

Company: University Of Utah
Well: FORGE 78B-32
Field: None
County: Beaver

Logging Date 20-Jul-2021
Run Number 3A
Depth Driller 8540.00 ft
Schlumberger Depth 8540.00 ft
Bottom Log Interval
Top Log Interval
Casing Driller Size @ Depth 1.75 in @ 2989.00 ft
Casing Schlumberger 2988 ft
Bit Size 8.75 in
Type Fluid In Hole Water
Density 8.3 lbm/gal
Fluid Loss
PH
Source of Sample Active Tank

Temperature Log
Gamma Ray
Location: Lat: 38.500171, Long: -112.88221 Elev.: K.B. 5565.50 ft
 G.L. 5536.00 ft
 D.F.
Permanent Datum: Ground Level 5536.00 f
Log Measured From: Kelly Bushing 29.50 ft above Perm.Datum
Drilling Measured From: Kelly Bushing
API Serial No. NRC 42-00090-03 **Max.Hole Deviation** 0 deg **Longitude:** 112° 52' 55.956" W **Latitude:** 38° 30' 0.616" N

RM @ Meas Temp 2.84 ohm.m @ 95 degF
RMF @ Meas Temp 2.13 ohm.m @ 95 degF
RMC @ Meas Temp 4.26 ohm.m @ 95 degF
Source RMF Calculated
RM @ BHT 0.8 @ 353.72 0.6 @ 353.72
Max Recorded Temperatures 354.56 degF
Circulation Stopped Time
Logger on Bottom Time
Unit Number 9108 **Location:** F.Morgan
Recorded By
Witnessed By

Logging Date	19-Jul-2021	19-Jul-2021
Run Number	1A	2A
Depth Driller	8540.00 ft	8540.00 ft
Schlumberger Depth	8540.00 ft	8540.00 ft
Bottom Log Interval		
Top Log Interval		
Casing Driller Size @ Depth	1.75 in @ 2989.00 ft	1.75 in @ 2989.00 ft
Casing Schlumberger	2988 ft	2988 ft
Bit Size	8.75 in	8.75 in
Type Fluid In Hole	Water	Water
Density	8.3 lbm/gal	8.3 lbm/gal
Fluid Loss	PH	
Source of Sample	Active Tank	Active Tank
RM @ Meas Temp	0.2 ohm.m @ 68 degF	2.84 ohm.m @ 95 degF
RMF @ Meas Temp	0.15 ohm.m @ 68 degF	2.13 ohm.m @ 95 degF
RMC @ Meas Temp		4.26 ohm.m @ 95 degF
Source RMF	RMC	Calculated
RM @ BHT	0.05 @ 320.87 0.03 @ 320.87	0.8 @ 353.72 0.6 @ 353.7
Max Recorded Temperatures	321.43 degF	354.56 degF
Circulation Stopped	Time	Time
Logger on Bottom	Time	Time
Unit Number	9108	9108
Recorded By	T.Mozena/C.Stiles/I.Nasir	T.Mozena/C.Stiles/I.Nasir
Witnessed By	Virgil Welch	Virgil Welch

Logging Date	19-Jul-2021	19-Jul-2021
Run Number	1A	2A
Depth Driller	8540.00 ft	8540.00 ft
Schlumberger Depth	8540.00 ft	8540.00 ft
Bottom Log Interval		
Top Log Interval		
Casing Driller Size @ Depth	1.75 in @ 2989.00 ft	1.75 in @ 2989.00 ft
Casing Schlumberger	2988 ft	2988 ft
Bit Size	8.75 in	8.75 in
Type Fluid In Hole	Water	Water
Density	8.3 lbm/gal	8.3 lbm/gal
Fluid Loss	PH	
Source of Sample	Active Tank	Active Tank
RM @ Meas Temp	0.2 ohm.m @ 68 degF	2.84 ohm.m @ 95 degF
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Source RMF	RMC	Calculated
RM @ BHT	0.05 @ 320.87 0.03 @ 320.87	0.8 @ 353.72 0.6 @ 353.7
Max Recorded Temperatures	321.43 degF	354.56 degF
Circulation Stopped	Time	Time
Logger on Bottom	Time	Time
Unit Number	9108	9108
Recorded By	T.Mozena/C.Stiles/I.Nasir	T.Mozena/C.Stiles/I.Nasir
Witnessed By	Virgil Welch	Virgil Welch

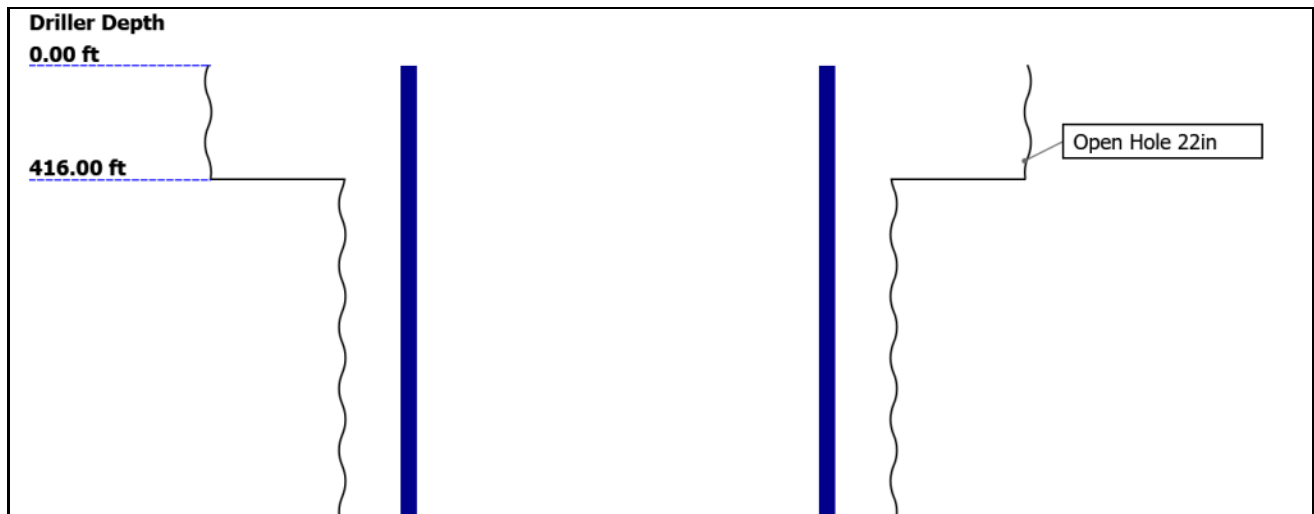
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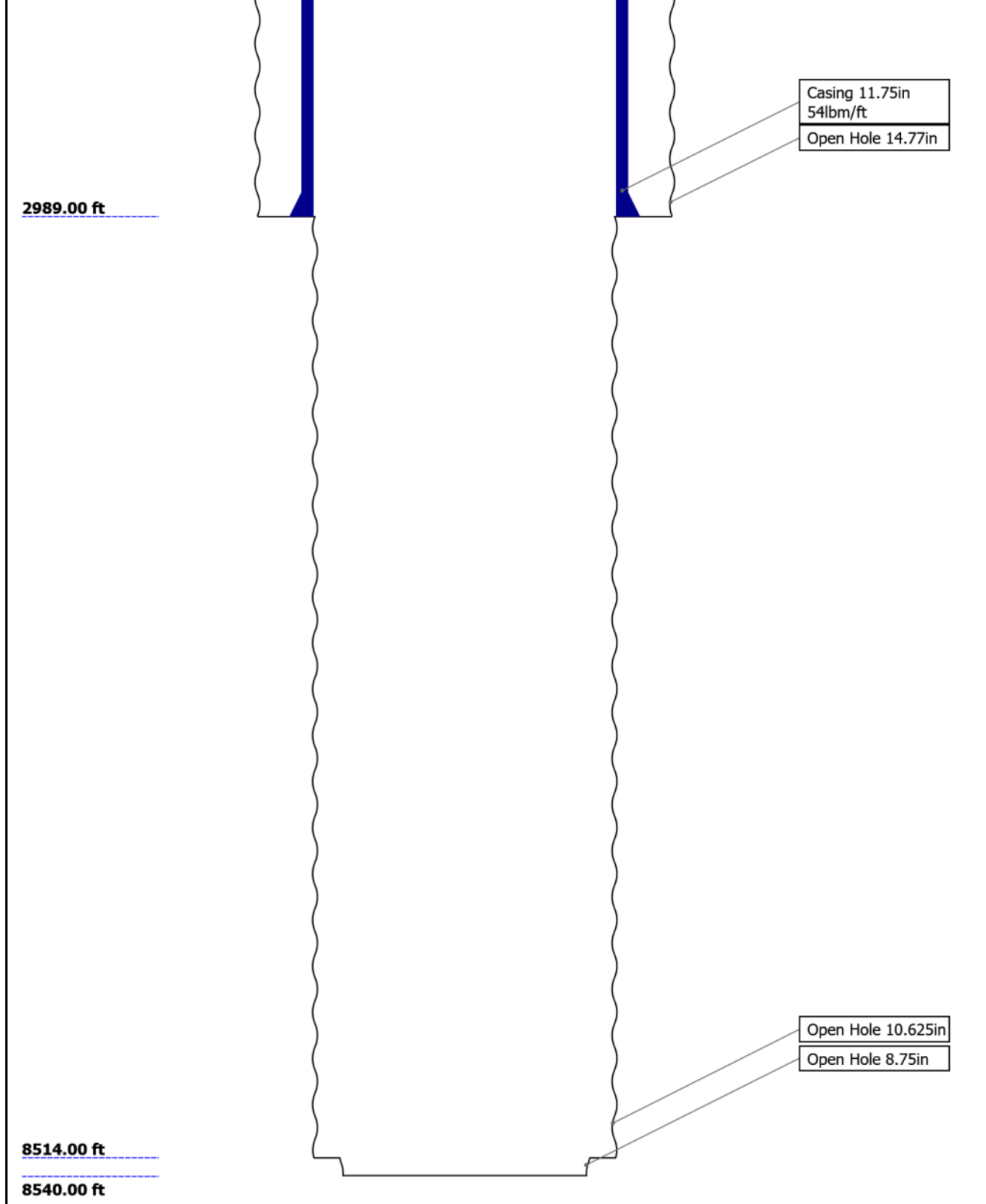
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Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	22	14.77	10.625	8.75		
Top Driller (ft)	0	416	2989	8514		
Top Logger (ft)	0	416	2989	8514		
Bottom Driller (ft)	416	2989	8514	8540		
Bottom Logger (ft)	416	2989	8514	8540		
Casing						
Size (in)	11.75					

Weight (lbm/ft)	54					
Inner Diameter (in)	10.88					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	2989					
Bottom Logger (ft)	2988					

Survey Record

Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	True North	Total Correction Formula :	Magnetic Dec

Rig Location

Latitude :	38° 30' 0.616" N	Longitude :	112° 52' 55.956" W
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Tie In Point

Measured Depth:	0.00 ft	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 ft	North Displacement:	0.00 ft	East Displacement:	0.00 ft

Survey Quality Index

28 : Tie-In Point

Survey Correction Index

0 : No correction

Survey Description Index

0 : Not Flagged Survey

Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	----	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0

Merge Composite

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Log[1]:Down	Down	4134.72 ft	7665.52 ft	19-Jul-2021 7:37:21 AM	19-Jul-2021 7:50:07 AM	ON	0.00 ft	Yes
1A	Log[2]:Up	Up	2952.88 ft	8529.53 ft	19-Jul-2021 7:53:53 AM	19-Jul-2021 1:26:07 PM	ON	9.38 ft	Yes
2A	Log[1]:Down	Down	3985.20 ft	8542.78 ft	19-Jul-2021 3:04:28 PM	19-Jul-2021 3:15:50 PM	ON	-3.12 ft	Yes
2A	Log[2]:Up	Up	2858.91 ft	8563.43 ft	19-Jul-2021 3:16:18 PM	19-Jul-2021 6:22:02 PM	ON	3.65 ft	Yes
3A	Log[2]:Down	Down	395.12 ft	8531.82 ft	20-Jul-2021 10:42:34 AM	20-Jul-2021 11:07:54 AM	ON	11.46 ft	Yes
3A	Log[3]:Up	Up	2970.28 ft	8518.54 ft	20-Jul-2021 11:08:28 AM	20-Jul-2021 5:38:29 PM	ON	17.71 ft	Yes

All depths are referenced to toolstring zero

Log

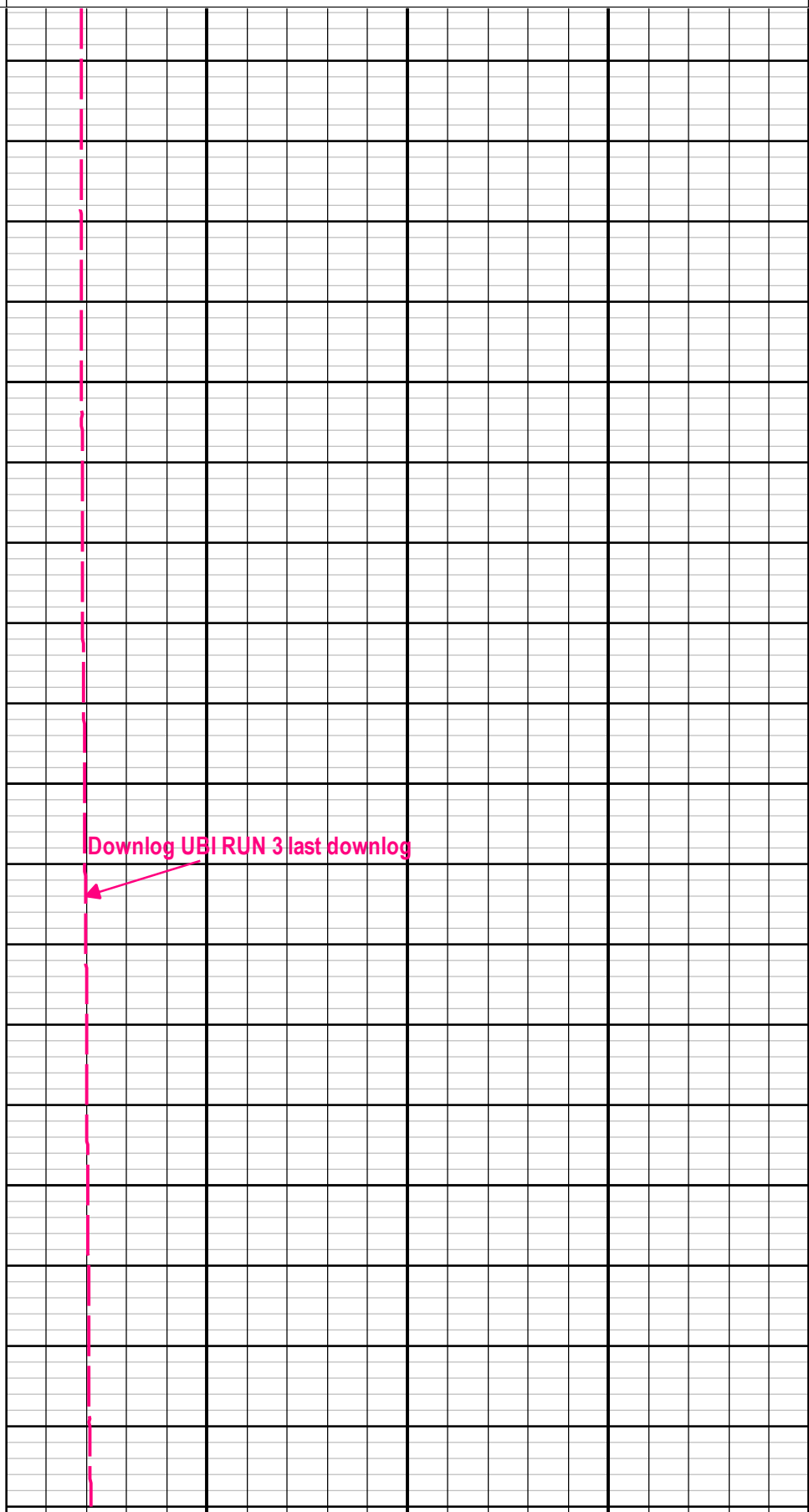
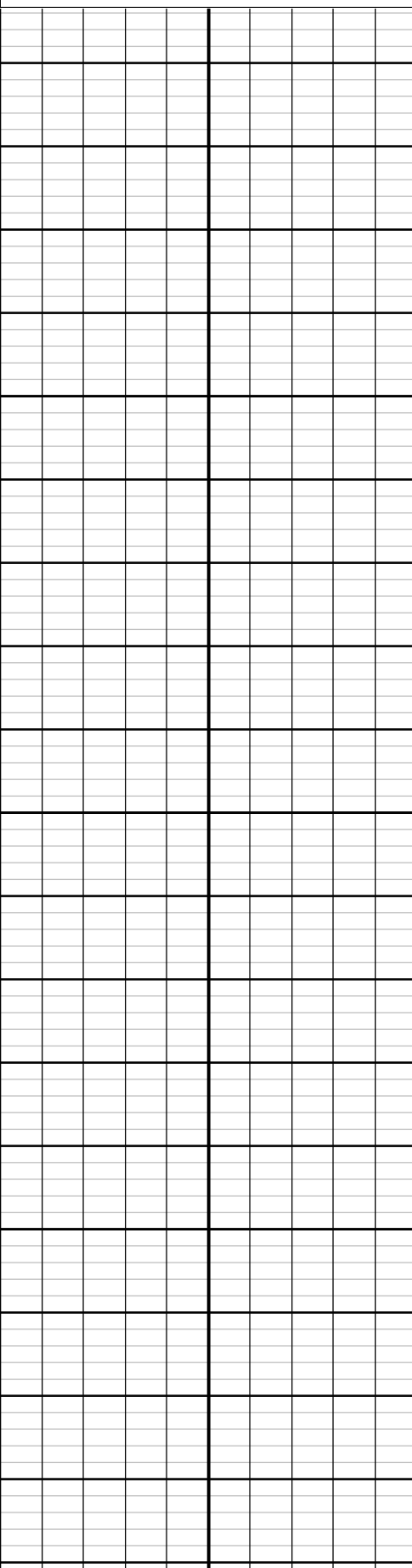
Company:University Of Utah Well:FORGE 78B-32
Merge Composite:S024

Description: Format: Log (TempLog) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Jul-2021 14:14:49

	Down log run 1 FMI SONIC SCANNER
100	degF
400	
	Down log Run 2 Q String
100	degF
400	
	Downlog UBI RUN 3 last downlog
100	degF
400	

Cable Tension (TENS)		
10000	lbf	0
Gamma Ray (EHGR_EDTC).1 EDTC-B		
0	gAPI	150
Gamma Ray (ECGR_EDTC).2 EDTC-B		
0	gAPI	150

100	degF	400
UP log Sonic Scanner FMI run 1		
100	degF	400
UP log UBI RUN 3 Last run		
100	degF	400
UP LOG RUN 2 Q STRING PEX		
100	degF	400



