



Company: Esso Australia Pty Ltd.

Well: A-1a Long  
Field: Tuna  
Rig: Crane

Country: Australia

Pressure/Temperature/Full Bore Spinner Survey Tubing Patch Setting Record	LOCATION		Elev.:	K.B.	32.90 m
	Gippsland			G.L.	91.40 m
	Basin			D.F.	32.90 m
	Bass Strait				
	Permanent Datum:		M.S.L.		
	Log Measured From:		K.B.		
	Drilling Measured From:		K.B.		
State: Victoria	Max. Well Deviation 59 deg		Longitude 148° 25' 05.29"E		Latitude 38° 10' 16.00"S
Logging Date	24-Nov-2008				
Run Number	1 through 4				
Depth Driller	2978 m				
Schlumberger Depth	2978 m				
Bottom Log Interval	2794 m				
Top Log Interval	1910 m				
Casing Fluid Type	Production Fluids				
Salinity					
Density					
Fluid Level	125 m				
BIT/CASING/TUBING STRING					
Bit Size	8.500 in				
From	2037 m				
To	3217 m				
Casing/Tubing Size	7.000 in				
Weight	23 lbm/ft				
Grade	K-55				
From	1936 m				
To	3242 m				
Maximum Recorded Temperatures	195 degF				
Logger On Bottom	24-Nov-2008		Time		17:52
Unit Number	Location		889 Prod 4 / AUSL		
Recorded By	S Gilbert				
Witnessed By	B White, G Rimmer				

			Run 1
PVT DATA			
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	59 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: 17-NOV-2008 8:13:25

### Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-EB Serial Number: 6373 Calibration Date: 04-jan-2007 Calibrator Serial Number: 9 Calibration Cable Type: 2-32ZT Wheel Correction 1: -2 Wheel Correction 2: -4	Type: PSDS/OSDS Serial Number: 325337 Calibration Date: 4-Nov-2008 Calibrator Serial Number: 1174 Calibration Gain: 0.90 Calibration Offset: -115.00	Type: 2-32ZT Serial Number: 207308 Length: 6450 M Conveyance Method: Wireline Rig Type: Rigless

### Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Solar Composite Log
Reference Log Run Number:	
Reference Log Date:	
Subsequent Trip Down Log Correction:	

### Depth Control Remarks














1. IDW-EB 6373 used as primary depth control.
2. Z-Chart as Backup
3.
4.
5.
6.

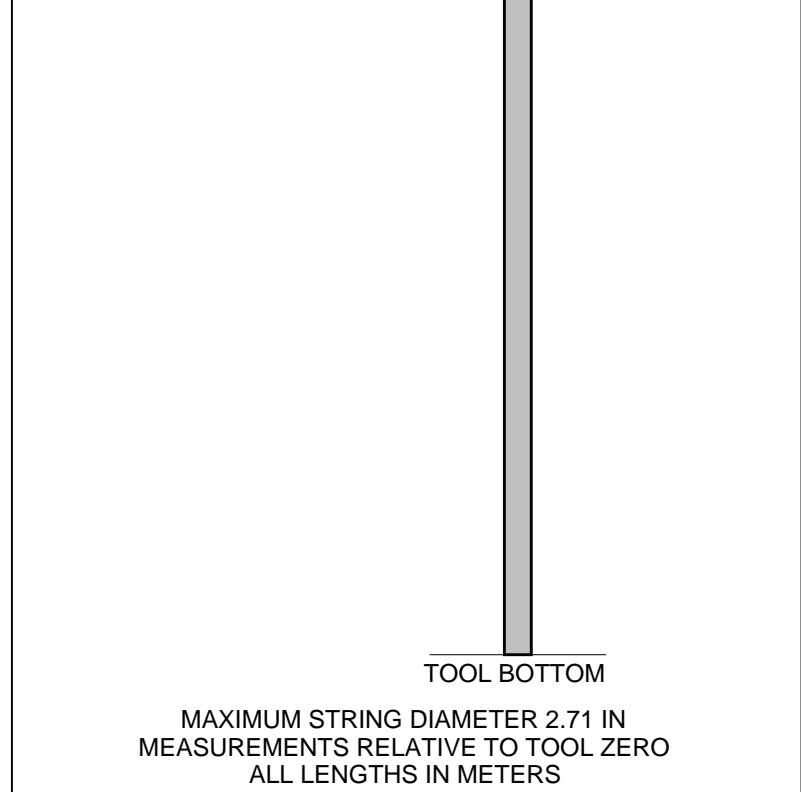
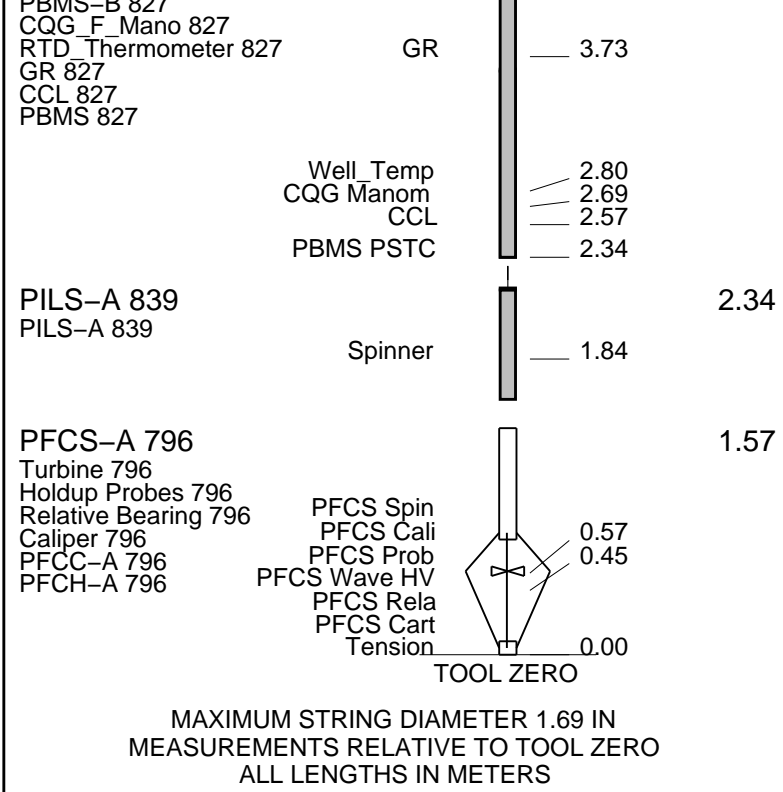
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OTHER SERVICES1 OS1: None
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REMARKS: RUN NUMBER 1
Log correlated to ExxonMobil Solar Composite Log supplied with logging program.
Objectives:Conduct Flowing Pressure/Temperature/Inline and Full bore Spinner Survey to diagnose a possible Leaking Tubing or Plug .
Maximum Deviation = 59 deg @ 1878m MDKB
Hole Detected in Tubing at 2411m to 2412m MDKB
Run 30ft 2.72" Drift to ensure access for Tubing Patch .
Could not make depth with 30ft patch , hanging up around the Packer @ 1924m MDKB .

Set 20ft Tubing Patch over the interval 2408.2 m to 2414.8 m MDKB					
Tubing Patch Length Seal to Seal = 6.6 m					
Top of Patch @ 2408.2 m MDKB					
CCL to Top of Patch Seal = 3.85 m					
CCL Stop Depth = 2404.35m MDKB					
Spinner Survey Ran After Tubing Patch to confirm integrity .					
Schlumberger crews: J Annear , G Blandford					
RUN 1					
SERVICE ORDER #:		AUSL08356999			
PROGRAM VERSION:		16C0-147			
FLUID LEVEL:		125 m			
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT			SURFACE EQUIPMENT		
WITM-A 827 PSC_16MHZ 827			WITM (SHM)		
DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
SWBS-B 785		10.46	SWHS-A 759		13.23
SWBS-B 786		9.77	CCL-L CCL-L		12.91
SWBS-B 787		9.09	Tension CCL		
SWBS-B 788		8.40	ESIC 4007395		12.46
SWBS-B 789		7.71	AH-OWEN Setting Tool AH-OWEN Setting Tool		12.00
SWHS-A 759		7.03	SHM_GUN GUN-OWEN Tubing Patch		7.00
EQF-43 003		6.69			
PSPT-B 827 PSC-A 827 PSPT-B 827 PSTC 827 PSC-B 827		4.86			
Detail MT TelStatus CTEM					

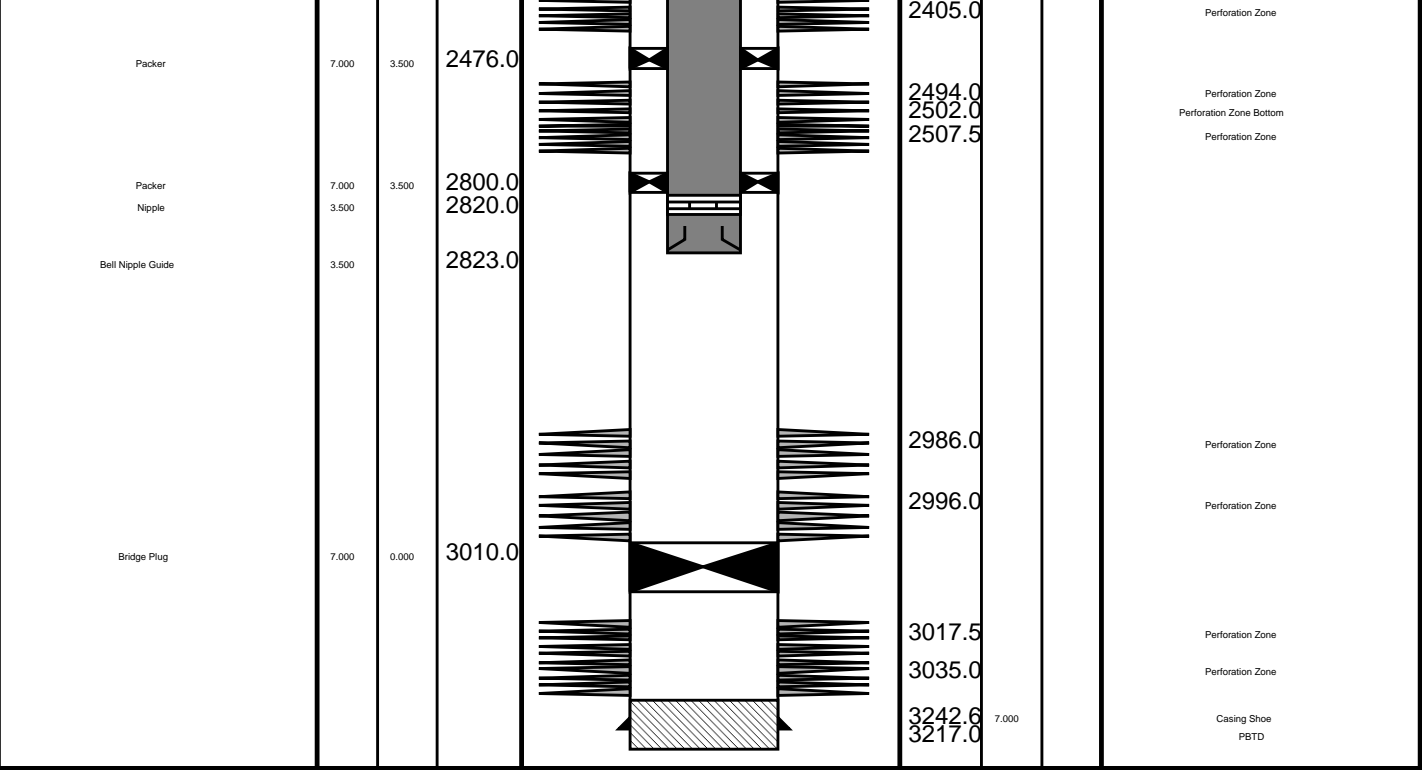


Client: Esso Australia  
 Well: TNA A-1a Long  
 Field: Tuna  
 State: Victoria  
 Country:

Drawing Date: 11/22/2008  
 API #:

Rig Name:  
 Reference Datum: Kelly Bushing  
 Elevation:

Production String	(in)		(m)	Well Schematic	(m)		(in)	Casing String
	OD	ID			MD	OD	ID	
Tubing	3.500		13.8		14.4	9.675		Casing String
					14.4	13.375	9.675	Liner Hanger
					14.4	13.375		Casing String
Shut-in Valve	3.500		449.6					
Gas Lift Mandrel	3.500		1194.0					
					903.0	13.375		Casing Shoe
Gas Lift Mandrel	3.500		1681.0					
Nipple	3.500		1697.0					
Packer, DUEL PACKER	9.675	3.500	1924.0					
Nipple	3.500		1942.0					
					1936.0	7.000		Casing String
					1936.0	9.675	7.000	Liner Hanger
					2063.0	9.675		Casing Shoe



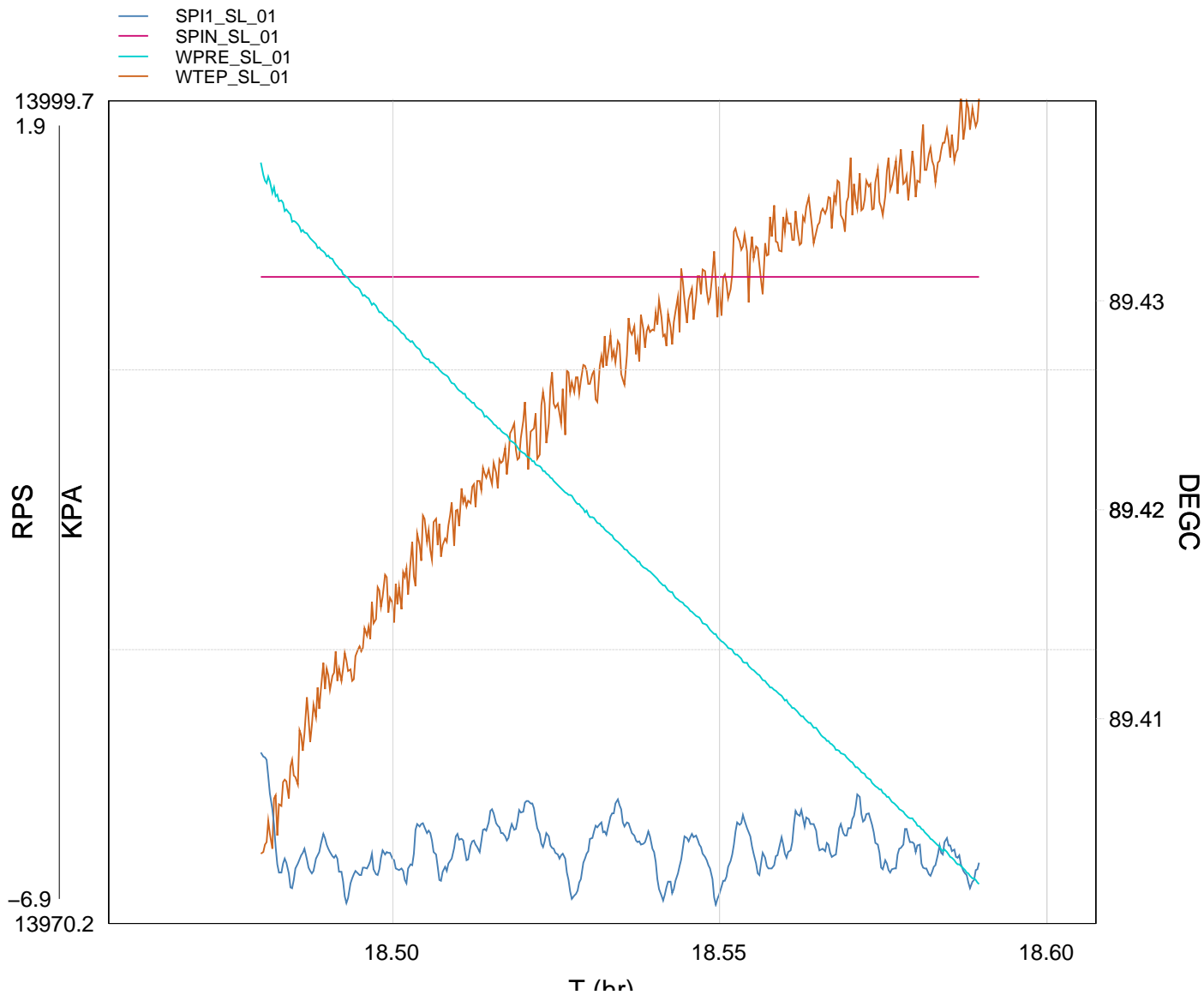
## Job Events Summary

MAXIS Field Log

### Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (up)	24-Nov-2008 16:59	001:46	2982.0 - 1893.4	FCS_ILS_PSP_017LUP
Log Pass (up)	25-Nov-2008 14:11	000:10	2455.3 - 2369.8	PERFO_026LUP
Log Pass (up)	27-Nov-2008 14:24	000:27	2451.4 - 2367.5	PERFO_054LUP
Station Log	27-Nov-2008 17:25	000:37	2470.0 - 4.9	FCS_ILS_PSP_061LTP
Log Pass (up)	27-Nov-2008 18:03	000:20	2469.9 - 2368.3	FCS_ILS_PSP_062LUP
Station Log	27-Nov-2008 18:09	000:13	2373.1 - 1.9	FCS_ILS_PSP_063LTP
Station Log	27-Nov-2008 18:27	000:08	2400.0 - 1.1	FCS_ILS_PSP_064LTP
Station Log	27-Nov-2008 18:36	000:12	2425.0 - 1.6	FCS_ILS_PSP_065LTP
Log Pass (up)	27-Nov-2008 18:53	000:22	2504.7 - 1890.5	FCS_ILS_PSP_067LUP

MAXIS Field Log



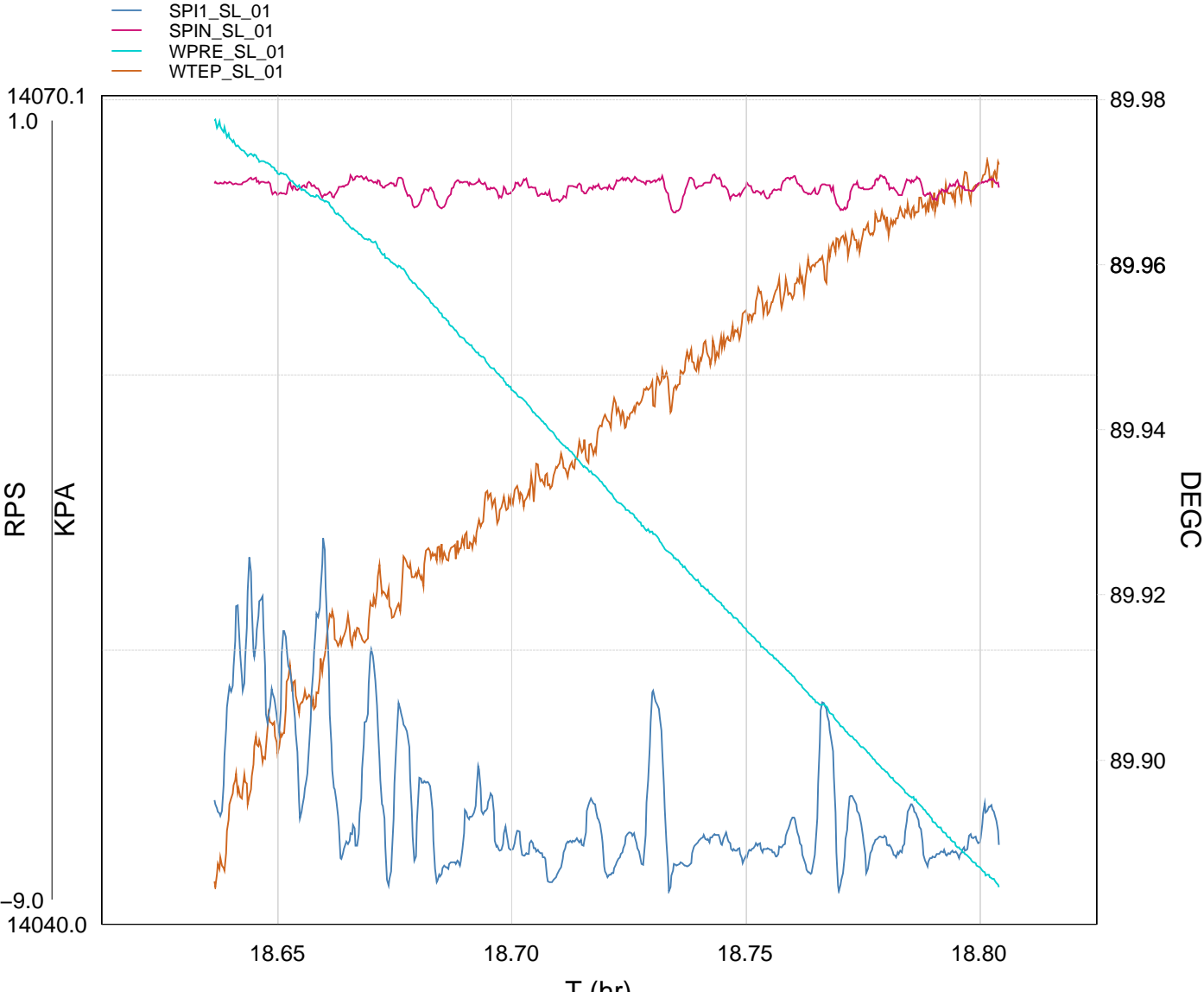
TIME	PFCS_SPINNER	PILS	DEGF	PSIA
8010.0	0.0000	-6.3077	192.9281	2029.9893
8040.0	0.0000	-6.2181	192.9417	2029.6556
8070.0	0.0000	-6.1818	192.9502	2029.3471
8100.0	0.0000	-6.4905	192.9520	2029.0708
8130.0	0.0000	-5.8666	192.9592	2028.7869
8160.0	0.0000	-6.1037	192.9664	2028.5207
8190.0	0.0000	-5.9573	192.9709	2028.2518
8220.0	0.0000	-6.5775	192.9740	2027.9825
8250.0	0.0000	-6.6615	192.9781	2027.7089

8280.0	0.0000	-6.3537	192.9779	2027.4434
8310.0	0.0000	-6.1480	192.9819	2027.1736
8340.0	0.0000	-6.1018	192.9853	2026.9085
8370.0	0.0000	-6.3930	192.9860	2026.6371
8400.0	0.0000	-6.2243	192.9849	2026.3698



Station Log @ 2425m MDKB

MAXIS Field Log



TIME      PFCS\_SPINNER      PILS      DEGF      PSIA

8550.0	0.0123	7.2056	192.7121	2029.1077
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8550.0	-0.0123	-7.3956	193.7121	2039.1077
8580.0	-0.0188	-5.4565	193.8160	2040.4412
8610.0	-0.1278	-6.2623	193.8276	2040.3173
8640.0	-0.0431	-5.8862	193.8329	2040.1696
8670.0	0.0461	-7.8661	193.8454	2039.9995
8700.0	-0.0139	-8.2932	193.8524	2039.8231
8730.0	-0.0658	-7.3387	193.8651	2039.6159
8760.0	-0.0317	-7.7058	193.8666	2039.3905
8790.0	-0.1485	-8.0170	193.8754	2039.1736
8820.0	-0.1568	-8.4191	193.8819	2038.9576
8850.0	-0.1294	-7.8144	193.8857	2038.7408
8880.0	0.0388	-7.9958	193.8925	2038.5249
8910.0	-0.0159	-7.3709	193.9033	2038.3187
8940.0	-0.0329	-7.9236	193.9093	2038.1134
8970.0	-0.1259	-8.1989	193.9158	2037.9108
9000.0	-0.0818	-8.0587	193.9195	2037.7044
9030.0	-0.0817	-6.6975	193.9292	2037.4905
9060.0	-0.0658	-7.6497	193.9323	2037.2832
9090.0	-0.1393	-8.1224	193.9384	2037.0748
9120.0	-0.2091	-8.1385	193.9416	2036.8565
9150.0	-0.0612	-7.9365	193.9453	2036.6532



