

Company: ENCANA OIL & GAS (USA) INC

Well: MCU 22-13B (N22W)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

RESERVOIR SATURATION LOG
SIGMA MODE
GAMMA RAY – CCL

County: GARFIELD

Field: MAMM CREEK

Location: SHL: 575 FSL 2049 FWL

Well: MCU 22-13B (N22W)

Company: ENCANA OIL & GAS (USA) INC

LOCATION			
SHL: 575 FSL 2049 FWL	Elev.: K.B.	7048.00 ft	
BHL: 942 FSL 697 FWL	G.L.	7026.00 ft	
	D.F.	7047.00 ft	
Permanent Datum:	GROUND LEVEL	Elev.: 7026.00 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 21269 00	22	7S	93W

Logging Date	22-Sep-2012								
Run Number	1								
Depth Driller	10370 ft								
Schlumberger Depth	7937 ft								
Bottom Log Interval	7903 ft								
Top Log Interval	2000 ft								
Casing Fluid Type	Fresh Water								
Salinity									
Density	8.4 lbm/gal								
Fluid Level									
BIT/CASING/TUBING STRING									
Bit Size	8.750 in								
From	22 ft								
To	10370 ft								
Casing/Tubing Size	4.500 in								
Weight	11.6 lbm/ft								
Grade	S-80								
From	22 ft								
To	10354 ft								
Maximum Recorded Temperatures	204 degF								
Logger On Bottom	22-Sep-2012				20:00				
Unit Number	Location								
Recorded By	Kirstie Bunting								
Witnessed By	Unwitnessed								

Oil Density		Run 1	Run 2	Run
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bq				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation		14.9 deg		
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	Time			
Unit Number	Location			
Recorded By				
Witnessed By				

DEPTH SUMMARY LISTING

Date Created: 22-SEP-2012 23:36:48

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-C	Type:	1-25ZT
Serial Number:	6214	Serial Number:	5006	Serial Number:	
Calibration Date:	24-APR-2012	Calibration Date:	20-SEP-2011	Length:	16000 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	Rigless
Wheel Correction 1:	-3	Calibration RMS:	7		
Wheel Correction 2:	-4	Calibration Peak Error:	15		

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	BXV3-000055_Encana_MCU 22-13B_N22W_PEX-AITH-revis
Reference Log Run Number:	2
Reference Log Date:	06-SEP-2012

Depth Control Remarks

1. All Schlumberger Depth Control Procedures Used
2. Primary Depth Control: IDW
3. Secondary Depth Control: Drum Counter (SWPT)
- 4.
- 5.
- 6.

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: SLIM CEMENT MAPPING	OS1:
OS2: TOOL	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
SUBSEQUENT RUN IN HOLE CORRELATED TO OPEN HOLE LOG	
TOOL RUN AS PER TOOL SKETCH	
ENTRANCE TIME: 18:45	
TIME LOGGER AS BLI: 20:00	
EXIT TIME: 00:45 (9/23/2012)	
MAXIMUM RECORDED TEMPERATURE: 204 DEGF	
MAXIMUM RECORDED PRESSURE: 3323 PSI	

TOOL RUN WITH PACKOFF AND NECESSARY PCE
SANDSTONE MATRIX USED
BIT SIZE ZONED
0FT – 6772FT : 8.750
6772FT – 10370FT : 6.125
REDUCED LOGGING SPEED USED
BRIDGE PLUG AT APPX. 7941 FT
CREW: KBUNTING; ATERHUNE; JBARRY; WAZIZ; CARNOLD; KJOHNS
THANK YOU FOR CHOOSING F&B WIRELINE – A QUALITY SERVICE

RUN 1 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT	DESCRIPTION

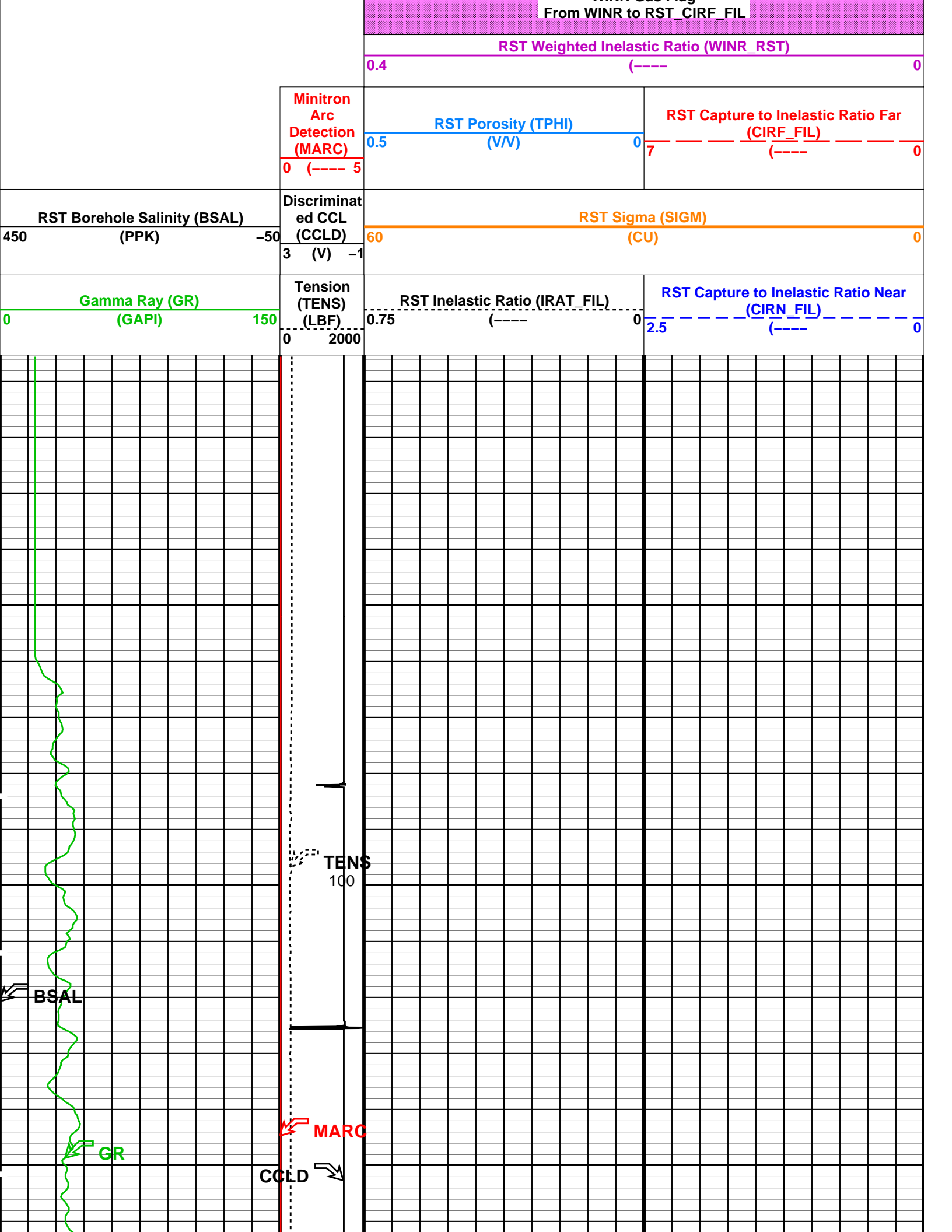
RUN 1 RUN 2

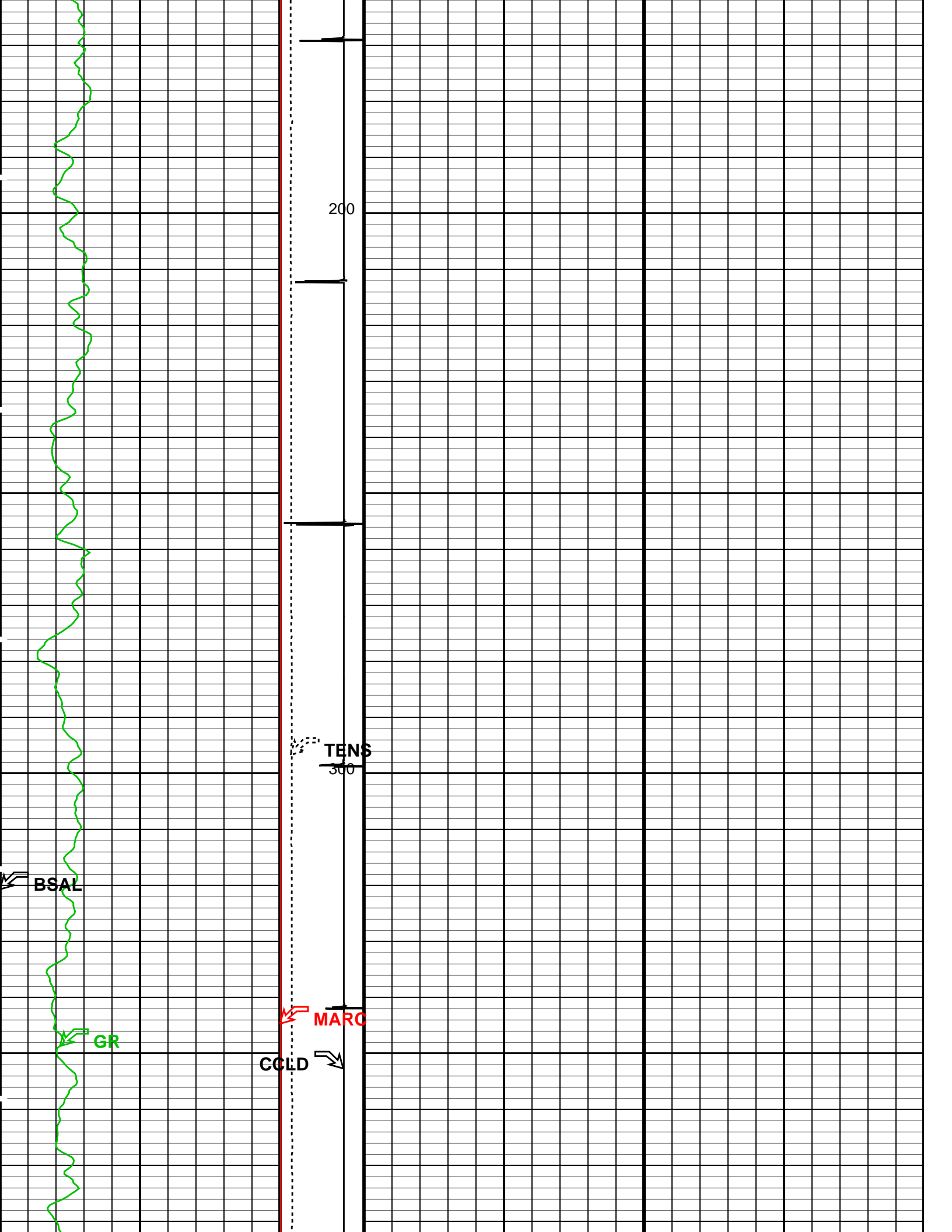
SURFACE EQUIPMENT	
WITM-A	
PSC_16MHZ	

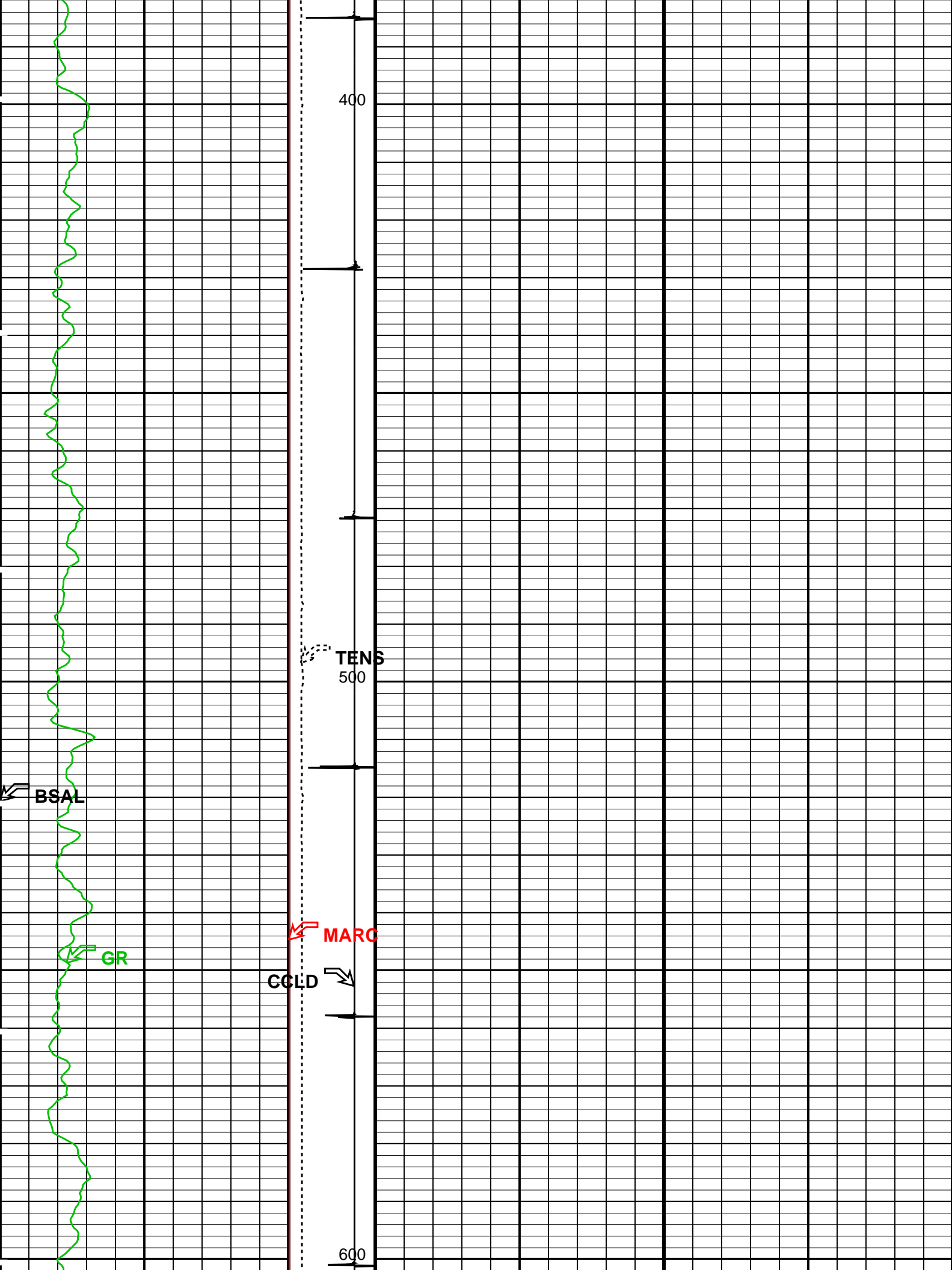
DOWNHOLE EQUIPMENT

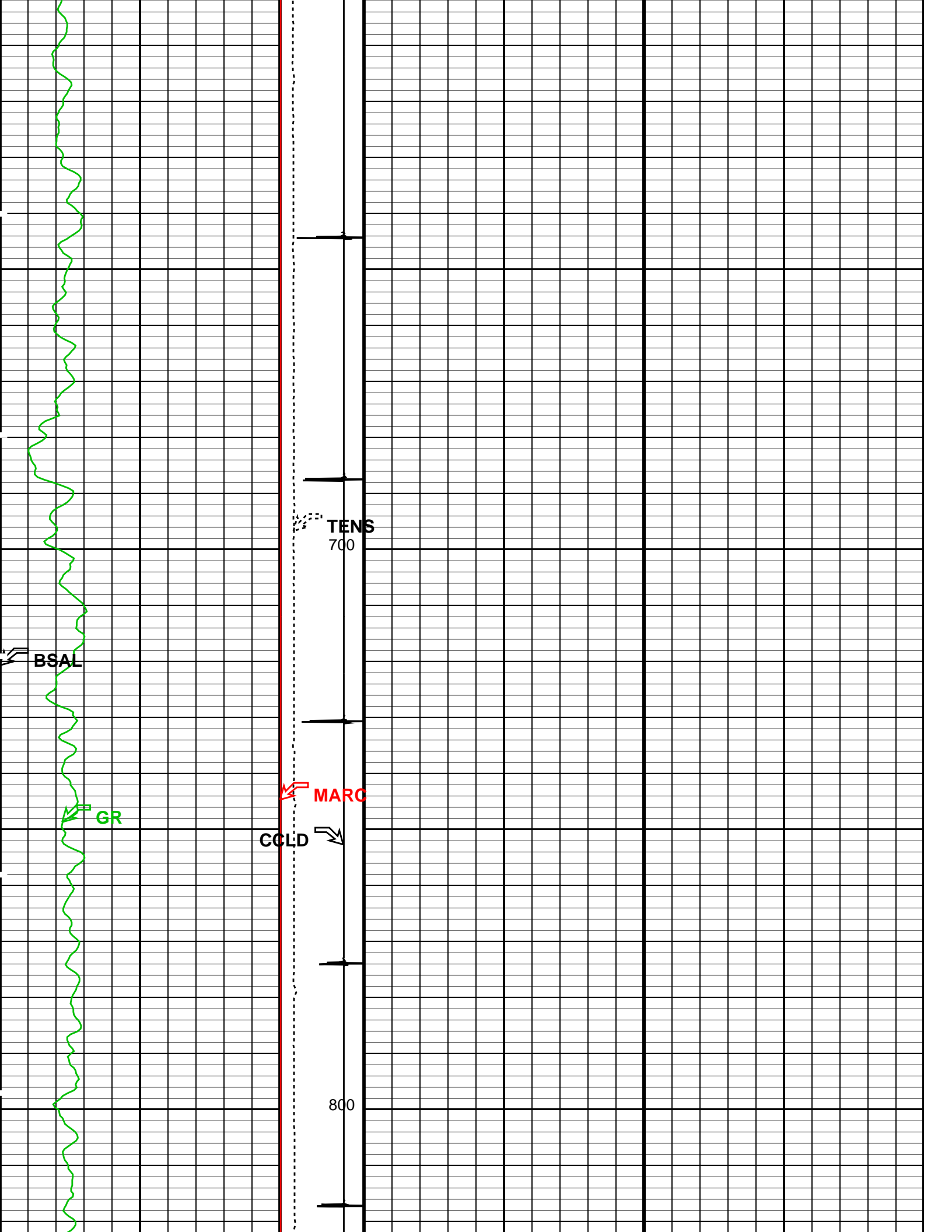
Device	Temperature (°C)
MH-22	53.3
MH-22	
AH-38	51.7
PSPT	51.5
PSC-A	
PSPT-A 3779	
PSTC-A	
PBMS-A	47.8
10k Sapphire_Mano	
RTD_Thermometer	
GR	
Well_Temp	44.7
Manometer	44.6
CCL	44.0
PBMS	43.2
PBMS PSTC	
RST-C	43.2
RSCH-A 155	
RSC-E	
RSS-A 481	
RSXH-A 493	
RSX-E	
RSC-A Far	34.1
RSC-A PNG	
RSC-A Nea	
RSX-A PNG	33.6

