

Company: North East Natural Energy LLC

Well: Boguess 17H

Field: Wildcat

County: Monongalia State: West Virginia

PLATFORM EXPRESS
DRILLER QUICKLOOK
GAMMA RAY / CALIPER

County: Monongalia	Lat and Long:		Elev.:	K.B.	1296.00 ft
Field: Wildcat	39:40:12.6 N			G.L.	1268.00 ft
Location: Lat and Long:	80:5:35.8 W			D.F.	1296.00 ft
Well: Boguess 17H	Permanent Datum:	Ground Level	Elev.:	1268.00 f	
Company: North East Natural Energy LLC	Log Measured From:	Kelly Bushing	28.00 ft	above Perm.Datum	
	Drilling Measured From:	Kelly Bushing			
	API Serial No.	District	Township:	Quad	
	47-061-01812-00-00	Clay	Core	Blacksville	

Logging Date	15-Apr-2019		
Run Number	1A		
Depth Driller	8400.00 ft		
Schlumberger Depth	8400.00 ft		
Bottom Log Interval	8400.00 ft		
Top Log Interval	2543.00 ft		
Casing Driller Size @ Depth	9.625 in @ 2538.00 ft		
Casing Schlumberger	2543 ft		
Bit Size	8.5 in		
Type Fluid In Hole	Water		
Density	9.5 lbm/gal		
Fluid Loss	PH		
MUD			
Source of Sample	Active Tank		
RM @ Meas Temp	0.04 ohm.m @ 103 degF		
RMF @ Meas Temp	0.03 ohm.m @ 103 degF		
RMC @ Meas Temp	0.04 ohm.m @ 102 degF		
Source RMF	RMC	Pressed	
RM @ BHT	0.04 @ 158	0.02 @ 158	
Max Recorded Temperatures	158 degF		
Circulation Stopped	14-Apr-2019	23:00:00	
Logger on Bottom	15-Apr-2019	09:04:00	
Unit Number	3703	Bradford, PA	
Recorded By	Elizabeth Morrone		
Witnessed By	BJ Varney		

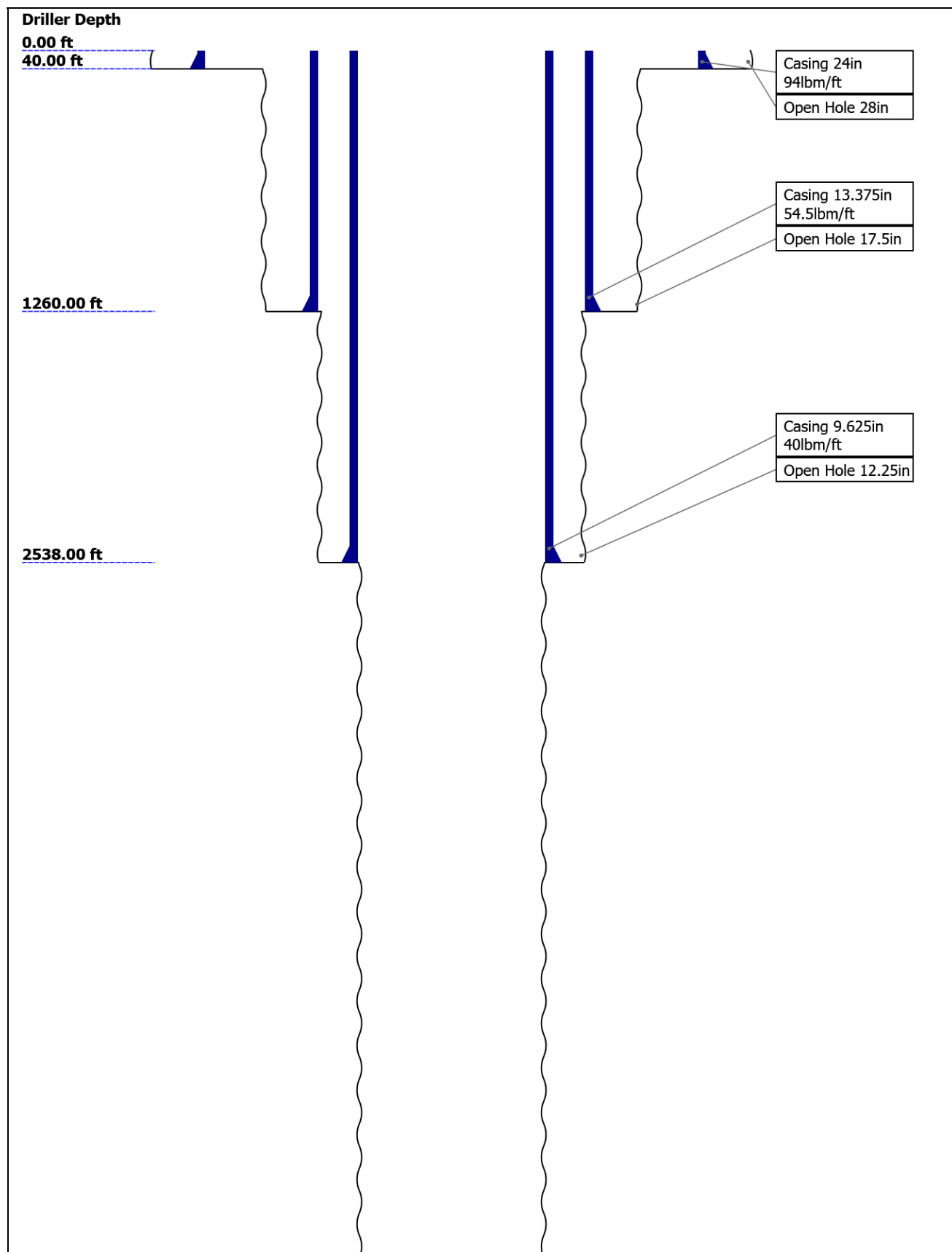
Disclaimer

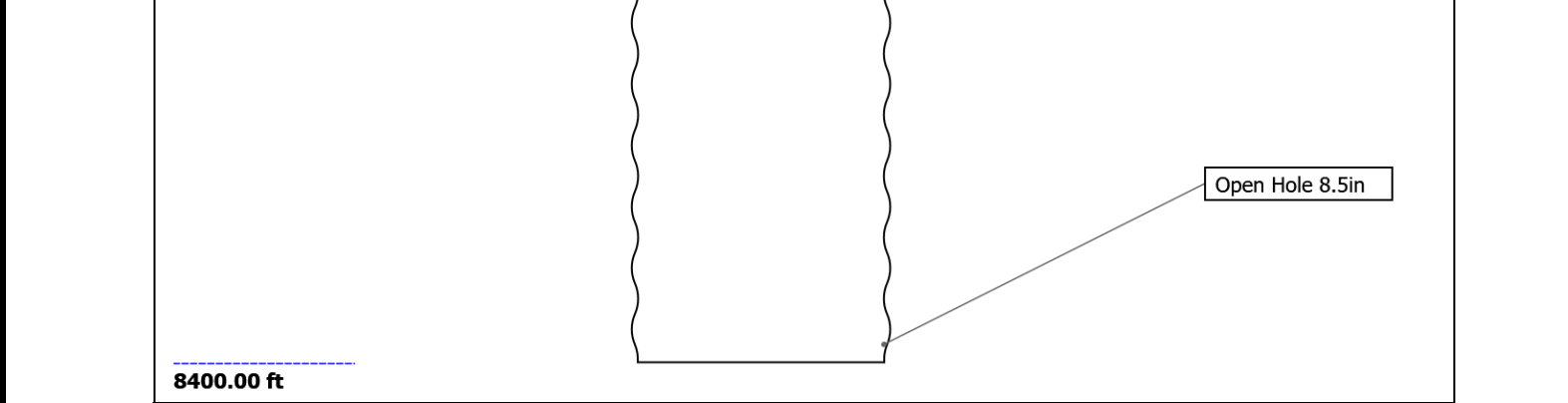
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Well Sketch



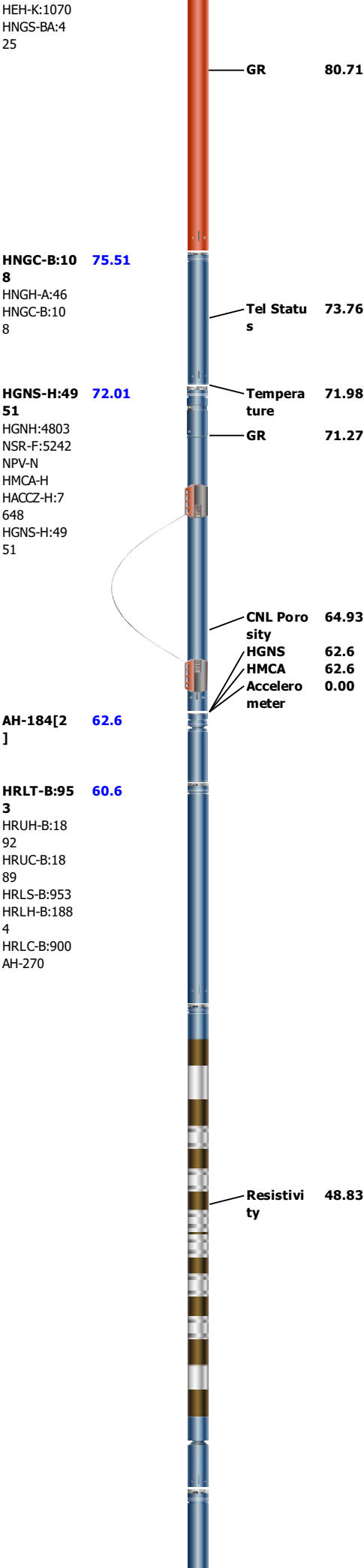


Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	28	17.5	12.25	8.5		
Top Driller (ft)	0	40	1260	2538		
Top Logger (ft)	0	40	1260	2543		
Bottom Driller (ft)	40	1260	2538	8400		
Bottom Logger (ft)	40	1260	2543	8400		
Casing						
Size (in)	24	13.375	9.625			
Weight (lbm/ft)	94	54.5	40			
Inner Diameter (in)	23.272	12.615	8.835			
Grade	N/A	N/A	N/A			
Top Driller (ft)	0	0	0			
Top Logger (ft)	0	0	0			
Bottom Driller (ft)	40	1260	2538			
Bottom Logger (ft)	40	1260	2543			

Remarks and Equipment Summary

1A: Toolstring				1A: Remarks	
Equip name	Length	MP name	Offset	Thank you for choosing Schlumberger!	
LEH-MT	99.63			Crew: Morrone, Kornacki, Shirley	
LEH-MT		Mud Temperature	97.69	Tool ran per tool sketch; 6" standoffs placed on HRUC and HRLC	
SAH-F	96.48				
AH-369	91.63				
EDTC-B:9231	90.2				
EDTG-B:79427		CTEM	86.7		
EDTC-B:9231		ACCZ	0.00		
		HV	0.00		
		Gamma Ray	84.83		
		TelStatu	83.7		
HNGS-BA:425	83.7				



AH-184[1 36.4]

HDRS-H:3 34.4

791
ECH-MEB:3
963
HRCC-H:49
45
HRMS-H:37
91
Long Spacing
HRGD-H:39
21
GSR-J:5542
Short Spacing
Backscatter
GPV-Q

HRCC 30.4

MCFL 24.97
Caliper 24.48
TLD Density 24.09

NEXT-A:4 22.16

NEXH-A:4
PNG-G
NEXS-A:4

Spect 16.28

Status 14.87

ILE-F 8.46

BNS-STD 0.46

Head Tension
TOOL_ZERO

Lengths are in ft
Maximum Outer Diameter = 6.370 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

1A

Depth Measuring Device

Type	IDW-JA								
Serial Number	7173								
Calibration Date	20-Mar-2018								
Calibrator Serial Number	IDWC-C-57								
Calibration Cable Type	7-46 AXS								
Wheel Correction 1	-5								
Wheel Correction 2	-3								
Tension Device									
Type	CMTD-B/A								
Serial Number	5054								
Calibration Date	08-Jan-2019								
Calibrator Serial Number	232970A								
Number of Calibration Points	10								
Calibration Root Mean Square Error	13								
Calibration Peak Error	22								
Logging Cable									
Type	7-46A-XS								
Serial Number	U715008								
Length	11750.00 ft								
Conveyance Type	Wireline								
Rig Type	Land								
1A:Depth Control Parameters		Depth Control Remarks							
Log Sequence	First Log In the Well	All Schlumberger depth control procedures followed							
Rig Up Length At Surface		IDW used as primary depth control							
Rig Up Length At Bottom		Z-Chart used as secondary depth control							
Rig Up Length Correction									
Stretch Correction									
Tool Zero Check At Surface									
Main Pass									
MAIN PASS 5"=100'									
Integration Summary									
Output Channel(s)	Output Description	Input Parameter	Output Value	Unit					
IHV	Integrated Hole Volume	GCSE_UP_PASS, GCSE_DOWN_PASS:1A	2499.44	ft3					
ICV	Integrated Cement Volume	GCSE_UP_PASS, GCSE_DOWN_PASS:1A, FCD	1533.73	ft3					
Software Version									
Acquisition System			Version						
Maxwell 2019			9.0.106845.3100						
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Log[2]:Up	Up	8266.17 ft	8396.38 ft	15-Apr-2019 7:56:45 AM	15-Apr-2019 8:17:05 AM	ON	2.60 ft	Yes
1A	Log[8]:Up	Up	8021.42 ft	8407.18 ft	15-Apr-2019 9:44:04 AM	15-Apr-2019 10:51:09 AM	ON	3.12 ft	Yes

IA	Log[9]:Up	Up	2500.63 ft	8126.68 ft	15-Apr-2019 10:57:49 AM	15-Apr-2019 4:11:56 PM	ON	4.17 ft	Yes
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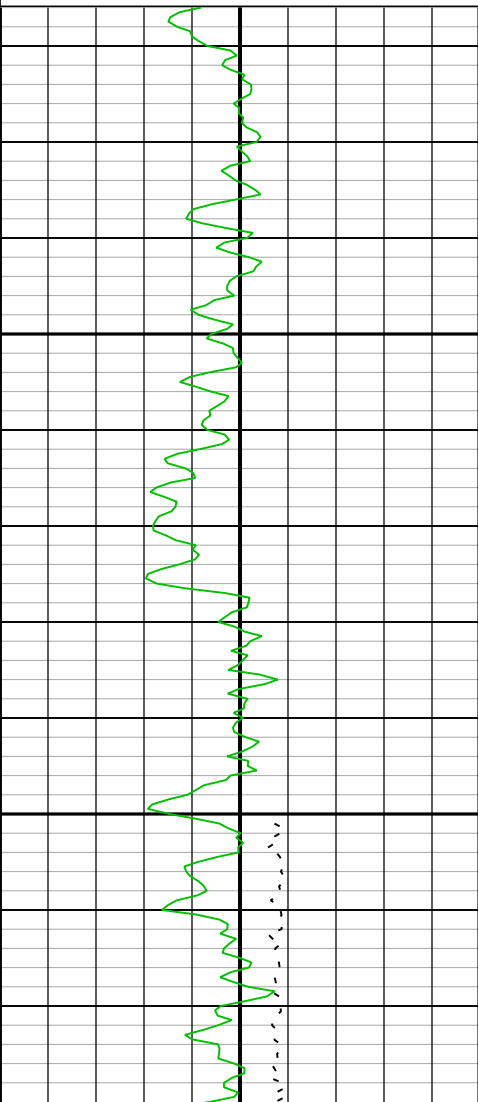
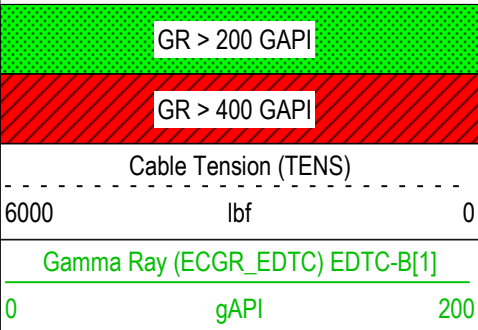
All depths are referenced to toolstring zero

Log	Company:North East Natural Energy LLC	Well:Boggess 17H
		Main Pass:S012

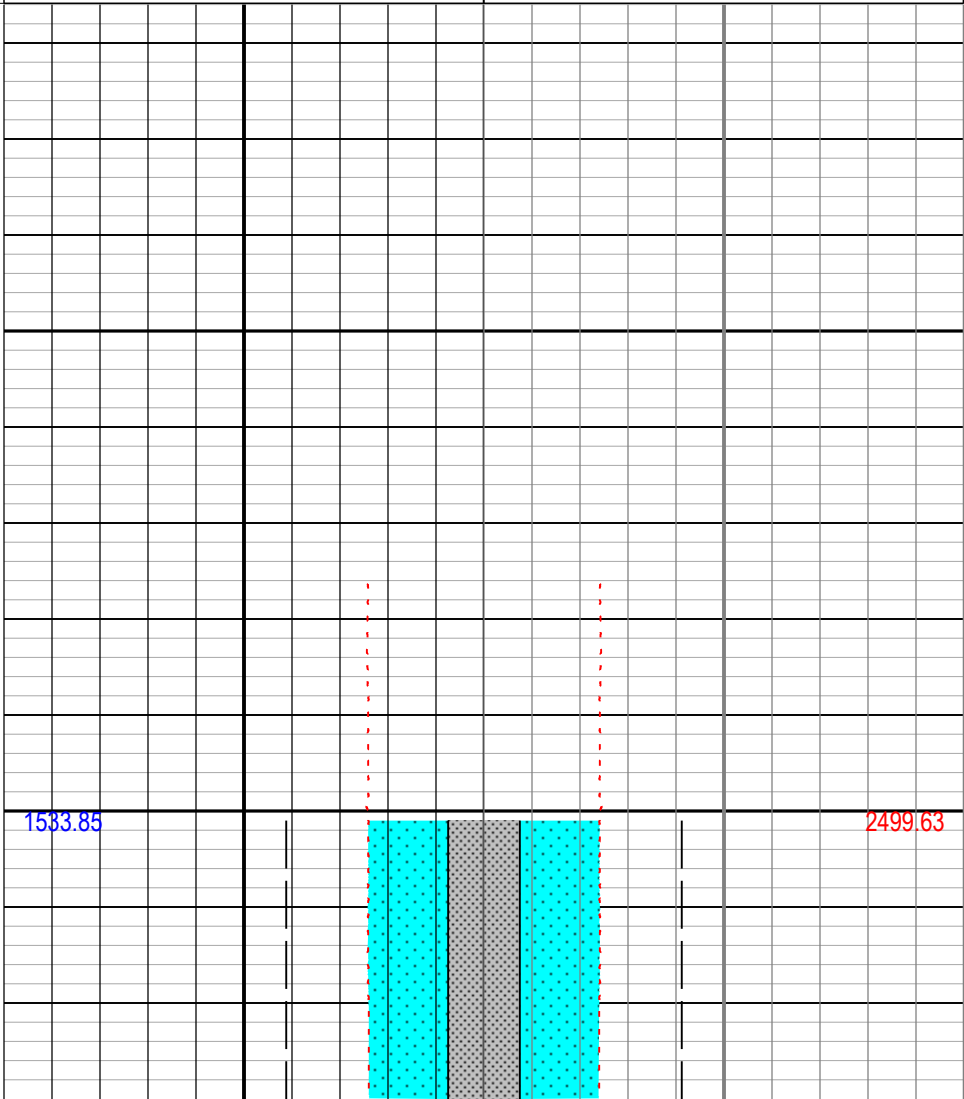
Description: Triple Combo standard resolution template for Platform Express Format: Log (BRADFORD DEQL) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 15-Apr-2019 17:54:10