Spinner Pass Up @ 20m/min  
2470m to 2350m MDKB

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-1a Long

Output DLIS Files

DEFAULT FCS\_ILS\_PSP\_062LUP FN:61 PRODUCER 27-Nov-2008 18:03

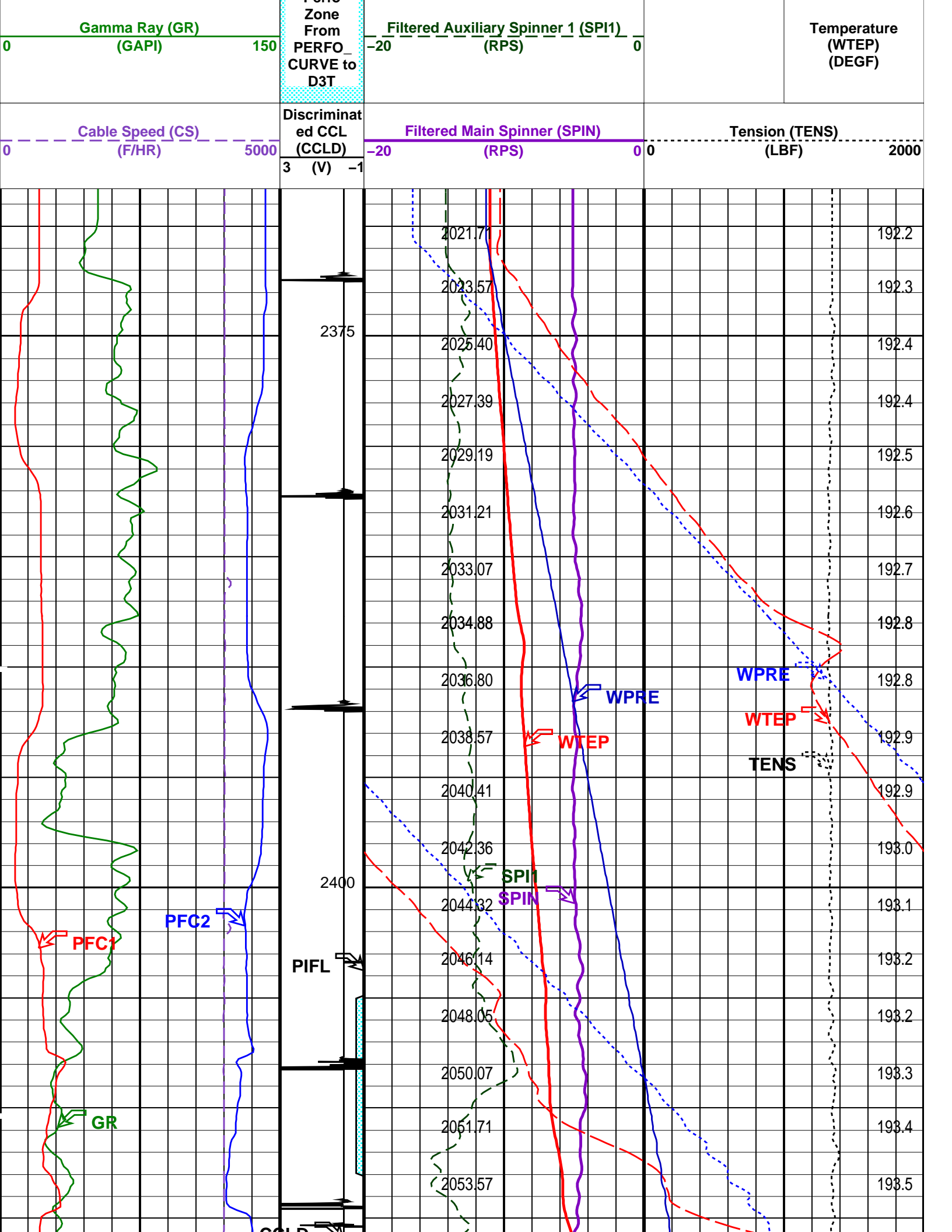
OP System Version: 16C0-147  
MCM

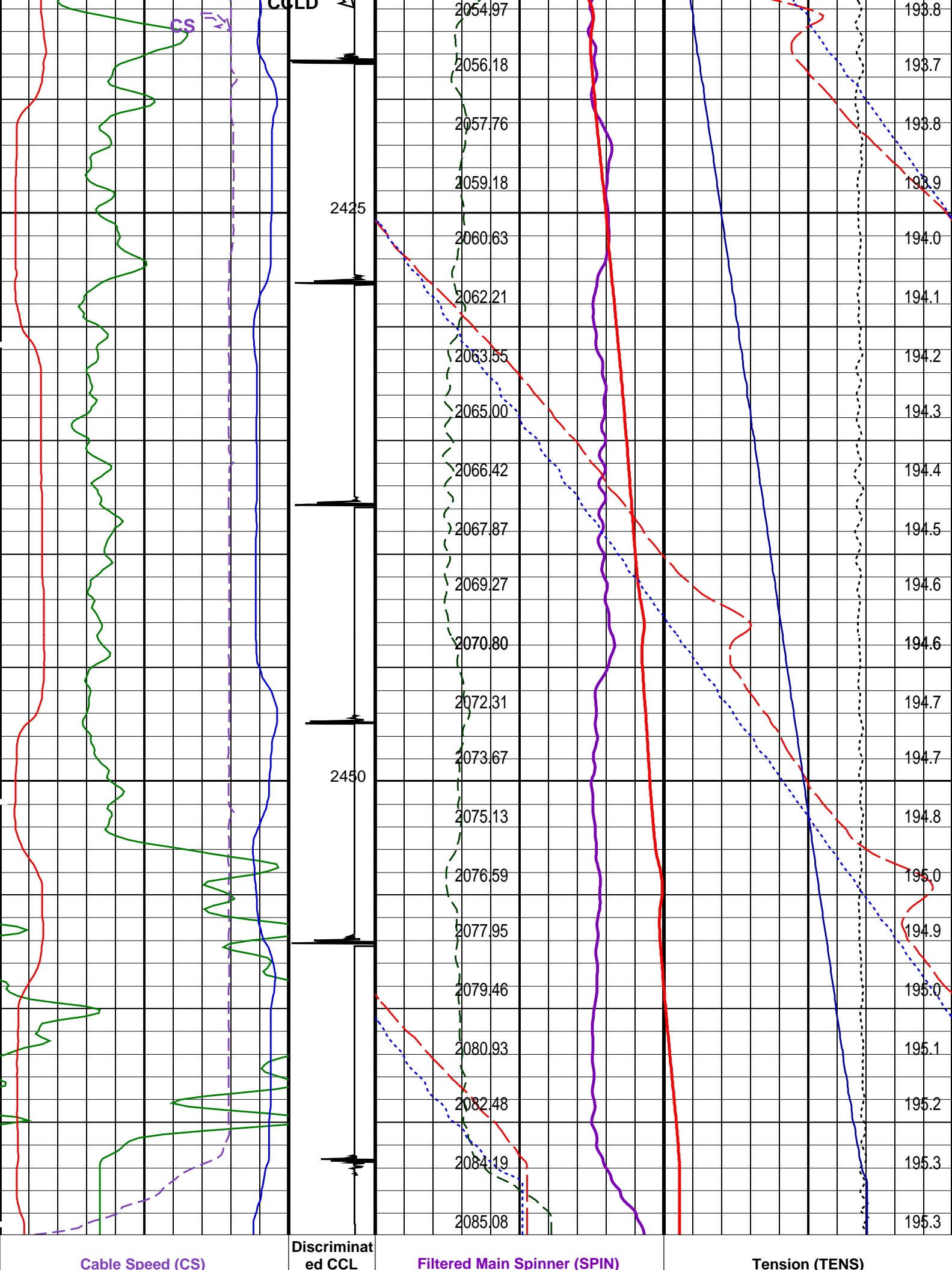
PFCS-A SRPC-3624-Q2\_2008\_OP16 PILS-A SRPC-3624-Q2\_2008\_OP16  
PSPT-B SRPC-3624-Q2\_2008\_OP16

PIP SUMMARY

Time Mark Every 60 S

		Amplified Well Pressure (WPRESIA)	
		0	20
		Well Pressure (WPRESIA)	
		2000	2100
		Well Pressure (WPRESIA)	
PFCS Y Caliper (PFC2IN)		Well Temperature (WTEPDEGF)	
-4	4	0	1
PFCS X Caliper (PFC1IN)		Well Temperature (WTEPDEGF)	
4	-4	190	200
		Perfo	





<div>0(F/HR)5000</div>			<div>(CCLD) 3(V)-1</div> <div>Perfo Zone From PERFO_ CURVE to D3T</div>	<div>-20(RPS)00</div> <div>(LBF)2000</div>		
<div>Gamma Ray (GR) 0(GAPI)150</div>				<div>Filtered Auxiliary Spinner 1 (SPI1) -20(RPS)0</div>		<div>Temperature (WTEP) (DEGF)</div>
<div>PFC1 X Caliper (PFC1) 4(IN)-4</div>				<div>Well Temperature (WTEP) 190(DEGF)200</div>		
<div>PFC2 Y Caliper (PFC2) -4(IN)4</div>				<div>Well Temperature (WTEP) 0(DEGF)1</div>		
				<div>Well Pressure (WPRE) (PSIA)</div>		
			<div>Well Pressure (WPRE) 2000(PSIA)2100</div>			
			<div>Amplified Well Pressure (WPRE) 0(PSIA)20</div>			

PIP SUMMARY											
Time Mark Every 60 S											

Format: PSP+SPIN		Vertical Scale: 1:200		Graphics File Created: 27-Nov-2008 18:03	
OP System Version: 16C0-147					
MCM					
PFCS-A	SRPC-3624-Q2_2008_OP16	PILS-A	SRPC-3624-Q2_2008_OP16		
PSPT-B	SRPC-3624-Q2_2008_OP16				

Parameters		
DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB

Output DLIS Files					
DEFAULT	FCS_ILS_PSP_062LUP	FN:61	PRODUCER	27-Nov-2008 18:03	

Schlumberger

Patch Setting Pass

MAXIS Field Log

Output DLIS Files					
DEFAULT	PERFO_054LUP	FN:53	PRODUCER	27-Nov-2008 14:24	2451.4 M 2367.5 M

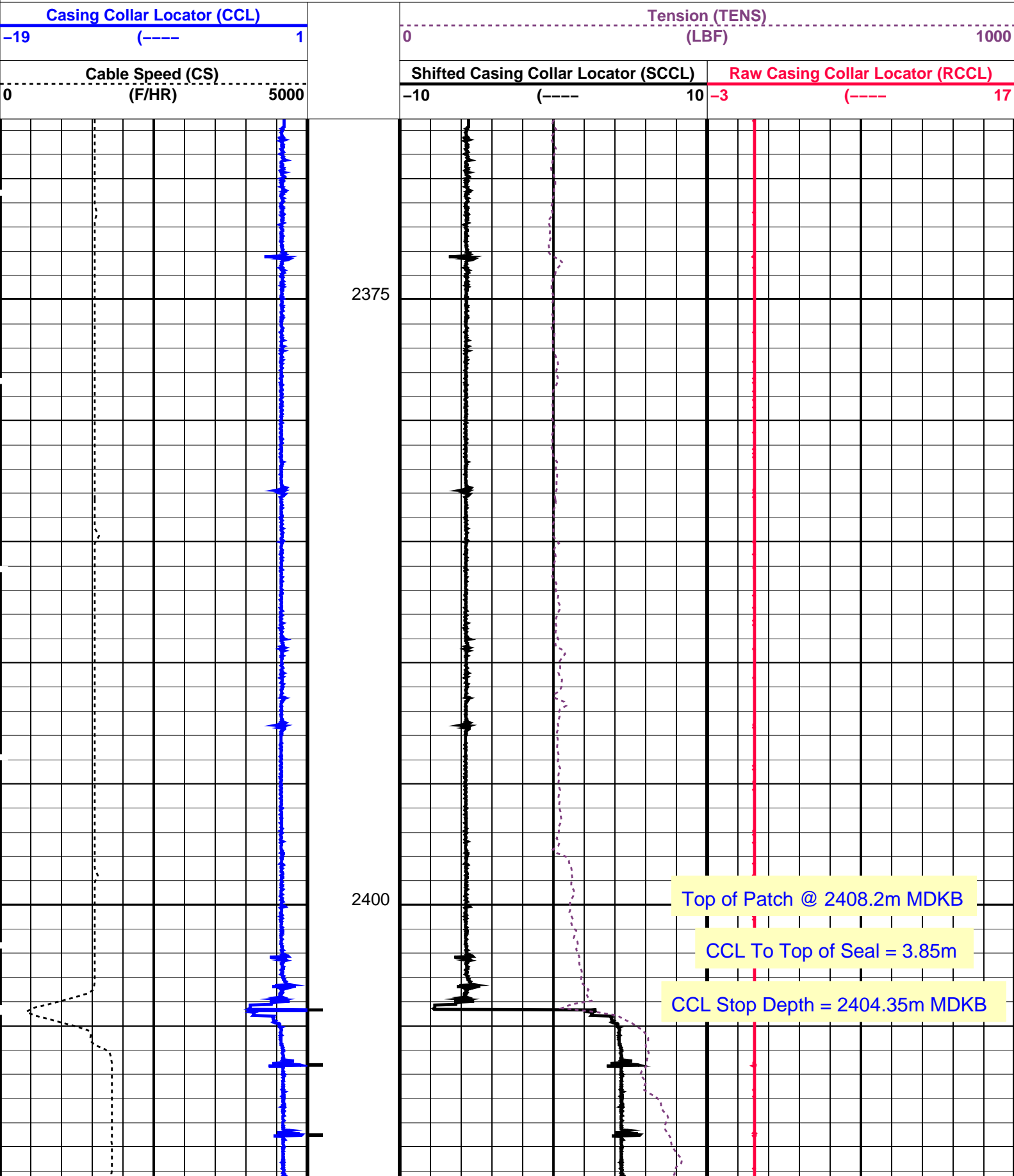
OP System Version: 16C0-147  
MCM

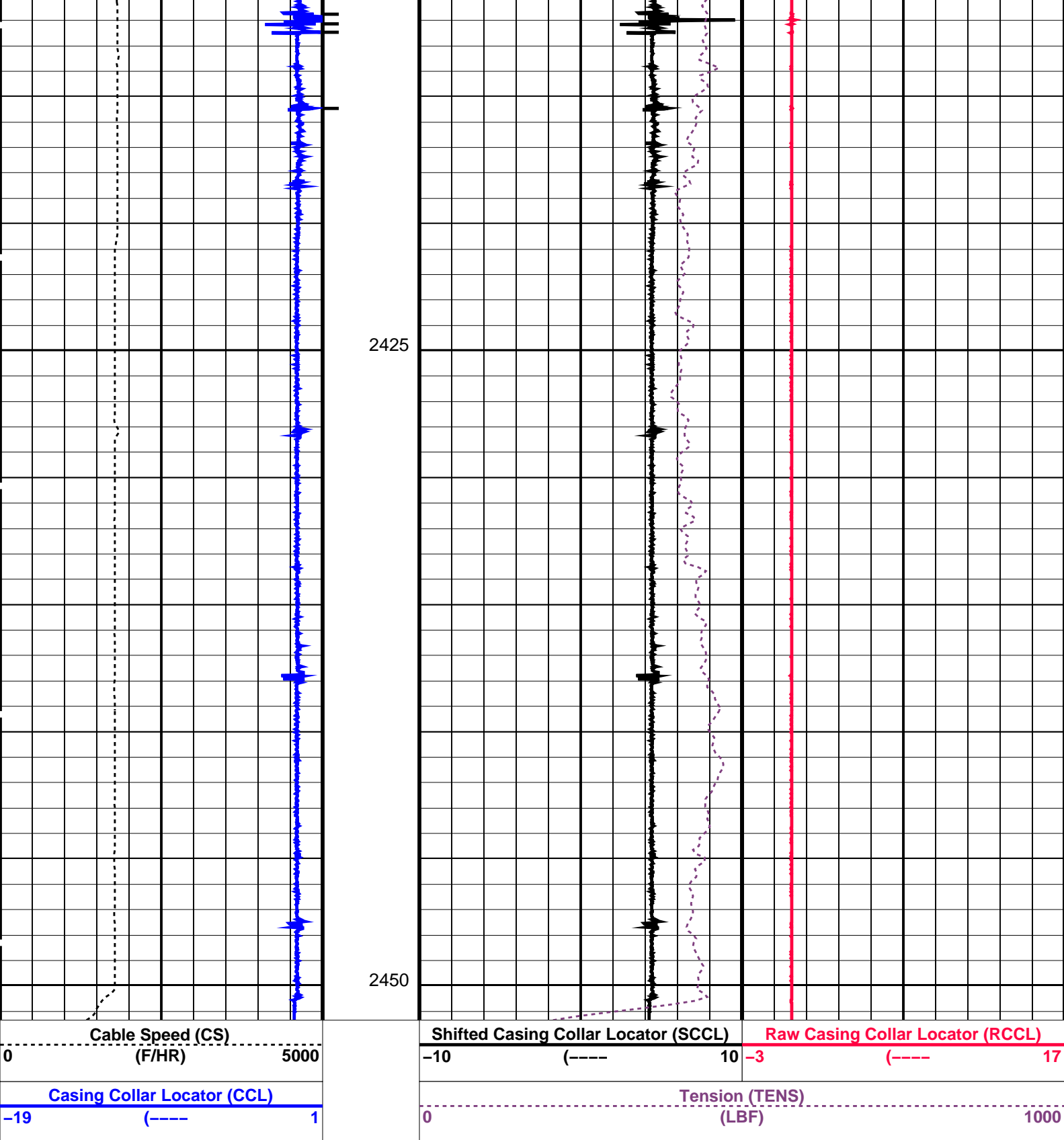
SHM\_GUN      16C0-147      CCL-L      16C0-147

PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S





### PIP SUMMARY

Time Mark Every 60 S

Casing Collars

### Parameters

DLIS Name

Description

Value

CCL-L: Casing Collar Locator  
CCLD CCL reset delay  
CCLT CCL Detection Level

12 IN  
0.3 V

SHM\_GUN

16C0-147

CCL-L

16C0-147

## Output DLIS Files

DEFAULT

PERFO\_054LUP

FN:53

PRODUCER

27-Nov-2008 14:24

**Schlumberger**

Tubing Patch Dummy Pass

MAXIS Field Log

## Input DLIS Files

DEFAULT

PERFO\_026LUP

FN:25

PRODUCER

25-Nov-2008 14:11

2455.3 M

2369.8 M

## Output DLIS Files

DEFAULT

PERFO\_028PUP

FN:27

PRODUCER

25-Nov-2008 14:22

2455.2 M

2369.7 M

## OP System Version: 16C0-147

MCM

SHM\_GUN

16C0-147

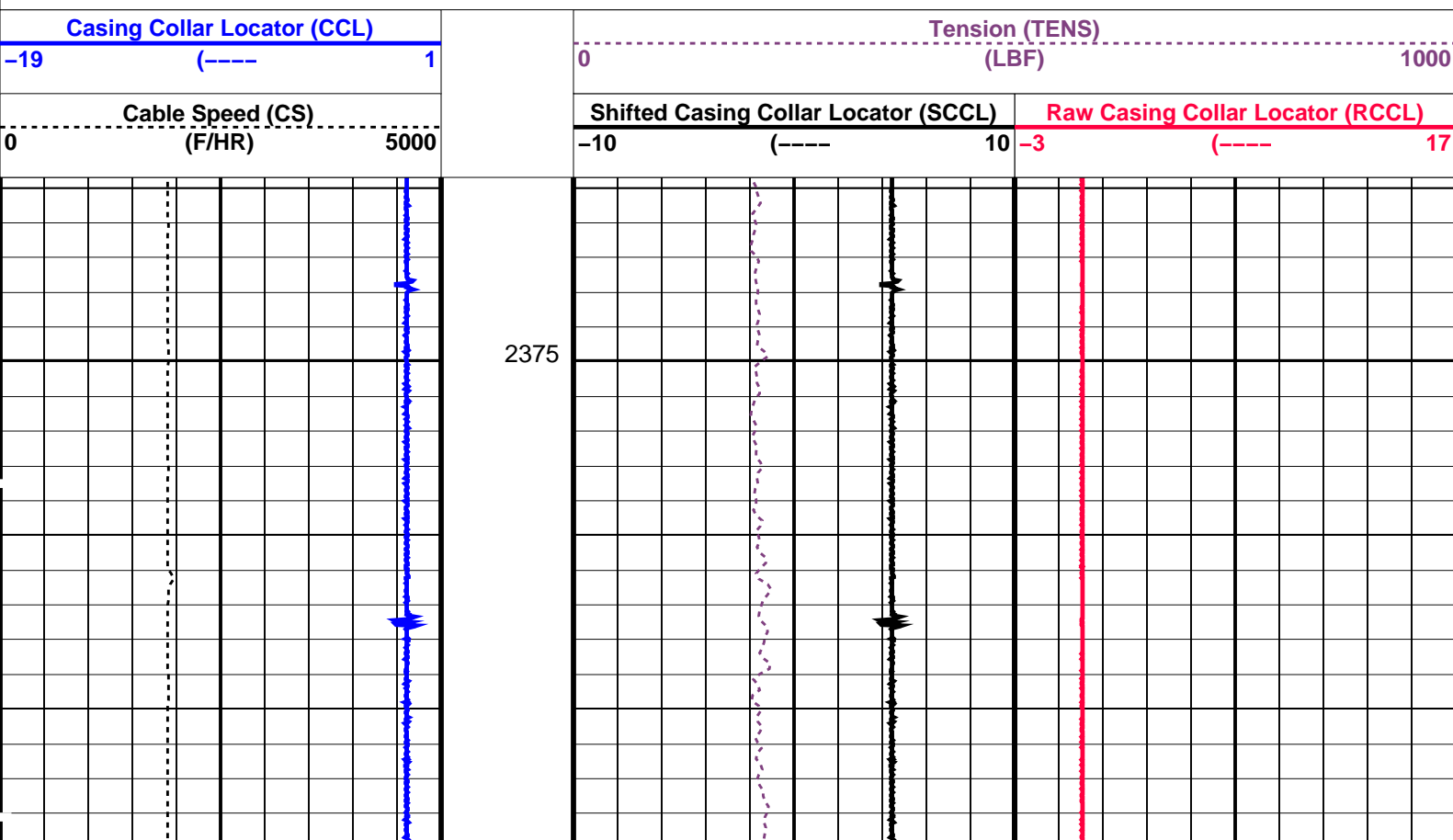
CCL-L

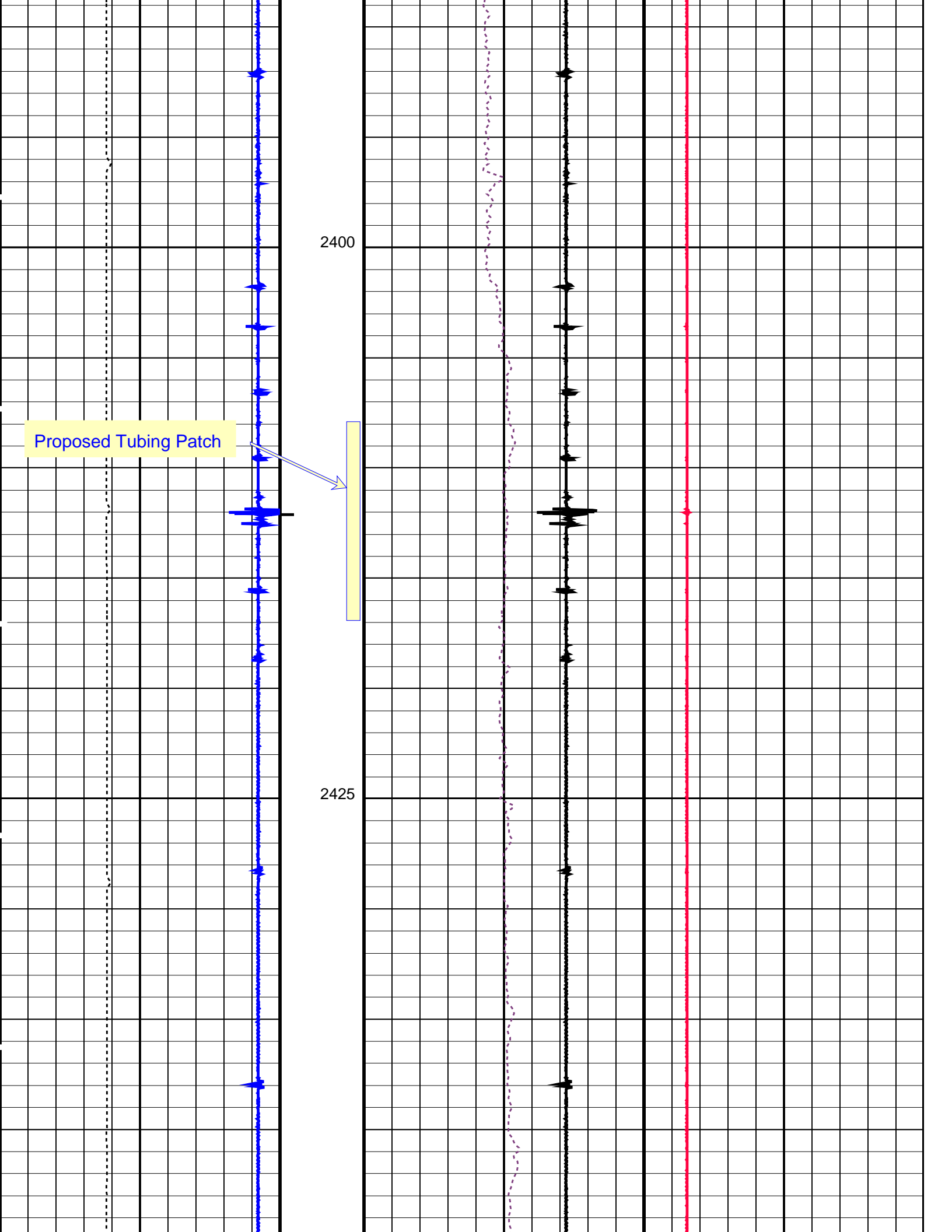
16C0-147

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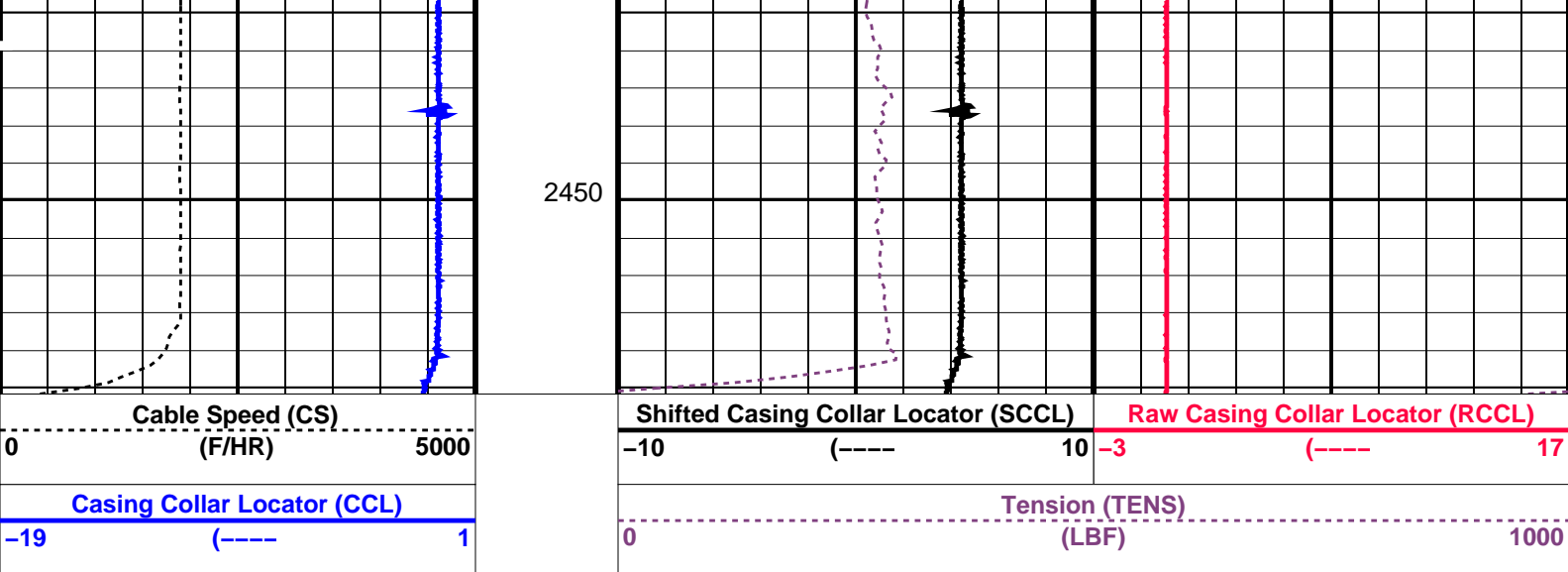
← Casing Collars

Time Mark Every 60 S









PIP SUMMARY

Time Mark Every 60 S


Casing Collars

Parameters			
DLIS Name	Description	Value	
CCLD	CCL-L: Casing Collar Locator	12	IN
CCLT	CCL reset delay	0.3	V
System and Miscellaneous			
DO	Depth Offset for Playback	-0.2	M
PP	Playback Processing	NORMAL	