550

560

570

580

590

600

610

620

630

640

650

660

670

680

690

700

710

720

730

740

750

760

Downlog UBI RUN 3 last downlog



770

780

790

800

810

820

830

840

850

860

870

880

890

900

910

920

930

940

950

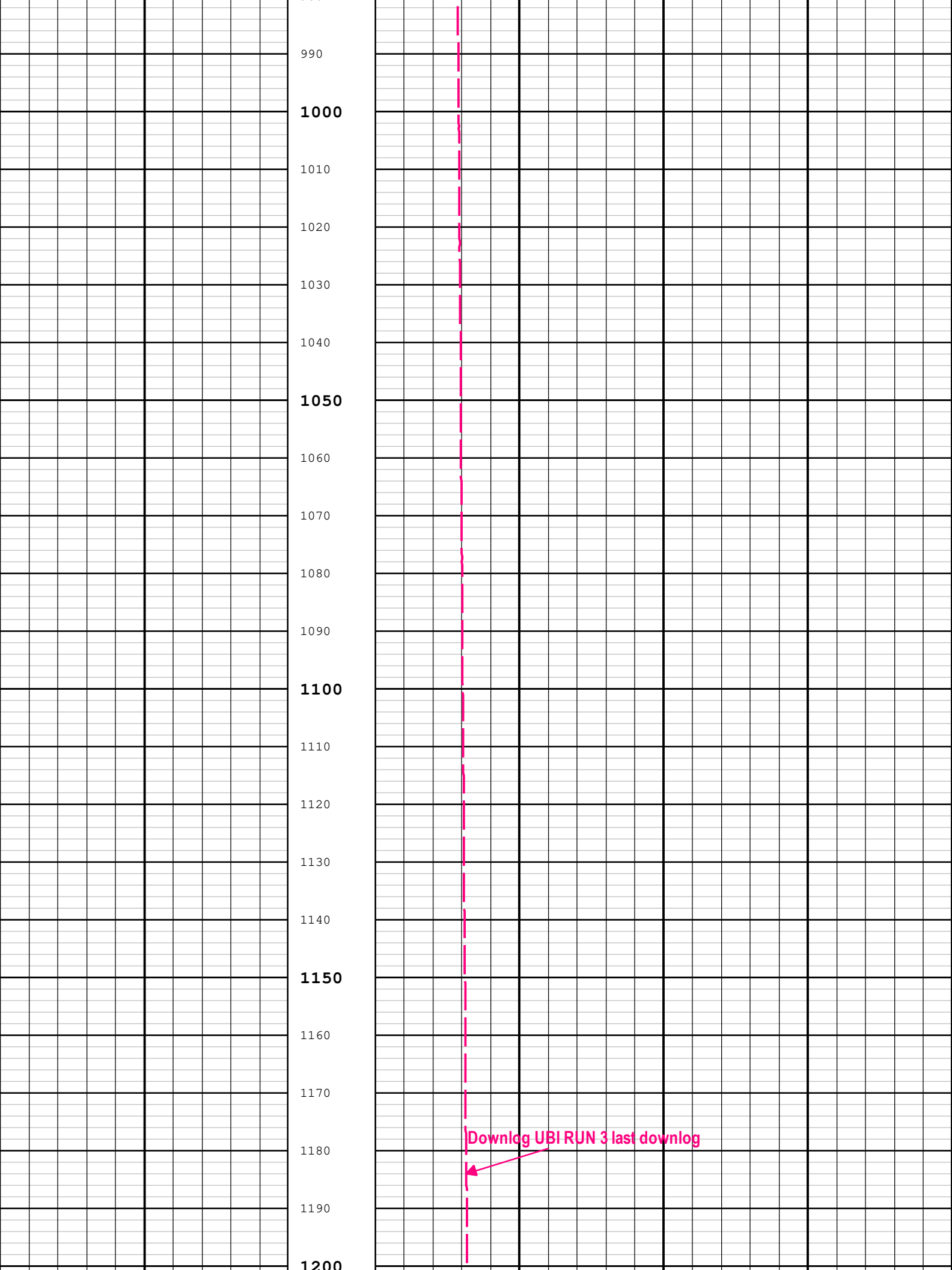
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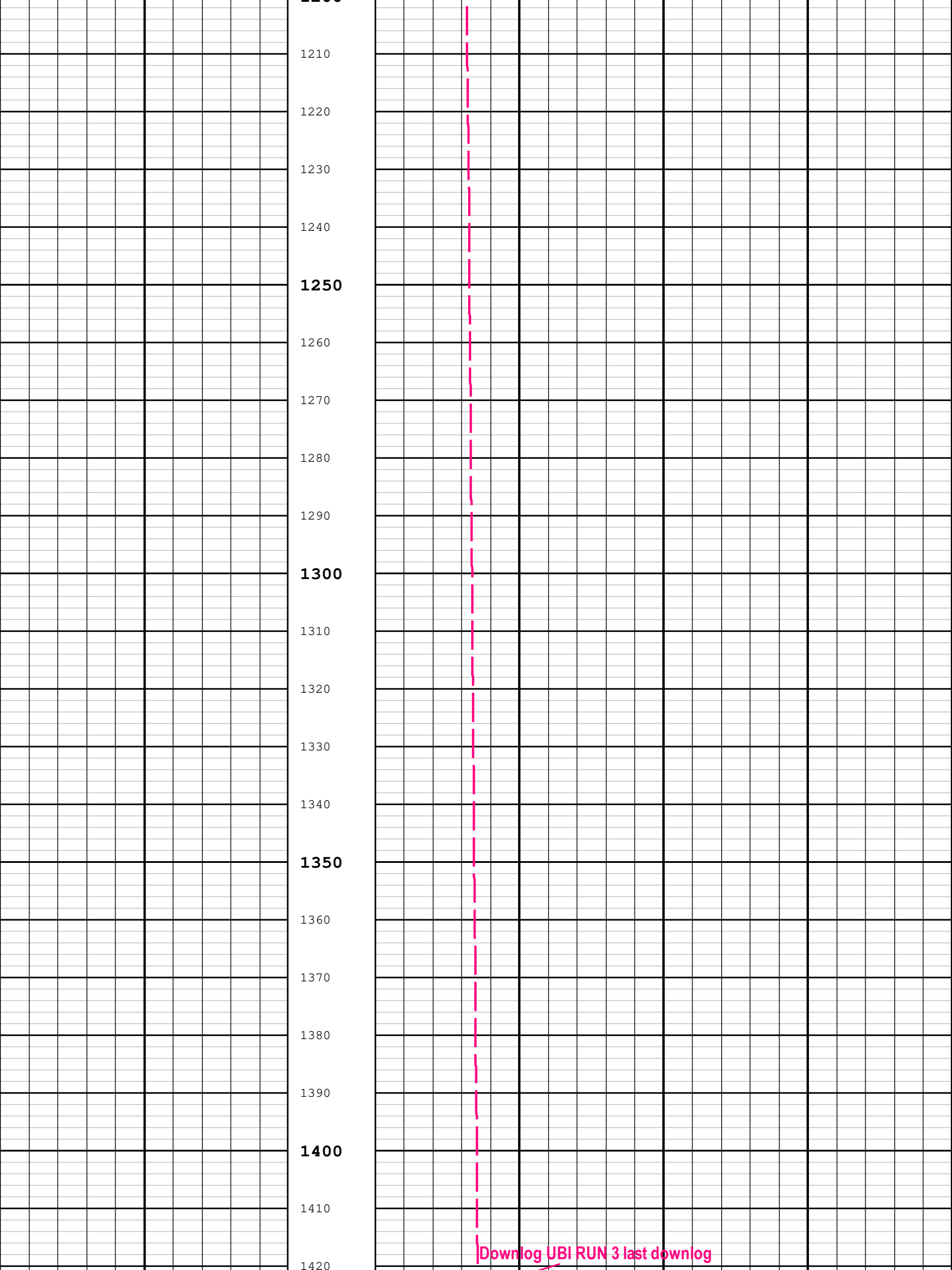
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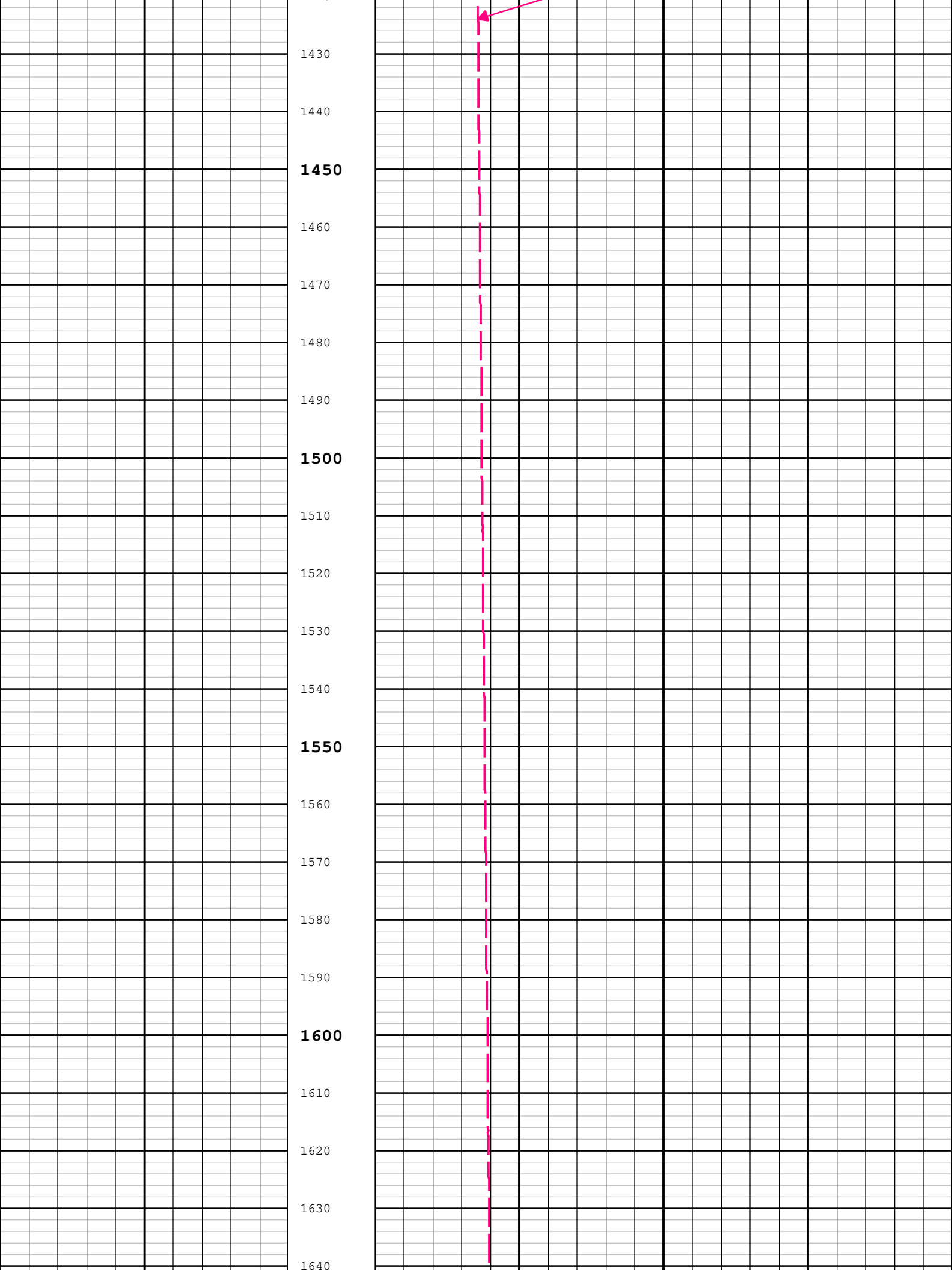
Downlog UBI RUN 3 last downlog







Downlog UBI RUN 3 last downlog



1650

1660

1670

1680

1690

1700

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1730

1740

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1800

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1820

1830

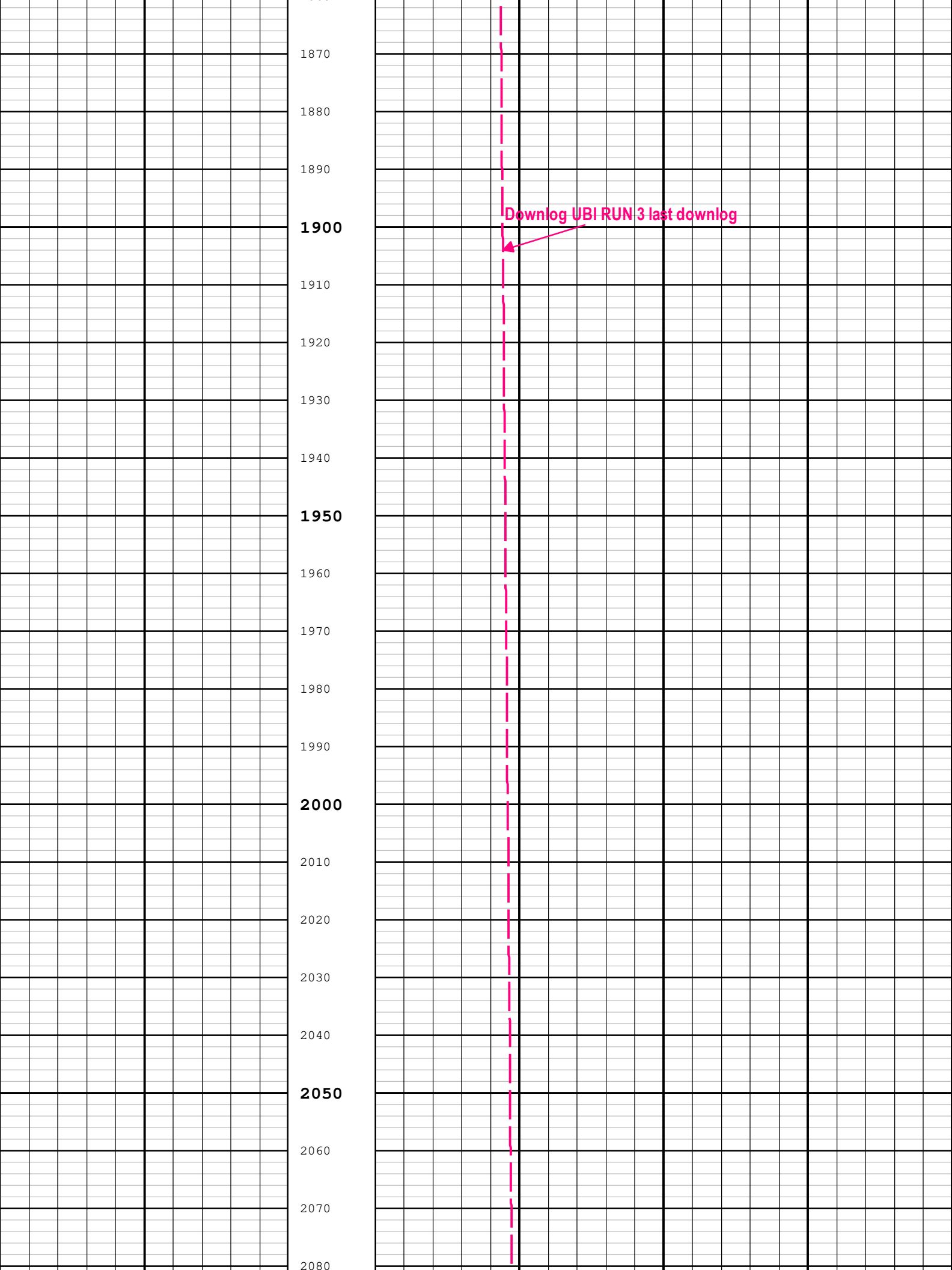
1840

1850

1860

Downlog UBI RUN 3 last downlog





1870

1880

1890

1900

1910

1920

1930

1940

1950

1960

1970

1980

1990

2000

2010

2020

2030

2040

2050

2060

2070

2080

Downlog UBI RUN 3 last downlog

2090

2100

2110

2120

2130

2140

2150

2160

2170

2180

2190

2200

2210

2220

2230

2240

2250

2260

2270

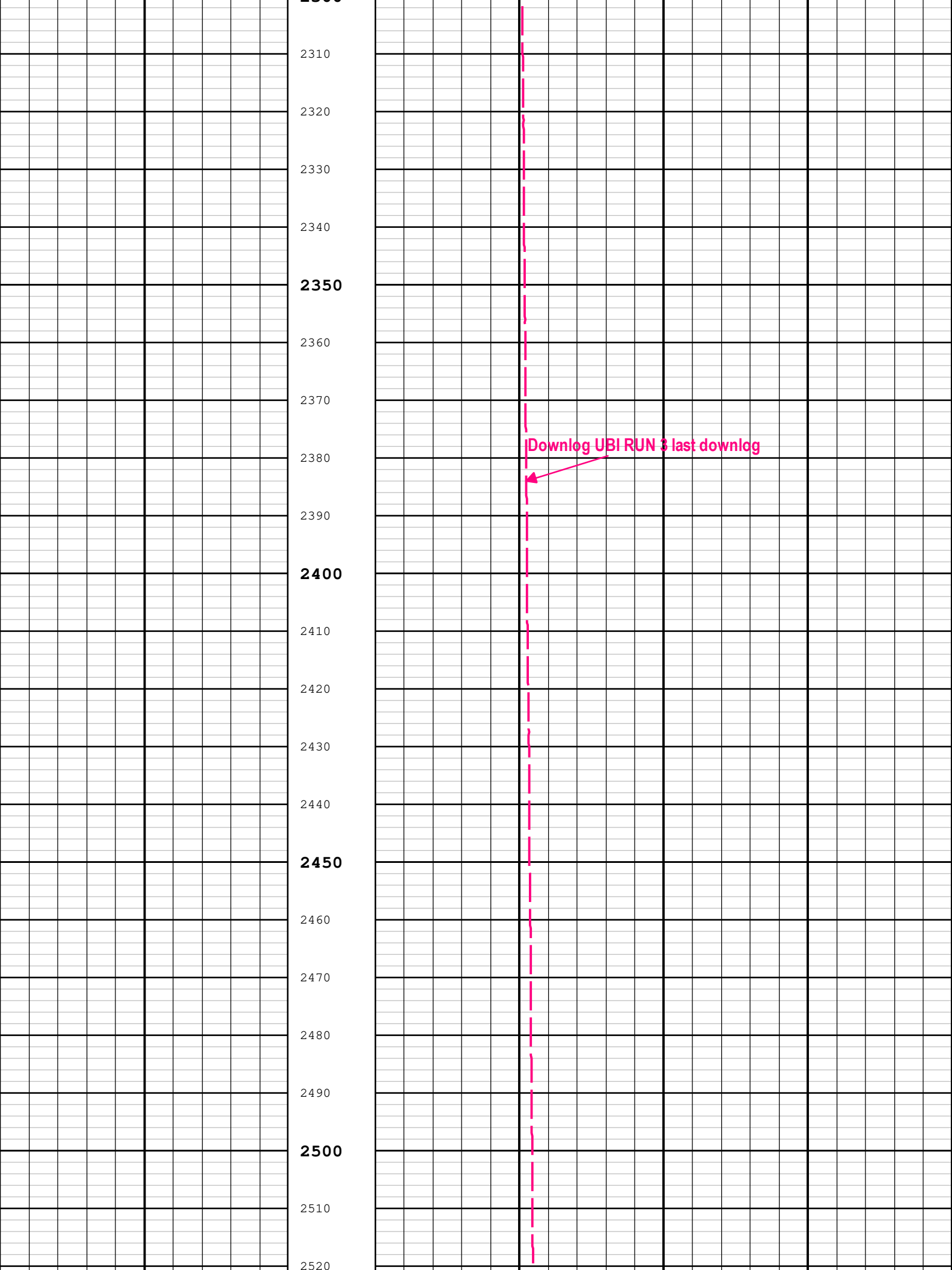
2280

2290

2300

Downlog UBI RUN 3 last downlog





2310

2320

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2500

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2520

Downlog UBI RUN 3 last downlog



2530

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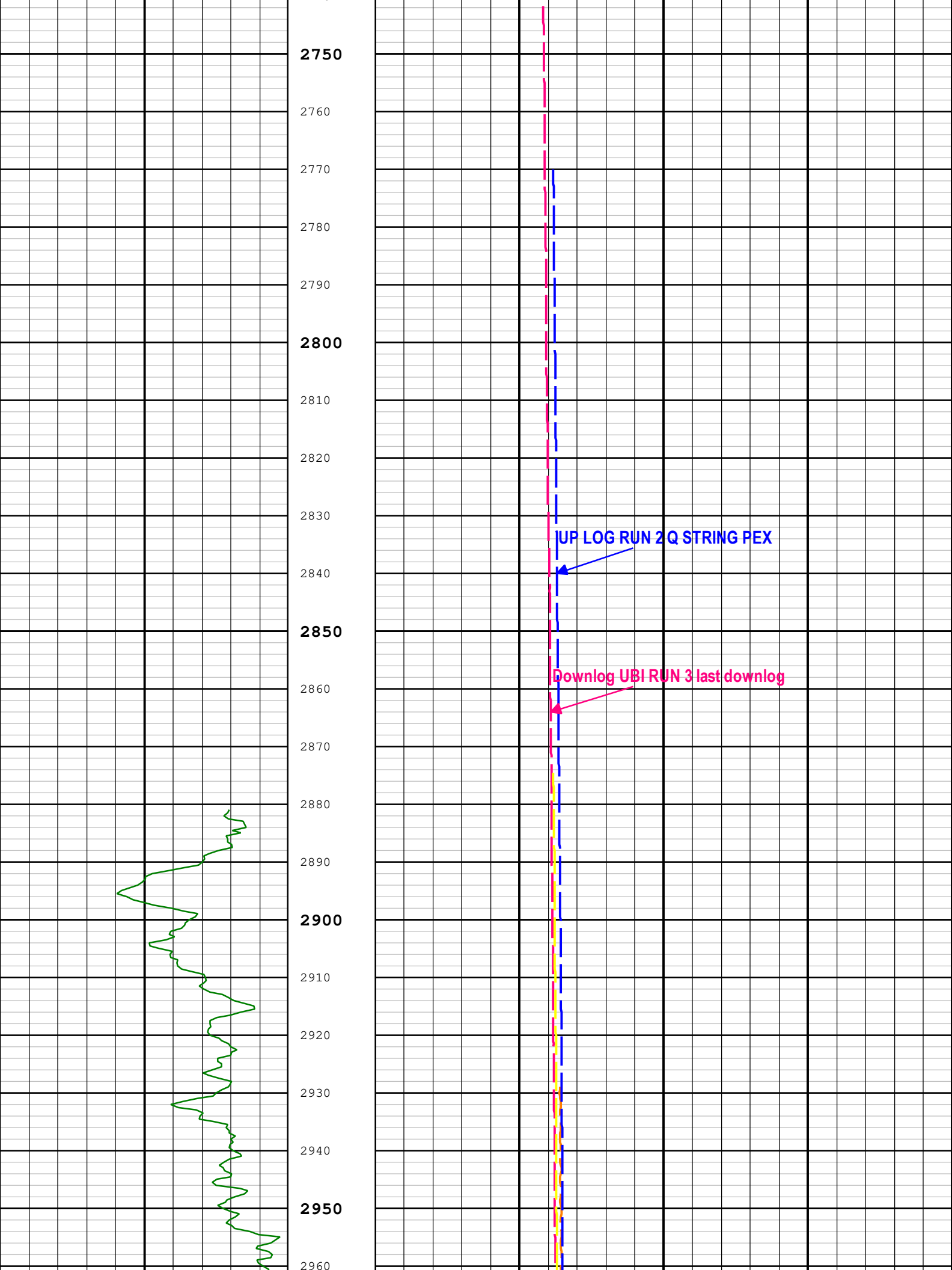
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Downlog UBI RUN 3 last downlog