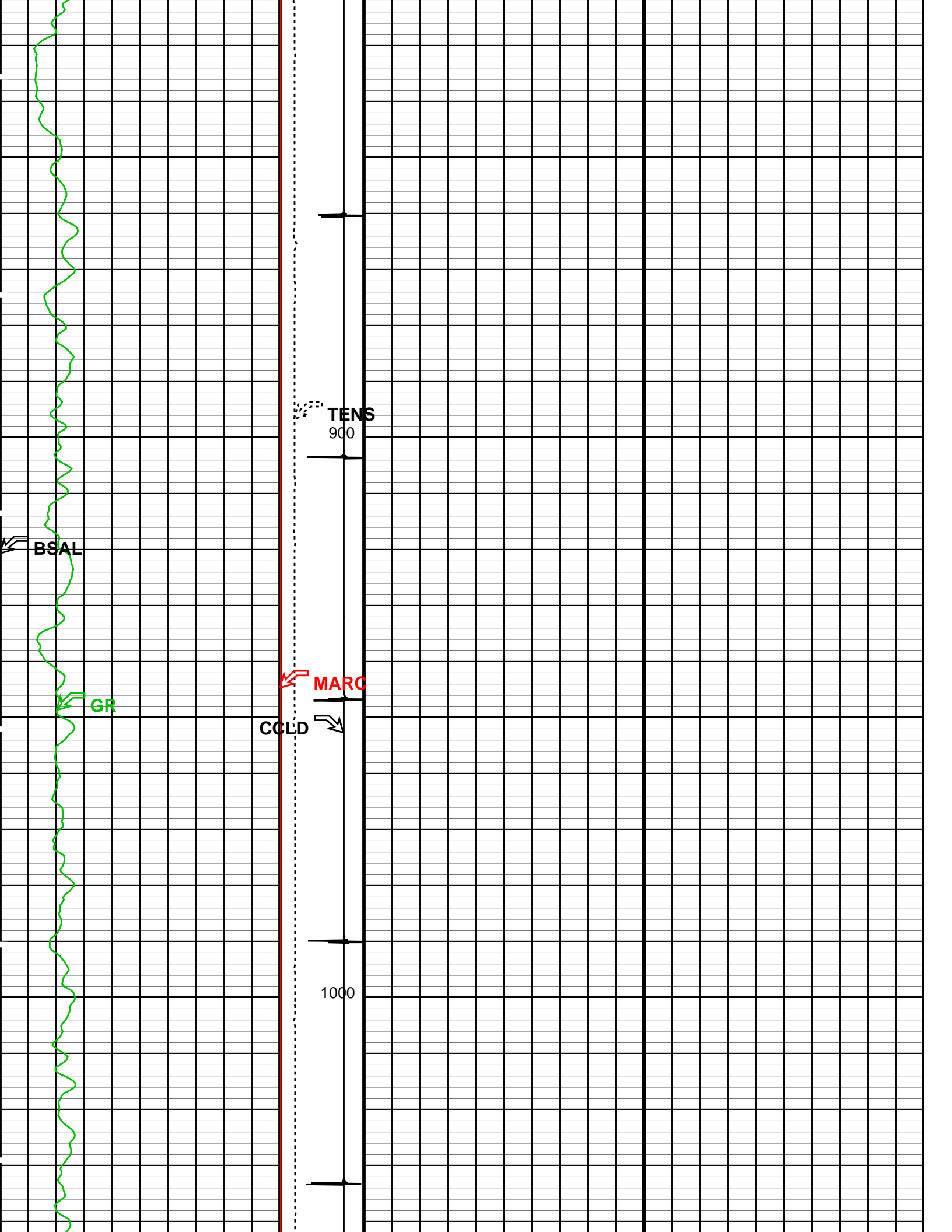
WINR Gas Flag

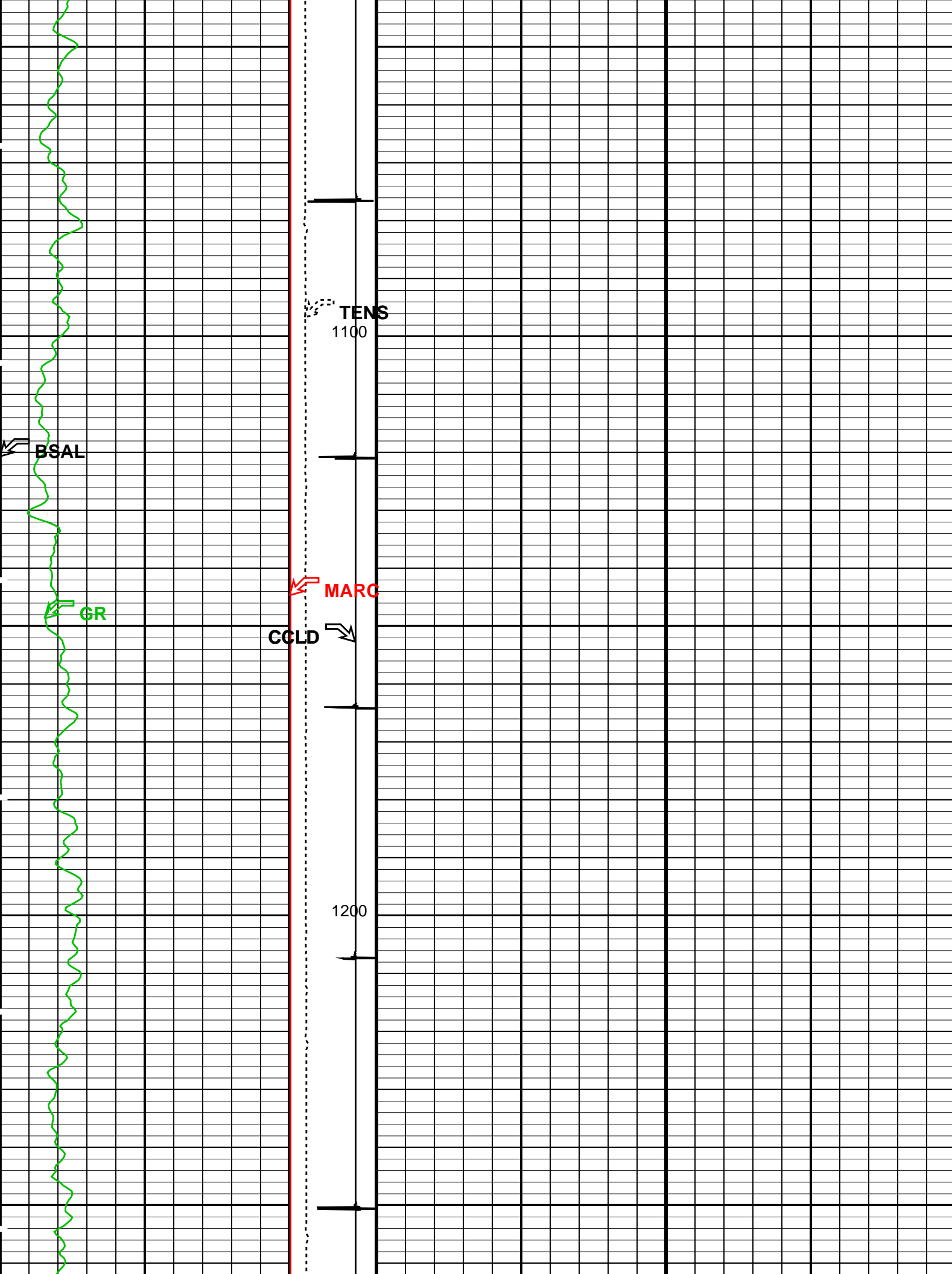


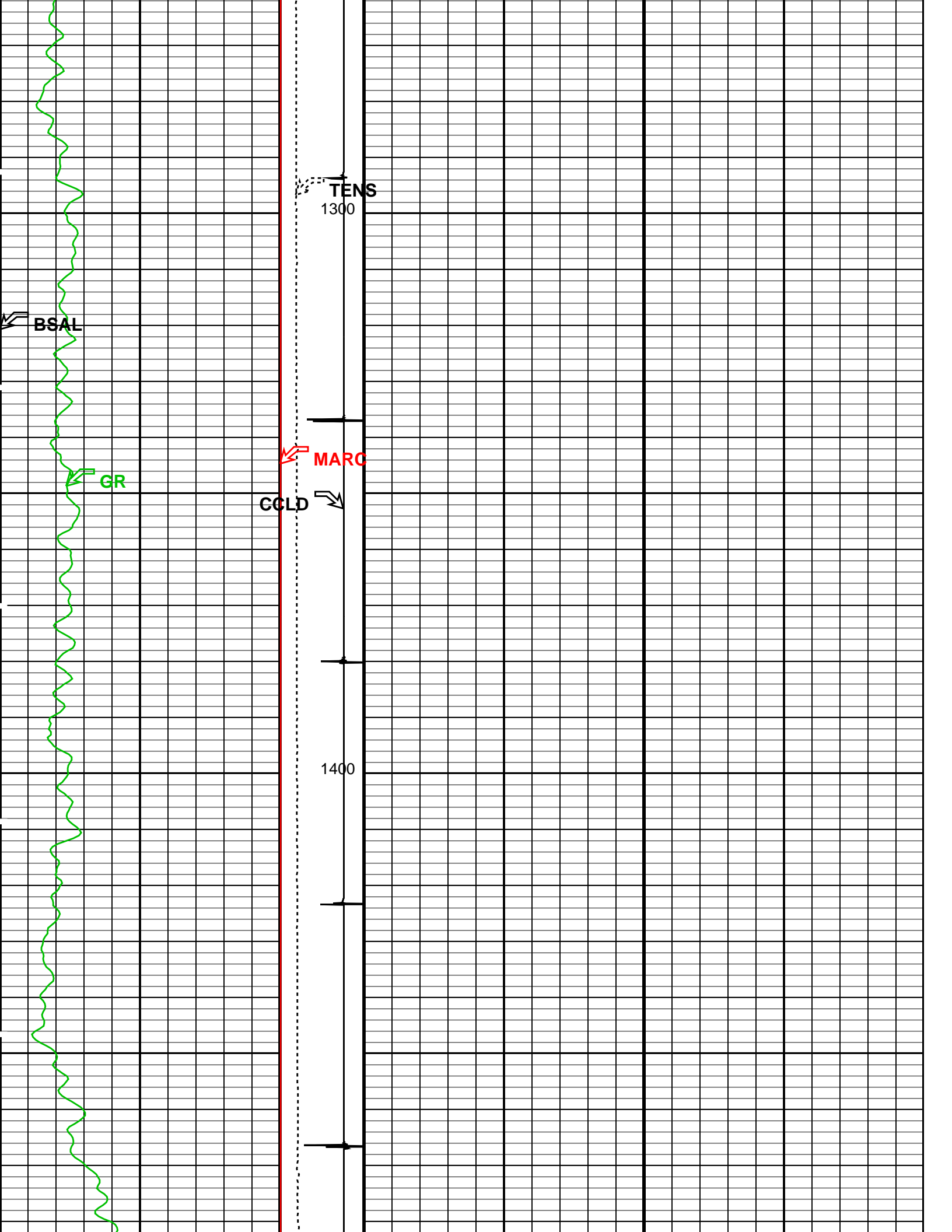


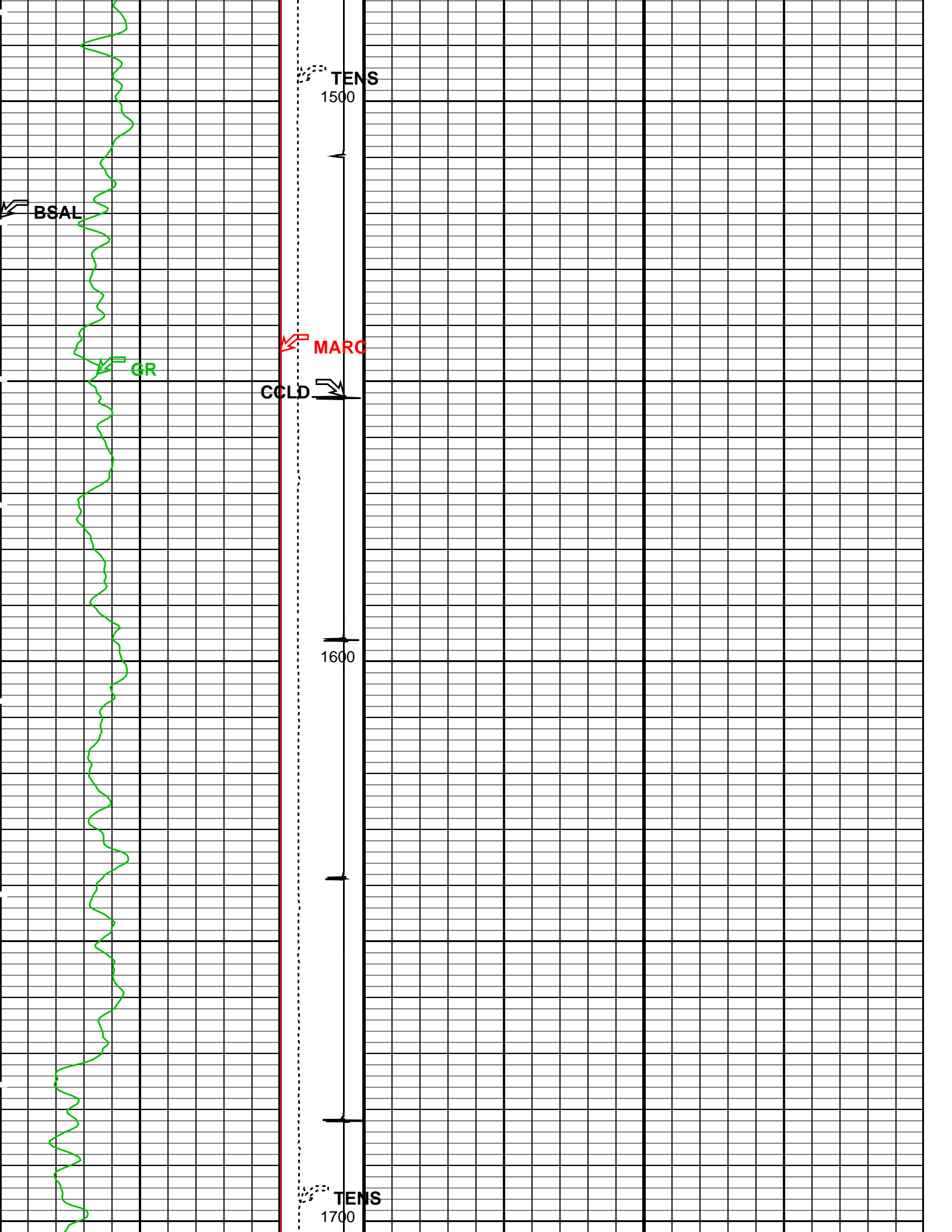


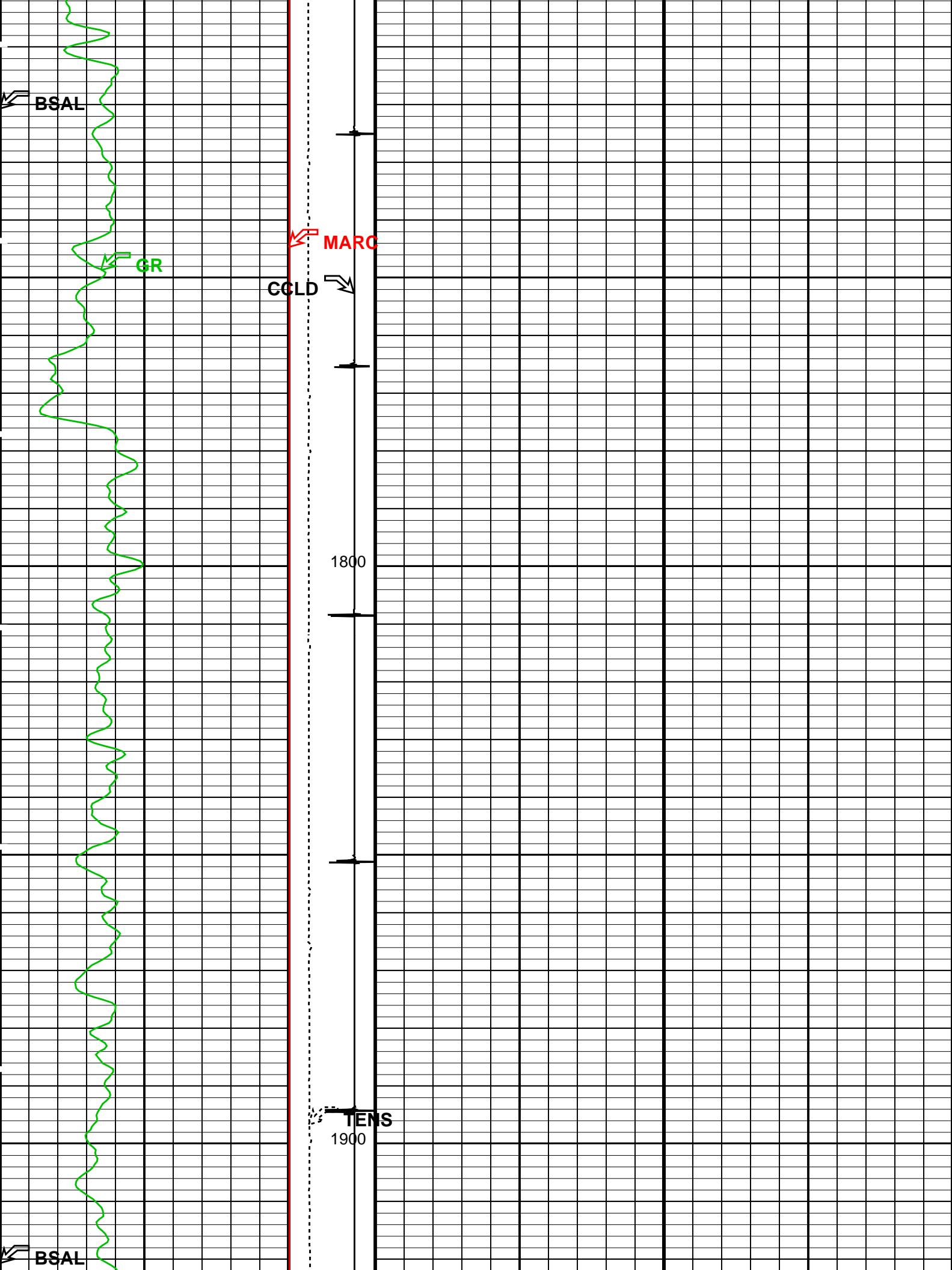


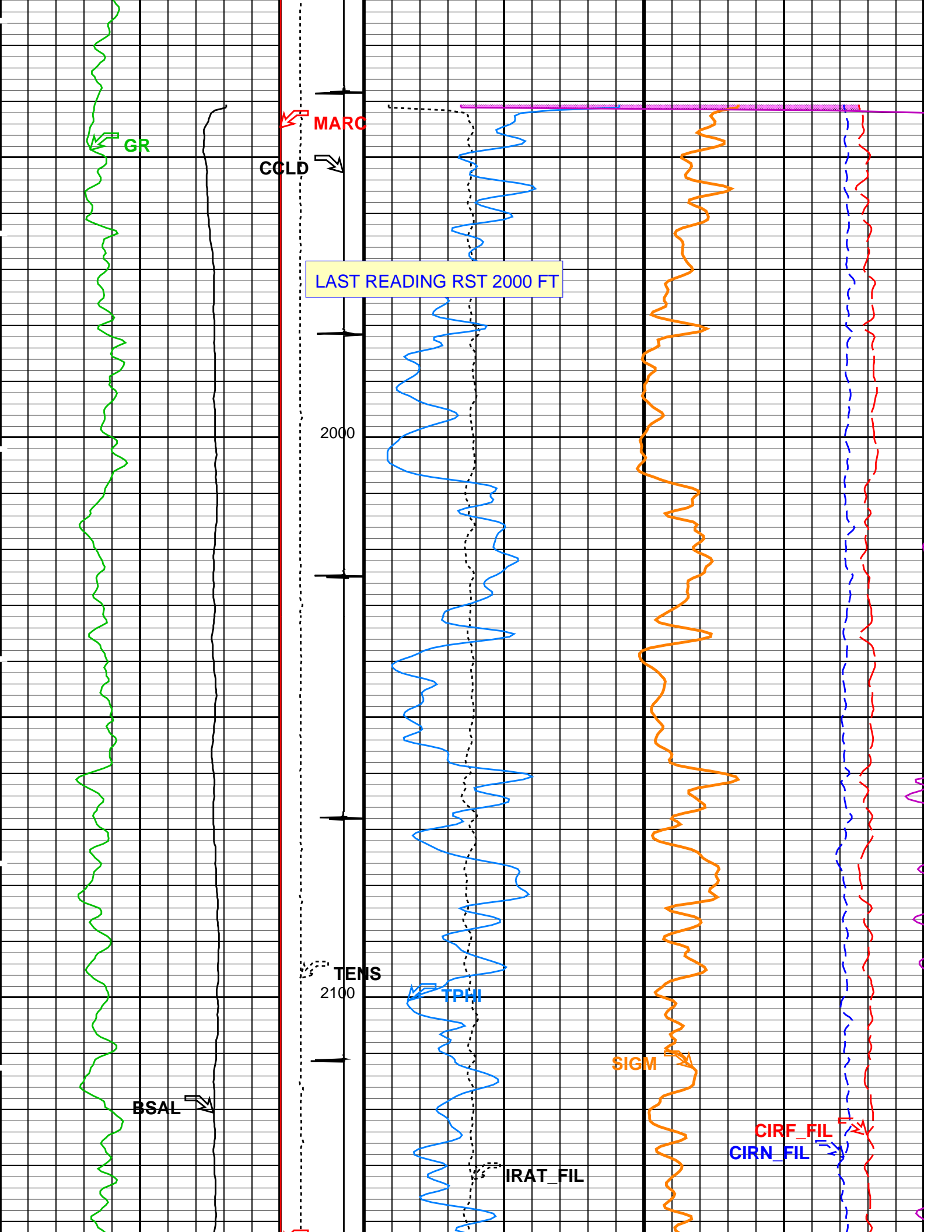


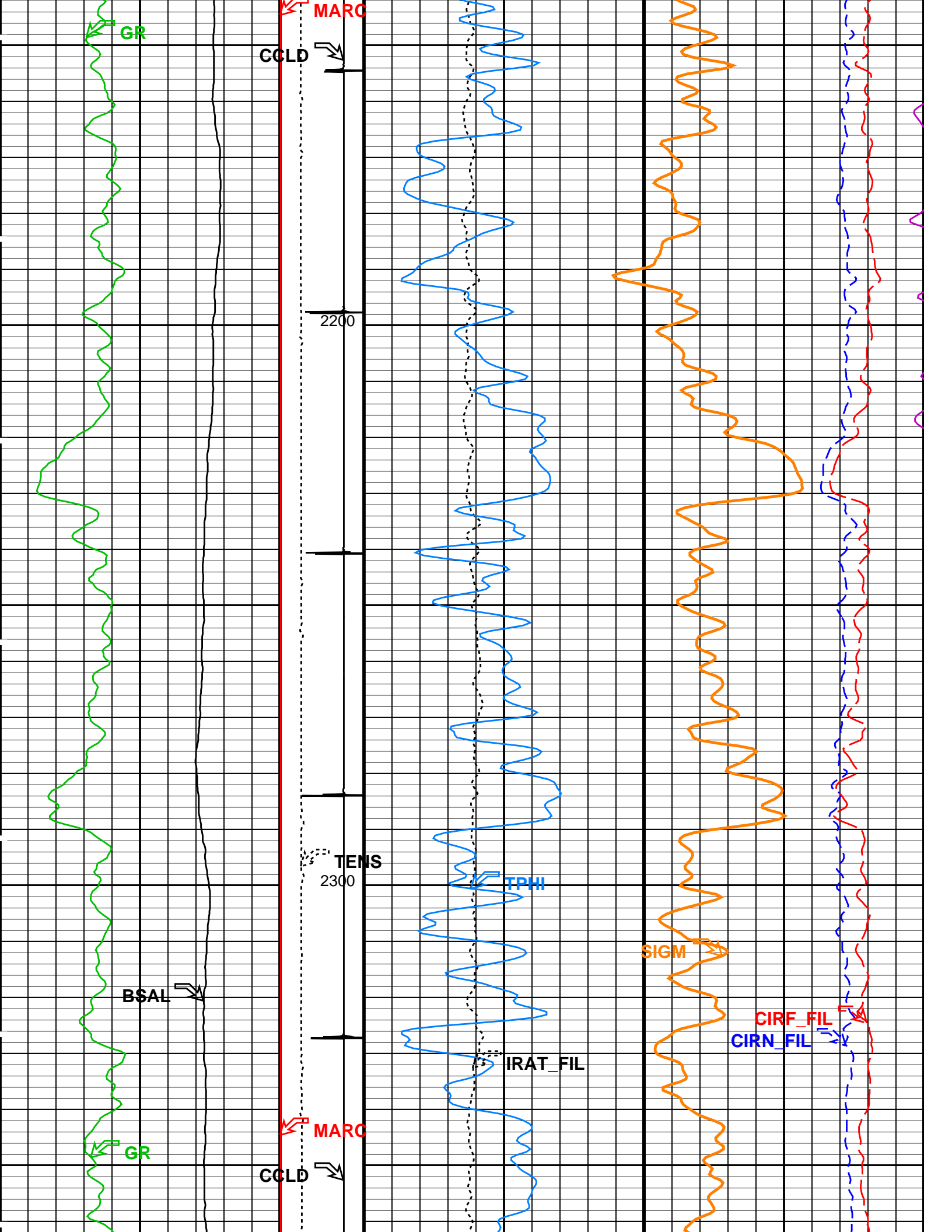


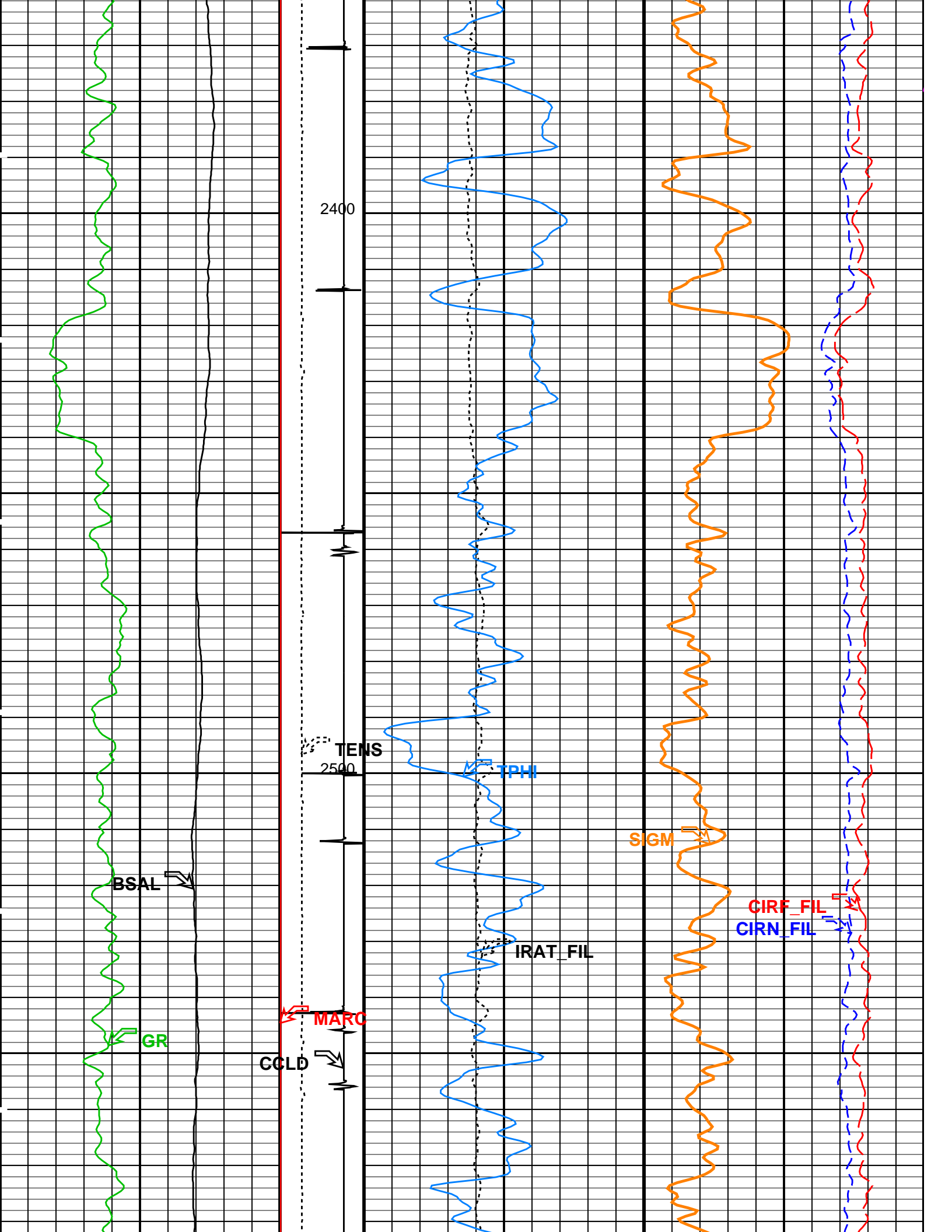


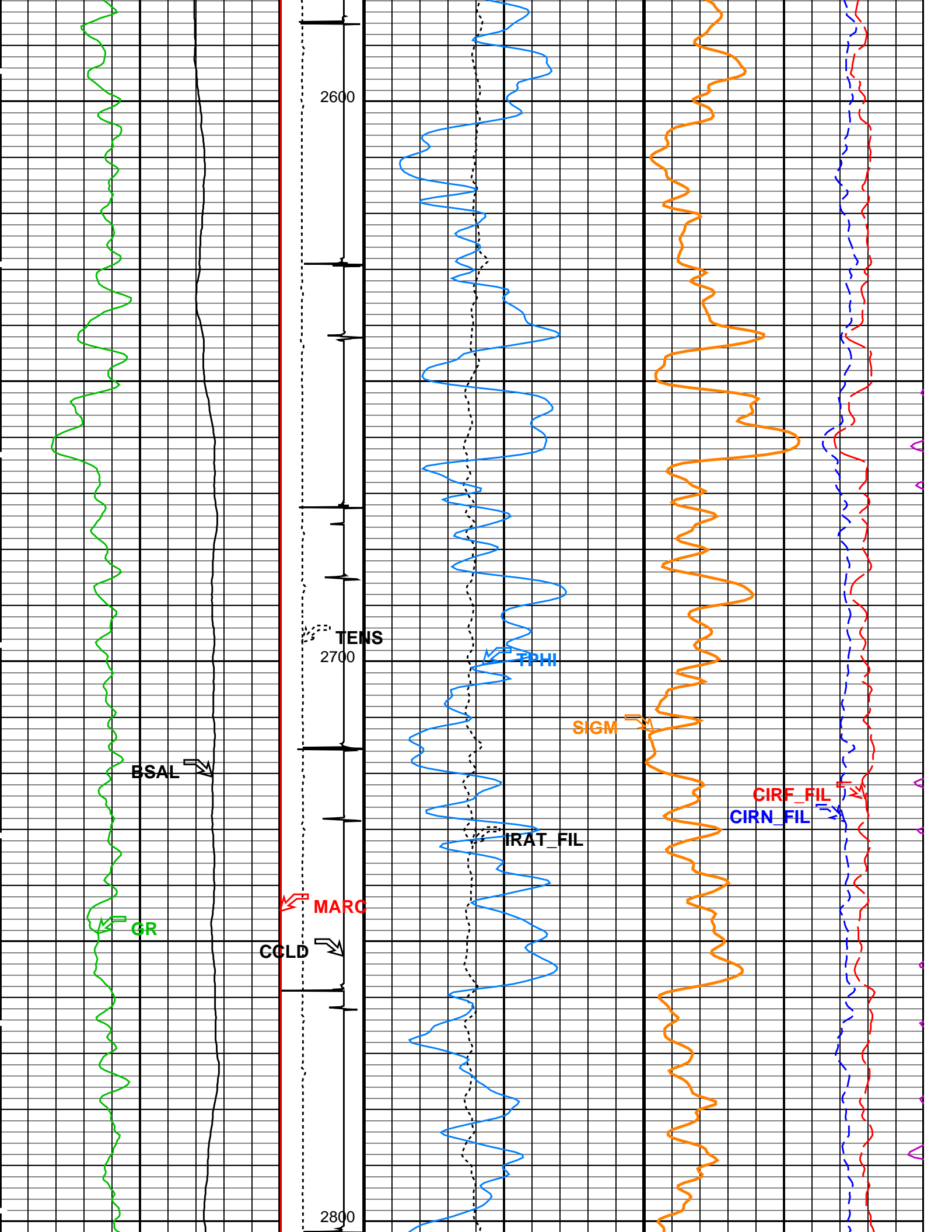


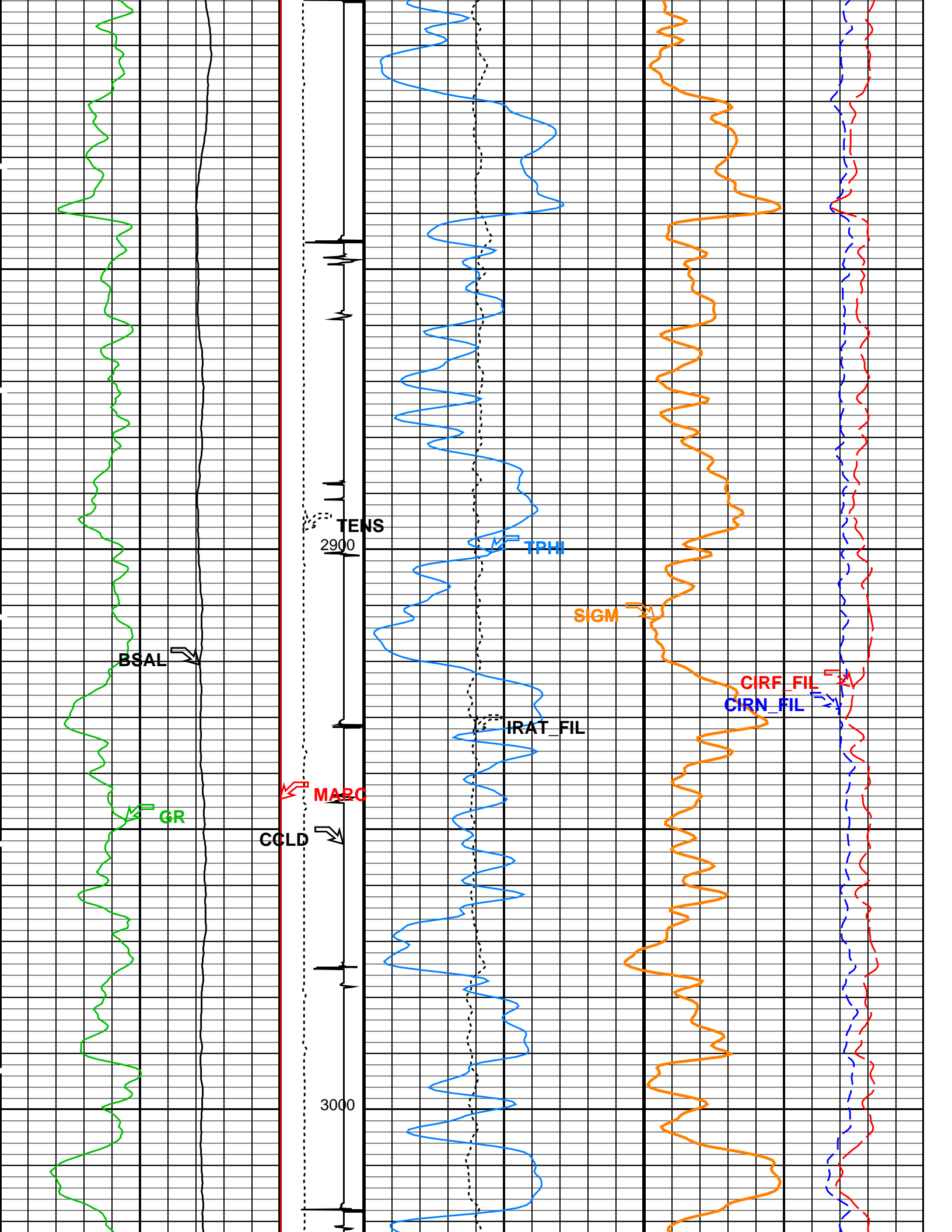


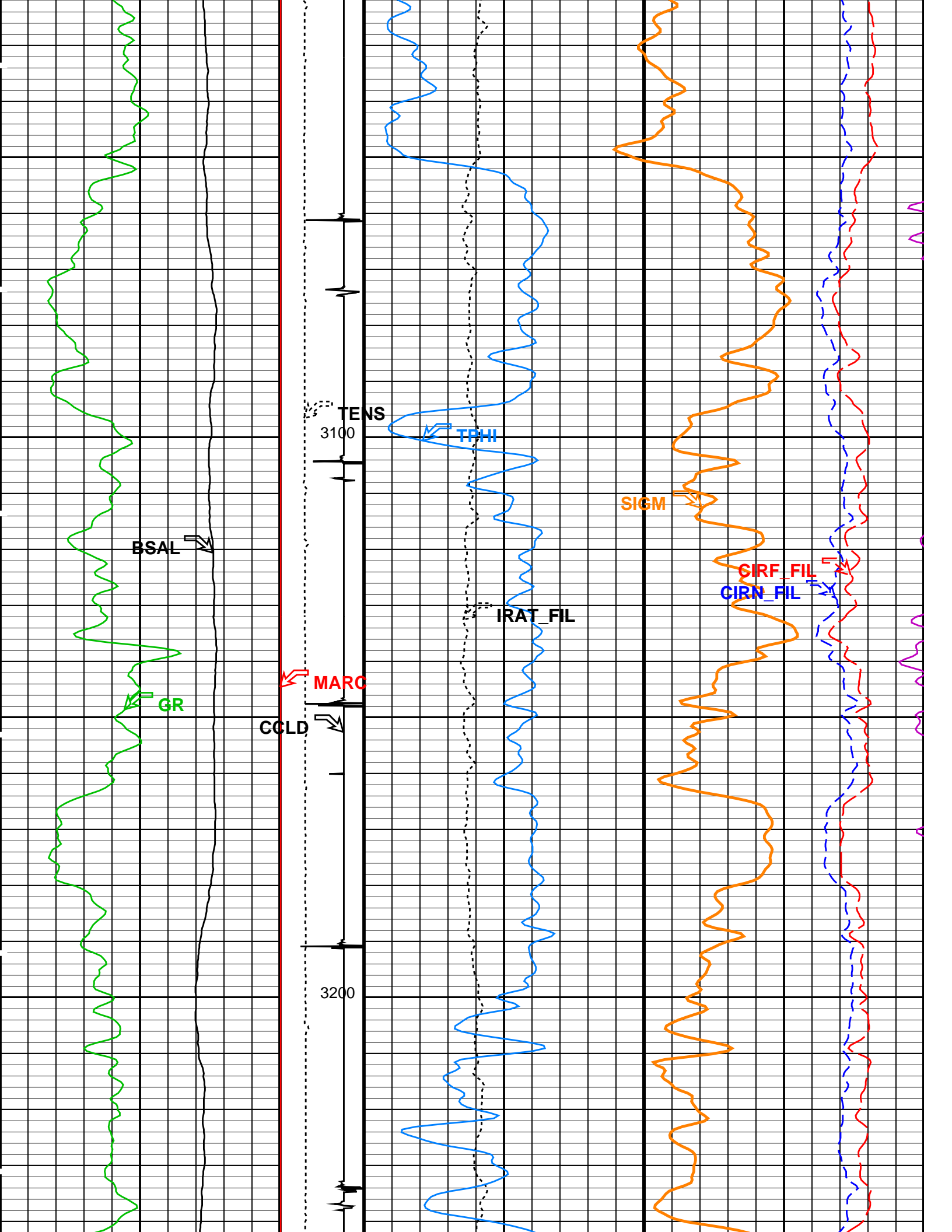


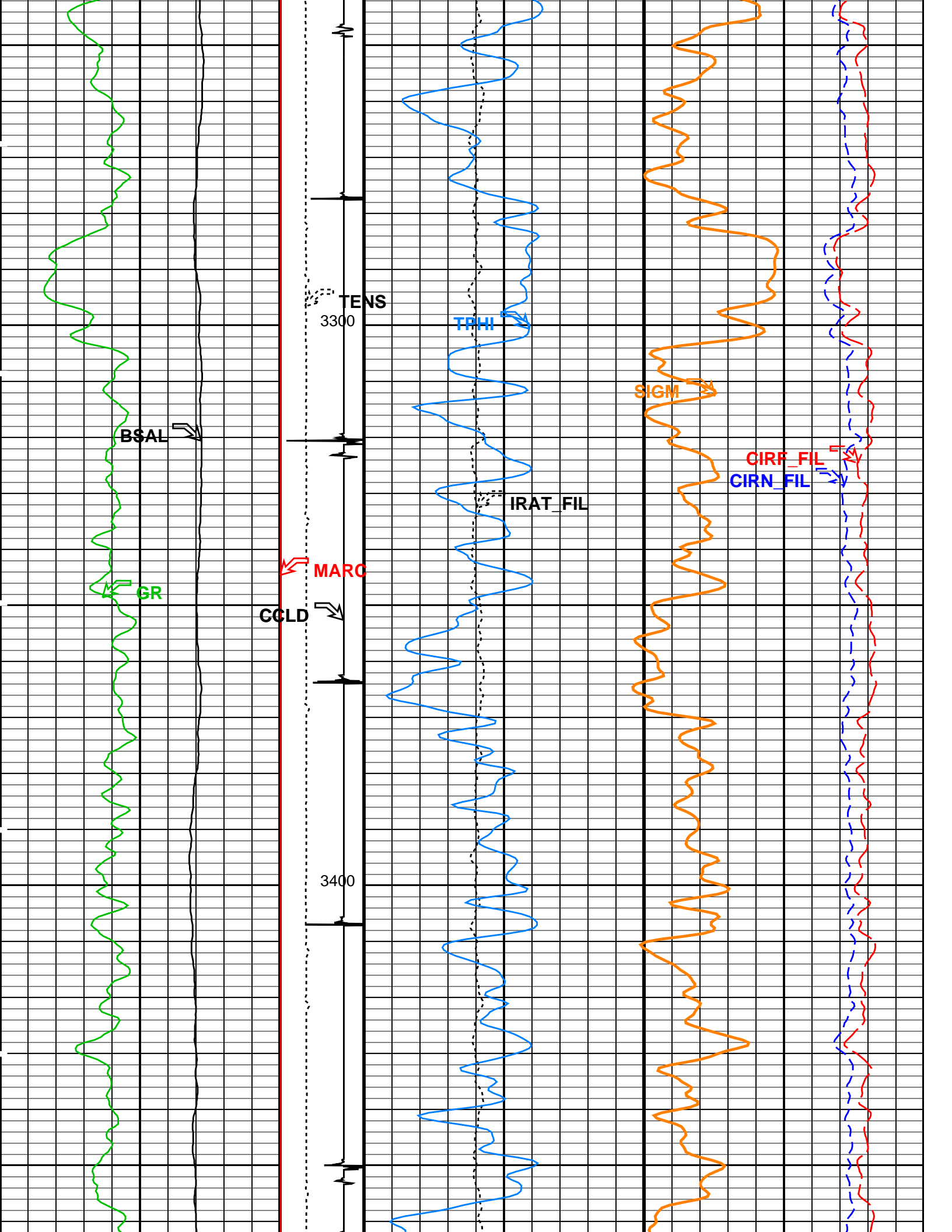