Format: PERFO\_1 Vertical Scale: 1:200 Graphics File Created: 25-Nov-2008 14:22

OP System Version: 16C0-147			
MCM			
SHM_GUN	16C0-147	CCL-L	16C0-147

Input DLIS Files					
DEFAULT	PERFO_026LUP	FN:25	PRODUCER	25-Nov-2008 14:11	2455.3 M 2369.8 M
Output DLIS Files					
DEFAULT	PERFO_028PUP	FN:27	PRODUCER	25-Nov-2008 14:22	



Static Pass From  
HUD to 1900m MDKB

MAXIS Field Log

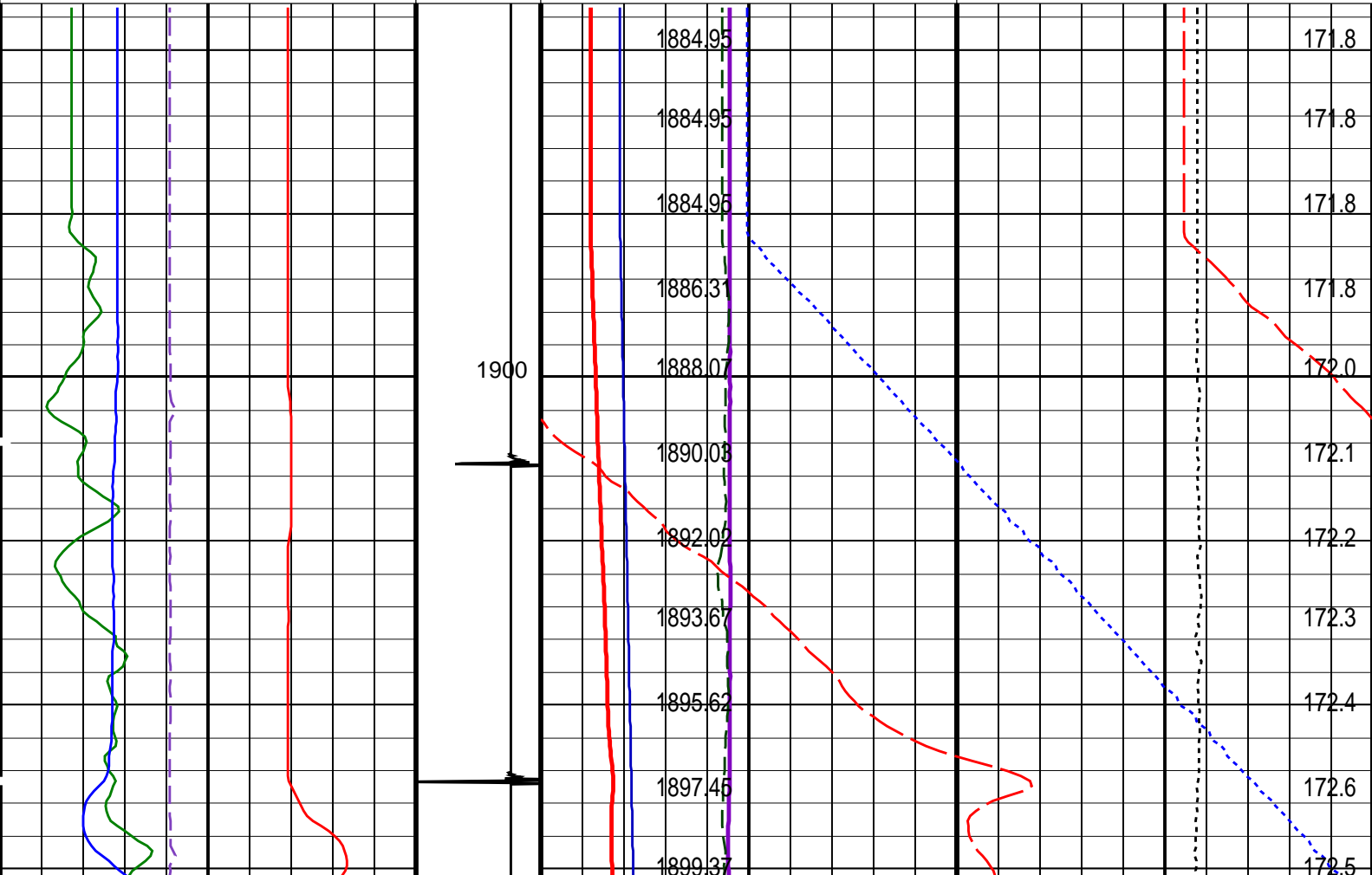
Company: Esso Australia Pty Ltd. Well: A-1a Long

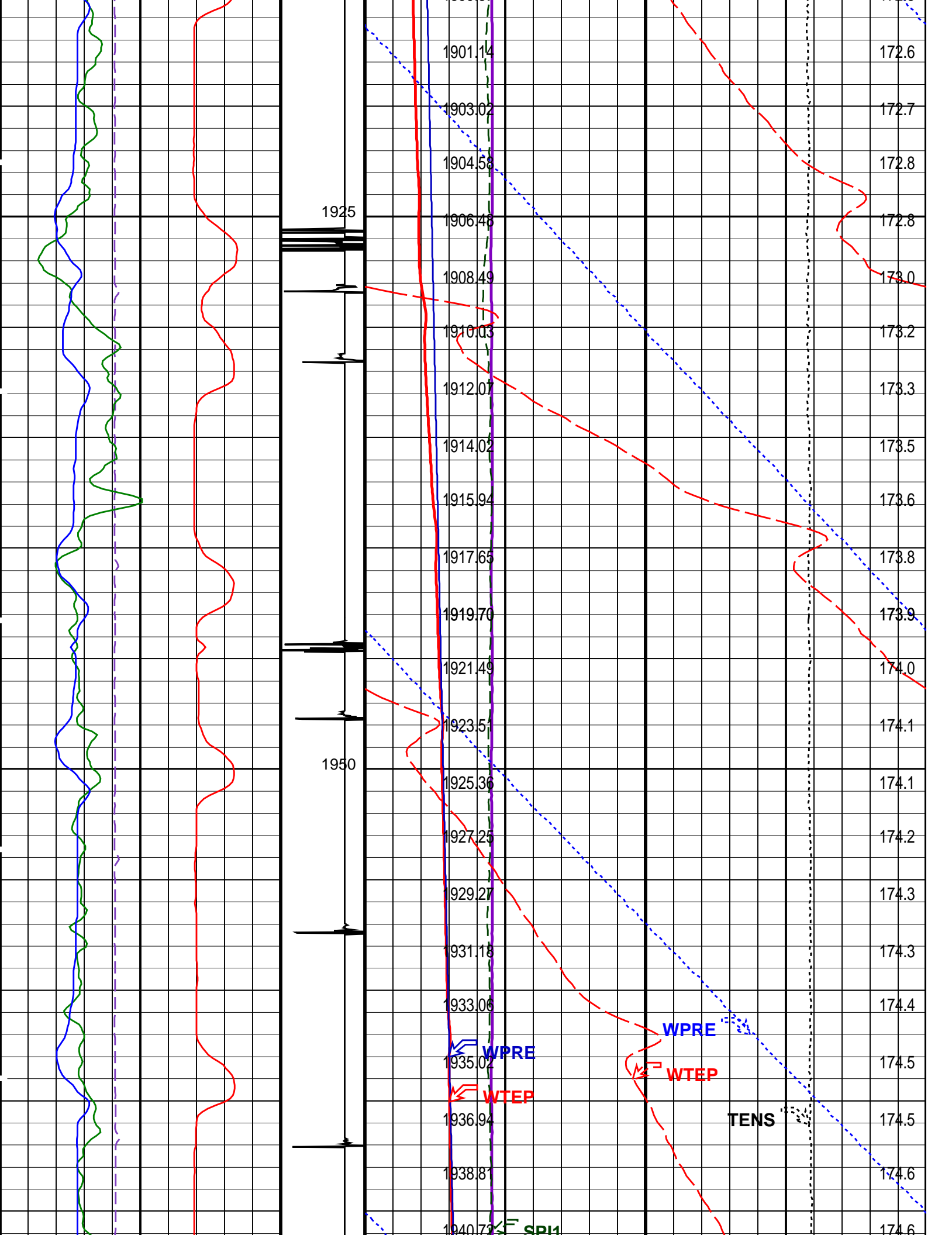
Input DLIS Files					
DEFAULT	FCS_ILS_PSP_017LUP	FN:16	PRODUCER	24-Nov-2008 16:59	2982.0 M 1893.4 M
Output DLIS Files					

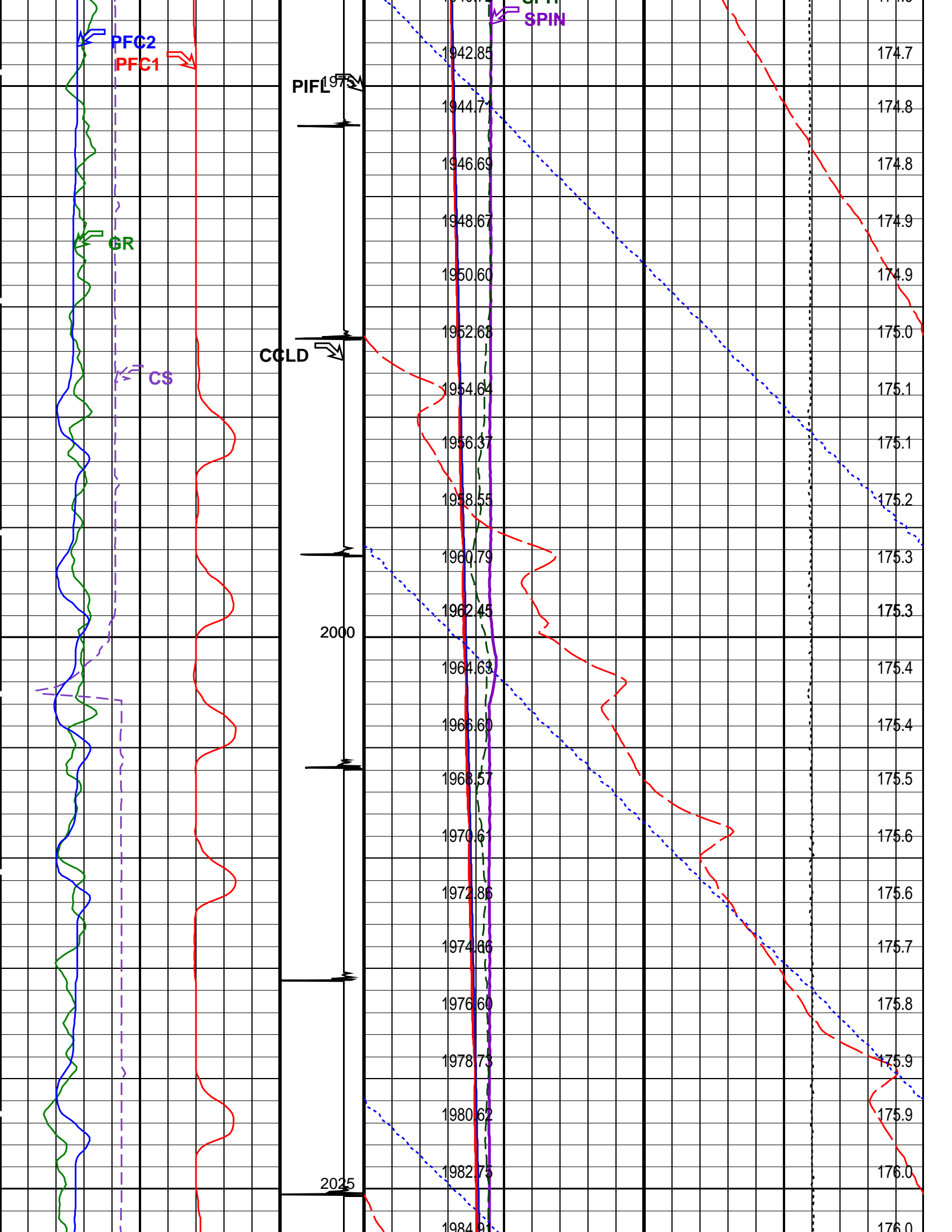
PIP SUMMARY

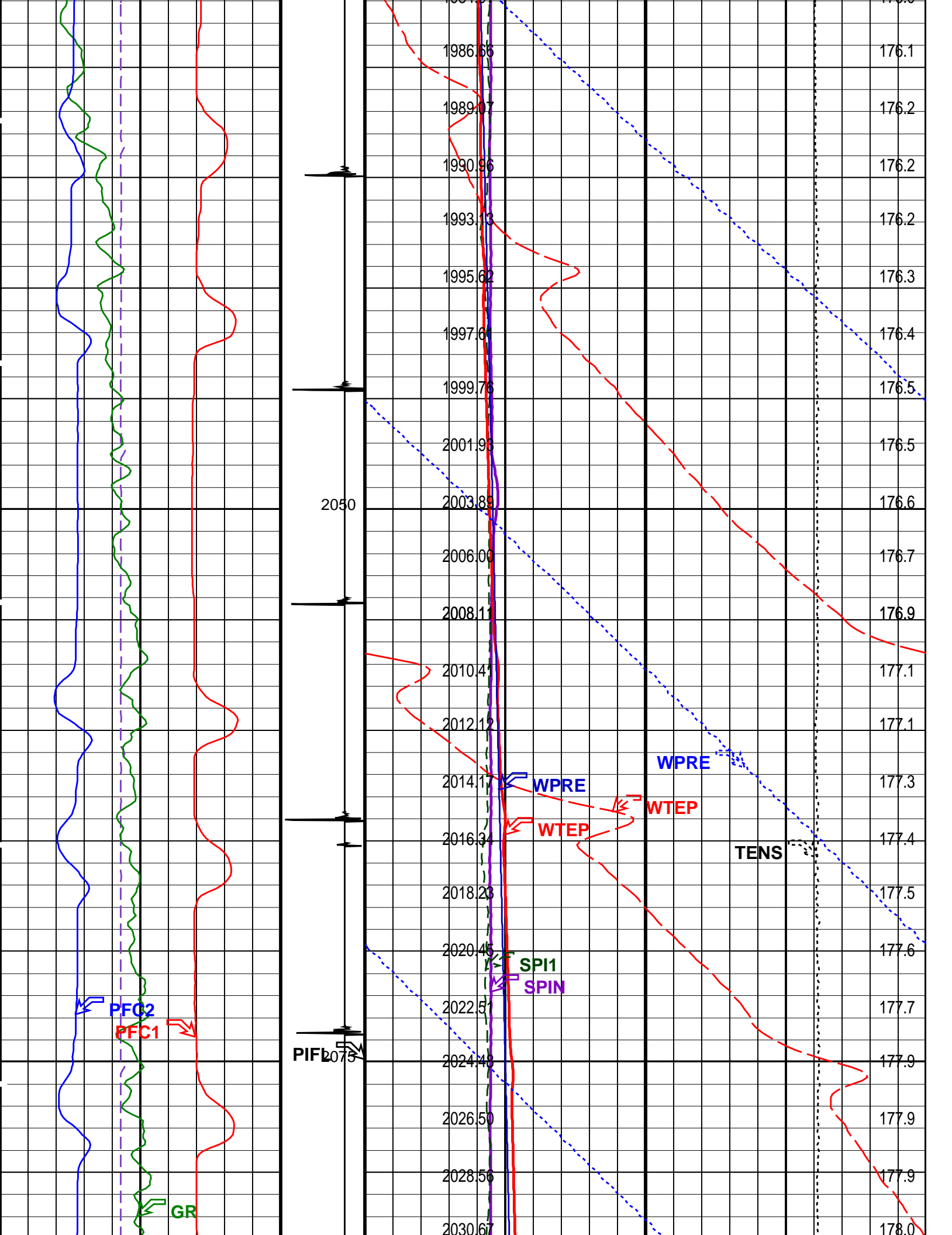
Time Mark Every 60 S

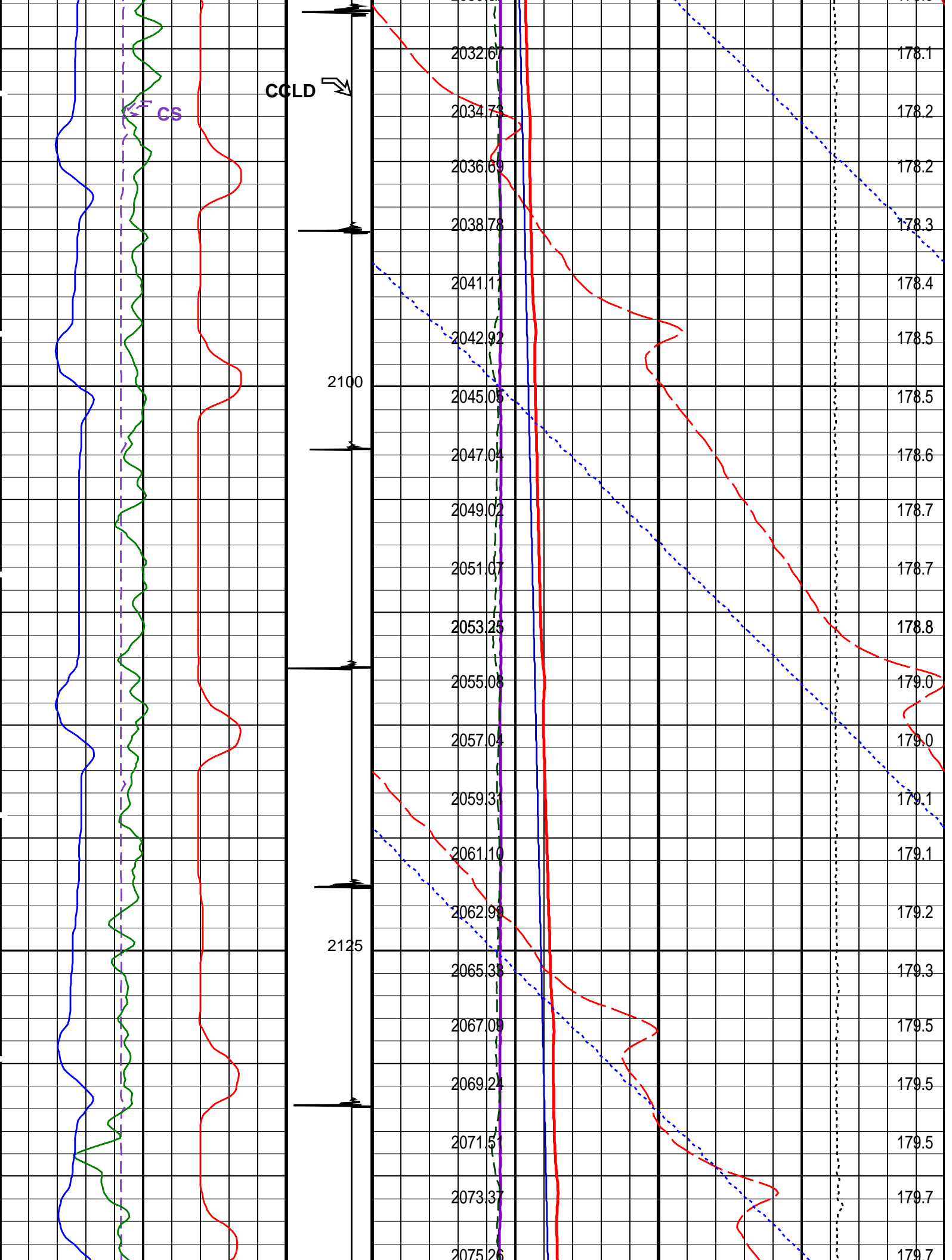
		Amplified Well Pressure (WPRE) (PSIA)		0	20
		Well Pressure (WPRE) (PSIA)		1800	2700
		Well Pressure (WPRE) (PSIA)			
PFCS Y Caliper (PFC2) (IN)		Well Temperature (WTEP) (DEGF)		0	1
PFCS X Caliper (PFC1) (IN)		Well Temperature (WTEP) (DEGF)		170	200
Gamma Ray (GR) (GAPI)		Perfo Zone From PERFO_ CURVE to D3T	Filtered Auxiliary Spinner 1 (SPI1) (RPS)	Temperature (WTEP) (DEGF)	
Cable Speed (CS) (F/HR)		Discriminat ed CCL (CCLD) (V)	Filtered Main Spinner (SPIN) (RPS)	Tension (TENS) (LBF)	
3		-1			