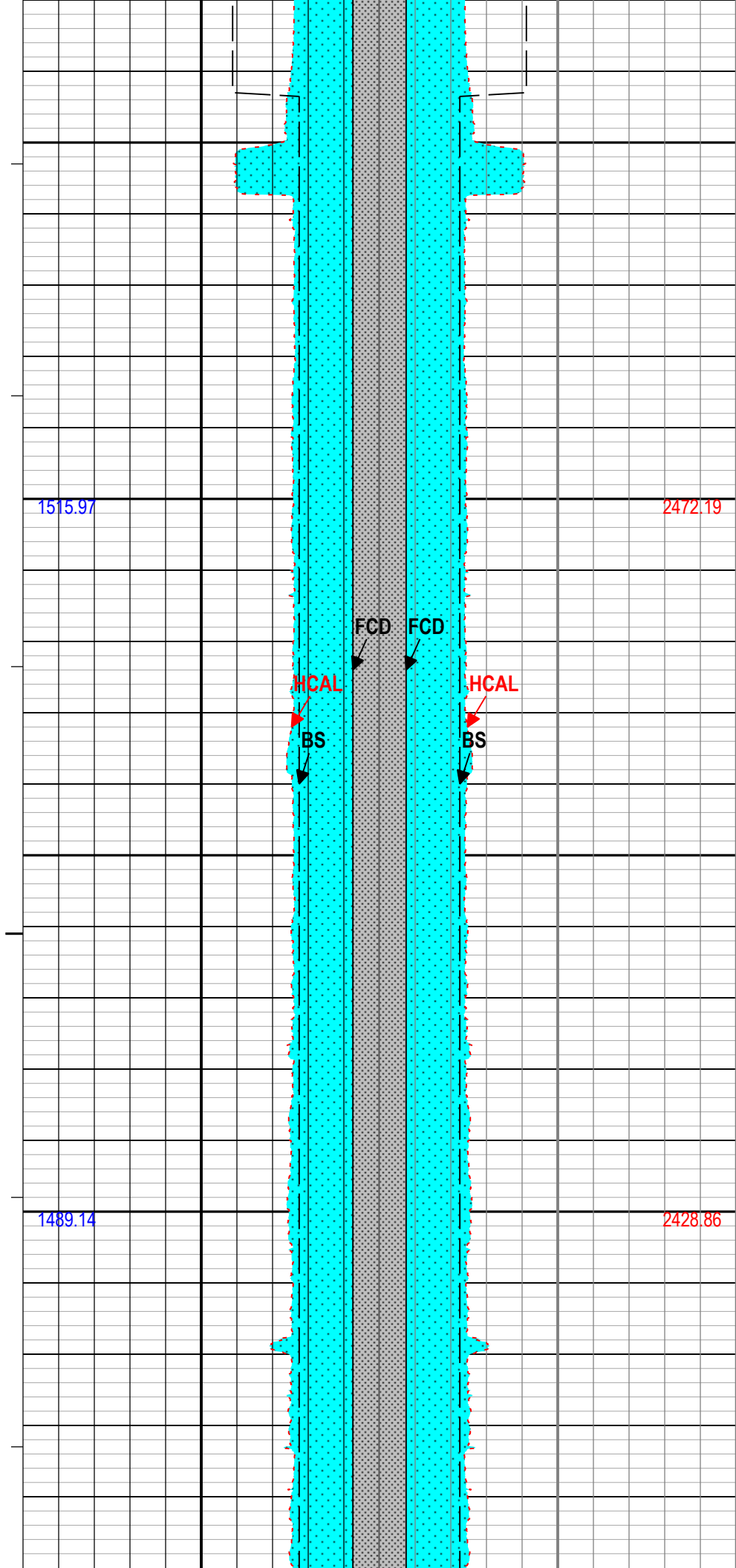
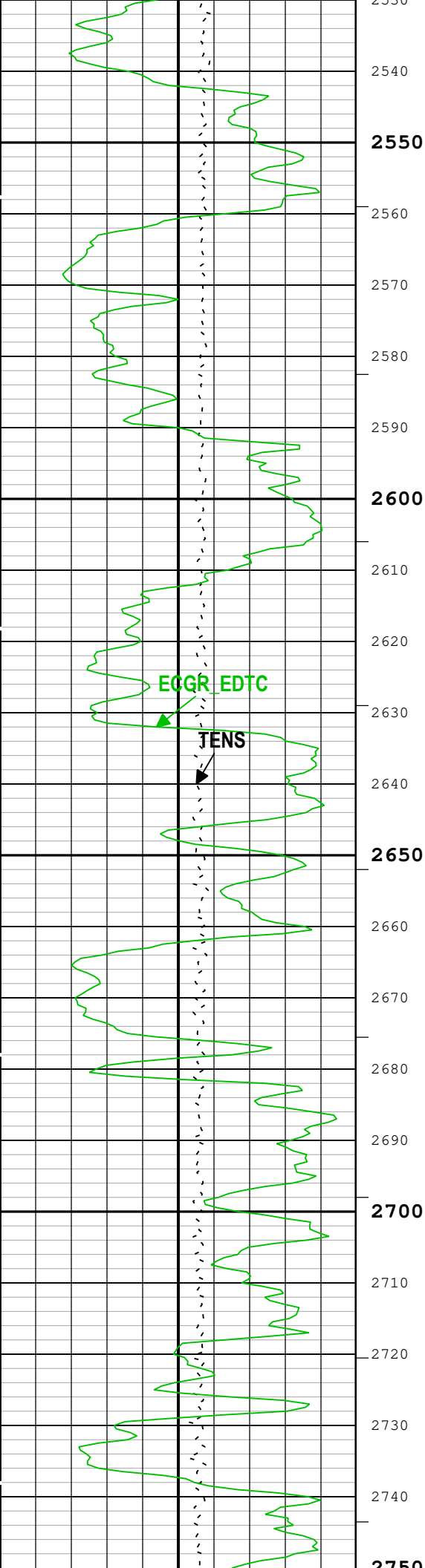
- ICV - Integrated Cement Volume every 10.00 (ft3)
- ICV - Integrated Cement Volume every 100.00 (ft3)
- IHV - Integrated Hole Volume every 10.00 (ft3)
- IHV - Integrated Hole Volume every 100.00 (ft3)

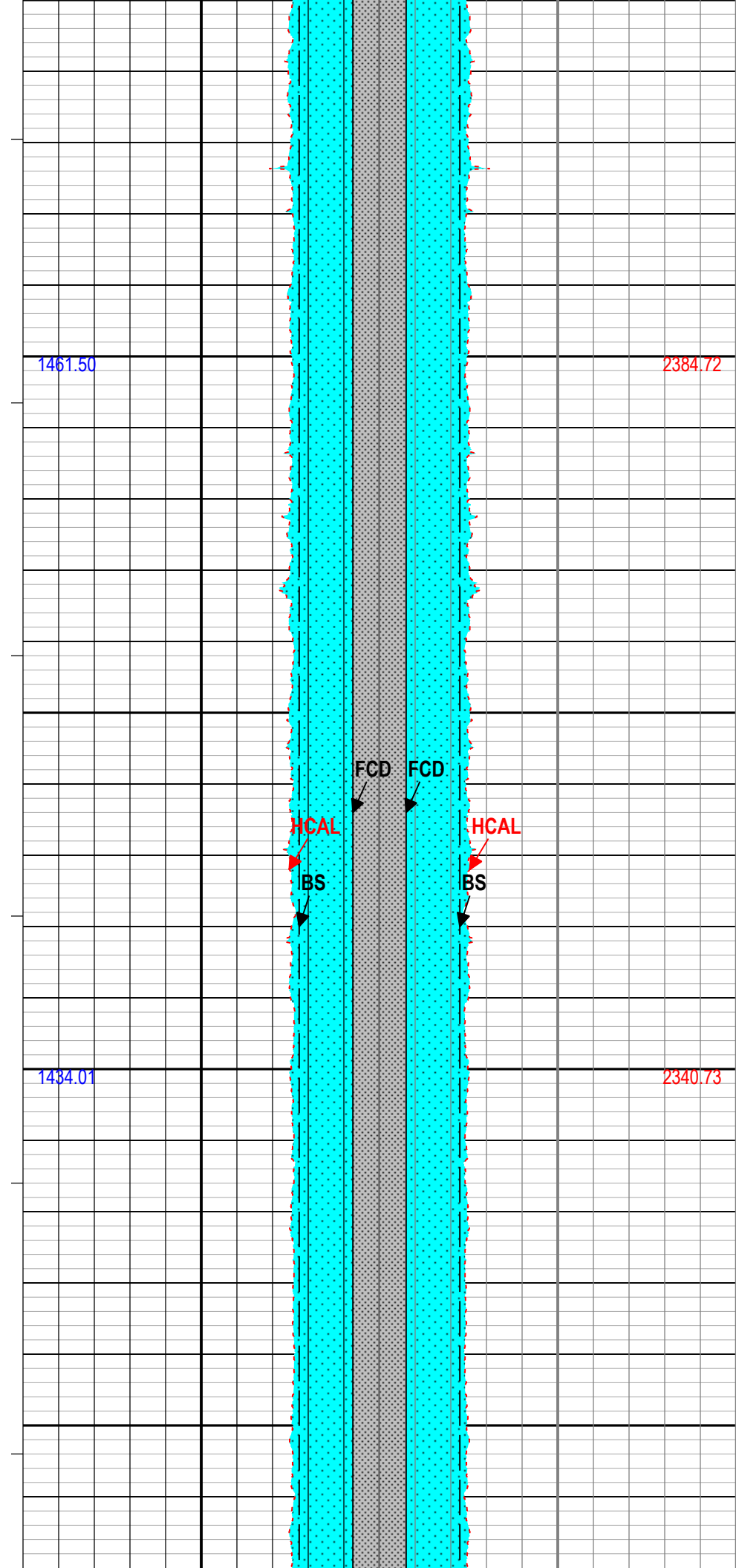
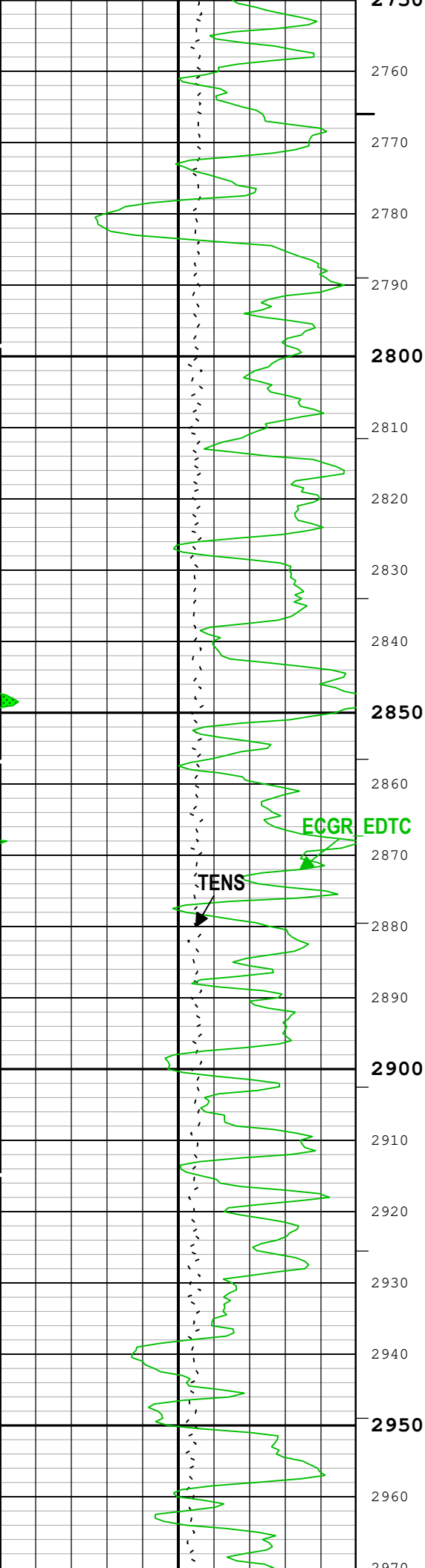
TIME_1900 - Time Marked every 60.00 (s)

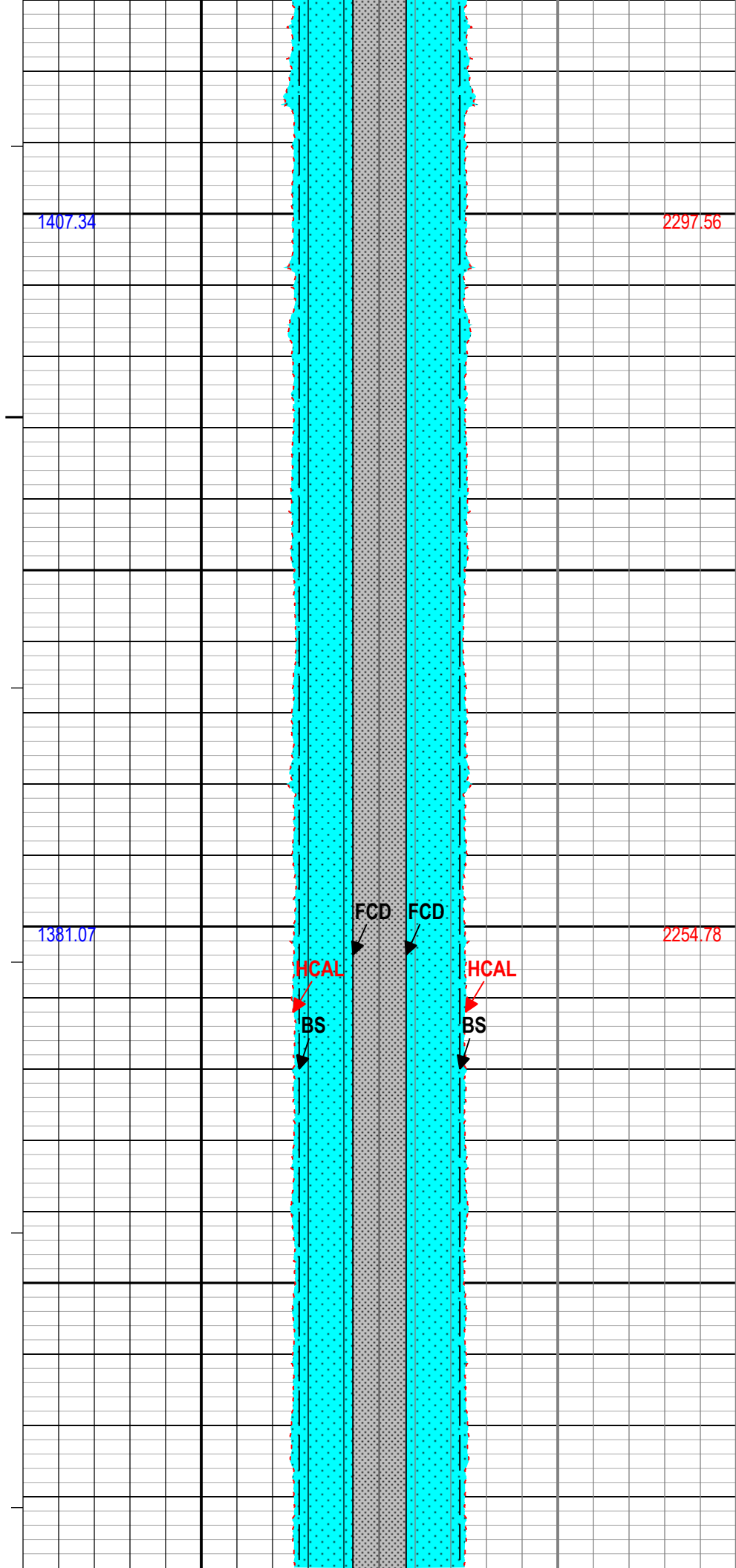
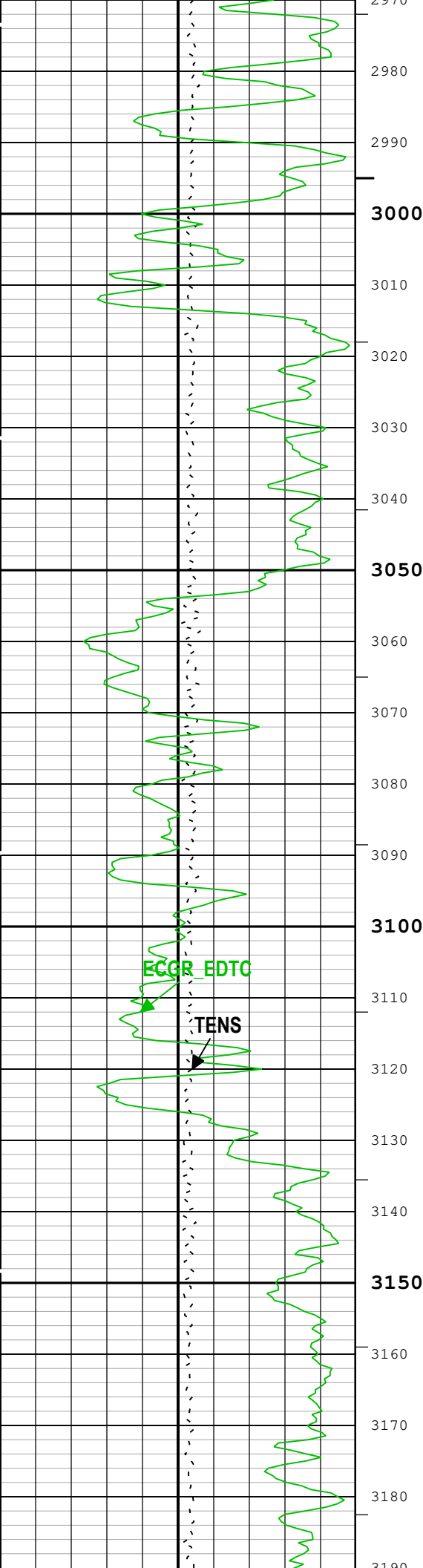


