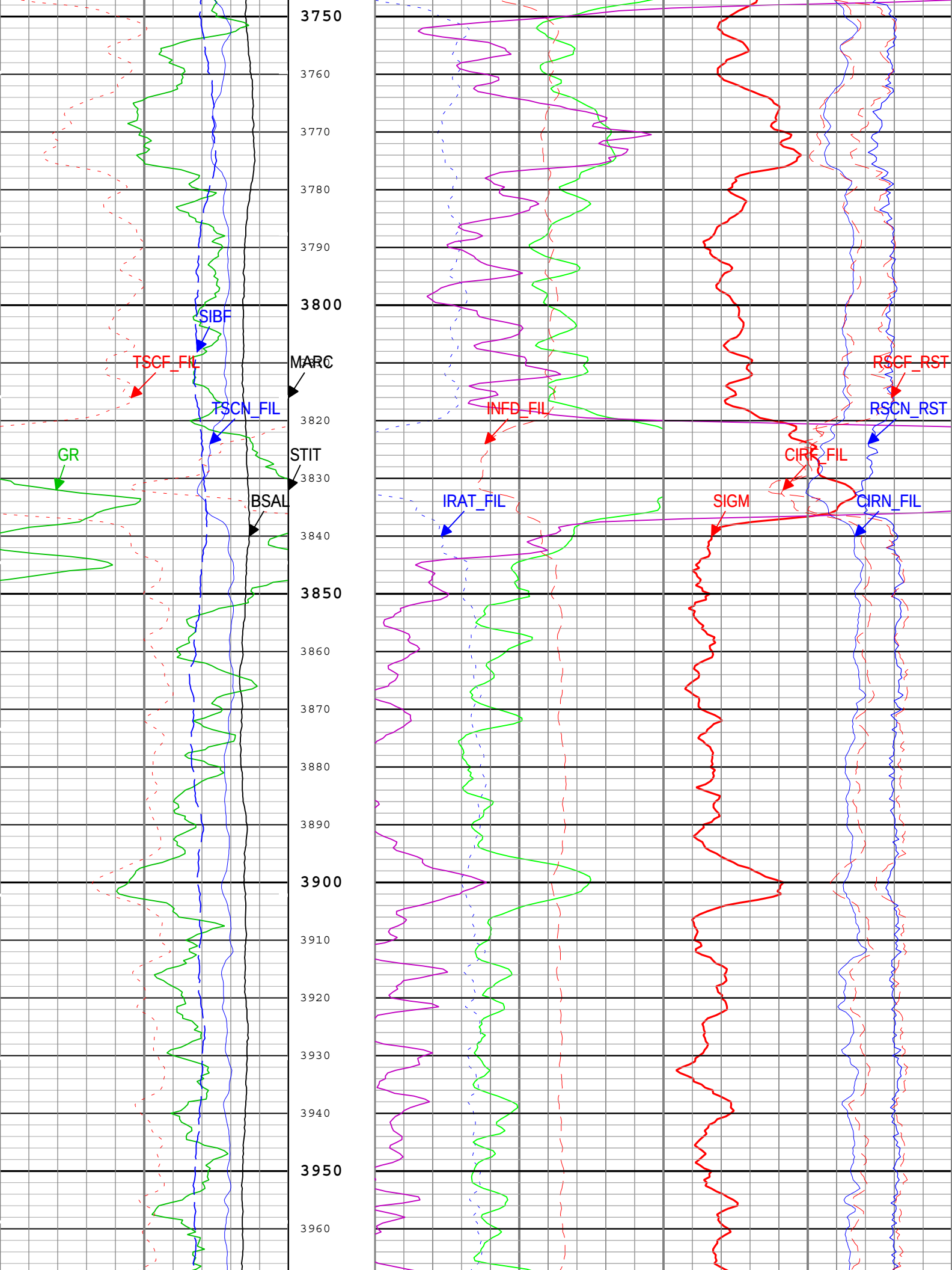
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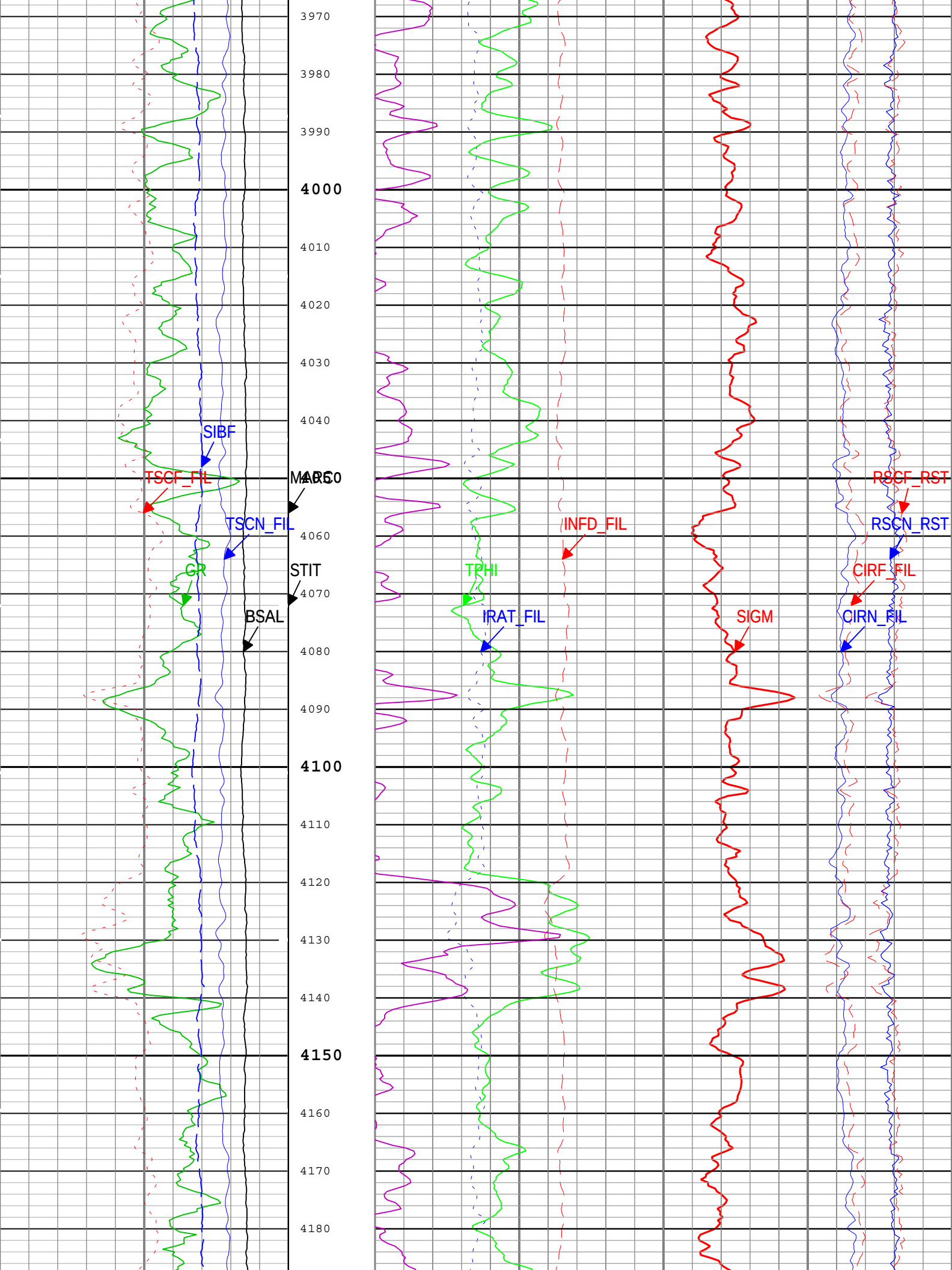
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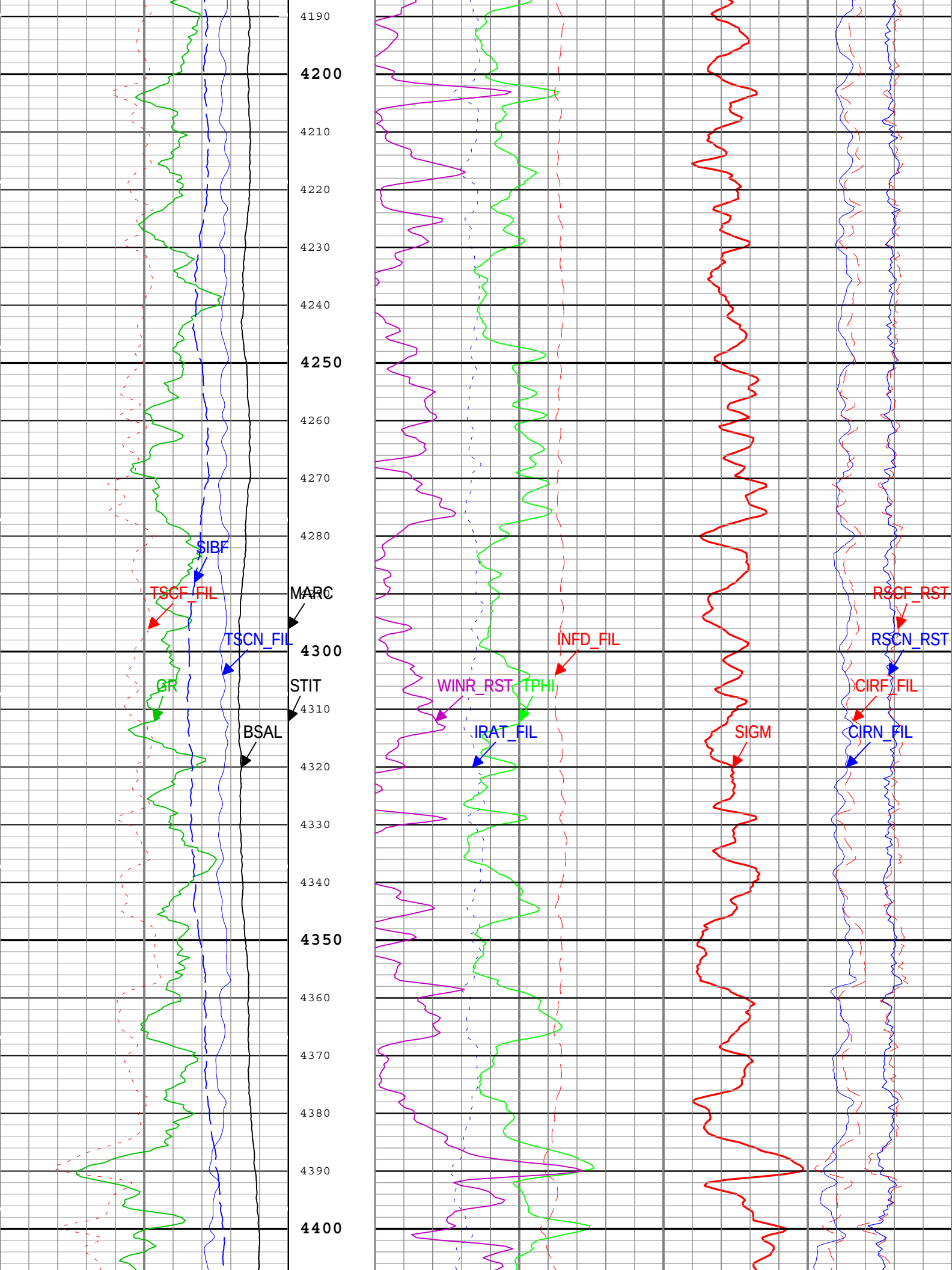
CIRF_FIL
CIRN_FIL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SIBF
TSCF_FIL
TSCN_FIL