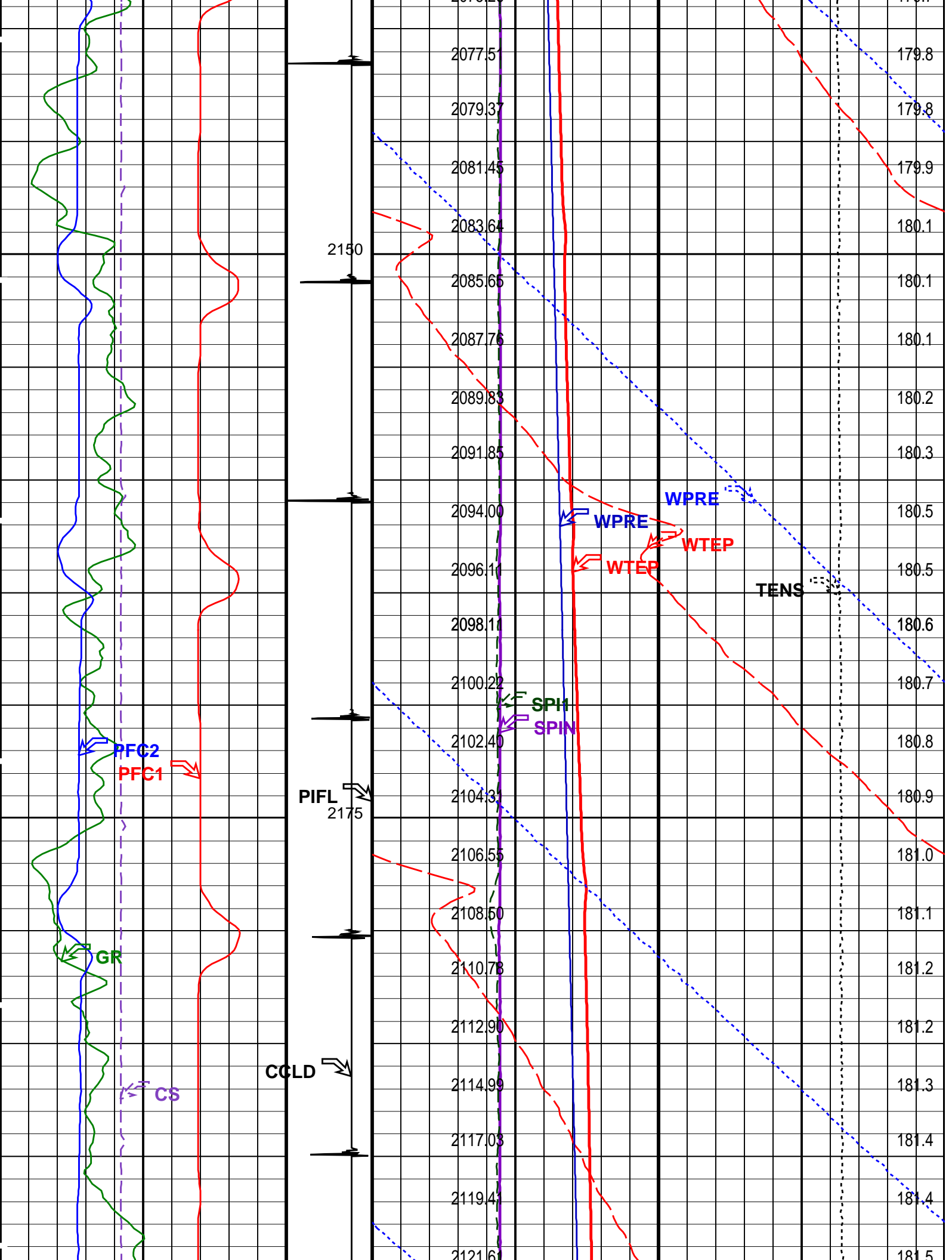


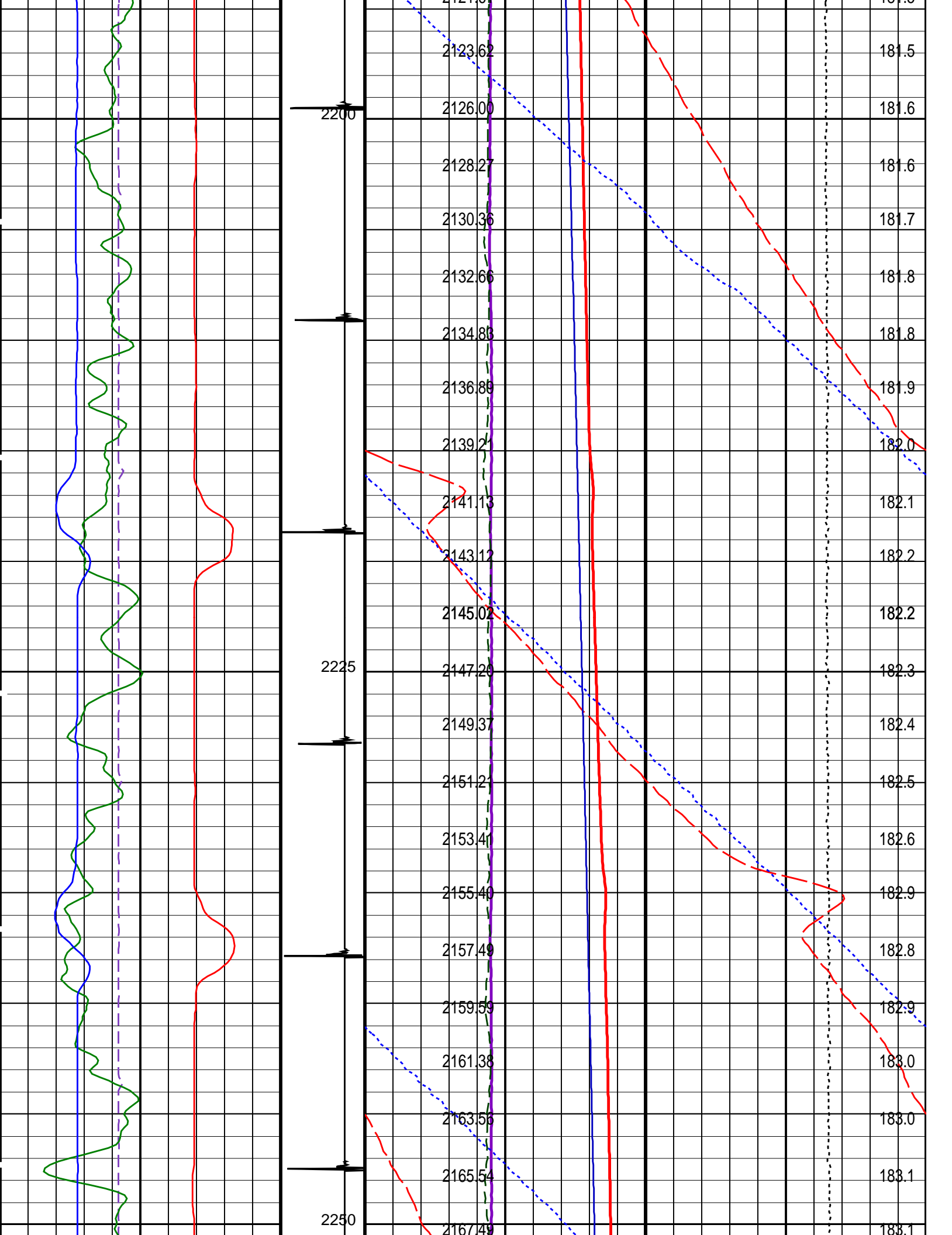




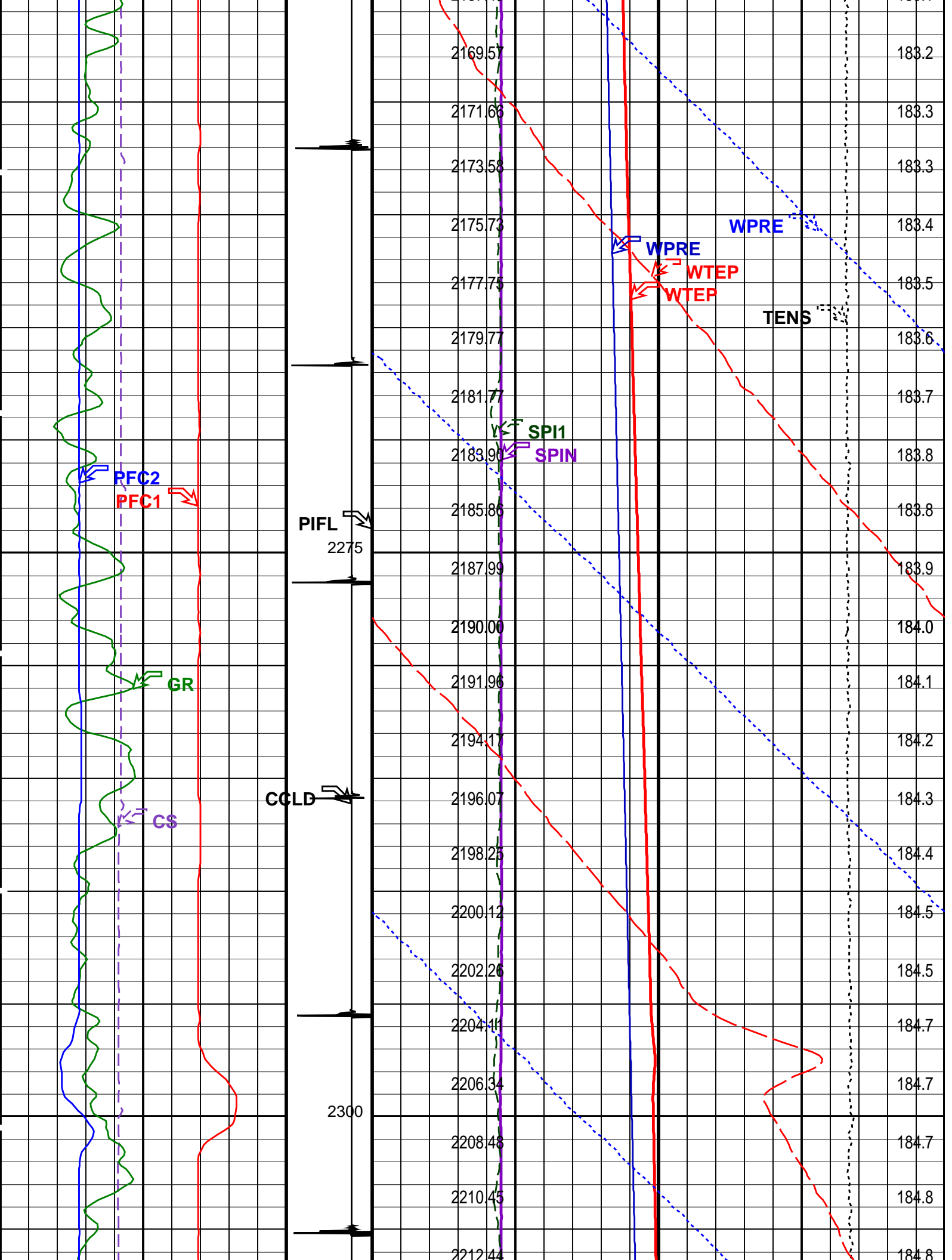


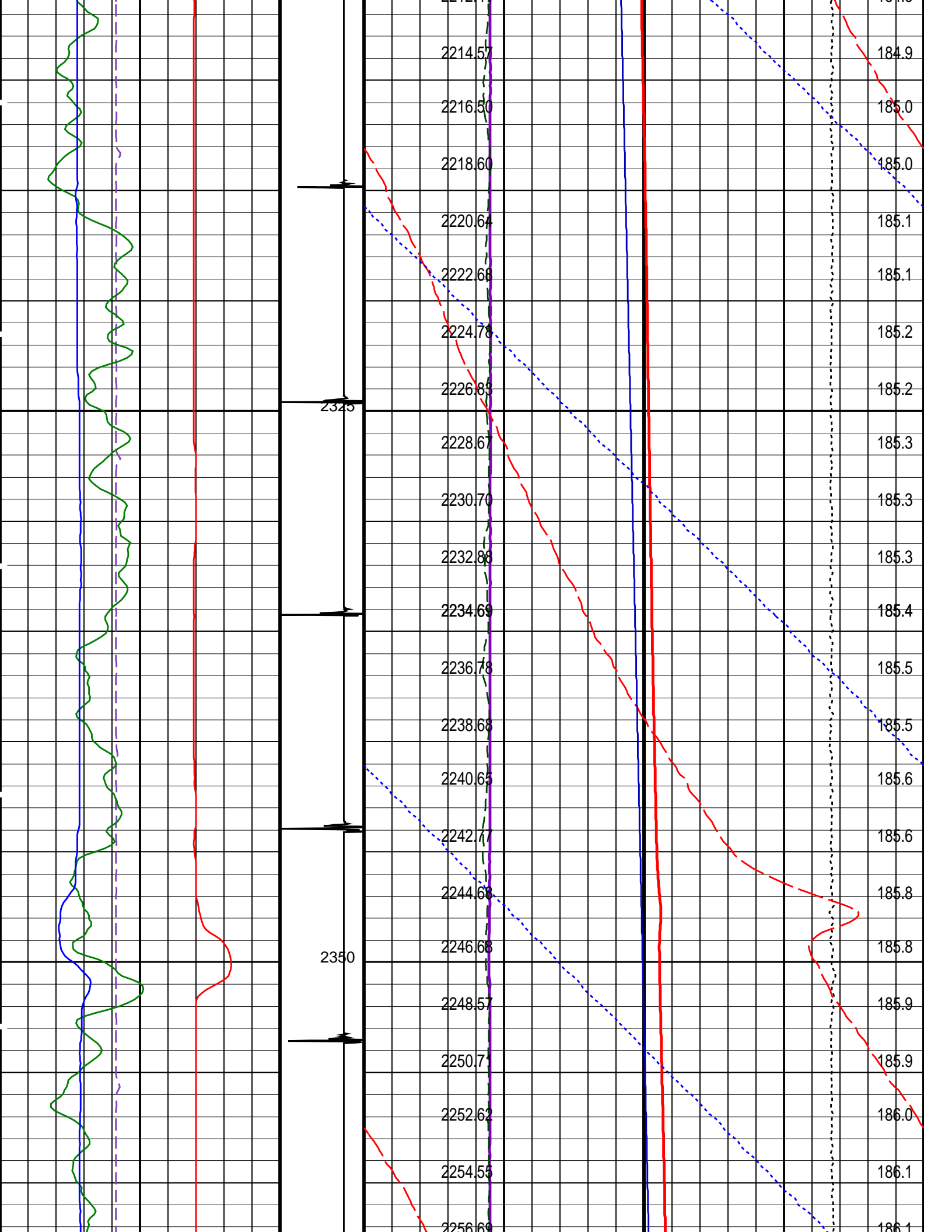


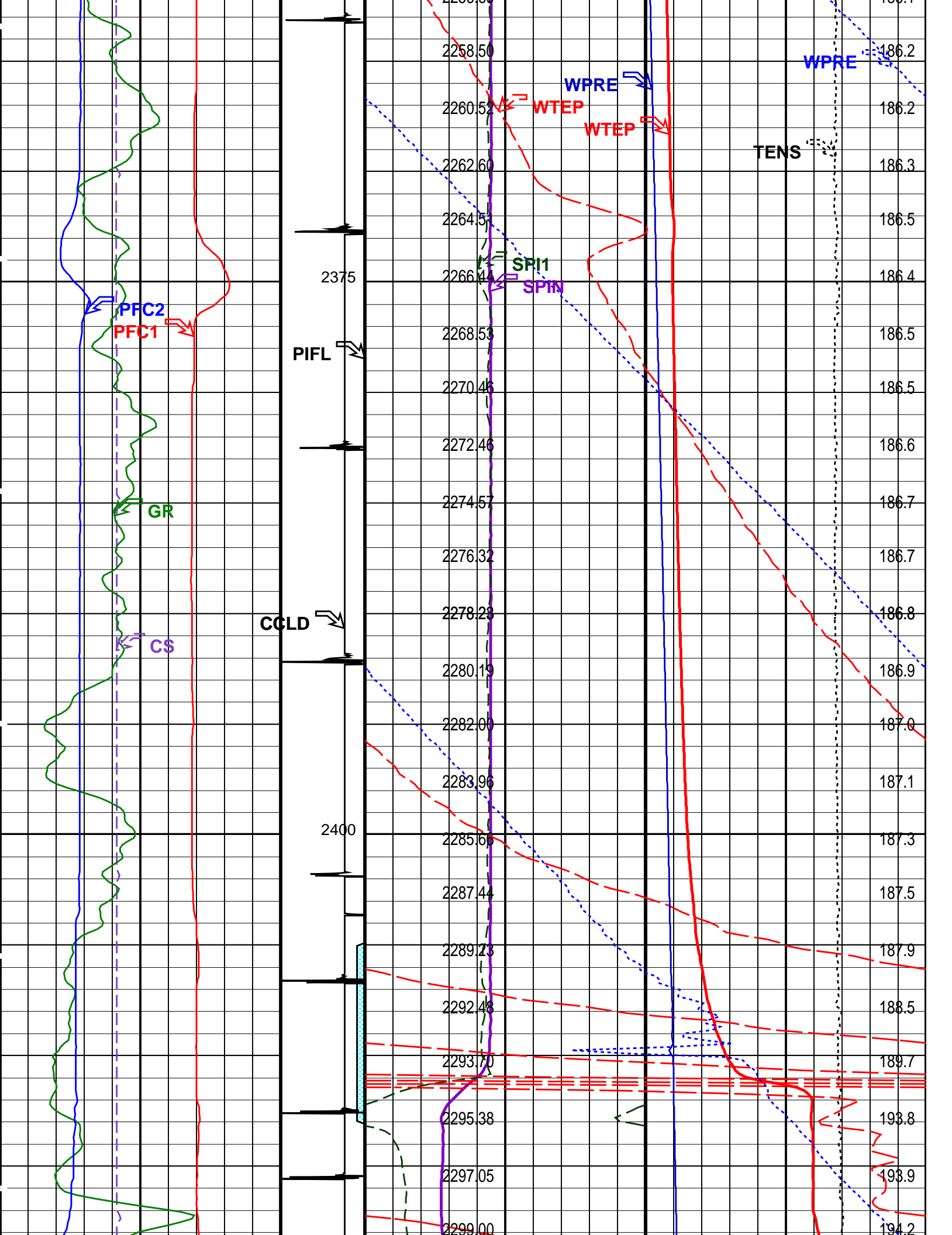


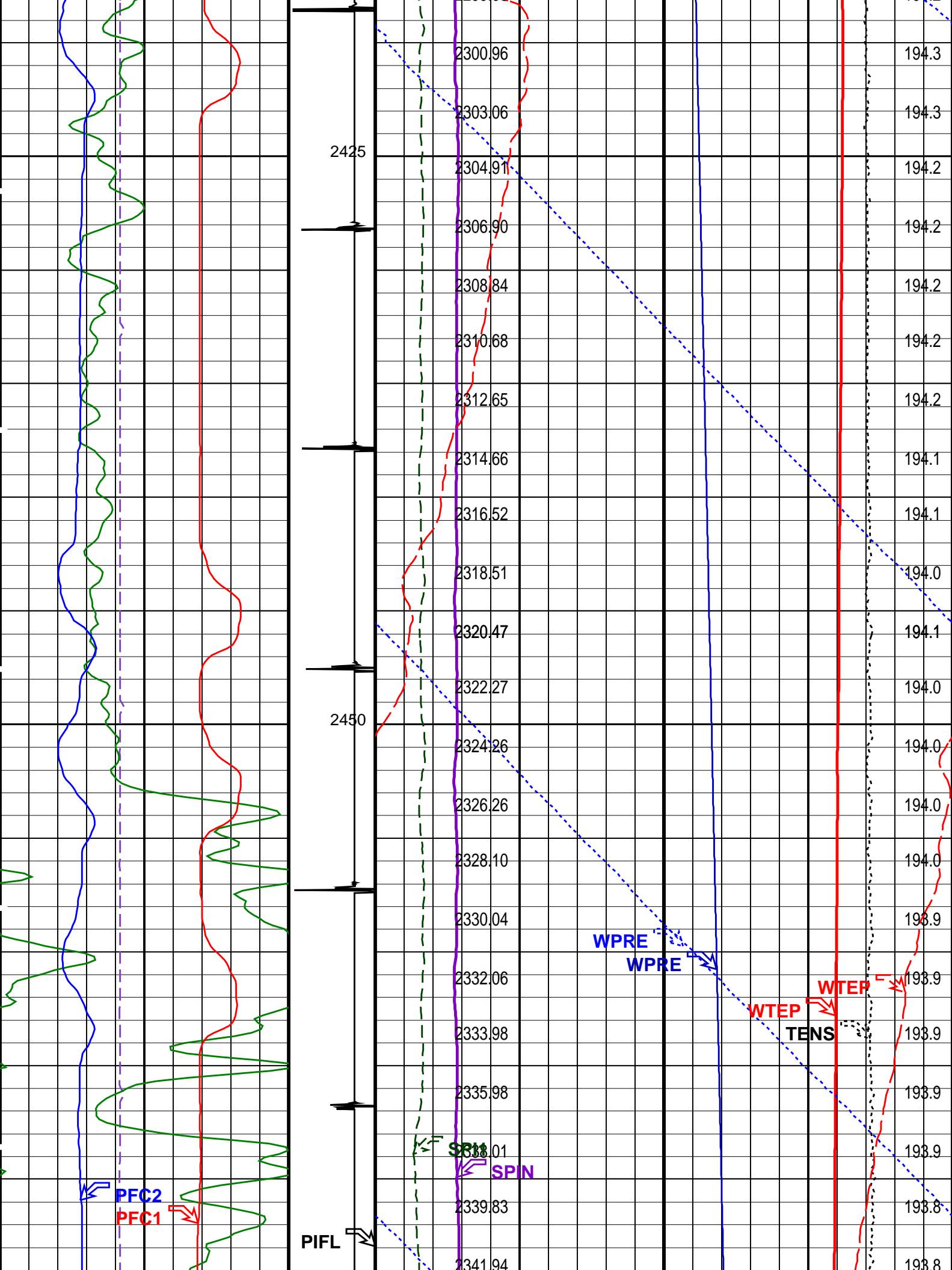


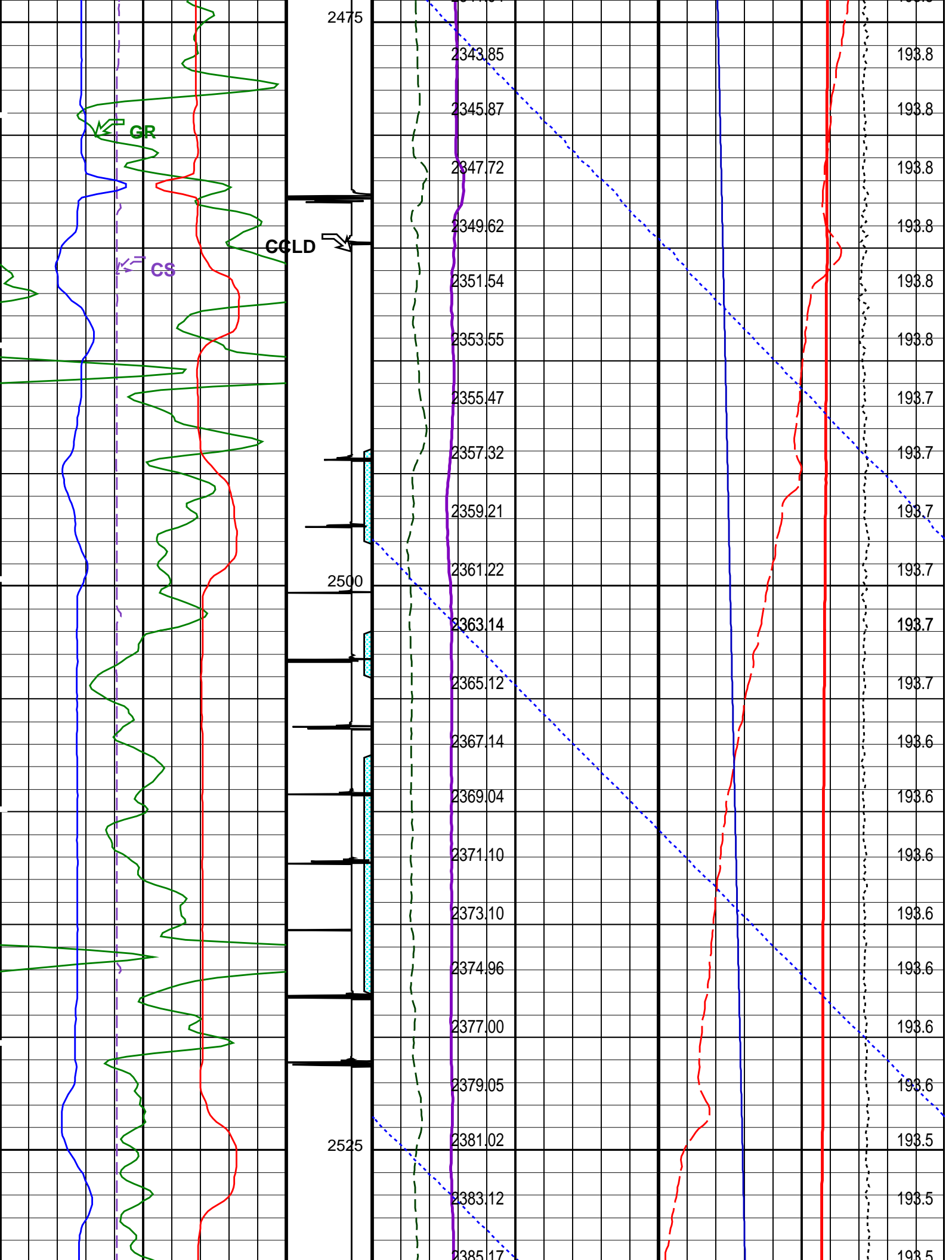