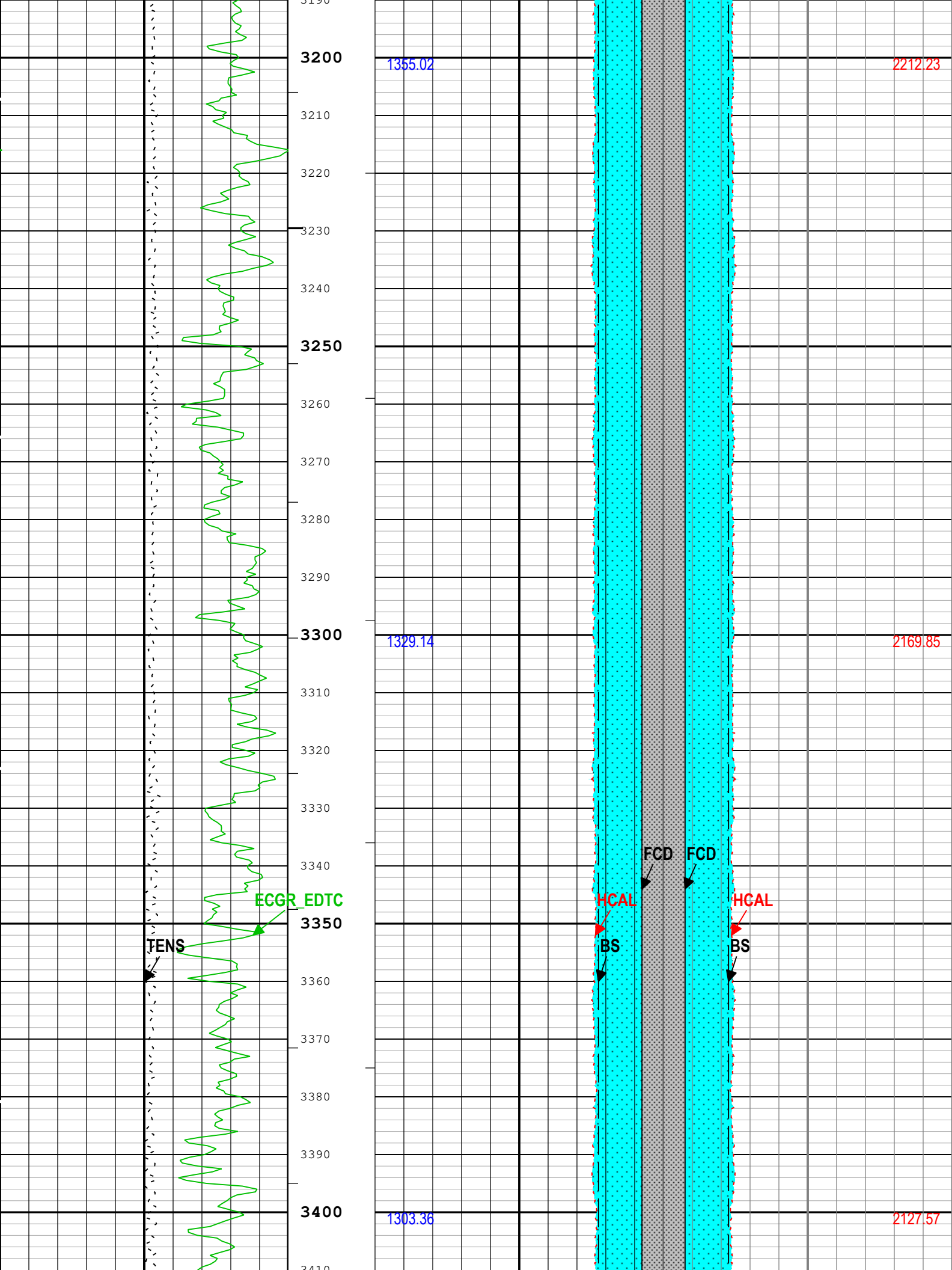
ANNULUS				ANNULUS			
FUTURE CASING				FUTURE CASING			
Bit Size (BS) RT				Bit Size (BS) RT			
24	in	4	4	24	in	4	4
Caliper (HCAL) HDRS[1]				Caliper (HCAL) HDRS[1]			
24	in	4	4	24	in	4	4
Future Casing Diameter (FCD) RT				Future Casing Diameter (FCD) RT			
24	in	4	4	24	in	4	4
Integrated Cement Volume (ICV) RT ft3				Integrated Hole Volume (IHV) RT ft3			