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STIT
BSAL
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IRAT_FIL
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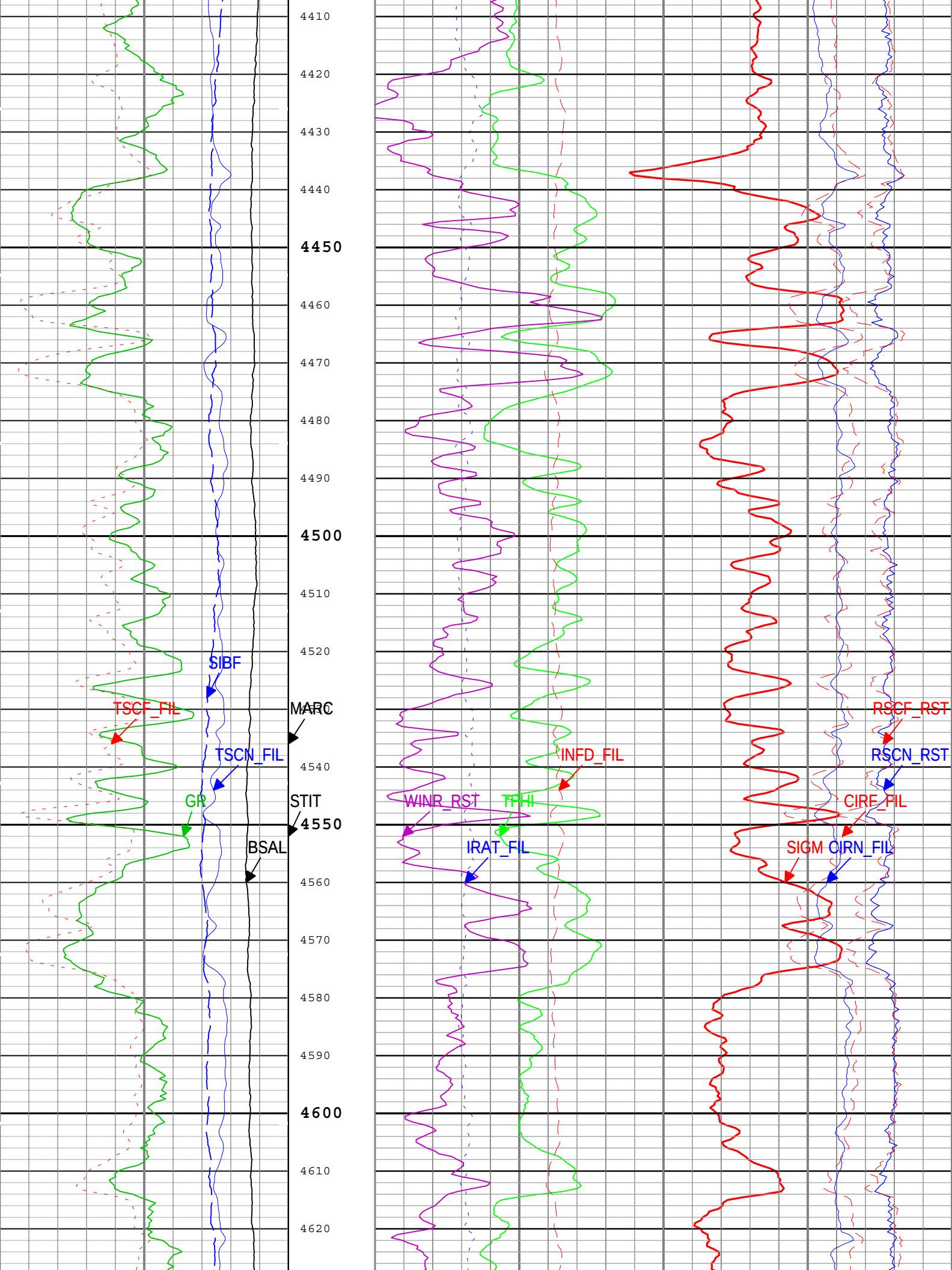
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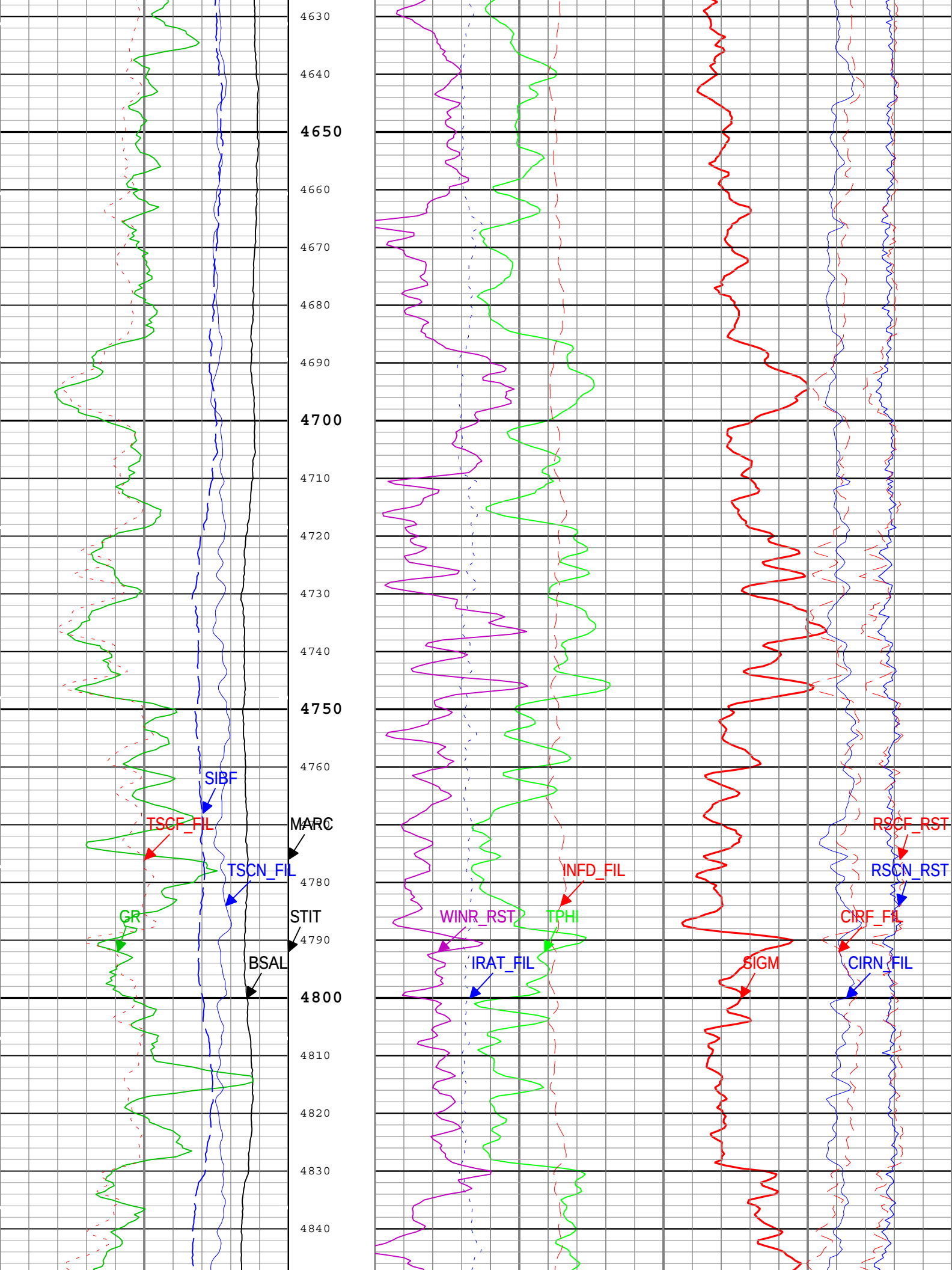
