

Company: ENCANA OIL & GAS (USA) INC

Well: ALP FEE 24-6A (J24NW)

Field: MAMM CREEK

County: GARFIELD State: COLORADO

RESERVOIR SATURATION LOG
SIGMA MODE
GAMMA RAY-CCL

County: GARFIELD

Field: MAMM CREEK

Location: SHL: 2485 FSL & 1865 FEL

Well: ALP FEE 24-6A (J24NW)

Company: ENCANA OIL & GAS (USA) INC

LOCATION			
SHL: 2485 FSL & 1865 FEL	Elev.: K.B.	5702.00 ft	
BHL: 1551 FNL & 2484 FWL	G.L.	5680.00 ft	
	D.F.	5701.00 ft	
Permanent Datum:	GROUND LEVEL	Elev.: 5680.00 ft	
Log Measured From:	KELLY BUSHING	22.00 ft above Perm. Datum	
Drilling Measured From:	KELLY BUSHING		
API Serial No.	Section	Township	Range
05-045-21805-0C	24	6S	93W

Logging Date	16-Aug-2013			
Run Number	1			
Depth Driller	8068 ft			
Schlumberger Depth	7978 ft			
Bottom Log Interval	7944 ft			
Top Log Interval	2000 ft			
Casing Fluid Type	FRESH WATER			
Salinity				
Density	8.4 lbm/gal			
Fluid Level	60 ft			
BIT/CASING/TUBING STRING				
Bit Size	7.875 in			
From	5970 ft			
To	8068 ft			
Casing/Tubing Size	4.500 in			
Weight	11.6 lbm/ft			
Grade	S-80			
From	22 ft			
To	8047 ft			
Maximum Recorded Temperatures	218 degF			
Logger On Bottom	16-Aug-2013		2:45	
Unit Number	Location			
Recorded By	KIRSTIE BUNTING			
Witnessed By	BILLY MYERS			

PVT DATA				Run 1	Run 2	Run
Oil Density						
Water Salinity						
Gas Gravity						
Bo						
Bw						
1/Bg						
Bubble Point Pressure						
Bubble Point Temperature						
Solution GOR						
Maximum Deviation						
CEMENTING DATA						
Primary/Squeeze				Primary		
Casing String No						
Lead Cement Type						
Volume						
Density						
Water Loss						
Additives						
Tail Cement Type						
Volume						
Density						
Water Loss						
Additives						
Expected Cement Top						
Logging Date						
Run Number						
Depth Driller						
Schlumberger Depth						
Bottom Log Interval						
Top Log Interval						
Casing Fluid Type						
Salinity						
Density						
Fluid Level						
BIT/CASING/TUBING STRING						
Bit Size						
From						
To						
Casing/Tubing Size						
Weight						
Grade						
From						
To						
Maximum Recorded Temperatures						
Logger On Bottom						
Unit Number						
Recorded By						
Witnessed By						

DEPTH SUMMARY LISTING

Date Created: 14-AUG-2013 11:54:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JB	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6349	Serial Number:	3421	Serial Number:	112136
Calibration Date:	7-31-2013	Calibration Date:	14-AUG-201	Length:	19000 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878		
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	-5	Calibration RMS:	3	Rig Type:	LAND
Wheel Correction 2:	-4	Calibration Peak Error:	8		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	
Tool Zero Check At Surface:	

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES USED
2. IDW USED AS PRIMARY DEPTH REFERENCE
3. SPWT DRUM COUNTER USED AS SECONDARY DEPTH REFERENCE
- 4.
- 5.
- 6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: SLIM CEMENT MAPPING	OS1:
OS2: LOG	OS2:
OS3: CBL-VDL	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWN LOG	
TOOL RUN AS PER TOOL SKETCH	
ENTRANCE: 02:15	
TIME ON BOTTOM: 02:45	
EXIT: 05:00	

MAXIMUM RECORDED TEMPERATURE: 218 DEGF	
MAXIMUM RECORDED PRESSURE:3309 PSIA	
SHORT JOINTS: 5778 FT & 6840 FT	
SANDSTONE MATRIX USED	
CREW: KBUNTING, WAZIZ, KJOHNS	
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY	

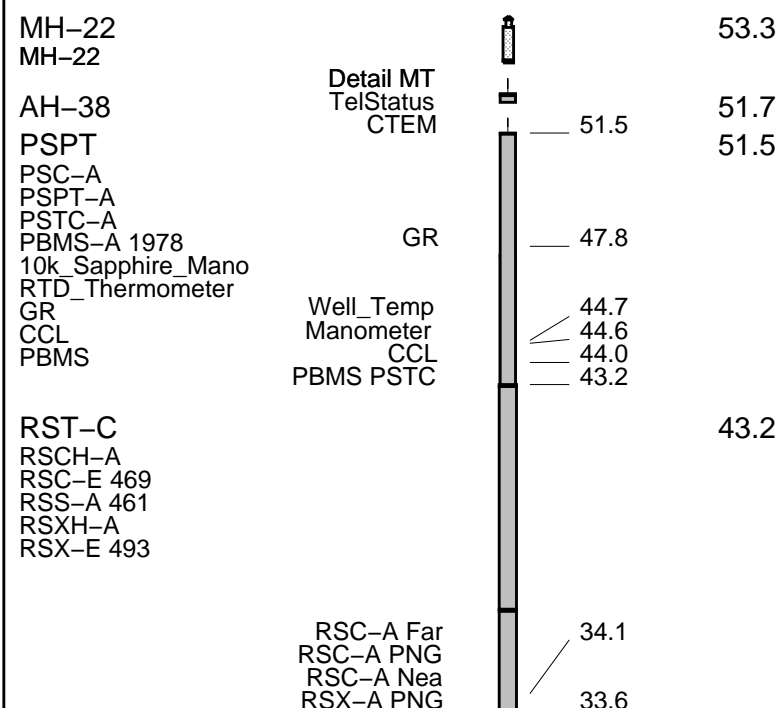
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
CGF9-00098					
19C0-187					
60 ft					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT	DESCRIPTION

	RUN 1	RUN 2
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11	1	1
12	1	1
13	1	1
14	1	1
15	1	1
16	1	1
17	1	1
18	1	1
19	1	1
20	1	1
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91	1	1
92	1	1
93	1	1
94	1	1
95	1	1
96	1	1
97	1	1
98	1	1
99	1	1
100	1	1

WITM-A PSC_16MHZ	SURFACE EQUIPMENT	
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DOWNHOLE EQUIPMENT



SCMT-CB
SCMC-CA 8248
SECH-CA
CMIR-AG
SCMS-CB 8179
SCMX-CA

20.2

DT 11.1
CBL5 DTSC 9.6
CBL3 8.6
MAP 8.1
AUX 7.1

20.2
0.2
AH-BNS
Tension SCMT
H/V
TOOL ZERO

MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET



MAIN PASS RST SIGMA

MAXIS Field Log

Input DLIS Files

DEFAULT SCMT_RST_PSP_061LUP FN:60 PRODUCER 16-Aug-2013 02:52 7985.0 FT -4.5 FT

Output DLIS Files

DEFAULT SCMT_RST_PSP_064PUP FN:63 PRODUCER 16-Aug-2013 05:02 7988.0 FT -46.0 FT

OP System Version: 19C0-187

SCMT-CB SRPC-5214-H2-2012-OP1! RST-C SRPC-5214-H2-2012-OP1!
PSPT SRPC-5214-H2-2012-OP1!

Changed Parameter Summary

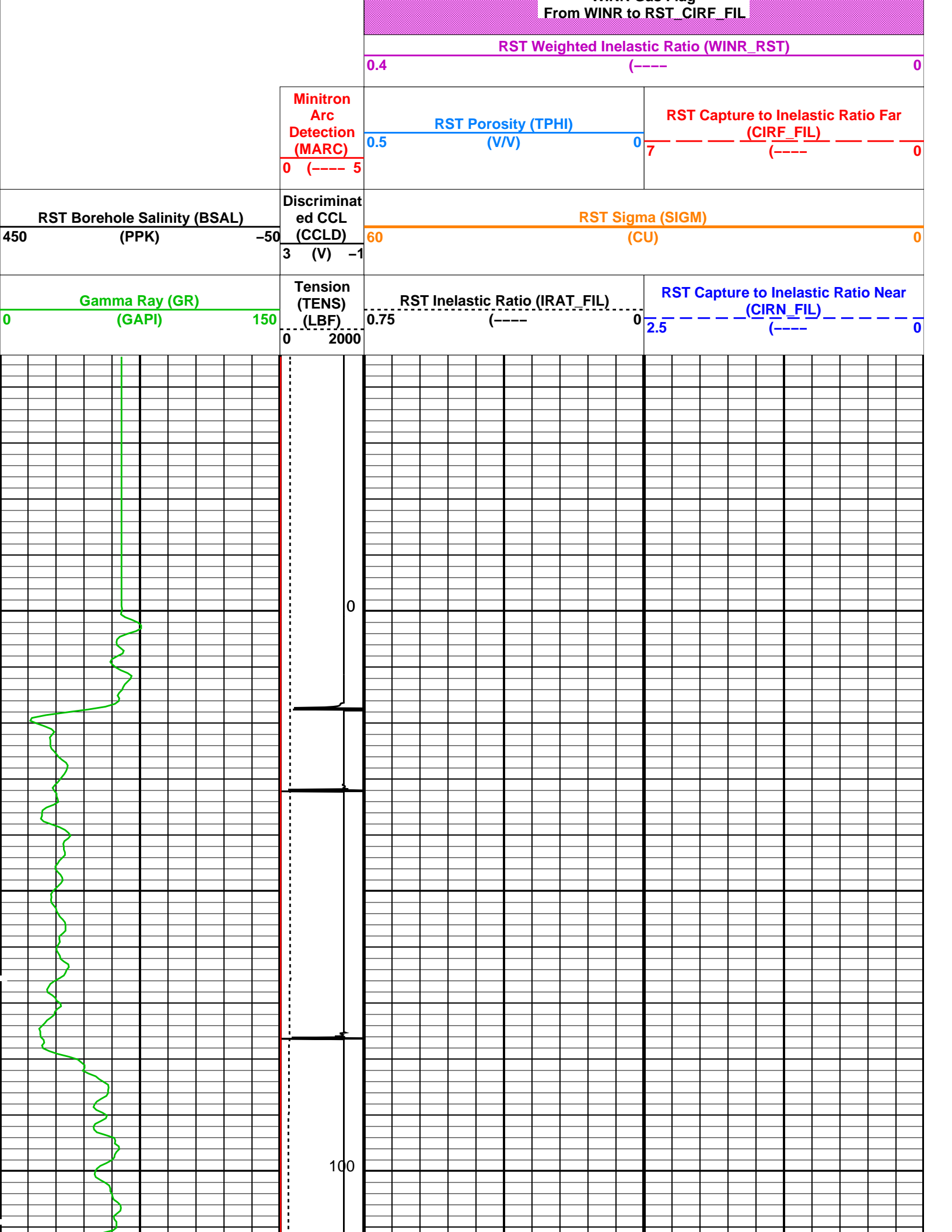
DLIS Name	New Value	Previous Value	Depth & Time
BS	7.875 IN	7.875 IN	7988.0 05:02:50
	8.750 IN	7.875 IN	5970.0 05:05:46

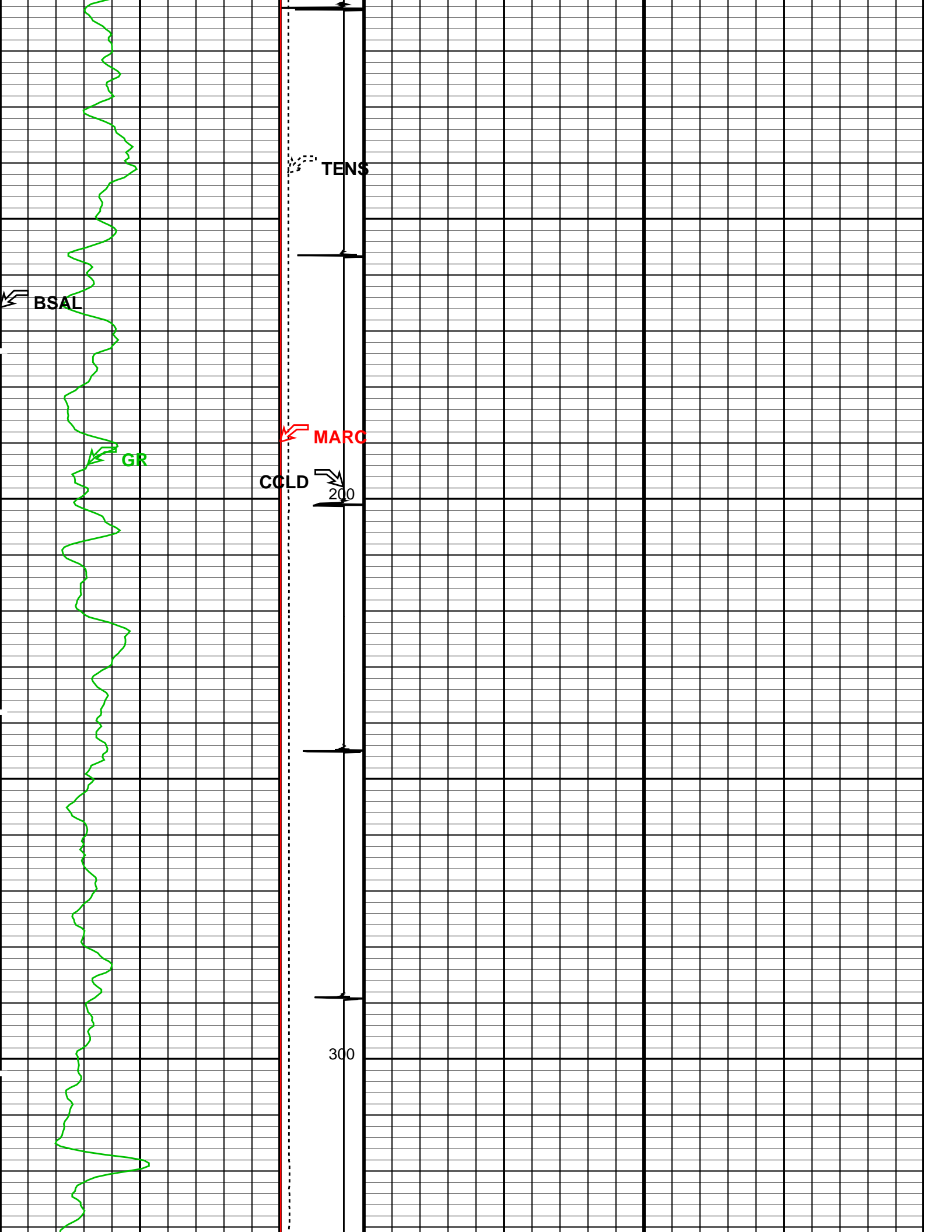
PIP SUMMARY

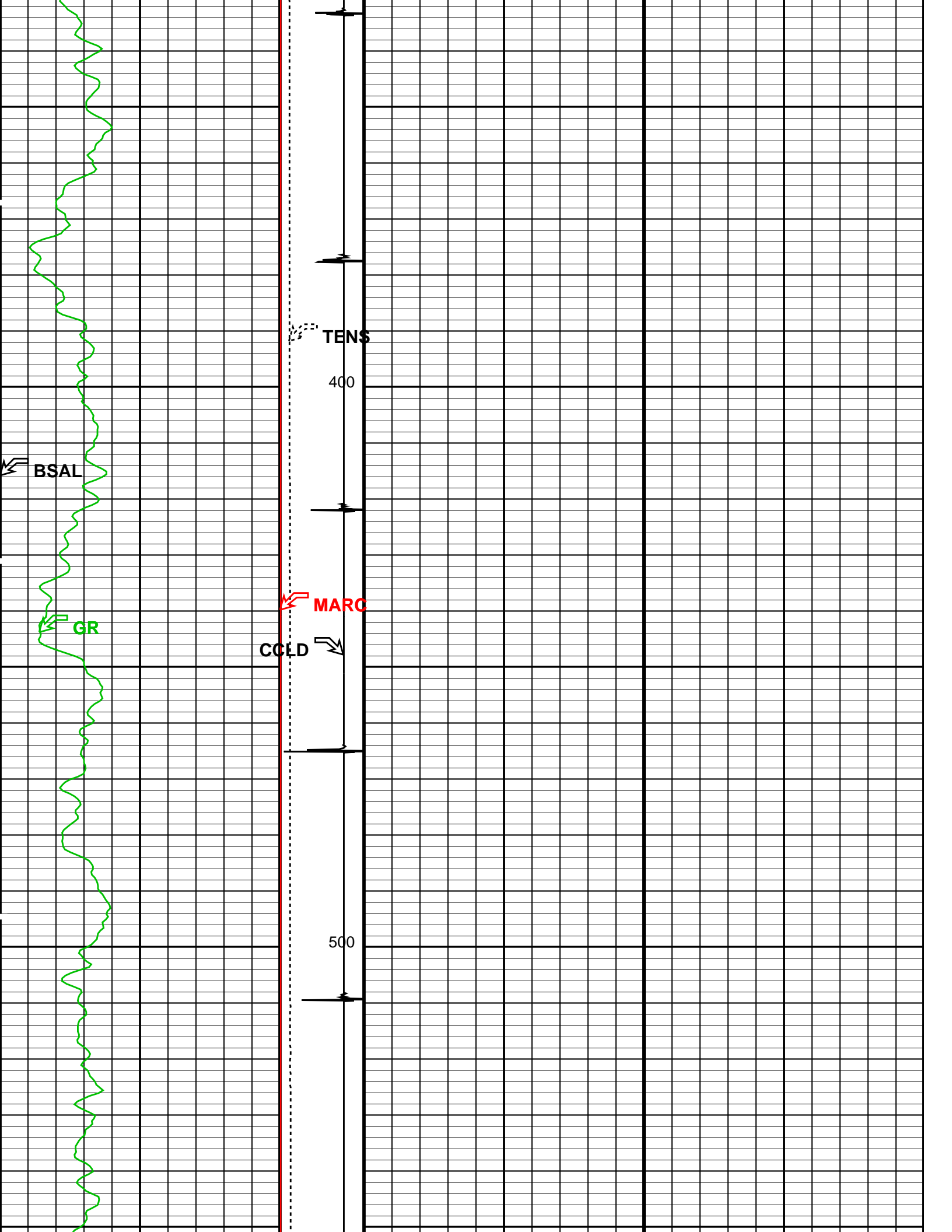
Time Mark Every 60 S

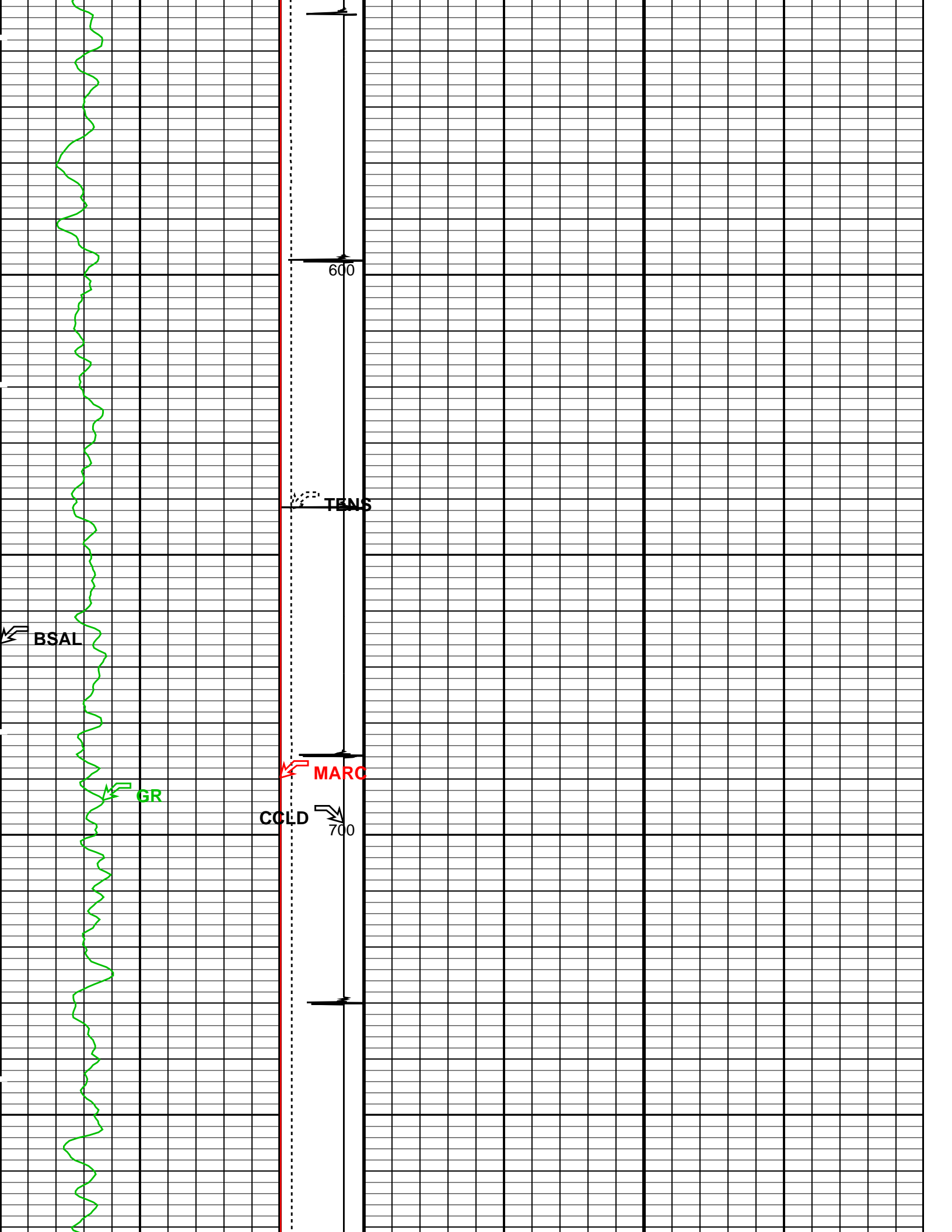
Crossover in sand
From RST_CIRF_FIL to RST_CIRN_FIL