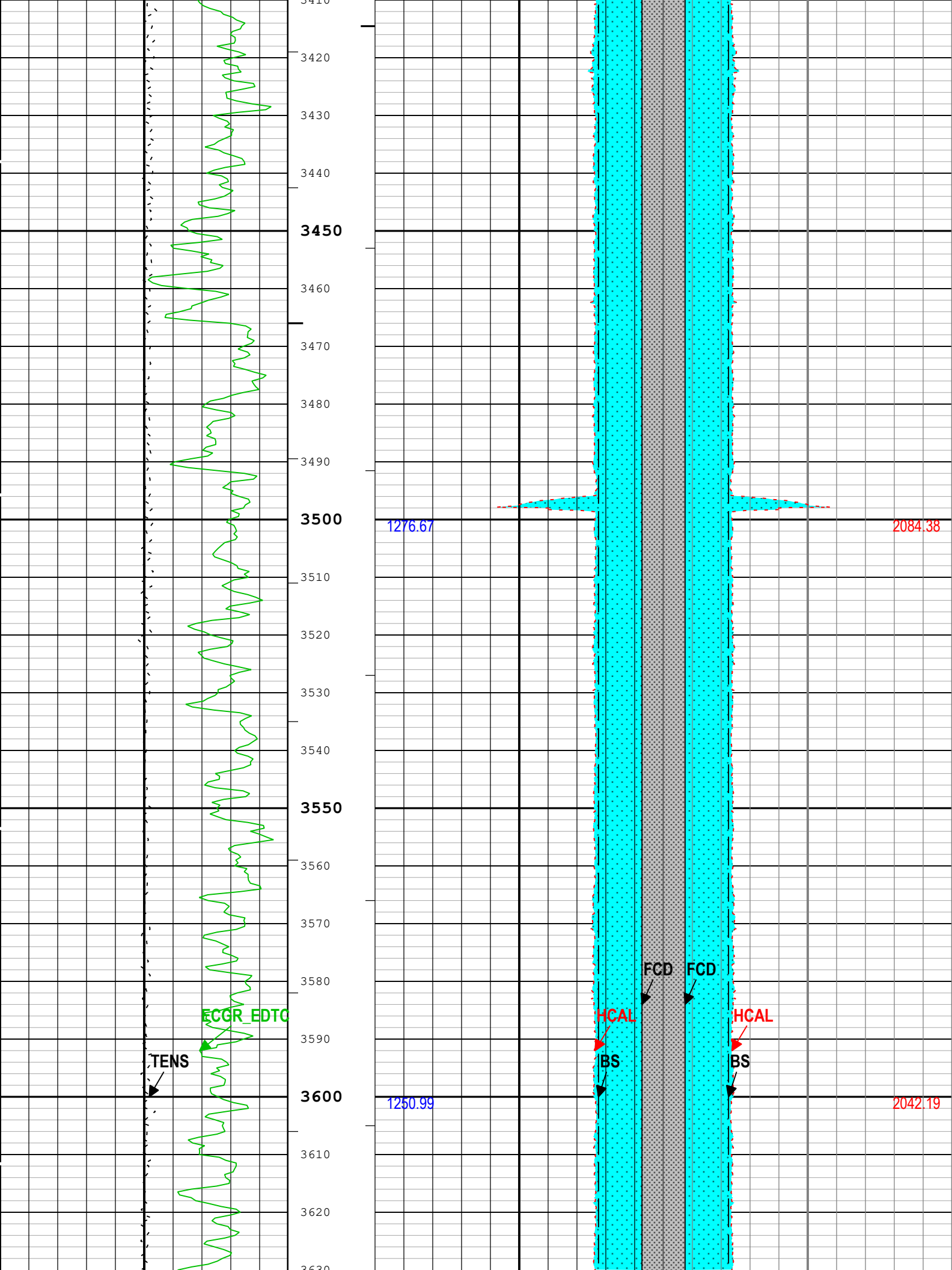


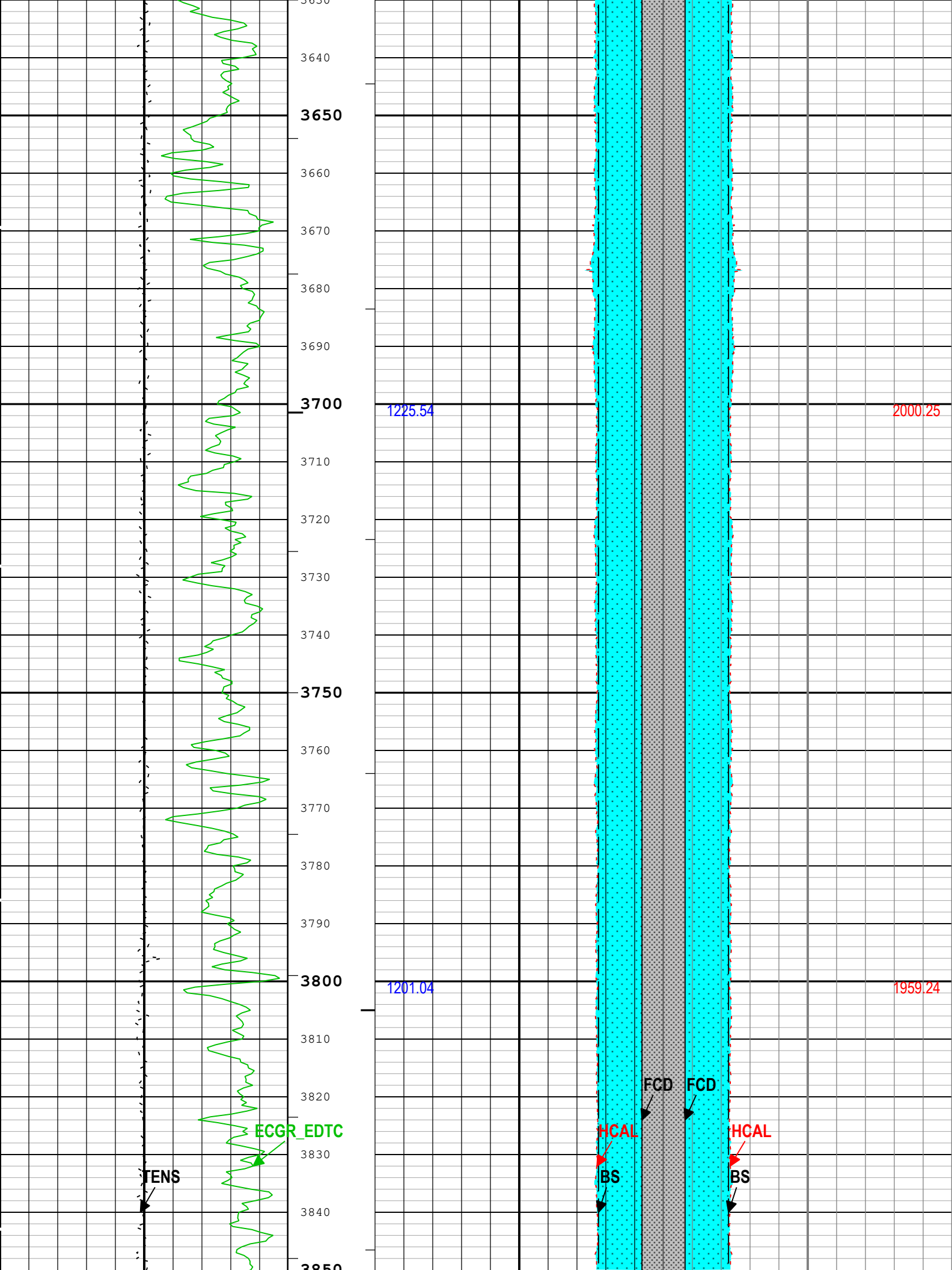


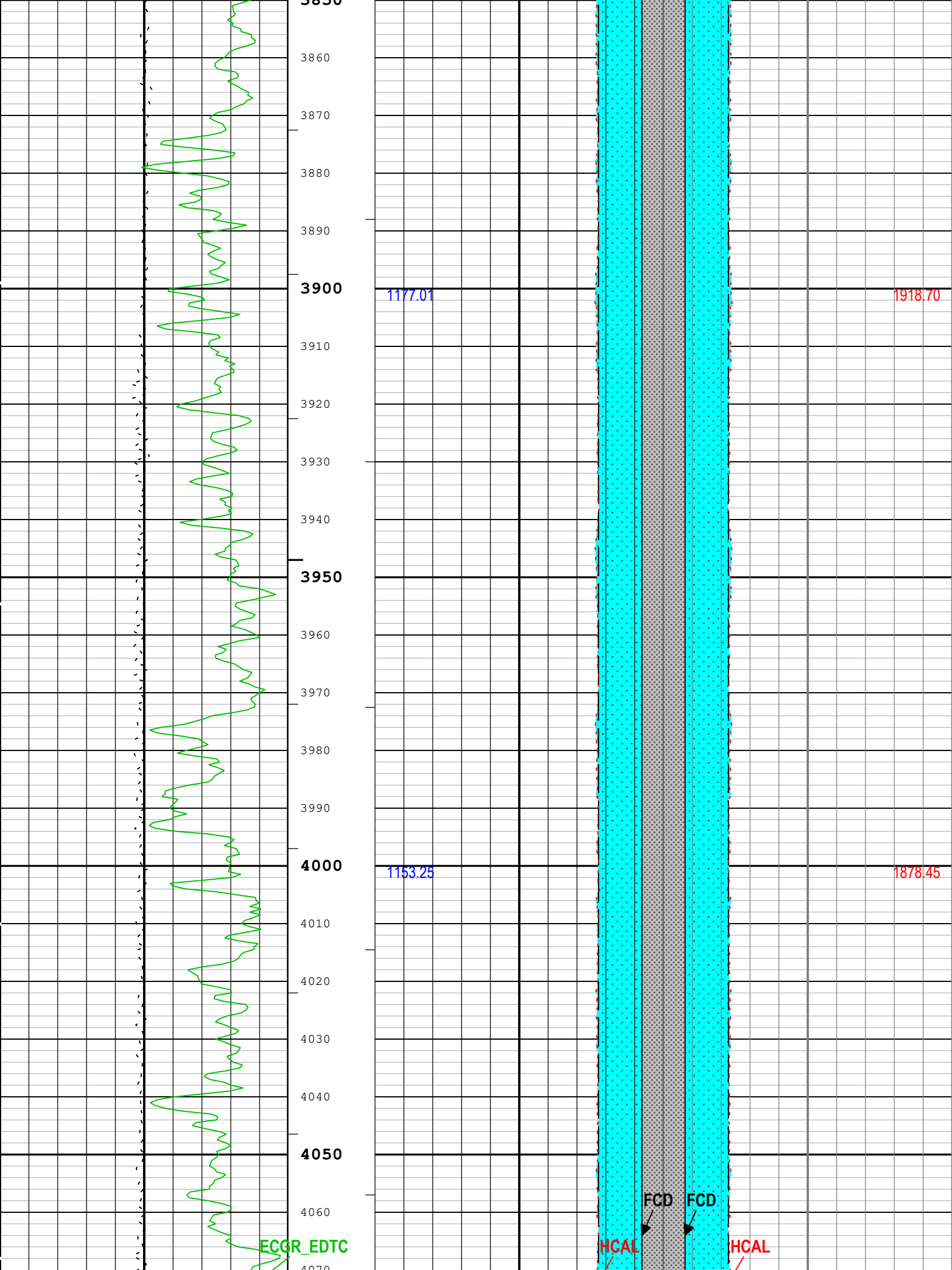


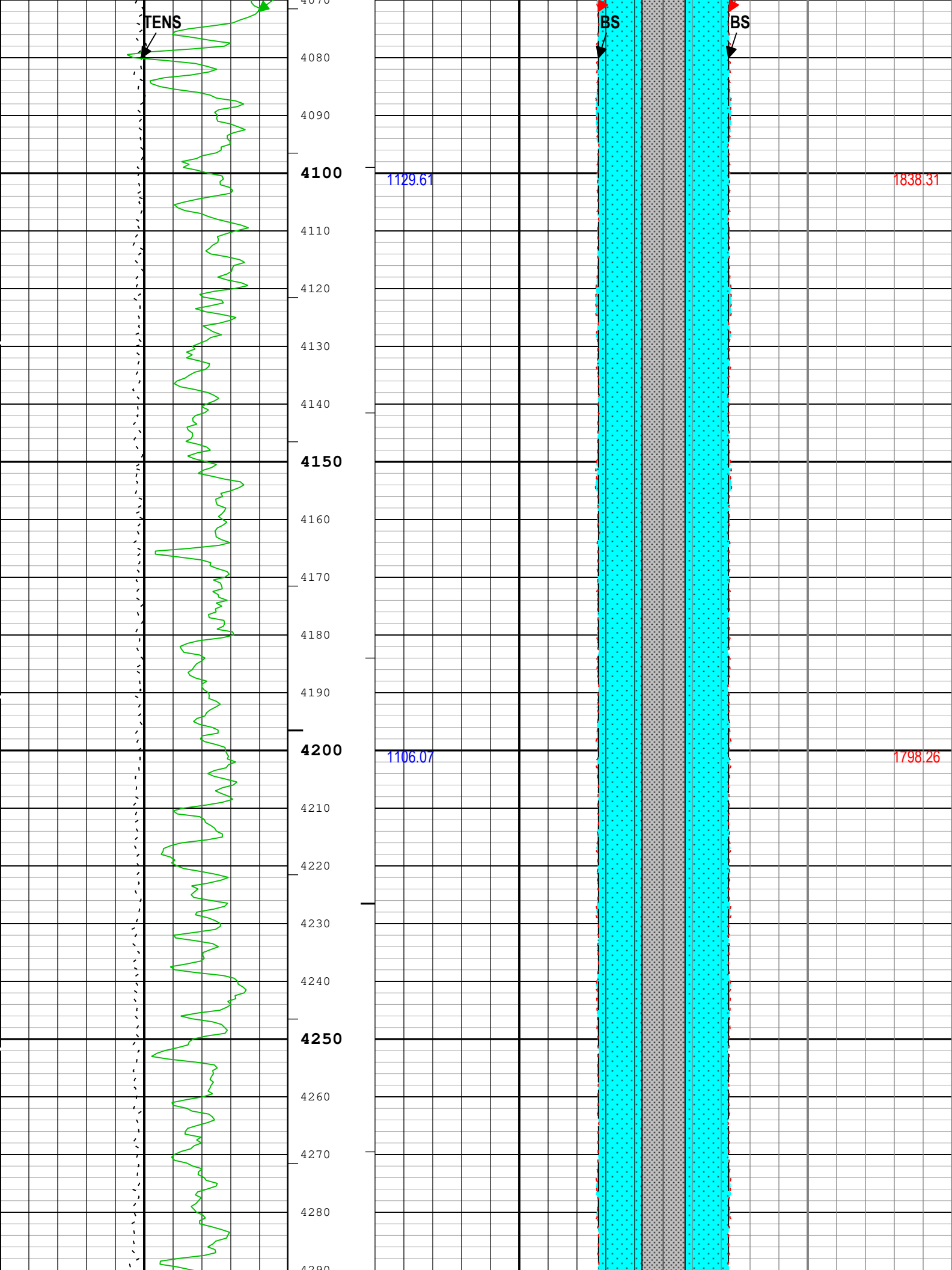


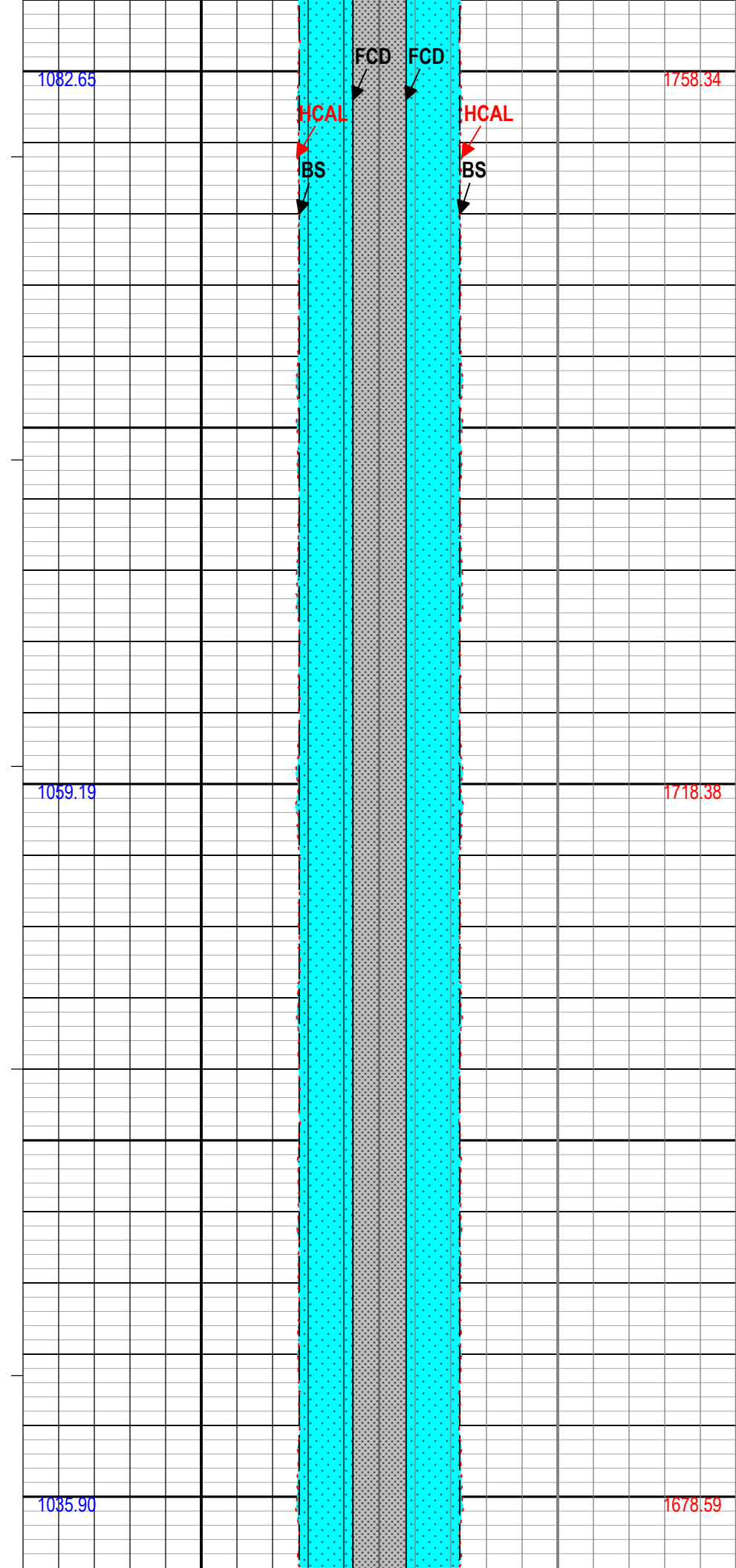
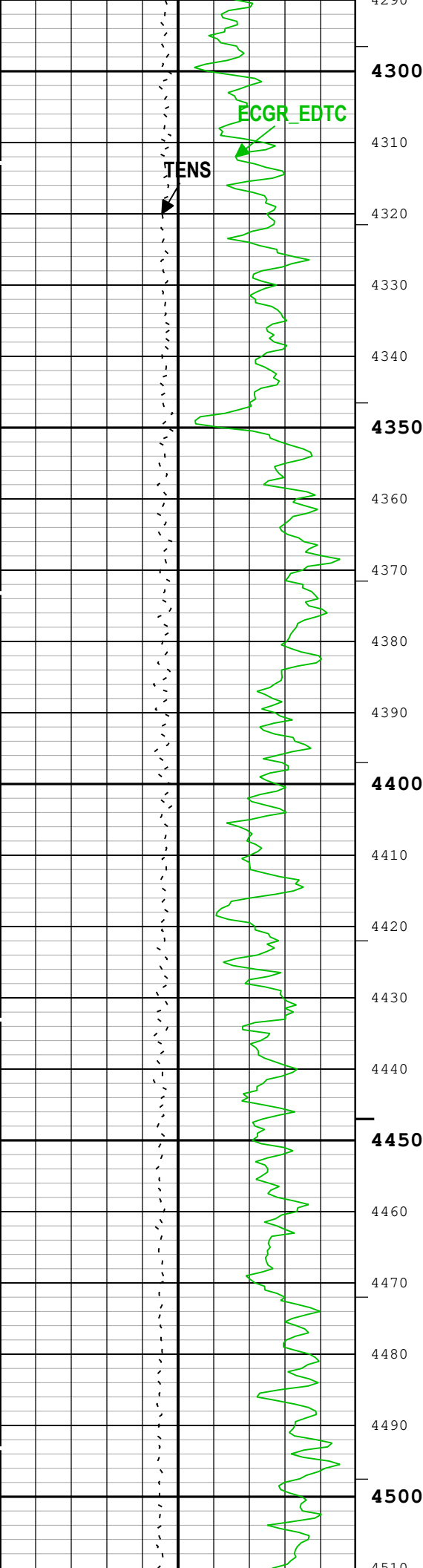


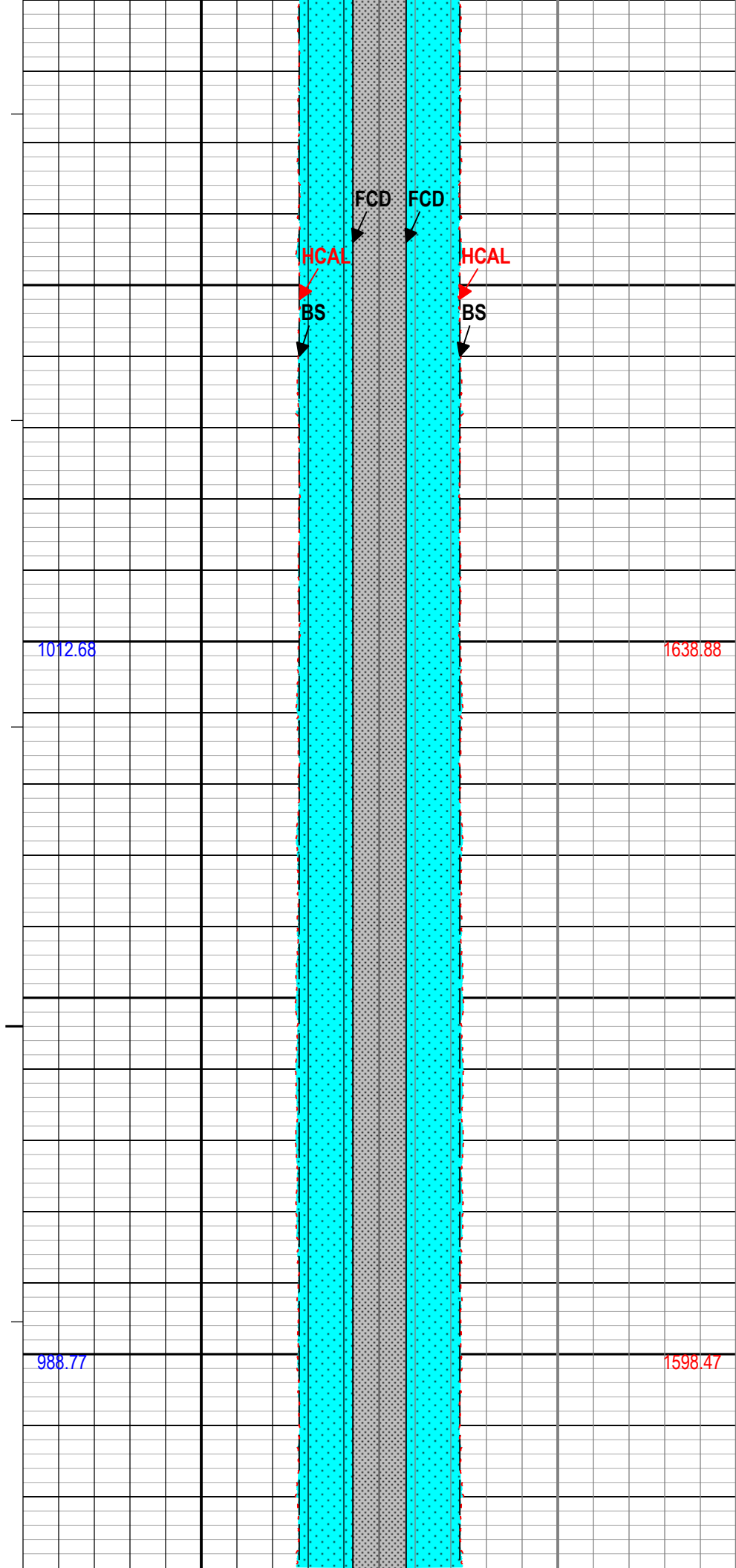
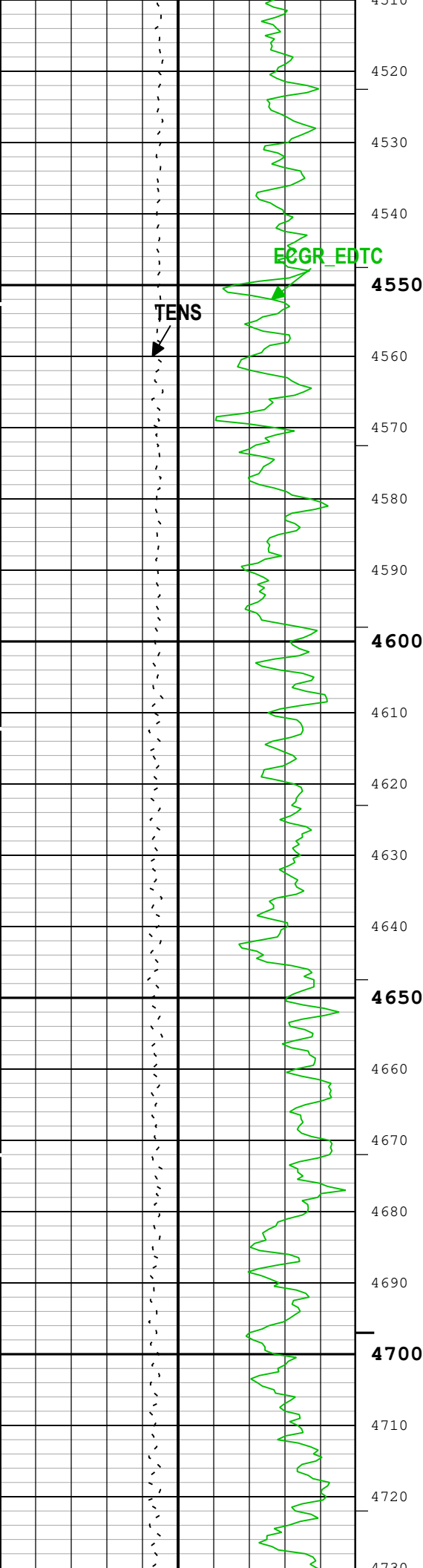


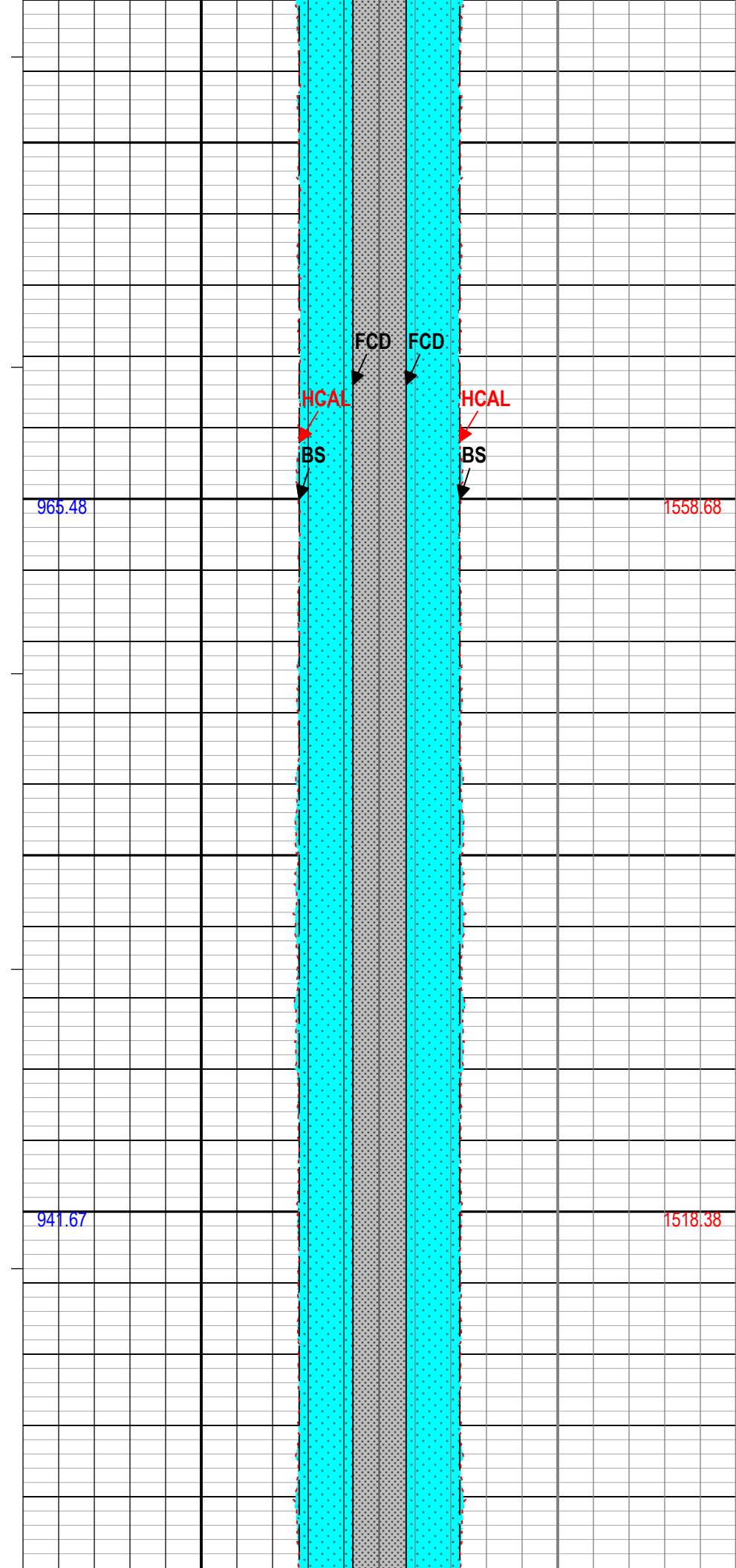
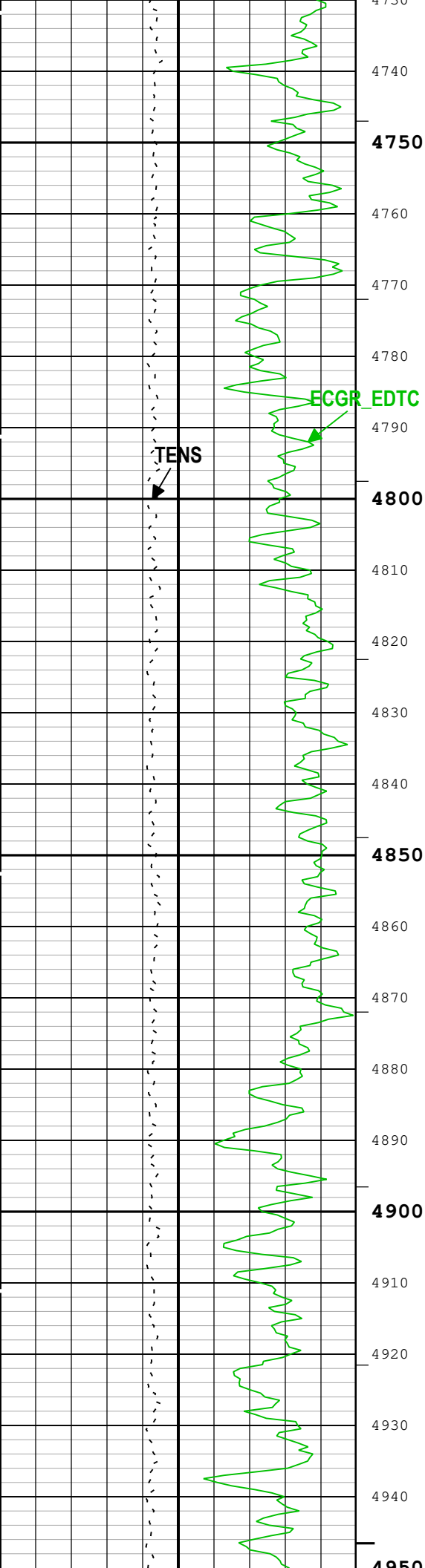