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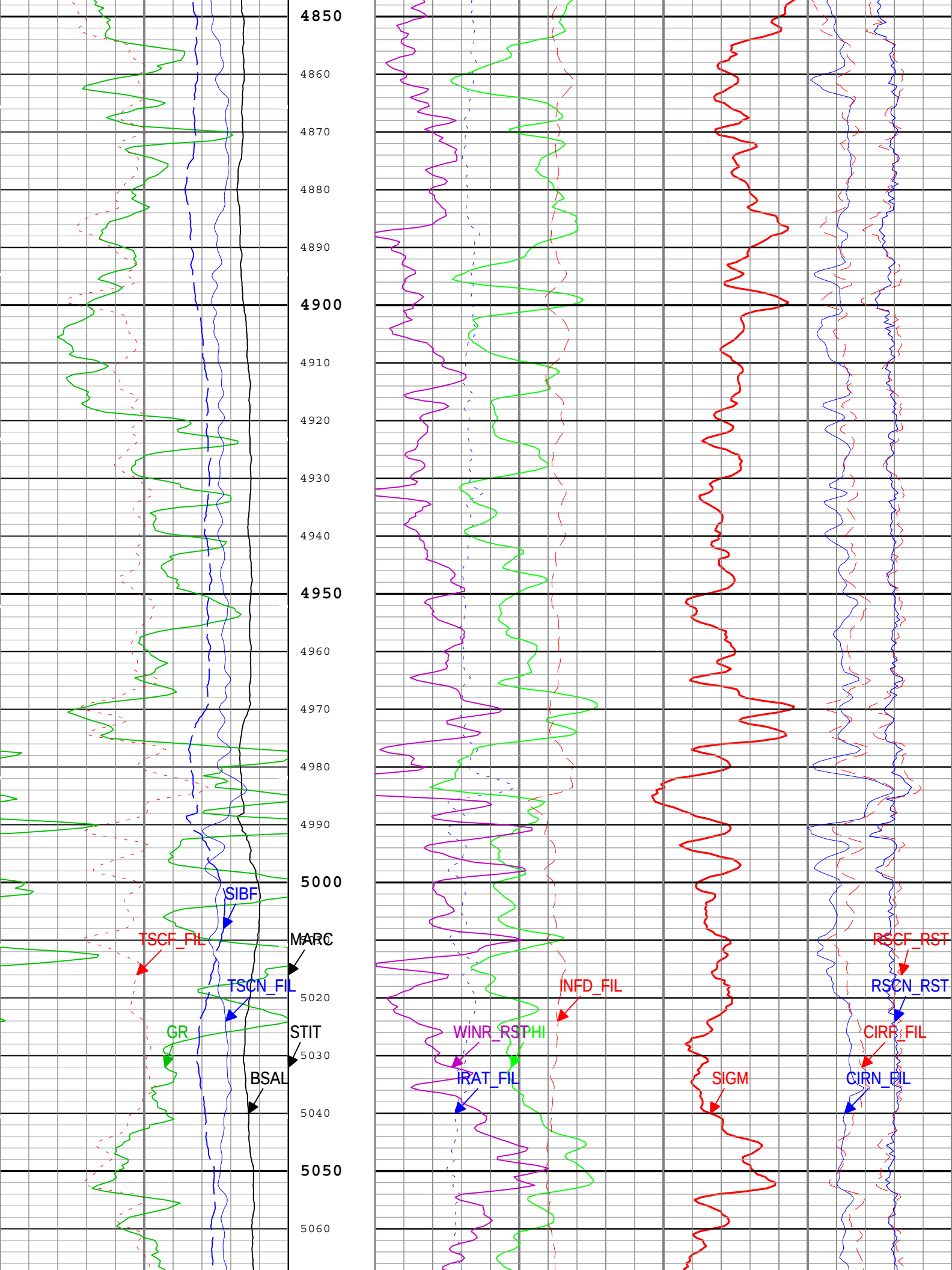
CIRF_FIL
CIRN_FIL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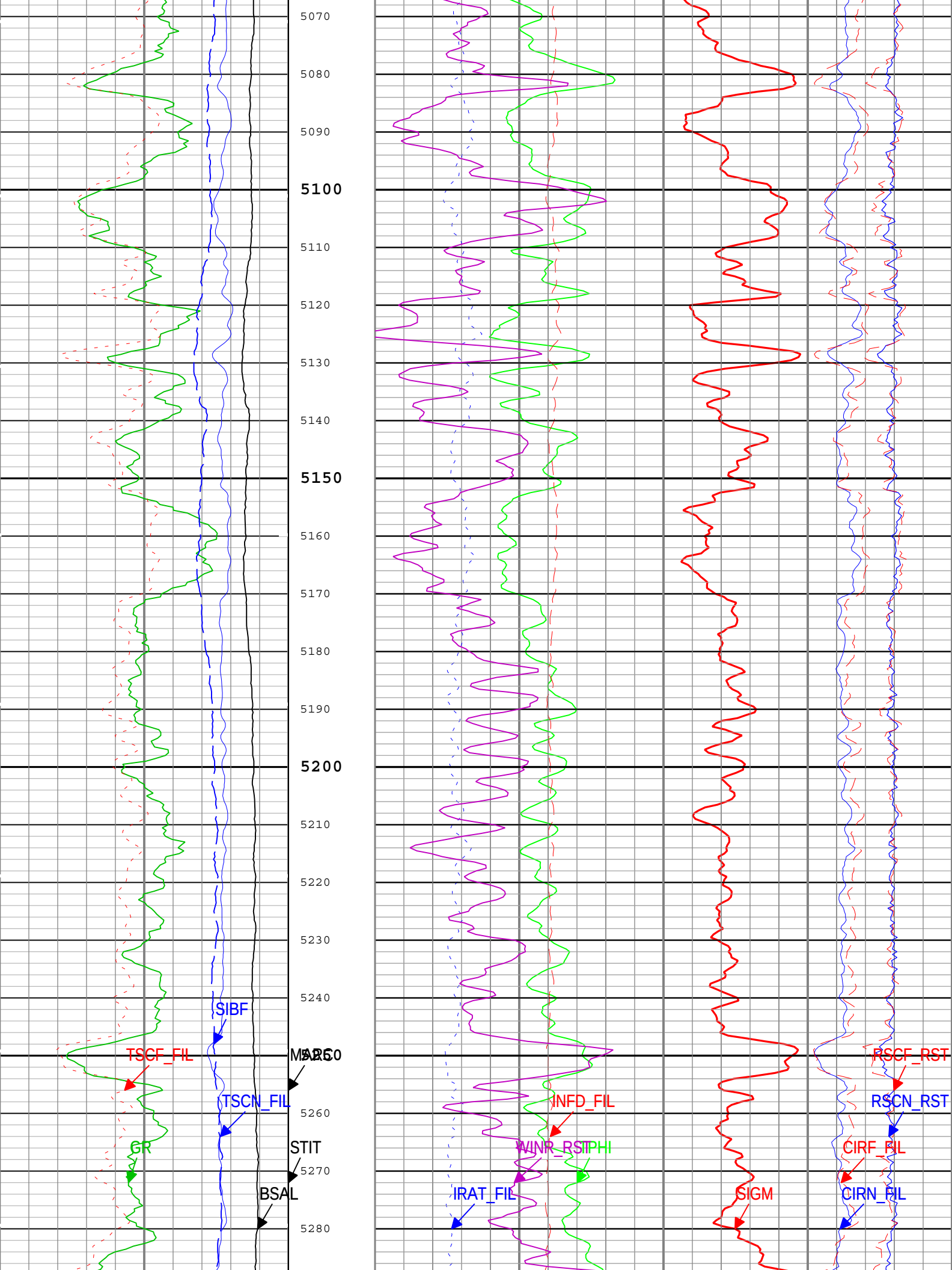
CIRF_FIL
CIRN_FIL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TSCN_FIL
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BSAL