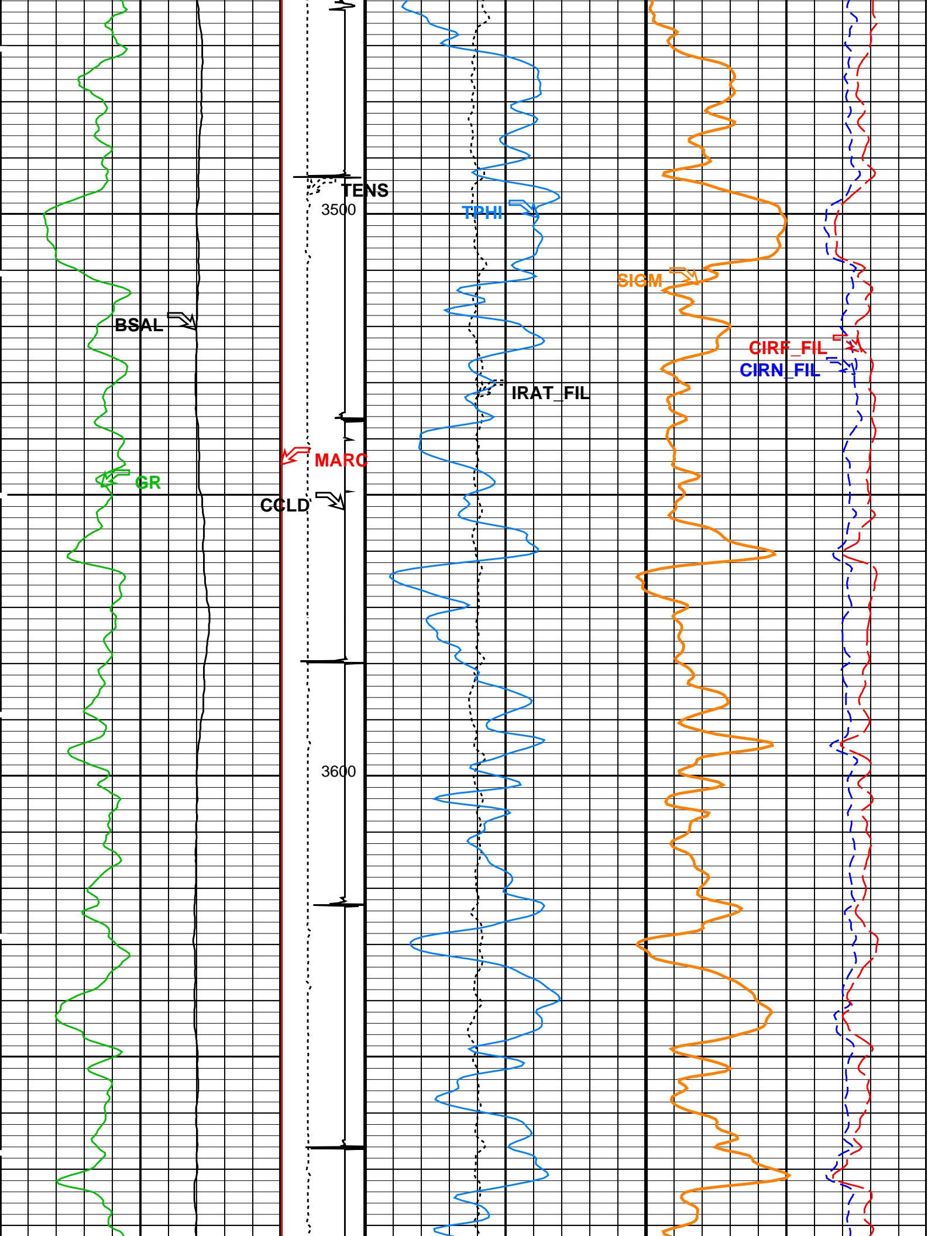


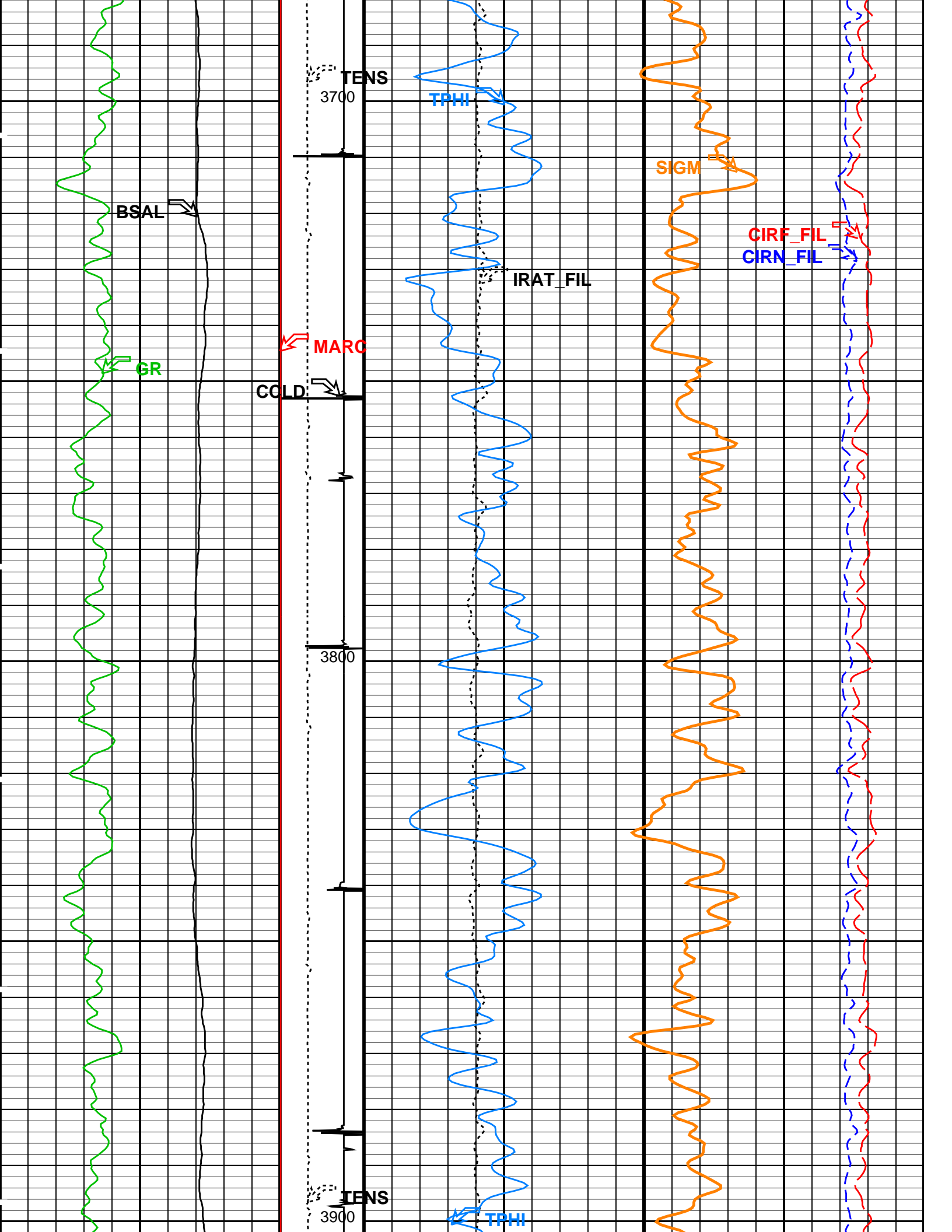


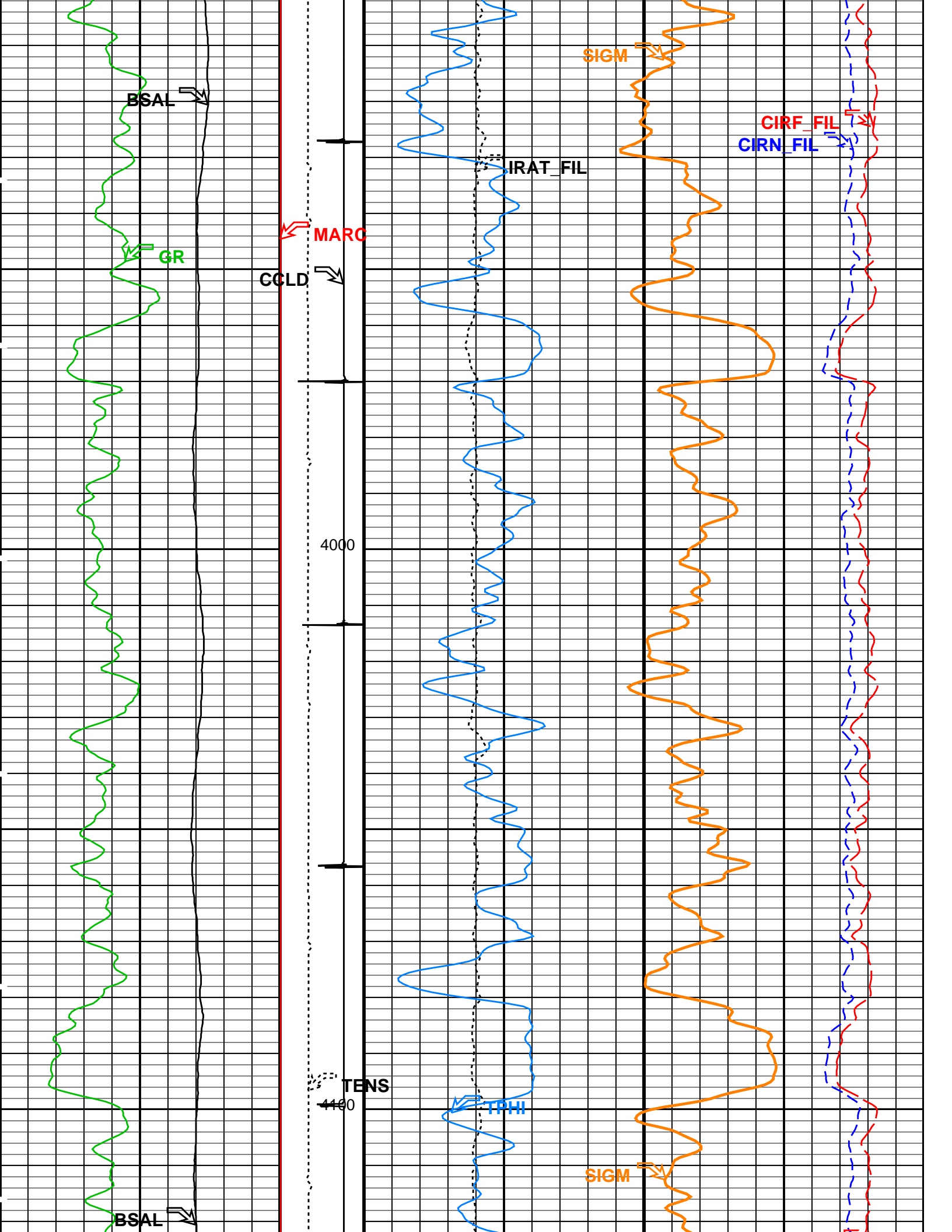


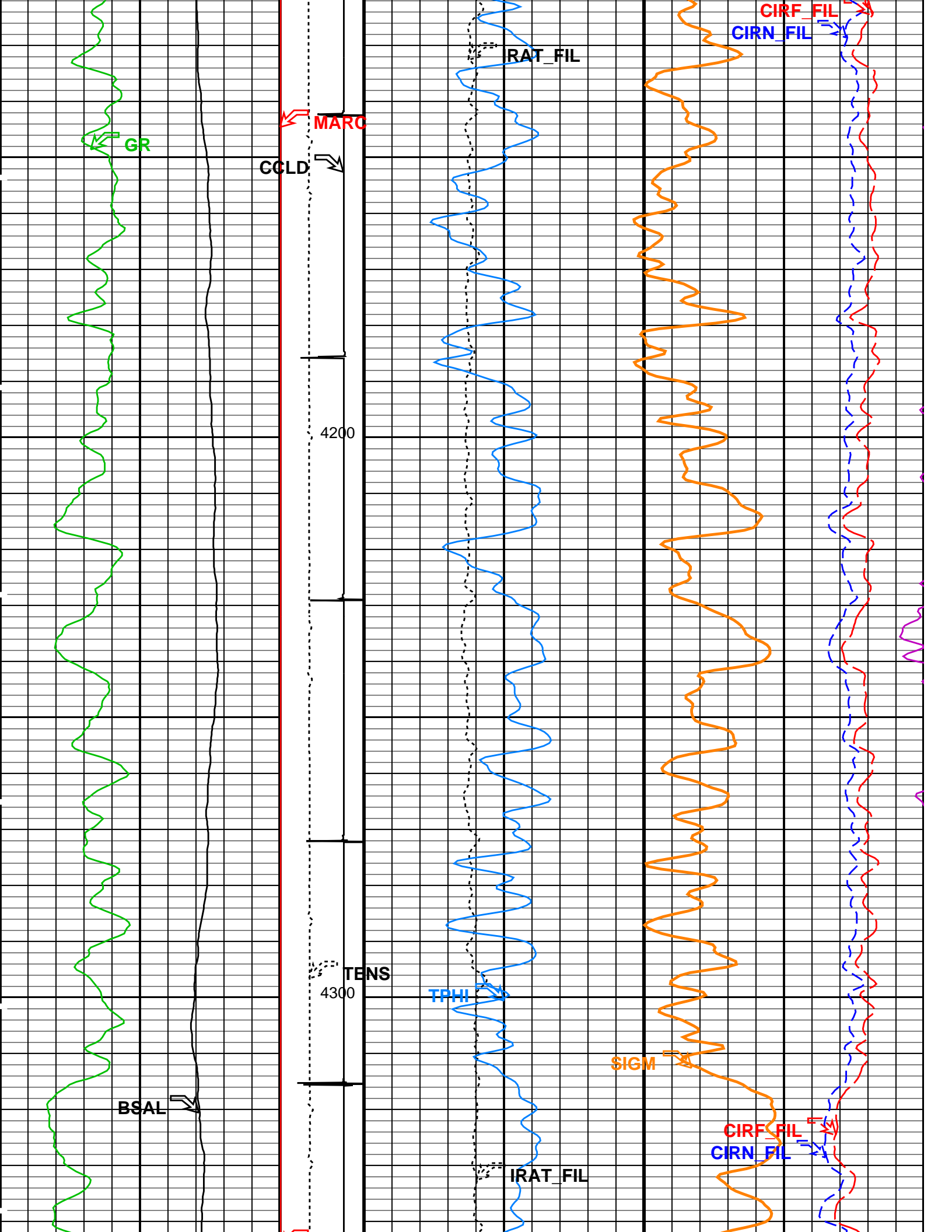


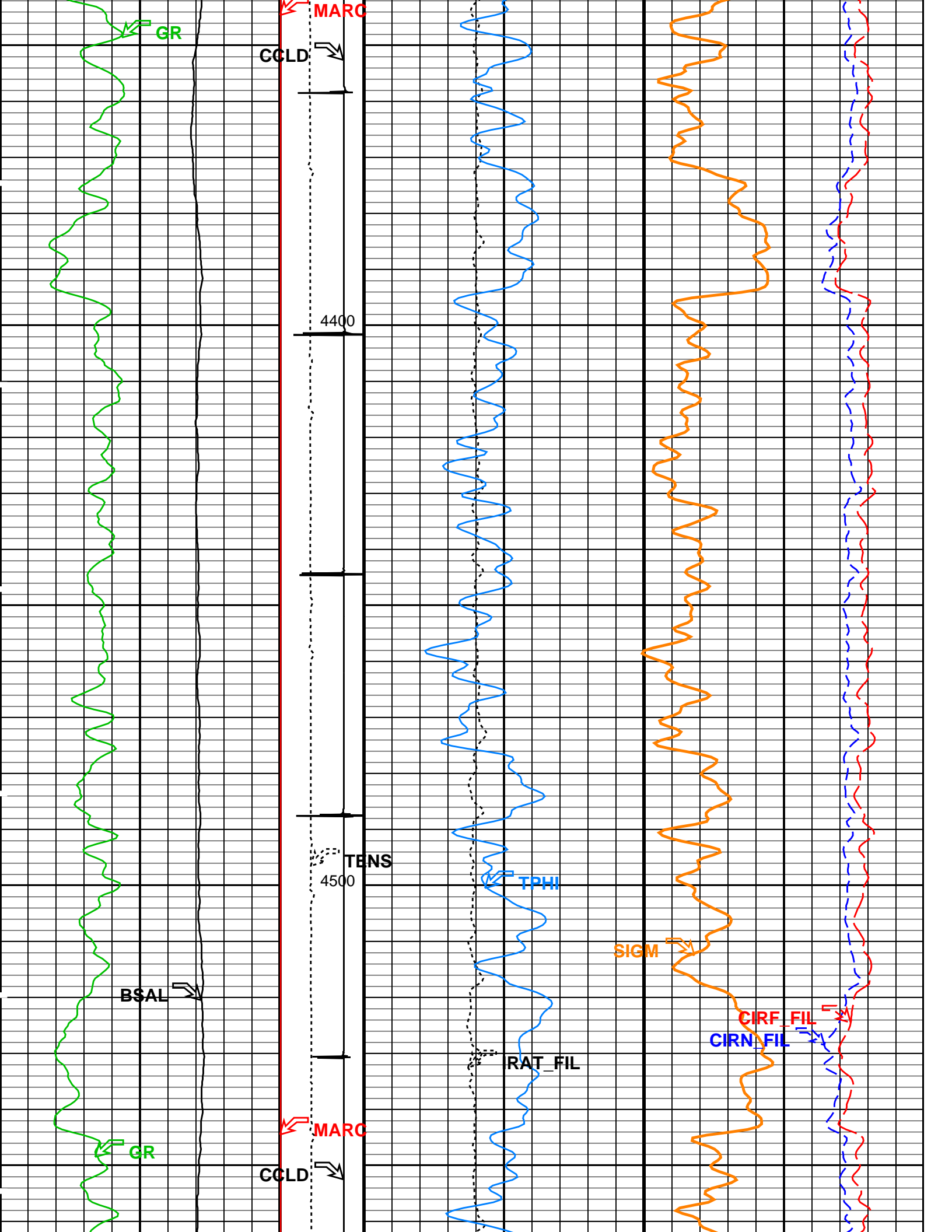


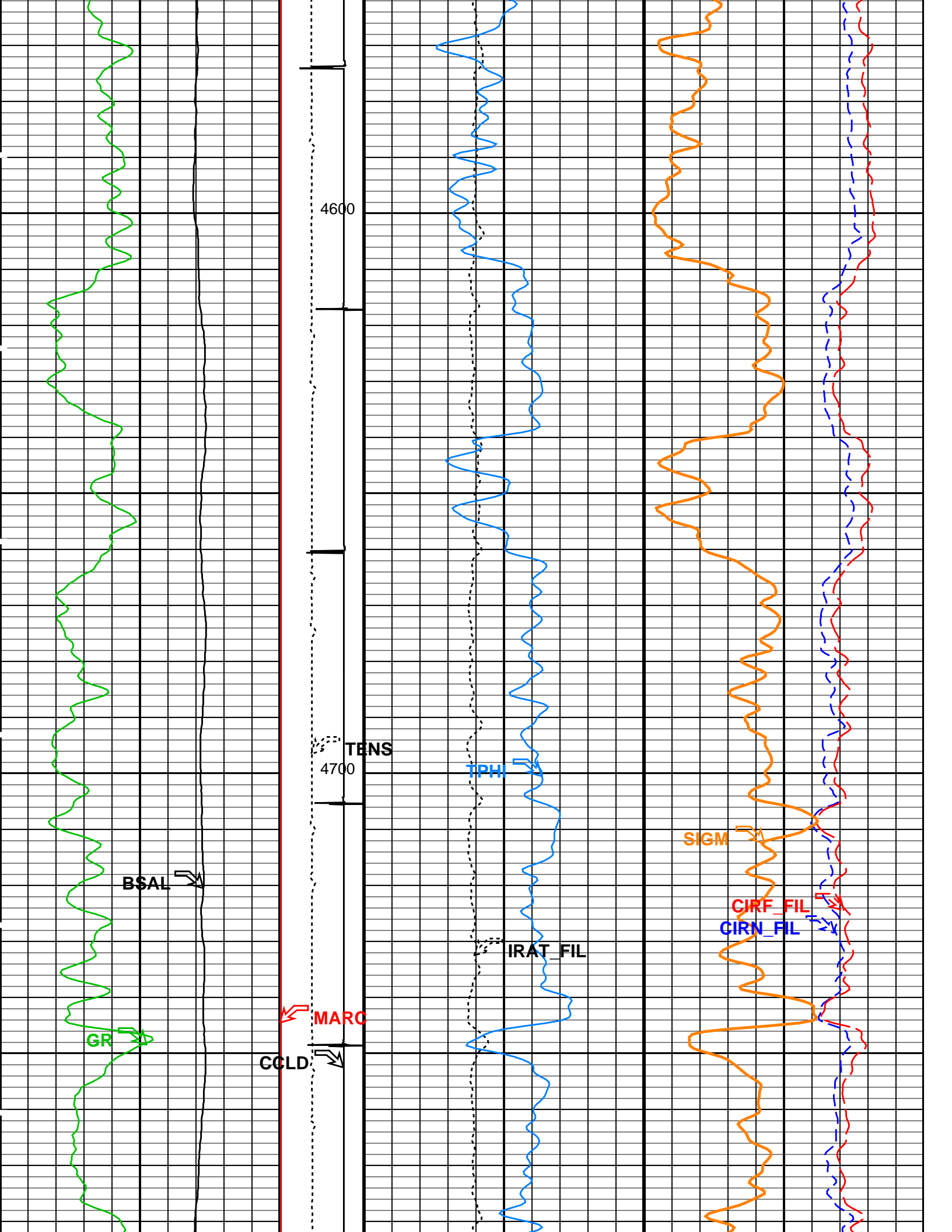


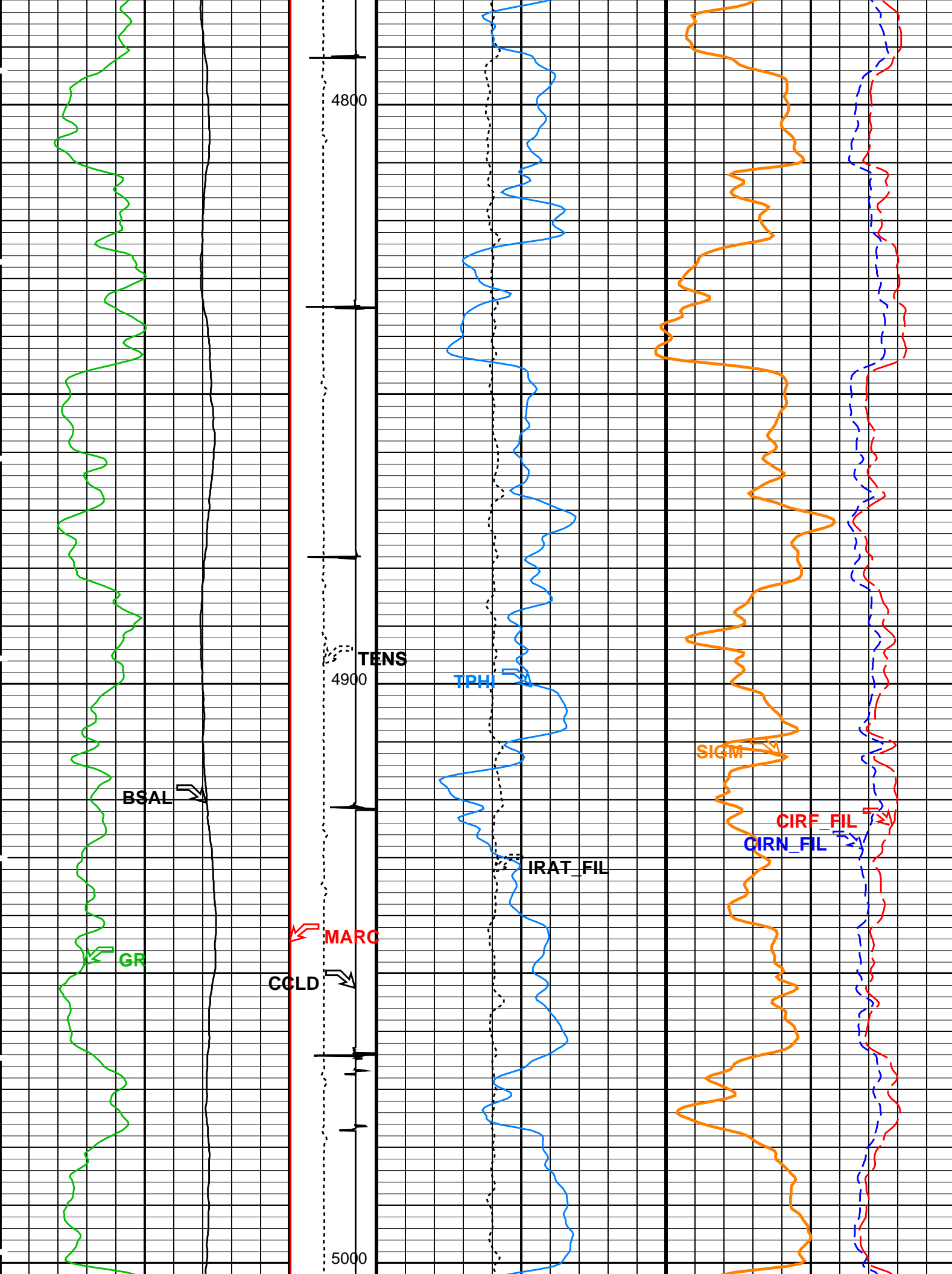


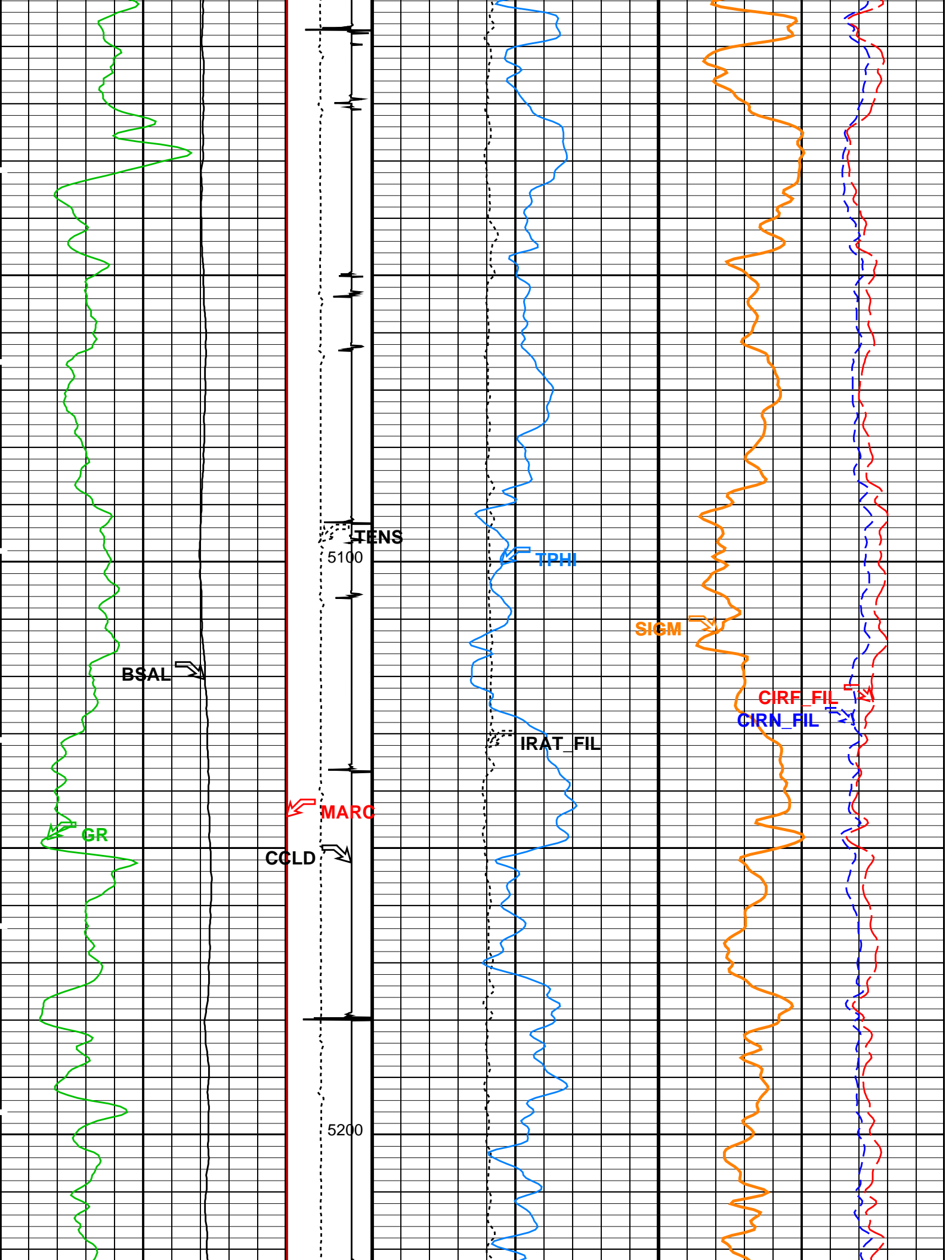


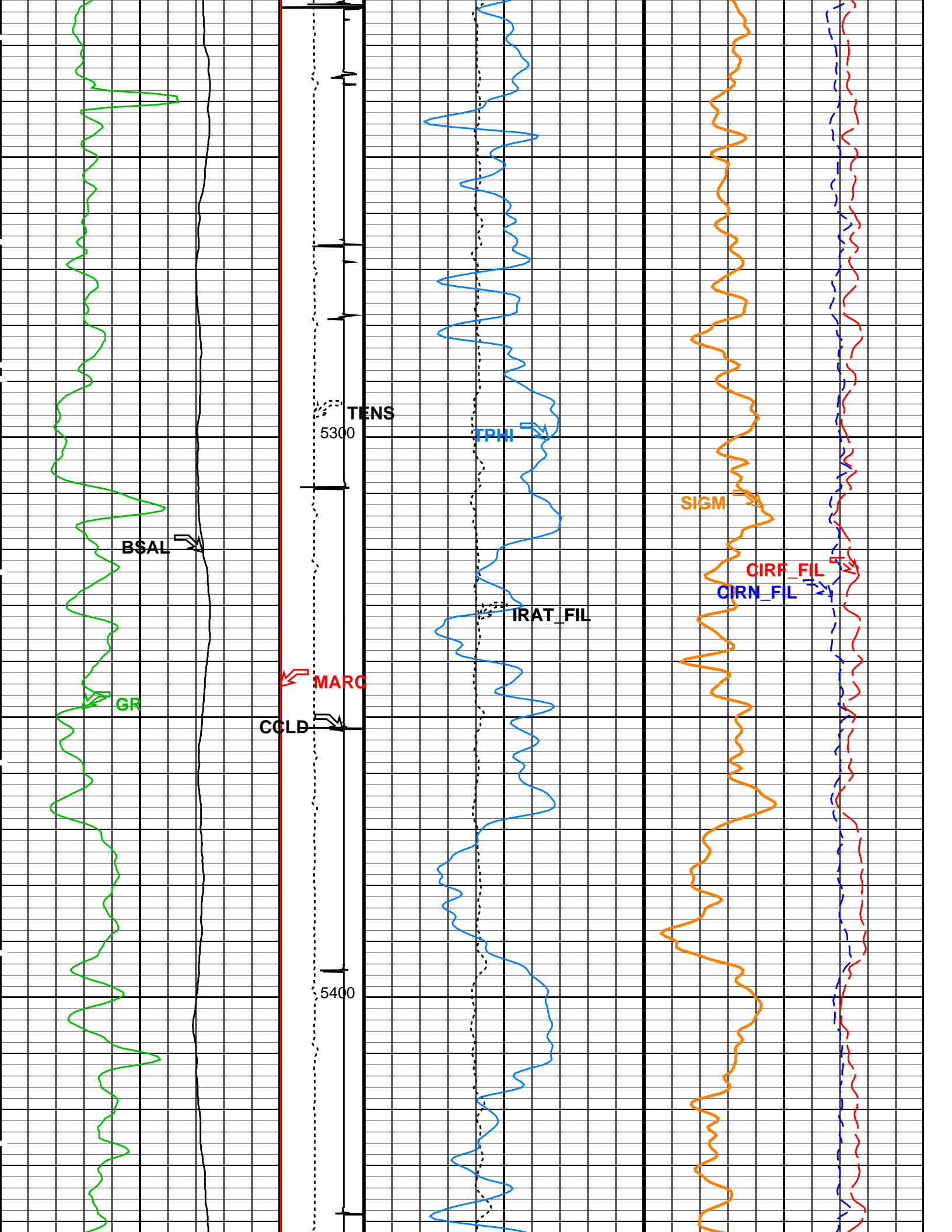


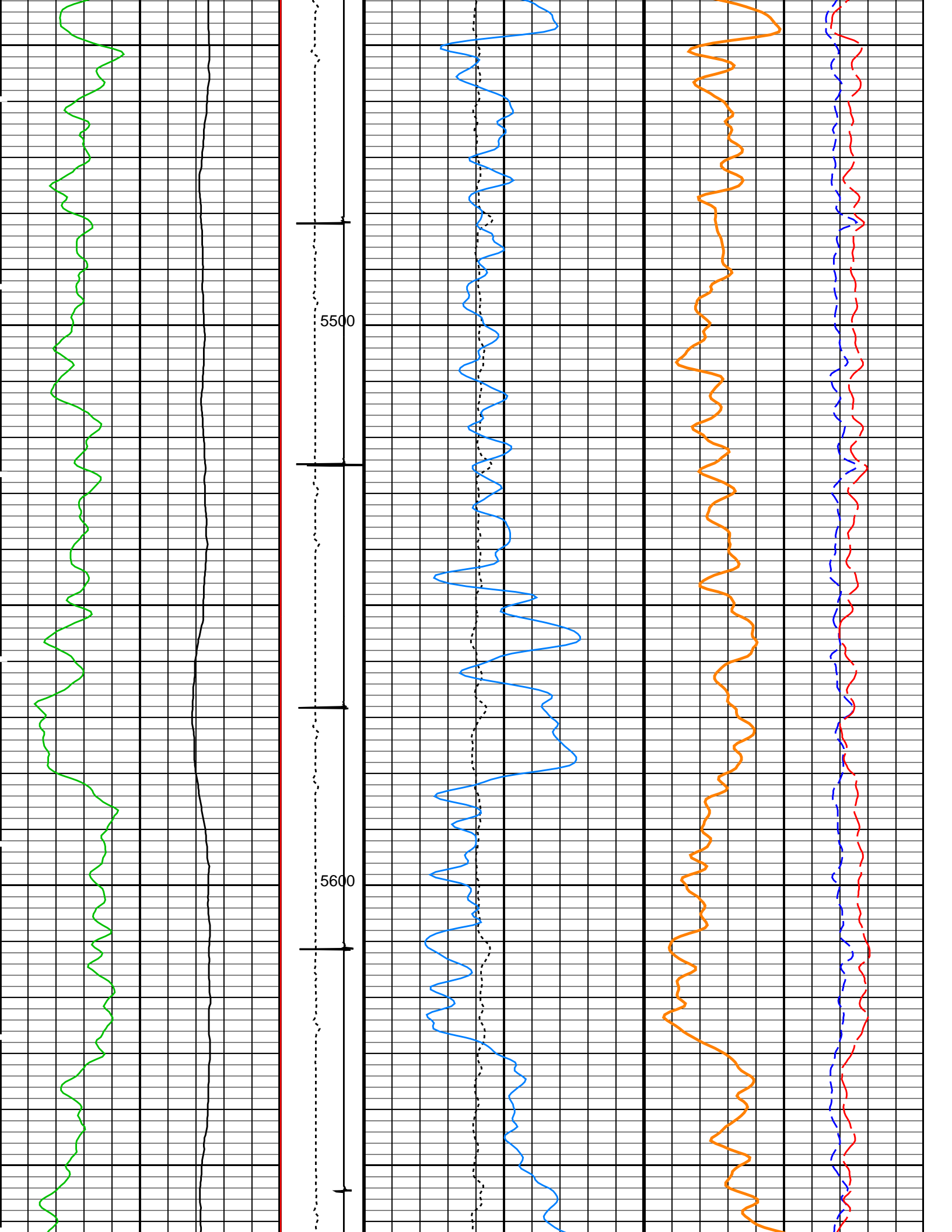


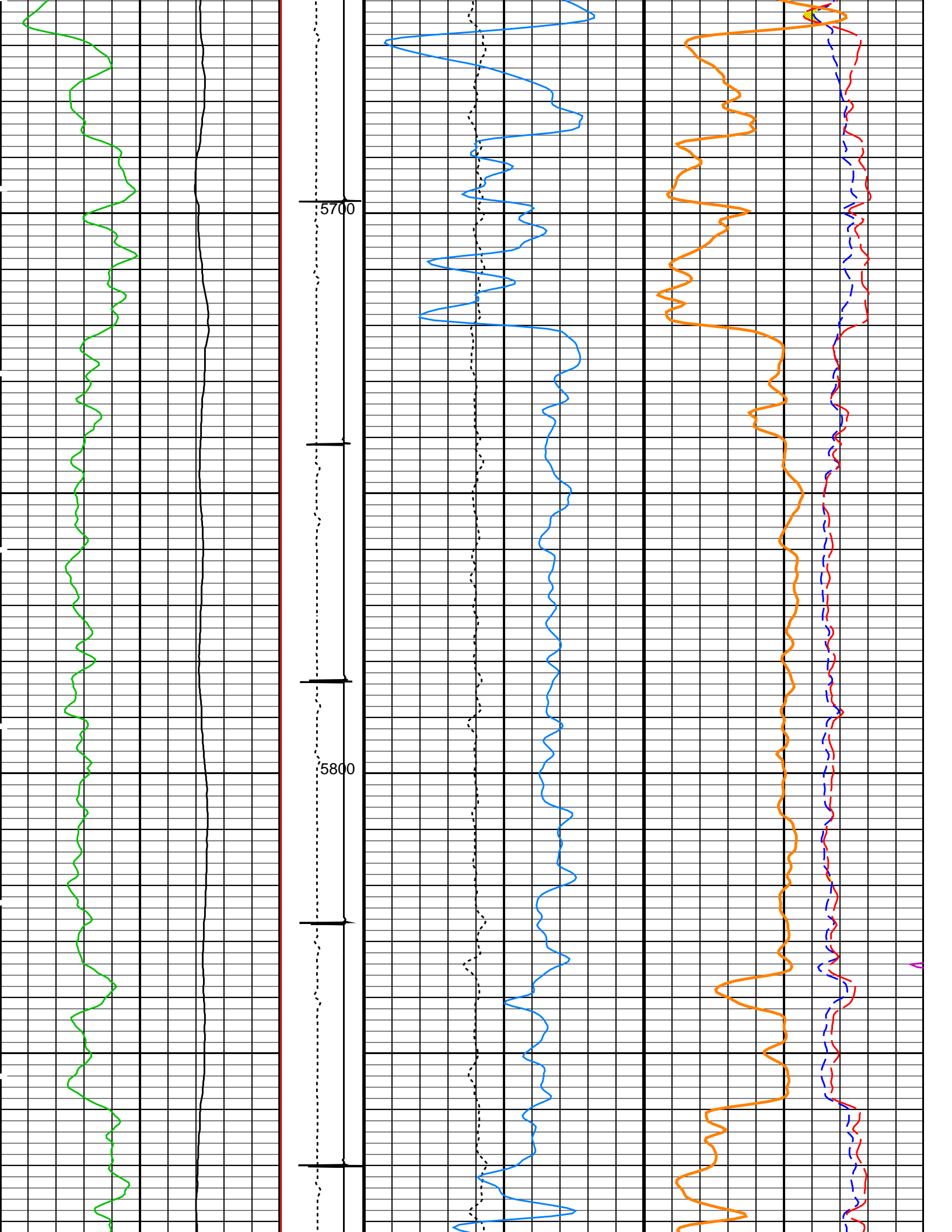


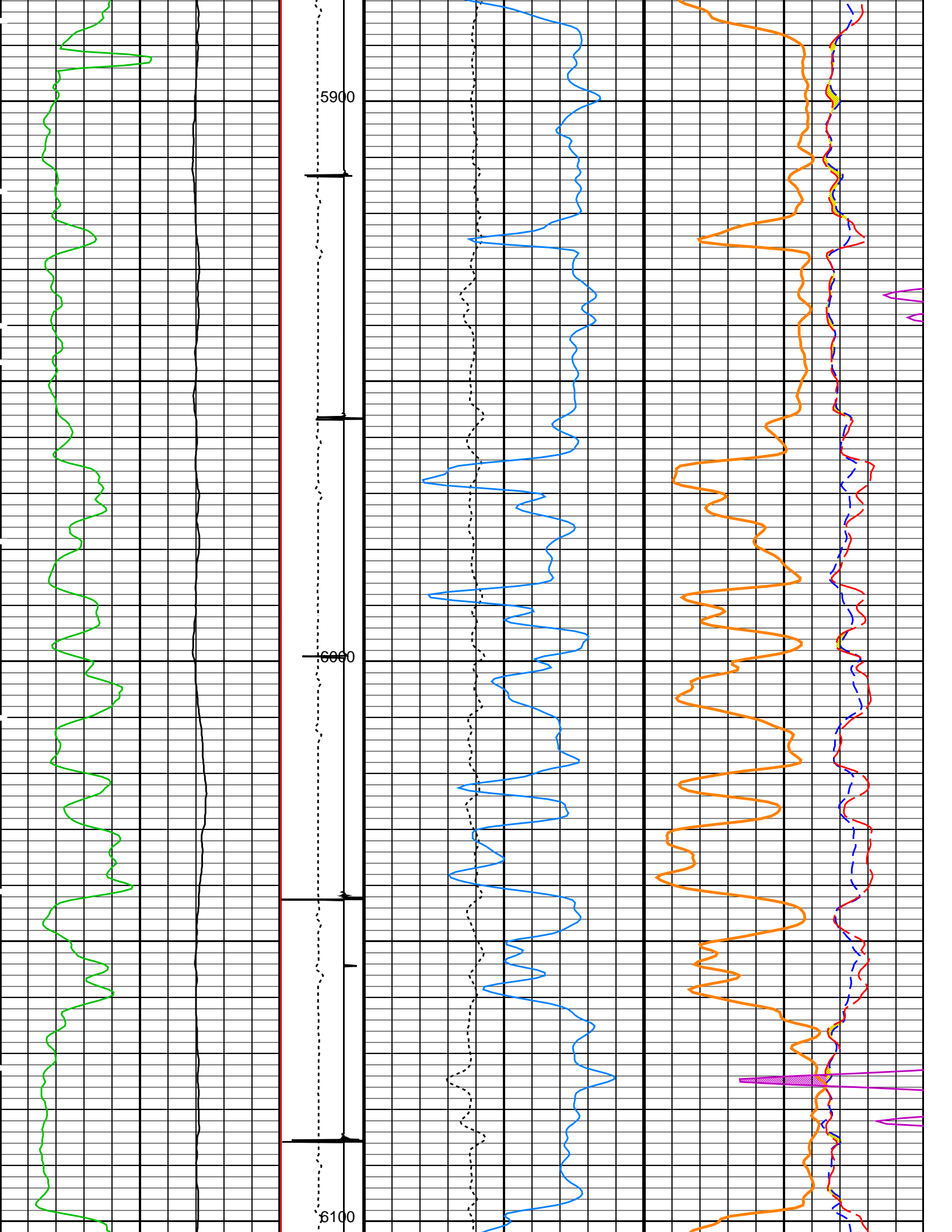