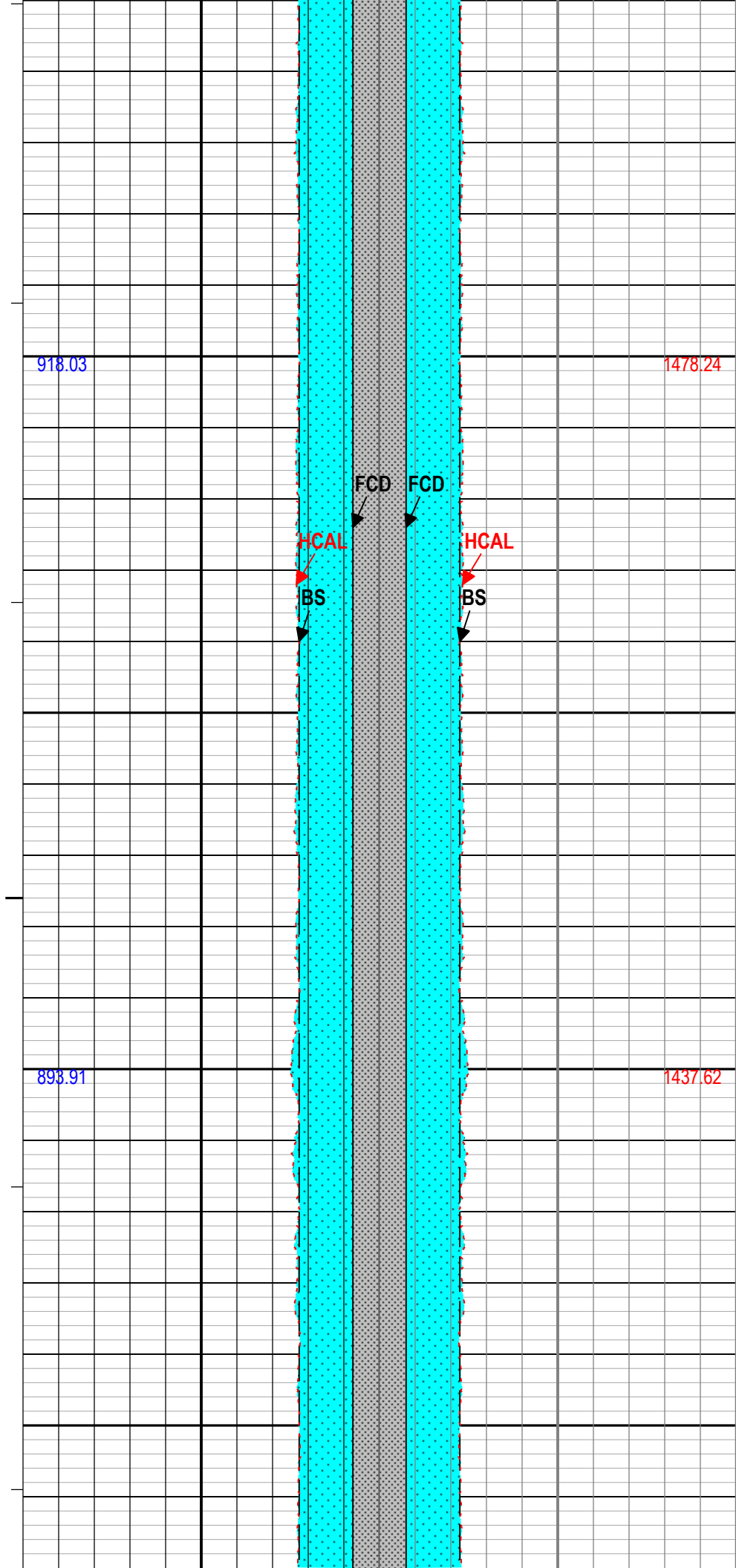
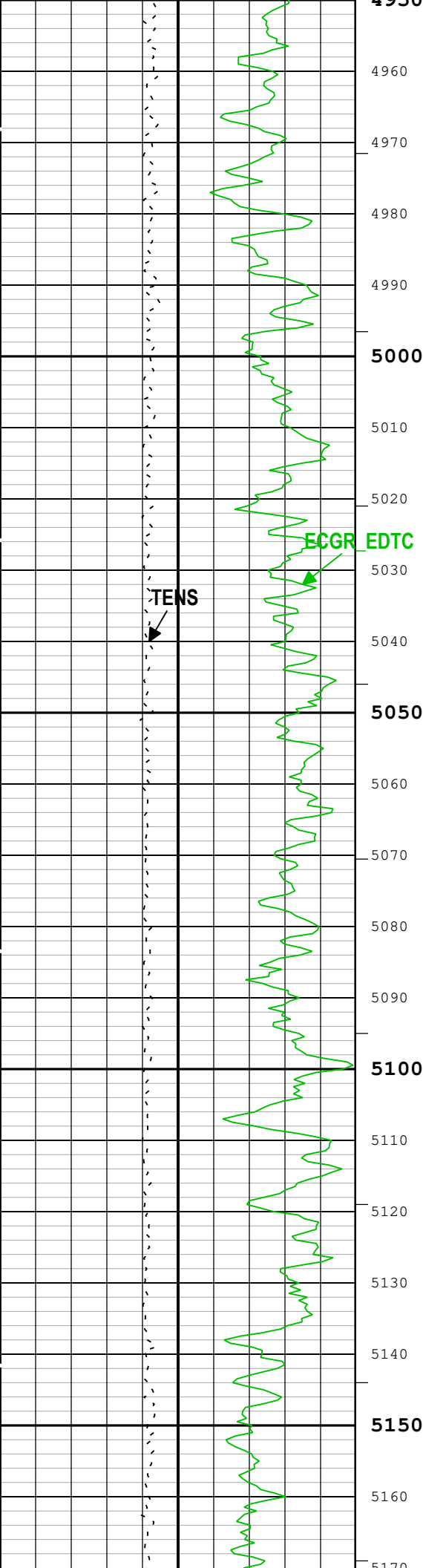


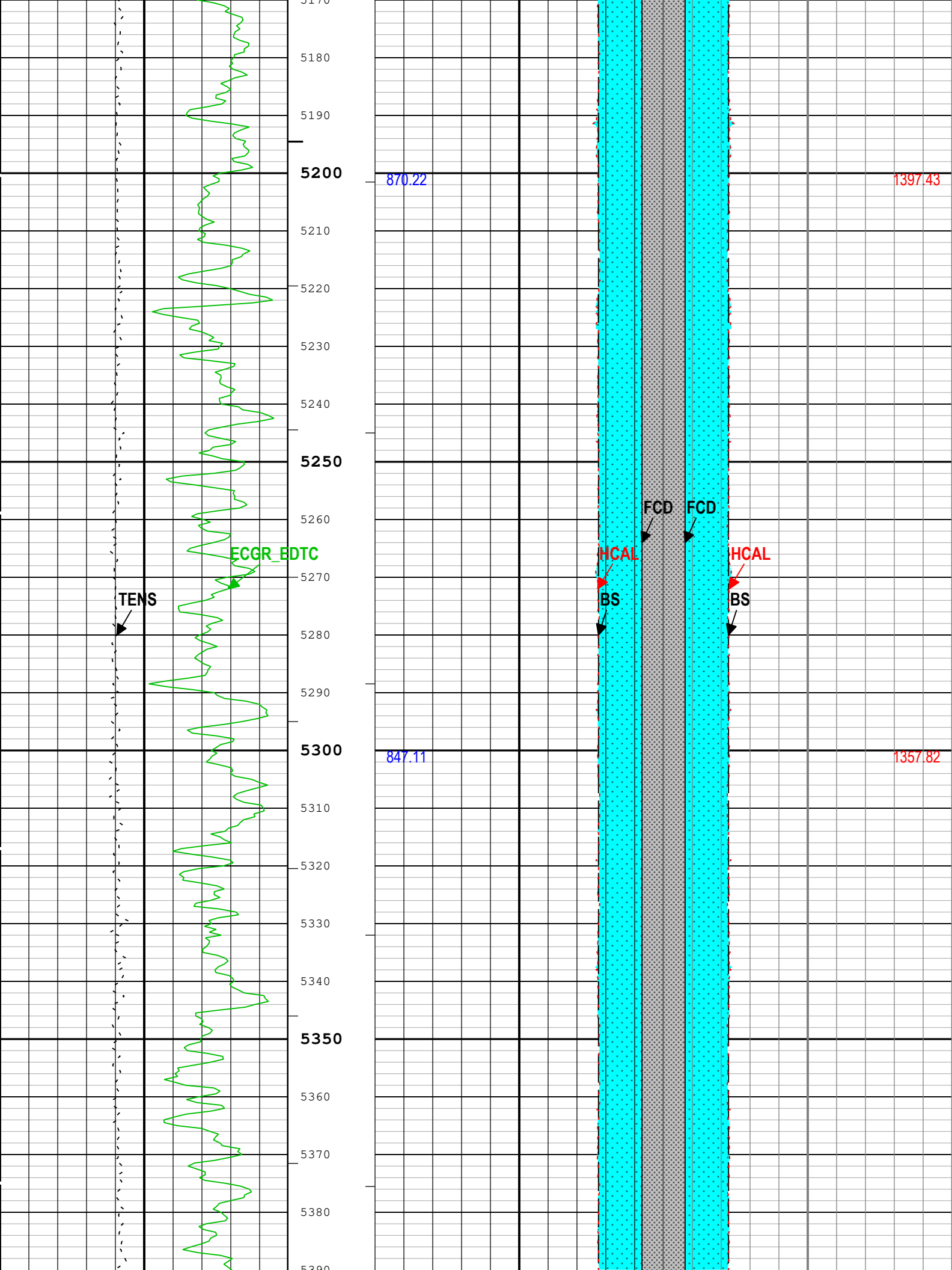


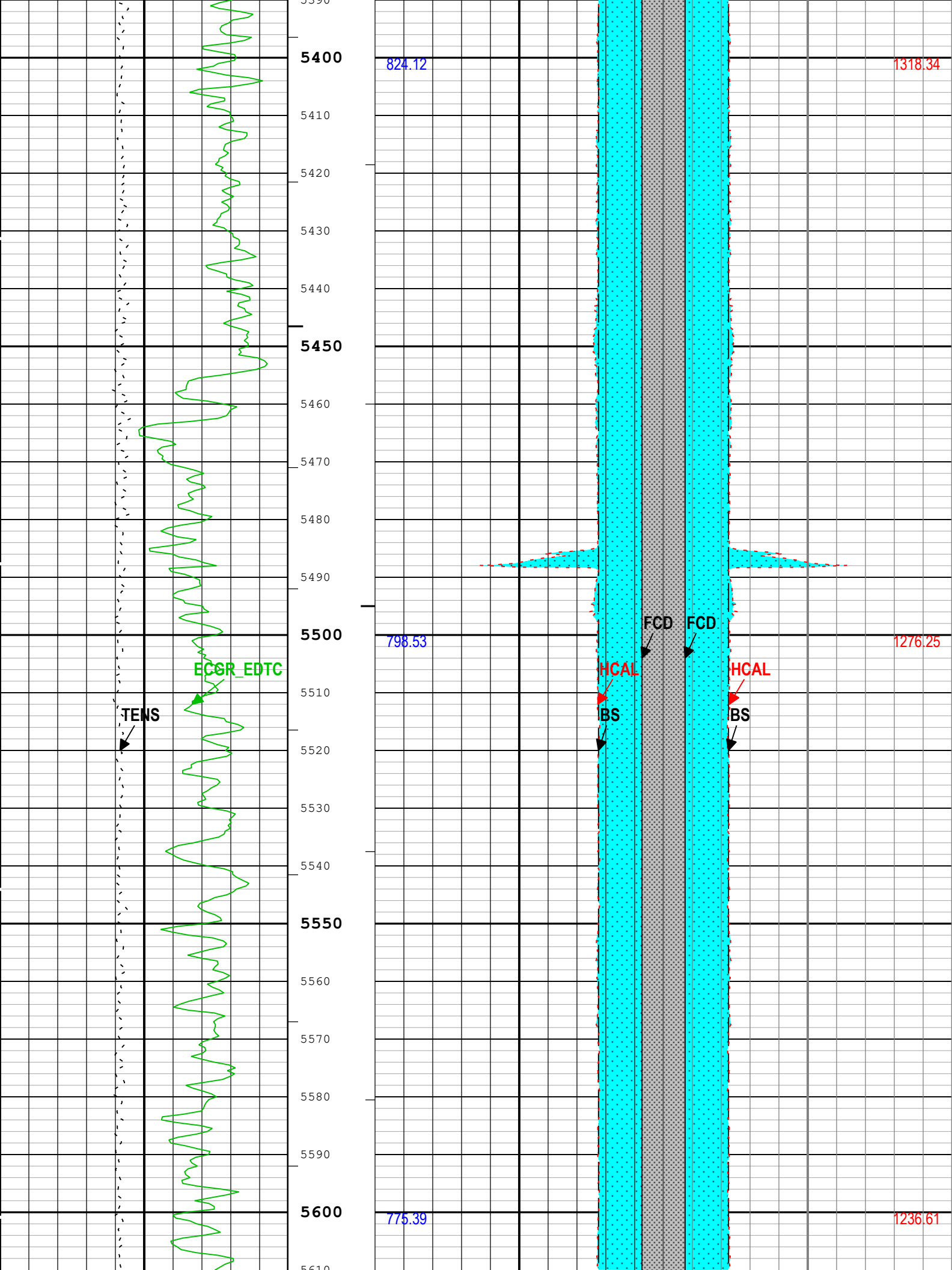


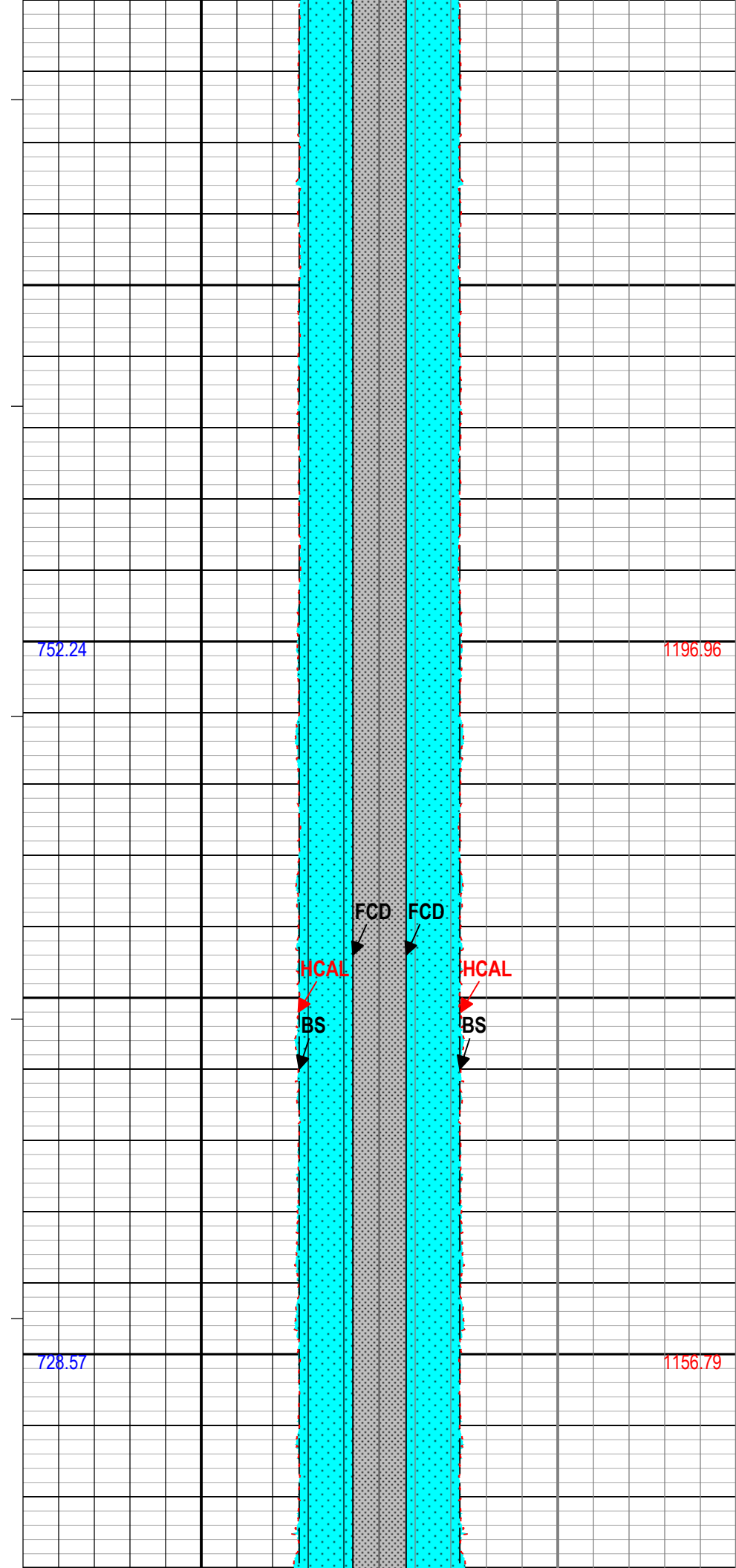
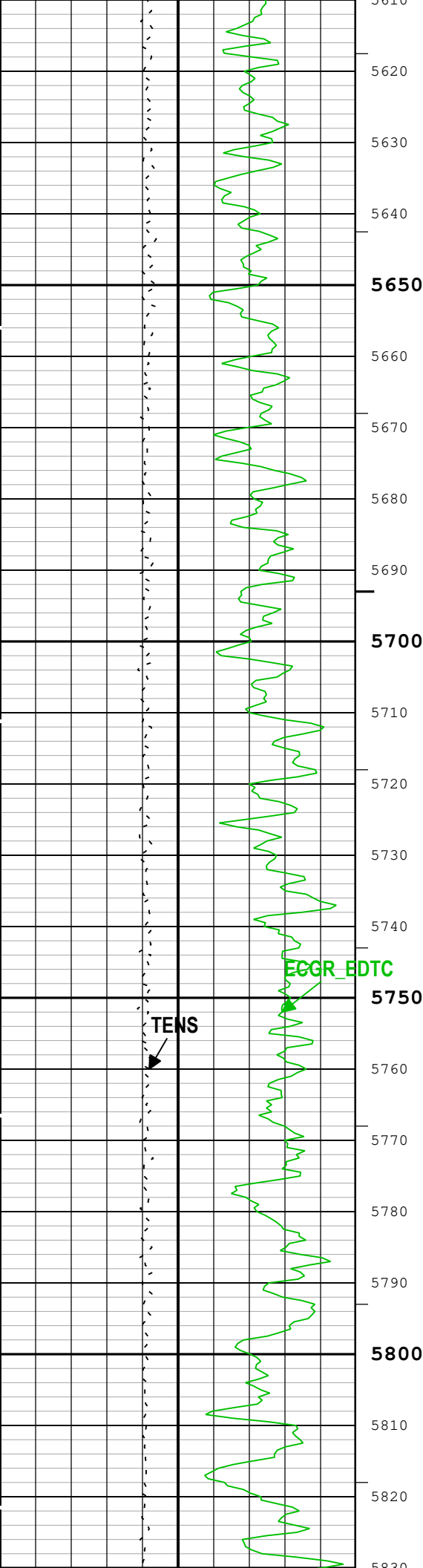