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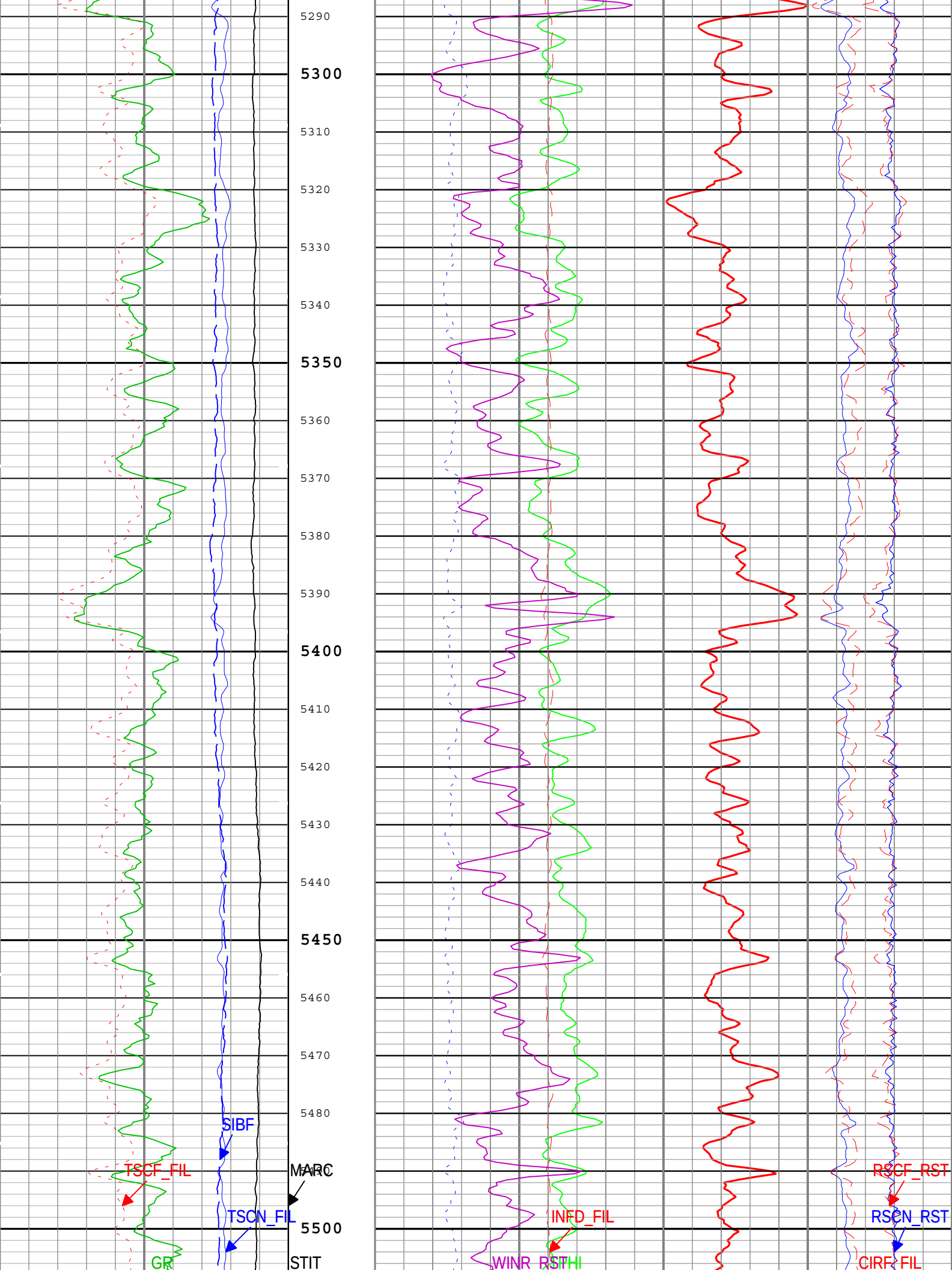
CIRN_FIL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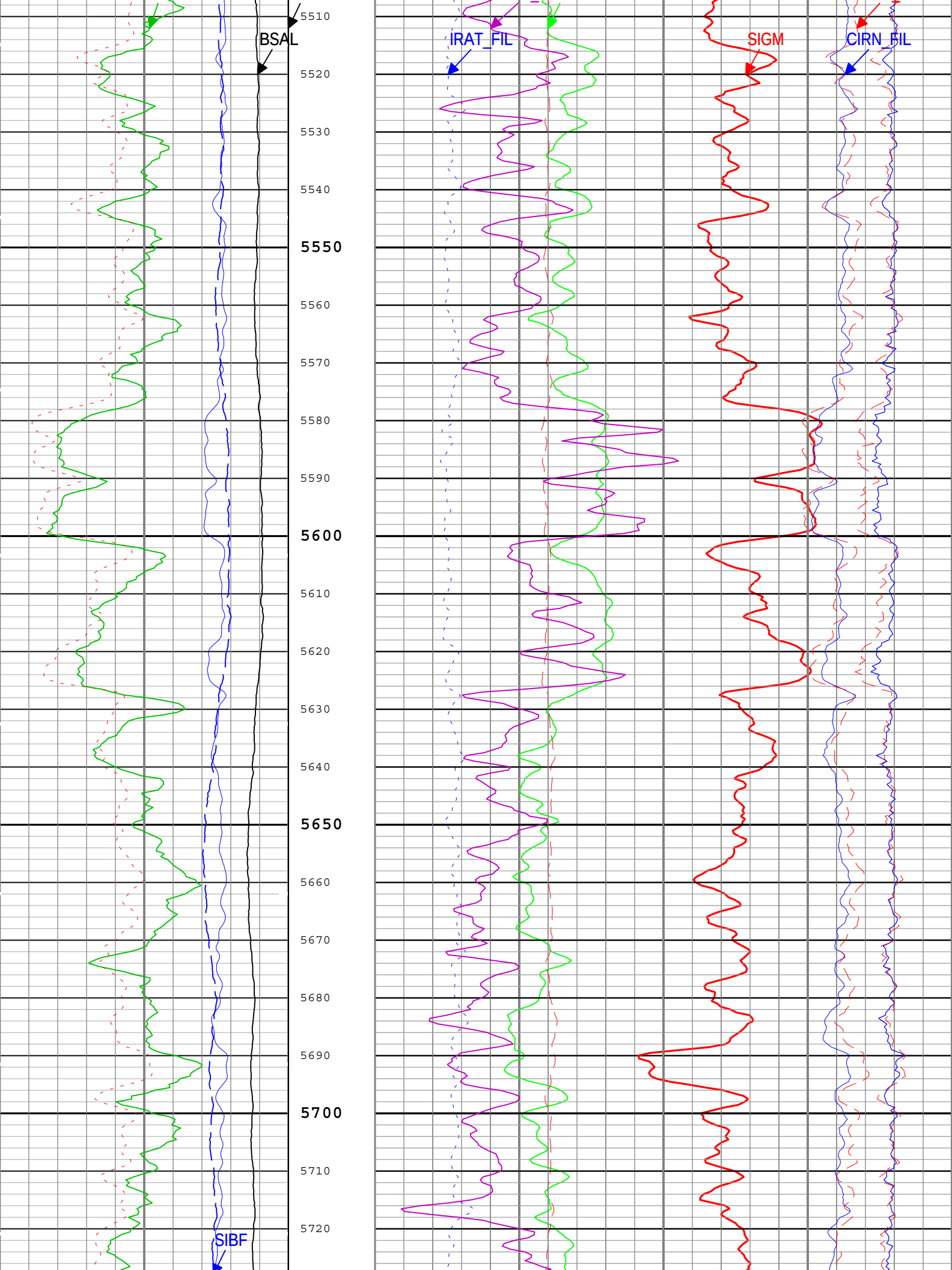
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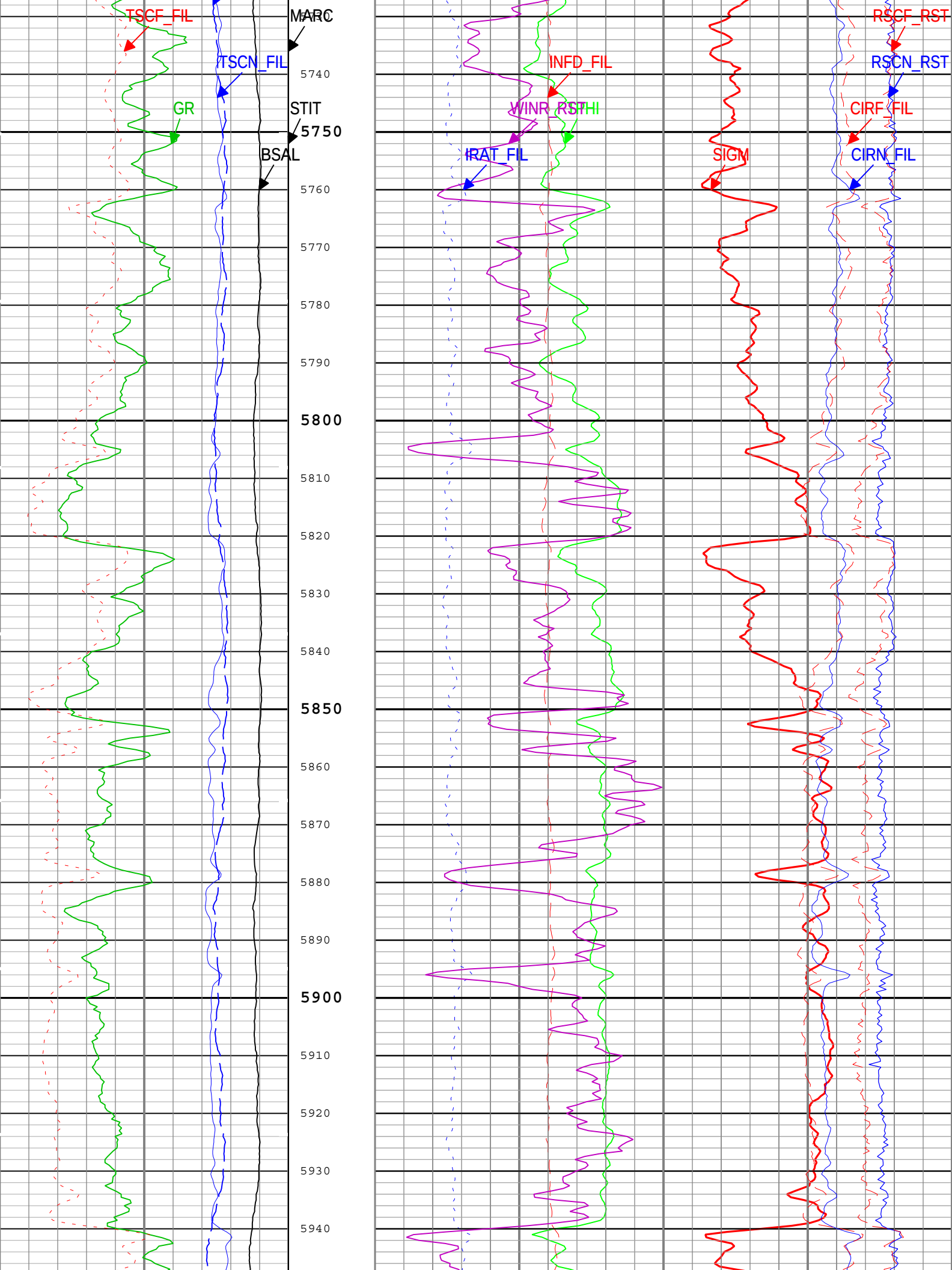