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2790

2800

2810

2820

2830

JUP LOG RUN 2 Q STRING PEX

2840

2850

Downlog UBI RUN 3 last downlog

2860

2870

2880

2890

2900

2910

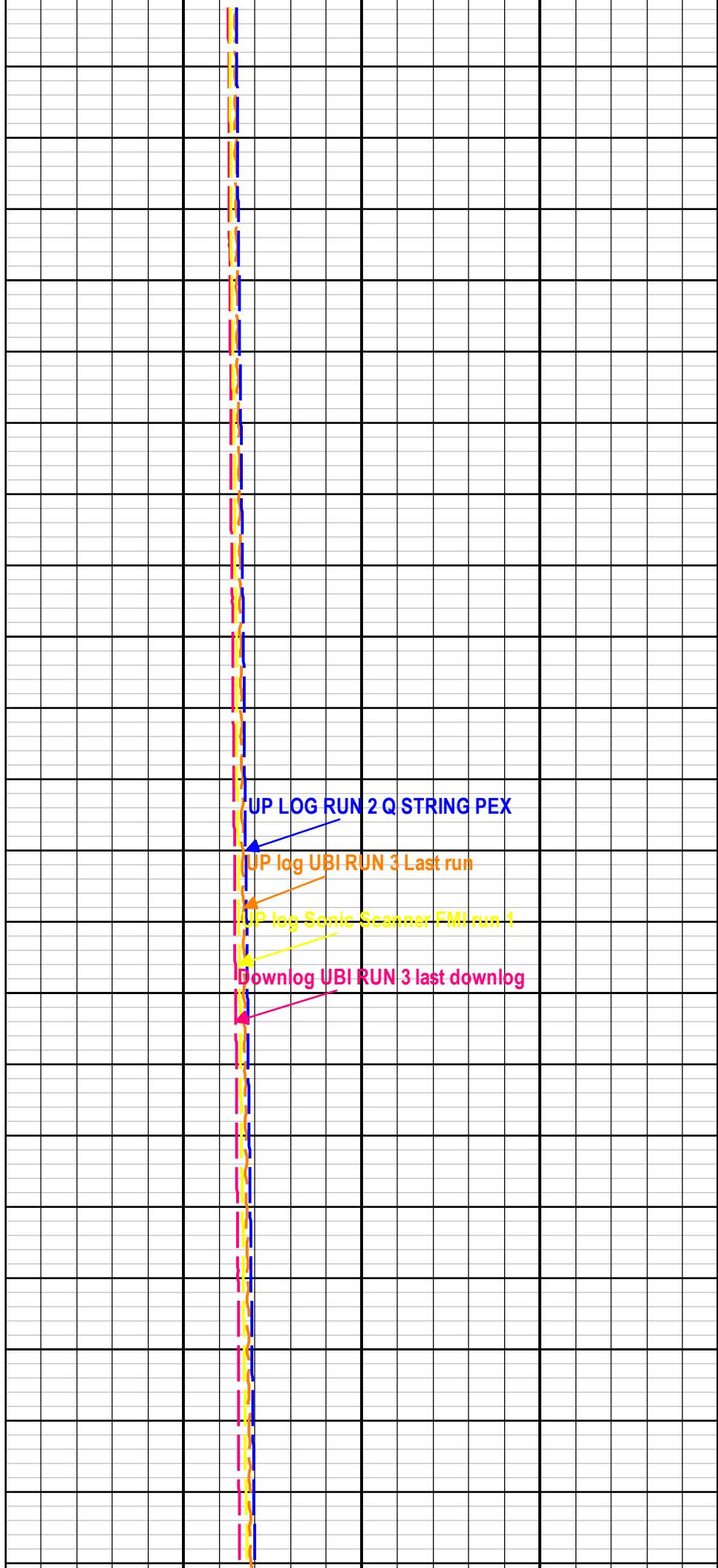
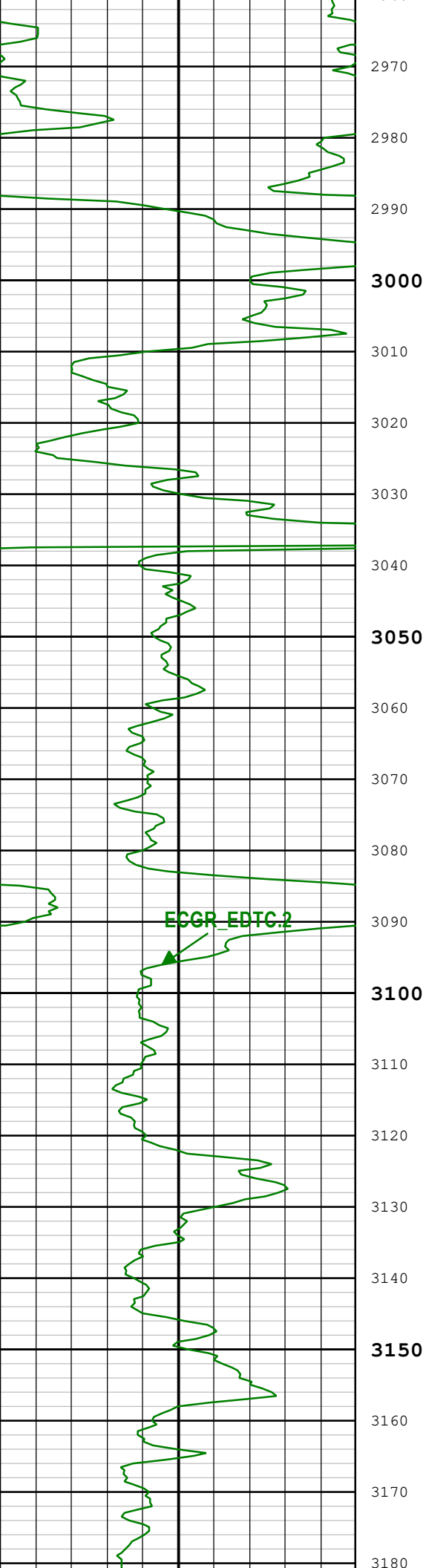
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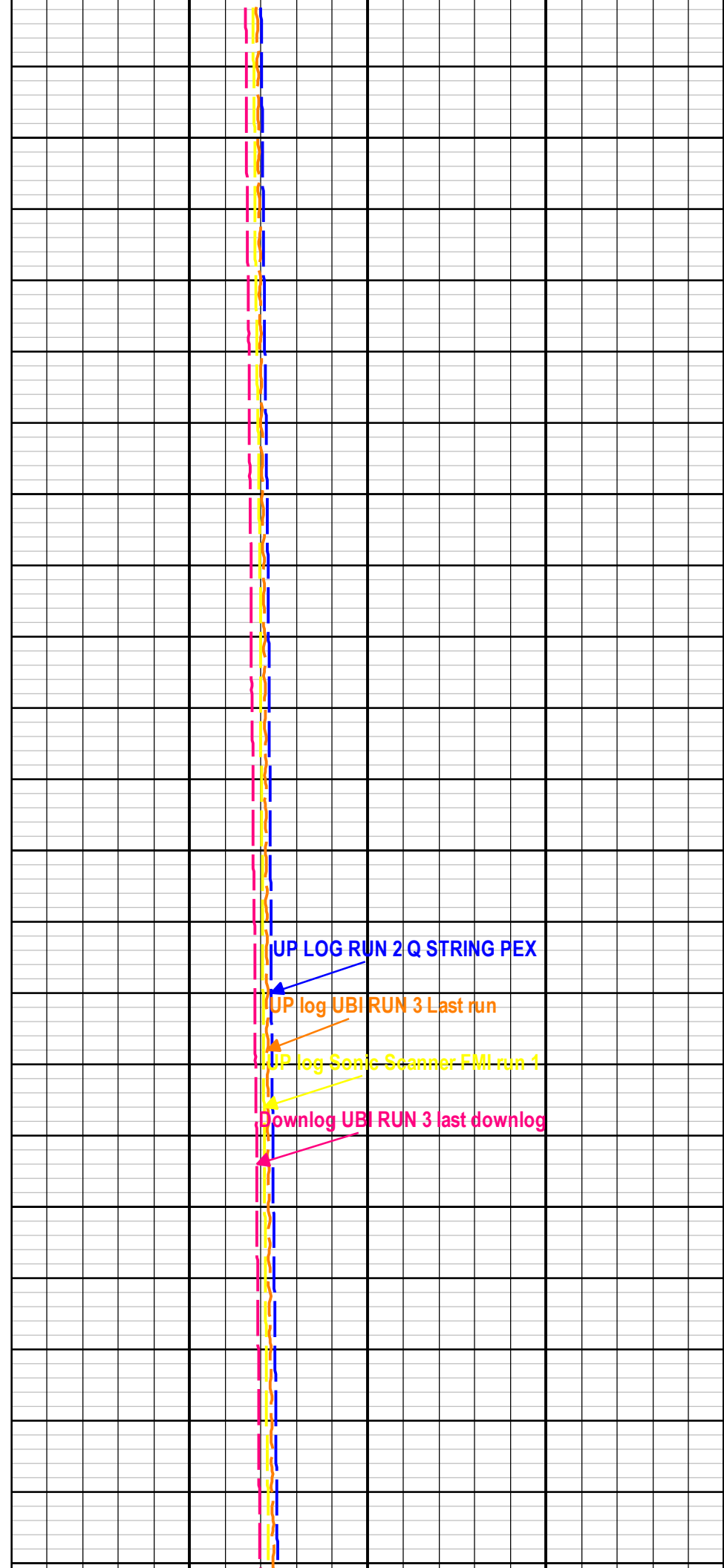
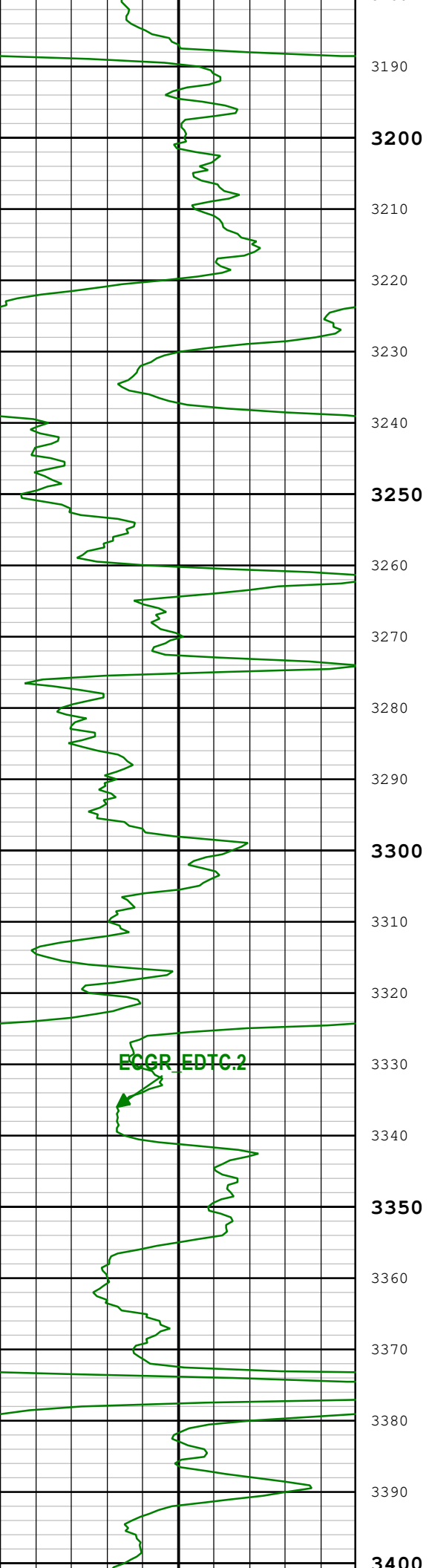
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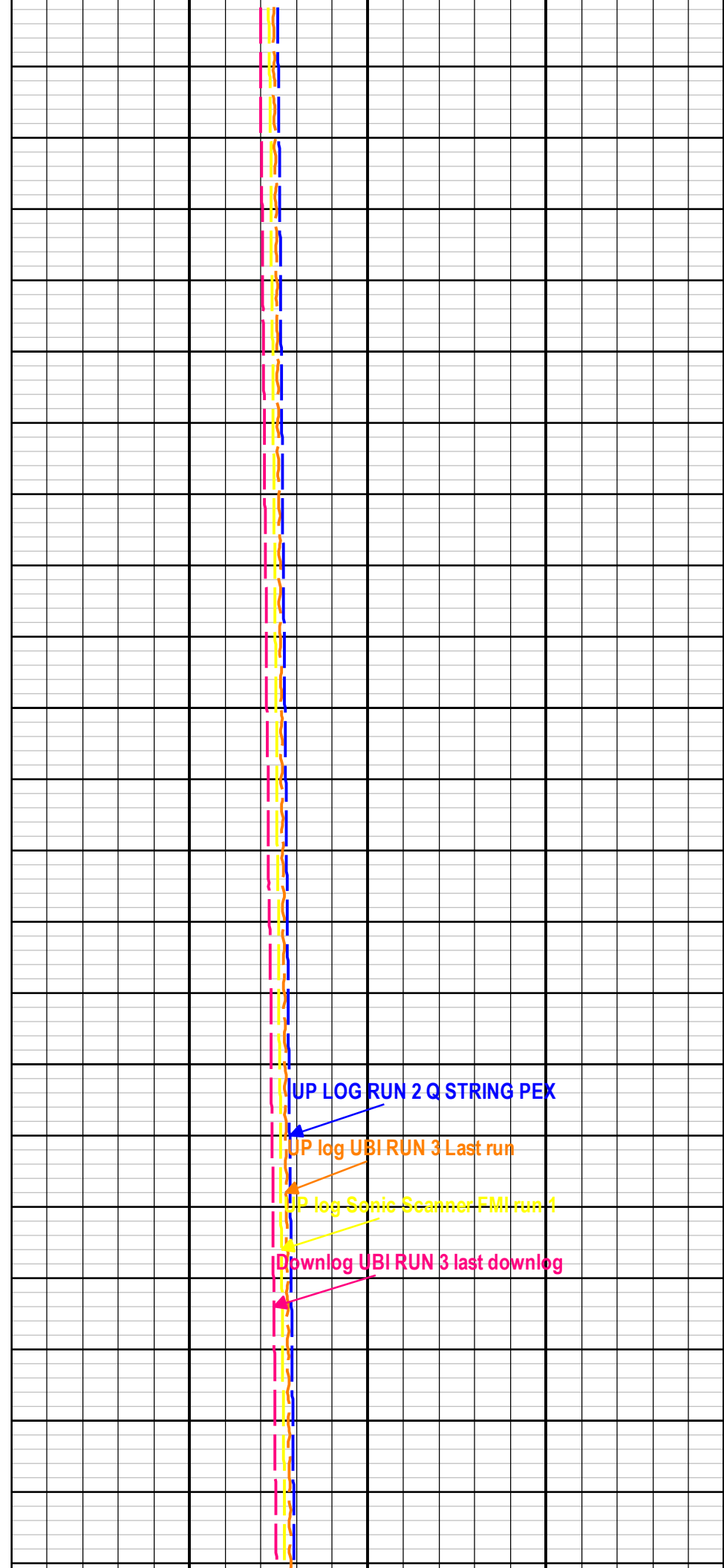
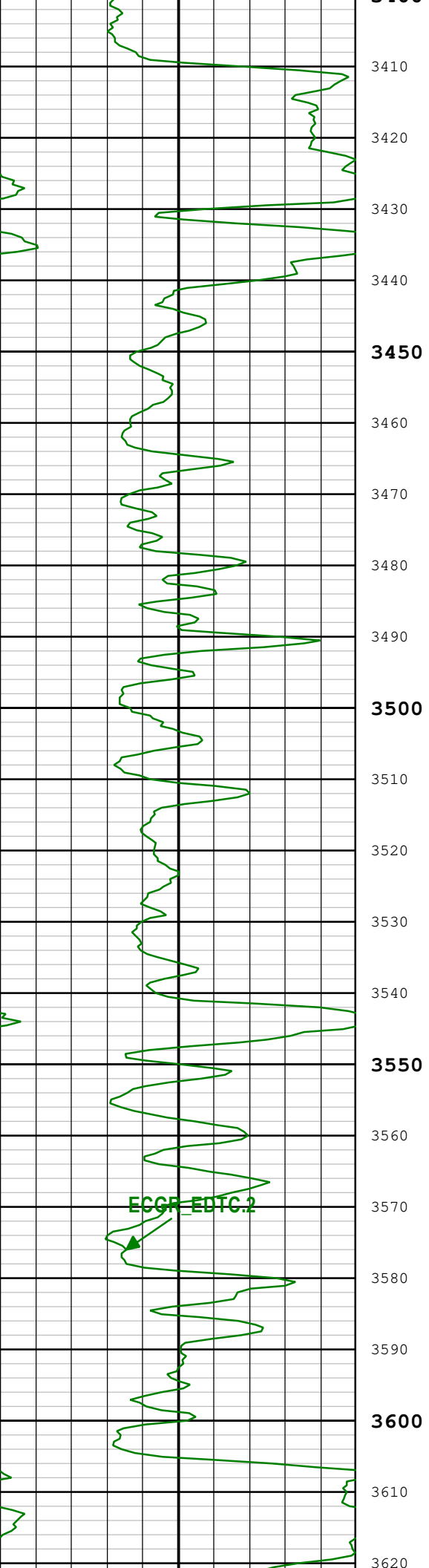
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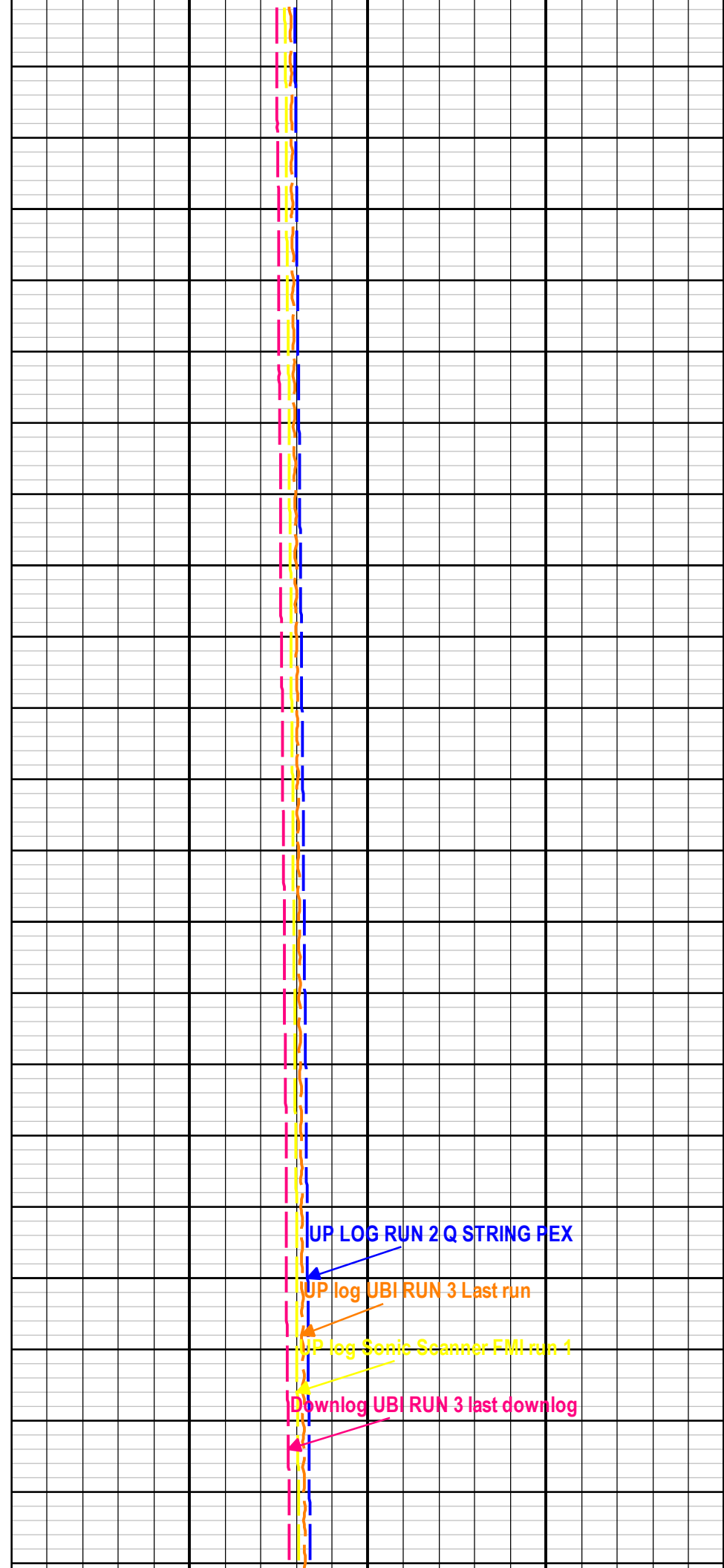
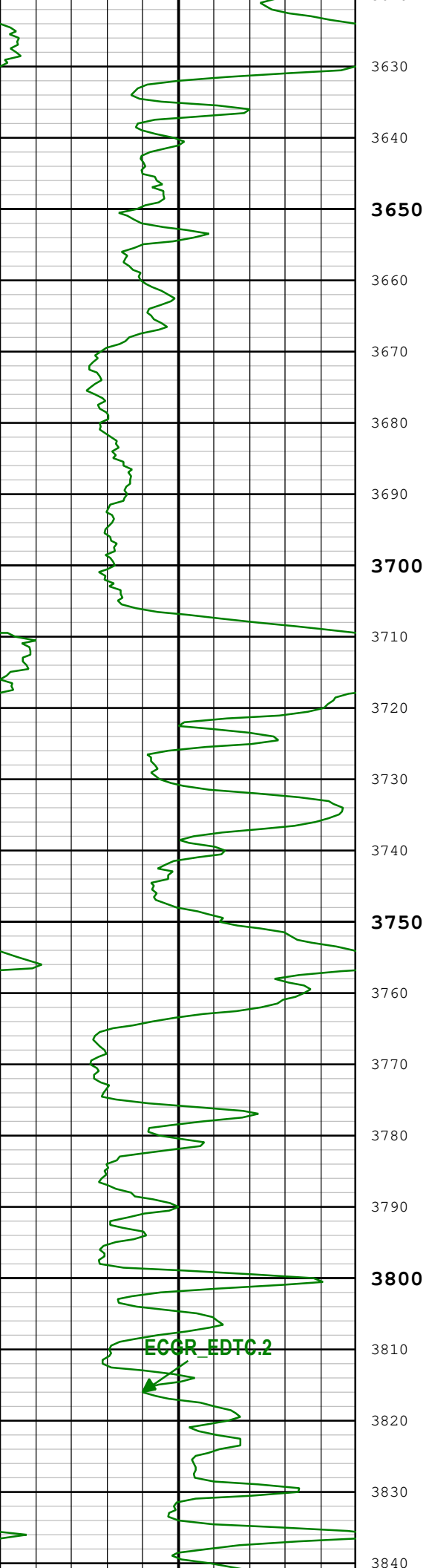
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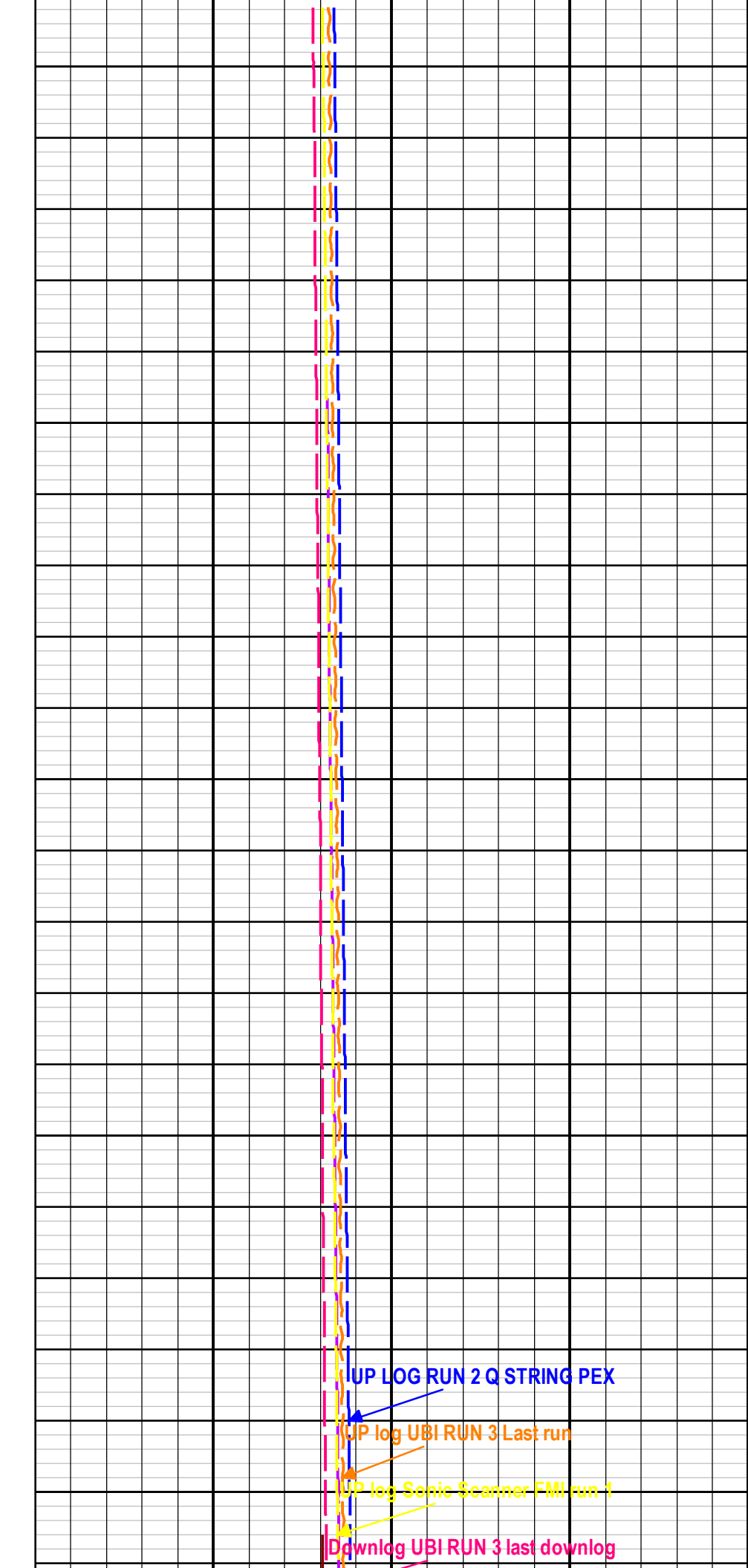
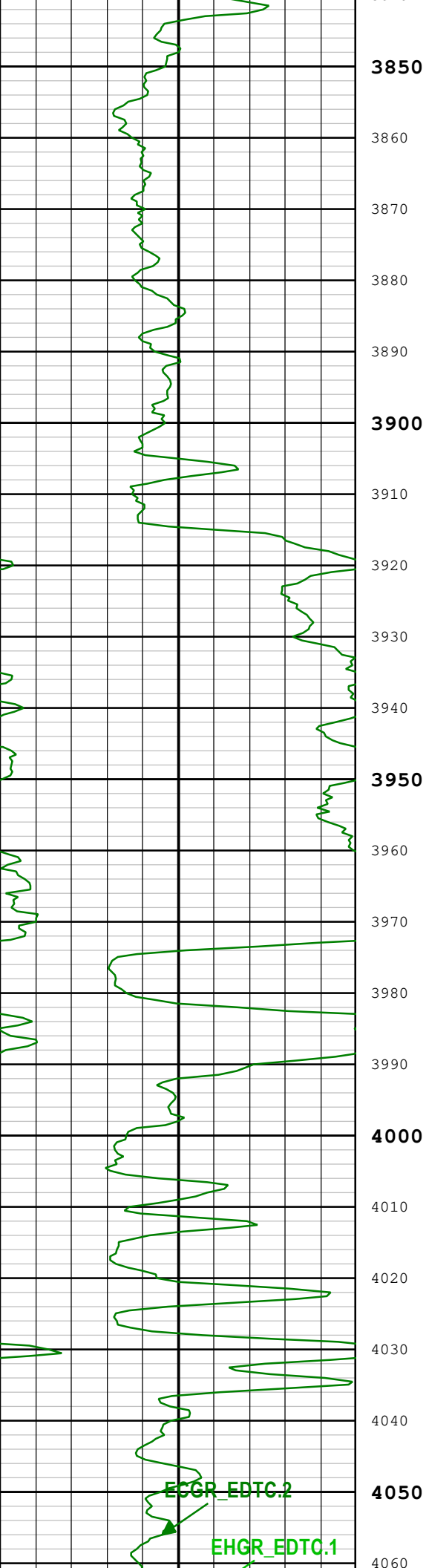
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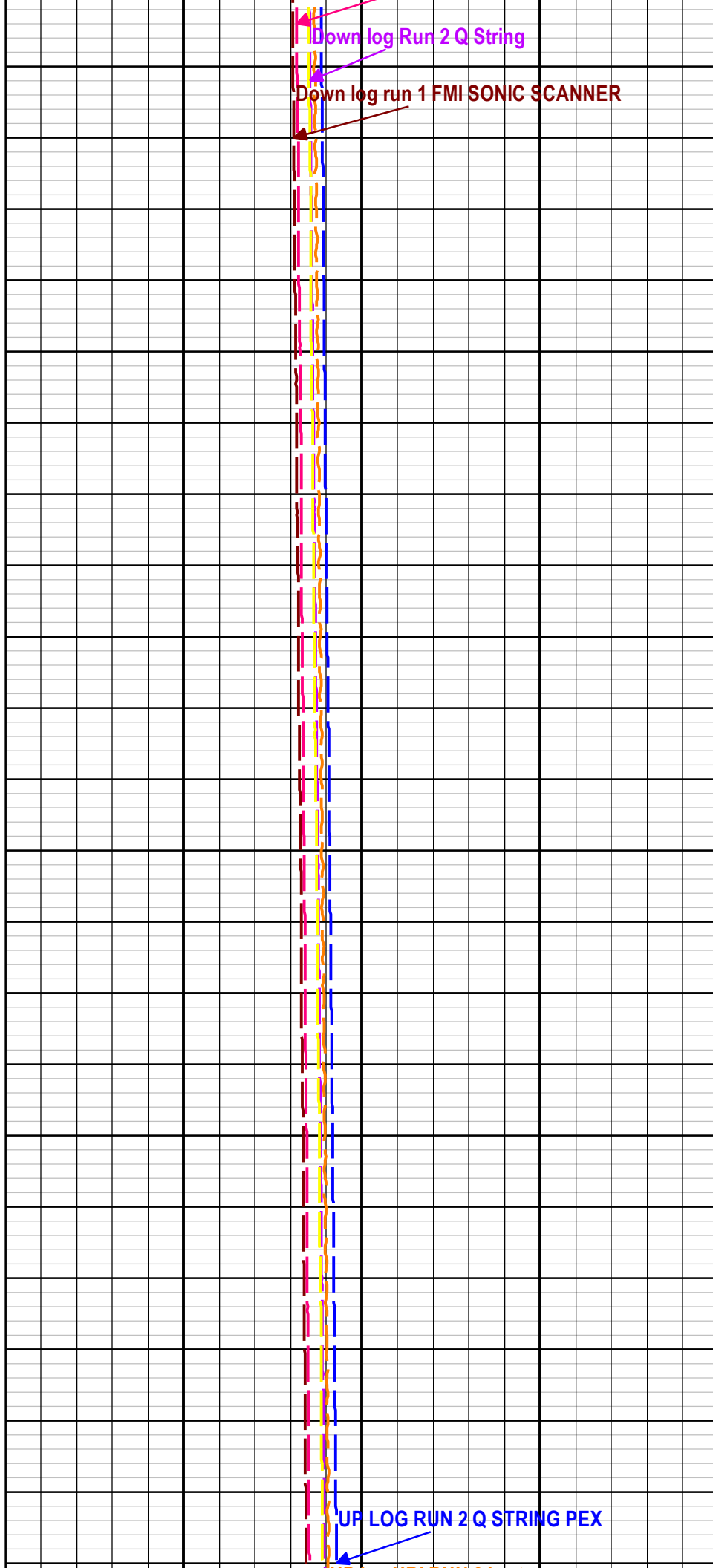
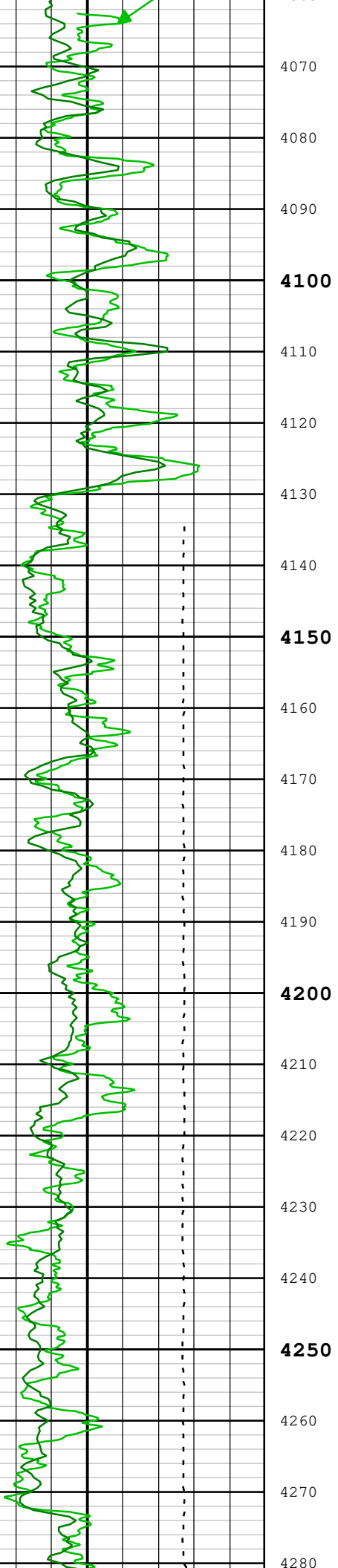