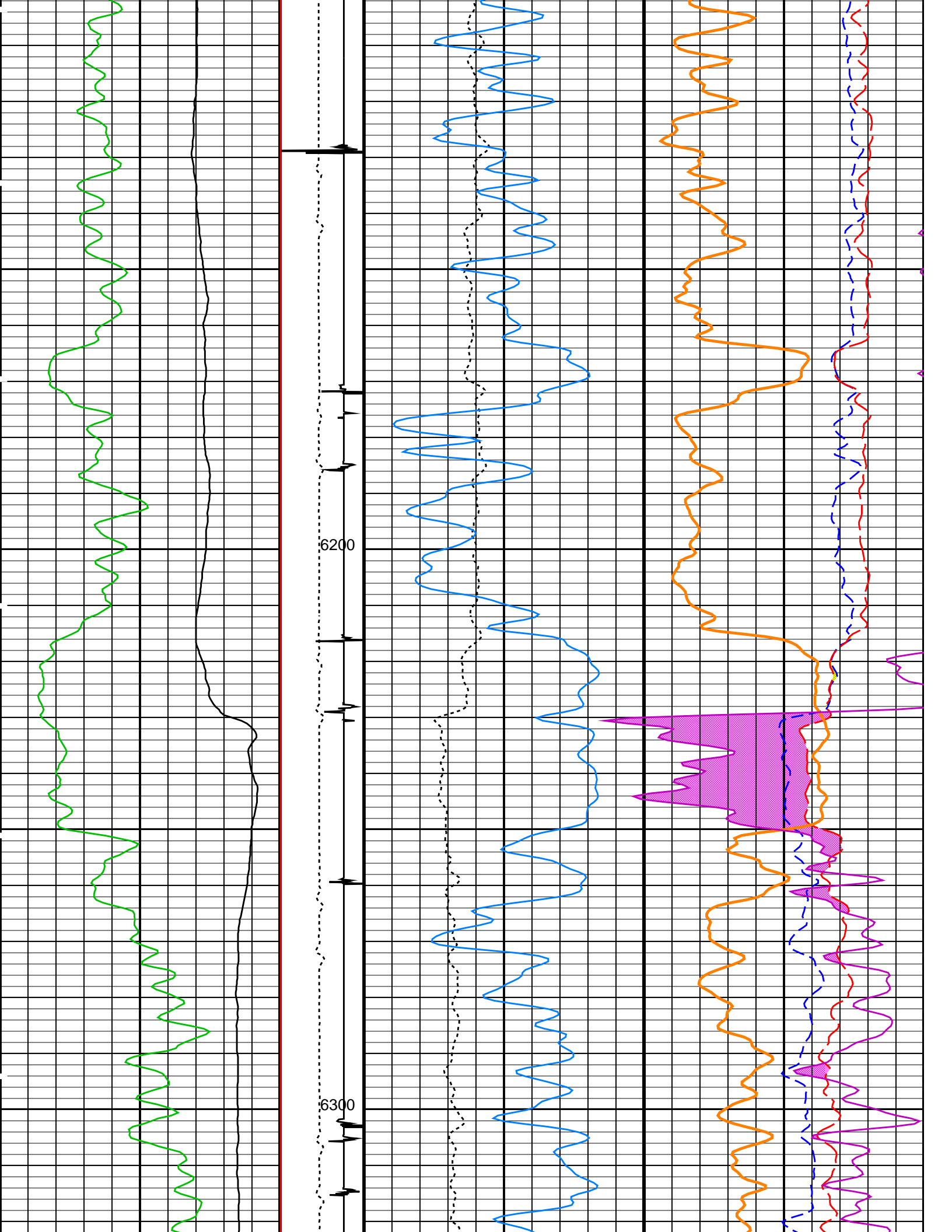


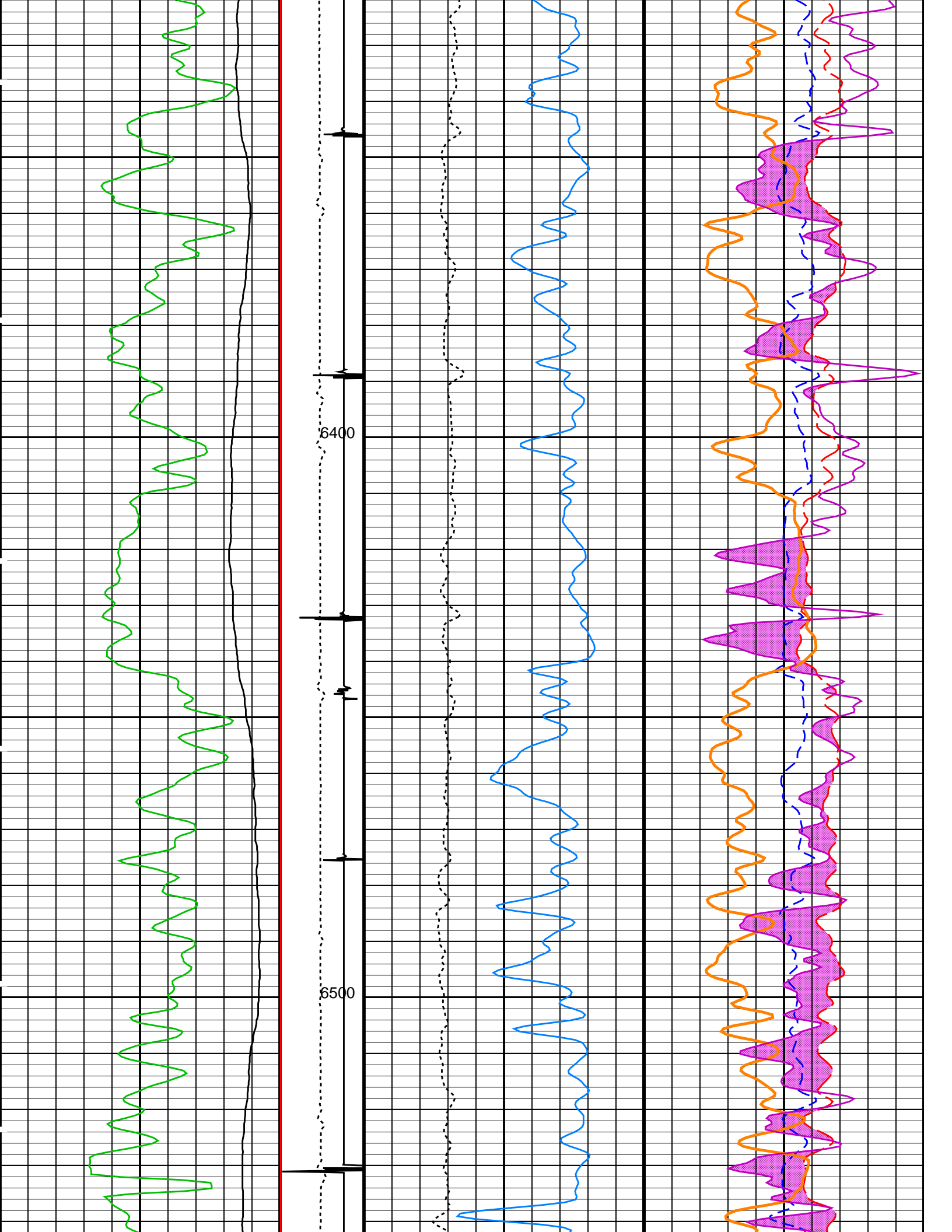


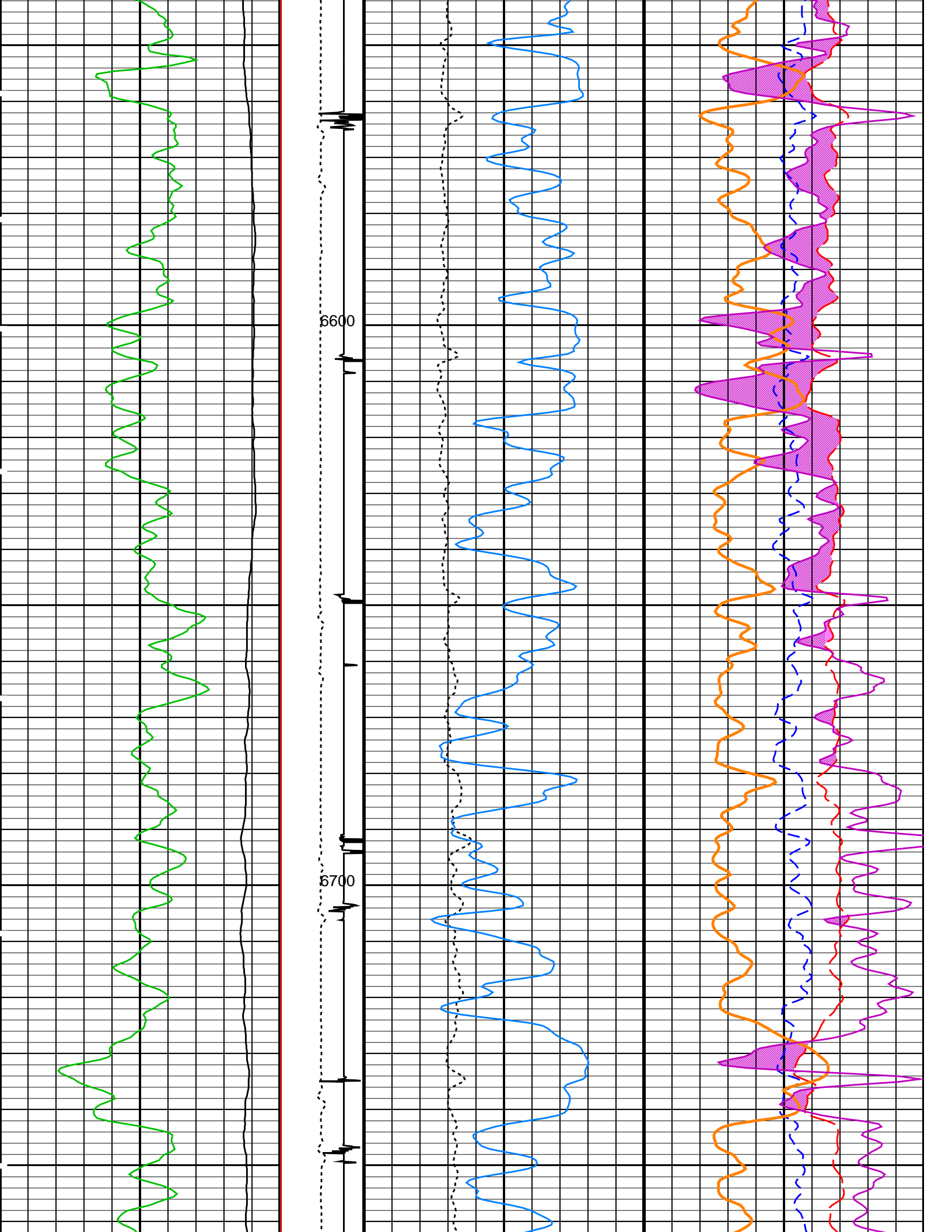


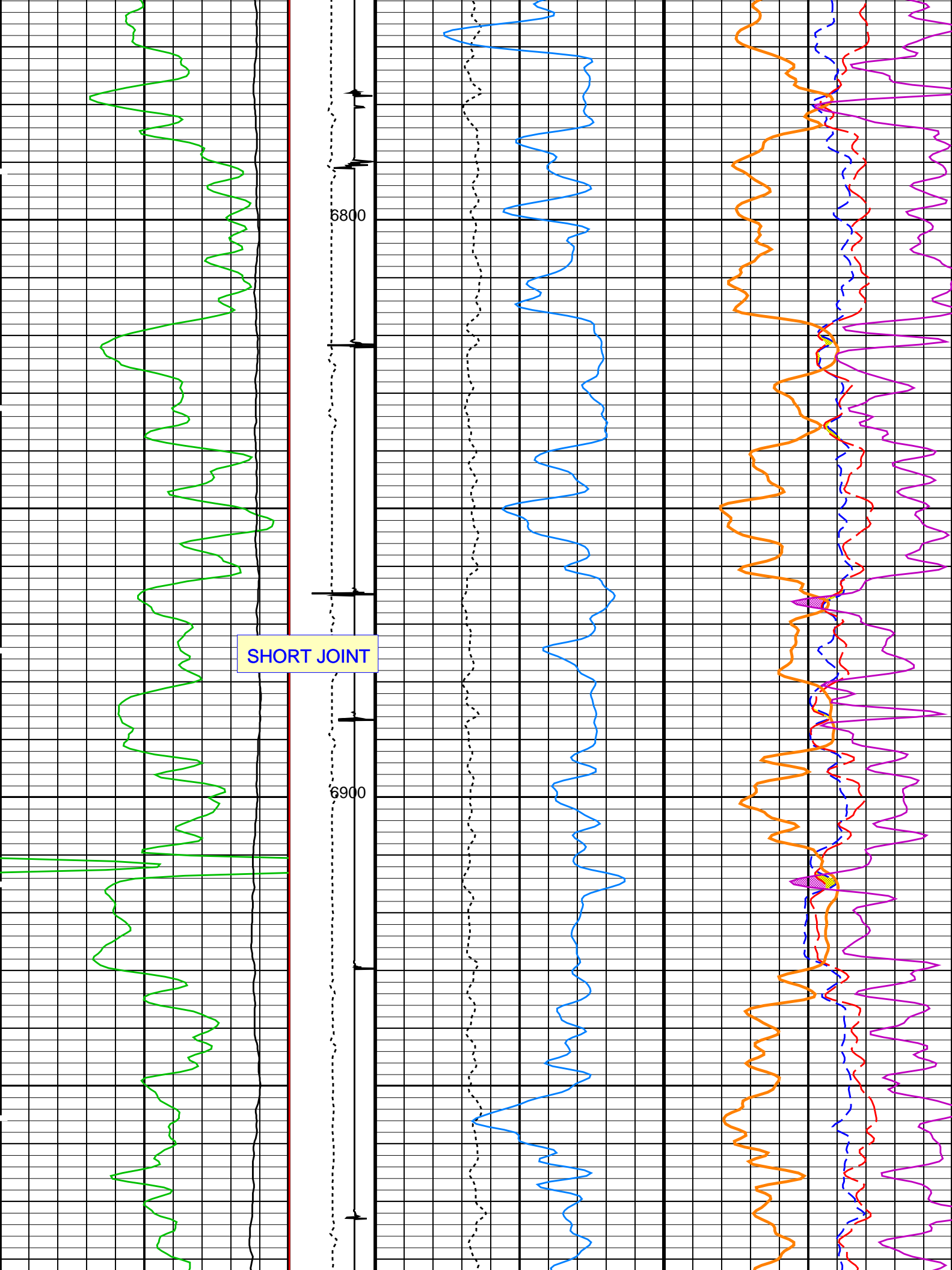


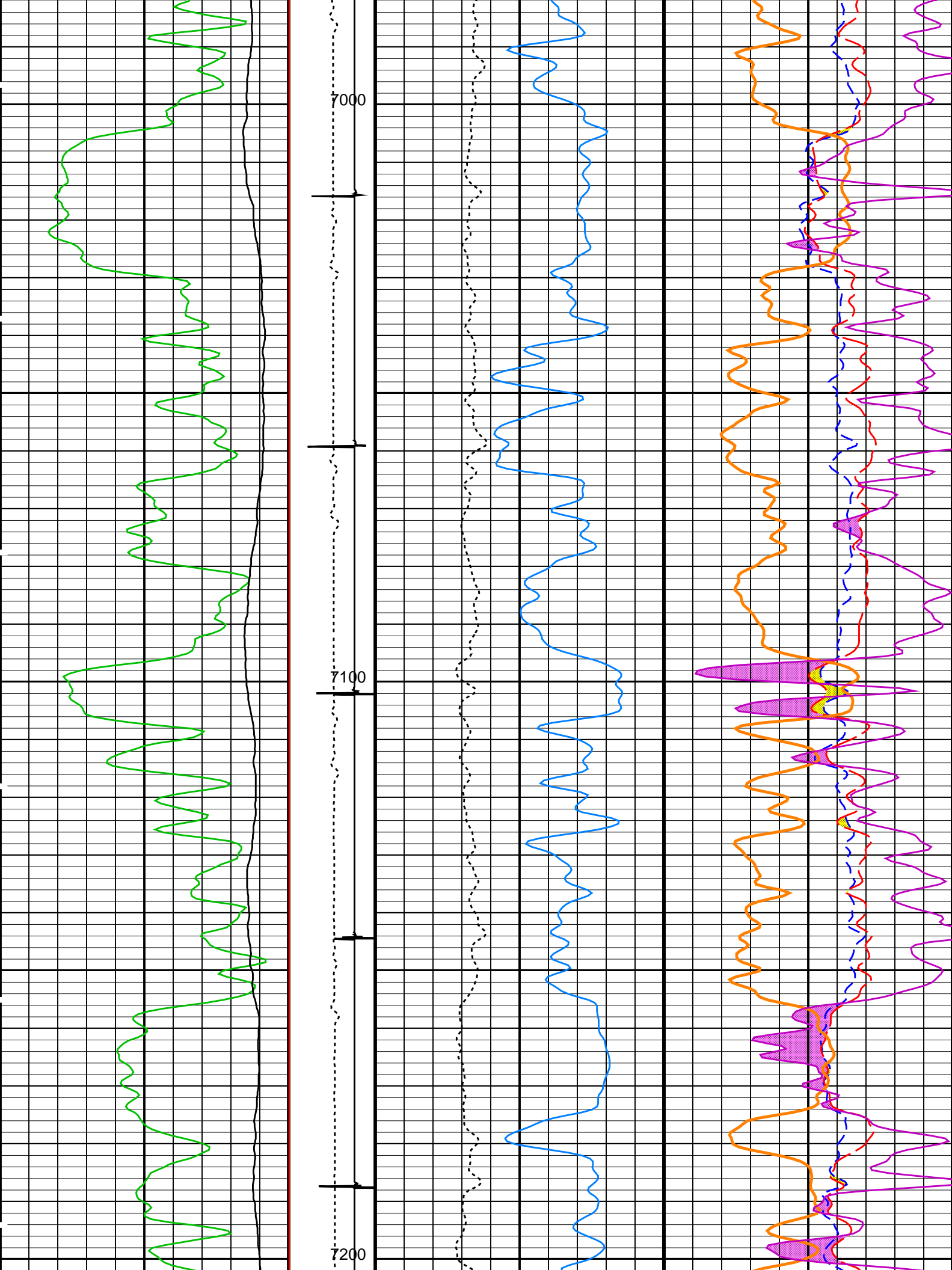


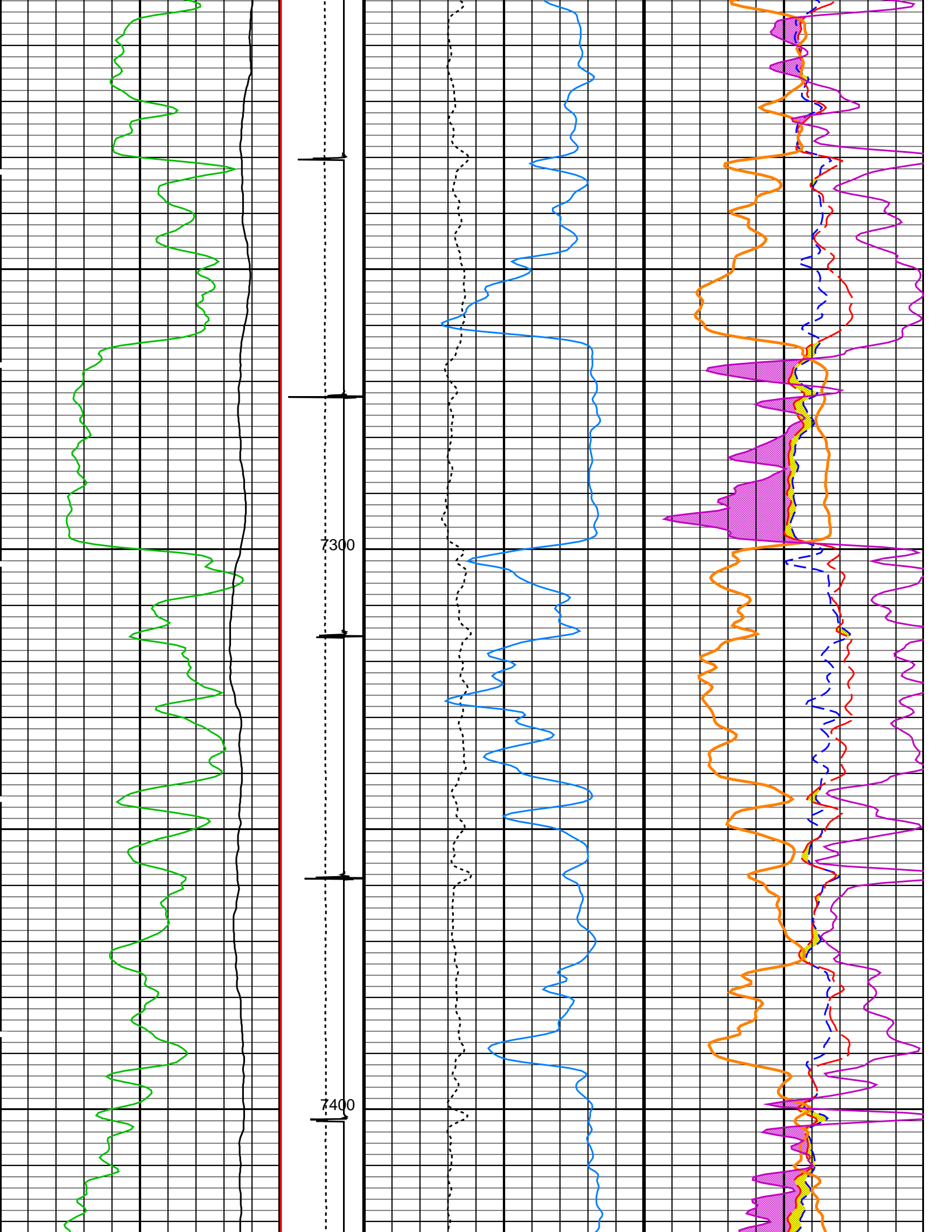


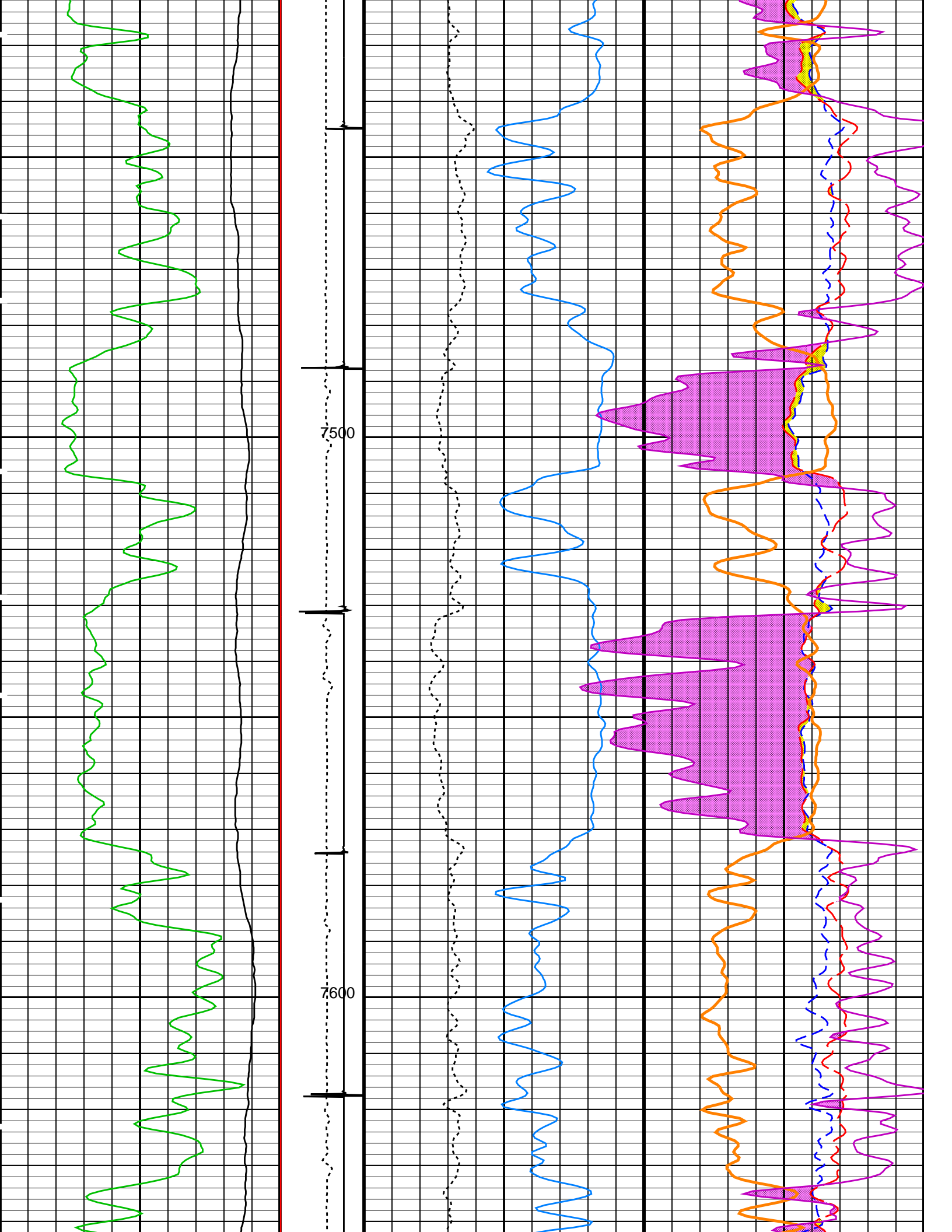


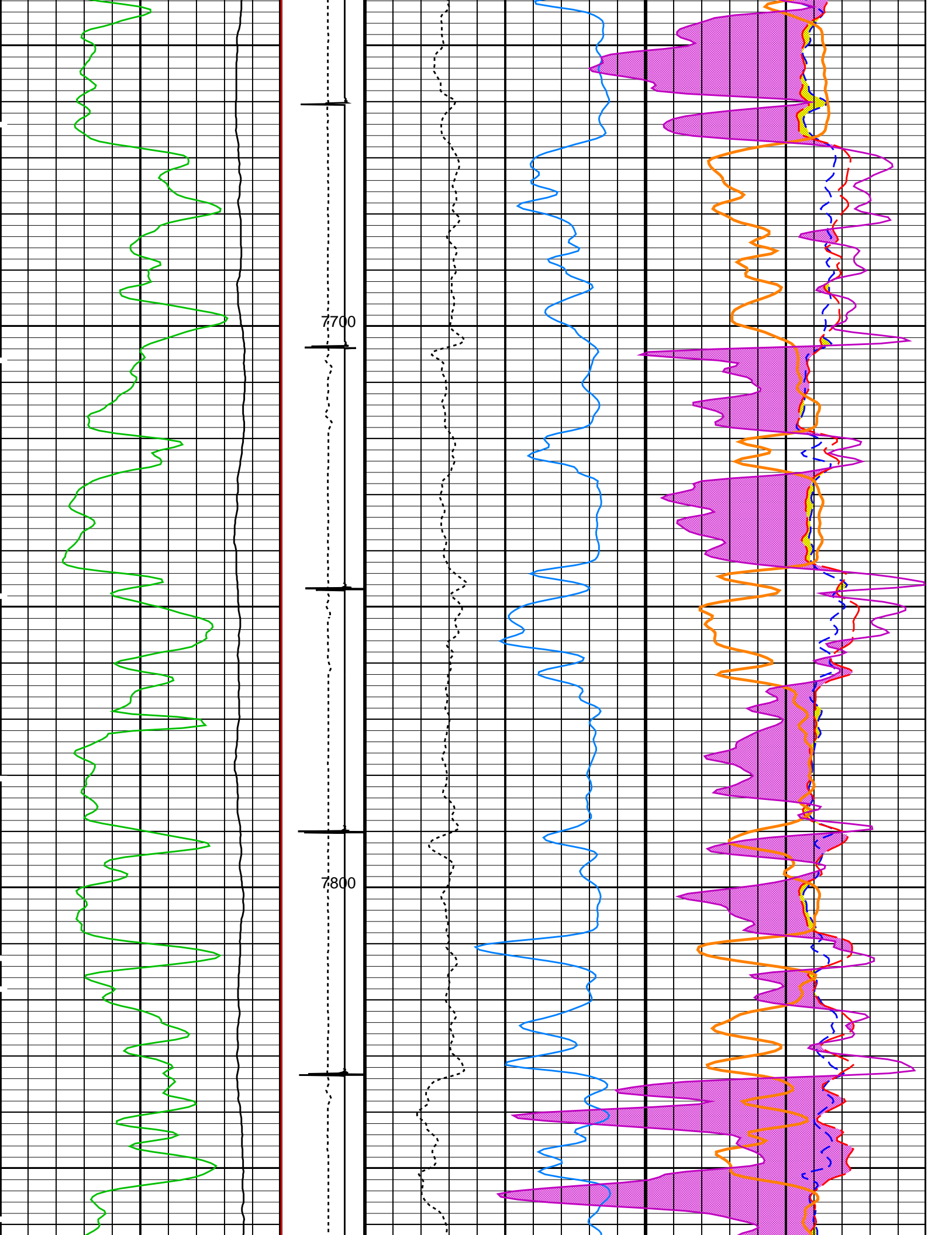


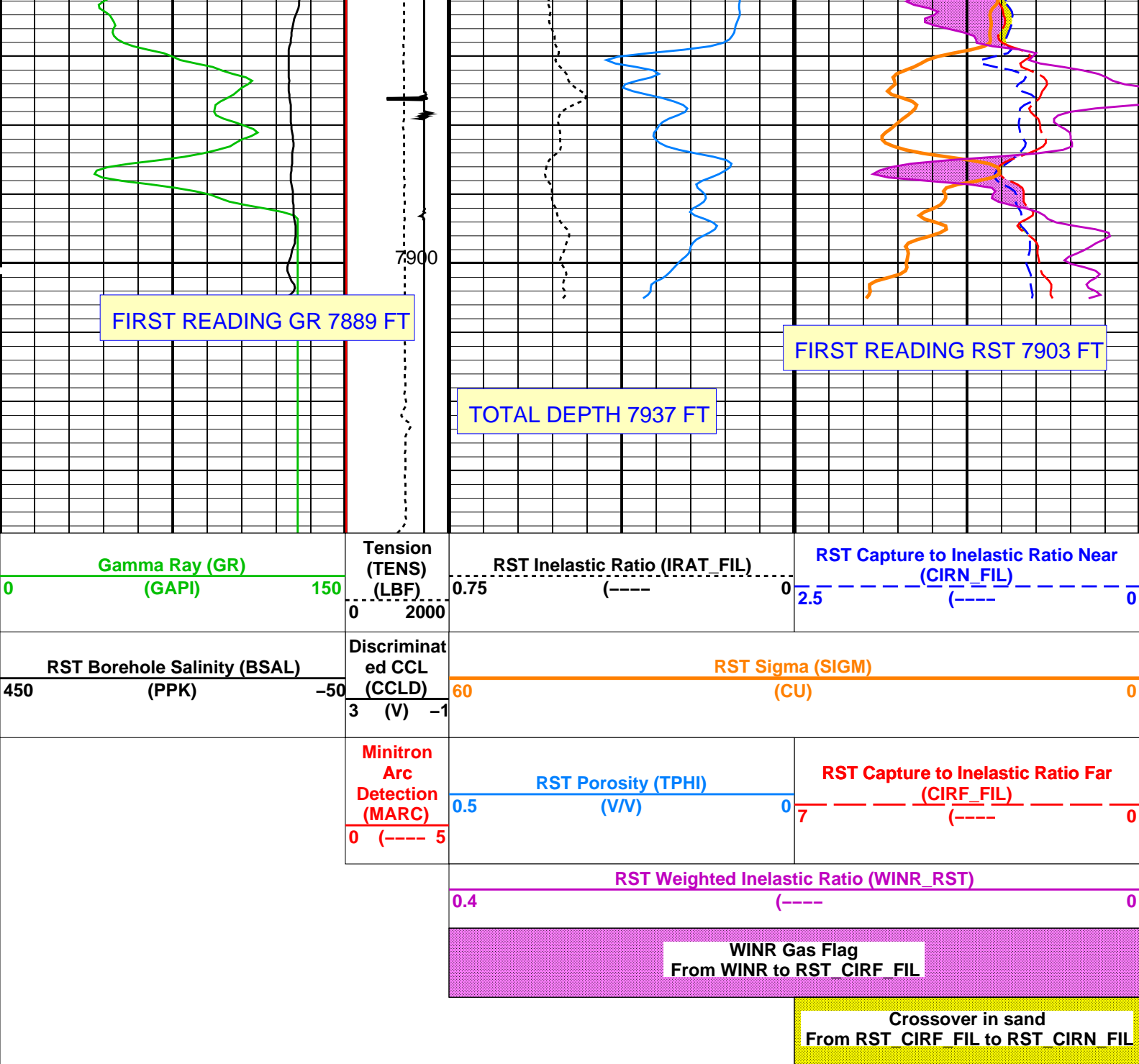












PIP SUMMARY

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	40 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