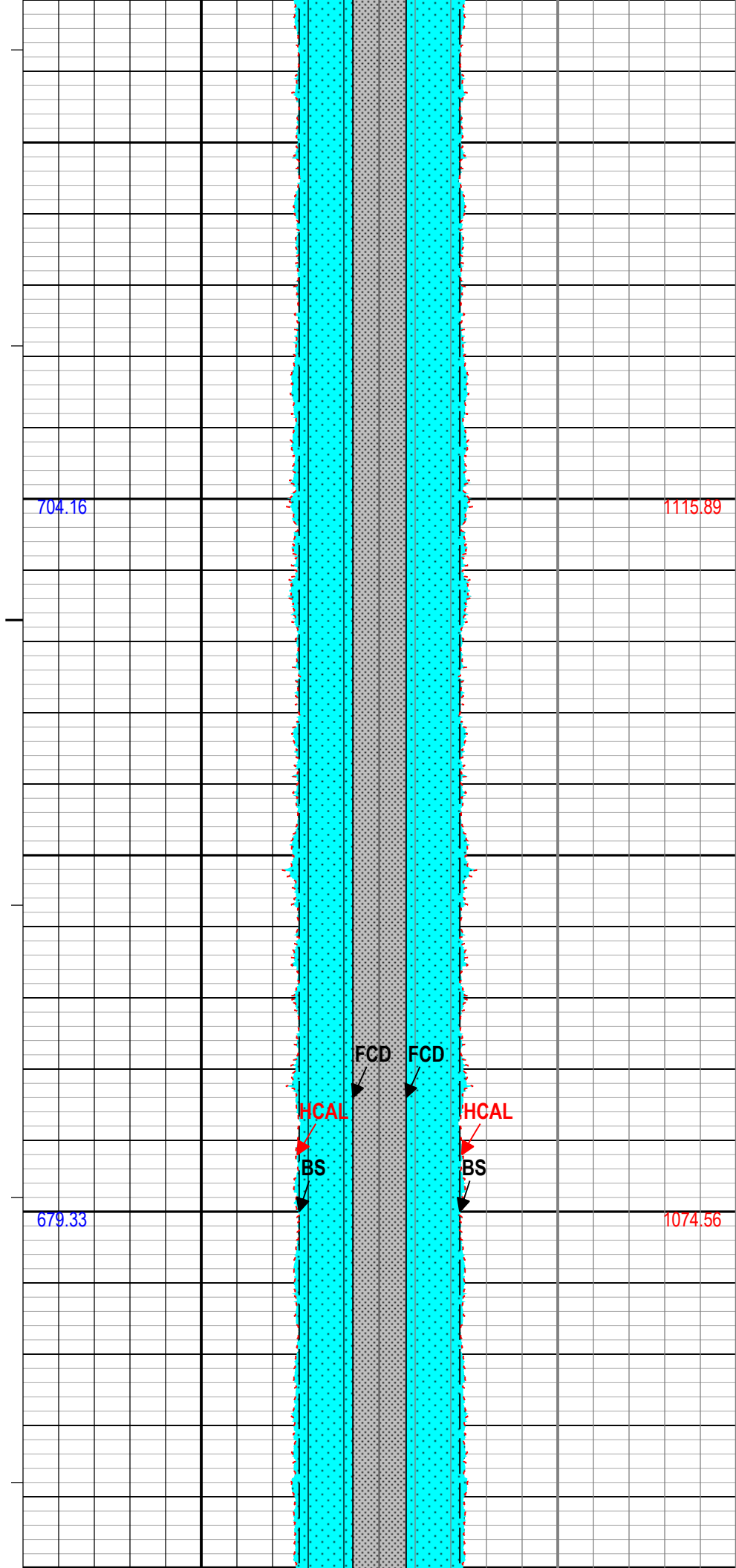
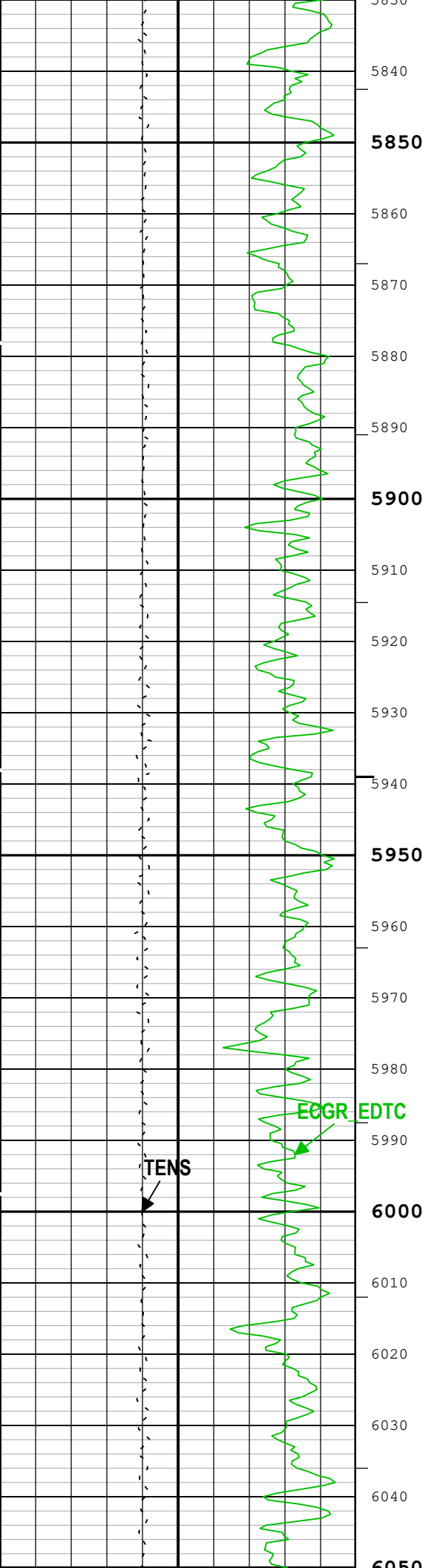


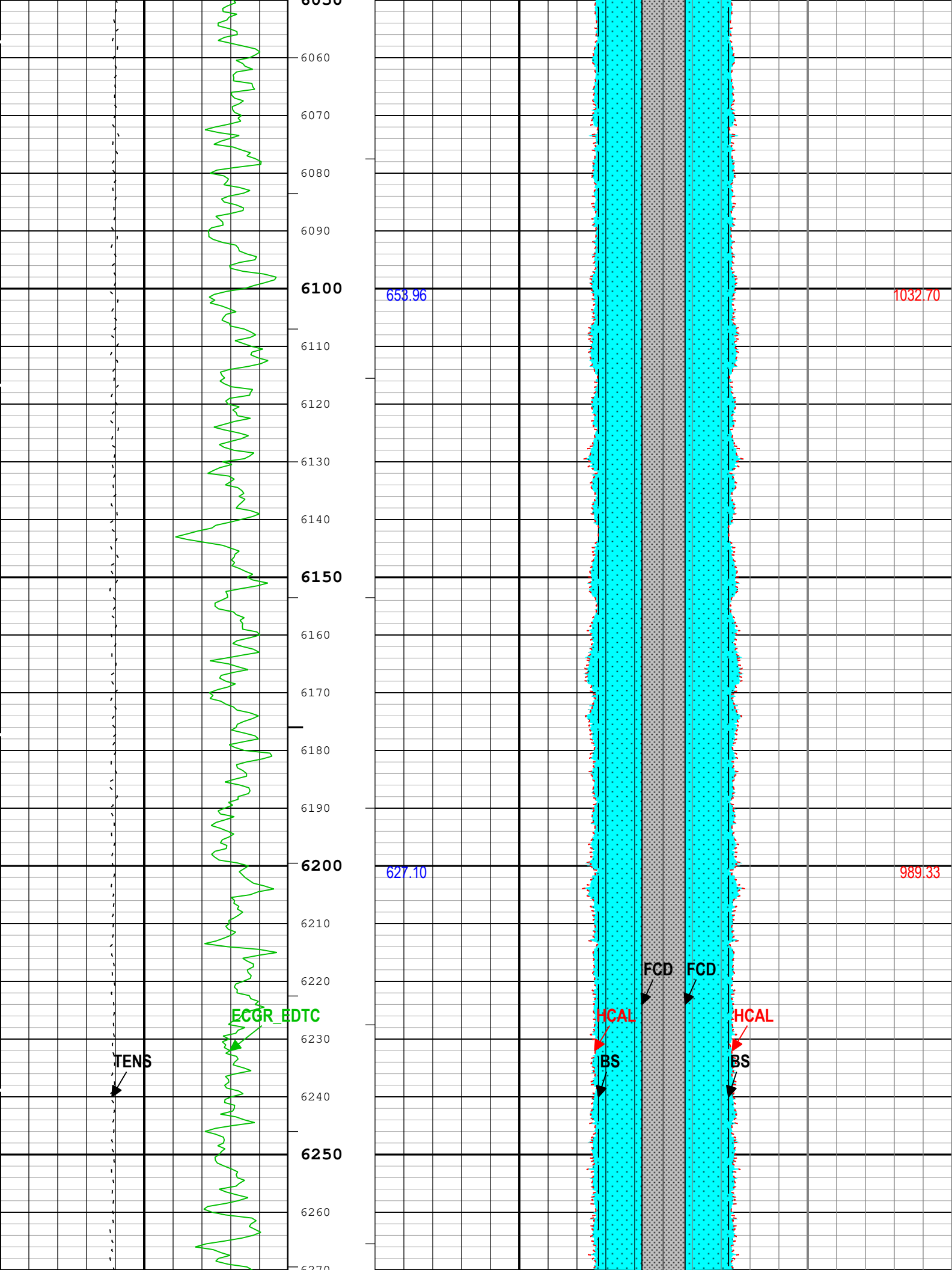


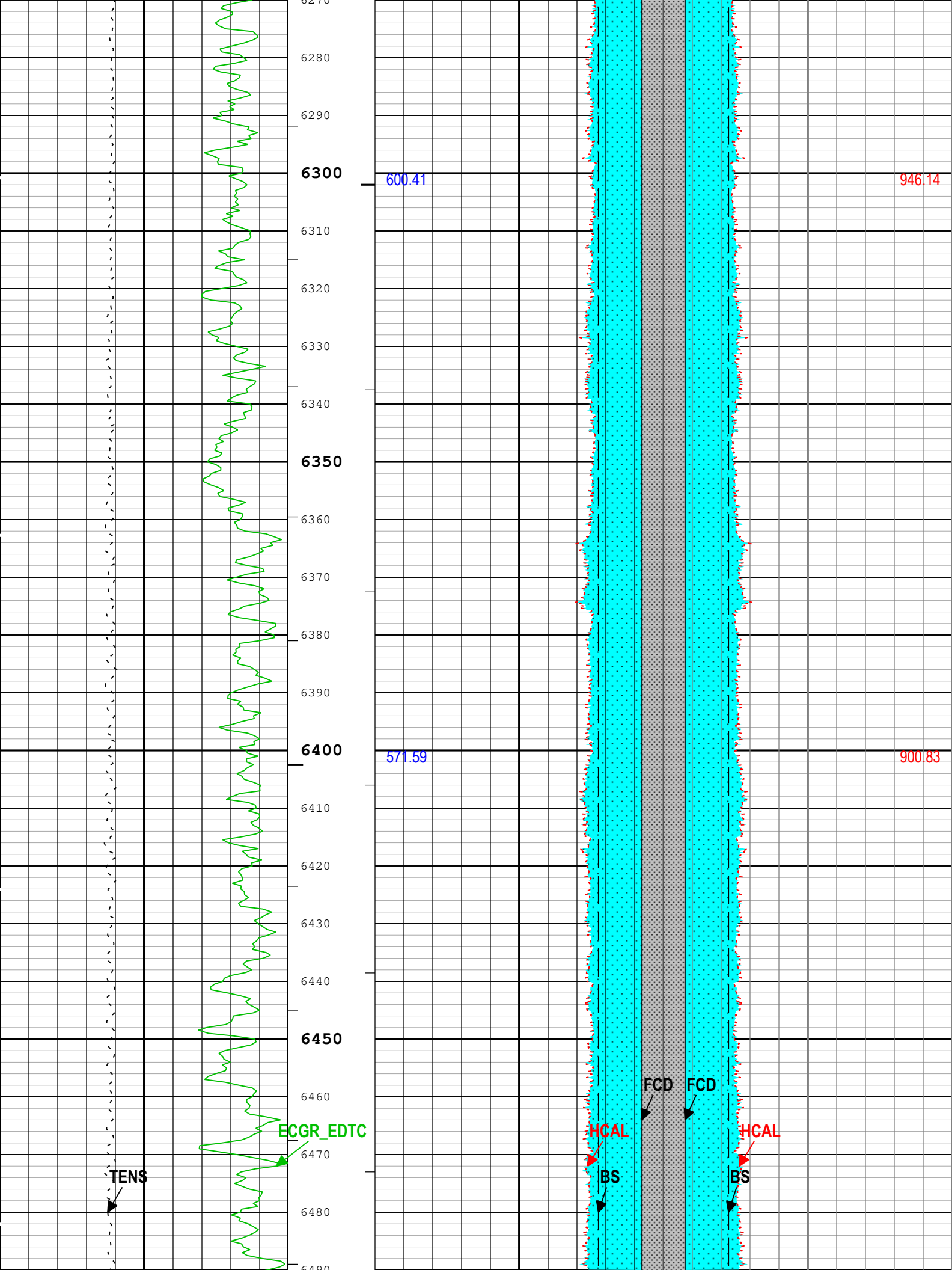


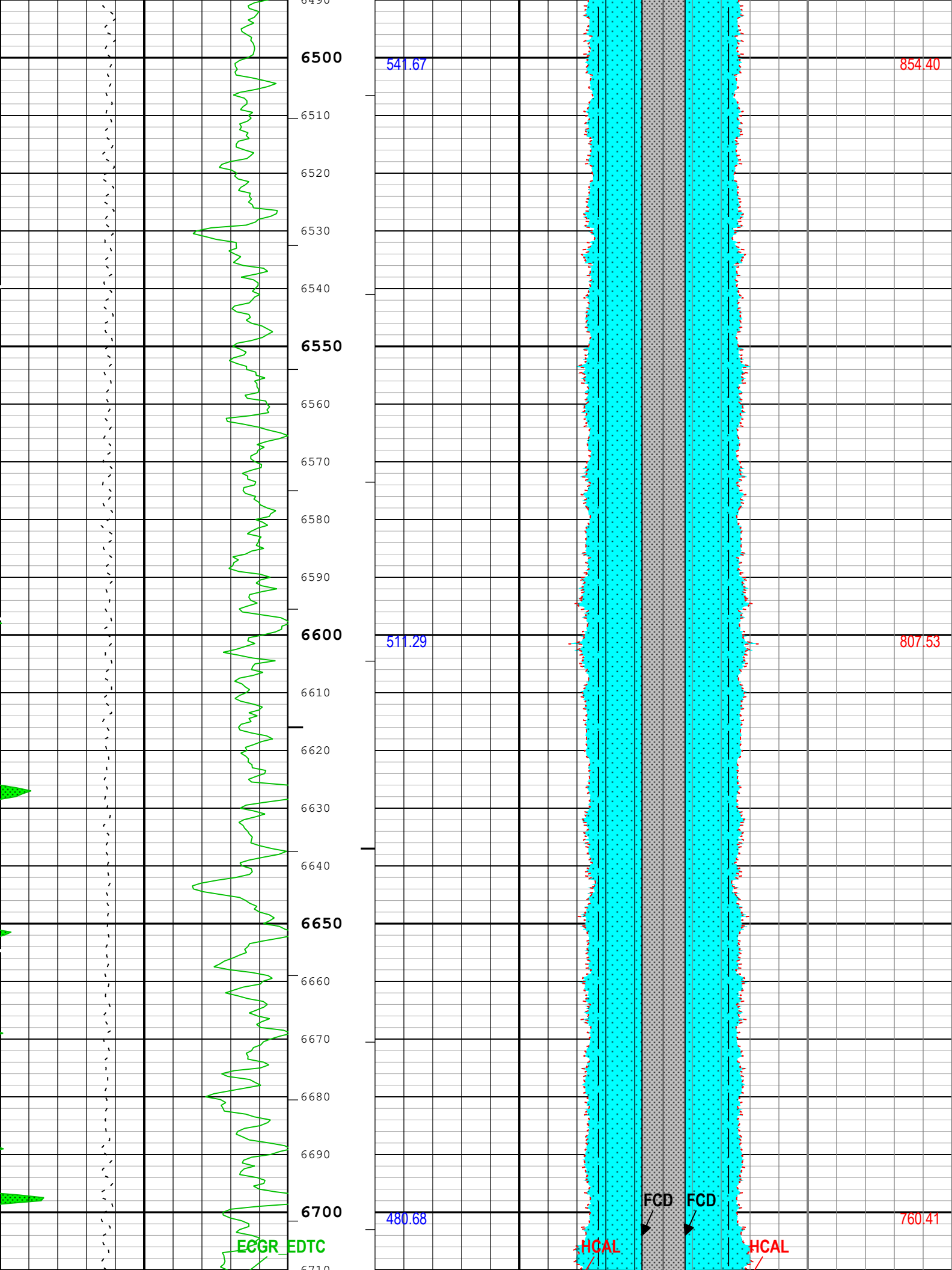


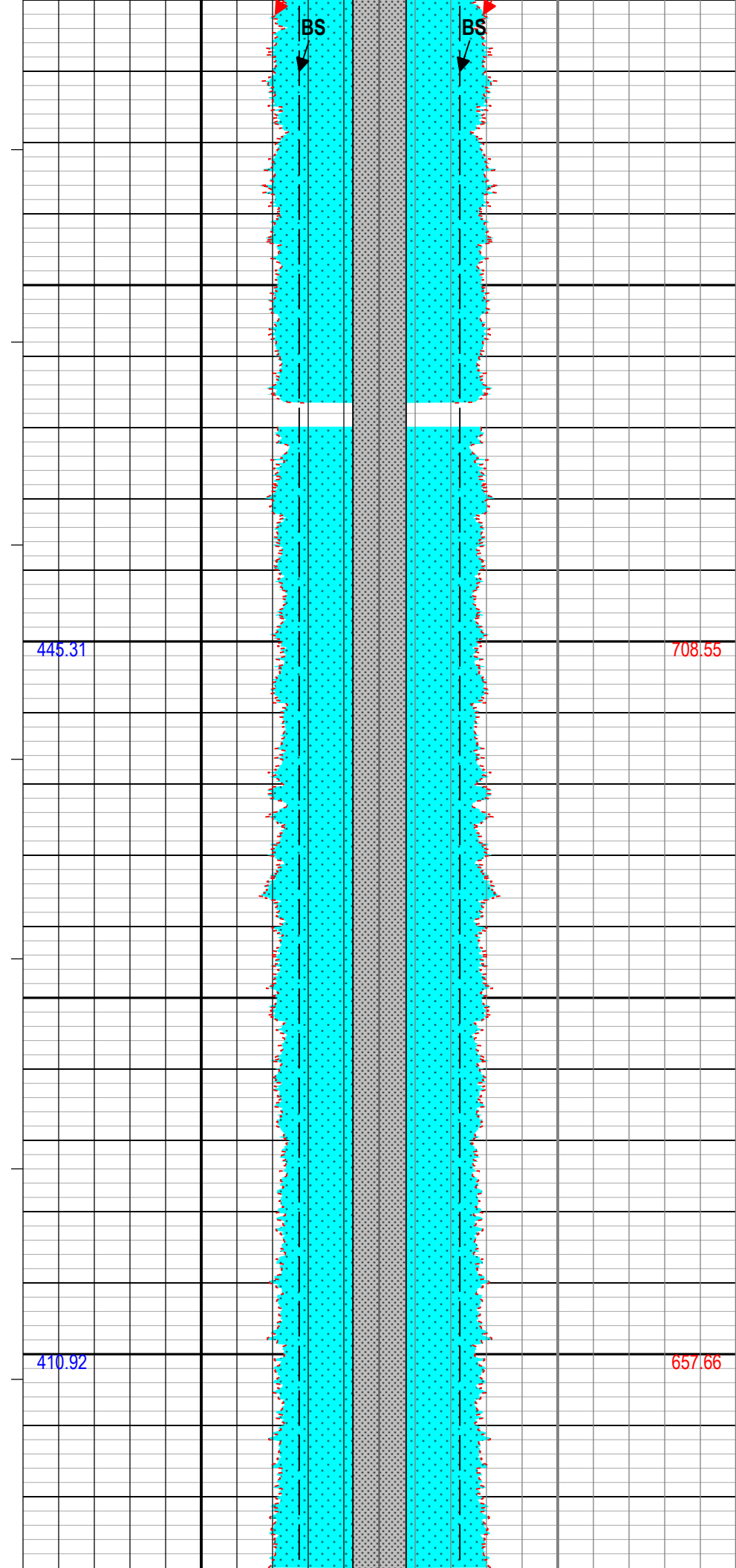
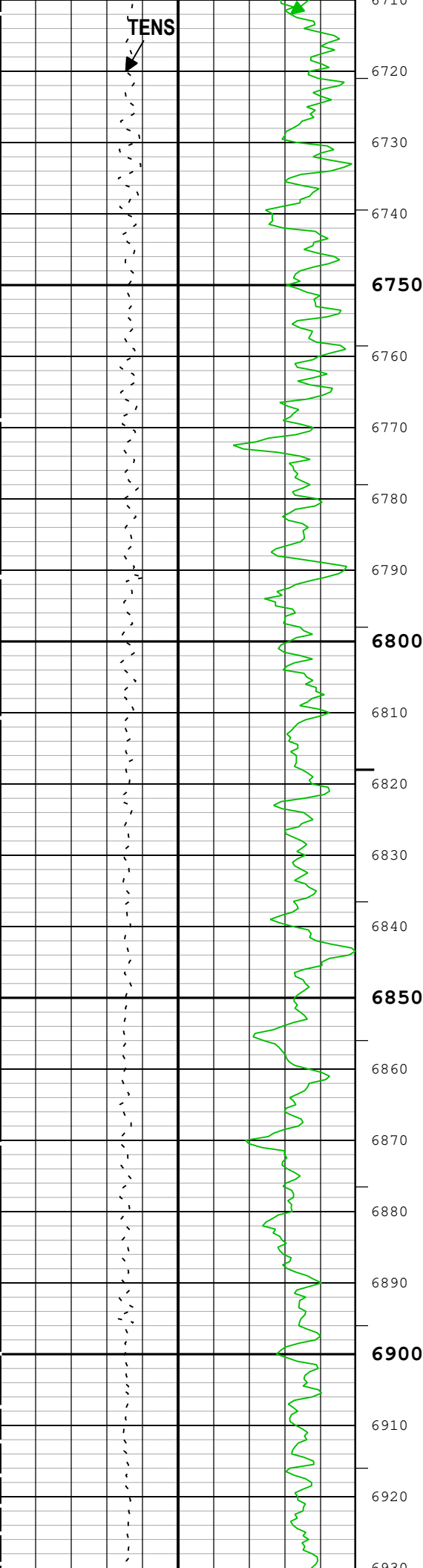