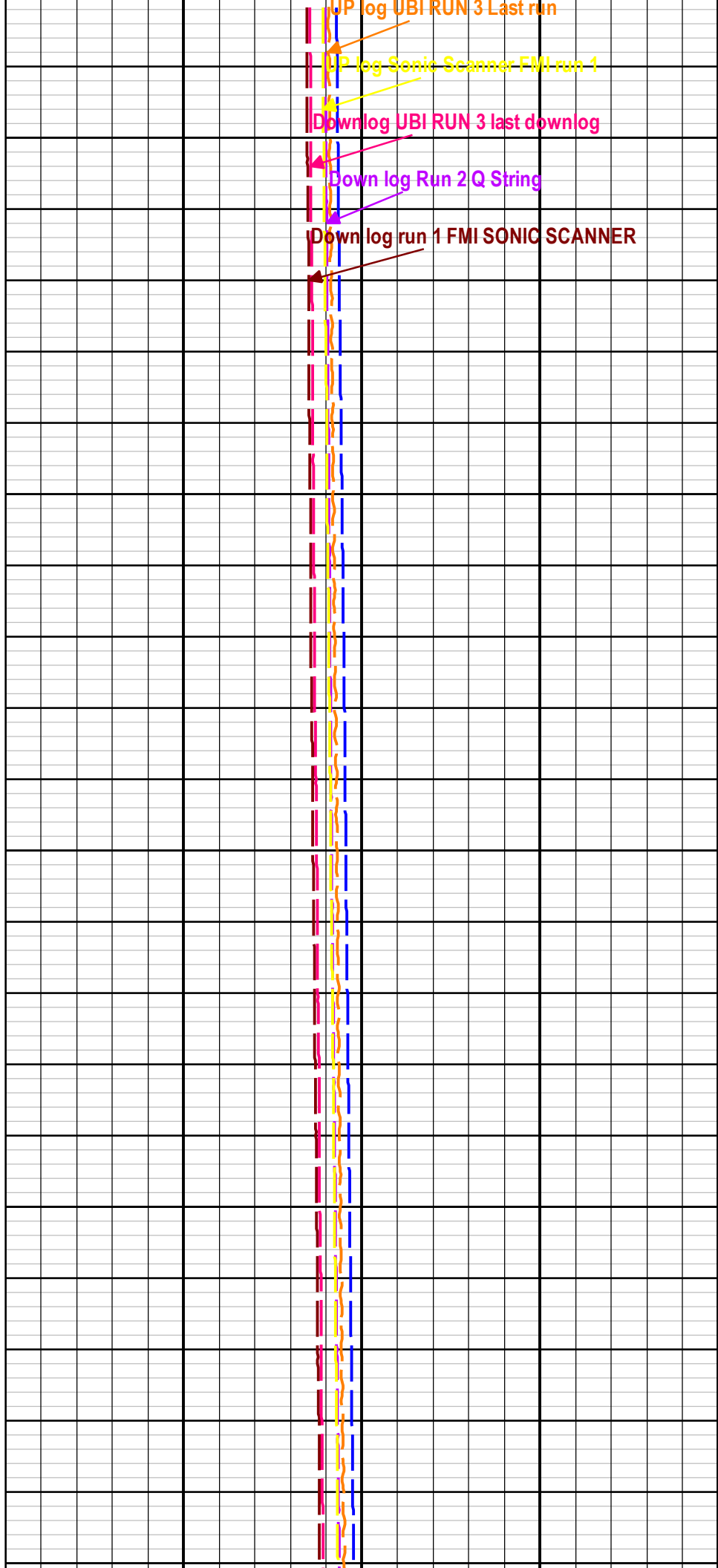
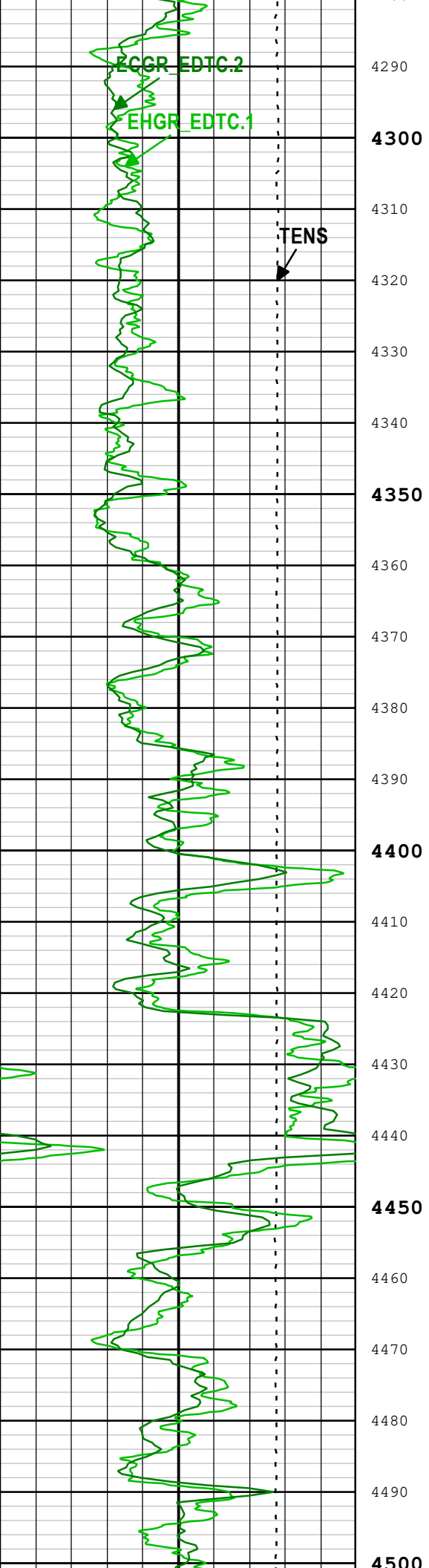


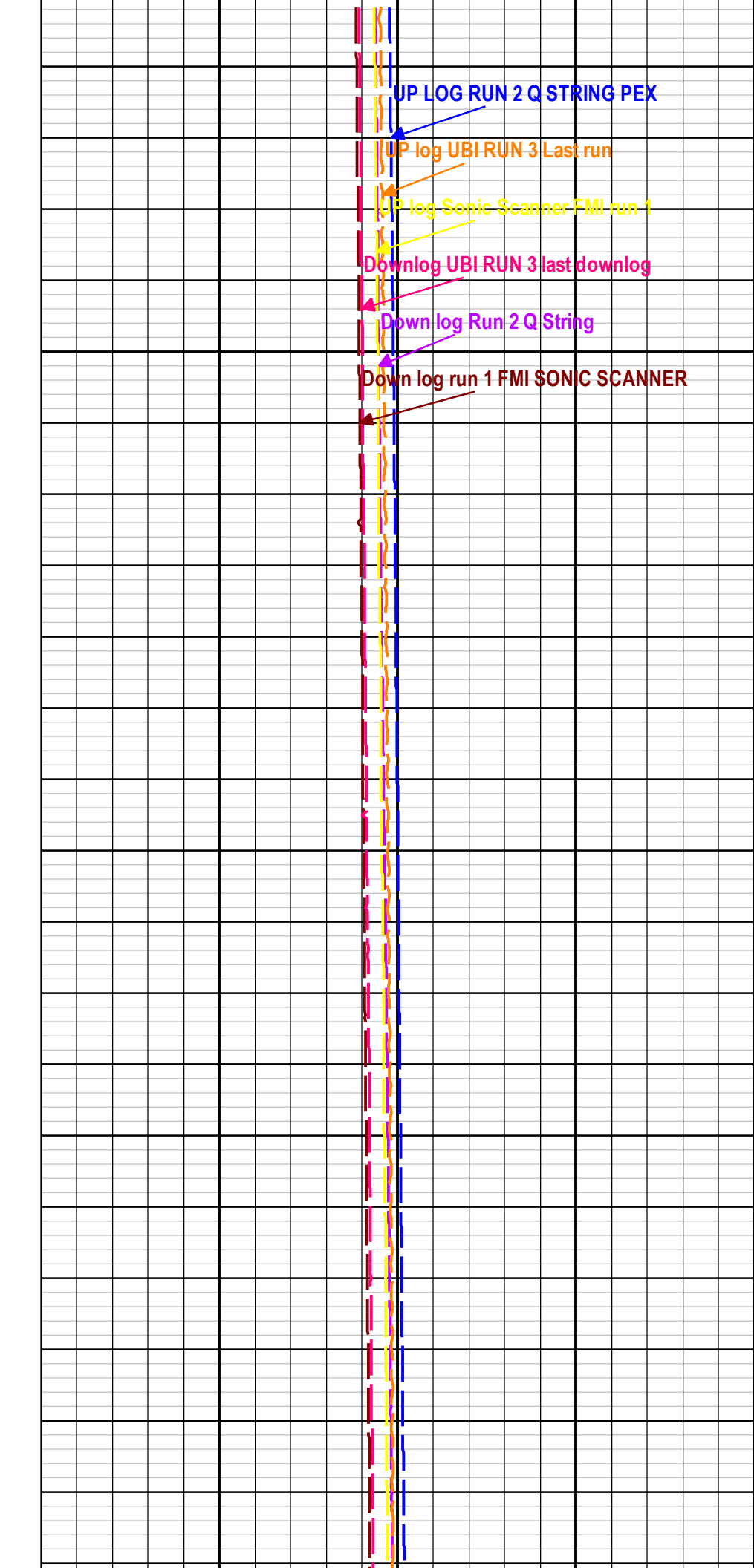
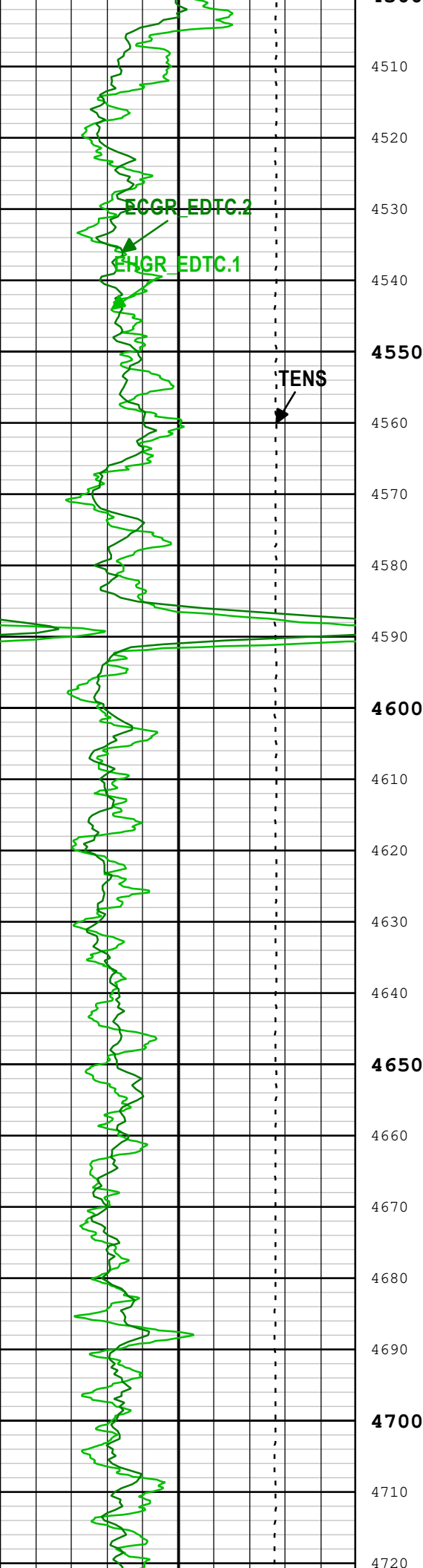


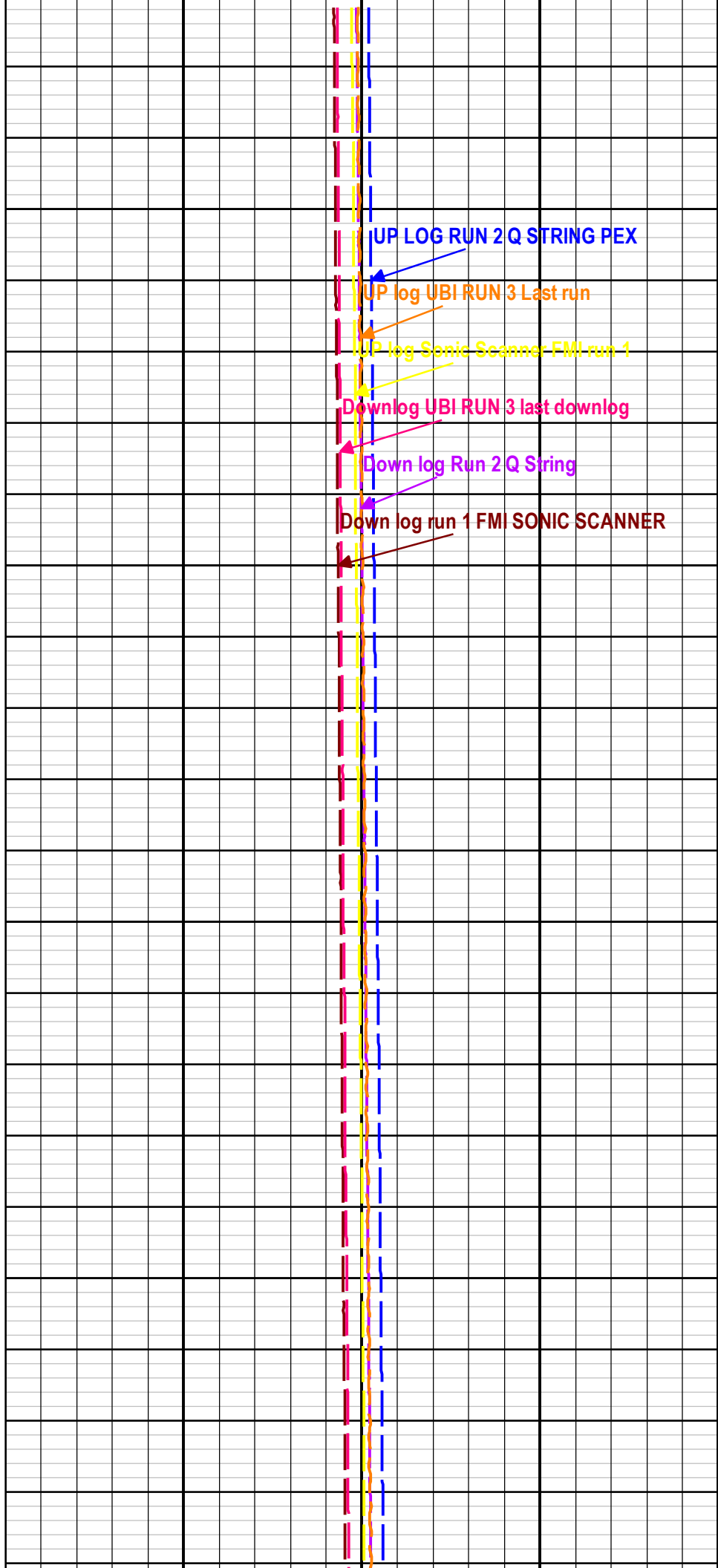
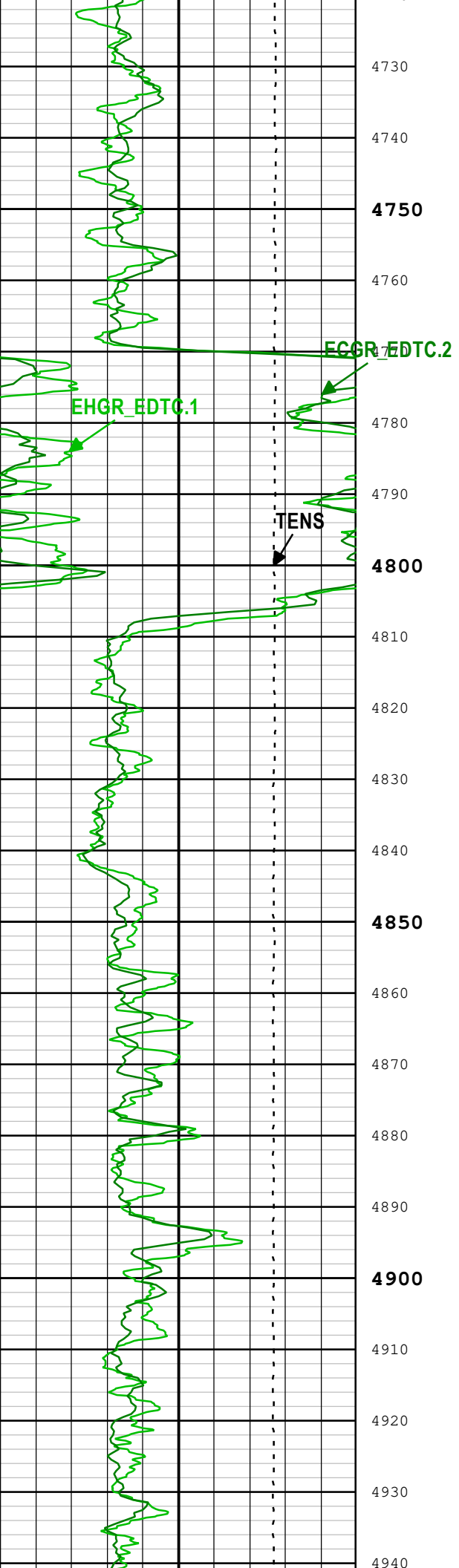