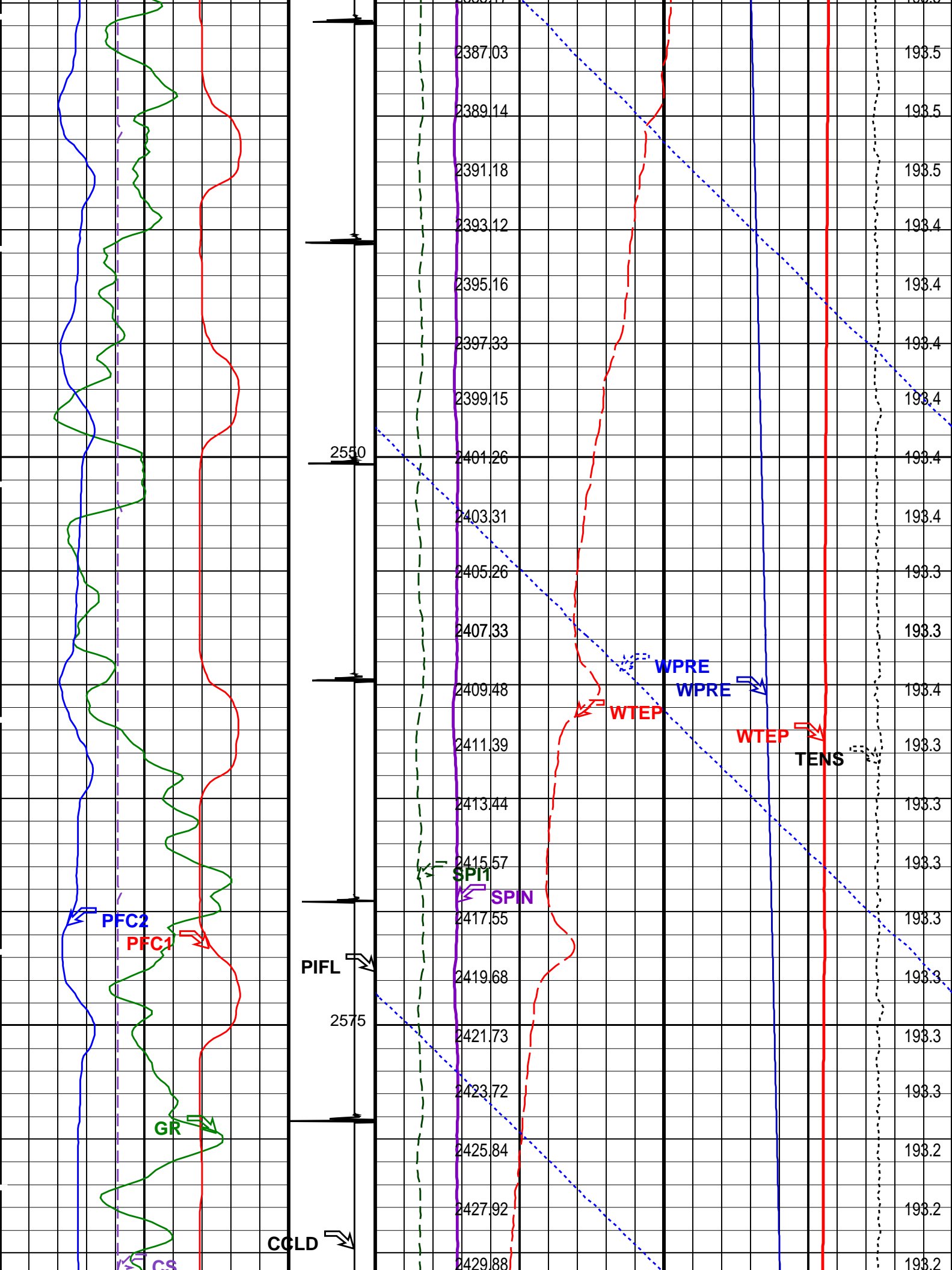


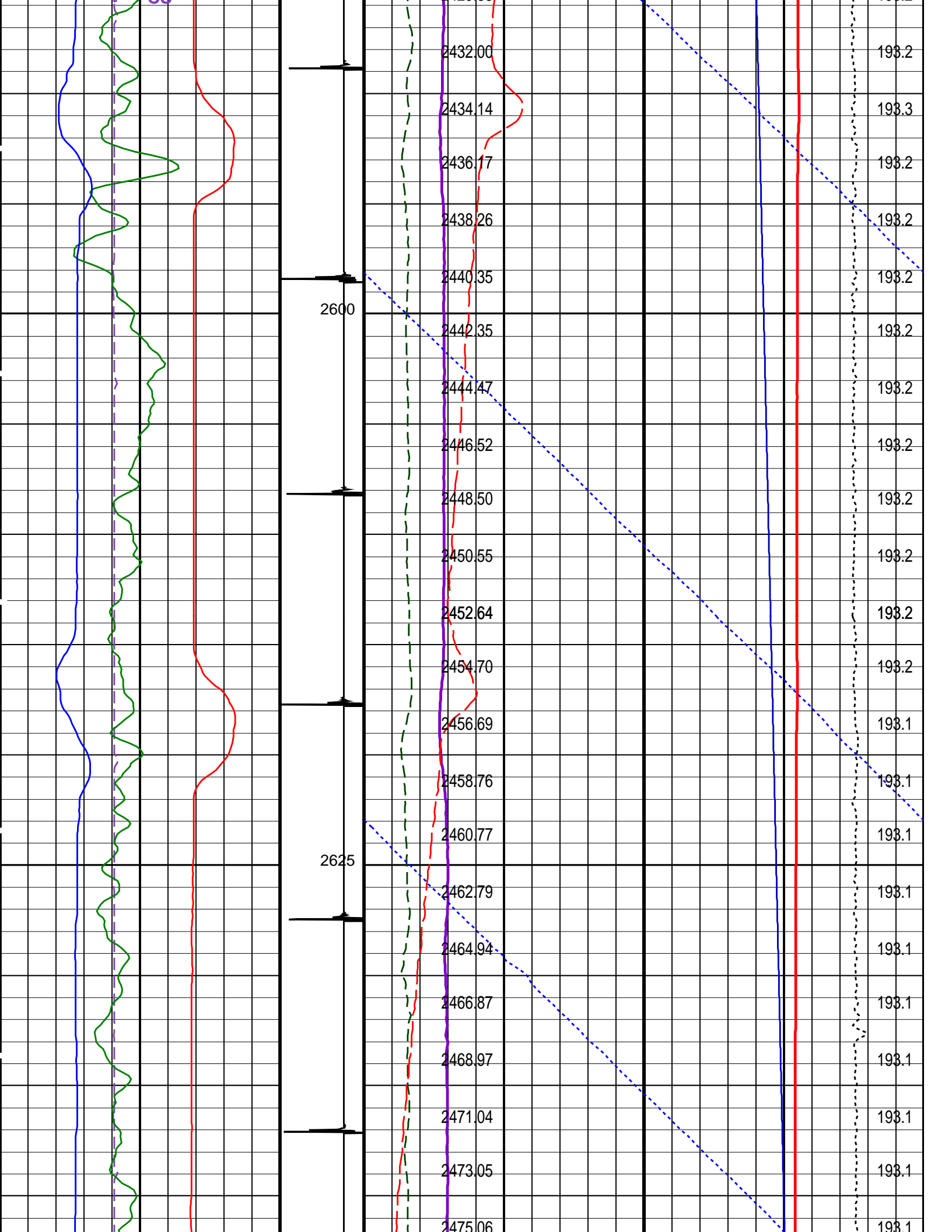


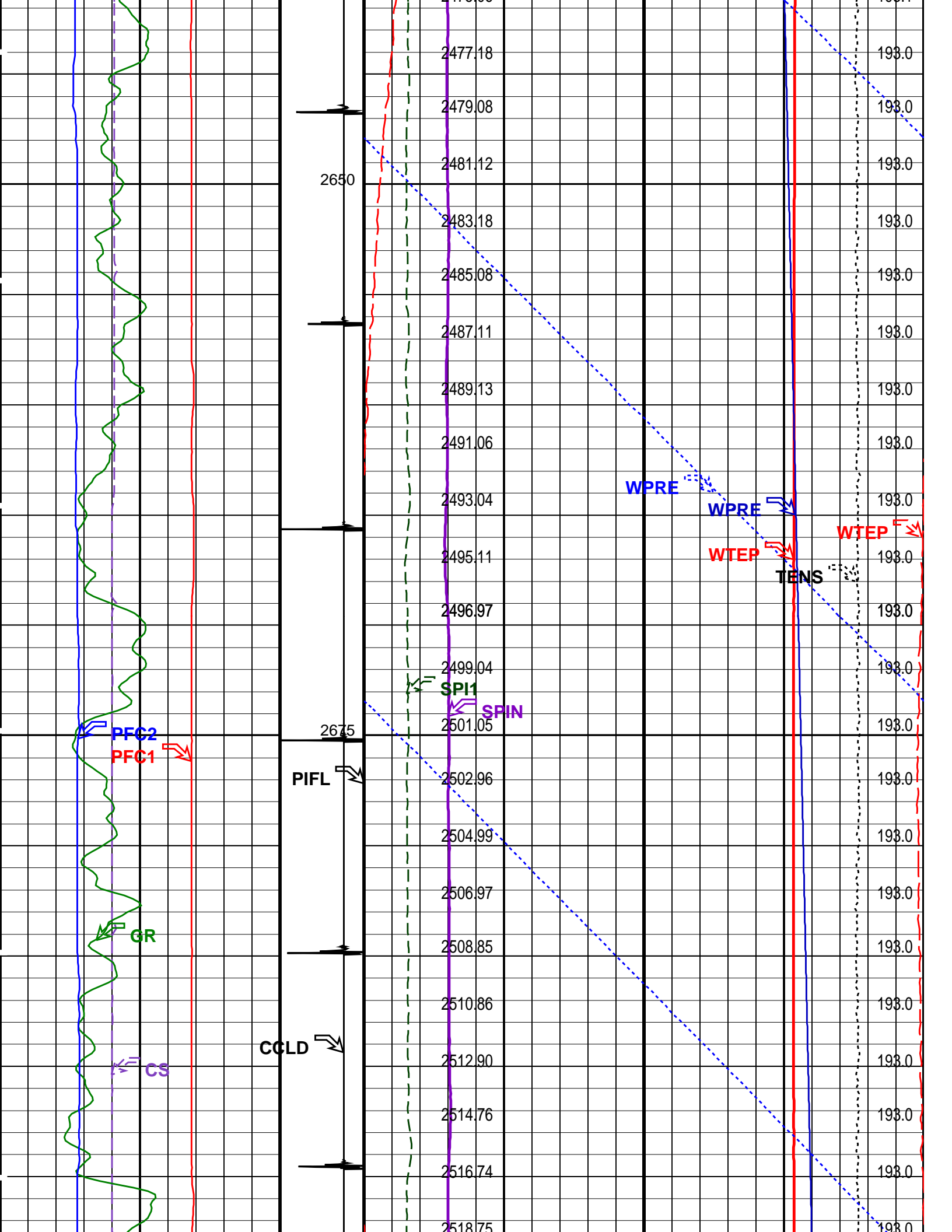




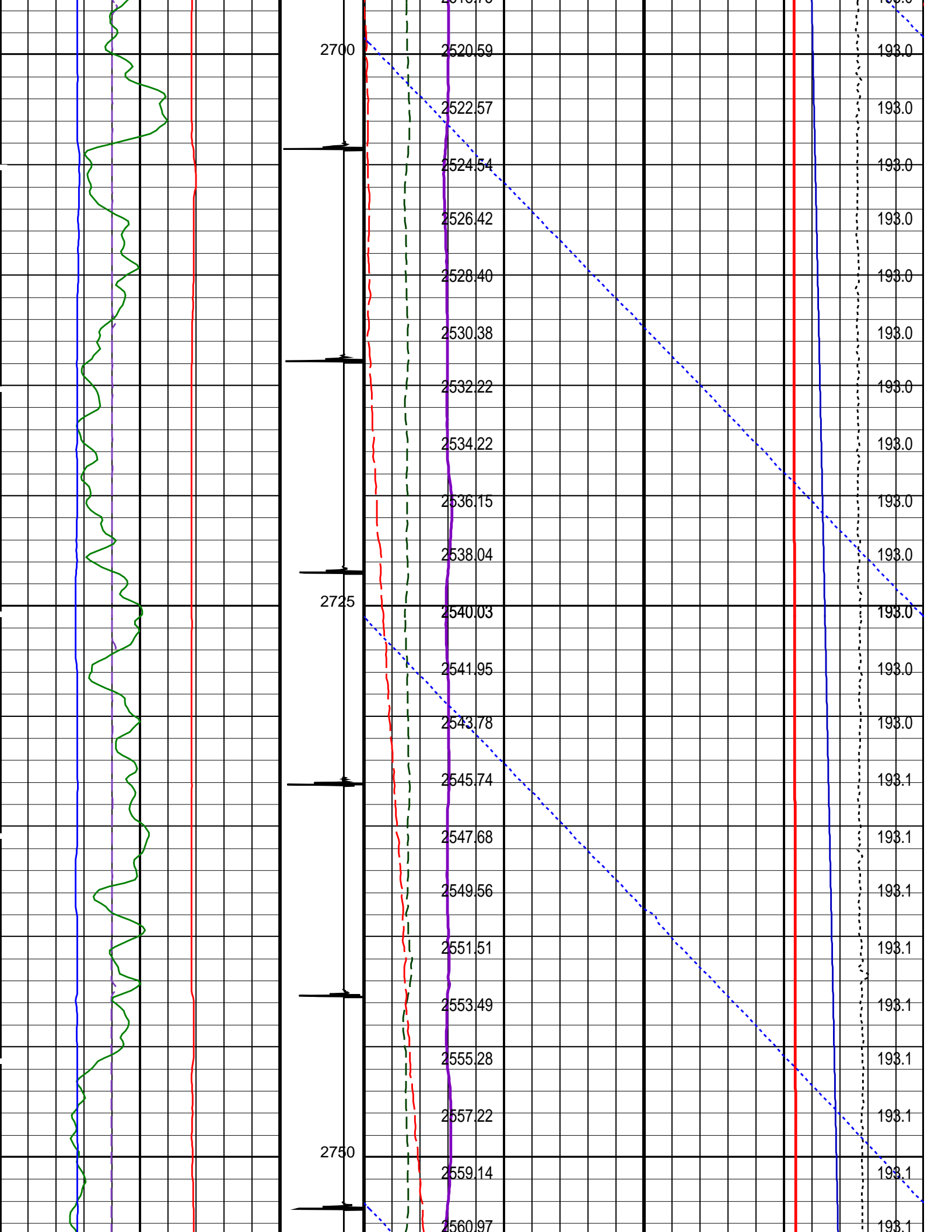


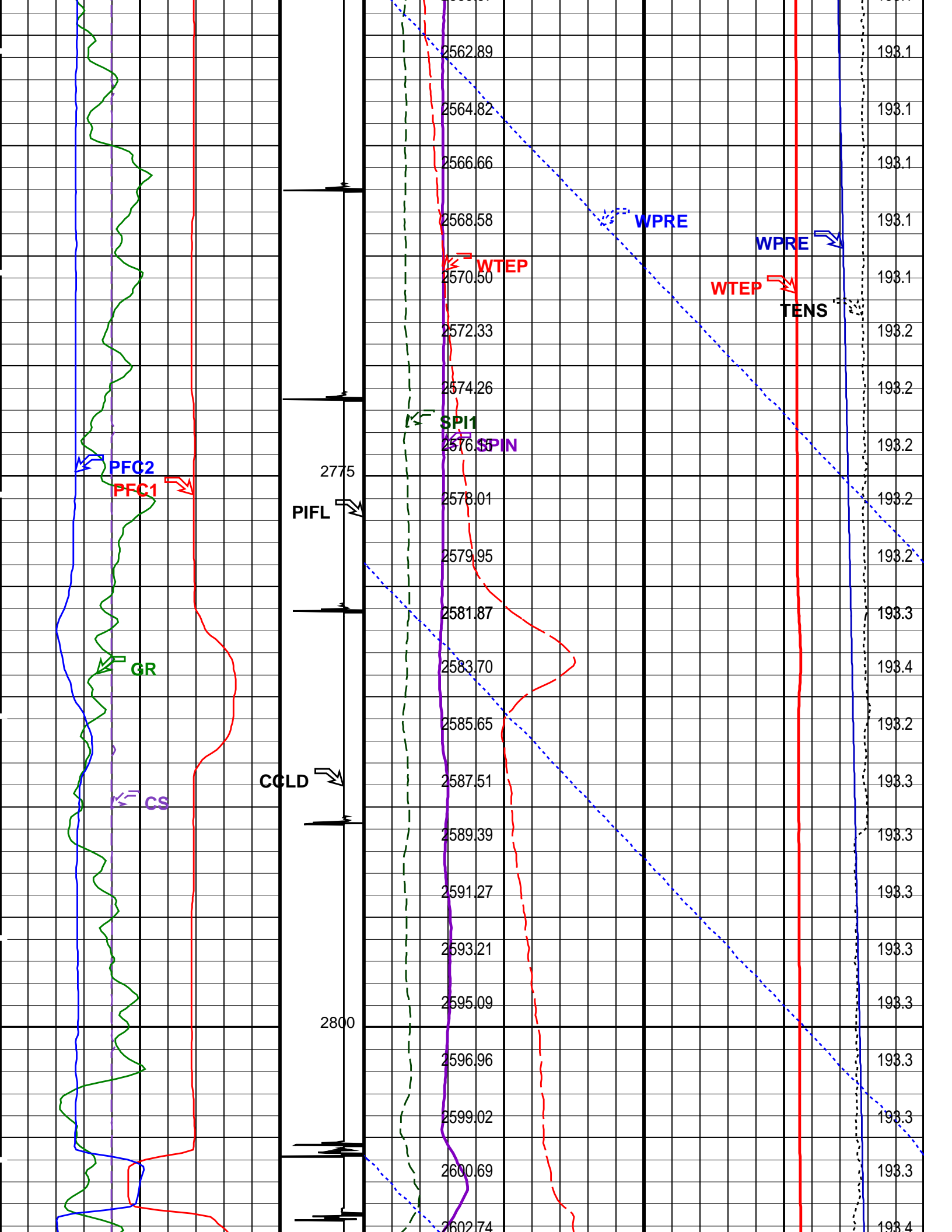


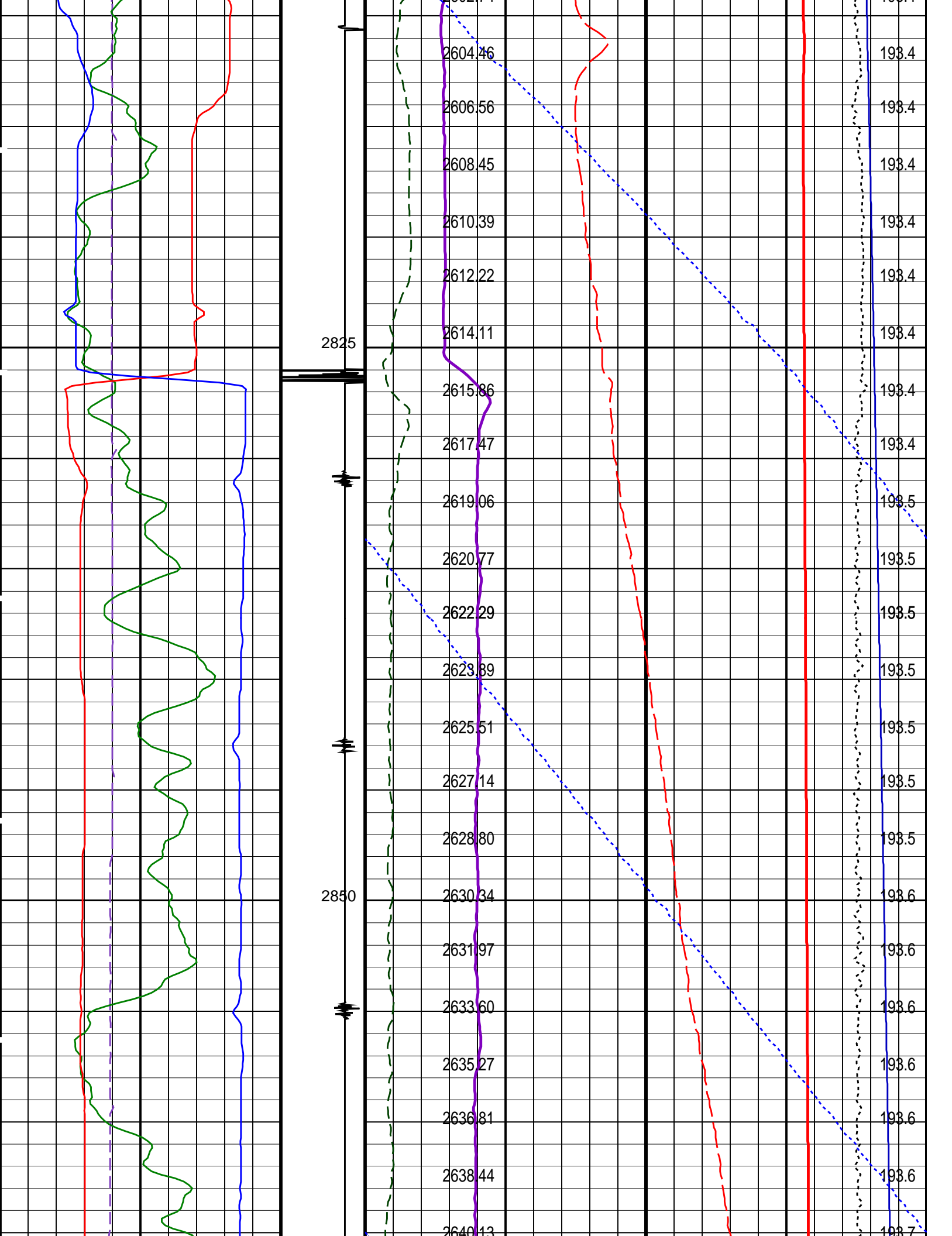


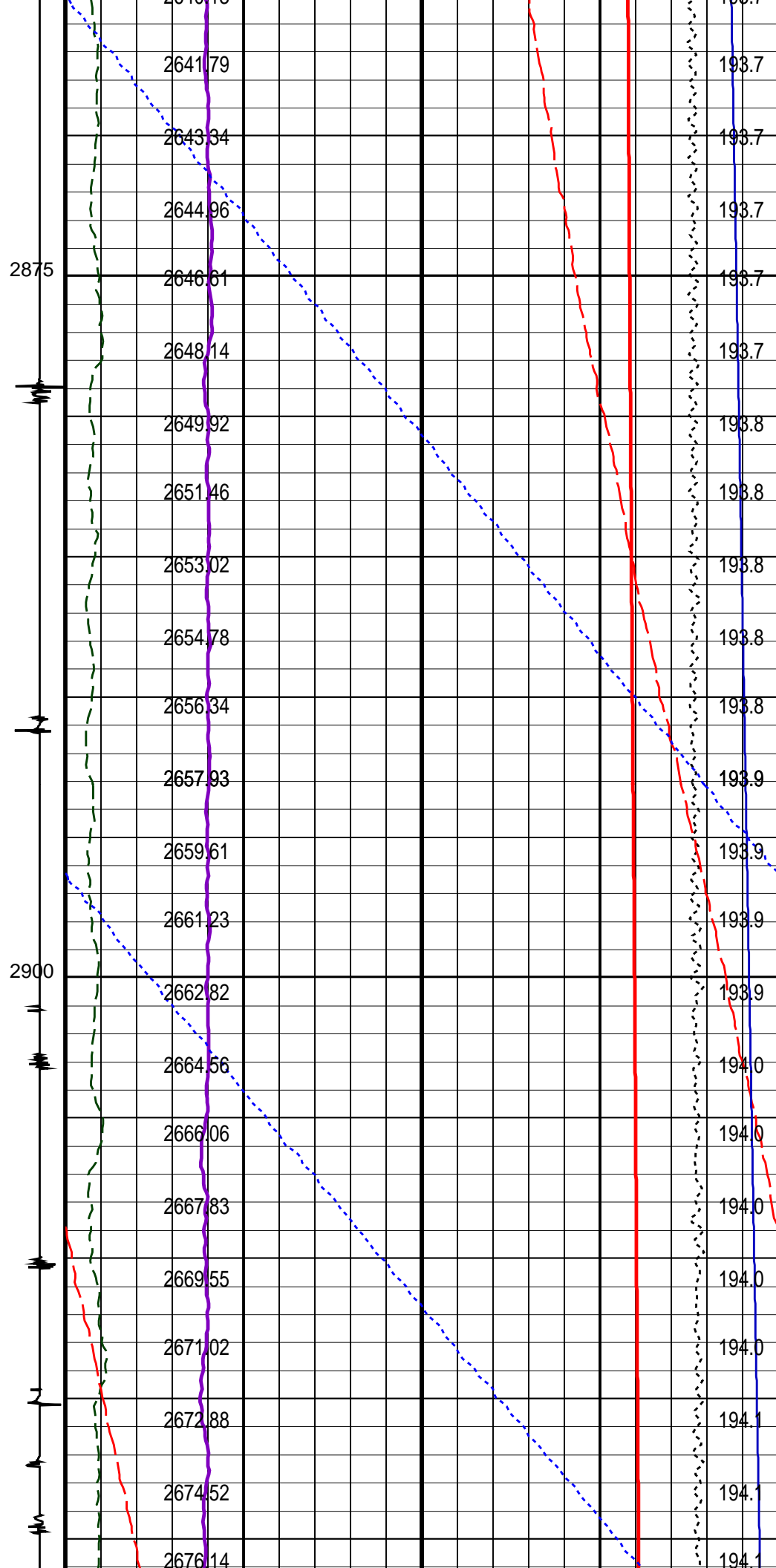
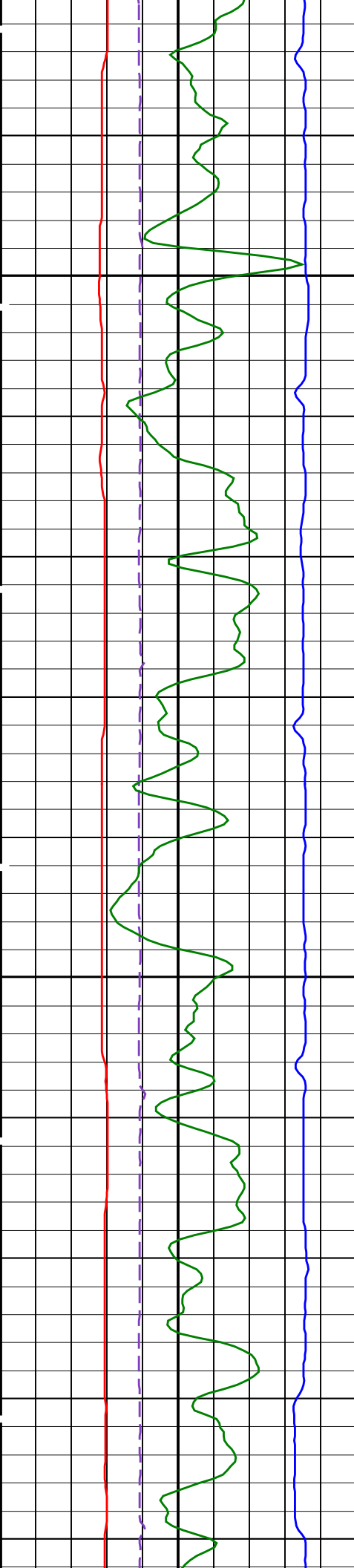