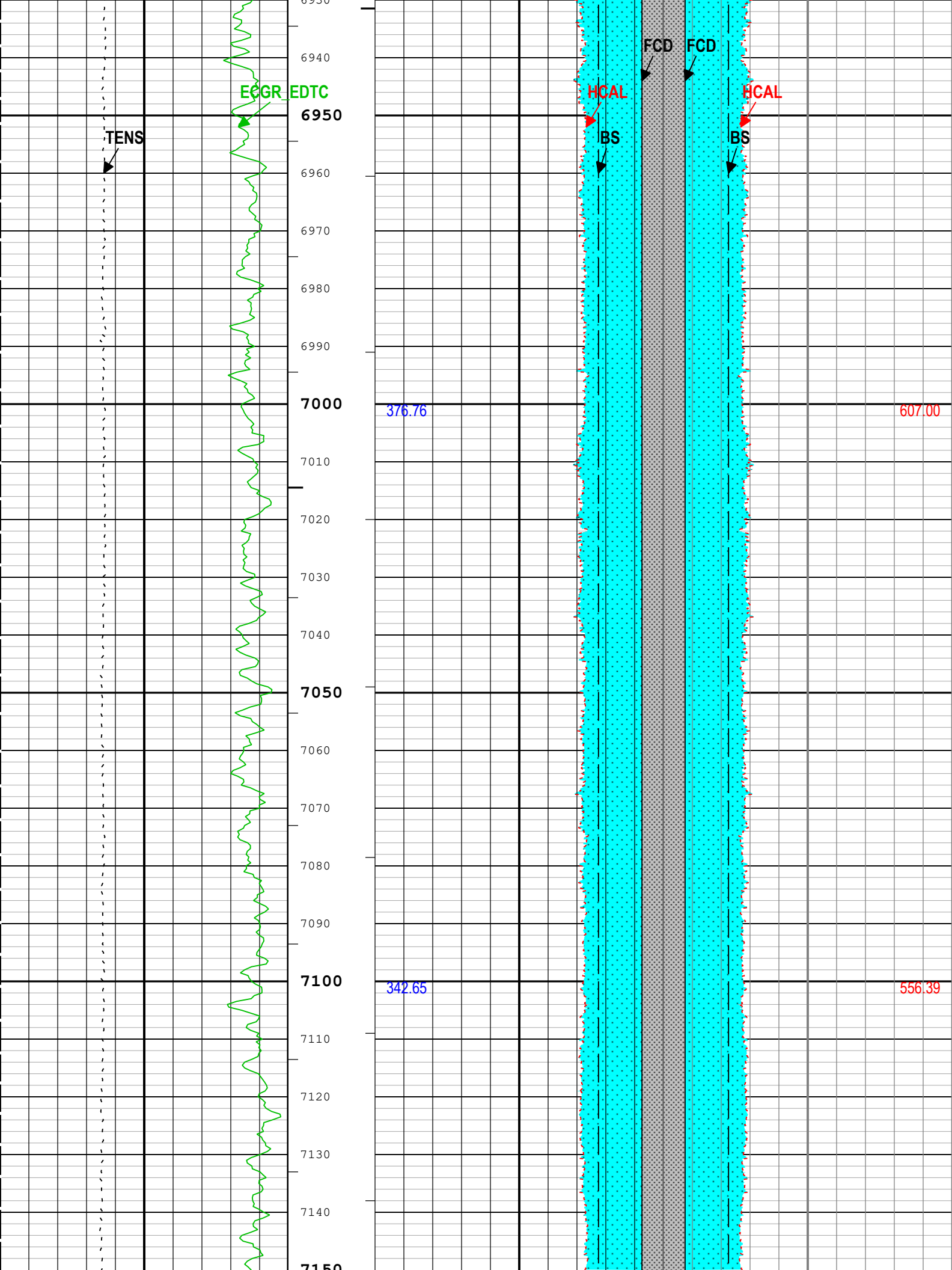


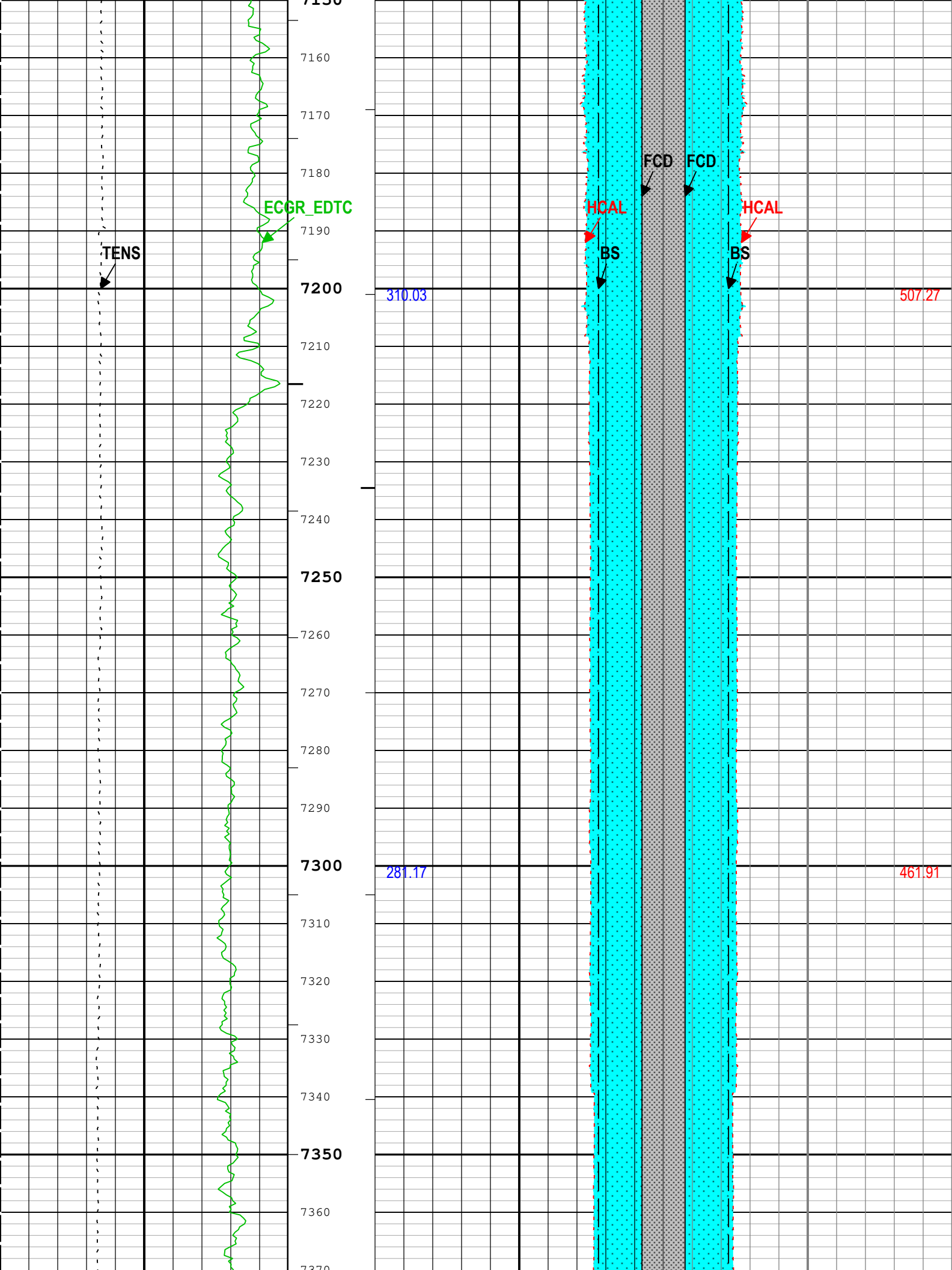


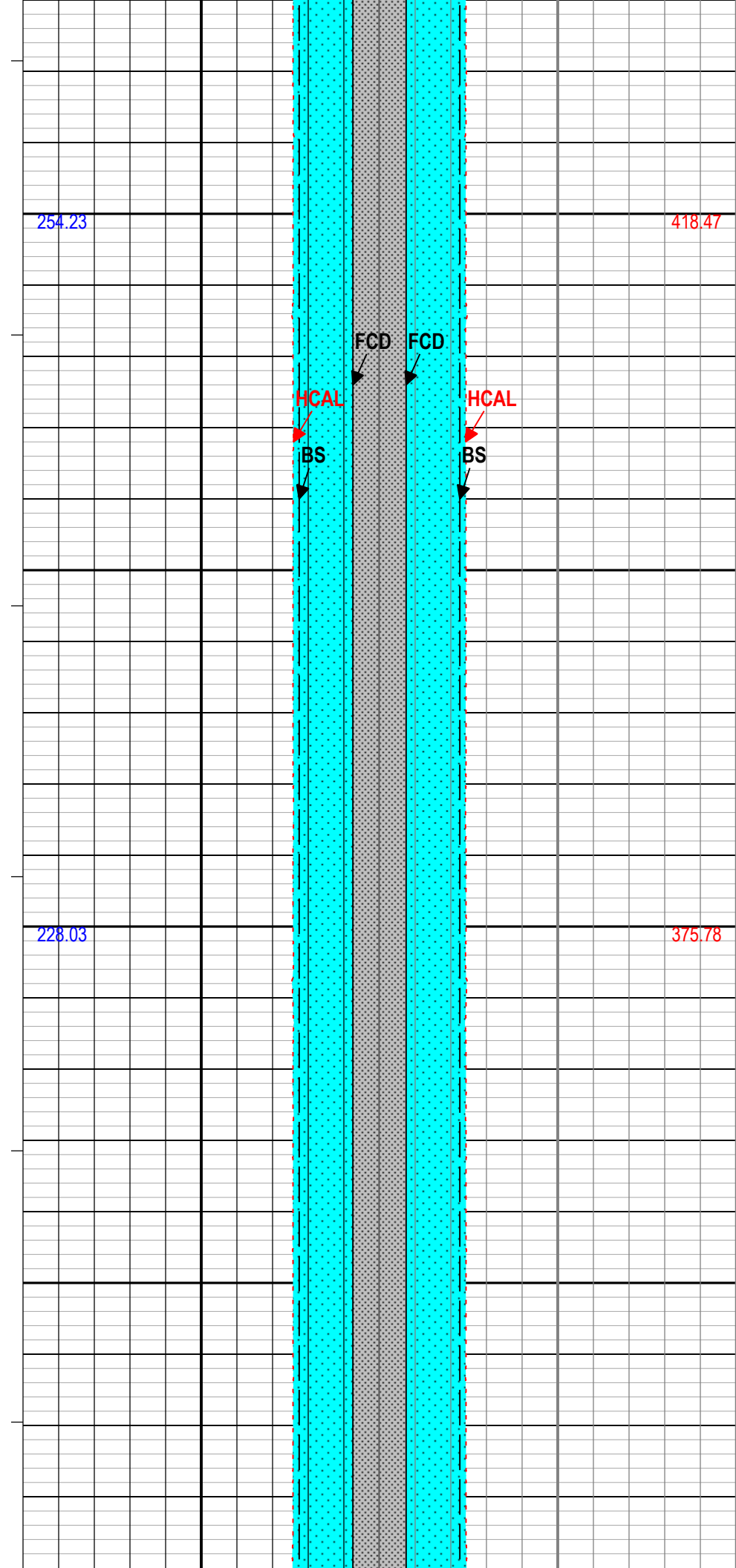
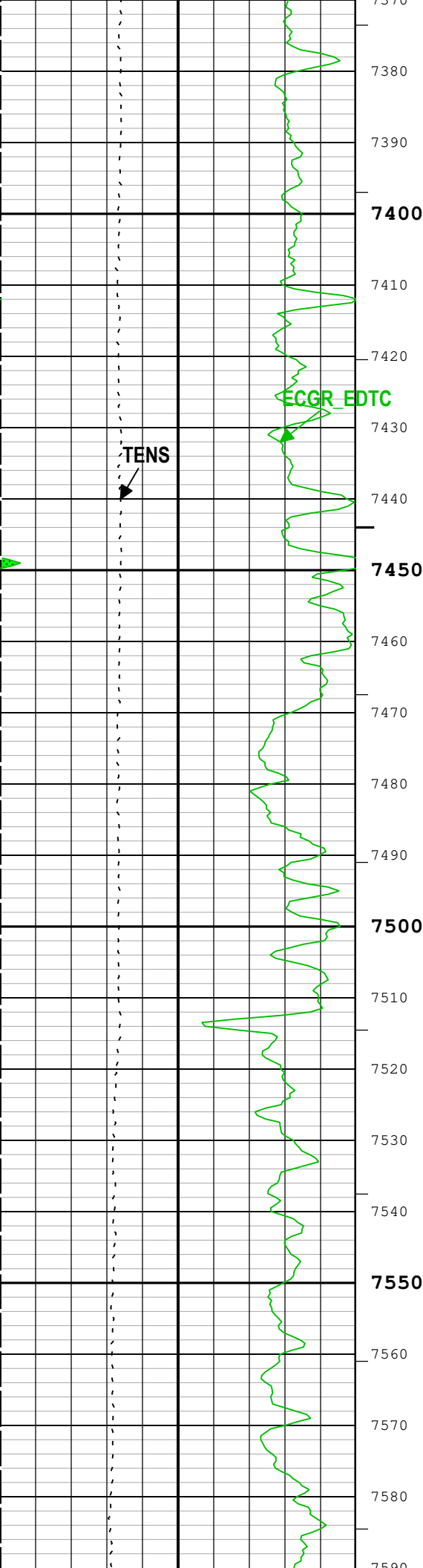


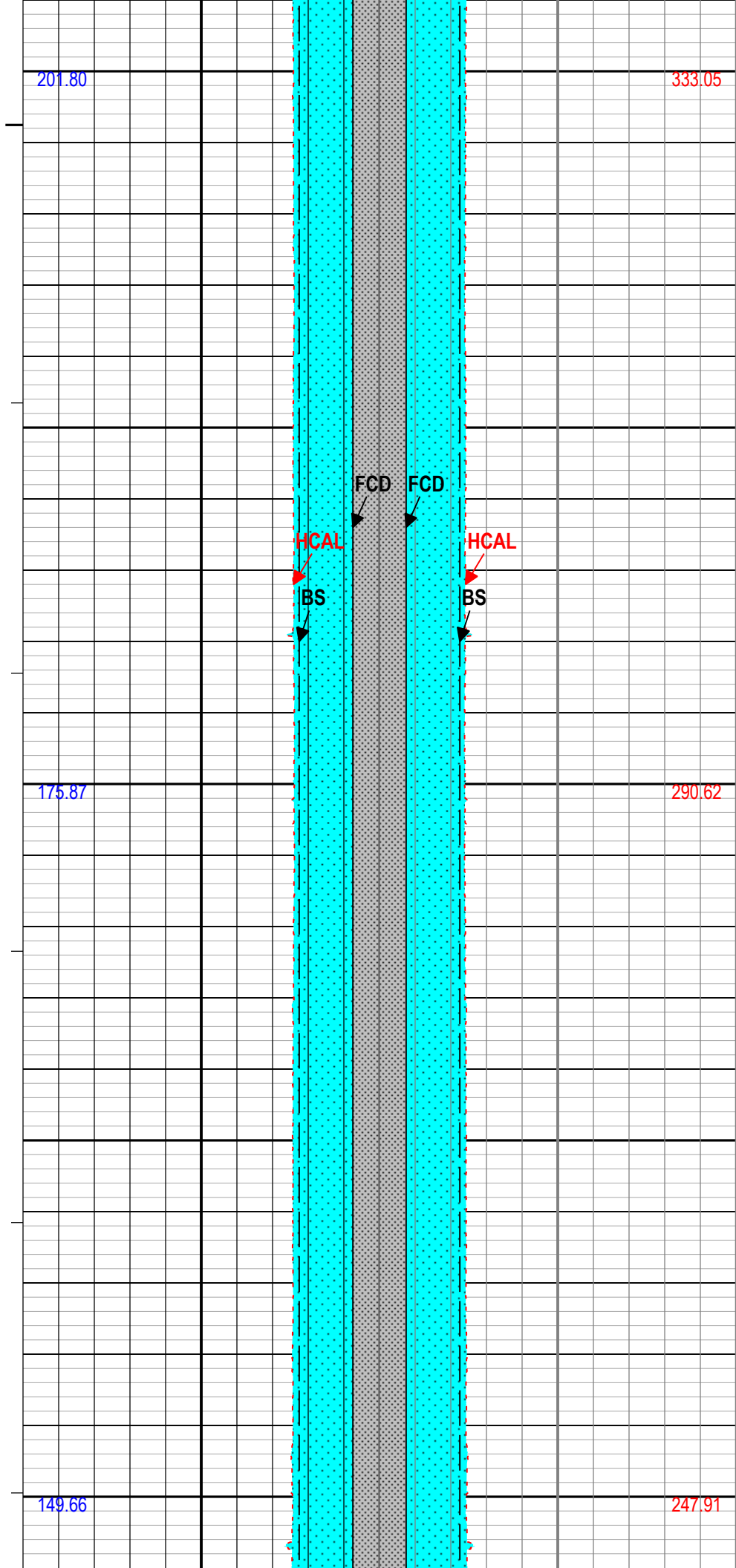
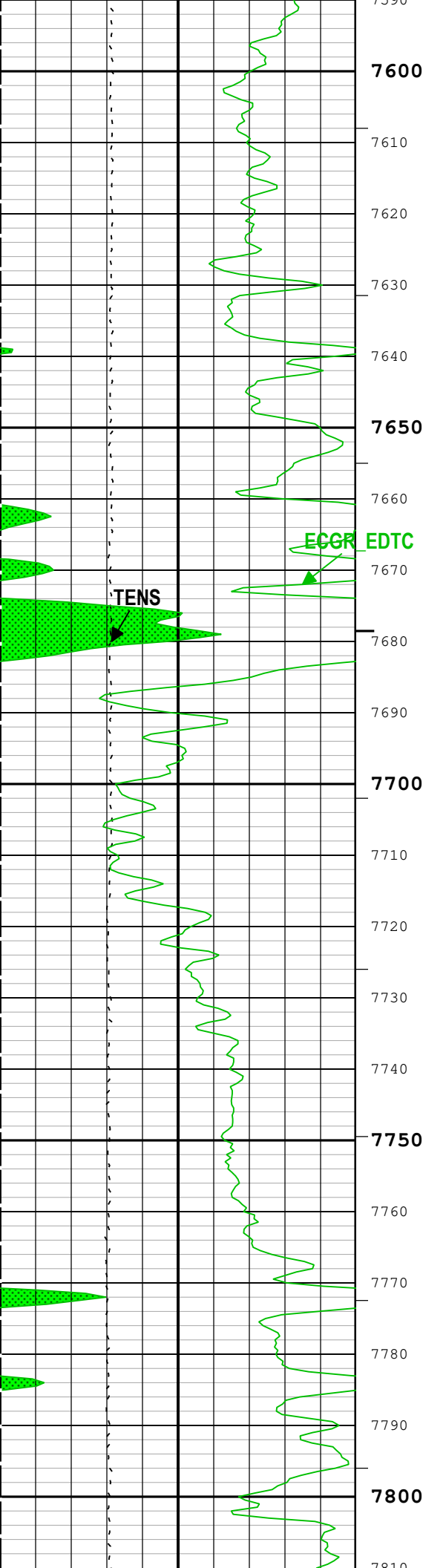