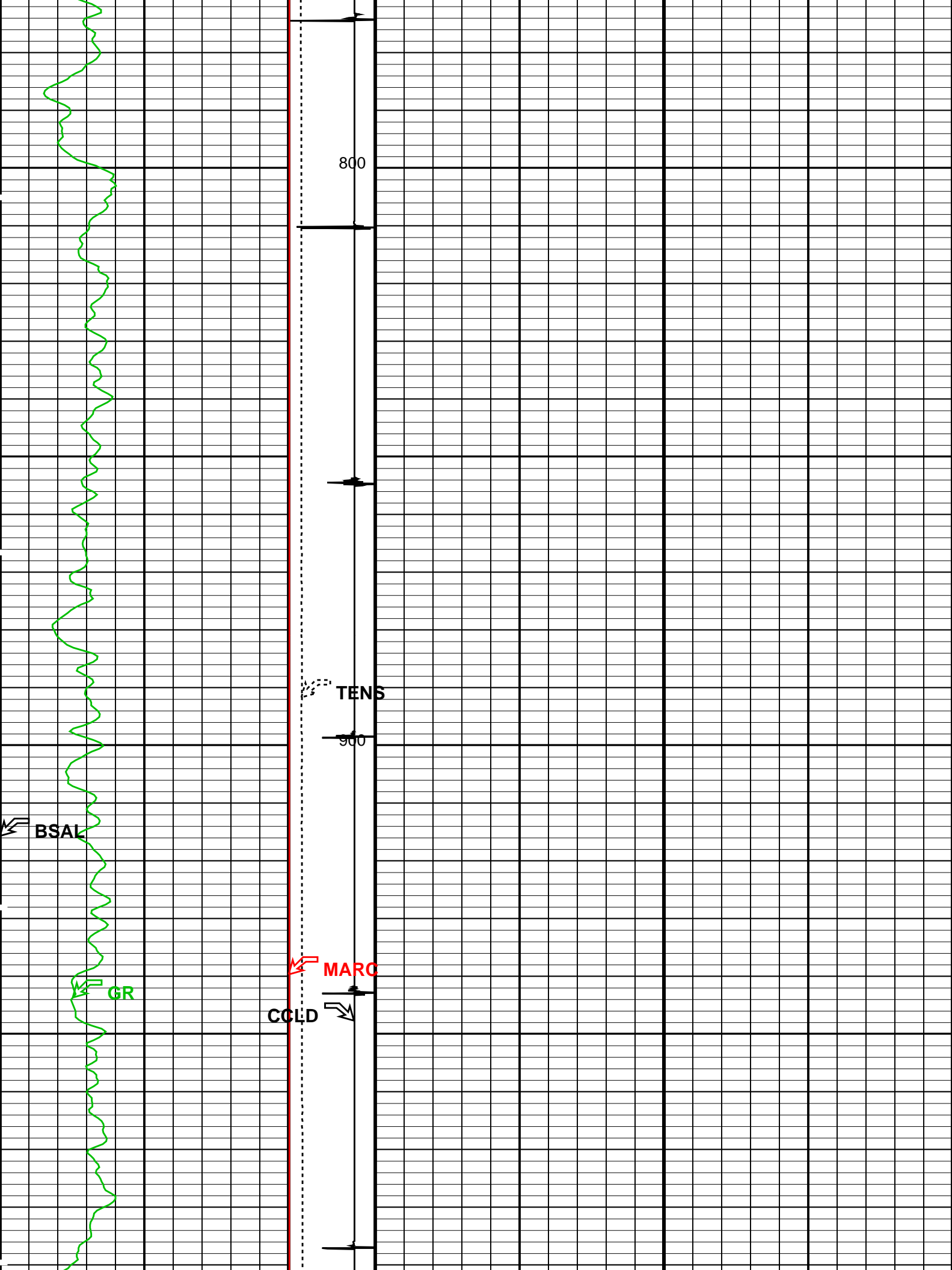
WINR Gas Flag

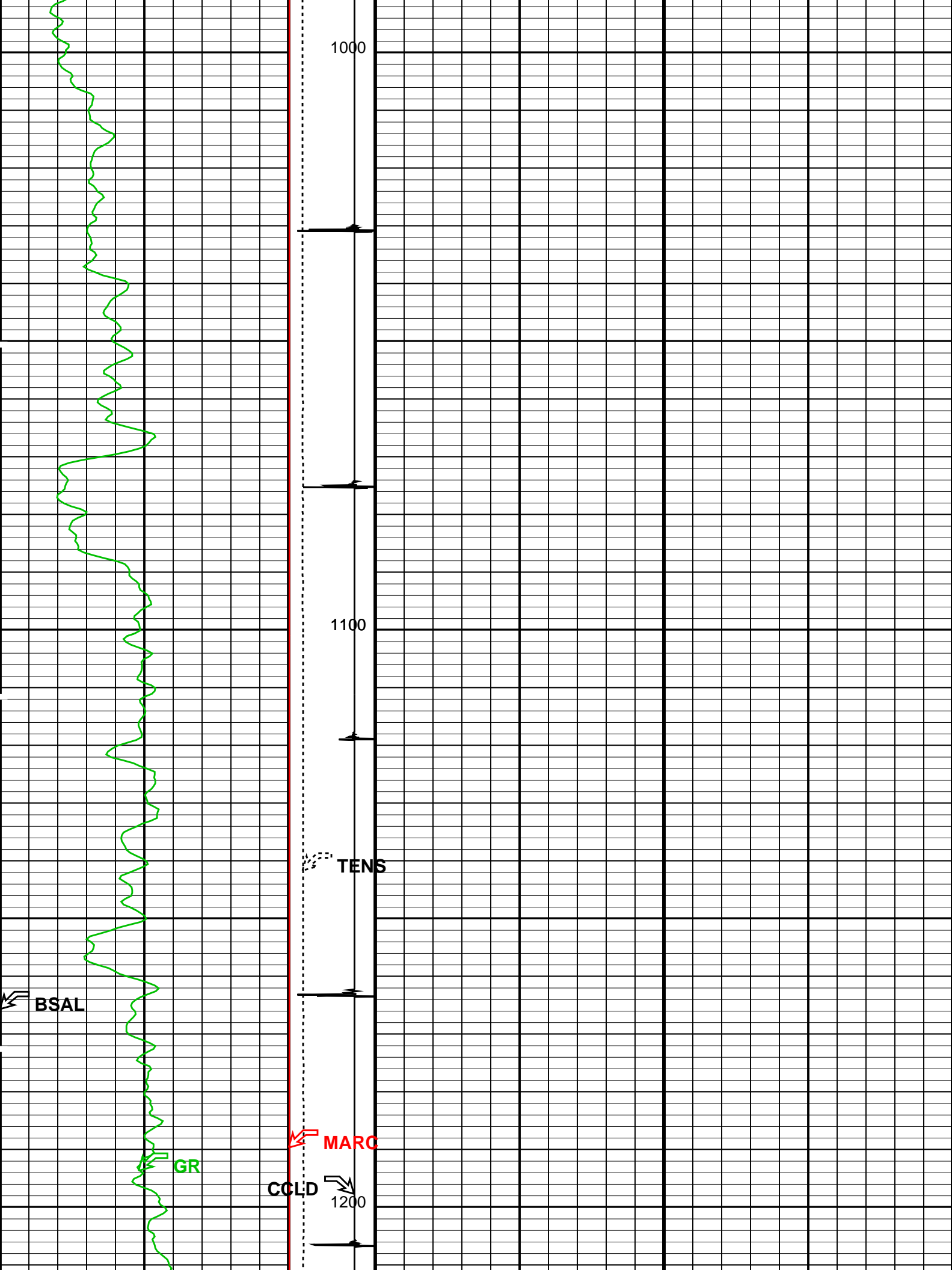


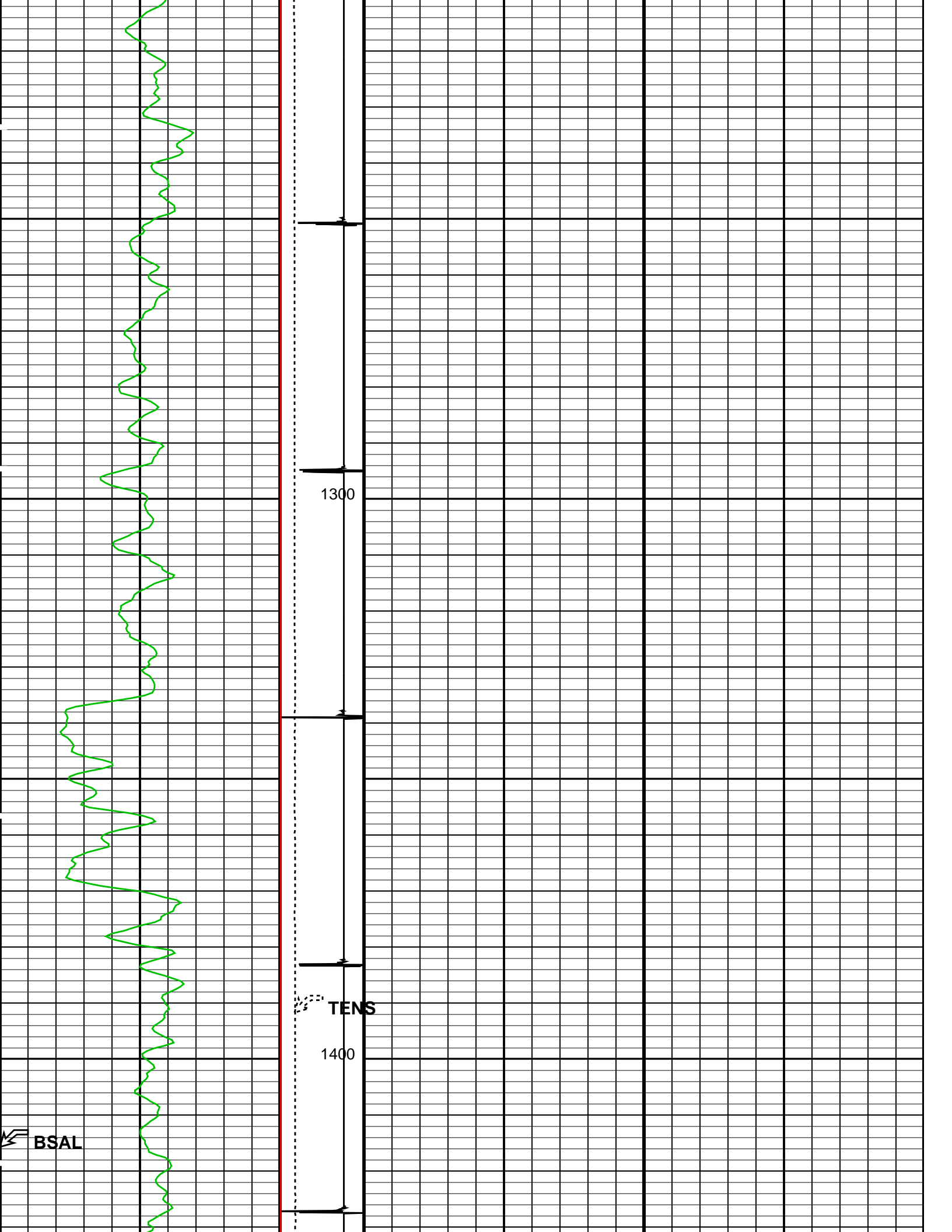


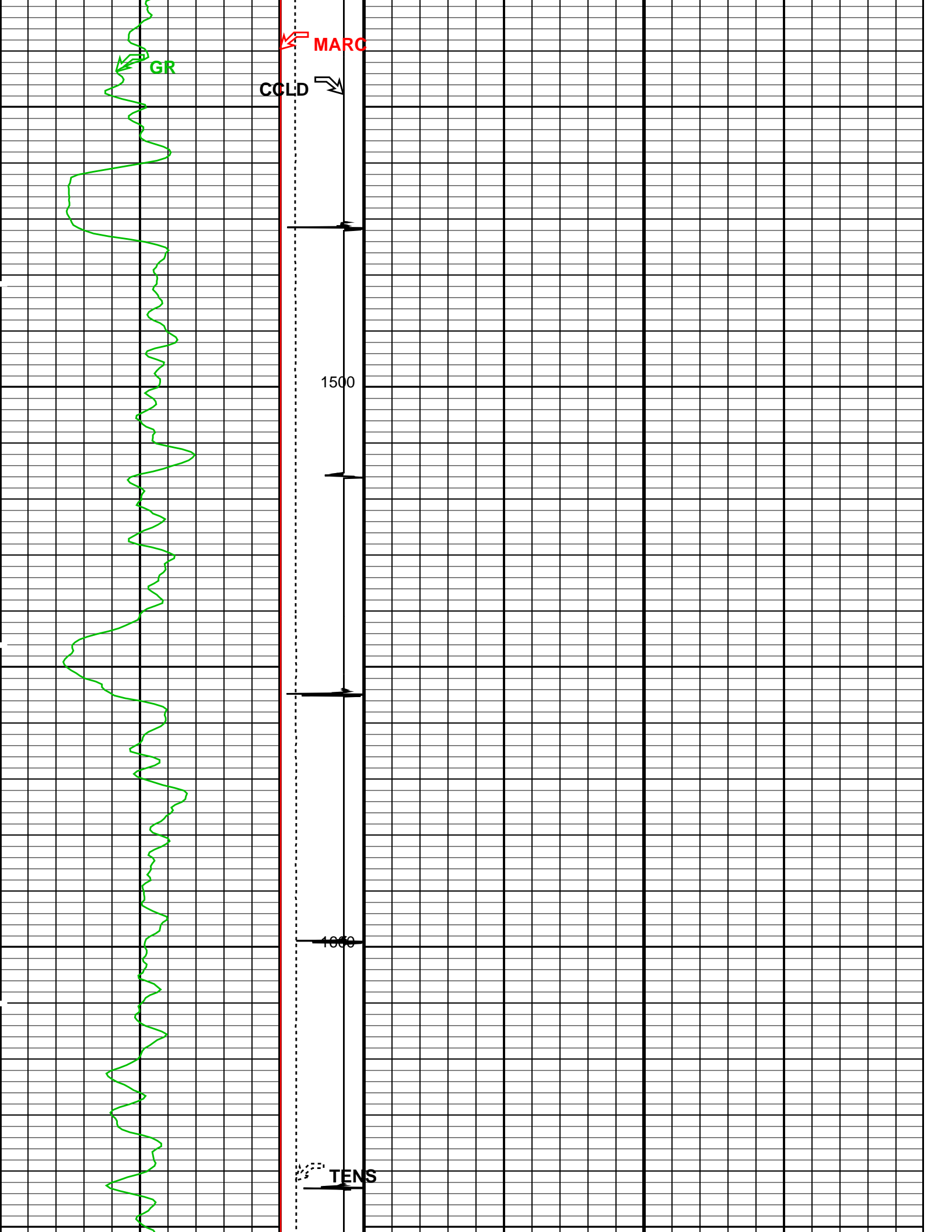


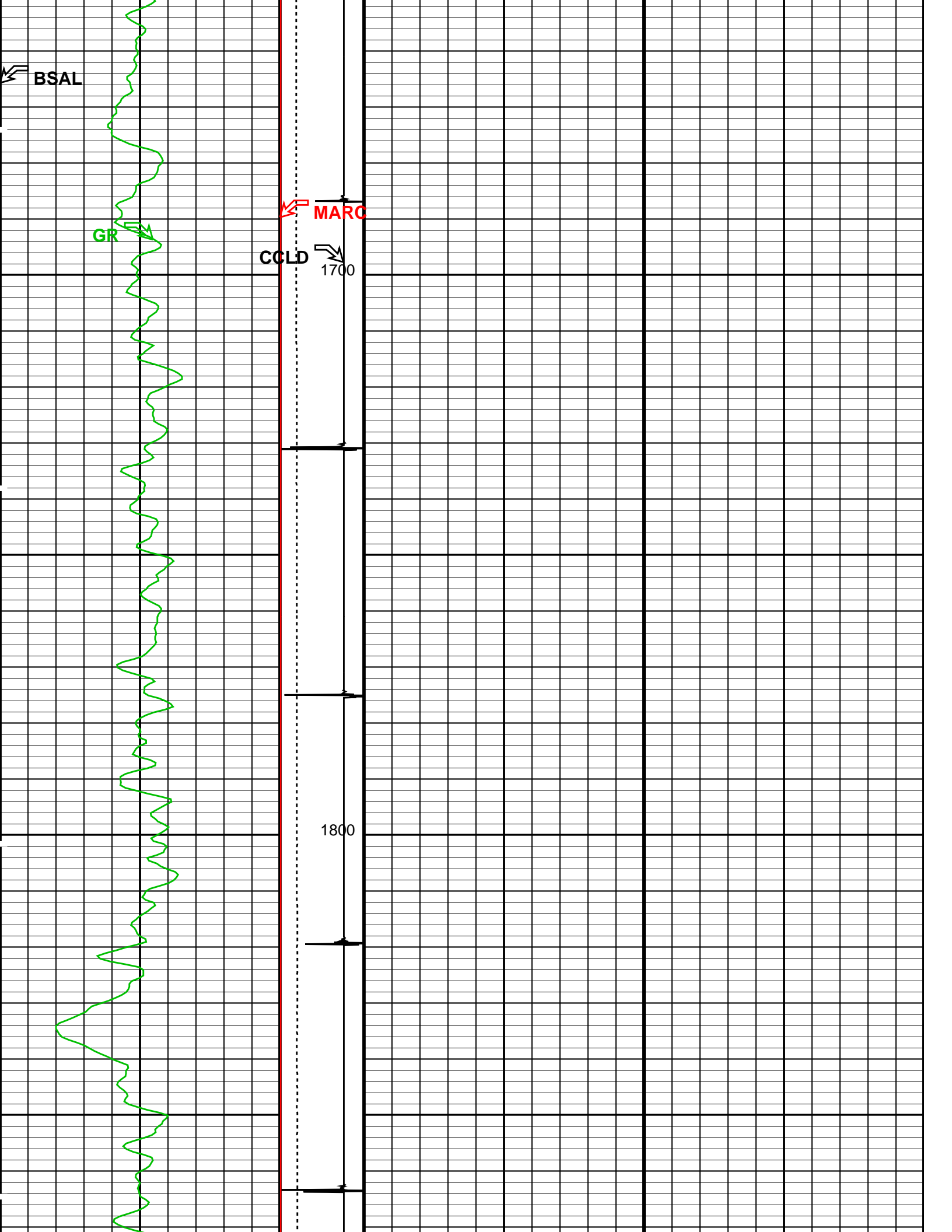


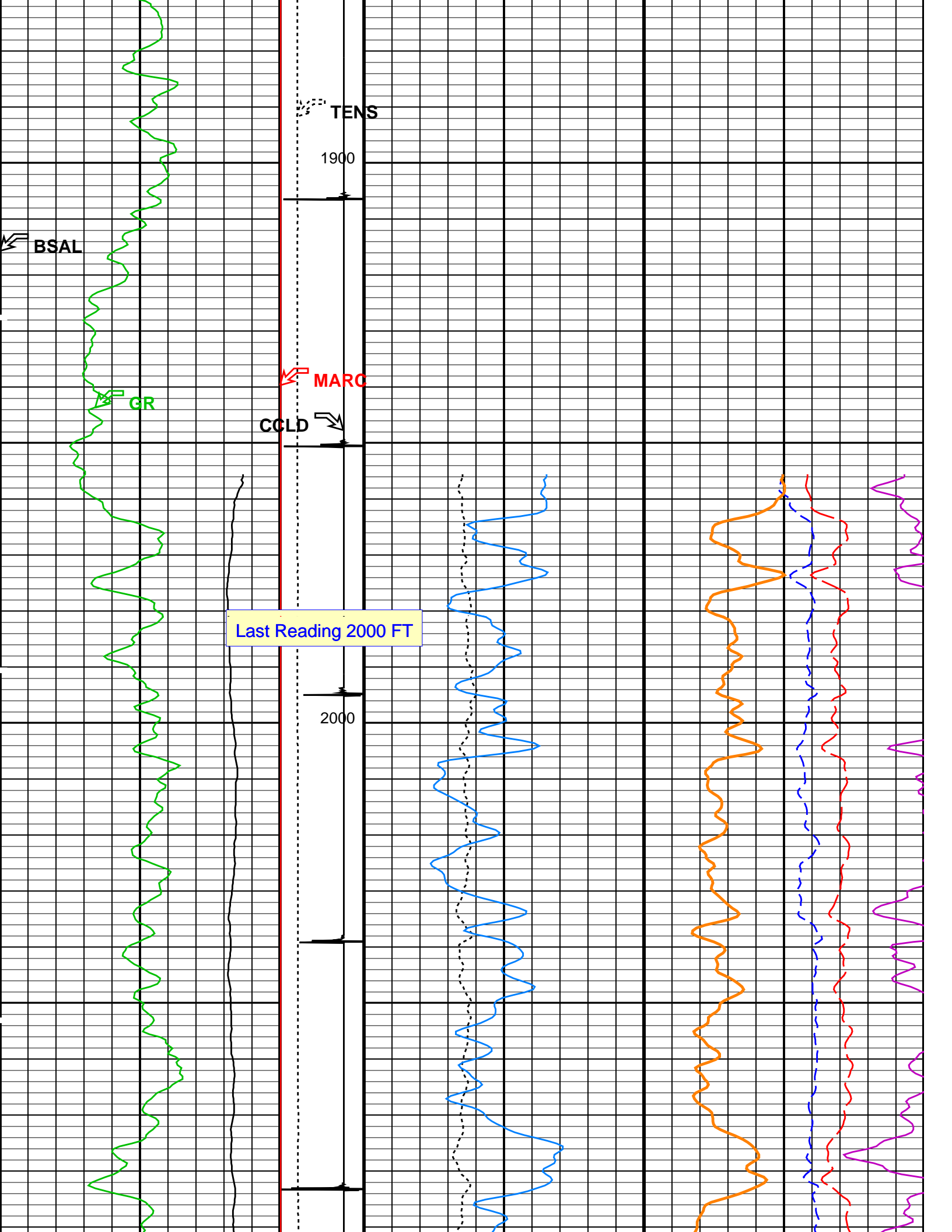


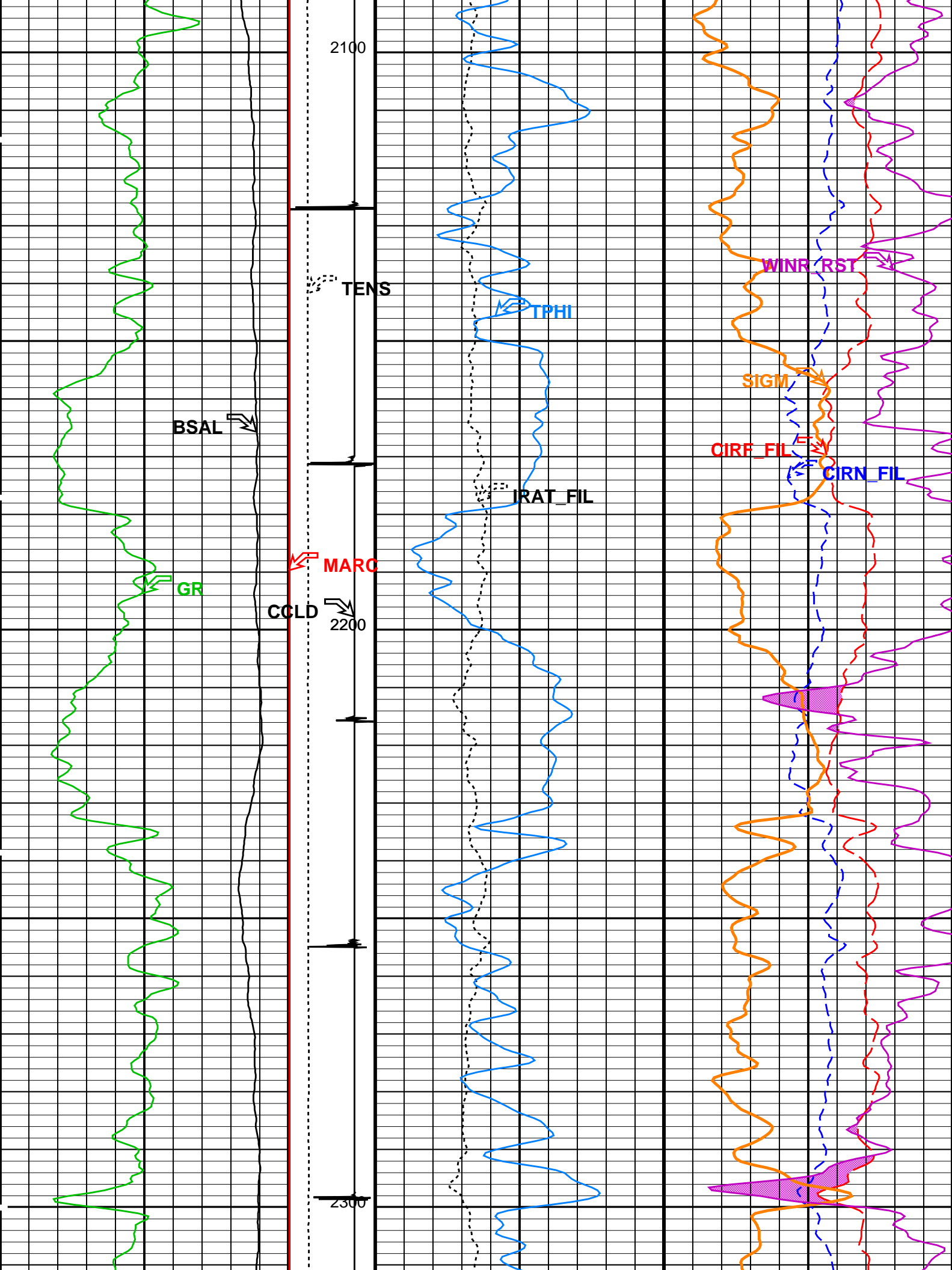