CTHL	Casing Thickness	0.255617 IN

CTH	Casing Thickness	0.233617	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.	4	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		
HBMS-B: High Temperature PSP Basic Measurement Sonde			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CSID	Casing Size I.D.	4	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	PSP Basic Sub Position	2	
PCCG	PSP Basic Sub CCL Gain	DB36	
PSTP	PSP Telemetry Cartridge position on CAN Bus	1	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
ALTDPCHAN	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	9.0	FT
FLEV	Fluid Level	-50000.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	7937	FT
TDD	Total Depth - Driller	10370.00	FT
TDL	Total Depth - Logger	7937.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: RST_SIGMA_S5 Vertical Scale: 5" per 100' Graphics File Created: 23-Sep-2012 01:55

OP System Version: 19C0-187

HBMS-B	SRPC-5214-H2-2012-OP1!					
Input DLIS Files						
DEFAULT	Splice_SCMT_RST_PSP_014CUP	FN:1	PRODUCER	23-Sep-2012 00:57	7930.0 FT	50.5 FT
Output DLIS Files						
DEFAULT	SCMT_RST_HBMS_002PUP	FN:1	PRODUCER	23-Sep-2012 01:55		

Schlumberger

REPEAT ANALYSIS RST SIGMA

MAXIS Field Log

Input DLIS Files						
DEFAULT	SCMT_RST_PSP_004LUP	FN:3	PRODUCER	22-Sep-2012 19:39	6938.0 FT	6577.5 FT
DEFAULT	Splice_SCMT_RST_PSP_014CUP	FN:1	PRODUCER	23-Sep-2012 00:57	7930.0 FT	50.5 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_021PUP	FN:19	PRODUCER	23-Sep-2012 01:31	6946.5 FT	6534.5 FT