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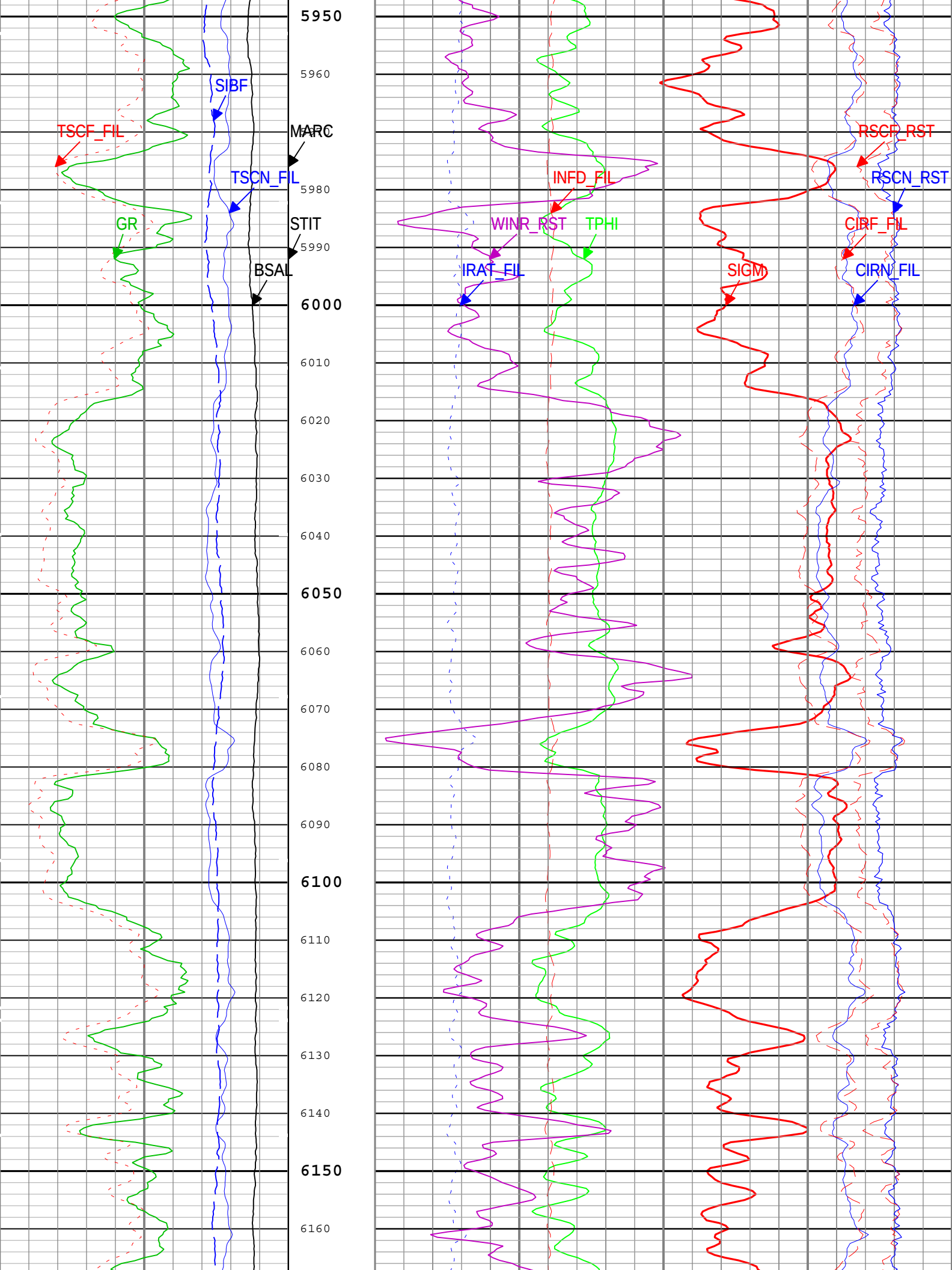
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SIBF
TSCF_FIL
MARC
TSCN_FIL
GR
STIT
BSAL
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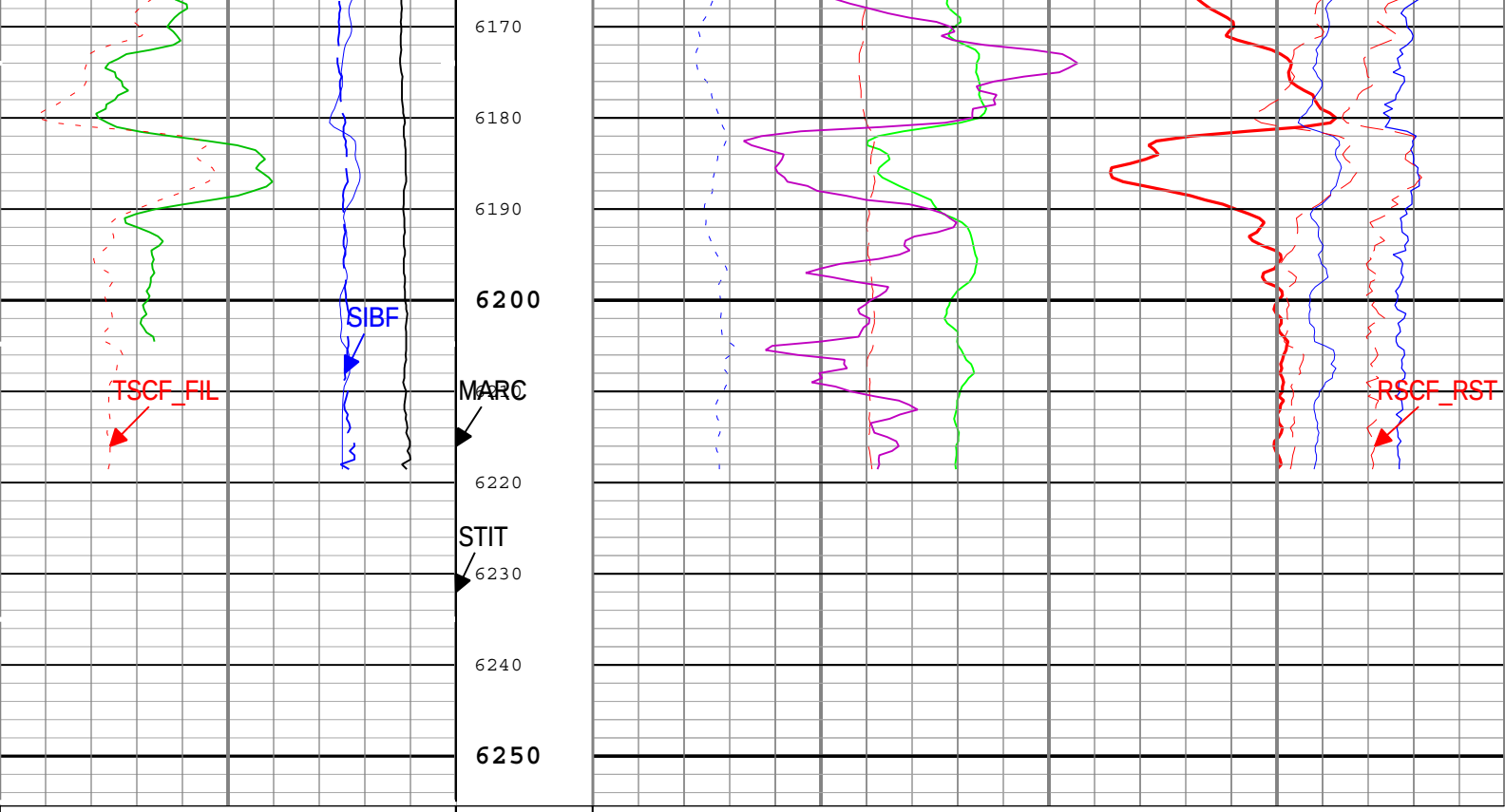
TPHI
IRAT_FIL
RSCF_RST
RSCN_RST
CIRF_FIL
SIGM
CIRN_FIL