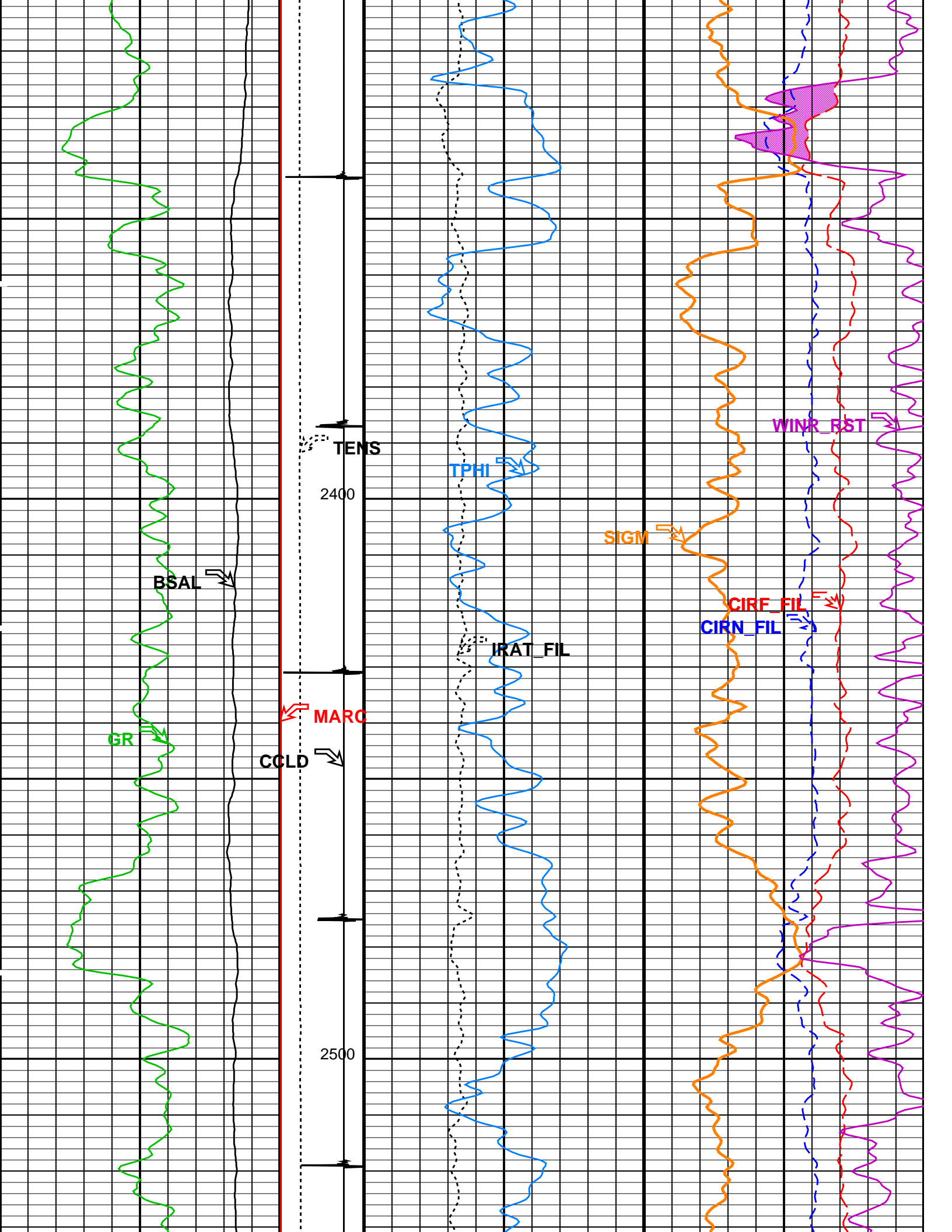


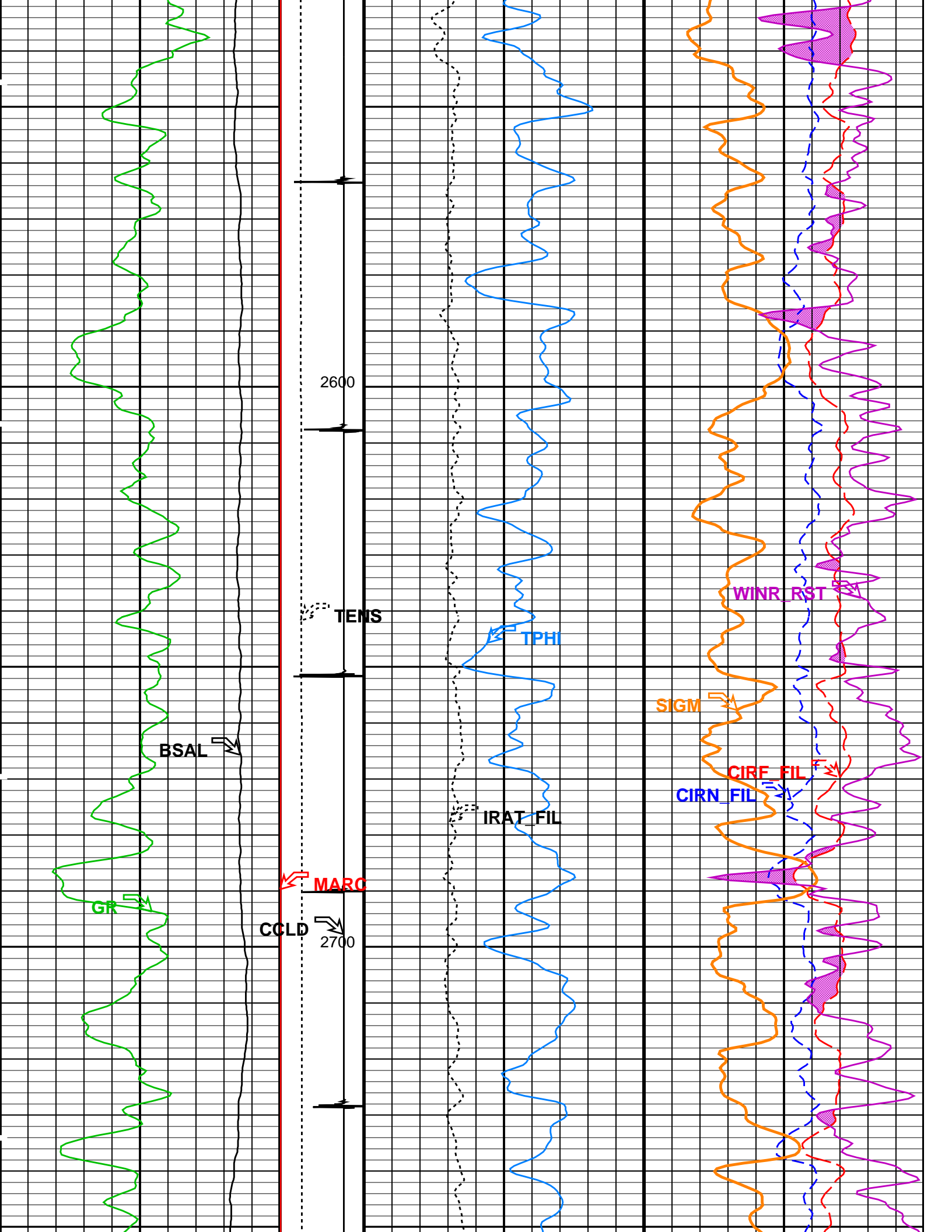


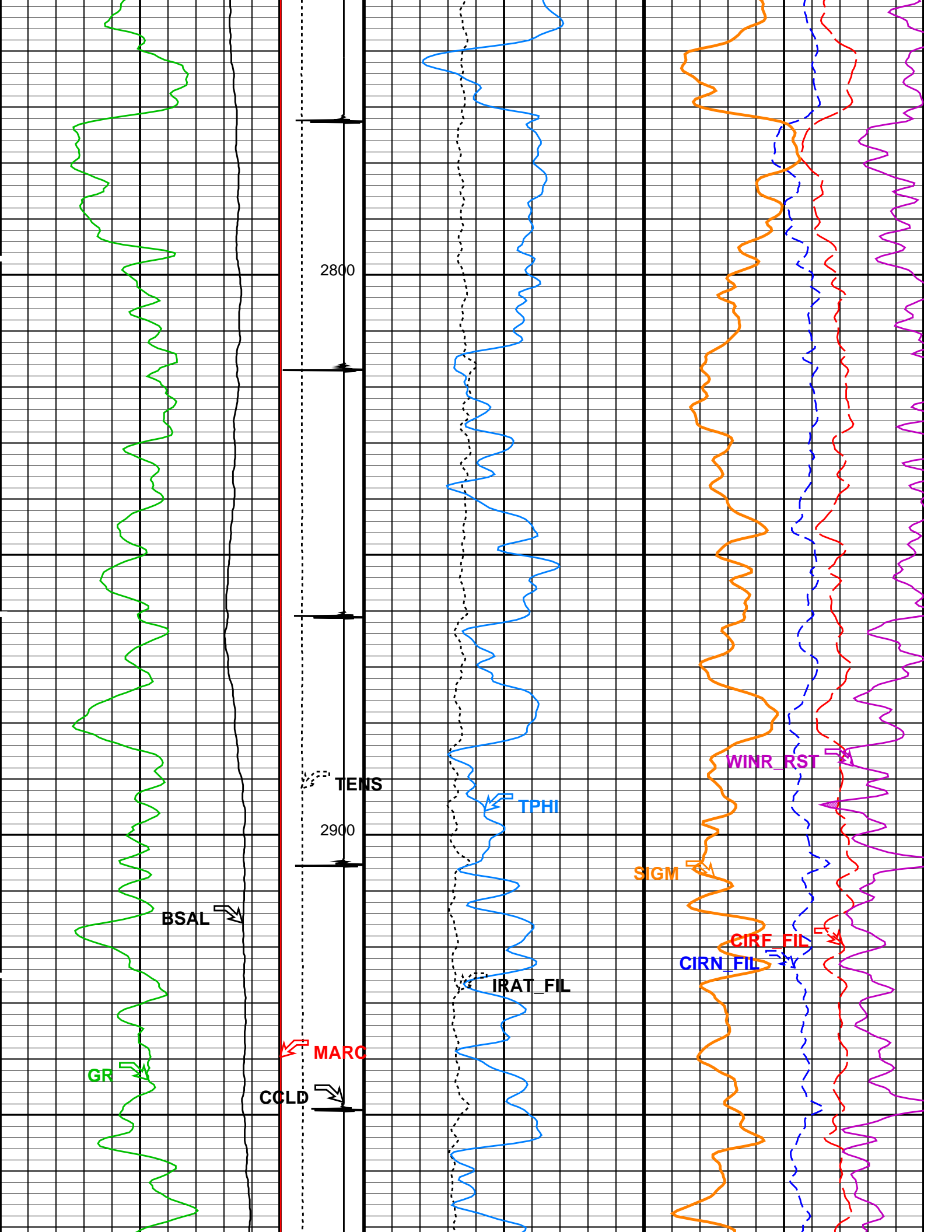


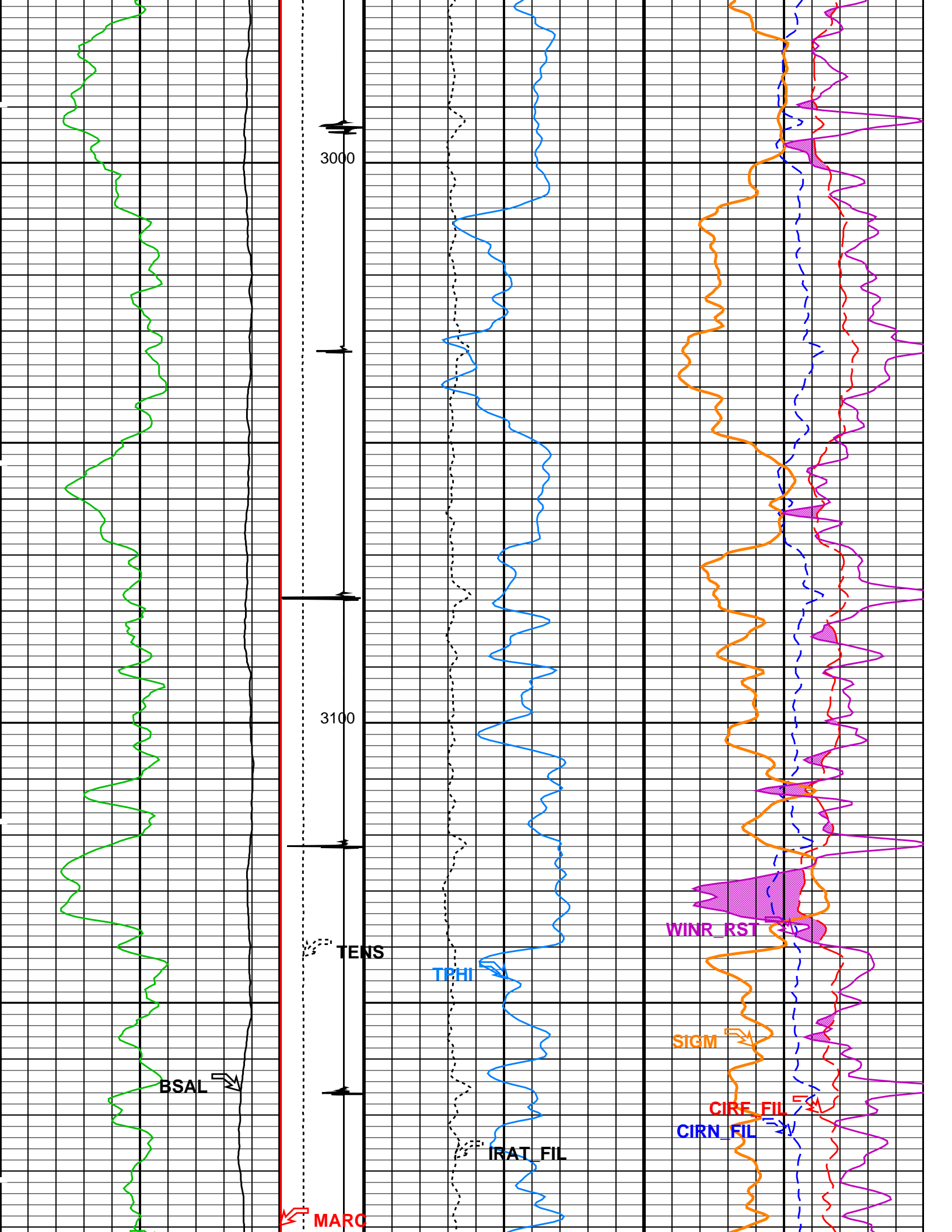


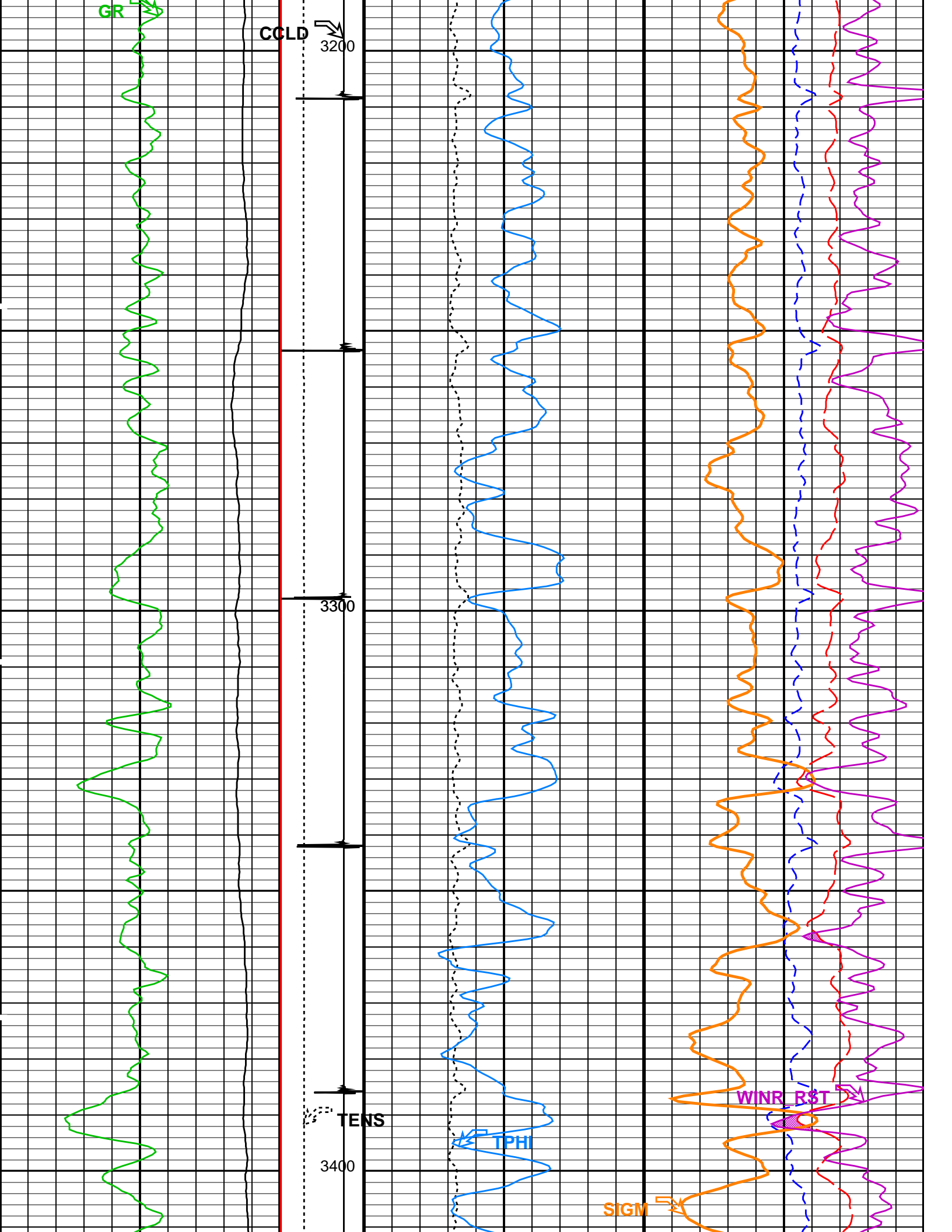


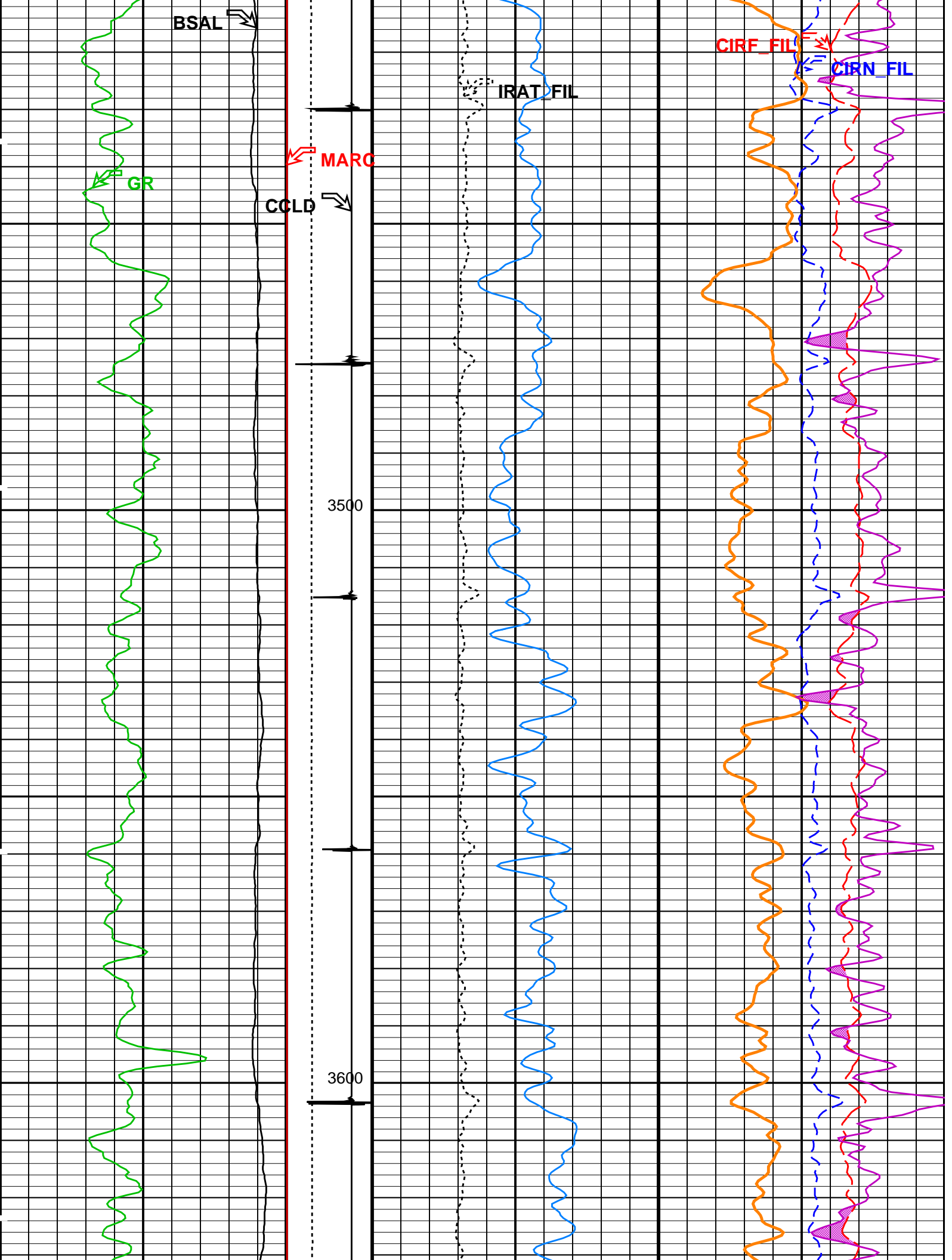


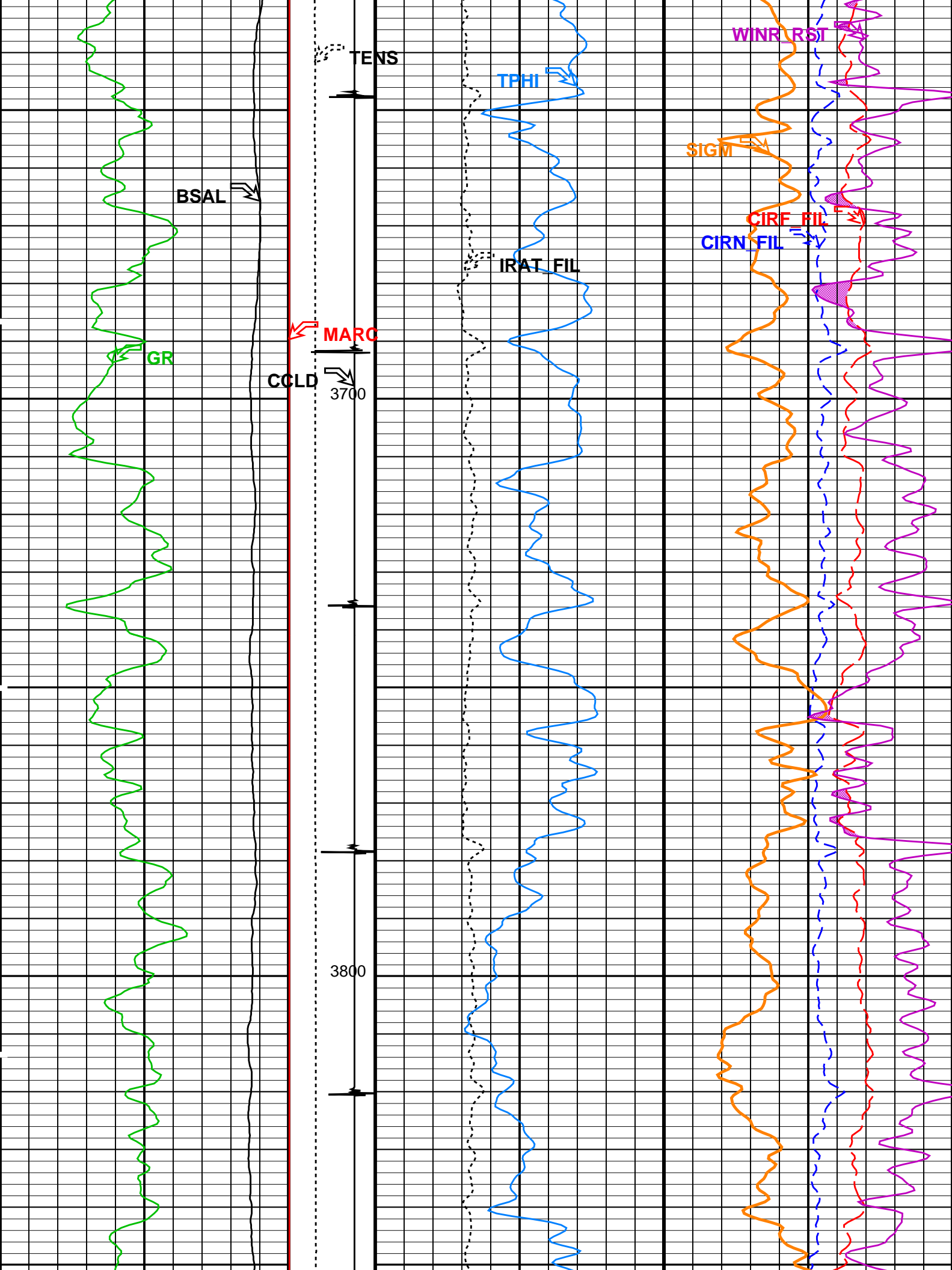