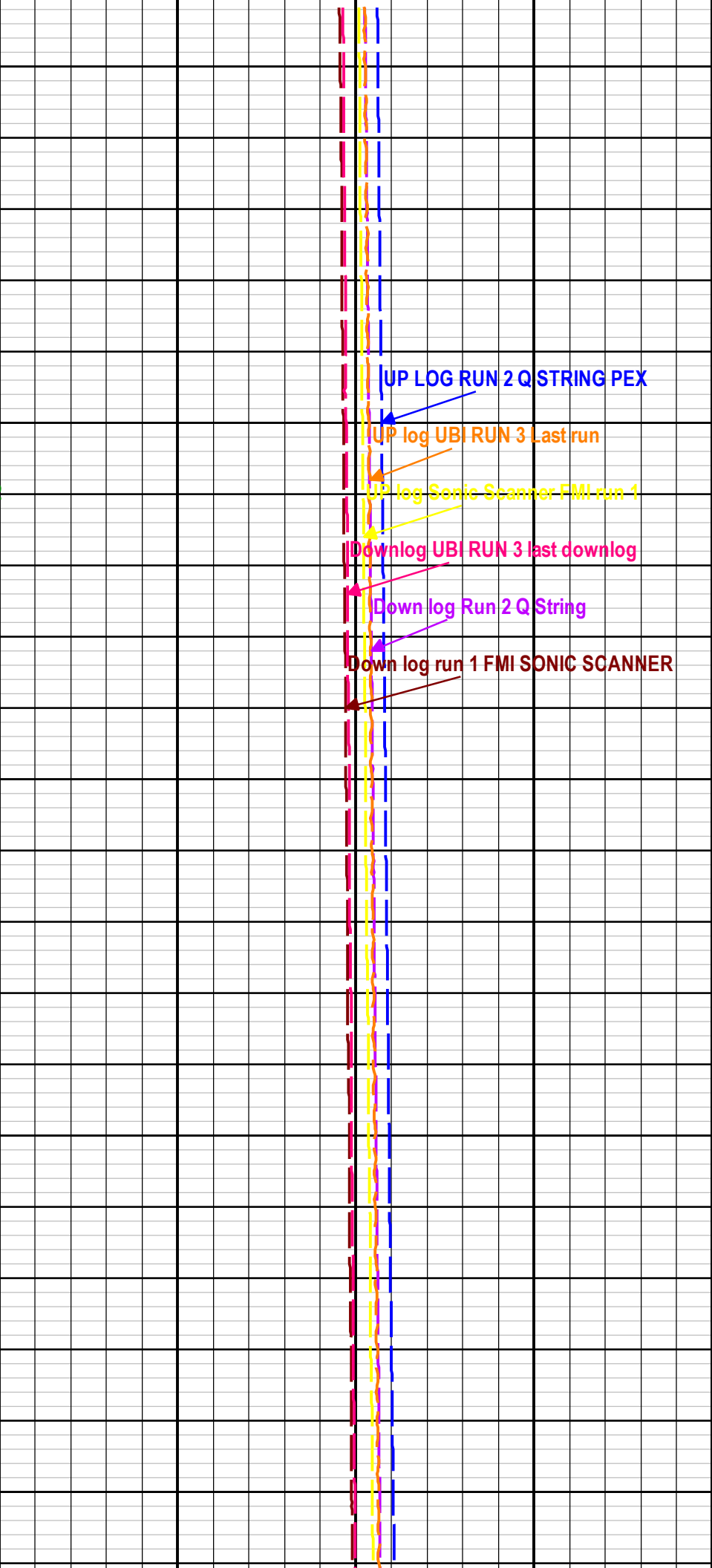
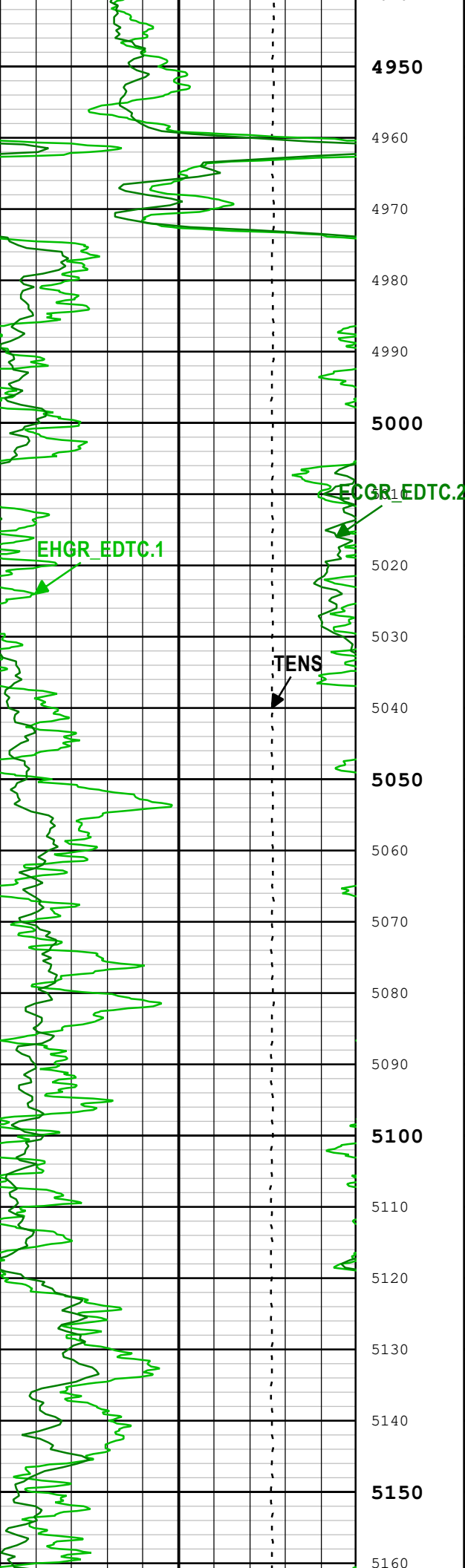


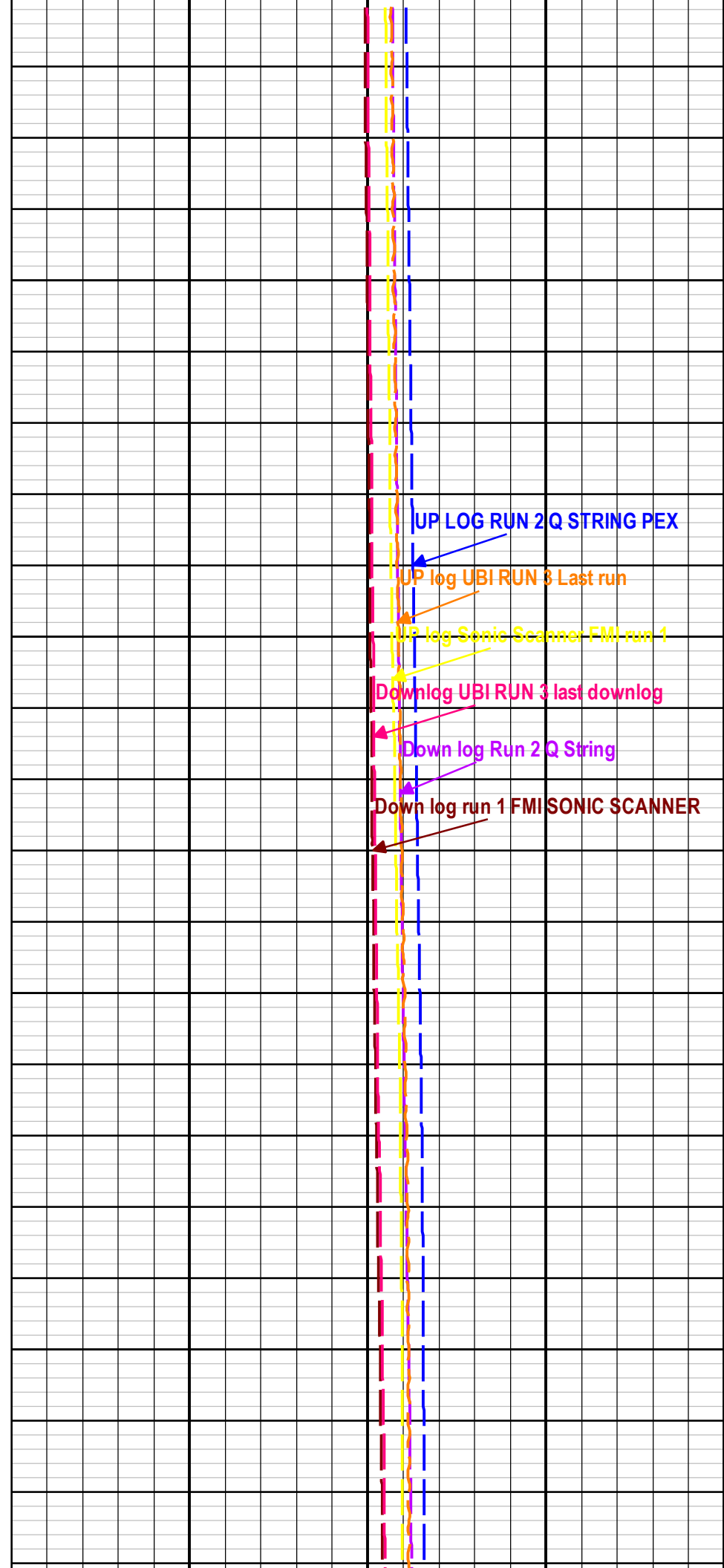
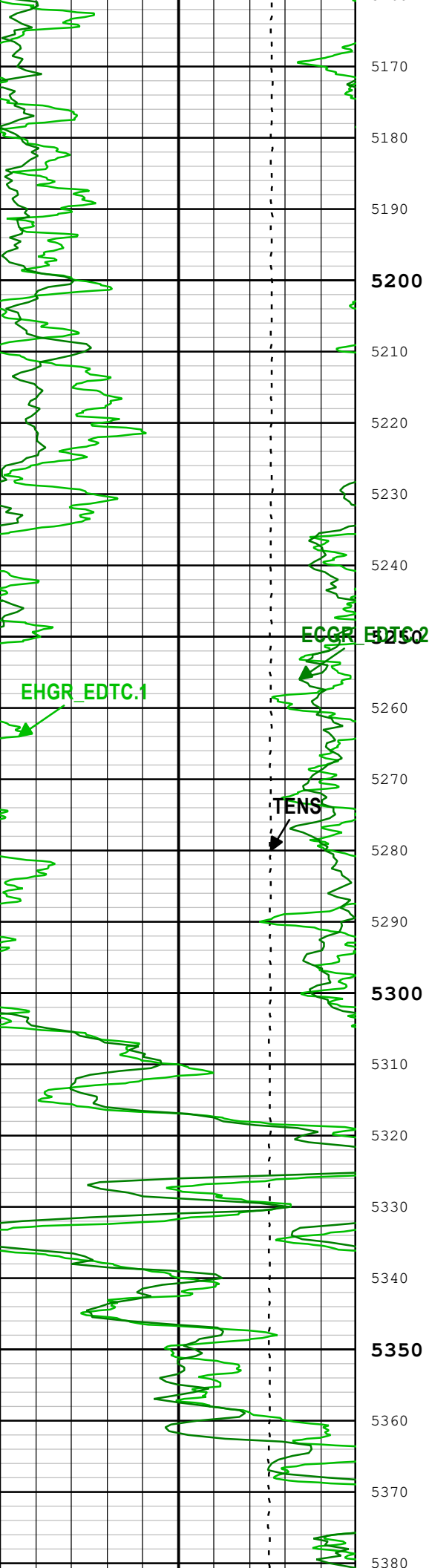


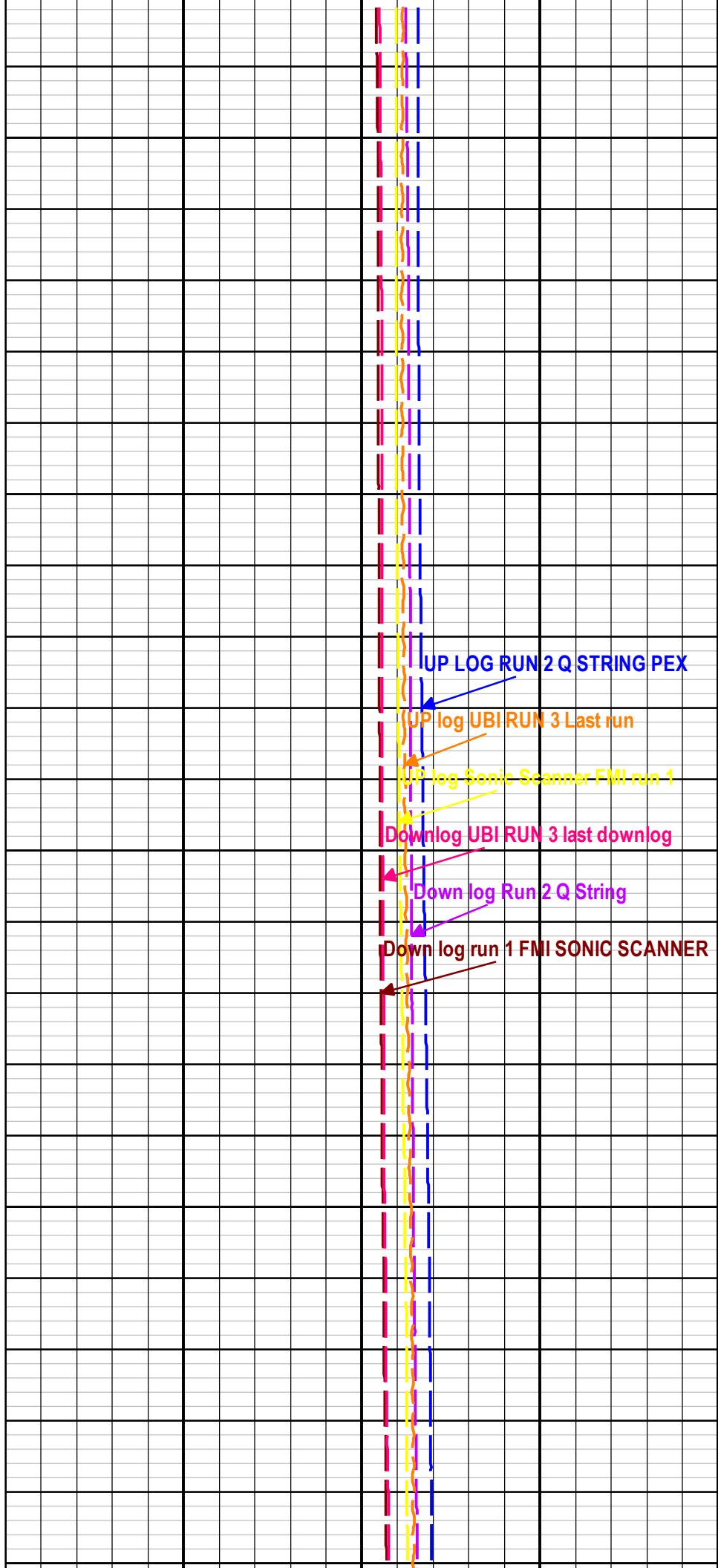
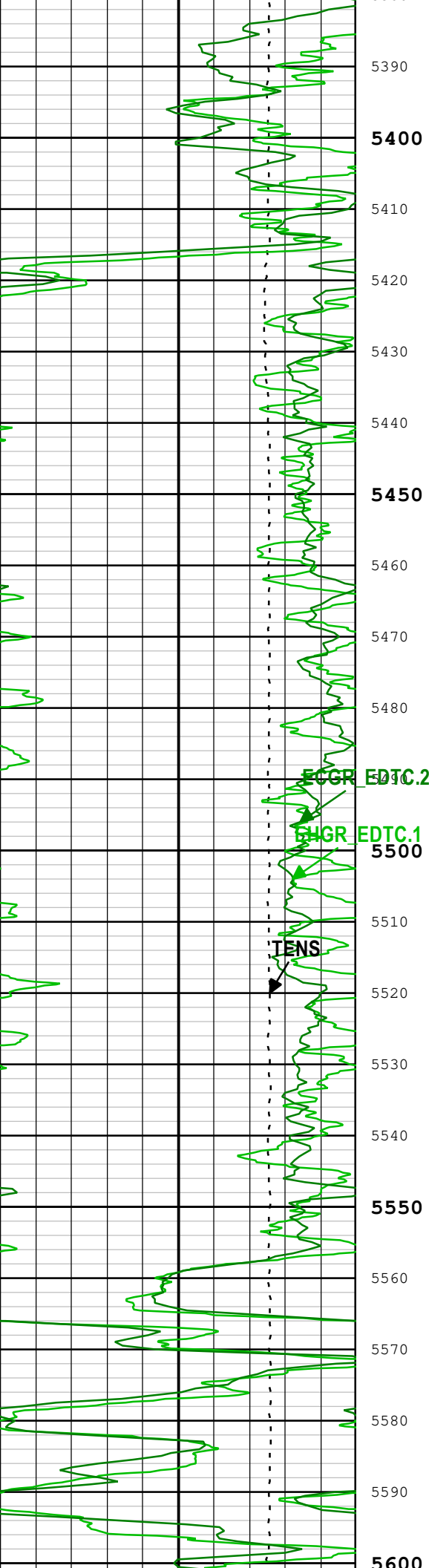


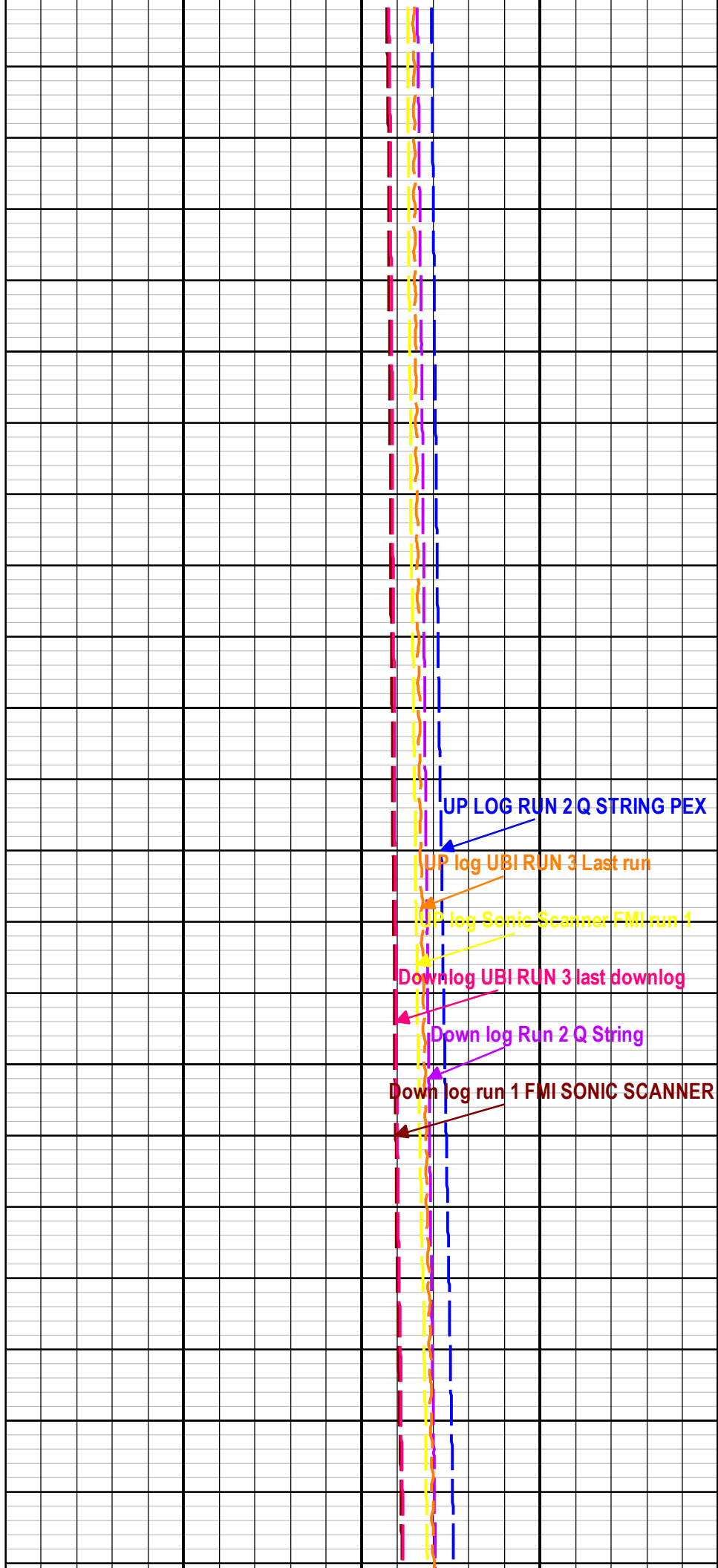
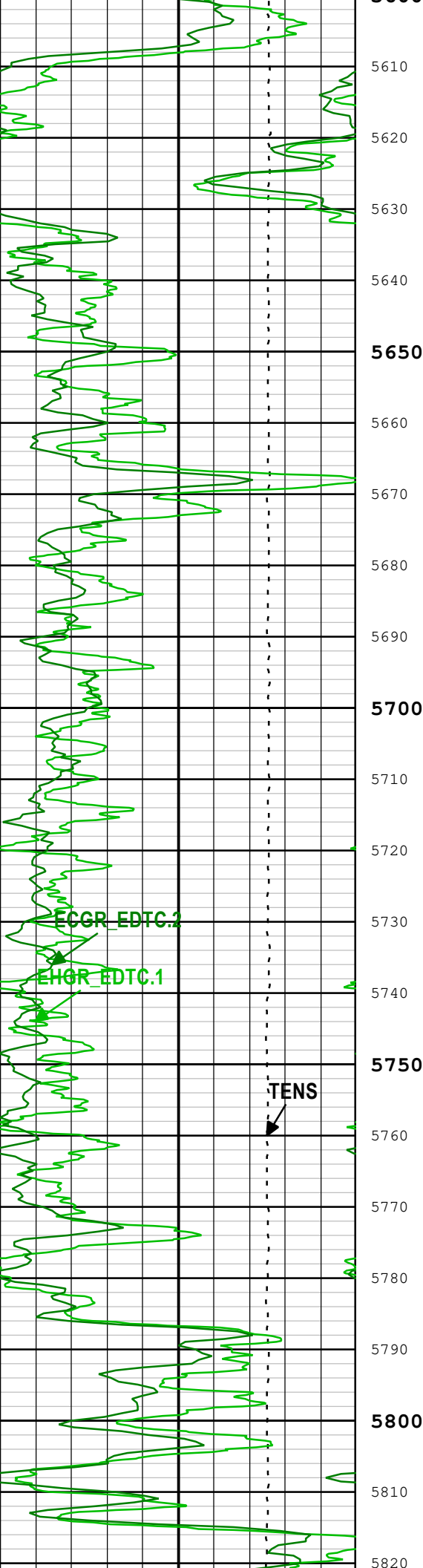