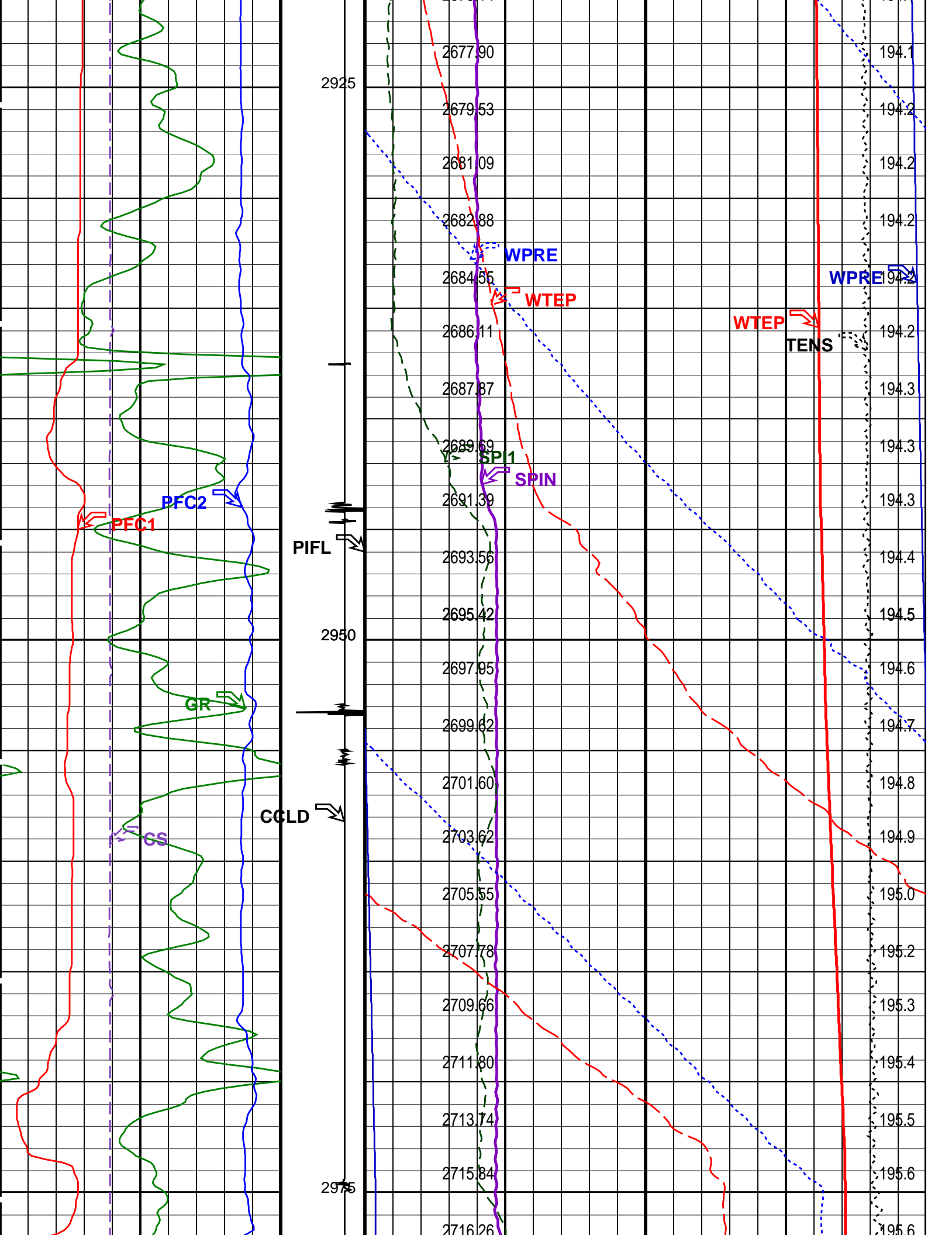










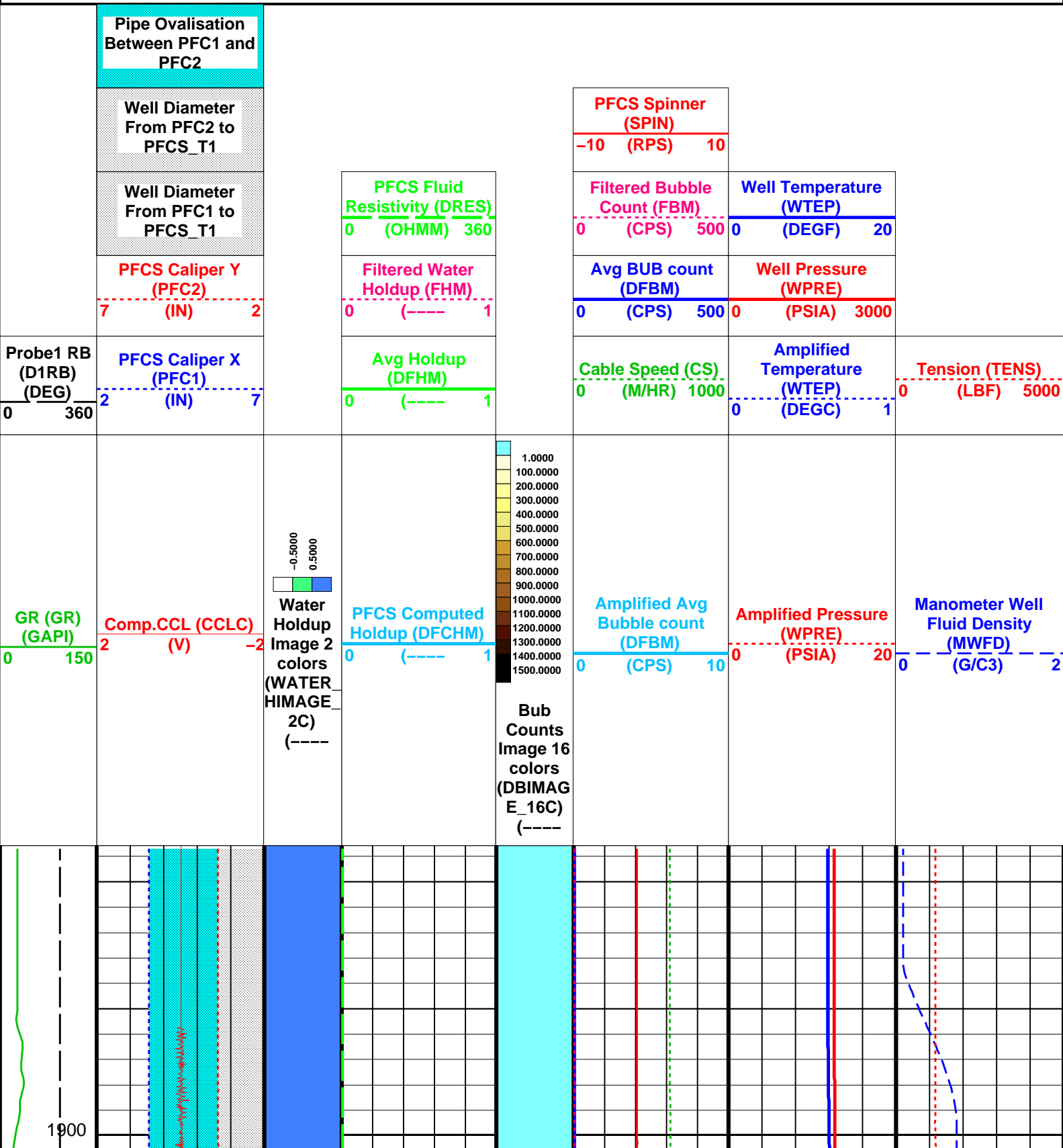


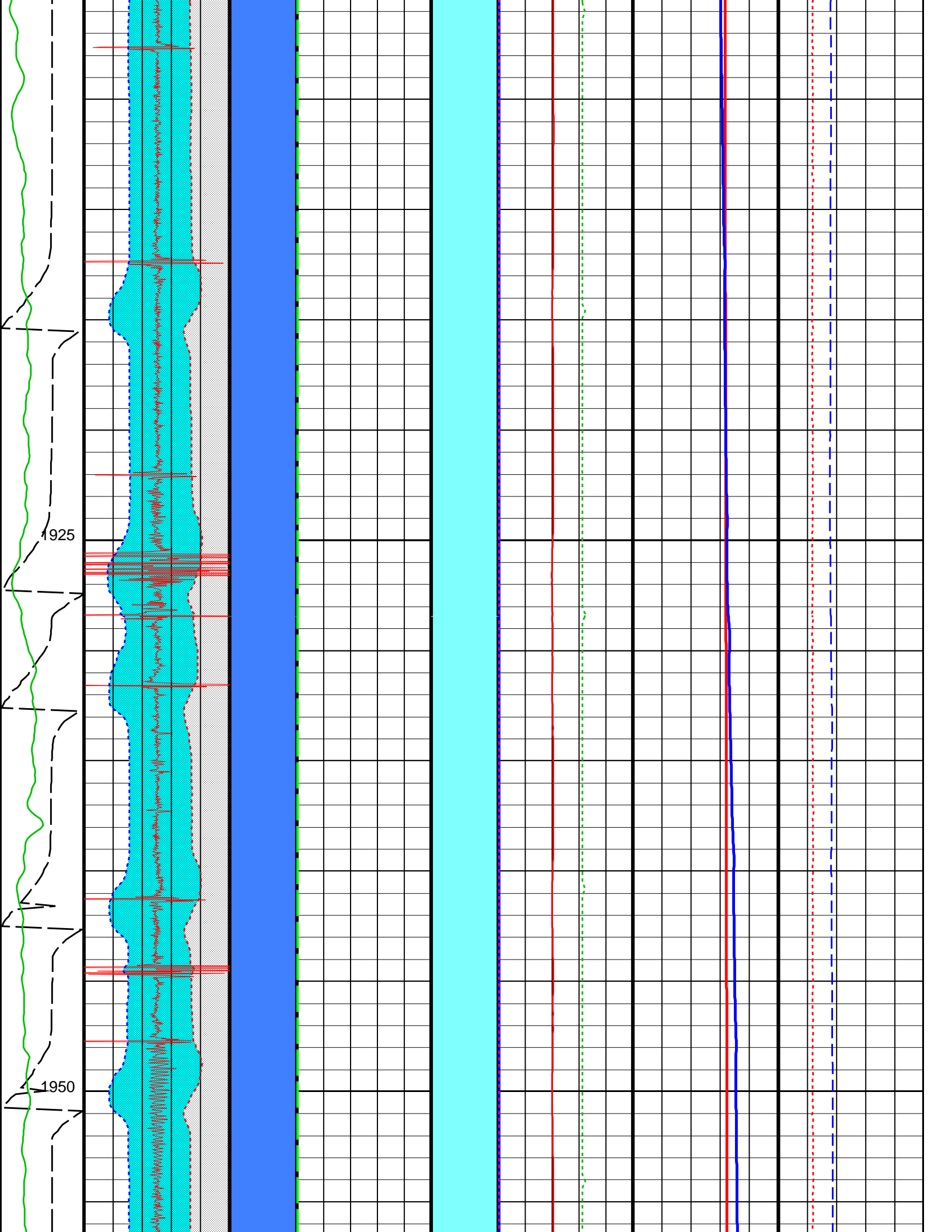


DEFAULT	FCS_ILS_PSP_017LUP	FN:16	PRODUCER	24-Nov-2008 16:59	2982.0 M	1893.4 M
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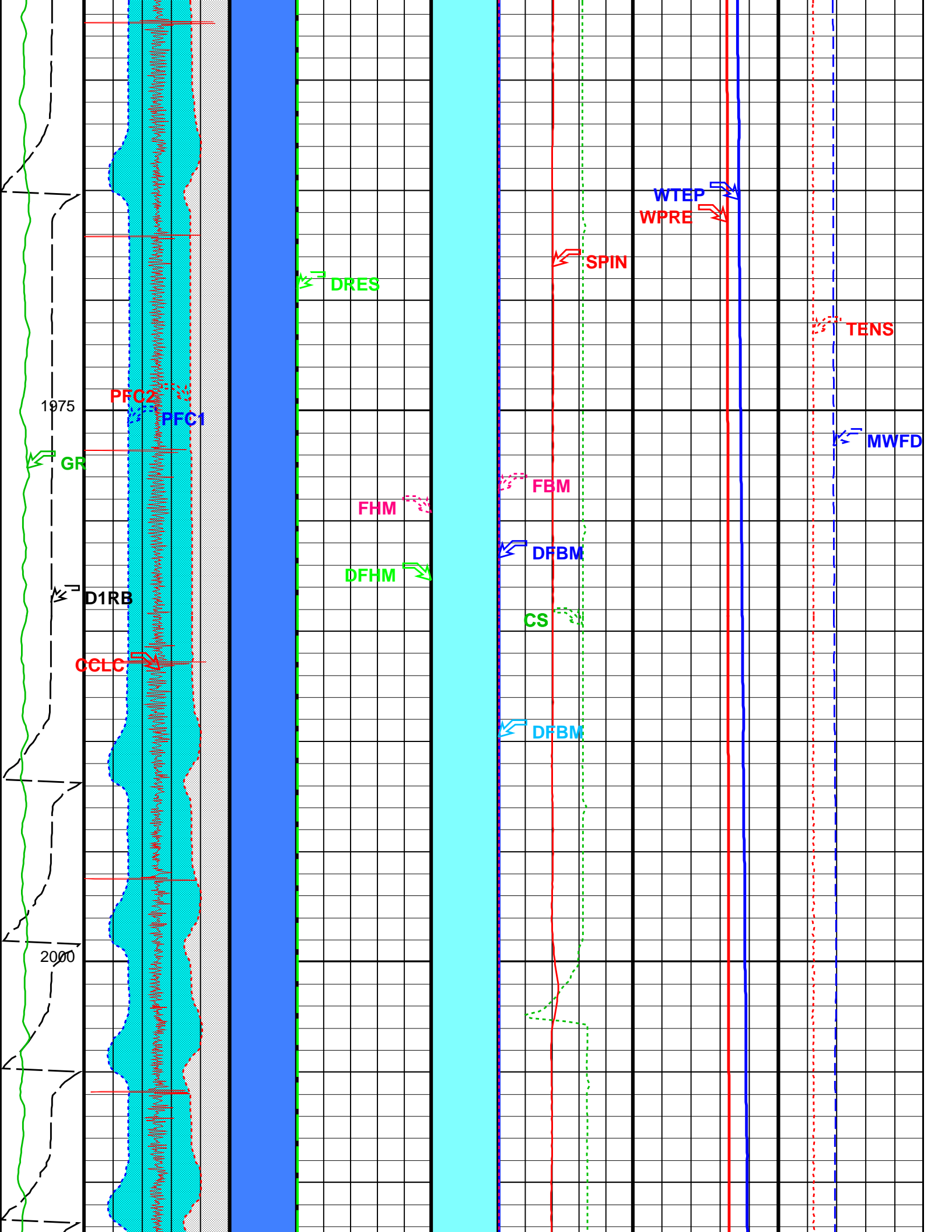
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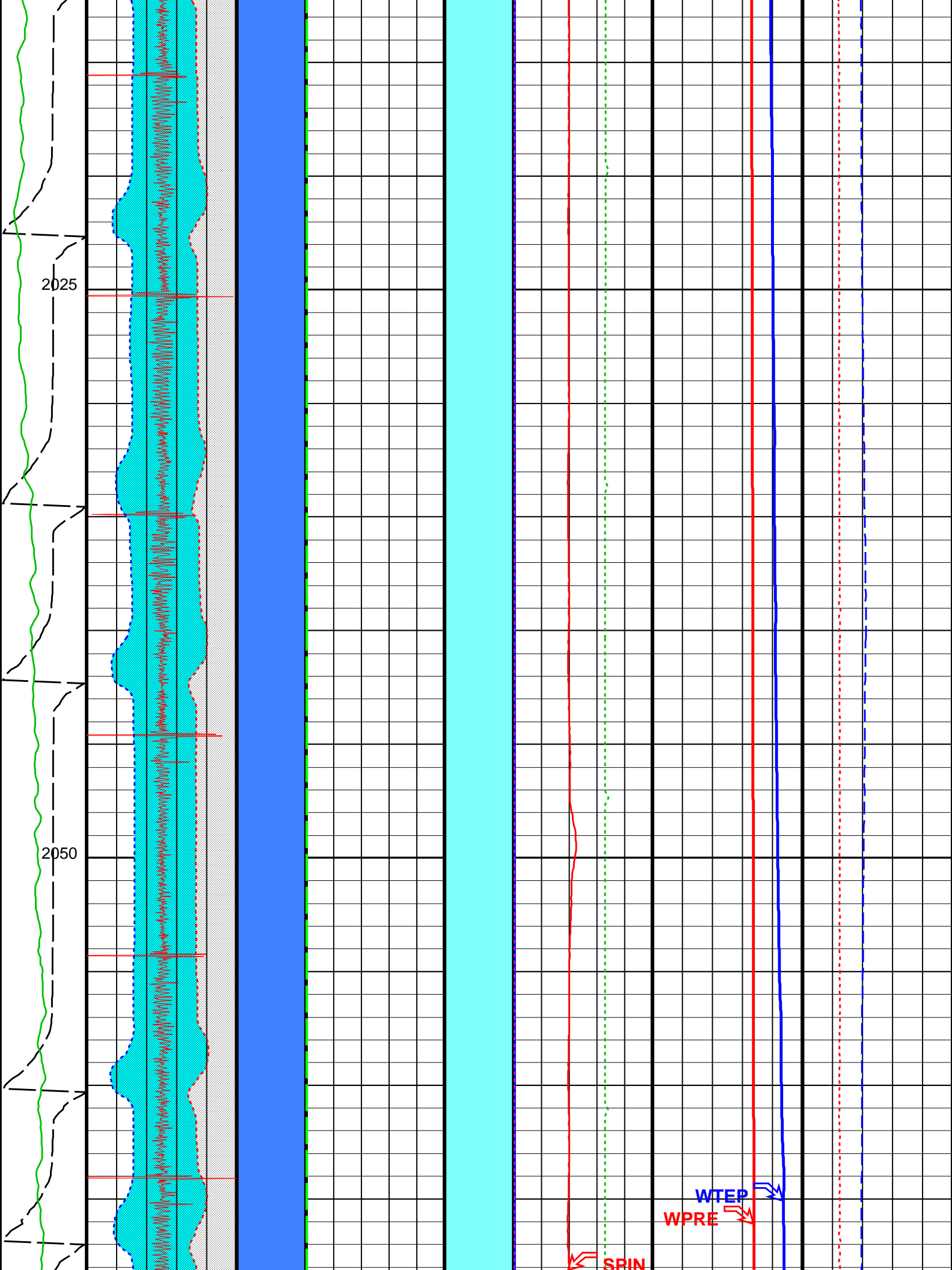
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PSPT-B	SRPC-3624-Q2_2008_OP16		