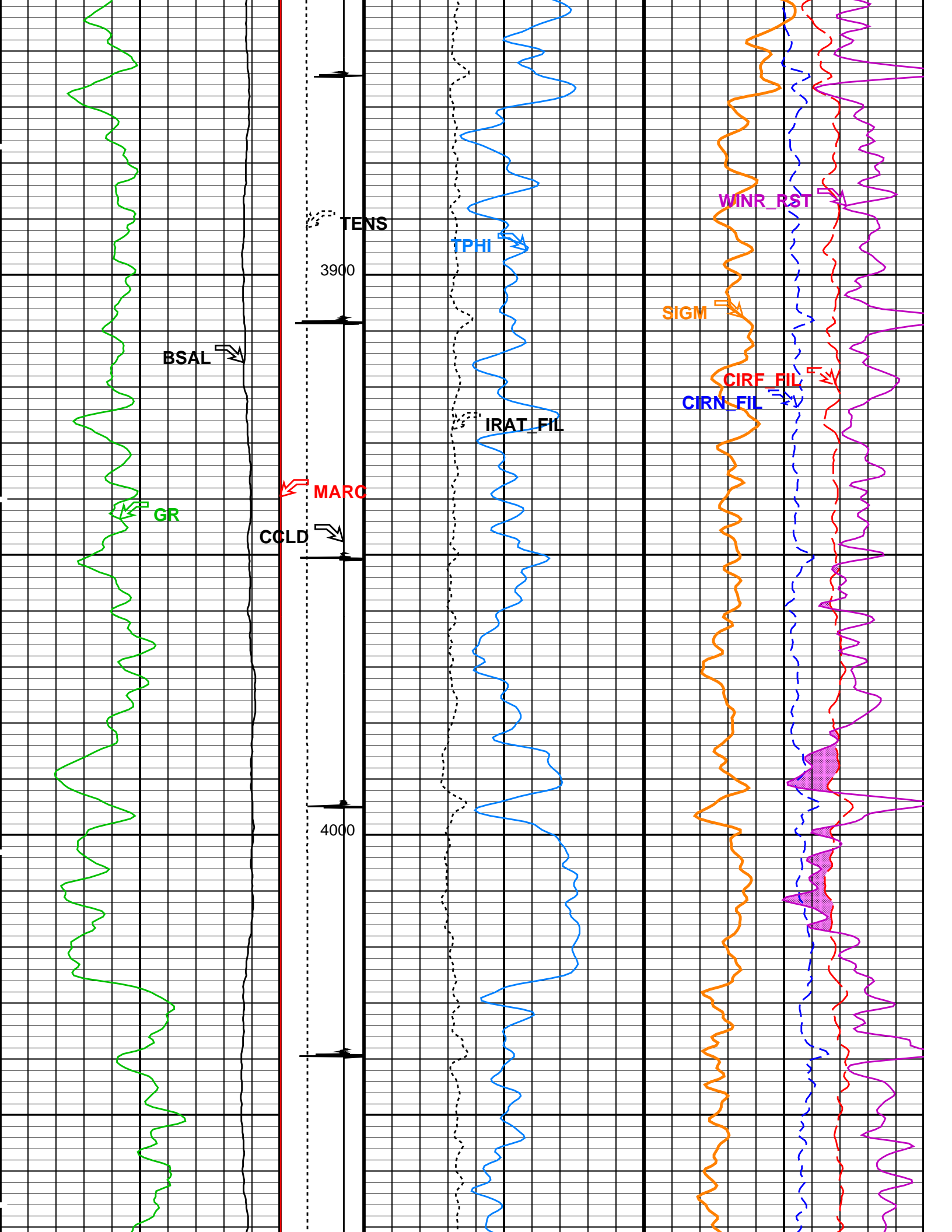


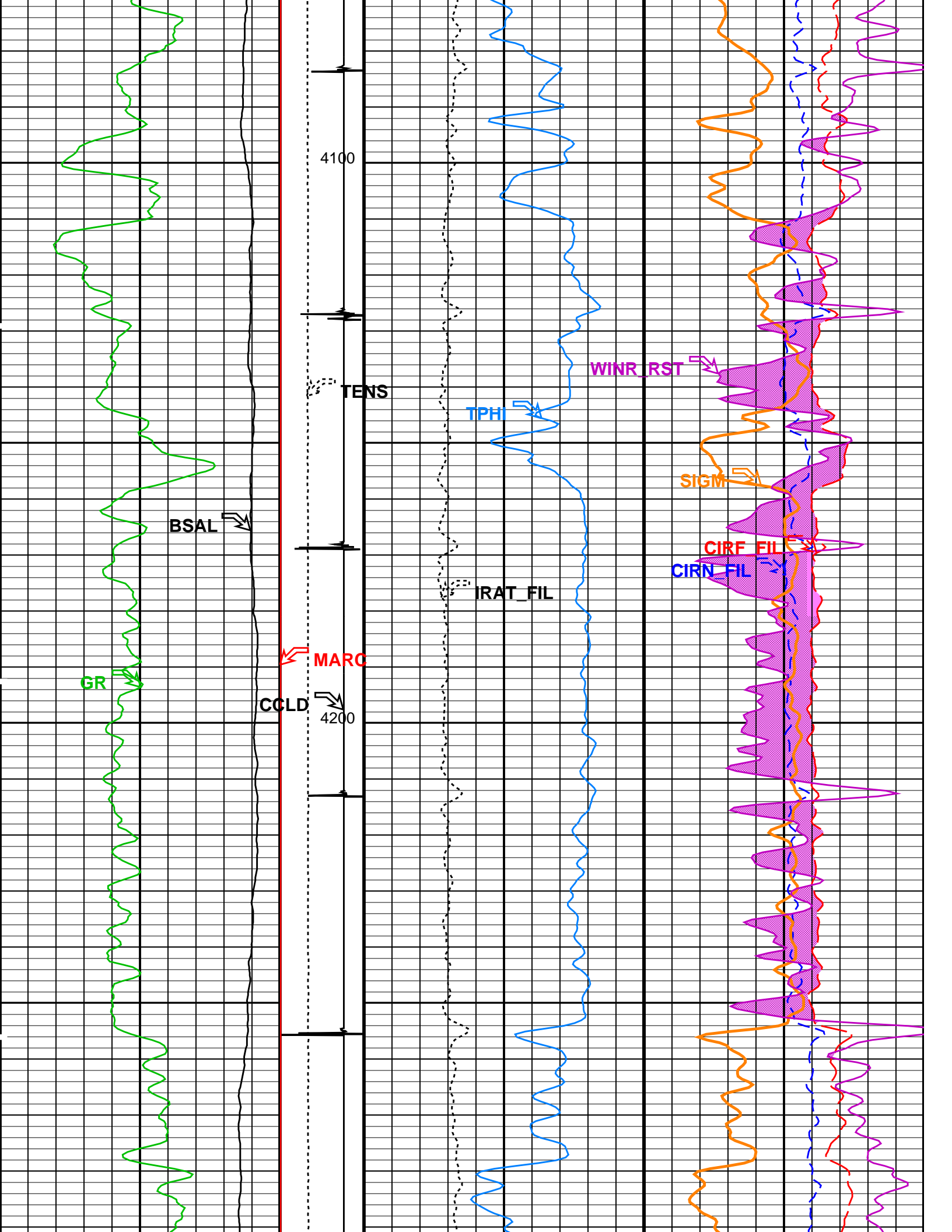


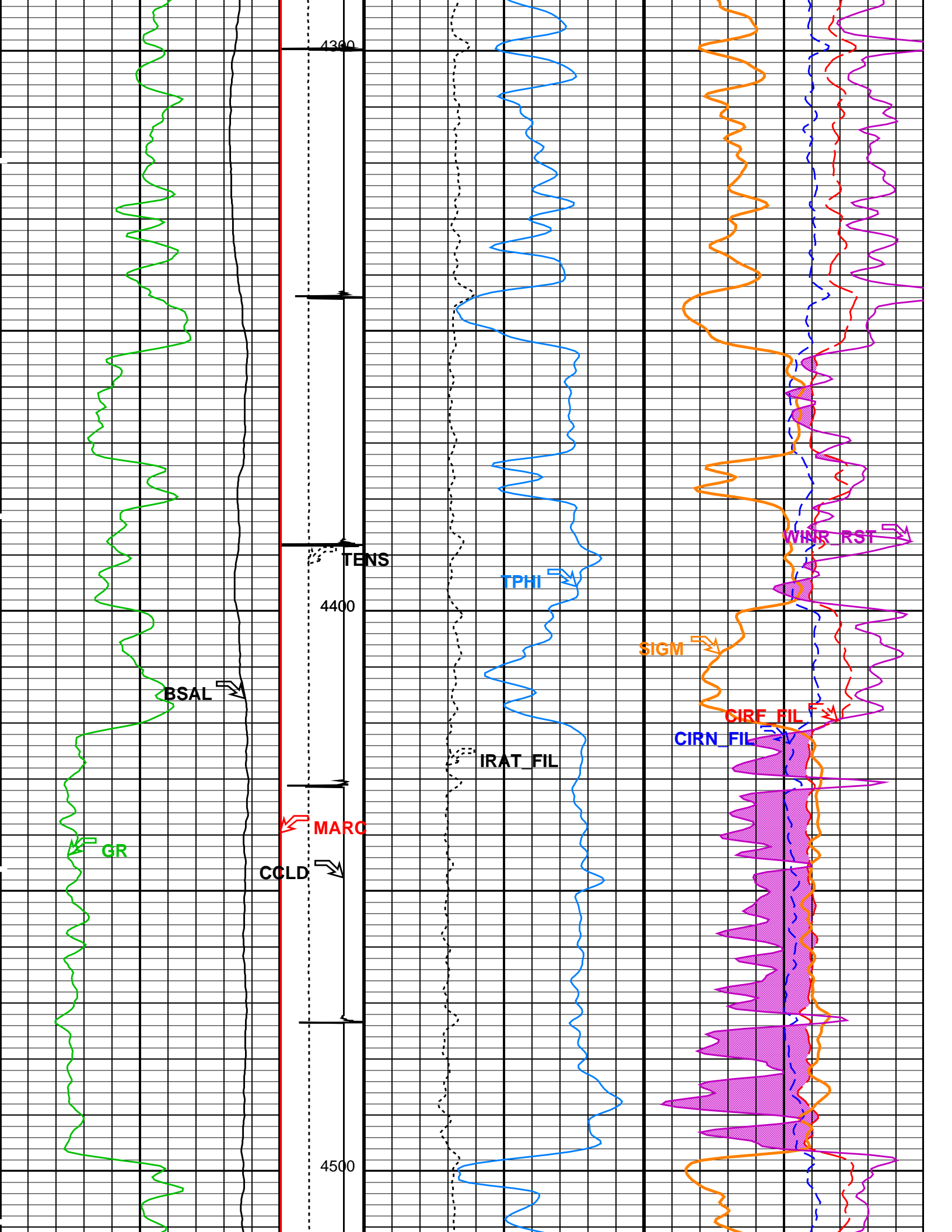


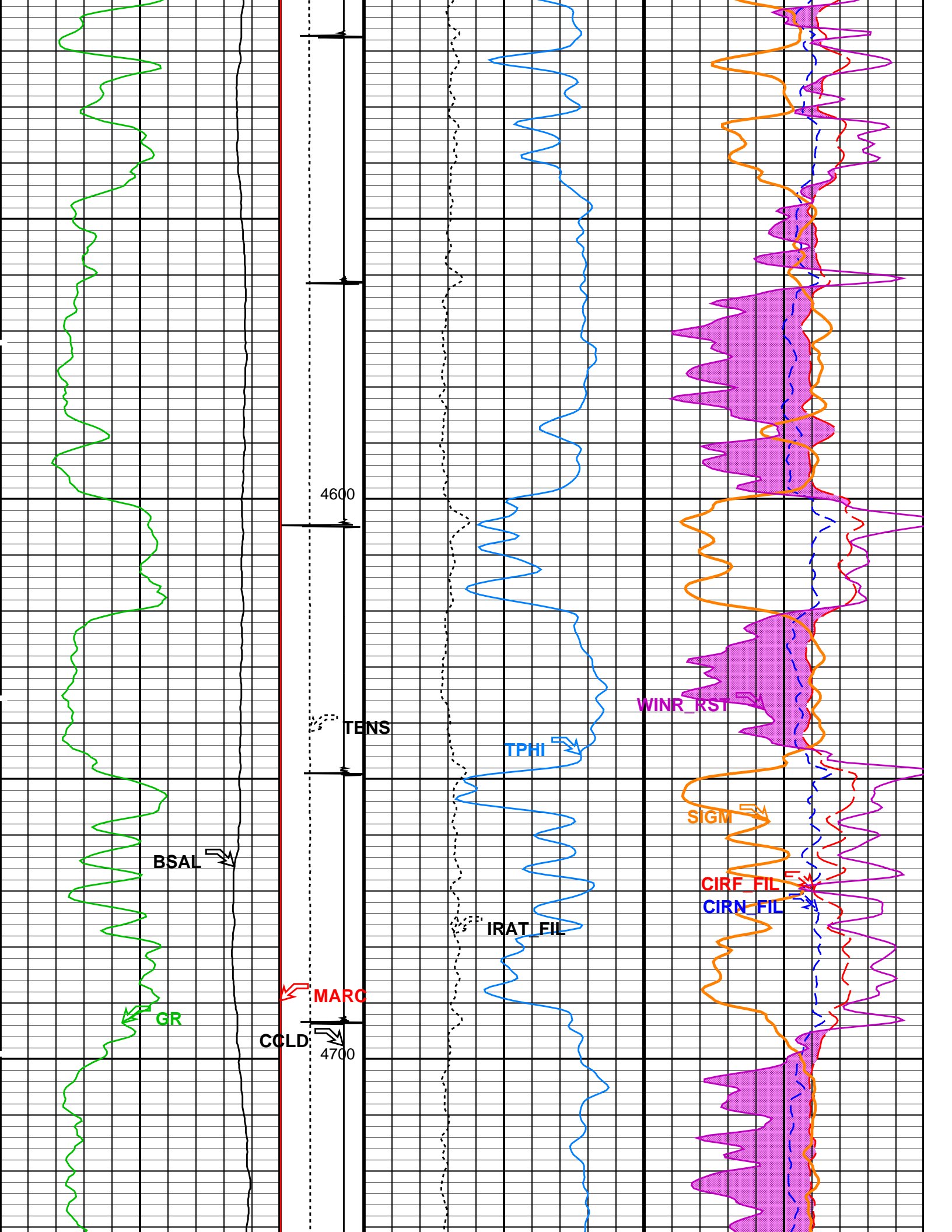


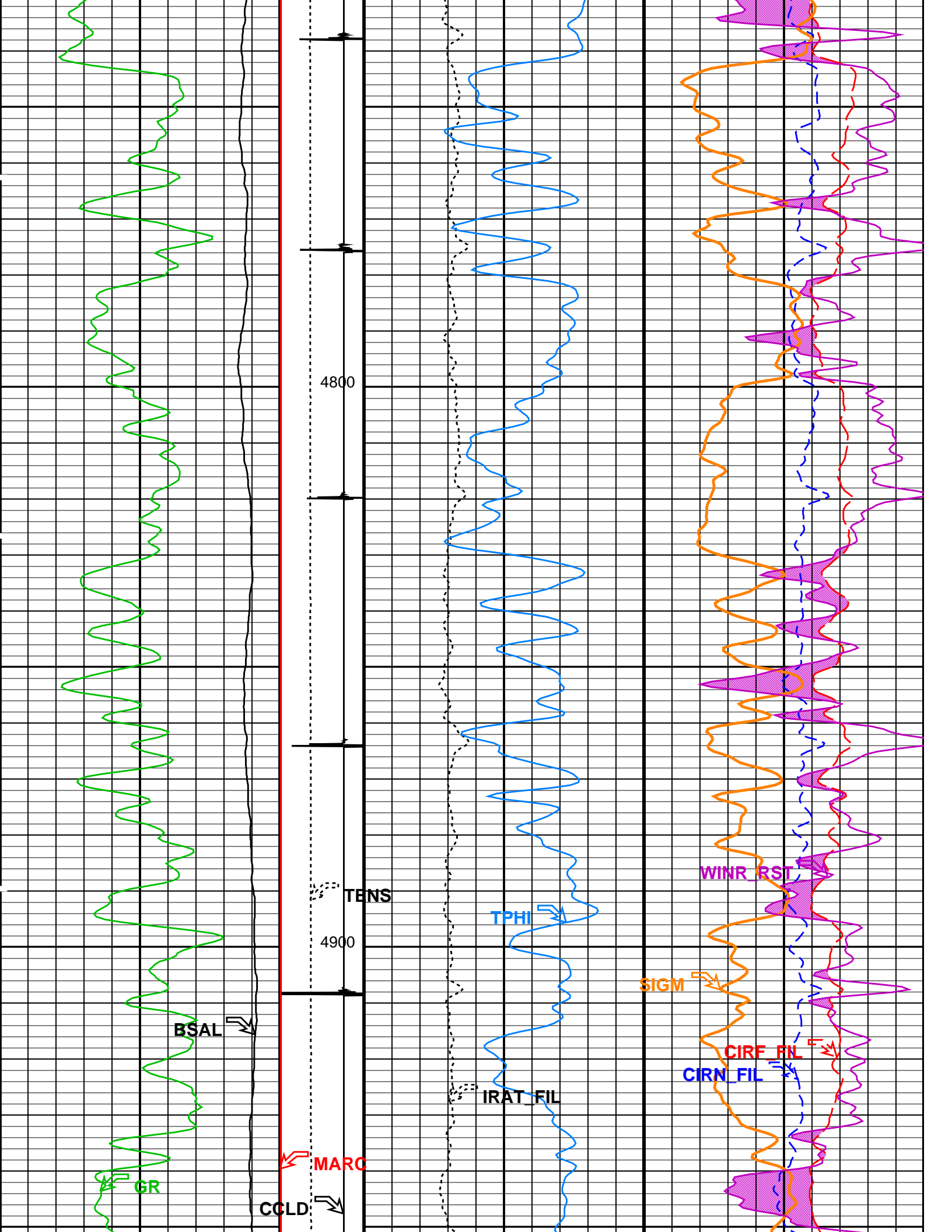


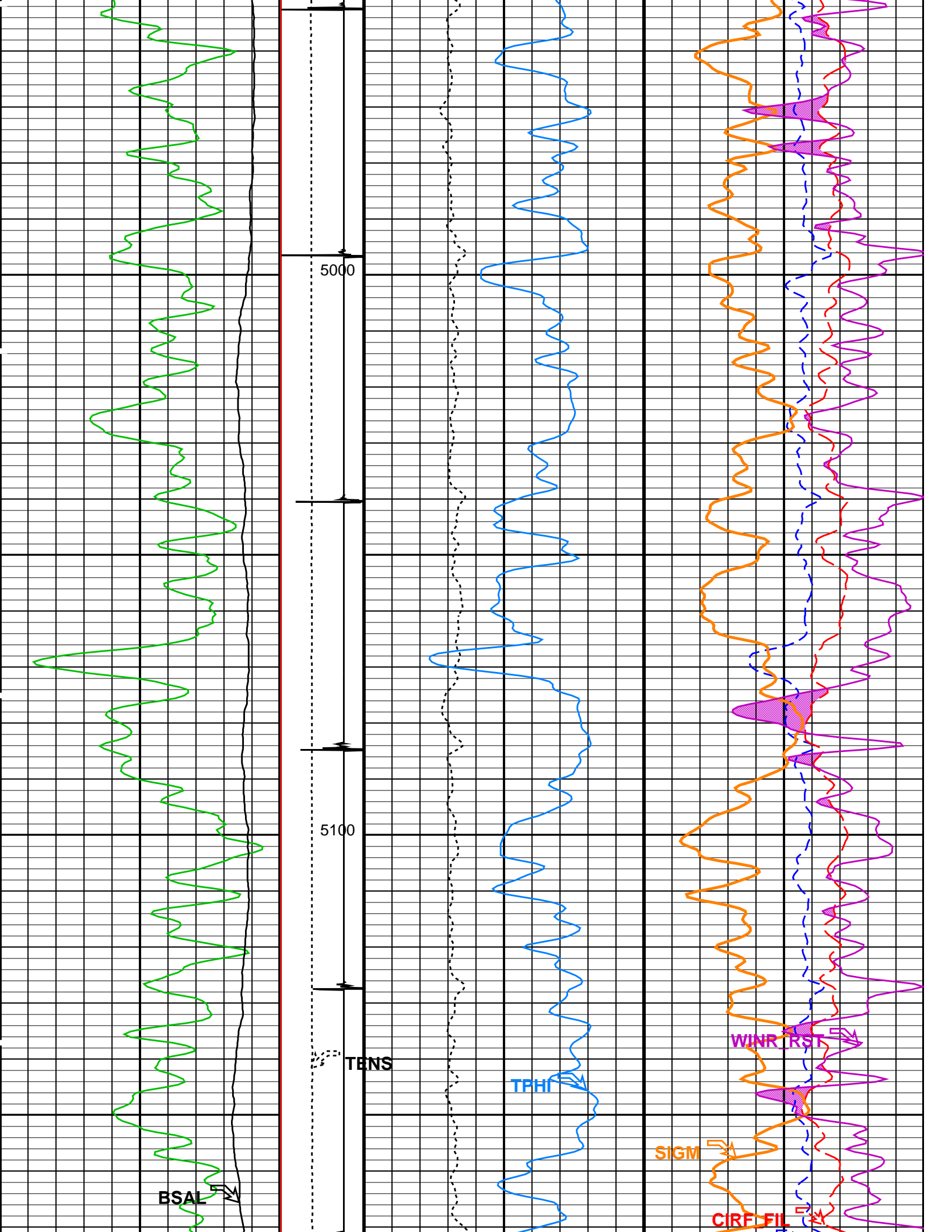


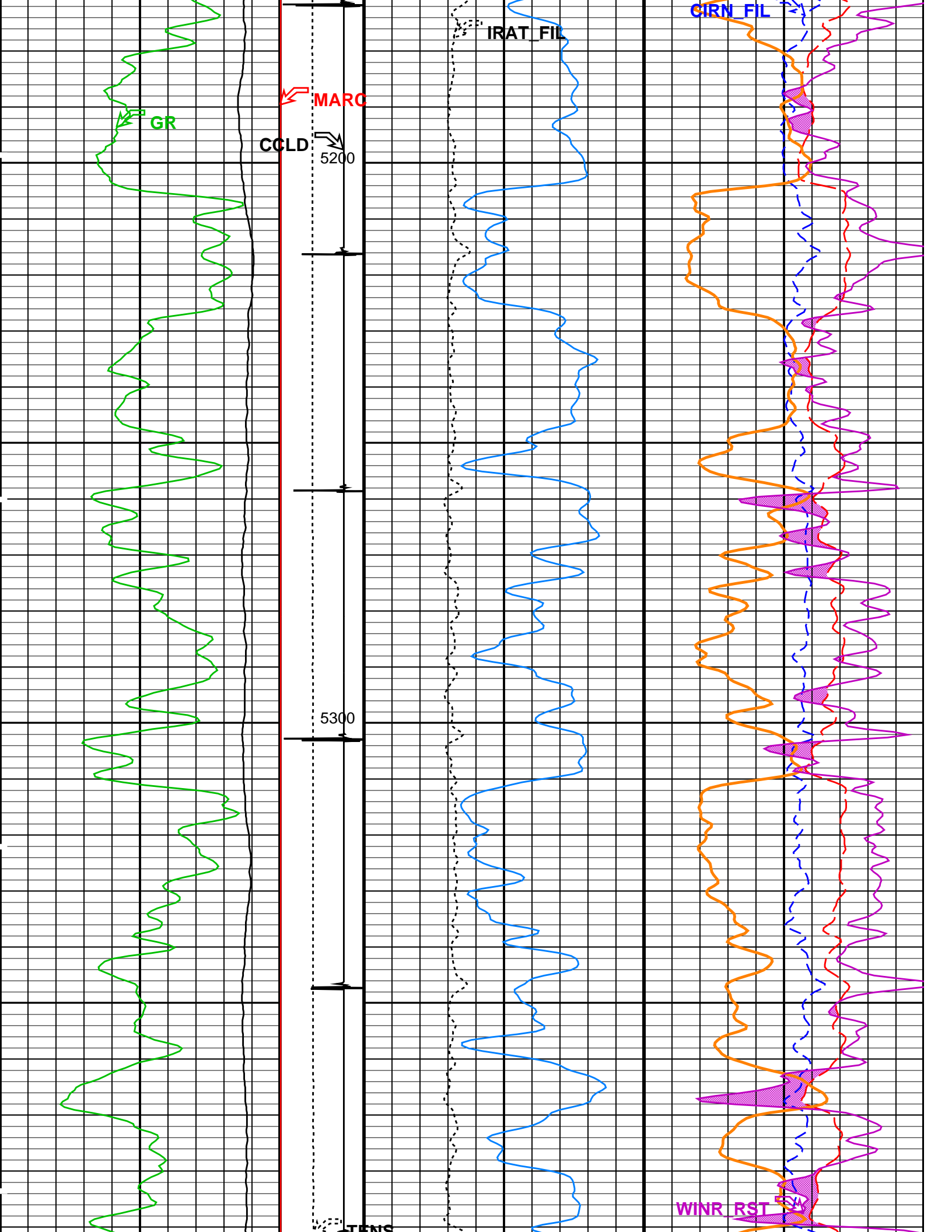