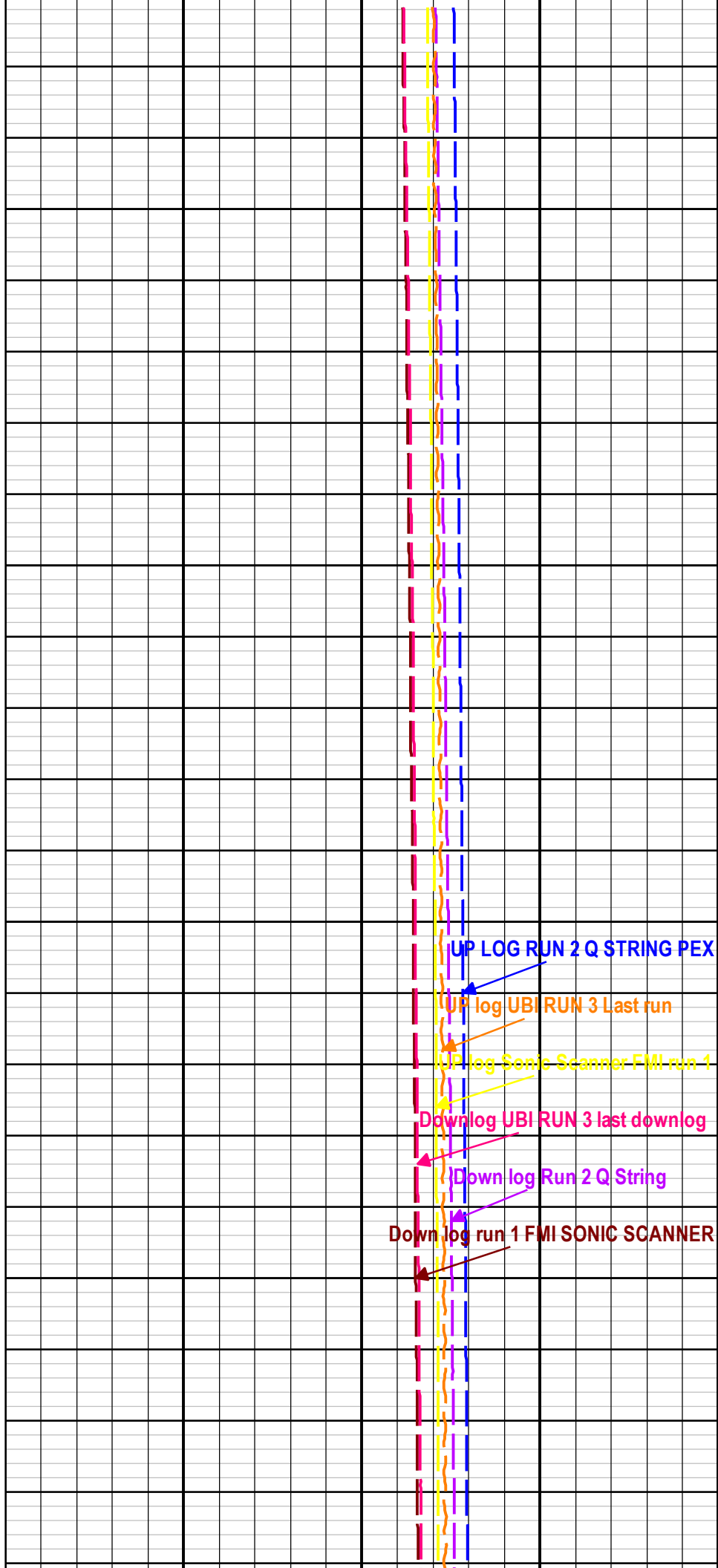
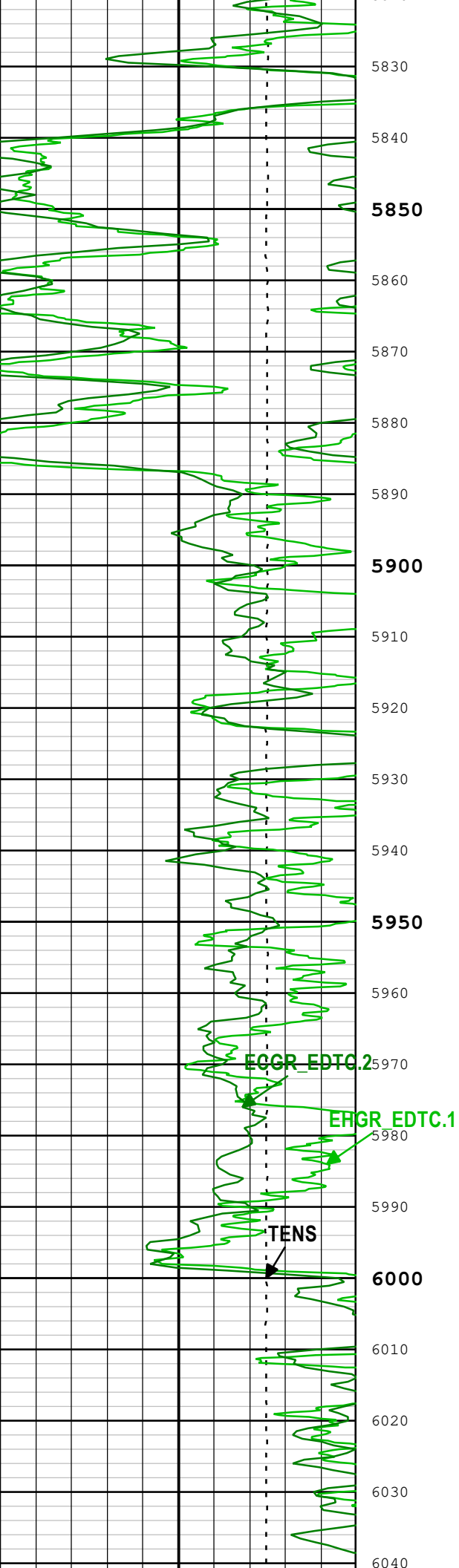


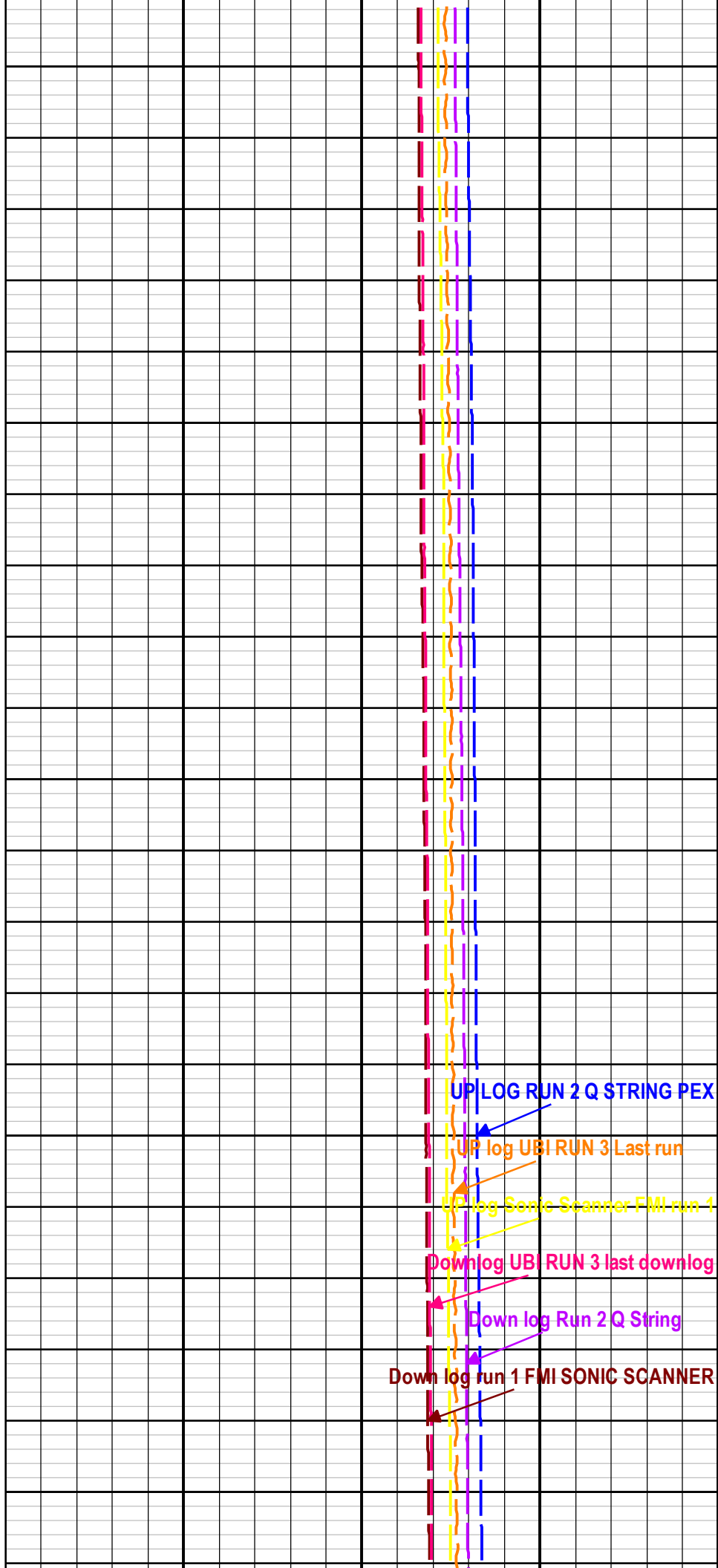
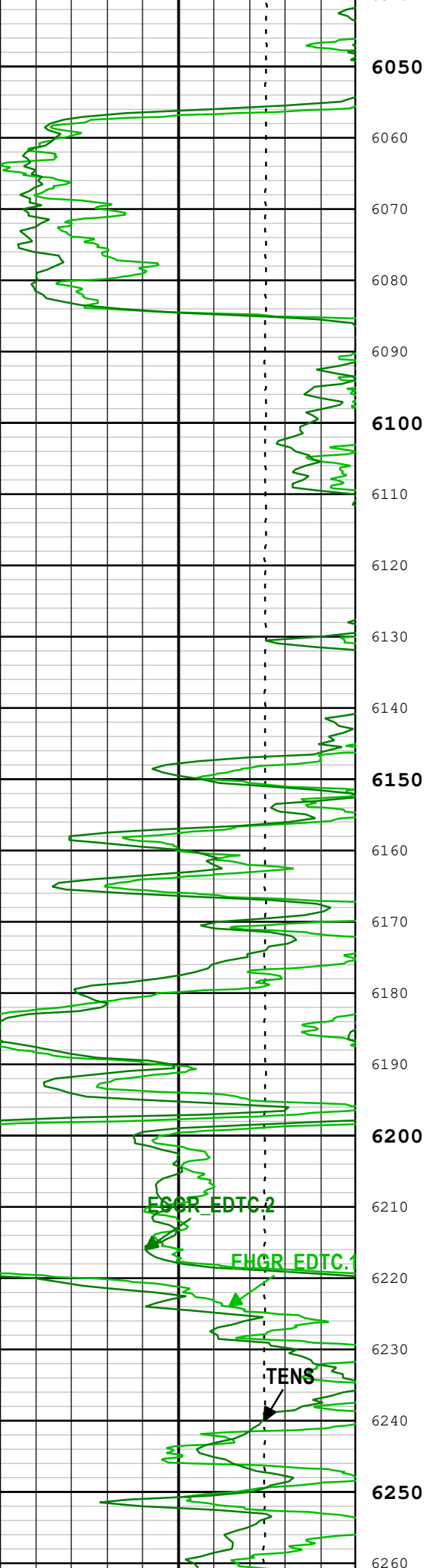


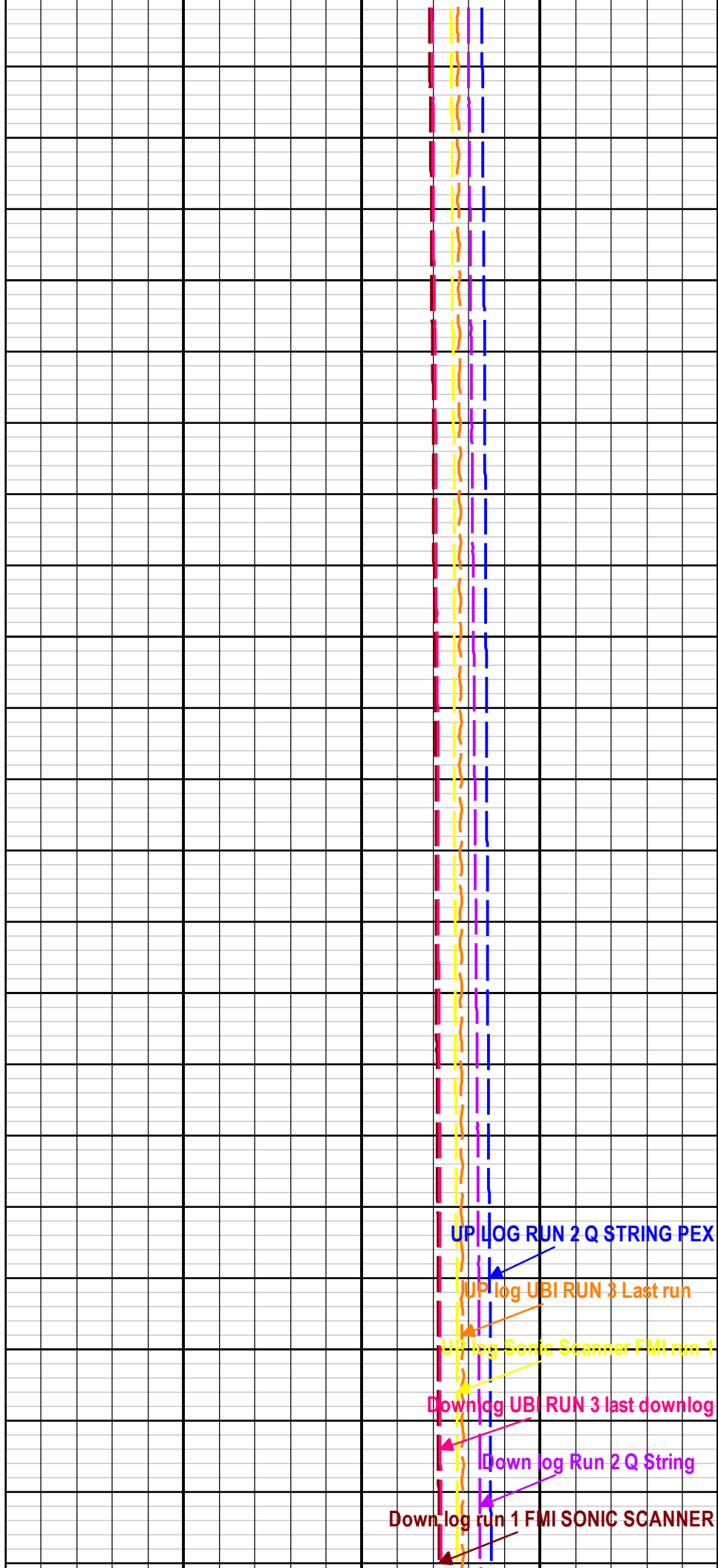
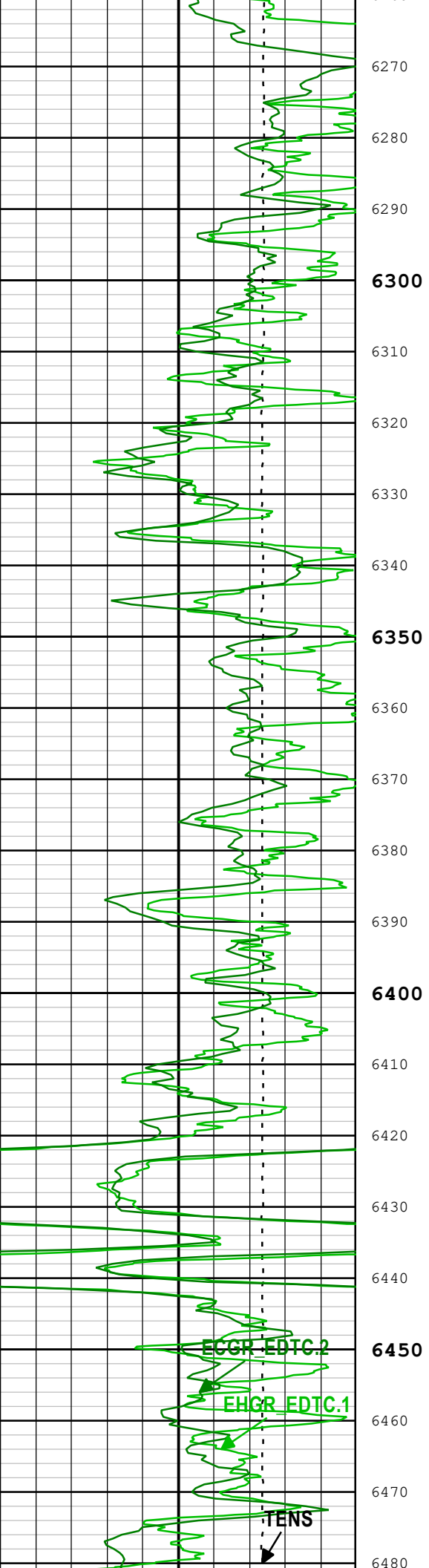


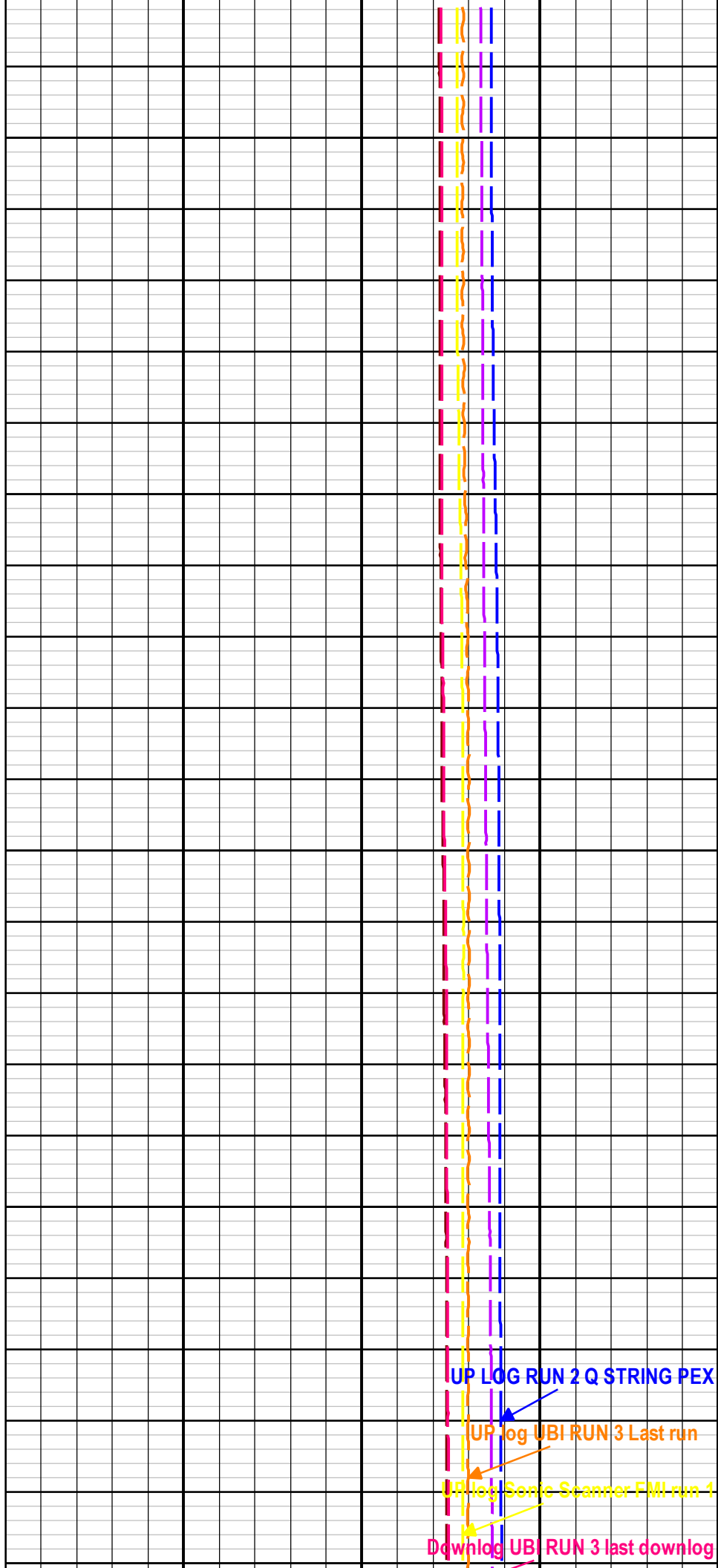
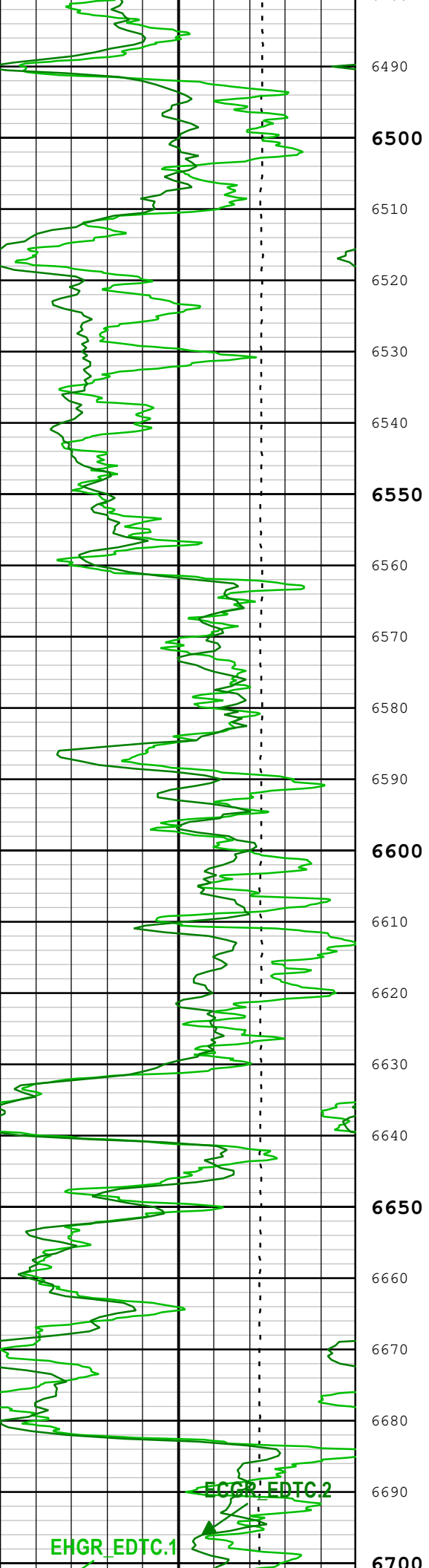