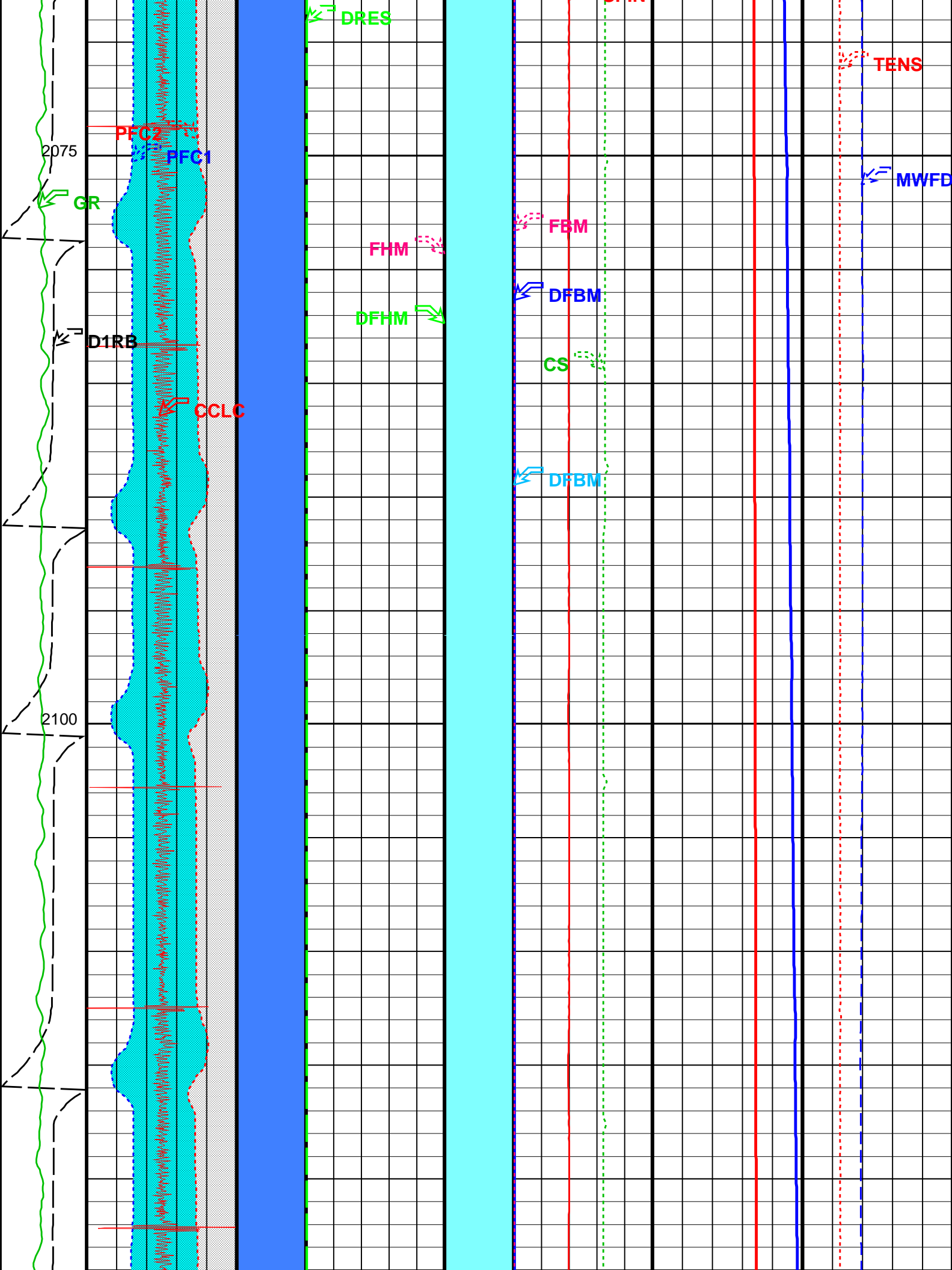


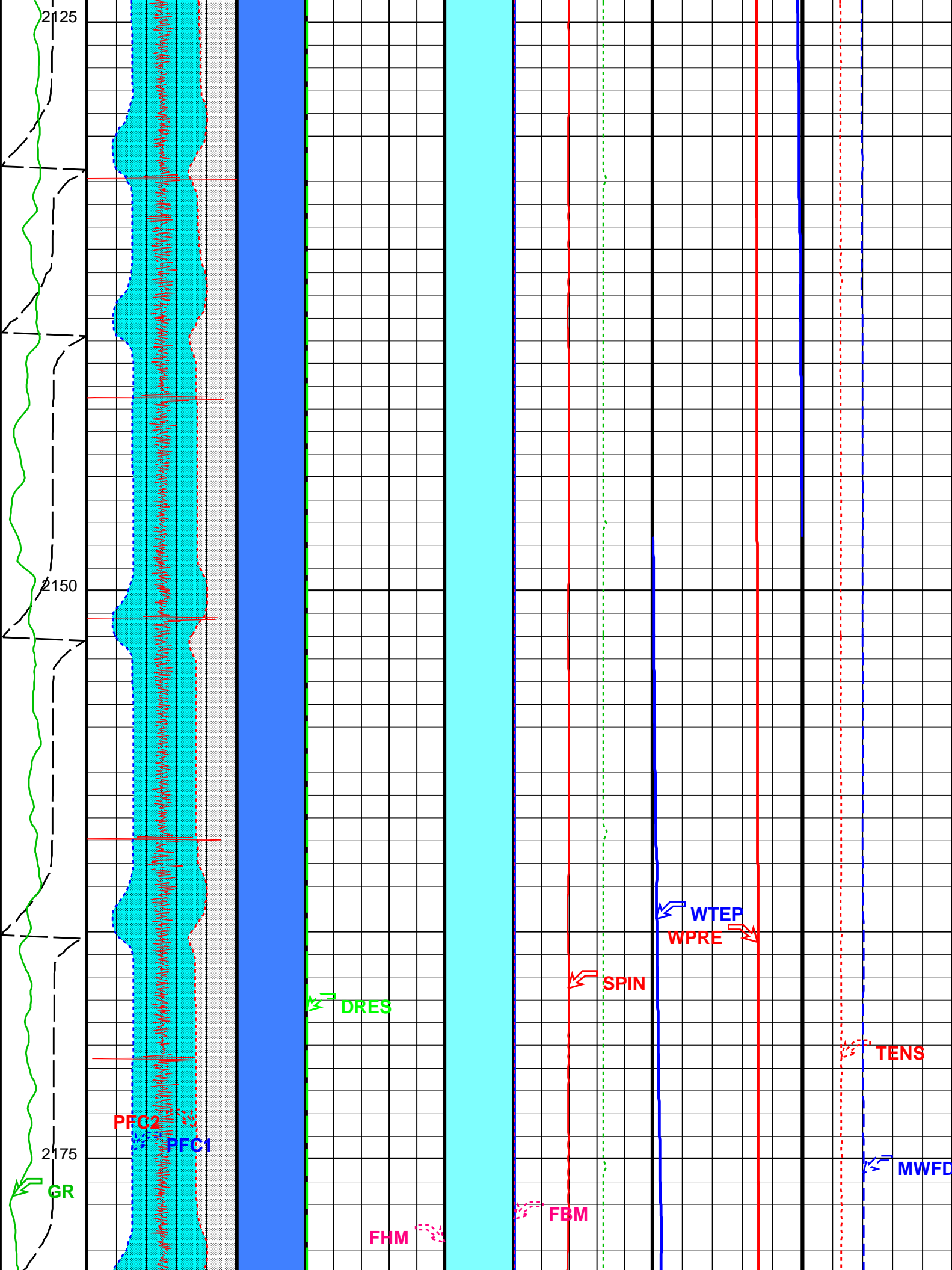




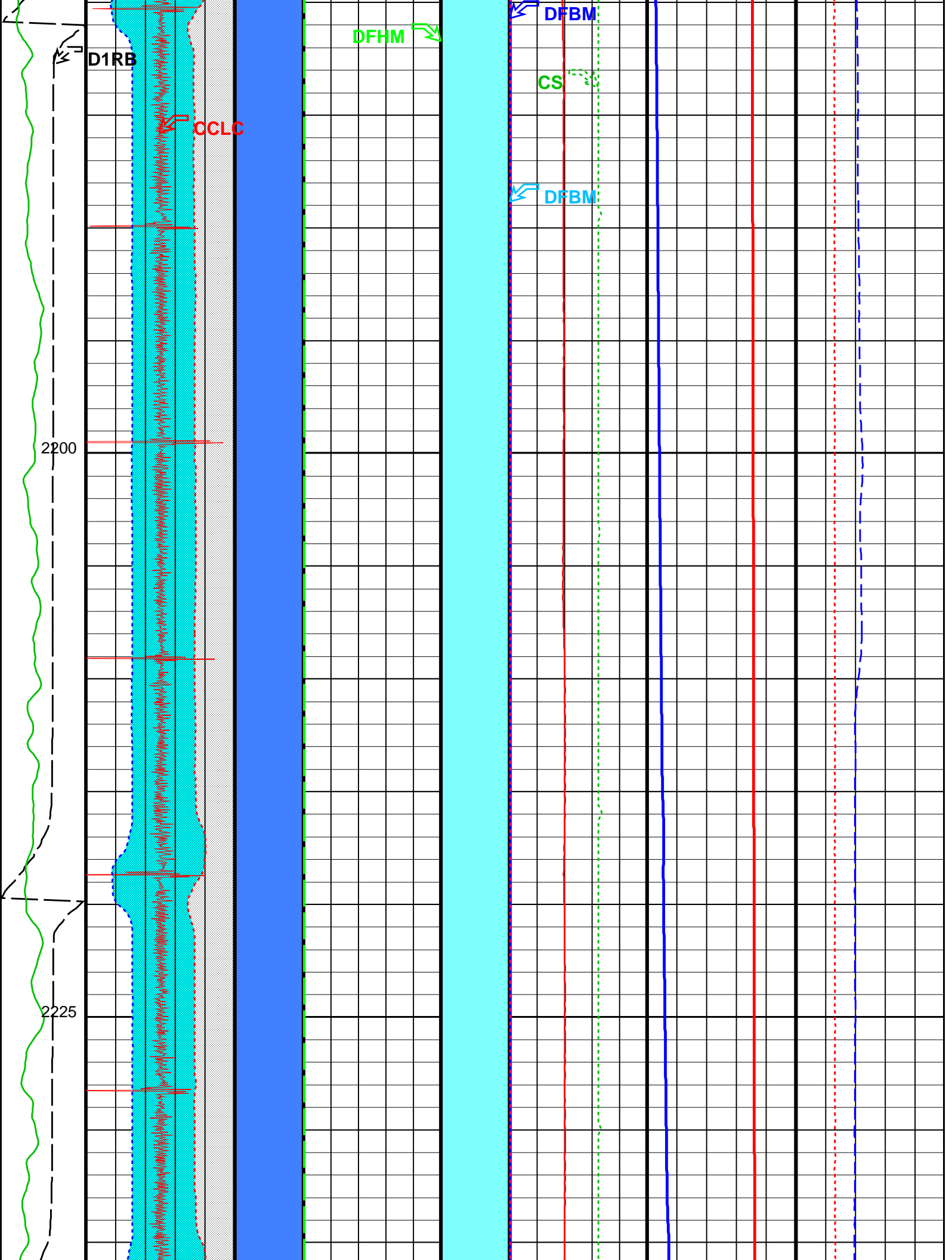


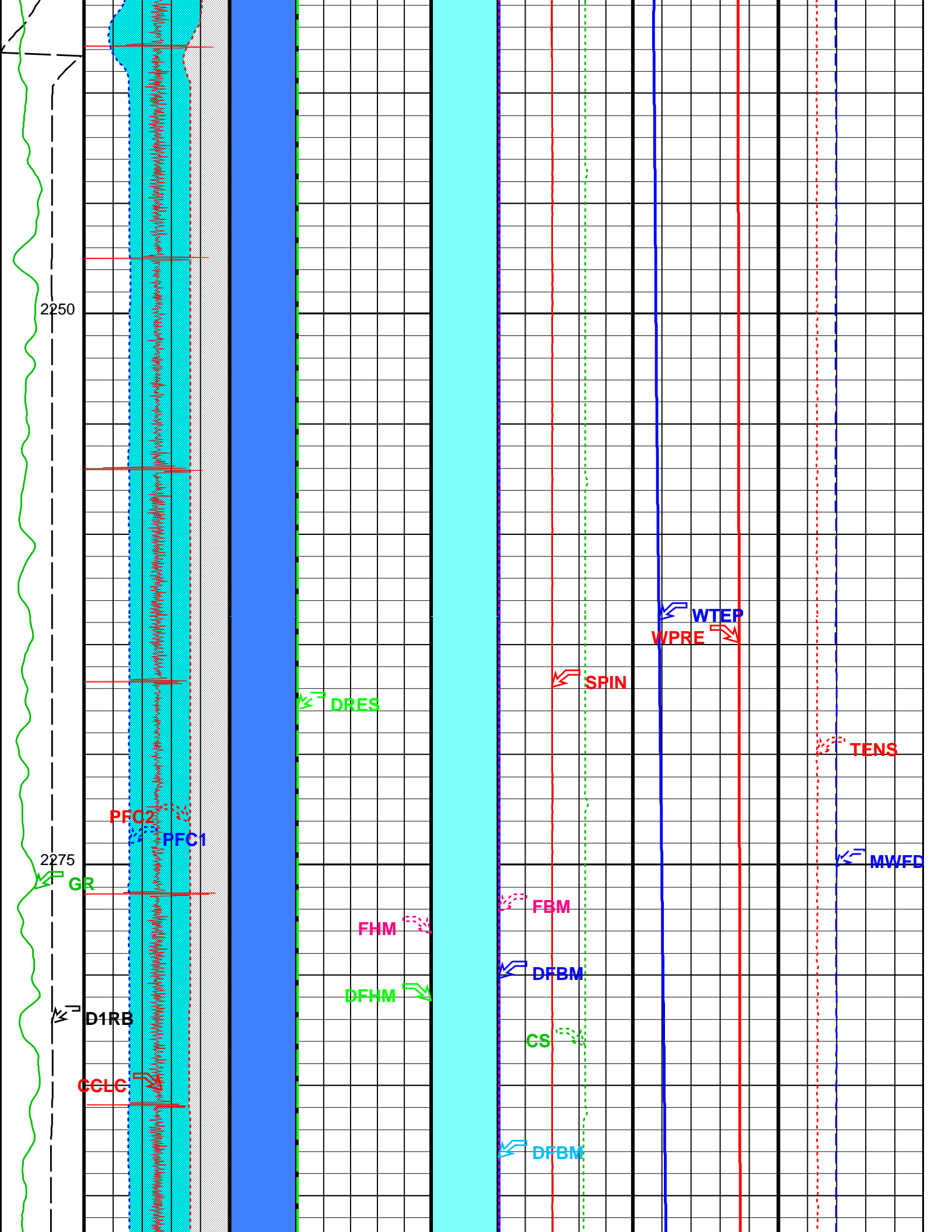


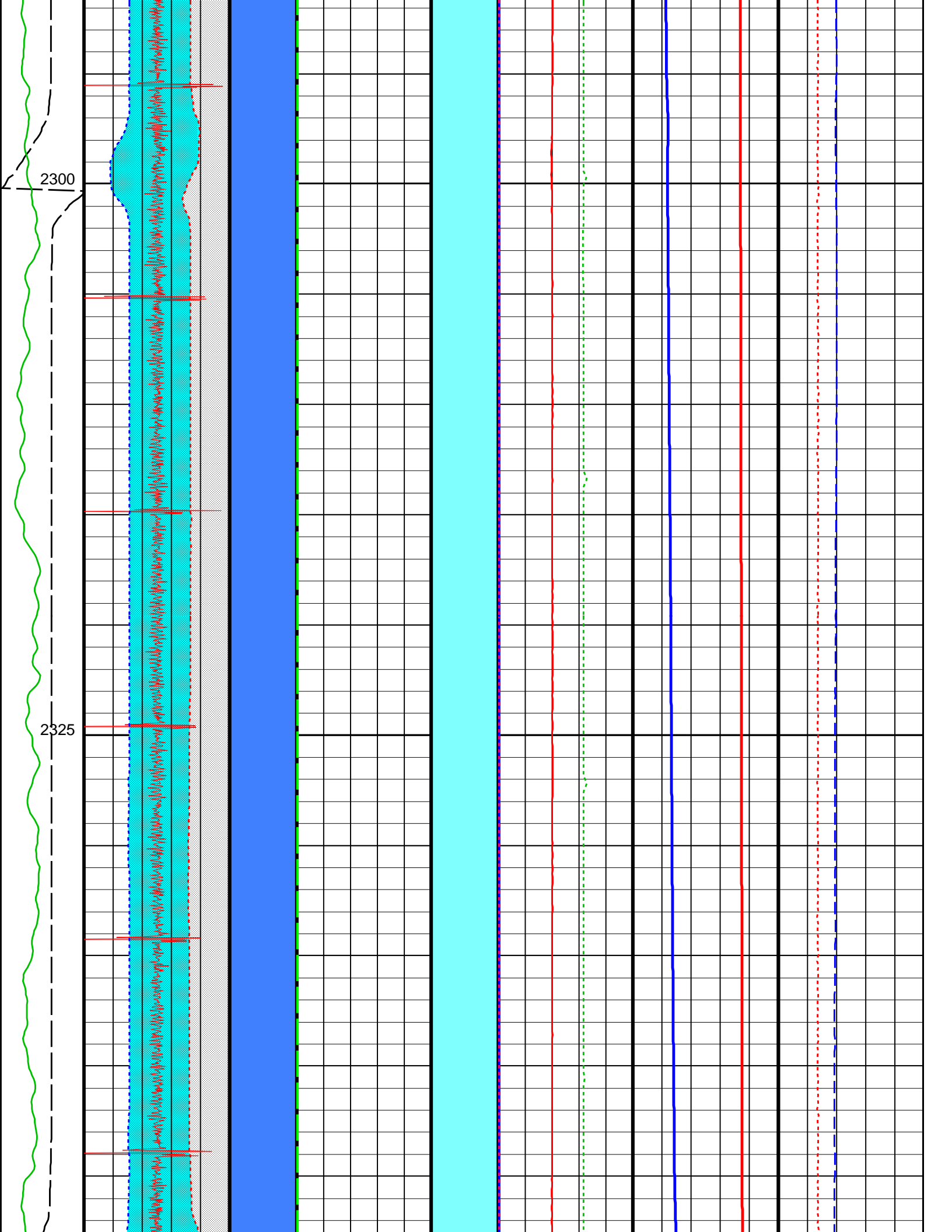


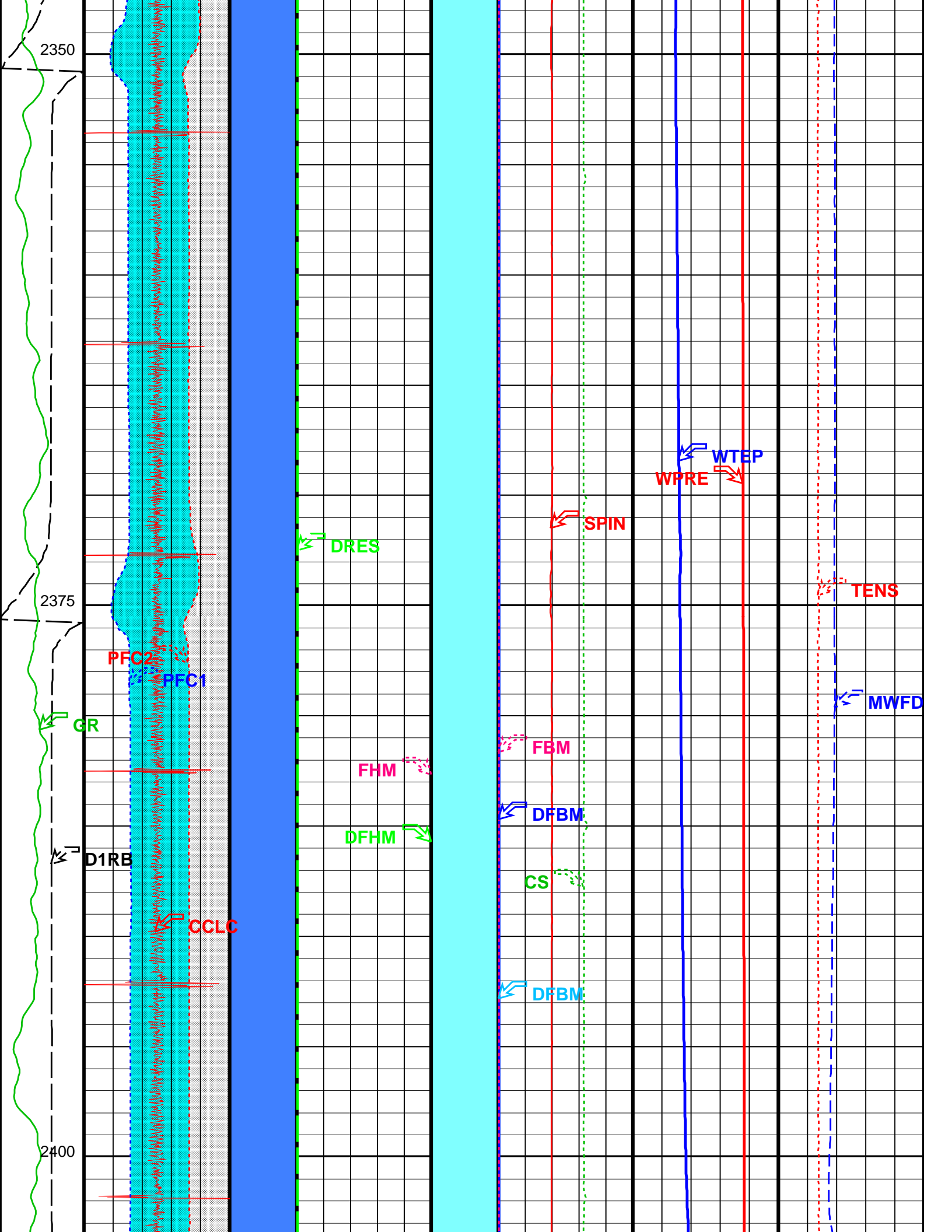




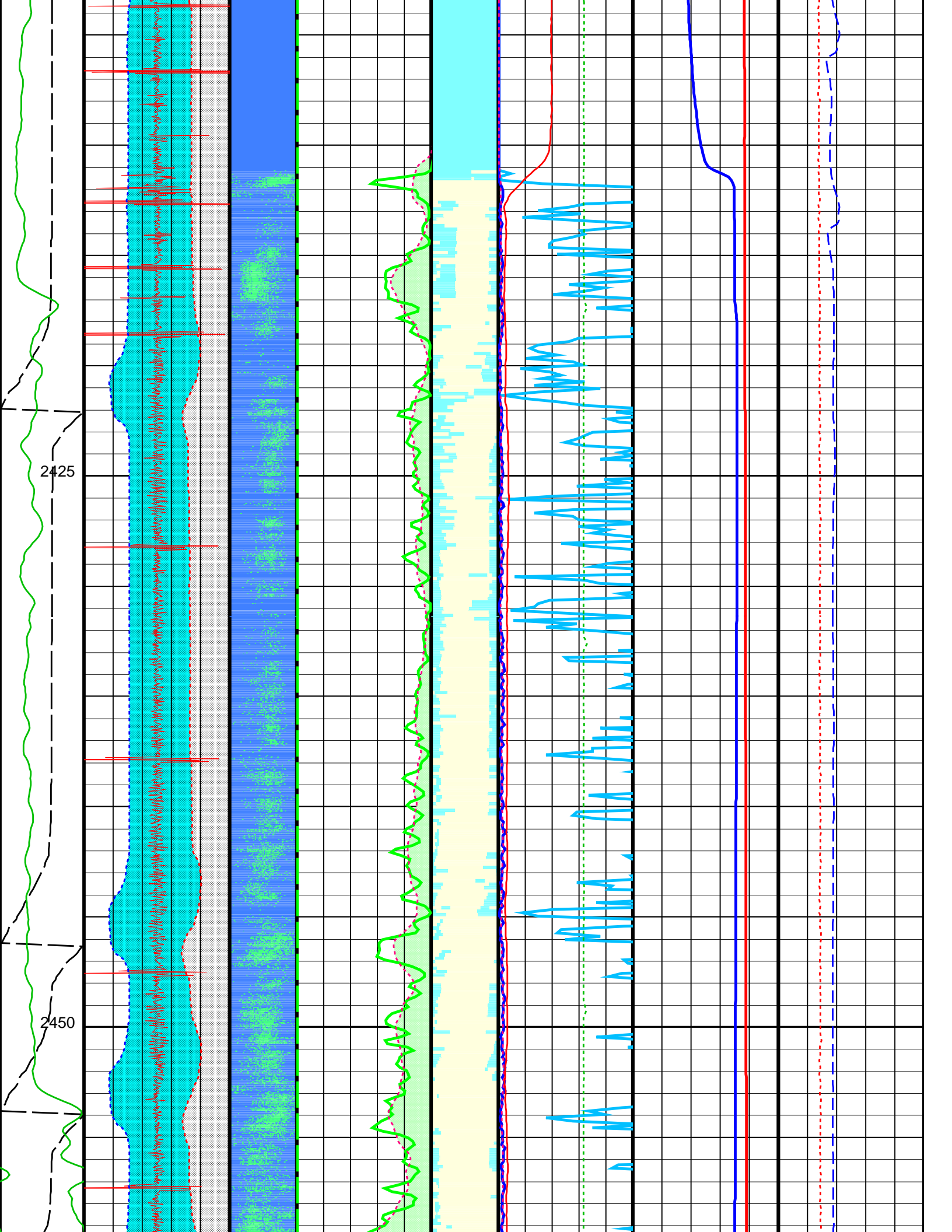


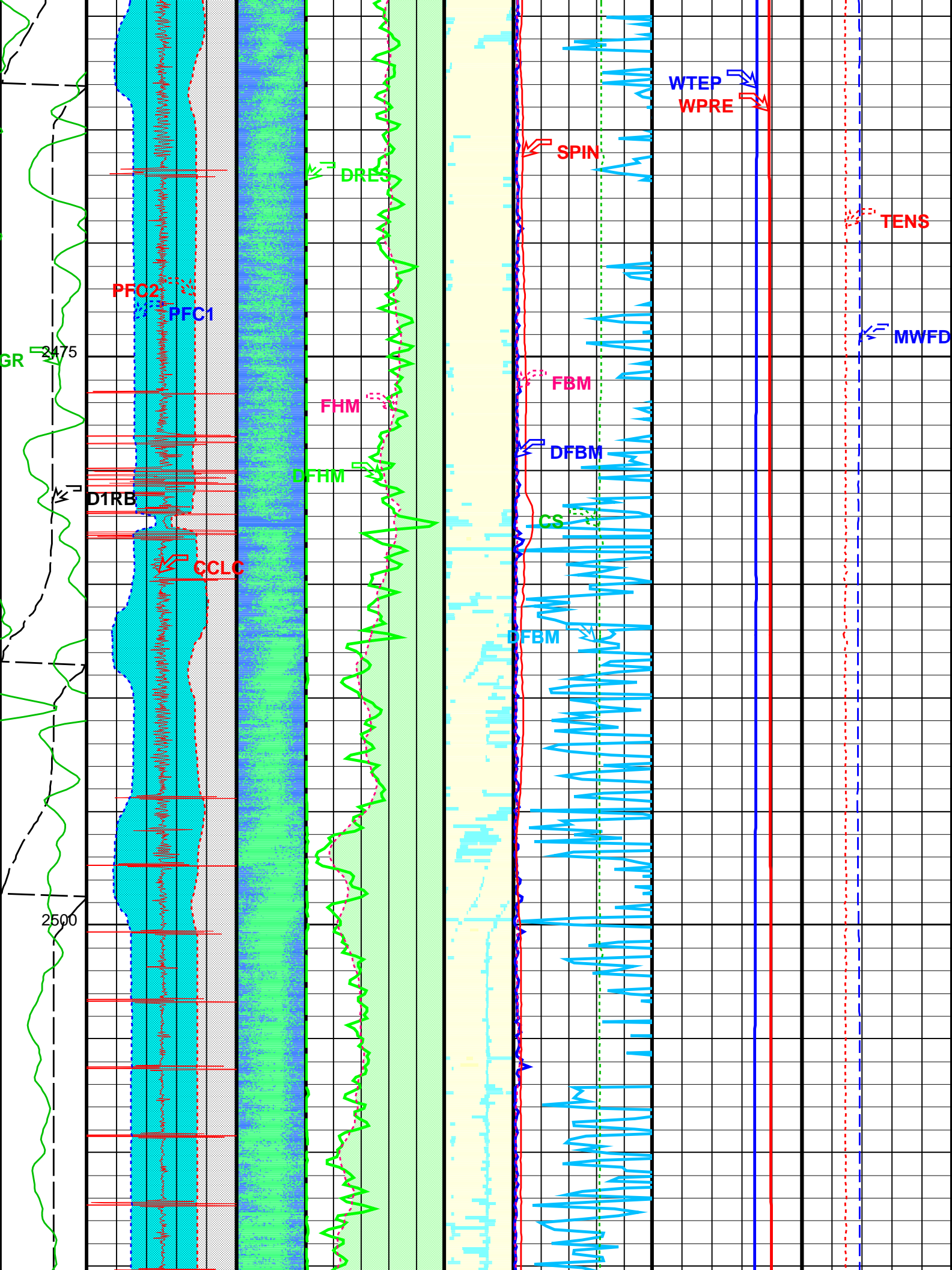




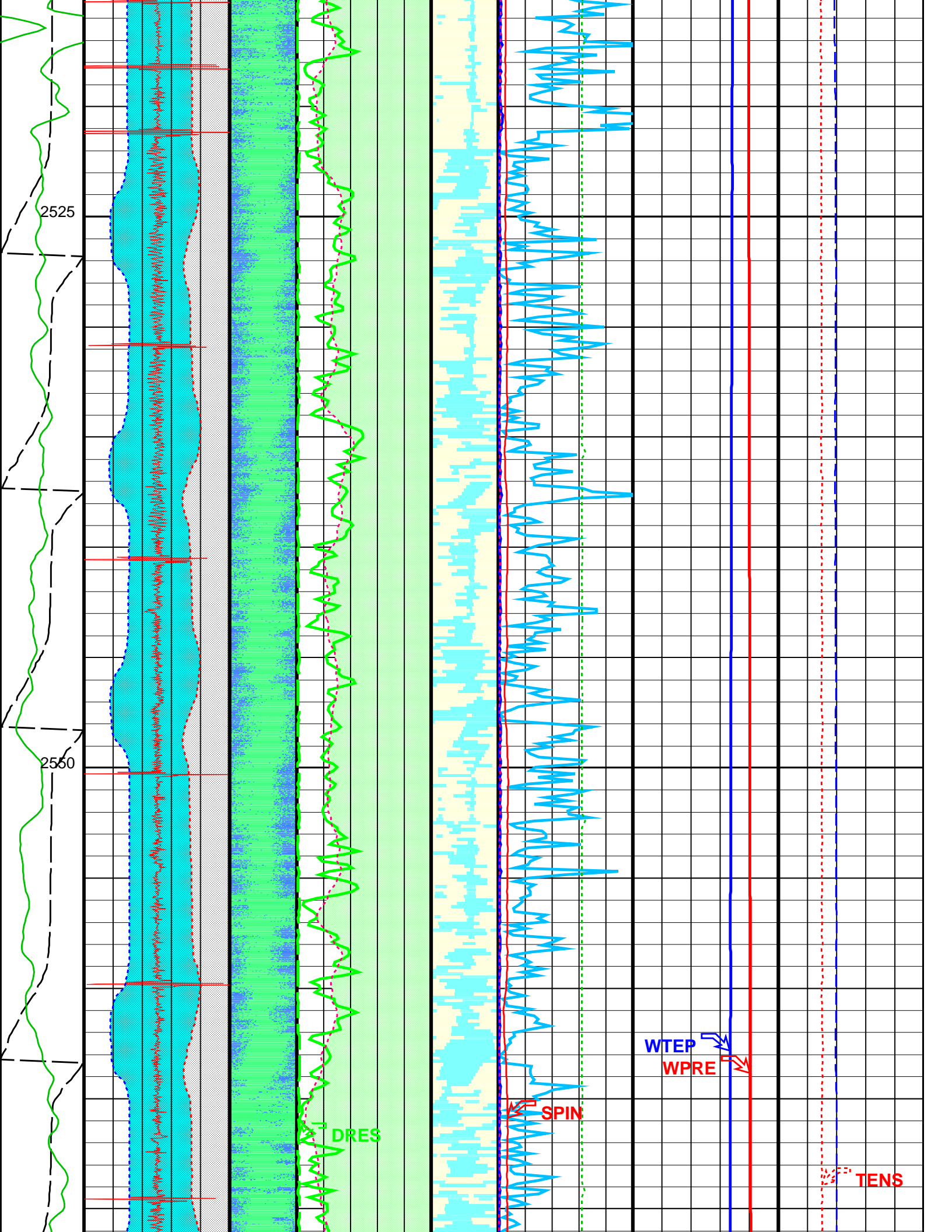


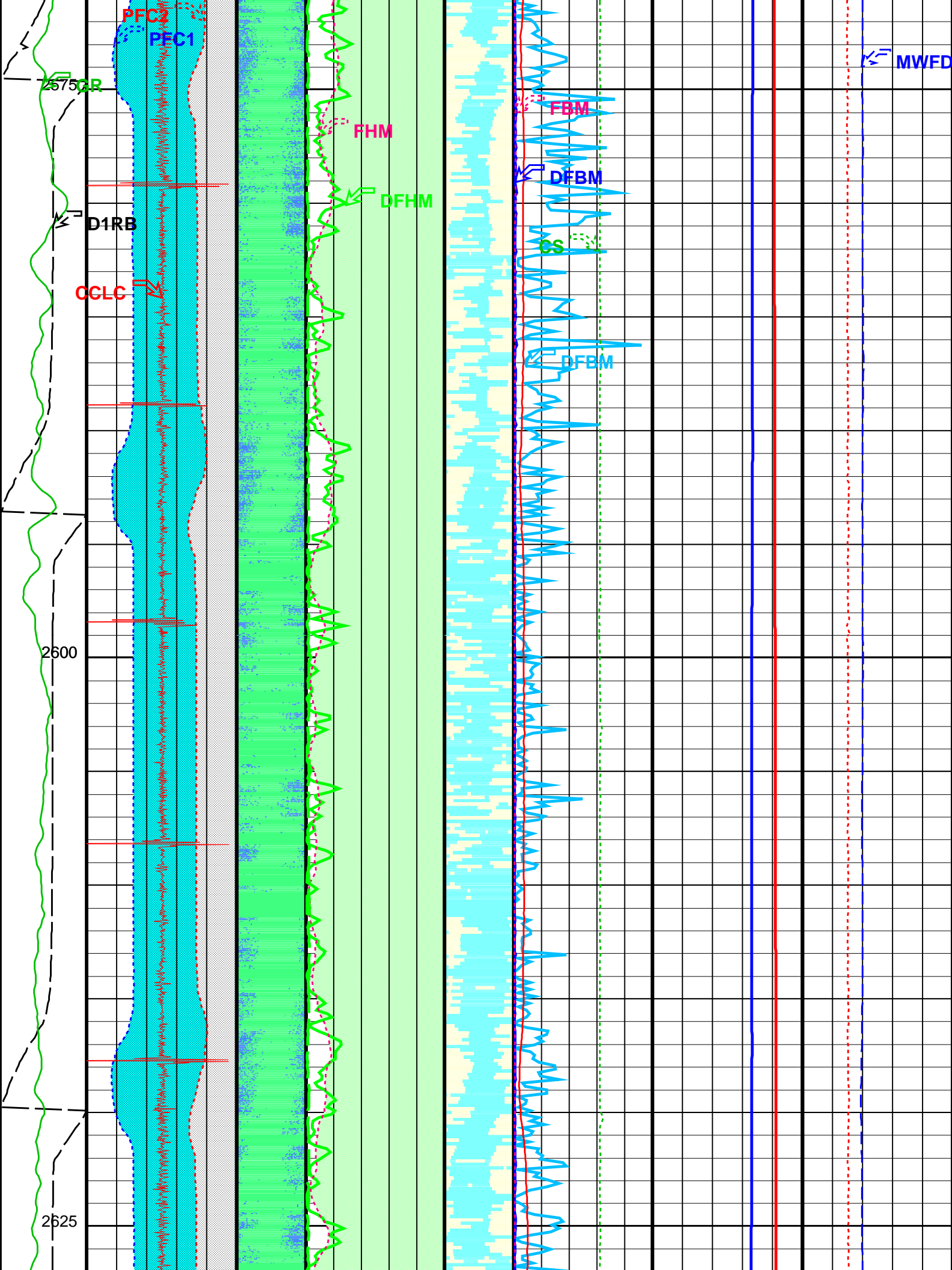




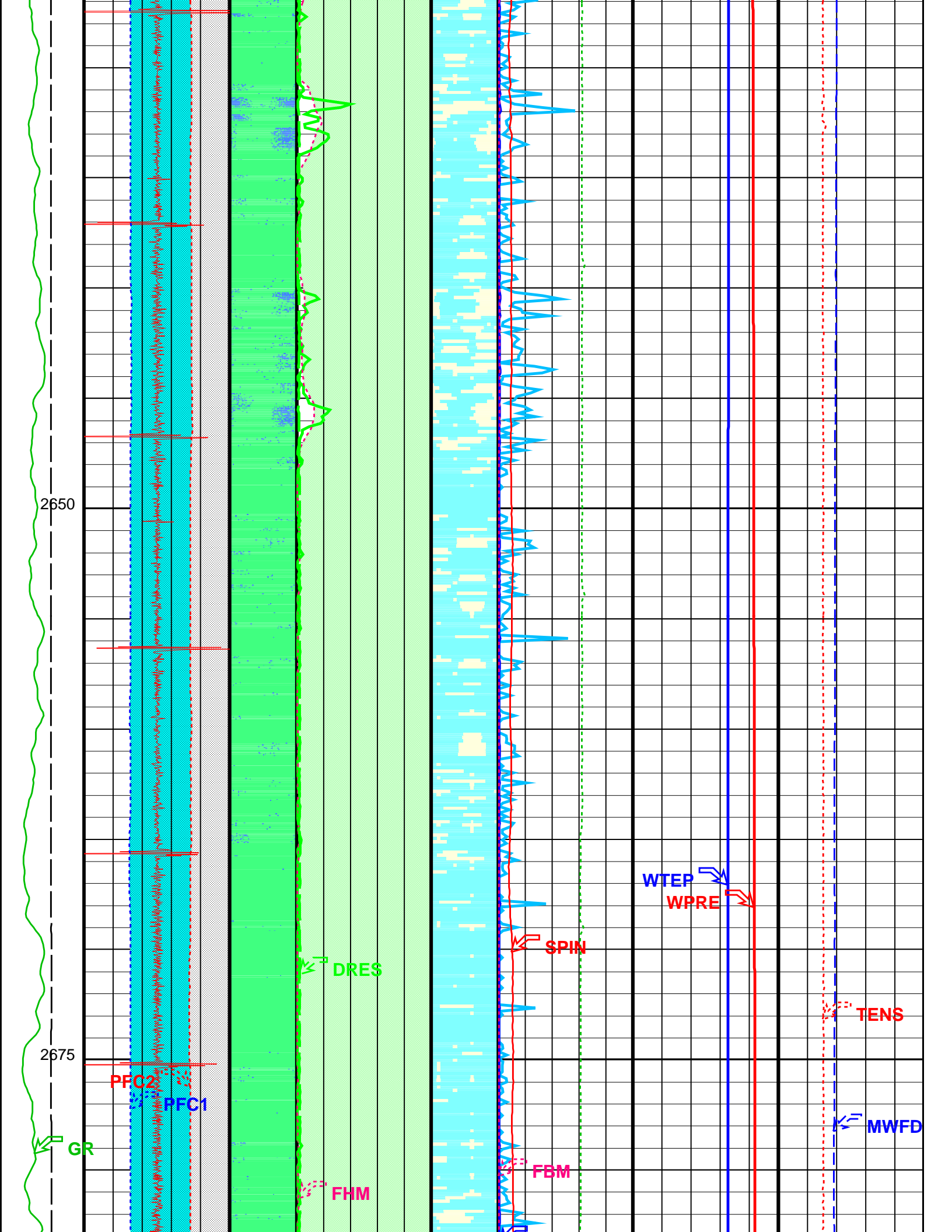


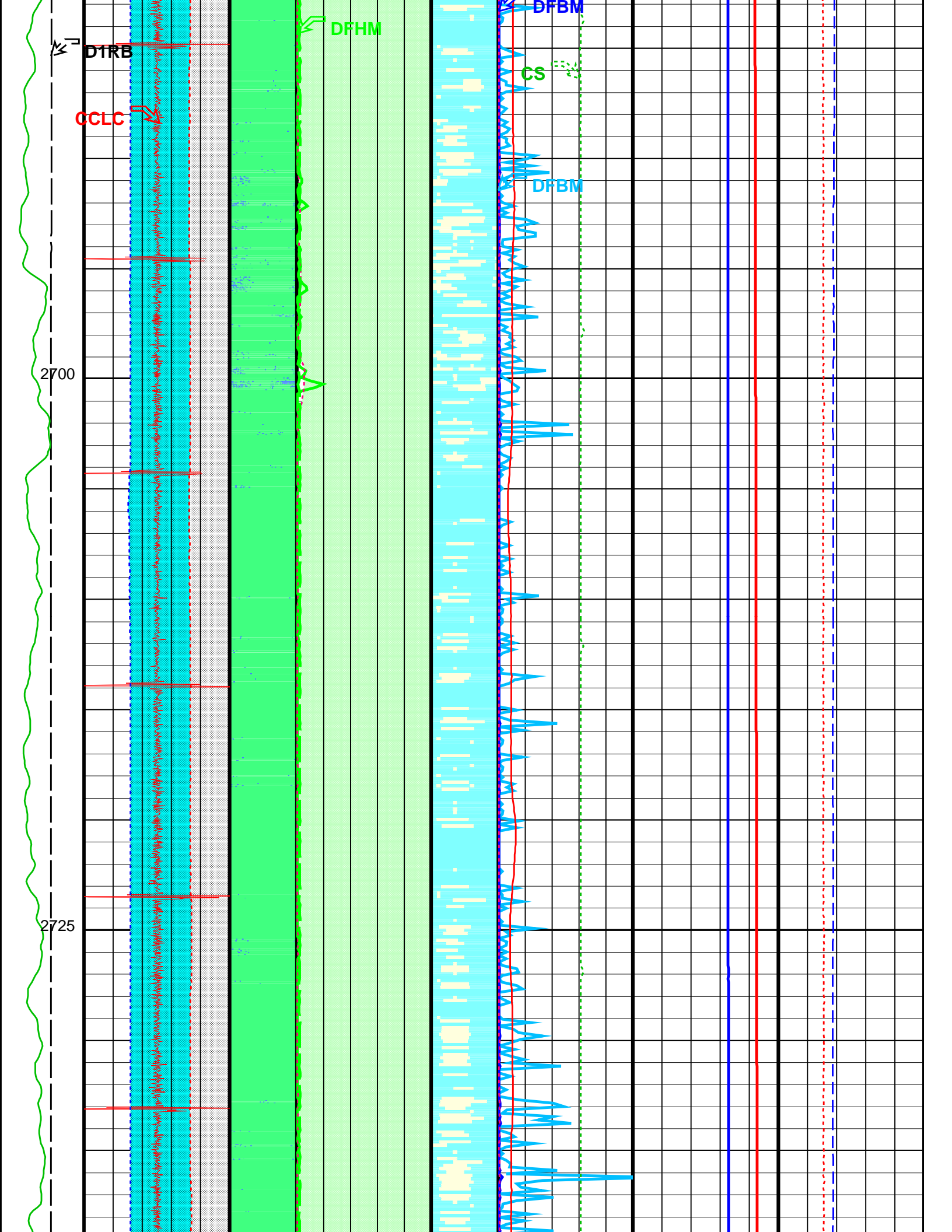




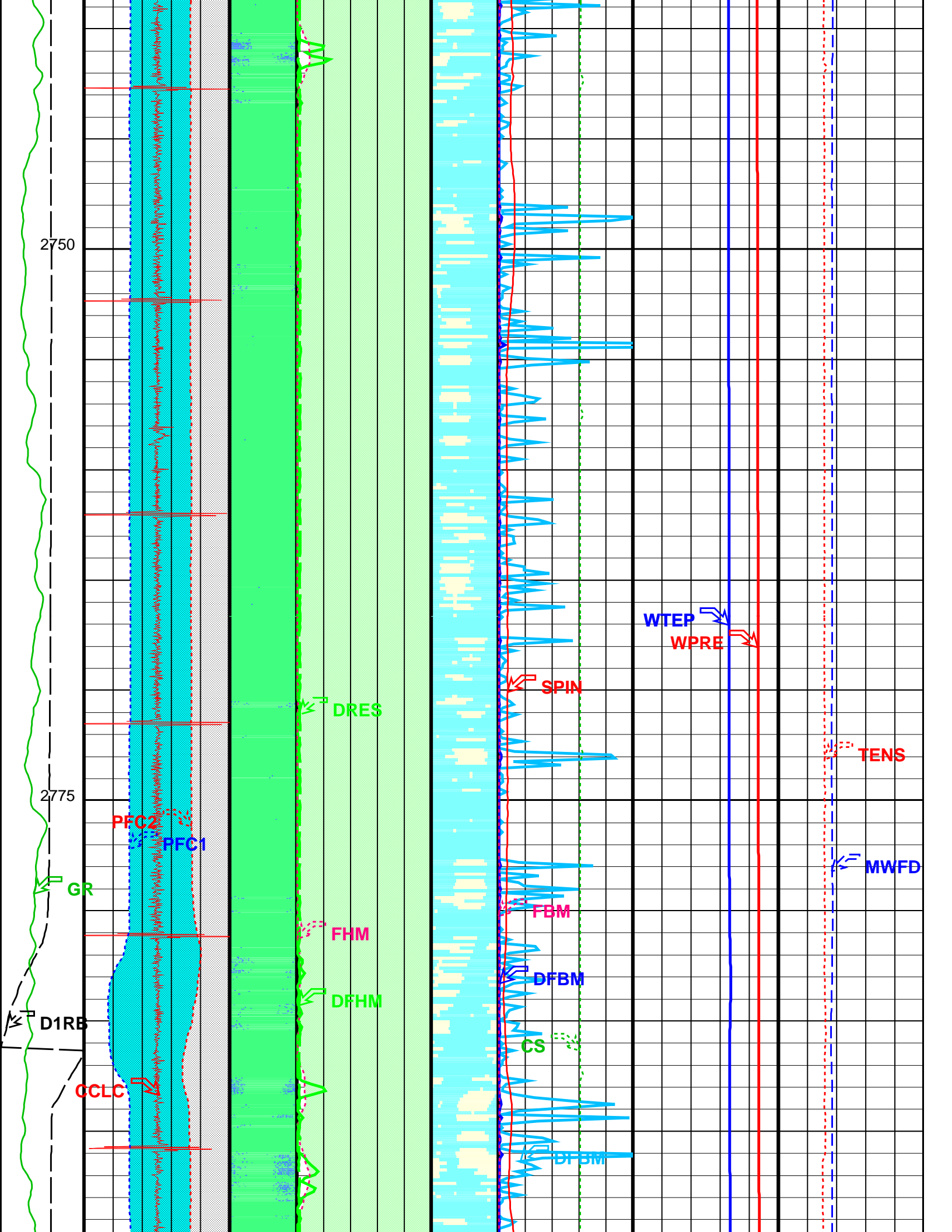


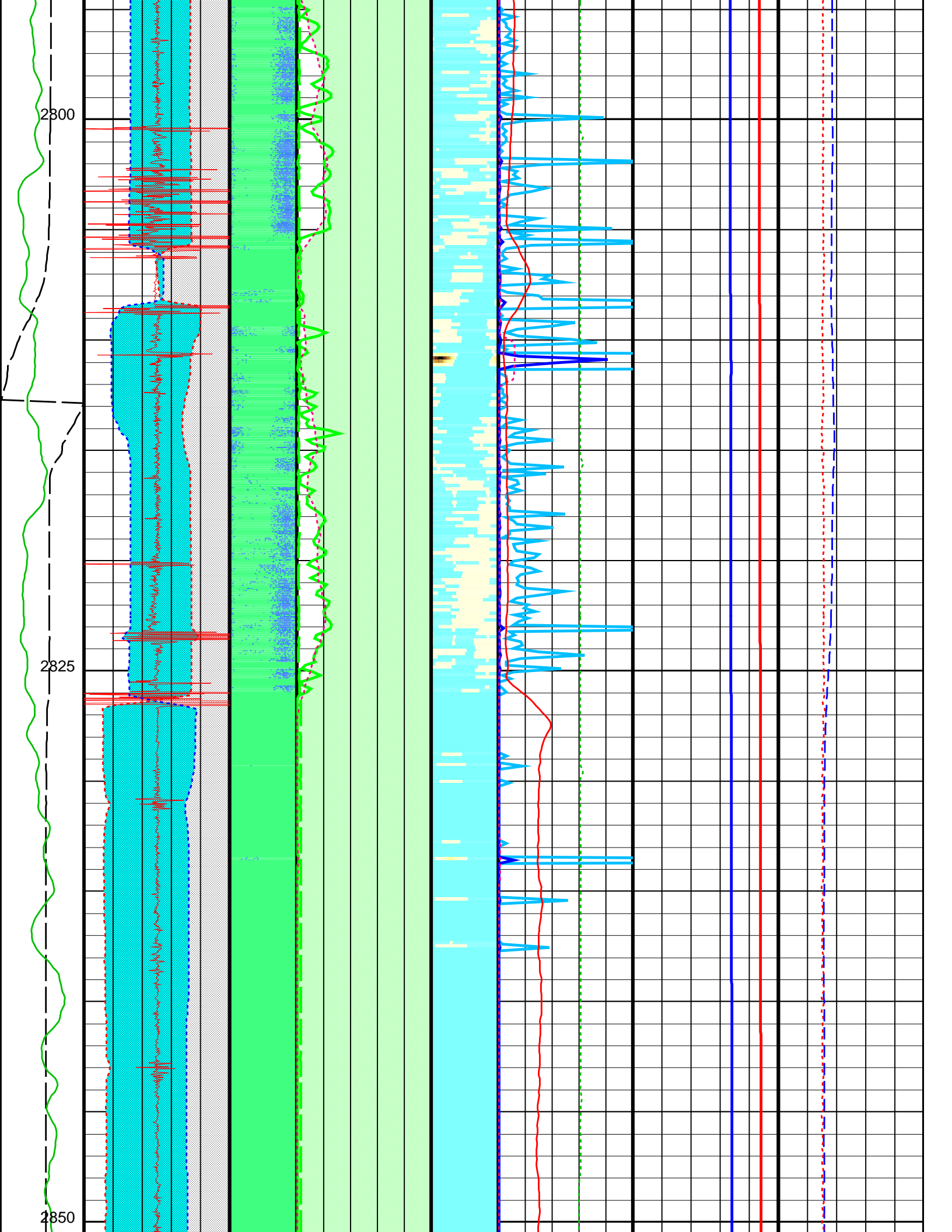




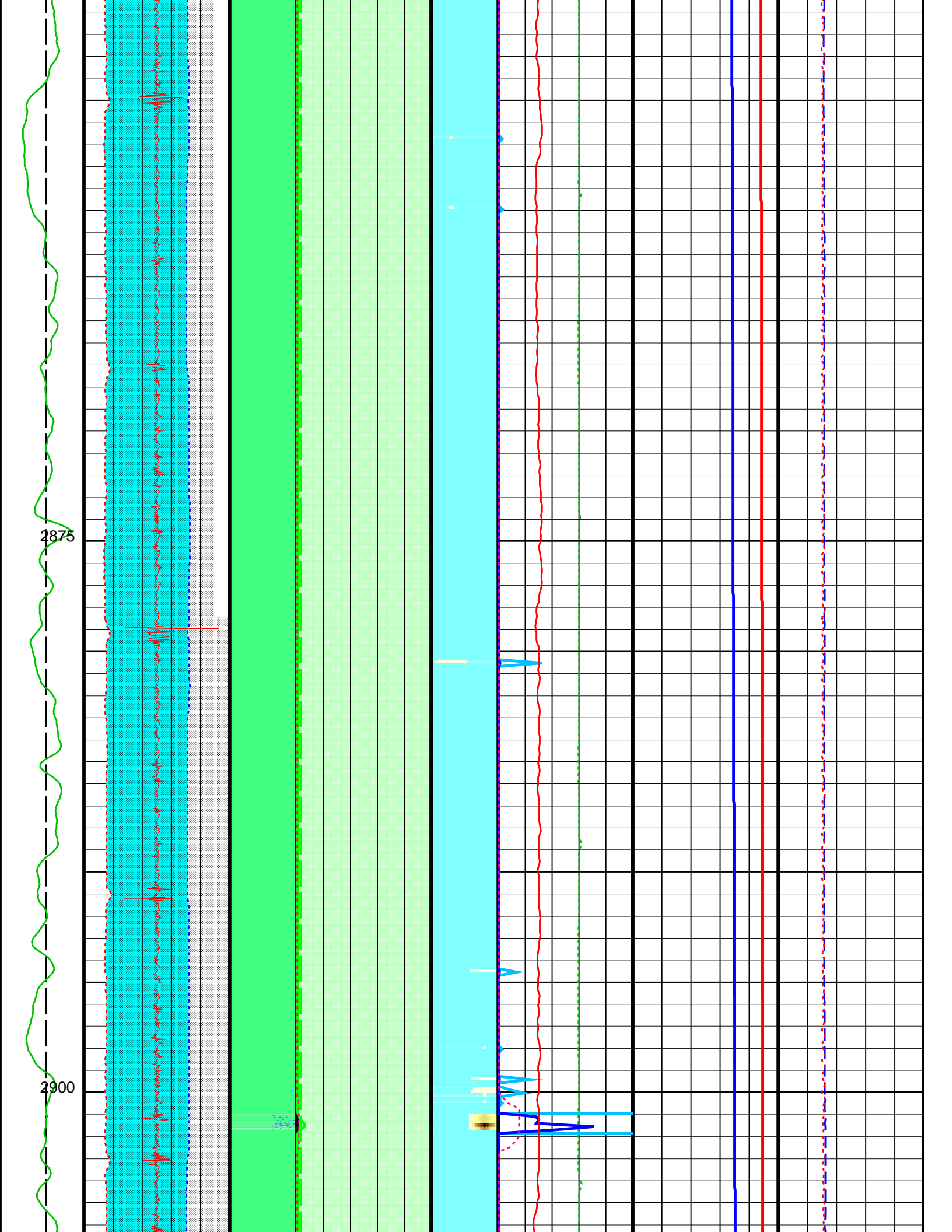


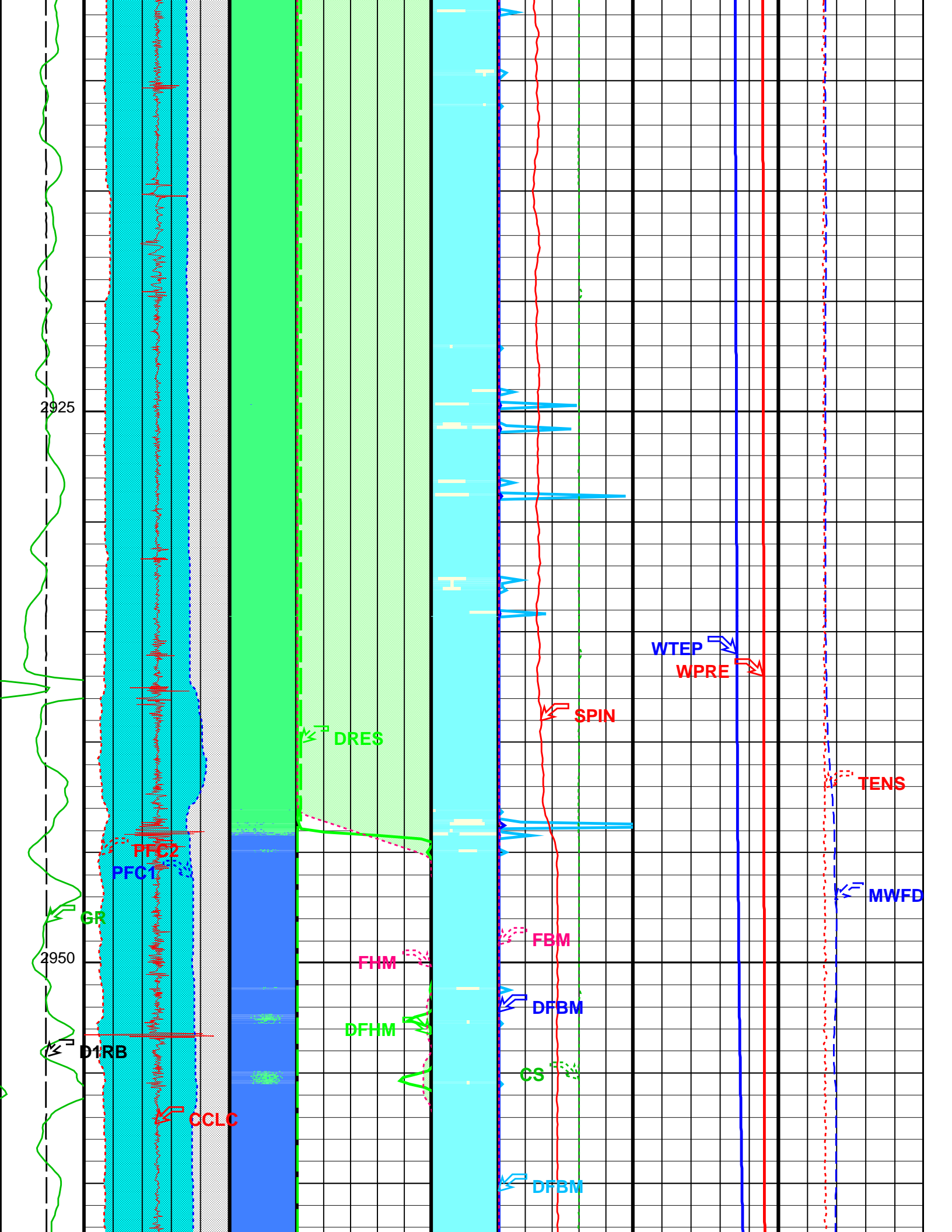


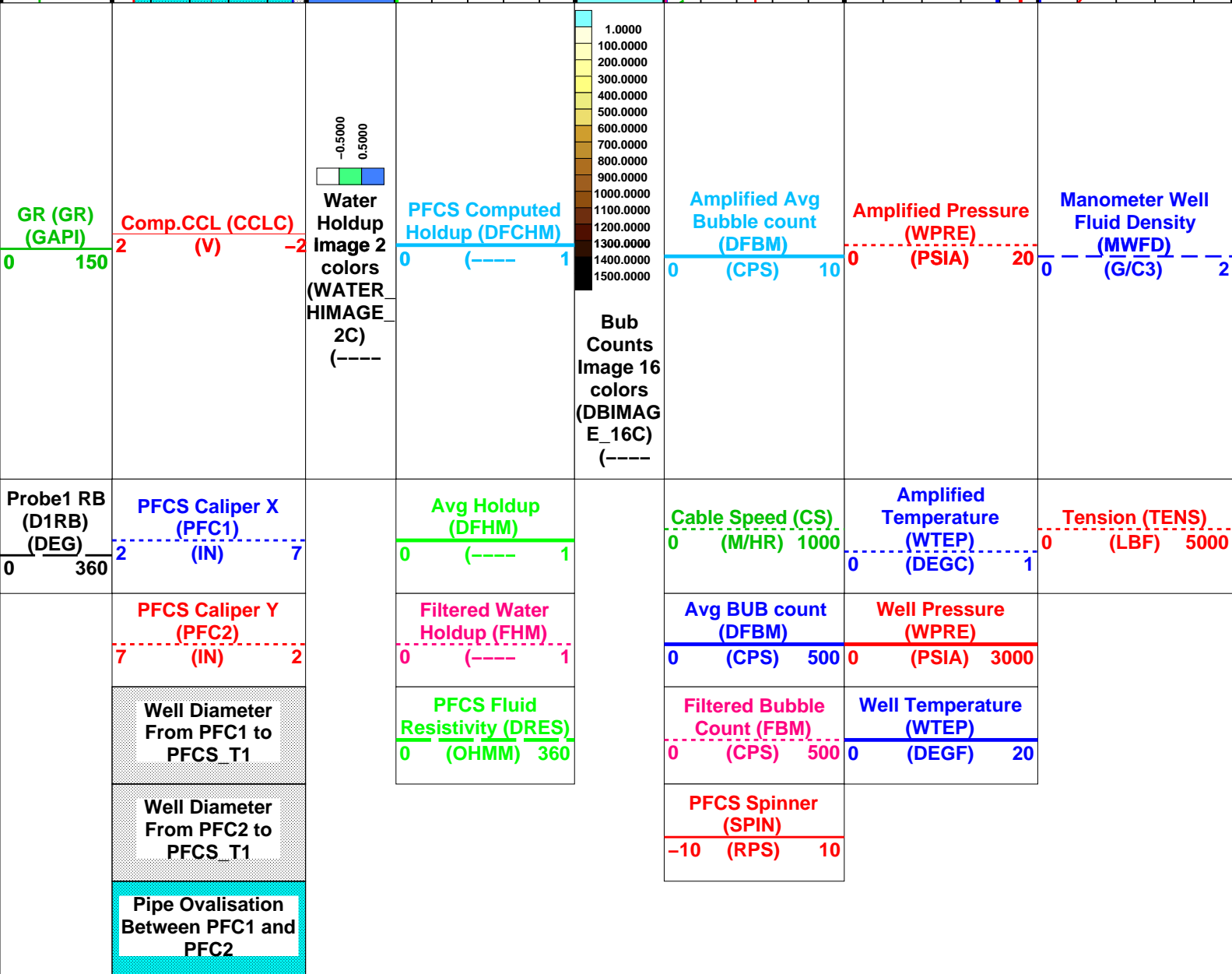
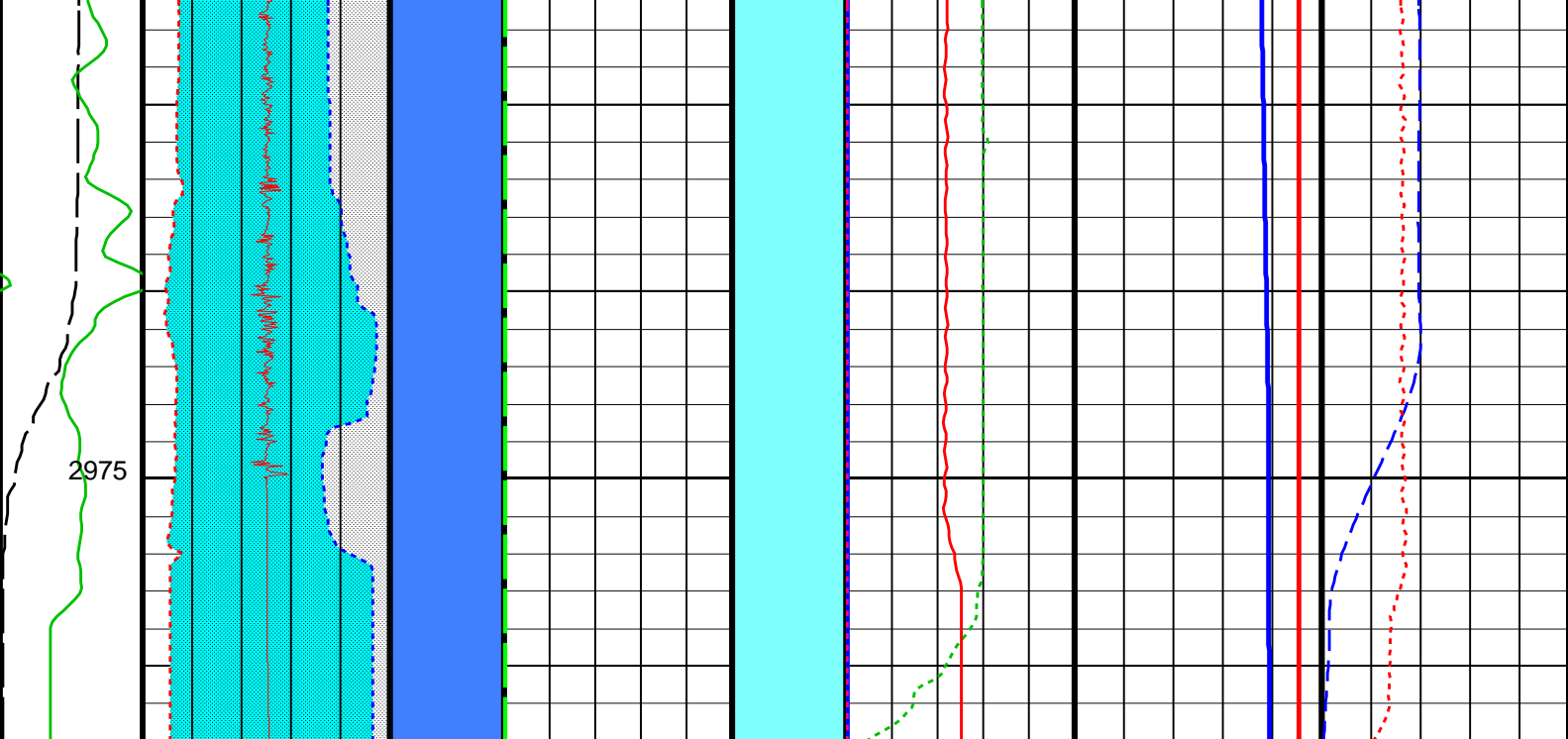












## Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
CSID	Casing Size I.D.	6.366 IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB
DDRS	Dual DEFT RB Source	D1RB
DFBD	DEFT Blank Disallowed Probes	NO
DFFI	DEFT Flip Image	NO
DFII	DEFT Image Interpolation	YES
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE
DFPP	Probes Arm Position	C
GDEV	Average Angular Deviation of Borehole from Normal	44 DEG
PFGC	PFCS Geometrical coefficient	1200
PFRE1	Downhole Resistor Probe 1	3000 OHMS
PFRE2	Downhole Resistor Probe 2	3000 OHMS
PFRE3	Downhole Resistor Probe 3	3000 OHMS
PFRE4	Downhole Resistor Probe 4	3000 OHMS
SDCF	Spinner Depth Constant Filter	6
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PSPT-B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.366 IN
GDEV	Average Angular Deviation of Borehole from Normal	44 DEG
BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.366 IN
System and Miscellaneous		
CSIZ	Current Casing Size	7.000 IN
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

## Input DLIS Files

DEFAULT	FCS_ILS_PSP_017LUP	FN:16	PRODUCER	24-Nov-2008 16:59	2982.0 M	1893.4 M
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## Output DLIS Files

DEFAULT	FCS_ILS_PSP_018PUP	FN:17	PRODUCER	24-Nov-2008 18:47
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Company: **Esso Australia Pty Ltd.****Schlumberger**Well: **A-1a Long**Field: **Tuna**Rig: **Crane**Country: **Australia**

Pressure/Temperature/Full Bore  
Spinner Survey  
Tubing Patch Setting Record