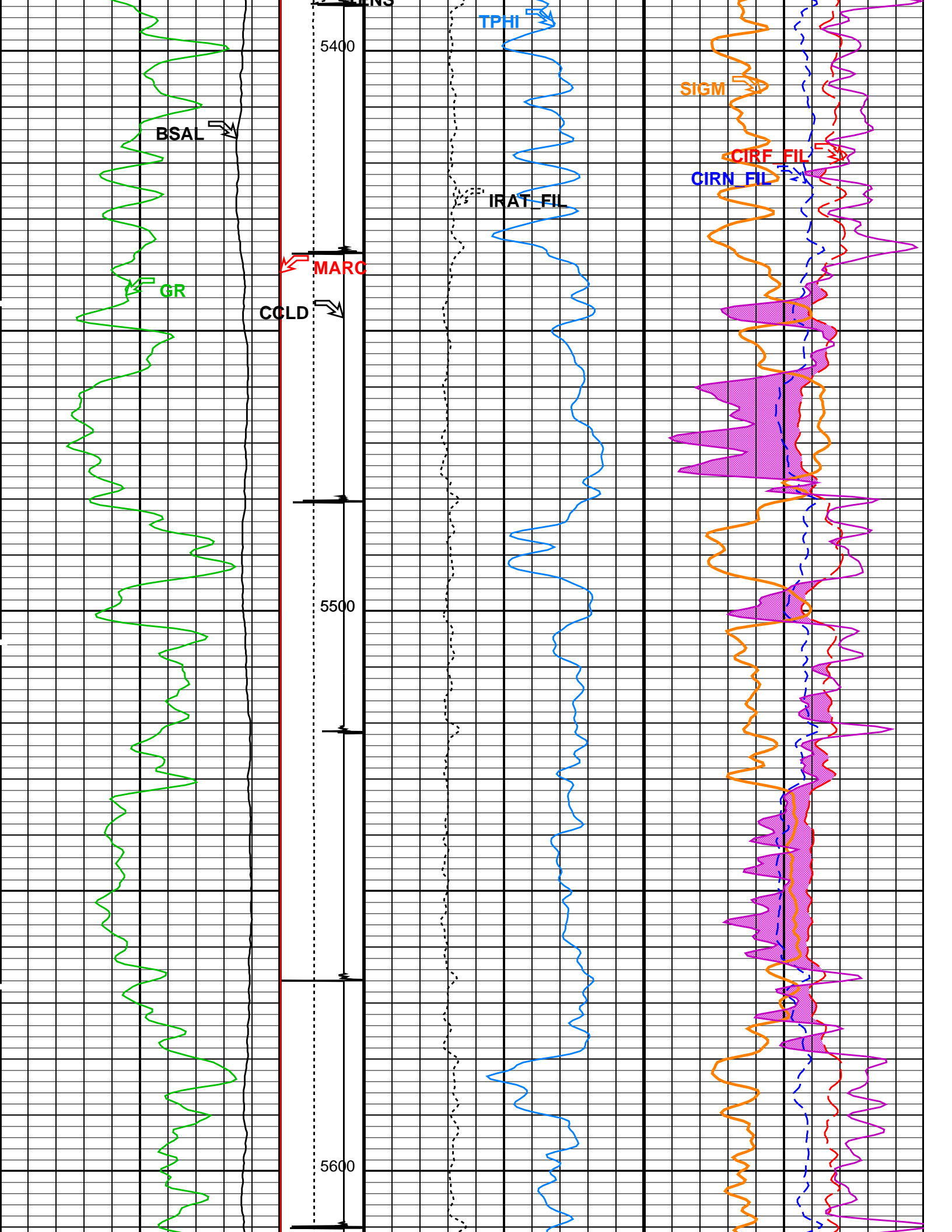


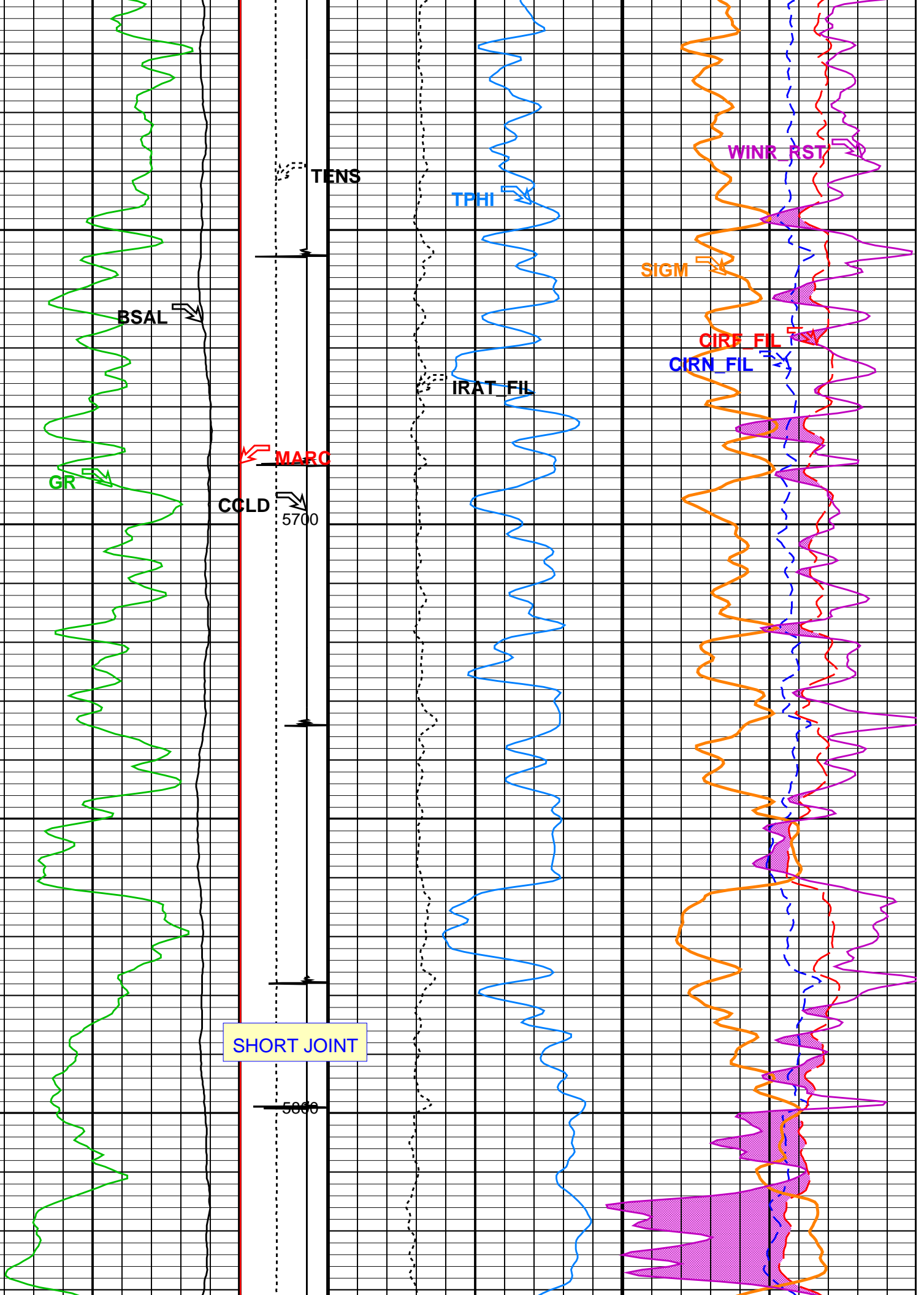


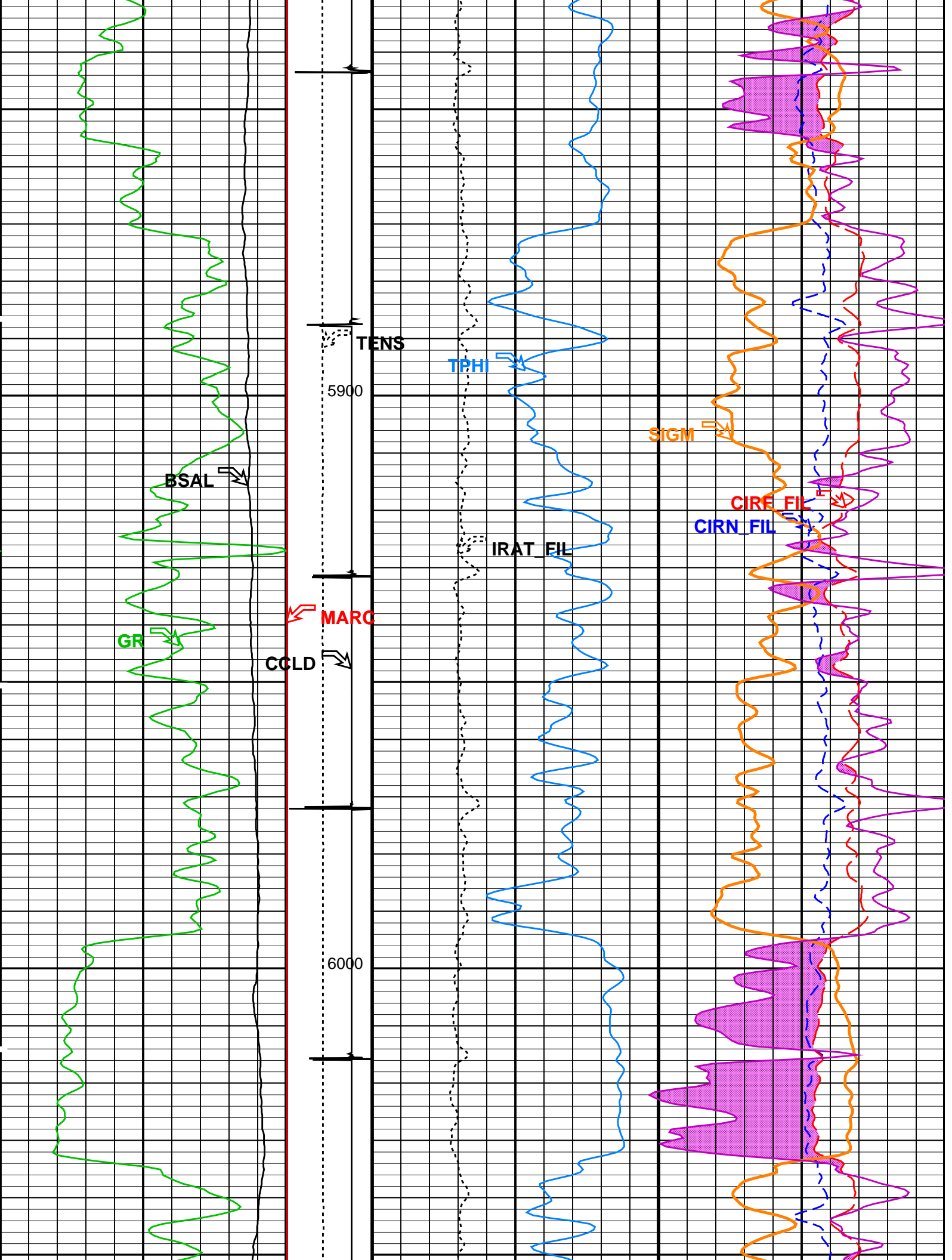


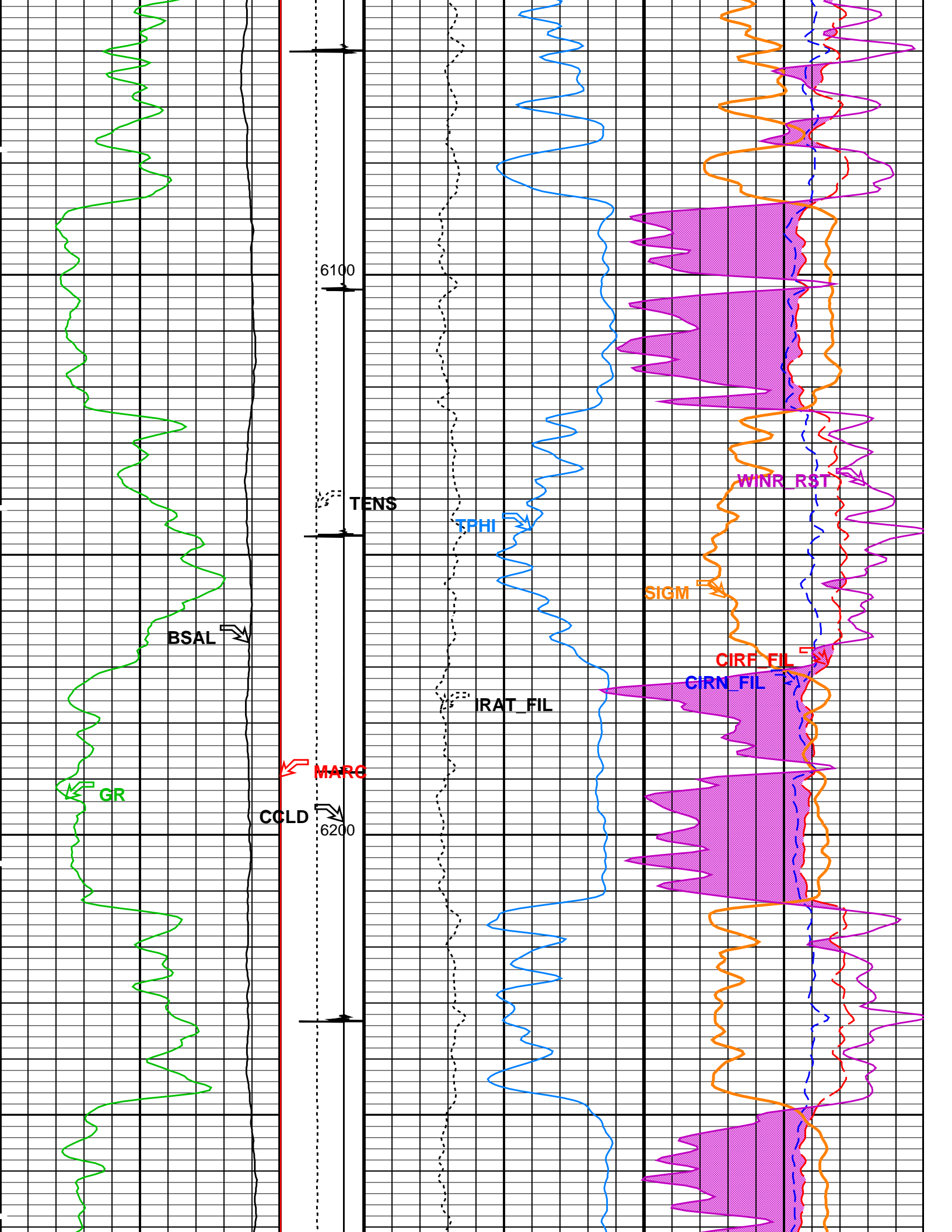


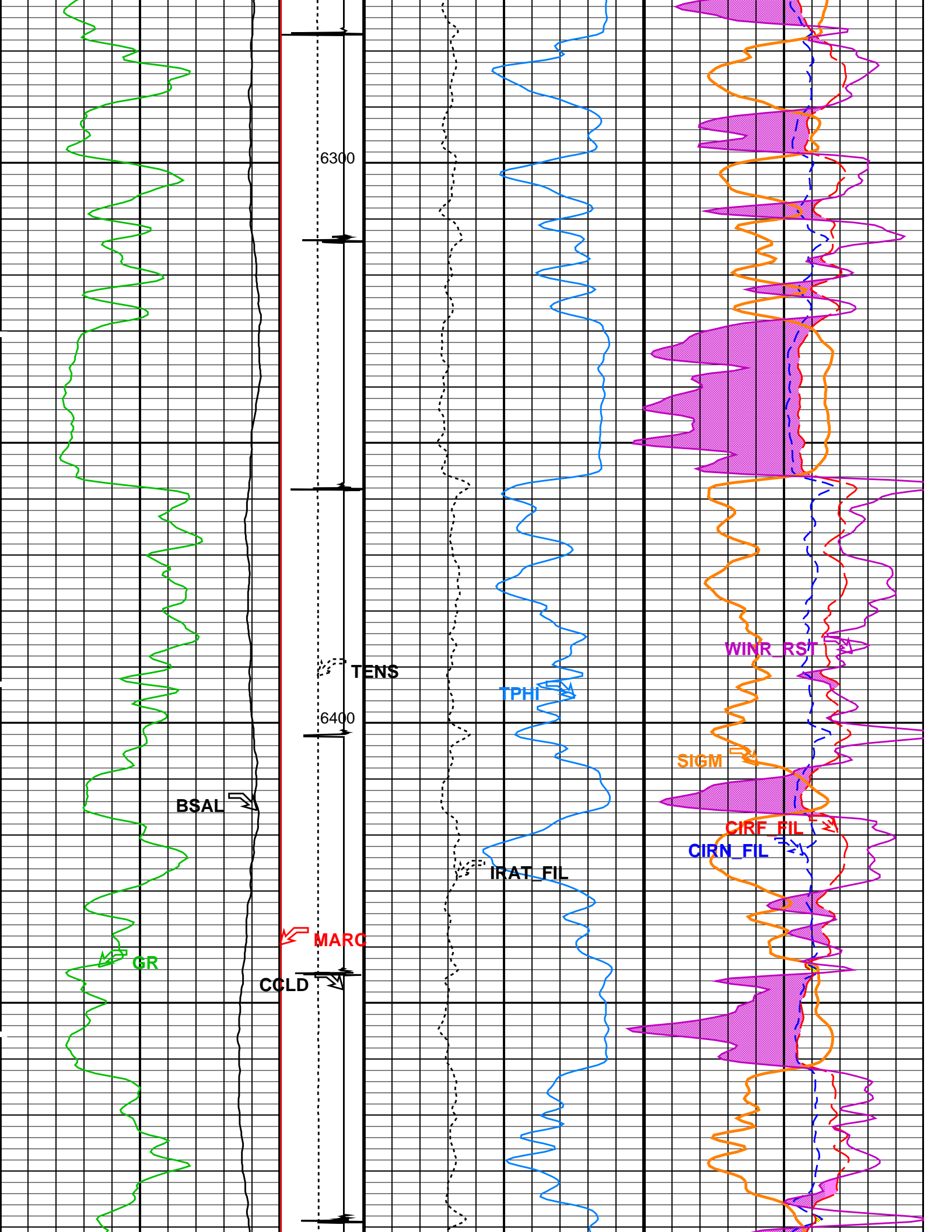


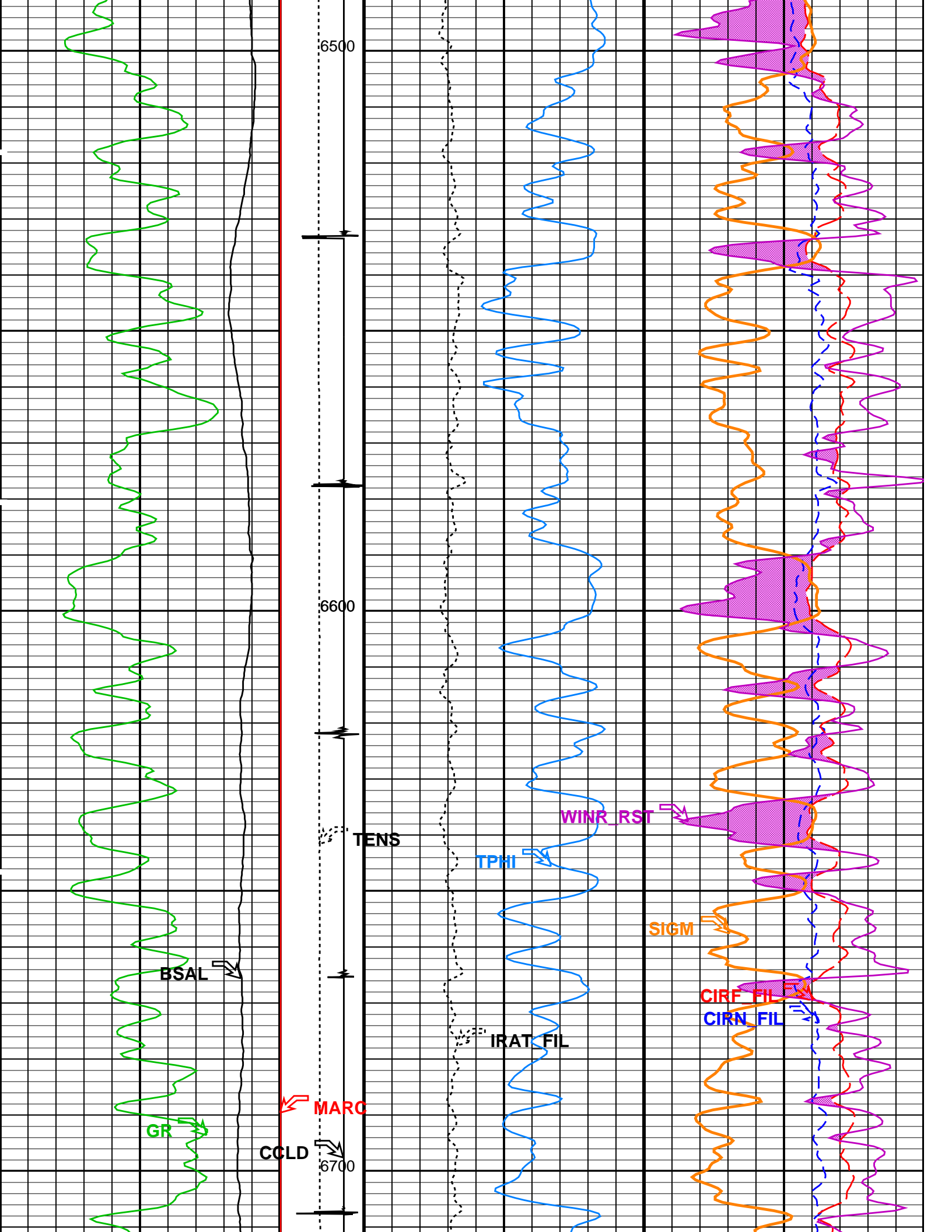


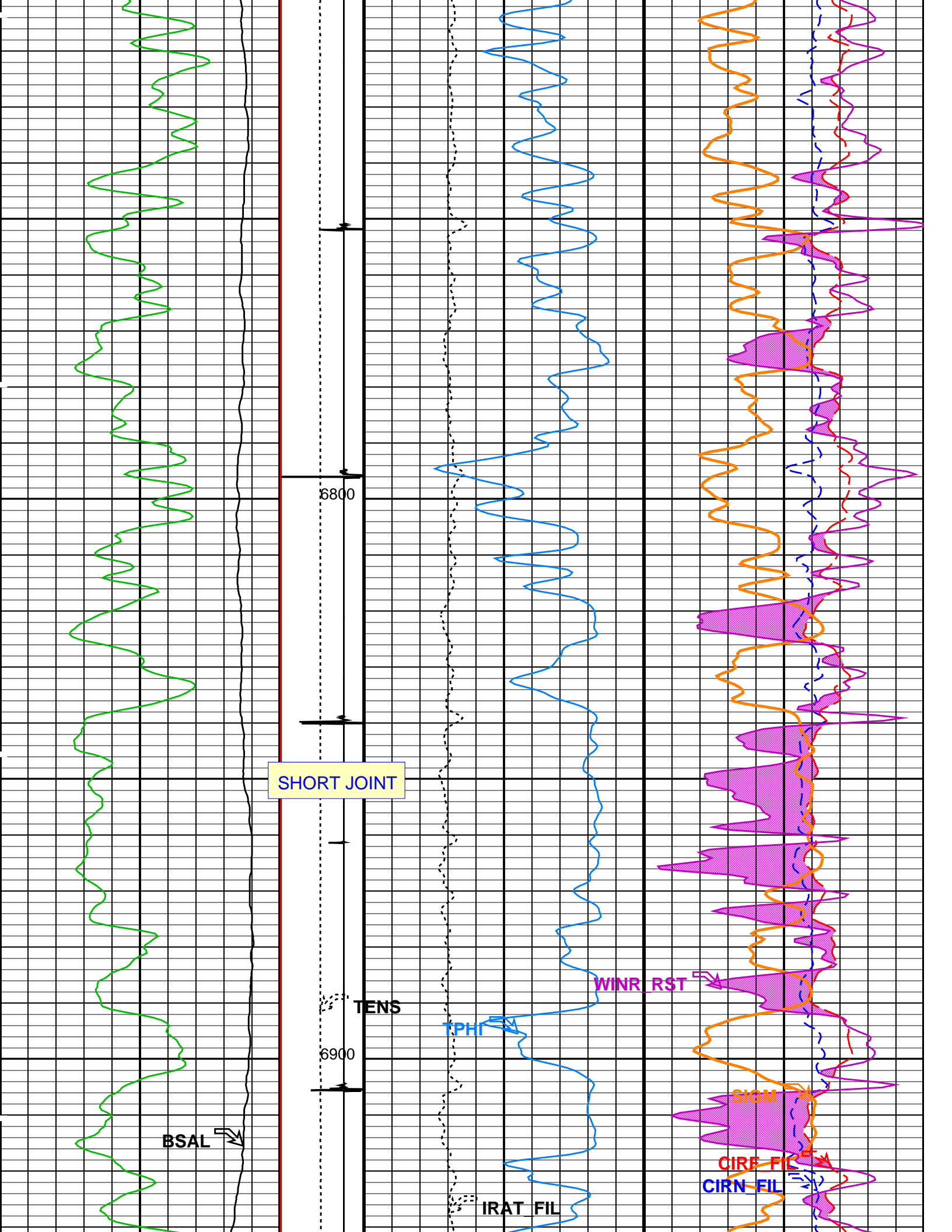