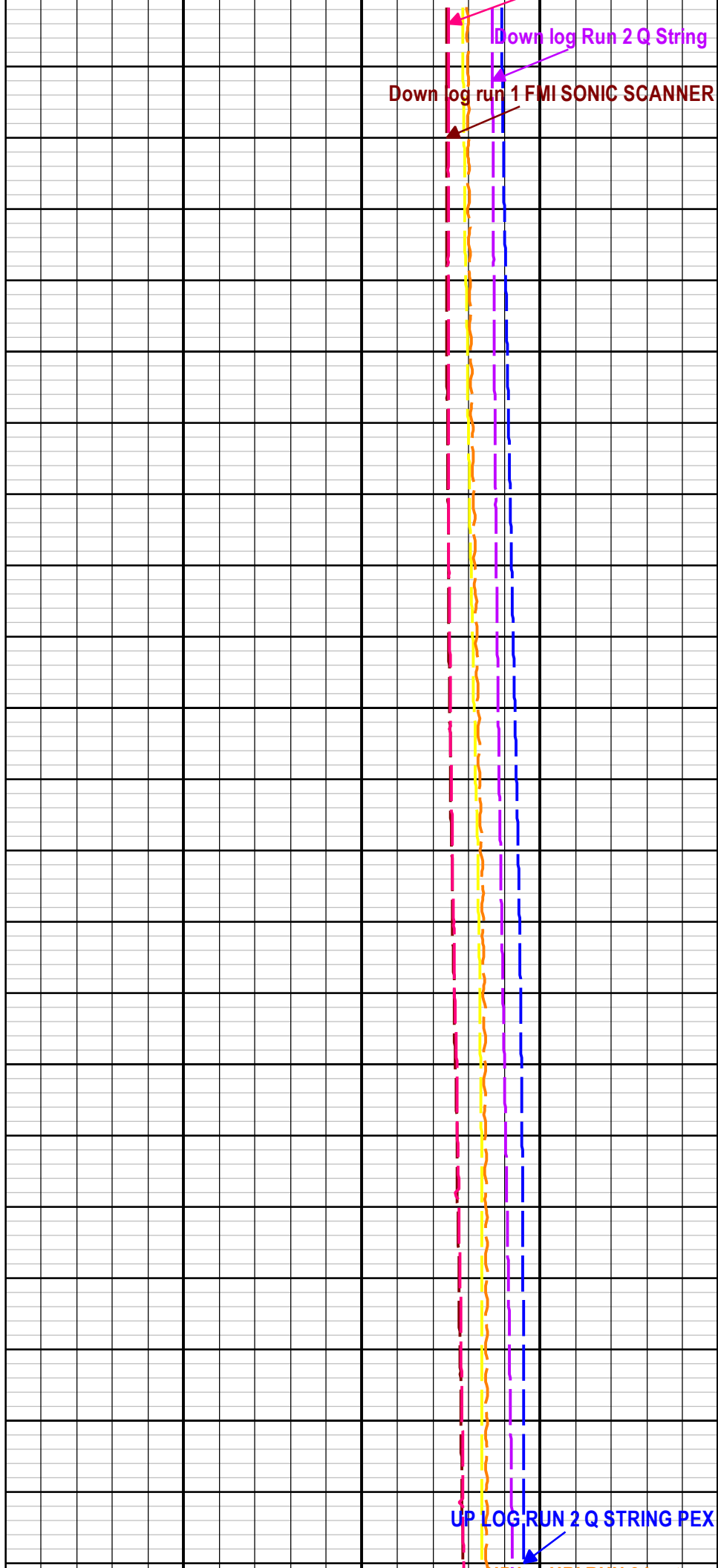
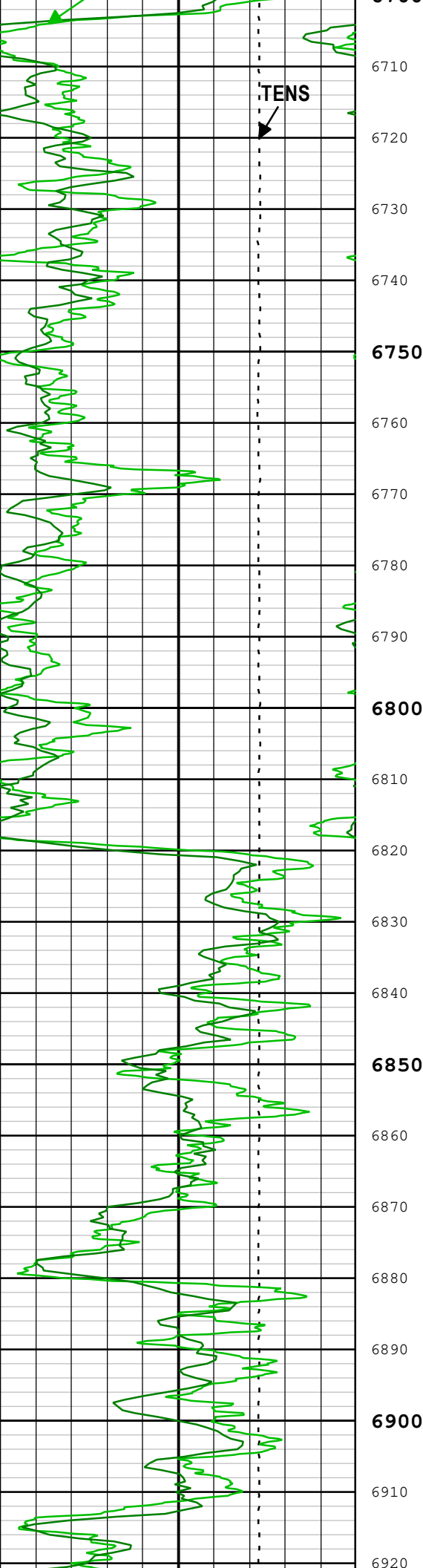


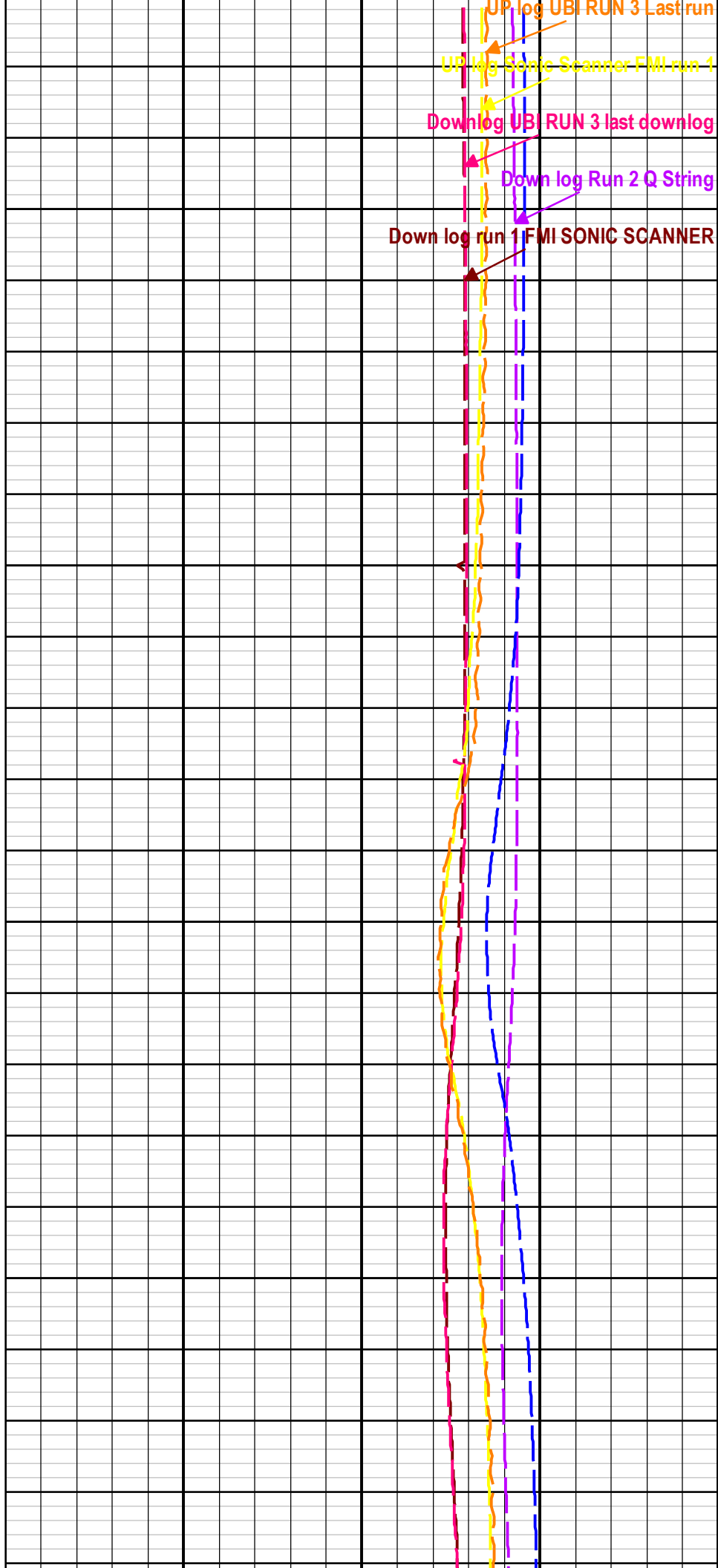
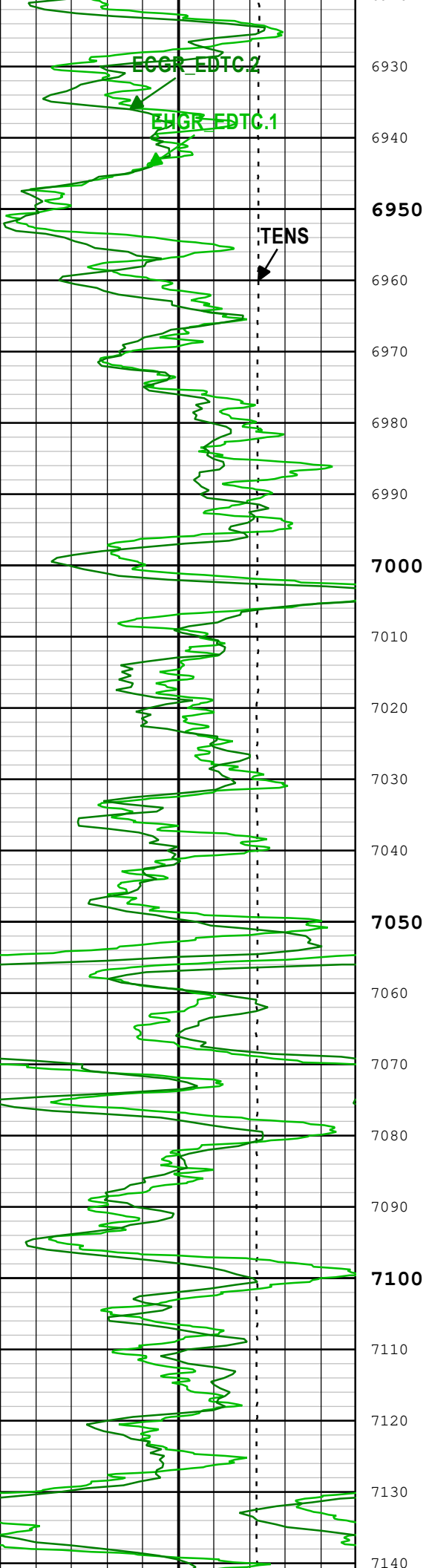


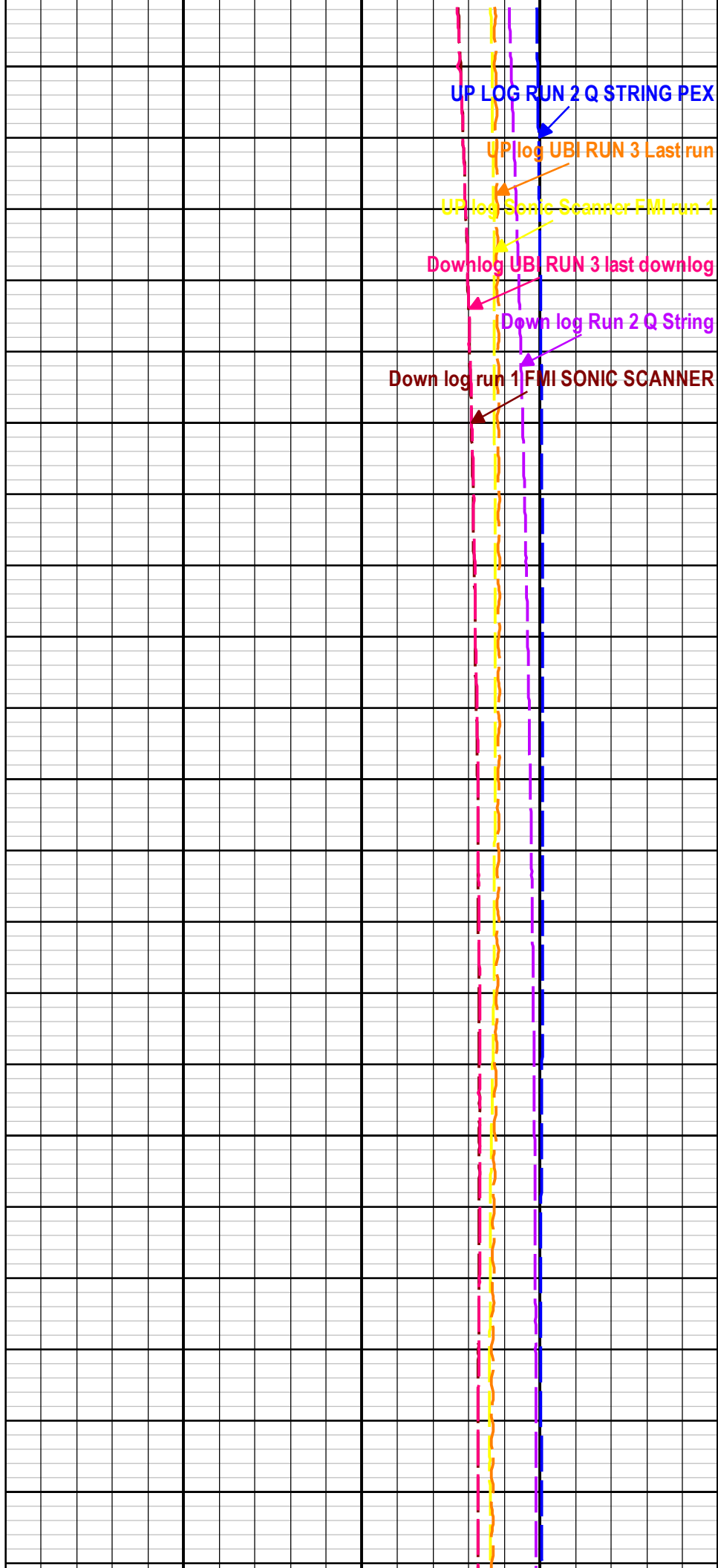
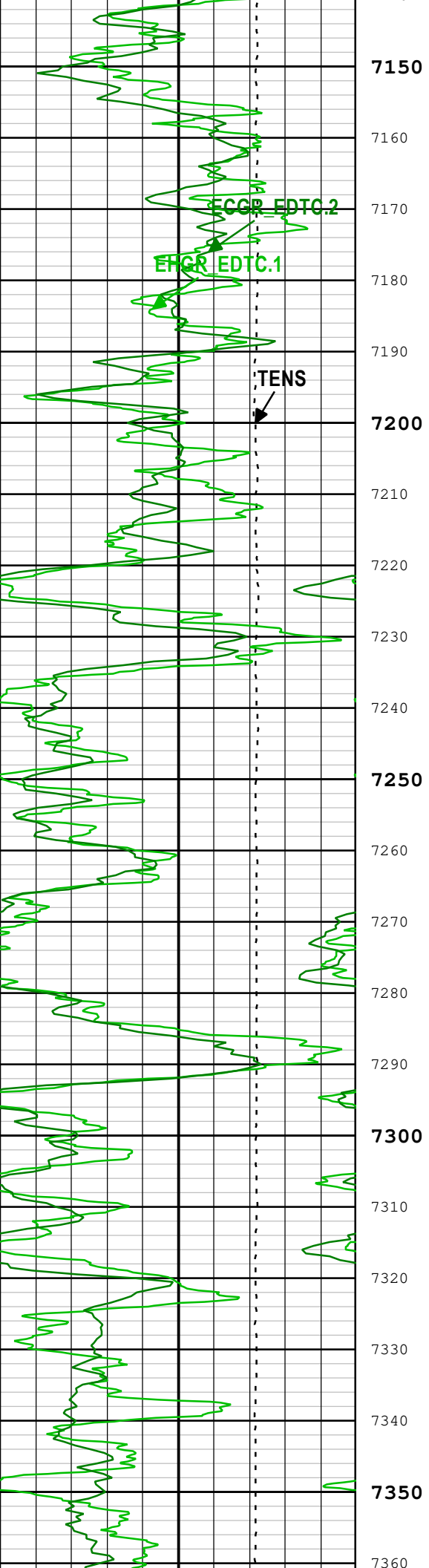