Borehole Salinity (BSAL) RST-C
450 ppk -50

Gamma Ray (GR) PSTP-A
0 gAPI 150

Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C
30000 1/s 0

Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C
12000 1/s 0

Sigma Borehole Fluid (SIBF) RST-C
100 cu 0

Stuck Tool Indicator, Total (STIT)
0 ft 50

Cable Drag From STIA to STIT

Tool_Tot. Drag From D3T to STIT

Minitron Arc Count (MARC) RST-C
0 5

Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C
60 cu 0

Weighted Inelastic Ratio (WINR_RST) RST-C
0 0.4

Inelastic Ratio Filtered (IRAT_FIL) RST-C
0.75 0

Thermal Decay Porosity (TPHI) RST-C
0.6 ft3/ft3 0

Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C
10000 1/s 0

Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C
2.5 0

Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C
5 0

Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C
45 0

Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C
45 0

ICV - Integrated Cement Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Jul-2015 01:19:52

Channel Processing Parameters

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	

BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSALOPT	Borehole Salinity Option	RST-C	Unknown	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFT	Drilling Fluid Type	Borehole	Water	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
TD	Total Measured Depth	Borehole	6300	ft

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	14.75	453.5	2493
BS	8.75	2493	6255.49

All depth are actual.

Tool Control Parameters

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
RST_DLM	Depth Log Mode	RST-C	Sigma	

Run 1

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Repeat[2]:Up	Up	5939.88 ft	6252.58 ft	21-Jul-2015 8:34:26 PM	21-Jul-2015 8:45:21 PM	ON	2.12 ft	Yes
Run 1	Main[3]:Up	Up	503.53 ft	6255.49 ft	21-Jul-2015 9:45:48 PM	22-Jul-2015 1:04:12 AM	ON	3.53 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Caerus Piceance LLC Well:Puckett SWD H2-797

Run 1: Main[3]:Up:S004

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth

Creation Date: 22-Jul-2015 01:19:56

TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

Main To Repeat

Repeat To Main

Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C

45 0

Main To Repeat

Repeat To Main

Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C

Main To Repeat

Repeat To Main

Borehole Salinity (BSAL) RST-C

450 ppk -50

Main To Repeat

Repeat To Main

Sigma Borehole Fluid (SIBF) RST-C

100 cu 0

Main To Repeat

Repeat To Main

Cable Speed (CS)