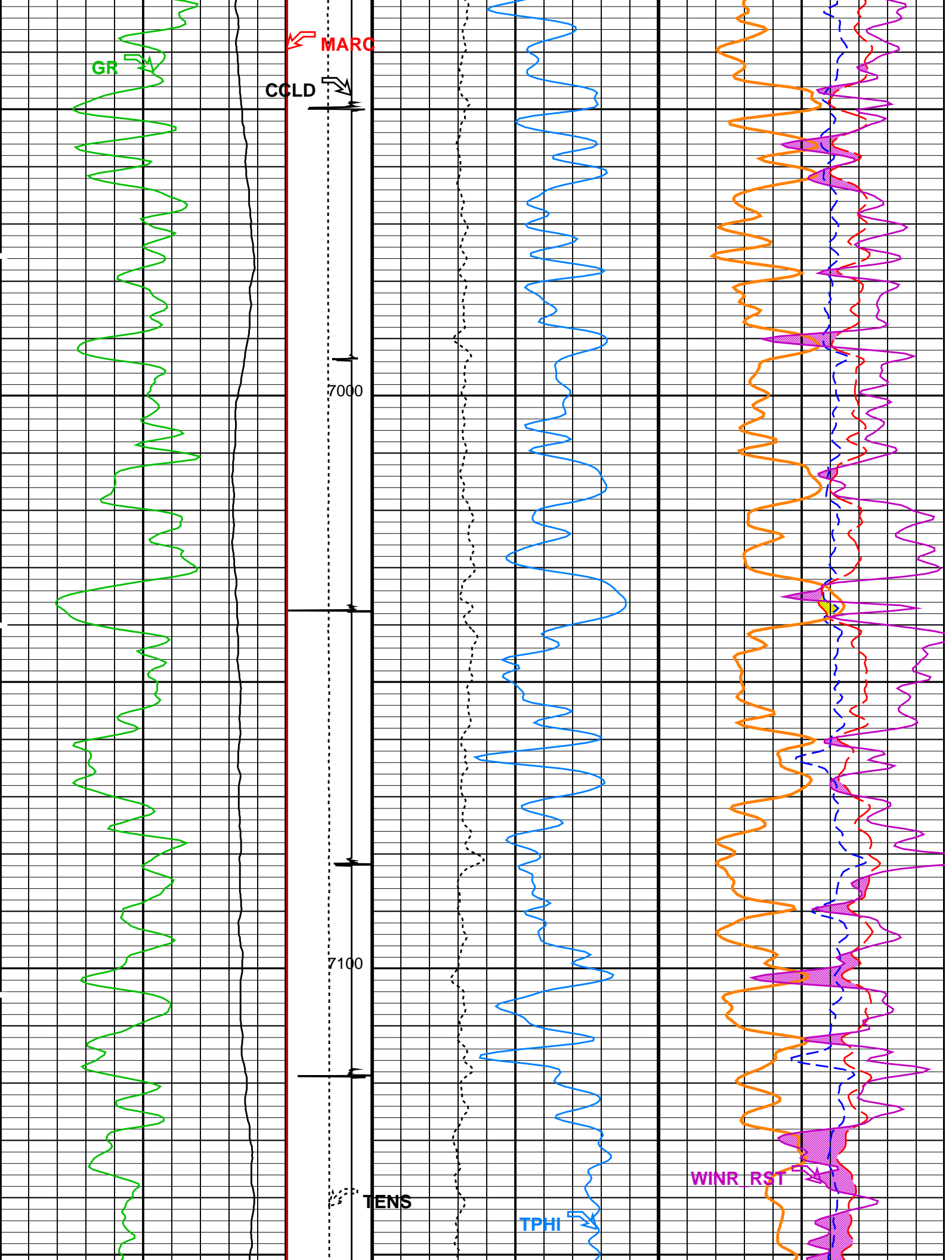


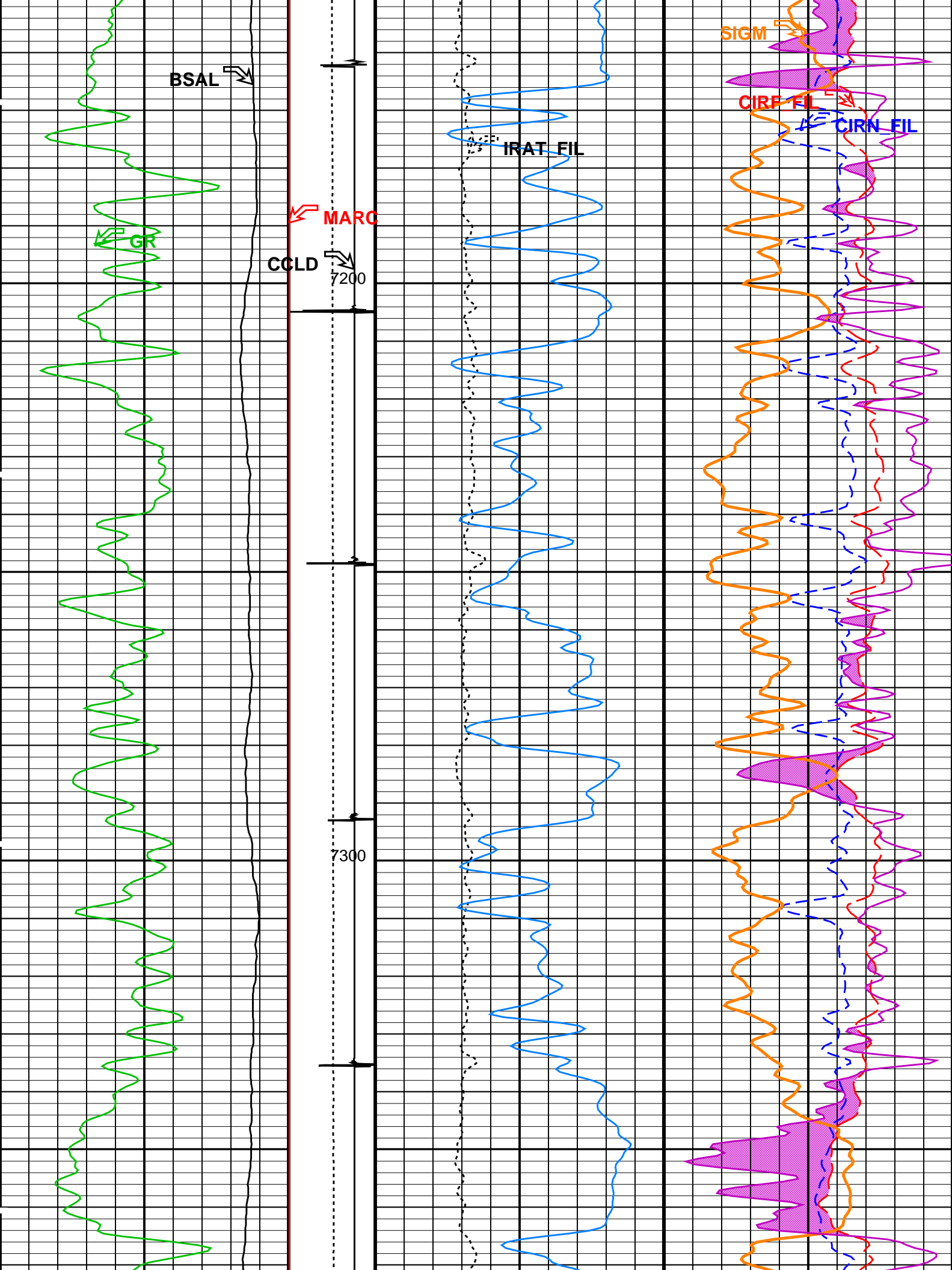


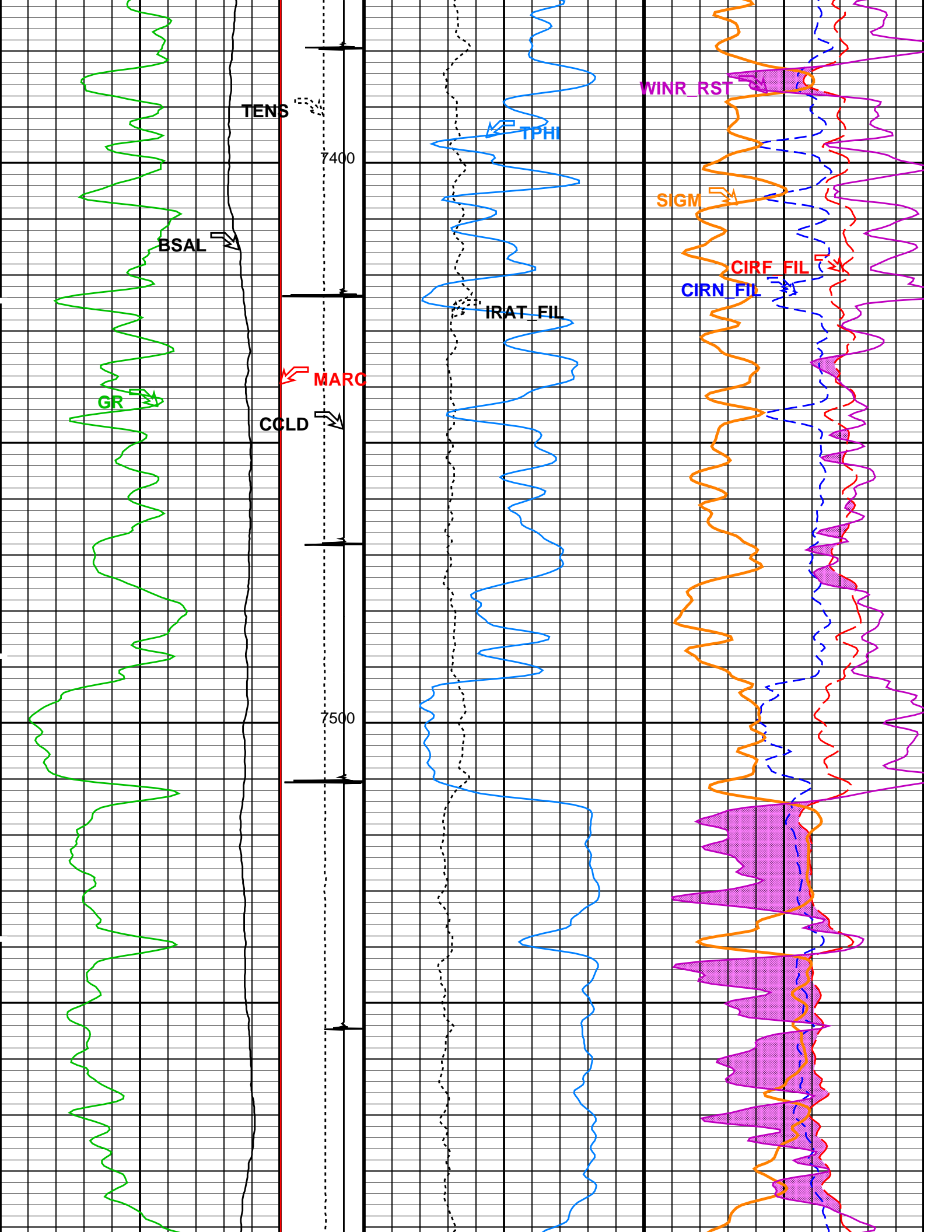


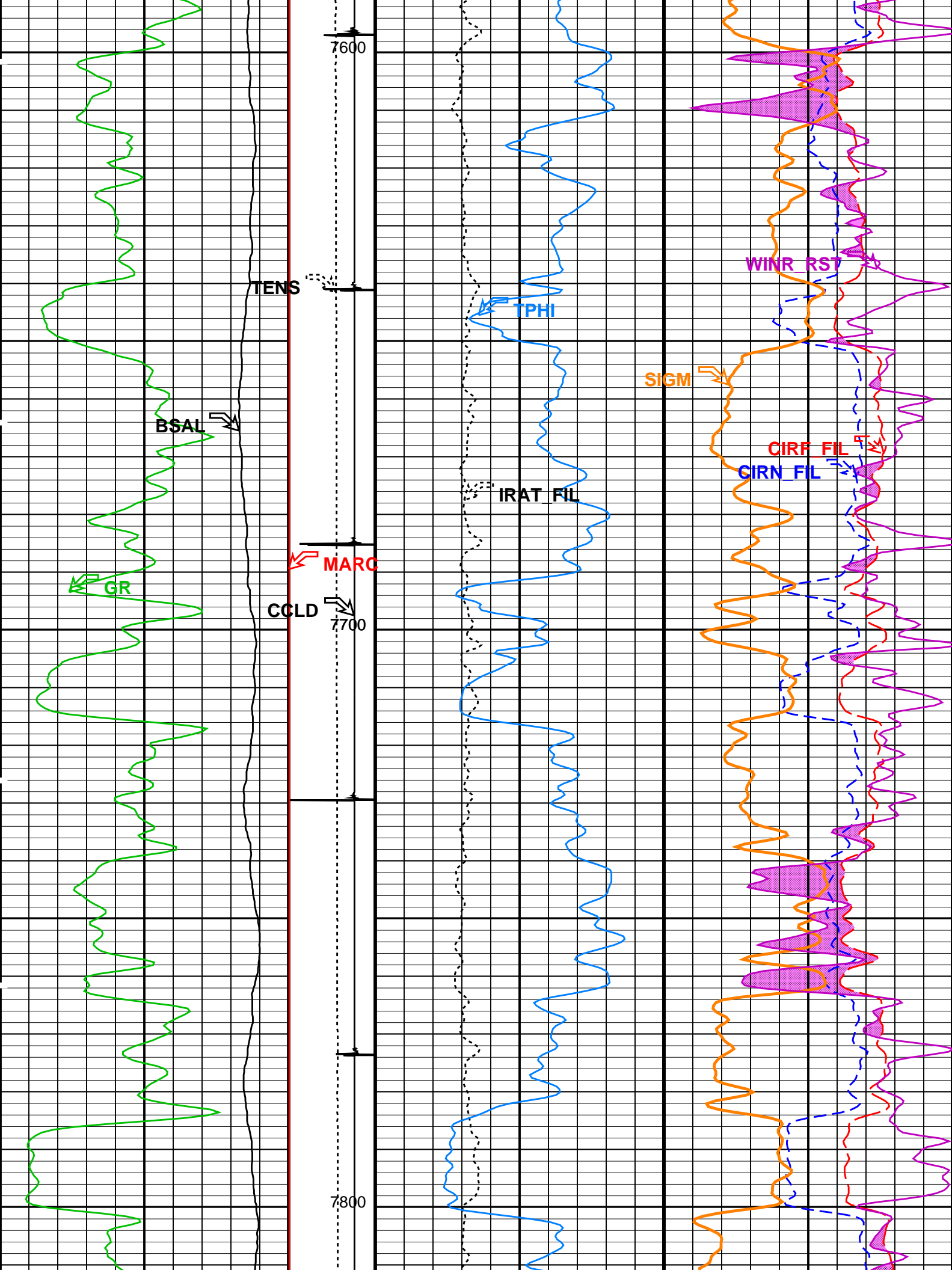


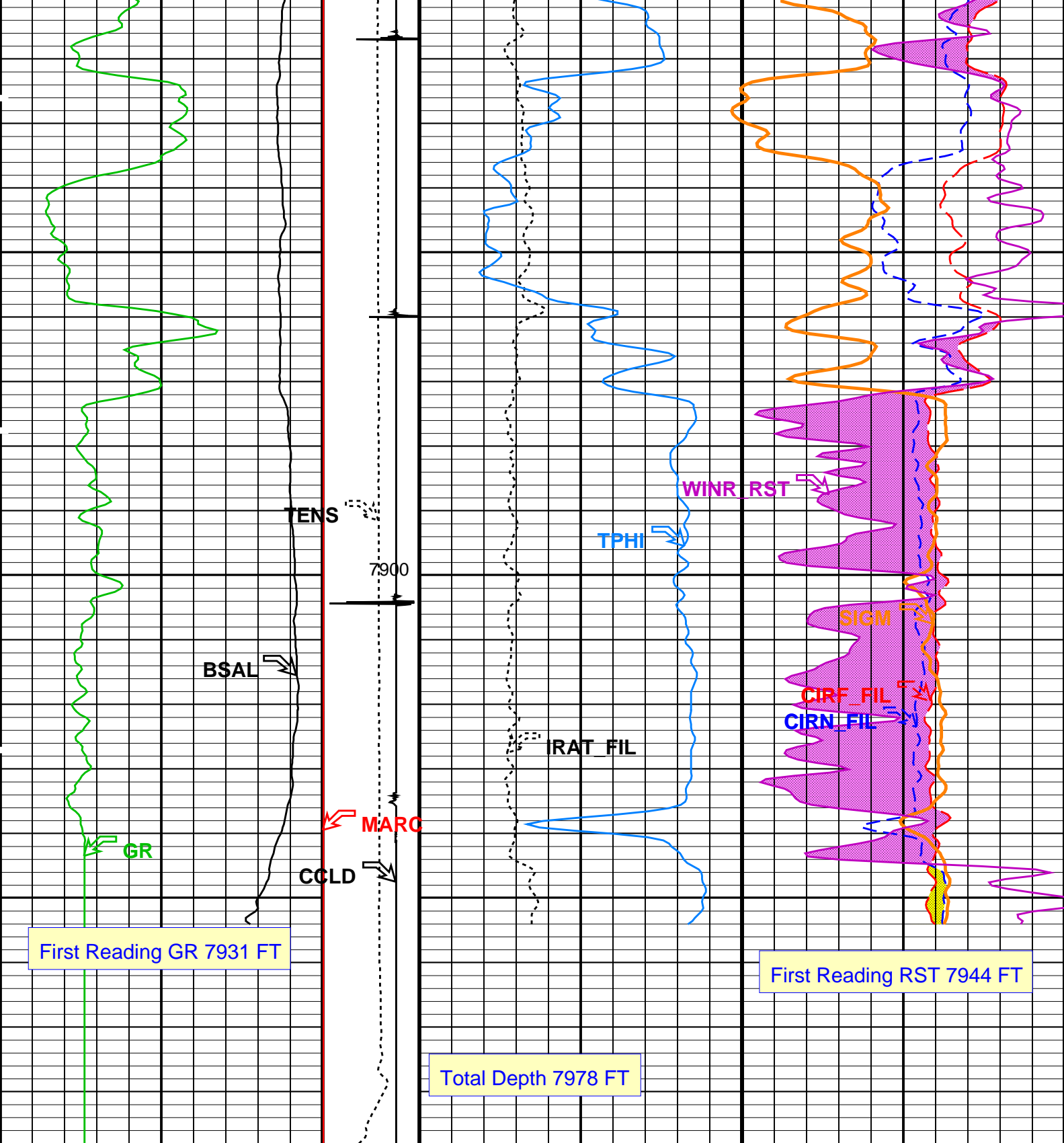












Gamma Ray (GR) (GAPI)	Tension (TENS) (LBF)	RST Inelastic Ratio (IRAT_FIL) (----	RST Capture to Inelastic Ratio Near (CIRN_FIL) (----
0150	02000	0.750	2.50
RST Borehole Salinity (BSAL) (PPK)	Discriminat ed CCL (CCLD) (V)	RST Sigma (SIGM) (CU)	RST Capture to Inelastic Ratio Far (CIRF_FIL) (----
450-50	3-1	600	70
	Minitron Arc Detection (MARC)	RST Porosity (TPHI) (V/V)	
		0.50	