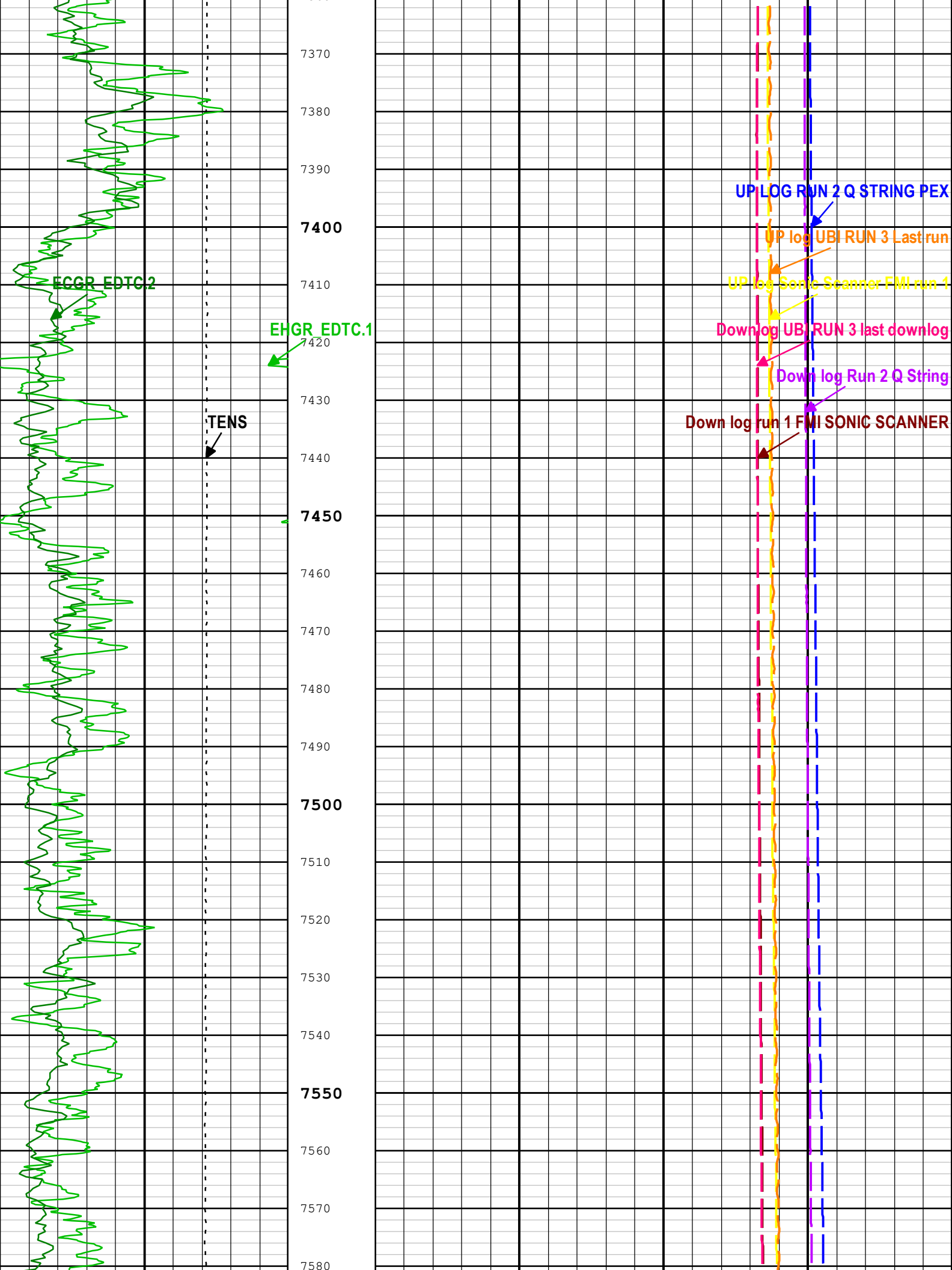


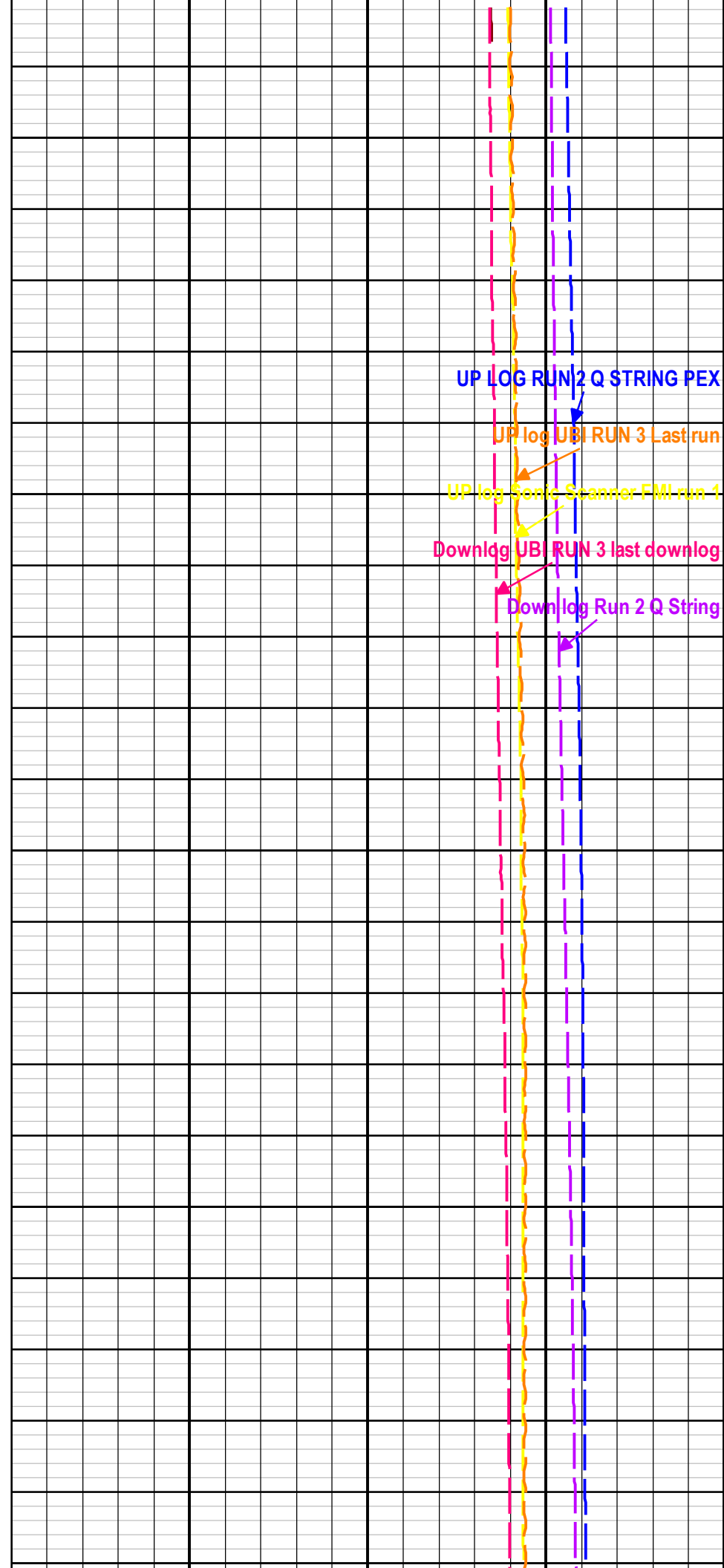
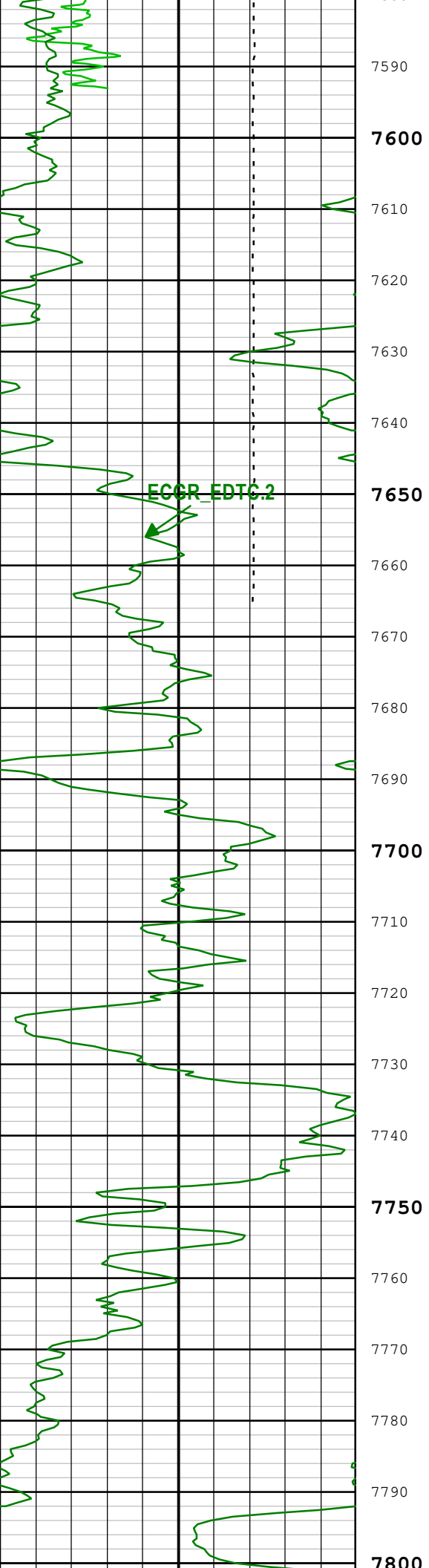


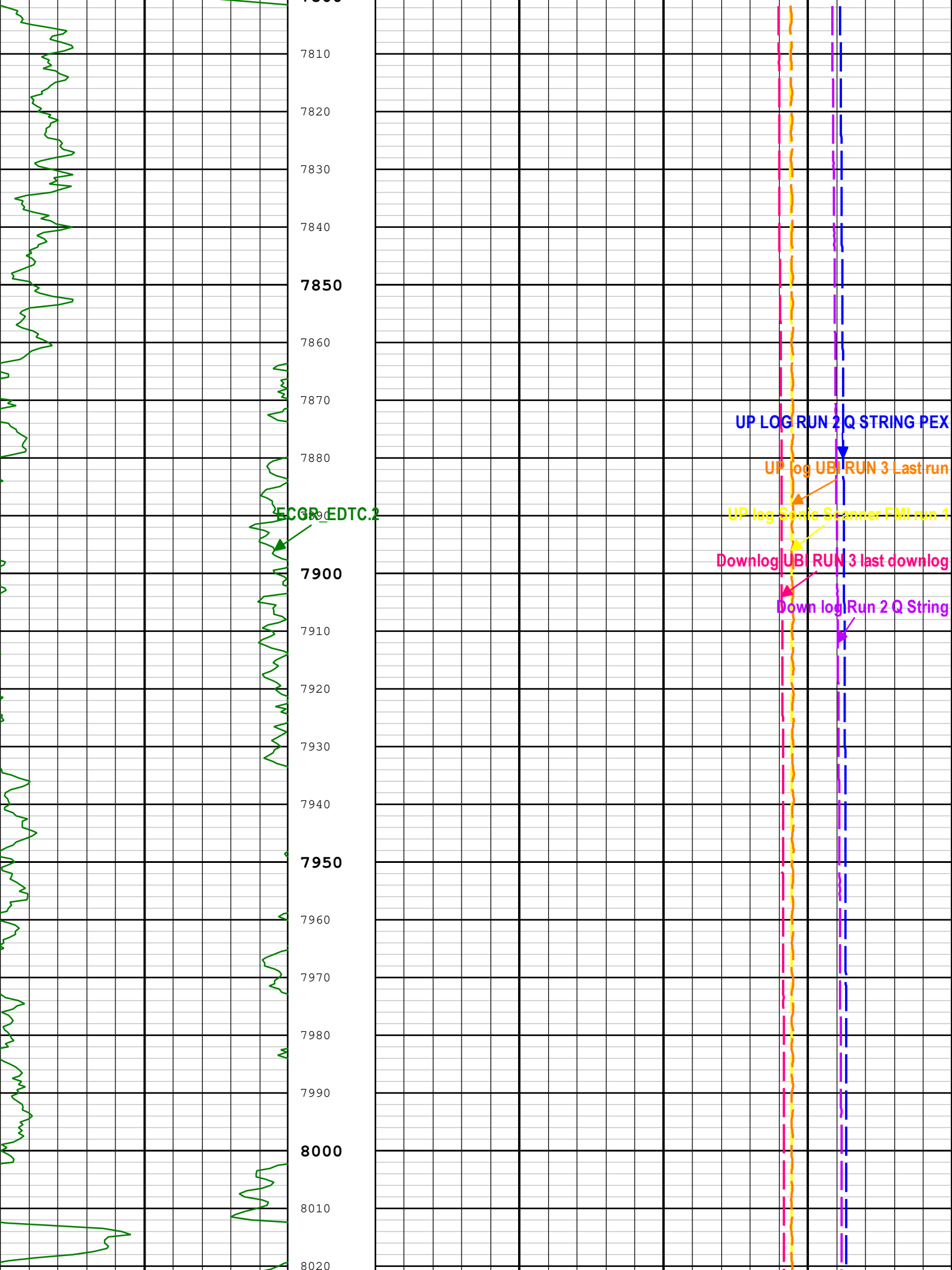


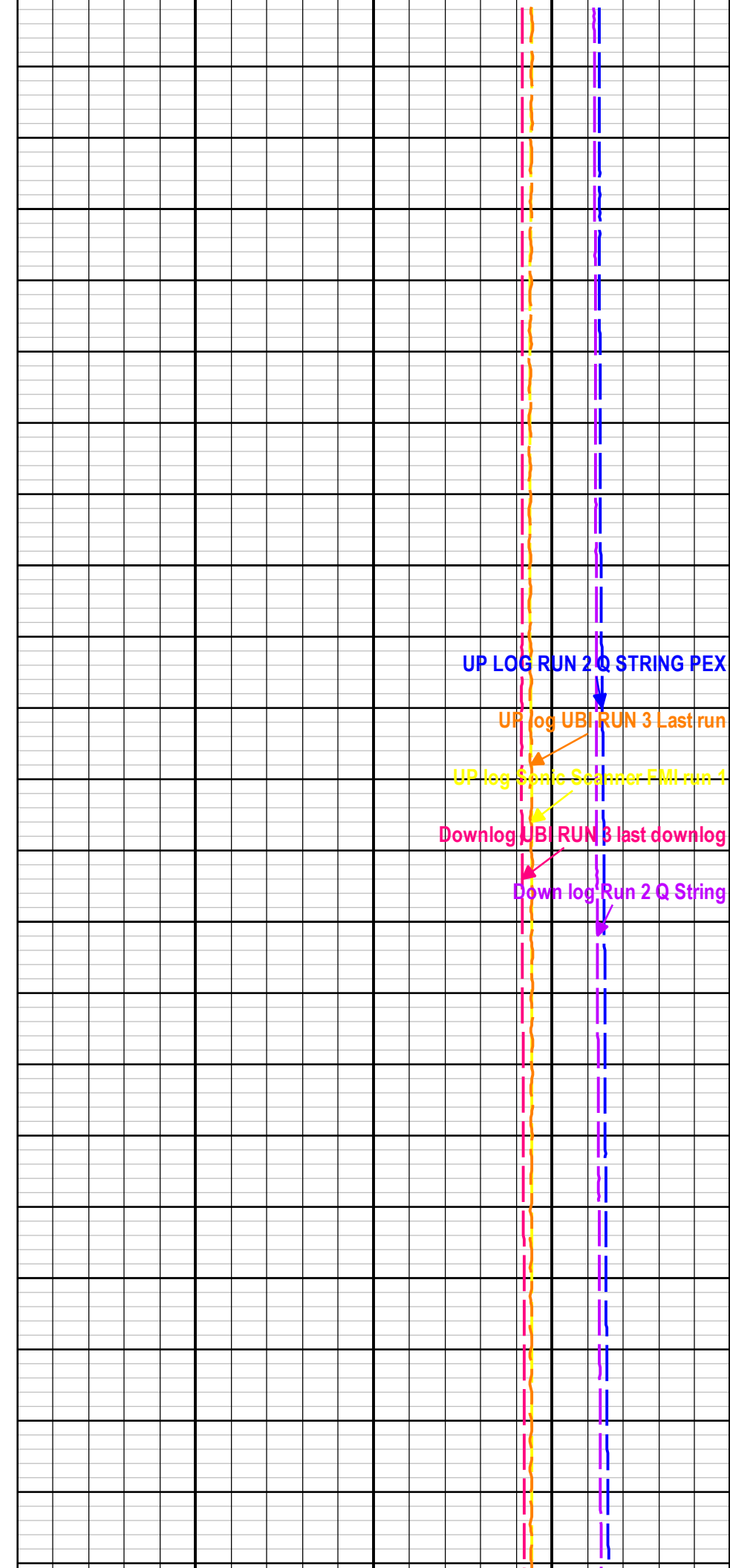
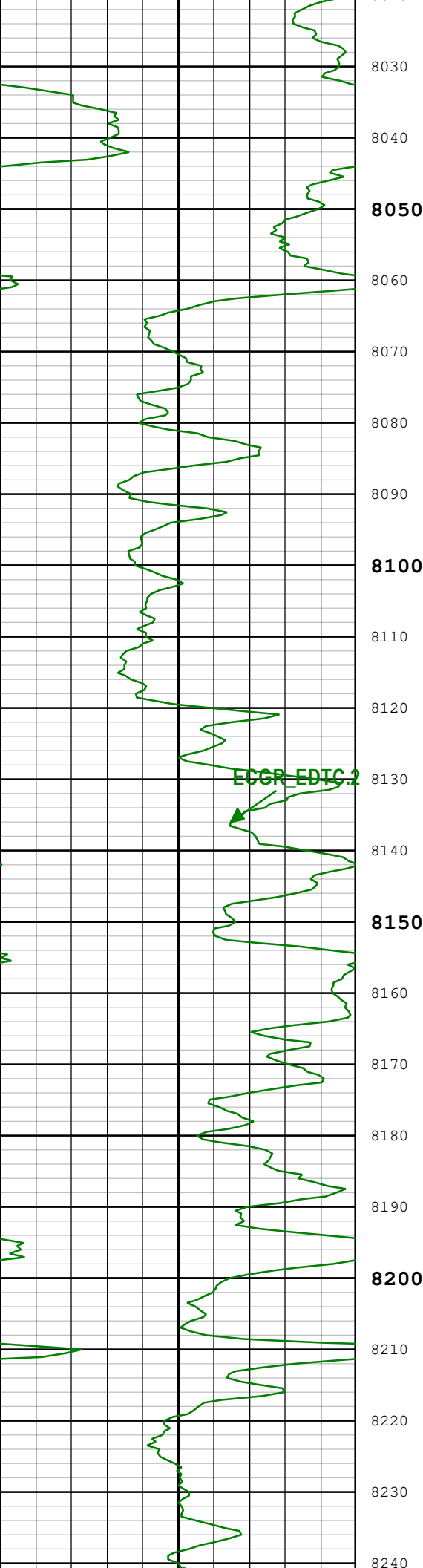


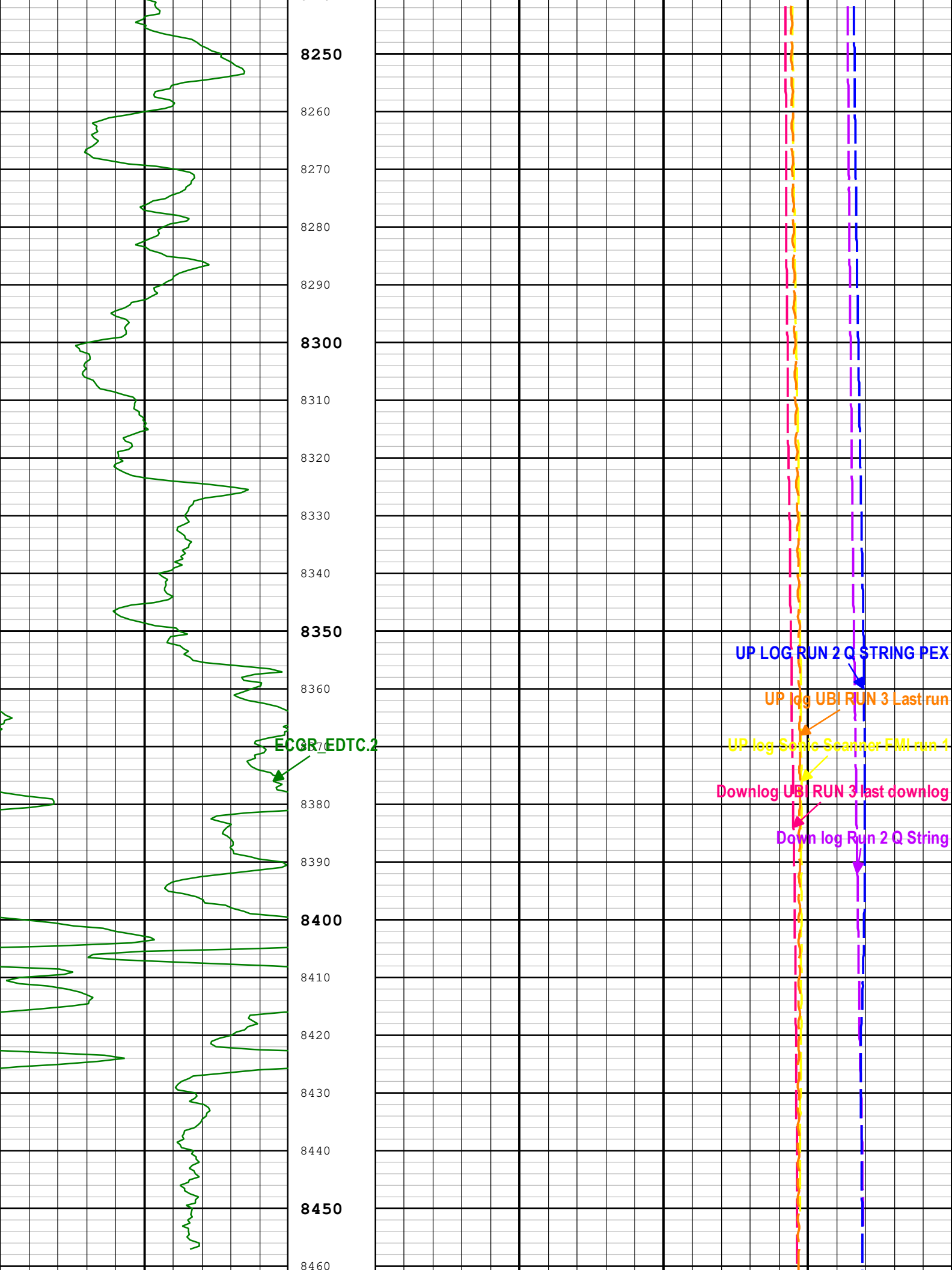












8250

8260

8270

8280

8290

8300

8310

8320

8330

8340

8350

8360

ECGR_EDTC.2

8380

8390

8400

8410

8420

8430

8440

8450

8460

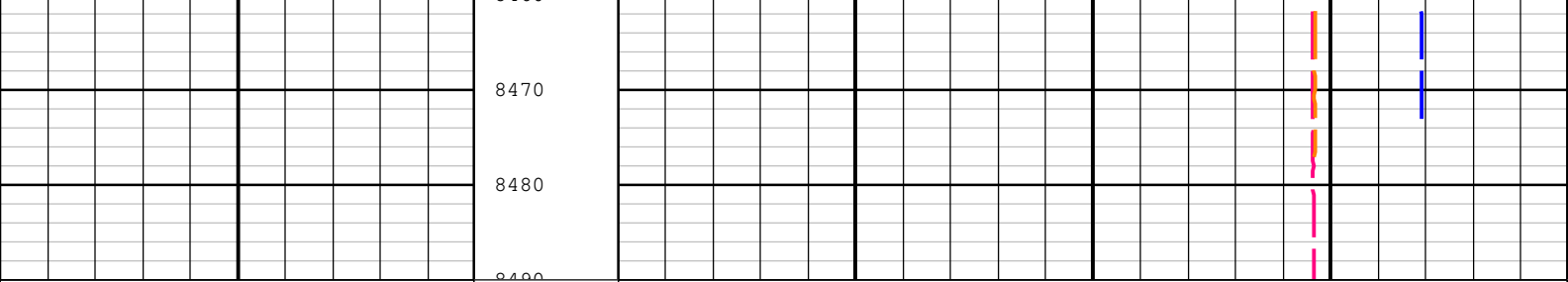
UP LOG RUN 2 Q STRING PEX

UP log UBI RUN 3 Last run

UP log Seismic Scanner FMI run 1

Downlog UBI RUN 3 last downlog

Down log Run 2 Q String



Cable Tension (TENS)		
10000	lbf	0
Gamma Ray (EHGR_EDTC).1 EDTC-B		
0	gAPI	150
Gamma Ray (ECGR_EDTC).2 EDTC-B		
0	gAPI	150

Down log run 1 FMI SONIC SCANNER		
100	degF	400
Down log Run 2 Q String		
100	degF	400
Downlog UBI RUN 3 last downlog		
100	degF	400
UP log Sonic Scanner FMI run 1		
100	degF	400
UP log UBI RUN 3 Last run		
100	degF	400
UP LOG RUN 2 Q STRING PEX		
100	degF	400

Description: Format: Log (TempLog) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 22-Jul-2021 14:14:49

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
C1_SHIFT	C1 Caliper Supplementary Offset	FBST-E	0.173	in
C2_SHIFT	C2 Caliper Supplementary Offset	FBST-E	-0.201	in
CBLO	Casing Bottom (Logger)	WLSESSION	2988	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DFD	Drilling Fluid Density	Borehole	8.3	lbm/gal
DPINV_LAGCUT	Lag Cut for Dipole Inversion	MAST-B	No	
DTST_SLO_MFL	Slowness Series of Mouse Clicks for Relabeling DTST_MFL	MAST-B	[0]	us/ft
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	C1	

1A Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	14.77	2871.99	2989
BS	10.625	2989	8490

All depth are actual.

3A: Parameters

Parameter	Description	Tool	Value	Unit
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Tool Control Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
AMIP	Adaptive Mode Initial Phase	FBST-E	0	deg

APM	Acquisition Phase Mode	FBST-E	WBM - Adaptive Phase Control	
EMXGMOD	EMEX and Gain Modes	FBST-E	Time Zoned	
FLM	Logging Mode	FBST-E	Full Image Mode	
GAIN_FBST	Electronic Gain Value in Manual Mode	FBST-E	0 dB	
GARM_A	Electronic Gain Value for Arm A	FBST-E	0 dB	
GARM_B	Electronic Gain Value for Arm B	FBST-E	0 dB	
GARM_C	Electronic Gain Value for Arm C	FBST-E	0 dB	
GARM_D	Electronic Gain Value for Arm D	FBST-E	0 dB	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	Time Zoned	ft/h
MPSC	Manual Phase Shift Compensation	FBST-E	0	deg
XVOL	EMEX Voltage	FBST-E	0	V

1A Time Zoned Parameters

Pass Log[1]:Down

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXGMOD	EMEX= Manual and Gain= Manual	19-Jul-2021 07:37:21	19-Jul-2021 07:50:07	4134.72	7665.52
MAX_LOG_SPEED	981	19-Jul-2021 07:37:21	19-Jul-2021 07:50:07	4134.72	7665.52

Pass Log[2]:Up

EMXGMOD	EMEX= Auto and Gain= Auto	19-Jul-2021 07:54:03	19-Jul-2021 13:26:07	8529.53	2952.88
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All depth are at tool zero.

3A: Parameters

Parameter	Description	Tool	Value	Unit
VRES	Vertical Resolution	USIT-E	0.4 in	

Company: University Of Utah



Well: FORGE 78B-32

Field: None

County: Beaver

Country:

Temperature Log

Gamma Ray