0 ft/h 50000

Main To Repeat

Repeat To Main

Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C

30000 1/s 0

Main To Repeat

Repeat To Main

Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C

12000 1/s 0

Main To Repeat

Repeat To Main

Gamma Ray (GR) PSTP-A

0 gAPI 150

Main To Repeat

Repeat To Main

Minitron Arc Count (MARC) RST-C

0 5

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C

10000 1/s 0

Main To Repeat

Repeat To Main

Inelastic Ratio Filtered (IRAT_FIL) RST-C

0.75 0

Main To Repeat

Repeat To Main

Thermal Decay Porosity (TPHI) RST-C

0.6 ft3/ft3 0

Main To Repeat

Repeat To Main

Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C

60 cu 0

Main To Repeat

Repeat To Main

Weighted Inelastic Ratio (WINR_RST) RST-C

0 0.4

45 0

Main To Repeat

Repeat To Main

Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C

2.5 0

Main To Repeat

Repeat To Main

Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C

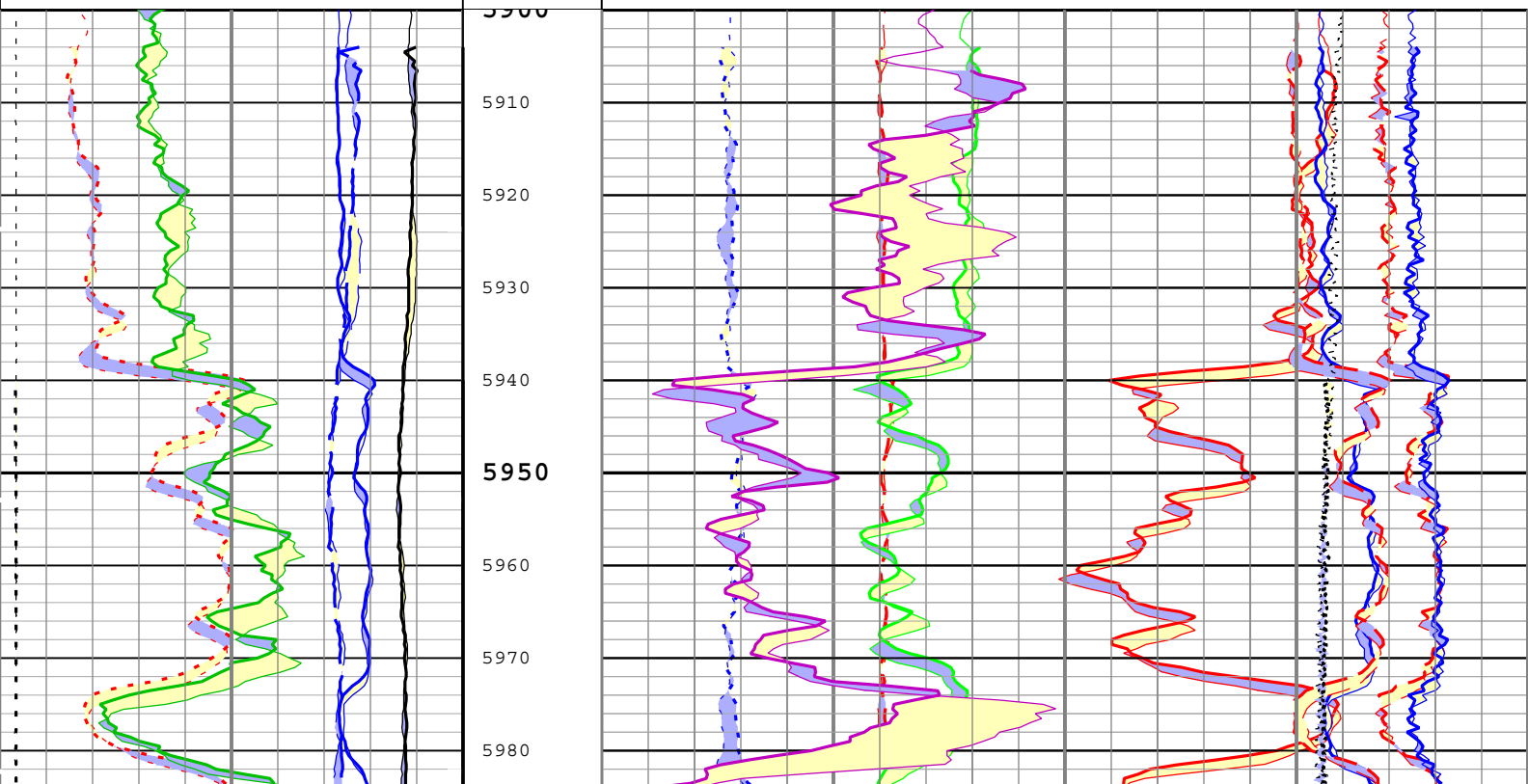
5 0

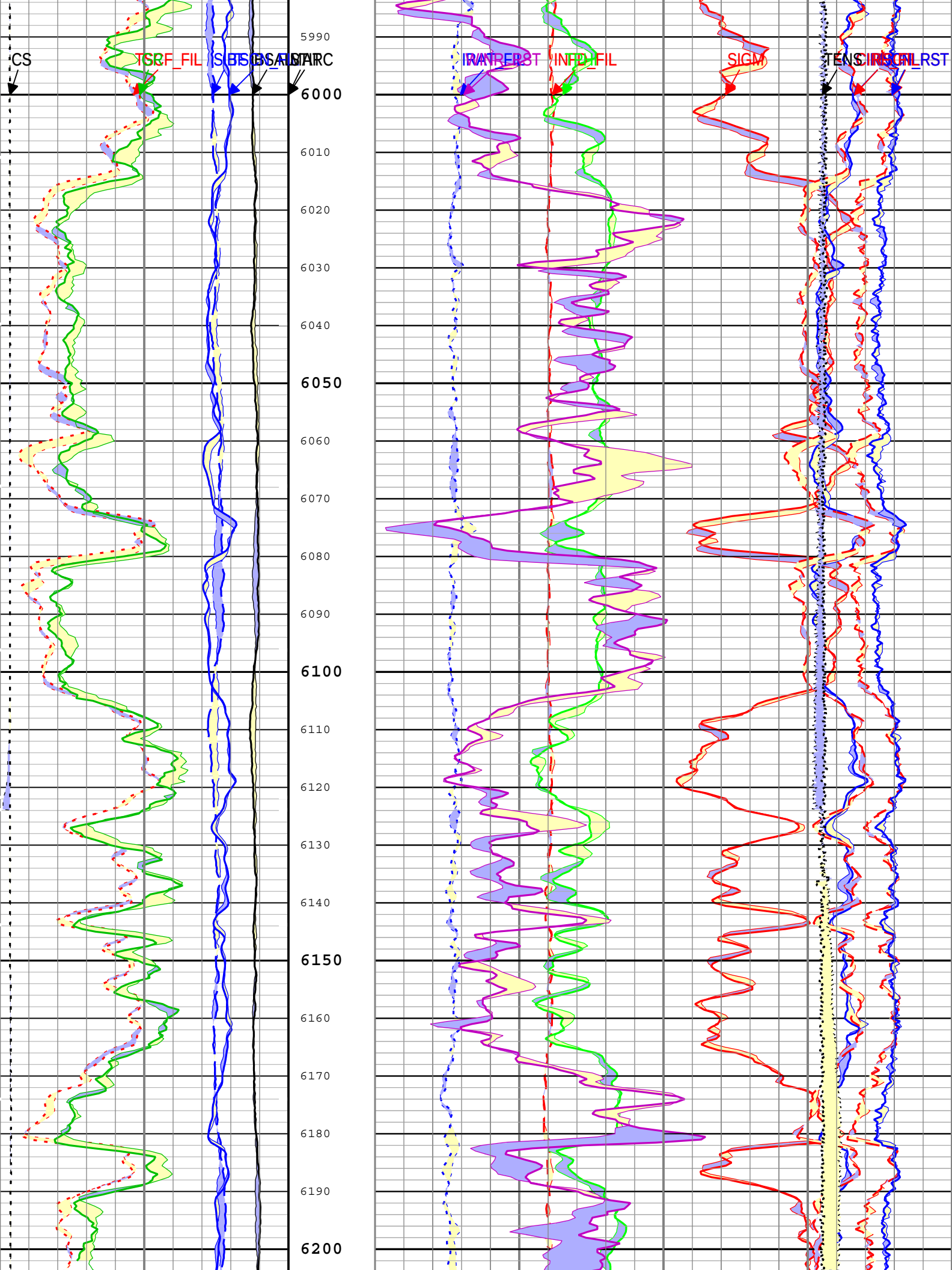
Main To Repeat

Repeat To Main

Cable Tension (TENS)

5000 lbf 0




CS
TSRF_FIL
SIGM
IRAT_FIL
INFD_FIL
SIGM
TENS
IRAT_FIL
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6000
6010
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6030
6040
6050
6060
6070
6080
6090
6100
6110
6120
6130
6140
6150
6160
6170
6180
6190
6200

Main To Repeat

Repeat To Main

Borehole Salinity (BSAL) RST-C

450 ppk -50

Main To Repeat

Repeat To Main

Sigma Borehole Fluid (SIBF) RST-C

100 cu 0

Main To Repeat

Repeat To Main

Cable Speed (CS)