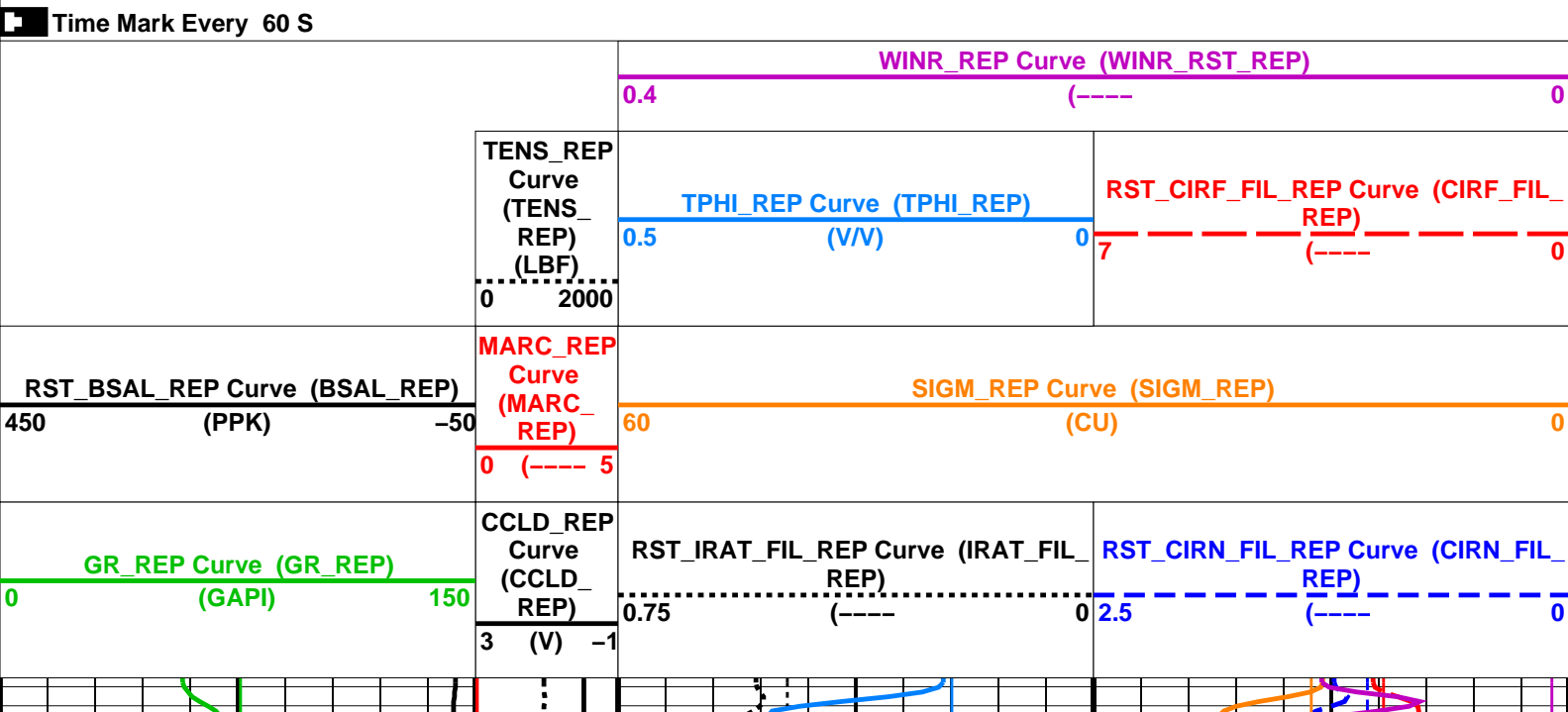
OP System Version: 19C0-187

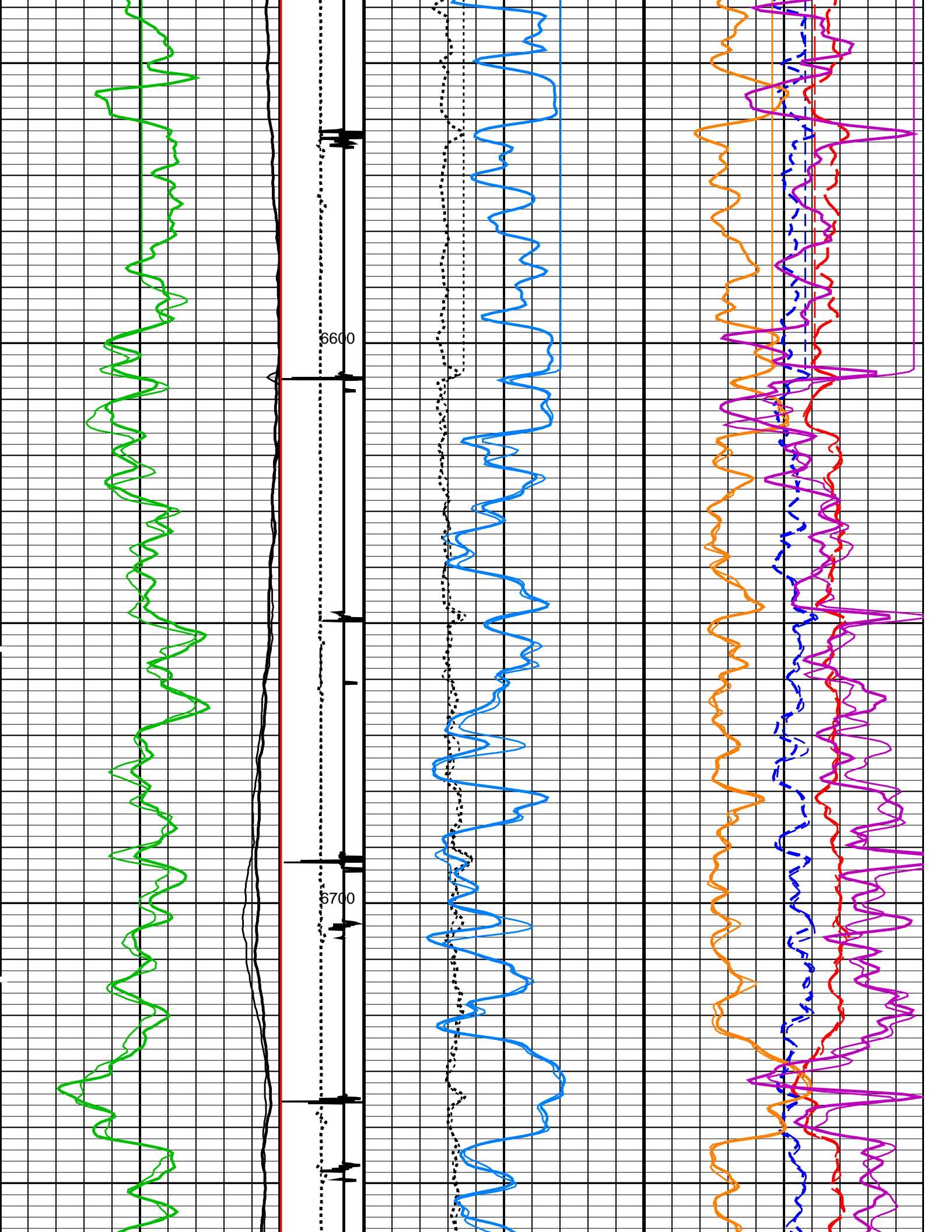
SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

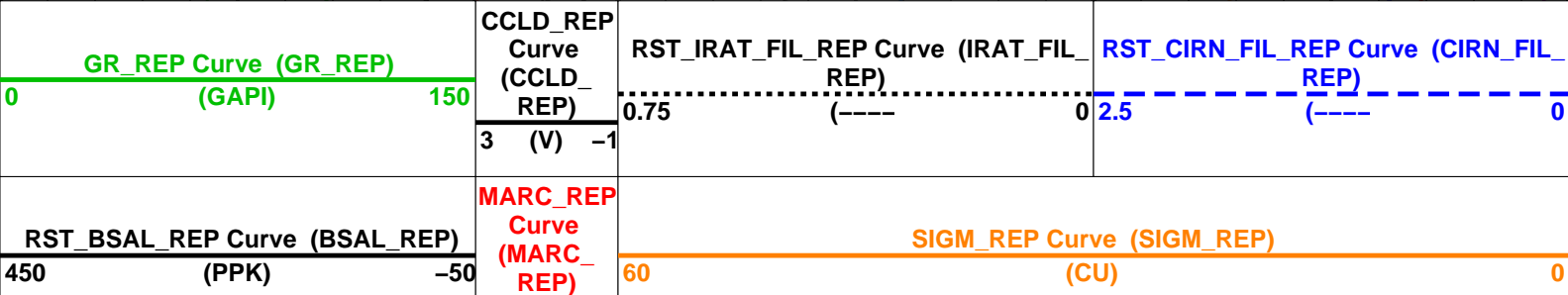
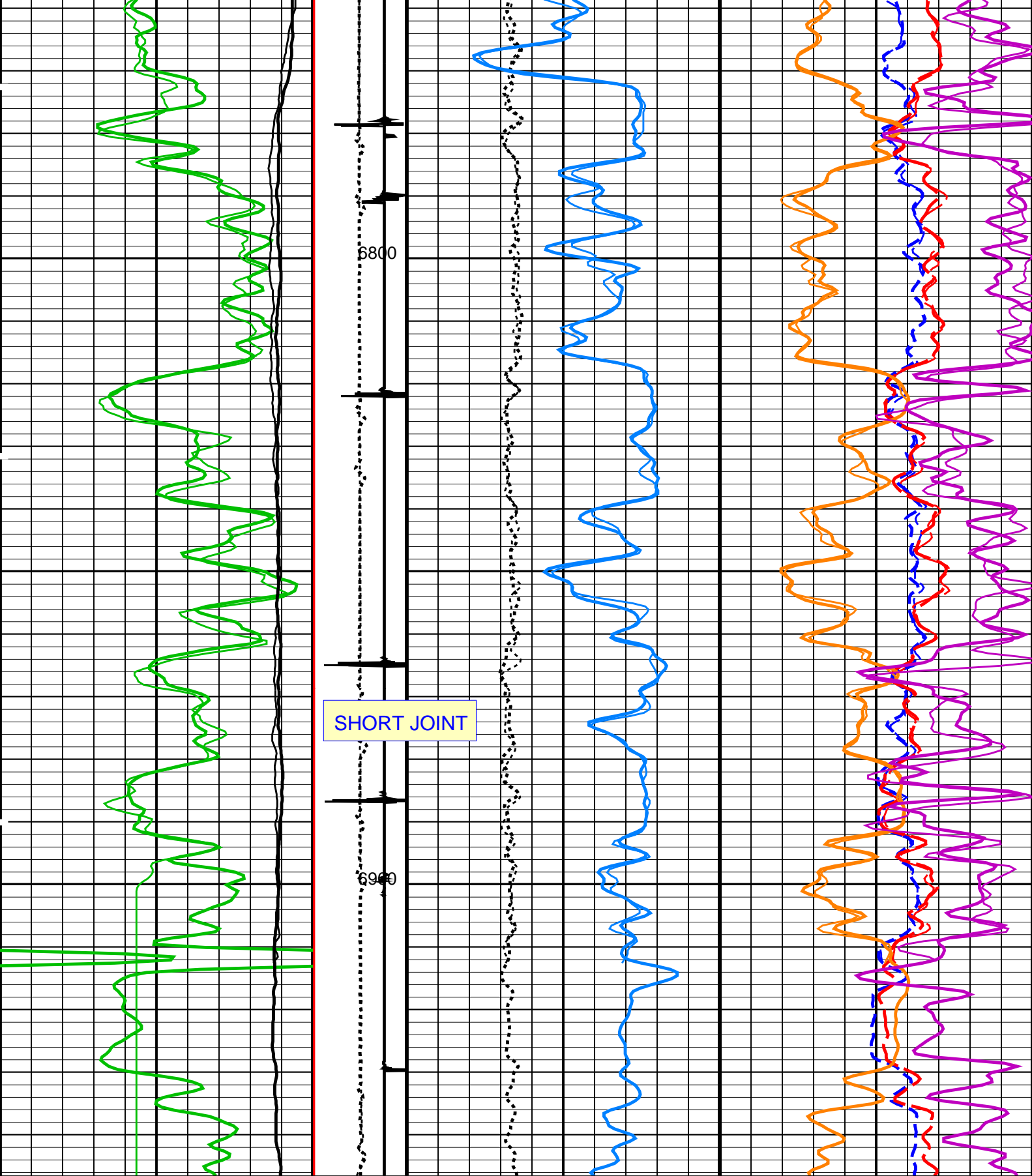
Changed Parameter Summary

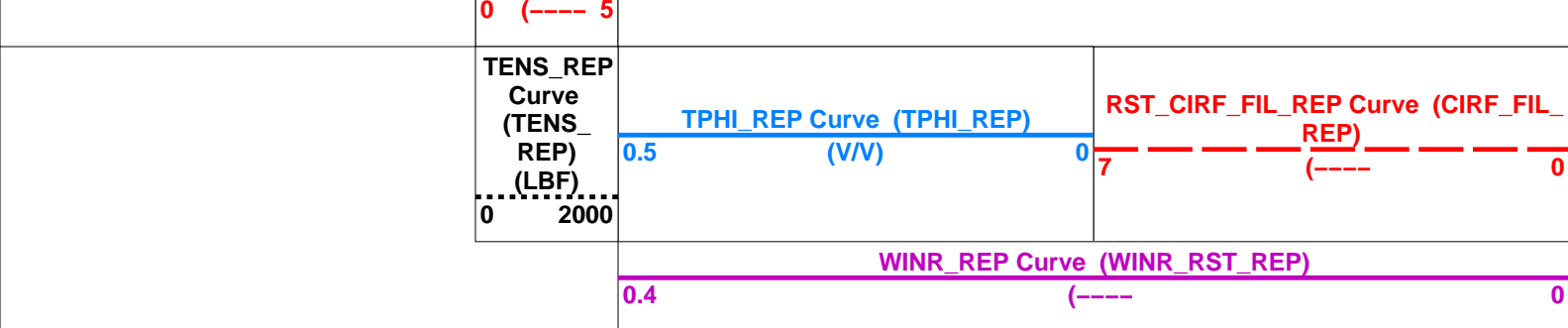
DLIS Name	New Value	Previous Value	Depth & Time
BS	6.125 IN	8.750 IN	6946.5 01:31:57

PIP SUMMARY









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	40 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
CMTT	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		
AIRB	Tractor Available in Tool String	NO
BHS	RST Air Borehole	No
BHT	Borehole Status	CASED
BSALOPT	Bottom Hole Temperature (used in calculations)	212 DEGF
BSFL	RST Borehole Salinity Option	Unknown
CSID	RST Borehole Salinity Filter Length	51
DFPC	Casing Size I.D.	4 IN
DFPC_TDTL	RST Depth Filter Processing Constant	One
GCSE	RST Depth Filter Processing Constant (TDT-like)	Two
GDEV	Generalized Caliper Selection	BS
GGRD	Average Angular Deviation of Borehole from Normal	0 DEG
GRSE	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Mud Resistivity Selection	CHART_GEN 9
ISSBAR	Generalized Temperature Selection	LINEAR_ESTIMATE
MATR	Barite Mud Switch	NOBARITE
NORM_IRAT_RST	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_SIGM_RST	RST Normalized Inelastic Ratio	0.48
PTIER	RST Normalized Sigma	30 CU
PVL_PSNT_PRST	RST Tiered Presentation Selection	0_Customer
RGAI	PVL Peak Signal/Noise Threshold	3
SHT	Near/Far Gain Calibration Ratio	1
TIER_IC	Surface Hole Temperature	68 DEGF
TIER_SIGM	RST IC Acquisition Mode	0_CO_Yield_and_Spectrolith
WOFSL_PRST	RST Sigma Acquisition Mode	0_RST_Sigma
WONSL_PRST	RST WFL-Off Subcycle Length	0
WSCOM_PRST	RST WFL-On Subcycle Length	0
PSPT: Production Services Logging Platform		
BUS	Barrel Status	CASED

BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CSID	Casing Size I.D.	4	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	8.5	FT
DORL	Depth Offset for Repeat Analysis	9.0	FT
FLEV	Fluid Level	-50000.00	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	7937	FT
TDD	Total Depth - Driller	10370.00	FT
TDL	Total Depth - Logger	7937.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: RST_SIGMA_S5_REP Vertical Scale: 5" per 100' Graphics File Created: 23-Sep-2012 01:31

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_004LUP	FN:3	PRODUCER	22-Sep-2012 19:39	6938.0 FT	6577.5 FT
DEFAULT	Splice_SCMT_RST_PSP_014CUP	FN:1	PRODUCER	23-Sep-2012 00:57	7930.0 FT	50.5 FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_021PUP	FN:19	PRODUCER	23-Sep-2012 01:31
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Schlumberger

PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: MCU 22-13B (N22W)
Run date:

Tool: PSP
Sub Type: PBMS
Sensor: Clock Model

Sonde Serial NB 3779
Calib Date ddmmyy 090107
Matrix Size 16
Coeff CRC D285

Clock Coeff

	Temp**0	Temp**1	Temp**2
Temp**0	-.210501098404E+03	-.537713340627E+01	-.752421519422E-01
	Temp**3	Temp**4	Temp**5
Temp**0	+.630273975887E-03	+.266728381738E-05	0.0

Client:	ENCANA OIL & GAS (USA) INC	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	MCU 22-13B (N22W)	Sensor:	Sapphire
Run date:			

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB COEFFICIENTS FOR SAPPHIRE PBMS-A.3779 S/N:
Sensor Serial NB 3779
Calib Date ddmmyy 090107
Matrix Size 66
Coeff CRC 4C82

Pres Coeff

	Tt**0	Tt**1	Tt**2
Tp**0	-.611876617639E+04	+.471061007964E+04	-.216447354932E+04
Tp**1	+.371836126905E+04	-.234756196935E+04	+.129149325686E+04
Tp**2	+.193143980957E+02	-.189348218853E+01	-.341812471126E+01
Tp**3	-.568815065386E+01	+.200079683569E+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	+.380249508124E+03	-.247683004908E+02	0.0
Tp**1	-.227135245080E+03	+.146352372057E+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 3779
 Calib Date ddmmyy 090107
 Matrix Size 66
 Coeff CRC C39E

Temp Coeff

	Tp**0	Tp**1	Tp**2
Tt**0	-.278275571347E+03	+.251216271916E+01	-.820715649824E+00
Tt**1	+.598349067015E+02	-.107326373545E+01	+.652890183203E-01
Tt**2	+.109160002120E+02	+.262812193556E+00	-.450134240377E-02
Tt**3	-.673302171285E+00	-.213772918779E-01	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	+.151507143209E+00	-.592670012996E-02	0.0
Tt**1	+.127486538512E-01	-.437897076104E-02	0.0
Tt**2	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: MCU 22-13B (N22W)
 Run date:

Tool: PSP
 Sub Type: PBMS
 Sensor: GR

PBMS Gamma Ray

Sonde Serial NB RESISTORS FOR GR SENSOR N.34552,TOOL PBMS-AA3779. SENSOR S/N:
 Sensor Serial NB 34552
 Calib Date ddmmyy 030606
 Matrix Size 12

Coeff CRC	3AE5	
GR HV Rt		
	Rt**0	Rt**1
Rt**0	+.200000000000e+04	+.214000000000e+04

Client:	ENCANA OIL & GAS (USA) INC	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	MCU 22-13B (N22W)	Sensor:	WellTemp RTD
Run date:			

PBMS RTD Well Thermometer

Sonde Serial NB	COEFFICIENTS FOR RTD THERMOMETER PBMS-A.3779 S/N:
Sensor Serial NB	3779
Calib Date ddmmyy	090107
Matrix Size	16
Coeff CRC	3846

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	+.492135102627E+02	-.278827553804E+03	+.142867554561E+03
	Tt**3	Tt**4	Tt**5
Tt**0	-.233378392336E+02	+.145553494493E+01	0.0

Well: **MCU 22–13B (N22W)**
Field: **MAMM CREEK**
County: **GARFIELD**
State: **COLORADO**

RESERVOIR SATURATION LOG
SIGMA MODE
GAMMA RAY – CCL