0	(----	5
RST Weighted Inelastic Ratio (WINR_RST)		
0.4	(----	0
WINR Gas Flag From WINR to RST_CIRF_FIL		
Crossover in sand From RST_CIRF_FIL to RST_CIRN_FIL		

PIP SUMMARY

Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
BISS	Bond Index Source Selection for BIQL	BI	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CMTF	SCMT Tool position on CAN	5	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
RBC	Relative Bearing Correction Allow/Disallow	ALLOW	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
RST-C: Reservoir Saturation Pro Tool C			
	Tractor Available in Tool String	NO	
AIRB	RST Air Borehole	No	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSALOPT	RST Borehole Salinity Option	Unknown	
BSFL	RST Borehole Salinity Filter Length	51	
CSID	Casing Size I.D.	3.998	IN
DFPC	RST Depth Filter Processing Constant	One	
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48	
NORM_SIGM_RST	RST Normalized Sigma	30	CU
PTIER	RST Tiered Presentation Selection	0_Customer	
PVL_PSNT_PRST	PVL Peak Signal/Noise Threshold	3	
RGAI	Near/Far Gain Calibration Ratio	1	
SHT	Surface Hole Temperature	68	DEGF
TIER_IC	RST IC Acquisition Mode	0_CO_Yield_and_Spectrolith	
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma	
WOFSL_PRST	RST WFL-Off Subcycle Length	0	
WONSL_PRST	RST WFL-On Subcycle Length	0	
WSCOM_PRST	RST Station Log Comment		
PSPT: Production Services Logging Platform			
BHS	Borehole Status	CASED	

BHT	Borehole Status	CASED	212	DEGF
CSID	Bottom Hole Temperature (used in calculations)		3.998	IN
GCSE	Casing Size I.D.		BS	
GDEV	Generalized Caliper Selection		0	DEG
GGRD	Average Angular Deviation of Borehole from Normal		0.01	DF/F
GRSE	Geothermal Gradient			
GTSE	Generalized Mud Resistivity Selection	CHART_GEN 9		
ISSBAR	Generalized Temperature Selection	LINEAR_ESTIMATE		
MATR	Barite Mud Switch	NOBARITE		
PBPO	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
PCCG	PBMS Tool position on CAN	2		
PSTP	PBMS CCL Gain	DB12		
SHT	PSTC Tool Position on CAN Bus	1		
	Surface Hole Temperature	68		DEGF
System and Miscellaneous				
ALTDPCAN	Name of alternate depth channel	SpeedCorrectedDepth		
BS	Bit Size	7.875		IN
BSAL	Borehole Salinity	-50000.00		PPM
CSIZ	Current Casing Size	4.500		IN
CWEI	Casing Weight	11.60		LB/F
DFD	Drilling Fluid Density	8.40		LB/G
DO	Depth Offset for Playback	3.0		FT
FLEV	Fluid Level	60.00		FT
MST	Mud Sample Temperature	-50000.00		DEGF
PBVSADP	Use alternate depth channel for playback	NO		
PP	Playback Processing	RECOMPUTE		
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000		OHMM
RW	Resistivity of Connate Water	1.0000		OHMM
TD	Total Depth	7978		FT
TDD	Total Depth - Driller	8068.00		FT
TDL	Total Depth - Logger	7978.00		FT
TWS	Temperature of Connate Water Sample	100.00		DEGF

Format: RST_SIGMA_S5 Vertical Scale: 5" per 100' Graphics File Created: 16-Aug-2013 05:02

OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

Input DLIS Files

DEFAULT	SCMT_RST_PSP_061LUP	FN:60	PRODUCER	16-Aug-2013 02:52	7985.0 FT	-4.5 FT
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_064PUP	FN:63	PRODUCER	16-Aug-2013 05:02
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Schlumberger

REPEAT ANALYSIS RST SIGMA

MAXIS Field Log

Input DLIS Files

DEFAULT	SCMT_RST_PSP_059LUP	FN:58	PRODUCER	16-Aug-2013 02:37	5960.5 FT	5607.5 FT
DEFAULT	SCMT_RST_PSP_064PUP	FN:63	PRODUCER	16-Aug-2013 05:02	7988.0 FT	-46.0 FT

Output DLIS Files

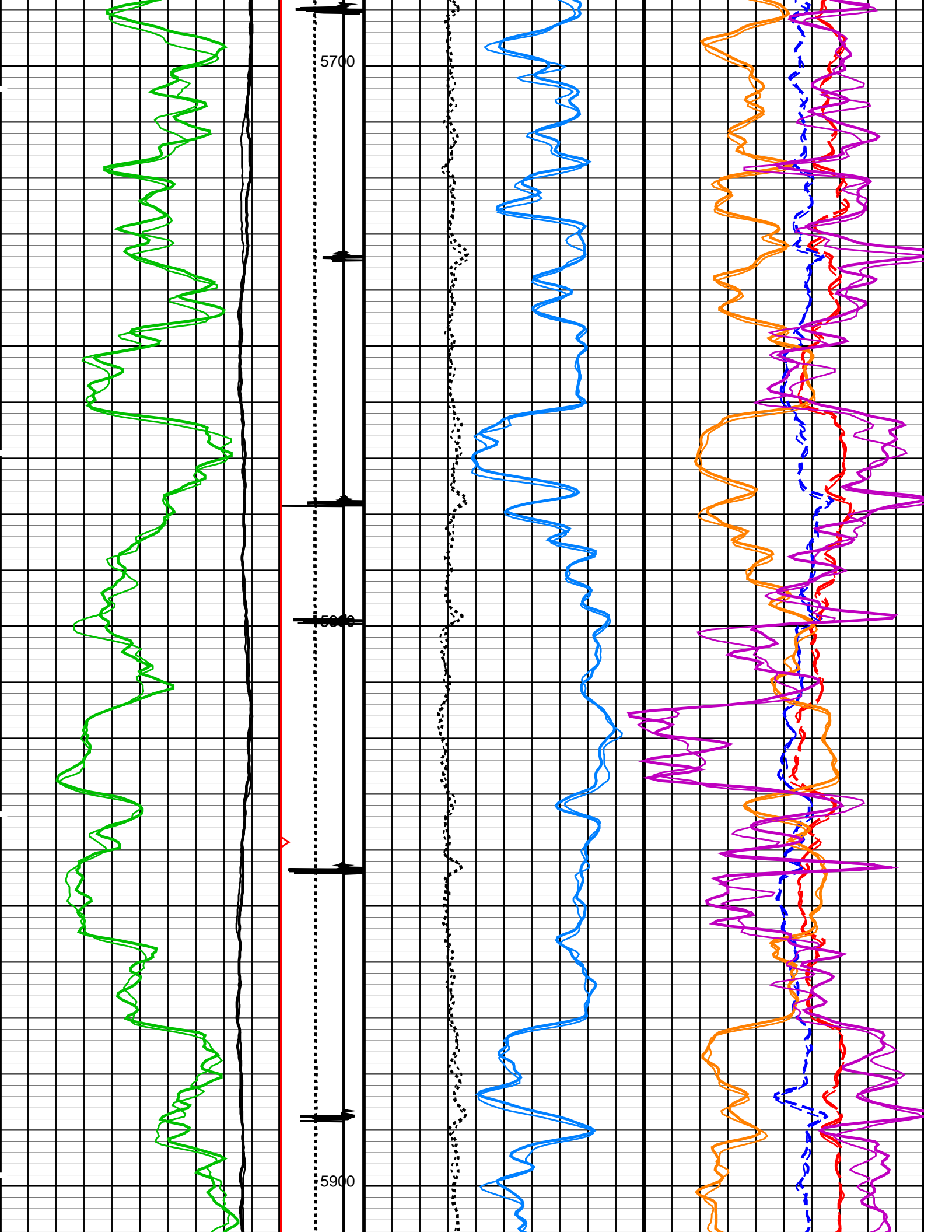
DEFAULT	SCMT_RST_PSP_065PUP	FN:64	PRODUCER	16-Aug-2013 05:10	5961.5 FT	5564.0 FT
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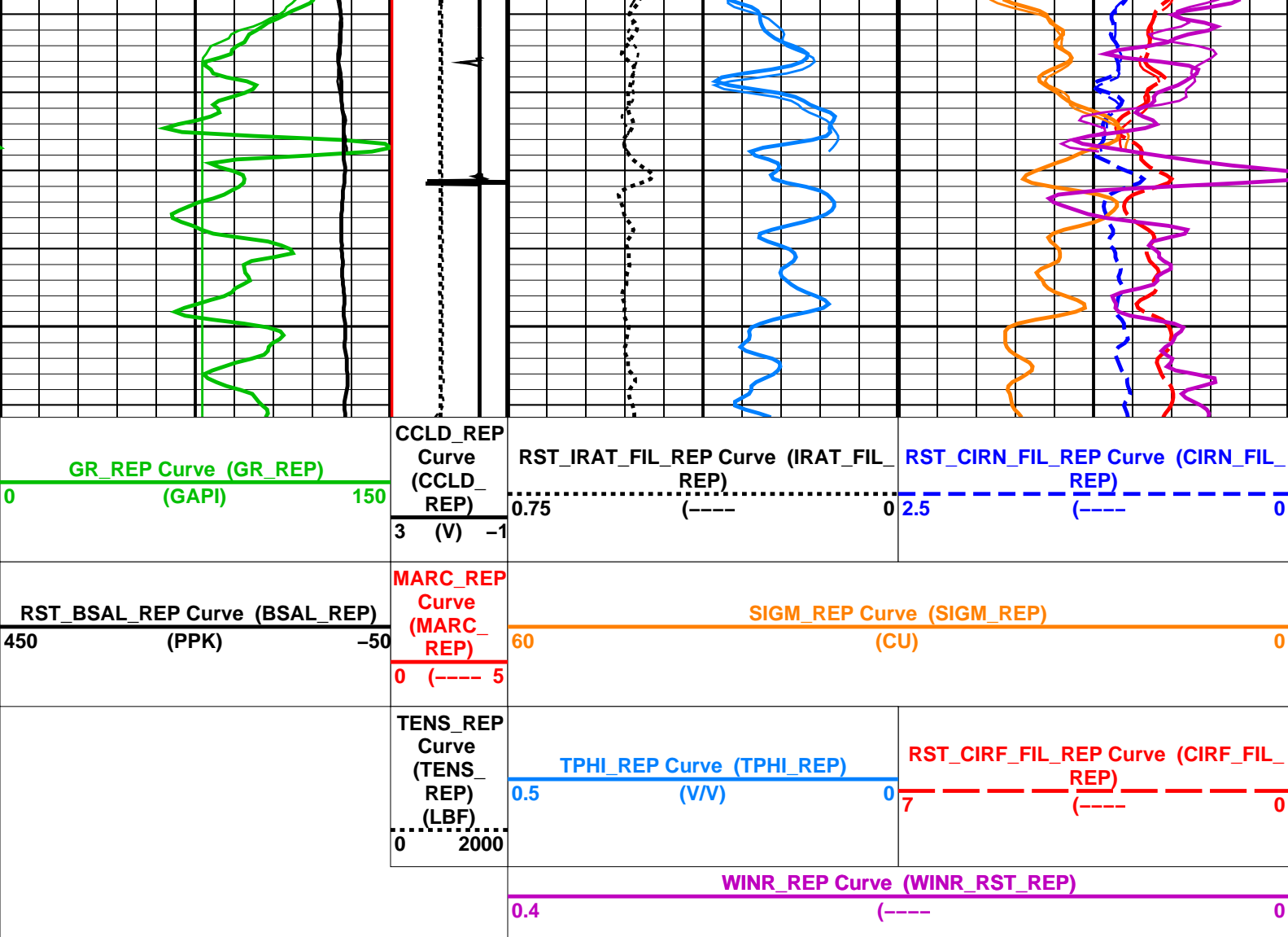
OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
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5961.5 05:10:09

Figure 1 displays a multi-panel plot showing various geophysical data for a well. The top panel is a stratigraphic column with depth markers at 5600, 5800, and 6000. Below it are five tracks: a green line (gamma ray log), a black line (resistivity log), a dotted line (neutron log), a blue line (acoustic log), and a purple line (density log). The bottom panel shows a detailed view of the 5600-5800 depth interval with multiple colored lines (red, blue, green, orange, purple) representing different logs.





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
BISS	Bond Index Source Selection for BIQL	BI	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CMTPT	SCMT Tool position on CAN	5	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	

FEDL	Peak Detection On/Off Switch in Playback	OFF	
RBC	Relative Bearing Correction Allow/Disallow	ALLOW	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
RST-C: Reservoir Saturation Pro Tool C			
	Tractor Available in Tool String	NO	
AIRB	RST Air Borehole	No	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSALOPT	RST Borehole Salinity Option	Unknown	
BSFL	RST Borehole Salinity Filter Length	51	
CSID	Casing Size I.D.	3.998	IN
DFPC	RST Depth Filter Processing Constant	One	
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48	
NORM_SIGM_RST	RST Normalized Sigma	30	CU
PTIER	RST Tiered Presentation Selection	0_Customer	
PVL_PSNT_PRST	PVL Peak Signal/Noise Threshold	3	
RGAI	Near/Far Gain Calibration Ratio	1	
SHT	Surface Hole Temperature	68	DEGF
TIER_IC	RST IC Acquisition Mode	0_CO_Yield_and_Spectrolith	
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma	
WOFSL_PRST	RST WFL-Off Subcycle Length	0	
WONSL_PRST	RST WFL-On Subcycle Length	0	
WSCOM_PRST	RST Station Log Comment		
PSPT: Production Services Logging Platform			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CSID	Casing Size I.D.	3.998	IN
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
PBPO	PBMS Tool position on CAN	2	
PCCG	PBMS CCL Gain	DB12	
PSTP	PSTC Tool Position on CAN Bus	1	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	60.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSDAP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	7978	FT
TDD	Total Depth - Driller	8068.00	FT
TDL	Total Depth - Logger	7978.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: RST_SIGMA_S5_REP Vertical Scale: 5" per 100' Graphics File Created: 16-Aug-2013 05:10

OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

Input DLIS Files

DEFAULT	SCMT_RST_PSP_059LUP	FN:58	PRODUCER	16-Aug-2013 02:37	5960.5 FT	5607.5 FT
DEFAULT	SCMT_RST_PSP_064PUP	FN:63	PRODUCER	16-Aug-2013 05:02	7988.0 FT	-46.0 FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_065PUP	FN:64	PRODUCER	16-Aug-2013 05:10
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Schlumberger

PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
 Field: MAMM CREEK
 Well: ALP FEE 24-6A (J24NW)
 Run date: 16-Aug-2013

Tool: PSP
 Sub Type: PBMS
 Sensor: Clock Model

PBMS Digitalization Clock

Sonde Serial NB

Sensor Serial NB 1978

Calib Date ddmmyy 040413

Matrix Size 16

Coeff CRC 32D3

Clock Coeff

	Temp**0	Temp**1	Temp**2
Temp**0	+.197240577294E+02	-.385846870252E+01	-.884656308536E-01
	Temp**3	Temp**4	Temp**5
Temp**0	+.864677466012E-03	+.180389331248E-05	0.0

Client: ENCANA OIL & GAS (USA) INC
 Field: MAMM CREEK
 Well: ALP FEE 24-6A (J24NW)
 Run date: 16-Aug-2013

Tool: PSP
 Sub Type: PBMS
 Sensor: Sapphire

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB

COEFFICIENTS FOR SAPPHIRE PBMS-A.1978 S/N:

Sensor Serial NB

1978

Calib Date ddmmyy

040413

Matrix Size

66

Coeff CRC

FC03

Pres Coeff

	Tt**0	Tt**1	Tt**2
Tp**0	−.610621928185E+04	+.733479463928E+04	−.366313458381E+04
Tp**1	+.560047728214E+04	−.464751655104E+04	+.226378681937E+04
Tp**2	+.226844774102E+02	+.466095162698E+01	−.416031460599E+01
Tp**3	−.565000011498E+01	+.155154221168E+01	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

	Tt**3	Tt**4	Tt**5
Tp**0	+.661206381662E+03	−.442588980489E+02	0.0
Tp**1	−.405555010111E+03	+.270764938790E+02	0.0
Tp**2	0.0	0.0	0.0
Tp**3	0.0	0.0	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB

:

Sensor Serial NB

1978

Calib Date ddmmyy

040413

Matrix Size

66

Coeff CRC

A9F6

Temp Coeff

	Tp**0	Tp**1	Tp**2
Tt**0	−.311910596034E+03	−.260514939056E+02	+.113131692891E+02
Tt**1	+.942044266961E+02	+.115447305149E+02	−.325190620792E+01
Tt**2	+.217040881254E+01	−.166464613929E+01	+.530464403583E−01
Tt**3	+.169097553929E+00	+.121208915106E+00	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

	Tp**3	Tp**4	Tp**5
Tt**0	−.311141115592E+01	+.330242609958E+00	0.0
Tt**1	+.850293467157E+00	−.913717647562E−01	0.0
Tt**2	0.0	0.0	0.0
Tt**3	0.0	0.0	0.0

Tt**3	0.0	0.0	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

Client: ENCANA OIL & GAS (USA) INC
 Field: MAMM CREEK
 Well: ALP FEE 24-6A (J24NW)
 Run date: 16-Aug-2013

Tool: PSP
 Sub Type: PBMS
 Sensor: GR

PBMS Gamma Ray
 Sonde Serial NB RESISTORS FOR GR SENSOR N.36646, TOOL PBMS-AA1978. SENSOR S/N:
 Sensor Serial NB 36646
 Calib Date ddmmyy 230611
 Matrix Size 12
 Coeff CRC 3017

	Rt**0	Rt**1
Rt**0	+.200000000000e+04	+.238000000000e+04

Client: ENCANA OIL & GAS (USA) INC
 Field: MAMM CREEK
 Well: ALP FEE 24-6A (J24NW)
 Run date: 16-Aug-2013

Tool: PSP
 Sub Type: PBMS
 Sensor: WellTemp RTD

PBMS RTD Well Thermometer
 Sonde Serial NB COEFFICIENTS FOR RTD THERMOMETER PBMS-A.1978 S/N:
 Sensor Serial NB 1978
 Calib Date ddmmyy 040413
 Matrix Size 16
 Coeff CRC 5075

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	-.147060145836E+03	-.907965992712E+02	+.770663084969E+02
	Tt**3	Tt**4	Tt**5
Tt**0	-.131119885893E+02	+.876373733985E+00	0.0

Company: **ENCANA OIL & GAS (USA) INC****Schlumberger**Well: **ALP FEE 24-6A (J24NW)**Field: **MAMM CREEK**County: **GARFIELD**State: **COLORADO**

RESERVOIR SATURATION LOG
SIGMA MODE
GAMMA RAY-CCL