0 ft/h 50000

Main To Repeat

Repeat To Main

Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C

30000 1/s 0

Main To Repeat

Repeat To Main

Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C

12000 1/s 0

Main To Repeat

Repeat To Main

Gamma Ray (GR) PSTP-A

0 gAPI 150

Main To Repeat

Repeat To Main

Minitron Arc Count (MARC) RST-C

0 5

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C

60 cu 0

Main To Repeat

Repeat To Main

Weighted Inelastic Ratio (WINR_RST) RST-C

0 0.4

Main To Repeat

Repeat To Main

Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C

10000 1/s 0

Main To Repeat

Repeat To Main

Inelastic Ratio Filtered (IRAT_FIL) RST-C

0.75 0

Main To Repeat

Repeat To Main

Thermal Decay Porosity (TPHI) RST-C

0.6 ft3/ft3 0

Main To Repeat

Repeat To Main

Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C

45 0

Main To Repeat

Repeat To Main

Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C

45 0

Main To Repeat

Repeat To Main

Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C

2.5 0

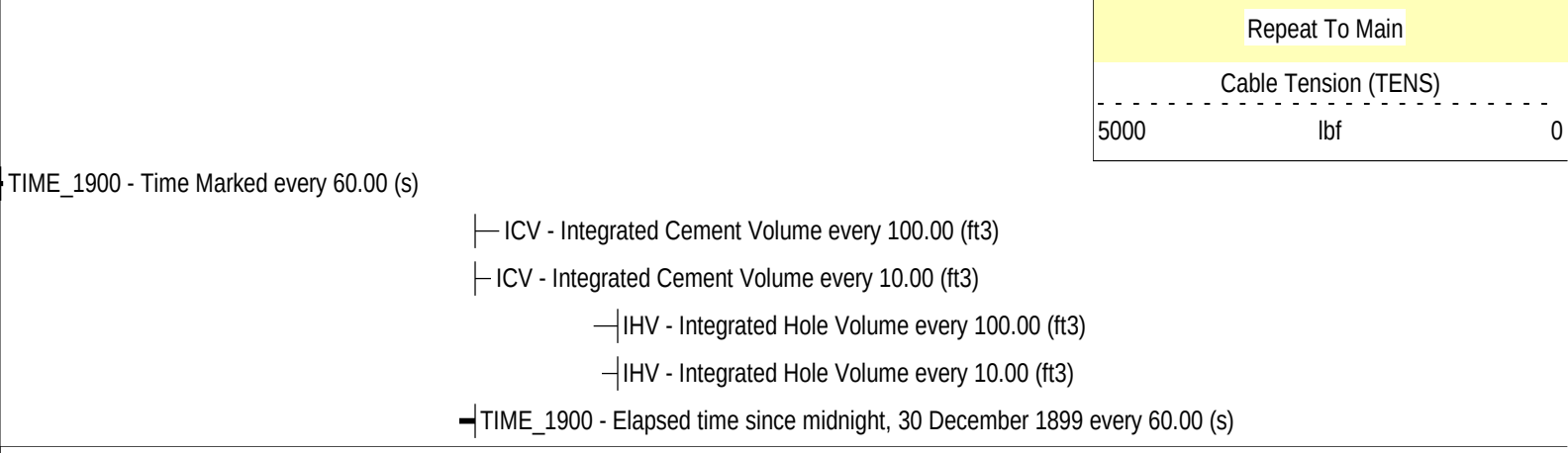
Main To Repeat

Repeat To Main

Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C

5 0

Main To Repeat



Description: RST SIGMA Answer Format: Log (RST SIGMA Answer RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 22-Jul-2015 01:19:56

Calibration Report

RST-C (Reservoir Saturation Pro Tool C) Calibration - Run 1

Primary Equipment :

RSC Acquisition Cartridge	RSC-E	381

RST IC Tank Calibration - RST IC Tank Calibration

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Spectral Acquisition Time Calibration Coefficient - 0	s	Master	-----	-----	-----	-----	
Near Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Far Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Far Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Far IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Minitron Measured Beam Current Calibration Coefficient - 0	uA	Master	-----	-----	-----	-----	
Grid Current Peak Calibration Coefficient - 0	mA	Master	-----	-----	-----	-----	
Minitron Measured Extractor Current Calibration Coefficient - 0	uA	Master	-----	-----	-----	-----	
Minitron Measured High Voltage Calibration Coefficient - 0	kV	Master	-----	-----	-----	-----	
Near Instantaneous Count Rate Calibration Coefficient - 0	kHz	Master	-----	-----	-----	-----	
Near/Far Count Rate Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	

RST IC Tank Check - RST IC Tank Check

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Spectral Acquisition Time Calibration Coefficient	s	Master			NOT DONE		
Near Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Far Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near Windows Carbon/Oxygen Ratio		Master	-----	-----	-----	-----	

Calibration Coefficient - 0							
Far Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Far IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	-----	-----	-----	-----	
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	-----	-----	-----	-----	
Minitron Measured Beam Current Calibration Coefficient - 0	uA	Master	-----	-----	-----	-----	
Grid Current Peak Calibration Coefficient - 0	mA	Master	-----	-----	-----	-----	
Minitron Measured Extractor Current Calibration Coefficient - 0	uA	Master	-----	-----	-----	-----	
Minitron Measured High Voltage Calibration Coefficient - 0	kV	Master	-----	-----	-----	-----	
Near Instantaneous Count Rate Calibration Coefficient	kHz	Master			NOT DONE		
Near/Far Count Rate Ratio Calibration Coefficient		Master			NOT DONE		

RST Sigma Tank Check - RST Sigma Tank Check

Master (Measured): 14:57:24 17-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Near Spectral Acquisition Time Calibration Coefficient	s	Master		300.0	300.3	
Near/Far Capture Ratio Calibration Coefficient		Master	0.980	0.930	0.982	1.030
Sigma Formation Near Apparent Calibration Coefficient - 0	1/m	Master	-----	-----	-----	-----
Sigma Formation Far Apparent Calibration Coefficient - 0	1/m	Master	-----	-----	-----	-----
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient	V	Master	3.500	2.445	3.700	4.555
Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient	V	Master	3.325	2.095	2.433	4.555
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient	V	Master	1400.000	1100.000	1145.795	1700.000
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient	V	Master	1400.000	1100.000	1183.172	1700.000
Minitron Measured Beam Current Calibration Coefficient	uA	Master	75.000	50.000	85.102	100.000
Grid Current Peak Calibration Coefficient	mA	Master	60.000	58.000	60.036	62.000
Minitron Measured Extractor Current Calibration Coefficient	uA	Master	499.500	0	0.000	999.000
Minitron Measured High Voltage Calibration Coefficient	kV	Master	73.000	50.000	80.028	96.000
Near Instantaneous Count Rate Calibration Coefficient	kHz	Master	400.000	340.000	349.576	460.000
Near/Far Count Rate Ratio Calibration Coefficient		Master	1.300	1.000	1.471	1.600

PSTP-A (PSP Telemetry Platform A - Sapphire) Calibration - Run 1

Primary Equipment :

PBMS-A PBMS-A 1963

Calibration Parameter :

JIG-BKGD (Jig minus background reference) 160

PBMS Gamma Ray Check - PBMSA Gamma Ray Accumulations

Before (Measured): 18:51:55 21-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
GR Zero Average	gAPI	Before	30	0	78.13891	120
GR Zero Standard Deviation	gAPI	Before			30.56431	
GR Zero Max Deviation	gAPI	Before			140.6766	

GR Zero Max Deviation	gAPI	Before			140.6706		
GR Plus Average	gAPI	Before			224.6834		
GR Plus Standard Deviation	gAPI	Before			55.97226		
GR Plus Max Deviation	gAPI	Before			187.2046		
Jig-Background	gAPI	Before	160	145	154.2119	175	

PBMS Well Temp Master Calibration

Master (EEPROM): 00:00:00 12-May-2005

PBMS_RTD_THERM (Master) RTD Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	-1418.501	1118.407	-362.1241	56.89739	-3.317989	0

PBMS Gamma Ray Master Calibration

Master (EEPROM): 00:00:00 01-Dec-2003

PBMS_GR_MODEL (Master) GR Coefficients

	Rt**0	Rt**1
Rt**0	2000	4740

PBMS A Reference Clock Master Calibration

Master (EEPROM): 00:00:00 12-May-2005

PBMS_REF_CLOCK (Master) PBMS A Clock Coefficients

	Temp**0	Temp**1	Temp**2	Temp**3	Temp**4	Temp**5
Temp**0	45.0069	-9.445683	-0.02744274	0.0002354008	3.654205E-06	0

PBMS A Sapphire Master Calibration

Master (EEPROM): 00:00:00 12-May-2005

PBMS_P_GAUGE_PRES (Master) Sapphire Pressure Model Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tp**0	4187.029	-3429.79	773.3541	-119.1729	7.244876	0
Tp**1	698.9312	545.2234	21.97955	-3.948855	0.2235462	0
Tp**2	-6.430802	9.633142	-3.005254	0	0	0
Tp**3	-2.550163	0.6971294	0	0	0	0
Tp**4	0	0	0	0	0	0
Tp**5	0	0	0	0	0	0

PBMS_P_GAUGE_TEMP (Master) Sapphire Temperature Model Coefficients

	Tp**0	Tp**1	Tp**2	Tp**3	Tp**4	Tp**5
Tt**0	-293.9637	10.31608	-5.693609	1.308318	-0.1107738	0
Tt**1	63.53009	-2.347224	1.230874	-0.2610083	0.02165993	0
Tt**2	8.593975	0.03386374	-0.01621674	0	0	0
Tt**3	-0.487141	0.005250175	0	0	0	0
Tt**4	0	0	0	0	0	0
Tt**5	0	0	0	0	0	0

Company:	Caerus Piceance LLC
Well:	Puckett SWD H2-797
Field:	Wildcat
County:	Garfield
State:	Colorado

Schlumberger

Reservoir Saturation Tool
Sigma