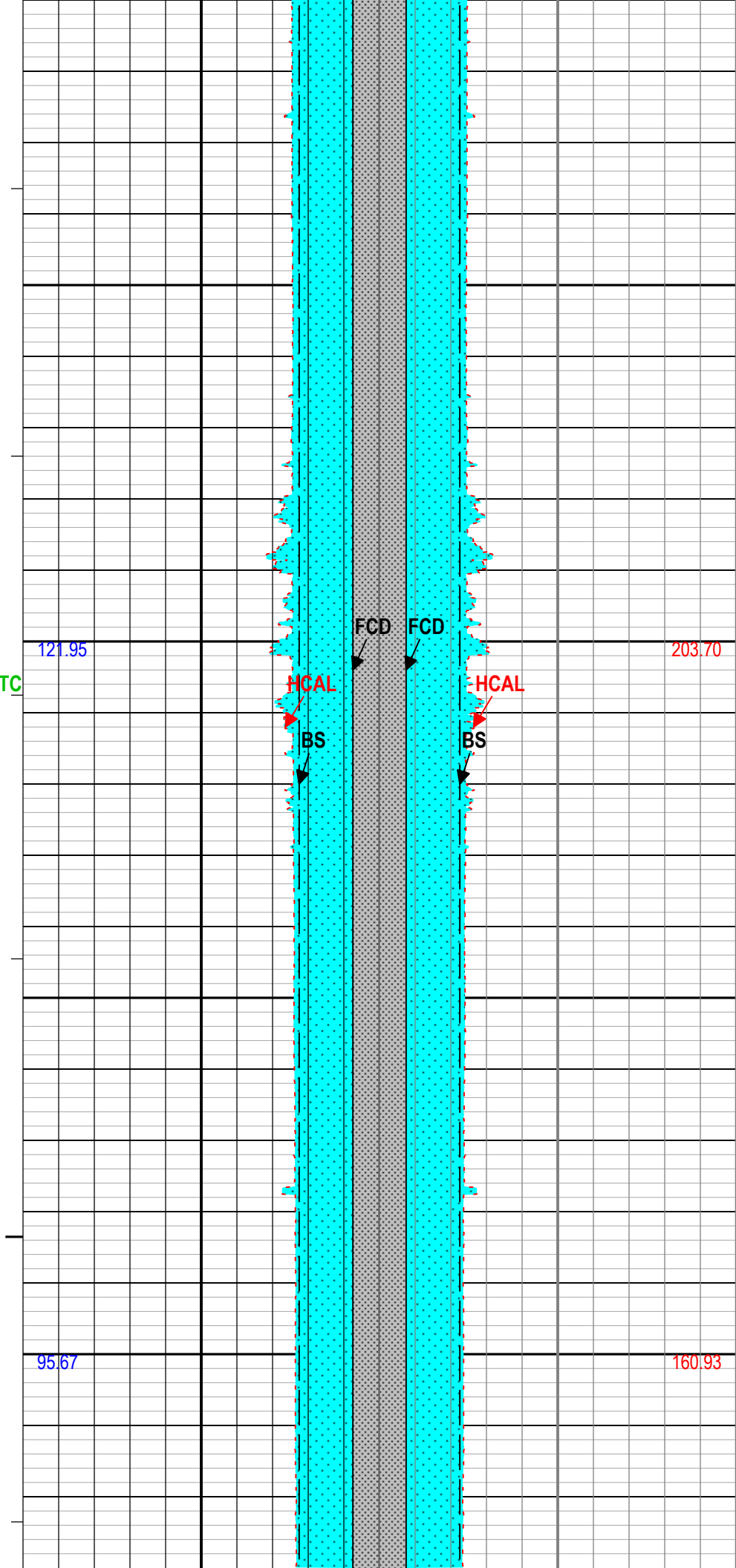
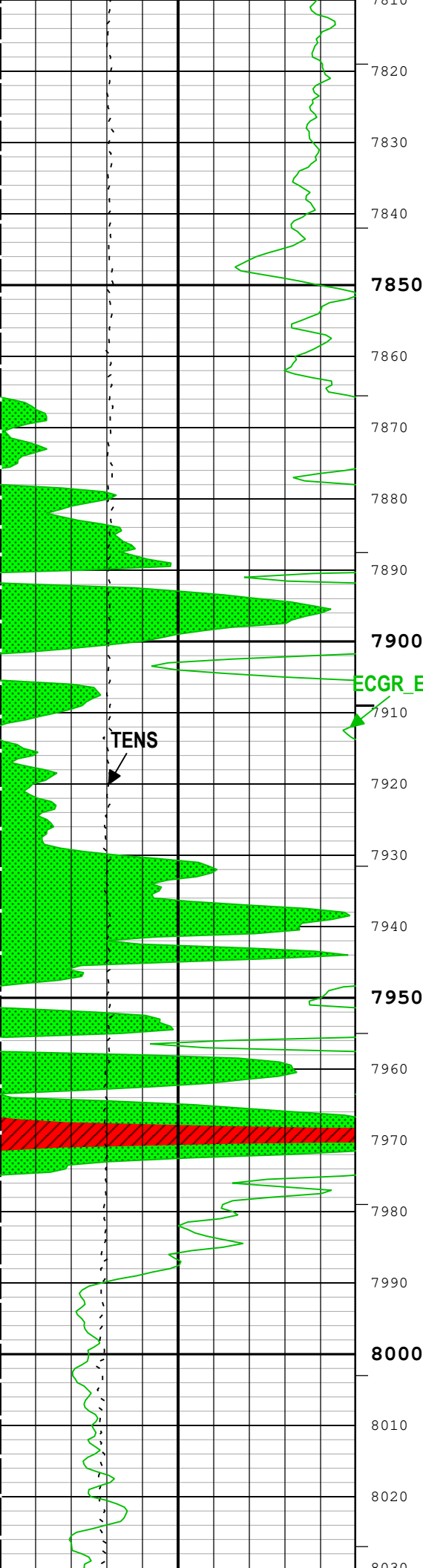


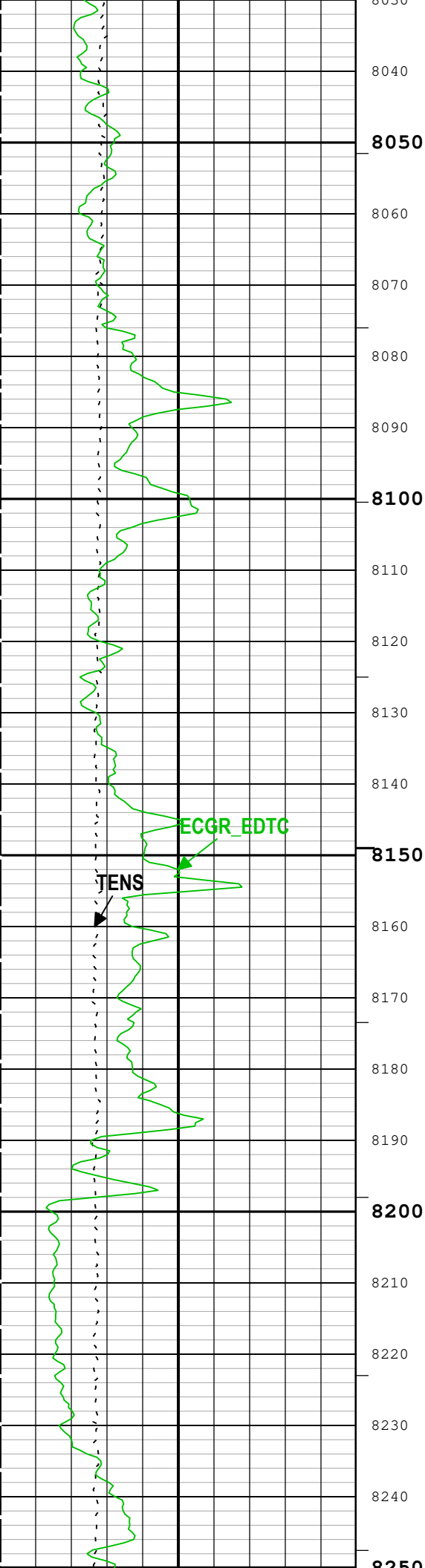












8050

8100

8150

8200

8250

71.08

46.69

119.83

78.94

FCD

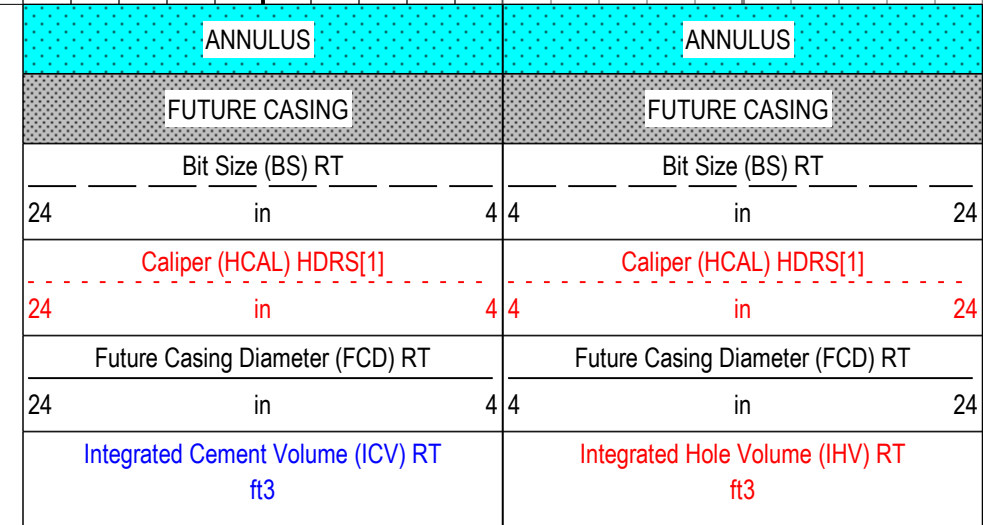
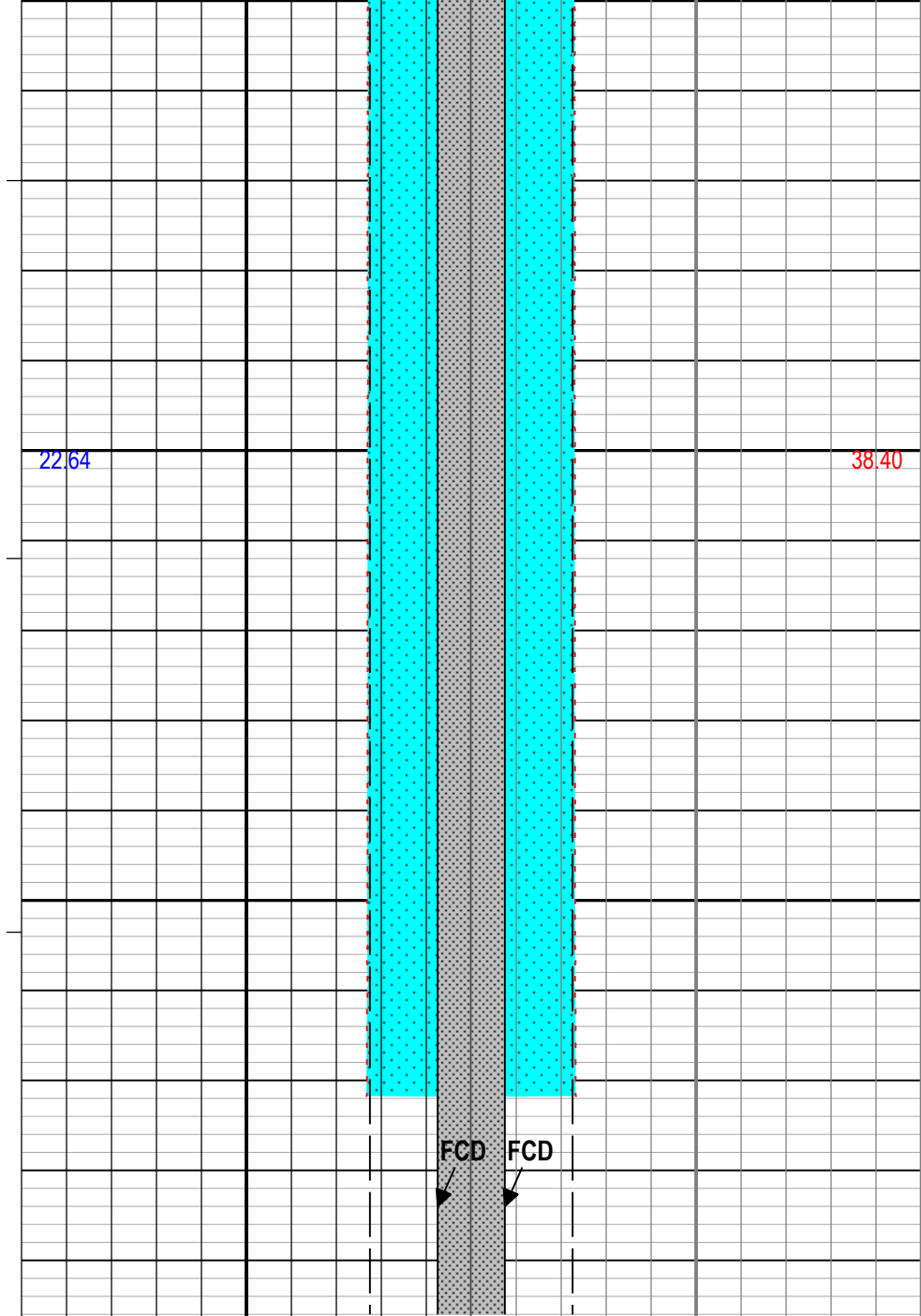
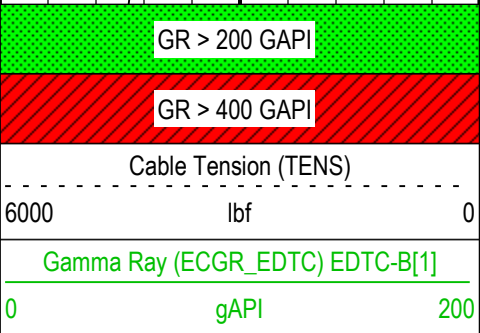
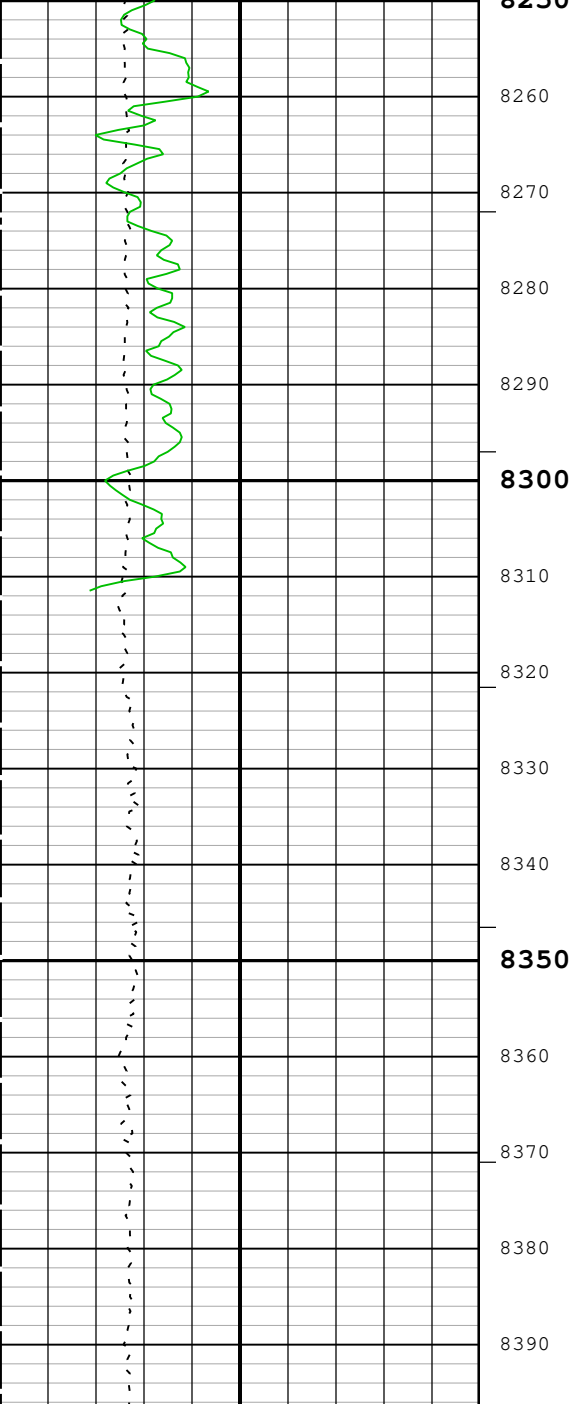
FCD

HCAL

BS

HCAL

BS



TIME_1900 - Time Marked every 60.00 (s)

— IHV - Integrated Hole Volume every 100.00 (ft3)

— IHV - Integrated Hole Volume every 10.00 (ft3)

— ICV - Integrated Cement Volume every 100.00 (ft3)

Description: Triple Combo standard resolution template for Platform Express Format: Log (BRADFORD DEQL) Index Scale: 5 in per 100 ft Index Unit: ft
 Index Type: Measured Depth Creation Date: 15-Apr-2019 17:54:10

Channel Processing Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.446	in
CBLO	Casing Bottom (Logger)	WLSESSION	2543	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	9.625	in
DFD	Drilling Fluid Density	Borehole	9.5	lbm/gal
FCD	Future Casing (Outer) Diameter	WLSESSION	5.5	in
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	

1ADepth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	2416	2543
BS	8.5	2543	8396.5

All depth are actual.

Tool Control Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

Field:	Wildcat
County:	Monongalia
State:	West Virginia

PLATFORM EXPRESS
DRILLER QUICKLOOK
GAMMA RAY / CALIPER